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# Seismological Bulletin 1977
# Station Moxa (MOX)

By

Johannes Stelzner, Dorothea Güth,
and Joachim Weyrauch

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## 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

P diff — direct longitudinal wave diffracted around the core boundary

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 at the earth surface with permanent longitudinal character

PKKP — core 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 at 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, . . , S1, S2, . . . — 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 astenosphere 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

The phase symbol is followed by the designation of the type of seismometer from which the time of onsets is taken.

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. Measurements 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. The symbol of phase and component is followed by the symbol of the type of instruments e.g.: PV A, PV B, LmH B, LmV C.

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 micrometre = $10^{-3}$ millimetre) e. g.: PVA 1.3 s 38.6 nm, SHB 10 s 3.2 μm, LmH B 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 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.

MB — magnitude of vertical component V of the first onset of P-waves given by NEIS

MS — magnitude of horizontal component H of the maximum surface wave given by NEIS

M — magnitude calculated from given data of station Moxa. Notice the wave type and the type of instruments written on the same line

*3. Direction of body-wave onsets*

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

| | | |
|---|---|---|
| in the Z component | + | ground motion upwards, compression |
| | — | ground motion downwards, dilatation |
| 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 distances in degree (°), calculated to geocentric coordinates, the maximum error of the own calculations amounts to ± 0,1°.

Az — azimuth: clockwise measured angle between north direction in epicentre and the connecting line from epicentre to station Moxa

h — depth of focus in km. In case of own depth determinations on the basis of identified depth phases the travel-time curves for deep focus earthquakes after Gutenberg and Richter [5] are used.

H — origin time in UTC (Universal Time)

NEIS — National Earthquake Information Service, Boulder, Colorado, USA

CSEM — Centre Séismologique Européo-Méditerranéen, Strasbourg, France

ANUSSR — Akademia Nauk USSR, Moscow, USSR

ERDA — Energy Research and Development Administration, Las Vegas, Nevada, USA

ISC — International Seismological Centre, Newbury, UK

All source data given in the column "Remarks" which are not the result of Moxa data evaluations are followed in brackets by the abbreviations of the reporting agency or station, respectively (e. g. NEIS, ISC, PRU). For abbreviation of seismological stations and other agencies in the international three letter code see the introductions to the Regional Catalogue of Earthquakes, Newbury and the Bulletin of the International Seismological Centre, Newbury. In all other instances round brackets indicate uncertainties in interpretation of phases, time, depth of focus or epicentral distances, respectively.

[1] Bolt, A., The velocity of seismic waves near the earth's center. Bull. Seism. Soc. Am. 54 (1964) 1, 191—208.
[2] Båth, M., Propagation of Sn and Pn teleseismic distances. Pure and Applied Geophysics 65 (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 Central Earth Physics Institute

| | |
|---|---|
| Elevation above mean sea level: | 455 m |
| Bedrock: | 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<br>Seismological Service<br>DDR-6900, Jena, Burgweg 11<br>German Democratic Republic |
| | Telex: 058 86275 seis dd |

## Seismographs and their parameters 1977

$T_s$ — 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
$\sigma^2$ — 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] | $D_s$ | $D_g$ | $V_0$ | $\sigma^2$ |
|---|---|---|---|---|---|---|---|---|
| | VSJ-II | Z | 0.23 | 0.065 | 0.33 | 1.2 | 300000 | 0.048 |
| | VSJ-II | Z | 1.0 | 1.0 | 0.5 | 0.5 | 47200 | 0.560 |
| A | SKM-III | N | 1.64 | 0.39 | 0.52 | 1.97 | 24000 | 0.047 |
| | | E | 1.63 | 0.40 | 0.50 | 1.93 | 24700 | 0.047 |
| | | Z | 1.64 | 0.39 | 0.52 | 1.96 | 23400 | 0.050 |
| B | SSJ-I | N | 20 | 1.15 | 0.51 | 8.70 | 1100 | 0.080 |
| | | N | 20 | 1.125 | 0.51 | 8.89 | 110 | 0.080 |
| | | E | 20 | 1.15 | 0.50 | 8.73 | 1060 | 0.082 |
| | | E | 20 | 1.12 | 0.50 | 8.97 | 90 | 0.082 |
| | | Z | 20 | 1.146 | 0.50 | 8.73 | 1020 | 0.091 |
| | | Z | 20 | 1.175 | 0.50 | 8.51 | 130 | 0.091 |
| C | SSJ-I/L (until Oct.) | N | 30 | 85.0 | 1.42 | 0.5 | 1140 | 0.095 |
| | | E | 30 | 75.8 | 1.26 | 0.5 | 1070 | 0.056 |
| | | Z | 30 | 87.7 | 1.46 | 0.5 | 1040 | 0.094 |
| C | SSJ-I/L (from Oct. 08) | N | 30 | 85.6 | 1.43 | 0.5 | 1030 | 0.104 |
| | | E | 30 | 75.8 | 1.26 | 0,5 | 1080 | 0.056 |
| | | Z | 30 | 87.7 | 1.46 | 0.5 | 1020 | 0.094 |



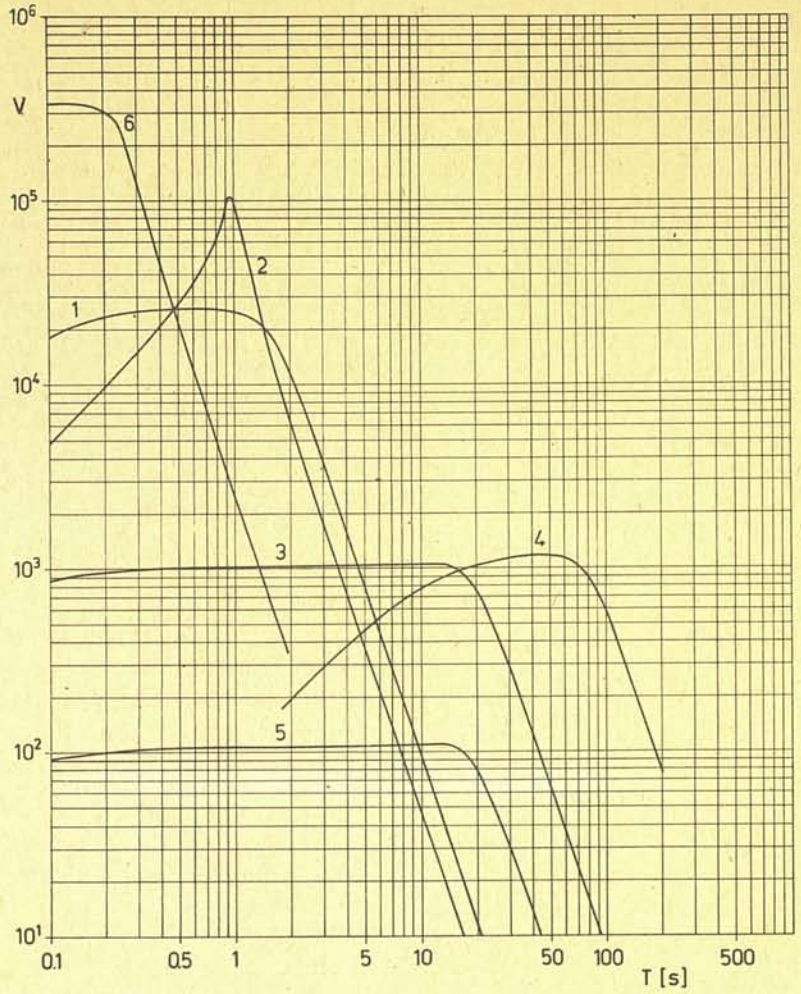


Fig. 1. Station Moxa, mean amplitude characteristics 1977

1 — Seismograph Kirnos Modified-III (SKM-III) (NS-, EW- and Z-component)
2 — Seismograph Type Jena II (Z-component)
3 — Seismic Station Apparatus Type Jena I/1000 (SSJ-1/1000) (NS-, EW- and Z-component)
4 — Seismic Station Apparatus Type Jena I/L (SSJ-I/L) (NS-, EW- and Z-component)
5 — Seismic Station Apparatus Type Jena I/100) (SSJ-I/100) (NS-, EW- and Z-component)
6 — Seismograph Type Jena II (Z-component)

# Seismological Recordings at Station Moxa 1977

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 1. | iPn | A | 17 10 13 | Northern Italy 46.61 N 12.75 E |
| | ePg | A | 10 32 | H = 17 09 11.9 h = 33 km |
| | iSn | A | 11 02.5 | D = 4.11 Az = 350 (NEIS) |
| | eSg | A | 11 26 | |
| 1. | eP | A | 19 15 58 | Ceram Sea 2.53 S 126.58 E |
| | ePP | BC | 20 28 | H = 19 01 39.6 h = 33 km MB=6.0 MS=6.1 |
| | ePPP | BC | 22 32 | D = 107.6 Az = 323 (NEIS) |
| | eS | BC | 28 04 | LmH B 19s 4.2/um M = 6.0 |
| | eSP | BC | 29 40 | LmV B 16 2.7/um 5.9 |
| | ePPS | B | 30 24 | |
| | eSS | B | 35 30 | |
| | LmH | B | 20 09.0 | |
| | LmV | B | 22.1 | |
| 1. | eP | AB | 21 49 16 | Tsinghai Province, China |
| | eS | C | 57 04 | 38.15 N 91.01 E |
| | eSS | C | 22 00 52 | H = 21 39 41.3 h = 26.8 km MB=5.9 MS=6.3 |
| | e | B | 01 25 | D = 55.48 Az = 311 (NEIS) |
| | eSSS | C | 02 30 | PV A 1.8s 298.0nm M = 6.0 |
| | LmH | B | 14.2 | PV B 8 1.8/um 6.2 |
| | LmV | B | 14.2 | LmH B 12.5 11.8/um 6.2 |
| | | | | LmV B 14 16.1/um 6.3 |
| 1. | ePKP2 | AZ | 23 45 10 | South Pacific Cordillera |
| | e | A | 45 20 | 56.15 S 142.93 W |
| | | | | H = 23 24 16.6 h = 33 km MB = 5.4 (NEIS) |
| | | | | D = 163.8 |
| 2. | eP | C | 10 10 00 | Sumba Island Region 10.17 S 118.99 E |
| | ePP | C | 14 25 | H = 09 55 28.4 h = 19.4 km MB=5.8 MS=6.3 |
| | eSKS | C | 20 35 | D = 108.81 Az = 320 (NEIS) |
| | eS | B | 22 00 | LmH B 19.5s 6.4/um M = 6.2 |
| | ePS | C | 23 45 | LmV B 18 5.9/um 6.2 |
| | ePPS | C | 24 35 | |
| | LmV | B | 11 06.8 | |
| | LmH | B | 06.9 | |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 2. | eP | A | 19 42 50 | Turkey 39.24 N 43.57 E |
| | LmH | B | 57.0 | H = 19 37 25.2 h = 34.1 km MB = 4.9 (NEIS) |
| | LmV | B | 58.0 | D = 25.1 |
| 4. | eP | A | 15 09 37 | Near Coast of Oaxaca, Mexico |
| | | | | 15.29 N 94.35 W |
| | | | | H = 14 56 46.1 h = 33 km MB = 5.2 |
| | | | | D = 88.10 Az = 38 (NEIS) |
| | | | | PV A 1.6s 27.5nm M = 5.3 |
| 5. | LmH | C | 01 50.0 | LmV C 16s 0.6/um |
| | LmV | C | 56.7 | |
| 5. | -iP | A | 05 52 20 | Southern Iran 27.46 N 56.20 E |
| | eS | C | 58 30 | H = 05 44 39.9 h = 29 km MB=5.5 MS=5.2 |
| | LmH | B | 06 09.0 | D = 40.83 Az = 317 (NEIS) |
| | LmV | B | 10.1 | PV A 2.0s 111.0nm M = 5.2 |
| | | | | LmH B 25 1.3/um 4.7 |
| | | | | LmV B 21 1.1/um 4.8 |
| 5. | ePP | A | 10 54 21 | Bonin Islands Region 25.98 N 142.58 E |
| | LmH | B | 11 38.2 | H = 10 37 23.8 h = 20.5 km MB=5.1 MS=4.5 |
| | LmV | B | 39.4 | D = 92.28 Az = 331 (NEIS) |
| | | | | LmH B 14s 0.7/um M = 5.2 |
| | | | | LmV B 12 1.0/um 5.5 |
| 5. | ePKP | A | 10 56 03.5 | Tonga Islands 16.09 S 173.87 W |
| | | | | H = 10 36 29.4 h = 33 km MB = 5.0 |
| | | | | D = 145.25 Az = 354 (NEIS) |
| | | | | PKPV A 1.2s 24.4nm |
| 5. | ePKIKP | A | 13 48 28 | Fiji Islands Region 20.81 S 178.31 W |
| | iPKHKP | A | 48 33.2 | H = 13 29 48.1 h = 575.3 km MB = 5.2 |
| | iPKP2 | A | 48 40.2 | D = 149.21 Az = 348 (NEIS) |
| | | | | PKIKPV A 1.8s 47.4nm |
| | | | | PKHKPV A 1.7 248.0nm |
| | | | | PKP2V A 1.8 115.0nm |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 5. | eP | A | 14 21 38 | Burma - India Border Region |
| | e | A | 22 00 | 25.43 N 95.18 E |
| | | | | H = 14 10 56.5 h = 103.9 km MB=4.8 (NEIS) |
| | | | | D = 66.8 |
| | | | | traces |
| 5. | eP | A | 22 58 20 | Volcano Islands Region 23.39 N 143.71 E |
| | ePP | A | 23 02 10 | H = 22 44 59.7 h = 33 km MB = 5.7 |
| | | | | D = 95.03 Az = 332 (NEIS) |
| | | | | PV A 1.2s 12.2nm M = 5.3 |
| 6. | eP | A | 01 49 42 | Greenland Sea 73.4 N 5.7 E |
| | | | | H = 01 44 36 h = 33 km |
| | | | | D = 23.02 Az = 170 (ISC) |
| 6. | ePKP | A | 04 28 52 | Fiji Islands Region 17.95 S 178.54 W |
| | | | | H = 04 10 17.8 h = 620.8 km MB = 4.6 |
| | | | | D = 146.38 Az = 348 (NEIS) |
| | | | | PKPV A 1.4s 18.6nm |
| 6. | ePKP | A | 06 30 30 | Near N. Coast of Papua New Guinea |
| | ePP | B | 31 48 | 3.63 S 144.45 E |
| | ePP | A | 31 54 | H = 06 11 40.7 h = 33 km MB=6.0 MS=6.6 |
| | ePKKP | A | 40 55 | D = 118.72 Az = 328 (NEIS) |
| | iPS | BC | 41 28 | PKPV A 1.5s 60.4nm |
| | ePPS | BC | 42 40 | PPV A 4.2 2271.2nm M = 7.1 |
| | eSS | BC | 48 04 | PPV B 8 3.2/um 7.0 |
| | eSSS | BC | 52 19 | LmH C 20.5 91.1/um 7.4 |
| | LmV | C | 07 22.5 | LmV C 20.5 111.5/um 7.5 |
| | LmH | C | 22.6 | |
| 6. | eP | A | 08 07 41 | Kurile Islands 49.27 N 155.55 E |
| | e | A | 08 06 | H = 07 55 57.5 h = 33 km MB = 5.4 |
| | | | | D = 75.79 Az = 337 (NEIS) |
| | | | | PV A 1.9s 60.6nm M = 5.3 |
| 6. | ePg | A | 14 21 15 | Bleicherode, German Democr. Republic (CLL) |
| | eSg | A | 21 29 | D c. 1.0 |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 6. | eP | A | 16 14 03 | Andreanof Islands, Aleutian Is. |
| | epP | A | 14 17 | 51.48 N 175.48 W |
| | LmV | B | 43.9 | H = 16 02 07.6 h = 37.6 km MB=5.2 MS=5.3 |
| | LmH | B | 44.6 | D = 78.07 Az = 355 (NEIS) |
| | | | | h = 56 km |
| | | | | PV A 1.6s 38.5nm M = 5.2 |
| | | | | LmH B 22.5 1.5/um 5.3 |
| | | | | LmV B 26 1.8/um 5.3 |
| 6. | eP | A | 18 43 15 | Lake Tanganyika Region 2.51 S 28.70 E |
| | | | | H = 18 33 43.5 h = 21.3 km MB = 5.3 |
| | | | | D = 54.94 Az = 347 (NEIS) |
| | | | | PV A 1.2s 24.4nm M = 5.1 |
| 6. | eP | A | 22 00 03 | Tibet 31.05 N 88.05 E |
| | | | | H = 21 50 08.1 h = 33 km MB = 5.2 |
| | | | | D = 58.41 Az = 313 (NEIS) |
| 6. | ePg | A | 23 37 36 | Jura, France 47.32 N 6.35 E |
| | e(Sg) | A | 38 29 | H = 23 35 47.1 (CSEM) |
| | | | | D = 5.5 |
| 7. | eP | A | 06 39 28 | Pakistan 34.55 N 70.97 E |
| | | | | H = 06 31 13.2 h = 46.3 km MB = 5.1 |
| | | | | D = 45.32 Az = 310 (NEIS) |
| 7. | LmV | B | 15 25.4 | South Atlantic Ridge 31.28 S 13.24 W |
| | LmH | B | 25.7 | H = 14 38 22.4 h = 33 km |
| | | | | MB = 5.3 MS = 5.5 (NEIS) |
| | | | | D = 84.4 |
| | | | | LmV B 20s 0.9/um M = 5.2 |
| 7. | ePKP2 | A | 17 34 54 | South of Fiji Islands 25.18 S 176.96 W |
| | | | | H = 17 14 47.3 h = 75.9 km MB = 5.0 |
| | | | | D = 153.73 Az = 348 (NEIS) |
| 7. | eP | A | 19 49 21 | Taiwan Region 21.17 N 120.28 E |
| | | | | H = 19 36 46.9 h = 33 km MB=5.7 MS=5.1 |
| | | | | D = 85.02 Az = 323 (NEIS) |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| cont. 7. | LmH | B | 20 32.8 | PV A 1.6s 115.2nm M = 5.9 |
| | LmV | B | 32.8 | LmH B 14 2.5/um 5.7 |
| | | | | LmV B 13 2.7/um 5.9 |
| 7. | e(P) | A | 21 44 17 | Luzon, Philippine Islands |
| | LmH | B | 22 25.0 | 18.74 N 120.81 E |
| | LmV | B | 26.8 | H = 21 31 27.3 h = 51.9 km MB=4.9 MS=4.5 |
| | | | | D = 87.26 Az = 323 (NEIS) |
| | | | | PV A 1.8s 33.8nm M = 5.3 |
| | | | | LmH B 16 0.7/um 5.1 |
| | | | | LmV B 16 0.7/um 5.2 |
| 8. | eP | A | 06 54 04 | Luzon, Philippine Islands |
| | LmH | B | 07 42.7 | 15.32 N 121.91 E |
| | LmV | B | 42.9 | H = 06 41 04.1 h = 36.2 MB = 5.3 |
| | | | | D = 90.60 Az = 323 (NEIS) |
| | | | | PV A 1.2s 20.3nm M = 5.3 |
| | | | | LmH B 16 1.2/um 5.4 |
| | | | | LmV B 16 1.1/um 5.4 |
| 8. | ePKIKP | A | 08 00 15 | Santa Cruz Islands 11.27 S 166.11 E |
| | LmH | B | 09 01.5 | H = 07 40 41.9 h = 42 km MB=5.5 MS=5.6 |
| | LmV | B | 02.0 | D = 135.51 Az = 337 (NEIS) |
| | | | | PKIKPV A 2.4s 82.9nm |
| | | | | LmH B 20 1.6/um M = 5.7 |
| | | | | LmV B 21 1.9/um 5.8 |
| 8. | ePKIKP | A | 12 43 38 | New Britain Region 5.59 S 150.96 E |
| | epPKIKP | A | 44 03 | H = 12 24 45.4 h = 61.1 km MB = 5.3 |
| | LmH | B | 13 37.3 | D = 123.74 Az = 330 (NEIS) |
| | LmV | B | 37.8 | h = 89 km |
| | | | | LmH B 24s 1.1/um |
| | | | | LmV B 24 1.0/um |
| 8. | eP | A | 13 32 02 | Greenland Sea 73.3 N 5.8 E |
| | | | | H = 13 26 53.8 h = 0 km |
| | | | | D = 22.92 Az = 171 (ISC) |
| | | | | PV A 1.6s 33.0nm |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 8. | ePKIKP | A | 21 56 54.5 | Loyalty Islands Region 22.24 S 170.35 E |
| | ePKHKP | A | 56 56.5 | H = 21 37 16.0 h = 57.9 km MB = 5.1 |
| | | | | D = 147.13 Az = 335 (NEIS) |
| | | | | PKHKPV A 1.4s 41.9nm |
| 9. | eP | AZ | 09 38 10 | South Atlantic Ridge 16.76 S 14.19 W |
| | eX | AZ | 38 14.5 | H = 09 26 54.3 h = 33 km MB = 5.3 |
| | | | | D = 70.85 Az = 17 (NEIS) |
| | | | | PV A 1.6s 33.0nm M = 5.1 |
| | | | | XV A 1.4 41.9nm |
| 9. | iPn | A | 14 27 36.5 | Austria 46.23 N 13.09 E |
| | ePb | A | 27 48 | H = 14 26 26.7 h = 2.6 km |
| | iPg | A | 27 55 | D = 4.53 Az = 348 (NEIS) |
| | iSn | A | 28 26 | |
| | e | A | 28 40 | |
| | iSg | A | 28 50 | |
| 10. | LmH | B | 09 17.5 | Mindanao 8.36 N 125.29 E |
| | | | | H = 08 19 02.5 h = 60 km MB = 5.1 (ISC) |
| | | | | D = 98.2 |
| | | | | LmH B 16s 0.8/um |
| 10. | eP | A | 09 18 32 | Turkey 39.58 N 27.40 E |
| | | | | H = 09 14 43.6 h = 4 km MB = 4.1 |
| | | | | D = 15.66 Az = 320 (NEIS) |
| | | | | PV A 1.4s 18.6nm M = 4.1 |
| 10. | ePKHKP | A | 09 50 27 | Fiji Islands Region 20.72 S 179.25 W |
| | ePKP2 | A | 50 33 | H = 09 31 49.6 h = 653 km MB = 5.5 |
| | e | A | 53 02 | D = 148.93 Az = 347 (NEIS) |
| | | | | PKHKPV A 1.5s 35.2nm |
| 10. | ePKP2 | A | 23 04 05 | Kermadec Islands Region 28.66 N 176.67 W |
| | epPKP2 | A | 04 13 | H = 22 43 41.3 h = 33 km |
| | | | | D = 157.17 Az = 346 (ISC) |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 10. | ePKP | AB | 23 37 46.5 | Loyalty Islands 21.49 S 168.66 E |
| | LmV | C | 24 22.3 | H = 23 18 07.0 h = 16.3 km MB = 5.2 |
| | | | | D = 145.78 Az = 334 (NEIS) |
| | | | | PKPV A 2.1s 364.2nm |
| | | | | LmV C 18 0.4/um M = 5.3 |
| 11. | LmH | C | 08 06.4 | Near Coast of Central Chile |
| | LmV | C | 06.6 | 31.68 S 71.44 W |
| | | | | H = 07 02 34.8 h = 35 km MB = 5.4 (NEIS) |
| | | | | D = 109.8 |
| | | | | LmH C 20s 0.5/um M = 5.1 |
| | | | | LmV C 20 0.6/um 5.2 |
| 11. | eP | A | 15 00 20 | Arabian Sea 12.94 N 57.45 E |
| | | | | H = 14 51 05.0 h = 33 km MB = 5.1 |
| | | | | D = 52.85 Az = 325 (NEIS) |
| 12. | ePKP | A | 08 00 20 | Loyalty Islands 21.43 S 168.63 E |
| | | | | H = 07 40 41.9 h = 33 km |
| | | | | D = 145.71 Az = 334 (NEIS) |
| | | | | PKPV A 2.0s 59.8nm |
| 12. | eP | A | 18 51 43 | Kurile Islands 44.52 N 149.13 E |
| | | | | H = 18 39 54.5 h = 116.6 km MB = 4.7 |
| | | | | D = 78.29 Az = 334 (NEIS) |
| | | | | PV A 1.2s 10.2nm M = 4.7 |
| 12. | iP | AB | 23 47 49 | Northern Sumatra 1.58 N 99.86 E |
| | ipP | AB | 48 34 | H = 23 35 19.1 h = 178 km MB=5.6 (NEIS) |
| | eSKS | B | 57 52 | D = 87.6 h = 178 km |
| | eS | B | 58 12 | PV A 1.4s 144.4nm M = 5.7 |
| | eSP | B | 59 10 | |
| | esS | B | 59 24 | |
| 13. | ePn | A | 09 21 03 | Yugoslavia 43.55 N 17.10 E |
| | ePb | A | 21 28 | H = 09 19 06.1 h = 19.6 km MB = 5.3 |
| | e | A | 22 54 | D = 8.03 Az = 334 (NEIS) |
| | LmH | B | 23.6 | PnV A 1.3s 115.7nm M = 6.0 |
| | LmV | B | 23.8 | LmH B 7.5 7.8/um 4.8 |
| | | | | LmV B 4 2.2/um |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 14. | ePKIKP | A | 11 07 51 | New Ireland Region 4.67 S 152.97 E<br>H = 10 48 58.5 h = 74.8 km MB = 5.3<br>D = 123.92 Az = 331 (NEIS)<br>traces |
| 14. | LmH | B | 12 41.2 | Tibet 34.70 N 82.71 E<br>H = 12 09 33.1 h = 33 km MB = 4.7 (NEIS)<br>D = 52.6<br>LmH B 18s 1.6/um M = 5.1<br>LmV B 16 1.0/um 5.0 |
| | LmV | B | 43.6 | |
| 14. | eP | A | 15 54 07 | Afghanistan - USSR Border Region<br>36.61 N 71.41 E<br>H = 15 46 11.1 h = 148.6 km MB = 4.8<br>D = 44.30 Az = 308 (NEIS)<br>PV A 1.2s 16.3nm M = 4.6 |
| 14. | ePKHKP | AZ | 18 17 41 | Fiji Islands Region 19.80 S 177.54 W<br>H = 17 58 35.2 h = 349.5 km MB = 5.2<br>D = 148.38 Az = 349 (NEIS)<br>PKHKPV A 1.3s 83.0nm |
| | ePKP2 | A | 17 44.5 | |
| 14. | LmH | B | 23 26.0 | Northeastern China 40.20 N 118.82 E<br>H = 22 46 56.9 h = 33 km MB = 4.9 (NEIS)<br>D = 69.5<br>LmH B 18.5s 1.5/um M = 5.3 |
| 15. | eSn | A | 00 17 34 | Switzerland 46.45 N 9.58 E<br>H = 00 15 45.5 h = 33 km<br>D = 4.41 Az = 17 (NEIS) |
| 15. | ePn | A | 00 30 52 | Northern Italy 44.88 N 8.99 E<br>H = 00 29 25.1 h = 10 km<br>D = 6.03 Az = 16 (NEIS) |
| | ePg | A | 31 20 | |
| | eSn | A | 32 02 | |
| | eSg | A | 32(40) | |
| 15. | eP | A | 11 02 26 | Philippine Islands Region<br>12.96 N 125.96 E<br>H = 10 49 05.8 h = 33 km MB=5.6 MS=4.6 |
| | LmH | B | 44.4 | |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| cont. 15. | LmV | B | 11 48.8 | D = 94.82 Az = 324 (NEIS)<br>PV A 1.8s 33.8nm M = 5.5<br>LmH B 14 0.8/um 5.3<br>LmV B 17 0.9/um 5.3 |
| 15. | eP | A | 11 09 07 | Philippine Islands Region<br>12.99 N 125.93 E<br>H = 10 55 47.2 h = 33 km MB = 5.5<br>D = 94.78 Az = 324 (NEIS) |
| 15. | eP | A | 24 03 23 | Morocco 33.57 N 3.55 W<br>H = 23 58 46.8 h = 33 km MB = 4.4<br>D = 20.37 Az = 29 (NEIS)<br>PV A 1.5s 25.2nm M = 4.4 |
| 16. | eP | A | 09 20 25 | Southern Greece 37.90 N 22.93 E<br>H = 09 16 49.1 h = 52.1 km MB = 4.6<br>D = 15.08 Az = 331 (NEIS)<br>PV A 0.8s 15.4nm M = 4.3<br>LmH B 12 1.2/um 4.3<br>LmV B 12 1.0/um 4.3 |
| | LmH | B | 26.7 | |
| | LmV | B | 26.7 | |
| 16. | LmH | C | 10 55.8 | LmH C 18s 0.5/um<br>LmV C 19 0.7/um |
| | LmV | C | 55.8 | |
| 16. | LmV | C | 18 11.5 | LmH C 18s 0.35/um<br>LmV C 18 0.45/um |
| | LmH | C | 13.5 | |
| 17. | eP | A | 05 24 50 | Turkey 39.17 N 43.52 E<br>H = 05 19 23.7 h = 33 km MB = 5.0<br>D = 25.14 Az = 308 (NEIS)<br>LmH B 21s 10.1/um M = 5.3<br>LmV B 19 5.0/um 5.2 |
| | LmH | B | 38.5 | |
| | LmV | B | 38.5 | |
| 17. | eP | A | 06 36 41 | Bonin Islands Region 26.68 N 142.58 E<br>H = 06 23 36.1 h = 33 km MB=5.6 MS=5.6<br>D = 91.67 Az = 331 (NEIS)<br>PV A 1.2s 36.6nm M = 5.7<br>LmH B 16 6.8/um 6.2 |
| | ePP | BC | 40 20 | |
| | eSKS | BC | 47 10 | |
| | eS | C | 47 35 | |
| | ePS | C | 48 44 | |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| cont. 17. | eSS | C | 06 53 36 | LmV B 14s 7.9/um M = 6.3 |
| | LmH | B | 07 19.4 | |
| | LmV | B | 27.8 | |
| 17. | eP | A | 09 54 09 | South of Alaska 53.87 N 158.21 W |
| | | | | H = 09 42 25.6 h = 22 km MB = 5.1 |
| | | | | D = 75.51 Az = 7 (NEIS) |
| | | | | PV A 1.4s 23.3nm M = 5.0 |
| 17. | ePn | A | 15 38 57 | Poland 50.97 N 16.1 E |
| | eSn | A | 39 28 | H = 15 38 09 h = 0 km |
| | eSg | A | 39 41 | D = 2.85 Az = 265 (ISC) |
| 17. | eP | A | 19 09 23 | Unimak Islands Region 54.1 N 164.3 W |
| | | | | H = 18 57 41 |
| | | | | D = 75.56 Az = 3 (ISC) |
| | | | | PV A 1.2s 12.2nm |
| 17. | ePKP | A | 19 24 11 | Fiji Islands Region 14.87 S 177.23 W |
| | LmV | C | 20 24.4 | H = 19 04 37.4 h = 36 km MB=5.3 MS=5.9 |
| | LmH | C | 24.8 | D = 143.61 Az = 350 (NEIS) |
| | | | | PKPV A 2.0s 34.2nm |
| | | | | LmH C 24 1.4/um M = 5.6 |
| | | | | LmV C 24 1.8/um 5.7 |
| 17. | eP | AB | 21 41 14 | Chile - Argentina Border Region |
| | e | A | 41 53 | 24.85 S 68.67 W |
| | ePP | B | 45 12 | H = 21 27 12.6 h = 33 km MB=6.3 MS=6.1 |
| | ePP | A | 45 20 | D = 102.98 Az = 40 (NEIS) |
| | eSKS | B | 51 44 | PV A 2.6s 138.7nm M = 6.2 |
| | eS | B | 52 45 | PPV A 2.8 257.5nm 6.2 |
| | ePS | B | 54 15 | LmH B 18.5 3.4/um 5.9 |
| | ePPS | B | 55 20 | LmV B 21 5.9/um 6.1 |
| | ePKKP | A | 57 35 | |
| | eSS | B | 59 45 | |
| | ePKPPKP | A | 22 05 36 | |
| | LmV | B | 25.4 | |
| | LmH | B | 32.7 | |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 17. | ePKHKP | A | 23 02 15 | South of Fiji Islands 23.77 S 179.93 E |
| | | | | H = 22 43 18.5 h = 504.7 km MB = 4.9 |
| | | | | D = 151.67 Az = 344 (NEIS) |
| 18. | ePKIKP | A | 06 01 48 | Cook Strait, New Zealand |
| | ePKP2 | A | 02 47 | 41.73 S 174.25 E |
| | LmH | B | 07 22.2 | H = 05 41 49.6 h = 49.8 km MB=5.9 MS=6.0 |
| | LmV | B | 27.8 | D = 165.06 Az = 313 (NEIS) |
| | | | | PKIKPV A 1.8s 54.0nm |
| | | | | LmH B 20 3.0/um M = 6.0 |
| | | | | LmV B 20 1.7/um 5.9 |
| 18. | eP | A | 08 55 15 | Western Iran 33.16 N 47.99 E |
| | LmH | C | 09 09.2 | H = 08 48 54.1 h = 48 km MB = 5.2 |
| | LmV | C | 11.2 | D = 31.82 Az = 314 (NEIS) |
| | | | | LmH C 20s 0.7/um M = 4.3 |
| | | | | LmV C 16 0.9/um 4.6 |
| 18. | LmV | C | 12 26.7 | West Irian Region 4.73 S 132.66 E |
| | LmH | C | 30.4 | H = 11 17 21.8 h = 60 km MB = 5.3 (ISC) |
| | | | | D = 112.9 |
| | | | | LmH C 20.5s 0.9/um |
| | | | | LmV C 24 1.0/um |
| 18. | ePKHKP | A | 14 54 16 | South of Fiji Islands 21.35 S 174.99 E |
| | | | | H = 14 35 33.3 h = 538.6 km MB = 4.6 |
| | | | | D = 147.97 Az = 340 (NEIS) |
| 18. | -eP | A | 20 51 17.5 | Eastern Mediterranean Sea |
| | | | | 35.78 N 29.41 E |
| | | | | H = 20 46 51.9 h = 57 km MB = 4.4 |
| | | | | D = 19.65 Az = 325 (NEIS) |
| | | | | PV A 1.2s 34.6nm M = 4.5 |
| 19. | +iP1 | ABC | 00 56 17 | Tsinghai Province, China 37.02 N 95.70 E |
| | iP2 | A | 56 23 | H = 00 46 18.3 h = 33 km MB=5.9 MS=5.8 |
| | eS1 | BC | 01 04 28 | D = 59.01 Az = 312 (NEIS) |
| | eScS1 | BC | 06 05 | PV1 A 1.8s 264.0nm M = 6.1 |
| | eP'P'1 | A | 26 00 | PV2 A 1.6 280.0nm 6.1 |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| cont. 19. | eP'P'2 | A | 01 26 06 | LmH B 13s 10.9/um M = 6.2<br>LmV B 13 14.0/um 6.4 |
| 19. | e | A | 01 40 35.5 | Loyalty Islands Region 23.42 S 171.2 E<br>H = 01 20 37 h = 33 km<br>D = 148.51 Az = 335 (ISC) |
| 19. | ePP | A | 03 57 16 | Solomon Islands 8.87 S 160.15 E<br>H = 03 34 51.2 h = 80 km MB = 5.3 (NEIS)<br>D = 137.8<br>PPV A 1.5s 35.2nm M = 5.3 |
| 19. | eP | A | 14 07 55 | Mindanao, Philippine Islands |
| | eSKS | C | 18 30 | 5.04 N 126.55 E |
| | eS | C | 19 35 | H = 13 54 04.5 h = 50 km MB=5.8 MS=5.9 |
| | ePS | C | 21 10 | D = 101.55 Az = 324 (NEIS) |
| | ePPS | C | 22 00 | PV A 2.0s 59.8nm M = 5.9 |
| | eSS | C | 26 35 | LmH C 24 8.4/um 6.2 |
| | LmH | C | 49.5 | LmV C 22 7.8/um 6.2 |
| | LmV | C | 59.6 | |
| 19. | ePKIKP | A | 15 13 40.5 | Fiji Islands Region 20.80 S 178.66 W |
| | ePKHKP | A | 13 46 | H = 14 55 05.7 h = 634.4 km MB = 5.0 |
| | ePKP2 | A | 13 52 | D = 149.13 Az = 347 (NEIS) |
| | | | | PKIKP traces |
| | | | | PKHKPV A 1.4s 27.9nm |
| 19. | eP | A | 20 50 15 | Tunisia 36.59 N 8.49 E |
| | LmV | C | 55.4 | H = 20 46 53.3 h = 22 km MB = 5.1 |
| | LmH | C | 56.3 | D = 14.23 Az = 8 (NEIS) |
| | | | | PV A 1.5s 47.8nm M = 4.9 |
| | | | | LmH C 14 2.3/um 4.4 |
| | | | | LmV C 20 1.4/um |
| 20. | eP | A | 03 01 57 | Iceland 65.78 N 17.32 W |
| | e | A | 02 09 | H = 02 57 13.0 h = 10 km (CSEM) |
| | | | | D = 19.4 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 20. | eP | A | 04 39 22.5 | Iceland 65.74 N 16.82 W |
| | LmV | C | 49.2 | H = 04 34 37.8 h = 10 km MB = 4.3 |
| | LmH | C | 49.4 | D = 21.00 Az = 122 (NEIS) |
| | | | | PV A 1.3s 17.5nm M = 4.3 |
| | | | | LmH C 16 0.7/um 4.1 |
| | | | | LmV C 17 0.6/um 4.2 |
| 20. | ePKHKP | A | 12 52 52 | South of Fiji Islands 23.54 S 179.91 W |
| | ePKP2 | A | 53 02.5 | H = 12 33 59.2 h = 545.9 km MB = 5.0 |
| | e | A | 53 19 | D = 151.50 Az = 345 (NEIS) |
| | epPKP | A | 55 04 | PKHKPV A 1.2s 26.4nm |
| 20. | eP | A | 20 22 45 | Taiwan Region 20.98 N 120.34 E |
| | LmH | B | 21 04.3 | H = 20 10 09.7 h = 30 km MB = 5.2 |
| | LmV | B | 06.7 | D = 85.21 Az = 323 (NEIS) |
| | | | | PV A 1.8s 54.1nm M = 5.5 |
| | | | | LmH B 16 0.5/um 5.0 |
| | | | | LmV B 16 0.5/um 5.1 |
| 20. | eP | A | 20 27 06 | Taiwan Region 20.97 N 120.23 E |
| | | | | H = 20 14 31.0 h = 33 km MB = 4.6 |
| | | | | D = 85.16 Az = 323 (NEIS) |
| | | | | PV A 1.6s 16.5nm M = 5.0 |
| 20. | eP | A | 21 04 43 | Mindanao, Philippine Islands |
| | ePP | A | 08 39 | 8.39 N 123.03 E |
| | eS | C | 16 00 | H = 20 51 14.9 h = 37.3 km MB=5.4 MS=4.9 |
| | LmV | B | 51.6 | D = 96.79 Az = 323 (NEIS) |
| | LmH | B | 51.7 | PV A 1.6s 16.5nm M = 5.3 |
| | | | | LmH B 16 0.8/um 5.3 |
| | | | | LmV B 16 0.9/um 5.4 |
| 21. | e | A | 00 25 45 | Western Poland (CLL) |
| | eSg | A | 26 11 | |
| 21. | eP | A | 02 32 34.5 | Taiwan 23.76 N 121.92 E |
| | LmH | B | 03 15.2 | H = 02 20 06.3 h = 35.7 km MB=5.3 MS=5.2 |
| | LmV | B | 15.3 | D = 83.89 Az = 323 (NEIS) |
| | | | | LmH B 18s 1.5/um M = 5.4 |
| | | | | LmV B 18 1.2/um 5.3 |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 21. | ePKP | A | 06 29 39 | Fiji Islands Region 18.01 S 178.38 W |
| | epPKP | A | 32 00 | H = 06 11 05.6 h = 604 km MB = 5.8 |
| | | | | D = 146.48 Az = 348 (NEIS) |
| | | | | h = 650 km |
| | | | | PKPV A 1.6s 181.0km |
| 21. | ePKP | A | 09 46 42 | Fiji Islands Region 16.54 S 177.08 W |
| | | | | H = 09 27 03.8 h = 33 km MB=5.0 MS=4.3 |
| | | | | D = 145.26 Az = 350 (NEIS) |
| | | | | PKPV A 2.0s 34.2nm |
| 22. | ePKP | A | 05 50 04 | Tonga Islands 15.75 S 173.11 W |
| | | | | H = 05 30 30.9 h = 33 km MB = 5.3 |
| | | | | D = 144.99 Az = 355 (NEIS) |
| 23. | ePKIKP | A | 01 57 47.5 | New Hebrides Islands 13.38 S 166.51 E |
| | ePP | AC | 02 00 30 | H = 01 38 23.5 h = 39.5 km MB=5.5 MS=5.6 |
| | eSKP | AC | 01 20 | D = 137.59 Az = 336 (NEIS) |
| | LmH | C | 03 00.4 | PKIKPV A 1.7s 24.2nm |
| | LmV | C | 00.8 | LmH C 21 1.4/um M = 4.0 |
| | | | | LmV C 21 1.5/um 4.0 |
| 23. | iPn | A | 10 59 48 | Western Poland (CLL) |
| | eSn | A | 00 19 | D c. 2.6 |
| | iSg | A | 11 00 27.5 | |
| 23. | e(P) | A | 15 07 37 | Bonin Islands Region 26.79 N 142.95 E |
| | LmH | C | 50.2 | H = 14 54 15.5 h = 33 km MB = 4.9 |
| | LmV | C | 53.8 | D = 91.73 Az = 331 (ISC) |
| | | | | (P) traces |
| | | | | LmH C 16s 0.4/um M = 5.0 |
| | | | | LmV C 17 0.5/um 5.1 |
| 24. | eP | A | 06 23 18 | Kurile Islands 45.48 N 151.05 E |
| | | | | H = 06 11 21.7 h = 33 km MB = 5.1 |
| | | | | D = 78.02 Az = 335 (NEIS) |
| | | | | PV A 0.8s 11.5nm M = 5.0 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 24. | ePKHKP | A | 20 02 46 | South of Fiji Islands 23.77 S 178.77 E |
| | ePKP2 | A | 02 57 | H = 19 43 47.3 h = 463.8 km MB = 4.9 |
| | epPKP2 | A | 05 00 | D = 151.37 Az = 343 (NEIS) |
| | | | | h = 590 km |
| | | | | PKHKPV A 1.4s 16.3nm |
| 25. | LmH | C | 01 55.3 | Mendoza Province, Argentina |
| | LmV | C | 55.8 | 33.59 S 68.36 W |
| | | | | H = 00 50 47.9 h = 17 km |
| | | | | MB = 5.3 MS = 5.3 (NEIS) |
| | | | | D = 109.5 |
| | | | | LmH C 20s 0.7/um M = 5.2 |
| | | | | LmV C 17 1.2/um 5.5 |
| 25. | LmH | B | 03 39.2 | Burma 17.33 N 94.17 E |
| | LmV | C | 45.5 | H = 02 05 52.0 h = 25 km MB = 4.8 |
| | | | | D = 72.12 Az = 318 (NEIS) |
| | | | | LmH B 19.5s 4.3/um M = 5.7 |
| | | | | LmV C 20 1.6/um 5.3 |
| 25. | eP | A | 06 44 57 | Central Mid - Atlantic Ridge |
| | eS | C | 53 08 | 7.62 N 37.19 W |
| | eSSS | C | 59 30 | H = 06 34 55.1 h = 33 km MB = 5.0 |
| | LmV | C | 07 02.8 | D = 58.85 Az = 34 (NEIS) |
| | LmH | C | 03.0 | LmH C 32s 1.4/um M = 4.9 |
| | | | | LmV C 29 2.0/um 5.1 |
| 25. | ePP | A | 10 53 08 | Santa Cruz Islands Region |
| | LmH | C | 11 43.5 | 10.93 S 164.66 E |
| | LmV | C | 50.0 | H = 10 31 04.9 h = 24.7 km MB=5.7 MS=5.2 |
| | | | | D = 134.63 Az = 336 (NEIS) |
| | | | | LmH C 20s 1.0/um M = 5.5 |
| | | | | LmV C 20 0.8/um 5.4 |
| 26. | ePKIKP | A | 03 39 11 | Tonga Islands 18.71 S 173.31 W |
| | | | | H = 03 19 24.9 h = 33 km MB = 4.6 |
| | | | | D = 147.89 Az = 354 (NEIS) |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 26. | eP | A | 14 44 30 | Dodecanese Islands 35.08 N 27.96 E |
| | | | | H = 14 40 02.3 h = 10 km |
| | | | | D = 19.57 Az = 328 (ISC) |
| 26. | ePn | A | 15 34 59 | Austria 46.33 N 13.18 E |
| | ePg | A | 35 17 | H = 15 33 50.5 h = 10 km |
| | eSn | A | 35 49 | D = 4.44 Az = 347 (NEIS) |
| | eSg | A | 36 11 | |
| 26. | eSn | A | 21 15 11 | Austria (TRI) |
| | eSg | A | 15 38 | |
| 26. | LmH | C | 23 45.7 | North Atlantic Ocean 57.48 N 33.02 W |
| | LmV | C | 45.8 | H = 23 29 13.2 h = 33 km MB = 4.5 (NEIS) |
| | | | | D = 26.7 |
| | | | | LmH C 15s 1.9/um M = 4.8 |
| | | | | LmV C 15 1.3/um 4.7 |
| 27. | e | A | 00 29 18 | Near Coast of Pakistan 24.7 N 62.6 E |
| | e | A | 29 52 | H = 00 20 42.0 h = 33 km MB = 4.8 |
| | | | | D = 46.75 Az = 317 (ISC) |
| 27. | eP | A | 00 31 14 | Crete 57.46 N 32.98 W |
| | LmV | C | 42.1 | H = 00 25 30.9 h = 10 km (CSEM) |
| | LmH | C | 42.5 | D = 26.8 |
| | | | | LmH C 16s 0.4/um M = 4.1 |
| | | | | LmV C 16 0.6/um 4.4 |
| 27. | ePKP | A | 14 18 42 | New Britain Region 6.51 S 152.78 E |
| | ePP | A | 20 35.5 | H = 13 59 45.0 h = 57.9 km MB = 5.7 |
| | LmH | C | 15 14.8 | D = 125.42 Az = 331 (NEIS) |
| | LmV | C | 15.8 | PKPV A 2.0s 51.3nm |
| | | | | PPV A 2.0 42.7nm M = 5.5 |
| | | | | LmH C 20 0.7/um 5.3 |
| | | | | LmV C 18 0.6/um 5.3 |
| 27. | eP | A | 17 04 10 | Kurile Islands 43.37 N 147.57 E |
| | e | A | 04 54 | H = 16 52 09.8 h = 41.4 km MB = 5.0 |
| | | | | D = 78.82 Az = 333 (NEIS) |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 28. | eP | A | 00 53 41 | North Atlantic Ridge 50.29 N 29.32 W |
| | LmH | C | 01 03.0 | H = 00 48 12.6 h = 33 km MB = 4.7 |
| | LmV | C | 03.0 | D = 25.83 Az = 73 (NEIS) |
| | | | | PV A 1.8s 27.0nm M = 4.5 |
| | | | | LmH C 24 0.5/um 3.9 |
| | | | | LmV C 24 0.6/um 4.1 |
| 28. | eP | A | 01 18 18.5 | North Atlantic Ridge 50.23 N 29.27 W |
| | LmV | B | 27.6 | H = 01 12 47.9 h = 33 km MB=4.7 MS=4.6 |
| | LmH | B | 28.0 | D = 25.82 Az = 73 (NEIS) |
| | | | | PV A 1.4s 14.0nm M = 4.4 |
| | | | | LmH B 20 1.8/um 4.6 |
| | | | | LmV B 22 1.9/um 4.7 |
| 28. | ePb | A | 03 07 48 | Poland 50.8 N 19.1 E |
| | eSg | A | 08 04 | H = 03 05 29 |
| | | | | D = 4.75 Az = 271 (ISC) |
| 28. | eP | A | 14 17 08 | North Atlantic Ocean 57.68 N 32.99 W |
| | | | | H = 14 11 31.0 h = 33 km MB = 4.9 |
| | | | | D = 26.63 Az = 86 (NEIS) |
| | | | | LmH B 15.5s 1.1/um M = 4.5 |
| | | | | LmV B 17 1.3/um 4.7 |
| 28. | ePKIKP | A | 18 20 20 | New Hebrides Islands 17.44 S 168.69 E |
| | LmH | B | 19 26.6 | H = 18 00 51.8 h = 14.4 km MB=5.4 MS=5.6 |
| | LmV | B | 27.4 | D = 142.13 Az = 336 (NEIS) |
| | | | | LmH B 19s 1.3/um M = 5.7 |
| | | | | LmV B 18 1.3/um 5.7 |
| 29. | ePKIKP | A | 01 11 46 | New Britain Region 5.22 S 151.81 E |
| | LmV | C | 02 06.9 | H = 00 52 52.7 h = 55.5 km MB=5.6 MS=5.2 |
| | LmH | C | 07.3 | D = 123.83 Az = 331 (NEIS) |
| | | | | LmH C 24s 0.6/um M = 5.2 |
| | | | | LmV C 22 0.7/um 5.3 |
| 29. | LmV | C | 14 48.0 | Atlantic - Indian Rise 33.75 S 56.33 E |
| | LmH | C | 55.7 | H = 13 56 06.0 h = 33 km MB=5.3 MS=5.3 |
| | | | | D = 92.84 Az = 333 (NEIS) |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| cont. 29. | | | | LmH C 18s 0.4/um M = 4.9 |
| | | | | LmV C 26 0.7/um 5.0 |
| 30. | LmV | C | 01 51.8 | Balleny Islands Region 62.39 S 155.05 E |
| | LmH | C | 52.0 | H = 00 13 28.4 h = 33 km MB=4.8 MS=5.3 |
| | | | | D = 157.01 Az = 256 (NEIS) |
| | | | | LmH C 20s 0.8/um M = 5.5 |
| | | | | LmV C 20 0.8/um 5.5 |
| 30. | LmH | B | 04 57.0 | Northeastern China 39.50 N 118.02 E |
| | LmV | B | 57.1 | H = 04 11 57.3 h = 33 km |
| | | | | MB = 5.2 MS = 4.3 (NEIS) |
| | | | | D = 69.4 |
| | | | | LmH B 14s 0.7/um M = 5.0 |
| | | | | LmV B 15 0.8/um 5.1 |
| 30. | eP | A | 10 44 10 | Tadzhik - Sinkiang Border Region |
| | LmH | B | 11 03.2 | 39.56 N 73.36 E |
| | LmV | B | 04.4 | H = 10 36 06.4 h = 33 km |
| | | | | MB = 5.0 MS = 4.8 (NEIS) |
| | | | | D = 43.8 |
| | | | | PV A 1.5s 20.1nm M = 4.7 |
| | | | | LmH B 18 1.1/um 4.8 |
| | | | | LmV B 20 1.1/um 4.8 |
| 30. | iPn | A | 21 19 17 | Yugoslavia 44.04 N 15.98 E |
| | eSn | A | 20 40 | H = 21 17 29.6 h = 10 km |
| | eSg | A | 21 33 | D = 7.24 Az = 337 (NEIS) |
| | | | | PnV A 0.5s 26.9nm M = 5.7 |
| 31. | eP | A | 02 27 02 | Central Mid - Atlantic Ridge |
| | | | | 1.25 S 23.53 W |
| | | | | H = 02 16 57.3 h = 33 km MB=5.0 MS=4.3 |
| | | | | D = 59.75 Az = 25 (NEIS) |
| | | | | PV A 1.8s 33.8nm M = 5.2 |
| 31. | ePn | A | 07 12 44 | Yugoslavia 44.13 N 16.0 E |
| | eSn | A | 14 06 | H = 07 10 56.8 h = 0 km |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| cont. 31. | eSg | A | 07 14 57 | D = 7.60 Az = 337 (ISC) |
| 31. | eP | A | 14 25 08 | Chagos Archipelago Region |
| | | | | 5.25 S 68.40 E |
| | | | | H = 14 13 34.4 h = 33 km MB = 5.1 (NEIS) |
| | | | | D = 74.0 |
| | | | | PV A 1.6s 44.0nm M = 5.2 |
| 31. | +iP | A | 14 34 05.2 | Tadzhik SSR 40.04 N 70.85 E |
| | ePP | B | 35 40 | H = 14 26 14.8 h = 20 km |
| | eS | B | 40 20 | MB = 6.1 MS = 5.9 (NEIS) |
| | eSS | B | 42 50 | D = 42.0 |
| | eSa | B | 43 35 | PV A 1.4s 172.1nm M = 5.6 |
| | LmH | B | 54.0 | LmH B 13.5 16.8/um 5.9 |
| | LmV | B | 54.0 | LmV B 12 13.8/um 5.7 |
| 31. | ePKP | A | 20 56 56 | Tonga Islands 16.48 S 175.16 W |
| | LmH | B | 21 59.2 | H = 20 37 20.4 h = 48.6 km |
| | LmV | B | 22 02.0 | MB = 5.2 MS = 5.2 (NEIS) |
| | | | | D = 145.5 |
| | | | | PKPV A 1.8s 27.0nm |
| | | | | LmH B 20 0.6/um M = 5.3 |
| | | | | LmV B 24 1.0/um 5.5 |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 1. | eP | A | 13 14 50 | Kurile Islands 48.17 N 154.45 E |
| | | | | H = 13 03 03.7 h = 42 km MB = 5.4 (NEIS) |
| | | | | D = 76.5 |
| | | | | PV A 0.9s 19.5nm M = 5.1 |
| 1. | LmH | B | 15 23.0 | Off Coast of Northern California |
| | LmV | B | 23.0 | 40.40 N 126.6 W |
| | | | | H = 14 33 14.3 h = 2 km MB = 4.3 (ISC) |
| | | | | D = 82.3 |
| | | | | LmH B 20s 0.7/um M = 5.0 |
| | | | | LmV B 20 0.7/um 5.1 |
| 1. | LmH | B | 21 45.4 | Bismarck Sea 3.30 S 148.64 E |
| | LmV | B | 46.2 | H = 20 23 11.0 h = 25 km (ISC) |
| | | | | D = 120.7 |
| | | | | or |
| | | | | Bismarck Sea 3.36 S 148.76 E |
| | | | | H = 20 34 46.9 h = 33 km (ISC) |
| | | | | D = 120.8 |
| | | | | LmH B 22s 1.0/um M = 5.4 |
| | | | | LmV B 22 1.6/um 5.7 |
| 2. | eP | A | 21 08 14 | Kurile Islands 48.11 N 154.48 E |
| | | | | H = 20 56 26.0 h = 33 km MB = 4.6 |
| | | | | D = 76.58 Az = 337 (NEIS) |
| | | | | traces |
| 2. | e(Pg) | A | 23 04 02.5 | Poland (CLL) |
| | eSg | A | 04 43 | |
| 2. | ePKP | A | 23 08 08 | Fiji Islands Region 18.17 S 178.34 W |
| | | | | H = 22 49 38.9 h = 646.4 km MB = 4.9 |
| | | | | D = 146.64 Az = 348 (NEIS) |
| | | | | PKPV A 1.1s 28.2nm |
| 3. | ePKP | A | 04 52 48 | New Hebrides Islands 20.86 S 169.68 E |
| | epPKP | A | 53 20.5 | H = 04 33 23.8 h = 124.9 km MB = 4.7 (NEIS) |
| | | | | D = 145.7 h = 119 km |



| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 3. | iP | A | 10 50 19 | Kurile Islands 45.37 N 150.44 E |
| | LmH | B | 11 28.0 | H = 10 38 23.4 h = 33 km MB = 5.5 (NEIS) |
| | LmV | B | 28.0 | D = 77.9 |
| | | | | PV A 1.2s 34.6nm M = 5.3 |
| | | | | LmH B 20 0.6/um 4.9 |
| | | | | LmV B 20 0.8/um 5.1 |
| 3. | eP | A | 16 06 03 | Ionian Sea 37.81 N 19.87 E |
| | | | | H = 16 02 33.5 (CSEM) |
| | | | | D = 14.22 |
| 3. | e | A | 20 32 08 | Loyalty Islands Region 21.52 S 169.50 E |
| | | | | H = 20 12 19.8 h = 33 km MB = 4.7 (NEIS) |
| | | | | D = 146.2 |
| 4. | +iP | AB | 07 59 21.5 | Salta Province, Argentina |
| | epP | AB | 08 01 26.5 | 24.69 S 63.36 W |
| | esP | AB | 02 22 | H = 07 46 33.8 h = 549 MB = 6.0 (NEIS) |
| | iPP | AB | 03 28 | D = 99.8 h = 566 km |
| | ipPP | B | 05 24 | PV A 1.3s 135.5nm M = 6.2 |
| | esPP | B | 06 21 | PV B 9 1.9/um 6.5 |
| | iSKS | B | 09 08 | PPV B 8 3.6/um 6.7 |
| | eS | B | 10 09 | LmH B 17 3.3/um |
| | eSP | C | 11 40 | LmV B 23 4.4/um |
| | ePS | C | 13 10 | |
| | esS | C | 13 50 | |
| | isSP | C | 15 20 | |
| | e(PKKP) | A | 16 06 | |
| | eSS | C | 17 15 | |
| | eSKKP | A | 18 11 | |
| | esSS | C | 20 35 | |
| | eSSS | C | 21 00 | |
| | LmH | B | 25.3 | |
| | LmV | B | 28.4 | |
| 4. | ePn | A | 20 58 18 | Austria 46.19 N 13.22 E |
| | ePg | A | 58 40 | H = 20 57 10.2 h = 33 km (NEIS) |
| | eSn | A | 59 08.5 | D = 4.6 |
| | iSg | A | 59 30.5 | |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 4. | eSg | A | 21 47 47.5 | France 44.50 N 7.37 E |
| | | | | H = 21 43 56.2 (CSEM) |
| | | | | D = 6.80 |
| 5. | ePKIKP | AB | 03 48 36 | Southern Pacific Ocean 66.45 S 82.58 W |
| | ePP | B | 51 16 | H = 03 29 18.9 h = 33 km |
| | ePKS | C | 52 08 | MB = 6.2 MS = 5.2 (NEIS) |
| | ePS | C | 04 01 55 | D = 136.4 |
| | ePPS | C | 03 20 | PKIKPV A 1.7s 109.0nm |
| | e | C | 04 35 | PKIKPV B 8 1.8/um |
| | LmH | B | 55.4 | PPV B 8 1.6/um M = 6.2 |
| | LmV | B | 57.9 | LmH B 16.5 2.6/um 6.0 |
| | | | | LmV B 17 2.7/um 6.0 |
| 5. | e(PKP) | A | 09 46 12 | New Hebrides Islands 15.75 S 167.09 E |
| | LmH | B | 10 51.0 | H = 09 26 37.5 h = 11.2 km |
| | LmV | B | 51.0 | MB = 5.2 MS = 4.6 (NEIS) |
| | | | | D = 140.1 |
| | | | | LmH B 20s 0.7/um M = 5.4 |
| 5. | eP | A | 15 53 54 | Dominican Republic Region |
| | LmH | B | 16 20.3 | 19.62 N 70.18 W |
| | LmV | B | 20.7 | H = 15 42 44.3 h = 33 km |
| | | | | MB = 5.0 MS = 4.8 (NEIS) |
| | | | | D = 70.0 |
| | | | | PV A traces |
| | | | | LmH B 20s 1.2/um M = 5.1 |
| | | | | LmV B 20 1.2/um 5.2 |
| 6. | eP | A | 00 40 42 | North Atlantic Ocean 17.88 N 49.51 W |
| | e | A | 40 55 | H = 00 30 49.9 h = 33 km MB = 5.2 (NEIS) |
| | | | | D = 58.0 |
| | | | | PV A 1.4s 27.9nm M = 5.2 |
| 6. | ePKIKP | A | 03 28 58.5 | Tonga Islands 21.82 S 175.26 W |
| | ePKHKP | A | 29 04 | H = 03 09 14.0 h = 33 km |
| | ePKP2 | A | 29 08 | MB = 5.6 MS = 5.7 (NEIS) |
| | | | | D = 150.7 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| cont. 6. | LmH | C | 04 30.7 | PKHKPV A 2.1s 249.0nm |
| | LmV | C | 33.0 | PKP2V A 1.3 149.0nm |
| | | | | LmH C 25 1.6/um M = 5.7 |
| | | | | LmV C 25 1.9/um 5.8 |
| 6. | eP | A | 05 20 03 | Philippine Islands Region |
| | e | A | 20 15 | 20.89 N 120.23 E |
| | | | | H = 05 07 27.8 h = 33 km MB=5.2 MS=4.6 |
| | | | | D = 85.2 |
| | | | | PV A 1.5s 22.6nm M = 5.2 |
| 6. | ePg | A | 16 03 44 | Northern Italy 44.53 N 7.40 E |
| | eSn | A | 04 24 | H = 16 01 32.5 h = 33 km (NEIS) |
| | | | | D = 6.8 |
| 6. | eP | A | 17 04 44 | India - Bangladesh Border Region |
| | epP | A | 04 55 | 24.31 N 92.88 E |
| | | | | H = 16 53 57.8 h = 41.8 km MB = 4.7 (NEIS) |
| | | | | D = 66.2 h = 42 km |
| 6. | ePn | A | 21 46 24 | Austria 47.84 N 16.54 E |
| | ePg | A | 46 44 | H = 21 45 19.5 (CSEM) |
| | eiSg | A | 47 39 | D = 4.3 |
| 7. | eP | A | 00 20 00 | Tunesia 35.68 N 10.73 E |
| | | | | H = 00 16 23.9 (CSEM) |
| | | | | D = 15.07 |
| 7. | LmH | C | 03 26.0 | Sulawesi (Celebes) 2.22 S 120.78 E |
| | LmV | C | 26.0 | H = 02 25 00 h = 39 km MB = 5.1 (ISC) |
| | | | | D = 103.8 |
| 7. | ePn | A | 07 04 11 | Northern Italy 45.39 N 9.39 E |
| | ePg | A | 04 49 | H = 07 02 52.6 h = 33 km |
| | iSn | A | 05 10.5 | D = 5.47 Az = 15 (NEIS) |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 7. | eP | A | 08 54 40.5 | Near East Coast of Honshu, Japan<br>35.56 N 140.92 E<br>H = 08 42 17.9 h = 47 km MB = 5.1<br>D = 83.25 Az = 330 km (NEIS)<br>PV A 1.4s 18.6nm M = 4.9 |
| 7. | LmV | C | 22 12.5 | Near Coast of Peru 16.69 S 73.48 W<br>H = 21 18 32.7 h = 39 km MB = 5.1 (ISC)<br>D = 99.7<br>LmV C 22s 0.55/um M = 5.0 |
| 7. | ePKP | A | 23 47 59 | Tonga Islands 15.29 S 174.09 W<br>H = 23 28 38.6 h = 131.7 km MB = 5.2<br>D = 144.43 Az = 354 (NEIS)<br>PKPV A 1.5s 65.3nm |
| 8. | eP | A | 03 14 19.5 | Off East Coast of Kamchatka<br>52.22 N 159.13 E<br>H = 03 02 46.5 h = 33 km MB = 4.8<br>D = 73.89 Az = 339 (NEIS) |
| 9. | eSg | A | 03 01 51 | Poland (CLL) |
| 9. | e(P) | A | 13 58 35.5 | Tunisia 36.62 N 8.37 E<br>H = 13 55 02.0 h = 33 km MB = 4.9<br>D = 14.22 Az = 8 (NEIS) |
| 10. | ePKP | A | 03 46 38 | Loyalty Islands Region 21.88 S 169.83 E<br>H = 03 26 59.0 h = 38 km MB=4.9 MS=5.0<br>D = 146.60 Az = 335 (NEIS)<br>PKPV A 1.4s 41.9nm |
| 10. | ePn | A | 06 22 33 | Adriatic Sea 44.92 N 14.82 E<br>H = 06 21 03.3 (CSEM)<br>D = 6.16 |
| | eSn | A | 23 43.5 | |
| | eSg | A | 24 30.5 | |
| 10. | +eiPKP | A | 08 15 35 | Loyalty Islands Region 21.82 S 169.94 E<br>H = 07 55 56.7 h = 41.5 km MB=5.2 MS=5.4 |
| | LmV | C | 09 24.5 | |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| cont.<br>10. | LmH | C | 09 33.4 | D = 146.59 Az = 335 (NEIS)<br>PKPV A 1.2s 85.4nm<br>LmH C 19 0.9/um M = 5.5<br>LmV C 20 0.9/um 5.5 |
| 10. | eSg | A | 10 15 47 | Hungary 46.32 N 17.41 E<br>H = 10 12 33.6 (CSEM)<br>D = 5.8 |
| 10. | eSg | A | 10 17 17 | Hungary 46.43 N 17.29 E<br>H = 10 14 18.6 (CSEM)<br>D = 5.7 |
| 10. | e | A | 22 59 56 | South Sandwich Islands Region<br>60.93 S 23.09 W<br>H = 22 41 06.2 h = 33 km MB=6.3 MS=6.2<br>D = 114.67 Az = 24 (NEIS)<br>LmH B 16.5s 2.4/um M = 5.9<br>LmV B 14 2.4/um 6.0 |
| | LmH | B | 23 46.5 | |
| | LmV | B | 52.7 | |
| 10. | ePKP2 | A | 23 25 35 | Kermadec Islands 29.32 S 177.03 W<br>H = 23 05 11.3 h = 52.8 km MB=4.3 (NEIS)<br>D = 157.8 |
| 10. | ePKP2 | A | 23 40 38 | Kermadec Islands 29.53 S 176.99 W<br>H = 23 20 13.6 h = 51.3 km (NEIS)<br>D = 157.8 |
| 11. | eP | A | 07 40 40.5 | Poland (CLL) |
| | iSg | A | 41 19 | |
| 11. | LmV | B | 12 32.5 | Galapagos Islands 1.20 N 90.70 W<br>H = 11 39 06.1 h = 33 km MB = 4.8 (ISC)<br>D = 96.9<br>or<br>Galapagos Islands 1.56 N 90.63 W<br>H = 11 41 30.0 h = 33 km MB = 5.1 (ISC)<br>D = 96.4<br>LmV B 20s 0.8/um M = 5.2 |
| | LmH | B | 32.8 | |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 11. | iPn | A | 18 34 35.0 | Svabian Jura, Fed. Rep. of Germany |
| | iPg | A | 34 45 | 48.39 N 9.06 E |
| | eSn | A | 35 11 | H = 18 33 52.6 h = 33 km |
| | iSg | A | 35 23 | D = 2.81 Az = 35 (NEIS) |
| 11. | eP | A | 22 07 08.5 | North Atlantic Ridge 50.65 N 30.04 W |
| | LmV | C | 16.0 | H = 22 01 36.3 h = 33 km MB = 4.8 |
| | | | | D = 26.17 Az = 74 (NEIS) |
| | | | | LmV C 20s 0.6/um M = 4.3 |
| 12. | ePKP | A | 04 26 36 | Loyalty Islands Region 21.98 S 169.82 E |
| | | | | H = 04 06 55.0 h = 36.1 km MB = 4.9 |
| | | | | D = 146.68 Az = 335 (NEIS) |
| 12. | eP | A | 04 57 15 | Afghanistan - USSR Border Region |
| | | | | 36.99 N 71.28 E |
| | | | | H = 04 49 16.0 h = 98 km MB = 5.4 |
| | | | | D = 43.99 Az = 308 (NEIS) |
| | | | | PV A 1.6s 33.0nm M = 4.9 |
| 13. | ePKP | A | 01 48 32 | Loyalty Islands Region 22.10 S 169.63 E |
| | | | | H = 01 28 51.8 h = 33 km MB = 4.7 |
| | | | | D = 146.72 Az = 334 (NEIS) |
| 13. | ePKP | A | 01 58 57 | Loyalty Islands Region 22.00 S 169.62 E |
| | e | A | 02 00 12 | H = 01 39 15.2 h = 38.9 km MB = 5.0 |
| | | | | D = 146.62 Az = 334 (NEIS) |
| 13. | eP | A | 04 20 05.5 | Luzon, Philippine Islands |
| | eS | B | 31 00 | 15.68 N 119.16 E |
| | eSS | C | 36 55 | H = 04 07 14.5 h = 33 km MB=5.7 MS=4.8 |
| | eSSS | C | 40 40 | D = 88.72 Az = 323 (NEIS) |
| | eSSSS | C | 43 45 | PV A 1.6s 49.5nm M = 5.6 |
| | LmH | B | 59.0 | LmH B 15.5 4.6/um 6.0 |
| | LmV | B | 05 07.3 | LmV B 12 1.7/um 5.7 |
| 13. | eP | A | 06 02 53 | Kamchatka 54.06 N 158.63 E |
| | | | | H = 05 51 45.3 h = 167.3 km MB = 5.0 |
| | | | | D = 72.06 Az = 339 (NEIS) |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 13. | ePKP | A | 11 56 41 | Loyalty Islands Region 22.01 S 169.86 E |
| | | | | H = 11 37 00.7 h = 33 km MB = 4.5 |
| | | | | D = 146.73 Az = 335 (NEIS) |
| 13. | eP | A | 13 20 56 | Molucca Sea 0.12 S 125.06 E |
| | e | A | 24 02 | H = 13 06 51.3 h = 33 km MB=5.8 MS=5.0 |
| | LmV | C | 14 07.3 | D = 104.77 Az = 323 (NEIS) |
| | LmH | C | 07.9 | PV A 1.0s 27.6nm M = 6.1 |
| | | | | LmH C 24 1.3/um 5.4 |
| | | | | LmV C 32 1.4/um 5.3 |
| 13. | ePKP | A | 14 21 48 | Loyalty Islands Region 21.96 S 169.90 E |
| | | | | H = 14 02 08.2 h = 33 km MB = 5.2 |
| | | | | D = 146.70 Az = 335 (NEIS) |
| 13. | eP | A | 15 13 37 | Jan Mayen Islands Region 70.77 N 14.02 W |
| | | | | H = 15 08 29.8 h = 33 km MB = 4.5 |
| | | | | D = 23.40 Az = 136 (NEIS) |
| 14. | eP | A | 00 31 11 | Pakistan 33.60 N 73.25 E |
| | LmV | C | 55.2 | H = 00 22 38.4 h = 33 km MB = 5.2 |
| | LmH | C | 55.4 | D = 47.38 Az = 310 (NEIS) |
| | | | | LmH C 12s 0.3/um M = 4.4 |
| | | | | LmV C 13 0.3/um 4.6 |
| 14. | eP | A | 09 20 42 | Near East Coast of Honshu, Japan |
| | | | | 35.70 N 140.06 E |
| | | | | H = 09 08 26.1 h = 78.6 km MB = 4.8 |
| | | | | D = 82.77 Az = 330 (NEIS) |
| | | | | traces |
| 15. | ePn | A | 10 46 02.5 | Austria Yugoslavia 46.62 N 14.2 E |
| | ePg | A | 46 17.5 | H = 10 44 55 h = 0 km |
| | eSn | A | 46 51 | D = 4.37 Az = 338 (ISC) |
| | eSg | A | 47 12 | |
| 15. | ePKHKP | A | 23 00 47 | Tonga Islands 19.43 S 175.19 W |
| | | | | H = 22 41 10.2 h = 89.2 km MB = 5.2 |
| | | | | D = 148.38 Az = 352 (NEIS) |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 16. | +iP | A | 00 56 47.5 | North Atlantic Ocean 25.97 N 26.26 W |
| | LmH | B | 01 25.6 | H = 00 49 31.2 h = 33 km MB = 5.5 |
| | LmV | B | 25.8 | D = 37.98 Az = 39 (NEIS) |
| | | | | PV A 1.2s 182.9nm M = 5.8 |
| | | | | LmH B 16 0.4/um 4.3 |
| | | | | LmV B 16 0.5/um 4.5 |
| 16. | eP | A | 10 54 26 | Molucca Passage 0.50 N 125.98 E |
| | ePP | A | 58 47 | H = 10 40 20.9 h = 33 km MB=6.1 MS=5.6 |
| | eSKS | C | 11 05 05 | D = 104.83 Az = 323 (NEIS) |
| | ePS | C | 07 50 | PV A 1.8s 33.8nm M = 6.0 |
| | LmV | B | 44.2 | LmH B 22 2.5/um 5.7 |
| | LmH | B | 44.3 | LmV B 21 2.7/um 5.8 |
| 16. | ePn | A | 19 35 36 | Yugoslavia 45.97 N 15.99 E |
| | eSn | A | 36 38 | H = 19 34 12.2 h = 15.5 km |
| | iSg | A | 37 10.5 | D = 5.52 Az = 330 (NEIS) |
| 17. | eP | A | 13 43 32 | Kamchatka 58.92 N 163.82 E |
| | LmV | C | 14 15.0 | H = 13 32 31.7 h = 33 km MB=5.2 MS=4.1 |
| | LmH | C | 16.0 | D = 68.47 Az = 341 (NEIS) |
| | | | | PV A 1.2s 32.5nm M = 5.3 |
| | | | | LmH C 14 0.45/um 4.9 |
| 17. | e(pPKP) | A | 18 40 14.5 | Tonga Islands 16.78 S 174.59 W |
| | | | | H = 18 20 04.2 h = 152 km (NEIS) |
| | | | | D = 145.8 |
| 18. | ePKHKP | A | 02 16 43.5 | South of Fiji Islands 24.68 S 175.96 W |
| | | | | H = 01 56 47.3 h = 35 km MB = 5.0 (NEIS) |
| | | | | D = 153.3 |
| 18. | eP | AB | 04 20 17.5 | Hokkaido, Japan Region 41.41 N 142.04 E |
| | eSKS | C | 30 45 | H = 04 08 13.4 h = 4.9 km MB=5.5 MS=5.6 |
| | LmH | B | 52.2 | D = 78.60 Az = 330 (NEIS) |
| | LmV | B | 58.1 | PV A 1.1s 24.2nm M = 5.2 |
| | | | | LmH B 19.5 2.7/um 5.6 |
| | | | | LmV B 18 2.7/um 5.7 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 18. | ePKIKP | A | 06 51 00 | South of Fiji Islands 24.41 S 176.28 W |
| | ePKHKP | A | 51 09.5 | H = 06 31 23.7 h = 121.9 km MB = 5.1 |
| | ePKP2 | A | 51 21 | D = 153.10 Az = 349 (NEIS) |
| 18. | ePKP | A | 11 58 38 | Tonga Islands 16.62 S 173.41 W |
| | | | | H = 11 39 00.7 h = 37.7 km MB = 4.7 |
| | | | | D = 145.82 Az = 354 (NEIS) |
| 18. | eP | A | 14 24 45 | Central Mid-Atlantic Ridge |
| | e | A | 24 53 | 8.82 N 39.72 W |
| | LmV | C | 47.0 | H = 14 14 44.1 h = 33 km MB = 4.5 |
| | | | | D = 59.30 Az = 35 (NEIS) |
| | | | | LmV C 19s 0.35/um M = 4.6 |
| 18. | eP | AB | 21 04 04 | South of Honshu, Japan 33.07 N 140.82 E |
| | ePP | AB | 07 20 | H = 20 51 29.8 h = 42.1 km MB=6.0 MS=5.7 |
| | eS | B | 14 22 | D = 85.36 Az = 330 (NEIS) |
| | eSS | C | 20 05 | PV A 1.8s 318.0nm M = 6.2 |
| | eSSS | C | 23 40 | LmH B 16 4.5/um 5.9 |
| | LmH | B | 47.5 | LmV B 16.5 5.0/um 6.0 |
| | LmV | B | 51.5 | |
| 19. | eP | A | 04 14 59.5 | South of Honshu, Japan 33.08 N 140.82 E |
| | epP | A | 15 16.5 | H = 04 02 24.2 h = 51.6 km MB = 5.2 |
| | esP | A | 15 25 | D = 85.35 Az = 330 (NEIS) |
| | | | | h = 67 km |
| 19. | eP | A | 06 24 32.5 | Tibet - India Border Region |
| | LmV | B | 48.9 | 31.79 N 78.42 E |
| | LmH | B | 50.4 | H = 06 15 25.0 h = 40.2 km MB = 5.4 |
| | | | | D = 51.84 Az = 312 (NEIS) |
| | | | | PV A 1.0s 31.5nm M = 5.3 |
| | | | | LmH B 18 0.6/um 4.6 |
| | | | | LmV B 12 1.1/um 5.2 |
| 19. | LmH | B | 09 09.2 | Mid - Indian Rise 41.31 S 80.52 E |
| | LmV | B | 11.0 | H = 07 53 23.6 h = 33 km MB = 5.8 (ISC) |
| | | | | D = 109.5 |
| | | | | LmH B 18s 1.4/um M = 5.6 |
| | | | | LmV B 17 1.1/um 5.5 |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 19. | +iP | AB | 22 45 41.5 | Near Islands, Aleutian Is. |
| | iPP | B | 48 30 | 53.57 N 170.03 E |
| | iS | B | 55 15 | H = 22 34 04.1 h = 33 km MB=6.2 MS=6.7 |
| | iPS | B | 55 56 | D = 74.59 Az = 346 (NEIS) |
| | iSS | B | 59 56 | PV A 1.5s 512.6nm M = 6.3 |
| | LmH | B | 23 24.0 | PV B 14 16.1/um 6.8 |
| | LmV | B | 27.0 | PPV B 13 10.3/um 6.8 |
| | | | | SH B 15 13.1/um 6.9 |
| | | | | LmH B 16 34.2/um 6.7 |
| | | | | LmV B 15 31.0/um 6.8 |
| 19. | eP | A | 23 52 34 | Tibet 34.70 N 81.26 E |
| | | | | H = 23 43 26.4 h = 18.6 km MB = 5.1 |
| | | | | D = 51.72 Az = 311 (NEIS) |
| | | | | PV A 1.5s 50.3nm M = 5.2 |
| 20. | eP | A | 07 13 41 | Kodiak Island Region 57.04 N 153.88 W |
| | | | | H = 07 02 20.4 h = 51.5 km MB = 4.7 |
| | | | | D = 72.01 Az = 10 (NEIS) |
| 20. | eP | A | 08 12 36.5 | Near Islands, Aleutian Is. |
| | | | | 53.27 N 170.34 E |
| | | | | H = 08 00 58.4 h = 42 km MB = 4.9 |
| | | | | D = 74.91 Az = 346 (NEIS) |
| 20. | eP | A | 11 21 45 | Adriatic Sea 43.87 N 15.79 E |
| | | | | H = 11 19 58.4 h = 33 km MB = 4.3 |
| | | | | D = 7.35 Az = 339 (NEIS) |
| 21. | eP | A | 13 07 29.5 | Turkey 39.91 N 40.03 E |
| | | | | H = 13 02 31.0 h = 33 km MB = 4.6 |
| | | | | D = 22.56 Az = 308 (NEIS) |
| | | | | PV A 1.4s 23.2nm M = 4.5 |
| 21. | eP | A | 17 47 41 | Ionian Sea 37.48 N 20.51 E |
| | e | A | 47 48 | H = 17 44 15.3 h = 52.9 km MB = 4.8 |
| | | | | D = 14.61 Az = 337 (NEIS) |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 21. | -eP | A | 20 13 22.5 | Alaska Peninsula 55.91 N 161.89 W |
| | epP | A | 14 05 | H = 20 02 06.0 h = 167.2 km MB = 5.0 |
| | | | | D = 73.67 Az = 4 (NEIS) |
| | | | | h = 180 km |
| | | | | PV A 1.3s 48.0nm M = 5.1 |
| 22. | LmH | B | 15 18.0 | Off Coast of Southern Chile |
| | LmV | B | 19.3 | 45.39 S 75.3 W |
| | | | | H = 14 10 10.3 h = 33 km MB = 5.1 (ISC) |
| | | | | D = 121.5 |
| | | | | LmH B 23s 1.4/um M = 5.6 |
| | | | | LmV B 20 1.6/um 5.7 |
| 22. | eP | A | 19 56 23.5 | North Atlantic Ridge 32.23 N 40.37 W |
| | eS | C | 20 02 50 | H = 19 48 35.2 h = 33 km MB=5.2 MS=4.8 |
| | LmH | B | 10.3 | D = 42.18 Az = 48 (NEIS) |
| | LmV | B | 12.0 | PV A 2.4s 138.0nm M = 5.3 |
| | | | | LmH B 20 1.7/um 4.9 |
| | | | | LmV B 16 1.7/um 5.1 |
| 23. | ePKP | A | 00 26 53 | Tonga Islands 15.29 S 173.67 W |
| | | | | H = 00 07 18.2 h = 33 km MB = 4.9 |
| | | | | D = 144.48 Az = 354 (NEIS) |
| 23. | iPKHKP | A | 00 41 30 | South of Fiji Islands 21.97 S 179.63 W |
| | ePKP2 | A | 41 38 | H = 00 22 47.3 h = 643 km MB = 5.2 (NEIS) |
| | | | | D = 150.0 |
| | | | | PKHKPV A 0.8s 34.6s |
| 23. | eP | A | 06 41 52 | Azores Islands 38.38 N 30.10 W |
| | LmH | C | 53.0 | H = 06 35 27.8 h = 33 km MB = 4.5 |
| | LmV | C | 53.0 | D = 31.75 Az = 54 (NEIS) |
| 23. | LmH | B | 13 32.5 | Luzon 17.47 N 120.21 E |
| | LmV | B | 36.3 | H = 12 37 17.3 h = 59 km MB = 5.3 (ISC) |
| | | | | D = 87.8 |
| | | | | LmH B 18s 0.3/um |
| | | | | LmV B 18 0.45/um |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 23. | eP | A | 20 24 52.5 | Southern Greece 36.99 N 21.96 E |
| | LmH | C | 31.9 | H = 20 21 18.0 h = 79.8 km MB = 4.3 |
| | LmV | C | 31.9 | D = 15.54 Az = 335 (NEIS) |
| | | | | LmH C 19s 0.6/um |
| | | | | LmV C 19 0.7/um |
| 24. | ePKP | A | 04 57 06 | Tonga Islands 18.55 S 174.48 W |
| | | | | H = 04 37 40.7 h = 186 km MB = 4.8 (NEIS) |
| | | | | D = 147.5 |
| 24. | eP | A | 09 02 02 | Ascension Island Region 11.69 S 13.62 W |
| | Pm | A | 02 10 | H = 08 51 16.6 h = 33 km MB=5.1 MS=5.5 |
| | eS | C | 10 50 | D = 65.86 Az = 17 (NEIS) |
| | eSS | C | 14 50 | PmV A 1.8s 40.5nm M = 5.2 |
| | eSSS | C | 17 55 | LmH B 20 3.8/um 5.6 |
| | LmH | B | 25.2 | LmV B 20 3.1/um 5.6 |
| | LmV | B | 29.7 | |
| 24. | eP | A | 11 51 51 | Hokkaido, Japan Region 42.39 N 142.51 E |
| | epP | A | 52 12 | H = 11 40 00.0 h = 75 km MB = 5.3 |
| | LmH | B | 25.1 | D = 77.93 Az = 331 (NEIS) |
| | LmV | B | 30.8 | h = 84.8 km |
| | | | | PV A 1.4s 37.2nm M = 5.1 |
| | | | | LmH B 17 1.0/um |
| | | | | LmV B 15 0.9/um |
| 24. | eP | A | 16 16 35.5 | Dodecanese Islands 37.89 N 26.77 E |
| | | | | H = 16 12 33.8 h = 33 km MB = 4.0 |
| | | | | D = 16.70 Az = 325 (NEIS) |
| | | | | PV A 1.4s 18.6nm M = 4.0 |
| 24. | ePKP | A | 16 29 43.5 | Fiji Islands Region 17.64 S 178.90 W |
| | | | | H = 16 11 05.4 h = 543.4 km MB = 4.9 |
| | | | | D = 146.01 Az = 348 (NEIS) |
| | | | | PKPV A 1.4s 23.3nm |
| 24. | +iP | AB | 20 51 14.5 | Turkey 38.74 N 27.72 E |
| | eS | B | 54 30 | H = 20 47 21.3 h = 43 km MB = 5.0 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| cont. 24. | LmH | B | 20 56.9 | D = 16.48 Az = 321 (NEIS) |
| | LmV | B | 21 00.3 | PV A 2.0s 145.3nm M = 4.8 |
| | | | | PH A 2.1 145.7nm 4.8 |
| | | | | LmH B 13.5 3.1/um 4.7 |
| | | | | LmV B 12 1.7/um 4.6 |
| 24. | ePKHKP | A | 22 23 37 | Fiji Islands Region 20.15 S 178.16 W |
| | | | | H = 22 04 54.8 h = 597.3 km MB = 4.8 |
| | | | | D = 148.60 Az = 348 (NEIS) |
| | | | | PKHKPV A 0.8s 17.3nm |
| 25. | ePKIKP | A | 01 18 31 | East Papua New Guinea Region |
| | | | | 6.28 S 147.56 E |
| | | | | H = 00 59 38.5 h = 49.4 MB=5.4 MS=5.5 |
| | | | | D = 122.59 Az = 328 (NEIS) |
| 25. | ePKIKP | A | 01 37 44 | East Papua New Guinea Region |
| | e | A | 39 46 | 6.29 S 147.53 E |
| | ePP | C | 40 20 | H = 01 18 52.8 h = 51.9 km MB=5.9 MS=5.9 |
| | ePS | C | 49 15 | D = 122.58 Az = 328 (NEIS) |
| | eSS | C | 56 15 | PKIKPV A 1.1s 22.2nm |
| | LmH | B | 02 30.5 | PPV C 20 0.8/um M = 5.9 |
| | LmV | B | 33.8 | LmH B 22 2.8/um 5.9 |
| | | | | LmV B 18 2.2/um 5.9 |
| 25. | ePKP | A | 01 43 32.5 | Eastern New Guinea Region 6.32 S 147.68 E |
| | | | | H = 01 24 41.1 h = 49 km |
| | | | | D = 122.68 Az = 328 (ISC) |
| 25. | eP | A | 04 43 47 | Western Iran 32.52 N 49.43 E |
| | | | | H = 04 37 15.9 h = 66.3 km MB = 4.8 |
| | | | | D = 33.12 Az = 314 (NEIS) |
| 25. | ePKP | A | 18 40 11.5 | Fiji Islands Region 18.00 S 178.35 W |
| | | | | H = 18 21 35.2 h = 605.4 km MB = 4.3 |
| | | | | D = 146.47 Az = 349 (NEIS) |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 26. | ePKHKP | A | 00 40 14.5 | Tonga Islands 18.96 S 174.14 W |
| | | | | H = 00 20 30.6 h = 33 km MB = 5.3 |
| | | | | D = 148.05 Az = 353 (NEIS) |
| | | | | PKHKPV A 1.5s 20.1nm |
| 26. | epPKP | A | 14 27 34 | Fiji Islands Region 17.32 S 176.96 W |
| | ePP | A | 31 47 | H = 14 07 42.1 h = 74 km MB = 4.8 |
| | LmV | C | 15 27.2 | D = 146.05 Az = 350 (NEIS) |
| | LmH | B | 33.0 | pPKPV A 1.2s 20.3nm |
| | | | | LmH B 18 0.3/um |
| | | | | LmV C 24 0.5/um |
| 26. | LmV | C | 19 39.5 | LmV C 17s 0.3/um |
| 26. | eP | A | 22 50 26.5 | Canary Islands Region 28.53 N 20.84 W |
| | LmH | B | 23 03.0 | H = 22 43 48.9 h = 10 km MB = 4.7 |
| | LmV | C | 03.0 | D = 32.95 Az = 39 (NEIS) |
| | | | | PV A 1.3s 32.8nm M = 5.1 |
| | | | | LmH B 14 0.3/um 4.1 |
| | | | | LmV C 16 0.3/um 4.2 |
| 27. | eP | A | 04 09 47 | Azores Islands Region 37.54 N 31.92 W |
| | LmV | C | 21.2 | H = 04 03 09.4 h = 33 km MB=4.6 MS=4.8 |
| | | | | D = 33.41 Az = 53 (NEIS) |
| | | | | LmV C 21s 0.45/um M = 4.3 |
| 27. | ePP | A | 08 47 22.5 | Sunda Strait 6.34 S 104.87 E |
| | | | | H = 08 30 00.6 h = 59.3 km MB = 5.4 |
| | | | | D = 96.92 Az = 320 (NEIS) |
| | | | | PPV A 1.8s 33.8nm M = 5.6 |
| 27. | -iP | A | 09 29 57.5 | Tadzhik SSR 38.07 N 72.69 E |
| | e | A | 31 02 | H = 09 21 57.2 h = 111.7 km MB = 5.1 |
| | ePP | A | 31 49 | D = 44.23 Az = 307 (NEIS) |
| | | | | PV A 1.0s 37.4nm M = 5.1 |
| 27. | eP | A | 12 39(31) | Off East Coast of Kamchatka |
| | | | | 53.84 N 161.53 E |
| | | | | H = 12 28 00.4 h = 43.6 km MB = 4.4 |
| | | | | D = 72.87 Az = 340 (NEIS) |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 27. | ePP | A | 18 51 08 | Mariana Islands 18.65 N 145.29 E |
| | | | | H = 18 34 08.5 h = 579 km MB=5.0 (NEIS) |
| | | | | D = 100.0 |
| | | | | PPV A 1.9s 60.6nm M = 5.6 |
| 28. | eP | A | 01 45 01 | South of Panama 4.04 N 82.50 W |
| | eSKS | C | 55 30 | H = 01 32 02.0 h = 33 km MB=5.1 MS=5.2 |
| | eSS | C | 02 02 00 | D = 89.52 Az = 39 (NEIS) |
| | LmV | C | 17.5 | LmH C 24s 1.3/um M = 5.3 |
| | LmH | B | 18.0 | LmV B 24 2.3/um 5.6 |
| 28. | eP | A | 02 04 02.5 | Mindanao, Philippine Islands |
| | | | | 9.22 N 126.12 E |
| | | | | H = 01 50 31.9 h = 63.7km MB = 5.7 |
| | | | | D = 97.93 Az = 324 (NEIS) |
| | | | | PV A 1.0s 17.7nm M = 5.5 |
| 28. | eP | A | 08 52 47.5 | Arabian Sea 14.88 N 54.95 E |
| | | | | H = 08 43 55.7 h = 33 km MB=5.1 MS=4.7 |
| | | | | D = 49.87 Az = 325 (NEIS) |
| | | | | PV A 2.1s 114.9nm M = 5.5 |
| 28. | eP | A | 17 44 01.5 | Arabian Sea 14.81 N 55.01 E |
| | eS | B | 51 10 | H = 17 35 06.5 h = 33 km MB=5.1 MS=4.6 |
| | LmH | B | 18 09.8 | D = 49.96 Az = 325 (NEIS) |
| | LmV | C | 11.3 | PV A 2.0s 94.0nm M = 5.5 |
| | | | | LmH B 16 0.9/um 4.8 |
| | | | | LmV C 18 1.0/um 4.9 |
| 28. | eP | A | 18 02 54 | Kurile Islands 44.63 N 146.82 E |
| | | | | H = 17 50 54.4 h = 9.7 km MB=5.3 MS=4.7 |
| | | | | D = 77.45 Az = 333 (NEIS) |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 1. | e | A | 00 49(00) | Mindanao 6.84 N 123.93 E |
| | LmV | C | 01 38.0 | H = 00 35 01.7 h = 45 km MB = 5.4 |
| | | | | D = 98.55 Az = 323 (ISC) |
| | | | | LmV C 21s 0.4/um M = 4.9 |
| 1. | eP | A | 01 55(43) | Mid - Indian Rise 7.16 S 67.94 E |
| | | | | H = 01 44 11.7 h = 33 km MB = 4.8 |
| | | | | D = 75.23 Az = 327 (NEIS) |
| | | | | station clock out of operation |
| 1. | eP | A | 20 50 00 | Near West Coast of Colombia |
| | | | | 6.26 N 77.62 W |
| | | | | H = 20 37 25.1 h = 22.7 km MB = 4.9 |
| | | | | D = 84.72 Az = 40 (NEIS) |
| 2. | ePKIKP | A | 05 24 58.5 | Fiji Islands 16.37 S 177.98 E |
| | e | A | 25 05 | H = 05 05 23.6 h = 33 km MB=5.5 MS=5.1 |
| | i | A | 27 14.5 | D = 144.09 Az = 345 (NEIS) |
| 2. | eP | AB | 10 06 57 | Mindanao, Philippine Islands |
| | eipP | A | 07 12 | 6.77 N 123.74 E |
| | ePP | B | 11 00 | H = 09 53 23.2 h = 51.6 km MB=6.1 MS=6.1 |
| | ePPP | B | 13 32 | D = 98.50 Az = 323 (NEIS) |
| | eS | B | 18 25 | h = 51 km |
| | LmH | B | 51.6 | PV A 1.6s 159.0nm M = 6.3 |
| | LmV | B | 59.5 | PV B 7 1.2/um 6.5 |
| | | | | LmH B 18.5 11.3/um 6.4 |
| | | | | LmV B 16.5 6.7/um 6.2 |
| 2. | eP | A | 23 22 25.5 | Off East Coast of Kamchatka |
| | LmH | C | 54.0 | 54.69 N 163.66 E |
| | LmV | C | 57.5 | H = 23 11 01.8 h = 42 km MB = 5.1 |
| | | | | D = 72.46 Az = 342 (NEIS) |
| | | | | PV A 1.4s 18.6nm M = 4.9 |
| | | | | LmH C 17 0.35/um 4.7 |
| | | | | LmV C 18 0.35/um 4.7 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 3. | ePKP | A | 12 14 58.5 | Fiji Islands Region 18.23 S 176.97 W |
| | | | | H = 11 55 59.7 h = 384.4 km MB = 4.8 |
| | | | | D = 146.94 Az = 350 (NEIS) |
| 4. | ePKP | A | 05 12 59 | Samoa Region 16.22 s 172.64 W |
| | | | | H = 04 53 22.9 |
| | | | | D = 145.39 Az = 355 (ISC) |
| | | | | PKPV A 1.1s 28.2nm |
| 4. | eP | A | 06 58 59 | Sakhalin Island 51.31 N 143.84 E |
| | | | | H = 06 47 44.3 h = 33 km MB = 4.8 |
| | | | | D = 70.62 Az = 330 (NEIS) |
| 4. | -eiP | AB | 19 24 32 | Rumania 45.77 N 26.76 E |
| | eiS | B | 26 56 | H = 19 21 54.1 h = 94.1 km MB = 6.4 |
| | LmH | B | 30.0 | D = 11.22 Az = 301 (NEIS) |
| | LmV | B | 30.0 | PV A 1.2s 1300.0nm M = 6.6 |
| | eP'P' | A | 20 01 22 | SH B 15 567.0/um 8.6 |
| | | | | LmH B 13 656.0/um |
| | | | | LmV B 13 397.0/um |
| 5. | e(P) | A | 00 03 33.5 | Rumania 45.48 N 27.09 E |
| | | | | H = 00 00 45.9 h = 104.2 km MB = 4.9 |
| | | | | D = 11.56 Az = 302 (NEIS) |
| 5. | ePn | A | 13 32 43.5 | Switzerland 46.54 N 7.33 E |
| | ePg | A | 32 58 | H = 13 31 25.1 h = 33 km |
| | eSn | A | 33 46 | D = 4.99 Az = 33 (NEIS) |
| | eSg | A | 34 06 | |
| 5. | ePKHKP | A | 16 33 55 | South of Fiji Islands 23.30 S 178.80 E |
| | ePKP2 | A | 34 05 | H = 16 15 07.3 h = 596.7 km MB = 5.1 |
| | | | | D = 150.93 Az = 343 (NEIS) |
| | | | | PKHKPV A 1.2s 30.5nm |
| 6. | LmH | B | 14 01.7 | Flores Island Region 8.30 S 123.60 E |
| | LmV | B | 02.2 | H = 12 47 18.3 h = 39.1 km |
| | | | | MB = 5.2 MS = 5.7 (NEIS) |
| | | | | D = 110.3 |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| cont. 6. | | | | LmH B 18s 0.8/um M = 5.3 |
| | | | | LmV B 17 0.8/um 5.4 |
| 7. | eP | A | 00 39 53.5 | Northeastern China 39.98 N 118.69 E |
| | eS | C | 49 00 | H = 00 28 47.4 h = 33 km MP=5.3 MS=5.0 |
| | LmH | B | 01 07.7 | D = 69.52 Az = 319 (NEIS) |
| | LmV | B | 13.9 | PV A 2.0s 102.8nm M = 5.5 |
| | | | | LmH B 18 18.6/um 6.4 |
| | | | | LmV B 14 4.8/um 6.0 |
| 7. | iPn | AB | 08 18 52.0 | Limburg, Fed. Rep. of Germany |
| | eiPg | A | 18 57 | 50.28 N 8.17 E |
| | eSn | A | 19 16 | H = 08 18 17.0 h = 33 km |
| | eiSg | A | 19 25 | D = 2.23 Az = 79 (NEIS) |
| 7. | eP | A | 09 24 28 | Hokkaido, Japan Region 43.10 N 145.77 E |
| | LmV | C | 55.5 | H = 09 12 28.1 h = 24.1 km MB = 5.4 |
| | LmH | C | 55.9 | D = 78.45 Az = 332 (NEIS) |
| | | | | PV A 2.2s 76.4nm M = 5.3 |
| | | | | LmH C 24.5 0.9/um 5.0 |
| | | | | LmV C 32 0.6/um 4.8 |
| 7. | eP | A | 10 49 15 | Central Mid-Atlantic Ridge |
| | LmV | B | 11 15.0 | 7.43 N 35.99 W |
| | LmH | B | 17.5 | H = 10 39 20.9 h = 33 km MB = 4.9 |
| | | | | D = 58.34 Az = 34 (NEIS) |
| | | | | LmH B 16s 0.35/um M = 4.6 |
| | | | | LmV B 19 0.6/um 4.8 |
| 7. | eP | A | 14 01 20 | Celebes Sea 1.99 N 123.05 E |
| | LmV | C | 50.0 | H = 13 47 31.0 h = 58 km MB = 5.4 |
| | LmH | C | 50.2 | D = 101.88 Az = 323 (NEIS) |
| | | | | LmH C 21s 0.7/um |
| | | | | LmV C 20 0.6/um |
| 8. | eP | A | 03 05 51 | Dodecanese Islands 36.54 N 28.44 E |
| | | | | H = 03 01 36.7 h = 63.4 km MB = 4.1 |
| | | | | D = 18.57 Az = 325 (NEIS) |
| | | | | PV A 1.4s 41.9nm M = 4.5 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 8. | ePKP | A | 03 21 11.5 | Fiji Islands Region 17.84 S 178.71 W |
| | epPKP | A | 23 18 | H = 03 02 32.8 h = 570.8 km MB = 5.3 |
| | | | | D = 146.24 Az = 348 (NEIS) |
| | | | | h = 547 km |
| | | | | PKPV A 1,4s 32.6nm |
| | | | | pPKP traces |
| 8. | LmH | B | 09 29.0 | Solomon Islands 8.41 S 156.35 E |
| | LmV | B | 29.3 | H = 08 07 19.9 h = 33 km MB = 5.6 (ISC) |
| | | | | D = 128.8 |
| | | | | LmH B 17s 1.1/um M = 5.6 |
| | | | | LmV B 14 1.4/um 5.8 |
| 8. | eP | A | 13 22 23.5 | Peru 11.96 S 74.20 W |
| | LmH | B | 14 04.6 | H = 13 08 56.3 h = 40.6 km MB=5.6 MS=5.6 |
| | LmV | B | 09.4 | D = 96.51 Az = 40 (NEIS) |
| | | | | PV A 2.0s 77.0nm M = 5.9 |
| | | | | LmH B 20 1.3/um 5.4 |
| | | | | LmV B 17 1.7/um 5.6 |
| 8. | e(PP) | A | 15 38 31 | Tadzhikistan 38.00 N 69.52 E |
| | | | | H = 15 28 46.7 h = 10 km MB = 4.7 (ISC) |
| | | | | D = 42.3 |
| 8. | ePn | A | 19 20 36 | Yugoslavia 43.32 N 21.00 E |
| | eSn | A | 22 19 | H = 19 18 12.8 h = 34.5 km MB = 4.8 |
| | | | | D = 9.73 Az = 322 (NEIS) |
| 8. | eP | A | 22 59 35 | Peru 12.06 S 74.03 W |
| | | | | H = 22 46 04.8 h = 14 km MB=5.6 MS=5.4 |
| | | | | D = 96.47 Az = 40 (NEIS) |
| | | | | PV A 1.2s 16.3nm M = 5.4 |
| 8. | eP | AB | 23 30 21 | Northern Sumatra 0.45 N 100.02 E |
| | eS | C | 41 05 | H = 23 17 28.0 h = 21.6 km MB=5.5 MS=6.0 |
| | eSS | C | 46 40 | D = 88.64 Az = 320 (NEIS) |
| | eSSS | C | 50 24 | PV A 1.6s 82.5nm M = 5.8 |
| | LmH | B | 24 25.4 | LmH B 15.5 4.2/um 6.0 |
| | LmV | B | 28.1 | LmV B 16 3.7/um 5.9 |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 9. | ePn | A | 00 11 54 | Austria 46.3 N 13.2 E |
| | ePg | A | 12 13.5 | H = 00 10 44 h = 0 km |
| | eSn | A | 12 45 | D = 4.49 Az = 347 (ISC) |
| | eSg | A | 13 07.5 | |
| 9. | eP | A | 04 11 23 | Kurile Islands 46.43 N 153.87 E |
| | | | | H = 03 59 27.2 h = 30 km MB = 5.2 |
| | | | | D = 77.96 Az = 337 (NEIS) |
| | | | | PV A 1.2s 30.5nm M = 5.2 |
| 9. | eP | A | 04 26 55 | Kurile Islands Region 46.08 N 154.06 E |
| | | | | H = 04 14 58.6 h = 38 km MB = 5.0 |
| | | | | D = 78.32 Az = 337 (NEIS) |
| | | | | PV A 1.2s 24.4nm M = 5.1 |
| 9. | e(pPKP) | A | 04 55 27.5 | Loyalty Islands Region 21.00 S 169.74 E |
| | | | | H = 04 35 22.5 h = 103 km (ISC) |
| | | | | D = 145.8 |
| 9. | eP | A | 06 18 20.5 | Fox Islands, Aleutian Is. |
| | e | A | 18 32 | 52.76 N 167.79 W |
| | | | | H = 06 06 30.4 h = 33 km MB = 4.7 |
| | | | | D = 76.97 Az = 0 (NEIS) |
| | | | | PV A 1.2s 16.3nm M = 4.9 |
| 9. | eP | A | 06 42 25 | Eastern Sea of Japan 41.21 N 138.22 E |
| | | | | H = 06 30 32.2 h = 33 km MB = 5.0 |
| | | | | D = 77.31 Az = 328 (NEIS) |
| 9. | -iP | AB | 14 38 36 | North Korea 41.61 N 130.88 E |
| | ipP | AB | 40 34 | H = 14 27 53.6 h = 528 km MB = 5.9 |
| | iPP | B | 41 28 | D = 73.94 Az = 325 (NEIS) |
| | ipPP | B | 43 17 | h = 588 km |
| | iS | B | 47 20 | PV A 1.6s 1153.0nm M = 6.1 |
| | iSP | B | 47 44 | PV B 9 10.9/um 6.3 |
| | i | B | 47 50 | pPV B 9 6.8/um |
| | iSS | B | 51 52 | PPV B 9 5.3/um 6.5 |
| | eP'P' | A | 15 05 37 | SH B 13 31.9/um 6.9 |
| | eSKPP' | A | 08 38 | SKPP'V A 2.2 251.0nm |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| cont. 9. | LmH | B | 15 13.0 | LmH B 15s 15.1/um |
| | LmV | B | 15.2 | LmV B 14 16.1/um |
| 9. | LmH | C | 24 00.0 | Molucca Passage 2.59 N 127.17 E |
| | LmV | C | 07.0 | H = 23 01 15.9 h = 59.3 km MB = 5.5 |
| | | | | D = 103.87 Az = 324 (NEIS) |
| | | | | LmV C 24s 0.5/um |
| 10. | ePg | A | 02 03 16.5 | Northern Italy 45.77 N 9.81 E |
| | eSn | A | 03 52 | H = 02 01 45.4 h = 33 km |
| | eSg | A | 04 24 | D = 5.03 Az = 13 (NEIS) |
| 10. | eP | A | 17 49 45 | Caribbean Sea 17.89 N 81.95 W |
| | | | | H = 17 37 44.8 h = 33 km MB = 4.9 |
| | | | | D = 78.59 Az = 40 (NEIS) |
| | | | | PV A 1.4s 18.6nm M = 4.9 |
| 11. | eP | A | 07 10 45.5 | Philippine Islands Region |
| | LmH | C | 53.3 | 19.14 N 121.24 E |
| | LmV | C | 55.2 | H = 06 58 02.3 h = 41.7 km MB=5.4 (NEIS) |
| | | | | D = 87.2 |
| | | | | LmH C 19s 2.6/um M = 5.7 |
| | | | | LmV C 19 2.3/um 5.6 |
| 12. | eP | AB | 03 06 51.5 | North Atlantic Ridge 23.74 N 45.17 W |
| | eS | B | 14 15 | H = 02 57 50.6 h = 33 km MB=5.4 MS=5.6 |
| | LmH | B | 24.5 | D = 51.08 Az = 43 (NEIS) |
| | LmV | B | 25.2 | PV A 1.7s 91.0nm M = 5.5 |
| | | | | SH B 16 3.2/um 6.0 |
| | | | | LmH B 17.5 6.0/um 5.7 |
| | | | | LmV B 18.5 7.1/um 5.8 |
| 12. | LmH | C | 08 54.0 | Off Coast of Jalisco, Mexico |
| | LmV | C | 09 01.0 | 18.81 N 107.13 W |
| | | | | H = 08 09 11 h = 24 km MB = 4.9 (ISC) |
| | | | | D = 92.5 |
| | | | | LmH C 33s 0.45/um M = 4.7 |
| | | | | LmV C 21 0.4/um 4.9 |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 13. | ePKP | A | 03 54 06.5 | Tonga Islands 16.52 S 173.27 W |
| | | | | H = 03 34 29.0 h = 33 km MB = 4.7 |
| | | | | D = 145.73 Az = 354 (NEIS) |
| 13. | LmH | C | 15 35.5 | LmH C 23s 0.4/um |
| | LmV | C | 35.5 | LmV C 25 0.35/um |
| 13. | eP | A | 21 27 34 | Peru - Brazil Border Region |
| | eSKS | C | 37 55 | 8.04 S 74.41 W |
| | eS | C | 38 20 | H = 21 14 32.2 h = 161 km MB = 5.1 |
| | e | C | 38 50 | D = 93.63 Az = 40 (NEIS) |
| | esS | C | 39 30 | PV A 2.2s 87.2nm M = 5.6 |
| | eSS | C | 44 50 | |
| | esSS | C | 45 35 | |
| 14. | ePKIKP | A | 19 21 47 | Fiji Islands Region 20.73 S 178.51 W |
| | -eiPKHKP | A | 21 52 | H = 19 03 07.8 h = 577.4 km MB = 5.4 |
| | ePKP2 | A | 21 58.5 | D = 149.10 Az = 347 (NEIS) |
| | | | | PKIKPV A 0.7s 26.8nm |
| | | | | PKHKPV A 1.5 241.2nm |
| | | | | PKP2V A 1.2 77.2nm |
| 14. | eP | A | 20 55 01 | Jan Mayen Island Region |
| | | | | 71.97 N 0.99 W |
| | | | | H = 20 50 04.2 h = 33 km MB = 4.5 |
| | | | | D = 22.13 Az = 158 (NEIS) |
| | | | | PV A 1.5s 33.0nm M = 4.5 |
| 14. | ePKP2 | A | 21 12 30 | Kermadec Islands Region 31.01 S 179.94 E |
| | | | | H = 20 52 38.2 h = 368 km MB = 5.0 (NEIS) |
| | | | | D = 158.7 |
| | | | | PKP2V A 1.6s 44.0nm |
| 15. | eP | A | 01 11 38.5 | Tibet 31.35 N 89.34 E |
| | LmH | C | 37.5 | H = 01 01 39.9 h = 33 km MB = 4.7 (NEIS) |
| | LmV | C | 41.5 | D = 58.9 |
| | | | | PV A 2.0s 42.7nm M = 5.2 |
| | | | | LmH C 22 1.0/um 4.9 |
| | | | | LmV C 19 0.6/um 4.8 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 15. | ePn | A | 02 03 30 | Yugoslavia 42.1 N 19.2 E |
| | eSg | A | 05 37 | H = 02 00 06 h = 10 km |
| | | | | D = 10.05 Az = 331 (ISC) |
| 15. | ePKP | A | 04 31 22.5 | Tonga Islands 15.18 S 173.21 W |
| | | | | H = 04 11 51.2 h = 32 km MB=4.9 MS=5.3 |
| | | | | D = 144.41 Az = 355 (NEIS) |
| 15. | ePKIKP | A | 09 13 32 | Banda Sea 4.95 S 131.01 E |
| | ePP | A | 14 13 | H = 08 54 58.8 h = 40.7 km |
| | eSP | C | 23 35 | MB = 5.8 MS = 5.6 (NEIS) |
| | ePSS | C | 24 40 | D = 112.2 |
| | eSS | C | 30 15 | LmH C 24s 1.8/um M = 5.6 |
| | eSSS | C | 34 00 | LmV C 28 2.0/um 5.5 |
| | LmV | C | 10 00.8 | |
| | LmH | C | 03.3 | |
| 15. | ePKIKP | A | 20 14 45 | Solomon Islands 6.73 S 154.96 E |
| | LmH | B | 21 02.5 | H = 19 55 42.6 h = 31 km |
| | LmV | B | 17.5 | MB = 5.5 MS = 5.8 (NEIS) |
| | | | | D = 126.6 |
| | | | | LmH B 22s 1.1/um M = 5.5 |
| | | | | LmV B 20 1.2/um 5.6 |
| 16. | eP | A | 06 33 52.5 | Alaska Peninsula 55.49 N 157.04 W |
| | | | | H = 06 22 17.7 h = 18 km |
| | | | | MB = 5.1 MS = 3.9 (NEIS) |
| | | | | D = 73.8 |
| | | | | PV A 1.0s 17.7nm M = 5.1 |
| 16. | eP | A | 13 06 51.5 | Tibet 31.26 N 89.41 E |
| | | | | H = 12 56 52.0 h = 33 km MB = 4.8 (NEIS) |
| | | | | D = 59.2 |
| | | | | PV A 1.8s 27.0nm M = 5.0 |
| 16. | ePKHKP | A | 18 00 17 | Fiji Islands Region 20.88 S 178.94 W |
| | | | | H = 17 41 35.3 h = 620.9 km MB = 4.7 |
| | | | | D = 149.15 Az = 347 (NEIS) |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 16. | eP | A | 24 06 08 | Yunnan Province, China 25.80 N 99.51 E<br>H = 23 55 01.6 h = 33 km<br>MB = 5.1 MS = 4.7 (NEIS)<br>D = 69.2<br>PV A 1.4s 23.3nm M = 5.1 |
| 16. | eP | A | 24 08 42.5 | Yunnan Province, China 25.61 N 99.99 E |
| | LmH | B | 36.9 | H = 23 57 34.0 h = 33 km MB = 5.0 |
| | LmV | B | 41.6 | D = 69.65 Az = 317 (NEIS)<br>LmH B 20s 1.5/um M = 5.2 |
| 17. | ePn | A | 04 41 29 | Poland (CLL) |
| | iSg | A | 42 08 | D = 2.5 |
| 17. | eSg | A | 17 57 55 | Hungary 46.99 N 18.10 E<br>H = 17 54 47.7 h = 0 km (ISC)<br>D = 5.6 |
| 18. | eiP | AB | 21 56 48 | Luzon, Philippine Islands |
| | iPP | B | 22 00 20 | 16.77 N 122.33 E |
| | iS | B | 07 40 | H = 21 43 52.4 h = 37 km MB=6.2 MS=7.0 |
| | iPS | B | 08 52 | D = 89.69 Az = 323 (NEIS) |
| | iSS | B | 13 48 | PV A 1.5s 462.3nm M = 6.6 |
| | ePKKP | A | 14 28 | PV B 12 13.3/um 7.1 |
| | eP'P' | A | 22 32 | SH B 18 29.0/um 7.2 |
| | LmH | B | 32.8 | LmH B 25 252.0/um 7.6 |
| | LmV | B | 43.4 | LmV B 16.5 204.0/um 7.7 |
| 18. | eP | A | 24 10 35.5 | Luzon, Philippine Islands<br>16.76 N 122.52 E<br>H = 23 57 38.1 h = 33 km MB = 5.3<br>D = 89.81 Az = 324 (NEIS)<br>PV A 1.7s 36.4nm M = 5.4 |
| 19. | eP | A | 00 54 05 | Luzon, Philippine Islands |
| | epP | A | 54 28 | 16.83 N 122.45 E<br>H = 00 41 08.7 h = 33 km MB = 5.2<br>D = 89.71 Az = 323 (NEIS)<br>h = 87 km<br>PV A 1.4s 27.9nm M = 5.4 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 19. | eP | A | 02 06 12 | Luzon, Philippine Islands<br>17.14 N 122.43 E<br>H = 01 53 19.2 h = 49 km MB = 5.3 (NEIS)<br>D = 89.5<br>PV A 1.4s 37.2nm M = 5.5 |
| 19. | eP | A | 03 15 38 | Luzon, Philippine Islands<br>17.14 N 122.51 E<br>H = 03 02 42.6 h = 34 km MB = 5.1 (NEIS)<br>D = 89.5 |
| 19. | e(pP) | A | 08 35 31.5 | Luzon, Philippine Islands |
| | LmH | B | 09 22.0 | 16.75 N 122.39 E |
| | LmV | B | 22.0 | H = 08 22 18.8 h = 63 km MB = 5.1<br>D = 89.74 Az = 232 (ISC)<br>LmH B 13s 0.3/um<br>LmV B 13 0.35/um |
| 19. | eP | A | 08 43 29 | Greenland Sea 76.1 N 4.8 E<br>H = 08 38 01 h = 33 km MB = 4.4<br>D = 25.74 Az = 170 (ISC)<br>PV A 1.6s 22.0nm M = 4.5 |
| 19. | ePKP | A | 09 42 05 | Tonga Islands 17.72 S 174.68 W<br>H = 09 22 42.4 h = 176 km MB = 5.1 (NEIS)<br>D = 146.7<br>PKPV A 2.0s 59.8nm |
| 19. | +iP | AB | 11 08 18.3 | Kurile Islands 44.20 N 148.20 E |
| | LmV | B | 47.2 | H = 10 56 25.1 h = 70 km MB = 6.0 |
| | LmH | B | 47.3 | D = 78.28 Az = 333 (NEIS)<br>PV A 1.5s 754.0nm M = 6.4<br>PV B 4 1.8/um 6.3<br>LmH B 18 1.5/um<br>LmV B 19 1.9/um |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 19. | eP | A | 12 30 01 | Luzon, Philippine Islands |
| | LmH | B | 13 15.0 | 16.61 N 122.42 E |
| | LmV | B | 16.3 | H = 12 17 03.6 h = 33 km MB=5.4 MS=4.5 |
| | | | | D = 89.87 Az = 323 (NEIS) |
| | | | | PV A 1.4s 18.6nm M = 5.2 |
| | | | | LmH B 16 0.8/um 5.3 |
| | | | | LmV B 17 1.5/um 5.5 |
| 19. | eP | A | 13 09 02 | Luzon, Philippine Islands |
| | LmH | B | 47.3 | 16.65 N 122.46 E |
| | LmV | B | 55.9 | H = 12 56 03.7 h = 33 km MB=5.3 MS=5.1 |
| | | | | D = 89.86 Az = 323 (NEIS) |
| | | | | PV A 1.3s 26.2nm M = 5.3 |
| | | | | LmH B 17.5 1.6/um 5.5 |
| | | | | LmV B 16 1.7/um 5.6 |
| 19. | eP | A | 13 40 07 | Luzon, Philippine Islands |
| | | | | 16.70 N 122.49 E |
| | | | | H = 13 27 09.4 h = 42 km MB = 5.2 |
| | | | | D = 89.84 Az = 323 (ISC) |
| | | | | PV A 1.6s 22.0nm M = 5.3 |
| 19. | ePKHKP | A | 16 30 57 | Fiji Region 20.39 S 177.79 W |
| | | | | H = 16 12 09.7 h = 550 km |
| | | | | D = 148.91 Az = 348 (ISC) |
| 19. | ePKP | A | 19 22 06.5 | New Hebrides Islands 19.02 S 169.25 E |
| | | | | H = 19 02 54.1 h = 182 km MB = 4.4 (NEIS) |
| | | | | D = 143.8 |
| | | | | PKPV A 1.4s 23.2nm |
| 19. | eP | AB | 19 48 03 | Luzon, Philippine Islands |
| | ePP | C | 51 30 | 16.81 N 122.35 E |
| | eS | C | 58 45 | H = 19 35 08.0 h = 39 km MB=5.6 MS=5.8 |
| | LmH | B | 20 34.4 | D = 89.67 Az = 323 (NEIS) |
| | LmV | B | 34.4 | PV A 2.0s 128.0nm M = 5.9 |
| | | | | PV B 8 1.2/um 6.3 |
| | | | | LmH B 16 8.4/um 6.3 |
| | | | | LmV B 16 10.4/um 6.4 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 19. | ePKP | A | 23 20 32.5 | Tuamotu Archipelago Region |
| | | | | 21.93 S 138.96 W |
| | | | | H = 23 00 58.2 h = 0 km MB=5.9 MS=5.5 |
| | | | | D = 143.25 Az = 32 (NEIS) |
| | | | | PKPV A 1.1s 48.4nm |
| 20. | e | A | 07 44 05.5 | Yugoslavia 43.36 N 18.65 E |
| | eSn | A | 45 21 | H = 07 41 38.1 h = 33 km MB = 4.7 |
| | | | | D = 8.73 Az = 329 (NEIS) |
| 20. | LmV | B | 12 01.3 | Luzon, Philippine Islands |
| | LmH | B | 01.8 | 16.65 N 122.52 E |
| | | | | H = 11 01 59 h = 35 km MB = 4.9 (ISC) |
| | | | | D = 89.8 |
| | | | | LmH B 15s 0.2/um M = 4.6 |
| | | | | LmV B 16 0.3/um 4.8 |
| 20. | eP | A | 23 04 10 | Greenland Sea 79.09 N 3.11 E |
| | | | | H = 22 58 10.7 h = 10 km MB = 4.5 (NEIS) |
| | | | | D = 28.7 |
| 21. | ePn | A | 01 27 27 | Austria 46.4 N 13.2 E |
| | ePg | A | 27 42 | H = 01 26 25 h = 33 km |
| | e(Sg) | A | 28 37 | D = 4.41 Az = 346 (ISC) |
| 21. | ePP | A | 04 54 26 | Mariana Islands 13.16 N 145.31 E |
| | LmH | C | 05 31.6 | H = 04 36 00.6 h = 56 km MB = 5.4 (NEIS) |
| | LmV | C | 35.5 | D = 104.7 |
| | | | | LmH C 24s 0.8/um |
| | | | | LmV C 24 0.5/um |
| 21. | eP | A | 07 43 29 | Afghanistan - USSR Border Region |
| | LmH | B | 08 03.8 | 36.47 N 71.37 E |
| | LmV | B | 03.8 | H = 07 35 28.0 h = 123 km MB = 4.9 (NEIS) |
| | | | | D = 44.5 |
| | | | | PV A 1.6s 22.0nm M = 4.6 |
| | | | | LmH B 17 1.9/um 5.1 |
| | | | | LmV B 18.5 2.9/um 5.4 |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 21. | eSb | A | 19 39 50 | Central Italy 43.0 N 14.0 E |
| | eSg | A | 40 14 | H = 19 35 52 h = 33 km (ISC) |
| | | | | D = 7.85 |
| 21. | +iP | ABC | 21 26 35.2 | Southern Iran 27.61 N 56.39 E |
| | ePP | BC | 28 10 | H = 21 18 54.2 h = 29.2 km MB=6.2 MS=6.9 |
| | eS | BC | 32 40 | D = 40.84 Az = 317 (NEIS) |
| | eSS | BC | 35 20 | PV A 2.2s 840.0nm M = 6.1 |
| | LmH | C | 39.0 | LmH C 20.5 370.0/um 7.2 |
| | LmV | C | 46.5 | LmV C 18 64.0/um 6.5 |
| 21. | eP | A | 21 40 58.5 | Southern Iran 27.50 N 56.36 E |
| | | | | H = 21 33 18.2 h = 33 km MB = 5.1 |
| | | | | D = 40.90 Az = 317 (NEIS) |
| 21. | eP | A | 21 49 08 | Southern Iran 27.24 N 56.77 E |
| | | | | H = 21 41 23.8 h = 33 km MB = 4.7 |
| | | | | D = 41.34 Az = 317 (NEIS) |
| 21. | eP | A | 21 59 25 | Southern Iran 27.62 N 56.36 E |
| | | | | H = 21 51 39.3 h = 33 km MB = 4.9 |
| | | | | D = 40.81 Az = 317 (NEIS) |
| 21. | +eP | A | 22 49 46.5 | Southern Iran 27.60 N 56.52 E |
| | | | | H = 22 42 06.5 h = 36.5 km MB = 5.8 |
| | | | | D = 40.92 Az = 317 (NEIS) |
| | | | | PV A 1.5s 90.5nm M = 5.3 |
| 22. | eP | A | 01 44 46.5 | Southern Iran 27.51 N 56.25 E |
| | | | | H = 01 37 09.1 h = 55.8 km MB = 4.7 |
| | | | | D = 40.82 Az = 317 (NEIS) |
| | | | | traces |
| 22. | eP | A | 02 33 38 | Southern Iran 27.53 N 56.32 E |
| | | | | H = 02 25 58.8 h = 43 km MB = 5.2 (NEIS) |
| | | | | D = 40.8 |
| | | | | PV A 1.2s 20.3nm M = 4.7 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 22. | ePKIKP | A | 02 42 38 | South of Kermadec Islands |
| | ePKP2 | A | 43 22 | 33.60 S 179.10 E |
| | e(pPKP) | A | 44 05 | H = 02 23 17.8 h = 336 km MB = 5.6 |
| | | | | D = 160.65 Az = 335 (NEIS) |
| | | | | PKIKPV A 2.3s 146.0nm |
| | | | | PKP2V A 1.8 135.0nm |
| 22. | LmH | B | 03 27.5 | Southern Iran 27.54 N 56.47 E |
| | LmV | B | 31.0 | H = 03 18 26.1 h = 33 km MB = 4.4 (NEIS) |
| | | | | D = 41.6 |
| | | | | LmH B 17s 1.1/um M = 4.8 |
| | | | | LmV B 17 2.3/um 5.2 |
| 22. | eP | A | 04 22 29 | South Atlantic Ridge 12.52 S 14.72 W |
| | epP | A | 22 36 | H = 04 11 37.7 h = 33 km MB=5.1 MS=4.7 |
| | | | | D = 66.98 Az = 18 (NEIS) |
| | | | | h = 27 km |
| | | | | PV A 2.0s. 59.8nm M = 5.3 |
| 22. | e(PP) | A | 06 42 18 | Crete 34.48 N 26.18 E |
| | | | | H = 06 37 47.9 h = 33 km (NEIS) |
| | | | | D = 19.2 |
| 22. | eP | A | 09 22 21 | Southern Iran 27.59 N 56.55 E |
| | LmH | B | 40.0 | H = 09 14 39.7 h = 33 km MB=5.0 MS=5.2 |
| | LmV | B | 48.2 | D = 40.95 Az = 317 (NEIS) |
| | | | | LmH B 23s 5.2/um M = 4.6 |
| | | | | LmV B 14 1.7/um 5.2 |
| 22. | eP | A | 12 05 11 | Southern Iran 27.58 N 56.47 E |
| | ePP | B | 06 44 | H = 11 57 30.9 h = 39.1 km MB=5.7 MS=5.9 |
| | eS | B | 11 10 | D = 40.91 Az = 317 (NEIS) |
| | eSS | B | 14 00 | PV A 1.2s 4.0nm M = 5.7 |
| | eSSS | B | 14 45 | LmH B 20 14.1/um 5.8 |
| | LmH | B | 22.6 | LmV B 13.5 9.4/um 5.9 |
| | LmV | B | 28.4 | |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 22. | eP | A | 12 40 35.5 | Southern Iran 27.58 N 56.59 E<br>H = 12 32 57.3 h = 61.5 km MB = 4.8<br>D = 40.98 Az = 317 (NEIS)<br>PV A 1.4s 11.6nm M = 4.4 |
| 22. | eP | A | 21 38 42 | Southern Iran 27.71 N 56.37 E<br>H = 21 31 02.6 h = 33 km MB = 4.8<br>D = 40.75 Az = 317 (NEIS) |
| 22. | ePKHKP | A | 24 05 48 | Fiji Islands Region 20.22 S 178.01 W<br>H = 23 47 02.4 h = 567.4 km MB = 4.7<br>D = 148.70 Az = 348 (NEIS)<br>PKHKPV A 1.4s 18.6nm |
| 23. | e | A | 00 25 38 | Southern Iran 27.56 N 56.38 E<br>H = 00 17 50.8 h = 33 km MB = 4.9 (NEIS)<br>D = 40.8<br>traces |
| 23. | eP | A | 02 23 14.5 | Northern Colombia 6.79 N 73.05 W |
| | eS | C | 33 30 | H = 02 11 14.6 h = 164.0 km MB = 5.5 |
| | LmH | C | 42.5 | D = 81.41 Az = 40 (NEIS) |
| 23. | eP | A | 03 58 01 | Kurile Islands 43.36 N 146.89 E |
| | epP | A | 58 11 | H = 03 46 01.3 h = 36 km MB=5.3 MS=4.6<br>D = 78.60 Az = 333 (NEIS)<br>h = 37 km<br>PV A 1.0s 27.6nm M = 5.2 |
| 23. | e | A | 05 20 26 | Fiji Islands Region 14.80 S 178.16 W<br>H = 05 00 41.0 h = 33 km MB=5.0 MS=5.1<br>D = 143.38 Az = 350 (NEIS) |
| 23. | ePKP | A | 07 38 44 | Fiji Islands 14.47 S 177.95 W |
| | eX | A | 38 50 | H = 07 19 11.1 h = 33 km |
| | ePS | BC | 52 40 | MB = 5.5 MS = 6.3 (NEIS) |
| | ePPS | BC | 54 35 | D = 143.1 |
| | eSS | B | 08 00 35 | eXV A 2.0s 68.4nm |
| | eSSS | B | 05 50 | LmH B 22 5.2/um M = 6.2 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| cont. 23. | LmH | B | 08 39.5 | LmV B 19s 5.3/um M = 6.3 |
| | LmV | B | 48.6 | |
| 23. | eP | A | 07 54 37 | Southern Iran 27.65 N 56.45 E<br>H = 07 46 59.4 h = 54.3<br>MB = 5.0 MS = 5.5 (NEIS)<br>D = 40.8 |
| 23. | ePKP | ABC | 17 29 56.5 | Fiji Islands Region 14.43 S 177.96 W |
| | eSS | BC | 51 40 | H = 17 10 19.50 h = 1.5 km |
| | eSSP | BC | 52 25 | MB = 5.6 MS = 6.0 (NEIS) |
| | LmH | B | 18 33.2 | D = 143.0 |
| | LmV | B | 39.6 | PKPV A 1.9s 37.9nm<br>LmH B 18 2.1/um M = 5.9<br>LmV B 19.5 3.5/um 6.1 |
| 23. | ePcP | A | 18 05 39 | Off Coast of Hokkaido, Japan<br>42.11 N 147.76 E<br>H = 17 53 22.4 h = 33 km MB = 4.6 (NEIS)<br>D = 80.0 |
| 23. | ePKP | A | 19 17 08 | Tonga Islands 15.01 S 173.25 W<br>H = 18 57 36.6 h = 33 km MB = 5.1 (NEIS)<br>D = 144.2 |
| 23. | eP | A | 20 48 37.5 | Southern Iran 27.52 N 56.48 E<br>H = 20 40 57.9 h = 41.7 km MB = 4.9 (NEIS)<br>D = 41.0<br>PV A 1.3s 13.1nm M = 4.5 |
| 23. | +iP | ABC | 23 58 57.0 | Southern Iran 27.62 N 56.59 E |
| | ePP | B | 00 30 | H = 23 51 15.8 h = 34.8 km |
| | eS | BC | 24 05 00 | MB = 5.8 MS = 5.4 (NEIS) |
| | eSS | B | 07 45 | D = 41.0 |
| | eSSS | B | 08 15 | PV A 1.6s 104.3nm M = 5.3 |
| | eSSSS | BC | 09 04 | LmH B 20.5 3.1/um 5.2 |
| | LmH | B | 16.4 | LmV B 12 1.8/um 5.2 |
| | LmV | B | 24.3 | |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 24. | eP | A | 00 12 31 | Southern Iran 27.84 N 56.57 E |
| | | | | H = 00 04 50.7 h = 33 km MB = 4.8 (NEIS) |
| | | | | D = 40.8 |
| | | | | traces |
| 24. | eP | A | 00 21 32 | Southern Iran 27.58 N 56.46 E |
| | | | | H = 00 13 52.3 h = 44.7 km MB=5.1 (NEIS) |
| | | | | D = 40.8 |
| | | | | PV A 1.6s 27.5nm M = 4.8 |
| 24. | eP | A | 04 50 05 | Southern Iran 27.62 N 56.63 E |
| | eS | C | 56 10 | H = 04 42 24.3 h = 32.3 km MB=5.3 (NEIS) |
| | LmH | C | 05 07.1 | D = 41.0 |
| | LmV | C | 10.9 | PV A 1.3s 30.6nm M = 4.9 |
| | | | | LmH C 24 0.7/um 4.4 |
| | | | | LmV C 24 0.5/um 4.4 |
| 24. | ePn | ABC | 07 33 13.5 | Poland 51.32 N 15.77 E |
| | ePg | A | 33 22 | H = 07 32 30.5 h = 33 km MB=5.0 MS=3.5 |
| | e | A | 33 35 | D = 2.71 Az = 257 (NEIS) |
| | iSn | A | 33 45 | PV A 1.1s 109.0nm |
| | iSg | A | 33 56 | |
| 24. | eP | A | 07 40 04 | South of Panama 3.16 N 78.48 W |
| | | | | H = 07 27 17.2 h = 24.0 km MB = 5.2 (NEIS) |
| | | | | D = 87.6 |
| | | | | PV A 1.6s 60.5nm M = 5.7 |
| 24. | eP | A | 09 30 17.5 | Iceland 63.57 N 19.17 W |
| | | | | H = 09 25 33.9 h = 10 km MB = 4.6 (NEIS) |
| | | | | D = 20.9 |
| | | | | PV A 1.4s 18.6nm M = 4.3 |
| 24. | eP | A | 19 46 39 | Luzon, Philippine Islands |
| | LmH | C | 20 32.7 | 16.73 N 122.56 E |
| | LmV | C | 32.7 | H = 19 33 33.0 h = 33 km MB = 5.1 (NEIS) |
| | | | | D = 89.8 |
| | | | | PV A traces |
| | | | | LmH C 16s 0.4/um M = 5.0 |
| | | | | LmV C 16 0.4/um 5.0 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 25. | eP | A | 02 45 08 | Turkey 38.56 N 40.02 E |
| | eX | A | 45 13 | H = 02 39 58.2 h = 21.5 km |
| | eS | BC | 49 20 | MB = 5.2 MS = 4.9 (NEIS) |
| | eSS | BC | 49 50 | D = 23.4 |
| | LmV | B | 56.8 | PV A 1.0s 19.7nm M = 4.6 |
| | LmH | B | 56.9 | XV A 1.7 66.7nm |
| | | | | SH B 12 2.6/um 5.5 |
| | | | | LmH B 16 3.3/um 4.9 |
| | | | | LmV B 15.5 2.6/um 4.9 |
| 25. | eP | A | 13 50 39 | Kenai Peninsula, Alaska 60.84 N 148.14 W |
| | | | | H = 13 39 45.2 h = 55.5 km MB = 4.6 (NEIS) |
| | | | | D = 67.5 |
| | | | | PV A 1.2s 16.3nm M = 5.0 |
| 25. | eP | A | 17 51 22 | Iran - USSR Border Region |
| | | | | 37.20 N 59.37 E |
| | | | | H = 17 44 19.6 h = 22 km (NEIS) |
| | | | | D = 36.3 |
| 25. | eP | A | 23 03 02 | Southern Iran 27.77 N 56.63 E |
| | | | | H = 22 55 23.7 h = 55.7 km MB = 4.9 (NEIS) |
| | | | | D = 40.8 |
| 26. | e(P) | A | 00 37 37.5 | North Atlantic Ridge 52.04 N 30.24 W |
| | | | | H = 00 32 04.6 h = 33 km MB = 4.5 (NEIS) |
| | | | | D = 26.0 |
| 26. | +iP | ABC | 04 48 08 | Fox Islands, Aleutian Is. |
| | ipP | A | 48 19 | 52.30 N 168.26 W |
| | e | B | 48 36 | H = 04 36 14.7 h = 38 km |
| | eS | BC | 58 00 | MB = 5.7 MS = 6.0 (NEIS) |
| | LmH | B | 05 33.1 | D = 77.4 h = 41 km |
| | LmV | B | 33.4 | PV A 1.2s 289.0nm M = 6.2 |
| | | | | PV B 8 2.5/um 6.3 |
| | | | | SH B 15 2.2/um 6.0 |
| | | | | LmH B 16 6.3/um 6.0 |
| | | | | LmV B 16 5.0/um 6.0 |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 26. | eP | A | 05 09 57 | Turkey 39.33 N 43.42 E |
| | | | | H = 05 04 35.2 h = 21 km MB = 5.0 (NEIS) |
| | | | | D = 25.0 |
| 26. | eP | A | 05 52 23 | Southern Greece 37.81 N 23.24 E |
| | | | | H = 05 48 44.0 h = 37 km MB = 4.7 (NEIS) |
| | | | | D = 15.3 |
| 26. | ePKIKP | A | 08 38 51.5 | Tonga Islands 18.59 S 174.15 W |
| | iPKHKP | A | 38 54 | H = 08 19 18.5 h = 93 km MB = 5.6 (NEIS) |
| | ePKP2 | A | 38 59 | D = 147.8 |
| | epPKP | A | 39 18 | PKHKPV A 1.5s 211.0nm |
| 26. | ePKHKP | A | 19 16 23.5 | South of Fiji Islands 24.09 S 179.24 W |
| | ePKP2 | A | 16 34 | H = 18 57 11.7 h = 396.5 km MB = 4.6 (NEIS) |
| | | | | D = 152.2 |
| | | | | PKHKPV A 1.4s 18.5nm |
| | | | | PKP2V A 1.4 16.3nm |
| 26. | eP | AB | 22 36 29 | North of Ascension Island 0.98 S 13.48 W |
| | epP | A | 36 34 | H = 22 26 54.7 h = 33 km |
| | ePa | B | 39 48 | MB = 5.3 MS = 5.3 (NEIS) |
| | eS | BC | 44 20 | D = 55.7 h = 25 km . |
| | eSa | BC | 49 40 | PV A 1.4s 65.1nm M = 5.5 |
| | LmV | B | 23 01.5 | Pa, Sa traces |
| | LmH | B | 01.8 | LmH B 16s 2.6/um 5.4 |
| | | | | LmV B 18 3.2/um 5.5 |
| 27. | eP | A | 05 45 53 | Kashmir - Tibet Border Region |
| | | | | 32.71 N 78.55 E |
| | | | | H = 05 36 49.2 h = 25.9 km MB = 5.0 (NEIS) |
| | | | | D = 51.3 |
| 27. | ePKHKP | A | 07 44 36 | South of Fiji Islands 23.78 S 179.83 W |
| | ePKP2 | A | 44 47.5 | H = 07 25 33.2 h = 441 km MB = 4.5 (NEIS) |
| | | | | D = 152.0 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 28. | ePKIKP | A | 01 34 58 | New Hebrides Islands 14.68 S 167.10 E |
| | epPP | B | 38 16 | H = 01 15 41.8 h = 109 km MB = 5.7 (NEIS) |
| | eSKP | A | 38 22 | D = 139.0 |
| | e | A | 38 33 | PKIKPV A 1.6s 41.3nm |
| | epPKS | A | 38 53 | LmH C 28 0.6/um |
| | LmH | C | 02 32.4 | LmV C 24 0.8/um |
| | LmV | C | 37.9 | |
| 28. | eSn | A | 08 21 18 | Albania 41.79 N 20.14 E |
| | | | | H = 08 16 43.0 h = 10 km |
| | | | | D = 10.64 Az = 329 (NEIS) |
| 28. | ePKP2 | A | 08 23 48 | South of Fiji 23.88 S 179.76 W |
| | | | | H = 08 04 41.3 h = 533 km MB = 5.1 |
| | | | | D = 151.85 Az = 345 (ISC) |
| | | | | PKP2V A 1.6s 27.5nm |
| 28. | eP | A | 10 54 29 | Dodecanese Islands 36.80 N 27.51 E |
| | eS | C | 57 50 | H = 10 50 18.0 h = 23.9 km MB = 4.8 (NEIS) |
| | LmH | B | 11 02.0 | D = 17.9 |
| | LmV | B | 02.0 | PV A 1.6s 60.4nm M = 4.5 |
| | | | | LmH B 12 1.2/um 4.4 |
| | | | | LmV B 12 1.3/um 4.6 |
| 28. | e(P) | A | 13 07 39.5 | North Atlantic Ridge 34.63 N 36.69 W |
| | LmH | B | 21.5 | H = 13 00 15.9 h = 33 km MB=4.8 MS=4.5 |
| | LmV | B | 21.5 | D = 38.24 Az = 50 (NEIS) |
| | | | | LmH B 16s 0.6/um M = 4.5 |
| | | | | LmV B 16 0.8/um 4.7 |
| 29. | +eP | A | 04 04 46.0 | Eastern Kazakh SSR 49.79 N 78.15 E |
| | ePn | A | 06 18 | H = 03 56 57.7 h = 0 km MB = 5.4 (NEIS) |
| | | | | D = 41.2 |
| | | | | Underground explosion (UPP) |
| | | | | PV A 0.8s 38.4nm M = 5.2 |
| 29. | ePKHKP | A | 18 02 10.5 | Fiji Islands Region 20.33 S 178.28 W |
| | ePKP2 | A | 02 16 | H = 17 43 23.5 h = 543 km MB = 5.0 (NEIS) |
| | | | | D = 148.7 |
| | | | | PKHKPV A 1.6s 55.0nm |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 29. | eP | A | 22 36 57 | Southern Iran 27.60 N 56.41 E |
| | LmH | C | 54.2 | H = 22 29 16.8 h = 35 km |
| | LmV | C | 56.8 | MB = 5.2 MS = 4.9 (NEIS) |
| | | | | D = 41.0 |
| | | | | PV A 1.6s 27.5nm M = 4.7 |
| | | | | LmH C 20 0.5/um 4.4 |
| | | | | LmV C 20 0.4/um 4.4 |
| 30. | eP | ABC | 11 33 18 | South of Honshu, Japan 31.46 N 140.19 E |
| | ePP | AB | 36 39.5 | H = 11 20 35.7 h = 32.8 km MB=5.3 MS=5.3 |
| | eS | BC | 44 00 | D = 86.49 Az = 330 (NEIS) |
| | ePS | BC | 44 40 | PV A 1.6s 55.0nm M = 5.5 |
| | LmH | B | 12 17.5 | PPV A 2.2 87.2nm 5.8 |
| | LmV | B | 18.8 | LmH B 12.5 1.6/um 5.6 |
| | | | | LmV B 13 2.1/um 5.8 |
| 30. | ePn | A | 17 44 56 | Austria 46.37 N 13.07 E |
| | ePg | A | 45 18 | H = 17 43 48.3 h = 10 km (NEIS) |
| | eSn | A | 45 48 | D = 4.5 |
| | eSg | A | 46 10 | |
| 30. | eP | A | 17 53 23 | Near Islands, Aleutian Is. |
| | epP | A | 53 33 | 52.55 N 172.52 E |
| | LmV | C | 18 24.2 | H = 17 41 38.0 h = 31.3 km MB = 5.0 |
| | | | | D = 75.92 Az = 348 (NEIS) |
| | | | | h = 37 km |
| | | | | LmV C 24s 0.4/um M = 4.7 |
| 30. | eP | A | 21 33 27 | North Atlantic Ridge 23.47 N 45.04 W |
| | | | | H = 21 24 24.3 h = 33 km MB = 4.7 (NEIS) |
| | | | | D = 51.3 |
| 30. | eP | A | 21 45 15 | North Atlantic Ridge 23.36 N 45.05 W |
| | LmH | B | 22 03.2 | H = 21 36 12.5 h = 33 km MB=4.6 MS=4.9 |
| | LmV | B | 03.9 | D = 51.28 Az = 43 (NEIS) |
| | | | | PV A 1.4s 23.3nm M = 5.0 |
| | | | | LmH B 18 1.0/um 4.9 |
| | | | | LmV B 18 1.3/um 5.1 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 30. | eP | A | 21 51 30 | North Atlantic Ridge 23.33 N 44.95 W |
| | | | | H = 21 42 28.0 h = 33 km MB = 4.8 |
| | | | | D = 51.24 Az = 43 (NEIS) |
| 31. | ePKP2 | A | 02 00 35 | Kermadec Islands Region 31.69 S 179.03 W |
| | | | | H = 01 40 04.7 h = 66 km MB = 5.3 (NEIS) |
| | | | | D = 159.7 |
| 31. | ePKP2 | A | 05 28 14 | Kermadec Islands 29.23 S 177.09 W |
| | | | | H = 05 07 48.2 h = 43 km MB = 4.5 (NEIS) |
| | | | | D = 158.2 |
| 31. | ePn | A | 15 20 47 | Schwäbische Alb, Fed. Rep. of Germany |
| | ePg | A | 20 56 | 48.33 N 9.18 E |
| | eSn | A | 21 20 | H = 15 20 02.6 (CSEM) |
| | eSg | A | 21 33 | D = 2.8 |
| 31. | eP | A | 19 19 00 | Southern Iran 27.59 N 56.30 E |
| | | | | H = 19 11 21.4 h = 52 km MB = 4.7 |
| | | | | D = 40.80 Az = 317 (NEIS) |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 1. | ePg | A | 06 30 36 | Czechoslovakia 50.54 N 14.65 E |
| | eSg | A | 31 05 | Explosion of 9.8 t |
| | | | | H = 06 30.0 |
| | | | | D = 1.94 Az = 274 (ISC) |
| 1. | eP | ABC | 13 44 05 | Southern Iran 27.55 N 56.33 E |
| | ePP | BC | 45 40 | H = 13 36 24.7 h = 29 km |
| | eS | BC | 50 10 | MB = 6.2 MS = 6.0 (NEIS) |
| | eSS | BC | 53 20 | D = 41.0 |
| | LmH | B | 14 01.6 | PV A 1.1s 161.4nm M = 5.7 |
| | LmV | B | 07.5 | PV B 10 3.4/um 6.2 |
| | | | | PPV B 11 2.8/um 6.0 |
| | | | | LmH B 19 17.6/um 5.9 |
| | | | | LmV B 12.5 10.0/um 6.0 |
| 1. | eP | A | 16 08 13.5 | Southern Iran 27.59 N 56.25 E |
| | | | | H = 16 00 25.2 h = 33 km MB=4.9 MS=4.9 |
| | | | | D = 40.76 Az = 317 (NEIS) |
| 1. | eP | A | 16 28 21 | Costa Rica 9.61 N 84.62 W |
| | | | | H = 16 15 33.5 h = 48.1 km MB = 4.6 |
| | | | | D = 86.58 Az = 39 (NEIS) |
| | | | | PV A 2.2s 54.5nm M = 5.5 |
| 1. | ePg | A | 22 19 59 | West Poland (CLL) |
| | eSn | A | 20 23 | D = 3.0 |
| | iSg | A | 20 37 | |
| 2. | eP | A | 00 14 19 | Afghanistan - USSR Border Region |
| | | | | 36.53 N 71.40 E |
| | | | | H = 00 06 29.8 h = 222 km MB=5.3 (NEIS) |
| | | | | D = 44.4 |
| 2. | eP | A | 01 48 31 | South of Alaska 52.82 N 161.61 W |
| | | | | H = 01 36 41.2 h = 33 km MB = 4.6 |
| | | | | D = 76.75 Az = 4 (NEIS) |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 2. | eP diff | B | 07 32 35 | Samoa Islands Region 16.70 S 172.10 W |
| | +iPKP | ABC | 35 00.0 | H = 07 15 22.7 h = 33 km MB=6.8 MS=7.6 |
| | iPP | BC | 38 35 | D = 146.00 Az = 356 (NEIS) |
| | eSS | B | 57 20 | PKPV B 12.5s 170.0/um |
| | LmH | B | 08 48.8 | PPV B 16 32.2/um M = 7.3 |
| | LmV | B | 48.9 | LmH B 18.5 94.0/um 7.5 |
| | | | | LmV B 17 121.0/um 7.7 |
| 2. | ePKIKP | A | 08 05 44 | Samoa Region 16.49 S 172.5 W |
| | e | A | 05 55 | H = 07 46 18 h = 116 km |
| | e | A | 06 03 | D = 145.77 Az = 355 (ISC) |
| | | | | PV A 1.3s 78.6nm |
| 2. | ePKP | A | 11 13 39 | Samoa Islands Region 16.43 S 172.64 W |
| | | | | H = 10 54 00.6 h = 33 km MB = 5.1 |
| | | | | D = 145.70 Az = 355 (NEIS) |
| | | | | PKPV A 1.0s 35.4nm |
| 2. | ePKP | A | 14 56 26 | Samoa Region 16.43 S 172.62 W |
| | | | | H = 14 36 46.9 h = 33 km |
| | | | | D = 145.69 Az = 145.69 (ISC) |
| 2. | eP | A | 16 09 45 | North Atlantic Ocean 36.18 N 10.53 W |
| | | | | H = 16 04 54.3 h = 33 km MB = 4.8 |
| | | | | D = 21.52 Az = 41 (NEIS) |
| 2. | ePKP | A | 20 14 09.5 | Samoa Islands Region 16.92 S 171.92 W |
| | epPKP | A | 14 17.5 | H = 19 54 30.8 h = 33 km MB = 4.8 |
| | | | | D = 146.23 Az = 356 (NEIS) |
| | | | | h = 29 km |
| | | | | PKPV A 1.0s 23.6nm |
| 2. | eP | A | 20 51 20 | Chiapas, Mexico 16.86 N 92.86 W |
| | e | A | 51 29 | H = 20 39 05.2 h = 237 km M = 4.9 |
| | | | | D = 85.99 Az = 38 (ISC) |
| 3. | ePn | A | 00 25 32 | D = 3.6 |
| | ePg | A | 25 45 | |
| | eSn | A | 26 13 | |
| | eSg | A | 26 35 | |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 3. | iPn | A | 03 19 23 | Austria 46.24 N 13.15 E |
| | iPg | A | 19 42 | H = 03 18 15.7 h = 33 km |
| | iSn | A | 20 12 | D = 4.53 Az = 348 (NEIS) |
| | iSg | A | 20 36 | PnV A 0.4s 287.0nm |
| | LmH | B | 21.3 | LmH B 6.5 3.8/um M = 4.1 |
| | LmV | B | 21.5 | LmV B 8 4.6/um |
| 3. | ePn | A | 06 21 14.5 | Austria 46.28 N 13.29 E |
| | eSn | A | 22 05 | H = 06 20 05.0 h = 0 km |
| | eSg | A | 22 28.5 | D = 4.51 Az = 346 (ISC) |
| 3. | ePn | A | 19 57 02 | Poland 50.4 N 18.5 E |
| | eSg | A | 58 03 | H = 19 55 37 h = 0 km (ISC) |
| | | | | D = 4.35 |
| 4. | ePKP | A | 04 49 44 | New Hebrides 14.35 S 167.62 E |
| | ePP | A | 52 40 | H = 04 30 23 h = 30 km MB = 5.2 |
| | | | | D = 138.91 Az = 337 (ISC) |
| 4. | ePKP | A | 08 38 55 | Tonga Islands Region 17.30 S 172.44 W |
| | e(pPKP) | A | 39 23 | H = 08 19 20.4 h = 67.7 km MB = 4.9 |
| | | | | D = 146.57 Az = 355 (NEIS) |
| | | | | PKPV A 1.7s 48.5nm |
| 4. | eP | ABC | 18 02 09 | Central Mid-Atlantic Ridge |
| | ePP | A | 04 21 | 7.30 N 34.86 W |
| | iS | BC | 10 10 | H = 17 52 19.7 h = 33 km |
| | eScS | BC | 12 00 | MB = 5.5 MS = 6.0 (NEIS) |
| | eSS | BC | 13 40 | D = 57.8 |
| | eSSS | BC | 16 30 | PV A 2.8s 559.0nm M = 6.2 |
| | LmH | B | 22.7 | SH B 14.5 4.7/um 6.1 |
| | LmV | B | 22.8 | LmH B 18 5.4/um 5.7 |
| | | | | LmV B 14 5.9/um 5.9 |
| 4. | eP | A | 19 19 31 | Southern Sumatra 2.77 S 102.28 E |
| | | | | H = 19 06 35.5 h = 133 km MB = 5.1 |
| | | | | D = 92.54 Az = 320 (NEIS) |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 5. | eP | A | 07 51 10 | Near East Coast of Kamchatka |
| | | | | 54.39 N 161.77 E |
| | | | | H = 07 39 47.6 h = 53.2 km MB = 4.6 |
| | | | | D = 72.39 Az = 341 (NEIS) |
| 5. | eP | A | 11 00 59.5 | South of Mariana Islands |
| | eSS | BC | 20 00 | 12.01 N 144.19 E |
| | LmH | B | 40.0 | H = 10 42 35.0 h = 16.8 km MB=5.6 MS=5.5 |
| | LmV | B | 48.0 | D = 105.19 Az = 331 (NEIS) |
| | | | | LmH B 18s 1.5/um M = 5.6 |
| | | | | LmV B 16 1.2/um 5.5 |
| 5. | eP | A | 15 12 18 | Southern Nevada 37.12 N 116.06 W |
| | | | | H = 15 00 00.2 h = 0 km MB=5.6 MS=5.3 |
| | | | | D = 81.24 Az = 31 (NEIS) |
| | | | | PV A 1.6s 77.0nm M = 5.5 |
| 5. | eP | A | 19 55 12 | Crete 35.03 N 26.32 E |
| | | | | H = 19 50 48.2 h = 53.7 km MB = 4.2 |
| | | | | D = 18.92 Az = 330 (NEIS) |
| 6. | ePn | A | 07 55 54 | D ca. 4.6 |
| | ePg | A | 56 12 | |
| | eSn | A | 56 42 | |
| | eSg | A | 57 08 | |
| 6. | eP | ABC | 13 43 21 | Iran 31.98 N 50.68 E |
| | eS | BC | 48 45 | H = 13 36 37.1 h = 41.1 km MB=5.5 MS=5.9 |
| | eScP | A | 49 50 | D = 34.26 Az = 315 (NEIS) |
| | LmH | B | 57.1 | PV A 1.4s 62.9nm M = 5.4 |
| | LmV | B | 14 01.0 | LmH B 23 19.3/um 5.8 |
| | | | | LmV B 19 8.2/um 5.6 |
| 6. | eP | A | 19 34 40 | Norwegian Sea 61.61 N 2.47 E |
| | | | | H = 19 31 47.5 h = 33 km MB = 5.0 |
| | | | | D = 12.10 Az = 151 (NEIS) |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 7. | eP | A | 03 42 20 | Southern Iran 27.90 N 57.06 E |
| | epP | A | 42 28 | H = 03 34 38.1 h = 33 km MB = 4.9 |
| | | | | D = 41.03 Az = 316 (NEIS) |
| | | | | h = 36 km |
| | | | | PV A traces |
| 7. | ePKHKP | A | 09 52 49.5 | Fiji Islands Region 19.61 S 177.83 W |
| | | | | H = 09 34 09.8 h = 617.5 km MB = 4.7 |
| | | | | D = 148.14 Az = 349 (NEIS) |
| | | | | PKHKPV A 1.4s 32.6nm |
| 7. | ePKP | A | 11 21 40 | Tonga Islands Region 17.68 S 172.63 W |
| | | | | H = 11 01 56.0 h = 33 km MB = 5.1 |
| | | | | D = 146.94 Az = 355 (NEIS) |
| 7. | eP | A | 12 06 40 | Republic of South Africa |
| | | | | 26.93 S 26.66 E |
| | | | | H = 11 54 37.1 h = 11.3 km MB = 5.5 |
| | | | | D = 78.38 Az = 350 (NEIS) |
| | | | | traces |
| 7. | eP | A | 17 40 12 | Costa Rica 10.06 N 84.35 W |
| | | | | H = 17 27 32.6 h = 33 km MB=4.9 MS=4.3 |
| | | | | D = 86.06 Az = 39 (NEIS) |
| 8. | ePKP | A | 01 04 20 | Samoa Region 16.30 S 172.69 W |
| | | | | H = 00 44 42.1 h = 33 km |
| | | | | D = 145.57 Az = 355 (ISC) |
| 8. | eP | A | 04 53 48 | Afghanistan - USSR Border Region |
| | | | | 36.60 N 71.00 E |
| | | | | H = 04 46 02.6 h = 243 km MB = 4.8 (NEIS) |
| | | | | D = 44.0 |
| | | | | PV A 1.4s 14.0nm M = 4.1 |
| 9. | ePKP | A | 01 02 55 | Tonga Islands Region 17.43 S 172.47 W |
| | | | | H = 00 43 19.0 h = 35.3 km MB = 4.9 |
| | | | | D = 146.70 Az = 355 (NEIS) |
| | | | | traces |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 9. | ePg | A | 03 06 35 | D = 2.2 |
| | eSg | A | 07 06 | |
| 9. | eP | ABC | 04 16 28 | Peru - Brazil Border Region |
| | e | AB | 18 35 | 10.02 S 71.18 W |
| | eSKS | BC | 26 10 | H = 04 04 12.5 h = 563.7 km MB = 5.5 (NEIS) |
| | eS | BC | 26 30 | D = 93.1 |
| | eSP | BC | 28 00 | PV A 2.2s 163.8nm M = 5.8 |
| | eSSP | BC | 28 44 | |
| | esSP | BC | 31 25 | |
| | esSS | BC | 36 10 | |
| 9. | eP | A | 04 54 29 | Ascension Island Region 5.17 S 11.49 W |
| | LmV | C | 05 18.4 | H = 04 44 29.6 h = 33 km MB=5.0 MS=4.8 |
| | LmH | C | 21.8 | D = 59.05 Az = 17 (NEIS) |
| | | | | PV A 1.6s 38.5nm M = 5.3 |
| | | | | LmH C 20 0.4/um 4.5 |
| | | | | LmV C 24 0.4/um 4.5 |
| 9. | ePn | A | 10 59 19 | Northern Italy 44.16 N 10.12 E |
| | ePb | A | 59 42 | H = 10 57 41.0 h = 33 km |
| | ePg | A | 59 52 | D = 6.57 Az = 8 (NEIS) |
| | eSn | A | 11 00 30 | |
| | eSg | A | 01 12 | |
| 9. | ePKP | ABC | 21 35 48 | New Hebrides Islands 19.09 S 169.59 E |
| | epPKP | A | 35 54.5 | H = 21 16 14.6 h = 24.8 |
| | LmH | C | 22 43.7 | MB = 5.4 MS = 5.4 (NEIS) |
| | LmV | C | 43.7 | D = 144.0 h = 23 km |
| | | | | PKPV A 1.5s 65.4nm |
| | | | | LmH C 18 0.4/um M = 5.2 |
| | | | | LmV C 20 0.5/um 5.3 |
| 9. | ePn | A | 21 47 16 | Odenwald, Fed. Rep. of Germany |
| | iPg | A | 47 22 | 49.47 N 8.44 E |
| | eSn | A | 47 42.5 | H = 21 46 42.2 h = 33 km (NEIS) |
| | iSg | A | 47 49 | D = 2.4 |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 9. | ePKP | A | 22 10 41.5 | New Hebrides Islands 19.09 S 169.65 E |
| | epPKP | A | 10 47.5 | H = 21 51 08.1 h = 15.3 km MB = 5.0 |
| | | | | D = 144.01 Az = 336 (NEIS) |
| | | | | h = 21 km |
| 10. | ePKP | ABC | 01 13 50 | New Hebrides Islands 19.00 S 169.59 E |
| | epPKP | A | 13 55 | H = 00 54 16.5 h = 18 km |
| | LmH | C | 02 08.7 | MB = 4.9 MS = 5.0 (NEIS) |
| | LmV | C | 12.2 | D = 144.0 h = 18 km |
| | | | | PKPV A 1.5s 30.2nm |
| | | | | LmH C 26 0.3/um M = 4.9 |
| | | | | LmV C 26 0.4/um 5.0 |
| 10. | ePKHKP | A | 04 30 17 | Fiji Islands Region 19.27 S 178.10 W |
| | | | | H = 04 11 29.1 h = 504.7 km MB = 4.8 |
| | | | | D = 147.76 Az = 348 (NEIS) |
| 10. | -eiP | A | 08 43 22.5 | Kurile Islands 44.47 N 147.55 E |
| | LmH | C | 09 15.5 | H = 08 31 33.4 h = 84 km MB = 5.4 (NEIS) |
| | | | | D = 77.7 |
| | | | | PV A 1.3s 91.7nm M = 5.5 |
| | | | | LmH C 20 0.5/um |
| 10. | ePKHKP | A | 18 28 37 | Fiji Islands Region 20.97 S 179.29 W |
| | | | | H = 18 09 58.9 h = 647.1 km MB = 4.8 |
| | | | | D = 149.16 Az = 346 (NEIS) |
| | | | | PKHKPV A 1.5s 25.1nm |
| 10. | ePKP | A | 23 04 15 | Samoa Islands Region 16.62 S 172.32 W |
| | e | A | 04 24 | H = 22 44 36.7 h = 33 km MB = 4.7 |
| | | | | D = 145.91 Az = 356 (NEIS) |
| 11. | ePKIKP | A | 02 34 34 | South of Australia 52.29 S 114.59 E |
| | LmV | C | 03 27.5 | H = 02 15 18.1 h = 33 km MB=5.6 MS=5.4 |
| | LmH | C | 33.5 | D = 134.13 Az = 300 (NEIS) |
| | | | | PKIKPV A 2.0s 51.3nm |
| | | | | LmH C 21 0.45/um M = 5.1 |
| | | | | LmV C 26 0.5/um 5.1 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 11. | ePKP | A | 08 37 00 | New Hebrides Islands 19.22 S 169.72 E |
| | e | A | 37 06 | H = 08 17 27.8 h = 29.1 km MB = 4.9 |
| | | | | D = 144.15 Az = 336 (NEIS) |
| 11. | eP | A | 10 14 06 | El Salvador 13.15 N 88.13 W |
| | | | | H = 10 01 23.6 h = 10.3 km MB=5.2 MS=4.3 |
| | | | | D = 86.02 Az = 39 (NEIS) |
| | | | | traces |
| 11. | eP1 | A | 16 22 24.5 | Lake Tonganyika Region 7.45 S 30.50 E |
| | eP2 | A | 22 34 | H = 16 12 19.4 h = 33 km MB = 4.8 |
| | | | | D = 60.12 Az = 346 (NEIS) |
| | | | | P2V A 1.9s 60.6nm M = 5.4 |
| 11. | +iP1 | A | 16 27 23.5 | Turkey 36.93 N 30.69 E |
| | +eP2 | A | 27 27 | H = 16 23 01.9 h = 92.7 km MB = 4.6 |
| | | | | D = 19.35 Az = 321 (NEIS) |
| | | | | P1V A 1.3s 52.4nm M = 4.7 |
| 11. | eP | A | 18 09 51.5 | North Atlantic Ocean 59.10 N 30.48 W |
| | LmV | B | 20.5 | H = 18 04 27.2 h = 33 km MB=4.3 MS=4.3 |
| | LmH | B | 21.0 | D = 25 27 Az = 91 (NEIS) |
| | | | | PV A 1.4s 14.0nm M = 4.3 |
| | | | | LmH B 14 0.5/um 4.2 |
| | | | | LmV B 18 0.8/um 4.4 |
| 11. | eP | A | 18 58 11 | Kurile Islands 47.28 N 153.99 E |
| | | | | H = 18 46 18.4 h = 34 km MB = 4.8 |
| | | | | D = 77.21 Az = 337 (NEIS) |
| 11. | eP | A | 22 31 52 | North Atlantic Ocean 59.57 N 30.16 W |
| | LmH | B | 43.1 | H = 22 26 29.6 h = 33 km MB=4.5 MS=4.7 |
| | LmV | B | 43.1 | D = 25.12 Az = 92 (NEIS) |
| | | | | PV A 1.4s 32.6nm M = 4.7 |
| | | | | LmH B 14.5 2.0/um 4.8 |
| | | | | LmV B 16 2.5/um 4.9 |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 11. | eP | A | 22 32 54 | North Atlantic Ocean 59.56 N 30.13 W |
| | | | | H = 22 27 30.2 h = 33 km MB = 4.7 (NEIS) |
| | | | | D = 25.2 |
| | | | | PV A 1.2s 28.5nm M = 4.7 |
| 11. | eP1 | A | 22 50 05 | North Atlantic Ocean 59.49 N 30.25 W |
| | eP2 | A | 50 08 | H = 22 44 42.3 h = 33 km MB=4.6 MS=4.7 |
| | e | A | 50 19.5 | D = 25.16 Az = 92 (NEIS) |
| | LmH | B | 23 00.5 | PV A 1.4s 39.6nm M = 4.8 |
| | LmV | B | 00.7 | LmH B 16.5 1.1/um 4.4 |
| | | | | LmV B 16 1.4/um 4.7 |
| 11. | eP | A | 23 08 25 | North Atlantic Ocean 59.71 N 30.27 W |
| | e | A | 10 07 | H = 23 03 00.4 h = 33 km MB = 4.2 |
| | LmV | B | 19.0 | D = 25.18 Az = 92 (NEIS) |
| | LmH | B | 19.2 | PV A 1.3s 17.5nm M = 4.5 |
| | | | | LmH B 15 0.8/um 4.3 |
| | | | | LmV B 16 0.9/um 4.5 |
| 11. | eiP | A | 23 26 06 | North Atlantic Ocean 59.37 N 30.32 W |
| | LmV | B | 36.7 | H = 23 20 42.4 h = 33 km MB=4.5 MS=4.8 |
| | LmH | B | 36.8 | D = 25.19 Az = 92 (NEIS) |
| | | | | PV A 1.6s 38.5nm M = 4.7 |
| | | | | LmH B 15 0.8/um 4.3 |
| | | | | LmV B 15 1.0/um 4.6 |
| 11. | LmV | B | 23 56.4 | Volcano Islands Region 23.09 N 142.35 E |
| | LmH | B | 58.2 | H = 22 56 44 h = 25 km MB = 5.0 (ISC) |
| | | | | D = 99.4 |
| | | | | LmH B 14s 0.6/um M = 5.3 |
| | | | | LmV B 18 0.8/um 5.3 |
| 12. | eP | A | 04 06 08.5 | Komandorsky Islands Region |
| | epP | A | 06 23 | 55.75 N 164.48 E |
| | | | | H = 03 54 45.3 h = 42.1 km MB=5.0 MS=4.1 |
| | | | | D = 71.59 Az = 342 (NEIS) |
| | | | | h = 52 km |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 12. | eP | A | 10 51 08 | Kyushu, Japan 31.82 N 131.55 E |
| | epP | A | 51 20 | H = 10 38 49.8 h = 43.6 km MB = 5.1 |
| | LmH | B | 11 31.8 | D = 82.29 Az = 326 (NEIS) |
| | LmV | B | 31.9 | h = 43 km |
| | | | | PV A 1.6s 22.0nm M = 4.9 |
| | | | | LmH B 17.5 1.7/um 5.5 |
| | | | | LmV B 16.5 2.5/um 5.7 |
| 13. | e | A | 05 42 47.5 | Mindanao, Philippine Islands |
| | LmH | B | 06 35.9 | 7.28 N 126.79 E |
| | LmV | B | 35.9 | H = 05 28 58.7 h = 58.3 km MB = 5.4 |
| | | | | D = 99.88 Az = 324 (NEIS) |
| | | | | LmV B 18s 0.5/um |
| 13. | eiP | AB | 11 41 41.5 | Hindu Kush Region 36.47 N 70.91 E |
| | esP | C | 42 40 | H = 11 33 51.8 h = 196.4 km MB = 5.3 |
| | e | A | 42 50 | D = 44.07 Az = 308 (NEIS) |
| | epPP | C | 43 55 | h = 180 km |
| | esPP | C | 44 35 | PV A 1.5s 120.6nm M = 5.2 |
| | eS | C | 48 00 | |
| | esS | C | 49 20 | |
| | eSS | C | 51 30 | |
| 13. | eP | A | 12 59 37 | Talaud Islands 3.78 N 126.76 E |
| | LmV | B | 13 49.4 | H = 12 45 42.0 h = 42.6 km MB=5.7 MS=5.2 |
| | LmH | B | 49.6 | D = 102.67 Az = 324 (NEIS) |
| | | | | PV A 1.6s 33.0nm M = 5.8 |
| | | | | LmH B 18 0.6/um 5.1 |
| | | | | LmV B 18 0.8/um 5.3 |
| 13. | ePn | A | 14 05 06 | Yugoslavia 43.26 N 18.78 E |
| | eSn | A | 06 39 | H = 14 02 51.3 h = 10 km |
| | | | | D = 8.86 Az = 329 (NEIS) |
| 13. | eP | A | 18 32 40 | Andreanof Islands, Aleutian Is. |
| | | | | 5.70 N 179.61 W |
| | | | | H = 18 20 43.3 h = 46.3 km MB = 5.1 |
| | | | | D = 77.59 Az = 353 (NEIS) |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 13. | ePKHKP | A | 19 30 51 | South of Fiji Islands 22.17 S 179.54 E<br>H = 19 12 02.8 h = 555 km MB = 5.0<br>D = 150.04 Az = 345 (NEIS) |
| 14. | ePKP | A | 04 24 10.5 | Fiji Islands Region 17.67 S 178.65 W<br>H = 04 05 31.2 h = 535 km MB = 5.2<br>D = 146.09 Az = 348 (NEIS)<br>PKPV A 1.4s 186.0nm |
| 14. | eP | A | 07 20 44 | Algeria 36.26 N 5.74 E<br>H = 07 17 09.0 h = 18.1 km MB=4.7 MS=4.3<br>D = 14.99 Az = 15 (NEIS)<br>PV A 1.5s 22.6nm M = 4.3 |
| | LmH | B | 26.2 | LmH B 16 1.0/um 4.1 |
| | LmV | B | 26.7 | LmV B 15 1.0/um 4.3 |
| 16. | eP | A | 04 14(18) | Fox Islands, Aleutian Is.<br>52.02 N 170.47 W<br>H = 04 02 17.1 h = 14.9 km MB = 4.9 (NEIS)<br>D = 77.9 |
| 16. | ePKIKP | A | 06 49 52 | Fiji Islands 21.49 S 179.21 W |
| | eiPKHKP | A | 49 57.5 | H = 06 31 13.7 h = 600 km MB = 5.2 |
| | ePKP2 | A | 50 05.5 | D = 149.68 Az = 346 (NEIS)<br>PKHKPV A 1.4s 65.1nm<br>PKP2V A 1.4 27.9nm |
| 17. | ePKHKP | A | 02 54 32 | Tonga Islands 21.01 S 173.92 W<br>H = 02 34 43.0 h = 32.7 km MB = 5.0 (NEIS)<br>D = 150.2 |
| 18. | +iP | AB | 00 20 52 | Hindu Kush Region 36.45 N 70.78 E |
| | esP | B | 22 00 | H = 00 13 04.6 h = 216.8 km MB = 5.4 |
| | esPP | B | 23 48 | D = 44.00 Az = 308 (NEIS)<br>h = 215 km<br>PV A 1.5s 136.0nm M = 5.2 |
| 18. | eP | A | 11 09 02 | Jan Mayen Island Region 70.49 N 15.40 W<br>H = 11 03 50.5 h = 10 km MB = 4.3<br>D = 23.52 Az = 134 (NEIS) |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 18. | eP | A | 13 15 43 | Nicaragua 11.38 N 85.62 W<br>H = 13 03 24.8 h = 201.2 km MB = 4.8<br>D = 85.84 Az = 39 (NEIS) |
| 18. | eP | A | 16 18 15 | Mid - Indian Rise 10.57 S 66.80 E<br>H = 16 06 20.4 h = 33 km MB=5.0 MS=4.3<br>D = 77.47 Az = 328 (NEIS) |
| 18. | eP | A | 19 09 45 | Guerrero, Mexico 18.61 N 101.40 W |
| | LmV | C | 42.5 | H = 18 56 55.2 h = 90.9 km MB = 5.0<br>D = 89.51 Az = 36 (NEIS)<br>PV A 2.0s 42.7nm M = 5.3<br>LmV C 40 0.6/um |
| 19. | ePn | A | 02 25 47 | Yugoslavia 43.16 N 17.75 E |
| | eSg | A | 28 33 | H = 02 23 42.9 h = 33 km<br>D = 8.58 Az = 333 (NEIS) |
| 19. | LmH | C | 06 05.0 | Philippine Islands Region |
| | LmV | C | 10.3 | 15.07 N 122.70 E<br>H = 05 09 14.2 h = 50 km MB = 4.5 (ISC)<br>D = 91.3 |
| 19. | +eP | A | 06 27 15.5 | Near East Coast of Honshu, Japan<br>36.46 N 140.56 E<br>H = 06 14 59.6 h = 65 km MB = 5.3<br>D = 82.32 Az = 330 (NEIS)<br>PV A 1.2s 32.6nm M = 5.2 |
| 19. | ePKP | A | 22 04 48 | Banda Sea 5.54 S 125.37 E<br>H = 21 46 33.7 h = 526.5 km MB = 5.7 (NEIS)<br>D = 109.3<br>PKPV A 2.0s 34.2nm |
| 20. | eP | A | 00 31 11 | Andreanof Islands, Aleutian Is.<br>51.12 N 179.03 W<br>H = 00 19 13.5 h = 33 km MB = 4.7<br>D = 78.21 Az = 353 (NEIS) |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 20. | iPn | A | 00 33 35 | Yugoslavia 44.92 N 17.39 E |
| | i | A | 33 40 | H = 00 31 53.8 h = 33 km MB=4.6 MS=3.7 |
| | iPg | A | 33 57 | D = 6.92 Az = 328 (NEIS) |
| | iSn | A | 34 51 | PnV A 1.0s 98.5nm M = 5.7 |
| | e | A | 35 07 | LmH B 12 5.9/um 4.4 |
| | eSb | A | 35 16 | LmV B 12 2.1/um |
| | eSg | A | 35(25) | |
| | LmH | B | 35.8 | |
| | LmV | B | 36.5 | |
| 20. | ePKP2 | A | 03 34 22 | Kermadec Islands 29.90 S 178.30 W |
| | | | | H = 03 14 07.7. h = 138 km MB = 5.3 (NEIS) |
| | | | | D = 158.0 |
| 20. | eP | A | 04 30 05 | Southern Iran 26.94 N 55.47 E |
| | LmV | B | 49.2 | H = 04 22 24.8 h = 33 km |
| | LmH | B | 50.2 | MB = 5.1 MS = 4.4 (NEIS) |
| | | | | D = 40.8 |
| | | | | PV A 1.8s 40.6nm M = 4.9 |
| | | | | LmH B 15 0.6/um 4.6 |
| | | | | LmV B 16 0.5/um 4.6 |
| 20. | -eP | AB | 20 16 17 | South of Honshu, Japan 30.60 N 137.48 E |
| | ePP | B | 18 55 | H = 20 04 29.4 h = 493.3 km MB = 5.5 |
| | eS | B | 26 06 | D = 86.05 Az = 329 (NEIS) |
| | ePS | B | 27 05 | PV A 1.5s 115.8nm M = 5.4 |
| | LmH | B | 58.5 | LmH B 15 0.4/um |
| | LmV | B | 21 01.8 | LmV B 14 0.5/um |
| 20. | ePKIKP | AB | 23 32 22 | Solomon Islands 9.83 S 160.32 E |
| | e | A | 34 30.5 | H = 23 13 10.4 h = 33 km MB=6.4 MS=6.7 |
| | ePP | C | 34 40 | D = 131.83 Az = 334 (NEIS) |
| | ePKS | B | 35 48 | PKIKPV A 2.8s 322.0nm |
| | eSKS | B | 36 35 | PKIKPV B 8 2.0/um |
| | eSS | B | 52 15 | LmH B 22.5 98.5/um M = 7.4 |
| | LmH | B | 58.3 | LmV B 20 110.0/um 7.6 |
| | LmV | B | 24 02.4 | |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 20. | ePKIKP1 | A | 24 02 03 | Solomon Islands 9.89 S 160.35 E |
| | ePKIKP2 | AB | 02 21 | H = 23 42 50.5 h = 19.2 km MB=6.3 MS=7.5 |
| | ePP2 | B | 04 50 | D = 131.90 Az = 334 (NEIS) |
| | LmH | B | 25 01.3 | PKIKP2V A 1.8s 236.1nm |
| | LmV | B | 02.2 | LmH B 21 85.3/um M = 7.4 |
| | | | | LmV B 20.5 97.2/um 7.5 |
| 20. | e(PP) | A | 24 10 38 | Solomon Islands 9.76 S 160.69 E |
| | | | | H = 23 49 13.4 h = 33 km MB = 6.7 (ISC) |
| | | | | D = 131.9 |
| | | | | (PP)V A 2.2s 173.0nm M = 6.0 |
| 21. | ePKIKP | A | 00 24 20 | Solomon Islands 9.80 S 160.21 E |
| | | | | H = 00 05 27.7 h = 33 km MB = 5.5 |
| | | | | D = 131.76 Az = 334 (NEIS) |
| | | | | PKIKPV A 2.0s 77.0nm |
| 21. | eP | A | 01 58 54.5 | Bonin Islands Region 26.86 N 142.44 E |
| | ePP | A | 02 40 | H = 01 45 50.2 h = 33 km MB=5.8 MS=6.2 |
| | | | | D = 91.45 Az = 331 (NEIS) |
| | | | | PV A 1.5s 45.2nm M = 5.6 |
| | | | | PPV A 2.0 179.5nm 6.2 |
| 21. | eP | A | 04 05 08 | Jan Mayen Island Region 70.89 N 14.21 W |
| | | | | H = 03 59 56.2 h = 10 km MB = 4.9 |
| | | | | D = 23.53 Az = 136 (NEIS) |
| | | | | PV A 2.8s 236.0nm M = 5.3 |
| 21. | e(SKP) | AB | 04 30 25 | Solomon Islands 9.85 S 159.93 E |
| | | | | H = 04 07 44.5 h = 27.2 km MB = 5.1 |
| | | | | D = 131.68 Az = 333 (NEIS) |
| | | | | SKPV A 4.0s 621.1nm |
| | | | | SKPV B 6 3.0/um |
| 21. | +iPKIKP | B | 04 43 20 | Solomon Islands 9.97 S 160.73 E |
| | ePP | B | 45 24 | H = 04 24 09.6 h = 33 km MB=6.6 MS=7.5 |
| | ePKS | B | 46 50 | D = 132.13 Az = 334 (NEIS) |
| | e | B | 47 56 | PKIKPV B 11s 4.6/um |
| | e | B | 49 04 | LmH B 19.5 83.5/um M = 7.4 |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| cont. 21. | eSS | B | 05 03 12 | LmV B 19.5s 103.0/um M = 7.5 |
| | LmH | B | 44.3 | The short-period seismographs (type A) |
| | LmV | B | 44.9 | had been out of operation. |
| 21. | ePKIKP | A | 05 25 40 | Solomon Islands 10.15 S 160.70 E |
| | eX | A | 27 57 | H = 05 06 28.5 h = 33 km MB = 5.8 |
| | | | | D = 132.28 Az = 334 (NEIS) |
| | | | | PKIKPV A 1.6s 22.0nm |
| | | | | XV A 1.8 33.8nm |
| 21. | ePP | A | 07 40 27 | Solomon Islands 10.25 S 160.73 E |
| | | | | H = 07 18 51.1 h = 33 km MB=5.6 MS=6.0 |
| | | | | D = 132.38 Az = 334 (NEIS) |
| | | | | traces |
| 21. | eX | A | 10 07 24 | Solomon Islands 10.28 S 160.75 E |
| | | | | H = 09 45 38.2 h = 33 km MB=5.6 MS=5.6 (NEIS) |
| | | | | D = 132.4 |
| | | | | XV A 2.0s 34.2nm |
| 21. | eP | A | 10 11 43 | Tadzhik SSR 40.08 N 70.84 E |
| | e | A | 11 47.5 | H = 10 03 55.8 h = 47.3 km MB = 5.1 |
| | e | A | 11 50 | D = 41.88 Az = 305 (NEIS) |
| | | | | PV A 1.1s 20.2nm M = 4.8 |
| 21. | eP | A | 13 45 58.5 | Uzbek SSR 40.49 N 63.78 E |
| | | | | H = 13 38 49.2 h = 33 km MB = 4.9 |
| | | | | D = 37.20 Az = 304 (NEIS) |
| 21. | eP | A | 17 33 51 | Bonin Islands Region 26.70 N 142.39 E |
| | ePP | A | 37 33.5 | H = 17 20 44.7 h = 27 km MB=5.2 MS=4.7 |
| | LmH | B | 18 16.2 | D = 91.57 Az = 331 (NEIS) |
| | LmV | B | 25.0 | PV A 1.4s 23.3nm M = 5.3 |
| | | | | LmH B 18 0.9/um 5.3 |
| | | | | LmV B 15 0.7/um 5.3 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 22. | eP | A | 01 02 49 | Northwest of Kurile Islands |
| | | | | 52.26 N 153.82 E |
| | | | | H = 00 52 01.6 h = 390.1 km MB = 4.8 |
| | | | | D = 72.60 Az = 336 (NEIS) |
| | | | | PV A 1.2s 32.5nm M = 4.9 |
| 22. | ePKS | B | 03 33 38 | Solomon Islands 10.17 S 160.66 E |
| | eSS | B | 50 05 | H = 03 11 00.2 h = 50.6 km |
| | LmH | B | 04 29.5 | MB = 5.6 MS = 6.0 (NEIS) |
| | LmV | B | 29.6 | D = 132.3 |
| | | | | LmH B 21s 3.7/um M = 6.1 |
| | | | | LmV B 22 3.0/um 6.0 |
| 22. | eP | A | 06 34 41 | Off Coast of Oregon 44.23 N 129.38 W |
| | | | | H = 06 22 31.5 h = 15 km MB=5.0 MS=4.7 |
| | | | | D = 79.61 Az = 24 (NEIS) |
| | | | | PV A 2.0s 51.3nm M = 5.2 |
| 22. | eP | A | 08 28 12 | Off Coast of Oregon 44.25 N 129.28 W |
| | eX | A | 28 18 | H = 08 16 04.5 h = 15 km MB=5.2 MS=4.7 |
| | LmH | B | 09 05.5 | D = 79.56 Az = 24 (NEIS) |
| | LmV | B | 06.1 | XV A 1.7s 36.4nm |
| | | | | LmH B 18 0.7/um M = 5.0 |
| | | | | LmV B 16 0.6/um 5.1 |
| 22. | ePn | A | 13 07 54 | Corsica 43.95 N 8.67 E |
| | eSn | A | 08 04 | H = 13 06 06.3 h = 41.4 km MB = 4.8 |
| | eSg | A | 08 57 | D = 6.99 Az = 16 (NEIS) |
| 22. | LmH | B | 14 54.0 | East China Sea 27.37 N 126.67 E |
| | LmV | B | 15 02.5 | H = 14 07 27.8 h = 33 km MB = 5.0 (NEIS) |
| | | | | D = 83.5 |
| | | | | LmH B 19.5s 1.8/um M = 5.5 |
| | | | | LmV B 16 2.0/um 5.6 |
| 22. | LmH | C | 19 43.8 | Solomon Islands 10.03 S 160.66 E |
| | LmV | C | 43.8 | H = 18 25 11.0 h = 25 km |
| | | | | MB = 5.3 MS = 5.2 (NEIS) |
| | | | | D = 132.2 |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| cont. 22. | | | | LmH C 20s 0.8/um M = 5.4<br>LmV C 20 0.8/um 5.4 |
| 22. | eP | A | 21 05 42 | Samoa Islands Region 16.56 S 172.52 W<br>H = 20 46 02.5 h = 33 km MB = 5.1<br>D = 84.27 Az = 325 (NEIS)<br>PV A 1.0s 15.7nm M = 5.2 |
| 22. | eP | A | 22 27 32 | Eastern Sea of Japan 42.99 N 139.51 E<br>H = 22 15 44.0 h = 32.8 km MB = 5.0<br>D = 76.29 Az = 329 (NEIS) |
| 22. | ePKP | A | 23 30 30 | Fiji Islands Region 17.75 S 178.28 W<br>H = 23 11 47.9 h = 538.5 km MB = 5.5<br>D = 146.24 Az = 349 (NEIS)<br>PKPV A 1.4s 46.5nm |
| 22. | eP | A | 24 00 17 | Greece 38.93 N 21.16 E<br>H = 23 57 07.2 h = 69.6 km MB = 4.3<br>D = 13.52 Az = 333 (NEIS) |
| 23. | eP | A | 01 45 09 | Ryukyu Islands 26.61 N 126.93 E |
| | LmH | C | 02 22.0 | H = 01 32 38.3 h = 33 km MB = 5.2 |
| | LmV | C | 26.0 | D = 84.27 Az = 325 (NEIS)<br>PV traces<br>LmH C 16s 0.4/um M = 4.9<br>LmV C 18 0.45/um 4.9 |
| 23. | ePKHKP | A | 09 47 29 | Fiji Islands Region 20.95 S 178.86 W<br>H = 09 28 41.8 h = 559.4 km MB = 4.5<br>D = 149.23 Az = 347 (NEIS) |
| 23. | eP | A | 14 57 54 | Laptev Sea 75.23 N 134.38 E |
| | e | A | 58 04.5 | H = 14 49 09.1 h = 37.5 km MB=5.0 MS=4.2 |
| | LmH | C | 15 20.5 | D = 48.93 Az = 315 (NEIS) |
| | LmV | C | 20.5 | PV A 1.4s 27.9nm M = 5.1<br>LmH C 20 0.3/um 4.3<br>LmV C 20 0.3/um 4.4 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 23. | ePn | A | 15 26 28.5 | Poland (CLL) |
| | ePg | A | 26 35.5 | D = 2.5 |
| | eSg | A | 27 11 | |
| 24. | ePKP | A | 03 43 41.5 | Samoa Islands Region 16.56 S 172.79 W<br>H = 03 24 01.4 h = 33 km MB = 4.7 (NEIS)<br>D = 145.8 |
| 24. | LmH | C | 07 46.7 | Solomon Islands 9.87 S 160.07 E |
| | LmV | C | 47.3 | H = 06 28 52.3 h = 29 km<br>MB = 5.4 MS = 5.0 (NEIS)<br>D = 131.8<br>LmH C 22s 0.9/um M = 5.4<br>LmV C 21 0.9/um 5.4 |
| 24. | LmV | C | 19 12.8 | Mariana Islands 13.0 N 145.2 E<br>H = 18 03 43.9 h = 59 km MB = 4.8 (NEIS)<br>D = 104.9<br>LmV C 17s 0.3/um |
| 24. | eP | A | 20 54 50 | Near East Coast of Honshu, Japan |
| | LmV | C | 21 30.5 | 40.05 N 142.72 E<br>H = 20 42 43.2 h = 43.9 km MB=5.0 MS=4.1<br>D = 80.04 Az = 331 (NEIS)<br>LmV C 24s 0.35/um M = 4.7 |
| 25. | +iP | A | 04 14 47.2 | Eastern Kazakh SSR 49.84 N 78.16 E |
| | ePn | A | 16 18.5 | H = 04 06 57.8 h = 0 km MB = 5.1<br>D = 41.26 Az = 298 (NEIS)<br>Underground explosion (UPP)<br>PV A 0.7s 42.2nm M = 5.3 |
| 25. | LmH | B | 05 47.8 | Turkey 39.35 N 27.69 E |
| | LmV | B | 49.1 | H = 05 34 28.2 h = 33 km (NEIS)<br>D = 16.0<br>LmH B 16s 0.7/um M = 3.9<br>LmV B 13.5 0.4/um 3.9 |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 25. | ePKP | A | 17 29 03 | Samoa Islands Region 16.25 S 172.64 W |
| | | | | H = 17 09 26.5 h = 33 km MB = 4.9 (NEIS) |
| | | | | D = 145.06 |
| 26. | LmV | B | 12 01.8 | Southern Pacific Ocean 41.32 S 89.27 W |
| | LmH | B | 03.0 | H = 10 48 00.2 h = 33 km |
| | | | | MB = 4.9 MS = 5.0 (NEIS) D = 126.6 |
| | | | | LmH B 17s 0.7/um M = 5.4 |
| | | | | LmV B 18 0.7/um 5.4 |
| 26. | eP | A | 16 31 58 | Western Iran 32.66 N 48.92 E |
| | eS | BC | 37 10 | H = 16 25 29.0 h = 47.3 km |
| | eSa | B | 39 20 | MB = 5.4 MS = 4.8 (NEIS) |
| | LmH | B | 47.3 | D = 32.6 |
| | LmV | B | 48.7 | PV A 1.7s 48.5nm M = 5.2 |
| | | | | LmH B 16 2.1/um 4.9 |
| | | | | LmV B 15 2.3/um 5.1 |
| 26. | eP | A | 23 18 40 | Kurile Islands Region 43.39 N 148.02 E |
| | epP | A | 18 55 | H = 23 06 40.4 h = 33.6 km |
| | LmH | B | 54.0 | MB = 5.0 MS = 5.0 (NEIS) |
| | LmV | B | 58.5 | D = 79.0 h = 40.5 km |
| | | | | LmH B 18s 0.9/um M = 5.2 |
| | | | | LmV B 15 0.7/um 5.2 |
| 27. | ePKIKP | A | 04 13 49.5 | South Pacific Cordillera |
| | | | | 55.20 S 127.24 W |
| | | | | H = 03 53 57.5 h = 33 km |
| | | | | MB = 5.1 MS = 5.0 (NEIS) |
| | | | | D = 155.0 |
| 27. | eP | A | 12 11 47.5 | South of Honshu, Japan 29.38 N 142.02 E |
| | ePP | A | 15 19.5 | H = 11 58 54.1 h = 25.5 km MB=5.3 MS=4.2 |
| | | | | D = 89.07 Az = 331 (NEIS) |
| 27. | LmH | C | 14 32.6 | Solomon Islands 10.21 S 160.64 E |
| | LmV | C | 33.2 | H = 13 14 23.2 h = 56 km MB = 5.1 (NEIS) |
| | | | | D = 132.3 |
| | | | | LmH C 22s 0.8/um M = 5.3 |
| | | | | LmV C 20 0.7/um 5.4 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 27. | eP | A | 15 12 18 | Southern Nevada 37.10 N 116.03 W |
| | ePP | A | 16 17 | H = 15 00 00.1 h = 0 km MB=5.4 MS=4.2 |
| | | | | D = 81.25 Az = 31 (NEIS) |
| | | | | Nuclear explosion BULKHEAD (ERDA) |
| | | | | PV A 1.4s 32.6nm M = 5.2 |
| 27. | ePn | A | 23 27 04 | France 46.55 N 2.98 E |
| | ePg | A | 27 40 | H = 23 25 19.9 h = 29 km (NEIS) |
| | eSn | A | 28 36 | D = 7.2 |
| | eSg | A | 29 09 | |
| 28. | eSg | A | 03 26 05 | France 46.46 N 3.03 E |
| | | | | H = 03 22 23.0 h = 22 km |
| | | | | D = 7.2 |
| 28. | ePn | A | 03 43 40.5 | Yugoslavia 44.87 N 17.37 E |
| | eSn | A | 44 58 | H = 03 41 56.5 h = 13.6 km MB = 4.0 |
| | eSg | A | 45 47 | D = 6.96 Az = 328 (NEIS) |
| 28. | LmH | B | 05 02.6 | South of Mariana Islands |
| | LmV | B | 10.8 | 12.74 N 145.02 E |
| | | | | H = 04 03 12.9 h = 45 km |
| | | | | MB = 5.0 MS = 5.1 (NEIS) |
| | | | | D = 105.0 |
| | | | | LmH B 17.5s 1.1/um M = 5.5 |
| | | | | LmV B 16 0.7/um 5.3 |
| 28. | ePn | A | 06 23 16 | Yugoslavia 44.87 N 16.96 E |
| | e | A | 23 27 | H = 06 21 37.0 h = 10 km (NEIS) |
| | eSn | A | 24 32 | D = 6.8 |
| | eSg | A | 25 20 | |
| 28. | e(pP) | A | 13 49 55 | Andreanof Islands, Aleutian Is. |
| | | | | 50.60 N 177.63 W |
| | | | | H = 13 37 37.7 h = 21.5 km MB = 4.4 |
| | | | | D = 78.82 Az = 354 (NEIS) |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 29. | LmH | B | 06 39.5 | Solomon Islands 9.99 S 159.94 E |
| | LmV | B | 45.7 | H = 05 59 11.7 h = 8 km MB = 5.1 (NEIS) |
| | | | | D = 131.8 |
| | | | | LmH B 20s 0.7/um M = 5.4 |
| | | | | LmV B 16 0.4/um 5.2 |
| 29. | eP | A | 08 26 17 | Gulf of Alaska 59.42 N 145.00 W |
| | epP | A | 26 21 | H = 08 15 11.8 h = 7.9 km MB=4.7 MS=4.1 |
| | LmH | B | 09 01.7 | D = 68.66 Az = 16 (NEIS) |
| | LmV | B | 03.1 | h = 15.5 km |
| | | | | PV A 1.1s 20.2nm M = 5.2 |
| | | | | LmV B 16 0.3/um 4.6 |
| 30. | e(PKP) | A | 00 20 07 | Tonga Islands 17.34 S 173.00 W |
| | | | | H = 00 00 14.0 h = 33 km MB = 5.3 |
| | | | | D = 146.57 Az = 355 (NEIS) |
| | | | | traces |
| 30. | ePKHKP | A | 02 25 22.5 | Tonga Islands 16.98 S 174.06 W |
| | | | | H = 02 05 45.7 h = 42.4 km MB = 5.0 |
| | | | | D = 146.11 Az = 354 (NEIS) |
| 30. | eP | A | 14 43 18 | Southern Iran 27.60 N 56.49 E |
| | ePcP | A | 45 21.5 | H = 14 35 37.3 h = 38 km |
| | LmH | C | 15 00.1 | MB = 5.0 MS = 4.8 (NEIS) |
| | LmV | C | 04.5 | D = 41.0 |
| | | | | PV A 1.3s 17.5nm M = 4.6 |
| | | | | LmH C 24 0.5/um 4.3 |
| | | | | LmV C 16 0.2/um 4.1 |
| 30. | eP | A | 16 30 36 | North Atlantic Ridge 32.43 N 40.34 W |
| | epP | A | 30 43 | H = 16 22 45.3 h = 33 km |
| | ePP | BC | 32 10 | MB = 4.6 MS = 5.1 (NEIS) |
| | ePcP | A | 32 30 | D = 42.0 h = 32 km |
| | eS | BC | 36 50 | PV A 2.2s 54.6nm M = 4.9 |
| | eSS | BC | 40 10 | LmH B 21 1.3/um 4.8 |
| | LmH | B | 44.9 | LmV B 17 1.1/um 4.9 |
| | LmV | B | 45.8 | |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 30. | eP | A | 16 55 51 | Andreanof Islands, Aleutian Is. |
| | | | | 51.70 N 173.42 W |
| | | | | H = 16 43 55.3 h = 38 km MB = 4.6 |
| | | | | D = 77.95 Az = 357 (NEIS) |
| | | | | traces |
| 30. | LmH | B | 21 32.3 | Near Coast of Peru 14.99 S 75.61 W |
| | LmV | B | 32.3 | H = 20 31 47.7 h = 10 km |
| | | | | MB = 5.3 MS = 4.8 (NEIS) |
| | | | | D = 99.7 |
| | | | | LmH B 17s 0.3/um M = 4.8 |
| | | | | LmV B 18 0.5/um 5.1 |
| 30. | eP | A | 22 01 36 | Andreanof Islands, Aleutian Is. |
| | epP | A | 01 50 | 51.65 N 173.43 W |
| | eSKS | C | 11 30 | H = 21 49 40.7 h = 42.0 km MB=4.8 MS=4.8 |
| | ePS | C | 12 10 | D = 78.00 Az = 357 (NEIS) |
| | eSS | C | 16 30 | h = 50 km |
| | LmH | B | 44.8 | PV A 2.0s 34.2nm M = 5.0 |
| | LmV | B | 45.0 | LmH B 16 0.6/um 5.0 |
| | | | | LmV B 20 0.4/um 4.7 |
| 30. | e(PP) | A | 23 36 56 | Norwegian Sea 68.15 N 10.53 E |
| | LmH | B | 44.5 | H = 23 32 42.2 h = 14.5 km MB = 4.1 |
| | LmV | B | 44.5 | D = 17.57 Az = 178 (NEIS) |
| | | | | LmH B 16s 0.4/um M = 3.8 |
| | | | | LmV B 12 0.5/um 4.2 |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 1. | eP | A | 00 22 12 | Northern Peru 6.12 S 77.13 W<br>H = 00 09 06.2 h = 123 km MB = 4.9 (NEIS)<br>D = 94.0 |
| 1. | eSg | A | 03 13 08 | West Poland (CLL) |
| 1. | LmV | C | 09 52.5 | Solomon Islands 9.88 S 160.65 E |
| | LmH | C | 52.8 | H = 08 35 29.5 h = 19 km MB = 5.5 (NEIS)<br>D = 132.0<br>LmH C 24s 0.3/um M = 4.9<br>LmV C 20 0.3/um 5.0 |
| 1. | LmH | B | 17 09.5 | Southern Honshu, Japan 35.16 N 132.61 E |
| | LmV | B | 11.8 | H = 16 23 01.7 h = 6 km<br>MB = 4.5 MS = 4.6 (NEIS)<br>D = 80<br>LmH B 15.5s 1.5/um M = 5.5<br>LmV B 14 0.7/um 5.2 |
| 1. | ePKP | A | 18 58 26 | Solomon Islands 7.20 S 154.39 E |
| | ePP | A | 19 00 26 | H = 18 39 23.8 h = 32 km MB = 5.6 (NEIS)<br>D = 126.8<br>PV A 1.0s 7.9nm<br>PPV A 2.2 54.5nm M = 5.5 |
| 2. | ePKP2 | A | 02 00 02 | Tonga Region 18.7 S 172.76 W<br>H = 01 40 14.5 h = 33 km<br>D = 147.89 Az = 355 (ISC)<br>PKP2V A 1.6s 16.5nm |
| 2. | eP | A | 04 06 46 | Ascension Island Region 7.17 S 13.61 W |
| | epP | A | 06 53 | H = 03 56 29.7 h = 33 km MB=4.7 MS=4.1 |
| | LmV | C | 33.2 | D = 61.58 Az = 18 (NEIS)<br>h = 27 km<br>PV A 1.0s 11.8nm M = 5.0<br>LmV C 18 0.3/um 4.5 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 2. | LmH | B | 05 58.2 | South of Honshu 31.14 N 138.73 E |
| | LmV | B | 06 02.2 | H = 05 05 24.4 h = 33 km (ISC)<br>D = 86.1<br>LmH B 16s 0.4/um M = 4.9<br>LmV B 16 0.5/um 5.1 |
| 2. | ePKHKP | A | 07 43 40.5 | Fiji Islands Region 21.23 S 178.83 W |
| | ePKP2 | A | 43 48 | H = 07 24 56.0 h = 579.1 km MB = 4.9<br>D = 149.51 Az = 347 (NEIS) |
| 2. | eP | A | 15 24 31 | Iran - USSR Border Region<br>36.96 N 55.25 E<br>H = 15 17 48.9 h = 19 km MB = 5.3 (NEIS)<br>D = 33.8<br>PV A 1.3s 26.2nm M = 5.0 |
| 2. | eSg | A | 17 55 30 | Switzerland 46.61 N 8.66 E<br>H = 17 53 11.2 h = 33 km (NEIS)<br>D = 4.5 |
| 2. | eP | ABC | 22 07 32 | Mindanao, Philippine Islands |
| | epP | A | 07 38 | 7.19 N 123.26 E |
| | ePP | BC | 11 35 | H = 21 53 56.5 h = 24 km |
| | eSKS | C | 18 10 | MB = 5.7 MS = 5.5 (NEIS) |
| | eS | BC | 18 48 | D = 98.0 h = 21 km |
| | ePS | B | 20 30 | PV A 2.0s 68.5nm M = 5.8 |
| | ePPS | BC | 21 10 | LmH B 18.5 1.5/um 5.5 |
| | eSS | B | 25 35 | LmV B 16 1.8/um 5.7 |
| | LmH | B | 50.2 | |
| | LmV | B | 23 00.3 | |
| 3. | +iP | A | 03 27 32.5 | Bonin Islands Region 27.38 N 140.20 E |
| | ePP | A | 31 13 | H = 03 15 07.6 h = 312 km MB = 4.8 (NEIS)<br>D = 90 |
| 3. | eP | A | 12 37 39 | Szechwan Province, China 27.37 N 101.05 E |
| | epP | A | 37 49 | H = 12 26 33.0 h = 33 km MB = 5.0 |
| | LmH | B | 13 08.5 | D = 69.01 Az = 317 (NEIS) |
| | LmV | B | 11.6 | h = 38 km |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| cont. 3. | | | | LmH B 20s 0.3/um M = 4.5<br>LmV B 16 0.3/um 4.6 |
| 3. | ePP | A | 17 58 31 | Spain 37.08 N 4.34 W<br>H = 17 54 09.7 h = 33 km<br>D = 17.73 Az = 35 (NEIS) |
| 3. | LmH | B | 23 14.0 | Ryukyu Islands Region 26.57 N 130.27 E |
| | LmV | B | 22.2 | H = 22 25 07.9 h = 33 km MB = 4.9 (NEIS)<br>D = 86<br>LmH B 20s 0.2/um M = 4.6<br>LmV B 16 0.3/um 4.7 |
| 4. | eP | A | 02 08 12 | Iran 31.79 N 50.86 E |
| | LmH | C | 21.6 | H = 02 01 25.7 h = 46.1 km MB = 4.8 |
| | LmV | C | 23.9 | D = 34.50 Az = 315 (NEIS)<br>LmH C 24s 0.5/um M = 4.2<br>LmV C 20 0.3/um 4.1 |
| 4. | eP | A | 02 45 47 | Afghanistan - USSR Border Region |
| | LmH | C | 03 06.5 | 36.93 N 71.39 E |
| | LmV | C | 06.5 | H = 02 37 44.4 h = 122 km MB = 5.3 (NEIS)<br>D = 44.1<br>LmH C 20s 0.3/um<br>LmV C 20 0.3/um |
| 4. | ePKHKP | A | 08 36 02 | Fiji Islands Region 20.31 S 178.42 W |
| | ePKP2 | A | 36 07 | H = 08 17 20.5 h = 586.6 km MB = 4.7 |
| | epPKP | A | 37 46 | D = 148.71 Az = 348 (NEIS)<br>h c. 450 km<br>PKHKPV A 1.0s 23.6nm |
| 4. | ePn | A | 13 59 03 | ČSSR - Austria, Border Region |
| | ePg | A | 59 08 | 48.75 N 13.99 E |
| | eSn | A | 59 28 | H = 13 58 19.3 h = 0 km |
| | eSg | A | 59 38 | D = 2.45 Az = 322 (ISC) |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 5. | eP | A | 22 26 28.5 | Hokkaido, Japan Region 41.90 N 142.34 E |
| | epP | A | 26 50 | H = 22 14 34.7 h = 70.7 km MB = 5.0 |
| | e | A | 29 46 | D = 78.29 Az = 330 (NEIS) |
| | ePKKP | A | 45 10 | h = 86 km |
| | LmH | B | 23 03.9 | PV A 1.2s 24.4nm M = 5.0 |
| | LmV | B | 04.2 | LmH B 20 0.3/um 4.6<br>LmV B 20 0.4/um 4.8 |
| 5. | ePKHKP | A | 22 27 00.5 | Tonga Islands Region 17.15 S 172.13 W |
| | ePKP2 | A | 27 04 | H = 22 07 20.9 h = 33 km MB = 5.2 (NEIS) |
| | LmV | B | 23 36.3 | D = 146.5 |
| | LmH | B | 42.9 | PKHKPV A 1.3s 69.8nm<br>PKP2V A 2.0 128.2nm<br>LmH B 20 0.3/um M = 5.0<br>LmV B 20 0.4/um 5.2 |
| 5. | eP | A | 23 17 27 | Crete 34.63 N 24.79 E |
| | LmH | B | 24.0 | H = 23 13 07.3 h = 15.6 km MB = 4.2 |
| | LmV | B | 26.1 | D = 18.67 Az = 333 (NEIS)<br>LmH B 20s 0.3/um M = 3.6<br>LmV B 24 1.7/um 4.4 |
| 6. | eP | A | 04 05 26.5 | Kurile Islands Region 45.94 N 152.06 E |
| | LmV | C | 37.5 | H = 03 53 30.2 h = 29.5 km MB=5.4 MS=4.5 |
| | LmH | C | 45.5 | D = 77.89 Az = 336 (NEIS)<br>PV A 1.7s 103.0nm M = 5.6<br>LmH C 20 0.6/um 4.9<br>LmV C 28 0.4/um 4.6 |
| 6. | LmH | B | 13 50.8 | Near Coast of Peru 15.88 S 75.03 W |
| | LmV | B | 55.0 | H = 12 52 38.1 h = 33 km<br>MB = 5.0 MS = 4.4 (NEIS)<br>D = 100<br>LmH B 20s 0.3/um M = 4.7<br>LmV B 20 0.4/um 4.9 |
| 6. | eP | A | 16 59 25 | Southern Alaska 59.43 N 152.57 W<br>H = 16 48 23.8 h = 87.2 km<br>D = 69.53 Az = 11 (NEIS) |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 6. | eP | A | 21 49 34 | Kurile Islands Region 46.52 N 153.98 E |
| | e | A | 50 15 | H = 21 37 38.4 h = 35 km MB = 5.2 (NEIS) |
| | LmH | B | 22 25.8 | D = 77.9 |
| | LmV | B | 31.2 | PV A 0.8s 30.8nm M = 5.4 |
| | | | | LmH B 16 0.3/um 4.7 |
| | | | | LmV B 18 0.3/um 4.8 |
| 6. | eP | A | 22 22 11 | Kurile Islands Region 46.60 N 154.11 E |
| | | | | H = 22 10 17.5 h = 42.8 km MB = 4.6 |
| | | | | D = 77.86 Az = 337 (NEIS) |
| 6. | eP | A | 22 56 10 | Kurile Islands 47.42 N 153.79 E |
| | | | | H = 22 44 18.7 h = 33 km MB = 4.9 |
| | | | | D = 77.02 Az = 336 (NEIS) |
| | | | | PV A 1.0s 7.9nm M = 4.7 |
| 7. | +eP | A | 02 18 24.5 | Jan Mayen Island Region 71.75 N 1.81 W |
| | epP | A | 18 31.5 | H = 02 13 32.7 h = 33 km |
| | eS | BC | 22 28 | MB = 5.4 MS = 5.1 (NEIS) |
| | LmH | B | 28.3 | D = 22 h = 25 km |
| | LmV | B | 28.3 | PV A 1.5s 261.0nm M = 5.4 |
| | | | | SH B 11 2.4/um 5.4 |
| | | | | LmH B 16 3.0/um 4.8 |
| | | | | LmV B 16 3.3/um 5.0 |
| 7. | ePKHKP | ABC | 15 31 20 | Tonga Islands Region 18.20 S 172.43 W |
| | epPKP | A | 31 36 | H = 15 11 37.2 h = 33 km MB = 5.0 |
| | | | | D = 147.47 Az = 355 (NEIS) |
| | | | | h c. 45 km |
| | | | | PKHKPV A 2.0s 68.4nm |
| 7. | eP | A | 16 07 11 | Kurile Islands 46.77 N 153.83 E |
| | epP | A | 07 29 | H = 15 55 16.2 h = 33 km MB=5.0 MS=4.3 |
| | LmH | B | 41.4 | D = 77.63 Az = 336 (NEIS) |
| | LmV | B | 48.7 | h = 47 km |
| | | | | PV A 1.2s 28.4nm M = 5.2 |
| | | | | LmH B 17 0.4/um 4.8 |
| | | | | LmV B 16 0.2/um 4.6 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 7. | eP | A | 16 46 22 | Kurile Islands 47.03 N 153.71 E |
| | | | | H = 16 34 27.0 h = 15.8 km MB = 5.1 |
| | | | | D = 77.36 Az = 336 (NEIS) |
| | | | | PV A 1.1s 28.2nm M = 5.2 |
| 7. | ePKHKP | A | 18 44 41 | South of Fiji Islands 25.75 S 179.95 E |
| | ePKP2 | A | 44 55 | H = 18 25 33.4 h = 449.8 km MB = 5.4 |
| | | | | D = 153.57 Az = 343 (NEIS) |
| 7. | ePKHKP | A | 19 55 14 | Tonga Islands Region 17.99 S 172.59 W |
| | ePKP2 | A | 55 17.5 | H = 19 35 32.2 h = 33 km MB=5.0 MS=4.5 |
| | LmH | C | 21 07.5 | D = 147.24 Az = 355 (NEIS) |
| | LmV | C | 09.9 | PKHKPV A 2.0s 59.9nm |
| | | | | LmH C 20 0.1/um M = 4.5 |
| | | | | LmV C 20 0.1/um 4.6 |
| 7. | eP | A | 22 30 38 | Andreanof Islands, Aleutian Is. |
| | epP | A | 30 50 | 51.69 N 173.23 W |
| | | | | H = 22 18 42.4 h = 33.5 km MB = 4.8 |
| | | | | D = 77.96 Az = 357 (NEIS) |
| | | | | h = 33 km |
| | | | | PV A 1.0s 15.7nm M = 5.0 |
| 7. | ePKHKP | A | 24 16 19 | Samoa Islands Region 16.42 S 172.64 W |
| | epPKP | A | 16 34 | H = 23 56 45.6 h = 61.9 km MB = 4.4 |
| | | | | D = 145.69 Az = 355 (NEIS) |
| | | | | h = 57 km |
| 8. | ePKHKP | A | 04 57 20.5 | Tonga Islands 19.65 S 175.93 W |
| | LmV | C | 59.0 | H = 04 37 31.5 h = 33 km MB=5.0 MS=4.5 |
| | LmH | C | 59.4 | D = 148.49 Az = 351 (NEIS) |
| | | | | PKHKPV A 1.6s 27.5nm |
| | | | | LmH C 24 0.5/um M = 4.8 |
| | | | | LmV C 24 0.3/um 5.0 |
| 8. | ePn | A | 10 04 55 | Yugoslavia 43.18 N 18.93 E |
| | eSn | A | 06 38 | H = 10 02 43.9 h = 33 km |
| | eSg | A | 07 30 | D = 8.99 Az = 329 (NEIS) |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 8. | eP | ABC | 16 58 27.5 | Off Coast of Ecuador 1.25 S 81.07 W |
| | ePP | BC | 17 02 00 | H = 16 45 16.0 h = 26.7 km MB=5.1 MS=4.9 |
| | eSKS | BC | 09 00 | D = 92.67 Az = 40 (NEIS) |
| | eS | BC | 09 30 | LmH B 24s 0.5/um M = 4.9 |
| | ePS | BC | 10 40 | LmV B 24 0.6/um 5.0 |
| | eSS | BC | 15 55 | |
| | LmH | B | 36.5 | |
| | LmV | B | 36.5 | |
| 8. | LmV | C | 18 51.2 | Off Coast of Ecuador 1.23 S 81.10 W |
| | LmH | C | 51.5 | H = 18 00 00.0 h = 41.6 km MB=5.1 MS=4.6 |
| | | | | D = 92.67 Az = 40 (NEIS) |
| | | | | LmH C 24s 0.3/um M = 4.6 |
| | | | | LmV C 24 0.4/um 4.8 |
| 8. | LmH | B | 20 16.7 | South of Honshu 31.08 N 139.03 E |
| | LmV | B | 21.6 | H = 19 24 53.9 h = 33 km MB = 4.6 (ISC) |
| | | | | D = 86.3 |
| | | | | or |
| | | | | South of Honshu 30.95 N 139.0 E |
| | | | | H = 19 26 31.1 h = 33 km MB = 4.2 (ISC) |
| | | | | D = 86.4 |
| | | | | LmH B 15.5s 1.6/um M = 5.5 |
| | | | | LmV B 15 1.1/um 5.4 |
| 8. | eP | A | 21 12 56.5 | Jan Mayen Island Region 71.51 N 12.47 W |
| | epP | A | 13 05.5 | H = 21 07 47.4 h = 33 km MB=4.3 MS=4.4 |
| | LmH | B | 22.5 | D = 23.61 Az = 140 (NEIS) |
| | LmV | B | 23.1 | LmH B 16s 0.4/um M = 3.9 |
| | | | | LmV B 20 0.4/um 4.0 |
| 8. | ePn | A | 23 09 58.5 | Federal Republic of Germany |
| | e | A | 10 05.5 | 49.87 N 7.60 E |
| | e | A | 10 10 | H = 23 09 22.9 h = 33 km |
| | eSn | A | 10 27.5 | D = 2.69 Az = 72 (ISC) |
| | eSg | A | 10 35 | |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 9. | eP | A | 07 42 53 | Fiji Islands Region 17.68 S 178.52 W |
| | | | | H = 07 24 15.5 h = 570.9 km MB = 4.8 |
| | | | | D = 146.12 Az = 348 (NEIS) |
| | | | | traces |
| 9. | ePKIKP | A | 10 45 30 | Easter Island Cordillera |
| | ePKHKP | A | 45 32 | 49.81 S 114.48 W |
| | | | | H = 10 25 54.2 h = 33 km MB=5.2 MS=4.6 |
| | | | | D = 146.14 Az = 67 (NEIS) |
| | | | | PKHKPV A 1.4s 27.9nm |
| 9. | eiP | ABC | 15 15 03 | East China Sea 27.13 N 126.75 E |
| | esP | AB | 15 43 | H = 15 02 44.6 h = 109 km MB = 5.4 (NEIS) |
| | eS | C | 25 10 | D = 83.8 h = 108 km |
| | LmH | C | 50.8 | PV A 1.8s 135.0nm M = 5.6 |
| | LmV | C | 58.6 | LmH C 20 0.7/um |
| | | | | LmV C 14 0.5/um |
| 10. | ePKHKP | A | 02 21 07 | Fiji Islands Region 17.83 S 178.77 W |
| | ePKP2 | A | 21 09 | H = 02 02 29.7 h = 568.6 km MB = 4.9 |
| | | | | D = 146.22 Az = 348 (NEIS) |
| | | | | PKHKPV A 1.0s 15.8nm |
| | | | | PKP2V A 1.2 16.3nm |
| 10. | e | AB | 22 47 19 | Halmahera 0.98 S 127.35 E |
| | LmH | B | 23 43.6 | H = 22 28 31.9 h = 20 km MB=5.6 MS=4.9 |
| | LmV | B | 45.3 | D = 106.83 Az = 323 (NEIS) |
| | | | | LmH B 24s 0.35/um M = 4.9 |
| | | | | LmV B 20 0.35/um 4.9 |
| 10. | eP | A | 24 12 20.5 | New Britain Region 7.69 S 151.20 E |
| | epP | A | 12 31 | H = 23 53 19.6 h = 25.3 km MB = 5.3 |
| | | | | D = 125.65 Az = 329 (NEIS) |
| | | | | h = 38 km |
| 11. | eP | A | 03 36 27 | Molucca Passage 2.00 N 126.88 E |
| | | | | H = 03 22 25.2 h = 77.5 km MB = 5.7 |
| | | | | D = 104.17 Az = 324 (NEIS) |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 11. | e | A | 11 25 13 | West Poland (CLL, VIE) |
| 11. | ePKHKP | A | 14 18 56 | South of Fiji Islands 23.37 S 179.96 E |
| | ePKP2 | A | 19 07 | H = 14 00 03.9 h = 545.3 km MB = 4.6 |
| | epPKHKP | A | 21 05 | D = 151.30 Az = 344 (NEIS) |
| | | | | h = 573 km |
| | | | | PKHKPV A 1.3s 13.1nm |
| 11. | LmV | C | 23 53.0 | Solomon Islands 10.24 S 160.95 E |
| | LmH | C | 53.2 | H = 22 34 00.2 h = 51 km MB = 5.2 (NEIS) |
| | | | | D = 132.5 |
| | | | | LmH C 20s 0.3/um M = 4.9 |
| | | | | LmV C 24 0.3/um 5.0 |
| 11. | LmV | C | 24 08.8 | Western Iran 33.23 N 48.00 E |
| | LmH | C | 09.0 | H = 23 46 16.7 h = 33 km MB = 4.8 (NEIS) |
| | | | | D = 31.8 |
| | | | | LmH C 24s 0.5/um M = 4.1 |
| | | | | LmV C 24 0.3/um 4.0 |
| 12. | epPKHKP | A | 00 32 07 | Tonga Islands Region 22.30 S 175.61 W |
| | epPKP2 | A | 32 16 | H = 00 11 56.6 h = 33 km MB = 4.8 (NEIS) |
| | | | | D = 151.1 h = 71 km |
| 12. | eP | A | 02 01 40.5 | Near Coast of Southern Chile |
| | LmH | B | 55.7 | 46.35 S 73.91 W |
| | LmV | B | 55.7 | H = 01 42 48.2 h = 33 km |
| | | | | MB = 4.9 MS = 5.0 (NEIS) |
| | | | | D = 121.5 |
| | | | | LmH B 19s 0.6/um M = 5.3 |
| | | | | LmV B 18 0.6/um 5.3 |
| 12. | eP | A | 08 23 08 | Mindoro, Philippine Islands |
| | ePP | A | 26 48 | 13.03 N 121.71 E |
| | LmH | B | 09 11.2 | H = 08 09 52.9 h = 33.3 km MB=5.4 MS=4.8 |
| | LmV | B | 11.5 | D = 92.32 Az = 323 (NEIS) |
| | | | | PV A 1.4s 32.6nm M = 5.6 |
| | | | | LmH B 16 1.3/um 5.5 |
| | | | | LmV B 16 1.2/um 5.4 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 12. | eP | A | 08 23 08 | Mindoro, Philippine Islands |
| | ePP | A | 26 48 | 13.03 N 121.71 E |
| | LmH | B | 09 11.2 | H = 08 09 52.9 h = 33.3 km MB=5.4 MS=4.8 |
| | LmV | B | 11.5 | D = 92.32 Az = 323 (NEIS) |
| | | | | PV A 1.4s 32.6nm M = 5.6 |
| | | | | LmH B 16 1.3/um 5.5 |
| | | | | LmV B 16 1.2/um 5.4 |
| 12. | ePKP | A | 10 33 20 | Fiji Islands 16.35 S 178.49 E |
| | | | | H = 10 13 54.1 h = 33 km MB = 4.8 |
| | | | | D = 144.20 Az = 346 (NEIS) |
| 12. | -iP | ABC | 11 29 02 | Northeastern China 39.27 N 117.71 E |
| | epP | A | 29 07.5 | H = 11 17 53.1 h = 22.3 km MB=5.8 MS=5.4 |
| | eS | BC | 38 10 | D = 69.57 Az = 319 (NEIS) |
| | eSS | B | 42 50 | h = 23 km |
| | LmH | B | 56.9 | PV A 1.6s 132.0nm M = 5.8 |
| | LmV | B | 12 01.5 | LmH B 19 28.3/um 6.5 |
| | | | | LmV B 14 6.7/um 6.1 |
| 12. | eP | A | 12 30 58 | Burma 21.75 N 92.99 E |
| | epP | A | 31 09 | H = 12 20 00.7 h = 40 km MB=5.4 MS=5.7 |
| | eS | BC | 39 40 | D = 68.11 Az = 317 (NEIS) |
| | ePKPPKP | A | 59 19 | h = 38 km |
| | LmH | B | 58.8 | PV A 1.7s 75.8nm M = 5.5 |
| | LmV | B | 13 05.6 | LmH B 28 15.1/um 6.1 |
| | | | | LmV B 16 3.4/um 5.7 |
| 12. | eP | A | 14 14 01.5 | Luzon, Philippine Islands |
| | ePP | A | 17 36 | 16.00 N 121.15 E |
| | eSKS | C | 24 15 | H = 14 00 57.0 h = 16.3 km MB=5.0 MS=4.9 |
| | ePS | C | 26 00 | D = 89.63 Az = 323 (NEIS) |
| | eSS | C | 31 00 | PV A 1.0s 19.7nm M = 5.3 |
| | LmH | B | 50.8 | LmH B 17.5 2.8/um 5.8 |
| | LmV | B | 55.0 | LmV B 18 2.3/um 5.7 |
| 12. | ePKHKP | A | 15 44 19 | Fiji Islands Region 18.21 S 177.63 W |
| | | | | H = 15 25 46.2 h = 628.5 km MB = 4.8 |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| cont. 12. | ePKP2 | A | 15 44 22 | D = 146.81 Az = 349 (NEIS)<br>PKHKPV A 1.2s 32.5nm |
| 12. | eP | A | 17 57 43.5 | Sicily 38.44 N 14.78 E<br>H = 17 54 47.1 h = 33 km<br>D = 12.41 Az = 351 (NEIS) |
| 12. | eP | A | 21 49 01 | Kurile Islands 50.16 N 154.99 E<br>H = 21 37 33.4 h = 126.1 km MB = 5.3<br>D = 74.82 Az = 337 (NEIS)<br>PV A 1.0s 47.2nm M = 5.2 |
| 13. | eP | A | 01 38 55 | Near East Coast of Honshu, Japan<br>38.29 N 141.93 E<br>H = 01 26 43.0 h = 49.7 km MB=4.9 MB=3.8<br>D = 81.28 Az = 331 (NEIS)<br>PV A 1.4s 18.6nm M = 4.9 |
| 13. | epP | A | 02 29 11.5 | Mindoro, Philippine Islands |
| | LmH | B | 03 14.7 | 13.01 N 121.69 E |
| | LmV | B | 19.0 | H = 02 15 55.1 h = 38.8 km MB = 5.2<br>D = 92.32 Az = 323 (NEIS)<br>h = 30 km<br>LmH B 18s 0.4/um M = 5.0<br>LmV B 14 0.7/um 5.3 |
| 13. | -iP | ABC | 11 25 38.5 | Bonin Islands Region 28.42 N 139.50 E |
| | epP | BC | 27 16 | H = 11 13 31.2 h = 430 km MB = 5.8 |
| | esP | BC | 27 52 | D = 88.81 Az = 330 (NEIS) |
| | ePP | ABC | 29 10 | h = 400 km |
| | ePPP | BC | 31 25 | PV A 1.3s 262.0nm M = 5.9 |
| | eS | BC | 35 42 | PV B 8 2.4/um 6.1 |
| | ePS | BC | 37 46 | LmH B 17 4.0/um |
| | esS | BC | 38 34 | LmV B 14 4.2/um |
| | esPS | BC | 39 40 | |
| | eSS | BC | 41 48 | |
| | ePKKP | A | 43 16 | |
| | esSS | BC | 44 25 | |
| | ePKPPKP | A | 51 22 | |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| cont. 13. | LmH | B | 12 04.6 | |
| | LmV | B | 13.4 | |
| 13. | ePg | A | 15 26 42 | D c. 3.2 |
| | iSn | A | 27 08 | |
| | iSg | A | 26 25 | |
| 13. | eP | A | 18 21 11 | Aegean Sea 39.11 N 23.46 E |
| | epP | A | 21 18 | H = 18 17 46.1 h = 12 km (NEIS) |
| | eSS | C | 24 08 | D = 14.3 h = 25 km |
| | LmH | B | 26.1 | LmH B 16s 5.4/um M = 4.7 |
| | LmV | B | 27.4 | LmV B 12 3.0/um |
| 13. | ePKHKP | A | 20 00 51 | South of Fiji Islands 22.42 S 179.64 W |
| | epPKP | A | 03 09 | H = 19 42 07.8 h = 626.8 km MB = 4.8<br>D = 150.48 Az = 345 (NEIS)<br>h = 622 km<br>PKHKPV A 1.3s 21.8nm<br>pPKPV A traces |
| 14. | ePn | A | 03 41 18 | Yugoslavia 43.15 N 16.03 E |
| | ePg | A | 42 02 | H = 03 39 22.1 h = 47.2 km MB = 4.7 |
| | eSn | A | 42 51 | D = 8.09 Az = 340 (NEIS) |
| | eSg | A | 43 48 | PV A 0.5s 65.5nm M = 5.8 |
| | LmH | B | 44.6 | LmH B 10 0.8/um 3.7 |
| | LmV | B | 44.7 | LmV B 11 1.1/um |
| 14. | epP | A | 06 18 02.5 | Off Coast of Ecuador 1.49 N 85.27 W |
| | LmV | B | 51.1 | H = 06 04 39.7 h = 33 km MB=5.2 MS=5.7 |
| | LmH | B | 53.0 | D = 93.23 Az = 39 (NEIS)<br>h = 37 km<br>LmH B 21.5s 3.1/um M = 5.7<br>LmV B 23 1.7/um 5.5 |
| 14. | eP | A | 07 12 07 | Off Coast of Ecuador 1.62 N 85.26 W |
| | LmH | B | 46.6 | H = 06 58 49.9 h = 33 km MB=5.1 MS=5.5<br>D = 93.13 Az = 39 (NEIS)<br>traces<br>LmH B 24s 2.9/um M = 5.7 |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| cont. 14. | LmV | B | 07 46.8 | LmV B 24s 3.3/um M = 5.7 |
| 14. | eSg | A | 20 38 57 | West Poland (CLL) |
| 14. | eP | A | 21 40 39 | Hokkaido, Japan Region 41.11 N 143.70 E<br>H = 21 28 33.5 h = 25.6 km MB = 4.8<br>D = 79.47 Az = 331 (NEIS) |
| 14. | eP | A | 21 48 47 | Turkey 38.77 N 40.02 E |
| | eS | B | 53 08 | H = 21 43 38.1 h = 10 km MB = 4.7 |
| | LmH | B | 22 00.6 | D = 23.26 Az = 310 (NEIS) |
| | LmV | B | 00.7 | LmH B 16s 0.7/um M = 4.2<br>LmV B 16 0.4/um 4.1 |
| 15. | eP | A | 00 32 17 | Northwest of Kurile Islands |
| | epP | A | 33 11 | 49.59 N 152.91 E<br>H = 00 20 59.6 h = 221.3 km MB = 5.0<br>D = 74.80 Az = 336 (NEIS)<br>h = 243 km<br>PV A 1.5s 30.2/um M = 4.9 |
| 15. | eP | A | 04 25 17 | Sudan 17.85 N 36.84 E |
| | epP | A | 25 30 | H = 04 17 57.5 h = 33 km MB = 4.3 (NEIS)<br>D = 38.4 h = 48 km |
| 15. | eP | A | 14 10 13 | Mid - Indian Rise 12.25 S 65.35 E<br>H = 13 58 15.5 h = 33 km MB = 4.9<br>D = 78.14 Az = 328 (NEIS) |
| 15. | eSg | A | 15 46 25 | Adria (VIE) |
| 15. | eP | A | 16 02 39.5 | Fox Islands, Aleutian Is. |
| | eS | BC | 12 20 | 52.45 N 168.03 W |
| | LmV | B | 47.7 | H = 15 50 47.1 h = 33 km MB=5.3 MS=4.7 |
| | LmH | B | 48.8 | D = 77.28 Az = 0 (NEIS)<br>PV A 1.3s 56.8nm M = 5.4<br>LmH B 16 0.4/um 4.8<br>LmV B 16 0.6/um 5.1 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 15. | eP | A | 18 51 10 | Mid - Indian Rise 11.62 S 65.62 E |
| | epP | A | 51 16 | H = 18 39 14.5 h = 33 km MB = 4.9<br>D = 77.74 Az = 328 (NEIS)<br>h = 26 km<br>PV A 1.3s 17.5nm M = 4.9 |
| 15. | eP | A | 19 32 27.5 | Mid - Indian Rise 12.04 S 65.99 E |
| | epP | A | 32 33 | H = 19 20 29.3 h = 33 km MB=4.8 MS=4.9<br>D = 78.29 Az = 328 (NEIS)<br>h = 24 km |
| 15. | eP | A | 22 05 20 | Near West Coast of Colombia<br>6.21 N 77.51 W<br>H = 21 52 43.9 h = 8.9 km MB=4.9 MS=3.6<br>D = 84.70 Az = 40 (NEIS) |
| 15. | ePKIKP | A | 23 31 39 | Fiji Islands Region 19.13 S 177.67 W |
| | iPKHKP | A | 31 43 | H = 23 12 53.6 h = 498.8 km MB = 5.5 |
| | iPKP2 | A | 31 46.5 | D = 147.70 Az = 349 (NEIS) |
| | epPKP | ABC | 33 39 | h = 535 km |
| | ePP | A | 35 11 | PKIKPV A 2.0s 59.9nm<br>PKHKPV A 1.8 210.0nm<br>PKP2V A 1.8 122.0nm |
| 16. | eP | A | 08 20 16.5 | Crete 35.38 N 26.52 E |
| | LmH | B | 30.0 | H = 08 16 00.6 h = 46.7 km MB = 4.3 |
| | LmV | B | 30.0 | D = 18.70 Az = 329 (NEIS)<br>PV A 1.8s 33.8nm M = 4.2 |
| 16. | ePKHKP | A | 11 34 01.5 | New Hebrides Islands 17.42 S 167.92 E |
| | LmH | B | 12 34.5 | H = 11 14 30.7 h = 29.7 km MB=5.1 MS=5.3 |
| | LmV | B | 44.3 | D = 141.82 Az = 336 (NEIS)<br>LmH B 20s 0.4/um M = 5.1<br>LmV B 16 0.4/um 5.3 |
| 16. | LmH | B | 16 44.9 | Near Coast of Guerrero, Mexico |
| | LmV | B | 46.3 | 16.93 N 100.01 W<br>H = 15 47 55.4 h = 33 km MB = 4.4 (NEIS)<br>D = 90.1 |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| cont. 16. | | | | LmH B 13s 0.9/um M = 5.4 |
| | | | | LmV B 12 0.9/um 5.4 |
| 16. | eP | A | 16 52 47 | Iceland Region 63.86 N 22.43 W |
| | eS | BC | 57 00 | H = 16 47 48.6 h = 10 km |
| | LmH | B | 17 02.7 | MB = 4.6 MS = 4.8 (NEIS) |
| | LmV | B | 04.3 | D = 22.2 |
| | | | | PV A 1.4s 23.3nm M = 4.4 |
| | | | | LmH B 13 2.0/um 4.7 |
| | | | | LmV B 13 2.3/um 4.9 |
| 16. | eP | A | 17 03 15 | Iceland Region 63.93 N 22.88 W |
| | | | | H = 16 58 11.8 h = 10 km MB = 4.1 |
| | | | | D = 22.54 Az = 110 (NEIS) |
| 17. | eP | A | 14 27 55.5 | Panama 7.36 N 78.03 W |
| | | | | H = 14 15 21.9 h = 8.3 km MB=5.1 MS=4.5 |
| | | | | D = 84.15 Az = 40 (NEIS) |
| 18. | +iP | A | 04 08 15 | Kamchatka 55.71 N 160.82 E |
| | epP | A | 08 56 | H = 03 57 13.4 h = 158 km MB = 5.1 |
| | LmH | B | 51.4 | D = 70.96 Az = 340 (NEIS) |
| | LmV | B | 52.6 | h = 173 km |
| | | | | PV A 1.1s 68.6nm M = 5.4 |
| | | | | LmH B 16 0.35/um 4.7 |
| | | | | LmV B 16 0.5/um 4.9 |
| 18. | +iPKP | A | 07 02 29 | New Hebrides Islands 19.00 S 169.19 E |
| | epPKP | A | 03 23.5 | H = 06 43 21.1 h = 217 km MB = 5.2 |
| | esPKP | A | 03 44 | D = 143.74 Az = 336 (NEIS) |
| | | | | h = 224 km |
| | | | | PKPV A 1.4s 111.8nm |
| 18. | ePg | A | 13 04 36.5 | Czechoslovakia 50.56 N 14.01 E |
| | eSg | A | 04 57 | Explosion of 14 t |
| | | | | H = 13 04.0 (KHC) |
| | | | | D = 1.5 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 19. | eP | A | 00 15 18 | Southern Iran 29.79 N 51.20 E |
| | epP | A | 15 30 | H = 00 08 15.5 h = 39.7 km MB = 4.9 |
| | | | | D = 36.13 Az = 317 (NEIS) |
| | | | | h = 59 km |
| 19. | ePKHKP | A | 00 29 18 | Fiji Islands Region 20.31 S 178.32 W |
| | | | | H = 00 10 32.2 h = 558.4 km MB = 4.2 |
| | | | | D = 148.72 Az = 348 (NEIS) |
| | | | | traces |
| 19. | LmV | B | 18 07.6 | South Sandwich Islands Region |
| | LmH | B | 08.8 | 60.35 S 26.56 W |
| | | | | H = 17 02 53.0 h = 33 km MB = 5.2 (NEIS) |
| | | | | D = 114.8 |
| | | | | LmH B 16s 0.3/um M = 5.0 |
| | | | | LmV B 16 0.4/um 5.1 |
| 19. | LmH | B | 18 40.3 | South Sandwich Islands Region |
| | LmV | B | 40.3 | 60.62 S 26.75 W |
| | | | | H = 17 35 15.0 h = 33 km MB = 5.1 (NEIS) |
| | | | | D = 115 |
| | | | | LmH B 18s 0.5/um M = 5.2 |
| | | | | LmV B 18 0.7/um 5.3 |
| 19. | ePKHKP | A | 19 07 38 | Fiji Islands Region 19.14 S 177.79 W |
| | epPKP | A | 09 51.5 | H = 18 48 57.2 h = 586.3 km MB = 4.7 |
| | | | | D = 147.69 Az = 349 (NEIS) |
| | | | | h = 600 km |
| 19. | eP | A | 23 06 09 | Southern Iran 27.12 N 55.32 E |
| | eS | BC | 12 18 | H = 22 58 30.8 h = 29.5 km MB = 5.2 |
| | LmH | B | 26.3 | D = 40.54 Az = 317 (NEIS) |
| | LmV | B | 27.8 | PV A 1.8s 60.8nm M = 5.0 |
| | | | | LmH B 16 0.6/um 4.5 |
| | | | | LmV B 17 0.6/um 4.6 |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 19. | eP | A | 23 12 31 | Southern Iran 27.14 N 55.31 E |
| | | | | H = 23 04 53.6 h = 35.2 km MB = 5.3 |
| | | | | D = 40.53 Az = 317 (NEIS) |
| | | | | PV A 1.4s 32.6nm M = 4.9 |
| 20. | ePKHKP | A | 14 30 41 | Fiji Islands Region 20.36 S 177.74 W |
| | ePKP2 | A | 30 46 | H = 14 11 52.3 h = 533.5 km MB = 5.0 |
| | | | | D = 148.89 Az = 348 (NEIS) |
| | | | | PKHKPV A 1.4s 37.2nm |
| 20. | ePKIKP | A | 21 24 43 | South of Fiji Islands 23.87 S 176.56 W |
| | ePKHKP | A | 24 51 | H = 21 04 58.0 h = 48 km MB=5.6 MS=4.5 |
| | ePKP2 | A | 25 02 | D = 152.52 Az = 349 (NEIS) |
| | | | | PKHKPV A 1.2s 32.6nm |
| 20. | eP | ABC | 23 04 29 | Southern Sumatra 4.44 S 101.98 E |
| | epP | A | 04 39 | H = 22 51 13.9 h = 37 km MB=5.7 MS=5.3 |
| | ePP | ABC | 08 10 | D = 93.63 Az = 320 (NEIS) |
| | eSKS | BC | 15 10 | h = 36 km |
| | eSKKS | BC | 15 30 | PV A 1.8s 47.4nm M = 5.6 |
| | eS | BC | 15 45 | LmH B 22 0.9/um 5.2 |
| | ePS | BC | 17 00 | LmV B 20 0.9/um 5.2 |
| | LmH | B | 52.6 | |
| | LmV | B | 54.9 | |
| 21. | LmH | B | 01 16.0 | California - Nevada Border Region |
| | LmV | B | 16.0 | 37.59 N 118.74 W |
| | | | | H = 00 28 19.8 h = 5 km (NEIS) |
| | | | | D = 81.9 |
| | | | | LmH B 18s 0.6/um M = 5.0 |
| | | | | LmV B 20 0.9/um 5.2 |
| 21. | eP | ABC | 05 48 00 | Luzon, Philippine Islands |
| | epP | A | 48 49 | 15.70 N 120.82 E |
| | ePP | ABC | 51 35 | H = 05 35 22.5 h = 189 km MB = 5.7 |
| | epPP | BC | 52 15 | D = 89.68 Az = 323 (NEIS) |
| | eSKS | BC | 58 12 | h = 200 km |
| | eS | BC | 58 34 | PV A 1.2s 81.3nm M = 5.5 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| cont. 21. | eSP | BC | 05 59 36 | LmH B 16s 2.8/um |
| | ePS | B | 06 00 00 | LmV B 19 2.9/um |
| | eSS | BC | 04 36 | |
| | LmH | B | 28.8 | |
| | LmV | B | 28.9 | |
| 21. | eP | A | 10 39 44.5 | Mid-Indian Rise 8.63 S 67.45 E |
| | | | | H = 10 27 57.0 h = 33 km MB = 4.6 |
| | | | | D = 76.20 Az = 327 (NEIS) |
| | | | | traces |
| 21. | eP | A | 13 53 16.5 | Bonin Islands Region 27.58 N 139.99 E |
| | ePP | A | 56 52 | H = 13 40 55.0 h = 340 km MB = 5.1 |
| | | | | D = 89.75 Az = 330 (NEIS) |
| | | | | PV A 1.5s 40.2nm M = 5.1 |
| | | | | PPV A 1.8 60.9nm 5.4 |
| 21. | LmV | C | 15 04.9 | Near Coast of Ecuador 1.59 S 80.91 W |
| | LmH | C | 05.0 | H = 14 14 41.3 h = 47.7 km MB=5.0 MS=4.7 |
| | | | | D = 92.8 (NEIS) |
| | | | | LmH C 24s 0.2/um M = 4.5 |
| | | | | LmV C 24 0.3/um 4.7 |
| 22. | ePKHKP | A | 23 46 09 | Fiji Islands Region 19.52 S 177.25 W |
| | ePKP2 | A | 46 13.5 | H = 23 27 03.8 h = 350 km MB = 5.2 |
| | epPKP | A | 47 37 | D = 148.16 Az = 349 (NEIS) |
| | | | | h = 375 km |
| 23. | ePKHKP | A | 12 32 18.5 | Fiji Islands Region 17.76 S 178.46 W |
| | | | | H = 12 13 40.3 h = 571.1 km MB = 5.0 |
| | | | | D = 146.21 Az = 348 (NEIS) |
| | | | | traces |
| 23. | +iP | A | 22 08 40 | Northern Sumatra 0.67 N 98.68 E |
| | epP | A | 08 51 | H = 21 55 54.1 h = 40 km MB=5.5 MS=4.7 |
| | LmV | B | 54.6 | D = 87.62 Az = 320 (NEIS) |
| | LmH | B | 54.8 | h = 39 km |
| | | | | PV A 1.5s 85.4nm M = 5.8 |
| | | | | LmV B 20 0.3/um 4.7 |
| | | | | LmH B 20 0.3/um 4.7 |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 24. | eP | A | 07 59 27 | Volcano Islands Region 25.47 N 142.51 E |
| | ePP | A | 03 13 | H = 07 46 13.5 h = 8.6 km MB=5.7 MS=5.3 |
| | LmH | B | 08 41.3 | D = 92.69 Az = 331 (NEIS) |
| | LmV | B | 47.1 | PV A 1.2s 32.5nm M = 5.6 |
| | | | | LmH B 14.5 0.8/um 5.3 |
| | | | | LmV B 15 0.7/um 5.3 |
| 24. | eP | ABC | 10 36 45 | Mariana Islands 18.81 N 145.35 E |
| | epP | ABC | 37 37 | H = 10 23 23.4 h = 207 km MB = 5.7 |
| | ePP | BC | 40 48 | D = 99.77 Az = 332 (NEIS) |
| | epPP | BC | 41 30 | h = 228 km |
| | esPP | BC | 41 48 | LmH B 18s 4.6/um |
| | eSKS | BC | 47 00 | LmV B 16 2.5/um |
| | eS | BC | 47 50 | |
| | e | BC | 48 34 | |
| | ePKKP | A | 53 04.5 | |
| | eSS | BC | 54 50 | |
| | esSS | BC | 56 20 | |
| | LmH | B | 11 19.2 | |
| | LmV | B | 28.2 | |
| 24. | eP | A | 12 51 06.5 | Southern Iran 27.11 N 55.45 E |
| | | | | H = 12 43 28.7 h = 44.8 km MB = 4.8 |
| | | | | D = 40.63 Az = 317 (NEIS) |
| | | | | PV A 2.0s 25.6nm M = 4.6 |
| 24. | eP | A | 13 06 51 | Southern Iran 27.07 N 55.48 E |
| | | | | H = 12 59 09.3 h = 27.5 km MB = 4.7 |
| | | | | D = 40.68 Az = 317 (NEIS) |
| 25. | ePKP | A | 05 37 03 | Fiji Islands Region 16.79 S 177.30 W |
| | LmV | C | 06 30.4 | H = 05 17 25.9 h = 41.7 km MB = 4.6 |
| | LmH | C | 31.0 | D = 145.47 Az = 350 (NEIS) |
| | | | | LmH C 28s 0.4/um M = 4.9 |
| | | | | LmV C 32 0.5/um 5.1 |
| 25. | ePKHKP | A | 06 09 23 | Fiji Islands Region 17.00 S 177.06 W |
| | epPKP | A | 09 36 | H = 05 49 46.6 h = 41.9 km MB=4.7 MS=5.0 |
| | | | | D = 145.72 Az = 350 (NEIS) |
| | | | | h = 36 km |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 25. | ePKP | ABC | 06 41 44 | Fiji Islands Region 17.02 S 177.02 W |
| | LmV | C | 07 35.0 | H = 06 22 04.4 h = 33 km MB=4.9 MS=5.0 |
| | LmH | C | 35.3 | D = 145.75 Az = 350 (NEIS) |
| | | | | LmH C 32s 0.6/um M = 5.1 |
| | | | | LmV C 32 0.5/um 5.1 |
| 25. | eP | ABC | 11 08 21.5 | Iran 34.89 N 52.06 E |
| | LmH | B | 24.8 | H = 11 01 45.5 h = 25.9 km MB=5.4 MS=4.3 |
| | LmV | B | 25.4 | D = 33.14 Az = 311 (NEIS) |
| | | | | PV A 1.1s 24.2nm M = 5.0 |
| | | | | LmH B 15 0.5/um 4.3 |
| | | | | LmV B 14 0.5/um 4.5 |
| 25. | ePKP | A | 12 28 37 | Fiji Islands Region 17.86 S 178.62 W |
| | | | | H = 12 10 01.2 h = 578 km MB = 5.4 |
| | | | | D = 146.28 Az = 348 (NEIS) |
| | | | | PKPV A 1.6s 99.0nm |
| 25. | +iP | ABC | 15 08 06 | Northern Sumatra 4.24 N 95.77 E |
| | ipP | ABC | 08 21 | H = 14 55 45.0 h = 56 km MB = 5.9 |
| | ePP | BC | 11 12 | D = 83.04 Az = 320 (NEIS) |
| | eS | BC | 18 20 | h = 59 km |
| | ePS | BC | 19 15 | PV A 1.4s 121.0nm M = 5.7 |
| | ePPS | BC | 19 40 | LmH B 18 2.1/um 5.5 |
| | eSS | BC | 23 48 | LmV B 17 2.1/um 5.6 |
| | LmV | B | 52.2 | |
| | LmH | B | 54.8 | |
| 25. | eP | A | 17 12 18.5 | Southern Nevada 37.09 N 116.05 W |
| | | | | H = 17 00 00.1 h = 0 km MB = 5.3 |
| | | | | D = 81.25 Az = 31 (NEIS) |
| 25. | eP | A | 21 13 54 | Southern Iran 29.34 N 53.39 E |
| | | | | H = 21 06 38.3 h = 22.4 km MB = 4.8 |
| | | | | D = 37.77 Az = 316 (NEIS) |
| | | | | traces |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 25. | eP | A | 23 09 30.5 | Queen Elizabeth Islands 77.53 N 105.19 W<br>H = 23 01 06.5 h = 33 km MB = 4.4<br>D = 46.34 Az = 52 (NEIS) |
| 26. | eP | ABC | 01 40 43.5 | Turkey - Iran Border Region |
| | eS | BC | 45 15 | 38.93 N 44.38 E |
| | eSS | BC | 46 00 | H = 01 35 13.8 h = 36.7 km MB=5.2 MS=5.4 |
| | eSSS | BC | 46 40 | D = 25.82 Az = 308 (NEIS) |
| | LmH | B | 54.5 | PV A 1.5s 40.2nm M = 4.8 |
| | LmV | B | 55.3 | LmH B 13 6.1/um 5.3 |
| | | | | LmV B 12.5 5.1/um 5.4 |
| 26. | eP | BC | 06 32 58 | Off Coast of Ecuador 1.85 S 81.20 W |
| | ePP | BC | 36 36 | H = 06 19 40.8 h = 10.1 km MB=5.0 MS=5.1 |
| | eSKS | BC | 43 32 | D = 93.21 Az = 40 (NEIS) |
| | eS | BC | 44 08 | PV B traces |
| | ePS | BC | 45 14 | LmH B 16s 0.3/um M = 4.9 |
| | LmV | B | 07 17.0 | LmV B 18 0.6/um 5.1 |
| | LmH | B | 17.4 | |
| 26. | eP | A | 09 55 53 | N. W. Iran - USSR Border Region |
| | ePP | A | 56 30 | 38.96 N 44.38 E |
| | LmV | C | 10 07.5 | H = 09 50 24.6 h = 41 km MB=4.8 MS=3.5 |
