AKADEMIE DER WISSENSCHAFTEN DER DDR

Zentralinstitut Physik der Erde (ZIPE)

Seismological Bulletin 1968 Station Moxa (MOX)

By

Johannes Stelzner, Dorothea Güth
and Joachim Weyrauch

AKADEMIE-VERLAG · BERLIN
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With 2 Figures

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PREFACE

The annual Seismological Bulletin 1968 for the Station Moxa continues the series of publications about seismological records at the Central Station Moxa edited by the Central Earth Physics Institute of the Academy of Sciences of GDR.

The provisional analysis of the records of station Moxa was performed in the Seismological Service under the direction of JOHANNES STELZNER by JOACHIM WEYRAUCH and BRIGITTE HÄNSCH.

The annual Bulletin 1968 was prepared by JOHANNES STELZNER and DOROTHEA GÜTH with the technical assistance of URSULA DÖRING.

Control of the instruments of the station Moxa was carried out under the direction of CHRISTIAN TEUPSER.

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Correction for Seismological Bulletin 1967

Station Moxa (MOX)

Page 9 should read: Magnitudes are determined . . .
for maxima of body waves ($h < 60$ km) P, PP, S
and for maxima of surface waves ($h < 100$ km)
Lm with the calibrating function $\sigma(\Delta)$ from Prague
[4].

Preliminary notes for the interpretation of seismograms

In the Bulletin the international code is used:

1. Phase interpretation

Pg — direct longitudinal wave in near epicentral distances (D $<$ 10°)

Pb, Pn — guided longitudinal head waves along the Conrad- or Mohorovičić-discontinuity (D $<$ 10°)

P — direct longitudinal wave travelled through the earth mantle

PKIKP — direct longitudinal wave travelled through the inner core (travel-time branch DF)

PKHKP — direct longitudinal wave refracted in the intermediary zone between inner and outer core. Phase symbol according to Bolt [1] (travel-time branch GH)

PKP2 — direct longitudinal wave travelled through the outer core only (travel-time branch AB)

PKP — first noticeable onset of longitudinal core phase, not identified

PP, PPP — waves reflected on the earth surface with permanent longitudinal character

PKKP — phase reflected once within the core at the outer core boundary

PKPPKP — longitudinal core phase reflected at the earth surface

Sg — direct transversal wave in near epicentral distances (D $<$ 10°)

Sb, Sn — guided transversal head waves along the Conrad- or Mohorovičić-discontinuity (D $<$ 10°)

S — direct transversal wave travelled through the earth mantle

SKS — direct wave travelled transversal through the mantle and longitudinal through the core

SS, SSS — waves reflected on the earth surface with permanent transversal character

SKKS — wave travelled transversal through the mantle, longitudinal through the core and reflected within the core at the outer core boundary

PcP, ScS, PcS, ScP — longitudinal and transversal waves with steady or changing character reflected at the outer core

PS, SP, PPS — longitudinal and transversal waves with changing character reflected at the surface of the earth

pP, sP, pPP, sPP, pPKIKP, sPKP2, pS — phases of deep-focus earthquakes of longitudinal or transversal waves with steady or changing character. p; s — reflected near the epicentre

pPKP, sPKP — phases of deep focus earthquakes of longitudinal core waves not exactly to be coordinated

SKP, PKS — core phases with different character before and after the direct transit of the core

SKSP — SKS-wave with longitudinal character after the reflection at the surface of the earth

P1, P2, P3, . . ., PP1, PP2, . . ., S1, S2, . . ., PKKP1, PKKP2, . . ., PKPPKP1, PKPPKP2, . . . — multiple onsets of body waves

Pn, Sn — teleseismic Pn and Sn waves in the epicentral distances $23° < D < 40°$ after BÅTH [2]

Pa, Sa — waves probably guided in the asthenosphere channel or higher modes of surface waves

PL — leaking modes, normal dispersed train of waves of periods greater than about 10 s, beginning at or near the time of initial P-wave

X, Y, Z — remarkable phases of body waves, not to be identified

LmV, LmH — maximum of the vertical and horizontal component respectively of longperiodical surface waves. If there are several maxima with comparable proportions in A/T, the numeration was carried out in a temporal sequence e. g. Lm1H, Lm2H

Usually the onsets are taken from seismographs of Typ A and B. If there are onsets recorded with long-period seismographs of type C, the designation of type C follows the phase symbol.

A — seismograph with amplitude characteristic of type A (short-period)

B — seismograph with amplitude characteristic of type B (middle-period)

C — seismograph with amplitude characteristic of type C (long-period)

2. Measurement of amplitudes and calculation of magnitudes

All data of amplitudes and periods printed in the column "remarks" are always taken from the records of the same instruments, from which are taken the onset-times of the corresponding phases. In case of doubt the symbol of phase and component is followed by the symbol of the type of instruments in parenthesis e. g.: PV(A), PV(B), SH(B)

Data of amplitudes obtained from records of instruments of type A are given in units of length of nm (1 nm = 1 nanometre = 10^{-6} millimetre). Data of amplitudes obtained from instruments of type B and such obtained from instruments of type C are given in units of length μm (1 μm = 1 mikrometre = 10^{-3} millimetre) e. g.: PV 1,25 s 38,6 nm, SH: 10 s 3,2 μm, LmH: 22 s 15 μm.

Magnitudes are determined from all those phases, for which calibrating functions are known and internationally used, i. e.

for maxima of body waves ($h < 60$ km) P(PH, PV), PP(PPH, PPV), and S(SH)-Q-functions from GUTENBERG and RICHTER [3] — and

for maxima of surface waves ($h < 100$ km) LmH, LmV — calibrating functions from Prague σ [4] —.

The station correction S was not yet taken into consideration.

MPV, MPV1, MPV2, MPPV — magnitude of vertical component V of the adequate body waves

MPH, MPPH, MSH — magnitude of horizontal component H of the adequate body waves

MLV, MLV1, MLV2 — magnitude of the vertical component V of the maximum surface waves

MLH, MLH1, MLH2 — magnitude of the horizontal component H of the maximum surface waves

MAG — Magnitude of the vertical component V of the first onset of P-waves given by USCGS

ML — magnitude of the maximum surface waves given by BCIS

If there are several evaluations of amplitudes from different types of seismographs for the same wave, the symbol of magnitudes is followed by the symbol of instruments e. g.: MPV(A), MPV(B).

3. Direction of body-wave onsets

If the direction of motion at the beginning of a wave onset is clearly to by recognized, the sign + or — is placed before the phase symbol. It means:

in the Z component + ground motion upwards, compression
— ground motion downwards, dilation
in the N component + ground motion to the north
— ground motion to the south
in the E component + ground motion to the east
— ground motion to the west

4. Further abbreviations

i — sharp beginning of phase motion (impetus)
e — gradual beginning of phase motion (emersio)
D — epicentral distance in degree (°), calculated according to geocentric coordinates, the maximum error of the own calculation amounts to ± 0,1°
Az — azimuth: clockwise measured angle in degree (°) between north direction in epicentre and the connecting line from epicentre to station Moxa
h — depth of focus in km, our data for depth of focus are based on travel-time curves for deep focus earthquakes after GUTENBERG and RICHTER [5]
H — origin time in GMT (Greenwich Mean Time)
USCGS — United States Coast and Geodetic Survey, Washington
BCIS — Bureau Central International de Séismologie, Strasbourg
ISC — International Seismological Centre, Edinburgh
USAEC — U.S. Atomic Energy Commission, Washington, D.C.
ANUSSR — Academie Nauk USSR, Moscow
UPP — Seismological Institute Uppsala, Sweden

Round brackets indicate uncertainties in interpretation of phase time, depth of focus or epicentral distances respectively.

[1] BOLT, A., The velocity of seismic waves near the earths center. Bull. Seism. Soc. Am. **54** (1964) 1, 191–208.
[2] BÅTH, M., Propagation of Sn and Pn teleseismic distances. Pure and Applied Geophysics **64** (1966/II) 19–30.
[3] GUTENBERG, B. and RICHTER, C. F., Magnitude and energy of earthquakes. Annali di Geofisica **9** (1956) 1, 1–15.
[4] KÁRNÍK, V., KONDORSKAJA, N. V. u. a., Standardization of the earthquake magnitude scale. Stud. Geophys. et Geodet., Prague **6** (1962) 41–48.
[5] GUTENBERG, B. and RICHTER, C. F., Materials for the study of deep-focus earthquakes. Bull. Seism. Soc. Am. **26** (1936) 4, 341–390.

Seismological Station Moxa (MOX) of the Institute of Geodynamics, Jena

Elevation above mean sea level:	455 m
Foundation:	clay slate of the lower carboniferous formation
Geographic coordinates:	$\varphi = 50°38'46''$ N $\quad \lambda = 11°36'58''$ E
Address:	Central Earth Physics Institute (since February 1969) Seismological Service GDR-69 Jena, Burgweg 11 German Democratic Republic Telex: 058 8668 seis dd

Seismographs and their parameters 1968

T_0 — seismometer free period
T_g — galvanometer free period
D_s — seismograph damping
D_g — galvanometer damping
V_0 — magnification factor
N — north-south component
E — east-west component
Z — vertical component
σ^2 — coupling coefficient

SKM — Seismograph Kirnos modified
SSJ — Seismic Station Apparatus Type Jena
VSJ — Vertical Seismograph Type Jena

	Type of Seismograph	Comp.	T_s[s]	T_g[s]	D_s	D_g	V_0	σ^2
	Krumbach (modif.) until May, 1.	Z	2.0	0.21	0.54	3.68	23500	0.22
	VSJ-II	Z	1.0	1.0	0.5	0.5	43700	0.56
A	SKM-III until Nov., 27.	N	1.53	0.34	0.5	2.23	19000	0.10
		E	1.45	0.35	0.5	2.08	23000	0.12
		Z	1.49	0.35	0.5	2.18	23000	0.13
A	SKM-III from Dec., 5.	N	1.64	0.39	0.52	1.98	25700	
		E	1.64	0.39	0.50	1.93	25400	
		Z	1.64	0.39	0.51	1.99	24600	
B	SSJ-I	N	20	1.13	0.50	8.87	112 / 111*)	0.074
			20	1.14	0.50	8.79	1120 / 1110*)	0.074
		E	20	1.13	0.49	8.85	107 / 103*)	0.071
			20	1.16	0.49	8.61	1090 / 1050*)	0.071
		Z	20	1.13	0.48	8.82	107 / 104*)	0.048
			20	1.24	0.48	8.05	1070 / 1070*)	0.048
C	SSJ-I/L	N	30	70.7	1.24	0.5	1500	0.15
		E	30	79.1	1.3	0.5	1200	0.087
		Z	30	77.2	1.3	0.5	1300	0.066
	Strain/L	NS		85.4		0.70	72**)	
		EW		86.4		0.70	67**)	
	(coupled)	NS+EW		86.2		0.70	42**)	
	Wiechert 1200 kp	N	7.7		0.30		190	
		E	7.6		0.37		200	
	Mainka 150 kp	N	19.7		0.33		50	
	200 kp	E	21.3		0.46		48	

*) from Feb., 1.
**) for wave velocity 5 km s^{-1}

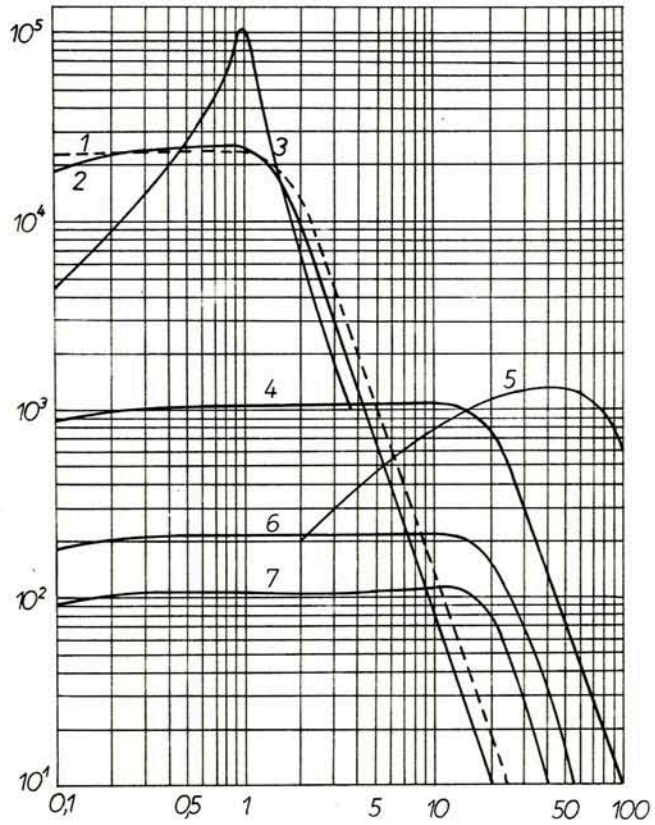

Fig. 1. Mean amplitude characteristics of the electromagnetic seismographs of the station Moxa 1968
1 — Modified Krumbach Seismograph (Z-component)
2 — Seismograph Kirnos Modernised-III (SKM-III) (NS-, EW- and Z-component)
3 — Seismograph Type Jena II (Z-component)
4 — Seismic Station Apparatus Type Jena I/1000 (SSJ-I/1000) (NS-, EW- and Z-component)
5 — Seismic Station Apparatus Type Jena I/L (SSJ-I/L) (NS-, EW- and Z-component)
6 — Seismic Station Apparatus Type Jena I/200 (SSJ-I/200) (NS-, EW- and Z-component)
7 — Seismic Station Apparatus Type Jena I/100 (SSJ-I/100) (NS-, EW- and Z-component)

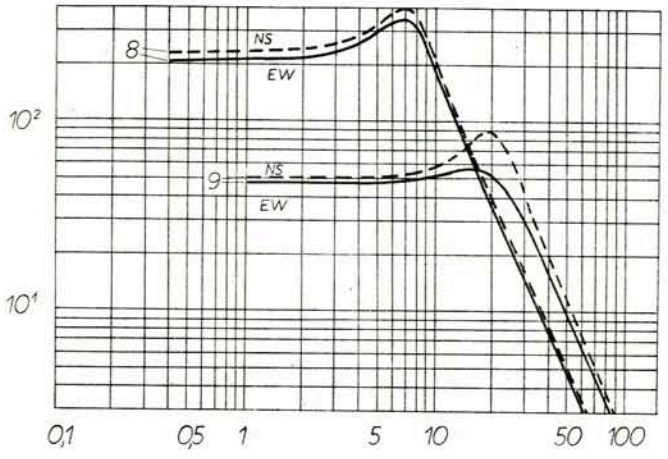

Fig. 2. Mean amplitude characteristics,of the mechanical seismographs of the station Moxa 1968
8 — Wiechert Seismograph (NS- and EW-component)
9 — Mainka Seismograph (NS- and EW-component)

Day	Phase	h m s	Remarks
2.	-eiPKIKP	00 40 06	New Ireland Region 5.13 S 153.35 E
	epPKIKP	40 29	H = 00 21 10.8 h = 55 km MAG=5.5
	ePP	41 39	D = 124.5 Az = 331.4 (USCGS) h = 61 km
	ePS	52 08	PV:1.2s 51.0nm
	ePPS	53 35	LmH:20s 1.6/um LmV:18s 2.2/um
	eSS	58.9	MLH=5.7 MLV=5.9
	e	59 40	
	LmH	01 38.4	
	LmV	39.8	
2.	ePKP	02 27 25	Fiji Islands 19.33 S 177.57 W
			H = 02 08 43.2 h = 570 km MAG=4.2
			D = 147.9 Az = 349.0 (USCGS)
2.	eP	07 42 01	Kurile Islands 45.67 N 150.92 E
			H = 07 30 11.7 h = 87 km MAG=4.7
			D = 77.8 Az = 334.9 (USCGS)
3.	eP	02 36 48	Andreanof Islands/Aleutian
	eipP	37 01.5	51.83 N 173.31 W
			H = 02 24 54.1 h = 39 km MAG=4.6
			D = 77.8 Az = 356.8 (USCGS) h = 50 km
3.	eP	04 14 18.5	Norwegian Sea 72.26 N 6.50 E
	e	14 24.5	H = 04 09 34.9 h = normal MAG=5.4
	e	14 39	D = 21.8 Az = 171.2 (USCGS)
	LmH	24.4	North east of Jan Mayen 73.1 N 5.4 E
	LmV	24.4	H = 04 09 19 h = 33 km (BCIS)
			D = 22.7
			PV1:1.5s 23.5nm PV3:1.6s 83.2nm
			LmH:15s 1.8/um LmV:13s 2.3/um
			MPV1=4.4 MPV3=4.9
			MLH=4.6 MLV=4.9
3.	eiP	07 42 49	Norwegian Sea 72.19 N 1.21 E
	LmH	50.0	H = 07 37 55.2 h = normal MAG=5.3

Day	Phase	h m s	Remarks
cont.			
3.	LmV	07 50.4	D = 22.1 Az = 162.2 (USCGS) PV:1.6s 182.0nm LmH(C):18s 0.8/um LmV(C):18s 1.0/um MPV=5.3 MLH(C)=4.2 MLV(C)=4.3
3.	eP	08 00 24	Near East Coast of Kamchatka 54.87 N 161.49 E H = 07 49 04.0 h = 39 km MAG=4.8 D = 71.9 Az = 340.4 (USCGS)
3.	eP	10 29 04	Gulf of Alaska 59.70 N 146.81 W H = 10 18 00.7 h = 19 km MAG=4.7 D = 68.6 Az = 14.6 (USCGS) PV: 1.1s 21.6nm MPV=5.3
4.	eP	01 09 37	Fox Islands/Aleutian 52.23 N 171.32 W
	e	09 39.5	H = 00 57 44.4 h = 36 km MAG=5.7
	eS	19 26	D = 77.5 Az = 358.1 (USCGS)
	eSS	24 48	PV:2.0s 92.7nm
	eLQ	30 13	LmH:18s 4.9/um LmV:18s 3.8/um
	LmH	49.6	MPV=5.6 MLH=5.9 MLV=5.8
	LmV	47.0	
4.	ePKIKP	10 46 41	East New Guinea Region 9.91 S 148.87 E H = 10 27 37.7 h = 19 km MAG=5.4 D = 126.3 Az = 327.6 (USCGS)
4.	ePKHKP	22 28 57.5	Fiji Islands 21.17 S 179.12 W H = 22 10 17.1 h = 624 km MAG=4.8 D = 149.4 Az = 346.5 (USCGS) PKHKPV:1.0s 14.2nm
5.	eP	06 09 38	Central Italy 42.37 N 12.79 E H = 06 07 38.7 h = normal MAG=4.0 D = 8.3 Az = 354.8 (USCGS) PV:1.2s 18.2nm (mod.Krumbach)

Day	Phase	h m s	Remarks
5.	+eP	06 52 06	Tibet-India Border Region 30.38 N 79.13 E H = 06 42 44.7 h = 7 km MAG=5.4 D = 53.2 Az = 312.8 (USCGS) PV:1.3s 25.0nm MPV=5.0
5.	ePKP	08 19 52	Tonga Islands 16.58 S 173.71 W H = 08 00 19.2 h = 70 km MAG=4.5 D = 145.7 Az = 354.0 (USCGS) PV:1.1s 14.4nm
5.	eP	09 29 39	South of Alaska 55.90 N 154.61 W
	e	29 50	H = 09 18 09.9 h = normal MAG=4.8 D = 73.2 Az = 9.1 (USCGS)
6.	iP	10 26 19.5	Rumania 45.76 N 26.61 E H = 10 23 49.1 h = 163 km MAG=4.6 (USCGS) D = 11.1
6.	eP	15 24 48	Bay of Bengal 16.38 N 92.08 E H = 15 13 28.7 h = normal MAG=5.1 D = 71.5 Az = 318.5 (USCGS)
6.	ePKP	23 41 35	Near Coast of Northern Chile
	ePP	45 57	27.78 S 71.07 W
	eSKS	52 10	H = 23 27 21.2 h = normal MAG=5.8
	ePS	55 10	D = 106.6 Az = 41.2 (USCGS)
	ePPS	56 18	LmH:19s 8.9/um LmV:18s 10.3/um
	eSS	00 01 10	MLH=6.3 MLV=6.4
	LmH	30.5	e 46 08 e 46 23 e 47 25 e 55 20
	LmV	33.5	
7.	+eP	03 54 46	Eastern Kazakh SSR 49.81 N 78.02 E H = 03 46 57.7 h = 0 km MAG=5.3 PV:0.7s 19.0nm PH:0.8s 10.0/um MPV=4.9 MPH=4.8 Probably underground explosion

Day	Phase	h m s	Remarks
7.	ePKIKP	10 15(26)	New Ireland Region 5.07 S 153.93 E
	epPKIKP	16 17	H = 09 56 40.3 h = 118 km MAG=5.6 (USCGS)
	ePS	27 14	D = 124.8 h = 205 km
	LmH	58.8	pPKIKPV:1.8s 35.7nm
	LmV	59	LmH:36s 3.5/um LmV:40s 1.6/um
			MLH(C)=5.8 MLV(C)=5.4
7.	eP	11 25 07.5	Off East Coast of Honshu, Japan
	e	25 32	33.49 N 141.57 E
	ePP	28 16	H = 11 12 33.9 h = 48 km MAG=5.5 (USCGS)
	eS	35 36	D = 85.3
	LmH	12 05.2	PV:2.2s 87.7nm
	LmV	09.2	LmH:15.5s 6.7/um LmV:16.5s 9.0/um
			MPV=5.6 MLH=6.2 MLV=6.3
7.	ePKHKP	19 37 02	Tonga Islands 16.73 S 174.74 W
	eiPKP2	37 05.5	H = 19 17 34.3 h = 119 km MAG=4.8
			D = 145.8 Az = 352.8 (USCGS)
			PKP2V:1.4s 46.0nm
7.	eP	21 50 38.5	Kurile Islands 46.08 N 150.75 E
			H = 21 38 45.2 h = normal MAG=4.6
			D = 77.4 Az = 334.7 (USCGS)
			PV:1.1s 16.8nm
			MPV=5.1
8.	ePKP	03 35 30.5	New Hebrides Islands 13.75 S 171.46 E
	ei	35 32.5	H = 03 17 12.6 h = 630 km MAG=5.2
			D = 139.7 Az = 340.2 (USCGS)
8.	eP	14 01 53	North-east of Kurile Islands
			49.06 N 151.32 E
			H = 13 50 42.0 h = 284 km MAG=5.0
			D = 74.8 Az = 334.7 (USCGS)
			PV:1.4s 18.4nm
			MPV=4.9

Day	Phase	h m s	Remarks
8.	eSKS	19 08 24	Northern Chile 18.56 S 69.92 W
	eS	09 15	H = 18 44 24.5 h = 116 km MAG=5.4 (USCGS)
	ePPS	11 40	D = 98.9
	LmH	39.3	LmH:20s 0.9/um LmV:20s 1.1/um
	LmV	39.5	MLH=5.3 MLV=5.4
8.	eP	20 32 13	Central Mid-Atlantic Ridge 8.18 N 38.23 W
	ei	32 15	H = 20 22 15.6 h = normal MAG=5.4
	e	32 20.5	D = 59.0 Az = 34.6 (USCGS)
	e	32 28.5	PV2:1.5s 84.0nm PV4:2.0s 232.0nm
	eS	40 24	LmH:16.5s 2.2/um LmV:16s 2.0/um
	e	40 27	MLH=5.4 MLV=5.4
	LmH	57.2	
	LmV	57.3	
8.	ePKP	22 13 55	Samoa Islands 14.80 S 174.83 W
	e	13 57.5	H = 21 54 20.8 h = 16 km MAG=5.5
	e	14 13.5	D = 143.9 Az = 353.0 (USCGS)
	LmV	31.2	PV2:1.5s 47.0nm
	LmH	34.7	LmV:18s 3.8/um LmH:15.5s 3.4/um
			MLV=6.2 MLH=6.2
9.	eP	23 19 40	Mediterranean Sea 35.51 N 22.49 E
	eipP	19 49.5	H = 23 15 42.2 h = 44 km MAG=4.7
	esP	19 53	D = 17.1 Az = 335.8 (USCGS)
	LmH	25.4	
	LmV	27.3	
11.	eP	16 25 15	Off East Coast of Honshu, Japan
	e	25 31.5	34.29 N 141.16 E
	LmH	17 05	H = 16 12 46.9 h = 53 km MAG=4.9
			D = 84.4 Az = 330.4 (USCGS)
			PV:1.5s 26.8nm
			MPV=5.3
11.	ePn	17 09 39	Italy 44.4 N 12.0 E
	i	09 50	H = 17 08 09 (BCIS)
	ePg	10 10	D = 6.3

Day	Phase	h m s	Remarks
cont.			
11.	iSn	17 10 46.5	
	eSg	11 31	
11.	eP	18 20 32	Kurile Islands 46.43 N 153.29 E
	epP	20 42.5	H = 18 08 38.1 h = 50 km MAG=4.7
			D = 77.8 Az = 336.2 (USCGS) h = 39 km
			PV:1.0s 11.9nm
			MPV=5.0
12.	ePKP2	03 25 35	Kermadec Islands 27.21 S 177.16 W
			H = 03 05 18.5 h = 90 km MAG=5.3 (USCGS)
			D = 155.8
12.	+eP	04 29 19	Andaman Islands 13.40 N 93.13 E
			H = 04 17 43.1 h = normal MAG=5.5
			D = 74.4 Az = 319.2 (USCGS)
			PV:1.1s 24.1nm
			MPV=5.2
13.	eP	07 16 09.5	Taiwan Region 24.10 N 122.23 E
	e	16 23	H = 07 03 39.2 h = 8 km MAG=5.7
	ePP	19 23.5	D = 83.8 Az = 323.2 (USCGS)
	eS	26 40	PV:1.6s 106.0nm SH:16s 2.1 /um
	ePS	27 32	LmH:16s 30.9 /um LmV:16.8s 41.3 /um
	LmH	57.9	MPV=5.8 MSH=6.0 MLH=6.8 MLV=6.9
	LmV	57.9	
13.	e(P)	16 20 43	Salta Province, Argentinia
	iSKS	31 03	24.20 S 66.94 W
	eSKKS	31 44	H = 16 07 04.2 h = 192 km MAG=5.7
	eS	32 02	D = 101.5 Az = 39.5 (USCGS)
	e	32 28	SKSH(C):25s 4.0 /um
	eiSP	33 32	LmH:17s 1.8 /um LmV:18s 2.1 /um
	ePS	33 36	MLH=5.6 MLV=5.7
	ePKKP	36 45	
	eSS	39 08	
	LmH	17 06.8	
	LmV	06.7	

Day	Phase	h m s	Remarks
14.	ePKIKP	08 20 07	South of Fiji Islands 22.51 S 179.64 N
	ePKHKP	20 12.5	H = 08 01 27.8 h = 610 km MAG=5.2
	ePKP2	20 21.5	D = 150.6 Az = 345.3 (USCGS)
	epPKP	22 32	PV2:1.0s 33.2nm PV3:1.1s 19.2nm
14.	e(P)	10 48 33	Mozambique 23.61 S 33.00 E
			H = 10 36 36.9 h = normal MAG=5.3
			D = 76.3 Az = 346.2 (USCGS)
			PV:1.0s 14.2nm
14.	eP	12 31 25	Sicily 37.84 N 13.08 E
	e	31 28	H = 12 28 24.3 h = normal MAG=5.1
	e	31 39.5	D = 12.8 Az = 355.8 (USCGS)
	e	31 44.5	PV:1.1s 12.0nm
	e	31 53.5	
14.	eP	12 39 38	Banda Sea 7.45 S 127.88 E
	ePKP	43 37	H = 12 25 09.7 h = 115 km MAG=5.9 (USCGS)
	ePP	44 16	D = 112.3
	ePPP	46 45	LmH:20s 9.5 /um LmV:24s 7.2 /um
	ePS	50 40	MLH=6.4 MLV=6.2
	ePPS	55 52	e 42 51 e 43 40 e 44 15.5 e 44 24
	eSS	13 00.0	e 46 48
	LmH	27.4	
	LmV	29.2	
14.	eP	12 52 36	Fox Islands/Aleutian 52.83 N 171.35 W
	+ei	52 42	H = 12 40 48.5 h = 44 km MAG=5.6
	e	52 52	D = 76.9 Az = 358.1 (USCGS)
			PV2:1.8s 86.7nm
			MPV2=5.6
14.	+eP	13 18 50	Sicily 37.69 N 13.06 E
	e	19 02.5	H = 13 15 41.4 h = 2 km MAG=5.0
	e	19 08	D = 13.0 Az = 355.9 (USCGS)
	e	19 12	PV:(1.7)s 35.2nm

Day	Phase	h m s	Remarks
14.	iPn	14 09 27.7	Explosion D ca. 1.2
	iPg	09 28.7	
	iSg	09 44.7	
14.	ePKHKP	14 53 47.5	Tonga Islands 20.98 S 173.69 W
			H = 14 33 59.7 h = normal MAG=4.5
			D = 150.1 Az = 353.2 (USCGS)
			PV:1.2s 15.3nm
14.	eP	15 51 33.5	Sicily 37.93 N 13.09 E
	+ei	51 35.5	H = 15 48 31.8 h = 29 km MAG=4.7
	e	51 46	D = 12.8 Az = 355.8 (USCGS)
	e	51 53	PV2:1.2s 40.8nm
	LmH	57.4	LmH:11s 5.2/um LmV:13s 2.7/um
	LmV	57.5	MLH=4.8
14.	eP	17 55 01	Fox Islands/Aleutian 52.74 N 171.23 W
	i	55 05.5	H = 17 43 10.0 h = 34 km MAG=5.5
	eS	18 04 52	D = 77.0 Az = 358.1 (USCGS)
	ePS	05 28	LmH:15.5s 7.5/um LmV:16.5s 5.5/um
	iSS	09 46	MLH=6.1 MLV=6.0
	LmH	39.1	
	LmV	45.3	
15.	eP	01 36 04.5	Sicily 37.93 N 13.14 E
	i	36 07	H = 01 33 02.7 h = normal MAG=5.1
	ei	36 09.5	D = 12.8 Az = 355.6 (USCGS)
	LmH	41.9	PV2:1.1s 125.0nm
	LmV	42.0	LmH:11s 22.4/um LmV:13s 11.1/um
			MLH=5.5
15.	eP	02 04 09	Sicily 37.95 N 13.12 E
	+iP	04 10	H = 02 01 08.5 h = normal MAG=5.4
	iPL B	04 11.5	D = 12.7 Az = 355.7 (USCGS)
	ei	04 23	PV2:1.2s 61.2nm PV3:1.2s 143.0nm
	eS C	06 33	PV4:1.2s 354.0nm
	eS B	06 46	LmH:13s 75.0/um LmV:13s 37.1/um
	LmH	09.6	MLH=5.9
	LmV	10.3	

Day	Phase	h m s	Remarks
15.	eP	03 21 42.5	Sicily 37.89 N 13.14 E
	e	21 50.5	H = 03 18 40.8 h = normal MAG=4.6
	e	21 56	D = 12.8 Az = 355.6 (USCGS)
15.	ePKP	03 48 37	Loyalty Islands 20.42 S 168.72 E
	epPKP	48 47.5	H = 03 29 03.0 h = 39 km MAG=4.4
			D = 144.8 Az = 334.5 (USCGS)
			PV:1.4s 18.4nm
15.	eP	13 45 09	Sicily 37.78 N 12.79 E
	e	45 14	H = 13 42 05.1 h = normal MAG=5.3
			D = 12.9 Az = 356.6 (USCGS)
15.	eP	15 02 57	Sicily 37.8 N 13.2 E
			H = 14 59 50 (BCIS)
15.	e(P)	16 52 32	Sicily 37.8 N 13.2 E
			H = 16 49.1 (BCIS)
15.	eP	18 25 57.5	Sicily 37.73 N 13.06 E
	e	25 58	H = 18 22 50.1 h = 6 km MAG=4.1
	e	26 14.5	D = 13.0 Az = 355.9 (USCGS)
	LmH	31.9	LmH:12s 2.1/um
			MLH=4.4
15.	eSg	19 49 03.5	Epizentral coordinates indefinite
			H = 19 46.9 (BCIS)
15.	LmH	20 13.5	Probably Northeastern China
			37.77 N 115.28 E
			H = 19 33 58.9 h = normal MAG=4.9
			LmH:16s 2.8/um
15.	eP	21 07 22	PV:1.5s 20.2nm
		07 22.5	
15.	eP	22 23 00.5	Sicily 37.77 N 12.86 E
	e	23 04.5	H = 22 19 57.2 h = normal MAG=4.7
	LmH	30	D = 12.9 Az = 356.5 (USCGS)

Day	Phase	h m s	Remarks
16.	eP	00 57 16	Sicily 37.56 N 12.81 E H = 00 54 08.8 h = normal MAG=4.8 D = 13.1 Az = 356.7 (USCGS)
16.	eP	13 13 35	Sicily 37.83 N 12.87 E
	e	13 44	H = 13 10 32.3 h = normal MAG=4.6
	LmH	18.8	D = 12.8 Az = 356.4 (USCGS)
	LmV	19.7	LmH:13s 1.3/um
			MLH=4.2
16.	e	14 32 45.5	Traces
16.	eP	16 45 47.5	Sicily 37.87 N 13.09 E
	e	45 49.5	H = 16 42 44.3 h = 14 km MAG=5.1
	i	45 51.5	D = 12.8 Az = 355.8 (USCGS)
	i	45 58	PV3:1.4s 13.2nm PV4:1.2s 97.0nm
	i	46 01.5	PV5:1.5s 208.0nm
	eS C	48 10	LmH:11s 31.1/um LmV:12.8s 14.4/um
	eiS B	48 18	MLH=5.6
	LmH	51.7	
	LmV	51.8	
17.	ePKP2	10 10 04	West of Macquarie Island 56.44 S 147.01 E H = 09 49 50.7 h = normal MAG=- D = 153.3 Az = 276.5 (USCGS)
18.	ePKIKP	02 16 31.5	South of Fiji Islands 22.33 S 179.14 W
	e	16 40	H = 01 57 32.0 h = 472 km MAG=4.6
			D = 150.5 Az = 346.0 (USCGS)
			PV:0.9s 14.1nm
18.	ePKP	12 23 10	Fiji Islands 14.63 S 178.40 W
	LmH	13 24.5	H = 12 03 37.4 h = normal MAG=5.1
	LmV	24.5	D = 143.2 Az = 349.4 (USCGS)
			LmH:22s 1.6/um LmV:22s 1.2/um
			MLH=5.5 MLV=5.4

Day	Phase	h m s	Remarks
18.	iPg	13 04 39.5	Explosion
	eiSg	04 53	D ca. 1.1°
	i	04 54	
19.	ePKIKP	06 23 45	Solomon Islands 9.36 S 158.41 E
	e	23 58	H = 06 04 38.2 h = normal MAG=6.0
	ePP	26 00	D = 130.6 Az = 332.7 (USCGS)
	e(SKP)	27 10	LmH:19s 15.8/um LmV:20s 16.2/um
	eSS	43 28	MLH=6.7 MLV=6.7
	LmH	07 14.2	
	LmV	22.2	
19.	eP	07 07 43	North of Severnaja Zemlya 82.24 N 118.85 E H = 06 59 49.7 h = normal MAG=4.5 D = 42.4 Az = 295.6 (USCGS)
19.	ePg	10 00 54.5	Explosion 50° 07' N 13° 32.5' E
	i	00 55	D = 1.4 yield: 12.6 t (PRU)
	e	00 55.5	
	eiSg	01 13	
	i	01 14	
19.	ePKIKP	14 58 26.5	Off Coast of Southern Chile
	LmH	15 38.3	42.59 S 75.24 W
	LmV	48.3	H = 14 39 37.8 h = 22 km MAG=5.5
			D = 119.6 Az = 47.0 (USCGS)
			LmH(C):24s 1.4/um LmV:20s 2.5/um
			MLH(C)=5.5 MLV=5.9
19.	e(P)	16 05 19	PV:1.2s 10.2nm
19.	-eP	16 17 14	PV:1.2s 15.3nm
19.	+iP	18 27 11.5	Probably underground explosion
	e	29 04	Nevada 38.8 N 116.3 W
	LmH	19 05.2	H = 18 14 59.4 D = 79.9 (BCIS)
	LmV	05.2	PV:1.6s 750.0nm PH:1.8s 479.0nm
			LmH:15s 2.3/um LmV:15.5s 3.0/um
			MPV=6.4 MPH=6.5 MLH=5.6 MLV=5.7

Day	Phase	h m s	Remarks
20.	LmV	06 44.5	Azores Islands Region 41.30 N 29.17 W
	LmH	44.6	H = 06 27 39.4 h = normal MAG=4.7 (USCGS)
			D = 29.5
20.	LmH	08 38.8	Azores Islands Region 41.32 N 29.28 W
	LmV	38.9	H = 08 22 28.7 h = normal MAG=4.7 (USCGS)
			D = 29.5
20.	ePKP	17 01 02	Fiji Islands 16.23 S 178.11 E
	e	01 08	H = 16 41 27.1 h = 21 km MAG=5.6
	e	01 14.5	D = 144.0 Az = 345.3 (USCGS)
	e	23 12	PV2:1.3s 25.0nm
	LmH	18 07.8	LmH:17.5s 3.7/um LmV:16s 3.4/um
	LmV	15.7	MLH=6.2 MLV=6.2
20.	iPKHKP	17 52 41.5	Fiji Islands 18.93 S 178.03 W
			H = 17 34 05.4 h = 626 km MAG=4.5
			D = 147.4 Az = 348.6 (USCGS)
			PV:(1.2)s 20.4nm
20.	-eiPKIKP	21 40 45	Kermadec Islands 29.94 S 179.52 W
	e	40 46.5	H = 21 21 31.6 h = 349 km MAG=5.8
	e	40 47.5	D = 157.7 Az = 341.1 (USCGS)
	-eiPKP2	41 21	PV1:2.0s 292.0nm PV4:1.4s 680.0nm
21.	eP	02 42 06.5	Sicily 37.97 N 13.19 E
			H = 02 39 04.7 h = normal MAG=4.3
			D = 12.7 Az = 355.4 (USCGS)
21.	eP	04 38 43.5	Off East Coast of Honshu/Japan
	e	38 59.5	33.81 N 141.69 E
			H = 04 26 11.7 h = 57 km MAG=5.0
			D = 85.1 Az = 330.7 (USCGS)
21.	e(P)	13 31 33	PV:1.8s 20.4nm

Day	Phase	h m s	Remarks
21.	eiPKP	14 06 46.5	Tonga Islands 16.11 S 173.89 N
			H = 13 47 09.6 h = normal MAG=4.2
			D = 145.3 Az = 353.8 (USCGS)
			PV:0.8s 14.2nm
21.	eP	16 51 57.5	North of Ascension Island 1.17 S 13.98 W
	e	52 07.5	H = 16 42 29.2 h = normal MAG=5.4 (USCGS)
	i	52 11.5	D = 56.0
	e	52 21	PV2:0.8s 18.9nm PV3:1.1s 81.7nm
	ePP	16 54 10	PV4:1.8s 378.0nm SH:20s 17.3/um
	eS	59 58	LmH:17.5s 33.8/um LmV:19.0s 17.6/um
	LmV	17 15.2	MPV2=5.2 MPV3=5.7 MPV4=6.1
	LmH	15.3	MLH=6.5 MLV=6.2
21.	ePKIKP	23 14 10	New Britain Region 5.02 S 150.81 E
			H = 22 55 35.8 h = 185 km MAG=5.0
			D = 123.2 Az = 330.2 (USCGS)
21.	eP	23 57 08	Mexico-Guatemala Border Region
			15.65 N 92.33 W
			H = 23 44 46.1 h = 166 km MAG=5.0 (USCGS)
			D = 86.7 traces
21.	eP	23 57 49.5	Chiapas, Mexico 16.79 N 92.32 W
	ei	00 07 40	H = 23 45 17.1 h = 77 km MAG=5.4
	eS	08 25	D = 85.7 Az = 38.3 (USCGS)
	e	13 30	PV:1.8s 51.0nm LmH(C):40s 0.8/um
	LmH	21.5	MPV=5.4 MLH(C)=4.8
22.	eP	07 23 38	Morocco 34.87 N 5.17 W
			H = 07 19 03.9 h = 22 km MAG=4.1
			D = 19.9 Az = 32.6 (USCGS)
			PV:0.9s 9.4nm
22.	eP	10 43 51	Southern Sinkiang Prov., China
	eSS	53 50	38.24 N 75.64 E
			H = 10 35 36.6 h = 108 km MAG=5.3
			D = 46.0 Az = 307.3 (USCGS)
			PV:1.1s 21.6nm
			MPV=5.1

Day	Phase	h m s	Remarks
22.	LmH	13 37.9	Leeward Islands 17.60 N 60.67 W
	LmV	37.8	H = 12 58 10.2 h = 33 km MAG=4.7 (USCGS)
			D = 65.6
			LmH(C):18s 0.5/um LmV(C):22s 1.0/um
			MLH(C)=4.8 MLV(C)=5.1
22.	iPg	14 36 26	Explosion
	e	36 41	D = ca. 1.2
	iSg	36 42	
22.	ePKIKP	18 35 51	East New Guinea Region 9.85 S 148.96 E
	e	35 54	H = 18 16 49.8 h = 27 km MAG=5.3
	LmH	19 22	D = 126.3 Az = 327.6 (USCGS)
22.	eP	20 40 23	Iran - Iraq Border Region 33.79 N 46.88 E
			H = 20 34 10.0 h = normal MAG=5.0
			D = 30.7 Az = 314.0 (USCGS)
22.	eP	23 54 24	Alaska 70.32 N 144.38 W
	LmH	24 27.2	H = 23 44 29.7 h = 9 km MAG=4.7
	LmV	30	D = 58.1 Az = 17.8 (USCGS)
			LmH:16s 0.3/um LmV:18s 0.4/um
			MLH=4.5 MLV=4.7
23.	epP	03 33 52.5	Burma-India Border Region
			25.95 N 95.51 E
			H = 03 22 46.2 h = 103 km MAG=5.0
			D = 66.6 Az = 316.4 (USCGS)
			PV:1.0s 9.5nm
23.	eP	16 18 42	Fox Islands/Aleutian 52.13 N 171.29 W
	eS	28 30	H = 16 06 50.1 h = 53 km MAG=5.2
	ePS	29 15	D = 77.6 Az = 358.1 (USCGS)
	eSS	33 38	PV:1.0s 33.2nm
	LmH	58.5	LmH:20s 1.3/um LmV:20s 1.1/um
	LmV	58.5	MPV=5.4 MLH=5.3 MLV=5.2
			e 28 30 e 37 59 e 39 25
23.	eP	19 26 43	Ethiopia 8.71 N 37.66 E

Day	Phase	h m s	Remarks
cont.			
23.	eS	19 33 38	H = 19 18 13.0 h = normal MAG=5.1
	LmH	47.1	D = 47.0 Az = 337.5 (USCGS)
			PV:1.4s 18.4nm SH:18s 0.3/um
			LmH(C):16s 0.6/um
			MPV=5.0 MSH=4.8 MLH(C)=4.6
24.	eP	01 09 10.5	Central Mid-Atlantic Ridge 8.15 N 38.10 W
	e	09 21	H = 00 59 21.9 h = normal MAG=5.1
	e	09 27.5	D = 58.9 Az = 34.5 (USCGS)
25.	e	08 42 54.5	PV:1.2s 10.2nm
	e	43 00	
25.	-eP	09 59 49.0	Sicily 37.81 N 13.25 E
	ePL C	59 52	H = 09 56 48.7 h = normal MAG=5.1
	ei	59 50.5	D = 12.9 Az = 355.3 (USCGS)
	ei	59 53.0	PV1:1.2s 7.7nm PV3:1.7s 79.0nm
	eS	10 02 10	PV4:1.2s 81.5nm
	LmH C	05.1	LmH(C):13s 36.0/um MLH(C)=5.6
25.	eiP	11 34 23.5	Fox Islands/Aleutian 51.50 N 169.55 W
	e	34 38	D = 78.2 Az = 359.2 (USCGS)
			PV:0.9s 14.1nm MPV=5.1
25.	eP	14 38 34	Sicily 37.79 N 12.94 E
	e	38 37	H = 14 35 32.6 h = normal MAG=4.4
	e	39 41.5	D = 12.9 Az = 356.2 (USCGS)
	LmH C	42.7	LmH(C):21s 2.2/um LmV(C):12s 1.6/um
	LmV C	44.6	MLH(C)=4.2
26.	eP diff.	05 00 21.5	Flores Island 8.77 S 120.39 E
	ePP	04 35	H = 04 45 41.4 h = 29 km MAG=5.9
	ePPS	15 54	D = 108.6 Az = 320.5 (USCGS)
	LmH C	20.5	LmH(C):50s 4.4/um MLH(C)=5.6
			e 04 44 e 05 00 e 14 10

Day	Phase	h m s	Remarks
26.	eP	08 05 24.5	Sicily 37.65 N 12.82 E
	ei	05 32	H = 08 02 18.3 h = 31 km MAG=4.6
	e	05 37	D = 13.0 Az = 356.6 (USCGS)
	LmH C	11.1	LmH(C)=13s 1.1/um MLH(C)=4.1
26.	eP	12 43 45	Baja California 24.30 N 111.54 W
	LmV	13 24.9	H = 12 30 46.3 h = normal MAG=5.3 (USCGS)
	LmH	25.3	D = 90
			PV:1.4s 18.4nm
			LmH:15.5s 40/um LmV:16s 4.9/um
			MPV=5.1 MLH=5.9 MLV=6.1
27.	eP	00 56 51	North Atlantic Ridge 29.93 N 42.81 W
	eS	01 03 40	H = 00 48 35.6 h = 34 km MAG=5.0
	LmH	13.0	D = 45.2 Az = 46.8 (USCGS)
	LmV	13.0	PV:1.6s 26.5nm
			LmH:18s 1.2/um LmV:18s 1.6/um
			MPV=4.9 MLH=4.9 MLV=5.1
27.	eP	01 49 51	North Atlantic Ridge 29.95 N 42.79 W
	LmH C	02 07.5	H = 01 41 35.4 h = normal MAG=4.6
			D = 45.2 Az = 46.9 (USCGS)
			PV:1.2s 12.8nm MPV=4.7
27.	-iP	14 08 50.5	Taiwan 23.24 N 121.56 E
	e	08 53	H = 13 56 23.8 h = 53 km MAG=5.2
	e	08 59	D = 84.1 Az = 323.0 (USCGS)
	e	09 02	PV:1.5s 40.2nm SH(C):16s 0.7/um
	eS	19 25	LmH:14.5s 4.0/um LmV:15s 6.3/um
	e	25 45	MPV=5.4 MSH=5.6 MLH=5.9 MLV=6.1
	LmH	51.6	
	LmV	51.6	
27.	e(P)	18 32 36	Algeria 35.94 N 5.15 E
	e	32 45	H = 18 28 52.4 h = normal MAG=4.2
	LmH C	37.9	D = 15.4 Az = 15.6 (USCGS)
			LmH:18s 0.8/um MLH=3.9

Day	Phase	h m s	Remarks
28.	ePg	02 12 30	Switzerland 46.3 N 7.5 E
	e(Sg)	13.30	H = 02 10 49 (BCIS)
	e	13 36	D = 5.3
29.	+iP	05 07 55.0	Hindukush 36.32 N 70.41 E
	e	08 16	H = 05 00 10.0 h = 225 km MAG=5.5
	e	08 36	D = 43.8 Az = 308.2 (USCGS) h = 208 km
	epP	08 40	PV1:1.4s 90.4nm PV5:1.7s 166.5nm
	i	08 42.5	MPV1=5.0 MPV5=5.2
	ei C	15 30	
	e C	17 45	
	e C	18 24	
29.	+eP	10 31 02	Kurile Islands 43.62 N 146.66 E
	eiP B	31 02.7	H = 10 19 05.6 h = 40 km MAG=6.3
	i	31 03.4	D = 78.3 Az = 332.7 (USCGS) h = 37 km
	eipP	31 12.5	PV3:2.1s 2100.0nm
	eS	40 52	LmH:16.5s 159.0/um LmV:15s 135.0/um
	ePKPPKP	58 14	MPV3=6.9 MLH=7.4 MLV=7.4
	e	58 19	
	e	58 26	
	LmV	11 12.0	
	LmH	15.3	
29.	eP	10 54 08	Kurile Islands 43.21 N 147.20 E
	epP	54 20	H = 10 42 08.6 h = 41 km MAG=5.2
			D = 78.8 Az = 333.0 (USCGS) h = 44 km
			PV:1.3s 38.9nm MPV=5.3
29.	eP	11 37 23.5	Kurile Islands 43.63 N 147.16 E
			H = 11 25 24.1 h = normal MAG=4.4
			D = 78.4 Az = 332.9 (USCGS)
			PV:1.3s 13.9nm MPV=4.9
29.	eP	11 55 59	Kurile Islands 43.39 N 147.34 E
	e	56 28	H = 11 43 59.1 h = normal MAG=5.1
			D = 78.7 Az = 333.0 (USCGS)
			PV:2.0s 96.3nm (mod.Krumbach)
			MPV=5.5

Day	Phase	h m s	Remarks
29.	eP	12 19 08.5	Kurile Islands 43.19 N 147.26 E
	epP	20 20	H = 12 07 08.0 h = normal MAG=5.0
			D = 78.9 Az = 333.0 (USCGS) h = 33 km
			PV:1.2 s 23.0nm MPV=5.1
29.	eP	14 55 51.5	Kurile Islands 43.10 N 146.91 E
	epP	56 03.5	H = 14 43 50.5 h = normal MAG=4.7
	e	56 10	D = 78.8 Az = 332.8 (USCGS) h = 45 km
			PV:0.9s 0.7nm MPV=4.7
29.	+iP	16 54 49.7	Kurile Islands 43.49 N 147.20 E
	+ipP	54 59.5	H = 16 42 50.4 h = 36 km MAG=5.7
	i	55 06	D = 78.6 Az = 333.0 (USCGS)
	eS	17 04 44	h = 37 km (pP) h = 44 km (sP)
	eSS	10 00	PV1:1.4s 133.5nm PV2:1.4s 214.0nm
	eSSS	13 30	LmH:15.5s 7.9/um LmV:16s 9.0/um
	LmH	30.0	MPV1=5.8 MPV2=6.0 MLH=6.2 MLV=6.2
	LmV	34.4	
29.	eP	17 26 06.5	Kurile Islands 43.36 N 147.29 E
			H = 17 14 06.0 h = normal MAG=4.5
			D = 78.7 Az = 333.0 (USCGS)
			PV:1.0s 11.8nm MPV=4.9
29.	eiP	19 51 20	Kurile Islands 43.34 N 147.34 E
			H = 19 39 18.1 h = normal MAG=4.5
			D = 78.8 Az = 333.1 (USCGS) h = 37 km
			PV:1.1s 12.0nm MPV=4.8
29.	eP	20 56 07	Kurile Islands 43.42 N 147.29 E
			H = 20 44 05.8 h = normal MAG=4.5
			D = 78.7 Az = 333.0 (USCGS)
			PV:1.4s 18.4nm MPV=4.9
29.	+eiP	21 03 50.8	Kodiak Island 56.42 N 153.55 W
	e	03 52	H = 20 52 21.3 h = 6 km MAG=5.2
	ei	03 59.5	D = 72.6 Az = 9.8 (USCGS)
	eS	13 18	PV:0.8s 37.7nm

Day	Phase	h m s	Remarks
cont.			
29.	eSS C	21 18 00	LmH:18s 0.7/um LmV:18s 0.8/um
	LmH	40.6	MPV=5.7 MLH=5.0 MLV=5.1
	LmV	40.8	e 03 58 e 13 32 e(C) 22 10
29.	eP	21 23 02.5	Kodiak Island 56.48 N 153.27 W
			H = 21 11 36.1 h = 19 km MAG=4.6
			D = 72.5 Az = 10.0 (USCGS)
			PV:1.0s 14.2nm MPV=5.1
29.	eP	22 50 10	Kurile Islands 42.99 N 147.07 E
			H = 22 38 08.1 h = normal MAG=4.7
			D = 79.0 Az = 332.9 (USCGS)
30.	eP	01 42 15.5	Kurile Islands 43.27 N 146.79 E
	e	42 16.5	H = 01 30 12.7 h = 12 km MAG=5.3
	epP	42 25.5	D = 78.6 Az = 332.8 (USCGS) h = 37 km
	e	42 38	PV:1.3s 50.0nm MPV=5.4
30.	eiP	02 00 30.5	Kurile Islands 43.25 N 147.68 E
	epP	00 52	H = 01 48 28.6 h = normal MAG=5.1
	e	01 00.5	D = 79.0 Az = 333.3 (USCGS) h = 80 km
	eS	10 30	PV:1.4s 52.2nm
	eSS C	15.7	LmH:22.5s 8.3/um LmV:18s 3.2/um
	e C	20.0	MPV=5.4 MLH=6.0 MLV=5.7
	LmH	33.0	
	LmV	40.2	
30.	ePKP	02 12 40	Fiji Islands 20.70 S 178.60 W
	ei	12 43	H = 01 53 59.9 h = 590 km MAG=4.5
			D = 149.0 Az = 347.3 (USCGS)
			PV2:1.2s 15.3nm
30.	eP	02 32 33	Kurile Islands 43.53 N 147.68 E
	epP	32 46.5	H = 02 20 31.1 h = 25 km MAG=4.8
			D = 78.9 Az = 333.2 (USCGS) h = 50 km
			PV:1.2s 10.4nm MPV=4.7

Day	Phase	h m s	Remarks
30.	eP	02 50 13.5	Kurile Islands 43.32 N 147.68 E
	epP	50 23	H = 02 38 12.6 h = normal MAG=5.1
			D = 78.9 Az = 333.2 (USCGS) h = 35 km
			PV:1.4s 40.0nm MPV=5.3
30.	eP	02 54 28.5	Kurile Islands 43.57 N 147.61 E
	e	54 41	H = 02 42 28.2 h = normal MAG=4.7
			D = 78.6 Az = 333.2 (USCGS)
			PV:1.4s 15.4nm MPV=4.8
30.	eP	03 05 47.5	Kurile Islands 43.37 N 147.56 E
			H = 02 53 46.9 h = normal MAG=4.7
			D = 78.8 Az = 333.2 (USCGS)
			PV:1.4s 15.3nm MPV=4.8
30.	+eP	03 13 46	Kurile Islands 43.07 N 147.17 E
	i	13 49.5	H = 03 01 44.0 h = 28 km MAG=5.4
	LmV	53.5	D = 78.9 Az = 333.0 (USCGS)
	LmH	53.8	PV:1.6s 56.8nm
			LmH:16s 5.5/um LmV:17s 7.8/um
			MPV=5.4 MLH=6.0 MLV=6.1
30.	eP	03 35 42.5	Kurile Islands 43.30 N 147.42 E
	epP	35 55	H = 03 23 41.9 h = normal MAG=4.9
			D = 78.8 Az = 333.1 (USCGS) h = 45 km
			PV:1.2s 25.5nm MPV=5.1
30.	e	03 39 05	
30.	-eiP	03 57 17	Java 6.05 S 113.35 E
	esP	04 00 14	H = 03 44 24.4 h = 594 km MAG=6.2
	eiPP	01 35	D = 102.1 Az = 320.4 (USCGS)
	epPP	03 27.5	PV:1.1s 33.7nm MPV=5.7
	eSKS	06 58	
	ePKKP	13 18	
	ePKPPKP	21 36	

Day	Phase	h m s	Remarks
30.	eP	04 22 39	Kurile Islands 43.10 N 147.14 E
	epP	22 50	H = 04 10 36.1 h = 24 km MAG=5.1
			D = 78.9 Az = 333.0 (USCGS) h = 41 km
			PV:1.6s 37.9nm MPV=5.2
30.	eiP	06 20 35.5	Kurile Islands 43.45 N 147.08 E
	epP	20 45	H = 06 08 35.2 h = normal MAG=5.0
	esP	20 50	D = 78.6 Az = 332.9 (USCGS)
			h = 35 km (pP) h = 40 km (sP)
			PV:2.0s 37.0nm (mod.Krumbach)
			MPV=5.1
30.	eP	08 25 20	Hindukush 36.39 N 70.74 E
			H = 08 17 32.3 h = 205 km MAG=5.2
			D = 44.0 Az = 308.2 (USCGS)
			PV:0.7s 11.9nm MPV=4.7
30.	eP	18 47 04.5	Kurile Islands 43.03 N 147.22 E
	ei	47 06.5	H = 18 35 00.9 h = 25 km MAG=4.9
	e	47 14	D = 79.0 Az = 333.0 (USCGS)
	LmH C	19 19	PV:1.3s 27.8nm
			LmH(C):20s 0.6/um
			MPV=5.1 MLH(C)=4.9
31.	ePKP	01 39 16	Fiji Islands 17.86 S 178.08 W
			H = 01 20 44.4 h = 632 km MAG=4.4
			D = 146.4 Az = 348.8 (USCGS)
			PV:0.7s 0.7nm
31.	eP	02 16 23.5	Santiago del Estero Prov./Argentina
			27.73 S 63.19 W
			H = 02 03 29.4 h = 580 km MAG=4.9
			D = 102.1 Az = 38.9 (USCGS)
			PV:1.3s 11.1nm
31.	LmH	02 18.0	LmH:15s 1.2/um LmV:16s 1.7/um
	LmV	18.2	

January 1968 — Moxa

Day	Phase	h m s	Remarks
31.	eiP	05 07 44.5	Kurile Islands 43.55 N 147.62 E
			H = 04 55 44.1 h = normal MAG=4.6
			D = 78.7 Az = 333.2 (USCGS)
			PV:1.2s 12.8nm MPV=4.8
31.	eP	11 55 35	Tibet 29.86 N 92.07 E
	e	55 40.5	H = 11 45 16.9 h = 18 km MAG=5.2
	e	57 59.5	D = 61.7 Az = 314.5 (USCGS)
	LmH	12 26.5	PV1:1.8s 35.8nm PV2:1.2s 22.9nm
	LmV	27.5	LmH:18s 0.5/um LmV:16s 0.7/um
			MPV1=5.3 MPV2=5.3
			MLH=4.8 MLV=5.0
31.	eP	22 10 31	Kurile Islands 42.96 N 147.77 E
	e	10 41	H = 21 58 24.1 h = normal MAG=4.9
	e	10 51	D = 79.3 Az = 333.3 (USCGS)
	LmH	50.4	PV:1.4s 18.4nm LmH:14s 0.8/um
	LmV	50.5	MPV=4.9 MLH=5.2

February 1968 — Moxa

Day	Phase	h m s	Remarks
1.	LmH C	08 40.5	Vancouver Island Region 49.96 N 129.78 W
			H = 07 58 03.5 h = 14 km MAG=5.4 (USCGS)
			D = 74.6
			LmH(C):27.5s 0.7/um MLH(C)=4.8
1.	iP	12 59 23	Kurile Islands 43.22 N 146.87 E
	e	59 32.5	H = 12 47 23.4 h = 35 km MAG=5.5
	e	59 39	D = 78.7 Az = 332.8 (USCGS)
	LmH C	13 45	PV:1.3s 83.5nm (mod.Krumbach)
			LmH(C):18s 0.8/um
			MPV=5.5 MLH(C)=5.1
1.	ePKP	16 44 52	Loyalty Islands 22.51 S 170.69 E
			H = 16 25 12.3 h = normal MAG=-
			D = 147.5 Az = 335.0 (USCGS)
1.	e(P)	19 14 13	Off Coast of Hokkaido, Japan
			42.95 N 147.01 E
			H = 19 02 09.4 h = normal MAG=4.7 (USCGS)
			D = 79.0
1.	eiPKP	23 32 52.5	New Hebrides Islands 18.52 S 169.01 E
	e	33 05	H = 23 13 47.2 h = 228 km MAG=5.1
	e	33 34	D = 143.2 Az = 335.9 (USCGS)
			PV:1.3s 61.1nm
2.	ePKP	01 03 03.5	Fiji Islands 19.87 S 178.21 W
			H = 00 44 02.1 h = 366 km MAG=4.4
			D = 148.3 Az = 348.1 (USCGS)
2.	ePKP	10 10 11	Loyalty Islands 22.25 S 171.27 E
	e	10 17	H = 09 50 41.2 h = 95 km MAG=5.1
	e	10 52.5	D = 147.5 Az = 335.7 (USCGS)
			PV:1.4s 15.3nm
2.	e	15 18 26	Albania 41.44 N 20.06 E
			H = 15 15 42.3 h = normal MAG=-
			D = 10.9 Az = 330.4 (USCGS)

Day	Phase		h m s	Remarks
2.	ePKP		18 48 37.5	Tonga Islands 22.81 S 175.01 W
	eipPKP		48 49	H = 18 28 46.0 h = 45 km MAG=5.0
	eisPKP		48 53.5	D = 151.7 Az = 351.1 (USCGS)
				h = 40 km (pP) h = 44 km (sP)
2.	eP		20 27 28.5	Kurile Islands 43.16 N 146.99 E
	epP		27 39	H = 20 15 25.7 h = 25 km MAG=5.0
				D = 78.8 Az = 332.9 (USCGS) h = 39 km
				PV1:0.9s 14.1nm PV2:1.1s 14.4nm
				MPV1=5.0 MPV2=4.9
3.	+eP		03 38 08	Kurile Islands 46.61 N 152.57 E
	epP		38 19	H = 03 26 16.6 h = 45 km MAG=5.3
	esP		38 26	D = 77.4 Az = 335.7 (USCGS)
	LmH		04 14.3	h = 41 km (pP) h = 50 km (sP)
	LmV		14.8	PV:1.1s 77.0nm
				LmH:18s 0.4/um LmV:18s 0.4/um
				MPV=5.7 MLH=4.8 MLV=4.9
3.	ePKP		05 35 52.5	Fiji Islands 17.47 S 176.33 E
				H = 05 16 18.6 h = normal MAG=5.1
				D = 144.7 Az = 343.1 (USCGS)
3.	eP		05 49 16	Near Coast of Guerrero, Mexico
	e		49 24	16.66 N 99.35 W
	e		50 36	H = 05 36 14.6 h = 9 km MAG=5.7
	eS	C	06 00 12	D = 89.9 Az = 36.5 (USCGS)
	e		00 18	PV:1.5s 20.2nm
	LmH		33.9	LmH:18s 3.2/um LmV:18.5s 4.6/um
	LmV		34.0	MPV=6.0 MLH=5.8 MLV=6.0
3.	e		10 41 27	Silesia 50 1/2 N 19 E
	e		41 31	H = 10 40 03 (BCIS)
	ePg		41 38	D = 4.7
	e		41 52.5	e 42 33 e 42 36 e 42 39
	e(Sn)		42 18	

Day	Phase	h m s	Remarks
3.	+eP	11 42 44.5	Kurile Islands 43.20 N 146.76 E
	e	42 46.5	H = 11 30 44.4 h = normal MAG=5.5
	epP	42 54.5	D = 78.7 Az = 332.7 (USCGS)
	esP	42 59.5	h = 37 km (pP) h = 41 km (sP)
	LmH	12 21.2	PV1:1.3s 47.2nm PV3:1.3s 55.5nm
	LmV	23.7	LmH:13s 0.5nm LmV:16s 0.7nm
			MPV1=5.4 MPV3=5.4 MLH=5.0 MLV=5.1
3.	+eP	15 53 12.5	Chiapas, Mexico 16.59 N 93.52 W
	e	53 14	H = 15 40 44.5 h = 124 km MAG=5.5
	-i	53 15	D = 86.6 Az = 38.0 (USCGS)
	epP	53 49	h = 147 km (pP) h = 170 km (sP)
	esP	54 03.5	PV:1.8s 92.0nm
	eS	16 03 31	MPV=5.3
	LmH	33	
	LmV	34	
4.	eiP	09 22 26.5	Kurile Islands 43.22 N 147.23 E
	e	22 27	H = 09 10 25.3 h = normal MAG=5.4
	LmH	10 02.5	D = 78.8 Az = 333.0 (USCGS)
	LmV	02.1	PV:1.4s 49.0nm
			LmH:16s 1.1/um LmV:16s 1.3/um
			MPV=5.3 MLH=5.3 MLV=5.4
4.	-iP	11 12 52.5	Kurile Islands 42.98 N 147.08 E
	e	12 55.5	H = 11 00 50.1 h = normal MAG=5.5
	e(pP)	13 04	D = 79.0 Az = 332.9 (USCGS) (h = 37km)(pP)
	eS	22 48	PV1:1.8s 128.0nm PV2:1.7s 167.0nm
	ePS	23 30	LmH:23s 27.1/um LmV:19s 22.3/um
	eSS	28 07	MPV2=5.8 MLH=6.5 MLV=6.6
	LmH	45.3	e 12 54 e 13 25.5 e 18 24 e 22 58
	LmV	52.7	i 32 26 ei (C) 32 33
4.	ePKHKP	16 46 11	Tonga Islands 23.30 S 174.99 W
	ePKP2	46 22.5	H = 16 26 18.2 h = 40 km MAG=4.9
	e	46 44	D = 152.2 Az = 351.0 (USCGS)

Day	Phase	h m s	Remarks
4.	ePKHKP	19 37 25.5	Tonga Islands 20.79 S 174.29 W H = 19 17 36.5 h = 34 km MAG=4.7 D = 149.8 Az = 352.5 (USCGS) PV:1.3s 16.7nm
4.	ePKP	19 51 57 51 02.5	Tonga Islands 20.46 S 174.04 W H = 19 32 15.8 h = normal MAG=4.5 D = 149.5 Az = 352.9 (USCGS)
5.	e(P) eipP LmH C LmV	09 40 52 41 08 10 17.2 24.4	Ryukyu Islands 25.89 N 128.39 E H = 09 28 19.8 h = normal MAG=4.8 D = 85.6 Az = 325.2 (USCGS) LmH(C):20s 1.9/um LmV:13s 1.4/um MLH(C)=5.5 MLV=5.6
5.	eP e e	11 20 41 20 48.5 20 53.5	Sicily 37.93 N 12.79 E H = 11 17 39.2 h = normal MAG=4.3 D = 12.7 Az = 356.6 (USCGS)
6.	eP	06 57 04.5	Near East Coast of Kamchatka 54.96 N 162.10 E H = 06 45 42.9 h = normal MAG=4.6 D = 71.9 Az = 340.7 (USCGS) PV:1.0s 14.2nm MPV=5.1
6.	eP e	09 59 15 59 17.5	Near East Coast of Kamchatka 54.98 N 161.95 E H = 09 47 53.4 h = normal MAG=4.8 D = 71.9 Az = 340.6 (USCGS) PV:1.1s 29.0nm MPV=5.3
6.	e LmH C LmV C	11 38 16 12 20.5 20.5	Near Coast of Central Chile 28.50 S 70.99 W H = 11 19 23.1 h = 23 km MAG=5.7 (USCGS) D = 107.1

Day	Phase	h m s	Remarks
6.	ePS C eSS LmH C LmV C	23 14 19 19 32 40.7 41.7	Off Coast of Mexico 10.19 N 103.68 W H = 22 47 52.4 h = 53 km MAG=4.8 (USCGS) D = 97.7 LmH(C):23s 1.6/um LmV(C):24s 1.5/um MLH(C)=5.5 MLV(C)=5.4
7.	eP	00 35 22	Mariana Islands 21.64 N 142.90 E H = 00 22 28.6 h = 309 km MAG=5.3 D = 96.2 Az = 331.2 (USCGS)
7.	LmH	05 39.5	
7.	e(P) e LmH LmV	08 47 44 47 54 09 23.5 24.5	Off Coast of Oregou 43.61 N 127.27 W H = 08 35 29.6 h = normal MAG=5.1 D = 79.5 Az = 25.2 (USCGS) LmH:15s 0.6/um LmV:16s 0.8/um MLH=5.0 MLV=5.2
7.	eP epP	12 27 18 27 30	Kurile Islands 43.04 N 146.77 E H = 12 15 17.3 h = 42 km MAG=4.6 D = 78.8 Az = 332.8 (USCGS) h = 44 km
7.	ePKP e	13 29 50 30 08	South of Fiji Islands 25.30 S 179.68 E H = 13 10 52.3 h = 491 km MAG=4.5 D = 153.1 Az = 343.1 (USCGS)
7.	+eiP i eS C LmH LmV eScP	22 26 16.5 26 19 29 30 30.5 31.5 34 07.5	Dodecanese Islands 36.74 N 26.82 E H = 22 22 20.2 h = 161 km MAG=5.0 D = 17.7 Az = 326.6 (USCGS) PV2:1.3s 472.0nm MPV=5.7 i 29 32 e 30 22 (C)
8.	eP e e eS C LmH C LmV C	11 07 12 07 13 07 15.5 14 24 32 32	Arabian Sea 14.62 N 53.94 E H = 10 58 22.1 h = normal MAG=5.2 D = 49.5 Az = 325.7 (USCGS) PV2:1.8s 51.0nm MPV2=5.5

