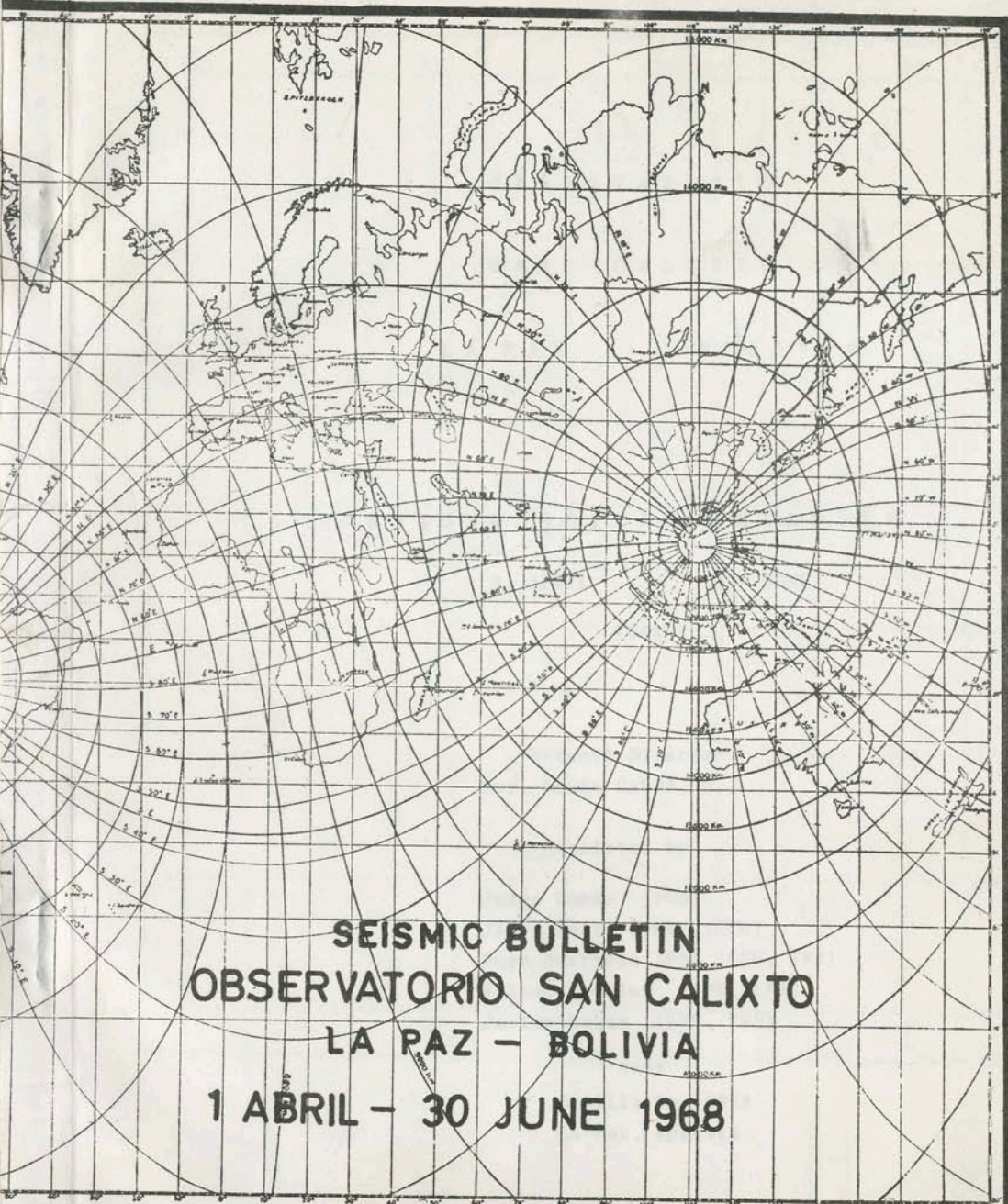


PARA LA PAZ



**SEISMIC BULLETIN**  
**OBSERVATORIO SAN CALIXTO**  
**LA PAZ - BOLIVIA**  
**1 ABRIL - 30 JUNE 1968**

A map of Bolivia is shown in the background, overlaid with a grid of latitude and longitude lines. The map includes labels for various regions and cities, such as 'BOLIVIA', 'LA PAZ', and 'SANTA CRUZ'. The grid lines are spaced at regular intervals, with latitude lines ranging from approximately 16°S to 26°S and longitude lines from 68°W to 72°W.

OBSERVATORIO

SAN CALIXTO

LA PAZ - BOLIVIA

SEISMOLOGICAL BULLETIN

1 APRIL - 30 JUNE

1968

Network Director  
Rev. Ramón Cabré, S.J.

Assisted by

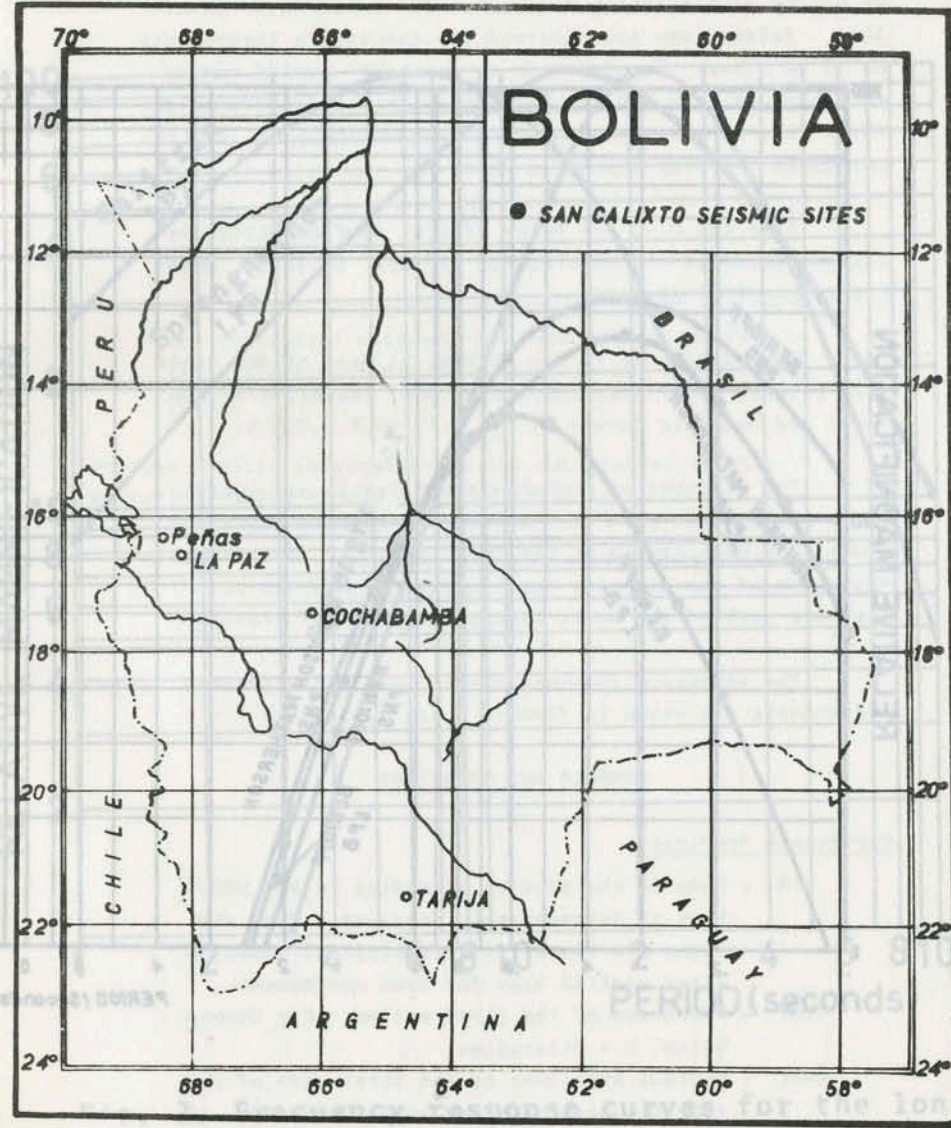
Jorge Román (PNS)  
Jaime Santa Cruz (CCH)  
Hugo Bustillo (PNS, CCH, TRJ)  
Nelson Aguilar (LPB, LPZ)  
Javier Ochoa (LPB, PNS)

\*\*\*\*

Casilla No. 5939  
La Paz, Bolivia

STATIONS OF THE "SAN CALIXTO OBSERVATORIO" NETWORK

| LOCATION            | CODE | LATITUDE     | LONGITUDE    | ALTITUDE<br>(Mts) | INSTRUMENTS  | MAGNIFICATION                        |
|---------------------|------|--------------|--------------|-------------------|--|--------------------------------------|
| Peñas               | PNS  | 16°16'02"S   | 68°28'24"W   | 3986              | Short-period vertical Johnson-Matheson, To=1.25 sec Tg = .337 sec<br>SP Hor. Renioff, To=1 sec., Tg =2 sec. LP, three components Sprengnether, To = 20 sec., Tg = 30 sec.<br>SP three components Renioff, To=1 sec., To= .75 sec.  | 250,000 at 1 cps<br>250,000 at 1 cps |
| La Paz<br>(WNNSS)   | LPR  | 16°31'57.6"S | 68°05'54.1"W | 3292              | LP, three components Sprengnether, To = 15 sec., Tg = 100 sec.<br>Wilson-Lamison, SP vertical, To = 1.2 sec., Tg = 1 sec.<br>LP, three components, Galitzinger-Willip To=12 sec., Tg=12.6 sec.<br>Mainka, NS, To=14 sec. EW, To=12 sec.<br>San Calixto Pendulo EW, To=2.4 sec. | 20,000 at 25 sec<br>50,000 at 1 cps  |
| La Paz<br>(Colegio) | LPZ  | 16°29'43"S   | 68°07'57.7"W | 3658              | SP vertical Wilson-Lamison To=1 sec.<br>SP vertical Wilson-Lamison To=3 sec.   | 1,500 at 15 sec                      |
| Cochabamba          | CCH  | 17°22'56"S   | 66°08'54"W   | 2500              |  | 1,000 at 12 sec                      |
| Tarija              | TRJ  | 21°30'47"S   | 64°46'34"W   | 2100              |  | 180 and 300<br>700                   |



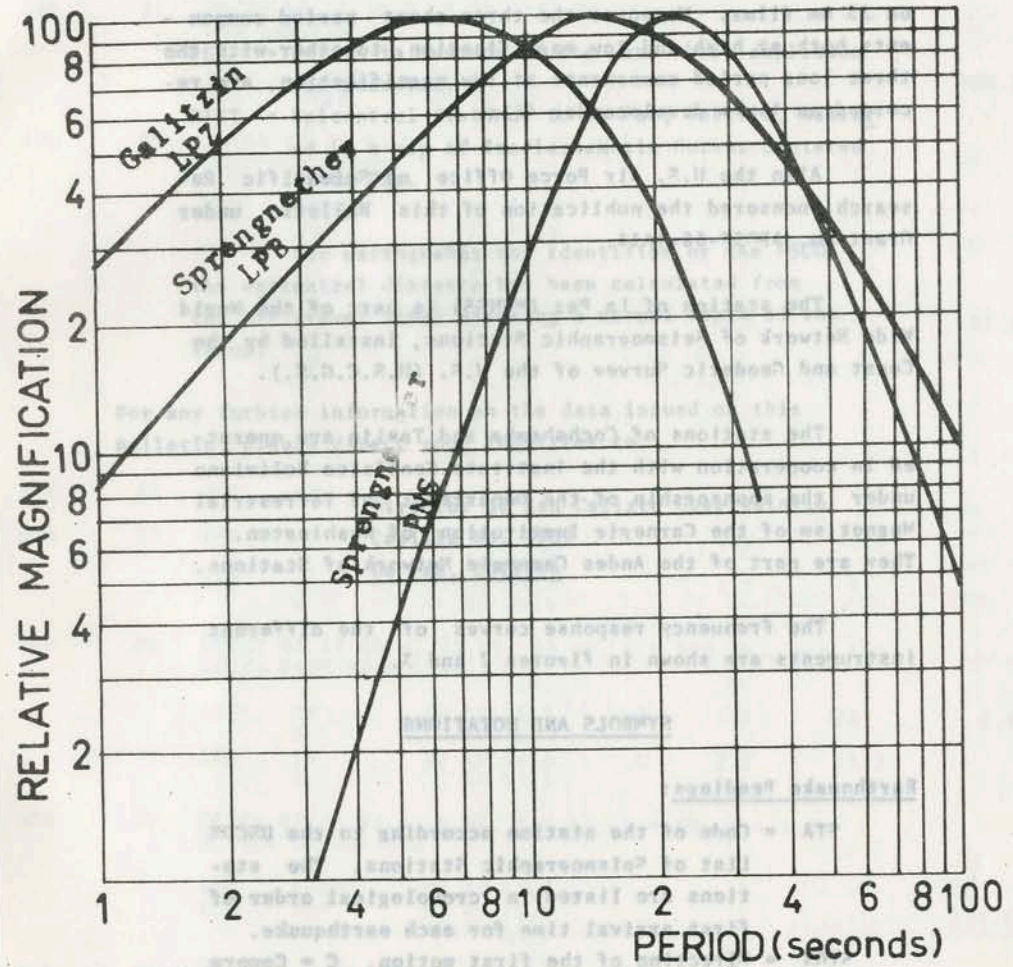
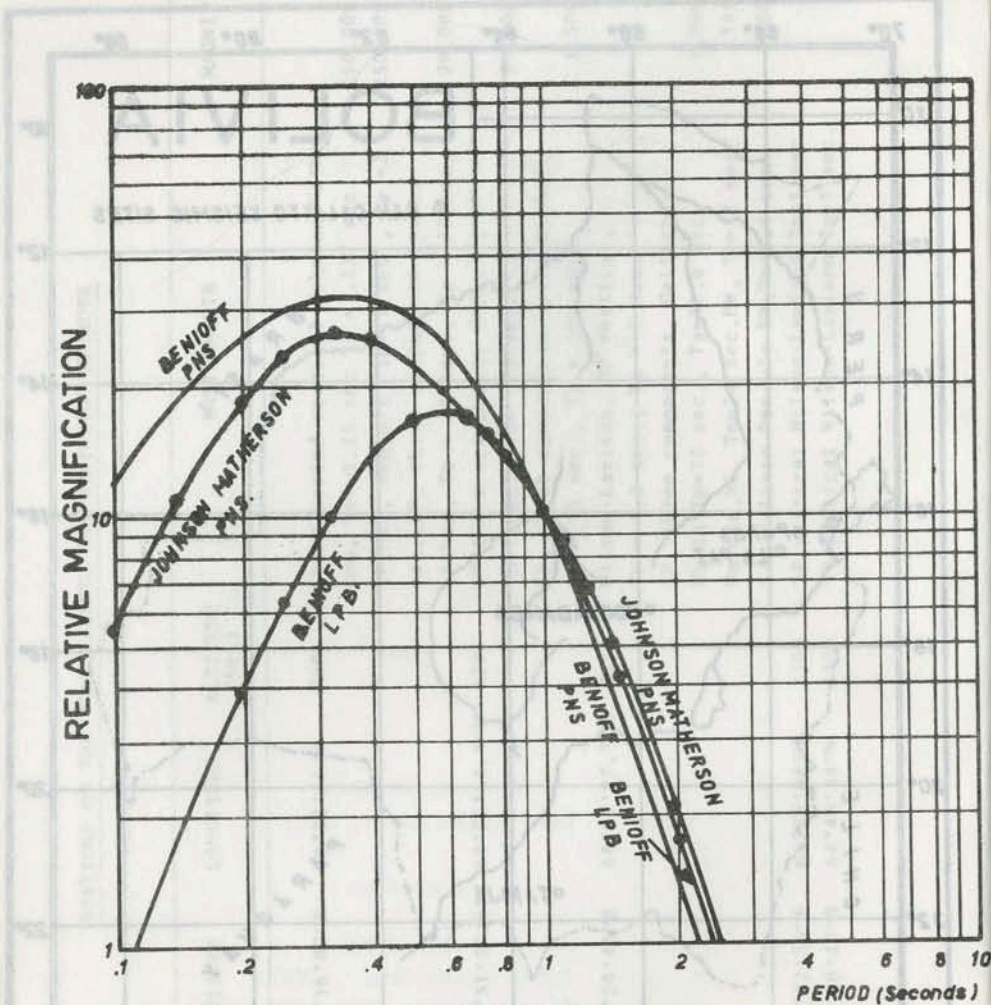


Fig. 2. Frequency response curves for the long period instruments.

The station of Pefas is operated under U.S. Air Force Office of Scientific Research under Grant No. AFOSR-68-1614. Seismograms are obtained for the single instruments on 35 mm films. Moreover the three short period components both at high and low magnification, together with the three long period components at low magnification, are recorded on 16 mm developorder film.

Also the U.S. Air Force Office of Scientific Research sponsored the publication of this Bulletin under Grant No. AFOSR-68-1614.

The station of La Paz (MWNSS) is part of the World Wide Network of Seismographic Stations, installed by the Coast and Geodetic Survey of the U.S. (U.S.C.G.S.).

The stations of Cochabamba and Tarija are operated in cooperation with the Instituto Geofísico Boliviano under the sponsorship of the Department of Terrestrial Magnetism of the Carnegie Institution of Washington. They are part of the Andes Carnegie Network of Stations.

The frequency response curves of the different instruments are shown in figures 2 and 3.

SYMBOLS AND NOTATIONS

Earthquake Readings:

STA = Code of the station according to the USCGS List of Seismographic Stations. The stations are listed in chronological order of first arrival time for each earthquake.

STGN = Direction of the first motion. C = Compression, D = Dilatation.

AMPL = Maximum amplitude of the first part of the initial phase measured in millimicrons of ground motion. Readings refer to half peak-to-peak amplitudes.

| MONTH | DAY | STA | PHASE | TIME | STGN | PER | AMPL | DIST |
|-------|-----|-----|-------|------|------|-----|------|------|
|-------|-----|-----|-------|------|------|-----|------|------|

|     |    |  |  |  |  |  |  |  |
|-----|----|--|--|--|--|--|--|--|
| APR | 01 | UNCGS 00 16 10.0, 2.25, 151.25, b = 27 Km., m = 4.3  |  |  |  |  |  |  |
|     |    | PER  |  |  |  |  |  |  |
|     |    | LPS  |  |  |  |  |  |  |
| APR | 01 | UNCGS 01 17 09.4, 25.25, 45.25, b = 520 Km., m = 4.1 |  |  |  |  |  |  |
|     |    | PER  |  |  |  |  |  |  |
|     |    | LPS  |  |  |  |  |  |  |

PER = Period in seconds of the wave whose amplitude was measured.

DIST = Epicentral distance to La Paz, Bolivia, measured in a map of Isodiastematic Curves centered at La Paz.

For earthquakes not identified by the USCGS the epicentral distance has been calculated from the S-P travel times assuming a normal depth of the focus.

For any further information on the data issued on this Bulletin, please direct your inquiries to:

|     |    |   |  |  |  |  |  |  |
|-----|----|---|--|--|--|--|--|--|
| APR | 01 | UNCGS 01 24 03.4, 2.90, 140.95, b = 60, m = 4.0 |  |  |  |  |  |  |
|     |    | PER   |  |  |  |  |  |  |
|     |    | LPS   |  |  |  |  |  |  |

Director of San Calixto Observatorio  
Casilla No. 5939  
La Paz, Bolivia

|     |    |  |  |  |  |  |  |  |
|-----|----|--|--|--|--|--|--|--|
| APR | 01 | UNCGS 01 17 09.4, 25.25, 45.25, b = 520 Km., m = 4.1 |  |  |  |  |  |  |
|     |    | PER  |  |  |  |  |  |  |
|     |    | LPS  |  |  |  |  |  |  |

|     |    |   |  |  |  |  |  |  |
|-----|----|---|--|--|--|--|--|--|
| APR | 01 | UNCGS 01 24 03.4, 2.90, 140.95, b = 60, m = 4.0 |  |  |  |  |  |  |
|     |    | PER   |  |  |  |  |  |  |
|     |    | LPS   |  |  |  |  |  |  |

|     |    |  |  |  |  |  |  |  |
|-----|----|--|--|--|--|--|--|--|
| APR | 01 | UNCGS 01 17 09.4, 25.25, 45.25, b = 520 Km., m = 4.1 |  |  |  |  |  |  |
|     |    | PER  |  |  |  |  |  |  |
|     |    | LPS  |  |  |  |  |  |  |

| MONTH | DAY | STA  | PHASE  | TIME       | SIGN | PER | AMPL  | DIST  |
|-------|-----|--|--------|------------|------|-----|-------|-------|
| APR   | 01  | USCGS 00 16 30.0, 6.2S, 151.2E, h = 27 Km., m = 4.9<br>NEW BRITAIN REG       |        |            |      |     |       |       |
|       |     | LPB  | e(PKP) | 00 35 47   |      |     |       | 135.0 |
|       |     | PNS  | ePKP   | 00 35 50   |      |     |       |       |
| APR   | 01  | USCGS 00 42 04.2, 32.5N, 132.2E, h = 33 Km.,<br>SHIKOKU, JAPAN               |        |            |      |     |       |       |
|       |     | PNS  | PKP    | 01 01 58.2 | C    | 2.4 | 482.0 |       |
|       |     |  | iPP    | 06 08.8    |      |     |       |       |
|       |     |  | SKS    | 09 04      |      |     |       |       |
|       |     |  | SS     | 26 07      |      |     |       |       |
|       |     |  | L      | 56.3       |      |     |       |       |
|       |     | LPB  | PKP    | 01 01 58.5 |      | 2.0 | 367   | 155.9 |
|       |     |  | i      | 02 05.4    |      |     |       |       |
|       |     |  | PP     | 06 08      |      |     |       |       |
|       |     |  | SS     | 26 00      |      |     |       |       |
|       |     |  | G      | 46.4       |      |     |       |       |
|       |     |  | L      | 55.5       |      |     |       |       |
|       |     | CCH  | ePMP   | 01 02 01.1 |      |     |       |       |
| APR   | 01  | PNS  | eP     | 01 22 43   |      |     |       |       |
| APR   | 01  | PNS  | P      | 01 53 34.4 |      | 1.0 | 7.9   |       |
|       |     |  | i      | 55 04.8    |      |     |       |       |
|       |     | LPB  | P      | 01 53 36.8 |      | 1.0 | 9     |       |
|       |     |  | e      | 55 25.4    |      |     |       |       |
| APR   | 01  | USCGS 02 17 09.4, 23.6S, 63.6W, h = 550 Km., m = 4.1<br>SALTA PROV ARGENTINA |        |            |      |     |       |       |
|       |     | LPB  | iP     | 02 19 10.5 | C    | 1.0 | 28    | 8.1   |
|       |     |  | S      | 20 46.7    |      |     |       |       |
|       |     | PNS  | iP     | 02 19 14.4 | C    | 0.7 | 13.3  |       |
|       |     |  | S      | 20 54.3    |      |     |       |       |
| APR   | 01  | USCGS 02 24 03.4, 5.9S, 146.6E, h = 60, m = 4.9<br>E. NEW GUINEA REG         |        |            |      |     |       |       |
|       |     | PNS  | ePKP   | 02 43 15.4 |      |     |       |       |
|       |     | LPB  | PKP    | 02 43 19.8 |      |     |       | 138.6 |
|       |     |  | e      | 29.7       |      |     |       |       |
| APR   | 01  | PNS  | eP     | 02 47 00   |      | 0.9 | 3.4   |       |
|       |     | LPB  | eP     | 02 47 06.4 |      | 1.1 | 5     |       |
| APR   | 01  | LPB  | P      | 03 17 09.6 |      |     |       |       |
|       |     | PNS  | P      | 03 17 13.8 |      | 0.5 | 4.5   |       |
| APR   | 01  | LPB  | eP     | 03 38 58.5 |      | 1.0 | 4     |       |
|       |     |  | S      | 39 29.3    |      |     |       |       |
|       |     | PNS  | P      | 03 38 59.1 |      |     |       |       |
|       |     |  | S      | 39 30.7    |      |     |       |       |

APRIL

| MONTH | DAY | STA  | PHASE | TIME       | SIGN | PER | AMPL | DIST  |
|-------|-----|--|-------|------------|------|-----|------|-------|
| APR   | 01  | USCGS 044121.0, 2.2N, 84.5W, h = 33 Km., m = 4.6<br>OFF CST OF CENTRAL AMERICA |       |            |      |     |      |       |
|       |     | PNS  | P     | 04 46 40.0 |      | 1.3 | 34.9 |       |
|       |     | LPB  | P     | 04 46 44.3 |      | 1.0 |      | 23.1  |
| APR   | 01  | LPB  | eP    | 06 13 39.3 |      | 0.9 | 3    |       |
|       |     |  | e     | 14 37.7    |      |     |      |       |
|       |     | PNS  | P     | 06 14 36.6 |      | 1.1 | 6.1  |       |
| APR   | 01  | PNS  | iP    | 06 23 10.9 | C    | 0.6 | 9.2  |       |
|       |     |  | S     | 49.5       |      |     |      |       |
|       |     | LPB  | P     | 06 23 16.1 | C    | 0.9 | 32   |       |
|       |     |  | S     | 24 00.9    |      |     |      |       |
| APR   | 01  | USCGS 06 35 48.0, 2.9S, 133.9E, h = 33 Km., m = 5.5<br>NEW GUINEA REG          |       |            |      |     |      |       |
|       |     | PNS  | PKP   | 06 55 37.2 |      | 1.4 | 10.3 |       |
|       |     |  | i     | 41.5       |      |     |      |       |
|       |     | LPB  | PKP   | 06 55 41   |      | 0.9 | 29   | 150.3 |
| APR   | 01  | LPB  | eP    | 07 02 19.4 |      |     |      |       |
|       |     | PNS  | P     | 07 02 21.6 |      | 0.6 | 2.0  |       |
|       |     |  | S     | 51.2       |      |     |      |       |
| APR   | 01  | USCGS 07 13 17.6, 32.3N, 132.1E, h = 32 Km., m = 5.7<br>SHIKOKU, JAPAN         |       |            |      |     |      |       |
|       |     | PNS  | PKP   | 07 33 12.2 |      | 1.4 | 34.2 |       |
|       |     |  | PP    | 37 29      |      |     |      |       |
|       |     |  | GG    | 08 18.2    |      |     |      |       |
|       |     |  | L     | 27.6       |      |     |      |       |
|       |     | LPB  | PKP   | 07 33 12.4 |      |     |      | 155.7 |
|       |     |  | ePKS  | 36 42.8    |      |     |      |       |
|       |     |  | SS    | 08 57 10   |      |     |      |       |
|       |     |  | eG    | 18         |      |     |      |       |
|       |     |  | eL    | 27.5       |      |     |      |       |
| APR   | 01  | LPB  | P     | 08 1054    |      | 1.0 | 10   |       |
| APR   | 01  | LPB  | P     | 08 18 15   |      | 0.8 | 15   |       |
|       |     |  | eS    | 52         |      |     |      |       |
|       |     | PNS  | iP    | 08 18 15.9 | C    | 0.5 | 2.8  |       |
|       |     |  | eS    | 50         |      |     |      |       |
| APR   | 01  | PNS  | eP    | 08 45 27.8 |      | 0.8 | 2.6  |       |
| APR   | 01  | PNS  | eP    | 10 01 07   |      |     |      |       |
|       |     | LPB  | eP    | 10 01 08.5 |      | 0.8 | 3    |       |
| APR   | 01  | PNS  | eP    | 10 11 21   |      |     |      |       |
|       |     | LPB  | eP    | 10 11 23.2 |      | 0.7 | 3    |       |
| APR   | 01  | PNS  | eP    | 12 16 52.1 |      |     |      |       |
| APR   | 01  | LPB  | eP    | 13 32 18   |      |     |      |       |
|       |     | PNS  | eP    | 13 32 23.6 |      |     |      |       |

APRIL



| MONTH | DAY | STA  | PHASE | TIME       | SIGN | PER | AMPL | DIST |
|-------|-----|--|-------|------------|------|-----|------|------|
| APRIL | 01  | PNS  | P     | 15 43 43.6 |      | 0.5 | 2.2  |      |
|       |     |  | eS    | 44 34      |      |     |      |      |
|       |     | LPB  | eP    | 15 43 47.5 |      | 0.7 | 10   |      |
| APR   | 01  | LPB  | iP    | 16 37 55.9 | C    | 0.8 | 120  |      |
|       |     | PNS  | iP    | 16 37 57.7 | C    |     |      |      |
|       |     |  | S     | 38 32      |      |     |      |      |
| APR   | 01  | PNS  | P     | 16 41 03.1 |      | 0.9 | 16.3 |      |
| APR   | 01  | PNS  | P     | 17 26 03.2 |      | 0.7 | 3.1  |      |
|       |     | LPB  | e(P)  | 17 26 06.5 |      |     |      |      |
| APR   | 01  | LPB  | eP    | 18 13 11   |      |     |      |      |
|       |     | PNS  | eP    | 18 13 12.8 |      |     |      |      |
|       |     |  | i     | 17.5       |      |     |      |      |
|       |     |  | S     | 14 32      |      |     |      |      |
| APR   | 01  | PNS  | P     | 18 34 25   |      | 0.5 | 2.2  |      |
|       |     | LPB  | eP    | 18 34 28   |      | 0.9 | 10   |      |
| APR   | 01  | LPB  | eL    | 19 56      |      |     |      |      |
| APR   | 01  | PNS  | eP    | 20 03 52   |      |     |      |      |
|       |     |  | S     | 04 46.8    |      |     |      |      |
| APR   | 01  | LPB  | eP    | 20 03 55   |      |     |      |      |
|       |     |  | eS    | 04 36      |      |     |      |      |
| APR   | 01  | LPB  | eP    | 23 48 08   |      |     |      |      |
|       |     | PNS  | P     | 23 48 11.5 |      | 0.6 | 3.3  |      |
|       |     |  | e     | 49 15.7    |      |     |      |      |
| APR   | 02  | PNS  | e(P)  | 01 07 11   |      |     |      |      |
| APR   | 02  | CCH  | P     | 01 35 19.5 | D    |     |      |      |
|       |     | LPB  | iP    | 01 36 32.7 | C    | 0.8 | 25   |      |
|       |     |  | S     | 37 30.5    |      |     |      |      |
|       |     | PNS  | iP    | 01 36 37.0 | C    | 0.8 | 9.3  |      |
|       |     |  | S     | 37 38      |      |     |      |      |
| APR   | 02  | LPB  | eP    | 01 43 51   |      |     |      |      |
|       |     | PNS  | P     | 01 43 54.3 |      | 0.8 | 3.7  |      |
| APR   | 02  | LPB  | P     | 02 57 54.4 |      | 0.7 | 1.6  |      |
|       |     |  | eS    | 58 22.5    |      |     |      |      |
| APR   | 02  | USCGS 03 51 57.4, 16.9N, 93.9W, h = 119 Km., m = 4.2<br>CHIAPAS MEXICO |       |            |      |     |      |      |
|       |     | PNS  | P     | 03 59 34.1 |      | 1.0 | 9.1  |      |
|       |     |  | pP    | 04 00 14.1 |      |     |      |      |
|       |     | LPB  | P     | 03 59 36.7 |      | 1.0 | 14   | 41.  |
|       |     |  | pP    | 04 00 16   |      |     |      |      |
| APR   | 02  | PNS  | eP    | 05 04 25   |      |     |      |      |
| APR   | 02  | PNS  | eP    | 05 24 51.3 |      |     |      |      |
|       |     | LPB  | P     | 05 24 54.5 |      | 1.0 | 8    |      |

APRIL

| MONTH | DAY | STA   | PHASE      | TIME                   | SIGN | PER | AMPL | DIST  |
|-------|-----|---|------------|------------------------|------|-----|------|-------|
| APR   | 02  | PNS   | eP         | 05 45 09.3             |      |     |      |       |
| APR   | 02  | PNS<br>LPB  | eP<br>P    | 06 46 42<br>06 46 49.9 |      | 0.7 | 6    |       |
| APR   | 02  | LPB   | eP<br>i    | 07 13 27.5<br>48.2     |      |     |      |       |
| APR   | 02  | USCGS 08 12 44.2, 45.1S, 166.8E, h = 15 Km., m = 5.2<br>OFF W CST OF SOUTH IS. N.Z. |            |                        |      |     |      |       |
|       |     | LPB   | eP<br>L    | 08 26 43<br>09 00.3    |      | 0.9 | 3    | 100.8 |
|       |     | PNS   | eP<br>L    | 08 30 32.4<br>09 00.2  |      |     |      |       |
| APR   | 02  | PNS   | eP         | 10 21 52.5             |      |     |      |       |
| APR   | 02  | PNS   | eP         | 10 32 52               |      |     |      |       |
| APR   | 02  | USCGS 10 41 26.0, 14.3S, 167.3E, h = 198 Km., m = 5.0<br>NEW HEBRIDES               |            |                        |      |     |      |       |
|       |     | LPB   | e(PKP)     | 11 00 04               |      |     |      | 117.0 |
|       |     | PNS   | ePKP<br>eL | 11 00 04.4<br>36.4     |      |     |      |       |
| APR   | 02  | LPB   | eP         | 13 10 05.3             |      |     |      |       |
|       |     | PNS   | eP<br>e    | 13 10 08<br>53         |      |     |      |       |
| APR   | 02  | PNS   | P<br>S     | 17 26 08.5<br>31.8     |      | 0.6 | 3.3  |       |
|       |     | LPB   | e(P)       | 17 26 11.5             |      |     |      |       |
| APR   | 02  | USCGS 18 01 19.0, 45.2S, 166.7E, h = 8 Km., m = 5.0<br>OFF W CST SOUTH IS. N.Z.     |            |                        |      |     |      |       |
|       |     | PNS   | eP<br>eL   | 18 15 06.8<br>49.7     |      |     |      | 100.8 |
| APR   | 02  | LPB   | e(P)       | 21 05 22.5             |      |     |      |       |
|       |     | PNS   | eP<br>S    | 21 05 24.9<br>06 07.2  |      |     |      |       |
| APR   | 02  | PNS   | iP         | 21 32 02.4             | C    | 0.4 | 3.9  |       |
| APR   | 02  | PNS   | iP         | 21 37 19.1             | D    | 0.4 | 6.3  |       |
| APR   | 02  | USCGS 21 46 36.4, 42.6N, 142.5E, h = 33 Km., m = 4.3<br>HOKKAIDO, JAPAN REG         |            |                        |      |     |      |       |
|       |     | PNS   | ePKP       | 22 06 12               |      |     |      | 142.8 |
| APR   | 03  | PNS   | P<br>S     | 03 01 16.8<br>02 10.6  |      |     |      |       |

APRIL

| MONTH | DAY | STA   | PHASE        | TIME                           | SIGN | PER | AMPL | DIST  |
|-------|-----|---|--------------|--------------------------------|------|-----|------|-------|
| APR   | 03  | PNS   | eP           | 05 46 11.4                     |      |     | 0.7  | 2.3   |
| APR   | 03  | USCGS 00 06 00.1, 12.2N, 88.3W, h = 33 Km., m = 4.3<br>OFF CST OF CENTRAL AMERICA |              |                                |      |     |      |       |
|       |     | PNS   | eP<br>eL     | 10 12 46.6<br>22.5             |      |     |      | 34.5  |
| APR   | 03  | PNS   | P            | 10 43 19.3                     | C    | 1.2 | 24.0 |       |
| APR   | 03  | PNS   | P            | 10 59 07.8                     |      | 0.6 | 2.6  |       |
| APR   | 03  | PNS   | P<br>i<br>eS | 12 54 27.3<br>55 17.8<br>56 11 |      | 0.9 | 10.8 |       |
| APR   | 03  | PNS   | eP           | 14 13 06.2                     |      |     |      |       |
| APR   | 03  | PNS   | P<br>eS      | 14 26 07.1<br>39.7             |      | 0.4 | 2.4  |       |
| APR   | 03  | PNS   | P<br>S       | 15 08 46.1<br>09 08.4          |      | 0.2 | 2.9  |       |
| APR   | 03  | USCGS 15 18 39.8, 4.7S, 137.1E, h = 33 km., m = 4.7<br>W NEW GUINEA               |              |                                |      |     |      |       |
|       |     | PNS   | PKP<br>pPKP  | 15 38 26.1<br>38               |      | 1.2 | 11.1 | 146.9 |
| APR   | 03  | PNS   | P            | 16 31 29.5                     |      | 0.5 | 5.0  |       |
| APR   | 03  | PNS   | eP<br>i      | 16 36 36.6<br>59.1             |      | 0.6 | 2.0  |       |
| APR   | 03  | USCGS 16 24 45.7, 51.7N, 174.2E, h = 38 Km., m = 5.3<br>NEAR IS, ALEUTIAN IS.     |              |                                |      |     |      |       |
|       |     | PNS   | ePKP<br>eL   | 16 43 34<br>17 21.3            |      |     |      | 180.0 |
| APR   | 03  | PNS   | P<br>S       | 16 52 40.2<br>53 29.8          | C    | 0.9 | 21.8 |       |
| APR   | 03  | PNS   | P            | 17 14 01.4                     |      | 1.5 | 57.2 |       |
| APR   | 03  | PNS   | P<br>eS      | 19 09 19.4<br>46               |      | 0.6 | 6.8  |       |
| APR   | 03  | PNS   | e(P)         | 19 16 45                       |      |     |      |       |
| APR   | 03  | PNS   | P            | 19 41 18.5                     |      | 0.7 | 4.9  |       |
| APR   | 03  | PNS   | eP           | 20 41 35.6                     |      |     |      |       |
| APR   | 03  | PNS   | P<br>S       | 21 00 08.7<br>33.4             |      | 0.7 | 3.3  |       |
| APR   | 03  | PNS   | P<br>S       | 22 25 46.1<br>26 16.6          |      | 0.6 | 4.8  |       |





| MONTH | DAY | STA         | PHASE                                     | TIME       | SIGN | PER | AMPL | DIST  |
|-------|-----|-------------|---|------------|------|-----|------|-------|
| APR   | 03  | LPB         | e(P)                                      | 23 27 59   |      |     |      |       |
| APR   | 04  | LPB         | eP  | 00 14 31   |      | 0.8 | 10   |       |
|       |     |             | eL  | 30         |      |     |      |       |
|       |     | PNS         | eP  | 00 14 35   |      |     |      |       |
|       |     |             | eL  | 30.5       |      |     |      |       |
| APR   | 04  | USCGS 01 10 | 38.5, 21.8S, 170.3E, h = 119 Km., m = 4.7 |            |      |     |      |       |
|       |     |             | LOYALTI IS. REG                           |            |      |     |      |       |
|       |     | PNS         | ePKP                                      | 01 29 12.6 |      |     |      |       |
| APR   | 04  | LPB         | eP  | 02 02 29   |      |     |      |       |
|       |     | PNS         | P   | 02 02 31.6 |      | 0.7 | 3.2  |       |
| APR   | 04  | USCGS 01 44 | 26.4, 24.6N, 66.0E, h = 33 Km., m = 5.0   |            |      |     |      |       |
|       |     | PNS         | ePKP                                      | 02 03 51   |      | 0.7 | 3.2  | 136.2 |
|       |     |             | eL  | 48.8       |      |     |      |       |
| APR   | 04  | USCGS 02 46 | 14.8, 2.6S, 79.0W, h = 90 km., m = 4.0    |            |      |     |      |       |
|       |     |             | NR CST OF ECUADOR                         |            |      |     |      |       |
|       |     | PNS         | r   | 02 50 10.7 |      | 0.7 | 3.2  |       |
|       |     |             | eL  | 54.2       |      |     |      |       |
|       |     | LPB         | eP  | 02 50 14.5 |      | 0.9 | 8    | 16.8  |
|       |     |             | (S)                                       | 53 32.5    |      |     |      |       |
|       |     |             | eL  | 55         |      |     |      |       |
| APR   | 04  | LPB         | P   | 03 30 28.2 |      | 0.9 | 12   |       |
| APR   | 04  | LPB         | eP  | 03 53 26   |      |     |      |       |
|       |     | PNS         | e(P)                                      | 03 53 34   |      |     |      |       |
| APR   | 04  | PNS         | eP  | 04 00 14.6 |      |     |      |       |
|       |     |             | S   | 53.7       |      |     |      |       |
|       |     | LPB         | eP  | 04 00 17.6 |      |     |      |       |
| APR   | 04  | LPB         | e(P)                                      | 04 10 29.5 |      |     |      |       |
| APR   | 04  | LPB         | iP  | 06 22 56.4 | C    | 0.8 | 34   |       |
|       |     |             | eS  | 23 50      |      |     |      |       |
|       |     | PNS         | iP  | 06 23 00   | C    | 0.8 | 11.7 |       |
|       |     |             | S   | 53.7       |      |     |      |       |
| APR   | 04  | LPB         | eP  | 06 58 25   |      |     |      |       |
| APR   | 04  | LPB         | eP  | 08 01 33.2 |      |     |      |       |
| APR   | 04  | LPB         | eP  | 08 29 08.7 |      |     |      |       |
| APR   | 04  | LPB         | eP  | 08 45 11   |      |     |      |       |
|       |     | PNS         | eP  | 08 45 12   |      | 0.6 | 2.7  |       |
| APR   | 04  | PNS         | P   | 08 53 19.7 |      | 0.5 | 2.3  |       |
|       |     |             | S   | 53         |      |     |      |       |
|       |     | LPB         | eP  | 08 53 20.2 |      |     |      |       |
| APR   | 04  | LPB         | e(P)                                      | 09 00 26.2 |      |     |      |       |
| APR   | 04  | LPB         | eP  | 09 22 07.2 |      |     |      |       |

| MONTH | DAY | STA         | PHASE                                    | TIME       | SIGN | PER | AMPL | DIST  |
|-------|-----|-------------|--|------------|------|-----|------|-------|
| APR   | 04  | USCGS 04 12 | 10.5, 5.3S, 154.0E, h = 96 Km., m = 4.9  |            |      |     |      |       |
|       |     |             | SALOMON IS.                              |            |      |     |      |       |
|       |     | PNS         | ePKP                                     | 09 31 16.8 |      |     |      |       |
|       |     |             | eL                                       | 10 15.1    |      |     |      |       |
|       |     | LPB         | P  | 09 32 17.2 |      | 1.2 | 12   | 132.5 |
|       |     |             | eL                                       | 16         |      |     |      |       |
| APR   | 04  | USCGS 10 01 | 24.7, 56.0S, 26.9W, h = 81 Km., m = 5.2  |            |      |     |      |       |
|       |     |             | S SANDWICH ISLANDS REG                   |            |      |     |      |       |
|       |     | LPB         | iP                                       | 10 10 15   | C    | 1.0 | 42   | 50.1  |
|       |     | PNS         | iP                                       | 10 10 18.1 | C    | 0.9 | 37.0 |       |
|       |     |             | eL                                       | 25.4       |      |     |      |       |
| APR   | 04  | LPB         | P  | 10 30 45   |      | 1.0 | 18   |       |
| APR   | 04  | USCGS 10 54 | 14.5, 36.4N, 138.4E, h = 5 Km., m = 4.4  |            |      |     |      |       |
|       |     |             | HONSHU JAPAN                             |            |      |     |      |       |
|       |     | PNS         | ePKP                                     | 11 14 07   |      |     |      |       |
|       |     | LPB         | ePKP                                     | 11 14 08   |      |     |      | 149.4 |
|       |     |             | eL                                       | 12 07      |      |     |      |       |
| APR   | 04  | USCGS 13 34 | 32.5, 6.4S, 129.0E, h = 208 Km., m = 4.8 |            |      |     |      |       |
|       |     |             | BANDA SEA                                |            |      |     |      |       |
|       |     | PNS         | ePKP                                     | 13 53 59.6 |      |     |      |       |
|       |     |             | PKPz                                     | 54 16      |      |     |      |       |
|       |     |             | I  | 25         |      |     |      |       |
|       |     | LPB         | ePKP                                     | 13 54 00.5 |      | 1.1 | 27   | 151.1 |
|       |     |             | PKPz                                     | 54 15.5    |      |     |      |       |
| APR   | 04  | PNS         | eP                                       | 17 43 44.2 |      |     |      |       |
| APR   | 04  | USCGS 18 46 | 40.1, 6.9N, 73.0W, h = 160 Km., m = 4.3  |            |      |     |      |       |
|       |     |             | COLOMBIA                                 |            |      |     |      |       |
|       |     | PNS         | P  | 18 51 36.3 |      | 0.5 | 2.3  | 23.4  |
|       |     |             | S  | 52 12.8    |      |     |      |       |
| APR   | 04  | LPB         | eP                                       | 19 47 15.5 |      |     |      |       |
|       |     |             | (S)                                      | 48 21.2    |      |     |      |       |
|       |     | PNS         | eP                                       | 19 47 17.5 |      |     |      |       |
| APR   | 04  | USCGS 22 06 | 57.3, 22.7S, 68.4W, h = 110 Km., m = 5.1 |            |      |     |      |       |
|       |     |             | N CHILE                                  |            |      |     |      |       |
|       |     | CCH         | iP                                       | 22 07 18.0 | C    |     |      |       |
|       |     | LPB         | P  | 22 08 28.3 | D    | 0.7 | 48   | 5.9   |
|       |     |             | S  | 09 40      |      |     |      |       |
|       |     |             | i  | 10 09      |      |     |      |       |
|       |     | PNS         | iP                                       | 22 08 32.0 | D    |     |      |       |
| APR   | 04  | LPB         | e(P)                                     | 22 33 15.5 |      |     |      |       |
|       |     |             | eL                                       | 42         |      |     |      |       |
|       |     | PNS         | eP                                       | 22 33 16   |      |     |      |       |

APRIL

| MONTH | DAY | STA  | PHASE | TIME       | SIGN | PER | AMPL | DIST  |
|-------|-----|--|-------|------------|------|-----|------|-------|
| APR   | 04  | PNS  | P     | 22 42 59.8 |      | 0.3 | 3.3  |       |
|       |     |  | S     | 43 07.3    |      |     |      |       |
|       |     | LPB  | P     | 22 43 02   |      |     |      |       |
| APR   | 04  | PNS  | eP    | 23 32 13   |      |     |      |       |
| APR   | 05  | LPB  | eL    | 01 38      |      |     |      |       |
| APR   | 05  | USCGS 02 00 25.4, 16.0S, 179.8W, h = 33 Km., m = 4.6 |       |            |      |     |      |       |
|       |     | W OF TONGA IS  |       |            |      |     |      |       |
|       |     | PNS  | eP    | 02 14 35.2 |      |     |      | 104.9 |
| APR   | 05  | PNS  | eP    | 02 18 53   |      |     |      |       |
|       |     | LPB  | eL    | 02 50      |      |     |      |       |
| APR   | 05  | LPB  | eP    | 03 22 50.7 |      |     |      |       |
|       |     |  | S     | 23 00      |      |     |      |       |
| APR   | 05  | PNS  | P     | 06 44 35.4 |      | 0.4 | 2.5  |       |
|       |     |  | S     | 45 02.6    |      |     |      |       |
|       |     | LPB  | P     | 06 44 35.6 |      |     |      |       |
| APR   | 05  | LPB  | eP    | 07 55 19.6 |      |     |      |       |
| APR   | 05  | LPB  | eP    | 09 36 47.7 |      |     |      |       |
|       |     | PNS  | P     | 09 36 51.7 |      | 0.8 | 3.9  |       |
| APR   | 05  | PNS  | eP    | 09 39 01.2 |      |     |      |       |
|       |     |  | S     | 33.6       |      |     |      |       |
|       |     | LPB  | eP    | 09 39 08.5 |      | 0.9 | 12   |       |
| APR   | 05  | PNS  | P     | 10 47 54.6 |      | 0.6 | 9.8  |       |
|       |     |  | S     | 48 20.6    |      |     |      |       |
| APR   | 05  | LPB  | eP    | 10 59 47.4 |      |     |      |       |
|       |     | PNS  | iP    | 10 59 52.6 | C    | 0.4 | 3.9  |       |
|       |     |  | S     | 11 00 24.6 |      |     |      |       |
| APR   | 05  | LPB  | eP    | 11 52 50.5 |      |     |      |       |
|       |     | PNS  | P     | 11 52 50.5 |      | 0.4 | 2.1  |       |
| APR   | 05  | LPB  | eP    | 12 45 18   |      |     |      |       |
|       |     | PNS  | eP    | 12 45 20.8 |      |     |      |       |
| APR   | 05  | PNS  | eP    | 14 28 41.9 |      | 0.4 | 2.1  |       |
|       |     | LPB  | eP    | 14 28 48.5 |      |     |      |       |
| APR   | 05  | PNS  | iP    | 16 05 05.4 | D    | 0.5 | 6.2  |       |
|       |     |  | S     | 28         |      |     |      |       |
| APR   | 05  | LPB  | e(P)  | 16 39 11   |      |     |      |       |
|       |     | PNS  | eP    | 16 39 16   |      |     |      |       |
| APR   | 05  | PNS  | P     | 18 46 14.2 |      | 0.4 | 2.9  |       |
|       |     |  | S     | 38.2       |      |     |      |       |
| APR   | 05  | LPB  | eP    | 18 55 31.2 |      |     |      |       |
|       |     | PNS  | iP    | 18 55 41.3 | C    | 0.5 | 3.3  |       |
|       |     |  | S     | 56 14.5    |      |     |      |       |

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APRIL

| MONTH | DAY | STA  | PHASE | TIME       | SIGN | PER | AMPL | DIST  |
|-------|-----|--|-------|------------|------|-----|------|-------|
| APR   | 05  | USCGS 19 31 22.7, 56.8N, 151.5W, h = 14 Km., m = 4.9 |       |            |      |     |      |       |
|       |     | KODIAK IS REG  |       |            |      |     |      |       |
|       |     | PNS  | eP    | 19 45 01.6 |      |     |      | 100.2 |
| APR   | 05  | LPB  | ePKP  | 19 58 13.7 |      | 0.9 | 10   |       |
|       |     |  | eL    | 20 45      |      |     |      |       |
|       |     | PNS  | eP    | 19 58 14   |      |     |      |       |
| APR   | 5   | LPB  | e(P)  | 20 45 20.2 |      |     |      |       |
| APR   | 05  | PNS  | P     | 21 12 49.1 |      | 0.4 | 4.4  |       |
|       |     |  | S     | 13 12      |      |     |      |       |
| APR   | 05  | LPB  | eP    | 21 22 43   |      | 0.6 | 4    |       |
|       |     | PNS  | P     | 21 52 46.8 |      |     |      |       |
|       |     |  | S     | 53 13      |      |     |      |       |
| APR   | 05  | PNS  | P     | 22 24 50.2 |      | 0.9 | 5.7  |       |
| APR   | 05  | LPB  | eP    | 22 36 06   |      |     |      |       |
|       |     | PNS  | eP    | 22 36 07   |      |     |      |       |
|       |     |  | S     | 37 17.2    |      |     |      |       |
| APR   | 05  | LPB  | P     | 22 59 42.2 |      | 0.6 | 10   |       |
| APR   | 05  | LPB  | eP    | 23 29 51   |      |     |      |       |
|       |     | PNS  | eP    | 23 29 52.2 |      |     |      |       |
| APR   | 06  | LPB  | eP    | 01 57 09.7 |      | 0.8 | 7    |       |
|       |     | PNS  | P     | 01 57 13   |      | 0.7 | 4.0  |       |
| APR   | 06  | USCGS 03 32 29.2, 14.1N, 91.5W, h = 93 Km., m = 4.1  |       |            |      |     |      |       |
|       |     | GUATEMALA  |       |            |      |     |      |       |
|       |     | LPB  | eP    | 03 39 40   |      |     |      | 38.2  |
|       |     | PNS  | eP    | 03 39 43   |      |     |      |       |
| APR   | 06  | LPB  | iP    | 05 27 15.6 |      | 0.8 | 42   |       |
|       |     |  | S     | 19         |      |     |      |       |
| APR   | 06  | LPB  | eP    | 05 54 10   |      |     |      |       |
| APR   | 06  | USCGS 05 52 20.8, 2.9S, 133.8E, h = 38 Km., m = 4.8  |       |            |      |     |      |       |
|       |     | W NEW GUINEA REG                                     |       |            |      |     |      |       |
|       |     | LPB  | ePKP  | 06 12 11   |      |     |      | 150.3 |
|       |     | PNS  | ePKP  | 06 12 12   |      |     |      |       |
| APR   | 06  | PNS  | eP    | 06 27 50.8 |      |     |      |       |
| APR   | 06  | PNS  | P     | 07 17 06.7 |      |     |      |       |
|       |     |  | S     | 34         |      |     |      |       |
|       |     | LPB  | eP    | 07 17 08.9 |      |     |      |       |
| APR   | 06  | PNS  | eP    | 08 17 06.8 |      |     |      |       |
|       |     | LPB  | eP    | 08 17 09.5 |      |     |      |       |
| APR   | 06  | LPB  | eP    | 09 05 27.3 |      | 0.6 | 3    |       |
| APR   | 06  | PNS  | eP    | 12 04 55   |      |     |      | 17    |
|       |     |  | S     | 05 18.8    |      |     |      |       |

| MONTH | DAY | STA                      | PHASE                                    | TIME       | SIGN | PER | AMPL | DIST  |
|-------|-----|--------------------------|--|------------|------|-----|------|-------|
| APR   | 06  | LPB                      | (P)                                      | 12 46 11   |      | 0.9 | 18   |       |
| APR   | 06  | PNS                      | P  | 13 17 16.8 |      | 0.7 | 5.7  |       |
| APR   | 06  | LPB                      | e(P)                                     | 14 14 29.5 |      |     |      |       |
|       |     | PNS                      | P  | 14 14 31.8 |      | 0.6 | 4.1  | 102.1 |
| APR   | 06  | LPB                      | P  | 14 44 59.5 |      | 1.1 | 52   |       |
| APR   | 06  | PNS                      | (P)                                      | 14 47 22.4 |      | 0.9 | 5    |       |
| APR   | 06  | LPB                      | eP                                       | 15 25 48   |      | 0.6 | 10   |       |
| APR   | 06  | PNS                      | eP                                       | 15 31 59   |      | 0.6 | 3    |       |
|       |     |                          | S  | 35 39      |      |     |      |       |
|       |     | LPB                      | eP                                       | 15 32 02   |      |     |      |       |
|       |     |                          | eS                                       | 35 42      |      |     |      |       |
| APR   | 06  | LPB                      | e(P)                                     | 16 28 52   |      |     |      |       |
|       |     | PNS                      | eP                                       | 16 28 53   |      |     |      |       |
| APR   | 06  | PNS                      | P  | 16 32 10.3 |      |     |      |       |
|       |     |                          | i  | 14.5       |      |     |      |       |
|       |     |                          | S  | 50.5       |      |     |      |       |
|       |     | LPB                      | eP                                       | 16 32 14.5 |      |     |      |       |
| APR   | 06  | PNS                      | iP                                       | 17 35 23.8 | D    |     |      |       |
|       |     |                          | S  | 48.8       |      |     |      |       |
|       |     | LPB                      | P  | 17 35 26.8 |      | 1.0 | 20   |       |
| APR   | 06  | LPB                      | eP                                       | 21 02 40.5 |      | 0.9 | 3    |       |
|       |     |                          | S  | 03 06.8    |      |     |      |       |
| APR   | 06  | USCGS 21 41              | 17.9, 7.4N, 124.3E, h = 17 Km., m = 5.1  |            |      |     |      |       |
|       |     | MINDANAO, PHILIPPINE IS. |  |            |      |     |      |       |
|       |     | PNS                      | PKP                                      | 22 01 30   |      | 1.2 | 15.4 |       |
|       |     |                          | e  | 02 28.5    |      |     |      |       |
|       |     | LPB                      | PKP                                      | 22 01 30.7 |      | 0.9 | 10   | 164.5 |
|       |     |                          | e  | 02 28      |      |     |      |       |
| APR   | 06  | LPB                      | eP                                       | 22 30 02   |      |     |      |       |
|       |     | PNS                      | eP                                       | 22 30 02.5 |      | 0.7 | 3    |       |
| APR   | 06  | USCGS 22 48              | 06.8, 51.4N, 176.6E, h = 42 Km., m = 4.7 |            |      |     |      |       |
|       |     | RAT IS, ALEUTIAN IS      |  |            |      |     |      |       |
|       |     | PNS                      | ePKP                                     | 23 06 54.4 |      |     |      |       |
|       |     | LPB                      | e(PKP)                                   | 23 06 55   |      |     |      | 118.5 |
| APR   | 06  | LPB                      | eP                                       | 23 37 06.2 |      |     |      |       |
|       |     |                          | e  | 16.2       |      |     |      |       |
|       |     |                          | S  | 41         |      |     |      |       |
|       |     | PNS                      | iP                                       | 23 37 09.6 | D    | 0.4 | 8    |       |
|       |     |                          | S  | 53         |      |     |      |       |
| APR   | 06  | PNS                      | P  | 23 54 03.8 |      | 1.0 | 15.4 |       |
|       |     | LPB                      | ePKP                                     | 23 54 11   |      |     |      |       |
|       |     |                          | eL                                       | 24 34      |      |     |      |       |

| MONTH | DAY | STA                      | PHASE                                    | TIME       | SIGN | PER | AMPL | DIST  |
|-------|-----|--------------------------|--|------------|------|-----|------|-------|
| APR   | 07  | USCGS 01 31              | 57.0, 16.9S, 177.2W, h = 33 Km., m = 5.0 |            |      |     |      |       |
|       |     | W OF TONGA IS            |  |            |      |     |      |       |
| APR   | 07  | PNS                      | eP                                       | 01 45 47   |      |     |      |       |
|       |     |                          | eL                                       | 02 19.8    |      |     |      |       |
|       |     | LPB                      | e(P)                                     | 01 45 49.5 |      |     |      | 102.1 |
|       |     |                          | L  | 02 20      |      |     |      |       |
| APR   | 07  | PNS                      | eP                                       | 01 50 01.3 |      |     |      |       |
|       |     | LPB                      | eP                                       | 01 50 06.5 |      |     |      |       |
| APR   | 07  | PNS                      | eP                                       | 02 40 01.1 |      |     |      |       |
|       |     | LPB                      | P  | 02 40 04.7 |      | 0.8 | 6    |       |
| APR   | 07  | LPB                      | P  | 02 46 09.3 |      |     |      |       |
|       |     | PNS                      | P  | 02 46 13.3 |      | 0.9 | 5    |       |
| APR   | 07  | USCGS 02 47              | 40.2, 38.5N, 141.8E, h = 33 Km., m = 4.6 |            |      |     |      |       |
|       |     | NRE CST OF HONSHU, JAPAN |  |            |      |     |      |       |
|       |     | PNS                      | PKP                                      | 03 07 17.8 |      | 0.9 | 6    |       |
|       |     |                          | pPKP                                     | 31.3       |      |     |      |       |
|       |     | LPB                      | PKP                                      | 03 07 18.2 |      | 1.0 | 20   | 146.0 |
|       |     |                          | pPKP                                     | 34         |      |     |      |       |
| APR   | 07  | LPB                      | P  | 04 14 24.5 |      | 0.7 | 7    |       |
| APR   | 07  | PNS                      | P  | 04 58 18.2 |      | 0.5 | 2    |       |
|       |     |                          | S  | 40.2       |      |     |      |       |
|       |     | LPB                      | eP                                       | 04 58 22.4 |      |     |      |       |
| APR   | 07  | USCGS 04 40              | 19.3, 51.5N, 176.5E, h = 33 Km., m = 5.3 |            |      |     |      |       |
|       |     | RAT IS ALEUTIAN IS       |  |            |      |     |      |       |
|       |     | PNS                      | ePKP                                     | 04 59 07   |      |     |      |       |
|       |     | LPB                      | ePKP                                     | 04 59 09   |      |     |      | 113.9 |
|       |     |                          | eL                                       | 27         |      |     |      |       |
| APR   | 07  | LPB                      | PKP                                      | 05 03 26.7 |      | 1.4 | 63   |       |
|       |     |                          | eG                                       | 38.4       |      |     |      |       |
|       |     |                          | eL                                       | 48.5       |      |     |      |       |
|       |     | PNS                      | PKP                                      | 05 03 28.1 | D    | 1.0 | 24   |       |
|       |     |                          | G  | 38.5       |      |     |      |       |
|       |     |                          | L  | 48.0       |      |     |      |       |
| APR   | 07  | LPB                      | P  | 05 12 56.2 |      |     |      |       |
| APR   | 07  | USCGS 06 16              | 24.9, 81.8N, 3.9W, h = 33 Km., m = 5.3   |            |      |     |      |       |
|       |     | N OF SVALBARD            |  |            |      |     |      |       |
|       |     | LPB                      | eP                                       | 05 34 25.5 |      |     |      | 103.0 |
|       |     | PNS                      | eP                                       | 05 34 26   |      |     |      |       |
| APR   | 07  | PNS                      | P  | 06 14 34.6 |      | 0.6 | 2    |       |
| APR   | 07  | LPB                      | eP                                       | 06 58 11.5 |      |     |      |       |
|       |     | PNS                      | P  | 06 58 16.1 |      | 0.9 | 5    |       |
| APR   | 07  | LPB                      | eP                                       | 07 13 05   |      | 0.8 | 6    |       |
|       |     | PNS                      | eP                                       | 07 13 05.7 |      |     |      |       |



| MONTH | DAY | STA         | PHASE  | TIME   | SIGN | PER        | AMPL     | DIST |  |
|-------|-----|-------------|--|--|------|------------|----------|------|--|
| APR   | 07  | PNS<br>LPB  | eP<br>e(P)   | 08 11 08.2<br>08 11 09.2                     |      |            |          |      |  |
| APR   | 07  | LPB<br>PNS  | eP<br>e(L)<br>eP   | 09 14 19.5<br>32<br>09 14 24.6               |      | 1.2        | 12       |      |  |
| APR   | 07  | LPB<br>PNS  | P<br>P   | 09 47 06.4<br>09 47 06.6                     |      | 0.9<br>0.7 | 8<br>5   |      |  |
| APR   | 07  | PNS         | P<br>S   | 10 34 07.7<br>41.3                           |      | 0.6        | 3        |      |  |
| APR   | 07  | PNS<br>LPB  | P<br>eS<br>eP<br>S   | 12 06 52.8<br>07 41<br>12 06 59.2<br>07 42.2 |      | 0.7        | 15       |      |  |
| APR   | 07  | PNS         | P  | 12 43 37.9                                   |      | 0.7        | 3        |      |  |
| APR   | 07  | PNS<br>LPB  | eP<br>eS<br>eP   | 13 09 04<br>48<br>13 09 06.6                 |      |            |          |      |  |
| APR   | 07  | USCGS 13 16 | 31.6, 11.2S, 79.3W, h = 14 Km., m = 4.5<br>OFF CST OF PERU |  |      |            |          |      |  |
|       |     | LPB         | eP<br>e<br>eL  | 13 19 25.5<br>35.2<br>24                     |      |            |          | 10.8 |  |
|       |     | PNS         | eP<br>iS<br>eL   | 13 19 26.1<br>21 05<br>23.2                  |      |            |          |      |  |
| APR   | 07  | PNS<br>LPB  | P<br>P   | 15 03 15.8<br>15 03 16.2                     |      | 1.0        | 10       |      |  |
| APR   | 07  | PNS         | eP   | 15 28 33                                     |      |            |          |      |  |
| APR   | 07  | PNS<br>LPB  | P<br>i<br>eP   | 15 37 15.3<br>32.4<br>15 36 19               |      | 0.5        | 2        |      |  |
| APR   | 07  | LPB<br>PNS  | eP<br>P  | 16 04 53.3<br>16 04 55.5                     |      | 0.9<br>0.7 | 54<br>16 |      |  |
| APR   | 07  | PNS         | P<br>S   | 17 10 39.4<br>11 02.6                        |      | 0.5        | 8        |      |  |
| APR   | 07  | PNS         | eP   | 17 44 44                                     |      |            |          |      |  |
| APR   | 07  | PNS         | eP   | 17 51 16.3                                   |      | 0.7        | 2        |      |  |
| APR   | 07  | PNS<br>LPB  | iP<br>S<br>eP  | 18 13 46.4<br>14 17<br>18 13 48              | C    | 0.5        | 4        |      |  |
| APR   | 07  | LPB         | P  | 19 18 07.2                                   |      |            |          |      |  |
| APR   | 07  | LPB         | P<br>eS  | 19 56 07<br>50.6                             |      | 0.5        | 10       |      |  |

| MON | DAY | STA         | PHASE   | TIME   | SIGN   | PER | AMPL | DIST  |  |
|-----|-----|-------------|---|--|--------|-----|------|-------|--|
| APR | 07  | PNS<br>LPB  | eP<br>P   | 21 02 55<br>21 02 58.3   |        |     |      |       |  |
| APR | 07  | LPB<br>PNS  | P<br>P  | 22 05 50.3<br>22 05 50.7   |        | 1.2 | 13   |       |  |
| APR | 07  | PNS<br>LPB  | P<br>eP   | 22 21 40.7<br>22 21 44.5   |        | 0.8 | 12   |       |  |
| APR | 07  | PNS         | P<br>S  | 23 15 51.3<br>16 14  |        | 0.5 | 4    |       |  |
| APR | 07  | LPB<br>PNS  | e(P)<br>P   | 23 26 51<br>23 26 53.0   |        |     |      |       |  |
| APR | 07  | LPB<br>PNS  | iP<br>iP  | 23 42 51.5<br>23 42 55.7   | C<br>C | 0.8 | 145  |       |  |
| APR | 07  | PNS         | P<br>S  | 23 44 46.3<br>45 09.8  |        | 0.6 | 3    |       |  |
| APR | 07  | PNS<br>LPB  | eP<br>i<br>pP<br>eS<br>eL<br>P<br>i<br>(PP)<br>eS<br>eL | 23 52.30<br>36.4<br>44.6<br>55 14<br>57.4<br>23 52 36<br>41<br>44.6<br>55 14<br>57.4 |        | 0.8 | 10   | 14.4  |  |
| APR | 08  | PNS<br>LPB  | eP<br>i<br>eL<br>eP<br>eL                               | 00 18 26.5<br>31.6<br>49<br>00 18 27<br>49   |        | 0.8 | 6    |       |  |
| APR | 08  | LPB         | eP  | 00 35 47   |        | 0.8 | 7    |       |  |
| APR | 08  | PNS<br>LPB  | eP<br>eP  | 00 39 25<br>00 39 25.5   |        |     |      |       |  |
| APR | 08  | PNS         | P<br>S  | 00 46 39.1<br>47 25  | C      | 0.7 | 20   |       |  |
| APR |     | USCGS 00 37 | 49.1, 9.4S, 158.6E, 33 Km., m = 4.7<br>SOLOMON IS       |  |        |     |      |       |  |
|     |     | PNS         | ePKP<br>eL  | 00 56 54.2<br>01 38.2  |        |     |      | 127.3 |  |
| APR | 08  | PNS         | eP  | 01 14 12.3   |        |     |      |       |  |
| APR | 08  | LPB<br>PNS  | e(P)<br>eP  | 01 40 56.5<br>01 40 59   |        |     |      |       |  |
| APR | 08  | LPB         | e(P)  | 02 51 10   |        | 0.7 | 16   |       |  |

| MONTH | DAY | STA                                | PHASE                                | TIME  | SIGN | PER | AMPL | DIST  |
|-------|-----|------------------------------------|--------------------------------------|---|------|-----|------|-------|
| APR   | 08  | LPB                                | P                                    | 02 50 53.4  |      | 1.0 | 8    |       |
| APR   | 08  | PNS<br>LPB                         | eP<br>iP                             | 04 02 50<br>04 02 53.3  | D    | 1.0 | 16   |       |
| APR   | 08  | PNS<br>LPB                         | eP<br>wP                             | 05 20 33.6<br>05 20 39.2  |      |     |      |       |
| APR   | 08  | LPB                                | P                                    | 06 10 20  |      | 0.8 | 9    |       |
| APR   | 08  | TRJ                                | iP<br>i                              | 08 00 00.2<br>30.3  | C    |     |      |       |
| APR   | 08  | TRJ<br>PNS<br>LPB                  | iP<br>eP<br>i<br>eS<br>eP<br>i<br>eS | 08 26 25.7<br>08 27 02.6<br>06.0<br>28 23.6<br>08 27 03<br>05.4<br>29                                 | C    |     |      |       |
| APR   | 08  | PNS<br>LPB<br>TRJ                  | eP<br>eP<br>eP                       | 10 01 21.7<br>10 01 33<br>10 01 41.2  |      |     |      |       |
| APR   | 08  | PNS<br>LPB                         | eP<br>eP                             | 11 01 22.4<br>11 01 26  |      | 1.0 | 12   |       |
| APR   | 08  | PNS<br>LPB                         | P<br>eP                              | 13 12 57.2<br>13 12 57.4  |      | 1.0 | 7    |       |
| APR   | 08  | PNS                                | P                                    | 13 44 05.7  |      |     |      |       |
| APR   | 08  | USCGS<br>S OF AFRICA<br>TRJ<br>LPB | PKP<br>ePKP<br>eL                    | 14 27 27.7, 53.5S, 24.9E, h = 36 Km., m = 5.1<br>14 38 54.9<br>14 39 30<br>15 05                      |      |     |      | 78.5  |
|       |     | PNS                                | P<br>L                               | 14 39 31.5<br>15 05.1   |      | 1.2 | 11   |       |
| APR   | 08  | PNS                                | P<br>S                               | 14 57 06.8<br>34.8  |      |     |      |       |
| APR   | 08  | USCGS<br>BANDA SEA<br>CCH          | PKP<br>i<br>ePKP<br>i<br>eL          | 14 50 16.7, 6.7S, 129.4E, h = 125 Km., m = 5.4<br>15 09 48.4<br>52.1<br>15 09 53.1<br>59.1<br>16 00.9 |      |     |      |       |
|       |     | LPB                                | PKP<br>eL                            | 15 09 58.8<br>16 01.8   |      | 1.0 | 54   | 150.7 |
| APR   | 08  | PNS                                | eP                                   | 16 36 58.4  |      |     |      |       |
| APR   | 08  | TRJ                                | P<br>i                               | 21 29 01.6<br>42.4  |      |     |      |       |
| APR   | 08  | PNS                                | P<br>i                               | 21 29 29.2<br>30 23.3   |      | 0.7 | 9    | 22    |

| MONTH | DAY | STA             | PHASE                                     | TIME   | SIGN | PER | AMPL | DIST  |
|-------|-----|-----------------|---|--|------|-----|------|-------|
| APR   | 08  | PNS             | eP  | 21 41 26.6   |      |     |      |       |
| APR   | 08  | USCGS 22 03     | 58.5, 16.9N, 145.6E, h = 153 Km., m = 4.3 |  |      |     |      |       |
|       |     | MARIANA ISLANDS |   |  |      |     |      |       |
|       |     | PNS             | ePKP                                      | 22 23 25.8   |      |     |      | 147.7 |
| APR   | 08  | PNS             | iP<br>iS                                  | 23 52 44.3<br>53 14.6                              |      |     |      |       |
| APR   | 09  | PNS             | eP  | 00 34 55   |      |     |      |       |
| APR   | 09  | PNS             | P<br>S                                    | 01 30 09.8<br>54.7                                 |      | 0.5 | 2    |       |
| APR   | 09  | TRJ<br>PNS      | P<br>eP<br>L                              | 01 38 07.5<br>01 38 53.7<br>45.9                   |      | 1.0 | 5    |       |
| APR   | 09  | USCGS 02 28     | 58.9, 33.1N, 116.1W, h = 20 Km., m = 6.1  |  |      |     |      |       |
|       |     | S CALIFORNIA    |   |  |      |     |      |       |
|       |     | PNS             | P<br>ePP<br>S<br>SS<br>eL                 | 02 39 53.9<br>42 27.6<br>48 55<br>50 07<br>03 00.8 | D    | 2.2 | 438  | 67.1  |
|       |     | LPZ             | P<br>eL                                   | 02 39 55<br>56.6                                   |      |     |      |       |
|       |     | TRJ             | P   | 02 40 31.3   | C    |     |      |       |
| APR   | 09  | PNS             | eP  | 03 08 22.6   |      |     |      |       |
| APR   | 09  | USCGS 03 03     | 55.4, 33.2N, 116.0W, h = 15 Km., m = 5.1  |  |      |     |      |       |
|       |     | S CALIFORNIA    |   |  |      |     |      |       |
|       |     | PNS             | P   | 03 14 50.5   |      | 1.8 | 34.0 | 67.1  |
|       |     | TRJ             | eP  | 03 15 25.2   |      |     |      |       |
| APR   | 09  | PNS             | iP<br>S                                   | 04 08 47.7<br>09 10.6                              | D    | 0.5 | 5.0  |       |
| APR   | 09  | TRJ<br>PNS      | P<br>P                                    | 04 36 37.8<br>04 37 41.5                           | C    |     |      |       |
| APR   | 09  | PNS             | eP  | 05 28 09   |      |     |      |       |
| APR   | 09  | PNS             | eP  | 06 23 56   |      |     |      |       |
| APR   | 09  | PNS             | eP  | 06 27 44.3   |      |     |      |       |
| APR   | 09  | TRJ             | P<br>i                                    | 07 56 05.8<br>35.5                                 | D    |     |      |       |
| APR   | 09  | PNS             | P   | 10 17 29.3   |      | 0.5 | 3    |       |
| APR   | 09  | PNS             | eP  | 11 29 10.3   |      | 0.8 | 4    |       |
| APR   | 09  | TRJ<br>PNS      | eP<br>eP<br>e                             | 11 56 16.7<br>11 56 24.9<br>50.4                   |      |     |      |       |

APRIL

| MONTH | DAY | STA               | PHASE  | TIME                | SIGN | PER | AMPL | DIST  |
|-------|-----|-------------------|--|---------------------|------|-----|------|-------|
| APR   | 09  | TRJ               | P  | 12 24 39.8          | C    |     |      |       |
|       |     | PNS               | eP   | 12 25 52            |      |     |      |       |
| APR   | 09  | USCGS             | 12 59 31.0, 21.9S, 67.4W, h = 193 Km., m = 3.9 |                     |      |     |      |       |
|       |     | CHILE             | BOLIVIA BOR REG                                |                     |      |     |      |       |
|       |     | TRJ               | 1P   | 13 00 16.7          | D    |     |      |       |
|       |     | PNS               | P  | 13 00 55.7          |      | 0.6 | 7    | 5.3   |
|       |     |                   | eS   | 01 58               |      |     |      |       |
| APR   | 09  | PNS               | eP   | 14 36 51.4          |      |     |      |       |
| APR   | 09  | PNS               | P  | 14 37 33.6          |      | 0.5 | 4    |       |
|       |     |                   | S  | 56                  |      |     |      |       |
| APR   | 09  | PNS               | P  | 15 57 56.6          |      | 0.5 | 3    |       |
|       |     |                   | S  | 58 31.4             |      |     |      |       |
| APR   | 09  | PNS               | P  | 16 12 39.3          |      |     |      |       |
| APR   | 09  | PNS               | eP   | 16 52 51            |      |     |      |       |
| APR   | 09  | PNS               | eP   | 17 19 56.6          |      |     |      |       |
|       |     |                   | S  | 21 20               |      |     |      |       |
|       |     | TRJ               | 1P   | 17 19 03.0          | C    |     |      |       |
| APR   | 09  | PNS               | P  | 20 14 43.7          |      | 0.8 | 3    |       |
| APR   | 09  | LPB               | eL   | 21 38               |      |     |      |       |
| APR   | 09  | PNS               | eP   | 21 37 33.9          |      |     |      |       |
|       |     | LPB               | eP   | 21 37 36.5          |      |     |      |       |
| APR   | 09  | PNS               | P  | 22 36 02.2          |      | 0.7 | 3    |       |
|       |     | LPB               | eP   | 22 36 02.5          |      |     |      |       |
|       |     |                   | eL   | 45.5                |      |     |      |       |
| APR   | 10  | USCGS             | 01 16 04.1, 8.3N, 58.9E, h = 33 Km., m = 4.9   |                     |      |     |      |       |
|       |     | CARLSBERG RIDGE   |  |                     |      |     |      |       |
|       |     | PNS               | ePKP   | 01 35 11.6          |      |     |      |       |
|       |     | LPB               | ePKP   | 01 35 11.8          |      |     |      | 127.5 |
|       |     |                   | eL   | 02 18               |      |     |      |       |
| APR   | 10  | USCGS             | 04 16 21.1, 25.7S, 70.7W, h = 33 Km., m = 4.3  |                     |      |     |      |       |
|       |     | NR CST OF N CHILE |  |                     |      |     |      |       |
|       |     | TRJ               | eP   | 04 18 04.1          |      |     |      |       |
|       |     | LPB               | eP   | 04 18 38.4          |      |     |      | 9.7   |
|       |     |                   | iPP  | 47.2                |      |     |      |       |
|       |     |                   | i  | 1 <sup>o</sup> 21.6 |      |     |      |       |
|       |     |                   | S  | 2 <sup>o</sup> 52.2 |      |     |      |       |
|       |     |                   | L  | 22                  |      |     |      |       |
|       |     | PNS               | eP   | 04 18 39.6          |      |     |      |       |
|       |     |                   | pP   | 47.0                |      |     |      |       |
|       |     |                   | eS   | 20 52               |      |     |      |       |
|       |     |                   | eL   | 21.7                |      |     |      |       |
| APR   | 10  | USCGS             | 04 25 40.9, 5.4S, 152.9E, h = 86 Km., m = 4.9  |                     |      |     |      |       |
|       |     | NEW BRITAIN REG   |  |                     |      |     |      |       |
|       |     | PNS               | ePKP   | 04 44 54            |      |     |      | 24    |

APRIL



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| MONTH | DAY | STA                       | PHASE  | TIME       | SIGN | PER | AMPL | DIST  |
|-------|-----|---------------------------|--|------------|------|-----|------|-------|
| APR   | 10  | PNS                       | P  | 04 55 45.3 |      |     |      |       |
|       |     |                           | S  | 56 15.6    |      |     |      |       |
| APR   | 10  | PNS                       | eP   | 06 55 05   |      |     |      |       |
|       |     | LPB                       | eP   | 06 55 07.5 |      |     |      |       |
|       |     | TRJ                       | eP   | 06 55 43.8 |      |     |      |       |
|       |     |                           | i  | 56 14.8    |      |     |      |       |
| APR   | 10  | LPB                       | eP   | 07 06 23.4 |      |     |      |       |
| APR   | 10  | PNS                       | eP   | 07 14 26.6 |      |     |      |       |
|       |     | LPB                       | eP   | 07 13 30   |      |     |      |       |
| APR   | 10  | LPB                       | e(P)   | 07 33 06   |      |     |      |       |
|       |     | PNS                       | eP   | 07 33 08   |      |     |      |       |
| APR   | 10  | TRJ                       | P  | 07 54 59.7 | C    |     |      |       |
| APR   | 10  | USCGS                     | 08 09 19.4, 5.6S, 152.1E, h = 33 Km., m = 5.0  |            |      |     |      |       |
|       |     | NEW BRITAIN REG           |  |            |      |     |      |       |
| APR   | 10  | PNS                       | ePKP   | 08 28 38.4 |      |     |      |       |
|       |     |                           | eL   | 09 14      |      |     |      |       |
|       |     | TRJ                       | ePKP   | 08 28 38.8 |      |     |      |       |
|       |     | LPB                       | ePKP   | 08 28 40.6 |      |     |      | 133.9 |
|       |     |                           | eL   | 09 13      |      |     |      |       |
| APR   | 10  | TRJ                       | P  | 08 30 03.4 |      |     |      |       |
|       |     | PNS                       | P  | 08 30 20.0 |      | 0.9 | 8    |       |
|       |     | LPB                       | P  | 08 30 20.2 |      | 0.8 | 9    |       |
|       |     |                           | i  | 55.1       |      |     |      |       |
| APR   | 10  | USCGS                     | 10 42 34.7, 31.7N, 117.0W, h = 15 Km., m = 4.8 |            |      |     |      |       |
|       |     | OFF W CST BAJA CALIFORNIA |  |            |      |     |      |       |
|       |     | PNS                       | eP   | 10 53 25.0 |      |     |      |       |
|       |     | LPB                       | P  | 10 53 27.5 |      |     |      | 66.9  |
|       |     |                           | i  | 37.5       |      |     |      |       |
| APR   | 10  | LPB                       | eP   | 13 44 42   |      |     |      |       |
|       |     | PNS                       | eP   | 13 44 44.2 |      |     |      |       |
| APR   | 10  | PNS                       | eP   | 13 45 10   |      |     |      |       |
| APR   | 10  | PNS                       | eP   | 14 19 04   |      |     |      |       |
|       |     | LPB                       | eP   | 14 19 07.7 |      |     |      |       |
| APR   | 10  | TRJ                       | P  | 14 31 32.7 |      |     |      |       |
|       |     |                           | i  | 32 10.2    |      |     |      |       |
| APR   | 10  | PNS                       | eP   | 14 46 20.6 |      |     |      |       |
| APR   | 10  | LPB                       | eP   | 15 19 33   |      |     |      |       |
|       |     | PNS                       | eP   | 15 19 33.6 |      |     |      |       |
| APR   | 10  | PNS                       | eP   | 15 22 10.5 |      |     |      |       |
| APR   | 10  | LPB                       | eP   | 16 36 49   |      |     |      |       |
|       |     | PNS                       | P  | 16 36 49.2 |      | 0.5 | 2    |       |
|       |     |                           | S  | 37 28.4    |      |     |      |       |

## APRIL

| MONTH | DAY | STA         | PHASE  | TIME                                     | SIGN | PER | AMPL | DIST  |
|-------|-----|-------------|--------|--|------|-----|------|-------|
| APR   | 10  | USCGS 16 41 |        | 41.8, 41.7S, 75.5W, h = 29 Km., m = 4.7  |      |     |      |       |
|       |     |             |        | OFF CST OF S CHILE                       |      |     |      |       |
| APR   | 10  | TRJ         | P      | 16 46 35.1                               |      |     |      |       |
|       |     | LPB         | P      | 16 47 13.7                               | 1.4  |     | 67   | 25.6  |
|       |     |             | eL     | 54.5                                     |      |     |      |       |
|       |     | PNS         | P      | 16 47 16.7                               | 1.2  |     | 26   |       |
|       |     |             | eS     | 51.40                                    |      |     |      |       |
|       |     |             | eL     | 54.3                                     |      |     |      |       |
| APR   | 10  | PNS         | eP     | 17 40 01                                 |      |     |      |       |
| APR   | 10  | PNS         | eP     | 18 24 47                                 |      |     |      |       |
|       |     | LPB         | e(PKP) | 18 24 48                                 |      |     |      |       |
|       |     |             | eL     | 19 01                                    |      |     |      |       |
| APR   | 10  | USCGS 18 32 |        | 09.6, 22.6S, 171.5E, h = 60 Km., m = 5.1 |      |     |      |       |
|       |     |             |        | LOYALTY IS REG                           |      |     |      |       |
|       |     | LPB         | (P)    | 18 46 32.5                               |      |     |      | 109.8 |
|       |     |             | eL     | 19 24                                    |      |     |      |       |
|       |     | PNS         | eL     | 19 24.1                                  |      |     |      |       |
| APR   | 10  | USCGS 19 11 |        | 59.8, 7.0S, 154.9E, h = 65 Km., m = 5.0  |      |     |      |       |
|       |     |             |        | SOLOMON IS                               |      |     |      |       |
|       |     | PNS         | PKP    | 19 31 08.7                               | 1.2  |     | 11   |       |
|       |     | LPB         | PKP    | 19 31 12.7                               | 1.0  |     | 18   | 131.4 |
|       |     |             | eL     | 20 41                                    |      |     |      |       |
| APR   | 10  | PNS         | eP     | 22 01 05.7                               | 0.9  |     | 5    |       |
|       |     | LPB         | eP     | 22 01 11.7                               |      |     |      |       |
| APR   | 10  | LPB         | eP     | 22 27 51.8                               |      |     |      |       |
|       |     | PNS         | eP     | 22 27 52                                 |      |     |      |       |
| APR   | 10  | USCGS 22 47 |        | 47.6, 8.5S, 146.7E, h = 163 Km., m = 5.1 |      |     |      |       |
|       |     |             |        | NEW GUINEA REG                           |      |     |      |       |
|       |     | PNS         | ePKP   | 23 06 48.6                               |      |     |      | 138.6 |
| APR   | 10  | PNS         | iP     | 23 49 28.2                               | D    | 0.4 | 4    |       |
|       |     |             | S      | 51.0                                     |      |     |      |       |
| APR   | 11  | USCGS 00 19 |        | 52.4, 4.0S, 127.6E, h = 56 Km., m = 5.4  |      |     |      |       |
|       |     |             |        | BANDA SEA                                |      |     |      |       |
|       |     | TRJ         | ePKP   | 00 39 38.8                               |      |     |      |       |
|       |     | LPB         | PKP    | 00 39 43                                 | 0.9  |     | 10   | 154.1 |
|       |     |             | pPKP   | 51.5                                     |      |     |      |       |
|       |     |             | PKPz   | 06.4                                     |      |     |      |       |
|       |     |             | e(L)   | 01 34                                    |      |     |      |       |
|       |     | PNS         | PKP    | 00 39 43.3                               | 0.9  |     | 50   |       |
|       |     |             | pPKP   | 51.4                                     |      |     |      |       |
|       |     |             | PKPz   | 40 06.4                                  |      |     |      |       |
| APR   | 11  | LPB         | eP     | 00 43 50                                 |      |     |      |       |
|       |     |             | eP     | 00 43 51                                 |      |     |      |       |

## APRIL

| MONTH | DAY | STA         | PHASE | TIME                                      | SIGN | PER | AMPL | DIST  |
|-------|-----|-------------|-------|---|------|-----|------|-------|
| APR   | 11  | USCGS 01 01 |       | 14.6, 14.6S, 71.0W, h = 41 Km., m = 4.4   |      |     |      |       |
|       |     |             |       | PERU                                      |      |     |      |       |
|       |     | PNS         | iP    | 01 02 28.0                                |      |     |      |       |
|       |     |             | eL    | 03.7                                      |      |     |      |       |
|       |     | LPB         | P     | 01 02 33.3                                |      | 0.9 | 68   | 3.2   |
|       |     |             | i     | 50.5                                      |      |     |      |       |
|       |     |             | eL    | 03.7                                      |      |     |      |       |
|       |     | TRJ         | iP    | 01 03 25.7                                |      |     |      |       |
| APR   | 11  | PNS         | eP    | 01 20 43                                  |      |     |      |       |
| APR   | 11  | USCGS 01 34 |       | 28.9, 18.0N, 145.7E, h = 185 Km., m = 5.0 |      |     |      |       |
|       |     |             |       | MARIANA IS                                |      |     |      |       |
|       |     | PNS         | PKP   | 01 53 51.9                                | C    | 1.0 | 10   |       |
|       |     |             | i     | 54.9                                      |      |     |      |       |
|       |     | LPB         | iPKP  | 01 53 52.2                                |      | 1.0 | 38   | 147.6 |
|       |     |             | i     | 55.7                                      |      |     |      |       |
|       |     | TRJ         | PKP   | 01 53 56.8                                |      |     |      |       |
|       |     |             | i     | 54 02.9                                   |      |     |      |       |
| APR   | 11  | LPB         | eP    | 02 27 09                                  |      |     |      |       |
|       |     |             | S     | 48.5                                      |      |     |      |       |
|       |     | PNS         | P     | 02 37 13.0                                |      |     |      |       |
|       |     |             | S     | 53.9                                      |      |     |      |       |
|       |     | TRJ         | P     | 02 37 11.8                                |      |     |      |       |
| APR   | 11  | TRJ         | eP    | 03 05 55.3                                |      |     |      |       |
|       |     |             | i     | 06 25.2                                   |      |     |      |       |
| APR   | 11  | USCGS 03 36 |       | 42.4, 5.8S, 107.9E, 302 Km., m = 4.7      |      |     |      |       |
|       |     |             |       | JAVA                                      |      |     |      |       |
|       |     | TRJ         | PKP   | 03 55 58.3                                |      |     |      |       |
|       |     |             | i     | 56 04.6                                   |      |     |      |       |
|       |     | PNS         | ePKP  | 03 56 05                                  |      | 1.0 | 4    |       |
|       |     |             | PKPz  | 40.6                                      |      |     |      |       |
|       |     | LPB         | ePKP  | 03 56 06                                  |      |     |      | 157.1 |
|       |     |             | ePKPz | 40  |      |     |      |       |
| APR   | 11  | TRJ         | P     | 05 11 05.9                                |      |     |      |       |
| APR   | 11  | LPB         | e(P)  | 05 31 44.2                                |      |     |      |       |
| APR   | 11  | PNS         | P     | 06 16 44.0                                |      | 1.2 | 13   |       |
|       |     | LPB         | P     | 06 16 44.2                                |      | 1.0 | 10   |       |
| APR   | 11  | TRJ         | iP    | 06 39 30.8                                | C    |     |      |       |
|       |     |             | i     | 59.0                                      |      |     |      |       |
| APR   | 11  | USCGS 06 46 |       | 27.4, 42.5N, 131.0E, h = 511 Km., m = 5.0 |      |     |      |       |
|       |     |             |       | E RUSSIA-N E CHINA BORDER REG             |      |     |      |       |
|       |     | PNS         | PKP   | 07 05 14.6                                |      | 1.0 | 3    |       |
|       |     |             | i     | 18.7                                      |      |     |      |       |
|       |     | LPB         | P     | 07 05 14.8                                |      | 1.0 | 10   | 149.1 |
|       |     |             | i     | 20.2                                      |      |     |      |       |
| APR   | 11  | LPB         | eP    | 07 33 21.5                                |      | 0.8 |      | 4     |



## APRIL

| MONTH | DAY | STA             | PHASE               | TIME   | SIGN | PER        | AMPL | DIST  |
|-------|-----|-----------------|---------------------|--|------|------------|------|-------|
| APR   | 11  | LPB             | e(P)                | 07 46 42.5                                   |      |            |      |       |
| APR   | 11  | PNS<br>LPB      | eP<br>eP            | 08 02 39<br>08 02 40.7                       |      |            |      |       |
| APR   | 11  | TRJ             | P<br>i              | 08 44 04<br>45 30.2                          |      |            |      |       |
| APR   | 11  | TRJ             | P                   | 08 51 55.2                                   | C    |            |      |       |
| APR   | 11  | LPB             | eP                  | 10 28 08.5                                   |      |            |      |       |
| APR   | 11  | LPB<br>PNS      | eP<br>P             | 11 31 51.5<br>11 31 55.4                     |      | 0.5        | 3    |       |
| APR   | 11  | USCGS 11 41     |                     | 42.7, 19.1S, 69.4W, h = 137 Km., m = 4.0     |      |            |      |       |
|       |     | LPB             | iP<br>S             | 11 42 28.8<br>43 04.4                        | C    | 0.7        | 146  | 3.6   |
|       |     | PNS             | iP<br>iS            | 11 42 30.6<br>43 06.9                        | C    |            |      |       |
| APR   | 11  | USCGS 11 35     |                     | 04.4, 11.6S, 166.2E, h = 45 Km., m = 4.6     |      |            |      |       |
|       |     | PNS             | ePKP                | 11 53 56.8                                   |      |            |      |       |
| APR   | 11  | PNS             | eP                  | 13 49 54                                     |      |            |      |       |
| APR   | 11  | LPB<br>S<br>PNS | eP<br>S<br>iP<br>iS | 14 55 33<br>56 16.2<br>14 55 35.9<br>56 17.6 |      | 0.6        | 10   |       |
| APR   | 11  | LPB<br>S<br>PNS | eP<br>S<br>P<br>eS  | 15 59 21<br>56.5<br>15 59 21.8<br>56         |      | 1.8<br>0.5 | 51   |       |
| APR   | 11  | USCGS 17 13     |                     | 40.5, 21.2S, 66.6W, h = 225 Km., m = 3.2     |      |            |      |       |
|       |     | TRJ             | iP                  | 15 14 18.8                                   | C    |            |      |       |
|       |     | LPB             | iP<br>iS            | 17 14 56<br>15 53                            | C    |            |      | 4.9   |
|       |     | PNS             | iP<br>S<br>SS       | 17 15 00.1<br>15 50<br>16 04                 | C    |            |      |       |
| APR   | 11  | PNS             | eP                  | 18 00 59.6                                   |      | 0.7        | 2    |       |
| APR   | 11  | USCGS 19 22     |                     | 15.7, 4.6S, 153.1E, h = 76 Km., m = 4.8      |      |            |      |       |
|       |     | PNS             | ePKP                | 19 41 30.8                                   |      |            |      | 133.6 |
| APR   | 11  | PNS             | P<br>S              | 19 43 03.3<br>27                             |      | 0.4        | 4    |       |
| APR   | 11  | PNS             | P                   | 20 13 40.4                                   |      | 0.6        | 3    | 28    |

## APRIL

| MONTH | DAY | STA                    | PHASE               | TIME   | SIGN | PER        | AMPL    | DIST  |
|-------|-----|------------------------|---------------------|--|------|------------|---------|-------|
| APR   | 11  | USCGS 20 40            |                     | 17.6, 4.8S, 145.0E, h = 116 Km., m = 4.7     |      |            |         |       |
|       |     | NR N CST OF NEW GUINEA |                     |  |      |            |         |       |
|       |     | LPB<br>PNS             | eP<br>ePKP          | 20 59 32.4<br>20 59 33.8                     |      |            |         | 140.4 |
| APR   | 11  | LPB                    | eP                  | 22 18 46                                     |      | 0.5        | 2       |       |
| APR   | 11  | LPB                    | eP                  | 22 39 34.5                                   |      | 0.7        | 11      |       |
| APR   | 12  | LPB                    | eP                  | 01 58 17.2                                   |      | 1.1        | 10      |       |
| APR   | 12  | LPB<br>PNS             | eP<br>P             | 02 36 20.5<br>02 36 23.5                     |      | 0.5        | 3       |       |
| APR   | 12  | LPB                    | e(P)<br>eL          | 02 45 43.2<br>03 37                          |      | 1.1        | 10      |       |
| APR   | 12  | PNS<br>LPB             | P<br>P              | 03 16 34.8<br>03 17 37                       |      | 0.5<br>0.5 | 8<br>10 |       |
| APR   | 12  | LPB                    | e(P)                | 03 53 53                                     |      | 0.6        | 4       |       |
| APR   | 12  | PNS<br>LPB             | eP<br>i<br>eP<br>i  | 04 43 51.4<br>55.2<br>04 43 52.3<br>55       |      |            |         |       |
| APR   | 12  | LPB<br>PNS             | eP<br>e<br>P<br>i   | 06 08 44.4<br>09 19<br>06 08 46.8<br>09 16   |      | 0.9        | 3       |       |
| APR   | 12  | LPB<br>PNS             | P<br>P              | 06 34 14.5<br>06 34 16.7                     |      | 0.4        | 5       |       |
| APR   | 12  | LPB<br>PNS             | P<br>eS<br>P<br>S   | 06 49 31.2<br>50 06.5<br>06 49 37.8<br>50 16 |      | 0.9<br>0.6 | 7<br>3  |       |
| APR   | 12  | LPB<br>PNS             | eP<br>iP<br>S       | 07 23 14<br>07 23 21.0<br>45.5               | D    | 0.4        | 10      |       |
| APR   | 12  | TRJ<br>LPB             | iP<br>eP<br>eS<br>P | 08 21 33.3<br>22 01.1<br>08 22 12.7<br>23 13 | C    | 0.6        | 10      |       |
|       |     | PNS                    | P<br>eS             | 08 22 17.1<br>57                             | C    | 0.4        | 4       |       |
| APR   | 12  | TRJ                    | iP                  | 10 52 58.9                                   | D    |            |         |       |
| APR   | 12  | LPB                    | P                   | 11 35 22.7                                   |      | 0.7        | 21      |       |
| APR   | 12  | USCGS 11 34            |                     | 57.1, 4.8N, 126.6E, h = 108 Km., m = 4.9     |      |            |         |       |
|       |     | TALAUD IS              |                     |  |      |            |         |       |
|       |     | PNS<br>LPB             | ePKP<br>ePKP        | 11 54 46.4<br>11 54 49                       |      |            |         | 160.8 |





| MONTH | DAY | STA  | PHASE | TIME       | SIGN | PER | AMPL | DIST |
|-------|-----|--|-------|------------|------|-----|------|------|
| APR   | 12  | LPB  | ePKP  | 13 18 27.6 |      |     |      | 162  |
|       |     | PNS  | ePKP  | 13 18 31.4 |      |     |      |      |
| APR   | 12  | PNS  | eP    | 13 19 25   |      | 0.8 | 4    |      |
| APR   | 12  | PNS  | eP    | 16 27 56   |      |     |      |      |
| APR   | 12  | LPB  | eP    | 18 28 45   |      |     |      |      |
|       |     | PNS  | eP    | 18 28 47.6 |      | 1.0 | 6    |      |
| APR   | 12  | LPB  | P     | 18 43 10.4 | D    | 1.0 | 40   |      |
|       |     |  | S     | 51.2       |      |     |      |      |
|       |     | PNS  | iP    | 18 43 15.0 | D    | 0.5 | 5    |      |
|       |     |  | S     | 58.8       |      |     |      |      |
| APR   | 12  | PNS  | eP    | 22 23 10   |      |     |      |      |
|       |     | LPB  | eP    | 22 23 14.5 |      |     |      |      |
| APR   | 12  | LPB  | eP    | 23 53 39   |      |     |      |      |
|       |     | PNS  | P     | 23 53 40.8 |      | 0.9 | 5    |      |
| APR   | 13  | LPB  | eP    | 00 01 01.8 |      | 0.8 | 13   |      |
|       |     | PNS  | eP    | 00 01 03.6 |      | 1.0 | 9    |      |
| APR   | 13  | PNS  | eP    | 01 01 42   |      |     |      |      |
|       |     | LPB  | P     | 01 01 44.6 |      |     |      |      |
| APR   | 13  | USCGS 01 15 32.3, 19.0N, 66.9N, h = 51 Km., m = 5.1<br>PUERTO RICO REG |       |            |      |     |      |      |
|       |     | PNS  | P     | 01 22 22.4 |      | 1.0 | 32   |      |
|       |     |  | eS    | 28 01      |      |     |      |      |
|       |     |  | SS    | 30 20      |      |     |      |      |
|       |     |  | eL    | 33         |      |     |      |      |
|       |     | LPB  | iP    | 01 22 25.2 | D    | 1.2 | 121  | 35   |
|       |     |  | eS    | 28 10      |      |     |      |      |
|       |     |  | eG    | 30 26      |      |     |      |      |
|       |     |  | eL    | 35         |      |     |      |      |
| APR   | 13  | PNS  | eP    | 02 02 03   |      | 1.0 | 5    |      |
|       |     |  | e     | 25         |      |     |      |      |
|       |     | LPB  | eP    | 02 02 04.5 |      |     |      |      |
| APR   | 13  | PNS  | eP    | 04 53 54   |      |     |      |      |
| APR   | 13  | LPB  | P     | 05 07 22.5 | D    | 0.7 | 17   |      |
| APR   | 13  | LPB  | eP    | 05 33 07   |      |     |      |      |
| APR   | 13  | LPB  | P     | 05 45 19.5 |      | 0.9 | 5    |      |
| APR   | 13  | LPB  | eP    | 05 54 51   |      |     |      |      |
|       |     | PNS  | eP    | 05 54 54   |      |     |      |      |
| APR   | 13  | LPB  | eP    | 06 04 26.4 |      |     |      |      |
| APR   | 13  | LPB  | eP    | 06 18 17.6 |      |     |      |      |
| APR   | 13  | LPB  | eP    | 07 46 52   |      |     |      |      |

| MONTH | DAY | STA  | PHASE | TIME       | SIGN | PER | AMPL | DIST  |
|-------|-----|--|-------|------------|------|-----|------|-------|
| APR   | 13  | PNS  | eP    | 08 09 10   |      |     |      |       |
| APR   | 13  | LPB  | P     | 08 27 07.7 |      | 0.8 | 6    |       |
|       |     |  | S     | 28 17      |      |     |      |       |
|       |     | PNS  | P     | 08 27 10.5 |      | 0.5 | 3    |       |
|       |     |  | eS    | 28 23.5    |      |     |      |       |
| APR   | 13  | LPB  | eP    | 09 46 41.6 |      |     |      |       |
|       |     |  | e     | 54.6       |      |     |      |       |
|       |     | PNS  | eP    | 09 46 41.6 |      |     |      |       |
| APR   | 13  | PNS  | P     | 09 59 30.8 |      |     |      |       |
| APR   | 13  | PNS  | eP    | 11 54 06   |      |     |      |       |
| APR   | 13  | PNS  | P     | 15 09 08.7 |      | 0.7 | 5    |       |
| APR   | 13  | LPB  | eP    | 16 02 43.4 |      |     |      |       |
|       |     | PNS  | eP    | 16 02 48   |      |     |      |       |
| APR   | 13  | PNS  | eP    | 16 33 27   |      |     |      |       |
| APR   | 13  | USCGS 17 33 11.0, 5.4S, 146.9E, h = 225 Km., m = 5.0<br>E NEW GUINEA REG       |       |            |      |     |      |       |
|       |     | PNS  | ePKP  | 17 52 11.6 |      |     |      |       |
|       |     |  | e     | 15.3       |      |     |      |       |
|       |     | LPB  | P     | 17 52 15   |      | 1.2 | 19   | 138.7 |
| APR   | 13  | USCGS 18 28 34.4, 7.3N, 126.6E, h = 123 Km., m = 5.0<br>MINDANO, PHILIPPINE IS |       |            |      |     |      |       |
|       |     | LPB  | eP    | 18 48 21   |      |     |      | 163.0 |
|       |     | PNS  | PKP   | 18 48 25   |      | 1.2 | 11   |       |
|       |     |  | PKPz  | 49 11.4    |      |     |      |       |
| APR   | 13  | PNS  | P     | 19 36 09.7 |      | 0.7 | 4    |       |
| APR   | 13  | USCGS 21 16 10.7, 5.1S, 144.1E, h = 94 Km., m = 5.0<br>NEW GUINEA              |       |            |      |     |      |       |
|       |     | PNS  | ePKP  | 21 35 30.6 |      |     |      |       |
|       |     | LPB  | eP    | 21 35 33.5 |      | 1.0 | 10   | 141.0 |
| APR   | 13  | PNS  | eP    | 23 13 56   |      |     |      |       |
| APR   | 13  | PNS  | P     | 23 38 51.9 |      | 0.5 | 2    |       |
|       |     | LPB  | eP    | 23 38 52   |      |     |      |       |
| APR   | 14  | LPB  | e(P)  | 00 08 56   |      |     |      |       |
|       |     | PNS  | eP    | 00 08 58   |      |     |      |       |
| APR   | 14  | LPB  | e(P)  | 01 11 50   |      |     |      |       |
|       |     | PNS  | eP    | 01 11 53   |      |     |      |       |
| APR   | 14  | PNS  | P     | 01 24 15.8 |      | 0.6 | 5    |       |
|       |     |  | S     | 25 12.5    |      |     |      |       |
|       |     | LPB  | P     | 01 24 21.5 |      | 1.0 | 10   |       |
| APR   | 14  | LPB  | P     | 01 51 30.7 |      | 0.7 | 7    |       |



| MONTH | DAY | STA  | PHASE | TIME       | SIGN | PER | AMPL | DIST  | MONTH | DAY | STA  | PHASE | TIME       | SIGN | PER | AMPL | DIST |       |    |
|-------|-----|--|-------|------------|------|-----|------|-------|-------|-----|--|-------|------------|------|-----|------|------|-------|----|
| APR   | 14  | LPB  | eP    | 01 57 38.4 |      |     |      |       | APR   | 14  | PNS  | eP    | 14 18 16   |      |     |      |      |       |    |
| APR   | 14  | LPB  | P     | 02 13 35   |      | 0.7 | 4    |       | APR   | 14  | LPR  | eP    | 14 18 17   |      |     |      |      |       |    |
|       |     | PNS  | P     | 02 13 36   |      |     |      |       | APR   | 14  | USCGS 14 24 55.3, 6.8N, 73.0W, h = 161 Km., m = 5.0<br>N COLOMBIA  |       |            |      |     |      |      |       |    |
| APR   | 14  | LPB  | eP    | 02 52 40.7 |      |     |      |       | APR   | 14  | PNS  | P     | 14 29 51.0 |      |     |      | C    |       |    |
| APR   | 14  | LPB  | P     | 03 20 50.5 |      |     |      |       |       |     |  | S     | 33 52.0    |      |     |      |      |       |    |
|       |     | PNS  | P     | 03 29 54.9 |      |     |      |       |       |     |  | SS    | 34 54.0    |      |     |      |      |       |    |
| APR   | 14  | PNS  | P     | 04 02 25.2 |      | 0.8 | 4    |       | APR   | 14  | LPR  | P     | 14 29 53.9 |      |     |      | C    |       |    |
|       |     | LPB  | P     | 04 02 28   |      |     |      |       |       |     |  | S     | 33 57.4    |      | 0.7 | 210  | 23.4 |       |    |
| APR   | 14  | PNS  | P     | 04 58 37.5 |      | 0.5 | 2    |       |       |     |  | SS    | 35 02      |      |     |      |      |       |    |
|       |     | LPB  | eP    | 04 58 39.5 |      |     |      |       |       |     |  | eL    | 37         |      |     |      |      |       |    |
| APR   | 14  | PNS  | eP    | 05 13 43   |      |     |      |       | APR   | 14  | LPB  | eP    | 15 02 52   |      |     |      |      |       |    |
|       |     | LPB  | e(P)  | 05 13 45.5 |      |     |      |       |       |     | PNS  | eP    | 02 53.4    |      |     |      |      |       |    |
| APR   | 14  | LPB  | e(P)  | 05 57 52   |      |     |      |       | APR   | 14  | PNS  | eP    | 04 45      |      |     |      |      |       |    |
| APR   | 14  | LPB  | e(P)  | 06 51 52.2 |      |     |      |       | APR   | 14  | LPB  | eP    | 16 04 37   |      |     |      | 0.9  | 18    |    |
| APR   | 14  | PNS  | P     | 07 32 34.0 |      | 0.4 | 2    |       | APR   | 14  | PNS  | iP    | 16 16 24.7 |      |     |      |      | D     |    |
|       |     | LPB  | eP    | 07 32 35.6 |      |     |      |       |       |     |  | iS    | 50.0       |      |     |      |      |       |    |
| APR   | 14  | LPB  | eP    | 07 38 47   |      |     |      |       |       |     | LPR  | eP    | 16 16 25.7 |      |     |      | 0.7  | 13    |    |
|       |     | PNS  | eP    | 07 38 56.4 |      |     |      |       | APR   | 14  | LPR  | P     | 16 45 53.2 |      |     |      |      |       |    |
|       |     | S  |       | 39 21.5    |      |     |      |       |       |     | PNS  | P     | 16 45 57.4 |      |     |      | 0.6  | 3     |    |
| APR   | 14  | USCGS 08 37 12.2, 23.4N, 141.4E, h = 44 Km., m = 5.4<br>OFF E CST HONSHU           |       |            |      |     |      |       | APR   | 14  | PNS  | eP    | 17 47 54   |      |     |      |      |       |    |
|       |     | PNS  | PKP   | 08 56 54.4 |      | 0.9 | 37   |       | APR   | 14  | PNS  | eP    | 18 25 22.7 |      |     |      |      |       |    |
|       |     | LPB  | PKP   | 08 56 55   |      | 0.9 | 144  |       | APR   | 14  | PNS  | eP    | 21 34 07.8 |      |     |      |      |       |    |
|       |     |  | i     | 57.6       |      |     |      |       |       |     |  | i     | 14.2       |      |     |      |      |       |    |
|       |     |  | eL    | 58.5       |      |     |      | 148.5 |       |     | LPB  | eP    | 21 34 08.6 |      |     |      |      |       |    |
|       |     |  |       | 09 48      |      |     |      |       |       |     |  | e     | 21         |      |     |      |      |       |    |
| APR   | 14  | PNS  | eP    | 10 24 58   |      | 0.7 | 2    |       | APR   | 14  | LPR  | P     | 22 46 11.4 |      |     |      | D    | 0.5   | 10 |
|       |     | LPB  | eP    | 10 24 59   |      |     |      |       |       |     |  | S     | 20.5       |      |     |      |      |       |    |
| APR   | 14  | LPB  | P     | 10 28 10.3 |      | 0.7 | 21   |       | APR   | 15  | LPB  | eP    | 01 57 17.5 |      |     |      |      |       |    |
|       |     |  | S     | 29 33.5    |      |     |      |       |       |     | PNS  | P     | 01 57 20   |      |     |      |      |       |    |
|       |     | PNS  | iP    | 10 28 14.1 |      |     |      |       | APR   | 15  | LPB  | e(P)  | 02 59 21   |      |     |      |      |       |    |
|       |     |  | S     | 29 40.6    |      |     |      |       | APR   | 15  | PNS  | eP    | 03 17 04.8 |      |     |      |      |       |    |
| APR   | 14  | USCGS 12 55 58.4, 33.2N, 116.2W, h = 14 Km., m = 4.6<br>S CALIFORNIA               |       |            |      |     |      |       | APR   | 15  | LPB  | eP    | 03 17 06.5 |      |     |      |      |       |    |
|       |     | PNS  | eP    | 13 06 52   |      |     |      | 67.1  | APR   | 15  | USCGS 03 08 34.7, 6.1S, 154.9E, h = 189 Km., m = 4.9<br>SOLOMON IS |       |            |      |     |      |      |       |    |
| APR   | 14  | USCGS 13 05 08.0, 33.4N, 141.4E, h = 41 Km., m = 5.4<br>OFF E CST OF HONSHU, JAPAN |       |            |      |     |      |       | APR   | 15  | PNS  | ePKP  | 03 27 28.4 |      |     |      |      |       |    |
|       |     | PNS  | PKP   | 13 24 50.8 |      | 1.2 | 56   |       |       |     | LPB  | ePKP  | 03 27 30   |      |     |      |      | 131.4 |    |
|       |     |  | i     | 53.6       |      |     |      |       | APR   | 15  | LPR  | e(P)  | 05 41 32.7 |      |     |      |      |       |    |
|       |     |  | eL    | 14 14.9    |      |     |      |       |       |     | PNS  | eP    | 05 41 43   |      |     |      |      |       |    |
|       |     | LPB  | PKP   | 13 24 51.1 |      | 1.0 | 8    | 148.5 | APR   | 15  | LPR  | eP    | 07 42 16   |      |     |      |      |       |    |
|       |     |  | i     | 54.4       |      |     |      |       |       |     | PNS  | eP    | 07 42 22.5 |      |     |      |      |       |    |
|       |     |  | eI    | 14 15      |      |     |      | 32'   |       |     |  |       |            |      |     |      |      |       |    |

## APRIL

| MONTH | DAY | STA         | PHASE                                    | TIME       | SIGN | PER | AMPL | DIS   |
|-------|-----|-------------|--|------------|------|-----|------|-------|
| APR   | 15  | USCGS 07 47 | 40.3, 5.8S, 80.9W, h = 35 Km., m = 4.9   |            |      |     |      |       |
|       |     |             | NR CST OF N PERU                         |            |      |     |      |       |
|       |     | PNS         | P  | 07 51 27.6 |      | 0.8 | 22   |       |
|       |     |             | eS                                       | 54 43      |      |     |      |       |
|       |     |             | eL                                       | 56.3       |      |     |      |       |
|       |     | LPB         | P  | 07 51 31.7 |      | 0.8 | 67   | 16.0  |
|       |     |             | S  | 54 47      |      |     |      |       |
|       |     |             | eL                                       | 57         |      |     |      |       |
| APR   | 15  | LPB         | P  | 08 51 26.7 | C    | 0.8 | 31   |       |
|       |     | PNS         | iP                                       | 08 51 30.6 | C    | 0.8 | 13   |       |
| APR   | 15  | LPB         | e(P)                                     | 11 03 05.5 |      |     |      |       |
| APR   | 15  | LPR         | eP                                       | 12 17 08   |      |     |      |       |
|       |     | PNS         | P  | 12 17 08.4 |      | 0.7 | 5    |       |
| APR   | 15  | USCGS 13 00 | 27.9, 58.6S, 25.2W, h = 33 Km., m = 4.8  |            |      |     |      |       |
|       |     |             | S SANDWICH ISLAND REG                    |            |      |     |      |       |
|       |     | LPB         | eP                                       | 13 09 40   |      |     |      | 52.1  |
|       |     | PNS         | P  | 13 09 42.6 |      | 0.7 | 7    |       |
| APR   | 15  | USCGS 13 15 | 48.8, 6.7N, 82.2W, h = 39 Km., m = 4.4   |            |      |     |      |       |
|       |     |             | S OF PANAMA                              |            |      |     |      |       |
|       |     | LPR         | eP                                       | 13 21 16   |      |     |      | 27.0  |
|       |     |             | eL                                       | 29.5       |      |     |      |       |
|       |     | PNS         | eP                                       | 13 21 25   |      |     |      |       |
|       |     |             | eL                                       | 30         |      |     |      |       |
| APR   | 15  | LPB         | iP                                       | 15 50 27.2 | D    | 0.8 | 52   |       |
|       |     | PNS         | iP                                       | 15 50 27.4 | D    |     |      |       |
| APR   | 15  | USCGS 17 25 | 07.8, 53.5N, 159.7E, h = 33 Km., m = 4.7 |            |      |     |      |       |
|       |     |             | NR FCST OF KAMCHATKA                     |            |      |     |      |       |
|       |     | PNS         | ePKP                                     | 17 44 13   |      |     |      | 127.7 |
|       |     | LPR         | ePKP                                     | 17 44 14.5 |      |     |      |       |
| APR   | 15  | PNS         | eP                                       | 21 39 55.4 |      |     |      |       |
|       |     |             | eL                                       | 54.9       |      |     |      |       |
|       |     | LPB         | eP                                       | 21 39 56.7 |      |     |      |       |
|       |     |             | eL                                       | 57         |      |     |      |       |
| APR   | 15  | LPB         | P  | 23 59 54.3 |      | 0.7 | 6    |       |
| APR   | 16  | LPR         | eP                                       | 00 24 44   |      |     |      |       |
|       |     | PNS         | P  | 00 24 49.8 |      | 0.9 | 5    |       |
| APR   | 16  | LPR         | eP                                       | 00 47 33   |      |     |      |       |
|       |     | PNS         | eP                                       | 00 47 33.4 |      |     |      |       |
|       |     |             | e  | 48 10.7    |      |     |      |       |
| APR   | 16  | PNS         | eP                                       | 01 18 46.2 |      |     |      |       |
| APR   | 16  | PNS         | P  | 01 33 46.2 |      |     |      |       |
|       |     |             | S  | 34 08.5    |      |     |      |       |
| APR   | 16  | LPB         | eP                                       | 01 40 38.5 |      |     |      |       |
|       |     | PNS         | P  | 01 40 41.0 |      |     |      |       |
|       |     |             | S  | 41 03      |      |     |      |       |

## APRIL

| MONTH | DAY | STA         | PHASE                                    | TIME       | SIGN | PER | AMPL | DIS   |
|-------|-----|-------------|--|------------|------|-----|------|-------|
| APR   | 16  | LPB         | eP                                       | 02 04 50   |      |     |      |       |
|       |     | PNS         | eP                                       | 02 04 52   |      |     |      |       |
| APR   | 16  | PNS         | P  | 02 19 59.0 |      | 0.6 | 3    |       |
|       |     |             | S  | 20 22.5    |      |     |      |       |
|       |     | LPB         | P  | 02 19 59   |      |     |      |       |
|       |     |             | S  | 20 25      |      |     |      |       |
| APR   | 16  | LPB         | iP                                       | 03 13 12   |      | 1.0 | 22   |       |
|       |     | PNS         | P  | 03 13 16.0 |      | 0.5 | 3    |       |
|       |     |             | S  | 14 14      |      |     |      |       |
| APR   | 16  | USCGS 03 30 | 26.2, 32.7N, 115.9W, h = 16 Km., m = 4.4 |            |      |     |      |       |
|       |     |             | CALIFORNIA MEXICO BOR REG                |            |      |     |      |       |
|       |     | PNS         | eP                                       | 03 41 15.6 |      |     |      | 66.6  |
| APR   | 16  | LPB         | e(P)                                     | 02 42 19.5 |      |     |      |       |
|       |     |             | eL                                       | 04 15      |      |     |      |       |
|       |     | PNS         | eL                                       | 04 15.2    |      |     |      |       |
| APR   | 16  | LPB         | eP                                       | 04 14 30.5 |      | 1.0 | 6    |       |
| APR   | 16  | LPB         | eP                                       | 04 24 32   |      |     |      |       |
|       |     |             | eL                                       | 05 14      |      |     |      |       |
|       |     | PNS         | eP                                       | 04 24 34   |      |     |      |       |
|       |     |             | eL                                       | 05 13.8    |      |     |      |       |
| APR   | 16  | PNS         | eP                                       | 04 29 41   |      |     |      |       |
|       |     | LPB         | P  | 04 29 41.6 |      | 0.8 | 4    |       |
| APR   | 16  | USCGS 04 36 | 35.0, 5.5S, 68.5E, h = 33 Km., m = 4.5   |            |      |     |      |       |
|       |     |             | CHAGOS ARCHIPIELAGO REG                  |            |      |     |      |       |
|       |     | PNS         | ePKP                                     | 04 55 46   |      |     |      |       |
|       |     |             | eL                                       | 05 39.1    |      |     |      |       |
|       |     | LPB         | ePKP                                     | 04 55 46.8 |      |     |      | 131.4 |
|       |     |             | eL                                       | 05 37      |      |     |      |       |
| APR   | 16  | PNS         | eP                                       | 05 07 01.7 |      |     |      |       |
| APR   | 16  | PNS         | P  | 05 48 15.3 |      |     |      |       |
|       |     | LPB         | eP                                       | 05 48 09.5 |      |     |      |       |
| APR   | 16  | PNS         | eP                                       | 06 09 32.4 |      |     |      |       |
|       |     |             | eL                                       | 34.9       |      |     |      |       |
|       |     | LPB         | eP                                       | 06 09 37.6 |      | 1.0 | 6    |       |
|       |     |             | eL                                       | 35         |      |     |      |       |
| APR   | 16  | LPB         | eP                                       | 06 46 10   |      |     |      |       |
| APR   | 16  | PNS         | P  | 07 25 37.3 |      |     |      |       |
|       |     | LPB         | eP                                       | 07 25 40   |      |     |      |       |
| APR   | 16  | LPB         | eP                                       | 08 47 44   |      |     |      |       |
|       |     | PNS         | eP                                       | 08 47 47.2 |      |     |      |       |
| APR   | 16  | PNS         | iP                                       | 09 49 32.5 | C    | 0.6 | 7    |       |
|       |     |             | S  | 50 16.9    |      |     |      |       |
|       |     | LPB         | eP                                       | 09 49 33   |      | 0.9 | 12   |       |

| MONTH | DAY | STA   | PHASE                      | TIME   | SIGN | PER | AMPL | DIST |  |
|-------|-----|---|----------------------------|--|------|-----|------|------|--|
| APR   | 16  | LPB<br>PNS  | eI<br>eL                   | 09 51<br>09 51.2                             |      |     |      |      |  |
| APR   | 16  | PNS<br>LPB  | iP<br>iS<br>P<br>S         | 09 51 21.8<br>44.4<br>09 51 23.7<br>50       | C    | 0.4 | 7    |      |  |
| APR   | 16  | PNS<br>LPB  | eP<br>eP                   | 10 54 30.6<br>10 54 34                       |      |     |      |      |  |
| APR   | 16  | PNS   | eP                         | 11 12 57                                     |      |     |      |      |  |
| APR   | 16  | PNS   | eP                         | 11 28 50.4                                   |      | 1.0 | 4    |      |  |
| APR   | 16  | PNS<br>LPB  | P<br>eP                    | 12 13 25.9<br>12 13 27                       |      | 0.9 | 5    |      |  |
| APR   | 16  | PNS<br>LPB  | eP<br>S<br>P               | 13 15 56.3<br>16 21.4<br>13 16 06            |      | 0.9 | 29   |      |  |
| APR   | 16  | LPB<br>PNS  | e(PKP)<br>eL<br>ePKP<br>eL | 13 24 44<br>14 10<br>13 24 46.8<br>14 11.0   |      |     |      | 136. |  |
| APR   | 16  | LPB   | e(P)                       | 13 55 50                                     |      |     |      |      |  |
| APR   | 16  | LPB<br>PNS  | P<br>S<br>iP<br>S          | 14 03 50.7<br>28.4<br>14 03 55.4<br>04 35    |      | 1.0 | 24   |      |  |
| APR   | 16  | USCGS 13 58 40.3, 5.1S, 68.4E, h = 53 Km., m = 5.2<br>CHAGOS ARCHIPIELAGO REG |                            |  |      |     |      |      |  |
|       |     | LPB   | ePKP                       | 14 17 55                                     |      | 1.0 | 14   | 131. |  |
|       |     | PNS   | eI<br>PKP<br>eL            | 15 03.4<br>14 17 55.7<br>15 01.7             |      | 1.3 | 11   |      |  |
| APR   | 16  | PNS   | eP                         | 16 04 51                                     |      |     |      |      |  |
| APR   | 16  | PNS   | eP                         | 16 35 13.4                                   |      |     |      |      |  |
| APR   | 16  | LPB<br>PNS  | eP<br>P                    | 17 55 13.5<br>17 55 17                       |      | 1.0 | 5    |      |  |
| APR   | 16  | LPB<br>PNS  | eP<br>P                    | 17 56 27.5<br>17 56 31.0                     |      | 0.4 | 4    |      |  |
| APR   | 16  | PNS   | P                          | 18 03 05.7                                   |      | 0.8 | 4    |      |  |
| APR   | 16  | PNS   | P                          | 19 17 04.9                                   |      |     |      |      |  |
| APR   | 16  | LPB<br>PNS  | P<br>S<br>iP<br>S          | 19 50 41<br>51 08.2<br>19 50 41.1<br>51 03.6 |      | 0.8 | 19   |      |  |