| | LmH | C | 07.7 | D = 25.80 Az = 308 (NEIS) |
| | | | | LmH C 20s 0.3/um M = 3.8 |
| | | | | LmV C 20 0.4/um 4.1 |
| 26. | eP | A | 22 47 09 | Southern Iran 27.65 N 56.55 E |
| | ePcP | A | 49 10 | H = 22 39 29.1 h = 38.8 km MB = 4.8 |
| | eS | C | 53 16 | D = 40.91 Az = 317 (NEIS) |
| | LmH | B | 23 11.0 | LmH B 16s 0.2/um M = 4.1 |
| | LmV | B | 13.8 | LmV B 16 0.2/um 4.2 |
| | ePKPPKP | A | 18 48.5 | |
| 27. | eP | A | 02 40 25 | Tadzhik SSR 37.64 N 72.25 E |
| | | | | H = 02 32 25.9 h = 122.7 km MB = 4.9 |
| | | | | D = 44.21 Az = 307 (NEIS) |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 27. | iPg | A | 08 24 21 | Czechoslovakia 50.61 N 14.10 E |
| | iSg | A | 24 41 | H = 08 23 49.8 h = 0 km |
| | | | | D = 1.58 Az = 272 (ISC) |
| | | | | Explosion of 20.6 tons |
| 27. | ePKP | A | 09 40 16 | Samoa 16.3 S 172.9 W |
| | | | | H = 09 20 38.2 h = 33 km MB = 4.7 |
| | | | | D = 145.55 Az = 355 (ISC) |
| 27. | eP | A | 22 36 05.5 | Crete 35.23 N 26.50 E |
| | LmV | B | 45.6 | H = 22 31 49.1 h = 68.2 km MB = 4.7 |
| | LmH | B | 46.3 | D = 18.81 Az = 330 (NEIS) |
| | | | | PV A 0.8s 30.8nm M = 4.6 |
| | | | | LmH B 12 0.3/um 3.8 |
| | | | | LmV B 12 0.4/um 4.1 |
| 27. | ePKIKP | A | 23 17 23 | Solomon Islands 9.41 S 159.02 E |
| | LmH | B | 24 08.4 | H = 22 58 13.3 h = 33 km MB=5.3 MS=4.9 |
| | LmV | B | 16.6 | D = 130.88 Az = 333 (NEIS) |
| | | | | PKIKPV traces |
| | | | | LmH B 20s 0.45/um M = 5.1 |
| | | | | LmV B 20 0.5/um 5.2 |
| 28. | LmH | B | 03 38.7 | Mindanao, Philippine Islands |
| | LmV | B | 49.3 | 6.34 N 123.96 E |
| | | | | H = 02 41 32.9 h = 48 km |
| | | | | MB = 5.1 MS = 4.5 (NEIS) |
| | | | | D = 99.0 |
| | | | | LmH B 19s 0.6/um M = 5.1 |
| | | | | LmV B 16 0.6/um 5.2 |
| 28. | e | A | 06 05 56 | Sulawesi 1.73 S 120.52 E |
| | e | A | 09 06 | H = 05 51 48.1 h = 54 km |
| | ePP | B | 10 16 | MB = 5.9 MS = 5.8 (NEIS) |
| | eSKS | B | 16 30 | D = 103.3 |
| | eS | B | 17 30 | LmH B 23s 5.2/um M = 6.0 |
| | ePS | B | 19 15 | LmV B 24 3.7/um 5.8 |
| | eSS | B | 24 48 | |
| | LmH | B | 51.6 | |
| | LmV | B | 53.4 | |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 28. | ePKIKP | A | 15 30 12 | Balleny Islands Region 64.94 S 175.69 E |
| | ePKHKP | A | 30 32 | H = 15 10 13.0 h = 33 km MB=5.7 MS=5.4 |
| | ePKP2 | A | 31 03 | D = 163.42 Az = 218 (NEIS) |
| | LmH | B | 16 45.5 | LmH B 20s 0.6/um M = 5.3 |
| | LmV | B | 46.9 | LmV B 20 0.9/um 5.6 |
| 29. | eP | A | 02 30 49 | Near Coast of Pakistan 23.37 N 64.55 E |
| | eS | BC | 38 00 | H = 02 22 03.8 h = 33 km MB=4.9 MS=4.5 |
| | LmH | B | 58.8 | D = 48.95 Az = 318 (NEIS) |
| | LmV | B | 59.8 | PV A 1.3s 13.1nm M = 4.8 |
| | | | | LmH B 14 0.4/um 4.6 |
| | | | | LmV B 14 0.4/um 4.6 |
| 29. | +iP | AB | 03 04 48.5 | Eastern Kazakh SSR 49.94 N 78.85 E |
| | ePn | A | 06 27 | H = 02 56 57.8 h = 0 km MB=5.6 MS=5.0 |
| | LmH | B | 23.1 | D = 41.60 Az = 298 (NEIS) |
| | LmV | B | 23.3 | Underground nuclear explosion (ERDA) PV A 1.2s 183.0nm M = 5.7 LmH,LmV traces |
| 29. | ePKP2 | A | 03 41 13 | South of Kermadec Islands |
| | LmH | B | 05 15.0 | 34.69 S 179.05 W |
| | LmV | B | 15.2 | H = 03 20 28.2 h = 33 km |
| | | | | MB = 5.5 MS = 5.1 (NEIS) |
| | | | | D = 162.2 |
| | | | | PKP2V A 1.5s 25.2nm |
| | | | | LmH B 20 0.3/um M = 5.1 |
| | | | | LmV B 20 0.4/um 5.2 |
| 29. | eP | A | 16 43 32 | Azores Islands Region 40.49 N 29.54 W |
| | epP | A | 43 38 | H = 16 37 20.5 h = 11.9 km MB=4.7 MS=4.6 |
| | LmV | B | 54.5 | D = 30.19 Az = 56 (NEIS) |
| | LmH | B | 54.7 | h = 30 km |
| | | | | PV A 1.4s 27.9nm M = 4.9 |
| | | | | LmH B 16 0.3/um 4.0 |
| | | | | LmV B 18 0.5/um 4.3 |
| 30. | eP | A | 00 35 48 | Honshu, Japan 36.69 N 138.38 E |
| | LmV | B | 01 12.1 | H = 00 23 28.7 h = 7 km MB = 5.0 |
| | LmH | B | 13.2 | D = 81.23 Az = 329 (NEIS) |
| | | | | LmH B 12s 0.3/um M = 4.8 |
| | | | | LmV B 12 0.2/um 4.7 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 30. | +iP | ABC | 15 27 54.0 | Fox Islands, Aleutian Is. |
| | ePcP | A | 28 02 | 52.43 N 169.71 W |
| | eS | BC | 37 52 | H = 15 16 01.6 h = 33 km MB=5.6 MS=6.0 |
| | ePS | BC | 38 40 | D = 77.30 Az = 359 (NEIS) |
| | eSS | C | 42 48 | PV A 1.1s 80.6nm M = 5.7 |
| | eSSS | BC | 47 10 | LmH B 18 3.6/um 5.8 |
| | eSSSS | BC | 48 30 | LmV B 18 4.5/um 5.9 |
| | ePKKS | C | 50 25 | |
| | LmV | B | 16 11.3 | |
| | LmH | B | 11.6 | |
| 30. | ePKHKP | A | 19 30 17 | Fiji Islands Region 19.75 S 177.52 W |
| | | | | H = 19 11 32.4 h = 564.4 km MB = 4.5 |
| | | | | D = 148.33 Az = 349 (NEIS) |
| 31. | eP | A | 07 46 13 | Hindu Kush Region 36.24 N 69.56 E |
| | | | | H = 07 38 23.5 h = 138.5 km MB = 4.7 |
| | | | | D = 43.36 Az = 308 (NEIS) |
| | | | | PV A 1.0s 11.8nm M = 4.5 |
| 31. | ePKIKP | A | 15 07 07 | Santa Cruz Islands 11.81 S 166.51 E |
| | epPKIKP | A | 07 43 | H = 14 47 59.1 h = 138 km MB = 5.6 |
| | e | B | 09 44 | D = 136.16 Az = 337 (NEIS) |
| | | | | h = 145 km |
| | | | | PKIKPV A 1.6s 33.0nm |
| 31. | ePg | A | 18 12 20 | Czechoslovakia 49.8 N 13.9 E |
| | eSg | A | 12 40 | H = 18 11 52 h = 33 km |
| | | | | D = 1.69 Az = 300 (ISC) |
| 31. | ePKP2 | A | 19 11 52 | Off E. Coast of N. Island N. Z. |
| | | | | 37.85 S 177.35 E |
| | | | | H = 18 51 07.1 h = 125 km MB = 5.2 (NEIS) |
| | | | | D = 164 |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 1. | ePKHKP | A | 09 17 19.5 | Tonga Islands 21.19 S 174.37 W |
| | LmV | B | 10 25.3 | H = 08 57 30.9 h = 33 km MB=5.2 MS=5.2 |
| | LmH | B | 25.4 | D = 150.23 Az = 352 (NEIS) |
| | | | | PKHKPV A 2.6s 121.2nm |
| | | | | LmH B 20 0.5/um M = 5.2 |
| | | | | LmV B 20 0.7/um 5.4 |
| 1. | -iP | AB | 12 59 20 | Turkey 36.24 N 31.34 E |
| | eiS | B | 13 03 00 | H = 12 54 49.2 h = 66.6 km MB = 5.7 |
| | eScP | A | 07 03 | D = 20.22 Az = 322 (NEIS) |
| | LmH | B | 07.8 | PV A 1.5s 1130.7nm M = 5.9 |
| | LmV | B | 09.6 | PV B 2.5 2.4/um 6.0 |
| | | | | SH B 7 7.0/um 6.0 |
| | | | | PcSV A 1.6 104.4nm |
| | | | | LmH B 15.5 11.3/um |
| | | | | LmV B 14 6.9/um |
| 2. | ePn | A | 01 52 36.5 | West Poland (CLL) |
| | eSg | A | 53 15 | D c. 2.4 |
| 2. | ePn | A | 13 33 00.5 | Lüneburger Heide, Fed. Rep. of Germany |
| | ePb | A | 33 07.5 | 53.07 N 9.55 E |
| | ePg | A | 33 15.5 | H = 13 32 14.8 h = 0 km |
| | e | A | 33 22 | D = 2.74 Az = 151 (NEIS) |
| | eSn | A | 33 41.5 | |
| | eSg | A | 33(53) | |
| 2. | +eP | AB | 15 00 15 | Iceland 63.67 N 19.03 W |
| | eS | C | 04 12 | H = 14 55 31.9 h = 10 km MB=4.9 MS=5.0 |
| | LmH | C | 09.4 | D = 20.86 Az = 114 (NEIS) |
| | LmV | C | 09.4 | PV A 1.8s 101.3nm M = 4.9 |
| | | | | LmH C 16 9.6/um 5.3 |
| | | | | LmV C 16 6.3/um 5.3 |
| 2. | eP | A | 17 24 45 | Dodecanese Islands 35.20 N 27.68 E |
| | | | | H = 17 20 19.5 h = 33 km MB = 4.3 |
| | | | | D = 19.34 Az = 328 (NEIS) |
| | | | | PV A 1.0s 39.4nm M = 4.6 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 2. | eP | A | 19 13 01 | Dodecanese Islands 35.07 N 27.61 E |
| | | | | H = 19 08 29.7 h = 33 km MB = 3.9 |
| | | | | D = 19.42 Az = 328 (NEIS) |
| 3. | eP | AB | 01 13 19.5 | Tadzhik SSR 39.87 N 71.79 E |
| | e | A | 13 28 | H = 01 05 23.7 h = 24 km MB=5.1 MS=5.0 |
| | ePP | A | 15 02 | D = 42.60 Az = 305 (NEIS) |
| | ePcP | A | 15 17 | PV A 1.6s 27.5nm M = 4.7 |
| | eS | C | 19 42 | LmH B 15 4.0/um 5.4 |
| | LmH | B | 32.3 | LmV B 12 3.1/um 5.5 |
| | LmV | B | 33.2 | |
| 3. | eP | A | 02 33 10 | Off East Coast of Kamchatka |
| | | | | 52.15 N 159.05 E |
| | | | | H = 02 21 36.8 h = 33 km MB = 4.7 |
| | | | | D = 73.94 Az = 339 (NEIS) |
| | | | | PV A 1.3s 17.5nm M = 4.9 |
| 3. | +iP | AB | 02 38 53 | Hindu Kush Region 36.44 N 70.76 E |
| | epP | B | 39 36 | H = 02 31 04.7 h = 210 km MB = 5.5 |
| | esPP | B | 41 44 | D = 44.0 Az = 308 (NEIS) |
| | eS | B | 45 08 | h = 203 km |
| | esS | B | 46 20 | PV A 2.0s 521.0nm M = 5.7 |
| | eSS | B | 48 20 | PV B 4 1.9/um 5.9 |
| | e | B | 49 00 | |
| | LmH | B | 03 00.0 | |
| | LmV | B | 00.0 | |
| 3. | ePKHKP | A | 14 51 47.5 | Fiji Islands Region 18.94 S 177.63 W |
| | | | | H = 14 33 07.0 h = 573.1 km MB = 5.3 |
| | | | | D = 147.52 Az = 349 (NEIS) |
| 3. | ePKIKP | A | 15 36 48 | New Hebrides Islands 14.15 S 166.56 E |
| | LmH | C | 16 39.8 | H = 15 17 25.1 h = 38.3 km MB=5.4 MS=5.4 |
| | LmV | C | 39.8 | D = 138.31 Az = 336 (NEIS) |
| | | | | PKIKPV A 1.4s 18.6nm |
| | | | | LmH C 22 0.7/um M = 5.3 |
| | | | | LmV C 21 0.8/um 5.3 |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 3. | eP | A | 23 02 12 | Off East Coast of Honshu, Japan |
| | epP | A | 02 22.5 | 40.52 N 145.31 E |
| | LmH | C | 34.0 | H = 22 50 01.5 h = 33 km MB = 5.0 |
| | LmV | B | 44.8 | D = 80.57 Az = 332 (NEIS) |
| | | | | h = 39 km |
| | | | | PV A 1.0s 15.7nm M = 5.0 |
| | | | | LmH C 22 0.7/um 5.0 |
| | | | | LmV B 16 0.3/um 4.8 |
| 4. | ePn | A | 09 25 40 | Poland 51.0 N 16.1 E |
| | ePg | A | 25 46 | H = 09 24 52 h = 0 km |
| | eSg | A | 26 23.5 | D = 2.84 Az = 264 (ISC) |
| 4. | eP | A | 15 10 01.5 | Lake Baikal Region 56.27 N 111.64 E |
| | LmH | B | 35.5 | H = 15 00 33.4 h = 33 km MB=4.9 MS=4.2 |
| | LmV | B | 35.6 | D = 54.68 Az = 310 (NEIS) |
| | | | | PV A 1.7s 30.3nm M = 5.1 |
| | | | | LmH B 16 0.6/um 4.7 |
| | | | | LmV B 15 0.6/um 4.9 |
| 5. | ePP | B | 03 04 12 | Near Coast of Northern Chile |
| | eSKS | B | 10 40 | 23.87 S 70.16 W |
| | ePS | B | 13 25 | H = 02 46 05.9 h = 32 km |
| | eSS | B | 18 55 | MB = 5.6 MS = 5.4 (NEIS) |
| | LmH | B | 50.2 | D = 103.2 |
| | LmV | B | 50.5 | PPV B 9s 0.6/um M = 6.1 |
| | | | | LmH B 19.5 1.1/um 5.4 |
| | | | | LmV B 19 0.9/um 5.3 |
| 5. | eP | AB | 04 51 34 | Western Iran 32.64 N 48.09 E |
| | eiS | B | 56 50 | H = 04 45 07.6 h = 40.3 km MB=5.5 MS=5.8 |
| | eSS | B | 58 40 | D = 32.23 Az = 315 (NEIS) |
| | LmH | B | 05 07.8 | PA A 1.8s 101.0nm M = 5.4 |
| | LmV | B | 07.9 | PV B 9.5 2.5/um 6.0 |
| | | | | LmH B 14 19.6/um 6.0 |
| | | | | LmV B 12 18.2/um 6.1 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 5. | eP | A | 05 05 39 | Iran - Iraq Border Region |
| | | | | 32.68 N 47.94 E |
| | | | | H = 04 59 15.5 h = 57.7 km MB = 4.9 |
| | | | | D = 32.11 Az = 315 (NEIS) |
| 5. | eP | AB | 08 31 58.5 | Western Iran 32.56 N 48.16 E |
| | LmH | B | 48.5 | H = 08 25 30.8 h = 33 km MB = 5.1 |
| | LmV | B | 49.0 | D = 32.33 Az = 315 (NEIS) |
| | | | | PV A 1.8s 27.0nm M = 4.8 |
| | | | | LmH B 14 0.9/um 4.6 |
| | | | | LmV B 12 1.3/um 4.9 |
| 5. | eP | A | 08 51 39 | Iran - Iraq Border Region |
| | | | | 32.69 N 47.91 E |
| | | | | H = 08 45 13.0 h = 54.1 km MB = 4.6 |
| | | | | D = 32.10 Az = 315 (NEIS) |
| 5. | LmH | B | 11 59.5 | Near East Coast of Honshu, Japan |
| | LmV | B | 12 00.5 | 35.94 N 141.47 E |
| | | | | H = 11 05 34.8 h = 36 km MB = 4.6 (NEIS) |
| | | | | D = 83.2 |
| | | | | LmH B 16s 0.25/um M = 4.7 |
| | | | | LmV B 16 0.3/um 4.8 |
| 5. | eiP | AB | 14 02 28 | Sicily 37.88 N 14.46 E |
| | LmH | B | 07.4 | H = 13 59 21.7 h = 7.6 km MB = 4.9 |
| | LmV | B | 10.4 | D = 12.92 Az = 352 (NEIS) |
| | | | | PV A 1.3s 69.9nm M = 5.7 |
| | | | | LmH B 17 1.2/um 4.0 |
| | | | | LmV B 10 0.9/um |
| 5. | iPn | A | 15 16 18 | Austria 46.29 N 13.20 E |
| | ePg | A | 16 38 | H = 15 15 11.5 h = 33 km |
| | eSn | A | 17 07.5 | D = 4.49 Az = 347 (NEIS) |
| | eSg | A | 17 34 | PnV A 0.5s 19.2nm |
| 5. | eP | A | 18 28 21.5 | Northern Sinkiang Prov., China |
| | | | | 42.00 N 85.71 E |
| | | | | H = 18 19 29.0 h = 33 km MB = 4.7 |
| | | | | D = 49.90 Az = 307 (NEIS) |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 5. | e(P) | A | 23 22 47 | Southern Italy 39.68 N 18.87 E<br>H = 23 19 49.0 h = 33 km MB = 4.2<br>D = 15.37 Az = 335 (NEIS)<br>traces |
| 6. | LmV | C | 02 29.2 | South Sandwich Islands Region |
| | LmH | C | 29.4 | 55.22 S 28.93 W<br>H = 01 29 59.3 h = 33 km<br>MB = 5.3 MS = 5.0 (NEIS)<br>D = 110.5<br>LmH C 23s 1.2/um M = 5.4<br>LmV C 23 1.2/um 5.4 |
| 6. | eP | A | 04 36 34 | Southern Greece 37.09 N 21.75 E<br>H = 04 32 57.2 h = 33 km MB = 4.2<br>D = 15.37 Az = 335 (NEIS)<br>traces |
| 6. | LmH | C | 07 14.0 | Dominican Republic Region |
| | LmV | C | 14.0 | 19.39 N 69.48 W<br>H = 06 38 46.1 h = 49.1 km MB=4.9 MS=4.2<br>D = 69.67 Az = 42 (NEIS)<br>LmH C 22s 0.7/um M = 4.8<br>LmV C 22 0.6/um 4.8 |
| 6. | eP | A | 10 53 03.5 | Spain 37.76 N 1.82 W |
| | LmH | C | 58.3 | H = 10 49 12.7 h = 33 km MB=4.2 MS=3.8 |
| | LmV | C | 11 00.7 | D = 16.05 Az = 32 (NEIS)<br>LmH C 15s 0.9/um M = 4.1<br>LmH C 12 0.9/um 4.4 |
| 6. | ePKHKP | A | 13 05 29 | Tonga Islands 19.24 S 175.64 W |
| | epPKP | A | 06 30 | H = 12 46 11.8 h = 253.4 km MB = 5.1<br>D = 148.14 Az = 351 (NEIS)<br>h = 241 km |
| 6. | ePg | A | 18 02 14 | Southern Italy 40.86 N 15.24 E<br>H = 17 58 32.9 h = 33 km (NEIS)<br>D = 10.55 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| cont. 6. | LmH | C | 18 05.5 | LmH C 15s 0.35/um M = 3.4 |
| | LmV | C | 06.6 | LmV C 10 0.5/um |
| 6. | eP | A | 18 46 50 | Southern Iran 29.71 N 51.13 E |
| | LmH | C | 19 03.3 | H = 18 39 47.4 h = 29.7 km MB = 4.9 |
| | LmV | C | 03.3 | D = 36.14 Az = 317 (NEIS)<br>LmH C 20s 0.4/um M = 4.2<br>LmV C 20 0.4/um 4.3 |
| 6. | ePKP | A | 20 10 34 | Fiji Islands Region 18.01 S 178.38 W<br>H = 19 51 59.3 h = 608.9 km MB = 4.8<br>D = 146.48 Az = 348 (NEIS) |
| 6. | LmV | C | 24 30.0 | Near Coast of Central Chile<br>33.15 S 71.94 W<br>H = 23 28 27.5 h = 28 km MB = 4.7 (NEIS)<br>D = 111.1<br>LmV C 18s 0.3/um M = 4.9 |
| 7. | ePKP2 | A | 08 26 46 | South of Kermadec Islands<br>33.12 S 178.58 W<br>H = 08 06 06.6 h = 33 km MB=4.9 MS=4.9<br>D = 160.94 Az = 340 (NEIS)<br>PKP2V A 1.4s 27.9nm |
| 7. | ePKIKP | A | 09 00 29 | Santa Cruz Islands 10.76 S 165.97 E |
| | LmH | C | 42.5 | H = 08 41 17.9 h = 76.7 km MB = 5.2 |
| | LmV | C | 42.5 | D = 134.99 Az = 334 (NEIS)<br>LmH C 20s 0.35/um<br>LmV C 20 0.5/um |
| 8. | eP | A | 04 54 14.5 | Dodecanese Islands 36.21 N 28.77 E<br>H = 04 49 53.8 h = 33 km MB = 4.0<br>D = 19.00 Az = 325 (NEIS)<br>traces |
| 8. | ePP | A | 13 42 46 | Chile - Bolivia Border Region<br>22.06 S 67.26 W |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| cont. 8. | e | A | 13 42 50 | H = 13 25 15.6 h = 144 km MB = 5.4 (NEIS)<br>D = 100.0 |
| 8. | ePKIKP | A | 14 25 00 | South of Fiji Islands 22.10 S 176.95 W |
| | +iPKHKP | A | 25 05.5 | H = 14 05 39.3 h = 226.1 km MB=5.2 (NEIS) |
| | ePKP2 | A | 25 12 | D = 150.7 |
| | | | | PKHKPV A 1.4s 102.4nm |
| 8. | eP | AB | 14 37 53 | Near East Coast of Honshu, Japan |
| | epP | A | 38 13 | 38.54 N 141.49 E |
| | esP | A | 38 19.5 | H = 14 25 46.5 h = 78.5 km MB = 5.5 |
| | eS | B | 47 54 | D = 80.89 Az = 330 (NEIS) |
| | LmH | B | 15 11.0 | h = 75 km |
| | LmV | B | 17.5 | PV A 1.5s 40.2nm M = 5.1 |
| | | | | LmH B 17 1.9/um |
| | | | | LmV B 14 1.1/um |
| 8. | eP | A | 21 30 51 | Java Sea 5.88 S 113.08 E |
| | ePP | A | 35 10 | H = 21 18 03.2 h = 635.6 km MB=5.4 (NEIS) |
| | | | | D = 101.8 |
| | | | | traces |
| 9. | LmV | C | 01 58.1 | Mariana Islands 13.46 N 145.77 E |
| | | | | H = 00 50 44.2 h = 47 km |
| | | | | MB = 4.6 MS = 4.1 (NEIS) |
| | | | | D = 104.7 |
| | | | | LmV C 18s 0.25/um M = 4.8 |
| 9. | eP | A | 07 35 22.5 | Near East Coast of Kamchatka |
| | LmH | C | 08 13.6 | 55.11 N 162.58 E |
| | LmV | C | 13.6 | H = 07 24 01.4 h = 33 km MB=4.7 MS=4.2 |
| | | | | D = 71.87 Az = 341 (NEIS) |
| | | | | LmH C 16s 0.45/um M = 4.8 |
| | | | | LmV C 16 0.3/um 4.7 |
| 9. | eP | A | 16 51 51 | South Atlantic Ridge 25.07 S 13.59 W |
| | | | | H = 16 39 46.2 h = 33 km MB = 5.0 |
| | | | | D = 78.62 Az = 16 (NEIS) |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 10. | LmH | B | 01 19.8 | Northeastern China 39.61 N 117.91 E |
| | LmV | B | 26.2 | H = 00 41 00.0 h = 45.8 km MB=5.1 (NEIS) |
| | | | | D = 69.5 |
| | | | | LmH B 18.5s 0.8/um M = 5.0 |
| | | | | LmV B 14 0.6/um 5.0 |
| 10. | ePg | A | 02 39 21 | Czechoslovakia 50.1 N 13.9 E |
| | eSg | A | 39 37 | H = 02 38 44 h = 0 km |
| | | | | D = 1.58 Az = 292 (ISC) |
| 10. | eP | A | 02 48 23 | Southern Sumatra 3.10 S 101.49 E |
| | e | A | 48 41 | H = 02 35 14.0 h = 33 km MB=5.4 MS=5.2 |
| | ePP | A | 52 02 | D = 92.29 Az = 320 (NEIS) |
| | LmH | B | 03 40.6 | PV A 1.5s 30.2nm M = 5.5 |
| | LmV | B | 56.4 | LmH B 20 0.4/um 4.9 |
| | | | | LmV B 16 0.25/um 4.8 |
| 10. | ePKIKP | A | 03 42 46.5 | Fiji Islands Region 18.23 S 178.02 W |
| | ePKHKP | A | 42 49.5 | H = 03 24 05.4 h = 532.2 km MB=5.1 (NEIS) |
| | | | | D = 146.8 |
| 10. | eP | A | 05 49 29 | Arabian Sea 11.61 N 57.68 E |
| | e | A | 49 49 | H = 05 40 06.8 h = 33 km MB = 5.1 (NEIS) |
| | | | | D = 54.0 |
| 10. | eP | A | 23 06 37.5 | Mediterranean Sea 35.12 N 22.76 E |
| | | | | H = 23 02 32.3 h = 33 km MB = 4.2 |
| | | | | D = 17.51 Az = 336 (NEIS) |
| 10. | LmH | B | 24 45.6 | Ceram 3.19 S 130.53 E |
| | LmV | B | 55.7 | H = 23 43 31.9 h = 39 km |
| | | | | MB = 5.3 MS = 4.6 (NEIS) |
| | | | | D = 110.5 |
| | | | | LmH B 21s 0.4/um M = 5.0 |
| | | | | LmV B 20 0.25/um 4.8 |
| 11. | eP | A | 20 41 05.5 | North Atlantic Ridge 33.92 N 38.97 W |
| | eS | B | 47 24 | H = 20 33 30.7 h = 33 km |
| | eSS | B | 50 28 | MB = 4.8 MS = 4.5 (NEIS) |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| cont. 11. | LmH | B | 20 55.2 | D = 40.2 |
| | LmV | B | 55.2 | LmH B 19s 0.6/um M = 4.5 |
| | | | | LmV B 19 1.0/um 4.8 |
| 12. | eP | A | 08 59 33 | Hokkaido, Japan Region 42.35 N 142.07 E |
| | | | | H = 08 47 46.2 h = 107.8 km MB=5.1 (NEIS) |
| | | | | D = 77.8 |
| | | | | PV A 1.1s 16.1nm M = 4.7 |
| 12. | +iPKP | A | 12 36 13 | New Hebrides Islands 19.79 S 169.09 E |
| | | | | H = 12 16 49.2 h = 106.3 km MB=5.0 (NEIS) |
| | | | | D = 144.5 |
| | | | | PKIKPV A 1.1s 32.2nm |
| 12. | LmH | B | 12 42.8 | Southern Greece 37.57 N 22.68 E |
| | LmV | B | 42.9 | H = 12 39 30.9 h = 9 km (ISC) |
| | | | | D = 20.3 |
| | | | | LmH B 14s 0.2/um M = 3.7 |
| | | | | LmV B 13 0.3/um 4.0 |
| 12. | ePKP | A | 15 33 45 | Fiji Islands Region 17.98 S 178.69 W |
| | | | | H = 15 15 06.9 h = 574.0 km MB=4.5 (NEIS) |
| | | | | D = 146.4 |
| | | | | traces |
| 12. | epPKP | A | 19 33 51 | South of Fiji Islands 23.05 S 176.23 W |
| | | | | H = 19 13 49.2 h = 122.8 km MB=4.7 (NEIS) |
| | | | | D = 151.8 |
| 13. | eP | A | 00 25 11.5 | Pakistan 29.84 N 67.64 E |
| | | | | H = 00 16 46.2 h = 33 km MB = 4.4 |
| | | | | D = 46.30 Az = 313 (NEIS) |
| 13. | ePKIKP | A | 10 28 28 | Tonga Islands 18.53 S 174.06 W |
| | ePKHKP | AB | 28 30 | H = 10 08 48.0 h = 41 km MB=5.5 MS=5.3 |
| | | | | D = 147.63 Az = 353 (NEIS) |
| | | | | PKHKPV A 1.8s 155.2nm |
| | | | | PKHKPV B 8 1.5/um |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 13. | ePP | A | 12 04 34.5 | Luzon, Philippine Islands |
| | eS | B | 12 05 | 13.31 N 124.65 E |
| | ePS | B | 13 30 | H = 11 47 41.4 h = 35 km |
| | LmH | B | 42.9 | MB = 5.6 MS = 5.3 (NEIS) |
| | LmV | B | 47.8 | D = 93.8 |
| | | | | PPV A 2.0s 42.7nm M = 5.5 |
| | | | | LmH B 20 2.2/um 5.6 |
| | | | | LmV B 16 1.3/um 5.5 |
| 13. | eP | A | 13 48 50 | Afghanistan - USSR Border Region |
| | epP | A | 49 38 | 36.43 N 71.29 E |
| | esP | A | 50 04.5 | H = 13 40 50.3 h = 121 km MB = 5.0 |
| | ePP | A | 50 38 | D = 44.35 Az = 308 (NEIS) |
| | | | | h = 229 km |
| | | | | PV A 1.6s 33.0nm M = 4.8 |
| 14. | eP | A | 08 04 47 | Philippine Islands Region |
| | LmH | B | 52.7 | 11.01 N 125.95 E |
| | LmV | B | 57.2 | H = 07 51 21.4 h = 49 km |
| | | | | MB = 5.1 MS = 4.5 (NEIS) |
| | | | | D = 96.5 |
| | | | | LmH B 16s 0.5/um MB = 5.1 |
| | | | | LmV B 16.5 0.5/um 5.1 |
| 14. | ePKP | A | 08 56 28 | Tonga Islands 18.02 S 175.12 E |
| | | | | H = 08 37 09.8 h = 223 km MB = 5.0 |
| | | | | D = 147.00 Az = 352 (NEIS) |
| | | | | PKPV A 1.2s 28.4nm |
| 14. | ePKHKP | A | 18 25 13 | Sulawesi (Celebes) 1.11 S 123.82 E |
| | | | | H = 13 24 36.2 h = 58 km |
| | | | | D = 155.74 Az = 84 (ISC) |
| 14. | eP | A | 21 00 31 | Eastern Mediterranean Sea |
| | | | | 33.86 N 25.63 E |
| | | | | H = 20 56 03.1 h = 33 km (NEIS) |
| | | | | D = 19.7 |
| | | | | PV A 1.0s 15.7nm M = 4.2 |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 14. | eP | AB | 21 50 34 | South Atlantic Ridge 14.12 S 14.43 W |
| | ePP | B | 53 06 | H = 21 39 35.2 h = 33 km |
| | eS | B | 59 36 | MB = 6.0 MS = 5.4 (NEIS) |
| | eSS | B | 22 04 04 | D = 66.8 |
| | LmH | B | 21.2 | PV A 1.8s 210.0nm M = 5.9 |
| | LmV | B | 21.3 | LmH B 16.5 2.0/um 5.4 |
| | | | | LmV B 16.5 2.6/um 5.6 |
| 14. | eP | AB | 24 03 37 | North Atlantic Ridge 16.53 N 46.61 W |
| | ePP | B | 05 56 | H = 23 53 49.9 h = 33 km MB = 5.3 (NEIS) |
| | eS | B | 11 40 | D = 57.3 |
| | LmV | B | 25.8 | PV A 1.2s 24.4nm M = 5.1 |
| | LmH | B | 27.4 | LmH B 16 0.5/um 4.7 |
| | | | | LmV B 16 0.6/um 4.9 |
| 15. | eP | A | 00 20 49 | South Atlantic Ridge 14.06 S 14.41 W |
| | | | | H = 00 09 49.0 h = 33 km MB = 4.9 |
| | | | | D = 68.34 Az = 17 (NEIS) |
| 15. | iPg | A | 10 54 12 | German Demokratic Republic |
| | eiSg | A | 54 27 | 51.37 N 12.89 E |
| | | | | yield 11 t (CLL) Explosion |
| | | | | D c. 1.0 |
| 16. | eP | A | 02 28 46 | Rumania 45.74 N 26.61 E |
| | | | | H = 02 26 10.3 h = 150.8 km MB = 4.1 |
| | | | | D = 11.14 Az = 302 (NEIS) |
| 16. | ePKP | A | 04 37 09 | Samoa Islands Region 15.24 S 172.80 W |
| | LmV | B | 05 49.0 | H = 04 17 35.7 h = 33 km |
| | LmH | B | 51.8 | MB = 5.0 MS = 5.1 (NEIS) |
| | | | | D = 144.5 |
| | | | | PKPV A 1.6s 22.0nm |
| | | | | LmV B 18 0.3/um M = 5.1 |
| 17. | ePKIKP | AB | 02 47 37 | Fiji Islands Region 19.88 S 179.10 W |
| | iPKHKP | AB | 47 42 | H = 02 29 09.8 h = 690 km MB = 5.7 |
| | ePKP2 | A | 47 47 | D = 148.14 Az = 347 (NEIS) |
| | epPKP | B | 50 12 | h c. 665 km |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| cont. 17. | esPKP | B | 02 51 10 | PKIKPV A 2.0s 154.0nm |
| | eiSS | B | 03 09 30 | PKHKPV A 1.9 720.0nm |
| | eSSSS | B | 19 15 | PKHKPV B 3 1.5/um |
| | | | | PKP2V A 1.7 334.0nm |
| 17. | eP | A | 15 02 48 | Mariana Islands 19.04 N 145.69 E |
| | epP | A | 03 16 | H = 14 45 09.4 h = 107.7 km MB = 5.6 |
| | LmH | B | 42.5 | D = 99.72 Az = 332 (NEIS) |
| | LmV | B | 47.2 | h = 109 km |
| 17. | eP | A | 15 44 58 | Greece 38.44 N 20.35 E |
| | | | | H = 15 41 45.4 h = 59.5 km MB = 4.3 |
| | | | | D = 13.69 Az = 336 (NEIS) |
| 17. | ePKHKP | A | 21 00 02.5 | Fiji Islands Region 21.01 S 178.74 W |
| | ePKP2 | A | 00 09.5 | H = 20 41 20.5 h = 607.7 km |
| | | | | D = 149.31 Az = 347 (NEIS) |
| | | | | PKHKPV A 1.4s 23.2nm |
| 18. | ePKIKP | A | 10 22 48 | Fiji Islands Region 20.29 S 177.99 W |
| | iPKHKP | A | 22 53 | H = 10 04 08.3 h = 566.6 km MB = 5.0 |
| | iPKP2 | A | 22 59 | D = 148.77 Az = 348 (NEIS) |
| | | | | PKHKPV A 1.1s 60.5nm |
| 18. | ePn | A | 11 55 24 | Austria 46.17 N 13.06 E |
| | ePg | A | 55 47 | H = 11 54 15.8 h = 33 km MB = 4.7 |
| | iSn | A | 56 13 | D = 4.58 Az = 348 (NEIS) |
| | iSg | A | 56 36.5 | |
| 18. | ePP | A | 13 22 32.5 | Eastern Mediterranean Sea |
| | | | | 34.99 N 30.45 E |
| | | | | H = 13 17 38.0 h = 33 km |
| | | | | D = 20.78 Az = 325 (NEIS) |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 18. | eP | A | 14 37 43 | Western Caucasus 41.97 N 43.98 E |
| | LmH | B | 47.8 | H = 14 32 31.2 h = 33 km MB = 4.5 |
| | LmV | B | 49.9 | D = 23.82 Az = 302 (NEIS) |
| | | | | LmH B 15s 0.25/um M = 3.8 |
| 18. | eP | A | 17 03 13 | Chile - Bolivia Border Region |
| | ePP | A | 07 15 | 20.89 S 68.45 W |
| | eSKS | B | 13 44 | H = 16 49 40.9 h = 131 km MB = 5.4 |
| | eS | B | 14 48 | D = 99.83 Az = 40 (NEIS) |
| | eSP | B | 16 05 | PPV A 2.0s 51.3nm M = 5.7 |
| | LmH | B | 51.0 | LmH B 17 0.2/um |
| | LmV | B | 51.0 | LmV B 17 0.3/um |
| 18. | eP | A | 18 51 16.5 | South Atlantic Ridge 13.80 S 14.18 W |
| | | | | H = 18 40 18.9 h = 33 km MB = 4.7 (NEIS) |
| | | | | D = 68.0 |
| | | | | PV A 1.5s 20.1nm M = 5.0 |
| 18. | eP | A | 20 49 45 | South Atlantic Ridge 13.72 S 14.61 W |
| | e | A | 49 50 | H = 20 38 46.6 h = 33 km MB=5.5 (NEIS) |
| | | | | D = 68.0 |
| | | | | PV A 1.5s 25.1nm M = 5.1 |
| 18. | ePKIKP | AB | 22 30 04 | Solomon Islands 9.77 S 159.67 E |
| | ePP | AB | 32 24 | H = 22 10 49.6 h = 11 km MB=5.6 MS=5.7 |
| | eSKP | B | 33 32 | D = 131.49 Az = 333 (NEIS) |
| | eSS | B | 49 55 | PKIKPV A 1.8s 33.8nm |
| | LmH | B | 23 24.5 | PPV A 2.2 65.4nm M = 5.5 |
| | LmV | B | 31.9 | LmH B 16 2.0/um 5.9 |
| | | | | LmV B 18 1.0/um 5.6 |
| 18. | ePKP2 | A | 22 52 50 | South of Fiji Islands 24.21 S 179.06 E |
| | epPKP | A | 55 03 | H = 22 33 56.0 h = 542.8 km MB = 5.2 |
| | | | | D = 151.87 Az = 343 (NEIS) |
| | | | | pPKPV A 1.8s 40.5nm |
| 19. | +iPKP | A | 07 41 50 | Samoa Islands Region 16.30 S 172.14 W |
| | e | A | 41 54 | H = 07 22 13.2 h = 33 km MB = 4.7 (NEIS) |
| | | | | D = 142.9 |
| | | | | PKPV A 1.3s 35.0nm |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 19. | eP | AB | 07 45 34 | Celebes Sea 4.65 N 124.93 E |
| | ePP | AB | 49 47 | H = 07 32 13.8 h = 271 km MB = 5.7 |
| | eSKS | B | 55 44 | D = 100.90 Az = 323 (NEIS) |
| | eS | B | 56 44 | LmH B 16s 0.5/um |
| | LmH | B | 08 38.2 | LmV B 16 0.4/um |
| | LmV | B | 38.3 | |
| 19. | iP | AB | 11 58 58 | Kurile Islands 47.15 N 151.09 E |
| | epP | A | 59 40 | H = 11 47 23.4 h = 149 km MB = 5.6 |
| | ePP | B | 12 01 44 | D = 76.51 Az = 335 (NEIS) |
| | ePPPP | B | 04 25 | h = 175 km |
| | eS | B | 08 24 | PV A 1.6s 198.0nm M = 5.6 |
| | LmH | B | 35.0 | LmH B 17.5 0.9/um |
| | LmV | B | 36.2 | LmV B 16 0.6/um |
| 19. | eP | A | 18 27 32 | North Atlantic Ridge 15.48 N 46.71 W |
| | LmH | B | 48.0 | H = 18 17 39.2 h = 33 km |
| | | | | MB = 5.3 MS = 4.6 (NEIS) |
| | | | | D = 58.2 |
| | | | | PV A 2.0s 59.9nm M = 5.3 |
| 20. | eP | A | 02 06 57 | Southern Italy 39.25 N 15.82 E |
| | | | | H = 02 04 11.4 h = 266.7 km MB = 4.2 |
| | | | | D = 11.77 Az = 347 (NEIS) |
| 20. | ePKHKP | AB | 20 27 44 | Loyalty Islands Region 22.70 S 170.63 E |
| | LmH | B | 21 46.0 | H = 20 08 02.1 h = 44.8 km MB=5.2 MS=5.0 |
| | LmV | B | 49.9 | D = 147.65 Az = 335 (NEIS) |
| | | | | PKHKPV A 1.8s 54.0nm |
| | | | | PKHKPV B 8 0.8/um |
| | | | | LmH B 16 0.2/um M = 4.9 |
| | | | | LmV B 16 0.2/um 4.9 |
| 21. | ePKP | A | 09 17 22 | Tonga Islands 15.76 S 174.76 W |
| | | | | H = 08 58 21.1 h = 306.4 km MB=4.7 (NEIS) |
| | | | | D = 145.0 |
| | | | | PKPV A 1.6s 55.0nm |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 21. | e | A | 19 03 11 | Tonga Region 23.72 S 174.81 W<br>H = 18 43 00.1 h = 33 km<br>D = 152.66 Az = 351 (ISC) |
| 21. | ePKP | A | 19 10 32 | Loyalty Islands Region 22.05 S 170.05 E<br>H = 18 50 50.9 h = 21.7 km MB = 5.0<br>D = 146.84 Az = 335 (NEIS)<br>PKPV A 1.2s 20.4nm |
| 21. | eP | A | 19 17 55 | Eastern Mediterranean Sea |
| | LmH | B | 27.2 | 35.57 N 29.60 E |
| | LmV | B | 28.7 | H = 19 13 26.1 h = 46.1 km MB = 4.7 (NEIS)<br>D = 19.9<br>PV A 1.3s 26.2nm M = 4.3<br>LmH B 15 0.4/um 3.9<br>LmV B 16 0.4/um 4.0 |
| 22. | eP | A | 07 23 50 | Near East Coast of Honshu, Japan<br>35.48 N 140.44 E<br>H = 07 11 27.5 h = 35.3 km MB=5.1 MS=4.5<br>D = 83.12 Az = 330 (NEIS)<br>PV A 1.5s 20.1nm M = 4.9 |
| 22. | eP | A | 09 01 54 | Near East Coast of Kamchatka<br>53.88 N 160.64 E<br>H = 08 50 28.3 h = 33 km MB=5.1 MS=3.9<br>D = 72.64 Az = 340 (NEIS) |
| 22. | iPKIKP | AB | 12 28 14.5 | Tonga Islands Region 22.88 S 175.90 W |
| | PKPm | AB | 28 38 | H = 12 08 33.4 h = 65.4 km MB = 6.8 |
| | iPP | B | 32 40 | D = 151.67 Az = 350 (NEIS) |
| | iPPP | B | 35 38 | PKIKPV A 3.0s 540.0nm |
| | eiSS | B | 51 10 | PKPmV A 2.5 11828.0nm |
| | ePSPS | B | 52 24 | PPV B 10 5.3/um |
| 22. | eP | A | 16 02 15.5 | Kashmir - India Border Region<br>33.15 N 76.01 E<br>H = 15 53 27.6 h = 36.3 km MB = 4.8<br>D = 49.42 Az = 311 (NEIS) |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 22. | LmH | B | 20 21.5 | Near North Coast of Papua New Guinea |
| | LmV | B | 21.5 | 3.53 S 145.54 E<br>H = 19 08 37.8 h = 33 km MB=5.0 (NEIS)<br>D = 119.2<br>LmH B 19s 0.5/um M = 5.1<br>LmV B 19 0.6/um 5.3 |
| 23. | ePKHKP | A | 09 53 46 | Tonga Islands Region 22.27 S 175.90 W |
| | ePKP2 | A | 53 54.5 | H = 09 34 06.9 h = 128 km MB = 4.6<br>D = 151.07 Az = 350 (NEIS) |
| 23. | LmH | B | 17 35.6 | Near East Coast of Honshu, Japan |
| | LmV | B | 35.7 | 35.16 N 140.33 E<br>H = 16 40 01.1 h = 30 km MB = 4.7 (NEIS)<br>D = 83.5<br>LmH B 12.5s 0.4/um M = 5.0<br>LmV B 13 0.4/um 5.0 |
| 23. | ePKHKP | A | 18 21 12 | South of Fiji Islands 22.82 S 176.06 W |
| | ePKP2 | A | 21 20.5 | H = 18 01 27.5 h = 98 km MB = 4.8<br>D = 151.59 Az = 350 (NEIS) |
| 23. | LmH | B | 21 04.5 | Komandorsky Islands Region<br>55.01 N 165.56 E<br>H = 20 19 27.9 h = 32.2 km<br>MB = 4.9 MS = 4.3 (NEIS)<br>D = 72.5<br>LmH B 16s 0.25/um M = 4.6 |
| 24. | ePKIKP | A | 00 50 06 | Tonga Islands Region 22.89 S 175.94 W |
| | ePKHKP | A | 50 13 | H = 00 30 20.9 h = 33 km MB=5.5 MS=5.1 |
| | LmV | B | 01 56.0 | D = 151.67 Az = 350 (NEIS) |
| | LmH | B | 56.2 | PKIKPV A 1.8s 27.0nm<br>PKHKPV A 1.5 75.4nm<br>LmH B 22 0.6/um M = 5.3<br>LmV B 22 0.5/um 5.2 |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 24. | eSg | A | 05 55 37 | Northern Italy 44.51 N 7.38 E<br>H = 05 51 47.4 h = 8 km<br>D = 6.77 Az = 24 (ISC) |
| 24. | eP | A | 13 08 56 | Tadzhik - Sinkiang Border Region |
| | LmH | B | 28.0 | 39.47 N 73.01 E |
| | LmV | B | 30.7 | H = 13 00 55.1 h = 42.9 km MB = 4.9<br>D = 43.60 Az = 306 (NEIS)<br>traces<br>LmH B 17s 0.15/um M = 4.0<br>LmV B 12 0.2/um 4.3 |
| 24. | eP | A | 16 33 32.5 | Southern Sumatra 2.27 S 100.83 E |
| | epP | A | 33 47.5 | H = 16 20 30.3 h = 53 km MB = 5.5 |
| | esP | A | 33 52.5 | D = 91.24 Az = 320 (NEIS) |
| | e | A | 33 57 | h = 53 km<br>PV A 1.2s 32.6nm M = 5.6 |
| 24. | eP | A | 24 05 48 | Hindu Kush Region 36.45 N 70.42 E<br>H = 23 58 01.6 h = 209 km MB = 4.7<br>D = 43.78 Az = 308 (NEIS) |
| 25. | eP | A | 06 52 33 | Southern Sumatra 4.60 S 102.23 E |
| | ePP | A | 56 17 | H = 06 39 18.3 h = 47 km MB=5.5 MS=4.6 |
| | LmH | B | 07 41.5 | D = 93.92 Az = 320 (NEIS) |
| | LmV | B | 42.0 | PV A 1.5s 15.1nm M = 5.2 |
| 25. | ePKHKP | A | 15 43 23 | Fiji Islands Region 21.32 S 179.24 W |
| | ePKP2 | A | 43 30.5 | H = 15 24 42.9 h = 633 km MB = 5.4 |
| | epPKP | A | 45 54 | D = 149.51 Az = 346 (NEIS) |
| | e | A | 46 20 | PKHKPV A 1.0s 47.2nm |
| 25. | eP | A | 18 51 03 | South of Honshu, Japan 32.34 N 139.57 E |
| | e | A | 51 22 | H = 18 38 22.0 h = 34.3 km MB=5.1 MS=4.3 |
| | LmH | B | 19 26.5 | D = 85.47 Az = 330 (NEIS) |
| | LmV | B | 35.4 | PV A 1.4s 14.0nm M = 5.0<br>LmH B 20 0.4/um 4.8 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 25. | eP | A | 22 11 29 | Northern Sinkiang Province, China |
| | LmH | B | 35.4 | 41.98 N 89.80 E |
| | LmV | B | 35.5 | H = 22 02 11.5 h = 26 km MB=4.9 MS=3.6<br>D = 52.33 Az = 308 (NEIS)<br>PV A 1.0s 15.7nm M = 5.0 |
| 26. | eP | A | 00 22 52.5 | Kurile Islands 45.46 N 150.73 E |
| | LmH | B | 01 00.2 | H = 00 10 58.2 h = 47.3 km MB=5.2 MS=4.6 |
| | LmV | B | 00.4 | D = 77.94 Az = 335 (NEIS)<br>PV A 1.1s 36.3nm M = 5.3<br>LmH B 20 0.5/um 4.8<br>LmV B 20 0.4/um 4.8 |
| 26. | eP | A | 02 33 10 | Southern Iran 27.53 N 56.08 E<br>H = 02 25 29.4 h = 38.6 km MB = 4.8<br>D = 40.71 Az = 317 (NEIS) |
| 26. | ePKP2 | A | 05 54 48 | Tonga Islands 21.24 S 174.69 W<br>H = 05 34 51.5 h = 33 km MB = 4.8<br>D = 150.24 Az = 352 (NEIS) |
| 26. | ePKHKP | A | 06 19 10 | Tonga Islands Region 22.70 S 175.47 W<br>H = 05 59 21.2 h = 51.5 km MB=5.4 MS=5.1<br>D = 151.56 Az = 351 (NEIS)<br>PKHKPV A 1.4s 23.2nm |
| 26. | LmH | B | 10 56.9 | Dominican Republic Region |
| | LmV | B | 58.0 | 19.34 N 69.31 W<br>H = 10 15 39.0 h = 35 km<br>MB = 4.7 MS = 4.2 (NEIS)<br>D = 69.7<br>LmH B 19s 0.2/um M = 4.4 |
| 27. | ePn | A | 12 35 10 | Northern Italy 44.29 N 11.56 E |
| | ePg | A | 35 41 | H = 12 33 36.9 h = 33 km (NEIS) |
| | eSn | A | 37 05 | D = 6.40 |
| | LmH | B | 38.2 | LmH B 13s 0.45/um M = 3.1 |
| | LmV | B | 38.2 | LmV B 15 0.55/um |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 27. | ePKIKP | A | 14 31 37 | South of Fiji Islands 24.22 S 176.88 W |
| | ePKHKP | A | 31 45 | H = 14 11 46.4 h = 33 km MB=5.2 MS=5.3 |
| | ePKP2 | A | 31 56 | D = 152.81 Az = 348 (NEIS) |
| | LmV | B | 15 50.5 | PKIKPV A 1.8s 27.0nm |
| | LmH | B | 51.5 | LmH B 18 0.5/um M = 5.3 |
| | | | | LmV B 18 0.35/um 5.2 |
| 27. | ePKHKP | A | 16 09 07.5 | South of Fiji 23.4 S 177.1 W |
| | | | | H = 15 49 15.2 |
| | | | | D = 152.01 Az = 348 (ISC) |
| 27. | ePKP2 | A | 16 26 48 | South of Fiji Islands 24.19 S 176.97 W |
| | | | | H = 16 06 37.5 h = 32.1 km MB = 5.0 |
| | | | | D = 152.77 Az = 348 (NEIS) |
| | | | | PKP2V A 1.7s 30.3nm |
| 27. | eP | A | 22 58 07 | Dodecanese Islands 35.72 N 27.30 E |
| | | | | H = 22 53 44.4 h = 33 km MB = 4.2 |
| | | | | D = 18.74 Az = 328 (NEIS) |
| | | | | PV A 1.4s 14.0nm M = 4.0 |
| 27. | eP | A | 23 39 01 | North Atlantic Ridge 10.63 N 42.87 W |
| | LmH | B | 24 02.5 | H = 23 28 55.8 h = 33 km MB=4.8 MS=4.2 |
| | LmV | B | 02.5 | D = 59.68 Az = 37 (NEIS) |
| | | | | LmH B 19s 0.35/um M = 4.5 |
| | | | | LmV B 19 0.3/um 4.5 |
| 28. | ePKP2 | A | 01 43 23 | Tonga Islands 21.00 S 175.24 W |
| | | | | H = 01 23 39.7 h = 68.4 km MB = 5.2 |
| | | | | D = 149.92 Az = 351 (NEIS) |
| | | | | PKP2V A 1.4s 46.5nm |
| 28. | LmH | B | 03 32.2 | Kyushu, Japan 32.80 N 130.75 E |
| | LmV | B | 40.2 | H = 02 46 41.8 h = 17.9 km |
| | | | | MB = 4.7 MS = 4.2 (NEIS) |
| | | | | D = 81.1 |
| | | | | LmH B 18s 0.8/um M = 5.1 |
| | | | | LmV B 12 0.4/um 5.0 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 28. | eP | A | 03 52 35.5 | Southern Iran 27.61 N 56.15 E |
| | | | | H = 03 44 55.1 h = 46.4 km MB = 4.9 |
| | | | | D = 40.69 Az = 317 (NEIS) |
| 28. | eP | A | 05 57 54.5 | Jan Mayen Island Region 72.01 N 2.10 W |
| | | | | H = 05 52 54.8 h = 33 km MB = 4.3 |
| | | | | D = 22.31 Az = 157 (NEIS) |
| | | | | PV A 1.4s 25.6nm M = 4.5 |
| 28. | ePKHKP | A | 06 03 07.5 | Tonga Islands Region 23.51 S 175.29 W |
| | ePKP2 | A | 03 17 | H = 05 43 12.5 h = 47 km MB = 4.7 |
| | | | | D = 152.38 Az = 350 (NEIS) |
| 28. | -iP | AB | 07 15 36 | Sicily 38.63 N 14.71 E |
| | eS | B | 17 48 | H = 07 12 49.3 h = 261.4 km MB = 5.3 |
| | LmH | B | 18.9 | D = 12.21 Az = 351 (NEIS) |
| | LmV | B | 19.7 | PV A 0.9s 226.0nm M = 5.4 |
| | | | | LmH B 7 3.5/um |
| | | | | LmV B 6 1.2/um |
| 28. | eP | AB | 15 47 45 | North Atlantic Ridge 22.56 N 45.12 W |
| | ePP | B | 49 45 | H = 15 38 37.0 h = 33 km MB=5.3 MS=5.6 |
| | ePPP | B | 50 48 | D = 51.91 Az = 43 (NEIS) |
| | eS | B | 55 08 | PV A 1.0s 27.6nm M = 5.2 |
| | LmH | B | 16 05.5 | PV B 4.5 0.7/um 5.9 |
| | LmV | B | 06.4 | LmH B 20 2.7/um 5.3 |
| | | | | LmV B 18 1.6/um 5.1 |
| 28. | eP | A | 16 27 21.5 | North Atlantic Ridge 22.65 N 45.14 W |
| | Pm | B | 27 48 | H = 16 18 15.2 h = 33 km MB=5.5 MS=5.7 |
| | ePP | B | 29 20 | D = 51.85 Az = 43 (NEIS) |
| | ePPP | B | 30 20 | PV A 1.7s 97.0nm M = 5.5 |
| | eS | B | 34 48 | PmV B 10 1.1/um 5.7 |
| | LmH | B | 45.1 | LmH B 20 4.1/um 5.5 |
| | LmV | B | 46.2 | LmV B 18 2.8/um 5.4 |
| 28. | eP | A | 19 05 55 | North Atlantic Ridge 22.54 N 45.11 W |
| | | | | H = 18 56 47.6 h = 33 km MB = 4.6 (NEIS) |
| | | | | D = 51.9 |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 28. | eP | A | 19 27 42 | North Atlantic Ridge 22.62 N 45.11 W |
| | Pm | B | 28 00 | H = 19 18 35.8 h = 33 km MB=5.8 MS=6.0 |
| | ePP | B | 29 48 | D = 51.86 Az = 43 (NEIS) |
| | eS | B | 35 08 | PV A 1.9s 356.0nm M = 6.0 |
| | LmH | B | 45.6 | PmV B 10 1.7/um 5.9 |
| | LmV | B | 46.6 | PPV B 9 1.2/um 5.9 |
| | | | | LmH B 20 6.3/um 5.7 |
| | | | | LmV B 18 5.1/um 5.7 |
| 28. | eP | A | 19 44 09 | North Atlantic Ridge 22.57 N 45.11 W |
| | | | | H = 19 36 01.9 h = 33 km MB = 4.9 |
| | | | | D = 51.90 Az = 43 (NEIS) |
| | | | | PV A 1.6s 38.5nm M = 4.9 |
| 28. | ePKIKP | A | 21 47 31 | Tonga Islands 16.8 S 173.18 W |
| | epPKIKP | A | 47 56 | H = 21 27 58.7 h = 74 km |
| | | | | D = 146.03 Az = 355 (ISC) |
| | | | | h = 88 km |
| 28. | eP | A | 22 16 47 | Molucca Sea 0.06 S 125.06 E |
| | ePP | A | 21 09 | H = 22 02 42.5 h = 33 km MB=5.6 MS=4.8 |
| | | | | D = 104.72 Az = 323 (NEIS) |
| | | | | PV A 1.2s 16.3nm M = 5.8 |
| 29. | +iP | A | 03 14 49 | Eastern Kazakh SSR 50.03 N 78.23 E |
| | ePn | A | 16 20.5 | H = 03 06 58.0 h = 0 km MB=5.3 MS=5.2 |
| | | | | D = 41.61 Az = 298 (NEIS) |
| | | | | Underground explosion (UPP) |
| | | | | PV A 0.8s 46.1nm M = 5.3 |
| 29. | ePKHKP | AB | 03 31 32 | Tonga Islands Region 23.16 S 175.20 W |
| | ePKP2 | A | 31 44 | H = 03 11 39.8 h = 38 km MB=5.2 MS=5.2 |
| | LmH | B | 04 47.0 | D = 152.06 Az = 351 (NEIS) |
| | | | | LmH B 18s 0.45/um M = 5.2 |
| 29. | ePKIKP | A | 07 42 56 | Banda Sea 7.60 S 127.65 E |
| | ePP | A | 43 48 | H = 07 24 24.8 h = 58.5 km MB = 6.0 |
| | ePKKP | A | 53 49 | D = 112.23 Az = 322 (NEIS) |
| | | | | PPV A 2.5s 153.6nm M = 6.1 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 29. | eP | A | 13 09 39.5 | Mid-Indian Rise 14.69 S 66.53 E |
| | | | | H = 12 57 27.3 h = 33 km MB = 5.2 |
| | | | | D = 80.80 Az = 328 (NEIS) |
| | | | | PV A 1.4s 41.8nm M = 5.2 |
| 29. | ePKP2 | A | 19 50 42 | Tonga Islands Region 23.45 S 175.27 W |
| | | | | H = 19 30 36.4 h = 33 km MB = 4.7 |
| | | | | D = 152.33 Az = 351 (NEIS) |
| | | | | PKP2V A 1.3s 13.1nm |
| 29. | ePKHKP | A | 21 45 06 | Tonga Islands Region 22.56 S 175.35 W |
| | | | | H = 21 25 13.7 h = 33 km MB = 4.9 |
| | | | | D = 151.44 Az = 351 (NEIS) |
| | | | | PKHKPV A 1.3s 17.5nm |
| 30. | eP | A | 00 25 52 | Mindanao, Philippine Islands |
| | | | | 9.87 N 125.83 E |
| | | | | H = 00 12 20.3 h = 33 km MB = 5.2 |
| | | | | D = 97.23 Az = 324 (NEIS) |
| 30. | eP | A | 03 03 03 | Bonin Islands Region 27.69 N 139.56 E |
| | | | | H = 02 50 55.0 h = 465.4 km MB = 4.8 |
| | | | | D = 89.64 Az = 330 (NEIS) |
| 30. | ePKHKP | A | 03 04 17.5 | Tonga Islands Region 22.88 S 175.89 W |
| | ePKP2 | A | 04 26.5 | H = 02 44 23.0 h = 33 km MB = 4.7 (NEIS) |
| | | | | D = 151.8 |
| 30. | ePKHKP | A | 03 34 05 | Tonga Islands Region 23.78 S 175.60 W |
| | | | | H = 03 14 09.4 h = 33 km MB = 4.8 |
| | | | | D = 152.60 Az = 350 (NEIS) |
| | | | | PKHKPV A 1.4s 14.0nm |
| 30. | eP | A | 08 28 10 | Mid-Indian Rise 14.63 S 66.52 E |
| | | | | H = 08 15 58.2 h = 33 km MB = 5.1 |
| | | | | D = 80.75 Az = 328 (NEIS) |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 30. | ePKP | A | 09 11 03 | Tonga Islands 17.44 S 173.52 W<br>H = 08 51 26.1 h = 68 km MB = 5.3<br>D = 146.62 Az = 354 (NEIS) |
| 30. | ePn | A | 16 07 23 | Northern Italy 44.4 N 10.4 E |
| | eSn | A | 07 48.5 | H = 16 05 45 h = 0 km |
| | eSg | A | 08 13 | D = 6.33 Az = 7 (ISC) |
| 30. | eP | A | 19 31 30 | Sicily 38.57 N 11.98 E |
| | LmH | B | 37.2 | H = 19 28 37.2 h = 33 km MB = 4.6 (NEIS) |
| | LmV | B | 38.3 | D = 12.1 |
| | | | | LmH B 11s 0.6/um M = 3.9 |
| | | | | LmV B 8.5 0.6/um |
| 30. | eP | A | 19 37 13 | Sicily 38.2 N 11.77 E |
| | | | | H = 19 34 12 h = 0 km |
| | | | | D = 12.46 Az = 359 (ISC) |
| 30. | LmH | B | 23 11.4 | Off East Coast of Honshu, Japan |
| | LmV | B | 16.5 | 40.69 N 143.55 E |
| | | | | H = 22 25 47.6 h = 20.1 km MB = 5.0 |
| | | | | D = 79.79 Az = 331 (NEIS) |
| | | | | LmH B 18s 0.3/um M = 4.7 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 1. | eP | A | 10 00 05 | Northern Sumatra 1.97 N 98.06 E |
| | | | | H = 09 47 29.7 h = 70.2 km MB = 5.0 |
| | | | | D = 86.23 Az = 320 (NEIS) |
| 1. | ePKP | A | 12 26 47 | Tonga Islands 16.83 S 173.62 W |
| | | | | H = 12 07 10.1 h = 50 km MB = 5.0 (NEIS) |
| | | | | D = 146.0 |
| | | | | PKPV A 1.4s 16.3nm |
| 1. | eP | A | 14 51 56 | Afghanistan - USSR Border Region |
| | epP | A | 52 49 | 36.41 N 71.11 E |
| | | | | H = 14 44 10.3 h = 257.0 km MB = 4.7 |
| | | | | D = 44.24 Az = 308 (NEIS) |
| | | | | h = 260 km |
| | | | | PV A 1.4s 41.9nm M = 4.6 |
| 1. | eP | A | 15 44 37 | Kurile Islands 45.62 N 151.53 E |
| | e | A | 44 48.5 | H = 15 32 41.2 h = 35.7 km MB=5.0 MS=4.5 |
| | LmH | B | 16 18.6 | D = 78.03 Az = 335 (NEIS) |
| | LmV | B | 21.5 | PV A 0.8s 19.2nm M = 5.2 |
| | | | | LmH B 17 0.8/um 5.1 |
| | | | | LmV B 17 0.3/um 4.7 |
| 1. | eP | A | 18 35 48 | Iceland 64.60 N 17.85 W |
| | LmH | B | 44.9 | H = 18 31 03.6 h = 5.7 km MB = 4.6 |
| | LmV | B | 46.3 | D = 20.80 Az = 118 (NEIS) |
| | | | | PV A 1.3s 10.9nm M = 4.0 |
| | | | | LmH B 17 0.4/um 3.9 |
| | | | | LmV B 14 0.5/um 4.2 |
| 1. | eP | A | 21 54 34.5 | Eastern Caucasus 43.00 N 45.46 E |
| | | | | H = 21 49 19.9 h = 53.1 km MB = 4.8 (NEIS) |
| | | | | D = 24.2 |
| 2. | e | A | 01 14 36 | Solomon Islands 9.95 S 160.54 E |
| | e | A | 15 20 | H = 00 55 09.0 h = 16.2 km MB=5.7 MS=5.8 |
| | e | A | 16 38 | D = 132.04 Az = 334 (NEIS) |
| | ePP | B | 16 44 | LmH B 17.5s 1.7/um M = 5.8 |
| | ePKS | B | 17 48 | LmV B 20 1.6/um 5.7 |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| cont. 2. | LmH | B | 02 08.0 | |
| | LmV | B | 13.0 | |
| 2. | LmH | B | 06 10.2 | Northern Chile 25.87 S 70.79 W |
| | LmV | B | 12.8 | H = 05 09 05.6 h = 32 |
| | | | | MB = 5.4 MS = 5.0 (NEIS) |
| | | | | D = 105.0 |
| | | | | LmH B 20s 0.5/um M = 5.1 |
| | | | | LmV B 18 0.7/um 5.3 |
| 2. | LmH | B | 11 37.0 | Solomon Islands 10.09 S 160.40 E |
| | LmV | B | 37.0 | H = 10 17 31.0 h = 16 km |
| | | | | MB = 4.9 MS = 4.8 (NEIS) |
| | | | | D = 132.1 |
| | | | | LmH B 20s 0.25/um M = 4.9 |
| | | | | LmV B 20 0.25/um 4.9 |
| 2. | eP | A | 16 02 12 | Near East Coast of Kamchatka |
| | epP | A | 02 23 | 53.20 N 160.05 E |
| | | | | H = 15 50 44.7 h = 55 km MB = 4.7 |
| | | | | D = 73.16 Az = 340 (NEIS) |
| | | | | h = 42 km |
| 2. | eP | A | 22 06 21 | Turkey 36.05 N 30.92 E |
| | | | | H = 22 01 50.1 h = 65.8 km MB = 4.5 |
| | | | | D = 20.16 Az = 322 (NEIS) |
| | | | | PV A 0.8s 11.5nm M = 4.2 |
| 3. | eP | A | 06 46 59 | Southern Iran 25.18 N 60.90 E |
| | | | | H = 06 38 41.4 h = 33 km MB = 4.6 |
| | | | | D = 45.37 Az = 317 (NEIS) |
| 3. | ePg | A | 10 30 29 | Northern Italy 44.99 N 10.94 E |
| | | | | H = 10 28 38.7 h = 33 km |
| | | | | D = 5.68 Az = 4 (NEIS) |
| 3. | iPn | A | 11 46 04 | Austria 46.18 N 13.09 E |
| | iPg | A | 46 23.5 | H = 11 44 56.6 h = 33 km |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| cont. 3. | iSn | A | 11 46 53.5 | D = 4.58 Az = 348 (NEIS) |
| | iSg | A | 47 17 | |
| 3. | ePn | A | 12 15 14 | France 44.77 N 6.67 E |
| | ePg | A | 15 37 | H = 12 13 27.5 h = 33 km MB = 4.7 |
| | e | A | 15 42 | D = 6.76 Az = 28 (NEIS) |
| | e | A | 16 23 | LmH B 8s 0.35/um M = 3.3 |
| | eSg | A | 17 13 | LmV B 7 0.5/um |
| | LmH | B | 17.4 | |
| | LmV | B | 17.8 | |
| 3. | eP | A | 13 07 33.5 | Fox Islands, Aleutian Is. |
| | LmH | B | 47.8 | 52.52 N 167.48 W |
| | LmV | B | 48.0 | H = 12 55 41.4 h = 33 km MB=5.0 MS=4.6 |
| | | | | D = 77.20 Az = 1 (NEIS) |
| | | | | PV A 1.3s 30.6nm M = 5.2 |
| | | | | LmH B 16 0.4/um 4.8 |
| | | | | LmV B 16 0.25/um 4.7 |
| 3. | eP | A | 14 53 15 | Molucca Passage 1.44 N 126.44 E |
| | e | A | 53 20 | H = 14 39 14.1 h = 51 km MB = 5.9 |
| | eX | A | 53 23.5 | D = 104.36 Az = 323 (NEIS) |
| | e | A | 53 50.5 | XV A 1.9s 45.5nm |
| | ePP | B | 57 36 | LmH B 25 4.6/um M = 5.9 |
| | iSKS | B | 15 03 52 | LmV B 18 2.5/um 5.8 |
| | eS | B | 04 52 | |
| | ePS | B | 06 22 | |
| | LmH | B | 37.6 | |
| | LmV | B | 45.7 | |
| 3. | eSn | A | 16 12 33 | France 44.11 N 6.54 E |
| | | | | H = 16 09 21.6 h = 33 km |
| | | | | D = 7.39 Az = 26 (NEIS) |
| 3. | eP | A | 17 41 42 | Fox Islands, Aleutian Is. |
| | | | | 52.62 N 167.48 W |
| | | | | H = 17 29 49.3 h = 33 km MB=4.7 MS=4.5 |
| | | | | D = 77.11 Az = 1 (NEIS) |
| | | | | PV A 1.4s 18.6nm M = 4.9 |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 4. | eP | A | 02 13 18.5 | North Atlantic Ocean 57.45 N 32.99 W |
| | LmH | B | 24.1 | H = 02 07 41.9 h = 33 km MB = 4.3 |
| | LmV | B | 24.3 | D = 26.65 Az = 85 (NEIS) |
| | | | | LmH B 15s 0.5/um M = 4.2 |
| | | | | LmV B 15 0.7/um 4.4 |
| 4. | ePKHKP | A | 06 00 04 | Fiji Islands Region 20.12 S 178.75 W |
| | | | | H = 05 41 25.6 h = 631.1 km MB = 4.4 |
| | | | | D = 148.46 Az = 347 (NEIS) |
| 4. | ePKIKP | A | 07 33 51 | Fiji Islands Region 18.11 S 178.21 W |
| | ePKHKP | A | 33 53 | H = 07 15 02.7 h = 464.3 km MB = 5.0 |
| | | | | D = 146.60 Az = 349 (NEIS) |
| | | | | PKHKPV A 1.4s 14.0nm |
| 4. | ePKIKP | A | 08 52 08.5 | Easter Island Cordillera 52.94 S 118.51 W |
| | LmV | B | 09 51.6 | H = 08 32 21.2 h = 33 km MB=5.3 MS=5.3 |
| | LmH | B | 52.2 | D = 149.56 Az = 74 (NEIS) |
| | | | | PKIKPV A 2.0s 51.3nm |
| | | | | LmH B 20 0.6/um M = 5.4 |
| | | | | LmV B 20 0.7/um 5.4 |
| 4. | eP | A | 16 44 30.5 | Sea of Okhotsk 48.08 N 146.52 E |
| | | | | H = 16 33 39.9 h = 456.7 km MB = 4.6 |
| | | | | D = 74.30 Az = 332 (NEIS) |
| | | | | PV A 1.2s 14.2nm M = 4.4 |
| 4. | eP | A | 21 09 59 | Tadzhik SSR 37.36 N 72.05 E |
| | e | A | 10 44 | H = 21 01 57.5 h = 145.6 km MB = 5.0 |
| | | | | D = 44.25 Az = 307 (NEIS) |
| 4. | LmH | B | 22 41.8 | Off Coast of Northern California |
| | LmV | B | 44.3 | 40.32 N 126.73 W |
| | | | | H = 21 52 06.1 h = 15 km MB=5.1 MS=4.3 |
| | | | | D = 82.34 Az = 25 (NEIS) |
| | | | | LmH B 20s 0.7/um M = 5.0 |
| | | | | LmV B 16 0.4/um 4.9 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 5. | eP | A | 16 12 46 | Ryukyu Islands 28.81 N 130.14 E |
| | LmH | B | 54.2 | H = 16 00 16.9 h = 31.2 km MB=5.2 MS=4.1 |
| | LmV | B | 58.5 | D = 84.10 Az = 326 (NEIS) |
| | | | | PV A 1.3s 19.6nm M = 5.1 |
| | | | | LmH B 18 0.35/um 5.2 |
| 6. | eP | A | 00 32 21 | Iceland Region 63.53 N 23.5 W |
| | LmH | B | 41.4 | H = 00 27 22.0 h = 33 km |
| | LmV | B | 43.8 | D = 22.65 Az = 108 (ISC) |
| | | | | LmH B 16s 0.30/um M = 3.8 |
| | | | | LmV B 12 0.35/um 4.1 |
| 6. | ePn | A | 03 30 17 | Svabian Jura Region Fed. Rep. of Germany |
| | e | A | 30 24 | 48.33 N 9.09 E |
| | ePg | A | 30 26 | H = 03 29 33.0 h = 33 km |
| | eSn | A | 30 51 | D = 2.84 Az = 34 (NEIS) |
| | eSg | A | 31 02 | |
| 6. | eP | A | 04 55 17 | South of Panama 5.28 N 82.65 W |
| | ePP | B | 58(45) | H = 04 42 23.6 h = 33 km MB=5.4 MS=5.5 |
| | eS | B | 05 05 45 | D = 88.67 Az = 39 (NEIS) |
| | eSS | B | 12 00 | PV A 1.5s 30.2nm M = 5.4 |
| | LmH | B | 27.6 | PV B 5 0.55/um 6.1 |
| | LmV | B | 27.6 | LmH B 22.5 2.6/um 5.6 |
| | | | | LmV B 24 1.0/um 5.2 |
| 6. | eP | A | 08 58 34 | Lake Tanganyika Region 6.18 S 29.54 E |
| | e | A | 58 44 | H = 08 48 38.2 h = 33 km MB = 5.1 |
| | ePPP | B | 02 20 | D = 58.68 Az = 347 (NEIS) |
| | eS | B | 06 40 | PV A 1.5s 32.6nm M = 5.2 |
| | LmV | B | 29.6 | LmH B 13 1.0/um 5.1 |
| | LmH | B | 29.8 | LmV B 13 0.9/um 5.1 |
| 6. | -iPKIKP | AB | 11 47 09.5 | Fiji Islands Region 21.07 S 178.57 W |
| | iPKHKP | A | 47 15 | H = 11 28 31.5 h = 594.4 km MB = 5.8 |
| | iPKP2 | A | 47 21.5 | D = 149.41 Az = 347 (NEIS) |
| | epPKP | B | 49 27 | h = 610 km |
| | esPKP | B | 50 27 | PKIKPV A 1.8s 94.5nm |
| | ePP | B | 50 48 | PKHKPV A 1.0 354.0nm |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| cont. 6. | esPP | B | 11 53 52 | PKP2V A 1.4s 237.0nm |
| 7. | ePn | A | 08 41 35.5 | Friuli, Italy 46°31.2'N 13°17.5'E |
| | eSg | A | 42 47.5 | H = 08 40 25.8 h = 14 km (TRI) |
| | | | | D = 4.28 |
| 7. | eP | A | 09 08 37 | Iceland 64.75 N 17.18 W |
| | | | | H = 09 03 55.0 h = 10 km MB = 3.9 |
| | | | | D = 20.62 Az = 119 (NEIS) |
| 7. | ePKP | A | 10 16 59.5 | Tonga Islands 17.10 S 174.37 W |
| | | | | H = 09 57 35.4 h = 152.6 km MB = 5.1 |
| | | | | D = 146.19 Az = 353 (NEIS) |
| | | | | PKPV A 1.6s 24.7nm |
| 7. | LmV | B | 16 15.2 | Easter Island Cordillera 34.99 S 107.8 W |
| | LmH | B | 16.7 | H = 15 03 39.3 h = 33 km MB = 5.2 (ISC) |
| | | | | D = 134.1 |
| | | | | LmH B 20s 0.35/um M = 5.0 |
| | | | | LmV B 20 0.35/um 5.0 |
| 8. | eP | A | 05 33 16 | Afghanistan - USSR Border Region |
| | | | | 36.62 N 71.15 E |
| | | | | H = 05 25 27.4 h = 212.1 km MB = 4.9 |
| | | | | D = 44.14 Az = 308 (NEIS) |
| | | | | PV A 1.6s 71.5nm M = 4.9 |
| 8. | eP | A | 06 31 21.5 | Ethiopia 10.94 N 39.63 E |
| | e | A | 31 24 | H = 06 23 02.4 h = 37.6 km MB = 5.0 |
| | LmH | B | 51.6 | D = 45.78 Az = 335 (NEIS) |
| | LmV | B | 53.9 | PV A 1.3s 35.0nm M = 5.1 |
| | | | | LmH B 18.5 0.5/um 4.5 |
| | | | | LmV B 17 0.4/um 4.6 |
| 8. | ePKIKP | A | 09 06 52 | Solomon Islands 5.81 S 154.58 E |
| | ePP | A | 08 45 | H = 08 48 04.7 h = 127 km MB = 5.8 |
| | | | | D = 125.67 Az = 332 (NEIS) |
| | | | | PPV A 1.3s 35.0nm M = 5.2 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 8. | e(PKHKP) | A | 09 47 21.5 | South of Fiji Islands 22.33 S 176.67 W |
| | | | | H = 09 27 56.8 h = 269.3 km MB = 4.3 |
| | | | | D = 151.0 Az = 349 (NEIS) |
| 8. | eP | A | 18 11 52 | Southwestern Ryukyu Islands |
| | epP | A | 12 04 | 23.92 N 123.54 E |
| | LmV | B | 54.5 | H = 17 59 23.0 h = 53.5 km MB=5.3 MS=4.2 |
| | LmH | B | 54.6 | D = 84.65 Az = 324 (NEIS) |
| | | | | h = 43 km |
| | | | | PV A 1.3s 13.1nm M = 4.9 |
| | | | | LmH B 20 0.25/um 4.6 |
| | | | | LmV B 18 0.25/um 4.6 |
| 8. | eP | A | 20 10 31.5 | Southern Alaska 61.17 N 150.86 W |
| | epP | A | 10 52 | H = 19 59 39.9 h = 71.9 km MB = 4.7 |
| | | | | D = 67.65 Az = 12 (NEIS) |
| | | | | h = 82 km |
| 8. | LmH | B | 23 00.1 | East China Sea 28.80 N 127.79 E |
| | LmV | B | 07.5 | H = 22 13 15.1 h = 33 km MB = 5.0 (NEIS) |
| | | | | D = 82.9 |
| | | | | LmH B 18s 3.7/um M = 5.8 |
| | | | | LmV B 14.5 4.0/um 6.0 |
| 9. | eP | A | 10 28 29 | Crete 35.22 N 23.54 E |
| | e | A | 28 32 | H = 10 24 26.5 h = 73.5 km MB = 4.2 |
| | LmH | B | 35.9 | D = 17.68 Az = 334 (NEIS) |
| | LmV | B | 36.8 | LmH B 11s 0.3/um M = 3.8 |
| | | | | LmV B 11 0.2/um 3.8 |
| 9. | LmH | B | 15 41.0 | East China Sea 28.78 N 127.78 E |
| | LmV | B | 48.2 | H = 14 54 05.7 h = 31.4 km |
| | | | | MB = 5.2 MS = 4.0 (NEIS) |
| | | | | D = 82.9 |
| | | | | LmH B 18.5s 2.6/um M = 5.6 |
| | | | | LmV B 15 2.4/um 5.7 |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 9. | ePKIKP | A | 17 03 55.5 | Tonga Islands Region 22.46 S 175.10 W |
| | ePKHKP | A | 04 01.5 | H = 16 44 09.4 h = 33 km MB=5.5 MS=4.9 |
| | ePKP2 | A | 04 09.5 | D = 151.38 Az = 351 (NEIS) |
| | ePKP | A | 04 13 | PKHKPV A 2.0s 102.5nm |
| | LmH | B | 18 12.5 | LmH B 20 0.3/um M = 5.0 |
| | LmV | B | 16.5 | LmV B 18 0.3/um 5.1 |
| 9. | LmH | B | 21 06.8 | Northeastern China 40.15 N 118.83 E |
| | LmV | B | 12.9 | H = 20 27 52.4 h = 33 km MB = 4.9 (NEIS) |
| | | | | D = 69.4 |
| | | | | LmH B 18s 1.8/um M = 5.4 |
| | | | | LmV B 13 0.8/um 5.2 |
| 10. | LmH | B | 01 17.2 | Atlantic-Indian Rise 37.93 S 49.68 E |
| | LmV | B | 17.5 | H = 00 15 58.8 h = 33 km MB=5.4 MS=4.6 |
| | | | | D = 94.34 Az = 337 (NEIS) |
| | | | | LmH B 18s 0.35/um M = 4.9 |
| | | | | LmV B 18 0.35/um 4.9 |
| 10. | ePKIKP | A | 02 00 56.5 | South Sandwich Islands Region |
| | e | B | 02 14 | 56.12 S 27.56 W |
| | eSP | B | 11 00 | H = 01 42 36.5 h = 122.1 km MB = 6.1 |
| | e | B | 11 48 | D = 111.25 Az = 26 (NEIS) |
| | eSS | B | 17 10 | LmH B 18.5s 0.7/um |
| | LmH | B | 44.6 | LmV B 20 0.7/um |
| | LmV | B | 44.7 | |
| 10. | ePKIKP | AB | 02 56 47.5 | New Hebrides Islands 19.13 S 168.41 E |
| | eX | A | 56 51.5 | H = 02 37 14.6 h = 11.9 km MB=5.5 MS=5.5 |
| | LmV | B | 04 04.7 | D = 143.55 Az = 335 (NEIS) |
| | LmH | B | 04.8 | PKIKPV A 1.2s 18.3nm |
| | | | | XV A 1.5 70.4nm |
| | | | | LmH B 19 0.8/um M = 5.4 |
| | | | | LmV B 19 0.9/um 5.5 |
| 10. | ePKHKP | A | 04 39 11 | Fiji Islands Region 21.82 S 179.29 W |
| | ePKP2 | A | 41 38.5 | H = 04 20 25.5 h = 581.5 km MB = 5.3 |
| | | | | D = 149.98 Az = 346 (NEIS) |
| | | | | PKHKPV A 1.2s 20.3nm |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 10. | ePKIKP | A | 05 30 18.5 | Fiji Islands Region 21.92 S 179.25 W |
| | ePKHKP | A | 30 26 | H = 05 11 40.8 h = 607.0 km MB = 5.4 |
| | ePKP2 | A | 30 34 | D = 150.09 Az = 346 (NEIS) |
| | epPKHKP | A | 32 47.5 | h = 642 km |
| | LmH | B | 06 45.0 | PKIKPV A 1.6s 19.2nm |
| | LmV | B | 46.9 | PKHKPV A 1.6 76.9nm |
| | | | | PKP2V A 1.6 38.4nm |
| | | | | LmH B 20 0.6/um |
| | | | | LmV B 20 0.4/um |
| 10. | ePKHKP | A | 09 18 03.5 | Fiji Islands Region 20.82 S 178.81 W |
| | ePKP2 | A | 18 10 | H = 08 59 18.7 h = 576.9 km MB = 4.? |
| | | | | D = 149.12 Az = 347 (NEIS) |
| 11. | ePKIKP | A | 05 04 36 | Tonga Islands Region 23.18 S 175.62 W |
| | ePKHKP | A | 04 44 | H = 04 44 50.5 h = 41.5 km MB=4.6 MS=5.1 |
| | | | | D = 152.01 Az = 350 (NEIS) |
| | | | | PKIKPV A traces |
| 11. | eP | A | 09 50 29 | Rat Islands, Aleutian Is. |
| | eS | B | 10 00 32 | 51.41 N 176.31 E |
| | LmH | B | 27.1 | H = 09 38 32.4 h = 12.7 km |
| | LmV | B | 34.6 | MB = 5.1 MS = 4.8 (NEIS) |
| | | | | D = 77.6 |
| | | | | PV A 1.2s 20.3nm M = 5.1 |
| | | | | LmH B 18 0.8/um 5.1 |
| | | | | LmV B 16 0.6/um 5.1 |
| 11. | eP | A | 12 47 34 | Kurile Islands 48.03 N 155.75 E |
| | e | A | 47 41 | H = 12 35 42.1 h = 33 km |
| | LmH | B | 13 25.2 | MB = 5.0 MS = 4.7 (NEIS) |
| | LmV | B | 25.4 | D = 77.1 |
| | | | | PV A 1.5s 22.6nm M = 5.0 |
| | | | | LmH B 17.5 0.5/um 4.9 |
| | | | | LmV B 20 0.7/um 5.0 |
| 11. | LmH | B | 17 05.5 | Solomon Islands 8.87 S 157.46 E |
| | LmV | B | 15.5 | H = 15 56 08.6 h = 59 km MB = 5.1 (NEIS) |
| | | | | D = 129.8 |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 11. | ePKP | A | 19 30 23 | New Hebrides Region 19.15 S 168.46 E |
| | | | | H = 19 10 51.2 h = 20.4 km MB = 5.3 (NEIS) |
| | | | | D = 143.6 |
| | | | | PKPV A 1.5s 15.1nm |
| 11. | LmH | B | 23 40.5 | West Irian Region 0.51 N 134.96 E |
| | LmV | B | 48.3 | H = 22 39 52.2 h = 33 km |
| | | | | MB = 5.6 MS = 4.9 (NEIS) |
| | | | | D = 110.9 |
| | | | | LmH B 19s 1.1/um M = 5.5 |
| | | | | LmV B 20 0.9/um 5.4 |
| 12. | eP | A | 13 36 56 | Dodecanese Islands 36.62 N 26.97 E |
| | | | | H = 13 32 56.5 h = 157 km MB = 4.4 |
| | | | | D = 17.84 Az = 327 (ISC) |
| | | | | PV A 1.8s 23.6nm M = 4.2 |
| 13. | eP | AB | 08 17 42 | Pakistan 29.88 N 67.45 E |
| | eS | B | 24 32 | H = 08 09 15.7 h = 9.7 km |
| | eSS | B | 28 08 | MB = 5.1 MS = 5.5 (NEIS) |
| | LmH | B | 41.5 | D = 46.2 |
| | LmV | B | 44.9 | PV A 2.3s 183.0nm M = 5.6 |
| | | | | PV B 2.5 0.4/um 5.9 |
| | | | | LmH B 16 4.5/um 5.5 |
| | | | | LmV B 13 2.2/um 5.4 |
| 13. | ePKP2 | A | 14 25 49 | Tonga Islands Region 23.24 S 175.31 W |
| | LmH | B | 15 45.0 | H = 14 06 00.0 h = 63 km |
| | LmV | B | 45.0 | MB = 5.0 MS = 5.0 (NEIS) |
| | | | | D = 152.1 |
| | | | | LmH B 18s 0.2/um |
| | | | | LmV B 18 0.25/um |
| 13. | iPg | A | 14 50 16.0 | Taucha, German Democrat. Rep. (CLL) |
| | i | A | 50 28.5 | D c. 1.0 |
| | iSg | A | 50 30.5 | |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 14. | eP | A | 00 43 17 | Dodecanese Islands 36.22 N 27.71 E |
| | LmH | B | 51.3 | H = 00 39 01.4 h = 33 km MB = 4.1 (NEIS) |
| | LmV | B | 51.4 | D = 18.5 |
| | | | | LmH B 10s 0.4/um M = 4.0 |
| | | | | LmV B 10 0.3/um 4.0 |
| 14. | +iP | AB | 05 56 18.5 | Uzbek SSR 40.32 N 63.68 E |
| | ePP | AB | 57 39 | H = 05 49 08.7 h = 33 km |
| | eS | B | 06 02 05 | MB = 5.5 MS = 5.4 (NEIS) |
| | LmH | B | 13.9 | D = 37.2 |
| | LmV | B | 15.6 | PV A 1.5s 95.5nm M = 5.5 |
| | | | | PPV A 1.7 78.8nm 5.4 |
| | | | | LmH B 14 4.0/um 5.4 |
| | | | | LmV B 15 3.0/um 5.3 |
| 14. | eP | A | 07 20 15 | Iceland 64.47 N 17.49 W |
| | LmH | B | 29.2 | H = 07 15 37.2 h = 33 km MB = 4.7 (NEIS) |
| | LmV | B | 30.2 | D = 20.7 |
| | | | | PV A 1.6s 68.7nm M = 4.8 |
| | | | | LmH B 16 0.8/um 4.2 |
| | | | | LmV B 18 0.4/um 4.0 |
| 14. | eP | A | 15 31 28 | Southern Iran 26.97 N 53.50 E |
| | | | | H = 15 23 57.3 h = 33 km MB = 4.3 (NEIS) |
| | | | | D = 39.5 |
| | | | | traces |
| 14. | LmH | B | 21 15.0 | Northeastern China 39.77 N 118.26 E |
| | LmV | B | 16.2 | H = 20 36 14.8 h = 33 km MB = 4.7 (NEIS) |
| | | | | D = 69.5 |
| | | | | LmH B 19.5s 1.6/um M = 5.3 |
| | | | | LmV B 16 0.5/um 4.9 |
| 15. | eP | A | 01 48 04 | Kazakh - Sinkiang Border Region |
| | | | | 48.56 N 86.81 E |
| | | | | H = 01 39 35.8 h = 33 km (NEIS) |
| | | | | D = 46.7 |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 15. | eP | AB | 02 25 22 | Taiwan Region 24.05 N 122.21 E |
| | eSKS | B | 35 42 | H = 02 12 54.4 h = 33.4 km |
| | eS | B | 35 56 | MB = 5.5 MS = 5.7 (NEIS) |
| | LmH | B | 03 07.0 | D = 83.8 |
| | LmV | B | 07.1 | PV A 1.8s 101.2nm M = 5.7 |
| | | | | LmH B 16 5.0/um 6.0 |
| | | | | LmV B 17 6.9/um 6.1 |
| 15. | LmV | B | 06 02.4 | Easter Island Region 29.39 S 112.30 W |
| | LmH | B | 03.8 | H = 04 46 08.7 h = 33 km |
| | | | | MB = 5.2 MS = 5.6 (NEIS) |
| | | | | D = 133.4 |
| | | | | LmH B 17s 0.6/um M = 5.3 |
| | | | | LmV B 18 0.7/um 5.4 |
| 15. | ePg | A | 09 05 20.5 | Northern Italy (BAF) |
| | eSg | A | 06 15 | D c. 4.1 |
| 15. | ePKHKP | A | 24 06 31 | South of Fiji Islands 22.06 S 176.35 W |
| | | | | H = 23 46 40.2 h = 54 km MB = 4.9 |
| 16. | ePKP | A | 11 36 11 | Tonga Islands Region 18.66 S 172.78 W |
| | e | A | 36 21 | H = 11 16 29.4 h = 50.5 km |
| | | | | MB = 4.9 MS = 4.6 (NEIS) |
| | | | | D = 148.0 |
| 16. | -iPn | AB | 13 14 43 | Yugoslavia 46.29 N 14.29 E |
| | iPg | A | 15 00 | H = 13 13 29.6 h = 6.3 km MB = 4.6 (NEIS) |
| | iSn | A | 15 35 | D = 4.7 |
| | iSg | A | 15 59 | PnV A 0.8s 269.0nm |
| | LmH | B | 16.2 | LmH B 7 6.2/um M = 5.2 |
| | LmV | B | 16.2 | |
| 16. | ePKIKP | A | 23 58 12 | Kermadec Islands Region |
| | ePKHKP | A | 58 19 | 27.46 S 176.72 W |
| | ePKP2 | A | 58 38 | H = 23 38 21.4 h = 33 km MB=5.5 MS=4.6 |
| | LmH | B | 25 08.0 | D = 156.0 (NEIS) |
| | LmV | B | 08.0 | PKIKPV A traces |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 17. | eP | A | 09 05 43 | Turkey 38.64 N 39.85 E |
| | | | | H = 09 00 33.1 h = 33 km MB = 4.3 |
| | | | | D = 23.25 Az = 310 (NEIS) |
| | | | | traces |
| 17. | eP | A | 09 28 13 | Svalbard Region 77.86 N 18.33 E |
| | | | | H = 09 22 24.5 h = 10 km MB = 4.5 (NEIS) |
| | | | | D = 27.4 |
| 17. | ePKP2 | A | 10 47 06 | Balleny Islands Region 62.89 S 168.22 E |
| | LmV | B | 12 06.5 | H = 10 26 19.0 h = 33 km |
| | LmH | B | 09.7 | MB = 5.6 MS = 5.2 (NEIS) |
| | | | | D = 162.4 |
| | | | | PKP2V A 2.5s 122.9nm |
| | | | | LmH B 17.5 0.5/um M = 5.3 |
| | | | | LmV B 20 0.8/um 5.5 |
| 17. | LmH | B | 22 43.5 | LmV B 18s 0.3/um |
| | LmV | B | 43.5 | |
| 18. | e | A | 10 12 15.5 | Albania 41.56 N 20.07 E |
| | | | | H = 10 09 15.6 h = 42.5km MB = 4.8 |
| | | | | D = 10.81 Az = 330 (NEIS) |
| 18. | eP1 | A | 14 30 55 | Hindu Kush Region 35.53 N 70.31 E |
| | eP2 | A | 30 58 | H = 14 22 52.6 h = 68.8 km MB = 5.2 |
| | LmH | B | 52.6 | D = 44.28 Az = 309 (NEIS) |
| | LmV | B | 52.7 | P1V A traces |
| | | | | P2V A 1.1s 30.2nm M = 5.0 |
| | | | | LmH B 16 0.4/um |
| | | | | LmV B 12 0.4/um |
| 18. | ePKP | A | 18 51 30 | Tonga Islands 15.65 S 175.46 W |
| | LmH | B | 19 52.0 | H = 18 31 52.2 h = 33 km MB=5.2 MS=5.0 |
| | | | | D = 144.63 Az = 352 (NEIS) |
| 18. | ePKHKP | A | 21 44 56 | South of Fiji Islands 22.19 S 179.61 W |
| | ePKP2 | A | 45 05 | H = 21 26 08.1 h = 573.0 km MB = 5.3 |
| | | | | D = 150.27 Az = 346 (NEIS) |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 18. | LmH | B | 22 37.1 | Off Coast of Northern California |
| | LmV | B | 37.2 | 40.38 N 125.36 W |
| | | | | H = 21 49 28.6 h = 15 km |
| | | | | MB = 4.8 MS = 3.9 (NEIS) |
| | | | | D = 81.8 |
| | | | | LmH B 17.5s 0.6/um M = 5.0 |
| | | | | LmV B 16 0.5/um 5.0 |
| 20. | eP1 | A | 13 36 03 | Alaska Peninsula 54.61 N 161.60 W |
| | eP2 | A | 36 05.5 | H = 13 24 25.9 h = 53.0 km MB = 5.3 |
| | | | | D = 74.96 Az = 4 (NEIS) |
| | | | | P1V A 0.9s 15.6nm M = 4.9 |
| | | | | P2V A 1.2 38.6nm 5.2 |
| 21. | eP | A | 02 31 26 | Alaska Peninsula 56.44 N 157.18 W |
| | | | | H = 02 20 05.3 h = 91.1 km MB = 4.4 |
| | | | | D = 72.88 Az = 7 (NEIS) |
| 21. | LmH | B | 05 43.3 | LmH B 14s 0.2/um |
| | LmV | B | 43.3 | LmV B 15 0.3/um |
| 21. | ePKP | A | 07 20 26.5 | New Hebrides Islands 18.73 S 169.16 E |
| | | | | H = 07 01 21.7 h = 232.8 km MB = 5.1 |
| | | | | D = 143.49 Az = 336 (NEIS) |
| | | | | PKPV A 1.5s 15.1nm |
| 21. | eP | A | 09 43 56 | Nicobar Islands Region 7.06 N 94.39 E |
| | | | | H = 09 31 42.5 h = 33 km MB = 4.7 |
| | | | | D = 80.00 Az = 320 (NEIS) |
| | | | | PV A 1.5s 17.6nm M = 4.8 |
| 21. | ePKIKP | A | 12 13 15 | Macquarie Islands Region 53.86 S 158.60 E |
| | eiPKIKP | AB | 13 20 | H = 11 53 22.5 h = 33 km MB=6.4 MS=6.7 |
| | eiPKP2 | AB | 14 01 | D = 159.64 Az = 274 (NEIS) |
| | +iPP | B | 17 40 | PKIKPV A 3.0s 973.7nm |
| | -iPP | A | 17 42 | PKIKP B 12 11.3/um |
| | eiPPP | B | 21 14 | PPV A 2.3 560.3nm M = 6.3 |
| | | | | PPV B 10 12.1/um 7.0 |
| | | | | superposed by the following earthquake |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 21. | +iP | A | 13 58 50 | Luzon, Philippine Islands 16.88 N 122.36 E |
| | iS | B | 14 09 34 | H = 13 45 54.0 h = 33 km MB=6.1 MS=6.9 |
| | eSP | B | 10 38 | D = 89.62 Az = 323 (NEIS) |
| | LmV | B | 45.2 | PV A 1.5s 196.0nm M = 6.2 |
| | LmH | B | 45.3 | SH B 18 17.8/um 6.8 |
| | | | | LmH B 16 101.5/um 7.4 |
| | | | | LmV B 15 125.0/um 7.5 |
| 21. | e | A | 19 08 36 | Luzon, Philippine Islands 17.21 N 122.43 E |
| | | | | H = 18 55 34.6 h = 45.9 km MB = 5.1 |
| | | | | D = 89.40 Az = 323 (NEIS) |
| 21. | eP | A | 23 42 38 | Tibet 30.29 N 94.85 E |
| | | | | H = 23 32 12.1 h = 33 km MB = 5.0 (NEIS) |
| | | | | D = 63.2 |
| 22. | ePKP2 | A | 00 39 58 | Kermadec Islands Region 30.84 S 178.81 E |
| | | | | H = 00 20 27.1 h = 558 km MB = 4.8 (NEIS) |
| | | | | D = 158.0 |
| 22. | +iPKIKP | AB | 17 36 37.2 | South of Kermadec Islands |
| | +iPKP2 | A | 37 22.7 | 33.80 S 179.72 W |
| | ePP | A | 41 01 | H = 17 16 40.3 h = 31.4 km MB=6.0 MS=5.9 |
| | LmH | B | 18 53.5 | D = 161.22 Az = 337 (NEIS) |
| | LmV | B | 53.9 | PKIKPV A 1.9s 121.0nm |
| | | | | PKP2V A 2.1 249.0nm |
| | | | | PPV A 2.2 65.4nm M = 5.4 |
| | | | | LmH B 22 1.7/um 5.7 |
| | | | | LmV B 22 2.6/um 6.0 |
| 22. | epP | A | 20 59 50.5 | Peru - Bolivia Border Region |
| | | | | 15.56 S 69.93 W |
| | | | | H = 20 45 46.4 h = 202 km MB = 5.0 (NEIS) |
| | | | | D = 96.7 |
| 23. | eP | AB | 07 05 44.5 | Northern Sinkiang Prov., China |
| | ePP | B | 07 45 | 42.20 N 83.39 E |
| | eS | B | 12 55 | H = 06 57 03.7 h = 33 km MB=5.1 MS=5.1 |
| | eSS | B | 15 48 | D = 48.40 Az = 306 (NEIS) |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| cont. 23. | LmH | B | 07 24.2 | PV A 1.8s 33.8nm M = 5.0 |
| | LmV | B | 27.1 | LmH B 12 2.5/um 5.4 |
| | | | | LmV B 10 2.4/um 5.5 |
| 23. | ePKHKP | A | 09 33 37.5 | Fiji Islands Region 21.64 S 176.43 W |
| | | | | H = 09 14 19.7 h = 293.8 km MB = 4.9 |
| | | | | D = 150.37 Az = 350 (NEIS) |
| | | | | PKHKPV A 0.9s 19.5nm |
| 23. | +iP | A | 13 56 36 | Alaska Peninsula 54.32 N 162.41 W |
| | | | | H = 13 44 54.6 h = 27.4 km MB=5.1 MS=4.4 |
| | | | | D = 75.29 Az = 4 (NEIS) |
| | | | | PV A 1.4s 93.0nm M = 5.6 |
| 23. | ePn | A | 20 17 07 | West Poland (CLL) |
| | iSg | A | 17 47.5 | D c. 2.5 |
| 24. | ePKP | AB | 06 42 24.5 | Tonga Islands 15.34 S 173.15 W |
| | e | B | 44 40 | H = 06 22 51.3 h = 33 km MB=6.0 MS=6.2 |
| | eSS | B | 07 04 10 | D = 144.57 Az = 355 (NEIS) |
| | LmH | B | 50.5 | PKPV A 1.5s 138.1nm |
| | LmV | B | 50.7 | PKPV B 10 3.9/um |
| | | | | LmH B 19 7.4/um M = 6.4 |
| | | | | LmV B 19 5.8/um 6.4 |
| 24. | ePn | A | 09 57 51 | Southern Italy 41.07 N 15.19 E |
| | e | A | 57 54 | H = 09 55 27.5 h = 33 km |
| | eSn | A | 59 34 | D = 9.90 Az = 347 (NEIS) |
| 24. | eP | A | 20 08 33 | Mariana Islands 19.50 N 144.72 E |
| | eiPP | AB | 12 41 | H = 19 55 36.8 h = 409 km MB = 5.4 |
| | LmH | B | 48.4 | D = 98.89 Az = 332 (NEIS) |
| | LmV | B | 57.5 | PV A 1.8s 54.1nm M = 5.7 |
| | | | | PPV A 1.6 142.9nm 5.8 |
| | | | | LmH B 17.5 0.7/um |
| | | | | LmV B 16 0.5/um |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 25. | LmH | B | 00 45.8 | Sakhalin Island 51.78 N 143.02 E |
| | LmV | B | 54.1 | H = 00 05 53.3 h = 43 km |
| | | | | MB = 4.7 MS = 4.7 (NEIS) |
| | | | | D = 73.2 |
| | | | | LmH B 18s 1.1/um M = 5.2 |
| | | | | LmV B 13 0.3/um 4.8 |
| 25. | eP | A | 05 03 40.5 | Caribbean Sea 17.86 N 81.66 W |
| | | | | H = 04 51 40.6 h = 33 km MB=4.9 MS=4.0 |
| | | | | D = 78.44 Az = 40 (NEIS) |
| | | | | PV A 1.2s 16.3nm M = 4.9 |
| 25. | eP | A | 10 44 45 | Kurile Islands 44.26 N 149.77 E |
| | | | | H = 10 32 44.4 h = 33 km MB = 5.0 |
| | | | | D = 78.72 Az = 334 (NEIS) |
| 25. | eP | A | 22 33 02.5 | Crete 35.10 N 23.78 E |
| | LmH | B | 41.4 | H = 22 28 54.9 h = 46.3 km MB = 4.3 |
| | LmV | B | 41.4 | D = 17.88 Az = 334 (NEIS) |
| | | | | LmH B 14s 0.45/um M = 3.9 |
| | | | | LmV B 14 0.7/um 4.2 |
| 25. | ePKIKP | A | 23 00 35 | New Hebrides Islands 19.16 S 168.42 E |
| | e | A | 00 42 | H = 22 41 04.5 h = 30.1 km MB = 5.1 |
| | | | | D = 143.58 Az = 335 (NEIS) |
| 26. | ePKP | A | 10 47 35 | Samoa Islands Region 16.19 S 172.29 W |
| | | | | H = 10 27 59.9 h = 41 km MB = 4.8 |
| | | | | D = 145.49 Az = 356 (NEIS) |
| | | | | PKPV A 1.2s 26.4nm |
| 27. | iPKP | A | 03 14 46 | Tonga Islands 17.07 S 173.44 W |
| | epPKP | A | 14 57 | H = 02 55 08.5 h = 46 km MB = 4.8 |
| | | | | D = 146.26 Az = 354 (NEIS) |
| | | | | h = 40 km |
| | | | | PKPV A 1.2s 57.0nm |
| 27. | ePg | A | 07 51 53 | Switzerland 46.54 N 7.22 E |
| | eSn | A | 52 35 | H = 07 50 19.3 h = 10 km |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| cont. 27. | eSg | A | 07 53 04 | D = 5.04 Az = 34 (NEIS) |
| 27. | ePKP | A | 08 29 35 | Samoa Islands Region 15.85 S 171.91 W<br>H = 08 09 58.8 h = 33 km MB = 4.6<br>D = 145.18 Az = 356 (NEIS)<br>PKPV A 1.3s 26.2nm |
| 27. | ePn | A | 14 00 55 | Czechoslovakia 50.54 N 14.65 E |
| | eSg | A | 01 24 | H = 14 00 19.2 h = 0 km<br>D = 1.94 Az = 274 (ISC) |
| 27. | eP | A | 17 38 10.5 | Luzon, Philippine Islands |
| | LmH | B | 18 24.3 | 17.06 N 122.50 E |
| | LmV | B | 24.3 | H = 17 25 16.2 h = 41.1 km MB=5.4 MS=4.0<br>D = 89.55 Az = 323 (NEIS)<br>PV A 1.3s 21.8nm M = 5.3<br>LmH B 17.5 0.4/um 4.9<br>LmV B 17 0.4/um 5.0 |
| 27. | ePKHKP | A | 24 16 37 | Fiji Islands Region 21.23 S 178.12 W |
| | ePKP2 | A | 16 45 | H = 23 57 33.0 h = 389.7 km MB = 4.2<br>D = 149.66 Az = 348 (NEIS) |
| 28. | LmH | B | 01 53.2 | LmH B 16s 0.5/um |
| | LmV | B | 53.4 | LmV B 18 0.7/um |
| 28. | eP1 | A | 01 57 10 | North of Ascension Island |
| | eP2 | A | 57 13 | 1.15 S 14.04 W |
| | ePP | B | 59 16 | H = 01 47 32.7 h = 33 km MB=5.3 MS=5.3 |
| | ePPP | B | 02 00 30 | D = 56.05 Az = 19 (NEIS) |
| | eS | B | 04 55 | P2V A 1.2s 65.0nm M = 5.5 |
| | LmH | B | 20.4 | P2V B 8 0.9/um 5.8 |
| | LmV | B | 21.8 | LmH B 16.5 4.5/um 5.6<br>LmV B 16.5 3.4/um 5.6 |
| 28. | LmV | B | 07 49.1 | Near N. Coast of West Irian |
| | LmH | B | 50.4 | 1.87 S 138.85 E<br>H = 06 37 54.3 h = 53 km MB = 5.1 (NEIS)<br>D = 114.2<br>LmH B 18s 0.3/um LmV B 17s 0.3/um |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 28. | eP | AB | 15 34 27.5 | Off Coast of Oregon 44.24 N 128.97 W |
| | eS | B | 44 30 | H = 15 22 18.5 h = 15 km MB = 5.1 MS=5.4 |
| | LmH | B | 16 12.1 | D = 79.48 Az = 24 (NEIS) |
| | LmV | B | 12.1 | LmH B 16.5s 2.1/um M = 5.6<br>LmV B 16 3.1/um 5.8 |
| 29. | LmH | B | 00 56.2 | Ryukyu Islands 27.14 N 129.34 E |
| | LmV | B | 56.3 | H = 00 00 18.0 h = 30 km MB = 4.9<br>D = 85.07 Az = 326 (NEIS)<br>LmH B 14s 0.3/um M = 4.8<br>LmV B 14 0.4/um 5.0 |
| 29. | eP | A | 09 22 20.5 | Southern Sinkiang Prov., China |
| | epP | A | 22 51 | 38.19 N 75.17 E |
| | eSS | B | 32 35 | H = 09 14 08.3 h = 102.4 km MB = 5.2 |
| | LmH | B | 43.3 | D = 45.72 Az = 307 (NEIS) |
| | LmV | B | 43.3 | h = 140 km<br>PV A 1.8s 67.5nm M = 5.2<br>LmH B 14 0.3/um<br>LmV B 13 0.4/um |
| 29. | eP diff | B | 11 31 42 | Solomon Islands 8.03 S 155.53 E |
| | ePKIKP | AB | 34 51 | H = 11 15 45.3 h = 33 km MB=6.4 MS=7.2 |
| | iPP | AB | 36 54 | D = 128.07 Az = 332 (NEIS) |
| | iSKP | B | 38 16 | PKIKPV A 1.6s 115.0nm |
| | iSS | B | 54 12 | LmH B 19 58.0/um M = 7.3 |
| | iPKPPKS | B | 56 33 | LmV B 21 70.9/um 7.3 |
| | LmV | B | 12 34.2 | |
| | LmH | B | 34.8 | |
| 29. | eiPKHKP | A | 17 10 38.5 | Tonga Islands 19.47 S 175.04 W<br>H = 16 51 06.0 h = 129 km MB = 5.1<br>D = 148.44 Az = 352 (NEIS)<br>PKHKPV A 0.8s 30.8nm |
| 29. | ePKHKP | A | 20 46 03.5 | South of Fiji Islands 23.61 S 179.15 E |
| | ePKP2 | A | 46 14 | H = 20 27 12.1 h = 549.5 km MB = 5.1<br>D = 151.32 Az = 343 (NEIS)<br>PKHKPV A 1.2s 14.2nm |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 29. | eP | A | 21 19 02 | Southern Sumatra 2.36 S 99.98 E |
| | | | | H = 21 05 59.5 h = 33 km MB = 5.3 |
| | | | | D = 90.77 Az = 320 (NEIS) |
| 29. | ePn | A | 21 56 32.5 | Yugoslavia 44.92 N 17.48 E |
| | eSn | A | 57 49.5 | H = 21 54 47.8 h = 10 km |
| | eSg | A | 58 33 | D = 6.95 Az = 328 (NEIS) |
| 29. | eP | A | 22 36 27 | Luzon, Philippine Islands |
| | eSKS | B | 46 45 | 18.65 N 121.06 E |
| | LmH | B | 23 19.3 | H = 22 23 41.2 h = 40.1 km MB=5.2 MS=4.5 |
| | LmV | B | 20.5 | D = 87.47 Az = 323 (NEIS) |
| | | | | PV A traces |
| | | | | LmH B 18s 0.6/um M = 5.0 |
| | | | | LmV B 17 0.7/um 5.2 |
| 30. | +iP | A | 02 04 46 | Eastern Kazakh SSR 49.78 N 78.16 E |
| | ePn | A | 06 19 | H = 01 56 58.0 h = 0 km MB = 5.3 |
| | | | | D = 41.29 Az = 298 (NEIS) |
| | | | | PV A 0.8s 26.9nm M = 5.0 |
| 30. | eP | AB | 07 40 54 | North of Ascension Island |
| | eS | B | 48 56 | 3.18 S 12.20 W |
| | eSS | B | 52 12 | H = 07 31 07.0 h = 33 km |
| | LmH | B | 08 06.2 | MB = 5.1 MS = 4.7 (NEIS) |
| | LmV | B | 06.2 | D = 53.6 |
| | | | | PV A 2.6s 121.0nm M = 5.4 |
| | | | | LmH B 16 0.6/um 4.7 |
| | | | | LmV B 16 1.0/um 5.0 |
| 30. | eP | A | 16 14 38 | Jan Mayen Island Region 71.88 N 1.91 W |
| | eS | B | 18 50 | H = 16 09 43.7 h = 33 km MB = 4.4 |
| | LmV | B | 25.5 | D = 22.16 Az = 157 (NEIS) |
| | | | | PV A 1.4s 23.3nm M = 4.4 |
| | | | | LmV B 12 0.35/um 4.1 |
| 30. | eP | A | 19 55 15 | Southern Greece 36.84 N 21.65 E |
| | | | | H = 19 51 37.5 h = 50.8 km MB = 4.8 |
| | | | | D = 15.57 Az = 336 (NEIS) |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| cont. 30. | LmH | B | 20 02.4 | LmH B 16s 1.0/um M = 4.1 |
| | LmV | B | 02.4 | LmV B 15 1.0 4.3 |
| 31. | ePKP | A | 03 01 16 | South of Fiji Islands 19.41 S 176.02 E |
| | | | | H = 02 41 34.2 h = 15.4 km MB = 5.0 |
| | | | | D = 146.46 Az = 342 (NEIS) |
| 31. | epP | A | 24 10 39 | Burma 20.22 N 94.00 E |
| | e | A | 10 52 | H = 23 59 25.8 h = 90.6 km MB = 4.5 |
| | | | | D = 69.87 Az = 318 (NEIS) |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 1. | LmH | B | 02 07.9 | Talaud Islands 4.06 N 126.94 E |
| | LmV | B | 07.9 | H = 01 01 22.2 h = 58 km MB = 5.2 |
| | | | | D = 102.55 Az = 324 (NEIS) |
| | | | | LmH B 20s 0.7/um M = 5.2 |
| | | | | LmV B 20 0.7/um 5.2 |
| 1. | ePKHKP | A | 10 40 47 | Loyalty Islands Region 23.28 S 170.30 E |
| | epPKP | A | 40 56 | H = 10 20 58.4 h = 23.6 km MB = 5.2 |
| | | | | D = 148.04 Az = 334 (NEIS) |
| 1. | -iPKP | AB | 13 52 14.5 | New Hebrides Islands 20.49 S 169.62 E |
| | e | A | 52 31 | H = 13 32 48.8 h = 108 km MB = 5.5 (NEIS) |
| | epPKP | AB | 52 43 | D = 145.0 h = 100 km |
| | | | | PKPV A 1.9s 24.2nm |
| 1. | ePKIKP | A | 19 30 33.5 | Fiji Islands Region 20.04 S 178.21 W |
| | iPKHKP | A | 30 38 | H = 19 11 57.4 h = 599.1 km MB = 5.3 |
| | iPKP2 | A | 30 43.5 | D = 148.49 Az = 348 (NEIS) |
| | | | | PKHKPV A 1.2s 85.5nm |
| | | | | PKP2V A 1.2 40.7nm |
| 2. | ePKHKP | A | 00 34 46 | Fiji Islands Region 17.73 S 178.78 W |
| | LmH | B | 02 10.2 | H = 00 16 06.3 h = 552.3 km MB = 4.8 (NEIS) |
| | LmV | B | 10.2 | D = 146.1 |
| | | | | LmH B 15s 0.4/um |
| | | | | LmV B 16 0.5/um |
| 2. | eP | A | 02 34 02 | Andreanof Islands, Aleutian Is. |
| | LmV | B | 03 08.7 | 51.22 N 175.34 W |
| | LmH | B | 09.2 | H = 02 22 02.4 h = 19 km |
| | | | | MB = 4.4 MS = 4.3 (NEIS) |
| | | | | D = 78.3 |
| | | | | LmH B 16s 0.2/um M = 4.5 |
| | | | | LmV B 16 0.3/um 4.8 |
| 2. | eP | A | 06 10 26 | Aegean Sea 38.54 N 25.76 E |
| | | | | H = 06 06 45.0 h = 33 km (NEIS) |
| | | | | D = 15.8 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 2. | e | A | 13 01 56 | Czechoslovakia 50.25 N 12.66 E |
| | e | A | 02 03 | H = 13 01 30.6 h = 0 km |
| | | | | D = 0.78 Az = 301 (ISC) |
| 2. | epP | A | 20 07 10 | Bonin Islands Region 27.37 N 142.01 E |
| | ePP | A | 10 36 | H = 19 54 00.6 h = 33 km MB = 5.0 |
| | | | | D = 90.82 Az = 331 (NEIS) |
| 3 | eP | A | 01 23 33 | Tibet 30.32 N 94 92 E |
| | | | | H = 01 13 06.8 h = 32.9 km MB = 4.7 |
| | | | | D = 63.16 Az = 315 (NEIS) |
| | | | | traces |
| 3. | eP | A | 02 37 30 | Panama - Colombia Border Region |
| | | | | 8.08 N 77.47 W |
| | | | | H = 02 25 04.4 h = 33 km MB = 4.7 |
| | | | | D = 83.24 Az = 40 (NEIS) |
| | | | | PV A 2.0s 11.9nm M = 4.6 |
| 3. | ePKHKP | AZ | 11 20 08.5 | South of Fiji Islands 23.04 S 176.30 W |
| | e | A | 20 12 | H = 11 00 25.1 h = 115 km MB = 4.8 |
| | ePKP2 | A | 20 20 | D = 151.76 Az = 349 (NEIS) |
| | | | | PKHKPV A 1.2s 20.3nm |
| 3. | ePn | A | 11 22 14 | Yugoslavia 43.14 N 17.62 E |
| | eSn | A | 23 51 | H = 11 20 10.3 h = 10 km (CSEM) |
| | eSg | A | 24 52 | D = 8.6 |
| 3. | eP | A | 15 28 44 | Tibet 30.30 N 94.90 E |
| | | | | H = 15 18 17.2 h = 33 km MB = 4.8 |
| | | | | D = 63.16 Az = 315 (NEIS) |
| 4. | ePKP | A | 01 29 32 | South Sandwich Islands Region |
| | epPP | A | 30 38 | 56.01 S 27.79 W |
| | eSP | B | 39 35 | H = 01 11 11.3 h = 111.5 km MB = 6.1 |
| | ePKKP | A | 40 30 | D = 111.21 Az = 26 (NEIS) |
| | e | A | 40 37 | LmH B 17.5s 0.5/um |
| | eSPP | B | 40 40 | LmV B 20 0.5/um |
| | eSS | B | 45 30 | |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| cont. 4. | LmV | B | 02 12.2 | |
| | LmH | B | 13.0 | |
| 4. | eP | AB | 13 33 29.5 | Near Coast of Nicaragua 12.35 N 87.29 W |
| | epP | A | 33 48 | H = 13 20 52.5 h = 33 km |
| | ePPS | B | 45 30 | MB = 5.4 MS = 5.0 (NEIS) |
| | eSS | B | 49 40 | D = 86.2 h = 71 km |
| | LmV | B | 14 09.5 | LmH B 18.5s 0.7/um |
| | LmH | B | 10.2 | LmV B 20 0.8/um |
| 4. | eP | A | 16 52 18 | Southern Nevada 37.09 N 116.01 W |
| | ePP | A | 55 19 | H = 16 40 00.1 h = 0 km MB=5.0 MS=5.7 |
| | | | | D = 81.24 Az = 31 (NEIS) |
| | | | | PPV traces |
| | | | | PV A 1.3s 21.8nm M = 5.0 |
| 5. | eP | A | 13 24 21 | Crete 34.27 N 25.80 E |
| | eS | B | 28 00 | H = 13 19 54.8 h = 24.3 km MB = 4.4 |
| | LmH | B | 33.4 | D = 19.37 Az = 332 (NEIS) |
| | LmV | B | 33.4 | LmH B 13s 0.5/um M = 4.0 |
| | | | | LmV B 15 0.7/um 4.3 |
| 6. | ePKIKP | A | 05 46 31.5 | South of Fiji Islands 22.22 S 175.98 W |
| | ePKHPK | A | 46 36 | H = 05 26 56.0 h = 121.6 km MB = 5.1 |
| | | | | D = 151.01 Az = 350 (NEIS) |
| 6. | iPKIKP | A | 11 45 09 | Solomon Islands 7.08 S 155.83 E |
| | ePP | A | 47 12 | H = 11 26 12.2 h = 82.5 km MB = 5.4 |
| | | | | D = 127.37 Az = 332 (NEIS) |
| | | | | PKIKPV A 1.2s 36.6nm |
| 6. | ePKHKP | A | 12 12 33 | Tonga Islands 18.62 S 174.10 W |
| | ePKP2 | A | 12 36 | H = 11 52 50.6 h = 44.5 km ME=5.2 MS=4.6 |
| | | | | D = 147.72 Az = 353 (NEIS) |
| | | | | PKHKPV A 1.2s 24.4nm |
| 6. | eP | A | 23 56 02 | Near East Coast of Honshu, Japan |
| | | | | 35.49 N 140.82 E |
| | | | | H = 23 43 39.7 h = 51.7 km MB = 4.8 |
| | | | | D = 83.26 Az = 330 (NEIS) |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 7. | ePKIKP | AB | 02 04 30 | Santa Cruz Islands 12.37 S 166.30 E |
| | e | A | 04 40 | H = 01 45 09.3 h = 36.2 km MB=5.2 MS=5.7 |
| | ePP | AB | 07 12 | D = 136.59 Az = 337 (NEIS) |
| | ePKS | AB | 08 16 | LmH B 19s 0.8/um M = 5.5 |
| | ePKKP | A | 14 17 | LmV B 18 0.8/um 5.5 |
| | LmH | B | 03 08.8 | |
| | LmV | B | 10.4 | |
| 7. | eP | AB | 07 20 46 | Panama - Costa Rica Border Region |
| | e | A | 21 08 | 8.55 N 82.75 W |
| | eSKS | B | 31 12 | H = 07 08 05.6 h = 33 km MB=5.2 MS=5.7 |
| | ePS | B | 32 20 | D = 86.22 Az = 40 (NEIS) |
| | eSS | B | 37 12 | LmH B 21.5s 6.2/um M = 6.0 |
| | eSSS | B | 40 10 | LmV B 21 6.4/um 6.0 |
| | LmH | B | 53.3 | |
| | LmV | B | 54.1 | |
| 7. | eP | A | 11 45 13 | Carlsberg Ridge 3.57 N 62.75 E |
| | eS | B | 53 48 | H = 11 34 43.5 h = 33 km MB=4.8 MS=5.1 |
| | LmH | B | 12 19.6 | D = 63.48 Az = 326 (NEIS) |
| | | | | LmH B 20s 0.35/um M = 4.5 |
| 7. | ePn | A | 13 27 55 | Austria 47.28 N 10.82 E |
| | e | A | 28 12 | H = 13 27 03.0 h = 36 km |
| | eSn | A | 28 36 | D = 3.41 Az = 9 (ISC) |
| | eSg | A | 28 50 | |
| 7. | ePKHKP | A | 17 06 17 | Tonga Islands Region 23.02 S 175.02 W |
| | | | | H = 16 46 24.7 h = 33 km MB = 5.0 (NEIS) |
| | | | | D = 152 |
| | | | | traces |
| 7. | epP | A | 23 39 08 | Andreanof Islands, Aleutian Is. |
| | | | | 52.35 N 176.32 W |
| | | | | H = 23 26 53.5 h = 125 km MB = 5.3 (NEIS) |
| | | | | D = 77.2 |
| 8. | ePn | A | 03 12 08 | Austria 47.49 N 15.88 E |
| | iPg | A | 12 21 | H = 03 11 01.2 h = 8.5 km |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| cont. | | | | |
| 8. | iSn | A | 03 12 54 | D = 4.22 Az = 320 (NEIS) |
| | iSg | A | 13 11 | |
| 8. | eP | A | 07 12 36.5 | Near West Coast of Colombia |
| | epP | A | 12 43 | 6.93 N 77.78 W |
| | | | | H = 07 00 06.3 h = 33 km MB=5.2 MS=4.6 |
| | | | | D = 84.31 Az = 40 (NEIS) |
| | | | | h = 23 km |
| | | | | PV A 1.6s 33.0nm M = 5.3 |
| 8. | ePP | A | 13 20 15 | Solomon Islands 10.57 S 161.33 E |
| | LmV | B | 14 19.0 | H = 12 58 45.0 h = 31.7 km MB=5.8 MS=5.5 |
| | LmH | B | 19.4 | D = 132.93 Az = 334 (NEIS) |
| | | | | LmH B 20s 1.2/um M = 5.6 |
| | | | | LmV B 20 1.1/um 5.6 |
| 8. | e(PKP) | A | 14 29 12 | West of Macquarie Island |
| | | | | 55.08 S 145.66 E |
| | | | | H = 14 09 01.3 h = 33 km MB = 5.0 |
| | | | | D = 152.30 Az = 280 (NEIS) |
| 8. | ePKIKP | A | 15 24 23.5 | Fiji Islands Region 17.81 S 178.69 W |
| | ePKHKP | A | 24 25 | H = 15 05 46.5 h = 561.9 km MB = 5.1 |
| | | | | D = 146.22 Az = 348 (NEIS) |
| | | | | PKHKPV A 1.5s 40.2nm |
| 8. | ePKHKP | A | 17 34 22 | Tonga Islands Region 23.28 S 174.94 W |
| | ePKP2 | A | 34 32 | H = 17 14 27.6 h = 34.5 km MB = 4.9 |
| | | | | D = 152.21 Az = 351 (NEIS) |
| 8. | ePKHKP | A | 22 39 56.5 | South of Fiji Islands 23.81 S 179.39 W |
| | ePKP2 | A | 40 08 | H = 22 20 51.5 h = 436.2 km MB = 5.2 |
| | | | | D = 151.87 Az = 345 (NEIS) |
| 8. | eP | A | 23 37 44 | Northern Sumatra 3.56 N 98.05 E |
| | epP | A | 38 13 | H = 23 25 18.5 h = 112 km MB = 4.7 |
| | | | | D = 85.0 Az = 320 (NEIS) |
| | | | | h = 121 km |
| | | | | pPV A 1.4s 18.6nm |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 9. | eP | A | 01 46 20 | North Atlantic Ridge 30.96 N 41.49 W |
| | | | | H = 01 38 16.6 h = 33 km MB=4.5 MS=4.1 |
| | | | | D = 43.69 Az = 47 (NEIS) |
| 9. | ePg | A | 15 33 44 | France 44.57 N 6.89 E |
| | eSg | A | 35 07 | H = 15 31 26.6 h = 33 km (NEIS) |
| | | | | D = 6.9 |
| 9. | LmH | B | 19 09.7 | Santa Cruz Islands 12.60 S 165.93 E |
| | LmV | B | 10.4 | H = 17 44 19.2 h = 39 km MB = 5.0 (NEIS) |
| | | | | D = 136.8 |
| | | | | LmH B 20s 0.2/um M = 4.9 |
| | | | | LmV B 20 0.3/um 5.1 |
| 9. | iP | A | 21 50 10.5 | Iran - USSR Border Region |
| | LmH | B | 22 08.5 | 36.77 N 60.00 E |
| | LmV | B | 11.4 | H = 21 43 00.3 h = 20.6 km MB = 4.5 |
| | | | | D = 36.95 Az = 308 (NEIS) |
| | | | | PV A 1.3s 26.2nm M = 4.9 |
| | | | | LmH B 16 0.5/um 4.4 |
| | | | | LmV B 12 0.3/um 4.4 |
| 10. | ePP | A | 07 25 14 | Java 8.17 S 107.64 E |
| | | | | H = 07 07 26.9 h = 51.5 km MB = 5.7 |
| | | | | D = 100.08 Az = 320 (NEIS) |
| | | | | PPV A 1.9s 60.6nm M = 5.7 |
| 10. | eP | A | 09 47 02 | Mindanao, Philippine Islands |
| | | | | 7.08 N 123.57 E |
| | | | | H = 09 33 29.2 h = 54 km MB = 5.3 |
| | | | | D = 98.15 Az = 323 (NEIS) |
| | | | | PV A 1.6s 19.2nm M = 5.4 |
| 10. | eP | AB | 09 47 23 | Kodiak Island Region 56.64 N 152.73 W |
| | eS | B | 56 48 | H = 09 35 58.7 h = 33 km MB=5.0 MS=4.6 |
| | LmV | B | 24.0 | D = 72.30 Az = 10 (NEIS) |
| | LmH | B | 27.6 | PV A 1.6s 71.5nm M = 5.4 |
| | | | | LmH B 16 0.4/um 4.8 |
| | | | | LmV B 20 0.5/um 4.8 |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 10. | ePKIKP | AB | 18 45 48 | Fiji Islands Region 20.73 S 178.45 W |
| | iPKHKP | A | 45 52 | H = 18 27 09.6 h = 585 km MB = 5.4 |
| | ePKP2 | A | 45 59 | D = 149.11 Az = 347 (NEIS) |
| | epPKP | A | 48 07 | PKIKPV A 1.2s 34.6nm |
| | esPKP | B | 49 00 | PKHKPV A 1.2 122.0nm |
| | esPKS | B | 52 20 | PKP2V A 1.1 68.5nm |
| 10. | eP | A | 22 09 54 | Lake Baikal Region 50.92 N 110.76 E |
| | | | | H = 21 59 58.8 h = 2.5 km MB = 5.2 |
| | | | | D = 57.79 Az = 312 (NEIS) |
| | | | | PV A 0.9s 31.2nm M = 5.3 |
| 11. | ePKIKP | AB | 02 02 22 | Tonga Islands 17.56 S 174.37 W |
| | ePKHKP | A | 02 24 | H = 01 42 47.5 h = 56.5 km MB = 6.3 |
| | ePKP2 | A | 02 28 | D = 146.65 Az = 353 (NEIS) |
| | epPKP | AB | 02 54 | h = 123 km |
| | eSS | B | 24 20 | PKIKPV A 1.8s 47.3nm |
| | esSS | B | 25 16 | PKHKPV A 1.8 911.0nm |
| | ePSPS | B | 26 00 | PKP2V A 1.6 813.2nm |
| | eSSS | B | 30 10 | LmH B 19 3.8/um |
| | esSSS | B | 31 00 | LmV B 18 4.5/um |
| | eSSSS | B | 34 10 | |
| | esSSSS | B | 34 55 | |
| | LmH | B | 03 11.9 | |
| | LmV | B | 15.3 | |
| 11. | ePKP | A | 08 12 41.5 | Samoa Region 16.9 S 172.1 W |
| | e | A | 12 48 | H = 07 53 03 h = 69 km MB = 5.0 |
| | | | | D = 146.18 Az = 356 (ISC) |
| | | | | PKPV A 1.4s 41.8nm |
| 12. | ePKP | A | 00 26 50 | Solomon Islands 6.53 S 155.01 E |
| | LmV | B | 01 28.6 | H = 00 07 51.8 h = 58.2 km MB = 5.9 |
| | LmH | B | 28.7 | D = 126.51 Az = 332 (NEIS) |
| | | | | PKPV A 1.2s 28.4nm |
| | | | | LmH B 18 0.4/um |
| | | | | LmV B 19 0.6/um |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 12. | LmH | B | 08 18.0 | Mid - Indian Rise 37.1 S 78.4 E |
| | LmV | B | 18.8 | H = 07 06 33.7 h = 33 km (ISC) |
| | | | | D = 105.3 |
| | | | | traces |
| 12. | ePKHKP | A | 20 25 35 | Tonga Islands Region 22.49 S 175.88 W |
| | | | | H = 20 05 43.2 h = 33 km MB = 4.9 |
| | | | | D = 151.29 Az = 350 (NEIS) |
| 13. | ePKP | A | 00 59 27 | Tonga Islands 16.99 S 173.46 W |
| | | | | H = 00 39 46.0 h = 33 km MB = 4.5 (NEIS) |
| | | | | D = 146.2 |
| 13. | LmH | B | 11 26.0 | Ryukyu Islands Region 26.84 N 130.53 E |
| | LmV | B | 33.1 | H = 10 36 37.3 h = 33 km MB = 5.1 (NEIS) |
| | | | | D = 86.2 |
| | | | | LmH B 16.5s 0.3/um M = 4.8 |
| | | | | LmV B 16 0.3/um 4.8 |
| 13. | eP | A | 13 05 10 | Tibet 30.32 N 94.83 E |
| | | | | H = 12 54 43.2 h = 33 km MB = 4.6 |
| | | | | D = 63.10 Az = 315 (NEIS) |
| 13. | eSg | A | 17 30 41 | Poland 50.26 N 18.92 E |
| | | | | H = 17 28 09.2 M = 2.6 (WAR) |
| | | | | D = 4.7 |
| 13. | eP | A | 19 45 05 | Hokkaido, Japan Region 43.13 N 145.58 E |
| | epP | A | 45 17 | H = 19 33 09.7 h = 62.2 km MB = 4.9 |
| | e | A | 46 03 | D = 78.36 Az = 332 (NEIS) |
| | | | | h = 52 km |
| 14. | eP | A | 04 34 00 | Windward Islands 10.97 N 62.37 W |
| | epP | AB | 34 31 | H = 04 22 49.7 h = 112 km MB = 4.9 |
| | eS | B | 43 08 | D = 71.44 Az = 40 (NEIS) |
| | ePS | B | 43 45 | h = 131 km |
| | eSS | B | 47 52 | LmH B 17s 0.2/um |
| | LmH | B | 05 02.0 | LmV B 17 0.25/um |
| | LmV | B | 02.0 | |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 14. | eP | A | 16 04 23 | Taiwan 23.57 N 121.50 E |
| | LmV | B | 46.0 | H = 15 51 55.5 h = 33 km MB = 4.8 |
| | LmH | B | 46.8 | D = 83.81 Az = 323 (NEIS) |
| | | | | LmH B 20s 0.4/um M = 4.8 |
| | | | | LmV B 20 0.3/um 4.7 |
| 14. | eP | A | 19 15 30.5 | South Atlantic Ridge 22.75 S 12.75 W |
| | | | | H = 19 03 44.2 h = 33 km MB=4.9 MS=5.7 |
| | | | | D = 76.18 Az = 16 (NEIS) |
| | | | | PV A 1.4s 18.6nm M = 4.9 |
| 14. | eP | AB | 19 16 06 | South Atlantic Ridge 22.75 S 12.70 W |
| | eS | B | 25 50 | H = 19 04 20.3 h = 33 km MB = 5.6 MS=5.1 |
| | ePS | B | 26 25 | D = 76.1 |
| | eSS | B | 30 56 | PV A 1.3s 35.0nm M = 5.2 |
| | LmH | B | 48.0 | LmH B 19 0.8/um 5.0 |
| | LmV | B | 49.4 | LmV B 19 0.9/um 5.1 |
| 14. | eP | AB | 21 52 33.5 | Java 7.76 S 107.57 E |
| | ePP | AB | 56 25 | H = 21 38 51.5 h = 33 km MB=5.7 MS=5.7 |
| | e | B | 56 50 | D = 99.72 Az = 320 (NEIS) |
| | eSKS | B | 22 03 07 | PV A 1.7s 24.2nm M = 5.5 |
| | ePS | B | 05 22 | LmH B 20 1.4/um 5.5 |
| | eSS | B | 11 06 | LmV B 20 1.3/um 5.4 |
| | LmH | B | 39.4 | |
| | LmV | B | 44.6 | |
| 14. | eP | AB | 24 01 04 | Eastern Sea of Japan 41.73 N 138.57 E |
| | epP | A | 01 14.5 | H = 23 49 13.4 h = 33 km MB = 4.9 |
| | LmH | B | 32.7 | D = 77.01 Az = 329 (NEIS) |
| | LmV | B | 42.1 | h = 37 km |
| | | | | PV A 1.4s 14.0nm M = 4.8 |
| | | | | LmH B 17 1.7/um 5.4 |
| | | | | LmV B 13 1.8/um 5.6 |
| 15. | ePKIKP | A | 06 00 58 | Tonga Islands Region 23.33 S 175.38 W |
| | ePKHKP | A | 01 04.5 | H = 05 41 12.1 h = 33 km |
| | epPKP | A | 01 11.5 | MB = 5.3 MS = 5.1 (NEIS) |
| | | | | D = 152.2 |
| | | | | PKHKPV A 1.7s 72.7nm |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 15. | eP | A | 20 36 58 | Off Coast of Central America |
| | epP | A | 37 04.5 | 2.85 N 84.29 W |
| | | | | H = 20 23 44.1 h = 23 km MB = 5.2 (NEIS) |
| | | | | D = 91.6 h = 23 km |
| | | | | PV A 1.6s 27.5nm M = 5.4 |
| 15. | iPn | A | 21 13 28 | Southern Italy 38.85 N 16.98 E |
| | ePP | A | 13 38 | H = 21 10 32.5 h = 54.1 km MB = 5.0 (NEIS) |
| | eSn | A | 15 37 | D = 12.3 |
| | LmH | B | 18.0 | PV A 1.3s 100.4nm M = 5.8 |
| | LmV | B | 19.5 | LmH B 10 1.2/um |
| | | | | LmV B 14 0.5/um |
| 16. | eP | A | 05 03 56 | Iran 36.35 N 58.28 E |
| | e | A | 04 11 | H = 04 56 52.7 h = 33 km MB = 4.5 (NEIS) |
| | LmV | B | 25.2 | D = 36.0 |
| | LmH | B | 25.8 | LmH B 12.5s 1.2/um M = 4.9 |
| | | | | LmV B 13.5 0.8/um 4.8 |
| 16. | +ePKP | A | 06 34 50 | New Hebrides Islands Region |
| | epPKP | A | 34 54 | 19.28 S 167.66 E |
| | ePP | B | 37 45 | H = 06 15 16.7 h = 11.6 km |
| | LmV | B | 07 50.1 | MB = 5.5 MS = 4.9 (NEIS) |
| | LmH | B | 51.8 | D = 143.5 h = 14 km |
| | | | | PKPV A 1.8s 74.3nm |
| | | | | LmH B 20 0.3/um M = 4.9 |
| | | | | LmV B 20 0.3/um 5.0 |
| 16. | ePKIKP | A | 07 22 30 | New Hebrides Islands Region |
| | | | | 18.97 S 167.58 E |
| | | | | H = 07 03 01.3 h = 33 km MB = 5.1 (NEIS) |
| | | | | D = 143.1 |
| 16. | eSn | A | 08 59 15 | Federal Republic of Germany |
| | eSg | A | 59 30 | 51.40 N 7.2 E |
| | | | | H = 08 57 53.7 h = 0 km (ISC) |
| | | | | D = 2.85 |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 16. | eP | A | 23 30 44.5 | Eastern Gulf of Aden 14.66 N 52.35 E |
| | | | | H = 23 22 02.5 h = 33 km MB = 4.8 (NEIS) |
| | | | | D = 48.5 |
| 17. | ePn | A | 00 42 43 | Friaul (VIE) |
| | ePg | A | 43 03 | D = 4.1 |
| | eSn | A | 43 32 | |
| | eSg | A | 43 56 | |
| 17. | ePKIKP | A | 03 27 12 | Tonga Islands Region 17.87 S 172.50 W |
| | ePKHKP | A | 27 15 | H = 03 07 29.2 h = 14.7 km |
| | ePKP2 | A | 27 18 | MB = 5.1 MS = 4.9 (NEIS) |
| | LmH | B | 04 41.0 | D = 147.2 |
| | LmV | B | 41.5 | PKIKPV A 1.8s 60.8 nm |
| | | | | PKHKPV A 1.8 81.1nm |
| | | | | PKP2V A 2.0 76.9nm |
| | | | | LmH B 16 0.2/um M = 5.0 |
| | | | | LmV B 20 0.4/um 5.2 |
| 17. | eP | A | 04 34 46.5 | Eastern Kazakh SSR 49.81 N 78.15 E |
| | ePn | A | 36 18 | H = 04 26 57.7 h = 0 km MB = 5.0 (NEIS) |
| | | | | D = 41.2 |
| | | | | PV A 1.0s 35.4nm M = 5.1 |
| 17. | eP | A | 13 20 16 | Bonin Islands Region 28.26 N 139.49 E |
| | | | | H = 13 08 05.1 h = 424.4 km MB = 4.7 |
| | | | | D = 88.95 Az = 330 (NEIS) |
| 17. | eP | A | 16 35 50 | Iran - USSR Border Region |
| | | | | 36.39 N 59.04 E |
| | | | | H = 16 28 41.9 h = 10.9 km MB = 4.7 |
| | | | | D = 36.57 Az = 308 (NEIS) |
| | | | | PV A 1.3s 15.3nm M = 4.7 |
| 17. | eP | A | 17 00 23 | Andreanof Islands, Aleutian Is. |
| | epP | A | 00 39 | 51.87 N 175.34 W |
| | ePP | A | 03 26 | H = 16 48 31.3 h = 56.7 km MB = 5.4 |
| | | | | D = 77.69 Az = 355 (NEIS) |
| | | | | h = 64 km |
| | | | | PV A 1.0s 25.6nm M = 5.2 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 18. | LmH | B | 06 47.2 | Aegean Sea 39.67 N 25.53 E |
| | | | | H = 06 38 36.3 h = 4 km MB = 4.7 (NEIS) |
| | | | | D = 14.6 |
| | | | | LmH B 15s 0.4/um M = 3.6 |
| 18. | eP | A | 07 46 28 | Tibet 30.33 N 94.77 E |
| | | | | H = 07 36 01.7 h = 33 km MB = 4.8 |
| | | | | D = 63.06 Az = 315 (NEIS) |
| 18. | eP1 | AB | 09 31 44 | Crete 35.23 N 23.40 E |
| | eiP2 | A | 31 49 | H = 09 27 40.0 h = 41.5 km |
| | ePP | B | 32 00 | MB = 5.2 MS = 5.3 (NEIS) |
| | eS | B | 35 00 | D = 17.7 |
| | eSS | B | 35 30 | P1V A 1.4s 130.2nm M = 4.9 |
| | eScP | A | 39 52 | P2V A 1.3 240.2nm 5.2 |
| | LmH | B | 39.2 | PV B 7 2.3/um 5.4 |
| | LmV | B | 40.1 | ScPV A 1.3 19.7nm |
| | | | | LmH B 12 11.5/um 5.4 |
| | | | | LmV B 14 8.8/um 5.3 |
| 18. | eP | A | 10 08 53.5 | Crete 35.07 N 23.31 E |
| | | | | H = 10 04 43.4 h = 33 km MB = 4.1 |
| | | | | D = 17.74 Az = 335 (NEIS) |
| | | | | PV A 1.5s 15.1nm M = 3.9 |
| 18. | +iP | AB | 12 11 36 | Kurile Islands 46.63 N 153.71 E |
| | epP | AB | 11 45 | H = 11 59 41.2 h = 33 km |
| | ePP | B | 14 36 | MB = 5.7 MS = 5.0 (NEIS) |
| | eS | B | 21 22 | D = 77.7 h = 35 km |
| | ePS | B | 22 00 | PV A 1.3s 248.9nm M = 6.1 |
| | eP'P' | A | 38 58.5 | PV B 8 1.5/um 5.3 |
| | LmH | B | 48.0 | SH B 10 0.5/um 5.6 |
| | LmV | B | 52.5 | P'P'V A 1.2 16.3nm |
| | | | | LmH B 16 3.4/um 5.8 |
| | | | | LmV B 14 1.9/um 5.6 |
| 18. | eP | A | 13 08 46.5 | Aleutian Islands Region 50.91 N 174.67 E |
| | epP | A | 08 56.5 | H = 12 56 51.9 h = 33 km MB = 5.3 (NEIS) |
| | | | | D = 78.0 h = 37 km |
| | | | | PV A 1.2s 32.5nm M = 5.2 |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 18. | LmH | B | 15 07.5 | LmH B 18s 0.5/um |
| | LmV | B | 09.5 | LmV B 12 0.4/um |
| 19. | ePn | A | 04 19 09 | Central Italy 42.73 N 12.40 E |
| | ePg | A | 19 52 | H = 04 17 13.6 h = 33 km |
| | eSn | A | 20 40 | D = 7.94 Az = 356 (NEIS) |
| | eSg | A | 21 38 | LmH B 12s 0.25/um M = 3.0 |
| | LmH | B | 22.2 | |
| | LmV | B | 24.2 | |
| 19. | ePKP | A | 05 27 14 | South of Sumbawa Islands 11.15 S 118.39 E |
| | e | A | 27 38 | H = 05 08 41.6 h = 33 km |
| | e | A | 27 50 | MB = 6.1 MS = 5.4 (NEIS) |
| | ePP | A | 31 50 | D = 109.3 |
| | eSKS | B | 38 00 | LmH B 20s 1.1/um M = 5.4 |
| | LmH | B | 06 15.0 | LmV B 16 0.4/um 5.1 |
| | LmV | B | 18.7 | |
| 19. | eP | AB | 06 23 20 | South of Sumbawa Islands 11.09 S 118.46 E |
| | epP | AB | 23 32 | H = 06 08 55.2 h = 33 km MB=7.0 MS=7.9 |
| | Pm | B | 24 00 | D = 109.17 Az = 320 (NEIS) |
| | e | B | 26 32 | h = 43 km |
| | e | B | 27 08 | PmV B 20s 31.5/um M = 8.2 |
| | ePP | B | 27 35 | PPV B 16 22.9/um 7.6 |
| | ePPP | B | 30 05 | LmH B 25 1365.0/um 8.4 |
| | eSKS | B | 33 50 | LmV B 19 600.0/um 8.2 |
| | eSKKS | B | 34 40 | |
| | eSKKKS | B | 35 00 | |
| | ePKKP | A | 38 52 | |
| | eSS | B | 42 35 | |
| | LmH | B | 07 13.6 | |
| | LmV | B | 25.6 | |
| 19. | eP | A | 07 56 35 | South of Sumbawa Islands 10.19 S 117.41 E |
| | epP | A | 56 52 | H = 07 38 05.4 h = 33 km MB = 5.5 |
| | | | | D = 107.83 Az = 320 (NEIS) |
| | | | | h = 65 km |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 19. | ePP | AB | 13 42 33.5 | Sumba Island Region 10.80 S 119.17 E |
| | eSKS | B | 48 40 | H = 13 23 37.0 h = 33 km |
| | esSKS | B | 49 00 | MB = 5.8 MS = 5.7 (NEIS) |
| | eSP | B | 52 00 | D = 109.5 |
| | esSP | B | 52 30 | PPV A 1.8s 54.1nm . M = 6.0 |
| | LmH | B | 14 33.5 | LmH B 22 2.1/um 5.7 |
| | LmV | B | 39.3 | LmV B 22 1.8/um 5.6 |
| 19. | +eP | A | 18 07 18 | Southern Nevada 37.11 N 116.06 W |
| | ePP | A | 10 22 | H = 17 55 00.1 h = 0 km MB = 5.6 |
| | | | | D = 81.24 Az = 31 (NEIS) |
| | | | | Nuclear explosion SCANTLING |
| | | | | at the Nevada Test Site (ERDA) |
| | | | | PV A 1.5s 60.3nm M = 5.4 |
| 19. | ePP | A | 19 57 53 | Sumba Island Region 10.80 S 119.14 E |
| | LmH | B | 20 45.0 | H = 19 38 59.7 h = 33 km MB=5.8 MS=5.4 |
| | LmV | B | 54.4 | D = 109.39 Az = 320 (NEIS) |
| | | | | PPV A 1.6s 41.2nm |
| | | | | LmH B 23 1.5/um M = 5.5 |
| | | | | LmV B 16 0.8/um 5.4 |
| 19. | ePP | A | 21 54 00 | Sumba Island Region 10.89 S 119.23 E |
| | LmH | B | 22 40.8 | H = 21 35 03.3 h = 33 km MB=5.8 MS=5.1 |
| | LmV | B | 47.0 | D = 109.51 Az = 320 (NEIS) |
| | | | | LmH B 20s 0.7/um M = 5.2 |
| | | | | LmV B 20 0.7/um 5.2 |
| 20. | +iP | AB | 02 58 37.7 | Caribbean Sea 16.61 N 86.85 W |
| | epP | AB | 58 42.5 | H = 02 46 11.8 h = 14 km MB=5.3 MS=5.7 |
| | eS | B | 03 08 52 | D = 82.58 Az = 39 (NEIS) |
| | ePS | B | 09 34 | h = 18 km |
| | eSS | B | 14 20 | PV A 1.9s 98.5nm M = 5.6 |
| | eSSS | B | 17 30 | LmH B 18 3.9/um 5.8 |
| | LmV | B | 37.3 | LmV B 17 3.3/um 5.8 |
| | LmH | B | 37.4 | |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 20. | eP | AB | 04 04 14.5 | Caribbean Sea 16.70 N 86.61 W |
| | epP | AB | 04 24.5 | H = 03 51 54.7 h = 36 km MB=5.6 MS=5.9 |
| | ePP | B | 07 25 | D = 82.36 Az = 39 (NEIS) |
| | eS | B | 14 28 | h = 36 km |
| | esS | B | 14 48 | PV A 1.5s 37.7nm. M = 5.2 |
| | eSS | B | 19 48 | pPV A 1.8 250.0nm |
| | LmH | B | 49.0 | LmH B 18 3.9/um 5.8 |
| | LmV | B | 51.7 | LmV B 17 4.2/um 5.8 |
| 20. | eP diff | B | 09 36 45 | South of Sumba Island 11.11 S 119.13 E |
| | ePKIKP | A | 40 42 | H = 09 21 50.3 h = 33 km MB=5.7 MS=5.8 |
| | ePP | B | 41 20 | D = 109.61 Az = 320 (NEIS) |
| | eSP | B | 50 20 | LmH B 21s 3.8/um M = 5.9 |
| | LmH | B | 10 27.9 | LmV B 16 2.6/um 5.9 |
| | LmV | B | 34.6 | |
| 20. | LmV | B | 11 46.5 | LmH B 20s 0.3/um |
| | LmH | B | 46.7 | LmV B 16 0.9/um |
| 20. | ePKIKP | A | 12 41 07 | Santa Cruz Islands 12.42 S 167.12 E |
| | | | | H = 12 22 11.1 h = 242 km MB = 5.1 |
| | | | | D = 136.95 Az = 337 (NEIS) |
| | | | | PKIKPV A 1.3s 17.5nm |
| 20. | eP diff | B | 19 31 35 | South of Sumba Island 11.04 S 119.14 E |
| | ePKIKP | A | 35 30 | H = 19 16 32.7 h = 33 km |
| | ePP | B | 35 55 | MB = 6.0 MS = 6.1 (NEIS) |
| | e | B | 36 10 | D = 109.6 |
| | e | B | 37 58 | PdiffV B 16s 0.5/um |
| | e | B | 41 35 | PKIKPV A 2.0 76.9nm M = 6.6 |
| | eSP | B | 44 58 | PPV B 15 1.7/um 6.5 |
| | eSS | B | 50 40 | LmH B 22 11.5/um 6.4 |
| | LmH | B | 20 22.4 | LmV B 20 8.2/um 6.3 |
| | LmV | B | 26.8 | |
| 20. | eP | A | 22 08 19.5 | Central Siberia 64.22 N 99.58 E |
| | | | | H = 21 59 58.7 h = 0 km MB=5.0 MS=5.5 |
| | | | | D = 45.30 Az = 296 (NEIS) |
| | | | | PV A 0.9s 23.3nm M = 5.1 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 21. | eP | A | 03 07 49 | Tibet 30.34 N 94.81 E |
| | e | A | 07 53 | H = 02 57 22.5 h = 33 km MB=4.9 (NEIS) |
| | | | | D = 63.1 |
| 21. | eP | A | 05 31 59.5 | Near East Coast of Honshu, Japan |
| | ePP | A | 35 09 | 35.24 N 141.12 E |
| | LmH | B | 06 11.2 | H = 05 19 34.2 h = 41.8 km |
| | LmV | B | 15.1 | MB = 5.5 MS = 5.2 (NEIS) |
| | | | | D = 83.6 |
| | | | | PV A 1.4s 46.5nm M = 5.5 |
| | | | | PPV A 1.4 41.9nm 5.7 |
| | | | | LmH B 15 1.7/um 5.6 |
| | | | | LmV B 15 1.8/um 5.6 |
| 21. | eSg | A | 11 09 18 | Austria 46.23 N 13.02 E |
| | | | | H = 11 06 53.8 h = 0 km (ISC) |
| | | | | D = 4.55 |
| 21. | eP | A | 11 46 27 | Near Coast of Guatemala |
| | | | | 13.79 N 90.06 W |
| | | | | H = 11 33 50.8 h = 83.6 km MB = 4.8 (NEIS) |
| | | | | D = 86.8 |
| | | | | PV A 1.4s 9.3nm M = 4.9 |
| 21. | ePKHKP | AB | 13 56 48 | South Pacific Cordillera |
| | ePKP2 | B | 57 10 | 55.02 S 136.01 W |
| | ePP | B | 14 00 48 | H = 13 36 32.6 h = 33 km MB = 4.8 |
| | eSS | B | 21 00 | D = 160.6 Az = 89 (NEIS) |
| | LmH | B | 15 13.0 | LmH B 18s 5.5/um M = 5.3 |
| | LmV | B | 18.7 | LmV B 18 0.8/um 5.6 |
| 21. | -iPKP2 | A | 19 55 31 | Kermadec Islands 29.97 S 177.91 W |
| | epP | A | 55 45 | H = 19 35 05.6 h = 59 km MB = 5.7 (NEIS) |
| | ePP | B | 59 40 | D = 158 h = 50 km |
| | LmH | B | 21 35.7 | PKP2V A 1.3s 39.3nm |
| | LmV | B | 44.2 | LmH B 22 0.7/um |
| | | | | LmV B 16 0.4/um |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 22. | eP | A | 18 06 49.5 | Afghanistan - USSR Border Region |
| | ePP | A | 08 32 | 36.69 N 71.41 E |
| | | | | H = 17 58 47.3 h = 100 km MB = 4.9 |
| | | | | D = 44.26 Az = 308 (NEIS) |
| 23. | ePKHKP | AZ | 08 27 08.5 | South of Fiji Islands 25.60 S 176.20 W |
| | ePKP2 | A | 27 21.5 | H = 08 07 12.9 h = 49.4 km MB=5.4 MS=4.9 |
| | LmH | B | 09 42.5 | D = 154.28 Az = 348 (NEIS) |
| | | | | LmH B 20s 0.2/um M = 4.9 |
| 23. | ePP | A | 10 43 26 | South of Sumbawa Island 11.39 S 117.66 E |
| | | | | H = 10 24 12.1 h = 33 km MB=5.7 MS=4.9 (NEIS) |
| | | | | D = 108.9 |
| 23. | LmH | B | 13 24.3 | Off East Coast of Honshu, Japan |
| | | | | 40.23 N 143.34 E |
| | | | | H = 12 36 55.2 h = 17 km MB = 5.0 (NEIS) |
| | | | | D = 80.0 |
| | | | | LmH B 16s 0.5/um M = 5.0 |
| 24. | eP | AB | 03 57 24 | Ryukyu Islands 27.02 N 130.02 E |
| | eS | B | 08 00 | H = 03 44 47.8 h = 33 km MB = 5.2 |
| | LmH | B | 03 34.0 | D = 85.51 Az = 326 (NEIS) |
| | LmV | B | 41.6 | LmH B 17.5s 2.1/um M = 5.6 |
| | | | | LmV B 14 0.5/um 5.1 |
| 24. | iP | A | 10 23 55 | Lake Baikal Region 54.15 N 110.34 E |
| | LmH | B | 49.8 | H = 10 14 20.8 h = 31.7 km MB=4.8 MS=4.0 |
| | LmV | B | 51.3 | D = 55.48 Az = 310 (NEIS) |
| | | | | PV A 1.4s 37.2nm M = 5.3 |
| | | | | LmH B 18 0.4/um 4.5 |
| | | | | LmV B 10 0.3/um 4.7 |
| 24. | ePn | A | 12 01 20 | Austria 46.28 N 13.20 E |
| | ePg | A | 01 39 | H = 12 00 10.2 h = 10 km |
| | eSn | A | 02 09 | D = 4.50 Az = 347 (NEIS) |
| | eSg | A | 02 30 | |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 24. | ePKHKP | A | 13 51 32 | Tonga Islands 17.95 S 175.10 W |
| | | | | H = 13 32 08.9 h = 170.1 km MB=4.8 (NEIS) |
| | | | | D = 147.0 |
| | | | | PKHKPV A 1.3s 15.3nm |
| 25. | ePKP | A | 01 41 51 | New Hebrides Islands 19.04 S 169.38 E |
| | | | | H = 01 22 48.2 h = 254.1 km MB = 4.8 |
| | | | | D = 143.85 Az = 336 (NEIS) |
| | | | | PKPV A 1.2s 8.1nm |
| 25. | eP | A | 03 08 12 | Eastern Mediterranean Sea |
| | | | | 35.00 N 28.28 E |
| | | | | H = 03 03 09.3 h = 10 km MB = 4.2 |
| | | | | D = 19.77 Az = 327 (NEIS) |
| 25. | ePKIKP | A | 07 55 07 | Fiji Islands Region 14.95 S 177.34 W |
| | | | | H = 07 35 33.7 h = 33 km MB=5.1 MS=5.2 |
| | | | | D = 143.67 Az = 350 (NEIS) |
| | | | | traces |
| 25. | ePKP | A | 16 40 12 | Fiji Region 18.01 S 178.26 W |
| | | | | H = 16 21 33.0 h = 580 km MB = 4.3 |
| | | | | D = 146.50 Az = 349 (ISC) |
| 25. | ePn | A | 18 05 43 | Central Italy 42.67 N 12.69 E |
| | eSn | A | 07 12 | H = 18 03 44.7 h = 10 km |
| | eSg | A | 08 12 | D = 8.01 Az = 355 (NEIS) |
| 25. | eP diff | A | 18 19 36.5 | Sumba Island Region 10.74 S 119.27 E |
| | ePKIKP | A | 23 42 | H = 18 05 10.8 h = 33 km MB=6.1 MS=6.0 |
| | ePP | A | 24 04 | D = 109.42 Az = 320 (NEIS) |
| | ePPP | B | 26 25 | PKIKPV A 1.6s 33.0nm M = 6.3 |
| | ePS | B | 33 58 | LmH B 18.5 3.7/um 6.0 |
| | ePKKP | A | 34 57 | LmV B 16 4.1/um 6.1 |
| | eSS | B | 39 48 | |
| | LmH | B | 19 10.9 | |
| | LmV | B | 20.6 | |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 25. | ePn | A | 19 35 24 | Central Italy 42.69 N 12.73 E |
| | eSn | A | 36 54 | H = 19 33 28.3 h = 10 km |
| | eSg | A | 37 50 | D = 8.00 Az = 355 (NEIS) |
| | | | | PV A 0.9s 25.3nm M = 5.4 |
| 25. | ePn | A | 20 45 05 | Central Italy 42.68 N 12.63 E |
| | eSn | A | 46 30 | H = 20 43 07.6 h = 10 km |
| | eSg | A | 47 29 | D = 8.00 Az = 355 (NEIS) |
| 25. | eP | A | 23 00 43.5 | Tibet 30.30 N 94.86 E |
| | | | | H = 22 50 16.7 h = 33 km MB = 4.9 |
| | | | | D = 63.13 Az = 315 (NEIS) |
| 26. | eP | A | 04 59 11 | Afghanistan - USSR Border Region |
| | epP | A | 59 52 | 36.61 N 71.33 E |
| | | | | H = 04 51 18.2 h = 185.6 km MB = 4.7 |
| | | | | D = 44.25 Az = 308 (NEIS) |
| | | | | h = 200 km |
| 26. | epP | A | 07 27 51 | Rat Islands, Aleutian Is. |
| | | | | 51.49 N 175.73 E |
| | | | | H = 07 15 48.2 h = 34 km |
| | | | | MB = 4.9 MS = 4.1 (NEIS) |
| | | | | D = 77.5 h = 33 km |
| 26. | ePP | AB | 08 45 36 | Sumba Island Region 10.67 S 119.30 E |
| | ePPP | B | 48 00 | H = 08 26 37.5 h = 33 km MB=5.6 MS=5.7 |
| | eSKS | B | 51 36 | D = 109.39 Az = 320 (NEIS) |
| | eSKKS | B | 52 32 | PPV A 1.6s 44.0nm M = 5.9 |
| | eSP | B | 55 25 | LmH B 19 2.4/um 5.8 |
| | eSPP | B | 56 06 | LmV B 15 1.1/um 5.6 |
| | eSS | B | 09 01 00 | |
| | LmH | B | 32.4 | |
| | LmV | B | 39.0 | |
| 26. | ePKP | A | 14 25 37 | New Hebrides Islands 20.46 S 169.79 E |
| | epPKP | A | 26 16 | H = 14 06 17.8 h = 163.9 km MB = 5.0 |
| | | | | D = 145.30 Az = 335 (NEIS) |
| | | | | h = 158 km |
| | | | | PKPV A 1.6s 38.5nm |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 26. | eP diff | B | 20 04 45 | Southwestern Atlantic Ocean |
| | ePKIKP | AB | 08 33 | 59.43 S 20.51 W |
| | ePP | B | 09 16 | H = 19 50 01.4 h = 33 km |
| | e | B | 11 00 | MB = 6.3 MS = 7.1 (NEIS) |
| | eS diff | B | 17 20 | D = 112.6 |
| | ePS | B | 19 00 | LmH B 18s 30.9/um M = 6.9 |
| | ePKKP | A | 19 30 | LmV B 17.5 34.1/um 6.8 |
| | ePPS | B | 20 10 | |
| | iSS | B | 25 00 | |
| | LmV | B | 53.7 | |
| | LmH | B | 54.2 | |
| 26. | eP | A | 23 08 29.5 | Northern Sulawesi 0.15 N 123.07 E |
| | ePP | A | 12 50 | H = 22 54 44.1 h = 140.4 km MB = 5.6 |
| | | | | D = 103.34 Az = 322 (NEIS) |
| 27. | eP diff | A | 07 27 01 | Timor 8.06 S 125.30 E |
| | e | A | 30 24 | H = 07 12 22.5 h = 25 km MB=6.4 MS=6.8 (NEIS) |
| | ePKIKP | A | 30 52 | D = 111.2 |
| | ePP | AB | 31 35 | PPV B 8s 8.0/um M = 7.5 |
| | eS diff | B | 39 15 | PKKPV A 1.5 30.2nm |
| | eSP | B | 41 05 | LmH B 20 21.7/um 6.7 |
| | ePKKP | A | 41 58 | LmV B 18 18.3/um 6.7 |
| | ePS | B | 42 04 | |
| | ePPS | B | 42 08 | |
| | eSS | B | 47 45 | |
| | eSSS | B | 51 50 | |
| | LmH | B | 08 26.7 | |
| | LmV | B | 30.9 | |
| 27. | ePP | A | 11 01 48 | Timor 8.29 S 125.10 E |
| | LmH | B | 12 03.0 | H = 10 42 32.2 h = 33 km MB=5.5 MS=5.2 |
| | LmV | B | 03.8 | D = 111.2 |
| | | | | LmH B 20s 0.6/um M = 5.2 |
| | | | | LmV B 20 0.4/um 5.0 |
| 27. | LmH | B | 15 16.5 | West Irian 4.32 S 139.49 E |
| | | | | H = 14 03 43.0 h = 46 km MB = 5.4 (NEIS) |
| | | | | D = 116.6 |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| cont. 27. | LmV | B | 15 16.5 | LmH B 20s 0.4/um M = 5.0 |
| | | | | LmV B 20 0.5/um 5.2 |
| 28. | eP | AB | 09 48 17 | Western Mediterranean Sea |
| | ePP | AB | 48 27 | 38.21 N 8.21 E |
| | eS | B | 50 36 | H = 09 45 14.5 h = 10 km MB=5.1 MS=5.0 |
| | LmH | B | 54.1 | D = 12.67 Az = 10 (NEIS) |
| | LmV | B | 54.1 | PV A 1.3s 41.5nm M = 5.2 |
| | | | | PPV B 9 0.7/um |
| | | | | LmH B 12.5 19.2/um 5.3 |
| | | | | LmV B 12 13.5/um |
| 28. | ePKIKP | AB | 14 31 22.5 | Kermadec Islands 29.06 S 177.15 W |
| | ePKHKP | AB | 31 35 | H = 14 11 30.3 h = 44 km MB=5.5 MS=5.5 |
| | ePKP2 | B | 31 52 | D = 157.45 Az = 345 (NEIS) |
| | ePP | B | 35 35 | LmH B 18s 0.9/um M = 5.5 |
| | eSKSP | B | 45 48 | LmV B 18 0.4/um 5.3 |
| | ePPS | B | 49 00 | |
| | eSS | B | 55 10 | |
| | LmH | B | 15 49.0 | |
| | LmV | B | 54.9 | |
| 28. | ePP | A | 20 30 08 | Admiralty Islands Region 1.08 S 146.23 E |
| | LmH | B | 21 11.5 | H = 20 10 05.0 h = 33 km |
| | LmV | B | 19.7 | MB = 5.2 MS = 5.5 (NEIS) |
| | | | | D = 117.6 |
| | | | | LmH B 20s 2.2/um M = 5.8 |
| | | | | LmV B 20 0.4/um 5.0 |
| 28. | eP | A | 23 58 02 | Southern Iran 27.98 N 54.92 E |
| | | | | H = 23 50 32.3 h = 45.2 km MB = 4.7 |
| | | | | D = 39.68 Az = 317 (NEIS) |
| 29. | +iP | A | 14 36 30 | Philippine Islands Region |
| | ePP | AB | 39 58 | 17.44 N 119.87 E |
| | eSKS | B | 46 52 | H = 14 23 40.5 h = 12.5 km MB=6.0 MS=6.2 |
| | ePS | B | 48 05 | D = 87.74 Az = 323 (NEIS) |
| | eSS | B | 53 10 | PV A 2.2s 425.3nm M = 6.4 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| cont. 29. | LmV | B | 15 21.5 | LmH B 16s 17.1/um M = 6.6 |
| | LmH | B | 22.9 | LmV B 16 21.9/um 6.7 |
| 29. | +iP | AB | 21 11 57 | Andreanof Islands, Aleutian Is. |
| | epP | A | 12 10 | 51.56 N 173.97 W |
| | LmV | B | 54.6 | H = 20 59 59.2 h = 24.5 km MB=5.4 MS=5.1 |
| | LmH | B | 55.0 | D = 78.06 Az = 356 (NEIS) |
| | | | | h = 50 km |
| | | | | PV A 1.2s 101.6nm M = 5.7 |
| | | | | pPV A 1.4 83.7nm |
| | | | | LmH B 17 1.4/um 5.4 |
| | | | | LmV B 18 0.8/um 5.1 |
| 29. | eP | A | 22 15 34 | Andreanof Islands, Aleutian Is. |
| | epP | A | 15 44 | 51.67 N 174.02 W |
| | | | | H = 22 03 37.8 h = 37.5 km MB = 4.6 |
| | | | | D = 77.95 Az = 356 (NEIS) |
| | | | | h = 37 km |
| 29. | eP | A | 22 20 51 | Andreanof Islands, Aleutian Is. |
| | epP | A | 21 03 | 51.67 N 173.94 W |
| | | | | H = 22 08 53.6 h = 29.5 km MB = 4.8 |
| | | | | D = 77.96 Az = 356 (NEIS) |
| | | | | h = 48 km |
| 30. | eP | A | 07 01 12 | Central Alaska 63.16 N 151.11 W |
| | epP | A | 01 43 | H = 06 50 39.9 h = 130 km MB = 5.0 |
| | | | | D = 65.72 Az = 12 (NEIS) |
| | | | | h = 132 km |
| | | | | PV A 1.0s 13.8nm M = 5.0 |
| | | | | pPV A 1.2 20.3nm |
| 30. | iPg | A | 10 56 31.5 | German Demokratic Republic |
| | iSg | A | 56 46.8 | 51°22.3' N 12°53.5' E |
| | | | | Explosion yield 7 t (CLL) |
| | | | | D = 1.03 |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 30. | eP | A | 14 48 45 | Southern Greece 36.64 N 21.60 E |
| | LmH | B | 54.6 | H = 14 45 03.6 h = 36 km MB = 4.6 (NEIS) |
| | LmV | B | 55.9 | D = 15.8 |
| | | | | PV A 1.0s 19.7nm M = 4.4 |
| | | | | LmH B 15 1.8/um 4.4 |
| | | | | LmV B 15 0.9/um 4.3 |
| 30. | +iP | A | 15 24 25 | Andreanof Islands, Aleutian Is. |
| | LmH | B | 16 07.8 | 51.38 N 173.79 W |
| | LmV | B | 10.3 | H = 15 12 27.6 h = 33.2 km MB=5.4 MS=5.0 |
| | | | | D = 78.25 Az = 356 (NEIS) |
| | | | | PV A 1.3s 109.2nm M = 5.7 |
| | | | | LmH B 17.5 1.6/um 5.4 |
| | | | | LmV B 16 0.6/um 5.1 |
| 30. | ePKP2 | A | 20 01 49 | Tonga Region 23.24 S 174.69 W |
| | | | | H = 19 41 44.2 h = 33 km MB = 5.0 |
| | | | | D = 152.21 Az = 351 (ISC) |
| 30. | eP | A | 20 56 27 | Kodiak Island Region 56.63 N 152.53 W |
| | | | | H = 20 45 01.7 h = 20 km MB = 4.9 (NEIS) |
| | | | | D = 72.4 |
| 31. | iP | A | 00 54 29 | Northern Colombia 7.34 N 76.30 W |
| | ePP | B | 57 30 | H = 00 42 05.4 h = 33 km MB=5.7 MS=6.4 |
| | eSKS | B | 01 04 40 | D = 83.06 Az = 40 (NEIS) |
| | ePS | B | 05 25 | PV A 1.1s 48.4nm M = 5.5 |
| | eSS | B | 10 05 | LmH B 19 9.8/um 6.2 |
| | LmV | B | 30.0 | LmV B 20 16.3/um 6.4 |
| | LmH | B | 32.0 | |
| 31. | ePKP2 | A | 05 50 18 | Kermadec Islands Region |
| | LmV | B | 07 01.5 | 29.39 S 176.88 W |
| | | | | H = 05 29 59.4 h = 117.3 km. MB = 4.6 (NEIS) |
| | | | | D = 157.8 |
| | | | | LmV B 20s 0.35/um |
| 31. | eP | A | 08 25 39.5 | Southern Greece 37.74 N 21.24 E |
| | LmH | B | 32.2 | H = 08 22 15.3 h = 72.9 km MB = 4.7 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| cont. 31. | LmV | B | 08 32.2 | D = 14.61 Az = 335 (NEIS) |
| | | | | LmH B 14s 1.3/um |
| | | | | LmV B 16 1.6/um |
| 31. | eP | A | 09 10 23 | Andreanof Islands, Aleutian Is. |
| | epP | A | 10 36 | 51.50 N 173.85 W |
| | | | | H = 08 58 27.1 h = 43 km MB = 4.8 |
| | | | | D = 78.13 Az = 356 (NEIS) |
| | | | | h = 48 km |
| | | | | PV A 1.4s 23.3nm M = 5.0 |
| 31. | e | A | 17 47(09) | Poland 50.32 N 19.34 E |
| | | | | H = 17 44 50.8 h = 33 km (NEIS) |
| | | | | D = 4.9 |
| | | | | no time marks |
| 31. | e(PKP2) | A | 23 24 01 | Kermadec Islands Region 29.07 S 176.80 W |
| | LmV | B | 24(57.0) | H = 23 03 39.5 h = 68.6 km MB=5.1 (NEIS) |
| | LmH | B | (59.0) | D = 157.8 |
| | | | | LmH B 16s 0.4/um |
| | | | | LmV B 16 0.3/um |
| | | | | LmH, LmV no time marks |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 1. | eSg | A | 01 30 23 | Yugoslavia 46.31 N 14.4 E |
| | | | | H = 01 27 50.3 h = 0 km (ISC) |
| | | | | D = 4.75 |
| 1. | +iP | AB | 03 06 02.0 | Novaya Zemlya 73.38 N 54.58 E |
| | LmH | B | 17.6 | H = 02 59 57.5 h = 0 km MB = 5.7 |
| | LmV | B | 21.4 | D = 29.24 Az = 243 (NEIS) |
| | | | | PV A 1.0s 70.9nm M = 5.5 |
| | | | | LmH B 14 1.0/um 4.6 |
| | | | | LmV B 7 0.5/um 4.7 |
| 1. | epP | A | 17 49 37.5 | Northern Colombia 7.44 N 76.26 W |
| | LmV | B | 18 25.0 | H = 17 37 06.8 h = 28.3 km MB=5.3 MS=4.9 |
| | | | | D = 82.95 Az = 40 (NEIS) |
| | | | | pPV A 1.4s 13.9nm |
| | | | | LmV B 21 0.35/um M = 4.7 |
| 1. | ePKP2 | A | 21 06 43 | South of Kermadec Islands |
| | epPKP2 | A | 06 53 | 32.53 S 179.62 W |
| | | | | H = 20 46 06.8 h = 38 km |
| | | | | MB = 5.1 MS = 4.9 (NEIS) |
| | | | | D = 160.0 h = 36 km |
| 2. | ePKIKP | A | 00 20 52 | South of Fiji Islands 22.90 S 179.10 E |
| | ePKHKP | A | 20 58 | H = 00 02 11.1 h = 589.6 km MB = 4.9 |
| | ePKP2 | A | 21 10 | D = 150.64 Az = 344 (NEIS) |
| | | | | PKHKPV A 1.2s 34.6nm |
| 2. | -eiP | AB | 05 54 07 | Ryukyu Islands 26.41 N 126.41 E |
| | ePP | A | 57 22 | H = 05 41 45.6 h = 97 km MB = 5.6 |
| | epPP | A | 57 48 | D = 84.16 Az = 324 (NEIS) |
| | | | | h = 108 km |
| | | | | PV B 8s 0.7/um M = 6.2 |
| 2. | LmH | B | 10 02.8 | Ryukyu Islands 27.01 N 130.17 E |
| | | | | H = 09 13 38 h = 3 km MB = 4.9 (ISC) |
| | | | | D = 85.6 |
| | | | | LmH B 18s 1.7/um M = 5.5 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 2. | ePKP | A | 10 54 45 | South of Sumba Island 11.04 S 119.15 E |
| | e | A | 55 13 | H = 10 36 28.3 h = 33 km MB=6.0 MS=5.9 |
| | e | B | 55 16 | D = 109.57 Az = 320 (NEIS) |
| | ePP | AB | 55 20 | LmH B 20s 4.1/um M = 6.0 |
| | ePPP | B | 57 44 | LmV B 17 3.0/um 5.9 |
| | eSKKS | B | 11 02 20 | |
| | ePS | B | 04 44 | |
| | eSS | B | 10 45 | |
| | LmH | B | 42.4 | |
| | LmV | B | 48.8 | |
| 2. | eP | A | 17 28 06 | Near East Coast of Kamchatka |
| | | | | 52.49 N 158.89 E |
| | | | | H = 17 16 35.1 h = 33 km MB = 4.9 (NEIS) |
| | | | | D = 73.58 Az = 339 |
| 2. | ePn | A | 22 47 59 | Federal Republic of Germany |
| | ePb | A | 48 07 | 48.00 N 9.28 E |
| | ePg | A | 48 10 | H = 22 47 14.5 h = 33 km |
| | e | A | 48 16 | D = 3.05 Az = 29 (NEIS) |
| | eSn | A | 48 32 | |
| | eiSg | A | 48 49 | |
| 3. | ePKP | A | 12 15 53 | Tonga Islands 15.29 S 173.24 W |
| | epPKP | A | 16 07 | H = 11 56 18.4 h = 17.9 km MB=5.4 MS=5.1 |
| | LmV | B | 13 22.0 | D = 144.52 Az = 355 (NEIS) |
| | | | | h = 50 km |
| | | | | LmV traces |
| 3. | e(P) | A | 15 45 06 | Dominican Republic Region |
| | | | | 18.35 N 71.15 W |
| | | | | H = 15 33 43.4 h = 50.5 km MB = 4.5 |
| | | | | D = 71.49 Az = 42 (NEIS) |
| | | | | traces |
| 3. | epP | A | 22 46 02 | Near Coast of Nicaragua 12.54 N 87.53 W |
| | LmH | B | 23 29.5 | H = 22 33 07 h = 78.7 km MB = 5.3 |
| | LmV | B | 29.5 | D = 86.13 Az = 39 (NEIS) |
| | | | | LmH B 17s 0.4/um |
| | | | | LmV B 16 0.5/um |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 4. | eP | A | 08 22 21 | Tunisia 34.13 N 8.94 E |
| | e | A | 22 24 | H = 08 18 26.1 h = 33 km MB = 4.5 |
| | e | A | 22 32 | D = 16.62 Az = 6 (NEIS) |
| 4. | ePKHKP | A | 09 07 56 | New Hebrides Islands 13.68 S 166.71 E |
| | ePKIKP | AB | 08 01 | H = 08 48 39.2 h = 33 km MB=6.0 MS=6.5 |
| | ePP | B | 10 44 | D = 137.94 Az = 336 (NEIS) |
| | ePKS | B | 11 35 | PKIKPV A 1.8s 121.6nm |
| | ePKKP | A | 20 21 | PPV B 7.5 4.2/um M = 6.8 |
| | eSKSP | B | 20 48 | LmH B 20 9.0/um 6.5 |
| | ePPS | B | 23 00 | LmV B 18.5 4.9/um 6.3 |
| | eSS | B | 28 55 | |
| | LmH | B | 10 10.2 | |
| | LmV | B | 16.5 | |
| 4. | iP | AB | 15 52 53 | Rat Islands, Aleutian Is. |
| | Pm | A | 52 57 | 51.21 N 178.39 E |
| | ePP | B | 55 45 | H = 15 40 57.3 h = 33.6 km MB=5.6 MS=6.4 |
| | ePPP | B | 57 35 | D = 77.90 Az = 351 (NEIS) |
| | eS | B | 16 02 40 | PmV A 1.6s 142.8nm M = 5.8 |
| | ePS | B | 03 25 | PV B 11.2 6.7/um 6.9 |
| | LmH | C | 35.8 | PPV B 10 2.2/um 6.2 |
| | LmV | C | 38.1 | LmH C 17 23.2/um 6.6 |
| | | | | LmV C 16 18.6/um 6.5 |
| 4. | eP | A | 16 05 37 | Rat Islands, Aleutian Is. |
| | | | | 51.02 N 178.56 E |
| | | | | H = 15 53 40.8 h = 33 km MB = 5.0 |
| | | | | D = 78.10 Az = 352 (NEIS) |
| 4. | eP | A | 16 52 24 | South of Honshu, Japan 33.31 N 140.66 E |
| | epP | A | 52 34 | H = 16 39 48.5 h = 16.9 km MB = 5.6 |
| | | | | D = 85.09 Az = 330 (NEIS) |
| | | | | h = 38 km |
| | | | | PV A 1.5s 65.3nm M = 5.6 |
| 4. | eP | A | 16 56 21 | Rat Islands, Aleutian Is. |
| | | | | 50.85 N 178.43 E |
| | | | | H = 16 44 25.2 h = 33 km MB = 5.3 (NEIS) |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| cont. 4. | | | | D = 78.3 |
| | | | | PV A 2.5s 92.2nm M = 5.4 |
| 4. | +eP | ABC | 17 22 27 | Rat Islands, Aleutian Is. |
| | e | A | 22 46 | 51.10 N 178.27 E |
| | eS | C | 32 17 | H = 17 10 30.6 h = 31 km MB=5.5 MS=6.4 |
| | ePS | C | 33 00 | D = 78.00 Az = 351 (NEIS) |
| | | | | PV A 2.0s 128.2nm M = 5.6 |
| | | | | surface waves superposed by the following earthquakes |
| 4. | eP | A | 17 28 11 | Rat Islands, Aleutian Is. |
| | | | | 51.26 N 178.40 E |
| | | | | H = 17 16 15.5 h = 33 km MB = 5.5 |
| | | | | D = 77.85 Az = 351 (NEIS) |
| 4. | eP | ABC | 17 36 42 | Rat Islands, Aleutian Is. |
| | Pm | A | 36 47 | 51.14 N 177.95 E |
| | ePPP | C | 41 32 | H = 17 24 42.8 h = 7.7 km MB=5.8 MS=6.6 |
| | eS | C | 46 44 | D = 77.92 Az = 351 (NEIS) |
| | ePS | C | 47 15 | PmV A 2.1s 651.7nm M = 6.4 |
| | eSS | C | 51 48 | LmH C 17.5 55.2/um 6.9 |
| | LmH | C | 18 17.4 | LmV C 17 43.8/um 6.9 |
| | LmV | C | 18.3 | |
| 4. | eP | A | 17 50 19 | Rat Islands, Aleutian Is. |
| | | | | 51.22 N 177.78 E |
| | | | | H = 17 38 24.8 h = 45.5 km MB = 5.3 |
| | | | | D = 77.83 Az = 351 (NEIS) |
| | | | | PV A 1.4s 37.2nm M = 5.2 |
| 4. | eP | A | 18 12 08 | Rat Islands, Aleutian Is. |
| | epP | A | 12 19 | 51.12 N 178.25 E |
| | | | | H = 18 00 11.9 h = 49.5 km MB = 4.9 |
| | | | | D = 77.97 Az = 351 (NEIS) |
| | | | | h = 41 km |
| 4. | eP | A | 18 37 44.5 | Rat Islands, Aleutian Is. |
| | | | | 51.20 N 177.79 E |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| cont. 4. | epP | A | 18 37 56 | H = 18 25 49.8 h = 40.7 km MB = 5.3<br>D = 77.85 Az = 351 (NEIS)<br>h = 44 km<br>PV A 1.2s 40.7nm M = 5.3 |
| 4. | eP | A | 18 50 19.5 | Rat Islands, Aleutian Is.<br>51.16 N 178.25 E<br>H = 18 38 23.6 h = 35 km MB = 5.0<br>D = 77.94 Az = 351 (NEIS)<br>PV A 1.4s 18.6nm M = 4.9 |
| 4. | eP | A | 19 34 57 | Rat Islands, Aleutian Is.<br>51.16 N 177.65 E<br>H = 19 23 00.5 h = 35 km<br>MB = 5.0 MS = 4.7 (NEIS)<br>D = 78.0<br>PV A 0.8s 15.4nm M = 5.1 |
| 4. | eP | A | 23 32 40 | Rat Islands, Aleutian Is.<br>51.18 N 178.25 E<br>H = 23 20 44.9 h = 41 km MB=5.5 MS=5.3<br>D = 77.92 Az = 351 (NEIS)<br>PV A 2.3s 182.8nm M = 5.7 |
| | LmH | B | 24 10.3 | LmH B 18 1.6/um 5.4 |
| 5. | +iP | A | 03 10 49 | Eastern Kazakh SSR 50.09 N 78.96 E<br>H = 03 02 57.8 h = 0 km MB = 5.9<br>D = 41.60 Az = 298 (NEIS)<br>Underground explosion (UPP)<br>PV A 1.2s 170.7nm M = 5.7 |
| | ePn | A | 12 19 | |
| 5. | ePP | A | 11 35 57 | South of Sumbawa Islands<br>11.13 S 118.26 E<br>H = 11 16 59.7 h = 33 km MB=5.7 MS=4.9<br>D = 109.07 Az = 320 (NEIS) |
| | epPP | A | 36 11 | |
| 5. | eP | A | 15 26 08.5 | Southern Sumatra 3.92 S 103.71 E<br>H = 15 13 05.6 h = 161.6 km MB=5.2 (NEIS)<br>D = 94.3 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 6. | ePP | A | 04 55 02 | Solomon Islands 10.35 S 161.05 E<br>H = 04 33 27.9 h = 61 km MB = 5.5 (NEIS)<br>D = 132.7<br>LmH B 24s 1.1/um |
| | epPP | A | 55 17 | |
| | LmH | B | 05 53.0 | |
| 6. | ePKIKP | A | 09 11 20 | Papua New Guinea 6.07 S 143.09 E<br>H = 08 52 29.9 h = 33 km<br>MB = 5.4 MS = 5.6 (NEIS)<br>D = 120.02 |
| | ePP | A | 12 45 | |
| 6. | ePKHKP | A | 17 56 04 | South of Fiji Islands 22.23 S 179.66 W<br>H = 17 37 18.2 h = 583.0 km MB = 4.8<br>D = 150.29 Az = 345 (NEIS)<br>PKHKPV A 1.0s 23.6nm |
| | ePKP2 | A | 56 13 | |
| 6. | ePKHKP | A | 23 20 09 | Fiji Islands Region 21.76 S 179.07 W<br>H = 23 01 24.3 h = 593.2 km MB = 5.1<br>D = 149.98 Az = 346 (NEIS)<br>PKHKPV A 1.4s 46.5nm<br>PKP2V A 1.6 33.0nm |
| | ePKP2 | A | 20 17 | |
| 7. | LmH | B | 02 32.3 | South of Sumba Island 11.10 S 119.51 E<br>H = 01 19 23.5 h = 33 km<br>MB = 5.5 MS = 4.9 (NEIS)<br>D = 109.8<br>LmH B 16s 0.4/um M = 5.1<br>LmV B 18 0.6/um 5.2 |
| | LmV | B | 32.4 | |
| 7. | ePn | A | 03 29 42 | Yugoslavia 45.03 N 17.1 E<br>H = 03 27 59 h = 0 km<br>D = 6.27 Az = 329 (ISC) |
| 7. | LmH | B | 05 07.2 | Lake Baikal Region 52.30 N 106.69 E<br>H = 04 34 10.3 h = 22 km MB = 3.9 (NEIS)<br>D = 54.9<br>LmH B 16s 0.45/um M = 4.6 |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 7. | LmH | B | 18 20.3 | New Ireland Region 3.71 S 151.30 E |
| | LmV | B | 26.4 | H = 17 10 44.1 h = 14 km |
| | | | | MB = 5.0 MS = 4.8 (NEIS) |
| | | | | D = 122.2 |
| | | | | LmH B 20s 0.4/um M = 5.1 |
| | | | | LmV B 18 0.45/um 5.2 |
| 7. | eSg | A | 22 56 53 | Pyrenees 43.26 N 0.33 W |
| | | | | H = 22 50 35.1 h = 10 km (CSEM) |
| | | | | D = 10.7 |
| 8. | ePKHKP | A | 03 19 07 | Fiji Islands Region 20.76 S 177.86 W |
| | epPKP | A | 21 06 | H = 03 00 15.2 h = 505.3 km MB=5.1 (NEIS) |
| | | | | D = 148.3 h c. 530 km |
| | | | | PKHKPV A 1.2s 24.4nm |
| 9. | eP | A | 02 45 38 | E. USSR - N. E. China Border Region |
| | ePP | A | 48 15 | 42.98 N 131.36 E |
| | | | | H = 02 34 59.5 h = 499.3 km MB = 4.9 (NEIS) |
| | | | | D = 73.0 |
| | | | | PV A 1.0s 15.7nm M = 4.2 |
| 9. | ePg | A | 09 05 48.5 | Czechoslovakia 50.16 N 14.02 E |
| | e | A | 05 54 | H = 09 05 17.3 h = 0 km |
| | eSg | A | 06 10.5 | D = 1.61 Az = 289 (ISC) |
| 9. | iPn | A | 09 24 06 | Austria 46.31 N 13.31 E |
| | ePg | A | 24 26 | H = 09 22 56.0 h = 0 km |
| | iSn | A | 24 56 | D = 4.49 Az = 346 (ISC) |
| | eSg | A | 25 18 | |
| 9. | iPKHKP | A | 17 57 02 | Fiji Islands Region 20.11 S 177.70 W |
| | ePKP2 | A | 57 07 | H = 17 38 16.4 h = 560.6 km MB=4.8 (NEIS) |
| | | | | D = 148.7 |
| | | | | PKHKPV A 0.9s 38.9nm |
| 10. | eSn | A | 00 57 33 | Yugoslavia 45.8 N 15.7 E |
| | e | A | 57 38 | H = 00 54 41 h = 0 km (ISC) |
| | | | | D = 6.5 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 10. | eP | A | 01 00 33 | Crete 34.62 N 26.24 E |
| | e | A | 00 37 | H = 00 56 09.7 h = 63.7 km MB =4.1 (NEIS |