Day	Phase		h m s	Remarks
8.	eP		12 16 13	Kurile Islands 43.15 N 147.20 E
	epP		16 24.5	H = 12 04 12.8 h = 45 km MAG=5.0
	esP		16 29	D = 78.9 Az = 333.0 (USCGS) h = 43 km (pP)
				PV:1.0s 14.2nm MPV=5.0
8.	-eP1		12 37 10	Arabian Sea 14.63 N 54.04 E
	+eP2		37 11	H = 12 28 21.0 h = normal MAG=5.4
	eipP		37 20	D = 49.6 Az = 325.7 (USCGS) h = 43 km
	ePP		39 10	PV2:2.7s 413.0nm
	eiS	C	44 21	LmH:17s 3.1/um LmV:17s 3.4/um
	iSPP	B	44 22	MPV2=5.9 MLH=5.4 MLV=5.5
	eSS		48 05	
	LmH		13 02.2	
	LmV		02.3	
9.	e(P)		13 25 30	Rumania 45.65 N 26.40 E
	e		25 31	H = 13 22 53.9 h = 122 km MAG=4.6
	i		25 32	D = 11.1 Az = 302.2 (USCGS)
	e		25 32.5	PV3:1.3s 72.2nm
9.	e		15 44 55	Komandorsky Islands 53.51 N 169.68 E
				H = 15 33 06.3 h = normal MAG=5.4
				D = 74.6 Az = 345.7 (USCGS)
9.	ePKHKP		16 55 18	Loyalty Islands 23.32 S 171.19 E
	e		55 36	H = 16 35 41.4 h = 99 km MAG=4.7
	e		55 52	D = 148.4 Az = 334.9 (USCGS)
9.	ePKHKP		18 26 20	Tonga Islands 22.60 S 175.11 W
				H = 18 06 28.2 h = 50 km MAG=5.0
				D = 151.5 Az = 351.0 (USCGS)
				PV:1.6s 22.7nm
10.	+iP		10 11 55.5	Kurile Islands 46.01 N 152.25 E
	ePcP		12 03	H = 10 00 05.8 h = 87 km MAG=5.7
	epP		12 14	D = 77.9 Az = 335.6 (USCGS) h = 78 km
	LmH		50.7	PV:1.9s 341.0nm
	LmV		50.7	LmH:19s 0.9/um LmV:20s 1.1/um
				MPV=5.9 MLH=5.1 MLV=5.2

Day	Phase		h m s	Remarks
10.	eP		17 12 00	Kashmir-Tibet Border Region
				34.14 N 78.49 E
				H = 17 03 03.8 h = 37 km MAG=5.2
				D = 50.3 Az = 310.5 (USCGS)
11.	eP		12 26 10	Bonin Islands 28.00 N 139.45 E
				H = 12 14 08.6 h = 513 km MAG=4.7
				D = 89.2 Az = 329.8 (USCGS)
				PV:1.5s 15.0nm (mod.Krumbach)
				MPV=5.0
11.	eP		20 47 24	Kashmir-Tibet Border Region
	ė		58 45	34.17 N 78.63 E
	LmV	C	21 07.0	H = 20 38 29.4 h = 44 km MAG=5.1
	LmH	C	07.6	D = 50.4 Az = 310.5 (USCGS)
				PV:1.0s 19.0nm
				LmV(C):35s 0.5/um LmH(C):23s 0.9/um
				MPV=5.0 MLV(C)=4.3 MLH(C)=4.7
12.	eP		02 56 14.5	Gulf of Alaska 57.26 N 149.82 W
				H = 02 44 55.6 h = normal MAG=4.2
				D = 71.4 Az = 12.3 (USCGS)
				PV:0.8s 9.4nm MPV=5.0
12.	+P diff.		06 00 21.5	New Ireland 5.51 S 153.25 E
	ePKP		03 40	H = 05 44 47.6 h = 74 km MAG=6.2
	eP		03 44.5	D = 124.8 Az = 331.2 (USCGS)
	iPP		05 24.5	PPH:16s 6.0/um PPV:16s 8.7/um
	eSKS	C	10 40	LmH:21.5s 21.5/um LmV:21s 93.1/um
	eiSKKS		12 22	MPPH=7.1 MPPV=7.0 MLH=7.5 MLV=7.4
	ePKKP3		13 24	e 05 29(C) i 05 31 e 05 33 e 05 35
	eiSKSP		15 16	ei 10 44 i 13 28 i 13 32 i 15 24
	ePPS		16 43	e 17 20 e 22 23
	eiSS		22 18	
	LmH		59.9	
	LmV		07 03.8	

Day	Phase	h m s	Remarks
12.	+ePKHKP	07 56 22	Tonga Islands 18.36 S 173.11 W
	ePKP2	56 22.5	H = 07 36 37.4 h = 26 km MAG=4.8
	esPKP2	56 38	D = 147.6 Az = 354.4 (USCGS)
	e	57 23.5	PV4:1.6s 60.6nm
	e	57 38	
12.	ePKIKP	08 08 16	South of Fiji 22.7 S 179.8 E
	e	08 18	H = 07 48 37.0 h = 33 km MAG=4.9 (ISC)
			D = 150.5
			PV:1.1s 9.6nm
12.	+iP	10 22 01.3	Southern Italy 38.07 N 17.80 E
	+iPP	22 13.5	H = 10 18 51.9 h = 15 km MAG=5.3
	iPPP	22 19	D = 13.3 Az = 342.7 (USCGS)
	iPPPP	22 25	PV:1.4s 153.3nm PH:1.4s 102.0nm
	ei	24 18	LmH:16s 1.4/um
	ei	24 20	MLH=4.1
	LmH	30.1	
	LmV	30.1	
12.	eP	16 29 05	Sicily 37.87 N 13.13 E
	e	29 11.5	H = 16 26 03.6 h = normal MAG=4.4
	e	29 16	D = 12.8 Az = 355.7 (USCGS)
	e	29 22	PV:1.2s 10.2nm
	LmH	34.9	LmH:11s 1.3/um LmV:14s 0.8/um
	LmV	35.0	MLH=4.2
12.	LmH C	22 58	Burma 22.89 N 95.36 E
			H = 22 17 36.0 h = 23 km MAG=4.7 (USCGS)
			D = 68.8
			LmH(C):20s 0.5/um MLH(C)=4.7
13.	eP	15 38 40	Kurile Islands 43.18 N 146.64 E
	epP	38 51.5	H = 15 26 40.5 h = 37 km MAG=4.7
	LmV C	16 21.7	D = 78.7 Az = 332.7 (USCGS) h = 43 km
	LmH C	24.2	PV:1.8s 20.4nm
			LmH(C):18s 0.4/um LmV(C):20s 0.5/um
			MPV=4.9 MLH(C)=4.8 MLV(C)=4.9

Day	Phase	h m s	Remarks
14.	eP	09 31 58.5	Jan Mayen Islands 71.41 N 2.00 W
	e	32 03	H = 09 27 06.0 h = normal MAG=4.5
	LmH C	39	D = 21.7 Az = 156.1 (USCGS)
	LmV C	39	PV2:1.6s 26.7nm
			LmH(C):25s 0.3/um LmV(C):25s 0.3/um
			MLH(C)=3.6 MLV(C)=3.7
14.	LmV C	15 39.7	Volcano Islands Region 25.79 N 141.10 E
	LmH C	39.8	H = 14 38 25.8 h = 42 km MAG=4.5 (USCGS)
			D = 91.8
			LmV(C):13s 0.3/um MLV(C)=5.0
15.	eP	02 54 37.5	Fox Islands/Aleutian 52.15 N 171.39 W
	ePcP	54 47	H = 02 42 47.3 h = 61 km MAG=5.3
	epP	54 53.5	D = 77.5 Az = 358.0 (USCGS)
	esP	54 55.5	PV:1.0s 9.5nm
	eSS C	03 09 35	LmH(C):24s 0.5/um LmV(C):20s 0.4/um
	LmH C	34.1	MPV=4.9 MLH(C)=4.8 MLV(C)=4.8
	LmV C	34	e 54 45 e 55 08 e 55 09.5
15.	eP	15 56 54	Kurile Islands 47.09 N 153.33 E
	epP	57 05	H = 15 45 02.0 h = 41 km MAG=5.0
	e	57 07.5	D = 77.2 Az = 336.1 (USCGS) h = 41 km
	e	57 30	PV:0.9s 9.5nm MPV=4.9
15.	eP	23 02 33	North of Ascension Islands
			1.85 S 12.74 W
			H = 22 52 54.2 h = normal MAG=5.1
			D = 56.3 Az = 18.4 (USCGS)
			PV:1.2s 10.2nm MPV=4.7
16.	eP	05 48 07	Tsinghai Province, China
			33.73 N 95.08 E
			H = 05 37 54.2 h = normal MAG=4.8
			D = 60.9 Az = 313.6 (USCGS)
			PV:0.8s 7.1nm MPV=4.9

Day	Phase	h m s	Remarks
16.	eP	14 34 16.5	Sea of Okhotsk 49.67 N 147.75 E
	epP	36 20	H = 14 23 42.6 h = 582 km MAG=4.7
	e	36 25.5	D = 73.3 Az = 332.6 (USCGS) h = 607 km
			PV:1.0s 19.0nm MPV=4.6
17.	e	08 31 10.5	Czechoslovakia, Explosion of 7.7 Tons
	e	31 13	50.68 N 14.67 E (PRU)
			D = 1.9
18.	eP	09 47 07.5	Banda Sea 7.15 S 125.88 E
			H = 09 29 26.1 h = 457 km MAG=5.3
			D = 110.8 Az = 321.6 (USCGS)
19.	ePKHKP	00 44 47.5	Tonga Islands 23.73 S 175.91 W
			H = 00 24 53.9 h = 36 km MAG=4.6
			D = 152.5 Az = 349.6 (USCGS)
			PV:1.3s 11.1nm
19.	ePKHKP	10 09 58.5	South of Fiji Islands 22.78 S 176.53 W
			H = 09 50 07.2 h = 46 km MAG=4.7
			D = 151.5 Az = 349.1 (USCGS)
19.	+ePKIKP	14 14 06.5	New Ireland 5.48 S 153.06 E
	e	14 08	H = 13 55 12.2 h = 73 km MAG=5.5
	ePP	15 55.5	D = 124.7 Az = 331.2 (USCGS)
	e	16 45	PV:2.0s 53.0nm
	LmH C	15 12.3	LmH(C):18s 0.8/um LmV:20s 1.0/um
	LmV C	12.3	MLH(C)=5.4 MLV(C)=(5.5)
19.	eP	22 49 09	Aegean Sea 39.39 N 25.00 E
	i	49 11	H = 22 45 41.2 h = 7 km MAG=5.9
	iS	51 52	D = 14.7 Az = 324.4 (USCGS)
	LmH	58	
20.	eP	00 42 40	Aegean Sea 39.68 N 25.25 E
	e	42 47	H = 00 39 14.8 h = normal MAG=4.9
	e	43 27	D = 14.6 Az = 323.3 (USCGS)

Day	Phase	h m s	Remarks
20.	eP	02 25 24	Aegean Sea 39.57 N 25.43 E
	e	25 29	H = 02 21 53.0 h = 13 km MAG=5.0
	e	25 43	D = 14.7 Az = 323.3 (USCGS)
	LmH	30.4	LmH:14s 11.7nm
20.	eP	05 17 25	Kodiak Island 58.37 N 151.74 W
	e	17 27.5	H = 05 06 11.9 h = 34 km MAG=4.9
	e	17 31	D = 70.5 Az = 11.2 (USCGS)
	epP	17 33.5	PV4:1.4s 46.0nm LmV(C):25s 0.4/um
	e	17 38	MPV4=5.4 MLV(C)=4.6
	LmV	46.5	
20.	e(P)	06 19 18	Aegean Sea 39.46 N 25.06 E
	LmH	24.2	H = 06 15 45.2 h = 32 km MAG=4.3 (USCGS)
	LmV C	24.9	D = 14.7
			LmH:12s 1.3/um LmV(C):16s 0.4/um
			MLH=4.3 MLV(C)=3.8
20.	eP	09 39 15	Aegean Sea 39.29 N 24.89 E
	e	39 19	H = 09 35 49.9 h = normal MAG=4.4
	LmH	44.3	D = 14.7 Az = 324.9 (USCGS)
	LmV	44.9	PV2:1.6s 22.7nm
			LmH:13s 3.0/um LmV:13s 1.3/um
			MLH=4.6 MLV=4.4
20.	eP	09 44 34	Aegean Sea 39.35 N 24.85 E
	ei	44 44	H = 09 41 09.6 h = normal MAG=4.7
	e	44 52	D = 14.6 Az = 324.8 (USCGS)
	LmH	49.6	PV:1.3s 33.3nm
	LmV	50.8	LmH:12s 6.2/um LmV:10s 2.9/um
			MLH=5.0 MLV=4.9
20.	eP	16 54 55	Dodecanese Islands 36.18 N 27.47 E
	e	54 57	H = 16 50 43.3 h = 53 km MAG=4.9
	e(SS) C	58 25	D = 18.4 Az = 326.6 (USCGS)
	LmH	17 03.1	PV2:2.2s 193.0nm PH2:2.2s 165.0nm
	LmV	03.9	LmH:11s 2.2/um LmV:11s 2.0/um
			MPV2=4.8 MPH2=4.9 MLH=4.7 MLV=4.8

Day	Phase		h m s	Remarks
20.	iP		17 42 36	Hokkaido, Japan 41.16 N 142.59 E H = 17 30 34.5 h = 36 km MAG=4.6 D = 79.0 Az = 330.7 (USCGS) PV:0.8s 9.4nm MPV=4.9
20.	eP		21 08 52	Aegean Sea 39.05 N 25.14 E
	LmH		13.9	H = 21 05 23.4 h = normal MAG=4.9 (USCGS)
	LmV		14.7	D = 15.0
				LmH:12s 0.8/um MLH=4.1
21.	eS	C	00 14 14	Kyushu, Japan 31.97 N 130.84 E
	eSS	C	19 40	H = 23 51 43.0 h = normal MAG=4.9 (USCGS)
	LmH		01 43	D = 81.8
	LmV		45	LmH:13.5s 4.0/um LmV:13.5s 3.8/um
				MLH=6.0 MLV=6.0
21.	LmH		00 26.0	Aegean Sea 39.55 N 25.05 E
	LmV		27.1	H = 00 17 32.0 h = normal MAG=4.4 (USCGS)
				D = 14.6
				LmH:12s 1.0/um LmV:11s 0.6/um
				MLH=4.2 MLV=4.2
21.	eP		01 57 11.5	Kyushu, Japan 32.04 N 130.59 E
	esP		57 29	H = 01 44 50.5 h = 3 km MAG=5.0
	eiSKS	C	02 07 24	D = 81.7 Az = 325.7 (USCGS)
	eSS	C	12 40	LmH:13s 8.7/um LmV:13s 7.0/um
	eSSSS	C	18.8	MLH=6.3 MLV=6.2
	LmH		36.3	ei 13 04 (C)
	LmV		38.2	
21.	LmH		05 48.9	LmH:7.5s 0.6/um LmV:10s 0.4/um
	LmV		48.8	
21.	eiP		06 30 05	Andreanof Islands 52.32 N 175.34 W
	epP		30 31	H = 06 18 21.6 h = 108 km MAG=5.2
	e(sP)		30 37.5	D = 77.2 Az = 355.5 (USCGS)
				h = 102 km (pP)

Day	Phase		h m s	Remarks
21.	eiP		06 32 47	Andreanof Islands 52.27 N 175.31 W
	epP		33 13	H = 06 21 03.6 h = 107 km MAG=5.3
	e		33 19	D = 77.3 Az = 355.5 (USCGS) h = 108 km
				PV:1.0s 19.0nm MPV=4.9
21.	ePKIKP		09 16 23	Banda Sea 4.03 S 128.52 E
	LmH	C	10 15	H = 08 57 49.1 h = 18 km MAG=5.2 (USCGS)
	LmV	C	15	D = 109.9
				LmH(C):20s 0.7/um LmV(C):20s 0.5/um
				MLH(C)=5.3 MLV(C)=5.1
21.	e(P)		12 39 32	Aegean Sea 39.5 N 24.9 E
	LmH		44.4	H = 12 36 00 (BCIS)
	LmV		45.4	D = 14.6
				LmH:13s 1.1/um LmV:10s 0.6/um
				MLH=4.1 MLV=4.2
21.	eP		15 42 18	Nevada, Nuclear Explosion "KNOX"
	e		45 06	37°07'00"N 116°03'13"W
	e		45 16	H = 15 30 00 (USAEC)
	ePP		45 25	D = 81.2 (h = 19 km) MAG=5.8 (ISC)
				PV:1.5s 53.7nm MPV=5.4
21.	eP		19 20 35	Andreanof Islands 51.36 N 176.08 W
				H = 19 08 39.3 h = 49 km MAG=4.7
				D = 78.2 Az = 355.0 (USCGS)
				PV:1.0s 9.5nm MPV=4.9
21.	+iPKP2		19 47 35	Kermadec Islands 30.23 S 178.95 W
				H = 19 27 30 h = 228 km MAG=5.0 (USCGS)
				D = 158.1
				PV:1.2s 51.0nm
21.	eP		21 19 51.5	Andreanof Islands/Aleutian
	epP		20 07.5	51.38 N 176.00 W
	ePS		30 32	H = 21 07 56.9 h = 47 km MAG=5.2
	eSS	C	35 12	D = 78.1 Az = 355.1 (USCGS)

Day	Phase	h m s	Remarks
cont.			
21.	LmH	22 03.5	PV:0.9s 14.2nm
	LmV	06.0	LmH:18.5s 2.1/um LmV:17s 2.1/um
			MPV=5.1 MLH=5.5 MLV=5.6
21.	eP	23 41 53	Southern Sinkiang Prov., China
			38.15 N 86.90 E
			H = 23 32 36.9 h = 28 km MAG=4.7
			D = 53.0 Az = 309.6 (USCGS)
22.	e(P)	02 20 21	Aegean Sea 39.63 N 25.67 E
	e	20 27	H = 02 16 41.0 h = 24 km MAG=4.3
	e	20 37	D = 14.8 Az = 322.7 (USCGS)
	LmH	25.1	LmH:16s 1.5/um LmV:11.5s 0.7/um
	LmV	26	MLH=4.2 MLV=4.2
22.	ePKP2	02 22 34	South Islands, New Zealand
	LmH	03 40.7	44.39 S 167.64 E
	LmV	41	H = 02 01 46.1 h = normal MAG=5.6 (USCGS)
			D = 162.7
			PV:2.1s 150.0nm (mod.Krumbach)
			LmH:20s 0.8/um LmV:22s 1.3/um
			MLH=5.5
22.	e(P)	05 01 24	Aegean Sea 39.46 N 25.05 E
	e	01 32	H = 04 57 49.1 h = normal MAG=4.6
	LmH	06.2	D = 14.6 Az = 324.2 (USCGS)
	LmV	07.5	LmH:10.5s 1.3/um LmV:9.0s 1.2/um
			MLH=4.3 MLV=4.6
22.	eP	06 58 37	Eastern Mediterranean Sea
	e	58 44	35.41 N 28.88 E
	e	58 58.5	H = 06 54 09.6 h = 36 km MAG=4.4
			D = 19.7 Az = 325.9 (USCGS)
22.	ePKHKP	09 32 33.5	South of Fiji Islands 21.84 S 179.69 E
	ePKP2	32 42	H = 09 13 47.8 h = 566 km MAG=4.7
			D = 149.8 Az = 344.9 (USCGS)

Day	Phase	h m s	Remarks
22.	eP	10 31 27	Kyushu, Japan 31.97 N 130.71 E
	e	46 00	H = 10 19 07.6 h = 11 km MAG=4.9 (USCGS)
	LmH	11 10.5	D = 81.7
	LmV	12.6	LmH:13s 3.8/um LmV:14s 3.2/um
			MLH=5.9 MLV=5.9
22.	eP	12 25 21	Albania 41.7 N 20.13 E
	eS	27 25	H = 12 22 50 h = 14 km
	e	27 27.5	D = 10.7 Az = 330 (ISC)
	e	27 41	e 27 55 e 29 12
22.	eP	17 58 52.5	Andreanof Islands/Aleutian
	e	59 50	51.41 N 176.35 W
	LmH C	18 38.5	H = 17 46 57.4 h = 49 km MAG=5.1
	LmV C	44	D = 78.1 Az = 354.8 (USCGS)
22.	LmH C	20 57.3	LmH:20s 0.4/um
23.	ePKP	02 33 09	Loyalty Islands 22.18 S 170.24 E
			H = 02 13 24.5 h = 20 km MAG=4.9
			D = 147.0 Az = 334.8 (USCGS)
24.	ePKIKP	01 31 09	South of Kermadec Islands
	e	31 42	32.49 S 177.66 W
	ePKP2	31 52	H = 01 11 11.6 h = 21 km MAG=5.4
	esPKP2	32 08	D = 160.6 Az = 342.0 (USCGS)
	LmH C	02 37	LmH(C):26s 0.5/um LmV(C):26s 0.5/um
	LmV C	37.5	MLH=5.1
24.	eP	03 58 39	Unimak Island 53.77 N 163.39 W
			H = 03 46 53.4 h = 19 km MAG=4.4
			D = 75.9 Az = 3.3 (USCGS)
24.	ePKHKP	04 10 53	Tonga Islands 20.57 S 174.02 W
			H = 03 51 04.4 h = normal MAG=4.6
			D = 149.7 Az = 352.9 (USCGS)

Day	Phase	h m s	Remarks
24.	eS	12 59 47	Albania 41.44 N 20.18 E
	e	13 00 30	H = 12 55 03 h = 24 km MAG=4.5
	e	00 39	D = 11.0 Az = 330 (ISC)
	e	00 52.5	e 01 08 e 01 12 e 01 20
24.	eP	13 26 30	Romania 45.76 N 26.58 E
			H = 13 23 53.4 h = 134 km MAG=4.4
			D = 11.1 Az = 301.5 (USCGS)
			PV:1.0s 9.5nm
24.	eP	15 37 03	Near South Coast of Honshu, Japan
			34.20 N 139.23 E
			H = 15 24 29.8 h = 7 km MAG=5.1
			D = 83.7 Az = 329.7 (USCGS)
24.	eP	15 46 49	Near South Coast of Honshu, Japan
	LmH	16 17.2	34.14 N 139.14 E
	LmV	20	H = 15 34 22.3 h = 33 km MAG=5.3
			D = 83.8 Az = 329.5 (USCGS)
			PV:1.5s 20.2nm LmH:14s 0.8/um
			MPV=5.1 MLH=5.2
24.	eP	16 14 04.5	Near South Coast of Honshu, Japan
	LmH	51.8	34.47 N 138.93 E
	LmV	57.5	H = 16 01 36.8 h = normal MAG=5.0
			D = 83.4 Az = 329.4 (USCGS)
			PV:1.2s 12.8nm
			LmH:14s 0.8/um LmV:13s 0.5/um
			MPV=5.0 MLH=5.2 MLV=5.1
24.	eP	17 02 17	Near South Coast of Honshu, Japan
	LmH C	42.2	34.25 N 139.17 E
			H = 16 49 44.9 h = 4 km MAG=4.9
			D = 83.7 Az = 329.5 (USCGS)
			PV:2.4s 45.5nm LmH(C):15s 0.5/um
			MPV=5.3 MLH(C)=5.1

Day	Phase	h m s	Remarks
25.	ePn	08 03 59	Austria 47.60 N 15.77 E
	ei	04 06	H = 08 02 53.7 h = 0 km
	ePg	04 12.5	D = 4.1 Az = 320 (ISC)
	eSn	04 45	i 04 47 ei 04 52 ei 04 54
	eSb1	04 59	
	i(Sg)	05 05	
25.	-eP	10 37 11.5	Hokkaido, Japan 45.05 N 142.24 E
	e	37 12	H = 10 25 58.1 h = 295 km MAG=5.1
	e	37 42	D = 75.5 Az = 330.1 (USCGS)
			PV:1.0s 57.0nm MPV=5.3
25.	eP	12 56 14	Northern Sumatra 4.03 N 95.84 E
	epP	56 24	H = 12 43 49.5 h = normal MAG=5.0
			D = 83.2 Az = 320.4 (USCGS)
25.	eP	15 44 11	Algeria 36.78 N 5.63 E
	e	44 16	H = 15 40 44.8 h = 20 km MAG=4.9
	e	44 19	D = 14.5 Az = 15.4 (USCGS)
	LmH	51	LmH:12s 1.7nm LmV:14s 0.9nm
	LmV	51.9	MLH=4.4 MLV=4.3
25.	eP	18 20 15	Andreanof Islands/Aleutian
	ePPS	31 10	51.39 N 176.04 W
	eSS	35 12	H = 18 08 19.9 h = 50 km MAG=5.3
	LmH	19 01.3	D = 78.1 Az = 355.0 (USCGS)
	LmV	06.4	PV:1.0s 14.2nm
			LmH:15.5s 0.9/um LmV:16s 0.8/um
			MPV=5.1 MLH=5.2 MLV=5.2
25.	+eP	20 12 43	Near East Coast of Honshu, Japan
	ePoP	12 44	37.60 N 141.43 E
	esP	13 08	H = 20 00 31.5 h = 66 km MAG=5.5
	e	13 17.5	D = 81.7 Az = 330.4 (USCGS)
	LmH C	51.5	PV:1.5s 63.7nm MPV=5.5
	LmV C	52	

Day	Phase	h m s	Remarks
26.	eP	09 40 35.5	Near Islands/Aleutian 52.69 N 172.55 E
	LmH	10 09	H = 09 28 54.1 h = 56 km MAG=5.0
	LmV	09	D = 75.8 Az = 347.6 (USCGS)
			PV:1.3s 19.5nm
			LmH(C):30s 0.3/um LmV(C):30s 0.3/um
			MPV=5.1 MLH=4.4 MLV=4.4
26.	e(P)	10 51 22	Near Islands/Aleutian 51.08 N 174.64 E
			H = 10 39 06.2 h = normal MAG=4.7 (USCGS)
			D = 78.7
26.	eP	11 02 47	Taiwan 22.68 N 121.50 E
	epP	02 50	H = 10 50 16.7 h = 24 km MAG=6.0
	ePcP	02 54	D = 84.5 Az = 323.0 (USCGS)
	eSKS	13 10	PV3:1.7s 325.0nm
	e	21 02	LmH:15.5s 145.0/um LmV:16s 207.0/um
	LmH	45.6	MPV3=6.3 MLH=7.5 MLV=7.6
	LmV	45.8	
26.	eP	13 50 39	Hokkaido, Japan 41.95 N 142.23 E
			H = 13 38 46.4 h = 72 km MAG=4.7
			D = 78.2 Az = 330.4 (USCGS)
26.	eSKS C	23 21 16	Jujuy Province, Argentinia 23.63 S 66.26 W
	eS C	22 10	H = 22 57 27.2 h = 204 km MAG=5.3 (USCGS)
			D = 100.6
27.	eP	05 33 08	West Caroline Islands 12.18 N 140.69 E
	epP	33 11.5	H = 05 19 00.5 h = 19 km MAG=5.5
	ePP	37 13.5	D = 103.3 Az = 329.5 (USCGS)
	ePS C	46 22	LmH(C):35s 2.9/um MLH=5.6
	ePPS C	47 12	
	eSS	52 00	
	LmH C	06 10.5	
27.	eP	11 08 36	West Caroline Islands 12.12 N 140.58 E
	ePP	12 55	H = 10 54 38.5 h = normal MAG=5.4
	e(SKS)	19 19	D = 103.3 Az = 329.4 (USCGS)

Day	Phase	h m s	Remarks
cont. 27.	ePS	11 22 04	SSPH:13.5s 1.1/um SSPV:13s 0.6/um
	ePPS	22 55	LmH:16s 1.6/um LmV:15.5s 1.8/um
	eSSP	27 44	MLH=5.7 MLV=5.7
	ePSS	27 48	
	LmH	11 58.9	
	LmV	58.8	
27.	eP	13 41 17.5	Aegean Sea 39.48 N 25.40 E
			H = 13 37 43.5 h = 30 km MAG=4.7
			D = 14.8 Az = 323.5 (USCGS)
			PV:1.5s 13.4nm
28.	eP	10 03 19	West Pakistan 30.28 N 67.61 E
	epP	03 20	H = 09 54 56.1 h = 25 km MAG=4.8
	esP	03 29	D = 46.0 Az = 312.8 (USCGS)
			PV:1.0s 19.0nm MPV=5.1
28.	iP	12 19 55	South of Honshu, Japan 32.91 N 137.69 E
	epP	21 13	H = 12 08 01.5 h = 349 km MAG=5.8
	ePP	23 14	D = 84.2 Az = 328.9 (USCGS)
	iSKS	29 40	h = 341 km
	esS C	32 10	PV:1.2s 46.0nm SKSH:9.5s 6.3/um
	eSS C	35 18	LmH:15s 2.9/um LmV:13s 3.3/um
	LmH	58.8	MPV=5.2 MSH=6.2
	LmV	13 01.5	e 29 32 e 32 00 (C) i 35 30 (C)
			e 37 42 (C) ei 42 00
29.	eP	05 21 47	Greece 38.08 N 20.20 E
			H = 05 18 26.7 h = 3 km MAG=4.3
			D = 14.0 Az = 336.8 (USCGS)
29.	ePKP	09 28 18.5	Fiji Islands 17.78 S 178.60 W
			H = 09 09 40.4 h = 544 km MAG=4.7
			D = 146.2 Az = 348.3 (USCGS)
29.	ei(PKP)	10 40 29	Solomon Islands 6.89 S 155.71 E
			H = 10 21 15.8 h = 80 km MAG=5.0
			D = 127.1 Az = 332.1 (USCGS)

Day	Phase	h m s	Remarks
29.	eP	11 50 21.5	Aegean Sea 39.5 N 26.0 E H = 11 46 42 h = 0 km MAG=4.5 D = 15.0 Az = 322 (ISC) PV:1.8s 40.8nm
29.	eP e	12 51 02 51 15	Aegean Sea 39.03 N 24.32 E H = 12 47 31.9 h = 18 km MAG=4.3 D = 14.7 Az = 326.4 (USCGS)
29.	eiP ePcP epP e	15 57 32.5 57 41 58 11 16 00 08	Kamchatka 52.80 N 157.48 E H = 15 46 18.2 h = 151 km MAG=5.4 D = 73.0 Az = 338.1 (USCGS) h = 162 km PV:1.4s 24.5nm PV3:1.4s 27.6nm MPV=4.7
29.	ePP LmH LmV	16 49 51 17 39.3 39	Celebes 2.88 S 119.61 E H = 16 31 34.4 h = 50 km MAG=5.4 (USCGS) D = 103.6 PPV:1.8s 51.1nm LmH:23.5s 2.0/um LmV:21s 1.6/um MPPV=5.8 MLH=5.6 MLV=5.5
29.	eP	17 20 49	Southern Nevada, Nuclear Explosion "Dorsal Fin" 37.18 N 116.21 W H = 17 08 30.0 D = 81.3 Az = 31 (USAEC) h = 25 km MAG=5.0 (ISC) PV:1.2s 10.2nm MPV=4.8
29.	ePKIKP	23 55 15 55 18 55 33	New Hebrides Islands 14.61 S 167.21 E H = 23 36 08.5 h = 183 km MAG=4.9 D = 139.0 Az = 336.4 (USCGS)

Day	Phase	h m s	Remarks
1.	eP epP	22 16 34 16 40	North Atlantic Ridge 14.67 N 45.00 W H = 22 06 43.8 h = normal MAG=4.6 D = 57.8 Az = 38.9 (USCGS)
1.	eP esP	23 10 16 10 22.5	North Atlantic Ridge 14.63 N 45.06 W H = 23 00 26.0 h = 32 km MAG=4.7 D = 57.8 Az = 38.9 (USCGS) PV:1.7s 26.3nm MPV=5.0
2.	eP epP LmH LmV	03 26(27) 26 29 04 01.9 00.4	Vancouver Island 49.22 N 129.14 W H = 03 14 44.5 h = normal MAG=5.1 D = 75.0 Az = 24.6 (USCGS) LmH:16s 1.5/um LmV:18s 1.1/um MLH=5.4 MLV=5.2
2.	e e	06 55 45 56 55	Yugoslavia 45.1 N 21.1 E H = 06 53 03 (BCIS) D = 8.4
2.	eP epP LmH LmV	16 28 20 28 24 55.0 01.4	Szechwan Province, China 29.94 N 100.16 E H = 16 17 29.0 h = 24 km MAG=5.1 D = 66.6 Az = 316.1 (USCGS) LmH:18.5s 2.6/um LmV:16s 1.5/um MLH=5.5
2.	iP epP iS iSS eiSSSS C LmH LmV	22 14 12 14 14.5 23 58 28 48 34 20 53.6 57.7	Chargos Archipelago 6.09 S 71.43 E H = 22 02 24.8 h = normal MAG=5.6 D = 76.3 Az = 325.5 (USCGS) PV2:1.2s 46.0nm SH:10s 1.5/um LmH:16s 1.2/um LmV:15s 1.1/um MPV2=5.5 MSH=6.0 MLH=5.3 MLV=5.3
3.	+ePKP e ePP	03 52 06 52 15.5 55 27	New Hebrides Islands 19.36 S 169.46 E H = 03 32 57.1 h = 211 km MAG=5.0 D = 144.2 Az = 335.8 (USCGS) PV:1.3s 27.8nm PPV:1.6s 19.0nm

Day	Phase	h m s	Remarks
3.	eP	09 39 43	West Pakistan 34.67 N 72.27 E
			H = 09 31 20.2 h = normal MAG=5.2
			D = 46.1 Az = 309.6 (USCGS)
			PV:1.2s 15.3nm MPV=4.9
3.	ePKP2	12 22 32	South of Fiji Islands 23.52 S 179.90 E
	epPKP2	24 30	H = 12 03 29.3 h = 556 km MAG=4.9
			D = 151.4 Az = 344.3 (USCGS)
			h = 516 km
3.	e	23 10 28	Northern Celebes 1.63 N 122.55 E
	ePP	14 25	H = 22 55 36.8 h = 435 km MAG=5.5 (USCGS)
	e	15 12	D = 111.9
	iSKS C	19 48	LmH:20s 3.1/um LmV:16s 1.9/um
	eSKKS C	21 18	MLH=5.9 MLV=5.8
	eiSP C	23 08	
	e C	27 00	
	eSS	29 20	
	LmH	55.3	
	LmV	00 01.9	
4.	eP	17 10 44	North of Ascension Island 1.25 S 15.70 W
			H = 17 01 00.1 h = 25 km MAG=4.6
			D = 56.7 Az = 20.5 (USCGS)
			PV:0.8s 9.4nm MPV=4.9
5.	+iP	00 33 56.5	Unimak Island 53.78 N 163.30 W
			H = 00 22 06.9 h = 2 km MAG=4.8
			D = 75.9 Az = 3.3 (USCGS)
			PV:1.1s 33.7nm MPV=5.4
5.	+iP	00 42 42.5	Unimak Island 53.83 N 163.30 W
	e	42 47.5	H = 00 30 57.4 h = normal MAG=4.9
	epP	42 52	D = 75.8 Az = 3.3 (USCGS)
	esP	42 56.5	PV:1.6s 90.9nm
	LmH	01 25.6	LmH:16s 0.9/um LmV:16s 0.9/um
	LmV	25.8	MPV=5.7 MLH=5.2 MLV=5.2

Day	Phase	h m s	Remarks
5.	ePKIKP	14 56 07.5	Tonga Islands 18.15 S 174.68 W
	iPKP2	56 09.5	H = 14 36 41.5 h = 137 km MAG=5.1
	e	56 16.5	D = 147.2 Az = 352.6 (USCGS)
			PV2:1.5s 80.5nm PV3:1.2s 51.0nm
5.	eP	18 30 09	Minando, Philippine Islands
	ePP	34 08	9.57 N 126.29 E
	eSKS C	40 53	H = 18 16 39.6 h = 61 km MAG=5.5
	eS C	41 35	D = 97.7 Az = 324.3 (USCGS)
	ePS C	43 12	PV:1.3s 16.7nm
	eSS C	48 25	LmH:17.5s 6.1/um LmV:17s 4.9/um
	LmH	19 20.8	MPV=5.6 MLH=6.2 MLV=6.1
	LmV	20.8	
5.	eP	18 51 35	Minando, Philippine Islands
			9.60 N 126.16 E
			H = 18 38 06.3 h = 60 km MAG=5.4
			D = 97.6 Az = 324.2 (USCGS)
			PV:1.0s 14.2nm MPV=5.7
5.	ePKIKP	21 40 21.5	Loyalty Islands 21.83 S 170.90 E
	ePKHKP	40 25.5	H = 21 20 49.8 h = 86 km MAG=5.3
	e	40 32	D = 147.0 Az = 335.6 (USCGS)
	epPKP	40 49	PV:1.4s 30.7nm
6.	eP	00 24 49.5	Honshu, Japan 36.17 N 139.80 E
	ePcP	24 56	H = 00 12 33.1 h = 53 km MAG=5.0
	epP	25 03	D = 82.3 Az = 329.7 (USCGS)
			PV:1.3s 13.9nm MPV=4.9
6.	eP	17 01 59	Sea of Okhotsk 48.35 N 146.31 E
			H = 16 51 10.8 h = 463 km MAG=4.8
			D = 74.0 Az = 331.9 (USCGS)
			PV:0.9s 9.4nm MPV=4.8
7.	ePg	00 23 24	Switzerland 46.39 N 7.48 E
	eSn	23 59	H = 00 21 43.5 h = 8.9 km
	eiSg	24 25	D = 5.1 Az = 31 (ISC)
			e 23 31 e 24 02.5 e 24 22

Day	Phase	h m s	Remarks
7.	eP	03 07 03	Near East Coast of Honshu, Japan
			35.61 N 139.95 E
			H = 02 54 43.4 h = 52 km MAG=4.6
			D = 82.8 Az = 329.8 (USCGS)
			PV:1.0s 9.5nm MPV=5.0
7.	eP	07 26 01	Jan Mayen Island 71.71 N 3.05 W
	eS	30 00	H = 07 21 06.5 h = 26 km MAG=4.6
			D = 22.2 Az = 154.7 (USCGS)
			PV:1.3s 25.0nm MPV=4.5
7.	+iP	07 26 14.5	Jan Mayen Island 71.51 N 4.02 W
	ePL	24 14.5	H = 07 21 17.7 h = 0 km MAG=5.1
	eS	30 14	D = 22.1 Az = 153 (ISC)
	LmH	36.7	PV:1.7s 219.0nm SH:11.5s 4.7/um
	LmV	36.8	LmH:14s 6.6/um LmV:14s 7.6/um
			MPV=5.3 MSH=5.8 MLH=5.2 MLV=5.4
7.	eP	07 32 36	Jan Mayen Island 71.60 N 3.54 W
	ei	32 41	H = 07 27 42.7 h = normal MAG=4.9
	e	35 28	D = 22.1 Az = 153.8 (USCGS)
			PV:1.4s 122.8nm MPV=5.1
7.	eP	13 10 12	Jan Mayen Island 71.59 N 3.22 W
			H = 13 05 13.1 h = normal MAG=4.4
			D = 22.1 Az = 154.3 (USCGS)
			PV:1.4s 30.7nm MPV=4.5
7.	ePKIKP	13 41 12	New Britain 5.87 S 151.10 E
	ePP	42 53	H = 13 22 16.6 h = 39 km MAG=5.6
	ePKS	44 49	D = 124.1 Az = 330.1 (USCGS)
	eScSP2	52 52	PV:2.0s 73.9nm PPV:10s 1.7/um
	ePS	52 56	LmH:20.5s 14.0/um LmV:21.5s 14.4/um
	eSPP	54 18	MPPV=6.5 MLH=6.6 MLV=6.6
	eSS	14 00 08	e 43 00 e 43 04
	LmH	35.0	
	LmV	35.1	

Day	Phase	h m s	Remarks
7.	eP	14 37 52	Crete 35.24 N 25.68 E
			H = 14 33 41.2 h = 89 km MAG=4.4
			D = 18.5 Az = 330.8 (USCGS)
8.	ePg	04 02 49	France 47.3 N 5.3 E
	e	02 52	H = 04 01 06 h = 15 km
	eSg	03 54	D = 5.3 Az = 49 (BCIS)
	ei	03 56	
8.	ePKP	12 08 26	New South Wales, Australia
			34.08 S 148.97 E
			H = 11 48 45.7 h = 6 km
			D = 145.0 Az = 311.3
			PV:14s 15.3nm
8.	e(P)	17 28 32.5	Ryukyu Islands 29.84 N 130.23 E
			H = 17 15 54.9 h = 23 km MAG=4.9
			D = 83.3 Az = 325.8 (USCGS)
9.	eP	00 58 00	Nicobar Islands 8.72 N 94.03 E
	ePcP	58 07	H = 00 46 00.9 h = normal MAG=5.0
	LmV	01 37.7	D = 78.5 Az = 319.9 (USCGS)
	LmH	42.7	PV2:1.3s 22.2nm
			LmH:15s 1.3/um LmV:18s 1.2/um
			MPV=5.0 MLH=5.4 MLV=5.3
9.	ePKP	03 38 16	Solomon Islands 5.56 S 154.01 E
	epPKP	38 39	H = 03 19 23.9 h = 86 km MAG=5.7 (USCGS)
	esPKP	38 52	D = 125.3 h = 85 km (pP) h = 96 km (sP)
9.	iPg	11 22 53.0	Czechoslowakia 50.58 N 14.05 E
	iSg	23 14	Explosion of 28.4 Tons (PRU)
			D = 1.55 Az = 273
9.	e(P)	15 06 06	Mascarene Islands 18.00 S 65.76 E
			H = 14 53 20.6 h = normal MAG=4.7
			D = 83.2 Az = 328.7 (USCGS)

Day	Phase	h m s	Remarks
9.	eP	20 09 04.5	North Atlantic Ridge 20.85 N 45.88 W H = 19 59 44.3 h = normal MAG=4.6 D = 53.6 Az = 41.8 (USCGS)
9.	+ePKP	22 55 07	Fiji Islands 21.71 S 178.85 W
	e	55 15	H = 22 36 20.2 h = 544 km MAG=4.5 D = 150.0 Az = 346.6 (USCGS) PV:1.1s 16.8nm
10.	eP	04 01 21	Andreanof Islands, Aleutian
	e	01 26	52.14 N 177.26 W
	ePcP	01 32	H = 03 49 25.0 h = 7 km MAG=5.4
	eS	11 12	D = 77.3 Az = 354.2 (USCGS)
	eLQ C	22.0	PV2:1.3s 27.8nm
	LmH	41.0	LmH:17s 1.6/um LmV:17s 1.9/um
	LmV	46.1	MPV=5.2 MLH=5.4 MLV=5.5 e 02 32
10.	eP	06 51 44	Aegean Sea 39.08 N 24.27 E
	e	52 55	H = 06 48 16.4 h = normal MAG=4.4
	e	53 16	D = 14.6 Az = 326.4 (USCGS)
	LmH	57	LmH:12.5s 1.7/um LmV:12s 1.0/um
	LmV	59.5	MLH=4.4 MLV=4.4
10.	eP	07 14 26	Aegean Sea 39.13 N 24.23 E
	e	14 33	H = 07 10 59.0 h = 0 km MAG=5.0
	e C	17 00	D = 14.6 Az = 326 (ISC)
	eS C	17 08	LmH:12s 16.6/um LmV:13s 9.3/um
	LmH	19.8	MLH=5.4 MLV=5.3
	LmV	22.4	
10.	ePKIKP	07 31 14	Off East Coast of North Island, N. Z.
	e	31 20	36.28 S 179.40 E
	ePKHKP	31 34	H = 07 11 22.1 h = 76 km MAG=5.7
	ePKP2	32 05	D = 163.2 Az = 332.3 (USCGS)
	e	32 30	

Day	Phase	h m s	Remarks
11.	iPKP	08 45 58.8	Tonga Islands 16.17 S 173.92 W
	esPKP	46 28	H = 08 26 32.8 h = 112 km MAG=6.0
	isPKP2	46 37.8	D = 145.3 Az = 353.8 (USCGS)
	ePP	49 16	PV1:2.4s 22.8nm (mod.Krumbach)
	ePPP	52 32	
	ePSPS C	09 09.5	
	eLQ	27.5	
	LmV	56	
11.	eP	17 36 24	Aegean Sea 39.50 N 25.56 E
	LmH C		H = 17 32 46.9 h = 0 km MAG=4.7
			D = 14.8 Az = 323 (ISC)
			LmH(C):14.5s 1.2/um MLH=4.2
11.	epP	18 37 32	Rat Islands, Aleutian 52.05 N 178.17 E
			H = 18 25 13.3 h = 121 km MAG=5.2
			D = 77.2
			PV:1.0s 11.9nm
12.	eP	09 43 59	Caribbean Sea 13.00 N 72.57 W
	ePcP	44 05	H = 09 32 07.4 h = 11 km MAG=5.3
			D = 76.4 Az = 40.7 (USCGS)
12.	ePKP	12 15 47	Samoa Region 17.00 S 172.90 W
			H = 11 56 08.6 h = 33 km MAG=4.2
			D = 146.2 Az = 355 (ISC)
			PV:2.0s 53.0nm
12.	ePKP	18 43 11	Fiji Islands 14.91 S 176.86 W
	esPKP	43 21.5	H = 18 23 34.1 h = normal MAG=5.3
	LmH	19 47.6	D = 143.7 Az = 350.9 (USCGS)
	LmV	47.9	e 43 26 e 43 29.5
12.	ePKP	19 18 18	South of Fiji Islands 24.32 S 179.01 E
	epPKP2	20 26	H = 18 59 18.0 h = 472 km MAG=4.5 (USCGS)
			D = 152 h = 564 km

Day	Phase	h m s	Remarks
12.	ePg	19 59 22	Northern Italy 44.0 N 12.0 E
	e	59 49	H = 19 57 46 (BCIS)
	eSg	20 00 48	D = 6.7 Az = 358 (ISC)
	e	01 18	
12.	LmH	22 38.8	New Britain Region 6.14 S 150.30 E
	LmV	38.7	H = 21 24 27.1 h = 47 km MAG=4.8 (USCGS)
			D = 123.8
			LmV:22s 0.7/um MLV=5.3
13.	eP	00 58 41	Turkey 39.48 N 40.4 E
			H = 00 53 42 h = 71 km
			D = 23.0 Az = 308 (ISC)
13.	ePKIKP	20 44 16.5	Fiji Islands 20.45 S 178.06 W
	ePKHKP	44 21.5	H = 20 25 32.1 h = 520 km MAG=5.0
	ePKP2	44 27.5	D = 148.9 Az = 348.0 (USCGS) h = 525 km
	epPKP	46 24	PV:1.4s 24.6nm
13.	eP	22 45 54	Central Kasakh SSR 42.38 N 66.47 E
	epP	45 58	H = 22 38 38.9 h = normal MAG=5.2
	ePP	47 27	D = 37.9 Az = 302.0 (USCGS)
	ePcP	48 09	PV:1.1s 16.8nm PPV:1.1s 14.4nm
	LmV	23 03.3	PcPV:1.1s 9.6nm
	LmH	03.5	MPV=4.7 MPPV=4.8
			e 45 54 e 49 19 e 55 07.5 e 55 14.5
14.	-iP	02 15 52.2	Central Kasakh SSR 42.35 N 66.50 E
	epP	15 55.5	H = 02 08 36.6 h = normal MAG=5.4
	ePP	17 13.5	D = 37.9 Az = 302.0 (USCGS)
	ePcP	18 03.5	PV:1.4s 42.9nm pPV:1.5s 60.4nm
	LmV	33.3	LmH:11.5s 1.4/um LmV:12.5s 1.7/um
	LmH	33.5	MPV=5.0 MLH=5.0 MLV=5.1
			e 17 21 e 19 36 e 19 45.5

Day	Phase	h m s	Remarks
14.	ePKP2	19 05 33	Kermadec Islands 27.87 S 176.76 W
	LmH	20 15.5	H = 18 45 11.6 h = 30 km MAG=5.2
			D = 156.4 Az = 346.6 (USCGS)
			PV:1.4s 15.3nm LmH:22s 0.4/um
			MLH=5.1
15.	-iP	07 31 38	Kurile Islands 44.4 N 149.0 E
			H = 07 19 39.6 h = 53 km MAG=4.5 (USCGS)
			D = 78.44 Az = 334 (ISC)
			PV:1.4s 36.8nm MPV=5.3
15.	ePKP	09 54 45	Loyalty Islands 21.25 S 169.53 E
			H = 09 35 10.5 h = 50 km MAG=4.8
			D = 145.9 Az = 334.7 (USCGS)
			PV:1.1s 12.0nm
15.	eP	22 58 48	Yugoslavia 43.79 N 20.51 E
	i	59 35	H = 22 56 34.6 h = normal MAG=4.2
	e	23 00 26	D = 9.1 Az = 321.7 (USCGS)
	i	01 06	
	e	01 52	
17.	ePP	20 32 49	North of Halmahera 3.37 N 128.07 E
			H = 20 14 32.8 h = 62 km MAG=5.7 (USCGS)
			D = 103.8
18.	ePKHKP	07 41 57.5	South of Fiji Islands 23.25 S 179.83 W
	ePKP2	42 08	H = 07 23 02.6 h = 522 km MAG=5.0
	e(pPKIKP)	44 06.5	D = 151.2 Az = 344.8 (USCGS)
	ipPKHKP	44 16.5	h = 595 km (pPKHKP)
	e	44 24	(pPKIKP)V:1.5s 20.1nm pPKHKPV:1.6s 60.6nm
			pPKP2V:2.0s 86.0nm
19.	ePKP	01 55 29.5	Tonga Islands 17.40 S 172.80 W
	ei	55 33	H = 01 35 49.2 h = normal MAG=5.2
	e	59 03	D = 146.6 Az = 354.9 (USCGS)
	LmV	03 10.4	PV1:1.1s 19.2nm PV2:2.0s 159.0nm
	LmH	11.5	LmH:16s 1.2/um LmV:16s 1.5/um
			MLH=5.7

Day	Phase	h m s	Remarks
19.	ePKIKP	19 37 39.5	South of Fiji Islands 26.42 S 177.42 W
	e	38 02.5	H = 19 17 46.8 h = 23 km MAG=5.1 (USCGS)
	e	38 20	D = 154.9
	e	38 38	
20.	eP	04 23 23.5	Ryukyu Islands 27.61 N 129.79 E
	e	23 26	H = 04 10 48.9 h = normal MAG=4.8
	LmH	58.3	D = 84.9 Az = 325.7 (USCGS)
	LmV	05 06.5	PV:1.2s 10.2nm MPV=4.9
20.	eP	08 02 47	Kirgiz-Sinkiang Border Region 40.95 N 75.05 E
	LmH	22.5	H = 07 54 40.4 h = 60 km MAG=4.6
	LmV	22.5	D = 44.0 Az = 305.0 (USCGS)
			PV:1.2s 12.8nm
			LmH:11s 2.6/um LmV:13.5s 3.0/um
			MPV=4.5 MLH=5.4 MLV=5.5
20.	eP	12 25 01.5	Rat Islands, Aleutian 51.45 N 177.65 E
			H = 12 13 08.4 h = 45 km MAG=5.1
			D = 77.6 Az = 350.9 (USCGS)
20.	ePKP	13 13 36.5	Tonga Islands 15.14 S 173.40 W
			H = 12 53 59.8 h = normal MAG=4.8
			D = 144.4 Az = 354.5 (USCGS)
			PV:1.5s 13.4nm
21.	eP	16 12 58	Aegean Sea 39.71 N 25.59 E
	e	14 43.5	H = 16 09 22.1 h = 19 km MAG=4.3
	LmH	17.8	D = 14.7 Az = 322.7 (USCGS)
	LmV	18.7	LmH:16s 1.6/um LmV:12s 1.0/um
			MLH=4.3 MLV=4.4
22.	ePP	09 33 32.5	Mariana Islands 13.13 N 145.54 E
	LmH	10 21.3	H = 09 15 12.3 h = 50 km MAG=5.4
	LmV	21.8	D = 104.8
			LmH:18s 0.9/um LmV:17.5s 1.5/um
			MLH=5.4 MLV=5.6

Day	Phase	h m s	Remarks
22.	iP	15 12 17	Southern Nevada, Nuclear Explosion "STINGER"
	ePP	15 21.5	37°19'57"N 116°18'38"W
			H = 15 00 00.0
			D = 81.16 Az = 31 (USAEC)
			MAG=5.6 h = 22 km (ISC)
			PV:1.4s 49.1nm MPV=5.4
22.	eP	20 47 06.5	Off East Coast of Honshu, Japan
	i	47 13.5	37.39 N 142.40 E
	e	47 23	H = 20 34 45.3 h = 18 km MAG=5.3
	eS	57 25	D = 82.2 Az = 330.9 (USCGS)
	LmH	21 28.1	PV:2.0s 86.0nm
	LmV	28.4	LmH:14s 1.6/um LmV:14.5s 1.9/um
			MPV=5.5 MLH=5.5 MLV=5.6
23.	eP	17 20 20.5	Aegean Sea 39.78 N 25.64 E
	e	20 22	H = 17 16 35.8 h = 0 km MAG=4.6
			D = 14.66 Az = 322 (ISC)
			PV2:1.5s 13.4nm
23.	eP	17 29 19	Aegean Sea 39.77 N 25.49 E
	e	29 28	H = 17 25 53.2 h = normal MAG=4.6
	LmH	34.3	D = 14.6 Az = 322.7 (USCGS)
	LmV	35.9	LmH:15.5s 11.3/um LmV:12.5s 6.6/um
			MLH=5.1 MLV=5.2
24.	eP	07 22 53	Central Mid-Atlantic Ridge
	eS	31 10	1.25 S 24.20 W
	e	31 15	H = 07 12 47.4 h = normal MAG=5.4
	LmH	47.0	D = 60.0 Az = 25.5 (USCGS)
	LmV	48.5	LmV:1.8s 1.6/um MLV=5.3
24.	eP	16 11 12	Kyushu, Japan 32.11 N 130.60 E
	LmH	50.2	H = 15 58 49.0 h = 4 km MAG=4.9
	LmV	52.2	D = 81.6 Az = 325.7 (USCGS)
			LmH:14s 3.5/um LmV:14s 3.0/um
			MLH=5.9 MLV:5.8

Day	Phase	h m s	Remarks
24.	LmH	18 03.6	Nicaragua 12.48 N 86.45 W
	LmV	03.9	H = 17 13 20.0 h = 79 km MAG=5.1 (USCGS)
			D = 85.5
			LmH:17s 0.7/um LmV:18s 1.2/um
			MLH=5.1 MLV=5.4
25.	+eiPKP	03 16 12.5	Loyalty Islands 20.04 S 168.88 E
	e	16 34	H = 02 56 37.1 h = 21 km MAG=5.0
			D = 144.6 Az = 334.9 (USCGS)
			PV:1.2s 63.7nm
26.	eP	00 55 06	Bali Sea 6.58 S 116.09 E
	epP	57 05.5	H = 00 41 56.9 h = 520 km MAG=5.9
	ePP	59 24.5	D = 104.2 Az = 320.5 (USCGS)
	epPP	01 01 20	PV:1.8s 25.5nm MPV=5.7
	eSP C	07 54	e 57 10.5 e 58 14 ei 01 37 e 11 12.5
	iPKKP	10 51.5	e(C) 24 00 e 24 37
	esSP C	11 28	
	eSS C	13 40	
	esSS C	16 48	
	LmH	36	
	LmV	46.7	
26.	eP	04 49 22.5	Southern Iran 29.64 N 51.44 E
			H = 04 42 19.6 h = normal MAG=4.9
			D = 36.4 Az = 316.6 (USCGS)
26.	eP	10 54 34	South of Honshu, Japan 32.58 N 141.63 E
	epP	54 46	H = 10 41 56.6 h = 46 km MAG=4.7
	LmH	11 39.8	D = 86.1 Az = 330.7 (USCGS) h = 44 km
			PV:1.2s 17.9nm LmH:16s 0.3/um
			MPV=5.1 MLH=4.8
26.	ePKHKP	14 53 35.5	Fiji Islands 20.55 S 178.68 W
	ePKP2	53 42	H = 14 34 53.7 h = 603 km MAG=4.5
			D = 148.9 Az = 347.3 (USCGS)
			PV:1.2s 20.4nm

Day	Phase	h m s	Remarks
26.	eP	19 42 47	Jordan-Syria 34.19 N 35.53 E
			H = 19 37 33.7 h = normal MAG=4.9
			D = 24.0 Az = 320.6 (USCGS)
			PV:1.3s 80.5nm MPV=5.4
26.	eP	19 54 15	Mindanao, Philippine Islands
	epP	54 36	8.10 N 126.27 E
	e	54 43	H = 19 40 42.1 h = 83 km MAG=5.4
	LmH	20 34.8	D = 98.9 Az = 324.1 (USCGS) h = 81 km
	LmV	45.3	PV:1.3s 30.6nm LmH:21s 0.9/um
			MPV=5.8 MLH=5.1
27.	eP	19 05 26.5	Eastern Sea of Japan 40.88 N 137.97 E
	LmH	41.0	H = 18 53 31.5 h = 27 km MAG=5.4
			D = 77.5 Az = 328.3 (USCGS)
			PV:1.2s 15.3nm LmH:14s 0.5/um
			MPV=5.0 MLH=5.0
27.	ePP	22 56 07	West New Guinea Region 4.29 S 133.32 E
	e	56 14	H = 22 36 43.3 h = normal MAG=5.5 (USCGS)
	ePS C	23 05 43	D = 113
	eSS C	12 00	LmH:18s 3.5/um LmV:17s 2.2/um
	LmH	40.2	MLH=6.0 MLV=5.8
	LmV	46.4	
28.	eP	01 20 11	Mexico-Guatemala Border Region
	epP	20 40	15.07 N 92.07 W
	esP	20 54	H = 01 07 37.6 h = 111 km MAG=5.2
	eSKKS C	30 30	D = 86.9 Az = 38.3 (USCGS)
	eS C	30 35	PV:1.8s 34.0nm LmH:43.5s 1.8/um
	LmH	50.3	MPV:5.0
28.	eP	07 43 23	Ionian Sea 37.90 N 20.88 E
	i	43 32	H = 07 39 57.1 h = 6 km MAG=5.4
	ei	46 22	D = 14.4 Az = 335.6 (USCGS)
	LmH	48.7	LmH:15.5s 33.5/um LmV:14s 24.3/um
	LmV	50.2	MLH=5.5
			i 46 45 ei 47 08

Day	Phase	h m s	Remarks
28.	eP	16 40 47.5	Greece-Albania Border Region 39.57 N 20.43 E
	i	40 50	H = 16 37 46.8 h = 18 km MAG=4.8
	i	40 54	D = 12.8 Az = 333.7 (USCGS)
	i	44 49	LmH:8.0s 8.6/um LmV:10s 4.0/um
	LmH	45.4	MLH=5.2
	LmV	46.9	
29.	eP	06 31 21.5	Yugoslavia 43.54 N 20.85 E
	e(S)	33 03.5	H = 06 29 05 h = 17 km
	e	33 41	D = 9.5 Az = 322 (ISC)
29.	eP	14 42 15	Off East Coast of Honshu, Japan
			40.28 N 144.72 E
			H = 14 30 05.1 h = 41 km MAG=4.8
			D = 80.6 Az = 331.9 (USCGS)
			PV:1.2s 15.3nm MPV=4.9
29.	LmH C	19 52.7	Near South Coast of Southern Honshu
			34.08 N 135.10 E
			H = 19 04 30.6 h = 6 km MAG=4.7 (USCGS)
			D = 80.3
			LmH(C):13s 0.4/um MLH(C)=4.9
30.	ePKP	03 16 17	Fiji Islands 18.02 S 178.18 W
			H = 02 57 44.0 h = 620 km MAG=4.2
			D = 146.5 Az = 348.7 (USCGS)
30.	eP	11 28 26	Dodecanese Islands 36.7 N 27.7 E
			H = 11 24 18 h = 64 km (ISC)
			D = 18.2
30.	ePKHKP	19 38 33.5	Tonga Islands 21.15 S 174.22 W
			H = 19 18 47.5 h = 70 km MAG=4.6
			D = 150.2 Az = 352.5 (USCGS)
31.	eP	03 28 28	Andaman Islands 12.9 N 94.0 E
			H = 03 16 37 h = 33 km MAG=5.0
			D = 75.33 Az = 319 (ISC)

Day	Phase	h m s	Remarks
31.	iP	08 32 54	Samar, Philippine Islands
			11.37 N 125.28 E
			H = 08 19 35.6 h = 71 km MAG=5.3
			D = 95.7 Az = 324.1 (USCGS)
			PV:1.2s 15.9nm (mod.Krumbach) MPV=5.5
31.	iP	17 45 27	Southern Alaska 59.60 N 153.26 W
			H = 17 34 25.8 h = 79 km MAG=4.5
			D = 69.4 Az = 10.2 (USCGS)
			PV:1.0s 13.0nm (mod.Krumbach) MPV=5.0

Day	Phase	h m s	Remarks
1.	+iP	00 54 22	Shikoku, Japan 32.50 N 132.21 E
	+i	54 26	H = 00 42 04.2 h = 33 km MAG=6.1
	+i	54 30	D = 82.0 Az = 326.4 (USCGS)
	ePP	57 35.5	PV3:2.6s 4430.0nm
	ePPPP	01 01 00	LmH:14.6s 1560/um (Wiechert)
	iScS	04 48	MPV=7.1 (MLH=8.5)
	eSS	10 12	i 05 25 e 10 28
	ePKPPKP	21 14	
	LmV	35.5	
	LmH	36.0	
1.	+iP	07 25 36.8	Shikoku, Japan 32.28 N 132.12 E
	ePcP	25 38	H = 07 13 17.6 h = 32 km MAG=5.7
	ePP	28 48	D = 82.2 Az = 326.4 (USCGS)
	eSKS	35 50	PV:2.8s 1035.0nm
	iSPP	37 00	LmH:13s 54.6/um LmV:16s 69.5/um
	eSS	41 05	MPV=6.5 MLH=7.1 MLV=7.2
	LmH	08 06.6	
	LmV	07.0	
1.	eP	11 43 01	Crete 34.26 N 26.26 E
	e	46 07	H = 11 38 32.4 h = 33 km MAG=4.5
	e	46 34.5	D = 19.6 Az = 331.3 (USCGS)
1.	eP	16 34 36.5	Ryukyu Islands 26.94 N 126.95 E
			H = 16 22 06.9 h = normal MAG=5.0
			D = 84.0 Az = 324.6 (USCGS)
			PV:2.0s 59.3nm (mod.Krumb.) MPV=5.5
3.	eP	16 36 36.5	Near Islands, Aleutian 51.73 N 174.22 E
	ePcP	36 46	H = 16 24 45.7 h = 38 km MAG=5.3
	ePS	47 08	D = 76.9 Az = 348.7 (USCGS)
	LmH	17 18.2	PV:1.2s 35.7nm
	LmV	22.0	LmH:15s 1.2/um LmV:14s 1.2/um
			MPV=5.3 MLH=5.3 MLV=5.4

Day	Phase	h m s	Remarks
4.	eP	01 53 11.5	West Pakistan 24.61 N 66.02 E
	epP	53 23	H = 01 44 26.4 h = normal MAG=5.0
	e	53 45	D = 49.0 Az = 316.7 (USCGS)
	LmH C	02 19.0	LmH(C):18s 1.5/um LmV:13s 0.7/um
	LmV	22.7	MLH=5.0 MLV=4.9
5.	eP	11 52 13.5	Central Alaska 64.17 N 148.91 W
			H = 11 41 49.0 h = 128 km MAG=4.1
			D = 64.5 Az = 13.6 (USCGS)
			PV:0.6s 11.9nm MPV=5.3
5.	LmH	16 03.0	Aegean Sea 39.67 N 25.54 E
	LmV	03.8	H = 15 54 32.2 h = 18 km MAG=4.5 (USCGS)
			D = 14.7
			LmH:15s 1.6/um LmV:13s 0.8/um
			MLH=4.3 MLV=4.2
5.	eP	17 04 43	Kurile Islands 47.00 N 154.11 E
			H = 16 52 51.1 h = 50 km MAG=4.2
			D = 77.5 Az = 336.6 (USCGS)
			PV:1.0s 19.0nm MPV=5.2
5.	ePKHKP	18 09 39	Fiji Islands 20.30 S 178.18 W
			H = 17 50 51.3 h = 540 km MAG=4.2
			D = 148.7 Az = 347.9 (USCGS)
5.	eP	19 42 47	Kodiak Islands 56.84 N 151.45 W
	isP	42 56	H = 19 31 22.7 h = 14 km MAG=4.9
	eiPcP	43 04.5	D = 72.0 Az = 11.2 (USCGS)
			PV:1.2s 12.8nm MPV=4.9
6.	ePKP	17 16 23.5	Tonga Islands 16.19 S 173.84 W
	ePKP2	16 28.5	H = 16 56 55.0 h = 96 km MAG=4.4
			D = 145.4 Az = 359.9 (USCGS)
			PV:1.4s 15.3nm
6.	eP	22 59 59	Rat Islands, Aleutian 51.44 N 176.62 E
	ePcP	23 00 05	H = 22 48 06.6 h = 43 km MAG=4.7

Day	Phase	h m s	Remarks
cont.			
6.	epP	23 00 09.5	D = 77.5 Az = 350.3 (USCGS)
	esP	00 18	PV:1.0s 11.8nm MPV=5.0
7.	ePKP	01 51 34	Fiji Islands 16.91 S 177.20 W
	LmH C	02 45.0	H = 01 31 57.0 h = normal MAG=5.0
	LmV C	45.0	D = 145.6 Az = 350.1 (USCGS)
			LmH(C):32s 0.3/um LmV(C):32s 0.3/um
			MLH=4.8
7.	eP	02 59 53	Near East Coast of Honshu, Japan
	LmH	03 51.5	38.48 N 141.79 E
	LmV	52.3	H = 02 47 40.2 h = 33 km MAG=4.6
			D = 81.1 Az = 330.5 (USCGS)
			LmH:12s 1.0/um LmV:12s 0.7/um
			MLH=5.4 MLV=5.3
7.	eP	04 52 12.5	Rat Islands, Aleutian 51.52 N 176.52 E
	ePcP	52 17.5	H = 04 40 19.3 h = normal MAG=5.3
	epP	52 27	D = 77.4 Az = 350.2 (USCGS)
	ePP	55 08	PV:1.6s 60.5nm MPV=5.5
7.	-eiP	05 22 43.5	North of Svalbard 81.46 N 3.90 W
	epP	22 52	H = 05 16 24.9 h = normal MAG=5.3
	esP	22 57	D = 31.3 Az = 160.9 (USCGS)
	ePcP	25 37	PV:1.3s 111.0nm
	LmV	33.9	LmH:16s 1.8/um LmV:17s 2.0/um
	LmH	37.0	MPV=5.6 MLH=4.8 MLV=4.9
7.	e	19 17(34)	France 46.2 N 1.3 E
	eSg	17 43	H = 19 13 23 (BCIS)
	e	17 47	D = 8.2
8.	ePKP	02 33 24	South of Fiji Islands 23.52 S 179.83 E
	ePKHKP	33 27	H = 02 14 34.0 h = 550 km MAG=4.7
	ePKP2	33 37	D = 151.4 Az = 344.2 (USCGS)