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| MONTH | DAY | STA  | PHASE              | TIME   | SIGN | PER | AMPL | DIST |  |
|-------|-----|--|--------------------|--|------|-----|------|------|--|
| APR   | 16  | PNS  | eP<br>e            | 21 05 55.6<br>06 11                                    |      |     |      |      |  |
| APR   | 16  | LPB<br>PNS   | iP<br>S<br>iP<br>S | 21 06 54.6<br>07 20.6<br>21 06 54.6<br>07 18           | D    | 0.9 | 76   |      |  |
| APR   | 16  | LPB<br>PNS   | eP<br>eP           | 21 58 30<br>21 58 34.3                                 |      |     |      |      |  |
| APR   | 16  | PNS  | eP<br>i            | 23 35 05<br>18.0                                       |      |     |      |      |  |
| APR   | 16  | LPB  | eP                 | 23 35 09   |      |     |      |      |  |
| APR   | 16  | LPB<br>PNS   | PKP<br>eL<br>P     | 23 47 52<br>24 43<br>23 47 53                          |      | 1.0 | 10   |      |  |
| APR   | 17  | PNS  | eL                 | 00 57.2  |      | 0.8 | 4    |      |  |
| APR   | 17  | LPB  | e(P)<br>eL         | 02 26 12.5<br>03 03                                    |      | 1.1 | 12   |      |  |
| APR   | 17  | LPB  | P                  | 03 35 27.7   |      | 0.6 | 13   |      |  |
| APR   | 17  | LPB  | e(P)               | 05 55 02   |      | 0.9 | 14   |      |  |
| APR   | 17  | PNS  | eP<br>i<br>i<br>i  | 06 23 54.7<br>59.8<br>24 21.0<br>06 23 56.2<br>24 35.6 |      |     |      |      |  |
| APR   | 17  | USCGS 06 54 19.6, 5.6S, 77.1W, h = 36 Km., m = 4.9<br>N PERU               |                    |  |      |     |      |      |  |
|       |     | PNS  | P<br>PP<br>eL      | 06 57 31.7<br>43.8<br>01.9                             |      | 1.3 | 23   |      |  |
|       |     | LPB  | P<br>PP<br>eL      | 06 57 35.4<br>45.5<br>07 02.5                          |      | 1.0 | 38   | 13.5 |  |
| APR   | 17  | LPB<br>PNS   | P<br>eP            | 08 44 35.5<br>08 44 36.4                               |      | 0.6 | 4    |      |  |
| APR   | 17  | USCGS 09 12 04.3, 35.2N, 3.7W, h = 16 Km., m = 5.0<br>STRAITS OF GIBRALTER |                    |  |      |     |      |      |  |
|       |     | LPB  | P<br>eL            | 09 24 12.5<br>49                                       |      | 1.3 | 11   | 79.4 |  |
|       |     | PNS  | P<br>eL            | 09 24 15<br>50.3                                       |      | 1.2 | 10   |      |  |
| APR   | 17  | LPB<br>PNS   | eP<br>eS<br>P<br>S | 10 51 36.5<br>52 07<br>10 51 40.2<br>52 08             |      | 0.5 | 2    |      |  |
| APR   | 17  | PNS  | eP                 |  |      |     |      |      |  |

APRIL

| MONTH | DAY | STA  | PHASE | TIME       | SIGN | PER | AMPL | DIST  |  |
|-------|-----|--|-------|------------|------|-----|------|-------|--|
| APR   | 17  | LPB  | P     | 11 57 47.7 |      | 0.9 | 27   |       |  |
|       |     |  | i     | 58 00.2    |      |     |      |       |  |
|       |     | PNS  | eP    | 11 57 49.7 |      | 0.8 | 17   |       |  |
| APR   | 17  | USCGS 11 51 17.8, 5.1S, 68.4E, h = 33 Km., m = 5.0<br>CHAGOS ARCHIPELAGO REG     |       |            |      |     |      |       |  |
|       |     | LPB  | ePKP  | 12 10 32   |      |     |      |       |  |
|       |     |  | eL    | 12 53.8    |      |     |      |       |  |
|       |     | PNS  | ePKP  | 12 10 32   |      |     |      |       |  |
| APR   | 17  | USCGS 12 12 54.2, 6.1S, 147.8E, h = 78 Km<br>EAST NEW GUINEA REGION              |       |            |      |     |      |       |  |
|       |     | PNS  | ePKP  | 12 32 02.6 |      |     |      | 137.7 |  |
| APR   | 17  | PNS  | P     | 12 35 44.0 |      | 1.0 | 5    |       |  |
|       |     | LPB  | eP    | 12 35 44.5 |      |     |      |       |  |
| APR   | 17  | USCGS 12 35 10.0, 4.9S, 68.2E, 33 Km., m = 4.7<br>CHAGOS ARCHIPELAGO REG         |       |            |      |     |      |       |  |
|       |     | LPB  | ePKP  | 12 54 24   |      |     |      | 131.5 |  |
|       |     |  | eL    | 13 38      |      |     |      |       |  |
|       |     | PNS  | ePKP  | 12 54 25   |      |     |      |       |  |
|       |     |  | eL    | 13 37.2    |      |     |      |       |  |
| APR   | 17  | LPB  | eP    | 13 20 45   |      |     |      |       |  |
|       |     | PNS  | eP    | 13 20 51.8 |      |     |      |       |  |
| APR   | 17  | LPB  | eP    | 13 27 09   |      |     |      |       |  |
|       |     | PNS  | P     | 13 27 10.6 |      |     |      |       |  |
| APR   | 17  | USCGS 13 11 26.2, 36.4N, 71.5E, h = 113 Km., m = 5.2<br>AFGHANISTAN USSR BOR REG |       |            |      |     |      |       |  |
|       |     | LPB  | ePKP  | 13 30 40   |      |     |      | 139.5 |  |
|       |     | PNS  | ePKP  | 13 30 42   |      |     |      |       |  |
|       |     |  | eL    | 14 17.8    |      |     |      |       |  |
| APR   | 17  | LPB  | eP    | 13 31 56.5 |      |     |      |       |  |
|       |     | PNS  | iP    | 13 31 59.6 | D    | 0.4 | 6    |       |  |
|       |     |  | S     | 32 24.6    |      |     |      |       |  |
| APR   | 17  | PNS  | eP    | 13 46 02.1 |      |     |      |       |  |
|       |     | LPB  | eP    | 13 46 05   |      |     |      |       |  |
| APR   | 17  | PNS  | P     | 15 17 12.4 |      | 0.5 | 2    |       |  |
|       |     |  | S     | 44.7       |      |     |      |       |  |
| APR   | 17  | USCGS 15 11 40.5, 13.1N, 120.7E, h = 55 Km., m = 4.7<br>MINDORO, PHILIPINE IS    |       |            |      |     |      |       |  |
|       |     | ePKP   | PNS   | 15 31 49.2 |      |     |      | 171.0 |  |
| APR   | 17  | LPB  | P     | 17 04 36.7 | C    | 0.7 | 50   |       |  |
| APR   | 17  | LPB  | eP    | 17 23 29   |      |     |      |       |  |
| APR   | 17  | LPB  | e(P)  | 17 52 20   |      |     |      | 38    |  |

APRIL

| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL | DIST  |  |
|-------|-----|---|-------|------------|------|-----|------|-------|--|
| APR   | 17  | LPB   | eP    | 18 35 41   |      |     |      |       |  |
|       |     | PNS   | P     | 18 35 41.7 |      | 0.5 | 3    |       |  |
|       |     |   | S     | 36 43      |      |     |      |       |  |
| APR   | 17  | LPB   | eP    | 23 40 30   |      |     |      |       |  |
|       |     | PNS   | P     | 23 40 32.3 |      | 0.5 | 3    |       |  |
|       |     |   | S     | 54         |      |     |      |       |  |
| APR   | 18  | LPB   | P     | 00 01 38.7 |      | 0.8 | 22   |       |  |
|       |     |   | eS    | 03 05.4    |      |     |      |       |  |
|       |     | PNS   | P     | 00 01 42.0 | C    | 0.5 | 7    |       |  |
|       |     |   | S     | 03 09.3    |      |     |      |       |  |
| APR   | 18  | LPB   | P     | 02 24 54   |      | 0.9 | 19   |       |  |
| APR   | 18  | USCGS 04 40 38.7, 12.5N, 88.6W, h = 54 Km., m = 4.9<br>OFF CST OF CENTRAL AMERICA |       |            |      |     |      |       |  |
|       |     | PNS   | eP    | 04 47 32.4 |      | 0.7 | 6    |       |  |
|       |     |   | L     | 57.9       |      |     |      |       |  |
|       |     | LPB   | P     | 04 47 35.6 |      | 0.8 | 9    | 35.1  |  |
|       |     |   | eL    | 57         |      |     |      |       |  |
| APR   | 18  | PNS   | P     | 07 03 59.5 |      | 1.1 | 9    |       |  |
|       |     |   | L     | 31.3       |      |     |      |       |  |
|       |     | LPB   | P     | 07 04 01.2 |      | 1.0 | 14   |       |  |
|       |     |   | SKS   | 14 34      |      |     |      |       |  |
|       |     |   | L     | 31         |      |     |      |       |  |
| APR   | 18  | PNS   | eP    | 07 38 58.4 |      | 1.2 | 8    |       |  |
| APR   | 18  | PNS   | P     | 08 32 11.2 |      |     |      |       |  |
|       |     |   | e     | 17.3       |      |     |      |       |  |
|       |     | LPB   | eP    | 08 32 12.5 |      | 0.9 | 8    |       |  |
| APR   | 18  | USCGS 09 58 53.3, 25.5S, 177.9W, h = 230 Km., m = 5.1<br>C OF FIJI IS             |       |            |      |     |      |       |  |
|       |     | LPB   | eP    | 10 12 10   |      |     |      | 99.4  |  |
|       |     | PNS   | eP    | 10 12 12.5 |      |     |      |       |  |
| APR   | 18  | LPB   | eP    | 11 35 32.6 |      |     |      |       |  |
|       |     | PNS   | P     | 11 35 34.5 |      | 0.5 | 5    |       |  |
|       |     |   | S     | 57.6       |      |     |      |       |  |
| APR   | 18  | PNS   | eP    | 12 39 31.6 |      | 0.7 | 2    |       |  |
| APR   | 18  | USCGS 12 49 30.0, 6.9S, 156.0E, h = 167 Km., m = 5.1<br>SOLOMON IS                |       |            |      |     |      |       |  |
|       |     | PNS   | ePKP  | 13 08 24.4 |      |     |      | 130.2 |  |
| APR   | 18  | PNS   | P     | 14 16 11.8 |      |     |      |       |  |
| APR   | 18  | PNS   | eP    | 14 59 22   |      |     |      |       |  |
|       |     |   | eS    | 15 00 51.4 |      |     |      |       |  |
| APR   | 18  | USCGS 15 37 59.0, 56.0S, 27.3W, H = 33 Km., m = 4.9<br>S SANDWICH IS REG          |       |            |      |     |      |       |  |
|       |     | PNS   | iP    | 15 46 56.1 | D    |     |      | 49.9  |  |
|       |     |   | i     | 47 17.5    |      |     |      |       |  |

| MONTH | DAY | STA   | PHASE         | TIME                                   | SIGN | PER | AMPL | DIS  |  |
|-------|-----|---|---------------|--|------|-----|------|------|--|
| APR   | 18  | PNS   | eP<br>eS      | 16 08 38.0<br>09 06                    |      |     |      |      |  |
| APR   | 18  | PNS   | P             | 16 34 43.8                             |      | 0.6 | 3    |      |  |
| APR   | 18  | PNS   | P<br>S        | 18 03 52.5<br>04 06                    |      |     |      |      |  |
| APR   | 18  | PNS<br>LPB  | eP<br>eP      | 20 08 56.9<br>20 08 57                 |      |     |      |      |  |
| APR   | 18  | LPB<br>PNS  | P<br>P        | 20 19 09.7<br>26.3<br>20 19 11         |      |     |      |      |  |
| APR   | 18  | USCGS 20 31 32.7, 6.9S, 156.6E, h - 39 Km., m = 5.5<br>SOLOMON IS |               |  |      |     |      |      |  |
|       |     | PNS<br>LPB  | ePKP<br>ePKP  | 20 50 43<br>20 50 50                   |      |     |      | 129. |  |
| APR   | 18  | PNS<br>LPB  | P<br>eP       | 21 37 03.8<br>21 37 04                 |      | 0.9 | 7    |      |  |
| APR   | 18  | PNS<br>LPB  | P<br>eP<br>S  | 21 53 09.5<br>40.0<br>21 53 13<br>40.2 |      | 0.5 | 2    |      |  |
| APR   | 18  | LPB<br>PNS  | eP<br>eP      | 23 26 34<br>23 26 37                   |      |     |      |      |  |
| APR   | 18  | LPB<br>PNS  | eP<br>eP      | 23 40 24<br>23 40 27                   |      |     |      |      |  |
| APR   | 18  | LPB<br>PNS  | eP<br>eP<br>S | 23 41 59<br>23 42 03.4<br>40.6         |      |     |      |      |  |
| APR   | 18  | PNS<br>LPB  | iP<br>P<br>S  | 23 59 15.6<br>41<br>23 59 17.7<br>45.6 | D    | 0.9 | 20   |      |  |
| APR   | 19  | PNS<br>LPB  | eP<br>e(P)    | 01 21 55.6<br>01 21 57.5               |      |     |      |      |  |
| APR   | 19  | LPB<br>PNS  | eP<br>eP      | 02 17 08<br>02 17 12                   |      |     |      |      |  |
| APR   | 19  | LPB   | e(P)          | 03 22 10.5                             |      |     |      |      |  |
| APR   | 19  | PNS<br>LPB  | eP<br>eP      | 04 51 53<br>04 51 54.2                 |      |     |      |      |  |
| APR   | 19  | LPR   | P             | 05 44 55.6                             |      | 1.0 | 22   |      |  |
| APR   | 19  | LPB   | e(P)          | 06 32 25.5                             |      |     |      |      |  |
| APR   | 19  | LPR<br>PNS  | eP<br>eP      | 06 47 23.5<br>06 47 24                 |      |     |      | 40   |  |

| MONTH | DAY | STA   | PHASE                | TIME                                   | SIGN | PER | AMPL | DIS        |  |
|-------|-----|---|----------------------|--|------|-----|------|------------|--|
| APR   | 19  | LPB   | P<br>i               | 06 52 07.2<br>33                       |      |     | 0.7  | 20         |  |
|       |     | PNS   | iP<br>S              | 06 52 11.4<br>53 06.8                  | C    |     | 1.0  | 16         |  |
| APR   | 19  | LPB   | e(P)                 | 07 27 19                               |      |     |      |            |  |
| APR   | 19  | LPB   | eP<br>i              | 07 28 21.5<br>54                       |      |     | 0.7  | 7          |  |
|       |     | PNS   | P                    | 07 28 23                               |      |     |      |            |  |
| APR   | 19  | PNS   | eP<br>S              | 07 37 27<br>38 05.3                    |      |     |      |            |  |
|       |     | LPB   | eP                   | 07 37 29                               |      |     |      |            |  |
| APR   | 19  | PNS   | iP<br>S              | 07 52 23.5<br>47.8                     |      |     |      |            |  |
|       |     | LPB   | eP                   | 07 52 25.6                             |      |     |      |            |  |
| APR   | 19  | USCGS 08 08 22.2, 42.7S, 16.0W, h = 33 Km., m = 5.2<br>S ATLANTIC RIDGE |                      |  |      |     |      |            |  |
|       |     | PNS   | eP<br>ePKP<br>eL     | 08 17 28<br>18 42<br>32.6              |      |     | 1.4  | 11         |  |
|       |     | LPB   | eP<br>eL             | 08 17 28.5<br>32                       |      |     |      | 51.3       |  |
| APR   | 19  | USCGS 09 04 27.3, 42.6S, 16.0W, h = 33 Km., m = 5.6<br>S ATLANTIC RIDGE |                      |  |      |     |      |            |  |
|       |     | LPB   | P<br>PcP<br>S<br>L   | 09 13 30.5<br>14 47.6<br>20 45<br>28.3 |      |     | 1.5  | 82<br>51.3 |  |
|       |     | PNS   | P<br>PcP<br>eS<br>eL | 09 13 32<br>14 48.6<br>20 59<br>28.9   |      |     | 1.4  | 34         |  |
| APR   | 19  | PNS   | P                    | 10 18 56.2                             |      |     |      |            |  |
| APR   | 19  | USCGS 12 23 51.5, 38.2N, 26.6W, h = 33 Km., m = 4.6<br>AZORES IS        |                      |  |      |     |      |            |  |
|       |     | PNS   | P                    | 12 34 44                               |      |     |      | 67.0       |  |
| APR   | 19  | USCGS 12 42 44.3, 10.7S, 162.0E, h = 57 Km., m = 4.6<br>SOLOMON IS      |                      |  |      |     |      |            |  |
|       |     | LPB<br>PNS  | e(PKP)<br>ePKP       | 13 01 40.5<br>13 01 43                 |      |     |      | 123.2      |  |
| APR   | 19  | LPB   | eP                   | 13 23 53.5                             |      |     |      |            |  |
| APR   | 19  | LPR<br>PNS  | eP<br>P              | 13 40 14.5<br>13 40 16.0               |      |     | 0.8  | 13         |  |
| APR   | 19  | PNS<br>LPR  | eP<br>eP             | 15 58 51<br>15 58 57.3                 |      |     |      |            |  |
| APR   | 19  | PNS   | eP                   | 16 35 04                               |      |     |      |            |  |

| MONTH | DAY | STA               | PHASE            | TIME   | SIGN | PER | AMPL | DIST. |
|-------|-----|-------------------|------------------|--|------|-----|------|-------|
| APR   | 19  | LPB               | e(P)             | 16 39 09.5                                     |      |     |      |       |
| APR   | 19  | LPB               | eP               | 16 40 11.5                                     |      |     |      |       |
|       |     | PNS               | P                | 16 40 17.6                                     |      | 0.6 | 3    |       |
|       |     |                   | eS               | 55   |      |     |      |       |
| APR   | 19  | PNS               | eP               | 16 42 22.6                                     |      |     |      |       |
| APR   | 19  | PNS               | eP               | 17 12 32                                       |      |     |      |       |
|       |     | LPB               | eP               | 17 12 34                                       |      |     |      |       |
| APR   | 19  | USCGS             |                  | 16 55 46.7, 10.7S, 165.4E, h = 28 Km., m = 4.8 |      |     |      |       |
|       |     | SANTA CRUZ IS     |                  |  |      |     |      |       |
|       |     | PNS               | ePKP             | 17 14 40.8                                     |      |     |      | 120.  |
|       |     |                   | eL               | 52.8   |      |     |      |       |
| APR   | 19  | PNS               | eP               | 18 22 54                                       |      |     |      |       |
| APR   | 19  | LPB               | eP               | 18 24 07                                       |      |     |      |       |
|       |     | PNS               | P                | 18 24 12.7                                     |      | 0.8 | 5    |       |
| APR   | 19  | LPB               | eP               | 18 33 39.5                                     |      |     |      |       |
|       |     | PNS               | eP               | 19 33 44.5                                     |      |     |      |       |
| APR   | 19  | PNS               | P                | 20 18 22.5                                     |      | 0.5 | 3    |       |
|       |     |                   | eS               | 58   |      |     |      |       |
| APR   | 19  | LPB               | P                | 21 25 36.2                                     |      | 0.7 | 7    |       |
| APR   | 19  | LPB               | eP               | 23 21 41.2                                     |      | 0.7 | 8    |       |
|       |     | PNS               | eP               | 23 21 42.8                                     |      |     |      |       |
| APR   | 19  | PNS               | P                | 23 31 12.5                                     |      | 0.7 | 3    |       |
|       |     | LPB               | eP               | 23 31 15                                       |      |     |      |       |
| APR   | 19  | USCGS             |                  | 23 25 43.9, 12.2N, 143.8E, h = 17 Km., m = 5.3 |      |     |      |       |
|       |     | S OF MARIANA IS   |                  |  |      |     |      |       |
|       |     | LPB               | PKP              | 23 45 30.8                                     |      | 1.0 | 38   | 148.  |
|       |     |                   | i                | 34.7   |      |     |      |       |
|       |     |                   | PKP <sub>2</sub> | 46 06.4  |      |     |      |       |
|       |     |                   | eL               | 00 40  |      |     |      |       |
|       |     | PNS               | PKP              | 23 45 31.7                                     |      | 1.3 | 29   |       |
|       |     |                   | i                | 39.0   |      |     |      |       |
|       |     |                   | eL               | 00 36.6  |      |     |      |       |
| APR   | 20  | USCGS             |                  | 23 40 47.8, 20.7N, 144.4E, h = 39 Km., m = 4.9 |      |     |      |       |
|       |     | MARIANA IS        |                  |  |      |     |      |       |
|       |     | PNS               | PKP              | 00 00 31.5                                     |      | 1.0 | 11   |       |
|       |     |                   | eL               | 51.8   |      |     |      |       |
|       |     | LPB               | PKP              | 00 00 32.3                                     |      | 0.8 | 13   | 149.  |
| APR   | 20  | PNS               | P                | 00 46 03                                       |      | 0.8 | 3    |       |
|       |     | LPB               | P                | 00 46 06.2                                     |      | 1.9 | 7    |       |
| APR   | 20  | USCGS             |                  | 01 01 31.2, 56.1S, 27.4W, h = 186 Km., m = 5.1 |      |     |      |       |
|       |     | S SANDWICH IS REG |                  |  |      |     |      |       |
|       |     | LPB               | P                | 01 10 09.1                                     |      | 1.1 | 80   | 50.   |



| MONTH | DAY | STA | PHASE | TIME       | SIGN | PER | AMPL | DIST. |
|-------|-----|-----|-------|------------|------|-----|------|-------|
|       |     |     | pP    | 40.3       |      |     |      |       |
|       |     |     | PcP   | 11 27.1    |      |     |      |       |
|       |     |     | S     | 17 09.5    |      |     |      |       |
|       |     |     | ScS   | 19 54      |      |     |      |       |
|       |     |     | eL    | 26.3       |      |     |      |       |
|       |     | PNS | iP    | 01 10 12.5 | C    | 1.0 | 33   |       |
|       |     |     | pP    | 44.0       |      |     |      |       |
|       |     |     | PcP   | 11 29.0    |      |     |      |       |
|       |     |     | S     | 17 17.6    |      |     |      |       |
|       |     |     | ScS   | 19 50      |      |     |      |       |
|       |     |     | eL    | 25.4       |      |     |      |       |
| APR   | 20  | LPB | eP    | 01 15 08   |      | 1.4 | 45   |       |
|       |     | PNS | P     | 01 15 10.3 |      | 1.1 | 17   |       |
| APR   | 20  | LPB | eP    | 01 40 50.5 |      |     |      |       |
|       |     | PNS | eP    | 01 40 53.8 |      |     |      |       |
| APR   | 20  | PNS | P     | 01 51 39.5 |      | 1.0 | 7    |       |
|       |     | LPB | P     | 01 51 40.2 |      | 0.7 | 11   |       |
| APR   | 20  | PNS | e(P)  | 02 30 13   |      |     |      |       |
|       |     | LPB | P     | 02 30 14.2 |      | 0.9 | 12   |       |
| APR   | 20  | LPB | eP    | 03 16 33.2 |      | 0.6 | 3    |       |
|       |     | PNS | P     | 03 16 35.9 |      | 0.9 | 5    |       |
| APR   | 20  | PNS | P     | 03 18 58.9 | D    | 0.5 | 4    |       |
|       |     |     | S     | 19 20.5    |      |     |      |       |
| APR   | 20  | LPB | P     | 03 49 39.5 |      | 0.8 | 27   |       |
|       |     | PNS | iP    | 03 49 43.7 | C    | 0.6 | 11   |       |
| APR   | 20  | PNS | P     | 03 59 27.4 |      |     |      |       |
|       |     | LPB | eP    | 03 59 30   |      |     |      |       |
| APR   | 20  | LPB | eP    | 04 21 21   |      |     |      |       |
|       |     |     | i     | 29.3       |      |     |      |       |
|       |     | PNS | P     | 04 21 25.8 |      | 0.6 | 5    |       |
|       |     |     | eS    | 22 45      |      |     |      |       |
| APR   | 20  | PNS | P     | 04 58 32.3 |      | 0.5 | 2    |       |
|       |     | LPB | eP    | 04 58 38   |      |     |      |       |
| APR   | 20  | LPB | eP    | 05 17 29   |      |     |      |       |
| APR   | 20  | PNS | P     | 05 53 36.4 |      | 1.1 | 6    |       |
|       |     | LPB | eP    | 05 53 39.5 |      |     |      |       |
| APR   | 20  | LPB | eP    | 06 18 47.5 |      |     |      |       |
| APR   | 20  | PNS | eP    | 06 23 11   |      |     |      |       |
|       |     |     | S     | 56.1       |      |     |      |       |
|       |     | LPB | eP    | 06 23 13   |      |     |      |       |
| APR   | 20  | LPB | P     | 07 21 07.5 |      | 1.0 | 16   |       |
|       |     | PNS | P     | 07 21 09.9 |      | 1.0 | 12   |       |
|       |     |     | eL    | 33.5       |      |     |      |       |



| MONTH | DAY | STA         | PHASE | TIME                                     | SIGN | PER | AMPL | DIST | MONTH | DAY | STA | PHASE | TIME | SIGN | PER | AMPL | DIST |  |
|-------|-----|-------------|-------|--|------|-----|------|------|-------|-----|-----|-------|------|------|-----|------|------|--|
| APRIL | 20  | USCGS 07 34 |       | 36.7, 1.2S, 128.8E, h = 38 Km., m = 5.2  |      |     |      |      |       |     |     |       |      |      |     |      |      |  |
|       |     | HALMAHERA   |       |  |      |     |      |      |       |     |     |       |      |      |     |      |      |  |
|       |     | PNS         | ePKP  | 07 54 42                                 |      |     |      |      |       |     |     |       |      |      |     |      |      |  |
|       |     |             | eL    | 08 49.0                                  |      |     |      |      |       |     |     |       |      |      |     |      |      |  |
|       |     | LPB         | eP    | 07 54 48                                 |      | 0.7 | 6    | 15   |       |     |     |       |      |      |     |      |      |  |
|       |     |             | e(L)  | 08 50                                    |      |     |      |      |       |     |     |       |      |      |     |      |      |  |
| APR   | 20  | LPB         | eP    | 09 20 28.3                               |      | 0.9 | 15   |      |       |     |     |       |      |      |     |      |      |  |
|       |     | PNS         | P     | 09 20 32.2                               |      | 0.8 | 6    |      |       |     |     |       |      |      |     |      |      |  |
| APR   | 20  | USCGS 09 44 |       | 08.6, 38.3N, 26.6W, h = 33 Km., m = 4.9  |      |     |      |      |       |     |     |       |      |      |     |      |      |  |
|       |     | AZORES IS   |       |  |      |     |      |      |       |     |     |       |      |      |     |      |      |  |
|       |     | PNS         | eP    | 09 55 01.3                               |      | 1.3 | 16   |      |       |     |     |       |      |      |     |      |      |  |
|       |     |             | L     | 10 15.4                                  |      |     |      |      |       |     |     |       |      |      |     |      |      |  |
|       |     | LPB         | eP    | 09 55 02                                 |      | 1.5 | 27   |      |       |     |     |       |      |      |     |      |      |  |
|       |     |             | L     | 10 14                                    |      |     |      |      |       |     |     |       |      |      |     |      |      |  |
| APR   | 20  | PNS         | eP    | 10 13 10.4                               |      |     |      |      |       |     |     |       |      |      |     |      |      |  |
| APR   | 20  | LPB         | P     | 10 13 46.6                               |      | 0.8 | 22   |      |       |     |     |       |      |      |     |      |      |  |
|       |     |             | e     | 14 02                                    |      |     |      |      |       |     |     |       |      |      |     |      |      |  |
|       |     | PNS         | P     | 10 13 48.0                               |      | 1.0 | 9    |      |       |     |     |       |      |      |     |      |      |  |
|       |     |             | S     | 15 24                                    |      |     |      |      |       |     |     |       |      |      |     |      |      |  |
| APR   | 20  | PNS         | eP    | 10 23 15                                 |      |     |      |      |       |     |     |       |      |      |     |      |      |  |
|       |     | LPB         | P     | 10 23 19                                 |      |     |      |      |       |     |     |       |      |      |     |      |      |  |
|       |     |             | eS    | 39                                       |      |     |      |      |       |     |     |       |      |      |     |      |      |  |
| APR   | 20  | USCGS 10 18 |       | 01.1, 38.3N, 26.6W, h = 33 Km., m = 5.1  |      |     |      |      |       |     |     |       |      |      |     |      |      |  |
|       |     | AZORES IS   |       |  |      |     |      |      |       |     |     |       |      |      |     |      |      |  |
|       |     | LPB         | eP    | 10 28 54                                 |      | 1.2 | 28   |      |       |     |     |       |      |      |     |      |      |  |
|       |     |             | S     | 37 46                                    |      |     |      |      |       |     |     |       |      |      |     |      |      |  |
|       |     |             | eG    | 45.9                                     |      |     |      |      |       |     |     |       |      |      |     |      |      |  |
|       |     |             | eL    | 49                                       |      |     |      |      |       |     |     |       |      |      |     |      |      |  |
|       |     | PNS         | P     | 10 28 54.4                               |      | 1.2 | 23   |      |       |     |     |       |      |      |     |      |      |  |
|       |     |             | S     | 37 43                                    |      |     |      |      |       |     |     |       |      |      |     |      |      |  |
|       |     |             | SS    | 42 35                                    |      |     |      |      |       |     |     |       |      |      |     |      |      |  |
|       |     |             | G     | 45.9                                     |      |     |      |      |       |     |     |       |      |      |     |      |      |  |
|       |     |             | L     | 50.5                                     |      |     |      |      |       |     |     |       |      |      |     |      |      |  |
| APR   | 20  | PNS         | eP    | 10 57 24                                 |      |     |      |      |       |     |     |       |      |      |     |      |      |  |
|       |     | LPB         | eP    | 10 57 26.5                               |      | 1.2 | 15   |      |       |     |     |       |      |      |     |      |      |  |
| APR   | 20  | PNS         | P     | 11 01 40.5                               |      |     |      |      |       |     |     |       |      |      |     |      |      |  |
|       |     |             | S     | 02 07.8                                  |      |     |      |      |       |     |     |       |      |      |     |      |      |  |
|       |     | LPB         | eP    | 11 01 45                                 |      |     |      |      |       |     |     |       |      |      |     |      |      |  |
| APR   | 20  | PNS         | eP    | 11 36 14                                 |      |     |      |      |       |     |     |       |      |      |     |      |      |  |
| APR   | 20  | LPB         | eP    | 11 59 10                                 |      |     |      |      |       |     |     |       |      |      |     |      |      |  |
|       |     | PNS         | eP    | 11 59 13                                 |      |     |      |      |       |     |     |       |      |      |     |      |      |  |
| APR   | 20  | USCGS 12 25 |       | 10.1, 15.7S, 172.6W, h = 30 Km., m = 5.7 |      |     |      |      |       |     |     |       |      |      |     |      |      |  |
|       |     | SAMOA IS    |       |  |      |     |      |      |       |     |     |       |      |      |     |      |      |  |
|       |     | PNS         | P     | 12 38 51.4                               |      | 1.1 | 9    |      |       |     |     |       |      |      |     |      |      |  |
|       |     |             | PP    | 42 54                                    |      |     |      |      |       |     |     |       |      |      |     |      |      |  |



APRIL

| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL | DIS |
|-------|-----|---|-------|------------|------|-----|------|-----|
| APR   | 20  | USCGS 21 51 43.2, 19.3S, 11.8W, h = 00 Km., m = 4.8<br>S ATLANTIC RIDGE |       |            |      |     |      |     |
|       |     | LPB   | eP    | 22 01 03   |      | 1.2 | 8    | 53. |
|       |     |   | eL    | 16.3       |      |     |      |     |
|       |     | TRJ   | eP    | 22 01 04.3 |      |     |      |     |
|       |     | PNS   | P     | 22 01 07.0 |      |     |      |     |
|       |     |   | eL    | 17.2       |      |     |      |     |
| APR   | 20  | USCGS 22 12 53.6, 19.9S, 11.9W, h = 33 Km., m = 4.7<br>S ATLANTIC RIDGE |       |            |      |     |      |     |
|       |     | LPB   | P     | 22 22 12   |      | 1.3 | 27   | 53. |
|       |     |   | L     | 38         |      |     |      |     |
|       |     | PNS   | P     | 22 22 14.8 |      | 1.1 | 8    |     |
|       |     | TRJ   | eP    | 22 22 15.0 |      |     |      |     |
| APR   | 20  | PNS   | eP    | 22 27 24   |      | 1.3 | 13   |     |
|       |     | LPB   | eL    | 22 27 25   |      | 0.7 | 3    |     |
|       |     |   | eL    | 38         |      |     |      |     |
|       |     | TRJ   | eP    | 22 28 01.9 |      |     |      |     |
| APR   | 20  | TRJ   | iP    | 23 07 56.5 | D    |     |      |     |
|       |     |   | S     | 08 34.6    |      |     |      |     |
|       |     | LPB   | eP    | 23 08 18.2 |      | 0.6 | 15   |     |
|       |     | PNS   | P     | 23 08 21.4 |      | 0.5 | 7    |     |
|       |     |   | S     | 09 42.5    |      |     |      |     |
| APR   | 20  | LPB   | eP    | 23 34 08   |      |     |      |     |
| APR   | 20  | TRJ   | P     | 23 58 55.7 |      |     |      |     |
|       |     |   | S     | 59 26.5    |      |     |      |     |
| APR   | 21  | LPB   | P     | 00 45 19   |      | 1.3 | 15   |     |
|       |     |   | eL    | 01 01      |      |     |      |     |
|       |     | PNS   | eP    | 00 45 22.8 |      |     |      |     |
|       |     |   | eL    | 01 01.3    |      |     |      |     |
|       |     | TRJ   | eP    | 00 45 23.8 |      |     |      |     |
| APR   | 21  | LPB   | P     | 01 35 06.2 |      | 0.9 | 8    |     |
|       |     | PNS   | P     | 01 35 09.4 |      | 0.9 | 6    |     |
|       |     | TRJ   | P     | 01 35 55.3 |      |     |      |     |
| APR   | 21  | PNS   | P     | 02 07 03.6 |      |     |      |     |
|       |     |   | S     | 47.2       |      |     |      |     |
| APR   | 21  | PNS   | P     | 02 44 03.1 |      | 0.6 | 2    |     |
|       |     | LPB   | eP    | 02 44 06.6 |      | 0.6 | 4    |     |
| APR   | 21  | LPB   | P     | 03 26 29.2 |      | 1.0 | 8    |     |
| APR   | 21  | PNS   | eP    | 03 58 11   |      |     |      |     |
|       |     | LPB   | eP    | 03 58 15   |      |     |      |     |
| APR   | 21  | TRJ   | P     | 04 07 05.5 |      |     |      |     |
| APR   | 21  | TRJ   | iP    | 04 18 29.8 | C    |     |      |     |
|       |     |   | S     | 19 00.1    |      |     |      |     |
| APR   | 21  | TRJ   | P     | 04 26 55.8 |      |     |      |     |
|       |     |   | S     | 27 25.4    |      |     |      |     |

APRIL



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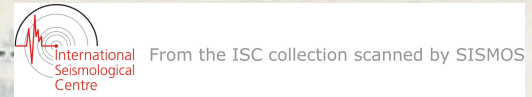
| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL | DIS   |
|-------|-----|---|-------|------------|------|-----|------|-------|
| APR   | 21  | PNS   | eP    | 04 31 04.4 |      |     |      |       |
| APR   | 21  | LPB   | eP    | 04 42 32.4 |      |     |      |       |
|       |     | PNS   | eP    | 04 42 33   |      |     |      |       |
| APR   | 21  | LPB   | P     | 05 06 16.2 |      |     |      |       |
|       |     |   | iPP   | 26.2       |      |     |      |       |
|       |     |   | i     | 51.2       |      |     |      |       |
|       |     |   | S     | 07 37.2    |      |     |      |       |
|       |     | PNS   | iP    | 05 06 17.3 | C    | 1.0 | 16   |       |
|       |     |   | eS    | 07 40      |      |     |      |       |
|       |     | TRJ   | P     | 05 06 35.6 | D    |     |      |       |
|       |     |   | S     | 07 39.8    |      |     |      |       |
| APR   | 21  | PNS   | eP    | 07 48 15   |      |     |      |       |
| APR   | 21  | USCGS 08 34 03.5, 38.6N, 143.0E, h = 42 Km., m = 5.3<br>OFF E CST OF HONSHU JAPAN |       |            |      |     |      |       |
|       |     | PNS   | PKP   | 08 53 37.2 |      | 2.0 | 81   |       |
|       |     |   | pPKP  | 48         |      |     |      |       |
|       |     |   | PP    | 57 09.2    |      |     |      |       |
|       |     |   | PKS   | 19         |      |     |      |       |
|       |     |   | SS    | 09 15 48   |      |     |      |       |
|       |     |   | eL    | 43.6       |      |     |      |       |
|       |     | LPB   | PKP   | 08 53 38.8 |      | 1.0 | 20   | 145.1 |
|       |     |   | pPKP  | 49.5       |      |     |      |       |
|       |     |   | ePKS  | 57 21      |      |     |      |       |
|       |     |   | eSS   | 09 15 52   |      |     |      |       |
|       |     |   | eL    | 43         |      |     |      |       |
| APR   | 21  | USCGS 09 24 35.5, 23.4S, 70.5W, h = 41 Km., m = 5.5<br>NR CST OF N CHILE          |       |            |      |     |      |       |
|       |     | LPB   | P     | 09 26 22.5 | C    | 0.8 | 39   | 7.2   |
|       |     |   | PP    | 36.5       |      |     |      |       |
|       |     |   | S     | 27 47.5    |      |     |      |       |
|       |     |   | eL    | 28.3       |      |     |      |       |
|       |     | PNS   | iP    | 09 26 25.1 | C    |     |      |       |
|       |     |   | S     | 27.50      |      |     |      |       |
|       |     |   | L     | 28.3       |      |     |      |       |
| APR   | 21  | TRJ   | iP    | 09 26 35.7 | C    |     |      |       |
| APR   | 21  | TRJ   | P     | 09 50 12.8 | C    |     |      |       |
|       |     | LPB   | eP    | 09 50 30   |      |     |      |       |
|       |     | PNS   | eP    | 09 50 33.8 |      |     |      |       |
| APR   | 21  | TRJ   | iP    | 10 11 30.7 | D    |     |      |       |
|       |     | LPB   | P     | 10 11 34.2 |      | 0.9 | 20   |       |
|       |     |   | S     | 12 34.3    |      |     |      |       |
|       |     | PNS   | iP    | 10 11 38.9 | C    | 0.5 | 7    |       |
|       |     |   | eS    | 12 43.5    |      |     |      |       |
| APR   | 21  | TRJ   | P     | 10 43 07.8 |      |     |      |       |
| APR   | 21  | TRJ   | iP    | 10 57 59.5 | C    |     |      |       |
|       |     |   | S     | 58 29.6    |      |     |      |       |
| APR   | 21  | USCGS 11 24 59.6, 4.6S, 151.2E, h = 57 Km., m = 4.7<br>NEW BRITAIN REG            |       |            |      |     |      |       |
|       |     | PNS   | ePKP  | 11 44 13.8 |      |     |      |       |
|       |     | LPB   | ePKP  | 11 44 18   |      |     |      | 135.6 |

APRIL

| MONTH | DAY | STA   | PHASE | TIME   | SIGN | PER | AMPL | DIS |
|-------|-----|-------|-------|--|------|-----|------|-----|
| APR   | 21  | TRJ   | iP    | 12 19 07.8                                     | D    |     |      |     |
|       |     | LPB   | P     | 12 19 30.5                                     |      | 0.8 | 21   |     |
|       |     |       | e(S)  | 20 56.8  |      |     |      |     |
|       |     | PNS   | P     | 12 19 34.4                                     |      | 0.5 | 0    |     |
|       |     |       | eS    | 21 01.4  |      |     |      |     |
| APR   | 21  | PNS   | P     | 13 10 42.5                                     |      |     |      |     |
|       |     |       | S     | 11 24.5  |      |     |      |     |
|       |     | LPB   | P     | 13 10 46                                       |      | 1.7 | 16   |     |
| APR   | 21  | PNS   | P     | 14 40 30.8                                     |      | 0.5 | 2    |     |
| APR   | 21  | USCGS |       | 15 44 06.3, 54.9N, 161.5E, h = 28 Km., m = 4.6 |      |     |      |     |
|       |     |       |       | NR E CST OF KAMCHATKA                          |      |     |      |     |
|       |     | PNS   | PKP   | 15 03 07                                       |      |     |      |     |
|       |     | LPB   | oPKP  | 15 03 09.5                                     |      |     | 126  |     |
| APR   | 21  | LPB   | P     | 16 19 36.7                                     |      | 0.8 | 27   |     |
| APR   | 21  | USCGS |       | 16 21 57.0, 23.6S, 67.0W, h = 206 Km., m = 4.0 |      |     |      |     |
|       |     |       |       | CHILE-ARGENTINA BOR REG                        |      |     |      |     |
|       |     | TRJ   | iP    | 16 23 20.1                                     | D    |     |      |     |
|       |     |       | S     | 58.4   |      |     |      |     |
|       |     | LPB   | P     | 16 23 40.3                                     | D    | 0.8 | 19   |     |
|       |     |       | eS    | 25 03  |      |     |      |     |
|       |     |       | eL    | 17 09  |      |     |      |     |
|       |     | PNS   | P     | 16 23 43.6                                     | C    |     |      |     |
|       |     |       | S     | 25 06.2  |      |     |      |     |
| APR   | 21  | USCGS |       | 16 43 17.2, 56.4S, 158.0E, h = 27 Km., m = 5.0 |      |     |      |     |
|       |     |       |       | MACQUARIE IS REG                               |      |     |      |     |
|       |     | LPB   | eP    | 16 56 49.5                                     |      |     | 97   |     |
|       |     |       | e     | 09.5   |      |     |      |     |
|       |     |       | eL    | 17 28  |      |     |      |     |
|       |     | PNS   | eP    | 16 56 51.8                                     |      |     |      |     |
|       |     |       | e     | 57 11.8  |      |     |      |     |
|       |     |       | i     | 46.7   |      |     |      |     |
|       |     |       | eL    | 17 29.0  |      |     |      |     |
| APR   | 21  | LPB   | eP    | 17 02 20.5                                     |      |     |      |     |
|       |     | PNS   | eP    | 17 02 21.4                                     |      |     |      |     |
|       |     |       | eS    | 03 05  |      |     |      |     |
| APR   | 21  | PNS   | eP    | 17 45 45                                       |      |     |      |     |
| APR   | 21  | PNS   | P     | 19 45 54.6                                     |      | 0.4 | 3    |     |
|       |     |       | eS    | 47 21  |      |     |      |     |
| APR   | 21  | LPB   | P     | 19 49 19.5                                     |      |     |      |     |
|       |     |       | S     | 50 32.7  |      |     |      |     |
|       |     | PNS   | iP    | 19 49 26.3                                     | C    | 0.6 | 7    |     |
|       |     |       | S     | 50 38.8  |      |     |      |     |
| APR   | 21  | LPB   | eP    | 21 07 13.5                                     |      |     |      |     |
|       |     | PNS   | eP    | 21 07 14.4                                     |      |     |      |     |
| APR   | 21  | PNS   | P     | 21 12 34.5                                     |      | 0.7 | 2    |     |

APRIL

| MONTH | DAY | STA   | PHASE | TIME  | SIGN | PER | AMPL | DIS |
|-------|-----|-------|-------|---|------|-----|------|-----|
| APR   | 21  | PNS   | P     | 22 05 07.0                                    |      | 0.7 | 3    |     |
| APR   | 21  | USCGS |       | 22 10 41.0, 17.4S, 72.4W, h = 43 Km., m = 4.5 |      |     |      |     |
|       |     |       |       | NR CST OF PERU                                |      |     |      |     |
|       |     | PNS   | iP    | 22 11 44.2                                    | C    | 0.8 | 10   |     |
|       |     |       | i     | 50.2  |      |     |      |     |
|       |     |       | S     | 12 46   |      |     |      |     |
|       |     |       | eL    | 13.1  |      |     |      |     |
|       |     | LPB   | iP    | 22 11 47.9                                    | C    | 0.9 | 91   | 4.0 |
|       |     |       | i     | 52.2  |      |     |      |     |
|       |     |       | eS    | 12 50   |      |     |      |     |
|       |     |       | eL    | 13.6  |      |     |      |     |
| APR   | 21  | PNS   | P     | 22 18 21.5                                    |      |     |      |     |
|       |     |       | i     | 24.6  |      |     |      |     |
|       |     | LPB   | P     | 22 18 25                                      |      |     |      |     |
|       |     |       | i     | 31.5  |      |     |      |     |
| APR   | 21  | LPB   | eP    | 22 33 52.5                                    |      |     |      |     |
|       |     |       | eS    | 39 08   |      |     |      |     |
|       |     |       | L     | 42.3  |      |     |      |     |
|       |     | PNS   | P     | 22 33 55.6                                    |      | 1.3 | 11   |     |
|       |     |       | eS    | 38 55   |      |     |      |     |
|       |     |       | SS    | 40 50   |      |     |      |     |
|       |     |       | L     | 42.5  |      |     |      |     |
| APR   | 21  | PNS   | eP    | 22 47 53                                      |      |     |      |     |
|       |     | LPB   | eP    | 22 47 53.5                                    |      |     |      |     |
| APR   | 21  | PNS   | eP    | 23 34 52.6                                    |      |     |      |     |
| APR   | 22  | LPB   | eP    | 00 16 10.5                                    |      | 1.0 | 10   |     |
|       |     |       | eL    | 28.3  |      |     |      |     |
|       |     | PNS   | P     | 00 16 11.6                                    |      | 1.4 | 11   |     |
|       |     |       | eL    | 27.5  |      |     |      |     |
|       |     | TRJ   | P     | 00 16 64.2                                    |      |     |      |     |
| APR   | 22  | PNS   | eP    | 00 27 22.6                                    |      |     |      |     |
|       |     |       | i     | 27.4  |      |     |      |     |
|       |     |       | eS    | 28 26   |      |     |      |     |
|       |     | LPB   | P     | 00 27 26.4                                    |      | 0.9 | 8    |     |
|       |     |       | i     | 35  |      |     |      |     |
| APR   | 22  | PNS   | eP    | 00 48 13                                      |      |     |      |     |
|       |     | LPB   | eP    | 00 48 15                                      |      |     |      |     |
| APR   | 22  | LPB   | eP    | 01 56 57.7                                    |      |     |      |     |
|       |     | PNS   | P     | 01 57 02.0                                    |      |     |      |     |
| APR   | 22  | LPB   | P     | 02 07 24.5                                    |      | 1.0 | 18   |     |
|       |     |       | S     | 08 07.8                                       |      |     |      |     |
|       |     | PNS   | P     | 02 07 26.8                                    |      | 0.7 | 3    |     |
|       |     |       | S     | 08 09.6                                       |      |     |      |     |
|       |     | TRJ   | P     | 02 08 13.3                                    |      |     |      |     |
| APR   | 22  | TRJ   | P     | 02 57 07.6                                    |      |     |      |     |
|       |     | PNS   | eP    | 02 57 13.6                                    |      |     |      |     |
| APR   | 22  | PNS   | P     | 03 04 56.9                                    |      | 0.5 | 2    |     |
|       |     |       | S     | 05 24.3                                       |      |     |      |     |
|       |     | LPB   | eP    | 03 05 01                                      |      |     |      |     |



APRIL

| MONTH | DAY | STA  | PHASE | TIME       | SIGN | PER | AMPL | DIST  |  |
|-------|-----|--|-------|------------|------|-----|------|-------|--|
| APR   | 22  | TRJ  | P     | 03 15 37.0 |      |     |      |       |  |
| APR   | 22  | PNS  | eP    | 03 35 55   |      |     |      |       |  |
|       |     |  | e(S)  | 37 14      |      |     |      |       |  |
|       |     | LPB  | e(P)  | 03 38 56   |      |     |      |       |  |
|       |     | TRJ  | P     | 03 36 18.3 |      |     |      |       |  |
| APR   | 22  | PNS  | P     | 04 30 02.5 |      |     |      |       |  |
|       |     |  | eS    | 32 18      |      |     |      |       |  |
|       |     | LPB  | eP    | 04 30 05   |      |     |      |       |  |
| APR   | 22  | LPB  | P     | 06 29 48.5 |      |     |      |       |  |
| APR   | 22  | LPB  | eP    | 06 46 52   |      |     |      |       |  |
| APR   | 22  | LPB  | P     | 07 25 50.5 |      | 0.6 | 6    |       |  |
|       |     |  | eS    | 26 42.5    |      |     |      |       |  |
|       |     | PNS  | P     | 07 25 54.0 |      | 0.6 | 6    |       |  |
|       |     |  | eS    | 26 44      |      |     |      |       |  |
|       |     | TRJ  | P     | 07 25 55.0 |      |     |      |       |  |
|       |     |  | S     | 26 35.3    |      |     |      |       |  |
| APR   | 22  | TRJ  | P     | 07 36 32.9 |      |     |      |       |  |
|       |     |  | S     | 37 06.3    |      |     |      |       |  |
| APR   | 22  | TRJ  | P     | 07 55 44.8 |      |     |      |       |  |
| APR   | 22  | TRJ  | P     | 08 46 28.1 |      |     |      |       |  |
|       |     |  | S     | 59.0       |      |     |      |       |  |
| APR   | 22  | LPB  | eP    | 09 02 20   |      | 1.0 | 22   |       |  |
|       |     | PNS  | eP    | 09 02 21.4 |      | 1.2 | 6    |       |  |
|       |     | TRJ  | eP    | 09 02 24.9 |      |     |      |       |  |
| APR   | 22  | PNS  | eP    | 09 07 34   |      | 1.0 | 5    |       |  |
|       |     | LPB  | eP    | 09 07 35   |      | 0.8 | 13   |       |  |
|       |     | TRJ  | eP    | 09 07 59.8 |      |     |      |       |  |
| APR   | 22  | LPB  | P     | 11 04 37.7 |      | 1.0 | 20   |       |  |
|       |     | PNS  | P     | 11 04 40.5 |      | 0.9 | 6    |       |  |
| APR   | 22  | PNS  | P     | 13 45 23.6 |      |     |      |       |  |
|       |     |  | S     | 50.0       |      |     |      |       |  |
|       |     | LPB  | eP    | 13 45 25   |      | 0.9 | 24   |       |  |
|       |     |  | S     | 55         |      |     |      |       |  |
| APR   | 22  | PNS  | eP    | 14 09 00   |      |     |      |       |  |
| APR   | 22  | USCGS 14 22 35.0, 4.4N, 127.7E, h = 97 Km., m = 5.3<br>TALAUD IS |       |            |      |     |      |       |  |
|       |     | PNS  | PKP   | 14 42 27   |      | 1.5 | 16   | 160.8 |  |
|       |     |  | pPKP  | 43 02      |      |     |      |       |  |
|       |     |  | i     | 30         |      |     |      |       |  |
| APR   | 22  | PNS  | P     | 15 26 41.7 |      | 0.7 | 2    |       |  |
| APR   | 22  | PNS  | P     | 18 02 37.2 |      | 0.5 | 2    |       |  |
|       |     |  | S     | 03 09      |      |     |      |       |  |

50

APRIL



From the ISC collection scanned by SISMOS

| MONTH | DAY | STA  | PHASE | TIME       | SIGN | PER | AMPL | DIST  |  |
|-------|-----|--|-------|------------|------|-----|------|-------|--|
| APR   | 22  | PNS  | P     | 18 43 57.1 |      |     |      |       |  |
| APR   | 22  | PNS  | P     | 19 03 35.9 |      |     |      |       |  |
|       |     |  | eS    | 04 02.4    |      |     |      |       |  |
| APR   | 22  | LPB  | eP    | 21 23 14.5 |      |     |      |       |  |
|       |     | PNS  | P     | 21 23 16.4 |      | 0.5 | 7    |       |  |
| APR   | 22  | PNS  | eL    | 21 34.9    |      |     |      |       |  |
|       |     | LPB  | eL    | 21 35      |      |     |      |       |  |
| APR   | 22  | PNS  | eP    | 22 00 20.4 |      |     |      |       |  |
|       |     | LPB  | eP    | 22 00 21.5 |      |     |      |       |  |
| APR   | 22  | PNS  | P     | 22 54 00.8 |      |     |      |       |  |
|       |     |  | S     | 26         |      |     |      |       |  |
| APR   | 23  | TRJ  | eP    | 23 59 46.5 |      |     |      |       |  |
|       |     | PNS  | e(P)  | 00 00 22   |      |     |      |       |  |
|       |     | LPB  | eP    | 00 00 22.3 |      |     |      |       |  |
| APR   | 23  | LPB  | eP    | 01 27 26.2 |      |     |      |       |  |
|       |     | PNS  | P     | 01 27 30.1 |      | 0.5 | 4    |       |  |
|       |     | TRJ  | iP    | 01 27 29.9 |      |     |      |       |  |
|       |     |  | S     | 28 00.8    |      |     |      |       |  |
| APR   | 23  | LPB  | eP    | 02 30 20.6 |      |     |      |       |  |
|       |     |  | S     | 51         |      |     |      |       |  |
|       |     | PNS  | P     | 02 30 22.1 |      | 0.6 | 3    |       |  |
|       |     |  | S     | 52         |      |     |      |       |  |
| APR   | 23  | LPB  | e(P)  | 03 31 12   |      |     |      |       |  |
| APR   | 23  | LPB  | eP    | 03 45 25   |      |     |      |       |  |
| APR   | 23  | TRJ  | P     | 04 21 29.5 |      |     |      |       |  |
|       |     |  | S     | 22 09.3    |      |     |      |       |  |
|       |     | LPB  | P     | 04 21 54.2 |      | 0.8 | 3    |       |  |
| APR   | 23  | USCGS 05 18 15.0, 24.4N, 122.1E, h = 38 Km., m = 4.9<br>TAIWAN REG |       |            |      |     |      |       |  |
|       |     | LPB  | PKP   | 05 38 21.2 |      | 0.9 | 12   | 167.3 |  |
|       |     | PNS  | PKP   | 05 38 21.7 |      | 1.0 | 7    |       |  |
| APR   | 23  | PNS  | P     | 05 39 23.8 |      | 0.9 | 6    |       |  |
|       |     | LPB  | P     | 05 39 25   |      |     |      |       |  |
| APR   | 23  | LPB  | P     | 05 46 19.4 |      | 0.5 | 10   |       |  |
| APR   | 23  | LPB  | eP    | 05 49 42.5 |      |     |      |       |  |
|       |     | PNS  | P     | 05 49 45.0 |      |     |      |       |  |
|       |     | TRJ  | P     | 05 49 58.0 |      |     |      |       |  |
| APR   | 23  | PNS  | eP    | 05 59 14   |      |     |      |       |  |
|       |     | LPB  | P     | 05 59 19.3 |      | 0.6 | 3    |       |  |
| APR   | 23  | PNS  | eP    | 06 25 54   |      |     |      |       |  |

51



| MONTH | DAY | STA   | PHASE  | TIME       | SIGN | PBR | AMPL | DIS | MONTH | DAY | STA   | PHASE | TIME       | D          | M   | M    |    |
|-------|-----|---|--------|------------|------|-----|------|-----|-------|-----|-------|-------|------------|------------|-----|------|----|
| APR   | 23  | USCGS 06 45 11.5, 36.3N, 91.2E, h = 114 Km., m = 5.2<br>AFGHANISTAN-USSR BOR REG  |        |            |      |     |      |     |       | APR | 23    | PNS   | iP         | 14 58 53.2 | D   |      |    |
|       |     | LPB   | ePKP   | 07 04 25   |      | 1.2 | 10   | 130 |       |     | LPB   | P     | 14 58 53.6 | D          | 0.8 | 78   |    |
|       |     | PNS   | PKP    | 07 04 27.3 |      | 0.9 | 6    |     |       |     | TRJ   | P     | 14 59 23.0 |            |     |      |    |
|       |     | TRJ   | ePKP   | 07 04 47.4 |      |     |      |     |       |     |       |       |            |            |     |      |    |
| APR   | 23  | PNS   | eP     | 07 30 16.3 |      |     |      |     |       |     |       |       |            |            |     |      |    |
|       |     | S   |        | 40.9       |      |     |      |     |       |     |       |       |            |            |     |      |    |
|       |     | LPB   | eP     | 07 30 20.5 |      | 0.8 | 4    |     |       |     |       |       |            |            |     |      |    |
| APR   | 23  | PNS   | eP     | 07 47 50   |      |     |      |     |       |     |       |       |            |            |     |      |    |
|       |     | i   |        | 59.9       |      |     |      |     |       |     |       |       |            |            |     |      |    |
|       |     | S   |        | 49 47.6    |      |     |      |     |       |     |       |       |            |            |     |      |    |
|       |     | LPB   | eP     | 07 47 55.5 |      |     |      |     |       |     |       |       |            |            |     |      |    |
|       |     | i   |        | 48 03.6    |      |     |      |     |       |     |       |       |            |            |     |      |    |
| APR   | 23  | LPB   | P      | 08 08 11.7 | C    | 1.1 | 82   |     |       |     |       |       |            |            |     |      |    |
|       |     | i   |        | 26.7       |      |     |      |     |       |     |       |       |            |            |     |      |    |
|       |     | S   |        | 48.6       |      |     |      |     |       |     |       |       |            |            |     |      |    |
|       |     | PNS   | iP     | 08 08 13.5 | C    |     |      |     |       |     |       |       |            |            |     |      |    |
|       |     | S   |        | 50         |      |     |      |     |       |     |       |       |            |            |     |      |    |
|       |     | TRJ   | iP     | 08 09 05.9 | D    |     |      |     |       |     |       |       |            |            |     |      |    |
| APR   | 23  | PNS   | P      | 09 40 30.8 |      |     |      |     |       |     |       |       |            |            |     |      |    |
|       |     | TRJ   | P      | 09 40 50.4 |      |     |      |     |       |     |       |       |            |            |     |      |    |
| APR   | 23  | LPB   | eP     | 10 22 18.5 |      | 0.7 | 6    |     |       |     |       |       |            |            |     |      |    |
| APR   | 23  | TRJ   | iP     | 10 48 18.1 | D    |     |      |     |       |     |       |       |            |            |     |      |    |
|       |     | S   |        | 50.0       |      |     |      |     |       |     |       |       |            |            |     |      |    |
| APR   | 23  | USCGS 12 05 20.0, 13.6S, 165.9E, h = 33 Km., m = 4.6<br>NEW HEBRIDES IS           |        |            |      |     |      |     |       | APR | 23    | PNS   | eP         | 20 07 52.8 |     |      |    |
|       |     | LPB   | e(PKP) | 12 24 15   |      |     |      | 11  |       |     | LPB   | eP    | 20 10 03.7 |            |     |      |    |
| APR   | 23  | USCGS 12 39 47.3, 27.7N, 56.7E, h = 52 Km., m = 5.1<br>S IRAN                     |        |            |      |     |      |     |       | APR | 23    | PNS   | P          | 20 36 11.1 |     | 1.6  | 57 |
|       |     | LPB   | PKP    | 12 58 50   |      |     |      | 12  |       |     | esS   |       | 48 10      |            |     |      |    |
|       |     | eL  |        | 13 40      |      |     |      |     |       |     | eL    |       | 53.7       |            |     |      |    |
|       |     | PNS   | ePKP   | 12 58 52   |      |     |      |     |       |     | LPB   | P     | 20 36 13.6 | C          | 2.0 | 294  |    |
|       |     | eL  |        | 13 40.6    |      |     |      |     |       |     | eS    |       | 44 14      |            |     |      |    |
|       |     |   |        |            |      |     |      |     |       |     | e(SS) |       | 48 00      |            |     |      |    |
|       |     |   |        |            |      |     |      |     |       |     | eG    |       | 50         |            |     |      |    |
|       |     |   |        |            |      |     |      |     |       |     | eL    |       | 53.8       |            |     |      |    |
| APR   | 23  | USCGS 13 22 38.0, 32.0N, 116.8W, h = 33 Km., m = 5.0<br>CALIFORNIA MEXICO BOR REG |        |            |      |     |      |     |       | APR | 23    | PNS   | P          | 20 42 54.6 |     | 1.8  | 55 |
|       |     | PNS   | eP     | 13 33 24.6 |      |     |      |     |       |     | pP    |       | 46 59.4    |            |     |      |    |
|       |     |   |        |            |      |     |      |     |       |     | SKS   |       | 53 40      |            |     |      |    |
| APR   | 23  | USCGS 13 48 38.5, 1.0S, 80.6W, h = 32 Km., m = 4.3<br>NR CST OF ECUADOR;          |        |            |      |     |      |     |       | APR | 23    | LPB   | P          | 20 42 56.5 |     | 1.0  | 97 |
|       |     | LPB   | eP     | 13 53 04   |      |     |      |     |       |     | ePP   |       | 4657       |            |     | 99.9 |    |
|       |     | i   |        | 10         |      |     |      |     |       |     | ESKS  |       | 53 38      |            |     |      |    |
|       |     | e(L)  |        | 58         |      |     |      |     |       |     |       |       |            |            |     |      |    |
|       |     | PNS   | P      | 13 53 05.0 |      | 0.8 | 10   |     |       |     | LPB   | eP    | 20 59 19   |            | 1.6 | 65   |    |
|       |     | eL  |        | 59.0       |      |     |      |     |       |     | PNS   | P     | 20 59 22.6 |            | 1.6 | 27   |    |
|       |     | TRJ   | P      | 13 54 38.9 |      |     |      |     |       |     | i     |       | 48.0       |            |     |      |    |
| APR   | 23  | LPB   | eP     | 14 46 24   |      |     |      | 52  |       |     | PNS   | P     | 21 29 11.7 |            | 1.1 | 9    |    |
|       |     |   |        |            |      |     |      |     |       |     | LPB   | eP    | 21 29 14.5 |            |     |      |    |



| MONTH | DAY | STA  | PHASE            | TIME                                   | SIGN | PBR        | AMPL   | DT |  |
|-------|-----|--|------------------|--|------|------------|--------|----|--|
| APR   | 23  | LPB<br>PNS   | eP<br>P          | 21 53 46.5<br>21 53 44.8               |      | 1.0        | 7      |    |  |
| APR   | 24  | LPB<br>PNS   | eP<br>P<br>S     | 01 04 35.2<br>01 04 36.8<br>05 23      |      | 0.8<br>0.5 | 6<br>3 |    |  |
| APR   | 24  | USCGS 01 03 48.0, 36.2S, 97.1W, h = 33 Km., m = 4.3<br>W CHILE RISE          |                  |  |      |            |        |    |  |
|       |     | PNS  | P                | 01 10 14.4                             |      | 1.4        | 34     |    |  |
|       |     | LPB  | eP               | 01 10 17                               |      |            |        | 32 |  |
|       |     | TRJ  | eL<br>P          | 19<br>01 10 43.5                       |      |            |        |    |  |
| APR   | 24  | PNS<br>TRJ   | eP<br>eP         | 01 33 08<br>01 33 33.7                 |      |            |        |    |  |
| APR   | 24  | PNS<br>LPB   | eP<br>e(P)       | 02 33 54<br>02 33 55                   |      | 1.0<br>1.0 | 6<br>8 |    |  |
| APR   | 24  | PNS<br>LPB   | P<br>i<br>P<br>e | 02 39 13.5<br>33.7<br>02 39 16.5<br>42 |      | 0.9        | 8      |    |  |
| APR   | 24  | USCGS 02 54 20.0, 1.1S, 80.3W, h = 63 Km., m = 3.9<br>NR CST OF ECUADOR      |                  |  |      |            |        |    |  |
|       |     | TRJ  | P                | 02 57 51.2                             |      |            |        |    |  |
|       |     |  | i                | 58 23.3                                |      |            |        |    |  |
|       |     | PNS  | P                | 02 58 42.1                             |      | 0.7        | 4      |    |  |
|       |     | LPB  | eP               | 02 58 45                               |      |            |        |    |  |
| APR   | 24  | TRJ  | P                | 03 00 17.9                             |      |            |        |    |  |
| APR   | 24  | USCGS 03 04 17.3, 5.1S, 68.3E, h = 33 Km., m = 4.9<br>CHAGOS ARCHIPELAGO REG |                  |  |      |            |        |    |  |
|       |     | PNS  | ePKP             | 03 23 19                               |      |            |        |    |  |
|       |     |  | eL               | 04 06.9                                |      |            |        |    |  |
|       |     | LPB  | ePKP             | 03 23 19.5                             |      |            |        |    |  |
|       |     |  | eL               | 04 08                                  |      |            |        |    |  |
| APR   | 24  | PNS<br>LPB   | eP<br>P          | 03 28 19.6<br>03 28 20.3               |      | 0.5        | 36     |    |  |
| APR   | 24  | PNS  | eP               | 03 36 53.4                             |      |            |        |    |  |
| APR   | 24  | LPB  | e(P)             | 04 50 06.1                             |      |            |        |    |  |
| APR   | 24  | USCGS 05 20 17.0, 2.4S, 133.7E, h = 49 Km., m = 5.0<br>W NEW GUINEA REG      |                  |  |      |            |        |    |  |
|       |     | PNS  | PKP              | 05 40 09.8                             |      | 1.5        | 18     |    |  |
|       |     |  | eL               | 06 34.1                                |      |            |        |    |  |
|       |     | LPB  | P                | 05 40 10.5                             |      | 1.1        | 10     |    |  |
|       |     |  | i                | 15.7                                   |      |            |        |    |  |
|       |     | TRJ  | ePKP             | 05 40 40.0                             |      |            |        | 54 |  |

| MONTH | DAY | STA  | PHASE                  | TIME   | SIGN | PBR | AMPL | DT               |  |
|-------|-----|--|------------------------|--|------|-----|------|------------------|--|
| APR   | 24  | PNS  | P<br>eL                | 06 51 27.6<br>07 21.1                                  |      |     |      | 0.8 3            |  |
| APR   | 24  | LPR<br>PNS<br>TRJ  | P<br>P<br>iP<br>i<br>S | 07 42 57.5<br>07 43 00.4<br>07 43 04.1<br>17.8<br>43.4 |      |     |      | 0.6 13<br>1.4 21 |  |
| APR   | 24  | LPB<br>PNS   | eP<br>e(P)             | 08 02 47.8<br>08 02 48.2                               |      |     |      |                  |  |
| APR   | 24  | LPP<br>PNS<br>TRJ  | P<br>P<br>P<br>S       | 08 12 14.5<br>08 12 17.8<br>08 12 22.4<br>57.2         |      |     |      |                  |  |
| APR   | 24  | USCGS 08 18 02.5, 24.9E LON, 39.3N LAT, h = 17 Km.,<br>m = 5.2 AEGEAN SEA      |                        |  |      |     |      |                  |  |
|       |     | LPR  | eP                     | 08 31 51   |      |     |      | 102.6            |  |
|       |     |  | ePP                    | 35 15.4  |      |     |      |                  |  |
|       |     |  | L                      | 09 08.2  |      |     |      |                  |  |
|       |     | PNS  | eP                     | 08 31 53   |      |     |      |                  |  |
|       |     |  | ePP                    | 35 13  |      |     |      |                  |  |
|       |     |  | SKS                    | 42 43  |      |     |      |                  |  |
|       |     |  | L                      | 09 08.5  |      |     |      |                  |  |
| APR   | 24  | LPB  | eP                     | 10 00 58.3   |      |     |      |                  |  |
| APR   | 24  | USCGS 10 22 48.0, 38.6S, 73.2W, h = 51 Km., m = 4.1<br>NR CST OF CENTRAL CHILE |                        |  |      |     |      |                  |  |
|       |     | TRJ  | P                      | 10 27 33.2   |      |     |      |                  |  |
|       |     | LPB  | P                      | 10 27 43   |      |     |      | 0.9 5 22.1       |  |
|       |     |  | i                      | 50.5   |      |     |      |                  |  |
|       |     |  | eL                     | 35   |      |     |      |                  |  |
|       |     | PNS  | P                      | 10 27 47.0   |      |     |      |                  |  |
| APR   | 24  | LPB<br>PNS   | eP<br>P                | 11 36 02.5<br>11 36 03.2                               |      |     |      | 0.8 5            |  |
| APR   | 24  | LPB  | eP                     | 12 23 42   |      |     |      |                  |  |
|       |     |  | S                      | 24 35  |      |     |      |                  |  |
|       |     | PNS  | P                      | 12 23 44.0   |      |     |      |                  |  |
|       |     |  | eS                     | 24 42  |      |     |      |                  |  |
|       |     | TRJ  | P                      | 12 23 52.3   |      |     |      |                  |  |
|       |     |  | S                      | 24 28.8  |      |     |      |                  |  |
| APR   | 24  | TRJ<br>PNS   | iP<br>P                | 12 43 26.2<br>12 43 53.4                               |      |     |      | C 0.5 5          |  |
| APR   | 24  | USCGS 13 59 14.5, 4.6S, 149.4E, h = 565 Km., m = 5.0<br>BISMARCK SEA           |                        |  |      |     |      |                  |  |
|       |     | PNS  | PKP                    | 14 17 23.4   |      |     |      |                  |  |
|       |     | LPB  | PKP                    | 14 17 27.4   |      |     |      | 137.0            |  |
|       |     |  | i                      | 38.6   |      |     |      |                  |  |
|       |     |  | eL                     | 15 02.4  |      |     |      |                  |  |
| APR   | 24  | LPR<br>PNS   | e(P)<br>P<br>S         | 14 20 18.7<br>14 20 19.0<br>21 13                      |      |     |      | 1.0 14 55        |  |



| APRIL |     |  |                |                                |      |     |      |       |   |  |
|-------|-----|--|----------------|--------------------------------|------|-----|------|-------|---|--|
| MONTH | DAY | STA  | PHASE          | TIME                           | SIGN | PER | AMPL | DIST  |   |  |
| APRIL | 24  | LPB  | eP             | 15 32 13.8                     |      |     |      |       |   |  |
| APRIL | 24  | PNS  | P<br>S         | 15 38 25.8<br>47.7             |      | 0.4 | 2    |       |   |  |
| APRIL | 24  | USCGS 16 02 30.0, 4.4S, 133.6E, h = 33 km., m = 4.6<br>NEW GUINEA REG          |                |                                |      |     |      |       |   |  |
|       |     | LPB  | ePKP           | 16 22 18                       |      |     |      | 149.1 |   |  |
|       |     | PNS  | PKP            | 16 22 22.8                     |      | 1.0 | 11   |       |   |  |
| APRIL | 24  | PNS  | P<br>I         | 16 39 58.8<br>40 18.6          |      | 0.5 | 3    |       |   |  |
|       |     | LPB  | P              | 16 39 59.5                     |      |     |      |       |   |  |
| APRIL | 24  | PNS  | P<br>S         | 18 34 00.8<br>22.7             |      | 0.6 | 3    |       |   |  |
| APRIL | 24  | USCGS 19 31 49.5, T.0 S, 60.4 E, h = 33 km., m = 5.2<br>CHAGOS ARCHIPELAGO REG |                |                                |      |     |      |       |   |  |
|       |     | PNS  | PKP<br>eL      | 19 51 04.4<br>20 34            |      | 1.6 | 30   | 131.1 |   |  |
| APRIL | 24  | PNS  | P              | 20 46 36.8                     |      | 0.9 | 5    |       |   |  |
| APRIL | 24  | PNS  | eP<br>S        | 23 00 51.6<br>01 23.8          |      |     |      |       |   |  |
| APRIL | 24  | PNS  | eP             | 23 49 06.2                     |      |     |      |       |   |  |
| APRIL | 24  | USCGS 23 36 25.9, 30.0 N, 140.7 E, h = 190 km., m = 4.1<br>S OF HONSHU JAPAN   |                |                                |      |     |      |       |   |  |
|       |     | PNS  | PKP<br>I       | 28 55 49.3<br>54.2             |      |     |      | 150.1 |   |  |
| APRIL | 24  | PNS  | P<br>eS        | 23 57 38.4<br>58 34.8          |      | 0.7 | 6    |       |   |  |
| APRIL | 25  | USCGS 23 44 46.2, 6.9S, 129.2E, h = 52 km., m = 5.1<br>BANDA SEA               |                |                                |      |     |      |       |   |  |
|       |     | PNS  | PKP<br>SS<br>L | 00 04 32.7<br>29 15<br>01 00.2 |      | 1.0 | 16   | 159.1 |   |  |
|       |     | TRJ  | PKP            | 00 05 01.5                     |      |     |      |       |   |  |
| APRIL | 25  | PNS  | P              | 00 17 14.8                     |      | 1.0 | 26   |       |   |  |
| APRIL | 25  | TRJ  | P<br>S         | 04 20 53.5<br>21 24.6          |      |     |      |       | C |  |
|       |     | PNS  | eP             | 04 21 06.2                     |      |     |      |       |   |  |
| APRIL | 25  | TRJ  | P              | 04 58 16.0                     |      |     |      |       |   |  |
|       |     | PNS  | eP<br>S        | 04 58 43.8<br>05 00 10.6       |      |     |      |       |   |  |
| APRIL | 25  | PNS  | 1P<br>S        | 05 18 42.6<br>19 06.6          |      | 0.5 | 3    |       | C |  |
| APRIL | 25  | PNS  | P              | 06 14 30.1                     |      | 0.6 | 6    |       |   |  |

| APRIL |     |   |                      |  |      |     |      |      |          |  |
|-------|-----|---|----------------------|--|------|-----|------|------|----------|--|
| MONTH | DAY | STA   | PHASE                | TIME   | SIGN | PER | AMPL | DIST |          |  |
| APR   | 25  | PNS   | eP                   | 06 20 44                                     |      |     |      |      |          |  |
| APR   | 25  | TRJ   | P<br>S               | 07 47 39.0<br>48 11.9                        |      |     |      |      | C        |  |
| APR   | 25  | PNS   | P<br>S               | 07 55 14.8<br>44.6                           |      |     |      |      | C        |  |
| APR   | 25  | PNS   | 1P<br>S              | 09 47 17.5<br>44.8                           |      | 0.6 | 10   |      | C        |  |
| APR   | 25  | PNS   | P<br>S               | 09 51 47.7<br>52 21                          |      |     |      |      |          |  |
| APR   | 25  | USCGS 09 58 27.8, 50.7N, 129.8W, h = 33 km., m = 4.4<br>VACOUVER ISLAND REG   |                      |  |      |     |      |      |          |  |
|       |     | PNS   | eP                   | 10 11 03.0                                   |      |     |      |      | 85.6     |  |
| APR   | 25  | USCGS 11 28 29.8, 8.9S, 108.8W, h = 33 km., m = 4.8<br>N EASTER IS CORDILLERA |                      |  |      |     |      |      |          |  |
|       |     | PNS   | P<br>L               | 11 36 03.8<br>47.8                           |      | 1.0 | 8    | 400  |          |  |
| APR   | 25  | PNS   | e(P)                 | 11 52 00.8                                   |      |     |      |      |          |  |
| APR   | 25  | TRJ   | P<br>S               | 12 04 34.5<br>05 08.4                        |      |     |      |      | C        |  |
| APR   | 25  | PNS   | eP<br>eS             | 13 06 22.8<br>55.4                           |      |     |      |      |          |  |
| APR   | 25  | TRJ   | eP<br>eP<br>eS<br>eL | 13 55 06.0<br>13 55 11.6<br>59 10<br>14 01.4 |      |     |      |      |          |  |
| APR   | 25  | PNS   | P<br>S               | 14 13 48.4<br>14 11.4                        |      | 0.4 | 8    |      |          |  |
| APR   | 25  | TRJ   | 1P<br>PNS            | 14 45 49.5<br>14 46 17.5                     |      |     |      |      | D<br>D   |  |
| APR   | 25  | TRJ   | eP<br>P<br>eS<br>eL  | 15 52 15.8<br>15 52 39.8<br>56 27<br>58.4    |      |     |      |      | 0.9<br>5 |  |
| APR   | 25  | PNS   | P                    | 16 36 48.0                                   |      | 0.5 | 2    |      |          |  |
| APR   | 25  | PNS   | P<br>TRJ             | 17 18 56.3<br>17 19 03.0                     |      | 0.6 | 2    |      | C        |  |
| APR   | 25  | USCGS 17 14 27.7, 7.1S, 156.2E, h = 419 km., m = 5.0<br>SOLOMON IS            |                      |  |      |     |      |      |          |  |
|       |     | PNS   | ePKP<br>e1           | 17 32 52.8<br>18 15.3                        |      | 1.1 | 8    |      |          |  |
| APR   | 25  | PNS   | P<br>I               | 17 35 36.0<br>40.5                           |      |     |      |      |          |  |

| MONTH | DAY | STA          | PHASE | TIME                                     | SIGN | PER | AMPL | DIST  |
|-------|-----|--------------|-------|--|------|-----|------|-------|
| APR   | 25  | USCGS 17 42  |       | 08.7, 4.5S, 153.1E, h = 476 km., m = 4.7 |      |     |      |       |
|       |     | SOLOMON IS   |       |  |      |     |      |       |
|       |     | PNS          | PKP   | 18 09 31.4                               |      | 1.3 | 24   | 132.3 |
| APR   | 25  | PNS          | 1P    | 18 03 13.5                               | C    | 0.9 | 21   |       |
|       |     | TRJ          | P     | 18 03 46.6                               |      |     |      |       |
| APR   | 25  | PNS          | eP    | 18 26 57.5                               |      |     |      |       |
| APR   | 25  | PNS          | P     | 18 58 02.8                               |      |     |      |       |
| APR   | 25  | PNS          | P     | 21 00 37.3                               |      | 0.6 | 29   |       |
|       |     |              | S     | 01 02.3                                  |      |     |      |       |
| APR   | 25  | USCGS 21 25  |       | 36.1, 15.2S, 173.1W, h = 33, m = 5.2     |      |     |      |       |
|       |     | TONGA IS     |       |  |      |     |      |       |
|       |     | PNS          | eP    | 21 39 12.6                               |      |     |      | 99.1  |
|       |     |              | SKS   | 50 00                                    |      |     |      |       |
|       |     |              | SS    | 57 28                                    |      |     |      |       |
|       |     |              | L     | 12.4                                     |      |     |      |       |
| APR   | 25  | PNS          | eP    | 22 03 55                                 |      |     |      |       |
| APR   | 25  | TRJ          | P     | 23 19 08.8                               |      |     |      |       |
|       |     |              | S     | 35.0                                     |      |     |      |       |
| APR   | 25  | LPB          | e(P)  | 23 48 39                                 |      |     |      |       |
| APR   | 25  | USCGS 23 52  |       | 33.4, 6.9N, 72.9W, h = 155 km., m = 4.3  |      |     |      |       |
|       |     | N COLOMBIA   |       |  |      |     |      |       |
|       |     | LPB          | eP    | 23 57 28                                 |      |     |      | 25.4  |
|       |     |              | I     | 58 07.7                                  |      |     |      |       |
|       |     | PNS          | P     | 23 57 30.7                               |      |     |      |       |
|       |     |              | I     | 58 03.8                                  |      |     |      |       |
| APR   | 26  | LPB          | P     | 00 40 05.2                               |      | 0.9 | 8    |       |
| APR   | 26  | USCGS 00 42  |       | 34.9, 15.3S, 173.1W, h = 33 km., m = 6.3 |      |     |      |       |
|       |     | TONGA IS     |       |  |      |     |      |       |
|       |     | PNS          | eP    | 00 56 17                                 |      |     |      |       |
|       |     |              | SKS   | 01 07 00                                 |      |     |      |       |
|       |     |              | SS    | 14 30                                    |      |     |      |       |
|       |     |              | L     | 29                                       |      |     |      |       |
|       |     | LPB          | eP    | 00 56 14                                 |      |     |      | 99.1  |
|       |     |              | SKS   | 07 00                                    |      |     |      |       |
|       |     |              | eSS   | 14 32                                    |      |     |      |       |
|       |     |              | L     | 29                                       |      |     |      |       |
| APR   | 26  | PNS          | eP    | 01 00 23.6                               |      |     |      |       |
|       |     | LPB          | eP    | 01 00 24                                 |      |     |      |       |
| APR   | 26  | USCGS 01 23  |       | 42.1, 18.2N, 68.0W, h = 95 km., m = 4.6  |      |     |      |       |
|       |     | MONA PASSAGE |       |  |      |     |      |       |
|       |     | PNS          | P     | 01 30 22.2                               |      | 0.8 | 3    |       |
|       |     | LPB          | P     | 01 30 25                                 |      |     |      | 34.4  |
|       |     | TRJ          | P     | 01 31 35.4                               |      |     |      | 58    |

| MONTH | DAY | STA                        | PHASE | TIME                                     | SIGN | PER | AMPL | DIST  |
|-------|-----|----------------------------|-------|--|------|-----|------|-------|
| APR   | 26  | LPB                        | eP    | 01 35 51                                 |      |     |      |       |
|       |     | PNS                        | eP    | 01 35 54                                 |      |     |      |       |
| APR   | 26  | LPB                        | eP    | 02 16 21                                 |      | 1.0 | 10   |       |
|       |     | PNS                        | eP    | 02 16 21.2                               |      |     |      |       |
| APR   | 26  | PNS                        | P     | 02 31 42                                 |      |     |      |       |
|       |     | LPB                        | eP    | 02 31 44                                 |      |     |      |       |
|       |     | TRJ                        | P     | 02 31 49.2                               |      |     |      |       |
| APR   | 26  | USCGS 02 58                |       | 22.1, 35.1N, 50.2E, h = 21 km., m = 5.3  |      |     |      |       |
|       |     | IRAN                       |       |  |      |     |      |       |
|       |     | LPB                        | eP    | 03 17 18.5                               |      |     |      | 122.4 |
| APR   | 26  | LPB                        | eP    | 04 24 33.5                               |      | 0.7 | 5    |       |
|       |     | PNS                        | eP    | 04 29 36                                 |      |     |      |       |
| APR   | 26  | PNS                        | P     | 05 10 24                                 |      | 0.6 | 2    |       |
| APR   | 26  | LPB                        | e(P)  | 05 44 38.9                               |      |     |      |       |
| APR   | 26  | LPB                        | P     | 09 24 28                                 |      | 0.8 | 7    |       |
| APR   | 26  | LPB                        | eP    | 10 17 47.2                               |      | 1.0 | 6    |       |
| APR   | 26  | LPB                        | eP    | 10 38 24                                 |      |     |      |       |
|       |     |                            | eP    | 10 38 26                                 |      |     |      |       |
| APR   | 26  | PNS                        | iP    | 11 04 03.8                               | C    | 0.4 | 11   |       |
|       |     |                            | S     | 27.8                                     |      |     |      |       |
| APR   | 26  | LPB                        | eP    | 11 48 22                                 |      |     |      |       |
|       |     |                            | eS    | 59                                       |      |     |      |       |
|       |     | PNS                        | P     | 11 48 25.8                               |      | 0.5 | 6    |       |
|       |     |                            | iS    | 49 05.6                                  |      |     |      |       |
|       |     | TRJ                        | P     | 11 49 04.5                               |      |     |      |       |
| APR   | 26  | USCGS 11 54                |       | 47.7, 14.4S, 70.5W, h = 212 km., m = 4.9 |      |     |      |       |
|       |     | PERU                       |       |  |      |     |      |       |
|       |     | PNS                        | iP    | 11 55 36.5                               |      |     |      |       |
|       |     |                            | iS    | 56 15.0                                  |      |     |      |       |
|       |     | LPB                        | iP    | 11 55 41.7                               |      |     |      | 3.0   |
|       |     |                            | iS    | 1 56 22.4                                |      |     |      |       |
|       |     | TRJ                        | iP    | 11 57 23.3                               | D    |     |      |       |
| APR   | 26  | USCGS 13 15                |       | 23.3, 0.2S, 18.2W, h = 33 km., m = 5.2   |      |     |      |       |
|       |     | CENTRAL MID-ATLANTIC RIDGE |       |  |      |     |      |       |
|       |     | LPB                        | P     | 13 24 30.5                               |      | 1.4 | 58   | 51.3  |
|       |     |                            | ePP   | 26 36                                    |      |     |      |       |
|       |     |                            | S     | 31 50                                    |      |     |      |       |
|       |     |                            | eSS   | 35 47                                    |      |     |      |       |
|       |     |                            | G     | 37.8                                     |      |     |      |       |
|       |     |                            | eL    | 41                                       |      |     |      |       |
|       |     | PNS                        | P     | 13 24 32.7                               |      | 1.5 | 24   |       |
|       |     |                            | pP    | 26 41                                    |      |     |      |       |
|       |     |                            | S     | 32 00                                    |      |     |      |       |
|       |     |                            | SS    | 35 50                                    |      |     |      |       |
|       |     |                            | L     | 40.9                                     |      |     |      |       |
|       |     | TRJ                        | i     | 13 24 51.2                               |      |     |      |       |



| MONTH | DAY | STA  | PHASE                               | TIME   | SIGN | PER | AMPL | DI |
|-------|-----|--|-------------------------------------|--|------|-----|------|----|
| APR   | 26  | USCGS 13 21 13.0, 37.4N, 141.4E, h = 67 km., m = 5.2<br>NRE CST OF HONSHU JAPAN      |                                     |  |      |     |      |    |
|       |     | PNS  | ePKP<br>PKP <sub>2</sub>            | 13 40 48.9<br>41 02.6                                | C    | 1.0 | 23   | 14 |
|       |     | LPB  | eL<br>PKP<br>PKP <sub>2</sub><br>eL | 14 31.2<br>15 49 50.2<br>41 04<br>14 32              |      | 0.0 | 30   |    |
| APR   | 26  | LPB  | e(P)                                | 14 05 36.5   |      |     |      |    |
| APR   | 26  | PNS  | 1P<br>eS<br>ss<br>L                 | 15 11 13.2<br>20 33<br>25 03<br>34.5                 | C    | 1.5 | 300  |    |
|       |     | LPB  | 1P<br>eSS<br>L                      | 15 11 16<br>25 00<br>34.5                            | C    | 0.8 | 272  |    |
|       |     | TRJ  | 1P                                  | 15 12 21.1   | D    |     |      |    |
| APR   | 26  | PNS  | P                                   | 15 31 58.0   |      | 1.4 | 12   |    |
|       |     | LPB  | eP                                  | 15 32 00   |      |     |      |    |
| APR   | 26  | LPB  | P                                   | 15 39 13.4   |      | 2.1 | 101  |    |
|       |     | PNS  | P                                   | 15 39 14.2   |      | 1.7 | 42   |    |
| APR   | 26  | PNS  | P<br>S                              | 16 19 28.0<br>51                                     |      |     |      |    |
| APR   | 26  | TRJ  | P                                   | 17 18 31.7   |      |     |      |    |
|       |     | LPB  | eP                                  | 17 18 39   |      |     |      |    |
|       |     | PNS  | eP                                  | 17 18 43   |      |     |      |    |
| APR   | 26  | USCGS 17 48 02.3, 18.7N, 103.3W, h = 65 km., m = 5.5<br>NR CST OF MICHUOACAN, MEXICO |                                     |  |      |     |      |    |
|       |     | PNS  | P<br>i<br>1S<br>SS<br>eL            | 17 56 42.6<br>50.6<br>18 03 40.0<br>07 50<br>11.2    | D    | 1.0 | 20.3 |    |
|       |     | LPB  | P<br>i<br>S<br>eSS<br>G<br>eL       | 17 56 47.2<br>54<br>18 03 43<br>07 49<br>10 50<br>14 |      | 0.9 | 4    |    |
|       |     | TRJ  | P                                   | 17 57 57.9   |      |     |      |    |
| APR   | 26  | LPB  | P                                   | 18 14 23.2   |      | 0.9 | 3    |    |
|       |     | PNS  | eP                                  | 18 14 26   |      |     |      |    |
| APR   | 26  | PNS  | 1P<br>S                             | 19 24 29.7<br>52.5                                   | D    | 0.5 | 23   |    |
| APR   | 26  | PNS  | P<br>e                              | 22 05 04<br>57.7                                     |      |     |      |    |
|       |     | LPB  | P<br>i                              | 22 05 07<br>51.7                                     |      | 0.6 | 1    |    |
| APR   | 26  | PNS  | eP                                  | 23 04 37.5   |      |     |      | 60 |



| MONTH | DAY | STA | PHASE          | TIME                              | SIGN | PER | AMPL       | DI     |
|-------|-----|-----|----------------|-----------------------------------|------|-----|------------|--------|
| APR   | 26  | PNS | P<br>ePKP<br>e | 23 28 47.4<br>23 28 47.6<br>30 28 |      |     | 1.6        | 14     |
| APR   | 27  | PNS | P<br>S         | 00 53 40.7<br>54 18               |      |     | 0.7        | 6      |
|       |     | LPB | P<br>S         | 00 53 40<br>54 16.3               |      |     | 0.9        | 18     |
| APR   | 27  | PNS | 1P<br>1S       | 01 45 34.0<br>57.3                |      |     |            |        |
|       |     | LPB | P<br>S         | 01 45 36.6<br>46 02               | D    |     | 1.0        | 34     |
| APR   | 27  | PNS | eP<br>eP       | 02 44 45<br>02 44 45.2            |      |     |            |        |
| APR   | 27  | LPB | P<br>P<br>S    | 02 58 40<br>02 58 41.3<br>59 15.7 |      |     | 0.8<br>0.4 | 6<br>2 |
| APR   | 27  | TRJ | P              | 03 18 59.3                        | D    |     |            |        |
|       |     | PNS | P              | 03 19 01                          |      |     | 0.8        | 3      |
|       |     | LPB | P              | 03 19 01.5                        |      |     | 0.9        | 8      |
| APR   | 27  | PNS | eP<br>eP       | 03 51 02<br>03 51 05              |      |     |            |        |
| APR   | 27  | LPB | P<br>(S)       | 04 11 36.7<br>12 06.5             | D    |     | 0.9        | 29     |
|       |     | PNS | P<br>S         | 04 11 36.9<br>12 01.8             | D    |     | 0.6        | 6      |
| APR   | 27  | TRJ | P              | 05 22 48.6                        |      |     |            |        |
|       |     | LPB | P              | 05 23 01                          |      |     |            |        |
|       |     | PNS | P              | 05 23 03.8                        |      |     | 0.8        | 3      |
| APR   | 27  | LPB | e(P)           | 06 09 25                          |      |     |            |        |
| APR   | 27  | PNS | eP<br>eS       | 06 28 51<br>29 50                 |      |     |            |        |
|       |     | TRJ | eP             | 06 28 52.9                        |      |     |            |        |
|       |     | LPB | P<br>S         | 06 29 01.5<br>55                  |      |     | 0.6        | 6      |
| APR   | 27  | PNS | 1P<br>S        | 06 43 59.2<br>44 21.5             | D    |     |            |        |
|       |     | LPB | P              | 06 44 01.2                        | C    |     | 0.6        | 15     |
| APR   | 27  | TRJ | P<br>S         | 07 06 01.3<br>33.3                |      |     |            |        |
| APR   | 27  | PNS | P              | 07 14 01.0                        |      |     | 1.0        | 5      |
| APR   | 27  | PNS | 1P<br>1S       | 07 15 58.5<br>16 20.4             | D    |     |            |        |
|       |     | LPB | P<br>eS        | 07 16 00<br>21                    |      |     | 0.6        | 22     |
| APR   | 27  | TRJ | P              | 08 22 12.2                        |      |     |            |        |
|       |     | PNS | eP             | 08 22 25                          |      |     |            |        |
|       |     | LPB | eP             | 08 22 26                          |      |     | 0.6        | 7      |



| MONTH | DAY | STA                    | PHASE         | TIME                                      | SIGN | PBR | AMPL | DIST  |
|-------|-----|------------------------|---------------|---|------|-----|------|-------|
| APR   | 27  | USCGS<br>SANTA CRUZ IS | 10 58         | 21.5, 10.5 S, 165.1E, h - 75 km., m - 5.1 |      |     |      |       |
|       |     | PNS                    | PKP           | 11 17 08.0                                |      | 1.0 | 10.0 |       |
|       |     | LPB                    | PKP           | 11 17 08.3                                |      | 0.8 | 10   | 120.6 |
|       |     |                        | eL            | 56.3                                      |      |     |      |       |
| APR   | 27  | LPB                    | eP            | 11 50 28                                  |      |     |      |       |
|       |     |                        | S             | 41.2                                      |      |     |      |       |
| APR   | 27  | LPB                    | eP            | 12 47 56                                  |      |     |      |       |
|       |     | PNS                    | P             | 12 47 57.8                                |      | 0.7 | 3.0  |       |
| APR   | 27  | LPB                    | eP            | 12 55 53.7                                |      |     |      |       |
|       |     | PNS                    | P             | 12 55 57.5                                |      | 0.6 | 4.0  |       |
|       |     |                        | S             | 56 19.8                                   |      |     |      |       |
| APR   | 27  | USCGS                  | 13 57         | 50.1, 21.2S, 179.2W, h - 670 km., m - 4.5 |      |     |      |       |
|       |     |                        | W OF TONGA IS |   |      |     |      |       |
|       |     | LPB                    | eP            | 14 10 37.2                                |      |     |      | 102.4 |
|       |     | PNS                    | eP            | 14 10 39                                  |      |     |      |       |
| APR   | 27  | PNS                    | P             | 14 15 03.3                                |      | 1.5 | 11.7 |       |
|       |     | LPB                    | eP            | 14 14 06.5                                |      |     |      |       |
| APR   | 27  | LPB                    | eP            | 14 57 11.6                                |      | 0.6 | 7    |       |
|       |     |                        | eL            | 15 05                                     |      |     |      |       |
|       |     | PNS                    | P             | 14 57 12.3                                |      | 1.4 | 17   |       |
|       |     |                        | e             | 22.5                                      |      |     |      |       |
| APR   | 27  | PNS                    | iP            | 16 42 23.9                                | D    | 0.5 | 10   |       |
|       |     |                        | S             | 59.8                                      |      |     |      |       |
|       |     | LPB                    | P             | 16 42 28.5                                |      | 0.6 | 15   |       |
| APR   | 27  | LPB                    | eP            | 17 03 51                                  |      |     |      |       |
|       |     | PNS                    | eP            | 17 03 55.4                                |      |     |      |       |
| APR   | 27  | LPB                    | e(P)          | 19 25 40.5                                |      |     |      |       |
|       |     | PNS                    | eP            | 19 25 46                                  |      |     |      |       |
| APR   | 27  | LPB                    | eP            | 20 39 11.2                                |      |     |      |       |
|       |     | PNS                    | P             | 20 39 11.6                                | D    | 0.7 | 6    |       |
|       |     |                        | eS            | 38.8                                      |      |     |      |       |
| APR   | 27  | PNS                    | P             | 22 59 58.4                                |      |     |      |       |
|       |     |                        | eS            | 23 00 23                                  |      |     |      |       |
| APR   | 27  | PNS                    | eP            | 23 38 04.4                                |      |     |      |       |
|       |     | LPB                    | eP            | 23 38 08                                  |      |     |      |       |
| APR   | 28  | PNS                    | eP            | 00 30 22                                  |      |     |      |       |
|       |     |                        | e             | 54.6                                      |      |     |      |       |
|       |     | LPB                    | eP            | 00 30 24.5                                |      |     |      |       |
| APR   | 28  | LPB                    | eP            | 01 53 49                                  |      |     |      |       |
| APR   | 28  | LPB                    | eP            | 01 58 52.5                                |      |     |      |       |
|       |     | PNS                    | e(P)          | 01 58 54                                  |      |     |      |       |
| APR   | 28  | PNS                    | eP            | 02 07 03.7                                |      | 0.8 | 3    |       |

| MONTH | DAY | STA   | PHASE                      | TIME                                     | SIGN | PBR | AMPL | DIST  |
|-------|-----|-------|----------------------------|--|------|-----|------|-------|
| APR   | 28  | USCGS | 02 49                      | 32.0, 7.4S, 128.4E, h - 39 km., m - 4.7  |      |     |      |       |
|       |     |       | BANDA SEA                  |  |      |     |      |       |
|       |     | LPB   | P                          | 03 09 24.5                               | C    | 1.0 | 32   | 151.0 |
|       |     | PNS   | PKP                        | 03 09 24.9                               | C    | 1.0 | 20   |       |
| APR   | 28  | PNS   | P                          | 03 35 07.3                               |      |     |      |       |
|       |     |       | L                          | 44.1                                     |      |     |      |       |
|       |     | LPB   | eP                         | 03 35 10.6                               |      |     |      |       |
|       |     |       | eL                         | 47                                       |      |     |      |       |
| APR   | 28  | USCGS | 04 18                      | 15.7, 44.8N, 174.5E, h - 39 km., m - 5.5 |      |     |      |       |
|       |     |       | N PACIFIC OCEAN            |  |      |     |      |       |
|       |     | LPB   | e(PKP)                     | 04 37 04.5                               |      |     |      | 120.8 |
|       |     |       | eL                         | 05 16                                    |      |     |      |       |
|       |     | PNS   | ePKP                       | 04 37 07.6                               |      |     |      |       |
|       |     |       | L                          | 05 15.9                                  |      |     |      |       |
| APR   | 28  | LPB   | eP                         | 05 28 17.5                               |      |     |      |       |
| APR   | 28  | LPB   | eP                         | 05 34 31.5                               |      |     |      |       |
|       |     | PNS   | e(P)                       | 05 35 28                                 |      |     |      |       |
| APR   | 28  | TRJ   | eP                         | 05 39 39.9                               | D    |     |      |       |
|       |     | LPB   | P                          | 05 40 04.5                               |      | 0.7 | 8    |       |
|       |     | PNS   | P                          | 05 40 08.3                               |      | 0.7 | 3    |       |
| APR   | 28  | PNS   | eP                         | 05 55 56.4                               |      | 1.0 | 4    |       |
| APR   | 27  | LPB   | P                          | 09 51 57                                 |      | 0.9 | 10   |       |
|       |     |       | S                          | 52 25.2                                  |      |     |      |       |
|       |     | PNS   | P                          | 09 51 59.2                               |      | 0.5 | 7    |       |
|       |     |       | iS                         | 52 27.0                                  |      |     |      |       |
| APR   | 28  | USCGS | 10 03                      | 31.5, 11.8N, 88.8N, h - 39 km., m - 4.9  |      |     |      |       |
|       |     |       | OFF CST OF CENTRAL AMERICA |  |      |     |      |       |
|       |     | LPB   | P                          | 10 10 14.4                               |      | 1.0 | 16   | 34.6  |
|       |     |       | eS                         | 15 45                                    |      |     |      |       |
|       |     |       | eL                         | 20                                       |      |     |      |       |
|       |     | PNS   | P                          | 10 10 17.5                               |      | 1.0 | 10   |       |
|       |     |       | S                          | 15 44                                    |      |     |      |       |
|       |     |       | eL                         | 21                                       |      |     |      |       |
|       |     | TRJ   | P                          | 10 11 39.2                               |      |     |      |       |
| APR   | 28  | LPB   | eP                         | 10 24 06                                 |      |     |      |       |
|       |     | PNS   | P                          | 10 25 09.0                               |      | 0.6 | 2    |       |
| APR   | 28  | LPB   | eP                         | 11 23 53                                 |      |     |      |       |
|       |     |       | eL                         | 30                                       |      |     |      |       |
| APR   | 28  | LPB   | eP                         | 12 00 13                                 |      |     |      |       |
| APR   | 28  | PNS   | P                          | 12 30 36.9                               |      | 0.8 | 4    |       |
| APR   | 28  | PNS   | P                          | 12 31 10.4                               |      | 0.8 | 5    |       |
|       |     | LPB   | eP                         | 12 31 12                                 |      |     |      |       |
| APR   | 28  | LPB   | eP                         | 12 53 46                                 |      |     |      |       |

| MONTH | DAY | STA              | PHASE  | TIME                                      | SIGN | PER | AMPL | DIST |
|-------|-----|------------------|--------|---|------|-----|------|------|
| APR   | 28  | USCGS 14 08      |        | 57.9, 19.5N, 155.5W, h = 27 km., m = 4.7  |      |     |      |      |
|       |     | HAWAIIAN IS      |        |   |      |     |      |      |
|       |     | PNS              | eP     | 14 22 12.2                                |      |     |      | 92.  |
| APR   | 28  | PNS              | P      | 14 52 03.2                                |      |     |      |      |
|       |     |                  | i      | 07.3                                      |      |     |      |      |
| APR   | 28  | PNS              | P      | 16 19 12.2                                |      |     |      |      |
| APR   | 28  | USCGS 19 22      |        | 20.5, 5.4S, 154.2E, h = 140 km., m = 4.7  |      |     |      |      |
|       |     | SOLOMON IS       |        |   |      |     |      |      |
|       |     | PNS              | ePKP   | 19 41 14.4                                |      |     |      |      |
|       |     | LPB              | e(PKP) | 19 41 15.2                                |      |     |      | 132. |
| APR   | 28  | LPB              | e(P)   | 19 49 07                                  |      |     |      |      |
|       |     | PNS              | eP     | 19 49 12.2                                |      |     |      |      |
| APR   | 28  | LPB              |        | 20 12 54 eP                               |      |     |      |      |
| APR   | 28  | USCGS 20 13      |        | 36.7, 45.5N, 27.8W, h = 33 km., m = 4.5   |      |     |      |      |
|       |     | N ATLANTIC RIDGE |        |   |      |     |      |      |
|       |     | LPB              | eP     | 20 24 55.5                                |      |     |      | 72.  |
|       |     | PNS              | eP     | 20 24 56.4                                |      |     |      |      |
|       |     |                  | eL     | 48.5                                      |      |     |      |      |
| APR   | 28  | PNS              | iP     | 20 38 16.7                                | C    | 0.5 | 2    |      |
|       |     |                  | S      | 46.1                                      |      |     |      |      |
| APR   | 28  | USCGS 20 22      |        | 05.0, 5.5S, 146.3E, h = 39 km., m = 5.6   |      |     |      |      |
|       |     | E NEW GUINEA REG |        |   |      |     |      |      |
|       |     | PNS              | ePKP   | 20 41 33.2                                |      |     |      |      |
|       |     | LPB              | ePKP   | 20 41 35                                  |      |     |      | 139  |
| APR   | 28  | PNS              | P      | 22 59 31.3                                | C    | 0.8 | 2    |      |
|       |     |                  | i      | 36.9                                      |      |     |      |      |
|       |     | LPB              | eP     | 22 59 34.5                                |      |     |      |      |
| APR   | 28  | PNS              | eP     | 23 06 35                                  |      |     |      |      |
| APR   | 28  | LPB              | eP     | 23 29 59                                  |      |     |      |      |
|       |     |                  | eP     | 23 30 02                                  |      |     |      |      |
| APR   | 29  | USCGS 00 21      |        | 36.6, 39.5N, 122.1W, h = 15 km., m = 5.0  |      |     |      |      |
|       |     | N CALIFORNIA     |        |   |      |     |      |      |
|       |     | PNS              | eP     | 00 33 17.2                                |      |     |      |      |
|       |     |                  | eL     | 57  |      |     |      |      |
|       |     | LPB              | eP     | 00 33 19.5                                |      |     |      | 74   |
|       |     |                  | eL     | 55  |      |     |      |      |
| APR   | 29  | USCGS 00 43      |        | 14.2, 14.0N, 144.7E, h = 164 km., m = 5.0 |      |     |      |      |
|       |     | MARIANA IS       |        |   |      |     |      |      |
|       |     | PNS              | PKP    | 01 02 41.1                                |      | 1.3 | 27   |      |
|       |     |                  | eL     | 53.8                                      |      |     |      |      |
|       |     | LPB              | PKP    | 01 02 42                                  |      | 1.3 | 23   | 141  |
|       |     |                  | eL     | 52  |      |     |      |      |



| MONTH | DAY | STA | PHASE | TIME       | SIGN | PER | AMPL | DIST |
|-------|-----|-----|-------|------------|------|-----|------|------|
| APR   | 29  | LPB | eP    | 01 07 50   |      |     |      |      |
|       |     | PNS | P     | 01 07 51.5 |      | 0.6 | 4    |      |
|       |     |     | eS    | 09 31      |      |     |      |      |
| APR   | 29  | PNS | iP    | 01 39 04.4 | D    | 0.5 | 7    |      |
| APR   | 29  | PNS | eP    | 01 51 35.4 |      |     |      |      |
|       |     |     | eS    | 52 41      |      |     |      |      |
| APR   | 29  | LPB | eP    | 02 50 59   |      |     |      |      |
|       |     | PNS | P     | 02 51 01.3 |      | 1.2 | 12   |      |
| APR   | 29  | PNS | eP    | 03 17 06   |      |     |      |      |
|       |     |     | S     | 18 31.5    |      |     |      |      |
|       |     | LPB | P     | 03 17 11.6 |      | 0.9 | 12   |      |
|       |     |     | e     | 17.0       |      |     |      |      |
|       |     |     | S     | 18 36.5    |      |     |      |      |
| APR   | 29  | PNS | P     | 04 05 57.4 |      | 1.5 | 2    |      |
| APR   | 29  | LPB | P     | 07 08 19   |      | 1.0 | 8    |      |
|       |     | PNS | eP    | 07 08 20   |      |     |      |      |
|       |     |     | eS    | 09 29.2    |      |     |      |      |
| APR   | 29  | PNS | P     | 07 21 15.4 | C    | 0.9 | 11   |      |
|       |     | LPB | P     | 07 21 16   | D    | 0.9 | 12   |      |
| APR   | 29  | LPB | eP    | 09 17 09.6 |      |     |      |      |
|       |     | PNS | P     | 09 17 09.8 |      | 1.1 | 6    |      |
| APR   | 29  | PNS | eP    | 09 27 54   |      |     |      |      |
| APR   | 29  | LPB | eP    | 09 53 11.5 |      |     |      |      |
|       |     |     | S     | 55 42.2    |      |     |      |      |
|       |     | PNS | eP    | 09 53 12   |      |     |      |      |
| APR   | 29  | PNS | eP    | 10 16 32   |      |     |      |      |
|       |     | LPB | eP    | 10 16 33   |      |     |      |      |
| APR   | 29  | PNS | eP    | 10 42 22.4 |      |     |      |      |
|       |     |     | eL    | 11 17.2    |      |     |      |      |
|       |     | LPB | eP    | 10 42 28.6 |      |     |      |      |
|       |     |     | eL    | 11 17      |      |     |      |      |
| APR   | 29  | PNS | eP    | 11 06 38   |      |     |      |      |
| APR   | 29  | PNS | iP    | 11 00 36.5 | C    | 0.6 | 8    |      |
|       |     |     | S     | 01 13      |      |     |      |      |
|       |     | LPB | eP    | 11 00 41.5 |      | 0.8 | 15   |      |
| APR   | 29  | PNS | P     | 11 07 45.4 |      | 0.6 | 3    |      |
|       |     |     | S     | 08 09      |      |     |      |      |
| APR   | 29  | PNS | P     | 13 44 30.0 |      | 0.6 | 15   |      |
|       |     |     | S     | 56.8       |      |     |      |      |
|       |     | LPB | P     | 13 44 36.7 |      | 0.8 | 15   |      |
|       |     |     | S     | 45 10      |      |     |      |      |
| APR   | 29  | PNS | eP    | 14 21 42.8 |      |     |      |      |
|       |     | LPB | eP    | 14 21 47   |      |     |      |      |

APRIL

| MONTH | DAY | STA  | PHASE   | TIME                     | SIGN | PER | AMPL | DIST |  |
|-------|-----|--|---------|--------------------------|------|-----|------|------|--|
| APR   | 29  | LPB<br>PNS   | eP<br>P | 14 44 19.8<br>14 44 20.4 |      | 1.2 | 7    |      |  |
| APR   | 29  | PNS  | eP      | 14 47 07.5               |      | 1.3 | 11   |      |  |
| APR   | 29  | PNS  | iP<br>S | 16 37 55.3<br>38 18      | D    | 0.6 | 4    |      |  |
| APR   | 29  | USCGS 17 01 57.6, 39.2N, 44.3E, h = 34 km., m = 5.3<br>NW IRAN USSR BOR REG    |         |                          |      |     |      |      |  |
|       |     | LPB  | ePKP    | 17 20 43                 |      |     |      | 117. |  |
|       |     |  | eL      | 58                       |      |     |      |      |  |
|       |     | PNS  | PKP     | 17 20 43.4               |      |     |      |      |  |
|       |     |  | PP      | 21 52.8                  |      |     |      |      |  |
|       |     |  | L       | 57.5                     |      |     |      |      |  |
| APR   | 29  | USCGS 18 33 42.4, 35.5S, 108.0W, h = 33 km., m = 4.4<br>EASTER IS CORDILLERA   |         |                          |      |     |      |      |  |
|       |     | PNS  | P       | 18 41 17.4               |      | 1.0 | 13   |      |  |
|       |     |  | eL      | 52.9                     |      |     |      |      |  |
|       |     | LPB  | eP      | 18 41 18.6               |      | 1.2 | 25   | 40.  |  |
|       |     |  | eL      | 51.8                     |      |     |      |      |  |
| APR   | 29  | PNS  | iP<br>S | 20 17 39.7<br>18 05      | D    | 0.9 | 5    |      |  |
| APR   | 29  | LPB  | eP      | 21 30 19.5               |      | 0.8 | 6    |      |  |
|       |     | PNS  | eP      | 21 30 20                 |      |     |      |      |  |
| APR   | 29  | PNS  | P       | 22 16 52.0               |      | 1.0 | 7    |      |  |
|       |     | LPB  | eP      | 22 16 55.5               |      |     |      |      |  |
| APR   | 29  | USCGS 22 26 54.1, 2.6S, 77.2W, h = 131 km., m = 4.7<br>PERU ECUADOR BOR REG    |         |                          |      |     |      |      |  |
|       |     | PNS  | P       | 22 30 32.5               |      | 1.0 | 13   |      |  |
|       |     |  | i       | 39.0                     |      |     |      |      |  |
|       |     |  | S       | 33 47.2                  |      |     |      |      |  |
|       |     |  | eL      | 35.1                     |      |     |      |      |  |
|       |     | LPB  | P       | 22 30 37.7               |      | 0.9 | 23   | 15.  |  |
|       |     |  | i       | 42.5                     |      |     |      |      |  |
|       |     |  | eS      | 33 38                    |      |     |      |      |  |
|       |     |  | eL      | 36                       |      |     |      |      |  |
| APR   | 29  | PNS  | eP      | 23 17 04.7               |      |     |      |      |  |
| APR   | 30  | PNS  | P       | 00 01 15.6               |      | 0.8 | 4    |      |  |
| APR   | 30  | PNS  | eP      | 00 48 00                 |      |     |      |      |  |
|       |     | LPB  | eP      | 00 48 05                 |      |     |      |      |  |
| APR   | 30  | PNS  | eP      | 01 51 54.2               |      |     |      |      |  |
|       |     | LPB  | eP      | 01 51 54.5               |      |     |      |      |  |
| APR   | 30  | USCGS 01 42 58.7, 54.3N, 159.5E, h = 118 km., m = 5.1<br>NR E CST OF KAMCHATKA |         |                          |      |     |      |      |  |
|       |     | PNS  | ePKP    | 02 01 51                 |      |     |      | 127  |  |
|       |     | LPB  | ePKP    | 02 01 51.5               |      |     |      | 67   |  |

APRIL



From the ISC collection scanned by SISMOS

| MONTH | DAY | STA   | PHASE | TIME       |   |     |    |       |  |
|-------|-----|---|-------|------------|---|-----|----|-------|--|
| APR   | 30  | PNS   | e(P)  | 02 27 51   |   |     |    |       |  |
| APR   | 30  | PNS   | eP    | 02 57 17   |   |     |    |       |  |
|       |     | LPB   | eP    | 02 57 19   |   | 1.1 | 5  |       |  |
| APR   | 30  | LPB   | eP    | 03 47 11   |   |     |    |       |  |
|       |     | PNS   | eP    | 03 47 11.6 |   |     |    |       |  |
| APR   | 30  | LPB   | eP    | 04 54 16   |   |     |    |       |  |
|       |     | PNS   | P     | 04 54 19.9 |   |     |    |       |  |
| APR   | 30  | PNS   | eP    | 06 04 12.6 |   |     |    |       |  |
|       |     |   | S     | 05 04.7    |   |     |    |       |  |
| APR   | 30  | USCGS 05 51 07.2, 3.2S, 135.0E, h = 51 km., m = 4.9<br>W NEW GUINEA REG         |       |            |   |     |    |       |  |
|       |     | PNS   | PKP   | 06 10 57.3 | C | 0.9 | 24 |       |  |
|       |     |   | PKP2  | 11 09.9    |   |     |    |       |  |
|       |     | LPB   | PKP   | 06 10 57.6 |   | 0.9 | 22 | 149.4 |  |
|       |     |   | PKP2  | 10         |   |     |    |       |  |
| APR   | 30  | PNS   | P     | 07 26 04   |   | 0.9 | 5  |       |  |
|       |     | LPB   | eP    | 07 26 08   |   |     |    |       |  |
| APR   | 30  | LPB   | eP    | 07 51 44   |   |     |    |       |  |
|       |     |   | (S)   | 52 38      |   |     |    |       |  |
|       |     | PNS   | P     | 07 51 46.0 | D | 0.4 | 2  |       |  |
|       |     |   | S     | 52 23      |   |     |    |       |  |
| APR   | 30  | LPB   | eP    | 08 24 18.5 |   | 1.0 | 4  |       |  |
|       |     |   | S     | 30.9       |   |     |    |       |  |
| APR   | 30  | PNS   | P     | 08 49 56.2 |   | 0.7 | 7  |       |  |
|       |     |   | e(S)  | 52 54      |   |     |    |       |  |
|       |     | LPB   | eP    | 08 49 58.4 |   |     |    |       |  |
| APR   | 30  | USCGS 08 57 06.0, 33.3S, 69.7W, h = 140 km., m = 4.6<br>CHILE-ARGENTINA BOR REG |       |            |   |     |    |       |  |
|       |     | LPB   | P     | 09 00 55.2 |   | 0.6 | 10 | 16.2  |  |
|       |     |   | eS    | 04 19.5    |   |     |    |       |  |
|       |     | PNS   | P     | 09 00 57.2 |   |     |    |       |  |
| APR   | 30  | PNS   | eP    | 09 43 13   |   |     |    |       |  |
| APR   | 30  | PNS   | eP    | 09 47 10   |   |     |    |       |  |
|       |     | LPB   | eP    | 09 47 13   |   |     |    |       |  |
| APR   | 30  | PNS   | eP    | 10 11 54.6 |   |     |    |       |  |
| APR   | 30  | PNS   | P     | 10 17 06.8 |   | 0.5 | 3  |       |  |
|       |     |   | eS    | 29         |   |     |    |       |  |
|       |     | LPB   | eP    | 10 17 09   |   |     |    |       |  |
| APR   | 30  | PNS   | eP    | 10 28 37.2 |   |     |    |       |  |
|       |     |   | S     | 30 52.6    |   |     |    |       |  |
|       |     | LPB   | eP    | 10 28 41.2 |   |     |    |       |  |
| APR   | 30  | PNS   | eP    | 10 53 10   |   |     |    |       |  |
|       |     |   | eS    | 46.6       |   |     |    |       |  |

APRIL

| MONTH | DAY | STA  | PHASE | TIME       | SIGN | PER | AMPL | DIST |  |
|-------|-----|--|-------|------------|------|-----|------|------|--|
| APR   | 30  | PNS  | eP    | 11 09 54.6 |      |     |      |      |  |
| APR   | 30  | LPB  | eP    | 12 01 22   |      |     |      |      |  |
|       |     | PNS  | P     | 12 01 27.5 |      | 1.2 | 0    |      |  |
| APR   | 30  | USCGS 10 45 24.0, 21.4S, 174.5W, h = 197 km., m = 4.5<br>TONGA IS                      |       |            |      |     |      |      |  |
|       |     | LPB  | eL    |            |      |     |      | 90.  |  |
| APR   | 30  | PNS  | eP    | 20 40 55   |      |     |      |      |  |
| APR   | 30  | PNS  | eP    | 21 00 03.5 |      |     |      |      |  |
| APR   | 30  | PNS  | P     | 21 24 35.1 |      |     |      |      |  |
|       |     |  | S     | 59.7       |      |     |      |      |  |
| APR   | 30  | LPB  | eP    | 21 57 35.5 |      |     |      |      |  |
|       |     | PNS  | iP    | 21 57 40.8 | D    | 0.6 | 14   |      |  |
|       |     |  | S     | 59 04      |      |     |      |      |  |
| APR   | 30  | USCGS 23 51 17.9, 38.4S, 71.1W, h = 40 km., m = 5.0<br>S CHILE-ARGENTINA BORDER REGION |       |            |      |     |      |      |  |
|       |     | LPB  | iP    | 23 56 11.2 | C    | 0.9 | 655  | 22.  |  |
|       |     |  | PP    | 44.5       |      |     |      |      |  |
|       |     |  | PcP   | 24 00 09.5 |      |     |      |      |  |
|       |     |  | iS    | 17         |      |     |      |      |  |
|       |     |  | eL    | 02.5       |      |     |      |      |  |
|       |     |  | (ScS) | 07 50.5    |      |     |      |      |  |
|       |     | PNS  | iP    | 23 56 13.0 |      |     |      |      |  |
|       |     |  | PeP   | 24 00 14.0 |      |     |      |      |  |
|       |     |  | S     | 22         |      |     |      |      |  |
|       |     |  | L     | 02.8       |      |     |      |      |  |