| | | | | D = 19.2 |
| 10. | ePKHKP | A | 01 38 54.5 | South of Fiji Islands 22.11 S 179.49 W |
| | ePKP2 | A | 39 02.5 | H = 01 20 08.4 h = 586.5 km MB=5.1 (NEIS) |
| | epPKP | A | 41 15 | D = 150.2 |
| 10. | eP | A | 06 35 50 | Crete 34.93 N 23.02 E |
| | Pm | A | 36 02 | H = 06 31 41.8 h = 33 km |
| | eS | B | 39 16 | MB = 4.6 MS = 5.1 (NEIS) |
| | eSS | B | 39 32 | D = 17.8 |
| | LmH | B | 44.5 | PV A 2.0s 42.7nm M = 4.3 |
| | LmV | B | 44.6 | PmV A 2.0 85.5nm 4.6 |
| | | | | LmH B 16 4.2/um 4.8 |
| | | | | LmV B 14 4.4/um 5.1 |
| 10. | eiPKP | A | 09 43 37.5 | Tonga Islands 15.69 S 174.94 W |
| | | | | H = 09 24 29.1 h = 240 km MB = 4.7 (NEIS) |
| | | | | D = 144.7 |
| | | | | PKPV A 1.1s 32.3nm |
| 10. | eP | A | 10 33 52.5 | Near Coast of Guatemala |
| | e(sP) | A | 34 28 | 13.95 N 91.68 W |
| | LmH | B | 11 15.5 | H = 10 21 11.5 h = 78.2 km MB=5.6 (NEIS) |
| | LmV | B | 15.5 | D = 87.6 |
| | | | | PV A 1.0s 63.0nm M = 5.7 |
| | | | | LmH B 17 0.5/um |
| | | | | LmV B 17 0.2/um |
| 10. | eP | A | 13 52 29 | Java 6.57 S 107.09 E |
| | epP | A | 53 04 | H = 13 39 01.7 h = 104.5 km MB=5.9 (NEIS) |
| | e(PP) | A | 56 30 | D = 98.5 h = 143 km |
| | eSKS | B | 14 02 48 | PV A 1.8s 40.5nm |
| | eS | B | 03 40 | |
| 10. | eP | A | 16 09 09.5 | Lake Baikal Region 57.29 N 106.24 E |
| | | | | H = 16 00 03.3 h = 33 km MB = 4.8 (NEIS) |
| | | | | D = 51.7 |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| cont. 10. | LmV | B | 16 14.0 | PV A 0.7s 15.3nm M = 5.0 |
| | LmH | B | 16.0 | LmH B 16.5 0.6/um 4.7 |
| | | | | LmV B 17 0.45/um 4.7 |
| 10. | ePn | A | 20 48 08 | Austria 46.38 N 13.37 E |
| | ePg | A | 48 27 | H = 20 47 00.5 h = 0 km |
| | eSg | A | 49 22 | D = 4.42 Az = 345 (ISC) |
| 11. | ePKHKP | A | 05 27 29 | West of Macquarie Island |
| | eX | A | 27 38 | 59.63 S 150.29 E |
| | ePKP2 | A | 27 46.5 | H = 05 07 29.7 h = 33 km |
| | LmH | B | 06 50.7 | MB = 5.4 MS = 5.1 (NEIS) |
| | LmV | B | 53.5 | D = 155.1 |
| | | | | XV A 1.5s 15.1nm |
| | | | | PKP2V A 2.0 34.2nm |
| | | | | LmH B 20 0.4/um M = 5.1 |
| | | | | LmV B 20 0.7/um 5.4 |
| 11. | ePKP | AB | 14 27 39.5 | Tonga Islands 15.39 S 173.21 W |
| | epPKP | A | 27 47.5 | H = 14 08 04.6 h = 33 km |
| | LmH | B | 15 30.4 | MB = 5.4 MS = 5.6 (NEIS) |
| | LmV | B | 40.0 | D = 144.6 h = 29 km |
| | | | | PKPV A 1.9s 45.5nm |
| | | | | LmH B 22 1.0/um M = 5.5 |
| | | | | LmV B 18 1.4/um 5.8 |
| | | | | LmH, LmV either belong to this earthquake or to the following one. |
| 11. | ePKP | AB | 14 32 03.5 | Tonga Islands 15.40 S 173.30 W |
| | epPKP | A | 32 11.5 | H = 14 12 29.9 h = 33 km |
| | | | | MB = 5.3 MS = 5.6 (NEIS) |
| | | | | D = 144.6 h = 29 km |
| | | | | PKPV A 1.5s 25.1nm |
| | | | | PKPV B 15 1.0/um |
| 11. | eP | AB | 23 23 28.5 | Crete 35.05 N 23.03 E |
| | Pm | A | 23 44 | H = 23 19 23.7 h = 33 km |
| | eS | B | 26 50 | MB = 5.8 MS = 6.0 (NEIS) |
| | | | | D = 17.7 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| cont. 11. | LmH | B | 23 32.4 | PmV A 1.7s 521.2nm M = 5.4 |
| | LmV | B | 32.4 | LmH B 17 59.6/um 5.9 |
| | | | | LmV B 17 77.0/um 6.2 |
| 11. | eP | A | 23 35 52.5 | Crete 35.13 N 23.05 E |
| | e | A | 36 00 | H = 23 31 47.5 h = 33 km MB = 4.0 (NEIS) |
| | | | | D = 17.4 |
| 12. | ePP | A | 00 08 05 | Mediterranean Sea 35.04 N 22.86 E |
| | e | A | 08 08.5 | H = 00 03 40.9 h = 37 km MB = 3.9 (NEIS) |
| | | | | D = 17.8 |
| 12. | ePP | A | 02 35 07.5 | Crete 34.90 N 23.14 E |
| | | | | H = 02 30 44.3 h = 57 km MB = 4.0 (NEIS) |
| | | | | D = 17.8 |
| 12. | eP | A | 03 02 02.5 | Crete 34.99 N 23.17 E |
| | ePP | A | 02 15.5 | H = 02 57 55.0 h = 36 km MB = 4.5 (NEIS) |
| | eS | B | 05 20 | D = 17.8 |
| | LmH | B | 10.8 | PPV A 1.9s 37.9nm |
| | LmV | B | 10.8 | LmH B 16 1.1/um M = 4.2 |
| | | | | LmV B 16 1.2/um 4.4 |
| 12. | eP | A | 07 08 35 | Crete 35.05 N 23.04 E |
| | | | | H = 07 04 31.2 h = 33 km MB = 4.0 |
| | | | | D = 17.66 Az = 335 (NEIS) |
| 12. | eP | A | 14 06 47 | South Atlantic Ridge 12.3 S 15.0 W |
| | | | | H = 13 55 55 h = 33 km MB = 4.7 |
| | | | | D = 66.90 Az = 18 (ISC) |
| 12. | eP | AB | 14 29 02 | South Atlantic Ridge 12.78 S 14.69 W |
| | epP | A | 29 07.5 | H = 14 18 06.6 h = 21 km MB=5.3 MS=5.3 |
| | ePP | B | 31 30 | D = 67.22 Az = 18 (NEIS) |
| | eS | B | 38 00 | h = 21 km |
| | eSS | B | 42 10 | PV A 2.5s 153.7nm M = 5.7 |
| | LmH | B | 52.0 | pPV A 1.5 75.4nm |
| | LmV | B | 57.5 | LmH B 24 1.5/um 5.1 |
| | | | | LmV B 20 1.6/um 5.2 |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 12. | eSn | A | 22 25 24 | Pyrenees 43.09 N 0.99 W |
| | eSg | A | 26 40 | H = 22 20 28.9 h = 33 km (NEIS) |
| | | | | D = 11.1 |
| 12. | eP | A | 23 28 41 | Eastern Sea of Japan 41.84 N 138.42 E |
| | epP | A | 28 53 | H = 23 16 50.7 h = 32 km MB = 5.2 MS=5.1 |
| | LmH | B | 24 08.5 | D = 76.85 Az = 328 (NEIS) |
| | LmV | B | 08.6 | h = 41 km |
| | | | | PV A 1.2s 24.4nm M = 5.1 |
| | | | | LmH B 13.5 0.6/um 5.1 |
| | | | | LmV B 12 0.7/um 5.2 |
| 12. | LmH | B | 23 41.5 | South Sandwich Islands Region |
| | LmV | B | 42.5 | 59.44 S 25.93 W |
| | | | | H = 22 39 58.1 h = 33 km MB=5.3 MS=5.2 |
| | | | | D = 113.6 (NEIS) |
| | | | | LmH B 24s 0.7/um M = 5.2 |
| | | | | LmV B 24 0.8/um 5.2 |
| 13. | eP | A | 00 23 48.5 | Southern Iran 27.67 N 56.49 E |
| | | | | H = 00 16 07.4 h = 57 km MB = 4.7 |
| | | | | D = 40.86 Az = 317 (NEIS) |
| | | | | traces |
| 13. | iPKP | AB | 00 41 27 | Tonga Islands 15.45 S 173.29 W |
| | epPKP | A | 41 37 | H = 00 21 52.6 h = 33 km MB=5.7 MS = 6.0 |
| | ePP | B | 44 30 | D = 144.68 Az = 355 (NEIS) |
| | eSKKKS | B | 52 00 | h = 34 km |
| | ePS | B | 55 25 | PKPV A 2.0s 239.3nm |
| | eSS | B | 01 03 15 | PKPV B 12 1.8/um |
| | LmH | B | 48.4 | LmH B 18 2.5/um M = 6.0 |
| | LmV | B | 49.5 | LmV B 18 3.1/um 6.1 |
| 13. | e(Sg) | A | 02 05 05 | West Poland (CLL) |
| | e | A | 05 11 | |
| 13. | ePKHKP | A | 03 43 48 | Tonga Islands Region 22.82 S 175.35 W |
| | | | | H = 03 23 58.9 h = 33 km MB = 4.3 (NEIS) |
| | | | | D = 151.6 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 13. | ePKP | A | 04 19 18 | Tonga Islands 15.47 S 173.03 W |
| | | | | H = 03 59 44.8 h = 33 km MB = 5.1 (NEIS) |
| | | | | D = 144.5 |
| | | | | PKPV A 1.7s 30.3nm |
| 13. | eP | A | 05 07 25 | Hokkaido, Japan Region 41.34 N 142.53 E |
| | | | | H = 04 55 25.8 h = 49.2 km MB = 4.8 |
| | | | | D = 78.85 Az = 331 (NEIS) |
| 13. | eP | A | 13 08 16 | Crete 34.95 N 23.07 E |
| | e | A | 08 17.5 | H = 13 04 09.9 h = 33 km MB = 4.3 |
| | | | | D = 17.76 Az = 336 (NEIS) |
| 14. | eP | A | 06 04 10 | Southern Sinkiang Provinc, China |
| | epP | A | 04 15 | 36.97 N 79.63 E |
| | | | | H = 05 55 20.7 h = 16 km MB = 4.8 |
| | | | | D = 49.26 Az = 309 (NEIS) |
| | | | | h = 21 km |
| 14. | ePn | A | 08 53 05 | Serbia 43.09 N 19.9 E |
| | | | | H = 08 50 43.2 h = 0 km |
| | | | | D = 9.46 Az = 326 (ISC) |
| 14. | iPg | A | 09 14 08.5 | D c. 1.1 |
| | iSg | A | 14 22.5 | |
| 14. | ePn | A | 13 39 24 | Austria 46.34 N 13.29 E |
| | ePb | A | 39 37 | H = 13 38 18.1 h = 10 km |
| | ePg | A | 39 50 | D = 4.45 Az = 346 (NEIS) |
| | eSn | A | 40 27 | |
| | eSg | A | 40 42 | |
| 14. | LmV | B | 15 53.5 | South Sandwich Islands Region |
| | LmH | B | 55.0 | 56.38 S 25.66 W |
| | | | | H = 14 51 03.9 h = 38 km |
| | | | | MB = 5.9 MS = 5.9 (NEIS) |
| | | | | D = 110.7 |
| | | | | LmH B 19s 2.0/um M = 5.7 |
| | | | | LmV B 17 1.8/um 5.7 |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 14. | eSg | A | 18 39 06 | West Poland (CLL) |
| 14. | eP | A | 18 53 14 | Crete 34.99 N 23.06 E<br>H = 18 49 07.6 h = 33 km MB = 4.5<br>D = 17.72 Az = 335 (NEIS)<br>PV A 0.8s 23.1nm M = 4.4 |
| 15. | eP | A | 15 57 46 | Crete 34.91 N 23.01 E<br>H = 15 53 38.9 h = 33 km MB = 4.5 (NEIS)<br>D = 17.7 |
| 16. | ePKP2 | A | 03 30 09 | Kermadec Islands 29.74 S 178.83 W<br>H = 03 10 04.0 h = 206.7 km MB = 5.0 (NEIS)<br>D = 157.7<br>PKP2V A 1.2s 24.4nm |
| 16. | eP | A | 16 10 40.5 | Hindu Kush Region 36.45 N 70.67 E<br>H = 16 02 52 h = 200.2 km MB = 4.6<br>D = 43.93 Az = 308 (NEIS)<br>traces |
| 16. | LmV | B | 22 37.6 | South Sandwich Islands Region |
| | LmH | B | 39.0 | 56.38 S 25.88 W<br>H = 21 35 05.9 h = 33 km<br>MB = 4.9 MS = 5.1 (NEIS)<br>D = 111<br>LmH B 16s 0.5/um M = 5.2<br>LmV B 20 0.7/um 5.2 |
| 16. | iPn | AB | 23 49 15 | Austria 46.27 N 12.97 E |
| | iPg | B | 49 33 | H = 23 48 08.4 h = 25.1 km MB=5.1 MS=5.1 |
| | iSn | B | 50 05 | D = 4.47 Az = 349 (NEIS) |
| | iSg | B | 50 28 | PnV A 0.8s 1652.0nm |
| | LmV | B | 51.1 | LmH B 5.8 80.5/um M = 5.5 |
| | LmH | B | 51.2 | LmV B 8.0 91.4/um |
| 17. | ePn | A | 00 22 45.5 | D c. 4.0 |
| | ePg | A | 23 05 | |
| | eSg | A | 23 54 | |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 17. | ePn | A | 00 32 19 | Austria 46.26 N 13.01 E |
| | eSn | A | 33 09.5 | H = 00 31 13.1 h = 33 km |
| | eSg | A | 33 36 | D = 4.49 Az = 449 (NEIS) |
| 17. | ePn | A | 05 19 42 | Northern Italy 46.53 N 12.81 E |
| | eSn | A | 20 34 | H = 05 18 39.4 h = 33 km |
| | eSg | A | 20 57 | D = 4.19 Az = 350 (NEIS) |
| 17. | eP | AB | 05 37 36 | South of Mariana Islands 11.77 N 143.13 E |
| | epP | A | 37 47 | H = 05 23 30.2 h = 33 km MB=6.0 MS=6.1 |
| | ePP | A | 41 54 | D = 104.88 Az = 330 (NEIS) |
| | epPP | A | 42 07 | h = 41 km |
| | eSKS | B | 48 05 | PPV A 2.0s 76.9nm M = 5.9 |
| | eS | B | 49 20 | LmH B 20 12.9/um 6.5 |
| | ePS | B | 51 05 | LmV B 20 10.0/um 6.4 |
| | ePPS | B | 52 00 | |
| | eSS | B | 56 45 | |
| | LmV | B | 06 29.6 | |
| | LmH | B | 29.8 | |
| 17. | e(Pg) | A | 09 00 30 | Czechoslovakia 50.75 N 14.42 E |
| | eSg | A | 00 55 | H = 09 00.0 explosion of 14.0 t (KHC) |
| | | | | D = 1.79 Az = 268 |
| 17. | eP | A | 18 37 14 | Southern Alaska 61.03 N 152.92 W |
| | epP | A | 37 51 | H = 18 26 29.9 h = 150.3 km MB = 4.8 |
| | | | | D = 67.98 Az = 11 (NEIS) |
| | | | | h = 153 km |
| | | | | PV A 1.0s 19.7nm M = 4.9 |
| 17. | ePg | A | 21 26 26 | D c. 4.4 |
| | eSn | A | 27 19 | |
| | eSg | A | 27 41 | |
| 17. | iPn | A | 23 17 59 | Northern Italy 46.27 N 12.93 E |
| | iPg | A | 18 20 | H = 23 16 51.5 h = 10 km |
| | iSn | A | 18 49 | D = 4.47 Az = 349 (NEIS) |
| | iSg | A | 19 11 | PnV A 0.6s 46.0nm |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| cont. 17. | LmH | B | 23 19.9 | LmH B 8s 0.4/um M = 3.0 |
| | LmV | B | 19.9 | LmV B 6.5 0.7/um |
| 18. | eP | A | 05 56 43 | Near Coast of Guatemala 13.56 N 89.95 W |
| | | | | H = 05 44 09.3 h = 108 km MB = 5.0 (NEIS) |
| | | | | D = 86.8 |
| | | | | PV A 1.2s 24.4nm M = 5.4 |
| 18. | eP | A | 06 01 30 | Crete 34.92 N 23.31 E |
| | | | | H = 05 57 19.3 h = 33 km MB = 4.3 |
| | | | | D = 17.87 Az = 335 (NEIS) |
| | | | | traces |
| 18. | ePn | A | 07 03 27 | Northern Italy 46.30 N 12.93 E |
| | ePg | A | 03 45 | H = 07 02 20.0 h = 0 km (CSEM) |
| | eSn | A | 04 15 | D = 4.3 |
| | eSg | A | 04 39 | |
| 18. | ePn | A | 09 59 26 | Northern Italy 46.16 N 13.09 E |
| | ePg | A | 59 47 | H = 09 58 19.5 h = 10 km (CSEM) |
| | eSn | A | 10 00 17 | D = 4.3 |
| | eSg | A | 00 41 | |
| 18. | ePKIKP | A | 10 05 28 | New Hebrides Islands 13.58 S 166.75 E |
| | eSKP | A | 09 04 | H = 09 46 10.4 h = 73.3 km MB = 5.5 |
| | | | | D = 137.86 Az = 336 (NEIS) |
| | | | | traces |
| 18. | eP | A | 13 16 30 | Svalbard Region 76.2 N 7.0 E |
| | | | | H = 13 11 00 |
| | | | | D = 25.76 Az = 173 (ISC) |
| 18. | ePn | A | 21 39 56.5 | Austria 46.14 N 13.09 E |
| | ePg | A | 40 14 | H = 21 38 47.6 h = 33 km MB = 4.5 |
| | eSn | A | 40 46 | D = 4.62 Az = 348 (NEIS) |
| | eSg | A | 41 10 | |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 19. | ePn | A | 00 00 47 | Federal Republic of Germany |
| | iPg | A | 00 58 | 48.00 N 9.25 E |
| | eSn | A | 01 20 | H = 00 00 00.2 h = 33 km |
| | iSg | A | 01 34 | D = 3.06 Az = 29 (NEIS) |
| 19. | ePn | A | 00 04 49 | Federal Republic of Germany |
| | eSb | A | 05 24 | 47.8 N 8.8 E |
| | eSg | A | 05 36 | H 00 03 40 h = 10 km (ISC) |
| | | | | D = 3.4 |
| 19. | eP | A | 00 30 08.5 | Southern Iran 29.63 N 51.35 E |
| | | | | H = 00 23 06 h = 34.7 km MB = 4.7 |
| | | | | D = 36.34 Az = 317 (NEIS) |
| | | | | PV A 1.2s 12.2nm M = 4.7 |
| 19. | eSg | A | 02 37 27 | Northern Italy 46.2 N 12.6 E |
| | | | | H = 02 35 03.5 h = 11 km MB = 3.1 (TRI) |
| | | | | D = 4.5 |
| 19. | ePKP | A | 05 31 32 | Ceram Sea 1.98 S 126.63 E |
| | ePP | AB | 31 52 | H = 05 13 09.2 h = 33 km MB=5.9 MS=5.9 |
| | eSKS | B | 38 40 | D = 107.19 Az = 323 (NEIS) |
| | eS diff | B | 39 20 | LmH B 18.5s 1.3/um M = 5.5 |
| | ePS | B | 41 00 | LmV B 17 2.0/um 5.8 |
| | ePPS | B | 42 00 | |
| | eSS | B | 47 20 | |
| | LmV | B | 06 21.9 | |
| | LmH | B | 28.5 | |
| 19. | eiP | A | 05 45 35.5 | Kurile Islands 44.19 N 149.70 E |
| | | | | H = 05 33 38 h = 55.6 km MB = 4.9 |
| | | | | D = 78.76 Az = 334 (NEIS) |
| | | | | PV A 1.8s 33.8nm M = 5.0 |
| 19. | ePKP | A | 06 31 24 | Samoa Is. Region 15.81 S 172.33 W |
| | epPKP | A | 31 32 | H = 06 11 47 h = 33 km MB = 4.8 |
| | | | | D = 145.10 Az = 356 (NEIS) |
| | | | | h = 29 km |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 19. | ePKP | A | 13 09 23 | Fiji Islands 16.37 S 178.03 E |
| | epPKP | A | 09 28 | H = 12 49 46.2 h = 22 km MB=5.5 MS=5.1 |
| | | | | D = 144.10 Az = 345 (NEIS) |
| | | | | h = 18 km |
| 19. | ePKHKP | A | 14 37 34 | Kermadec Islands Region 27.80 S 177.99 W |
| | ePKP2 | A | 37 52 | H = 14 17 54.1 h = 206 km MB = 5.1 |
| | | | | D = 156.05 Az = 345 (NEIS) |
| | | | | PKP2V A 1.3s 21.8nm |
| 19. | eP | A | 14 49 51.5 | Kurile Islands 44.42 N 149.51 E |
| | | | | H = 14 37 52.3 h = 33 km MB = 5.0 |
| | | | | D = 78.50 Az = 334 (NEIS) |
| | | | | PV A 1.3s 21.8nm M = 5.0 |
| 19. | ePn | A | 19 57 32 | Northern Italy 46.26 N 13.03 E |
| | eSg | A | 58 48.5 | H = 19 56 26.0 h = 10 km (CSEM) |
| | | | | D = 4.4 |
| 19. | iP | A | 22 29 18 | Southern Alaska 60.19 N 152.53 W |
| | | | | H = 22 18 24 h = 104.1 km MB = 4.5 |
| | | | | D = 68.78 Az = 11 (NEIS) |
| | | | | PV A 0.8s 15.4nm M = 4.9 |
| 20. | eP | A | 02 11 55.5 | Kurile Islands 44.01 N 149.54 E |
| | epP | A | 12 08 | H = 01 59 56.3 h = 48 km MB = 4.7 |
| | | | | D = 78.88 Az = 334 (NEIS) |
| | | | | h = 56 km |
| 20. | LmH | B | 17 43.4 | East Papua New Guinea Region |
| | LmV | B | 45.2 | 6.43 S 147.44 E |
| | | | | H = 16 54 16.0 h = 79 km MB = 4.5 (NEIS) |
| | | | | D = 122.6 |
| | | | | LmH B 20s 0.4/um |
| | | | | LmV B 20 0.4/um |
| 20. | eSg | A | 20 26 43 | Yugoslavia 43.11 N 18.74 E |
| | | | | H = 20 21 39.2 h = 10 km (CSEM) |
| | | | | D = 9.0 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 20. | ePn | A | 20 30 27 | Jugoslavia 43.21 N 18.59 E |
| | eSn | A | 32 06 | H = 20 28 18.8 h = 33 km MB = 4.6 |
| | eSg | A | 33 08 | D = 8.83 Az = 330 (NEIS) |
| | LmH | A | 33.5 | |
| | LmV | A | 33.5 | |
| 21. | eP | A | 03 24 15 | Sakhalin Islands 46.11 N 141.33 E |
| | LmH | B | 56.5 | H = 03 12 42.5 h = 59 km MB = 4.8 |
| | LmV | B | 04 01.7 | D = 74.28 Az = 329 (NEIS) |
| | | | | LmH B 16s 0.5/um |
| | | | | LmV B 16 0.3/um |
| 21. | ePKHKP | AB | 09 47 57 | Tonga Island Region 23.50 S 175.23 W |
| | ePKP2 | A | 48 16 | H = 09 27 59.5 h = 14.9 km |
| | LmH | B | 11 05.1 | MB = 5.5 MS = 5.3 (NEIS) |
| | LmV | B | 06.1 | D = 157.7 |
| | | | | PKHKPV A 1.8s 47.2nm |
| | | | | PKP2V A 1.6 71.4nm |
| | | | | LmH B 20 0.4/um M = 5.1 |
| | | | | LmV B 18 0.5/um 5.3 |
| 21. | eP | A | 10 47 23.5 | Andreanof Islands, Aleutian Is. |
| | epP | A | 47 30 | 51.37 N 178.36 W |
| | | | | H = 10 35 26.6 h = 30 km MB = 4.9 (NEIS) |
| | | | | D = 78.0 h = 24 km |
| 21. | LmV | B | 14 10.4 | Revilla Gigedo Islands Region |
| | LmH | B | 10.5 | 20.03 N 109.15 W |
| | | | | H = 13 15 57.3 h = 33 km |
| | | | | MB = 5.7 MS = 4.7 (NEIS) |
| | | | | D = 92.5 |
| | | | | LmH B 16.5s 1.0/um M = 5.3 |
| | | | | LmV B 18 1.2/um 5.4 |
| 21. | eP | A | 15 01 19 | Kodiak Is. Region 56.66 N 152.44 W |
| | | | | H = 14 49 54.6 h = 20.2 km MB=4.8 (NEIS) |
| | | | | D = 72.3 |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 21. | ePKP2 | A | 17 25 25 | Tonga Islands 20.99 S 173.80 W |
| | | | | H = 17 05 29.3 h = 33 km MB = 4.5 (NEIS) |
| | | | | D = 150.1 |
| 21. | eP | A | 17 50 54 | Near East Coast of Kamchatka |
| | epP | A | 51 05 | 55.73 N 162.32 E |
| | LmH | B | 18 22.2 | H = 17 39 38.8 h = 48 km |
| | LmV | B | 23.5 | MB = 5.1 MS = 4.9 (NEIS) |
| | | | | D = 71.2 h = 42 km |
| | | | | LmH B 20s 0.5/um M = 4.8 |
| | | | | LmV B 20 0.7/um 4.9 |
| 21. | -iP | AB | 21 12 52 | Northwest of Kurile Islands |
| | Pm | A | 12 55.5 | 51.75 N 155.21 E |
| | epP | AB | 13 48 | H = 21 01 44 h = 231 km MB = 5.6 (NEIS) |
| | esP | AB | 14 12 | D = 73.4 h = 250 km |
| | ePP | B | 15 30 | PV A 1.2s 65.0nm M = 5.2 |
| | esPP | B | 16 46 | PmV A 2.2 425.3nm 5.8 |
| | ePPP | B | 17 28 | PPV B 12 1.6/um 5.9 |
| | esPPP | B | 18 32 | |
| | eS | B | 22 05 | |
| | ePS | B | 23 05 | |
| | esS | B | 23 40 | |
| | esPS | B | 24 00 | |
| | eSS | B | 26 35 | |
| | esSS | B | 28 20 | |
| | ePKPPKS | A | 44 00 | |
| 22. | ePn | A | 07 52 38 | Northern Italy 46.21 N 13.09 E |
| | ePb | A | 52 50 | H = 07 51 31.5 h = 10 km (CSEM) |
| | ePg | A | 53 03 | D = 4.3 |
| | eSn | A | 53 28 | |
| | eSb | A | 53 43 | |
| | eSg | A | 53 53 | |
| 22. | ePKIKP | A | 08 09 38.5 | East of North Is., New Zealand |
| | epPKP | A | 09 48 | 36.82 S 179.75 W |
| | ePKP2 | A | 10 32 | H = 07 49 38.7 h = 33 km MB=5.2 (NEIS) |
| | epPKP2 | A | 10 42 | D = 163.9 h = 36 km |
| | | | | PKP2V A 2.0s 42.8nm |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 23. | ePn | A | 03 00 38 | Albania 41.50 N 20.07 E |
| | e | A | 00 50 | H = 02 58 01.2 h = 23.3 km |
| | ePb | A | 01 15 | MB = 4.7 MS = 4.5 (NEIS) |
| | ePg | A | 01 41 | D = 10.9 |
| | eSn | A | 02 42 | LmH B 6s 3.2/um M = 4.8 |
| | eSb | A | 03 40 | LmV B 9 3.9/um |
| | eSg | A | 04 00 | |
| | LmH | B | 04.5 | |
| | LmV | B | 05.4 | |
| 23. | ePKIKP | A | 06 16 23 | South of Sumbawa Island |
| | epPKP | A | 16 44 | 11.21 S 118.22 E |
| | ePP | AB | 16 50.5 | H = 05 57 55.6 h = 33 km |
| | LmH | B | 07 04.6 | MB = 6.0 MS = 5.4 (NEIS) |
| | LmV | B | 12.6 | D = 109.1 |
| | | | | PPV A 1.6s 82.4nm M = 6.2 |
| | | | | LmH B 21 0.9/um 5.3 |
| | | | | LmV B 16 0.4/um 5.1 |
| 23. | ePn | A | 15 14 53 | Northern Italy 46.33 N 12.93 E |
| | eSn | A | 15 40 | H = 15 13 44.7 h = 9 km MB = 3.0 (TRI) |
| | eSg | A | 16 07 | D = 4.3 |
| 23. | ePKIKP | A | 21 03 56 | Banda Sea 5.76 S 128.83 E |
| | ePP | A | 04 43 | H = 20 45 56.0 h = 309 km MB = 5.5 (NEIS) |
| | e(pPKP) | A | 05 18 | D = 111.5 (h = 360 km) |
| | | | | PPV A 1.4s 11.6nm M = 4.9 |
| 23. | ePn | A | 22 35 54 | Northern Italy 44.35 N 7.44 E |
| | ePb | A | 36 21 | H = 22 34 09.7 h = 10 km (NEIS) |
| | eSn | A | 37 18 | D = 7.1 |
| | eSb | A | 37 38 | |
| | eSg | A | 38 00 | |
| 24. | ePn | A | 00 51 00.5 | Austria 46.36 N 13.04 E |
| | eSn | A | 51 52 | H = 00 49 51.7 h = 0 km |
| | eSg | A | 52 14 | D = 4.39 Az = 348 (ISC) |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 24. | eP | A | 05 13 32 | Tunisia 34.23 N 9.27 E |
| | | | | H = 05 09 41.6 h = 33 km |
| | | | | D = 16.50 Az = 5 (ISC) |
| 24. | eP | A | 20 47 13 | Crete 35.07 N 23.22 E |
| | ePP | A | 47 26 | H = 20 43 08.9 h = 64.1 MB = 4.3 (NEIS) |
| | LmH | B | 56.0 | D = 17.7 |
| | LmV | B | 56.0 | LmH B 12s 0.3/um |
| | | | | LmV B 16 0.5/um |
| 25. | eP | A | 03 16 30 | Crete 34.89 N 23.15 E |
| | ePP | A | 16 45 | H = 03 12 23.5 h = 63.7 km MB = 4.2 (NEIS) |
| | LmV | B | 25.4 | D = 17.9 |
| | | | | LmV B 18s 0.6/um |
| 25. | e(PP) | A | 08 28 30 | South Western Russia 48.44 N 23.0 E |
| | | | | H = 08 25 02 h = 1 km (ISC) |
| | | | | D = 12.7 |
| 25. | ePKIKP | A | 16 33 45 | Fiji Islands Region 21.83 S 179.45 W |
| | iPKHKP | A | 33 50 | H = 16 15 05.9 h = 605.7 km MB=5.4 (NEIS) |
| | eiPKP2 | A | 33 57.5 | D = 150.0 |
| | epPKP | A | 36 12 | PKHKPV A 1.6s 49.5nm |
| | | | | PKP2V A 1.2 28.5nm |
| 25. | ePP | A | 18 50 38 | South of Sumbawa Island 11.30 S 117.25 E |
| | epPP | A | 50 48 | H = 18 31 39.1 h = 33 km |
| | | | | MB = 5.6 MS = 4.9 (NEIS) |
| | | | | D = 108.5 |
| 25. | ePP | A | 20 01 18 | Turkey 38.69 N 31.05 E |
| | LmV | B | 09.6 | H = 19 56 56.7 h = 18.1 km MB = 4.3 (NEIS) |
| | LmH | B | 09.8 | D = 18.2 |
| | | | | PPV traces |
| | | | | LmH B 12s 0.3/um M = 3.7 |
| | | | | LmV B 12 0.4/um 4.1 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 26. | eP | A | 01 48 26 | Off East Coast of Kamchatka |
| | | | | 52.69 N 159.44 E |
| | | | | H = 01 36 55.4 h = 33 km MB = 4.6 (NEIS) |
| | | | | D = 73.5 |
| | | | | PV A 1.0s 23.6nm M = 5.2 |
| 26. | LmV | B | 06 42.6 | West of Macquarie Island 60.04 S 150.59 E |
| | LmH | B | 43.1 | H = 04 56 57.1 h = 33 km |
| | | | | MB = 5.3 MS = 5.7 (NEIS) |
| | | | | D = 155.2 |
| | | | | LmH B 17.5s 1.1/um M = 5.6 |
| | | | | LmV B 17.5 1.5/um 5.8 |
| 26. | eP | A | 08 32 49 | Near East Coast of Kamchatka |
| | | | | 53.38 N 160.75 E |
| | | | | H = 08 21 21.7 h = 43.3 km MB=4.8 MS=4.6 |
| | | | | D = 73.14 Az = 340 (NEIS) |
| | | | | PV A 1.1s 20.2nm M = 5.0 |
| 26. | eP | A | 19 57 40 | Pakistan 25.43 N 68.17 E |
| | LmH | B | 20 25.7 | H = 19 48 48.5 h = 33 km MB = 4.5 |
| | LmV | B | 25.9 | D = 49.72 Az = 316 (NEIS) |
| | | | | LmH B 16s 0.4/um M = 4.5 |
| | | | | LmV B 16 0.5/um 4.7 |
| 27. | eP | A | 14 12 18 | Southern Nevada 37.15 N 116.07 W |
| | e | A | 12 32 | H = 14 00 00.2 h = 0 km MB = 4.8 |
| | | | | D = 81.21 Az = 31 (NEIS) |
| | | | | Nuclear explosion COULMMIERS at the Nevada |
| | | | | Test Site (ERDA) |
| | | | | PV A 1.4s 14.0nm M = 4.8 |
| 27. | ePKHKP | A | 17 41 56 | Tonga Islands 21.49 S 174.29 W |
| | ePKP2 | A | 42 05 | H = 17 22 05.8 h = 33 km MB = 5.0 |
| | | | | D = 150.53 Az = 352 (NEIS) |
| | | | | PKHKPV A 1.4s 41.9nm |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 28. | iPn | A | 01 44 22 | Northern Italy 46.19 N 12.91 E |
| | iPb | A | 44 33 | H = 01 43 13.8 h = 10 km |
| | iPg | A | 44 42 | D = 4.55 Az = 350 (NEIS) |
| | iSn | A | 45 13 | |
| | iSb | A | 45 25 | |
| | iSg | A | 45 40 | |
| 28. | ePn | A | 01 57 46 | Northern Italy 46.16 N 12.89 E |
| | iPg | A | 58 05 | H = 01 56 37.4 h = 10 km |
| | iSn | A | 58 37 | D = 4.57 Az = 350 (NEIS) |
| | iSg | A | 59 02 | |
| 28. | ePKIKP | A | 12 31 54 | Tonga Islands 21.52 S 174.23 W |
| | ePKHKP | A | 32 00 | H = 12 12 10.3 h = 33 km MB=5.6 MS=4.8 |
| | ePKP2 | A | 32 08 | D = 150.57 Az = 352 (NEIS) |
| | | | | PKHKPV A 1.5s 95.5nm |
| 28. | iPn | A | 13 34 46 | Northern Italy 46.28 N 12.97 E |
| | ePg | A | 35 0€ | H = 13 33 38.2 h = 6 km (TRI) |
| | iSn | A | 35 37 | D = 4.4 |
| | eSg | A | 36 03 | |
| 28. | ePn | A | 13 41 11 | Northern Italy 46.15 N 12.91 E |
| | ePg | A | 41 30 | H = 13 40 02.4 h = 10 km |
| | eSn | A | 42 02 | D = 4.58 Az = 350 (NEIS) |
| | eSg | A | 42 26 | |
| 28. | ePn | A | 17 15 55 | D c. 4.4 |
| | ePg | A | 16 13 | |
| | eSg | A | 17 13 | |
| 29. | LmV | B | 02 56.6 | LmH B 14s 0.2/um |
| | LmH | B | 56.7 | LmV B 16 0.4/um |
| 29. | ePg | A | 06 20 43 | Northern Italy 46.30 N 12.97 E |
| | eSn | A | 21 14 | H = 06 19 13.1 h = 9 km (TRI) |
| | eSg | A | 21 38 | D c. 4.5 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 29. | eP | A | 08 08 20 | Off East Coast of Kamchatka |
| | | | | 52.62 N 159.63 E |
| | | | | H = 07 56 49 h = 33 km MB = 4.7 (NEIS) |
| | | | | D = 73.6 |
| 29. | ePg | A | 15 36 38 | D c. 4.5 |
| | eSn | A | 37 29 | |
| | eSg | A | 37 39 | |
| 29. | ePKHKP | A | 18 51 12 | Tonga Is. Region 18.30 S 172.78 W |
| | | | | H = 18 31 29.4 h = 33 km MB = 5.3 |
| | | | | D = 147.54 Az = 355 (NEIS) |
| | | | | PKHKPV A 1.4s 30.2nm |
| 30. | eP | A | 07 05 14 | Western Kazakh SSR 47.80 N 48.15 E |
| | | | | H = 06 59 55.6 h = 0 km MB = 5.1 |
| | | | | D = 23.87 Az = 291 (NEIS) |
| 30. | epP | A | 07 23 18.5 | Nicaragua 11.25 N 85.83 W |
| | LmH | B | 59.2 | H = 07 10 25.3 h = 66 km MB = 5.2 |
| | LmV | B | 59.2 | D = 86.07 Az = 39 (NEIS) |
| | | | | LmH B 18s 1.2/um |
| | | | | LmV B 18 1.5/um |
| 30. | eP | A | 10 31 10 | Utah 40.52 N 110.44 W |
| | epP | A | 31 13.5 | H = 10 19 21 h = 5 km MB = 5.0 |
| | | | | D = 76.03 Az = 34 (NEIS) |
| | | | | h = 13 km |
| 30. | ePKP | A | 11 57 22 | Tonga Islands 15.96 S 173.03 W |
| | epPKP | A | 57 33 | H = 11 37 46.2 h = 33 km MB=5.0 MS=4.5 |
| | | | | D = 145.20 Az = 355 (NEIS) |
| | | | | h = 39 km |
| | | | | PKPV A 1.6s 38.5nm |
| 30. | eP | A | 16 44 33 | Western Mediterranean Sea |
| | e | A | 44 38 | 38.87 N 10.55 E |
| | | | | H = 16 41 42.5 h = 10 km |
| | | | | D = 11.80 Az = 3 (NEIS) |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 30. | LmH | B | 17 08.9 | Eastern Caucasus 40.08 N 44.99 E |
| | LmV | B | 12.7 | H = 16 50 37.2 h = 9.5 km MB = 4.8 |
| | | | | D = 25.51 Az = 306 (NEIS) |
| | | | | LmH B 14s 0.5/um M = 4.2 |
| | | | | LmV B 16 0.6/um 4.3 |
| 30. | eP | A | 19 25 15 | Tadzhik - Sinkiang Border Region |
| | LmH | B | 44.5 | 39.39 N 73.39 E |
| | LmV | B | 45.5 | H = 19 17 08 h = 19.4 km MB = 5.0 |
| | | | | D = 43.88 Az = 306 (NEIS) |
| | | | | LmH B 16s 1.0/um M = 4.8 |
| | | | | LmV B 17 0.9/um 4.8 |
| 30. | ePKP | A | 21 42 33 | Samoa Is. Region 16.04 S 172.93 W |
| | epPKP | A | 42 39 | H = 21 22 57.5 h = 33 km MB=5.4 MS=5.5 |
| | LmH | B | 22 47.0 | D = 145.29 Az = 355 (NEIS) |
| | LmV | B | 48.7 | h = 21 km |
| | | | | PKPV A 1.6s 99.0nm |
| | | | | PKPV B 8 1.6/um |
| | | | | LmH B 20 1.0/um M = 5.5 |
| | | | | LmV B 20 1.1/um 5.6 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 1. | ePn | A | 13 07 43 | Poland 51.2 N 18.2 E |
| | e | A | 08 22 | H = 13 06 37 h = 33 km |
| | | | | D = 4.19 Az = 264 (ISC) |
| 1. | eP | A | 13 17 54 | Nicobar Islands Region 9.48 N 93.71 E |
| | | | | H = 13 06 08.1 h = 114 km MB = 4.9 (NEIS) |
| | | | | D = 77.7 |
| | | | | PV A 1.1s 16.1nm M = 4.7 |
| 1. | LmH | B | 13 53.5 | South of Sumbawa Island 10.08 S 117.50 E |
| | LmV | B | 14 01.2 | H = 12 52 31.1 h = 33 km MB = 5.6 (NEIS) |
| | | | | D = 107.8 |
| | | | | LmH B 24s 1.8/um M = 5.5 |
| | | | | LmV B 16 0.6/um 5.3 |
| 2. | ePn | A | 11 51 02 | Northern Italy 46.37 N 12.68 E |
| | ePg | A | 51 21 | H = 11 49 58.3 h = 33 km |
| | iSn | A | 51 52 | D = 4.34 Az = 351 (NEIS) |
| | eSg | A | 52 11.5 | |
| 2. | eP | A | 13 16 11 | Panay, Philippine Islands |
| | ePP | A | 20 06 | 11.57 N 121.57 E |
| | LmH | B | 55.9 | H = 13 02 57.2 h = 33 km MB=5.4 MS=5.6 |
| | LmV | B | 14 01.3 | D = 93.39 Az = 323 (NEIS) |
| | | | | PV A 1.4s 16.3nm M = 5.3 |
| | | | | LmH B 17 3.8/um 5.9 |
| | | | | LmV B 17 2.6/um 5.8 |
| 2. | LmH | B | 19 45.0 | Off Coast of Northern Peru |
| | LmV | B | 45.0 | 8.98 S 79.18 W |
| | | | | H = 18 46 35.6 h = 46 km |
| | | | | MB = 5.3 MS = 4.7 (NEIS) |
| | | | | D = 98.2 |
| | | | | LmH B 18s 0.4/um M = 5.0 |
| | | | | LmV B 18 0.3/um 4.9 |
| 3. | eP | A | 04 48 42 | North Atlantic Ocean 14.14 N 48.18 W |
| | LmH | B | 05 15.0 | H = 04 38 33.7 h = 33 km MB=5.1 MS=4.7 |
| | LmV | B | 15.0 | D = 60.14 Az = 39 (NEIS) |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 3. | ePKP | A | 05 08 08.5 | Loyalty Islands 20.41 S 168.29 E |
| | epPKP | A | 08 20 | H = 04 48 33.6 h = 33 km MB = 5.4 |
| | | | | D = 144.65 Az = 334 (NEIS) |
| | | | | h = 41 km |
| | | | | PKPV A 1.2s 24.4nm |
| 3. | ePKIKP | A | 05 38 50 | New Ireland Region 2.63 S 149.87 E |
| | LmH | B | 06 33.0 | H = 05 19 50.2 h = 12.1 km MB=4.9 MS=5.1 |
| | LmV | B | 33.0 | D = 120.64 Az = 330 (NEIS) |
| | | | | PKIKPV A traces |
| | | | | LmH B 20s 0.5/um M = 5.1 |
| | | | | LmV B 20 0.8/um 5.4 |
| 3. | ePKP | A | 06 23 59 | Tonga 16.80 S 173.40 W |
| | | | | H = 06 04 20.0 h = 33 km |
| | | | | D = 146.00 Az = 354 (ISC) |
| | | | | PKPV A 1.0s 19.7nm |
| 3. | epP | A | 07 56 32 | New Hebrides Islands 19.93 S 169.42 E |
| | | | | H = 07 36 51.1 h = 47.5 km MB = 4.9 |
| | | | | D = 144.67 Az = 335 (NEIS) |
| 3. | ePKP | A | 12 39 59 | Loyalty Islands 20.36 S 168.29 E |
| | e | A | 40 10.5 | H = 12 20 21.5 h = 10.8 km MB = 5.1 |
| | | | | D = 144.61 Az = 334 (NEIS) |
| | | | | PKPV A 1.5s 50.3nm |
| 3. | ePKHKP | A | 19 22 48 | Fiji Islands Region 20.42 S 178.23 W |
| | | | | H = 19 04 01.5 h = 547.2 km MB = 4.6 |
| | | | | D = 148.85 Az = 348 (NEIS) |
| | | | | PKHKPV A 0.9s 19.5nm |
| 3. | ePKP2 | A | 19 56 00 | Kermadec Islands Region 30.08 S 176.81 W |
| | e | A | 56 14.5 | H = 19 35 30.1 h = 33 km MB = 4.8 (NEIS) |
| | LmH | B | 21 18.0 | D = 158.5 |
| | LmV | B | 20.0 | LmH B 16s 0.2/um M = 4.9 |
| | | | | LmV B 18 0.25/um 5.1 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 3. | -eiP | A | 22 57 42.5 | Northern Sumatra 0.48 N 98.73 E |
| | | | | H = 22 44 52.3 h = 13.4 km MB=5.5 MS=4.7 |
| | | | | D = 87.80 Az = 320 (NEIS) |
| | | | | PV A 1.6s 49.5nm M = 5.6 |
| 4. | eP | A | 15 51 12.5 | Honshu, Japan 36.09 N 139.74 E |
| | e | A | 51 14.5 | H = 15 38 56.6 h = 66.2 km MB = 5.4 |
| | e | A | 51 21 | D = 82.30 Az = 330 (NEIS) |
| 4. | eP | A | 21 45 54 | Greece 38.78 N 20.39 E |
| | e | A | 46 02.5 | H = 21 42 45.0 h = 10 km (CSEM) |
| | | | | D = 13.40 |
| 5. | eP | AB | 05 38 54 | Turkey 40.96 N 33.41 E |
| | Pm | A | 39 12 | H = 05 34 46.8 h = 33 km MB=5.3 MS=5.8 |
| | eS | B | 42 28 | D = 17.96 Az = 310 (NEIS) |
| | LmH | B | 46.4 | PmV A 2.8s 1437.8nm M = 5.6 |
| | LmV | B | 48.4 | SH B 15 7.1/um 6.1 |
| | | | | LmH B 18 27.6/um 5.6 |
| | | | | LmV B 11.5 28.4/um 5.9 |
| 5. | ePKP2 | A | 10 48 08 | Kermadec Islands Region 29.01 S 176.89 W |
| | | | | H = 10 27 46.3 h = 55.9 km MB=5.4 MS=5.7 |
| | | | | D = 157.45 Az = 346 (NEIS) |
| 5. | ePKHKP | A | 13 48 42.5 | Tonga Islands Region 22.58 S 175.74 W |
| | | | | H = 13 28 50.6 h = 33 km MB = 4.8 |
| | | | | D = 151.40 Az = 350 (NEIS) |
| 5. | ePKIKP | A | 14 34 01 | Fiji Islands Region 18.58 S 177.72 W |
| | iPKHKP | AB | 34 04.5 | H = 14 15 24.3 h = 572.6 km MB = 5.6 |
| | ePKP2 | A | 34 07.5 | D = 147.15 Az = 349 (NEIS) |
| | | | | PKHKPV A 1.2s 179.0nm |
| 5. | e(P) | A | 16 11 50 | Mediterranean Sea 34.7 N 23.0 E |
| | | | | H = 16 07 35 h = 42 km MB = 4.6 |
| | | | | D = 17.95 Az = 336 (ISC) |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 6. | LmH | B | 07 43.6 | North Atlantic Ocean 56.72 N 34.32 W |
| | LmV | B | 43.6 | H = 07 26 52 h = 33 km MB = 4.5 |
| | | | | D = 27.50 Az = 83 (NEIS) |
| | | | | LmH B 14s 0.9/um M = 4.6 |
| | | | | LmV B 16 1.0/um 4.6 |
| 7. | LmH | B | 05 46.6 | South of Sumbawa Islands 9.97 S 117.33 E |
| | LmV | B | 54.5 | H = 04 45 43.2 h = 33 km |
| | | | | MB = 5.7 MS = 5.6 (NEIS) |
| | | | | D = 107.6 |
| | | | | LmH B 23s 3.1/um M = 5.8 |
| | | | | LmV B 19 1.6/um 5.6 |
| 7. | ePKP | A | 12 29 12 | South of Sumbawa Islands 9.95 S 117.32 E |
| | e(PP) | A | 29 46 | H = 12 10 43.7 h = 33 km MB=5.9 MS=6.3 |
| | e(SKKS) | B | 37 15 | D = 107.59 Az = 320 (NEIS) |
| | LmH | B | 13 11.6 | LmH P 24.5s 10.1/um M = 6.3 |
| | LmV | B | 21.2 | LmV B 17 3.8/um 6.0 |
| 7. | eP | A | 12 46 02 | Greece - Albania Border Region |
| | | | | 39.19 N 20.78 E |
| | | | | H = 12 42 58.4 h = 44 km (CSEM) |
| | | | | D = 13.15 |
| 7. | e | A | 14 57 26 | South of Sumbawa Islands 11.27 S 119.35 E |
| | | | | H = 14 38 36.6 h = 33 km MB = 5.5 |
| | | | | D = 109.87 Az = 320 (NEIS) |
| | | | | traces |
| 7. | LmH | B | 18 42.5 | Sumbawa Is. Region 9.85 S 117.26 E |
| | LmV | B | 46.5 | H = 17 36 46.2 h = 33 km MB=5.8 MS=5.8 |
| | | | | D = 107.47 Az = 320 (NEIS) |
| | | | | LmH B 22s 2.6/um M = 5.7 |
| | | | | LmV B 20 1.3/um 5.5 |
| 7. | e | A | 21 55 05 | Sumbawa Is. Region 9.92 S 117.29 E |
| | | | | H = 21 36 11.3 h = 33 km MB=5.8 MS=5.5 |
| | | | | D = 107.54 Az = 320 (NEIS) |
| | | | | traces |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 7. | LmH | B | 23 53.4 | Ryukyu Islands 28.87 N 128.19 E |
| | LmV | B | 24 00.2 | H = 23 06 04.9 h = 33 km MB=5.1 MS=4.5 |
| | | | | D = 83.07 Az = 325 (NEIS) |
| | | | | LmH B 17.5s 2.4/um M = 5.6 |
| | | | | LmV B 16 1.2/um 5.4 |
| 8. | ePKHKP | A | 17 38 11 | Fiji Islands Region 21.63 S 179.32 W |
| | ePKP2 | A | 38 19 | H = 17 19 27.9 h = 605.1 km MB = 5.0 |
| | | | | D = 149.79 Az = 346 (NEIS) |
| 8. | eP | A | 21 20 12.5 | Luzon, Philippine Islands |
| | ePP | A | 23 57 | 13.33 N 124.49 E |
| | eSKS | B | 30 40 | H = 21 06 52.8 h = 32 km MB=5.4 MS=5.5 |
| | LmH | B | 22 05.8 | D = 93.68 Az = 324 (NEIS) |
| | LmV | B | 10.5 | PV A 1.9s 30.3nm M = 5.4 |
| | | | | PPV A 1.9 37.9nm 5.5 |
| | | | | LmH B 16.5 3.1/um 5.9 |
| | | | | LmV B 15 2.1/um 5.7 |
| 9. | eP | A | 04 18 21.5 | Komandorsky Is. Region 54.83 N 166.01 E |
| | | | | H = 04 06 55.4 h = 33 km MB=4.9 MS=3.9 |
| | | | | D = 72.74 Az = 343 (NEIS) |
| | | | | PV A 1.3s 19.7nm M = 5.0 |
| 9. | LmH | B | 11 04.0 | Sumbawa Island Region 9.93 S 117.29 E |
| | LmV | B | 13.0 | H = 10 03 21.9 h = 33 km |
| | | | | MB = 5.6 MS = 5.1 (NEIS) |
| | | | | D = 107.5 |
| | | | | LmH B 20s 0.6/um M = 5.2 |
| | | | | LmV B 20 0.35/um 4.9 |
| 9. | e | A | 11 06 53 | Novaya Zemlya 73.63 N 53.16 E |
| | | | | H = 11 00 00.3 h = 0 km MB = 4.5 (NEIS) |
| | | | | D = 28.99 |
| | | | | traces |
| 10. | ePn | A | 06 08 18 | France 45.97 N 1.46 W |
| | ePg | A | 09 08 | H = 06 05 55.9 h = 33 km |
| | eSg | A | 11 15 | D = 9.88 Az = 57 (NEIS) |
| | | | | PnV A traces |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 10. | eP | A | 08 53 43 | Crete 35.40 N 23.38 E<br>H = 08 49 42.5 h = 81.1 km MB = 4.3<br>D = 17.47 Az = 334 (NEIS)<br>traces |
| 10. | iPg | A | 10 56 09.5 | German Democratic Republic |
| | iSg | A | 56 25.5 | 51.37 N 12.89 E<br>Explosion, yield 9.5 t (CLL)<br>D = 0.85 |
| 10. | eP diff | B | 12 11 50 | South of Tonga Islands |
| | ePKIKP | AB | 13 43 | 25.86 S 175.41 W |
| | ePKHKP | AB | 13 51 | H = 11 53 53.6 h = 33 km MB=6.6 MS=7.2 |
| | e(PKP2) | A | 14 05 | D = 154.67 Az = 350 (NEIS) |
| | ePP | B | 17 44 | PdiffV B 16s 0.5/um |
| | e | B | 26 55 | PKIKPV A 3.2 679.0nm |
| | eSKSP | B | 28 08 | PKHKPV A 3.1 2272.7nm |
| | eSPP | B | 30 55 | PPV B 12 22.0/um M = 7.1 |
| | eSPPP | B | 31 48 | LmH B 17.5 40.6/um 7.2 |
| | LmH | B | 13 41.8 | LmV B 17 71.4/um 7.5 |
| | LmV | B | 41.9 | |
| 10. | ePKIKP | A | 13 28 30 | South of Tonga Islands 25.98 S 175.49 W |
| | ePKHKP | A | 28 39 | H = 13 08 40.7 h = 33 km MB = 5.4 |
| | ePKP2 | A | 28 55 | D = 154.77 Az = 349 (NEIS) |
| 10. | e | A | 15 07 33 | Poland 50.4 N 19.0 E |
| | eSg | A | 07 50 | H = 15 05 20. h = 0 km |
| | | | | D = 4.71 Az = 276 (ISC) |
| 11. | eP | A | 05 15 10 | Andreanof Islands, Aleutian Is. |
| | | | | 51.14 N 176.84 W |
| | | | | H = 05 03 11.6 h = 33 km MB = 4.7 |
| | | | | D = 78.34 Az = 355 (NEIS) |
| | | | | PV A 1.1s 12.1nm M = 4.8 |
| 11. | eP | A | 08 07 55 | Utah 40.49 N 110.49 W |
| | | | | H = 07 56 06.5 h = 6 km MB = 4.8 |
| | | | | D = 76.08 Az = 34 (NEIS) |
| | | | | PV A 1.4s 14.0nm M = 4.9 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 11. | LmH | B | 15 07.7 | East China Sea 29.52 N 128.33 E |
| | LmV | B | 14.5 | H = 14 21 10.4 h = 27 km MB = 5.0 (NEIS) |
| | | | | D = 82.5 |
| | | | | LmH B 18s 1.0/um M = 5.2 |
| | | | | LmV B 15 0.8/um 5.3 |
| 11. | iPg | A | 19 09 06.8 | German Democratic Republic |
| | iSg | A | 09 17.5 | 51.2 N 11.6 E |
| | | | | H = 19 08 56 h = 33 km |
| | | | | D = 0.55 Az = 177 (ISC) |
| 11. | ePKIKP | A | 21 21 30 | West Chile Rise 42.85 S 83.45 W |
| | | | | H = 21 02 34.7 h = 33 km MB = 4.9 (NEIS) |
| | | | | D = 124.3 |
| 12. | eP | A | 20 41 45 | Crete 34.98 N 23.99 E |
| | | | | H = 20 37 34.3 h = 33 km MB = 4.2 |
| | | | | D = 18.06 Az = 334 (NEIS) |
| 13. | ePKHKP | A | 00 59 34 | West of Maquarie Islands |
| | LmH | B | 02 14.7 | 54.52 S 144.72 E |
| | LmV | B | 15.4 | H = 00 39 36.3 h = 33 km MB=5.3 MS=5.7 |
| | | | | D = 151.66 Az = 282 (NEIS) |
| | | | | LmH B 18s 0.7/um M = 5.5 |
| | | | | LmV B 20 1.1/um 5.6 |
| 13. | ePKIKP | A | 01 04 29 | Fiji Islands Region 18.17 S 178.41 W |
| | iPKHKP | A | 04 32 | H = 00 45 56 h = 595.8 km MB = 5.1 |
| | | | | D = 146.62 Az = 348 (NEIS) |
| | | | | PKHKPV A 1.4s 34.9nm |
| 13. | eP | A | 07 09 24 | Nicobar Islands Region 9.50 N 93.93 E |
| | | | | H = 06 57 27.5 h = 33 km MB = 5.0 |
| | | | | D = 77.85 Az = 320 (NEIS) |
| | | | | PV A 1.4s 14.0nm M = 4.8 |
| 13. | eP | A | 08 02 44.5 | Nicobar Islands Region 9.49 N 93.91 E |
| | | | | H = 07 50 41.3 h = 33 km MB = 4.8 |
| | | | | D = 77.85 Az = 320 (NEIS) |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 13. | eP | A | 11 42 58 | Burma - India Border Region |
| | +ipP | A | 43 14.5 | 23.48 N 93.35 E |
| | LmH | B | 12 11.0 | H = 11 32 09.3 h = 61 km MB = 5.2 |
| | LmV | B | 14.7 | D = 67.07 Az = 317 (NEIS) |
| | | | | h = 65 km |
| | | | | PV A 1.1s 16.1nm M = 4.9 |
| | | | | pPV A 2.0 119.7nm |
| | | | | LmH B 20 0.8/um |
| | | | | LmV B 17 0.9/um |
| 13. | eP | A | 20 46 50 | Tadzhik SSR 37.30 N 72.06 E |
| | | | | H = 20 38 52.1 h = 139.7 km MB = 4.6 |
| | | | | D = 44.29 Az = 308 (NEIS) |
| 13. | eP | A | 21 30 54 | Nicobar Islands Region 9.46 N 93.79 E |
| | | | | H = 21 18 56.9 h = 33 km MB=5.1 MS=4.9 |
| | | | | D = 77.80 Az = 320 (NEIS) |
| | | | | PV A 1.5s 22.6nm M = 5.0 |
| 13. | LmH | B | 24 12.3 | Off Coast of Peru 12.25 S 77.96 W |
| | LmV | B | 14.9 | H = 23 16 27.2 h = 26 km |
| | | | | MB = 5.2 MS = 4.5 (NEIS) |
| | | | | D = 99.1 |
| 14. | +eiPKP | AB | 05 15 09 | Tonga Islands 15.72 S 173.05 W |
| | LmH | B | 06 19.3 | H = 04 55 34.8 h = 33 km MB=5.9 MS=5.7 |
| | LmV | B | 21.5 | D = 144.96 Az = 355 (NEIS) |
| | | | | PKPV A 1.4s 200.0nm |
| | | | | PKPV B 7 1.6/um |
| | | | | LmH B 20 1.3/um M = 5.6 |
| | | | | LmV B 20 1.9/um 5.8 |
| 14. | ePKHKP | A | 11 11 36 | Tonga Islands 19.17 S 175.70 W |
| | | | | H = 10 52 19.7 h = 250.3 km MB = 5.2 |
| | | | | D = 148.06 Az = 351 (NEIS) |
| 14. | ePKIKP | A | 12 48 21 | New Hebrides Islands 15.37 S 167.41 E |
| | e | A | 48 28.5 | H = 12 29 13.8 h = 125 km MB = 5.7 |
| | | | | D = 139.76 Az = 336 (NEIS) |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 14. | eP | A | 14 15 30 | Turkey 37.42 N 32.0 E |
| | | | | H = 14 11 00.2 h = 33 km MB = 4.2 |
| | | | | D = 19.65 Az = 319 (NEIS) |
| 14. | LmH | B | 20 11.0 | South Atlantic Ridge 39.97 S 16.14 W |
| | LmV | B | 11.0 | H = 19 16 56.1 h = 33 km MB = 4.8 (NEIS) |
| | | | | D = 93.3 |
| | | | | LmV B 18s 0.45/um M = 5.0 |
| 14. | iPn | A | 20 13 03.9 | Northern Italy 46.24 N 12.90 E |
| | iPg | A | 13 23 | H = 20 11 58.1 h = 33 km |
| | iSn | A | 13 54 | D = 4.49 Az = 349 (NEIS) |
| | iSg | A | 14 17 | |
| 15. | ePKHKP | A | 21 17 28 | South of Fiji Islands 22.37 S 178.24 W |
| | | | | H = 20 58 15 h = 346.4 km MB = 4.5 |
| | | | | D = 150.74 Az = 347 (NEIS) |
| 16. | eiP | AB | 02 11 30 | Kurile Islands 47.05 N 153.91 E |
| | eS | B | 21 20 | H = 01 59 36.6 h = 33 km MB=5.6 MS=5.6 |
| | eSS | B | 26 25 | D = 77.39 Az = 336 (NEIS) |
| | LmH | B | 45.6 | PV A 1.8s 338.0nm M = 6.1 |
| | LmV | B | 53.1 | PV B 5 1.7/um 6.3 |
| | | | | LmH B 17.5 6.0/um 6.0 |
| | | | | LmV B 16 3.9/um 5.9 |
| 16. | +eP | A | 03 19 15 | South Atlantic Ridge 18.56 S 12.81 W |
| | LmV | B | 49.7 | H = 03 07 50.5 h = 21 km MB = 5.3 |
| | LmH | B | 50.0 | D = 72.18 Az = 16 (NEIS) |
| | | | | PV A 2.1s 105.0nm M = 5.5 |
| | | | | LmH B 19 0.7/um 4.9 |
| | | | | LmV B 18 0.8/um 5.1 |
| 16. | eP | A | 04 36 38.5 | Southern Alaska 59.88 N 152.55 W |
| | e | A | 37 09 | H = 04 25 40 h = 82.2 km MB = 4.6 |
| | | | | D = 69.08 Az = 11 (NEIS) |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 16. | eP | A | 10 57 07.5 | Kurile Islands 47.40 N 153.55 E |
| | | | | H = 10 45 17.6 h = 42 km MB = 4.7 |
| | | | | D = 76.98 Az = 336 (NEIS) |
| | | | | PV A 0.9s 19.5nm M = 5.1 |
| 16. | ePKP2 | AB | 13 34 37 | Kermadec Islands Region 30.06 S 176.85 W |
| | ePP | B | 38 12 | H = 13 14 05 h = 19.8 km |
| | eSS | B | 58 20 | MB = 5.2 MS = 5.7 (NEIS) |
| | LmH | B | 15 02.6 | D = 158.2 |
| | LmV | B | 10.8 | PKP2V A 1.6s 27.5nm |
| | | | | PKP2V B 9 0.5/um |
| | | | | LmH B 18 1.0/um M = 5.6 |
| | | | | LmV B 18 1.3/um 5.8 |
| 16. | eP | A | 19 18 15 | Kurile Islands Region 46.95 W 154.06 E |
| | | | | H = 19 06 21.6 h = 45.1 km MB = 4.6 |
| | | | | D = 77.53 Az = 337 (NEIS) |
| 16. | eP | A | 19 23 02 | Kurile Islands 47.08 N 153.93 E |
| | LmH | B | 57.2 | H = 19 11 08.9 h = 33 km MB = 5.1 |
| | LmV | B | 20 06.2 | D = 77.38 Az = 336 (NEIS) |
| | | | | PV A 0.9s 31.2nm M = 5.3 |
| | | | | LmH B 18 0.8/um 5.1 |
| | | | | LmV B 16 0.4/um 4.9 |
| 16. | eP | A | 21 17 19 | Kurile Islands 49.42 N 155.43 E |
| | | | | H = 21 05 37.3 h = 40.7 km MB=4.9 MS=4.6 |
| | | | | D = 75.62 Az = 337 (NEIS) |
| 16. | ePKP | A | 21 27 47 | Sumbawa Islands Region 9.73 S 117.12 E |
| | LmH | B | 22 10.1 | H = 21 09 17.7 h = 33 km MB=5.6 MS=5.8 |
| | LmV | B | 19.4 | D = 107.29 Az = 320 (NEIS) |
| | | | | LmH B 25s 5.5/um M = 6.1 |
| | | | | LmV B 20 2.4/um 5.8 |
| 17. | eP | A | 03 57 53 | Burma - China Border Region |
| | | | | 25.89 N 98.85 E |
| | | | | H = 03 46 49.3 h = 33 km MB = 4.7 |
| | | | | D = 68.74 Az = 317 (NEIS) |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 17. | +ePKIKP | AB | 17 46 28.5 | North of New Zealand 27.91 S 173.08 E |
| | ePKHKP | A | 46 36.5 | H = 17 26 40.4 h = 33 km |
| | ePKP2 | A | 46 49 | MB = 6.3 MS = 6.7 (NEIS) |
| | e | B | 49 24 | D = 153.3 |
| | ePPS | B | 03 00 | PKIKPV A 1.8s 135.1nm |
| | eSS | B | 09 40 | PKIKPV B 7 1.5/um |
| | LmH | B | 19 03.4 | PKHKPV A 2.0 367.5nm |
| | LmV | B | 14.5 | LmH B 19 12.4/um M = 6.7 |
| | | | | LmV B 20 20.7/um 6.9 |
| 17. | ePKHKP | A | 19 32 29 | North of New Zealand 27.91 S 173.65 E |
| | | | | H = 19 12 20.2 h = 33 km MB = 5.1 (NEIS) |
| | | | | D = 153.5 |
| 18. | LmH | B | 07 07.5 | West Irian Region 2.01 N 132.66 E |
| | | | | H = 06 07 21.8 h = 33 km |
| | | | | MB = 5.1 MS = 4.3 (NEIS) |
| | | | | D = 107.5 |
| | | | | LmH B 16s 0.35/um M = 5.0 |
| 18. | eP | A | 07 15 29 | South of Alaska 54.80 N 154.63 W |
| | | | | H = 07 03 53.5 h = 33 km MB = 4.9 (NEIS) |
| | | | | D = 74.3 |
| | | | | PV A 1.1s 14.1nm M = 4.9 |
| 18. | eP | A | 20 34 14 | Kurile Islands Region 46.92 N 154.28 E |
| | LmH | B | 21 08.4 | H = 20 22 20.2 h = 33 km MB = 5.1 (NEIS) |
| | LmV | B | 15.5 | D = 77.5 |
| | | | | PV A 1.3s 39.3nm M = 5.3 |
| | | | | LmH B 15 0.4/um 4.8 |
| 18. | eP | A | 21 23 49.5 | Kurile Islands 46.99 N 154.01 E |
| | e | A | 24 34 | H = 21 11 55.1 h = 33 km MB = 4.8 (NEIS) |
| | | | | D = 77.5 |
| | | | | PV A 1.0s 11.8nm M = 4.9 |
| 18. | ePKP | A | 23 43 14.5 | Fiji Islands Region 18.04 S 178.41 W |
| | | | | H = 23 24 39.2 h = 603.4 km MB=5.3 (NEIS) |
| | | | | D = 146.5 |
| | | | | PKPV A 2.0s 85.5nm |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 19. | eP | A | 02 26 38.5 | Central Alaska 62.88 N 150.56 W |
| | | | | H = 02 16 02.6 h = 101.5 km MB=5.0 (NEIS) |
| | | | | D = 66.0 |
| | | | | PV A 1.6s 27.5nm M = 4.9 |
| 19. | ePKHKP | A | 02 41 28.5 | Tonga Islands 20.75 S 173.96 W |
| | LmV | B | 03 58.3 | H = 02 21 40.4 h = 33 km |
| | LmH | B | 58.4 | MB = 5.3 MS = 5.5 (NEIS) |
| | | | | D = 149.8 |
| | | | | PKHKPV A 1.6s 44.0nm |
| | | | | LmH B 17 0.6/um M = 5.4 |
| | | | | LmV B 17 0.7/um 5.5 |
| 19. | eP | AB | 06 42 42 | Southern Iran 27.79 N 54.88 E |
| | ePP | AB | 44 20 | H = 06 35 10.9 h = 33 km MB=5.6 MS=5.2 |
| | eS | B | 48 45 | D = 39.79 Az = 317 (NEIS) |
| | eSS | B | 51 45 | PV A 1.3s 26.2nm M = 4.8 |
| | LmH | B | 07 03.0 | LmH B 16 3.7/um 5.3 |
| | LmV | B | 03.0 | LmV B 17 4.2/um 5.3 |
| 19. | ePKHKP | A | 08 01 38 | Tonga Islands 18.14 S 175.24 W |
| | | | | H = 07 42 24.5 h = 259.5 km MB = 5.1 |
| | | | | D = 147.11 Az = 352 (NEIS) |
| | | | | PKHKPV A 1.2s 42.7nm |
| 19. | eP | A | 11 48 32 | Kurile Islands Region 46.96 N 154.33 E |
| | | | | H = 11 36 37.8 h = 42 km MB=4.9 MS=3.9 |
| | | | | D = 77.84 Az = 337 (NEIS) |
| | | | | PV A 1.0s 11.8nm M = 4.9 |
| 19. | eP | A | 17 38 55 | Southern Sinkiang Province, China |
| | LmH | B | 59.3 | 39.16 N 91.04 E |
| | LmV | B | 18 03.3 | H = 17 29 24.8 h = 33 km MB=5.1 MS=4.0 |
| | | | | D = 54.84 Az = 310 (NEIS) |
| | | | | PV A 1.2s 18.3nm M = 5.0 |
| | | | | LmH B 16 0.6/um 4.7 |
| | | | | LmV B 12 0.8/um 5.1 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 19. | eP | A | 21 32 22 | Kurile Islands 49.35 N 155.63 E |
| | LmH | B | 22 07.5 | H = 21 20 41.6 h = 61.5 km MB = 5.3 |
| | LmV | B | 07.5 | D = 75.73 Az = 337 (NEIS) |
| | | | | PV A 1.6s 32.9nm M = 5.0 |
| | | | | LmH B 18 0.7/um 5.0 |
| | | | | LmV B 24 0.45/um 4.7 |
| 19. | iP | A | 22 51 51 | Taiwan Region 22.61 N 121.61 E |
| | eS | B | 23 01 58 | H = 22 39 34.1 h = 158 km MB = 5.5 |
| | LmH | B | 34.4 | D = 84.63 Az = 323 (NEIS) |
| | LmV | B | 34.4 | PV A 1.2s 69.1nm M = 5.3 |
| | | | | LmH B 14 0.45/um |
| | | | | LmV B 14 0.6/um |
| 20. | eP | AB | 05 51 57 | Kurile Islands 47.15 N 154.09 E |
| | eS | B | 06 01 47 | H = 05 40 05.7 h = 44 km MB=5.4 MS=5.4 |
| | LmH | B | 26.2 | D = 77.35 Az = 337 (NEIS) |
| | LmV | B | 34.3 | PV A 1.5s 121.0nm M = 5.7 |
| | | | | PV B 8 1.2/um 5.9 |
| | | | | LmH B 17 4.7/um 5.9 |
| | | | | LmV B 17 2.9/um 5.7 |
| 20. | eP | A | 06 17 16 | Kurile Islands 47.16 N 154.09 E |
| | | | | H = 06 05 22.1 h = 33 km MB = 5.0 |
| | | | | D = 77.34 Az = 337 (NEIS) |
| | | | | PV A 1.1s 20.2nm M = 5.1 |
| 20. | eP | A | 08 09 02 | Kurile Islands 47.24 N 153.95 E |
| | | | | H = 07 57 10.1 h = 37.1 km MB = 5.2 |
| | | | | D = 77.24 Az = 336 (NEIS) |
| | | | | PV A 1.3s 41.5nm M = 5.3 |
| 20. | eP | A | 08 29 22 | Komandorsky Islands Region |
| | epP | A | 29 33 | 56.43 N 164.13 E |
| | LmH | B | 09 02.1 | H = 08 18 07 h = 40 km MB=5.2 MS=4.9 |
| | LmV | B | 06.7 | D = 70.89 Az = 342 (NEIS) |
| | | | | h = 42 km |
| | | | | PV A 1.6s 49.5nm M = 5.3 |
| | | | | LmH B 16 1.7/um 5.4 |
| | | | | LmV B 15 0.9/um 5.2 |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 20. | eP | A | 11 26 13 | Kurile Islands 47.31 N 153.89 E<br>H = 11 14 20.8 h = 39 km MB = 4.9<br>D = 77.15 Az = 336 (NEIS)<br>PV A 1.3s 26.2nm M = 5.1 |
| 20. | e | A | 11 54 06 | Sumbawa Islands Region 9.78 S 117.10 E |
| | LmH | B | 12 36.3 | H = 11 35 23.5 h = 33 km MB=5.3 MS=5.3 |
| | LmV | B | 51.7 | D = 107.31 Az = 320 (NEIS)<br>LmH B 22s 0.7/um M = 5.2<br>LmV B 18 0.7/um 5.3 |
| 20. | eP | A | 12 38 28 | Kurile Islands 47.33 N 154.03 E<br>H = 12 26 35.7 h = 33 km MB = 4.6<br>D = 77.17 Az = 337 (NEIS) |
| 20. | eP | A | 12 57 40 | Kurile Islands 47.38 N 153.92 E<br>H = 12 45 48.3 h = 35.7 km MB = 4.8<br>D = 77.10 Az = 336 (NEIS) |
| 20. | LmV | B | 23 03.0 | Near N. Coast of West Irian<br>2.89 S 139.04 E<br>H = 21 51 03.4 h = 37 km MB = 5.3 (NEIS)<br>D = 115.2 |
| 21. | eP | A | 00 57 55 | Kurile Islands 47.15 N 153.98 E<br>H = 00 46 02 h = 33 km MB = 4.8<br>D = 77.32 Az = 337 (NEIS)<br>PV A 1.0s 15.8nm M = 5.0 |
| 21. | LmH | B | 01 54.0 | Kyushu, Japan 30.94 N 131.51 E |
| | LmV | B | 54.0 | H = 01 00 30.1 h = 68.4 km MB = 5.0<br>D = 83.01 Az = 326 (NEIS)<br>LmH B 18s 0.2/um<br>LmV B 18 0.3/um |
| 21. | iPg | A | 08 19 27.3 | Czechoslovakia 50.60 N 13.86 E |
| | iSg | A | 19 47.5 | Explosion<br>H = 08 19.0 (KHC)<br>D = 1.43 Az = 273 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 21. | ePg | A | 15 00 30 | Czechoslovakia 50.54 N 14.65 E |
| | eSg | A | 00 55 | Explosion yield 11 t<br>H = 15 00.0 (KHC)<br>D = 1.94 Az = 274 |
| 21. | eP | A | 19 21 36 | Fox Islands, Aleutian Is.<br>52.35 N 171.44 W<br>H = 19 09 47.2 h = 67.3 km MB = 5.3<br>D = 77.35 Az = 358 (NEIS) |
| 21. | ePKP2 | A | 22 34 12 | North of New Zealand 27.72 S 173.76 E<br>H = 22 14 00 h = 33 km MB = 5.3<br>D = 153.38 Az = 334 (NEIS) |
| 22. | eP | A | 01 35 30 | Northern Colombia 7.14 N 72.92 W |
| | epP | A | 36 07 | H = 01 23 27 h = 168.8 MB = 5.3<br>D = 81.06 Az = 40 (NEIS)<br>h = 151 km<br>PV A 2.1s 38.3nm M = 4.8<br>pPV A 2.0 42.7nm |
| 22. | eP | AB | 10 06 17 | Crete 34.95 N 23.16 E |
| | e | A | 06 30 | H = 10 02 09.1 h = 33 km MB=5.0 MS=4.3 |
| | eS | A | 09 40 | D = 17.79 Az = 335 (NEIS) |
| | LmH | B | 13.7 | PV A 1.2s 32.6nm M = 4.3 |
| | LmV | B | 15.0 | LmH B 16.5 2.7/um 4.6<br>LmV B 17 3.3/um 4.8 |
| 22. | eP | A | 12 11 04 | Near East Coast of Honshu, Japan<br>36.72 N 141.33 E<br>H = 11 58 45.7 h = 44 km MB = 4.9<br>D = 82.40 Az = 330 (NEIS) |
| 22. | -eP | AB | 18 10 08.5 | Santiago Del Estero Prov., Argentina |
| | -epP | A | 12 24 | 27.95 S 62.97 W |
| | ipP | B | 12 28 | H = 17 57 17.4 h = 614 km MB = 6.1 |
| | esP | B | 13 28 | D = 102.12 Az = 39 (NEIS) |
| | -ePP | B | 14 26 | h = 633 km |
| | epPP | AB | 16 25 | PV A 2.2s 98.2nm M = 6.0 |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| cont. 22. | 1SKS | B | 18 19 52 | PPV A 2.1s 4118.8nm M = 7.4 |
| | 1S | B | 21 04 | SH B 11 3.3/um 6.3 |
| | eSP | B | 22 34 | PKKPV A 2.4 151.9nm |
| | ePS | B | 23 59 | LmH B 16 1.8/um |
| | esS | B | 24 56 | LmV B 17 2.1/um |
| | ePKKP | A | 26 33 | |
| | LmH | B | 57.3 | |
| | LmV | B | 59.0 | |
| 22. | ePKP | A | 21 17 07.5 | Fiji Islands Region 15.60 S 176.96 W<br>H = 20 58 15.9 h = 391.6 km MB = 4.5<br>D = 144.37 Az = 351 (NEIS)<br>PKPV A 1.2s 20.3nm |
| 22. | ePKHKP | A | 23 53 09 | South of Fiji Islands 22.03 S 179.13 W<br>H = 23 34 14.4 h = 509.6 km MB = 4.7<br>D = 150.22 Az = 346 (NEIS)<br>traces |
| 23. | ePKHKP | A | 03 04 46.5 | Fiji Islands Region 21.68 S 179.40 W |
| | ePKP2 | A | 04 53.5 | H = 02 46 02.2 h = 591.7 km MB = 5.0 |
| | epPKP | A | 07 13 | D = 149.83 Az = 346 (NEIS) |
| | | | | pPKPV A traces |
| 23. | ePKIKP | AB | 10 51 24 | Loyalty Islands Region 21.49 S 170.30 E |
| | iPKHKP | A | 51 25 | H = 10 31 53.1 h = 89 km MB = 5.6 |
| | ipPKP | AB | 51 47.5 | D = 146.43 Az = 335 (NEIS) |
| | LmV | B | 11 50.0 | PKHKPV A 1.3s 227.0nm |
| | | | | LmV B 29 0.9/um |
| 23. | LmH | B | 19 42.0 | North Atlantic Ridge 52.72 N 31.08 W |
| | LmV | B | 42.0 | H = 19 26 25.4 h = 33 km MB=4.5 MS=4.2 |
| | | | | D = 26.27 Az = 77 (NEIS) |
| | | | | LmH B 15s 0.6/um M = 4.3 |
| | | | | LmV B 15 0.35/um 4.2 |
| 24. | ePKP2 | A | 00 40 37 | Kermadec Islands 30.50 S 177.82 W<br>H = 00 20 05.7 h = 18.6 km MB = 5.4<br>D = 158.8 (NEIS) |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 24. | e(P) | A | 05 42 55 | Crete 34.47 N 26.83 E<br>H = 05 38 18.5 h = 33 km MB = 4.4<br>D = 19.61 Az = 330 (NEIS) |
| 24. | eP | A | 06 04 04.5 | North Atlantic Ridge 52.18 N 31.56 W |
| | LmH | B | 13.1 | H = 05 58 27.8 h = 33 km MB=4.9 MS=5.0 |
| | LmV | B | 14.6 | D = 26.68 Az = 76 (NEIS) |
| | | | | PV A 1.4s 25.6nm M = 4.6 |
| | | | | LmH B 16 2.9/um 4.9 |
| | | | | LmV B 14 2.5/um 5.1 |
| 24. | eP | A | 07 20 51 | Alaska Peninsula 56.53 N 161.72 W |
| | epP | A | 21 39 | H = 07 09 41.2 h = 198.3 km MB = 4.7 |
| | | | | D = 73.05 Az = 4 (NEIS) |
| | | | | h = 202 km |
| | | | | PV A 1.3s 19.7nm M = 4.7 |
| | | | | pPV A 1.3 26.2nm |
| 24. | eP | A | 18 46 26 | Kurile Islands 47.19 N 154.12 E |
| | | | | H = 18 34 32.3 h = 30.6 km MB = 5.0 |
| | | | | D = 77.33 Az = 337 (NEIS) |
| | | | | PV A 1.1s 18.1nm M = 5.0 |
| 24. | LmH | B | 20 29.8 | Balleny Islands Region 63.49 S 172.19 E |
| | LmV | B | 30.5 | H = 18 43 42.5 h = 33 km |
| | | | | MB = 5.1 MS = 5.2 (NEIS) |
| | | | | D = 163.6 |
| | | | | LmH B 18s 0.5/um M = 5.3 |
| | | | | LmV B 18 0.6/um 5.5 |
| 25. | eP | A | 18 09 02.5 | Southern Sinkiang Province, China<br>40.82 N 79.15 E<br>H = 18 00 35.1 h = 29.1 km MB = 4.7<br>D = 46.63 Az = 306 (NEIS) |
| 25. | eP | A | 22 07 29 | Near East Coast of Honshu, Japan<br>36.26 N 141.40 E<br>H = 21 55 08 h = 41 km MB = 5.1<br>D = 82.83 Az = 330 (NEIS) |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 26. | e | A | 02 40 21 | Fiji Islands Region 15.57 S 177.29 W |
| | LmV | B | 03 57.5 | H = 02 20 35.1 h = 33 km MB=4.8 MS=5.5 |
| | | | | D = 144.28 Az = 350 (NEIS) |
| 26. | ePKP | A | 11 39 51 | Fiji Islands Region 15.55 S 177.40 W |
| | LmH | B | 12 56.4 | H = 11 20 16.1 h = 41 km MB=5.0 MS=5.7 |
| | LmV | B | 57.2 | D = 144.24 Az = 350 (NEIS) |
| | | | | LmH B 18s 0.8/um M = 5.5 |
| | | | | LmV B 17 0.7/um 5.5 |
| 26. | eP | A | 15 22 54.5 | Rat Islands, Aleutian Is. |
| | LmH | B | 16 05.8 | 51.15 N 178.33 E |
| | LmV | B | 08.2 | H = 15 10 58.8 h = 33 km MB=5.6 MS=5.2 |
| | | | | D = 77.96 Az = 351 (NEIS) |
| | | | | PV A 1.4s 88.4nm M = 5.6 |
| | | | | LmH B 15 0.9/um 5.2 |
| | | | | LmV B 16 1.1/um 5.3 |
| 26. | eP | A | 17 09 42 | Iran 31.55 N 51.17 E |
| | | | | H = 17 02 51.2 h = 47.9 km MB = 4.7 |
| | | | | D = 34.86 Az = 315 (NEIS) |
| 27. | eP | A | 00 29 19 | Southern Iran 29.74 N 50.69 E |
| | | | | H = 00 22 22.3 h = 34.2 km MB = 4.8 |
| | | | | D = 35.86 Az = 317 (NEIS) |
| 27. | eP | A | 07 03 47.5 | Dodecanese Islands 35.46 N 27.61 E |
| | eX | A | 03 56 | H = 06 59 27.3 h = 51.9 km MB=4.9 MS=4.8 |
| | eS | B | 07 35 | D = 19.09 Az = 328 (NEIS) |
| | LmH | B | 11.0 | PV A 1.4s 102.2nm M = 4.9 |
| | LmV | B | 13.5 | XV A 1.5 206.0nm |
| | | | | LmH B 13.5 3.9/um 4.9 |
| | | | | LmV B 16 3.2/um 4.9 |
| 27. | ePKHKP | A | 11 48 04 | South of Fiji Islands 23.59 S 179.92 W |
| | epPKP | A | 50 12 | H = 11 29 09.8 h = 531.5 km MB = 5.0 |
| | | | | D = 151.54 Az = 345 (NEIS) |
| | | | | PKHKPV A 1.5s 22.6nm |
| | | | | pPKPV A 1.5 27.6nm |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 27. | ePKP | A | 12 25 55 | Fiji Islands Region 16.38 S 177.52 W |
| | | | | H = 12 06 19.2 h = 33 km MB = 5.1 |
| | | | | D = 145.04 Az = 350 (NEIS) |
| 27. | ePKHKP | A | 12 51 11 | South Pacific Cordillera 55.31 S 128.97 W |
| | | | | H = 12 31 11.8 h = 33 km MB=5.1 MS=5.4 |
| | | | | D = 156.05 Az = 85 (NEIS) |
| 27. | eP | A | 13 27 11 | Dodecanese Islands 35.25 N 27.79 E |
| | | | | H = 13 22 41.5 h = 33 km |
| | | | | D = 19.34 Az = 328 |
| 27. | ePKHKP | A | 18 12 56 | Fiji Islands Region 20.91 S 179.16 W |
| | | | | H = 17 54 15.9 h = 622.5 km MB = 4.8 |
| | | | | D = 149.13 Az = 347 (NEIS) |
| 27. | eP | AB | 22 47 35 | Turkey 37.96 N 27.88 E |
| | eS | B | 50 57 | H = 22 43 32.5 h = 24.3 km MB=4.7 MS=4.7 |
| | LmH | B | 53.7 | D = 17.17 Az = 323 (NEIS) |
| | LmV | B | 55.1 | PV A 1.8s 87.9nm M = 4.6 |
| | | | | PV B 11 1.8/um 5.1 |
| | | | | SH B 9 2.5/um 6.1 |
| | | | | LmH B 13 5.8/um 5.0 |
| | | | | LmV B 12 3.7/um 5.0 |
| 28. | eP | A | 00 45 15 | Turkey 37.99 N 27.95 E |
| | | | | H = 00 41 11.7 h = 11.8 km MB = 4.0 |
| | | | | D = 17.17 Az = 323 (NEIS) |
| 28. | eP | A | 13 29 33 | Taiwan Region 32.43 N 121.45 E |
| | | | | H = 13 16 58.3 h = 25.2 km MB = 5.1 |
| | | | | D = 84.68 Az = 323 (NEIS) |
| 28. | ePKHKP | A | 23 33 31 | South of Fiji Islands 23.68 S 179.80 W |
| | ePKP2 | A | 33 41 | H = 23 14 33.6 h = 501.9 km MB = 4.8 |
| | | | | D = 151.66 Az = 345 (NEIS) |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 29. | ePn | A | 02 50 43 | Yugoslavia 46.13 N 14.71 E |
| | eSg | A | 52 02 | H = 02 49 24.4 h = 10 km |
| | | | | D = 4.96 Az = 337 (NEIS) |
| 29. | +iP | A | 03 14 46.5 | Eastern Kazakh SSR 49.84 N 78.17 E |
| | ePn | A | 16 19.5 | H = 03 06 57.7 h = 0 km MB = 5.5 |
| | | | | D = 41.26 Az = 298 (NEIS) |
| | | | | Underground explosion M = 5.6 (UPP) |
| | | | | PV A 0.8s 107.8nm M = 5.6 |
| 29. | +iP | A | 03 14 54.5 | Eastern Kazakh SSR 50.06 N 78.91 E |
| | ePn | A | 16 32 | H = 03 07 02.9 h = 0 km MB = 5.6 |
| | | | | D = 41.58 Az = 298 (NEIS) |
| | | | | Underground explosion M = 6.6 (UPP) |
| | | | | PV A 1.1s 125.0nm M = 5.6 |
| 29. | ePKIKP | A | 10 34 17.5 | New Hebrides Islands 14.43 S 167.26 E |
| | | | | H = 10 15 12.1 h = 183.9 km MB = 5.1 |
| | | | | D = 138.84 Az = 336 (NEIS) |
| 29. | eP | A | 10 45 45 | Kurile Islands 47.14 N 153.16 E |
| | | | | H = 10 33 56.7 h = 59 km MB = 4.5 |
| | | | | D = 77.11 Az = 336 (NEIS) |
| 29. | ePKHKP | A | 17 35 40 | Fiji Islands Region 20.72 S 178.03 W |
| | | | | H = 17 16 52.2 h = 538.1 km MB = 4.8 |
| | | | | D = 149.18 Az = 348 (NEIS) |
| 29. | ePKIKP | A | 20 34 32 | East Papua New Guinea Region |
| | epPKP | A | 34 59 | 6.22 S 146.64 E |
| | eSS | B | 53 30 | H = 20 15 45.1 h = 106 km MB = 5.9 |
| | LmH | B | 21 19.0 | D = 122.05 Az = 328 (NEIS) |
| | LmV | B | 24.9 | LmH B 18s 2.1/um |
| | | | | LmV B 20 1.3/um |
| 30. | eSn | A | 00 37 28.5 | Albania 41.86 N 20.20 E |
| | | | | H = 00 32 59.6 h = 10 km (CSEM) |
| | | | | D = 10.63 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 30. | ePKHKP | A | 01 23 51 | Fiji Islands Region 20.68 S 178.43 W |
| | ePKP2 | A | 23 57.5 | H = 01 05 06.2 h = 567 km MB = 5.1 |
| | | | | D = 149.07 Az = 348 (NEIS) |
| 30. | ePKP | A | 02 09 31 | South of Sumbawa Islands |
| | e | A | 09 51 | 10.21 S 118.73 E |
| | LmH | B | 03 02.0 | H = 01 50 59.1 h = 33 km MB=5.7 MS=5.3 |
| | LmV | B | 04.1 | D = 108.68 Az = 320 (NEIS) |
| | | | | PKPV A traces |
| | | | | LmV B 18s 1.2/um M = 5.5 |
| 30. | ePKIKP | A | 06 44 07 | Fiji Islands Region 20.42 S 178.57 W |
| | iPKHKP | A | 44 11.5 | H = 06 25 30 h = 600 km MB = 5.6 |
| | iPKP2 | A | 44 17.5 | D = 148.78 Az = 347 (NEIS) |
| | epPKP | A | 46 29 | PKHKPV A 0.9s 105.0nm |
| | | | | PKP2V A 1.5 105.5nm |
| 30. | ePKIKP | A | 13 12 40 | New Hebrides Islands 14.87 S 166.95 E |
| | epPKIKP | A | 13 07 | H = 12 53 22.8 h = 102.8 km MB = 5.6 |
| | eSKP | A | 16 05 | D = 139.12 Az = 336 (NEIS) |
| | LmV | B | 14 06.5 | h = 95 km |
| | | | | SKPV A 3.5s 375.0nm |
| | | | | LmV B 20 0.7/um |
| 30. | ePKP2 | A | 16 46 13.5 | Kermadec Islands Region |
| | | | | 27.19 S 176.72 W |
| | | | | H = 16 25 58 h = 47.4 km MB = 5.2 |
| | | | | D = 155.73 Az = 347 (NEIS) |
| 30. | ePKP | A | 22 01 22 | Fiji Islands Region 16.34 S 176.05 W |
| | | | | H = 21 42 24.9 h = 356.1 km MB = 4.6 |
| | | | | D = 145.22 Az = 351 (NEIS) |
| 30. | ePKP2 | A | 22 47 24 | Kermadec Islands Region |
| | LmV | B | 24 06.8 | 27.39 S 176.40 W |
| | | | | H = 22 27 01.9 h = 57 km |
| | | | | MB = 5.3 MS = 4.7 (NEIS) |
| | | | | D = 155.9 |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 31. | eP | A | 09 51 52 | Near East Coast of Kamchatka<br>55.96 N 162.79 E<br>H = 09 40 38.5 h = 65.5 km MB = 4.3 (NEIS)<br>D = 71.1<br>PV A 1.0s 13.8nm M = 4.8 |
| 31. | ePKHKP | A | 13 27 05.5 | Tonga Islands 20.68 S 174.82 W<br>H = 13 07 27.8 h = 85.9 km MB = 4.8<br>D = 149.67 Az = 352 (NEIS)<br>PKHKPV A 1.8s 67.6nm |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 1. | eP | A | 04 04 49 | Eastern USSR 55.44 N 130.55 E<br>H = 03 54 26 h = 33 km MB = 4.5<br>D = 62.73 Az = 321 (NEIS) |
| 1. | ePKIKP | A | 08 45 16 | Tonga Islands Region 22.83 S 174.65 W<br>H = 08 25 22.1 h = 33 km MB=4.9 MS=5.0<br>D = 151.80 Az = 352 (NEIS)<br>PKIKPV A 1.8s 33.8nm |
| 2. | ePKP | A | 01 39 07 | Tonga Islands 15.39 S 173.32 W<br>H = 01 19 27.9 h = 30.1 km MB=5.3 MS=4.8<br>D = 144.61 Az = 355 (NEIS) |
| 2. | eP | A | 06 42 17 | Off East Coast of Kamchatka<br>51.91 N 160.13 E<br>H = 06 30 40.3 h = 33 km MB = 4.9 (NEIS)<br>D = 74.5 |
| 2. | ePKP | A | 11 08 34 | Easter Island Cordillera |
| | LmH | B | 12 09.4 | 49.74 S 116.30 W |
| | LmV | B | 09.6 | H = 10 48 51.0 h = 33 km<br>MB = 5.0 MS = 5.4 (NEIS)<br>D = 147.2<br>LmH B 18s 0.7/um M = 5.4<br>LmV B 18 0.7/um 4.7 |
| 2. | iPn | A | 14 43 27 | Federal Republic of Germany |
| | ePg | A | 43 42 | 50.92 N 6.69 E |
| | iSn | A | 44 00 | H = 14 42 38.8 h = 25 km |
| | iSg | A | 44 16 | D = 3.14 Az = 93 (ISC) |
| 2. | ePKP | A | 23 55 40 | Fiji Islands Region 17.29 S 179.22 W<br>H = 23 37 03.3 h = 555.1 km MB =5.1 (NEIS)<br>D = 145.7<br>PKPV A 1.7s 48.5nm |
| 3. | eP | AB | 02 25 52.5 | Bulgaria 42.12 N 24.03 E |
| | eS | B | 28 20 | H = 02 22 56.0 h = 11 km MB = 5.2 |
| | LmH | B | 29.9 | D = 12.07 Az = 319 (ISC) |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| cont. 3. | LmV | B | 02 31.0 | PV A 1.6s 54.9nm M = 5.4<br>LmH B 13.5 29.1/um 5.4<br>LmV B 9 off scale |
| 3. | ePn | A | 09 07 21 | Yugoslavia 42.78 N 20.74 E |
| | eSn | A | 09 23 | H = 09 05 15.5 h = 10 km (CSEM) |
| | | | | D = 10.05 |
| 3. | e | A | 12 22 05 | Western Poland (CLL) |
| 3. | eP | A | 12 39 58 | Kurile Islands 44.40 N 149.35 E |
| | | | | H = 12 28 00.7 h = 44 km MB = 4.6 (NEIS) |
| | | | | D = 78.4 |
| 4. | LmH | B | 04 51.5 | LmH B 16s 0.4/um |
| | LmV | B | 51.6 | LmV B 16 0.5/um |
| 4. | eP | AB | 10 04 51 | Andreanof Islands, Aleutian Is. |
| | Pm | AB | 05 25 | 51.66 N 175.95 W |
| | ePP | B | 07 32 | H = 09 52 55.7 h = 33 km |
| | ePPP | B | 09 45 | MB = 5.7 MS = 6.7 (NEIS) |
| | eS | B | 14 25 | D = 78.0 |
| | ePS | B | 15 25 | PmV A 2.0s 128.2nm M = 5.6 |
| | eiSS | B | 20 00 | PmV B 20 5.8/um 6.3 |
| | eSSSS | B | 25 40 | LmH B 19 16.2/um 6.4 |
| | eP'P' | A | 32 09 | LmV B 20 15.4/um 6.4 |
| | LmH | B | 45.1 | |
| | LmV | B | 45.2 | |
| 4. | eP | A | 10 14 00.5 | Andreanof Islands 51.62 N 175.61 W |
| | | | | H = 10 02 06.1 h = 52 km MB = 5.3 |
| | | | | D = 77.93 Az = 355 (ISC) |
| 4. | e(P) | A | 13 02 31 | Near Coast of Guatemala 13.86 N 90.59 W |
| | | | | H = 12 49 47.5 h = 103.9 km MB = 5.0 (NEIS) |
| | | | | D = 87.0 |
| 4. | iPg | A | 13 04 33 | D c. 1.6 |
| | iSg | A | 04 53 | |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 4. | eP | AB | 18 19 28 | Andreanof Islands, Aleutian Is. |
| | e | A | 19 45 | 51.43 N 175.56 W |
| | ePS | B | 30 15 | H = 18 07 31.3 h = 33 km |
| | eSS | B | 34 50 | MB = 5.4 MS = 5.4 (NEIS) |
| | LmH | B | 59.7 | D = 78.2 |
| | LmV | B | 19 04.2 | PV A 1.0s 27.6nm M = 5.2 |
| | | | | LmH B 18 1.4/um 5.4 |
| | | | | LmV B 16 1.4/um 5.4 |
| 5. | ePP | A | 06 24 26 | Solomon Islands 10.11 S 161.00 E |
| | LmH | B | 07 21.0 | H = 06 02 57.6 h = 70 km MB = 5.6 (NEIS) |
| | LmV | B | 21.3 | D = 132.4 |
| | | | | LmH B 24s 0.7/um |
| | | | | LmV B 24 0.9/um |
| 5. | eP | AB | 14 56 00 | Andreanof Islands, Aleutian Is. |
| | ePP | A | 58 56 | 51.54 N 175.55 W |
| | eS | B | 15 05 45 | H = 14 44 03.3 h = 33 km |
| | e | B | 06 22 | MB = 5.3 MS = 5.6 (NEIS) |
| | ePS | B | 06 38 | D = 78.1 |
| | eSS | B | 11 25 | PV A 1.0s 39.4nm M = 5.4 |
| | LmH | B | 29.8 | LmH B 20 2.1/um 5.5 |
| | LmV | B | 36.5 | LmV B 19 1.9/um 5.5 |
| 5. | ePg | A | 22 56 15 | |
| | eSg | A | 56 46 | |
| 6. | ePn | A | 01 23 39.5 | Federal Republic of Germany |
| | ePg | A | 23 51 | 50.93 N 6.71 E |
| | iSg | A | 24 26 | H = 01 22 51.3 h = 27 km |
| | | | | D = 3.13 Az = 93 (ISC) |
| 6. | eP | A | 02 50 58 | Near East Coast of Kamchatka |
| | | | | 53.55 N 159.81 E |
| | | | | H = 02 39 35.4 h = 67.2 km MB = 5.2 |
| | | | | D = 72.78 Az = 339 (NEIS) |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 6. | LmH | B | 02 55.8 | Bulgaria 42.13 N 24.17 E |
| | LmV | B | 56.8 | H = 02 48 45.6 h = 23 km MB = 4.6 (ISC) |
| | | | | D = 12.2 |
| | | | | LmH B 13.5s 0.7/um M = 4.0 |
| | | | | LmV B 12 0.5/um |
| 6. | eP | A | 07 46 21 | Andreanof Islands, Aleutian Is. |
| | e | A | 46 29 | 51.26 N 179.81 W |
| | | | | H = 07 34 25.4 h = 33 km MB = 5.0 (NEIS) |
| | | | | D = 78.0 |
| | | | | PV A 1.1s 20.2nm M = 5.1 |
| 6. | eP | A | 17 14 27 | Romania 45.45 N 26.44 E |
| | | | | H = 17 11 51.8 h = 113 km (CSEM) |
| | | | | D = 10.6 |
| 7. | ePn | A | 00 23 52.5 | Upper Swabia Fed. Rep. of Germany |
| | i | A | 23 56 | 48.02 N 9.27 E |
| | ePb | A | 24 00 | H = 00 23 07.2 (CSEM) |
| | iPg | A | 24 03 | D = 3.02 |
| | iSn | A | 24 27 | |
| | iSg | A | 24 41 | |
| 7. | eP | A | 08 31 28 | Kurile Islands 46.39 N 153.24 E |
| | | | | H = 08 19 31.1 h = 33 km MB=4.9 MS=4.3 |
| | | | | D = 77.81 Az = 336 (NEIS) |
| | | | | PV A 2.0s 51.3nm M = 5.2 |
| 7. | eP | A | 08 38 02 | Mariana Islands 15.28 N 144.98 E |
| | LmH | B | 09 07.5 | H = 08 24 32.5 h = 256.1 km MB = 5.4 |
| | LmV | B | 08.8 | D = 102.71 Az = 332 (NEIS) |
| | | | | LmH B 16s 0.5/um M = 4.9 |
| | | | | LmV B 18 0.8/um 5.1 |
| 7. | ePKP | A | 13 41 13 | Tonga Islands 16.26 S 174.75 W |
| | | | | H = 13 21 36.7 h = 33 km MB = 4.8 |
| | | | | D = 145.32 Az = 353 (NEIS) |
| | | | | PKPV A 2.2s 43.6nm |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 7. | ePKIKP | A | 23 16 13.5 | Solomon Islands 7.15 S 156.09 E |
| | | | | H = 22 57 15.8 h = 75.2 km MB = 5.7 |
| | | | | D = 127.56 Az = 332 (NEIS) |
| 8. | e(P) | A | 04 00 43.5 | Luzon, Philippine Islands |
| | LmH | B | 38.4 | 12.23 N 123.91 E |
| | LmV | B | 44.2 | H = 03 47 20.3 h = 33 km MB=5.2 MS=5.3 |
| | | | | D = 94.23 Az = 324 (NEIS) |
| | | | | LmH B 24.5s 4.6/um M = 5.9 |
| | | | | LmV B 18 2.5/um 5.7 |
| 8. | ePKHKP | A | 11 57 39 | Tonga Islands Region 18.71 S 172.81 W |
| | ePKP2 | A | 57 43 | H = 11 37 55.4 h = 33 km MB = 5.1 |
| | | | | D = 147.94 Az = 355 (NEIS) |
| 8. | +iP | A | 15 11 02 | Kurile Islands 47.39 N 154.31 E |
| | LmH | B | 51.5 | H = 14 59 10.4 h = 33 km MB=5.5 MS=4.6 |
| | LmV | B | 51.5 | D = 77.19 Az = 337 (NEIS) |
| | | | | PV A 1.4s 121.0nm M = 5.7 |
| | | | | LmH B 14 1.9/um 5.6 |
| | | | | LmV B 15 1.3/um 5.4 |
| 8. | eP | A | 21 48 35 | Mediterranean Sea 34.76 N 15.61 E |
| | | | | H = 21 44 47.7 h = 33 km MB = 4.4 |
| | | | | D = 16.14 Az = 351 (NEIS) |
| 9. | eP | A | 08 25 36 | Kurile Islands 47.51 N 154.30 E |
| | | | | H = 08 13 43.5 h = 25.5 km MB = 4.5 |
| | | | | D = 77.08 Az = 337 (NEIS) |
| 9. | eS | A | 14 20 12 | Norwegian Sea 63.17 N 1.9 E |
| | | | | H = 14 14 42.3 h = 10 km (ISC) |
| | | | | D = 13.61 |
| 9. | ePKP | A | 16 10 31 | New Hebrides Islands 20.54 S 169.65 E |
| | epPKP | A | 11 01 | H = 15 51 08 h = 124 km MB = 4.9 |
| | | | | D = 145.32 Az = 335 (NEIS) |
| | | | | h = 110.6 |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 9. | eP | A | 21 26 23.5 | Kurile Islands 47.53 N 154.34 E |
| | | | | H = 21 14 32 h = 33 km MB = 5.1 |
| | | | | D = 77.07 Az = 337 (NEIS) |
| | | | | PV A 1.3s 37.1nm M = 5.3 |
| 9. | +iP | A | 22 12 18 | Southern Nevada 37.07 N 116.05 W |
| | ePP | A | 15 15 | H = 22 00 00 h = 0 km MB=5.7 MS=4.0 |
| | | | | D = 81.27 Az = 31 (NEIS) |
| | | | | Nuclear explosion SANDREEF at the Nevada |
| | | | | Test Site (ERDA) |
| | | | | PV A 1.3s 87.4nm M = 5.6 |
| 10. | eP | A | 04 16 30.5 | Turkey 37.99 N 27.71 E |
| | | | | H = 04 12 26.3 h = 33 km MB = 4.0 |
| | | | | D = 17.05 Az = 323 (NEIS) |
| 10. | ePKIKP | A | 09 19 18 | South of Fiji Islands 25.99 S 179.93 W |
| | ePKP2 | A | 19 42.5 | H = 09 00 21.7 h = 476.5 km MB = 5.1 |
| | LmH | C | 10 09.3 | D = 153.83 Az = 343 (NEIS) |
| | LmV | C | 15.5 | |
| 10. | eP | A | 23 18 19 | Dodecanese Islands 35.81 N 27.40 E |
| | | | | H = 23 13 57.2 h = 33 km MB = 4.1 |
| | | | | D = 18.70 Az = 327 (NEIS) |
| 11. | ePg | A | 09 29 31.5 | Czechoslovakia 50.41 N 13.84 E |
| | eSg | A | 29 51.5 | H = 09 29 04.4 h = 0 km |
| | | | | D = 1.44 Az = 280 (ISC) |
| | | | | Explosion of 4.4 t (KHC) |
| 11. | eP | A | 22 13 12 | New Guinea 6.80 S 143.69 E |
| | LmH | B | 23 09.8 | H = 21 54 20.8 h = 33 km MB = 5.4 |
| | LmV | B | 10.4 | D = 120.95 Az = 327 (ISC) |
| | | | | PV A traces |
| | | | | LmH B 20s 0.7/um M = 5.3 |
| | | | | LmV B 19 1.0/um 5.5 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 12. | eP | A | 02 35 33 | Fox Islands, Aleutian Is. |
| | | | | 53.63 N 170.24 W |
| | | | | H = 02 23 47.6 h = 33 km MB = 4.2 |
| | | | | D = 76.08 Az = 359 (NEIS) |
| | | | | traces |
| 12. | eP | A | 03 28 40 | Kurile Islands 43.98 N 148.27 E |
| | e | A | 29 27 | H = 03 16 38.5 h = 18.1 km MB = 5.0 |
| | | | | D = 78.50 Az = 334 (NEIS) |
| | | | | PV A 1.2s 28.5nm M = 5.2 |
| 12. | ePKIKP | A | 19 23 34.5 | Fiji Islands Region 20.49 S 177.77 W |
| | iPKHKP | A | 23 39 | H = 19 04 48.0 h = 507.1 km MB = 5.0 |
| | iPKP2 | A | 23 45 | D = 149.00 Az = 348 (NEIS) |
| | | | | PKHKPV A 1.8s 169.0nm |
| | | | | PKP2V A 1.8 94.5nm |
| 13. | e(Pg) | A | 07 08 32.5 | Poland (CLL) |
| | eSg | A | 09 13 | |
| 13. | ePg | A | 15 48 09 | Federal Republic of Germany |
| | eSn | A | 48 36.5 | 49.5 N 8.9 E |
| | eSg | A | 48 41 | H = 15 47 34 h = 0 km |
| | | | | D = 2.06 Az = 56 (ISC) |
| 13. | e(P) | A | 21 25 38 | Philippine Islands Region |
| | eSKS | C | 35 55 | 19.20 N 121.20 E |
| | ePS | C | 37 00 | H = 21 12 46.3 h = 33 km MB=5.2 MS=5.2 |
| | eSS | C | 41 50 | D = 87.11 Az = 323 (NEIS) |
| | LmH | B | 22 10.2 | LmH B 16s 2.2/um M = 5.6 |
| | LmV | B | 10.8 | LmV B 16 2.1/um 5.7 |
| 14. | eP | A | 19 40 50 | Fox Islands, Aleutian Is. |
| | | | | 52.48 N 170.69 W |
| | | | | H = 19 29 1.8 h = 68.6 km MB = 4.9 |
| | | | | D = 77.23 Az = 358 (NEIS) |
| | | | | PV A 1.4s 14.0nm M = 4.7 |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 15. | eP | A | 05 08 50 | Alaska Peninsula 54.95 N 160.03 W |
| | | | | H = 04 57 14.0 h = 39.2 km MB = 5.1 |
| | | | | D = 74.55 Az = 6 (NEIS) |
| 15. | ePg | A | 06 43 34 | Czechoslovakia 50.48 N 14.02 E |
| | eSg | A | 43 55 | H = 06 43 04.7 h = 0 km |
| | | | | D = 1.53 Az = 273 (ISC) |
| 15. | ePg | A | 12 53 05 | Czechoslovakia 50.25 N 12.66 E |
| | | | | H = 12 52 48.2 h = 0 km |
| | | | | D = 0.78 Az = 301 (ISC) |
| | | | | Explosion of 3.3 t (KHC) |
| 16. | eP | A | 15 10 52 | Japan 36.06 N 140.41 E |
| | | | | H = 14 58 38.6 h = 106 km MB=5.1 (NEIS) |
| | | | | D = 82.6 |
| 16. | eP | A | 19 48 08 | Hokkaido, Japan Region 41.91 N 142.28 E |
| | epP | A | 48 27.5 | H = 19 36 14.2 h = 68.5 km MB = 5.1 |
| | LmH | C | 20 23.0 | D = 78.26 Az = 330 (NEIS) |
| | | | | h = 74.3 km |
| | | | | LmH C 25s 0.45/um |
| 17. | ePg | A | 09 00 43.5 | Czechoslovakia 50.61 N 14.17 E |
| | eSg | A | 01 08 | H = 09 00 13.1 h = 0 km |
| | | | | D = 1.63 Az = 272 (ISC) |
| 17. | iP | A | 17 32 54.5 | South of Honshu 33.71 N 140.09 E |
| | e | A | 35 48 | H = 17 20 32.6 h = 112 km MB = 5.5 |
| | ePP | A | 36 10 | D = 84.50 Az = 330 (ISC) |
| | eS | BC | 43 00 | PV A 1.6s 121.0nm M = 5.6 |
| | LmV | B | 18 13.8 | PPV A 2.0 76.9nm 5.8 |
| | LmH | B | 15.3 | LmH B 13 0.7/um |
| | | | | LmV B 16 0.6/um |
| 18. | eP | AB | 05 29 59 | Tibet 32.69 N 88.39 E |
| | ePP | B | 32 08 | H = 05 20 11.3 h = 33 km MB=5.7 MS=6.5 |
| | eS | BC | 37 48 | D = 57.49 Az = 313 (NEIS) |
| | eScS | B | 39 40 | PV A 1.6s 384.6nm M = 6.2 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| cont. 18. | eSS | B | 05 41 56 | PV B 5s 1.6/um M = 6.3 |
| | LmH | B | 54.2 | SH B 14 5.9/um 6.1 |
| | LmV | B | 58.7 | LmH B 16.5 64.5/um 6.8 |
| | | | | LmV B 18 56.5/um 6.8 |
| 18. | eP | A | 05 43 09 | Tibet 32.64 N 88.43 E |
| | | | | H = 05 33 19.7 h = 33 km MB = 4.6 |
| | | | | D = 57.56 Az = 313 (NEIS) |
| 18. | eP | A | 06 47 23 | Pakistan 30.25 N 66.27 E |
| | | | | H = 06 39 02.1 h = 26.9 km MB = 4.9 |
| | | | | D = 45.15 Az = 313 (NEIS) |
| 18. | eP | AB | 10 30 56 | Southern Sumatra 4.35 S 102.02 E |
| | ePP | AB | 34 40 | H = 10 17 41 h = 33 km MB=5.5 MS=5.9 |
| | eSKS | B | 41 31 | D = 93.59 Az = 320 (NEIS) |
| | eS | B | 42 00 | PV A 1.2s 24.4nm M = 5.5 |
| | ePS | B | 43 28 | LmH B 20 3.9/um 5.9 |
| | eSSS | C | 52 10 | LmV B 18 2.5/um 5.7 |
| | LmH | B | 11 19.4 | |
| | LmV | B | 24.4 | |
| 18. | iPg | A | 15 12 53.5 | Federal Republic of Germany |
| | eSg | A | 13 13 | 50.7 N 9.4 E |
| | | | | H = 15 12 33.3 h = 33 km |
| | | | | D = 1.4 Az = 90 (ISC) |
| 18. | eP | A | 17 33 13 | Tibet 32.61 N 88.32 E |
| | LmH | B | 57.3 | H = 17 23 24.4 h = 33 km MB = 4.9 |
| | LmV | B | 18 02.1 | D = 57.51 Az = 313 (NEIS) |
| | | | | PV A 1.5s 30.2nm M = 5.1 |
| | | | | LmH B 16 0.8/um 4.9 |
| | | | | LmV B 16 0.5/um 4.8 |
| 18. | eP | A | 22 06 05 | Eastern Siberia 60.08 N 143.37 E |
| | | | | H = 21 55 39.7 h = 33 km MB = 4.6 |
| | | | | D = 62.95 Az = 328 (NEIS) |
| | | | | traces |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 18. | eP | A | 23 22 38 | Tibet 32.70 N 88.42 E |
| | LmV | B | 51.5 | H = 23 12 49.5 h = 33 km MB = 4.7 |
| | LmH | B | 51.6 | D = 57.51 Az = 313 (NEIS) |
| | | | | PV A traces |
| | | | | LmH B 19s 0.5/um M = 4.6 |
| | | | | LmV B 19 0.5/um 4.7 |
| 19. | ePKP | A | 06 22 36 | Fiji Islands Region 17.81 S 178.68 W |
| | | | | H = 06 04 04.2 h = 611.9 km MB = 4.7 |
| | | | | D = 146.22 Az = 348 (NEIS) |
| 19. | ePn | A | 08 30 01 | Austria 47.51 N 12.74 E |
| | 1Pg | A | 30 13 | H = 08 29 10.1 h = 10 km |
| | eSn | A | 30 39 | D = 3.23 Az = 347 (ISC) |
| | eSg | A | 30 56 | |
| 19. | ePn | A | 21 42 43.3 | Austria 47.63 N 12.70 E |
| | ePg | A | 42 55.5 | H = 21 41 54.2 h = 10 km |
| | eSn | A | 43 22 | D = 3.10 Az = 347 (NEIS) |
| | eSg | A | 43 36 | |
| 19. | eP | A | 22 15 44 | Andreanof Islands, Aleutian Is. |
| | | | | 51.49 N 174.32 W |
| | | | | H = 22 03 48.3 h = 47 km MB = 4.7 |
| | | | | D = 78.11 Az = 356 (NEIS) |
| 19. | ePn | A | 23 45 19 | Austria 47.65 N 12.83 E |
| | ePg | A | 45 35 | H = 23 44 28.6 h = 10 km (NEIS) |
| | eSg | A | 46 14 | D = 3.10 Az = 346 |
| 20. | eP | A | 16 09 30.5 | Ryukyu Islands 26.77 N 126.32 E |
| | | | | H = 15 57 16.3 h = 144.6 km MB = 4.9 |
| | | | | D = 83.83 Az = 324 (NEIS) |
| 21. | eP | A | 03 02 47.5 | Gulf of California 29.27 N 112.97 W |
| | eS | C | 13 25 | H = 02 50 03.4 h = 33 km MB=5.2 MS=5.6 |
| | eSS | C | 19 00 | D = 86.60 Az = 32 (NEIS) |
| | LmH | B | 40.0 | PV A 1.8s 50.7nm M = 5.5 |
| | LmV | B | 42.9 | LmH B 17.5 11.8/um 6.4 |
| | | | | LmV B 16.5 7.0/um 6.2 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 21. | ePKP2 | A | 10 12 36 | Kermadec Islands Region |
| | | | | 31.45 S 179.89 W |
| | | | | H = 09 52 38.6 h = 324 km MB = 5.2 (NEIS) |
| | | | | D = 159.0 |
| 21. | eP | A | 11 52 16 | Mindanao, Philippine Islands |
| | ePP | A | 56 21 | 6.83 N 123.58 E |
| | | | | H = 11 39 40.1 h = 601.3 km MB = 5.8 |
| | | | | D = 98.36 Az = 323 (NEIS) |
| | | | | PV A 2.2s 98.1nm M = 5.8 |
| | | | | PPV A 2.0 81.2nm 5.9 |
| 21. | e(Sb) | A | 12 51 51 | Poland 50.15 N 19.00 E |
| | eSg | A | 52 09 | H = 12 49 36.3 h = 0 km (ISC) |
| | | | | D = 4.75 |
| 21. | eP | A | 14 46 31.5 | Near East Coast of Kamchatka |
| | | | | 53.0 N 160.15 E |
| | | | | H = 14 35 00.5 h = 33 km MB = 4.9 |
| | | | | D = 73.38 Az = 340 (NEIS) |
| 21. | ePg | A | 19 28(58) | Switzerland 47.1 N 8.4 E |
| | eSb | A | 29 44 | H = 19 27 41 h = 20 km |
| | | | | D = 4.10 Az = 30 (ISC) |
| 21. | ePKP2 | A | 23 25 02 | Kermadec Islands Region 29.28 S 179.04 W |
| | | | | H = 23 05 12.5 h = 330 km MB = 4.8 (NEIS) |
| | | | | D = 157.0 |
| 22. | ePKHKP | A | 08 59 07 | Fiji Islands Region 19.08 S 177.02 W |
| | | | | H = 08 39 31.5 h = 89.8 km MB = 5.0 |
| | | | | D = 147.76 Az = 350 (NEIS) |
| 22. | ePKHKP | A | 13 30 59 | Tonga Islands Region 22.16 S 173.98 W |
| | | | | H = 13 11 05.5 h = 33 km MB = 4.7 |
| | | | | D = 151.24 Az = 353 (NEIS) |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 22. | ePKIKP | A | 16 15 50.5 | Solomon Islands 10.23 S 161.13 E |
| | epPKIKP | A | 16 11 | H = 15 56 44.1 h = 91.7 km MB = 5.9 |
| | ePP | B | 18 10 | D = 132.54 Az = 334 (NEIS) |
| | ipPP | B | 18 37 | h = 66 km |
| | iSKP | B | 19 10 | PKIKPV A 2.0s 68.4nm |
| | i | B | 19 48 | PPV B 6.8 1.7/um M = 6.1 |
| | ePPP | B | 21 00 | LmH B 22 2.0/um |
| | ePS | B | 28 16 | LmV B 22 3.4/um |
| | e | B | 35 44 | |
| | eSS | C | 37 00 | |
| | LmH | B | 17 12.6 | |
| | LmV | B | 15.5 | |
| 22. | eP | A | 21 28 17 | Near Coast of Northern California |
| | LmH | B | 22 03.3 | 39.45 N 123.26 W |
| | LmV | B | 10.2 | H = 21 15 52.5 h = 5 km MB = 5.2 |
| | | | | D = 81.94 Az = 27 (NEIS) |
| | | | | LmH B 14s 0.5/um M = 5.0 |
| | | | | LmV B 16 0.5/um 5.0 |
| 23. | eP | A | 09 40 46 | San Juan Province, Argentina |
| | e | A | 41 08 | 31.03 S 67.77 W |
| | ePP1 | B | 45 10 | H = 09 26 24.7 h = 13.2 km MB=6.3 MS=7.4 |
| | ePP2 | A | 45 18 | D = 107.15 Az = 41 (NEIS) |
| | ePP3 | AB | 45 34 | PP2V A 2.3s 767.8nm M = 6.9 |
| | ePPS | B | 55 00 | PP3V A 3.8 6438.0nm 7.6 |
| | ePKKP | A | 56 34 | LmH B 17.5 219.0/um 7.8 |
| | eSS | B | 10 00 16 | LmV B 17.5 222.7/um 7.8 |
| | e sPPKP | A | 00 40 | |
| | LmV | B | 33.8 | |
| | LmH | B | 33.9 | |
| 23. | e(PKP) | A | 13 23 45 | San Juan Province, Argentina |
| | | | | 31.07 S 67.72 W |
| | | | | H = 13 05 02.5 h = 27.1 km MB = 5.6 |
| | | | | D = 107.15 Az = 41 (NEIS) |
| | | | | (PKP)V A 2.2s 54.5nm |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 23. | +eP | A | 17 07 11 | Fox Islands, Aleutian Is. |
| | eS | C | 17 00 | 52.20 N 171.55 W |
| | eSS | C | 22 00 | H = 16 55 20.4 h = 52.9 km MB=5.5 MS=5.5 |
| | LmH | B | 44.6 | D = 77.50 Az = 358 (NEIS) |
| | LmV | B | 44.6 | PV A 1.4s 84.8nm M = 5.5 |
| | | | | LmH B 18.5 2.2/um 5.5 |
| | | | | LmV B 19 2.3/um 5.6 |
| 24. | e(PKP) | A | 02 17 17 | San Juan Province, Argentina |
| | LmV | B | 03 01.8 | 31.47 S 67.63 W |
| | LmH | B | 02.0 | H = 01 58 33.4 h = 33 km MB=5.8 MS=6.0 |
| | | | | D = 107.40 Az = 41 (NEIS) |
| | | | | (PKP)V A 2.0s 119.7nm |
| | | | | LmH B 19.5 3.7/um M = 5.9 |
| | | | | LmV B 20 4.0/um 6.0 |
| 24. | ePKP | A | 02 21 13 | San Juan Province, Argentina |
| | | | | 31.62 S 67.57 W |
| | | | | H = 02 02 31.0 h = 23 |
| | | | | MB = 5.7 MS = 6.3 (NEIS) |
| | | | | D = 107.4 |
| | | | | PKPV A 2.4s 69.1nm |
| 24. | ePKP | A | 03 05 07.5 | Samoa Islands Region 15.73 S 172.69 W |
| | | | | H = 02 45 30.4 h = 33 km MB = 4.7 |
| | | | | D = 145.0 Az = 355 (NEIS) |
| 24. | ePKP | A | 17 19 32 | Tuamotu Archipelago Region |
| | | | | 21.89 S 138.96 W |
| | | | | H = 16 59 58.5 h = 0 km MB=6.0 MS=4.5 |
| | | | | D = 143.22 Az = 31 (NEIS) |
| | | | | PKPV A 1.2s 40.7nm |
| 24. | ePKP | A | 20 30 26 | Fiji Islands Region 17.84 S 178.79 W |
| | | | | H = 20 11 48.1 h = 548.7 MB = 5.2 |
| | | | | D = 146.23 Az = 348 (NEIS) |
| | | | | PKPV A 1.4s 37.2nm |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 24. | LmH | B | 23 18.7 | San Juan Province, Argentina |
| | LmV | B | 23.5 | 31.48 S 67.7 W |
| | | | | H = 22 19 58.3 h = 51 km MB = 4.4 (ISC) |
| | | | | D = 107.4 |
| | | | | LmH B 16s 0.9/um |
| | | | | LmV B 14.5 0.5/um |
| 26. | ePKP | A | 05 40 20 | Fiji Islands Region 17.96 S 178.12 W |
| | | | | H = 05 21 40.8 h = 563.6 km MB = 5.5 |
| | | | | D = 146.47 Az = 349 (NEIS) |
| | | | | PKPV A 1.8s 67.6nm |
| 26. | ePKP | A | 09 34 11 | Tonga Islands 15.27 S 174.40 W |
| | | | | H = 09 14 51.2 h = 132.7 km MB = 5.3 |
| | | | | D = 144.39 Az = 353 (NEIS) |
| | | | | PKPV A 1.6s 41.2nm |
| 26. | eP | A | 13 22 59 | Greece 38.49 N 20.76 E |
| | | | | H = 13 19 47.2 h = 66.3 km MB = 4.6 |
| | | | | D = 13.62 Az = 336 (NEIS) |
| | | | | PV A 0.9s 27.2nm M = 5.0 |
| 26. | e | A | 15 43 39 | Tonga Islands 15.33 S 173.57 W |
| | | | | H = 15 23 50.9 h = 33 km MB = 4.5 |
| | | | | D = 144.53 Az = 354 (NEIS) |
| 26. | eP | A | 22 57 58 | Northeastern China 39.47 N 117.94 E |
| | LmH | B | 23 31.5 | H = 22 46 52.2 h = 33 km MB = 5.1 |
| | LmV | B | 31.6 | D = 69.53 Az = 319 (NEIS) |
| | | | | LmH B 15s 1.5/um M = 5.3 |
| | | | | LmV B 19 1.9/um 5.4 |
| 27. | eP | A | 02 33 15 | Samar, Philippine Islands |
| | e | A | 33 24 | 11.80 N 125.47 E |
| | ePP | A | 37 07 | H = 02 19 52.3 h = 33 km MB=5.5 MS=5.7 |
| | eSKS | C | 43 40 | D = 95.48 Az = 324 (NEIS) |
| | eS | C | 44 25 | PV A 2.2s 98.2nm M = 5.9 |
| | ePS | BC | 45 52 | LmH B 17.5 2.7/um 5.8 |
| | eSS | C | 51 00 | LmV B 18 3.8/um 5.9 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| cont. 27. | LmH | B | 03 15.3 | |
| | LmV | B | 20.7 | |
| 27. | eP | A | 08 48 00.5 | Kurile Islands 46.42 N 153.28 E |
| | eS | BC | 57 50 | H = 08 36 05.7 h = 33 km MB=5.5 MS=5.7 |
| | eSS | C | 09 03 25 | D = 77.80 Az = 336 (NEIS) |
| | LmH | B | 30.4 | PV A 0.9s 66.1nm M = 5.7 |
| | LmV | B | 31.2 | PV B 10 2.6/um 6.2 |
| | | | | LmH B 15 7.5/um 6.1 |
| | | | | LmV B 16 5.4/um 6.0 |
| 27. | eP | A | 10 27 24 | Kurile Islands 46.56 N 153.12 E |
| | | | | H = 10 15 27.8 h = 33 km MB = 4.8 |
| | | | | D = 77.63 Az = 336 (NEIS) |
| 27. | ePKHKP | A | 10 39 20.5 | Fiji Islands Region 21.00 S 176.43 W |
| | | | | H = 10 19 54.6 h = 198.6 km MB = 4.2 |
| | | | | D = 149.74 Az = 350 (NEIS) |
| | | | | PKHKPV A 1.3s 28.4nm |
| 27. | eP | A | 10 58 42.5 | Aleutian Islands Region 51.34 N 166.34 W |
| | | | | H = 10 46 43.8 h = 33 km MB=5.0 MS=4.7 |
| | | | | D = 78.37 Az = 1 (NEIS) |
| | | | | PV A 1.5s 35.2nm M = 5.2 |
| 27. | ePKIKP | A | 12 58 56 | Fiji Islands Region 20.48 S 178.43 W |
| | ePKHKP | A | 59 01.5 | H = 12 40 15 h = 558.4 km MB = 5.6 |
| | ePKP2 | A | 59 07 | D = 148.87 Az = 348 (NEIS) |
| | epPKP | A | 13 01 17 | |
| 27. | eP | A | 15 16 10.5 | Alaska Peninsula 58.56 N 155.38 W |
| | epP | A | 16 38.5 | H = 15 05 06.8 h = 116 km MB = 4.9 |
| | esP | A | 16 47 | D = 70.64 Az = 9 (NEIS) |
| | | | | h = 105 km |
| 27. | LmH | B | 18 40.0 | Southern Pacific Ocean 41.55 S 90.65 W |
| | LmV | B | 40.5 | H = 17 28 04.2 h = 33 km |
| | | | | MB = 5.3 MS = 4.8 (NEIS) |
| | | | | D = 127.6 |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| cont. 27. | | | | LmH B 20s 0.35/um M = 5.0<br>LmV B 20 0.55/um 5.2 |
| 27. | eP | A | 20 47 10 | Turkey 37.72 N 32.04 E<br>H = 20 42 42.6 h = 33.2 km MB = 4.2<br>D = 19.45 Az = 318 (NEIS)<br>PV A 1.5s 17.6nm M = 4.1 |
| 27. | ePKP | A | 23 01 22.5 | Tonga Islands 15.83 S 174.78 W<br>H = 22 42 08.5 h = 205.6 km MB = 4.0<br>D = 144.89 Az = 353 (NEIS) |
| 28. | +iP | AB | 03 03 24.3 | Dodecanese Islands 36.05 N 27.76 E |
| | eipP | B | 03 47 | H = 02 59 10.8 h = 85 km MB = 5.6 |
| | eS | B | 06 50 | D = 18.66 Az = 326 (NEIS) |
| | LmH | B | 13.1 | PV A 1.6s 2390.0nm M = 6.2 |
| | LmV | B | 13.1 | LmH B 12 1.6/um |
| | | | | LmV B 11 2.5/um |
| 28. | eP | A | 04 49 10 | Mexico - Guatemala Border Region |
| | ePP | A | 52 35 | 15.34 N 91.43 W |
| | LmH | B | 05 23.3 | H = 04 36 52.5 h = 225 km MB=5.1 (NEIS) |
| | LmV | B | 23.3 | D = 86.4 |
| | | | | PV A 1.5s 32.7nm M = 4.9 |
| | | | | PPV A 1.2 12.2nm 4.8 |
| | | | | LmH B 21 0.6/um |
| | | | | LmV B 18 0.5/um |
| 28. | ePKP | AB | 06 50 13 | San Juan Province, Argentina |
| | ePS | C | 59 32 | 31.54 S 67.43 W |
| | ePKKP | A | 07 01 26 | H = 06 31 29.3 h = 15.7 km MB=5.7 MS=5.8 |
| | eSS | C | 05 30 | D = 107.20 Az = 41 (NEIS) |
| | LmH | B | 32.6 | PKPV A 2.0s 47.0nm |
| | LmV | B | 39.1 | PKPV B 10 1.3/um |
| | | | | LmH B 18 2.4/um M = 5.8 |
| | | | | LmV B 17 2.8/um 5.9 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 28. | LmH | C | 24 06.8 | Taiwan Region 21.14 N 120.85 E<br>H = 23 17 26.7 h = 27.6 km MB = 4.6<br>D = 85.38 Az = 323 (NEIS)<br>LmH C 21s 0.45/um M = 4.8 |
| 28. | eP | A | 24 09 37 | Kurile Islands Region 43.80 N 148.08 E<br>H = 23 57 38.7 h = 38 km MB = 4.9 (NEIS)<br>D = 78.5 |
| 29. | eP | A | 20 20 48 | Greece 38.04 N 21.79 E<br>H = 20 17 12.3 h = 44.1 km MB = 3.9<br>D = 14.53 Az = 333 (NEIS)<br>traces |
| 30. | +iP | AB | 04 14 49 | Eastern Kazakh SSR 49.96 N 78.93 E |
| | iPn | A | 16 20.5 | H = 04 06 57.5 h = 0 km MB = 5.9 |
| | LmV | B | 32.6 | D = 41.64 Az = 298 (NEIS) |
| | | | | Underground explosion M = 6.9 (UPP) |
| | | | | PV A 1.0s 256.0nm M = 5.9 |
| 30. | ePKIKP | AB | 10 34 26 | Fiji Islands Region 20.61 S 178.42 W |
| | iPKHKP | AB | 34 30 | H = 10 15 43.4 h = 550.1 km MB = 5.5 |
| | iPKP2 | A | 34 35.5 | D = 149.0 Az = 348 (NEIS) |
| | ePP | BC | 37 36 | PKIKPV A 2.0s 77.0nm |
| | ePPP | B | 40 54 | PKHKPV A 1.6 313.0nm |
| | | | | PKP2V A 1.5 115.8nm |
| 30. | LmV | B | 13 12.3 | South of Mariana Islands 12.50 N 141.49 E |
| | LmH | B | 12.7 | H = 12 08 04.9 h = 32 km |
| | | | | MB = 5.4 MS = 4.9 (NEIS) |
| | | | | D = 103.5 |
| | | | | LmH B 16s 0.4/um M = 5.0 |
| | | | | LmV B 20 0.7/um 5.2 |
| 30. | ePKP | A | 22 07 58 | Fiji Islands Region 17.67 S 178.98 W |
| | | | | H = 21 49 18 h = 539.2 MB = 5.2 |
| | | | | D = 146.03 Az = 348 (NEIS) |
| | | | | PV A 1.2s 28.5nm |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 1. | eP | A | 21 18 58 | Southern Iran 27.66 N 56.57 E |
| | | | | H = 21 11 17.9 h = 33 km MB = 5.1 |
| | | | | D = 40.91 Az = 317 (NEIS) |
| 2. | ePKIKP | A | 04 32 39 | East Papua New Guinea Region |
| | epPKIKP | A | 32 57 | 5.03 S 145.03 E |
| | e | A | 34 25 | H = 04 13 53.8 h = 65.5 km MB = 5.7 |
| | LmV | B | 05 23.6 | D = 120.20 Az = 328 (NEIS) |
| | LmH | B | 25.3 | h = 65 km |
| | | | | LmH B 21s 2.3/um |
| | | | | LmV B 24 2.9/um |
| 2. | +iP | AB | 13 08 43.5 | Off East Coast of Kamchatka |
| | eS | C | 18 08 | 52.93 N 159.71 E |
| | ePS | C | 18 34 | H = 12 57 10.7 h = 15.1 km MB=5.8 MS=5.1 |
| | LmH | B | 43.0 | D = 73.35 Az = 339 (NEIS) |
| | LmV | B | 48.0 | PV A 1.6s 313.0nm M = 6.1 |
| | | | | PV B 4 1.1/um 6.2 |
| | | | | LmH B 17 2.4/um 5.5 |
| | | | | LmV B 10 0.9/um 5.4 |
| 2. | ePKP | A | 23 03 18 | Loyalty Islands Region 21.62 S 169.99 E |
| | | | | H = 22 43 41.3 h = 62.9 km |
| | | | | D = 146.43 Az = 335 (NEIS) |
| 3. | eP | A | 05 19 30 | South of Honshu Japan 30.30 N 138.39 E |
| | | | | H = 05 07 32.1 h = 418.8 km MB = 5.2 |
| | | | | D = 86.70 Az = 329 (NEIS) |
| 3. | eP | A | 05 42 20 | Albania 40.25 N 19.90 E |
| | LmH | C | 46.7 | H = 05 39 29.5 h = 27.2 km MB = 5.1 |
| | LmV | C | 48.0 | D = 11.91 Az = 334 (NEIS) |
| | | | | LmH C 18s 0.8/um M = 3.7 |
| 3. | eP | A | 12 36 46 | Costa Rica 9.26 N 84.69 W |
| | e | A | 36 52 | H = 12 24 06.7 h = 58.6 km MB = 4.8 |
| | e | A | 36 57 | D = 86.89 Az = 39 (NEIS) |
| | | | | PV A 1.2s 28.5nm M = 5.5 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 3. | -eP | ABC | 13 53 47 | Off W. Coast of Northern Sumatra |
| | epP | A | 54 00 | 3.51 N 95.89 E |
| | esP | A | 54 09 | H = 13 41 20.9 h = 41 km MB=5.8 MS=5.9 |
| | ePP | C | 57 06 | D = 83.67 Az = 320 (NEIS) |
| | eSKS | C | 14 04 05 | PV A 1.6s 214.0nm M = 6.0 |
| | eS | B | 04 20 | PV B 6.5 1.1/um 6.0 |
| | eSS | BC | 09 35 | LmH B 18 2.4/um 5.6 |
| | eSSS | C | 13 00 | LmV B 16 1.0/um 5.3 |
| | LmH | B | 37.6 | |
| | LmV | B | 37.6 | |
| 3. | ePKHKP | A | 18 19 22 | Tonga Islands Region 22.00 S 174.94 W |
| | ePKP2 | A | 19 32 | H = 17 59 31.3 h = 33 km MB = 5.3 |
| | | | | D = 150.95 Az = 351 (NEIS) |
| 4. | ePKIKP | A | 06 10 20 | South of Fiji Islands 23.89 S 176.08 W |
| | ePKHKP | A | 10 27 | H = 05 50 35.6 h = 55.6 km MB=5.6 MS=6.2 |
| | e | A | 10 30 | D = 152.63 Az = 349 (NEIS) |
| | ePKP2 | A | 10 37 | PKHKPV A 1.1s 24.2nm |
| | ePP | C | 14 10 | LmH B 18.5 3.0/um |
| | eSKKS | C | 21 00 | LmV B 20 3.6/um |
| | eSKSP | C | 24 20 | |
| | ePPPS | C | 29 05 | |
| | eSS | C | 34 35 | |
| | LmV | B | 07 28.2 | |
| | LmH | B | 28.7 | |
| 4. | eP | A | 11 49 50 | Sea of Okhotsk 48.25 N 146.59 E |
| | epP | A | 51 22 | H = 11 39 02.8 h = 479 km MB = 5.1 |
| | | | | D = 74.17 Az = 332 (NEIS) |
| | | | | h = 433 km |
| | | | | PV A 1.2s 36.6nm M = 4.8 |
| 4. | ePKIKP | A | 14 42 33 | Fiji Islands Region 18.29 S 176.36 W |
| | -ePKHKP | A | 42 36 | H = 14 23 24 h = 271.6 km MB = 5.2 |
| | | | | D = 147.10 Az = 351 (NEIS) |
| | | | | PKHKPV A 1.9s 159.1nm |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 4. | ePKP | A | 15 29 46 | New Hebrides Islands 20.60 S 169.34 E |
| | | | | H = 15 10 18.4 h = 101.8 km MB = 5.1 |
| | | | | D = 145.25 Az = 335 (NEIS) |
| 5. | LmH | B | 10 32.6 | Ethiopia 12.70 N 40.47 E |
| | LmV | B | 36.4 | H = 10 02 57.1 h = 33 km MB = 4.5 (NEIS) |
| | | | | D = 44.5 |
| | | | | LmH B 16s 0.6/um M = 4.6 |
| | | | | LmV B 16 0.6/um 4.7 |
| 5. | ePKHKP | A | 14 33 48 | South of Fiji Islands 23.92 S 175.95 W |
| | ePKP2 | A | 34 04 | H = 14 13 52 h = 33 km MB=5.5 MS=5.9 |
| | ePKS | BC | 37 20 | D = 152.68 Az = 349 (NEIS) |
| | ePP | BC | 37 40 | PKHKPV A 1.7s 60.6nm |
| | eSKSP | BC | 47 50 | LmH B 17 1.9/um M = 5.9 |
| | eSS | BC | 57 10 | LmV B 17.5 2.6/um 6.1 |
| | LmH | B | 15 54.9 | |
| | LmV | B | 57.5 | |
| 5. | e(PP) | A | 16 02 08 | San Juan Province, Argentina |
| | LmV | B | 44.2 | 30.97 S 67.70 W |
| | LmH | B | 44.3 | H = 15 43 27.9 h = 32 km MB=5.4 MS=5.6 |
| | | | | D = 107.06 Az = 41 (NEIS) |
| | | | | traces |
| | | | | LmH B 20s 1.3/um M = 5.5 |
| | | | | LmV B 22.5 1.7/um 5.6 |
| 6. | eP | A | 06 31 32 | Taiwan 23.07 N 121.71 E |
| | | | | H = 06 18 59.4 h = 45.1 km MB = 4.9 |
| | | | | D = 84.31 Az = 323 (NEIS) |
| | | | | PV A 3.2s 185.2nm M = 5.7 |
| 6. | eP | A | 11 00 30 | Kirgiz SSR 41.43 N 69.73 E |
| | e(pP) | A | 00 35 | H = 10 52 53.5 h = 33 km MB = 5.2 |
| | ePP | A | 02 07 | D = 40.43 Az = 304 (NEIS) |
| | LmH | B | 17.8 | (23 km) |
| | LmV | B | 19.9 | PV A 1.4s 41.9nm M = 5.0 |
| | | | | LmH B 18.5 1.0/um 4.7 |
| | | | | LmV B 10 1.0/um 5.0 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 6. | ePKP2 | A | 13 27 35 | South of Tonga Islands 24.82 S 175.82 W |
| | LmH | C | 14 48.3 | H = 13 07 23.7 h = 33 km MB=4.9 MS=4.7 |
| | LmV | C | 50.5 | D = 153.59 Az = 349 (NEIS) |
| | | | | PKP2V A 1.8s 33.8/um |
| | | | | LmH C 16 0.4/um M = 5.2 |
| | | | | LmV C 18 0.4/um 5.3 |
| 6. | ePKP | A | 17 23 40 | San Juan Province, Argentina |
| | LmH | B | 18 06.0 | 31.17 S 67.72 W |
| | LmV | B | 06.0 | H = 17 05 06.4 h = 18.5 km |
| | | | | MB = 5.9 MS = 5.9 (NEIS) |
| | | | | D = 107.23 |
| | | | | LmH B 21s 2.9/um M = 5.8 |
| | | | | LmV B 20 2.7/um 5.8 |
| 6. | ePn | A | 17 25 55 | Czechoslovakia 49.21 N 15.40 E |
| | e | A | 26 12 | H = 17 25 08.8 h = 0 km |
| | | | | D = 2.84 Az = 302 (ISC) |
| 6. | ePP | A | 18 11 31 | South of Sumbawa Islands |
| | ei | A | 12 14 | 11.22 S 118.26 E |
| | LmH | B | 19 04.0 | H = 17 52 35.2 h = 33 km MB=5.7 MS=5.6 |
| | LmV | B | 04.8 | D = 109.15 Az = 320 (NEIS) |
| | | | | LmH B 20s 1.2/um M = 5.5 |
| | | | | LmV B 20 1.7/um 5.7 |
| 7. | ePKHKP | A | 06 19 39.5 | South of Tonga Islands 24.13 S 175.62 W |
| | ePKP2 | A | 19 51.5 | H = 05 59 44.3 h = 33 km MB=5.2 MS=4.7 |
| | | | | D = 152.94 Az = 350 (NEIS) |
| | | | | PKHKPV A 1.5s 27.6nm |
| 7. | LmH | C | 09 55.3 | Mariana Islands 13.64 N 144.61 E |
| | | | | H = 08 58 06.2 h = 136 km MB = 5.4 (NEIS) |
| | | | | D = 104.0 |
| | | | | LmH traces |
| 7. | iPn | A | 19 22 15 | Austria 46.23 N 13.30 E |
| | ePg | A | 22 31 | H = 19 21 06.5 h = 33 km |
| | iSn | A | 23 05 | D = 4.56 Az = 346 (NEIS) |
| | iSg | A | 23 30 | |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 7. | ePP | A | 20 48 48 | Volcano Islands Region 21.95 N 143.30 E |
| | | | | H = 20 31 46.3 h = 201 km MB = 5.2 (NEIS) |
| | | | | D = 96.1 |
| 8. | eP | A | 00 44 48 | Crete 35.21 N 23.38 E |
| | ePP | A | 45 02 | H = 00 40 43.6 h = 62.4 km MB = 4.5 |
| | | | | D = 17.63 Az = 335 (NEIS) |
| 8. | ePKP | A | 02 37 51 | Fiji Islands Region 16.18 S 176.05 W |
| | | | | H = 02 18 51.3 h = 336.2 km MB = 4.4 |
| | | | | D = 145.07 Az = 351 (NEIS) |
| | | | | traces |
| 8. | ePKHKP | A | 05 13 36 | South of Fiji Islands 23.36 S 176.34 W |
| | | | | H = 04 53 58.10 h = 153.1 km MB = 4.3 |
| | | | | D = 152.07 Az = 349 (NEIS) |
| 8. | ePKIKP | A | 06 35 03 | South of Tonga Islands 24.15 S 175.60 W |
| | ePKHKP | A | 35 12 | H = 06 15 16.2 h = 33 km MB=5.5 MS=6.1 |
| | ePKP2 | A | 35 17.5 | D = 152.96 Az = 350 (NEIS) |
| | eSKSP | C | 49 00 | PKHKPV A 2.0s 102.6nm |
| | eSS | C | 58 00 | LmH B 18 2.6/um M = 6.0 |
| | LmV | B | 07 51.1 | LmV B 19 3.0/um 6.1 |
| | LmH | B | 54.1 | |
| 8. | ePKHKP | A | 12 33 27 | Tonga Islands 17.79 S 173.71 W |
| | epPKP | A | 34 16 | H = 12 14 00.5 h = 150.6 km MB = 5.1 |
| | | | | D = 146.95 Az = 354 (NEIS) |
| | | | | h = 185 km |
| 8. | eP | A | 14 07 45 | Sea of Okhotsk 50.43 N 149.81 E |
| | | | | H = 13 57 04.4 h = 502 km MB = 4.5 |
| | | | | D = 73.19 Az = 334 (NEIS) |
| 9. | ePKIKP | A | 05 21 32 | South of Fiji Islands 23.52 S 175.96 W |
| | ePKP2 | A | 21 55 | H = 05 01 38.1 h = 33 km MB=5.1 MS=4.6 |
| | | | | D = 152.29 Az = 350 (NEIS) |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 9. | eP | A | 15 57 30 | Turkey 38.35 N 27.19 E |
| | ePP | A | 57 47 | H = 15 53 36.7 h = 18.7 km MB = 4.6 |
| | ePPP | A | 57 56 | D = 16.53 Az = 323 (NEIS) |
| | LmH | B | 16 03.3 | PV A 1.8s 114.9nm M = 4.7 |
| | LmV | B | 05.2 | LmH B 15 2.3/um 4.5 |
| | | | | LmV B 12 1.7/um 4.6 |
| 10. | ePKHKP | A | 0( 49 09.5 | Fiji Islands Region 21.50 S 179.50 W |
| | | | | H = 00 30 27.8 h = 619 km MB = 4.9 (NEIS) |
| | | | | D = 149.6 |
| | | | | PKHKPV A 1.0s 11.8nm |
| 10. | eP | AC | 05 54 02 | Southern Iran 27.69 N 56.57 E |
| | ePP | BC | 55 40 | H = 05 46 22.9 h = 46.8 km MB=5.1 MS=5.0 |
| | ePcP | A | 56 10 | D = 40.89 Az = 317 (NEIS) |
| | eS | BC | 06 00 10 | LmH B 19s 1.7/um M = 4.9 |
| | eSS | BC | 03.5 | LmV B 16 2.0/um 5.2 |
| | LmH | B | 14.6 | |
| | LmV | B | 14.8 | |
| 10. | LmH | B | 08 18.0 | San Juan Province, Argentina |
| | LmV | B | 18.0 | 31.19 S 67.64 W |
| | | | | H = 07 11 56.0 h = 39 km |
| | | | | MB = 5.6 MS = 4.8 (NEIS) |
| | | | | D = 107.1 |
| | | | | traces |
| 10. | ePP | A | 15 35 30 | South of Honshu, Japan 32.04 N 138.86 E |
| | LmH | B | 16 14.2 | H = 15 19 28.8 h = 33 km |
| | LmV | B | 15.7 | MB = 5.0 MS = 4.7 (NEIS) |
| | | | | D = 85.5 |
| | | | | LmH B 14.5s 1.0/um M = 5.3 |
| | | | | LmV B 13 1.4/um 5.6 |
| 10. | iP | A | 23 23 15.5 | Kurile Islands 47.59 N 152.84 E |
| | epP | A | 23 45 | H = 23 11 37.1 h = 128 km MB = 5.2 |
| | esP | A | 24 05 | D = 76.60 Az = 336 (NEIS) |
| | LmH | B | 56.8 | h = 125 km |
| | | | | PV A 1.2s 32.5nm M = 5.0 |
| | | | | LmH B 16 1.6/um |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 11. | ePn | A | 14 32 12 | Northern Italy 46.4 N 13.4 E |
| | ePg | A | 32 30 | H = 14 31 07.5 h = 10 km (CSEM) |
| | eSn | A | 33 04 | D = 4.2 |
| | eSg | A | 33 22 | |
| 11. | eP | A | 16 34 03 | Venezuela 9.52 N 69.56 W |
| | epP | A | 34 08 | H = 16 22 08.6 h = 18.3 km MB=5.6 MS=5.0 |
| | ePP | A | 37 03 | D = 77.12 Az = 40 (NEIS) |
| | | | | h = 18 km |
| | | | | PV A 1.8s 60.8nm M = 5.4 |
| 12. | eP | AZ | 02 56 33 | Taiwan 23.05 N 121.40 E |
| | ePcP | A | 56 38 | H = 02 44 03.4 h = 26.2 km MB = 5.1 |
| | LmH | B | 03 34.3 | D = 84.16 Az = 323 (NEIS) |
| | LmV | B | 39.2 | PV A 1.3s 17.5nm M = 5.1 |
| | | | | LmH B 15.5 3.0/um 5.8 |
| | | | | LmV B 14 3.7/um 5.9 |
| 12. | ePKHKP | A | 06 06 42 | Loyalty Islands Region 22.36 S 170.65 E |
| | | | | H = 05 47 03.2 h = 33 km MB = 5.3 |
| | | | | D = 147.35 Az = 335 (NEIS) |
| | | | | PKHKPV A 2.2s 87.2nm |
| 12. | ePKIKP | A | 08 57 17 | Tonga Islands 17.77 S 175.11 W |
| | iPKHKP | A | 57 19.5 | H = 08 38 00.2 h = 202.3 km MB = 5.3 |
| | ePKP2 | A | 57 22 | D = 146.76 Az = 352 (NEIS) |
| | epPKP | A | 58 18 | PKHKPV A 1.3s 69.9nm |
| 12. | LmV | B | 21 41.3 | South Pacific Cordillera |
| | LmH | B | 42.5 | 57.47 S 148.13 W |
| | | | | H = 20 03 45.1 h = 33 km MB = 5.0 |
| | | | | D = 166.31 Az = 111 (NEIS) |
| | | | | LmH B 18.5s 1.0/um M = 5.5 |
| | | | | LmV B 18.5 1.3/um 5.8 |
| 13. | -iP | ABC | 01 24 37 | North Atlantic Ocean 17.36 N 54.85 W |
| | ePcP | AB | 25 16 | H = 01 14 18.6 h = 33 km MB=5.7 MS=6.4 |
| | ePP | B | 26 50 | D = 61.87 Az = 41 (NEIS) |
| | ePPP | B | 28 15 | PV A 2.6s 346.6nm M = 6.0 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| cont. 13. | eS | BC | 01 33 00 | SH B 12s 9.9/um M = 6.6 |
| | ePS | B | 33 10 | LmH B 17.5 11.3/um 6.1 |
| | eScS | B | 34 25 | LmV B 17.5 14.9/um 6.3 |
| | eSS | B | 37 10 | |
| | eSSS | B | 39 50 | |
| | LmH | B | 47.5 | |
| | LmV | B | 47.5 | |
| | eP'P' | A | 53 55 | |
| 13. | ePn | A | 02 05 40 | Northern Italy 45.94N 12.19 E |
| | e | A | 06 10 | H = 02 04 28.3 h = 10 km |
| | eSn | A | 06 26 | D = 4.72 Az = 356 (ISC) |
| | e | A | 07 07 | |
| 13. | ePKIKP | A | 03 26 27 | Fiji Islands Region 17.80 S 178.79 W |
| | ePKHKP | A | 26 28.5 | H = 03 07 47.7 h = 533.6 km MB = 5.3 |
| | ePKP2 | A | 26 31 | D = 146.19 Az = 348 (NEIS) |
| | | | | PKHKPV A 1.2s 56.9nm |
| 13. | ePKHKP | A | 06 47 19 | Tonga Islands 18.31 S 173.52 W |
| | | | | H = 06 27 40 h = 37.7 km MB = 5.2 |
| | | | | D = 147.48 Az = 354 (NEIS) |
| | | | | PKHKPV A 1.2s 16.3nm |
| 13. | LmV | B | 09 56.4 | West Caroline Islands 8.07 N 137.03 E |
| | LmH | B | 56.5 | H = 08 47 25.7 h = 44 km |
| | | | | MB = 5.2 MS = 4.9 (NEIS) |
| | | | | D = 105.0 |
| | | | | LmH B 16s 0.6/um M = 5.2 |
| | | | | LmV B 17.5 0.9/um 5.4 |
| 13. | e(Sg) | A | 14 24 16 | Central Italy 43.33 N 12.47 E |
| | | | | H = 14 20 33.7 h = 33 km |
| | | | | D = 7.35 Az = 356 (NEIS) |
| 13. | ePg | A | 22 13 18 | D ca. 4.1 |
| | eSn | A | 13 43 | |
| | eSg | A | 14 06 | |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 14. | ePn | A | 01 48 36 | Northern Italy 45.39 N 12.70 E |
| | eSn | A | 49 27 | H = 01 47 26.8 h = 33 km MB = 4.7 |
| | iSg | A | 49 51.2 | D = 5.31 Az = 352 (NEIS) |
| 14. | eP | A | 03 13 28 | South Indian Ocean 33.79 S 58.04 E |
| | | | | H = 03 00 14.6 h = 33 km MB=5.6 MS=4.7 |
| | | | | D = 93.52 Az = 332 (NEIS) |
| | | | | PV A 1.6s 38.5nm M = 5.6 |
| 14. | ePKHKP | A | 05 01 20 | Kermadec Islands Region |
| | LmH | B | 06 03.8 | 27.53 S 178.35 W |
| | LmV | B | 06.1 | H = 04 41 23.1 h = 44.6 km MB=5.1 MS=5.3 |
| | | | | D = 155.70 Az = 344 (NEIS) |
| | | | | LmH B 24s 1.3/um M = 5.6 |
| | | | | LmV B 24 1.4/um 5.7 |
| 14. | eP | A | 09 00 58.5 | Leyte, Philippine Islands |
| | ePP | A | 04 57 | 10.00 N 125.29 E |
| | | | | H = 08 47 51.8 h = 222.6 km MB = 5.3 |
| | | | | D = 96.82 Az = 324 (NEIS) |
| | | | | PV A 1.3s 26.2nm M = 5.4 |
| 14. | eP | A | 09 07 52 | Off Coast of Hokkaido, Japan |
| | e | A | 08 02 | 42.27 N 147.55 E |
| | e | A | 08 11 | H = 08 55 44.5 h = 20 km MB = 5.1 |
| | LmH | B | 43.5 | D = 79.79 Az = 333 (NEIS) |
| | LmV | B | 48.8 | PV A 2.0s 42.8nm M = 5.1 |
| | | | | LmH B 17 0.9/um 5.2 |
| | | | | LmV B 16 0.7/um 5.2 |
| 14. | ePKP | A | 10 38 07 | Tonga Islands 15.31 S 173.14 W |
| | epPKP | A | 38 12 | H = 10 18 33.2 h = 33 km MB = 5.0 |
| | | | | D = 144.55 Az = 355 (NEIS) |
| | | | | h = 18 km |
| | | | | PKPV A 1.4s 14.0nm |
| 14. | +eP | AB | 15 42 18 | Southern Nevada 37.14 N 116.09 W |
| | | | | H = 15 30 00.2 h = 0 km MB = 5.7 |
| | | | | D = 81.23 Az = 31 (NEIS) |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| cont. 14. | ePP | A | 15 45 23 | PV A 1.3s 78.5nm M = 5.6 |
| 14. | ePKIKP | A | 19 11 07 | Fiji Islands Region 21.10 S 179.15 W |
| | iPKHKP | A | 11 12.5 | H = 18 52 34.9 h = 659 km MB = 5.6 |
| | iPKP2 | A | 11 19 | D = 149.32 Az = 347 (NEIS) |
| | | | | PKIKPV A 0.8s 30.8nm |
| | | | | PKHKPV A 1.5 272.0nm |
| | | | | PKP2V A 1.4 154.0nm |
| 14. | ePb | A | 20 36 03 | Northern Italy 44.55 N 10.24 E |
| | eSn | A | 36 48 | H = 20 34 09 h = 33 km |
| | eSb | A | 37 09 | D = 6.17 Az = 8 (NEIS) |
| | eSg | A | 37 30 | |
| 14. | eP | A | 23 38 06.5 | Kurile Islands 44.15 N 148.61 E |
| | | | | H = 23 26 10.8 h = 56.9 km MB = 4.7 |
| | | | | D = 78.46 Az = 334 (NEIS) |
| 15. | e | A | 00 06 40 | Western Poland (VIE) |
| 15. | eP | A | 08 10 18 | Crete 34.92 N 23.08 E |
| | | | | H = 08 06 10.8 h = 47 km MB = 4.3 (NEIS) |
| | | | | D = 17.8 |
| 15. | ePKHKP | A | 08 55 53 | Tonga Islands 21.69 S 173.81 W |
| | epPKP | A | 56 04 | H = 08 35 57.4 h = 33 km MB = 4.9 |
| | | | | D = 150.79 Az = 353 (NEIS) |
| | | | | PKHKPV A 1.9s 53.0nm |
| 15. | eP | A | 09 14 10 | Kurile Islands 47.04 N 153.75 E |
| | epP | A | 14 20 | H = 09 02 18.2 h = 49.6 km MB = 4.6 |
| | | | | D = 77.36 Az = 336 (NEIS) |
| | | | | h = 37 km |
| 15. | ePKP2 | A | 11 04 08 | Tonga Islands 21.3 S 173.7 W |
| | | | | H = 10 44 16 h = 54 km |
| | | | | D = 150.45 Az = 353 (ISC) |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 15. | ePg | A | 12 40 43 | Czechoslovakia 49.4 N 16.7 E |
| | eSn | A | 41 09 | H = 12 39 40 h = 0 km |
| | eSg | A | 41 32 | D = 3.49 Az = 292 (ISC) |
| 15. | eP | A | 15 13 04 | Eastern Caucasus 43.24 N 45.17 E |
| | LmH | C | 23.1 | H = 15 07 51.8 h = 33 km MB = 4.9 |
| | LmV | C | 25.0 | D = 23.92 Az = 300 (NEIS) |
| | | | | PV A 1.8s 57.5nm M = 4.8 |
| | | | | LmH C 18 2.0/um 4.6 |
| 15. | eP | A | 15 28 42 | Eastern Caucasus 43.64 N 45.37 E |
| | ePP | A | 29 12 | H = 15 23 30.7 h = 33 km MB = 4.6 |
| | | | | D = 23.85 Az = 299 (NEIS) |
| 15. | eP | A | 16 03 53 | South Indian Ocean 2.46 S 85.75 E |
| | | | | H = 15 51 35.5 h = 33 km MB = 5.0 |
| | | | | D = 81.89 Az = 322 (NEIS) |
| 15. | ePKHKP | A | 16 10 55 | Tonga Islands Region 23.40 S 175.31 W |
| | ePKP2 | A | 11 04 | H = 15 51 00.9 h = 33 km MB = 4.9 |
| | | | | D = 152.27 Az = 351 (NEIS) |
| | | | | PKHKPV A 1.2s 16.3nm |
| 15. | eP | A | 23 30 50.5 | Tanzania 4.76 S 34.91 E |
| | e | A | 31 10 | H = 23 20 53.6 h = 33 km MB=4.8 MS=5.6 |
| | ePcP | A | 31 38 | D = 58.72 Az = 343 (NEIS) |
| | LmH | C | 24 02.7 | LmH C 15s 1.9/um M = 5.3 |
| | LmV | C | 03.1 | LmV C 16 1.2/um 5.2 |
| 16. | iPn | A | 00 42 04.3 | Yugoslavia 46.00 N 15.86 E |
| | ePg | A | 42 28 | H = 00 40 43.4 h = 33 km |
| | iSn | A | 43 04 | D = 5.44 Az = 330 (NEIS) |
| | eSb1 | A | 43 22 | |
| | eSb2 | A | 43 28 | |
| | iSg | A | 43 40 | |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 16. | eP | A | 07 23 40.5 | Kurile Islands 43.23 N 146.76 E |
| | epP | A | 23 50 | H = 07 11 41.6 h = 38.2 km MB=5.4 MS=4.6 |
| | | | | D = 78.67 Az = 333 (NEIS) |
| | | | | h = 35 km |
| | | | | PV A 1.2s 36.6nm M = 5.3 |
| 16. | eP | A | 07 41 22 | Turkey 38.44 N 27.22 E |
| | Pm | A | 41 24 | H = 07 37 30.1 h = 34 km |
| | iX | A | 41 28.5 | MB = 5.3 MS = 4.2 (NEIS) |
| | LmH | B | 47.1 | D = 16.5 |
| | LmV | B | 49.1 | PmV A 1.8s 358.0nm M = 5.2 |
| | | | | XV A 1.9 29.6nm |
| | | | | LmH B 13 6.8/um 5.4 |
| | | | | LmV B 11 5.7/um 5.5 |
| 16. | eP | A | 09 20 36 | Off East Coast of Kamchatka |
| | | | | 51.63 N 159.46 E |
| | | | | H = 09 08 59.7 h = 33 km MB=4.7 MS=4.3 |
| | | | | D = 74.51 Az = 339 (NEIS) |
| 16. | ePn | A | 10 35 28 | Austria 46.71 N 12.99 E |
| | eSg | A | 36 37 | H = 10 34 24.10 h = 10 km (NEIS) |
| | | | | D = 4.2 |
| 16. | iP | A | 15 22 46.0 | Near East Coast of Honshu, Japan |
| | ipP | A | 22 58.5 | 36.62 N 140.99 E |
| | LmH | C | 54.9 | H = 15 10 28 h = 46 km MB=5.6 MS=5.4 |
| | LmV | C | 16 02.2 | D = 82.35 Az = 330 (NEIS) |
| | | | | h = 46 km |
| | | | | PV A 1.4s 102.2nm M = 5.7 |
| | | | | LmH C 23 1.5/um 5.3 |
| | | | | LmV C 18 1.0/um 5.3 |
| 16. | ePg | A | 20 29 08 | France 48.52 N 7.44 E |
| | eSg | A | 29 52 | H = 20 28 06.3 h = 35.3 km |
| | | | | D = 3.45 Az = 50 (NEIS) |
| 17. | iPg | A | 02 35 21.2 | Bleicherode, German Democrat. Rep. |
| | eiSg | A | 35 36 | D = 1.1 (MOX) |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 17. | -eP | A | 11 44 16.5 | Fox Islands, Aleutian Is.<br>52.23 N 170.10 W<br>H = 11 32 24.4 h = 43.9 km<br>MB = 5.0 MS = 5.1 (NEIS)<br>D = 77.5 |
| 17. | ePKIKP | A | 16 21 37 | Fiji Islands Region 21.05 S 178.79 W |
| | iPKHKP | A | 21 43 | H = 16 03 00.3 h = 601.8 km MB = 5.1 (NEIS) |
| | iPKP2 | A | 21 49.5 | D = 149.3<br>PKIKPV A 2.0s 42.8nm<br>PKHKPV A 1.7 121.1nm<br>PKP2V A 1.3 48.0nm |
| 17. | ePKIKP | A | 16 27 27 | Tonga Islands Region 23.72 S 175.82 W |
| | ePKHKP | A | 27 34 | H = 16 07 50 h = 115.1 km MB = 5.1 |
| | ePKP2 | A | 27 46 | D = 152.51 Az = 350 (NEIS)<br>traces |
| 17. | eP | A | 17 39 20 | Fox Islands, Aleutian Is. |
| | LmH | B | 18 18.5 | 52.21 N 170.03 W |
| | LmV | B | 23.0 | H = 17 27 27.5 h = 40.5 km MB=5.3 MS=5.5<br>D = 77.51 Az = 359 (NEIS)<br>PV A 1.0s 43.4nm M = 5.4<br>LmH B 18 0.8/um 5.1<br>LmV B 16 0.7/um 5.2 |
| 17. | eP | A | 23 36 44 | Near Coast of Venezuela 10.81 N 65.44 W<br>H = 23 25 11.9 h = 30 km MB = 4.7<br>D = 73.51 Az = 40 (NEIS) |
| 17. | eP | A | 24 06 41.5 | Eastern Gulf of Aden 13.13 N 50.94 E |
| | LmH | B | 31.4 | H = 23 57 54.9 h = 33 km MB=5.0 MS=4.8 |
| | LmV | B | 32.5 | D = 49.17 Az = 328 (NEIS)<br>PV A 1.9s 37.9nm M = 5.1<br>LmH B 17 0.7/um 4.7<br>LmV B 16 1.0/um 5.0 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 18. | iP | A | 01 09 29 | Kodiak Islands Region 57.61 N 151.26 W<br>H = 00 58 11.7 h = 29.3 km MB = 4.7<br>D = 71.19 Az = 11 (NEIS) |
| 18. | +iP | A | 07 08 42 | Kamchatka 55.28 N 160.56 E<br>H = 06 57 33.3 h = 118 km MB = 5.1 (NEIS)<br>D = 71.1<br>PV A 1.4s 46.5nm M = 5.1 |
| 18. | eP | AB | 16 55 39 | Southern Sinkiang Province, China |
| | ePP | BC | 57 36 | 39.87 N 77.33 E |
| | eS | BC | 17 02 32 | H = 16 47 17.1 h = 33 km MB=5.3 MS=5.8 |
| | eSS | BC | 05 30 | D = 46.07 Az = 306 (NEIS) |
| | LmH | B | 16.4 | PV A 1.3s 26.2nm M = 5.0 |
| | LmV | B | 16.4 | LmH B 14 9.3/um 5.9<br>LmV B 15 16.6/um 6.2 |
| 19. | eP | A | 11 04 34.5 | Andreanof Islands, Aleutian Is.<br>51.19 N 176.44 W<br>H = 10 52 38.9 h = 53 km MB = 5.1<br>D = 78.31 Az = 355 (NEIS)<br>PV A 1.4s 32.6nm M = 5.2 |
| 19. | eP | AC | 23 41 55.5 | Iran 30.95 N 56.47 E |
| | ePP | C | 43 30 | H = 23 34 34.2 h = 31.5 km MB=5.4 MS=5.8 |
| | ePcP | A | 44 14 | D = 38.52 Az = 314 (NEIS) |
| | eS | BC | 47 56 | PV A 2.4s 193.4nm M = 5.5 |
| | eSS | BC | 50 30 | SH C 19 5.2/um 6.0 |
| | LmH | C | 24 01.2 | LmH C 19.5 16/um 5.9 |
| | LmV | C | 06.7 | LmV C 15 6.2/um 5.7 |
| 20. | ePn | A | 01 55 50 | Northern Italy 46.91 N 12.57 E |
| | ePg | A | 56 05 | H = 01 54 51.8 h = 33 km |
| | eSg | A | 56 57 | D = 3.79 Az = 351 (NEIS) |
| 20. | ePn | A | 01 57 17 | Northern Italy 46.35 N 13.00 E |
| | ePg | A | 57 30 | H = 01 56 07.6 h = 6 km (TRI) |
| | eSg | A | 58 23 | D = 3.8 |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 20. | eP | A | 07 35 26 | Tadzhik SSR 39.79 N 69.33 E |
| | ePP | A | 37 04 | H = 07 27 38.9 h = 19.8 km MB = 4.9 |
| | | | | D = 41.10 Az = 305 (NEIS) |
| | | | | PV A 2.0s 42.7nm M = 4.8 |
| 20. | -eiP | A | 09 02 09.5 | Kurile Islands 48.59 N 153.01 E |
| | iX | A | 02 15 | H = 08 50 38.2 h = 140 km MB = 5.8 |
| | iPcP | A | 02 22 | D = 75.74 Az = 336 (NEIS) |
| | e | A | 02 27 | h = 160 km |
| | epP | A | 02 48 | PV A 1.6s 527.0nm M = 6.0 |
| | e | A | 02 56 | XV A 1.5 175.9nm 5.6 |
| | LmV | C | 27.6 | LmH B 34 1.4/um |
| | LmH | C | 29.4 | LmV B 60 1.2/um |
| 20. | eP | A | 13 28 03 | New Hebrides Islands 18.76 S 169.27 E |
| | | | | H = 13 08 59.2 h = 248.2 km MB = 4.1 |
| | | | | D = 143.56 Az = 336 (NEIS) |
| 20. | eP | A | 20 07 08 | Sicily 38.55 N 15.62 E |
| | | | | H = 20 04 16.3 h = 192.9 km MB = 4.7 |
| | | | | D = 12.42 Az = 348 (NEIS) |
| 21. | eP | ABC | 01 13 44 | Volcano Islands Region 25.51 N 143.11 E |
| | epP | A | 13 56 | H = 01 00 32.8 h = 33 km MB=6.2 MS=6.8 |
| | ePP | ABC | 17 22 | D = 92.92 Az = 331 (NEIS) |
| | epPP | A | 17 35 | h = 39 km |
| | eSKS | BC | 24 15 | PV A 1.7s 236.1nm M = 6.3 |
| | eS | BC | 24 45 | SH B 16 8.6/um 6.7 |
| | eSP | BC | 26 00 | LmH C 17.5 43.9/um 7.0 |
| | ePKKP | A | 30 57 | LmV C 18 26.7/um 6.7 |
| | eSS | BC | 31 00 | |
| | LmH | C | 56.4 | |
| | LmV | C | 59.8 | |
| 21. | eP | A | 02 17 03 | Kashmir - India Border Region |
| | | | | 32.84 N 76.63 E |
| | | | | H = 02 08 10.0 h = 33 km MB = 5.1 |
| | | | | D = 50.02 Az = 311 (NEIS) |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 21. | ePP | A | 04 06 14 | San Juan Province, Argentina |
| | | | | 31.52 S 67.60 W |
| | | | | H = 03 47 32.5 h = 33 km MB = 5.7 |
| | | | | D = 107.43 Az = 41 (NEIS) |
| | | | | PPV A 1.5s 25.2nm M = 5.7 |
| 21. | eP | A | 05 06 57 | Southeast of Shikoku, Japan |
| | epP | A | 07 07 | 30.85 N 132.32 E |
| | LmH | C | 48.6 | H = 04 54 31.3 h = 33 km MB = 5.2 |
| | LmV | C | 48.7 | D = 83.46 Az = 327 (NEIS) |
| | | | | h = 36 km |
| | | | | LmH C 19s 1.4/um M = 5.4 |
| | | | | LmV C 17 1.2/um 5.4 |
| 21. | ePKIKP | A | 05 27 27 | Fiji Islands Region 18.18 S 178.55 W |
| | ePKHKP | A | 27 28.5 | H = 05 08 54.4 h = 605.8 km MB = 4.9 |
| | | | | D = 146.60 Az = 348 (NEIS) |
| | | | | PKHKPV A 1.2s 24.4nm |
| 21. | eP | A | 08 36 20.5 | Eastern Caucasus 41.95 N 47.92 E |
| | | | | H = 08 30 46.3 h = 33 km MB = 4.7 |
| | | | | D = 26.32 Az = 302 (NEIS) |
| 21. | eP | A | 16 51 03 | Off East Coast of Kamchatka |
| | LmV | B | 17 22.2 | 52.93 N 159.80 E |
| | LmH | B | 25.3 | H = 16 39 33 h = 33 km MB=5.5 MS=5.0 |
| | | | | D = 73.37 Az = 339 (NEIS) |
| | | | | PV A 1.2s 118.0nm M = 5.8 |
| | | | | LmH B 17 1.7/um 5.4 |
| | | | | LmV B 24 2.1/um 5.4 |
| 21. | e(PP) | A | 18 25 07 | Molucca Sea 0.96 S 126.77 E |
| | LmH | C | 19 09.3 | H = 18 06 10.6 h = 20 km MB=5.4 MS=5.1 |
| | LmV | C | 13.2 | D = 106.46 Az = 323 (NEIS) |
| | | | | LmH C 24s 1.1/um M = 5.3 |
| | | | | LmV C 24 0.8/um 5.2 |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 21. | LmH | B | 20 46.5 | Hindu Kush Region 36.20 N 68.67 E |
| | LmV | B | 46.5 | H = 20 17 13.6 h = 53.1 km MB=4.8 MS=4.8 |
| | | | | D = 42.82 Az = 308 (NEIS) |
| | | | | LmH B 16s 0.8/um |
| | | | | LmV B 18 0.7/um |
| 21. | ePKP | A | 21 33 43 | Molucca Sea 0.96 S 126.72 E |
| | | | | H = 21 15 01.7 h = 33 km MB = 5.6 (NEIS) |
| | | | | D = 113.5 |
| 22. | ePKP | A | 02 20 11 | Kermadec Islands Region |
| | | | | 27.50 S 178.80 W |
| | | | | H = 02 00 41.8 h = 253 km MB = 5.2 |
| | | | | D = 155.56 Az = 344 (NEIS) |
| | | | | PKPV A 2.0s 51.3nm |
| 22. | eP1 | ABC | 04 57 35 | East China Sea 29.55 N 127.81 E |
| | eP2 | A | 57 40.5 | H = 04 45 14.7 h = 33 km |
| | e | A | 57 47 | MB = 5.5 MS = 5.3 (NEIS) |
| | ePP2 | A | 05 00 50 | D = 82.3 |
| | eS | C | 07 52 | P2V A 2.4s 332.0nm M = 6.0 |
| | eSS | BC | 13 16 | LmH C 16 43.7/um 6.9 |
| | LmH | C | 38.5 | LmV C 14.5 36.4/um 6.9 |
| | LmV | C | 38.8 | |
| 22. | ePKHKP | A | 11 15 13 | South Pacific Cordillera |
| | ePKP2 | A | 15 32 | 54.94 S 130.61 W |
| | | | | H = 10 55 08.2 h = 33 km MB = 5.1 |
| | | | | D = 156.96 Az = 85 (NEIS) |
| 22. | eP | A | 13 43 00 | Atlantic - Indian Rise 34.42 S 55.30 E |
| | LmH | C | 14 23.5 | H = 13 29 49.4 h = 33 km MB=5.7 MS=5.1 |
| | LmV | C | 23.5 | D = 93.05 Az = 334 (NEIS) |
| | | | | PV A 1.8s 57.5nm M = 5.7 |
| | | | | LmH C 24 1.1/um 5.3 |
| | | | | LmV C 25 0.9/um 5.2 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 22. | eP | A | 14 17 15 | Near East Coast of Kamchatka |
| | | | | 52.96 N 159.90 E |
| | | | | H = 14 05 45.1 h = 33 km MB = 4.9 |
| | | | | D = 73.36 Az = 340 (NEIS) |
| | | | | PV A 1.0s 19.7nm M = 5.1 |
| 22. | e(Sg) | A | 20 48 36 | Northern Italy 46.57 N 10.40 E |
| | | | | H = 20 46 28.8 h = 33 km |
| | | | | D = 4.16 Az = 11 (NEIS) |
| 22. | eP | A | 22 30 14 | Off East Coast of Honshu, Japan |
| | epP | A | 30 24 | 39.15 N 143.16 E |
| | LmH | C | 23 03.4 | H = 22 17 59.9 h = 22.9 km MB=5.3 MS=4.8 |
| | LmV | C | 09.2 | D = 81.00 Az = 331 (NEIS) |
| | | | | h = 36 km |
| | | | | PV A 1.5s 55.3nm M = 5.3 |
| | | | | LmH C 24 1.3/um 5.2 |
| | | | | LmV C 17 0.9/um 5.2 |
| 22. | ePKP2 | A | 23 15 02 | Fiji Region 19.81 S 177.28 W |
| | | | | H = 22 56 16.1 h = 574 km |
| | | | | D = 148.44 Az = 349 (ISC) |
| 23. | eP | AB | 11 20 39.5 | Jan Mayen Islands Region |
| | eS | BC | 24 45 | 72.02 N 0.50 W |
| | LmV | B | 30.0 | H = 11 15 44 h = 10 km MB=4.8 MS=4.7 |
| | LmH | B | 30.3 | D = 22.13 Az = 159 (NEIS) |
| | | | | PV A 1.4s 46.5nm M = 4.7 |
| | | | | LmH B 16.5 2.1/um 4.6 |
| | | | | LmV B 18 2.8/um 4.9 |
| 23. | e(P) | A | 21 11 17 | India - Bangladesh Border Region |
| | | | | 23.64 N 92.39 E |
| | | | | H = 21 00 25.8 h = 33 km MB = 5.1 |
| | | | | D = 66.35 Az = 317 (NEIS) |
| 23. | eP | ABC | 21 14 21 | Off East Coast of Honshu, Japan |
| | e | A | 14 34 | 39.13 N 143.16 E |
| | ePP | A | 17 27 | H = 21 02 07.5 h = 18.7 km MB=5.6 MS=5.9 |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| cont. 23. | eS | BC | 21 24 28 | D = 81.01 Az = 331 (NEIS) |
| | ePS | B | 25 20 | PV A 1.8s 162.0nm M = 5.7 |
| | ePPS | B | 25 40 | PV B 8 2.3/um 6.2 |
| | LmH | B | 53.4 | SH B 15.5 3.7/um 6.3 |
| | LmV | B | 54.6 | LmH B 15 16.2/um 6.5 |
| | | | | LmV B 15 13.4/um 6.5 |
| 23. | eP | A | 21 21 36 | Off East Coast of Honshu, Japan |
| | | | | 39.14 N 143.10 E |
| | | | | H = 21 09 21.7 h = 23 km MB = 5.4 |
| | | | | D = 80.98 Az = 331 (NEIS) |
| 23. | eP | ABC | 21 26 38 | Off East Coast of Honshu, Japan |
| | ePP | B | 29 42 | 39.07 N 143.05 E |
| | ePPP | B | 31 25 | H = 21 14 26.7 h = 41 km MB=5.4 MS=6.0 |
| | eS | BC | 36 41 | D = 81.02 Az = 331 (NEIS) |
| | ePS | B | 37 20 | PV A 1.4s 60.5nm M = 5.4 |
| | ePPS | B | 37 44 | SH B 17.5 6.1/um 6.4 |
| | LmH | B | 22 05.6 | LmH B 16 14.5/um 6.4 |
| | LmV | B | 05.7 | LmV B 16.5 15.8/um 6.5 |
| 23. | ePP | A | 22 19 08 | Mariana Islands 18.18 N 145.57 E |
| | | | | H = 22 02 06.1 h = 603.6 km MB = 5.3 |
| | | | | D = 100.43 Az = 332 (NEIS) |
| | | | | PPV A 1.3s 43.7nm M = 5.7 |
| 23. | eP | A | 22 22 49.5 | Off East Coast of Honshu, Japan |
| | epP | A | 23 03 | 39.02 N 143.41 E |
| | | | | H = 22 10 36.4 h = 32 km MB = 5.1 |
| | | | | D = 81.20 Az = 331 (NEIS) |
| | | | | h = 50 km |
| | | | | PV A 1.2s 30.5nm M = 5.2 |
| 23. | eP | A | 23 19 39 | Off East Coast of Honshu, Japan |
| | | | | 39.09 N 143.46 E |
| | | | | H = 23 07 22.8 h = 14 km MB = 5.0 (NEIS) |
| | | | | D = 81.1 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 24. | ePKP | A | 16 08 36 | South of Fiji Islands 24.94 S 176.03 W |
| | e | A | 08 43 | H = 15 48 32.2 h = 33 km MB=4.8 MS=5.2 |
| | e | A | 08 49 | D = 153.67 Az = 349 (NEIS) |
| 25. | +iP | A | 02 13 34 | Tyrrhenian Sea 40.41 N 12.94 E |
| | | | | H = 02 11 11.3 h = 482 km MB = 4.5 |
| | | | | D = 10.28 Az = 355 (NEIS) |
| | | | | PV A 0.6s 26.8nm M = 4.9 |
| 25. | ePKP | A | 04 45 02 | Loyalty Islands Region 22.02 S 170.91 E |
| | | | | H = 04 25 27.7 h = 76 km MB = 5.0 |
| | | | | D = 147.15 Az = 335 (NEIS) |
| | | | | PKPV A 1.6s 44.0nm |
| 25. | eP1 | A | 16 26 48.5 | Afghanistan - USSR Border Region |
| | iP2 | A | 26 50.5 | 38.92 N 70.80 E |
| | LmH | B | 47.2 | H = 16 18 54.7 h = 33 km MB=5.3 MS=4.7 |
| | LmV | B | 47.7 | D = 42.53 Az = 306 (NEIS) |
| | | | | P2V A 1.0s 31.8nm M = 5.0 |
| | | | | LmH B 13 1.0/um 4.9 |
| | | | | LmV B 13 1.1/um 4.9 |
| 25. | eP | A | 18 32 36.5 | Off East Coast of Honshu, Japan |
| | | | | 39.13 N 143.38 E |
| | | | | H = 18 20 21.6 h = 18.1 km MB = 5.0 |
| | | | | D = 81.09 Az = 331 (NEIS) |
| 25. | epP | A | 22 46 30.5 | Taiwan 24.18 N 121.69 E |
| | LmH | B | 23 27.4 | H = 22 33 48.1 h = 40.5 km MB=5.2 MS=4.7 |
| | LmV | B | 27.5 | D = 83.43 Az = 323 (NEIS) |
| | | | | LmH B 15s 1.1/um M = 5.4 |
| | | | | LmV B 17 1.0/um 5.3 |
| 26. | ePKP2 | A | 01 17 16 | South of Tonga Islands 24.59 S 175.90 W |
| | LmH | C | 02 31.0 | H = 00 57 07.4 h = 33 km MB=4.6 MS=5.0 |
| | LmV | C | 31.1 | D = 153.34 Az = 349 (NEIS) |
| | | | | LmH C 21s 0.4/um |
| | | | | LmV C 20 0.45/um |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 26. | eP | A | 04 10 46.5 | Eastern Kazakh SSR 49.88 N 78.14 E |
| | | | | H = 04 02 57.7 h = 0 km MB = 4.9 |
| | | | | D = 41.23 Az = 298 (NEIS) |
| | | | | PV A 0.8s 26.9nm M = 5.0 |
| 26. | eP | A | 09 52 35 | Luzon, Philippine Islands |
| | LmH | B | 10 38.4 | 14.71 N 123.63 E |
| | LmV | B | 38.4 | H = 09 39 26.1 h = 33 km MB=5.3 MS=4.3 |
| | | | | D = 92.09 Az = 324 (NEIS) |
| | | | | LmH B 16s 0.4/um M = 5.0 |
| | | | | LmV B 17 0.7/um 5.2 |
| 27. | eP | A | 06 57 57 | South of Honshu, Japan 30.74 N 137.30 E |
| | | | | H = 06 42 59.2 h = 471.2 km MB=4.9 (NEIS) |
| | | | | D = 85.84 |
| | | | | PV A 1.5s 35.2nm M = 4.8 |
| 27. | ePKP | A | 11 56 59 | Fiji Islands Region 17.97 S 178.63 W |
| | | | | H = 11 38 21.3 h = 555.3 km MB = 5.3 |
| | | | | D = 146.39 Az = 348 (NEIS) |
| | | | | PKPV A 1.6s 126.4nm |
| 27. | eP | A | 15 20 37 | Southern Alaska 60.39 N 153.70 W |
| | epP | A | 21 19 | H = 15 09 51 h = 175 km MB = 5.1 |
| | | | | D = 68.69 Az = 10 (NEIS) |
| | | | | h = 176 km |
| | | | | PV A 1.0s 39.4nm M = 5.1 |
| | | | | pPV A 1.6 104.4nm |
| 28. | eiP1 | AB | 02 53 18 | Red Sea 16.66 N 40.28 E |
| | eiP2 | A | 53 23 | H = 02 45 36.7 h = 33 km MB=5.9 MS=6.6 |
| | eiPP | BC | 54 52 | D = 40.96 Az = 332 (NEIS) |
| | eiPPP | BC | 55 24 | P1V A 1.9s 310.8nm M = 5.7 |
| | e(PcS) | B | 58 56 | P2V A 1.6 1018.0nm 6.3 |
| | iS | B | 59 34 | PPV B 15 12.2/um 6.5 |
| | eSS | B | 03 02 45 | SH B 15.5 42.5/um 7.0 |
| | LmH | B | 21.6 | LmH B 14 27.2/um 6.3 |
| | LmV | B | 25.6 | LmV B 14 22.1/um 6.3 |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 28. | eP | A | 11 18 34.5 | Norwegian Sea 72.46 N 3.36 E |
| | | | | H = 11 13 39 h = 33 km MB = 4.5 |
| | | | | D = 22.20 Az = 166 (NEIS) |
| | | | | PV A 1.6s 60.4nm M = 4.8 |
| 28. | ePKHKP | A | 11 39 08 | Tonga Islands Region 23.78 S 175.44 W |
| | ePKP2 | A | 39 18.5 | H = 11 19 14 h = 50.4 km MB = 4.8 |
| | | | | D = 152.62 Az = 350 (NEIS) |
| 28. | eiP | AB | 20 37 22 | Iceland 64.60 N 17.29 W |
| | eS | B | 41 16 | H = 20 32 40.8 h = 10 km MB=5.0 MS=5.2 |
| | LmH | B | 47.3 | D = 20.59 Az = 119 (NEIS) |
| | LmV | B | 47.7 | PV A 1.8s 344.6nm M = 5.4 |
| | | | | PV B 9 3.7/um 5.8 |
| | | | | PH B 9 2.7/um 5.5 |
| | | | | SH B 7 6.1/um 5.7 |
| | | | | LmH B 16 4.9/um 5.0 |
| | | | | LmV B 15 5.7/um 5.2 |
| 29. | ePKP | A | 10 39 16 | Tonga Islands 18.04 S 173.92 W |
| | epPKP | A | 39 44 | H = 10 19 42.1 h = 98 km MB = 5.2 |
| | | | | D = 147.17 Az = 354 (NEIS) |
| 29. | eP | A | 11 59 51 | Zaire Republic 0.01 N 29.68 E |
| | | | | H = 11 50 38 h = 33 km MB=4.8 MS=5.4 |
| | | | | D = 52.74 Az = 346 (NEIS) |
| 29. | LmH | C | 12 48.4 | Mindanao, Philippine Islands |
| | LmV | B | 13 02.4 | 8.52 N 126.00 E |
| | | | | H = 11 55 35.9 h = 53.2 km MB=5.3 MS=5.1 |
| | | | | D = 98.43 Az = 324 (NEIS) |
| | | | | LmH C 26s 2.0/um M = 5.5 |
| | | | | LmV B 16 1.0/um 5.4 |
| 29. | eP | A | 16 56 26 | Greece 38.44 N 22.30 E |
| | LmH | B | 02.5 | H = 16 52 56.7 h = 17.6 km MB = 4.7 |
| | LmV | B | 02.5 | D = 14.36 Az = 332 (NEIS) |
| | | | | PV A 1.6s 27.5nm M = 4.6 |
| | | | | LmH B 13 2.5/um 4.5 |
| | | | | LmV B 13 2.8/um |

| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 29. | eP | A | 19 57 22.5 | Bonin Islands Region 28.53 N 138.37 E |
| | epP | A | 59 28 | H = 19 45 27.4 h = 529 km MB = 5.2 |
| | ePP | A | 20 00 56 | D = 88.21 Az = 329 (NEIS) |
| | LmH | B | 41.5 | h = 583 km |
| | | | | pPV A 1.5s 30.2nm |
| 30. | eP | A | 09 14 37 | Fox Islands, Aleutian Is. |
| | | | | 52.15 N 169.59 W |
| | | | | H = 09 02 44.1 h = 38 km MB=5.0 MS=4.5 |
| | | | | D = 77.58 Az = 359 (NEIS) |
| | | | | PV A 1.2s 28.4nm M = 5.2 |
| 30. | ePKIKP | A | 10 57 12 | New Britain Region 5.07 S 151.77 E |
| | ePP | A | 59 15 | H = 10 38 19.5 h = 68 km MB = 5.9 |
| | | | | D = 123.68 Az = 331 (NEIS) |
| | | | | PPV A 1.8s 33.8/um M = 5.2 |
| 30. | ePn | A | 13 08 23.5 | Czechoslovakia 50.80 N 15.9 E |
| | ePg | A | 08 30 | H = 13 07 38 h = 0 km |
| | eSg | A | 09 05.5 | D = 2.7 Az = 268 (ISC) |
| 30. | +iP | AB | 17 37 40 | Southern Italy 40.00 N 15.42 E |
| | iS | B | 39 40 | H = 17 35 08.9 h = 283 km MB = 5.6 |
| | LmH | B | 40.9 | D = 10.98 Az = 347 (NEIS) |
| | LmV | B | 42.7 | PV A 1.6s 715.0nm M = 5.6 |
| | | | | PV B 8 6.9/um 6.9 |
| | | | | SH B 7 14.7/um 5.9 |
| | | | | LmH B 7 6.7/um |
| | | | | LmV B 8 5.7/um |
| 30. | eP | A | 18 11 27 | Southern Italy 40.00 N 15.40 E |
| | | | | H = 18 08 51.3 h = 294.8 km MB = 4.4 |
| | | | | D = 10.98 Az = 347 (NEIS) |
| | | | | PV A 1.0s 31.5nm M = 4.5 |
| 30. | ePKP | A | 20 27 04.5 | Fiji Islands Region 18.10 S 178.25 W |
| | | | | H = 20 08 32.2 h = 627.8 km MB = 5.0 |
| | | | | D = 146.59 Az = 349 (NEIS) |
| | | | | PKPV A 1.2s 24.4nm |