Day	Phase	h m s	Remarks
8.	eP	08 31 22	Albania 41.49 N 20.26 E
			H = 08 28 40.7 h = 0 km MAG=4.2
			D = 10.95 Az = 330 (ISC)
8.	LmH	09 07.5	Aegean Sea 39.49 N 25.77 E
			H = 08 59 10.5 h = normal MAG=4.3 (USCGS)
			D = 14.9
			LmH:16s 0.3/um MLH=3.5
8.	ePKP	10 54 40	Tonga Islands 17.47 S 173.14 W
	esPKP	54 47	H = 10 34 56.8 h = normal MAG=4.2
			D = 146.7 Az = 354.5 (USCGS)
9.	ePKP	01 22 01	New Hebrides Islands 19.28 S 169.38 E
			H = 01 02 43.6 h = 144 km MAG=4.5
			D = 144.07 Az = 335.8 (USCGS)
9.	+eP	02 41 34.5	Southern California 33.15 N 116.13 W
	+ipP	41 37	H = 02 28 58.9 h = 20 km MAG=6.1
	ePcP	41 38	D = 84.7 Az = 30.4 (USCGS)
	iP max	41 38.5	PV:1.5s 60.4nm PV max:2.5s 1260.0nm
	ePP	44 54	SH:14.5s 16.5/um
	eiS	52 05	LmH:15.5s 133.0/um LmV:15.5s 153.0/um
	iScS	52 13	MPV=5.5 MPV max=6.6 MSH=6.9 MLH=7.4
	eSS	57 25	MLV=7.5
	LmH	20.9	
	LmV	21.1	
9.	eP	03 16 31	Southern California 33.23 N 116.04 W
	ePcP	16 33	H = 03 03 55.4 h = 15 km MAG=5.1
	e	16 36	D = 84.6 Az = 30.4 (USCGS)
			PV2:1.7s 21.9nm MPV=5.1
9.	-ePKIKP	11 46 06.5	Fiji Islands 17.83 S 178.22 W
	-eiPKHKP	46 09.8	H = 11 27 39.0 h = 650 km MAG=5.2
	e	46 22	D = 146.3 Az = 348.7 (USCGS)
			PV1:1.3s 38.9nm PV2:1.3s 122.0nm
9.	e(Pg)	19 09 40	Northern Italy 44.7 N 10.4 E
	e(Sg)	10 59	H = 19 07 46 (BCIS)
			D = 6.0

Day	Phase	h m s	Remarks
10.	ePKHKP	18 51 49	Loyalty Islands 22.63 S 171.48 E
	iPKP2	50 50	H = 18 32 09.6 h = 60 km MAG=5.1
	eSKSP C	19 05 33	D = 147.9 Az = 335.6 (USCGS)
	e C	20 39	PV2:0.8s 18.9nm
	LmH C	40.5	LmH(C):38s 0.6/um LmV:30s 0.4/um
	LmV C	47	MLH=5.0
11.	eP	06 57 07	E. Russia - N.E. China Border Region
			42.49 N 130.96 E
			H = 06 46 27.4 h = 511 km MAG=5.0
			D = 73.2 Az = 324.4 (USCGS)
			PV:0.8s 7.1nm MPV=4.9
11.	ePg	17 22 31	Switzerland 47.0 N 9.6 E
	e(Sg)	23 17	H = 17 21 17 h = 0 km
	i	23 22.5	D = 3.91 Az = 19 (ISC)
12.	ePKHKP	09 35 41	Fiji Islands 18.14 S 178.10 W
	ePKP2	35 43	H = 06 16 51.9 h = 471 km MAG=4.2
			D = 146.7 Az = 348.7 (USCGS)
			PV1:0.9s 18.9nm PV2:0.8s 23.6nm
12.	ePKIKP	16 54 30	Fiji Islands 20.32 S 177.87 W
	ePKHKP	54 34	H = 16 35 38.3 h = 459 km MAG=4.6
	ePKP2	54 40	D = 148.8 Az = 348.3 (USCGS)
			PV:0.6s 33.4nm
12.	ePKP	18 38 26	Fiji Islands 19.79 S 175.95 W
			H = 18 18 56.7 h = 168 km MAG=4.2
			D = 148.6 Az = 350.7 (USCGS)
13.	eP	00 51 11	Southern Sinkiang Province, China
			35.8 N 82.2 E
			H = 00 42 05 (AN USSR)
			D = 51.6
13.	eP	01 26 30	Puerto Rico 19.01 N 66.85 W
	eS	35 31	H = 01 15 32.3 h = 51 km MAG=5.1
	ePPS C	36 10	D = 68.3 Az = 42.2 (USCGS)

Day	Phase	h m s	Remarks
cont.			
13.	eSS	01 40 00	LmH:20s 1.3/um LmV:20s 1.3/um
	LmH	52.5	MLH=5.2 MLV=5.2
	LmV	52.5	
13.	eP	18 42 06	Mindanao, Philippine Islands
			7.28 N 126.63 E
			H = 18 28 34.4 h = 123 km MAG=5.0
			D = 99.8 Az = 324.2 (USCGS)
			PV:1.4s 12.3nm MPV=5.3
14.	+iP	08 49 46.7	Off East Coast of Honshu, Japan
	ePP	52 58	33.39 N 141.40 E
	eS C	09 00 15	H = 08 37 12.2 h = 44 km MAG=5.4
	LmH	25.2	D = 85.3 Az = 330.6 (USCGS)
	LmV	30.4	PV:1.3s 38.9nm SH(C):12.5 0.7/um
			LmH:18s 1.3/um LmV:17s 1.2/um
			MPV=5.5 MSH(C)=5.6 MLH=5.4 MLV=5.4
14.	eP	13 17 42	Off East Coast of Honshu, Japan
	eiPcP	17 46	33.43 N 141.42 E
	eiSP	17 53.5	H = 13 05 08.0 h = 41 km MAG=5.4
	ePP	21 03.5	D = 85.3 Az = 330.6 (USCGS)
	eSKKS C	28 05	PV:2.0s 72.9nm SH(C):15s 0.9/um
	LmH	53.3	LmH:18.5s 1.6/um LmV:15s 2.2/um
	LmV	14 03.6	MPV=5.6 MSH=5.7 MLH=5.4 MLV=5.7
			e 20 53 e 21 13
14.	eP	14 36 56	Northern Columbia 6.82 N 73.01 W
	esP	37 56	H = 14 24 55.3 h = 161 km MAG=5.0
			D = 81.4 Az = 39.9 (USCGS)
14.	ePKIKP	15 05 52.3	Fiji Islands 17.53 S 178.77 W
	eiPKP2	05 54	H = 14 47 14.9 h = 550 km MAG=4.6
	e	06 07.5	D = 145.9 Az = 348.2 (USCGS)
	e	06 22	PV2:1.3s 27.8nm

Day	Phase	h m s	Remarks
15.	e(SKKS) C	08 12 00	Near Coast of Northern Peru
	eS C	12 28	5.77 S 80.95 W
	eSS C	18 50	H = 07 47 40.3 h = 35 km MAG=4.9 (USCGS)
	LmH C	29.0	D = 96.2
	LmV	50.4	LmH(C):72s 1.0/um LmV:18s 0.5/um
			MLH(C)=4.7 MLV=5.1
15.	eP	17 36 35	Near East Coast of Kamchatka
			53.47 N 159.71 E
			H = 17 25 07.8 h = normal MAG=4.7
			D = 72.8 Az = 339.4 (USCGS)
16.	+eP	14 10 13	Chagos Archipelago Region 5.06 S 68.40 E
			H = 13 58 40.3 h = normal MAG=5.2
			D = 73.7 Az = 362.3 (USCGS)
			PV:1.4s 15.3nm MPV=4.8
17.	eP	09 16 27	Straits of Gibraltar 35.24 N 3.73 W
	e	16 36.5	H = 09 12 04.3 h = 16 km MAG=5.0
	e	16 59	D = 19.0 Az = 31.2 (USCGS)
	eS C	19 55	PV:1.4s 30.7nm
	e	20 08	LmH:12.5s 2.8/um LmV:12s 2.2/um
	LmH	23.1	MPV=4.3 MLH=4.8 MLV=4.8
	LmV	24.6	
17.	eP	09 58 44	Afghanistan - USSR Border Region
			36.26 N 71.44 E
			H = 09 50 39.1 h = 94 km MAG=4.8
			D = 44.5 Az = 308.3 (USCGS)
17.	eP	12 02 50	Chagos Archipelago Region 5.12 S 68.39 E
			H = 11 51 17.76 h = normal MAG=5.0
			D = 73.79 Az = 326.3 (USCGS)
			PV:0.8s 9.4nm MPV=4.9
17.	-iP	13 19 28.3	Afghanistan - USSR Border Region
	e	22 03.5	36.38 N 71.46 E
			H = 13 11 26.2 h = 113 km MAG=5.2
			D = 44.5 Az = 308.2 (USCGS)
			PV:1.0s 38.0nm MPV=5.3

Day	Phase	h m s	Remarks
18.	eP	03 10 40.5	Albania 41.27 N 20.33 E
	e	10 45	H = 03 08 02.8 h = normal MAG=4.4
	LmH C	14.4	D = 11.2 Az = 330.1 (USCGS)
	LmV C	15.4	LmH(C):15.5s 0.9/um MLH(C)=3.8
18.	ePKHKP	04 53(55)	South of Fiji Islands 25.75 S 179.53 W
	ePKP2	54 10	H = 04 34 40.6 h = 379 km MAG=4.7
			D = 153.7 Az = 343.9 (USCGS)
18.	-ePKHKP	10 18 27	South of Fiji Islands 25.55 S 177.94 W
	ePKP2	18 40.5	H = 09 58 53.3 h = 230 km MAG=5.1
	epPKHKP	19 28	D = 153.9 Az = 346.1 (USCGS)
			PV1:1.1s 9.6nm PV2:1.1s 12.0nm
18.	ePn	19 40 00	Northern Italy 44.16 N 8.31 E
	ePg	40 32	H = 19 38 15.4 h = 7 km MAG=4.1
	eiSn	41 15	D = 6.9 Az = 17.9 (USCGS)
	eiSg	41 59	LmH:10.5s 1.4/um LmV:13s 0.7/um
	LmH	42.5	MLH=3.8
	LmV	43.4	
19.	ePP	09 21 36	South Atlantik Ridge 42.57 S 16.04 W
	eS	29 20	H = 09 04 27.3 h = normal MAG=5.6 (USCGS)
	ePS	30 30	D = 95.8
	eSS C	35 40	LmH:20s 1.2/um LmV:18s 0.9/um
	LmV	58.7	MLH=5.4 MLV=5.3
	LmH	59	
19.	eP	12 29 56	Azores Islands 38.22 N 26.63 W
	LmH	40.5	H = 12 33 51.5 h = normal MAG=4.6
	LmV	40.5	D = 29.7 Az = 52.8
			LmH:20s 0.4/um LmV:18s 0.4/um
			MLH=4.0 MLV=4.2
20.	eP	09 50 12.5	Azores Islands 38.29 N 26.61 W
			H = 09 44 08.6 h = normal MAG=4.9
			D = 29.6 Az = 52.9 (USCGS)
			PV:1.8s 35.8nm MPV=4.9

Day	Phase	h m s	Remarks
20.	ePg	10 05 22	Explosion Böhmischbruck/GFR
	e	05 38	49°34'11+ N 12°21'36 E
	eSg	05 39	H = 10 05 00.41 yield ca. 6 t
			D = 1.3
20.	eP	10 24 06.5	Azores Islands 38.27 N 26.61 W
	ePP	24 55	H = 10 18 01.1 h = normal MAG=5.1
	eS	29 00	D = 29.6 Az = 52.9 (USCGS)
	esS	29 06	SH:11.5s 0.8/um MSH=5.1
	LmH	35.4	LmH:15.8s 5.1/um LmV:16.8s 6.7/um
	LmV	35.4	MLH=5.2 MLV=5.5
20.	-iPKP	12 44 43.5	Samoa Islands 15.68 S 172.64 W
	e	44 45.5	H = 12 25 10.1 h = 30 km MAG=5.7
	iPKP2	44 46	D = 145.0 Az = 355.3 (USCGS)
	ePP C	48 00	PV1:0.9s 28.3nm PV2:1.2s 89.2nm
	ePPP C	51 28	LmH:23.8s 4.3/um LmV:21s 3.4/um
	eSKKS C	54 54	MLH=6.1 MLV=6.1
	eSKSP C	58 12	
	eSS C	13 07 00	
	eSSS C	12 25	
	LmH	43.2	
	LmV	45.2	
20.	eP	14 05 33.5	Tanganyika 7.72 S 38.75 E
	ePcP	06 15	H = 13 55 09.45 h = normal MAG=4.5
			D = 62.71 Az = 340.9 (USCGS)
20.	eP	20 02 02	South Atlantic Ridge 19.88 S 11.84 W
			H = 19 50 30.9 h = normal MAG=4.9
			D = 73.2 Az = 15.4 (USCGS)
20.	ePKHKP	23 00 04	Fiji Islands 19.55 S 177.63 W
			H = 22 41 18.49 h = 536 km MAG=4.2
			D = 148.12 Az = 348.8 (USCGS)
			PV:1.6s 11.4nm

Day	Phase	h m s	Remarks
21.	ePKP2	06 30 50	Kermadec Islands 31.64 S 177.67 W
			H = 06 10 19.1 h = 57 km MAG=4.7 (USCGS)
			D = 159.9
			PV:1.2s 10.2nm (mod.Krumbach)
21.	+eiP	08 46 18	Off East Coast of Honshu, Japan
	eipP	46 28	38.62 N 143.01 E
	ePP	49 24	H = 08 34 03.5 h = 42 km MAG=5.3
	ePPP	51 16	D = 81.4 Az = 331.1 (USCGS)
	iSKS	56 28	PV:2.0s 200.0nm
	ePPS C	57 36	LmH:15s 8.7/um LmV:15s 8.7/um
	eSSS C	09 04 45	MPV=5.8 MLH=6.2 MLV=6.3
	LmH	24.6	i 46 47
	LmV	28.0	
21.	ePKP2	17 03 53	Macquarie Island 56.42 S 158.02 E
			H = 16 43 17.2 h = 27 km MAG=5.8
			D = 159.4 Az = 268.0 (USCGS)
21.	eP	17 54 11	Off East Coast of Honshu, Japan
	e	54 57	38.65 N 143.15 E
	LmH	18 33.0	H = 17 41 55.5 h = normal MAG=4.0
	LmV	33.0	D = 81.4 Az = 331.2 (USCGS)
			LmH:17s 0.7/um LmV:18s 0.7/um
			MLH=5.1 MLV=5.1
21.	+eiP	21 12 20.5	Tyrrhenian Sea 39.77 N 14.86 E
	i	12 23	H = 21 09 46.98 h = 311 km MAG=4.3
	e	12 26	D = 11.12 Az = 349.2 (USCGS)
			PV1:0.8s 42.4nm PV2:1.2s 86.6nm
23.	eP	06 53 13	Afghanistan - USSR Border Region
	e	53 23.5	36.33 N 71.22 E
	epP	53 39	H = 06 45 11.5 h = 114 km MAG=5.2
	esP	53 55	D = 44.4 Az = 308.2 (USCGS)
			PV:1.0s 11.9nm MPV=4.7
23.	eP	12 47 27	Southern Iran 27.68 N 59.69 E
	e	47 33.5	H = 12 39 47.29 h = 52 km MAG=5.1
	eS	53 35	D = 40.97 Az = 316.6 (USCGS)

Day	Phase	h m s	Remarks
cont. 23.	eSS C	12 56 45	PV:1.8s 35.7nm SH(C):15.5s 0.5/um
	LmH C	13 03	LmH(C):32s 1.3/um LmV(C):22s 0.9/um
	LmV C	08.1	MPV=4.7 MSH(C)=5.2 MLH(C)=4.6 MLV(C)=4.7
23.	-iP	20 40 26	Gulf of Alaska 58.73 N 149.98 W
	ipP	40 31	H = 20 29 14.5 h = 23 km MAG=6.3
	ePP	43 00	D = 70.0 Az = 12.4 (USCGS)
	eiS	49 33	PV:1.8s 776.0nm SH:10s 2.9/um
	eisS	49 37	PKPPKPV:2.3s 316.2nm
	eScS C	50 26	LmH:15.5s 5.2/um LmV:15.5s 5.8/um
	eSS C	54 20	MPV=6.5 MSH=6.4 MLH=5.9 MLV=6.0
	eiPKPPKP	21 08 24.5	
	LmH	18.8	
	LmV	23.7	
24.	eP	03 15 50.5	Chagos Archipelago 5.05 S 68.35 E
			H = 03 04 17.3 h = normal MAG=4.9
			D = 73.7 Az = 326.3 (USCGS)
24.	eP	08 21 30.5	Aegean Sea 39.33 N 24.91 E
	i	21 33.5	H = 08 18 02.5 h = 17 km MAG=5.2
	i	21 43	D = 14.7 Az = 324.7 (USCGS)
	eS C	24 10	PV2:1.7s 149.0nm
	e	24 16	LmH:12s 22.6/um LmV:12s 11.5/um
	LmH	26.6	MLH=5.5 MLV=5.4
	LmV	29.6	
24.	eP	10 43 46	Eastern Kazakh SSR 49.83 N 78.09 E
	ePn	44 23.5	H = 10 35 57.2 h = 0 km MAG=5.0
			D = 41.22 Az = 297.6 (USCGS)
			PV:0.7s 26.2nm MPV=5.1
			Nuclear explosion
24.	eP	14 17 06	Bismarck Sea 4.58 S 149.38 E
			H = 13 59 14.5 h = 565 km MAG=5.0
			D = 122.1 Az = 329.7 (USCGS)
			PV:1.2s 12.8nm
24.	ePKP	16 41 06	West of Tonga 16.0 S 179.9 W
			H = 16 22 18 h = 449 km MAG=4.0
			D = 144.21 Az = 347 (ISC)
			PV:1.1s 9.6nm

Day	Phase	h m s	Remarks
24.	eP	19 43 21	Chagos Archipelago 5.00 S 68.40 E
	epP	43 29	H = 19 31 49.5 h = normal MAG=5.2
			D = 75.7 Az = 326.3 (USCGS)
			PV:1.8s 51.1nm
24.	ePKHKP	22 54 31.5	Fiji Islands 20.89 S 179.16 W
			H = 22 35 53.34 h = 640 km MAG=4.3
			D = 149.11 Az = 346.6 (USCGS)
			PV:1.3s 13.9nm
25.	eP	04 30 38	Greece - Albania Border Region
			39.15 N 20.2 E
			H = 04 27 29 h = 4 km MAG=4.2
			D = 12.98 Az = 335 (ISC)
25.	ePn	07 41 55	Northern Italy 46.9 N 11.5 E
	eiPg	42 04.5	H = 07 40 53 h = 0 km
	iSn	42 31	D = 3.71 Az = 1 (ISC)
	eSg	42 48	e 42 50
25.	ePn	18 28 51.5	Switzerland 46.6 N 9.8 E
	iPg	29 01.5	H = 18 27 41.4 h = 41 km
	iSn	29 33	D = 4.35 Az = 15 (ISC)
	eSg	29 57	LmH:9.0s 0.2/um LmV:9.0s 0.3/um
	LmH	30.6	e 30.0
	LmV	30.6	
25.	ePKP	21 45 09	Tonga Islands 15.24 S 173.15 W
	ePKP2	45 12	H = 21 25 36.1 h = normal MAG=5.2
	epPKP	45 16	D = 144.5 Az = 354.8 (USCGS)
	ePP C	48 30	PV:1.3s 22.2nm
	eSS C	22 07 00	LmH:20s 3.0/um LmV:20s 2.6/um
	eSSS C	12 40	MLH=6.0
	LmH	53.0	
	LmV	53.2	
26.	ePKP	01 02 07	Tonga Islands 15.25 S 173.15 W
	ePKP2	02 08	H = 00 42 34.9 h = normal MAG=5.3

Day	Phase	h m s	Remarks
cont.			
26.	ePP C	01 05 20	D = 144.5 Az = 354.8 (USCGS)
	eSS C	24 00	PV:1.6s 53.0nm
	eSSS C	29 40	LmH:20s 4.0/um LmV:20s 2.9/um
	LmH	02 10.2	MLH=6.1
	LmV	10.2	
26.	eP	03 04 47	Iran 35.09 N 50.16 E
	epP	04 53	H = 02 58 22.1 h = 21 km MAG=5.3
	e	05 23	D = 31.83 Az = 311.2 (USCGS)
			PV:1.2s 12.8nm MPV=4.7
26.	eP	11 23 42	Kurile Islands 43.42 N 146.40 E
			H = 11 11 45.4 h = 43 km MAG=4.6
			D = 78.39 Az = 333 (ISC)
26.	eP	13 25 04.5	Central Mid-Atlantic Ridge
	eS	32 55	0.18 S 18.17 W
	LmV	49.9	H = 13 15 23.3 h = normal MAG=5.2
	LmH	50.0	D = 56.6 Az = 22.3 (USCGS)
			PV:1.3s 36.2nm
			LmH:17s 1.8/um LmV:18s 1.6/um
			MPV=5.2 MLH=5.2 MLV=5.2
26.	eP	13 33 27	Near East Coast of Honshu, Japan
	eipP	33 39.8	37.38 N 141.41 E
	esP	33 49.5	H = 13 21 13.0 h = 67 km MAG=5.2
	e	33 55	D = 81.9 Az = 330.4 (USCGS)
	e	36 15.5	PV:1.0s 19.0nm MPV=5.2
26.	+iP	15 12 17.7	Southern Nevada Nuclear Explosion "Boxcar"
	ePP	15 23	37.296 N 116.456 W (USCGS)
	ePKPPKP	38 55	37°17'43"N 116°27'20"W (USAEC)
	e	39 11	H = 15 00 00.1 h = 0 km MAG=6.3
	LmV	50.4	D = 81.247 Az = 30.5 (USCGS)
	LmH	51.3	PV:1.4s 181.0nm PPV:1.8s 138.0nm
			LmH:14.5s 2.9/um LmV:16.5s 4.3/um
			MPV=5.9 MPPV=5.9 MLH=5.8 MLV=5.9

Day	Phase	h m s	Remarks
26.	eP	18 00 59	Near Coast of Michoacan, Mexico
	epP	01 10.5	18.72 N 103.27 W
	eSKKS C	11 30	H = 17 48 02.3 h = 65 km MAG=5.5
	ePS C	13 05	D = 90.5 Az = 35.3 (USCGS)
	eSS C	18 08	LmH:17s 5.1/um LmV:15.5s 5.9/um
	LmH	43.5	MLH=6.0 MLV=6.1
	LmV	43.5	
26.	ePKP	18 16 31	New Caledonia 23.31 S 168.91 E
			H = 17 56 37.79 h = 22 km
			D = 147.50 Az = 332.8 (USCGS)
27.	ePKIKP	14 16 22	Fiji Islands 21.24 S 179.18 W
	ePKHKP	16 28	H = 13 57 50.06 h = 670 km MAG=4.5
	ePKP2	16 35	D = 149.45 Az = 346.4 (USCGS)
			PV2:1.4s 30.7nm PV3:1.3s 22.2nm
28.	eP	04 30 42.5	North Pacific Ocean 44.80 N 175.54 E
	ePcP	30 44.5	H = 04 18 15.7 h = 39 km MAG=5.5
	epP	30 53	D = 83.79 Az = 349.2 (USCGS)
			PV:1.6s 87.1nm MPV=5.7
28.	eP	06 35 29	North Pacific Ocean 44.79 N 174.69 E
			H = 06 23 01.7 h = normal MAG=4.3
			D = 83.81 Az = 349.3 (USCGS)
			PV:1.2s 10.2nm MPV=4.9
28.	eP	09 32 30	Jan Mayen Island 72.02 N 1.64 W
	e	32 36	H = 09 27 36.7 h = normal MAG=4.4
	e	33 02.5	D = 22.26 Az = 157.3 (USCGS)
	LmH C	40	PV:1.7s 39.5nm
28.	eP	10 16 18	Off Coast of Central America
	PmV	16 21	11.75 N 88.81 W
			H = 10 03 31.5 h = 39 km MAG=4.9
			D = 87.5 Az = 38.8 (USCGS)
			PmV:14s 18.4nm MPV=5.2

Day	Phase	h m s	Remarks
28.	eP	20 19 13	North Atlantic Ridge 45.47 N 27.84 W
	epP	19 21	H = 20 13 36.7 h = normal MAG=4.5
	LmH	29.2	D = 26.64 Az = 64.5 (USCGS)
	LmV	29.7	
29.	eP	00 33 53	Northern California 39.54 N 122.08 W
	LmH C	01 12 30	H = 00 21 36.6 h = 15 km MAG=5.0
	LmV C	12 30	D = 81.44 Az = 27.7 (USCGS)
			PV:1.0s 11.8nm
			LmH(C):18s 0.3/um LmV(C):15s 0.3/um
			MPV=5.0 MLH(C)=4.7 MLH(C)=4.7
29.	+ePKHKP	09 51 37	Fiji Islands 21.34 S 179.49 W
	ePKP2	51 44.5	H = 09 32 56.8 h = 640 km MAG=4.5
			D = 149.47 Az = 346.0 (USCGS)
			PV1:1.2s 15.3nm PV2:1.2s 17.9nm
29.	+eP	17 07 24.5	N.W. Iran - USSR Border 39.22 N 44.25 E
	esP	07 34.5	H = 17 01 57.6 h = 34 km MAG=5.3
	eS C	11 50	D = 25.57 Az = 307.3 (USCGS)
	esS C	11 52	PV:1.3s 55.5nm SH(C):20s 5.1/um
	eSS C	12 40	LmH:14s 5.6/um LmV:14s 7.1/um
	LmH	19.9	MPV=5.0 MSH(C)=5.6 MLH=5.3 MLV=5.5
	LmV	20.1	
29.	epP	22 40 19	Peru-Ecuador Border Region 2.56 S 17.19 W
			H = 22 26 54.4 h = 131 km MAG=4.7 (USCGS)
			D = 91.4
30.	+eP	01 54 11.5	Near East Coast of Kamchatka
	ePcP	54 23	54.30 N 159.45 E
	epP	54 44.5	H = 01 42 58.7 h = 118 km MAG=5.1
			D = 72.01 Az = 339.1 (USCGS)
30.	ePKHKP	19 04 52	Tonga Islands 21.41 S 174.46 W
	e	04 56	H = 18 45 24.1 h = 197 km MAG=4.5
	e	05 02	D = 150.43 Az = 352.2 (USCGS)

Day	Phase	h m s	Remarks
1.	-eP	00 09 55	S. Chile - Argentinia Border Region
	LmV	58.9	38.41 S 71.08 W
	LmH	59.0	H = 23 51 17.9 h = 40 km MAG=5.9
			D = 114.43 Az = 43.9 (USCGS)
			PV:1.3s 16.7nm
			LmH:20s 0.5/um LmV:20s 0.8/um
			MLH=5.1 MLV=5.3
1.	+iP	08 55 02.5	Off Coast of Honshu, Japan
	LmH	09 32.8	38.61 N 143.09 E
	LmV	37.7	H = 08 43 47.4 h = 36 km MAG=5.3 (USCGS)
			D = 81.5
			PV:1.2s 51.1nm
			LmH:15s 2.0/um LmV:13.5s 2.0/um
			MPV=5.5 MLH=5.6 MLV=5.7
1.	eP	19 25 00	Near East Coast of Honshu, Japan
	e	25 05	40.88 N 142.52 E
	e	25 20	H = 19 12 53.4 h = 18 km MAG=4.9
	e	25 40	D = 79.2 Az = 330.7 (USCGS)
	LmH	20 02.0	PV2:2.0s 39.8nm
	LmV	05.8	LmH:12.5s 1.6/um LmV:14.5s 1.3/um
			MPV2=5.1 MLH=5.6 MLV=5.4
2.	eP	00 36 34	Eastern India 26.25 N 92.25 E
			H = 00 26 02.9 h = 53 km MAG=4.8
			D = 64.39 Az = 315.8 (USCGS)
			PV:1.3s 11.1nm MPV=4.9
2.	eP	05 40 44	Dominican Republic 18.78 N 69.64 W
	eipP	41 05	H = 05 29 38.2 h = 82 km MAG=5.8
	eisP	41 14.5	D = 70.22 Az = 42.0 (USCGS)
	eS	49 50	PV:2.0s 92.7nm
	LmH	06 08	LmH:20s 0.7/um LmV:20s 0.8/um
	LmV	08.3	MPV=5.6 MLH=4.9 MLV=5.0
2.	LmH	08 00	LmH:17s 0.7/um LmV:18s 1.0/um
	LmV	08 00	

Day	Phase	h m s	Remarks
2.	eP	08 05 01	Azores Islands 36.29 N 34.08 W
	e	05 05.5	H = 07 58 05.5 h = normal MAG=4.9
	eS	10 40	D = 35.54 Az = 51.6 (USCGS)
	LmH	18	LmH:17s 0.7/um LmV:18s 1.1/um
	LmV	18	MLH=4.5 MLV=4.8
2.	ePKP	13 21 56.5	Fiji Islands 17.61 S 178.66 W
	e	21 58	H = 13 03 14.7 h = 504 km MAG=4.1
	e	22 01.5	D = 146.03 Az = 348.3 (USCGS)
2.	+eiP	23 44 27.5	Banda Sea 6.35 S 129.93 E
	epP	44 57	H = 23 26 03.6 h = 128 km MAG=5.5
	ePP	45 19	D = 112.6 Az = 322.6 (USCGS)
	eSP	54 30	LmH:16s 1.0/um LmV:16s 0.9/um
	LmH	00 32.5	MLH=5.5 MLV=5.5
	LmV	34	e 52 42 ei 55 32 e 56 36 e 56 38
3.	-eiP	05 45 07.5	Northeast of Taiwan 25.14 N 124.58 E
	epP	45 32.5	H = 05 32 45.7 h = 98 km MAG=5.8
	esP	45 46	D = 84.2 Az = 323.9 (USCGS)
	iS	55 20	SH:10s 1.4/um LmH:15s 1.1/um
	ePS	56 00	LmV:17s 0.8/um
	LmH	06 25.3	MSH=6.1 MLH=5.3 MLV=5.2
	LmV	28.7	
3.	+eP	16 25 25	Unimak Island 54.16 N 163.26 W
			H = 16 13 40.0 h = 17 km MAG=5.0
			D = 75.5 Az = 3.4 (USCGS)
			PV:1.0s 16.6nm MPV=5.1
4.	eP	03 33 19	South of Honshu, Japan 29.73 N 138.00 E
			H = 03 21 26.3 h = 484 km MAG=4.4
			D = 87.02 Az = 329.1 (USCGS)
4.	ePn	15 34 56	Northern Italy 44 1/2 N 9 1/4 E
	eSn	36 02	H = 15 33 16 (BCIS)
	eSg	36 41	D = 6.3 e 35 25 e 36 23

Day	Phase	h m s	Remarks
6.	eP	09 42 28	Turkey 40.35 N 28.61 E
	e	42 34	H = 09 38 47.1 h = 21 km MAG=4.3
	LmH	49.7	D = 15.71 Az = 316.6 (USCGS)
	LmV	49.7	LmH:10s 0.8/um LmV:11.2s 0.7/um
			MLH=4.2 MLV=4.2
6.	eP	14 50 20.5	Guatemala 14.64 N 90.82 W
	epP	50 51	H = 14 37 49.8 h = 123 km MAG=5.1
	e	50 58	D = 86.51 Az = 38.5 (USCGS)
			PV:1.7s 39.5nm MPV=5.3
6.	eP	20 57 33	Hindu Kush Region 36.50 N 70.85 E
			H = 20 49 45.5 h = 231 km MAG=5.0 (USCGS)
			D = 44.0
			PV:1.4s 12.3nm MPV= 4.4
7.	eP	09 12 29	Northern Columbia 6.74 N 73.02 W
	Pm	12 31.5	H = 09 00 29.0 h = 168 km MAG=5.7
	epP	13 10	D = 81.43 Az = 39.9 (USCGS)
	e	13 26.5	PV2:0.8s 14.2nm MPV2=5.1
	e	13 43	e 12 56 e 24 20
7.	ePKHKP	12 02 16	Fiji Islands 19.20 S 177.61 W
			H = 11 43 31.6 h = 533 km MAG=4.9
			D = 147.78 Az = 349.0 (USCGS)
			PV:1.3s 33.4nm
8.	ePKP	00 34 43	Fiji Islands 17.77 S 178.57 W
			H = 00 16 08.7 h = 589 km MAG=4.7
			D = 146.20 Az = 348.3 (USCGS)
			PV:1.1s 9.6nm
8.	ePKIKP	11 20 02	Maquarie Islands 58.02 S 157.67 E
	e	20 11	H = 11 00 07.4 h = normal MAG=5.7
	ePKP2	20 38	D = 159.06 Az = 264.1 (USCGS)
	e	20 45	e 20 07 e 20 49

Day	Phase	h m s	Remarks
8.	eP	12 29 20.5	Off Coast of Oregon 43.57 N 127.90 W
	iPcP	29 23	H = 12 17 13.4 h = normal MAG=6.1
	eiS	39 22	D = 79.77 Az = 24.8 (USCGS)
	eSKS	39 26	PV2:1.8s 265.8nm SH:12s 3.8/um
	LmH	13 09.5	LmH:17s 12.9/um LmV:17s 10.8/um
	LmV	09.6	MPV2=5.9 MSH=6.2 MLH=6.3 MLV=6.3
8.	eP	22 29 18	Off Coast of Oregon 43.87 N 128.18 W
			H = 22 17 13.8 h = normal MAG=5.0
			D = 79.58 Az = 24.7 (USCGS)
8.	+iP	22 53 04.5	Afghanistan - USSR Border Region
	epP	53 37	37.10 N 71.94 E
	esP	53 54	H = 22 45 08.3 h = 160 km MAG=5.1
			D = 44.34 Az = 307.7 (USCGS)
9.	eP	03 15 08	Off Coast of Oregon 43.44 N 126.97 W
	ePcP	15 14.5	H = 03 03 01.8 h = normal MAG=5.2
	eS C	25 12	D = 79.59 Az = 25.4 (USCGS)
	LmV	52.0	LmH:18s 0.7/um LmV:18s 0.8/um
	LmH	52.6	MLH=5.0 MLV=5.1
9.	ePKIKP	07 39 52	Kermadec Islands 31.78 S 178.75 W
	ePKHKP	40 10	H = 07 19 55.0 h = 12 km MAG=5.0
	ePKP2	40 33	D = 159.64 Az = 340.8 (USCGS)
	eisPKP2	40 56	
	LmH	08 41	
	LmV	50	
9.	eP	13 05 53	Near Coast of Northern Peru
	ePcP	05 54	5.31 S 81.72 W
	epP	06 02	H = 12 52 24.4 h = 35 km MAG=5.6 (USCGS)
	eSKS C	16 28	D = 96.2
	eScS	17 12	SH(C):16s 0.5/um
	ePS C	18 35	LmH:20s 0.4/um LmV:20s 0.4/um
	eSS C	23 30	MLH=4.8 MLV=4.9
	eLQ	33.0	
	eLR	39.7	
	LmH	47.7	
	LmV	47.7	

Day	Phase	h m s	Remarks
9.	eP	14 34 34	Southern Honshu, Japan 34.15 N 136.79 E
	epP	34 43	H = 14 22 08.7 h = 18 km MAG=4.9
	eS C	44 44	D = 82.72 Az = 328.4 (USCGS)
	LmV	15 16.3	LmH:14s 1.8/um LmV:14s 2.5/um
	LmH	16.5	MLH=5.6 MLV=5.8
9.	ePKP2	15 13 50.5	South of Kermadec Islands
			32.57 S 178.54 W
			H = 14 53 12.4 h = normal MAG=4.4 (USCGS)
			D = 160.4
			PV:2.0s 39.8nm
10.	iPKP	06 17 36.5	Loyalty Islands 22.33 S 171.59 E
	i	17 50	H = 05 58 07.2 h = 123 km MAG=4.9
			D = 147.68 Az = 335.9 (USCGS)
10.	eP	09 35 59	Taiwan 24.25 N 121.85 E
	ePcP	36 02	H = 09 23 31.5 h = 21 km MAG=4.8
	LmH	10 17.1	D = 83.46 Az = 323.0 (USCGS)
	LmV C	17.2	LmH:16s 3.6/um LmV(C):19s 4.1/um
			MLH=5.9 MLV(C)=5.9
10.	ePn	15 05 26	Germany, Explosion of 6.8 Tons
	ePg	05 27.5	50.33 N 9.38 E
	eSg	05 49	H = 15 05 00.48 (HAM)
			D = 1.46 Az = 77 (ISC)
			ei 05 41 e 05 45
10.	eP	15 21 49	Taiwan 24.28 N 121.90 E
	eS	32 08	H = 15 09 20.6 h = 26 km MAG=4.8
	ePS C	32 48	D = 83.46 Az = 323.1 (USCGS)
	LmH	16 04.0	LmH:16s 3.2/um LmV:16s 3.7/um
	LmV	16 04.0	MLH=5.8 MLV=5.9
10.	eP	20 45 42	Taiwan 24.33 N 121.96 E
	eS C	56 00	H = 20 33 13.2 h = 20 km MAG=4.9
	eSP C	56 47	D = 83.45 Az = 323.1 (USCGS)
	LmH	21 26.9	LmH:17.5s 3.3/um LmV:15.5s 3.8/um
	LmV	27.8	MLH=5.8 MLV=5.9

Day	Phase		h m s	Remarks
10.	ePKP		23 08 04.5	Fiji Islands 21.22 S 176.62 W
	+i		08 05.5	H = 22 48 36.8 h = 203 km MAG=5.1
	iPKP2		08 10	D = 149.93 Az = 349.5 (USCGS)
	epPKP2		08 55.5	PV2:1.1s 43.3nm PV3:0.9s 35.4nm
11.	iP		12 18 33	Caspian Sea 41.01 N 49.83 E
				H = 12 12 44.6 h = 42 km MAG=5.0
				D = 28.04 Az = 303 (ISC)
11.	ePKP		15 52 29	East New Guinea 6.41 S 147.28 E
	epPKP		52 41.5	H = 15 33 41.3 h = 76 km MAG=5.5
	ePS		16 04 20	D = 122.56 Az = 328.1 (USCGS)
	LmH		36.8	PV:1.8s 40.8nm
	LmV		45.5	LmH:19s 0.9/um LmV:20s 0.9/um
				MLH=5.4 MLV=5.4
11.	ePKP		17 17 12	Loyalty Islands 22.16 S 170.02 E
	esPKP2		17 29	H = 16 57 30.2 h = 15 km
				D = 146.92 Az = 334.6 (USCGS)
12.	eiPKP		18 58 44.5	New Hebrides Islands 18.95 S 169.75 E
	ePKP2		58 49.5	H = 18 39 10.8 h = 16 km MAG=5.1
	epPKP2		58 53.5	D = 143.92 Az = 336.3 (USCGS)
	esPKP		59 04.5	
12.	iPKP		19 15 58	New Hebrides Islands 19.02 S 169.70 E
	ePKP2		16 03	H = 18 56 22.8 h = 5 km MAG=4.6
	epPKP2		16 07	D = 143.96 Az = 336.2 (USCGS)
	epPKP		16 11	
13.	eiP		02 51 19.5	Western Caucasus 43.55 N 40.32 E
	eS	C	55 16	H = 02 46 35.7 h = 5 km MAG=5.1
	LmV		03 01.0	D = 20.70 Az = 300.1 (USCGS)
	LmH		01.1	SH:10s 0.5/um
				LmH:14s 2.3/um LmV:13s 2.1/um
				MSH=4.7 MLH=4.7 MLV=4.8
13.	ePKP		04 15 42	New Hebrides Islands 19.00 S 169.64 E
				H = 03 56 09.2 h = 13 km MAG=5.1
				D = 143.92 Az = 336.1 (USCGS)

Day	Phase		h m s	Remarks
13.	eP		20 35 44.5	Near East Coast of Kamchatka
				51.52 N 158.62 E
				H = 20 24 08.5 h = 34 km MAG=4.8
				D = 74.43 Az = 338.9 (USCGS)
13.	eP		21 15 07	South Atlantic Ridge 12.98 S 14.72 W
	e		15 12	H = 21 04 13.0 h = normal MAG=5.2
	epP		15 17	D = 67.41 Az = 17.8 (USCGS)
	LmH	C	43	PV:1.5s 33.6nm
	LmV	C	43	LmH(C):24s 0.4/um LmV(C):24s 0.5/um
				MPV=5.4 MLH(C)=4.6 MLV(C)=4.7
14.	ePKP		01 35 06	Tonga Islands 18.57 S 172.46 W
	ePKP2		35 07.5	H = 01 15 24.9 h = 39 km MAG=5.0
	epPKP2		35 23	D = 147.84 Az = 355.1 (USCGS)
14.	ePKIKP		05 56 40.5	South of Fiji Islands 23.82 S 176.92 W
	ePKP2		56 48	H = 05 37 05.3 h = 122 km MAG=4.9
				D = 152.42 Az = 348.2 (USCGS)
				PV2:1.1s 24.0nm
14.	+iP		14 17 12.5	Ryukyu Islands 29.93 N 129.37 E
	+iPcP		17 14	H = 14 05 06.0 h = 168 km MAG=5.9
	epP		17 49	D = 82.80 Az = 325.4 (USCGS)
	eiPP		20 25	PV:2.4s 2720.0nm SH:13s 8.2/um
	epPP		21 16	LmH:15s 9.5/um LmV:16s 9.5/um
	iS		27 17	MPV=6.6 MSH=6.7
	eiSP		28 10	i 17 56 ei 21 18
	LmH		59.4	
	LmV		15 01.5	
15.	eP		08 02 10.5	Zambia 15.89 S 25.94 E
	i		02 12	H = 07 51 17.4 h = normal MAG=6.1
	epP		02 22	D = 67.43 Az = 350.2 (USCGS)
	esP		02 23.5	PV2:2.2s 105.0nm
	eS		11 05	LmH:16s 4.3/um LmV:15s 5.7/um
	eScS	C	12 10	MPV2=5.7 MLH=5.8 MLV=6.0
	eSS	C	16.0	e(C) 19 15
	LmH		36.3	
	LmV		36.4	

Day	Phase	h m s	Remarks
15.	ePKP	15 20 22.5	Kermadec Islands 29.79 S 179.04 W
	epPKP	20 27	H = 15 00 29.9 h = normal MAG=5.1
	ePKP2	21 03	D = 157.68 Az = 341.9 (USCGS)
	LmH	16 44.0	PV3:1.6s 68.2nm
	LmV	44.0	LmH:19s 6.5/um LmV:18s 6.3/um
			MLH=6.4
16.	eP	01 01 03	Off East Coast of Honshu, Japan
	ipP	01 05	40.84 N 143.22 E
	eiSKS	11 16	H = 00 48 55.4 h = 7 km MAG=5.9
	eiScS	11 18	D = 79.54 Az = 331.0 (USCGS)
16.	eP	03 57 41	Off East Coast of Honshu, Japan
	epP	57 54	40.12 N 143.91 E
			H = 03 45 31.3 h = normal MAG = 4.4
			D = 80.42 Az = 331.5 (USCGS)
			PV:1.2s 10.2nm MPV=4.6
16.	eP	04 28 54	Near East Coast of Honshu, Japan
			40.63 N 142.73 E
			H = 04 15 47.0 h = 59 km MAG=4.5
			D = 79.54 Az = 331 (O-C)= +65.4sec (ISC)
16.	eP	04 47 04.5	Hokkaido, Japan 41.48 N 142.32 E
	ipP	47 19	H = 04 35 04.0 h = normal MAG=5.1
			D = 78.65 Az = 330.5 (USCGS)
			PV:1.2s 15.3nm MPV=5.0
16.	e(P)	05 23 53	Off East Coast of Honshu, Japan
			40.44 N 143.53 E
			H = 05 11 34.9 h = 15 km MAG=4.9
			D = 80.00 Az = 331.2 (O-C)=+8,2s (USCGS)
16.	eP	05 27 15.5	Off East of Honshu, Japan
			40.57 N 143.09 E
			H = 05 15 07.4 h = 19 km MAG=4.9
			D = 79.72 Az = 331.0 (USCGS)
			PV:1.0s 7.1nm MPV=4.6

Day	Phase	h m s	Remarks
16.	eP	05 56 49	Off East Coast of Honshu, Japan
	ePcP	56 58	40.57 N 143.75 E
	e	57 36	H = 05 44 40.4 h = 25 km MAG=4.6
			D = 79.97 Az = 331.3 (USCGS)
16.	eP	06 42 31	Off East Coast of Honshu, Japan
	ePcP	42 38	40.50 N 143.56 E
	e	42 57	H = 06 30 20.7 h = 14 km MAG=5.2
			D = 79.96 Az = 331.3 (USCGS)
			PV:1.2s 15.3nm MPV=4.8
16.	-iP	06 48 54.5	Hokkaido, Japan 41.08 N 142.96 E
	eipP	49 08	H = 06 36 51.1 h = 35 km MAG=5.7
	i	49 13	D = 79.23 Az = 330.9 (USCGS)
	eScS	59 10	PV:1.2s 56.1nm
	LmH	07 27.3	LmH:18s 6.3/um LmV:18.5s 5.6/um
	LmV	27.7	MPV=5.5 MLH=6.0 MLV=6.0
16.	eP	07 40 21	Off East Coast of Honshu, Japan
	esP	40 30	40.22 N 143.34 E
	e	40 39.5	H = 07 28 03.9 h = 36 km MAG=4.7
			D = 80.12 Az = 331 (ISC)
			PV:1.0s 9.5nm MPV=4.7
16.	eP	08 01 02.5	Hokkaido, Japan 41.31 N 142.62 E
	ePcP	01 12	H = 07 49 01.5 h = 38 km MAG=5.1
	esP	01 18	D = 78.91 Az = 330.7 (USCGS)
			PV:1.4s 21.5nm MPV=5.0
16.	eP	08 32 00.5	Hokkaido, Japan 41.07 N 142.80 E
	esP	32 23	H = 08 19 56.7 h = 22 km MAG=4.8
			D = 79.18 Az = 330.8 (USCGS)
16.	eP	08 38 06	Northern Peru 3.75 S 76.60 W
	epP	38 37	H = 08 25 09.2 h = 113 km MAG=5.4
			D = 91.73 Az = 39.5 (USCGS)

Day	Phase	h m s	Remarks
16.	+eP	08 58 45.5	Off East Coast of Honshu, Japan
	epP	58 55.5	40.87 N 143.01 E
	esP	59 03.5	H = 08 46 39.9 h = 28 km MAG=4.8
			D = 79.43 Az = 330.9 (USCGS)
			PV:1.5s 26.8nm MPV=5.0
16.	eP	09 10 15	Hokkaido, Japan 41.43 N 142.72 E
	ePP	13 16	H = 08 58 11.1 h = 15 km MAG=5.4
	eS	20 09	D = 78.84 Az = 330.7 (USCGS)
	eSKS	20 32	PV:(2.0)s 129.0nm
	eSP	20 48	LmH:17s 6.5/um LmV:17s 5.5/um
	LmH	48.3	MPV=5.6 MLH=6.0 MLV=6.0
	LmV	48.5	
16.	eP	10 24 43	Off East Coast of Honshu, Japan
			40.54 N 143.53 E
			H = 10 12 35.7 h = normal MAG=4.8
			D = 79.92 Az = 331.2 (USCGS)
16.	-iP	10 51 02	Hokkaido, Japan 41.47 N 142.67 E
	+ipP	51 06.6	H = 10 39 01.6 h = normal MAG=6.3
	ePP	54 00	D = 78.78 Az = 330.7 (USCGS)
	iS	11 01 00	SH:16s 86.5/um
	ePKPPKP	18 10	PV(A):2.0s 2040.0nm PV(B):12s 29.4/um
	LmH	29.5	LmH:18s 615.0/um LmV:19s 750.0/um
	LmV	29.5	MPV(A)=6.8 MPV(B)=7.2
			MSH=7.5 MLH=8.0 MLV=8.1
16.	+eP	12 21 36.5	Hokkaido, Japan 41.05 N 142.99 E
	e	21 47	H = 12 09 31.9 h = 24 km MAG=5.1
	e	24 48	D = 79.27 Az = 350.9 (USCGS)
	LmV	58.9	PV:1.6s 37.9nm
	LmH	59.0	LmH:24s 24.4/um LmV:23s 28.7/um
			MPV=5.2 MLH=6.5 MLV=6.6
16.	eP	12 46 25.5	Hokkaido, Japan 41.70 N 142.64 E
			H = 12 34 24.9 h = 26 km MAG=4.9
			D = 78.58 Az = 330.7 (USCGS)

Day	Phase	h m s	Remarks
16.	eP	12 57 40	Hokkaido, Japan 41.15 N 142.75 E
			H = 12 45 39 h = 47 km MAG=4.9
			D = 79.09 Az = 331 (ISC)
16.	eP	13 31 55	Hokkaido, Japan 41.3 N 142.0 E
			H = 13 20 05.8 h = 40 km MAG=4.3
			D = 78.65 Az = 330 (ISC)
16.	eP	13 37 55	Hokkaido, Japan 41.44 N 142.90 E
	ePcP	38 10	H = 13 25 52.8 h = normal MAG=4.9
			D = 78.89 Az = 330.8 (USCGS)
			PV:1.1s 9.6nm MPV=4.4
16.	-eP	14 01 48.5	Off East Coast of Honshu, Japan
	e	01 54	39.92 N 143.55 E
			H = 13 49 32.3 h = 0 km MAG=5.0
			D = 80.46 Az = 331 (ISC)
			PV:1.9s 58.9nm MPV=5.0
16.	eP	14 04 49	Off East Coast of Honshu, Japan
	epP	05 00	40.2N 143.58 E
			H = 13 52 41.1 h = 31 km MAG=4.7
			D = 80.26 Az = 331 (ISC)
16.	eP	14 14 41	Hokkaido, Japan 41.42 N 142.26 E
	epP	14 54.5	H = 14 02 40.7 h = 37 km MAG=4.8
			D = 78.67 Az = 330.5 (USCGS)
16.	+eiP	14 15 28.5	Near East Coast of Honshu, Japan
	epP	15 41	39.8 N 142.7 E
			H = 14 03 20.0 h = 41 km MAG=5.3
			D = 80.27 Az = 331 (ISC)
			PV:1.2s 20.4nm MPV=5.0
16.	eP	15 04 34.5	Hokkaido, Japan 41.37 N 143.48 E
	iPcP	04 41.3	H = 14 52 32.0 h = 36 km MAG=4.7
	eipP	04 45	D = 79.17 Az = 331.1 (USCGS)
			PV:1.4s 21.5nm MPV=4.6

Day	Phase	h m s	Remarks
16.	eP	15 32 28	Hokkaido, Japan 41.44 N 142.96 E
			H = 15 20 25.6 h = normal MAG=4.9
			D = 78.92 Az = 330.9 (USCGS)
16.	eP	16 01 19.5	Northwest of Kurile Islands
	ePcP	01 32.5	47.8 N 147.9 E
	e	01 47.5	H = 15 49 41 h = 43 km MAG=4.5
			D = 75.02 Az = 333 (ISC)
16.	+eP	16 25 56.5	Off East Coast of Honshu, Japan
	iPcP	25 57.5	39.68 N 143.55 E
	eipP	26 06.5	H = 16 13 45.1 h = 29 km MAG=5.6
	ePP	29 00	D = 80.68 Az = 331.3 (USCGS)
	eiS	36 00	PV(A):1.8s 220.0nm PV(B):8.5s 2.6/um
	LmH	17 00.7	SH:16s 5.1/um
	LmV	08.0	LmH:17s 37.5/um LmV:17s 25.6/um
			MPV(A)=5.9 MPV(B)=6.2
			MSH=6.3 MLH=6.8 MLV=6.7
16.	eP	16 34 04	Off Coast of Honshu, Japan
			39.75 N 143.56 E
			H = 16 21 53.4 h = normal MAG=4.8
			D = 80.62 Az = 331.3 (USCGS)
			PV:1.4s 21.5nm MPV=5.0
16.	eP	17 33 53	Hokkaido, Japan 41.08 N 142.65 E
	epP	34 05	H = 17 21 50.9 h = 38 km MAG=4.5
			D = 79.12 Az = 330.7 (USCGS)
16.	eP	17 40 15	Hokkaido, Japan 41.41 N 143.01 E
	esP	40 22	H = 17 28 13.0 h = normal MAG=5.2
	ePcP	40 27.5	D = 78.96 Az = 330.9 (USCGS)
16.	+iP	18 55 21.3	Near East Coast of Honshu, Japan
	eipP	55 36	40.71 N 142.11 E
	eisP	55 41	H = 18 43 21.0 h = 59 km MAG=5.7
			D = 79.24 Az = 330.5 (USCGS)
			i 56 53.8 i 56 58.8

Day	Phase	h m s	Remarks
16.	eP	19 28 47.5	Hokkaido, Japan 41.30 N 142.38 E
	ipP	28 58.4	H = 19 16 47.2 h = 42 km MAG=5.6
	eSKS	38 55	D = 78.82 Az = 330.6 (USCGS)
	LmH	20 02.5	PV:1.3s 47.3nm
	LmV	06.7	LmH:19s 6.7/um LmV:20s 4.5/um
			MPV=5.4 MLH=6.0 MLV=5.8
16.	-eP	20 34 16	Hokkaido, Japan 41.41 N 142.62 E
	esP	34 26.5	H = 20 22 14.9 h = 93 km MAG=5.6
	eS	44 12	D = 78.82 Az = 330.7 (USCGS)
	LmH	21 07.8	PV:1.1s 28.9nm
	LmV	12.5	LmH:19.5s 10.6/um LmV:19s 10.2/um
			MPV=5.2 MLH=6.2 MLV=6.2
16.	eP	21 15 26	Hokkaido, Japan 41.24 N 142.42 E
			H = 21 03 24.3 h = 33 km MAG=5.0
			D = 78.90 Az = 330.6 (USCGS)
16.	eP	21 35 11.5	Off East Coast of Honshu, Japan
			40.25 N 143.11 E
			H = 21 23 03.3 h = normal MAG=4.3 (USCGS)
			D = 80.07 Az = 331 (ISC)
			PV:1.1s 7.2nm MPV=4.5
16.	eP	21 38 01.5	Off Coast of Honshu, Japan
	ePcP	38 03.5	40.93 N 143.04 E
	esP	38 25.5	H = 21 25 56.4 h = 30 km MAG=4.8
			D = 79.39 Az = 330.9 (USCGS)
16.	eiP	21 40 33	Off Coast of Honshu, Japan
			40.91 N 143.44 E
			H = 21 28 28.1 h = 33 km MAG=4.7 (ISC)
			D = 79.5
			PV:1.4s 12.3nm MPV=4.7
16.	eP	23 09 07	Off Coast of Honshu, Japan
			39.87 N 143.54 E
			H = 22 56 56.6 h = normal MAG=4.2
			D = 80.51 Az = 331.3 (USCGS)

Day	Phase	h m s	Remarks
16.	+eP	23 17 03	Off Coast of Honshu, Japan
	iPcP	17 07.8	39.83 N 143.08 E
	isP	17 15.8	H = 23 04 54.7 h = 37 km MAG=5.8
	iPP	20 09.3	D = 80.37 Az = 331.1 (USCGS)
	eiS	27 07	PV2(A):1.2s 383.0nm PV(B):12s 7.56/um
	eSKS	27 11	PPH:16s 5.57/um
	LmV	58.2	PPV:14s 7.8/um SH:18.5s 16.7/um
	LmH	58.3	LmH:15s 106.2/um LmV:16s 90.0/um
			MPV2(A)=6.3 MPV(B)=6.5 MPPH=6.7 MPPV=6.6
			MSH=6.8 MLH=7.3 MLV=7.3
16.	eP	23 50 26.5	Off East Coast of Honshu, Japan
			39.67 N 143.23 E
			H = 23 38 15.6 h = normal MAG=4.5
			D = 80.57 Az = 331.2 (USCGS)
17.	eP	00 03 47	Off East Coast of Honshu, Japan
			39.60 N 143.29 E
			H = 16d 23 51 36.4 h = 40 km MAG=4.7
			D = 80.64 Az = 331 (ISC)
17.	eP	00 08 47	Off East Coast of Honshu, Japan
			39.64 N 143.35 E
			H = 23 56 35.3 h = normal MAG=4.8
			D = 80.64 Az = 331.2 (USCGS)
			PV:1.0s 9.5nm MPV=4.7
17.	eP	00 17 14	Hokkaido, Japan 41.90 N 142.23 E
			H = 00 05 07.9 h = normal MAG=4.4
			D = 78.24 Az = 330.4 (USCGS)
17.	eP	04 48 41	Off Coast of Honshu, Japan
			39.10 N 143.61 E
			H = 04 36 27.4 h = normal MAG=4.6
			D = 81.20 Az = 331.4 (USCGS)

Day	Phase	h m s	Remarks
17.	eP	05 31 45	Off East Coast of Honshu, Japan
	e	31 47.5	39.55 N 143.36 E
	ePcP	31 49.5	H = 05 19 34.9 h = normal MAG=4.5
	LmH	06 13	D = 80.71 Az = 331.2 (USCGS)
	LmV	13	PV2:0.9s 9.4nm
			LmH:15s 0.6/um LmV:16s 0.6/um
			MPV2=4.8 MLH=5.1 MLV=5.1
17.	eP	06 36 49	Off East Coast of Honshu, Japan
	esP	36 58	39.07 N 143.49 E
	e	39 03	H = 06 24 35.2 h = 40 km MAG=4.8
	e	39 18.5	D = 81.19 Az = 331.3 (USCGS)
	LmH	07 16.3	PV:1.1s 14.4nm
	LmV	16.3	LmH:17s 1.1/um LmV:17s 1.0/um
			MPV=4.9 MLH=5.3 MLV=5.3
17.	ePKP	07 58 28.5	Loyalty Islands 22.75 S 173.04 E
			H = 07 38 59.5 h = 98 km MAG=4.3
			D = 148.61 Az = 337.1 (USCGS)
17.	eP	08 10 56.5	Mediterranean Sea 35.56 N 22.0 E
			H = 08 07 00 h = 13 km MAG=4.3
			D = 16.84 Az = 337 (ISC)
17.	ePKP	08 16 56	Loyalty Islands 22.68 S 173.02 E
	ePKP2	16 57.5	H = 07 57 17.6 h = 91 km MAG=5.0
			D = 148.53 Az = 337.1 (USCGS)
17.	eP	09 13 57	Hokkaido, Japan 41.27 N 142.66 E
	e	14 03	H = 09 01 54.9 h = 34 km MAG=5.0
			D = 78.95 Az = 330.7 (USCGS)
17.	eP	10 54 57	Off East Coast of Honshu, Japan
	epP	54 58.5	39.63 N 143.37 E
	esP	55 08	H = 10 42 45.9 h = normal MAG=5.3
	ePP	58 00	D = 80.65 Az = 331.2 (USCGS)
	eS C	11 05 03	PV:1.6s 34.4nm SH(C):20s 2.0/um
	LmV	36.6	LmH:15.5s 6.3/um LmV:15.5s 5.0/um
	LmH	36.7	MPV=5.1 MSH(C)=5.8 MLH=6.1 MLV=6.0

Day	Phase	h m s	Remarks
17.	eP	13 12 20	Southern Nevada 37°07'12"N 116°03'32"W H = 13 00 00 Nuclear Explosion "Clarks-mobile" (USAEC) h = 36 km MAG=4.7 (ISC) D = 81.3
17.	eP	13 14 40	Hokkaido, Japan 41.48 N 142.77 E H = 13 02 37.3 h = 45 km MAG=5.6 D = 78.81 Az = 330.7 (USCGS) PV:1.4s 24.5nm MPV=5.1
17.	ePKP	13 23 12	Loyalty Islands 22.78 S 173.31 E
	ePKP2	23 18	H = 13 03 32.3 h = 55 km MAG=5.7
	epPKP2	23 25	D = 148.74 Az = 337.3 (USCGS)
	LmH	48.0	PV:2.0s 33.2nm
	LmV	53.0	LmH:16.5 1.5/um LmV:19s 1.8/um MLH=5.8
17.	eP	15 05 22.5	Off Coast of Honshu, Japan
	ePcP	05 24.5	39.60 N 143.64 E
	epP	05 31.5	H = 14 53 11.0 h = normal MAG=4.8 D = 80.78 Az = 331.4 (USCGS)
17.	eP	15 29 31	Off East Coast of Honshu, Japan 40.25 N 143.66 E H = 15 17 23.3 h = normal MAG=4.3 D = 80.22 Az = 331.3 (USCGS)
17.	eSg	15 31 50	Birresborn, Eifel, GFR 50°11,76' N 6°37.82' E H = 15 30 00.39 Explosion yield: 6.35 t (HAN) D = 3.2
17.	eP	16 14 33	Off East Coast of Honshu, Japan
	epP	14 42	40.57 N 144.02 E
	esP	14 47	H = 16 02 24.0 h = normal MAG=5.0
	eS	24 37	D = 80.07 Az = 331.5 (USCGS)

Day	Phase	h m s	Remarks
cont.			
17.	LmH	16 51.5	PV(A)max:2.5s 152nm PV(B):10s 0.46/um
	LmV	56.7	PV(A):1.8s 46.0nm SH(C):14s 1.1/um LmH:16s 19.4/um LmV:14s 16.0/um MPV(A)=5.2 MPV(A)max=5.5 MPV(B)=5.4 MSH=5.7 MLH=6.6 MLV=6.6
17.	eP	17 40 17	Hokkaido, Japan 41.32 N 142.75 E H = 17 28 00.0 h = 41 km MAG=4.6 D = 78.95 Az = 331 (ISC)
17.	eP	18 16 03	Off East Coast of Honshu, Japan 39.95 N 143.33 E H = 18 03 41.5 h = 15 km MAG=4.4 D = 80.35 Az = 331.2 (USCGS)
17.	+iP	18 29 17.7	Off East Coast of Honshu, Japan
	ePcP	29 18.5	39.63 N 143.04 E
	esP	29 29	H = 18 17 07.3 h = 32 km MAG=5.2
	eS C	39 22	D = 80.53 Az = 331.1 (USCGS)
	LmV	10.3	PV:2.2s 105.2nm SH(C):17s 1.7/um
	LmH	10.4	LmH:15.5s 7.2/um LmV:16s 6.5/um MPV=5.5 MSH(C)=5.8 MLH=6.1 MLV=6.1
17.	eP	18 54 23	Off East Coast of Honshu, Japan 40.10 N 143.69 E H = 18 42 13.9 h = normal MAG=4.3 D = 80.36 Az = 331.4 (USCGS)
17.	eP	20 01 08	Off East Coast of Honshu, Japan
	epP	01 16	39.59 N 143.15 E H = 19 48 57.7 h = normal MAG=4.5 D = 80.60 Az = 331.1 (USCGS) PV:1.0s 9.5nm MPV=4.7
17.	eP	21 08 21.5	Off East Coast of Honshu, Japan
	esP	08 26	40.51 N 144.00 E
	LmH	45.2	H = 20 56 13.9 h = 34 km MAG=4.6

Day	Phase	h m s	Remarks
cont.			
17.	LmV	21 49.2	D = 80.11 Az = 331.5 (USCGS) PV:1.5s 13.4nm LmH:16s 1.1/um LmV:16s 1.1/um MPV=4.7 MLH=5.3 MLV=5.3
17.	eP	22 48 21.5	Off East Coast of Honshu, Japan
	ePcP	48 30	40.60 N 143.70 E
	eS	58 24	H = 22 36 14.6 h = normal MAG=4.7
	LmH	23 22.5	D = 79.93 Az = 331.3 (USCGS)
	LmV	28.9	PV:1.6s 26.5nm SH(C):22s 0.5/um LmH:18s 3.1/um LmV:15s 1.6/um MPV=4.7 MSH(C)=5.1 MLH=5.7 MLV=5.5
17.	eP	23 29 21	Off East Coast of Honshu, Japan 40.21 N 143.27 E H = 23 17 12.4 h = normal MAG=4.9 D = 80.11 Az = 331.1 (USCGS) PV:1.0s 11.9nm MPV=4.8
18.	ePP	01 21 33	South Sandwich Islands 55.38 S 27.72 W
	LmH	02 07.5	H = 01 02 29.2 h = normal MAG=5.4 (USCGS)
	LmV	07.5	D = 110.6 LmH:17.5s 0.9/um LmV:17s 0.9/um MLH=5.4 MLV=5.4
18.	eP	05 03 09	Hokkaido, Japan 41.63 N 142.38 E H = 04 51 08.2 h = normal MAG=4.7 D = 78.54 Az = 330.5 (USCGS) PV:1.5s 16.8nm MPV=5.0
18.	eP	06 02 58	Fox Islands, Aleutian Isl. 53.78 N 168.32 W H = 05 51 24.1 h = 131 km MAG=4.5 D = 75.94 Az = 0.0 (USCGS)
18.	eP	09 19 54.5	Off East Coast of Honshu, Japan 40.47 N 143.43 E H = 09 07 47.3 h = normal MAG=4.4 D = 79.94 Az = 331.2 (USCGS)

Day	Phase	h m s	Remarks
18.	eP	14 19 51	Hokkaido, Japan 41.59 N 142.57 E H = 14 07 50.3 h = normal MAG=4.8 D = 78.64 Az = 330.6 (USCGS)
18.	eP	19 29 10	Hokkaido, Japan 41.26 N 142.43 E H = 19 17 09.6 h = normal MAG=4.6 D = 78.88 Az = 330.6 (USCGS) PV:1.3s 8.3nm MPV=4.6
19.	eP	01 30 22	Off East Coast of Honshu, Japan 39.75 N 143.70 E H = 01 18 11.9 h = normal MAG=4.4 D = 80.67 Az = 331.4 (USCGS) PV:1.2s 8.0nm MPV=4.6
19.	eP	04 25 04	Near East Coast of Honshu, Japan
	ePcP	25 13	35.63 N 141.74 E
	eS	35 24	H = 04 12 40.3 h = 64 km MAG=5.1
	LmH	05 07.7	D = 83.52 Az = 330.7 (USCGS)
	LmV	07.7	PV1(A):1.2s 12.8nm PV2(A):1.8s 40.8nm PV(B):8s 0.6/um SH:13.5s 1.4/um LmH:15s 10.1/um LmV:14s 10.9/um MPV1(A)=5.0 MPV2(A)=5.5 MPV(B)=5.9 MSH=5.9 MLH=6.3 MLV=6.4
19.	eP	05 00 48	South Atlantic Ridge 17.87 S 13.40 W H = 04 49 28.0 h = normal MAG= - D = 71.69 Az = 16.5 (USCGS) PV:1.2s 10.2nm MPV=4.8
19.	eP	06 06 35	Near East Coast of Honshu, Japan
	LmH	49.2	35.61 N 141.89 E
	LmV	49.3	H = 05 54 08.4 h = 25 km MAG=4.8 D = 83.59 Az = 330.7 (USCGS) LmH:14s 2.2/um LmV:14s 2.9/um MLH=5.7 MLV=5.8

Day	Phase	h m s	Remarks
19.	eP	09 40 25	Sicily 38.54 N 14.99 E
	e	40 28	H = 09 37 29.8 h = 24 km MAG=4.9
	e	41 27.5	D = 12.34 Az = 349.9 (USCGS)
	LmH	45.2	PV:0.9s 9.4nm
	LmV	45.9	LmH:15s 1.2/um LmV:15s 1.1/um
			MLH=5.0
19.	eP	15 16 25	Off East Coast of Honshu, Japan
	LmH	51	40.15 N 143.76 E
	LmV	57.1	H = 15 04 15.9 h = normal MAG=4.4
			D = 80.34 Az = 331.4 (USCGS)
			PV:1.2s 10.2nm
19.	eP	16 31 50	Near East Coast of Honshu, Japan
			36.85 N 141.60 E
			H = 16 19 30.1 h = normal MAG=4.5
			D = 82.40 Az = 330.5 (USCGS)
			PV:1.3s 8.3nm MPV=4.8
19.	eP	16 56 26	Iran 36.35 N 53.36 E
	e	57 05	H = 16 49 50.4 h = normal MAG=4.7
			D = 33.01 Az = 308.9 (USCGS)
19.	iP	22 28 51.8	Off East Coast of Honshu, Japan
	esP	29 04.5	40.89 N 143.18 E
	ePP	31 46	H = 22 16 44.8 h = 18 km MAG=5.1
	eS	38 50	D = 79.48 Az = 331.0 (USCGS)
	LmH	23 04.3	PV(A):2.2s 158.0nm PV(B):8s 0.56/um
	LmV	10.1	SH(C):23s 1.0/um LmH:16.5s 7.3/um
			LmV:16s 4.6/um
			MPV(A)=5.6 MPV(B)=5.6 MSH(C):5.4 MLH=6.1
			MLV=6.0
20.	eP	00 44 28	Southern Greece 37.7 N 21.1 E
			H = 00 40 55 h = 0 km (ISC)
			D = 14.7