MAY



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| MONTH | DAY | STA   | PHASE | TIME       |   |     |     |       |  |
|-------|-----|---|-------|------------|---|-----|-----|-------|--|
| MAY   | 01  | LPB   | e(P)  | 01 25 13.5 |   |     |     |       |  |
| MAY   | 01  | PNS   | iP    | 01 34 17.1 | D | 0.5 | 8   |       |  |
| MAY   | 01  | LPB   | e(P)  | 01 49 15   |   |     |     |       |  |
| MAY   | 01  | PNS   | iP    | 01 58 15.6 | D | 0.4 | 6   |       |  |
|       |     |   | S     | 39.5       |   |     |     |       |  |
|       |     | LPB   | eP    | 01 58 17.2 |   |     |     |       |  |
| MAY   | 01  | LPB   | iP    | 02 16 28.2 |   | 0.7 | 25  |       |  |
|       |     |   | S     | 58.7       |   |     |     |       |  |
|       |     | PNS   | iP    | 02 16 29.8 | D |     |     |       |  |
|       |     |   | iS    | 17 09.2    |   |     |     |       |  |
| MAY   | 01  | LPB   | P     | 02 55 58.2 |   | 0.8 | 4   |       |  |
| MAY   | 01  | PNS   | eP    | 03 00 32   |   |     |     |       |  |
|       |     | LPB   | e(P)  | 03 00 33   |   |     |     |       |  |
| MAY   | 01  | USCGS 02 59 59.0, 6.8 S, 129.5E, h = 31 km., m = 4.9<br>BANDA SEA |       |            |   |     |     |       |  |
|       |     | LPB   | PKP   | 03 19 53.5 |   | 1.0 | 18  | 150.7 |  |
|       |     |   | pPKP  | 20 02      |   |     |     |       |  |
|       |     | PNS   | PKP   | 03 19 53.8 |   | 1.1 | 13  |       |  |
|       |     |   | pPKP  | 20 02.0    |   |     |     |       |  |
| MAY   | 01  | PNS   | iP    | 03 32 53.9 | D | 0.4 | 6   |       |  |
|       |     |   | S     | 33 21.6    |   |     |     |       |  |
|       |     | LPB   | eP    | 03 32 55   |   |     |     |       |  |
|       |     |   | S     | 33 29      |   |     |     |       |  |
| MAY   | 01  | USCGS 04 31 09.7, 2.9S, 128.0E, h = 26 km., m = 5.4<br>CERAM SEA  |       |            |   |     |     |       |  |
|       |     | LPB   | PKP   | 04 51 05.5 |   |     |     | 161.5 |  |
|       |     |   | eL    | 05 45.4    |   |     |     |       |  |
|       |     | PNS   | PKP   | 04 51 06.8 |   |     |     |       |  |
|       |     |   | i     | 13.4       |   |     |     |       |  |
|       |     |   | eL    | 05 47.5    |   |     |     |       |  |
| MAY   | 01  | LPB   | eP    | 05 02 53.5 |   |     |     |       |  |
|       |     | PNS   | eP    | 05 02 54   |   |     |     |       |  |
| MAY   | 01  | LPB   | e(P)  | 04 30 11.5 |   |     |     |       |  |
| MAY   | 01  | PNS   | e(P)  | 05 10 14   |   |     |     |       |  |
|       |     | LPB   | P     | 05 10 18.7 |   | 1.2 | 12  |       |  |
|       |     |   | eL    | 48         |   |     |     |       |  |
| MAY   | 01  | USCGS 05 55 10.0, 1.6N, 127.7E, h = 191 km., m = 5.2<br>ALMAHERA  |       |            |   |     |     |       |  |
|       |     | PNS   | ePKP  | 06 14 45   |   |     |     |       |  |
|       |     | LPB   | ePKP  | 06 15 43   |   |     |     | 158.0 |  |
| MAY   | 01  | PNS   | iP    | 07 36 39.6 | D |     |     |       |  |
|       |     |   | (eS)  | 37 02.6    |   |     |     |       |  |
|       |     | LPB   | iP    | 07 36 41.0 | D | 0.8 | 435 |       |  |
|       |     |   | eS    | 37 06      |   |     |     |       |  |
| MAY   | 01  | PNS   | eP    | 08 24 22   |   |     |     |       |  |

| MONTH | DAY | STA                                 | PHASE  | TIME   | SIGN   | PER        | AMPL     | DI |
|-------|-----|-------------------------------------|--|--|--------|------------|----------|----|
| MAY   | 01  | PNS<br>LPB                          | P<br>eP  | 09 00 18.3<br>09 00 20                       |        | 0.7        | 5        |    |
| MAY   | 01  | USCGS<br>OFF E CST OF HONSHU, JAPAN | 08 43 47.4, 38.6N, 143.1E, h = 36 km., m = 5.3 |  |        |            |          |    |
|       |     | PNS<br>LPB                          | PKP<br>eL<br>P<br>eL                           | 09 03 21.9<br>55<br>09 03 22.7<br>54.8       |        | 1.4<br>1.1 | 30<br>40 |    |
| MAY   | 01  | PNS<br>LPB                          | P<br>e<br>eP<br>e                              | 09 13 50.2<br>14 11.4<br>09 13 53.5<br>14 10 |        | 1.0        | 7        |    |
| MAY   | 01  | PNS<br>LPB                          | eP<br>eP                                       | 09 21 28<br>09 21 30.5                       |        |            |          |    |
| MAY   | 01  | USCGS<br>NR CST OF CHIAPAS, MEXICO  | 10 28 58.2, 15.0N, 93.5W, h = 61 km., m = 4.6  |  |        |            |          |    |
|       |     | LPB<br>PNS                          | eP<br>eL<br>P<br>eL                            | 10 36 19.2<br>46.7<br>10 36 22.3<br>48.2     |        |            |          |    |
| MAY   | 01  | LPB<br>PNS                          | eP<br>P<br>S                                   | 11 00 04<br>11 00 07.0<br>29.8               |        |            |          |    |
| MAY   | 01  | LPB<br>PNS                          | eP<br>eP                                       | 11 17 53<br>11 18 00.6                       |        |            |          |    |
| MAY   | 01  | PNS                                 | eP   | 12 20 14.5                                   |        |            |          |    |
| MAY   | 01  | LPB<br>PNS                          | iP<br>iP<br>S                                  | 13 08 52.5<br>13 08 55.5<br>09 20            | D<br>D | 0.7<br>0.6 | 24<br>10 |    |
| MAY   | 01  | LPB<br>PNS                          | eP<br>P  | 13 48 12<br>13 48 19.2                       |        | 0.4        | 5        |    |
| MAY   | 01  | USCGS<br>N CELEBES                  | 14 35 50.3, 122.8E, h = 176 km., m = 4.9       |  |        |            |          |    |
|       |     | LPB<br>PNS                          | eP<br>PKP<br>pPKP<br>eL                        | 14 55 30<br>14 55 32.0<br>56 15.5<br>15 51.2 |        | 1.3        | 11       |    |
| MAY   | 01  | PNS                                 | eP   | 16 53 53                                     |        |            |          |    |
| MAY   | 01  | PNS                                 | eP   | 18 45 41.8                                   |        |            |          |    |
| MAY   | 01  | LPB<br>PNS                          | P<br>e<br>eP<br>e                              | 18 47 35.8<br>48 09<br>18 47 38.4<br>48 08   |        | 0.9        | 15       |    |
| MAY   | 01  | LPB                                 | e(P)   | 19 08 51.7                                   |        |            |          |    |

| MONTH | DAY | STA                                | PHASE  | TIME   | SIGN   | PER        | AMPL     | DI    |
|-------|-----|------------------------------------|--|--|--------|------------|----------|-------|
| MAY   | 01  | USCGS<br>NR E CST OF HONSHU, JAPAN | 19 12 53.4, 40.9N, 142.5E, h = 18 km., m = 4.9 |  |        |            |          |       |
|       |     | PNS<br>LPB                         | PKP<br>eL<br>PKP                               | 19 32 27.7<br>20 20.7<br>19 32 29.2                                  |        | 1.4<br>1.3 | 18<br>15 | 144.0 |
| MAY   | 01  | USCGS<br>NR E CST OF HONSHU, JAPAN | 19 16 39.0, 40.9N, 142.4E, h = 45 km., m = 47  |  |        |            |          |       |
|       |     | PNS                                | ePKP<br>eL                                     | 19 36 14<br>20 25.5  |        |            |          | 144.0 |
| MAY   | 01  | USCGS<br>RYUKYU IS                 | 19 37 53.8, 27.5N, 128.3E, h = 35 km., m = 4.8 |  |        |            |          |       |
|       |     | PNS                                | ePKP<br>eL                                     | 19 57 53.2<br>20 53.7  |        |            |          | 161.1 |
| MAY   | 01  | LPB<br>PNS                         | eP<br>P  | 20 14 14<br>20 14 20.5   |        | 1.0        | 8        |       |
| MAY   | 01  | PNS                                | eP   | 20 59 00   |        |            |          |       |
| MAY   | 01  | LPB<br>PNS                         | P<br>eP  | 23 06 14.7<br>23 06 16   |        | 1.0        | 8        |       |
| MAY   | 01  | LPB<br>PNS                         | iP<br>eS<br>iP<br>eS                           | 23 56 14.6<br>57 10<br>23 56 17.1<br>57 12                           | D<br>C | 0.8        | 42       |       |
| MAY   | 02  | PNS<br>LPB                         | iP<br>S<br>eP<br>S                             | 00 02 52.6<br>03 15<br>00 02 54.2<br>20                              | D      | 0.6        | 16       |       |
| MAY   | 02  | PNS<br>LPB                         | eP<br>eP                                       | 01 23 41<br>01 23 44.3   |        |            |          |       |
| MAY   | 02  | PNS<br>LPB                         | eP<br>eP                                       | 01 35 52<br>01 35 56.2   |        |            |          |       |
| MAY   | 02  | USCGS<br>GULF OF CALIFORNIA        | 04 29 02.0, 28.5N, 112.1W, h = 33 km., m = 4.4 |  |        |            |          |       |
|       |     | PNS<br>LPB                         | eP<br>eP                                       | 04 39 11.9<br>04 39 15.5   |        |            |          | 61.5  |
| MAY   | 02  | PNS<br>LPB                         | iP<br>S<br>P                                   | 04 58 12.6<br>36.6<br>04 58 12.7                                     | D      | 0.9        | 27       |       |
| MAY   | 02  | USCGS<br>DOMINICAN REPUBLIC REG    | 05 29 38.2, 18.8N, 69.6W, h = 82 km., m = 5.8  |  |        |            |          |       |
|       |     | PNS<br>LPB                         | iP<br>S<br>SS<br>L<br>iP<br>S<br>SS            | 05 36 23.7<br>42 25<br>44 18<br>46.7<br>05 36 25.7<br>42 20<br>44 23 | C<br>C | 1.0        | 265      | 35.1  |

| MONTH | DAY | STA         | PHASE | TIME                                     | SIGN | PER | AMPL | DIST |
|-------|-----|-------------|-------|--|------|-----|------|------|
|       |     |             | L     | 46.8                                     |      |     |      |      |
| MAY   | 02  | USCGS 05 38 |       | 48.8, 40.7N, 142.8E, h = 44 km., m = 4.6 |      |     |      |      |
|       |     |             |       | NR E CST OF HONSHU, JAPAN                |      |     |      |      |
|       |     | PNS         | ePKP  | 05 58 24.5                               |      |     |      | 144  |
|       |     |             | eL    | 06 47.4                                  |      |     |      |      |
| MAY   | 02  | PNS         | eP    | 06 09 01                                 |      |     |      |      |
|       |     |             | e     | 42                                       |      |     |      |      |
|       |     | LPB         | eP    | 06 09 03.5                               |      |     |      |      |
| MAY   | 02  | LPB         | eP    | 06 43 45                                 |      |     |      |      |
|       |     | PNS         | eP    | 06 43 46                                 |      |     |      |      |
| MAY   | 02  | PNS         | eP    | 07 14 50.3                               |      | 1.0 | 6    |      |
|       |     | LPB         | eP    | 07 14 51.5                               |      |     |      |      |
| MAY   | 02  | PNS         | eP    | 07 29 49                                 |      |     |      |      |
|       |     | LPB         | e(P)  | 07 29 54                                 |      |     |      |      |
| MAY   | 02  | PNS         | P     | 07 44 02.4                               |      | 0.6 | 3    |      |
|       |     | LPB         | eP    | 07 44 04.2                               |      |     |      |      |
| MAY   | 02  | USCGS 07 40 |       | 07.2, 36.2N, 34.0W, h = 33 km., m = 4.8  |      |     |      |      |
|       |     |             |       | AZORES IS REG                            |      |     |      |      |
|       |     | PNS         | P     | 07 50 24.2                               |      | 1.4 | 40   |      |
|       |     |             | i     | 53 32.3                                  |      |     |      |      |
|       |     |             | L     | 08 10                                    |      |     |      |      |
|       |     | LPB         | P     | 07 50 24.5                               |      | 1.9 | 78   |      |
|       |     |             | eL    | 08 10                                    |      |     |      |      |
| MAY   | 02  | USCGS 07 58 |       | 05.0, 36.3N, 34.1W, h = 33 km., m = 4.9  |      |     |      |      |
|       |     |             |       | AZORES IS REG                            |      |     |      |      |
|       |     | LPB         | eP    | 08 08 21.5                               |      | 2.0 | 104  |      |
|       |     |             | i     | 27                                       |      |     |      |      |
|       |     |             | L     | 28                                       |      |     |      |      |
|       |     | PNS         | P     | 08 08 22.2                               | C    | 1.4 | 80   |      |
|       |     |             | i     | 27.6                                     |      |     |      |      |
|       |     |             | L     | 27.9                                     |      |     |      |      |
| MAY   | 02  | PNS         | P     | 08 33 19.1                               |      | 0.4 | 6    |      |
|       |     |             | S     | 42.8                                     |      |     |      |      |
|       |     | LPB         | eP    | 08 33 21.6                               |      |     |      |      |
| MAY   | 02  | LPB         | eP    | 09 28 37                                 |      | 0.7 | 4    |      |
|       |     | PNS         | eP    | 09 28 43.8                               |      |     |      |      |
| MAY   | 02  | PNS         | eP    | 09 39 32.6                               |      | 0.7 | 4    |      |
|       |     | LPB         | eP    | 09 39 35.5                               |      |     |      |      |
| MAY   | 02  | USCGS 09 25 |       | 58.6, 24.4N, 121.7E, h = 30 km., m = 4.9 |      |     |      |      |
|       |     |             |       | TAIWAN                                   |      |     |      |      |
|       |     | PNS         | PKP   | 09 46 02                                 |      |     |      |      |
|       |     |             | PKP   | 47 09.2                                  |      |     |      |      |
|       |     | LPB         | ePKP  | 09 46 06                                 |      |     |      |      |
|       |     |             | PKP2  | 47 11                                    |      |     |      |      |

| MONTH | DAY | STA         | PHASE | TIME                                     | SIGN | PER | AMPL | DIST  |
|-------|-----|-------------|-------|--|------|-----|------|-------|
| MAY   | 02  | LPB         | eP    | 10 08 55                                 |      |     |      |       |
|       |     | PNS         | eP    | 10 08 55                                 |      |     |      |       |
| MAY   | 02  | USCGS 11 44 |       | 58.1, 5.5S, 153.4E, h = 91 km., m = 5.0  |      |     |      |       |
|       |     |             |       | NEW IRELAND REG                          |      |     |      |       |
|       |     | PNS         | ePKP  | 12 04 03.2                               |      |     |      |       |
|       |     |             | eL    | 41.8                                     |      |     |      |       |
|       |     | LPB         | ePKP  | 12 04 05                                 |      |     |      | 133.0 |
|       |     |             | eL    | 51.5                                     |      |     |      |       |
| MAY   | 02  | PNS         | eP    | 12 59 38                                 |      |     |      |       |
|       |     |             | eS    | 13 00 22                                 |      |     |      |       |
|       |     | LPB         | e(P)  | 12 59 40                                 |      |     |      |       |
| MAY   | 02  | PNS         | eP    | 13 09 42                                 |      |     |      |       |
|       |     |             | eS    | 10 07                                    |      |     |      |       |
|       |     | LPB         | eP    | 13 09 42.5                               |      |     |      |       |
| MAY   | 02  | PNS         | P     | 13 23 09.6                               |      | 1.0 | 15   |       |
|       |     |             | S     | 24 22.5                                  |      |     |      |       |
|       |     | LPB         | P     | 13 23 15.5                               |      | 1.0 | 16   |       |
| MAY   | 02  | PNS         | eP    | 14 24 52.6                               |      |     |      |       |
|       |     |             | eS    | 25 12                                    |      |     |      |       |
|       |     | LPB         | eP    | 14 24 56.5                               |      |     |      |       |
| MAY   | 02  | LPB         | eP    | 16 07 40                                 |      |     |      |       |
| MAY   | 02  | PNS         | P     | 17 27 06.9                               |      | 0.8 | 3    |       |
|       |     | LPB         | eP    | 17 27 10                                 |      |     |      |       |
| MAY   | 02  | LPB         | eP    | 19 29 41.2                               |      |     |      |       |
|       |     | PNS         | P     | 19 29 42.2                               |      | 0.6 | 10   |       |
|       |     |             | S     | 30 06.1                                  |      |     |      |       |
| MAY   | 02  | PNS         | eP    | 20 47 14                                 |      |     |      |       |
|       |     |             | S     | 56.3                                     |      |     |      |       |
| MAY   | 02  | PNS         | eP    | 21 16 26.6                               |      |     |      |       |
|       |     | LPB         | eP    | 21 16 27                                 |      |     |      |       |
| MAY   | 02  | LPB         | eP    | 21 39 39                                 |      |     |      |       |
|       |     | PNS         | P     | 21 39 43.3                               |      | 0.6 | 3    |       |
| MAY   | 02  | USCGS 23 26 |       | 03.6, 6.4S, 129.9E, h = 128 km., m = 5.5 |      |     |      |       |
|       |     |             |       | BANDA SEA                                |      |     |      |       |
|       |     | PKP         | PKP   | 23 45 40                                 | C    | 1.1 | 57   | 151.1 |
|       |     |             | i     | 46.2                                     |      |     |      |       |
|       |     |             | SS    | 00 09 18                                 |      |     |      |       |
|       |     |             | eG    | 28.3                                     |      |     |      |       |
|       |     |             | L     | 38                                       |      |     |      |       |
|       |     | LPB         | PKP   | 23 45 40.2                               | C    | 1.5 | 97   |       |
|       |     |             | i     | 46.1                                     |      |     |      |       |
|       |     |             | PS    | 59 40.0                                  |      |     |      |       |
|       |     |             | SS    | 00 09 10                                 |      |     |      |       |
|       |     |             | G     | 29                                       |      |     |      |       |
|       |     |             | eL    | 38.1                                     |      |     |      |       |

| MONTH | DAY | STA                 | PHASE | TIME  | SIGN | PER | AMPL | D |
|-------|-----|---------------------|-------|---|------|-----|------|---|
| MAY   | 03  | USCGS 00            |       | 18 09.4, 22.9S, 68.0W, h = 114 km., m = 4.6 |      |     |      |   |
|       |     | N CHILE             |       |   |      |     |      |   |
|       |     | LPB                 | iP    | 00 19 43.5                                  |      | 0.8 | 93   |   |
|       |     |                     | eS    | 20 26.2                                     |      |     |      |   |
|       |     | PNS                 | iP    | 00 19 47.3                                  | C    | 0.9 | 31   |   |
|       |     |                     | eS    | 20 28                                       |      |     |      |   |
| MAY   | 03  | LPB                 | eP    | 00 59 33                                    |      |     |      |   |
|       |     |                     | e     | 01 01 22.5                                  |      |     |      |   |
|       |     | PNS                 | eP    | 00 59 33.2                                  |      | 1.4 | 11   |   |
|       |     |                     | i     | 01 01 22.2                                  |      |     |      |   |
| MAY   | 03  | LPB                 | eP    | 01 53 19                                    |      |     |      |   |
|       |     | PNS                 | eP    | 01 53 20.4                                  |      |     |      |   |
| MAY   | 03  | PNS                 | P     | 01 54 57.8                                  |      | 1.0 | 4    |   |
|       |     |                     | S     | 56 01.3                                     |      |     |      |   |
|       |     | LPB                 | eP    | 01 54 58                                    |      |     |      |   |
| MAY   | 03  | USCGS 01            |       | 42 57.0, 6.9S, 129.4E, h = 13 km., m = 5.5  |      |     |      |   |
|       |     | BANDA SEA           |       |   |      |     |      |   |
|       |     | PNS                 | PKP   | 02 02 47.3                                  |      |     |      |   |
|       |     |                     | i     | 53.4  |      |     |      |   |
|       |     |                     | eL    | 58.8  |      |     |      |   |
|       |     | LPB                 | ePKP  | 02 02 48.7                                  |      |     |      |   |
|       |     |                     | i     | 54  |      |     |      |   |
| MAY   | 03  | PNS                 | eP    | 04 32 20                                    |      |     |      |   |
|       |     | LPB                 | eP    | 04 32 23.5                                  |      |     |      |   |
| MAY   | 03  | PNS                 | eP    | 04 46 10                                    |      |     |      |   |
|       |     |                     | S     | 57.2  |      |     |      |   |
|       |     | LPB                 | P     | 04 46 11.5                                  |      | 0.8 | 15   |   |
|       |     |                     | i     | 23.5  |      |     |      |   |
|       |     |                     | (S)   | 55.5  |      |     |      |   |
| MAY   | 03  | PNS                 | eP    | 05 24 51.8                                  |      |     |      |   |
| MAY   |     | LPB                 | eP    | 05 37 53.5                                  |      |     |      |   |
|       |     | PNS                 | eP    | 05 37 55                                    |      |     |      |   |
|       |     |                     | eS    | 38 49                                       |      |     |      |   |
| MAY   | 03  | USCGS 05            |       | 32 45.7, 25.1N, 124.6E, h = 98 km., m = 5.8 |      |     |      |   |
|       |     | NORTHEAST OF TAIWAN |       |   |      |     |      |   |
|       |     | PNS                 | PKP   | 05 52 42.7                                  |      | 1.3 | 52   |   |
|       |     |                     | i     | 53 12.6                                     |      |     |      |   |
|       |     |                     | pPKP  | 54 06.7                                     |      |     |      |   |
|       |     |                     | PP    | 57 47                                       |      |     |      |   |
|       |     |                     | SS    | 06 18 00                                    |      |     |      |   |
|       |     |                     | eL    | 52.5  |      |     |      |   |
|       |     | LPB                 | PKP   | 05 52 43.7                                  |      | 1.0 | 34   |   |
|       |     |                     | e     | 53 28.5                                     |      |     |      |   |
|       |     |                     | pPKP  | 54 10.2                                     |      |     |      |   |
|       |     |                     | ePP   | 57 52                                       |      |     |      |   |
|       |     |                     | eSS   | 06 17 54                                    |      |     |      |   |
|       |     |                     | eL    | 53.5  |      |     |      |   |

| MONTH | DAY | STA                      | PHASE | TIME   | SIGN | PER | AMPL | D |
|-------|-----|--------------------------|-------|--|------|-----|------|---|
| MAY   | 03  | USCGS 06                 |       | 01 29.0, 47.4S, 13.2W, h = 24 km., m = 5.0   |      |     |      |   |
|       |     | SOUTH ATLANTIC RIDGE     |       |  |      |     |      |   |
|       |     | LPB                      | eP    | 06 10 52                                     |      |     |      |   |
|       |     |                          | pp    | 11 00  |      |     |      |   |
|       |     |                          | eL    | 27   |      |     |      |   |
|       |     | PNS                      | eP    | 06 10 53.2                                   |      |     |      |   |
|       |     |                          | pp    | 11 01.4                                      |      |     |      |   |
|       |     |                          | eL    | 27.8   |      |     |      |   |
| MAY   | 03  | PNS                      | eP    | 06 55 24                                     |      |     |      |   |
|       |     | LPB                      | eP    | 06 55 27                                     |      |     |      |   |
| MAY   | 03  | PNS                      | eP    | 07 25 33.7                                   |      |     |      |   |
|       |     | LPB                      | eP    | 07 25 35                                     |      | 0.8 | 6    |   |
| MAY   | 03  | LPB                      | P     | 08 10 07.5                                   |      | 1.0 | 22   |   |
|       |     |                          | pp    | 16.6   |      |     |      |   |
|       |     |                          | S     | 11 38  |      |     |      |   |
|       |     | PNS                      | iP    | 08 10 11.6                                   | D    | 0.9 | 17   |   |
|       |     |                          | eS    | 11 43  |      |     |      |   |
| MAY   | 03  | LPB                      | eP    | 09 56 14.5                                   |      |     |      |   |
|       |     | PNS                      | eP    | 09 56 19.4                                   |      |     |      |   |
| MAY   | 03  | LPB                      | e(P)  | 10 28 09                                     |      |     |      |   |
| MAY   | 03  | PNS                      | eP    | 11 35 37.1                                   |      |     |      |   |
|       |     |                          | eS    | 38 55  |      |     |      |   |
| MAY   | 03  | USCGS 11                 |       | 37 57.0, 26.2S, 178.5E, h = 688 km., m = 4.7 |      |     |      |   |
|       |     | SOUTH OF FIJI ISLANDS    |       |  |      |     |      |   |
|       |     | LPB                      | eP    | 11 50 20.5                                   |      |     |      |   |
|       |     |                          | L     | 12 24  |      |     |      |   |
|       |     | PNS                      | eP    | 11 50 22.2                                   |      |     |      |   |
|       |     |                          | eL    | 12 24.1                                      |      |     |      |   |
| MAY   | 03  | PNS                      | P     | 12 00 47.8                                   |      | 0.9 | 7    |   |
|       |     | LPB                      | P     | 12 00 51                                     |      | 1.0 | 12   |   |
| MAY   | 03  | LPB                      | eP    | 12 11 40.5                                   |      |     |      |   |
|       |     | PNS                      | P     | 12 11 41.7                                   |      | 1.7 | 25   |   |
| MAY   | 03  | LPB                      | P     | 12 29 30                                     |      | 0.9 | 39   |   |
| MAY   | 03  | USCGS 20                 |       | 09 24.0, 54.5, 135.8W, h = 33 km., m = 4.2   |      |     |      |   |
|       |     | SOUTH PACIFIC CORDILLERA |       |  |      |     |      |   |
|       |     | LPB                      | eP    | 20 19 54                                     |      |     |      |   |
|       |     |                          | pp    | 20 03.3                                      |      |     |      |   |
|       |     |                          | S     | 28 36  |      |     |      |   |
|       |     |                          | L     | 39.7   |      |     |      |   |
|       |     | PNS                      | eP    | 20 19 56                                     |      |     |      |   |
|       |     |                          | pp    | 20 02.1                                      |      |     |      |   |
|       |     |                          | S     | 28 35  |      |     |      |   |
|       |     |                          | L     | 40   |      |     |      |   |
| MAY   | 03  | LPB                      | eP    | 22 01 21.5                                   |      |     |      |   |
| MAY   | 03  | LPB                      | P     | 22 25 16                                     |      | 0.8 | 10   |   |

| MONTH | DAY | STA  | PHASE       | TIME                              | SIGN | PER        | AMPL     | DI |  |
|-------|-----|--|-------------|-----------------------------------|------|------------|----------|----|--|
| MAY   | 03  | LPB<br>PNS   | eP<br>P     | 22 49 48.6<br>22 49 50.3          |      | 0.7        | 2        |    |  |
| MAY   | 04  | PNS<br>LPB   | P<br>eP     | 00 11 17.3<br>00 11 18.5          |      | 0.9        | 3        |    |  |
| MAY   | 04  | LPB<br>PNS   | P<br>P      | 00 54 43.4<br>00 54 46.4          |      | 0.8<br>1.1 | 15<br>10 |    |  |
| MAY   | 04  |  | e(S)        | 55 40                             |      |            |          |    |  |
| MAY   | 04  | USCGS 01 19 20.9, 6.9N, 72.9W, h = 159 km., m = 4.4<br>NORTHERN COLOMBIA |             |                                   |      |            |          |    |  |
| MAY   | 04  | LPB<br>PNS   | P<br>IP     | 01 24 14.5<br>01 24 17.8          | D    | 0.6        | 6        |    |  |
| MAY   | 04  |  | pP<br>eS    | 54.3<br>28 32.4                   |      |            |          |    |  |
| MAY   | 04  | USCGS 03 08 10.6, 6.9S, 129.4E, h = 18 km., m = 5.5<br>BANDA SEA         |             |                                   |      |            |          |    |  |
| MAY   | 04  | PNS<br>LPB   | ePKP<br>PKP | 03 27 56.4<br>04 19.6<br>03 28 03 |      |            |          |    |  |
| MAY   | 04  | PNS<br>LPB   | P<br>eP     | 03 40 29.9<br>03 40 30            | C    | 1.6<br>0.7 | 16<br>11 |    |  |
| MAY   | 04  | PNS<br>LPB   | P<br>eP     | 03 42 27.1<br>03 42 27.8          |      | 1.2<br>0.9 | 15<br>10 |    |  |
| MAY   | 04  | PNS<br>LPB   | P<br>P      | 05 27 42.5<br>05 27 43.2          |      | 0.7        | 4        |    |  |
| MAY   | 04  |  | e           | 28 04                             |      |            |          |    |  |
| MAY   | 04  | PNS<br>LPB   | iP<br>iP    | 06 24 41.1<br>06 24 41.7          | D    |            | 147      |    |  |
| MAY   | 04  |  | S           | 25 05.7                           |      | 0.7        |          |    |  |
| MAY   | 04  | PNS<br>LPB   | iP<br>eP    | 06 45 06.2<br>06 45 08.0          | D    | 0.5<br>0.7 | 90<br>52 |    |  |
| MAY   | 08  | LPB<br>PNS   | eP<br>eP    | 07 59 12<br>07 59 17              |      |            |          |    |  |
| MAY   | 04  | LPB<br>PNS   | eP<br>P     | 08 19 44.2<br>08 19 45.1          |      | 0.5        | 4        |    |  |
| MAY   | 04  | LPB  | e(P)        | 09 46 22                          |      |            |          |    |  |
| MAY   | 04  | PNS<br>LPB   | P<br>eP     | 11 02 21.5<br>11 02 22.5          |      |            |          |    |  |
| MAY   | 04  | PNS<br>LPB   | P<br>eP     | 11 16 32.3<br>11 16 35            |      | 0.5        | 2        |    |  |
| MAY   | 04  | PNS  | P           | 11 52 54.6                        |      |            |          |    |  |

| MONTH | DAY | STA  | PHASE                           | TIME                              | SIGN | PER | AMPL | DI    |  |
|-------|-----|--|---------------------------------|-----------------------------------|------|-----|------|-------|--|
| MAY   | 04  | PNS  | eP<br>S                         | 12 36 28.1<br>57                  |      | 0.3 | 3    |       |  |
| MAY   | 04  | LPB<br>PNS   | eP<br>eP                        | 13 50 03<br>13 50 03              |      |     |      |       |  |
| MAY   | 04  | LPB<br>PNS   | eP<br>eP                        | 14 55 30<br>14 55 31.6            |      |     |      |       |  |
| MAY   | 04  | PNS  | P<br>L                          | 14 58 44.6<br>15 12               |      | 1.5 | 19   |       |  |
| MAY   | 04  | LPB  | eP<br>L                         | 14 58 46.5<br>15 12               |      |     |      |       |  |
| MAY   | 04  | PNS  | P                               | 16 00 04                          |      | 0.4 | 2    |       |  |
| MAY   | 04  | LPB<br>PNS   | eP<br>eL                        | 16 15 09.5<br>21                  |      |     |      |       |  |
| MAY   | 04  |  | P<br>eL                         | 16 15 10.8<br>20.7                |      |     |      |       |  |
| MAY   | 04  | PNS  | P                               | 16 35 25.8                        |      | 0.7 | 3    |       |  |
| MAY   | 04  | PNS<br>LPB   | P<br>eP                         | 17 36 26.0<br>17 36 32.5          |      | 0.7 | 3    |       |  |
| MAY   | 04  | LPB  | eP                              | 17 43 20                          |      |     |      |       |  |
| MAY   | 04  | USCGS 17 52 46.2, 26.5S, 115.4W, h = 34 km., m = 5.3<br>EASTER ISLAND CORDILLERA |                                 |                                   |      |     |      |       |  |
| MAY   | 04  | PNS  | P<br>pP<br>S                    | 18 00 58.1<br>02 14.6<br>07 33    |      | 2.0 | 115  |       |  |
| MAY   | 04  | LPB  | L<br>eS<br>L                    | 14.4<br>18 01 02<br>07 30<br>14.2 |      | 2.4 | 180  | 44.3  |  |
| MAY   | 04  | LPB<br>PNS   | eP<br>eP                        | 18 29 06<br>18 29 10.9            |      |     |      |       |  |
| MAY   | 04  | PNS  | P<br>S                          | 18 40 25<br>41 29                 |      | 0.4 | 2    |       |  |
| MAY   | 04  | LPB  | eP                              | 18 40 28.7                        |      |     |      |       |  |
| MAY   | 04  | PNS  | P                               | 19 05 38.4                        |      | 0.5 | 2    |       |  |
| MAY   | 04  | LPB<br>PNS   | eP<br>P                         | 22 01 14.5<br>22 01 33.2          |      |     |      |       |  |
| MAY   | 04  | USCGS 22 09 20.1, 3.6N, 126.3E, h = 46 km., m = 5.4<br>TALAUD ISLAND             |                                 |                                   |      |     |      |       |  |
| MAY   | 04  | LPB<br>PNS   | ePKP<br>PKP<br>PKP <sub>2</sub> | 22 29 17<br>22 29 17<br>30 02     |      |     |      | 160.1 |  |
| MAY   | 04  | LPB<br>PNS   | eP<br>eP                        | 22 55 35<br>22 55 35              |      |     |      |       |  |





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| MONTH | DAY | STA  | PHASE | TIME       | SIGN | PER | AMPL | DIST  |       |
|-------|-----|--|-------|------------|------|-----|------|-------|-------|
| MAY   | 04  | LPB  | eP    | 23 14 02   |      | 1.0 | 10   |       |       |
|       |     |  | eL    | 23 38      |      |     |      |       |       |
|       |     | PNS  | P     | 23 14 02.0 | C    | 0.5 | 3    |       |       |
|       |     |  | eL    | 38.2       |      |     |      |       |       |
| MAY   | 04  | PNS  | iP    | 23 37 37.0 | D    | 0.7 | 6    |       |       |
|       |     |  | S     | 38 00.6    |      |     |      |       |       |
|       |     | LPB  | eP    | 23 37 37.5 |      |     |      |       |       |
| MAY   | 05  | PNS  | eP    | 01 51 46   |      |     |      |       |       |
|       |     | LPB  | eP    | 01 51 51   |      |     |      |       |       |
| MAY   | 05  | LPB  | eP    | 02 11 29   |      |     |      |       |       |
|       |     | PNS  | P     | 02 11 30.5 |      |     |      |       |       |
| MAY   | 05  | USCGS 03 04 43.5, 5.9N, 127.7E, h = 16 km., m = 5.0<br>PHILIPPINE ISLANDS REG      |       |            |      |     |      |       | 160.4 |
|       |     | LPB  | ePKP  | 03 24 47.5 |      |     |      |       |       |
|       |     | PNS  | PKP   | 03 24 47.8 |      |     |      |       |       |
| MAY   | 05  | LPB  | eP    | 05 19 32.6 |      |     |      |       |       |
| MAY   | 05  | PNS  | P     | 05 44 41.4 |      | 0.7 | 5    |       |       |
|       |     |  | S     | 45 50      |      |     |      |       |       |
|       |     | LPB  | eP    | 05 44 49   |      | 0.9 | 5    |       |       |
| MAY   | 05  | PNS  | P     | 06 07 19.4 |      | 0.6 | 9    |       |       |
|       |     |  | S     | 08 32      |      |     |      |       |       |
|       |     | LPB  | eP    | 06 07 26   |      |     |      |       |       |
| MAY   | 05  | PNS  | P     | 06 41 48.9 |      | 0.6 | 6    |       |       |
|       |     |  | eS    | 43 01      |      |     |      |       |       |
|       |     | LPB  | P     | 06 41 55.4 |      | 0.8 | 6    |       |       |
| MAY   | 05  | PNS  | P     | 07 33 02.8 |      |     |      |       |       |
|       |     |  | i     | 20.0       |      |     |      |       |       |
|       |     | LPB  | P     | 07 33 04.5 |      |     |      |       |       |
|       |     |  | i     | 16.7       |      |     |      |       |       |
| MAY   | 05  | USCGS 07 21 04.1, 33.0N, 135.5E, h = 33 km., m = 46<br>N R S CST OF S HONSHU JAPAN |       |            |      |     |      |       |       |
|       |     | PNS  | PKP   | 07 41 00.4 |      | 1.0 | 8    |       |       |
|       |     |  | eL    | 08 34.2    |      |     |      |       |       |
|       |     | LPB  | eP    | 07 41 01.8 |      | 0.9 | 8    | 154.3 |       |
|       |     |  | e(L)  | 08 34.4    |      |     |      |       |       |
| MAY   | 05  | PNS  | eP    | 07 46 22.6 |      |     |      |       |       |
| MAY   | 05  | LPB  | P     | 08 16 06   |      |     |      |       |       |
|       |     | PNS  | eP    | 08 16 07.4 |      |     |      |       |       |
| MAY   | 05  | LPB  | P     | 08 48 16.7 |      |     |      |       |       |
|       |     | PNS  | P     | 08 48 20.6 |      |     |      |       |       |
| MAY   | 05  | USCGS 09 05 56.3, 39.3S, 174.7E, h = 225 km., m = 5.1<br>NORTH ISLAND, NEW ZEALAND |       |            |      |     |      |       | 99.1  |
|       |     | PNS  | eP    | 09 19 12   |      |     |      |       |       |

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| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL | DIST  |  |
|-------|-----|---|-------|------------|------|-----|------|-------|--|
| MAY   | 05  | LPB   | eP    | 09 30 23.6 |      |     |      |       |  |
|       |     | PNS   | P     | 09 30 27.4 |      | 0.5 | 2    |       |  |
| MAY   | 05  | PNS   | eP    | 09 51 35   |      |     |      |       |  |
|       |     | LPB   | eP    | 09 51 36.5 |      |     |      |       |  |
| MAY   | 05  | LPB   | eP    | 10 32 09   |      |     |      |       |  |
| MAY   | 05  | PNS   | eP    | 10 53 58.4 |      |     |      |       |  |
| MAY   | 05  | PNS   | P     | 11 31 01.7 |      | 1.8 | 52   |       |  |
|       |     |   | L     | 11 43.8    |      |     |      |       |  |
|       |     | LPB   | P     | 11 31 04.5 |      | 1.3 | 27   |       |  |
|       |     |   | eL    | 11 43.7    |      |     |      |       |  |
| MAY   | 05  | PNS   | eP    | 11 55 33.4 |      |     |      |       |  |
|       |     | LPB   | eP    | 11 55 34   |      |     |      |       |  |
| MAY   | 05  | LPB   | eP    | 15 52 41.5 |      |     |      |       |  |
|       |     | PNS   | eP    | 15 52 44   |      |     |      |       |  |
|       |     |   | e     | 52.8       |      |     |      |       |  |
|       |     |   | eS    | 55 24      |      |     |      |       |  |
| MAY   | 05  | TRJ   | eP    | 16 22 25.8 |      |     |      |       |  |
|       |     | PNS   | P     | 16 22 57.1 |      | 0.6 | 3    |       |  |
|       |     |   | S     | 23 21.8    |      |     |      |       |  |
|       |     | LPB   | e(P)  | 16 22 58.5 |      |     |      |       |  |
| MAY   | 05  | TRJ   | eP    | 16 48 14.2 |      |     |      |       |  |
|       |     | LPB   | eP    | 16 47 48   |      |     |      |       |  |
|       |     | PNS   | eP    | 16 47 52.6 |      |     |      |       |  |
| MAY   | 05  | LPB   | eP    | 16 48 47.3 |      |     |      |       |  |
|       |     |   | e     | 49 03.2    |      |     |      |       |  |
| MAY   | 05  | PNS   | P     | 18 17 51.8 | D    | 0.4 | 7    |       |  |
|       |     |   | S     | 18 14.0    |      |     |      |       |  |
| MAY   | 05  | LPB   | eP    | 18 23 24   |      |     |      |       |  |
|       |     | PNS   | eP    | 18 23 26   |      |     |      |       |  |
| MAY   | 05  | PNS   | eP    | 19 07 33   |      |     |      |       |  |
|       |     | LPB   | eP    | 19 07 34   |      |     |      |       |  |
| MAY   | 05  | LPB   | eP    | 19 24 05   |      |     |      |       |  |
|       |     | PNS   | eP    | 19 24 08.4 |      |     |      |       |  |
| MAY   | 05  | LPB   | eP    | 21 11 44.5 |      |     |      |       |  |
| MAY   | 05  | USCGS 21 04 40.5, 24.0N, 122.9E, h = 33 km., m = 4.9<br>TAIWAN REGION |       |            |      |     |      |       |  |
|       |     | PNS   | PKP   | 21 24 46.8 |      | 1.4 | 14   |       |  |
|       |     |   | eL    | 22 23      |      |     |      |       |  |
|       |     | LPB   | ePKP  | 21 24 48.6 |      |     |      | 167.3 |  |
|       |     |   | eL    | 22 22      |      |     |      |       |  |
| MAY   | 05  | LPB   | e(P)  | 22 26 22.3 |      | 0.7 | 7    |       |  |
| MAY   | 06  | LPB   | eP    | 01 24 35.6 |      |     |      |       |  |

| MAY   |     |   |       |            |      |     |      |      |      |  |
|-------|-----|---|-------|------------|------|-----|------|------|------|--|
| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL | DIST |      |  |
| MAY   | 06  | PNS   | P     | 02 39 06.6 |      | 0.4 | 2    |      |      |  |
|       |     |   | S     | 28.9       |      |     |      |      |      |  |
| MAY   | 06  | PNS   | eP    | 02 42 07.6 |      |     |      |      |      |  |
|       |     | LPB   | P     | 02 42 08   |      | 0.6 | 5    |      |      |  |
|       |     | TRJ   | eP    | 02 42 44.2 |      |     |      |      |      |  |
| MAY   | 06  | LPB   | eP    | 02 46 14   |      |     |      |      |      |  |
|       |     | PNS   | P     | 02 46 16.1 |      | 0.4 | 2    |      |      |  |
|       |     |   | S     | 45.6       |      |     |      |      |      |  |
| MAY   | 06  | TRJ   | P     | 03 46 23.4 |      |     |      |      |      |  |
| MAY   | 06  | LPB   | P     | 05 00 45.7 |      | 0.6 | 8    |      |      |  |
| MAY   | 06  | USCGS 05 41 26.0, 13.2N, 88.6W, h = 78 km., m = 3.8<br>EL SALVADOR            |       |            |      |     |      |      |      |  |
|       |     | PNS   | eP    | 05 48 22   |      |     |      |      |      |  |
|       |     | LPB   | eP    | 05 48 23   |      |     |      |      | 36.0 |  |
|       |     | TRJ   | P     | 05 49 50.6 |      |     |      |      |      |  |
| MAY   | 06  | PNS   | eP    | 06 27 06.6 |      |     |      |      |      |  |
| MAY   | 06  | PNS   | eP    | 06 58 45.8 |      |     |      |      |      |  |
| MAY   | 06  | PNS   | eP    | 07 01 43.1 |      |     |      |      |      |  |
|       |     |   | S     | 03 02      |      |     |      |      |      |  |
|       |     | LPB   | eP    | 07 01 43.7 |      | 0.9 | 12   |      |      |  |
|       |     |   | S     | 03 00.1    |      |     |      |      |      |  |
|       |     | TRJ   | P     | 07 02 14.4 |      |     |      |      |      |  |
| MAY   | 06  | TRJ   | P     | 08 11 42.3 |      |     |      |      |      |  |
| MAY   | 06  | LPB   | eP    | 08 30 49.5 |      |     |      |      |      |  |
|       |     | PNS   | P     | 08 30 55.1 |      | 1.1 | 6    |      |      |  |
| MAY   | 06  | TRJ   | P     | 08 42 49.6 |      |     |      |      |      |  |
|       |     | LPB   | eP    | 08 42 52.5 |      | 1.0 | 12   |      |      |  |
|       |     | PNS   | P     | 08 42 55.5 |      | 0.7 | 4    |      |      |  |
| MAY   | 06  | LPB   | eP    | 09 27 27.5 |      |     |      |      |      |  |
| MAY   | 06  | LPB   | eP    | 09 37 49   |      |     |      |      |      |  |
|       |     | PNS   | eP    | 09 37 49.2 |      | 0.7 | 2    |      |      |  |
| MAY   | 06  | LPB   | eP    | 10 09 03.5 |      | 0.8 | 11   |      |      |  |
|       |     | PNS   | eP    | 10 09 04.8 |      |     |      |      |      |  |
|       |     |   | eS    | 10 24      |      |     |      |      |      |  |
| MAY   | 06  | PNS   | P     | 10 32 41.1 |      | 0.4 | 2    |      |      |  |
|       |     |   | S     | 33 03.2    |      |     |      |      |      |  |
| MAY   | 06  | LPB   | P     | 10 53 03.7 | C    | 1.0 | 32   |      |      |  |
|       |     |   | e     | 38.2       |      |     |      |      |      |  |
|       |     | PNS   | P     | 10 53 04.7 |      | 0.9 | 13   |      |      |  |
|       |     | TRJ   | i     | 10 53 51.7 |      |     |      |      |      |  |
| MAY   | 06  | USCGS 11 0023.9, 10.9N, 62.0W, h = 33 km., m = 4.0<br>NEAR COAST OF VENEZUELA |       |            |      |     |      |      |      |  |
|       |     | LPB   | eP    | 11 06 05.5 |      |     |      |      | 27.9 |  |

| MAY   |     |   |       |            |      |     |      |      |      |  |
|-------|-----|---|-------|------------|------|-----|------|------|------|--|
| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL | DIST |      |  |
| MAY   | 06  | PNS   | eP    | 11 06 08.7 |      |     |      |      |      |  |
|       |     |   | eS    | 10 42.6    |      |     |      |      |      |  |
| MAY   | 06  | LPB   | eP    | 14 26 52   |      |     |      |      |      |  |
|       |     | PNS   | eP    | 14 26 53   |      |     |      |      |      |  |
|       |     |   | eS    | 27 28.6    |      |     |      |      |      |  |
| MAY   | 06  | LPB   | eP    | 14 30 55.5 |      |     |      | 0.7  | 13   |  |
|       |     |   | S     | 31 32      |      |     |      |      |      |  |
|       |     | PNS   | eP    | 14 31 06.3 |      |     |      |      |      |  |
|       |     |   | eS    | 42.8       |      |     |      |      |      |  |
|       |     | TRJ   | eP    | 14 31 52.0 |      |     |      |      |      |  |
| MAY   | 06  | USCGS 14 37 49.8, 14.6N, 90.8W, h = 183 km., m = 5.1<br>GUATEMALA |       |            |      |     |      |      |      |  |
|       |     | LPB   | eP    | 14 44 55.4 |      |     |      | 0.9  | 12   |  |
|       |     |   | pP    | 45 23      |      |     |      |      | 38.2 |  |
|       |     | PNS   | PcP   | 47 12.5    |      |     |      |      |      |  |
|       |     |   | eL    | 53.8       |      |     |      |      |      |  |
| MAY   | 06  | PNS   | P     | 14 44 56.2 | C    |     |      | 1.2  | 29   |  |
|       |     |   | pP    | 45 19.9    |      |     |      |      |      |  |
|       |     |   | PcP   | 47 11.1    |      |     |      |      |      |  |
| MAY   | 06  | TRJ   | P     | 14 46 272  |      |     |      |      |      |  |
| MAY   | 06  | PNS   | eP    | 15 18 23   |      |     |      |      |      |  |
|       |     |   | e(S)  | 19 41      |      |     |      |      |      |  |
|       |     | LPB   | eP    | 15 18 28   |      |     |      |      |      |  |
| MAY   | 06  | PNS   | eP    | 16 20 06   |      |     |      |      |      |  |
| MAY   | 06  | LPB   | P     | 16 31 45.6 |      |     |      | 0.8  | 6    |  |
|       |     | PNS   | P     | 16 31 48.3 |      |     |      | 0.8  | 4    |  |
| MAY   | 06  | LPB   | eP    | 16 52 39   |      |     |      |      |      |  |
|       |     | PNS   | P     | 16 52 44.0 |      |     |      | 0.5  | 3    |  |
| MAY   | 06  | PNS   | P     | 17 25 54.8 |      |     |      |      |      |  |
|       |     |   | S     | 26 18.2    |      |     |      | 0.5  | 3    |  |
|       |     | LPB   | eP    | 17 25 56.5 |      |     |      |      |      |  |
| MAY   | 06  | LPB   | eP    | 17 53 26   |      |     |      |      |      |  |
|       |     |   | eL    | 18 23      |      |     |      |      |      |  |
|       |     | PNS   | eP    | 17 53 28   |      |     |      | 0.6  | 2    |  |
| MAY   | 06  | TRJ   | P     | 19 06 37.4 | C    |     |      |      |      |  |
|       |     | PNS   | P     | 19 06 53.8 |      |     |      | 0.5  | 4    |  |
| MAY   | 06  | LPB   | e(P)  | 19 42 49.5 |      |     |      |      |      |  |
|       |     |   | eL    | 20 00      |      |     |      |      |      |  |
| MAY   | 06  | LPB   | eP    | 20 32 58.5 |      |     |      |      |      |  |
|       |     | PNS   | P     | 20 33 01.0 |      |     |      |      |      |  |
| MAY   | 06  | LPB   | eP    | 20 47 50   |      |     |      |      |      |  |
| MAY   | 06  | LPB   | e(P)  | 21 00 27   |      |     |      |      |      |  |

| MONTH | DAY | STA  | PHASE | TIME       | SIGN | PER | AMPL  | DIST |
|-------|-----|--|-------|------------|------|-----|-------|------|
| MAY   | 06  | USCGS 20 49 45.5, 36.5N, 60.8E, h = 231 km., m = 5.0<br>HINDUKUSH REGION           |       |            |      |     |       |      |
|       |     | LPB  | ePKP  | 21 08 43.6 |      |     | 138.6 |      |
|       |     |  | eL    | 52         |      |     |       |      |
|       |     | PNS  | PKP   | 21 08 47.0 |      | 1.0 | 9     |      |
|       |     |  | eL    | 55.2       |      |     |       |      |
| MAY   | 06  | USCGS 21 23 11.0, 13.0N, 87.7W, h = 56 km., m = 4.6<br>HONDURAS                    |       |            |      |     |       |      |
|       |     | LPB  | eP    | 21 29 54   |      |     | 35.1  |      |
|       |     | PNS  | P     | 21 29 57.3 |      |     |       |      |
| MAY   | 06  | LPB  | eP    | 21 48 30   |      | 0.7 | 7     |      |
| MAY   | 06  | PNS  | iP    | 22 09 11.3 | D    | 0.5 | 12    |      |
|       |     |  | S     | 35         |      |     |       |      |
| MAY   | 06  | PNS  | eP    | 22 17 55   |      |     |       |      |
|       |     |  | eS    | 18 43      |      |     |       |      |
|       |     | LPB  | eP    | 22 17 57   |      |     |       |      |
| MAY   | 06  | PNS  | P     | 23 22 02.6 |      | 0.7 | 4     |      |
| MAY   | 07  | TRJ  | eP    | 00 28 51.4 |      |     |       |      |
|       |     | PNS  | eP    | 00 29 52.8 |      |     |       |      |
|       |     |  | S     | 30 15.0    |      |     |       |      |
| MAY   | 07  | PNS  | iP    | 00 58 46.6 | D    | 0.3 | 4     |      |
|       |     |  | S     | 59 08.6    |      |     |       |      |
|       |     | LPB  | eP    | 00 58 50   |      |     |       |      |
| MAY   | 07  | PNS  | P     | 00 59 32.6 |      | 0.6 | 2     |      |
|       |     |  | S     | 01 00 08.0 |      |     |       |      |
| MAY   | 07  | USCGS 01 23 09.0, 19.6N, 108.5W, h = 33 km., m = 3.8<br>REVILLA GIGEDO ISLANDS REG |       |            |      |     |       |      |
|       |     | LPB  | eP    | 01 32 27   |      |     | 53.1  |      |
| MAY   | 07  | PNS  | eP    | 02 20 30.9 |      |     |       |      |
|       |     |  | eS    | 37.9       |      |     |       |      |
| MAY   | 07  | PNS  | eP    | 02 22 23   |      |     |       |      |
|       |     | LPB  | eP    | 02 22 26.7 |      |     |       |      |
| MAY   | 07  | LPB  | iP    | 03 04 48.0 | C    | 0.7 | 50.4  |      |
|       |     |  | iS    | 05 39      |      |     |       |      |
|       |     | PNS  | iP    | 03 04 51.7 | C    |     |       |      |
|       |     |  | S     | 05 49      |      |     |       |      |
|       |     | TRJ  | iP    | 03 05 07.0 | C    |     |       |      |
| MAY   | 07  | LPB  | eP    | 03 38 14.5 | C    |     |       |      |
|       |     | PNS  | eP    | 03 38 19.4 |      |     |       |      |
| MAY   | 07  | LPB  | P     | 03 42 07.2 | D    | 0.8 | 37    |      |
|       |     |  | i     | 12.4       |      |     |       |      |
|       |     |  | iS    | 37.6       |      |     |       |      |
|       |     | PNS  | iP    | 03 42 08.3 | D    |     |       |      |
|       |     |  | iS    | 39.0       |      |     |       |      |
|       |     | TRJ  | P     | 03 43 26.8 |      |     |       |      |

| MONTH | DAY | STA  | PHASE | TIME       | SIGN | PER | AMPL | DIST |
|-------|-----|--|-------|------------|------|-----|------|------|
| MAY   | 07  | TRJ  | eP    | 04 41 48.2 |      |     |      |      |
|       |     | PNS  | eP    | 04 41 50.4 |      |     |      |      |
|       |     | LPB  | eP    | 04 41 51   |      |     |      |      |
| MAY   | 07  | PNS  | eP    | 05 32 18.6 |      |     |      |      |
| MAY   | 07  | PNS  | P     | 06 10 41.3 |      | 0.9 | 4    |      |
|       |     | LPB  | eP    | 06 10 43.5 |      |     |      |      |
| MAY   | 07  | PNS  | P     | 06 41 33.8 |      | 0.9 | 4    |      |
|       |     | LPB  | eP    | 06 41 34.5 |      |     |      |      |
| MAY   | 07  | TRJ  | eP    | 07 08 37.4 |      |     |      |      |
|       |     | LPB  | eP    | 07 08 43   |      |     |      |      |
|       |     | PNS  | P     | 07 08 43.8 |      | 0.9 | 3    |      |
| MAY   | 07  | LPB  | eP    | 07 35 42.5 |      |     |      |      |
|       |     |  | S     | 36 22      |      |     |      |      |
|       |     | PNS  | eP    | 07 35 49.5 |      |     |      |      |
|       |     |  | e(S)  | 36 35.2    |      |     |      |      |
| MAY   | 07  | PNS  | P     | 08 15 03.0 |      |     |      |      |
|       |     | LPB  | eP    | 08 15 06.7 |      |     |      |      |
| MAY   | 07  | PNS  | eP    | 09 00 21.3 |      |     |      |      |
| MAY   | 07  | USCGS 09 00 29.0, 6.7N, 73.0W, h = 168 km., m = 5.7<br>NORTHERN COLOMBIA |       |            |      |     |      |      |
|       |     | PNS  | iP    | 09 05 24.3 |      |     |      | C    |
|       |     |  | iPP   | 59.6       |      |     |      |      |
|       |     |  | S     | 09 24.7    |      |     |      |      |
|       |     |  | eL    | 12.4       |      |     |      |      |
|       |     | LPB  | iP    | 09 05 27.8 | C    | 0.7 | 45   | 23.4 |
|       |     |  | iPP   | 06 01      |      |     |      |      |
|       |     |  | S     | 09 28      |      |     |      |      |
|       |     |  | i     | 10 34      |      |     |      |      |
|       |     |  | eL    | 12.8       |      |     |      |      |
|       |     | TRJ  | iP    | 07 06 57.3 | D    |     |      |      |
| MAY   | 07  | PNS  | P     | 09 24 57.8 |      |     |      |      |
|       |     | LPB  | eP    | 09 25 02   |      |     |      |      |
| MAY   | 07  | LPB  | eP    | 09 41 21   |      |     |      |      |
|       |     | PNS  | eP    | 09 41 23   |      |     |      |      |
| MAY   | 07  | LPB  | P     | 09 55 31.3 |      | 1.0 | 8    |      |
| MAY   | 07  | PNS  | eP    | 10 03 13   |      |     |      |      |
|       |     | LPB  | P     | 10 03 15.7 |      | 0.6 | 6    |      |
| MAY   | 07  | LPB  | P     | 10 32 49.8 |      | 1.1 | 15   |      |
|       |     |  | eL    | 41         |      |     |      |      |
|       |     | PNS  | eP    | 10 32 46.6 |      |     |      |      |
|       |     |  | eL    | 41.1       |      |     |      |      |
| MAY   | 07  | PNS  | P     | 10 44 34.8 |      | 1.1 | 12.5 |      |
|       |     | LPB  | PKP   | 10 44 35.5 | D    | 1.2 | 34   |      |



| MAY   |     |  |       |            |      |     |      |       |  |
|-------|-----|--|-------|------------|------|-----|------|-------|--|
| MONTH | DAY | STA  | PHASE | TIME       | SIGN | PER | AMPL | DIST  |  |
| MAY   | 07  | USCGS 11 43 31.6, 19.2S, 177.6W, h = 533 km., m = 4.9<br>WFST OF TONGA ISLANDS |       |            |      |     |      |       |  |
|       |     | PNS  | eP    | 11 56 23.6 |      |     |      |       |  |
|       |     | LPB  | eP    | 11 56 32   |      |     |      | 101.7 |  |
|       |     |  | e(L)  | 33.4       |      |     |      |       |  |
| MAY   | 07  | PNS  | eP    | 11 57 10   |      |     |      |       |  |
|       |     |  | eS    | 58 20      |      |     |      |       |  |
|       |     | LPB  | eP    | 11 57 11   |      |     |      |       |  |
|       |     | TRJ  | eP    | 11 57 55.5 |      |     |      |       |  |
| MAY   | 07  | LPB  | P     | 16 06 45   |      | 0.9 | 14   |       |  |
|       |     |  | eS    | 18.2       |      |     |      |       |  |
|       |     | PNS  | P     | 16 06 50.0 |      | 0.6 | 3    |       |  |
|       |     |  | S     | 07 22      |      |     |      |       |  |
| MAY   | 07  | USCGS 16 14 42.6, 23.0S, 68.6W, h = 114 km., m = 4.6<br>NORTHERN CHILE         |       |            |      |     |      |       |  |
|       |     | LPB  | P     | 16 16 18.4 |      |     |      | 6.3   |  |
|       |     |  | i     | 51.5       |      |     |      |       |  |
|       |     |  | i     | 17 06.7    |      |     |      |       |  |
|       |     | PNS  | P     | 16 16 20.6 | C    | 0.7 | 17   |       |  |
|       |     |  | i     | 56.5       |      |     |      |       |  |
|       |     |  | eL    | 18.3       |      |     |      |       |  |
|       |     | TRJ  | iP    | 16 16 25.7 | D    |     |      |       |  |
| MAY   | 07  | LPB  | e(P)  | 16 31 26.5 |      | 0.6 | 4    |       |  |
|       |     | PNS  | P     | 16 31 26.9 |      |     |      |       |  |
| MAY   | 07  | PNS  | P     | 17 06 31.2 | C    | 0.8 | 5    |       |  |
|       |     |  | S     | 53.9       |      |     |      |       |  |
| MAY   | 07  | LPB  | eP    | 17 13 15   |      |     |      |       |  |
|       |     | PNS  | eP    | 17 13 16.1 |      |     |      |       |  |
| MAY   | 07  | LPB  | e(P)  | 18 17 35.5 |      | 0.9 | 4    |       |  |
|       |     | PNS  | eP    | 18 17 38   |      |     |      |       |  |
|       |     |  | eS    | 18 52      |      |     |      |       |  |
| MAY   | 07  | TRJ  | P     | 18 46 57.9 |      |     |      |       |  |
|       |     |  | S     | 47 33.2    |      |     |      |       |  |
| MAY   | 07  | USCGS 18 29 56.0, 6.8S, 129.5E, h = 50 km., m = 5.0<br>BANDA SEA               |       |            |      |     |      |       |  |
|       |     | PNS  | ePKP  | 18 49 45.5 |      | 1.3 | 19   |       |  |
|       |     |  | eL    | 19 41      |      |     |      |       |  |
|       |     | LPB  | ePKP  | 18 49 50   |      | 1.2 | 25   | 150.7 |  |
|       |     |  | eL    | 19 42      |      |     |      |       |  |
|       |     | TRJ  | ePKP  | 18 50 24.6 |      |     |      |       |  |
| MAY   | 07  | LPB  | eP    | 20 15 43   |      | 0.6 | 6    |       |  |
|       |     | PNS  | P     | 20 15 50.7 |      |     |      |       |  |
|       |     |  | e     | 16 30.9    |      |     |      |       |  |
| MAY   | 07  | USCGS 22 24 57.2, 2.8S, 129.5E, h = 47 km., m = 5.1<br>CERAM                   |       |            |      |     |      |       |  |
|       |     | PNS  | PKP   | 22 44 56.8 |      | 0.8 | 3    |       |  |
|       |     |  | eL    | 23 38.2    |      |     |      | 85    |  |

| MAY   |     |  |       |            |      |     |      |       |  |
|-------|-----|--|-------|------------|------|-----|------|-------|--|
| MONTH | DAY | STA  | PHASE | TIME       | SIGN | PER | AMPL | DIST  |  |
| MAY   | 07  | LPB  | ePKP  | 22 44 59   |      |     |      | 153.9 |  |
|       |     | PNS  | P     | 23 22 12.5 |      | 0.4 | 1    |       |  |
|       |     |  | eS    | 35         |      |     |      |       |  |
| MAY   | 07  | USCGS 23 39 14.4, 13.0N, 89.7W, h = 91 km., m = 4.6<br>EL SALVADOR               |       |            |      |     |      |       |  |
|       |     | PNS  | eP    | 23 46 08   |      |     |      |       |  |
|       |     |  | eL    | 57.4       |      |     |      |       |  |
|       |     | LPB  | eP    | 23 46 09.5 |      |     |      | 36.6  |  |
|       |     |  | eL    | 57.7       |      |     |      |       |  |
| MAY   | 08  | USCGS 00 16 08.7, 17.8S, 178.6W, h = 589 km., m = 4.7<br>WEST OF TONGA ISLANDS   |       |            |      |     |      |       |  |
|       |     | LPB  | eP    | 00 29 10   |      |     |      | 103.0 |  |
|       |     | PNS  | eP    | 00 29 11.2 |      |     |      |       |  |
|       |     |  | eL    | 01 05.5    |      |     |      |       |  |
| MAY   | 08  | LPB  | e(P)  | 01 03 46   |      |     |      |       |  |
|       |     | PNS  | eP    | 01 03 48.6 |      |     |      |       |  |
| MAY   | 08  | USCGS 01 44 04.0, 15.0N, 93.7W, h = 99 km., m = 4.4<br>NR CST OF CHIAPAS, MEXICO |       |            |      |     |      |       |  |
|       |     | PNS  | P     | 01 51 27.3 |      | 0.8 | 3    |       |  |
|       |     |  | eL    | 02 0       |      |     |      |       |  |
|       |     | LPB  | eP    | 01 51 29   |      |     |      | 39.5  |  |
|       |     | TRJ  | eP    | 01 52 59.4 |      |     |      |       |  |
| MAY   | 08  | LPB  | e(P)  | 01 59 29.3 |      |     |      |       |  |
| MAY   | 08  | LPB  | P     | 02 10 25.5 |      | 0.7 | 6    |       |  |
| MAY   | 08  | LPB  | eP    | 03 35 51   |      |     |      |       |  |
|       |     |  | (S)   | 36 05.7    |      |     |      |       |  |
| MAY   | 08  | TRJ  | P     | 04 06 33.7 | C    |     |      |       |  |
|       |     |  | S     | 07 04.4    |      |     |      |       |  |
| MAY   | 08  | LPB  | P     | 04 50 33   |      | 0.9 | 10   |       |  |
|       |     | PNS  | iP    | 04 50 37.1 | C    | 0.7 | 4    |       |  |
|       |     | TRJ  | eP    | 04 51 04.7 |      |     |      |       |  |
| MAY   | 08  | LPB  | eP    | 07 41 14.3 |      |     |      |       |  |
| MAY   | 08  | TRJ  | P     | 08 38 09.7 |      |     |      |       |  |
|       |     | PNS  | P     | 08 38 17.2 |      |     |      |       |  |
|       |     | LPB  | eP    | 08 38 18.5 |      |     |      |       |  |
| MAY   | 08  | PNS  | P     | 09 22 29.9 |      | 0.4 | 3    |       |  |
|       |     |  | S     | 52.9       |      |     |      |       |  |
| MAY   | 08  | LPB  | eP    | 10 26 37.7 |      |     |      |       |  |
|       |     |  | eL    | 35         |      |     |      |       |  |
| MAY   | 08  | PNS  | eP    | 10 44 09.6 |      |     |      |       |  |
|       |     | LPB  | eP    | 10 44 10.5 |      |     |      |       |  |
| MAY   | 08  | USCGS 11 00 07.4, 157.7E, 58.0S, h = 33 km., m = 5.7<br>MACQUARIE ISLAND REGION  |       |            |      |     |      |       |  |
|       |     | LPB  | P     | 11 13 36.7 |      | 1.6 | 71   | 96.6  |  |
|       |     |  | L     | 45.3       |      |     |      | 86    |  |

| MAY   |     |   |       |            |      |     |      |      |  |
|-------|-----|---|-------|------------|------|-----|------|------|--|
| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL | DIST |  |
|       |     | PNS   | P     | 11 13 36.9 | C    | 1.8 | 71   |      |  |
|       |     |   | L     | 45.4       |      |     |      |      |  |
|       |     | TRJ   | P     | 11 14 03.0 |      |     |      |      |  |
| MAY   | 08  | LPB   | eP    | 11 32 11.7 |      | 0.4 | 14   |      |  |
|       |     | PNS   | P     | 11 32 12   |      | 1.3 | 8    |      |  |
| MAY   | 08  | PNS   | P     | 12 16 22.1 |      | 0.7 | 5    |      |  |
|       |     |   | S     | 45.6       |      |     |      |      |  |
|       |     | LPB   | P     | 12 16 22.2 |      | 0.7 | 11   |      |  |
|       |     |   | S     | 46.2       |      |     |      |      |  |
| MAY   | 08  | PNS   | eP    | 12 27 16   |      |     |      |      |  |
|       |     | LPB   | eP    | 12 27 18   |      |     |      |      |  |
| MAY   | 08  | USCGS 12 17 13.4, 43.6N, 127.9W, h = 33 km., m = 6.1<br>OFF COAST OF OREGON |       |            |      |     |      |      |  |
|       |     | PNS   | P     | 12 29 26.4 | C    | 1.2 | 48   |      |  |
|       |     |   | pP    | 36.2       |      |     |      |      |  |
|       |     |   | iS    | 39 40      |      |     |      |      |  |
|       |     |   | SS    | 45 10      |      |     |      |      |  |
|       |     |   | G     | 51.1       |      |     |      |      |  |
|       |     |   | L     | 59.1       |      |     |      |      |  |
|       |     | LPB   | P     | 12 29 28   | D    | 1.0 | 136  | 81.1 |  |
|       |     |   | pP    | 35.5       |      |     |      |      |  |
|       |     |   | S     | 39 39.5    |      |     |      |      |  |
|       |     |   | SS    | 45 07      |      |     |      |      |  |
|       |     |   | G     | 51.3       |      |     |      |      |  |
|       |     |   | L     | 59.3       |      |     |      |      |  |
|       |     | TRJ   | P     | 12 30 38.9 | C    |     |      |      |  |
|       |     |   | i     | 41.2       |      |     |      |      |  |
| MAY   | 08  | PNS   | eP    | 12 56 13.6 |      |     |      |      |  |
|       |     | LPB   | eP    | 12 56 14.5 |      |     |      |      |  |
| MAY   | 08  | PNS   | P     | 12 59 20.0 |      | 0.4 | 5    |      |  |
|       |     |   | S     | 43.8       |      |     |      |      |  |
|       |     | LPB   | eP    | 12 59 24   |      |     |      |      |  |
| MAY   | 08  | PNS   | eP    | 14 30 48   |      |     |      |      |  |
|       |     |   | eS    | 31 28      |      |     |      |      |  |
| MAY   | 08  | PNS   | eP    | 15 35 01.5 |      | 0.4 | 2    |      |  |
|       |     | LPB   | e(P)  | 15 35 05.4 |      |     |      |      |  |
| MAY   | 08  | PNS   | P     | 16 38 14.0 |      | 0.6 | 3    |      |  |
|       |     |   | S     | 50         |      |     |      |      |  |
| MAY   | 08  | LPB   | P     | 18 15 52.7 |      | 1.0 | 44   |      |  |
|       |     | PNS   | P     | 18 15 54.6 |      | 0.6 | 3    |      |  |
|       |     |   | S     | 17 06.6    |      |     |      |      |  |
| MAY   | 08  | LPB   | eP    | 18 25 35   |      |     |      |      |  |
|       |     | PNS   | P     | 18 25 38.2 |      | 0.5 | 5    |      |  |
|       |     |   | S     | 26 01      |      |     |      |      |  |
| MAY   | 08  | PNS   | iP    | 18 59 56.1 | D    |     |      |      |  |
|       |     |   | S     | 19 00 17.6 |      |     |      |      |  |
|       |     | LPB   | P     | 18 59 58.3 | D    | 0.7 | 175  |      |  |
|       |     |   | S     | 19 00 20   |      |     |      |      |  |

| MAY   |     |   |       |            |      |     |      |       |  |
|-------|-----|---|-------|------------|------|-----|------|-------|--|
| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL | DIST  |  |
| MAY   | 08  | PNS   | eP    | 19 07 57.0 |      |     |      |       |  |
|       |     |   | i     | 08 10.5    |      |     |      |       |  |
| MAY   | 08  | PNS   | P     | 19 20 58.2 |      | 1.0 | 15   |       |  |
|       |     |   | eL    | 30.9       |      |     |      |       |  |
|       |     | LPB   | eP    | 19 20 59.8 |      | 0.8 | 15   |       |  |
|       |     |   | eL    | 34         |      |     |      |       |  |
| MAY   | 08  | PNS   | P     | 19 43 32.0 |      | 0.3 | 2    |       |  |
|       |     | LPB   | e(P)  | 19 43 34.3 |      |     |      |       |  |
| MAY   | 08  | PNS   | iP    | 20 05 50.2 | D    | 0.5 | 6    |       |  |
|       |     |   | S     | 06 13.5    |      |     |      |       |  |
| MAY   | 08  | PNS   | eP    | 20 17 58   |      |     |      |       |  |
| MAY   | 08  | LPB   | eP    | 21 24 43.6 |      |     |      |       |  |
| MAY   | 08  | LPB   | e(P)  | 21 32 45.6 |      |     |      |       |  |
| MAY   | 08  | LPB   | eP    | 21 39 40.5 |      |     |      |       |  |
|       |     |   | i     | 40 20.7    |      |     |      |       |  |
|       |     | PNS   | P     | 21 39 41.8 |      | 1.1 | 7    |       |  |
|       |     |   | L     | 22 16.4    |      |     |      |       |  |
| MAY   | 08  | USCGS 21 53 02.9, 43.9N, 128.2W, h = 33 Km., m = 4.6<br>OFF COAST OF OREGON.    |       |            |      |     |      |       |  |
|       |     | LPB   | P     | 22 05 04.2 |      |     |      | 81.4  |  |
|       |     |   | i     | 06 13.3    |      |     |      |       |  |
|       |     |   | eL    | 34.8       |      |     |      |       |  |
|       |     | PNS   | P     | 22 05 14.8 |      | 0.9 | 4    |       |  |
|       |     |   | i     | 06 00.6    |      |     |      |       |  |
|       |     |   | L     | 34.0       |      |     |      |       |  |
| MAY   | 08  | USCGS 22 17 13.8, 43.9N, 128.2W, h = 33 km., m = 5.0<br>OFF COAST OF OREGON     |       |            |      |     |      |       |  |
|       |     | PNS   | P     | 22 29 26.3 |      | 2.4 | 100  |       |  |
|       |     |   | eL    | 58.6       |      |     |      |       |  |
|       |     | LPB   | eP    | 22 29 27   |      |     |      | 81.4  |  |
|       |     |   | eL    | 58.3       |      |     |      |       |  |
| MAY   | 08  | USCGS 22 45 08.3, 37.1N, 71.9E, h = 160 km., m = 5.1<br>AFGANISTAN USSR BOR REG |       |            |      |     |      |       |  |
|       |     | LPB   | ePKP  | 23 04 20   |      |     |      | 139.3 |  |
|       |     | PNS   | PKP   | 23 04 20.4 |      | 0.9 | 4    |       |  |
| MAY   | 08  | LPB   | eP    | 23 07 10   |      |     |      |       |  |
|       |     | PNS   | eP    | 23 07 12   |      |     |      |       |  |
| MAY   | 08  | PNS   | P     | 23 11 41.8 |      | 0.8 | 4    |       |  |
|       |     | LPB   | e(P)  | 23 11 43.5 |      |     |      |       |  |
| MAY   | 08  | USCGS 23 45 48.8, 26.6S, 176.3W, h = 33 km., m = 4.7<br>SOUTH OF FIJI ISLANDS   |       |            |      |     |      |       |  |
|       |     | LPB   | eP    | 23 59 21   |      |     |      | 97.8  |  |
|       |     |   | eL    | 00 31.5    |      |     |      |       |  |
|       |     | PNS   | eP    | 23 59 24.8 |      |     |      |       |  |
|       |     |   | eL    | 00 32.2    |      |     |      |       |  |

| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL |  |
|-------|-----|---|-------|------------|------|-----|------|--|
| MAY   | 09  | TRJ   | eP    | 00 44 24.5 |      |     |      |  |
| MAY   | 09  | PNS   | P     | 02 43 37.9 |      | 0.7 | 14   |  |
|       |     |   | S     | 44 00.6    |      |     |      |  |
|       |     | LPB   | eP    | 02 43 40   |      |     |      |  |
| MAY   | 09  | USCGS 03 03 01.8, 43.4N, 127.0W, h = 33 km., m = 5.2<br>OFF COAST OF OREGON |       |            |      |     |      |  |
|       |     | PNS   | P     | 03 15 10.5 |      | 1.8 | 35   |  |
|       |     |   | SKS   | 25 19      |      |     |      |  |
|       |     |   | SS    | 30 44      |      |     |      |  |
|       |     |   | G     | 36.9       |      |     |      |  |
|       |     |   | L     | 44.1       |      |     |      |  |
| MAY   | 09  | LPB   | P     | 03 15 11.8 |      | 1.8 | 78   |  |
|       |     |   | eSKS  | 25 20      |      |     |      |  |
|       |     |   | eL    | 45         |      |     |      |  |
|       |     | TRJ   | P     | 03 16 23.4 |      |     |      |  |
| MAY   | 09  | LPB   | P     | 03 44 44.3 |      | 0.8 | 10   |  |
|       |     |   | S     | 45 15      |      |     |      |  |
|       |     | PNS   | P     | 03 44 53.1 |      |     |      |  |
|       |     |   | S     | 45 26.6    |      |     |      |  |
|       |     | TRJ   | eP    | 03 45 31.8 |      |     |      |  |
| MAY   | 09  | TRJ   | iP    | 04 16 10.2 | D    |     |      |  |
|       |     |   | S     | 40.5       |      |     |      |  |
| MAY   | 09  | USCGS 04 27 15.4, 20.7S, 69.3W, h = 118 km., m = 4<br>NORTHERN CHILE        |       |            |      |     |      |  |
|       |     | LPB   | iP    | 04 28 22.2 | D    | 0.8 | 19   |  |
|       |     |   | i     | 25.7       |      |     |      |  |
|       |     |   | i     | 52.6       |      |     |      |  |
|       |     | PNS   | P     | 04 28 23   |      | 0.9 | 10   |  |
|       |     |   | i     | 28         |      |     |      |  |
|       |     |   | S     | 29 25      |      |     |      |  |
|       |     | TRJ   | P     | 04 29 01.2 |      |     |      |  |
|       |     |   | i     | 02.9       |      |     |      |  |
|       |     |   | i     | 50.9       |      |     |      |  |
| MAY   | 09  | PNS   | eP    | 04 36 53.5 |      |     |      |  |
| MAY   | 09  | TRJ   | P     | 04 39 18.5 |      |     |      |  |
|       |     |   | S     | 47.6       |      |     |      |  |
| MAY   | 09  | LPB   | eP    | 06 35 06   |      |     |      |  |
|       |     |   | e     | 10.6       |      |     |      |  |
| MAY   | 09  | PNS   | P     | 07 04 23.6 |      |     |      |  |
|       |     |   | S     | 45.8       |      |     |      |  |
|       |     | LPB   | P     | 07 04 25.3 |      |     |      |  |
|       |     |   | eS    | 50         |      |     |      |  |
| MAY   | 09  | LPB   | P     | 07 07 29.2 |      | 0.8 | 34   |  |
| MAY   | 09  | LPB   | eP    | 07 13 09.5 |      | 0.6 | 7    |  |
|       |     | PNS   | P     | 07 13 11.0 |      | 0.4 | 1    |  |
|       |     |   | eS    | 47.7       |      |     |      |  |

| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL |  |
|-------|-----|---|-------|------------|------|-----|------|--|
| MAY   | 09  | USCGS 07 19 55.0, 31.8S, 178.7W, h = 12 km., m = 5.0<br>KERMADEC IS REG           |       |            |      |     |      |  |
|       |     | PNS   | eP    | 07 33 34   |      |     |      |  |
|       |     |   | L     | 08 05.6    |      |     |      |  |
|       |     | LPB   | P     | 07 33 35   |      | 0.9 | 8    |  |
|       |     |   | eL    | 08 05.7    |      |     | 97.2 |  |
| MAY   | 09  | LPB   | eP    | 07 42 25   |      | 1.0 | 4    |  |
|       |     | PNS   | P     | 07 42 32.1 |      |     |      |  |
| MAY   | 09  | LPB   | eP    | 08 01 04   |      |     |      |  |
|       |     | PNS   | P     | 08 01 01.7 |      | 1.0 | 4    |  |
| MAY   | 09  | LPB   | eP    | 08 44 38   |      |     |      |  |
|       |     | PNS   | P     | 08 44 42.1 |      | 0.5 | 2    |  |
|       |     | TRJ   | iP    | 08 44 38.8 | C    |     |      |  |
|       |     |   | S     | 08 45 10.8 |      |     |      |  |
| MAY   | 09  | PNS   | eP    | 09 00 57.5 |      |     |      |  |
| MAY   | 09  | USCGS 09 31 30.3, 34.6S, 179.1W, h = 35 km., m = 4.7<br>SOUTH OF KERMADEC IS      |       |            |      |     |      |  |
|       |     | LPB   | e(P)  | 09 45 01   |      |     | 97.1 |  |
|       |     |   | eL    | 10 17      |      |     |      |  |
|       |     | PNS   | eP    | 09 45 01.4 |      |     |      |  |
|       |     |   | eL    | 10 17      |      |     |      |  |
| MAY   | 09  | LPB   | e(P)  | 09 54 19   |      |     |      |  |
|       |     | PNS   | eP    | 09 54 21.9 |      |     |      |  |
| MAY   | 09  | PNS   | eP    | 10 50 07.7 |      |     |      |  |
| MAY   | 09  | LPB   | P     | 10 59 19   |      |     |      |  |
|       |     |   | i     | 52.2       |      |     |      |  |
|       |     | PNS   | P     | 10 59 23.2 |      | 0.5 | 7    |  |
| MAY   | 09  | PNS   | eP    | 11 52 41   |      |     |      |  |
|       |     | LPB   | eP    | 11 52 46.5 |      |     |      |  |
|       |     | TRJ   | iP    | 11 52 47.8 | D    |     |      |  |
| MAY   | 09  | USCGS 12 28 31.0, 32.7S, 178.1W, h = 33 km., m = 4.8<br>SOUTH OF KERMADEC ISLAND  |       |            |      |     |      |  |
|       |     | LPB   | eP    | 12 41 59.2 |      |     | 96.7 |  |
|       |     | PNS   | eP    | 12 42 01.4 |      |     |      |  |
| MAY   | 09  | USCGS 12 52 24.4, 5.3S, 81.7W, h = 35 km., m = 5.6<br>NEAR COAST OF NORTHERN PERU |       |            |      |     |      |  |
|       |     | PNS   | iP    | 12 56 21.7 | C    | 1.8 | 270  |  |
|       |     |   | S     | 59 39      |      |     |      |  |
|       |     |   | SS    | 50         |      |     |      |  |
|       |     |   | L     | 13 01.4    |      |     |      |  |
|       |     | LPB   | iP    | 12 56 26.8 | C    | 2.4 | 2520 |  |
|       |     |   | SS    | 59 56      |      |     | 16.8 |  |
|       |     |   | eL    | 13 01.5    |      |     |      |  |
| MAY   | 09  | TRJ   | P     | 12 58 11.4 |      |     |      |  |
| MAY   | 09  | LPB   | eP    | 13 02 09.9 |      |     |      |  |
| MAY   | 09  | PNS   | P     | 13 22 58.9 |      |     |      |  |
|       |     |   | S     | 23 25.6    |      |     |      |  |

| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL | DIST  |  |
|-------|-----|---|-------|------------|------|-----|------|-------|--|
| MAY   | 09  | PNS   | eP    | 13 30 08.6 |      |     |      |       |  |
| MAY   | 09  | LPB   | e(P)  | 13 30 10   |      |     |      |       |  |
| MAY   | 09  | PNS   | P     | 13 39 54.2 |      | 1.2 | 9    |       |  |
|       |     | LPB   | P     | 13 39 56.7 |      | 1.0 | 14   |       |  |
| MAY   | 09  | LPB   | eP    | 13 55 11.5 |      | 0.6 | 8    |       |  |
|       |     | PNS   | P     | 13 55 11.6 |      | 1.5 | 9    |       |  |
| MAY   | 09  | PNS   | eP    | 14 03 13   |      |     |      |       |  |
|       |     | LPB   | eP    | 14 03 14.4 |      |     |      |       |  |
| MAY   | 09  | PNS   | P     | 14 05 18.9 |      | 0.8 | 13   |       |  |
|       |     | LPB   | P     | 14 05 21.2 |      | 1.0 | 14   |       |  |
| MAY   | 09  | PNS   | P     | 14 24 33.4 |      | 1.0 | 4    |       |  |
| MAY   | 09  | PNS   | iP    | 14 32 53.4 | D    |     |      |       |  |
|       |     | S   | S     | 33 16.4    |      |     |      |       |  |
|       |     | LPB   | iP    | 14 32 54.2 |      | 0.8 | 28   |       |  |
| MAY   | 09  | USCGS 14 22 08.7, 34.2N, 136.8E, h = 18 km., m = 4.9<br>SOUTHERN HONSHU JAPAN |       |            |      |     |      |       |  |
|       |     | PNS   | ePKP  | 14 41 58.8 |      | 1.2 | 5    |       |  |
|       |     | i   | i     | 42 05.0    |      |     |      |       |  |
|       |     | eL  | eL    | 15 34.9    |      |     |      |       |  |
|       |     | LPB   | PKP   | 14 42 05.7 |      | 1.0 | 30   | 151.6 |  |
|       |     | eL  | eL    | 15 35      |      |     |      |       |  |
| MAY   | 09  | PNS   | P     | 15 23 27.8 |      | 1.0 | 4    |       |  |
| MAY   | 09  | USCGS 16 49 46.1, 17.0N, 93.7W, h = 142 km., m = 4.6<br>CHIAPAS, MEXICO       |       |            |      |     |      |       |  |
|       |     | PNS   | P     | 16 57 21.0 |      | 0.9 | 13   |       |  |
|       |     | eL  | eL    | 17 09.1    |      |     |      |       |  |
|       |     | TRJ   | eP    | 16 57 21.9 |      | 0.9 | 13   |       |  |
|       |     | LPB   | eP    | 16 57 22.5 |      |     |      |       |  |
|       |     | eL  | eL    | 17 09      |      |     |      |       |  |
| MAY   | 09  | TRJ   | iP    | 16 58 52.5 | C    |     |      |       |  |
| MAY   | 09  | PNS   | P     | 17 17 36.8 |      | 0.8 | 4    |       |  |
|       |     | LPB   | eP    | 17 17 39.3 |      |     |      |       |  |
| MAY   | 09  | PNS   | eP    | 17 36 03.1 |      |     |      |       |  |
|       |     | eS  | eS    | 51         |      |     |      |       |  |
|       |     | LPB   | eP    | 17 35 58.5 |      |     |      |       |  |
|       |     | S   | S     | 49         |      |     |      |       |  |
| MAY   | 09  | PNS   | P     | 17 52 22.0 |      | 0.4 | 5    |       |  |
|       |     | S   | S     | 44.8       |      |     |      |       |  |
| MAY   | 09  | USCGS 18 03 09.9, 16.3N, 93.4W, h = 101 km., m = 5.1<br>CHIAPAS, MEXICO       |       |            |      |     |      |       |  |
|       |     | PNS   | iP    | 18 10 43.0 | C    | 1.0 | 33   |       |  |
|       |     | PP  | PP    | 12 45.0    |      |     |      |       |  |
|       |     | PPP   | PPP   | 13 10.6    |      |     |      |       |  |
|       |     | S   | S     | 17 00      |      |     |      |       |  |
|       |     | eSS   | eSS   | 20 06      |      |     |      |       |  |

| MONTH | DAY | STA  | PHASE | TIME       | SIGN | PER | AMPL | DIST  |  |
|-------|-----|--|-------|------------|------|-----|------|-------|--|
|       |     | LPB  | eL    | 23.7       |      |     |      |       |  |
|       |     | P  | P     | 18 10 45.8 | C    | 1.0 | 24   | 40.7  |  |
|       |     | PP   | PP    | 12 46      |      |     |      |       |  |
|       |     | PPP  | PPP   | 13 13      |      |     |      |       |  |
|       |     | eL   | eL    | 22         |      |     |      |       |  |
| MAY   | 09  | TRJ  | P     | 18 12 14.4 | D    |     |      |       |  |
| MAY   | 09  | PNS  | eP    | 18 16 22.2 |      |     |      |       |  |
| MAY   | 09  | USCGS 18 32 33.3, 18.4S, 69.4W, h = 125 km., m = 5.0<br>NORTHERN CHILE             |       |            |      |     |      |       |  |
|       |     | LPB  | iP    | 18 33 16.1 | D    | 0.7 | 70   | 2.4   |  |
|       |     | iS   | iS    | 46.5       |      |     |      |       |  |
|       |     | eSCS   | eSCS  | 47 43.5    |      |     |      |       |  |
|       |     | PNS  | iP    | 18 33 17.2 | D    |     |      |       |  |
|       |     | iS   | iS    | 47.2       |      |     |      |       |  |
|       |     | eScS   | eScS  | 47 44      |      |     |      |       |  |
|       |     | TRJ  | iP    | 18 34 35.1 | D    |     |      |       |  |
| MAY   | 09  | PNS  | eP    | 20 46 17   |      |     |      |       |  |
| MAY   | 09  | PNS  | P     | 22 40 27.8 |      | 0.6 | 3    |       |  |
|       |     | eS   | eS    | 41 26      |      |     |      |       |  |
|       |     | LPB  | eP    | 22 40 31   |      |     |      |       |  |
| MAY   | 09  | USCGS 23 27 46.5, 41.2N, 125.7W, h = 33 km., m = 4.7<br>OFF COAST OF N. CALIFORNIA |       |            |      |     |      |       |  |
|       |     | LPB  | eP    | 23 39 40.5 |      |     |      | 78.3  |  |
|       |     | PNS  | eP    | 23 39 43   |      |     |      |       |  |
|       |     | eL   | eL    | 00 05.5    |      |     |      |       |  |
| MAY   | 09  | LPB  | P     | 23 48 29   |      |     |      |       |  |
|       |     | PNS  | eP    | 23 48 35.4 |      |     |      |       |  |
| MAY   | 10  | USCGS 00 05 49.7, 5.35, 146.5E, h = 162 km., m = 5.1<br>EAST NEW GUINEA REGION     |       |            |      |     |      |       |  |
|       |     | LPB  | ePKP  | 00 24 48.4 |      |     |      | 139.0 |  |
|       |     | PNS  | ePKP  | 00 24 51.9 |      |     |      |       |  |
|       |     | eL   | eL    | 01 10.7    |      |     |      |       |  |
| MAY   | 10  | PNS  | P     | 01 41 21.4 |      | 0.4 | 1    |       |  |
|       |     | S  | S     | 43.6       |      |     |      |       |  |
| MAY   | 10  | USCGS 02 41 49.2, 12.8N, 60.7W, h = 71 km., m = 4.6<br>WINDWARD ISLAND             |       |            |      |     |      |       |  |
|       |     | PNS  | P     | 02 47 54.2 |      | 0.8 | 3    |       |  |
|       |     | LPB  | eP    | 02 47 55.8 |      | 0.6 | 4    |       |  |
|       |     | eL   | eL    | 57.7       |      |     |      |       |  |
|       |     | TRJ  | P     | 02 49 13.2 |      |     |      |       |  |
| MAY   | 10  | PNS  | P     | 03 39 46.0 |      |     |      |       |  |
| MAY   | 10  | TRJ  | eP    | 03 56 18.8 |      |     |      |       |  |
|       |     | LPB  | eP    | 03 56 52   |      |     |      |       |  |
|       |     | PNS  | eP    | 03 56 54.7 |      |     |      |       |  |
| MAY   | 10  | TRJ  | eP    | 04 24 42.5 |      |     |      |       |  |
|       |     | i  | i     | 25 13.5    |      |     |      |       |  |

| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL | DIST |  |
|-------|-----|---|-------|------------|------|-----|------|------|--|
| MAY   | 10  | LPB   | e(P)  | 06 13 23   |      |     |      |      |  |
|       |     | PNS   | eP    | 06 13 26   |      |     |      |      |  |
|       |     | TRJ   | eP    | 06 14 05.5 |      |     |      |      |  |
| MAY   | 10  | PNS   | eP    | 06 36 52.9 |      | 1.0 | 6    |      |  |
|       |     | LPB   | P     | 06 36 55.4 |      | 1.0 | 10   |      |  |
|       |     | TRJ   | P     | 06 37 29.4 |      |     |      |      |  |
| MAY   | 10  | PNS   | P     | 06 55 24.0 |      | 0.7 | 2    |      |  |
|       |     |   | S     | 48         |      |     |      |      |  |
|       |     | LPB   | eP    | 06 55 28.5 |      |     |      |      |  |
| MAY   | 10  | USCGS 07 21 18.0, 19.0N, 66.7W, h = 56 km., m = 3.9<br>PUERTO RICO REGION       |       |            |      |     |      |      |  |
|       |     | PNS   | eP    | 07 28 09   |      | 1.0 | 0.5  | 35.1 |  |
|       |     | LPB   | P     | 07 28 10.6 |      |     |      |      |  |
|       |     | TRJ   | eP    | 07 29 32.5 |      |     |      |      |  |
| MAY   | 10  | LPB   | P     | 08 34 50.7 |      | 0.7 | 4    |      |  |
|       |     | PNS   | P     | 08 34 53.3 |      | 0.5 | 2    |      |  |
|       |     | TRJ   | P     | 08 35 02.2 |      |     |      |      |  |
|       |     |   | S     | 33.3       |      |     |      |      |  |
| MAY   | 10  | PNS   | P     | 09 33 38.0 |      | 1.0 | 7    |      |  |
|       |     |   | i     | 53.0       |      |     |      |      |  |
|       |     | LPB   | eL    | 09 50.1    |      | 1.0 | 8    |      |  |
|       |     |   | eP    | 09 33 40.8 |      |     |      |      |  |
|       |     |   | i     | 57.5       |      |     |      |      |  |
|       |     |   | eL    | 51         |      |     |      |      |  |
|       |     | TRJ   | P     | 09 35 06.0 |      |     |      |      |  |
| MAY   | 10  | PNS   | eP    | 09 43 39.8 |      | 2.1 | 38   |      |  |
|       |     | LPB   | P     | 09 43 39.9 |      |     |      |      |  |
|       |     | TRJ   | eP    | 09 44 24.2 |      |     |      |      |  |
| MAY   | 10  | LPB   | e(P)  | 09 44 43   |      |     |      |      |  |
|       |     | PNS   | eP    | 09 44 45.5 |      |     |      |      |  |
| MAY   | 10  | LPB   | e(P)  | 09 51 50.5 |      |     |      |      |  |
|       |     |   | eL    | 10 44      |      |     |      |      |  |
| MAY   | 10  | PNS   | eP    | 09 55 30.8 |      |     |      |      |  |
|       |     |   | eS    | 56 02.2    |      |     |      |      |  |
|       |     | LPB   | e(P)  | 09 55 32   |      |     |      |      |  |
|       |     |   | S     | 56 06      |      |     |      |      |  |
| MAY   | 10  | PNS   | eP    | 13 21 25   |      |     |      |      |  |
|       |     |   | e     | 22 54.6    |      |     |      |      |  |
|       |     | LPB   | e(P)  | 13 21 28   |      |     |      |      |  |
| MAY   | 10  | PNS   | eP    | 13 26 01   |      |     |      |      |  |
|       |     |   | eS    | 44         |      |     |      |      |  |
|       |     | LPB   | eP    | 13 26 08.5 |      |     |      |      |  |
|       |     |   | eS    | 45         |      |     |      |      |  |
| MAY   | 10  | USCGS 13 24 16.0, 28.4S, 175.9W, h = 60 km., m = 4.9<br>KERMADEC ISLANDS REGION |       |            |      |     |      |      |  |
|       |     | LPB   | eP    | 13 37 41.5 |      |     |      | 97.1 |  |
|       |     |   | e(L)  | 14 01      |      |     |      |      |  |
|       |     | PNS   | eP    | 13 37 42.6 |      |     |      |      |  |
|       |     |   | eL    | 14 10.0    |      |     |      |      |  |

| MONTH | DAY | STA  | PHASE | TIME       | SIGN | PER | AMPL | DIST  |  |
|-------|-----|--|-------|------------|------|-----|------|-------|--|
| MAY   | 10  | USCGS 15 09 20.6, 24.3N, 121.9E, h = 26 km., m = 4.8<br>TAIWAN               |       |            |      |     |      |       |  |
|       |     | TRJ  | ePKP  | 15 29 21.2 |      |     |      |       |  |
|       |     | PNS  | PKP   | 15 29 28.4 |      | 1.0 | 7    |       |  |
|       |     |  | eL    | 16 09.0    |      |     |      |       |  |
|       |     | LPB  | ePKP  | 15 29 29.4 |      | 1.0 | 14   | 167.9 |  |
|       |     |  | eL    | 16 09.2    |      |     |      |       |  |
| MAY   | 10  | USCGS 15 24 01.6, 55.7S, 26.8W, h = 35 km., m = 5.6<br>SOUTH SANDWICH IS REG |       |            |      |     |      |       |  |
|       |     | TRJ  | P     | 15 32 52.7 |      |     |      |       |  |
|       |     | LPB  | P     | 15 32 56.5 |      | 1.1 | 110  | 50.1  |  |
|       |     |  | PP    | 34 53.2    |      |     |      |       |  |
|       |     |  | L     | 48.2       |      |     |      |       |  |
|       |     | PNS  | iP    | 15 32 59.4 |      |     |      | C     |  |
|       |     |  | PP    | 34 58.4    |      |     |      |       |  |
|       |     |  | L     | 48.5       |      |     |      |       |  |
| MAY   | 10  | PNS  | P     | 15 38 10   |      | 0.9 | 3    |       |  |
|       |     | LPB  | e(P)  | 15 38 13.5 |      |     |      |       |  |
|       |     | TRJ  | eP    | 15 38 27.0 |      |     |      |       |  |
| MAY   | 10  | TRJ  | P     | 16 08 28.8 |      |     |      |       |  |
|       |     | PNS  | iP    | 16 08 44.1 |      | D   | 0.5  | 12    |  |
|       |     |  | S     | 09 06.2    |      |     |      |       |  |
|       |     | LPB  | P     | 16 08 45   |      |     |      |       |  |
|       |     |  | S     | 09 08.3    |      |     |      |       |  |
| MAY   | 10  | PNS  | eP    | 16 17 23   |      |     |      |       |  |
|       |     | TRJ  | eP    | 16 17 49.7 |      |     |      |       |  |
| MAY   | 10  | LPB  | eP    | 16 43 59.5 |      | 0.7 | 4    |       |  |
|       |     | PNS  | P     | 16 44 02.4 |      |     |      |       |  |
| MAY   | 10  | TRJ  | eP    | 16 51 13.2 |      |     |      |       |  |
|       |     | PNS  | eP    | 16 51 43   |      |     |      |       |  |
| MAY   | 10  | LPB  | ePKP  | 17 41 20   |      | 0.9 | 14   |       |  |
|       |     | PNS  | P     | 17 41 21.1 |      | 0.8 | 6    |       |  |
| MAY   | 10  | PNS  | eP    | 18 12 40   |      |     |      |       |  |
|       |     | LPB  | eP    | 18 12 43.5 |      |     |      |       |  |
| MAY   | 10  | USCGS 17 59 06.7, 53.7N, 166.9W, h = 33 km., m = 4.3<br>FOX IS ALEUTIAN IS   |       |            |      |     |      |       |  |
|       |     | LPB  | e(P)  | 18 13 34.5 |      |     |      | 108.4 |  |
|       |     | PNS  | eP    | 18 13 39   |      |     |      |       |  |
| MAY   | 10  | PNS  | P     | 18 18 14.4 |      |     |      |       |  |
|       |     |  | S     | 36.5       |      |     |      |       |  |
|       |     | LPB  | eP    | 18 18 18.5 |      |     |      |       |  |
| MAY   | 10  | LPB  | e(P)  | 20 01 19.5 |      |     |      |       |  |
|       |     | PNS  | P     | 20 01 20.6 |      |     |      |       |  |
| MAY   | 10  | LPB  | eP    | 20 31 23   |      |     |      |       |  |
| MAY   | 10  | LPB  | e(P)  | 20 46 13   |      |     |      |       |  |
| MAY   | 10  | USCGS 20 33 13.2, 24.3W, 122.0E, h = 20 km., m = 4.9<br>TAIWAN REGION        |       |            |      |     |      |       |  |
|       |     | PNS  | ePKP  | 20 53 21.4 |      | 1.7 | 35   |       |  |
|       |     |  | eL    | 21 52.6    |      |     |      |       |  |
|       |     | LPB  | ePKP  | 20 53 22.6 |      |     |      | 167.4 |  |
|       |     |  | eL    | 21.52      |      |     |      |       |  |

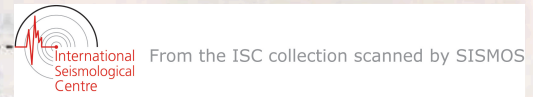


| MAY   |     |   |                       |  |      |            |          |       |  |
|-------|-----|---|-----------------------|--|------|------------|----------|-------|--|
| MONTH | DAY | STA   | PHASE                 | TIME   | SIGN | PER        | AMPL     | DIST  |  |
| MAY   | 10  | PNS   | P                     | 20 54 26.2                                     |      | 0.6        | 4        |       |  |
| MAY   | 10  | TRJ   | iP<br>S               | 21 50 20.0<br>50.8                             | C    |            |          |       |  |
| MAY   | 10  | PNS<br>LPB<br>TRJ   | P<br>P<br>P           | 21 55 31.5<br>21 55 37.2<br>21 55 55.0         |      | 0.8<br>0.8 | 4<br>13  |       |  |
| MAY   | 10  | USCGS 22 48 36.7, 21.2S, 176.6W, h = 203., m = 5.1<br>WEST OF TONGA ISLANDS |                       |  |      |            |          |       |  |
|       |     | LPB   | P                     | 23 02 05                                       |      | 1.1        | 20       | 100.3 |  |
|       |     | PNS   | eL<br>P               | 23 02 03.7<br>36.8                             |      | 0.6        | 4        |       |  |
|       |     | TRJ   | eP                    | 23 02 51.1                                     |      |            |          |       |  |
| MAY   | 10  | PNS<br>LPB  | eP<br>eP              | 23 06 09.2<br>23 06 11                         |      | 1.1        | 6        |       |  |
| MAY   | 10  | PNS<br>TRJ  | P<br>S<br>eP          | 23 07 23.1<br>41.8<br>23 07 49.2               |      | 0.4        | 2        |       |  |
| MAY   | 10  | LPB<br>PNS  | eP<br>P               | 23 37 47<br>23 37 53.6                         |      | 0.8        | 3        |       |  |
| MAY   | 11  | LPB<br>PNS  | eP<br>eP              | 00 46 22<br>00 47 17                           |      |            |          |       |  |
| MAY   | 11  | LPB<br>PNS<br>TRJ   | eP<br>P<br>P          | 00 50 46.7<br>00 50 53.0<br>00 51 16.9         |      | 1.0        | 4        |       |  |
| MAY   | 11  | LPB<br>PNS  | e(P)<br>eP<br>ES<br>S | 01 16 13.5<br>01 16 14.6<br>01 16 25.5<br>57.8 |      |            |          |       |  |
| MAY   | 11  | LPB   | P                     | 02 23 55.2                                     |      | 0.6        | 28       |       |  |
| MAY   | 11  | LPB   | eP                    | 02 37 03                                       |      |            |          |       |  |
| MAY   | 11  | PNS   | P                     | 02 42 51.1                                     |      | 1.0        | 4        |       |  |
| MAY   | 11  | PNS<br>LPB  | P<br>eP               | 03 43 10.4<br>03 43 15                         |      | 1.0        | 4        |       |  |
| MAY   | 11  | LPB   | eP                    | 04 54 24.7                                     |      |            |          |       |  |
| MAY   | 11  | LPB   | eP                    | 06 30 50.2                                     |      |            |          |       |  |
| MAY   | 11  | LPB<br>PNS<br>TRJ   | eP<br>P<br>eP         | 07 09 02.7<br>07 09 03<br>07 09 37.4           |      | 0.7        | 4        |       |  |
| MAY   | 11  | LPB<br>PNS  | iP<br>S<br>P<br>S     | 07 32 12.4<br>48<br>07 32 17.1<br>55.8         |      | 0.6<br>0.9 | 27<br>11 |       |  |

| MAY   |     |   |                    |  |      |     |      |                  |  |
|-------|-----|---|--------------------|--|------|-----|------|------------------|--|
| MONTH | DAY | STA   | PHASE              | TIME   | SIGN | PER | AMPL | DIST             |  |
| MAY   | 11  | PNS   | eP                 | 07 59 46                                       |      |     |      |                  |  |
| MAY   | 11  | PNS   | P<br>S             | 08 16 12.0<br>33.6                             |      |     |      | 0.5 2            |  |
| MAY   | 11  | PNS   | P                  | 09 39 41.6                                     |      |     |      |                  |  |
| MAY   | 11  | PNS<br>LPB  | P<br>eS<br>eP      | 10 06 08.6<br>41.8<br>10 06 10                 |      |     |      | 0.5 2<br>0.7 5   |  |
| MAY   | 11  | USCGS 10 32 00.6, 13.3S, 68.0W, h = 33 km., m = 3.6<br>PERU-BOLIVIA BORDER REG.       |                    |  |      |     |      |                  |  |
|       |     | PNS   | P                  | 10 39 46.0                                     |      | 0.6 | 6    |                  |  |
|       |     | LPB   | eL                 | 40 31.1<br>40.8                                |      |     |      |                  |  |
|       |     | LPB   | P                  | 10 39 52.5                                     |      | 0.7 | 3    |                  |  |
|       |     | TRJ   | i<br>S             | 40 04<br>40 35.5                               |      |     |      |                  |  |
|       |     | LPB   | eL                 | 41   |      |     |      |                  |  |
| MAY   | 11  | PNS<br>LPB  | eP<br>eP           | 11 28 42.3<br>11 28 43                         |      |     |      |                  |  |
| MAY   | 11  | USCGS 12 12 41.0, 41.0N, 42.8E, h = 16 km., m = 5.0<br>CASPIAN SEA                    |                    |  |      |     |      |                  |  |
|       |     | PNS   | ePKP<br>eL         | 12 31 37.2<br>13 10                            |      |     |      |                  |  |
|       |     | LPB   | ePKP               | 12 31 38                                       |      |     |      | 121.6            |  |
| MAY   | 11  | LPB<br>PNS  | eP<br>P            | 12 35 31<br>12 35 34.0                         |      |     |      |                  |  |
| MAY   | 11  | USCGS 13 30 05.9, 28.8S, 63.1W, h = 602 km., m = 5.2<br>SANTIAGO DEL ESTERO ARGENTINA |                    |  |      |     |      |                  |  |
|       |     | LPB   | iP<br>i<br>S<br>eL | 12 32 51.4<br>33 06.2<br>35 13.2<br>36.7       |      | 0.6 | 102  | 12.0             |  |
|       |     | PNS   | iP<br>S            | 13 33 00.4<br>35 19.8                          |      |     |      |                  |  |
|       |     | TRJ   | iP                 | 13 32 43.5                                     |      |     |      |                  |  |
| MAY   | 11  | PNS<br>LPB  | P<br>S<br>P<br>S   | 13 40 17.2<br>43 55.1<br>13 40 16.3<br>43 55.5 |      |     |      | 1.1 45<br>1.0 28 |  |
| MAY   | 11  | LPB<br>PNS  | eP<br>P            | 15 01 14.5<br>15 01 16.5                       |      | 0.8 | 5    |                  |  |
| MAY   | 11  | LPB<br>PNS  | eP<br>P<br>S       | 15 05 45<br>15 05 48.5<br>06 20.6              |      | 0.6 | 2    |                  |  |

| MAY   |     |  |       |            |      |          |       |  |
|-------|-----|--|-------|------------|------|----------|-------|--|
| MONTH | DAY | STA  | PHASE | TIME       | SIGN | PER AMPL | DIST  |  |
| MAY   | 11  | USCGS 15 33 41.2, 61.4S, 147.3E, h = 76 km., m = 5.5<br>EAST NEW GUINEA REGION   |       |            |      |          |       |  |
|       |     | PNS  | PKP   | 15 52 49.1 |      | 1.2 16   |       |  |
|       |     |  | PPKP  | 53 01.1    |      |          |       |  |
|       |     |  | IPKS  | 56 33.8    |      |          |       |  |
|       |     |  | eSS   | 16 15 00   |      |          |       |  |
|       |     |  | L     | 38.4       |      | 1.1 22   | 138.1 |  |
|       |     | LPB  | PKP   | 15 52 50   |      |          |       |  |
|       |     |  | pPKP  | 53 02      |      |          |       |  |
|       |     |  | PKS   | 56 35      |      |          |       |  |
|       |     |  | L     | 38.5       |      |          |       |  |
|       |     | TRJ  | epKP  | 15 53 25.6 |      |          |       |  |
|       |     |  | i     | 43.6       |      |          |       |  |
|       |     |  | eP    | 17 38 54   |      |          |       |  |
| MAY   | 11  | PNS  | eP    | 20 19 46.6 |      |          |       |  |
| MAY   | 11  | PNS  | eS    | 20 07      |      |          |       |  |
| MAY   | 11  | LPB  | eP    | 23 01 20   |      |          |       |  |
| MAY   | 11  | PNS  | eP    | 23 01 28   |      |          |       |  |
| MAY   | 11  | LPB  | P     | 23 16 59   |      | 0.7 12   |       |  |
| MAY   | 11  | PNS  | P     | 23 16 56.6 |      |          |       |  |
|       |     |  | eS    | 18 45.6    |      |          |       |  |
| MAY   | 12  | LPB  | eP    | 03 11 56.5 |      | 0.7 4    |       |  |
| MAY   | 12  | PNS  | P     | 03 12 03.3 |      | 0.5 3    |       |  |
|       |     |  | eS    | 52.9       |      |          |       |  |
| MAY   | 12  | USCGS 04 32 39.0, 16.8N, 95.3W, h = 55 km., m = 4.4<br>OAXACA, MEXICO            |       |            |      |          |       |  |
|       |     | LPB  | eP    | 04 40 34.2 |      | 0.6 2    | 42.3  |  |
|       |     | PNS  | P     | 04 40 38.6 |      |          |       |  |
|       |     |  | i     | 45.6       |      |          |       |  |
|       |     | TRJ  | P     | 04 42 08.5 |      |          |       |  |
| MAY   | 12  | PNS  | eP    | 05 43 38.6 |      |          |       |  |
| MAY   | 12  | LPB  | eP    | 05 43 42   |      |          |       |  |
| MAY   | 12  | LPB  | eP    | 06 20 40.5 |      |          |       |  |
| MAY   | 12  | PNS  | iP    | 06 54 16.8 |      | 0.5 5    |       |  |
|       |     |  | S     | 38.9       |      |          |       |  |
|       |     | LPB  | eP    | 06 54 20   |      |          |       |  |
|       |     |  | S     | 44         |      |          |       |  |
| MAY   | 12  | USCGS 06 54 29.0, 35.4S, 105.0W, h = 33 km., m = 4.5<br>EASTER ISLAND CORDILLERA |       |            |      |          |       |  |
|       |     | PNS  | P     | 07 01 47.1 |      | 1.0 12   |       |  |
|       |     |  | eS    | 07 10      |      |          |       |  |
|       |     |  | L     | 12.5       |      |          |       |  |
|       |     | LPB  | P     | 07 04 47.5 |      | 1.0 16   | 37.0  |  |
|       |     |  | L     | 12.6       |      |          |       |  |
|       |     | TRJ  | P     | 07 02 28.1 |      |          |       |  |
| MAY   | 12  | LPB  | P     | 07 09 49   |      | 0.6 7    |       |  |
|       |     | PNS  | P     | 07 09 53.0 |      | 0.5 3    |       |  |
|       |     | TRJ  | iP    | 07 09 36.6 |      |          |       |  |

| MAY   |     |  |       |            |  |        |       |
|-------|-----|--|-------|------------|--|--------|-------|
| MONTH | DAY | STA  | PHASE | TIME       |  |        |       |
| MAY   | 12  | PNS  | P     | 07 16 13.8 |  |        |       |
|       |     |  | eS    | 55.8       |  |        |       |
|       |     | LPB  | e(P)  | 07 16 21   |  |        |       |
| MAY   | 12  | PNS  | eP    | 09 38 11.4 |  |        |       |
|       |     | LPB  | eP    | 09 38 13.5 |  |        |       |
|       |     | TRJ  | eP    | 09 38 29.4 |  |        |       |
| MAY   | 12  | PNS  | iP    | 09 50 56.5 |  |        |       |
|       |     |  | iS    | 51 20.0    |  |        |       |
|       |     | LPB  | iP    | 09 50 56.8 |  | 0.8 48 |       |
|       |     |  | iS    | 51 22      |  |        |       |
| MAY   | 12  | LPB  | P     | 10 12 33.4 |  | 0.5 11 |       |
| MAY   | 12  | LPB  | P     | 10 57 14.4 |  | 1.1 22 |       |
|       |     |  | e     | 38.6       |  |        |       |
|       |     | PNS  | P     | 10 57 18.0 |  | 0.5    |       |
|       |     | TRJ  | iP    | 10 57 32.3 |  |        |       |
| MAY   | 12  | LPB  | P     | 10 57 14.4 |  | 1.1 22 |       |
|       |     |  | e     | 38.6       |  |        |       |
|       |     | PNS  | P     | 10 57 18.0 |  | 0.5 7  |       |
|       |     | TRJ  | iP    | 10 57 32.3 |  |        |       |
| MAY   | 12  | PNS  | P     | 11 41 50.5 |  | 0.5 4  |       |
|       |     |  | S     | 42 14.8    |  |        |       |
|       |     | LPB  | eP    | 11 41 54   |  |        |       |
| MAY   | 12  | LPB  | eP    | 13 25 41   |  | 0.5 2  |       |
|       |     | PNS  | P     | 13 25 45.7 |  |        |       |
|       |     | TRJ  | iP    | 13 25 41.8 |  |        |       |
|       |     |  | S     | 26 13.9    |  |        |       |
| MAY   | 12  | USCGS 13 21 46.0, 6.0S, 107.0E, h = 33 km., m = 4.9<br>JAVA            |       |            |  |        |       |
|       |     | PNS  | eP    | 13 42 10.5 |  | 1.0 7  |       |
|       |     | LPB  | eP    | 13 42 11   |  |        | 155.9 |
|       |     | TRJ  | eP    | 13 42 16.1 |  |        |       |
| MAY   | 12  | PNS  | P     | 13 56 52   |  |        |       |
|       |     |  | S     | 57 17      |  |        |       |
|       |     | LPB  | eP    | 13 56 56.5 |  |        |       |
| MAY   | 12  | PNS  | P     | 14 43 13.9 |  | 1.2 29 |       |
|       |     |  | L     | 56.6       |  |        |       |
|       |     | TRJ  | P     | 14 44 10.1 |  |        |       |
|       |     | LPB  | Pe    | 14 43 14   |  | 1.0 14 |       |
|       |     |  | eL    | 55.5       |  |        |       |
| MAY   | 12  | LPB  | eP    | 14 55 03.7 |  | 0.9 10 |       |
| MAY   | 12  | LPB  | eP    | 15 03 45   |  |        |       |
|       |     | PNS  | eP    | 15 03 50   |  |        |       |
| MAY   | 12  | LPB  | eP    | 15 39 49.5 |  | 0.8 6  |       |
| MAY   | 12  | USCGS 16 38 54.5, 7.3N, 82.0W, h = 160 km., m = 4.7<br>SOUTH OF PANAMA |       |            |  |        |       |



| MONTH | DAY | STA   | PHASE  | TIME   | SIGN | PER | AMPL | DIST  |
|-------|-----|-------|--------|--|------|-----|------|-------|
| MAY   | 12  | PNS   | P      | 16 44 24.0                                     |      | 0.8 | 10   |       |
|       |     |       | S      | 49 13  |      |     |      |       |
|       |     |       | L      | 54   |      |     |      |       |
|       |     | LPB   | P      | 16 44 28.7                                     |      | 1.0 | 14   | 27.0  |
|       |     |       | eS     | 49 16  |      |     |      |       |
|       |     |       | eL     | 52.7   |      |     |      |       |
| MAY   | 12  | LPB   | eP     | 18 18 04.5                                     |      |     |      |       |
|       |     | PNS   | eP     | 18 18 10.9                                     |      |     |      |       |
| MAY   | 12  | PNS   | eP     | 18 55 08.7                                     |      | 1.0 | 4    |       |
|       |     | LPB   | eP     | 18 55 09                                       |      |     |      |       |
| MAY   | 12  | USCGS |        | 18 39 10.8, 19.0S, 169.8E, h = 16 km., m = 5.1 |      |     |      |       |
|       |     |       |        | NEW HEBRIDES ISLANDS                           |      |     |      |       |
|       |     | LPB   | e(PKP) | 18 57 50                                       |      |     |      | 113.5 |
|       |     | PNS   | ePKP   | 18 57 52.4                                     |      |     |      |       |
| MAY   | 12  | LPB   | eP     | 19 24 30                                       |      |     |      |       |
| MAY   | 12  | LPB   | eP     | 21 56 51.2                                     |      |     |      |       |
|       |     | PNS   | eP     | 21 56 57                                       |      |     |      |       |
| MAY   | 12  | LPB   | eP     | 22 03 33                                       |      | 0.7 | 3    |       |
|       |     | PNS   | P      | 22 03 34.6                                     |      |     |      |       |
|       |     |       | S      | 04 30.8  |      |     |      |       |
| MAY   | 12  | LPB   | P      | 22 05 38                                       |      | 1.0 | 16   |       |
|       |     | PNS   | P      | 22 05 42.5                                     |      | 0.4 | 4    |       |
| MAY   | 12  | LPB   | eP     | 22 31 54.2                                     |      | 0.8 | 6    |       |
|       |     | PNS   | eP     | 22 31 58                                       |      |     |      |       |
| MAY   | 12  | LPB   | eP     | 23 11 04.5                                     |      |     |      |       |
|       |     | PNS   | P      | 23 11 07                                       |      |     |      |       |
| MAY   | 12  | PNS   | eP     | 23 54 39                                       |      |     |      |       |
| MAY   | 13  | LPB   | eP     | 01 29 57.5                                     |      |     |      |       |
|       |     | PNS   | eP     | 01 29 58                                       |      |     |      |       |
| MAY   | 13  | USCGS |        | 01 16 10.5, 3.9S, 151.6E, h = 33 km., m = 4.8  |      |     |      |       |
|       |     |       |        | NEW IRELAND REGION                             |      |     |      |       |
|       |     | PNS   | ePKP   | 01 35 33.4                                     |      |     |      | 135.6 |
|       |     |       | eL     | 02 20.1  |      |     |      |       |
| MAY   | 13  | LPB   | P      | 02 31 20.6                                     |      | 0.7 | 25   |       |
|       |     |       | S      | 32 15  |      |     |      |       |
|       |     | PNS   | iP     | 02 31 24.3                                     |      | 0.6 | 14   |       |
|       |     |       | S      | 32 20  |      |     |      |       |
|       |     | TRJ   | P      | 02 31 46.7                                     |      |     |      |       |
|       |     |       | S      | 32 39.4  |      |     |      |       |
| MAY   | 13  | USCGS |        | 02 59 25.4, 40.3S, 73.2W, h = 33 km., m = 4.8  |      |     |      |       |
|       |     |       |        | NEAR COAST OF CENTRAL CHILE                    |      |     |      |       |
|       |     | TRJ   | P      | 03 04 39.9                                     |      | 1.0 | 12   | 23.6  |
|       |     | LPB   | eP     | 03 04 41.2                                     |      |     |      |       |
|       |     |       | eS     | 09 19  |      |     |      |       |
|       |     |       | eL     | 12   |      |     |      |       |
|       |     | PNS   | eP     | 03 04 43.4                                     |      | 0.8 | 4    |       |
|       |     |       | S      | 09 15  |      |     |      | 99    |
|       |     |       | eL     | 11.1   |      |     |      |       |

| MONTH | DAY | STA   | PHASE | TIME   | SIGN | PER | AMPL | DIST  |
|-------|-----|-------|-------|--|------|-----|------|-------|
| MAY   | 13  | PNS   | iP    | 03 29 17.1                                     | D    |     | 0.4  | 7     |
|       |     |       | S     | 39   |      |     |      |       |
|       |     | LPB   | P     | 03 29 18.7                                     |      |     | 0.5  | 4     |
| MAY   | 13  | LPB   | eL    | 03 51.5  |      |     |      |       |
| MAY   | 13  | USCGS |       | 03 56 09.2, 19.0S, 169.6E, h = 13 km., m = 5.1 |      |     |      |       |
|       |     |       |       | NEW HEBRIDES ISLANDS                           |      |     |      |       |
|       |     | PNS   | ePKP  | 04 14 43.2                                     |      |     |      |       |
|       |     |       | eL    | 04 49.2  |      |     |      |       |
| MAY   | 13  | LPB   | ePKP  | 04 14 44.5                                     |      |     |      | 112.6 |
|       |     |       | eL    | 49   |      |     |      |       |
| MAY   | 13  | PNS   | iP    | 05 00 58.2                                     | D    |     | 0.4  | 8     |
|       |     |       | S     | 01 20.6  |      |     |      |       |
|       |     | LPB   | eP    | 05 01 02                                       |      |     |      |       |
| MAY   | 13  | PNS   | iP    | 06 03 24.8                                     | D    |     | 0.5  | 8     |
|       |     |       | S     | 49.1   |      |     |      |       |
|       |     | LPB   | P     | 06 02 27                                       |      |     | 0.8  | 4     |
|       |     |       | S     | 55   |      |     |      |       |
| MAY   | 13  | TRJ   | P     | 06 09 56.7                                     |      |     |      |       |
|       |     | LPB   | P     | 06 10 10.6                                     |      |     | 0.8  | 12    |
|       |     | PNS   | P     | 06 10 14                                       |      |     | 0.4  | 4     |
| MAY   | 13  | PNS   | eP    | 06 20 19                                       |      |     |      |       |
|       |     |       | eS    | 21 24  |      |     |      |       |
|       |     | LPB   | eP    | 06 20 22                                       |      |     |      |       |
| MAY   | 13  | TRJ   | iP    | 07 40 29.6                                     | C    |     |      |       |
|       |     |       | S     | 41 00.6  |      |     |      |       |
|       |     | LPB   | eP    | 07 40 31.6                                     |      |     |      |       |
|       |     |       | eP    | 07 40 33.8                                     |      |     |      |       |
| MAY   | 13  | LPB   | P     | 08 21 09.3                                     |      |     | 0.9  | 6     |
|       |     | PNS   | eP    | 08 21 11.2                                     |      |     |      |       |
| MAY   | 13  | USCGS |       | 08 03 53.0, 1.3S, 128.9E, h = 33 km., m = 4.7  |      |     |      |       |
|       |     |       |       | HALMAHERA                                      |      |     |      |       |
|       |     | TRJ   | PKP   | 08 23 33.2                                     |      |     |      |       |
|       |     | LPB   | PKP   | 08 23 56.7                                     |      |     | 0.8  | 7     |
|       |     | PNS   | PKP   | 08 23 57.5                                     |      |     | 1.0  | 7     |
| MAY   | 13  | LPB   | eP    | 09 01 07                                       |      |     |      |       |
|       |     | PNS   | eP    | 09 01 09                                       |      |     |      |       |
| MAY   | 13  | PNS   | P     | 09 25 06.4                                     |      |     |      |       |
|       |     |       | S     | 29.9   |      |     |      |       |
|       |     | LPB   | eP    | 09 25 05.5                                     |      |     |      |       |
| MAY   | 13  | LPB   | P     | 10 36 35.2                                     |      |     | 0.9  | 6     |
| MAY   | 13  | LPB   | e(P)  | 10 42 50                                       |      |     |      |       |
| MAY   | 13  | LPB   | eP    | 10 52 11.2                                     |      |     |      |       |
| MAY   | 13  | LPB   | eP    | 11 03 21                                       |      |     |      |       |
|       |     | PNS   | P     | 11 03 24.8                                     |      |     |      |       |