| Day | Phase | | h m s | Remarks |
|---|---|---|---|---|
| 30. | eP | A | 23 31 21 | Pakistan 28.97 N 69.48 E |
| | LmH | C | 53.0 | H = 23 22 39.3 h = 17 km MB=4.8 MS=4.9 |
| | | | | D = 48.06 Az = 314 (NEIS) |
| | | | | PV A 1.6s 27.5nm M = 5.1 |
| | | | | LmH C 20 1.0/um 4.8 |
| 31. | eP | A | 03 34 13 | Southern Sinkiang Province, China |
| | | | | 39.18 N 91.10 E |
| | | | | H = 03 24 38.6 h = 3.4 km MB = 4.9 |
| | | | | D = 54.86 Az = 310 (NEIS) |
| | | | | traces |
| 31. | eP | A | 08 06 36 | Southern Peru 15.30 S 71.68 W |
| | ePP | A | 10 32 | H = 07 53 18.0 h = 158 km MB = 5.9 |
| | iSKS | B | 17 04 | D = 97.50 Az = 40 (NEIS) |
| | LmV | B | 48.9 | PV A 2.0s 179.5nm M = 6.2 |
| | LmH | B | 49.0 | PPV A 1.9 129.0nm 5.8 |
| | | | | LmH B 19 1.7/um |
| | | | | LmV B 18 2.0/um |
| 31. | ePKP | A | 11 13 01 | Loyalty Islands Region 22.12 S 169.88 E |
| | | | | H = 10 53 20.9 h = 45.1 km MB=4.2 MS=4.4 |
| | | | | D = 146.83 Az = 334 (NEIS) |
| | | | | PKPV A 1.9s 53.0nm |
| 31. | eP | A | 11 54 15 | Mindanao, Philippine Islands |
| | | | | 8.55 N 126.03 E |
| | | | | H = 11 40 40.5 h = 46.6 MB = 5.3 |
| | | | | D = 98.42 Az = 324 (NEIS) |
| 31. | e(Sg) | A | 12 12 22 | Poland 52.01 N 20.20 E |
| | | | | H = 12 09 35.3 h = 81 km (NEIS) |
| | | | | D = 5.55 |