Day	Phase	h m s	Remarks
20.	eP	02 43 49.5	Near East Coast of Honshu, Japan
	eipP	44 02.8	40.36 N 142.32 E
			H = 02 31 45.0 h = 44 km MAG=4.5 (USCGS)
			D = 79.7
			PV:1.4s 15.4nm MPV=4.8
20.	eiP	03 28 30	Off East Coast of Honshu, Japan
	eipP	28 39	39.97 N 143.98 E
	ePP	31(45)	H = 03 16 19.6 h = 31 km MAG=5.5
	eS	38 35	D = 80.58 Az = 331.5 (USCGS)
	LmH	04 10.2	PV:1.5s 80.5nm SH(C):15s 0.5/um
	LmV	10.2	LmH:14s 2.6/um LmV:16s 1.7/um
			MPV=5.5 MSH(C)=5.3 MLH=5.7 MLV=5.5
20.	eP	04 26 45	Hokkaido, Japan 41.43 N 143.20 E
	epP	26 56	H = 04 14 42.3 h = normal MAG=4.4
			D = 79.01 Az = 331.0 (USCGS)
			PV:1.6s 15.2nm MPV=4.8
20.	eP	04 49 37	Off East Coast of Honshu, Japan
	eiPcP	49 46	40.12 N 143.86 E
			H = 04 37 26.4 h = 30 km MAG=4.8
			D = 80.41 Az = 331.4 (USCGS)
			PV1:1.4s 9.2nm PV2:1.1s 14.4nm
			MPV1=4.6 MPV2=4.9
20.	eP	07 05 44	Off East Coast of Honshu, Japan
	ePP	08 48	40.28 N 143.71 E
	eS	15 47	H = 06 53 35.2 h = normal MAG=5.2
	e	23 30	D = 80.20 Az = 331.3 (USCGS)
	LmH	46.5	PV:1.4s 55.2nm SH(C):17s 0.7/um
	LmV	52.3	LmH:15.5s 3.4/um LmV:13s 2.1/um
			MPV=5.4 MSH(C)=5.4 MLH=5.8 MLV=5.7
20.	ePKIKP	07 32 59.5	Kermadec Islands 30.91 S 178.33 W
	iPKP2	33 36.5	H = 07 13 03.0 h = 22 km MAG=6.0
	ePP	37 14	D = 158.93 Az = 342.2 (USCGS)
	LmH	08 37.3	LmH:24s 2.4/um LmV:26s 2.5/um
	LmV	37.3	MLH=5.9

Day	Phase	h m s	Remarks
20.	iP	10 46 02.4	Kurile Islands 48.82 N 154.73 E
	epP	46 20	H = 10 34 16.8 h = 40 km MAG=5.4
	eisP	46 25	D = 75.99 Az = 336.8 (USCGS)
	eS	55 39	PV:1.6s 56.9nm SH=10.5s 0.6/um
	ePKKP	11 04 53	LmH:19s 3.7/um LmV:18.5s 3.6/um
	LmH	23	MPV=5.5 MSH=5.5 MLH=5.7 MLV=5.8
	LmV	23	e 46 27 i 46 32.5
20.	eP	12 05 26	Near East Coast of Kamchatka
	i	05 29	51.90 N 158.47 E
			H = 11 53 55.5 h = 55 km MAG=5.3
			D = 74.04 Az = 338.8 (USCGS)
			PV1:1.3s 22.2nm PV2:1.1s 26.4nm
			MPV1=5.0 MPV2=5.2
20.	ePKP	17 39 17	New Ireland 4.97 S 153.29 E
	epPKP	39 30	H = 17 20 22.4 h = 45 km MAG=5.3
	esPKP	39 37	D = 124.33 Az = 331.4 (USCGS)
20.	+eiPKIKP	20 25 41.5	Kermadec Islands 30.72 S 178.39 W
	ePKHKP	25 57	H = 20 05 49.1 h = 46 km MAG=6.0
	iPKP2	26 20.5	D = 158.74 Az = 342.2 (USCGS)
	LmH	58.5	PV:2.6s 915.0nm
	LmV	21 01.6	LmH:21.5s 10.2/um LmV:22s 4.6/um
			MLH=6.5
20.	+iP	21 21 43.5	Kurile Islands 44.85 N 150.29 E
	LmH	58.9	H = 21 09 44.8 h = 38 km MAG=5.8
	LmV	22 03.5	D = 78.36 Az = 334.6 (USCGS)
			PV(A):1.5s 403.0nm PV(B):12s 8.7/um
			LmH:16s 85.9/um LmV:16s 90.0/um
			MPV(A)=6.3 MPV(B)=6.7 MLH=7.2 MLV=7.2
20.	eP	23 36 22.5	Kurile Islands 45.03 N 150.46 E
	esP	36 36	H = 23 24 26.9 h = 52 km MAG=4.4
			D = 78.25 Az = 334.7 (USCGS)
			PV:1.4s 18.4nm MPV=5.0

Day	Phase	h m s	Remarks
21.	eP	00 17 06	Kurile Islands 43.92 N 150.32 E
	epP	17 20	H = 00 05 05.8 h = 45 km MAG=4.2
			D = 79.20 Az = 334.7 (USCGS)
			PV:1.5s 16.8nm MPV=4.8
21.	+iP	00 31 32	Kurile Islands 44.81 N 150.17 E
	ipP	31 49.5	H = 00 19 34.8 h = 45 km MAG=5.2
	LmH	01 08.7	D = 78.35 Az = 334.5 (USCGS)
	LmV	09.3	PV:1.6s 91.0nm
			LmH:17s 2.7/um LmV:20.5s 3.2/um
			MPV=5.6 MLH=5.7 MLV=5.7
21.	e(P)	02 42 16	Hokkaido, Japan 41.52 N 142.54 E
			H = 02 30 05.1 h = 27 km MAG=4.8
			D = 78.69 Az = 330.6 (USCGS)
21.	eiP	04 06 39	Southeastern Usbek SSR 38.92 N 65.16 E
	e	08 03	H = 03 59 11.5 h = 13 km MAG=5.4
			D = 38.96 Az = 305.5 (USCGS)
			PV:1.4s 27.6nm MPV=4.7
21.	+iP	04 23 29.5	Hokkaido, Japan 41.10 N 143.50 E
	ePcP	23 35	H = 04 11 24.7 h = normal MAG=5.5
	eS	33 26	D = 79.42 Az = 331.2 (USCGS)
	LmV	05 02	PV:1.4s 27.6nm
	LmH	02.2	LmH:18s 2.2/um LmV:18s 2.0/um
			MPV=5.1 MLH=5.6 MLV=5.5
21.	+iP	08 31 59	Kurile Islands 44.91 N 150.15 E
	eS C	41 50	H = 08 20 00.9 h = normal MAG=5.7
	LmH	09 05.8	D = 78.26 Az = 334.5 (USCGS)
	LmV	09.7	PV(A):1.6s 363.0nm PV(B):2.31/um
			SH(C):32s 5.0/um
			LmH:20s 15.1/um LmV:20s 13.3/um
			MPV(A)=6.2 MPV(B)=6.5 MSH(C)=6.1
			MLH=6.3 MLV=6.3

Day	Phase	h m s	Remarks
21.	eP	10 24 28	Kurile Islands 45.08 N 149.93 E
			H = 10 12 30.9 h = 30 km MAG=3.9
			D = 78.03 Az = 334.4 (USCGS)
21.	eP	11 12 43.5	Kurile Islands 44.74 N 150.22 E
	eipP	12 51	H = 11 00 44.6 h = normal MAG=5.1
	eS	22 44	D = 78.43 Az = 334.6 (USCGS)
	LmH	49.9	PV:1.8s 123.0nm
	LmV	51.5	LmH:14.5s 2.7/um LmV:15s 3.4/um
			MPV=5.7 MLH=5.7 MLV=5.8
21.	+iP	11 15 53	Kurile Islands 45.04 N 150.09 E
	eipP	16 05	H = 11 03 57.5 h = 48 km MAG=4.9
	isP	16 06.6	D = 78.12 Az = 334.4 (USCGS)
			PV:1.5s 94.0nm MPV=5.7
21.	eP	13 20 38	Kurile Islands 44.67 N 150.03 E
			H = 13 08 39.7 h = 40 km MAG=4.2
			D = 78.44 Az = 334.4 (USCGS)
			PV:1.8s 20.4nm MPV=4.9
21.	eP	15 22 16	Hokkaido, Japan 41.47 N 142.86 E
	ePcP	22 24	H = 15 10 13.4 h = 26 km MAG=5.0
	e	23 25	D = 78.86 Az = 330.8 (USCGS)
	LmH	55.7	LmH:17.5s 0.9/um LmV:18s 0.7/um
	LmV	59.7	MLH=5.2 MLV=5.0
21.	eP	15 40 03	Hokkaido, Japan 41.15N 143.44 E
	epP	40 15	H = 15 27 59.1 h = normal MAG=5.2
	esP	40 18	D = 79.35 Az = 331.1 (USCGS)
	LmH	16 18.8	LmH:17s 0.7/um LmV:19s 0.7/um
	LmV	18.8	MLH=5.1 MLV=5.1
21.	iP	18 59 27.5	Kurile Islands 44.83 N 150.32 E
	iPcP	59 40	H = 18 47 30.4 h = 51 km MAG=5.2
	LmH	19 36.0	D = 78.38 Az = 334.6
	LmV	41	LmH:18s 1.5/um LmV:16s 2.2/um
			MLH=5.4 MLV=5.6

Day	Phase	h m s	Remarks
22.	eP	05 39 16	Kurile Islands 44.62N 150.67 E
	ePcP	39 29	H = 05 27 18.6 h = 45 km MAG=4.5
			D = 78.67 Az = 334.8 (USCGS)
22.	-eP	11 03 53	Hokkaido, Japan 41.51 N 142.76 E
	eiPcP	03 58.8	H = 10 51 53.3 h = 40 km MAG=5.9
	eipP	04 06	D = 78.79 Az = 330.7 (USCGS)
	eisP	04 10.5	SH:9.5s 0.5/um
	eS	13 50	LmH:16s 3.8/um LmV:16s 3.4/um
	eSoS	14 08	MSH=5.5 MLH=5.8 MLV=5.8
	LmH	41.0	ei 04 15
	LmV	42.6	
22.	eP	13 34 07	Nevada 38.58 N 116.19 W
			H = 13 21 55.7 h = 13 km MAG=5.1
			D = 80.04 Az = 30.7 (USCGS)
			PV: 1.8s 15.3nm MPV=4.6
22.	eP	14 06 22	Morocco 34.90 N 4.35 W
			H = 14 01 57.3 h = 64 km MAG=4.0
			D = 19.56 Az = 31.5 (USCGS)
22.	e(pP)	15 02 20	Hokkaido, Japan 41.43 N 142.94 E
	e	02 30	H = 14 50 07.8 h = 40 km MAG=4.7
			D = 78.92 Az = 330.8 (USCGS)
22.	eP	16 01 28.5	Hokkaido, Japan 41.15 N 143.00 E
	LmH	40.0	H = 15 49 25.9 h = 31 km MAG=4.9
	LmV	40.0	D = 79.18 Az = 330.9 (USCGS)
			PV:1.3s 11.1nm
			LmH:18s 0.3/um LmV:19s 0.4/um
			MPV=4.7 MLH=4.7 MLV=4.8
22.	eP	18 48 16	Kurile Islands 44.53 N 150.26 E
	epP	48 18	H = 18 36 16.4 h = 35 km MAG=5.0
	esP	48 23	D = 78.63 Az = 334.6 (USCGS)
	LmH	19 25.4	LmH:20s 0.7/um LmV:16s 0.8/um
	LmV	30.0	MLH=5.0 MLV=5.2

Day	Phase	h m s	Remarks
22.	eP	19 41 30	Near East Coast of Honshu, Japan
	ePcP	41 42.5	40.24 N 142.26 E
	ePP	44 30	H = 19 29 25.7 h = 40 km MAG=5.3
	eS	51 28	D = 79.71 Az = 330.6 (USCGS)
	LmH	20 21.4	PV:1.6s 72.0nm
	LmV	21.5	LmH:17s 6.6/um LmV:19s 8.0/um
			MPV=5.5 MLH=6.0 MLV=6.1
22.	eP	20 13 10.5	Kurile Islands 44.83 N 150.21 E
			H = 20 01 13.3 h = 46 km MAG=5.3
			D = 78.35 Az = 334.5 (USCGS)
			PV:1.8s 51.0nm MPV=5.3
22.	eP	22 44 05	South of Honshu, Japan 31.49 N 139.85 E
			H = 22 31 23.3 h = normal MAG=4.8
			D = 86.33 Az = 329.9 (USCGS)
22.	eP	23 30 50	Hokkaido, Japan 42.17 N 141.38 E
	e	31 04.5	H = 23 18 43.8 h = 26 km MAG=4.5
			D = 77.70 Az = 329.9 (USCGS)
23.	eP	07 54 25	Kurile Islands 44.69 N 150.48 E
	esP	54 37.5	H = 07 42 28.2 h = 50 km MAG=4.9
	LmH C	08 31.5	D = 78.55 Az = 334.7
	LmV C	36.0	PV:1.5s 20.2nm
			LmH(C):21s 0.3/um LmV(C):19s 0.8/um
			MPV=5.0 MLH(C)=4.6 MLV(C)=5.1
23.	eP	14 37 35.5	Off East Coast of Honshu, Japan
	epP	37 37	40.33 N 143.69 E
	LmH	15 16.6	H = 14 25 27.0 h = normal MAG=4.6
	LmV	20.5	D = 80.15 Az = 331.3 (USCGS)
			PV:2.0s 53.0nm
			LmH:15s 1.1/um LmV:15s 0.8/um
			MPV=5.1 MLH=5.3 MLV=5.2
23.	ePKIKP	17 44 13	South Island, New Zealand
	eisPKP	44 26	41.67 S 171.92 E
	iPKP2	45 10	H = 17 24 15.7 h = 21 km MAG=6.1

Day	Phase	h m s	Remarks
cont.			
23.	iPP	17 49 09	D = 163.71 Az = 310.1 (USCGS)
	LmV	19 06.2	LmH:20.5s 53.0/um LmV:21s 53.5/um
	LmH	10.0	MLH=7.2
23.	eP	18 44 59	Kurile Islands 44.93 N 150.20 E
	ePcP	45 11.5	H = 18 33 00.9 h = normal MAG=5.1
			D = 78.25 Az = 334.5 (USCGS)
23.	ePKP	19 02 52	Kermadec Islands 30.60 S 177.66 W
	ePKP2	03 27	H = 18 43 01.4 h = 70 km MAG=5.6
	esPKP2	03 41	D = 158.80 Az = 343.5 (USCGS)
23.	eP	23 44 01	Ethiopia 14.75 N 40.22 E
			H = 23 36 06.4 h = normal MAG=4.8
			D = 42.62 Az = 333.3 (USCGS)
24.	eP	00 08 33	Off East Coast of Honshu, Japan
	ePcP	08 41.5	40.30 N 143.63 E
	LmH	43.0	H = 23d 23 56 24.7 h = 38 km MAG=4.9
	LmV	51.2	D = 80.16 Az = 331.3 (USCGS)
			LmH:19.5s 1.0/um LmV:13s 0.7/um
			MLH=5.2 MLV=5.1
24.	ePKP2	04 49 43	Fiji Islands 20.66 S 178.89 W
			H = 04 31 05.7 h = 681 km MAG=4.3
			D = 148.95 Az = 347.0 (USCGS)
			PV:1.2s 15.3nm
24.	eP	06 45 10.5	Svalbard 77.08 N 12.19 E
	epP	45 11	H = 06 39 33.8 h = normal MAG=4.3
			D = 26.54 Az = 180.8 (USCGS)
24.	eP	11 28 51	Unimak Islands 53.23 N 163.15 W
			H = 11 17 02.5 h = normal MAG=4.5
			D = 76.41 Az = 3.4 (USCGS)
			PV:0.9s 9.4nm MPV=4.9

Day	Phase	h m s	Remarks
24.	+eP	14 18 27	Off East Coast of Honshu, Japan
	-eiPP C	21 12	40.93 N 143.03 E
	ePPP C	23 11	H = 14 06 24.2 h = 38 km MAG=5.6
	iS C	28 26	D = 79.39 Az = 330.9 (USCGS)
	LmH	52.5	PV:1.6s 152.0nm SH(C):25s 6.8/um
	LmV	15 27.2	LmH:17.5s 34.4/um LmV:17.5s 37.9/um
			MPV=5.7 MSH=6.1 MLH=6.9 MLV=6.8
24.	eP	15 22 33.5	Jan Mayen Islands 71.63 N 2.36 W
			H = 15 17 39.8 h = normal MAG=4.4
			D = 21.99 Az = 155.8 (USCGS)
			PV:1.2s 17.9nm MPV=4.4
24.	eP diff.	15 57 02	Flores Sea 6.84 S 118.87 E
	ei	57 03.5	H = 15 43 54.2 h = 609 km MAG=6.0
	epP	16 00 11.5	D = 106.19 Az = 320.7 (USCGS)
	ei	03 36	
24.	ePKP2	18 01 47.5	South Islands, New Zealand
	ei	01 53.5	41.86 S 171.81 E
	LmV	19 22.0	H = 17 40 54.3 h = 27 km MAG=5.3 (USCGS)
	LmH	24.0	D = 163.8
			PV:1.6s 34.1nm
			LmH:20s 0.4/um LmV:22s 0.4/um
			MLH=5.1
24.	ePKIKP	21 17 25	South Islands, New Zealand
	-ePKP2	18 21.5	41.82 S 172.04 E
	ePP	22 06	H = 20 57 27.3 h = normal MAG=5.7
	ePPP	26 00	D = 163.87 Az = 309.8 (USCGS)
	LmH	22 21.0	PV2:1.9s 118.0nm
	LmV	25.7	LmH:18s 0.7/um LmV:18s 0.7/um
			MLH=5.4
24.	eP	21 46 34	Off East Coast of Honshu, Japan
	ePcP	46 44	40.65 N 143.94 E
			H = 21 34 23 h = 12 km MAG=4.6
			D = 79.97 Az = 331 (ISC)

Day	Phase	h m s	Remarks
24.	eP	21 48 48.5	Komandorsky Islands 54.19 N 169.31 E
	ei	48 52.5	H = 21 37 11.2 h = 5 km MAG=5.3
			D = 73.88 Az = 345.4 (USCGS)
			PV:1.2s 15.3nm MPV=4.9
25.	eP	00 34 39	Turkey 40.82 N 41.98 E
	eS	38 58	H = 00 29 25.9 h = 9 km MAG=4.6
	LmV C	48.3	D = 23.21 Az = 305.3 (USCGS)
	LmH	49.5	LmV(C):16s 0.3/um MLV=3.9
25.	eP	07 11 02	Western Caucasus 44.99 N 38.12 E
	e	11 06	H = 07 06 40.4 h = 33 km
	e	16 54	D = 18.62 Az = 297 (ISC) MAG=4.0 (AN USSR)
	e	17 54	e 18 13
25.	+eP	12 05 05	Off East Coast of Honshu, Japan
	e	05 27	40.09 N 143.10 E
	e	07 55	H = 11 52 57.4 h = 37 km MAG=5.2
	eS C	15 08	D = 80.15 Az = 331.0 (USCGS)
	LmH	40.1	PV:1.4s 92.0nm SH(C):20s 1.3/um
	LmV	44.5	LmH:18s 8.2/um LmV:15.5s 4.0/um
			MPV=5.6 MSH(C)=5.6 MLH=6.1 MLV=5.9
25.	eP	14 31 07	Off East Coast of Honshu, Japan
	e	34 09	40.72 N 143.37 E
	LmH	15 05.0	H = 14 19 01.2 h = 28 km MAG=5.1
	LmV	09.6	D = 79.73 Az = 331 (ISC)
			LmH:18.5s 1.1/um LmV:20s 1.3/um
			MLH=5.2 MLV=5.3
26.	eP	05 39 18	Turkey 40.96 N 42.21 E
			H = 05 34 31.2 h = 38 km MAG=4.3 (ISC)
			D = 23.2
26.	ePKIKP	15 01 58	Balleny Islands 63.34 S 170.71 E
	ePKP2	02 47	H = 14 41 52.4 h = 9 km MAG=5.5
	e	02 53	D = 163.04 Az = 231.2 (USCGS)
	LmH	16 25.2	LmH:19s 1.3/um LmV:18.5s 1.7/um
	LmV	31.0	MLH=5.7

Day	Phase	h m s	Remarks
26.	eP	17 53 45	Near East Coast of Honshu, Japan
	esP	54 04	40.09 N 142.28 E
			H = 17 41 40.1 h = 49 km MAG=4.6
			D = 79.84 Az = 330.6 (USCGS)
26.	ePKP	20 39 19	Fiji Islands 18.52 S 176.13 E
			H = 20 19 42.8 h = normal MAG=4.9
			D = 145.66 Az = 342.5 (USCGS)
			PV:1.3s 16.7nm
26.	eP	23 11 19	Off East Coast of Honshu, Japan
	epP	11 31.5	40.72 N 143.22 E
			H = 22 59 14.2 h = 40 km MAG=4.9
			D = 79.64 Az = 331.1 (USCGS)
			PV1:1.5s 13.4nm PV2:1.4s 18.4nm
			MPV1=4.7 MPV2=4.9
27.	ePKHKP	19 22 31.5	Tonga Islands 21.27 S 174.48 W
	e	22 41.5	H = 19 02 50.0 h = 100 km MAG=4.7
	e	23 03	D = 150.29 Az = 352.2 (USCGS)
28.	ePKIKP	09 26 25	Kermadec Islands 30.91 S 177.81 W
	ePKP2	27 02.5	H = 09 06 29.9 h = normal MAG=5.5
	ePP	30 39	D = 159.07 Az = 343.0 (USCGS)
	LmH	10 59.4	PV:2.2s 43.9nm
	LmV	11 01.4	LmH:17.5s 1.3/um LmV:18s 2.2/um
			MLH=5.7
28.	eP diff.	13 42 08	Near North Coast of West. New Guinea
	e	42 11.5	2.91 S 139.32 E
	e	42 14.5	H = 13 27 18.7 h = 65 km MAG=6.1 (USCGS)
	ePKIKP	45 53	D = 115.2
	ePP	46 52	PV:1.3s 16.7nm
	ePPP	49 35	LmH:26.5s 228.0/um LmV:27.5s 244.0/um
	eSS	14 03 28	MLH=7.7 MLV=7.7
	LmV	34.2	
	LmH	34.4	

Day	Phase	h m s	Remarks
28.	+iP	22 41 47.0	Near Islands, Aleutian Islands
	eisP	41 56	52.19 N 172.81 E
	iS C	51 31	H = 22 29 56.8 h = 15 km MAG=5.6
	eSP C	52 06	D = 76.31 Az = 347.8 (USCGS)
	LmV	23 18.6	PV:1.5s 80.5nm SH:10s 1.0/um
	LmH	23.1	LmH:16.5s 2.4/um LmV:19s 2.2/um
			MPV=5.6 MSH=5.8 MLH=5.6 MLV=5.5
28.	eP	23 12 39	Near East Coast of Honshu, Japan
			40.86 N 142.03 E
			H = 23 00 39.0 h = 60 km MAG=4.5
			D = 79.07 Az = 330.4 (USCGS)
			PV:0.8s 7.1nm MPV=4.8
29.	eP	00 20 13	Near Islands, Aleutian Islands
			52.51 N 173.06 E
			H = 00 08 27.5 h = normal MAG=4.7 (USCGS)
			D = 76.2
			PV:0.8s 7.1nm MPV=4.9
29.	LmH	09 42.0	Off East Coast of Honshu, Japan
	LmV	49.6	40.28 N 143.54 E
			H = 08 55 19.8 h = 42 km MAG=4.5 (ISC)
			D = 80.1
			LmH:20.7s 1.1/um LmV:16s 0.6/um
			MLH=5.2 MLV=5.1
29.	eP	10 16 04	Near East Coast of Honshu, Japan
			36.14 N 140.18 E
			H = 10 03 51.5 h = 89 km MAG=4.8
			D = 81.37 Az = 329.6 (USCGS)
29.	ePKP	17 41 01	New Hebrides Islands 18.59 S 169.02 E
			H = 17 21 52.9 h = 214 km MAG=5.1
			D = 143.31 Az = 335.8 (USCGS)
30.	eP	01 17 57	Southern Iran 27.83 N 54.01 E
	epP	18 09	H = 01 10 30.1 h = 27 km MAG=5.2
			D = 39.24 Az = 317.3 (USCGS)

Day	Phase	h m s	Remarks
30.	ePKP2	04 45 51	South Island, New Zealand 41.88 S 171.87 E H = 04 24 58.9 h = 30 km (ISC) D = 86.2 PV:1.2s 20.4nm MPV= 5.2
30.	+iP	05 35 47	Kurile Islands 44.67 N 150.29 E
	eiPcP	35 57	H = 05 23 48.9 h = 49 km MAG=5.5
	iS	45 42	D = 78.51 Az = 334.6 (USCGS)
	LmH	06 13.9	PV:1.8s 358.0nm SH:12.5s 1.7/um
	LmV	17.5	LmH:20.5s 14.3/um LmV:16s 10.9/um
			MPV=5.9 MSH=5.9 MLH=6.3 MLV=6.3
30.	eP	17 44 50	Eastern Mediterranean Sea
	i	45 14	35.49 N 27.96 E
	eS C	48 22	H = 17 40 24.4 h = 21 km MAG=5.3
	LmH	53.3	D = 19.22 Az = 327.0 (USCGS)
	LmV	53.3	SH(C):21s 10.0/um
			LmH:11.5s 23.1/um LmV:10.5s 22.1/um
			MSH(C)=5.5 MLH=5.8 MLV=5.9
30.	eP	18 12 25	Minando, Philippine Islands 5.22 N 126,77 E H = 17 58 40.8 h = 90 km MAG=5.1 D = 101.53 Az = 324.0 (USCGS)
30.	eP	18 17 19	Yugoslavia 45.10 N 17.06 E H = 18 15 41.6 h = normal MAG=5.8 D = 6.65
30.	-iP	20 00 07	Southern Iran 29.75 N 51.25 E
	esP	00 14.5	H = 19 53 06.0 h = 32 km MAG=5.2
	LmH	21 24.5	D = 36.19 Az = 316.5 (USCGS)
	LmV	37.6	PV:1.3s 22.2nm
			LmH:18.5s 5.2/um LmV:16.8s 7.5/um
			MPV=4.9 MLH=5.3 MLV=5.6

Day	Phase	h m s	Remarks
30.	eP	21 46 51.5	Eastern Mediterranean Sea 35.32 N 28.00 E H = 21 42 27.7 h = 55 km D = 19.38 Az = 327 (ISC) PV:1.0s 14.2nm MPV=4.2
31.	eP	10 18 36	New Hebrides Islands 20.70 S 170.03 E H = 09 59 10.0 h = 97 km MAG=4.8 D = 145.61 Az = 335.5 (USCGS)
31.	ePKP2	15 44 07	Kermadec Islands 31.01 S 177.84 W H = 15 23 26.0 h = normal MAG=4.3 (USCGS) D = 159.1
31.	eP	20 04 00	Hokkaido, Japan 41.43 N 142.65 E
	LmH	42.5	H = 19 51 58.5 h = normal MAG=4.8
	LmV	42.5	D = 78.81 Az = 330.7 (USCGS)
			LmH:15s 0.7/um LmV:16s 0.6/um
			MLH=5.0 MLV=5.1
31.	eP	23 19 24	Azores Islands 36.07 N 31.00 E H = 23 12 43.0 h = normal MAG=4.3

Day	Phase	h m s	Remarks
1.	eP	10 43 53.5	Near East Coast of Honshu, Japan
	ePcP	43 58	40.18 N 142.26 E
	epP	44 06.5	H = 10 31 49.26 h = 50 km MAG=5.4
	eS	53 55	D = 79.75 Az = 330.6 (USCGS)
	LmH	11 20.3	PV:1.6s 83.2nm
	LmV	23.8	LmH:19.5s 2.8/um LmV:17s 1.7/um
			MPV=5.7 MLH=5.6 MLV=5.5
1.	ePKP2	11 43 06	Kermadec Islands 30.98 S 177.67 W
	LmH C	13 04.9	H = 11 22 35.1 h = normal MAG=4.5 (USCGS)
	LmV	09.2	D = 158.1
			LmH(C):20s 0.4/um LmV:18s 0.8/um
			MLH=5.2
2.	ePKP	01 30 00	Fiji Islands 18.47 S 177.71 W
			H = 01 11 19.4 h = 559 km MAG=4.3
			D = 147.05 Az = 349.1 (USCGS)
2.	eP	01 38 39	Yugoslavia 45.58 N 14.93 E
	e	38 42	H = 01 37 07.5 h = 0 km
	e	38 47	D = 5.53 Az = 338 (ISC)
	ei	39 35	ei 40 08
2.	eP	06 40 14.5	Kurile Islands 44.24 N 147.19 E
			H = 06 28 18.0 h = 31 km MAG=4.9
			D = 77.92 Az = 332.9 (USCGS)
			PV:1.4s 18.4nm MPV=5.0
2.	ePKP	08 37 42	Solomone Islands 8.09 S 158.64 E
			H = 08 18 36.2 h = 35 km MAG=5.6
			D = 129.54 Az = 333.3 (USCGS)
			PV:1.7s 61.4nm
3.	eP	08 44 22	Near East Coast of Honshu, Japan
			35.87 N 141.27 E
			H = 08 32 00.9 h = 56 km MAG=4.6
			D = 83.11 Az = 330.4 (USCGS)

Day	Phase	h m s	Remarks
3.	ePKIKP	09 36 17	East New Guinea Region 5.45 S 146.95 E
	e	38 42	H = 09 17 46.2 h = 190 km MAG=5.6
			D = 121.57 Az = 328.3 (USCGS)
			PV:1.1s 12.0nm
3.	eP	10 45 26	Eastern Mediterranean Sea 35.40 N 28.08 E
	LmH	54.9	H = 10 40 59.7 h = 20 km MAG=4.4
	LmV	54.9	D = 19.35 Az = 327.0 (USCGS)
			LmH:11s 0.7/um LmV:10.5s 0.9/um
			MLH=4.2 MLV=4.5
3.	+eP	14 27 56	Kurile Islands 45.67 N 148.35 E
	iPcP	28 03	H = 14 16 20.0 h = 160 km MAG=5.4
			D = 77.01 Az = 333.4 (USCGS)
4.	eP	06 56 33	Western Iran 32.69 N 48.28 E
			H = 06 50 06.6 h = 40 km MAG=5.2
			D = 32.31 Az = 314.7 (USCGS)
4.	eP	13 32 33	Bonin Islands 27.64 N 139.72 E
			H = 13 20 26.7 h = 479 km MAG=4.4
			D = 89.58 Az = 329.9 (USCGS)
			PV:1.2s 10.2nm MPV=4.9
4.	eP	17 27 40	Taiwan 22.52 N 121.41 E
	e	43.5	H = 17 15 09.8 h = 47 km MAG=5.2
	LmH C	18 10.5	D = 84.59 Az = 323.0 (USCGS)
	LmV C	10.6	PV1:1.0s 11.8nm PV2:1.5s 47.0nm
			LmH(C):18.5s 1.2/um LmV(C):18s 1.7/um
			MPV1=5.1 MPV2=5.5 MLH(C)=5.3 MLV(C)=5.5
5.	ePKP	07 38 27	West of Tonga 17.61 S 178.72 W
			H = 07 19 47.2 h = 516 km MAG=4.0 (ISC)
			D = 146.0
5.	eP	09 35 17	Hokkaido, Japan 41.26 N 142.53 E
			H = 09 23 07.3 h = normal MAG=4.8
			D = 78.91 Az = 330.6 (USCGS)

Day	Phase	h m s	Remarks
5.	eP	23 17 23.5	Near Islands, Aleutian Islands
	epP	17 34.5	52.20 N 174.28 E
	esP	17 41	H = 23 05 36.8 h = 41 km MAG=5.0
			D = 76.49 Az = 348.7 (USCGS)
			PV2:1.3s 22.2nm MPV2=5.1
5.	ePKP	23 23 13	New Hebrides Islands 18.88 S 169.37 E
			H = 23 04 05.6 h = 215 km MAG=4.6
			D = 143.70 Az = 336.0 (USCGS)
			PV:1.2s 15.3nm
6.	ePKHKP	12 18 21.5	Tonga Islands 19.72 S 173.39 W
	epPKHKP	18 37	H = 11 58 39.4 h = 60 km MAG=4.8
			D = 148.89 Az = 353.8 (USCGS)
6.	eP	18 33 24	Near East Coast of Honshu, Japan
			40.56 N 142.33 E
			H = 18 21 25.5 h = 81 km MAG=4.6
			D = 79.45 Az = 330.6 (USCGS)
			PV:1.3s 13.9nm MPV=4.8
6.	eP	19 56 58.5	Luzon, Philippine Islands
	eSKS	20 07 24	14.88 N 119.94 E
	eS	07 44	H = 19 44 07.9 h = 80 km MAG=5.4
	ePS	08 48	D = 89.81 Az = 322.8 (USCGS)
	eSS C	13.8	LmH:16s 1.7/um LmV:17s 1.7/um
	LmV	39.7	MLH=5.6 MLV=5.6
	LmH	40	
6.	eP	21 29 14.5	Hokkaido, Japan 41.32 N 142.58 E
	epP	29 28	H = 21 17 14.4 h = 37 km MAG=5.3
	LmH	22 05.2	D = 78.89 Az = 330.7 (USCGS)
	LmV	08	PV:1.5s 47.0nm
			LmH:19s 1.6/um LmV:16s 1.1/um
			MPV=5.3 MLH=5.4 MLV=5.3
6.	eP	23 03 53.5	Kurile Islands 44.53 N 148.13 E
			H = 22 52 00.35 h = 57 km MAG=5.1
			D = 77.97 Az = 333.4 (USCGS)
			PV:1.0s 23.7nm MPV=5.3

Day	Phase	h m s	Remarks
7.	e(PKP)	05 45 41.5	Fiji Islands 16.99 S 176.89 W
	e	45 56.5	H = 05 26 20.1 h = 53 km MAG=4.6
			D = 145.74 Az = 350.4 (USCGS)
			PV:0.8s 9.4nm
7.	e(P)	09 36 21	Northern Italy 44.79 N 10.33 E
	e	36 35	H = 09 34 44.6 h = 19 km MAG=4.1
	e	36 41.5	D = 5.93 Az = 8.0 (USCGS)
	ei	36 57	ei 37 18 i 38 04
7.	ePg	10 16 35	Czechoslovakia 50.45 N 13.02 E
	e	17 03.5	Explosion of 8 tons
	LmV	17 23	H = 10 15 50.45 (PRU)
			D = 0.92 Az = 283 (ISC)
7.	eP	12 11 29	Celebes 1.78 S 120.13 E
	e	11 37	H = 11 57 29.5 h = 20 km MAG=5.9
	iPP	15 48	D = 103.05 Az = 321.7 (USCGS)
	eiS C	23 08	LmH:18.5s 28.9/um LmV:20s 27.8/um
	ePKKP	27 29	MLH=6.8 MLV=6.8
	LmV	13 02.2	
	LmH	06.5	
7.	ePKHKP	16 49 08	Fiji Islands 20.57 S 178.60 W
			H = 16 30 26.0 h = 607 km MAG=4.4
			D = 148.92 Az = 347.4 (USCGS)
			PV:1.4s 12.3nm
7.	ePKP	18 42 20	Fiji Islands 17.06 S 176.54 W
	e	42 25	H = 18 22 46.6 h = 72 km MAG=4.6
			D = 145.86 Az = 350.7 (USCGS)
7.	eP	21 44(55)	Celebes 2.13 S 120.52 E
	ePP	49 12	H = 21 30 50.3 h = 23 km MAG=5.5
	eSKS C	55 25	D = 103.57 Az = 321.7 (USCGS)
	ePPS C	58 12	LmH:25s 10.3/um LmV:22s 3.0/um
	eSS C	22 04 00	MLH=6.2 MLV=5.8
	LmH	30.9	
	LmV	36	

Day	Phase	h m s	Remarks
8.	ePKIKP	00 35 49	Solomon Islands 8.79 S 157.58 E
	esPKIKP	35 52	H = 00 16 39.5 h = normal MAG=5.4
	e	37 55	D = 129.69 Az = 332.4 (USCGS)
8.	eiP	00 48 39.5	North of Franz Josef Land
	epP	48 48	87.04 N 51.29 E
	esP	48 54	H = 00 41 29.0 h = normal MAG=5.3
	LmH	01 36.2	D = 37.29 Az = 222.1 (USCGS)
	LmV	36.2	PV:1.4s 46.0nm
			LmH:16s 1.2/um LmV:16s 1.3/um
			MPV=5.0 MLH=4.8 MLV=4.9
8.	eP	02 56 44.5	Off East Coast of Honshu, Japan
	eiPcP	56 54	40.58 N 143.69 E
	e	59 39	H = 02 44 37.3 h = normal MAG=4.7
	ePP	59 53	D = 79.94 Az = 331.3 (USCGS)
	LmH	03 31	PV:1.2s 17.9nm
	LmV	36.2	LmH:17.5s 1.6/um LmV:16s 0.9/um
			MPV=4.9 LmH=5.4 LmV=5.2
8.	+iP	05 41 45	Kurile Islands 43.42 N 147.01 E
	ipP	41 55	H = 05 29 46.5 h = 43 km MAG=5.3
	eS	51 35	D = 78.61 Az = 332.9 (USCGS)
	LmV	06 21.3	PV:2.1s 329nm
	LmH	21.5	LmH:16s 2.4/um LmV:17.5s 3.1/um
			MPV=6.1 MLH=5.6 MLV=5.7
8.	eP	06 19 30	North of Franz Josef Land
			86.97 N 50.05 E
			H = 06 12 19.6 h = normal MAG=4.4
			D = 37.19 Az = 220.9 (USCGS)
			PV:1.3s 13.9nm MPV=4.5
8.	eP	06 43 41	Dodecanese Islands 35.4 N 27.95 E
			H = 06 39 12.0 h = 0 km
			D = 19.31 Az = 327 (ISC)

Day	Phase	h m s	Remarks
8.	eP	11 14 11	Off East Coast of Kamchatka
	e	14 21	51.18 N 159.02 E
			H = 11 02 30.7 h = normal MAG=4.1
			D = 74.84 Az = 339.2 (USCGS)
			PV2:1.2s 12.8nm MPV2=4.8
8.	ePKP	13 50 00	Loyalty Islands 21.77 S 169.79 E
	esPKP2	50 21	H = 13 30 20.3 h = normal
			D = 146.48 Az = 334.6 (USCGS)
8.	eP	21 00 55	Northeast of Taiwan 26.32 N 124.42 E
			H = 20 28 44.4 h = 160 km MAG=5.0
			D = 83.19 Az = 323.8 (USCGS)
			PV:1.3s 11.1/um MPV=4.9
8.	eP	21 06 46	Hokkaido, Japan 41.47 N 142.28 E
	epP	06 56.5	H = 20 54 45.2 h = 30 km MAG=5.2
			D = 78.64 Az = 330.5 (USCGS)
			PV:1.2s 15.3nm MPV=5.0
8.	eP	21 54 36	Ryukyu 28.44 N 129.59 E
	epP	54 50	H = 21 42 06.3 h = 33 km MAG=5.2
			D = 84.13 Az = 325.6 (USCGS)
8.	eP	23 37 52	South of Africa 48.75 S 31.53 E
	iPP	41 58	H = 23 24 05.2 h = normal MAG=5.6
	ePS	51 00	D = 100.48 Az = 347.3 (USCGS)
	eiSS	56 25	LmH:20s 20.3/um LmV:16.5s 13.3/um
	LmH	24 19.4	MLH=6.6 MLV=6.5
	LmV	26.7	
9.	eP	01 02 10	Northwest Iran - USSR Border Region
	epP	02 14	38.95 N 46.03 E
			H = 00 56 33.9 h = 50 km MAG=5.0
			D = 26.83 Az = 307.1 (USCGS)
			PV:1.5s 50.4nm MPV=5.0

Day	Phase	h m s	Remarks
9.	ePKP	02 54 56	Fiji Islands 16.66 S 177.98 W H = 02 36 09.6 h = 521 km MAG=3.8 D = 145.23 Az = 349.3 (USCGS)
9.	eP	04 25(24)	Nicobar Islands 6.44 N 95.22 E H = 04 13 08.3 h = normal MAG=4.2 D = 81.00 Az = 320.2 (USCGS)
9.	e	09 13(35)	Kermadec Islands 30.40 S 177.97 W
	ePKP2	13 46	H = 08 53 10.1 h = 79 km MAG=4.5 (USCGS) D = 158.5
9.	ePKIKP	09 36 14.5	South of Fiji Islands 24.12 S 178.50 E
	ePKHKP	36 22	H = 09 17 31.7 h = 580 km MAG=5.1
	ePKP2	36 33	D = 151.63 Az = 342.3 (USCGS) PV1:1.6s 15.2nm PV2:1.4s 36.8nm
9.	eP	14 00 22	Off East Coast of Honshu, Japan
	epP	00 30	39.90 N 144.02 E
	LmH	40.0	H = 13 48 14.5 h = 67 km MAG=4.4
	LmV	40.9	D = 80.66 Az = 331.5 (USCGS) PV:1.6s 15.2nm LmH:14s 1.1/um LmV:14.5s 0.4/um MPV=4.8 MLH=5.4 MLV=5.0
9.	eP	18 11 15.5	Hokkaido, Japan 41.44 N 142.56 E
	epP	11 20	H = 17 59 13.3 h = 21 km MAG=4.9 D = 78.77 Az = 330.6 (USCGS)
9.	ePKP2	22 22 31	Kermadec Islands 31.25 S 177.81 W
	e	22 43.5	H = 22 01 57.6 h = normal MAG=5.0 (USCGS) D = 159.2 PV2:1.4s 33.8nm
10.	eP	04 32 54	Kurile Islands 44.22 N 148.73 E H = 04 20 56.2 h = 43 km MAG=4.4 D = 78.44 Az = 333.8 (USCGS)

Day	Phase	h m s	Remarks
10.	+eP	12 52 18	Alaska Peninsula 56.34 N 161.55 W
	+ipP	53 03.4	H = 12 41 05.7 h = 182 km MAG=5.6
	eS	13 01 31	D = 73.23 Az = 4.5 (USCGS)
	esS	02 45	
	LmH C	12.8	
10.	ePKP	14 42 16.5	Tonga Islands 16.33 S 173.56 W
	epPKP2	42 30.5	H = 14 22 42.5 h = 60 km MAG=4.5 D = 145.51 Az = 354.2 (USCGS) PV:1.3s 16.3nm
10.	eP	15 16 06	North Atlantic Ridge 22.26 N 44.96 W
	eS	23 31	H = 15 06 57.7 h = normal MAG=4.7
	LmH	34.5	D = 52.02 Az = 42.4 (USCGS)
	LmV	34.5	LmH:20s 0.3/um LmV:20s 0.4/um MLH=4.7 MLV=4.9
10.	ePKP2	15 49 53	Kermadec Islands 31.13 S 177.70 W
			H = 15 29 21.1 h = normal MAG=4.7 (USCGS) D = 159.3 PV:1.4s 9.2nm
11.	+iP	03 13 47.0	Eastern Kazakh SSR 49.84 N 78.16 E
	e	14 13	Probably underground explosion
	e	14 20.5	H = 03 05 57.8 h = 0 km MAG=5.3
	ePP	15 19	D = 41.25 Az = 297.7 (USCGS)
	e	15 26	PV:0.6s 59.5nm MPV=5.5
11.	eP	06 04 51	El Salvador 13.94 N 88.76 W
	epP	05 41	H = 05 52 33.5 h = 199 km MAG=5.3
	eS	15 00	D = 85.80 Az = 38.9 (USCGS)
	ePS	16(25)	PV:1.4s 21.5nm MPV=5.2
11.	eP	10 37 34.5	Southern Sumatra 5.84 S 103.93 E
	epP	37 50	H = 10 24 12.4 h = 60 km MAG=5.4
	ePP	41 40	D = 95.94 Az = 320.2 (USCGS) PV1:1.5s 13.4nm PV2:1.4s 46.0nm PPV:2.0s 46.4nm MPV1=5.2 MPV2=5.8 MPPV=5.6

Day	Phase	h m s	Remarks
11.	eP	17 49 10.5	Yugoslavia 43.02 N 17.12 E
	e	49 16	H = 17 47 07.6 h = normal MAG=4.3
			D = 8.51 Az = 335.7 (USCGS)
			PV2:0.6s 19.0nm
11.	eP	18 54 12	Kurile Islands 44.95 N 149.49 E
			H = 18 42 17.4 h = 40 km MAG=4.5
			D = 78.02 Az = 334.1 (USCGS)
			PV:1.0s 9.5nm MPV=4.9
11.	+eP	22 42 07.5	Kurile Islands 45.61 N 150.89 E
	iPcP	42 14	H = 22 30 15.50 h = 60 km MAG=4.7
	LmH C	23 19.0	D = 77.85 Az = 334.9 (USCGS)
	LmV C	19.0	PV:1.1s 19.2nm
			LmH(C):20s 0.2/um LmV(C):22s 0.2/um
			MPV=5.1 MLH(C)=4.4 MLV(C)=4.4
12.	-iP	04 40 00.8	India - East Pakistan Border Region
	epP	40 14.5	24.87 N 91.93 E
			H = 04 29 22.6 h = 44 km MAG=5.3
			D = 65.18 Az = 316.3 (USCGS)
12.	eP	09 09 28	Eastern Mediterranean Sea
	e	09 34.5	35.32 N 27.99 E
	eS	13 03	H = 09 05 04.6 h = normal MAG=4.6
			D = 19.38 Az = 327.2 (USCGS)
12.	+iP	13 54 00	Near East Coast of Honshu, Japan
			39.49 N 142.74 E
			H = 13 41 50.7 h = 44 km MAG=6.0
			D = 80.54 Az = 330.9 (USCGS)
12.	eP	14 29 38	Off East Coast of Honshu, Japan
	ePcP	29 42	39.18 N 142.96 E
	epP	29 47	H = 14 17 25.8 h = 32 km MAG=5.2
			D = 80.89 Az = 331.0 (USCGS)

Day	Phase	h m s	Remarks
12.	iP	14 50 23	Near East Coast of Honshu, Japan
	ePcP	50 26	39.37 N 142.82 E
	epP	50 33	H = 14 38 11.9 h = 31 km MAG=5.0
			D = 80.67 Az = 331.0 (USCGS)
12.	eP	15 04 09	Off East Coast of Honshu, Japan
			39.89 N 143.09 E
			H = 14 51 59.8 h = normal MAG=4.5
			D = 80.32 Az = 331.1 (USCGS)
12.	eP	15 21 04	Off East Coast of Honshu, Japan
			39.52 N 142.96 E
			H = 15 08 52.2 h = 28 km MAG=5.1
			D = 80.59 Az = 331.0 (USCGS)
			PV:1.3s 27.8nm MPV=5.1
12.	+eP	15 36 04	Off East Coast of Honshu, Japan
			39.39 N 143.10 E
			H = 15 23 52.5 h = 29 km MAG=5.1
			D = 80.76 Az = 331.1 (USCGS)
12.	eP	16 01 11.5	Off East Coast of Honshu, Japan
			39.26 N 143.01 E
			H = 15 48 59.5 h = 30 km MAG=5.1
			D = 80.84 Az = 331.1 (USCGS)
			PV:1.0s 19.0nm MPV=5.1
12.	eP	16 35 30	Off East Coast of Honshu, Japan
	ePcP	35 37	39.51 N 143.12 E
			H = 16 23 17.1 h = 21 km MAG=4.7
			D = 80.66 Az = 331.1 (USCGS)
12.	eP	16 41 27	Off East Coast of Honshu, Japan
			38.99 N 143.51 E
			H = 16 29 13.3 h = normal MAG=4.3
			D = 81.26 Az = 331.3 (USCGS)
12.	eP	18 04 14	Near East Coast of Honshu, Japan
	esP	04 24	39.15 N 142.91 E
			H = 17 52 01.2 h = 30 km MAG=5.5
			D = 80.90 Az = 331.0 (USCGS)

Day	Phase	h m s	Remarks
12.	eP	19 01 04.5	Near East Coast of Honshu, Japan
			39.36 N 142.84 E
			H = 18 48 53.4 h = normal MAG=4.7
			D = 80.69 Az = 331.0 (USCGS)
			PV:1.3s 11.1nm MPV=4.7
12.	eP	19 07 58	Off East Coast of Honshu, Japan
			39.61 N 143.25 E
			H = 18 55 46.4 h = 30 km MAG=5.0
			D = 80.61 Az = 331.1 (USCGS)
			PV:1.3s 16.7nm MPV=4.9
12.	eP	20 25 25	Off East Coast of Honshu, Japan
	epP	25 34.5	39.34 N 143.07 E
			H = 20 13 14.0 h = normal MAG=4.4
			D = 80.79 Az = 331.1 (USCGS)
12.	eP diff.	20 30 14	Western New Guinea Region 0.63 S 132.81 E
			H = 20 15 44 h = 7 km MAG=5.5
			D = 109.76 Az = 325 (ISC)
12.	+eiP	22 09 52.5	Near East Coast of Honshu, Japan
	iPcP	10 00	39.29 N 142.77 E
	eS	19 54	H = 21 57 41.3 h = 36 km MAG=5.7
			D = 80.73 Az = 330.9 (USCGS)
			PV:1.3s 61.0nm MPV=5.4
12.	eP	23 39 20	Mindoro, Philippine Islands
	epP	40 04	13.82 N 120.68 E
	eiPP	43 00	H = 23 26 30.8 h = 141 km MAG=5.0
	epPP	43 40	D = 91.09 Az = 323.0 (USCGS)
	eSKS	49 50	PV2:1.5s 47.0nm MPV2=5.1
	eS	50 08	
13.	eP	00 17 12	Off East Coast of Honshu, Japan
	esP	17 18	39.49 N 142.97 E
			H = 00 05 00.7 h = 24 km MAG=5.3
			D = 80.63 Az = 331.0 (USCGS)

Day	Phase	h m s	Remarks
13.	e(P)	01 55 12	Off East Coast of Honshu, Japan
	e	55 19.5	39.46 N 142.99 E
			H = 01 42 54.9 h = normal MAG=4.7
			D = 80.66 Az = 331.0 (USCGS)
13.	eP	02 17 55	Near East Coast of Honshu, Japan
	ePcP	18 02	39.45 N 142.81 E
			H = 02 05 42.8 h = 25 km MAG=5.1
			D = 80.60 Az = 331.0 (USCGS)
			PV:1.0s 19.0nm MPV=5.0
13.	eP	04 03 04.5	Jan Mayen Island 71.17 N 5.57 W
			H = 03 58 11.5 h = normal MAG=4.6
			D = 22.05 Az = 149.9 (USCGS)
13.	eP	07 47 28	Galapagos Islands 0.29 S 91.46 W
	ePP	51 24	H = 07 33 50.5 h = normal MAG=5.3
	eSKS	58 12	D = 98.51 Az = 38.8 (USCGS)
	eSP	08 00 20	LmH:17s 0.3/um LmV:16s 0.5/um
	eSS C	05 55	MLH=4.9 MLV=5.1
	LmH	31	
	LmV	34.6	
13.	eP	09 00 26.5	Off East Coast of Honshu, Japan
	ePcP	00 32.5	39.07 N 143.24 E
			H = 08 48 12.8 h = 28 km MAG=4.7
			D = 81.09 Az = 331.2 (USCGS)
			PV:1.5s 13.4nm MPV=4.8
13.	eP	12 08 35.5	Off East Coast of Honshu, Japan
	ePP	11 40	39.19 N 142.96 E
	eS	18 40	H = 11 56 23.4 h = normal MAG=5.3
	LmH	48.2	D = 80.88 Az = 331.0 (USCGS)
	LmV	52.2	PV:1.1s 38.5nm
			LmH:14s 2.4/um LmV:13s 2.0/um
			MPV=5.4 MLH=5.7 MLV=6.0

Day	Phase	h m s	Remarks
13.	eP	15 08 27.5	Near East Coast of Honshu, Japan
	LmH	48.0	39.45 N 142.89 E
	LmV	48.3	H = 14 56 15.1 h = 20 km MAG=5.1
			D = 80.63 Az = 331.0 (USCGS)
			PV:1.4s 24.6nm
			LmH:14.5s 0.5/um LmV:14s 0.5/um
			MPV=5.0 MLH=5.0 MLV=5.0
13.	eiP	15 46 35	West Pakistan 24.70 N 66.38 E
	LmH C	16 37	H = 15 37 43.3 h = normal MAG=5.1
			D = 49.12 Az = 316.5 (USCGS)
			LmH(C):22s 0.3/um MLH(C)=4.2
13.	+iP	21 22 47.5	Near East Coast of Honshu, Japan
	isP	22 57.5	39.39 N 142.92 E
	eS	32 52	H = 21 10 35.4 h = 29 km MAG=5.5
	LmH	22 04	D = 80.70 Az = 331.0 (USCGS)
	LmV	04	PV1:1.6s 45.5nm PV2:1.9s 212.0nm
			LmH:16s 4.4/um LmV:17.5s 5.1/um
			MPV1=5.2 MPV2=5.8 MLH=5.9 MLV=5.9
13.	eP	23 11 03	Southern Iran 29.74 N 51.46 E
	epP	11 10	H = 23 04 00.3 h = normal MAG=5.0
	esP	11 18	D = 36.32 Az = 316.5 (USCGS)
14.	eP	00 58 20.5	Near East Coast of Honshu, Japan
			39.65 N 142.46 E
			H = 00 46 08.2 h = normal MAG=4.6
			D = 80.29 Az = 330.7 (USCGS)
14.	ePKP	03 08 46	Loyalty Islands 21.46 S 170.46 E
			H = 02 49 14.4 h = 94 km
			D = 146.46 Az = 335.4 (USCGS)
			PV:1.0s 7.1nm
14.	eP	03 30 29	Near East Coast of Honshu, Japan
	e	30 37	39.35 N 142.85 E
	e	30 48.5	H = 03 18 17.3 h = 38 km MAG=5.0

Day	Phase	h m s	Remarks
cont.			
14.	eS	03 40 32	D = 80.70 Az = 331.0 (USCGS)
	eSKS	40 35	LmH:17s 2.5/um LmV:16s 2.1/um
	LmH	04 06	MLH=5.6 MLV=5.6
	LmV	11	
14.	e(P)	06 17 21	Near East Coast of Honshu, Japan
	e	17 26	39.37 N 142.85 E
			H = 06 05 03.3 h = normal MAG=4.6
			D = 80.69 Az = 331.0 (USCGS)
14,	eP	10 53 40	Galapagos Islands 0.40 S 91.81 W
	ePP	57 41	H = 10 39 59.1 h = normal MAG=4.7
	eSKS	11 04 25	D = 98.81 Az = 38.8 (USCGS)
	eSP	06 30	
14.	+eiP	12 04 51	Near East Coast of Honshu, Japan
	esP	05 00	39.33 N 142.84 E
	ei	05 12	H = 11 52 39.7 h = 37 km MAG=5.4
	e	07 43	D = 80.72 Az = 331.0 (USCGS)
	LmH	43.6	PV:1.3s 50.0nm
	LmV	44.7	LmH:15.5s 1.5/um LmV:15s 1.3/um
			MPV=5.4 MLH=5.4 MLV=5.4
14.	eP	12 29 29.5	Kurile Islands 45.18 N 153.53 E
	ePcP	29 37	H = 12 17 27.7 h = 41 km MAG=5.5
	LmH	13 08.2	D = 79.01 Az = 336.4 (USCGS)
	LmV	12.0	PV:1.4s 36.8nm MPV=5.2
			LmH:13.5s 0.9/um LmV:16s 0.9/um
			MLH=5.2 MLV=5.2
14.	ePKP	13 08 35	Samoa Islands 15.75 S 172.94 W
			H = 12 48 50.4 h = normal MAG=4.8
			D = 145.00 Az = 354.9 (USCGS)
14.	eP	13 35 14.5	Off East Coast of Kamchatka
	epP	35 27	51.71 N 159.33 E
	LmH	14 13.9	H = 13 23 38.6 h = normal MAG=5.0

Day	Phase	h m s	Remarks
cont.			
14.	LmV	14 13.9	D = 74.41 Az = 339.3 (USCGS) PV:1.5s 43.6nm LmH:14s 1.5/um LmV:14s 2.0/um MPV=5.3 MLH=5.4 MLV=5.6
14.	eP	15 30 40	Off East Coast of Kamchatka
	LmH	16 09.5	51.72 N 159.05 E
	LmV	09.5	H = 15 19 03.7 h = normal MAG=4.4 D = 74.34 Az = 339.2 (USCGS) LmH:16s 0.3/um LmV:14.5s 0.5/um MLH=4.7 MLV=5.0
14.	eP	16 37 28	Galapagos Islands 0.19 S 91.37 W
	ePP	41 24	H = 16 23 44.7 h = normal MAG=4.9
	eSKS	48 08	D = 98.37 Az = 38.8 (USCGS)
	eSP	50 22	
	LmH	17 15.1	
	LmV	15.1	
14.	ePKP2	19 24 20	South Islands, New Zealand
			41.91 S 171.89 E
			H = 19 03 27.8 h = 25 km MAG=5.3 (USCGS)
			D = 163.8
			PV:1.6s 30.3nm
14.	eP	22 41 26	Galapagos Islands 0.28 S 91.24 W
	ePP	45 22	H = 22 27 43.8 h = 21 km MAG=5.2
	eSKS	52 10	D = 98.36 Az = 38.9 (USCGS)
	eSP	54 20	LmH:18s 0.5/um LmV:19s 0.7/um
	LmH	23 24.8	MLH=5.1 MLV=5.2
	LmV	24.8	
14.	eP	22 53 32.5	Off East Coast of Kamchatka
			51.71 N 159.39 E
			H = 22 41 50.3 h = 33 km MAG=4.6
			D = 74.42 Az = 339.4 (USCGS)

Day	Phase	h m s	Remarks
14.	eP	23 14 42	Off East Coast of Kamchatka
	ePcP	14 49	51.66 N 159.40 E
	LmV	53.3	H = 23 03 05.2 h = normal MAG=4.9
	LmH	53.4	D = 74.47 Az = 339.4 (USCGS)
			LmH:13s 0.4/um LmV:14s 0.8/um
			MLH=4.9 MLV=5.2
14.	ePKP	23 21 02.5	Samoa Islands 15.78 S 172.73 W
	epPKP2	21 13	H = 23 01 27.7 h = normal MAG=5.0
			D = 145.05 Az = 355.2 (USCGS)
15.	eP	00 55 20.5	Off East Coast of Kamchatka
			51.53 N 159.55 E
			H = 00 43 43.3 h = normal MAG=4.4
			D = 74.63 Az = 339.5 (USCGS)
15.	eP	02 26 24	Near West Coast of Honshu, Japan
			37.26 N 138.64 E
			H = 02 14 08.5 h = 9 km MAG=5.0
			D = 80.85 Az = 329.0 (USCGS)
			PV:1.3s 22.3nm MPV=5.0
15.	eP	03 43 31.5	Near East Coast of Honshu, Japan
	eisP	43 33.8	39.32 N 142.84 E
	eS	53 35	H = 03 31 18.3 h = 25 km MAG=5.4
	LmH	04 17.5	D = 80.73 Az = 331.0 (USCGS)
	LmV	22.1	PV:0.9s 9.4nm sPV:1.3s 27.8nm
			LmH:17.5s 1.7/um LmV:17s 0.6/um
15.	eP	05 24 06	Near Coast of Chiapas, Mexico
	ePcP	24 09	14.45 N 92.87 W
			H = 05 11 17.2 h = 25 km MAG=5.4
			D = 87.89 Az = 38.1 (USCGS)
			PV:1.3s 11.1nm MPV=5.0
15.	-eiP	06 11 18.8	East China Sea 26.96 N 126.50 E
	+iPcP	11 20.3	H = 05 58 59.0 h = 88 km MAG=5.7
	eS	21 29	D = 83.76 Az = 324.5 (USCGS)

Day	Phase	h m s	Remarks
cont.			
15.	LmH	06 47.9	LmH:17s 1.3/um LmV:14s 0.9/um
	LmV	55.6	MLH=5.4 MLV=5.3
15.	+eP	07 21 41	South of Panama 5.60 N 82.57 W
	eiPcP	21 42.8	H = 07 08 48.1 h = 16 km MAG=6.0
	eSKS	32 10	D = 88.37 Az = 39.4 (USCGS)
	eiScS	32 28	LmH:22s 9.7/um LmV:22.5s 11.2/um
	ePS	33 30	MLH=6.1 MLV=6.2
	eSS	38 20	
	LmH	55.8	
	LmV	55.8	
15.	eP	11 29 07.5	Sakhalin Islands 52.12 N 143.61 E
			H = 11 17 57.9 h = normal MAG=4.6
			D = 69.85 Az = 329.7 (USCGS)
15.	+iP	11 39 08.8	Off East Coast of Kamchatka
	LmH	12 17.8	51.71 N 159.36 E
	LmV	17.8	H = 11 27 32.9 h = 39 km MAG=5.4
			D = 74.42 Az = 339.3 (USCGS)
			PV:1.1s 81.7nm
			LmH:14s 1.5/um LmV:14.5s 2.2/um
			MPV=5.7 MLH=5.4 MLV=5.6
15.	eP	13 28 17	Galapagos Islands 0.29 S 91.14 W
	ePP	32 12	H = 13 14 36.7 h = normal MAG=5.2
	eSKS	39 03	D = 98.31 Az = 38.9 (USCGS)
	ePS	41 12	LmH:17s 0.6/um LmV:17s 0.8/um
	LmH	14 11.2	MLH=5.2 MLV=5.3
	LmV	11.5	
15.	eP	13 49 02	Southern Alaska 60.97 N 146.88 W
	e	49 09	H = 13 38 06.5 h = 19 km MAG=4.9
	e	49 34	D = 67.41 Az = 14.6 (USCGS)
15.	ePKP	13 53 45	New Hebrides Islands 18.25 S 167.94 E
	epPKP	53 50	H = 13 34 14.4 h = 11 km MAG=5.5
	esPKP	53 55	D = 142.58 Az = 335.1 (USCGS)

Day	Phase	h m s	Remarks
15.	eiP	14 12 17.5	Southern Nevada Nuclear Explosion "Rickey"
	ePP	15 22.5	37°15'54" N 116°18'53" W
			H = 14 00 00 h = 15 km MAG=5.9 (ISC)
			D = 81.21 Az = 31 (USAEC)
			PV:1.2s 91.8nm MPV=5.7
15.	eP	14 33 44	Yugoslavia 42.90 N 18.56 E
	e	34 12	H = 14 31 32.1 h = normal MAG=4.2
	e	35 26.5	D = 9.10 Az = 330.8 (USCGS)
	e	35 34.5	43.61 N 18.6 E
	e	35 49	H = 14 31 42 h = 66 km MAG=4.0
			D = 8.47 Az = 329 (ISC)
15.	eP	17 53 58	Galapagos Islands 0.19 S 91.40 W
	ePP	57 55	H = 17 40 17.4 h = normal MAG=5.0
	eSKS	18 04 40	D = 98.39 Az = 38.8 (USCGS)
	eSP	06 48	LmH:20s 0.5/um LmV:20s 0.6/um
	LmH	32.5	MLH=5.0 MLV=5.1
	LmV	32.5	
15.	e(PKP)	19 52 06	Loyalty Islands 21.50 S 169.11 E
			H = 19 32 07.6 h = 36 km MAG=4.7
			D = 145.97 Az = 334.2 (USCGS)
			PV:1.3s 11.1nm
15.	eP	20 05 08	Hokkaido, Japan 41.89 N 142.69 E
	epP	05 22	H = 19 53 09.2 h = normal MAG=5.2
	LmH	20 43.0	D = 78.43 Az = 330.7 (USCGS)
	LmV	43.0	PV:1.2s 30.6nm MPV=5.3
15.	eP C	21 38 41	Galapagos Islands 0.07 S 91.43 W
	ePP	42 40	H = 21 25 01.4 h = normal MAG=5.2
	eSKS	49 22	D = 98.32 Az = 38.8 (USCGS)
	ePS C	51 40	LmH:18s 0.3/um LmV:19s 0.4/um
	LmH	22 22	MLH=4.8 MLV=4.9
	LmV	22	

Day	Phase	h m s	Remarks
16.	eP	00 44 40	Galapagos Islands 0.19 S 91.30 W
	ePcP	44 44	H = 00 31 03.2 h = 30 km MAG=5.0
	ePP C	48 40	D = 98.33 Az = 38.8 (USCGS)
	eSKS	55 32	LmH:20s 0.5/um LmV:20s 0.4/um
	eSP C	57 40	MLH=5.0 MLV=4.9
	LmH	01 23.7	
	LmV	24	
16.	eP C	04 00 42	Galapagos Islands 0.24 S 91.26 W
	ePP C	04 42	H = 03 47 08.3 h = normal MAG=4.9
	eSKS C	11 32	D = 98.34 Az = 38.9 (USCGS)
	eSP C	13 40	LmH:20s 0.4/um LmV:20s 0.5/um
	LmH	39	MLH=4.9 MLV=5.0
	LmV	38	
16.	e(P)	05 09 05	Tristan da Cunha 36.18 S 15.86 W
			H = 04 55 57.0 h = normal MAG=5.1
			D = 89.78 Az = 17.1 (USCGS)
16.	eP	07 26 55	Galapagos Islands 0.17 S 91.25 W
	ePP	30 55	H = 07 13 16.7 h = normal MAG=4.9
	eSKS	37 42	D = 98.28 Az = 38.8 (USCGS)
	ePS	39 49	LmH:18s 0.4/um LmV:18s 0.4/um
	LmH	08 09.5	MLH=5.0 MLV=5.0
	LmV	10.5	
16.	eP	08 39 06	Turkey 36.89 N 34.48 E
	ei	39 10.5	H = 08 34 18.6 h = 25 km MAG=4.5
			D = 21.37 Az = 317.3 (USCGS)
			PV:1.5s 27.0nm MPV=4.4
16.	eP	10 25 55	Galapagos Islands 0.30 S 91.31 W
	ePP	29 50	H = 10 12 14.3 h = normal MAG=4.6 (USCGS)
	eSKS C	36 39	D = 98.48 Az = 39 (ISC)
	ePS	38 48	LmH:18s 0.4/um LmV:18s 0.4/um
	LmH	11 09.3	MLH=4.9 MLV=5.0
	LmV	09.3	

Day	Phase	h m s	Remarks
16.	eP	13 06 26	Sicily 37.96 N 14.87 E
	e	06 27	H = 13 03 23.1 h = normal MAG=4.8
	ei	06 37	D = 12.89 Az = 350.7 (USCGS)
	LmH	13 12.2	PV2:1.4s 49.0nm PV3:1.1s 77.0nm
	LmV	12.2	LmH:17s 1.0/um LmV:17s 1.4/um
			MLH=3.9
16.	eP C	16 33 52	Galapagos Islands 0.42 S 91.37 W
	ePP C	37 52	H = 16 20 14.9 h = normal MAG=4.7
	eSKS C	44 40	D = 98.55 Az = 38.9 (USCGS)
	eSP C	46 46	LmH:21.5s 0.7/um LmV:22s 0.6/um
	LmH	17 12.5	MLH=5.1 MLV=5.1
	LmV	12.5	
16.	ePP	19 32 27	Bouvet Island Region 53.92 S 8.70 E
	ePS C	41 34	H = 19 14 05.3 h = normal MAG=5.7 (USCGS)
	ePPS	42 25	D = 104.3
	eSS	47 10	LmH:20s 3.5/um LmV:19s 3.6/um
	LmH	20 15.2	MLH=5.9 MLV=5.9
	LmV	15.2	
16.	eP	23 24 23	Galapagos Islands 0.62 S 91.82 W
	ePP	28 33	H = 23 10 39.2 h = normal MAG=4.6
	eSKS C	35 05	D = 98.99 Az = 38.8 (USCGS)
	ePS C	37 18	LmH:18s 0.2/um LmV:18s 0.3/um
	LmH	24 07.7	MLH=4.7 MLV=4.9
	LmV	07.7	
17.	eP C	02 28 33	Galapagos Islands 0.74 S 91.83 W
	ePP C	32 30	H = 02 14 48.8 h = normal MAG=4.7
	eSKS C	39 14	D = 99.08 Az = 38.8 (USCGS)
	eSP C	41 25	LmH:20s 0.4/um LmV:21s 0.4/um
	LmH	03 07.5	MLH=4.9 MLV=4.9
	LmV	08	
17.	eP	04 39 04	Taiwan 22.42 N 121.36 E
			H = 04 26 31.9 h = 39 km MAG=5.1
			D = 84.64 Az = 323.0 (USCGS)
			PV:1.1s 9.6nm MPV=4.9