| MAY   |     |  |       |            |      |     |      |       |  |
|-------|-----|--|-------|------------|------|-----|------|-------|--|
| MONTH | DAY | STA  | PHASE | TIME       | SIGN | PER | AMPL | DIST  |  |
| MAY   | 13  | LPB  | eP    | 11 40 10   |      |     |      |       |  |
|       |     | PNS  | P     | 11 44 15   |      | 1.0 | 7    |       |  |
|       |     | TRJ  | P     | 11 45 48.0 | D    |     |      |       |  |
| MAY   | 13  | USCGS 11 49 53.0, 4.3E, 142.7E, h = 69 km., m = 4.6<br>NEW GUINEA    |       |            |      |     |      |       |  |
|       |     | PNS  | ePKP  | 12 09 21   |      | 0.8 | 3    |       |  |
|       |     | LPB  | ePKP  | 12 09 25   |      |     |      | 142.3 |  |
| MAY   | 13  | PNS  | P     | 13 02 30.2 |      |     |      |       |  |
|       |     |  | S     | 03 06.6    |      |     |      |       |  |
| MAY   | 13  | LPB  | eP    | 15 52 06.7 |      |     |      |       |  |
|       |     |  | eL    | 16 02.6    |      | 0.8 | 5    |       |  |
|       |     | PNS  | P     | 15 52 08.0 |      |     |      |       |  |
|       |     |  | eL    | 16 02.8    |      |     |      |       |  |
| MAY   | 13  | PNS  | P     | 16 19 56.8 |      | 0.6 | 2    |       |  |
|       |     | LPB  | eP    | 16 19 58.5 |      |     |      |       |  |
| MAY   | 13  | PNS  | P     | 16 41 46.5 |      | 0.6 | 3    |       |  |
|       |     |  | i     | 42 23.1    |      |     |      |       |  |
|       |     |  | eL    | 16 51.5    |      |     |      |       |  |
|       |     | LPB  | P     | 16 41 42.5 |      |     |      |       |  |
|       |     |  | i     | 42 19.2    |      |     |      |       |  |
|       |     |  | eL    | 53         |      |     |      |       |  |
|       |     | TRJ  | iP    | 16 42 38.6 | C    |     |      |       |  |
|       |     |  | S     | 43 10.7    |      |     |      |       |  |
| MAY   | 13  | LPB  | eP    | 16 53 46   |      |     |      |       |  |
|       |     |  | eL    | 17 07      |      |     |      |       |  |
|       |     | PNS  | P     | 16 53 47.7 |      | 1.0 | 9    |       |  |
|       |     |  | e     | 54 31.5    |      |     |      |       |  |
|       |     |  | L     | 17 06.7    |      |     |      |       |  |
|       |     | TRJ  | P     | 16 53 50.9 |      |     |      |       |  |
| MAY   | 13  | PNS  | eP    | 17 02 47   |      |     |      |       |  |
| MAY   | 13  | PNS  | eP    | 17 53 49   |      |     |      |       |  |
| MAY   | 13  | LPB  | e(P)  | 19 27 49.5 |      |     |      |       |  |
|       |     | TRJ  | eP    | 19 27 52.8 |      |     |      |       |  |
|       |     |  | i     | 28 20.7    |      |     |      |       |  |
|       |     | PNS  | eP    | 19 27 54.7 |      |     |      |       |  |
|       |     |  | eS    | 30 35.8    |      |     |      |       |  |
| MAY   | 13  | USCGS 19 36 05.2, 9.0N, 71.1W, h = 46 km., m = 4.8<br>LAKE MARACAIBO |       |            |      |     |      |       |  |
|       |     | PNS  | P     | 19 41 29.2 | C    | 0.9 | 29   |       |  |
|       |     |  | i     | 50.0       |      |     |      |       |  |
|       |     |  | eS    | 46 11      |      |     |      |       |  |
|       |     |  | eL    | 49.3       |      |     |      |       |  |
|       |     | LPB  | P     | 19 41 31.7 | C    | 0.9 | 25   | 25.1  |  |
|       |     |  | i     | 55         |      |     |      |       |  |
|       |     |  | (S)   | 46 25      |      |     |      |       |  |
|       |     |  | eL    | 50.8       |      |     |      |       |  |

| MAY   |     |  |       |            |      |     |      |      |  |
|-------|-----|--|-------|------------|------|-----|------|------|--|
| MONTH | DAY | STA  | PHASE | TIME       | SIGN | PER | AMPL | DIST |  |
| MAY   | 13  | LPB  | eP    | 20 19 38   |      |     |      |      |  |
|       |     |  | eL    | 36.3       |      |     |      |      |  |
|       |     | PNS  | eP    | 20 19 41   |      |     |      |      |  |
|       |     |  | eL    | 36.2       |      |     |      |      |  |
| MAY   | 13  | PNS  | iP    | 20 56 24.0 | D    | 0.6 | 8    |      |  |
|       |     |  | S     | 48.3       |      |     |      |      |  |
|       |     | LPB  | eP    | 20 56 29   |      |     |      |      |  |
| MAY   | 13  | PNS  | eP    | 20 58 15.7 |      |     |      |      |  |
|       |     | LPB  | eP    | 20 58 18   |      |     |      |      |  |
| MAY   | 13  | USCGS 21 04 03.0 13.0S, 14.7W, h = 33 km., m = 5.2<br>SOUTH ATLANTIC RIDGE |       |            |      |     |      |      |  |
|       |     | LPB  | eP    | 21 13 15.3 |      | 1.4 | 30   | 51.3 |  |
|       |     |  | S     | 20 44      |      |     |      |      |  |
|       |     |  | L     | 24 24      |      |     |      |      |  |
|       |     |  | L     | 28.4       |      |     |      |      |  |
|       |     | PNS  | eP    | 21 13      |      | 1.5 | 17   |      |  |
|       |     |  | S     | 20 48      |      |     |      |      |  |
|       |     |  | SS    | 24 23      |      |     |      |      |  |
|       |     |  | L     | 28.8       |      |     |      |      |  |
| MAY   | 13  | LPB  | eP    | 21 29 09   |      |     |      |      |  |
|       |     | PNS  | eP    | 21 29 13.6 |      |     |      |      |  |
| MAY   | 13  | PNS  | P     | 23 04 56.3 |      | 0.6 | 2    |      |  |
|       |     |  | S     | 05 30.9    |      |     |      |      |  |
|       |     | LPB  | eP    | 23 04 57   |      |     |      |      |  |
|       |     |  | i     | 05 13.6    |      |     |      |      |  |
|       |     |  | eS    | 29.5       |      |     |      |      |  |
| MAY   | 13  | PNS  | P     | 23 15 43.8 |      | 1.3 | 9    |      |  |
|       |     | LPB  | P     | 23 15 44.7 |      |     |      |      |  |
| MAY   | 13  | LPB  | eP    | 23 26 01   |      |     |      |      |  |
|       |     | PNS  | P     | 23 25 54.9 |      | 0.8 | 4    |      |  |
| MAY   | 13  | PNS  | eP    | 23 31 31.8 |      |     |      |      |  |
| MAY   | 13  | TRJ  | iP    | 23 44 30.7 |      |     |      |      |  |
|       |     |  | S     | 45 01.6    | C    |     |      |      |  |
|       |     | LPB  | eP    | 23 44 31.7 |      |     |      |      |  |
|       |     | PNS  | P     | 23 44 35   |      | 0.3 | 1    |      |  |
| MAY   | 13  | PNS  | iP    | 23 53 19.3 | D    |     |      |      |  |
|       |     |  | S     | 43         |      |     |      |      |  |
|       |     | LPB  | P     | 23 58 20.6 | D    | 0.8 | 36   |      |  |
| MAY   | 14  | PNS  | P     | 00 18 02.4 |      |     |      |      |  |
|       |     |  | e     | 16         |      |     |      |      |  |
|       |     |  | eL    | 33.8       |      |     |      |      |  |
|       |     | LPB  | eP    | 00 18 04   |      |     |      |      |  |
|       |     |  | eS    | 25 40      |      |     |      |      |  |
|       |     |  | eL    | 33         |      |     |      |      |  |
| MAY   | 14  | LPB  | eP    | 01 17 08.7 |      |     |      |      |  |

| MONTH | DAY | STA                               | PHASE | TIME                                     | SIGN | PER | AMPL | DIST |
|-------|-----|-----------------------------------|-------|--|------|-----|------|------|
| MAY   | 14  | USCGS TONGA ISLANDS REGION        | 01 15 | 24.9, 18.6S, 172.5W, h = 39 km., m = 5.0 |      |     |      |      |
|       |     | PNS                               | eP    | 01 28 54                                 |      |     |      |      |
|       |     | LPB                               | eL    | 02 01 3                                  |      |     |      | 97.6 |
|       |     |                                   | eP    | 01 28 59                                 |      |     |      |      |
|       |     |                                   | eL    | 02 01                                    |      |     |      |      |
| MAY   | 14  | PNS                               | P     | 02 19 35                                 |      |     |      |      |
| MAY   | 14  | TRJ                               | P     | 02 32 04.0                               |      |     |      |      |
|       |     | LPB                               | eP    | 02 32 18.5                               |      | 0.5 | 3    |      |
|       |     | PNS                               | P     | 02 32 22.6                               |      |     |      |      |
| MAY   | 14  | LPB                               | eP    | 02 59 09.3                               |      |     |      |      |
| MAY   | 14  | PNS                               | P     | 03 03 38.5                               |      | 0.4 | 3    |      |
|       |     |                                   | eS    | 58.6                                     |      |     |      |      |
| MAY   | 14  | LPR                               | eP    | 04 16 36.5                               |      |     |      |      |
| MAY   | 14  | USCGS OFF COAST OF NORTHERN CHILE | 05 10 | 50.0, 25.5S, 71.0W, h = 33 km., m = 4.3  |      |     |      | 9.1  |
|       |     | LPB                               | P     | 05 13 06.6                               |      |     |      |      |
|       |     |                                   | PP    | 21.6                                     |      |     |      |      |
|       |     |                                   | eS    | 15 21.5                                  |      |     |      |      |
|       |     |                                   | eL    | 16                                       |      |     |      |      |
|       |     | PNS                               | P     | 05 13 08.8                               |      | 0.6 | 3    |      |
|       |     |                                   | IP    | 223                                      |      |     |      |      |
|       |     |                                   | S     | 15 21                                    |      |     |      |      |
|       |     |                                   | eL    | 16.2                                     |      |     |      |      |
|       |     | TRJ                               | P     | 05 13 16.5                               |      |     |      |      |
|       |     |                                   | i     | 19.8                                     |      |     |      |      |
| MAY   | 14  | TRJ                               | P     | 06 27 17.3                               |      |     |      |      |
|       |     | LPB                               | eP    | 06 26 52                                 |      |     |      |      |
|       |     | PNS                               | eP    | 06 26 52                                 |      |     |      |      |
| MAY   | 14  | PNS                               | P     | 06 29 05.5                               |      | 0.5 | 2    |      |
|       |     |                                   | S     | 12.6                                     |      |     |      |      |
| MAY   | 14  | LPB                               | eP    | 08 29 07                                 |      |     |      |      |
| MAY   | 14  | PNS                               | P     | 06 41 18.6                               |      | 0.6 | 7    |      |
|       |     |                                   | S     | 45.8                                     |      |     |      |      |
|       |     | LPB                               | P     | 06 41 21                                 |      | 1.0 | 16   |      |
|       |     |                                   | S     | 49.2                                     |      |     |      |      |
| MAY   | 14  | PNS                               | P     | 07 18 53.6                               |      |     |      |      |
|       |     |                                   | i     | 19 06.1                                  |      |     |      |      |
|       |     |                                   | eL    | 26.4                                     |      |     |      |      |
|       |     | LPB                               | eP    | 07 18 55                                 |      |     |      |      |
|       |     |                                   | eL    | 21                                       |      |     |      |      |

| MONTH | DAY | STA                  | PHASE | TIME                                      | SIGN | PER | AMPL | DIST  |
|-------|-----|----------------------|-------|---|------|-----|------|-------|
| MAY   | 14  | LPB                  | eP    | 08 09 24.5                                |      |     |      |       |
|       |     | PNS                  | P     | 08 09 26                                  |      |     | 0.4  | 2     |
|       |     |                      | eS    | 10 21                                     |      |     |      |       |
|       |     | TRJ                  | P     | 08 10 04.8                                |      |     |      |       |
| MAY   | 14  | LPB                  | eP    | 09 41 52                                  |      |     |      |       |
|       |     |                      | S     | 42 00                                     |      |     |      |       |
| MAY   | 14  | LPB                  | eP    | 09 44 29                                  |      |     |      |       |
| MAY   | 14  | LPB                  | eP    | 10 00 45                                  |      |     |      |       |
|       |     | PNS                  | P     | 10 00 50.1                                |      |     |      |       |
| MAY   | 14  | LPB                  | P     | 10 47 33.5                                |      | C   | 0.8  | 25    |
|       |     | PNS                  | P     | 10 47 36.9                                |      |     | 0.5  | 12    |
| MAY   | 14  | PNS                  | eP    | 12 55 28                                  |      |     |      |       |
|       |     |                      | eS    | 56 07.8                                   |      |     |      |       |
|       |     | LPB                  | eP    | 12 55 30                                  |      |     |      |       |
| MAY   | 14  | LPB                  | eP    | 13 28 05                                  |      |     |      |       |
|       |     | PNS                  | P     | 13 28 05.2                                |      | D   | 0.6  | 6     |
|       |     |                      | S     | 28  |      |     |      |       |
| MAY   | 14  | USCGS RYUKYU ISLANDS | 14 05 | 06.0, 29.9N, 129.4E, h = 168 km., m = 5.9 |      |     |      |       |
|       |     | PNS                  | PKP   | 14 24 47.3                                |      | C   |      |       |
|       |     |                      | pPKP  | 25 24.8                                   |      |     |      |       |
|       |     |                      | ePKS  | 28 21                                     |      |     |      |       |
|       |     |                      | PP    | 29 15                                     |      |     |      |       |
|       |     |                      | SS    | 48 50                                     |      |     |      |       |
|       |     |                      | eG    | 15 10.9                                   |      |     |      |       |
|       |     |                      | eL    | 20  |      |     |      |       |
|       |     | LPB                  | PKP   | 14 24 48                                  |      | C   | 1.3  | 388   |
|       |     |                      | pPKP  | 25 25                                     |      |     |      | 159.1 |
|       |     |                      | ePKS  | 28 12                                     |      |     |      |       |
|       |     |                      | ePP   | 29 20                                     |      |     |      |       |
|       |     |                      | i     | 42  |      |     |      |       |
|       |     |                      | SS    | 48 52                                     |      |     |      |       |
|       |     |                      | eG    | 15 09.3                                   |      |     |      |       |
|       |     |                      | eL    | 20.8                                      |      |     |      |       |
| MAY   | 14  | LPB                  | eP    | 14 36 04                                  |      |     |      |       |
|       |     | PNS                  | eP    | 14 36 09.8                                |      |     |      |       |
| MAY   | 14  | LPB                  | eP    | 14 45 44.2                                |      |     | 1.0  | 24    |
|       |     | PNS                  | P     | 14 45 46.2                                |      | C   | 0.9  | 15    |
| MAY   | 14  | TRJ                  | iP    | 15 34 00.4                                |      | D   |      |       |
|       |     | PNS                  | P     | 15 34 43.8                                |      |     | 0.5  | 2     |
|       |     | LPB                  | eP    | 15 34 44                                  |      |     |      |       |

| MAY   |     |   |       |            |      |     |      |       |  |
|-------|-----|---|-------|------------|------|-----|------|-------|--|
| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL | DIST  |  |
| MAY   | 14  | LPB   | eP    | 15 36 16.5 |      |     |      |       |  |
| MAY   | 14  | LPB   | eP    | 16 24 12   |      |     |      |       |  |
|       |     | PNS   | eP    | 16 24 14   |      |     |      |       |  |
| MAY   | 14  | LPB   | eP    | 16 38 18   |      | 0.6 | 3    |       |  |
|       |     | PNS   | P     | 16 38 18.1 |      |     |      |       |  |
|       |     |   | i     | 48.4       |      |     |      |       |  |
| MAY   | 14  | LPB   | eP    | 16 40 05   |      |     |      |       |  |
|       |     | TRJ   | P     | 16 40 10.3 |      |     |      |       |  |
|       |     |   | S     | 45.8       |      |     |      |       |  |
| MAY   | 14  | LPB   | eP    | 18 19 21   |      |     |      |       |  |
| MAY   | 14  | PNS   | P     | 19 17 42.5 |      | 0.6 | 4    |       |  |
|       |     |   | S     | 18 04.1    |      |     |      |       |  |
|       |     | LPB   | eP    | 19 17 44.5 |      |     |      |       |  |
| MAY   | 14  | USCGS 19 47 04.0, 37.3N, 114.8E, h = 33 km., m = 4.9<br>NORTHEASTERN CHINA        |       |            |      |     |      |       |  |
|       |     | LPB   | ePKP  | 20 00 06.5 |      | 0.8 | 8    |       |  |
|       |     |   | eL    | 21 01.4    |      |     |      |       |  |
|       |     | PNS   | ePKP  | 20 07 02   |      |     |      |       |  |
|       |     |   | eL    | 21 02      |      |     |      |       |  |
| MAY   | 14  | USCGS 20 44 38.0, 15.4N, 92.8W, h = 160 km., m = 4.6<br>MEXICO-GUATEMALA BOR.REG. |       |            |      |     |      |       |  |
|       |     | PNS   | eP    | 20 51 56   |      |     |      |       |  |
|       |     |   | eL    | 21 05.1    |      |     |      |       |  |
|       |     | LPB   | eP    | 20 51 58.4 |      | 1.0 | 12   | 40.0  |  |
|       |     |   | eL    | 21 05      |      |     |      |       |  |
| MAY   | 14  | PNS   | eP    | 22 07 39.9 |      |     |      |       |  |
|       |     |   | eS    | 08 18.6    |      |     |      |       |  |
| MAY   | 15  | LPB   | eP    | 00 14 54.5 |      |     |      |       |  |
| MAY   | 15  | LPB   | iP    | 00 37 30.7 | D    | 0.8 | 39   |       |  |
|       |     |   | iS    | 55.2       |      |     |      |       |  |
|       |     | PNS   | iP    | 00 37 31.0 | D    | 0.5 | 11   |       |  |
|       |     |   | S     | 55         |      |     |      |       |  |
| MAY   | 15  | USCGS 00 27 24.6, 37.4N, 114.8E, h = 33 km., m = 4.7<br>NORTHEASTERN CHINA        |       |            |      |     |      |       |  |
|       |     | PNS   | ePKP  | 00 17 24   |      |     |      |       |  |
|       |     | LPB   | ePKP  | 00 47 24   |      |     |      | 158.9 |  |
| MAY   | 15  | LPB   | eP    | 00 57 14   |      | 0.8 | 7    |       |  |
|       |     | PNS   | P     | 00 57 21.2 |      | 0.7 | 4    |       |  |
|       |     |   | S     | 43         |      |     |      |       |  |
| MAY   | 15  | PNS   | iP    | 01 29 02.8 |      | 0.5 | 6    |       |  |
|       |     |   | S     | 25.4       |      |     |      |       |  |
|       |     | LPB   | eP    | 01 29 09.5 |      |     |      |       |  |
| MAY   | 15  | USCGS 02 29 30.1, 1.5N, 90.6W, h = 33 km., m = 4.5<br>GALAPAGOS ISLANDS REG.      |       |            |      |     |      |       |  |
|       |     | PNS   | P     | 02 35 20.9 |      | 1.6 | 19   |       |  |
|       |     |   | eS    | 40 14      |      |     |      |       |  |
|       |     |   | L     | 44.9       |      |     |      |       |  |

| MAY   |     |  |        |            |      |     |      |       |         |
|-------|-----|--|--------|------------|------|-----|------|-------|---------|
| MONTH | DAY | STA  | PHASE  | TIME       | SIGN | PER | AMPL | DIST  |         |
| MAY   | 15  | LPB  | P      | 02 35 24.2 |      |     |      | 1.7   | 45 28.6 |
|       |     |  | (PcP)  | 38 32.2    |      |     |      |       |         |
|       |     |  | eS     | 40 17      |      |     |      |       |         |
|       |     |  | L      | 45         |      |     |      |       |         |
|       |     | TRJ  | P      | 02 36 52.4 |      |     |      |       |         |
| MAY   | 15  | LPB  | P      | 02 34 27.5 |      |     |      | 1.0   | 10      |
|       |     |  | L      | 03 04.2    |      |     |      |       |         |
|       |     | PNS  | L      | 03 03.9    |      |     |      |       |         |
| MAY   | 15  | PNS  | eP     | 03 16 24   |      |     |      |       |         |
|       |     | LPB  | eP     | 03 16 25   |      |     |      |       |         |
| MAY   | 15  | LPB  | eP     | 03 32 44   |      |     |      |       |         |
|       |     | PNS  | eP     | 03 32 46.2 |      |     |      |       |         |
| MAY   | 15  | LPB  | P      | 05 18 01.8 | D    | 0.9 | 20   |       |         |
|       |     |  | eS     | 19 03      |      |     |      |       |         |
|       |     | PNS  | P      | 05 17 59.9 |      | 0.6 | 3    |       |         |
|       |     |  | S      | 18 57      |      |     |      |       |         |
| MAY   | 15  | TRJ  | P      | 05 19 22.6 |      |     |      |       |         |
| MAY   | 15  | USCGS 05 37 23.2, 6.1N, 125.9E, h = 163 km., m = 5.0<br>MINDANAO, PHILIPPINE IS. |        |            |      |     |      |       |         |
|       |     | PNS  | ePKP   | 05 57 03.6 |      |     |      |       |         |
|       |     | LPB  | e(PKP) | 05 57 07.5 |      |     |      | 163.0 |         |
| MAY   | 15  | LPB  | eP     | 06 07 26   |      |     |      |       |         |
|       |     |  | eL     | 17         |      |     |      |       |         |
|       |     | PNS  | eP     | 06 06 29   |      |     |      |       |         |
|       |     |  | L      | 17         |      |     |      |       |         |
| MAY   | 15  | TRJ  | P      | 06 40 40.5 |      |     |      |       |         |
| MAY   | 15  | PNS  | P      | 06 51 44.7 | C    | 0.4 | 6    |       |         |
|       |     |  | S      | 52 27.2    |      |     |      |       |         |
|       |     | LPB  | P      | 06 51 50.6 |      | 0.9 | 6    |       |         |
| MAY   | 15  | LPB  | P      | 07 26 39.5 | D    | 0.9 | 36   |       |         |
|       |     |  | S      | 27 24.5    |      |     |      |       |         |
|       |     | PNS  | P      | 07 26 49.0 |      | 0.7 | 8    |       |         |
|       |     |  | eS     | 27 22      |      |     |      |       |         |
|       |     | TRJ  | iP     | 07 27 28.1 | C    |     |      |       |         |
| MAY   | 15  | TRJ  | P      | 07 29 57.0 |      |     |      |       |         |
|       |     |  | S      | 30 31.4    |      |     |      |       |         |
| MAY   | 15  | PNS  | eP     | 07 48 04   |      |     |      |       |         |
|       |     | LPB  | eP     | 07 48 05   |      |     |      |       |         |
| MAY   | 15  | USCGS 07 51 17.4, 15.9S, 25.9E, h = 33 km., m = 6.1<br>NORTHERN RHODESIA         |        |            |      |     |      |       |         |
|       |     | LPB  | P      | 08 04 13.3 | D    | 1.0 | 170  | 88.0  |         |
|       |     |  | eS     | 14 96      |      |     |      |       |         |
|       |     |  | eL     | 34.7       |      |     |      |       |         |
|       |     | PNS  | P      | 08 04 14.6 | D    |     |      |       |         |
|       |     |  | ePP    | 08 10      |      |     |      |       |         |
|       |     |  | S      | 14 52      |      |     |      |       |         |
|       |     |  | L      | 33.0       |      |     |      |       |         |
|       |     | TRJ  | eP     | 08 04 33.5 |      |     |      |       |         |

| MAY   |     |   |       |            |      |     |      |       |  |  |
|-------|-----|---|-------|------------|------|-----|------|-------|--|--|
| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL | DIST  |  |  |
| MAY   | 15  | LPB   | eP    | 08 54 38.5 |      |     |      |       |  |  |
| MAY   | 15  | LPB   | P     | 09 03 37.5 | D    | 0.7 | 13   |       |  |  |
|       |     |   | S     | 04 12.2    |      |     |      |       |  |  |
|       |     | PNS   | P     | 09 03 41.4 |      |     |      |       |  |  |
|       |     |   | S     | 04 23.9    |      |     |      |       |  |  |
| MAY   | 15  | LPB   | eP    | 10 06 39.5 |      |     |      |       |  |  |
|       |     | PNS   | eP    | 10 06 40   |      |     |      |       |  |  |
| MAY   | 15  | PNS   | eP    | 10 42 02   |      |     |      |       |  |  |
|       |     | LPB   | eP    | 10 42 05   |      |     |      |       |  |  |
| MAY   | 15  | USCGS 11 05 03.6, 4.0N, 128.0E, h = 77 km., m = 4.9<br>NORTH OF HALMAHERA |       |            |      |     |      |       |  |  |
|       |     | PNS   | ePKP  | 11 25 01.6 |      | 1.0 | 6    |       |  |  |
|       |     |   | PKP2  | 37.9       |      |     |      |       |  |  |
|       |     | LPB   | eP    | 11 25 04.5 |      |     |      | 159.3 |  |  |
| MAY   | 15  | PNS   | eP    | 11 38 19   |      |     |      |       |  |  |
|       |     | LPB   | eP    | 11 38 20   |      |     |      |       |  |  |
| MAY   | 15  | PNS   | P     | 12 07 51.4 |      | 0.7 | 5    |       |  |  |
|       |     |   | S     | 08 35      |      |     |      |       |  |  |
| MAY   | 15  | LPB   | eP    | 12 18 28.5 |      |     |      |       |  |  |
|       |     | PNS   | P     | 12 18 32.7 |      | 0.7 | 4    |       |  |  |
| MAY   | 15  | PNS   | eP    | 12 44 42.6 |      |     |      |       |  |  |
|       |     |   | S     | 45 25      |      |     |      |       |  |  |
|       |     | LPB   | eP    | 12 44 41   |      | 0.4 | 15   |       |  |  |
|       |     |   | S     | 45 11.6    |      |     |      |       |  |  |
| MAY   | 15  | USCGS 12 38 11.0 2.0S, 138.8E, h = 45 km., m = 5.1<br>WEST NEW GUINEA     |       |            |      |     |      |       |  |  |
|       |     | LPB   | ePKP  | 12 57 50.5 |      | 1.1 | 20   | 147.5 |  |  |
|       |     |   | eL    | 13 49.3    |      |     |      |       |  |  |
|       |     | PNS   | ePKP  | 12 57 53   |      | 1.0 | 17   |       |  |  |
|       |     |   | eL    | 13 47.9    |      |     |      |       |  |  |
| MAY   | 15  | USCGS 15 00 29.9, 29.8S, 179.0W, h = 33 km., m = 5.1<br>KERMADEC IS. REG. |       |            |      |     |      |       |  |  |
|       |     | PNS   | eP    | 15 14 09.2 |      |     |      |       |  |  |
|       |     |   | PP    | 18 08.5    |      |     |      |       |  |  |
|       |     |   | SKS   | 24 50      |      |     |      |       |  |  |
|       |     |   | SCS   | 26 02      |      |     |      |       |  |  |
|       |     |   | PS    | 54         |      |     |      |       |  |  |
|       |     |   | SS    | 32 52      |      |     |      |       |  |  |
|       |     |   | L     | 45.9       |      |     |      |       |  |  |
|       |     | LPB   | eP    | 15 14 11   |      |     |      | 99.8  |  |  |
|       |     |   | ePP   | 18 10.5    |      |     |      |       |  |  |
|       |     |   | SKS   | 24 46      |      |     |      |       |  |  |
|       |     |   | PS    | 27 02      |      |     |      |       |  |  |
|       |     |   | e(SS) | 32 48      |      |     |      |       |  |  |
|       |     |   | G     | 42         |      |     |      |       |  |  |
|       |     |   | L     | 46.7       |      |     |      |       |  |  |

| MAY   |     |   |       |            |      |     |      |       |  |  |
|-------|-----|---|-------|------------|------|-----|------|-------|--|--|
| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL | DIST  |  |  |
| MAY   | 15  | LPB   | eP    | 15 32 08   |      |     |      |       |  |  |
|       |     | PNS   | P     | 15 32 11.2 |      |     |      |       |  |  |
| MAY   | 15  | LPB   | eP    | 15 58 40   |      |     |      |       |  |  |
|       |     |   | eS    | 59 33.7    |      |     |      |       |  |  |
|       |     | PNS   | P     | 15 58 43.7 |      | 0.4 | 3.6  |       |  |  |
|       |     |   | eS    | 59 45      |      |     |      |       |  |  |
|       |     | TRJ   | 1P    | 15 58 48.6 | C    |     |      |       |  |  |
|       |     |   | i     | 59 20.4    |      |     |      |       |  |  |
| MAY   | 15  | LPB   | eP    | 16 44 25   |      |     |      |       |  |  |
| MAY   | 15  | PNS   | eP    | 16 59 36.9 |      |     |      |       |  |  |
|       |     | LPB   | eP    | 16 59 38.5 |      |     |      |       |  |  |
| MAY   | 15  | PNS   | eP    | 17 12 18.5 |      |     |      |       |  |  |
|       |     | LPB   | eP    | 17 12 23   |      |     |      |       |  |  |
| MAY   | 15  | LPB   | eP    | 19 32 24.5 |      |     |      |       |  |  |
|       |     | PNS   | P     | 19 33 33   |      |     |      |       |  |  |
| MAY   | 15  | LPB   | P     | 19 34 44.7 |      |     |      |       |  |  |
|       |     | PNS   | 1P    | 19 34 48.5 | D    |     |      |       |  |  |
| MAY   | 15  | PNS   | eP    | 20 27 37   |      |     |      |       |  |  |
|       |     | LPB   | eP    | 20 27 37.5 |      |     |      |       |  |  |
| MAY   | 15  | PNS   | 1P    | 22 21 56.1 |      | 0.4 | 5.1  |       |  |  |
|       |     |   | S     | 22 18.6    |      |     |      |       |  |  |
| MAY   | 15  | LPB   | P     | 23 16 44.3 |      | 0.8 | 9    |       |  |  |
|       |     | PNS   | P     | 23 16 47.0 |      | 0.8 | 7    |       |  |  |
| MAY   | 15  | LPB   | eP    | 23 25 17.4 |      | 0.5 | 6    |       |  |  |
|       |     | PNS   | 1P    | 23 25 24.8 | D    | 0.5 | 10   |       |  |  |
|       |     |   | S     | 46.2       |      |     |      |       |  |  |
| MAY   | 15  | LPB   | P     | 23 39 52.4 |      |     |      |       |  |  |
|       |     | TRJ   | eP    | 23 39 53.5 |      |     |      |       |  |  |
|       |     | PNS   | P     | 23 39 56.2 |      | 1.0 | 5    |       |  |  |
| MAY   | 16  | LPB   | e(P)  | 00 00 15   |      |     |      |       |  |  |
| MAY   | 16  | LPB   | eP    | 00 03 45   |      |     |      |       |  |  |
|       |     | PNS   | P     | 00 03 49.5 |      | 0.5 | 4    |       |  |  |
| MAY   | 16  | LPB   | eP    | 00 18 35.5 |      |     |      |       |  |  |
| MAY   | 16  | PNS   | P     | 00 30 32.8 |      | 1.2 | 8    |       |  |  |
|       |     | LPB   | eP    | 00 30 34.3 |      |     |      |       |  |  |
| MAY   | 16  | LPB   | eP    | 01 02 25.5 |      |     |      |       |  |  |
|       |     | PNS   | P     | 01 02 27.4 |      |     |      |       |  |  |
| MAY   | 16  | USCGS 00 48 55.4, 40.8N, 143.2E, h = 7 km.,<br>OFF E CST OF HONSHU, JAPON |       |            |      |     |      |       |  |  |
|       |     | TRJ   | ePKP  | 01 06 23.3 |      |     |      |       |  |  |
|       |     | LPB   | PKP   | 01 08 33.3 |      | 1.4 | 54   | 144.0 |  |  |
|       |     |   | i     | 09 04      |      |     |      |       |  |  |
|       |     |   | eL    | 59         |      |     |      |       |  |  |
|       |     | PNS   | 1P    | 01 06 57.0 | C    | 2.0 | 95   |       |  |  |
|       |     |   | ePKP  | 08 31.4    |      |     |      |       |  |  |
|       |     |   | i     | 09 04.0    |      |     |      |       |  |  |



| MAY   |     |  |       |            |      |     |      |       |       |  |
|-------|-----|--|-------|------------|------|-----|------|-------|-------|--|
| MONTH | DAY | STA  | PHASE | TIME       | SIGN | PER | AMPL | DIST  |       |  |
| MAY   | 16  | TRJ  | eP    | 01 32 43.5 |      |     |      |       |       |  |
|       |     | LPB  | eP    | 01 31 45   |      |     |      |       |       |  |
|       |     | PNS  | eP    | 01 31 49   |      |     |      |       |       |  |
| MAY   | 16  | PNS  | eP    | 01 35 47.4 |      |     |      |       |       |  |
|       |     | LPB  | eP    | 01 35 50   |      |     |      |       |       |  |
| MAY   | 16  | PNS  | P     | 01 42 58   |      |     |      |       |       |  |
| MAY   | 16  | PNS  | eP    | 01 45 24.8 |      |     |      |       |       |  |
|       |     | LPB  | eP    | 01 45 30   |      |     |      |       |       |  |
| MAY   | 16  | USCGS 01 27 49.0, 40.6N, 143.9E, h = 28 km., m = 5.0<br>OFF E C S T OF HONSHU, JAPON |       |            |      |     |      |       | 143.5 |  |
|       |     | LPB  | ePKP  | 01 47 20   |      |     |      |       |       |  |
|       |     | PNS  | ePKP  | 01 47 23.6 |      |     |      |       |       |  |
| MAY   | 16  | USCGS 01 32 25.0, 40.1N, 143.8.E, h = 33 km., m = 5.0<br>OFF E CST OF HONSHU, JAPON  |       |            |      |     |      |       |       |  |
|       |     | TRJ  | iP    | 01 52 30.8 |      | 1.0 | 16   | 143.8 |       |  |
|       |     | LPB  | ePKP  | 01 51 56.5 |      | 1.3 | 16   |       |       |  |
|       |     | PNS  | P     | 01 51 59   |      |     |      |       |       |  |
| MAY   | 16  | TRJ  | P     | 02 12 13.5 |      |     |      |       |       |  |
|       |     | PNS  | eP    | 02 11 56   |      |     |      |       |       |  |
|       |     | LPB  | P     | 02 11 56.4 |      | 1.4 | 22   |       |       |  |
| MAY   | 16  | PNS  | eP    | 02 19 17   |      |     |      |       |       |  |
|       |     | TRJ  | eP    | 02 19 55.4 |      |     |      |       |       |  |
| MAY   | 16  | PNS  | eP    | 02 20 47   |      |     |      |       |       |  |
|       |     | LPB  | eP    | 02 20 50   |      |     |      |       |       |  |
| MAY   | 16  | LPB  | eP    | 02 35 51   |      |     |      |       |       |  |
|       |     | PNS  | eP    | 02 35 51.5 |      |     |      |       |       |  |
| MAY   | 16  | PNS  | eP    | 03 29 38.4 |      | 1.6 | 26   |       |       |  |
|       |     | LPB  | P     | 03 29 29.5 |      |     |      |       |       |  |
| MAY   | 16  | LPB  | P     | 03 29 34.5 |      | 0.8 | 4    |       |       |  |
|       |     |  | S     | 40 11.2    |      |     |      |       |       |  |
|       |     | PNS  | P     | 03 39 38.1 |      | 0.8 | 5    |       |       |  |
|       |     |  | S     | 40 18.4    |      |     |      |       |       |  |
|       |     | TRJ  | eP    | 03 40 40.3 |      |     |      |       |       |  |
| MAY   | 16  | LPB  | e(P)  | 03 55 53   |      |     |      |       |       |  |
|       |     | PNS  | eP    | 03 55 53   |      |     |      |       |       |  |
| MAY   | 16  | USCGS 03 45 31.3, 40.1N, 143.9E, h = 33 km., m = 4.4<br>OFF E CST OF HONSHU, JAPON   |       |            |      |     |      |       |       |  |
|       |     | PNS  | ePKP  | 04 05 02   |      |     |      | 143.8 |       |  |
|       |     |  | eL    | 54.7       |      |     |      |       |       |  |
|       |     | LPB  | ePKP  | 04 05 07.5 |      |     |      |       |       |  |
| MAY   | 16  | USCGS 04 15 44.7, 40.6N, 143.0E, h = 34 km., m = 4.5<br>OFF E CST OF HONSHU, JAPON   |       |            |      |     |      |       |       |  |
|       |     | PNS  | ePKP  | 04 35 15.4 |      |     |      | 144.0 |       |  |
|       |     | LPB  | ePKP  | 04 35 17.5 |      |     |      |       |       |  |
|       |     | TRJ  | ePKP  | 04 35 57.5 |      |     |      |       |       |  |

| MAY   |     |  |        |            |      |     |      |       |       |  |
|-------|-----|--|--------|------------|------|-----|------|-------|-------|--|
| MONTH | DAY | STA  | PHASE  | TIME       | SIGN | PER | AMPL | DIST  |       |  |
| MAY   | 16  | USCGS 04 35 04.0, 41.5N, 142.3E, h = 33 km., m = 5.1<br>HOKKAIDO, JAPON REGION     |        |            |      |     |      |       |       |  |
|       |     | LPB  | P      | 04 54 31.8 |      |     |      | 144.0 |       |  |
|       |     | PNS  | ePKP   | 04 54 34   |      |     |      |       |       |  |
|       |     |  | eL     | 05 43      |      |     |      |       |       |  |
| MAY   | 16  | TRJ  | P      | 05 11 48.1 |      |     |      |       |       |  |
| MAY   | 16  | USCGS 05 11 34.9, 40.4N, 143.5E, h = 15 km., m = 4.9<br>OFF E CST OF HONSHU, JAPON |        |            |      |     |      |       |       |  |
|       |     | TRJ  | eP     | 05 32 01.7 |      |     |      |       |       |  |
|       |     | PNS  | ePKP   | 05 31 07.9 |      |     |      |       |       |  |
|       |     | LPB  | eP     | 05 31 08   |      |     | 1.0  | 8     | 143.6 |  |
| MAY   | 16  | USCGS 05 15 07.4, 40.6N, 143.1E, h = 19 km., m = 4.9<br>OFF E CST OF HONSHU, JAPON |        |            |      |     |      |       |       |  |
|       |     | PNS  | ePKP   | 05 34 32.8 |      |     |      |       |       |  |
|       |     |  | pPKP   | 42.4       |      |     |      |       |       |  |
|       |     | LPB  | ePKP   | 05 34 33.5 |      |     |      | 144.0 |       |  |
|       |     | TRJ  | eP     | 05 35 34.4 |      |     |      |       |       |  |
| MAY   | 16  | USCGS 05 44 40.0, 40.6N, 143.7E, h = 25 km., m = 4.6<br>OFF E CST OF HONSHU, JAPON |        |            |      |     |      |       |       |  |
|       |     | PNS  | ePKP   | 06 04 11.6 |      |     |      |       |       |  |
|       |     |  | eL     | 53.1       |      |     |      |       |       |  |
|       |     | LPB  | ePKP   | 06 04 17.5 |      |     |      | 143.5 |       |  |
|       |     | TRJ  | ePKP   | 06 05 06.4 |      |     |      |       |       |  |
| MAY   | 16  | PNS  | P      | 05 51 21   |      |     |      |       |       |  |
|       |     | TRJ  | P      | 05 52 17.2 |      |     |      |       |       |  |
| MAY   | 16  | PNS  | P      | 06 37 44.5 |      |     | 0.6  | 3     |       |  |
|       |     |  | S      | 38 07.8    |      |     |      |       |       |  |
| MAY   | 16  | USCGS 06 18 56.0, 40.4N, 143.5E, h = 40 km., m = 4.4<br>OFF E CST OF HONSHU, JAPON |        |            |      |     |      |       |       |  |
|       |     | LPB  | e(PKP) | 06 38 30   |      |     |      | 144.0 |       |  |
|       |     | PNS  | ePKP   | 06 38 35.2 |      |     |      |       |       |  |
| MAY   | 16  | PNS  | P      | 06 43 22.3 |      |     |      |       |       |  |
|       |     |  | S      | 44         |      |     |      |       |       |  |
| MAY   | 16  | USCGS 06 30 20.7, 40.5N, 143.6E, h = 14 km., m = 5.2<br>OFF E CST OF HONSHU, JAPON |        |            |      |     |      |       |       |  |
|       |     | PNS  | ePKP   | 06 49 52   |      |     |      |       |       |  |
|       |     | LPB  | ePKP   | 06 49 54   |      |     | 1.1  | 5     | 143.8 |  |
|       |     | TRJ  | eP     | 06 50 48.1 |      |     |      |       |       |  |
| MAY   | 16  | USCGS 06 36 51.0, 41.1N, 143.0E, h = 35 km., m = 5.7<br>HOKKAIDO, JAPON REGION     |        |            |      |     |      |       |       |  |
|       |     | PNS  | PKP    | 06 56 20.9 |      |     | 0.9  | 11.6  |       |  |
|       |     |  | eL     | 07 45.9    |      |     |      |       |       |  |



| MONTH | DAY | STA  | PHASE | TIME       | SIGN | PER | AMPL | DIST  |
|-------|-----|--|-------|------------|------|-----|------|-------|
|       |     | LPB  | PKP   | 06 56 22.6 |      | 1.0 | 38   | 143.8 |
|       |     |  | eL    | 07 47      |      |     |      |       |
|       |     | TRJ  | PKP   | 06 57 12.5 |      |     |      |       |
| MAY   | 16  | LPB  | eP    | 07 07 04.5 |      | 1.0 | 6    |       |
| MAY   | 16  | TRJ  | iP    | 07 31 03.7 |      |     |      |       |
|       |     | LPB  | P     | 07 31 17   | D    | 0.7 | 8    |       |
|       |     |  | eS    | 32 35      |      |     |      |       |
|       |     | PNS  | P     | 07 31 21.0 | D    | 0.5 | 5.0  |       |
|       |     |  | S     | 32 37.7    |      |     |      |       |
| MAY   | 16  | LPB  | eP    | 07 35 04.5 |      | 0.6 | 2.0  |       |
|       |     | PNS  | P     | 07 35 08.6 |      |     |      |       |
|       |     | TRJ  | P     | 07 35 15.1 |      |     |      |       |
| MAY   | 16  | LPB  | eP    | 07 47 34   |      |     |      |       |
|       |     | PNS  | eP    | 07 47 34.8 |      |     |      |       |
|       |     | TRJ  | P     | 07 48 20.6 |      |     |      |       |
| MAY   | 16  | LPB  | e(P)  | 08 02 06   |      |     |      |       |
|       |     | PNS  | eP    | 08 02 07   |      |     |      |       |
|       |     | TRJ  | eP    | 08 03 03.4 |      |     |      |       |
| MAY   | 16  | USCGS 07 49 01.5, 41.3N, 142.6E, h = 38 km., m = 5.1<br>HOKKAIDO, JAPAN REGION |       |            |      |     |      |       |
|       |     | PNS  | PKP   | 08 08 31.8 |      | 1.2 | 13.0 |       |
|       |     |  | eL    | 57.2       |      |     |      |       |
|       |     | LPB  | PKP   | 08 08 33.2 |      | 0.9 | 12   | 144.0 |
|       |     |  | eL    | 56         |      |     |      |       |
|       |     | TRJ  | PKP   | 08 09 24.8 |      |     |      |       |
| MAY   | 16  | USCGS 08 02 31.0, 41.1N, 142.8E, h = 33 km., m = 4.4<br>HOKKAIDO, JAPAN REGION |       |            |      |     |      |       |
|       |     | PNS  | ePKP  | 08 22 03.6 |      |     |      |       |
|       |     | LPB  | ePKP  | 08 22 06   |      |     |      | 143.8 |
|       |     |  | eL    | 12         |      |     |      |       |
| MAY   | 16  | USCGS 08 25 09.2, 3.7S, 76.6W, h = 113 km., m = 5.4<br>NORTHERN PERU           |       |            |      |     |      |       |
|       |     | LPB  | iP    | 08 27 29.5 | E    | 0.6 | 46   |       |
|       |     |  | PP    | 28 03.4    |      |     |      |       |
|       |     |  | PPP   | 34.5       |      |     |      |       |
|       |     |  | S     | 31 31      |      |     |      |       |
|       |     | PNS  | iP    | 08 27 31.4 | C    | 0.6 | 10   |       |
|       |     |  | PP    | 28 06.6    |      |     |      |       |
|       |     |  | PPP   | 34.2       |      |     |      |       |
|       |     |  | eS    | 31.30      |      |     |      |       |
|       |     | TRJ  | iP    | 08 28 35.9 | C    |     |      |       |
| MAY   | 16  | PNS  | iP    | 08 46 08.4 | D    |     |      |       |
|       |     |  | iS    | 47.6       |      |     |      |       |
|       |     | LPB  | iP    | 08 46 10.8 | D    | 0.9 | 35   |       |
|       |     |  | (S)   | 55.5       |      |     |      |       |
|       |     | TRJ  | iP    | 08 48 02.0 | D    |     |      |       |



| MONTH | DAY | STA  | PHASE | TIME       | SIGN | PER | AMPL | DIST  |
|-------|-----|--|-------|------------|------|-----|------|-------|
| MAY   | 16  | PNS  | P     | 08 55 15.5 |      | 0.8 | 16   |       |
|       |     | LPB  | P     | 08 55 17   |      | 0.9 | 59   |       |
|       |     | TRJ  | eP    | 08 56 40.8 |      |     |      |       |
| MAY   | 16  | USCGS 08 46 39.9, 40.9N, 143.0E, h = 28 km., m = 4.8<br>OFF E CST OF HONSHU, JAPAN |       |            |      |     |      |       |
|       |     | PNS  | ePKP  | 09 06 12   |      |     |      | 143.8 |
|       |     | LPB  | ePKP  | 09 06 15   |      |     |      |       |
|       |     |  | eL    | 56         |      |     |      |       |
|       |     | TRJ  | ePKP  | 09 07 07.0 |      |     |      |       |
| MAY   | 16  | PNS  | PKP   | 09 17 44   |      |     |      |       |
|       |     | LPB  | P     | 09 17 46.4 |      | 0.8 | 15   | 144.0 |
|       |     |  | S     | 21 29.6    |      |     |      |       |
|       |     | TRJ  | P     | 09 18 38.0 |      |     |      |       |
| MAY   | 16  | USCGS 09 15 28.8, 41.7N, 142.4E, h = 32 km., m = 4.4<br>HOKKAIDO, JAPAN REGION     |       |            |      |     |      |       |
|       |     | LPB  | ePKP  | 09 35 02   |      |     |      | 144.0 |
|       |     | PNS  | ePKP  | 09 35 04.4 |      |     |      |       |
|       |     | TRJ  | eP    | 09 35 57.7 |      |     |      |       |
| MAY   | 16  | LPB  | eP    | 09 44 34.6 |      |     |      |       |
|       |     | PNS  | eP    | 09 44 35   |      |     |      |       |
| MAY   | 16  | PNS  | P     | 09 45 16.7 |      |     |      |       |
|       |     |  | S     | 29         |      |     |      |       |
|       |     | LPB  | eP    | 09 45 17   |      |     |      |       |
| MAY   | 16  | TRJ  | iP    | 09 53 07.0 | C    |     |      |       |
|       |     | LPB  | P     | 09 53 09   |      | 0.9 | 25   |       |
|       |     |  | S     | 54 15.5    |      |     |      |       |
|       |     | PNS  | iP    | 09 53 12.8 | C    | 0.6 | 13   |       |
|       |     |  | S     | 54 20      |      |     |      |       |
| MAY   | 16  | PNS  | eP    | 10 19 39   |      |     |      |       |
|       |     | LPB  | eP    | 10 19 42   |      |     |      |       |
| MAY   | 16  | USCGS 10 12 35.7, 40.5N, 143.5E, h = 33 km., m = 4.8<br>OFF E CST OF HONSHU, JAPAN |       |            |      |     |      |       |
|       |     | LPB  | eP    | 10 32 05.5 |      |     |      | 143.8 |
|       |     | PNS  | ePKP  | 10 32 07   |      |     |      |       |
|       |     | TRJ  | eP    | 10 33 03.4 |      |     |      |       |
| MAY   | 16  | USCGS 10 06 29.9, 41.3N, 143.0E, h = 33 km., m = 4.4<br>HOKKAIDO, JAPAN REGION     |       |            |      |     |      |       |
|       |     | LPB  | ePKP  | 10 56 04.5 |      |     |      | 143.8 |
|       |     | PNS  | ePKP  | 10 56 05.9 |      |     |      |       |
| MAY   | 16  | LPB  | P     | 10 56 11.3 | C    | 1.0 | 294  | 143.9 |
|       |     |  | PKP   | 58 35.8    |      |     |      |       |
|       |     |  | i     | 37.8       |      |     |      |       |
|       |     |  | PKS   | 11 02 08   |      |     |      |       |
|       |     |  | SKS   | 05 20      |      |     |      |       |
|       |     |  | SS    | 20 30      |      |     |      |       |
|       |     | PNS  | eP    | 10 56 13   | C    |     |      |       |
|       |     |  | PKP   | 58 33.8    |      |     |      |       |
|       |     |  | eSS   | 11 20 28   |      |     |      |       |
|       |     | TRJ  | ePKP  | 10 59 23.5 |      |     |      |       |

| MAY   |     |  |       |                    |      |     |      |      |       |       |
|-------|-----|--|-------|--------------------|------|-----|------|------|-------|-------|
| MONTH | DAY | STA  | PHASE | TIME               | SIGN | PER | AMPL | DIST |       |       |
| MAY   | 16  | LPB  | (P)   | 11 08 25.6<br>47.2 |      |     |      |      |       |       |
| MAY   | 16  | USCGS 11 15 48.0, 41.4N, 142.8E, h = 33 km., m = 4.4<br>HOKKAIDO, JAPAN REGION |       |                    |      |     |      |      |       | 143.8 |
|       |     | LPB  | ePKP  | 11 35 21.5         |      |     |      |      |       |       |
|       |     | PNS  | ePKP  | 11 35 23           |      |     |      |      |       |       |
| MAY   | 16  | PNS  | eP    | 11 38 52           |      |     |      |      |       |       |
|       |     | LPB  | eP    | 11 38 53           |      |     |      |      |       |       |
| MAY   | 16  | PNS  | eP    | 11 47 54.4         |      |     |      |      |       |       |
|       |     | LPB  | eP    | 11 47 58           |      |     |      |      |       |       |
|       |     | TRJ  | eP    | 11 48 52.3         |      |     |      |      |       |       |
| MAY   | 16  | PNS  | iP    | 12 12 07.6         | D    | 0.8 | 10.7 |      |       |       |
|       |     |  | S     | 30.3               |      |     |      |      |       |       |
| MAY   | 16  | USCGS 12 09 31.9, 41.1N, 143.0E, h = 24 km., m = 5.1<br>HOKKAIDO, JAPAN REGION |       |                    |      |     |      |      |       |       |
|       |     | PNS  | PKP   | 12 29 03.9         |      | 1.6 | 20   |      |       |       |
|       |     | LPB  | eP    | 12 29 05.6         |      |     |      |      | 143.8 |       |
|       |     | TRJ  | P     | 12 29 58.0         |      |     |      |      |       |       |
| MAY   | 16  | USCGS 12 34 24.9, 41.7N, 142.6E, h = 26 km., m = 4.9<br>HOKKAIDO, JAPAN REGION |       |                    |      |     |      |      |       |       |
|       |     | PNS  | PKP   | 12 53 53.9         |      |     |      |      |       |       |
|       |     |  | pPKP  | 54 02              |      |     |      |      |       |       |
|       |     | LPB  | eP    | 12 53 55           |      |     |      |      | 143.8 |       |
|       |     | TRJ  | P     | 12 54 53.3         |      |     |      |      |       |       |
| MAY   | 16  | PNS  | P     | 13 05 08.4         |      |     |      |      |       |       |
|       |     | LPB  | iP    | 13 05 11           |      |     |      |      |       |       |
|       |     | TRJ  | eP    | 13 05 51.4         |      |     |      |      |       |       |
|       |     |  | i     | 06 06.6            |      |     |      |      |       |       |
| MAY   | 16  | USCGS 13 16 59.0, 41.5N, 141.7E, h = 31 km., m = 4.4<br>HOKKAIDO, JAPAN REGION |       |                    |      |     |      |      |       |       |
|       |     | LPB  | ePKP  | 13 36 29           |      |     |      |      |       |       |
|       |     | PNS  | ePKP  | 13 36 33.2         |      |     |      |      |       |       |
|       |     |  | eL    | 14 25.2            |      |     |      |      |       |       |
| MAY   | 16  | USCGS 13 25 52.8, 41.4N, 142.9E, h = 33 km., m = 4.9<br>HOKKAIDO, JAPAN REGION |       |                    |      |     |      |      |       |       |
|       |     | PNS  | ePKP  | 13 45 28           |      |     |      |      |       |       |
|       |     |  | eL    | 14 34.6            |      |     |      |      | 143.8 |       |
|       |     | LPB  | eP    | 13 45 29           |      |     |      |      |       |       |
|       |     |  | e(L)  | 14 33.8            |      |     |      |      |       |       |
|       |     | TRJ  | eP    | 13 46 17.1         |      |     |      |      |       |       |
| MAY   | 16  | LPB  | e(P)  | 14 08 28           |      |     |      |      |       |       |
| MAY   | 16  | USCGS 14 02 40.7, 41.4N, 142.3E, h = 37 km., m = 4.8<br>HOKKAIDO, JAPAN REGION |       |                    |      |     |      |      |       |       |
|       |     | PNS  | ePKP  | 14 22 15.9         |      |     |      |      |       |       |
|       |     | TRJ  | ePKP  | 14 23 08.4         |      |     |      |      |       |       |

| MAY   |     |  |       |            |      |     |      |      |           |  |
|-------|-----|--|-------|------------|------|-----|------|------|-----------|--|
| MONTH | DAY | STA  | PHASE | TIME       | SIGN | PER | AMPL | DIST |           |  |
| MAY   | 16  | USCGS 14 16 18.0, 41.5N, 142.6E, h = 28 km., m = 4.5<br>HOKKAIDO, JAPAN REGION     |       |            |      |     |      |      |           |  |
|       |     | PNS  | ePKP  | 14 35 53.4 |      |     |      |      |           |  |
| MAY   | 16  | LPB  | eP    | 14 59 17.2 |      |     |      |      |           |  |
|       |     | PNS  | eP    | 15 01 14.9 |      |     |      |      |           |  |
| MAY   | 16  | LPB  | eP    | 15 03 29   |      |     |      |      |           |  |
| MAY   | 16  | PNS  | ePKP  | 15 12 02.3 |      |     |      | 1.4  | 10        |  |
|       |     |  | e     | 20         |      |     |      |      |           |  |
|       |     |  | eL    | 16 01.3    |      |     |      |      |           |  |
|       |     | LPB  | ePKP  | 15 12 05   |      |     |      |      | 143.5     |  |
|       |     |  | eL    | 16 03      |      |     |      |      |           |  |
|       |     | TRJ  | PRP   | 15 12 56.5 |      |     |      |      |           |  |
| MAY   | 16  | USCGS 14 55 51.7, 40.7N, 143.3E, h = 23 km., m = 4.9<br>OFF E CST OF HONSHU, JAPAN |       |            |      |     |      |      |           |  |
|       |     | PNS  | ePKP  | 15 25 26   |      |     |      |      |           |  |
|       |     |  | eL    | 16 14.2    |      |     |      |      |           |  |
|       |     | LPB  | ePKP  | 15 25 29.5 |      |     |      |      | 144.0     |  |
|       |     |  | eL    | 16 15      |      |     |      |      |           |  |
| MAY   | 16  | USCGS 15 20 25.6, 41.4N, 143.0E, h = 33 km., m = 4.9<br>HOKKAIDO, JAPAN REGION     |       |            |      |     |      |      |           |  |
|       |     | LPB  | eP    | 15 40 03   |      |     |      |      | 143.8     |  |
|       |     |  | eL    | 16 26      |      |     |      |      |           |  |
|       |     | PNS  | PKP   | 15 40 03.7 |      |     |      | 1.1  | 8         |  |
|       |     |  | pPKP  | 11.6       |      |     |      |      |           |  |
|       |     |  | eL    | 16 29      |      |     |      |      |           |  |
|       |     | TRJ  | ePKP  | 15 40 50.2 |      |     |      |      |           |  |
| MAY   | 16  | PNS  | P     | 16 08 43.3 |      |     |      |      |           |  |
| MAY   | 16  | PNS  | eP    | 16 12 08.3 |      |     |      |      |           |  |
|       |     | LPB  | eP    | 16 12 09.5 |      |     |      |      |           |  |
|       |     | TRJ  | P     | 16 12 56.5 |      |     |      |      |           |  |
| MAY   | 16  | LPB  | eP    | 16 15 26   |      |     |      |      |           |  |
|       |     | PNS  | eP    | 16 17 30.4 |      |     |      |      |           |  |
| MAY   | 16  | USCGS 16 13 45.1, 39.7N, 143.6E, h = 29 km., m = 5.6<br>OFF E CST OF HONSHU, JAPAN |       |            |      |     |      |      |           |  |
|       |     | PNS  | ePKP  | 16 33 18   |      |     |      | 1.5  | 31.8      |  |
|       |     |  | iPKB  | 37 03      |      |     |      |      |           |  |
|       |     |  | SKS   | 40 29      |      |     |      |      |           |  |
|       |     |  | SS    | 55 23      |      |     |      |      |           |  |
|       |     |  | eG    | 13.9       |      |     |      |      |           |  |
|       |     |  | L     | 22.6       |      |     |      |      |           |  |
|       |     | LPB  | ePKP  | 16 33 20   |      |     |      | 2.0  | 162 144.0 |  |
|       |     |  | PKS   | 37 00      |      |     |      |      |           |  |
|       |     |  | eSKS  | 40 32      |      |     |      |      |           |  |
|       |     |  | eSS   | 55 22      |      |     |      |      |           |  |
|       |     |  | eG    | 17 14      |      |     |      |      |           |  |
|       |     |  | eL    | 22.6       |      |     |      |      |           |  |
|       |     | TRJ  | PKP   | 16 34 13.4 |      |     |      |      |           |  |

| MAY   |     |   |  |  |      |     |      |       |
|-------|-----|---|--|--|------|-----|------|-------|
| MONTH | DAY | STA   | PHASE  | TIME   | SIGN | PER | AMPL | DIST  |
| MAY   | 16  | PNS<br>LPB  | P<br>eP                                      | 16 38 40.8<br>16 38 44.5   |      | 0.6 | 3    |       |
| MAY   | 16  | USCGS 16 21 53.4, 39.7N, 143.6E, h = 33 km., m = 4.8<br>OFF E CST OF HONSHU, JAPON  |  |  |      |     |      |       |
|       |     | TRJ<br>PNS<br>LPB   | eP<br>ePKP<br>eP                             | 16 41 21.5<br>16 41 25.6<br>16 41 28                                       |      |     |      | 144.0 |
| MAY   | 16  | USCGS 16 49 20.0, 41.5N, 142.4E, h = 33 km., m = 4.6<br>HOKKAIDO, JAPAN REGION      |  |  |      |     |      |       |
|       |     | LPB<br>PNS  | ePKP<br>e(L)<br>ePKP<br>eL                   | 17 08 56<br>55.6<br>17 08 56.8<br>57.5                                     |      |     |      | 144.0 |
| MAY   | 16  | USCGS 17 21 50.9, 41.1N, 142.6E, h = 38 km., m = 4.5<br>HOKKAIDO, JAPAN REGION      |  |  |      |     |      |       |
|       |     | PNS<br>LPB  | PKP<br>eL<br>eP                              | 17 41 23.2<br>18 30.1<br>17 41 24.7  |      | 1.4 | 13   | 144.0 |
| MAY   | 16  | PNS<br>LPB  | eP<br>eP                                     | 17 44 13<br>17 44 15   |      |     |      |       |
| MAY   | 16  | USCGS 17 28 13.0, 41.4N, 143.0E, h = 33 km., m = 5.2<br>HOKKAIDO, JAPAN REGION      |  |  |      |     |      |       |
|       |     | PNS<br>LPB<br>TRJ   | ePKP<br>eL<br>ePKP<br>eL<br>P                | 17 47 45.4<br>18 36.2<br>17 47 47.5<br>35.7<br>17 48 35.6                  |      |     |      | 143.8 |
| MAY   | 16  | USCGS 18 43 21.0, 40.7N, 142.1E, h = 59 km., m = 5.7<br>NEAR E CST OF HONSHU, JAPAN |  |  |      |     |      |       |
|       |     | PNS<br>LPB<br>TRJ   | PKP<br>PKS<br>eL<br>PKP<br>iPKS<br>eL<br>PKP | 19 02 50.7<br>06 29.3<br>52<br>19 02 51.8<br>06 30.4<br>52.5<br>19 03 42.7 | D    | 1.5 | 70   | 144.2 |
| MAY   | 16  | PNS<br>LPB  | eP<br>eP                                     | 19 12 46<br>19 12 48.5   |      |     |      |       |
| MAY   | 16  | PNS   | eP   | 19 28 42   |      |     |      |       |
| MAY   | 16  | USCGS 19 16 47.2, 41.3N, 142.4E, h = 4.2 m = 5.6<br>HOKKAIDO, JAPAN REGION          |  |  |      |     |      |       |
|       |     | PNS<br>LPB<br>TRJ   | PKP<br>PKS<br>eL<br>PKP<br>ePKS<br>eL<br>PKP | 19 36 17.7<br>39 57<br>25.1<br>19 36 20.2<br>39 58<br>26<br>19 37 10.2     |      | 1.4 | 49.0 | 144.0 |
| MAY   | 16  | PNS   | P  | 19 59 37   |      |     |      | 115   |

| MAY   |     |  |                                       |   |      |     |      |       |
|-------|-----|--|---------------------------------------|---|------|-----|------|-------|
| MONTH | DAY | STA  | PHASE                                 | TIME  | SIGN | PER | AMPL | DIST  |
| MAY   | 16  | LPB  | eP                                    | 19 50 40  |      |     |      |       |
| MAY   | 16  | LPB  | eP                                    | 19 56 11.8  |      | 1.0 | 8    |       |
| MAY   | 16  | USCGS 19 45 23.5, 12.6N, 141.6E, h = 170 km., m = 5.2<br>SOUTH OF MARIANA ISLANDS  |                                       |   |      |     |      |       |
|       |     | LPB<br>PNS<br>TRJ  | PKP<br>eL<br>PKP<br>i<br>eL<br>P<br>i | 20 04 54.2<br>05 01.2<br>57<br>20 04 54.1<br>59.8<br>57.3<br>20 05 36.1<br>41.0 |      | 1.2 | 71   | 150.7 |
| MAY   | 16  | USCGS 20 22 14.9, 41.4N, 142.6B, h = 39 km., m = 5.6<br>HOKKAIDO JAPAN REGION      |                                       |   |      |     |      |       |
|       |     | LPB<br>PNS<br>TRJ  | ePKP<br>eL<br>ePKP<br>eL<br>ePKP      | 20 41 38.4<br>30<br>20 41 45<br>21 30.8<br>20 42 38.3                           |      | 2.0 | 95.0 | 143.9 |
| MAY   | 16  | LPB<br>PNS   | eP<br>eP                              | 20 52 23.5<br>20 52 26  |      |     |      |       |
| MAY   | 16  | USCGS 21 03 24.3, 41.2N, 142.4E, h = 33 km., m = 5.0<br>HOKKAIDO, JAPAN REGION     |                                       |   |      |     |      |       |
|       |     | PNS<br>LPB<br>TRJ  | ePKP<br>ePKP<br>eL<br>eP              | 21 22 55.6<br>21 23 00<br>22 09.5<br>21 23 51.8                                 |      | 1.0 | 14   | 144.0 |
| MAY   | 16  | LPB<br>PNS   | eP<br>eP                              | 21 40 49.5<br>21 40 51.9  |      |     |      |       |
| MAY   | 16  | USCGS 21 25 56.4, 40.9N, 143.0E, h = 30 km., m = 4.8<br>OFF E CST OF HONSHU, JAPAN |                                       |   |      |     |      |       |
|       |     | LPB<br>PNS   | ePKP<br>eL<br>ePKP                    | 21 45 28.5<br>22 35<br>21 45 35.2   |      |     |      | 144.0 |
| MAY   | 16  | USCGS 22 45 19.2, 22.8S, 68.6W, h = 104 km., m = 5.0<br>NORTHERN CHILE             |                                       |   |      |     |      |       |
|       |     | LPB<br>PNS<br>TRJ  | 1P<br>i<br>S<br>1P<br>i<br>S<br>1P    | 22 46 52.5<br>47 28.6<br>48 31<br>22 46 55.7<br>47 28.4<br>48 39<br>22 47 01.6  | C    | 0.7 | 90   | 6.3   |
| MAY   | 16  | TRJ  | 1P<br>S                               | 22 54 03.7<br>34.4  | D    |     |      |       |

| MAY   |     |             |       |  |      |     |      |       |
|-------|-----|-------------|-------|--|------|-----|------|-------|
| MONTH | DAY | STA         | PHASE | TIME                                     | SIGN | PER | AMPL | DIST  |
| MAY   | 16  | USCGS OFF E | 23 04 | 54.7, 39.8N, 143.1E, h = 37 km., m = 5.8 |      |     |      |       |
|       |     | PNS         | PKP   | 23 24 26.5                               |      | 1.5 | 22   |       |
|       |     |             | pPKP  | 36.1                                     |      |     |      |       |
|       |     |             | iPP   | 27 50                                    |      |     |      |       |
|       |     |             | PKS   | 28 00                                    |      |     |      |       |
|       |     |             | PS    | 38 49                                    |      |     |      |       |
|       |     |             | SS    | 46 20                                    |      |     |      |       |
|       |     | L           |       | 00 13.7                                  |      |     |      |       |
|       |     | LPB         | P     | 23 24 28.3                               |      | 1.1 | 29   | 144.1 |
|       |     |             | pPKP  | 37                                       |      |     |      |       |
|       |     |             | PP    | 27 50                                    |      |     |      |       |
|       |     |             | PKS   | 28 15                                    |      |     |      |       |
|       |     |             | SS    | 46 22                                    |      |     |      |       |
|       |     | L           |       | 24 14                                    |      |     |      |       |
|       |     | TRJ         | PKP   | 23 25 20.7                               |      |     |      |       |
| MAY   | 16  | USCGS OFF E | 23 38 | 15.6, 39.7N, 143.2E, h = 33 km., m = 4.5 |      |     |      |       |
|       |     | PNS         | ePKP  | 23 57 52                                 |      |     |      |       |
|       |     |             | eL    | 00 45.9                                  |      |     |      |       |
|       |     | LPB         | ePKP  | 23 57 54.4                               |      |     |      | 144.1 |
| MAY   | 17  | PNS         | iP    | 00 04 09.7                               |      |     |      |       |
|       |     | LPB         | iP    | 00 04 15.3                               | D    | 0.8 | 24   |       |
|       |     | TRJ         | P     | 00 06 02.5                               |      |     |      |       |
| MAY   | 17  | LPB         | P     | 00 11 31.7                               |      | 1.5 | 10   |       |
|       |     | TRJ         | P     | 00 12 04.2                               |      |     |      |       |
| MAY   | 17  | PNS         | iP    | 00 21 35.3                               | D    | 0.4 | 8    |       |
|       |     | S           |       | 56.6                                     |      |     |      |       |
|       |     | LPB         | eP    | 00 21 37.5                               |      |     |      |       |
| MAY   | 17  | LPB         | eP    | 01 01 24                                 |      |     |      |       |
| MAY   | 17  | TRJ         | iP    | 02 11 12.9                               | D    |     |      |       |
|       |     | LPB         | P     | 02 11 29.7                               |      | 0.6 | 21   |       |
|       |     | PNS         | iP    | 02 11 34.3                               | C    |     |      |       |
|       |     |             | eS    | 13 00                                    |      |     |      |       |
| MAY   | 17  | PNS         | P     | 02 42 42.4                               |      | 0.8 | 4    |       |
|       |     | LPB         | eP    | 02 42 45                                 |      |     |      |       |
|       |     | TRJ         | eP    | 02 43 08.7                               |      |     |      |       |
| MAY   | 17  | USCGS       | 02 28 | 28.3, 41.5N, 142.2E, h = 50 km., m = 4.6 |      |     |      |       |
|       |     |             |       |  |      |     |      | 144.0 |
|       |     | LPB         | ePKP  | 02 47 03.5                               |      |     |      |       |
|       |     | PNS         | ePKP  | 02 47 59.6                               |      |     |      |       |
|       |     |             | eL    | 03 37.2                                  |      |     |      |       |
| MAY   | 17  | PNS         | eP    | 03 29 27.6                               |      |     |      |       |
| MAY   | 17  | LPB         | eP    | 04 08 25                                 |      |     |      |       |
| MAY   | 17  | PNS         | P     | 04 08 08.1                               |      | 1.3 | 16   |       |
|       |     | LPB         | eP    | 04 08 13                                 |      |     |      |       |

| MAY   |     |                              |       |  |      |     |      |       |
|-------|-----|------------------------------|-------|--|------|-----|------|-------|
| MONTH | DAY | STA                          | PHASE | TIME                                     | SIGN | PER | AMPL | DIST  |
| MAY   | 17  | TRJ                          | P     | 04 05 32.4                               |      |     |      |       |
|       |     |                              | S     | 06 09.2                                  |      |     |      |       |
| MAY   | 17  | PNS                          | eP    | 04 24 13.2                               |      |     |      |       |
|       |     | LPB                          | eP    | 04 24 15.5                               |      |     |      |       |
| MAY   | 17  | LPB                          | eP    | 05 08 16.2                               |      | 1.0 | 16   |       |
|       |     | TRJ                          | iP    | 05 08 30.1                               |      |     |      |       |
| MAY   | 17  | LPB                          | eP    | 05 12 39.5                               |      | 0.7 | 4    |       |
| MAY   | 17  | USCGS OFF E                  | 05 19 | 34.9, 39.6N, 143.4E, h = 33 km., m = 4.5 |      |     |      |       |
|       |     |                              |       |  |      |     |      |       |
|       |     | PNS                          | ePKP  | 05 39 10                                 |      |     |      |       |
|       |     |                              | eL    | 06 30.1                                  |      |     |      |       |
|       |     | LPB                          | ePKP  | 05 39 10.5                               |      |     |      | 144.1 |
|       |     |                              | eL    | 06 30                                    |      |     |      |       |
|       |     | TRJ                          | ePKP  | 05 40 03.0                               |      |     |      |       |
| MAY   | 17  | USCGS OFF E                  | 06 24 | 35.2, 39.1N, 143.5E, h = 40 km., m = 4.8 |      |     |      |       |
|       |     |                              |       |  |      |     |      |       |
|       |     | PNS                          | ePKP  | 06 44 09.4                               |      | 0.8 | 4    |       |
|       |     |                              | PKS   | 47 44.5                                  |      |     |      |       |
|       |     | L                            |       | 07 33.7                                  |      |     |      |       |
|       |     | LPB                          | PKP   | 06 44 09.5                               |      | 0.9 | 8    | 144.2 |
|       |     |                              | eL    | 34.4                                     |      |     |      |       |
|       |     | TRJ                          | PKP   | 06 45 03.3                               |      |     |      |       |
| MAY   | 17  | PNS                          | eP    | 06 59 56.7                               |      |     |      |       |
| MAY   | 17  | PNS                          | L     | 08 25.5                                  |      |     |      |       |
|       |     | LPB                          | eL    | 08 26                                    |      |     |      |       |
| MAY   | 17  | USCGS BANDA SEA              | 07 18 | 54.7, 6.7S, 129.8E, h = 96 km., m = 4.9  |      |     |      |       |
|       |     |                              |       |  |      |     |      |       |
|       |     | PNS                          | PKP   | 07 38 38                                 |      | 1.2 | 6    |       |
|       |     |                              | i     | 43.0                                     |      |     |      |       |
|       |     |                              | eL    | 08 30.7                                  |      |     |      |       |
|       |     | LPB                          | PKP   | 07 38 38.2                               |      | 1.0 | 6    | 150.6 |
|       |     |                              | e     | 43.2                                     |      |     |      |       |
|       |     |                              | eL    | 08 28                                    |      |     |      |       |
|       |     | TRJ                          | PKP   | 07 39 12.1                               |      |     |      |       |
| MAY   | 17  | PNS                          | P     | 07 57 29.5                               |      |     |      |       |
|       |     | LPB                          | eP    | 07 57 33                                 |      |     |      |       |
| MAY   | 17  | LPB                          | eP    | 08 15 40                                 |      |     |      |       |
|       |     | PNS                          | eP    | 08 15 43.9                               |      |     |      |       |
| MAY   | 17  | USCGS HOKKAIDO, JAPAN REGION | 09 01 | 54.9, 41.3N, 142.7E, h = 34 km., m = 5.0 |      |     |      |       |
|       |     |                              |       |  |      |     |      |       |
|       |     | PNS                          | PKP   | 09 21 27.4                               |      | 0.8 | 3    |       |
|       |     | LPB                          | eP    | 09 21 27.7                               |      | 0.9 | 5    | 144.0 |
|       |     | TRJ                          | eP    | 09 22 20.2                               |      |     |      |       |
| MAY   | 17  | LPB                          | P     | 09 57 44.4                               |      | 0.4 | 17   |       |
|       |     |                              | S     | 58 09                                    |      |     |      |       |
|       |     | PNS                          | P     | 09 57 45.2                               |      | 0.7 | 5    |       |
|       |     |                              | S     | 58 09.4                                  |      |     |      |       |
| MAY   | 17  | LPB                          | eP    | 10 10 53                                 |      |     |      |       |

| MONTH | DAY | STA   | PHASE | TIME   | SIGN | PER | AMPL | DIST  |
|-------|-----|-------|-------|--|------|-----|------|-------|
|       |     | PNS   | P     | 10 10 57.3                                     |      |     |      |       |
| MAY   | 17  | LPB   | eP    | 10 59 45                                       |      |     |      |       |
|       |     |       | i     | 11 00 05                                       |      |     |      |       |
|       |     |       | S     | 58.5   |      |     |      |       |
|       |     | PNS   | eP    | 10 59 45.2                                     |      |     |      |       |
|       |     |       | S     | 11 00 60                                       |      |     |      |       |
| MAY   | 17  | USCGS |       | 10 42 45.9, 39.6N, 143.4E, h = 33 km., m = 5.3 |      |     |      |       |
|       |     | OFF E |       | CST OF HONSHU, JAPAN                           |      |     |      |       |
|       |     | LPB   | ePKP  | 11 02 18                                       |      |     |      | 144.1 |
|       |     |       | i     | 03 03.5  |      |     |      |       |
|       |     |       | eSS   | 24 20  |      |     |      |       |
|       |     |       | eL    | 51.4   |      |     |      |       |
|       |     | PNS   | ePKP  | 11 02 19.8                                     |      |     |      |       |
|       |     |       | i     | 03 03.1  |      |     |      |       |
|       |     |       | SS    | 24 25  |      |     |      |       |
|       |     |       | eL    | 51.6   |      |     |      |       |
| MAY   | 17  | LPB   | eP    | 12 03 05.5                                     |      |     |      |       |
|       |     | PNS   | eP    | 12 03 11.9                                     |      |     |      |       |
| MAY   | 17  | USCGS |       | 12 13 20.0, 41.6N, 143.0E, h = 33 km., m = 4.4 |      |     |      |       |
|       |     |       |       | HOKKAIDO, JAPAN REGION                         |      |     |      |       |
|       |     | LPB   | ePKP  | 12 32 52                                       |      |     |      | 148.8 |
|       |     |       | ePKP  | 12 32 53                                       |      |     |      |       |
|       |     |       | eL    | 13 22.2  |      |     |      |       |
| MAY   | 17  | USCGS |       | 12 43 21.2, 41.3N, 143.1E, h = 33 km., m = 4.4 |      |     |      |       |
|       |     |       |       | HOKKAIDO, JAPAN REGION                         |      |     |      |       |
|       |     | PNS   | ePKP  | 13 02 55                                       |      |     |      |       |
|       |     |       | eL    | 51.3   |      |     |      |       |
|       |     | LPB   | ePKP  | 13 02 58.5                                     |      |     |      | 143.8 |
|       |     |       | eL    | 50   |      |     |      |       |
| MAY   | 17  | PNS   | P     | 13 11 10.9                                     |      | 1.0 | 5    |       |
|       |     | LPB   | P     | 13 11 14                                       |      | 0.9 | 14   |       |
|       |     | TRJ   | PKP   | 13 12 25.2                                     |      |     |      |       |
| MAY   | 17  | USCGS |       | 13 03 32.3, 22.8S, 173.3E, h = 55 km., m = 5.7 |      |     |      |       |
|       |     |       |       | ROYALTY ISLAND REGION                          |      |     |      |       |
|       |     | LPB   | eP    | 13 17 50                                       |      |     |      | 108.2 |
|       |     | PNS   | eP    | 13 17 53                                       |      |     |      |       |
|       |     |       | eL    | 55.3   |      |     |      |       |
| MAY   | 17  | USCGS |       | 13 02 37.3, 41.5N, 142.8E, h = 45 km., m = 5.6 |      |     |      |       |
|       |     |       |       | HOKKAIDO, JAPAN REGION                         |      |     |      |       |
|       |     | PNS   | ePKP  | 13 22 06.3                                     |      | 1.5 | 25   |       |
|       |     |       | eL    | 14 11.1  |      |     |      |       |
|       |     | LPB   | ePKP  | 13 22 07.5                                     |      | 1.3 | 38   | 143.8 |
|       |     |       | eL    | 14 11  |      |     |      |       |
|       |     | TRJ   | PKP   | 13 23 56.9                                     |      |     |      |       |

| MONTH | DAY | STA   | PHASE | TIME   | SIGN | PER | AMPL | DIST  |
|-------|-----|-------|-------|--|------|-----|------|-------|
| MAY   | 17  | USCGS |       | 13 59 52.1, 40.3N, 143.2E, h = 25 km., m = 4.5 |      |     |      |       |
|       |     | OFF E |       | CST OF HONSHU, JAPAN                           |      |     |      |       |
|       |     | PNS   | ePKP  | 14 19 24.4                                     |      |     |      |       |
|       |     |       | eL    | 15 08.2  |      |     |      |       |
|       |     | LPB   | ePKP  | 14 19 28.5                                     |      |     |      | 144.0 |
| MAY   | 17  | USCGS |       | 14 53 11.0, 39.6N, 143.6E, h = 33 km., m = 4.8 |      |     |      |       |
|       |     | OFF E |       | CST OF HONSHU, JAPAN                           |      |     |      |       |
|       |     | LPB   | eP    | 15 12 39.2                                     |      |     |      | 144.1 |
|       |     |       | e(L)  | 16 02  |      |     |      |       |
|       |     | PNS   | eP    | 15 12 42.6                                     |      |     |      |       |
|       |     |       | eL    | 16 01.7  |      |     |      |       |
|       |     | TRJ   | P     | 15 13 31.3                                     |      |     |      |       |
| MAY   | 17  | USCGS |       | 16 02 24.0, 40.6N, 144.0E, h = 33 km., m = 5.0 |      |     |      |       |
|       |     | OFF E |       | CST OF HONSHU, JAPAN                           |      |     |      |       |
|       |     | LPB   | ePKP  | 16 21 47                                       |      |     |      | 143.1 |
|       |     |       | eP    | 17 11  |      |     |      |       |
|       |     | PNS   | ePKP  | 16 21 51                                       |      |     |      |       |
|       |     |       | eL    | 17 11.4  |      |     |      |       |
|       |     | TRJ   | ePKP  | 16 22 46.0                                     |      |     |      |       |
| MAY   | 17  | USCGS |       | 16 14 05.8, 40.6N, 143.4E, h = 30 km., m = 4.6 |      |     |      |       |
|       |     | OFF E |       | CST OF HONSHU, JAPAN                           |      |     |      |       |
|       |     | PNS   | ePKP  | 16 33 0.2                                      |      |     |      |       |
|       |     | LPB   | eP    | 16 33 04.5                                     |      |     |      | 143.8 |
| MAY   | 17  | LPB   | eP    | 17 09 12.5                                     |      |     |      |       |
|       |     | PNS   | eP    | 17 09 13                                       |      |     |      |       |
| MAY   | 17  | USCGS |       | 17 27 59.2, 41.3N, 142.8E, h = 37 km., m = 4.4 |      |     |      |       |
|       |     |       |       | HOKKAIDO, JAPAN REGION                         |      |     |      |       |
|       |     | LPB   | ePKP  | 17 47 30                                       |      |     |      | 143.8 |
|       |     |       | eL    | 18 36  |      |     |      |       |
|       |     | PNS   | ePKP  | 17 47 32                                       |      |     |      |       |
|       |     |       | eL    | 18 35.7  |      |     |      |       |
| MAY   | 17  | USCGS |       | 18 03 41.5, 40.0N, 143.3E, h = 15 km., m = 4.4 |      |     |      |       |
|       |     | OFF E |       | CST OF HONSHU, JAPAN                           |      |     |      |       |
|       |     | PNS   | eL    | 19 12.5  |      |     |      |       |
| MAY   | 17  | USCGS |       | 18 17 07.3, 39.6N, 143.0E, h = 32 km., m = 5.2 |      |     |      |       |
|       |     | OFF E |       | CST HONSHU, JAPAN                              |      |     |      |       |
|       |     | PNS   | ePKP  | 18 36 42                                       |      |     |      |       |
|       |     |       | L     | 19 25.8  |      |     |      |       |
|       |     | LPB   | PKP   | 18 36 43.4                                     |      |     |      | 144.4 |
|       |     | TRJ   | ePKP  | 18 37 37.7                                     |      |     |      |       |
| MAY   | 17  | USCGS |       | 18 42 13.9, 40.1N, 143.7E, h = 33 km., m = 4.3 |      |     |      |       |
|       |     | OFF E |       | CST HONSHU, JAPAN                              |      |     |      |       |
|       |     | PNS   | ePKP  | 19 01 52.2                                     |      |     |      |       |

| MONTH | DAY | STA                                 | PHASE      | TIME                                     | SIGN | PER | AMPL | DIST  |
|-------|-----|-------------------------------------|------------|--|------|-----|------|-------|
| MAY   | 17  | USCGS<br>OFF E CST OF HONSHU, JAPAN | 18 42      | 13.9, 40.1N, 143.7E, h = 33 km., m = 4.3 |      |     |      |       |
|       |     | PNS                                 | ePKP       | 19 01 52.2                               |      |     |      |       |
| MAY   | 17  | USCGS<br>OFF L CST OF HONSHU, JAPAN | 19 14      | 00.0, 39.5N, 143.4E, h = 33 km., m = 4.3 |      |     |      |       |
|       |     | PNS                                 | ePKP       | 19 23 32.8                               |      |     |      |       |
| MAY   | 17  | USCGS<br>OFF E CST OF HONSHU, JAPAN | 19 48      | 57.7, 39.6N, 143.1E, h = 33 km., m = 4.5 |      |     |      |       |
|       |     | PNS                                 | ePKP<br>eL | 20 08 33<br>57.1                         |      |     |      |       |
| MAY   | 17  | USCGS<br>OFF E CST OF HONSHU, JAPAN | 20 56      | 13.8, 40.5N, 144.0E, h = 34 km., m = 4.6 |      |     |      |       |
|       |     | PNS                                 | ePKP<br>eL | 21 15 44.7<br>22 04.3                    |      |     |      |       |
| MAY   | 17  | PNS                                 | P<br>S     | 21 29 20.8<br>30 30                      |      |     |      |       |
| MAY   | 17  | PNS                                 | P<br>eL    | 21 41 43<br>22 10.2                      | 1.0  | 5   |      |       |
| MAY   | 17  | PNS                                 | P          | 22 13 01.4                               | 0.8  | 3   |      |       |
| MAY   | 17  | LPB                                 | P          | 22 27 30.7                               | 0.7  | 42  |      |       |
| MAY   | 17  | USCGS<br>OFF E CST OF HONSHU, JAPAN | 22 36      | 14.6, 40.6N, 143.7E, h = 33 km., m = 4.7 |      |     |      |       |
|       |     | PNS                                 | ePKP<br>L  | 22 55 47.8<br>23 44.9                    |      |     |      | 143.8 |
|       |     | LPB                                 | ePKP<br>eL | 22 55 48.5<br>44.6                       |      |     |      |       |
|       |     | TRJ                                 | ePKP       | 22 56 35.9                               |      |     |      |       |
| MAY   | 17  | PNS                                 | eP         | 23 14 01.6                               |      |     |      |       |
|       |     | LPB                                 | eP         | 23 14 04                                 |      |     |      |       |
|       |     | TRJ                                 | eP         | 23 14 35.3                               |      |     |      |       |
| MAY   | 17  | USCGS<br>HOKKAIDO, JAPAN REGION     | 23 09      | 07.5, 41.N, 143.0E, h = 33 km., m = 4.4  |      |     |      |       |
|       |     | PNS                                 | ePKP<br>eL | 23 28 44.2<br>00 17                      |      |     |      |       |
| MAY   | 18  | USCGS<br>EAST NEW GUINEA REGION     | 23 52      | 35.8, 7.3S, 147.9E, h = 61 km., m = 5.5  |      |     |      |       |
|       |     | PNS                                 | ePKP       | 00 18 51.6                               |      |     |      | 121   |



| MONTH | DAY | STA                                    | PHASE      | TIME                                     | SIGN | PER | AMPL | DIST  |
|-------|-----|--|------------|--|------|-----|------|-------|
| MAY   | 10  | USCGS<br>SOUTH SANDWICH ISLANDS REGION | 01 02      | 29.2, 55.4S, 27.7W, h = 33 km., m = 5.4  |      |     |      |       |
|       |     | TRJ                                    | iP         | 01 11 08.8                               | C    |     |      |       |
|       |     | LPB                                    | P          | 01 11 19.3                               | D    | 1.8 | 430  | 45.4  |
|       |     |  | eS         | 18 27                                    |      |     |      |       |
|       |     |  | L          | 26                                       |      |     |      |       |
|       |     | PNS                                    | iP         | 01 11 22.6                               | D    |     |      |       |
|       |     |  | S          | 18 33                                    |      |     |      |       |
|       |     |  | L          | 26.6                                     |      |     |      |       |
| MAY   | 18  | LPB                                    | eP         | 01 16 35.5                               |      |     |      |       |
|       |     | PNS                                    | eP         | 01 16 35.6                               |      |     |      |       |
| MAY   | 18  | PNS                                    | eP         | 02 52 50.8                               |      |     |      |       |
|       |     | LPB                                    | P          | 02 52 51.7                               |      | 0.9 | 6    |       |
|       |     |  | e          | 55.7                                     |      |     |      |       |
| MAY   | 18  | PNS                                    | P          | 04 01 33.8                               |      | 0.5 | 2    |       |
|       |     | LPB                                    | P          | 04 01 34.2                               |      |     |      |       |
|       |     |  | eS         | 02 28                                    |      |     |      |       |
|       |     | TRJ                                    | eP         | 04 02 32.8                               |      |     |      |       |
| MAY   | 18  | LPB                                    | P          | 04 17 29.5                               |      |     |      |       |
| MAY   | 18  | USCGS<br>HOKKAIDO, JAPAN REGION        | 04 51      | 08.0, 41.6N, 142.4E, h = 33 km., m = 4.7 |      |     |      |       |
|       |     | PNS                                    | ePKP       | 05 10 33.6                               |      |     |      |       |
|       |     | LPB                                    | ePKP       | 05 10 39                                 |      |     |      | 143.8 |
| MAY   | 18  | LPB                                    | eP         | 05 35 13.3                               |      | 0.5 | 8    |       |
|       |     |  | eS         | 41.4                                     |      |     |      |       |
|       |     | PNS                                    | P          | 05 35 13.5                               |      | 0.6 | 6    |       |
|       |     |  | S          | 42                                       |      |     |      |       |
| MAY   | 18  | USCGS<br>HOKKAIDO, JAPAN REGION        | 06 50      | 55.0, 41.1N, 142.3E, h = 33 km., m = 4.5 |      |     |      |       |
|       |     | PNS                                    | ePKP       | 07 10 23                                 |      |     |      |       |
| MAY   | 18  | LPB                                    | eP         | 08 15 03.6                               |      |     |      |       |
| MAY   | 18  | USCGS<br>OFF E CST OF HONSHU, JAPAN    | 09 07      | 47.3, 40.5N, 143.4E, h = 33 km., m = 4.4 |      |     |      |       |
|       |     | PNS                                    | PKP<br>L   | 09 27 25.5<br>10 16.5                    |      | 1.3 | 8    |       |
|       |     | LPB                                    | ePKP<br>eL | 09 27 25<br>10 16                        |      | 1.0 | 6    | 144.0 |
|       |     | TRJ                                    | ePKP       | 09 28 10.4                               |      |     |      |       |
| MAY   | 18  | LPB                                    | iP<br>S    | 09 59 24.3<br>52                         | D    | 0.8 | 157  |       |
|       |     | PNS                                    | iP<br>S    | 09 59 25.6<br>53                         | D    |     |      |       |
|       |     | TRJ                                    | iP         | 10 00 41.8                               |      |     |      |       |
| MAY   | 18  | LPB                                    | P          | 10 11 20                                 |      | 0.9 | 10   |       |

| MONTH | DAY | STA  | PHASE | TIME       | SIGN | PER | AMPL | DIST  |
|-------|-----|--|-------|------------|------|-----|------|-------|
| MAY   | 18  | USCGS 11 37 23.0, 7.0S, 111.3W, h = 33 km., m = 4.3<br>N EASTER IS. CORDILLERA     |       |            |      |     |      |       |
|       |     | PNS  | P     | 11 45 30.9 |      | 1.6 | 24   |       |
|       |     | LPB  | eP    | 11 45 32.4 |      |     |      | 42.7  |
| MAY   | 18  | PNS  | eP    | 12 30 50   |      |     |      |       |
| MAY   | 18  | LPB  | eP    | 14 26 18   |      |     |      |       |
|       |     | PNS  | P     | 14 26 21.4 |      |     |      |       |
| MAY   | 18  | USCGS 14 07 50.3, 41.6N, 142.6E, h = 33 km., m = 4.8<br>HOKKAIDO, JAPAN REGION     |       |            |      |     |      |       |
|       |     | PNS  | ePKP  | 14 27 22.4 |      |     |      |       |
|       |     | LPB  | ePKP  | 14 27 27.5 |      |     |      | 143.8 |
| MAY   | 18  | LPB  | e(P)  | 15 03 14   |      |     |      |       |
|       |     | PNS  | P     | 15 03 31.5 |      |     |      |       |
| MAY   | 18  | USCGS 15 33 44.3, 40.8N, 143.2E, h = 33 km., m = 5.0<br>OFF E CST OF HONSHU, JAPAN |       |            |      |     |      |       |
|       |     | LPB  | eP    | 15 53 20.5 |      |     |      | 144.4 |
| MAY   | 18  | PNS  | eP    | 16 23 52.2 |      |     |      |       |
|       |     | LPB  | eP    | 16 23 56.5 |      |     |      |       |
| MAY   | 18  | PNS  | eP    | 16 51 16.3 |      | 1.3 | 12   |       |
|       |     | LPB  | eP    | 16 51 16   |      |     |      |       |
| MAY   | 18  | USCGS 17 27 35, 41.4N, 142.6E, h = 39 km., m = 4.5<br>HOKKAIDO, JAPAN REGION       |       |            |      |     |      |       |
|       |     | PNS  | ePKP  | 17 47 10.6 |      |     |      |       |
|       |     |  | eL    | 18 36      |      |     |      |       |
| MAY   | 18  | PNS  | P     | 17 48 09.5 |      |     |      |       |
|       |     | LPB  | eP    | 17 48 10   |      |     |      |       |
| MAY   | 18  | PNS  | iP    | 19 29 42.2 | C    |     |      |       |
|       |     |  | S     | 30 09.0    |      |     |      |       |
|       |     | LPB  | iP    | 19 29 44.7 | C    | 0.8 | 37   |       |
| MAY   | 18  | USCGS 19 17 09.6, 41.3N, 142.4E, h = 33 km., m = 4.6<br>HOKKAIDO, JAPAN REGION     |       |            |      |     |      |       |
|       |     | PNS  | ePKP  | 19 36 40   |      |     |      |       |
|       |     |  | eL    | 20 25.2    |      |     |      |       |
|       |     | LPB  | ePKP  | 19 36 47   |      |     |      | 144.0 |
| MAY   | 18  | LPB  | eP    | 23 59 23   |      |     |      |       |
| MAY   | 19  | PNS  | P     | 00 13 43.3 |      | 0.9 | 5    |       |
|       |     |  | e     | 15 01.4    |      |     |      |       |
|       |     | LPB  | eP    | 00 13 47.5 |      |     |      |       |

| MONTH | DAY | STA   | PHASE  | TIME       | SIGN | PER | AMPL | DIST  |
|-------|-----|---|--------|------------|------|-----|------|-------|
| MAY   | 19  | PNS   | P      | 00 21 14.1 |      |     | 1.2  | 24    |
|       |     |   | L      | 30.9       |      |     |      |       |
|       |     | LPB   | P      | 00 21 18.8 |      |     | 0.4  | 24    |
|       |     |   | eL     | 30.8       |      |     |      |       |
| MAY   | 19  | USCGS 00 27 55.0, 41.5N, 142.0E, h = 33 km., m = 4.4<br>HOKKAIDO, JAPAN             |        |            |      |     |      |       |
|       |     | PNS   | ePKP   | 00 47 35   |      |     |      |       |
|       |     | LPB   | ePKP   | 00 47 36.5 |      |     |      | 144.0 |
| MAY   | 19  | LPB   | P      | 01 14 14.8 |      |     |      |       |
| MAY   | 19  | USCGS 01 18 11.9, 39.8N, 143.7E, h = 33 km., m = 4.4<br>OFF E CST OF HONSHU, JAPAN  |        |            |      |     |      |       |
|       |     | PNS   | ePKP   | 01 37 47   |      |     |      |       |
|       |     | LPB   | e(PKP) | 01 37 51   |      |     |      | 144.0 |
| MAY   | 19  | LPB   | eP     | 01 53 51.2 |      |     |      |       |
|       |     | PNS   | eP     | 01 53 52   |      |     |      |       |
| MAY   | 19  | LPB   | P      | 04 05 30.8 |      |     | 0.9  | 22    |
|       |     | PNS   | P      | 04 05 33.5 |      |     | 0.9  | 10    |
|       |     | TRJ   | eP     | 04 06 02.0 |      |     |      |       |
| MAY   | 19  | PNS   | P      | 04 09 47.3 |      |     | 0.6  | 4     |
|       |     |   | S      | 10 13      |      |     |      |       |
| MAY   | 19  | USCGS 04 12 40.3, 35.6N, 141.7E, h = 46 km., m = 5.1<br>NEAR ECST OF HONSHU, JAPAN  |        |            |      |     |      |       |
|       |     | PNS   | PKP    | 04 32 19.7 |      |     | 1.6  | 101   |
|       |     |   | PKS    | 35 27      |      |     |      |       |
|       |     |   | S      | 54 57      |      |     |      |       |
|       |     |   | L      | 05 22      |      |     |      |       |
|       |     | LPB   | PKP    | 04 32 20.6 |      |     | 1.8  | 172   |
|       |     |   | ePKS   | 35 18      |      |     |      |       |
|       |     |   | eSS    | 54 54      |      |     |      |       |
|       |     |   | L      | 05 23.7    |      |     |      |       |
|       |     | TRJ   | ePKP   | 04 33 05.4 |      |     |      |       |
| MAY   | 19  | LPB   | eP     | 04 43 24.4 |      |     |      |       |
| MAY   | 19  | LPB   | eP     | 04 58 36.7 |      |     |      |       |
|       |     | PNS   | eP     | 04 58 40.8 |      |     |      |       |
| MAY   | 19  | LPB   | eP     | 05 12 14   |      |     | 1.2  | 22    |
|       |     |   | e(S)   | 13 07.7    |      |     |      |       |
|       |     | PNS   | P      | 05 12 18.0 |      |     | 1.0  | 13.0  |
|       |     |   | S      | 13 16.4    |      |     |      |       |
|       |     | TRJ   | iP     | 05 12 28.8 | C    |     |      |       |
|       |     |   | S      | 13 07.6    |      |     |      |       |
| MAY   | 19  | USCGS 05 54 08.4, 35.6N, 141.9E, h = 25 km., m = 4.8<br>NEAR E CST OF HONSHU, JAPAN |        |            |      |     |      |       |
|       |     | PNS   | PKP    | 06 13 50.1 |      |     | 1.8  | 100   |
|       |     |   | eL     | 07 04.7    |      |     |      |       |
|       |     | LPB   | PKP    | 06 13 52.2 |      |     | 1.9  | 165   |
|       |     |   | eL     | 07 04      |      |     |      | 147.5 |
|       |     | TRJ   | PKP    | 06 14 39.5 |      |     |      |       |

| MONTH | DAY | STA                        | PHASE | TIME                                     | SIGN | PER | AMPL | DIST  |
|-------|-----|----------------------------|-------|--|------|-----|------|-------|
| MAY   | 19  | PNS                        | P     | 06 55 50.8                               |      |     |      |       |
| MAY   | 19  | USCGS 07 13                |       | 22.3, 11.3N, 144.8E, h = 33 km., m = 4.9 |      |     |      |       |
|       |     | SOUTH OF MARIANA ISLANDS   |       |  |      |     |      |       |
|       |     | LPB                        | eP    | 07 33 05                                 |      |     |      |       |
|       |     | PNS                        | eP    | 07 33 06                                 |      |     |      |       |
| MAY   | 19  | USCGS 08 58                |       | 03.0, 9.2S, 111.9E, h = 32 km., m = 4.6  |      |     |      |       |
|       |     | SOUTH OF JAVA              |       |  |      |     |      |       |
|       |     | LPB                        | P     | 09 17 49.4                               |      | 0.5 | 7    | 154.4 |
|       |     | PNS                        | ePKP  | 09 17 52.8                               |      |     |      |       |
|       |     | TRJ                        | P     | 09 18 27.6                               |      |     |      |       |
| MAY   | 19  | TRJ                        | iP    | 09 26 23.0                               |      |     |      |       |
|       |     |                            | S     | 53.0                                     |      |     |      |       |
| MAY   | 19  | USCGS 09 37                |       | 29.8, 38.5N, 15.0E, h = 24 km., m = 4.9  |      |     |      |       |
|       |     | SICILY                     |       |  |      |     |      |       |
|       |     | LPB                        | eP    | 09 50 51                                 |      |     |      | 95.0  |
|       |     | PNS                        | eP    | 09 50 51.6                               |      | 0.8 | 4    |       |
|       |     |                            | eL    | 10 22.2                                  |      |     |      |       |
| MAY   | 19  | LPB                        | eP    | 09 54 32.2                               |      |     |      |       |
|       |     | PNS                        | P     | 09 54 39.0                               |      | 1.2 | 8    |       |
| MAY   | 19  | LPB                        | P     | 10 22 20.6                               |      |     |      |       |
|       |     |                            | S     | 34                                       |      | 0.6 | 8    |       |
| MAY   | 19  | LPB                        | P     | 10 25 16.4                               |      |     |      |       |
|       |     | PNS                        | iP    | 10 25 18.2                               |      | 0.9 | 29   |       |
|       |     |                            | eS    | 26 08.2                                  |      | 0.6 | 16   |       |
|       |     | TRJ                        | P     | 10 25 30.6                               |      |     |      |       |
|       |     |                            | S     | 26 11.7                                  |      |     |      |       |
| MAY   | 19  | LPB                        | P     | 11 07 08.9                               |      | 1.0 | 14   |       |
|       |     | PNS                        | P     | 11 07 12.9                               |      | 0.5 | 3    |       |
| MAY   | 19  | PNS                        | eP    | 11 25 04                                 |      |     |      |       |
|       |     |                            | S     | 46.4                                     |      |     |      |       |
|       |     | LPB                        | P     | 11 25 06                                 |      | 0.7 | 7    |       |
|       |     |                            | S     | 47                                       |      |     |      |       |
| MAY   | 19  | LPB                        | eP    | 12 12 47                                 |      |     |      |       |
|       |     | PNS                        | eP    | 12 12 53                                 |      |     |      |       |
| MAY   | 19  | USCGS 12 59                |       | 09.6, 40.3N, 143.7E, h = 33 km., m = 4.3 |      |     |      |       |
|       |     | OFF E CST OF HONSHU, JAPAN |       |  |      |     |      |       |
|       |     | LPB                        | eP    | 13 18 28.3                               |      |     |      | 143.9 |
|       |     | PNS                        | eP    | 13 18 35.4                               |      |     |      |       |
| MAY   | 19  | USCGS 13 03                |       | 25.0, 41.3N, 142.5E, h = 33 km., m = 4.6 |      |     |      |       |
|       |     | HOKKAIDO, JAPAN REGION     |       |  |      |     |      |       |
|       |     | PNS                        | ePKP  | 13 23 00                                 |      |     |      | 144.0 |
|       |     | LPB                        | ePKP  | 13 23 05                                 |      |     |      |       |
|       |     |                            | e(L)  | 13                                       |      |     |      |       |
| MAY   | 19  | PNS                        | P     | 14 05 48.2                               |      | 1.2 | 16   |       |
|       |     | LPB                        | e(P)  | 14 05 54                                 |      |     |      | 125   |
|       |     | TRJ                        | eP    | 14 06 37.0                               |      |     |      |       |

| MONTH | DAY | STA                         | PHASE | TIME                                     | SIGN | PER | AMPL | DIST  |
|-------|-----|-----------------------------|-------|--|------|-----|------|-------|
| MAY   | 19  | TRJ                         | P     | 15 11 38.1                               |      |     |      |       |
| MAY   | 19  | USCGS 15 04                 |       | 15.9, 40.2N, 143.8E, h = 33 km., m = 4.4 |      |     |      |       |
|       |     | OFF E CST OF HONSHU, JAPAN  |       |  |      |     |      |       |
|       |     | PNS                         | ePKP  | 15 23 53                                 |      |     |      |       |
|       |     | LPB                         | eP    | 15 23 53.8                               |      |     |      | 143.8 |
| MAY   | 19  | TRJ                         | P     | 16 05 26.5                               |      |     |      |       |
|       |     | PNS                         | eP    | 16 05 35.8                               |      | 0.8 | 3    |       |
|       |     | LPB                         | eP    | 16 05 39                                 |      |     |      |       |
| MAY   | 19  | USCGS 16 19                 |       | 30.0, 36.9N, 141.6E, h = 33 km., m = 4.5 |      |     |      |       |
|       |     | NEAR E CST OF HONSHU, JAPAN |       |  |      |     |      |       |
|       |     | PNS                         | PKP   | 16 39 10.0                               |      | 0.8 | 5    |       |
|       |     | LPB                         | P     | 16 39 12.2                               |      | 1.0 | 20   | 147.1 |
|       |     | TRJ                         | P     | 16 39 58.4                               |      |     |      |       |
| MAY   | 19  | USCGS 16 49                 |       | 50.4, 36.3N, 53.4E, h = 33 km., m = 4.7  |      |     |      |       |
|       |     | IRAN                        |       |  |      |     |      |       |
|       |     | PNS                         | ePKP  | 17 08 52                                 |      |     |      |       |
|       |     | LPB                         | ePKP  | 17 08 54.4                               |      |     |      | 125.1 |
| MAY   | 19  | LPB                         | eP    | 17 33 16                                 |      | 0.9 | 6    |       |
| MAY   | 19  | USCGS 17 25                 |       | 28.3, 23.0S, 173.3E, h = 33 km., m = 4.4 |      |     |      |       |
|       |     | LOYALTY ISLANDS REGION      |       |  |      |     |      |       |
|       |     | LPB                         | e(P)  | 17 39 44.5                               |      |     |      | 108.0 |
|       |     | PNS                         | P     | 17 39 47.6                               |      |     |      |       |
|       |     |                             | eL    | 18 16.3                                  |      |     |      |       |
| MAY   | 19  | LPB                         | eP    | 18 03 52                                 |      | 1.1 | 15   |       |
|       |     | PNS                         | eP    | 18 03 50.2                               |      |     |      |       |
| MAY   | 19  | PNS                         | iP    | 19 46 01.4                               |      |     |      |       |
|       |     |                             | S     | 24.1                                     |      |     |      |       |
| MAY   | 19  | PNS                         | eP    | 21 52 47.3                               |      |     |      |       |
| MAY   | 19  | PNS                         | P     | 21 54 49.3                               |      | 1.0 | 9    |       |
|       |     |                             | i     | 56.5                                     |      |     |      |       |
|       |     |                             | eL    | 22 31.9                                  |      |     |      |       |
|       |     | LPB                         | P     | 21 54 51.6                               |      | 1.0 | 20   |       |
|       |     |                             | i     | 56.4                                     |      |     |      |       |
|       |     | TRJ                         | P     | 21 55 21.1                               |      |     |      |       |
| MAY   | 19  | USCGS 22 16                 |       | 44.8, 40.9N, 143.2E, h = 18 km., m = 5.1 |      |     |      |       |
|       |     | OFF E CST OF HONSHU, JAPAN  |       |  |      |     |      |       |
|       |     | PNS                         | PKP   | 22 36 20.6                               |      |     |      |       |
|       |     |                             | eL    | 23 25.1                                  |      |     |      |       |
|       |     | LPB                         | PKP   | 22 36 21.3                               |      |     |      | 143.8 |
|       |     |                             | eL    | 23 26                                    |      |     |      |       |
| MAY   | 19  | LPB                         | eP    | 22 44 13                                 |      | 0.8 | 6    |       |
|       |     |                             | eL    | 23 15                                    |      |     |      |       |
| MAY   | 20  | USCGS 00 46                 |       | 37.0, 40.4N, 143.8E, h = 33 km., m = 4.4 |      |     |      |       |
|       |     | OFF E CST OF HONSHU, JAPAN  |       |  |      |     |      |       |
|       |     | PNS                         | ePKP  | 01 06 13                                 |      |     |      |       |
|       |     |                             | eL    | 55.2                                     |      |     |      |       |



| MAY   |     |             |               |  |      |            |         |                            |       |
|-------|-----|-------------|---------------|--|------|------------|---------|----------------------------|-------|
| MONTH | DAY | STA         | PHASE         | TIME   | SIGN | PER        | AMPL    | DIST                       |       |
| MAY   | 20  | USCGS 00 46 |               | 37.0, 40.4N, 143.8E, h = 33 km., m = 4.4               |      |            |         | OFF E CST OF HONSHU, JAPAN |       |
|       |     | PNS         | ePKP          | 01 06 13   |      |            |         |                            |       |
|       |     |             | eL            | 55.2   |      |            |         |                            |       |
| MAY   | 20  | PNS LPB     | eP e(P)       | 01 08 38<br>01 08 46.4                                 |      |            |         |                            |       |
| MAY   | 20  | TRJ         | iP S          | 02 07 31.5<br>08 01.3                                  |      |            |         |                            | C     |
| MAY   | 20  | LPB PNS TRJ | P P eP        | 02 38 38.5<br>02 38 40.0<br>02 39 13.7                 |      | 1.0<br>0.6 | 14<br>5 |                            |       |
| MAY   | 20  | LPB PNS TRJ | eP eP eP      | 02 50 11.5<br>02 50 14<br>02 52 07.3                   |      |            |         |                            |       |
| MAY   | 20  | USCGS 03 16 |               | 19.6, 40.0N, 144.0E, h = 31 km., m = 5.5               |      |            |         | OFF E CST OF HONSHU, JAPAN |       |
|       |     | PNS         | PKP L         | 03 35 50.2<br>04 24.6                                  |      | 1.8        | 36      |                            |       |
|       |     | LPB         | PKP eL        | 03 35 52<br>04 27.2                                    |      | 1.0        | 44      |                            |       |
|       |     | TRJ         | PKP           | 03 36 39.4   |      |            |         |                            |       |
| MAY   | 20  | USCGS 04 14 |               | 42.3, 41.4N, 143.2E, h = 33 km., m = 4.4               |      |            |         | HOKKAIDO, JAPAN REGION     |       |
|       |     | PNS LPB TRJ | ePKP PKP ePKP | 04 34 14.5<br>04 34 15.3<br>04 35 02.5                 |      |            |         |                            | 143.7 |
| MAY   | 20  | USCGS 04 37 |               | 26.7, 40.1N, 143.9E, h = 30 km., m = 4.8               |      |            |         | OFF E CST OF HONSHU, JAPAN |       |
|       |     | PNS LPB TRJ | ePKP eL ePKP  | 04 56 52<br>05 46.6<br>04 56 56<br>05 43<br>04 57 45.4 |      |            |         |                            | 143.9 |
| MAY   | 20  | LPB PNS TRJ | eP eP eP      | 05 55 30<br>05 55 38<br>05 56 05.3                     |      |            |         |                            |       |
| MAY   | 20  | USCGS 06 53 |               | 35.2, 40.3N, 143.7E, h = 33 km., m = 5.2               |      |            |         | OFF E CST OF HONSHU, JAPAN |       |
|       |     | PNS LPB TRJ | ePKP ePKP eP  | 07 13 07.1<br>07 13 10.4<br>07 13 54.7                 |      |            |         |                            | 143.8 |
| MAY   | 20  | PNS LPB     | eP eP         | 07 23 21<br>07 23 22.4                                 |      |            |         |                            | 127   |

| MAY   |     |             |                |  |      |     |            |                         |       |
|-------|-----|-------------|----------------|--|------|-----|------------|-------------------------|-------|
| MONTH | DAY | STA         | PHASE          | TIME   | SIGN | PER | AMPL       | DIST                    |       |
| MAY   | 20  | USCGS 07 13 |                | 03, 30.9S, 178.3E, h = 22 km., m = 6.0                     |      |     |            | KERMADEC ISLANDS REGION |       |
|       |     | PNS         | P              | 07 26 40.9   |      |     | 2.1        | 46                      |       |
|       |     |             | SKS PS L       | 27 16<br>39 33<br>08 00.2                                  |      |     |            |                         |       |
|       |     | LPB         | eP SKS PS L    | 07 26 41<br>37 15<br>39 32<br>58.8                         |      |     | 2.2        | 108                     | 98    |
|       |     | TRJ         | eP             | 07 27 12.7   |      |     |            |                         |       |
| MAY   | 20  | PNS LPB     | eP eP          | 07 41 40<br>07 41 45                                       |      |     | 0.9        | 5                       |       |
| MAY   | 20  | LPB         | P              | 08 00 17.1   |      |     | 0.9        | 5                       |       |
| MAY   | 20  | LPB         | eP             | 08 13 41.4   |      |     | 0.7        | 6                       |       |
| MAY   | 20  | LPB         | eP             | 08 37 19   |      |     |            |                         |       |
| MAY   | 20  | LPB PNS     | P P            | 09 04 20.5<br>09 04 21.2                                   |      |     | 0.7<br>0.8 | 6<br>12                 |       |
| MAY   | 20  | PNS LPB     | eP eP          | 09 39 02<br>09 39 08                                       |      |     |            |                         |       |
| MAY   | 20  | LPB PNS     | eP P           | 10 04 46<br>10 04 47.8                                     |      |     | 0.8        | 3                       |       |
| MAY   | 20  | LPB PNS TRJ | P eS P S P     | 10 23 25.6<br>24 48.6<br>10 23 29.0<br>24 52<br>10 23 04.4 |      |     | 0.8<br>0.7 | 13<br>12                |       |
| MAY   | 20  | LPB PNS TRJ | eP eP eP       | 10 30 57.5<br>10 30 55<br>10 31 14.6                       |      |     |            |                         |       |
| MAY   | 20  | USCGS 10 34 |                | 16.8, 48.8N, 154.7E, h = 40 km., m = 5.4                   |      |     |            | KURILE ISLANDS          |       |
|       |     | PNS         | PKP PKS SS L   | 10 53 29.9<br>56 51.9<br>11 13 43<br>37.3                  |      |     | 1.4        | 49                      |       |
|       |     | LPB         | PKP PKS ESS eP | 10 53 30.7<br>56 53.7<br>11 13 44<br>38.8                  |      |     | 22<br>1.2  | 11<br>59                | 132.8 |
|       |     | TRJ         | eP             | 10 54 02.4   |      |     |            |                         |       |
| MAY   | 20  | LPB PNS TRJ | eP P eS eP     | 11 30 11.5<br>11 30 17.9<br>31 09.4<br>11 30 46.4          |      |     | 0.7        | 3                       |       |

| MAY   |     |   |                    |  |      |     |      |       |
|-------|-----|---|--------------------|--|------|-----|------|-------|
| MONTH | DAY | STA   | PHASE              | TIME                                   | SIGN | PER | AMPL | DIST  |
| MAY   | 20  | PNS<br>LPB  | ePKP<br>ePKP       | 11 33 06.6<br>11 33 08                 |      |     |      | 158.4 |
| MAY   | 20  | PNS   | P<br>S             | 12 08 21.8<br>44.4                     |      |     |      |       |
| MAY   | 20  | USCGS 11 53 55.5, 51.9N, 158.5E, h = 55 km., m = 5.3<br>NEAR E COAST OF KAMCHATKA |                    |  |      |     |      |       |
|       |     | PNS   | PKP                | 12 12 59.1                             |      | 1.2 | 8    |       |
|       |     |   | eL                 | 55.6                                   |      |     |      |       |
|       |     | LPB   | eP                 | 12 13 00                               |      | 0.8 | 13   | 129.1 |
|       |     |   | eL                 | 57                                     |      |     |      |       |
|       |     | TRJ   | eP                 | 12 13 33.8                             |      |     |      |       |
| MAY   | 20  | PNS   | P<br>S             | 12 19 50.0<br>20 06                    |      |     |      |       |
| MAY   | 20  | LPB   | e(P)               | 12 19 52                               |      |     |      |       |
| MAY   | 20  | USCGS 13 00 16.0, 3.2S, 37.2E, h = 33 km., m = 4.5<br>TANGANYIKA                  |                    |  |      |     |      |       |
|       |     | PNS   | P                  | 13 14 12.4                             |      |     |      | 103.5 |
|       |     | LPB   | eP                 | 13 14 16                               |      |     |      |       |
| MAY   | 20  | LPB<br>PNS  | e(P)<br>P          | 14 14 24.5<br>14 14 25.6               |      | 0.8 | 5    |       |
| MAY   | 20  | USCGS 14 31 48.8, 40.5N, 142.7E, h = 58 km., m = 4.3<br>NEAR E CST HONSHU, JAPAN  |                    |  |      |     |      | 144.2 |
|       |     | LPB   | ePKP               | 14 51 21.5                             |      |     |      |       |
|       |     | PNS   | ePKP<br>eL         | 14 51 22.6<br>15 40.1                  |      |     |      |       |
| MAY   | 20  | LPB   | eP                 | 15 11 13                               |      |     |      |       |
| MAY   | 20  | LPB   | eP                 | 15 11 13                               |      |     |      |       |
| MAY   | 20  | LPB<br>PNS  | eP<br>P<br>S       | 16 01 49<br>16 01 52.6<br>02 15        |      | 0.5 | 4    |       |
| MAY   | 20  | LPB   | eP                 | 16 12 18.5                             |      | 0.8 | 9    |       |
| MAY   | 20  | LTB   | e(F)               | 18 12 30                               |      |     |      |       |
| MAY   | 20  | LPB<br>PNS<br>TRJ   | eP<br>eP<br>P      | 17 26 41.5<br>17 26 46.3<br>17 28 13.6 |      |     |      |       |
| MAY   | 20  | USCGS 17 20 22.4, 5.0S, 153.3E, h = 4.5 km., m = 5.3<br>NEW IRELAND REGION        |                    |  |      |     |      |       |
|       |     | PNS   | ePKP<br>iPKS<br>eL | 17 39 37.6<br>43 05.9<br>18 24.5       |      |     |      | 129   |

| MAY   |     |   |   |  |      |     |      |       |
|-------|-----|---|---|--|------|-----|------|-------|
| MONTH | DAY | STA   | PHASE   | TIME   | SIGN | PER | AMPL | DIST  |
|       |     | LPB   | ePKP<br>ePKS<br>eL                            | 17 39 41<br>43 06<br>18 24   |      |     |      | 133.6 |
| MAY   | 20  | LPB<br>PNS  | eP<br>eP                                      | 19 56 10<br>19 56 17.8   |      | 0.9 | 33.5 |       |
| MAY   | 20  | USCGS 20 05 49.1, 30.7S, 178.4W, h = 46 km.,<br>KERNADEC ISLANDS                  |   |  |      |     |      |       |
|       |     | PNS   | P   | 20 19 23.1   | C    | 2.2 | 182  |       |
|       |     |   | PP  | 23 30  |      |     |      |       |
|       |     |   | SKS   | 30 01  |      |     |      |       |
|       |     |   | PS  | 32 14  |      |     |      |       |
|       |     |   | SS  | 37 15  |      |     |      |       |
|       |     |   | L   | 51   |      |     |      |       |
|       |     | LPB   | P   | 20 19 27.7   | D    | 1.5 | 110  |       |
|       |     |   | iPP   | 23 32  |      |     |      |       |
|       |     |   | SKS   | 29 58  |      |     |      |       |
|       |     |   | PS  | 32 18  |      |     |      |       |
|       |     |   | eSS   | 37 20  |      |     |      |       |
|       |     |   | L   | 51.7   |      |     |      |       |
|       |     | TRJ   | eP  | 20 19 54.6   |      |     |      |       |
| MAY   | 20  | LPB<br>PNS  | eP<br>P                                       | 20 35 52<br>20 35 55.2   |      | 0.8 | 4    |       |
| MAY   | 20  | PNS   | eP<br>e<br>eL                                 | 20 43 52.5<br>44 10<br>20 43 53  |      |     |      |       |
| MAY   | 20  | USCGS 21 09 44.8, 44.8N, 150.3E, h = 38 km., m = 5.8<br>KURIDE ISLANDS REGION     |   |  |      |     |      |       |
|       |     | PNS   | PKP<br>pPKP<br>i<br>pP<br>PKS<br>PS<br>SS     | 21 28 55.1<br>29 06.8<br>26.0<br>31 55.7<br>32 38<br>42 20<br>50 00    |      |     |      |       |
|       |     | LPB   | L<br>ePKP<br>pPKP<br>ePKS<br>ePS<br>eSS<br>eL | 22 15.5<br>21 28 56.5<br>29 06.8<br>32 37.5<br>42 18<br>50 05<br>22 15 |      | 1.0 | 33   | 137.5 |
|       |     | TRJ   | PKP   | 21 29 42.6   |      |     |      |       |
| MAY   | 20  | PNS   | eP  | 21 40 58.5   |      | 1.4 | 11   |       |
| MAY   | 20  | LPB   | P   | 22 47 25.8   |      | 0.7 | 10   |       |
| MAY   | 20  | USCGS 22 27 58.0, 20.1N, 121.9E, h = 33 km., m = 4.8<br>PHILIPPINE ISLANDS REGION |   |  |      |     |      |       |
|       |     | PNS   | ePKP<br>eL                                    | 22 48 06.0<br>23 48.6  |      | 0.9 | 5    |       |
|       |     | LPB   | ePKP  | 22 48 07.7   |      |     |      | 169.7 |



| MAY   |     |   |       |            |      |     |      |       |  |
|-------|-----|---|-------|------------|------|-----|------|-------|--|
| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL | DIST  |  |
| MAY   | 20  | LPB   | eP    | 23 09 57.5 |      |     |      |       |  |
|       |     | PNS   | P     | 23 09 57.6 |      |     |      |       |  |
| MAY   | 20  | USCGS 23 24 26.9, 45.0N, 150.5E, h = 52 km., m = 4.4<br>KURILE ISLANDS              |       |            |      |     |      |       |  |
|       |     | LPB   | ePKP  | 23 43 28   |      |     |      | 136.9 |  |
|       |     |   | eL    | 00 38.0    |      |     |      |       |  |
|       |     | PNS   | PKP   | 23 43 45.2 |      |     |      |       |  |
| MAY   | 21  | LPB   | e(P)  | 00 04 29   |      | 0.8 | 6    |       |  |
|       |     | PNS   | P     | 00 04 31.7 |      |     |      |       |  |
| MAY   | 21  | LPB   | eP    | 00 11 30   |      | 0.8 | 2    |       |  |
|       |     | PNS   | P     | 00 11 32.2 |      |     |      |       |  |
| MAY   | 21  | USCGS 23 57 38.3, 40.2N, 142.5E, h = 33 km., m = 4.4<br>NEAR E CST OF HONSHU, JAPAN |       |            |      |     |      |       |  |
|       |     | LPB   | ePKP  | 00 17 15.5 |      |     |      | 144.7 |  |
|       |     |   | eL    | 01 07      |      |     |      |       |  |
|       |     | PNS   | PKP   | 00 17 16.2 |      |     |      |       |  |
|       |     |   | eL    | 01 06.3    |      |     |      |       |  |
| MAY   | 21  | LPB   | eP    | 00 11 30   |      | 0.8 | 2    |       |  |
|       |     | PNS   | P     | 00 11 32.2 |      |     |      |       |  |
| MAY   | 21  | PNS   | eP    | 00 30 01.3 |      | 1.6 | 12   |       |  |
|       |     | LPB   | e(P)  | 00 30 02   |      |     |      |       |  |
| MAY   | 21  | USCGS 00 19 34.8, 44.8N, 150.2E, h = 45 km., m = 5.2<br>KURILE ISLANDS REGION       |       |            |      |     |      |       |  |
|       |     | PNS   | ePKP  | 00 38 55.7 |      | 1.2 | 6    |       |  |
|       |     |   | eL    | 01 24      |      |     |      | 137.5 |  |
|       |     | LPB   | ePKP  | 00 38 57   |      |     |      |       |  |
|       |     |   | eL    | 01 28.8    |      |     |      |       |  |
|       |     | TRJ   | PKP   | 00 39 35.6 |      |     |      |       |  |
| MAY   | 21  | PNS   | eP    | 01 22 52.4 |      | 1.2 | 8    |       |  |
|       |     | LPB   | eP    | 01 21 55   |      |     |      |       |  |
| MAY   | 21  | LPB   | eP    | 02 07 06.7 |      | 0.9 | 10   |       |  |
|       |     | PNS   | eP    | 02 07 10   |      |     |      |       |  |
|       |     | TRJ   | eP    | 02 06 45.0 |      |     |      |       |  |
| MAY   | 21  | USCGS 02 18 19.4, 41.4N, 142.7E, h = 27 km., m = 4.3<br>HOKKAIDO, JAPAN REGION      |       |            |      |     |      |       |  |
|       |     | PNS   | ePKP  | 02 57 53   |      |     |      |       |  |
| MAY   | 21  | USCGS 02 30 05.1, 41.5N, 142.5E, h = 27 km., m = 4.8<br>HOKKAIDO, JAPAN REGION      |       |            |      |     |      |       |  |
|       |     | PNS   | ePKP  | 02 48 40.6 |      |     |      | 149.0 |  |
|       |     | LPB   | ePKP  | 02 48 45   |      |     |      |       |  |