# Appendix

# Bulletin der Mikroerdbeben im Gebiet des Vogtlandes aus der Zeit von August 1962 bis Juni 1981

von

H. Neunhöfer und D. Güth +)

Zusammenfassung

Seit 1962 wurden im Vogtland mehr als 1200 Mikrobeben instrumentell nachgewiesen. Es werden die Bedingungen dieser Beobachtungen kurz beschrieben. Dánach werden einige Grundlagen der einheitlichen Behandlung und Darstellung der Ereignisse in Form eines Bulletins diskutiert. Schließlich wird das Bulletin selbst vorgelegt.

Summary

Since 1962 in the Vogtland region more than 1200 microearthquakes has been recorded. Briefly, the observational conditions are described. Then, the fundamentals of an unique treatment and representation of the events as a bulletin are discussed. Finally, the bulletin is given.

+) Akademie der Wissenschaften der DDR, Zentralinstitut für Physik der Erde, Mitteilung Nr. 1002

## 1. Einleitung

In nahezu 20 Jahren seismischer Überwachung ist im Vogtland, einem im Süden der DDR gelegenen Gebiet, das durch das Auftreten von sogenannten Schwarmbeben schon längere Zeit bekannt ist, eine größere Anzahl von Mikrobeben registriert worden. In einigen Arbeiten, so von SCHEID (1965), NEUNHÖFER (1976) und NEUNHÖFER und TITTEL (im Druck), wurden daraus bereits einige wissenschaftliche Schlußfolgerungen gezogen. Die durch MAAZ und NEUNHÖFER (im Druck) vorgestellte Verbesserung der Möglichkeit, nahe Mikrobeben zu orten, hat noch zusätzliche Informationen geliefert. Um nun das Beobachtungsmaterial auch anderen Bearbeitern für deren spezielle Zwecke nutzbar zu machen, haben sich die Autoren entschlossen, ihre Beobachtungsergebnisse nochmals unter generalisierenden Gesichtspunkten zu überarbeiten und in Form eines Bulletins zu veröffentlichen. Es umfaßt den Zeitabschnitt zwischen dem Beginn des größeren Mikrobebenschwarmes von 1962 und dem 30.6.1981.

## 2. Seismische Stationen und deren Ausrüstung

In der Nähe des Vogtländischen Herdgebietes registriert seit 1956 eine seismische Station, die in Plauen (PLN) aufgestellt ist. Der Erdbebenschwarm von 1962 war der Anlaß, eine noch näher an der Epizentralregion gelegene Registriermöglichkeit zu schaffen. Das erfolgte in der Ortschaft Klingenthal (KLI). Sie wurde später ergänzt durch eine weitere seismische Station in Bad Elster (BDE). Um ganz schwache Mikrobeben im Gebiet des Schwarmes von 1962 nachweisen zu können, wurde schließlich in Eubabrunn (EUB) eine weitere Station installiert, die aber zum Ausschluß von Unruhe nur nachts registriert. Die vier seismischen Stationen überwachen heute das Vogtland bezüglich des Auftretens von Mikrobeben gut, als Ergänzung kann noch die entferntere Hauptstation Moxa (MOX) herangezogen werden.

Vor allem in den ersten Jahren, die das folgende Bulletin umfaßt, waren die Aufzeichnungen in der Nähe des Herdgebietes allein noch nicht für eine detaillierte Bearbeitung ausreichend, so daß entferntere Stationen wie Jena (JEN), Collmberg (CLL) und Sonneberg (SON) unbedingt in die Auswertungen einbezog n

werden mußten. Die relative Lage aller Stationen zum Untersuchungsgebiet zeigt die Abb. 1.
Parallel zum zahlenmäßigen Ausbau des Stationsnetzes im Vogtland ging auch eine Verbesserung der Ausrüstung. Dadurch wurde auch die Nachweisbarkeitsgrenze nach schwächeren Ereignissen hin verschoben. Während zuerst vorwiegend mechanisch-optisch registrierende Seismographen nach Krumbach (K) eingesetzt waren, sind es heute elektromagnetische des Typs VSJ II. Bevorzugt wird nur ein Vertikalseismograph aufgestellt. In Abb. 2 sind die normierten Vergrößerungskurven für die z. Zt. im Vogtland arbeitenden Seismographen dargestellt. Sie sind so abgestimmt, daß sie zwischen 2 und 10 Hz, den vorherrschenden Frequenzen bei Mikrobeben, nahezu maximal vergrößern. Die Vergrößerung an den einzelnen Stationen wurde im Laufe der Zeit wiederholt geändert. Die Tabelle 1 faßt alle während der Berichtszeit verwendeten Vergrößerungen zusammen.

## 3. Magnitudenbestimmung, Ortung

Die energetische Beurteilung von Erdbeben erfolgt im allgemeinen durch die Angabe der Magnitude, Für größere Erdbeben ist hierfür ein gut fundiertes einheitliches System geschaffen worden, das weltweit in der seismologischen Praxis angewendet wird. Eine Übertragung auf Mikrobeben ist kaum direkt möglich, weil lokale Einflüsse zu stark sind und die Ereignisse nicht weit genug registriert werden können. Um trotzdem auch für nahe Mikrobeben eines bestimmten Untersuchungsgebietes in sich konsistente Magnitudenwerte M angeben zu können, wird von uns die Formel von IIDA (1967)

$$M = \lg A + 1{,}5 \lg t_{S-P} + 1{,}2$$

angewendet, mit deren Hilfe auch die Magnitudenangaben der vorliegenden Arbeit gewonnen worden sind. A bedeutet die maximale Amplitude in Mikrometern, $t_{S-P}$ die Differenz der Einsatzzeiten von S- und P-Wellen. Beim Vergleich mehrerer so berechneter Magnituden eines Ereignisses wurden systematische Abweichungen insbesondere für Moxa und Klingenthal beobachtet, deren statistische Verteilung in Abb. 3 dargestellt ist. Daraus folgt, daß für Moxa die berechnete Magnitude im Mittel um etwa



0,6 zu klein ist, für Klingenthal ist sie im Mittel um 0,4 zu groß. Diese mittleren Abweichungen werden als Korrekturen vor der Berechnung der im Bulletin angegebenen mittleren Magnitude berücksichtigt.

Das Epizentrum der Mikrobeben kann bestimmt werden, wenn von mindestens drei Stationen die Werte $t_{S-P}$ bekannt sind. Von MAAZ und NEUNHÖFER (im Druck) ist ein Verfahren beschrieben worden, das dann nach der Maximum-Likelihood-Methode die Epizentralkoodinaten zu berechnen gestattet. Die Genauigkeit beträgt in unserem Falle etwa 3 km. Die Ergebnisse aller Ortungen aus dem Vogtland sind in der genannten Arbeit zusammengefaßt und gedeutet worden.

## 4. Aufbau des Bulletins

Die instrumentell nachgewiesenen Mikrobeben sind im Bulletin chronologisch aufgeführt und werden innerhalb eines Jahres durchnumeriert. Falls an mindestens einer Station die Differenz $t_{S-P}$ der Einsätze von S- und P-Wellen ausgemessen werden konnte, wurde nach IIDA (1967) eine Magnitude M errechnet und auch angegeben. Die in Klammern folgende Zahl gibt die Anzahl der Stationen an, für die eine Magnitude berechnet werden konnte, die dann in den angegebenen Mittelwert eingegangen sind. Steht die Magnitude selbst in Klammern, so ist mindestens eine der zugrundeliegenden Amplitudenausmessungen ungenau. In der gleichen Zeile folgen nach MAAZ und NEUNHÖFER (1981) errechnete Epizentralkoordinaten, falls an mindestens drei Stationen $t_{S-P}$ zu bestimmen war.

Die Angaben zu den einzelnen Mikrobeben werden durch Auswerteresultate für die einzelnen Stationen fortgesetzt. Dem Stationscode folgt die Einsatzzeit der P-Welle. Wenn der Zeitdienst es erlaubt, ist der Einsatz auf 0,1 Sekunde genau angegeben. Fehlen die Sekundenangaben überhaupt, dann konnte der Einsatz nur zeitlich ungenau ausgemessen werden. In der nächsten Spalte steht $t_{S-P}$ (in Sekunden), gefolgt von der maximalen Doppelamplitude der P- und S-Welle. Sie ist angegeben in mm Ausschlag im Seismogramm. Klammern um Amplitudenangaben geben Ungenauigkeit an, Klammern allein bedeuten, daß die Registrierung übersteuert ist

und nicht ausgemessen werden kann. Die wahre Bodenbewegung kann durch Berücksichtigung der angegebenen Instrumentenvergrößerung und -charakteristik errechnet werden. Da die Perioden der ankommenden Wellen zwischen 0,2 und 0,1 s liegen, kann ohne wesentlichen Fehler mit der maximalen Vergrößerung gerechnet werden.



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Tabelle 1

a) Vergrößerung der Seismographen im Vogtländischen Stationsnetz

| KLI | Vmax |
|---|---|
| 18.9.62 - 29.11.67 | 800++) (K) |
| 29.11.67 - 9. 1.70 | 1200 |
| 9.1.70 - 4. 9.70 | 1325 |
| 4.9.70 - 22. 6.71 | 2650 |
| 22.6.71 - 3. 9.71 | 1300 |
| 3.9.71 - 5. 3.73 | 2500 |
| 5.3.71 - | 4200 |

| EUB | |
|---|---|
| 30.12.76 - 28.6.77 | 100000 |
| 28. 6.77 - | 49000 |

| BDE | Vmax |
|---|---|
| 19.3.73 - 29.9.75 | 1610++) |
| 29.9.75 - 28.6.77 | 6300 |
| 28.6.77 - 23.8.79 | 15900 |
| 23.8.79 - | 53000 |

| PLN | |
|---|---|
| 25.10.56 - 13.10.60 | 4000 (K) |
| 13.10.60 - 18. 9.69 | 2000 (K) |
| 18. 9.69 - | 23000 |

b) Vergrößerung der benutzten Seismographen benachbarter Stationen

| | Vmax | |
|---|---|---|
| MOX | 300 000 | |
| | 100 000 | +) |
| CLL | 29 000 | (Benioff-Seismograph) |
| JEN | 2 000 | (Wiechert-15-t-Seismograph) ++) |
| SON | 2 060 | (K) |

+) Amplitudenwerte sind mit "+" versehen

++) Horizontalseismograph



Tabelle 2

Koordinaten der verwendeten Stationen

| Station | geographische Länge | Breite |
|---|---|---|
| BDE | 12.237 °E | 50.287 °N |
| CLL | 13.004 | 51.309 |
| EUB | 12.390 | 50.301 |
| JEN | 11.599 | 50.926 |
| KLI | 12.470 | 50.371 |
| MOX | 11.616 | 50.646 |
| PLN | 12.164 | 50.486 |
| SON | 11.193 | 50.378 |

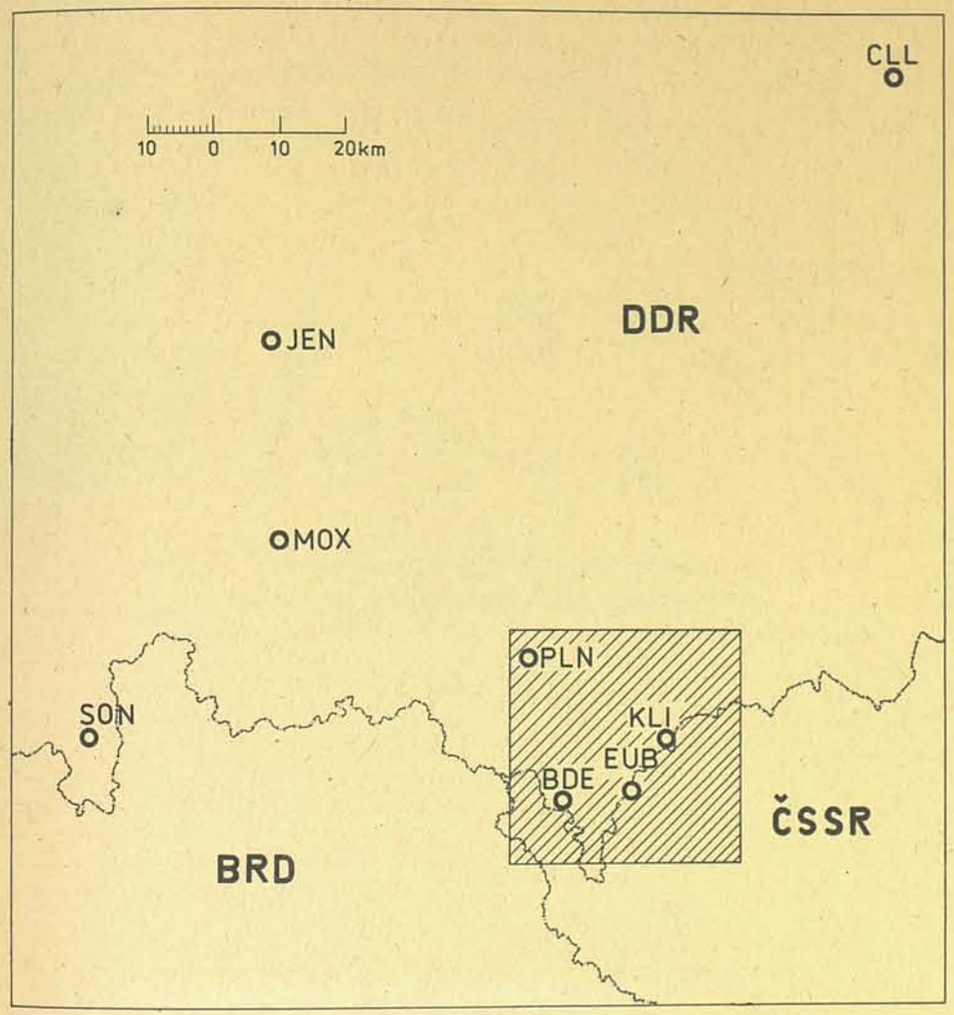


Abb. 1 Lage der verwendeten seismischen Stationen relativ zum Untersuchungsgebiet

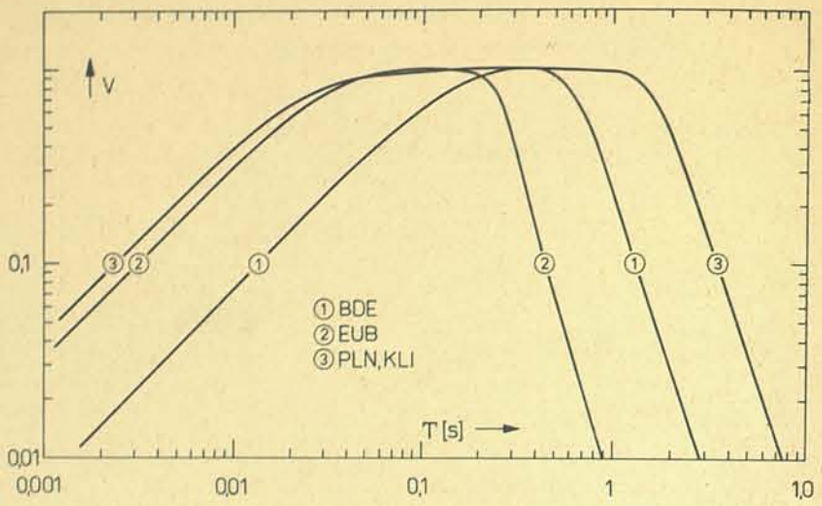


Abb. 2 Normierte Vergrößerungskurven für die im Vogtland z. Z. arbeitenden Stationen

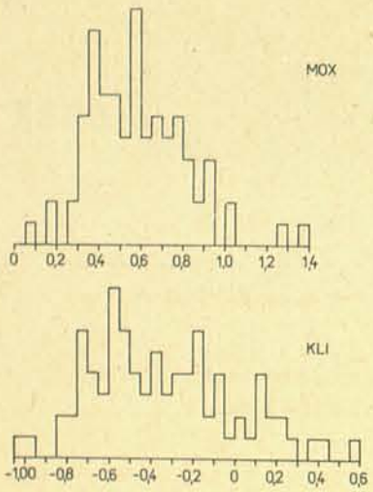


Abb. 3 Abweichungen der berechneten Magnituden vom Mittel für MOX und KLI



1 9 6 2

22.8.62 (1)
M = 1.8(1)
PLN 10 38 1.4
CLL 38 55.7 14.3 2.4 3.8

23.8.62 (2)
PLN 14 39 0.5

23.8.62 (3)
PLN 14 42 0.5

23.8.62 (4)
PLN 17 23 0.5

24.8.62 (5)
PLN 09 05 1.2

25.8.62 (6)
M = 1.7(1)
PLN 20 13 0.7
CLL 13 15.5 14.4 2.0 3.0

25.8.62 (7)
PLN 20 42 0.5

25.8.62 (8)
PLN 20 51 0.4

31.8.62 (9)
PLN 10 24 0.3

31.8.62 (10)
PLN 13 27 0.5

31.8.62 (11)
PLN 20 39 0.4
CLL 39 1.0

1.9.62 (12)
M = 1.5(1)
PLN 03 45 0.5
CLL 45 58.5 14.3 1.2 1.9

1.9.62 (13)
M = 1.6(1)
PLN 05 43 0.6
CLL 43 53.2 14.3 1.5 2.5

1.9.62 (14)
PLN 14 33 0.5

1.9.62 (15)
M = 1.4(1)
PLN 14 41 0.8
CLL 41 27.7 14.4 1.0 1.7

1.9.62 (16)
M = 1.5(1)
PLN 21 45 0.5
CLL 45 12.4 14.3 1.3 2.0

1.9.62 (17)
M = 1.9(1)
PLN 22 08 1.4
CLL 08 38.1 14.3 3.1 5.0

1.9.62 (18)
PLN 22 13 0.3

2.9.62 (19)
M = 1.4(1)
PLN 12 44 0.5
CLL 44 44.0 14.6 1.1 1.8

2.9.62 (20)
M = 1.7(1)
PLN 16 11 0.7
CLL 11 49.9 14.4 1.7 3.0

2.9.62 (21)
PLN 18 08 0.3

3.9.62 (22)
M = 1.4(1)
PLN 03 36 0.6
CLL 36 54.7 14.7 0.8 1.5

```
3.9.62   (23)
M = 1.5(1)
PLN  04 54                          1.5
CLL      54 46.7  14.7  1.2  2.0

3.9.62   (24)
PLN  09 25                          0.3

3.9.62   (25)
M = 1.5(1)
CLL  09 43 15.7  14.8  1.4  2.2

3.9.62   (26)
PLN  10 08                          0.5

3.9.62   (27)
PLN  11 59                          0.6

3.9.62   (28)
M = 1.6(1)
PLN  22 15                          0.8
CLL      15 50.2  14.7  2.1  2.5

4.9.62   (29)
M = 1.4(1)
PLN  04 20                          0.5
CLL      20 39.9  14.4  1.0  1.5

4.9.62   (30)
M = 1.8(1)
PLN  04 20                          1.5
CLL      21 07.3  14.5  3.1  4.2

4.9.62   (31)
PLN  08 57                          0.4

4.9.62   (32)
PLN  09 56                          0.5

4.9.62   (33)
PLN  10 06                          0.4

4.9.62   (34)
PLN  10 07                          0.3

4.9.62   (35)
PLN  11 12                          0.4
```



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4.9.62   (36)
M = 1.6(1)
PLN  16 12                          1.1
CLL      12 56.5  14.4  2.6  2.0

4.9.62   (37)
PLN  16 21                          0.3

4.9.62   (38)
M = 1.6(1)
PLN  17 55                          1.0
CLL      55 24.6  14.4  2.3  2.5

4.9.62   (39)
PLN  17 55                          0.7

4.9.62   (40)
M = 1.5(1)
PLN  22 41                          0.5
CLL      41 57.6  14.6  2.0  1.9

5.9.62   (41)
M = 1.3(1)
PLN  02 29                          0.3
CLL      29 53.6  14.8  1.3  1.2

5.9.62   (42)
M = 1.4(1)
PLN  02 46                          0.7
CLL      46 55.1  14.8  1.5  1.5

5.9.62   (43)
M = 1.8(1)
PLN  04 52                          0.3
CLL      52 31.7  13.9  2.7  4.5

5.9.62   (44)
M = 1.4(1)
PLN  07 37                          0.6
CLL      37 39.0  14.4  1.3  1.6

5.9.62   (45)
M = 1.3(1)
CLL  08 53 52.8  14.5  1.2  1.4

5.9.62   (46)
M = 1.8(1)
CLL  09 04 59.2  14.1  4.5  3.5
```

```
5.9.62   (47)
M = 1.5(1)
CLL  09 05 58.3  14.1  2.0  1.3

5.9.62   (48)
M = 1.6(1)
CLL  15 51 57.5  14.4  2.9  2.0

6.9.62   (49)
M = 1.9(1)
CLL  02 41 07.0  14.4  2.5  5.0

6.9.62   (50)
M = 1.5(1)
CLL  22 56 53.3  14.4  1.2  2.0

7.9.62   (51)
M = 1.5(1)
CLL  09 27 59.9  14.8  1.5  2.2

7.9.62   (52)
PLN  11 20                          0.4

7.9.62   (53)
PLN  13 18                          0.6

7.9.62   (54)
PLN  13 42                          0.4

7.9.62   (55)
M = 1.5(1)
PLN  19 31                          1.0
CLL      31 14.8  14.5  1.9  2.1

7.9.62   (56)
PLN  19 31                          0.5

9.9.62   (57)
M = 1.5(1)
PLN  03 49                          0.6
CLL      49 46.2  14.6  1.1  2.1

9.9.62   (58)
PLN  20 26                          0.4

10.9.62  (59)
PLN  10 51                          2.5
```

```
10.9.62  (60)
PLN  15 11                          0.3

10.9.62  (61)
M = 1.3(1)
PLN  16 14          3.3  0.2  0.8

10.9.62  (62)
M = 1.7(2)
PLN  19 42          3.15 0.2  1.2
JEN      42                     1.3
CLL      42 50.2  14.2  3.6  4.6

10.9.62  (63)
M = 1.4(1)
PLN  22 43                          0.6
CLL      43 33.8  14.5  1.5  1.8

10.9.62  (64)
M = 1.4(1)
PLN  23 10                          0.3
CLL      10 21.1  14.4  0.9  1.5

11.9.62  (65)
M = 1.4(1)
PLN  05 18                          0.4
CLL      18 48.0  14.4  1.1  1.6

12.9.62  (66)
M = 2.1(2)
PLN  17 11                          2.8
SON      11                         0.6
JEN      11 35.0  10.7  0.4  1.3
CLL      11 39.3  14.6  6.0  5.0