Day	Phase	h m s	Remarks
17.	eP	04 42 03	Galapagos Islands 0.25 S 91.49 W
	ePP	46 00	H = 04 28 22.0 h = normal MAG=4.5
	eSKS	52 44	D = 98.50 Az = 38.8 (USCGS)
	ePS	54 55	LmH:16s 1.0/um LmV:18s 1.4/um
	LmH	21.1	MLH=5.4 MLV=5.5
	LmV	22.0	
17.	eP	05 04 46	Eastern Caucasus 40.88 N 48.20 E
			H = 04 59 04.7 h = normal MAG=5.0
			D = 27.08 Az = 303.5 (USCGS)
17.	eP	08 09 44	Near East Coast of Chiapas, Mexico
			14.39 N 92.89 W
			H = 07 56 56.2 h = normal MAG=4.9
			D = 87.94 Az = 38.1 (USCGS)
			PV:1.5s 13.4nm MPV=5.0
17.	eP	09 31 53	Northern Italy 44.1 N 8.5 E
	e	32 07	H = 09 29 57 h = 0 km
	e	32 15	D = 6.85 Az = 17 (ISC)
	e	32 41.5	
17.	+eP1	12 05 02.5	Hokkaido, Japan 40.98 N 142.98 E
	iP2	05 05.5	H = 11 53 00.4 h = 48 km MAG=5.7
	eiPP	08 05	D = 79.33 Az = 330.9 (USCGS)
	ePPP	09 44	PV2(A):1.9s 459.0nm PV(B):14s 5.72/um
	iS	15 00	LmH:18.5s 80.2/um LmV:18s 73.6/um
	iSKS	15 16	MPV2(A)=6.2 MPV(B)=6.4 MLH=7.1 MLV=7.1
	eSS	20 12	
	LmH	43.8	
	LmV	43.9	
17.	eP	15 08 23	Galapagos Islands 0.34 S 91.25 W
	ePP	12 20	H = 14 54 40.8 h = 23 km MAG=4.9 (USCGS)
	eSKS	19 05	D = 98.54 Az = 39 (ISC)
	ePS	21 15	LmH:20s 0.5/um LmV:18s 0.7/um
	LmH	48	MLH=5.0 MLV=5.2
	LmV	48.5	

Day	Phase	h m s	Remarks
17.	+eP	17 08 26.5	Off East Coast of Honshu, Japan
	eS	18 31	40.14 N 143.75 E
	LmH	43	H = 16 56 13.1 h = 6 km MAG=5.2
	LmV	50.5	D = 80.34 Az = 331.4 (USCGS)
			PV:1.6s 60.7nm
			LmH:19s 3.6/um LmV:16s 1.8/um
			MPV=5.3 MLH=5.8 MLV=5.6
			e 08 35 e 08 40 e 08 47
17.	ePKIKP	18 28 54.5	Santa Cruz Islands 12.34 S 166.69 E
	ePP	31 32	H = 18 09 34.1 h = normal MAG=5.5
	e	31 39	D = 136.72 Az = 337.0 (USCGS)
			PV:1.5s 26.8nm
17.	eP	19 09 46	Off East Coast of Honshu, Japan
	e	09 55	38.67 N 143.62 E
	iS	19 57	H = 18 57 27.5 h = 17 km MAG=4.9
	LmH	45.7	D = 81.59 Az = 331.4 (USCGS)
	LmV	51.5	PV1:1.0s 14.2nm PV2:1.8s 51.1nm
			PV(B):8s 1.4/um
			LmH:17.5s 23.4/um LmV:16.5s 13.2/um
			MPV1=5.0 MPV2=5.3 MPV(B)=6.1
			MLH=6.6 MLV=6.4
17.	eP	22 19 22	Galapagos Islands 0.35 S 91.14 W
	ePP	23 18	H = 22 05 41.6 h = normal MAG=4.6
	eSKS	30 04	D = 98.35 Az = 38.9 (USCGS)
	ePS	32 16	LmH:19s 0.4/um LmV:20s 0.5/um
	LmH	58.4	MLH=5.0 MLV=5.0
	LmV	58.4	
18.	eP	00 22 27	Galapagos Islands 0.25 S 91.22 W
	ePP	26 24	H = 00 08 46.4 h = normal MAG=4.8
	eSKS	33 10	D = 98.32 Az = 38.9 (USCGS)
	eSP	35 20	LmH(C):23s 0.4/um LmV(C):24s 0.3/um
	LmH C	59.5	MLH(C)=4.8 MLV(C)=4.7
	LmV C	59.5	

Day	Phase	h m s	Remarks
18.	eP	02 36 20	Galapagos Islands 0.21 S 91.52 W
	ePP	40 19	H = 02 22 45.5 h = normal MAG=4.7
	eSKS	47 10	D = 98.48 Az = 38.8 (USCGS)
	eSP	49(16)	LmH:19s 0.4/um LmV:19s 0.5/um
	LmH	03 20.0	MLH=5.0 MLV=5.0
	LmV	20.0	
18.	ePP	04 10 40	Galapagos Islands 0.51 S 91.45 W
	eSKS	17 24	H = 03 53 00.3 h = normal MAG=4.6 (USCGS)
	eSP	19(38)	D = 98.0
	LmH	50.4	LmH:19s 0.2/um LmV:19s 0.3/um
	LmV	50.4	MLH=4.7 MLV=4.8
18.	eiP	05 28 55	Northern Italy 45.70 N 8.10 E
	i	29 02.3	H = 05 27 33.0 h = 5 km MAG=4.7
	i	29 10	D = 5.48 Az = 24.2 (USCGS)
	eiPg	29 19	PV:0.8s 61.4nm
	ei	30 20	LmH:8.5s 20.6/um LmV:8.8s 23.2/um
	eiSg	30 28	MLH=4.9
	LmH	31.3	
	LmV	31.3	
18.	ePKIKP	07 01 00	Fiji Islands 21.69 S 179.56 W
	iPKHKP	01 06	H = 06 42 21.9 h = 600 km MAG=5.0
	eiPKP2	01 13	D = 149.80 Az = 345.8 (USCGS)
	epPKP2	03 30	PV:1.0s 71.1nm
18.	eP	07 26 42	Galapagos Islands 0.42 S 91.75 W
	ePP	30 36	H = 07 12 59.1 h = normal MAG=4.8
	eSKS	37 20	D = 98.79 Az = 38.8 (USCGS)
	LmH	08 10.0	LmH:19s 0.4/um LmV:19s 0.4/um
	LmV	10.0	MLH=4.9 MLV=5.0
18.	eP	10 43(58)	Galapagos Islands 0.42 S 91.69 W
	ePP	47 50	H = 10 30 14.1 h = normal MAG=4.7
	eSKS	54 25	D = 98.75 Az = 38.8 (USCGS)
	eSP	56(45)	LmH:17s 0.3/um LmV:17s 0.4/um
	LmH	11 27.0	MLH=4.8 MLV=5.0
	LmV	27.0	

Day	Phase	h m s	Remarks
18.	eP	11 20 04	Greece 38.00 N 23.49 E
			H = 11 16 36.8 h = 119 km MAG=4.3
			D = 15.21 Az = 330.0 (USCGS)
			PV:1.6s 26.5nm MPV=3.5
18.	eP	12 41 16	Galapagos Islands 0.53 S 91.44 W
	ePP	45 16	H = 12 27 35.5 h = normal MAG=4.7
	eSKS	52 00	D = 98.68 Az = 38.9 (USCGS)
	eSP	54 13	LmH:20s 0.3/um LmV:18s 0.4/um
	LmH	13 20	MLH=4.7 MLV=5.0
	LmV	27.7	
18.	ePP	15 00 11	Galapagos Islands 0.31 S 91.51 W
	eSKS	06 56	H = 14 42 32.7 h = normal MAG=5.0 (USCGS)
	LmH	35.0	D = 98.6
	LmV	35.0	LmH:20s 0.3/um LmV:20s 0.3/um
			MLH=4.7 MLV=4.7
18.	ePP	16 34 56	Galapagos Islands 0.28 S 91.22 W
	eSKS	41 39	H = 16 17 17.6 h = normal MAG=4.9 (USCGS)
	LmH	17 14.0	D = 98.4
	LmV	14.0	LmH:19s 0.2/um LmV:19s 0.2/um
			MLH=4.6 MLV=4.7
18.	eP	22 02 30	Galapagos Islands 0.44 S 91.72 W
	ePP	06 26	H = 21 48 48.2 h = normal MAG=5.0 (USCGS)
	eSKS	13 11	D = 98.60 Az = 39 (ISC)
	LmH	45	LmH:18s 0.2/um LmV:18s 0.2/um
	LmV	45	MLH=4.6 MLV=4.7
18.	ePP	23 55 16	Galapagos Islands 0.62 S 91.49 W
	eSKS	24 02 00	H = 23 37 29.6 h = normal MAG=4.5 (USCGS)
	LmH	34.5	D = 98.8
	LmV	34.5	LmH:17s 0.2/um LmV:17s 0.3/um
			MLH=4.7 MLV=4.9
19.	eP	01 50 28	Near East Coast of Honshu, Japan
	ePP	53 25	39.47 N 142.91 E
	eS	02 00 35	H = 01 38 17.4 h = 33 km MAG=5.3

Day	Phase	h m s	Remarks
cont.			
19.	LmH	02 29.1	D = 80.62 Az = 331.0 (USCGS)
	LmV	29.7	PV:2.0s 59.6nm
			LmH:15s 2.4/um LmV:16s 1.6/um
			MLH=5.7 MLV=5.5
19.	eP	01 59 32.5	Northern Sumatra 1.67 N 100.42 E
			H = 01 47 01 h = 174 km MAG=4.9
			D = 87.96 Az = 320 (ISC)
			PV:1.4s 24.6nm
			MPV=5.3
19.	ePP	04 23 15	Galapagos Islands 0.18 S 91.24 W
	eSKS	30 03	H = 04 05 40.1 h = normal MAG=4.7 (USCGS)
			D = 98.3
19.	eiP	05 13 49.8	Eastern Kazakh SSR 49.96 N 79.09 E
	ePP	15 20	H = 05 05 57.3 h = 0 km MAG=5.5
			D = 41.73 Az = 297.9 (USCGS)
			PV:1.0s 47.4nm
			MPV=5.3
			Probably underground explosion
19.	eP	05 21 46.5	Galapagos Islands 0.29 S 91.03 W
			H = 05 08 11.5 h = normal MAG=4.7
			D = 98.24 Az = 38.9 (USCGS)
19.	eP	06 01 24	Galapagos Islands 0.45 S 91.72 W
	ePP	05(12)	H = 05 47 42.7 h = normal MAG=5.1 (USCGS)
	eSKKS	12 07	D = 98.81 Az = 39 (ISC)
	LmH	40.0	LmH:22s 0.2/um LmV:22s 0.3/um
	LmV	40.0	MLH=4.6 MLV=4.8
19.	eP	07 44 07	Galapagos Islands 0.50 S 91.67 W
	ePP	48 06	H = 07 30 26.8 h = normal MAG=4.9
	eSKS	54 48	D = 98.80 Az = 38.8 (USCGS)
	LmH	08 23.0	LmH:20s 0.3/um LmV:20s 0.3/um
	LmV	23.0	MLH=4.7 MLV=4.8

Day	Phase	h m s	Remarks
19.	+eP	08 26 49.5	Northern Peru 5.56 S 77.15 W
	+iPcP	26 50	H = 08 13 35.0 h = 28 km MAG=6.4
	ePP	30 40	D = 93.47 Az = 39.6 (USCGS)
	e	33 06	PV:1.8s 163.0nm
	eSKKS	37 28	LmV:17.5s 6.3/um LmH:19s 5.3/um
	iS	38 05	MPV=6.1 MLV=6.1 MLH=6.0
	eiSSP	44 25	
	ePKKP	43 47	
	ePKPPKP	52 08	
	LmV	09 08.9	
	LmH	09.1	
19.	ePKP2	11 46 22	Kermadec Islands 30.72 S 177.89 W
			H = 11 25 53.8 h = normal MAG=4.7 (USCGS)
			D = 158.9
19.	ePP	12 54 23	Galapagos Islands 0.47 S 91.60 W
	eSKS	13 01 08	H = 12 36 45.7 h = normal MAG=4.6 (USCGS)
	LmH	34.0	D = 98.8
	LmV	34.0	LmH:18s 0.2/um LmV:18s 0.3/um
			MLH=4.7 MLV=4.8
19.	eSKKS	14 09 00	Galapagos Islands 0.5 S 91.5 W
	LmH	37.5	H = 13 44 42 h = 99 km MAG=4.6
	LmV	37.5	D = 98.69 Az = 39 (ISC)
19.	eP	15 19 24	Galapagos Islands 0.00 91.15 W
	ePP	23 22	H = 15 05 47.1 h = normal MAG=5.1
	eSKKKS	30 08	D = 98.1 Az = 38.8 (USCGS)
	ePS	32 20	LmH:18s 0.2/um LmV:20s 0.3/um
	LmH	58.5	MLH=4.7 MLV=4.7
	LmV	58.5	
19.	ePP	17 05 19	Galapagos Islands 0.15 S 91.74 W
	eSKS	12 04	H = 16 47 41.7 h = normal MAG=4.7 (USCGS)
	LmH	40.5	D = 98.6
	LmV	40.5	LmH:18s 0.2/um LmV:20s 0.3/um
			MLH=4.7 MLV=4.7

Day	Phase	h m s	Remarks
19.	eP	18 15 28.5	Off East Coast of Honshu, Japan
	e	16 13	40.31 N 143.27 E
			H = 18 03 21.1 h = normal MAG=4.5
			D = 80.02 Az = 331.1 (USCGS)
			PV:1.0s 9.5nm
			MPV=4.7
19.	eSKS	18 21 03	Galapagos Islands 0.11 S 91.20 W
	LmH	49.0	H = 17 56 45.7 h = normal MAG=4.5 (USCGS)
	LmV	49.0	D = 98.25
19.	eP	19 33 05	Galapagos Islands 0.39 S 91.52 W
	ePP	37 08	H = 19 19 29.7 h = normal MAG=4.8
	eSKS	43 48	D = 98.62 Az = 38.8 (USCGS)
	LmH	20 13.0	LmH:20s 0.3/um LmV:20s 0.3/um
	LmV	13.0	MLH=4.7 MLV=4.7
19.	eiPKIKP	20 16 52	Off Coast of Southern Chile
	e	17 02	43.95 S 75.11 W
	ePP	18 16	H = 19 58 01.9 h = 24 km MAG=5.7
	eSS	35 00	D = 120.47 Az = 47.5 (USCGS)
	LmH	21 08.3	PV:1.1s 24.0nm
	LmV	08.5	LmH:19.5s 0.9/um LmV:19s 1.1/um
			MLH=5.4 MLV=5.5
19.	eP	23 45 35	Galapagos Islands 0.17 N 91.15 W
	ePP	49 30	H = 23 31 55.3 h = normal MAG=4.9
	eSKS	56 22	D = 97.95 Az = 38.8 (USCGS)
	LmH	24 29.0	
	LmV	29.0	
20.	eP	01 46 22	Galapagos Islands 0.48 S 91.51 W
	ePP	50 22	H = 01 32 43.9 h = normal MAG=4.8
	eSKS	57 08	D = 98.69 Az = 38.8 (USCGS)
	LmH	02 29.5	LmH:18s 0.2/um LmV:18s 0.2/um
	LmV	29.5	MLH=4.7 MLV=4.7
20.	eP	02 51 53	Northern Peru 5.59 S 77.33 W
	e(PP)	55 50	H = 02 38 38.4 h = normal MAG=5.8

Day	Phase	h m s	Remarks
cont.			
20.	eSKS	03 02 26	D = 93.61 Az = 39.6 (USCGS)
	eSS	09 20	PV:1.6s 75.8nm
	LmH	31.0	LmH:19s 0.7/um LmV:20s 1.1/um
	LmV	31.0	MPV=5.8 MLH=5.2 MLV=5.3
20.	ePP	05 13 03	Galapagos Islands 0.29 S 91.66 W
	eSKS	19 48	H = 04 55 24.6 h = normal MAG=5.0 (USCGS)
	LmH	48.5	D = 98.7
	LmV	48.5	LmH:20s 0.3/um LmV:20s 0.3/um
			MLH=4.7 MLV=4.7
20.	ePP	07 32 29	Galapagos Islands 0.26 S 91.47 W
	eSKS	39.11	H = 07 14 53.6 h = normal MAG=4.8 (USCGS)
			D = 98.5
20.	eSKS	08 35 00	Northern Peru 5.61 S 77.22 W
	LmV	09 07.5	H = 08 11 12.7 h = 48 km MAG=5.2
	LmH	11	D = 93.56 Az = 40 (ISC)
			LmV:17s 0.3/um MLV=4.8
20.	ePP	09 29 05	Galapagos Islands 0.31 S 91.75 W
	eSKS	35 52	H = 09 11 30.3 h = normal MAG=4.7 (USCGS)
	LmH	10 08.5	D = 98.7
	LmV	08.5	LmH:18s 0.2/um LmV:18s 0.3/um
			MLH=4.6 MLV=4.8
20.	iP	12 17 35.5	Crete 35.37 N 24.03 E
			H = 12 13 30.4 h = 43 km MAG=4.6
			D = 17.72 Az = 333.3 (USCGS)
20.	ePP	12 32 03	Galapagos Islands 0.02 S 91.63 W
	eSKS	38 50	H = 12 14 26.1 h = normal MAG=4.7 (USCGS)
	LmH	13 07.5	D = 98.5
	LmV	07.5	

Day	Phase	h m s	Remarks
20.	iPg	16 05 23	Bransrode/Meißner 51°13.95' N 9°51.54' E
	iSg	05 38	yield 19 to (HAN)
			Germany 51.23 N 9.86 E
			H = 16 04 58.5 h = 0
			D = 1.26 Az = 117 (ISC)
20.	eP	16 22 47	Galapagos Islands 0.36 S 91.63 W
	ePP	26 41	H = 16 09 07.3 h = normal MAG=5.1
	eSKKS	33 32	D = 98.67 Az = 38.8 (USCGS)
	eSP	35 42	LmV:18s 0.2/um
	LmH	48.0	MLV=4.7
	LmV	48.0	
20.	ePP	20 53 44	Galapagos Islands 0.18 S 91.58 W
	eSKS	21 00 32	H = 20 36 11.7 h = normal MAG=4.9 (USCGS)
	eSP	02 48	D = 98.5
	LmH	33.4	LmH:17s 0.3/um LmV:18s 0.3/um
	LmV	33.4	MLH=4.8 MLV=4.8
20.	ePP	23 43 00	Galapagos Islands 0.06 S 91.71 W
	eSKS	49 50	H = 23 25 28.2 h = normal MAG=4.6 (USCGS)
	LmH	24 22.5	D = 98.6
	LmV	22.5	LmV:18s 0.2/um MLV=4.7
21.	eP	00 39 26	Northern Peru 5.72 S 77.28 W
	esP	39 33	H = 00 26 07.8 h = 22 km MAG=5.6
	eiSKS	50 00	D = 93.68 Az = 39.6 (USCGS)
	eS	50 36	LmH:17.5s 0.9/um LmV:18s 1.1/um
	esS	50 40	MLH=5.3 MLV=5.4
	LmH	01 22.5	
	LmV	24.2	
21.	ePP	11 22 14	Galapagos Islands 0.14 S 91.62 W
	eSKKS	29 14	H = 11 04 38.2 h = normal MAG=4.8 (USCGS)
	LmH	12 01.5	D = 98.5
	LmV	01.5	

Day	Phase	h m s	Remarks
21.	eP	17 25 00	Norwegian Sea 72.22 N 1.03 E
	e	25 08	H = 17 20 05.9 h = normal MAG=4.2
			D = 22.20 Az = 161.9 (USCGS)
21.	eP	21 04 46	Galapagos Islands 0.23 S 91.47 W
	ePP	08 38	H = 20 51 08.6 h = normal MAG=5.0 (USCGS)
	eSKKS	15 34	D = 98.5
	LmH	47.5	
	LmV	47.5	
22.	+iP	01 24 42.5	Off East Coast of Honshu, Japan
	eipP	24 51	40.29 N 143.68 E
	e	27 31	H = 01 12 30.9 h = 15 km MAG=5.6
	ePP	27 46	D = 80.19 Az = 331.3 (USCGS)
	eS	34 46	PV:1.6s 159.0nm
			MPV=5.7
22.	iPKP	08 27 49	Fiji Islands 20.02 S 177.84 W
			H = 08 08 44.4 h = 415 km MAG=4.5
			D = 148.53 Az = 348.4 (USCGS)
			PV:1.4s 18.4nm
22.	ePP	10 04 28	Galapagos Islands 0.15 S 91.46 W
	eSKS	11.12	H = 09 46 50.2 h = normal MAG=4.9 (USCGS)
	LmH	43.5	D = 98.4
	LmV	43.5	LmV:20s 0.3/um
			MLV=4.7
22.	ePn	12 22 48.5	Northern Italy 45.87 N 11.33 E
	eiPg	23 08.5	H = 12 21 37.7 h = 35 km MAG=4.6
	eSn	23 41	D = 4.79 Az = 2.2 (USCGS)
	eSg	23 52	
22.	ePn	12 39 06	Northern Italy 45.79 N 11.3 E
			H = 12 37 49 h = 9 km MAG=4.1
			D = 4.86 Az = 3 (ISC)

Day	Phase	h m s	Remarks
22.	eP	16 03 50	Southern Iran 29.63 N 51.48 E
			H = 15 56 46.6 h = 32 km MAG=4.8
			D = 36.41 Az = 316.6 (USCGS)
22.	ePKP	21 19 34	Fiji Islands 17.93 S 178.13 W
			H = 21 01 02.5 h = 650 km MAG=4.6
			D = 146.45 Az = 348.8 (USCGS)
23.	ePP	04 01 00	Galapagos Islands 0.23 S 91.53 W
	eSKKS	07 50	H = 03 43 25.4 h = normal MAG=4.8 (USCGS)
	LmH	40.0	D = 98.5
	LmV	40.0	
23.	eP	05 09(50)	Hokkaido, Japan 41.59 N 143.39 E
			H = 04 57 52.2 h = 45 km MAG=4.2
			D = 78.9 Az = 331.1 (USCGS)
23.	eP	05 32 49	Off East Coast of Honshu, Japan
	LmH	06 11.6	39.14 N 142.99 E
	LmV	13.5	H = 05 20 38.0 h = 45 km MAG=4.3
			D = 80.94 Az = 331.1 (USCGS)
			LmH:16s 0.5/um LmV:16s 0.4/um
			MLH=5.0 MLV=4.9
23.	eP	09 23 18	Southern Iran 29.81 N 51.16 E
	ePP	24 54	H = 09 16 18.6 h = 34 km MAG=5.2
	eS	29 00	D = 36.09 Az = 316.5 (USCGS)
	LmH	41.3	PV:1.2s 35.8nm
	LmV	41.3	LmH:17s 1.9/um LmV:17s 1.5/um
			MPV=5.1 MLH=4.9 MLV=4.9
23.	eP	15 13 19	Kodiak Islands 56.81 N 152.17 W
			H = 15 01 56.0 h = 35 km MAG=4.4
			D = 72.07 Az = 10.8 (USCGS)
			PV:1.0s 9.5nm MPV=4.9
23.	+iP	17 05 14.5	Kodiak Islands 56.72 N 152.43 W
	esP	05 22.5	H = 16 53 50.2 h = normal MAG=4.9

Day	Phase	h m s	Remarks
cont.			
23.	eS	17 14 39	D = 72.2 Az = 10.6 (USCGS)
	LmH	41.4	PV:1.5s 53.8nm
	LmV	44.7	LmH:19.5s 1.5/um LmV:16s 1.5/um
			MPV=5.5 MLH=5.3 MLV=5.4
24.	eP	09 55 52	Crete 34.34 N 25.22 E
	e	10 02 16	H = 09 51 32 h = 40 km MAG=4.3
	e	04 16	D = 19.08 Az = 333 (ISC)
	LmH	26.0	LmH(C):15.5s 0.5/um LmV:8s 0.3/um
	LmV	27.3	MLH=3.9 MLV=4.1
24.	eP	20 22 04.5	North of Ascension Islands
	epP	22 09	1.59 S 15.74 W
	esP	22 15	H = 20 12 19.8 h = normal MAG=4.9
	eS	30 00	D = 57.04 Az = 20.4 (USCGS)
	LmH	45.9	LmH(C):16s 0.3/um LmV(C):18s 0.4/um
	LmV	47.7	MLH=4.5 MLV=4.6
25.	eP	06 56 08	North of Ascension Islands
	epP	56 15	0.70 S 15.95 W
	esP	56 21	H = 06 46 28.7 h = normal MAG=4.9
	LmH	07 21.5	D = 56.29 Az = 20.7 (USCGS)
	LmV	21.9	LmH:20s 0.2/um LmV:16s 0.3/um
			MLH=4.3 MLV=4.5
25.	eP	23 45 32.3	Off East Coast of Honshu, Japan
	ePP	48 36.3	39.58 N 143.43 E
	eS	55 38.3	H = 23 33 18.0 h = 16 km MAG=5.3
	LmH	24 20.4	D = 80.72 Az = 331.3 (USCGS)
	LmV	24.7	PV:1.5s 40.3nm
			LmH:18s 2.5/um LmV:17s 1.7/um
			MPV=5.2 MLH=5.6 MLV=5.5
26.	eP	01 54 41	Near Coast of Northern California
	eS	02 04 53	40.10 N 124.36 W
	eSS C	10 14	H = 01 42 19.5 h = 10 km MAG=5.5
	LmV	33.3	D = 81.74 Az = 26.6 (USCGS)
	LmH	33.4	PV:1.6s 30.3nm
			LmH:16.5s 3.0/um LmV:17s 3.2/um
			MPV=5.2 MLH=5.7 MLV=5.8

Day	Phase	h m s	Remarks
26.	eP	02 01 18.4	Southern Iran 29.84 N 51.08 E
	e	01 45	H = 01 54 15.3 h = normal MAG=4.9
			D = 36.02 Az = 316.5 (USCGS)
26.	ePKP	08 49 03.5	South of Australia 50.25 S 135.15 E
			H = 08 29 29.7 h = normal MAG=5.0
			D = 144.79 Az = 293.0 (USCGS)
26.	eiP	10 35 46.5	Hokkaido, Japan 42.05 N 142.66 E
	eSKS	46 00	H = 10 23 48.2 h = normal MAG=5.5
	ePS	46 26	D = 78.27 Az = 330.6 (USCGS)
	LmH	11 14.0	PV:1.5s 97.4nm
	LmV	14.0	LmH:15s 1.7/um LmV:18s 2.0/um
			MPV=5.7 MLH=5.5 MLV=5.5
26.	ePKIKP	16 00 01	Loyalty Islands 22.16 S 171.36 E
	iPKHKP	00 04.0	H = 15 40 31.1 h = 90 km MAG=5.6
	iPKP2	00 09	D = 147.44 Az = 335.8 (USCGS)
	epPKP2	00 37	PV2:1.7s 176.0nm
	esPKP2	00 59	LmH(C):45s 1.4/um LmV(C):45s 1.3/um
	LmH C	52.3	MLH=5.3 (MLV=5.4)
	LmV C	52.5	
27.	ePKIKP	02 21 16.5	Fiji Islands 20.81 S 178.96 W
	-ePKHKP	21 22.5	H = 02 02 40.2 h = 605 km MAG=4.9
	ePKP2	21 29	D = 149.07 Az = 346.9 (USCGS)
	ei	21 52	
	epPKP	23 37	
27.	eP	06 32 19	Lake Baikal Region 54.7 N 111.1 E
			H = 06 22 45.9 h = 33 km MAG=4.4
			D = 55.44 Az = 310 (ISC)
			PV:0.8s 11.8nm MPV=5.0
27.	eP	15 45 19	Switzerland 46.32 N 6.96 E
	eSg	46 30	H = 15 43 00.3 h = 20 km MAG=4.1
	LmH	46.8	D = 5.32 Az = 33.9 (USCGS)
	LmV	47.0	LmH:10s 0.8/um LmV:8s 0.7/um
			MLH=3.4

Day	Phase	h m s	Remarks
27.	eP	15 57 07	Switzerland 46.3 N 6.8 E
	eS	58 15	H = 15 55 27 (BCIS)
			D = 5.40 Az = 35 (ISC)
27.	eP	16 26 01	Switzerland 46.3 N 6.6 E
	eS	27 11	H = 16 24 24 h = 0 km
	LmH	27.6	D = 5.48 Az = 36 (ISC)
	LmV	27.7	LmH:8s 0.4/um LmV:8s 0.3/um
			MLH=3.2
27.	eP	17 24 14.5	Near East Coast of Honshu, Japan
			40.25 N 142.29 E
			H = 17 11 56.0 h = 38 km MAG=4.4
			D = 79.70 Az = 330.6 (USCGS)
28.	eP	12 34 18.5	Southern Nevada, Nuclear Explosion "Chateaugay"
			$37^{o}14'44"$ N $116^{o}28'58"$ W
			H = 12 22 00 (USAEC)
			37.18 N 116.48 W h = 15 km MAG=5.3
			D = 81.31 Az = 30 (ISC)
			PV:1.2s 17.9nm MPV=5.0
29.	eP	06 34 23.5	Near Coast of Guatemala 13.61 N 90.22 W
			H = 06 21 48.1 h = 97 km MAG=4.7
			D = 86.95 Az = 38.6 (USCGS)
			PV:1.2s 10.2nm MPV=4.9
29.	eP	11 57 38.5	Republic of the Congo 0.89 S 29.09 E
			H = 11 48 19.5 h = normal MAG=4.9
			D = 53.47 Az = 346.8 (USCGS)
29.	eP	19 25 00	Southern California 34.29 N 119.68 W
	esP	25 06	H = 19 12 20.2 h = 2 km MAG=5.0
	eSoS C	35 40	D = 85.14 Az = 28.7 (USCGS)
	LmV	20 05.8	LmH:16s 0.3/um LmV:16s 0.3/um
	LmH	06.0	MLH=4.7 MLV=4.7

Day	Phase	h m s	Remarks
30.	eP	09 49(35)	Mariana Islands 12.96 N 145.23 E
	epP	49 45	H = 09 35 29.4 h = 38 km MAG=5.2
	ePP	53 51	D = 104.85 Az = 331.5 (USCGS)
	eSKS	10 00 14	LmH:16.5s 1.6/um LmV:20s 1.1/um
	eS	01 20	MLH=5.6 MLV=5.4
	ePS	03 08	e 53 07 e 03 15
	eSS	09 12	
	LmH	37.2	
	LmV	39.0	
30.	ePKP	14 03 46.5	New Hebrides 20.43 S 169.32 E
	ePKP2	03 56.5	H = 13 44 09.1 h = 0 km
			D = 145.09 Az = 335 (ISC)
			PV:1.1s 9.6nm
30.	ePKP	14 07 14	New Hebrides 20.45 S 169.1 E
			H = 13 47 38.1 h = 0 km
			D = 145.02 Az = 335 (ISC)
			PV:1.1s 12.0nm
30.	eiP	15 00 53	Near East Coast of Honshu, Japan
	esP	01 09.5	38.85 N 142.74 E
	LmH	34.9	H = 14 48 35.9 h = 10 km MAG=4.8
	LmV	42.9	D = 81.10 Az = 331.0 (USCGS)
			PV:1.3s 16.7nm
			LmH:18s 1.0/um LmV:15s 0.8/um
			MPV=4.9 MLH=5.2 MLV=5.2
30.	ePKP	19 56 56	Fiji Islands 18.59 S 177.92 W
			H = 19 38 18.6 h = 605 km MAG=4.2
			D = 147.13 Az = 348.8 (USCGS)
			PV:1.2s 10.2nm
30.	ePP	20 38 22	Off Coast of Jalisco, Mexico
	eSKS C	45 14	17.90 N 105.73 W
	ePS C	46 52	H = 20 21 28.4 h = 40 km MAG=4.8 (ISC)
	eSS C	51 50	D = 92.4
	LmH	21 16.2	LmH:16s 1.2/um LmV:16s 1.4/um
	LmV	20.0	MLH=5.4 MLV=5.5

Day	Phase	h m s	Remarks
1.	+eiP	04 07 11	Western Kazakh SSR 47.92 N 47.95 E
	i	07 17	H = 04 02 01.1 h = normal MAG=5.5
			D = 23.71 Az = 290.3 (USCGS)
			underground explosion
1.	+iP	10 57 27	Honshu, Japan 35.98 N 139.25 E
	+i	57 42	H = 10 45 11.9 h = 67 km MAG=5.9
	ePP	11 00 36	D = 82.20 Az = 329.4 (USCGS)
	eS	07 37	PV:1.4s 252.0nm
	e	08 06	LmH:16s 2.8/um LmV:16s 3.7/um
	ePPS	08 52	MPV=6.0 MLH=5.7 MLV=5.9
	LmH	41.7	
	LmV	41.8	
1.	eP	12 03 18	Near East Coast of Kamchatka
			53.85 N 160.44 E
			H = 11 51 55.8 h = 65 km MAG=4.3
			D = 72.64 Az = 339.8 (USCGS)
2.	eP	03 57 44.5	Guerrero, Mexico 17.64 N 100.27 W
	e	57 47.5	H = 03 44 48.9 h = 41 km MAG=5.9
	ePP	04 01 11	D = 89.66 Az = 36.2 (USCGS)
	i	01 23	LmH:20.5s 7.8/um LmV:17s 5.0/um
	e	07.0	MLH=6.1 MLV=6.0
	eSKS	08 16	
	eS	08 36	
	LmH	39.7	
	LmV	42.7	
2.	ePKIKP	04 50 43	Kermadec Islands 29.71 S 177.93 W
	e	50 50	H = 04 30 52.7 h = 53 km MAG=5.6
	ePKHKP	50 56	D = 157.89 Az = 343.7 (USCGS)
	ePKP2	51 17	
	e	51 44	

Day	Phase	h m s	Remarks
2.	eP	16 56 10	Off East Coast of Honshu, Japan
	LmH	17 30.9	39.65 N 143.60 E
			H = 16 43 56.4 h = 20 km MAG=4.7
			D = 80.72 Az = 331.3 (USCGS)
			LmH:17s 1.2/um
			MLH=5.3
2.	e	20 19 08	
2.	eP	22 25 03	Ryukyu Islands 26.05 N 128.58 E
	e	25 09	H = 22 12 25.1 h = normal MAG=5.1
	e	25 13	D = 85.58 Az = 325.3 (USCGS)
	LmH	23 01.0	PV:1.8s 40.8nm
	LmV	08.5	LmH:19s 1.9/um LmV:14s 1.6/um
			MPV=5.3 MLH=5.5 MLV=5.6
3.	eP	01 55 25	Off East Coast of Honshu, Japan
			39.69 N 143.55 E
			H = 01 43 13.2 h = normal MAG=4.0
			D = 80.67 Az = 331.3 (USCGS)
3.	e	09 54 08.5	Samoa Islands 16.02 S 172.91 W
	e	54 50.5	H = 09 34 22.3 h = 60 km MAG=4.2
			D = 145.27 Az = 354.9 (USCGS)
3.	eP	10 00 50.5	North Atlantic Ocean 59.40 N 30.36 W
	e	00 52	H = 09 55 26.7 h = normal MAG=4.7
	e	04 40	D = 25.21 Az = 91.6 (USCGS)
	LmV	11.4	PV2:1.3s 25.0nm
	LmH	11.5	LmV:16s 1.3/um LmH:16s 1.2/um
			MPV=4.8 MLV=4.6 MLH=4.5
3.	e	15 14 36	
3.	eP	19 55 22.5	Eastern Kashmir 34.66 N 75.10 E
			H = 19 46 53.7 h = 113 km MAG=4.5
			D = 47.87 Az = 309.8 (USCGS)

Day	Phase	h m s	Remarks
4.	eP	00 46 29.5	Near East Coast of Honshu, Japan
	e	46 34.5	34.82 N 139.71 E
	epP	46 55	H = 00 34 13.2 h = 104 km MAG=5.0
			D = 83.39 Az = 329.7 (USCGS)
			PV:1.3s 22.2nm
			MPV=4.8
4.	eP	02 32 02.5	Dodekanese Islands 36.88 N 28.55 E
	LmH	41.5	H = 02 27 54.0 h = 108 km MAG=4.4
	LmV	41.5	D = 18.35 Az = 323.9 (USCGS)
			PV:1.2s 7.7nm
			MPV=3.9
4.	-iP	07 24 16.5	Kurile Islands 43.88 N 147.21 E
	ei	24 49	H = 07 12 24.2 h = 80 km MAG=5.0
	e	28 37	D = 78.24 Az = 332.9 (USCGS)
	LmH	08 03.5	PV:1.0s 71.0nm
	LmV	03.5	MPV=5.5
4.	eP AC	21 51 30	Southern Greece 37.85 N 23.23 E
	eP B	51 32	H = 21 47 55.6 h = normal MAG=5.3
	e A	51 34.5	D = 15.24 Az = 330.8 (USCGS)
	eS B	54 20	LmH:10.5s 38.4/um LmV:11.5s 31.8/um
	eS C	54 25	MLH=5.8 MLV=5.9
	LmH	57.5	
	LmV	58.0	
4.	eP	23 22 16	Dodekanese Islands 35.38 N 27.92 E
	e	22 17.5	H = 23 17 52.9 h = 42 km MAG=4.4
	e	22 22	D = 19.29 Az = 327.3
	e	22 31.5	PV2:1.1s 16.8nm
			MPV=4.9
5.	+eP	00 57 56	Southern California 34.12 N 119.70 W
	+ei	57 56.5	H = 00 45 17.2 h = 6 km MAG=5.7
	-i	57 57	D = 85.31 Az = 28.7 (USCGS)
	ei	58 02	PV:1.7s 123.0nm
	e	01 01 13	LmH:19s 1.6/um LmV:15s 1.6/um

Day	Phase	h m s	Remarks
cont.			
5.	ePP	01 01 17	MPV=5.9 MLH=5.4 MLV=5.5
	e(S)	08 40	
	e(PS)	09 30	
	LmH	33.8	
	LmV	38.8	
5.	ePn	08 41 15	Yougoslavia 46°05' N 14°38' E
	eSg	42 35	(Ljubljana)
			H = 08 39 59 (BCIS)
			D = 4.8
5.	+eiP	11 40 24.5	Near East Coast of Honshu, Japan
	-i	40 26.5	38.50 N 142.04 E
	epP	40 39	H = 11 28 12.6 h = 43 km MAG=5.9
	esP	40 44.5	D = 81.13 Az = 330.6 (USCGS)
	ePP	43 25	PV1:1.5s 73.9nm PV2:1.7s 755.0nm
	ePPP	45 18	LmH:16.5s 20.9/um LmV:16s 23.4/um
	eiS	50 32	MPV1=5.5 MPV2=6.5
	isS	50 52	MLH=6.6 MLV=6.7
	iPS	51 40	
	LmH	12 19.5	
	LmV	19.6	
6.	eP	14 14 41	Nevada 40.98 N 117.38 W
	e	14 44.5	H = 14 02 42.0 h = normal MAG=5.1
	LmV	51.4	D = 78.44 Az = 30.3 (USCGS)
	LmH	51.5	LmV:16s 0.3/um
			MLV=4.8
6.	ePKP	17 47 48.5	Kermadec Islands
	ei	47 51	H = 17 27 57 (Uppsala)
	ei	48 02.5	PV1:1.2s 17.9nm PV2:1.0s 37.9nm
6.	eiPKP	17 51 26.5	Kermadec Islands
	e	51 30	H = 17 31 20 (Uppsala)
	LmH	18 21.4	PV:1.4s 21.5nm
	LmV	26.5	LmH:19.5s 0.6/um LmV:16s 0.4/um

Day	Phase	h m s	Remarks
6.	eP	19 47 36	Aroe Islands 6.35 S 133.83 E
	e	48 34	H = 19 28 55.3 h = 27 km MAG=5.7
			D = 114.97 Az = 323.5 (USCGS)
			PV:1.0s 16.6nm
			MPV=5.5
7.	eP	00 36 46.5	Svalbard 76.26 N 10.69 E
	e	36 49	H = 00 31 17.4 h = normal MAG=4.6
	e	36 52	D = 25.71 Az = 178.6 (USCGS)
	ei	36 57.5	
7.	ePg	00 48 23	Yougoslavia 46.0 N 15.2 E
	eSg	49 29	H = 00 46 40 (BCIS)
			D = 5.2
7.	eP	01 21 24	Southern Alaska 61.25 N 147.29 W
	e	21 32	H = 01 10 29.5 h = 14 km MAG=4.8
	e	21 39	D = 67.18 Az = 14.4 (USCGS)
7.	eP	13 28 27	Near East Coast of Honshu, Japan
	e	28 32	39.33 N 142.89 E
	LmH	14 02.4	H = 13 16 14.2 h = 24 km MAG=5.1
	LmV	07.0	D = 80.74 Az = 331.0 (USCGS)
			LmH:16s 0.6/um LmV:16s 0.3/um
			MLH=5.1 MLV=4.7
7.	ePKIKP B	14 43 20	Tonga Islands 22.17 S 175.09 W
	ePKIKP A	43 23.5	H = 14 23 33.7 h = normal MAG=5.3
	ei	43 36	D = 151.10 Az = 351.2 (USCGS)
	ei	43 44	LmH:18s 0.6/um LmV:18s 0.9/um
	LmH	15 53.0	MLH=5.4
	LmV	59.3	
7.	eP	17 04 06	Mindanao, Philippine Islands
	LmH	53.0	9.82 N 126.17 E
	LmV	53.2	H = 16 50 31.0 h = 36 km MAG=4.8
			D = 97.48 Az = 324.3 (USCGS)
			LmH:17s 0.7/um LmV:17s 0.6/um
			MLH=5.2 MLV=5.2

Day	Phase	h m s	Remarks
8.	eP	00 01 24	Northern Peru 5.76 S 77.15 W
	e	01 42	H = 23 48 08.2 h = 27 km MAG=5.5
	LmV	43.0	D = 93.62 Az = 39.6 (USCGS)
	LmH	49.3	LmV:18s 0.7/um LmH:19s 0.7/um
			PV:1.6s 26.5nm
			MPV=5.4 MLV=5.2 MLH=5.2
8.	eP	00 30 44	Off East Coast of Honshu, Japan
	e	30 55	40.75 N 143.19 E
			H = 00 18 39.5 h = 37 km MAG=4.5
			D = 79.60 Az = 331.0 (USCGS)
			PV:1.1s 9.6nm
			MPV=4.7
8.	e	04 50 42	
8.	ePKP	05 16 37	Tonga Islands 18.19 S 175.49 W
	epPKP	17 46	H = 04 57 21.6 h = 246 km MAG=4.6
			D = 147.13 Az = 351.7 (USCGS)
8.	eP	05 43 10	Switzerland 46.2 N 7.6 E
	e	43 30	H = 05 41 34 (BCIS)
	e	43 53	D = 5.2
	e	44 07	
	eSg	44 16	
8.	ePn	05 46 49	Switzerland 46.34 N 7.69 E
	e	46 56	H = 05 45 35.3 h = normal MAG=4.1
	e	47 06	D = 5.04 Az = 29.8 (USCGS)
	e	47 10	
	e	47 56	
	e	48 12	
	iSg	48 16	
8.	eP	08 13 50	Hokkaido, Japan 42.54 N 144.46 E
			H = 08 01 49.1 h = normal MAG=4.6
			D = 78.50 Az = 331.6 (USCGS)
8.	e	11 10 14	

Day	Phase	h m s	Remarks
8.	eP	11 35 05	Southern Iran 27.96 N 56.98 E
			H = 11 27 23.6 h = normal MAG=4.0
			D = 40.95 Az = 316.3 (USCGS)
8.	ePKIKP	12 28 06	South of Fiji Islands 22.24 S 179.76 W
	ePKHKP	28 12	H = 12 09 28.4 h = 622 km MAG=4.9
	e	28 19	D = 150.28 Az = 345.3 (USCGS)
	ePKP2	28 21	PV1:1.0s 52.2nm PV4:1.0s 42.7/um
	epPKP	30 29	
8.	eP	13 22 12	Southeastern Uzbek SSR 38.03 N 67.58 E
	e	22 21	H = 13 14 29.9 h = 28 km MAG=5.2
	ePP	23 50	D = 41.01 Az = 306.5 (USCGS)
8.	ePKP2	16 48 37	South of Fiji Islands 25.34 S 177.43 W
			H = 16 28 40.5 h = 140 km MAG=4.4
			D = 153.79 Az = 346.9 (USCGS)
8.	eP	17 22 27	Southern Iran 29.75 N 51.11 E
	eS	28 09	H = 17 15 28.3 h = 44 km MAG=4.9
	LmH	40.0	D = 36.11 Az = 316.6 (USCGS)
	LmV	41.0	LmH:17s 0.7/um LmV:17s 0.8/um
			MLH=4.5 MLV=4.7
8.	eP	17 45 24.5	Crete 34.42 N 25.19 E
	e	45 27	H = 17 41 05.8 h = normal MAG=5.3
	eS C	48 55	D = 19.00 Az = 332.7 (USCGS)
	eS A	49 04	LmH:14s 4.8/um LmV:15s 6.0/um
	e B	49 08	MLH=5.0 MLV=5.2
	e A	49 10	
	ePcS	53 23	
	LmH	54.0	
	LmV	54.0	
8.	eP	18 22 30	Crete 34.31 N 25.20 E
			H = 18 18 09.8 h = normal MAG=4.3
			D = 19.11 Az = 332.8 (USCGS)

Day	Phase	h m s	Remarks
8.	eP	18 38 48	Crete 34.36 N 25.17 E
	e	38 56	H = 18 34 24.2 h = 14 km MAG=4.3
			D = 19.05 Az = 332.8 (USCGS)
8.	eP	21 37 44	Bonin Islands Region 28.82 N 142.49 E
	ei	37 55	H = 21 24 48.3 h = normal MAG=5.3 (USCGS)
	ePP	41 18	D = 89.7
	e	41 32	LmH:15s 0.7/um LmV:14s 0.5/um
	e	49 12	MLH=5.2 MLV=5.1
	LmH	22 19.0	
	LmV	24.7	
9.	eP	08 18 18	Near East Coast of Honshu, Japan
	e	18 26	39.46 N 142.79 E
			H = 08 06 08.2 h = normal MAG=4.4
			D = 80.58 Az = 330.9 (USCGS)
9.	e	08 40 38	Off East Coast of Honshu, Japan
	e(PP)	43 34	40.42 N 143.73 E
	LmH	55.1	H = 08 28 23.0 h = normal MAG=4.8
	LmV	58.3	D = 80.09 Az = 331.4 (USCGS)
			LmH:17s 1.3/um LmV:14s 0.7/um
			MLH=5.3 MLV=5.2
9.	eP	11 51 52	Off East Coast of Honshu, Japan
			40.53 N 143.04 E
			H = 11 39 44.4 h = normal MAG=4.8
			D = 79.96 Az = 331.3 (USCGS)
9.	eP	15 05 06.5	Crete 34.31 N 25.25 E
	LmH	12.0	H = 15 00 43.9 h = 22 km MAG=4.6
	LmV	13.7	D = 19.12 Az = 332.7 (USCGS)
			PV:0.7s 9.5nm LmV:13s 0.5/um
			MPV=4.1 MLV=4.1
9.	ePKP	23 35 52	Fiji Islands 18.16 S 178.16 W
			H = 23 17 21.1 h = 659 km MAG=4.1
			D = 146.66 Az = 348.7 (USCGS)
			PV:1.4s 12.3nm

Day	Phase	h m s	Remarks
9.	e	23 42 08	
	e	42 20	
10.	eP	11 30 47	Mid-Indian Rise 36.81 S 78.54 E
	ePP	35 20	H = 11 16 44.7 h = normal MAG=5.7 (USCGS)
	eS	42 45	D = 104.8
	ePS	44 30	LmV:16s 1.6/um LmH:16s 2.2/um
	eSS	49 50	MLV=5.7 MLH=5.8
	eSSS	54 10	
	LmV	12 31.0	
	LmH	31.3	
10.	+eP	20 52 39	Off East Coast of Honshu, Japan
	e	52 55	40.19 N 143.24 E
	ePP A	55 30	H = 20 40 31.2 h = normal MAG=5.3
	ePP BC	55 38	D = 80.12 Az = 331.1 (USCGS)
	e	55 54	PV:2.0s 172.0nm
	eS	21 02 42	LmH:18s 4.9/um LmV:15s 2.9/um
	ePS	03 35	MPV=5.6 MLH=5.9 MLV=5.8
	LmH	27.7	
	LmV	34.3	
10.	eP	22 33 18	Off East Coast of Honshu, Japan
	e	33 25	40.31 N 143.17 E
	e	36 10	H = 22 21 10.5 h = normal MAG=4.7
			D = 79.98 Az = 331.1 (USCGS)
11.	ei	10 28 36	
11.	ePKHKP	15 18 08	Tonga Islands Region 22.15 S 175.78 W
			H = 14 58 23.5 h = 84 km MAG=4.7 (USCGS)
			D = 150.9
12.	eiP	00 56 48.5	Off East Coast of Honshu, Japan
	ei	56 52.5	39.50 N 143.16 E
	+i	56 58.5	H = 00 44 36.5 h = 28 km MAG=6.0
	e	58 04	D = 80.68 Az = 331.1 (USCGS)
	ePP	59 58	PV1(B):5s 1.5/um PV1(A):2.0s 219.0nm
	iS	01 06 52	PV2(A):2.0s 310.0nm

Day	Phase	h m s	Remarks
cont.			
12.	LmH	01 31.0	SH(B):15s 4.5/um
	LmV	40.8	LmH:18s 27.3/um LmV:17.5s 17.0/um
			MPV1(B)=6.2 MPV1(A)=5.8 MPV2(A)=6.0
			MSH=6.3 MLH=6.6 MLV=6.5
12.	e	01 17 32	
12.	eP	04 08 39.5	Off East Coast of Honshu, Japan
	e	08 41.5	39.52 N 143.17 E
	ei	08 53	H = 03 56 27.5 h = 26 km MAG=5.5
	e	09 03	D = 80.67 Az = 331.1 (USCGS)
	eiS	18 46	PV:1.9s 118.0nm SH:16.5s 1.1/um
	LmH	49.6	LmH:14.5s 7.5/um LmV:14.5s 5.9/um
	LmV	50.3	MPV=5.6 MSH=5.5 MLH=6.2 MLV=6.1
12.	ePKP2	11 47 58	Kermadec Islands 30.78 S 178.95 E
	epPKP2	50 06	H = 11 28 25.2 h = 545 km MAG=4.8 (USCGS)
			D = 158.0
			PV:1.5s 30.2nm
12.	+iP	12 15 46.5	Eastern Kazakh SSR 49.67 N 78.12 E
	e	15 49	H = 12 07 57.2 h = 0 km MAG=5.4
	ePP	17 19	D = 41.31 Az = 297.8 (USCGS)
			Underground explosion
			PV:1.0s 42.7nm
			MPV=5.1
12.	eP	13 47 56.5	Turkey 38.56 N 41.28 E
			H = 13 42 40.6 h = normal MAG=4.3
			D = 24.16 Az = 309.7 (USCGS)
12.	eP	16 54 53	Near East Coast of Honshu, Japan
			39.83 N 142.84 E
			H = 16 42 45.2 h = 41 km MAG=4.6
			D = 80.28 Az = 330.9 (USCGS)

Day	Phase	h m s	Remarks
12.	+eiP	22 12 57.5	Kurile Islands 48.05 N 154.59 E
			H = 22 01 08.6 h = normal MAG=5.0
			D = 76.66 Az = 336.8 (USCGS)
			PV:1.2s 28.1nm
			MPV=5.3
13.	eP	06 16 20.5	Tibet 30.30 N 94.64 E
			H = 06 05 54.2 h = normal MAG=5.0
			D = 63.00 Az = 314.8 (USCGS)
			PV:1.4s 12.3nm
			MPV=4.8
13.	iPKIKP	06 57 23.8	New Britain 6.36 S 149.73 E
	LmH	07 51.4	H = 06 38 26.2 h = 36 km MAG=5.1
	LmV	51.4	D = 123.78 Az = 329.2 (USCGS)
13.	ePKHKP	23 23 07.5	Tonga Islands 20.80 S 173.88 W
	e	23 19.5	H = 23 03 20.1 h = normal MAG=4.9
			D = 149.91 Az = 353.0
			PV:1.5s 23.5nm
13.	ePKP	23 36 27	Tonga Islands 18.32 S 174.99 W
			H = 23 17 09.0 h = 230 km MAG=4.7
			D = 147.32 Az = 352.2 (USCGS)
14.	ePKP	03 30 28.5	Fiji Islands 15.95 S 176.83 W
			H = 03 11 34.7 h = 375 km MAG=4.6
			D = 144.73 Az = 350.7 (USCGS)
14.	eP	04 08 04	Honduras 15.24 N 88.84 W
			H = 03 55 25.0 h = 14 km MAG=4.5
			D = 84.85 Az = 38.9 (USCGS)
14.	eP	05 36 51	Off East Coast of Honshu, Japan
			40.87 N 142.97 E
			H = 05 24 46.6 h = 39 km MAG=4.5
			D = 79.42 Az = 330.9 (USCGS)

Day	Phase	h m s	Remarks
14.	ePKP2	08 16 45.5	Tonga Islands 19.49 S 173.59 W H = 07 57 01.1 h = 86 km MAG=5.1 D = 148.64 Az = 353.6 (USCGS)
14.	eP	18 23 09.5	Tibet 30.25 N 94.79 E
	e	23 27.5	H = 18 12 40.9 h = 22 km MAG=4.9 D = 63.13 Az = 314.9 (USCGS)
15.	eP	00 01 54	Near East Coast of Honshu, Japan 35.44 N 141.14 E H = 23 49 29.9 h = 42 km MAG=4.4 D = 83.44 Az = 330.4 (USCGS)
15.	ePKP	04 31 03.5	Fiji Islands 17.96 S 178.56 W H = 04 12 26.3 h = 585 km MAG=5.3 D = 146.39 Az = 348.3 (USCGS)
15.	e	09 14 54	
15.	ePKHKP	10 26 19	South of Fiji Islands 23.64 S 179.22 E
	e	27 53	H = 10 07 27.5 h = 552 km MAG=4.4
	e	28 30	D = 151.37 Az = 343.4 (USCGS)
15.	e	13 46 03.5	
16.	e	20 47 25	Crete 34.30 N 26.47 E H = 20 42 52.9 h = 57 km MAG=3.5 D = 19.61 Az = 330.9 (USCGS)
16.	ePKIKP	21 44 44.5	New Hebrides Islands 13.54 S 167.06 E H = 21 25 41.9 h = 215 km MAG=4.4 D = 137.95 Az = 336.7 (USCGS)
16.	eP	22 33 33	Tibet 30.27 N 94.80 E H = 22 23 07.3 h = 40 km MAG=4.8 D = 63.12 Az = 314.9 (USCGS) PV:1.4s 12.3nm MPV=4.0

Day	Phase	h m s	Remarks
17.	e	05 43 08	Timor 8.75 S 125.00 E
	e	43 24	H = 05 24 15.6 h = 25 km MAG=5.7
	ePP	43 32	D = 111.49 Az = 321.1 (USCGS)
	eSKS	49 25	LmH:22.5s 1.2/um LmV:20s 0.9/um
	ePS	53 00	MLH=5.4 MLV=5.3
	e	53 23	
	ePPS C	54 00	
	e(PPS) B	54 14	
	eSS	59.0	
	eSSS	06 04.1	
	LmH	28.0	
	LmV	39.5	
17.	eP	06 35 47.2	Costa Rica 10.39 N 83.39 W
	e	35 52	H = 06 23 11.1 h = 19 km MAG=5.1
	LmH	07 42.2	D = 85.21 Az = 39.5 (USCGS)
	LmV	44.7	PV:1.4s 18.4nm LmV:18s 0.5/um
			MPV=5.1 MLV=5.0
17.	eP	22 36 11	Kodiak Islands 56.33 N 153.96 W H = 22 24 43.3 h = 20 km MAG=4.4 D = 72.73 Az = 9.6 (USCGS)
18.	eP	01 11 39	Kurile Islands 46.14 N 153.06 E
	e	11 50	H = 00 59 43.2 h = 43 km MAG=4.9
	LmV	49.4	D = 77.99 Az = 336.1 (USCGS)
	LmH	49.5	LmH:16s 0.4/um
			MLH=4.8
18.	-iPKHKP	05 24 20.5	Tonga Islands 19.47 S 175.91 W
	e	24 22.5	H = 05 04 59.8 h = 235 km MAG=5.0
	e	25 16	D = 148.33 Az = 350.9 (USCGS)
			PV:1.2s 25.5nm
18.	eP	11 33 08	Off East Coast of Honshu, Japan
	LmH	12 14.0	40.22 N 143.63 E
	LmV	16.2	H = 11 20 59.7 h = 37 km MAG=4.5
			D = 80.24 Az = 331.3 (USCGS)
			LmH:14.5s 1.2/um LmV:14s 0.9/um
			MLH=5.4 MLV=5.3

Day	Phase	h m s	Remarks
18.	e	14 49 24	Central Mid-Atlantic Ridge
			9.55 N 40.18 W
			H = 14 39 21.3 h = normal MAG=4.4
			D = 58.97 Az = 35.7 (USCGS)
19.	eP	05 08 23	Nicobar Islands 8.68 N 93.57 E
	e	08 25.5	H = 04 56 27.2 h = normal MAG=5.3
	e	08 34.5	D = 78.24 Az = 319.9 (USCGS)
	e	08 40	PV2:2.0s 46.4nm PV3:1.8s 102.0nm
	ePP	11 31	LmH:18s 2.5/um LmV:19s 3.5/um
	eS	18 15	MPV2=5.3 MPV3=5.6 MLH=5.6 MLV=5.8
	ePS	19 05	
	eSS	23 55	
	LmH	49.0	
	LmV	49.2	
19.	eP	06 19 19.5	Nicobar Islands 8.94 N 93.75 E
	e	19 22	H = 06 07 21.9 h = normal MAG=4.8
			D = 78.16 Az = 319.9 (USCGS)
			PV:1.5s 16.8nm
			MPV=5.0
19.	eP	18 59 27	Tibet 30.19 N 94.88 E
			H = 18 48 59.2 h = normal MAG=4.9
			D = 63.23 Az = 314.9 (USCGS)
			PV:1.0s 9.5nm
			MPV=4.9
20.	ePKHKP	08 43 30	Tonga Islands 20.82 S 174.20 W
	e	43 41	H = 08 23 41.2 h = normal MAG=4.7
	e	43 48	D = 149.88 Az = 352.6 (USCGS)
21.	-ePKHKP	01 48 58.5	Fiji Islands 21.86 S 179.41 W
			H = 01 30 14.3 h = 600 km MAG=4.6
			D = 150.00 Az = 345.9 (USCGS)
			PV:0.6s 19.1nm

Day	Phase	h m s	Remarks
21.	e1P	01 50 56.5	East of Lake Baikal 55.22 N 113.30 E
	e(S)	58 52	H = 01 41 19.5 h = normal MAG=5.1
	eSS	02 02.5	D = 56.07 Az = 311.3 (USCGS)
	LmH	18.5	PV:0.8s 33.0nm
	LmV	18.5	LmH:12s 1.0/um LmV:13s 1.4/um
			MPV=5.4 MLH=5.1 MLV=5.3
21.	ePP	06 30 03	New Ireland 3.16 S 150.49 E
	e	30 18	H = 06 09 41.8 h = normal MAG=5.4
			D = 121.41 Az = 330.6 (USCGS)
21.	ePKHKP	06 52 26.5	Tonga Islands 20.78 S 173.96 W
	e	52 31	H = 06 32 39.3 h = 52 km MAG=4.9
			D = 149.87 Az = 352.9 (USCGS)
			PV:1.2s 20.4nm
21.	ePKP	10 17 16	Samoa Islands 16.90 S 172.25 W
	e	17 31	H = 09 57 38.8 h = 46 km MAG=4.3
			D = 146.19 Az = 355.6 (USCGS)
			PV:1.4s 15.4nm
21.	eP	17 07 29	Iran 30.09 N 50.85 E
			H = 17 00 31.9 h = normal
			D = 35.70 Az = 316.4 (USCGS)
			PV:1.2s 7.7nm
21.	eP	17 18 28	Eastern Mediterranean Sea 35.0 N 28.5 E
			H = 17 13 54 h = 0 km (ISC)
			D = 19.9
21.	ePKHKP	17 48 17	West of Macquarie Island
	ePKP2	48 31	58.14 S 148.32 E
	LmH	18 58.4	H = 17 28 17.6 h = normal MAG=4.9
	LmV	19 00.2	D = 154.09 Az = 272.1 (USCGS)
			PV:1.6s 22.8nm
			LmH:19s 0.7/um LmV:19s 1.2/um
			MLH=5.4

Day	Phase	h m s	Remarks
21.	eP	21 13 06	Sea of Okhotsk 49.65 N 147.85 E
	epP	15 08	H = 21 02 31.5 h = 576 km MAG=4.9
	e	15 09.5	D = 73.31 Az = 332.6 (USCGS)
			PV:1.5s 26.8nm
			MPV=4.6
22.	e	00 25 56	Hokkaido, Japan 42.28 N 142.33 E
	LmH	01 00.8	H = 00 13 53.0 h = 31 km MAG=4.7
	LmV	03.8	D = 77.96 Az = 330.4 (USCGS)
			LmV:17.5s 0.4/um
			MLV=4.9
22.	e(PKP2)	12 12 33	Tonga Islands 20.69 S 174.12 W
			H = 11 52 40.6 h = normal MAG=4.4
			D = 149.77 Az = 352.7 (USCGS)
22.	+iPKP	18 18 04	New Hebrides Islands 20.07 S 169.05 E
	-ipPKP	18 15	H = 17 58 30.3 h = 34 km MAG=5.4
	i	18 27	D = 144.66 Az = 335.0 (USCGS)
	LmV	19 24.0	PV:2.4s 1460nm
	LmH	31.5	LmV:20s 0.8/um LmH:18.5s 0.5/um
			MLH=5.3
23.	ePKP	07 23 06	Tonga Islands 17.77 S 174.74 W
			H = 07 03 37.8 h = 140 km MAG=4.1
			D = 146.81 Az = 352.6 (USCGS)
23.	eiP	18 21 29.5	Off East Coast of Honshu, Japan
	epP	21 38	39.95 N 143.38 E
	LmH	19 23.4	H = 18 09 18.4 h = 25 km MAG=4.8
	LmV	24.8	D = 80.38 Az = 331.2 (USCGS)
			PV:1.2s 12.8nm
			LmH:14.5s 1.5/um LmV:14.5s 1.5/um
			MPV=4.8 MLH=5.5 MLV=5.5
23.	eP	23 14 46.5	Off East Coast of Honshu, Japan
	e	14 53	40.27 N 143.35 E
	ePP A	17 38	H = 23 02 35.5 h = 14 km MAG=5.2
	ePP B	17 46	D = 80.08 Az = 331.2 (USCGS)

Day	Phase	h m s	Remarks
cont.			
23.	eS	23 24 46	PV:2.6s 314.0nm
	LmH	51.7	LmH:17s 7.0/um LmV:17s 4.9/um
	LmV	56.0	MPV=5.8 MLH=6.1 MLV=5.9
24.	+iPKP	20 40 23	Tonga Islands 15.43 S 173.22 W
	LmH	21 05.7	H = 20 20 55.3 h = 84 km MAG=5.3
	LmV	05.8	D = 144.66 Az = 354.7 (USCGS)
			PV:1.5s 107.0nm
24.	eP	20 59 48	Greece 38.41 N 22.24 E
			H = 20 56 24.1 h = 66 km MAG=4.3
			D = 14.37 Az = 331.8 (USCGS)
25.	eP	03 44 40	Tibet 30.24 N 94.81 E
			H = 03 04 12.7 h = normal MAG=4.8
			D = 63.14 Az = 314.9 (USCGS)
			PV:1.3s 8.4nm
			MPV=4.7
25.	eiPKHKP	07 01 16	Tonga Islands 21.34 S 174.50 W
	e	01 19	H = 06 41 27.0 h = normal MAG=5.1
			D = 150.36 Az = 352.1 (USCGS)
			PV:1.0s 23.7nm
25.	+iPKIKP	07 42 59.5	Kermadec Islands 30.77 S 178.35 W
	i(PKHKP)	43 12	H = 07 23 07.8 h = 60 km MAG=6.4
	iPKP2	43 36	D = 158.79 Az = 342.3 (USCGS)
	ePP A	47 12.5	LmH:20s 35.6/um LmV:19.5s 49.1/um
	+iPP B	47 14.5	MLH=7.1
	ePS	57 28	
	eSPP	08 00 24	
	LmH	09.2	
	LmV	17.3	
25.	eP	09 49 40	North Atlantic Ridge 51.02 N 30.67 W
			H = 09 44 08.2 h = normal MAG=4.4
			D = 26.08 Az = 74.4 (USCGS)

Day	Phase	h m s	Remarks
25.	iP	11 02 21.5	Kurile Islands 45.75 N 146.73 E
	i	02 30.5	H = 10 50 31.5 h = 16 km MAG=5.9
	LmV	39.4	D = 76.43 Az = 332.5 (USCGS)
	LmH	40.4	PV:1.6s 75.6nm
			LmV:15.5s 3.0/um LmH:13.5s 4.5/um
			MPV=5.6 MLV=5.8 MLH=5.9
25.	eP	22 08 11	Greece - Albania Border 40.94 N 19.95 E
	e	08 17	H = 22 05 28.8 h = 22 km MAG=4.5
			D = 11.31 Az = 331.9 (USCGS)
26.	eP	06 46 51	Near Coast of Chiapas, Mexico
	eSKS	57 20	14.40 N 93.05 W
	ePS	58 30	H = 06 33 59.6 h = 14 km MAG=4.9 (USCGS)
	ePPS	58 43	D = 87.7
	LmH	07 28.0	LmH:18s 1.8/um LmV:18s 1.6/um
	LmV	28.0	MLH=5.5 MLV=5.5
26.	ePKP	12 47 59	Loyalty Islands 20.36 S 168.72 E
	e	48 05	H = 12 28 25.0 h = normal MAG=4.8
	e	48 09	D = 144.78 Az = 334.6 (USCGS)
26.	eP	12 54 34	India - China Border Region
			29.37 N 94.95 E
			H = 12 44 02.7 h = normal MAG=4.9
			D = 63.85 Az = 315.2 (USCGS)
26.	ePg	14 06(02)	Eschenlohe/GFR, explosion
	eSg	06 40	H = 15 05 00 yield 9.1 to (München)
			D ca. 3.0
26.	eP	17 19 09	South Atlantic Ridge 22.36 S 12.65 W
	e	19 14	H = 17 07 24.9 h = normal MAG=5.3
	e	19 29	D = 75.78 Az = 15.7 (USCGS)
			PV:1.3s 16.7nm
			MPV=5.0