| MAY   |     |  |       |            |      |     |      |       |  |
|-------|-----|--|-------|------------|------|-----|------|-------|--|
| MONTH | DAY | STA  | PHASE | TIME       | SIGN | PER | AMPL | DIST  |  |
| MAY   | 21  | LPB  | eP    | 02 58 01.8 |      | 0.8 | 6    |       |  |
|       |     |  | e(S)  | 59 01.3    |      |     |      |       |  |
|       |     | PNS  | eP    | 02 57 58.6 |      |     |      |       |  |
|       |     | TRJ  | eP    | 02 58 16.2 |      |     |      |       |  |
| MAY   | 21  | USCGS 03 00 08.2, 40.2N, 143.7E, h = 33 km., m = 4.3<br>OFF E CST OF HONSHU, JAPAN |       |            |      |     |      |       |  |
|       |     | PNS  | ePKP  | 03 19 44.4 |      |     |      | 144.0 |  |
|       |     | LPB  | ePKP  | 03 19 45.5 |      |     |      |       |  |
|       |     | TRJ  | PKP   | 03 20 31.1 |      |     |      |       |  |
| MAY   | 21  | PNS  | P     | 03 26 05.4 |      | 1.3 | 20   |       |  |
|       |     | LPB  | eP    | 03 26 07   |      | 1.4 | 40   |       |  |
|       |     | TRJ  | P     | 03 26 49.4 | D    |     |      |       |  |
| MAY   | 21  | USCGS 03 59 11.5, 38.9N, 65.2E, h = 13 km., m = 5.4<br>SOUTHEASTERN UZBEK SSR      |       |            |      |     |      |       |  |
|       |     | PNS  | PKP   | 04 18 31.3 |      | 1.3 | 15   |       |  |
|       |     | LPB  | PKP   | 04 18 31   |      | 1.4 | 27   | 133.2 |  |
|       |     | TRJ  | ePKP  | 04 18 56.6 |      |     |      |       |  |
| MAY   | 21  | USCGS 04 11 24.7, 41.1N, 143.5E, h = 33 km., m = 5.5<br>HOKKAIDO, JAPAN REGION     |       |            |      |     |      |       |  |
|       |     | LPB  | PKP   | 04 30 52.5 |      | 1.4 | 40   | 144.0 |  |
|       |     |  | eL    | 05 20      |      |     |      |       |  |
|       |     | PNS  | PKP   | 04 30 54.5 |      |     |      |       |  |
|       |     |  | L     | 05 20.1    |      |     |      |       |  |
|       |     | TRJ  | PKP   | 04 31 42.2 |      |     |      |       |  |
| MAY   | 21  | LPB  | iP    | 04 42 49.5 | D    | 0.7 | 99   |       |  |
|       |     |  | e     | 53.3       |      |     |      |       |  |
|       |     |  | iS    | 43 16.6    |      |     |      |       |  |
|       |     | PNS  | iP    | 04 42 50.8 | D    |     |      |       |  |
|       |     |  | S     | 43 19.4    |      |     |      |       |  |
|       |     | TRJ  | P     | 04 41 17.2 |      |     |      |       |  |
| MAY   | 21  | USCGS 05 22 04.1, 41.4N, 143.5E, h = 40 km., m = 4.5<br>HOKKAIDO, JAPAN REGION     |       |            |      |     |      |       |  |
|       |     | PNS  | ePKP  | 05 41 31   |      |     |      | 143.1 |  |
|       |     | LPB  | ePKP  | 05 41 35.7 |      |     |      |       |  |
|       |     | TRJ  | P     | 05 42 25.8 |      |     |      |       |  |
| MAY   | 21  | LPB  | P     | 07 07 04   |      | 1.0 | 10   |       |  |
|       |     |  | eL    | 21         |      |     |      |       |  |
|       |     | PNS  | P     | 07 07 05.5 |      | 1.0 | 7    |       |  |
|       |     |  | eL    | 20.9       |      |     |      |       |  |
| MAY   | 21  | LPB  | eP    | 07 22 18   |      |     |      |       |  |
|       |     |  | eL    | 36         |      |     |      |       |  |
|       |     | PNS  | P     | 07 22 19.5 |      | 1.0 | 7    |       |  |
|       |     |  | eL    | 35.6       |      |     |      |       |  |
|       |     | TRJ  | P     | 07 22 48.7 |      |     |      |       |  |
| MAY   | 21  | USCGS 07 51 22.0, 44.0S, 75.5W, h = 47 km., m = 4.5<br>OFF COAST OF SOUTHERN CHILE |       |            |      |     |      |       |  |

| MAY   |     |  |       |            |      |     |      |       |  |
|-------|-----|--|-------|------------|------|-----|------|-------|--|
| MONTH | DAY | STA  | PHASE | TIME       | SIGN | PER | AMPL | DIST  |  |
| MAY   | 21  | LPB  | ePKP  | 07 57 12.6 |      | 0.8 | 6    | 22.8  |  |
|       |     |  | eL    | 06.2       |      |     |      |       |  |
|       |     | PNS  | PKP   | 07 57 14.8 |      | 1.5 | 13   |       |  |
|       |     | TRJ  | P     | 07 57 08.0 |      |     |      |       |  |
| MAY   | 21  | PNS  | eP    | 08 10 51   |      |     |      |       |  |
|       |     | LPB  | eP    | 08 10 53.0 |      |     |      |       |  |
| MAY   | 21  | LPB  | eP    | 08 13 24   |      | 1.0 | 6    |       |  |
| MAY   | 21  | LPB  | P     | 08 18 24.2 |      |     |      |       |  |
|       |     |  | e(S)  | 19 04.5    |      |     |      |       |  |
|       |     | PNS  | P     | 08 18 24.8 |      |     |      |       |  |
|       |     |  | eS    | 19 02.8    |      |     |      |       |  |
|       |     | TRJ  | P     | 08 19 10.3 |      |     |      |       |  |
| MAY   | 21  | USCGS 08 20 009, 44.9N, 150.2E, h = 33 km., m = 5.7<br>KURILE ISLANDS REGION |       |            |      |     |      |       |  |
|       |     | PNS  | ePKP  | 08 39 12.4 |      |     |      |       |  |
|       |     |  | PPKP  | 22.8       |      |     |      |       |  |
|       |     |  | PKS   | 43 01      |      |     |      |       |  |
|       |     |  | SKS   | 46 30      |      |     |      |       |  |
|       |     |  | PS    | 52 25      |      |     |      |       |  |
|       |     |  | iSS   | 09 00 04   |      |     |      |       |  |
|       |     |  | L     | 25.8       |      |     |      | 137.1 |  |
|       |     | LPB  | ePKP  | 08 39 13.6 |      |     |      |       |  |
|       |     |  | PPKP  | 22.2       |      |     |      |       |  |
|       |     |  | PKS   | 43 00      |      |     |      |       |  |
|       |     |  | ESKS  | 46 28      |      |     |      |       |  |
|       |     |  | SS    | 09 00 08   |      |     |      |       |  |
|       |     |  | eL    | 25.9       |      |     |      |       |  |
| MAY   | 21  | PNS  | iP    | 09 19 18.2 |      | 0.6 | 10   |       |  |
|       |     |  | S     | 40.9       |      |     |      |       |  |
|       |     | LPB  | P     | 09 19 19.3 |      | 0.8 | 6    |       |  |
| MAY   | 21  | LPB  | P     | 09 32 13.9 |      | 0.9 | 20   |       |  |
|       |     | PNS  | P     | 09 32 18.8 |      | 1.1 | 11   |       |  |
|       |     |  | eS    | 52.7       |      |     |      |       |  |
|       |     | TRJ  | eP    | 09 32 58.0 |      |     |      |       |  |
| MAY   | 21  | LPB  | P     | 10 01 10   |      | 0.7 | 8    |       |  |
|       |     |  | eS    | 40.5       |      |     |      |       |  |
|       |     | PNS  | P     | 10 01 15.7 |      |     |      |       |  |
|       |     |  | S     | 42.7       |      |     |      |       |  |
| MAY   | 21  | LPB  | eP    | 10 14 45   |      |     |      |       |  |
|       |     | PNS  | P     | 10 14 45   |      |     |      |       |  |
| MAY   | 21  | PNS  | P     | 10 21 49.2 |      |     |      |       |  |
|       |     |  | S     | 22 20.7    |      |     |      |       |  |
|       |     | LPB  | eP    | 10 21 52.4 |      |     |      |       |  |
|       |     |  | eS    | 22 25      |      |     |      |       |  |
| MAY   | 21  | LPB  | P     | 10 33 44.5 |      | 0.8 | 12   |       |  |
| MAY   | 21  | PNS  | eP    | 10 57 14   |      |     |      |       |  |
|       |     | LPB  | eP    | 10 57 15   |      |     |      |       |  |

| MAY   |     |   |       |            |      |     |      |       |  |
|-------|-----|---|-------|------------|------|-----|------|-------|--|
| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL | DIST  |  |
| MAY   | 21  | USCGS 10 52 16.6, 20.2N, 122.0E, h = 33 km., m = 5.1<br>PHILIPPINE ISLANDS REGION |       |            |      |     |      |       |  |
|       |     | PNS   | PKP   | 11 12 24.3 |      | 1.6 | 26.1 |       |  |
|       |     |   | eL    | 12 13.4    |      |     |      |       |  |
|       |     | LPB   | ePKP  | 11 12 25.5 |      |     |      | 169.0 |  |
|       |     |   | eL    | 12 07      |      |     |      |       |  |
| MAY   | 21  | USCGS 11 00 44.5, 44.7N, 150.2E, h = 33 km., m = 5.1<br>KURILE ISLANDS REGION     |       |            |      |     |      |       |  |
|       |     | PNS   | ePKP  | 11 20 05.7 |      | 1.0 | 4    |       |  |
|       |     |   | eL    | 12 05.1    |      |     |      |       |  |
|       |     | LPB   | eP    | 11 20 06   |      |     |      | 137.1 |  |
|       |     |   | eL    | 06         |      |     |      |       |  |
| MAY   | 21  | USCGS 11 03 57.5, 45.0N, 150.1E, h = 48 km., m = 4.9<br>KURILE ISLANDS REGION     |       |            |      |     |      |       |  |
|       |     | PNS   | PKP   | 11 23 14.2 |      |     |      |       |  |
|       |     |   | pPKP  | 32.2       |      |     |      |       |  |
|       |     |   | PKS   | 26 46      |      |     |      |       |  |
|       |     | LPB   | PKP   | 11 23 17.8 |      | 1.1 | 12   | 137.1 |  |
|       |     |   | pPKP  | 32.6       |      |     |      |       |  |
| MAY   | 21  | USCGS 11 31 30.3, 30.6S, 69.1W, h = 43 km., m = 4.3<br>CHILE-ARGENTINA BOR REG.   |       |            |      |     |      |       |  |
|       |     | PNS   | P     | 11 39 51.8 |      |     |      |       |  |
|       |     |   | eL    | 11 42.6    |      |     |      |       |  |
|       |     | LPB   | eP    | 11 39 56   |      |     |      | 13.5  |  |
|       |     |   | eL    | 44.8       |      |     |      |       |  |
| MAY   | 21  | PNS   | eP    | 12 52 01.5 |      |     |      |       |  |
|       |     | LPB   | eP    | 12 52 06   |      |     |      |       |  |
| MAY   | 21  | LPB   | eP    | 13 17 58.6 |      |     |      |       |  |
|       |     | PNS   | P     | 13 18 03.0 |      |     |      |       |  |
|       |     |   | eS    | 19 26      |      |     |      |       |  |
| MAY   | 21  | USCGS 13 10 05.0, 63.6S, 172.0E, h = 32 km.,<br>BALLENY ISLANDS REGION            |       |            |      |     |      |       |  |
|       |     | PNS   | P     | 13 22 40   |      | 1.3 | 10   |       |  |
|       |     | LPB   | eP    | 13 22 45.5 |      |     |      | 87.3  |  |
| MAY   | 21  | PNS   | P     | 13 58 43.4 |      |     |      |       |  |
|       |     | LPB   | eP    | 13 58 46.4 |      |     |      |       |  |
| MAY   | 21  | USCGS 14 44 58.3, 15.9S, 73.0W, h = 111 km., m = 4.1<br>SOUTHERN PERU             |       |            |      |     |      |       |  |
|       |     | PNS   | iP    | 14 46 04.1 | C    | 1.2 | 33   |       |  |
|       |     | LPB   | iP    | 14 46 10   | D    | 1.5 | 82   | 4.5   |  |
| MAY   | 21  | USCGS 15 10 13.4, 41.5N, 142.9E, h = 26 km., m = 5.0<br>HOKKAIDO, JAPAN REGION    |       |            |      |     |      |       |  |
|       |     | PNS   | ePKP  | 15 29 46.6 |      | 1.3 | 10   |       |  |
|       |     | LPB   | ePKP  | 15 29 48.5 |      |     |      | 143.9 |  |

| MAY   |     |  |       |            |      |     |      |       |      |  |
|-------|-----|--|-------|------------|------|-----|------|-------|------|--|
| MONTH | DAY | STA  | PHASE | TIME       | SIGN | PER | AMPL | DIST  |      |  |
| MAY   | 21  | USCGS 15 27 59.8, 41.2N, 143.4E, h = 33 km., m = 5.2<br>HOKKAIDO, JAPAN REGION |       |            |      |     |      | 143.5 |      |  |
|       |     | LPB  | ePKP  | 15 47 30.5 |      |     |      |       |      |  |
|       |     | PNS  | ePKP  | 15 47 32.6 |      |     |      |       |      |  |
|       |     |  | eL    | 16 36.2    |      |     |      |       |      |  |
| MAY   | 21  | USCGS 15 54 46.0, 41.4N, 142.5E, h = 33 km., m = 4.3<br>HOKKAIDO, JAPAN REGION |       |            |      |     |      | 144.0 |      |  |
|       |     | LPB  | ePKP  | 16 14 17.7 |      |     |      |       |      |  |
|       |     | PNS  | ePKP  | 16 14 21.2 |      |     |      |       |      |  |
| MAY   | 21  | USCGS 16 04 21, 41.7N, 141.9E, h = 28 km., m = 4.4<br>HOKKAIDO, JAPAN REGION   |       |            |      |     |      | 144.1 |      |  |
|       |     | LPB  | ePKP  | 16 23 53.5 |      |     |      |       |      |  |
|       |     | PNS  | ePKP  | 16 23 56.6 |      |     |      |       |      |  |
|       |     |  | eL    | 17 12.3    |      |     |      |       |      |  |
| MAY   | 21  | PNS  | P     | 16 36 44.5 |      | 0.7 | 5    |       |      |  |
|       |     |  | eS    | 37 20      |      |     |      |       |      |  |
|       |     | LPB  | eP    | 16 36 46   |      |     |      |       |      |  |
| MAY   | 21  | PNS  | eP    | 16 46 02.6 |      |     |      |       |      |  |
|       |     | LPB  | eP    | 16 46 01.5 |      |     |      |       |      |  |
|       |     |  | i     | 30         |      |     |      |       |      |  |
| MAY   | 21  | USCGS 16 35 58.0, 63.7S, 171.0E, h = 33 km., m = 5.1<br>BALLENY ISLANDS REGION |       |            |      |     |      | 1.4   | 13.3 |  |
|       |     | PNS  | P     | 16 48 47.3 |      |     |      |       |      |  |
|       |     |  | eL    | 17 17.1    |      |     |      |       |      |  |
|       |     | LPB  | eP    | 16 48 52.4 |      |     |      |       |      |  |
| MAY   | 21  | LPB  | eP    | 17 03 15.5 |      |     |      |       |      |  |
|       |     | PNS  | P     | 17 03 17.7 |      |     |      |       |      |  |
| MAY   | 21  | USCGS 17 11 06.0, 63.7S, 171.7E, h = 24 km., m = 5.0<br>BALLENY ISLANDS REGION |       |            |      |     |      | 87.3  |      |  |
|       |     | LPB  | eP    | 17 23 53   |      |     |      |       |      |  |
|       |     |  | L     | 53         |      |     |      |       |      |  |
|       |     | PNS  | P     | 17 23 54.8 |      | 1.3 | 7.5  |       |      |  |
|       |     |  | eL    | 53         |      |     |      |       |      |  |
| MAY   | 21  | USCGS 18 47 30.5, 44.8N, 150.3E, h = 51 km., m = 5.2<br>KURILE ISLANDS REGION  |       |            |      |     |      | 1.8   | 25   |  |
|       |     | PNS  | PKP   | 19 06 50.9 |      |     |      |       |      |  |
|       |     |  | e     | 07 05.0    |      |     |      |       |      |  |
|       |     |  | eL    | 52.5       |      |     |      |       |      |  |
|       |     | LPB  | ePKP  | 19 06 51.7 |      |     |      |       |      |  |
|       |     |  | eL    | 55         |      |     |      |       |      |  |
| MAY   | 21  | PNS  | eP    | 22 34 20.2 |      |     |      |       |      |  |
|       |     | LPB  | e(P)  | 22 34 23   |      |     |      |       |      |  |
| MAY   | 21  | LPB  | eP    | 22 23 36.5 |      |     |      |       |      |  |
| MAY   | 21  | LPB  | e(P)  | 22 52 33   |      |     |      |       |      |  |
| MAY   | 21  | LPB  | e(P)  | 23 19      |      |     |      |       |      |  |
| MAY   | 21  | PNS  | eP    | 23 12 12   |      |     |      |       |      |  |
|       |     | LPB  | eP    | 23 12 18   |      |     |      |       |      |  |

| MAY   |     |  |       |            |      |     |      |      |      |      |
|-------|-----|--|-------|------------|------|-----|------|------|------|------|
| MONTH | DAY | STA  | PHASE | TIME       | SIGN | PER | AMPL | DIST |      |      |
| MAY   | 22  | USCGS 00 18 05.9, 30.4S, 177.8W, h = 43 km., m = 4.7<br>KERMADEC ISLANDS             |       |            |      |     |      |      |      |      |
|       |     | LPB  | P     | 00 31 32   |      |     |      |      |      |      |
|       |     |  | eL    | 01 04      |      |     |      |      |      |      |
|       |     | PNS  | eL    | 01 03.2    |      |     |      |      | 97.2 |      |
| MAY   | 22  | LPB  | e(P)  | 04 10 18.8 |      |     |      | 0.7  | 5    |      |
| MAY   | 22  | LPB  | eP    | 04 39 51   |      |     |      |      |      |      |
| MAY   | 22  | USCGS 06 21 53.0, 19.6N, 108.8W, h = 33 km., m = 4.4<br>REVILLA GIGEDO ISLAND REGION |       |            |      |     |      |      |      |      |
|       |     | PNS  | P     | 06 31 12.4 |      |     |      | 1.8  | 36   |      |
|       |     |  | e     | 19.4       |      |     |      |      |      |      |
|       |     | LPB  | P     | 06 31 14.9 |      |     |      | 1.2  | 15   | 53.0 |
| MAY   | 22  | LPB  | P     | 06 36 50   |      |     |      | 1.1  | 15   |      |
| MAY   | 22  | LPB  | P     | 07 04 38   |      |     |      | 0.7  | 5    |      |
|       |     | PNS  | P     | 07 04 41.2 |      |     |      | 1.0  | 7    |      |
| MAY   | 22  | PNS  | eP    | 07 50 21.3 |      |     |      |      |      |      |
|       |     | LPB  | e(P)  | 07 59 28   |      |     |      |      |      |      |
| MAY   | 22  | PNS  | eP    | 08 26 13.4 |      |     |      |      |      |      |
|       |     | LPB  | P     | 08 26 18   |      |     |      | 0.8  | 6    |      |
| MAY   | 22  | LPB  | eP    | 08 30 41   |      |     |      |      |      |      |
|       |     | PNS  | eP    | 08 30 45.6 |      |     |      |      |      |      |
|       |     |  | eS    | 31 12.5    |      |     |      |      |      |      |
| MAY   | 22  | LPB  | eP    | 09 15 22.5 |      |     |      |      |      |      |
|       |     |  | e     | 43.6       |      |     |      |      |      |      |
|       |     | PNS  | eP    | 09 15 28.3 |      |     |      |      |      |      |
| MAY   | 22  | PNS  | eP    | 09 32 32   |      |     |      |      |      |      |
|       |     | LPB  | e(P)  | 09 32 34.5 |      |     |      |      |      |      |
| MAY   | 22  | PNS  | P     | 09 39 22.7 |      |     |      |      |      |      |
|       |     |  | e     | 28.3       |      |     |      |      |      |      |
|       |     | LPB  | P     | 09 39 23.3 |      |     |      |      |      |      |
|       |     |  | e     | 33.2       |      |     |      |      |      |      |
| MAY   | 22  | LPB  | eP    | 10 17 20.7 |      |     |      |      |      |      |
| MAY   | 22  | USCGS 10 51 53.3, 41.5N, 142.8E, h = 40 km., m = 5.9<br>HOKKAIDO, JAPAN REGION       |       |            |      |     |      |      |      |      |
|       |     | PNS  | ePKP  | 11 11 23   |      |     |      | 1.0  | 21   |      |
|       |     |  | pPKP  | 30.8       |      |     |      |      |      |      |
|       |     |  | PKS   | 15 02.8    |      |     |      |      |      |      |
|       |     |  | SS    | 33 33      |      |     |      |      |      |      |
|       |     |  | eG    | 50.8       |      |     |      |      |      |      |
|       |     |  | L     | 12 002     |      |     |      |      |      |      |
|       |     | LPB  | ePKP  | 11 11 24.8 |      |     |      |      |      |      |
|       |     |  | pPKP  | 28.5       |      |     |      |      |      |      |
|       |     |  | PKS   | 15 04      |      |     |      |      |      |      |
|       |     |  | eSS   | 33 29      |      |     |      |      |      |      |
|       |     |  | eL    | 12 00      |      |     |      |      |      |      |

|       |     | MAY                         |       |  |      |     |      |       |
|-------|-----|-----------------------------|-------|--|------|-----|------|-------|
| MONTH | DAY | STA                         | PHASE | TIME                                     | SIGN | PER | AMPL | DIST  |
| MAY   | 22  | USCGS 13 21                 |       | 55.7, 38.6N, 116.2W, h = 13 km., m = 5.1 |      |     |      | 71.0  |
|       |     | NEVADA                      |       |  |      |     |      |       |
|       |     | LPB                         | eP    | 13 33 11                                 |      |     |      |       |
|       |     | PNS                         | eP    | 13 33 12.4                               |      |     |      |       |
| MAY   | 22  | LPB                         | eP    | 13 30 25                                 |      |     |      |       |
|       |     | PNS                         | e(P)  | 13 30 26                                 |      |     |      |       |
| MAY   | 22  | LPB                         | eP    | 15 01 44                                 |      |     |      |       |
|       |     | PNS                         | eP    | 15 01 46.4                               |      |     |      |       |
| MAY   | 22  | USCGS 14 50                 |       | 07.8, 41.4N, 142.9E, h = 40 km., m = 4.7 |      |     |      | 143.8 |
|       |     | HOKKAIDO, JAPAN REGION      |       |  |      |     |      |       |
|       |     | LPB                         | ePKP  | 15 09 40                                 |      |     |      |       |
|       |     | PNS                         | ePKP  | 15 09 41                                 |      |     |      |       |
| MAY   | 22  | LPB                         | eP    | 15 51 36                                 |      |     | 0.7  | 5.0   |
|       |     | PNS                         | P     | 15 51 41.0                               |      |     |      |       |
| MAY   | 22  | LPB                         | eL    | 18 08                                    |      |     |      |       |
|       |     | PNS                         | eL    | 18 10.6                                  |      |     |      |       |
| MAY   | 22  | LPB                         | e(P)  | 18 51 39                                 |      |     |      |       |
|       |     | PNS                         | eP    | 18 51 45.2                               |      |     |      |       |
| MAY   | 22  | USCGS 18 36                 |       | 16.6, 44.5N, 150.3E, h = 35 km., m = 5.0 |      |     |      |       |
|       |     | KURILE ISLAND REGION        |       |  |      |     |      |       |
|       |     | PNS                         | ePKP  | 18 55 40.4                               |      |     |      | 137.7 |
|       |     | LPB                         |       | 18 55 43.5                               |      |     |      |       |
| MAY   | 22  | USCGS 19 07                 |       | 03.9, 30.5N, 142.5E, h = 33 km., m = 4.7 |      |     |      |       |
|       |     | SOUTH OF HONSHU, JAPAN      |       |  |      |     |      |       |
|       |     | PNS                         | PKP   | 19 26 51.0                               |      | 1.4 | 35   | 148.5 |
|       |     | LPB                         | PKP   | 19 26 51.5                               |      |     |      |       |
| MAY   | 22  | USCGS 19 29                 |       | 25.7, 40.2N, 142.3E, h = 40 km., m = 5.3 |      |     |      |       |
|       |     | NEAR E CST OF HONSHU, JAPAN |       |  |      |     |      |       |
|       |     | PNS                         | ePKP  | 19 48 56.7                               |      | 1.3 | 12   |       |
|       |     |                             | pPKP  | 49 15.6                                  |      |     |      |       |
|       |     |                             | ePKS  | 52 30                                    |      |     |      |       |
|       |     |                             | ePS   | 20 02 13                                 |      |     |      |       |
|       |     |                             | SS    | 11                                       |      |     |      |       |
|       |     |                             | eG    | 29.8                                     |      |     |      |       |
|       |     |                             | eL    | 39.8                                     |      |     |      |       |
|       |     | LPB                         | ePKP  | 19 49 00                                 |      | 2.1 | 150  |       |
|       |     |                             | pPKP  | 15.5                                     |      |     |      |       |
|       |     |                             | ePKS  | 52 32                                    |      |     |      |       |
|       |     |                             | eSS   | 20 11 12                                 |      |     |      |       |
|       |     |                             | L     | 38.7                                     |      |     |      |       |
| MAY   | 22  | PNS                         | eP    | 20 17 36.5                               |      |     |      |       |
|       |     | LPB                         | eP    | 20 17 37                                 |      |     |      |       |
| MAY   | 22  | USCGS 20 01                 |       | 13.3, 44.8N, 150.2E, h = 46 km., m = 5.3 |      |     |      | 137   |
|       |     | KURILE ISLANDS REGION       |       |  |      |     |      |       |
|       |     | LPB                         | eP    | 20 20 35                                 |      |     |      |       |
|       |     | PNS                         | PKP   | 20 20 35.0                               |      | 1.0 | 7    | 137   |

|       |     | MAY                    |       |   |      |     |      |       |
|-------|-----|------------------------|-------|---|------|-----|------|-------|
| MONTH | DAY | STA                    | PHASE | TIME                                      | SIGN | PER | AMPL | DIST  |
| MAY   | 22  | LPB                    | eP    | 20 57 36                                  |      |     |      |       |
|       |     | PNS                    | eP    | 20 57 38.2                                |      |     |      |       |
| MAY   | 22  | LPB                    | eP    | 21 06 25                                  |      |     | 0.6  | 7     |
|       |     |                        | S     | 44.3                                      |      |     |      |       |
| MAY   | 22  | LPB                    | P     | 21 09 33                                  |      |     | 0.7  | 5     |
|       |     |                        | S     | 57.5                                      |      |     |      |       |
| MAY   | 22  | USCGS 21 20            |       | 45.3, 2.9N, 126.5E, h = 58 km., m = 5.1   |      |     |      |       |
|       |     | MOLUCCA PASSAGE        |       |   |      |     |      |       |
|       |     | PNS                    | PKP   | 21 30 43.0                                |      |     | 2.0  | 42    |
|       |     | LPB                    | ePKP  | 21 30 44.5                                |      |     |      | 159.9 |
| MAY   | 22  | USCGS 21 27            |       | 41.0, 31.5N, 139.8E, h = 33 km., m = 4.3  |      |     |      |       |
|       |     | SOUTH OF HONSHU, JAPAN |       |   |      |     |      |       |
|       |     | LPB                    | PKP   | 21 47 32.5                                |      |     |      | 150.3 |
|       |     | PNS                    | PKP   | 21 47 32.5                                |      | 0.8 | 4.0  |       |
| MAY   | 22  | USCGS 21 35            |       | 32.0, 31.5N, 140.0E, h = 33 km., m = 4.3  |      |     |      |       |
|       |     | SOUTH OF HONSHU, JAPAN |       |   |      |     |      |       |
|       |     | PNS                    | PKP   | 21 55 21.5                                |      |     | 1.0  | 7     |
|       |     | LPB                    | PKP   | 21 55 22.2                                |      |     | 1.0  | 12    |
|       |     |                        |       |   |      |     |      | 150.3 |
| MAY   | 22  | USCGS 22 07            |       | 21.0, 17.0N, 145.7E, h = 162 km., m = 4.6 |      |     |      |       |
|       |     | MARIANA ISLANDS        |       |   |      |     |      |       |
|       |     | PNS                    | ePKP  | 22 26 49.8                                |      |     | 1.3  | 14    |
|       |     | LPB                    | ePKP  | 22 26 50                                  |      |     | 1.6  | 58    |
|       |     |                        |       |   |      |     |      | 147.6 |
| MAY   | 22  | USCGS 22 31            |       | 23.3, 31.5N, 139.8E, h = 33 km., m = 4.8  |      |     |      |       |
|       |     | SOUTH OF HONSHU, JAPAN |       |   |      |     |      |       |
|       |     | LPB                    | ePKP  | 22 51 12.5                                |      |     | 1.0  | 18    |
|       |     |                        | eL    | 23 40                                     |      |     |      | 147.6 |
|       |     | PNS                    | ePKP  | 22 51 12.2                                |      |     | 2.0  | 77    |
|       |     |                        | eL    | 23 40.6                                   |      |     |      |       |
| MAY   | 22  | LPB                    | eP    | 23 35 09                                  |      |     |      |       |
|       |     |                        | S     | 26 34                                     |      |     |      |       |
|       |     | PNS                    | iP    | 23 36 08.2                                |      |     | 0.5  | 24    |
|       |     |                        | eS    | 31.5                                      |      |     |      |       |
| MAY   | 22  | USCGS 23 18            |       | 44.0, 42.2N, 141.4E, h = 26 km., m = 4.5  |      |     |      |       |
|       |     | HOKKAIDO, JAPAN REGION |       |   |      |     |      |       |
|       |     | PNS                    |       | 23 38 20.6                                |      |     |      |       |
|       |     | LPB                    | ePKP  | 23 38 21.5                                |      |     |      | 144.0 |
|       |     |                        | ePKP  |   |      |     |      |       |
| MAY   | 23  | PNS                    | P     | 00 48 32.6                                |      |     | 0.3  | 3     |
|       |     |                        | S     | 56.9                                      |      |     |      |       |
| MAY   | 23  | LPB                    | eP    | 01 10 10.5                                |      |     |      |       |
|       |     |                        | S     | 10 48.0                                   |      |     |      |       |
|       |     | PNS                    | P     | 01 10 16.8                                |      |     | 0.9  | 5     |
|       |     |                        | S     | 54.5                                      |      |     |      |       |
| MAY   | 23  | PNS                    | eP    | 01 30 54                                  |      |     |      |       |
|       |     |                        | e     | 59.2                                      |      |     |      |       |
|       |     | LPB                    | eP    | 01 30 56.5                                |      |     | 0.8  | 4     |
|       |     |                        | e     | 33 19                                     |      |     |      |       |

| MONTH | DAY | STA   | PHASE                      | TIME                                     | SEGN | PER | AMPL | DIST  |
|-------|-----|-------|----------------------------|--|------|-----|------|-------|
| MAY   | 23  | PNS   | 1P                         | 02 21 26.8                               | D    |     |      |       |
|       |     |       | 1S                         | 49.8                                     |      |     |      |       |
|       |     | LPB   | P                          | 02 21 29.4                               |      | 0.9 | 8    |       |
| MAY   | 23  | PNS   | P                          | 04 06 31                                 |      | 0.8 | 4    |       |
|       |     | LPB   | eP                         | 04 06 34                                 |      |     |      |       |
| MAY   | 23  | LPB   | P                          | 04 08 06.2                               |      | 1.0 | 10   |       |
|       |     |       | 1                          | 22.2                                     |      |     |      |       |
|       |     | PNS   | P                          | 04 08 07.0                               |      | 0.6 | 3    |       |
|       |     |       | 1                          | 23.5                                     |      |     |      |       |
| MAY   | 23  | LPB   | eP                         | 04 45 23.7                               |      | 0.8 | 3    |       |
| MAY   | 23  | PNS   | 1P                         | 05 25 11.8                               | D    | 0.5 | 5    |       |
|       |     |       | S                          | 34.8                                     |      |     |      |       |
|       |     | LPB   | P                          | 05 25 14.3                               |      |     |      |       |
|       |     |       | S                          | 38.5                                     |      |     |      |       |
| MAY   | 23  | USCGS | 05 22                      | 46.0, 4.4N, 73.6W, h = 23 km., m = 4.4   |      |     |      |       |
|       |     |       | COLOMBIA                   |  |      |     |      |       |
|       |     | PNS   | eP                         | 05 27 32.6                               |      | 1.8 | 69   |       |
|       |     |       | eS                         | 31 84                                    |      |     |      |       |
|       |     |       | L                          | 33.5                                     |      |     |      |       |
|       |     | LPB   | eP                         | 05 27 35                                 |      | 2.2 | 108  | 21.3  |
|       |     |       | S                          | 32 40                                    |      |     |      |       |
|       |     |       | L                          | 36                                       |      |     |      |       |
| MAY   | 23  | PNS   | P                          | 05 56 10                                 |      |     |      |       |
| MAY   | 23  | PNS   | P                          | 06 33 41.7                               | C    |     |      |       |
|       |     |       | S                          | 34 15.9                                  |      |     |      |       |
|       |     | LPB   | P                          | 06 33 43                                 |      | 1.0 | 38   |       |
|       |     |       | 1S                         | 34 16.8                                  |      |     |      |       |
| MAY   | 23  | USCGS | 07 42                      | 28.0, 44.7N, 150.5E, h = 50 km., m = 4.9 |      |     |      |       |
|       |     |       | KURILE ISLANDS REGION      |  |      |     |      |       |
|       |     | PNS   | PKP                        | 08 01 49.2                               |      |     |      |       |
|       |     | LPB   | ePKP                       | 08 01 50                                 |      |     |      | 137.2 |
| MAY   | 23  | PNS   | P                          | 09 25 41.3                               | D    | 1.0 | 20   |       |
|       |     | LPB   | P                          | 09 25 46.4                               | D    | 0.9 | 22   |       |
| MAY   | 23  | LPB   | eP                         | 09 33 16.3                               |      |     |      |       |
| MAY   | 23  | LPB   | P                          | 10 23 29                                 |      |     |      |       |
|       |     | PNS   | eP                         | 10 23 30.1                               |      | 0.7 | 4    |       |
|       |     |       | e                          | 25 14                                    |      |     |      |       |
| MAY   | 23  | LPB   | eP                         | 12 44 50.5                               |      |     |      |       |
|       |     | PNS   | P                          | 12 44 54.3                               |      | 0.5 | 5    |       |
| MAY   | 23  | USCGS | 14 25                      | 27.0, 40.3N, 143.7E, h = 33 km., m = 4.6 |      |     |      |       |
|       |     |       | OFF E CST OF HONSHU, JAPAN |  |      |     |      |       |
|       |     | LPB   | ePKP                       | 14 45 05                                 |      |     |      | 143.0 |
|       |     | PNS   | ePKP                       | 14 44 57.5                               |      | 0.9 | 4    |       |

| MONTH | DAY | STA   | PHASE                    | TIME                                     | SEGN | PER | AMPL | DIST  |
|-------|-----|-------|--------------------------|--|------|-----|------|-------|
| MAY   | 23  | LPB   | eP                       | 15 54 42.5                               |      |     |      |       |
|       |     | PNS   | eP                       | 15 54 42.7                               |      |     |      |       |
| MAY   | 23  | PNS   | eP                       | 16 34 13                                 |      |     |      |       |
|       |     | LPB   | e(P)                     | 16 34 16                                 |      |     |      |       |
| MAY   | 23  | LPB   | eP                       | 17 03 49.5                               |      |     |      |       |
|       |     | PNS   | eP                       | 17 03 55                                 |      |     |      |       |
| MAY   | 23  | PNS   | P                        | 17 15 28.                                |      |     |      |       |
| MAY   | 23  | PNS   | P                        | 17 16 52.4                               |      |     |      |       |
|       |     |       | eS                       | 18 01                                    |      | 0.5 | 5    |       |
|       |     | LPB   | eP                       | 17 16 59.5                               |      |     |      |       |
|       |     |       | S                        | 18 06                                    |      | 1.0 | 18   |       |
| MAY   | 23  | USCGS | 17 24                    | 15.7, 41.7S, 171.9E, h = 21 km., m = 6.1 |      |     |      |       |
|       |     |       | SOUTH ISLAND NEW ZEALAND |  |      |     |      |       |
|       |     | PNS   | P                        | 17 38 01.7                               |      |     |      |       |
|       |     |       | PP                       | 42 18                                    |      | 1.9 | 11   |       |
|       |     |       | iSKS                     | 48 48                                    |      |     |      |       |
|       |     |       | iPS                      | 51 11                                    |      |     |      |       |
|       |     |       | iSS                      | 56 11                                    |      |     |      |       |
|       |     |       | L                        | 18 10.9                                  |      |     |      |       |
|       |     | LPB   | P                        | 17 38 01.8                               |      |     |      |       |
|       |     |       | PP                       | 42 17                                    |      | 2.1 | 184  | 99.7  |
|       |     |       | SKS                      | 48 50                                    |      |     |      |       |
|       |     |       | PS                       | 51 10                                    |      |     |      |       |
|       |     |       | SS                       | 56 10                                    |      |     |      |       |
|       |     |       | L                        | 18 10.8                                  |      |     |      |       |
| MAY   | 23  | PNS   | P                        | 17 54 21.4                               |      |     |      |       |
|       |     | LPB   | eP                       | 18 54 25.5                               |      |     |      |       |
| MAY   | 23  | PNS   | P                        | 18 02 37                                 |      |     |      |       |
|       |     | LPB   | P                        | 18 02 38.5                               |      |     |      |       |
|       |     |       |                          |  |      | 2.0 | 379  |       |
| MAY   | 23  | USCGS | 18 30                    | 54.0, 41.2N, 143.3E, h = 33 km., m = 4.5 |      |     |      |       |
|       |     |       | HOKKAIDO, JAPAN REGION   |  |      |     |      |       |
|       |     | LPB   | e(PKP)                   | 18 50 29.5                               |      |     |      |       |
|       |     | PNS   | ePKP                     | 18 50 30                                 |      |     |      | 143.8 |
| MAY   | 23  | USCGS | 18 33                    | 01.0, 44.9N, 150.2E, h = 33 km., m = 51  |      |     |      |       |
|       |     |       | KURILE ISLAND REGION     |  |      |     |      |       |
|       |     | LPB   | ePKP                     | 18 51 21.5                               |      |     |      |       |
|       |     | PNS   | ePKP                     | 18 52 22.7                               |      | 0.9 | 3    | 137.1 |
| MAY   | 23  | USCGS | 18 43                    | 01.0, 30.6S, 177.7W, h = 70 km., m = 5.6 |      |     |      |       |
|       |     |       | KERMADEC ISLANDS         |  |      |     |      |       |
|       |     | LPB   | ePKP                     | 18 56 32                                 |      |     |      |       |
|       |     |       | pP                       | 19 00 22.5                               |      | 1.8 | 86   | 97.1  |
|       |     |       | e(SS)                    | 14 18                                    |      |     |      |       |
|       |     |       | eL                       | 29                                       |      |     |      |       |
|       |     | PNS   | P                        | 18 56 32.2                               |      |     |      |       |
|       |     |       | pP                       | 19 00 28.4                               |      | 1.8 | 39   |       |

| MAY   |     |                  |                          |   |      |            |          |       |
|-------|-----|------------------|--------------------------|---|------|------------|----------|-------|
| MONTH | DAY | STA              | PHASE                    | TIME  | SIGN | PBR        | AMPL     | DIST  |
| MAY   | 23  | PNS<br>LPB       | P<br>eP                  | 19 30 18.0<br>19 30 25  |      | 1.5        | 19       |       |
| MAY   | 23  | PNS              | eP                       | 21 14 22.6  |      |            |          |       |
| MAY   | 23  | PNS<br>LPB       | P<br>e(P)                | 21 35 12.9<br>21 35 13.5  |      |            |          |       |
| MAY   | 23  | LPB<br>PNS       | P<br>P                   | 23 28 02<br>23 28 04.6  |      | 1.0<br>0.7 | 14<br>4  |       |
| MAY   | 23  | LPB<br>PNS       | eP<br>P                  | 23 48 49.5<br>23 48 55.0  |      |            |          |       |
| MAY   | 24  | USCGS            |                          | 23 56 24.7, 40.3N, 143.6E, h = 38 km., m = 49<br>OFF E CST OF HONSHU, JAPAN |      |            |          |       |
|       |     | PNS<br>eL<br>LPB | PKP<br>eL<br>PKP<br>e(L) | 00 15 55.8<br>01 04.3<br>00 15 57.2<br>01 02                                |      | 1.0<br>1.0 | 4<br>12  | 143.8 |
| MAY   | 24  | PNS<br>S         | P<br>S                   | 00 21 11.8<br>22 25   | C    | 0.5        | 4        |       |
| MAY   | 24  | PNS<br>LPB       | P<br>eP                  | 00 55 14.8<br>00 55 16  |      |            |          |       |
| MAY   | 24  | PNS<br>LPB       | P<br>P                   | 01 56 44.7<br>01 56 50.3  |      | 0.6        | 9        |       |
| MAY   | 24  | LPB<br>PNS       | eP<br>P<br>eL            | 02 04 18.5<br>02 04 19.1<br>16  |      | 0.9        | 6        |       |
| MAY   | 24  | LPB              | eP                       | 02 33 10  |      |            |          |       |
| MAY   | 24  | PNS<br>LPB       | P<br>eS<br>P             | 02 44 30.7<br>45 00<br>02 44 37   |      | 1.0        | 12       |       |
| MAY   | 24  | LPB              | e(P)                     | 02 17 45.5  |      |            |          |       |
| MAY   | 24  | LPB<br>PNS       | e(P)<br>e(P)             | 04 13 59<br>04 14 09.4  |      |            |          |       |
| MAY   | 24  | PNS<br>LPB       | P<br>(S)<br>P            | 04 14 27.8<br>56<br>04 14 33.7  | D    | 0.5<br>0.9 | 13<br>42 |       |
| MAY   | 24  | USCGS            |                          | 04 31 06.0, 20.7S, 178.9W, h = 681 km., m = 4.3<br>WEST OF TONGA ISLAND     |      |            |          |       |
|       |     | PNS<br>LPB       | eP<br>eP                 | 04 43 52<br>04 43 55.5  |      |            |          | 102.6 |
| MAY   | 24  | LPB<br>PNS       | eP<br>eP                 | 04 00 52.2<br>05 00 49.7  |      | 1.1        | 9        |       |

| MAY   |     |            |                         |  |        |            |         |                 |
|-------|-----|------------|-------------------------|--|--------|------------|---------|-----------------|
| MONTH | DAY | STA        | PHASE                   | TIME   | SIGN   | PBR        | AMPL    | DIST            |
| MAY   | 24  | PNS<br>LPB | eP<br>eP                | 05 03 25.4<br>05 03 30   |        |            |         | 1.1 10<br>0.9 6 |
| MAY   | 24  | LPB        | eP                      | 05 39 35   |        |            |         |                 |
| MAY   | 24  | PNS<br>LPB | P<br>S<br>eP            | 06 36 11.2<br>54<br>06 36 16   |        |            |         | 0.6 3<br>0.8 10 |
| MAY   | 24  | USCGS      |                         | 07 22 49.0, 42.0S, 172.1E, h = 33 km., m = 4.8<br>SOUTH ISLAND, NEW ZEALAND  |        |            |         |                 |
| MAY   | 24  | PNS<br>LPB | eP<br>eP                | 07 36 24.4<br>07 36 28   |        |            |         | 99.7            |
| MAY   | 24  | LPB<br>PNS | eP<br>eP                | 07 46 10<br>07 46 11.8   |        |            |         |                 |
| MAY   | 24  | LPB<br>PNS | P<br>S<br>P<br>S        | 07 52 47.7<br>53 15.5<br>07 52 48.3<br>53 16.2                               | D<br>C | 0.8<br>0.6 | 28<br>8 |                 |
| MAY   | 24  | LPB<br>PNS | eP<br>P                 | 08 49 12.5<br>08 49 13.4   |        |            |         |                 |
| MAY   | 24  | LPB        | e(P)                    | 10 04 07.8   |        | 0.9        | 5       |                 |
| MAY   | 24  | PNS        | eP<br>S                 | 13 29 29.8<br>30 15.7  |        |            |         |                 |
| MAY   | 24  | PNS<br>LPB | P<br>eS<br>eP           | 13 36 34.8<br>37 46<br>13 36 39.2  |        | 0.5        | 6       |                 |
| MAY   | 24  | USCGS      |                         | 14 06 24.2, 40.9N, 143.0E, h = 38 km., m = 5.6<br>OFF E CST OF HONSHU, JAPAN |        |            |         |                 |
|       |     | LPB        | PKP<br>SS<br>eG<br>L    | 14 25 55.5<br>47 58<br>15 06.2<br>15.2                                       |        | 1.5        | 55      | 144.0           |
|       |     | PNS        | ePKP<br>eSS<br>eG<br>eL | 14 25 55<br>48 00<br>15 00<br>15.1   |        | 1.5        | 23      |                 |
| MAY   | 24  | LPB<br>PNS | eP<br>iP<br>S           | 15 43 18.5<br>15 43 19.2<br>41.8   | D      | 0.4        | 4       |                 |
| MAY   | 24  | USCGS      |                         | 15 43 54.2, 6.8S, 118.9E, h = 109. m = 6.0<br>FLORES SEA                     |        |            |         |                 |
|       |     | LPB        | iPKP<br>ePKS<br>eL      | 16 02 43.4<br>05 34.5<br>56.2  | D      |            |         | 155.5           |
|       |     | PNS        | iPKP<br>PKS<br>eL       | 16 02 43.9<br>05 34<br>57.4  | D      |            |         |                 |





| MAY   |     |            |          |  |      |     |      |       |
|-------|-----|------------|----------|--|------|-----|------|-------|
| MONTH | DAY | STA        | PHASE    | TIME   | SIGN | PER | AMPL | DIST  |
| MAY   | 24  | PNS        | P<br>eS  | 16 37 53.6<br>38 30                            |      | 0.5 | 3    |       |
| MAY   | 24  | LPB<br>PNS | eP<br>eP | 17 38 33<br>17 38 34.7                         |      |     |      |       |
| MAY   | 24  | USCGS      |          | 17 40 54.0, 41.9S, 171.8E, h = 27 km., m = 5.3 |      |     |      |       |
|       |     |            |          | SOUTH ISLANDS, NEW ZEALAND                     |      |     |      |       |
|       |     | LPB        | eP       | 17 54 34.5                                     |      |     |      | 99.5  |
|       |     |            | eL       | 18 27  |      |     |      |       |
|       |     | PNS        | eP       | 17 54 39.6                                     |      |     |      |       |
|       |     |            | eL       | 27.5   |      |     |      |       |
| MAY   | 24  | PNS        | P        | 18 52 44.4                                     | C    | 0.5 | 7    |       |
|       |     |            | S        | 53 44.6  |      |     |      |       |
|       |     | LPB        | P        | 18 52 44.7                                     |      | 0.3 | 10   |       |
| MAY   | 24  | USCGS      |          | 20 57 27.3, 41.8S, 172.0E, h = 33 km., m = 5.7 |      |     |      |       |
|       |     |            |          | SOUTH ISLAND NEW ZEALAND                       |      |     |      |       |
|       |     | LPB        | eP       | 21 22 22                                       |      |     |      | 99.5  |
|       |     |            | eL       | 32.8   |      |     |      |       |
|       |     | PNS        | P        | 21 11 12.4                                     |      | 1.5 | 20   |       |
|       |     |            | eL       | 30.1   |      |     |      |       |
| MAY   | 24  | PNS        | eP       | 21 54 10                                       |      |     |      |       |
|       |     | LPB        | eP       | 21 54 11                                       |      |     |      |       |
| MAY   | 24  | USCGS      |          | 21 37 11.2, 54.2N, 169.3E, h = 5 km., m = 5.3  |      |     |      |       |
|       |     |            |          | KOMANDORSKY ISLANDS REGION                     |      |     |      |       |
|       |     | LPB        | ePKP     | 21 56 06                                       |      |     |      | 122.2 |
|       |     |            | eL       | 36.5   |      |     |      |       |
|       |     | PNS        | ePKP     | 21 56 08.4                                     |      |     |      |       |
|       |     |            | eL       | 22 35.2  |      |     |      |       |
| MAY   | 24  | PNS        | P        | 23 50 04.4                                     |      | 0.8 | 7    |       |
|       |     |            | S        | 51 04.1  |      |     |      |       |
|       |     | LPB        | P        | 23 50 05.5                                     |      | 0.9 | 22   |       |
|       |     |            | S        | 51 04.4  |      |     |      |       |
| MAY   | 24  | USCGS      |          | 23 47 04.0, 10.9N, 69.4W, h = 33 km., m = 4.8  |      |     |      |       |
|       |     |            |          | VENEZUELA                                      |      |     |      |       |
|       |     | PNS        | eP       | 23 52 43.7                                     |      | 0.7 | 3    |       |
|       |     |            | eL       | 00 00.6  |      |     |      | 28.8  |
|       |     | LPB        | eP       | 23 58 47                                       |      |     |      |       |
|       |     |            | L        | 00 04  |      |     |      |       |
| MAY   | 25  | PNS        | P        | 00 45 50.8                                     |      |     |      |       |
|       |     |            | S        | 46 12.8  |      |     |      |       |
| MAY   | 25  | LPB        | eP       | 02 21 09                                       |      | 0.8 | 60   |       |
|       |     | PNS        | P        | 02 21 11.6                                     |      |     |      |       |
| MAY   | 25  | USCGS      |          | 02 11 01.0, 42.1S, 171.8E, h = 33 km., m = 4.9 |      |     |      |       |
|       |     |            |          | SOUTH ISLANDS NEW ZEALAND                      |      |     |      |       |
|       |     | PNS        | eP       | 02 24 35                                       |      |     |      |       |
| MAY   | 25  | LPB        | eP       | 02 34 11                                       |      |     |      |       |
|       |     | PNS        | eP       | 02 34 13                                       |      |     |      |       |
| MAY   | 25  | PNS        | eP       | 02 42 04                                       |      |     |      |       |
|       |     | LPB        | eP       | 02 42 10                                       |      |     |      |       |

| MAY   |     |       |        |  |      |     |      |        |
|-------|-----|-------|--------|--|------|-----|------|--------|
| MONTH | DAY | STA   | PHASE  | TIME   | SIGN | PER | AMPL | DIST   |
| MAY   | 25  | PNS   | P<br>S | 03 42 09.0<br>31.3                             |      |     |      | 0.4 2  |
| MAY   | 25  | USCGS |        | 04 00 24.0, 19.8S, 68.5W, h = 201 km., m = 4.0 |      |     |      |        |
|       |     |       |        | CHILE-BOLIVIA                                  |      |     |      |        |
|       |     | LPB   | P      | 04 01 14.5                                     |      |     |      | 0.9 42 |
|       |     | PNS   | P      | 04 01 21.2                                     |      |     |      | 0.8 7  |
|       |     |       | i      | 25.7   |      |     |      |        |
|       |     |       | eS     | 02 10  |      |     |      |        |
| MAY   | 25  | PNS   | eP     | 04 35 19                                       |      |     |      |        |
|       |     | LPB   | eP     | 04 35 20.5                                     |      |     |      |        |
| MAY   | 25  | LPB   | eP     | 04 50 13.5                                     |      |     |      |        |
|       |     | PNS   | eP     | 04 50 15                                       |      |     |      |        |
|       |     |       | S      | 51 00  |      |     |      |        |
| MAY   | 25  | LPB   | P      | 05 11 30.2                                     | D    |     |      | 0.8 9  |
|       |     |       | S      | 54.3   |      |     |      |        |
|       |     | PNS   | P      | 05 11 30.9                                     |      |     |      | 0.5 6  |
|       |     |       | S      | 54   |      |     |      |        |
| MAY   | 25  | LPB   | eP     | 05 50 17.7                                     |      |     |      | 0.9 6  |
|       |     | PNS   | eP     | 05 50 20                                       |      |     |      |        |
| MAY   | 25  | PNS   | eP     | 06 03 14.9                                     |      |     |      |        |
|       |     | LPB   | eP     | 06 03 17                                       |      |     |      |        |
| MAY   | 25  | LPB   | P      | 06 08 19.7                                     |      |     |      | 0.9 10 |
|       |     | PNS   | P      | 06 08 23.5                                     |      |     |      | 0.4 3  |
| MAY   | 25  | PNS   | iP     | 06 18 51.1                                     | D    |     |      | 0.4 6  |
|       |     |       | S      | 58.4   |      |     |      |        |
|       |     | LPB   | P      | 06 18 53.3                                     |      |     |      | 0.8 6  |
|       |     |       | S      | 19 03.5  |      |     |      |        |
| MAY   | 25  | LPB   | eP     | 06 46 02.6                                     |      |     |      |        |
| MAY   | 25  | PNS   | iP     | 08 15 02.8                                     |      |     |      | 0.5 4  |
|       |     |       | eS     | 31   |      |     |      |        |
|       |     | LPB   | P      | 08 14 59                                       |      |     |      | 0.8 13 |
| MAY   | 25  | PNS   | eP     | 09 04 02.4                                     |      |     |      |        |
|       |     |       | i      | 06.4   |      |     |      |        |
|       |     | LPB   | P      | 09 04 07                                       |      |     |      | 1.0 26 |
| MAY   | 25  | LPB   | eP     | 09 46 30.4                                     |      |     |      | 0.9 5  |
| MAY   | 25  | PNS   | eP     | 09 53 31.2                                     |      |     |      |        |
| MAY   | 25  | LPB   | eP     | 10 08 47                                       |      |     |      |        |
|       |     | PNS   | eP     | 10 08 51                                       |      |     |      |        |
| MAY   | 25  | PNS   | P      | 11 23 58                                       |      |     |      | 1.0 7  |
|       |     |       | eL     | 35.7   |      |     |      |        |
|       |     | LPB   | eP     | 11 24 00.5                                     |      |     |      | 0.9 8  |
|       |     |       | eL     | 35.8   |      |     |      |        |
| MAY   | 25  | USCGS |        | 11 52 57.4, 40.1N, 143.1E, h = 37 km., m = 5.2 |      |     |      |        |
|       |     |       |        | OFF E CST OF HONSHU, JAPAN                     |      |     |      |        |
|       |     | PNS   | ePKP   | 12 12 28.9                                     |      |     |      | 1.6 30 |
|       |     |       | eSS    | 34 38  |      |     |      |        |

| MAY   |     |                                     |  |  |        |            |          |       |  |
|-------|-----|-------------------------------------|--|--|--------|------------|----------|-------|--|
| MONTH | DAY | STA                                 | PHASE  | TIME                                     | SIGN   | PER        | AMPL     | DIST  |  |
|       |     | LPB                                 | eP<br>eSS<br>L                                 | 12 12 32<br>34 42<br>13 01.8             |        | 1.4        | 38       | 144.1 |  |
| MAY   | 25  | LPB                                 | eP   | 13 13 44                                 |        | 0.7        | 13       |       |  |
| MAY   | 25  | USCGS<br>OFF E CST OF HONSHU, JAPAN | 14 18 52.0, 38.9N, 143.0E, h = 30 km., m = 5.1 |  |        |            |          |       |  |
|       |     | PNS<br>LPB                          | ePKP<br>ePKP<br>eL                             | 14 38 31.6<br>14 38 35<br>15 29          |        | 1.5<br>1.1 | 15<br>20 | 144.4 |  |
| MAY   | 25  | LPB<br>PNS                          | eP<br>P  | 16 16 17<br>16 16 58.4                   |        | 1.0        | 6        |       |  |
| MAY   | 25  | LPB<br>PNS                          | P<br>S<br>P<br>(S)                             | 16 26 30.6<br>54<br>16 26 38.5<br>27 09  | D<br>D | 0.7        | 53       |       |  |
| MAY   | 25  | PNS<br>LPB                          | eP<br>eP                                       | 16 57 30.3<br>16 57 30.6                 |        |            |          |       |  |
| MAY   | 25  | LPB<br>PNS                          | eP<br>eP                                       | 18 10 11.5<br>18 10 14.3                 |        |            |          |       |  |
| MAY   | 25  | LPB<br>PNS                          | P<br>e(S)<br>iP<br>(S)                         | 18 52 03<br>53 08<br>18 52 04.9<br>53 10 | C<br>C | 1.0        | 236      |       |  |
| MAY   | 25  | LPB<br>PNS                          | eP<br>P  | 20 12 42.5<br>20 12 46.2                 |        | 0.5        | 4        |       |  |
| MAY   | 25  | LPB<br>PNS                          | eP<br>P  | 20 18 05.5<br>20 18 06.2                 |        | 0.7        | 3        |       |  |
| MAY   | 25  | PNS<br>LPB                          | eP<br>S<br>eP                                  | 20 29 24.4<br>39<br>20 29 29             |        |            |          |       |  |
| MAY   | 25  | LPB                                 | eP   | 21 02 29.2                               |        | 0.6        | 6        |       |  |
| MAY   | 25  | PNS<br>LPB                          | iP<br>P<br>i<br>S                              | 21 11 38.8<br>40<br>43.6<br>12 03.5      | D<br>D | 0.8        | 92       |       |  |
| MAY   | 25  | LPB<br>PNS                          | eP<br>P  | 21 46 42.7<br>21 46 50.2                 |        | 0.5<br>0.6 | 7<br>4   |       |  |
| MAY   | 25  | LPB<br>PNS                          | eP<br>eP                                       | 22 02 55.5<br>22 02 56                   |        |            |          |       |  |
| MAY   | 25  | PNS<br>LPB                          | eP<br>S<br>e(P)                                | 23 37 03<br>38 11.7<br>23 37 04          |        |            |          |       |  |
| MAY   | 25  | USCGS<br>SOUTH ISLAND, NEW ZEALAND  | 23 49 16.7, 42.0S, 171.8E, h = 28 km., m = 5.1 |  |        |            |          | 99.8  |  |
|       |     | LPB<br>PNS                          | eP<br>eL<br>eP                                 | 00 02 53.5<br>35<br>00 02 55.6           |        |            |          |       |  |

| MAY   |     |                                      |  |  |      |            |          |       |  |
|-------|-----|--------------------------------------|--|--|------|------------|----------|-------|--|
| MONTH | DAY | STA                                  | PHASE                                    | TIME   | SIGN | PER        | AMPL     | DIST  |  |
| MAY   | 26  | PNS<br>LPB                           | P<br>e(S)<br>eP<br>i                     | 00 31 01.4<br>32 00<br>00 31 02.5<br>26.7                              |      |            |          |       |  |
| MAY   | 26  | LPB                                  | eP                                       | 00 39 93.2   |      | 1.0        | 8        |       |  |
| MAY   | 26  | LPB                                  | eP                                       | 03 51 20   |      | 0.8        | 3        |       |  |
| MAY   | 26  | USCGS 04 01<br>MOLLUCA SEA           | 57.8, 0.4S, 124.0E, h = 106 km., m = 5.3 |  |      |            |          |       |  |
|       |     | LPB                                  | eP                                       | 04 21 49.3   |      | 1.1        | 12       | 158.4 |  |
| MAY   | 26  | LPB                                  | P  | 05 42 05.6   |      | 0.7        | 25       |       |  |
| MAY   | 26  | LPB                                  | P  | 06 30 43.2   |      | 0.6        | 3        |       |  |
| MAY   | 26  | LPB                                  | eP                                       | 06 55 08.2   |      | 0.9        | 8        |       |  |
| MAY   | 26  | LPB                                  | P  | 08 26 56.7   |      | 0.5        | 7        |       |  |
| MAY   | 26  | LPB                                  | eP                                       | 09 03 26   |      |            |          |       |  |
| MAY   | 26  | LPB                                  | eP<br>e(L)                               | 09 20 12.5<br>45   |      |            |          |       |  |
| MAY   | 26  | LPB                                  | P  | 10 48 56.5   |      | 0.8        | 4        |       |  |
| MAY   | 26  | USCGS 14 41<br>BALLENY ISLAND REGION | 52.0, 63.3S, 170.7E, h = 9 km., m = 5.5  |  |      |            |          |       |  |
|       |     | PNS<br>LPB                           | eP<br>eL<br>P<br>S<br>eSS<br>eG<br>L     | 14 54 45<br>23.6<br>14 54 47.4<br>15 05 38<br>15 11 22<br>18.6<br>23.5 |      | 1.5<br>1.4 | 30<br>11 | 88.1  |  |
| MAY   | 26  | PNS<br>LPB                           | P<br>eP                                  | 15 04 00.9<br>15 04 02   |      | 1.0        | 10       |       |  |
| MAY   | 26  | PNS                                  | P  | 15 23 58.2   |      | 1.2        | 8        |       |  |
| MAY   | 26  | PNS<br>LPB                           | P<br>eP<br>i                             | 16 24 52.2<br>16 24 59.5<br>25 06.3                                    |      | 0.9<br>0.8 | 5<br>13  |       |  |
| MAY   | 26  | LPB<br>PNS                           | eP<br>P<br>e(L)                          | 16 48 26.4<br>16 48 26.5<br>17 02.8                                    |      | 1.4<br>1.3 | 18<br>17 |       |  |
| MAY   | 26  | LPB<br>PNS                           | eP<br>P                                  | 17 08 42.5<br>17 08 46.6   |      | 0.7        | 2        |       |  |
| MAY   | 26  | PNS                                  | P<br>S                                   | 17 33 35.7<br>34 00  | D    | 0.5        | 8        |       |  |



| MONTH | DAY | STA                         | PHASE | TIME                                     | SIGN | PER | AMPL | DIST  |
|-------|-----|-----------------------------|-------|--|------|-----|------|-------|
| MAY   | 26  | USCGS 17 24                 |       | 34.0, 63.3S, 170.9E, h = 33 km., m = 5.4 |      |     |      |       |
|       |     | BALLENY ISLAND REGION       |       |  |      |     |      |       |
|       |     | LPH                         | eP    | 17 37 24.3                               |      | 1.2 | 22   | 88.1  |
|       |     | PNS                         | P     | 17 37 25.5                               |      | 1.6 | 38   |       |
| MAY   | 26  | USCGS 17 41                 |       | 40.1, 40.1N, 142.3E, h = 49 km., m = 4.6 |      |     |      |       |
|       |     | NEAR E CST OF HONSHU, JAPAN |       |  |      |     |      |       |
|       |     | PNS                         | PKP   | 18 01 11.9                               |      | 1.0 | 6    |       |
|       |     |                             | eL    | 50.2                                     |      |     |      |       |
|       |     | LPH                         | PKP   | 18 01 13.4                               |      | 0.6 | 10   | 144.9 |
|       |     |                             | eL    | 52                                       |      |     |      |       |
| MAY   | 26  | USCGS 18 34                 |       | 25.0, 41.3N, 142.5E, h = 44 km., m = 4.6 |      |     |      |       |
|       |     | HOKKAIDO, JAPAN REGION      |       |  |      |     |      |       |
|       |     | PNS                         | ePKP  | 18 54 01                                 |      |     |      | 144.0 |
|       |     | LPH                         | ePKP  | 18 54 02                                 |      |     |      |       |
| MAY   | 26  | PNS                         | eP    | 20 07 32                                 |      |     |      |       |
| MAY   | 26  | PNS                         | eP    | 21 18 34                                 |      | 0.6 | 5    |       |
|       |     |                             | S     | 19 14.4                                  |      |     |      |       |
|       |     | LPH                         | P     | 21 18 36.7                               |      | 0.9 | 8    |       |
| MAY   | 26  | USCGS 21 00                 |       | 48.0, 44.7N, 150.4E, h = 40 km., m = 4.5 |      |     |      |       |
|       |     | KURILE ISLANDS REGION       |       |  |      |     |      |       |
|       |     | PNS                         | ePKP  | 21 20 11.4                               |      |     |      | 137.2 |
|       |     | LPH                         | ePKP  | 21 20 15                                 |      |     |      |       |
| MAY   | 26  | USCGS 22 59                 |       | 14.2, 40.7N, 143.2E, h = 40 km., m = 4.9 |      |     |      |       |
|       |     | OFF E CST OF HONSHU, JAPAN  |       |  |      |     |      |       |
|       |     | PNS                         | ePKP  | 23 18 47.7                               |      |     |      | 144.0 |
|       |     | LPH                         | ePKP  | 23 18 49                                 |      |     |      |       |
| MAY   | 27  | PNS                         | P     | 00 44 14.4                               |      | 1.2 | 6    |       |
|       |     | LPH                         | P     | 00 44 16.3                               |      | 1.1 | 12   |       |
| MAY   | 27  | USCGS 02 20                 |       | 34.7, 6.9S, 129.5E, h = 37 km., m = 4.7  |      |     |      |       |
|       |     | BANDA SEA                   |       |  |      |     |      |       |
|       |     | PNS                         | PKP   | 02 40 21.8                               |      |     |      |       |
|       |     |                             | i     | 27.8                                     |      |     |      |       |
|       |     | LPH                         | PKP   | 02 40 23.6                               |      | 1.0 | 12   | 150.7 |
| MAY   | 27  | LPH                         | e(P)  | 04 11 01                                 |      |     |      |       |
| MAY   | 27  | PNS                         | eP    | 04 18 22                                 |      |     |      |       |
|       |     | LPH                         | eP    | 04 18 24                                 |      |     |      |       |
| MAY   | 27  | USCGS 04 22                 |       | 41.7, 5.8S, 153.2, h = 46 km., m = 5.6   |      |     |      |       |
|       |     | NEW IRELAND REGION          |       |  |      |     |      |       |
|       |     | PNS                         | PKP   | 04 41 57.8                               |      | 0.8 | 3    | 133.1 |
|       |     | LPH                         | ePKP  | 04 41 58                                 |      |     |      |       |

| MONTH | DAY | STA                         | PHASE | TIME                                     |   |     |    |       |
|-------|-----|-----------------------------|-------|--|---|-----|----|-------|
| MAY   | 27  | LPH                         | eP    | 04 45 26.7                               |   |     |    |       |
|       |     | PNS                         | eP    | 04 45 26.7                               |   | 1.0 | 12 |       |
|       |     |                             |       |  |   | 0.9 | 4  |       |
| MAY   | 27  | LPH                         | eP    | 04 51 37                                 |   |     |    |       |
|       |     | PNS                         | P     | 04 51 38.9                               |   |     |    |       |
| MAY   | 27  | PNS                         | eP    | 05 59 20                                 |   |     |    |       |
|       |     |                             | eS    | 06 00 47                                 |   |     |    |       |
|       |     | LPH                         | eP    | 05 59 23.5                               |   |     |    |       |
| MAY   | 27  | PNS                         | P     | 06 09 93.8                               |   | 0.5 | 3  |       |
|       |     |                             | S     | 33.2                                     |   |     |    |       |
|       |     | LPH                         | eP    | 06 09 06                                 |   |     |    |       |
| MAY   | 27  | LPH                         | eP    | 06 13 29                                 |   |     |    |       |
|       |     | PNS                         | P     | 06 13 30                                 |   |     |    |       |
| MAY   | 27  | LPH                         | eP    | 06 18 58.5                               |   |     |    |       |
| MAY   | 27  | LPH                         | eP    | 06 29 07                                 |   |     |    |       |
| MAY   | 27  | USCGS 06 17                 |       | 54.0, 40.4N, 141.8E, h = 50 km., m = 4.5 |   |     |    |       |
|       |     | NEAR E CST OF HONSHU, JAPAN |       |  |   |     |    |       |
|       |     | LPH                         | ePKP  | 06 35 27.5                               |   |     |    | 144.9 |
|       |     | PNS                         | ePKP  | 06 37 31                                 |   |     |    |       |
| MAY   | 27  | LPH                         | eP    | 06 48 52.5                               |   |     |    |       |
|       |     | PNS                         | eP    | 06 48 55                                 |   |     |    |       |
|       |     |                             | e(S)  | 53 18                                    |   |     |    |       |
| MAY   | 27  | PNS                         | 1P    | 06 59 44.4                               | C | 0.7 | 9  |       |
|       |     |                             | S     | 07 00 13.6                               |   |     |    |       |
|       |     | LPH                         | 1P    | 06 59 45.8                               | C | 0.8 | 28 |       |
|       |     |                             | 1S    | 07 00 14.6                               |   |     |    |       |
| MAY   | 27  | PNS                         | 1P    | 07 25 19.0                               | C |     |    |       |
|       |     |                             | S     | 44                                       |   |     |    |       |
|       |     | LPH                         | P     | 07 25 23.4                               | C | 0.9 | 59 |       |
|       |     |                             | e(S)  | 50                                       |   |     |    |       |
| MAY   | 27  | LPH                         | e(P)  | 08 54 41.5                               |   |     |    |       |
|       |     |                             | eL    | 09 37                                    |   |     |    |       |
|       |     | PNS                         | eL    | 09 37.1                                  |   |     |    |       |
| MAY   | 27  | LPH                         | P     | 09 44 17.2                               |   | 1.0 | 14 |       |
|       |     | PNS                         | P     | 09 44 20.4                               | C | 0.6 | 7  |       |
|       |     |                             | e     | 45 09.2                                  |   |     |    |       |
| MAY   | 27  | LPH                         | eP    | 10 18 29                                 |   |     |    |       |
|       |     | PNS                         | P     | 10 18 32.0                               |   | 0.5 | 3  |       |
|       |     |                             | eS    | 19 01.4                                  |   |     |    |       |
| MAY   | 27  | LPH                         | eP    | 10 45 52.5                               |   |     |    |       |
|       |     | PNS                         | eP    | 10 45 53                                 |   |     |    |       |

|       |     | MAY   |       |            |      |     |      |       |
|-------|-----|---|-------|------------|------|-----|------|-------|
| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL | DIST  |
| MAY   | 27  | USCGS 10 38 08.0, 39.6N, 143.2, h = 33 km., m = 4.4<br>OFF E CST OF HONSHU, JAPAN |       |            |      |     |      |       |
|       |     | LPB   | ePKP  | 10 57 46.5 |      |     |      | 144.6 |
|       |     | PNS   | ePKP  | 10 57 46.8 |      |     |      |       |
| MAY   | 27  | USCGS 12 19 43.0, 0.9S, 109.0W, h = 33 km., m = 4.6<br>N EASTER IS CORDILLERA     |       |            |      |     |      |       |
|       |     | LPB   | eP    | 12 27 28   |      |     |      | 41.0  |
|       |     | PNS   | P     | 12 27 22.5 | 0.9  | 5   |      |       |
| MAY   | 27  | LPB   | eP    | 13 03 08   |      |     |      |       |
|       |     | TRJ   | P     | 13 03 54.2 |      |     |      |       |
|       |     | PNS   | eP    | 13 04 09.7 |      |     |      |       |
| MAY   | 27  | LPB   | eP    | 13 10 16   |      | 1.1 | 12   |       |
|       |     | PNS   | eP    | 13 11 17.9 |      |     |      |       |
| MAY   | 27  | LPB   | eP    | 13 28 26   |      | 0.8 | 18   |       |
|       |     | PNS   | iP    | 13 28 30.3 | C    | 0.4 | 9    |       |
|       |     | TRJ   | iP    | 13 28 35.2 | C    |     |      |       |
|       |     | S   |       | 29 07.7    |      |     |      |       |
| MAY   | 27  | LPB   | eP    | 14 59 45.7 |      | 0.6 | 14   |       |
| MAY   | 27  | PNS   | eP    | 15 50 43.2 |      |     |      |       |
|       |     | LPB   | eP    | 15 50 45   |      |     |      |       |
| MAY   | 27  | PNS   | P     | 16 44 48.9 |      | 0.7 | 8    |       |
|       |     | LPB   | eP    | 16 44 53.2 |      |     |      |       |
| MAY   | 27  | USCGS 16 41 00.0, 3.5S, 102.2W, h = 33 km., m = 4.2<br>N EASTER IS CORDILLERA     |       |            |      |     |      |       |
|       |     | LPB   | eP    | 16 47 53.2 |      |     |      | 35.5  |
|       |     |   | eL    | 55         |      |     |      |       |
|       |     | PNS   | P     | 16 47 55.6 |      |     |      |       |
|       |     |   | pp    | 48 05.6    |      |     |      |       |
|       |     |   | eL    | 58.8       |      |     |      |       |
| MAY   | 27  | PNS   | P     | 16 56 57.8 |      |     |      |       |
|       |     | LPB   | eP    | 16 56 59   |      |     |      |       |
| MAY   | 27  | PNS   | P     | 17 05 02.2 |      |     |      |       |
|       |     | S   |       | 06 42      |      |     |      |       |
|       |     | LPB   | P     | 17 05 09.2 |      | 0.4 | 17   |       |
|       |     |   | eS    | 06 39.7    |      |     |      |       |
|       |     | TRJ   | eP    | 17 05 11.6 |      |     |      |       |
|       |     | i   |       | 14.6       |      |     |      |       |
| MAY   | 27  | PNS   | eP    | 17 32 08.6 |      |     |      |       |
|       |     |   | eS    | 42         |      |     |      |       |
|       |     | LPB   | eP    | 17 32 10.6 |      |     |      |       |
| MAY   | 27  | USCGS 18 12 54.0, 22.9S, 70.0W, h = 104 km., m = 4.3<br>NEAR COAST OF N CHILE     |       |            |      |     |      |       |
|       |     | PNS   | P     | 18 14 32.7 | D    | 0.6 | 8.6  |       |
|       |     |   | eL    | 16.0       |      |     |      |       |
|       |     | LPB   | P     | 18 14 21.4 | C    | 0.8 | 70   | 6.3   |
|       |     | TRJ   | P     | 18 14 46.4 |      |     |      |       |
| MAY   | 27  | USCGS 18 25 01.0, 7.8S, 80.6W, h = 33 km., m = 4.8<br>OFF COAST OF NORTHERN PERU  |       |            |      |     |      |       |

|       |     | MAY   |       |            |      |     |      |      |
|-------|-----|---|-------|------------|------|-----|------|------|
| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL | DIST |
|       |     | LPB   | P     | 18 28 28.5 |      |     |      | 14.4 |
|       |     |   | e     | 43.2       |      |     |      |      |
|       |     |   | eL    | 33         |      |     |      |      |
|       |     | PNS   | eP    | 18 28 34.5 |      |     |      |      |
|       |     |   | eL    | 33.3       |      |     |      |      |
|       |     | TRJ   | eP    | 18 29 17.6 |      |     |      |      |
| MAY   | 27  | PNS   | eP    | 19 30 26   |      |     |      |      |
|       |     | LPB   | eP    | 19 30 30.7 |      | 0.6 | 14   |      |
| MAY   | 27  | USCGS 19 35 08.0, 3.4S, 102.4W, h = 33 km., m = 4.4<br>N EASTER IS CORDILLERA |       |            |      |     |      |      |
|       |     | LPB   | eP    | 19 42 04   |      |     |      | 36.0 |
|       |     |   | eL    | 52         |      |     |      |      |
|       |     | PNS   | P     | 19 42 05.7 |      | 1.3 | 12   |      |
|       |     |   | eL    | 53         |      |     |      |      |
| MAY   | 27  | LPB   | eP    | 20 47 28   |      |     |      |      |
| MAY   | 27  | PNS   | P     | 21 20 45.1 |      | 0.5 | 4    |      |
|       |     |   | (S)   | 22 20      |      |     |      |      |
|       |     | LPB   | P     | 21 20 47   |      | 1.1 | 57   |      |
| MAY   | 27  | USCGS 21 22 04.0, 0.3N, 80.9W, h = 18 km., m = 4.2<br>NEAR COAST OF ECUADOR   |       |            |      |     |      |      |
|       |     | PNS   | P     | 21 36 44.4 |      | 0.9 | 13   |      |
|       |     | LPB   | P     | 21 36 49   |      | 0.4 | 25   | 20.7 |
| MAY   | 27  | LPB   | P     | 21 55 25.7 |      | 0.4 | 8    |      |
| MAY   | 27  | LPB   | eP    | 22 15 52   |      |     |      |      |
| MAY   | 27  | LPB   | eP    | 22 19 32.5 |      |     |      |      |
|       |     |   | eL    | 24.8       |      |     |      |      |
|       |     | PNS   | eP    | 22 19 35   |      |     |      |      |
|       |     |   | e     | 43.2       |      |     |      |      |
|       |     |   | eL    | 24.5       |      |     |      |      |
| MAY   | 27  | LPB   | eP    | 22 28 31   |      |     |      |      |
|       |     | PNS   | P     | 22 28 32   |      | 0.8 | 0    |      |
| MAY   | 27  | USCGS 22 49 22.0, 03.N, 81.0W, h = 20 km., m = 4.1<br>OFF COAST OF ECUADOR    |       |            |      |     |      |      |
|       |     | PNS   | P     | 22 54 02.2 |      | 1.0 | 17   |      |
|       |     | LPB   | eP    | 22 54 04   |      | 0.8 | 22   | 20.7 |
|       |     |   | e     | 06.8       |      |     |      |      |
| MAY   | 28  | USCGS 00 08 49.0, 42.3N, 119.8W, h = 33 km., m = 4.4<br>OREGON                |       |            |      |     |      |      |
|       |     | LPB   | e(P)  | 00 29 30   |      |     |      | 75.2 |
|       |     | PNS   | eP    | 00 29 31   |      |     |      |      |
| MAY   | 28  | USCGS 01 28 22.1, 30.9S, 177.4W, h = 33 km., m = 4.8<br>KERMADEC ISLANDS      |       |            |      |     |      |      |

| MONTH | DAY | STA  | PHASE | TIME       | SIGN | PER | AMPL | DIST |  |
|-------|-----|--|-------|------------|------|-----|------|------|--|
|       |     | LPB  | eP    | 01 41 51   |      |     |      | 96.9 |  |
|       |     |  | eL    | 02 16      |      |     |      |      |  |
|       |     | PNS  | eP    | 01 41 53   |      |     |      |      |  |
|       |     |  | eL    | 02 15.9    |      |     |      |      |  |
| MAY   | 28  | USCGS 01 42 28.3, 6.3S, 151.4E, h = 41 km., m = 4.7<br>NEW BRITAIN REGION      |       |            |      |     |      |      |  |
|       |     | PNS  | ePKP  | 02 01 46   |      |     |      |      |  |
| MAY   | 28  | TRJ  | P     | 03 37 00.8 |      | C   |      |      |  |
| MAY   | 28  | USCGS 03 33 49.0, 31.1S, 177.3W, h = 33 km., m = 4.7<br>KERMADEC ISLAND REGION |       |            |      |     |      |      |  |
|       |     | LPB  | e(P)  | 03 46 18   |      |     |      | 97.1 |  |
|       |     |  | eL    | 04 21      |      |     |      |      |  |
| MAY   | 28  | PNS  | P     | 04 38 14.9 |      |     |      |      |  |
|       |     | TRJ  | eP    | 04 39 03.7 |      |     |      |      |  |
| MAY   | 28  | PNS  | P     | 05 55 40.8 |      |     |      |      |  |
|       |     |  | S     | 56 02.8    |      |     |      |      |  |
|       |     | LPB  | eP    | 05 55 42   |      |     |      |      |  |
| MAY   | 28  | PNS  | P     | 07 11 09.3 |      |     |      |      |  |
|       |     |  | eS    | 31.5       |      |     |      |      |  |
| MAY   | 28  | LPB  | P     | 07 57 17.6 |      | 0.9 | 10   |      |  |
|       |     |  | S     | 53.4       |      |     |      |      |  |
|       |     | PNS  | P     | 07 57 18.6 |      |     |      |      |  |
|       |     |  | S     | 56.6       |      |     |      |      |  |
|       |     | TRJ  | P     | 07 58 13.8 |      |     |      |      |  |
| MAY   | 28  | LPB  | e(P)  | 08 47 50   |      |     |      |      |  |
|       |     | PNS  | eP    | 08 47 51.2 |      |     |      |      |  |
| MAY   | 28  | LPB  | eP    | 09 10 44   |      |     |      |      |  |
|       |     | PNS  | P     | 09 10 48.9 |      |     |      |      |  |
|       |     |  | S     | 11 12.2    |      |     |      |      |  |
| MAY   | 28  | USCGS 09 06 29.9, 30.9S, 177.8W, h = 33 km., m = 5.5<br>KERMADEC ISLANDS       |       |            |      |     |      |      |  |
|       |     | PNS  | eP    | 09 20 03   |      | 2.0 | 36   |      |  |
|       |     |  | ePP   | 24 06      |      |     |      |      |  |
|       |     |  | eSKS  | 30 42      |      |     |      |      |  |
|       |     |  | eL    | 51.8       |      |     |      |      |  |
|       |     | LPB  | eP    | 09 20 04.2 |      | 1.7 | 37   | 97.1 |  |
|       |     |  | SKS   | 30 41      |      |     |      |      |  |
|       |     |  | eL    | 51.7       |      |     |      |      |  |
| MAY   | 28  | LPB  | eP    | 09 32 13   |      | 0.9 | 6    |      |  |
| MAY   | 28  | LPB  | eP    | 09 36 30   |      |     |      |      |  |
|       |     | PNS  | eP    | 09 36 33.3 |      |     |      |      |  |
| MAY   | 28  | LPB  | eP    | 10 04 34.5 |      | 0.7 | 6    |      |  |
| MAY   | 28  | PNS  | eP    | 10 59 56   |      |     |      |      |  |
| MAY   | 28  | USCGS 10 52 29.3, 31.3S, 176.8W, h = 33 km., m = 4.6<br>KERMADEC ISLAND REGION |       |            |      |     |      |      |  |
|       |     | PNS  | eP    | 11 05 54.2 |      |     |      | 96.3 |  |
|       |     | LPB  | e(P)  | 11 05 56   |      |     |      |      |  |



| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL | DIST   |  |
|-------|-----|---|-------|------------|------|-----|------|--------|--|
| MAY   | 28  | PNS   | eP    | 11 07 44.9 |      |     |      |        |  |
|       |     | LPB   | eP    | 11 07 45   |      |     |      |        |  |
| MAY   | 28  | PNS   | eP    | 11 12 36.5 |      |     |      |        |  |
|       |     | LPB   | eP    | 11 12 38   |      |     |      |        |  |
| MAY   | 28  | PNS   | eP    | 11 23 52   |      |     |      |        |  |
|       |     | LPB   | eP    | 11 23 55   |      |     |      |        |  |
| MAY   | 28  | PNS   | eP    | 12 45 54.2 |      |     |      |        |  |
|       |     | LPB   | eP    | 12 45 56.5 |      |     |      |        |  |
| MAY   | 28  | LPB   | eP    | 13 23 28   |      |     |      |        |  |
| MAY   | 28  | USCGS 13 27 18.7, 2.9S, 139.3E, h = 65 km., m = 6.1<br>NR N CST OF W NEW GUINEA |       |            |      |     |      |        |  |
|       |     | LPB   | P     | 13 44 40   |      |     |      | 146.7  |  |
|       |     |   | ePKP  | 13 46 55   |      |     |      |        |  |
|       |     |   | (PS)  | 14 00 48   |      |     |      |        |  |
|       |     |   | eSS   | 09 45      |      |     |      |        |  |
|       |     |   | eG    | 29         |      |     |      |        |  |
|       |     |   | eL    | 37         |      |     |      |        |  |
|       |     | PNS   | eP    | 13 44 44   |      |     |      |        |  |
|       |     |   | PKP   | 46 54.4    |      |     |      |        |  |
|       |     |   | eSS   | 14 09 47   |      |     |      |        |  |
|       |     |   | eL    | 36.9       |      |     |      |        |  |
|       |     | TRJ   | PKP   | 13 47 27.7 |      |     |      |        |  |
| MAY   | 28  | LPB   | eP    | 14 19 04   |      |     |      |        |  |
|       |     | PNS   | eP    | 14 19 05   |      |     |      |        |  |
| MAY   | 28  | LPB   | eP    | 14 25 43   |      |     |      |        |  |
|       |     | PNS   | P     | 14 25 46.4 |      | C   |      | 0.4 6  |  |
|       |     |   | S     | 26 24.2    |      |     |      |        |  |
| MAY   | 28  | PNS   | eP    | 14 37 56.5 |      |     |      |        |  |
| MAY   | 28  | PNS   | eP    | 15 46 21.8 |      |     |      |        |  |
| MAY   | 28  | LPB   | eP    | 15 57 26   |      |     |      |        |  |
|       |     | PNS   | P     | 15 58 24.8 |      |     |      | 1.3 12 |  |
| MAY   | 28  | PNS   | P     | 16 44 03.3 |      |     |      | 0.8 4  |  |
|       |     | LPB   | eP    | 16 44 09.5 |      |     |      |        |  |
| MAY   | 28  | PNS   | P     | 18 44 48.6 |      |     |      | 0.4 2  |  |
|       |     |   | eS    | 45 25.2    |      |     |      |        |  |
|       |     | LPB   | eP    | 18 44 50   |      |     |      |        |  |
|       |     |   | eS    | 45 25.5    |      |     |      |        |  |
| MAY   | 28  | PNS   | eP    | 19 44 25   |      |     |      |        |  |
|       |     | LPB   | eP    | 19 14 27.5 |      |     |      |        |  |
| MAY   | 28  | PNS   | eP    | 19 26 07.6 |      |     |      |        |  |
|       |     |   | e     | 25.9       |      |     |      |        |  |
|       |     | LPB   | eP    | 19 26 08.5 |      |     |      |        |  |
| MAY   | 28  | LPB   | eP    | 20 07 46   |      |     |      |        |  |
|       |     | PNS   | P     | 20 07 46.7 |      |     |      | 0.4 2  |  |
|       |     |   | eS    | 08 33.6    |      |     |      |        |  |

| MAY   |     |   |                       |                                      |      |     |      |      |       |
|-------|-----|---|-----------------------|--------------------------------------|------|-----|------|------|-------|
| MONTH | DAY | STA   | PHASE                 | TIME                                 | SIGN | PER | AMPL | DIST |       |
| MAY   | 28  | PNS<br>LPB  | eP<br>eP              | 20 54 29<br>20 54 33                 |      |     |      |      |       |
| MAY   | 28  | LPB<br>PNS  | eP<br>P<br>S          | 21 28 56<br>21 29 01.3<br>25.4       |      |     |      |      |       |
| MAY   | 28  | LPB<br>PNS  | eP<br>P               | 22 43 48<br>22 43 48.1               |      | 0.9 | 5    |      |       |
| MAY   | 28  | USCGS 22 29 56.8, 52.2N, 172.8E, h = 15 km., m = 5.6<br>NEAR IS. ALEUTIAN IS. |                       |                                      |      |     |      |      |       |
|       |     | PNS   | PKP<br>e<br>eSS<br>eL | 22 48 52<br>56.2<br>23 06 57<br>27.3 |      |     |      |      | 120.6 |
|       |     | LPB   | ePKP<br>eSS<br>eL     | 22 48 48.5<br>23 06 58<br>29         |      |     |      |      |       |
|       |     | TRJ   | ePKP                  | 22 49 33.5                           |      |     |      |      |       |
| MAY   | 28  | LPB   | eP<br>e               | 22 59 17.5<br>23 02 19               |      |     |      |      |       |
| MAY   | 29  | LPB   | eP                    | 00 17 23.6                           |      |     |      |      |       |
| MAY   | 29  | PNS<br>LPB  | eP<br>eP              | 00 37 04<br>00 37 13                 |      |     |      |      |       |
| MAY   | 29  | LPB   | eP<br>eS<br>P         | 03 10 10<br>11 20<br>03 10 54.6      |      | 0.6 | 2    |      |       |
|       |     | PNS   | P<br>eS               | 03 10 54.6<br>11 16.4                |      |     |      |      |       |
| MAY   | 29  | LPB<br>PNS  | eP<br>P               | 03 13 10.8<br>03 13 16.0             |      | 0.8 | 8    |      |       |
| MAY   | 29  | LPB   | P                     | 03 15 05                             |      |     |      |      |       |
|       |     | PNS   | S<br>P<br>S           | 03 15 30.4<br>03 15 05.6<br>27.0     | D    | 0.5 | 11   |      |       |
| MAY   | 29  | TRJ   | P                     | 03 37 35.7                           | C    | 0.7 | 9    |      |       |
|       |     | PNS<br>LPB  | P<br>eP               | 03 38 46.6<br>03 38 51.5             |      | 0.8 | 7    |      |       |
| MAY   | 29  | LPB<br>PNS  | eP<br>P               | 03 59 47<br>03 59 52.4               |      |     |      |      |       |
| MAY   | 29  | LPB<br>PNS  | eP<br>P<br>eS         | 04 13 39<br>04 13 42.8<br>14 11      |      | 0.6 | 4    |      |       |
| MAY   | 29  | PNS   | P                     | 04 20 29.4                           |      | 0.5 | 2    |      |       |
| MAY   | 29  | PNS<br>LPB  | P<br>eP               | 04 26 43.6<br>04 26 45.5             |      |     |      |      |       |

| MAY   |     |   |                |                                   |      |     |      |      |       |
|-------|-----|---|----------------|-----------------------------------|------|-----|------|------|-------|
| MONTH | DAY | STA   | PHASE          | TIME                              | SIGN | PER | AMPL | DIST |       |
| MAY   | 29  | LPB<br>PNS  | eP<br>eP<br>eS | 04 45 57.5<br>04 45 59<br>47 04.6 |      |     |      |      |       |
|       |     | TRJ   | eP<br>i        | 04 46 18.9<br>31.3                |      |     |      |      |       |
| MAY   | 29  | USCGS 04 37 42.0, 2.7S, 139.2E, h = 49 km., m = 5.3<br>NR N CST OF W NEW GUINEA     |                |                                   |      |     |      |      |       |
|       |     | LPB   | PKP            | 04 57 20.6                        |      | 0.9 | 6    |      | 146.7 |
|       |     | PNS   | PKP            | 04 57 21.7                        |      | 0.9 | 10   |      |       |
|       |     | TRJ   | PKP            | 04 57 53.2                        |      |     |      |      |       |
| MAY   | 29  | LPB   | eP             | 05 08 59                          |      |     |      |      |       |
|       |     | PNS   | P              | 05 09 01.6                        |      |     |      |      |       |
| MAY   | 29  | TRJ   | P<br>S         | 05 09 06.7<br>46.6                |      |     |      |      |       |
| MAY   | 29  | PNS   | eP             | 06 10 26                          |      |     |      |      |       |
|       |     | LPB   | P              | 06 10 28                          |      | 0.9 | 6    |      |       |
|       |     | TRJ   | iP<br>S        | 06 10 31.2<br>11 14.2             | D    |     |      |      |       |
| MAY   | 29  | PNS   | eP             | 06 39 31.8                        |      |     |      |      |       |
|       |     | LPB   | eP             | 06 39 35                          |      |     |      |      |       |
| MAY   | 29  | LPB   | eP             | 06 42 23                          |      |     |      |      |       |
|       |     | PNS   | eP             | 06 42 29.6                        |      |     |      |      |       |
| MAY   | 29  | TRJ   | iP             | 06 49 48.4                        | D    |     |      |      |       |
|       |     | LPB   | P              | 06 50 11                          |      | 0.7 | 7    |      |       |
|       |     | PNS   | iP<br>eS       | 06 50 15.4<br>51 42               | D    | 0.5 | 6    |      |       |
| MAY   | 29  | PNS   | P<br>S         | 06 55 30.5<br>52.7                |      |     |      |      |       |
|       |     | LPB   | eP             | 06 55 36.5                        |      |     |      |      |       |
| MAY   | 29  | PNS   | iP<br>S        | 07 15 24.9<br>47                  | D    | 0.4 | 6    |      |       |
|       |     | LPB   | P              | 07 15 26.5                        |      | 0.7 | 6    |      |       |
| MAY   | 29  | LPB   | eP             | 07 53 42.5                        |      |     |      |      |       |
|       |     | PNS   | iP<br>S        | 07 53 44.0<br>54 07.4             | D    | 0.6 | 7    |      |       |
| MAY   | 29  | LPB   | e(P)           | 08 14 53.6                        |      | 1.0 | 4    |      |       |
| MAY   | 29  | LPB   | eP             | 09 13 51                          |      |     |      |      |       |
| MAY   | 29  | LPB   | P              | 09 57 22.2                        |      | 0.9 | 3    |      |       |
| MAY   | 29  | LPB<br>PNS  | eP<br>eP       | 09 13 51.5<br>09 13 55            |      |     |      |      |       |
| MAY   | 29  | USCGS 10 03 51.5, 36.1N, 140.2E, h = 89 km., m = 4.8<br>NEAR E CST OF HONSHU, JAPAN |                |                                   |      |     |      |      |       |
|       |     | LPB   | ePKP           | 10 23 30                          |      | 1.4 | 14   |      | 148.5 |
|       |     | PNS   | ePKP           | 10 23 30                          |      |     |      |      |       |

| MONTH | DAY | STA                      | PHASE | TIME   | SIGN | PER | AMPL | DIST  |
|-------|-----|--------------------------|-------|--|------|-----|------|-------|
| MAY   | 29  | PNS                      | P     | 10 32 02.5                                     |      | 0.9 | 10   |       |
|       |     | LPB                      | eP    | 10 32 07                                       |      | 0.7 | 7    |       |
| MAY   | 29  | LPB                      | eP    | 11 24 53                                       |      |     |      |       |
|       |     | PNS                      | P     | 11 24 55.1                                     |      | 1.2 | 8    |       |
| MAY   | 29  | LPB                      | eP    | 12 08 10                                       |      |     |      |       |
|       |     | PNS                      | P     | 12 08 11.5                                     |      | 0.6 | 4    |       |
|       |     |                          | S     | 33.9   |      |     |      |       |
| MAY   | 29  | TRJ                      | iP    | 13 01 13.2                                     | C    |     |      |       |
|       |     | PNS                      | P     | 13 01 40.6                                     |      |     |      |       |
|       |     |                          | eS    | 03 06.6  |      |     |      |       |
|       |     | LPB                      | eP    | 13 01 42                                       |      |     |      |       |
| MAY   | 29  | LPB                      | eP    | 13 18 23.7                                     |      |     |      |       |
|       |     | PNS                      | eP    | 13 18 25.7                                     |      |     |      |       |
|       |     |                          | S     | 50   |      |     |      |       |
| MAY   | 29  | USCGS                    |       | 13 24 56.0, 3.9N, 82.3W, h = 33 km., m = 4.3   |      |     |      |       |
|       |     | SOUTH OF PANAMA          |       |  |      |     |      |       |
|       |     | PNS                      | P     | 13 30 12.7                                     |      | 0.7 | 6    |       |
|       |     |                          | eL    | 38.4   |      |     |      |       |
|       |     | LPB                      | P     | 13 30 15.7                                     |      | 1.3 | 65   | 24.3  |
|       |     |                          | eL    | 38.8   |      |     |      |       |
|       |     | TRJ                      | iP    | 13 31 39.8                                     |      |     |      |       |
| MAY   | 29  | LPB                      | ePKP  | 13 54 11                                       |      |     |      | 150.9 |
|       |     | PNS                      | ePKP  | 13 54 14                                       |      |     |      |       |
|       |     | TRJ                      | ePKP  | 13 54 36.7                                     |      |     |      |       |
| MAY   | 29  | USCGS                    |       | 14 18 31.5, 3.9N, 82.5W, h = 28 km., m = 4.4   |      |     |      |       |
|       |     | SOUTH OF PANAMA          |       |  |      |     |      |       |
|       |     | LPB                      | P     | 14 23 49                                       |      | 1.3 | 57   | 24.3  |
|       |     |                          | eS    | 28 34  |      |     |      |       |
|       |     |                          | L     | 33.8   |      |     |      |       |
|       |     | PNS                      | P     | 14 23 49.4                                     |      | 1.6 | 50   |       |
|       |     |                          | eL    | 33.7   |      |     |      |       |
| MAY   | 29  | PNS                      | iP    | 14 51 58.9                                     | C    |     |      |       |
|       |     |                          | S     | 52 54.8  |      |     |      |       |
|       |     | LPB                      | eP    | 14 51 54.7                                     | C    | 0.9 | 42   |       |
|       |     | TRJ                      | iP    | 14 52 01.1                                     | C    |     |      |       |
|       |     |                          | S     | 32.7   |      |     |      |       |
| MAY   | 29  | USCGS                    |       | 14 52 35.0, 12.6N, 144.9E, h = 52 km., m = 5.1 |      |     |      |       |
|       |     | SOUTH OF MARIANA ISLANDS |       |  |      |     |      |       |
|       |     | LPB                      | ePKP  | 15 12 19.5                                     |      | 1.4 | 45   | 147.6 |
|       |     |                          | eL    | 16 01.8  |      |     |      |       |
|       |     | PNS                      | ePKP  | 15 12 15.6                                     |      | 1.6 | 23   |       |
|       |     |                          | eL    | 16 02.3  |      |     |      |       |
|       |     | TRJ                      | ePKP  | 15 12 43.0                                     |      |     |      |       |
| MAY   | 29  | LPB                      | eP    | 16 15 13.3                                     |      | 0.7 | 3    |       |
| MAY   | 29  | LPB                      | eP    | 16 41 42.8                                     |      |     |      |       |
|       |     | PNS                      | eP    | 16 41 43                                       |      |     |      |       |
|       |     |                          | eS    | 42 22  |      |     |      |       |
| MAY   | 29  | LPB                      | eP    | 17 01 43                                       |      | 0.7 | 8    |       |
|       |     | PNS                      | P     | 17 01 50.4                                     |      | 0.9 | 5    | 155   |

| MONTH | DAY | STA                        | PHASE | TIME  | SIGN | PER | AMPL | DIST  |
|-------|-----|----------------------------|-------|---|------|-----|------|-------|
| MAY   | 29  | USCGS                      |       | 17 21 52.9, 18.6S, 169.0E, h = 214 km., m = 5.1 |      |     |      |       |
|       |     | NEW HEBRIDES ISLANDS       |       |   |      |     |      |       |
|       |     | PNS                        | ePKP  | 17 40 03.8                                      |      |     |      |       |
|       |     | LPB                        | eP    | 17 40 06.6                                      |      |     |      |       |
| MAY   | 29  | LPB                        | eP    | 19 17 41  |      |     |      | 113.4 |
|       |     | PNS                        | P     | 19 17 45.0                                      | C    | 0.5 | 5    |       |
|       |     | TRJ                        | P     | 19 17 51.9                                      |      |     |      |       |
|       |     |                            | S     | 18 24.9   |      |     |      |       |
| MAY   | 29  | LPB                        | eP    | 20 39 33  |      | 0.9 | 18   |       |
| MAY   | 29  | PNS                        | eP    | 21 07 37.4                                      |      |     |      |       |
| MAY   | 29  | USCGS                      |       | 21 36 10.0, 3.1N, 83.7W, h = 33 km., m = 4.6    |      |     |      |       |
|       |     | OFF CST OF CENTRAL MAERICA |       |   |      |     |      |       |
|       |     | LPB                        | P     | 21 41 20.7                                      |      |     |      | 24.3  |
|       |     |                            | L     | 51.5  |      |     |      |       |
|       |     | PNS                        | P     | 21 41 30.4                                      |      | 1.8 | 48   |       |
|       |     |                            | pp    | 40.0  |      |     |      |       |
| MAY   | 29  | PNS                        | P     | 22 25 05.7                                      |      | 0.4 | 2    |       |
|       |     |                            | S     | 34.4  |      |     |      |       |
|       |     | LPB                        | eP    | 22 25 08.5                                      |      |     |      |       |
| MAY   | 30  | USCGS                      |       | 00 35 59.8, 42.3N, 119.8W, h = 24 km., m = 5.1  |      |     |      |       |
|       |     | OREGON                     |       |   |      |     |      |       |
|       |     | LPB                        | P     | 00 47 23  |      | 0.7 | 7    | 75.2  |
|       |     | PNS                        | eP    | 00 47 26  |      |     |      |       |
| MAY   | 30  | LPB                        | eP    | 01 09 40  |      | 0.7 | 8    |       |
| MAY   | 30  | USCGS                      |       | 01 10 30.0, 27.8N, 54.0E, h = 27km., m = 5.2    |      |     |      |       |
|       |     | SOUTHERN IRAN              |       |   |      |     |      |       |
|       |     | LPB                        | PKP   | 01 29 32.5                                      |      | 1.0 | 24   | 126.0 |
|       |     |                            | PP    | 31 14   |      |     |      |       |
|       |     |                            | eL    | 02 15   |      |     |      |       |
|       |     | PNS                        | PKP   | 01 29 32.7                                      |      | 1.0 | 12   |       |
|       |     |                            | PP    | 31 21.5   |      |     |      |       |
| MAY   | 30  | PNS                        | eP    | 01 55 03.5                                      |      |     |      |       |
|       |     | LPB                        | eP    | 01 55 04  |      |     |      |       |
| MAY   | 30  | LPB                        | P     | 02 14 35.7                                      |      | 1.0 | 22   |       |
|       |     |                            | S     | 15 21.3   |      |     |      |       |
|       |     | PNS                        | iP    | 02 14 38.4                                      | D    | 0.7 | 12   |       |
|       |     |                            | eS    | 15 27   |      |     |      |       |
|       |     | TRJ                        | P     | 02 15 07.4                                      |      |     |      |       |
| MAY   | 30  | PNS                        | eP    | 02 48 03.5                                      |      |     |      |       |
|       |     |                            | eS    | 50 04   |      |     |      |       |
| MAY   | 30  | PNS                        | P     | 02 54 53  |      | 0.9 | 7    |       |
|       |     | LPB                        | P     | 02 54 54  |      | 1.0 | 10   |       |



| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL | DIST  |
|-------|-----|---|-------|------------|------|-----|------|-------|
| MAY   | 30  | PNS   | P     | 04 01 40.5 |      |     |      |       |
|       |     |   | eS    | 02 12.4    |      |     |      |       |
|       |     | LPB   | P     | 04 01 45   |      | 0.8 | 3    |       |
| MAY   | 30  | PNS   | eP    | 04 11 32   |      |     |      |       |
|       |     | LPB   | eP    | 04 11 33.5 |      |     |      |       |
| MAY   | 30  | PNS   | eP    | 04 14 37.6 |      |     |      |       |
|       |     | LPB   | eP    | 04 14 37.8 |      |     |      |       |
|       |     | TRJ   | eP    | 04 14 49.1 |      |     |      |       |
| MAY   | 30  | LPB   | eP    | 04 54 12.6 |      | 0.8 | 7    |       |
| MAY   | 30  | PNS   | P     | 05 01 41.2 |      | 0.6 |      |       |
| MAY   | 30  | LPB   | eP    | 05 15 31.5 |      |     |      |       |
|       |     | PNS   | eP    | 05 15 33.2 |      |     |      |       |
|       |     | TRJ   | eP    | 05 16 04.7 |      |     |      |       |
| MAY   | 30  | USCGS 05 23 48.9, hh.7N, 150.3E, h = 49 km., m = 5.5<br>KURILE ISLANDS REGION |       |            |      |     |      |       |
|       |     | PNS   | PKP   | 05 43 09.3 |      | 1.6 | 35   |       |
|       |     |   | i     | 24.2       |      |     |      |       |
|       |     |   | ePP   | 46 04.5    |      |     |      |       |
|       |     |   | PKS   | 38.6       |      |     |      |       |
|       |     |   | eL    | 06 29.9    |      |     |      |       |
|       |     | LPB   | PKP   | 05 43 10   |      | 2.4 | 126  | 137.5 |
|       |     |   | i     | 24.6       |      |     |      |       |
|       |     |   | ePP   | 08.7       |      |     |      |       |
|       |     |   | PKS   | 40         |      |     |      |       |
|       |     |   | eL    | 30         |      |     |      |       |
|       |     | TRJ   | ePKP  | 05 43 50.5 |      |     |      |       |
| MAY   | 30  | LPB   | eP    | 05 54 52.5 |      |     |      |       |
|       |     | PNS   | P     | 05 54 55.7 |      |     |      |       |
| MAY   | 30  | LPB   | P     | 07 38 45.4 |      | 0.7 | 11   |       |
| MAY   | 30  | PNS   | eP    | 08 24 46   |      |     |      |       |
|       |     |   | i     | 51.8       |      |     |      |       |
|       |     |   | S     | 25 42.7    |      |     |      |       |
|       |     | LPB   | P     | 08 24 49.6 |      | 0.9 | 8    |       |
|       |     |   | i     | 54.2       |      |     |      |       |
|       |     |   | (S)   | 25 42.3    |      |     |      |       |
| MAY   | 30  | TRJ   | P     | 08 26 15.0 |      |     |      |       |
| MAY   | 30  | PNS   | eP    | 08 59 01   |      |     |      |       |
|       |     | LPB   | eP    | 08 59 02   |      |     |      |       |
| MAY   | 30  | LPB   | eP    | 09 23 59.5 |      |     |      |       |
|       |     | PNS   | P     | 09 24 54   |      |     |      |       |
| MAY   | 30  | USCGS 09 55 32.0, 6.7S, 129.5E, h = 33 km., m = 5.4<br>BANDA SEA              |       |            |      |     |      |       |
|       |     | LPB   | ePKP  | 10 15 20.6 |      | 1.0 | 9    | 150.7 |
|       |     |   | i     | 27         |      |     |      |       |
|       |     |   | eSS   | 37 10      |      |     |      |       |
|       |     |   | eL    | 11 06      |      |     |      |       |

| MONTH | DAY | STA  | PHASE | TIME       |  |     |       |  |
|-------|-----|--|-------|------------|--|-----|-------|--|
|       |     | PNS  | PKP   | 10 15 21.7 |  | 1.0 | 7     |  |
|       |     |  | i     | 27.1       |  |     |       |  |
|       |     |  | eL    | 11 06.1    |  |     |       |  |
|       |     | TRJ  | PKP   | 10 15 49.0 |  |     |       |  |
|       |     |  | i     | 57.1       |  |     |       |  |
| MAY   | 30  | LPB  | eP    | 10 27 47   |  | 1.4 | 27    |  |
|       |     | PNS  | P     | 10 27 47.2 |  |     |       |  |
|       |     | TRJ  | P     | 10 28 12.2 |  |     |       |  |
| MAY   | 30  | LPB  | eP    | 10 43 56.5 |  | 1.0 | 11    |  |
| MAY   | 30  | LPB  | eP    | 10 47 54.2 |  |     |       |  |
| MAY   | 30  | LPB  | eP    | 11 18 08   |  |     |       |  |
|       |     | PNS  | eP    | 11 18 12.6 |  |     |       |  |
| MAY   | 30  | PNS  | P     | 11 30 06.1 |  |     |       |  |
| MAY   | 30  | LPB  | eP    | 11 37 42   |  |     |       |  |
|       |     | PNS  | P     | 11 37 48.1 |  | 0.6 | 4     |  |
| MAY   | 30  | PNS  | eP    | 13 44 46   |  |     |       |  |
|       |     | LPB  | eP    | 13 44 50   |  |     |       |  |
| MAY   | 30  | PNS  | eP    | 14 49 01   |  | 0.8 | 3     |  |
| MAY   | 30  | LPB  | eP    | 16 06 16.5 |  |     |       |  |
| MAY   | 30  | LPB  | eP    | 16 38 30   |  |     |       |  |
|       |     | PNS  | P     | 16 38 30.9 |  | 0.6 | 5     |  |
|       |     |  | i     | 55.0       |  |     |       |  |
| MAY   | 30  | USCGS 17 40 24.4, 35.5N, 28.0E, h = 21 km., m = 5.3<br>EASTERN MEDITERRANEAN SEA   |       |            |  |     |       |  |
|       |     | LPB  | eP    | 17 54 27   |  |     | 104.4 |  |
|       |     |  | eL    | 29.6       |  |     |       |  |
|       |     | PNS  | eP    | 17 54 30   |  |     |       |  |
|       |     |  | eL    | 18 30      |  |     |       |  |
| MAY   | 30  | PNS  | eP    | 17 58 44.6 |  |     |       |  |
|       |     | LPB  | eP    | 17 57 50.5 |  |     |       |  |
| MAY   | 30  | LPB  | eP    | 18 10 14.5 |  |     |       |  |
|       |     | PNS  | eP    | 18 10 21.4 |  |     |       |  |
| MAY   | 30  | USCGS 17 58 40.8, 5.5N, 126.8E, h = 90 km., m = 5.1<br>MINDANAO, PHILIPPINE ISLAND |       |            |  |     |       |  |
|       |     | LPB  | eP    | 18 18 36   |  |     | 161.1 |  |
|       |     | PNS  | PKP   | 18 18 36.1 |  | 2.0 | 72    |  |
| MAY   | 30  | USCGS 18 15 42.0, 45.1N, 17.1E, h = 33 km., m = 5.8<br>YUGOSLAVIA                  |       |            |  |     |       |  |
|       |     | LPB  | eP    | 18 29 16   |  |     | 98.3  |  |
|       |     |  | eSKS  | 40 24      |  |     |       |  |
|       |     |  | eL    | 02.8       |  |     |       |  |



|       |     | MAY   |        |            |      |     |       |       |
|-------|-----|---|--------|------------|------|-----|-------|-------|
| MONTH | DAY | STA   | PHASE  | TIME       | SIGN | PER | AMPL  | DIST  |
|       |     | PNS   | P      | 18 29 25.8 |      | 0.5 | 15    |       |
|       |     |   | SKS    | 40 18      |      |     |       |       |
|       |     |   | eL     | 19 02.8    |      |     |       |       |
| MAY   | 30  | LPB   | eP     | 18 43 35   |      | 1.0 | 13    |       |
|       |     | PNS   | P      | 18 43 37.7 |      |     |       |       |
|       |     |   | i      | 44 01.8    |      |     |       |       |
| MAY   | 30  | PNS   | P      | 18 48 31.9 |      |     |       |       |
|       |     |   | S      | 54         |      |     |       |       |
|       |     | LPB   | eP     | 18 48 36   |      |     |       |       |
| MAY   | 30  | USCGS 19 13 28.2, 45.0N, 153.6E, h = 30 km., m = 5.1<br>KURILE ISLANDS REGION   |        |            |      |     |       |       |
|       |     | PNS   | ePKP   | 19 32 46.5 |      |     | 135.0 |       |
|       |     | LPB   | e(PKP) | 19 32 47   |      |     |       |       |
| MAY   | 30  | USCGS 19 42 25.1, 31.0S, 177.6W, h = 42 km., m = 5.5<br>KERMADEC ISLANDS REGION |        |            |      |     |       |       |
|       |     | LPB   | P      | 19 56 00   |      | 1.8 | 112   | 97.2  |
|       |     |   | SKS    | 20 06 38   |      |     |       |       |
|       |     |   | L      | 27.8       |      |     |       |       |
|       |     | PNS   | P      | 19 55 56.7 |      | 1.8 | 44    |       |
|       |     |   | SKS    | 20 06 43   |      |     |       |       |
|       |     |   | L      | 28         |      |     |       |       |
| MAY   | 30  | LPB   | eP     | 19 59 52   |      |     |       |       |
|       |     | PNS   | P      | 19 59 55.4 |      | 1.1 | 9     |       |
| MAY   | 30  | USCGS 19 53 06.0, 29.7N, 51.3E, h = 32 km., m = 5.2<br>SOUTHERN IRAN            |        |            |      |     |       |       |
|       |     | PNS   | ePKP   | 20 12 05.9 |      |     |       |       |
|       |     |   | e      | 36.5       |      |     |       | 123.3 |
|       |     | LPB   | ePKP   | 20 12 06   |      |     |       |       |
| MAY   | 30  | PNS   | iP     | 20 16 21.9 | D    |     |       |       |
|       |     |   | S      | 43.1       |      |     |       |       |
|       |     | LPB   | P      | 20 16 24.2 |      | 0.8 | 12    |       |
| MAY   | 30  | PNS   | iP     | 20 24 09.1 | D    |     |       |       |
|       |     |   | S      | 31.0       |      |     |       |       |
|       |     | LPB   | P      | 20 24 11.2 | C    | 0.6 | 20    |       |
| MAY   | 30  | LPB   | eP     | 20 59 10   |      |     |       |       |
|       |     | PNS   | P      | 20 59 10.5 |      |     |       |       |
|       |     |   | S      | 36.3       |      |     |       |       |
| MAY   | 30  | LPB   | eP     | 21 07 28.5 |      |     |       |       |
| MAY   | 30  | LPB   | eP     | 21 26 44.5 |      | 0.5 | 5     |       |
|       |     | PNS   | P      | 21 26 49.7 |      |     |       |       |
|       |     |   | eS     | 27 59.3    |      |     |       |       |
| MAY   | 30  | PNS   | P      | 23 07 45.5 |      |     |       |       |
| MAY   | 30  | LPB   | eP     | 23 19 12.8 |      |     |       |       |
| MAY   | 30  | LPB   | P      | 23 33 35   |      | 0.8 | 7     |       |

|       |     | MAY  |       |            |      |     |      |       |
|-------|-----|--|-------|------------|------|-----|------|-------|
| MONTH | DAY | STA  | PHASE | TIME       | SIGN | PER | AMPL | DIST  |
| MAY   | 31  | PNS  | P     | 00 03 22.9 |      |     | 2.3  | 2     |
|       |     |  | S     | 44.7       |      |     |      |       |
|       |     | LPB  | eP    | 00 03 25.5 |      |     |      |       |
| MAY   | 31  | PNS  | P     | 01 35 38.4 |      |     | 0.8  | 3     |
| MAY   | 31  | PNS  | P     | 02 34 18.5 |      |     | 0.5  | 3     |
|       |     |  | S     | 42.2       |      |     |      |       |
|       |     | LPB  | e(P)  | 02 34 23.6 |      |     |      |       |
| MAY   | 31  | USCGS 03 01 35.7, 29.9N, 80.0E, h = 33 km., m = 5.1<br>NEPAL - INDIA BORDER REGION |       |            |      |     |      |       |
|       |     | LPB  | eP    | 03 21 12   |      |     |      | 147.7 |
|       |     | PNS  | ePKP  | 03 21 15   |      |     |      |       |
|       |     | TRJ  | PKP   | 03 21 40.3 |      |     |      |       |
| MAY   | 31  | PNS  | eP    | 03 48 12   |      |     |      |       |
|       |     |  | e     | 44         |      |     |      |       |
|       |     | LPB  | eP    | 03 48 13.8 |      |     |      |       |
|       |     |  | e     | 42.4       |      |     |      |       |
|       |     | TRJ  | P     | 03 48 33.5 | D    |     |      |       |
| MAY   | 31  | LPB  | eP    | 04 05 13.3 |      |     |      |       |
|       |     | PNS  | eP    | 04 05 14   |      |     |      |       |
| MAY   | 31  | PNS  | P     | 04 51 06.3 |      |     |      |       |
| MAY   | 31  | LPB  | P     | 04 53 47.4 |      |     | 0.7  | 5     |
|       |     | PNS  | eP    | 04 51 51.6 |      |     |      |       |
|       |     |  | S     | 52 33      |      |     |      |       |
| MAY   | 31  | PNS  | P     | 05 00 27.3 |      |     |      |       |
| MAY   | 31  | LPB  | eP    | 06 11 39   |      |     |      |       |
|       |     | PNS  | eP    | 06 11 41.3 |      |     |      |       |
|       |     |  | S     | 12 44.3    |      |     |      |       |
|       |     | TRJ  | iP    | 06 11 41.4 |      |     |      |       |
| MAY   | 31  | LPB  | eP    | 06 55 13   |      |     |      |       |
|       |     |  | e     | 50.6       |      |     |      |       |
|       |     | PNS  | P     | 06 55 19.6 |      |     |      |       |
|       |     |  | e     | 52.3       |      |     |      |       |
|       |     | TRJ  | eP    | 06 55 17.1 | D    |     |      |       |
| MAY   | 31  | PNS  | eP    | 07 42 39.2 |      |     |      |       |
|       |     | LPB  | eP    | 07 42 42   |      |     |      |       |
| MAY   | 31  | PNS  | P     | 09 14 56.0 |      |     | 0.6  | 5     |
|       |     |  | eS    | 16 10      |      |     |      |       |
|       |     | LPB  | eP    | 09 14 58   |      |     |      |       |
|       |     |  | eS    | 16 15      |      |     |      |       |
| MAY   | 31  | PNS  | P     | 09 34 56.4 |      |     | 0.6  | 3     |
|       |     | LPB  | eP    | 09 34 59   |      |     |      |       |
| MAY   | 31  | LPB  | eP    | 09 57 42   |      |     |      |       |
| MAY   | 31  | PNS  | P     | 10 05 54.9 |      |     | 0.6  | 5     |
| MAY   | 31  | USCGS 09 59 10.0, 20.7S, 170.0E, h = 97 km., m = 4.8<br>NEW HEBRIDES ISLANDS       |       |            |      |     |      |       |
|       |     | PNS  | ePKP  | 10 17 35.6 |      |     |      |       |
|       |     | LPB  | ePKP  | 10 17 35.7 |      |     |      |       |

| MAY   |     |                                   |                |   |      |     |      |       |  |
|-------|-----|-----------------------------------|----------------|---|------|-----|------|-------|--|
| MONTH | DAY | STA                               | PHASE          | TIME  | SIGN | PER | AMPL | DIST  |  |
| MAY   | 31  | TRJ                               | P<br>S         | 10 37 08.8<br>38.2                              | C    |     |      |       |  |
| MAY   | 31  | LPB<br>PNS                        | eP<br>P<br>S   | 13 41 29<br>13 41 29.1<br>59.8                  |      | 0.6 | 4    |       |  |
| MAY   | 31  | PNS<br>LPB                        | eP<br>e(P)     | 13 51 04<br>13 51 05                            |      |     |      |       |  |
| MAY   | 31  | TRJ                               | P<br>S         | 14 44 18.3<br>51.2                              |      |     |      |       |  |
| MAY   | 31  | LPB                               | P              | 15 39 04.8<br>20                                |      | 1.1 | 75   |       |  |
|       |     | TRJ                               | iP             | 15 39 13.0                                      |      |     |      |       |  |
| MAY   | 31  | PNS                               | eP             | 17 01 00  |      |     |      |       |  |
| MAY   | 31  | LPB<br>PNS                        | eP<br>eP<br>e  | 17 31 29<br>17 31 35.2<br>53.7                  |      |     |      |       |  |
| MAY   | 31  | PNS<br>LPB<br>TRJ                 | P<br>eP<br>eP  | 17 35 14.5<br>17 35 15.5<br>17 35 44.5          |      |     |      |       |  |
| MAY   | 31  | USCGS<br>BANDA SEA                |                | 17 26 02.3, 6.9S, 129.5E, h = 20 km., m = 5.1   |      |     |      |       |  |
|       |     | LPB                               | ePKP           | 17 45 55  |      | 1.2 | 37   | 150.7 |  |
|       |     |                                   | e(L)           | 18 39.8   |      |     |      |       |  |
|       |     | PNS                               | ePKP           | 17 45 55.6                                      |      | 1.0 | 8    |       |  |
|       |     |                                   | eL             | 18 36.9   |      |     |      |       |  |
|       |     | TRJ                               | PKP            | 17 46 22.8                                      |      |     |      |       |  |
| MAY   | 31  | USCGS<br>NEW HEBRIDES ISLAND      |                | 18 20 42.7, 13.6S, 167.2E, h = 205 km., m = 4.9 |      |     |      |       |  |
|       |     | PNS                               | ePKP           | 18 59 07  |      |     |      | 117.4 |  |
|       |     | LPB                               | ePKP           | 18 39 07.5                                      |      |     |      |       |  |
| MAY   | 31  | LPB<br>PNS                        | eP<br>P        | 19 36 14<br>19 36 21.2                          |      |     |      |       |  |
| MAY   | 31  | USCGS<br>NR N CST OF W NEW GUINEA |                | 19 32 28.7, 2.8S, 159.2E, h = 53 km., m = 5.2   |      |     |      |       |  |
|       |     | PNS                               | PKP            | 19 52 07.6                                      |      | 0.8 | 9    | 146.7 |  |
|       |     | LPB                               | eP             | 19 52 10.5                                      |      |     |      |       |  |
| MAY   | 31  | PNS<br>LPB                        | iP<br>eS<br>eP | 20 06 35.0<br>57.4<br>20 06 37                  | D    | 0.4 | 5    |       |  |
| MAY   | 31  | USCGS<br>HOKKAIDO, JAPAN REGION   |                | 19 51 58.5, 41.4N, 142.6E, h = 33 km., m = 4.8  |      |     |      |       |  |
|       |     | PNS                               | PKP            | 20 11 32.4                                      |      |     |      | 144.1 |  |
|       |     | LPB                               | ePKP           | 20 11 32.5                                      |      |     |      |       |  |