12.9.62  (67)
M = 1.4(1)                          1.1
PLN  17 30
CLL      30 18.4  14.6  1.9  1.6

12.9.62  (68)
M = 1.1(1)                          0.5
PLN  23 28
CLL      28 21.8  14.6  1.0  0.8

13.9.62  (69)
M = 2.1(4)  50.289 N  12.358 E
PLN  01 43          3.15 0.4  2.6
SON      43 56.3  10.2  0.3  0.6
JEN      43 57.0  10.8  0.5  1.8
CLL      44 01.5  14.7  9.0 11.0
```

13.9.62 (70)
PLN 02 40 3.15 0.4 1.4
CLL 40 45.4 3.2

13.9.62 (71)
M = 1.4(1)
PLN 03 11 1.0
CLL 11 57.9 14.6 1.8 1.2

13.9.62 (72)
M = 1.4(2)
PLN 03 44 3.3 0.3 0.7
CLL 44 44.3 14.3 2.3 2.6

13.9.62 (73)
M = 1.5(1)
PLN 04 45 0.8
CLL 45 25.7 14.5 2.0 1.3

13.9.62 (74)
PLN 04 52 0.5
CLL 52 40.5 1.1

13.9.62 (75)
PLN 05 00 0.4
CLL 00 41.6 1.2

13.9.62 (76)
PLN 05 30 0.5

13.9.62 (77)
M = 2.3(4) 50.287 N 12.375 E
PLN 06 31 3.3 1.4 4.3
SON 31 56.0 10.5 0.4 1.9
JEN 31 56.9 10.7 0.9 1.8
CLL 32 01.1 14.8 18.5 11.5

13.9.62 (78)
M = 1.6(1)
PLN 06 52 0.9
CLL 52 45.4 14.7 2.0 2.7

13.9.62 (79)
M = 1.6(1)
CLL 08 58 53.4 14.7 2.3 1.7

13.9.62 (80)
M = 1.3(1)
PLN 14 01 0.4
CLL 02 11.6 13.8 1.5 1.5

13.9.62 (81)
M = 1.4(1)
PLN 15 13 0.6
CLL 13 34.2 14.5 1.7 1.6

13.9.62 (82)
PLN 16 38 0.6

13.9.62 (83)
M = 1.3(2)
PLN 20 16 3.3 0.2 0.5
CLL 16 14.6 2.4 1.5

13.9.62 (84)
PLN 20 37 0.5

13.9.62 (85)
PLN 20 39 0.6

13.9.62 (86)
PLN 23 09 0.5

14.9.62 (87)
PLN 01 00 0.4

14.9.62 (88)
M = 1.5(1)
PLN 01 08 0.8
CLL 08 14.6 2.0 1.6

14.9.62 (89)
M = 1.6(1)
PLN 03 57 1.6
CLL 57 14.2 2.7 1.9

14.9.62 (90)
PLN 05 33 0.3

14.9.62 (91)
M = 1.7(1)
PLN 05 46 0.6
CLL 46 14.2 3.7 2.5

14.9.62 (92)
PLN 06 14 0.7
CLL 14 0.9 0.5



14.9.62 (93)
PLN 09 47 0.3

14.9.62 (94)
PLN 10 46 0.3

14.9.62 (95)
PLN 10 49 0.4

14.9.62 (96)
M = 1.3(1)
PLN 17 14 0.5
CLL 15 00.5 14.6 1.4 1.4

14.9.62 (97)
M = 1.4(1)
PLN 23 41 0.4
CLL 41 27.6 14.2 1.7 0.7

14.9.62 (98)
M = 2.1(4) 50.302 N 12.369 E
PLN 23 48 3.15 0.8 2.7
SON 48 51.9 10.4 0.3 1.1
JEN 48 52.6 10.5 0.4 1.3
CLL 48 56.7 14.6 7.0 5.5

15.9.62 (99)
PLN 00 05 0.4

15.9.62 (100)
M=1.3(2)
PLN 04 27 3.4 0.4 0.7
CLL 28 02.1 14.6 1.6 1.5

15.9.62 (101)
PLN 04 28 0.4

15.9.62 (102)
M = 1.8(2)
PLN 04 29 3.3 0.2 2.6
JEN 29 0.9
SON 29 1.4
CLL 29 49.3 14.8 4.5 3.5

15.9.62 (103)
PLN 04 29 1.1

15.9.62 (104)
M = 1.7(2)
PLN 04 31 3.3 0.2 1.4
CLL 31 43.8 14.5 1.8 1.6

15.9.62 (105)
M = 1.2(1)
PLN 04 32 0.7
CLL 32 49.1 14.9 1.1 0.8

15.9.62 (106)
PLN 04 38 0.4

15.9.62 (107)
M = 2.0(2)
PLN 06 45 3.2 1.2 2.6
CLL 45 53.6 14.7 8.9 7.1

15.9.62 (108)
M = 1.7(1)
PLN 09 22 1.0
CLL 22 13.5 14.7 3.0 1.9

15.9.62 (109)
M = 1.5(1)
PLN 09 53 0.9
CLL 54 05.1 14.5 1.3 2.1

15.9.62 (110)
M = 1.7(1)
PLN 09 59 0.3
CLL 59 17.3 13.3 2.3 4.0

15.9.62 (111)
M = 1.5(1)
PLN 12 07 1.0
CLL 07 17.3 14.4 1.4 2.1

15.9.62 (112)
M = 1.4(1)
PLN 19 41 0.8
CLL 41 31.3 14.6 1.5 1.7

16.9.62 (113)
M = 1.9(3) 50.311 N 12.365 E
PLN 03 19 3.1 0.3 2.0
SON 19 1.4
JEN 19 17.3 10.6 1.1
CLL 19 21.4 14.3 3.9 4.8

16.9.62 (114)
PLN 04 16 0.3

16.9.62 (115)
M = 1.8(1)
PLN 06 03 0.5
JEN 03 1.1
CLL 03 35.8 14.7 4.5 2.8

17.9.62 (116)
M = 1.9(1)
CLL 13 35 27.1 14.7 4.0 5.1

17.9.62 (117)
M = 1.9(1)
CLL 13 48 32.9 14.0 3.6 5.5

17.9.62 (118)
M = 2.2(1)
JEN 14 07
CLL 07 04.0 14.6 10.0 4.3

17.9.62 (119)
M = 1.6(1)
CLL 14 27 40.7 14.6 2.4 1.5

17.9.62 (120)
M = 1.8(1)
JEN 14 41
CLL 41 55.1 14.2 4.5 3.0

17.9.62 (121)
M = 2.0(1)
JEN 16 15
CLL 15 29.0 14.7 4.1 5.8

17.9.62 (122)
M = 1.6(1)
CLL 16 29 38.8 14.9 1.9 2.8

17.9.62 (123)
M = 1.3(1)
JEN 16 44
CLL 44 25.8 14.3 6.0 3.2

17.9.62 (124)
M = 1.6(1)
CLL 19 24 19.8 14.7 2.3 1.2

17.9.62 (125)
M = 1.5(1)
JEN 20 25
CLL 25 30.9 14.3 2.0 1.0

17.9.62 (126)
M = 2.7(3) 50.295 N 12.358 E
SON 22 18 54.6 10.3 0.6 3.8
JEN 18 56.0 10.4 1.1 4.9
CLL 18 59.5 14.7 32.0 21.5

17.9.62 (127)
M = 1.5(1)
CLL 22 31 35.4 14.6 1.8 2.0

17.9.62 (128)
M = 1.6(1)
CLL 23 26 08.4 14.6 2.0 2.3

17.9.62 (129)
M = 1.3(1)
CLL 23 53 46.8 14.9 0.6 1.2

18.9.62 (130)
M = 1.5(1)
CLL 00 01 42.8 14.3 1.2 2.3

18.9.62 (131)
M = 1.6(1)
CLL 00 15 23.8 14.7 1.8 2.6

18.9.62 (132)
M = 2.1(2)
SON 00 16 0.6
JEN 16 30.2 10.6 0.3 1.6
CLL 16 33.1 14.6 5.5 4.0

18.9.62 (133)
M = 2.2(3) 50.296 N 12.375 E
SON 00 30 02.9 10.4 1.4
JEN 30 04.7 10.5 0.3 1.5
CLL 30 08.4 14.6 3.5 4.5

18.9.62 (134)
M = 2.2(2)
SON 01 17 0.8
JEN 17 14.0 10.6 0.3 1.6
CLL 17 17.0 14.5 9.0 6.0



18.9.62 (135)
M = 1.7(1)
CLL 01 37 34.0 15.3 2.5 3.2

18.9.62 (136)
M = 1.4(1)
CLL 02 26 38.9 14.3 1.8 1.5

18.9.62 (137)
M = 1.5(1)
CLL 04 07 28.0 14.8 1.9 2.2

18.9.62 (138)
M = 1.9(1)
CLL 04 14 09.1 14.8 2.5 5.0

18.9.62 (139)
M = 1.4(1)
CLL 04 31 53.3 14.2 1.6 1.0

18.9.62 (140)
M = 1.4(1)
CLL 06 07 08.5 14.6 0.7 1.5

18.9.62 (141)
M = 1.3(1)
CLL 06 14 01.5 14.8 0.5 1.3

18.9.62 (142)
M = 1.7(1)
CLL 07 19 20.6 15.0 1.5 2.9

18.9.62 (143)
M = 2.8(3) 50.276 N 12.329 E
SON 07 42 09.9 10.3 0.6 4.6
JEN 42 11.0 10.2 1.4 3.9
CLL 42 15.2 15.2 12.5 35.8

18.9.62 (144)
M = 2.4(4) 50.287 N 12.384 E
PLN 10 19 3.15 1.2 4.5
SON 19 49.2 10.6 2.4
JEN 19 50.5 10.9 1.3 4.5
CLL 19 53.3 14.8 16.0 9.5

18.9.62 (145)
M = 1.5(1)
PLN 10 39 0.8
CLL 39 44.4 14.5 2.0 1.4

18.9.62 (146)
PLN 10 41 0.8

18.9.62 (147)
M = 2.0(2)
PLN 12 44 3.15 0.4 3.5
CLL 44 47.4 14.5 3.7 8.5

18.9.62 (148)
PLN 13 36 0.7

18.9.62 (149)
M = 2.2(3) 50.280 N 12.332 E
PLN 14 48 3.25 0.3 3.5
SON 48 1.5
JEN 48 32.0 10.8 0.9 1.5
CLL 48 35.4 14.8 8.0 11.0

18.9.62 (150)
M = 1.8(2)
PLN 15 28 3.3 0.3 1.6
CLL 29 09.8 14.8 2.3 6.0

18.9.62 (151)
M = 1.9(2)
KLI 16 16 1.15 0.8 12.2
PLN 16 0.7
CLL 17 06.7 15.0 2.0 5.5

18.9.62 (152)
KLI 16 25 1.5

18.9.62 (153)
M = 1.7(2)
KLI 16 26 1.2 1.5 18.0
PLN 26 0.4
CLL 26 16.5 14.9 1.6 1.0

18.9.62 (154)
KLI 16 44 1.2

18.9.62 (155)
KLI 16 46 1.4

18.9.62 (156)
KLI 16 47 0.9

18.9.62 (157)
KLI 16 56 4.0

18.9.62 (158)
KLI 16 57 1.7

18.9.62 (159)
KLI 17 05 1.2

18.9.62 (160)
M = 1.6(1)
KLI 17 20 1.2 0.6 7.0

18.9.62 (161)
KLI 17 21 2.1

18.9.62 (162)
KLI 17 23 1.9

18.9.62 (163)
KLI 17 30 1.4

18.9.62 (164)
KLI 17 30 1.3

18.9.62 (165)
M = 1.7(2)
KLI 17 56 1.25 1.0 14.0
PLN 56 0.7
CLL 56 16.5 14.6 0.6 2.5

18.9.62 (166)
KLI 17 56 1.9

18.9.62 (167)
KLI 17 58 6.2

18.9.62 (168)
M = 1.4(1)
KLI 18 03 1.12 1.5 5.0
PLN 03 0.4
CLL 03 0.9

18.9.62 (169)
KLI 18 06 2.9

18.9.62 (170)
M = 1.6(1)
KLI 18 13 1.1 0.7 8.0

18.9.62 (171)
KLI 19 03 1.1

18.9.62 (172)
KLI 19 25 1.8

18.9.62 (173)
KLI 19 27 1.1

18.9.62 (174)
KLI 19 28 1.3

18.9.62 (175)
KLI 19 38 1.2

18.9.62 (176)
KLI 20 04 1.8

18.9.62 (177)
KLI 20 19 1.8

18.9.62 (178)
KLI 20 20 1.4

18.9.62 (179)
KLI 20 23 2.2

18.9.62 (180)
M = 1.6(1)
KLI 20 41 1.15 0.5 8.0

18.9.62 (181)
KLI 20 43 4.8

18.9.62 (182)
KLI 20 47 2.4

18.9.62 (183)
KLI 21 56 1.9

18.9.62 (184)
KLI 22 22 2.3

18.9.62 (185)
KLI 22 23 4.9



18.9.62 (186)
KLI 22 23 1.7

18.9.62 (187)
KLI 22 23 3.6

18.9.62 (188)
KLI 22 45 1.3

18.9.62 (189)
KLI 22 55 1.9

18.9.62 (190)
M = 1.5(1)
KLI 23 09 1.15 0.5 5.9

18.9.62 (191)
KLI 23 26 2.6

18.9.62 (192)
KLI 23 45 1.5

18.9.62 (193)
M = 1.9(3) 50.312 N 12.401 E
KLI 23 59 1.15 2.5 25.0
PLN 59 3.3 0.3 1.7
SON 59 0.9
JEN 59 1.1
CLL 59 15.6 14.4 2.0 6.2

19.9.62 (194)
KLI 00 04 1.4

19.9.62 (195)
M = 2.0(3) 50.312 N 12.401 E
KLI 00 06 1.15 0.9 17.0
PLN 06 3.3 0.4 1.3
SON 06 0.9
JEN 06 0.9
CLL 06 53.3 14.4 1.7 3.5

19.9.62 (196)
KLI 00 07 3.9

19.9.62 (197)
KLI 00 36 1.0

19.9.62 (198)
KLI 00 40 1.5

19.9.62 (199)
M = 1.6(1)
KLI 01 02 1.2 1.7 8.2
PLN 02 0.5
CLL 02 57.8 2.0

19.9.62 (200)
KLI 01 02 5.8

19.9.62 (201)
KLI 01 02 3.1

19.9.62 (202)
KLI 01 03 2.1

19.9.62 (203)
KLI 01 03 1.4

19.9.62 (204)
M = 1.7(2)
KLI 01 04 1.2 1.0 20.0
PLN 04 0.8
CLL 04 39.9 14.6 1.0 1.7

19.9.62 (205)
KLI 01 05 2.9

19.9.62 (206)
KLI 01 05 1.6

19.9.62 (207)
KLI 01 12 2.6

19.9.62 (208)
KLI 01 14 1.3

19.9.62 (209)
KLI 01 14 1.7

19.9.62 (210)
KLI 01 14 1.5

19.9.62 (211)
KLI 01 14 0.7

19.9.62 (212)
KLI 01 14 1.4

19.9.62 (213)
KLI 01 14 1.4

19.9.62 (214)
KLI 01 15 6.5

19.9.62 (215)
KLI 01 15 2.3

19.9.62 (216)
KLI 02 02 4.5

19.9.62 (217)
M = 1.5(1)
KLI 02 03 1.15 0.7 6.1
PLN 03 0.6
CLL 03 59.9 1.0

19.9.62 (218)
M = 1.3(1)
KLI 02 04 1.15 0.4 3.8

19.9.62 (219)
KLI 02 06 1.6

19.9.62 (220)
KLI 02 07 6.6
PLN 07 0.6

19.9.62 (221)
KLI 02 07 3.6

19.9.62 (222)
KLI 02 08 2.1

19.9.62 (223)
KLI 02 09 2.0

19.9.62 (224)
KLI 02 50 1.6

19.9.62 (225)
KLI 02 57 6.0

19.9.62 (226)
KLI 03 04 1.3

19.9.62 (227)
M = 1.6(2)
KLI 03 06 1.2 0.6 11.0
PLN 06 0.4
CLL 07 06.9 14.7 1.5 1.0

19.9.62 (228)
KLI 03 12 3.0

19.9.62 (229)
M = 1.6(1)
KLI 03 13 1.1 0.4 7.9
PLN 13 0.4
CLL 13 23.7 1.0

19.9.62 (230)
KLI 03 13 2.0

19.9.62 (231)
M = 1.5(1)
KLI 03 29 1.1 0.5 6.9

19.9.62 (232)
M = 1.2(1)
KLI 04 31 1.05 0.6 3.5

19.9.62 (233)
KLI 04 51 1.4

19.9.62 (234)
M = 1.3(1)
KLI 04 56 1.05 0.6 5.1

19.9.62 (235)
KLI 04 57 0.9

19.9.62 (236)
KLI 05 04 2.1

19.9.62 (237)
KLI 05 14 1.2



19.9.62 (238)
KLI 06 28 2.5

19.9.62 (239)
KLI 06 42 1.7

19.9.62 (240)
KLI 07 59. 3.8

19.9.62 (241)
KLI 08 02 1.0
PLN 02 0.5

19.9.62 (242)
KLI 08 05 1.7

19.9.62 (243)
KLI 08 16 3.8

19.9.62 (244)
PLN 09 18 0.8 1.9

19.9.62 (245)
KLI 09 26 1.4

19.9.62 (246)
M = 1.4(1)
KLI 09 26 1.05 0.6 6.6

19.9.62 (247)
KLI 09 28 2.3

19.9.62 (248)
KLI 10 13 2.5

19.9.62 (249)
KLI 11 09 2.6
PLN 09 1.4

19.9.62 (250)
M = 1.1
KLI 11 59 1.1 0.6 2.7

19.9.62 (251)
KLI 12 01 2.8

19.9.62 (252)
KLI 12 32 1.6

19.9.62 (253)
KLI 12 36 1.4

19.9.62 (254)
KLI 12 36 2.1

19.9.62 (255)
PLN 15 38 0.5

19.9.62 (256)
M = 1.2(1)
PLN 16 45 0.9
CLL 45 14.9 14.8 0.6 1.1

19.9.62 (257)
KLI 17 25 2.6

19.9.62 (258)
KLI 18 17 2.2

19.9.62 (259)
M = 1.5(2)
KLI 18 47 1.1 1.4 8.2
PLN 48 0.5
CLL 48 09.3 14.3 0.5 1.6

19.9.62 (260)
KLI 19 17 1.0

19.9.62 (261)
M = 1.2(1)
KLI 19 24 1.15 0.9 3.0
PLN 24 0.5
CLL 24 1.3

19.9.62 (262)
KLI 19 40 1.9

19.9.62 (263)
KLI 20 35 1.3

19.9.62 (264)
M = 1.6(2)
KLI 20 58 1.1 0.4 11.0
PLN 58 0.6
CLL 58 41.3 16.4 1.8 2.4

19.9.62 (265)
KLI 22 29 1.4

19.9.62 (266)
M = 1.5(1)
KLI 22 43 4.2
PLN 43 0.5
CLL 43 29.1 14.6 1.2 1.0

19.9.62 (267)
M = 2.5(5) 50.310 N 12.386 E
KLI 23 16 1.05 5.6 65.0
PLN 16 3.1 1.4 9.2
SON 16 21.1 10.2 0.6 3.6
JEN 16 21.5 10.8 1.3 4.5
CLL 16 25.6 14.6 22.5 23.0

19.9.62 (268)
KLI 23 20 3.7

20.9.62 (269)
M = 1.6(3) 50.308 N 12.401 E
KLI 00 39 1.05 2.6 13.0
PLN 40 3.3 0.6 1.4
CLL 40 13.0 14.6 2.5 2.5

20.9.62 (270)
KLI 01 15 1.7

20.9.62 (271)
KLI 02 02 2.6

20.9.62 (272)
KLI 02 16 1.8

20.9.62 (273)
KLI 02 31 1.4

20.9.62 (274)
KLI 02 42 1.0

20.9.62 275)
KLI 02 46 2.0

20.9.62 (276)
KLI 02 47 5.2

20.9.62 (277)
KLI 02 48 3.2

20.9.62 (278)
M = 1.6(1)
KLI 02 50 1.1 0.8 9.6

20.9.62 (279)
KLI 04 40 1.1

20.9.62 (280)
KLI 05 08 1.4

20.9.62 (281)
KLI 05 08 2.6

20.9.62 (282)
KLI 05 09 1.6

20.9.62 (283)
M = 1.5(1)
PLN 09 35 0.6
CLL 36 00.4 14.3 1.9 2.3

20.9.62 (284)
KLI 16 20 2.7

20.9.62 (285)
KLI 18 35 1.9

20.9.62 (286)
KLI 19 25 3.0

20.9.62 (287)
M = 1.6(1)
KLI 19 28 1.2 0.4 7.2
PLN 28 0.5
CLL 29 1.0

20.9.62 (288)
KLI 19 31 2.8

20.9.62 (289)
KLI 22 01 3.5



21.9.62 (290)
KLI 00 43 1.4

21.9.62 (291)
KLI 01 00 2.0

21.9.62 (292)
KLI 01 03 1.2

21.9.62 (293)
KLI 01 08 1.0

21.9.62 (294)
KLI 01 22 3.6

21.9.62 (295)
KLI 01 28 5.0

21.9.62 (296)
KLI 01 36 1.7

21.9.62 (297)
KLI 01 40 2.7

21.9.62 (298)
KLI 01 43 1.5

21.9.62 (299)
M = 2.2(2)
KLI 02 12 1.2 2.0 39.9
PLN 12 2.5
SON 12 1.6
JEN 12 0.9
CLL 13 01.9 14.5 6.0 9.2

21.9.62 (300)
KLI 02 12 3.0

21.9.62 (301)
KLI 02 20 1.8

21.9.62 (302)
KLI 02 24 2.5

21.9.62 (303
KLI 02 24 2.5

21.9.62 (304)
KLI 02 28 1.3

21.9.62 (305)
KLI 02 29 3.8

21.9.62 (306)
M = 1.5(1)
KLI 02 29 1.2 0.4 5.8

21.9.62 (307)
KLI 02 54 2.1

21.9.62 (308)
KLI 03 38 3.7

21.9.62 (309)
KLI 03 42 2.2

21.9.62 (310)
KLI 03 45 3.0

21.9.62 (311)
KLI 03 56 2.0

21.9.62 (312)
M = 1.2(1)
KLI 04 04 1.15 0.4 3.3

21.9.62 (313)
KLI 04 16 1.0

21.9.62 (314)
M = 1.6(3) 50.318 N 12.371 E
KLI 04 19 1.2 1.2 38.0
PLN 19 3.0 0.2 0.3
SON 19 1.0
JEN 19 1.3
CLL 19 17.7 14.5 3.5 4.0

21.9.62 (315)
KLI 04 19 1.5

21.9.62 (316)
KLI 04 25 1.2

21.9.62 (317)
KLI 05 30 3.2

21.9.62 (318)
KLI 05 48 2.5

21.9.62 (319)
M = 2.4(5) 50.312 N 12.377 E
KLI 05 50 1.05 4.5 40.5
PLN 50 3.1 0.8 4.6
SON 50 53.4 10.3 0.4 2.3
JEN 50 54.3 10.4 0.7 2.5
CLL 50 58.3 14.8 10.5 22.6

21.9.62 (320,
KLI 06 15 1.5

21.9.62 (321)
M = 1.6(1)
CLL 08 36 57.6 14.8 1.8 2.3

21.9.62 (322)
KLI 09 39 0.8

21.9.62 (323)
M = 1.8(4) 50.309 N 12.400 E
KLI 09 47 1.1 4.0 18.0
PLN 47 3.2 0.2 0.8
SON 47 10.0 10.5 1.1
CLL 47 15.0 14.6 4.2 5.0

21.9.62 (324)
KLI 09 49 2.1

21.9.62 (325)
KLI 09 59 1.7

21.9.62 (326)
KLI 10 00 1.3

21.9.62 (327)
KLI 10 01 1.2

21.9.62 (328)
KLI 10 05 1.1

21.9.62 (329)
M = 1.4(1)
KLI 10 23 1.15 0.4 5.5
PLN 23 0.6
CLL 23 55.6 0.7

21.9.62 (330)
KLI 10 58 1.5

21.9.62 (331)
KLI 11 36 1.5

21.9.62 (332)
M = 1.6(2)
KLI 11 38 1.2 0.6 6.0
CLL 38 28.6 14.6 3.6 2.2

21.9.62 (333)
PLN 13 39 0.5

21.9.62 (334)
KLI 13 48 1.2

21.9.62 (335)
KLI 13 49 1.2

21.9.62 (336)
M = 1.4(1)
KLI 14 07 1.1 0.5 5.0

21.9.62 (337)
M = 1.4(2)
KLI 14 32 1.1 0.9 4.5
CLL 32 11.4 14.6 2.0 1.2

21.9.62 (338)
M = 1.3(2)
KLI 14 43 1.2 1.1 3.7
PLN 43 0.6
CLL 43 22.2 14.5 1.8 1.3

21.9.62 (339)
KLI 14 49 3.1

21.9.62 (340)
KLI 16 57 1.6



21.9.62 (341)
M = 1.0(1)
KLI 17 14 1.25 0.5 2.0

21.9.62 (342)
M = 1.4(1)
KLI 17 23 1.3 1.0 4.4

21.9.62 (343)
M = 1.8(2)
KLI 17 39 1.25 0.9 17.0
PLN 39 0.2
CLL 40 01.9 14.6 3.0 2.2

21.9.62 (344)
KLI 18 24 1.8

21.9.62 (345)
KLI 18 46 0.9

21.9.62 (346)
KLI 18 58 2.0

21.9.62 (347)
KLI 20 49 1.2

21.9.62 (348)
KLI 22 07 1.6

21.9.62 (349)
KLI 23 21 3.4

22.9.62 (350)
KLI 01 09 1.1

22.9.62 (351)
KLI 02 55 2.2

22.9.62 (352)
KLI 03 43 3.4

22.9.62 (353)
KLI 03 46 1.6

22.9.62 (354)
KLI 03 46 1.8

22.9.62 (355)
KLI 03 53 1.6

22.9.62 (356)
KLI 03 57 1.6

22.9.62 (357)
KLI 04 12 1.8

22.9.62 (358)
KLI 04 51 2.6

22.9.62 (359)
KLI 04 57 1.6

22.9.62 (360)
KLI 04 59 2.2

22.9.62 (361)
KLI 05 05 1.3

22.9.62 (362)
M = 1.0(1)
KLI 05 09 1.05 0.8 2.6

22.9.62 (363)
KLI 05 11 1.4

22.9.62 (364)
KLI 05 18 1.3

22.9.62 (365)
KLI 05 49 1.4

22.9.62 (366)
KLI 06 03 1.2

22.9.62 (367)
M = 1.5(1)
KLI 07 03 1.25 1.1 5.2

22.9.62 (368)
KLI 07 17 0.9

22.9.62 (369)
KLI 07 29 1.2

22.9.62 (370)
M = 1.4(1)
KLI 08 30 1.2 1.1 5.0

22.9.62 (371)
KLI 08 31 2.1

22.9.62 (372)
KLI 09 16 4.2

22.9.62 (373)
KLI 09 16 1.2

22.9.62 (374)
KLI 09 16 9.6

22.9.62 (375)
KLI 09 17 2.8

22.9.62 (376)
KLI 09 17 2.2

22.9.62 (377)
M = 1.4(1)
KLI 09 21 1.1 0.9 5.9
PLN 21 0.5

22.9.62 (378)
KLI 09 27 1.4

22.9.62 (379)
M = 1.6(1)
KLI 12 04 1.2 0.7 8.5
PLN 04 0.9

22.9.62 (380)
M = 1.9(2)
KLI 12 43 1.2 3.0 17.0
PLN 43 3.1 0.2 2.6
JEN 43 1.7

22.9.62 (381)
M = 1.3(1)
KLI 13 11 1.15 0.6 4.0
PLN 11 0.6

22.9.62 (382)
KLI 13 26 5.6

22.9.62 (383)
KLI 15 14 1.3

22.9.62 (384)
KLI 16 26 2.4
PLN 26 0.4

22.9.62 (385)
KLI 16 57 3.6

22.9.62 (386)
KLI 17 04 3.6

22.9.62 (387)
M = 1.3(1)
KLI 17 15 1.3 3.2

22.9.62 (388)
M = 1.5(1)
KLI 17 56 1.2 0.8 5.6
PLN 56 0.3
JEN 56

22.9.62 (389)
M = 1.3(1)
KLI 17 57 1.2 1.5 4.2

22.9.62 (390)
KLI 19 15 1.0

22.9.62 (391)
KLI 20 44 1.2

22.9.62 (392)
KLI 20 45 0.7

22.9.62 (393)
KLI 20 45 1.1

22.9.62 (394)
KLI 21 56 1.4

22.9.62 (395)
M = 1.3(1)
KLI 22 25 1.35 2.9



22.9.62 (396)
KLI 22 56 1.3

23.9.62 (397)
KLI 00 11 2.1

23.9.62 (398)
KLI 01 54 1.2

23.9.62 (399)
KLI 02 00 1.7

23.9.62 (400)
KLI 02 01 0.9

23.9.62 (401)
M = 1.4(1)
KLI 02 09 1.2 0.4 4.5
PLN 09 0.4

23.9.62 (402)
KLI 02 12 1.0

23.9.62 (403)
M = 1.2(1)
KLI 02 12 1.2 0.4 3.0

23.9.62 (404)
KLI 02 13 1.0

23.9.62 (405)
KLI 02 13 1.1

23.9.62 (406)
KLI 02 36 1.5

23.9.62 (407)
KLI 03 55 1.3

23.9.62 (408)
KLI 04 26 1.7

23.9.62 (409)
M = 1.3(1)
KLI 04 31 1.2 0.4 3.5

23.9.62 (410)
M = 1.8(1)
KLI 04 35 1.25 0.8 11.0
PLN 35 0.4

23.9.62 (411)
KLI 04 45 3.8

23.9.62 (412)
KLI 05 27 5.6

23.9.62 (413)
KLI 06 05 3.9

23.9.62 (414)
M = 2.0(1)
KLI 06 34 1.15 1.5 21.0
PLN 34 0.8
SON 34 0.6

23.9.62 (415)
KLI 06 34 1.4

23.9.62 (416)
KLI 07 14 3.9

23.9.62 (417)
M = 1.5(1)
KLI 07 41 1.05 0.8 7.0

23.9.62 (418)
KLI 08 01 2.1

23.9.62 (419)
KLI 09 33 1.1

23.9.62 (420)
KLI 09 33 2.0

23.9.62 (421)
KLI 09 33 1.8

23.9.62 (422)
KLI 09 36 1.6

23.9.62 (423)
M = 1.5(1)
KLI 09 38 1.1 1.1 6.5

23.9.62 (424)
KLI 09 39 1.3

23.9.62 (425)
KLI 09 39 0.8

23.9.62 (426)
KLI 09 49 1.6

23.9.62 (427)
M = 1.4(1)
KLI 10 35 1.15 0.4 4.8

23.9.62 (428)
KLI 10 39 3.7

23.9.62 (429)
KLI 10 44 1.4

23.9.62 (430)
KLI 11 00 1.4

23.9.62 (431)
KLI 11 02 3.6

23.9.62 (432)
KLI 11 03 1.2

23.9.62 (433)
KLI 11 19 1.3

23.9.62 (434)
KLI 12 40 1.6

23.9.62 (435)
M = 1.4(2)
KLI 13 27 1.3 1.4 7.2
PLN 27 0.4
CLL 27 38.1 14.6 1.0 0.8

23.9.62 (436)
KLI 13 37 2.7

23.9.62 (437)
KLI 13 39 2.9

23.9.62 (438)
M = 1.8(2)
KLI 14 21 1.25 2.7 12.0
PLN 21 1.2
JEN 21
CLL 21 24.1 14.2 4.0 3.1

23.9.62 (439)
KLI 16 40 4.2

23.9.62 (440)
KLI 16 40 7.5

23.9.62 (441)
KLI 19 02 2.2

23.9.62 (442)
KLI 19 16 1.8

23.9.62 (443)
M = 1.3(1)
KLI 19 19 1.1 0.6 4.1

23.9.62 (444)
KLI 20 40 3.0

23.9.62 (445)
KLI 20 40 2.5

23.9.62 (446)
KLI 20 45 3.0

23.9.62 (447)
KLI 22 55 1.6

23.9.62 (448)
M = 1.3(1)
KLI 22 57 6.5
PLN 57 0.7
JEN 57
CLL 57 49.2 14.6 2.2 1.2

23.9.62 (449)
KLI 23 14 1.6



24.9.62 (450)
KLI 01 09 2.9

24.9.62 (451)
KLI 01 10 1.3

24.9.62 (452)
KLI 01 11 1.9

24.9.62 (453)
KLI 01 13 4.0

24.9.62 (454)
KLI 01 13 3.2

24.9.62 (455)
KLI 01 47 1.9

24.9.62 (456)
KLI 02 26 1.0

24.9.62 (457)
KLI 02 41 0.7

24.9.62 (458)
KLI 04 43 0.9

24.9.62 (459)
KLI 04 50 1.6

24.9.62 (460)
KLI 05 43 2.4

24.9.62 (461)
KLI 05 49 1.1

24.9.62 (462)
PLN 10 55 1.5

24.9.62 (463)
M = 1.6(2)
PLN 13 52 3.1 0.2 1.5
SON 52 0.8
CLL 52 18.0 14.6 3.0 2.5

24.9.62 (464)
M = 1.4(1)
PLN 18 41 0.5
CLL 41 52.1 14.0 1.8 0.9

25.9.62 (465)
KLI 14 58 3.2

25.9.62 (466)
KLI 14 59 4.4

25.9.62 (467)
KLI 15 13 1.6

25.9.62 (468)
KLI 15 17 5.5

25.9.62 (469)
KLI 16 14 1.3

25.9.62 (470)
KLI 20 58 4.2

25.9.62 (471)
M = 1.2(2)
KLI 21 16 1.2 0.8 4.5
PLN 16 0.5
CLL 17 02.1 14.8 1.6 0.8

25.9.62 (472)
KLI 21 34 1.0

25.9.62 (473)
KLI 21 37 2.5

25.9.62 (474)
KLI 21 46 1.4

25.9.62 (475)
M = 1.6(2)
KLI 22 48 1.15 1.0 12.0
PLN 48 0.8
CLL 48 13.7 14.8 2.0 1.6

25.9.62 (476)
KLI 22 03 1.4

25.9.62 (477)
KLI 23 00 2.9

25.9.62 (478)
KLI 23 23 2.5

25.9.62 (479)
KLI 23 23 1.8

26.9.62 (480)
KLI 02 32 1.7

26.9.62 (481)
KLI 04 39 1.5

26.9.62 (482)
PIN 13 03 0.6

27.9.62 (483)
M = 1.4(1)
PLN 12 18 0.5
CLL 18 28.0 14.5 1.8 0.9

27.9.62 (484)
KLI 16 30 5.2

27.9.62 (485)
KLI 16 47 1.5

27.9.62 (486)
KLI 16 47 2.3

27.9.62 (487)
KLI 16 56 6.8

27.9.62 (488)
M = 1.4(1)
KLI 17 10 1.2 0.4 4.8
PLN 10 0.5

28.9.62 (489)
PLN 06 21 0.5

28.9.62 (490)
KLI 16 10 1.4

28.9.62 (491)
KLI 16 12 1.3

28.9.62 (492)
KLI 16 19 0.4

28.9.62 (493)
KLI 16 59 1.5

28.9.62 (494)
M = 1.9(3) 50.306 N 12.373 E
KLI 17 03 1.15 1.2 22.0
PLN 03 3.1 0.4 2.6
SON 03 1.1
JEN 03 1.3
CLL 03 52.3 14.8 5.0 5.0

28.9.62 (495)
KLI 17 03 5.0

28.9.62 (496)
KLI 17 14 1.1

28.9.62 (497)
KLI 17 16 3.8

28.9.62 (498)
KLI 17 37 0.4

28.9.62 (499)
KLI 17 37 3.5

28.9.62 (500)
M = 2.3(5) 50.325 N 12.406 E
KLI 17 38 1.1 3.0 22.0
PLN 38 3.15 0.4 6.6
SON 38 55.4 10.7 0.4 1.8
JEN 38 56.4 10.4 0.6 2.2
CLL 39 00.7 14.3 8.0 11.0

28.9.62 (501)
KLI 17 43 1.0

28.9.62 (502)
M = 1.3(1)
KLI 18 38 1.2 0.8 3.8
PLN 38 0.4
CLL 38 1.0



28.9.62 (503)
KLI 18 57 2.2

28.9.62 (504)
M = 1.3(1)
KLI 18 58 1.15 0.5 4.0
PIN 58 0.5

28.9.62 (505)
KLI 20 41 2.0

28.9.62 (506)
M = 1.0(1)
KLI 20 44 1.1 0.4 2.0
PIN 44 0.3

28.9.62 (507)
KLI 22 38 2.1

28.9.62 (508)
M = 1.3(1)
KLI 22 45 1.15 3.9

29.9.62 (509)
KLI 00 03 1.2

29.9.62 (510)
KLI 00 03 1.1

29.9.62 (511)
KLI 00 03 0.8

29.9.62 (512)
KLI 00 04 2.2

29.9.62 (513)
KLI 00 30 1.5

29.9.62 (514)
KLI 00 34 2.3

29.9.62 (515)
KLI 00 48 1.1

29.9.62 (516)
KLI 00 52 1.8

29.9.62 (517)
KLI 00 59 2.3

29.9.62 (518)
M = 1.2(1)
KLI 02 40 1.15 3.6

29.9.62 (519)
M = 1.2(1)
KLI 02 41 1.15 0.6 3.6
PIN 41 0.5

29.9.62 (520)
KLI 02 43 2.7

29.9.62 (521)
KLI 02 46 2.3

29.9.62 (522)
KLI 02 48 2.4

29.9.62 (523)
M = 1.6(2)
KLI 02 50 1.15 0.5 19.0
PIN 50 0.8
CLL 50 24.0 14.5 1.1 1.2

29.9.62 (524)
PIN 07 41 0.4

29.9.62 (525)
PIN 07 42 0.3

29.9.62 (526)
M = 1.4(1)
PLN 10 35 0.6
CLL 35 53.9 14.2 1.5 1.8

29.9.62 (527)
M = 1.4(1)
PLN 10 38 0.5
CLL 38 50.5 14.7 1.0 1.5

30.9.62 (528)
PIN 09 38 0.7

30.9.62 (529)
KLI 18 50 1.6

30.9.62 (530)
KLI 18 58 1.9

30.9.62 (531)
KLI 19 35 0.9

30.9.62 (532)
KLI 19 53 2.5

30.9.62 (533)
KLI 22 01 6.7

30.9.62 (534)
KLI 22 05 1.8

30.9.62 (535)
KLI 22 10 1.1

1.10.62 (536)
M = 1.1(1)
KLI 01 32 1.1 0.7 2.6

1.10.62 (537)
KLI 01 35 1.4

1.10.62 (538)
KLI 02 12 0.9

1.10.62 (539)
KLI 02 13 1.9

1.10.62 (540)
M = 1.6(3) 50.305 N 12.398 E
KLI 02 15 1.05 1.3 5.2
PLN 15 3.3 0.3 2.5
CLL 15 42.5 14.7 2.8 2.3

1.10.62 (541)
KLI 04 07 3.4

1.10.62 (542)
KLI 04 07 2.6

1.10.62 (543)
KLI 04 07 1.6

1.10.62 (544)
KLI 04 45 1.0

1.10.62 (545)
KLI 04 46 1.2

1.10.62 (546)
KLI 04 49 2.3

1.10.62 (547)
KLI 04 49 0.6

1.10.62 (548)
KLI 04 56 1.6

1.10.62 (549)
KLI 04 57 1.6

1.10.62 (550)
KLI 04 58 1.1

1.10.62 (551)
KLI 05 02 1.6

1.10.62 (552)
KLI 05 02 3.4

1.10.62 (553)
M = 1.4(1)
PLN 05 09 0.9
CLL 09 13.7 14.5 0.8 1.5

1.10.62 (554)
M = 1.3(1)
PLN 05 47 0.7
CLL 47 31.8 14.7 1.4 1.3

1.10.62 (555)
M = 1.6(1)
PLN 20 00 0.6
CLL 00 44.5 14.2 2.5 2.6

2.10.62 (556)
KLI 16 34 2.1



2.10.62 (557)
KLI 19 15 1.8

2.10.62 (558)
KLI 19 26 1.6

2.10.62 (559)
KLI 19 44 2.8

2.10.62 (560)
KLI 21 20 1.5

2.10.62 (561)
KLI 21 30 1.5

2.10.62 (562)
KLI 21 31 3.2

2.10.62 (563)
KLI 21 41 2.0

3.10.62 (564)
KLI 00 56 2.0

3.10.62 (565)
KLI 01 43 1.5

3.10.62 (566)
PLN 10 56 1.3

3.10.62 (567)
KLI 13 29 1.6

3.10.62 (568)
KLI 13 38 1.6

3.10.62 (569)
KLI 13 47 1.0

3.10.62 (570)
KLI 13 56 1.1

3.10.62 (571)
KLI 13 57 2.6

3.10.62 (572)
KLI 13 59 1.4

3.10.62 (573)
KLI 14 39 1.6

3.10.62 (574)
KLI 15 17 1.6

3.10.62 (575)
KLI 15 35 2.9

3.10.62 (576)
KLI 15 54 2.4

3.10.62 (577)
KLI 16 14 2.8

3.10.62 (578)
KLI 16 18 2.8

3.10.62 (579)
KLI 16 18 1.7

3.10.62 (580)
M = 2.0(3) 50.320 N 12.359 E
KLI 16 20 1.25 1.5 29.0
PLN 20 3.1 0.4 2.6
SON 20 1.0
JEN 20 20.3 10.2 2.6
CLL 20 23.7 14.5 9.0 5.6

3.10.62 (581)
KLI 16 39 1.5

3.10.62 (582)
KLI 17 05 1.4

3.10.62 (583)
KLI 17 12 2.5

3.10.62 (584)
M = 1.7(2)
KLI 17 32 1.25 0.7 13.0
PLN 32 0.9
CLL 33 05.6 13.9 2.4 2.0

3.10.62 (585)
KLI 17 55 3.8

3.10.62 (586)
M = 1.5(2)
KLI 18 00 1.2 0.7 13.0
PLN 00 0.3
CLL 00 28.2 14.2 0.7 0.8

3.10.62 (587)
KLI 18 06 2.7

3.10.62 (588)
M = 1.7(2)
KLI 18 23 1.3 1.5 14.0
PLN 23 0.4
CLL 23 32.3 14.5 2.0 1.7

3.10.62 (589)
KLI 19 02 1.7

3.10.62 (590)
KLI 19 03 2.2

3.10.62 (591)
KLI 19 04 1.1

3.10.62 (592)
M = 1.4(1)
KLI 19 07 1.3 0.4 4.6

3.10.62 (593)
M = 1.3(1)
KLI 19 23 1.2 1.1 6.8
PLN 23 0.7
CLL 23 40.7 14.6

3.10.62 (594)
KLI 19 55 2.4

3.10.62 (595)
M = 1.5(1)
KLI 19 57 1.25 0.7 5.5
PLN 57 0.3

3.10.62 (596)
M = 1.3(1)
KLI 19 57 1.2 0.5 3.6
PLN 57 0.3

3.10.62 (597)
KLI 20 29 1.4

3.10.62 (598)
KLI 20 52 1.3

3.10.62 (599)
KLI 20 56 1.1

3.10.62 (600)
KLI 20 56 1.2

3.10.62 (601)
KLI 21 02 1.3

3.10.62 (602)
KLI 21 57 1.5

3.10.62 (603)
KLI 22 01 1.4

3.10.62 (604)
KLI 23 02 1.8

3.10.62 (605)
M = 1.5(1)
KLI 23 08 1.2 0.5 5.6

3.10.62 (606)
KLI 23 11 1.6

4.10.62 (607)
KLI 00 19 1.7

4.10.62 (608)
KLI 01 35 1.2

4.10.62 (609)
KLI 01 49 1.1

4.10.62 (610)
KLI 01 49 2.0

4.10.62 (611)
KLI 01 58 1.9



4.10.62 (612)
KLI 02 09 2.3

4.10.62 (613)
KLI 02 10 2.3

4.10.62 (614)
KLI 02 10 2.0

4.10.62 (615)
KLI 02 47 1.4

4.10.62 (616)
M = 1.3(1)
KLI 03 09 1.2 0.3 4.1

4.10.62 (617)
KLI 03 12 5.2

4.10.62 (618)
KLI 03 37 2.1

4.10.62 (619)
KLI 03 55 2.7

4.10.62 (620)
KLI 05 26 4.7

4.10.62 (621)
KLI 05 41 1.2

4.10.62 (622)
KLI 05 41 1.5

4.10.62 (623)
KLI 06 23 3.0

4.10.62 (624)
KLI 06 23 1.1

4.10.62 (625)
KLI 06 23 4.2

4.10.62 (626)
M = 1.4(1)
KLI 07 00 1.1 0.5 5.6
PLN 00 0.6

4.10.62 (627)
KLI 07 03 1.7

4.10.62 (628)
KLI 07 15 1.9

4.10.62 (629)
M = 1.7(1)
KLI 07 54 1.2 0.7 9.4
PLN 54 0.7

4.10.62 (630)
KLI 08 10 2.5

4.10.62 (631)
M = 2.6(4) 50.304 N 12.395 E
KLI 08 27 1.1 4.0 41.5
SON 27 48.0 10.4 0.6 3.3
JEN 27 48.8 10.6 1.4 4.1
CLL 27 52.5 14.7 38.0 18.0

4.10.62 (632)
KLI 08 36 2.2

4.10.62 (633)
KLI 08 42 2.0

4.10.62 (634)
KLI 09 56 6.2

4.10.62 (635)
KLI 10 00 5.8

4.10.62 (636)
KLI 10 00 4.0

4.10.62 (637)
M = 1.5(2)
KLI 10 36 1.2 0.7 7.0
PLN 36 1.0
CLL 36 13.8 14.3 2.1 1.8

4.10.62 (638)
M = 1.2(1)
KLI 11 23 1.2 0.6 3.5
PLN 23 0.5

4.10.62 (639)
KLI 11 26 3.1

4.10.62 (640)
KLI 11 26 2.0

4.10.62 (641)
M = 2.2(5) 50.307 N 12.397 E
KLI 12 05 1.15 3.5 30.0
PLN 05 3.1 1.0 2.5
SON 05 40.4 10.6 1.3
JEN 05 41.3 10.7 0.8 1.8
CLL 05 44.4 14.7 8.5 7.0

4.10.62 (642)
KLI 12 06 1.4

4.10.62 (643)
KLI 12 07 1.6

4.10.62 (644)
M = 1.9(1)
KLI 12 29 1.1 0.5 13.0
PLN 29 0.9
CLL 29 39.5 14.6 8.0 6.5

4.10.62 (645)
KLI 12 49 3.5

4.10.62 (646)
KLI 13 04 3.0

4.10.62 (647)
KLI 13 21 5.0

4.10.62 (648)
KLI 13 21 6.0

4.10.62 (649)
KLI 14 05 1.6

4.10.62 (650)
KLI 17 05 3.1

4.10.62 (651)
M = 1.9(5) 50.314 N 12.386 E
KLI 18 28 1.1 4.0 34.0
PLN 28 3.1 0.4 1.8
SON 28 33.9 10.5 0.4 1.5
JEN 28 35.0 10.4 0.3 1.5
CLL 28 38.3 14.7 0.7 1.1

4.10.62 (652)
M = 1.7(1)
KLI 18 40 1.15 0.5 10.0
PLN 40 0.4

4.10.62 (653)
KLI 19 31 2.7

4.10.62 (654)
KLI 19 38 4.7

4.10.62 (655)
KLI 19 47 2.5

4.10.62 (656)
M = 1.8(2)
KLI 19 47 1.15 1.1 15.5
PLN 47 0.8
CLL 48 02.7 14.8 2.2 3.3

4.10.62 (657)
KLI 19 48 4.5

4.10.62 (658)
KLI 19 55 2.0

4.10.62 (659)
KLI 19 59 1.6

4.10.62 (660)
KLI 20 17 2.5

4.10.62 (661)
KLI 20 22 4.5

4.10.62 (662)
KLI 21 11 1.8

4.10.62 (663)
KLI 21 11 1.4



4.10.62 (664)
M = 1.7(1)
KLI 21 16 1.15 0.7 11.0
PLN 16 0.5

4.10.62 (665)
KLI 21 37 1.0

4.10.62 (666)
KLI 21 57 2.9

4.10.62 (667)
KLI 22 00 3.8

5.10.62 (668)
KLI 00 18 2.4

4.10.62 (669)
KLI 01 02 4.7

4.10.62 (670)
KLI 01 02 3.0

4.10.62 (671)
KLI 01 26 3.0

4.10.62 (672)
KLI 01 40 2.0

4.10.62 (673)
PLN 02 32 0.4

4.10.62 (674)
KLI 03 11 2.6

4.10.62 (675)
KLI 03 11 1.5

4.10.62 (676)
KLI 03 11 1.0

4.10.62 (677)
KLI 03 12 5.2

4.10.62 (678)
KLI 03 24 5.4

4.10.62 (679)
KLI 03 25 4.3

4.10.62 (680)
KLI 04 17 6.7

4.10.62 (681)
KLI 05 11 1.5

4.10.62 (682)
KLI 06 18 1.3

4.10.62 (683)
KLI 06 23 1.0

4.10.62 (684)
KLI 06 28 2.3

4.10.62 (685)
KLI 06 46 1.7

4.10.62 (686)
KLI 06 57 3.1

4.10.62 (687)
KLI 06 57 3.0

4.10.62 (688)
KLI 08 44 1.4

4.10.62 (689)
M = 1.4(1)
KLI 08 48 1.1 0.5 5.1
PLN 48 0.4

4.10.62 (690)
KLI 09 09 1.0

4.10.62 (691)
KLI 09 09 1.8

5.10.62 (692)
KLI 09 36 1.6

5.10.62 (693)
KLI 09 46 1.3

5.10.62 (694)
KLI 11 07 1.2

5.10.62 (695)
KLI 11 09 2.0

5.10.62 (696)
KLI 11 17 2.3

5.10.62 (697)
KLI 11 21 1.2

5.10.62 (698)
M = 1.5(1)
KLI 11 23 1.2 0.5 5.5
PLN 23 0.9

5.10.62 (699)
KLI 13 55 1.9

5.10.62 (700)
M = 1.5(1)
KLI 15 17 1.1 0.5 7.4
PLN 17 0.7

5.10.62 (701)
PLN 16 05 0.6

5.10.62 (702)
KLI 16 09 1.4

5.10.62 (703)
KLI 18 13 1.3

5.10.62 (704)
KLI 19 00 1.0

5.10.62 (705)
KLI 19 04 0.9

5.10.62 (706)
KLI 19 05 2.1

5.10.62 (707)
KLI 19 14 4.0

5.10.62 (708)
KLI 22 31 1.3

5.10.62 (709)
KLI 23 26 1.7

6.10.62 (710)
KLI 02 04 2.6

6.10.62 (711)
KLI 02 10 1.1

6.10.62 (712)
KLI 02 28 1.8

6.10.62 (713)
KLI 02 28 1.1

6.10.62 (714)
KLI 05 37 1.8

6.10.62 (715)
KLI 05 38 1.3

6.10.62 (716)
KLI 05 42 1.5

6.10.62 (717)
KLI 06 56 2.3

6.10.62 (718)
KLI 06 57 1.9

6.10.62 (719)
KLI 07 28 1.3

6.10.62 (720)
KLI 07 37 1.7

6.10.62 (721)
KLI 07 45 1.6

6.10.62 (722)
KLI 14 38 1.6



6.10.62 (723)
KLI 16 48 1.1

7.10.62 (724)
KLI 00 27 2.6

7.10.62 (725)
KLI 00 30 2.4

7.10.62 (726)
KLI 00 37 2.0

7.10.62 (727)
M = 1.6(1)
KLI 01 20 1.05 1.8 10.0
PLN 20 0.9

7.10.62 (728)
KLI 04 19 1.9

7.10.62 (729)
KLI 12 04 0.8

8.10.62 (730)
M = 1.4(2)
KLI 11 33 1.05 0.3 3.0
PLN 33 2.2
CLL 33 11.4 14.5 3.8 2.6

8.10.62 (731)
KLI 13 02 6.1

8.10.62 (732)
KLI 13 42 1.6

8.10.62 (733)
KLI 13 51 1.7

8.10.62 (734)
M = 1.7(1)
KLI 14 07 1.2 0.7 9.0
PLN 07 0.7

8.10.62 (735)
KLI 14 13 2.2

8.10.62 (736)
KLI 14 23 2.8

8.10.62 (737)
M = 1.4(1)
KLI 14 41 1.15 0.3 5.5
PLN 41 0.8

8.10.62 (738)
KLI 14 44 2.6

8.10.62 (739)
KLI 14 56 1.5

8.10.62 (740)
M = 1.6(1)
KLI 22 10 1.1 0.4 9.0
PLN 10 0.5

8.10.62 (741)
M = 1.6(3) 50.329 N 12.392 E
KLI 23 51 1.15 1.0 12.5
PLN 51 3.1 0.3 1.3
JEN 51
CLL 51 15.9 14.1 1.5 1.8

9.10.62 (742)
KLI 05 56 1.8

9.10.62 (743)
KLI 05 57 2.8

9.10.62 (744)
KLI 05 57 2.6

9.10.62 (745)
KLI 06 05 1.15 0.6 5.3
PLN 05 0.4

9.10.62 (746)
M = 1.5(1)
CLL 10 09 11.0 14.7 0.6 2.2

9.10.62 (747)
KLI 13 09 1.3

9.10.62 (748)
KLI 18 05 6.0

9.10.62 (749)
M = 1.8(2)
KLI 18 13 1.15 0.8 9.0
PLN 13 0.9
CLL 13 10.9 14.4 2.7 4.8

9.10.62 (750)
KLI 18 13 1.8

9.10.62 (751)
KLI 18 13 3.2

10.10.62 (752)
M = 1.8(2)
PLN 09 53 3.15 0.5 2.1
SON 53 0.9
JEN 53
CLL 54 02.0 14.3 3.5 6.0

10.10.62 (753)
KLI 12 31 1.8

11.10.62 (754)
PLN 11 04 1.8

11.10.62 (755)
KLI 12 35 1.4

11.10.62 (756)
PLN 12 52 0.6

11.10.62 (757)
KLI 15 16 1.5

13.10.62 (758)
KLI 00 15 1.05 0.8 5.3

13.10.62 (759)
KLI 00 18 1.5

13.10.62 (760)
M = 1.9(3) 50.315 N 12.385 E
KLI 00 18 1.05 5.0 23.0
PLN 18 3.1 0.4 2.3
SON 18 1.4
JEN 18 1.4
CLL 19 01.3 14.6 3.3 6.7

14.10.62 (761)
KLI 05 34 2.6

14.10.62 (762)
KLI 08 39 1.2

15.10.62 (763)
KLI 05 52 2.0

15.10.62 (764)
M = 1.0(1)
KLI 13 16 1.1 0.3 2.0

15.10.62 (765)
M = 0.9(1)
KLI 13 16 1.1 0.2 1.8

15.10.62 (766)
KLI 20 08 2.2

15.10.62 (767)
KLI 22 45 1.7

16.10.62 (768)
KLI 13 23 1.0

16.10.62 (769)
M = 0.9(1)
KLI 15 21 1.0 0.2 2.0

17.10.62 (770)
KLI 05 34 1.1

17.10.62 (771)
KLI 05 42 1.0



17.10.62 (772)
KLI 14 32 1.1

17.10.62 (773)
KLI 14 32 1.1

18.10.62 (774)
KLI 16 44 1.1

19.10.62 (775)
KLI 07 51 1.3

19.10.62 (776)
M = 0.5(1)
KLI 08 40 0.8 0.5 1.2

19.10.62 (777)
KLI 09 46 1.3

20.10.62 (778)
KLI 12 48 1.7

20.10.62 (779)
KLI 14 33 1.3

26.10.62 (780)
M = 1.0(1)
KLI 05 28 1.1 0.6 2.0

26.10.62 (781)
M = 0.9(1)
KLI 15 24 1.1 0.8 1.6

26.10.62 (782)
KLI 15 25 1.1

27.10.62 (783)
KLI 05 18 1.5

28.10.62 (784)
M = 1.3(1)
KLI 03 10 0.8 0.5 6.5

28.10.62 (785)
M = 1.4(1)
KLI 20 08 1.0 0.2 6.2

28.10.62 (786)
KLI 20 15 2.0

28.10.62 (787)
KLI 22 44 1.8

29.10.62 (788)
KLI 22 23 2.0

1.11.62 (789)
KLI 07 51 1.3

1.11.62 (790)
KLI 08 08 1.2

1.11.62 (791)
KLI 10 28 1.3

18.11.62 (792)
M = 1.1(1)
KLI 08 56 1.1 0.2 3.0

18.11.62 (793)
KLI 11 47 2.0

19.11.62 (794)
KLI 11 26 1.3

22.11.62 (795)
KLI 13 40 1.4

23.11.62 (796)
M = 1.2(1)
KLI 10 53 1.1 0.2 3.2

23.11.62 (797)
KLI 22 49 2.6

24.11.62 (798)
M = 1.1(1)
KLI 00 25 0.6 0.6 7.5

24.11.62 (799)
KLI 02 32 1.8

24.11.62 (800)
KLI 03 08 1.6

24.11.62 (801)
KLI 03 09 2.3

24.11.62 (802)
KLI 03 10 2.2

24.11.62 (803)
KLI 03 22 4.0

24.11.62 (804)
KLI 03 23 1.8

24.11.62 (805)
KLI 05 40 2.0

24.11.62 (806)
KLI 08 06 2.0

24.11.62 (807)
KLI 15 26 2.5

26.11.62 (808)
KLI 09 19 1.5

26.11.62 (809)
KLI 09 38 1.6

26.11.62 (810)
KLI 10 07 1.3

27.11.62 (811)
M = 0.7(1)
KLI 07 09 1.1 0.4 1.0

27.11.62 (812)
M = 0.7(1)
KLI 07 22 1.1 0.4 1.2

27.11.62 (813)
M = 0.8(1)
KLI 09 47 1.1 0.4 1.4

27.11.62 (814)
KLI 13 16 1.3

27.11.62 (815)
KLI 13 17 1.6

27.11.62 (816)
M = 1.0(1)
KLI 13 18 1.1 0.3 2.0

27.11.62 (817)
M = 1.8(1)
KLI 15 11 1.2 0.7 12.0
PLN 11 2.0
CLL 11 33.2 14.4

27.11.62 (818)
M = 1.1(1)
KLI 15 14 1.2 0.3 2.2

28.11.62 (819)
M = 1.0(1)
KLI 12 39 1.1 0.8 2.0

28.11.62 (820)
KLI 12 42 1.8

28.11.62 (821)
M = 1.5(1)
KLI 13 27 1.1 1.0 7.0
PLN 27 0.4

28.11.62 (822)
M = 1.0(1)
KLI 13 29 1.0 0.5 2.7
PLN 29 0.3

28.11.62 (823)
M = 0.9(1)
KLI 13 37 1.1 0.5 1.7

28.11.62 (824)
M = 1,1(1)
KLI 18 18 1.1 0.5 2.8



29.11.62 (825)
M = 0.9(1)
KLI 23 54 1.1 0.4 1.8

30.11.62 (826)
M = 1.5(1)
KLI 00 15 1.2 0.6 5.5
PLN 15 0.4

30.11.62 (827)
KLI 00 19 1.3

30.11.62 (828)
KLI 00 32 1.5

30.11.62 (829)
KLI 01 08 1.3

30.11.62 (830)
M = 1.4(1)
KLI 01 10 1.2 0.3 4.3

30.11.62 (831)
M = 1.3(1)
KLI 01 32 1.2 0.4 4.0

30.11.62 (832)
M = 1.9(1)
KLI 01 45 1.0 1.0 18.0
PLN 45 0.7
CLL 45 48.1 14.4

30.11.62 (833)
KLI 01 45 1.7

30.11.62 (834)
M = 1.3(1)
KLI 01 53 1.1 0.5 4.0

30.11.62 (835)
M = 1.3(1)
KLI 01 53 1.2 0.5 4.0

30.11.62 (836)
KLI 01 54 2.0

30.11.62 (837)
KLI 02 37 1.6

30.11.62 (838)
KLI 02 38 1.1 1.5

30.11.62 (839)
M = 1.2(1)
KLI 02 39 1.1 0.7 3.6

30.11.62 (840)
M = 1.1(1)
KLI 02 50 1.1 0.4 2.7

30.11.62 (841)
KLI 03 33 1.5

30.11.62 (842)
KLI 03 36 1.4

30.11.62 (843)
M = 1.5(1)
KLI 03 37 1.1 1.7 7.0
PLN 37 0.4

30.11.62 (844)
KLI 03 37 2.0

30.11.62 (845)
KLI 03 53 1.9

30.11.62 (846)
M = 1.5(1)
KLI 03 54 1.2 1.3 6.0
PLN 54 0.7
CLL 54

30.11.62 (847)
M = 1.2(1)
KLI 04 19 1.1 0.4 3.2
PLN 19 0.4

30.11.62 (848)
KLI 04 23 1.5

30.11.62 (849)
KLI 04 23 2.0

30.11.62 (850)
M = 1.0(1)
KLI 04 49 1.1 1.1 2.4

30.11.62 (851)
M = 1.6(1)
KLI 05 22 1.1 1.1 8.5
PLN 22 1.0
CLL 22 09.3 14.5

30.11.62 (852)
KLI 06 15 1.4

30.11.62 (853)
KLI 06 27 2.3

30.11.62 (854)
M = 1.1(1)
KLI 06 28 1.0 1.0 3.0

30.11.62 (855)
KLI 06 34 1.2

30.11.62 (856)
KLI 08 44 1.7

30.11.62 (857)
KLI 12 09 1.3

30.11.62 (858)
KLI 12 15 1.5

30.11.62 (859)
KLI 14 59 1.4

30.11.62 (860)
KLI 18 22 1.5

30.11.62 (861)
KLI 20 43 4.0

30.11.62 (862)
M = 1.9(1)
KLI 20 45 1.1 2.0 16.0
PLN 45 0.7
CLL 45 55.6 14.5

4.12.62 (863)
M = 0.7(1)
KLI 15 50 0.7 0.15 2.2

15.12.62 (864)
M = 1.2(1)
KLI 13 50 0.7 1.5 6.5

1 9 6 3

17.1.63 (1)
M = 0.6(1)
KLI 06 53 0.45 1.2 3.1

28.1.63 (2)
M = 0.1(1)
KLI 14 59 0.4 0.2 0.8

4.2.63 (3)
M = 1.2(1)
KLI 19 11 0.65 1.7 7.5
PLN 19 11 0.8

17.2.63 (4)
M = 0.1(1)
KLI 21 04 0.45 0.2 1.1

17.2.63 (5)
M = 0.9(1)
KLI 23 38 0.8 0.5 2.5

17.2.63 (6)
M = 0.3(1)
KLI 23 38 0.9 0.2 0.55

17.2.63 (7)
M = 0.8(1)
KLI 23 39 1.15 0.5 1.3

17.2.63 (8)
M = 0.1(1)
KLI 23 39 1.1 0.1 0.3

17.2.63 (9)
M = 0.8(1)
KLI 23 39 1.1 0.7 1.3



17.2.63 (10)
M = 0.8(1)
KLI 23 40 0.9 1.3 1.7

17.2.63 (11)
M = 0.9(1)
KLI 23 41 1.3 0.5 1.2

17.2.63 (12)
M = 0.8(1)
KLI 23 41 1.4 0.5 1.0

28.2.63 (13)
M = 1.5(1)
KLI 22 12 1.15 0.6 7.0

17.3.63 (14)
M = 1.1(1)
KLI 08 01 1.3 0.3 1.9

18.3.63 (15)
M = 1.8(2)
KLI 04 45 1.1 1.1 18.0
PLN 45 3.15 0.4 2.2

18.3.63 (16)
M = 1.7(2)
KLI 04 54 1.15 0.7 14.0
PLN 54 3.3 0.7 1.7

18.3.63 (17)
KLI 04 55 4.2

18.3.63 (18)
KLI 05 04 2.8

18.3.63 (19)
KLI 05 32 3.2

19.3.63 (20)
M = 1.9(1)
KLI 03 13 1.25 1.0 14.0
PLN 3.3 0.55

19.3.63 (21)
M = 1.6(1)
KLI (18.00) 1.5 0.5 5.5

19.3.63 (22)
KLI (18 20) 1.5

11.6.63 (23)
KLI 14 17 1.6

12.6.63 (24)
M = 1.5(1)
KLI 17 28 1.0 0.5 7.7

12.6.63 (25)
M = 1.0(1)
KLI 18 28 (0.9) 0.15 3.0

13.6.63 (26)
KLI 14 54 1.6

13.6.63 (27)
KLI 14 55 1.4

13.6.63 (28)
KLI 15 19 1.3

15.7.63 (29)
M = 2.1(3) 50.431 N 12.506 E
KLI 01 57 1.2 7.0 22.0
PLN 57 3.3 0.2 4.6
JEN 57 33 10.2 1.0 1.4

18.7.63 (30)
KLI (07 00) 6.0 21.0

18.7.63 (31)
KLI 11 00 4.5

18.7.63 (32)
M = 1.0(1)
KLI 13 20 1.25 0.3 1.8

28.7.63 (33)
KLI 01 30 1.5

24.10.63 (34)
M = 1.4(1)
KLI 01 00 1.2 0.15 4.5

1 9 6 4

29.8.64 (1)
M = 1.3(1)
KLI 00 27 0.75 2.0 8.5

16.9.64 (2)
M = 0.8(1)
KLI 23 14 0.75 0.6 2.5

18.9.64 (3)
M = 0.8(1)
KLI 00 35 0.6 0.3 3.3

7.12.64 (4)
M = 1.1(1)
KLI 07 42 0.65 3.5 6.5

1 9 6 5

10.1.65 (1)
M = 0.7(1)
KLI 02 17 0.6 0.6 2.7

12.1.65 (2)
M = 1.0(1)
KLI 08 56 0.9 0.9 3.0

20.2.65 (3)
M = 0.8(1)
KLI 21 19 0.85 0.15 2.2

20.2.65 (4)
M = 0.9(1)
KLI 21 19 0.75 0.15 3.1

20.2.65 (5)
KLI 21 59 1.4

20.2.65 (6)
KLI 22 44 2.6

1.5.65 (7)
M = 1.3(2)
KLI 09 08 0.8 2.0 11.0
PLN 08 3.0 1.5 0.7

12.5.65 (8)
M = 0.7(1)
KLI 08 08 0.55 0.4 3.4

1 9 6 6

14.9.66 (1)
M = 1.6(1)
KLI 03 54 0.75 2.5 15.0
PLN 54 2.2

16.11.66 (2)
M = 1.3(1)
KLI 05 14 1.7 0.6 2.1

1 9 6 7

19.3.67 (1)
M = 0.6(1)
KLI 00 36 0.8 0.4 1.4

19.3.67 (2)
M = 0.7(1)
KLI 03 53 0.45 1.1 4.5

19.3.67 (3)
M = 1.0(1)
KLI 05 06 0.6 1.1 5.0

1 9 6 8

14.1.68 (1)
M = 1.7(1)
KLI 23 14 1.5 4.0 11.0

15.1.68 (2)
M = 1.3(1)
KLI 02 41 1.1 4.0 7.0

26.11.68 (3)
M = 1.1(1)
KLI 01 14 1.25 1.2 3.5



26.11.68 (4)
M = 1.5(1)
KLI 22 36 1.3 1.5 7.5

26.11.68 (5)
M = 1.2(1)
KLI 22 40 1.35 1.5 4.0

26.11.68 (6)
M = 1.3(1)
KLI 22 41 1.3 1.3 4.8

26.11.68 (7)
M = 1.3(1)
KLI 23 03 1.2 1.2 6.4

26.11.68 (8)
M = 1.2(1)
KLI 23 03 1.3 1.7 4.6

26.11.68 (9)
M = 1.1(1)
KLI 23 04 1.2 0.7 3.6

26.11.68 (10)
M = 1.2(1)
KLI 23 09 1.3 1.1 4.2

26.11.68 (11)
M = 1.4(1)
KLI 23 13 1.3 1.6 6.8

26.11.68 (12)
M = 1.4(1)
KLI 23 14 1.25 2.0 6.5

26.11.68 (13)
M = 1.0(1)
KLI 23 16 1.3 0.7 2.4

26.11.68 (14)
KLI 23 29 1.5

26.11.68 (15)
M = 1.1(1)
KLI 23 49 1.3 0.6 3.5

26.11.68 (16)
KLI 23 49 5.2

26.11.68 (17)
M = 1.5(1)
KLI 23 49 1.3 1.5 7.5

26.11.68 (18)
M = 1.1(1)
KLI 23 56 1.3 0.8 3.6

27.11.68 (19)
M = 1.6(1)
KLI 00 17 1.3 3.5 9.5

27.11.68 (20)
M = 1.1(1)
KLI 00 18 1.3 1.0 3.2

27.11.68 (21)
M = 1.4(1)
KLI 00 27 1.1 2.0 8.5

27.11.68 (22)
KLI 01 03 2.9

27.11.68 (23)
M = 1.3(1)
KLI 01 03 1.3 1.2 4.8

27.11.68 (24)
KLI 01 03 1.7

27.11.68 (25)
M = 1.4(1)
KLI 01 04 1.3 1.3 7.2

27.11.68 (26)
M = 1.2(1)
KLI 01 08 1.3 0.8 4.4

27.11.68 (27)
KLI 01 13 1.5

27.11.68 (28)
M = 1.3(1)
KLI 01 38 1.3 1.2 5.5

27.11.68 (29)
M = 1.1(1)
KLI 01 48 1.1 1.0 4.4

27.11.68 (30)
M = 1.1(1)
KLI 06 22 1.3 0.7 3.0

27.11.68 (31)
M = 1.6(1)
KLI 10 54 1.3 3.0 11.5

27.11.68 (32)
M = 1.1(1)
KLI 21 37 1.3 1.4 3.5

28.11.68 (33)
M = 0.7(1)
KLI 00 06 1.3 0.4 1.4

28.11.68 (34)
KLI 00 06 1.6

28.11.68 (35)
M = 0.7(1)
KLI 00 07 1.3 1.2 1.3

28.11.68 (36)
M = 1.3(1)
KLI 01 05 1.2 1.0 6.0

28.11.68 (37)
M = 1.2(1)
KLI 01 05 1.3 0.8 4.2

28.11.68 (38)
M = 1.1(1)
KLI 01 10 1.25 0.8 3.2

28.11.68 (39)
M = 1.1(1)
KLI 01 10 1.3 1.0 3.0

28.11.68 (40)
M = 1.1(1)
KLI 01 11 1.3 1.2 3.6

28.11.68 (41)
M = 1.0(1)
KLI 01 19 1.3 1.0 2.8

1 9 6 9

19.2.69 (1)
M = 1.5(1)
KLI 12 13 1.5 1.5 7.5

1 9 7 2

24.12.72 (1)
M = 0.2(1)
KLI 14 30 0.75 0.8 2.0

1 9 7 3

17.1.73 (1)
M = -0.1(1)
KLI 14 00 0.6 0.8 1.5

6.2.73 (2)
M = 0.0(1)
KLI 15 29 (0.5) 2.2
MOX 29 2.0

2.3.73 (3)
PLN 09 39 1.6
MOX 39 1.1+

2.3.73 (4)
PLN 15 49 1.6

3.3.73 (5)
M = 2.2(1)
PLN 05 36 ( )+( )
MOX 36 49.0 7.0 3.0+ 22.5+

3.3.73 (6)
M = 0.4(1)
PLN 05 41 2.8 0.5 1.5
MOX 42 0.8 2.0

3.3.73 (7)
M = 0.4(2)
PLN 05 43 3.3 0.5 1.2
MOX 43 48.5 6.9 1.1 1.2



3.3.73 (8)
M = 0.5(2)
PLN 05 48 2.9 0.7 1.4
MOX 48 18.0 6.9 1.0 2.3

3.3.73 (9)
M = 0.6(2)
PLN 07 08 3.1 1.0 1.5
MOX 08 02.3 7.3 0.9 2.3

3.3.73 (10)
M = 1.7(1)
PLN 07 41 ( ) ( )
MOX 41 06.5 8.0 7.6 19.0

3.3.73 (11)
PLN 10 17
MOX 17 2.8

3.3.73 (12)
PLN 10 18
MOX 18 3.2

3.3.73 (13)
M = 2.5(1)
PLN 10 53 ( )+( )
MOX 53 54.0 7.0 3.3+ 40.0+

3.3.73 (14)
M = 0.7(2)
PLN 11 00 3.0 1.3 2.6
MOX 00 10.0 6.5 1.2 3.0

3.3.73 (15)
M = 0.8(2)
PLN 11 03 3.0 0.8 2.8
MOX 03 29.5 7.0 2.2 4.5

4.3.73 (16)
M = 0.9(2)
PLN 00 14 2.8 2.0 4.0
MOX 14 35.5 7.5 1.4 4.5

4.3.73 (17)
M = 1.2(2)
PLN 06 24 2.9 5.0 9.0
MOX 24 49.3 7.2 2.6 7.0

4.3.73 (18)
M = 1.6(1)
PLN 07 14 3.0 ( ) ( )
MOX 14 33.2 7.6 8.0 18.0

4.3.73 (19)
M = 0.9(2)
PLN 14 33 3.1 1.8 4.0
MOX 33 40.0 7.3 1.5 4.0

8.3.73 (20)
M = 0.1(1)
KLI 04 13 0.75 2.3

9.3.73 (21)
M = 0.6(3) 50.374 N 12.379 E
KLI 07 51 0.75 3.5 14.0
PLN 51 2.9 0.4 1.7
MOX 51 57.4 7.2 1.4 1.8

9.3.73 (22)
M = -0.1(1)
KLI 11 27 0.5 1.2 2.7

10.3.73 (23)
M = 0.0(1)
KLI 16 33 0.8 1.0 1.8

10.3.73 (24)
M = 1.1(3) 50.403 N 12.452 E
KLI 21 46 0.7 3.6 18.0
PLN 46 2.9 1.9 6.6
MOX 46 57.5 8.0 5.0 8.0

10.3.73 (25)
M = -0.2(1)
KLI 21 47 0.7 1.5

10.3.73 (26)
KLI 21 49 1.2

10.3.73 (27)
M = 1.3(1) (20.0)
KLI 21 50 7.0
PLN 50
MOX 50 11.5 7.9 3.0 8.0

10.3.73 (28)
M =-0.1(1)
KLI 21 53 0.7 1.2 1.7

10.3.73 (29)
M = 1.4(3) 50.358 N 12.436 E
KLI 21 59 0.75 6.5 37.0
PLN 59 2.9 2.1 12.7
MOX 58 18.6 8.4 10.0 16.0

10.3.73 (30)
50.348 N 12.319 E
KLI 22 00 0.8 4.2 13.0
PLN 00 2.95 0.5 2.6
MOX 00 09.0 7.0 2.0 3.5

10.3.73 (31)
KLI 22 01 1.7

10.3.73 (32)
KLI 22 04 1.4

10.3.73 (33)
KLI 22 06 1.5

10.3.73 (34)
M =-0.1(1)
KLI 22 06 0.8 1.5

10.3.73 (35)
M = 0.1(1)
KLI 22 23 0.85 1.0 2.2

11.3.73 (36)
M = (1.5)(3) 50.360 N 12.387 E
KLI 06 58 (0.7) 18.0
PLN 58 3.1 8.7 (40.0)
MOX 58 28.9 7.5 1.0+ 6.8+

11.3.73 (37)
M = 0.0(1)
KLI 07 16 (0.75) 0.8 2.0

11.3.73 (38)
M = 0.5(2)
KLI 07 42 0.8 2.6 5.6
PLN 42 1.4
MOX 43 03.2 7.7 1.0 1.5

11.3.73 (39)
M = (2.1)(2)
KLI 09 05 ( ) ( )
PLN 05 2.9 9.1 (70.0)
MOX 05 34.1 7.4 1.8+ 11.5+

11.3.73 (40)
M = 0.3(1)
KLI 09 21 0.8 2.0 3.6
PLN 0.9

11.3.73 (41)
M = 0.7(3) 50.259 N 12.267 E
KLI 11 03 0.75 4.5 13.5
PLN 03 2.9 1.0 2.2
MOX 03 39.2 7.0 1.0 2.9

11.3.73 (42)
M = 0.5(2)
KLI 11 18 0.7 2.3 6.6
PLN 18 1.6
MOX 18 29.5 7.0 1.2 1.6

11.3.73 (43)
M = 2.3(1)
KLI 12 17 ( ) ( )
PLN 17 ( ) ( )
MOX 17 28.5 7.5 3.0+ 32.0+

11.3.73 (44)
M = 2.7(1)
KLI 12 17 ( ) ( )
PLN 17 ( ) ( )
MOX 17 32.5 7.5 7.0+ 80.0+

11.3.73 (45)
KLI 12 18 16.0

11.3.73 (46)
M = 0.8(3) 50.386 N 12.414 E
KLI 12 21 0.75 6.0 13.0
PLN 21 3.1 2.1 2.6
MOX 21 28.5 7.4 1.8 3.5

11.3.73 (47)
KLI 12 22 1.3
PLN 1.0



11.3.73 (48)
M = -0.2(1)
KLI 12 23 0.8 0.5 1.2

11.3.73 (49)
KLI 12 25 3.0

11.3.73 (50)
KLI 12 25 1.1
MOX 25 1.7

11.3.73 (51)
M = 0.0(1)
KLI 12 28 0.8 1.2 2.0

11.3.73 (52)
KLI 12 30 1.2

11.3.73 (53)
KLI 12 30 1.4

11.3.73 (54)
M = (0.6)(3)
KLI 12 32 0.7 5.8 (10.0)
PLN 32 2.8 0.5 1.8
MOX 32 38.0 7.5 0.8 2.5

11.3.73 (55)
M = 0.5(2)
PLN 12 38 3.0 0.7 1.5
MOX 12 38 36.2 7.2 1.4 1.6

11.3.73 (56)
M = 0.5(2)
PLN 12 47 3.0 0.7 1.6
MOX 47 07.5 7.7 1.1 1.7

11.3.73 (57)
M = -0.1(1)
KLI 14 13 0.7 0.7 2.0

11.3.73 (58)
M = 0.4(2)
KLI 14 16 0.8 1.2 5.0
PLN 16 1.5
MOX 16 18.5 7.1 1.3 1.8

11.3.73 (59)
KLI 14 41 0.7 1.0 2.5

11.3.73 (60)
KLI 15 22 3.0

11.3.73 (61)
M = 0.7(3) 50.068 N 12.130 E
KLI 16 52 0.75 0.7 3.1
PLN 52 3.1 1.2 5.7
MOX 52 48.0 7.0 1.0 3.5

11.3.73 (62)
M = 0.3(1)
KLI 18 11 0.85 1.4 3.2

11.3.73 (63)
M = 0.0(1)
KLI 22 17 0.7 0.5 2.6
PLN 17 1.4

12.3.73 (64)
KLI 04 19 1.5

12.3.73 (65)
M = 0.7(2)
KLI 04 19 0.75 3.5 7.5
PLN 19 1.3
MOX 20 07 7.2 1.2 3.4

13.3.73 (66)
M = 0.1(1)
KLI 02 07 0.75 0.7 2.7

13.3.73 (67)
M = 0.2(1)
KLI 03 20 0.75 0.7 3.1

17.3.73 (68)
M = 0.1(1)
KLI 01 02 0.7 1.5 3.0
MOX 02 1.4

18.3.73 (69)
M = 0.5(1)
KLI 01 45 0.8 1.1 5.4
PLN 45 1.6

21.3.73 (70)
M = 0.4(1)
KLI 03 32 0.8 2.2 4.2
PLN 32
MOX 32 1.8

3.4.73 (71)
M = 1.3(2)
KLI 12 16 2.2 1.8 4.0
PLN 16 2.85 4.5 27.0

9.4.73 (72)
M = 1.2(3) 50.552 N 12.395 E
PLN 15 39 2.0 10.5 43.0
KLI 39 3.1 2.0 4.0
MOX 39 23.0 7.4 1.5 2.1

16.4.73 (73)
M = 0.2(1)
KLI 00 03 0.7 1.2 3.2

28.4.73 (74)
KLI 12 36 4.0

28.4.73 (75)
KLI 12 36 1.2 12.0
PLN 36 1.1 1.3

5.5.73 (76)
M = -0.1(1)
KLI 10 33 0.7 1.2 2.1

5.5.73 (77)
M = 0.2(1)
KLI 10 33 0.7 1.8 3.4

5.5.73 (78)
M = -0.2(1)
KLI 10 33 0.7 1.0 1.4

5.5.73 (79)
M = 0.5(1)
KLI 10 35 0.75 3.6 7.1

5.5.73 (80)
M = -0.2(1)
KLI 10 51 0.7 0.5 1.6

5.5.73 (81)
M = 0.0(1)
KLI 11 19 0.7 1.5 2.1
PLN 1.7

16.5.73 (82)
M = 0.3(1)
KLI 10 39 0.6 1.8 5.5

19.5.73 (83)
M = 0.6(1)
KLI 15 35 1.4 2.4 3.0
PLN 35 (1.0)

21.5.73 (84)
M = 0.9(1)
KLI 18 16 1.8 8.2 4.2

23.5.73 (85)
M = 0.8(3) 50.412 N 12.410 E
KLI 06 40 0.9 6.0 11.5
PLN 40 2.75 2.2 3.0
MOX 40 37.5 7.3 1.6 4.0

6.6.73 (86)
M = 0.5(1)
KLI 15 05 1.45 1.8 2.4

7.6.73 (87)
M = 0.9(2)
KLI 15 34 1.6 2.3 7.0
PLN 34 3.8 4.4
MOX 35 03.0 7.4 0.9 2.6

8.6.73 (88)
M = 1.5(4) 50.345 N 12.395 E
KLI 02 47 0.8 11.0 38.0
BDE 47 1.6 0.7 5.0
PLN 47 3.0 5.3 13.0
MOX 47 49.5 7.9 5.8 12.5

8.6.73 (89)
M = 0.9(1)
KLI 16 40 0.8 5.5 15.0
PLN 40 2.9 3.7 5.0
MOX 40 54.2 2.3 7.2



8.6.73 (90)
M = 0.8(3) 50.360 N 12.414 E
KLI 18 24 0.8 1.2 8.0
PLN 24 3.3 1.1 2.7
MOX 24 39.5 7.6 1.2 3.6

8.6.73 (91)
M = 0.3(2)
KLI 21 08 0.7 (1.3) 3.1
MOX 08(20.5) (6.8) 1.3

8.6.73 (92)
M = 0.5(1)
KLI 23 57 0.7 3.3 7.3
MOX 57 2.5

9.6.73 (93)
M = 1.2(3) 50.359 N 12.386 E
KLI 02 49 0.8 3.5 20.0
BDE 49 1.7 0.3 3.3
MOX 49 43.5 7.6 1.6 6.1

9.6.73 (94)
M = 0.9(1)
KLI 02 50 0.8 3.6 15.0
BDE 50 2.0
MOX 50 2.4

9.6.73 (95)
M = (0.3)(1)
KLI 02 50 (0.7)(2.2)(4.2)
BDE 50 1.1

9.6.73 (96)
M = 0.7(1)
KLI 02 50 0.75 2.4 10.0
BDE 50 1.2
MOX 50 3.3

11.6.73 (97)
M = 1.0(3) 50.362 N 12.373 E
KLI 12 35 0.8 6.0 15.0
BDE 35 1.6 0.4 1.8
MOX 35 10.5 7.4 2.0 4.3

14.6.73 (98)
KLI 12 22 6.0

14.6.73 (99)
M = -0.4(1)
KLI 12 22 0.25 2.2 4.4

1.7.73 (100)
M = 0.2(1)
KLI 13 05 0.8 1.0 3.0
PLN 05 0.9

23.7.73 (101)
M = 1.0(3)
KLI 11 48 3.2 0.6 2.0
PLN 48 4.0 1.4 4.0
MOX 48 7.7 1.7 4.2

24.7.73 (102)
M = 0.8(1)
KLI 19 08 1.45 1.1 4.5

28.7.73 (103)
M = 0.9(1)
KLI 15 23 1.8 2.0 4.0

30.7.73 (104)
M = 0.9(1)
KLI 12 38 3.1 1.1 1.8

4.8.73 (105)
M = 0.0(1)
KLI 19 46 0.55 1.5 3.6

6.8.73 (106)
M = 0.7(2)
KLI 11 22 1.6 2.2 4.4
PLN 2.9 0.7 2.0
MOX 1.8

6.8.73 (107)
M = 0.5(1)
KLI 13 20 1.65 1.0 2.2

6.8.73 (108)
M = 0.5(1)
KLI 13 20 1.6 0.5 2.2

6.8.73 (109)
KLI 17 00 1.7

6.8.73 (110)
M = 0.9(2)
KLI 17 05 1.5 2.6 6.3
MOX 05 18.3 7.7 2.3 3.0

17.8.73 (111)
M = 0.7(2)
KLI 06 27 1.3 2.1 5.5
MOX 27 21.8 7.8 1.5 1.7

17.8.73 (112)
M = 0.6(2)
KLI 17 38 1.3 1.8 4.0
MOX 39 04.9 8.1 1.0 1.3

21.8.73 (113)
M = 0.6(1)
KLI 09 29 1.3 1.5 3.1

21.8.73 (114)
M = 0.5(1)
KLI 09 43 1.3 (0.5) 2.4

12.9.73 (115)
M = -0.2(1)
KLI 12 03 0.5 (0.3) 2.0

25.9.73 (116)
M = 0.5(1)
KLI 08 15 1.5 0.7 2.5

17.10.73 (117)
KLI 23 10 1.5

7.11.73 (118)
M = 0.7(2)
KLI 13 58 1.5 2.0 3.8
PLN 58 2.8 4.5 3.5
MOX 58 2.5

21.11.73 (119)
M = 0.7(1)
KLI 14 19 1.2 1.6 4.5
MOX 19 1.4

30.12.73 (120)
M = 1.6(3) 50.304 N 12.397 E
KLI 22 29 1.4 17.0 35.0
BDE 29 1.75 1.7 6.2
PLN 29 3.6 6.5 ( )
MOX 29 19.0 8.0 5.8 9.5

30.12.73 (121)
M = 1.3(4) 50.308 N 12.391 E
KLI 22 43 1.5 12.0 19.0
BDE 43 1.8 0.4 3.5
PLN 43 3.4 3.5 6.5
MOX 43 42.3 8.0 4.5 5.0

1 9 7 4

25.5.74 (1)
M = 1.0(3) 50.439 N 12.522 E
KLI 23 25 1.35 4.5 10.5
PLN 25 3.4 1.8 3.7
MOX 25 33.5 8.3 4.7 3.8

22.9.74 (2)
M = 0.2(1)
KLI 18 12 0.75 1.5 3.0

24.9.74 (3)
KLI 13 33 5.5

24.9.74 (4)
KLI 13 42 4.2

24.9.74 (5)
KLI 13 58 3.5
BDE 58 (1.3)

24.9.74 (6)
KLI 14 29 3.5

24.9.74 (7)
KLI 15 18 4.0

28.9.74 (8)
M = 0.9(1)
KLI 04 26 2.3 0.9 3.2

24.10.74 (9)
M = 0.1(1)
KLI 04 56 0.45 2.5 5.2

25.10.74 (10)
M = 0.2(1)
KLI 10 15 0.55 2.4 4.8



25.10.74 (11)
M = -0.1(1)
KLI 11 12 0.6 1.8 2.3

25.10.74 (12)
KLI 14 25 0.45 3.0

25.10.74 (13)
M = -0.1(1)
KLI 14 31 0.45 1.7 3.4

14.12.74 (14)
M = 0.2(1)
KLI 01 43 0.7 1.5 3.3

14.12.74 (15)
M = -0.1(1)
KLI 02 15 0.6 0.6 2.1

14.12.74 (16)
M = 0.2(1)
KLI 02 15 0.65 2.1 4.0

14.12.74 (17)
M = 0.0(1)
KLI 07 42 0.7 0.8 2.3

14.12.74 (18)
M = -0.1(1)
KLI 12 30 0.6 1.2 2.4

14.12.74 (19)
M = 0.1(1)
KLI 17 36 0.7 1.4 2.9

14.12.74 (20)
M = 0.0(1)
KLI 17 46 0.65 1.3 2.4

14.12.74 (21)
M = 0.0(1)
KLI 17 53 0.65 1.5 2.5

14.12.74 (22)
M = 0.5(1)
KLI 20 06 0.7 4.0 7.4
BDE 06 0.8

14.12.74 (23)
M = -0.1(1)
KLI 20 25 0.65 0.3 2.0

14.12.74 (24)
M = 0.1(1)
KLI 20 38 0.65 1.5 3.2

14.12.74 (25)
M = 0.4(1)
KLI 20 41 0.65 2.3 5.8

14.12.74 (26)
M = -0.2(1)
KLI 20 41 0.65 1.5

15.12.74 (27)
M = 0.3(1)
KLI 01 55 0.7 2.2 4.3

15.12.74 (28)
M = 0.1(1)
KLI 02 10 0.7 0.8 2.7

15.12.74 (29)
KLI 02 10 1.9

15.12.74 (30)
KLI 21 43 1.7

18.12.74 (31)
M = 0.4(1)
KLI 00 47 0.7 2.5 6.0

18.12.74 (32)
M = -0.1(1)
KLI 16 17 0.75 1.8

18.12.74 (33)
M = 0.0(1)
KLI 16 48 0.7 0.8 2.2

19.12.74 (34)
M = -0,1(1)
KLI 05 44 0.7 0.9 2.0

19.12.74 (35)
M = 0.4(1)
KLI 05 46 0.65 2.2 5.7

20.12.74 (36)
M = 0.3(1)
KLI 02 25 0.6 3.0 6.0
BDE 0.4

20.12.74 (37)
M = 1.0(4) 50.375 N 12.376 E
KLI 05 28 0.65 3.0 16.0
BDE 28 1.8 0.1 2.3
PLN 28 2.8 0.9 3.4
MOX 28 59.5 7.0 2.5 3.4

21.12.74 (38)
M = 0.6(2)
KLI 01 36 0.65 2.0 4.9
BDE 36 1.6 0.7

21.12.74 (39)
M = -0.1(1)
KLI 01 39 0.6 0.6 2.1

21.12.74 (40)
M = 1.5(3) 50.357 N 12.406 E
KLI 01 47 0.65 10.0 31.0
BDE 47 1.8 2.2
PLN 47 3.0 5.5 23.0
MOX 47 50.3 7.8 13.0 27.0

21.12.74 (41)
M = -0.1(1)
KLI 01 48 0.6 1.2 2.4

21.12.74 (42)
M = -0.1(1)
KLI 01 49 0.7 1.0 2.0

21.12.74 (43)
M = -0.1(1)
KLI 01 52 0.65 1.2 2.0

21.12.74 (44)
M = 0.6(4) 50.350 N 12.391 E
KLI 01 56 0.7 3.5 0.9
BDE 56 1.6 0.7
PLN 56 3.2 0.8 2.5
MOX 56 54.3 7.5 1.4 2.4

21.12.74 (45)
M = -0.2(1)
KLI 05 19 0.7 0.7 1.6

31.12.74 (46)
M = 0.1(1)
KLI 00 34 0.7 0.7 2.8

31.12.74 (47)
M = -0.1(1)
KLI 01 10 0.65 0.7 2.1

31.12.74 (48)
M = 0.3(1)
KLI 01 32 0.7 1.7 4.4

31.12.74 (49)
M = 0.2(1)
KLI 10 37 0.7 1.7 3.4

1 9 7 5

1.1.75 (1)
M = -0.1(1)
KLI 04 00 0.7 1.2 2.0

3.1.75 (2)
M = -0.1(1)
KLI 02 46 0.65 0.8 1.9

03.1.75 (3)
M = 0.0(1)
KLI 22 43 0.7 1.2 2.2

04.1.75 (4)
M = 0.2(1)
KLI 23 37 0.7 2.0 3.2

7.1.75 (5)
M = -0.1(1)
KLI 16 47 0.7 1.2 1.8

7.1.75 (6)
M = -0.2(1)
KLI 17 22 0.65 0.5 1.5



8.1.75 (7)
M = 0.2(1)
KLI 02 17 0.7 2.4 3.8

10.1.75 (8)
M = 0.2(1)
KLI 04 18 0.65 2.0 3.9

19.1.75 (9)
M = 1.6(3) 50.409 N 12.568 E
KLI 07 15 1.35 7.0 35.0
PLN 15 3.65 13.0 15.0
MOX 15 24.9 9.0 12.0 17.0

19.1.75 (10)
M = 0.9(2)
KLI 07 15 1.35 3.0 7.5
PLN 15 4.2 2.0 2.0

19.1.75 (11)
KLI 07 15 1.4 4.5

19.1.75 (12)
M = (1.8)(2)
KLI 07 27 1.35 15.0 42.0
PLN 27 (40.0)(40.0)
MOX 07 27 36.5 8.7 (12.5)(30.0)

19.1.75 (13)
M = 0.8(1)
KLI 07 28 1.35 2.2 5.0

19.1.75 (14)
M = 0.6(1)
KLI 07 32 1.45 4.0 3.0

16.2.75 (15)
M = 1.0(1)
KLI 19 47 (2.0)
BDE 47 4.5
PLN 47 3.8
MOX 47 10.2 8.1 2.4 3.9

16.2.75 (16)
M = 0.3(1)
KLI 19 47 1.35 0.5 1.8
BDE 47 0.5

16.2.75 (17)
M = 0.5(1)
KLI 19 48 1.35 1.5 2.7

16.2.75 (18)
M = 0.3(1)
KLI 19 55 1.3 0.4 1.6

16.2.75 (19)
M = 0.7(2)
KLI 19 55 1.3 1.7 4.0
BDE 55 1.8
PLN 55 2.2
MOX 55 50.8 8.2 1.2 2.0

16.2.75 (20)
M = 0.7(3)
50.292 N 12.439 E
KLI 19 57 1.3 0.5 3.9
BDE 57 0.8
PLN 57 4.3 0.8 1.8
MOX 57 26.5 8.1 0.9 1.5

16.2.75 (21)
M = 0.5(2)
KLI 19 58 1.35 0.5 3.0
BDE 58 0.8
PLN 58 1.7
MOX 59 02.4 7.8 1.0 1.3

16.2.75 (22)
KLI 20 14 1.6
BDE 14 0.8

16.2.75 (23)
M = 0.2(1)
KLI 20 27 1.3 1.4
BDE 27 0.6

16.2.75 (24)
KLI 20 27 2.0
BDE 27 0.8

16.2.75 (25)
M = 0.3(1)
KLI 20 29 1.4 1.2 1.5
BDE 29 0.8

16.2.75 (26)
KLI 20 31 1.8
BDE 31 0.7

16.2.75 (27)
M = 0.6(1)
KLI 20 37 1.3 1.2 3.3
BDE 37 1.3
PLN 37 2.2
MOX 37 52 1.0

16.2.75 (28)
M = 0.4(2)
KLI 20 38 1.25 0.5 2.5
BDE 38 1.1
MOX 38 38.8 8.1 1.0 1.2

16.2.75 (29)
BDE 21 15 0.5
KLI 15 3.0

24.2.75 (30)
M = 0.2(1)
KLI 10 49 0.7 1.4 3.5

1.3.75 (31)
M = 0.2(1)
KLI 05 06 0.75 1.5 3.0

1.3.75 (32)
KLI 14 07 2.6

29.5.75 (33)
M = 1.0(4) 50.297 N 12.390 E
KLI 15 46 54.8 1.5 3.5 6.2
BDE 46 1.75 0.4 1.2
PLN 46 3.8 3.8 6.8
MOX 47 05.1 7.8 3.3 1.9

16.7.75 (34)
M = 1.4(3) 50.518 N 12.525 E
KLI 18 09 08.7 2.4 10.0 8.0
PLN 09 10.2 3.2 9.0 18.5
MOX 09 17.2 8.2 7.2 5.0

20.8.75 (35)
M = 0.4(1)
KLI 01 29 05.2 0.75 2.1 5.8
PLN 29 1.2

20.8.75 (36)
M = 0.0(1)
KLI 01 57 33.2 0.75 0.5 2.1

20.8.75 (37)
M = -0.2(1)
KLI 03 30 37.8 0.75 0.8 1.5

20.8.75 (38)
KLI 03 30 1.1

20.8.75 (39)
M = (0.3)(1)
KLI 05 05 59.9 0.75 1.6 (4.0)
PLN 06 2.4
MOX 06 11.0 1.4

20.8.75 (40)
M = (1.4)(3) 50.388 N 12.366 E
KLI 05 06 06.3 0.75 11.0 30.0
PLN 06 09.7 3.3 4.6 30.0
MOX 06 16.1 6.1 9.0(10.0)

20.8.75 (41)
KLI 05 06 2.1

20.8.75 (42)
KLI 05 07 1.4

20.8.75 (43)
M = 0.1(1)
KLI 05 16 11.3 0.75 0.5 2.4

20.8.75 (44)
M = 0.1(1)
KLI 13 29 30.1 0.75 0.8 2.4

20.8.75 (45)
M = 0.8(3) 50.383 N 12.406 E
KLI 14 29 52.8 0.7 6.5 17.0
PLN 29 55.5 2.9 1.2 4.5
MOX 30 03.5 7.5 2.4 3.1

20.8.75 (46)
M = 0.6(2)
KLI 14 32 07.4 0.75 2.7 7.5
PLN 32 2.0
MOX 32 18.4 7.5 1.0 2.4



30.11.75 (47)
M = 0.7(1)
KLI 20 14 12.5 1.7 2.3 3.2

30.11.75 (48)
M = 0.1(1)
KLI 21 04 23.3 1.85 0.5 0.6

1.12.75 (49)
M = 0.5(1)
KLI 00 50 19.4 1.85 1.0 1.6

1.12.75 (50)
M = 0.5(1)
KLI 00 53 41.0 1.85 0.9 1.6

1.12.75 (51)
M = 0.8(1)
KLI 08 46 53.5 1.7 2.2 3.6

1.12.75 (52)
M = 0.6(1)
KLI 08 47 13.5 1.8 0.7 2.2

1.12.75 (53)
M = 0.5(1)
KLI 11 15 11.6 1.7 0.7 2.0

1.12.75 (54)
M = 0.5(1)
KLI 21 18 17.8 1.8 1.5 1.8

1.12.75 (55)
M = 0.9(3) 50.345 N 12.626 E
KLI 21 18 38.3 1.7 2.6 4.2
PLN 18 41.0 4.3 2.0 2.4
MOX 18 48.2 9.9 2.1 2.0

1 9 7 6

30.7.76 (1)
M = 0.5(3) 50.516 N 12.234 E
PLN 20 01 53.0 1.4 3.0 5.0
BDE 01 1.1
KLI 01 53.6 2.5 1.1 1.6
MOX 01 59.5 5.0 0.6 1.8

30.7.76 (2)
M = 0.7(3) 50.510 N 12.244 E
PLN 20 19 52.5 1.4 2.0 7.0
BDE 19 2.3
KLI 19 53.4 2.5 1.5 2.3
MOX 19 58.7 5.2 1.4 2.8

4.8.76 (3)
M = (0.9)(4) 50.427 N 12.190 E
PLN 00 23 1.45 6.5 (15.5)
BDE 23 2.4 0.4 0.5
KLI 23 54.5 2.5 2.5 3.8
MOX 23 59.5 5.5 1.9 7.3

1.9.76 (4)
M = 1.0(4) 50.239 N 12.363 E
BDE 04 18 1.45 2.6 4.2
KLI 18 32.5 2.3 4.0 3.4
PLN 18 34.8 3.9 2.0 3.4
MOX 18 41.3 8.7 3.5 4.5

28.12.76 (5)
M = 1.1(3) 50.497 N 12.478 E
KLI 02 59 11.2 2.1 3.0 4.6
PLN 59 2.7 3.5 8.5
MOX 59 18.8 8.0 9.8 5.5

1 9 7 7

1.6.77 (1)
M = 0.9(3) 50.464 N 12.389 E
BDE 02 24 2.5 1.0 3.3
KLI 24 33.5 2.5 0.4 1.5
PLN 24 1.8
MOX 24 45.0 7.8 1.2 2.2

13.7.77 (2)
M = (0.2)(2)
EUB 00 56 0.9 8.0 (13.0)
KLI 56 06.0 (1.2) 1.7

12.11.77 (3)
M = 0.9(2)
BDE 23 32 1.6 3.0 8.4
KLI 32 04.5 2.7 3.0 1.6

14.11.77 (4)
M = 0.7(3) 50.218 N 12.319 E
BDE 02 05 1.6 1.6 7.0
KLI 05 38.2 2.7 2.0 0.6
MOX 05 46.7 8.3 1.2 3.0

14.11.77 (5)
M = 0.8(4) 50.210 N 12.316 E
BDE 22 46 1.6 1.5 6.5
KLI 46 24.0 2.8 2.4 0.8
PLN 46 25.5 4.2 1.6 3.0
MOX 46 32.3 8.4 1.3 4.5

14.12.77 (6)
M = 1.4(4) 50.222 N 12.331 E
BDE 15 18 1.75 11.0 26.0
KLI 18 30.8 2.6 9.0 3.0
PLN 18 32.8 4.1 1.5 13.5
MOX 18 39.2 8.2 8.8 13.0

1 9 7 8

6.1.78 (1)
M = 1.6(4) 50.249 N 12.057 E
BDE 12 29 2.2 7.0 56.0
KLI 29 53.0 3.9 2.8 6.0
PLN 29 54.0 6.4 6.0 47.0
MOX 30 00.0 6.7 (6.0)14.0

23.1.78 (2)
M = 1.2(2) 50.368 N 12.406 E
KLI 18 33 11.8 0.1 6.0
BDE 33 1.7 7.0 27.0
PLN 33 13.6 34.2 2.0 9.8
MOX 33 20.2 7.0

23.1.78 (3)
M = 1.7(2) 50.359 N 12.439 E
KLI 18 33 40.6 0.1 11.0
BDE 33 1.7 15.0 44.0
PLN 33 42.5 3.2 6.0 26.0
MOX 33 48.7

17.2.78 (4)
M = 1.6(4) 50.254 N 12.330 E
BDE 00 37 1.4 12.0 38.0
EUB 37 03.1
KLI 37 04.1 2.45 12.0 20.0
PLN 37 06.15 3.35 3.8 25.0
MOX 37 12.3 8.3 8.5 13.0

17.2.78 (5)
M = 0.3(1)
EUB 01 50 36.0 2.2 2.6 3.0

17.2.78 (6)
M = 0.3(1)
EUB 02 03 09.3 2.2 0.3 3.3

30.3.78 (7)
M = 0.3(1)
EUB 00 52 06.2 2.2 1.8 3.5

30.3.78 (8)
M = 0.3(1)
EUB 03 15 29.4 2.4 2.2 3.0

30.3.78 (9)
M = 0.5(2)
BDE 03 16 1.7 0.5 2.2
EUB 16 47.0 2.2 5.6 5.6
PLN 16 1.4

30.3.78 (10)
M = 0.0(1)
EUB 03 20 12.5 2.2 3.0 1.8

30.3.78 (11)
M = 1.1(3) 50.195 N 12.228 E
BDE 03 20 1.7 3.8 10.0
EUB 20 57.7 2.2
KLI 20 58.7 2.5
PLN 21 00.5 4.2 0.8 4.6
MOX 21 06.5 8.0 3.0 4.2

30.3.78. (12)
M = 0.4(1)
EUB 04 09 14.7 2.2 1.8 3.8

30.3.78 (13)
M = 0.4(1)
EUB 04 39 41.2 2.4 2.0 4.0

1.9.78 (14)
M = 2.2(3) 50.130 N 12.321 E
BDE 11 00 2.5 9.0 170.0
PLN 00 34.5 5.2 5.2 47.0
MOX 00 39.8 9.25 12.0 19.0



3.10.78 (15)
M = 1.3(1)
BDE 10 20 2.0 2.0 14.0

2.12.78 (16)
M = 1.1(4) 50.270 N 12.419 E
KLI 09 52 12.5 1.8 3.0 5.6
BDE 52 2.0 1.6 12.0
PLN 52 15.5 3.9 1.9 4.0
MOX 52 22.2 8.5 1.2 5.5

19.12.78 (17)
M = 1.7(4) 50.278 N 12.427 E
KLI 07 31 10.5 1.75 10.0 10.0
BDE 31 2.05 12.0 20.0
PLN 31 13.0 3.6 7.0 28.0
MOX 31 20.1 8.7 10.5 12.5

19.12.78 (18)
M = 0.7(4) 50.298 N 12.398 E
KLI 08 01 02.2 1.75 1.2 2.1
BDE 01 2.15 2.2 2.5
PLN 01 04.9 3.6 0.8 2.0
MOX 01 12.1 7.8 2.7 1.1

19.12.78 (19)
M = 0.5(3) 50.279 N 12.414 E
KLI 08 04 48.2 1.85 1.6 1.5
BDE 04 2.2 1.6 1.5
PLN 04 1.8
MOX 04 57.6 8.15 1.4 1.2

1 9 7 9

18.2.78 (1)
M = 1.4(4) 50.034 N 12.344 E
BDE 17 35 4.05 1.2 6.0
KLI 35 56.4 4.6 1.0 4.5
PLN 35 58.0 6.7 1.3 5.6
MOX 36 03.0 10.0 3.6 4.0

2.3.79 (2)
M = (2.0)(4) 49.866 N 12.219 E
BDE 16 11 5.85 4.0 16.0
KLI 11 38.5 7.3 2.2 6.5
PLN 11 39.8 8.3 11.0 16.0
MOX 11 43.7 11.7(22.0)(24.0)

15.3.79 (3)
KLI 13 13 19.5 11.0

25.3.79 (4)
M = 1.4(3) 50.005 N 12.251 E
BDE 01 56 4.0 1.7 9.0
PLN 57 01.6 6.7 1.0 4.4
MOX 57 07.2 10.2 4.2 3.8

19.5.79 (5)
M = 0.8(4) 50.327 N 12.371 E
KLI 02 29 27.7 1.45 0.9 4.1
BDE 29 1.9 1.3 4.5
PLN 29 30.7 3.7 1.0 3.5
MOX 29 38.0 7.1 1.6 3.9

6.9.79 (6)
M = 0.8(4) 50.424 N 12.426 E
EUB 03 54 22.8 2.3 8.0 8.0
BDE 54 2.4 1.0 4.0
PLN 54 23.7 3.1 2.5 4.5
MOX 54 30.3 7.4 6.0 6.0

1 9 8 0

2.1.80 (1)
M = 1.0(4) 50.422 N 12.181 E
PLN 01 49 42.2 3.0
BDE 49 2.2 2.0 29.0
EUB 49 43.8 2.3 8.0 15.0
KLI 49 43.8 2.6 3.0 3.0
MOX 49 49.2 5.2 3.2 6.5

24.1.80 (2)
M = 0.4(1)
EUB 02 32 14.3 1.5 6.4 8.0

24.1.80 (3)
M = 0.3(1)
EUB 02 33 56.6 1.5 4.8 6.1

24.1.80 (4)
M = 0.4(1)
EUB 02 34 49.7 1.5 3.8 6.6

24.1.80 (5)
M = 0.6(3) 50.389 N 12.318 E
EUB 03 41 24.2 1.5 9.4 18.0
KLI 41 24.7 1.8 2.4 3.2
BDE 41 2.0 4.0 5.8

24.1.80 (6)
M = 0.5(2)
EUB 03 41 40.7 1.5 2.0 11.6
KLI 41 41.0 1.7 1.5 1.2

24.1.80 (7)
M = -0.1(1)
BDE 03 44 2.0 1.8 1.8

24.1.80 (8)
M = -0.2(1)
EUB 03 48 40.5 1.6 1.4 1.8

24.1.80 (9)
M = -0.3(1)
EUB 04 02 21.3 1.5 1.2 1.4

24.1.80 (10)
M = -0.3(1)
EUB 04 04 24.5 1.5 1.1 1.4

24.1.80 (11)
M = 0.3(3) 50.385 N 12.321 E
EUB 04 24 07.8 1.4 8.2 13.4
KLI 24 08.3 1.8 1.4 1.6
BDE 24 2.0 2.0 2.0

24.1.80 (12)
M = -0.1(1)
EUB 04 30 26.0 1.5 1.3 2.4

24.1.80 (13)
M = (0.5)(5) 50.269 N 12.451 E
EUB 06 07 07.0 1.5 5.7 (12.0)
KLI 07 07.4 1.8 1.8 2.4
BDE 07 2.0 3.1 4.0
PLN 07 10.8 3.3 0.6 1.2
MOX 07 17.7 9.2 1.6 1.3

24.1.80 (14)
M = (0.3)(3) 50.389 N 12.318 E
EUB 07 18 28.7 1.5 3.6 (10.0)
KLI 18 29.0 1.8 1.3 1.6
BDE 18 2.0 2.3 2.1

24.1.80 (15)
M = 0.3(3) 50.387 N 12.320 E
EUB 07 41 30.1 1.45 2.2 7.2
KLI 41 30.5 1.8 1.6 1.6
BDE 41 2.0 1.8 2.0

24.1.80 (16)
M = 0.7(4) 50.260 N 12.458 E
KLI 10 35 32.5 1.8 3.0 4.3
BDE 35 2.0 6.2 8.4
PLN 35 35.5 3.85 1.0 1.8
MOX 35 42.2 9.5 2.4 2.4

24.1.80 (17)
M = 1.1(3) 50.254 N 12.476 E
KLI 13 17 44.0 1.7 4.0 7.0
BDE 17 2.0 20.0 28.0
MOX 17 53.6 9.6 5.7 5.0

24.1.80 (18)
M = 0.5(3) 50.279 N 12.438 E
KLI 13 30 59.2 2.8
BDE 30 2.0 4.6 3.8
PLN 31 02.2 3.8 0.7 2.0
MOX 31 08.7 8.8 1.6 1.9

24.1.80 (19)
M = 0.9(4) 50.259 N 12.469 E
KLI 15 03 06.7 1.8 3.2 5.0
BDE 03 2.0 8.5 9.2
PLN 03 09.8 3.8 1.8 2.4
MOX 03 16.7 9.8 3.1 2.7

24.1.80 (20)
M = 0.4(2)
KLI 15 06 38.3 1.8 1.8 2.2
BDE 06 2.05 2.2 3.8
MOX 06 48.1 1.5

24.1.80 (21)
M = 0.4(3) 50.241 N 12.468 E
KLI 16 14 18.7 1.9 1.8 1.8
BDE 14 2.0 2.4 3.0
MOX 14 28.1 9.6 1.4 1.2

17.6.80 (22)
M = 0.6(1)
KLI 19 22 24.5 3.6
EUB 22 1.9 8.2 8.2

17.6.80 (23)
M = 0.3(1)
KLI 20 19 50.0 1.4
EUB 19 2.0 5.2 3.5



17.6.80 (24)
M = 0.9(4) 50.422 N 12.344 E
KLI 20 19 55.3 1.8 1.1 4.8
EUB 19 2.0 12.5 11.0
PLN 19 56 2.5 1.2 6.2
MOX 20 04.8 6.8 3.5 4.5

17.6.80 (25)
M = 0.3(1)
KLI 20 30 1.7
EUB 30 1.95 3.9 4.0

17.6.80 (26)
M = 1.2(4) 50.354 N 12.248 E
KLI 21 24 52.5 1.9 2.0 15.0
EUB 24 (2.0)24.0 27.0
PLN 24 52.5 2.6 3.5 10.0
MOX 25 01.8 6.5 6.2 8.0

20.10.80 (27)
M = 1.0(4) 50.328 N 12.390 E
KLI 17 02 45.6 1.4 4.8 10.4
BDE 02 2.1 6.3 24.0
PLN 02 48.3 3.7 2.9 3.3
MOX 02 56.3 7.3 2.7 5.3

20.10.80 (28)
M = 0.6(3) 50.290 N 12.429 E
KLI 17 09 51.0 1.5 2.1 3.7
BDE 09 2.0 2.1 6.0
PLN 09 53.8 3.7 1.6 1.7
MOX 1.5

28.11.80 (29)
M = 0.7(3) 50.196 N 12.304 E
BDE 03 26 1.8 5.0 11.0
KLI 27 21.5 2.8 1.0 1.6
MOX 27 29.5 8.4 1.9 2.7

1 9 8 1

26.1.81 (1)
M = 1.1(2)
PLN (08 00) 1.8 3.5 9.0
KLI (08 00) 3.4 2.8 4.0

24.
M =
EUB
KLI

24.
M =
BDE

24.1
M =
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M = (
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M = O
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