Day	Phase	h m s	Remarks
26.	eP	20 56 27	West Pakistan 32.08 N 70.07 E
	ePcP	58 08	H = 20 48 03.3 h = 35 km MAG=4.8
	LmV	21 19.5	D = 46.35 Az = 311.4 (USCGS)
			PV:1.3s 13.9nm
27.	eP	02 50 13.5	Dodekanese Islands 35.45 N 27.81 E
	i	50 17	H = 02 45 49.2 h = 21 km MAG=5.0
	e	51 21	D = 19.19 Az = 327.3 (USCGS)
	iS C	53 44	PV(A):1.4s 362.0nm PV(B):5s 0.84/um
	iS B	53 48	LmH:11s 17.9/um LmV:10s 11.0/um
	i	53 56	MPV(A)=5.4 MPV(B)=5.2
	LmH	58.5	MLH=5.6 MLV=5.6
	LmV	58.7	
27.	iPKP	06 51 02	Tonga Islands 15.58 S 174.39 W
			H = 06 31 39.1 h = 130 km MAG=4.4
			D = 144.69 Az = 353.4 (USCGS)
27.	ePKP	11 11 10.5	South of Fiji Islands 19.21 S 175.66 E
	e	11 13	H = 10 51 40.1 h = 88 km MAG=5.4
	e	11 15	D = 146.16 Az = 341.7 (USCGS)
	e	11 18.5	PV2:1.3s 55.5nm
27.	eP	17 53 34.5	Fox Islands 52.52 N 170.57 W
			H = 17 41 45.8 h = 65 km MAG=4.7
			D = 77.20 Az = 358.6 (USCGS)
			PV:1.0s 14.2nm
			MPV=4.9
28.	eP	03 36 27	Fox Islands, Aleutian Is.
			52.83 N 167.12 W
			H = 03 24 35.8 h = normal MAG=4.5
			D = 76.90 Az = 0.8 (USCGS)
			PV:0.9s 11.8nm
			MPV=5.0
28.	e	07 29 18	Hokkaido, Japan 41.18 N 142.69 E
			H = 07 17 04.1 h = 38 km MAG=4.5
			D = 79.04 Az = 330.7 (USCGS)

Day	Phase	h m s	Remarks
28.	ePKHKP	11 18 18	Tonga Islands 22.48 S 174.71 W
	ePKP2	18 28	H = 10 58 25.7 h = normal MAG=5.0
	e	18 39	D = 151.46 Az = 351.6 (USCGS)
	LmH	12 32.5	PV:1.4s 24.6nm
	LmV	34.0	LmH:17s 0.5/um LmV:18s 0.8/um
			MLH=5.3
28.	eP	14 15 39.5	Near East Coast of Honshu, Japan
	e	15 53	40.91 N 142.33 E
			H = 14 03 35.9 h = normal MAG=4.7
			D = 79.14 Az = 330.6 (USCGS)
28.	eP	18 49 24	Northern Peru 5.61 S 76.95 W
	e	50 48	H = 18 36 10.3 h = 46 km MAG=5.0
			D = 93.38 Az = 39.6 (USCGS)
28.	eP	21 24 03	Komandorsky Islands 55.43 N 166.58 E
	e	24 06	H = 21 12 38.1 h = 27 km MAG=5.4
	ePP	26 46	D = 72.25 Az = 343.6 (USCGS)
	eS	33 26	LmV:13s 3.7/um LmH:13.5s 4.8/um
	ePPS	34 05	MLV=5.9 MLH=5.9
	eSS	38 04	
	e	41 24	
	eSSS	41 36	
	LmV	22 02.0	
	LmH	03.3	
28.	eP	21 34 32	Komandorsky Islands 55.35 N 166.82 E
	e	34 38	H = 21 23 06.7 h = 22 km MAG=5.1
	e	34 52	D = 72.37 Az = 343.7 (USCGS)
	e	36 57	
	e	37 11	
29.	eP	06 36 39.5	Fox Islands, Aleutian Is.
			52.85 N 167.06 W
			H = 06 24 47.3 h = 23 km MAG=4.7 (USCGS)
			D = 76.8
			PV:1.2s 12.8nm
			MPV=4.9

Day	Phase	h m s	Remarks
29.	eP	07 48 19	Fox Islands, Aleutian Is.
	e	48 25	52.83 N 166.97 W
			H = 07 36 28.2 h = 32 km MAG=4.6 (USCGS)
			D = 77.0
			PV:1.2s 20.4nm
			MPV=5.1
29.	eP	10 06 54	Near Coast of Oaxaca, Mexico
	e	07 02	15.11 N 93.97 W
			H = 09 54 04.9 h = 42 km MAG=5.0
			D = 88.02 Az = 37.9 (USCGS)
			PV:1.0s 9.5nm
			MPV=5.1
29.	ePKIKP	11 31 44	Tonga Islands 22.46 S 175.00 W
	e	31 51	H = 11 11 59.5 h = normal MAG=5.6
	iPKHKP	32 00	D = 151.40 Az = 351.2 (USCGS)
	LmH	12 47.8	PV2:2.2s 149.0nm
	LmV	47.8	LmH:19s 3.7/um LmV:19s 4.7/um
			MLH=6.1
29.	ePKIKP	12 39 34	Tonga Islands 22.43 S 174.88 W
	e	39 38	H = 12 19 46.6 h = normal MAG=5.3
	iPKHKP	39 41	D = 151.38 Az = 351.4 (USCGS)
			PV3:1.5s 50.4nm
29.	e	13 50 28	New Ireland Region 3.20 S 150.61 E
	ePP	50 57	H = 13 30 31.9 h = 28 km MAG=5.4 (USCGS)
	ePPP	53 39	D = 121.4
	eSS	14 07 32	
	LmH	33.7	
	LmV	45.7	
29.	ePKHKP	15 33 35	South of Fiji Islands 25.25 S 177.88 W
	ePKP2	33 49	H = 15 14 01.3 h = 205 km MAG=4.5
	e	33 53.5	D = 153.61 Az = 346.3 (USCGS)

Day	Phase	h m s	Remarks
29.	ePKIKP	15 39 43	Tonga Islands 21.48 S 174.35 W
	ePKHKP	39 48.5	H = 15 19 57.6 h = normal MAG=5.0
	ei	39 50	D = 150.51 Az = 352.3 (USCGS)
	e	40 12	PV3:1.4s 43.0nm
29.	eP	21 52 38	Andreanof Islands, Aleutian Is.
			51.68 N 173.87 W
			H = 21 40 41.8 h = 36 km MAG=4.2
			D = 77.94 Az = 356.4 (USCGS)
30.	eP	00 06 44	West New Guinea 0.21 S 133.44 E
	e A	11 12.5	H = 23 52 15.0 h = 12 km MAG=6.1
	ePP B	11 18	D = 109.79 Az = 324.9 (USCGS)
	ePP AC	11 20	PV1:1.8s 40.8nm
	eSKS	17 40	LmH:19.5s 17.4/um LmV:19s 8.3/um
	eS	20 00	MPV1=6.5 MLH=6.6 MLV=6.3
	eiPS	20 46	
	eiPPS	21 44	
	ePKKP	21 52.5	
	eiSS	26 56	
	LmH	52.1	
	LmV	01 02.9	
30.	eP	02 29 41	Iceland 66.43 N 17.37 W
	e	29 51.5	H = 02 24 48.6 h = 1 km MAG=4.4
			D = 21.57 Az = 122.9 (USCGS)
30.	ePKIKP	03 09 17	Fiji Islands 20.88 S 179.17 W
	-iPKHKP	09 22	H = 02 50 41.4 h = 620 km MAG=4.9
	ePKP2	09 28	D = 149.10 Az = 346.6 (USCGS)
			PV:1.4s 43.0nm
30.	ePKIKP	04 29 58	Tonga Islands 22.45 S 175.02 W
	+iPKHKP	30 04.5	H = 04 10 12.1 h = normal MAG=5.3
	LmH	05 45.7	D = 151.38 Az = 351.2 (USCGS)
	LmV	45.9	PV:1.6s 49.3nm
			LmH:19.5s 1.1/um LmV:20s 1.3/um
			MLH=5.6

Day	Phase	h m s	Remarks
30.	ePKHKP	04 47 07	Tonga Islands 22.27 S 174.94 W
			H = 04 27 13.8 h = normal MAG=4.6
			D = 151.22 Az = 351.3 (USCGS)
30.	eP	08 23 27	Fox Islands, Aleutian Is.
			52.80 N 167.11 W
			H = 08 11 38.5 h = 45 km MAG=4.2
			D = 76.93 Az = 0.8 (USCGS)
30.	-iP	17 46 28.5	Kurile Islands 44.11 N 148.84 E
			H = 17 34 29.0 h = 35 km MAG=5.2
			D = 78.57 Az = 333.8 (USCGS)
			PV:1.2s 56.1nm
			MPV=5.5
30.	e	19 50 14	
	e	50 20.5	
	e	50 35.5	
30.	eiP A	20 52 10	Near Coast of Northern Peru
	+iP ABC	52 11	6.93 S 80.46 W
	ePP A	56 03	H = 20 38 42.0 h = 37 km MAG=5.8
	+iPP C	56 06	D = 96.62 Az = 39.8 (USCGS)
	iSKS	21 02 47.5	PV2:1.9s 58.9nm
	iS C	03 25	LmV:17.5s 8.3/um LmH:18s 5.9/um
	eS B	03 32	MPV2=5.9 MLV=5.3 MLH=5.1
	ePS	05 55	
	eSS	10 00	
	LmV	36.3	
	LmH	36.4	
31.	eP	01 49 33	Off East Coast of Honshu, Japan
	e	52 44.5	40.26 N 143.96 E
	LmH	02 30.0	H = 01 37 24.1 h = normal MAG=4.6
	LmV	31.6	D = 80.32 Az = 331.5 (USCGS)
			LmH:13s 1.0/um LmV:16s 0.5/um
			MLH=5.4 MLV=5.0

Day	Phase	h m s	Remarks
31.	eP	09 25 25	Southern Greece 37.81 N . 21.43 E
	LmH	30.4	H = 09 21 59.5 h = 80 km MAG=4.3
	LmV	32.1	D = 14.62 Az = 334.5 (USCGS)
			LmH:9s 0.7/um LmV:20s 1.1/um
			MLH=4.1
31.	ePKP2	14 06 33	Kermadec Islands 31.50 S 178.07 W
			H = 13 46 00.1 h = normal MAG=4.7
			D = 159.56 Az = 342.1 (USCGS)
31.	eP	19 33 51.5	Eastern Mediterranean Sea
	e	33 55	35.52 N 28.03 E
	e	34 06	H = 19 29 26.8 h = 27 km MAG=4.8
	LmH	41.5	D = 19.23 Az = 326.9
	LmV	43.3	PV:1.1s 14.4nm
			LmH:14s 1.7/um LmV:13s 1.1/um
			MPV=4.1 MLH=4.5 MLV=4.5

Day	Phase	h m s	Remarks
1.	+eiPKIKP	00 33 54	South of Fidschi Islands 26.65 S 177.48 W
	ePKHKP	34 04	H = 00 14 16.0 h = 123 km MAG=5.6
	ePKP2	34 20	D = 155.0 Az = 346.2 (USCGS)
	e	37 30	PV:2.0s 106.0nm
	ePP	37 56	LmH:16s 0.8/um
	LmH	58.5	
	LmV	58.6	
1.	eP	08 56 33	Off East Coast of Kamchatka
			52.88 N 159.35 E
			H = 08 45 07.3 h = 64 km MAG=4.6
			D = 73.3 Az = 339.2 (USCGS)
			PV:0.9s 21.2nm
			MPV=5.1
1.	ePKIKP	09 11(53)	South of Fiji Islands 24.82 N 177.82 W
	e	12 14.5	H = 08 52 22.6 h = 154 km MAG=3.8
	e	12 19	D = 153.2 Az = 346.6 (USCGS)
1.	eP	14 29 20	Azores Islands 39.19 N 29.88 W
	e	29 21.5	H = 14 23 03.9 h = normal MAG=4.8
	e	29 25	D = 31.1 Az = 54.7 (USCGS)
	e	29 32	LmH:14.5s 0.4/um LmV:15s 0.3/um
	LmH	40.9	MLH=4.3 MLV=4.3
	LmV	40.9	
1.	eP	18 39 22.5	Near West Coast of Honshu, Japan
			39.99 N 139.15 E
			H = 18 27 23.1 h = 42 km MAG=4.9
			D = 78.2 Az = 329.0 (USCGS)
			PV:1.2s 12.8nm
			MPV=4.8
1.	+iP	20 32 17.5	Luzon, Philippine Islands
	i	32 30	16.52 N 122.20 E
	i	32 34	H = 20 19 21.9 h = 36 km MAG=5.9
	i	32 44	D = 89.8 Az = 323.4 (USCGS)

Day	Phase	h m s	Remarks
cont.			
1.	eS	20 42 46	LmV:19s 248/um LmH:19s 171/um
	e	42 58	MLV=7.7 MLH=7.5
	LmV	21 16.9	
	LmH	17.1	
1.	e	22 05 22	
	e	05 24	
2.	eP	13 38 23	Southern Iran 27.51 N 60.92 E
	e	38 30	H = 13 30 23.3 h = 62 km MAG=5.7
	e	38 45	D = 43.7 Az = 315.7 (USCGS)
	e	43 55.5	SH:15s 0.6/um
	eS	44 47	LmH:15s 0.5/um LmV:12s 0.6/um
	eSS	48 18	MSH=5.1 MLH=4.5 MLV=4.8
	LmH	14 03.3	
	LmV	04.0	
2.	+eP	14 19 36	Oaxaka, Mexico 16.59 N 97.70 W
	ePP	23 00	H = 14 06 43.9 h = 40 km MAG=6.3
	iS	30 12	D = 89.0 Az = 36.9 (USCGS)
	ePS	31 40	PV:3.5s 2160.0nm
	LmH	15 03.4	LmH:18s 157.0/um LmV:18s 176.0/um
	LmV	03.5	MPV=6.9 MLH=7.5 MLV=7.6
2.	e	16 42 45	
2.	eP	17 26 53	Kodiak Islands 56.95 N 151.54 W
			H = 17 15 26.9 h = 15 km MAG=4.8
			D = 71.9 Az = 11.2 (USCGS)
			PV:1.4s 18.4nm
			MPV=5.0
3.	-iP	05 07 13	Ryukyu Islands 25.63 N 128.50 E
	-i	07 28	H = 04 54 32.7 h = 19 km MAG=6.4
	e	09 16	D = 85.9 Az = 325.3 (USCGS)
	ePP	10 28	LmH:16s 223.0/um LmV:16s 263.0/um
	eS	17 40	MLH=7.7 MLV=7.8
	LmH	51.4	
	LmV	51.4	

Day	Phase	h m s	Remarks
3.	eiP	06 38 02	Luzon, Philippine Islands
	e	38 03	16.48 N 122.31 E
	eS	48 30	H = 06 25 05.8 h = 37 km MAG=5.9
	iPS	50 00	D = 89.9 Az = 323.4 (USCGS)
	eSS	55 06	PV2:1.6s 144.0nm
	LmV	07 24.3	LmV:15s 22.3/um LmH:15s 16.8/um
	LmH	25.2	MPV=6.0 MLV=6.7 MLH=6.6
3.	eP	14 10 08.5	Western Pakistan 25.80 N 62.78 E
	epP	10 20	H = 14 01 46.5 h = 40 km MAG=4.7
	LmH	30.5	D = 46.1 Az = 316.5 (USCGS)
			PV:1.2s 17.9nm
			LmH(C):26.5s 0.7/um
			MPV=5.0 MLH=4.5
3.	eP	19 32 02.5	Luzon, Philippine Islands
	LmH	20 13.7	16.35 N 122.44 E
	LmV	18.1	H = 19 19 01.6 h = 22 MAG=5.2
			D = 90.1 Az = 323.5 (USCGS)
			LmH(C):18.5s 1.3/um LmV(C):18s 2.4/um
			MLH=5.4 MLV=5.7
4.	LmV	03 04.1	Probably Philippine Islands (USCGS)
			LmV:16s 04/um
4.	ePKHKP	11 00 30	Tonga Islands 22.54 S 174.77 W
			H = 10 40 37.3 h = normal MAG=4.9
			D = 151.5 Az = 351.5 (USCGS)
4.	+eP	11 55 02	Mindanao, Philippine Islands
	i	55 06	6.59 N 126.76 E
	ePP	59 09	H = 11 41 24.9 h = 107 km MAG=5.7
	ePPP	12 01 16	D = 100.4 Az = 324.1 (USCGS)
	ePPPP	03(00)	PV2:1.2s 97.0nm
	eSKS	05 27	LmH:19s 7.3/um LmV:19s 7.1/um
	iS	06 32	MPV2=6.3 MLH=6.2 MLV=6.2
	e	08 24	e 58 31 e 07 57.5 e 08 24
	LmH	42.5	
	LmV	43.3	

Day	Phase	h m s	Remarks
4.	e	15 35 41	Luzon, Philippine Islands 16.23 N 122.47 E H = 15 22 37.8 h = normal MAG= 5.0 D = 90.2 Az = 323.5 (USCGS)
4.	eP	18 23 02	Dodekanese Islands 35.40 N 27.95 E
	e	23 08	H = 18 18 37.8 h = 41 km MAG= 4.5
	eS	26(35)	D = 19.3 Az = 327.2 (USCGS)
	e	26(44)	PV1:1.2s 25.5nm PV2:1.2s 61.2nm
	LmH	29.8	LmH:15s 0.5/um
			MPV1=4.3 MPV2=4.7 MLH=3.9
4.	eP	23 27 42.5	Ionian Sea 37.74 N 20.70 E
	e	27 51	H = 23 24 18.2 h = 31 km MAG=4.4
	e	29 25	D = 14.4 Az = 336.2 (USCGS)
	LmH	33.0	LmH:14s 0.7/um LmV:14s 0.5/um
	LmV	34.5	MLH=4.0
5.	ePP	00 16(10)	Southwest of Africa 53.03 S 9.63 E
	ePS	25 00	H = 23 57 39.6 h = normal MAG=4.9
	eSS	30 35	(USCGS)
	LmH	58.0	D = 103.6
	LmV	58.0	LmH:20s 0.5/um LmV:20s 0.6/um
			MLH=5.0 MLV=5.2
5.	ePKHKP	04 32 11	Tonga Islands 21.46 S 174.57 W
			H = 04 12 19.5 h = normal MAG=4.2
			D = 150.5 Az = 352.0 (USCGS)
5.	eP	05 03 57	Greenland Sea 73.22 N 6.32 E
	e	03 58	H = 04 58 56.9 h = normal MAG=4.7
	e	04 03	D = 22.8 Az = 171.3 (USCGS)
	e	06 17	PV2:1.4s 49.1nm
			MPV2=4.8
5.	-eiP	16 29 18.5	Shikoku, Japan 33.29 N 132.18 E
	epP	29 30	H = 16 17 04.8 h = 41 km MAG=6.3
	esP	29 37	D = 81.4 Az = 326.3 (USCGS)
	+iPP	32 26	PV:1.1s 108nm SH:11s 11.0/um

Day	Phase	h m s	Remarks
cont.			
5.	iS	16 39 25	LmH:16s 39.6/um LmV:16s 47.7/um
	ePKKP	47 52	MPV=5.8 MSH=6.8 MLH=6.9 MLV=7.0
	ePKPPKP	55 53	
	epPKPPKP	56 06	
	LmH	17 09.8	
	LmV	09.8	
6.	eP	00 21 12	North Atlantic Ridge 26.68 N 44.62 W
			H = 00 12 30.3 h = normal MAG=4.7
			D = 48.6 Az = 44.9 (USCGS)
6.	eP	03 19 25	Luzon, Philippine Islands
	LmV	04 05.8	16.60 N 122.37 E
	LmH	06.0	H = 03 06 27.9 h = normal MAG=5.1
			D = 89.8 Az = 323.5 (USCGS)
			PV:1.2s 10.2nm
			LmV:16s 0.5/um LmH:18s 0.4/um
			MPV=4.9 MLV=5.1 MLH=5.1
6.	eP	03 36 46	Chiapas, Mexico 17.22 N 92.58 W
	LmV	04 18.0	H = 03 24 04.3 h = 13 km MAG=4.4
			D = 85.5 Az = 38.3 (USCGS)
			PV:1.6s 15.2nm
			LmV:16s 0.6/um
			MPV=4.9 MLV=5.1
6.	eP	05 06 02	Luzon, Philippine Islands
	e	06 10	15,74 N 121.94 E
	LmH	49.4	H = 04 53 04.6 h = 50 km MAG=5.2
	LmV	49.5	D = 90.3 Az = 323.3 (USCGS)
			PV:1.2s 10.2nm
			LmH:17s 1.1/um LmV:16s 0.9/um
			MPV=4.9 MLH=5.4 MLV=5.4
6.	eiP	08 43 26	Eastern Gulf of Aden 13.93 N 51.54 E
	e	43 36.5	H = 08 34 42.3 h = normal MAG=4.9

Day	Phase	h m s	Remarks
cont.			
6.	LmV	09 08.8	D = 48.8 Az = 327.1 (USCGS)
	LmH	08.9	PV:1.4s 18.4nm
			LmV:16s 0.6/um LmH:15s 0.7/um
			MPV=4.9 MLV=4.7 MLH=4.8
6.	LmH	10 57.0	Probably Ryukyu Islands (USCGS)
	LmV	11 05.5	LmH:21s 0.7/um LmV:14s 0.5/um
6.	e	12 48 30.5	
7.	+eiP	08 12 08	Hokkaido, Japan 43.08 N 144.62 E
	ei	12 22.5	H = 08 00 13.4 h = 54 km MAG=5.6
	eipP	12 24	D = 78.1 Az = 331.6 (USCGS)
	ei	12 30.5	PV:0.8s 61.3nm
	eS	21 54.5	LmH:17s 1.8/um LmV:17s 1.9/um
	eSKS	22 20	MPV=5.8 MLH=5.5 MLV=5.5
	ePS	22 55	
	eSSS	30 16	
	LmH	50.8	
	LmV	50.9	
7.	e	08 59 13	
7.	e	09 06 21.5	Yugoslavia 45½ N 16.0 E
	eSg	07 10	H = 09 04 00 (BCIS)
7.	iPg	14 13 49	Explosion
	eSg	14 03.5	(D = ca. 1.1)
	i	14 04.5	
8.	eP	00 16 19	Southwestern Ryukyu Islands
			24.67 N 125.01 E
			H = 00 03 48.5 h = 52 km MAG=4.8
			D = 84.8 Az = 324.1 (USCGS)
			PV:1.8s 20.4nm
			MPV=4.1

Day	Phase	h m s	Remarks
8.	+iP	05 07 31	Near East Coast of Honshu, Japan
	eipP	07 42	36.39 N 141.40 E
	LmH	48.8	H = 04 55 10.0 h = 41 km MAG=5.4
	LmV	48.8	D = 82.7 Az = 330.4 (USCGS)
			PV:1.4s 67.5nm
			LmH:15s 1.8/um LmV:16s 1.6/um
			MPV=5.7 MLH=5.6 MLV=5.5
8.	eP	09 32 32	Ryukyu Islands 25.81 N 128.57 E
	e	32 36	H = 09 19 53.9 h = normal MAG=4.9
	LmH	10 09.0	D = 85.8 Az = 325.3 (USCGS)
	LmV	16.2	LmH:18.5s 0.6/um LmV:14s 0.4/um
			MLH=4.6 MLV=5.0
8.	e	13 17 13.5	
8.	e	14 36 33	Probably Luzon, Philippine Islands (USCGS)
	LmV	15 04.8	LmV:18s 0.3/um LmH:16s 0.3/um
	LmH	05.0	
9.	e	03 27 18	Eastern Islands 22.40 S 113.02 W
	ePP	29 11	H = 03 08 04.2 h = normal MAG=5.4
	e	30 34	D = 128.8 Az = 42.3 (USCGS)
	e	31 00	LmH:22s 1.3/um LmV:19s 1.9/um
	eSS	46 32	MLH=5.6
	LmH	04 14.4	
	LmV	24.2	
9.	+eP	10 50 02.5	Kurile Islands 43.43 N 147.12 E
	epP	50 12	H = 10 38 04.0 h = 40 km MAG=5.1
	esP	50 16.5	D = 78.6 Az = 332.9 (USCGS)
	LmH	11 25.2	PV:1.6s 38.0nm
	LmV	29.5	LmH:15s 0.6/um LmV:17s 0.5/um
			MPV=5.2 MLH=5.1 MLV=5.0
9.	ePKP	18 18 47	Tonga Islands 22.69 S 175.21 W
			H = 17 59 00.6 h = 46 km MAG=4.7
			D = 151.6 Az = 350.8 (USCGS)

Day	Phase	h m s	Remarks
10.	eP	00 48 37.5	Svalbard 76.74 N 10.48 E
	e	48 38	H = 00 43 05.9 h = normal MAG=4.5
	e	48 45.5	D = 26.2 Az = 178.4 (USCGS)
	e	48 49	PV2:1.6s 34.1nm
	eS	53 12	MPV2=4.7
10.	eP	01 10 11.5	Svalbard 76.03 N 5.55 E
	e	10 18	H = 01 04 45.3 h = normal MAG=4.1
	e	10 24	D = 25.6 Az = 171.0 (USCGS)
10.	eP	02 21 06.5	Molucca Passage 1.42 N 126.22 E
	ePP	25 17	H = 02 07 04.4 h = normal MAG=6.3
	eSKS	31 36	D = 104.2 Az = 323.3 (USCGS)
	eS	32 40	LmV:23s 304.0/um LmH:19s 188.0/um
	ePS	34 24	MLV=7.8 MLH=7.7
	LmV	03 12.5	ei 21 12 i 21 16 i 21 20 ei 31 48
	LmH	14.3	
10.	eP	04 19 56.5	Molucca Passage 1.33 N 126.54 E
	e	20.5	H = 04 05 50.6 h = normal MAG=5.7
			D = 104.5 Az = 323.4 (USCGS)
10.	eP	04 33 34.5	Iran 36.87 N 43.02 E
	e	33 36.5	H = 04 27 59.8 h = 29 km MAG=5.0
			D = 26.3 Az = 311.5 (USCGS)
10.	eP	05 02 24.5	Svalbard 75.96 N 8.69 E
	e	02 38.5	H = 04 56 59.5 h = normal MAG=4.7
			D = 25.4 Az = 175.7 (USCGS)
			PV:1.4s 40.0nm
			MPV=5.0
10.	+eP	06 05 48.5	Molucca Passage 1.47 N 126.18 E
	e	05 57	H = 05 51 47.9 h = normal MAG=6.2
	e	09 15	D = 104.2 Az = 323.3 (USCGS)
	e	09 53	PV:2.0s 66.2nm
	ePP	10 10	LmH:18.5s 13.4/um LmV:18s 16.8/um
	eSKS	16 28	MPV=5.8 MLH=6.5 MLV=6.6
	eSKKS	17 09	

Day	Phase	h m s	Remarks
cont.			
10.	ePS	06 19 00	
	LmH	58.2	
	LmV	58.2	
10.	eP	16 54 24.5	Luzon, Philippine Islands
	e	54 37	15.50 N 121.58 E
	e	58 03	H = 16 41 25.4 h = normal MAG=5.4
	eS	17 05 07	D = 90.3 Az = 323.2 (USCGS)
	LmH	38.5	PV:1.2s 10.2nm
	LmV	38.5	LmH:19s 2.2/um LmV:20s 2.8/um
			MPV=4.9 MLH=5.6 MLV=5.7
10.	+iPKP	19 38 09.8	Loyalty Islands 21.52 S 170.45 E
	ei	38 12	H = 19 18 43.0 h = 136 km MAG=5.1
	epPKP	38 42	D = 146.5 Az = 335.4 (USCGS)
	esPKP	38 54	PV:1.1s 62.5nm
11.	e	01 23 19	
	e	24 19	
11.	eP	02 55 23.5	Near Coast of Peru 15.19 S 73.97 W
	e	55 51	H = 02 41 52.8 h = 91 km MAG=5.6
	e	56 00	D = 98.8 Az = 40.0 (USCGS)
	eS	03 06 44	PV:1.2s 17.9nm
	eSP	08 14	LmV:20s 0.4/um
	e	13 25	
	LmV	39.0	
11.	eP	09 33 17	Ascension Island 11.10 S 13.04 W
			H = 09 22 37.1 h = normal MAG=4.7
			D = 65.1 Az = 17.0 (USCGS)
			PV:1.2s 10.2nm
			MPV=4.9
11.	+iP	12 49 05.3	Andreanof Islands/Aleut. Is.
	epP	49 44	52.08 N 179.95 W
	e	54 10	H = 12 37 28.1 h = 159 km MAG=5.5
	e	58 41	D = 77.2 Az = 352.5 (USCGS)
	e	59 50	PV:0.9s 47.2nm

Day	Phase	h m s	Remarks
11.	eP	20 14 46	Molucca Passage 1.55 N 126.13 E
	ePP	19 10	H = 20 00 43.4 h = normal MAG=5.9
	eSKS	25 20	D = 104.1 Az = 323.3 (USCGS)
	eSKKS	26 00	LmV:19.5 s 3.8/um LmH:19.5s 4.4/um
	ePS	28 00	MLV=6.0 MLH=6.0
	ePPS	29 12	e 14 52.5 e 17 52 e 18 13
	LmV	21 07.0	
	LmH	07.1	
12.	e	07 28 28.5	Belgium 50.5 N 4.4 E
			H = 07 26 43 (BCIS)
12.	e	13 55 49	
	e	55 59.5	
	e(Sg)	57 21	
12.	ePKP2	18 27 44.5	Kermadec Islands 31.41 S 177.86 W
	e	28 03	H = 18 07 10.6 h = normal MAG=4.9 (USCGS)
			D = 158.3
			PV:1.3s 33.2nm
12.	eP	20 43 49	Hokkaido, Japan 41.41 N 142.64 E
	e	43 57	H = 20 31 52.8 h = 68 km MAG=5.2
	LmH	21 17.4	D = 78.8 Az = 330.7 (USCGS)
	LmV	24.7	LmH:17s 1.1/um LmV:14s 0.3/um
			MLH=5.2 MLV=4.9
13.	ePn	01 53 49	Switzerland 46.6 N 9.6 E
	ePg	53 57	H = 01 52 42 (BCIS)
	iSn	54 30	D = 4.3
	eiSg	54 55	LmH:5.0s 0.2/um LmV:5.0s 0.2/um
	LmH	55.7	MLH=3.0
	LmV	55.7	
13.	eP	03 06 53	Molucca Passage 1.96 N 126.28 E
	ePP	11 02	H = 02 52 51.9 h = normal MAG=5.8
	LmH	58.0	D = 103.8 Az = 323.4 (USCGS)
	LmV	59.0	PV:1.6s 38.0nm
			MPV=6.0

Day	Phase	h m s	Remarks
13.	e	07 00 21	
	e	00 22	
13.	ePn	13 32(08)	Switzerland 46.7 N 9.7 E
	e	32 13	H = 13 31 06 (BCIS)
	ePg	32 21	D = 4.2
	iSn	32 54	LmV:5.5s 0.3/um LmH:5.0s 0.4/um
	eSg	33 19	MLH=3.2
	LmV	34.0	
	LmH	34.1	
13.	e	16 19 14	Belgium 50.5 N 4.4 E
	LmH	20.2	H = 16 17 29 (BCIS)
13.	ePn	16 58 35	Belgium 50.4 N 4.2 E
	ePg	58 46	H = 16 57 15 (BCIS)
	e	59 17	D = 4.7
	eSn	59 24	LmH:6.5s 2.0/um LmV:6.0s 0.7/um
	e	59 37	MLH=3.9
	i	59 43	
	LmH	17 00.0	
	LmV	00.3	
13.	eiPn	18 03 54	Switzerland 46.7 N 9.8 E
	ei	04 01.5	H = 18 02 55 (BCIS)
	iPg	04 09.5	D = 4.2
	iSn	04 42	LmV:5.0s 0.7/um LmH:5.0s 0.8/um
	iSg	05 08	MLH=3.5
	LmV	05.8	
	LmH	05.9	
13.	eiPKP	19 54 36	New Hebrides Islands 15.51 S 167.53 E
	ePP	57 28	H = 19 35 20.9 h = 125 km MAG=5.2
			D = 139.9 Az = 336.2 (USCGS)
			PV:1.4s 49.0nm
14.	e	00 52 59	
14.	eP	01 24 58.5	Near East Coast of Kamchatka
			55.58 N 162.05 E

Day	Phase	h m s	Remarks
cont.			
14.	eS	01 34 12	H = 01 13 45.2 h = 70 km MAG=5.3
	LmH	53.0	D = 71.3 Az = 340.6 (USCGS)
14.	-eiP	08 09 42.5	Philippine Islands 15.09 N 122.49 E
	ePP	13 21	H = 07 56 35.5 h = 8 km MAG=5.4
	eSKS	20 18	D = 91.1 Az = 323.5 (USCGS)
	eS	20 40	PV:1.7s 65.8nm PPV:1.6s 45.5nm
			MPV=5.7 MPPV=5.7
14.	+eP	08 51 45	Michoacan, Mexico 18.54 N 102.82 W
	e	51 53	H = 08 38 48.4 h = 72 km MAG=5.4
	e	57 19	D = 90.4 Az = 35.4 (USCGS)
	LmH	09 35.6	PV:2.4s 227.0nm
	LmV	39.0	LmH:18.5s 3.3/um LmV:16s 2.5/um
			MPV=6.0 MLH=5.8 MLV=5.8
14.	eP	22 28 10	Northern Celebes 0.16 N 119.79 E
	ePP	32 26	H = 22 14 19.4 h = 23 km MAG=6.0
	eSKS	38 56	D = 101.3 Az = 321.9 (USCGS)
	eS	39 52	LmH:21s 112.0/um
	LmH	23 17.1	MLH=7.4
15.	eP	02 34 04	Crete 35.27 N 26.75 E
	i	34 07	H = 02 29 45.4 h = 67 km MAG=4.8
			D = 18.9 Az = 329.1 (USCGS)
15.	ePKIKP	07 10 06	South of Fiji Islands 23.78 S 177.42 W
	eiPKHKP	10 14	H = 06 50 38.7 h = 188 km MAG=5.5
	ePKP2	10 21	D = 152.3 Az = 347.6 (USCGS)
	eipPKIKP	10 55	
	epPKHKP	11 01	
	ePP	13 54	
	eSS	33 05	
	ePSPS	34 22	
15.	e	08 42 05	

Day	Phase	h m s	Remarks
15.	-ePKP	18 00 54.5	Santa Cruz Islands 12.71 S 166.16 E
	e	03 48	H = 17 41 28.1 h = 4 km MAG=5.4
	e	04 36.5	D = 136.8 Az = 336.4 (USCGS)
	LmH	19 07.0	PV:1.3s 25.0nm
			LmH:18s 0.8/um
15.	eP	21 39 54	Northern Celebes 0.07 N 120.02 E
			H = 21 26 00.0 h = normal MAG=5.3 (USCGS)
			D = 101.6
16.	eiPKHKP	03 50 47	Fiji Islands 21.80 S 179.51 W
			H = 03 32 04.9 h = 625 km MAG=4.6
			D = 149.9 Az = 345.8 (USCGS)
			PV:0.5s 19.2nm
16.	+eP	10 51 34	Off East Coast of Honshu, Japan
	ePP	54 36	38.53 N 143.32 E
	eS	11 01 45	H = 10 39 16.8 h = 22 km MAG=5.6
	LmH	30.0	D = 81.6 Az = 331.3 (USCGS)
			PV:1.5s 47.0nm
			LmH:15.5s 5.5/um
			MPV=5.4 MLH=6.0
16.	ePKIKP	11 52 50	Fiji Islands 21.09 S 179.28 W
	eiPKHKP	52 55	H = 11 34 16.4 h = 640 km MAG=5.1
	iPKP2	53 03	D = 149.3 Az = 346.4 (USCGS)
	epPKIKP	55 18	
	epPKHKP	55 24	
	epPKP2	55 34	
16.	ePn	21 34 56	Yugoslavia 46.39 N 14.21 E
	iSn	35 47	H = 21 33 46.8 h = normal MAG=4.2
	iSg	36 09	D = 4.6 Az = 338.9 (USCGS)
	e	36 14	
17.	eP	04 14 40	Molucca Passage 1.37 N 126.32 E
	ei	14 42	H = 04 00 36.3 h = normal MAG=5.7
	ePP	19 00	D = 104.3 Az = 323.3 (USCGS)
	iSKS	25 18	LmH:19s 2.9/um

Day	Phase	h m s	Remarks
cont.			
17.	eS	04 26 28	MLH=5.8
	LmH	07.2	
17.	eP	04 50 42	South of Honshu, Japan 31.64 N 140.83 E
	epP	51 01	H = 04 38 06.4 h = 82 km MAG=5.3
			D = 86.6 Az = 330.4 (USCGS)
			PV:2.2s 52.6nm
17.	ePKP	07 03 40	Tonga Islands 17.34 S 173.03 W
			H = 06 43 59.9 h = normal MAG=4.5
			D = 146.6 Az = 354.6 (USCGS)
			PV:1.4s 15.3nm
18.	eP	07 24 32	Southern Honshu, Japan 35.28 N 135.32 E
	e	24 36.5	H = 07 12 19.3 h = normal MAG=5.0
	LmH	59.3	D = 81.1 Az = 327.6 (USCGS)
			PV1:1.5s 23.5nm PV2:1.9s 59.0nm
			LmH:15.5s 2.7/um
			MPV1=5.0 MPV2=5.3 MLH=5.7
18.	eP	12 06 53	Kurile Islands 48.19 N 157.31 E
	i	06 58	H = 11 54 59.4 h = 27 km MAG=5.2
	eS	16 50	D = 77.2 Az = 338.4 (USCGS)
	LmH	47.5	LmH:15.5s 0.8/um
			MLH=5.1
18.	eP	14 29 26.5	Molucca Passage 1.38 N 126.36 E
			H = 05 43 57.7 h = normal MAG=5.4
			D = 63.2 Az = 315.6 (USCGS)
			PV:1.2s 20.4nm
			MPV=5.1
18.	e	18 27 55	Santa Cruz Islands 12.70 S 166.19 E
	ePP	30 36	H = 18 08 35.3 h = 34km MAG=5.2
			D = 136.8 Az = 336.4 (USCGS)

Day	Phase	h m s	Remarks
18.	ePKJKP	18 56 25	Solomon Islands 10.11 S 159.87 E
	ePKHKP	56 37.5	H = 18 38 30.1 h = 538 km MAG=6.2
	iPKIKP	56 44.5	D = 131.9 Az = 333.3 (USCGS)
	iPP	59 12.5	e 56 30 i 56 54 i 57 34 e 58 50 i 59 23
	iPKS	19 00 12	ei 03 20 i 08 32 e 10 15 i 18 00
	epPP	01 00	
	iPPP	02 05	
	iPKKP	06 47	
	iSS	16 08	
	isSSS	24 45	
19.	ePn	00 38 05	Switzerland 46.39 N 6.93 E
	i	38 11	H = 00 36 43.8 h = normal MAG=4.3
	iPg	38 20	D = 5.3 Az = 34.5 (USCGS)
	i	38 25	
	iSg	39 32	
19.	e	01 48 08	France 46.2 N 6.4 E
			H = 01 45 11 (BCIS)
			D = 5.6
19.	eP	15 40 21	Eastern Mediterranean Sea
	eS	44 15	33.76 N 25.78 E
	LmH	50.7	H = 15 35 52.4 h = normal MAG=4.9
			D = 19.8 Az = 332.6 (USCGS)
			PV:2.0s 66.3 nm
			MPV=4.5
19.	ePKP	16 01 49.5	Tonga Islands 15.88 S 174.03 W
	epPKP	02 38	H = 15 42 29.7 h = 151 km MAG=5.3
			D = 145.0 Az = 353.7 (USCGS)
			PV:1.3s 89.0nm
19.	LmH	17 11.5	Probably Central California (USCGS)
			LmH:18s 0.5/um
20.	ePKIKP	03 35 00	Kermadec Islands 31.14 S 179.88 E
	+iPKP2	35 39	H = 03 15 46.1 h = 361 km MAG=4.8 (USCGS)
			D = 158.6
			PV2:1.6s 53.0nm

Day	Phase	h m s	Remarks
20.	+iP	04 13 46.0	Eastern Kazakh SSR 50.00 N 78.00 E
			H = 04 05 58.1 h = 0 km MAG=4.8
			D = 41.1 Az = 297.4 (USCGS)
			PV:0.7s 16.6nm
			MPV=4.9
20.	ePg	05 03 35.5	Switzerland 46.8 N 9.9 E
	eiSg	04 40	H = 05 02 28 (BCIS)
			D = 4.0
20.	e	09 41 25	
20.	e	11 35 56	Caroline Islands 5.57 N 146.86 E
	ePP	36 24	H = 11 16 59.3 h = normal MAG=5.6
	e	38 40	D = 112.1 Az = 331.1 (USCGS)
	ePS	45 45	LmH:16.5s 0.7/um LmV:18s 0.7/um
	ePPS	46 56	MLH=5.3 MLV=5.3
	LmH	12 21.2	
	LmV	28.5	
21.	ePKP	18 16 40	Kermadec Islands 30.86 S 179.09 W
	e	16 47	H = 17 50 48.0 h = normal MAG=5.3
	e	17 15	D = 158.7 Az = 341.0 (USCGS)
	ePP	20 50	LmV:19s 10.6/um LmH:19.5s 9.4/um
	LmV	19 39.7	MLH=6.5
	LmH	40.2	
22.	e	02 28 44	Kermadec Islands 31.45 S 177.99 W
			H = 02 08 10.3 h = normal MAG=4.7 (USCGS)
			D = 155.8
22.	e	12 15 46	
22.	eP	13 44 07	Near Islands, Aleuten Is.
			52.76 N 171.02 E
			H = 13 32 24.3 h = 34 km MAG=4.8
			D = 75.5 Az = 346.6 (USCGS)
			PV:1.2s 15.3nm
			MPV=5.0

Day	Phase	h m s	Remarks
22.	+iP	14 11 48	Near Islands, Aleuten Is. 53.01 N 171.05 E
	ePP	14 35	H = 14 00 06.8 h = 33 km MAG=5.4
	eS	21 27	D = 75.3 Az = 346.6 (USCGS)
	ePS	22 00	PV:1.5s 63.8nm
	eSS	26 05	LmH:15.5s 5.9/um LmV:15s 4.5/um
	eSSS	29 45	MPV=5.4 MLH=6.0 MLV=5.9
	LmH	49.9	
	LmV	52.3	
22.	-iPKP	16 38 54.5	New Hebrides Islands 19.09 S 169.05 E
	epPKP	39 33	H = 16 19 39.6 h = 166 km MAG=5.1
			D = 143.8 Az = 335.6 (USCGS)
			PV:1.1s 52.8nm
22.	eP	16 53 36.5	Near Islands, Aleuten Is. 52.73 N 171.05 E
			H = 16 41 52.3 h = 23 km MAG=4.7
			D = 75.5 Az = 346.6 (USCGS)
			PV:1.3s 11.2nm
			MPV=4.8
22.	eP	20 51 15	Komandorsky Islands Region
			55.02 N 165.79 E
			H = 20 39 51.3 h = 47 km MAG=5.0 (USCGS)
			D = 72.3
23.	ePg	15 05 20	Explosion, Hilders, Rhön, GFR
	i	05 20.5	50°32.56'N 10°02.48' E
	eSg	05 33.5	H = 15 05 00.9 yield 11.8 t (Hannover)
	i	05 35.5	D = 1.0
23.	ePKP	17 07 36	Tonga Islands 17.86 S 173.93 W
	epPKP	07 51	H = 16 47 57.0 h = 72 km MAG=4.0
			D = 147.0 Az = 353.5 (USCGS)
23.	eP	22 49 30	Salta Province, Argentinia 21.99 S 63.55 W
	epP	51 27	H = 22 36 51.3 h = 537 km MAG=5.8
	iSKS	59 20	D = 97.8 Az = 38.4 (USCGS)
	eS	23 00 08	PV:1.4s 42.9nm
	eSP	01 30	MPV=5.6

Day	Phase	h m s	Remarks
cont.			
23.	ePS	23 02 48	e 53 26 e 02 28 e 07 00 e 17 00
	esSP	05 00	
	ePKKP	06 33	
	eSS	06 50	
	esSS	10 10	
23.	eP	23 27 30	Southern Bolivia 21.82 S 63.53 W
			H = 23 14 52.7 h = 541 km MAG=5.2
			D = 97.7 Az = 38.4 (USCGS)
			PV:1.2s 10.2nm
24.	iPg	11 58 20	Explosion
	iSg	58 40.8	(D = ca. 1.5)
25.	+iP	09 19 41	Off East Coast of Honshu, Japan
	ePP	22 40	40.07 N 143.20 E
	e	22 57.5	H = 09 07 31.9 h = normal MAG=5.4
	eS	29 45	D = 80.2 Az = 331.1 (USCGS)
	LmV	10 00.7	PV:1.5s 114nm
	LmH	10 00.8	LmV:17s 4.0/um LmH:16s 5.1/um
			MPV=5.6 MLV=5.9 MLH=6.0
25.	+iP	09 25 58	Off East Coast of Honshu, Japan
	e	28 45	40.11 N 143.27 E
			H = 09 13 48.5 h = 31 km MAG=5.2
			D = 80.2 Az = 331.1 (USCGS)
			PV:1.6s 91.0nm
			MPV=5.5
25.	eP	10 17 30	Off East Coast of Honshu, Japan
			40.19 N 143.37 E
			H = 10 05 24.1 h = 37 km MAG=4.2 (USCGS)
			D = 80.0
25.	ePKHKP	11 35 24	Tonga Islands 20.04 S 175.31 W
	e	35 50	H = 11 15 46.3 h = 96 km MAG=5.5
	e	35 55	D = 149.0 Az = 351.4 (USCGS)

Day	Phase	h m s	Remarks
25.	eP	13 37 12	Molucca Passage 1.11 N 126.20 E
	e	37 18	H = 13 23 09.0 h = normal MAG=5.4
			D = 104.5 Az = 323.3 (USCGS)
			PV:1.0s 9.5nm
			MPV=5.3
26.	ePKP	09 45 30.5	Fiji Islands 16.26 S 177.96 E
	LmH	10 42.0	H = 09 25 58.8 h = 25 km MAG=5.7
	LmV	42.0	D = 144.0 Az = 345.2 (USCGS)
			PV:1.5s 20.1nm
27.	LmH	14 51.0	Probably South of Mariana Islands (USCGS)
	LmV	52.0	LmH:16s 0.4/um LmV:16s 0.5/um
28.	ePKP	12 10 10	South of Fiji Islands 20.01 S 176.35 E
	ei	10 20.5	H = 11 50 30.4 h = 36 km MAG=5.7
	i	10 25	D = 147.1 Az = 342.0 (USCGS)
	LmH	13 21.7	LmH:15s 0.7/um LmV:20s 1.1/um
	LmV	22.0	MLH=5.5
28.	ePKHKP	17 31 44.5	Tonga Islands 22.15 S 175.20 W
			H = 17 12 11.3 h = 196 km MAG=3.9
			D = 151.1 Az = 351.0 (USCGS)
			PV:1.1s 9.6nm
28.	eP	20 55 18	Philippine Islands Region
	ePP	58 55	15.56 N 122.01 E
	eS	21 06 06	H = 20 42 16.7 h = 15 km MAG=5.7 (USCGS)
	ePS	07 20	D = 90.4
	eSS	12 25	PV:1.5s 50.3nm
	LmV	39.9	LmV:17s 15.6/um LmH:16s 13.2/um
	LmH	40.2	MPV=5.5 MLV=6.5 MLH=6.5
29.	eP	01 49 21	Luzon, Philippine Islands 15.36 N 121.89 E
	LmH	02 37.0	H = 01 36 18.8 h = 17 km MAG=5.3
	LmV	38.2	D = 90.6 Az = 323.3 (USCGS)
			PV:1.5s 13.4nm
			MPV=5.1

Day	Phase	h m s	Remarks
29.	eP	08 18 32	Philippine Islands Region
	LmH	09 06.3	15.48 N 122.05 E
	LmV	06.5	H = 08 05 30.5 h = 22 km MAG=5.1 (USCGS)
			D = 90.6
			PV:1.5s 13.4nm
			LmH:15s 0.3/um LmV:18s 0.3/um
			MLH=4.8 MLV=4.8
29.	eP	21 21 05	Luzon, Philippine Islands
	eS	31 48	15.90 N 121.75 E
	eSS	38 00	H = 21 08 07.9 h = 39 km MAG=5.2 (USCGS)
	LmH	22 05.2	D = 90.0
	LmV	05.2	PV:1.2s 12.7nm
			LmH:18s 0.9nm LmV:20s 1.0/um
			MPV=5.0 MLH=5.3 MLV=5.3
29.	+iP	22 57 18	Nevada, underground explosion
	ePP	23 00 22	H = 22 45 00 (UPP)
			PV:1.2s 94.3nm
30.	+iP	02 57 00.5	Near East Coast of Honshu, Japan
	LmH	03 31.0	40.04 N 142.73 E
	LmV	36.8	H = 02 44 52.9 h = 38 km MAG=5.0 (USCGS)
			D = 80.0
			LmH:22s 0.9/um LmV:16s 0.7/um
			MLH=5.1 MLV=5.1
30.	eP A	22 11 19	Arabian Sea 14.62 N 56.25 E
	e A	11 20.5	H = 22 02 19.8 h = normal MAG=5.2 (USCGS)
	e B	11 23	D = 50.8
	e	11 33	PV2:1.0s 23.4nm
	ePPPP	14 33	LmV:20s 1.3/um LmH:16s 1.1/um
	eS	18 31	MPV=5.1 MLV=5.1 MLH=5.0
	ePS	18 42	
	eSa	22 26	
	LmH	35.5	
	LmV	36.4	

Day	Phase	h m s	Remarks
31.	ePKP	09 08 30	Loyalty Islands Region 22.94 S 172.86 E
			H = 08 48 44.7 h = 30 km MAG=4.9 (USCGS)
			D = 148.7
31.	eP	10 54 56	Iran 33.97 N 59.02 E
	eS	11 01 00	H = 10 47 37.4 h = 13 km MAG=6.0 (USCGS)
	LmH	15.8	D = 38.1
	LmV	15.8	LmH:16s 264/um LmV:15.5s 195/um
			MLH=7.1 MLV=7.1
31.	+iP	11 41 52.5	Iran 33.92 N 59.24 E
			H = 11 34 32.9 h = 24 km MAG=5.5 (USCGS)
			D = 38.2
31.	eP	13 30 20	Iran 34.11 N 59.43 E
			H = 13 22 59.5 h = normal MAG=4.8
			D = 38.4
31.	eP	14 13 38	Iran 34.05 N 59.43 E
			H = 14 06 16.1 h = 18 km MAG=5.0
			D = 38.4
			PV:1.4s 18.4nm
			MPV=4.6
31.	eP	16 57 41	Off East Coast of Honshu, Japan
	e	57 51	39.76 N 143.50 E
			H = 16 45 29.7 h = 26 km MAG=4.6 (USCGS)
			D = 80.6
			PV:1.4s 15.3nm
			MPV=4.7
31.	eP	18 16 16	East of Lake Baikal 56.27 N 115.59 E
	e	16 20	H = 18 06 35.7 h = 25 km MAG=4.6 (USCGS)
	LmH	38.0	D = 56.2
			PV:1.8s 30.6nm
			MPV=5.0
31.	ePKIKP	20 13 34	Fiji Islands 18.35 S 177.69 W
	ePKHKP	13 36	H = 19 54 35.1 h = 379 km MAG=5.0 (USCGS)
	epPKP	15 09	D = 148.8

Day	Phase	h m s	Remarks
1.	ePKIKP	00 44 02	Kermadec Islands 30.70 S 178.26 W
	ePKP2	44 37.5	H = 00 24 06.8 h = 25 km MAG=5.2 (USCGS)
	e	44 41	D = 158.8
			PV2:1.0s 11.9nm
1.	eiPn	01 22 29.5	Yugoslavia 42.97 N 17.44 E
	i	22 33.7	H = 01 20 23.9 h = 15 km MAG=4.3 (USCGS)
	eSn	24 13	D = 8.7
			PV:0.8s 23.6nm
1.	eP	04 58 57	Central Mid-Atlantic Ridge 1.00 S 24.51 W
	eS	05 07 10	H = 04 48 52.2 h = normal MAG=5.2 (USCGS)
	eSS	11 08	D = 59.9
	eSSS	13 35	LmH:16s 0.7/um LmV:16s 0.7/um
	LmH	24.4	MLH=4.8 MLV=5.0
	LmV	26.9	
1.	eP	05 45 22	N.W. Iran-USSR Border Region
			39.02 N 46.00 E
			H = 05 39 46.7 h = 38 km MAG=5.1 (USCGS)
			D = 26.4
			PV:1.6s 30.3nm
			MPV=4.7
1.	eP	07 34 45	Iran 34.04 N 58.22 E
	i	34 48	H = 07 27 30.2 h = 15 km MAG=5.9 (USCGS)
	ePP C	36 05	D = 37.5
	iPP B	36 10	PV1:1.0s 19.0nm PV2:1.0s 119nm
	iS C	40 34	LmH:13s 36.5/um LmV:12s 22.4/um
	iS B	40 39	MPV1=4.8 MPV2=5.6 MLH=6.4 MLV=6.3
	LmH	56.0	e 35 14 e 35 48
	LmV	59.4	
1.	e	08 30 02.5	
1.	eP	09 35 40.5	Kurile Islands 44.98 N 148.90 E
			H = 09 23 45.3 h = normal MAG=4.8 (USCGS)
			D = 77.7
			PV:1.1s 7.2nm
			MPV=4.7

Day	Phase	h m s	Remarks
1.	eP	11 11 23	Iran 34.02 N 59.65 E
	LmH	31.0	H = 11 04 02.1 h = normal MAG=4.8 (USCGS)
			D = 38.5
			PV:1.5s 26.8nm
			MPV=4.7
1.	eP	19 23 50	Iran 34.23 N 58.26 E
	e	23 53	H = 19 16 37.3 h = 23 km MAG=5.0 (USCGS)
			D = 37.5
			PV1:1.2s 12.8nm PV2:1.0s 18.2nm
			MPV1=4.5 MPV2=4.8
1.	eP	21 23 52	Iran 34.40 N 58.04 E
			H = 21 16 44.8 h = 44 km MAG=4.8 (USCGS)
			D = 37.2
2.	ei	01 20 16	
2.	eP	23 08 06	Eastern Mediterranean Sea
			34.92 N 26.98 E
			H = 23 03 42.1 h = 51 km
			D = 19.3 Az = 329.3 (USCGS)
			PV:1.0s 11.9nm
			MPV=4.1
3.	e	01 25 35	South Indian Ocean 37.83 S 37.90 E
	LmH	02 04.0	H = 01 12 27.3 h = normal MAG=5.1
			D = 91.1 Az = 343.6 (USCGS)
3.	+iP	05 35 28	Hokkaido, Japan 42.95 N 145.24 E
	e	35 31	H = 05 23 30.0 h = 43 km MAG=5.2
	e	35 33.5	D = 78.4 Az = 331.9 (USCGS)
	e	35 39	PV:1.1s 28.8nm
	epP	35 44	MPV=5.3
	e	35 52	

Day	Phase		h m s	Remarks
3.	eP		07 13 46	Near East Coast of Honshu, Japan 37.94 N 141.65 E H = 07 01 36.5 h = 79 km MAG=5.4 D = 81.5 Az = 330.5 (USCGS) PV:1.0s 14.2nm MPV=4.9
3.	-iP	A	08 23 49	Turkey 41.79 N 32.31 E
	-iP	B	23 49	H = 08 19 52.2 h = 5 km MAG=5.7
	i	A	23 52.5	D = 16.8 Az = 308.9 (USCGS)
	eS	C	26 55	PV1:2.3s 337.0nm PV2:2.8s 3320.0nm
	iS	B	26 59	PH1(B):14.5s 22.1/um PV1(B):15s 19.6/um
	LmH		31.8	LmH:18s 138.0/um LmV:19.5s 168.0/um
	LmV		31.8	MPV2=6.0 MLH=6.2 MLV=6.4
3.	eP		10 01 07.5	Iran 33.84 N 59.22 E H = 09 53 47.0 h = 16 km MAG=5.0 D = 38.3 Az = 310.7 (USCGS)
3.	eP		11 00 12	Turkey 41.77 N 32.44 E H = 10 56 15.0 h = 10 km MAG=4.5 D = 16.9 Az = 308.8 (USCGS)
3.	eP		14 13 06	Turkey 41.68 N 32.41 E
	ei		13 44.5	H = 14 09 10.0 h = 14 km MAG=4.6
	e		14 06.5	D = 16.9 Az = 309.0 (USCGS) PV:1.7s 30.7nm MPV=4.2
3.	eP		15 47 33	North Atlantic Ocean 20.63 N 62.24 W
	eS		56 10	H = 15 37 00.2 h = normal MAG=5.5
	LmH		16 10.1	D = 64.2 Az = 42.8 (USCGS)
	LmV		15.2	PV:2.0s 92.6nm LmH:20s 1.0/um LmV:16s 1.0/um MPV=5.7 MLH=5.0 MLV=5.2

Day	Phase	h m s	Remarks
3.	eP	17 56 19	Tibet 30.18 N 94.80 E H = 17 45 54.1 h = 53 km MAG=4.9 D = 63.2 Az = 314.9 (USCGS) PV:1.5s 10.1nm MPV=4.7
3.	eP	18 56 10.5	Hindu Kush 36.24 N 69.19 E
	e	56 24	H = 18 48 15.7 h = 75 km MAG=5.3
	LmH	19 18.5	D = 43.1 Az = 308.2 (USCGS)
	LmV	18.5	PV:1.1s 19.2nm LmH:15.5s 1.1/um LMV:15s 1.5/um MPV=4.8 MLH=4.9 MLV=5.1
3.	+eP	19 08 12.5	Central Mid-Atlantic Ridge 1.02 N 28.16 W H = 18 58 08.3 h = normal MAG=4.7 D = 59.8 Az = 28.1 (USCGS) PV:1.3s 19.5nm MPV=5.0
3.	e	22 37 47	
3.	ePKP	23 49 52	New Hebrides Islands 17.71 S 167.71 E H = 23 30 13.6 h = 11 km MAG=4.9 D = 142.0 Az = 335.2 (USCGS)
3.	e	23 52 02	
4.	eP	08 16 05	Iran 33.92 N 59.24 E
	e	16 09	H = 08 08 44.3 h = 24 km MAG=5.0
	e	16 40.5	D = 38.3 Az = 310.6 (USCGS)
	e	16 49	LmH:13s 0.3/um LmV:13s 0.4/um
	LmH	38.7	MLH=4.3 MLV=4.5
	LmV	38.7	
4.	ePKP	09 14 07.5	Loyalty Islands 22.79 S 172.95 E H = 08 54 24.8 h = normal MAG=4.6 D = 148.6 Az = 337.0 (USCGS)

Day	Phase	h m s	Remarks
4.	eP	10 45 58	Near East Coast of Kamchatka
	e	46 16	53.20 N 159.69 E
	e	46 21	H = 10 34 28.4 h = 30 km MAG=4.7
			D = 73.1 Az = 339.4 (USCGS)
			PV:1.2s 30.6nm
			MPV=5.3
4.	-iP	11 26 56	Iran 33.88 N 59.08 E
	e	26 58	H = 11 19 35.7 h = 25 km MAG=5.1
	LmH	46.8	D = 38.2 Az = 310.6 (USCGS)
	LmV	49.7	PV:1.0s 19.0nm
			LmH:16s 0.3/um LmV:13s 0.4/um
			MPV=4.8 MLH=4.2 MLV=4.5
4.	eP	23 32 03	Iran 33.99 N 58.24 E
	e	33 20	H = 23 24 47.2 h = 15 km MAG=5.4
	ePP	33 33	D = 37.6 Az = 310.7 (USCGS)
	eS	37 54	PV:1.2s 25.5nm
	LmH	50.2	LmH:15.5s 1.5/um LmV:14s 1.3/um
	LmV	53.7	MPV=4.8 MLH=4.9 MLV=5.0
5.	e	03 02 07	Off Coast of Southern Chile
	ePP	03 47	45.08 S 80.13 W
	e	14 00	H = 02 43 02.6 h = normal MAG=5.0
	ePPS	15 15	D = 123.9 Az = 50.1 (USCGS)
	eSS	20 40	LmH:22s 1.5/um LmV:21s 1.7/um
	eSSS	25 00	MLH=5.5 MLV=5.7
	LmV	53.0	
	LmH	53.3	
5.	+iP	04 13 46.5	Eastern Kazakh SSR 49.76 N 78.14 E
	ePn	15 18	H = 04 05 57.5 h = 0 km MAG=5.5
			D = 41.3 Az = 297.7 (USCGS)
			PV:0.7s 61.5nm
			MPV=5.4
			Probably underground explosion

Day	Phase	h m s	Remarks
5.	eP	08 27 45	Azores Islands Region 37.4 N 31.7 E
			H = 08 21 07.8 h = normal MAG=4.6
			D = 33.4 Az = 52.5 (USCGS)
			PV:1.1s 9.6nm
			MPV=4.6
5.	eP	10 32 58.5	Kurile Islands 46.58 N 152.54 E
			H = 10 21 05.3 h = normal MAG=4.1
			D = 77.4 Az = 335.7 (USCGS)
5.	ePKP	10 58 25	Tonga Islands 15.05 S 174.61 W
			H = 10 39 12.1 h = 174 km MAG=4.3
			D = 144.1 Az = 353.2 (USCGS)
5.	eP	18 46 45	Crete 33.98 N 26.75 E
	e	46 49	H = 18 42 17.6 h = 94 km
	LmH	55.3	D = 20.0 Az = 330.9 (USCGS)
	LmV	55.3	LmH:11s 1.0/um LmV:11s 0.6/um
6.	e	00 56 29	
6.	eP	02 34 55	Iran 34.03 N 59.28 E
	LmH	54.9	H = 02 27 37.1 h = 27 km MAG=4.9
	LmV	58.8	D = 38.2 Az = 310.5 (USCGS)
			LmH:16s 0.9/um LmV:13s 0.6/um
			MLH=4.7 MLV=4.7
6.	ePKP	07 55 37	New Hebrides Islands 17.77 S 167.83 E
			H = 07 36 06.4 h = 28 km MAG=5.3
			D = 142.1 Az = 335.9 (USCGS)
6.	eP	08 03 00	Near Coast of Northern Peru
	LmH	09 01.8	5.77 S 80.26 W
	LmV	02.0	H = 07 49 42.0 h = 66 km MAG=5.3
			D = 95.6 Az = 39.7 (USCGS)
			PV:2.0s 46.4nm
			LmH:17.5s 0.4/um LmV:19s 0.4/um
			MPV=5.7 MLH=4.9 MLV=4.9

Day	Phase	h m s	Remarks
6.	eP	14 12 17.5	Southern Nevada 37.14 N 116.05 W
	ePP	15 22	H = 14 00 00.1 h = 0 km MAG=5.6
			D = 81.2 Az = 30.7 (USCGS)
			PV:1.5s 47.0nm
			MPV=5.3
			Probably underground explosion
6.	-iP	19 35 11.5	Kyushu, Japan 30.98 N 131.86 E
	e	35 26	H = 19 22 47.9 h = 39 km MAG=5.7
	e	35 36	D = 83.1 Az = 326.4 (USCGS)
	iS	45 31	PV:1.3s 106.0nm SH(B):10.5s 1.2/um
	eSS	50 55	LmH:18s 9.2/um LmV:18s 12.5/um
	eSSS	54 33	MPV=5.9 MSH=6.0 MLH=6.2 MLV=6.4
	LmH	20 16.9	
	LmV	16.9	
6.	eP	20 33 28	Northern Italy 44.1 N 8.3 E
			H = 20 31 20 (BCIS)
6.	eP	23 33 51.5	Kodiak Islands 56.41 N 153.89 W
			H = 23 22 25.1 h = normal MAG=3.9
			D = 72.6 Az = 9.6 (USCGS)
			PV:0.9s 9.4nm
			MPV=4.9
7.	ePKP	02 20 30	Fiji Islands 19.02 S 178.27 W
			H = 02 01 56.2 h = 649 km MAG=4.6
			D = 147.5 Az = 348.3 (USCGS)
7.	eP	08 38 33	Kodiak Islands 56.58 N 153.36 W
			H = 08 27 09.1 h = 44 km MAG=4.3
			D = 72.4 Az = 10.0 (USCGS)
7.	ePn	16 51 46.5	Northern Italy 44.1 N 8.3 E
	ePg	52 10	H = 16 49 58 (BCIS)
	e	53 08	D = 7.0
	e	53 38.5	
	e	53 53	
	e	54 21	

Day	Phase	h m s	Remarks
8.	ePKP	00 36 06	New Hebrides Islands 17.62 S 167.72 E
	e	39 23	H = 00 16 38.0 h = 20 km MAG=5.0
	LmH	01 59.0	D = 141.9 Az = 335.3 (USCGS)
	LmV	59.0	PV:1.3s 11.1nm
8.	eP	02 13 33	Hokkaido, Japan 45.43 N 142.68 E
			H = 02 02 23.6 h = 326 km MAG=4.7
			D = 75.3 Az = 330.3 (USCGS)
			PV:1.4s 43.0nm
			MPV=5.1
8.	e	12 21 28	
8.	ePKP	13 49 33	New Hebrides Islands 17.53 S 167.77 E
			H = 13 30 05.9 h = 28 km MAG=4.7
			D = 141.9 Az = 335.4 (USCGS)
8.	eP	15 27 24	Near North Coast of New Guinea
	-eiPKIKP	31 10	3.73 S 142.98 E
	ePP	32 20	H = 15 12 23.8 h = 29 MAG=6.0 (USCGS)
	ePPP	34 52	D = 118.1
	ePS	42 14	PV2:1.3s 66.7nm
	LmV	16 25.2	LmV:17s 9.3/um LmH:17s 6.5/um
	LmH	27.5	MLV=6.5 MLH=6.3
8.	e	16 07 48	
8.	+iP	20 21 46	Kurile Islands 45.96 N 151.41 E
			H = 20 09 51.2 h = 31 km MAG=5.0
			D = 77.7 Az = 335.1 (USCGS)
			PV:1.0s 28.4nm
			MPV=5.4
8.	ePKP2	22 07 46	Fiji Islands 19.19 S 176.39 W
			H = 21 48 13.2 h = 146 km MAG=4.4
			D = 148.0 Az = 350.4 (USCGS)
			PV:1.5s 20.1nm
8.	e	23 02 17	

Day	Phase	h m s	Remarks
9.	eP	00 48 23	Peru-Brazil Border Region 8.67 S 74.48 W H = 00 35 18.4 h = 144 km MAG=5.3 D = 94.2 Az = 39.6 (USCGS) PV:2.0s 39.7nm MPV=5.4
9.	eP	00 50 50	Peru-Brazil Border Region 8.73 S 74.52 W H = 00 37 43.3 h = 120 km MAG=6.0 D = 94.2 Az = 39.6 PV:2.2s 202.0nm LmH:18s 0.4/um LmV:17s 0.5/um MPV=6.1
	epP	51 26	
	e	51 36	
	ePP	54 38	
	e	58 46	
	iSKS	01 01 16	
	eS	01(49)	
	isS	02 24	
	LmH	26.8	
	LmV	37.0	
9.	e	01 28 10	
9.	-iP	02 30 45.5	Eastern Siberia 66.07 N 142.09 E H = 02 20 57.9 h = normal MAG=5.1 D = 57.6 Az = 325.0 (USCGS) PV1:1.2s 23.0nm PV2:1.2s 48.5nm MPV1=5.1 MPV2=5.4
	+i	30 49.5	
9.	ePKP	02 54 07	New Hebrides Islands 17.52 S 167.79 E H = 02 34 33.0 h = 28 km MAG=4.6 D = 141.9 Az = 335.4 (USCGS)
9.	eP	05 05 56	Kenai Peninsula, Alaska 58.98 N 149.19 W H = 04 54 46.0 h = 17 km MAG=5.2 D = 69.6 Az = 12.9 (USCGS) PV1:1.0s 14.2nm PV2:1.4s 67.5nm PV3:1.1s 21.6nm LmH:15.5s 0.4/um LmV:15s 0.4/um MPV1=5.1 MPV2=5.6 MPV3=5.2 MLH=4.7 MLV=4.9
	i	06 02	
	e	06 06	
	e	06 24	
	LmH	44.6	
	LmV	44.6	
9.	e	15 34 24.5	