| MAY   |     |            |                |                                 |  |     |      |  |  |
|-------|-----|------------|----------------|---------------------------------|--|-----|------|--|--|
| MONTH | DAY | STA        | PHASE          | TIME                            |  |     |      |  |  |
| MAY   | 31  | PNS<br>LPB | eP<br>eP       | 21 25 33.6<br>21 25 34          |  |     |      |  |  |
| MAY   | 31  | PNS<br>LPB | P<br>P         | 21 54 39.5<br>21 54 40          |  | 1.5 | 24.2 |  |  |
|       |     |            |                |                                 |  | 1.2 | 31   |  |  |
| MAY   | 31  | LPB<br>PNS | eP<br>eP       | 21 50 54<br>21 59 54.6          |  | 1.0 | 5    |  |  |
| MAY   | 31  | LPB        | P              | 22 10 40                        |  | 1.2 | 31   |  |  |
| MAY   | 31  | LPB<br>PNS | e(P)<br>P<br>S | 22 25 55<br>22 25 59.4<br>26 21 |  | 0.5 | 2    |  |  |
| MAY   | 31  | LPB<br>PNS | eP<br>eP       | 22 29 10.5<br>22 29 11.3        |  |     |      |  |  |

| JUNE  |     |                   |                     |   |        |            |         |      |  |  |
|-------|-----|-------------------|---------------------|---|--------|------------|---------|------|--|--|
| MONTH | DAY | STA               | PHASE               | TIME  | SIGN   | PER        | AMPL    | DIST |  |  |
| JUNE  | 01  | LPB               | eP<br>S             | 01 31 26.7<br>32.6                                |        |            |         |      |  |  |
| JUNE  | 01  | LPB<br>PNS        | eP<br>P             | 00 03 31<br>00 03 34.9                            |        |            |         |      |  |  |
| JUNE  | 01  | LPB<br>PNS        | e(P)<br>P<br>S      | 01 38 37<br>01 38 39.8<br>39 06.1                 |        |            |         |      |  |  |
| JUNE  | 01  | LPB<br>PNS        | eP<br>eP            | 01 49 39<br>01 49 39.7                            |        |            |         |      |  |  |
| JUNE  | 01  | PNS<br>LPB        | eP<br>eP            | 02 11 22<br>02 11 26.5                            |        |            |         |      |  |  |
| JUNE  | 01  | LPB<br>PNS        | iP<br>S<br>iP<br>S  | 02 40 53.3<br>41 16.7<br>02 40 53.4<br>41 16.6    | D<br>D | 0.8        | 45      |      |  |  |
| JUNE  | 01  | LPB<br>PNS<br>TRJ | P<br>iP<br>P        | 02 59 39.6<br>02 59 43.3<br>02 59 52.9            | C      | 0.9        | 53      |      |  |  |
| JUNE  | 01  | LPB<br>PNS        | eP<br>eP            | 03 12 30.7<br>03 12 30.8                          |        | 1.0<br>1.2 | 10<br>6 |      |  |  |
| JUNE  | 01  | PNS<br>LPB        | eP<br>eP            | 04 17 42<br>04 17 49.5                            |        | 0.6        | 4       |      |  |  |
| JUNE  | 01  | LPB<br>PNS<br>TRJ | P<br>P<br>iP<br>S   | 04 24 34.2<br>04 24 38.3<br>04 24 40.8<br>25 12.8 | C      | 0.7<br>0.6 | 7<br>6  |      |  |  |
| JUNE  | 01  | LPB               | P                   | 05 48 37.3  |        |            |         |      |  |  |
| JUNE  | 01  | PNS               | P                   | 05 23 54.5  |        | 0.8        | 4       |      |  |  |
| JUNE  | 01  | LPB<br>PNS<br>TRJ | P<br>P<br>P<br>S    | 06 25 48<br>06 25 51.3<br>06 25 55.6<br>26 34.4   |        | 0.6<br>0.6 | 5<br>3  |      |  |  |
| JUNE  | 01  | PNS<br>LPB        | iP<br>S<br>LPB<br>P | 06 44 29.4<br>52.4<br>06 44 31.5                  | D      | 0.6        | 8       |      |  |  |
| JUNE  | 01  | PNS<br>LPB        | P<br>eS<br>eP<br>S  | 06 46 20.2<br>47 17.4<br>06 46 22<br>08.5         |        |            |         |      |  |  |
| JUNE  | 01  | LPB<br>PNS<br>TRJ | eP<br>P<br>S<br>P   | 07 55 28.6<br>07 55 29.0<br>56 12<br>07 56 29.0   |        | 0.8<br>0.7 | 7<br>7  |      |  |  |
| JUNE  | 01  | LPB               | P                   | 08 29 11.2  |        |            |         |      |  |  |

| JUNE  |     |   |                       |  |      |     |      |            |         |       |
|-------|-----|---|-----------------------|--|------|-----|------|------------|---------|-------|
| MONTH | DAY | STA   | PHASE                 | TIME   | SIGN | PER | AMPL | DIST       |         |       |
| JUNE  | 01  | TRJ<br>LPB<br>PNS   | P<br>eP<br>P          | 08 45 27.7<br>08 45 42.5<br>08 45 45.6         |      |     |      |            |         |       |
| JUNE  | 01  | LPB<br>PNS  | P<br>P                | 09 08 07.9<br>04 08 09.9                       |      |     |      | 0.7        | 2       |       |
| JUNE  | 01  | TRJ   | S<br>P                | 09 02.8<br>09 08 36.2                          |      |     |      | 0.9<br>0.8 | 12<br>7 |       |
| JUNE  | 01  | USCGS 09 09 42.2, 2.8S, 139.4E, h = 50 km., m = 6.0<br>NR N CST OF W NEW GUINEA   |                       |  |      |     |      |            |         |       |
| JUNE  | 01  | PNS<br>LPB  | PKP<br>i<br>P         | 09 29 21.7<br>44.4<br>09 29 21.7               |      |     |      | 0.8        | 7       |       |
| JUNE  | 01  | TRJ   | e<br>P                | 43.2<br>09 29 51.8                             |      |     |      | 0.6        | 8       | 146.3 |
| JUNE  | 01  | LPB<br>PNS  | eP<br>eP              | 10 26 05<br>10 26 07.6                         |      |     |      |            |         |       |
| JUNE  | 01  | USCGS 10 31 49.3, 40.2N, 142.3E, h = 50 km., m = 5.4<br>NR E CST OF HONSHU, JAPAN |                       |  |      |     |      |            |         |       |
| JUNE  | 01  | PNS<br>LPB  | ePKP<br>L<br>PKP<br>L | 10 51 20.7<br>11 41.1<br>10 51 21.7<br>11 40.2 |      |     |      | 0.9        | 11      |       |
| JUNE  | 01  | TRJ   | PKP<br>i              | 10 52 05.0<br>09.3                             |      |     |      | 1.0        | 22      | 144.9 |
| JUNE  | 01  | LPB<br>PNS  | eP<br>eP              | 11 10 05.5<br>11 10 10                         |      |     |      | 0.7        | 5       |       |
| JUNE  | 01  | LPB<br>PNS  | eP<br>eP<br>i         | 12 45 37.8<br>12 45 42.9<br>46 44.4            |      |     |      | 1.0        | 5       |       |
| JUNE  | 01  | PNS   | P                     | 13 01 24                                       |      |     |      | 0.6        | 2       |       |
| JUNE  | 01  | LPB   | P                     | 15 38 10.4                                     |      |     |      | 0.7        | 56      |       |
| JUNE  | 01  | LPB<br>PNS<br>TRJ   | eP<br>P<br>eP         | 13 41 17.8<br>13 41 18.6<br>13 41 32.2         |      |     |      | 0.9        | 5       |       |
| JUNE  | 01  | TRJ<br>LPB<br>PNS   | P<br>eP<br>P          | 16 04 37.5<br>16 04 52<br>16 04 54.2           |      |     |      | 0.8        | 4       |       |
| JUNE  | 01  | PNS<br>LPB  | P<br>P                | 16 50 09.8<br>16 50 11                         |      |     |      | 0.8        | 3       |       |
| JUNE  | 01  | LPB   | eP                    | 20 13 11                                       |      |     |      |            |         |       |
| JUNE  | 01  | LPB<br>PNS  | eP<br>P               | 20 17 28<br>20 17 30.1                         |      |     |      | 0.7        | 4       |       |

| MONTH | DAY | STA  | PHASE | TIME       | SIGN | PER | AMPL | DIST  |  |
|-------|-----|--|-------|------------|------|-----|------|-------|--|
| JUNE  | 01  | LPB  | eP    | 20 27 05   |      |     |      |       |  |
| JUNE  | 01  | PNS  | eP    | 21 13 47.3 |      |     |      |       |  |
|       |     | LPB  | eP    | 21 13 50   |      |     |      |       |  |
| JUNE  | 01  | PNS  | P     | 23 30 23.9 |      | 0.5 | 6    |       |  |
|       |     |  | S     | 46.6       |      |     |      |       |  |
|       |     | LPB  | eP    | 23 30 26   |      |     |      |       |  |
| JUNE  | 01  | LPB  | eP    | 23 50 01.8 |      |     |      |       |  |
|       |     | PNS  | eP    | 23 50 03.4 |      |     |      |       |  |
|       |     |  | eS    | 41.7       |      |     |      |       |  |
| JUNE  | 01  | LPB  | eP    | 23 52 02   |      |     |      |       |  |
|       |     | PNS  | iP    | 23 52 00.9 | D    | 0.6 | 9    |       |  |
|       |     |  | S     | 23.3       |      |     |      |       |  |
| JUNE  | 02  | LPB  | eP    | 00 09 45   |      | 0.7 | 6    |       |  |
|       |     | PNS  | P     | 00 09 49.2 |      | 0.8 | 3    |       |  |
| JUNE  | 02  | LPB  | eP    | 00 52 02   |      |     |      |       |  |
| JUNE  | 02  | PNS  | P     | 01 57 46.4 |      | 0.5 | 4    |       |  |
|       |     |  | S     | 58 36.8    |      |     |      |       |  |
|       |     | LPB  | P     | 01 57 51.6 |      | 1.2 | 19   |       |  |
|       |     |  | S     | 58 46      |      |     |      |       |  |
| JUNE  | 02  | USCGS 04 37 06.0, 6.8S, 129.6E, h = 38 km., m = 4.6<br>BANDA SEA             |       |            |      |     |      |       |  |
|       |     | PNS  | ePKP  | 04 56 55   |      |     |      |       |  |
|       |     |  | i     | 57 00.6    |      |     |      |       |  |
|       |     | LPB  | P     | 04 56 56.8 |      | 1.0 | 6    | 150.7 |  |
|       |     | TRJ  | PKP   | 04 57 24.0 |      |     |      |       |  |
| JUNE  | 02  | USCGS 05 16 01.0, 8.9S, 120.6E, h = 19 km., m = 5.4<br>FLORES ISLANDS REGION |       |            |      |     |      |       |  |
|       |     | LPB  | ePKP  | 05 35 56   |      |     |      | 153.0 |  |
|       |     | PNS  | ePKP  | 05 35 57   |      |     |      |       |  |
|       |     | TRJ  | ePKP  | 05 36 22.7 |      |     |      |       |  |
| JUNE  | 02  | USCGS 06 28 18.0, 44.2N, 147.2S, h = 31 km., m = 4.9<br>KURILE ISLANDS       |       |            |      |     |      |       |  |
|       |     | TRJ  | PKP   | 06 47 17.4 |      |     |      |       |  |
|       |     | LPB  | ePKP  | 06 47 37.5 |      | 0.9 | 8    | 129.5 |  |
|       |     | PNS  | ePKP  | 06 47 41   |      |     |      |       |  |
| JUNE  | 02  | LPB  | eP    | 07 24 07   |      |     |      |       |  |
| JUNE  | 02  | TRJ  | P     | 07 54 30.0 | D    |     |      |       |  |
|       |     |  | S     | 55 05.3    |      |     |      |       |  |
| JUNE  | 02  | TRJ  | P     | 08 20 18.1 |      |     |      |       |  |



| MONTH | DAY | STA  | PHASE | TIME       | SIGN | PER | AMPL | DIST  |  |
|-------|-----|--|-------|------------|------|-----|------|-------|--|
| JUNE  | 02  | USGCS 08 18 36.2, 8.1S, 158.6E, h = 35 km., m = 5.6<br>SALOMON ISLAND  |       |            |      |     |      |       |  |
|       |     | LPB  | ePKP  | 08 37 26   |      |     |      |       |  |
|       |     |  | i     | 39.3       |      |     |      | 127.6 |  |
|       |     |  | ePKS  | 40 54      |      |     |      |       |  |
|       |     |  | eL    | 09 18      |      |     |      |       |  |
|       |     | PNS  | PKP   | 08 37 28.4 |      | 0.9 | 4    |       |  |
|       |     |  | i     | 40.1       |      |     |      |       |  |
|       |     |  | ePKS  | 40 53      |      |     |      |       |  |
|       |     |  | eL    | 09 17.9    |      |     |      |       |  |
|       |     | TRJ  | PKP   | 08 38 11.0 | C    |     |      |       |  |
|       |     |  | i     | 34.4       |      |     |      |       |  |
| JUNE  | 02  | PNS  | eP    | 08 50 40.4 |      |     |      |       |  |
|       |     | LPB  | eP    | 08 50 51.5 |      |     |      |       |  |
| JUNE  | 02  | USCGS 09 55 52.0, 2.9S, 138.6E, h = 33 km., m = 5.4<br>WEST NEW GUINEA |       |            |      |     |      |       |  |
|       |     | PNS  | PKP   | 10 15 35.8 |      | 1.5 | 36   |       |  |
|       |     |  | eL    | 11 05.1    |      |     |      |       |  |
|       |     | LPB  | PKP   | 10 15 36.5 |      | 1.6 | 52   | 147.1 |  |
|       |     |  | eL    | 11 07      |      |     |      |       |  |
|       |     | TRJ  | P     | 10 16 05.6 |      |     |      |       |  |
| JUNE  | 02  | PNS  | eP    | 10 44 35.4 |      |     |      |       |  |
|       |     | LPB  | eP    | 10 44 36.5 |      |     |      |       |  |
| JUNE  | 02  | PNS  | eP    | 10 46 26   |      |     |      |       |  |
|       |     | LPB  | P     | 10 46 28   |      |     |      |       |  |
| JUNE  | 02  | LPB  | eP    | 11 02 51.2 |      | 0.9 | 6    |       |  |
| JUNE  | 02  | PNS  | P     | 11 38 42   |      |     |      |       |  |
|       |     | LPB  | eP    | 11 38 43.5 |      |     |      |       |  |
| JUNE  | 02  | LPB  | eP    | 11 43 40.5 |      | 0.6 | 4    |       |  |
| JUNE  | 02  | PNS  | iP    | 12 07 39.8 | C    | 0.5 | 4    |       |  |
|       |     |  | S     | 08 12.5    |      |     |      |       |  |
|       |     | LPB  | eP    | 12 07 40   |      |     |      |       |  |
|       |     |  | S     | 08 12      |      |     |      |       |  |
|       |     | TRJ  | P     | 12 18 46.1 |      |     |      |       |  |
| JUNE  | 02  | TRJ  | iP    | 13 16 44.6 | C    |     |      |       |  |
|       |     | LPB  | P     | 13 17 09   |      | 0.9 | 143  |       |  |
|       |     |  | S     | 18 26.7    |      |     |      |       |  |
|       |     | PNS  | iP    | 13 17 13.5 | D    |     |      |       |  |
|       |     |  | S     | 18 35.5    |      |     |      |       |  |
| JUNE  | 02  | LPB  | eP    | 13 28 45   |      |     |      |       |  |
| JUNE  | 02  | LPB  | e(P)  | 13 37 36   |      |     |      |       |  |
| JUNE  | 02  | TRJ  | P     | 13 52 30.3 | C    |     |      |       |  |
|       |     | LPB  | eP    | 13 52 55   |      |     |      |       |  |
|       |     | PNS  | iP    | 13 52 59.3 | D    | 0.5 | 5    |       |  |
|       |     |  | eS    | 54 24.2    |      |     |      |       |  |

| JUNE  |     |   |                |            |      |     |      |       |  |
|-------|-----|---|----------------|------------|------|-----|------|-------|--|
| MONTH | DAY | STA   | PHASE          | TIME       | SIGN | PER | AMPL | DIST  |  |
| JUNE  | 02  | LPB<br>PNS  | eP<br>P        | 14 59 39.5 |      |     |      |       |  |
|       |     |   |                | 14 59 41.7 |      |     |      |       |  |
| JUNE  | 02  | PNS<br>LPB  | eP<br>eP       | 16 14 23.4 |      |     |      |       |  |
|       |     |   |                | 16 14 24.5 |      |     |      |       |  |
| JUNE  | 02  | PNS   | P              | 16 21 51.9 |      | 0.8 | 4    |       |  |
| JUNE  | 02  | LPB   | P              | 16 30 11.4 |      | 0.8 | 10   |       |  |
| JUNE  | 02  | PNS<br>LPB  | iP<br>eP       | 17 14 50.4 | C    | 0.5 | 4    |       |  |
|       |     |   |                | 15 31.8    |      |     |      |       |  |
| JUNE  | 02  | LPB   | eP<br>S        | 17 14 54.5 |      |     |      |       |  |
|       |     |   |                | 15 41.7    |      |     |      |       |  |
| JUNE  | 02  | LPB   | e(P)           | 17 55 26   |      |     |      |       |  |
| JUNE  | 02  | LPB<br>PNS  | eP<br>P        | 18 26 14.5 |      |     |      |       |  |
|       |     |   |                | 18 26 16.0 |      |     |      |       |  |
| JUNE  | 02  | LPB   | eP<br>S        | 27 04.2    |      |     |      |       |  |
|       |     |   |                | 18 39 28   |      |     |      |       |  |
| JUNE  | 02  | PNS<br>LPB  | P<br>eP        | 19 09 42.5 |      | 0.5 | 4    |       |  |
|       |     |   |                | 10 10.3    |      |     |      |       |  |
| JUNE  | 02  | LPB   | eP<br>S        | 19 09 43.6 |      | 1.0 | 14   |       |  |
|       |     |   |                | 19 17 01.2 |      |     |      |       |  |
| JUNE  | 02  | TRJ   | P<br>eS        | 26.2       |      |     |      |       |  |
|       |     |   |                | 19 23 54.9 |      |     |      |       |  |
| JUNE  | 02  | PNS   | P              | 19 23 54.9 |      |     |      |       |  |
| JUNE  | 02  | USCGS 19 29 14.0, 15.9N, 33.3W, h = 110 km., m = 4.5<br>NR CST OF CHIAPAS, MEXICO |                |            |      |     |      |       |  |
| JUNE  | 02  | PNS   | eP             | 19 36 43.6 |      |     |      |       |  |
| JUNE  | 02  | PNS<br>LPB  | eP<br>eP       | 20 04 59   |      |     |      |       |  |
|       |     |   |                | 20 04 59   |      |     |      |       |  |
| JUNE  | 02  | PNS   | iP<br>S        | 20 09 22.3 | D    | 0.6 | 10   |       |  |
|       |     |   |                | 44         |      |     |      |       |  |
| JUNE  | 02  | LPB<br>PNS  | eP<br>P        | 20 21 04   |      |     |      |       |  |
|       |     |   |                | 20 21 05.2 |      | 0.8 | 5    |       |  |
| JUNE  | 02  | USCGS 20 31 42.0, 23.6N, 122.4E, h = 33 km., m = 5.1<br>TAIWAN REGION             |                |            |      |     |      |       |  |
| JUNE  | 02  | PNS<br>LPB  | ePKP<br>e(PKP) | 20 51 44   |      |     |      |       |  |
|       |     |   |                | 20 51 52.5 |      |     |      | 168.3 |  |
| JUNE  | 02  | USCGS 20 32 11.0, 6.8S, 109.4E, h = 249 km., m = 4.8<br>JAVA                      |                |            |      |     |      |       |  |
| JUNE  | 02  | PNS   | ePKP           | 20 52 12   |      |     |      |       |  |
| JUNE  | 02  | PNS<br>LPB  | iP<br>P        | 23 56 10.4 | C    |     |      |       |  |
|       |     |   |                | 58.2       |      |     |      |       |  |
| JUNE  | 02  | LPB   | P              | 23 56 15.6 | C    | 1.0 | 36   |       |  |
|       |     |   |                |            |      |     |      |       |  |

| JUNE  |     |   |            |            |      |     |      |       |  |
|-------|-----|---|------------|------------|------|-----|------|-------|--|
| MONTH | DAY | STA   | PHASE      | TIME       | SIGN | PER | AMPL | DIST  |  |
| JUNE  | 03  | LPB   | eP         | 00 58 40   |      |     |      |       |  |
| JUNE  | 03  | LPB   | eP         | 03 32 43.7 |      |     |      |       |  |
| JUNE  | 03  | LPB   | P          | 03 46 02.6 |      | 0.7 | 12   |       |  |
| JUNE  | 03  | LPB   | P<br>(S)   | 06 53 57.6 |      | 0.8 | 12   |       |  |
|       |     |   |            | 54 20      |      |     |      |       |  |
| JUNE  | 03  | TRJ   | iP         | 06 53 32.9 | C    |     |      |       |  |
|       |     |   |            |            |      |     |      |       |  |
| JUNE  | 03  | LPB<br>TRJ  | P<br>P     | 07 03 28.7 |      | 0.8 | 15   |       |  |
|       |     |   |            | 07 03 55.1 |      |     |      |       |  |
| JUNE  | 03  | LPB   | eP         | 07 35 51.2 |      |     |      |       |  |
| JUNE  | 03  | USCGS 08 32 00.9, 35.9N, 141.3E, h = 56 km., m = 4.6<br>NR E CST OF HONSHU, JAPAN |            |            |      |     |      |       |  |
| JUNE  | 03  | TRJ<br>LPB  | eP<br>eP   | 08 52 35.6 |      |     |      |       |  |
|       |     |   |            | 08 51 45.5 |      |     |      | 147.6 |  |
| JUNE  | 03  | TRJ   | P<br>i     | 09 37 13.7 |      |     |      |       |  |
|       |     |   |            | 24.1       |      |     |      |       |  |
| JUNE  | 03  | LPB   | eP<br>e(S) | 09 36 43.5 |      | 1.0 | 26   |       |  |
|       |     |   |            | 39 55      |      |     |      |       |  |
| JUNE  | 03  | TRJ   | P          | 09 55 12.5 |      |     |      |       |  |
| JUNE  | 03  | LPB   | eP         | 10 03 38.7 |      |     |      |       |  |
| JUNE  | 03  | LPB   | P          | 10 17 58   |      | 0.7 | 5    |       |  |
| JUNE  | 03  | LPB   | eP         | 10 45 57.8 |      | 0.7 | 17   |       |  |
| JUNE  | 03  | LPB   | eP         | 10 52 08   |      |     |      |       |  |
| JUNE  | 03  | TRJ<br>LPB  | eP<br>eP   | 15 48 52.9 |      |     |      |       |  |
|       |     |   |            | 15 48 59   |      | 0.9 | 15   |       |  |
|       |     | 53.8  |            |            |      |     |      |       |  |
| JUNE  | 03  | PNS   | eP         | 19 15 32.4 |      |     |      |       |  |
| JUNE  | 03  | LPB   | P          | 19 53 05   |      | 0.9 | 24   |       |  |
| JUNE  | 03  | PNS   | P          | 21 16 44.4 |      | 0.5 | 3    |       |  |
| JUNE  | 03  | LPB<br>PNS  | eP<br>eP   | 17 28      |      |     |      |       |  |
|       |     |   |            | 23 03 43.5 |      |     |      |       |  |
| JUNE  | 03  | LPB<br>PNS  | eP<br>S    | 23 03 45.2 |      |     |      |       |  |
|       |     |   |            | 23 32 32   |      |     |      |       |  |
| JUNE  | 03  | LPB<br>PNS  | eP<br>S    | 23 32 39.2 |      | 0.4 | 3    |       |  |
|       |     |   |            | 33 01.5    |      |     |      |       |  |
| JUNE  | 03  | PNS   | P<br>S     | 23 34 35.7 |      | 0.7 | 6    |       |  |
|       |     |   |            | 58.2       |      |     |      |       |  |
| JUNE  | 04  | LPB<br>PNS  | eP<br>P    | 00 11 19   |      | 0.6 | 5    |       |  |
|       |     |   |            | 12 13.5    |      |     |      |       |  |
| JUNE  | 04  | LPB<br>PNS  | P<br>S     | 00 11 16.2 |      | 0.5 | 5    |       |  |
|       |     |   |            | 59.3       |      |     |      |       |  |

JUNE

| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL | DIST  |  |
|-------|-----|---|-------|------------|------|-----|------|-------|--|
| JUNE  | 04  | LPB   | eP    | 01 31 32   |      |     |      |       |  |
|       |     | PNS   | eP    | 01 31 36.5 |      |     |      |       |  |
|       |     |   | eS    | 32 14.5    |      |     |      |       |  |
| JUNE  | 04  | USCGS 02 34 15.7, 42.3N, 119.9W, h = 21 km., m = 4.7<br>OREGON      |       |            |      |     |      |       |  |
|       |     | LPB   | eP    | 02 46 00   |      |     |      | 75.1  |  |
|       |     | PNS   | P     | 02 45 58   |      |     |      |       |  |
| JUNE  | 04  | LPB   | eL    | 03 16      |      |     |      |       |  |
| JUNE  | 04  | LPB   | e(P)  | 03 14 27.5 |      |     |      |       |  |
| JUNE  | 04  | LPB   | e(P)  | 03 23 53.5 |      |     |      |       |  |
| JUNE  | 04  | TRJ   | eP    | 04 10 41.9 |      |     |      |       |  |
| JUNE  | 04  | TRJ   | eP    | 05 31 04.9 |      |     |      |       |  |
|       |     | LPB   | eP    | 05 30 31.5 |      |     |      |       |  |
|       |     | PNS   | eP    | 05 30 33.9 |      | 1.2 | 11   |       |  |
| JUNE  | 04  | LPB   | eP    | 06 13 24   |      | 0.5 | 3    |       |  |
| JUNE  | 04  | PNS   | eP    | 07 06 44   |      |     |      |       |  |
| JUNE  | 04  | USCGS 06 50 06.6, 32.7N, 48.3E, h = 40 km., m = 5.2<br>WESTERN IRAN |       |            |      |     |      |       |  |
|       |     | LPB   | PKP   | 07 08 58.8 |      |     |      | 120.6 |  |
|       |     | PNS   | PKP   | 07 08 59.0 |      | 0.8 | 5    |       |  |
|       |     | TRJ   | eP    | 07 09 2.70 |      |     |      |       |  |
| JUNE  | 04  | TRJ   | P     | 07 39 22.6 |      |     |      |       |  |
| JUNE  | 04  | PNS   | eP    | 08 08 12   |      |     |      |       |  |
| JUNE  | 04  | PNS   | iP    | 08 22 43.6 | D    | 0.5 | 10   |       |  |
|       |     |   | S     | 23 05.6    |      |     |      |       |  |
|       |     | LPB   | P     | 08 22 45.8 |      | 0.7 | 7    |       |  |
|       |     |   | S     | 23 08      |      |     |      |       |  |
| JUNE  | 04  | PNS   | iP    | 08 36 33.2 | D    |     |      |       |  |
|       |     |   | iS    | 58.3       |      |     |      |       |  |
|       |     | LPB   | P     | 08 36 33.4 | D    | 0.7 | 41   |       |  |
|       |     |   | eS    | 57.6       |      |     |      |       |  |
| JUNE  | 04  | PNS   | iP    | 08 43 29.8 | C    |     |      |       |  |
|       |     |   | iS    | 53.5       |      |     |      |       |  |
|       |     | LPB   | P     | 08 43 32.3 | C    | 1.0 | 28   |       |  |
|       |     |   | S     | 44 00.5    |      |     |      |       |  |
| JUNE  | 04  | PNS   | iP    | 09 32 04.2 | D    |     |      |       |  |
|       |     |   | S     | 26.8       |      |     |      |       |  |
|       |     | LPB   | P     | 09 32 06.5 | D    | 0.5 | 32   |       |  |
|       |     |   | S     | 31         |      |     |      |       |  |
| JUNE  | 04  | LPB   | eP    | 07 38 45.5 |      |     |      |       |  |
|       |     |   | e(L)  | 54         |      |     |      |       |  |
|       |     | PNS   | eP    | 07 38 46   |      |     |      |       |  |

JUNE

| MONTH | DAY | STA  | PHASE | TIME       |   |     |    |       |  |
|-------|-----|--|-------|------------|---|-----|----|-------|--|
| JUNE  | 04  | PNS  | iP    | 09 45 59.6 | D | 0.5 | 9  |       |  |
|       |     | LPB  | eP    | 09 46 00   |   |     |    |       |  |
| JUNE  | 04  | LPB  | P     | 10 12 16.3 |   | 0.6 | 5  |       |  |
| JUNE  | 04  | LPB  | P     | 13 02 57   |   | 0.7 | 11 |       |  |
|       |     | TRJ  | iP    | 13 03 00.5 | C |     |    |       |  |
|       |     |  | S     | 30.9       |   |     |    |       |  |
|       |     | PNS  | P     | 13 03 00.9 |   | 0.5 | 5  |       |  |
| JUNE  | 04  | TRJ  | iP    | 13 14 16.8 | C |     |    |       |  |
|       |     |  | S     | 46.7       |   |     |    |       |  |
|       |     | LPB  | eP    | 13 14 27   |   |     |    |       |  |
|       |     | PNS  | P     | 13 14 28.0 |   | 0.5 | 3  |       |  |
| JUNE  | 04  | PNS  | iP    | 13 39 29.7 | D | 0.7 | 16 |       |  |
|       |     |  | S     | 41 22.6    |   |     |    |       |  |
|       |     | LPB  | P     | 13 39 30   |   | 0.7 | 25 |       |  |
|       |     |  | eS    | 41 29      |   |     |    |       |  |
| JUNE  | 04  | PNS  | eP    | 15 18 02.4 |   |     |    |       |  |
|       |     | LPB  | eP    | 15 18 04.5 |   |     |    |       |  |
|       |     | TRJ  | eP    | 15 18 43.0 |   |     |    |       |  |
| JUNE  | 04  | USCGS 15 01 12.0, 8.3S, 107.9E, h = 33 km., m = 5.0<br>JAVA                    |       |            |   |     |    |       |  |
|       |     | LPB  | ePKP  | 15 21 03   |   |     |    | 154.8 |  |
|       |     | PNS  | ePKP  | 15 21 05   |   |     |    |       |  |
| JUNE  | 04  | USCGS 15 10 10.6, 41.9N, 142.5E, h = 33 km., m = 4.6<br>HOKKAIDO, JAPAN REGION |       |            |   |     |    |       |  |
|       |     | PNS  | ePKP  | 15 29 42.4 |   |     |    | 143.5 |  |
|       |     | LPB  | ePKP  | 15 29 44   |   |     |    |       |  |
| JUNE  | 04  | PNS  | P     | 16 36 05.4 |   | 0.5 | 2  |       |  |
|       |     |  | pP    | 16.0       |   |     |    |       |  |
|       |     |  | S     | 52         |   |     |    |       |  |
|       |     | LPB  | eP    | 16 36 09.5 |   |     |    |       |  |
| JUNE  | 04  | PNS  | PKP   | 17 35 15.5 |   | 1.0 | 27 |       |  |
|       |     | LPB  | P     | 17 35 16   |   | 1.0 | 42 | 143.5 |  |
| JUNE  | 04  | LPB  | eP    | 17 44 39   |   |     |    |       |  |
|       |     | PNS  | P     | 17 44 43.6 |   | 1.3 | 16 |       |  |
| JUNE  | 04  | PNS  | eP    | 17 54 05.7 |   |     |    |       |  |
|       |     | LPB  | eP    | 17 54 09   |   |     |    |       |  |
| JUNE  | 04  | PNS  | eP    | 18 00 01.7 |   |     |    |       |  |
| JUNE  | 04  | LPB  | eP    | 18 39 50   |   |     |    |       |  |
|       |     |  | S     | 25         |   |     |    |       |  |
|       |     | PNS  | eP    | 18 39 56   |   |     |    |       |  |
|       |     |  | S     | 40 35.9    |   |     |    |       |  |
| JUNE  | 04  | LPB  | eP    | 19 43 12   |   |     |    |       |  |
|       |     | PNS  | eP    | 19 43 16.3 |   |     |    |       |  |
| JUNE  | 04  | PNS  | P     | 20 40 40.6 |   | 0.5 | 3  |       |  |
|       |     | LPB  | P     | 20 40 48.8 |   | 0.8 | 64 |       |  |
| JUNE  | 04  | PNS  | eP    | 22 13 57   |   |     |    |       |  |
|       |     | LPB  | eP    | 22 14 02   |   |     |    |       |  |



| MONTH | DAY | STA               | PHASE | TIME                               | SIGN | PER | AMPL | DIST  |
|-------|-----|-------------------|-------|------------------------------------|------|-----|------|-------|
| JUNE  | 04  | USCGS 22 13 18.0, |       | 27.3N, 103.0W, h = 33 km., m = 4.4 |      |     |      |       |
|       |     | NORTHERN MEXICO   |       |                                    |      |     |      |       |
|       |     | PNS               | eP    | 22 22 46.6                         |      |     |      |       |
| JUNE  | 04  | PNS               | iP    | 23 37 48.1                         | D    | 0.3 | 7    |       |
|       |     |                   | S     | 38 10.6                            |      |     |      |       |
|       |     | LPB               | eP    | 23 37 51                           |      |     |      |       |
| JUNE  | 05  | USCGS 00 09 41.0, |       | 36.1N, 66.2E, h = 33 km., m = 4.8  |      |     |      |       |
|       |     | HINDU KUSH REGION |       |                                    |      |     |      |       |
|       |     | PNS               | PKP   | 00 29 00.8                         |      | 0.8 | 10   |       |
|       |     |                   | e     | 23.8                               |      |     |      |       |
|       |     | LPB               | ePKP  | 00 29 03                           |      | 0.6 | 4    | 135.0 |
| JUNE  | 05  | LPB               | P     | 00 34 11.5                         | D    | 1.0 | 72   |       |
|       |     |                   | i     | 29                                 |      |     |      |       |
|       |     |                   | eS    | 35 12.7                            |      |     |      |       |
|       |     | PNS               | P     | 00 34 13.1                         | C    | 0.9 | 34   |       |
|       |     |                   | i     | 32.5                               |      |     |      |       |
|       |     | TRJ               | P     | 00 34 38.6                         |      |     |      |       |
| JUNE  | 05  | USCGS 00 39 06.7, |       | 6.9N, 73.0W, h = 156 km., m = 4.0  |      |     |      |       |
|       |     | NORTHERN COLOMBIA |       |                                    |      |     |      |       |
|       |     | PNS               | P     | 00 44 03.2                         |      | 0.8 | 5    |       |
|       |     |                   | pp    | 37.3                               |      |     |      |       |
|       |     | LPB               | P     | 00 44 07.5                         |      | 0.5 | 8    | 24.0  |
|       |     |                   | pp    | 40.4                               |      |     |      |       |
| JUNE  | 05  | LPB               | eP    | 02 29 52                           |      |     |      |       |
|       |     | PNS               | P     | 02 29 56                           |      |     |      |       |
| JUNE  | 05  | PNS               | iP    | 02 53 57.1                         | D    | 0.6 | 5    |       |
|       |     | LPB               | eP    | 02 53 57.5                         |      |     |      |       |
| JUNE  | 05  | PNS               | iP    | 03 22 04.0                         | D    | 0.8 | 18   |       |
|       |     |                   | S     | 28.4                               |      |     |      |       |
|       |     | LPB               | P     | 03 22 04.2                         |      | 0.9 | 17   |       |
| JUNE  | 05  | LPB               | eP    | 03 31 56                           |      | 1.0 | 8    |       |
|       |     | PNS               | eP    | 03 31 58.5                         |      |     |      |       |
| JUNE  | 05  | TRJ               | iP    | 03 40 05.4                         | D    |     |      |       |
|       |     | LPB               | P     | 03 40 16.2                         | D    | 0.8 | 43   |       |
|       |     |                   | i     | 40                                 |      |     |      |       |
|       |     | PNS               | iP    | 03 40 19.8                         | D    | 0.9 | 34   |       |
|       |     |                   | S     | 41 25                              |      |     |      |       |
| JUNE  | 05  | USCGS 04 09 51.0, |       | 0.0S, 91.5W, h = 33 km., m = 4.6   |      |     |      |       |
|       |     | GALAPAGOS ISLANDS |       |                                    |      |     |      |       |
|       |     | PNS               | eP    | 04 15 39                           |      |     |      |       |
|       |     | LPB               | eP    | 04 15 39.5                         |      | 0.8 | 4    | 28    |
| JUNE  | 05  | USCGS 04 51 56.8, |       | 42.3N, 119.9W, h = 21 km., m = 4.7 |      |     |      |       |
|       |     | OREGON            |       |                                    |      |     |      |       |
|       |     | PNS               | iP    | 05 02 57.4                         | D    | 0.6 | 5    |       |
|       |     | LPB               | P     | 05 02 58.8                         |      |     |      | 26.2  |
|       |     |                   | eL    | 22.5                               |      |     |      |       |



| MONTH | DAY | STA                          | PHASE | TIME                               | SIGN | PER | AMPL | DIST  |
|-------|-----|------------------------------|-------|------------------------------------|------|-----|------|-------|
| JUNE  | 05  | LPB                          | eP    | 05 38 14                           |      |     |      |       |
| JUNE  | 05  | LPB                          | eP    | 06 03 25.5                         |      |     |      |       |
| JUNE  | 05  | LPB                          | eP    | 06 08 12                           |      | 1.0 | 16   |       |
|       |     |                              | i     | 14.8                               |      |     |      |       |
| JUNE  | 05  | USCGS 06 18 35.4,            |       | 58.7S, 25.7W, h = 33 km., m = 5.4  |      |     |      |       |
|       |     | SOUTH SANDWICH ISLAND REGION |       |                                    |      |     |      |       |
|       |     | TRJ                          | P     | 06 27 32.3                         |      |     |      |       |
|       |     | LPB                          | eP    | 06 27 46                           |      | 0.8 | 7    | 52.2  |
|       |     |                              | eL    | 40                                 |      |     |      |       |
|       |     | PNS                          | eP    | 06 27 47.1                         |      |     |      |       |
|       |     |                              | i     | 50.0                               |      |     |      |       |
| JUNE  | 05  | LPB                          | P     | 06 50 24.3                         |      | 0.8 | 9    |       |
|       |     | PNS                          | P     | 06 50 28.1                         |      | 0.4 | 7    |       |
|       |     | TRJ                          | iP    | 06 49 59.2                         | C    |     |      |       |
| JUNE  | 05  | LPB                          | eP    | 06 57 35                           |      |     |      |       |
|       |     | PNS                          | eP    | 06 57 35.6                         |      |     |      |       |
| JUNE  | 05  | PNS                          | P     | 07 00 58.2                         |      | 1.0 | 14   |       |
|       |     |                              | e     | 01 12.7                            |      |     |      |       |
|       |     | LPB                          | P     | 07 00 59                           |      | 1.0 | 14   |       |
| JUNE  | 05  | USCGS 06 38 27.0,            |       | 7.0S, 155.5E, h = 66 km., m = 47   |      |     |      |       |
|       |     | SOLOMON ISLANDS              |       |                                    |      |     |      |       |
|       |     | PNS                          | ePKP  | 06 57 35                           |      |     |      |       |
|       |     | LPB                          | ePKP  | 06 57 36                           |      |     |      |       |
| JUNE  | 05  | LPB                          | eP    | 07 48 06.7                         |      |     |      |       |
| JUNE  | 05  | LPB                          | P     | 08 06 35.2                         |      | 0.7 | 11   |       |
|       |     |                              | eS    | 07 21.5                            |      |     |      |       |
|       |     | PNS                          | P     | 08 06 38.4                         |      | 0.9 | 9    |       |
|       |     | TRJ                          | iP    | 08 06 41.6                         | D    |     |      |       |
|       |     |                              | i     | 07 21.5                            |      |     |      |       |
| JUNE  | 05  | PNS                          | eP    | 08 15 22.4                         |      |     |      |       |
|       |     | LPB                          | eP    | 08 15 23.5                         |      |     |      |       |
| JUNE  | 05  | LPB                          | P     | 09 24 41                           |      |     |      |       |
|       |     | PNS                          | eP    | 09 24 41.7                         |      |     |      |       |
| JUNE  | 05  | USCGS 09 23 07.3,            |       | 41.3N, 142.5E, h = 33 km., m = 4.8 |      |     |      |       |
|       |     | HOKKAIDO JAPAN REGION        |       |                                    |      |     |      |       |
|       |     | TRJ                          | eP    | 09 43 22.2                         |      |     |      |       |
|       |     | LPB                          | ePKP  | 09 42 42.5                         |      |     |      | 144.0 |
|       |     | PNS                          | ePKP  | 09 42 42.8                         |      |     |      |       |
| JUNE  | 05  | PNS                          | eP    | 10 24 13                           |      |     |      |       |
|       |     | LPB                          | eP    | 10 24 15                           |      |     |      |       |
| JUNE  | 05  | LPB                          | eP    | 10 28 09                           |      |     |      |       |
|       |     | PNS                          | eP    | 10 28 11                           |      |     |      |       |
| JUNE  | 05  | USCGS 11 51 40.0,            |       | 12.9S, 111.8W, h = 33 km., m = 5.1 |      |     |      |       |
|       |     | NEATER IS CORDILLERA         |       |                                    |      |     |      |       |

JUNE

| MONTH | DAY | STA                             | PHASE             | TIME   | SIGN | PBR | AMPL | DIST  |
|-------|-----|---------------------------------|-------------------|--|------|-----|------|-------|
| JUNE  | 05  | PNS                             | P                 | 11 59 30.5                                     | D    | 1.3 | 87   |       |
|       |     |                                 | eS                | 12 06 00                                       |      |     |      |       |
|       |     |                                 | eSS               | 09 16  |      |     |      |       |
|       |     |                                 | eL                | 12.9   |      |     |      |       |
|       |     | LPB                             | P                 | 11 59 33.6                                     |      | 1.8 | 172  | 42    |
|       |     |                                 | eS                | 12 06 02                                       |      |     |      |       |
|       |     |                                 | eSS               | 09 18  |      |     |      |       |
|       |     |                                 | eL                | 13   |      |     |      |       |
|       |     | TRJ                             | eP                | 12 00 25.5                                     |      |     |      |       |
| JUNE  | 05  | PNS                             | P                 | 12 35 20.7                                     |      | 0.4 | 56   |       |
| JUNE  | 05  | USCGS SOUTH ISLAND              |                   | 12 43 22.0, 41.8S, 172.0E, h = 66 km., m = 5.2 |      |     |      |       |
|       |     |                                 |                   | NEW ZEALAND                                    |      |     |      |       |
|       |     | LPB                             | eP                | 12 57 01                                       |      |     |      | 100   |
|       |     | PNS                             | P                 | 12 57 03                                       |      | 1.0 | 5    |       |
|       |     |                                 | pP                | 12.8   |      |     |      |       |
| JUNE  | 05  | USCGS PANAY                     |                   | 12 49 37.0, 11.1N, 122.3E, h = 33 km., m = 5.1 |      |     |      |       |
|       |     |                                 |                   | PHILIPPINE ISLANDS                             |      |     |      |       |
|       |     | PNS                             | PKP               | 13 09 43.8                                     |      | 1.0 | 12   |       |
|       |     | LPB                             | PKP               | 13 09 44.5                                     |      | 1.8 | 77   | 167.7 |
|       |     |                                 | eL                | 30   |      |     |      |       |
| JUNE  | 05  | USCGS NEAR COAST OF ECUADOR     |                   | 13 42 19.0, 0.8N, 80.4W, h = 33 km., m = 4.1   |      |     |      |       |
|       |     |                                 |                   |  |      |     |      |       |
|       |     | PNS                             | P                 | 13 46 59.2                                     |      | 1.0 | 9    |       |
|       |     | LPB                             | eP                | 13 47 03.7                                     |      |     |      | 23    |
| JUNE  | 05  | USCGS PERU-BRAZIL BORDER REGION |                   | 13 53 51.0, 7.4S, 74.4W, h = 157 km., m = 4.4  |      |     |      |       |
|       |     |                                 |                   |  |      |     |      |       |
|       |     | PNS                             | P                 | 13 56 14.8                                     |      | 0.6 | 10   |       |
|       |     | LPB                             | P                 | 13 56 20                                       | C    | 0.8 | 82   | 10    |
|       |     |                                 | eL                | 56.8   |      |     |      |       |
|       |     | TRJ                             | P                 | 13 58 04.1                                     |      |     |      |       |
| JUNE  | 05  | PNS                             | P                 | 14 21 15.7                                     |      | 0.8 | 5    |       |
| JUNE  | 05  | LPB                             | eP                | 14 42 17                                       |      |     |      |       |
|       |     | PNS                             | eP                | 14 42 24.6                                     |      |     |      |       |
| JUNE  | 05  | USCGS TALAUD ISLANDS            |                   | 15 08 39.0, 5.0N, 125.1E, h = 142 km., m = 51  |      |     |      |       |
|       |     |                                 |                   |  |      |     |      |       |
|       |     | LPB                             | ePKP              | 15 28 27.5                                     |      |     |      | 170   |
|       |     |                                 | ePKP <sub>2</sub> | 19   |      |     |      |       |
|       |     | PNS                             | PKP               | 15 28 28.6                                     |      | 1.4 | 19   |       |
|       |     |                                 | PKP <sub>2</sub>  | 29 18.7  |      |     |      |       |
|       |     | TRJ                             | eP                | 15 28 56.1                                     |      |     |      |       |
| JUNE  | 05  | LPB                             | eP                | 15 43 07                                       |      |     |      |       |
|       |     | PNS                             | iP                | 15 43 10.2                                     | D    | 0.5 | 5    |       |
|       |     |                                 | iS                | 34.8   |      |     |      |       |
| JUNE  | 05  | LPB                             | eP                | 16 32 40                                       |      |     |      |       |
|       |     | PNS                             | P                 | 16 32 50.2                                     |      |     |      |       |

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JUNE

| MONTH | DAY | STA                         | PHASE | TIME   | SIGN | PBR | AMPL | DIST   |
|-------|-----|-----------------------------|-------|--|------|-----|------|--------|
| JUNE  | 05  | TRJ                         | iP    | 17 51 33.0                                     | C    |     |      |        |
|       |     |                             | S     | 52 01.6  |      |     |      |        |
|       |     | LPB                         | P     | 17 51 41.0                                     |      |     |      | 0.9 33 |
|       |     | PNS                         | iP    | 17 51 45.2                                     | C    |     |      | 0.4 10 |
| JUNE  | 05  | LPB                         | eP    | 19 28 17.7                                     |      |     |      |        |
|       |     |                             | S     | 46.7   |      |     |      |        |
|       |     | PNS                         | iP    | 19 28 19.5                                     | D    | 0.5 | 8    |        |
|       |     |                             | iS    | 41.9   |      |     |      |        |
| JUNE  | 05  | USCGS NEW IRELAND REGION    |       | 22 06 26.9, 4.5S, 153.1E, h = 70 km., m = 5.0  |      |     |      |        |
|       |     |                             |       |  |      |     |      |        |
|       |     | TRJ                         | ePKP  | 22 26 12.1                                     |      |     |      |        |
|       |     | PNS                         | PKP   | 22 25 40.0                                     |      |     |      | 1.0 7  |
|       |     |                             | i     | 26 00  |      |     |      |        |
|       |     | LPB                         | ePKP  | 22 25 40.5                                     |      |     |      | 134.1  |
| JUNE  | 05  | LPB                         | eP    | 22 29 07.7                                     |      |     |      |        |
| JUNE  | 05  | USCGS NEAR ISLAND ALEUTIANS |       | 23 05 36.8, 52.2N, 174.3E, h = 41 km., m = 5.0 |      |     |      |        |
|       |     |                             |       |  |      |     |      |        |
|       |     | PNS                         | eL    | 00 04.1  |      |     |      |        |
| JUNE  | 06  | LPB                         | eP    | 00 56 46                                       |      |     |      |        |
| JUNE  | 06  | LPB                         | eP    | 01 31 10                                       |      |     |      |        |
|       |     | PNS                         | eP    | 01 31 12                                       |      |     |      |        |
| JUNE  | 06  | LPB                         | e(P)  | 02 39 15.7                                     |      |     |      |        |
| JUNE  | 06  | LPB                         | eP    | 02 40 48.8                                     |      |     |      |        |
|       |     | PNS                         | P     | 02 40 49                                       |      |     |      | 0.9 3  |
| JUNE  | 06  | TRJ                         | iP    | 03 31 50.8                                     | C    |     |      |        |
| JUNE  | 06  | TRJ                         | P     | 03 51 26.3                                     | C    |     |      |        |
|       |     |                             | S     | 36.1   |      |     |      |        |
| JUNE  | 06  | PNS                         | iP    | 04 23 03.0                                     | C    |     |      | 0.5 9  |
|       |     |                             | iS    | 45.6   |      |     |      |        |
|       |     | LPB                         | P     | 04 23 08                                       |      |     |      | 1.0 10 |
| JUNE  | 06  | LPB                         | eP    | 04 39 51                                       |      |     |      |        |
|       |     | PNS                         | P     | 04 39 52.6                                     |      |     |      | 0.4 2  |
|       |     |                             | eS    | 40 22.2  |      |     |      |        |
| JUNE  | 06  | LPB                         | P     | 04 58 40                                       |      |     |      |        |
| JUNE  | 06  | LPB                         | P     | 05 18 19.6                                     |      |     |      | 0.6 70 |
| JUNE  | 06  | LPB                         | P     | 05 20 03.5                                     |      |     |      | 0.6 18 |
| JUNE  | 06  | LPB                         | P     | 05 21 52                                       |      |     |      |        |
|       |     |                             | i     | 56.7   |      |     |      |        |
|       |     | PNS                         | P     | 05 22 08.5                                     |      |     |      |        |
| JUNE  | 06  | PNS                         | P     | 06 09 08.4                                     |      |     |      | 1.4 13 |
|       |     | LPB                         | P     | 06 09 13.8                                     |      |     |      | 0.6 14 |

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| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL | DIST  |
|-------|-----|---|-------|------------|------|-----|------|-------|
| JUNE  | 06  | USCGS 07 21 52.0, 23.5S, 67.9W, h = 140 km., m = 4.4<br>CHILE-ARGENTINA BORDER REGION |       |            |      |     |      |       |
|       |     | TRJ   | iP    | 07 23 15.2 | D    |     |      |       |
|       |     | LPB   | P     | 07 23 33   |      | 0.7 | 25   | 11    |
|       |     | PNS   | P     | 07 23 35.7 | C    | 0.8 | 16   |       |
| JUNE  | 06  | LPB   | eP    | 09 08 19.5 |      |     |      |       |
| JUNE  | 06  | LPB   | P     | 09 10 46.6 |      | 0.8 | 4    |       |
| JUNE  | 06  | PNS   | P     | 09 52 18.4 |      | 0.8 | 6    |       |
|       |     | LPB   | eP    | 09 52 21   |      |     |      |       |
|       |     |   | eS    | 37.8       |      |     |      |       |
| JUNE  | 06  | LPB   | eP    | 09 54 56.3 |      |     |      |       |
| JUNE  | 06  | LPB   | eP    | 09 57 40   |      |     |      |       |
|       |     |   | i     | 59 28.5    |      |     |      |       |
|       |     |   | eL    | 10 01.6    |      |     |      |       |
|       |     | PNS   | eP    | 09 57 41.4 |      |     |      |       |
|       |     |   | eS    | 59 08      |      |     |      |       |
| JUNE  | 06  | LPB   | (P)   | 10 11 54   |      |     |      |       |
| JUNE  | 06  | LPB   | P     | 10 48 24.3 |      | 0.6 | 11   |       |
| JUNE  | 06  | PNS   | P     | 12 08 09.9 |      | 0.8 | 5    |       |
|       |     |   | eL    | 25.5       |      |     |      |       |
|       |     | LPB   | eP    | 12 08 11   |      |     |      |       |
|       |     |   | eL    | 26         |      |     |      |       |
| JUNE  | 06  | LPB   | eP    | 13 58 17   |      |     |      |       |
| JUNE  | 06  | PNS   | P     | 16 36 27.6 |      | 0.5 | 4    |       |
|       |     | LPB   | eP    | 16 36 28   |      |     |      |       |
| JUNE  | 06  | USCGS 16 44 57.0, 7.0S, 124.4E, h = 76 km., m = 5.4<br>BANDA SEA                      |       |            |      |     |      |       |
|       |     | PNS   | PKP   | 17 04 39.1 |      | 0.8 | 5    |       |
|       |     |   | i     | 44.9       |      |     |      |       |
|       |     | LPB   | PKP   | 18 04 39.7 |      | 0.8 | 13   | 151.2 |
|       |     |   | i     | 44.8       |      |     |      |       |
|       |     | TRJ   | PKP   | 17 05 04.1 |      |     |      |       |
|       |     |   | i     | 07.7       |      |     |      |       |
| JUNE  | 06  | USCGS 18 21 26.0, 40.6N, 152.3E, h = 81 km., m = 4.6<br>NR E CST OF HONSHU, JAPAN     |       |            |      |     |      |       |
|       |     | LPB   | ePKP  | 18 40 52   |      |     |      |       |
|       |     | PNS   | PKP   | 18 40 53.1 |      |     |      |       |
|       |     |   | eL    | 19 30.2    |      |     |      |       |
| JUNE  | 06  | LPB   | eP    | 19 49 02.5 |      |     |      |       |
|       |     | PNS   | P     | 19 49 02.8 |      |     |      |       |
|       |     |   | e     | 40.4       |      |     |      |       |

| MONTH | DAY | STA   | PHASE | TIME       |   |  |     |      |
|-------|-----|---|-------|------------|---|--|-----|------|
| JUNE  | 06  | USCGS 19 44 07.4, 14.9N, 119.4E, h = 80 km., m = 5.4<br>LLIZON PHILIPPINE ISLANDS |       |            |   |  |     |      |
|       |     | LPB   | eP    | 19 53 29   |   |  |     |      |
|       |     |   | eL    | 08         |   |  |     | 59.7 |
|       |     | PNS   | eP    | 19 53 28   |   |  |     |      |
|       |     |   | eL    | 20 08.2    |   |  |     |      |
| JUNE  | 06  | PNS   | P     | 20 04 12.6 |   |  | 1.4 | 70   |
|       |     |   | i     | 09 13.4    |   |  |     |      |
|       |     | LPB   | PKP   | 20 04 13   |   |  | 1.1 | 52   |
|       |     |   | eL    | 21 03      |   |  |     |      |
|       |     | TRJ   | PKP   | 20 04 41.7 |   |  |     |      |
| JUNE  | 06  | PNS   | iP    | 21 22 26.9 | D |  | 0.3 | 4    |
|       |     |   | S     | 52.2       |   |  |     |      |
| JUNE  | 06  | USCGS 21 17 14.4 41.3N, 142.6E, h = 37 km., m = 5.3<br>HOKKAIDO, JAPAN REGION     |       |            |   |  |     |      |
|       |     | LPB   | ePKP  | 21 36 44.5 |   |  | 1.0 | 16   |
|       |     |   | eL    | 22 25      |   |  |     | 144  |
|       |     | PNS   | PKP   | 21 36 44.7 |   |  | 1.3 | 10   |
|       |     |   | e     | 37 12      |   |  |     |      |
|       |     |   | eL    | 22 25.3    |   |  |     |      |
| JUNE  | 06  | PNS   | eP    | 22 09 10.7 |   |  |     |      |
|       |     | LPB   | eP    | 22 09 13.7 |   |  |     |      |
| JUNE  | 06  | USCGS 22 52 00.4, 44.5N, 148.1E, h = 57 km., m = 5.1<br>KURILE ISLANDS            |       |            |   |  |     |      |
|       |     | PNS   | PKP   | 23 11 22.5 | C |  | 0.8 | 7    |
|       |     |   | eL    | 23 58.8    |   |  |     |      |
|       |     | LPB   | PKP   | 23 11 23   |   |  | 1.0 | 20   |
|       |     |   | eL    | 59.2       |   |  |     | 139  |
|       |     | TRJ   | P     | 23 12 00.6 |   |  |     |      |
| JUNE  | 07  | LPB   | P     | 00 22 12.7 |   |  | 0.6 | 4    |
|       |     | PNS   | P     | 00 22 15.0 |   |  | 0.7 | 3    |
| JUNE  | 07  | PNS   | P     | 00 45 04.4 |   |  |     |      |
|       |     |   | S     | 26         |   |  |     |      |
| JUNE  | 07  | PNS   | P     | 01 18 32.8 |   |  |     |      |
|       |     |   | S     | 19 00      |   |  |     |      |
|       |     | LPB   | eP    | 01 18 35   |   |  |     |      |
| JUNE  | 07  | TRJ   | eP    | 01 20 03.6 |   |  |     |      |
| JUNE  | 07  | LPB   | eP    | 01 28 57.2 |   |  | 0.7 | 7    |
|       |     |   | eS    | 30 32.2    |   |  |     |      |
| JUNE  | 07  | LPB   | P     | 01 53 19.5 |   |  |     |      |
|       |     | PNS   | P     | 01 53 20.6 |   |  | 0.8 | 5    |
|       |     | TRJ   | P     | 01 53 42.5 |   |  |     |      |

| JUNE  |     |  |       |            |      |     |      |      |  |
|-------|-----|--|-------|------------|------|-----|------|------|--|
| MONTH | DAY | STA  | PHASE | TIME       | SIGN | PER | AMPL | DIST |  |
| JUNE  | 07  | LPB  | P     | 02 51 51.5 |      |     |      |      |  |
|       |     | PNS  | P     | 02 51 56.6 |      | 0.6 | 3    |      |  |
|       |     | TRJ  | eP    | 02 52 48.9 |      |     |      |      |  |
| JUNE  | 07  | LPB  | P     | 03 03 36.7 |      | 0.6 | 5    |      |  |
| JUNE  | 07  | TRJ  | iP    | 04 33 24.1 | C    |     |      |      |  |
|       |     | LPB  | iP    | 04 33 32.0 | C    | 0.9 | 70   |      |  |
|       |     | PNS  | eS    | 04 34 30   |      |     |      |      |  |
| JUNE  | 07  | TRJ  | P     | 04 46 49.6 |      |     |      |      |  |
|       |     | LPB  | P     | 04 47 28.2 |      | 0.9 | 6    |      |  |
|       |     | PNS  | P     | 04 47 28.9 |      |     |      |      |  |
| JUNE  | 07  | TRJ  | P     | 04 49 26.5 |      |     |      |      |  |
|       |     | LPB  | eP    | 04 52 53.2 |      |     |      |      |  |
|       |     | PNS  | eL    | 04 56.8    |      |     |      |      |  |
| JUNE  | 07  | LPB  | eP    | 07 05 03   |      |     |      |      |  |
|       |     | PNS  | e(S)  | 07 06 30.5 |      | 0.6 | 2    |      |  |
|       |     | TRJ  | P     | 07 04 56   |      |     |      |      |  |
| JUNE  | 07  | TRJ  | eP    | 07 06 26.1 |      |     |      |      |  |
|       |     | LPB  | P     | 07 08 52.7 |      | 0.9 | 17   |      |  |
|       |     | PNS  | P     | 07 08 54.0 |      | 0.8 | 3    |      |  |
| JUNE  | 07  | TRJ  | P     | 07 09 41.5 |      |     |      |      |  |
|       |     | LPB  | eP    | 07 09 27.7 |      |     |      |      |  |
|       |     | TRJ  | P     | 07 57 23.6 |      |     |      |      |  |
| JUNE  | 07  | LPB  | P     | 07 57 45   |      | 0.4 | 8    |      |  |
|       |     | PNS  | P     | 07 57 48.2 |      | 0.7 | 2    |      |  |
|       |     | TRJ  | P     | 08 59 12.4 | C    |     |      |      |  |
| JUNE  | 07  | PNS  | P     | 09 14 21.5 |      |     |      |      |  |
|       |     | LPB  | eP    | 09 14 25   |      |     |      |      |  |
| JUNE  | 07  | LPB  | eP    | 09 16 02   |      |     |      |      |  |
|       |     | PNS  | eP    | 09 16 08   |      |     |      |      |  |
|       |     | S  | S     | 09 16 27   |      |     |      |      |  |
| JUNE  | 07  | USCGS 11 27 30.0, 56.4S, 26.6W, h = 123 km., m = 5.0 |       |            |      |     |      |      |  |
|       |     | TRJ  | iP    | 11 36 01.3 | C    |     |      |      |  |
|       |     | LPB  | iP    | 11 36 18   | D    | 0.7 | 49   | 50.3 |  |
| JUNE  | 07  | LPB  | pP    | 42         |      |     |      |      |  |
|       |     | PNS  | eS    | 43 25      |      |     |      |      |  |
|       |     | PNS  | iP    | 11 36 21.0 | D    |     |      |      |  |
| JUNE  | 07  | LPB  | pP    | 46.1       |      |     |      |      |  |
|       |     | PNS  | S     | 43 29.4    |      |     |      |      |  |

| JUNE  |     |   |       |            |      |     |      |       |  |
|-------|-----|---|-------|------------|------|-----|------|-------|--|
| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL | DIST  |  |
| JUNE  | 07  | LPB   | eP    | 11 41 18   |      |     |      |       |  |
|       |     | PNS   | eS    | 11 41 20.0 |      |     |      |       |  |
|       |     | TRJ   | P     | 11 41 21.4 | C    | 1.0 | 10   |       |  |
| JUNE  | 07  | USCGS 11 57 24.4, 18S, 120.1E, h = 20 km., m = 5.9  |       |            |      |     |      |       |  |
|       |     | LPB   | PKP   | 12 17 32   |      |     |      |       |  |
|       |     | PNS   | eS    | 12 17 32.1 |      | 2.0 | 248  | 154.3 |  |
| JUNE  | 07  | LPB   | PP    | 21 55.8    |      |     |      |       |  |
|       |     | PNS   | eSKS  | 24 10      |      |     |      |       |  |
|       |     | TRJ   | eSS   | 42 12      |      |     |      |       |  |
| JUNE  | 07  | LPB   | eG    | 13 04.8    |      |     |      |       |  |
|       |     | PNS   | L     | 15         |      |     |      |       |  |
|       |     | TRJ   | PKP   | 12 17 32.1 |      | 2.0 | 240  |       |  |
| JUNE  | 07  | LPB   | PP    | 21 56.5    |      |     |      |       |  |
|       |     | PNS   | eSKS  | 24 25      |      |     |      |       |  |
|       |     | TRJ   | eSS   | 42 11      |      |     |      |       |  |
| JUNE  | 07  | LPB   | L     | 13 15.3    |      |     |      |       |  |
|       |     | PNS   | PKP   | 12 17 56.3 |      |     |      |       |  |
|       |     | TRJ   | eP    | 13 30 47.6 |      |     |      |       |  |
| JUNE  | 07  | LPB   | eS    | 31 32      |      |     |      |       |  |
|       |     | PNS   | P     | 13 30 50.1 |      | 0.8 | 10   |       |  |
|       |     | TRJ   | S     | 31 38.7    |      |     |      |       |  |
| JUNE  | 07  | LPB   | P     | 13 31 17.3 |      |     |      |       |  |
|       |     | PNS   | P     | 13 37 12.4 |      |     |      |       |  |
|       |     | TRJ   | eP    | 13 37 12.5 |      |     |      |       |  |
| JUNE  | 07  | LPB   | eP    | 13 37 35.3 |      |     |      |       |  |
|       |     | PNS   | e     | 48.5       |      |     |      |       |  |
|       |     | TRJ   | eP    | 13 37 35.3 |      |     |      |       |  |
| JUNE  | 07  | TRJ   | P     | 13 58 08.9 |      |     |      |       |  |
|       |     | PNS   | iP    | 14 01 46.4 | D    |     |      |       |  |
|       |     | LPB   | S     | 02 10.4    |      |     |      |       |  |
| JUNE  | 07  | TRJ   | P     | 14 01 46.5 | D    | 0.9 | 39   |       |  |
|       |     | LPB   | eP    | 15 56 17   |      |     |      |       |  |
|       |     | PNS   | P     | 15 56 24.6 |      |     |      |       |  |
| JUNE  | 07  | LPB   | eS    | 16 00 41   |      | 0.8 | 4    |       |  |
|       |     | PNS   | P     | 16 38 26.5 |      |     |      |       |  |
|       |     | TRJ   | eP    | 16 38 28.5 |      | 0.5 | 2    |       |  |
| JUNE  | 07  | LPB   | eP    | 17 14 07.4 |      |     |      |       |  |
|       |     | PNS   | eP    | 17 14 11.6 |      |     |      |       |  |
|       |     | TRJ   | P     | 17 14 11.6 |      |     |      |       |  |
| JUNE  | 07  | USCGS 17 33 18.0, 30.2S, 68.3W, h = 85 km., m = 4.4 |       |            |      |     |      |       |  |
|       |     | LPB   | iP    | 17 34 24.2 | C    | 0.7 | 287  | 3.5   |  |
|       |     | PNS   | S     | 35 11      |      |     |      |       |  |
| JUNE  | 07  | LPB   | iP    | 17 34 28.1 | C    |     |      |       |  |
|       |     | PNS   | eS    | 35 06      |      |     |      |       |  |
|       |     | TRJ   | iP    | 17 34 51.5 |      |     |      |       |  |

| JUNE  |     |       |                  |   |      |     |      |       |  |
|-------|-----|-------|------------------|---|------|-----|------|-------|--|
| MONTH | DAY | STA   | PHASE            | TIME  | SIGN | PER | AMPL | DIST  |  |
| JUNE  | 07  | PNS   | eP               | 19 01 01                                      |      |     |      |       |  |
|       |     |       | e                | 33.2  |      |     |      |       |  |
|       |     |       | e                | 49.8  |      |     |      |       |  |
|       |     | LPB   | eP               | 19 01 01.4                                    |      |     |      |       |  |
|       |     |       | e                | 46.5  |      |     |      |       |  |
|       |     | TPJ   | P                | 19 00 57.8                                    |      |     |      |       |  |
| JUNE  | 07  | PNS   | iP               | 19 17 38.4                                    |      |     |      |       |  |
| JUNE  | 07  | LPB   | eP               | 21 01 14.5                                    |      |     |      |       |  |
|       |     | PNS   | eP               | 21 01 17                                      |      |     |      |       |  |
| JUNE  | 07  | LPB   | eP               | 21 19 50.3                                    |      |     |      |       |  |
| JUNE  | 07  | PNS   | P                | 21 23 48.5                                    |      | 0.8 | 4    |       |  |
|       |     | LPB   | eP               | 21 23 49                                      |      |     |      |       |  |
| JUNE  | 07  | LPB   | eP               | 21 44 14                                      |      |     |      |       |  |
| JUNE  | 07  | USCGS |                  | 21 30 50.3, 2.1S, 120.5E, h = 23 km., m = 5.5 |      |     |      |       |  |
|       |     |       |                  | <b>CELEBES</b>                                |      |     |      |       |  |
|       |     | PNS   | PKP              | 21 50 52.4                                    |      | 1.7 | 91   |       |  |
|       |     |       | pPKP             | 51 04.0                                       |      |     |      |       |  |
|       |     |       | PKP <sub>2</sub> | 34.0  |      |     |      |       |  |
|       |     |       | PP               | 55 14.8                                       |      |     |      |       |  |
|       |     |       | eL               | 22 48.3                                       |      |     |      |       |  |
|       |     | LPB   | ePKP             | 21 50 53.5                                    |      |     |      | 159.7 |  |
|       |     |       | pPKP             | 51 02   |      |     |      |       |  |
|       |     |       | PKP <sub>2</sub> | 34  |      |     |      |       |  |
|       |     |       | ePP <sub>2</sub> | 55 14   |      |     |      |       |  |
|       |     |       | L                | 48.2  |      |     |      |       |  |
| JUNE  | 07  | PNS   | P                | 23 15 55.4                                    |      |     |      |       |  |
| JUNE  | 07  | LPB   | eP               | 23 19 54.2                                    |      |     |      |       |  |
|       |     | PNS   | P                | 23 19 56.2                                    |      | 1.0 | 5    |       |  |
| JUNE  | 08  | USCGS |                  | 00 16 39.5, 8.8S, 157.6E, h = 33 km., m = 5.4 |      |     |      |       |  |
|       |     |       |                  | <b>SOLOMON ISLANDS</b>                        |      |     |      |       |  |
|       |     | PNS   | PKP              | 00 35 46.7                                    |      | 1.1 | 16   |       |  |
|       |     |       | pPKP             | 36 00   |      |     |      |       |  |
|       |     |       | ePP              | 37 56   |      |     |      |       |  |
|       |     |       | eL               | 01 17.6                                       |      |     |      |       |  |
|       |     | LPB   | ePKP             | 00 35 47                                      |      | 1.2 | 34   | 128   |  |
|       |     |       | pPKP             | 36 01   |      |     |      |       |  |
|       |     |       | eL               | 01 17.7                                       |      |     |      |       |  |
|       |     | TRJ   | PKP              | 00 36 15.6                                    |      |     |      |       |  |
| JUNE  | 08  | LPB   | e(P)             | 00 58 21                                      |      |     |      |       |  |
| JUNE  | 08  | PNS   | eP               | 01 23 15.3                                    |      |     |      |       |  |
|       |     | LPB   | eP               | 01 23 17.2                                    |      |     |      |       |  |
| JUNE  | 08  | PNS   | eP               | 01 31 47                                      |      |     |      |       |  |
|       |     |       | S                | 32 20.8                                       |      |     |      |       |  |

| JUNE  |     |       |       |  |      |     |      |      |       |
|-------|-----|-------|-------|--|------|-----|------|------|-------|
| MONTH | DAY | STA   | PHASE | TIME   | SIGN | PER | AMPL | DIST |       |
| JUNE  | 08  | LPB   | eP    | 02 11 55                                       |      |     |      |      |       |
|       |     | PNS   | P     | 02 11 55.2                                     |      |     |      |      |       |
| JUNE  | 08  | PNS   | eP    | 02 53 34.2                                     |      |     |      |      |       |
|       |     |       | S     | 54 04.2  |      |     |      |      |       |
| JUNE  | 08  | USCGS |       | 02 44 37.3, 40.6N, 143.7E, h = 33 km., m = 4.7 |      |     |      |      |       |
|       |     |       |       | <b>OFF E CST OF HONSHU, JAPAN</b>              |      |     |      |      |       |
|       |     | PNS   | ePKP  | 03 04 10.4                                     |      |     |      | 0.6  | 4     |
|       |     | LPB   | ePKP  | 03 04 11.7                                     |      |     |      |      | 144   |
|       |     |       | eL    | 53.5   |      |     |      |      |       |
|       |     | TRJ   | eP    | 03 04 53.8                                     |      |     |      |      |       |
| JUNE  | 08  | USCGS |       | 03 13 17.7, 7.0S, 129.4E, h = 104 km., m = 5.4 |      |     |      |      |       |
|       |     |       |       | <b>BANDA SEA</b>                               |      |     |      |      |       |
|       |     | LPB   | P     | 03 32 56.2                                     |      |     |      | 0.8  | 15    |
|       |     |       | i     | 33 02.1  |      |     |      |      | 150.1 |
|       |     |       | eL    | 56   |      |     |      |      |       |
|       |     | PNS   | PKP   | 03 32 56.7                                     |      |     |      | 1.1  | 11    |
|       |     |       | i     | 33 02.3  |      |     |      |      |       |
|       |     |       | eL    | 56   |      |     |      |      |       |
|       |     | TRJ   | PKP   | 03 33 20.8                                     |      |     |      |      |       |
|       |     |       | i     | 24.2   |      |     |      |      |       |
| JUNE  | 08  | LPB   | P     | 04 09 51.4                                     |      |     |      | 0.8  | 6     |
|       |     | PNS   | P     | 04 09 52.6                                     |      |     |      | 1.0  | 8     |
| JUNE  | 08  | TRJ   | iP    | 04 32 37.1                                     |      |     |      |      |       |
|       |     | LPB   | eP    | 04 33 04.6                                     |      |     |      |      |       |
|       |     | PNS   | eP    | 04 33 08                                       |      |     |      | 0.4  | 3     |
| JUNE  | 08  | PNS   | eP    | 04 44 40.8                                     |      |     |      |      |       |
|       |     |       | eS    | 45 28  |      |     |      |      |       |
|       |     | LPB   | eP    | 04 44 44.5                                     |      |     |      |      |       |
| JUNE  | 08  | LPB   | eP    | 05 00 04.5                                     |      |     |      |      |       |
|       |     | TRJ   | eP    | 05 01 27.7                                     |      |     |      |      |       |
| JUNE  | 08  | PNS   | eP    | 05 20 43.4                                     |      |     |      |      |       |
|       |     | LPB   | eP    | 05 20 47                                       |      |     |      |      |       |
| JUNE  | 08  | USCGS |       | 05 29 46.5, 43.4N, 147.1E, h = 43 km., m = 5.3 |      |     |      |      |       |
|       |     |       |       | <b>KURILE ISLANDS</b>                          |      |     |      |      |       |
|       |     | LPB   | ePKP  | 05 49 10.8                                     |      |     |      | 1.0  | 24    |
|       |     |       | PKS   | 52 46  |      |     |      |      | 140   |
|       |     |       | eL    | 36.5   |      |     |      |      |       |
|       |     | PNS   | ePKP  | 05 49 11.2                                     |      |     |      | 1.2  | 21    |
|       |     |       | PKS   | 52 46.6  |      |     |      |      |       |
|       |     |       | eL    | 36.2   |      |     |      |      |       |
|       |     | TRJ   | iPKP  | 05 49 52.3                                     |      |     |      |      |       |
| JUNE  | 08  | LPB   | e(P)  | 06 39 19.3                                     |      |     |      |      |       |
| JUNE  | 08  | LPB   | eP    | 07 07 39.5                                     |      |     |      |      |       |
|       |     | PNS   | P     | 07 07 42.6                                     |      |     |      | 0.6  | 2     |
|       |     | TRJ   | P     | 07 07 45.1                                     |      |     |      |      |       |
| JUNE  | 08  | PNS   | eP    | 07 31 32.3                                     |      |     |      |      |       |
|       |     |       | eS    | 32 44.2  |      |     |      |      |       |
|       |     | LPB   | eP    | 07 31 34                                       |      |     |      |      |       |
| JUNE  | 08  | PNS   | P     | 07 36 29.8                                     |      |     |      | 0.6  | 4.0   |
|       |     |       | eS    | 37 56  |      |     |      |      |       |
|       |     | LPB   | P     | 07 36 31.3                                     |      |     |      | 1.3  | 23    |



JUNE

| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL | DIST |
|-------|-----|---|-------|------------|------|-----|------|------|
|       |     | TRJ   | P     | 07 36 40.7 | D    |     |      |      |
| JUNE  | 08  | PNS   | iP    | 07 50 52.3 | D    |     |      |      |
|       |     |   | iS    | 51 14.6    |      |     |      |      |
|       |     | LPB   | P     | 07 50 53.8 | D    | 0.9 | 44   |      |
|       |     |   | i     | 58.6       |      |     |      |      |
|       |     |   | S     | 51 19.5    |      |     |      |      |
| JUNE  | 08  | TRJ   | iP    | 07 57 35.9 | C    |     |      |      |
|       |     |   | S     | 58 06.1    |      |     |      |      |
| JUNE  | 08  | LPB   | P     | 09 41 23.6 |      |     |      |      |
|       |     |   | S     | 42 19      |      |     |      |      |
| JUNE  | 08  | LPB   | eP    | 10 21 04.7 |      | 0.6 | 6    |      |
|       |     |   | S     | 40.5       |      |     |      |      |
|       |     | PNS   | eP    | 10 21 05.6 |      |     |      |      |
|       |     |   | S     | 51.2       |      |     |      |      |
|       |     | TRJ   | eP    | 10 21 08.6 |      |     |      |      |
| JUNE  | 08  | LPB   | eP    | 11 09 07   |      |     |      |      |
| JUNE  | 08  | PNS   | P     | 11 22 40.9 |      | 0.9 | 4    |      |
|       |     | LPB   | eP    | 11 22 45.5 |      |     |      |      |
| JUNE  | 08  | PNS   | eP    | 14 03 25.8 |      | 0.9 | 5    |      |
|       |     | LPB   | eP    | 14 03 21.7 |      | 0.8 | 13   |      |
| JUNE  | 08  | PNS   | P     | 15 55 22.3 |      | 0.8 | 4    |      |
| JUNE  | 08  | PNS   | eP    | 16 22 33.6 |      |     |      |      |
| JUNE  | 08  | LPB   | eP    | 16 58 11   |      |     |      |      |
|       |     | PNS   | eP    | 16 58 11   |      |     |      |      |
|       |     |   | eS    | 19         |      |     |      |      |
| JUNE  | 08  | PNS   | eP    | 17 11 02   |      |     |      |      |
| JUNE  | 08  | LPB   | P     | 19 10 49.5 | n    | 0.7 | 67   |      |
|       |     |   | S     | 11 23.6    |      |     |      |      |
|       |     | PNS   | iP    | 19 10 50.8 | n    |     |      |      |
|       |     |   | S     | 11 16.4    |      |     |      |      |
| JUNE  | 08  | LPB   | eP    | 19 18 26.4 |      |     |      |      |
| JUNE  | 08  | PNS   | P     | 20 58 22.4 |      | 0.9 | 3    |      |
|       |     | LPB   | eP    | 20 58 29   |      |     |      |      |
| JUNE  | 08  | PNS   | eP    | 21 08 27   |      |     |      |      |
|       |     |   | eS    | 09 21.6    |      |     |      |      |
| JUNE  | 08  | USCGS 20 54 45.2, 41.5N, 142.3E, h = 30km., m = 5.2<br>HOKKAIDO, JAPAN REGION |       |            |      |     |      |      |
|       |     | PNS   | PKP   | 21 14 17   |      | 1.0 | 5    | 144  |
|       |     | LPB   | ePKP  | 21 14 18   |      |     |      |      |

JUNE



From the ISC collection scanned by SISMOS

| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL | DIST  |
|-------|-----|---|-------|------------|------|-----|------|-------|
| JUNE  | 08  | USCGS 21 42 06.3, 28.4N, 129.6E, h = 33 km., m = 5.2<br>RYUKYU ISLANDS      |       |            |      |     |      |       |
|       |     | LPB   | ePKP  | 22 02 03   |      |     |      |       |
|       |     | PNS   | ePKP  | 22 02 05   |      |     | 1.5  | 16    |
|       |     |   | e     | 34.7       |      |     |      |       |
| JUNE  | 08  | LPB   | eP    | 21 23 09.5 |      |     |      |       |
|       |     | PNS   | P     | 21 23 09.9 |      | 0.5 | 6    |       |
|       |     |   | eS    | 34         |      |     |      |       |
| JUNE  | 08  | PNS   | iP    | 22 32 32.6 | D    | 0.4 | 10   |       |
|       |     |   | eS    | 55.4       |      |     |      |       |
| JUNE  | 08  | PNS   | eP    | 23 25 51.8 |      |     |      |       |
|       |     | LPB   | e(P)  | 23 25 54.5 |      |     |      |       |
| JUNE  | 08  | USCGS 23 24 05.2, 48.8S, 31.5E, h = 33 km., m = 5.6<br>SOUTH OF AFRICA      |       |            |      |     |      |       |
|       |     | PNS   | P     | 23 36 30.2 |      | 0.9 | 7    |       |
|       |     |   | i     | 34.8       |      |     |      |       |
|       |     |   | iSKS  | 47 06      |      |     |      |       |
|       |     |   | iSS   | 51 55      |      |     |      |       |
|       |     |   | G     | 58.8       |      |     |      |       |
|       |     |   | L     | 00 03.4    |      |     |      |       |
| JUNE  | 08  | LPB   | P     | 23 36 32.3 |      | 1.0 | 20   | 83.7  |
|       |     |   | i     | 35.6       |      |     |      |       |
|       |     |   | iSKS  | 47 00      |      |     |      |       |
|       |     |   | SS    | 51 52      |      |     |      |       |
|       |     |   | G     | 58.1       |      |     |      |       |
|       |     |   | eL    | 00 04      |      |     |      |       |
| JUNE  | 09  | LPB   | eP    | 00 32 31   |      |     |      |       |
|       |     | PNS   | P     | 00 32 35.8 |      | 0.9 | 5    |       |
| JUNE  | 09  | USCGS 00 26 22.0, 5.6S, 150.0E, h = 112 km., m = 4.9<br>NEW BRITAIN REGION  |       |            |      |     |      |       |
|       |     | PNS   | ePKP  | 00 45 30   |      |     |      |       |
|       |     |   | eL    | 01 31      |      |     |      |       |
|       |     | LPB   | ePKP  | 00 45 35   |      |     |      | 135.2 |
|       |     |   | eL    | 01 30      |      |     |      |       |
| JUNE  | 09  | USCGS 00 56 33.9, 34.0N, 46.0E, h = 50 km., m = 5.0<br>IRAN USSR BOP REGION |       |            |      |     |      |       |
|       |     | LPB   | ePKP  | 01 15 20   |      |     |      | 114   |
|       |     | PNS   | ePKP  | 01 15 24   |      |     |      |       |
| JUNE  | 09  | LPB   | eP    | 01 27 15.5 |      |     |      |       |
|       |     |   | i     | 48.2       |      |     |      |       |
|       |     | PNS   | P     | 01 27 19.8 |      | 0.6 | 12   |       |
|       |     |   | i     | 50.4       |      |     |      |       |
| JUNE  | 09  | LPB   | P     | 02 22 43.2 |      | 0.6 | 47   |       |
|       |     |   | i     | 45.7       |      |     |      |       |
|       |     | PNS   | eP    | 02 22 52   |      |     |      |       |
| JUNE  | 09  | LPB   | eP    | 02 55 11   |      |     |      |       |
|       |     |   | L     | 03 23.7    |      |     |      |       |
|       |     | PNS   | eL    | 03 23.4    |      |     |      |       |

| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL | DIST   |  |
|-------|-----|---|-------|------------|------|-----|------|--------|--|
| JUNE  | 09  | USCGS 04 13 08.0, 6.4N, 95.2E, h = 33 km., m = 4.2<br>NICOBAR ISLANDS REGION    |       |            |      |     |      |        |  |
|       |     | PNS   | ePKP  | 04 33 04.4 |      |     |      |        |  |
|       |     |   | eL    | 05 32.7    |      |     |      |        |  |
|       |     | LPB   | ePKP  | 04 33 07.5 |      |     |      | 178.50 |  |
|       |     |   | eL    | 05 34      |      |     |      |        |  |
| JUNE  | 09  | LPB   | P     | 05 16 13.2 |      | 0.7 | 10   |        |  |
|       |     |   | S     | 40         |      |     |      |        |  |
|       |     | PNS   | iP    | 05 16 13.7 | D    | 0.7 | 8    |        |  |
|       |     |   | S     | 40.6       |      |     |      |        |  |
| JUNE  | 09  | LPB   | eP    | 05 48 16   |      |     |      |        |  |
|       |     | PNS   | iP    | 05 48 19.4 | D    | 0.3 | 2    |        |  |
|       |     |   | S     | 40.6       |      |     |      |        |  |
| JUNE  | 09  | PNS   | eP    | 06 57 59.3 |      |     |      |        |  |
| JUNE  | 09  | LPB   | eL    | 08 12      |      |     |      |        |  |
|       |     | PNS   | eL    | 08 12.2    |      |     |      |        |  |
| JUNE  | 09  | LPB   | eP    | 09 03 25.5 |      |     |      |        |  |
|       |     |   | eL    | 09 39      |      |     |      |        |  |
|       |     | PNS   | eL    | 09 38.9    |      |     |      |        |  |
| JUNE  | 09  | PNS   | eP    | 09 28 05   |      |     |      |        |  |
|       |     | LPB   | eP    | 09 28 06   |      |     |      |        |  |
| JUNE  | 09  | USCGS 09 17 31.7, 24.1S, 178.5E, h = 580 km., m = 5.1<br>SOUTH OF FIJI ISLANDS  |       |            |      |     |      |        |  |
|       |     | LPB   | eP    | 09 30 28   |      |     |      | 103    |  |
|       |     | PNS   | eP    | 09 30 29.3 |      | 1.3 | 9    |        |  |
| JUNE  | 09  | LPB   | eP    | 09 54 54.3 |      |     |      |        |  |
|       |     | PNS   | eP    | 09 54 56.7 |      |     |      |        |  |
| JUNE  | 09  | PNS   | P     | 10 18 42.0 | C    | 0.7 | 10   |        |  |
|       |     | LPB   | eP    | 10 18 42.5 |      | 0.7 | 7    |        |  |
| JUNE  | 09  | USCGS 10 21 35.9, 14.6N, 92.0W, h = 60 km., m = 5.0<br>GUATEMALA                |       |            |      |     |      |        |  |
|       |     | PNS   | P     | 10 28 53.9 |      | 1.1 | 11   |        |  |
|       |     |   | pP    | 29 08.0    |      |     |      |        |  |
|       |     |   | eL    | 41.5       |      |     |      |        |  |
|       |     | LPB   | eP    | 10 28 56.7 |      | 0.9 | 10   | 39.1   |  |
|       |     |   | pP    | 29 11.5    |      |     |      |        |  |
|       |     |   | eL    | 41.6       |      |     |      |        |  |
| JUNE  | 09  | PNS   | eP    | 10 31 05   |      |     |      |        |  |
|       |     | LPB   | eP    | 10 31 07   |      |     |      |        |  |
| JUNE  | 09  | PNS   | eP    | 10 34 57.3 |      |     |      |        |  |
| JUNE  | 09  | USCGS 10 55 43.6, 31.2S, 177.6W, h = 16 km., m = 4.7<br>KERMADEC ISLANDS REGION |       |            |      |     |      |        |  |
|       |     | PNS   | eP    | 11 09 12.8 |      |     |      |        |  |
|       |     |   | eL    | 41         |      |     |      |        |  |
|       |     | LPB   | eL    | 11 40.8    |      |     |      | 97     |  |



| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL | DIST  |  |
|-------|-----|---|-------|------------|------|-----|------|-------|--|
| JUNE  | 09  | USCGS 13 01 47.5, 0.7S, 132.7E, h = 33 km., m = 5.5<br>WEST NEW GUINEA REGION   |       |            |      |     |      |       |  |
|       |     | LPB   | ePKP  | 13 21 43   |      |     |      |       |  |
|       |     |   | eL    | 14 17      |      |     |      | 148.4 |  |
|       |     | PNS   | PKP   | 13 21 44.6 |      | 1.3 | 16   |       |  |
|       |     |   | eL    | 14 11      |      |     |      |       |  |
| JUNE  | 09  | PNS   | eP    | 14 07 41   |      | 1.0 | 4    |       |  |
|       |     | LPB   | eP    | 14 07 42   |      |     |      |       |  |
| JUNE  | 09  | PNS   | P     | 15 56 20.8 |      | 0.9 | 6    |       |  |
| JUNE  | 09  | PNS   | P     | 16 00 58.4 |      | 0.4 | 2    |       |  |
|       |     | LPB   | eP    | 16 00 59   |      |     |      |       |  |
| JUNE  | 09  | PNS   | P     | 16 04 35.9 | D    | 0.7 | 6    |       |  |
|       |     |   | S     | 05 02      |      |     |      |       |  |
|       |     | LPB   | eP    | 16 04 41.7 |      |     |      |       |  |
| JUNE  | 09  | PNS   | iP    | 16 07 39.4 | D    | 0.6 | 10   |       |  |
|       |     |   | iS    | 08 04.9    |      |     |      |       |  |
|       |     | LPB   | eP    | 16 07 43.2 |      |     |      |       |  |
|       |     |   | S     | 08 12      |      |     |      |       |  |
| JUNE  | 09  | LPB   | eP    | 16 17 16.7 |      |     |      |       |  |
|       |     |   | S     | 18 09.7    |      |     |      |       |  |
|       |     | PNS   | P     | 16 17 24.2 |      | 0.5 | 3    |       |  |
|       |     |   | S     | 18 14.4    |      |     |      |       |  |
| JUNE  | 09  | PNS   | iP    | 17 55 13.2 | C    | 0.4 | 10   |       |  |
|       |     |   | S     | 53.6       |      |     |      |       |  |
|       |     | LPB   | eP    | 17 55 19.5 |      | 1.0 | 20   |       |  |
|       |     |   | S     | 56 04.2    |      |     |      |       |  |
| JUNE  | 09  | USCGS 17 59 13.2, 41.4N, 142.6E, h = 21 km., m = 4.9<br>HOKKAIDO, JAPAN REGION  |       |            |      |     |      |       |  |
|       |     | PNS   | ePKP  | 18 18 46.2 |      |     |      |       |  |
|       |     |   | eL    | 19 06.4    |      |     |      |       |  |
|       |     | LPB   | ePKP  | 18 18 49.5 |      |     |      | 144.0 |  |
|       |     |   | eL    | 08         |      |     |      |       |  |
| JUNE  | 09  | LPB   | eP    | 20 31 49   |      |     |      |       |  |
|       |     | PNS   | eP    | 20 31 49   |      | 1.8 | 35   |       |  |
| JUNE  | 09  | PNS   | iP    | 20 44 35.4 | D    | 0.6 | 7    |       |  |
|       |     |   | iS    | 45 16.6    |      |     |      |       |  |
|       |     | LPB   | P     | 20 44 40.5 |      | 0.8 | 7    |       |  |
|       |     |   | S     | 45 27.4    |      |     |      |       |  |
| JUNE  | 09  | USCGS 22 01 58.0, 31.3S, 177.8W, h = 33 km., m = 5.0<br>KERMADEC ISLANDS REGION |       |            |      |     |      |       |  |
|       |     | LPB   | eP    | 22 15 28   |      |     |      | 47.2  |  |
|       |     |   | SKS   | 26 09      |      |     |      |       |  |
|       |     |   | PS    | 28 22      |      |     |      |       |  |
|       |     |   | eL    | 47         |      |     |      |       |  |

| MONTH | DAY | STA  | PHASE | TIME       | SIGN | PER | AMPL | DIST |  |
|-------|-----|--|-------|------------|------|-----|------|------|--|
|       |     | PNS  | eP    | 22 15 30.4 |      |     |      |      |  |
|       |     |  | SKS   | 26 16      |      |     |      |      |  |
|       |     |  | ePS   | 28 17      |      |     |      |      |  |
|       |     |  | L     | 47.1       |      |     |      |      |  |
| JUNE  | 09  | PNS  | P     | 23 25 43.8 |      | 1.1 | 10   |      |  |
|       |     | LPB  | eP    | 23 25 44.4 |      | 0.7 | 8    |      |  |
| JUNE  | 10  | LPB  | eP    | 00 29 41   |      | 0.4 | 4    |      |  |
|       |     | PNS  | P     | 00 29 47.3 |      |     |      |      |  |
| JUNE  | 10  | USCGS 01 06 49.0, 19.7S, 173.5W, h = 60 km., m = 4.9 |       |            |      |     |      |      |  |
|       |     | TONGA ISLANDS  |       |            |      |     |      |      |  |
|       |     | PNS  | eP    | 01 20 16   |      |     |      |      |  |
| JUNE  | 10  | LPB  | eP    | 01 38 46   |      | 1.3 | 8    |      |  |
|       |     | PNS  | eP    | 01 38 51.2 |      |     |      |      |  |
| JUNE  | 10  | PNS  | P     | 02 53 01.1 | C    | 0.5 | 4    |      |  |
|       |     | LPB  | P     | 02 52 57.4 |      | 0.7 | 8    |      |  |
| JUNE  | 10  | LPB  | eP    | 02 58 17   |      |     |      |      |  |
| JUNE  | 10  | LPB  | eP    | 03 22 23.8 |      | 0.8 | 45   |      |  |
| JUNE  | 10  | LPB  | eP    | 04 23 40   |      |     |      |      |  |
|       |     |  | eL    | 40         |      |     |      |      |  |
|       |     | PNS  | eP    | 04 23 41.3 |      |     |      |      |  |
|       |     |  | eL    | 40.1       |      |     |      |      |  |
| JUNE  | 10  | LPB  | iP    | 04 43 58.5 | C    | 0.7 | 21   |      |  |
|       |     |  | S     | 44 22.4    |      |     |      |      |  |
|       |     | PNS  | iP    | 04 43 58.7 | D    | 0.6 | 7    |      |  |
|       |     |  | S     | 44 21.6    |      |     |      |      |  |
| JUNE  | 10  | PNS  | eP    | 05 23 45.7 |      |     |      |      |  |
|       |     |  | S     | 24 00.8    |      |     |      |      |  |
| JUNE  | 10  | LPB  | eP    | 05 36 00   |      |     |      |      |  |
| JUNE  | 10  | LPB  | eL    | 06 20      |      |     |      |      |  |
|       |     | PNS  | eL    | 06 20.2    |      |     |      |      |  |
| JUNE  | 10  | LPB  | eP    | 06 29 27.5 |      |     |      |      |  |
| JUNE  | 10  | LPB  | eP    | 07 05 20   |      |     |      |      |  |
|       |     | PNS  | eP    | 07 05 24.4 |      |     |      |      |  |
|       |     |  | S     | 06 00.4    |      |     |      |      |  |
| JUNE  | 10  | PNS  | P     | 07 24 36.3 |      | 0.5 | 2    |      |  |
|       |     |  | S     | 58.8       |      |     |      |      |  |
|       |     | LPB  | eP    | 07 24 41.2 |      |     |      |      |  |
| JUNE  | 10  | PNS  | eP    | 07 34 20.6 |      |     |      |      |  |
|       |     | LPB  | eP    | 07 34 21   |      |     |      |      |  |
| JUNE  | 10  | PNS  | P     | 09 59 54   |      |     |      |      |  |
|       |     |  | S     | 10 00 17.8 |      |     |      |      |  |



| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL | DIST  |  |
|-------|-----|---|-------|------------|------|-----|------|-------|--|
| JUNE  | 10  | PNS   | P     | 10 06 09.8 |      |     |      |       |  |
|       |     |   | S     | 34.7       |      |     |      |       |  |
| JUNE  | 10  | LPB   | eP    | 11 05 35   |      |     |      |       |  |
| JUNE  | 10  | PNS   | P     | 11 24 02.2 |      | 0.9 | 8    |       |  |
|       |     | LPB   | eP    | 11 24 03   |      |     |      |       |  |
| JUNE  | 10  | PNS   | P     | 12 15 55.0 |      |     |      |       |  |
| JUNE  | 10  | LPB   | eP    | 12 44 08.7 |      |     |      |       |  |
|       |     | PNS   | P     | 12 44 10.2 |      | 0.9 | 4.2  |       |  |
| JUNE  | 10  | USCGS 12 41 05.1, 56.3N, 161.6W, h = 182 km., m = 5.6 |       |            |      |     |      |       |  |
|       |     | ALASKA PENINSULA                                      |       |            |      |     |      |       |  |
|       |     | LPB   | eP    | 12 54 51   |      |     |      | 105.7 |  |
|       |     | PNS   | eP    | 12 54 53.2 |      |     |      |       |  |
| JUNE  | 10  | LPB   | e     | 12 57 26   |      |     |      |       |  |
|       |     |   | eSS   | 13 05 20   |      |     |      |       |  |
|       |     |   | eL    | 07         |      |     |      |       |  |
|       |     | PNS   | eP    | 12 57 33   |      |     |      |       |  |
|       |     |   | SS    | 13 05 17   |      |     |      |       |  |
|       |     |   | eL    | 07.2       |      |     |      |       |  |
| JUNE  | 10  | LPB   | eP    | 13 30 38   |      |     |      |       |  |
|       |     | PNS   | P     | 13 30 42.0 |      | 1.3 | 5    |       |  |
| JUNE  | 10  | LPB   | eP    | 13 59 42.5 |      |     |      |       |  |
|       |     | PNS   | iP    | 13 59 44.9 | D    | 0.5 | 6    |       |  |
|       |     |   | S     | 14 00 07.8 |      |     |      |       |  |
| JUNE  | 10  | LPB   | eP    | 13 10 54   |      |     |      |       |  |
|       |     | PNS   | P     | 13 10 54.3 |      | 1.4 | 16   |       |  |
|       |     |   | e     | 13 12      |      |     |      |       |  |
|       |     |   | eL    | 38.7       |      |     |      |       |  |
| JUNE  | 10  | PNS   | L     | 14 46.8    |      |     |      |       |  |
|       |     | LPB   | eL    | 14 47      |      |     |      |       |  |
| JUNE  | 10  | LPB   | P     | 14 50 54.5 |      | 1.0 | 14   |       |  |
|       |     |   | eL    | 15 04      |      |     |      |       |  |
|       |     | PNS   | P     | 14 51 54.8 |      | 1.1 | 12   |       |  |
|       |     |   | eL    | 15 04.1    |      |     |      |       |  |
| JUNE  | 10  | USCGS 15 06 58.0, 22.3N, 45.0W, h = 33 km., m = 47    |       |            |      |     |      |       |  |
|       |     | NORTH ATLANTIC RIDGE                                  |       |            |      |     |      |       |  |
|       |     | LPB   | eP    | 15 15 10   |      |     |      | 45    |  |
|       |     |   | eSS   | 25 20      |      |     |      |       |  |
|       |     |   | eL    | 29         |      |     |      |       |  |
|       |     | PNS   | P     | 15 15 15.2 |      |     |      | 12    |  |
|       |     |   | pP    | 17 04.6    |      |     |      |       |  |
|       |     |   | eSS   | 25 26      |      |     |      |       |  |
|       |     |   | i     | 29         |      |     |      |       |  |
|       |     |   | L     | 30.4       |      |     |      |       |  |

| JUNE                    |     |             |                |                             |      |     |      |      |  |
|-------------------------|-----|-------------|----------------|-----------------------------|------|-----|------|------|--|
| MONTH                   | DAY | STA         | PHASE          | TIME                        | SIGN | PER | AMPL | DIST |  |
| JUNE                    | 10  | LPB<br>PNS  | eP<br>P        | 15 22 29<br>15 22 32.5      |      |     |      |      |  |
| JUNE                    | 10  | USCGS 15 29 | 21.2, 31.1S,   | 177.7W, h = 33 km., m = 4.7 |      |     |      |      |  |
| KERMADEC ISLANDS REGION |     |             |                |                             |      |     |      |      |  |
| JUNE                    | 10  | PNS         | eP             | 15 42 49                    |      |     |      |      |  |
| JUNE                    | 10  | PNS         | eP<br>eS       | 16 35 13<br>36 32.8         |      |     |      |      |  |
| JUNE                    | 10  | PNS         | P              | 16 40 21.3                  |      | 0.6 | 3    |      |  |
| JUNE                    | 10  | LPB         | eS<br>eP       | 56<br>16 40 25              |      |     |      |      |  |
| JUNE                    | 10  | PNS         | eP             | 17 20 12.7                  |      | 0.9 | 15   |      |  |
| JUNE                    | 10  | LPB         | eL<br>eP<br>eL | 46.3<br>17 20 18.8<br>46    |      | 1.0 | 14   |      |  |
| JUNE                    | 10  | USCGS 17 36 | 30.0, 39.0N,   | 75.1E, h = 51 km., m = 4.8  |      |     |      |      |  |
| S SINKIANG PROV, CHINA  |     |             |                |                             |      |     |      |      |  |
| JUNE                    | 10  | PNS         | ePKP           | 17 55 52                    |      |     |      |      |  |
| JUNE                    | 10  | LPB         | ePKP           | 17 55 53.5                  |      |     |      |      |  |
| JUNE                    | 10  | LPB         | P              | 19 43 40.5                  |      | 0.9 | 8    |      |  |
| JUNE                    | 10  | PNS         | P              | 19 43 44.7                  |      | 0.5 | 6    |      |  |
| JUNE                    | 10  | PNS         | S              | 45 00.7                     |      |     |      |      |  |
| JUNE                    | 10  | LPB         | eP             | 20 05 31                    |      | 1.0 | 4    |      |  |
| JUNE                    | 10  | PNS         | eP             | 20 06 35.2                  |      |     |      |      |  |
| JUNE                    | 10  | PNS         | eP             | 21 20 46                    |      |     |      |      |  |
| JUNE                    | 10  | PNS         | eP             | 21 49 16.7                  |      |     |      |      |  |
| JUNE                    | 10  | PNS         | eP             | 23 22 07.4                  |      | 1.4 | 16   |      |  |
| JUNE                    | 11  | PNS         | eP             | 00 13 20.6                  |      |     |      |      |  |
| JUNE                    | 11  | PNS         | P              | 01 10 13.8                  |      | 0.7 | 3    |      |  |
| JUNE                    | 11  | PNS         | eL             | 30.5                        |      |     |      |      |  |
| JUNE                    | 11  | PNS         | P              | 01 27 58.7                  |      | 0.6 | 3    |      |  |
| JUNE                    | 11  | PNS         | P              | 02 13 02.3                  |      | 0.8 | 5    |      |  |
| JUNE                    | 11  | PNS         | eP             | 03 28 52                    |      |     |      |      |  |
| JUNE                    | 11  | USCGS 03 04 | 49.0, 4.9N,    | 125.0E, h = 33 km., m = 5.1 |      |     |      |      |  |
| TALAUD ISLANDS          |     |             |                |                             |      |     |      |      |  |
| JUNE                    | 11  | PNS         | ePKP           | 03 29 42                    |      |     |      |      |  |
| JUNE                    | 11  | PNS         | P              | 04 03 08.6                  |      | 1.4 | 16   |      |  |

| JUNE                    |     |             |              |                             |      |     |      |      |  |
|-------------------------|-----|-------------|--------------|-----------------------------|------|-----|------|------|--|
| MONTH                   | DAY | STA         | PHASE        | TIME                        | SIGN | PER | AMPL | DIST |  |
| JUNE                    | 11  | USCGS 05 52 | 33.5, 13.9N, | 88.8W, h = 199 km., m = 5.3 |      |     |      |      |  |
| EL SALVADOR             |     |             |              |                             |      |     |      |      |  |
| JUNE                    | 11  | PNS         | P            | 05 59 18.6                  |      |     | 1.5  | 45   |  |
| JUNE                    | 11  | PNS         | pP           | 06 00 02.0                  |      |     |      |      |  |
| JUNE                    | 11  | PNS         | S            | 04 45                       |      |     |      |      |  |
| JUNE                    | 11  | PNS         | SS           | 07 37                       |      |     |      |      |  |
| JUNE                    | 11  | PNS         | eL           | 09.9                        |      |     |      |      |  |
| JUNE                    | 11  | PNS         | P            | 06 01 40.4                  |      |     | 1.8  | 83   |  |
| JUNE                    | 11  | PNS         | L            | 24.5                        |      |     |      |      |  |
| JUNE                    | 11  | PNS         | P            | 06 05 09.0                  |      |     | 1.6  | 38   |  |
| JUNE                    | 11  | USCGS 06 09 | 28.0, 38.6N, | 43.1E, h = 33 km., m = 4.7  |      |     |      |      |  |
| TURKEY                  |     |             |              |                             |      |     |      |      |  |
| JUNE                    | 11  | PNS         | P            | 07 19 57.6                  |      |     | 0.6  | 4    |  |
| JUNE                    | 11  | PNS         | eS           | 21 02                       |      |     |      |      |  |
| JUNE                    | 11  | PNS         | P            | 07 42 19.4                  |      |     |      |      |  |
| JUNE                    | 11  | PNS         | P            | 07 58 44.4                  |      |     |      |      |  |
| JUNE                    | 11  | PNS         | P            | 08 25 52                    |      |     |      |      |  |
| JUNE                    | 11  | PNS         | eP           | 08 45 41.6                  |      |     |      |      |  |
| JUNE                    | 11  | PNS         | eP           | 09 55 42.9                  |      |     |      |      |  |
| JUNE                    | 11  | USCGS 10 24 | 12.3, 5.8S,  | 103.9E, h = 60 km., m = 5.4 |      |     |      |      |  |
| SOUTHERN SUMATRA        |     |             |              |                             |      |     |      |      |  |
| JUNE                    | 11  | PNS         | ePKP         | 10 44 02                    |      |     | 1.3  | 9    |  |
| JUNE                    | 11  | USCGS 11 38 | 50.0, 21.2S, | 69.6W, h = 22 km., m = 4.7  |      |     |      |      |  |
| NORTHERN CHILE          |     |             |              |                             |      |     |      |      |  |
| JUNE                    | 11  | PNS         | iP           | 11 40 17.8                  |      |     |      | C    |  |
| JUNE                    | 11  | PNS         | L            | 41.5                        |      |     |      |      |  |
| JUNE                    | 11  | USCGS 11 45 | 15.0, 41.5S, | 85.4N, h = 33 km., m = 4.9  |      |     |      |      |  |
| WEST CHILE RISE         |     |             |              |                             |      |     |      |      |  |
| JUNE                    | 11  | PNS         | P            | 11 51 14.5                  |      |     | 1.5  | 35   |  |
| JUNE                    | 11  | PNS         | L            | 58.9                        |      |     |      | C    |  |
| JUNE                    | 11  | PNS         | eP           | 13 43 40                    |      |     |      |      |  |
| JUNE                    | 11  | PNS         | P            | 14 16 10.8                  |      |     | 1.0  | 6    |  |
| JUNE                    | 11  | USCGS 14 41 | 25.0, 2.9S,  | 79.1W, h = 196 km., m = 3.7 |      |     |      |      |  |
| NEAR COAST OF ECUADOR   |     |             |              |                             |      |     |      |      |  |
| JUNE                    | 11  | PNS         | eP           | 14 45 12.7                  |      |     |      |      |  |
| JUNE                    | 11  | PNS         | P            | 15 31 58.1                  |      |     |      |      |  |
| JUNE                    | 11  | PNS         | S            | 33 19                       |      |     |      |      |  |
| JUNE                    | 11  | PNS         | P            | 15 36 13.9                  |      |     |      | D    |  |
| JUNE                    | 11  | PNS         | S            | 45                          |      |     |      |      |  |
| JUNE                    | 11  | USCGS 15 49 | 53.0, 10.9N, | 62.1W, h = 109 km., m = 4.4 |      |     |      |      |  |
| NEAR COAST OF VENEZUELA |     |             |              |                             |      |     |      |      |  |
| JUNE                    | 11  | PNS         | P            | 15 55 33.9                  |      |     | 1.0  | 7    |  |

| JUNE  |     |   |       |            |      |     |      |      |  |
|-------|-----|---|-------|------------|------|-----|------|------|--|
| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL | DIST |  |
|       |     |   | eL    | 16 03.6    |      |     |      |      |  |
| JUNE  | 11  | PNS   | eP    | 16 19 35   |      |     |      |      |  |
|       |     |   | eL    | 54.1       |      |     |      |      |  |
| JUNE  | 11  | PNS   | P     | 16 32 06.9 |      | 0.7 | 4    |      |  |
| JUNE  | 11  | PNS   | P     | 16 45 03.0 |      | 0.5 | 5    |      |  |
|       |     |   | S     | 25.8       |      |     |      |      |  |
| JUNE  | 11  | PNS   | P     | 19 08 00.2 |      | 0.4 | 2    |      |  |
| JUNE  | 11  | LPB   | eP    | 20 47 21   |      |     |      |      |  |
|       |     |   | i     | 31.7       |      |     |      |      |  |
|       |     | PNS   | P     | 20 47 22.2 |      | 0.7 | 8    |      |  |
|       |     |   | i     | 47.9       |      |     |      |      |  |
| JUNE  | 11  | LPB   | eP    | 21 06 03   |      |     |      |      |  |
|       |     | PNS   | eP    | 21 06 06.2 |      |     |      |      |  |
|       |     |   | eS    | 07 20      |      |     |      |      |  |
| JUNE  | 11  | LPB   | eP    | 22 45 22   |      |     |      |      |  |
|       |     |   | eL    | 23 17      |      |     |      |      |  |
|       |     | PNS   | P     | 22 45 25.0 | C    | 1.0 | 7    |      |  |
|       |     |   | eL    | 23 20      |      |     |      |      |  |
| JUNE  | 11  | PNS   | eP    | 22 49 32.4 |      |     |      |      |  |
| JUNE  | 11  | PNS   | iP    | 23 47 38.5 | D    |     |      |      |  |
|       |     |   | eS    | 48 02.4    |      |     |      |      |  |
|       |     | LPB   | P     | 23 47 41   |      | 1.0 | 18   |      |  |
| JUNE  | 12  | LPR   | eP    | 00 18 15.2 |      |     |      |      |  |
| JUNE  | 12  | PNS   | P     | 00 22 22.9 |      | 0.5 | 3    |      |  |
|       |     | LPR   | eP    | 00 22 26   |      | 0.9 | 17   |      |  |
| JUNE  | 12  | LPR   | eP    | 00 30 51   |      |     |      |      |  |
|       |     | PNS   | eP    | 00 30 54.4 |      |     |      |      |  |
|       |     |   | i     | 31 13.6    |      |     |      |      |  |
| JUNE  | 12  | LPR   | eP    | 01 37 51   |      |     |      |      |  |
|       |     | PNS   | eP    | 01 37 55   |      |     |      |      |  |
| JUNE  | 12  | PNS   | P     | 04 19 14.6 | D    | 0.6 | 11   |      |  |
|       |     |   | S     | 40         |      |     |      |      |  |
|       |     | LPB   | P     | 04 19 16   |      | 0.7 | 5    |      |  |
|       |     |   | S     | 42.5       |      |     |      |      |  |
| JUNE  | 12  | USCGS 04 24 22.6, 24.9N, 91.9E, h = 44 km., m = 5.3<br>INDIA-EAST PAKISTAN BORDER |       |            |      |     |      |      |  |
|       |     | LPR   | PKP   | 04 49 20   |      | 0.9 | 8    | 160  |  |
|       |     |   | e     | 57.2       |      |     |      |      |  |
|       |     |   | eL    | 47.2       |      |     |      |      |  |
|       |     | PNS   | PKP   | 04 49 20.1 |      | 1.2 | 11   |      |  |
|       |     |   | i     | 58.0       |      |     |      |      |  |

| JUNE  |     |   |       |            |      |     |      |      |     |
|-------|-----|---|-------|------------|------|-----|------|------|-----|
| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL | DIST |     |
| JUNE  | 12  | PNS   | P     | 05 34 36.3 |      |     |      | 0.4  | 2   |
|       |     |   | S     | 58.3       |      |     |      |      |     |
| JUNE  | 12  | LPB   | P     | 06 47 51   |      |     |      | 0.5  | 12  |
|       |     | PNS   | iP    | 06 47 52.8 | D    |     |      | 0.5  | 2   |
|       |     |   | S     | 48 18.6    |      |     |      |      |     |
| JUNE  | 12  | USCGS 06 59 43.0, 0.1S, 91.7W, h = 33 km., m = 4.2<br>GALAPAGOS ISLANDS           |       |            |      |     |      |      |     |
|       |     | LPB   | eP    | 07 05 30.5 |      |     |      |      | 28  |
|       |     |   | eL    | 14.2       |      |     |      |      |     |
|       |     | PNS   | eP    | 07 05 32.7 |      |     |      |      |     |
|       |     |   | L     | 07 14.9    |      |     |      |      |     |
| JUNE  | 12  | PNS   | P     | 07 20 27.6 | D    |     |      | 0.3  | 9   |
|       |     | LPB   | eP    | 07 20 29.5 |      |     |      |      |     |
| JUNE  | 12  | PNS   | P     | 06 41 00.6 |      |     |      |      |     |
| JUNE  | 12  | PNS   | iP    | 07 43 18.6 |      |     |      | 0.7  | 8   |
|       |     |   | S     | 42.6       |      |     |      |      |     |
|       |     | LPB   | eP    | 07 43 19.5 |      |     |      |      |     |
|       |     |   | eS    | 43.8       |      |     |      |      |     |
| JUNE  | 12  | PNS   | eP    | 08 08 19.3 |      |     |      |      |     |
|       |     | LPB   | P     | 08 08 22.7 |      |     |      |      |     |
| JUNE  | 12  | PNS   | P     | 09 28 54.9 |      |     |      | 1.3  | 11  |
|       |     | LPB   | eP    | 09 28 59   |      |     |      |      |     |
| JUNE  | 12  | LPB   | eP    | 09 47 02   |      |     |      |      |     |
|       |     |   | eS    | 36.3       |      |     |      |      |     |
|       |     | PNS   | iP    | 09 47 06.9 | D    |     |      | 0.5  | 5   |
|       |     |   | S     | 38         |      |     |      |      |     |
| JUNE  | 12  | USCGS 10 50 06.0, 19.1S, 70.7W, h = 33 km., m = 4.3<br>NR CST OF NORTHERN CHILE   |       |            |      |     |      |      |     |
|       |     | PNS   | iP    | 10 51 01.4 | C    |     |      | 0.5  | 20  |
|       |     |   | S     | 46         |      |     |      |      |     |
|       |     | LPB   | iP    | 10 51 02.0 |      |     |      | 0.9  | 143 |
|       |     |   | i     | 03.9       |      |     |      |      | 3.9 |
|       |     |   | eS    | 42         |      |     |      |      |     |
| JUNE  | 12  | USCGS 12 23 42.0, 24.2S, 66.3W, h = 142 km., m = 4.4<br>SALTA PROVINCE, ARGENTINA |       |            |      |     |      |      |     |
|       |     | LPR   | eP    | 12 25 34   |      |     |      | 0.7  | 28  |
|       |     |   | eS    | 27 03.5    |      |     |      |      | 8.0 |
|       |     | PNS   | P     | 12 25 37.9 |      |     |      | 0.4  | 12  |
|       |     |   | eS    | 27 01      |      |     |      |      |     |
| JUNE  | 12  | USCGS 13 18 35.0, 19.4S, 69.5W, h = 121 km., m = 4.1<br>NORTHERN CHILE            |       |            |      |     |      |      |     |
|       |     | LPB   | iP    | 13 19 24.9 | C    |     |      | 0.9  | 527 |
|       |     |   | iS    | 20 05      |      |     |      |      | 3   |
|       |     | PNS   | iP    | 13 19 26.6 | C    |     |      |      |     |
|       |     |   | S     | 20 06.2    |      |     |      |      |     |

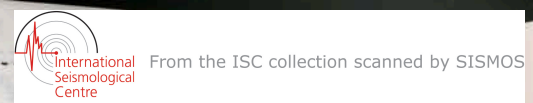


|       |     | JUNE   |       |            |      |     |      |       |
|-------|-----|--|-------|------------|------|-----|------|-------|
| MONTH | DAY | STA  | PHASE | TIME       | SIGN | PER | AMPL | DIST  |
| JUNE  | 12  | USCGS 13 41 50.7, 39.5N, 142.7E, h = 44 km., m = 6.0<br>NR E CST OF HONSHU, JAPAN  |       |            |      |     |      |       |
|       |     | PNS  | PKP   | 14 01 22.7 |      | 1.4 | 54   |       |
|       |     |  | i     | 27.0       |      |     |      |       |
|       |     |  | SS    | 23 40      |      |     |      |       |
|       |     |  | L     | 51.2       |      |     |      |       |
|       |     | LPB  | ePKP  | 14 01 23.5 |      | 1.0 | 140  | 145   |
|       |     |  | i     | 29         |      |     |      |       |
|       |     |  | SS    | 23 44      |      |     |      |       |
|       |     |  | eL    | 51.5       |      |     |      |       |
| JUNE  | 12  | PNS  | eP    | 14 09 14.0 |      | 1.2 | 22   |       |
|       |     | LPB  | eP    | 14 09 14.5 |      | 1.1 | 52   |       |
| JUNE  | 12  | USCGS 14 11 00.5, 59.9S, 27.6W, h = 95 km., m = 5.5<br>SOUTH SANDWICH IS REGION    |       |            |      |     |      |       |
|       |     | LPB  | iP    | 14 20 05   | D    |     |      | 52.1  |
|       |     | PNS  | iP    | 14 20 08.2 | D    |     |      |       |
|       |     |  | S     | 27 28      |      |     |      |       |
| JUNE  | 12  | LPB  | P     | 14 27 26.6 |      | 1.0 | 24   |       |
|       |     | PNS  | eP    | 14 26 33.5 |      |     |      |       |
| JUNE  | 12  | PNS  | eP    | 14 30 14   |      |     |      |       |
|       |     | LPB  | eP    | 14 30 14.5 |      |     |      |       |
| JUNE  | 12  | USCGS 14 17 25.8, 39.2N, 143.0E, h = 33 km., m = 5.2<br>NR E CST OF HONSHU, JAPAN  |       |            |      |     |      |       |
|       |     | PNS  | PKP   | 14 32 00.2 |      | 1.3 | 12   |       |
|       |     |  | pHP   | 10.0       |      |     |      |       |
|       |     | LPB  | P     | 14 37 02   |      | 1.3 | 38   | 145   |
|       |     |  | pHP   | 12.7       |      |     |      |       |
| JUNE  | 12  | LPB  | eP    | 14 46 51.5 |      |     |      |       |
|       |     | PNS  | P     | 14 46 54.7 |      |     |      |       |
| JUNE  | 12  | LPB  | eP    | 14 53 55.5 |      |     |      |       |
|       |     | PNS  | P     | 14 53 59.6 |      |     |      |       |
| JUNE  | 12  | USCGS 44 38 11.9, 39.4N, 142.8E, h = 31 km., m = 5.0<br>NR E CST OF HONSHU, JAPAN  |       |            |      |     |      |       |
|       |     | PNS  | PKP   | 14 57 46   |      | 0.8 | 5    |       |
|       |     | LPB  | ePKP  | 14 57 46.7 |      | 1.0 | 18   | 145   |
| JUNE  | 12  | LPB  | eP    | 15 03 43   |      |     |      |       |
|       |     | PNS  | eP    | 15 03 46   |      |     |      |       |
| JUNE  | 12  | USCGS 14 51 59.8, 39.9N, 143.1E, h = 33 km., m = 4.5<br>OFF E CST OF HONSHU, JAPAN |       |            |      |     |      |       |
|       |     | LPB  | ePKP  | 15 11 40   |      |     |      | 144.1 |
|       |     | PNS  | ePKP  | 15 11 45.8 |      | 1.5 | 12   |       |
| JUNE  | 12  | LPB  | e(P)  | 15 15 39   |      |     |      |       |
|       |     | PNS  | eP    | 15 25 40   |      |     |      |       |
|       |     |  | e     | 51         |      |     |      |       |
| JUNE  | 12  | LPB  | eP    | 15 27 37.2 |      | 0.8 | 21   |       |
|       |     | PNS  | iP    | 15 27 40.7 | C    | 0.9 |      |       |
|       |     |  | eS    | 28 30      |      |     |      | 190   |

|       |     | JUNE   |       |            |      |     |      |       |
|-------|-----|--|-------|------------|------|-----|------|-------|
| MONTH | DAY | STA  | PHASE | TIME       | SIGN | PER | AMPL | DIST  |
| JUNE  | 12  | USCGS 15 23 52.5, 39.4N, 143.1E, h = 29 km., m = 5.1<br>OFF E CST OF HONSHU, JAPAN |       |            |      |     |      |       |
|       |     | PNS  | PKP   | 15 43 26.9 |      | 0.6 | 3    |       |
|       |     | LPB  | ePKP  | 15 43 28.3 |      |     |      | 144.1 |
| JUNE  | 12  | USCGS 15 39 12.0, 39.4N, 142.8E, h = 32 km., m = 4.5<br>NR E CST OF HONSHU, JAPAN  |       |            |      |     |      |       |
|       |     | PNS  | ePKP  | 15 58 50.6 |      |     |      |       |
|       |     | LPB  | ePKP  | 15 58 54   |      |     |      | 145   |
| JUNE  | 12  | USCGS 15 48 59.5, 39.3N, 143.0E, h = 30 km., m = 5.1<br>OFF E CST OF HONSHU, JAPAN |       |            |      |     |      |       |
|       |     | LPB  | eP    | 16 08 33   |      |     |      | 144.5 |
|       |     | PNS  | ePKP  | 16 08 35.4 |      |     |      |       |
|       |     |  | pPKP  | 43.4       |      |     |      |       |
| JUNE  | 12  | USCGS 16 23 17.1, 39.5N, 143.1E, h = 21 km., m = 4.7<br>OFF E CST OF HONSHU, JAPAN |       |            |      |     |      |       |
|       |     | PNS  | ePKP  | 16 30 42.9 |      | 0.5 | 2    |       |
|       |     | LPB  | ePKP  | 16 30 45   |      |     |      | 144.5 |
| JUNE  | 12  | LPB  | eP    | 16 42 50   |      |     |      |       |
|       |     | PNS  | P     | 16 42 53.1 | C    | 0.5 | 2    |       |
| JUNE  | 12  | PNS  | eP    | 16 48 48.4 |      |     |      |       |
|       |     | LPB  | eP    | 16 48 53   |      |     |      |       |
| JUNE  | 12  | PNS  | P     | 17 15 38.8 |      |     |      |       |
| JUNE  | 12  | USCGS 17 33 08.0, 6.4S, 76.5W, h = 112 km., m = 4.2<br>NORTHERN PERU               |       |            |      |     |      |       |
|       |     | PNS  | eP    | 17 36 06   |      |     |      |       |
|       |     | LPB  | eP    | 17 36 09   |      |     |      | 12.7  |
| JUNE  | 12  | USCGS 17 52 01.2, 39.1N, 142.9E, h = 30 km., m = 5.5<br>NR E CST OF HONSHU, JAPAN  |       |            |      |     |      |       |
|       |     | LPB  | PKP   | 18 11 35   |      | 1.0 | 28   | 145   |
|       |     | PNS  | PKP   | 18 11 35.4 |      | 1.4 | 28   |       |
|       |     |  | eL    | 19 00.3    |      |     |      |       |
| JUNE  | 12  | USCGS 18 17 32.4, 0.3S, 915W, h = 33 km., m = 4.7<br>GALAPAGOS ISLANDS             |       |            |      |     |      |       |
|       |     | PNS  | P     | 18 23 20.6 |      | 1.3 | 13   |       |
|       |     | LPB  | P     | 18 23 23   |      | 1.2 | 10   | 28    |
| JUNE  | 12  | PNS  | P     | 19 01 02.5 |      | 1.0 | 6    |       |
| JUNE  | 12  | LPB  | eP    | 19 08 26.5 |      |     |      |       |
|       |     | PNS  | eP    | 19 08 28.4 |      |     |      |       |
| JUNE  | 12  | LPB  | eP    | 19 13 20   |      |     |      |       |
|       |     |  | e     | 15 36      |      |     |      |       |
|       |     | PNS  | eP    | 19 15 20.6 |      | 1.2 | 7    |       |