Day	Phase	h m s	Remarks
10.	eP	01 52(37)	Turkey 41.73 N 32.41 E H = 01 48 41.4 h = normal MAG=4.2 D = 16.9 Az = 308.9 (USCGS)
10.	eP	20 39 20	Iran 33.97 N 59.36 E H = 20 31 58.6 h = 18 km MAG=4.7 D = 38.3 Az = 310.5 (USCGS) PV:1.5s 16.8nm LmH:16s 0.4/um LmV:12.5s 0.3/um MPV=4.6 MLH=4.3 MLV=4.4
	LmH	59.2	
	LmV	21 02.0	
10.	eP	23 26 33	Near Coast of Chiapas, Mexico 14.31 N 92.94 W H = 23 13 47.0 h = 72 km MAG=5.0 D = 88.0 Az = 38.1 (USCGS) LmH:18s 1.0/um LmV:18s 1.0/um MLH=5.3 MLV=5.3
	eS	37 05	
	LmH	24 07.8	
	LmV	07.9	
11.	eiP	03 17 35.5	Tibet 30.25 N 94.89 E H = 03 07 32.0 h = 38 km MAG=4.3 D = 63.2 Az = 314.9 (USCGS)
11.	eP	18 45 26	Off Coast of Southern Chile 43.01 S 75.22 W H = 18 26 36.8 h = 31 km MAG=5.7 D = 119.9 Az = 47.2 (USCGS) PV:1.1s 16.8nm
	e	45 33.5	
11.	eP A	19 24 33	Iran 33.88 N 59.42 E H = 19 17 13.0 h = normal MAG=5.2 D = 38.4 Az = 310.6 (USCGS) PV:2.8s 393.0nm LmH:15s 11.0/um LmV:13.5s 4.8/um MPV=5.6 MLH=5.8 MLV=5.6
	iP B	24 35	
	ePP	26 04	
	eS	30 28	
	LmH	44.5	
	LmV	47.5	

Day	Phase	h m s	Remarks
11.	eP	21 59 47	Taiwan 23.98 N 122.34 E
	LmH	22 42.5	H = 21 47 21.9 h = 42 km MAG=5.0
	LmV	42.5	D = 83.9 Az = 323.2 (USCGS)
			PV:1.2s 10.2nm
			LmH:17s 0.7/um LmV:16s 0.6/um
			MPV=4.9 MLH=5.1 MLV=5.1
12.	eiP	13 48 42	Off East Coast of Honshu, Japan
	e	48 51	39.71 N 143.61 E
	LmH	14 23.0	H = 13 36 27.5 h = 12 km MAG=5.2
	LmV	42.7	D = 80.7 Az = 331.3 (USCGS)
			PV:1.2s 20.4nm
			LmH:17.5s 1.3/um LmV:15s 1.0/um
			MPV=5.0 MLH=5.3 MLV=5.3
12.	eP	15 45 16.5	Southern Sinkiang Prov., China
	LmV	16 06.1	39.76 N 77.81 E
	LmH	06.2	H = 15 36 48.8 h = 8 km MAG=4.9
			D = 46.4 Az = 306.5 (USCGS)
			PV:1.5s 13.4nm
			LmV:15s 1.0/um LmH:15s 0.8/um
			MPV=4.8 MLV=5.0 MLH=4.8
12.	eiP	19 41 51	Gulf of Alaska 59.53 N 146.70 W
			H = 19 30 47.5 h = 25 km MAG=4.3
			D = 68.8 Az = 14.6 (USCGS)
12.	-iPKIKP	23 02 41.5	Fiji Islands 21.55 S 179.36 W
	iPKHKP	02 48.0	H = 22 44 06.5 h = 635 km MAG=5.9
	eiPKP2	02 54	D = 149.7 Az = 346.1 (USCGS)
	epPKP	05 00	PV:1.3s 150.0nm
	esPKP	06 00	
	ei	06 17	
13.	ePKIKP	05 21(45)	Kermadec Islands 30.76 S 179.08 W
	ePKP2	22 21	H = 05 01 50.3 h = 38 km MAG=5.0
	LmV	06 45.6	D = 158.6 Az = 341.1 (USCGS)
	LmH	46.1	LmV:18s 0.7/um LmH:17.5s 0.7/um
			MLH=5.5

Day	Phase	h m s	Remarks
13.	eP	07 43 31.5	Near Coast of Chiapas, Mexico
			15.14 N 93.90 W
			H = 07 30 43.6 h = 34 km MAG=5.1
			D = 88.0 Az = 37.9 (USCGS)
13.	ePKIKP	13 09 09.5	Santa Cruz Islands 11.07 S 164.64 E
			H = 12 49 54.8 h = 59 km MAG=5.4
			D = 134.8 Az = 336.0 (USCGS)
13.	eP	21 59 59	North Atlantic Ocean 57.89 N 32.37 W
	e	22 00 07	H = 21 54 26.5 h = normal MAG=4.5
	LmH	10.7	D = 26.3 Az = 86.8 (USCGS)
	LmV	10.9	PV:1.8s 30.6nm
			LmH:16s 1.2/um LmV:16s 1.4/um
			MPV=4.6 MLH=4.5 MLV=4.7
14.	eP	01 38 45	South Indian Ocean 24.51 S 80.44 E
			H = 01 25 19.1 h = normal MAG=5.5
			D = 96.2 Az=323.3 (USCGS)
14.	eP	01 43 15	North Arlantic Ocean
			H = o1 37 44 (UPP)
14.	eP	01 44 17	North Atlantic Ocean 57.93 N 32.59 W
	LmH	54.7	H = 01 38 44.9 h = normal MAG=5.3 (USCGS)
	LmV	54.7	D = 26.5
			LmH:17s 3.2/um LmV:16.5s 4.2/um
			MLH=4.9 MLV=5.2
14.	-iP	13 55 49.5	Southern Iran 28.44 N 53.11 E
	i	55 50	H = 13 48 31.2 h = normal MAG=5.8
	i	55 53	D = 38.2 Az = 317.1 (USCGS)
	ePP	57 20	PV2:1.6s 53.0nm PV3:2.2s 36.9nm
	iS	14 01 44	LmV:18s 13.5/um LmH:16.5s 13.4/um
	eSS	04 14	MPV2=5.0 MPV3=5.7 MLV=5.9 MLH=5.8
	e	04 25	
	eSSS	04 56	
	eiScS	06 00	
	LmV	13.7	
	LmH	15.9	

Day	Phase	h m s	Remarks
14.	eP	19 27 41.5	Southern Iran 28.36 N 53.15 E
	LmV	46.8	H = 19 20 22.7 h = 44 km MAG=5.1
	LmH	48.0	D = 38.3 Az = 317.1 (USCGS)
			PV:1.2s 12.8nm
			MPV=4.5
15.	LmH	00 11.4	Probably Luzon, Philippine Islands (USCGS)
	LmV	16.5	LmH(C):24s 0.4/um LmV(C):20s 0.3/um
15.	ePKIKP	03 28 13	East New Guinea 6.38 S 146.63 E
			H = 03 09 29.6 h = 111km MAG=5.2
			D = 122.2 Az = 327.9 (USCGS)
15.	eP	05 00 15	Crete 34.73 N 25.09 E
	e	02 56	H = 04 56 00.0 h = normal MAG=4.9
	eS	03 48	D = 18.7 Az = 332.4 (USCGS)
	LmH	05.6	LmH:16.5s 16.0/um LmV:13.5s 9.1/um
	LmV	05.8	MLH=5.4 MLV=5.4
15.	eP	09 49 37.5	Iran 34.00 N 59.41 E
			H = 09 42 14.6 h = 20 km MAG=4.9
			D = 38.3 Az = 310.5 (USCGS)
15.	+eP	11 02 19.5	Off East Coast of Honshu, Japan
	e	02 30	40.89 N 143.17 E
	e	02 41	H = 10 50 11.8 h = 15 km MAG=5.4
	e	02 53	D = 79.5 Az = 331.0 (USCGS)
	ePP	05 15	PV:1.6s 68.2nm
	e	05 30	LmH:16.5s 7.9/um LmV:17s 5.0/um
	eS	12 18	MPV=5.4 MLH=6.1 MLV=6.0
	LmH	37.8	
	LmV	43.6	
15.	eP	14 25 08	Tadzhik SSR 37.17 N 72.74 E
	LmH	45.0	H = 14 16 55.8 h = normal MAG=5.2
	LmV	45.6	D = 44.8 Az = 307.7 (USCGS)
			PV:2.0s 39.8nm
			MPV=5.0

Day	Phase	h m s	Remarks
15.	eP	15 05 05	Off East Coast of Honshu, Japan
			33.05 N 142.00 E
			H = 14 52 29.4 h = 53 km MAG=4.7
			D = 85.9 Az = 330.9
			PV:1.1s 9.6nm
			MPV=4.8
16.	eP	07 15 40	Northwest Persia-USSR Border Region
			38.8 N 46.2 E
			H = 07 10 03 D = 27.0 (AN USSR)
			PV:2.0s 26.5nm
			MPV=4.6
16.	eP	14 11 06	New Britain Region 6.07 S 148.68 E
	ePKIKP	14 27.5	H = 13 55 36.1 h = 59 km MAG=5.8 (USCGS)
	e	14 32	D = 123.5
	+eiPP	16 09	PV3:1.0s 19.0nm
	eiSKKS	23 05	LmH:22.5s 45.1/um LmV:21s 49.0/um
	e(PKKP)	24 19	MLH=7.1 MLV=7.2
	ePS	25 52	e 15 49 e 26 20
	eiPPS	27 38	
	i	32 12	
	eiSS	33 12	
	LmH	15 07.2	
	LmV	14.7	
16.	ePKP	14 30 05	Fiji Islands 17.44 S 178.82 W
			H = 14 11 29.4 h = 583 km MAG=5.1
			D = 145.8 Az = 348.2 (USCGS)
16.	ePKIKP	16 19 44.5	New Britain 6.03 S 148.79 E
			H = 16 00 53.1 h = 71 km MAG=5.3
			D = 123.0 Az = 328.9 (USCGS)
16.	eiP	18 36 56	Unimak Island 53.81 N 163.64 W
	e	37 07	H = 18 25 10.0 h = 25 km MAG=4.5
			D = 75.8 Az = 3.1 (USCGS)
			PV:1.1s 19.2nm
			MPV=5.1

Day	Phase	h m s	Remarks
17.	eP	05 33 55	Kurile Islands 45.34 N 149.86 E
			H = 05 22 01.2 h = 42 km MAG=4.6
			D = 77.8 Az = 334.3 (USCGS)
17.	ePn	12 17 57	Northern Italy 45.17 N 12.72 E
	e	18 31	H = 12 16 35.3 h = 43 km
	eSn	18 50	D = 5.5 Az = 352.7 (USCGS)
	i	19 01.5	
	iSg	19 22	
	i	19 41	
	LmH	20.0	
17.	e	14 12 18	
17.	e	16 39 02	
17.	e	17 50 41.5	
17.	e	18 08 06	
	e	08 11	
	e	09 21	
	LmV	25.1	LmV:18.5s 1.0/um LmH:17.5s 1.1/um
	LmH	27.0	
17.	e	19 32 30	
17.	eP	21 18 34.5	Cyprus 35.34 N 31.29 E
	LmH	28.0	H = 21 13 52.6 h = normal MAG=4.6
	LmV	28.3	D = 20.9 Az = 323.1 (USCGS)
			PV:1.0s 14.2nm
			MPV=4.3
18.	eP	04 06 15.5	Crete 34.77 N 25.13 E
	eS	09 44	H = 04 01 59.4 h = 35 km MAG=4.6
	LmH	12.8	D = 18.7 Az = 332.3 (USCGS)
	LmV	14.2	PV:0.8s 9.4nm
			LmH:15.5s 2.5/um LmV:12s 1.8/um
			MPV=4.1 MLH=4.6 MLV=4.7

Day	Phase	h m s	Remarks
18.	eP	06 22 04	Turkey 39.82 N 40.21 E
	e	22 22	H = 06 17 04.9 h = 37 km MAG=4.6
	e	23 07.5	D = 22.7 Az = 307.9 (USCGS)
	LmH	34.6	PV:1.0s 11.9nm
	LmV	34.9	LmH:13s 0.4/um LmV:13.5s 0.4/um
			MPV=4.4 MLH=4.1 MLV=4.1
18.	-eP	07 45 19.5	Afghanistan-USSR Border Region
			37.24 N 71.88 E
			H = 07 37 21.8 h = 123 km MAG=5.0
			D = 44.2 Az = 307.6 (USCGS)
			PV:1.0s 16.6nm
			MPV=4.7
18.	ePKP	12 03 15	New Hebrides Islands 18.21 S 167.12 E
	e	05 08	H = 11 43 45.6 h = normal MAG=5.7
	LmV	13 09.7	D = 142.2 Az = 334.5 (USCGS)
			LmV:20s 0.4/um
18.	e	14 09 16	
18.	eSg	14 45 52	Explosion, Adelebsen/GFR
			51°36.59'N 9°44.67'E
			H = 14 45 00.82 yield ca. 3.0 t
			(Hannover)
			D = 1.5
18.	e	23 14 47	
19.	eP	05 08 57	Near East Coast of Eastern Russia
	LmH	36.5	49.43 N 140.16 E
			H = 04 57 40.3 h = normal MAG=4.9
			D = 71.0 Az = 328.2 (USCGS)
			PV:1.5s 16.8nm LmH:24s 1.0/um
			MPV=5.0 MLH=5.0

Day	Phase	h m s	Remarks
19.	eP	11 21 14	North Atlantic Ridge 30.67 N 41.86 W
	e	21 37	H = 11 13 07.4 h = normal MAG=4.9
	eS	27 46	D = 44.1 Az = 47.3 (USCGS)
	e	28 18	PV2:1.8s 56.0nm
	eSS	31 10	LmH:20s 1.5/um LmV:20s 1.6/um
	LmH	37.0	MPV=5.0 MLH=4.9 MLV=5.1
	LmV	37.0	
19.	eP	20 27 07	Cyprus 35.19 N 31.26 E
	e	27 12	H = 20 22 25.4 h = 53 km MAG=4.5
	e	27 16.5	D = 21.0 Az = 323.3 (USCGS)
			PV:0.8s 7.1nm
			MPV=4.1
19.	eP	22 19 57.5	Southern Iran 28.35 N 53.23 E
	eS	25 48	H = 22 12 38.2 h = 34 km MAG=5.1
	LmV	39.0	D = 38.4 Az = 317.1 (USCGS)
			PV:1.4s 18.4nm LmV:12.5s 1.2/um
			MPV=4.6 MLV=5.0
20.	eP	06 11 15	Near Coast of Venezuela 10.74 N 62.67 W
	i	11 16.3	H = 06 00 03.5 h = 107 km MAG=6.2
	ipP	11 40	D = 71.8 Az = 40.2 (USCGS)
	i	11 42	
	isP	11 52	
	eS	20 30	
	i	20 31	
	esS	21 14	
	i	24 44	
	eisSS	25 56	
20.	eP	14 05 43	Off East Coast of Honshu, Japan
	LmH	39.6	40.65 N 143.50 E
	LmV	47.0	H = 13 53 35.9 h = 25 km MAG=4.9
			D = 79.8 Az = 331.2 (USCGS)
			PV:1.4s 18.4nm
			LmH:16.5s 1.2/um LmV:16s 0.7/um
			MPV=4.8 MLH=5.3 MLV=5.1

Day	Phase	h m s	Remarks
20.	ePKHKP	18 49 08	Kermadec Islands 28.06 S 176.75 N
	e	49 18	H = 18 29 09.8 h = 70 km MAG=5.3
	e	49 26	D = 156.6 Az = 346.5 (USCGS)
	e	53 06.5	LmH:18s 0.9/um LmV:18s 0.8/um
	eSS	19 12 55	MLH=5.5 MLV=5.6
	LmH	20 07.3	
	LmV	16.0	
20.	eP	22 37 47	Honshu, Japan 36.82 N 138.10 E
			H = 22 25 37.1 h = 59 km MAG=5.0
			D = 81.0 Az = 328.8 (USCGS)
			PV:1.4s 24.6nm
			MPV=5.0
20.	eP	23 14 52	Mid-Indian Rise 13.73 S 66.10 E
			H = 23 02 43.5 h = normal MAG=5.0
			D = 79.8 Az = 328.2 (USCGS)
21.	+iP	13 17 55	Hokkaido, Japan 42.16 N 142.57 E
	ePP	20 50	H = 13 05 58.2 h = 33 km MAG=5.9
	e	27 28	D = 78.1 Az = 330.6 (USCGS)
	iS	27 44	PV:1.1s 91.4nm
	iPS	28 13	LmH:19s 47.2/um LmV:19.5s 54.0/um
	ei(SPP)	28 50	MPV=5.8 MLH=6.8 MLV=6.9
	LmH	55.5	
	LmV	55.5	
21.	i	16 01 52	
22.	ePKP	08 19 05	Fiji Islands 18.13 S 178.60 W
	e	19 07	H = 08 00 32.8 h = 630 km MAG=4.8
			D = 146.5 Az = 348.2 (USCGS)
			PV:1.2s 15.3nm
22.	eP	09 33 28.5	Luzon, Philippine Islands
	e	33 34	15.73 N 121.86 E
	LmH	10 20.4	H = 09 20 26.4 h = 20 km MAG=5.3
	LmV	20.5	D = 90.3 Az = 323.3 (USCGS)
			LmH:14s 1.1/um LmV:14s 1.4/um
			MLH=5.5 MLV=5.6

Day	Phase	h m s	Remarks
22.	ePKP	20 50 13	Tonga Islands 15.11 S 175.86 W
	LmH	21 48.5	H = 20 30 34.3 h = normal MAG=5.0
			D = 144.0 Az = 351.9 (USCGS)
			LmH:20s 0.5/um
			MLH=5.3
22.	eP	22 23 02	
23.	e	04 10 27	Belgium 50½ N 4¼ E
	eSg	10 41	H = 04 08 12 (BCIS)
			D = 4.5
23.	eP	05 15 59.5	Off East Coast of Honshu, Japan
	e	16 09.5	40.30 N 143.48 E
	e	16 13	H = 05 03 50.0 h = 30 km MAG=4.8
	eS	26 00	D = 80.1 Az = 331.2 (USCGS)
	LmH	50.0	LmH(C):20s 4.8/um
			MLH=5.8
23.	eSg	05 49 43	Belgium 50½ N 4¼ E
			H = 05 47 15 (BCIS)
			D = 4.5
23.	e	11 54 25.5	
23.	e	19 41 59	
23.	eP	21 32 44.5	Jordan-Syria Region 36.39 N 40.71 E
	e	32 52	H = 21 27 19.9 h = 31 km MAG=4.4
			D = 25.3 Az = 313.5 (USCGS)
24.	eP	00 56 04	Crete 34.81 N 25.49 E
	e	56 17.5	H = 00 51 41.6 h = 67 km MAG=4.3
			D = 18.8 Az = 331.7 (USCGS)
24.	eP	03 46 58.5	Off East Coast of Honshu, Japan
	eS	57 00	40.25 N 143.65 E
	LmH	04 21.4	H = 03 34 48.5 h = 22 km MAG=5.1
			D = 80.2 Az = 331.3 (USCGS)
			LmH:20s 6.7/um MLH=6.0

Day	Phase	h m s	Remarks
24.	eP	04 25 01.5	Turkey 39.22 N 40.16 E
	e	25 22	H = 04 19 54.6 h = 14 km MAG=5.1
			D = 23.1 Az = 309.0 (USCGS)
			PV:1.3s 19.5nm
			MPV=4.5
24.	eiP	04 58 13.5	Off East Coast of Honshu, Japan
	e	58 19	40.28 N 143.64 E
	e	58 22	H = 04 46 03.6 h = 26 km MAG=5.0
			D = 80.2 Az = 331.3 (USCGS)
			PV:1.2s 20.4nm
			MPV=4.9
24.	e	08 25 41	
24.	e	20 28 48	
25.	ePKP	00 34 14	Fiji Islands 17.98 S 178.48 W
	ei	34 17	H = 00 15 39.5 h = 582 MAG=4.7
			D = 146.4 Az = 348.4 (USCGS)
25.	ePKIKP A	07 22 51	Off W. Coast of S. Island, New Zealand
	e B	22 59	46.39 S 166.78 E
	e A	23 16.5	H = 07 02 51.8 h = normal MAG=5.5
	ePKP2 B	23 40	D = 163.0 Az = 293.6 (USCGS)
	ePKP2 A	23 43	PV3:1.7s 26.4nm
	LmH	08 45.0	LmH(C):21s 2.3/um LmV:17s 2.9/um
	LmV	57.2	MLH=5.9
25.	eP	08 20 56	Eastern Mediterranean Sea
	e	21 00	35.36 N 28.03 E
			H = 08 16 30.7 h = 33 km
			D = 19.4 Az = 327.1 (USCGS)
25.	+eiP B	10 51 07.5	Mexico-Guatemala Border Region
	e A	51 10	15.57 N 92.64 W
	Pm A	51 14	H = 10 38 38.4 h = 138 km MAG=5.7
	e A	51 37	D = 86.9 Az = 38.2 (USCGS)
	e B	51 40	PmV:1.6s 121.0nm

Day	Phase	h m s	Remarks
cont.			
25.	ei	10 52 24	MPmV=5.6
	ePP	54 30	i 54 39 ei 55 05 e 11 00 54
	eiS	11 01 25	e 17 34
	ePS	02 35	
	ePKPPKP	17 04	
25.	ePKP	14 53 42	Tonga Islands 19.35 S 175.88 W
	epPKP	54 40.5	H = 14 34 22.6 h = 230 km MAG=5.0
	e	54 46	D = 148.2 Az = 350.9 (USCGS)
25.	eP	18 10 53	Andreanof Islands, Aleutian Is.
			51.13 N 179.22 W
			H = 17 58 53.7 h = 22 km MAG=4.8
			D = 78.2 Az = 353.0 (USCGS)
			PV:1.0s 14.2nm
			MPV=5.1
25.	eP	20 57 21	Turkey 39.23 N 40.16 E
	e	57 27.5	H = 20 52 15.9 h = 47 km MAG=5.1
	eS	21 01 32	D = 23.1 Az = 309.0 (USCGS)
	e	02 50	PV:1.3s 13.9nm
	LmH	07.4	LmH(C):20s 1.3/um LmV:12s 0.7/um
	LmV	08.7	MPV=4.3 MLH=4.4 MLV=4.5
25.	eP	21 48 44	Hokkaido, Japan 41.86 N 142.08 E
	epP	49 05	H = 21 36 51.1 h = 78 km MAG = 4.8
	e	49 10	D = 78.2 Az = 330.3 (USCGS)
			PV:1.0s 9.5nm
			MPV=4.7
26.	eP	00 54 28	Afghanistan 33.72 N 69.94 E
	e	54 36	H = 00 46 13.8 h = 45 km MAG=5.2
	e	54 41	D = 45.2 Az = 310.2 (USCGS)
	LmH	01 17.4	PV:1.1s 14.4nm
	LmV	17.4	LmH:14s 0.5/um LmV:14s 0.7/um
			MPV=4.8 MLH=4.6 MLV=4.8

Day	Phase	h m s	Remarks
26.	ePKIKP	02 58 36	Fiji Islands 19.32 S 177.56 W
	ePKHKP	58 40	H = 02 39 56.5 h = 560 km MAG=5.2
			D = 147.9 Az = 349.0 (USCGS)
			PV:1.4s 33.8nm
26.	eP	06 46 24	Turkey 38.63 N 32.96 E
			H = 06 42 01.2 h = 34 km MAG=4.8
			D = 19.3 Az = 315.4 (USCGS)
26.	eP	08 35 36.5	Kurile Islands 45.49 N 151.36 E
			H = 08 23 41.0 h = 45 km MAG=4.7
			D = 78.1 Az = 335.1 (USCGS)
			PV:1.2s 30.7nm
			MPV=5.3
26.	ePKP	08 59 56	Fiji Islands 17.74 S 178.53 W
	ei	59 58.5	H = 08 41 21.9 h = 578 km MAG=5.1
	PKPm	09 00 03	D = 146.2 Az = 348.4 (USCGS)
			PV:1.3s 33.4nm PmV:1.4s 154nm
26.	eP	11 12 37	Kurile Islands 45.39 N 151.23 E
			H = 11 00 41.6 h = 48 km MAG=3.9
			D = 78.1 Az = 335.1 (USCGS)
			PV:1.2s 7.7nm
26.	eP	11 34 04	Kurile Islands 45.09 N 151.26 E
			H = 11 22 06.7 h = 45 km MAG=4.4
			D = 78.4 Az = 335.1 (USCGS)
			PV:1.3s 22.2nm
26.	-iPKIKP	14 57 01	Fiji Islands 20.92 S 176.99 W
	iPKHKP	57 07	H = 14 37 46.2 h = 251 km MAG=5.8
	iPKP2	57 14	D = 149.6 Az = 349.2 (USCGS)
	epPKP B	58 04	PV1:1.3s 195.0nm PV2:1.3s 195.0nm
	epPKP A	58 07	
	ei B	58 10	
	esPKP	58 36	
	e	15 00 38	

Day	Phase	h m s	Remarks
26.	+ePKIKP	18 22 43	Kermadec Islands 30.53 S 178.19 W
	iPKP2	23 20	H = 18 02 50.1 h = normal MAG=5.8
	ePP	27 00	D = 158.6 Az = 342.7 (USCGS)
	LmV	46.5	PV:2.5s 354.0nm
	LmH	49.3	LmV:20s 19.4/um LmH:19s 18.0/um
			MLH=6.8
26.	ePKP	20 58 35.5	Fiji Islands 21.30 S 178.36 W
			H = 20 39 32.7 h = 407 km MAG=4.3
			D = 149.7 Az = 347.4 (USCGS)
			PV:1.0s 7.1nm
27.	eP	04 13 24	Banda Sea 6.84 S 129.13 E
	ePKIKP	17 19	H = 03 58 55.1 h = 127 km MAG=6.1 (USCGS)
	eiPP B	18 08	D = 111.7
	ePP A	18 14	PV:1.2s 20.4nm
	iSKS	23 47	e 13 29 e 18 56(A) e 19 06(B)
	iSKKS	24 51	e 25 33 e 27 05 e 27 42
	ePKKP	28 10	
	eSPP	28 35	
	ePPS	29 00	
	eiSS	33 44	
	eSSS	37 30	
27.	eiPg	09 14 30	Explosion
	eSg	14 49.5	D = ca. 1.5
27.	-iP	10 45 54	Tadzhik SSR 37.81 N 72.33 E
	epP	46 20	H = 10 37 55.9 h = 119 km MAG=5.2
	esP	46 39	D = 44.2 Az = 307.1 (USCGS)
	e	48 15	PV:1.2s 71.5nm LmH(C):40s 0.5/um
	eSS	55 32	MPV=5.3
	LmH	11 01.0	
27.	ePKP A	17 00 56.5	Kermadec Islands 30.72 S 178.16 W
	ePKP B	01 00	H = 16 41 07.8 h = normal MAG=5.4
	ePKP2 B	01 35	D = 158.8 Az = 342.6 (USCGS)

Day	Phase	h m s	Remarks
cont.			
27.	ePKP2	17 01 39	LmH:16s 0.7/um LmV:20s 1.6/um
	ePP	05 18	MLH=5.5
	eSKSP	15 40	
	eSS	25 25	
	LmH	18 21.5	
	LmV	24.2	
27.	ePKIKP	19 25 32	Near North Coast of New Guinea
	ePP	26 54	3.68 S 143.30 E
	eiS	35 35	H = 19 06 42.2 h = 7 km MAG=5.9
	eiPS	36 35	D = 118.1 Az = 327.4 (USCGS)
	ePPS	37 45	PV:1.3s 11.1nm
	eSS	43 00	LmV:18.5s 13.6/um LmH:18s 7.0/um
	eSSS	47 28	MLV=6.6 MLH=6.3
	e	48 10	e 26 40 e 27 20 e 27 50 e 43 15
	LmV	20 21.1	
	LmH	21.3	
27.	ePKP2	23 08 10.5	Kermadec Islands Region 30.94 S 177.75 W
			H = 22 47 36.3 h = normal MAG=4.6
			(USCGS)
			D = 158.2
			PV:1.1s 16.9nm
28.	eP	00 56(50)	Turkey 40.46 N 26.40 E
	e	57 02	H = 00 53 25.9 h = 28 km MAG=4.4
	LmH	01 02.0	(USCGS)
			D = 14.5
			LmH:12.5s 2.9/um
			MLH=4.6
28.	eP	09 34 08.5	West Pakistan 27.58 N 66.85 E
	e	36 06.5	H = 09 25 36.6 h = normal MAG=5.2
			D = 47.4 Az = 314.7 (USCGS)
			PV:1.0s 16.6nm
			MPV=5.1

Day	Phase	h m s	Remarks
28.	eP	10 07 47	Philippine Islands 15.86 N 122.57 E
	LmH	53.3	H = 09 54 45.9 h = 27 km MAG=5.2
	LmV	53.4	D = 90.6 Az = 323.5 (USCGS)
			PV:1.3s 13.9nm
			LmH:18.5s 2.8/um LmV:17.5s 3.2/um
			MPV=5.0 MLH=5.7 MLV=5.8
28.	eP	14 07 12	Near Coast of Peru 13.16 S 76.38 W
	epP	07 27	H = 13 53 35.3 h = 70 km MAG=6.0
	ePP	11 25	D = 98.8 Az = 40.1 (USCGS)
	iSKS	17 45	PV:1.2s 10.2nm SH(B):10.5s 2.8/um
	ePS	20 24	LmH:18s 2.6/um LmV:17s 3.1/um
	LmH	53.3	MPV=5.3 MLH=5.8 MLV=5.9
	LmV	53.5	e 08 02 e 08 15
28.	eiP	18 32 23.5	Hokkaido, Japan 42.03 N 142.13 E
			H = 18 20 30.6 h = 76 km MAG=4.8
			D = 78.1 Az = 330.4 (USCGS)
29.	+iP	03 50 46.5	Eastern Kazakh SSR 49.77 N 78.19 E
	iPn	52 18.5	H = 03 42 57.5 h = 0 km MAG=5.8
	e	04 05 22	D = 41.3 Az = 297.7 (USCGS)
			PV:0.7s 308.0nm
			MPV=6.1
			Probably underground explosion
29.	ePKIKP	13 02 48	New Hebrides Islands 15.48 S 167.27 E
			H = 12 43 39.9 h = 190 km MAG=4.6
			D = 139.8 Az = 336.0 (USCGS)

Day	Phase	h m s	Remarks
1.	eP	16 33 31	Southern Italy 40.20 N 15.45 E
	e	33 36.5	H = 16 31 03.1 h = 291 km MAG=4.2
	e	33 48	D = 10.8 Az = 346.9 (USCGS)
2.	LmH	08 22.0	Probably South Sandwich Islands Region
			(USCGS)
			LmH(C):20s 0.2/um
2.	eP	09 22 03	Bonin Islands 27.25 N 140.13 E
			H = 09 09 50.8 h = 436 km MAG=4.8
			D = 90.1 Az = 330.1 (USCGS)
			PV:1.2s 15.3nm
			MPV=4.8
2.	ePg	12 55 46	Explosion
	eSg	55 58.5	D = ca. 1.0
2.	ePKP	13 40 32.5	Fiji Islands 17.64 S 178.81 W
	e	40 34.5	H = 13 21 56.5 h = 560 km MAG=4.4
			D = 146.0 Az = 348.1 (USCGS)
			PV2:1.3s 25.0nm
2.	ePg	14 05 51.5	Explosion, Bransrode/Meißner/GFR
	eSg	06 07.5	51°13.92'N 9°51.37'E
			H = 14 05 27.09 yield 14.0 t (Hannover)
			D = ca. 1.2
2.	ePKHKP	21 34 49	Fiji Islands 21.59 S 176.76 W
	ePKP2	34 56	H = 21 15 31.5 h = 300 km MAG=4.2
	e	35 44	D = 150.3 Az = 349.2 (USCGS)
			PV:1.0s 9.5nm
3.	ePP	08 23 53	Ceram 3.76 S 128.47 E
	e	24 30	H = 08 04 55.6 h = 97 km MAG=5.6 (USCGS)
			D = 109.7
3.	eiP	11 20 34	Andreanof Islands, Aleutian Is.
	epP	20 47	51.63 N 174.10 W
			H = 11 08 38.9 h = 46 km MAG=5.0
			D = 78.0 Az = 356.3 (USCGS)
			PV:1.0s 38.0nm
			MPV=5.5

Day	Phase	h m s	Remarks
3.	ePKP2	12 38 43	South of Kermadec Islands
			33.62 S 179.22 W
			H = 12 18 05.0 h = normal MAG=5.3 (USCGS)
			D = 161.0
3.	ePg	14 45 30	Explosion Adelebsen/GFR
	eiSg	45 51	51°36.51' N 9°44.61' E
			H = 14 45 01.00 yield 5.9 t (Hannover)
			D = 1.5
3.	e	18 24 09	Philippine Islands 15.99 N 123.20 E
	LmH	19 05.5	H = 18 11 01.6 h = 35 km MAG=5.1
	LmV	08.8	D = 90.8 Az = 323.7 (USCGS)
			LmH(C):20s 0.7/um LmV(C):24s 0.8/um
			MLH=5.1 MLV=5.1
4.	eP	00 52 01	Hokkaido, Japan 41.65 N 142.78 E
	e	52 05	H = 00 40 02.2 h = 54 km MAG=5.0
	e	52 21	D = 78.7 Az = 330.7 (USCGS)
	LmH	01 29.4	LmH(C):20s 1.0/um LmV(C):19s 1.2/um
	LmV	30.0	MLH=5.2 MLV=5.3
4.	eP	04 36 18	Off East Coast of Honshu, Japan
			40.31 N 143.30 E
			H = 04 24 09.8 h = 31 km MAG=4.5
			D = 80.0 Az = 331.1 (USCGS)
4.	ePKP	05 17 20	Tonga Islands 20.03 S 175.42 W
			H = 04 57 58.8 h = 243 km MAG=4.0
			D = 148.9 Az = 351.3 (USCGS)
4.	ePKIKP	06 23 00	South Sandwich Islands 56.24 S 27.03 W
	ePP	23 33	H = 06 04 31.9 h = 63 km MAG=5.9
	eSS	39 25	D = 111.2 Az = 25.2 (USCGS)
	LmH	07 01.0	LmH:28s 4.0/um LmV:25s 4.2/um
	LmV	02.0	

Day	Phase	h m s	Remarks
4.	ePKIKP	07 09 24	Banda Sea 7.29 S 129.72 E
			H = 06 50 50.9 h = 52 km MAG=5.3
			D = 113.2 Az = 322.3 (USCGS)
4.	ePKP	07 48 05	Tonga Islands 17.39 S 172.75 W
	e	48 13	H = 07 28 27.1 h = normal MAG=5.0
			D = 146.6 Az = 354.9 (USCGS)
			PV:1.4s 104.0nm
4.	i(Pg)	14 39 24	Explosion, Eschenlohe/Obb./GFR
	i(Sg)	39 42	11°08.80' E 47°37.90' N
			H = 14 05 00 yield 12.3 t (Hannover)
4.	eSg	16 06 32.5	Explosion, Mehrberg, Rhein/GFR
			50°36.54' N 7°17.85' E
			H = 16 05.0 yield 4.2 t (Hannover)
			D = 2.7
4.	+eiP	16 38 15	Southern Alaska 61.30 N 147.21 W
	e	38 22	H = 16 27 24.5 h = 44 km MAG=4.5
			D = 67.1 Az = 14.5 (USCGS)
			PV:1.0s 21.3nm
			MPV=5.3
5.	ePKP	05 09 53	Tonga Islands 17.23 S 174.21 W
	epPKP	10 32	H = 04 50 30.2 h = 160 km MAG=4.6
			D = 146.3 Az = 353.0 (USCGS)
5.	iP	15 18 32.8	Caspian Sea 41.68 N 49.46 E
	i	18 53.8	H = 15 12 51.0 h = 50 km MAG=5.1
	LmH	28.5	D = 27.4 Az = 302.1 (USCGS)
			PV:1.2s 7.7nm
			MPV=4.3
6.	e	00 44 39	Southern Greece 36.91 N 21.86 E
			H = 00 40 44.0 h = 55 km MAG=4.3
			D = 15.6 Az = 335.1 (USCGS)

Day	Phase	h m s	Remarks
6.	ePKP	03 11 13	Tonga Islands 15.65 S 173.19 W
	e	11 16	H = 02 51 46.1 h = 106 km MAG=5.0
	e	11 31	D = 144.9 Az = 354.7 (USCGS)
	e	11 40.5	
6.	ePKP	05 34 45	Tonga Islands 15.01 S 175.48 W
			H = 05 15 11.5 h = normal MAG=5.3
			D = 144.0 Az = 352.3 (USCGS)
6.	eP	07 54 08	Andaman Islands 9.97 N 93.66 E
	e	54 35	H = 07 42 25.2 h = 111 km MAG=5.1
	e	54 43	D = 77.3 Az = 319.7 (USCGS)
			PV:1.3s 13.9nm
6.	e(Pg)	09 00 51	Probably Explosion
	e	01 23	
6.	ePKP	09 06 35	Samoa Islands 14.73 S 175.61 W
	e	06 54	H = 08 47 02.0 h = 35 km MAG=5.4
	e	08 07	D = 143.7 Az = 352.2 (USCGS)
	e	09 56	PV:2.0s 39.7nm
	eSS	28 27	LmH:19s 2.1/um LmV:16s 2.5/um
	LmH	10 12.9	MLH=5.9
	LmV	29.0	
6.	ePKP	09 34 31	Samoa Islands 14.77 S 175.10 W
			H = 09 15 01.1 h = normal MAG=5.0
			D = 143.8 Az = 352.8 (USCGS)
6.	eP	15 10 46	Dodekanese Islands 36.94 N 26.52 E
	ei	10 51	H = 15 06 44.8 h = 40 km MAG=4.7
	e	11 01	D = 17.4 Az = 326.7 (USCGS)
	LmH	18.2	LmH:12s 1.4/um LmV:11.5s 1.8/um
	LmV	18.2	MLH=4.4 MLV=4.7
6.	eP	19 52 57	South of Honshu, Japan 31.72 N 140.22 E
	e	53 37	H = 19 40 26.2 h = 109 km MAG=5.2
	ePP	56 19	D = 86.3 Az = 330.1 (USCGS)
			PV:1.1s 9.6nm PPV:1.3s 13.9nm
			MPV=4.6

Day	Phase	h m s	Remarks
6.	eP	22 11 32	Turkey 38.80 N 32.61 E
	e	11 38	H = 22 07 10.9 h = 39 km MAG=4.8
			D = 19.0 Az = 315.4 (USCGS)
7.	LmH	01 37.0	Probably Bismarck Sea (USCGS)
	LmV	37.0	LmH:16s 0.4/um LmV:18s 0.5/um
7.	-iP A	19 32 30	Bonin Islands 26.29 N 140.60 E
	eP B	32 32	H = 19 20 20.4 h = 516 km MAG=6.1
	epP	34 27	D = 91.1 Az = 330.3 (USCGS)
	esP	35 22	PV1:1.1s 264.0nm PH2(B):14s 7.4/um
	ePP	36 06	PV2(B):14s 19.7/um
	epPP	38 05	LmV:20s 95.0/um LmH:18s 75.0/um
	eSS	49 02	MPV=6.1
	eSSSS	56 00	e 36 15 e 38 47 e 41 31 e 42 07
	LmV	20 15.5	e 46 06 e 56 32
	LmH	15.7	
7.	e	19 59 38	Bonin Islands 26.34 N 140.84 E
			H = 19 47 02.6 h = 496 km MAG=4.7
			D = 91.2 Az = 330.4 (USCGS)
7.	+iP	21 01 00	Hokkaido, Japan 42.01 N 142.41 E
	e	01 19.5	H = 20 49 01.3 h = 32 km MAG=5.7
			D = 78.2 Az = 330.5 (USCGS)
8.	eP	01 02 59	Near South Coast of Honshu, Japan
	epP	03 22	35.57 N 139.94 E
	e	03 26	H = 00 50 41.8 h = 76 km MAG=5.3
			D = 82.8 Az = 329.8 (USCGS)
8.	ePKP	08 01 56	Southeast Indian Rise 39.86 S 87.92 E
	+iPP	02 32	H = 07 43 23.1 h = normal MAG=6.0
	e	03 00	D = 112.0 Az = 318.2 (USCGS)
	iPS	12 16	PV:1.4s 15.3nm
	e	13 28	LmH(C):50s 6.7/um LmV(C):48s 7.5/um
	e	14 12	MLH=5.8 MLV=5.9
	eSS	18 16	

Day	Phase	h m s	Remarks
cont.			
8.	eSSS	08 22 20	
	LmH	39.0	
	LmV	39.2	
9.	ePKP	03 58 18	Samoa Islands 14.73 S 175.50 W
	e	58 25	H = 03 38 39.9 h = 11 km MAG=5.2
	LmH	05 02.2	D = 143.7 Az = 352.3 (USCGS)
	LmV	02.5	LmH:20s 1.8/um LmV:20s 1.5/um
			MLH=5.8
9.	ePKP	17 30 15.5	Tonga Islands 15.03 S 175.46 W
			H = 17 10 37.2 h = normal MAG=5.0
			D = 144.0 Az = 352.3 (USCGS)
10.	ePKIKP	15 24 42	New Britain Region 6.00 S 148.63 E
	eSS	43 18	H = 15 05 51.7 h = 70 km MAG=5.1
	LmH	16 19.5	D = 122.9 Az = 328.9 (USCGS)
	LmV	19.5	LmH:22s 3.5/um LmV:22s 4.0/um
12.	LmH	13 02.5	Probably Ryukyu Islands (USCGS)
			LmH(C):18.5s 2.7/um
12.	ePKIKP	19 36 16.5	Fiji Islands 20.88 S 178.78 W
	iPKHKP	36 21.8	H = 19 17 39.9 h = 607 km MAG=5.7
	ePKP2	36 28	D = 149.2 Az = 347.0 (USCGS)
	epPKP	38 44	PV1:1.8s 133.0nm PV2:1.7s 624.0nm
12.	ePKP	20 45 43	Tonga Islands 17.21 S 174.96 W
			H = 20 26 22.9 h = 174 km MAG=4.0
			D = 146.2 Az = 352.5 (USCGS)
			PV:1.7s 35.1nm
12.	eP	23 28 08	Hindu Kush Region 36.41 N 70.80 E
	ePP	29 54	H = 23 20 19.3 h = 203 km MAG=5.3
	e	30 02	D = 44.0 Az = 308.1 (USCGS)
	e	30 12	PV:2.0s 92.8nm
	e	30 19	MPV=5.5

Day	Phase	h m s	Remarks
13.	e	10 35 46	Hokkaido, Japan Region 41.61 N 142.62 E
			H = 10 23 48.8 h = 40 km MAG=4.6 (USCGS)
			D = 78.6
13.	eP	20 09 57	Fiji Islands 19.59 S 177.68 W
			H = 19 50 52.9 h = 338 km MAG=4.2
			D = 148.1 Az = 348.8 (USCGS)
14.	ePKP	00 56 46	Tonga Islands 19.88 S 173.81 W
			H = 00 37 06.2 h = 44 km MAG=4.5
			D = 149.0 Az = 353.3 (USCGS)
14.	ePKIKP	03 17 47	Western Australia 31.52 S 116.97 E
	ei	17 50.5	H = 02 58 47.8 h = 0 km MAG=6.0
	i	17 52.3	D = 123.0 Az = 312.9 (USCGS)
	ePP A	19 28	PV2:1.2s 40.8nm PV3:1.6s 110.0nm
	ePP B	19 32	LmV:19s 10.2/um LmH:20s 12.3/um
	e(PPPP)	24 16	MLV=6.5 MLH=6.6
	ePS	29 30	
	e	34 35	
	eSS	36 10	
	eiPSPS	36 40	
	eSSS	41 00	
	LmV	04 12.4	
	LmH	12.8	
14.	eP	05 34 31	Andaman Islands 12.55 N 95.16 E
	e	34 34.5	H = 05 22 44.3 h = normal MAG=5.5
	e	34 37.5	D = 76.3 Az = 319.4 (USCGS)
	LmV	06 13.5	PV2:1.4s 30.7nm
	LmH	14.3	LmV:15.5s 1.2/um LmH:16s 1.3/um
			MPV2=5.2 MLV=5.3 MLH=5.3
14.	eP	09 23 39	Near East Coast of Honshu, Japan
	epP	23 50.5	38.22 N 142.09 E
	esP	23 57	H = 09 11 27.5 h = 69 km MAG=5.0
	LmH	10 02.8	D = 81.4 Az = 330.7 (USCGS)
	LmV	02.9	PV:1.4s 39.9nm
			LmH:18s 1.4/um LmV:18s 1.4/um

Day	Phase	h m s	Remarks
14.	ePg	16 34 58	Tyrol, Austria 47.4 N 11.5 E
	e	35 17	H = 16 33 45 (BCIS)
	eSn	35 33	D = 3.8
	e	35 38	
	e	35 44	
14.	e	17 45 18.5	Taiwan 24.15 N 121.59 E
	LmH	18 26.3	H = 17 32 37.7 h = 43 km MAG=4.8 (USCGS)
	LmV	26.4	D = 83.3
			LmH:14.5s 0.7/um LmV:16s 0.8/um
			MLH=5.2 MLV=5.2
15.	+iP	02 23 23.7	Southern Sumatra 0.53 S 100.64 E
	e	23 39	H = 02 10 34.4 h = 98 km MAG=5.6
	e	23 49	D = 89.8 Az = 320.5 (USCGS)
	e	23 54	PV:1.4s 117.0nm
	eS	34 05	LmH:18s 0.4/um LmV:20s 0.5/um
	LmH	03 03.9	MPV=5.8
	LmV	04.1	
15.	e	19 20 17	Tyrol, Austria 47.3 N 11.1 E
	e	20 34	H = 19 18 50 (BCIS)
	e	20 37.5	D = 3.4
	e	20 44	
15.	eP	20 22 40	Mindanao 9.00 N 126.29 E
	eS	34 00	H = 20 09 08.7 h = 63 km MAG=5.2
	eSS	41 10	D = 98.2 Az = 324.2 (USCGS)
	LmH	21 02.5	PV:1.2s 12.8nm
	LmV	13.2	LmH:20s 0.6/um LmV:18s 0.4/um
			MPV=5.4
16.	e	01 21 47.5	North Atlantic Ridge 22.81 N 45.03 W
			H = 01 12 22.7 h = normal MAG=4.4
			D = 51.7 Az = 42.7 (USCGS)
16.	iP	07 58 14.7	Ryukyu Islands 29.25 N 129.36 E
	e	58 20	H = 07 45 46.9 h = 13 km MAG=5.6
	eS	08 08 40	D = 83.3 Az = 325.4 (USCGS)

Day	Phase	h m s	Remarks
cont.			
16.	LmH	08 33.8	PV:2.0s 92.7nm
	LmV	39.1	LmH:16s 12.2/um LmV:14s 5.5/um
			MPV=5.7 MLH=6.4 MLV=6.1
16.	iPg	14 17 48	Explosion
	eSg	18 03	D = ca. 1.1
17.	LmH	06 13.8	Probably New Ireland Region (USCGS)
	LmV	21.4	LmH(C):26s 1.2/um LmV(C):25s 1.1/um
17.	e	07 07 13	Mariana Islands 18.70 N 146.42 E
	ePP	11 03.5	H = 06 53 16.7 h = 70 km MAG=4.9
			D = 100.3 Az = 332.7 (USCGS)
17.	e	22 27 14	South of Fiji Islands 23.74 S 179.78 W
			H = 22 08 12.1 h = 450 km MAG=3.8
			D = 151.7 Az = 344.6 (USCGS)
17.	eP	23 59 21	Greece 38.30 N 20.19 E
	e	59 26	H = 23 56 05.5 h = 29 km MAG=4.5
	i	59 37	D = 13.8 Az = 336.5 (USCGS)
	e	00 00 37	PV:0.7s 16.6nm
	LmH	05.7	LmH(C):14s 0.7/um LmV(C):16s 0.6/um
	LmV	06.0	MLH=3.9
18.	eP	06 06 29.5	Taiwan 24.88 N 122.25 E
	e	06 35.5	H = 05 54 05.7 h = 44 km MAG=5.1
	LmH	40.7	D = 83.2 Az = 323.1 (USCGS)
	LmV	47.8	PV:1.4s 18.4nm
			LmH(C):18s 0.5/um LmV(C):16s 0.4/um
			MPV=5.0 MLH=5.0 MLV=4.9
18.	LmV	16 45.0	Probably South Atlantic Ridge (USCGS)
	LmH	46.9	LmV(C):19s 0.6/um LmH(C):17.5s 0.6/um
18.	eP	19 05 02	Andaman Islands 12.26 N 95.15 E

Day	Phase	h m s	Remarks
cont.			
18.	e	19 05 09	H = 18 53 12.9 h = normal MAG=4.6
			D = 76.5 Az = 319.4 (USCGS)
			PV1:1.0s 9.5nm PV2:0.8s 9.4nm
			MPV1=4.9 MPV2=5.0
18.	LmV	21 01.3	Probably Peru-Ecuador Border Region (USCGS)
	LmH	01.5	LmV(C):19s 0.3/um LmH(C):18s 0.3/um
18.	e	23 35 53.5	
19.	eP	02 41 39.5	Tadzhik SSR 37.32 N 73.15 E
	e	41 44	H = 02 23 30.9 h = 76 km MAG=4.9
	e	41 46	D = 45.0 Az = 307.6 (USCGS)
	e	41 53	LmH(C):28s 1.5/um LmV(C):22s 0.7/um
	e	42 03.5	MLH=4.8 MLV=4.7
	ePP	43 29	
	e	43 34	
	LmH	58.6	
	LmV	03 00.3	
19.	eP	07 09 45.5	Tadzhik SSR 37.33 N 73.16 E
	e	09 49.5	H = 07 01 33.4 h = 51 km MAG=5.2
	eSS	19 40	D = 45.0 Az = 307.6
	LmV	26.5	LmV(C):32s 0.5/um LmH(C):24s 1.6/um
	LmH	27.1	MLV=4.3 MLH=4.9
19.	iSn	08 52 27	Black Forest, GFR 48.1 N 8.3 E
	e	52 38	H = 08 50 41 (BCIS)
			48° 05'N 8° 19'E h = 1 - 2 km (Stuttgart)
19.	iP	10 00 17	Tadzhik SSR 37.47 N 73.31 E
	e	00 20	H = 09 52 03.4 h = normal MAG=5.4
	ePP	02 04	D = 45.0 Az = 307.5 (USCGS)
	eSS	10 00	PV:(1.5)s (20.1)nm
	LmV	16.6	LmV(C):34s 0.9/um LmH(C):26s 3.1/um
	LmH	17.4	MLV=4.5 MLH=5.1

Day	Phase	h m s	Remarks
19.	eP	15 39 02	Crete 35.30 N 23.47 E
	e	39 03	H = 15 34 54.8 h = 19 km MAG=4.8
	e	39 15	D = 17.6 Az = 334.4 (USCGS)
	eS	42 20	PV2:1.8s 30.6nm
	LmH	45.0	LmH(C):28s 2.4/um LmV(C):22s 1.7/um
	LmV	46.2	MPV=4.1 MLH=4.3 MLV=4.4
19.	ePKP	17 48 14	Tonga Islands 15.16 S 173.33 W
	e	48 25	H = 17 28 43.6 h = normal MAG=5.2
	e	48 36	D = 144.4 Az = 354.6 (USCGS)
	e	48 48	LmH(C):27s 0.6/um LmV(C):22s 0.7/um
	LmH	18 44.7	MLH=5.2
	LmV	45.0	
19.	eP	19 28 42.5	Hokkaido, Japan 41.85 N 142.74 E
			H = 19 16 46.7 h = 67 km MAG=4.6
			D = 78.5 Az = 330.7 (USCGS)
			PV:1.0s 11.8nm
			MPV=4.8
19.	e	22 01 45	
19.	eSg	22 53(05)	Yugoslavia 44¾ N 17¼ E
	e	53 30	H = 22 49 55 (BCIS)
			D = 7.0
20.	eP	07 20 47.5	Taiwan 24.97 N 122.48 E
	e	20 48.5	H = 07 08 17.1 h = 15 km MAG=5.4
	e	20 58.5	D = 83.2 Az = 323.2 (USCGS)
	ePP	24 02	PV2:2.1s 60.5nm
	eS	31 00	LmH:15.5s 9.9/um LmV:17s 9.1/um
	LmH	56.4	MPV=5.5 MLH=6.3 MLV=6.3
	LmV	08 01.4	
20.	eP	12 34 00	Off East Coast of Honshu, Japan
	e	34 10	40.29 N 144.25 E
	LmV	13 16.4	H = 12 21 47.3 h = 15 km MAG=4.9
	LmH	16.5	D = 80.4 Az = 331.6 (USCGS)
			LmV:16s 5.7/um LmH:14s 5.3/um
			MLV=6.0 MLH=6.1

Day	Phase	h m s	Remarks
20.	LmH	17 55.5	Probably Tristan da Cunha Region (USCGS)
	LmV	55.5	
20.	eP	23 17 41	Rumania 45.73 N 26.57 E
			H = 23 15 04.0 h = 123 km MAG=4.6
			D = 11.1 Az = 301.6 (USCGS)
			PV:1.3s 27.8nm
			MPV=4.8
21.	ePKP	00 47 25	Fiji Islands 19.14 S 177.68 W
			H = 00 28 43.3 h = 575 km MAG=3.9
			D = 147.7 Az = 348.9 (USCGS)
21.	ePn	01 03 21	Hungary 46.9 N 17.6 E
	eSn	04 27	H = 01 02 01 (BCIS)
	e	04 52	D = 5.4
	iSg	04 56	
21.	eP	14 16 07	Northern Colombia 6.51 N 76.53 W
			H = 14 03 37.3 h = 24 km MAG=4.7
			D = 83.8 Az = 39.8 (USCGS)
			PV:1.2s 5.1nm
			MPV=4.6
21.	eP	18 20 49	Crete 35.21 N 23.38 E
	e(S)	24 10	H = 18 16 41.6 h = 5 km MAG=4.7
	LmH	28.0	D = 17.6 Az = 334.6 (USCGS)
	LmV	28.9	LmH:13s 1.0/um
			MLH=4.3
22.	eP	07 25 19	Yugoslavia 43.5 N 17.0 E
	i	25 21	H = 07 23 18 (BCIS)
	eSn	26 51	D = 8.1
	eSb	27 20	PV2:0.8s 33.0nm
	e	27 31	
	eSg	27 39	
	LmH	27.9	
	LmV	27.9	

Day	Phase	h m s	Remarks
22.	LmV	08 46.5	Probably Northern Easter I. Cordillera
	LmH	51	(USCGS)
			LmV:20s 0.9/um LmH:18s 0.6/um
22.	ePKP	19 32 07.5	Fiji Islands 18.31 S 177.86 W
			H = 19 13 31.7 h = 612 km MAG=5.3
			D = 146.9 Az = 348.9 (USCGS)
23.	ePKIKP	02 13 41	West of Maquarie Island 53.53 S 140.26 E
	ePKHKP	13 47	H = 01 54 01.9 h = normal MAG=4.7
	ePKP2	13 51.5	D = 148.9 Az = 285.9 (USCGS)
	LmH	03 20.5	LmH(C):23.5s 0.9/um LmV(C):27s 0.6/um
	LmV	21.5	MLH=5.4
23.	eP	21 19 49	Near North Coast of New Guinea
	ePKIKP	23 30	3.33 S 143.25 E
	e	24 24	H = 21 04 41.3 h = 12 km MAG=6.1 (USCGS)
	ePP	24 45	D = 117.8
	e	33 04	PKIKPV:1.8s 46.0nm
	ePKKP	33 40	LmV:18s 103/um LmH:17.s 63.8/um
	ePS	35 24	MLV=7.5 MLH=7.3
	e(SS)	41 00	
	LmV	22 18.7	
	LmH	19.9	
24.	eP	00 55 59	Mindanao, Philippine Islands
			7.16 N 126.61 E
			H = 00 42 21.9 h = 77 km MAG=5.4
			D = 99.9 Az = 324.1 (USCGS)
24.	ePKIKP	02 21 11	Near North Coast of New Guinea
			3.50 S 143.60 E
			H = 02 02 26.9 h = 40 km MAG=5.3
			D = 118.2 Az = 327.5 (USCGS)
24.	LmH	06 02.7	Probably Prince Edward Islands Region
	LmV	07.4	(USCGS)
			LmH:17s 1.5/um LmV:21s 1.7/um

Day	Phase	h m s	Remarks
24.	eP	14 12 36	Molucca Passage 1.50 N 126.43 E
			H = 13 58 35.1 h = 47 km MAG=5.4
			D = 104.3 Az = 323.4 (USCGS)
24.	eP A	16 05 02	Philippine Islands 5.94 N 126.99 E
	+iP B	05 03	H = 15 51 18.5 h = 70 km MAG=5.4
	e	05 12	D = 101.1 Az = 324.1 (USCGS)
	ePP	09 15	LmH:20s 11.8/um LmV:20s 12.2/um
	eSKS	15 36	
	e(PPS)	18 35	
	eSS	23 55	
	LmH	53.3	
	LmV	54.0	
24.	eP	21 57 24.5	Off East Coast of Honshu, Japan
			33.12 N 142.08 E
			H = 21 44 46.2 h = 28 km MAG=5.0
			D = 85.8 Az = 330.9 (USCGS)
24.	eP	22 47 33	Kurile Islands 49.66 N 155.77 E
	e	47 38	H = 22 35 50.9 h = 35 km MAG=5.5
	e	47 49	D = 75.5 Az = 337.3
	LmH	23 25.0	PV:1.1s 28.9nm
	LmV	25.1	LmH:18s 0.6/um LmV:18s 0.8/um
			MPV=5.2 MLH=5.0 MLV=5.1
25.	ePKP	10 32 17	South of Fiji Islands 19.79 S 179.58 E
			H = 10 13 32.5 h = 532 km MAG=4.2
			D = 147.8 Az = 345.6
25.	eP	10 41 47.5	Northern Sumatra 4.31 N 95.50 E
	e	41 51.5	H = 10 29 24.1 h = 33 km MAG=5.5
	e	42 03	D = 82.8 Az = 320.4 (USCGS)
	eS	52 15	PV:0.7s 9.5nm
	LmH	11 21.4	MPV=5.1
	LmV	22.7	

Day	Phase	h m s	Remarks
25.	eP	11 50 14.5	Rat Islands, Aleutian Is. 50.62 N 177.39 E
	LmV	12 19.0	H = 11 38 14.7 h = 23 km MAG=5.1
			D = 78.4 Az = 350.8 (USCGS)
			PV:1.2s 12.8nm
			MPV=4.9
25.	eP	14 09 20	Fox Islands, Aleutian Is. 52.36 N 169.54 W
			H = 13 57 26.5 h = normal MAG=4.4
			D = 77.4 Az = 359.2 (USCGS)
25.	eP	16 09 01.5	Talaud Islands 3.45 N 125.98 E
	LmH	57.0	H = 15 55 11.9 h = 80 km MAG=5.2
	LmV	59.0	D = 102.5 Az = 323.6 (USCGS)
			LmV(C):22s 0.3/um
			MLV=4.8
26.	eiP	16 08 25	Hokkaido, Japan 42.88 N 145.25 E
	e	08 25.5	H = 15 56 27.1 h = 41 km MAG=5.1
	e	08 32	D = 78.5 Az = 331.9 (USCGS)
	e	08 37	PV:1.4s 27.6nm
	e	08 42	LmH(C):20s 0.2/um LmV(C):2s 0.2/um
	e	08 50	MPV=5.2 MLH=4.4 MLV=4.5
	LmH	45.5	
	LmV	46.1	
26.	eP	19 28 43	Fox Islands, Aleutian Is. 52.39 N 169.51 W
	LmH	20 06.6	H = 19 16 49.4 h = 30 km MAG=4.5
	LmV	11.9	D = 77.3 Az = 359.3 (USCGS)
			PV:1.0s 11.9nm
			LmH(C):20s 0.1/um
			MPV=5.0 MLH=4.3
26.	LmH	23 46.6	Probably Oaxaka, Mexico (USCGS)
	LmV	51.6	LmH(C):20s 0.1/um LmV(C):20s 0.3/um
27.	eP	00 30 33	
27.	ePKP	12 34 46	Fiji Islands 20.41 S 178.09 W
			H = 12 15 58.5 h = 510 km MAG=3.8
			D = 148.9 Az = 348.0 (USCGS)

Day	Phase	h m s	Remarks
27.	eP	13 55 51	Mindanao, Philippine Islands
	LmH	14 38.4	5.90 N 125.57 E
			H = 13 42 26.1 h = 193 km MAG=5.5
			D = 100.3 Az = 323.7 (USCGS)
27.	eP	20 50 44	Off East Coast of Honshu, Japan
	LmH	21 24.8	40.49 N 143.78 E
	LmV	32.5	H = 20 38 33.6 h = 11 km MAG=4.5
			D = 80.1 Az = 331.4 (USCGS)
			LmH(C):20s 0.5/um
			MLH=4.8
28.	eP	12 58 12.5	Aegean Sea 38.96 N 25.93 E
	i	58 15.5	H = 12 54 32.8 h = normal MAG=4.5
	e	58 18.5	D = 15.5 Az = 323.8 (USCGS)
	e	58 24	PV2:1.2s 25.5nm
	LmH	13 03.6	LmH:13.5s 1.9/um LmV:10s 1.7/um
	LmV	04.9	MPV=4.2 MLH=4.4 MLV=4.7
28.	eiP	14 53 11	South of Honshu, Japan 33.41 N 140.79 E
	epP	53 29	H = 14 40 41.4 h = 61 km MAG=5.5
	ePP	56 37	D = 85.1 Az = 330.3 (USCGS)
	LmH	15 32.2	PV:1.3s 41.7nm LmH:15s 0.4/um
	LmV	38.0	MPV=5.5 MLH=4.9
28.	LmH	16 03.5	Probably Turkey (USCGS)
	LmV	04.5	LmH:13.5s 0.7/um LmV:12s 0.3/um
28.	ePKHKP	23 51 36	Santa Cruz Islands 12.47 S 166.46 E
	i	51 37	H = 23 32 28.7 h = 60 km MAG=5.9
	+iPKIKP B	51 44	D = 136.7 Az = 336.7 (USCGS)
	ePKIKP A	51 45	PV2:1.2s 20.4nm
	e	51 47	LmV:19s 6.2/um LmH:18.5s 5.7/um
	epPKIKP	51 57	MLV=6.4 MLH=6.2
	e	54 08	
	ePP	54 21	
	ePKS A	55 17	
	ePKS B	55 20	

Day	Phase	h m s	Remarks
cont.			
28.	eS	00 12 32	
	eSS	17 50	
	LmV	56.4	
	LmH	56.5	
29.	e	02 58 23.5	Explosion ?
	e	58 53	
	e	59 11.5	
	e	59 17	
29.	ePKP	03 22 04	Fiji Islands 20.20 S 177.99 W
			H = 03 03 15.1 h = 520 km MAG=4.5
			D = 148.7 Az = 348.2 (USCGS)
			PV:1.2s 17.9nm
29.	e	04 01 46	
29.	eP	04 18 50	South of Honshu, Japan 31.20 N 141.61 E
	i	18 52	H = 04 06 04.1 h = 17 km MAG=5.7
	ePP	22 12	D = 87.3 Az = 330.8 (USCGS)
	LmV	05 02.5	PV2:1.6s 53.0nm
	LmH	03.4	LmV:16s 1.2/um LmH:15.5s 1.4/um
			MPV=5.5 MLV=5.4 MLH=5.5
29.	eP	06 39 36	South of Honshu, Japan 31.22 N 141.65 E
			H = 06 26 52.2 h = 40 km MAG=5.1
			D = 87.3 Az = 330.8 (USCGS)
28.	LmH	07 37.7	Probably South of Honshu, Japan (USCGS)
	LmV	42.5	LmH(C):15s 0.5/um LmV(C):17s 0.4/um
29.	eiPKP	07 39 52.5	Fiji Islands 17.80 S 178.78 W
	i	39 54	H = 07 21 16.7 h = 567 km MAG=5.5
	e	40 24	D = 146.2 Az = 348.1 (USCGS)
	e	40 40	PV1:1.3s 33.4nm PV2:1.3s 119.0nm

Day	Phase	h m s	Remarks
29.	ePKHKP	11 46 45.5	Tonga Islands 22.49 S 175.21 W
			H = 11 26 51.8 h = normal MAG=5.1
			D = 151.4 Az = 350.9 (USCGS)
			PV:1.3s 27.8nm
29.	ePKHKP	11 59 11	Tonga Islands 22.56 S 174.90 W
	e	59 19	H = 11 39 20.2 h = normal MAG=5.2
	e	59 33	D = 151.5 Az = 351.3 (USCGS)
29.	ePP	17 19 04	Molucca Passage 1.78 N 126.37 E
	e	19 46	H = 17 00 40.4 h = normal MAG=5.5 (USCGS)
	LmH	18 06.0	D = 104.2
			LmH(C):24s 1.0/um
			MLH=5.3
29.	eP	22 26 46.5	Alaska 65.43 N 150.10 W
	e	26 48.5	H = 22 16 15.6 h = 7km MAG=6.0
	i A,B	26 51	D = 63.4 Az = 12.9 (USCGS)
	iPL C	26 51	PmV:2.1s 815.0nm
	Pm	26 52	LmH:20s 15.7/um LmV:16s 18.0/um
	ePP	29 07	MPmV=6.5 MLH=6.2 MLV=6.4
	e	29 50	
	eS	35 08	
	ei	35 18	
	eiSS	39 25	
	eSSS	42 08	
	ePKPPKP	55 59	
	LmH	56.9	
	LmV	23 06.0	
30.	eP	04 15 37	Tadzhik SSR 37.44 N 73.24 E
	e	15 40	H = 04 07 20.7 h = 12 km MAG=5.5
	e	16 07	D = 45.0 Az = 307.6 (USCGS)
	LmH	33.0	LmH(C):20s 0.7/um LmV(C):16s 0.5/um
	LmV	37.8	MLH=4.6 MLV=4.6
30.	e	06 26 09	Alaska 65.55 N 150.11 W
			H = 06 15 33.6 h = normal MAG=4.0
			D = 63.3 Az = 12.9

Day	Phase	h m s	Remarks
30.	+iPKP2	10 02 06.5	Kermadec Islands 31.05 S 179.92 W
	epPKP	03 36	H = 09 42 10.8 h = 328 km MAG=4.9 (USCGS)
			D = 157.2
30.	eP	11 46 19	Straits of Gibraltar 35.10 N 3.61 W
	eS	49(50)	H = 11 41 56.9 h = 34 km MAG=4.6
	LmH	54.6	D = 19.1 Az = 30.8 (USCGS)
	LmV	54.6	
30.	eP	16 56 42	Turkey 37.88 N 38.57 E
	eS C	17 00 47	H = 16 51 33.5 h = 3 km MAG=4.9
	eS B	00 52	D = 23.0 Az = 312.4 (USCGS)
	e	02 05	SH(B):10s 5.4/um
	LmH	08.5	LmH:13.5s 3.5/um LmV:13.5s 4.5/um
	LmV	08.5	MSH=5.9 MLH=5.0 MLV=5.2
31.	eP	03 26 26	Dodekanese Islands 36.61 N 27.05 E
	eS	29 51	H = 03 22 15.0 h = 11 km MAG=5.1
	LmH	34.1	D = 17.9 Az = 326.5 (USCGS)
	LmV	35.3	PV:2.0s 360.0nm
			LmH:10s 8.9/um LmV:11s 7.0/um
			MPV=5.2 MLH=5.3 MLV=5.3
31.	eP	09 20 39	Molucca Passage 1.21 N 126.33 E
	ePP	25 02	H = 09 06 36.4 h = normal MAG=6.1
	eSKS	31 16	D = 104.5 Az = 323.3 (USCGS)
	e	32 20	PV:1.3s 22.2nm
	ePS	33 56	LmH:17s 2.6/um LmV:17.5s 7.0/um
	eSS	40 00	MPV=5.9 MLH=5.8 MLV=6.3
	LmH	10 06.2	
	LmV	12.8	

Day	Phase	h m s	Remarks
1.	eP	00 31 18	North of Ascension Island 0.93 S 13.39 W H = 00 21 42.8 h = normal MAG=5.1 D = 55.6 Az = 19.0 (USCGS) PV:1.1s 24.1nm MPV=5.1
1.	LmH	03 07.4	Probably Alaska (USCGS)
	LmV	07.4	LmH(C):20s 0.4/um LmV(C):20s 0.3/um
1.	e	12 48 10	
2.	eP	08 39 06.5	North Atlantic Ridge 10.87 N 43.53 W H = 08 28 59.2 h = normal MAG=4.8 D = 59.9 Az = 37.2 (USCGS) PV:1.8s 40.8nm MPV=5.2
2.	e	15 52 50.5	
3.	ePn	04 51 57	Yugoslavia 42.13 N 19.39 E
	e	52 07	H = 04 49 31.8 h = 17 km MAG=5.0
	iSn	53 48	D = 10.1 Az = 330.5 (USCGS)
	i	54 05	LmH:14s 65.0/um
	iSg	54 58	MLH=5.6
	LmH	55.3	
3.	eP	05 18 38	Yugoslavia (Uppsala) PV:1.4s 15.4nm
3.	e	05 41 48	
3.	eiSg	06 28 34	Germany 48°16'N 9°02'E H = 06 27 00.5 h = 1 km ML=2.8 (BCIS) D = 2.9
3.	eP	08 14 15	Carlsberg Ridge 6.75 N 60.14 E H = 08 04 15.6 h = normal MAG=5.2 D = 59.4 Az = 326.4 (USCGS) PV:2.0s 39.6nm MPV=5.1

Day	Phase	h m s	Remarks
3.	eP	18 44 00	Turkey 38.82 N 29.19 E
	e	44 05	H = 18 39 58.2 h = 5 km MAG=5.0
	LmH	49.9	D = 17.1 Az = 319.3 (USCGS)
	LmV	51.7	PV2:1.9s 88.2nm LmH:14s 1.1/um LmV:8s 1.0/um MPV2=4.6 MLH=4.1 MLV=4.6
3.	eP	20 06 15	Off Coast of Costa Rica 7.91 N 85.92 W H = 19 53 22.9 h = 25 km MAG=4.7 D = 88.7 Az = 39.1 (USCGS)
4.	eP	09 11 50	Arabian Sea 12.21 N 58.00 E H = 09 02 31.9 h = normal MAG=5.1 D = 53.7 Az = 325.1 (USCGS) PV:2.2s 70.2nm MPV=5.3
4.	+iPKP	09 25 55	New Hebrides Islands 14.18 S 172.03 E
	i	25 56	H = 09 07 38.5 h = 585 km MAG=5.8
	i	26 01	D = 140.3 Az = 340.5 (USCGS)
	epPKP	28 09	PV2:1.2s 51.0nm
	iSKP	28 44	
	ePKS	29 32	
	eipPKS	31 52	
	eiSKKS	35 00	
	eSPP	40 32	
	eSS	46 55	
	eSSS	52 30	
4.	ePg	14 19 05	Explosion
	eSg	19 21	D = ca. 1.2
4.	eP	20 10 12	Dodekanese Islands 36.54 N 27.05 E
	e	10 22	H = 20 05 59.4 h = 39 km MAG=4.6
	e	10 31	D = 17.9 Az = 326.6 (USCGS)
	LmH	17.8	PV:1.9s 35.3nm
	LmV	18.4	MPV=5.1

Day	Phase	h m s	Remarks
5.	eP	02 11 36	Kashmir-India Border Region
	e	11 41	32.38 N 76.38 E
			H = 02 02 44.2 h = normal MAG=4.9
			D = 50.2 Az = 311.4
6.	eP	01 40 55	Off East Coast of Honshu, Japan
	LmH	02 15.4	40.32 N 143.63 E
	LmV	24.0	H = 01 28 43.6 h = 9 km MAG=4.5
			D = 80.1 Az = 331.3 (USCGS)
			LmH(C):18s 0.5/um
			MLH=4.9
6.	eiP	13 45 52.5	Cyprus 35.23 N 32.83 E
			H = 13 41 04.5 h = 54 km MAG=4.8
			D = 21.8 Az = 321.6 (USCGS)
			PV:1.2s 76.5nm
			MPV=5.0
7.	eP	01 00 18	Unimak Island 54.30 N 164.61 W
	LmH	40.5	H = 00 48 33.6 h = 37 km MAG=5.1
	LmV	46.5	D = 75.4 Az = 2.5 (USCGS)
			PV:0.8s 9.4nm
			LmH:17s 1.0/um LmV:15s 0.5/um
			MPV=4.9 MLH=5.2 MLV=5.0
7.	ePKP	03 52 29	Samoa Islands 16.64 S 172.92 W
	e	52 33	H = 03 32 50.8 h = normal MAG=5.1
	e	52 40	D = 145.9 Az = 355.1 (USCGS)
	LmH	05 07.6	PV:0.7s 11.9nm
	LmV	11.6	LmH:18s 0.8/um LmV:17s 0.8/um
			MLH=5.5
7.	eP	09 31 10	Near East Coast of Honshu, Japan
	e	31 30	40.24N 142.28 E
	e	31 45	H = 09 19 07.3 h = 61 km MAG=4.9
	LmH	10 07.5	D = 79.7 Az = 330.6 (USCGS)
	LmV	11.0	PV:1.3s 33.4nm
			LmH:18.5s 1.5/um LmV:17.5s 1.2/um
			MPV=5.1 MLH=5.4 MLV=5.3

Day	Phase	h m s	Remarks
7.	+iP	10 08 10.2	Novaja Zemlja 73.41 N 54.86 E
	iPn	08 38	H = 10 02 05.3 h = 0 km MAG=6.0
	LmH	20.3	D = 29.3 Az = 243.0 (USCGS)
	LmV	22.7	PV:1.0s 99.5nm
			LmH:12s 3.9/um LmV:10s 2.2/um
			MPV=5.6 MLH=5.2 MLV=5.2
			Probably underground explosion
7.	eiP	14 48 32.5	Kurile Islands 45.00 N 150.05 E
	e	48 39.5	H = 14 36 38.8 h = 59 km MAG=5.0
			D = 78.1 Az = 334.4
			PV:1.6s 90.9nm
			MPV=5.5
7.	eP	23 17 00	Fox Islands, Aleutian Is.
			53.77 N 165.72 W
			H = 23 05 17.7 h = 60 km MAG=4.7
			D = 75.9 Az = 1.7 (USCGS)
8.	ePKIKP	08 02 00.5	New Hebrides Islands 13.35 S 167.17 E
			H = 07 42 57.3 h = 192 km MAG=5.1
			D = 137.8 Az = 336.9 (USCGS)
8.	e	11 42 58	Felt in Halle-Neustadt/DDR.
			Probably rock burst
8.	iPKP	12 15 54.3	Fiji Islands 19.96 S 178.15 W
			H = 11 57 13.4 h = 585 km MAG=4.4
			D = 148.4 Az = 348.1 (USCGS)
			PV:1.1s 14.4nm
8.	iPg	12 28 34	Explosion
	eSg	28 47.5	D = ca. 1.0
	i	28 49	
8.	eP	16 15 54	Iceland 64.66 N 17.39 W
	e	15 57	H = 16 11 15.7 h = normal MAG=4.7
	LmH	26.4	D = 20.7 Az = 118.9 (USCGS)

Day	Phase	h m s	Remarks
cont.			
8.	LmV	16 26.4	LmH:13.5s 2.6/um LmV:13s 2.8/um MLH=4.8 MLV=5.0
8.	e	17 14 54	
8.	-iPKIKP	18 45 56	Fiji Islands 19.51 S 179.25 W
	iPKHKP	45 59.3	H = 18 27 26.7 h = 670 km MAG=5.2
	iPKP2	46 04.3	D = 147.8 Az = 347.0 (USCGS)
	epPKP	48 33	PV1:1.0s 9.5nm PV2:1.6s 136.0nm
			PV3:1.0s 52.2nm
8.	ePKP	19 04 15	Fiji Islands 20.01 S 178.15 W
			H = 18 45 34.0 h = 596 km MAG=4.5
			D = 148.5 Az = 348.1 (USCGS)
			PV:1.3s 16.7nm
9.	iP	03 01 47.2	Eastern Kazakh SSR 49.79 N 78.04 E
			H = 02 53 57.7 h = 0 km MAG=4.9
			D = 41.2 Az = 297.7 (USCGS)
			Probably underground explosion
9.	eP	04 25 49	Jan Mayen Island 71.91 N 3.53 W
			H = 04 20 53.1 h = normal MAG=4.1
			D = 22.4 Az = 154.1 (USCGS)
9.	ePKIKP	13 32 10.5	Fiji Islands 20.14 S 178.57 W
	ePKP2	32 16	H = 13 13 31.3 h = 615 km MAG=4.7
			D = 148.5 Az = 347.6 (USCGS)
			PV:1.2s 15.3nm
9.	eP	13 52 24	Near Coast of West Pakistan
	e	52 29	23.82 N 64.72 E
	e	52 48	H = 13 43 38.4 h = normal MAG=5.2
	eS	59 27	D = 48.7 Az = 317.4 (USCGS)
	LmH	14 17.3	SH(B):14s 1.9/um
	LmV	22.4	LmH:18s 1.4/um LmV:15s 1.8/um
			MSH=5.8 MLH=5.0 MLV=5.3

Day	Phase	h m s	Remarks
9.	iP	17 12 33.2	Southern Illinois 37.96 N 88.46 W
	e	12 38.5	H = 17 01 41.1 h = 19 km MAG=5.3
	i	12 40	D = 67.4 Az = 42.8 (USCGS)
	LmH	41.3	PV:0.8s 33.0nm
	LmV	41.4	LmH:18s 1.7/um LmV:18s 2.0/um
			MPV=5.6 MLH=5.3 MLV=5.4
9.	eP	19 25 15	Iceland 63.89 N 21.14 W
			H = 19 20 22.8 h = 24 km MAG=4.6
			D = 21.8 Az = 112.0 (USCGS)
			PV:1.0s 19.0nm
			MPV=4.5
9.	e(P)	20 44 47.5	Molucca Passage 2.42 N 126.83 E
	e	48 36	H = 20 30 41.9 h = normal MAG=5.5
	e	49 02	D = 103.8 Az = 323.6 (USCGS)
	LmV	21 36.9	PV:1.3s 11.1nm
	LmH	37.7	LmV:19s 2.9/um LmH:19s 3.8/um
			MPV=5.2 MLV=5.9 MLH=6.0
10.	e	08 30 30	
10.	ePKP	10 07 51.5	New Hebrides Islands 19.85 S 169.82 E
			H = 09 48 45.4 h = 259 km MAG=4.4
			D = 144.8 Az = 335.8 (USCGS)
10.	eP	12 54 55	Crete 34.78 N 24.30 E
	e	55 00	H = 12 50 42.9 h = 33 km MAG=5.0
	e	55 13	D = 18.4 Az = 333.6 (USCGS)
10.	eP	14 25 58	Kurile Islands 44.76 N 146.74 E
			H = 14 14 18.4 h = 145 km MAG=4.2
			D = 77.3 Az = 332.6 (USCGS)
10.	eP	14 33 50	Crete 34.41 N 23.94 E
	e	34 10	H = 14 29 35.1 h = normal MAG=4.4
			D = 18.6 Az = 334.7 (USCGS)
			PV:1.0s 9.5nm
			MPV=3.9

Day	Phase	h m s	Remarks
10.	eiP	17 14 41	Philippine Islands 19.95 N 121.39 E
	e	14 52	H = 17 01 59.2 h = normal MAG=5.2
	e	17 37	D = 86.6 Az = 323.1 (USCGS)
	ePP	18 08	PV:1.5s 26.9nm
	e	18 16	LmH:17s 2.9/um LmV:14s 2.8/um
	e	25 10	MPV=5.3 MLH=5.7 MLV=5.9
	LmH	56.0	
	LmV	59.9	
10.	eP	21 38 03	Southern Sumatra 3.63 S 101.98 E
			H = 21 24 51.8 h = normal MAG=5.3
			D = 93.0 Az = 320.4 (USCGS)
11.	eP	02 13 02	Andreanof Islands, Aleutian Is.
			52.82 N 175.02 W
			H = 02 01 34.1 h = 222 km MAG=4.8
			D = 76.8 Az = 355.7 (USCGS)
11.	ePKP	02 17 11.5	Fiji Islands 19.58 S 179.12 W
	epPKP	19 42.5	H = 01 58 41.0 h = 674 km MAG=4.9
			D = 147.9 Az = 347.1 (USCGS)
11.	+iP	09 05 10.3	Alaska Peninsula 57.26 N 155.28 W
	e	05 15	H = 08 53 52.0 h = 59 km MAG=5.3
	eipP	05 35	D = 71.9 Az = 8.7 (USCGS)
			PV:1.6s 136.0nm
			MPV=5.6
11.	e	12 44 42.5	
11.	+iP	14 53 23.3	Off East Coast of Honshu, Japan
	e	53 30	40.10 N 143.02 E
	ePP	56 28	H = 14 41 15.9 h = 35 km MAG=5.5
	eS	15 03 24	D = 80.1 Az = 331.0 (USCGS)
	i	03 26	PV:2.0s 172.0nm
	e(SP)	04 12	LmH:18s 21.4/um LmV:16.5s 11.0/um
	eSS	08 35	MPV=5.7 MLH=6.5 MLV=6.2
	LmH	28.6	
	LmV	35.6	

Day	Phase	h m s	Remarks
11.	eP	17 17 28	Volcano Islands 25.29 N 140.90 E
			H = 17 04 35.8 h = 159 km MAG=5.2
			D = 92.1 Az = 330.5 (USCGS)
11.	eP A	23 38 30	Dodekanese Islands 36.66 N 27.15 E
	eP BC	38 32	H = 23 34 21.0 h = 23 km MAG=4.8
	eS	41 54	D = 17.9 Az = 326.3 (USCGS)
	LmH	46.2	PV:1.7s 149.0nm
	LmV	47.2	LmH:12s 3.5/um LmV:13.5s 3.7/um
			MPV=4.8 MLH=4.9 MLV=5.0
11.	eP	23 57 14	Dodekanese Islands 36.54 N 27.21 E
			H = 23 53 04.1 h = 21 km MAG=4.5
			D = 18.0 Az = 326.4 (USCGS)
12.	eP	00 56 40	Ryukyu Islands 27.53 N 128.43 E
	i	56 42.2	H = 00 44 12.8 h = 48 km MAG=5.8
	+i	56 44.2	D = 84.3 Az = 325.2 (USCGS)
	eS	01 07 00	PV:1.1s 103.0nm
	e	07 22	LmH:17s 5.3/um LmV:16s 6.0/um
	ePPS	08 20	MPV=6.0 MLH=6.0 MLV=6.1
	LmH	38.7	
	LmV	39.5	
12.	eP A	03 41 45	Dodekanese Islands 36.65 N 27.27 E
	e B	41 47	H = 03 37 35.7 h = 17 km MAG=4.7
	i A	41 47.7	D = 17.9 Az = 326.1 (USCGS)
	i B	41 52	PV3:1.9s 129.0nm
	eS C	45 10	LmH:14s 3.4/um LmV:12s 3.2/um
	eS B	45 18	MPV=4.7 MLH=4.8 MLV=5.0
	LmH	48.9	
	LmV	50.4	
12.	eP	06 13 04.5	Dodekanese Islands 36.60 N 27.30 E
	ei	13 08	H = 06 08 54.3 h = 24 km MAG=4.7
	eS	16 30	D = 18.0 Az = 326.2
	LmH	20.2	PV:1.6s 53.0nm
	LmV	21.9	LmH:12.5s 2.8/um LmV:11s 2.8/um
			MPV=4.4 MLH=4.7 MLV=4.9

Day	Phase	h m s	Remarks
12.	e	06 46 06	
12.	eP	09 09 34	Hokkaido, Japan 41.19 N 143.90 E
	e	09 47	H = 08 57 27.1 h = 17 km MAG=5.3
	e	09 56.5	D = 79.5 Az = 331.4 (USCGS)
	LmH	45.8	LmH:15s 1.7/um LmV:17s 1.5/um
	LmV	49.2	MLH=5.5 MLV=5.4
12.	+iP	10 06 08.7	Ryukyu Islands 29.25 N 129.43 E
	e	06 13	H = 09 53 42.2 h = 22 km MAG=5.4
	e	06 28	D = 83.4 Az = 325.5 (USCGS)
	LmH	41.5	PV:1.5s 40.3nm
	LmV	46.8	LmH:15s 8.9/um LmV:17s 3.8/um
			MPV=5.4 MLH=6.2 MLV=5.9
12,	eP	14 16 40.5	Near East Coast of Honshu, Japan
	epP	16 52.5	40.01 N 142.63 E
	LmH	50.2	H = 14 04 34.7 h = 53 km MAG=5.0
	LmV	52.3	D = 80.0 Az = 330.8 (USCGS)
			PV:1.1s 14.4nm
			LmH(C):22s 0.5/um LmV(C):22s 0.5/um
			MPV=4.8 MLH=4.9 MLV=4.8
12.	ePKP AC	22 20 13	Samoa Islands 15.63 S 172.76 W
	e B	20 18	H = 22 00 39.1 h = 47 km MAG=5.2
	LmH	23 32.5	D = 144.9 Az = 355.2 (USCGS)
	LmV	32.5	PV:1.2s 20.4nm
			LmH:16s 0.8/um LmV:16s 0.8/um
			MLH=5.5
13.	+ePKP	02 16 19.5	Samoa Islands 15.65 S 172.78 W
	e	16 28.5	H = 01 56 45.1 h = 35 km MAG=5.0
	e	16 32	D = 144.9 Az = 355.1 (USCGS)
	e	16 35	PV:1.2s 17.9nm
13.	e	11 31 26	
13.	LmH	12 19.9	LmH:15.5s 2.0/um LmV:15.5 2.2/um
	LmV	20.1	

Day	Phase	h m s	Remarks
13.	eP.	15 21 02	Crete 35.85 N 26.25 E
	LmH	27.1	H = 15 16 57.0 h = 123 km
	LmV	28.7	D = 18.2 Az = 329.0 (USCGS)
			LmH:14s 0.8/um LmV:9s 0.7/um
13.	ePKIKP	16 08 04	Fiji Islands 20.83 S 178.80 W
	eiPKHKP	08 09	H = 15 49 26.4 h = 590 km MAG=5.2
	ePKP2	08 15	D = 149.1 Az = 347.0 (USCGS)
	epPKP	10(23)	
13.	e	17 52 43	
13.	+iP AC	18 53 52.5	Near East Coast of Honshu, Japan
	+iP B	53 54	40.15 N 142.49 E
	ipP	54 06.5	H = 18 41 47.9 h = 49 km MAG=5.5
	ePP	56 55	D = 79.9 Az = 330.7 (USCGS)
	e	57 08	PV:2.0s 199.0nm
	eS	19 03(45)	LmH:16.5s 6.9/um LmV:16.5s 5.5/um
	eiSKS	04 08	MPV=5.7 MLH=6.1 MLV=6.0
	e	04 19	
	ePS	04 44	
	eSS	09 05	
	LmH	33.5	
	LmV	33.5	
13.	ePKP	21 54 29	Fiji Islands 18.39 S 178.03 W
			H = 21 35 47.9 h = 549 km MAG=4.9
			D = 146.9 Az = 348.7 (USCGS)
13.	e	23 57 56	
14.	LmH	06 24.0	Probably North Atlantic Ridge (USCGS)
	LmV	25.0	LmH(C):22s 0.3/um LmV(C):19s 0.2/um
14.	ePKP	11 54 34.5	Fiji Islands 20.04 S 176.01 W
	epPKP	55 29	H = 11 35 12.0 h = 220 km MAG=5.1
	esPKP	55 57.5	D = 148.9 Az = 350.6 (USCGS)

Day	Phase	h m s	Remarks
14.	eP	12 24 14	Kyushu, Japan 31.65 N 131.51 E
	LmH	13 04.8	H = 12 11 50.1 h = 6 km MAG=5.0
	LmV	05.0	D = 82.4 Az = 326.2 (USCGS)
			PV:1.8s 35.7nm
			LmH:17s 3.9/um LmV:18s 4.6/um
			MPV=5.2 MLH=5.8 MLV=5.9
14.	e	13 20 03.5	
14.	e	23 17 53.5	
14.	e	23 19 20	Yugoslavia-Albania (Uppsala)
14.	eiPKP A	23 28 23	Loyalty Islands 21.55 S 170.14 E
	i A	28 24	H = 23 08 54.4 h = 103 km MAG=5.4
	i B	28 25	D = 146.4 Az = 335.1 (USCGS)
	e	28 43	PV2:1.6s 174.0nm
	e	28 50	LmH(C):27s 1.2/um LmV(C):28s 1.0/um
	LmH	24 25.0	
	LmV	27.0	
15.	eP	00 18 22.5	Gulf von Alaska 58.33 N 150.37 W
	e	18 24	H = 00 07 09.7 h = 26 km MAG=5.1
	e	18 29	D = 70.4 Az = 12.1 (USCGS)
	e	18 37	PV2:1.8s 40.8nm LmH:16s 0.7/um
	e	18 42	MLH=5.0
	e	18 54	
	LmV	57.2	
	LmH	57.4	
15.	eP	01 59 14.5	Hokkaido, Japan 41.59 N 142.56 E
			H = 01 47 16.2 h = 55 km MAG=4.8
			D = 78.6 Az = 330.6 (USCGS)
15.	eP	06 32 30	Persia-USSR Border Region 37.5 N 58.2 E
	i	32 40.5	H = 06 25 36 (BCIS)
	eiS	38 12	D = 35.4
	LmH	50.9	PV1:2.0s 59.7nm PV2:2.0s 199.0nm

Day	Phase	h m s	Remarks
cont.			
15.	LmV	06 54.2	LmH:11.5s 6.5/um LmV:11.5 9.7/um
			MPV1=5.2 MPV2=5.5 MLH=5.6
			MLV=5.9
15.	ePg	15 04 33	Explosion
	eSg	04 47	D = ca. 1.0
16.	ePKP	00 42 50	New Hebrides Islands 17.97 S 168.46 E
	e	42 54	H = 00 23 40.8 h = 173 km MAG=5.3
			D = 142.5 Az = 335.7 (USCGS)
			PV:1.2s 12.8nm
16.	ePKP	08 05 18.5	Fiji Islands 16.62 S 175.88 E
	e	05 30	H = 07 45 51.7 h = 66 km MAG=5.6
	ePP	08 44	D = 143.8 Az = 343.0 (USCGS)
	e	10 16	PV:2.7s 286.0nm
	eSS	27 16	LmV:16s 2.2/um LmH:17.5s 2.2/um
	LmV	09 24.0	
	LmH	28.4	
16.	ePKP	10 46 43	New Hebrides Islands 20.57 S 169.84 E
	epPKP	47 12	H = 10 27 16.5 h = 104 km MAG=4.9
			D = 145.4 Az = 335.4 (USCGS)
16.	e	12 30 26	
17.	+iP	00 27 55.8	Venezuela 9.55 N 72.65 W
	-ipP	28 39.8	H = 00 16 08.6 h = 172 km MAG=5.7
	ei	28 51	D = 79.1 Az = 40.2 (USCGS)
	esP	29 08	PV:1.6s 144.0nm
	-iS	37 41	MPV=5.5
	e	38 19	
	esS	38 55	
17.	ePKIKP	04 44(33,5)	Fiji Islands 19.62 S 177.84 W
	ePKHKP	44 37	H = 04 25 42.6 h = 458 km MAG=4.2
			D = 148.1 Az = 348.6 (USCGS)

Day	Phase	h m s	Remarks
17.	eP	07 50 51.5	North of Ascension Island
	e	50 53.5	1.30 S 13.60 W
	e	50 57.5	H = 07 41 16.1 h = normal MAG=5.3
	ePcP C	51 52	D = 56.1 Az = 19.1 (USCGS)
	ePcP B	51 55	PV2:1.4s 30.7nm
	ePP C	52 45	LmH:18.5s 12.3/um LmV:19s 11.3/um
	ePP B	52 49	MPV=5.1 MLH=6.0 MLV=6.0
	ePPP	54 12	
	eS	58 40	
	-iS	58 44	
	LmH	08 11.3	
	LmV	14.0	
17.	eP	13 11 19.5	Off Coast of Honshu, Japan
	e	11 36	39.71 N 143.17 E
			H = 12 59 09.4 h = normal MAG=4.9
			D = 80.5 Az = 331.1 (USCGS)
18.	e	01 39 21	
18.	ePKIKP	03 00 58	Solomon Islands 7.05 S 155.77 E
	e	01 11.5	H = 02 42 02.1 h = 88 km MAG=5.1
			D = 127.3 Az = 332.0 (USCGS)
18.	eP	06 14 48	Near East Coast of Honshu, Japan
			37.43 N 141.45 E
			H = 06 02 32.5 h = 51 km MAG=4.6
			D = 81.8 Az = 330.4 (USCGS)
18.	e	14 55 36.5	
	e	56 16	
	e	57 27	
	e	58 04	
18.	eP	15 34 14.5	Hokkaido, Japan 43.92 N 141.16 E
			H = 15 22 49.4 h = 223 km MAG=4.2
			D = 76.1 Az = 329.6 (USCGS)
			PV:0.8s 7.1nm
			MPV=4.5

Day	Phase	h m s	Remarks
19.	e(Pg)	14 10 08.5	Probably Explosion
	e(Sg)	10 24	
19.	eP	23 00 03	Nicobar Islands Region 8.72 N 94.15 E
			H = 22 48 04.0 h = normal MAG=4.9 (USCGS)
			D = 78.6
20.	eP	01 53 53	Rumania, Region of Vrancea
			45.6 N 26.6 E
			H = 01 51 15 h = 140 km (BCIS)
			D = 11.2
			PV:1.4s 24.6nm
			MPV=4.6
20.	eP	18 12 19	Nevada, underground explosion (Uppsala)
20.	e	19 34 17.5	
20.	LmH	23 09.0	Probably Southern Alaska (USCGS)
	LmV	09.0	
21.	ePKHKP	02 56 10.5	Tonga Islands 20.88 S 174.06 W
	ePKP2	56 21	H = 02 36 21.8 h = normal MAG=5.0 (USCGS)
			D = 150.0
			PV:1.6s 37.9nm
21.	epP	03 13 07	Hindu Kush Region 36.40 N 70.58 E
	e	13 10	H = 03 04 39.0 h = 204 km MAG=5.0 (USCGS)
	e	15 20	D = 43.6
	LmH	04 13.0	LmH(C):16.5s 0.2/um LmV(C):16.5s 0.2/um
	LmV	13.0	
21.	ePb	22 51 42.5	France 46.3 N 6.8 E
	ePg	51 47	H = 22 50 03 (BCIS)
	eSg	52 52	D = 5.4

Day	Phase	h m s	Remarks
22.	eP A	09 12 22.5	Luzon, Philippine Islands 16.28 N 122.33 E
	+eiP C	12 23	H = 08 59 23.1 h = 26 km MAG=5.3
	-iP B	12 26	D = 90.1 Az = 323.5 (USCGS)
	e	16 04	PV:1.7s 30.7nm
	eSKS	22 48	LmV:16.5s 7.8/um LmH:16.5s 7.6/um
	e	22 56	MPV=5.3 MLV=6.2 MLH=6.2
	eS	23 15	
	eiSP	24 18	
	eSS	29 19	
	eSSS	32 55	
	eSSSS	35 55	
	LmV	57.0	
	LmH	57.1	
22.	ePn	10 09 12	Germany (GFR) - Austria Border Region
	ePb	09 17	47.5 N 11.0 E
	e	09 45	H = 10 08 20 (BCIS)
	i	09 57.5	D = 3.2
			PV:0.6s 11.9nm
22.	eP	10 45 50	Molucca Passage 1.52 N 125.64 E
	LmV	11 35.6	H = 10 31 45.1 h = 7 km MAG=5.7
			D = 103.8 Az = 323.2 (USCGS)
			PV:2.0s 46.4nm LmV:19s 0.6/um
			MPV=6.0 MLV=5.2
22.	+eP	11 51 30.5	Luzon, Philippine Islands
	LmH	12 34.5	13.15 N 122.59 E
	LmV	35.7	H = 11 38 17.3 h = 17 km MAG=5.5
			D = 92.7 Az = 323.5 (USCGS)
			PV:1.8s 51.0nm
			LmH:16s 0.4/um LmV:18s 0.4/um
			MPV=5.7 MLH=5.0 MLV=5.0
22.	ePKIKP	16 02 51.5	South of Fiji Islands 23.65 S 179.97 W
	+eiPKHKP	03 01	H = 15 44 05.0 h = 516 km MAG=5.3
	e	03 07.5	D = 151.6 Az = 344.4 (USCGS)
	ePKP2	03 11.5	
	epPKP	05 03	
	e	05 17	

Day	Phase	h m s	Remarks
24.	ePKP	21 06 13	Loyalty Islands 21.56 S 170.63 E
			H = 20 46 47.6 h = 142 km MAG=4.8
			D = 146.6 Az = 335.5 (USCGS)
			PV:1.6s 22.7nm
24.	ePKP	21 29 25	Fiji Islands 15.56 S 176.04 W
			H = 21 09 47.9 h = normal MAG=5.3
			D = 144.5 Az = 351.6 (USCGS)
24.	+iP	21 33 03.8	Near East Coast of Honshu, Japan
	i	33 05	40.25 N 142.30 E
	+ipP	33 17	H = 21 20 59.9 h = 51 km MAG=5.9
	eS	43.0	D = 79.7 Az = 330.6 (USCGS)
	LmH	22 09.4	PV1:1.7s 395.0nm PV2:1.8s 459.0nm
	LmV	12.6	LmH:17.5s 3.5/um LmV:17.5s 2.9/um
			MPV1=6.1 MPV2=6.1 MLH=5.8 MLV=5.7
25.	LmH	01 47.5	Probably Revilla Gigedo Islands Region
			(USCGS)
			LmH(C):18.5s 0.6/um
25.	+iP	18 50 45.8	Mindanao, Philippine Islands
	e	50 49	4.99 N 126.87 E
	e	50 52	H = 18 36 53.0 h = 31 km MAG=5.4
	iSKS	19 01 24	D = 101.8 Az = 324.0 (USCGS)
	iS	02 24	PV:1.1s 19.2nm
	ePPS	04 48	LmV:16s 9.8/um LmH:13.5s 8.5/um
	LmV	43.8	MPV=5.6 MLV=6.4 MLH=6.4
	LmH	46.6	
26.	e	00 22 07	South Atlantic Ridge 57.53 S 6.79 W
			H = 00 03 14.3 h = normal MAG=5.6
			D = 108.9 Az = 12.3 (USCGS)
26.	ePKIKP	01 29 05	New Britain 5.31 S 152.01 E
	epPKIKP	29 26	H = 01 10 12.9 h = 68 km MAG=5.5
			D = 124.0 Az = 330.7 (USCGS)
			PV:1.3s 19.4nm

Day	Phase	h m s	Remarks
26.	ePKP2	02 08 41.5	Fiji Islands Region 21.27 S 179.47 W
			H = 01 49 56.3 h = 672 km MAG=5.0 (USCGS)
			D = 149.4
26.	+eP	18 41 25	Lake Baikal 55.87 N 111.38 E
	i	41 30.8	H = 18 31 51.8 h = 4 km MAG=5.1
	LmH	19 06.8	D = 54.8 Az = 309.9 (USCGS)
	LmV	06.9	PV:1.3s 36.1nm
			LmH:17s 2.3/um LmV:16s 2.7/um
			MPV=5.2 MLH=5.3 MLV=5.5
26.	LmH	23 37.2	Probably Ryukyu Islands (USCGS)
			LmH:15s 1.5/um
27.	e	01 18 30	Ryukyu Islands 28.95 N 129.92 E
	LmH	54.3	H = 01 05 55.2 h = normal MAG=5.0
	LmV	59.4	D = 83.9 Az = 325.7 (USCGS)
			LmH:15.5s 3.2/um LmV:16s 1.3/um
			MLH=5.9 MLV=5.4
27.	ePb	02 05 11	France 46.2 N 6.7 E
	eiPg	05 22	H = 02 03 30 (BCIS)
	e	06 22	D = 5.6
	e	06 35	
27.	LmV	23 08.2	Probably Southern Pacific Ocean (USCGS)
	LmH	08.4	LmV(C):23s 0.7/um LmH(C):22s 1.6/um
28.	eiP	07 12 13	Near East Coast of Honshu, Japan
		12 24	40.10 N 142.30 E
			H = 07 00 08.1 h = 47 km MAG=5.0
			D = 79.8 Az = 330.6 (USCGS)
			PV:1.2s 16.3nm
			MPV=4.8
28.	eP	10 48 58	Near East Coast of Oaxaca, Mexico
	ePP	52 16	15.37 N 94.59 W
	eiS	59 32	H = 10 36 07.7 h = 33 km MAG=5.2

Day	Phase	h m s	Remarks
cont.			
28.	eiPS	11 00 32	D = 88.2 Az = 37.7 (USCGS)
	eiPPS	01 06	PV:3.3s 467.0nm SH:13.5s 10.1/um
	LmH	34.8	LmH:17s 11.3/um LmV:17s 14.3/um
	LmV	34.9	MPV=6.5 MSH=6.7 MLH=6.4 MLV=6.5
28.	iPKIKP	16 49 19	Solomon Islands 6.79 S 156.23 E
	eipPKIKP	50 00	H = 16 30 32.1 h = 169 km MAG=5.7
	LmH	17 35.7	D = 127.3 Az = 332.4 (USCGS)
	LmV	45.6	LmV:16s 0.5/um
28.	eP	18 10 07.5	Iran 34.2 N 59.7 E
			H = 18 02 46 (AN USSR)
			D = 38.3
			PV:1.0s 16.8nm
			MPV=4.7
28.	eP	22 19 09.5	Oaxaca, Mexico 16.92 N 94.46 W
			H = 22 06 35.6 h = 119 km MAG=4.4
			D = 86.9 Az = 37.8 (USCGS)
29.	iPg	14 19 39	Probably explosion
	iSg	19 53.5	D = ca. 1.1
29.	e	20 53 16	Probably rock burst
	e	53 45	
29.	ePKP	22 10 54	Fiji Islands 20.05 S 178.51 W
			H = 21 52 12.8 h = 582 km MAG=4.5
			D = 148.4 Az = 349.7 (USCGS)
30.	e	04 43 26.5	
30.	e	06 28 21	

Day	Phase	h m s	Remarks
1.	ePKP2	05 48 12.5	Balleny Islands Region 65.40 S 179.66 E
			H = 05 27 09.3 h = normal MAG=5.2 (USCGS)
			D = 164.0
			PV:2.4s 104.0nm
1.	eP	13 28 19.5	Peru 10.56 S 74.87 W
	e	28 33	H = 13 14 50.6 h = 5 km MAG=5.4
	e	28 53	D = 95.9 Az = 39.7 (USCGS)
	eSKS	38 58	PV:2.2s 126.0nm
	eS	39(35)	LmV:18s 1.6/um LmH:18s 1.8/um
	ePS	40 55	MPV=6.1 MLV=5.6 MLH=5.6
	eSS	45 40	
	LmV	14 12.3	
	LmH	12.5	
1.	ePKP	20 54 29	Fiji Islands 17.76 S 178.64 W
			H = 20 35 47.6 h = 551 km MAG=4.9
			D = 146.2 Az = 348.2 (USCGS)
2.	-iP	02 44 25	Zambia 13.92 S 23.81 E
	i	44 30	H = 02 33 41.6 h = 7 km MAG=6.0
	eS	53 11	D = 65.2 Az = 351.5 (USCGS)
	eSS	57 25	PV1:1.2s 160.0nm PV2:1.0s 121.0nm
	LmH	03 11.6	LmH:17s 3.9/um LmV:14s 3.1/um
	LmV	17.9	MPV1=6.1 MPV2=6.1 MLH=5.7 MLV=5.7
3.	eP	13 59 16	Kurile Islands 49.08 N 156.27 E
			H = 13 47 30.8 h = normal MAG=4.2
			D = 76.1 Az = 337.7 (USCGS)
3.	ePP	19 44 25.5	South of Java 8.41 S 105.73 E
	e	44 30	H = 19 26 39.1 h = 25 km MAG=5.2 (USCGS)
	LmH	20 25.5	D = 99.0
			MLH=5.0 LmH:22s 0.6/um
3.	eiPn	20 59 24.5	Jugoslavia 44.56 N 18.43 E
	ei	59 34	H = 20 57 31.2 h = 7 km MAG=4.7
	ei	21 00 46.5	D = 7.6 Az = 325.3 (USCGS)

Day	Phase	h m s	Remarks
cont.			
3.	iSn	21 00 52	LmH:13s 4.5/um LmV:10.5s 1.5/um
	eiSg	01 37	MLH=4.3
	LmH	02.0	
	LmV	02.8	
3.	eP	21 18 21.5	Kurile Islands 43.39 N 147.25 E
			H = 21 06 20.8 h = normal MAG=4.6
			D = 78.7 Az = 330.0 (USCGS)
			PV:1.0s 16.9nm
			MPV=5.0
4.	iP	18 47 40	Dodekanese Islands 36.37 N 27.12 E
	ei	47 45	H = 18 43 28.1 h = 49 km MAG=4.4
	e	51 06	D = 18.1 Az = 326.8 (USCGS)
	LmH	55.3	PV:1.8s 63.1nm
	LmV	55.4	LmH:10.5s 1.1/um LmV:10s 0.9/um
			MPV=4.5 MLH=4.4 MLV=4.5
4.	eP	18 56 28.5	Dodekanese Islands 36.48 N 27.10 E
	e	56 34	H = 18 52 17.6 h = 42 km MAG=3.9
	LmV	19 04.0	D = 18.0 Az = 326.7 (USCGS)
	LmH	04.1	PV:2.0s 73.0nm
			LmV:10s 0.6/um LmH:11s 0.6/um
			MPV=4.5 MLV=4.3 MLH=4.1
4.	eP	19 41 32	Dodekanese Islands 36.50 N 27.08 E
	e	41 34.5	H = 19 37 23.5 h = 51 km MAG=4.7
	e	41 39	D = 18.0 Az = 326.6 (USCGS)
	eS	45 00	PV:1.8s 90.2nm
	LmH	49.2	LmH:10.5s 0.9/um LmV:10s 0.7/um
	LmV	49.3	MPV=4.6 MLH=4.3 MLV=4.4
4.	eP	21 51 18	Carlsberg Ridge 8.40 N 58.38 E
	e	51 27	H = 21 41 32.6 h = normal MAG=5.1
			D = 57.1 Az = 326.5 (USCGS)
			PV:1.8s 45.1nm
			MPV=4.8

Day	Phase	h m s	Remarks
5.	+eP	07 56 18	Dodekanese Islands 36.59 N 26.97 E
	eS	59 44	H = 07 52 11.0 h = 35 km MAG=5.5
	LmH	08 04.0	D = 17.9 Az = 326.7 (USCGS)
	LmV	04.1	LmH:11.5s 15.7/um LmV:10.5s 15.9/um
			MLH=5.5 MLV=5.7
5.	-iP	09 49 08	Iceland 63.92 N 21.72 W
	eiS	53 11	H = 09 44 11.0 h = 5 km MAG=5.5
	LmH	10 00.8	D = 22.1 Az = 111.3 (USCGS)
	LmV	00.8	SH:12.5s 15.3/um
			LmH:12s 31.3/um LmV:12s 41.6/um
			MSH=6.3 MLH=6.0 MLV=6.1
5.	e	17 31 24	Dodekanese Islands 36.57 N 26.92 E
			H = 17 27 21.7 h = normal MAG=3.8
			D = 17.9 Az = 326.8 (USCGS)
5.	LmH	20 01.5	Probably Off Coast of Central America (USCGS)
	LmV	01.5	LmH:23s 0.8/um
5.	ePn	22 35 04	Jugoslavia 44.7 N 17.4 E
	ei	36 10	H = 22 33 15 (BCIS)
	eiSn	36 30	D = 7.1
	e	36 44	
	e	36 52	
5.	e	23 09 36	LmV(C):18s 0.6/um LmH(C):20s 1.3/um
	LmV	18.6	
	LmH	18.7	
6.	iPg	11 59 27	Explosion 49°49.5'N 13°10'E 4 to (PRU)
	iSg	59 44	D = ca. 1.3
6.	e	14 06 39	
	e	06 50	
6.	ePKP	22 18 47	Samoa Islands 16.87 S 172.55 W
	e	18 57	H = 21 59 07.9 h = normal MAG=4.5
			D = 146.1 Az = 355.2 (USCGS)

Day	Phase	h m s	Remarks
7.	e	05 16 52	Near North Coast of New Guinea
	e	16 54	3.42 S 145.88 E
	e	17 57	H = 04 57 49.0 h = 15 km MAG=5.3
	ePP	18 05	D = 119.3 Az = 328.5 (USCGS)
	e C	18 09	LmH:20.5s 25.4/um LmV:19s 25.0/um
	e B	18 10	MLH=6.8 MLV=6.9
	e	25 10	
	ePS	27 48	
	eSS B	34 42	
	eiSS C	34 48	
	LmH	06 07.8	
	LmV	10.7	
7.	iPg	12 51 54.5	Explosion
	iSg	52 23.5	D = ca. 2.3
7.	eP	15 52 49.5	Rat Islands, Aleutian Is.
	e	52 51	51.58 N 175.68 E
	ePP	55(48)	H = 15 40 57.9 h = normal MAG=5.3
	eS	16 02 48	D = 77.3 Az = 349.7 (USCGS)
	ePS	03 27	PV2:1.6s 88.0nm
	eSS	07(40)	LmH:16s 1.5/um LmV:15s 0.6/um
	LmH	44.5	MPV=5.6 MLH=5.4 MLV=5.1
	LmV	48.5	
7.	+iP	15 58 35	Rat Islands, Aleutian Is.
	e	58 42	51.55 N 175.79 E
			H = 15 46 45.2 h = 59 km MAG=5.0
			D = 77.3 Az = 349.7 (USCGS)
			PV:1.5s 35.1nm
			MPV=5.1
7.	eP	16 05 00	Rat Islands, Aleutian Is.
			51.51 N 175.58 E
			H = 15 53 05.5 h = normal MAG=4.7
			D = 77.3 Az = 349.6 (USCGS)

Day	Phase	h m s	Remarks
7.	eP	16 08 07	Rat Islands, Aleutian Is.
	e	08 18	51.43 N 175.60 E
			H = 15 56 13.6 h = normal MAG=4.8
			D = 77.4 Az = 349.6 (USCGS)
			PV:1.2s 13.3nm
			MPV=5.0
7.	eP	16 12 18	Rat Islands, Aleutian Is.
			51.56 N 175.69 E
			H = 16 00 25.5 h = normal MAG=4.7
			D = 77.3 Az = 349.7 (USCGS)
7.	ePKIKP	17 29 15	New Hebrides Islands 14.02 S 166.81 E
	LmH	18 32.0	H = 17 09 52.5 h = 56 km MAG=5.1
	LmV	38.0	D = 138.3 Az = 336.6 (USCGS)
			PV:1.8s 27.0nm
			LmH:20s 0.7/um LmV:18s 0.5/um
			MLH=5.4
7.	e	17 32 50	
7.	eiPKIKP	20 54 17	Off Coast of Southern Chile
	ePP	55 55	44.95 S 80.27 W
	eSKSP	21 06 00	H = 20 35 21.2 h = normal MAG=5.6
	e	07 35	D = 123.9 Az = 50.1 (USCGS)
	eSS	13 28	PV:1.6s 63.3nm
	eSSS	17 44	LmV:20s 1.1/um LmH:20s 1.1/um
	LmV	45.3	MLV=5.5 MLH=5.5
	LmH	45.5	
7.	+eiPKP	21 55 17	New Hebrides Islands 20.66 S 169.40 E
	i	55 17.5	H = 21 35 44.8 h = 61 km MAG=5.6
	i	55 19.5	D = 145.3 Az = 335.0 (USCGS)
	epPKP	55 34	PV3:1.8s 546.0nm
	eisPKP A	55 42	LmV:24s 1.3/um LmH:24s 1.5/um
	isPKP B	55 45	
	i	55 52	
	eSS	22 17 40	

Day	Phase	h m s	Remarks
cont.			
7.	eSSS	22 22 40	
	LmV	58.8	
	LmH	59.0	
7.	e	23 52 08	
8.	ePKP2	07 47 03	West of Maquarie Islands
	e	47 24	53.72 S 140.17 E
			H = 07 27 10.0 h = normal
			D = 148.9 Az = 285.6
			PV:2.0s 42.6nm
8.	eP	09 21 02.5	Ryukyu Islands 27.42 N 128.32 E
	LmH	56.0	H = 09 08 34.5 h = 54 km MAG=5.1
	LmV	10 03.1	D = 84.3 Az = 325.1 (USCGS)
			PV:1.5s 35.2nm
			LmH:20s 0.4/um LmV:18s 0.4/um
			MPV=5.4 MLH=4.8 MLV=4.9
8.	e	16 00 08	Kirgiz SSR 41.58 N 75.10 E
			H = 15 51 59.9 h = normal MAG=4.8
			D = 43.7 Az = 304.4 (USCGS)
8.	ePKP	20 18 09	Samoa Islands 16.46 S 172.81 W
	e	18 35	H = 19 58 32.2 h = normal MAG=4.9
	LmH	29.9	D = 145.7 Az = 355.0 (USCGS)
	LmV	37.3	PV:2.4s 69.0nm LmV:16s 0.3/um
9.	e	01 39 53	Spain 39.40 N 0.11 W
	e	44 14	H = 01 36 26.0 h = normal MAG=4.5
	LmH	45.3	D = 14.0 Az = 32.5 (USCGS)
	LmV	45.8	LmH:11s 2.9/um LmV:12s 2.3/um
			MLH=4.6
9.	ePg	01 53 06	Switzerland 46.3 N 7.7 E
	i	53 12.5	H = 01 51 29 (BCIS)
	eSg	53 14	D = 5.1
			PV:0.6s 30.7nm

Day	Phase	h m s	Remarks
9.	ePb	05 14(29)	Yugoslavia 45.7 N 14.1 E
	iSn	15 16	H = 05 12 56 (BCIS)
	eiSg	15 45	D = 5.2
	e	15 48	
9.	LmH	10 59.5	Probably New Britain Region (USCGS)
	LmV	11 02.0	LmV:20s 0.4/um
9.	eP	20 26 27	Dodekanese Islands 36.53 N 26.97 E
	LmV	34.9	H = 20 22 21.5 h = 93 km MAG=3.8
	LmH	35.0	D = 17.9 Az = 326.8 (USCGS)
			PV:1.3s 21.8nm
			LmV:12s 0.6/um LmH:12s 0.6/um
			MPV=4.2
10.	eP	11 31 50	Greece 38.86 N 21.61 E
	LmH	36.5	H = 11 28 37.5 h = 65 km MAG=4.6
	LmV	37.8	D = 13.7 Az = 332.3 (USCGS)
			LmH:14s 1.7/um LmV:14s 0.7/um
11.	ePKHKP	03 11 13	South of Fiji Islands 23.81 S 176.42 W
	ePKP2	11 28	H = 02 51 42.9 h = 244 km MAG=4.5
	e	11 42	D = 152.5 Az = 348.9 (USCGS)
	e	11 47	
	e(pPKP)	12 13	
11.	eP	11 57 49	Shikoku, Japan 38.60 N 133.99 E
	e	57 50	H = 11 45 30.8 h = 32 km MAG=5.4
	+ipP	57 59	D = 81.9 Az = 327.1 (USCGS)
	LmH	12 37.5	PV2:2.0s 85.5nm pPV:2.0s 152.0nm
	LmV	38.4	LmH:18s 1.7/um LmV:16s 1.6/um
			MPV=5.5 MLH=5.5 MLV=5.5
11.	ePg	13 00 15	Explosion
	eSg	00 28	D = ca.1.0
11.	eP	20 37(18)	North Atlantic Ridge 24.51 N 45.61 W
	e	37 32	H = 20 28 16.0 h = normal MAG=4.8
			D = 50.8 Az = 43.7 (USCGS)

Day	Phase	h m s	Remarks
11.	ePKHKP	21 53 55	South of Fiji Islands 23.88 S 176.13 W
	e	54 03	H = 21 34 07.5 h = 95 km MAG=5.4
	e	54 11	D = 152.6 Az = 349.2 (USCGS)
	e	54 16	PV:1.2s 28.4nm
	e	54 57	
11.	ePKHKP	22 50 47	South of Fiji Islands 23.71 S 176.17 W
	LmH	23 12.4	H = 22 30 53.2 h = normal MAG=4.9
	LmV	17.7	D = 152.4 Az = 349.3 (USCGS)
			LmH:20s 0.7/um LmV:18s 0.9/um
			MLH=5.4
12.	ePKP	00 44 21	Fiji Islands 15.83 S 177.84 W
			H = 00 24 39.0 h = 20 km MAG=5.1
			D = 144.4 Az = 349.6 (USCGS)
			PV:1.5s 40.3nm
12.	+iP	05 38 59	Mindanao, Philippine Islands
			9.67 N 125.73 E
			H = 05 25 37.2 h = 113 km MAG=5.6
			D = 97.3 Az = 324.1 (USCGS)
			PV:1.4s 39.5nm
			MPV=5.8
12.	-iPKP	07 38 32.5	Fiji Islands 15.99 S 177.77 W
			H = 07 19 44.8 h = 431 km MAG=5.5
			D = 144.6 Az = 349.7 (USCGS)
			PV:1.4s 116.0nm
12.	+iPg	10 01 03	Probably explosion
	e	01 04	D = ca. 1.6
	e	01 18	PV2:1.1s 40.3nm
	iSg	01 23	
12.	LmH	16 58.1	Probably Luzon, Philippine Islands (USCGS)
	LmV	59.9	LmH:18s 0.6/um LmV:14s 0.6/um

Day	Phase	h m s	Remarks
12.	eP	17 39 05	Western Gulf of Aden 12.08 N 45.87 E
			H = 17 30 30.2 h = normal MAG=4.6
			D = 47.5 Az = 330.9 (USCGS)
13.	ePg	00 49 02	Italy 46.1 N 11.0 E
	eSn	49 28	H = 00 47 23 (BCIS)
			D = 4.6
14.	eiP	10 10 55	Rat Islands, Aleutian Islands
	e	11 05	51.48 N 175.75 E
	ePP	13 48	H = 09 59 02.3 h = normal MAG=5.2
	ePPP	15 40	D = 77.4 Az = 349.7 (USCGS)
	eS	20 50	PV:2.4s 174.0nm
	iPS	21 32	LmH:17s 3.5/um LmV:17s 2.3/um
	eSS	25.58	MPV=5.8 MLH=5.7 MLV=5.6
	LmH	50.6	
	LmV	55.2	
14.	ePg	10 20 40	Explosion
	eSg	20 54	D = ca. 1.0
14.	eP	11 55 34	South of Indian Ocean 3.09 S 85.46 E
	e	55 44	H = 11 43 14.2 h = normal MAG=5.1
			D = 82.2 Az = 321.9 (USCGS)
14.	ePn	17 46 52	Central Italy 43.95 N 11.63 E
	ePg	47 23	H = 17 45 11.8 h = normal MAG=4.0
	eSn	48 07	D = 6.7 Az = 359.9
	eSg	48 54	
15.	+iP B	02 26 09.5	Rat Islands, Aleutian Is.
	iP A	26 10	51.65 N 175.80 E
	epP	26 19	H = 02 14 17.5 h = normal MAG=5.7
	ePP	29 08	D = 77.2 Az = 349.7 (USCGS)
	ePPP	31 00	PV:2.2s 454.0nm
	eiS C	36 00	LmH:19s 8.0/um LmV:16s 5.8/um
	iS B	36 08	MPV=6.2 MLH=6.1 MLV=6.0
	eSS	41 00	

Day	Phase	h m s	Remarks
cont.			
15.	eSSS	02 44 40	
	LmH	03 02.2	
	LmV	10.3	
15.	iP	02 40 24	Rat Islands, Aleutian Is.
	i	40 25	51.72 N 175.78 E
	LmH	03 20.0	H = 02 28 32.4 h = normal MAG=5.4
			D = 77.1 Az = 349.7 (USCGS)
			PV:1.9s 129.0nm LmH:16s 6.6/um
			MPV=5.7 MLH=6.0
15.	iPKHKP	09 21 27	Fiji Islands 20.59 S 178.03 W
			H = 09 02 31.3 h = 470 km MAG=4.7
			D = 149.1 Az = 348.0 (USCGS)
			PV:1.3s 30.4nm
15.	eiP	14 13 23.5	Kurile Islands 49.61 N 155.69 E
	e	13 27	H = 14 01 43.5 h = 50 km MAG=5.4
	e	14 04	D = 75.5 Az = 337.3 (USCGS)
			PV:1.6s 49.4nm
			MPV=5.2
16.	e	03 20 15	South of Panama 7.12 N 82.24 W
			H = 03 07 24.1 h = 16 km MAG=5.3
			D = 87.0 Az = 39.5 (USCGS)
16.	e	10 12 42	Svalbard 79.81 N 5.24 E
			H = 10 06 24.7 h = normal MAG=4.2
			D = 29.4 Az = 171.7 (USCGS)
16.	ePKP	11 06 12	New Hebrides Islands 17.96 S 108.08 E
			H = 10 46 46.6 h = 49 km MAG=5.1
			D = 142.4 Az = 335.4 (USCGS)
			PV:1.1s 12.1nm
16.	ePKHKP	11 46 07	South of Fiji Islands 24.24 S 179.04 E
	iPKP2	46 18	H = 11 27 13.2 h = 550 km MAG=3.9
			D = 151.9 Az = 342.9 (USCGS)

Day	Phase	h m s	Remarks
16.	eP	21 35 09	Off East Coast of Honshu, Japan
	epP	35 18	39.77 N 143.57 E
	LmH	22 10.2	H = 21 22 57.1 h = 26 km MAG=4.7
	LmV	17.5	D = 80.6 Az = 331.3 (USCGS)
			PV:2.0s 68.4nm
			LmH:17.5s 3.2/um LmV:18s 2.2/um
			MPV=5.3 MLH=5.7 MLV=5.6
17.	eP	12 13 11	Southern Alaska 60.17 N 152.84 W
	i	13 12.2	H = 12 02 15.0 h = 86 km MAG=5.9
	ipP	13 36	D = 68.8 Az = 10.5 (USCGS)
	iS	22 07	PV:1.2s 590.0nm
	isS	22 56	MPV=6.4
	ePKPPKP	41 16	e 41 (06) e 41 10 e 41 23 e 42 52
	eSKPPKP	44(40)	
	ePKPPKS	44 50	
17.	e	17 26 16	
17.	eP	22 28 36	Off East Coast of Honshu, Japan
	e	28 46	39.56 N 143.54 E
			H = 22 16 26.1 h = 57 km MAG=4.6
			D = 80.8 Az = 331.3 (USCGS)
			PV:1.5s 25.1nm
			MPV=4.9
18.	iPKP	04 57 30.4	Loyalty Islands 21.75 S 169.85 E
			H = 04 37 50.7 h = 24 km MAG=4.8
			D = 146.5 Az = 334.7 (USCGS)
			PV:1.0s 31.5nm
18.	eP	05 09 46	Eastern Kazakh SSR 49.72 N 78.06 E
	i	09 47.4	H = 05 01 57.0 h = 0 km MAG=5.2
	i	09 51.9	D = 41.3 Az = 297.7 (USCGS)
	ePn	11 19	PV2:0.8s 30.8nm
			MPV=5.1

Day	Phase	h m s	Remarks
18.	ePKP	17 47 55	Tonga Islands 19.54 S 173.45 W
	e	48 09	H = 17 28 10.2 h = normal MAG=4.9
			D = 148.7 Az = 353.8 (USCGS)
			PV:2.0s 38.4nm
18.	LmH	20 24.9	Probably Near East Coast of Honshu, Japan
	LmV	31.3	
18.	ePKIKP	20 22 45.5	Fiji Islands 19.89 S 177.63 W
	iPKHKP	22 48	H = 20 03 43.9 h = 367 km MAG=5.5
	ePKP2	22 53	D = 148.4 Az = 348.7 (USCGS)
	epPKP	24 24	
	eSKP	25 52	
18.	eP	21 06 34	Carlsberg 8.42 N 58.36 E
			H = 20 56 48.3 h = normal MAG=4.8
			D = 57.1 Az = 326.5 (USCGS)
19.	eP	00 40 40	Molucca Sea 0.18 S 124.34 E
			H = 00 26 37.9 h = 46 km MAG=5.5
			D = 104.4 Az = 322.7 (USCGS)
19.	+iP	05 25 44.8	Hindu Kush 36.14 N 70.11 E
	ipP	26 17	H = 05 17 51.7 h = 151 km MAG=5.4
	eiPP	27 21	D = 43.8 Az = 308.3 (USCGS)
	eipPP	27 57	PV:1.4s 192.0nm LmV:13.5s 1.7/um
	e	28 18	MPV=5.5
	eS	32 00	
	esS	33 00	
	eSS	35 12	
	ei	35 25	
	LmV	47.7	
	LmH	47.8	
19.	+iP	15 27 24.8	Near East Coast of Kamchatka
	iPcP	27 43	53.32 N 160.14 E
	eS C	36 40	H = 15 15 55.7 h = normal MAG=5.4
	eS B	36 44	D = 73.1 Az = 339.7 (USCGS)

Day	Phase	h m s	Remarks
cont.			
19.	ePPS	15 37 36	LmH:22s 4.9/um LmV:14s 3.3/um
	e	42 40	MLH=5.7 MLV=5.8
	LmH	58.3	
	LmV	16 05.5	
19.	+iP	16 42 18.1	Southern Nevada, nuclear explosion
	ePP	45 22	37.23 N 116.47 W
	LmV	17 21.3	H = 16 30 00.0 h = 0 km MAG=6.3
	LmH	21.6	D = 81.3 Az = 30.5 (USCGS)
			PV:1.5s 310.0nm
			LmV:14s 2.4/um LmH:14s 2.9/um
			MPV=6.1 MLV=5.7 MLH=5.8
20.	ePg	12 00 05	Explosion 50°34.8'N 14°00.9'E 10.4 to
	iSg	00 25.5	(PRU)
			D = ca. 1.6
			PV:0.7s 38.8nm
20.	ePKIKP	17 01 23	South of Fiji Islands 23.69 S 176.15 W
	ePKHKP	01 31	H = 16 41 41.4 h = 64 km MAG=4.9
	ePKP2	01 40	D = 152.4 Az = 349.3 (USCGS)
	e	01 44	
	e	01 50	
20.	e(P)	21 55 29	Mindanao, Philippine Islands
	e	55 39	9.17 N 125.44 E
			H = 21 41 59.5 h = 93 km MAG=5.2
			D = 97.6 Az = 324.0 (USCGS)
			LmH:24s 1.1/um
21.	eP	00 40 48	Dodekanese Islands 36.56 N 27.11 E
	+i	40 50.5	H = 00 36 37.3 h = 17 km MAG=4.6
	LmH	49.3	D = 17.9 Az = 326.5 (USCGS)
	LmV	49.3	LmH:11.5s 2.1/um LmV:8s 2.8/um
			MLH=4.1
21.	eP	03 08 55.5	Dodekanese Islands 36.5 N 27.0 E
			H = 03 04 43 (BCIS)
			D = 17.9

Day	Phase	h m s	Remarks
21.	eP	13 10 21.5	Off East Coast of Honshu, Japan
	epP	10 31	40.58 N 143.75 E
	LmH	44.5	H = 12 58 14.4 h = normal MAG=4.5
	LmV	52.0	D = 80.0 Az = 331.4 (USCGS)
			LmH:19s 2.4/um LmV(C):16s 0.8/um
			MLH=5.5 MLV=5.2
21.	ePKP	22 26 02.5	Tonga Islands 20.54 S 174.71 W
			H = 22 06 14.3 h = normal MAG=4.6
			D = 149.5 Az = 352.1 (USCGS)
22.	-eiP	09 17 03.5	Tsinghai Province, China 36.20 N 101.88 E
	e	17 28	H = 09 06 36.3 h = normal MAG=5.5
	ePP	19 22	D = 63.2 Az = 314.5 (USCGS)
			PV:1.7s 69.5nm
			MPV=5.5
22.	ePKP	13 00 30	Fiji Islands 20.28 S 178.05 W
			H = 12 41 42.2 h = 527 km MAG=4.3
			D = 148.7 Az = 348.1 (USCGS)
			PV:1.0s 21.9nm
22.	LmH	16 38.0	Probably Bismarck Sea (USCGS)
	LmV	38.5	
22.	+iP	16 56 11.3	Kodiak Islands 56.31 N 153.84 W
	-ipP	56 19	H = 16 44 44.2 h = normal MAG=5.3
			D = 72.7 Az = 9.6 (USCGS)
			PV:1.7s 120.0nm
			MPV=6.0
22.	LmH	18 41.0	Probably West New Guinea Region
			LmH:18s 5.5/um
23.	e	04 17 08	
23.	LmH	06 58.4	Probably Molucca Passage (USCGS)
			LmH(C):25s 1.2/um

Day	Phase	h m s	Remarks
23.	eP	11 37 23	Southern Italy 39.74 N 16.81 E
			H = 11 34 38.5 h = normal MAG=4.1
			D = 11.5 Az = 343.2
			PV:1.5s 24.8nm
23.	e	21 08 03	
24.	e	00 10 10	
24.	e	00 44 53	
24.	eP	12 13 26	Kurile Islands 43.44 N 146.74 E
	e	13 31.5	H = 12 01 27.3 h = 39 km MAG=4.7
	e	13 35.5	D = 78.5 Az = 332.7 (USCGS)
			PV:1.3s 17.5nm
			MPV=5.0
25.	ePKIKP	00 54 45	Fiji Islands 20.77 S 178.38 W
	eiPKHKP	54 50	H = 00 36 05.6 h = 570 km MAG=4.6
	ePKP2	54 57.5	D = 149.2 Az = 347.5 (USCGS)
			PV:1.5s 30.0nm
25.	-iP	04 08 38.5	Hokkaido, Japan 41.75 N 142.82 E
	e	08 44	H = 03 56 39.2 h = 36 km MAG=5.3
	e(PP)	11 49	D = 78.6 Az = 330.7 (USCGS)
	LmH	42.1	PV:1.3s 30.6nm
	LmV	48.0	LmH:17.5s 3.9/um LmV:12s 1.6/um
			MPV=5.2 MLH=5.8 MLV=5.6
25.	eP	07 56 26	Andreanof Islands, Aleutian Is.
			51.70 N 174.28 W
			H = 07 44 30.3 h = 40 km MAG=4.1
			D = 77.9 Az = 356.2 (USCGS)
25.	ePKP2	08 46 05	South of Kermadec Islands
	e	46 16.5	32.07 S 178.02 W
			H = 08 25 29.1 h = normal MAG=4.9 (USCGS)
			D = 160.1
			PV:1.4s 23.2nm

Day	Phase	h m s	Remarks
25.	eP	08 59 42	Fox Islands, Aleutian Is.
			53.03 N 167.68 W
			H = 08 47 54.4 h = 46 km MAG=4.6
			D = 76.7 Az = 0.5 (USCGS)
			PV:1.1s 20.2nm
			MPV=5.2
25.	eP	12 21 29	Crete 35.13 N 24.33 E
	e	21 35	H = 12 17 20.8 h = 68 km MAG=5.0
	ei	27 37.5	D = 18.1 Az = 333.1 (USCGS)
	i	27 42	PV:1.4s 32.4nm
	LmH	30.1	LmH:14.5s 2.2/um LmV:14s 2.2/um
	LmV	30.1	MPV=4.3 MLH=4.5
25.	eiPKP2	19 17 16.5	Kermadec Island Region 30.19 S 177.90 W
			H = 18 56 49.4 h = 50 km MAG=4.9 (USCGS)
			D = 158.4
			PV:1.2s 12.5nm
25.	ePKP2	23 01 49	Kermadec Islands Region 30.70 S 178.11 W
			H = 22 41 16.1 h = 43 km MAG=4.9 (USCGS)
			D = 158.9
26.	ePKP2	13 42 11	Fiji Islands 18.01 S 178.73 W
			H = 13 23 38.0 h = 666 MAG=4.1
			D = 146.4 Az = 348 (USCGS)
27.	LmH	08 02.8	Sinkiang, China, Atmospheric nuclear
	LmV	02.8	explosion (UPP)
			LmH:15s 0.8/um LmV:16s 1.5/um
27.	-eP	14 48 55	India-East Pakistan Border Region
	epP	49 04	24.13 N 91.60 E
			H = 14 38 11.6 h = 26 km MAG=5.2
			D = 65.5 Az = 316.5 (USCGS)
28.	LmH	07 40.0	Probably West New Guinea (USCGS)
	LmV	40.0	

Day	Phase	h m s	Remarks
29.	ePKHKP	02 15 41	Kermadec Islands 29.95 S 178.17 W
	ePKP2	16 00	H = 01 55 33.5 h = 66 km MAG=5.1
	e	16 12	D = 158.1 Az = 343.2 (USCGS)
	e	16 39	PV:1.3s 13.2nm
29.	e	04 28 39	
29.	ePKP	05 32 53.5	Tonga Islands 15.55 S 173.37 W
			H = 05 13 29.7 h = 125 km MAG=4.9
			D = 144.8 Az = 354.5 (USCGS)
29.	eP	07 28 54.5	Mindoro, Philippine Islands
	ePP	32 27.5	13.58 N 120.55 E
	e	32 32	H = 07 15 50.5 h = normal MAG=5.4
	e	32 42	D = 91.2 Az = 323.0 (USCGS)
	e	32 52	PV:1.3s 17.5 nm
	eS	39 50	LmH:16s 2.8/um LmV:13s 1.8/um
	ePS	41 00	MPV=5.2 MLH=5.8 MLV=5.7
	eSS	46 00	
	LmH	08 11.5	
	LmV	16.9	
29.	e	08 09 22.5	South of Kermadec Islands
	ePKP2	09 42	32.00 S 178.31 W
			H = 07 49 21.2 h = 170 km MAG=4.7
			D = 160.0 Az = 341.3 (USCGS)
29.	ePn	16 46 22.5	Switzerland 46.1 N 7.5 E
	e	47 48.5	H = 16 45 01 (BCIS)
	eSn	47 53.5	D = 5.3
	e	47 58	
29.	eP	17 49 13	Near Coast of Chiapas, Mexico
	e	49 15	14.49 N 92.40 W
	e	49 37.5	H = 17 36 29.9 h = 60 km MAG=5.4
	eS	59 45	D = 87.6 Az = 38.2 (USCGS)
	eSS	18 05 35	PV2:2.0s 29.8nm
	eSSS	09.6	LmV:14s 0.7/um LmH:17.5s 1.6/um
	LmV	30.7	MPV=5.2
	LmH	31.3	

Day	Phase	h m s	Remarks
29.	ePKP	20 22 05.5	Fiji Islands 20.19 S 177.95 W
			H = 20 03 19.4 h = 550 km MAG=4.5
			D = 148.7 Az = 348.3 (USCGS)
			PV:1.3s 28.4nm
30.	ePKP	05 08 17.5	Samoa Islands 16.29 S 172.58 W
	e	08 23	H = 04 48 40.9 h = normal MAG=5.2
	e	08 29	D = 145.6 Az = 355.3 (USCGS)
	e	08 36	
	e	08 53	
30.	+iP	07 14 29	Kodiak Islands 57.59 N 151.38 W
	-ipP	14 39	H = 07 03 11.7 h = 34 km MAG=5.4
	e	14 52	D = 71.2 Az = 11.3 (USCGS)
			PV:1.2s 62.7nm
			MPV=5.6
30.	ePKHKP	09 32 15	South Pacific Cordillera 55.22 S 129.02 W
			H = 09 12 14.8 h = normal MAG=4.8
			D = 156.1 Az = 84.6 (USCGS)
30.	+iP	10 32 40	Svalbard 76.23 N 7.47 E
	ipP	32 47	H = 10 27 09.7 h = 23 km MAG=5.0
	eS	37 16	D = 25.7 Az = 173.9 (USCGS)
	iS	37 20	PV:0.9s 50.7nm SH:14s 1.2/um
	LmV	44.2	LmV:12.5s 1.9/um LmH:14.5s 1.9/um
	LmH	44.3	MPV=5.2 MSH=5.5 MLV=5.0 MLH=4.8
30.	eP	22 24 07.5	Taiwan 23.23 N 121.48 E
	e	24 28	H = 22 11 34.0 h = 2 km MAG=4.7
	LmH	23 02.0	D = 84.1 Az = 323.0
	LmV	06.7	LmH:13s 1.3/um LmV:12s 1.5/um
			MLH=5.5 MLV=5.6