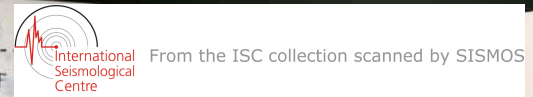
| MONTH | DAY | STA  | PHASE | TIME       | SIGN | PER | AMPL  | DIST  |
|-------|-----|--|-------|------------|------|-----|-------|-------|
| JUNE  | 12  | LPB  | eP    | 19 39 11.5 |      |     |       |       |
| JUNE  | 12  | USCGS 19 36 24.7, 39.5N, 143.0E, h = 56 km., m = 4.6 |       |            |      |     |       |       |
|       |     | OFF E CST OF HONSHU, JAPAN                           |       |            |      |     |       |       |
|       |     | PNS  | ePKP  | 19 55 56.7 |      |     | 144.5 |       |
|       |     | LPB  | ePKP  | 19 55 58   |      |     |       |       |
| JUNE  | 12  | USCGS 19 38 43.5, 39.3N, 142.7E, h = 40 km., m = 4.6 |       |            |      |     |       |       |
|       |     | NR E CST OF HONSHU, JAPAN                            |       |            |      |     |       |       |
|       |     | PNS  | ePKP  | 19 58 18.7 |      |     | 145   |       |
|       |     | LPB  | ePKP  | 19 58 22.5 |      |     |       |       |
| JUNE  | 12  | PNS  | eP    | 20 08 04.2 |      |     |       |       |
|       |     | LPB  | eP    | 20 08 04.4 |      |     |       |       |
| JUNE  | 12  | LPB  | eP    | 20 32 38   |      |     |       |       |
|       |     | PNS  | eP    | 20 32 45   |      |     |       |       |
| JUNE  | 12  | USCGS 20 15 47.8, 0.6S, 132.8E, h = 33 km., m = 5.6  |       |            |      |     |       |       |
|       |     | WEST NEW GUINEA REGION                               |       |            |      |     |       |       |
|       |     | LPB  | ePKP  | 20 35 38   |      | 1.0 | 16    | 151.3 |
|       |     |  | pPKP  | 47.6       |      |     |       |       |
|       |     |  | eL    | 21 26      |      |     |       |       |
|       |     | PNS  | PKP   | 20 35 39.8 |      | 1.5 | 18    |       |
|       |     |  | pPKP  | 47.6       |      |     |       |       |
|       |     |  | eL    | 21 28.8    |      |     |       |       |
| JUNE  | 12  | PNS  | iP    | 21 01 30.4 | D    | 0.4 | 4     |       |
|       |     |  | S     | 37.6       |      |     |       |       |
| JUNE  | 12  | USCGS 21 57 41.3, 39.3N, 142.8E, h = 36 km., m = 5.7 |       |            |      |     |       |       |
|       |     | NR E CST OF HONSHU, JAPAN                            |       |            |      |     |       |       |
|       |     | PNS  | PKP   | 22 17 14.9 |      | 2.2 | 224   |       |
|       |     |  | L     | 23 07.5    |      |     |       |       |
|       |     | LPB  | PKP   | 22 17 15.6 |      | 1.0 | 58    | 145.1 |
|       |     |  | eL    | 23 06.5    |      |     |       |       |
| JUNE  | 12  | USCGS 22 21 14.7, 0.2S, 91.4N, h = 33 km., m = 4.8   |       |            |      |     |       |       |
|       |     | GALAPAGOS ISLANDS                                    |       |            |      |     |       |       |
|       |     | PNS  | P     | 22 27 02.5 |      | 1.5 | 15    |       |
|       |     |  | iP    | 13.3       |      |     |       |       |
|       |     |  | S     | 31 47      |      |     |       |       |
|       |     |  | i     | 32 29      |      |     |       |       |
|       |     |  | eL    | 36.6       |      |     |       |       |
|       |     | LPB  | P     | 22 27 06.6 |      | 1.2 | 31    | 28.0  |
|       |     |  | i     | 32 30      |      |     |       |       |
|       |     |  | eL    | 37         |      |     |       |       |
| JUNE  | 12  | LPB  | eP    | 23 02 51.5 |      |     |       |       |
|       |     | PNS  | P     | 23 02 53.9 |      | 0.7 | 8     |       |
|       |     |  | eS    | 03 27      |      |     |       |       |
| JUNE  | 12  | USCGS 22 50 18.8, 41.5N, 142.7E, h = 38 km., m = 4.5 |       |            |      |     |       |       |
|       |     | HOKKAIDO, JAPAN REGION                               |       |            |      |     |       |       |
|       |     | PNS  | ePKP  | 23 09 51.6 |      |     | 144   |       |
|       |     |  | pPKP  | 23 00 50   |      |     |       |       |

| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL  | DIST  |
|-------|-----|---|-------|------------|------|-----|-------|-------|
| JUNE  | 12  | LPB   | P     | 23 15 41   |      |     |       |       |
|       |     | PNS   | P     | 23 15 44.9 |      |     | 0.5 7 |       |
|       |     |   |       |            |      |     | 0.8 7 |       |
| JUNE  | 12  | USCGS 23 26 30.8, 13.8N, 120.7E, h = 141 km., m = 5.0 |       |            |      |     |       |       |
|       |     | MINDORO, PHILIPPINE ISLANDS                           |       |            |      |     |       |       |
|       |     | LPB   | ePKP  | 23 46 25   |      |     |       |       |
|       |     |   | e     | 47 10      |      |     |       | 172   |
|       |     |   | eL    | 00 45      |      |     |       |       |
|       |     | PNS   | ePKP  | 23 46 25.5 |      | 1.0 | 5     |       |
|       |     |   | eL    | 00 47.5    |      |     |       |       |
| JUNE  | 12  | LPB   | eP    | 23 51 54.2 |      |     |       |       |
| JUNE  | 12  | LPB   | eP    | 23 54 55   |      |     |       |       |
| JUNE  | 13  | USCGS 00 05 00.7, 39.5N, 143.0E, h = 24 km., m = 5.3  |       |            |      |     |       |       |
|       |     | NR E CST OF HONSHU, JAPAN                             |       |            |      |     |       |       |
|       |     | PNS   | PKP   | 24 36.3    |      | 0.5 | 2     |       |
|       |     | LPB   | PKP   | 00 24 37.6 |      | 0.9 | 16    | 145   |
| JUNE  | 13  | LPB   | P     | 00 37 30.6 |      | 0.9 | 11    |       |
|       |     | PNS   | P     | 00 37 30.8 |      |     |       |       |
|       |     |   | i     | 33.0       |      |     |       |       |
|       |     |   | eS    | 38 05.5    |      |     |       |       |
| JUNE  | 13  | USCGS 00 42 15.0, 39.3N, 142.7E, h = 33 km., m = 4.7  |       |            |      |     |       |       |
|       |     | NR CST OF HONSHU, JAPAN                               |       |            |      |     |       |       |
|       |     | PNS   | ePKP  | 01 01 50   |      |     |       |       |
|       |     |   | eL    | 51.8       |      |     |       |       |
|       |     | LPB   | eP    | 01 01 51.2 |      |     |       | 145   |
| JUNE  | 13  | LPB   | eP    | 01 24 40.5 |      |     |       |       |
|       |     | PNS   | P     | 01 24 41.4 |      | 0.4 | 3     |       |
|       |     |   | S     | 25 13.8    |      |     |       |       |
| JUNE  | 13  | PNS   | P     | 01 41 01.0 |      | 0.9 | 6     |       |
|       |     |   | S     | 46         |      |     |       |       |
|       |     | LPB   | eP    | 01 40 57   |      |     |       |       |
|       |     |   | S     | 41 38.2    |      |     |       |       |
| JUNE  | 13  | USCGS 01 42 54.9, 39.5N, 143.0E, h = 33 km., m = 4.7  |       |            |      |     |       |       |
|       |     | NR E CST OF HONSHU, JAPAN                             |       |            |      |     |       |       |
|       |     | LPB   | ePKP  | 02 02 27   |      | 0.8 | 9     | 144.1 |
|       |     |   | eL    | 49         |      |     |       |       |
|       |     | PNS   | ePKP  | 02 02 28   |      |     |       |       |
|       |     |   | eL    | 52.1       |      |     |       |       |
| JUNE  | 13  | USCGS 02 05 42.8, 39.4N, 142.8E, h = 25 km., m = 5.1  |       |            |      |     |       |       |
|       |     | NR E CST OF HONSHU, JAPAN                             |       |            |      |     |       |       |
|       |     | PNS   | ePKP  | 02 25 18   |      | 0.9 | 6     |       |
|       |     |   | i     | 25.8       |      |     |       |       |
|       |     |   | eL    | 03 14.4    |      |     |       |       |
|       |     | LPB   | ePKP  | 02 25 19.5 |      | 1.0 | 12    | 145   |
|       |     |   | eL    | 03 14      |      |     |       |       |



| JUNE  |     |  |       |            |      |     |      |      |  |
|-------|-----|--|-------|------------|------|-----|------|------|--|
| MONTH | DAY | STA  | PHASE | TIME       | SIGN | PER | AMPL | DIST |  |
| JUNE  | 13  | LPB  | eP    | 02 43 57.2 |      | 0.9 | 8    |      |  |
|       |     |  | eL    | 03 15      |      |     |      |      |  |
|       |     | PNS  | P     | 02 44 01.0 |      | 0.8 | 7    |      |  |
| JUNE  | 13  | LPB  | P     | 03 00 27.5 |      | 0.9 | 11   |      |  |
|       |     |  | iS    | 01 11      |      |     |      |      |  |
|       |     | PNS  | P     | 03 00 32.3 |      | 0.7 | 4    |      |  |
|       |     |  | S     | 01 17.8    |      |     |      |      |  |
| JUNE  | 13  | LPB  | P     | 03 07 20   |      | 0.6 | 4    |      |  |
| JUNE  | 13  | LPB  | eP    | 04 19 06.6 |      | 0.6 | 4    |      |  |
| JUNE  | 13  | USCGS 03 58 18.0, 30.6S, 177.5W, h = 33 km., m = 4.7<br>KERMADEC ISLANDS |       |            |      |     |      |      |  |
|       |     | PNS  | ePKP  | 04 17 14.6 |      |     |      |      |  |
| JUNE  | 13  | USCGS 04 48 15.5, 0.4S, 91.5W, h = 33 km., m = 4.9<br>GALAPAGOS ISLANDS  |       |            |      |     |      |      |  |
|       |     | LPB  | eP    | 04 54 02   |      | 1.0 | 8    | 28   |  |
|       |     |  | eL    | 05 03.6    |      |     |      |      |  |
|       |     | PNS  | eP    | 04 54 03   |      |     |      |      |  |
|       |     |  | eL    | 05 03.5    |      |     |      |      |  |
| JUNE  | 13  | USCGS 04 56 22.0, 0.6S, 91.5W, h = 33 km., m = 4.5<br>GALAPAGOS ISLANDS  |       |            |      |     |      |      |  |
|       |     | PNS  | eP    | 05 02 10.4 |      |     |      |      |  |
|       |     | LPB  | eP    | 05 02 12   |      |     |      |      |  |
| JUNE  | 13  | PNS  | iP    | 06 35 59.5 | D    | 0.4 | 4    |      |  |
|       |     | LPB  | eP    | 06 36 06.4 |      |     |      |      |  |
| JUNE  | 13  | PNS  | P     | 07 36 15.2 |      | 1.0 | 17   |      |  |
|       |     |  | eS    | 37 44      |      |     |      |      |  |
|       |     | LPB  | P     | 07 36 20.2 |      | 0.9 | 17   |      |  |
|       |     |  | eS    | 37 49      |      |     |      |      |  |
| JUNE  | 13  | USCGS 07 33 50.5, 0.3S, 91.5W, h = 33 km., m = 5.3<br>GALAPAGOS ISLANDS  |       |            |      |     |      |      |  |
|       |     | PNS  | P     | 07 39 38.8 |      | 1.6 | 48   |      |  |
|       |     |  | PCP   | 42 55.2    |      |     |      |      |  |
|       |     |  | iS    | 44 16      |      |     |      |      |  |
|       |     |  | i     | 45 02      |      |     |      |      |  |
|       |     |  | L     | 49.4       |      |     |      |      |  |
|       |     | LPB  | P     | 07 39 41.6 |      |     |      | 27   |  |
|       |     |  | S     | 44 09      |      |     |      |      |  |
|       |     |  | i     | 45 00      |      |     |      |      |  |
|       |     |  | L     | 49         |      |     |      |      |  |
| JUNE  | 13  | PNS  | eP    | 08 01 36.8 |      | 0.4 | 2    |      |  |
|       |     | LPB  | eP    | 08 01 38.7 |      | 0.9 | 6    |      |  |
| JUNE  | 13  | PNS  | P     | 08 08 32.2 |      | 0.5 | 2    |      |  |
|       |     |  | S     | 39.6       |      |     |      |      |  |
|       |     | LPB  | eP    | 08 38 35   |      |     |      |      |  |

| JUNE  |     |  |       |            |      |     |      |         |  |
|-------|-----|--|-------|------------|------|-----|------|---------|--|
| MONTH | DAY | STA  | PHASE | TIME       | SIGN | PER | AMPL | DIST    |  |
| JUNE  | 13  | PNS  | eP    | 09 04 10   |      |     |      |         |  |
|       |     | LPB  | eP    | 09 04 12.5 |      |     |      |         |  |
| JUNE  | 13  | USCGS 08 48 12.8, 39.1N, 143.2E, h = 28 km., m = 4.7<br>OFF E CST OF HONSHU, JAPAN |       |            |      |     |      |         |  |
|       |     | PNS  | ePKP  | 09 07 45   |      |     | 1.4  | 10      |  |
|       |     |  | pPKP  | 58.0       |      |     |      |         |  |
|       |     | LPB  | PKP   | 09 07 48.7 |      |     | 1.0  | 8 145.2 |  |
| JUNE  | 13  | PNS  | eP    | 11 04 41   |      |     |      |         |  |
| JUNE  | 13  | LPB  | eP    | 11 22 37   |      |     |      |         |  |
|       |     |  | eL    | 47         |      |     |      |         |  |
|       |     | PNS  | P     | 11 22 39.9 |      |     | 0.8  | 6       |  |
|       |     |  | i     | 23 11.7    |      |     |      |         |  |
|       |     |  | eL    | 47.2       |      |     |      |         |  |
| JUNE  | 13  | USCGS 11 5 5.4, 39.2N, 143.0E, h = 33 km., m = 5.3<br>NR E CST OF HONSHU, JAPAN    |       |            |      |     |      |         |  |
|       |     | LPB  | ePKP  | 12 16 00   |      |     |      | 145     |  |
|       |     |  | eL    | 13 05      |      |     |      |         |  |
|       |     | PNS  | eL    | 13 05.5    |      |     |      |         |  |
| JUNE  | 13  | PNS  | eP    | 13 56 51.4 |      |     |      |         |  |
|       |     | LPB  | eP    | 13 56 52   |      |     |      |         |  |
| JUNE  | 13  | USCGS 14 56 15.1, 39.4N, 142.9E, h = 20 km., m = 5.1<br>NR E CST OF HONSHU, JAPAN  |       |            |      |     |      |         |  |
|       |     | PNS  | eP    | 15 15 46.6 |      |     |      |         |  |
|       |     | LPB  | eP    | 15 15 53   |      |     | 1.0  | 12      |  |
| JUNE  | 13  | USCGS 15 44 52.6, 0.5S, 91.4W, h = 33 km., m = 4.8<br>GALAPAGOS ISLANDS            |       |            |      |     |      |         |  |
|       |     | LPB  | eP    | 15 50 40   |      |     | 1.0  | 20 28.0 |  |
|       |     |  | eS    | 55 24      |      |     |      |         |  |
|       |     |  | i     | 56 09.5    |      |     |      |         |  |
|       |     |  | eL    | 16 00      |      |     |      |         |  |
|       |     | PNS  | P     | 15 50 40.4 |      |     | 1.5  | 15      |  |
|       |     |  | S     | 55 20      |      |     |      |         |  |
|       |     |  | i     | 56 03      |      |     |      |         |  |
|       |     |  | eL    | 16 00.2    |      |     |      |         |  |
| JUNE  | 13  | USCGS 15 37 43.0, 24.7N, 66.4E, h = 33 km., m = 5.1<br>WEST PAKISTAN               |       |            |      |     |      |         |  |
|       |     | PNS  | ePKP  | 15 57 02   |      |     |      |         |  |
|       |     | LPB  | ePKP  | 15 57 09   |      |     |      | 136.0   |  |
| JUNE  | 13  | PNS  | iP    | 16 13 36.7 | D    |     | 0.5  | 5       |  |
|       |     |  | S     | 14 09.6    |      |     |      |         |  |
| JUNE  | 13  | USCGS 16 16 40.3, 39.5N, 143.1E, h = 33 km., m = 4.6<br>OFF E CST OF HONSHU, JAPAN |       |            |      |     |      |         |  |
|       |     | PNS  | ePKP  | 16 36 14   |      |     |      |         |  |
|       |     | LPB  | eP    | 16 36 16   |      |     |      | 144.6   |  |

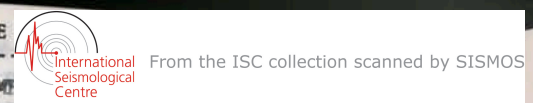


| JUNE  |     |  |              |                             |      |     |      |       |  |
|-------|-----|--|--------------|-----------------------------|------|-----|------|-------|--|
| MONTH | DAY | STA  | PHASE        | TIME                        | SIGN | PER | AMPL | DIST  |  |
| JUNE  | 13  | PNS  | P<br>eS      | 16 45 05.5<br>41.7          |      | 0.5 | 3    |       |  |
| JUNE  | 13  | LPB  | iP<br>S      | 18 28 55.4<br>30 15.6       | C    | 0.7 | 28   |       |  |
|       |     | PNS  | iP<br>iS     | 18 28 59.7<br>30 14.9       | C    | 0.6 | 13   |       |  |
| JUNE  | 13  | PNS  | P            | 19 12 01.4                  |      | 0.9 | 23   |       |  |
|       |     | LPB  | P            | 19 12 06.3                  |      | 1.0 | 36   |       |  |
| JUNE  | 13  | PNS  | eP<br>S      | 19 48 19.4<br>49 56         |      | 0.9 | 11   |       |  |
|       |     | LPB  | eP           | 19 48 19.7                  |      | 0.9 | 11   |       |  |
| JUNE  | 13  | PNS  | P            | 20 34 25.3                  |      | 1.0 | 4    |       |  |
|       |     | LPB  | eP           | 20 34 29.5                  |      | 1.0 | 4    |       |  |
| JUNE  | 13  | PNS  | P<br>S       | 21 24 13.3<br>36.3          |      | 0.5 | 2    |       |  |
| JUNE  | 13  | USCGS 21 40 35.4, 39.4N, 142.9E, h = 24 km., m = 5.5<br>NR E CST OF HONSHU, JAPAN      |              |                             |      |     |      |       |  |
|       |     | PNS  | PKP<br>eL    | 21 30 04.6<br>22 20.0       |      | 1.3 | 35   |       |  |
|       |     | LPB  | PKP<br>eL    | 21 30 11<br>20.7            |      | 0.9 | 118  | 145   |  |
| JUNE  | 13  | PNS  | P<br>iS<br>L | 21 45 00.4<br>50 26<br>54.1 |      | 1.0 | 6    |       |  |
|       |     | LPB  | P<br>S<br>eL | 21 45 04.3<br>50 28<br>54.2 |      | 1.0 | 20   |       |  |
| JUNE  | 13  | LPB  | iP<br>S      | 22 40 13.6<br>46.2          | C    | 0.5 | 84   |       |  |
|       |     | PNS  | iP<br>S      | 22 40 17.4<br>51            | C    | 0.5 | 84   |       |  |
| JUNE  | 13  | USCGS 22 38 01.0, 36.6N, 71.5E, h = 213 km., m = 4.8<br>AFGHANISTAN-USSR BORDER REGION |              |                             |      |     |      |       |  |
|       |     | PNS  | ePKP         | 22 57 34.4                  |      |     |      | 141.1 |  |
|       |     | LPB  | ePKP         | 22 57 34.5                  |      |     |      | 141.1 |  |
| JUNE  | 13  | USCGS 23 04 00.3, 29.7N, 51.5E, h = 33 km., m = 5.0<br>SOUTHERN IRAN                   |              |                             |      |     |      |       |  |
|       |     | PNS  | PKP<br>eL    | 23 23 00.4<br>00 02.2       |      |     |      | 123   |  |
|       |     | LPB  | ePKP<br>eL   | 23 23 01<br>00 02           |      |     |      | 123   |  |
| JUNE  | 13  | PNS  | eP<br>eL     | 23 56 36<br>00 12           |      |     |      |       |  |
|       |     | LPB  | eP<br>eL     | 23 56 40<br>00 11.5         |      |     |      |       |  |

| JUNE  |     |   |                    |                                      |      |     |      |       |  |
|-------|-----|---|--------------------|--------------------------------------|------|-----|------|-------|--|
| MONTH | DAY | STA   | PHASE              | TIME                                 | SIGN | PER | AMPL | DIST  |  |
| JUNE  | 14  | PNS   | iP                 | 00 08 14.9                           | C    | 0.6 | 4    |       |  |
|       |     | LPB   | P                  | 00 08 15.5                           |      | 0.7 | 8    |       |  |
| JUNE  | 14  | PNS   | iP<br>iS           | 00 10 03.6<br>28.0                   | D    | 0.9 | 29   |       |  |
|       |     | LPB   | P<br>S             | 00 10 06.4<br>35                     | D    | 0.9 | 29   |       |  |
| JUNE  | 14  | PNS   | eP<br>S            | 00 31 36.6<br>32 48                  |      |     |      |       |  |
|       |     | LPB   | eP                 | 00 31 39                             |      |     |      |       |  |
| JUNE  | 14  | USCGS 00 46 08.0, 39.7N, 142.5E, h = 33 km., m = 4.6<br>NR E CST OF HONSHU, JAPAN |                    |                                      |      |     |      |       |  |
|       |     | PNS   | ePKP               | 01 05 24                             |      |     |      | 145   |  |
|       |     | LPB   | ePKP<br>eL         | 01 05 42.5<br>26                     |      |     |      | 145   |  |
| JUNE  | 14  | LPB   | eP                 | 01 36 49                             |      |     |      |       |  |
|       |     | PNS   | eP                 | 01 36 49                             |      |     |      |       |  |
| JUNE  | 14  | USCGS 01 36 37.7, 39.5N, 142.9E, h = 30 km., m = 4.5<br>NR E CST OF HONSHU, JAPAN |                    |                                      |      |     |      |       |  |
|       |     | PNS   | PKP                | 01 56 12.8                           |      |     |      |       |  |
|       |     | LPB   | ePKP               | 01 56 13                             |      | 0.8 | 7    | 144.5 |  |
| JUNE  | 14  | PNS   | eP<br>eL           | 03 11 50.9<br>21.5                   |      | 0.9 | 3    |       |  |
|       |     | LPB   | eP<br>eL           | 03 11 55.6<br>21.7                   |      | 1.0 | 8    |       |  |
| JUNE  | 14  | USCGS 03 18 17.3, 39.4N, 142.8E, h = 38 km., m = 5.0<br>NR E CST OF HONSHU, JAPAN |                    |                                      |      |     |      |       |  |
|       |     | LPB   | PKP                | 03 37 51.5                           |      | 0.8 | 6    | 145.5 |  |
|       |     | PNS   | PKP                | 03 37 52.2                           |      | 0.8 | 4    | 145.5 |  |
| JUNE  | 14  | PNS   | eP<br>i            | 04 00 23<br>27.4                     |      |     |      |       |  |
|       |     | LPB   | eP                 | 04 00 25                             |      |     |      |       |  |
| JUNE  | 14  | USCGS 04 09 08.0, 0.2N, 91.6W, h = 33 km., m = 4.6<br>GALAPAGOS ISLANDS           |                    |                                      |      |     |      |       |  |
|       |     | LPB   | eP<br>S<br>i<br>eL | 04 15 00.8<br>19 40<br>20 27<br>24.5 |      |     |      | 27.1  |  |
|       |     | PNS   | eP<br>S<br>i<br>L  | 04 14 57<br>19 36<br>20 22<br>24.4   |      |     |      | 27.1  |  |
| JUNE  | 14  | LPB   | eP                 | 04 58 40.5                           |      |     |      |       |  |
| JUNE  | 14  | LPB   | eP                 | 05 51 20                             |      |     |      |       |  |
| JUNE  | 14  | USCGS 06 05 03.3, 39.4N, 142.9E, h = 33 km., m = 4.6<br>NR E CST OF HONSHU, JAPAN |                    |                                      |      |     |      |       |  |

| MONTH | DAY | STA  | PHASE | TIME       | SIGN | PER | AMPL | DIST  |
|-------|-----|--|-------|------------|------|-----|------|-------|
|       |     | PNS  | PKP   | 06 24 38.3 |      |     |      |       |
|       |     |  | eL    | 07 14.2    |      |     |      |       |
|       |     | LPB  | ePKP  | 06 23 38.5 |      |     |      | 145   |
|       |     |  | e     | 24 38.3    |      |     |      |       |
| JUNE  | 14  | USCGS 08 41 52.0, 39.4N, 143.2E, h = 33 km., m = 4.5<br>OFF E CST OF HONSHU, JAPAN |       |            |      |     |      |       |
|       |     | PNS  | ePKP  | 09 01 24.5 |      |     |      |       |
|       |     | LPB  | ePKP  | 09 01 26   |      | 0.9 | 8    | 144.6 |
| JUNE  | 14  | LPB  | eP    | 09 13 04.8 |      |     |      |       |
|       |     | PNS  | eP    | 09 13 15   |      |     |      |       |
| JUNE  | 14  | USCGS 09 27 47.4, 13.6N, 144.6E, h = 141 km., m = 4.6<br>MARIANA ISLANDS           |       |            |      |     |      |       |
|       |     | PNS  | PKP   | 09 87 27.4 |      | 0.9 | 5    |       |
|       |     |  | eL    | 10 38.7    |      |     |      |       |
|       |     | LPB  | PKP   | 09 47 27.6 |      | 1.0 | 14   | 149.1 |
| JUNE  | 14  | LPB  | eP    | 10 38 09.3 |      |     |      | 27    |
|       |     | PNS  | P     | 10 38 11.8 |      |     |      |       |
|       |     |  | eS    | 39 14.2    |      |     |      |       |
| JUNE  | 14  | USCGS 10 39 59.1, 0.4S, 918W, h = 33 km., m = 48<br>GALAPAGOS ISLANDS              |       |            |      |     |      |       |
|       |     | PNS  | P     | 10 45 47.5 |      | 1.4 | 14   |       |
|       |     |  | S     | 50 34      |      |     |      |       |
|       |     |  | i     | 51 15      |      |     |      |       |
|       |     |  | L     | 55.2       |      |     |      |       |
|       |     | LPB  | P     | 10 45 51.1 |      | 1.0 | 16   | 27    |
|       |     |  | eS    | 50 32      |      |     |      |       |
|       |     |  | i     | 51 13      |      |     |      |       |
|       |     |  | eL    | 55.2       |      |     |      |       |
| JUNE  | 14  | USCGS 11 52 39.7, 39.3N, 142.8E, h = 37 km., m = 5.4<br>NR E CST OF HONSHU, JAPAN  |       |            |      |     |      |       |
|       |     | PNS  | PKP   | 12 12 12.9 |      | 1.3 | 16   |       |
|       |     |  | pPKP  | 24.0       |      |     |      |       |
|       |     |  | L     | 13 03      |      |     |      |       |
|       |     | LPB  | PKP   | 12 12 14.6 |      | 1.0 | 18   | 144   |
|       |     |  | pPKP  | 24.3       |      |     |      |       |
|       |     |  | eL    | 13 03      |      |     |      |       |
| JUNE  | 14  | USCGS 12 17 27.7, 45.2N, 153.5E, h = 41 km., m = 5.5<br>KURILE ISLANDS REGION      |       |            |      |     |      |       |
|       |     | PNS  | PKP   | 12 36 45.0 |      | 1.2 | 36   |       |
|       |     | LPB  | PKP   | 12 36 46.4 |      | 1.0 | 34   | 131.5 |
|       |     | TRJ  | eP    | 12 36 46.8 |      |     |      |       |
| JUNE  | 14  | USCGS 12 48 50.0, 15.7S, 172.9W, h = 33 km., m = 4.8<br>SAMOA ISLANDS REGION       |       |            |      |     |      |       |
|       |     | PNS  | eP    | 13 03 11   |      |     |      |       |
| JUNE  | 14  | USCGS 13 23 38.6, 51.7N, 159.3E, h = 33 km., m = 5.0<br>OFF SET OF KAMCHATKA       |       |            |      |     |      |       |

| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL | DIST |
|-------|-----|---|-------|------------|------|-----|------|------|
|       |     | PNS   | PKP   | 13 42 43.6 |      |     |      |      |
|       |     | LPB   | ePKP  | 13 42 45   |      |     | 1.5  | 12   |
|       |     | TRJ   | eP    | 13 42 49.8 |      |     |      |      |
| JUNE  | 14  | LPB   | eP    | 13 39 10   |      |     |      |      |
|       |     | PNS   | eP    | 13 39 12   |      |     |      |      |
| JUNE  | 14  | PNS   | eP    | 14 03 40.5 |      |     |      |      |
|       |     |   | e     | 04 13      |      |     |      |      |
|       |     | LPB   | eP    | 14 03 42.5 |      |     |      |      |
| JUNE  | 14  | USCGS 16 23 44.7, 0.2S, 91.4W, h = 33 km., m = 4.9<br>GALAPAGOS ISLANDS           |       |            |      |     |      |      |
|       |     | PNS   | P     | 16 29 32.0 |      |     | 2.2  | 74   |
|       |     |   | S     | 34 08      |      |     |      |      |
|       |     |   | i     | 55         |      |     |      |      |
|       |     |   | L     | 39         |      |     |      |      |
|       |     | LPB   | P     | 16 29 36.4 |      |     | 2.2  | 121  |
|       |     |   | S     | 34 10      |      |     |      | 28   |
|       |     |   | i     | 35 00      |      |     |      |      |
|       |     |   | eL    | 39         |      |     |      |      |
|       |     | TRJ   | eP    | 16 30 17.9 |      |     |      |      |
| JUNE  | 14  | LPB   | eP    | 16 41 24   |      |     |      |      |
|       |     | PNS   | P     | 16 41 24.5 |      |     | 0.6  | 4    |
|       |     |   | S     | 42 00.4    |      |     |      |      |
| JUNE  | 14  | PNS   | eP    | 17 52 57   |      |     |      |      |
| JUNE  | 14  | PNS   | eP    | 18 29 33.5 |      |     |      |      |
|       |     | LPB   | eP    | 18 29 55   |      |     |      |      |
| JUNE  | 14  | USCGS 19 03 27.8, 41.9S, 171.9E, h = 25 km., m = 5.3<br>SOUTH ISLAND, NEW ZEALAND |       |            |      |     |      |      |
|       |     | LPB   | eP    | 19 17 09   |      |     |      | 100  |
|       |     |   | eL    | 51.8       |      |     |      |      |
|       |     | PNS   | eP    | 19 17 12.2 |      |     |      |      |
|       |     |   | eL    | 51.3       |      |     |      |      |
| JUNE  | 14  | LPB   | eP    | 20 01 30   |      |     |      |      |
|       |     | PNS   | P     | 20 01 35.7 |      |     | 0.7  | 4    |
| JUNE  | 14  | PNS   | P     | 20 28 04.2 |      |     | 0.8  | 8    |
|       |     |   | i     | 10.2       |      |     |      |      |
|       |     |   | eS    | 34 05      |      |     |      |      |
|       |     |   | L     | 39         |      |     |      |      |
|       |     | LPB   | eP    | 20 28 07   |      |     | 1.1  | 22   |
|       |     |   | i     | 13         |      |     |      |      |
|       |     |   | eL    | 38         |      |     |      |      |
| JUNE  | 14  | LPB   | eP    | 20 41 28   |      |     |      |      |
|       |     | PNS   | P     | 20 41 32.0 |      |     |      |      |
| JUNE  | 14  | LPE   | eP    | 21 08 13.7 |      |     |      |      |
| JUNE  | 14  | PNS   | eP    | 21 32 00   |      |     |      |      |
|       |     | LPB   | eP    | 21 32 05   |      |     |      |      |
| JUNE  | 14  | USCGS 22 27 43.8, 0.3S, 91.2W, h = 21 km., m = 5.2<br>GALAPAGOS ISLANDS           |       |            |      |     |      |      |
|       |     | LPB   | eP    | 22 33 33   |      |     | 2.2  | 162  |
|       |     |   |       |            |      |     |      | 28   |



| JUNE  |     |             |  |                     |      |     |       |      |     |
|-------|-----|-------------|--|---------------------|------|-----|-------|------|-----|
| MONTH | DAY | STA         | PHASE  | TIME                | SIGN | PER | AMPL  | DIST |     |
|       |     |             | eS   | 38 12               |      |     |       |      |     |
|       |     |             | i  | 39 00               |      |     |       |      |     |
|       |     |             | eL   | 43                  |      |     |       |      |     |
|       |     | PNS         | P  | 22 33 33.2          |      | 2.2 | 148.0 |      |     |
|       |     |             | S  | 38 13               |      |     |       |      |     |
|       |     |             | i  | 57                  |      |     |       |      |     |
|       |     |             | L  | 42.9                |      |     |       |      |     |
| JUNE  | 14  | USCGS OFF E | 23 03 05.2, 51.7N, 159.4W, h = 33 km., m = 4.9 |                     |      |     |       |      |     |
|       |     | PNS         | ePKP   | 23 22 10.8          |      |     |       |      |     |
| JUNE  | 14  | TRJ         | P  | 23 40 39.5          |      |     |       |      |     |
| JUNE  | 14  | PNS         | eP (S)   | 23 57 07.6<br>58 04 |      |     |       |      |     |
|       |     | LPB         | P  | 23 57 08            |      | 1.0 | 22    |      |     |
|       |     | TRJ         | eP   | 23 57 51.6          |      |     |       |      |     |
| JUNE  | 18  | LPR         | P  | 01 12 19.5          |      | 0.8 | 4     |      |     |
| JUNE  | 15  | LPB         | e(P)   | 01 16 17            |      |     |       |      |     |
| JUNE  | 15  | LPB         | eP   | 01 37 27            |      |     |       |      |     |
|       |     | PNS         | P  | 01 37 30.0          |      | 0.5 | 2     |      |     |
|       |     |             | S  | 38 02.5             |      |     |       |      |     |
| JUNE  | 15  | USCGS       | 01 42 37.0, 0.2S, 01.4W, h = 33 km., m = 4.6   |                     |      |     |       |      |     |
|       |     |             | GALAPAGOS ISLANDS                              |                     |      |     |       |      |     |
|       |     | LPB         | eP   | 01 48 21            |      |     |       |      | 28  |
|       |     |             | eL   | 58                  |      |     |       |      |     |
|       |     | PNS         | eP   | 01 48 25            |      |     |       |      |     |
|       |     |             | eL   | 57.9                |      |     |       |      |     |
|       |     | TRJ         | e(P)   | 01 47 42.7          |      |     |       |      |     |
| JUNE  | 15  | USCGS       | 02 14 08.5, 37.3N, 138.6E, h = 10 km., m = 5.0 |                     |      |     |       |      |     |
|       |     |             | NR W CST OF HONSHU, JAPAN                      |                     |      |     |       |      |     |
|       |     | TRJ         | iP   | 02 33 13.1          |      |     |       |      |     |
|       |     | PNS         | PKP  | 02 33 54.7          |      | 1.2 | 7     |      |     |
|       |     |             | i  | 57.9                |      |     |       |      |     |
|       |     |             | eL   | 03 24.5             |      |     |       |      |     |
|       |     | LPB         | iPKP   | 02 33 58.7          | C    | 1.0 | 26    |      | 149 |
| JUNE  | 15  | PNS         | eP   | 02 59 55.2          |      |     |       |      |     |
|       |     | LPB         | eP   | 02 59 58            |      |     |       |      |     |
| JUNE  | 15  | LPB         | eP   | 03 38 25.5          |      |     |       |      |     |
|       |     | PNS         | eP   | 03 38 26.7          |      |     |       |      |     |
| JUNE  | 15  | LPB         | P  | 03 45 13.7          |      |     |       |      |     |
| JUNE  | 15  | USCGS       | 03 51 18.3, 39.3N, 142.8E, h = 25 km., m = 5.4 |                     |      |     |       |      |     |
|       |     |             | NR E CST OF HONSHU, JAPAN                      |                     |      |     |       |      |     |
|       |     | PNS         | PKP  | 03 50 53.3          |      | 1.2 | 16    |      |     |
|       |     | LPB         | PKP  | 03 50 54.7          | D    | 1.0 | 48    |      | 145 |
|       |     | TRJ         | P  | 03 51 06.2          |      |     |       |      |     |
|       |     |             |  |                     |      |     |       |      | 200 |

| JUNE  |     |       |  |            |      |     |      |      |      |
|-------|-----|-------|--|------------|------|-----|------|------|------|
| MONTH | DAY | STA   | PHASE  | TIME       | SIGN | PER | AMPL | DIST |      |
| JUNE  | 15  | LPB   | e(P)   | 04 05 19   |      |     |      |      |      |
|       |     | PNS   | eP   | 04 05 21.4 |      |     |      |      |      |
| JUNE  | 15  | USCGS | 04 20 02.6, 0.4S, 91.4W, h = 33 km., m = 5.4   |            |      |     |      |      |      |
|       |     |       | GALAPAGOS ISLANDS                              |            |      |     |      |      |      |
|       |     | TRJ   | eP   | 04 25 26.6 |      |     |      |      |      |
|       |     | PNS   | P  | 04 25 50.5 |      | 2.0 | 77   |      |      |
|       |     |       | S  | 30 30      |      |     |      |      |      |
|       |     |       | i  | 31 13      |      |     |      |      |      |
|       |     |       | L  | 35.2       |      |     |      |      |      |
|       |     | LPB   | P  | 04 25 53.6 |      | 2.0 | 109  |      | 28   |
|       |     |       | eS   | 30 32      |      |     |      |      |      |
|       |     |       | i  | 31 14      |      |     |      |      |      |
|       |     |       | eL   | 35.3       |      |     |      |      |      |
| JUNE  | 15  | USCGS | 05 11 17.2, 14.4N, 92.9W, h = 25 km., m = 5.4  |            |      |     |      |      |      |
|       |     |       | NR CST OF CHIAPAS, MEXICO                      |            |      |     |      |      |      |
|       |     | PNS   | P  | 05 18 42.0 |      | 2.0 | 84   |      |      |
|       |     |       | PcP  | 20 55.2    |      |     |      |      |      |
|       |     |       | S  | 24 42      |      |     |      |      |      |
|       |     |       | SS   | 27 35      |      |     |      |      |      |
|       |     |       | K  | 30.2       |      |     |      |      |      |
|       |     | LPB   | P  | 05 18 45.2 |      | 2.0 | 65   |      | 38.9 |
|       |     |       | PcP  | 56         |      |     |      |      |      |
|       |     |       | eSS  | 27 38      |      |     |      |      |      |
|       |     |       | eL   | 31         |      |     |      |      |      |
|       |     | TRJ   | eP   | 05 19 29.1 |      |     |      |      |      |
| JUNE  | 15  | USCGS | 05 58 54.0, 27.0N, 126.5E, h = 88 km., m = 5.7 |            |      |     |      |      |      |
|       |     |       | RYUKYU ISLANDS                                 |            |      |     |      |      |      |
|       |     | PNS   | PKP  | 06 18 54.4 |      | 1.7 | 91   |      |      |
|       |     |       | PKP <sub>2</sub>                               | 19 41      |      |     |      |      |      |
|       |     | LPB   | P  | 06 18 54.6 |      | 0.9 | 29   |      | 163  |
|       |     |       | PKP <sub>2</sub>                               | 19 42.7    |      |     |      |      |      |
|       |     | TRJ   | P <sub>2</sub>                                 | 06 18 58.6 |      |     |      |      |      |
| JUNE  | 15  | LPB   | eP   | 06 49 08   |      |     |      |      |      |
|       |     | PNS   | eP   | 06 49 14.4 |      |     |      |      |      |
|       |     |       | eS   | 45         |      |     |      |      |      |
| JUNE  | 15  | USCGS | 07 08 48.1, 5.6N, 82.6W, h = 16 km., m = 6.0   |            |      |     |      |      |      |
|       |     |       | SOUTH OF PANAMA                                |            |      |     |      |      |      |
|       |     | PNS   | iP   | 07 14 21.3 | C    |     |      |      |      |
|       |     |       | iS   | 18 58      |      |     |      |      |      |
|       |     |       | L  | 22.7       |      |     |      |      |      |
|       |     | LPB   | iP   | 07 14 24   |      | 2.3 | 6120 |      | 26   |
|       |     |       | iS   | 19 02      |      |     |      |      |      |
|       |     |       | eL   | 25         |      |     |      |      |      |
|       |     | TRJ   | iP   | 07 15 16.3 | D    |     |      |      |      |
| JUNE  | 15  | TRJ   | P  | 07 35 22.6 |      |     |      |      |      |
| JUNE  | 15  | LPB   | P  | 07 57 15.6 |      | 0.9 | 12   |      |      |
|       |     | PNS   | P  | 07 57 16   |      | 1.2 | 12   |      |      |
| JUNE  | 15  | LPB   | P  | 08 25 08.2 |      | 0.8 | 12   |      |      |
|       |     | PNS   | P  | 08 25 10.6 |      | 0.5 | 4    |      |      |
|       |     | TRJ   | P  | 08 24 31.6 | D    |     |      |      |      |
| JUNE  | 15  | USCGS | 08 50 43.8, 0.4S, 91.5W, h = 33 km., m = 4.7   |            |      |     |      |      | 201  |

| JUNE                   |     |  |       |            |      |     |      |       |  |
|------------------------|-----|--|-------|------------|------|-----|------|-------|--|
| MONTH                  | DAY | STA  | PHASE | TIME       | SIGN | PER | AMPL | DIST  |  |
| GALAPAGOS ISLANDS      |     |  |       |            |      |     |      |       |  |
|                        |     | PNS  | P     | 08 56 30.2 |      | 1.5 | 19   |       |  |
|                        |     |  | S     | 09 01 35   |      |     |      |       |  |
|                        |     |  | i     | 02 08      |      |     |      |       |  |
|                        |     |  | L     | 06         |      |     |      |       |  |
|                        |     | LPB  | P     | 08 56 34   |      | 4.6 | 39   | 28    |  |
|                        |     |  | eS    | 01 36      |      |     |      |       |  |
|                        |     |  | i     | 09 02 06   |      |     |      |       |  |
|                        |     |  | L     | 06         |      |     |      |       |  |
|                        |     | TRJ  | eP    | 08 57 20.6 |      |     |      |       |  |
| JUNE                   | 15  | PNS  | iP    | 09 19 53.8 | D    | 0.5 | 3    |       |  |
|                        |     |  | S     | 20 23.7    |      |     |      |       |  |
|                        |     | LPB  | eP    | 09 19 58   |      |     |      |       |  |
|                        |     |  | S     | 20 23      |      |     |      |       |  |
| JUNE                   | 15  | LPB  | P     | 09 31 29.5 |      | 0.8 | 4    |       |  |
| JUNE                   | 15  | LPB  | P     | 10 07 49   |      | 0.7 | 5    |       |  |
| JUNE                   | 15  | LPB  | eP    | 10 25 37   |      |     |      |       |  |
| JUNE                   | 15  | LPB  | P     | 10 41 51.5 |      | 0.9 | 10   |       |  |
|                        |     | PNS  | eP    | 10 41 54.7 |      |     |      |       |  |
| JUNE                   | 15  | PNS  | eP    | 11 23 44.3 |      | 1.0 | 4    |       |  |
| JUNE                   | 15  | USCGS 11 17 58.0, 52.1N, 143.6E, h = 33 km., m = 4.6 |       |            |      |     |      |       |  |
| SAKHALIN ISLANDS       |     |  |       |            |      |     |      |       |  |
|                        |     | PNS  | ePKP  | 11 37 20   |      |     |      |       |  |
|                        |     | LPB  | ePKP  | 11 37 22   |      |     |      | 137   |  |
| JUNE                   | 15  | USCGS 11 27 32.9, 51.7N, 159.4E, h = 39 km., m = 5.4 |       |            |      |     |      |       |  |
| OFF E CST OF KAMCHATKA |     |  |       |            |      |     |      |       |  |
|                        |     | PNS  | PKP   | 11 46 37.7 |      | 1.4 | 24   |       |  |
|                        |     |  | eL    | 12 28.2    |      |     |      |       |  |
|                        |     | LPB  | PKP   | 11 46 39   |      | 1.0 | 22   | 128.9 |  |
|                        |     | TRJ  | P     | 11 46 49.2 |      |     |      |       |  |
| JUNE                   | 15  | PNS  | iP    | 12 08 41.6 | D    |     |      |       |  |
|                        |     |  | S     | 09 05.4    |      |     |      |       |  |
|                        |     | LPB  | iP    | 12 08 44.0 |      | 0.8 | 255  |       |  |
|                        |     | TRJ  | P     | 12 09 45.8 |      |     |      |       |  |
| JUNE                   | 15  | PNS  | P     | 12 26 30.9 |      | 0.8 | 4    |       |  |
|                        |     |  | eL    | 42.3       |      |     |      |       |  |
|                        |     | LPB  | eP    | 12 26 31   |      |     |      |       |  |
| JUNE                   | 15  | USCGS 13 14 36.7, 0.3S, 91.1W, h = 33 km., m = 5.2   |       |            |      |     |      |       |  |
| GALAPAGOS ISLANDS      |     |  |       |            |      |     |      |       |  |
|                        |     | LPB  | eP    | 13 20 22   |      |     |      | 27.9  |  |
|                        |     |  | eS    | 25 07      |      |     |      |       |  |
|                        |     |  | i     | 48         |      |     |      |       |  |
|                        |     |  | eL    | 30         |      |     |      |       |  |
|                        |     | PNS  | eP    | 13 20 22.2 |      | 1.2 | 7    |       |  |
|                        |     |  | S     | 25 04      |      |     |      |       |  |
|                        |     |  | i     | 48.0       |      |     |      |       |  |
|                        |     |  | L     | 29.9       |      |     |      |       |  |
|                        |     | TRJ  | eP    | 13 21 13.1 |      |     |      |       |  |

| JUNE                 |     |  |       |            |      |     |      |       |  |
|----------------------|-----|--|-------|------------|------|-----|------|-------|--|
| MONTH                | DAY | STA  | PHASE | TIME       | SIGN | PER | AMPL | DIST  |  |
| JUNE                 | 15  | USCGS 13 34 14.4, 18.3S, 167.9E, h = 33 km., m = 5.5 |       |            |      |     |      |       |  |
| NEW HEBRIDES ISLANDS |     |  |       |            |      |     |      |       |  |
|                      |     | PNS  | ePKP  | 13 52 58   |      |     |      |       |  |
|                      |     | LPB  | ePKP  | 13 52 59   |      |     |      | 115.2 |  |
| JUNE                 | 15  | LPB  | eP    | 13 53 30   |      |     |      |       |  |
|                      |     | PNS  | P     | 13 53 30.1 |      | 0.6 | 3    |       |  |
|                      |     |  | S     | 53.6       |      |     |      |       |  |
| JUNE                 | 15  | PNS  | iP    | 14 11 13.0 | C    | 1.2 | 37   |       |  |
|                      |     |  | i     | 17 40      |      |     |      |       |  |
|                      |     |  | eSS   | 23 00      |      |     |      |       |  |
|                      |     |  | L     | 28.5       |      |     |      |       |  |
|                      |     | LPB  | iP    | 14 11 15.4 | C    | 1.1 | 167  |       |  |
|                      |     |  | eSS   | 23 08      |      |     |      |       |  |
|                      |     |  | eL    | 28.7       |      |     |      |       |  |
|                      |     | TRJ  | iP    | 14 11 49.8 | D    |     |      |       |  |
| JUNE                 | 15  | LPB  | eP    | 14 39 14   |      |     |      |       |  |
|                      |     | PNS  | eP    | 14 39 16   |      |     |      |       |  |
| JUNE                 | 15  | PNS  | P     | 14 49 03.2 |      |     |      |       |  |
|                      |     |  | S     | 28.6       |      |     |      |       |  |
|                      |     | LPB  | eP    | 14 49 06   |      |     |      |       |  |
| JUNE                 | 15  | LPB  | eP    | 16 38 57   |      |     |      |       |  |
|                      |     | PNS  | P     | 16 37 58.5 |      |     |      |       |  |
|                      |     |  | S     | 38 15.9    |      |     |      |       |  |
| JUNE                 | 15  | USCGS 16 34 50.0, 0.1N, 91.7W, h = 33 km., m = 4.6   |       |            |      |     |      |       |  |
| GALAPAGOS ISLANDS    |     |  |       |            |      |     |      |       |  |
|                      |     | LPB  | eP    | 16 40 41   |      |     |      | 28.6  |  |
|                      |     | PNS  | eP    | 16 40 43.2 |      |     |      |       |  |
| JUNE                 | 15  | USCGS 16 36 18.0, 07.3, 92.0W, h = 33 km., m = 4.4   |       |            |      |     |      |       |  |
| GALAPAGOS ISLANDS    |     |  |       |            |      |     |      |       |  |
|                      |     | PNS  | eP    | 17 02 10.8 |      |     |      |       |  |
|                      |     |  | eL    | 10.1       |      |     |      |       |  |
|                      |     | LPB  | eP    | 17 02 11.7 |      |     |      | 28.3  |  |
| JUNE                 | 15  | PNS  | eP    | 17 34 45   |      |     |      |       |  |
|                      |     |  | eS    | 36 21      |      |     |      |       |  |
|                      |     | LPB  | P     | 17 34 52   |      |     |      |       |  |
| JUNE                 | 15  | USCGS 17 40 17.4, 0.2S, 91.4W, h = 33 km., m = 5.0   |       |            |      |     |      |       |  |
| GALAPAGOS ISLANDS    |     |  |       |            |      |     |      |       |  |
|                      |     | PNS  | eP    | 17 46 05.4 |      | 1.6 | 19   |       |  |
|                      |     |  | S     | 50 45      |      |     |      |       |  |
|                      |     |  | i     | 51 31      |      |     |      |       |  |
|                      |     |  | L     | 55.1       |      |     |      |       |  |
|                      |     | LPB  | P     | 17 46 09.6 |      | 2.0 | 86   |       |  |
|                      |     |  | eS    | 50 45      |      |     |      |       |  |
|                      |     |  | i     | 51 28.5    |      |     |      |       |  |
|                      |     |  | L     | 56.6       |      |     |      |       |  |

| MONTH | DAY | STA  | PHASE | TIME       | SIGN | PER | AMPL | DIST  |
|-------|-----|--|-------|------------|------|-----|------|-------|
| JUNE  | 15  | USCGS 19 53 09.2, 41.9N, 142.7E, h = 33 km., m = 5.2<br>HOKKAIDO, JAPAN REGION |       |            |      |     |      |       |
|       |     | PNS  | ePKP  | 20 12 40   |      | 1.1 | 11   |       |
|       |     | LPB  | PKP   | 20 12 42.6 |      | 1.2 | 19   | 142.3 |
|       |     | TRJ  | eP    | 20 12 49.8 |      |     |      |       |
| JUNE  | 15  | USCGS 21 25 01.4, 0.1S, 91.4W, h = 33 km., m = 5.2<br>GALAPAGOS ISLANDS        |       |            |      |     |      |       |
|       |     | PNS  | P     | 21 30 49.8 |      | 1.5 | 22   |       |
|       |     |  | eS    | 35 39      |      |     |      |       |
|       |     |  | i     | 36 13      |      |     |      |       |
|       |     |  | L     | 40.2       |      |     |      |       |
|       |     | LPB  | eP    | 21 30 49   |      | 2.5 | 240  |       |
|       |     |  | i     | 36 20      |      |     |      |       |
|       |     |  | L     | 40.4       |      |     |      |       |
| JUNE  | 15  | USCGS 21 33 22.3, 21.2S, 65.7W, h = 283 km., m = 4.9<br>SOUTHERN BOLIVIA       |       |            |      |     |      |       |
|       |     | TRJ  | iP    | 21 34 02.0 | C    |     |      |       |
|       |     | LPB  | iP    | 21 34 43.8 | C    |     |      |       |
|       |     |  | iS    | 35 44.5    |      |     |      |       |
|       |     | PNS  | iP    | 21 34 48.1 | C    |     |      |       |
|       |     |  | iS    | 35 54      |      |     |      |       |
| JUNE  | 15  | LPB  | eP    | 23 54 35   |      |     |      |       |
|       |     | PNS  | eP    | 23 54 36.4 |      |     |      |       |
| JUNE  | 16  | USCGS 00 31 03.2, 0.2S, 91.3W, h = 30 km., m = 5.0<br>GALAPAGOS ISLANDS        |       |            |      |     |      |       |
|       |     | PNS  | eP    | 00 36 50.6 |      | 2.3 | 128  |       |
|       |     |  | S     | 41 35      |      |     |      |       |
|       |     |  | i     | 42 15      |      |     |      |       |
|       |     |  | L     | 45.9       |      |     |      |       |
|       |     | LPB  | P     | 00 36 52.6 |      |     | 27.9 |       |
|       |     |  | eS    | 41 40      |      |     |      |       |
|       |     |  | i     | 42 16      |      |     |      |       |
|       |     |  | eL    | 46         |      |     |      |       |
|       |     | TRJ  | P     | 00 37 40.8 |      |     |      |       |
| JUNE  | 16  | LPB  | eP    | 02 08 38.6 |      |     |      |       |
| JUNE  | 16  | TRJ  | iP    | 02 10 33.1 | D    |     |      |       |
| JUNE  | 16  | USCGS 02 27 29.6, 18.6N, 145.4E, h = 227 km., m = 4.9<br>MARIANA ISLANDS       |       |            |      |     |      |       |
|       |     | PNS  | PKP   | 02 46 48.0 |      | 1.0 | 11   |       |
|       |     |  | i     | 51.0       |      |     |      |       |
|       |     | LPB  | PKP   | 02 46 48.7 |      | 1.0 | 20   | 150.1 |
|       |     |  | i     | 52.3       |      |     |      |       |
|       |     | TRJ  | PKP   | 02 46 53.6 |      |     |      |       |
|       |     |  | i     | 59.4       |      |     |      |       |



| MONTH | DAY | STA  | PHASE | TIME       | SIGN | PER | AMPL | DIST |
|-------|-----|--|-------|------------|------|-----|------|------|
| JUNE  | 16  | USCGS 02 48 13.0, 0.2S, 91.3W, h = 33 km., m = 4.7<br>GALAPAGOS ISLANDS        |       |            |      |     |      |      |
|       |     | PNS  | eP    | 02 54 00.2 |      |     |      |      |
|       |     | LPB  | eP    | 02 54 04.2 |      |     |      |      |
| JUNE  | 16  | USCGS 03 47 08.3, 0.2S, 91.3W, h = 33 km., m = 4.9<br>GALAPAGOS ISLANDS        |       |            |      |     |      |      |
|       |     | PNS  | eP    | 03 52 55.2 |      | 1.5 | 23   |      |
|       |     |  | S     | 57 33      |      |     |      |      |
|       |     |  | i     | 58 18      |      |     |      |      |
|       |     |  | L     | 04 02      |      |     |      |      |
|       |     | LPB  | P     | 03 52 58.3 |      | 1.0 | 14   | 28   |
|       |     |  | eS    | 57 30      |      |     |      |      |
|       |     |  | i     | 58 19      |      |     |      |      |
|       |     |  | eL    | 04 02      |      |     |      |      |
|       |     | TRJ  | eP    | 03 53 44.2 |      |     |      |      |
| JUNE  | 16  | USCGS 04 55 57.0, 36.2S, 15.4W, h = 33 km., m = 5.1<br>TRISTAN DA CUNHA REGION |       |            |      |     |      |      |
|       |     | TRJ  | P     | 05 04 10.4 |      |     |      |      |
|       |     | LPB  | P     | 05 04 51.4 |      | 1.7 | 45   | 50   |
|       |     |  | S     | 12 00      |      |     |      |      |
|       |     |  | eSS   | 15 16      |      |     |      |      |
|       |     |  | eG    | 15.6       |      |     |      |      |
|       |     |  | eL    | 19         |      |     |      |      |
|       |     | PNS  | eP    | 05 04 54   |      | 0.9 | 17   |      |
|       |     |  | S     | 12 08.0    |      |     |      |      |
|       |     |  | SS    | 15 23      |      |     |      |      |
|       |     |  | G     | 15.7       |      |     |      |      |
|       |     |  | L     | 18.9       |      |     |      |      |
| JUNE  | 16  | PNS  | P     | 05 24 34.9 |      | 0.5 | 5    |      |
|       |     | LPB  | eP    | 05 24 37.2 |      |     |      |      |
| JUNE  | 16  | USCGS 05 32 07.0, 35.2S, 15.9W, h = 33 km., m = 4.6<br>TRISTAN DA CUNHA REGION |       |            |      |     |      |      |
|       |     | TRJ  | P     | 05 40 19.6 |      |     |      |      |
|       |     | PNS  | P     | 05 41 02.7 |      | 0.9 | 6    |      |
|       |     | LPB  | P     | 05 41 59.8 |      | 1.0 | 14   | 53   |
| JUNE  | 16  | LPB  | eP    | 05 50 29.5 |      |     |      |      |
| JUNE  | 16  | PNS  | iP    | 06 19 23.5 | D    | 0.5 | 8    |      |
|       |     |  | S     | 47.9       |      |     |      |      |
| JUNE  | 16  | USCGS 06 31 38.0, 0.0S, 91.2W, h = 33 km., m = 4.2<br>GALAPAGOS ISLANDS        |       |            |      |     |      |      |
|       |     | PNS  | eP    | 06 37 26   |      |     |      |      |
|       |     | LPB  | eP    | 06 37 29   |      | 1.0 | 10   | 29   |
| JUNE  | 16  | USCGS 06 47 14.0, 0.2N, 91.1W, h = 33 km., m = 4.3<br>GALAPAGOS ISLANDS        |       |            |      |     |      |      |
|       |     | PNS  | eP    | 06 53 04   |      |     |      |      |
|       |     | LPB  | eP    | 06 53 05.5 |      |     |      |      |



| JUNE  |     |  |       |            |      |     |      |       |  |  |
|-------|-----|--|-------|------------|------|-----|------|-------|--|--|
| MONTH | DAY | STA  | PHASE | TIME       | SIGN | PER | AMPL | DIST  |  |  |
| JUNE  | 16  | USCGS 06 39 57.0, 41.4N, 143.1E, h = 36 km., m = 4.5<br>HOKKAIDO, JAPAN REGION |       |            |      |     |      |       |  |  |
|       |     | LPB  | ePKP  | 06 59 21   |      |     |      | 143.9 |  |  |
|       |     | PNS  | ePKP  | 06 59 24.2 |      |     |      |       |  |  |
| JUNE  | 16  | USCGS 06 57 14.0, 0.2S, 91.4W, h = 33 km., m = 4.2<br>GALAPAGOS ISLANDS        |       |            |      |     |      |       |  |  |
|       |     | PNS  | eP    | 07 03 03.8 |      |     |      |       |  |  |
|       |     |  | eS    | 07 35      |      |     |      |       |  |  |
|       |     | LPB  | eP    | 07 03 04.2 |      | 0.8 | 4    | 28.2  |  |  |
| JUNE  | 16  | USCGS 07 13 16.7, 0.2S, 91.2W, h = 33 km., m = 4.9<br>GALAPAGOS ISLANDS        |       |            |      |     |      |       |  |  |
|       |     | PNS  | eP    | 07 19 04.6 |      | 1.0 | 7    |       |  |  |
|       |     |  | S     | 23 49      |      |     |      |       |  |  |
|       |     |  | i     | 24 27      |      |     |      |       |  |  |
|       |     |  | L     | 28.5       |      |     |      |       |  |  |
|       |     | LPB  | eP    | 07 19 05.5 |      | 1.0 | 20   | 28    |  |  |
|       |     |  | S     | 24 32      |      |     |      |       |  |  |
|       |     |  | L     | 28.6       |      |     |      |       |  |  |
| JUNE  | 16  | TRJ  | 1P    | 08 42 36.2 |      | C   |      |       |  |  |
|       |     | LPB  | eP    | 08 43 32.5 |      |     |      |       |  |  |
|       |     | PNS  | P     | 08 43 36.3 |      |     |      |       |  |  |
|       |     |  | eS    | 45 02      |      |     |      |       |  |  |
| JUNE  | 16  | USCGS 09 13 57.0, 0.8N, 73.1W, h = 191., m = 4.1<br>NORTHERN COLOMBIA          |       |            |      |     |      |       |  |  |
|       |     | PNS  | P     | 09 18 50.5 |      | 0.8 | 13   |       |  |  |
|       |     | TRJ  | P     | 09 19 39.9 |      |     |      |       |  |  |
| JUNE  | 16  | PNS  | P     | 10 06 47.2 |      |     |      |       |  |  |
| JUNE  | 16  | USCGS 10 12 14.2, 0.3S, 91.3W, h = 33 km., m = 4.6<br>GALAPAGOS ISLANDS        |       |            |      |     |      |       |  |  |
|       |     | PNS  | eP    | 10 18 02   |      |     |      |       |  |  |
|       |     |  | S     | 22 53      |      |     |      |       |  |  |
|       |     |  | i     | 23 26      |      |     |      |       |  |  |
|       |     |  | L     | 27.4       |      |     |      |       |  |  |
|       |     | TRJ  | eP    | 10 18 47.3 |      |     |      |       |  |  |
| JUNE  | 16  | USCGS 12 17 14.0, 0.5S, 91.3W, h = 33 km., m = 4.4<br>GALAPAGOS ISLANDS        |       |            |      |     |      |       |  |  |
|       |     | PNS  | eP    | 13 23 05.2 |      |     |      |       |  |  |
| JUNE  | 16  | TRJ  | P     | 12 48 13.9 |      | C   |      |       |  |  |
|       |     |  | S     | 44.6       |      |     |      |       |  |  |
| JUNE  | 16  | PNS  | P     | 12 59 16.0 |      | 1.0 | 8    |       |  |  |

| JUNE  |     |  |       |            |      |     |      |      |  |  |
|-------|-----|--|-------|------------|------|-----|------|------|--|--|
| MONTH | DAY | STA  | PHASE | TIME       | SIGN | PER | AMPL | DIST |  |  |
| JUNE  | 16  | USCGS 12 59 57.6, 0.3S, 91.7W, h = 33 km., m = 4.7<br>GALAPAGOS ISLANDS            |       |            |      |     |      |      |  |  |
|       |     | PNS  | eP    | 13 05 53.4 |      |     |      |      |  |  |
|       |     |  | S     | 10 43      |      |     |      |      |  |  |
|       |     |  | i     | 11 22      |      |     |      |      |  |  |
|       |     |  | L     | 15.4       |      |     |      |      |  |  |
| JUNE  | 16  | USCGS 14 01 27.0, 4.0S, 104.0W, h = 33 km., m = 4.5<br>N. EASTER IS. CIRDILLERA    |       |            |      |     |      |      |  |  |
|       |     | PNS  | P     | 14 08 31.7 |      | 1.0 | 14   |      |  |  |
|       |     |  | L     | 19.7       |      |     |      |      |  |  |
| JUNE  | 16  | PNS  | eP    | 14 31 14   |      | 0.9 | 6    |      |  |  |
| JUNE  | 16  | USCGS 15 16 57.9, 0.6S, 91.5W, h = 33 km., m = 4.6<br>GALAPAGOS ISLANDS            |       |            |      |     |      |      |  |  |
|       |     | PNS  | eP    | 15 22 41.8 |      |     |      |      |  |  |
|       |     |  | eS    | 27 42      |      |     |      |      |  |  |
|       |     |  | i     | 28 13      |      |     |      |      |  |  |
|       |     |  | L     | 31.7       |      |     |      |      |  |  |
| JUNE  | 16  | USCGS 16 20 14.9, 0.4S, 91.4W, h = 33 km., m = 4.7<br>GALAPAGOS ISLANDS            |       |            |      |     |      |      |  |  |
|       |     | PNS  | eP    | 16 26 14.8 |      |     |      |      |  |  |
|       |     |  | S     | 30 56      |      |     |      |      |  |  |
|       |     |  | i     | 31 27      |      |     |      |      |  |  |
|       |     |  | L     | 35.4       |      |     |      |      |  |  |
| JUNE  | 16  | USCGS 16 56 36.4, 40.3N, 143.8E, h = 11 km., m = 4.7<br>OFF E CST OF HONSHU, JAPAN |       |            |      |     |      |      |  |  |
|       |     | PNS  | ePKP  | 17 16 11.3 |      |     |      |      |  |  |
|       |     |  | eL    | 18 04.6    |      |     |      |      |  |  |
|       |     | TRJ  | ePKP  | 17 16 27.7 |      |     |      |      |  |  |
| JUNE  | 16  | TRJ  | eP    | 18 20 01.8 |      |     |      |      |  |  |
|       |     |  | i     | 09.8       |      |     |      |      |  |  |
| JUNE  | 16  | USCGS 18 45 15.6, 0.2S, 91.4W, h = 33 km., m = 4.7<br>GALAPAGOS ISLANDS            |       |            |      |     |      |      |  |  |
|       |     | PNS  | P     | 18 51 02   |      | 1.3 |      |      |  |  |
|       |     |  | S     | 55 47      |      |     |      |      |  |  |
|       |     |  | i     | 56 26      |      |     |      |      |  |  |
|       |     |  | L     | 19 00.5    |      |     |      |      |  |  |
| JUNE  | 16  | USCGS 18 51 32.0, 39.5N, 141.9E, h = 33 km., m = 4.6<br>HONSHU, JAPAN              |       |            |      |     |      |      |  |  |
|       |     | PNS  | ePKP  | 19 11 11.2 |      |     |      |      |  |  |
| JUNE  | 16  | USCGS 19 19 05.0, 53.9S, 8.7E, h = 33 km., m = 5.7<br>BOUVELT ISLAND REGION        |       |            |      |     |      |      |  |  |
|       |     | PNS  | P     | 19 25 11.9 |      | 1.2 | 45   |      |  |  |
|       |     |  | S     | 34 25      |      |     |      |      |  |  |
|       |     |  | SS    | 38 50      |      |     |      |      |  |  |
|       |     |  | eG    | 42.4       |      |     |      |      |  |  |
|       |     |  | L     | 44.4       |      |     |      |      |  |  |



JUNE

| MONTH | DAY | STA                     | PHASE  | TIME       | SIGN | PER | AMPL | DIST |
|-------|-----|-------------------------|--|------------|------|-----|------|------|
| JUNE  | 16  | TRJ                     | iP   | 19 37 24.7 | C    |     |      |      |
|       |     | PNS                     | eP   | 19 39 51.8 |      |     |      |      |
| JUNE  | 16  | USCGS GALAPAGOS ISLANDS | 20 51 43.7, 0.5S, 91.5W, h = 33 km., m = 4.8 |            |      |     |      |      |
|       |     | PNS                     | eP   | 20 57 30.9 |      |     |      |      |
|       |     |                         | S  | 21 02 20   |      |     |      |      |
|       |     |                         | i  | 03 03      |      |     |      |      |
|       |     |                         | L  | 06.9       |      |     |      |      |
|       |     | LPB                     | eP   | 20 57 32   |      | 1.8 | 77   |      |
|       |     |                         | S  | 21 02 20   |      |     |      |      |
|       |     |                         | i  | 03 00      |      |     |      |      |
|       |     |                         | eL   | 06.8       |      |     |      |      |
|       |     | TRJ                     | eP   | 20 58 20.6 |      |     |      |      |
| JUNE  | 16  | LPB                     | eP   | 21 52 00.2 |      | 0.7 | 21   |      |
|       |     |                         | S  | 33         |      |     |      |      |
|       |     | PNS                     | iP   | 21 52 02.5 | C    |     |      |      |
|       |     |                         | S  | 34.5       |      |     |      |      |
|       |     | TRJ                     | P  | 21 52 34.8 |      |     |      |      |
| JUNE  | 16  | USCGS GALAPAGOS ISLANDS | 22 44 35.4, 0.4S, 91.6W, h = 33 km., m = 4.4 |            |      |     |      |      |
|       |     | LPB                     | eP   | 22 50 20   |      |     |      | 28   |
|       |     | PNS                     | eP   | 22 50 23.6 |      |     |      |      |
|       |     |                         | i  | 55 52      |      |     |      |      |
|       |     |                         | eL   | 59.3       |      |     |      |      |
|       |     | TRJ                     | eP   | 22 51 13.4 |      |     |      |      |
| JUNE  | 16  | PNS                     | P  | 23 11 17.5 |      | 0.5 | 2    |      |
| JUNE  | 16  | USCGS GALAPAGOS ISLANDS | 23 10 39.0, 0.6S, 91.8W, h = 33 km., m = 4.6 |            |      |     |      |      |
|       |     | PNS                     | P  | 23 16 27.7 |      | 2.2 | 68   |      |
|       |     |                         | S  | 21 22      |      |     |      |      |
|       |     |                         | i  | 52         |      |     |      |      |
|       |     |                         | L  | 25.9       |      |     |      |      |
|       |     | LPB                     | eP   | 23 16 31   |      | 2.5 | 108  | 28.1 |
|       |     |                         | eS   | 21 28      |      |     |      |      |
|       |     |                         | i  | 57         |      |     |      |      |
|       |     |                         | eL   | 25.6       |      |     |      |      |
|       |     | TRJ                     | eP   | 23 17 16.8 |      |     |      |      |
| JUNE  | 16  | TRJ                     | P  | 23 35 43.9 |      |     |      |      |
|       |     |                         | S  | 36 22.8    |      |     |      |      |
|       |     | LPB                     | eP   | 23 36 40   |      | 0.4 | 8    |      |
|       |     | PNS                     | P  | 23 36 40.6 |      |     |      |      |
|       |     |                         | eS   | 38 03      |      |     |      |      |
| JUNE  | 17  | TRJ                     | P  | 00 01 54.1 | D    |     |      |      |
| JUNE  | 17  | TRJ                     | iP   | 00 07 31.6 | D    |     |      |      |
|       |     | PNS                     | eP   | 00 08 07   |      |     |      |      |

JUNE

| MONTH | DAY | STA                     | PHASE   | TIME       | SIGN | PER | AMPL | DIST |
|-------|-----|-------------------------|---|------------|------|-----|------|------|
| JUNE  | 17  | TRJ                     | P   | 00 43 44.5 |      |     |      |      |
| JUNE  | 17  | LPB                     | e(P)  | 00 57 27   |      |     |      |      |
| JUNE  | 17  | USCGS GALAPAGOS ISLANDS | 01 07 44.7, 0.4S, 91.5W, h = 33 km., m = 4.7  |            |      |     |      |      |
|       |     | LPB                     | eP  | 01 13 27.5 |      |     |      | 28   |
|       |     |                         | eS  | 18 28      |      |     |      |      |
|       |     |                         | i   | 19 03      |      |     |      |      |
|       |     |                         | eL  | 22.7       |      |     |      |      |
|       |     | PNS                     | eP  | 01 13 32.4 |      |     |      |      |
|       |     |                         | S   | 18 20      |      |     |      |      |
|       |     |                         | i   | 19 00      |      |     |      |      |
|       |     |                         | L   | 22.6       |      |     |      |      |
|       |     | TRJ                     | eP  | 01 14 21.8 |      |     |      |      |
| JUNE  | 17  | TRJ                     | P   | 01 44 58.1 | D    |     |      |      |
|       |     | LPB                     | eP  | 01 45 39.5 |      |     |      |      |
|       |     | PNS                     | P   | 01 45 41.3 |      | 0.4 | 1    |      |
|       |     |                         | eS  | 46 45.7    |      |     |      |      |
| JUNE  | 17  | USCGS NORTHERN COLOMBIA | 01 46 09.0, 6.5N, 73.0W, h = 160 km., m = 4.0 |            |      |     |      |      |
|       |     | LPB                     | e(P)  | 01 51 05   |      |     |      | 24.1 |
|       |     | PNS                     | P   | 01 51 07   |      | 0.7 | 2    |      |
| JUNE  | 17  | USCGS GALAPAGOS ISLANDS | 02 14 49.0, 0.7S, 91.8W, h = 33 km., m = 4.7  |            |      |     |      |      |
|       |     | PNS                     | eP  | 02 20 35.8 |      | 1.5 | 13   |      |
|       |     |                         | eP  | 43.4       |      |     |      |      |
|       |     |                         | S   | 25 33      |      |     |      |      |
|       |     |                         | i   | 26 05      |      |     |      |      |
|       |     |                         | L   | 29.9       |      |     |      |      |
|       |     | LPB                     | eP  | 02 20 41   |      | 1.6 | 78   |      |
|       |     |                         | eS  | 25 25      |      |     |      |      |
|       |     |                         | i   | 26 02      |      |     |      |      |
|       |     |                         | eL  | 30         |      |     |      |      |
|       |     | TRJ                     | eP  | 02 21 27.6 |      |     |      |      |
| JUNE  | 17  | TRJ                     | P   | 02 23 24.6 |      |     |      |      |
|       |     |                         | S   | 24 07.1    |      |     |      |      |
| JUNE  | 17  | TRJ                     | P   | 02 27 40.7 | C    |     |      |      |
|       |     | LPB                     | eP  | 02 29 43.3 |      | 1.0 | 6    |      |
|       |     | PNS                     | iP  | 02 29 44.5 | D    | 0.5 | 8    |      |
|       |     |                         | iS  | 30 08      |      |     |      |      |
| JUNE  | 17  | PNS                     | eP  | 03 12 09   |      |     |      |      |
|       |     | LPB                     | eP  | 03 12 11   |      |     |      |      |
|       |     | TRJ                     | e   | 03 13 23.3 |      |     |      |      |
| JUNE  | 17  | PNS                     | eP  | 03 52 35   |      |     |      |      |
|       |     | LPB                     | P   | 03 52 39   |      |     |      |      |
| JUNE  | 17  | LPB                     | P   | 04 19 18.7 |      | 0.5 | 7    |      |
|       |     | PNS                     | P   | 04 19 22.5 |      | 0.7 | 4    |      |
|       |     |                         | S   | 43.3       |      |     |      |      |
|       |     | TRJ                     | P   | 04 18 56.1 |      |     |      |      |



| JUNE  |     |   |       |            |      |     |      |      |
|-------|-----|---|-------|------------|------|-----|------|------|
| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL | DIST |
|       |     |   | eS    | 44 52      |      |     |      |      |
|       |     |   | i     | 45 34      |      |     |      |      |
|       |     |   | eL    | 49.6       |      |     |      |      |
| JUNE  | 17  | PNS   | P     | 12 07 56   |      | 1.2 | 7    |      |
|       |     | LPB   | P     | 12 07 57.8 |      |     |      |      |
| JUNE  | 17  | USCGS 11 53 00.4, 41.0N, 243.0E, h = 48 km., m = 5.7<br>NR E CST OF HONSHU, JAPAN |       |            |      |     |      |      |
|       |     | PNS   | PKP   | 12 12 30.8 |      | 1.5 | 50   |      |
|       |     |   | ePP   | 15 56.4    |      |     |      |      |
|       |     |   | SKS   | 19 36      |      |     |      |      |
|       |     |   | I     | 22 35.0    |      |     |      |      |
|       |     |   | SS    | 34 30.0    |      |     |      |      |
|       |     |   | eL    | 13 01.2    |      |     |      |      |
|       |     | LPB   | ePKP  | 12 12 32.7 |      | 1.0 | 44   | 144  |
|       |     |   | PP    | 15 57      |      |     |      |      |
|       |     |   | i     | 22 36.5    |      |     |      |      |
|       |     |   | SS    | 34 35      |      |     |      |      |
|       |     |   | eL    | 13 01.3    |      |     |      |      |
|       |     | TRJ   | PKP   | 12 12 44.7 |      |     |      |      |
| JUNE  | 17  | USCGS 12 30 29.0, 0.3S, 41.1W, h = 33 km., m = 4.6<br>GALAPAGOS ISLANDS           |       |            |      |     |      |      |
|       |     | PNS   | eP    | 12 36 14.8 |      | 2.0 | 55   |      |
|       |     |   | pp    | 26.4       |      |     |      |      |
|       |     |   | e     | 38         |      |     |      |      |
|       |     | LPB   | eP    | 13 36 16   |      |     |      | 28   |
|       |     |   | pp    | 29         |      |     |      |      |
| JUNE  | 17  | LPB   | eP    | 12 45 00   |      |     |      |      |
|       |     | PNS   | eP    | 12 45 01.1 |      | 0.9 | 3    |      |
| JUNE  | 17  | PNS   | P     | 13 16 28.5 |      |     |      |      |
|       |     |   | S     | 17 17      |      |     |      |      |
|       |     | LPB   | eP    | 13 16 32   |      |     |      |      |
| JUNE  | 17  | USCGS 13 49 39.8, 0.5S, 91.7W, h = 33 km., m = 4.7<br>GALAPAGOS ISLANDS           |       |            |      |     |      |      |
|       |     | PNS   | eP    | 13 55 28.8 |      |     |      |      |
|       |     | LPB   | P     | 13 55 32.7 |      | 1.0 | 10   | 28   |
| JUNE  | 17  | USCGS 14 16 38.6, 0.5S, 91.6W, h = 33 km., m = 4.7<br>GALAPAGOS ISLANDS           |       |            |      |     |      |      |
|       |     | PNS   | P     | 14 22 26.8 |      | 1.8 | 26   |      |
|       |     | LPB   | eP    | 14 22 29   |      |     |      | 28.1 |
| JUNE  | 17  | LPB   | eP    | 14 25 26.5 |      |     |      |      |
|       |     | PNS   | P     | 14 25 30.9 | D    | 0.4 | 4    |      |
|       |     |   | S     | 26 00      |      |     |      |      |
| JUNE  | 17  | USCGS 14 30 50.0, 0.2S, 91.2W, h = 33 km., m = 4.3<br>GALAPAGOS ISLANDS           |       |            |      |     |      |      |

| JUNE  |     |   |       |            |      |     |      |      |
|-------|-----|---|-------|------------|------|-----|------|------|
| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL | DIST |
| JUNE  | 17  | PNS   | eP    | 14 36 39   |      |     |      |      |
| JUNE  | 17  | PNS   | eP    | 14 57 12.6 |      |     |      |      |
| JUNE  | 17  | USCGS 14 54 40.7, 0.3S, 41.2W, h = 33 km., m = 4.9<br>GALAPAGOS ISLANDS           |       |            |      |     |      |      |
|       |     | LPB   | eP    | 15 08 29   |      |     |      | 28   |
|       |     |   | eS    | 05 24      |      |     |      |      |
|       |     |   | i     | 56         |      |     |      |      |
|       |     |   | eL    | 09.6       |      |     |      |      |
|       |     | PNS   | P     | 15 00 29.2 |      | 1.3 | 21   |      |
|       |     |   | S     | 05 18      |      |     |      |      |
|       |     |   | i     | 53         |      |     |      |      |
|       |     |   | L     | 09.7       |      |     |      | 20 2 |
| JUNE  | 17  | TRJ   | IP    | 15 07 23.3 |      |     |      | C    |
|       |     | LPB   | IP    | 15 08 13.9 |      |     |      |      |
|       |     | PNS   | IP    | 15 08 18.9 |      |     |      | D    |
| JUNE  | 17  | LPB   | P     | 15 26 35.6 |      | 1.0 | 40   |      |
|       |     |   | S     | 27 10.4    |      |     |      |      |
|       |     | PNS   | IS    | 15 27 09   |      |     |      |      |
| JUNE  | 17  | LPB   | eP    | 16 13 50.5 |      |     |      |      |
|       |     | PNS   | eP    | 16 13 53.7 |      | 1.5 | 16   |      |
| JUNE  | 17  | PNS   | P     | 16 41 13.6 |      | 0.8 | 4    |      |
|       |     | LPB   | eP    | 16 41 16   |      |     |      |      |
| JUNE  | 17  | USCGS 16 35 29.1, 0.4S, 91.4W, h = 27 km., m = 4.5<br>GALAPAGOS ISLANDS           |       |            |      |     |      |      |
|       |     | LPB   | P     | 16 41 22   |      | 1.2 | 19   | 28   |
|       |     |   | i     | 46 45      |      |     |      |      |
|       |     |   | eL    | 51         |      |     |      |      |
|       |     | PNS   | P     | 16 41 22.2 |      |     |      |      |
|       |     |   | eS    | 45 58      |      |     |      |      |
|       |     |   | i     | 46 43      |      |     |      |      |
|       |     |   | eL    | 50.6       |      |     |      |      |
| JUNE  | 17  | USCGS 16 56 16.6, 0.3S, 91.6W, h = 33 km., m = 4.6<br>GALAPAGOS ISLANDS           |       |            |      |     |      |      |
|       |     | PNS   | eP    | 17 02 02.8 |      |     |      |      |
|       |     |   | S     | 06 41      |      |     |      |      |
|       |     |   | e     | 07 35      |      |     |      |      |
|       |     |   | eL    | 09.9       |      |     |      |      |
|       |     | LPB   | eP    | 17 02 06   |      |     |      | 28   |
|       |     |   | i     | 07 36      |      |     |      |      |
| JUNE  | 17  | USCGS 16 56 13.1, 40.1N, 143.7E, h = 6 km., m = 5.2<br>OFF E CST OF HONSHU, JAPAN |       |            |      |     |      |      |
|       |     | LPB   | ePKP  | 17 15 46   |      |     |      | 143  |
|       |     | PNS   | PKP   | 17 15 47   |      | 1.5 | 18   |      |
| JUNE  | 17  | USCGS 17 17 08.0, 0.1S, 91.3W, h = 33 km., m = 4.4<br>GALAPAGOS ISLANDS           |       |            |      |     |      |      |

| JUNE  |     |  |       |            |      |     |      |       |  |
|-------|-----|--|-------|------------|------|-----|------|-------|--|
| MONTH | DAY | STA  | PHASE | TIME       | SIGN | PER | AMPL | DIST  |  |
|       |     | PNS  | P     | 17 22 57   |      |     |      |       |  |
|       |     |  | eS    | 27 40      |      |     |      |       |  |
|       |     |  | i     | 28 15      |      |     |      |       |  |
|       |     |  | L     | 32.1       |      |     |      |       |  |
|       |     | LPB  | eP    | 17 23 05.5 |      |     |      | 28    |  |
|       |     |  | eL    | 32.5       |      |     |      |       |  |
| JUNE  | 17  | USCGS 17 36 59.8, 0.4S, 91.5W, h = 33 km., m = 5.1<br>GALAPAGOS ISLANDS            |       |            |      |     |      |       |  |
|       |     | PNS  | eP    | 17 42 47.6 |      | 2.3 | 141  |       |  |
|       |     |  | eS    | 47 35      |      |     |      |       |  |
|       |     |  | i     | 48 20      |      |     |      |       |  |
|       |     |  | L     | 52.2       |      |     |      |       |  |
|       |     | LPB  | eP    | 17 42 50   |      | 2.2 | 135  | 28    |  |
|       |     |  | eS    | 47 44      |      |     |      |       |  |
|       |     |  | i     | 48 16      |      |     |      |       |  |
|       |     |  | eL    | 52         |      |     |      |       |  |
| JUNE  | 17  | PNS  | eP    | 18 05 51.5 |      |     |      |       |  |
| JUNE  | 17  | USCGS 17 44 43.6, 6.3S, 146.6E, h = 110 km., m = 5.1<br>EAST NEW GUINEA REGION     |       |            |      |     |      |       |  |
|       |     | PNS  | PKP   | 18 08 51   |      | 0.9 | 7    |       |  |
|       |     |  | eL    | 18 56      |      |     |      |       |  |
|       |     | LPB  | PKP   | 18 09 01.7 |      | 0.8 | 29   | 139   |  |
| JUNE  | 17  | PNS  | P     | 18 12 26.5 |      | 0.8 | 11   |       |  |
|       |     |  | e     | 13 22      |      |     |      |       |  |
|       |     | LPB  | eP    | 18 12 27.5 |      |     |      |       |  |
| JUNE  | 17  | USCGS 18 09 34.1, 12.3S, 166.7E, h = 33 km., m = 5.5<br>SANTA CRUZ ISLANDS         |       |            |      |     |      |       |  |
|       |     | PNS  | PKP   | 18 28 20.8 |      | 0.9 | 12   |       |  |
|       |     |  | eL    | 19 07      |      |     |      |       |  |
|       |     | LPB  | PKP   | 18 28 21.8 |      | 0.7 | 14   | 118.6 |  |
| JUNE  | 17  | LPB  | eP    | 18 38 35   |      |     |      |       |  |
|       |     | PNS  | eP    | 18 38 35.6 |      | 1.0 | 7    |       |  |
| JUNE  | 17  | PNS  | eP    | 18 41 30   |      |     |      |       |  |
|       |     | LPB  | eP    | 18 41 32   |      |     |      |       |  |
| JUNE  | 18  | USCGS 18 59 39.2, 0.4S, 91.1W, h = 33 km., m = 4.5<br>GALAPAGOS ISLANDS            |       |            |      |     |      |       |  |
|       |     | PNS  | eP    | 19 05 22.7 |      |     |      |       |  |
| JUNE  | 17  | USCGS 18 57 27.5, 38.7N, 143.6E, h = 17 km., m = 4.9<br>OFF E CST OF HONSHU, JAPAN |       |            |      |     |      |       |  |
|       |     | PNS  | PKP   | 19 17 04.4 |      | 1.6 | 35   |       |  |
|       |     |  | eL    | 20 06.1    |      |     |      |       |  |
|       |     | LPB  | PKP   | 19 17 06.6 |      | 2.0 | 108  | 144.5 |  |

| JUNE  |     |   |       |            |      |     |      |      |       |
|-------|-----|---|-------|------------|------|-----|------|------|-------|
| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL | DIST |       |
| JUNE  | 17  | USCGS 19 23 35.8, 0.7S, 91.5W, h = 33 km., m = 4.6<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |       |
|       |     | LPB   | eP    | 19 29 28   |      |     |      | 28   |       |
|       |     | PNS   | eP    | 19 29 27.8 |      |     |      |      |       |
|       |     |   | eL    | 38.2       |      |     |      |      |       |
| JUNE  | 17  | USCGS 19 34 09.0, 2.9S, 138.6E, h = 58 km., m = 5.5<br>WEST NEW GUINEA  |       |            |      |     |      |      |       |
|       |     | PNS   | PKP   | 19 53 50.6 |      |     | 1.0  | 15   |       |
|       |     | LPB   | PKP   | 19 53 51.4 |      |     | 1.0  | 20   | 145.4 |
| JUNE  | 17  | USCGS 19 51 14.0, 0.3S, 91.8W, h = 33 km., m = 4.8<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |       |
|       |     | PNS   | eP    | 19 57 00.7 |      |     | 1.0  | 5    |       |
|       |     |   | eS    | 20 01 55   |      |     |      |      |       |
|       |     |   | i     | 02 30      |      |     |      |      |       |
|       |     |   | L     | 06.7       |      |     |      |      |       |
|       |     | LPB   | P     | 19 57 03.7 |      |     | 1.0  | 12   | 28.3  |
|       |     |   | i     | 20 02 25   |      |     |      |      |       |
|       |     |   | eL    | 06.7       |      |     |      |      |       |
| JUNE  | 17  | LPB   | e(P)  | 21 07 45.6 |      |     |      |      |       |
| JUNE  | 17  | USCGS 21 08 03.5, 0.2S, 91.2W, h = 33 km., m = 4.5<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |       |
|       |     | PNS   | eP    | 21 13 50   |      |     |      |      |       |
|       |     |   | eS    | 18 30      |      |     |      |      |       |
|       |     |   | i     | 19 16      |      |     |      |      |       |
|       |     |   | L     | 21.8       |      |     |      |      |       |
|       |     | LPB   | eP    | 21 13 52.3 |      |     |      |      | 27.4  |
| JUNE  | 17  | PNS   | eP    | 21 22 33   |      |     |      |      |       |
|       |     | LPB   | eP    | 21 22 39.8 |      |     |      |      |       |
| JUNE  | 17  | LPB   | eP    | 21 33 39.5 |      |     |      |      |       |
| JUNE  | 17  | USCGS 21 37 23.0, 0.8S, 91.2W, h = 33 km., m = 4.4<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |       |
|       |     | LPB   | eP    | 21 43 09.5 |      |     |      |      | 27.4  |
|       |     | PNS   | eP    | 21 43 11.7 |      |     |      |      |       |
| JUNE  | 17  | LPB   | eP    | 21 49 25   |      |     |      |      |       |
|       |     | PNS   | eP    | 21 49 30.3 |      | 0.4 | 2    |      |       |
|       |     |   | eS    | 50 44.8    |      |     |      |      |       |
| JUNE  | 17  | LPB   | P     | 21 50 46.7 |      |     | 1.2  | 22   |       |
| JUNE  | 17  | USCGS 22 05 41.6, 0.4S, 91.1W, h = 33 km., m = 4.6<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |       |
|       |     | PNS   | eP    | 22 11 27   |      |     |      |      |       |
|       |     |   | S     | 16 23      |      |     |      |      |       |
|       |     |   | i     | 54         |      |     |      |      |       |
|       |     |   | L     | 20.9       |      |     |      |      |       |

| JUNE  |     |   |       |            |      |     |      |      |  |      |
|-------|-----|---|-------|------------|------|-----|------|------|--|------|
| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL | DIST |  |      |
| JUNE  | 17  | PNS   | P     | 22 20 20.7 |      |     |      |      |  |      |
|       |     |   | e(S)  | 55.6       |      |     |      |      |  |      |
| JUNE  | 17  | USCGS 23 07 04.8, 0.6S, 91.7W, h = 33 km., m = 4.4<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |  | 28   |
|       |     | LPB   | eP    | 23 12 52.7 |      |     |      |      |  |      |
|       |     | PNS   | eP    | 23 12 55.4 |      |     |      |      |  |      |
| JUNE  | 17  | USCGS 23 32 47.0, 0.6S, 91.6W, h = 33 km., m = 4.4<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |  | 28   |
|       |     | PNS   | P     | 23 38 36   |      |     |      |      |  |      |
|       |     |   | eS    | 43 37      |      |     |      |      |  |      |
|       |     |   | i     | 44 07      |      |     |      |      |  |      |
|       |     |   | L     | 47.9       |      |     |      |      |  |      |
|       |     | LPB   | P     | 23 38 36.6 | 1.0  |     | 14   | 28   |  |      |
|       |     |   | eL    | 48         |      |     |      |      |  |      |
| JUNE  | 17  | USCGS 23 43 23.0, 0.2S, 91.1W, h = 33 km., m = 4.1<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |  | 27.6 |
|       |     | LPB   | eP    | 23 49 05.5 |      |     |      |      |  |      |
|       |     | PNS   | eP    | 23 49 10.8 |      |     |      |      |  |      |
| JUNE  | 18  | USCGS 00 08 46.4, 0.2S, 91.2W, h = 33 km., m = 4.8<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |  | 27.7 |
|       |     | PNS   | eP    | 00 14 34.1 | 1.4  |     | 11   |      |  |      |
|       |     |   | S     | 19 19      |      |     |      |      |  |      |
|       |     |   | i     | 20 00      |      |     |      |      |  |      |
|       |     |   | L     | 23.9       |      |     |      |      |  |      |
|       |     | LPB   | P     | 00 14 37.7 | 2.0  |     | 65   | 27.7 |  |      |
|       |     |   | eL    | 24         |      |     |      |      |  |      |
| JUNE  | 18  | PNS   | P     | 00 29 02.6 | 0.8  |     | 8    |      |  |      |
|       |     | LPB   | P     | 00 29 03.2 | 0.6  |     | 8    |      |  |      |
| JUNE  | 18  | PNS   | eP    | 00 39 46   |      |     |      |      |  |      |
|       |     |   | S     | 40 09.8    |      |     |      |      |  |      |
| JUNE  | 18  | PNS   | iP    | 01 11 15.0 | E    |     |      |      |  |      |
|       |     |   | S     | 55.9       |      |     |      |      |  |      |
|       |     | LPB   | P     | 01 11 20.3 | D    | 1.1 | 62   |      |  |      |
| JUNE  | 18  | USCGS 01 10 14.5, 0.8S, 91.5W, h = 11 km., m = 4.3<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |  | 28   |
|       |     | PNS   | eP    | 01 16 02.1 |      |     |      |      |  |      |
|       |     |   | eS    | 20 40      |      |     |      |      |  |      |
|       |     |   | i     | 21 35      |      |     |      |      |  |      |
|       |     |   | eL    | 25.5       |      |     |      |      |  |      |
|       |     | LPB   | eP    | 01 16 14   |      |     |      |      |  |      |
|       |     |   | eL    | 26         |      |     |      |      |  |      |
| JUNE  | 18  | USCGS 01 36 51.6, 0.3S, 91.4W, h = 33 km., m = 4.7<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |  |      |

| JUNE  |     |   |       |            |      |     |      |      |  |  |
|-------|-----|---|-------|------------|------|-----|------|------|--|--|
| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL | DIST |  |  |
|       |     | PNS   | P     | 01 42 41.5 |      |     |      |      |  |  |
|       |     |   | eS    | 47 23      |      |     |      |      |  |  |
|       |     |   | i     | 48 02      |      |     |      |      |  |  |
|       |     |   | eL    | 52         |      |     |      |      |  |  |
|       |     | LPB   | eP    | 01 42 43.6 |      | 2.0 | 98   | 27   |  |  |
|       |     |   | i     | 48 00      |      |     |      |      |  |  |
|       |     |   | eL    | 51.7       |      |     |      |      |  |  |
| JUNE  | 18  | USCGS 01 55 17.0, 0.1N, 91.2W, h = 33 km., m = 4.4<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |  |  |
|       |     | PNS   | eP    | 02 01 03.6 |      |     |      |      |  |  |
|       |     |   | S     | 05 41      |      |     |      |      |  |  |
|       |     |   | i     | 06 29      |      |     |      |      |  |  |
|       |     |   | eL    | 10.5       |      |     |      |      |  |  |
|       |     | LPB   | P     | 02 01 08.6 |      | 1.0 | 10   | 28   |  |  |
|       |     |   | i     | 06 28      |      |     |      |      |  |  |
|       |     | TRJ   | eP    | 01 51.2    |      |     |      |      |  |  |
| JUNE  | 18  | USCGS 02 22 45.0, 0.2S, 91.5W, h = 33 km., m = 4.7<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |  |  |
|       |     | PNS   | P     | 02 28 34.7 |      |     |      |      |  |  |
|       |     |   | S     | 33 28      |      |     |      |      |  |  |
|       |     |   | i     | 34 01      |      |     |      |      |  |  |
|       |     |   | L     | 38         |      |     |      |      |  |  |
|       |     | TRJ   | e     | 02 29 20.8 |      |     |      |      |  |  |
|       |     | LPB   | P     | 02 28 38.5 |      | 2.0 | 98   | 28   |  |  |
|       |     |   | eS    | 33 30      |      |     |      |      |  |  |
|       |     |   | i     | 34 00      |      |     |      |      |  |  |
|       |     |   | L     | 38         |      |     |      |      |  |  |
| JUNE  | 18  | TRJ   | eP    | 02 33 13.3 |      |     |      |      |  |  |
| JUNE  | 18  | LPB   | eP    | 02 34 14   |      |     |      |      |  |  |
|       |     |   | S     | 35 11      |      |     |      |      |  |  |
|       |     | PNS   | P     | 02 35 16.8 |      | 0.8 | 5    |      |  |  |
|       |     |   | S     | 49.7       |      |     |      |      |  |  |
| JUNE  | 18  | LPB   | eP    | 02 51 00   |      |     |      |      |  |  |
|       |     | PNS   | eP    | 02 51 00.7 |      |     |      |      |  |  |
| JUNE  | 18  | LPB   | eP    | 03 14 40.5 |      |     |      |      |  |  |
|       |     | PNS   | P     | 03 14 42.1 |      | 0.8 | 2    |      |  |  |
| JUNE  | 18  | USCGS 03 24 56.0, 0.6S, 91.5W, h = 33 km., m = 4.2<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |  |  |
|       |     | PNS   | eP    | 03 30 40.6 |      |     |      |      |  |  |
|       |     | LPB   | P     | 03 30 45.4 |      | 1.0 | 8    | 28   |  |  |
| JUNE  | 18  | LPB   | P     | 03 37 52.6 |      | 0.7 | 4    |      |  |  |
| JUNE  | 18  | USCGS 03 53 00.3, 0.5S, 91.4W, h = 33 km., m = 4.6<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |  |  |
|       |     | LPB   | P     | 03 58 41.5 |      | 0.9 | 8    | 28   |  |  |
|       |     |   | eS    | 04 03 36   |      |     |      |      |  |  |
|       |     |   | i     | 04 17      |      |     |      |      |  |  |
|       |     |   | eL    | 08.6       |      |     |      |      |  |  |

| MONTH | DAY | STA   | PHASE  | TIME       | SIGN       | PER | AMPL | DIST |  |
|-------|-----|---|--|------------|------------|-----|------|------|--|
| JUNE  | 17  | PNS   | eP   | 03 58 43.9 |            |     |      |      |  |
|       |     |   | S  | 04 03 42   |            |     |      |      |  |
|       |     |   | i  | 04 18      |            |     |      |      |  |
| JUNE  | 17  | TRJ   | eP   | 03 59 36.2 |            |     |      |      |  |
|       |     |   | L  | 08.2       |            |     |      |      |  |
|       |     |   |  |            |            |     |      |      |  |
| JUNE  | 18  | TRJ   | eP   | 04 01 17.0 |            |     |      |      |  |
|       |     |   | PNS  | 04 01 20.6 | C          | 0.9 | 25.3 |      |  |
|       |     |   | LPB  | 04 01 20.8 |            | 0.9 | 31   |      |  |
| JUNE  | 18  | USCGS 04 42 20.0, 1.2S, 91.4W, h = 33 km., m = 4.3<br>GALAPAGOS ISLANDS |  |            |            |     |      |      |  |
|       |     | PNS   | eP   | 04 48 02.6 |            |     |      |      |  |
|       |     | LPB   | eP   | 04 48 06.5 |            |     |      | 27.1 |  |
| JUNE  | 18  | USCGS 05 04 37.7, 0.3S, 91.2W, h = 33 km., m = 45<br>GALAPAGOS ISLANDS  |  |            |            |     |      |      |  |
|       |     | LPB   | P  | 05 10 29   |            | 1.0 | 10   | 28   |  |
|       |     | PNS   | eP   | 05 10 26   |            |     |      |      |  |
| JUNE  | 18  | LPB   | eS   | 15 12      |            |     |      |      |  |
|       |     |   | i  | 55         |            |     |      |      |  |
|       |     |   | eL   | 19.7       |            |     |      |      |  |
|       |     |   |  |            |            |     |      |      |  |
| JUNE  | 18  | LPB   | P  | 05 28 19   |            | 0.9 | 27   |      |  |
|       |     |   | PNS  | 05 28 21.3 |            | 0.7 | 5    |      |  |
|       |     |   | eS   | 29 05      |            |     |      |      |  |
| JUNE  | 18  | TRJ   | P  | 05 28 29.1 |            |     |      |      |  |
|       |     |   | USCGS 05 27 08.0, 0.6S, 91.1E, h = 33 km., m = 45<br>GALAPAGOS ISLANDS |            |            |     |      |      |  |
|       |     |   | PNS  | eP         | 05 32 52   |     | 1.8  | 26   |  |
| JUNE  | 18  | LPB   | eS   | 37 38      |            |     |      |      |  |
|       |     |   | i  | 38 20      |            |     |      |      |  |
|       |     |   | eL   | 42.5       |            |     |      |      |  |
|       |     |   | eP   | 05 32 53   |            |     |      | 28   |  |
| JUNE  | 18  | TRJ   | eL   | 42         |            |     |      |      |  |
|       |     |   | eP   | 05 33 47.8 |            |     |      |      |  |
|       |     |   |  |            |            |     |      |      |  |
| JUNE  | 18  | PNS   | P  | 05 38 13.6 |            |     |      |      |  |
|       |     |   | eS   | 50.4       |            |     |      |      |  |
|       |     |   | USCGS 06 25 59.2, 1.0S, 91.4W, h = 33 km., m = 46<br>GALAPAGOS ISLANDS |            |            |     |      |      |  |
| JUNE  | 18  | LPB   | eP   | 06 31 42.2 |            |     |      | 27.4 |  |
|       |     |   | eL   | 41         |            |     |      |      |  |
|       |     |   | PNS  | eP         | 06 31 44.2 |     | 1.3  | 9    |  |
| JUNE  | 18  | PNS   | eS   | 36 35      |            |     |      |      |  |
|       |     |   | i  | 37 15      |            |     |      |      |  |
|       |     |   | eL   | 41.2       |            |     |      |      |  |
|       |     |   |  |            |            |     |      |      |  |
| JUNE  | 18  | PNS   | eP   | 06 53 03   |            |     |      |      |  |
|       |     |   | eL   | 07 02.8    |            |     |      |      |  |
|       |     |   | LPB  | eP         | 06 53 04.5 |     |      |      |  |
| JUNE  | 18  | LPB   | eL   | 07 03.6    |            |     |      |      |  |
|       |     |   |  |            |            |     |      |      |  |
|       |     |   |  |            |            |     |      |      |  |



| MONTH | DAY | STA   | PHASE   | TIME       | SIGN       | PER | AMPL | DIST |    |
|-------|-----|---|---|------------|------------|-----|------|------|----|
| JUNE  | 18  | USCGS 05 38 24.0, 2.8S, 139.1E, h = 54 km., m = 5.5<br>NR N CST OF W NEW GUINEA |   |            |            |     |      |      |    |
|       |     | PNS   | PKP   | 05 58 02.7 |            |     | 0.7  | 4    |    |
|       |     | i   |   | 27.8       |            |     |      |      |    |
| JUNE  | 18  | LPB   | eL  | 06 49.0    |            |     |      |      |    |
|       |     |   | ePKP  | 06 58 10.5 |            |     |      | 147  |    |
|       |     |   |   |            |            |     |      |      |    |
| JUNE  | 18  | LPB   | eP  | 06 59 35.5 |            |     |      |      |    |
|       |     |   | PNS   | 06 59 39.5 |            |     | 1.5  | 16   |    |
|       |     |   |   |            |            |     |      |      |    |
| JUNE  | 18  | USCGS 06 59 31.6, 0.8S, 91.7W, h = 33 km., m = 4.5<br>GALAPAGOS ISLANDS         |   |            |            |     |      |      |    |
|       |     | PNS   | eP  | 07 05 20   |            |     |      |      |    |
|       |     | eS  | 10 08   |            |            |     |      |      |    |
| JUNE  | 18  | LPB   | e   | 50         |            |     |      |      |    |
|       |     |   | eL  | 14.8       |            |     |      |      |    |
|       |     |   | eP  | 07 05 20.5 |            |     |      | 28   |    |
|       |     |   | eL  | 14.8       |            |     |      |      |    |
| JUNE  | 18  | LPB   | eP  | 07 11 13.5 |            |     |      |      |    |
|       |     |   | PNS   | 07 11 14   |            |     |      |      |    |
|       |     |   |   |            |            |     |      |      |    |
| JUNE  | 18  | LPB   | eP  | 07 17 29.4 |            |     |      |      |    |
|       |     |   | USCGS 07 12 59.1, 0.4S, 91.8W, h = 33 km., m = 4.8<br>GALAPAGOS ISLANDS |            |            |     |      |      |    |
|       |     |   | PNS   | P          | 07 18 47.6 |     |      | 1.6  | 27 |
| JUNE  | 18  | LPB   | pP  | 19 03.8    |            |     |      |      |    |
|       |     |   | S   | 23 33      |            |     |      |      |    |
|       |     |   | i   | 24 10      |            |     |      |      |    |
|       |     |   | L   | 28.1       |            |     |      |      |    |
| JUNE  | 18  | LPB   | P   | 07 18 51.9 |            |     | 1.5  | 55   |    |
|       |     |   | pP  | 19 01.5    |            |     |      | 28   |    |
|       |     |   | eS  | 23 32      |            |     |      |      |    |
|       |     |   | i   | 24 15      |            |     |      |      |    |
| JUNE  | 18  | LPB   | eL  | 28.3       |            |     |      |      |    |
|       |     |   | P   | 07 30 53.3 |            |     | 0.9  | 5    |    |
|       |     |   | PNS   | P          | 07 30 57.4 |     |      | 0.5  | 2  |
| JUNE  | 18  | PNS   | P   | 07 37 17.3 |            |     |      |      |    |
|       |     |   | S   | 38.3       |            |     |      |      |    |
|       |     |   | LPB   | P          | 07 37 21.7 |     |      | 1.0  | 8  |
| JUNE  | 18  | PNS   | eP  | 08 06 24.4 |            |     |      |      |    |
|       |     |   | S   | 46.9       |            |     |      |      |    |
|       |     |   |   |            |            |     |      |      |    |
| JUNE  | 18  | USCGS 08 05 07.2, 0.3S, 91.6W, h = 33 km., m = 4.3<br>GALAPAGOS ISLANDS         |   |            |            |     |      |      |    |
|       |     | PNS   | eP  | 08 10 53.7 |            |     |      |      |    |
|       |     | eL  | 20.3  |            |            |     |      |      |    |
| JUNE  | 18  | LPB   | eP  | 08 11 01   |            |     | 0.7  | 5    |    |
|       |     |   |   |            |            |     |      | 28   |    |
|       |     |   |   |            |            |     |      |      |    |

| MONTH | DAY | STA   | PHASE         | TIME                           | SIGN | PER | AMPL | DIST |
|-------|-----|---|---------------|--------------------------------|------|-----|------|------|
| JUNE  | 18  | LPB<br>PNS  | eP<br>eP<br>S | 08 31 06<br>08 31 08.5<br>36.7 |      |     |      |      |
| JUNE  | 18  | USCGS 08 31 15.8, 0.5S, 91.5W, h = 33 km., m = 4.2<br>GALAPAGOS ISLANDS |               |                                |      |     |      |      |
|       |     | PNS<br>LPB  | eP<br>eP      | 08 37 04<br>08 37 06           |      |     |      | 28   |
| JUNE  | 18  | PNS<br>LPB  | P<br>S        | 08 51 10.8<br>49.2             | 0.6  | 9   |      |      |
|       |     | LPB   | P             | 08 51 17.7                     | 0.8  | 13  |      |      |
| JUNE  | 18  | PNS<br>LPB  | P<br>eP       | 08 58 03.2<br>08 58 04         | 1.0  | 4   |      |      |
| JUNE  | 18  | USCGS 08 56 10.3, 0.2S, 91.3W, h = 33 km., m = 4.7<br>GALAPAGOS ISLANDS |               |                                |      |     |      |      |
|       |     | LPB   | P             | 09 02 00                       |      |     |      | 27.5 |
|       |     |   | i             | 07 26                          |      |     |      |      |
|       |     | PNS   | P             | 09 02 00.4                     | 0.8  | 5   |      |      |
|       |     |   | S             | 06 42                          |      |     |      |      |
|       |     |   | i             | 07 15                          |      |     |      |      |
|       |     |   | L             | 11.4                           |      |     |      |      |
| JUNE  | 18  | USCGS 08 56 23.7, 39.7N, 141.8E, h = 33 km., m = 4.7<br>HONSHU, JAPAN   |               |                                |      |     |      |      |
|       |     | LPB   | ePKP          | 09 15 58.3                     |      |     |      | 145  |
|       |     | PNS   | ePKP          | 09 15 58.4                     |      |     |      |      |
| JUNE  | 18  | USCGS 09 36 05.5, 0.7S, 91.2W, h = 20 km., m = 4.4<br>GALAPAGOS ISLANDS |               |                                |      |     |      |      |
|       |     | PNS   | eP            | 09 41 54.7                     |      |     |      |      |
|       |     |   | eS            | 46 37                          |      |     |      |      |
|       |     |   | i             | 47 15                          |      |     |      |      |
|       |     |   | L             | 51.4                           |      |     |      |      |
|       |     | LPB   | eP            | 09 41 55                       |      |     |      | 27.4 |
|       |     |   | eL            | 51                             |      |     |      |      |
| JUNE  | 18  | LPB   | eP            | 09 55 50.5                     |      |     |      |      |
| JUNE  | 18  | USCGS 09 59 05.4, 0.3S, 91.3W, h = 33 km., m = 4.2<br>GALAPAGOS ISLANDS |               |                                |      |     |      |      |
|       |     | PNS   | eP            | 10 04 52.1                     |      |     |      |      |
|       |     |   | eS            | 09 40                          |      |     |      |      |
|       |     |   | eL            | 14.3                           |      |     |      |      |
|       |     | LPB   | eP            | 10 04 56.5                     |      |     |      | 27.6 |
|       |     |   | eL            | 14.2                           |      |     |      |      |
| JUNE  | 18  | USCGS 10 04 50.1, 0.3S, 91.5W, h = 33 km., m = 4.4<br>GALAPAGOS ISLANDS |               |                                |      |     |      |      |

| MONTH | DAY | STA   | PHASE               | TIME  | SIGN | PER | AMPL | DIST |
|-------|-----|---|---------------------|---|------|-----|------|------|
|       |     | LPB<br>PNS  | eP<br>eP<br>eL      | 10 10 35<br>10 10 38.4<br>19.3                |      |     |      | 28   |
| JUNE  | 18  | LP<br>PNS   | eP<br>eP            | 10 15 02<br>10 15 10                          |      |     |      |      |
| JUNE  | 18  | PNS<br>LPB  | eP<br>eP            | 10 22 10.1<br>10 22 11                        |      |     |      |      |
| JUNE  | 18  | LPB<br>PNS  | P<br>P              | 10 30 29.3<br>10 30 31.8                      |      | 0.8 | 3    |      |
| JUNE  | 18  | USCGS 10 30 14.1, 0.4S, 91.7W, h = 33 km., m = 4.7<br>GALAPAGOS ISLANDS |                     |   |      |     |      |      |
|       |     | PNS   | eP                  | 10 36 02                                      |      | 2.0 | 49   |      |
|       |     |   | S                   | 40 53   |      |     |      |      |
|       |     |   | i                   | 41 29   |      |     |      |      |
|       |     |   | L                   | 45.4  |      |     |      |      |
|       |     | LPB   | eP                  | 10 36 05                                      |      |     |      | 28   |
|       |     |   | eS                  | 40 52   |      |     |      |      |
|       |     |   | i                   | 41 28   |      |     |      |      |
|       |     |   | L                   | 45.5  |      |     |      |      |
| JUNE  | 18  | LPB<br>PNS  | iP<br>S<br>iP<br>S  | 11 36 13.7<br>37 19<br>11 36 16.9<br>37 22    | D    | 0.8 | 220  |      |
| JUNE  | 18  | TRJ   | iP                  | 11 38 40.1                                    | D    |     |      |      |
| JUNE  | 18  | USCGS 11 53 29.4, 0.4S, 91.4W, h = 33 km., m = 4.4<br>GALAPAGOS ISLANDS |                     |   |      |     |      |      |
|       |     | PNS   | P                   | 11 59 17.2                                    |      | 1.4 | 11   |      |
|       |     |   | S                   | 12 04 13                                      |      |     |      |      |
|       |     |   | i                   | 45  |      |     |      |      |
|       |     | LPB   | P                   | 11 59 20.5                                    |      |     |      | 27.6 |
|       |     |   | i                   | 12 04 46                                      |      |     |      |      |
|       |     |   | eL                  | 09  |      |     |      |      |
| JUNE  | 18  | PNS   | P                   | 12 01 35                                      |      | 1.0 | 6    |      |
| JUNE  | 18  | USCGS 12 08 01.0, 0.4S, 91.3W, h = 33 km., m = 4.4<br>GALAPAGOS ISLANDS |                     |   |      |     |      |      |
|       |     | LPB   | eP                  | 12 13 44.5                                    |      |     |      | 27.3 |
|       |     | PNS   | eP                  | 12 13 50                                      |      |     |      |      |
|       |     |   | eL                  | 23.4  |      |     |      |      |
| JUNE  | 18  | PNS<br>LPB<br>TRJ   | P<br>(S)<br>eP<br>P | 12 21 43<br>23 08.5<br>12 21 45<br>12 22 46.2 |      |     |      |      |
| JUNE  | 18  | USCGS 12 27 35.5, 0.5S, 91.4W, h = 33 km., m = 4.7<br>GALAPAGOS ISLANDS |                     |   |      |     |      |      |



| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL | DIST |  |
|-------|-----|---|-------|------------|------|-----|------|------|--|
|       |     | PNS   | eP    | 12 33 23.8 |      | 1.4 | 14   |      |  |
|       |     |   | eS    | 38 17      |      |     |      |      |  |
|       |     |   | i     | 51         |      |     |      |      |  |
|       |     |   | eL    | 42.8       |      |     |      |      |  |
|       |     | LPB   | eP    | 12 33 24.5 |      | 1.4 | 36   | 27.6 |  |
|       |     |   | i     | 38 54      |      |     |      |      |  |
|       |     |   | eL    | 42.5       |      |     |      |      |  |
|       |     | TRJ   | e     | 12 34 12.7 |      |     |      |      |  |
| JUNE  | 18  | USCGS 13 07 42.0, 0.7S, 91.2W, h = 33 km., m = 4.5<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |  |
|       |     | LPB   | eP    | 13 13 29   |      |     |      | 27.4 |  |
|       |     |   | eL    | 23         |      |     |      |      |  |
|       |     | PNS   | eP    | 13 13 35.1 |      |     |      |      |  |
|       |     |   | S     | 18 04      |      |     |      |      |  |
|       |     |   | eL    | 22.9       |      |     |      |      |  |
| JUNE  | 18  | TRJ   | P     | 13 22 17.3 |      |     |      |      |  |
|       |     | LPB   | P     | 13 22 22   |      | 1.1 | 22   |      |  |
|       |     | PNS   | P     | 13 22 26   |      | 0.8 | 6    |      |  |
|       |     |   | e(S)  | 23 52      |      |     |      |      |  |
| JUNE  | 18  | USCGS 13 33 14.0, 0.6S, 91.3W, h = 33 km., m = 4.5<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |  |
|       |     | PNS   | eP    | 13 39 03   |      |     |      |      |  |
|       |     |   | eL    | 48.1       |      |     |      |      |  |
|       |     | LPB   | P     | 13 38 06.7 |      |     |      | 27.6 |  |
| JUNE  | 18  | USCGS 13 51 24.8, 0.3S, 91.7W, h = 33 km., m = 4.7<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |  |
|       |     | PNS   | P     | 13 57 13   |      |     |      |      |  |
|       |     |   | S     | 14 01 57   |      |     |      |      |  |
|       |     |   | L     | 06.8       |      |     |      |      |  |
|       |     | LPB   | eP    | 13 57 16   |      | 1.9 | 77   | 28   |  |
|       |     |   | eL    | 06.7       |      |     |      |      |  |
| JUNE  | 18  | USCGS 14 06 16.8, 0.4S, 91.4W, h = 18 km., m = 4.8<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |  |
|       |     | PNS   | eP    | 14 12 07.7 |      | 1.4 | 14   |      |  |
|       |     |   | eS    | 16 56      |      |     |      |      |  |
|       |     |   | i     | 17 31      |      |     |      |      |  |
|       |     |   | L     | 21.7       |      |     |      |      |  |
|       |     | LPB   | eP    | 14 12 11.3 |      | 0.6 | 9    | 27.6 |  |
|       |     |   | i     | 17 34      |      |     |      |      |  |
|       |     |   | eL    | 21.6       |      |     |      |      |  |
| JUNE  | 18  | LPB   | eP    | 14 35 06   |      | 1.0 | 20   |      |  |
|       |     | PNS   | P     | 14 34 59.9 |      | 0.5 | 3    |      |  |
|       |     |   | eS    | 36 18      |      |     |      |      |  |
| JUNE  | 18  | LPB   | eP    | 14 40 55.3 |      |     |      |      |  |
| JUNE  | 18  | USCGS 14 42.7, 0.3S, 91.5W, h = 33 km., m = 5.0<br>GALAPAGOS ISLANDS    |       |            |      |     |      |      |  |



| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL | DIST |  |
|-------|-----|---|-------|------------|------|-----|------|------|--|
|       |     | PNS   | P     | 14 48 19.9 |      |     |      |      |  |
|       |     |   | i     | 35.6       |      | 1.6 | 37   |      |  |
|       |     |   | S     | 53 15      |      |     |      |      |  |
|       |     |   | i     | 50         |      |     |      |      |  |
|       |     |   | L     | 57.7       |      |     |      |      |  |
|       |     | LPB   | P     | 14 48 25   |      | 1.2 | 28   | 28   |  |
|       |     |   | eS    | 53 22      |      |     |      |      |  |
|       |     |   | i     | 49         |      |     |      |      |  |
|       |     |   | eL    | 57.7       |      |     |      |      |  |
| JUNE  | 18  | USCGS 15 26 36.0, 0.3S, 91.2W, h = 33 km., m = 4.4<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |  |
|       |     | PNS   | eP    | 15 32 23   |      | 0.9 | 3    |      |  |
|       |     |   | L     | 41.5       |      |     |      |      |  |
|       |     | LPB   | eP    | 15 32 25   |      |     |      | 27.6 |  |
|       |     |   | eL    | 41.6       |      |     |      |      |  |
| JUNE  | 18  | PNS   | eP    | 15 40 40.7 |      |     |      |      |  |
|       |     | LPB   | eP    | 15 39 48.6 |      |     |      |      |  |
| JUNE  | 18  | USCGS 15 43 29.9, 0.6S, 91.8W, h = 33 km., m = 4.5<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |  |
|       |     | PNS   | eP    | 15 49 18.5 |      |     |      |      |  |
|       |     |   | eS    | 54 10      |      |     |      |      |  |
|       |     |   | eL    | 58.3       |      |     |      |      |  |
|       |     | LPB   | eP    | 15 49 22.5 |      | 1.2 | 18   | 28   |  |
| JUNE  | 18  | TRJ   | iP    | 15 54 11.1 |      | D   |      |      |  |
| JUNE  | 18  | LPB   | eP    | 16 19 22   |      |     |      |      |  |
|       |     | PNS   | P     | 16 19 26.1 |      | C   | 0.5  | 3    |  |
| JUNE  | 18  | USCGS 16 17 17.6, 0.3S, 91.2W, h = 33 km., m = 4.9<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |  |
|       |     | PNS   | P     | 16 23 04.9 |      | 1.5 | 25   |      |  |
|       |     |   | eS    | 27 50      |      |     |      |      |  |
|       |     |   | i     | 28 30      |      |     |      |      |  |
|       |     |   | L     | 32.5       |      |     |      |      |  |
|       |     | LPB   | P     | 16 23 09.6 |      | 1.4 | 27   | 27.6 |  |
|       |     |   | i     | 28 35      |      |     |      |      |  |
|       |     |   | eL    | 32.6       |      |     |      |      |  |
| JUNE  | 18  | USCGS 16 53 48.0, 1.0S, 91.6W, h = 33 km., m = 4.4<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |  |
|       |     | PNS   | eP    | 16 59 33.4 |      |     |      |      |  |
|       |     | LPB   | eP    | 16 59 37   |      |     |      | 28.4 |  |
| JUNE  | 18  | LPB   | eP    | 17 23 39.5 |      |     |      |      |  |
|       |     | PNS   | eP    | 17 23 40.6 |      |     |      |      |  |
| JUNE  | 18  | PNS   | P     | 17 26 05.8 |      | 0.9 | 3    |      |  |
|       |     |   | e     | 20.0       |      |     |      |      |  |
|       |     |   | (S)   | 28 16.2    |      |     |      |      |  |
|       |     | LPB   | P     | 17 26 06   |      |     |      |      |  |

| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL | DIST |
|-------|-----|---|-------|------------|------|-----|------|------|
| JUNE  | 18  | USCGS 17 37 18.0, 0.2N, 91.1W, h = 18 km., m = 4.8<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |
|       |     | PNS   | eP    | 17 42 03   |      |     |      |      |
|       |     |   | eS    | 46 54      |      |     |      |      |
|       |     |   | i     | 47 28      |      |     |      |      |
|       |     |   | L     | 51.5       |      |     |      |      |
|       |     | LPB   | P     | 17 42 07   |      | 1.0 | 20   | 28   |
|       |     |   | i     | 47 28      |      |     |      |      |
|       |     |   | eL    | 51.6       |      |     |      |      |
| JUNE  | 18  | USCGS 18 02 44.5, 0.4S, 91.5W, h = 33 km., m = 4.8<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |
|       |     | PNS   | P     | 18 08 33.6 |      | 1.1 | 7    |      |
|       |     |   | eS    | 13 25      |      |     |      |      |
|       |     |   | i     | 54         |      |     |      |      |
|       |     |   | L     | 17.9       |      |     |      |      |
|       |     | LPB   | eP    | 18 08 34   |      |     |      | 27.6 |
|       |     |   | i     | 14 02      |      |     |      |      |
|       |     |   | L     | 18         |      |     |      |      |
| JUNE  | 18  | USCGS 18 24 50.0, 0.2S, 91.1W, h = 33 km., m = 4.3<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |
|       |     | PNS   | eP    | 18 30 45.4 |      |     |      |      |
|       |     | LPB   | eP    | 18 30 46.5 |      |     |      | 28   |
| JUNE  | 18  | USCGS 18 44 08.0, 0.0S, 90.9W, h = 33 km., m = 4.4<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |
|       |     | LPB   | eP    | 18 50 04   |      |     |      | 27.6 |
|       |     | PNS   | eP    | 18 50 04.4 |      |     |      |      |
| JUNE  | 18  | PNS   | eP    | 18 59 53   |      |     |      |      |
| JUNE  | 18  | USCGS 18 57 58.6, 0.5S, 91.3W, h = 33 km., m = 4.9<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |
|       |     | LPB   | eP    | 19 03 46   |      | 1.6 | 45   | 27.8 |
|       |     |   | eL    | 13         |      |     |      |      |
|       |     | PNS   | eP    | 19 03 46.7 |      |     |      |      |
|       |     |   | S     | 08 45      |      |     |      |      |
|       |     |   | i     | 09 18      |      |     |      |      |
|       |     |   | eL    | 13         |      |     |      |      |
| JUNE  | 18  | USCGS 19 27 29.7, 0.2S, 91.6W, h = 33 km., m = 4.6<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |
|       |     | PNS   | eP    | 19 33 19   |      |     |      |      |
|       |     | LPB   | eP    | 19 33 21.5 |      |     |      | 28   |
|       |     |   | eL    | 43         |      |     |      |      |
| JUNE  | 18  | USCGS 20 03 15.0, 0.4S, 91.2W, h = 33 km., m = 4.4<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |
|       |     | PNS   | eP    | 20 09 06.6 |      |     |      |      |



| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL | DIST |
|-------|-----|---|-------|------------|------|-----|------|------|
| JUNE  | 18  | USCGS 20 11 00.1, 0.3S, 91.3W, h = 33 km., m = 4.7<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |
|       |     | PNS   | eP    | 20 16 45   |      |     |      |      |
|       |     |   | S     | 21 45      |      |     |      |      |
|       |     |   | i     | 22 20      |      |     |      |      |
|       |     |   | L     | 26.3       |      |     |      |      |
|       |     | LPB   | eP    | 20 16 45.6 |      |     |      | 28   |
|       |     |   | i     | 22 17      |      |     |      |      |
|       |     |   | eL    | 26.3       |      |     |      |      |
| JUNE  | 18  | LPB   | iP    | 20 25 01.9 | D    | 1.0 | 98   |      |
|       |     | PNS   | iP    | 20 24 59.3 | D    |     |      |      |
|       |     |   | iS    | 25 21.3    |      |     |      |      |
| JUNE  | 18  | LPB   | P     | 21 32 33.2 |      | 0.6 | 13   |      |
|       |     | PNS   | eP    | 21 32 34.6 |      |     |      |      |
| JUNE  | 18  | PNS   | eP    | 21 38 54.2 |      |     |      |      |
|       |     |   | eL    | 48.4       |      |     |      |      |
|       |     | LPB   | eP    | 21 38 55   |      |     |      |      |
| JUNE  | 18  | USCGS 21 48 48.2, 0.4S, 91.7W, h = 33 km., m = 5.0<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |
|       |     | PNS   | P     | 21 54 36   |      | 1.8 | 37   |      |
|       |     |   | i     | 51.6       |      |     |      |      |
|       |     |   | S     | 59 20      |      |     |      |      |
|       |     |   | i     | 22 00 00   |      |     |      |      |
|       |     |   | L     | 03.9       |      |     |      |      |
|       |     | LPB   | P     | 22 54 37   |      |     |      | 28   |
|       |     |   | i     | 23 00 05   |      |     |      |      |
|       |     |   | L     | 04         |      |     |      |      |
| JUNE  | 18  | PNS   | P     | 22 04 16.8 |      |     |      |      |
| JUNE  | 18  | USCGS 22 23 36.0, 0.3W, 91.1W, h = 33 km., m = 4.4<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |
|       |     | LPB   | eP    | 22 29 22   |      |     |      | 28   |
|       |     |   | eL    | 39         |      |     |      |      |
|       |     | PNS   | P     | 22 29 22.8 |      | 0.9 | 4    |      |
|       |     |   | eL    | 39.1       |      |     |      |      |
| JUNE  | 18  | LPB   | eP    | 22 43 49   |      |     |      |      |
|       |     | PNS   | P     | 22 43 52.5 |      | 1.0 | 4    |      |
| JUNE  | 18  | USCGS 22 41 06.0, 0.4S, 91.0W, h = 33 km., m = 4.4<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |
|       |     | LPB   | eP    | 22 44 57.5 |      |     |      | 28   |
|       |     |   | eL    | 56         |      |     |      |      |
|       |     | PNS   | eP    | 22 46 58.6 |      |     |      |      |
|       |     |   | eL    | 56.4       |      |     |      |      |
| JUNE  | 18  | USCGS 23 07 01.8, 0.6S, 91.5W, h = 20 km., m = 4.5<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |

| MONTH | DAY  | STA   | PHASE   | TIME                             | SIGN | PER | AMPL | DIST |
|-------|------|---|---|----------------------------------|------|-----|------|------|
| JUNE  |      | PNS   | P   | 23 12 53.2                       |      | 1.2 | 7    |      |
|       |      |   | eS  | 17 43                            |      |     |      |      |
|       |      |   | e   | 18 21                            |      |     |      |      |
| JUNE  |      | LPB   | L   | 22.4                             |      | 0.7 | 7    | 28   |
|       |      |   | eP  | 23 12 54.5                       |      |     |      |      |
|       |      |   | L   | 22.6                             |      |     |      |      |
| JUNE  | 18   | LPB   | eP  | 23 16 21.7                       |      |     |      |      |
| JUNE  | 18   | USCGS 23 21 51.2, 0.5S, 91.7W, h = 33 km., m = 4.4<br>GALAPAGOS ISLANDS |   |                                  |      |     |      |      |
| JUNE  |      | PNS   | P   | 23 27 40.9                       |      | 0.9 | 5    |      |
|       |      |   | eL  | 37.2                             |      |     |      |      |
|       |      |   | L   | 23 27 44.3                       |      |     |      |      |
| JUNE  | 18   | LPB   | P   | 23 27 44.3                       |      | 1.0 | 12   | 28   |
|       |      |   | eP  | 23 16 21.7                       |      |     |      |      |
|       |      |   | L   | 22.6                             |      |     |      |      |
| JUNE  | 18   | USCGS 23 37 29.8, 0.6S, 91.5W, h = 33 km., m = 4.5<br>GALAPAGOS ISLANDS |   |                                  |      |     |      |      |
| JUNE  |      | PNS   | P   | 23 43 23.7                       |      | 2.7 | 118  |      |
|       |      |   | eS  | 48 15                            |      |     |      |      |
|       |      |   | i   | 48                               |      |     |      |      |
| JUNE  |      | LPB   | L   | 52.7                             |      |     |      | 28   |
|       |      |   | P   | 23 43 24.3                       |      |     |      |      |
|       |      |   | i   | 48 51                            |      |     |      |      |
| JUNE  | 19   | USCGS   | 00 22 54.0,   | 0.7S, 41.8W, h = 33 km., m = 4.4 |      |     |      |      |
|       |      |   | GALAPAGOS ISLANDS   |                                  |      |     |      |      |
|       |      |   | LPB   | eP                               |      |     |      |      |
| PNS   | P    | 00 28 43.2  | 1.9   | 25                               |      |     |      |      |
|       | eS   | 33 42   |   |                                  |      |     |      |      |
|       | e    | 34 19   |   |                                  |      |     |      |      |
| JUNE  | 19   | USCGS   | 00 39 54.0,   | 0.8S, 91.9W, h = 33 km., m = 4.6 |      |     |      |      |
|       |      |   | GALAPAGOS ISLANDS   |                                  |      |     |      |      |
|       |      |   | LPB   | eP                               |      |     |      |      |
| PNS   | eL   | 55.4  |   |                                  |      |     |      |      |
|       | eP   | 00 45 46.5  |   |                                  |      |     |      |      |
|       | JUNE | 19  | USCGS 00 50 29.0, 0.9S, 91.7W, h = 33 km., m = 4.2<br>GALAPAGOS ISLANDS |                                  |      |     |      |      |
| JUNE  |      | PNS   | eP  | 00 56 15.4                       |      |     |      | 28   |
|       |      |   | eP  | 00 56 18.7                       |      |     |      |      |
|       |      |   | L   | 42.4                             |      |     |      |      |
| JUNE  | 19   | USCGS 01 10 27.6, 0.5S, 91.2W, h = 33 km., m = 4.8<br>GALAPAGOS ISLANDS |   |                                  |      |     |      |      |
| JUNE  |      | LPB   | P   | 01 16 17.3                       |      | 1.0 | 8    | 28   |
|       |      |   | i   | 21 49                            |      |     |      |      |
|       |      |   | eL  | 25.7                             |      |     |      |      |



| MONTH | DAY | STA  | PHASE             | TIME                             | SIGN | PER | AMPL | DIST |
|-------|-----|--|-------------------|----------------------------------|------|-----|------|------|
| JUNE  |     | PNS  | P                 | 01 16 17.4                       |      | 1.0 | 6    |      |
|       |     |  | S                 | 21 13                            |      |     |      |      |
|       |     |  | i                 | 48                               |      |     |      |      |
| JUNE  | 19  | TRJ  | iP                | 01 31 35.5                       | C    |     |      |      |
|       |     |  | eP                | 01 31 59                         |      |     |      |      |
|       |     |  | i                 | 32 18                            |      |     |      |      |
| JUNE  | 19  | PNS  | S                 | 34.4                             |      | 0.8 | 15   |      |
|       |     |  | P                 | 01 32 02.0                       |      |     |      |      |
|       |     |  | i                 | 19.2                             |      |     |      |      |
| JUNE  | 19  | LPB  | eP                | 01 51 43                         |      |     |      |      |
|       |     |  | eP                | 01 52 43.7                       |      |     |      |      |
|       |     |  | L                 | 25.6                             |      |     |      |      |
| JUNE  | 19  | USCGS 01 38 17.4, 39.5N, 142.9E, h = 33 km., m = 5.3<br>NR ECST OF HONSHU, JAPAN |                   |                                  |      |     |      |      |
| JUNE  | 19  | PNS  | PKP               | 01 57 50.8                       |      | 0.9 | 11   |      |
|       |     |  | PKP               | 01 57 52.2                       |      |     |      |      |
|       |     |  | PKP               | 01 58 07.5                       |      |     |      |      |
| JUNE  | 19  | LPB  | P                 | 02 07 30.3                       | C    | 1.0 | 7    |      |
|       |     |  | i                 | 08 23.6                          |      |     |      |      |
|       |     |  | eP                | 02 07 33                         |      |     |      |      |
| JUNE  | 19  | USCGS 02 17 15.0, 0.1S, 90.7W, h = 33 km., m = 4.6<br>GALAPAGOS ISLANDS          |                   |                                  |      |     |      |      |
| JUNE  | 19  | PNS  | P                 | 02 23 04.4                       |      | 1.2 | 9    |      |
|       |     |  | eS                | 27 57                            |      |     |      |      |
|       |     |  | e                 | 28 33                            |      |     |      |      |
| JUNE  | 19  | LPB  | L                 | 32.5                             |      |     |      | 28   |
|       |     |  | P                 | 02 23 05.5                       |      |     |      |      |
|       |     |  | eL                | 32.8                             |      |     |      |      |
| JUNE  | 19  | USCGS 02 27 14.4, 0.2S, 91.2W, h = 33 km., m = 4.7<br>GALAPAGOS ISLANDS          |                   |                                  |      |     |      |      |
| JUNE  | 19  | PNS  | P                 | 02 33 02.4                       |      | 2.0 | 36   |      |
|       |     |  | i                 | 17                               |      |     |      |      |
|       |     |  | eS                | 37 55                            |      |     |      |      |
| JUNE  | 19  | LPB  | i                 | 38 25                            |      |     |      | 28   |
|       |     |  | L                 | 42.4                             |      |     |      |      |
|       |     |  | P                 | 03 33 04.7                       |      |     |      |      |
| JUNE  | 19  | USCGS  | 03 12 02.0,       | 0.1S, 91.1W, h = 33 km., m = 4.6 |      |     |      |      |
|       |     |  | GALAPAGOS ISLANDS |                                  |      |     |      |      |
|       |     |  | LPB               | eP                               |      |     |      |      |
| JUNE  | 19  | PNS  | e                 | 18 05.8                          |      |     |      |      |
|       |     |  | eS                | 22 43                            |      |     |      |      |
|       |     |  | i                 | 23 13                            |      |     |      |      |
| JUNE  | 19  | LPB  | L                 | 27.1                             |      |     |      |      |
|       |     |  | L                 | 43                               |      |     |      |      |
|       |     |  | L                 | 43                               |      |     |      |      |

| MONTH | DAY | STA                                    | PHASE | TIME                             | SIGN | PER | AMPL | DIST |
|-------|-----|--|-------|----------------------------------|------|-----|------|------|
|       |     | LPB                                    | eP    | 03 17 53                         |      | 7   | 8    | 28   |
|       |     |  | i     | 23 14                            |      |     |      |      |
|       |     |  | eL    | 27                               |      |     |      |      |
| JUNE  | 19  | USCGS 03 30 41.0,<br>GALAPAGOS ISLANDS |       | 0.1N, 91.5W, h = 33 km., m = 4.5 |      |     |      |      |
|       |     | PNS                                    | eP    | 03 36 28                         |      |     |      |      |
|       |     |  | eL    | 45.9                             |      |     |      |      |
|       |     | LPB                                    | eP    | 03 36 30                         |      |     |      | 28   |
|       |     |  | eL    | 46                               |      |     |      |      |
| JUNE  | 19  | LPB                                    | eP    | 03 38 05.5                       |      |     |      |      |
| JUNE  | 19  | USCGS 03 41 46.0,<br>GALAPAGOS ISLANDS |       | 0.3S, 91.2W, h = 33 km., m = 4.5 |      |     |      |      |
|       |     | LPB                                    | eP    | 03 47 31                         |      |     |      | 28   |
|       |     | PNS                                    | eP    | 03 47 34.6                       |      |     |      |      |
| JUNE  | 19  | LPB                                    | eP    | 03 54 09.8                       |      |     |      |      |
| JUNE  | 19  | USCGS 04 05 40.1,<br>GALAPAGOS ISLANDS |       | 0.2S, 91.2W, h = 33 km., m = 4.7 |      |     |      |      |
|       |     | PNS                                    | eP    | 04 11 26                         |      | 2.7 | 100  |      |
|       |     |  | e     | 42.6                             |      |     |      |      |
|       |     |  | S     | 16 18                            |      |     |      |      |
|       |     |  | i     | 51                               |      |     |      |      |
|       |     |  | L     | 20.8                             |      |     |      |      |
|       |     | LPB                                    | P     | 04 11 32                         |      | 2.6 | 193  | 28   |
|       |     |  | i     | 16 54                            |      |     |      |      |
|       |     |  | eL    | 21.7                             |      |     |      |      |
| JUNE  | 19  | PNS                                    | e(P)  | 04 26 11                         |      |     |      |      |
|       |     | LPB                                    | P     | 04 26 12                         |      | 1.0 | 8    |      |
| JUNE  | 19  | USCGS 04 38 38.0,<br>GALAPAGOS ISLANDS |       | 0.0S, 90.8W, h = 33 km., m = 4.2 |      |     |      |      |
|       |     | PNS                                    | eP    | 04 44 24.6                       |      |     |      |      |
|       |     |  | eL    | 53.9                             |      |     |      |      |
|       |     | LPB                                    | eP    | 04 43 26.5                       |      |     |      | 28   |
|       |     |  | eL    | 53                               |      |     |      |      |
| JUNE  | 19  | TRJ                                    | P     | 05 01 05.8                       | D    |     |      |      |
|       |     | LPB                                    | eP    | 05 02 03                         |      |     |      |      |
|       |     | PNS                                    | P     | 05 02 06.2                       |      |     |      |      |
| JUNE  | 19  | USCGS 05 08 12.0,<br>GALAPAGOS ISLANDS |       | 0.3S, 91.0W, h = 33 km., m = 4.7 |      |     |      |      |
|       |     | PNS                                    | eP    | 05 13 57                         |      |     |      |      |
|       |     |  | eS    | 18 43                            |      |     |      |      |
|       |     |  | i     | 19 27                            |      |     |      |      |
|       |     |  | eL    | 23.3                             |      |     |      |      |
|       |     | LPB                                    | P     | 05 14 04.2                       |      | 0.9 | 8    | 27   |
|       |     |  | eL    | 23.3                             |      |     |      |      |



| MONTH | DAY | STA                                    | PHASE | TIME                             | SIGN | PER | AMPL | DIST |
|-------|-----|--|-------|----------------------------------|------|-----|------|------|
| JUNE  | 19  | PNS                                    | eP    | 05 25 25.5                       |      |     |      |      |
|       |     | LPB                                    | eP    | 05 25 26                         |      |     |      |      |
|       |     |  |       |                                  |      | 0.8 | 8    |      |
| JUNE  | 19  | USCGS 05 20 37.0,<br>GALAPAGOS ISLANDS |       | 0.7S, 91.9W, h = 33 km., m = 4.5 |      |     |      |      |
|       |     | LPB                                    | eP    | 05 26 21.5                       |      |     |      |      |
|       |     | PNS                                    | eP    | 05 26 25.2                       |      |     |      | 28   |
|       |     |  | eL    | 35.1                             |      |     |      |      |
| JUNE  | 19  | USCGS 05 28 59.0,<br>GALAPAGOS ISLANDS |       | 0.5S, 91.3W, h = 33 km., m = 4.3 |      |     |      |      |
|       |     | PNS                                    | eP    | 05 34 44                         |      |     |      |      |
|       |     | LPB                                    | eP    | 05 34 47                         |      |     |      | 28   |
| JUNE  | 19  | USCGS 05 47 42.7,<br>GALAPAGOS ISLANDS |       | 0.5S, 91.7W, h = 33 km., m = 5.1 |      |     |      |      |
|       |     | PNS                                    | eP    | 05 53 32                         |      |     | 1.2  | 14   |
|       |     |  | e     | 47                               |      |     |      |      |
|       |     |  | eS    | 58 22                            |      |     |      |      |
|       |     |  | i     | 54                               |      |     |      |      |
|       |     |  | L     | 06 02.8                          |      |     |      |      |
|       |     | LPB                                    | P     | 05 53 34.2                       |      |     | 1.3  | 27   |
|       |     |  | eS    | 58 25                            |      |     |      | 28   |
|       |     |  | i     | 53                               |      |     |      |      |
|       |     |  | L     | 06 03                            |      |     |      |      |
| JUNE  | 19  | LPB                                    | eP    | 06 04 52.3                       |      |     |      |      |
| JUNE  | 19  | USCGS 06 15 27.0,<br>GALAPAGOS ISLANDS |       | 0.3S, 91.4W, h = 33 km., m = 4.5 |      |     |      |      |
|       |     | PNS                                    | P     | 06 21 15.0                       |      |     | 1.0  | 5    |
|       |     |  | eL    | 30.9                             |      |     |      |      |
|       |     | LPB                                    | P     | 06 21 18                         |      |     | 0.9  | 11   |
|       |     |  |       |                                  |      |     |      | 28   |
| JUNE  | 19  | LPB                                    | eP    | 06 44 45.5                       |      |     | 0.8  | 6    |
| JUNE  | 19  | LPB                                    | eP    | 06 51 19.4                       |      |     |      |      |
| JUNE  | 19  | USCGS 06 46 08.0,<br>GALAPAGOS ISLANDS |       | 0.2S, 91.3W, h = 33 km., m = 4.7 |      |     |      |      |
|       |     | PNS                                    | P     | 06 51 55.1                       |      |     | 1.5  | 17   |
|       |     |  | eS    | 56 45                            |      |     |      |      |
|       |     |  | e     | 57 24                            |      |     |      |      |
|       |     |  | eL    | 07 01.4                          |      |     |      |      |
|       |     | LPB                                    | eP    | 06 51 59                         |      |     |      | 28   |
|       |     |  | eL    | 07 01                            |      |     |      |      |
| JUNE  | 19  | USCGS 06 58 04.0,<br>GALAPAGOS ISLANDS |       | 0.4S, 91.5W, h = 33 km., m = 4.4 |      |     |      |      |
|       |     | PNS                                    | eP    | 07 03 51.2                       |      |     | 1.2  | 7    |
|       |     |  | eS    | 08 40                            |      |     |      |      |
|       |     |  | eL    | 13.3                             |      |     |      |      |
|       |     | LPB                                    | eP    | 07 03 54                         |      |     |      | 28   |
|       |     |  | eL    | 13.2                             |      |     |      |      |
| JUNE  | 19  | PNS                                    | P     | 07 28 44.0                       |      |     | 0.6  | 2    |
|       |     | LPB                                    | eP    | 07 28 50                         |      |     |      |      |

JUNE

| MONTH | DAY | STA                                    | PHASE | TIME       | SIGN | PER | AMPL | DIST |
|-------|-----|--|-------|------------|------|-----|------|------|
| JUNE  | 19  | USCGS 07 30 26.8,<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |
|       |     | PNS                                    | eP    | 07 36 15.7 |      | 1.2 | 14   |      |
|       |     |  | S     | 41 05      |      |     |      |      |
|       |     |  | i     | 40         |      |     |      |      |
|       |     |  | L     | 45.6       |      |     |      |      |
|       |     | LPB                                    | eP    | 07 36 18   |      | 1.5 | 10   | 28   |
|       |     |  | eS    | 41 08      |      |     |      |      |
|       |     |  | i     | 43         |      |     |      |      |
|       |     |  | eL    | 45.7       |      |     |      |      |
| JUNE  | 19  | USCGS 07 46 37.0,<br>SOLOMON ISLANDS   |       |            |      |     |      |      |
|       |     | PNS                                    | ePKP  | 08 05 33.6 |      |     |      |      |
|       |     | LPB                                    | ePKP  | 08 05 40.5 |      |     |      | 124  |
| JUNE  | 19  | LPB                                    | eP    | 08 09 06   |      |     |      |      |
| JUNE  | 19  | TRJ                                    | P     | 08 09 33.9 |      |     |      |      |
|       |     | PNS                                    | P     | 08 10 01.6 |      |     |      |      |
|       |     | LPB                                    | eP    | 08 10 02   |      |     |      |      |
| JUNE  | 19  | USCGS 08 13 35.0,<br>NORTHERN PERU     |       |            |      |     |      |      |
|       |     | PNS                                    | P     | 08 16 45.6 | C    |     |      |      |
|       |     |  | i     | 48         |      |     |      |      |
|       |     | LPB                                    | P     | 08 16 50.5 | C    | 0.6 | 280  | 14   |
|       |     |  | i     | 52.8       |      |     |      |      |
|       |     |  | (S)   | 19 14      |      |     |      |      |
|       |     | TRJ                                    | P     | 08 18 03.3 |      |     |      |      |
| JUNE  | 19  | PNS                                    | P     | 08 58 42.8 |      |     |      |      |
|       |     | LPB                                    | eP    | 08 58 44.2 |      |     |      |      |
| JUNE  | 19  | LPB                                    | eP    | 09 05 03   |      |     |      |      |
|       |     | PNS                                    | eP    | 09 05 07   |      |     |      |      |
|       |     | TRJ                                    | eP    | 09 06 14.0 |      |     |      |      |
| JUNE  | 19  | USCGS 09 27 11.0,<br>NORTHERN PERU     |       |            |      |     |      |      |
|       |     | LPB                                    | P     | 09 30 22   |      | 1.0 | 14   | 14   |
|       |     | PNS                                    | eP    | 09 30 23.3 |      | 0.8 | 5    |      |
|       |     |  | e(S)  | 33 02      |      |     |      |      |
| JUNE  | 19  | USCGS 09 28 01.0,<br>NORTHERN PERU     |       |            |      |     |      |      |
|       |     | LPB                                    | eP    | 09 31 15   |      |     |      | 14   |
|       |     | PNS                                    | eP    | 09 31 19.8 |      |     |      |      |

JUNE

| MONTH | DAY | STA                                    | PHASE | TIME       | SIGN | PER | AMPL | DIST |
|-------|-----|--|-------|------------|------|-----|------|------|
| JUNE  | 19  | PNS                                    | eP    | 09 38 38   |      |     |      |      |
|       |     | LPB                                    | eP    | 09 38 39   |      |     |      |      |
| JUNE  | 19  | USCGS 09 58 19.0,<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |
|       |     | PNS                                    | P     | 10 04 05.4 |      | 1.2 | 7    |      |
|       |     | LPB                                    | P     | 10 04 11   |      | 1.2 | 15   | 28   |
| JUNE  | 19  | LPB                                    | eP    | 10 06 13.5 |      |     |      |      |
|       |     | PNS                                    | P     | 10 06 17.9 |      |     |      |      |
|       |     | TRJ                                    | P     | 10 07 32.9 |      |     |      |      |
| JUNE  | 19  | USCGS 10 18 46.3,<br>NORTHERN PERU     |       |            |      |     |      |      |
|       |     | PNS                                    | P     | 10 22 01.2 |      | 0.9 | 10   |      |
|       |     | LPB                                    | P     | 10 22 08.4 |      | 0.9 |      | 14   |
|       |     |  | i     | 18.2       |      |     |      |      |
|       |     | TRJ                                    | P     | 10 23 14.2 |      |     |      |      |
| JUNE  | 19  | USCGS 10 26 59.0,<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |
|       |     | LPB                                    | eP    | 10 32 42.5 |      |     |      | 27   |
|       |     | PNS                                    | eP    | 10 32 42   |      |     |      |      |
| JUNE  | 19  | LPB                                    | eP    | 10 35 56.5 |      |     |      |      |
|       |     | PNS                                    | eP    | 10 35 56.7 |      |     |      |      |
| JUNE  | 19  | USCGS 10 47 12.6,<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |
|       |     | PNS                                    | eP    | 10 53 02   |      | 1.3 | 14   |      |
|       |     | LPB                                    | eP    | 10 53 05.4 |      |     |      | 28   |
|       |     | TRJ                                    | eP    | 10 53 46.1 |      |     |      |      |
| JUNE  | 19  | USCGS 10 57 25.0,<br>NORTHERN PERU     |       |            |      |     |      |      |
|       |     | PNS                                    | P     | 11 00 37.4 |      | 1.0 | 5    |      |
|       |     |  | i     | 48.4       |      |     |      |      |
|       |     | LPB                                    | eP    | 11 00 42   |      |     |      | 14   |
|       |     |  | i     | 53.4       |      |     |      |      |
| JUNE  | 19  | PNS                                    | eP    | 11 09 39   |      |     |      |      |
|       |     | LPB                                    | e(P)  | 11 09 40.5 |      |     |      |      |
| JUNE  | 19  | PNS                                    | P     | 11 18 17.6 |      |     |      |      |
|       |     | LPB                                    | eP    | 11 18 18.5 |      |     |      |      |
| JUNE  | 19  | LPB                                    | eP    | 11 21 46   |      |     |      |      |
|       |     | PNS                                    | eP    | 11 21 50.6 |      |     |      |      |
| JUNE  | 19  | LPB                                    | eP    | 11 24 34   |      |     |      |      |
| JUNE  | 19  | USCGS 11 26 24.9,<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |
|       |     | PNS                                    |       | 11 32 12   |      |     |      |      |
|       |     | LPB                                    |       | 11 32 12   |      |     |      |      |
| JUNE  | 19  | USCGS 11 49 21.9,<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |



From the ISC collection scanned by SISMOS

| JUNE  |     |   |       |            |      |     |      |      |  |
|-------|-----|---|-------|------------|------|-----|------|------|--|
| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL | DIST |  |
|       |     | PNS   | eP    | 11 54 07.7 |      | 0.9 | 3    |      |  |
|       |     | LPB   | eP    | 11 54 13.5 |      |     |      | 28   |  |
| JUNE  | 19  | LPB   | eP    | 11 55 11   |      |     |      |      |  |
|       |     | PNS   | eP    | 11 55 13   |      |     |      |      |  |
| JUNE  | 19  | USCGS 12 01 36.2, 0.6S, 91.5W, h = 33 km., m = 4.2<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |  |
|       |     | PNS   | eP    | 12 07 21.6 |      |     |      |      |  |
| JUNE  | 19  | LPB   | eP    | 12 20 06   |      |     |      |      |  |
|       |     | PNS   | P     | 12 20 08.5 |      |     |      |      |  |
|       |     | TRJ   | P     | 12 21 18.8 |      |     |      |      |  |
| JUNE  | 19  | USCGS 12 17 16.0, 0.0N, 91.6W, h = 33 km., m = 4.4<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |  |
|       |     | PNS   | eP    | 12 23 05   |      |     |      |      |  |
| JUNE  | 19  | PNS   | eP    | 12 29 33.4 |      |     |      |      |  |
| JUNE  | 19  | USCGS 12 36 45.7, 0.5S, 91.6W, h = 33 km., m = 4.6<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |  |
|       |     | PNS   | eP    | 12 42 31.4 |      |     |      |      |  |
|       |     | i   |       | 48.4       |      |     |      |      |  |
|       |     | eS  |       | 47 15      |      |     |      |      |  |
|       |     | i   |       | 57         |      |     |      |      |  |
|       |     | L   |       | 51.9       |      |     |      |      |  |
| JUNE  | 19  | USCGS 12 42 17.0, 5.6S, 77.1W, h = 23 km., m = 4.4<br>NORTHERN PERU     |       |            |      |     |      |      |  |
|       |     | PNS   | eP    | 12 45 30.2 |      |     |      |      |  |
|       |     | TRJ   | P     | 12 46 46.6 |      |     |      |      |  |
| JUNE  | 19  | USCGS 12 46 13.0, 5.6S, 77.3W, h = 33 km., m = 4.7<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |  |
|       |     | PNS   | eP    | 12 49 20   |      | 0.8 | 7    |      |  |
| JUNE  | 19  | TRJ   | P     | 12 50 43.3 |      |     |      |      |  |
| JUNE  | 19  | USCGS 13 10 11.1, 0.3S, 91.6W, h = 33 km., m = 4.2<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |  |
|       |     | PNS   | eP    | 13 16 00   |      | 0.8 | 3    |      |  |
|       |     | eL  |       | 24.6       |      |     |      |      |  |
| JUNE  | 19  | PNS   | eP    | 13 30 21   |      |     |      |      |  |
| JUNE  | 19  | USCGS 13 27 48.0, 0.9S, 91.6W, h = 33 km., m = 4.2<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |  |
|       |     | PNS   | eP    | 13 33 39.4 |      |     |      |      |  |
| JUNE  | 19  | PNS   | eP    | 13 41 31   |      |     |      |      |  |

| JUNE  |     |   |       |            |      |     |      |      |  |
|-------|-----|---|-------|------------|------|-----|------|------|--|
| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL | DIST |  |
| JUNE  | 19  | USCGS 13 44 31.0, 0.9S, 91.9W, h = 33 km., m = 4.6<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |  |
|       |     | PNS   | eP    | 13 50 20.8 |      |     |      |      |  |
|       |     | eS  |       | 55 10      |      | 1.5 | 20   |      |  |
|       |     | i   |       | 46.5       |      |     |      |      |  |
|       |     | L   |       | 59.8       |      |     |      |      |  |
|       |     | TRJ   | eP    | 13 51 07.8 |      |     |      |      |  |
| JUNE  | 19  | USCGS 13 56 13.0, 0.8S, 91.6W, h = 33 km., m = 4.4<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |  |
|       |     | PNS   | eP    | 14 01 59.2 |      |     |      |      |  |
| JUNE  | 19  | PNS   | P     | 14 03 53.0 |      | 0.6 | 1.8  |      |  |
| JUNE  | 19  | USCGS 14 20 17.0, 5.6S, 77.0W, h = 33 km., m = 4.3<br>NORTHERN PERU     |       |            |      |     |      |      |  |
|       |     | PNS   | P     | 14 23 29.1 |      | 0.9 | 5    |      |  |
|       |     | eL  |       | 28.4       |      |     |      |      |  |
| JUNE  | 19  | USCGS 14 34 55.0, 0.0N, 90.8W, h = 33 km., m = 4.3<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |  |
|       |     | PNS   | eP    | 14 40 43.4 |      |     |      |      |  |
|       |     | eL  |       | 49.5       |      |     |      |      |  |
| JUNE  | 19  | PNS   | eP    | 14 43 41   |      |     |      |      |  |
| JUNE  | 19  | PNS   | eP    | 14 59 25.4 |      |     |      |      |  |
|       |     | eL  |       | 15 08.7    |      |     |      |      |  |
| JUNE  | 19  | USCGS 15 05 47.0, 0.0S, 91.1W, h = 33 km., m = 5.1<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |  |
|       |     | PNS   | P     | 15 11 33.7 |      | 1.0 | 5    |      |  |
|       |     | eS  |       | 16 26      |      |     |      |      |  |
|       |     | i   |       | 57         |      |     |      |      |  |
|       |     | L   |       | 20.9       |      |     |      |      |  |
| JUNE  | 19  | USCGS 15 35 18.0, 0.4S, 91.3W, h = 33 km., m = 4.3<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |  |
|       |     | PNS   | eP    | 15 41 04.6 |      |     |      |      |  |
|       |     | eL  |       | 49.6       |      |     |      |      |  |
| JUNE  | 19  | TRJ   | P     | 15 44 31.8 |      |     |      |      |  |
| JUNE  | 19  | USCGS 15 48 49.0, 0.2S, 91.0W, h = 33 km., m = 4.5<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |  |
| JUNE  | 19  | PNS   | P     | 16 19 41.2 |      |     |      |      |  |
| JUNE  | 19  | USCGS 16 17 05.0, 0.3S, 91.2W, h = 33 km., m = 4.8<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |  |
|       |     | PNS   | eP    | 16 22 51.0 |      | 1.2 | 7    |      |  |
|       |     | eS  |       | 27 49      |      |     |      |      |  |
|       |     | eL  |       | 31.2       |      |     |      |      |  |

| MONTH | DAY | STA                        | PHASE | TIME                               | SIGN | PER | AMPL | DIST |
|-------|-----|----------------------------|-------|------------------------------------|------|-----|------|------|
| JUNE  | 19  | USCGS 16 28                | 06.0, | 0.7S, 91.4W, h = 33 km., m = 4.0   |      |     |      |      |
|       |     | GALAPAGOS ISLANDS          |       |                                    |      |     |      |      |
|       |     | PNS                        | P     | 16 33 57.7                         |      | 1.0 | 4    |      |
| JUNE  | 19  | USCGS 16 47                | 41.7, | 0.1S 91.7W, h = 33 km., m = 4.7    |      |     |      |      |
|       |     | GALAPAGOS ISLANDS          |       |                                    |      |     |      |      |
|       |     | PNS                        | eP    | 16 53 30                           |      |     |      |      |
|       |     |                            | i     | 41.4                               |      |     |      |      |
|       |     |                            | S     | 58 23                              |      |     |      |      |
|       |     |                            | e     | 57                                 |      |     |      |      |
|       |     |                            | L     | 17 02.8                            |      |     |      |      |
| JUNE  | 19  | USCGS 16 54                | 30.0, | 5.6S, 77.2W, h = 33 km., m = 4.8   |      |     |      |      |
|       |     | NORTHERN PERU              |       |                                    |      |     |      |      |
|       |     | PNS                        | P     | 16 57 44.6                         |      | 1.4 | 17   |      |
|       |     | TRJ                        | P     | 19 58 57.5                         |      |     |      |      |
| JUNE  | 19  | USCGS 17 06                | 10.0, | 5.7S, 77.1W, h = 33 km., m = 4.5   |      |     |      |      |
|       |     | NORTHERN PERU              |       |                                    |      |     |      |      |
|       |     | PNS                        | eP    | 17 09 31.7                         |      | 0.9 | 8    |      |
|       |     |                            | eS    | 11 30                              |      |     |      |      |
| JUNE  | 19  | USCGS 17 07                | 44.5, | 5.5S, 77.3W, h = 33 km., m = 5.0   |      |     |      |      |
|       |     | NORTHERN PERU              |       |                                    |      |     |      |      |
|       |     | PNS                        | P     | 17 10 56.9                         |      | 1.2 | 22   |      |
|       |     |                            | i     | 11 06.8                            |      |     |      |      |
| JUNE  | 19  | USCGS 17 23                | 47.0, | 0.6S, 91.3W, h = 33 km., m = 4.8   |      |     |      |      |
|       |     | GALAPAGOS ISLANDS          |       |                                    |      |     |      |      |
|       |     | PNS                        | eP    | 17 29 30.4                         |      |     |      |      |
|       |     |                            | eS    | 34 20                              |      |     |      |      |
|       |     |                            | eL    | 38                                 |      |     |      |      |
| JUNE  | 19  | PNS                        | e(P)  | 17 46 17                           |      |     |      |      |
| JUNE  | 19  | USCGS 17 56                | 46.0, | 0.1S, 91.2W, h = 33 km., m = 4.5   |      |     |      |      |
|       |     | GALAPAGOS ISLANDS          |       |                                    |      |     |      |      |
|       |     | PNS                        | P     | 18 02 31.6                         |      | 0.8 | 3    |      |
|       |     |                            | eS    | 07 17                              |      |     |      |      |
|       |     |                            | e     | 08 02                              |      |     |      |      |
|       |     |                            | eL    | 12.1                               |      |     |      |      |
| JUNE  | 19  | USCGS 18 03                | 21.2, | 40.3N, 143.3E, h = 33 km., m = 4.5 |      |     |      |      |
|       |     | OFF E CST OF HONSHU, JAPAN |       |                                    |      |     |      |      |
|       |     | PNS                        | ePKP  | 18 22 55.8                         |      |     |      |      |
| JUNE  | 19  | USCGS 18 18                | 09.0, | 0.0N, 90.7W, h = 33 km., m = 4.4   |      |     |      |      |
|       |     | GALAPAGOS ISLANDS          |       |                                    |      |     |      |      |
|       |     | PNS                        | eP    | 18 24 02.4                         |      |     |      |      |

| MONTH | DAY | STA                         | PHASE | TIME                              | SIGN | PER | AMPL | DIST |
|-------|-----|-----------------------------|-------|-----------------------------------|------|-----|------|------|
| JUNE  | 19  | USCGS 18 50                 | 09.4, | 0.7S, 91.7W, h = 33 km., m = 4.6  |      |     |      |      |
|       |     | GALAPAGOS ISLANDS           |       |                                   |      |     |      |      |
|       |     | PNS                         | eP    | 18 55 57                          |      |     |      |      |
| JUNE  | 19  | PNS                         | P     | 18 57 49.1                        |      | 1.9 | 39   |      |
| JUNE  | 19  | USCGS 19 07                 | 14.0, | 1.2S, 90.9W, h = 33 km., m = 4.5  |      |     |      |      |
|       |     | GALAPAGOS ISLANDS           |       |                                   |      |     |      |      |
|       |     | PNS                         | P     | 19 13 00.8                        |      |     |      |      |
|       |     |                             | eL    | 22                                |      |     |      |      |
| JUNE  | 19  | USCGS 19 19                 | 29.7, | 0.4S, 91.5W, h = 33 km., m = 4.8  |      |     |      |      |
|       |     | GALAPAGOS ISLANDS           |       |                                   |      |     |      |      |
|       |     | PNS                         | P     | 19 25 18.2                        |      | 2.6 | 130  |      |
|       |     |                             | i     | 32.2                              |      |     |      |      |
|       |     |                             | S     | 30 07                             |      |     |      |      |
|       |     |                             | i     | 40                                |      |     |      |      |
|       |     |                             | L     | 34.8                              |      |     |      |      |
| JUNE  | 19  | USCGS 19 51                 | 18.0, | 0.0S, 91.2W, h = 33 km., m = 4.4  |      |     |      |      |
|       |     | GALAPAGOS ISLANDS           |       |                                   |      |     |      |      |
|       |     | PNS                         | eP    | 19 57 05                          |      | 1.2 | 9    |      |
|       |     |                             | eL    | 06.4                              |      |     |      |      |
| JUNE  | 19  | USCGS 19 58                 | 01.9, | 43.9S, 75.1W, h = 24 km., m = 5.7 |      |     |      |      |
|       |     | OFF COAST OF SOUTHERN CHILE |       |                                   |      |     |      |      |
|       |     | PNS                         | iP    | 20 03 57.2                        | D    |     |      |      |
|       |     |                             | S     | 08 47                             |      |     |      |      |
|       |     |                             | L     | 12.5                              |      |     |      |      |
|       |     | TRJ                         | iP    | 20 03 18.1                        | D    |     |      |      |
| JUNE  | 19  | PNS                         | iP    | 20 07 10.0                        | D    | 1.0 | 23   |      |
| JUNE  | 19  | USCGS 20 16                 | 24.0, | 0.2S, 91.1W, h = 33 km., m = 4.5  |      |     |      |      |
|       |     | GALAPAGOS ISLANDS           |       |                                   |      |     |      |      |
|       |     | PNS                         | eP    | 20 22 11                          |      | 1.0 | 5    |      |
|       |     | LPB                         | eP    | 20 22 15                          |      |     |      | 28   |
| JUNE  | 19  | PNS                         | P     | 20 35 40.0                        | C    | 0.4 | 2    |      |
|       |     |                             | S     | 36 10.6                           |      |     |      |      |
|       |     | LPB                         | eP    | 20 35 45                          |      |     |      |      |
| JUNE  | 19  | USCGS 20 39                 | 04.0, | 0.6S, 91.5W, h = 33 km., m = 4.6  |      |     |      |      |
|       |     | GALAPAGOS ISLANDS           |       |                                   |      |     |      |      |
|       |     | LPB                         | eP    | 20 44 49                          |      |     |      | 28   |
|       |     | PNS                         | P     | 20 44 50.8                        |      |     |      |      |
|       |     |                             | eS    | 49 40                             |      |     |      |      |
|       |     |                             | L     | 54.2                              |      |     |      |      |
|       |     | TRJ                         | eP    | 20 45 36.7                        |      |     |      |      |

JUNE

| MONTH | DAY | STA   | PHASE              | TIME                                | SIGN | PER | AMPL | DIST |  |
|-------|-----|---|--------------------|-------------------------------------|------|-----|------|------|--|
| JUNE  | 19  | TRJ<br>LPB  | eP<br>P            | 20 53 58.1<br>20 54 44.2            |      | 1.4 | 14   |      |  |
| JUNE  | 19  | PNS   | eP<br>eL           | 21 20 55.5<br>27.7                  |      |     |      |      |  |
| JUNE  | 19  | USCGS 21 16 34.7, 0.7S, 91.6W, h = 33 km., m = 4.5<br>GALAPAGOS ISLANDS |                    |                                     |      |     |      |      |  |
|       |     | PNS   | P<br>eS<br>eL      | 21 22 21.3<br>27 07<br>30.6         |      |     |      |      |  |
|       |     | LPB<br>TRJ  | P<br>P             | 21 22 24.2<br>21 23 39.7            |      | 1.0 | 10   | 28   |  |
| JUNE  | 19  | LPB<br>PNS  | eP<br>eP           | 21 55 30.5<br>21 55 36              |      |     |      |      |  |
| JUNE  | 19  | USCGS 22 01 07.0, 0.1S, 91.0W, h = 33 km., m = 4.4<br>GALAPAGOS ISLANDS |                    |                                     |      |     |      |      |  |
|       |     | LPB<br>PNS  | eP<br>eP<br>eL     | 22 07 55.5<br>22 06 58<br>16.5      |      |     |      | 28   |  |
| JUNE  | 19  | USCGS 22 11 20.0, 0.4S, 91.3W, h = 33 km., m = 4.9<br>GALAPAGOS ISLANDS |                    |                                     |      |     |      |      |  |
|       |     | PNS   | eP<br>i<br>eS<br>L | 22 17 07.7<br>23.4<br>21 55<br>26.7 |      |     |      |      |  |
|       |     | LPB   | eP<br>e<br>i<br>eL | 22 17 09<br>20<br>22 36<br>267      |      |     |      | 27   |  |
| JUNE  | 19  | USCGS 22 21 17.0, 0.7S, 91.5W, h = 33 km., m = 4.4<br>GALAPAGOS ISLANDS |                    |                                     |      |     |      |      |  |
|       |     | PNS<br>LPB  | eP<br>P            | 22 27 05<br>22 27 06.6              |      | 1.2 | 18   | 28   |  |
| JUNE  | 19  | LPB   | e(P)               | 22 34 13.5                          |      |     |      |      |  |
| JUNE  | 19  | USCGS 22 40 13.0, 0.0N, 91.0N, h = 33 km., m = 4.5<br>GALAPAGOS ISLANDS |                    |                                     |      |     |      |      |  |
|       |     | LPB<br>PNS  | eP<br>P            | 22 45 58<br>22 45 58.9              |      |     |      | 28   |  |
| JUNE  | 19  | USCGS 22 55 51.0, 0.5S, 91.9W, h = 33 km., m = 4.3<br>GALAPAGOS ISLANDS |                    |                                     |      |     |      |      |  |
|       |     | PNS<br>LPB  | eP<br>eP           | 23 01 41.5<br>23 01 42              |      |     |      | 28   |  |
| JUNE  | 19  | LPB   | e(P)               | 23 22 44.5                          |      | 1.0 | 10   |      |  |

JUNE

| MONTH | DAY | STA   | PHASE                  | TIME   | SIGN | PER        | AMPL     | DIST |  |
|-------|-----|---|------------------------|--|------|------------|----------|------|--|
| JUNE  | 19  | USCGS 23 31 55, 0.2N, 91.1W, h = 33 km., m = 4.9<br>GALAPAGOS ISLANDS   |                        |  |      |            |          |      |  |
|       |     | PNS   | P<br>e<br>eS<br>i<br>L | 23 37 41.4<br>48.6<br>42 28<br>43 00<br>46.7 |      |            |          |      |  |
|       |     | LPB   | P<br>e<br>i<br>eL      | 23 37 43.5<br>47.5<br>43 07<br>47            |      |            |          | 28   |  |
| JUNE  | 19  | USCGS 23 38 58.5, 5.7S, 77.2W, h = 33 km., m = 5.1<br>NORTHERN PERU     |                        |  |      |            |          |      |  |
|       |     | PNS<br>LPB  | P<br>P                 | 23 42 09.7<br>23 42 16.7                     |      | 2.1<br>1.2 | 54<br>31 |      |  |
|       |     | TRJ   | eP                     | 23 43 20.1                                   |      |            |          | 13   |  |
| JUNE  | 20  | USCGS 00 01 50, 0.1S, 91.2S, h = 33 km., m = 4.6<br>GALAPAGOS ISLANDS   |                        |  |      |            |          |      |  |
|       |     | PNS<br>LPB<br>TRJ   | eP<br>eP<br>eP         | 00 01 50<br>00 01 54.5<br>00 03 03.9         |      |            |          |      |  |
| JUNE  | 20  | USCGS 00 12 45.6, 0.1S, 91.2S, h = 33 km., m = 4.6<br>GALAPAGOS ISLANDS |                        |  |      |            |          |      |  |
|       |     | TRJ<br>PNS<br>LPB   | eP<br>P<br>P           | 00 12 45.6<br>00 12 56.9<br>00 12 57.5       |      | 0.8        | 3        |      |  |
| JUNE  | 20  | USCGS 00 08 46.0, 0.3S, 91.4W, h = 33 km., m = 4.3<br>GALAPAGOS ISLANDS |                        |  |      |            |          |      |  |
|       |     | PNS<br>LPB  | eP<br>P                | 00 14 36.6<br>00 14 39.5                     |      |            |          | 28   |  |
|       |     | TRJ   | eP                     | 00 15 47.5                                   |      |            |          |      |  |
| JUNE  | 20  | USCGS 00 28 14.0, 5.4S, 77.0W, h = 33 km., m = 4.3<br>NORTHERN PERU     |                        |  |      |            |          |      |  |
|       |     | PNS   | eP<br>i<br>eL          | 00 31 31.2<br>38<br>35.8                     |      |            |          |      |  |
|       |     | LPB   | P<br>e                 | 00 31 34<br>42.5                             |      |            |          | 14   |  |
| JUNE  | 20  | USCGS 00 37 22.0, 0.1S, 91.2S, h = 33 km., m = 4.6<br>GALAPAGOS ISLANDS |                        |  |      |            |          |      |  |
|       |     | PNS<br>LPB  | eP<br>L<br>eL          | 00 43 08.5<br>52.7<br>00 43 12<br>52.6       |      | 1.0        | 20       | 28   |  |
| JUNE  | 20  | USCGS 00 48 25, 0.1S, 91.2S, h = 33 km., m = 4.6<br>GALAPAGOS ISLANDS   |                        |  |      |            |          |      |  |
|       |     | LPB<br>PNS  | eP<br>eP               | 00 48 25<br>00 48 25.4                       |      |            |          |      |  |



JUNE

| MONTH | DAY | STA         | PHASE                                  | TIME       | SIGN              | PER | AMPL | DIST |
|-------|-----|-------------|--|------------|-------------------|-----|------|------|
| JUNE  | 20  | USCGS 00 47 | 48.0, 5.5S, 77.0W, h = 33 km., m = 4.4 |            | NORTHERN PERU     |     |      |      |
|       |     | PNS         | e(P)                                   | 00 51 00   |                   |     |      |      |
|       |     | LPB         | P                                      | 00 51 14.5 | 0.8               | 22  | 14   |      |
| JUNE  | 20  | USCGS 01 01 | 42.0, 0.4S, 91.4W, h = 33 km., m = 4.3 |            | GALAPAGOS ISLANDS |     |      |      |
|       |     | PNS         | eP                                     | 01 07 30   |                   |     |      |      |
|       |     |             | L                                      | 17.1       |                   |     |      |      |
|       |     | LPB         | P                                      | 02 07 32   | 0.8               | 7   | 28   |      |
| JUNE  | 20  | USCGS 01 11 | 09.0, 0.7S, 91.1W, h = 33 km., m = 4.4 |            | GALAPAGOS ISLANDS |     |      |      |
|       |     | LPB         | eP                                     | 01 16 55.5 |                   |     |      | 27   |
|       |     | PNS         | eP                                     | 01 17 01.6 |                   |     |      |      |
|       |     |             | eL                                     | 25.1       |                   |     |      |      |
| JUNE  | 20  | USCGS 01 32 | 43.9, 0.5S, 91.5W, h = 33 km., m = 4.8 |            | GALAPAGOS ISLANDS |     |      |      |
|       |     | PNS         | eP                                     | 01 38 31   |                   |     |      |      |
|       |     |             | S                                      | 43 22      |                   |     |      |      |
|       |     |             | i                                      | 57         |                   |     |      |      |
|       |     |             | L                                      | 47.9       |                   |     |      |      |
|       |     | LPB         | P                                      | 01 38 35.6 | 1.8               | 77  | 28   |      |
|       |     |             | eS                                     | 43 28      |                   |     |      |      |
|       |     |             | i                                      | 58         |                   |     |      |      |
|       |     |             | eL                                     | 48         |                   |     |      |      |
|       |     | TRJ         | eP                                     | 01 39 21.8 |                   |     |      |      |
| JUNE  | 20  | USCGS 01 48 | 46.0, 0.5S, 91.4W, h = 33 km., m = 4.1 |            | GALAPAGOS ISLANDS |     |      |      |
|       |     | LPB         | eP                                     | 01 54 30.5 |                   |     |      | 28   |
|       |     | PNS         | eP                                     | 01 54 36.4 |                   |     |      |      |
| JUNE  | 20  | USCGS 02 12 | 32.0, 0.2S, 91.1W, h = 33 km., m = 4.5 |            | GALAPAGOS ISLANDS |     |      |      |
|       |     | PNS         | P                                      | 02 18 18.5 |                   |     |      |      |
|       |     |             | eS                                     | 23 14      |                   |     |      |      |
|       |     | LPB         | P                                      | 02 18 23.2 | 1.1               | 15  | 28   |      |
|       |     | TRJ         | eP                                     | 02 19 08.7 |                   |     |      |      |
| JUNE  | 20  | LPB         | eP                                     | 02 29 19   |                   |     |      | 28   |
|       |     | PNS         | P                                      | 02 29 22   |                   |     |      |      |
| JUNE  | 20  | LPB         | eP                                     | 02 36 30   |                   |     |      |      |
|       |     |             | e                                      | 48.6       |                   |     |      |      |
|       |     | PNS         | eP                                     | 02 36 34.1 |                   |     |      |      |
|       |     | TRJ         | P                                      | 02 37 50.6 |                   |     |      |      |
| JUNE  | 20  | USCGS 02 38 | 38.4, 5.6S, 77.3W, h = 33 km., m = 5.8 |            | NORTHERN PERU     |     |      |      |

JUNE

| MONTH | DAY | STA         | PHASE                                  | TIME       | SIGN              | PER | AMPL | DIST |
|-------|-----|-------------|--|------------|-------------------|-----|------|------|
|       |     | PNS         | iP                                     | 02 41 50.9 | C                 | 1.4 | 59   |      |
|       |     |             | S                                      | 44 38      |                   |     |      |      |
|       |     |             | L                                      | 47.3       |                   |     |      |      |
|       |     | LPB         | P                                      | 02 41 53.3 |                   | 1.2 | 46   | 14   |
|       |     |             | S                                      | 44 56      |                   |     |      |      |
|       |     |             | eL                                     | 46.4       |                   |     |      |      |
|       |     | TRJ         | P                                      | 02 43 07.7 |                   |     |      |      |
| JUNE  | 20  | LPB         | eP                                     | 03 17 55.5 |                   |     |      |      |
|       |     | PNS         | eP                                     | 03 17 58.1 |                   | 1.4 | 38   |      |
| JUNE  | 20  | USCGS 03 14 | 53.0, 0.6S, 91.8W, h = 33 km., m = 4.4 |            | GALAPAGOS ISLANDS |     |      |      |
|       |     | LPB         | eP                                     | 03 20 40.3 |                   |     |      | 28   |
|       |     | PNS         | eP                                     | 03 20 41.2 |                   |     |      |      |
|       |     |             | eS                                     | 25 20      |                   |     |      |      |
| JUNE  | 20  | PNS         | eP                                     | 03 37 22.6 |                   |     |      |      |
|       |     | LPB         | eP                                     | 03 37 26   |                   |     |      |      |
| JUNE  | 20  | LPB         | eP                                     | 03 42 52.4 |                   |     |      |      |
|       |     | PNS         | eP                                     | 03 42 55.6 |                   | 0.9 | 5    |      |
| JUNE  | 20  | PNS         | P                                      | 03 44 18.9 |                   | 0.8 | 4    |      |
|       |     | LPB         | P                                      | 03 44 23   |                   | 0.6 | 8    |      |
|       |     | TRJ         | eP                                     | 03 45 24.9 |                   |     |      |      |
| JUNE  | 20  | LPB         | eP                                     | 03 47 06.3 |                   |     |      |      |
|       |     | PNS         | P                                      | 03 47 09.8 |                   | 0.6 | 5.0  |      |
| JUNE  | 20  | LPB         | P                                      | 03 59 36.5 |                   |     |      |      |
|       |     | PNS         | eP                                     | 03 59 37.6 |                   |     |      |      |
| JUNE  | 20  | PNS         | P                                      | 04 16 33.6 |                   | 1.0 | 4    |      |
|       |     | LPB         | P                                      | 04 16 39.2 |                   | 0.6 | 6    |      |
|       |     | TRJ         | eP                                     | 04 17 41.4 |                   |     |      |      |
| JUNE  | 20  | USCGS 04 21 | 35.0, 0.5S, 91.4W, h = 33 km., m = 4.2 |            | GALAPAGOS ISLANDS |     |      |      |
|       |     | LPB         | eP                                     | 04 27 20   |                   |     |      | 28   |
|       |     | PNS         | eP                                     | 04 27 21.2 |                   |     |      |      |
| JUNE  | 20  | PNS         | eP                                     | 04 47 00.9 |                   |     |      |      |
|       |     |             | S                                      | 51 32      |                   |     |      |      |
|       |     | LPB         | eP                                     | 04 47 08   |                   |     |      |      |
|       |     | TRJ         | P                                      | 04 48 16.3 |                   |     |      |      |
| JUNE  | 20  | USCGS 04 55 | 24.6, 0.3S, 91.7W, h = 33 km., m = 5.0 |            | GALAPAGOS ISLANDS |     |      |      |
|       |     | PNS         | P                                      | 05 01 13.8 |                   | 2.0 | 5    |      |
|       |     |             | eS                                     | 05 54      |                   |     |      |      |
|       |     |             | i                                      | 06 35      |                   |     |      |      |
|       |     |             | eL                                     | 09.1       |                   |     |      |      |
|       |     | LPB         | eP                                     | 05 01 15   |                   |     |      | 28   |
|       |     |             | eS                                     | 06 00      |                   |     |      |      |
|       |     |             | i                                      | 34         |                   |     |      |      |
|       |     |             | eL                                     | 09.5       |                   |     |      |      |

| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL | DIST |
|-------|-----|---|-------|------------|------|-----|------|------|
| JUNE  | 20  | USCGS 05 21 06.0, 0.0S, 90.9W, h = 33 km., m = 4.4<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |
|       |     | PNS   | eP    | 05 26 53   |      | 1.0 | 4    |      |
|       |     | LPB   | eP    | 05 26 55.5 |      | 1.1 | 15   | 28   |
| JUNE  | 20  | PNS   | eP    | 05 34 44   |      |     |      |      |
| JUNE  | 20  | USCGS 05 38 21.0, 0.0S, 91.1W, h = 33 km., m = 4.2<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |
|       |     | PNS   | eP    | 05 44 09   |      |     |      |      |
|       |     | LPB   | P     | 05 44 12.5 |      | 0.8 | 6    | 28   |
| JUNE  | 20  | USCGS 05 44 45.0, 5.5S, 77.2W, h = 33 km., m = 4.3<br>NORTHERN PERU     |       |            |      |     |      |      |
|       |     | PNS   | eP    | 05 48 00.4 |      |     |      |      |
|       |     |   | eL    | 53.6       |      |     |      |      |
|       |     | LPB   | eP    | 05 48 09.5 |      | 0.7 | 4    | 14   |
|       |     | TRJ   | eP    | 05 40 01.0 |      |     |      |      |
| JUNE  | 20  | PNS   | P     | 06 24 29.2 |      |     |      |      |
|       |     | LPB   | eP    | 06 24 33.5 |      |     |      |      |
| JUNE  | 20  | USCGS 06 21 53.0, 0.1S, 91.3W, h = 33 km., m = 4.6<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |
|       |     | PNS   | eP    | 06 27 40   |      |     |      |      |
|       |     |   | eS    | 32 38      |      |     |      |      |
|       |     |   | eL    | 37.2       |      |     |      |      |
|       |     | LPB   | eP    | 06 27 45.4 |      | 1.0 | 12   | 28   |
|       |     |   | eL    | 37.3       |      |     |      |      |
|       |     | TRJ   | eP    | 06 28 29.0 |      |     |      |      |
| JUNF  | 20  | USCGS 06 25 59.0, 0.2S, 91.3W, h = 33 km., m = 4.3<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |
|       |     | PNS   | eP    | 06 31 45.7 |      |     |      |      |
|       |     | LPB   | eP    | 06 31 50   |      |     |      | 28   |
| JUNE  | 20  | USCGS 06 39 15.0, 0.2S, 91.2W, h = 33 km., m = 4.3<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |
|       |     | PNS   | P     | 06 45 02.4 |      | 1.1 | 4    |      |
|       |     | LPB   | eP    | 06 45 05   |      |     |      | 28   |
| JUNE  | 20  | USCGS 06 48 39.0, 0.1S, 91.0W, h = 27 km., m = 4.2<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |
|       |     | LPB   | eP    | 06 54 13.5 |      |     |      | 28   |
|       |     | PNS   | eP    | 06 54 17   |      |     |      |      |
| JUNE  | 20  | LPB   | eP    | 07 05 08.5 |      |     |      |      |
|       |     | PNS   | P     | 07 05 15.0 | C    | 0.8 | 5    |      |
|       |     |   |       |            |      |     |      | 240  |

| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL | DIST |
|-------|-----|---|-------|------------|------|-----|------|------|
| JUNE  | 20  | PNS   | eP    | 07 10 14.6 |      |     |      |      |
|       |     |   | eS    | 15 05      |      |     |      |      |
|       |     |   | L     | 19.8       |      |     |      |      |
|       |     | LPB   | eP    | 07 10 16   |      |     |      | 28   |
|       |     |   | eL    | 20         |      |     |      |      |
| JUNE  | 20  | USCGS 07 14 53.6, 0.3S, 91.5W, h = 33 km., m = 4.8<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |
|       |     | PNS   | eP    | 07 29 38   |      |     |      |      |
|       |     |   | eS    | 25 20      |      | 2.5 | 121  |      |
|       |     |   | i     | 26 02      |      |     |      |      |
|       |     |   | L     | 30.0       |      |     |      |      |
|       |     | LPB   | eP    | 07 20 44   |      |     |      | 28   |
|       |     |   | i     | 26 07      |      |     |      |      |
|       |     |   | eL    | 30         |      |     |      |      |
| JUNE  | 20  | USCGS 07 28 02.0, 0.2S, 90.9W, h = 33 km., m = 4.3<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |
|       |     | PNS   | eP    | 07 33 50.8 |      |     |      |      |
|       |     |   | eL    | 43.2       |      |     |      |      |
|       |     | LPB   | eP    | 07 33 54.5 |      |     |      | 27   |
| JUNE  | 20  | USCGS 08 11 10.5, 5.8S, 77.3W, h = 33 km., m = 5.3<br>NORTHERN PERU     |       |            |      |     |      |      |
|       |     | PNS   | P     | 08 14 21.6 |      | 1.3 | 26   |      |
|       |     |   | S     | 16 55      |      |     |      |      |
|       |     |   | eL    | 19.2       |      |     |      |      |
|       |     | LPB   | P     | 08 14 23.3 |      | 1.2 | 43   | 14   |
|       |     |   | eS    | 17.00      |      |     |      |      |
|       |     | TRJ   | P     | 08 15 39.7 |      |     |      |      |
| JUNE  | 20  | TRJ   | iP    | 08 23 16.2 |      |     |      |      |
| JUNE  | 20  | PNS   | P     | 08 59 33.7 |      |     |      |      |
|       |     | LPB   | P     | 08 59 35.5 |      | 1.0 | 14   |      |
| JUNE  | 20  | USCGS 09 11 30.3, 0.3S, 91.8W, h = 33 km., m = 4.7<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |
|       |     | PNS   | P     | 09 17 19.3 |      | 1.7 | 35   |      |
|       |     |   | e     | 33         |      |     |      |      |
|       |     |   | eS    | 22 04      |      |     |      |      |
|       |     |   | i     | 38         |      |     |      |      |
|       |     |   | L     | 26.7       |      |     |      |      |
|       |     | LPB   | P     | 09 17 22   |      | 2.3 | 110  | 28   |
|       |     |   | i     | 22 38      |      |     |      |      |
|       |     |   | eL    | 26.9       |      |     |      |      |
| JUNE  | 20  | USCGS 09 41 33.0, 0.8S, 91.0W, h = 33 km., m = 4.2<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |
|       |     | LPB   | eP    | 09 47 13.5 |      |     |      | 27   |
|       |     | PNS   | eP    | 09 47 14   |      |     |      |      |
|       |     |   | eL    | 56.8       |      |     |      |      |
| JUNE  | 20  | USCGS 10 13 07.0, 0.8S, 91.4N, h = 33 km., m = 4.4<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |
|       |     | PNS   | eP    | 10 18 52   |      |     |      | 28   |
|       |     | LPB   | eP    | 10 18 55   |      |     |      | 241  |

| MONTH | DAY | STA               | PHASE | TIME         | SIGN        | PER     | AMPL | DIST |
|-------|-----|-------------------|-------|--------------|-------------|---------|------|------|
| JUNE  | 20  | PNS               | eP    | 10 27 42     |             |         |      |      |
|       |     | LPB               | eP    | 10 27 48     |             |         |      |      |
| JUNE  | 20  | USCGS 10 40       | 01.0, | 0.9S, 91.8W, | h = 33 km., | m = 4.5 |      |      |
|       |     | GALAPAGOS ISLANDS |       |              |             |         |      |      |
|       |     | LPB               | eP    | 10 45 50.5   |             |         |      | 28   |
|       |     |                   | eL    | 55           |             |         |      |      |
|       |     | PNS               | eP    | 10 45 53.1   |             |         |      |      |
|       |     |                   | eL    | 55.4         |             |         |      |      |
| JUNE  | 20  | USCGS 11 08       | 37.0, | 0.0S, 91.7W, | h = 33 km., | m = 4.8 |      |      |
|       |     | GALAPAGOS ISLANDS |       |              |             |         |      |      |
|       |     | LPB               | P     | 11 14 17     |             |         |      | 28   |
|       |     |                   | i     | 19 48        |             |         |      |      |
|       |     |                   | eL    | 23.9         |             |         |      |      |
|       |     | PNS               | eP    | 11 14 20     | 2.6         | 100     |      |      |
|       |     |                   | eS    | 19 20        |             |         |      |      |
|       |     |                   | i     | 47           |             |         |      |      |
|       |     |                   | eL    | 23.6         |             |         |      |      |
| JUNE  | 20  | LPB               | eP    | 11 30 52     |             |         |      |      |
|       |     | PNS               | P     | 11 30 54.6   | 1.0         | 8       |      |      |
| JUNE  | 20  | LPB               | eP    | 11 34 00     |             |         |      |      |
|       |     | PNS               | eP    | 11 33 57     |             |         |      |      |
| JUNE  | 20  | LPB               | eP    | 11 41 10     |             |         |      |      |
|       |     | PNS               | P     | 11 41 11.6   |             |         |      |      |
| JUNE  | 20  | LPB               | eP    | 11 46 52.5   |             |         |      |      |
|       |     | PNS               | eP    | 11 46 53     |             |         |      |      |
| JUNE  | 20  | LPB               | eP    | 12 14 40     |             |         |      |      |
|       |     | PNS               | eP    | 12 14 43.8   |             |         |      |      |
| JUNE  | 20  | USCGS 12 14       | 26.0, | 0.0S, 91.6W, | h = 33 km., | m = 4.7 |      |      |
|       |     | GALAPAGOS ISLANDS |       |              |             |         |      |      |
|       |     | PNS               | P     | 12 20 13.7   | 1.0         | 8       |      |      |
|       |     |                   | eL    | 29.7         |             |         |      |      |
|       |     | LPB               | eP    | 12 20 14     |             |         |      | 28   |
|       |     |                   | eL    | 29           |             |         |      |      |
|       |     | TRJ               | eP    | 12 21 01.3   |             |         |      |      |
| JUNE  | 20  | LPB               | eP    | 12 26 09     |             |         |      |      |
|       |     | PNS               | eP    | 12 26 16     |             |         |      |      |
| JUNE  | 20  | LPB               | eP    | 12 31 00.5   |             |         |      |      |
|       |     | PNS               | eP    | 12 31 01     |             |         |      |      |
| JUNE  | 20  | PNS               | eP    | 12 39 03.6   |             |         |      |      |
|       |     | LPB               | eP    | 12 39 04     |             |         |      |      |
| JUNE  | 20  | TRJ               | eP    | 12 59 41.5   |             |         |      |      |
|       |     |                   | S     | 13 00 21.6   | D           |         |      |      |



| MONTH | DAY | STA               | PHASE | TIME         | SIGN        | PER     | AMPL | DIST |
|-------|-----|-------------------|-------|--------------|-------------|---------|------|------|
| JUNE  | 20  | USCGS 13 20       | 21.0, | 0.6S, 91.3W, | h = 33 km., | m = 4.2 |      |      |
|       |     | GALAPAGOS ISLANDS |       |              |             |         |      |      |
|       |     | LPB               | eP    | 13 26 10     |             |         |      |      |
|       |     | PNS               | eP    | 13 26 13.2   |             |         |      | 28   |
| JUNE  | 20  | USCGS 13 50       | 23.6, | 0.7S, 91.8W, | h = 33 km., | m = 4.5 |      |      |
|       |     | GALAPAGOS ISLANDS |       |              |             |         |      |      |
|       |     | LPB               | eP    | 13 56 09.5   |             |         |      | 28   |
|       |     |                   | e     | 14 01 46     |             |         |      |      |
|       |     |                   | eL    | 05.9         |             |         |      |      |
|       |     | PNS               | eP    | 13 56 10     |             |         |      |      |
|       |     |                   | eS    | 14 01 14     |             |         |      |      |
|       |     |                   | eL    | 05.6         |             |         |      |      |
| JUNE  | 20  | USCGS 14 32       | 44.0, | 0.1N, 90.4W, | h = 33 km., | m = 4.2 |      |      |
|       |     | GALAPAGOS ISLANDS |       |              |             |         |      |      |
|       |     | LPB               | eP    | 14 38 31.5   |             |         |      | 28   |
|       |     | PNS               | eP    | 14 38 26.6   |             |         |      |      |
| JUNE  | 20  | USCGS 15 04       | 18.4, | 0.2S, 91.7W, | h = 33 km., | m = 4.4 |      |      |
|       |     | GALAPAGOS ISLANDS |       |              |             |         |      |      |
|       |     | LPB               | eP    | 15 10 10     |             |         |      | 28   |
|       |     | PNS               | eP    | 15 10 14     |             |         |      |      |
|       |     |                   | eL    | 19.8         |             |         |      |      |
| JUNE  | 20  | USCGS 15 16       | 09.0, | 0.8S, 91.6W, | h = 33 km., | m = 4.3 |      |      |
|       |     | GALAPAGOS ISLANDS |       |              |             |         |      |      |
|       |     | PNS               | eP    | 15 21 55.4   |             |         |      |      |
|       |     | LPB               | eP    | 15 21 56     |             |         |      | 28   |
| JUNE  | 20  | LPB               | P     | 15 31 31.2   |             |         |      |      |
|       |     | PNS               | P     | 15 31 37.0   | 0.5         | 8       |      |      |
|       |     |                   | S     | 32 00        |             |         |      |      |
| JUNE  | 20  | PNS               | eP    | 15 36 01     |             |         |      |      |
|       |     | LPB               | eP    | 15 36 03.7   |             |         |      |      |
|       |     | TRJ               | eP    | 15 37 04.6   |             |         |      |      |
| JUNE  | 20  | LPB               | eP    | 15 42 40.5   |             |         |      |      |
|       |     | PNS               | eP    | 15 42 44     |             |         |      |      |
|       |     | TRJ               | eP    | 15 43 53.3   |             |         |      |      |
| JUNE  | 20  | USCGS 15 51       | 56.5, | 5.7S, 77.3W, | h = 33 km., | m = 4.7 |      |      |
|       |     | NORTHERN PERU     |       |              |             |         |      |      |
|       |     | PNS               | P     | 15 55 08.8   | 1.2         | 10      |      |      |
|       |     |                   | S     | 57 43        |             |         |      |      |
|       |     |                   | L     | 58.9         |             |         |      |      |
|       |     | LPB               | eP    | 15 55 09.5   |             |         |      | 14   |
|       |     |                   | eL    | 50           |             |         |      |      |
|       |     | TRJ               | P     | 15 56 25.1   |             |         |      |      |



| JUNE  |     |  |       |            |      |     |      |      |     |  |
|-------|-----|--|-------|------------|------|-----|------|------|-----|--|
| MONTH | DAY | STA  | PHASE | TIME       | SIGN | PER | AMPL | DIST |     |  |
| JUNE  | 20  | PNS  | eP    | 16 05 11.7 |      |     |      |      |     |  |
| JUNE  | 20  | USCGS 16 09 07.3, 0.4S, 91.6W, h = 33 km., m = 5.1<br>GALAPAGOS ISLANDS            |       |            |      |     |      |      |     |  |
|       |     | LPB  | eP    | 16 14 54.5 |      |     |      |      | 28  |  |
|       |     |  | i     | 20 20      |      |     |      |      |     |  |
|       |     |  | eL    | 24.5       |      |     |      |      |     |  |
|       |     | PNS  | eP    | 16 14 55   |      |     |      |      |     |  |
|       |     |  | eS    | 19 38      |      |     |      |      |     |  |
|       |     |  | L     | 24.5       |      |     |      |      |     |  |
|       |     | TRJ  | eP    | 16 15 39.7 |      |     |      |      |     |  |
| JUNE  | 20  | PNS  | P     | 16 40 19.7 |      | 0.5 | 5    |      |     |  |
|       |     |  | eS    | 56.6       |      |     |      |      |     |  |
|       |     | LPB  | eP    | 16 40 27.5 |      |     |      |      |     |  |
| JUNE  | 20  | USCGS 16 43 02.9, 28.6S, 69.6W, h = 111 km., m = 4.2<br>CHILE - ARGENTINA BOR.REG. |       |            |      |     |      |      |     |  |
|       |     | TRJ  | iP    | 16 45 02.7 | D    |     |      |      |     |  |
|       |     | PNS  | P     | 16 45 55.0 |      | 1.0 | 7    |      |     |  |
|       |     |  | i     | 46 00.2    |      |     |      |      |     |  |
|       |     | LPB  | eP    | 16 45 58.5 |      | 0.9 | 25   |      | 12  |  |
| JUNE  | 20  | LPB  | eP    | 16 54 04.5 |      |     |      |      |     |  |
|       |     | PNS  | P     | 16 54 13.6 |      | 0.5 | 6    |      |     |  |
|       |     |  | S     | 37.7       |      |     |      |      |     |  |
| JUNE  | 20  | USCGS 17 16 35.0, 0.2S, 91.1W, h = 33 km., m = 4.4<br>GALAPAGOS ISLANDS            |       |            |      |     |      |      |     |  |
|       |     | LPB  | eP    | 17 20 22   |      |     |      |      | 28  |  |
|       |     | PNS  | eP    | 17 22 22.4 |      |     |      |      |     |  |
| JUNE  | 20  | LPB  | eP    | 17 25 22.5 |      |     |      |      |     |  |
| JUNE  | 20  | USCGS 18 12 25.3, 41.4N, 142.6E h = 50 km., m = 4.6<br>HOKKAIDO, JAPAN REGION      |       |            |      |     |      |      |     |  |
|       |     | LPB  | ePKP  | 18 31 55.5 |      |     |      |      | 144 |  |
|       |     | PNS  | ePKP  | 18 31 58.4 |      |     |      |      |     |  |
| JUNE  | 20  | PNS  | P     | 19 12 22.4 |      |     |      |      |     |  |
|       |     | LPB  | eP    | 19 10 23.5 |      |     |      |      |     |  |
| JUNE  | 20  | LPB  | eP    | 19 33 19   |      |     |      |      |     |  |
|       |     | PNS  | P     | 19 33 23.5 |      |     |      |      |     |  |
|       |     |  | S     | 34 09.6    |      |     |      |      |     |  |
| JUNE  | 20  | PNS  | eP    | 19 45 51   |      |     |      |      |     |  |
|       |     | LPB  | eP    | 19 45 55   |      |     |      |      |     |  |
| JUNE  | 20  | LPB  | eP    | 19 48 32   |      |     |      |      |     |  |
|       |     | PNS  | P     | 19 48 33.1 |      | 0.8 | 5    |      |     |  |

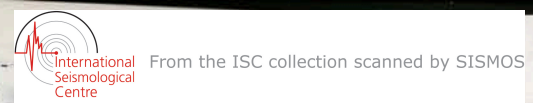
| JUNE  |     |   |       |            |      |     |      |      |     |  |
|-------|-----|---|-------|------------|------|-----|------|------|-----|--|
| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL | DIST |     |  |
| JUNE  | 20  | USCGS 20 19 09.7, 14.4N, 146.7E, h = 33 km., m = 4.7<br>MARIANA ISLANDS |       |            |      |     |      |      |     |  |
|       |     | LPB   | PKP   | 20 38 45   |      |     |      |      | 146 |  |
|       |     | PNS   | PKP   | 20 38 47.4 |      |     |      |      |     |  |
|       |     |   | i     | 50.1       |      |     |      |      |     |  |
|       |     | TRJ   | eP    | 20 38 50.4 |      |     |      |      |     |  |
| JUNE  | 20  | USCGS 20 36 11.7, 0.2S, 91.6W, h = 33 km., m = 4.9<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |     |  |
|       |     | PNS   | P     | 20 42 00.4 |      | 1.8 | 41   |      |     |  |
|       |     |   | S     | 46 51      |      |     |      |      |     |  |
|       |     |   | L     | 51.4       |      |     |      |      |     |  |
|       |     | LPB   | P     | 20 42 04.2 |      | 1.7 | 67   |      | 28  |  |
|       |     |   | i     | 47 26      |      |     |      |      |     |  |
|       |     |   | eL    | 51         |      |     |      |      |     |  |
| JUNE  | 20  | PNS   | P     | 20 58 52.2 |      | 0.4 | 7    |      |     |  |
|       |     |   | S     | 59 18.6    |      |     |      |      |     |  |
|       |     | LPB   | eP    | 20 58 55   |      |     |      |      |     |  |
| JUNE  | 20  | PNS   | e(P)  | 21 01 04.3 |      |     |      |      |     |  |
| JUNE  | 20  | USCGS 20 58 06.0, 0.0S, 90.9W, h = 33 km., m = 4.4<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |     |  |
|       |     | PNS   | eP    | 21 03 55.6 |      |     |      |      |     |  |
|       |     | LPB   | eP    | 21 03 56.5 |      |     |      |      | 28  |  |
| JUNE  | 20  | LPB   | eP    | 21 12 12.2 |      |     |      |      |     |  |
| JUNE  | 20  | LPB   | e(P)  | 21 17 36.4 |      |     |      |      |     |  |
| JUNE  | 20  | USCGS 21 48 07.0, 19.3S, 69.4W, h = 120 km., m = 3.9<br>NORTHERN CHILE  |       |            |      |     |      |      |     |  |
|       |     | LPB   | P     | 21 48 55.4 |      | 0.9 | 30   |      | 15  |  |
|       |     | PNS   | iP    | 21 48 57.3 | D    | 0.6 | 8    |      |     |  |
|       |     |   | S     | 49 16.6    |      |     |      |      |     |  |
|       |     | TRJ   | iP    | 21 49 18.9 | D    |     |      |      |     |  |
| JUNE  | 20  | USCGS 22 04 43.0, 0.2S, 91.1W, h = 33 km., m = 4.3<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |     |  |
|       |     | PNS   | eP    | 22 10 33.2 |      |     |      |      |     |  |
|       |     | LPB   | eP    | 22 10 34   |      |     |      |      | 28  |  |
|       |     | TRJ   | eP    | 22 11 59.4 |      |     |      |      |     |  |
| JUNE  | 20  | LPB   | eP    | 22 12 41   |      |     |      |      |     |  |
|       |     | PNS   | P     | 22 12 43.6 |      | 1.5 | 11   |      |     |  |
| JUNE  | 20  | USCGS 22 14 55.0, 0.3S, 91.2W, h = 33 km., m = 4.3<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |     |  |
|       |     | LPB   | eP    | 22 20 40   |      |     |      |      | 28  |  |
|       |     | PNS   | eP    | 22 20 43   |      |     |      |      |     |  |

| JUNE  |     |  |       |            |      |     |      |      |  |
|-------|-----|--|-------|------------|------|-----|------|------|--|
| MONTH | DAY | STA  | PHASE | TIME       | SIGN | PER | AMPL | DIST |  |
| JUNE  | 20  | LPB  | eP    | 22 39 55.5 |      |     |      |      |  |
|       |     | PNS  | P     | 22 39 57.7 |      |     |      |      |  |
| JUNE  | 20  | PNS  | eP    | 23 02 44.4 |      |     |      |      |  |
|       |     |  | eL    | 08.6       |      |     |      |      |  |
|       |     | LPB  | eP    | 23 02 48.5 |      |     |      |      |  |
| JUNE  | 20  | PNS  | P     | 23 16 26.3 |      |     |      |      |  |
|       |     | LPB  | eP    | 23 16 31   |      |     |      |      |  |
|       |     | TRJ  | eP    | 23 17 32.2 |      |     |      |      |  |
| JUNE  | 20  | TRJ  | P     | 23 19 52.0 |      |     |      |      |  |
|       |     | LPB  | eP    | 23 20 10.5 |      |     |      |      |  |
| JUNE  | 20  | USCGS 23 25 28.2, 0.1S, 91.7W, h = 33 km., m = 4.6<br>GALAPAGOS ISLANDS              |       |            |      |     |      |      |  |
|       |     | PNS  | P     | 23 31 16.4 |      | 2.8 | 210  |      |  |
|       |     |  | eS    | 36 10      |      |     |      |      |  |
|       |     |  | i     | 40         |      |     |      |      |  |
|       |     |  | L     | 40.7       |      |     |      |      |  |
|       |     | LPB  | P     | 23 31 20.6 |      | 2.0 | 97   | 28   |  |
|       |     |  | i     | 36 43      |      |     |      |      |  |
|       |     |  | L     | 40.8       |      |     |      |      |  |
|       |     | TRJ  | P     | 23 32 03.4 |      |     |      |      |  |
| JUNE  | 21  | USCGS 00 26 07.8, 5.7S, 77.3W, h = 22 km., m = 5.6<br>NORTHERN PERU                  |       |            |      |     |      |      |  |
|       |     | PNS  | P     | 00 29 20.5 |      | 1.3 | 32   |      |  |
|       |     |  | i     | 25.8       |      |     |      |      |  |
|       |     |  | eS    | 31 53      |      |     |      |      |  |
|       |     |  | L     | 33.6       |      |     |      |      |  |
|       |     | LPB  | P     | 00 29 24.4 |      | 1.0 | 40   | 14   |  |
|       |     |  | i     | 26.9       |      |     |      |      |  |
|       |     |  | S     | 32 00      |      |     |      |      |  |
|       |     |  | eL    | 33         |      |     |      |      |  |
|       |     | TRJ  | P     | 00 30 37.8 |      |     |      |      |  |
| JUNE  | 21  | LPB  | eP    | 01 12 56   |      |     |      |      |  |
| JUNE  | 21  | USCGS 01 19 36.9, 0.8S, 91.5W, h = 33 km., m = 4.2<br>GALAPAGOS ISLANDS              |       |            |      |     |      |      |  |
|       |     | PNS  | eP    | 01 25 29   |      |     |      |      |  |
|       |     | LPB  | eP    | 01 25 30.5 |      |     |      | 28   |  |
| JUNE  | 21  | USCGS 01 24 53.9, 15.4N, 91.1W, h = 115 km., m = 4.5<br>MEXICO-GUATEMALA BORDER REG. |       |            |      |     |      |      |  |
|       |     | LPB  | P     | 01 32 16.2 | C    | 0.8 | 15   | 40   |  |
|       |     | PNS  | P     | 01 32 22.8 | D    | 1.0 | 17   |      |  |
|       |     | TRJ  | P     | 01 33 02.2 | C    |     |      |      |  |
| JUNE  | 21  | PNS  | eP    | 01 37 51   |      |     |      |      |  |
|       |     | LPB  | P     | 01 37 56   |      |     |      |      |  |
| JUNE  | 21  | LPB  | eP    | 01 53 59   |      |     |      |      |  |
|       |     | PNS  | eP    | 01 53 59.5 |      |     |      |      |  |

| JUNE  |     |   |       |            |      |     |      |      |    |
|-------|-----|---|-------|------------|------|-----|------|------|----|
| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL | DIST |    |
| JUNE  | 21  | LPB   | eP    | 02 22 33.2 |      |     |      |      |    |
| JUNE  | 21  | USCGS 02 19 59.0, 5.6S, 77.1W, h = 33 km., m = 4.3<br>NORTHERN PERU     |       |            |      |     |      |      |    |
|       |     | PNS   | P     | 02 23 12.2 |      |     | 0.9  | 4    |    |
|       |     |   | eL    | 29.2       |      |     |      |      |    |
|       |     | LPB   | P     | 02 23 18   |      |     | 0.8  | 6    | 14 |
|       |     |   | i     | 27.2       |      |     |      |      |    |
|       |     | TRJ   | P     | 02 24 28.2 |      |     |      |      |    |
| JUNE  | 21  | USCGS 02 31 50.0, 0.2S, 91.1W, h = 33 km., m = 4.6<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |    |
|       |     | PNS   | P     | 02 37 40.7 |      |     |      |      |    |
|       |     |   | eS    | 42 34      |      |     |      |      |    |
|       |     |   | L     | 47.3       |      |     |      |      |    |
|       |     | LPB   | P     | 02 37 44.7 |      |     | 1.5  | 44   | 28 |
|       |     |   | eL    | 47.2       |      |     |      |      |    |
|       |     | TRJ   | eP    | 02 38 28.2 |      |     |      |      |    |
| JUNE  | 21  | LPB   | eP    | 03 05 48.8 |      |     |      |      |    |
| JUNE  | 21  | TRJ   | P     | 03 27 52.4 |      |     |      |      |    |
|       |     |   | S     | 28 23.2    |      |     |      |      |    |
|       |     | PNS   | eP    | 03 28 46.7 |      |     |      |      |    |
|       |     | LPB   | P     | 03 28 52.6 |      |     | 0.4  | 6    |    |
| JUNE  | 21  | LPB   | eP    | 03 37 33.6 |      |     |      |      |    |
|       |     | PNS   | P     | 03 37 34.9 |      |     | 0.4  | 1    |    |
|       |     |   | i     | 56.6       |      |     |      |      |    |
|       |     | TRJ   | P     | 03 37 42.6 |      |     |      |      |    |
| JUNE  | 21  | PNS   | eP    | 03 49 40.7 |      |     |      |      |    |
|       |     |   | eL    | 59.3       |      |     |      |      |    |
|       |     | LPB   | eP    | 03 49 47.5 |      |     |      |      |    |
|       |     |   | eL    | 59.5       |      |     |      |      |    |
| JUNE  | 21  | USCGS 03 52 09.0, 0.2S, 91.1W, h = 33 km., m = 4.2<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |    |
|       |     | PNS   | eP    | 03 57 56   |      |     |      |      |    |
|       |     | LPB   | eP    | 03 58 00   |      |     |      |      |    |
| JUNE  | 21  | USCGS 04 09 20.0, 0.1S, 91.0W, h = 33 km., m = 4.1<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |    |
|       |     | LPB   | eP    | 04 14 12   |      |     |      |      |    |
|       |     | PNS   | eP    | 04 15 06.8 |      |     |      |      |    |
| JUNE  | 21  | TRJ   | P     | 04 27 59.0 |      |     |      |      |    |
|       |     |   | S     | 28 30.8    |      |     |      |      |    |
| JUNE  | 21  | USCGS 04 29 17.0, 0.5S, 91.3W, h = 33 km., m = 4.4<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |    |
|       |     | PNS   | eP    | 04 34 33   |      |     |      |      |    |
|       |     |   | e     | 35 16.9    |      |     |      |      |    |
|       |     | LPB   | eP    | 04 34 39.5 |      |     |      |      |    |

| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL | DIST |  |
|-------|-----|---|-------|------------|------|-----|------|------|--|
| JUNE  | 21  | LPB   | eP    | 04 42 12   |      |     |      |      |  |
| JUNE  | 21  | USCGS 04 46 52.0, 0.0S, 90.9W, h = 33 km., m = 4.3<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |  |
|       |     | PNS   | eP    | 04 52 26   |      |     |      |      |  |
|       |     | LPB   | eP    | 04 52 32   |      |     |      | 28   |  |
| JUNE  | 21  | PNS   | iP    | 04 59 27.1 | D    |     |      |      |  |
|       |     |   | iS    | 40.0       |      |     |      |      |  |
|       |     | LPB   | P     | 04 59 29.7 |      | 0.8 | 10   |      |  |
|       |     |   | S     | 55.6       |      |     |      |      |  |
| JUNE  | 21  | LPB   | eP    | 05 06 49.2 |      |     |      |      |  |
|       |     | PNS   | eP    | 05 06 54   |      |     |      |      |  |
| JUNE  | 21  | PNS   | eP    | 05 10 05.5 |      | 1.4 | 11   |      |  |
|       |     |   | eL    | 19.4       |      |     |      |      |  |
|       |     | LPB   | eP    | 05 10 07   |      |     |      |      |  |
| JUNE  | 21  | USCGS 05 15 09.0, 0.2S, 91.1W, h = 33 km., m = 4.1<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |  |
|       |     | LPB   | eP    | 05 21 02   |      |     |      | 28   |  |
|       |     | PNS   | eP    | 05 29 57.6 |      |     |      |      |  |
| JUNE  | 21  | USCGS 05 47 22.8, 0.4S, 91.8W, h = 33 km., m = 4.7<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |  |
|       |     | PNS   | P     | 05 53 11.9 |      | 2.2 | 80   |      |  |
|       |     |   | S     | 58 08      |      |     |      |      |  |
|       |     |   | L     | 06 02.7    |      |     |      |      |  |
|       |     | LPB   | eP    | 05 53 12   |      | 1.9 | 68   | 28   |  |
|       |     |   | eS    | 58 08      |      |     |      |      |  |
|       |     |   | eL    | 06 02.7    |      |     |      |      |  |
|       |     | TRJ   | eP    | 05 53 59.5 |      |     |      |      |  |
| JUNE  | 21  | LPB   | eP    | 06 22 25   |      |     |      |      |  |
|       |     | PNS   | P     | 06 22 26.4 |      |     |      |      |  |
| JUNE  | 21  | PNS   | eP    | 06 35 16.7 |      |     |      |      |  |
|       |     | LPB   | eP    | 06 35 17   |      |     |      |      |  |
| JUNE  | 21  | PNS   | P     | 06 46 52.6 |      | 1.3 | 10   |      |  |
| JUNE  | 21  | PNS   | iP    | 07 17 35.2 | D    | 0.4 | 3    |      |  |
|       |     |   | S     | 57.5       |      |     |      |      |  |
|       |     | LPB   | P     | 07 17 37   |      |     |      |      |  |
| JUNE  | 21  | USCGS 07 24 17.0, 5.5S, 77.3W, h = 25 km., m = 4.8<br>NORTHERN PERU     |       |            |      |     |      |      |  |
|       |     | PNS   | eP    | 07 27 33.9 |      |     |      |      |  |
|       |     | LPB   | P     | 07 27 39.6 |      |     |      | 14   |  |
|       |     |   | e     | 53.0       |      |     |      |      |  |
| JUNE  | 21  | USCGS 07 31 17.3, 5.5S, 77.2W, h = 33 km., m = 4.9<br>NORTHERN PERU     |       |            |      |     |      |      |  |

| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL | DIST |  |
|-------|-----|---|-------|------------|------|-----|------|------|--|
| JUNE  | 21  | PNS   | P     | 07 34 31.3 |      |     |      |      |  |
|       |     | LPB   | eP    | 07 34 34   |      | 1.5 | 44   |      |  |
|       |     | TRJ   | P     | 07 35 49.1 |      | 1.8 | 111  | 14   |  |
| JUNE  | 21  | USCGS 08 01 02.0, 0.5S, 91.6W, h = 33 km., m = 4.4<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |  |
|       |     | PNS   | P     | 08 06 50.0 |      | 2.8 | 14   |      |  |
|       |     |   | L     | 16.1       |      |     |      |      |  |
|       |     | LPB   | eP    | 08 06 51.5 |      |     |      | 28   |  |
|       |     |   | eL    | 16.7       |      |     |      |      |  |
| JUNE  | 21  | USCGS 08 15 36.0, 0.3S, 91.2W, h = 33 km., m = 4.1<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |  |
|       |     | PNS   | eP    | 08 21 24.8 |      |     |      |      |  |
|       |     | LPB   | eP    | 08 21 29   |      |     |      | 28   |  |
| JUNE  | 21  | PNS   | P     | 08 54 58.0 |      |     |      |      |  |
|       |     | LPB   | eP    | 08 54 59   |      | 1.1 | 6    |      |  |
| JUNE  | 21  | LPB   | eP    | 08 57 44.5 |      |     |      |      |  |
|       |     | PNS   | eP    | 08 57 46.9 |      |     |      |      |  |
| JUNE  | 21  | LPB   | eP    | 09 05 04   |      |     |      |      |  |
|       |     | PNS   | eP    | 09 05 10.6 |      |     |      |      |  |
| JUNE  | 21  | USCGS 09 08 40.0, 0.2S, 91.1W, h = 33 km., m = 3.8<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |  |
|       |     | PNS   | eP    | 09 14 32   |      |     |      |      |  |
|       |     | LPB   | eP    | 09 14 38   |      |     |      | 28   |  |
| JUNE  | 21  | USCGS 09 32 30.8, 0.2S, 91.8W, h = 33 km., m = 4.7<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |  |
|       |     | PNS   | eP    | 09 38 15.6 |      |     |      |      |  |
|       |     |   | eS    | 42 08      |      |     |      |      |  |
|       |     |   | eL    | 47.5       |      |     |      |      |  |
|       |     | LPB   | eP    | 09 38 19   |      |     |      | 28   |  |
|       |     |   | i     | 43 46      |      |     |      |      |  |
|       |     |   | eL    | 47.8       |      |     |      |      |  |
|       |     | TRJ   | eP    | 09 39 07.3 |      |     |      |      |  |
| JUNE  | 21  | LPB   | eP    | 09 46 02   |      |     |      |      |  |
|       |     | PNS   | eP    | 09 46 03.9 |      |     |      |      |  |
| JUNE  | 21  | USCGS 09 52 48.0, 0.2N, 90.8W, h = 33 km., m = 4.3<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |  |
|       |     | PNS   | eP    | 09 58 35   |      |     |      |      |  |
|       |     | LPB   | eP    | 09 58 38.5 |      |     |      | 28   |  |
| JUNE  | 21  | LPB   | eP    | 10 11 44.2 |      | 0.7 | 6    |      |  |
| JUNE  | 21  | LPB   | eP    | 10 17 51   |      |     |      |      |  |
|       |     | PNS   | P     | 10 17 53.4 |      | 0.4 | 2    |      |  |
|       |     |   | eS    | 18 29      |      |     |      |      |  |
| JUNE  | 21  | PNS   | eP    | 10 20 50.8 |      |     |      |      |  |
|       |     | LPB   | eP    | 10 20 55   |      |     |      |      |  |



| MONTH | DAY | STA   | PHASE      | TIME       | STGN | PER | AMPL | DIST |
|-------|-----|---|------------|------------|------|-----|------|------|
| JUNE  | 21  | LPR   | eP         | 10 27 08.5 |      |     |      |      |
|       |     | PNS   | eP         | 10 27 14.8 |      |     |      |      |
|       |     |   | eS         | 56         |      |     |      |      |
| JUNE  | 21  | LPB   | eP         | 10 28 49   |      |     |      |      |
|       |     | PNS   | eP         | 10 28 52.8 |      |     |      |      |
|       |     |   | eS         | 30 38      |      |     |      |      |
| JUNE  | 21  | USCGS 10 38 09.0, 0.1S, 91.0W, h = 33 km., m = 4.4<br>GALAPAGOS ISLANDS |            |            |      |     |      |      |
|       |     | PNS   | eP         | 10 43 54.6 |      |     |      |      |
|       |     | LPB   | eP         | 10 43 58   |      |     |      | 28   |
| JUNE  | 21  | USCGS 11 04 38.2, 0.1S, 91.6W, h = 33 km., m = 4.8<br>GALAPAGOS ISLANDS |            |            |      |     |      |      |
|       |     | PNS   | eP         | 11 10 22.6 |      |     |      |      |
|       |     |   | S          | 15 21      |      |     |      |      |
|       |     |   | L          | 19.8       |      |     |      |      |
|       |     | LPB   | eP         | 11 10 29   | 1.8  | 56  |      | 28   |
|       |     |   | i          | 15 50      |      |     |      |      |
|       | eL  | 19.8  |            |            |      |     |      |      |
| JUNE  | 21  | LPR   | e(P)       | 11 22 19   |      |     |      |      |
|       |     | PNS   | eP         | 11 22 25   |      |     |      |      |
| JUNE  | 21  | PNS   | eP         | 11 48 41   |      |     |      |      |
|       |     | LPB   | eP         | 11 48 45.5 |      |     |      |      |
| JUNE  | 21  | USCGS 12 16 39.6, 0.6S, 91.6W, h = 33 km., m = 4.3<br>GALAPAGOS ISLANDS |            |            |      |     |      |      |
|       |     | LPB   | eP         | 12 22 23   |      |     |      | 28   |
|       |     | PNS   | eP         | 12 22 28.8 |      |     |      |      |
| JUNE  | 21  | USCGS 12 28 54.0, 5.5S, 77.2W, h = 15 km., m = 4.4<br>NORTHERN PERU     |            |            |      |     |      |      |
|       |     | PNS   | P          | 12 32 10.9 | 1.0  | 10  |      |      |
|       |     | LPB   | eP         | 12 32 11.6 | 0.9  | 17  |      | 14   |
|       |     |   | i          | 25.7       |      |     |      |      |
|       | TRJ | P   | 12 33 27.4 |            |      |     |      |      |
| JUNE  | 21  | USCGS 12 51 41.0, 5.5S, 77.0W, h = 33 km., m = 4.1<br>NORTHERN PERU     |            |            |      |     |      |      |
|       |     | PNS   | eP         | 12 54 56.2 |      |     |      |      |
|       |     |   | eL         | 13 00.7    |      |     |      |      |
|       |     | LPB   | eP         | 12 54 58.5 |      |     |      | 14   |
|       |     | TRJ   | eP         | 12 55 06.7 |      |     |      |      |
| JUNE  | 21  | LPB   | eP         | 13 08 46.5 |      |     |      |      |
|       |     | PNS   | eP         | 13 08 49   |      |     |      |      |
|       |     |   |            |            |      |     | 250  |      |

| MONTH | DAY | STA   | PHASE      | TIME       | STGN | PER | AMPL | DIST |
|-------|-----|---|------------|------------|------|-----|------|------|
| JUNE  | 21  | PNS   | eP         | 14 00 52   |      |     |      |      |
| JUNE  | 21  | PNS   | eP         | 14 41 55.6 |      |     |      |      |
|       |     | LPB   | eP         | 14 41 58.5 |      |     | 1.0  | 8    |
| JUNE  | 21  | PNS   | eP         | 15 30 56.8 |      |     |      | 0.9  |
|       |     | LPB   | eP         | 15 30 59   |      |     |      | 5    |
| JUNE  | 21  | PNS   | eP         | 15 58 51.4 |      |     |      |      |
|       |     | LPB   | eP         | 15 58 53   |      |     |      |      |
| JUNE  | 21  | USCGS 16 37 53.2, 22.2S, 67.4W, h = 117 km., m = 4.2<br>CHILE-BOLIVIA BORDER REGION |            |            |      |     |      |      |
|       |     | LPB   | P          | 16 39 18.3 | D    | 0.8 | 210  | 52   |
|       |     |   | eS         | 40 25      |      |     |      |      |
|       |     | PNS   | iP         | 16 39 22.4 | D    |     |      |      |
|       |     |   | eS         | 40 30.0    |      |     |      |      |
|       | TRJ | iP  | 16 38 36.4 | D          |      |     |      |      |
| JUNE  | 21  | USCGS 16 53 59.1, 0.1S, 91.1W, h = 33 km., m = 4.6<br>GALAPAGOS ISLANDS             |            |            |      |     |      |      |
|       |     | PNS   | eP         | 16 59 46.4 |      |     |      |      |
|       |     |   | S          | 17 04 45   |      |     |      |      |
|       |     | eL  | 09.1       |            |      |     |      |      |
| JUNE  | 21  | LPB   | P          | 16 59 50.2 |      |     |      | 28   |
|       |     |   | eL         | 09.3       |      |     |      |      |
|       |     | TRJ   | eP         | 17 00 09.5 |      |     |      |      |
| JUNE  | 21  | PNS   | P          | 17 56 35.5 |      |     |      |      |
|       |     |   | eS         | 18 01 37   |      |     |      |      |
|       |     |   | L          | 18 06      |      |     |      |      |
|       |     | LPB   | eP         | 17 56 35.6 |      |     |      |      |
|       |     | eL  | 18 06      |            |      |     |      |      |
| JUNE  | 21  | PNS   | P          | 18 29 45.9 |      |     |      |      |
|       |     | LPB   | eP         | 18 29 49   |      |     |      |      |
| JUNE  | 21  | LPB   | eP         | 18 37 20.5 |      |     |      |      |
|       |     | PNS   | P          | 18 37 23.9 |      |     |      |      |
| JUNE  | 21  | USCGS 18 40 35.0, 0.2S, 91.3W, h = 33 km., m = 4.2<br>GALAPAGOS ISLANDS             |            |            |      |     |      |      |
|       |     | PNS   | eP         | 18 46 22.5 |      |     |      |      |
|       |     | LPB   | eP         | 18 46 25   |      |     |      | 28   |
| JUNE  | 21  | USCGS 18 51 35.9, 29.9N, 142.7E, h = 45 km., m = 4.9<br>SOUTH OF HONSHU, JAPAN      |            |            |      |     |      |      |
|       |     | LPB   | ePKP       | 19 11 07.8 |      |     |      | 140  |
|       |     | PNS   | ePKP       | 19 11 08   |      |     | 0.7  | 6    |
| JUNE  | 21  | LPB   | eP         | 19 11 18   |      |     |      |      |
|       |     | PNS   | P          | 19 11 20.2 |      |     | 0.7  | 6    |
| JUNE  | 21  | PNS   | eP         | 19 19 37   |      |     |      |      |
|       |     | LPB   | eP         | 19 20 42.5 |      |     |      |      |
| JUNE  | 21  | PNS   | eP         | 19 22 04   |      |     |      |      |
|       |     |   | eL         | 26.7       |      |     |      |      |
|       |     | LPB   | eP         | 19 22 06.5 |      |     |      |      |

JUNE

| MONTH | DAY | STA   | PHASE            | TIME                                    | SIGN | PER | AMPL | DIST |  |
|-------|-----|---|------------------|---|------|-----|------|------|--|
| JUNE  | 21  | LPB<br>PNS  | eP<br>P<br>S     | 19 40 57<br>19 40 58.9<br>41 20.4       | D    | 0.3 | 5    |      |  |
| JUNE  | 21  | LPB<br>PNS  | eP<br>eP         | 20 06 25<br>20 06 25.8                  |      |     |      |      |  |
| JUNE  | 21  | PNS   | P<br>S           | 20 17 06.8<br>43                        |      | 0.6 | 5    |      |  |
| JUNE  | 21  | USCGS 20 13 22.0, 0.0N, 91.0W, h = 33 km., m = 4.1<br>GALAPAGOS ISLANDS |                  |   |      |     |      |      |  |
|       |     | LPB<br>PNS  | eP<br>P          | 20 19 07<br>20 19 08.4                  |      | 0.8 | 2    | 28   |  |
| JUNE  | 21  | PNS   | P                | 20 35 04.6                              |      | 1.1 | 6    |      |  |
| JUNE  | 21  | USCGS 20 51 08.6, 0.2S, 91.5W, h = 33 km., m = 5.0<br>GALAPAGOS ISLANDS |                  |   |      |     |      |      |  |
|       |     | LPB<br>PNS  | eP<br>P          | 20 57 00<br>21 02 24<br>06.6            |      | 2.0 | 151  | 28   |  |
|       |     | PNS   | P<br>S<br>i<br>L | 20 56 57.2<br>21 01 44<br>02 22<br>06.3 |      | 2.6 | 128  |      |  |
| JUNE  | 21  | LPB<br>PNS  | eP<br>P          | 21 24 13.6<br>21 24 17.1                |      |     |      |      |  |
| JUNE  | 21  | TRJ   | P                | 21 32 40.5                              | C    |     |      |      |  |
| JUNE  | 21  | LPB<br>PNS  | eP<br>P          | 22 21 23<br>22 21 23.5                  |      |     |      |      |  |
| JUNE  | 21  | PNS<br>LPB  | P<br>P           | 22 28 43.6<br>22 28 45                  |      | 1.2 | 8    |      |  |
| JUNE  | 21  | LPB   | P<br>i           | 22 50 28.2<br>29.8                      |      | 0.8 | 90   |      |  |
| JUNE  | 21  | USCGS 23 01 01.0, 0.8S, 91.5W, h = 33 km., m = 4.1<br>GALAPAGOS ISLANDS |                  |   |      |     |      |      |  |
|       |     | PNS<br>LPB  | eP<br>eP         | 23 06 50.1<br>23 06 50.2                |      |     |      | 28   |  |
| JUNE  | 21  | USCGS 23 44 14.2, 0.7S, 91.5W, h = 33 km., m = 4.3<br>GALAPAGOS ISLANDS |                  |   |      |     |      |      |  |
|       |     | LPB<br>PNS  | eP<br>eP         | 23 50 02<br>23 50 03.2                  |      |     |      | 28   |  |
| JUNE  | 22  | USCGS 00 22 02.6, 0.1S, 91.6W, h = 33 km., m = 4.6<br>GALAPAGOS ISLANDS |                  |   |      |     |      |      |  |
|       |     | TRJ   | P                | 00 27 12.7                              |      |     |      | 252  |  |

JUNE

| MONTH | DAY | STA  | PHASE               | TIME                                 |        |            |         |     |  |
|-------|-----|--|---------------------|--------------------------------------|--------|------------|---------|-----|--|
|       |     | PNS  | P<br>S<br>L         | 00 27 46.8<br>32 44<br>37.1          |        | 2.6        | 180     |     |  |
|       |     | LPB  | P<br>i<br>L         | 00 27 52<br>33 07<br>37.3            |        | 2.4        | 162     | 28  |  |
| JUNE  | 22  | TRJ<br>LPB   | iP<br>P<br>S        | 00 36 02.6<br>00 36 50.2<br>43 52    | D<br>C | 1.0        | 40      |     |  |
|       |     | PNS  | iP                  | 00 36 53.4                           | C      | 0.8        | 32      |     |  |
| JUNE  | 22  | LPB<br>PNS   | eP<br>P<br>S        | 00 41 50<br>00 41 51.3<br>43 55.8    |        | 1.4        | 26      |     |  |
| JUNE  | 22  | USCGS 00 47 09.0, 0.3S, 91.2W, h = 33 km., m = 4.3<br>GALAPAGOS ISLANDS            |                     |                                      |        |            |         |     |  |
|       |     | LPB<br>PNS   | eP<br>eP            | 00 52 55<br>00 52 56.6               |        |            |         | 28  |  |
| JUNE  | 22  | TRJ  | P                   | 01 21 32.0                           |        |            |         |     |  |
| JUNE  | 22  | USCGS 01 12 30.9, 40.3N, 143.7E, h = 15 km., m = 5.6<br>OFF E CST OF HONSHU, JAPAN |                     |                                      |        |            |         |     |  |
|       |     | PNS  | PKP<br>i<br>SS<br>L | 01 32 03.8<br>20.4<br>54 09<br>02 21 |        | 1.6        | 23      |     |  |
|       |     | LPB  | PKP<br>e<br>SS<br>L | 01 32 05.7<br>17<br>54 10<br>02 21   |        | 1.0        | 10      | 144 |  |
|       |     | TRJ  | PKP                 | 01 32 16.5                           |        |            |         |     |  |
| JUNE  | 22  | USCGS 02 18 27.0, 0.0S, 90.9W, h = 33 km., m = 4.3<br>GALAPAGOS ISLANDS            |                     |                                      |        |            |         |     |  |
|       |     | PNS<br>LPB   | P<br>P              | 02 24 16.4<br>02 24 20               |        | 0.9<br>1.1 | 4<br>14 |     |  |
| JUNE  | 22  | LPB<br>PNS   | eP<br>P             | 03 04 36.8<br>03 04 42.2             |        | 0.6<br>0.7 | 6<br>3  |     |  |
| JUNE  | 22  | PNS<br>LPB   | P<br>iP<br>S        | 03 31 13.3<br>03 31 15.4<br>38.3     | D<br>D | 0.6        | 49      |     |  |
| JUNE  | 22  | USCGS 03 32 55.0, 0.4S, 91.6W, h = 33 km., m = 4.2<br>GALAPAGOS ISLANDS            |                     |                                      |        |            |         |     |  |
|       |     | PNS<br>LPB   | P<br>eP             | 03 38 45.2<br>03 38 47.5             |        | 0.8        | 7       | 28  |  |
| JUNE  | 22  | USCGS 04 02 19.5, 5.7S, 77.1W, h = 25 km., m = 4.6<br>NORTHERN PERU                |                     |                                      |        |            |         |     |  |
|       |     | PNS  | P<br>i<br>eS<br>L   | 04 05 31.3<br>43.5<br>08 12<br>11.3  |        | 1.0        | 22      |     |  |
|       |     | LPB  | P                   | 04 05 35.2                           |        | 1.0        | 26      | 14  |  |





| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL | DIST |
|-------|-----|---|-------|------------|------|-----|------|------|
|       |     |   | i     | 48.1       |      |     |      |      |
|       |     |   | e     | 09 42      |      |     |      |      |
|       |     |   | eL    | 12.3       |      |     |      |      |
|       |     | TRJ   | P     | 04 06 47.6 |      |     |      |      |
| JUNE  | 22  | TRJ   | P     | 04 18 33.6 |      |     |      |      |
| JUNE  | 22  | USCGS 04 24 45.0, 5.6S, 77.0W, h = 33 km., m = 4.6<br>NORTHERN PERU     |       |            |      |     |      |      |
|       |     | PNS   | P     | 04 27 56.9 |      | 0.9 | 10   |      |
|       |     |   | i     | 28 09.0    |      |     |      |      |
|       |     | LPB   | P     | 04 28 02.5 |      | 0.8 | 15   | 14   |
|       |     |   | i     | 13.6       |      |     |      |      |
|       |     | TRJ   | P     | 04 29 12.6 |      |     |      |      |
| JUNE  | 22  | PNS   | iP    | 04 29 56.2 | C    |     |      |      |
|       |     | LPB   | iP    | 04 29 59.0 | C    | 0.6 | 800  |      |
|       |     |   | S     | 30 22      |      |     |      |      |
|       |     | TRJ   | iP    | 04 30 46.1 | C    |     |      |      |
| JUNE  | 22  | PNS   | P     | 04 39 58.9 | D    | 1.4 | 18   |      |
|       |     | LPB   | eP    | 04 39 59   |      | 1.0 | 12   |      |
| JUNE  | 22  | PNS   | eP    | 05 52 58.6 |      |     |      |      |
|       |     | LPB   | eP    | 05 53 10   |      | 1.1 | 12   |      |
| JUNE  | 22  | PNS   | P     | 06 10 29.8 |      | 1.0 | 5    |      |
|       |     |   | L     | 20         |      |     |      |      |
|       |     | LPB   | P     | 06 10 30   |      | 0.9 | 10   |      |
|       |     |   | eL    | 20         |      |     |      |      |
| JUNE  | 22  | LPB   | eP    | 06 13 06   |      |     |      |      |
|       |     | PNS   | P     | 06 13 09.0 |      | 0.6 | 3    |      |
| JUNE  | 22  | TRJ   | P     | 06 32 00.5 |      |     |      |      |
| JUNE  | 22  | TRJ   | P     | 06 19 19.6 |      |     |      |      |
| JUNE  | 22  | USCGS 06 04 37.0, 0.9S, 92.0W, h = 33 km., m = 4.4<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |
|       |     | PNS   | eP    | 06 10 29.6 |      |     |      |      |
|       |     | LPB   | P     | 06 10 31   |      |     |      | 29   |
| JUNE  | 22  | TRJ   | iP    | 06 39 57.2 | D    |     |      |      |
|       |     | LPB   | P     | 06 40 24.5 |      | 0.7 | 27   |      |
|       |     | PNS   | iP    | 06 40 28.7 | D    | 0.8 | 46   |      |
|       |     |   | S     | 41 24.4    |      |     |      |      |
| JUNE  | 22  | USCGS 06 44 57.0, 0.4S, 91.6W, h = 33 km., m = 4.4<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |
|       |     | PNS   | eP    | 06 50 45   |      |     |      |      |
|       |     | LPB   | ePKP  | 06 50 49   |      |     |      | 28   |
|       |     |   | eL    | 07 40      |      |     |      |      |
| JUNE  | 22  | PNS   | eP    | 06 53 04   |      |     |      |      |
|       |     | LPB   | P     | 06 53 05   |      | 1.0 | 12   |      |

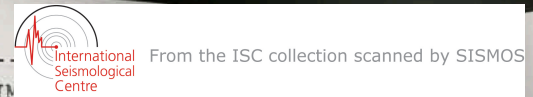


| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL | DIST |
|-------|-----|---|-------|------------|------|-----|------|------|
| JUNE  | 22  | TRJ   | iP    | 07 07 10.2 | D    |     |      |      |
| JUNE  | 22  | USCGS 07 29 00.0, 0.5S, 91.5W, h = 33 km., m = 4.5<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |
|       |     | PNS   | P     | 07 34 52.5 |      |     | 2.0  | 42   |
|       |     |   | eL    | 44         |      |     |      |      |
|       |     | LPB   | eP    | 07 34 53   |      |     | 2.0  | 64   |
|       |     |   | eL    | 44.2       |      |     |      | 28   |
| JUNE  | 22  | TRJ   | iP    | 07 48 37.1 | C    |     |      |      |
|       |     |   | S     | 49 09.1    |      |     |      |      |
| JUNE  | 22  | PNS   | P     | 07 58 34.1 |      |     |      |      |
|       |     | LPB   | eP    | 07 58 39   |      |     |      |      |
| JUNE  | 22  | LPB   | eP    | 08 58 22   |      |     |      |      |
|       |     | PNS   | P     | 08 58 22.6 |      | 0.7 | 3    |      |
| JUNE  | 22  | LPB   | P     | 09 02 40.5 |      |     | 0.4  | 10   |
| JUNE  | 22  | USCGS 09 16 50.0, 5.5S, 77.0W, h = 34 km., m = 4.6<br>NORTHERN PERU     |       |            |      |     |      |      |
|       |     | PNS   | P     | 09 20 03.0 |      | 1.2 | 13   |      |
|       |     |   | i     | 13.9       |      |     |      |      |
|       |     |   | S     | 22 52      |      |     |      |      |
|       |     |   | L     | 25.9       |      |     |      |      |
|       |     | LPB   | P     | 09 20 08.3 |      |     |      | 14   |
|       |     |   | e     | 17.3       |      |     |      |      |
|       |     |   | eL    | 24 08      |      |     |      |      |
|       |     |   | eL    | 26         |      |     |      |      |
|       |     | TRJ   | P     | 09 21 17.7 |      |     |      |      |
| JUNE  | 22  | PNS   | P     | 09 34 52.8 |      |     | 0.8  | 3    |
|       |     | LPB   | eP    | 09 34 55   |      |     |      |      |
| JUNE  | 22  | USCGS 09 46 50.0, 0.1S, 91.5W, h = 33 km., m = 4.9<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |
|       |     | PNS   | P     | 09 52 38.0 |      | 2.5 | 119  |      |
|       |     |   | S     | 57 36      |      |     |      |      |
|       |     |   | L     | 10 02      |      |     |      |      |
|       |     | LPB   | P     | 09 52 43.5 |      |     | 2.4  | 216  |
|       |     |   | i     | 58 03      |      |     |      | 28   |
|       |     |   | eL    | 10 02.2    |      |     |      |      |
| JUNE  | 22  | TRJ   | P     | 10 02 20.1 |      |     |      |      |
|       |     | PNS   | eP    | 10 03 00   |      |     |      |      |
|       |     | LPB   | P     | 10 03 04   |      |     |      |      |
| JUNE  | 22  | PNS   | eP    | 10 36 41.5 |      |     |      |      |
|       |     | LPB   | eP    | 10 36 42.5 |      |     |      |      |
| JUNE  | 22  | LPB   | eP    | 10 43 50   |      |     |      |      |
| JUNE  | 22  | PNS   | iP    | 10 59 21.5 |      | 0.5 | 20   |      |
|       |     |   | S     | 41.6       |      |     |      |      |
|       |     | LPR   | eP    | 10 59 24.5 |      |     |      |      |
| JUNE  | 22  | LPR   | eP    | 11 00 39   |      |     |      |      |
|       |     |   | eS    | 01 07      |      |     |      |      |
|       |     | PNS   | P     | 11 00 40.1 | D    |     | 0.5  | 9    |
|       |     |   | S     | 01 09      |      |     |      |      |

JUNE

| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL | DIST |
|-------|-----|---|-------|------------|------|-----|------|------|
| JUNE  | 22  | LPB   | eP    | 11 25 26   |      |     |      |      |
|       |     | PNS   | eP    | 11 25 27.7 |      | 1.0 | 5    |      |
| JUNE  | 22  | LPB   | eP    | 11 27 06.5 |      |     |      |      |
|       |     | PNS   | P     | 11 27 07.2 |      | 0.8 | 5    |      |
| JUNE  | 22  | USCGS 11 59 13.0, 5.6S, 77.0W, h = 33 km., m = 4.3<br>NORHTERN PERU     |       |            |      |     |      |      |
|       |     | PNS   | P     | 12 02 25.4 |      | 1.0 | 4    |      |
|       |     |   | i     | 35.7       |      |     |      |      |
|       |     |   | eL    | 07.9       |      |     |      |      |
|       |     | LPB   | eP    | 12 02 31   |      |     |      | 14   |
|       |     |   | eL    | 07.8       |      |     |      |      |
| JUNE  | 22  | USCGS 12 06 41.0, 0.4S, 91.1W, h = 33 km., m = 4.3<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |
|       |     | LPB   | eP    | 12 12 30   |      |     |      | 28   |
|       |     | PNS   | eP    | 12 12 31   |      |     |      |      |
| JUNE  | 22  | LPB   | eP    | 13 04 34   |      |     |      |      |
|       |     | PNS   | eP    | 13 04 37.8 |      |     |      |      |
| JUNE  | 22  | PNS   | eP    | 13 07 10.4 |      |     |      |      |
|       |     | LPB   | eP    | 13 07 11.2 |      |     |      |      |
| JUNE  | 22  | USCGS 14 13 17.0, 0.2S, 91.2W, h = 33 km., m = 4.2<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |
|       |     | LPB   | eP    | 14 18 10   |      |     |      | 28   |
|       |     | PNS   | eP    | 14 19 04   |      |     |      |      |
| JUNE  | 22  | PNS   | P     | 16 05 31.8 |      | 0.5 | 3    |      |
|       |     |   | S     | 55.6       |      |     |      |      |
| JUNE  | 22  | LPB   | eP    | 16 11 01   |      |     |      |      |
|       |     | PNS   | eP    | 16 10 01   |      |     |      |      |
| JUNE  | 22  | USCGS 16 09 27.0, 0.4S, 91.0W, h = 33 km., m = 4.5<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |
|       |     | LPB   | eP    | 16 15 15   |      |     |      | 28   |
|       |     |   | eL    | 24.2       |      |     |      |      |
|       |     | PNS   | P     | 16 15 16.2 |      | 1.2 | 12   |      |
| JUNE  | 22  | LPB   | eP    | 16 55 28.5 |      |     |      |      |
|       |     | PNS   | eP    | 16 55 28.6 |      |     |      |      |
| JUNE  | 22  | PNS   | P     | 17 35 31.8 |      | 0.9 | 5    |      |
|       |     |   | eL    | 49.7       |      |     |      |      |
|       |     | LPB   | eP    | 17 35 34.5 |      |     |      |      |
|       |     |   | eL    | 50         |      |     |      |      |
| JUNE  | 22  | PNS   | P     | 17 56 15.8 |      |     |      |      |
|       |     | LPB   | eP    | 17 56 19   |      |     |      |      |
|       |     |   |       |            |      |     |      | 256  |

JUNE



| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL | DIST |
|-------|-----|---|-------|------------|------|-----|------|------|
| JUNE  | 22  | PNS   | eP    | 17 57 46.5 |      |     |      |      |
|       |     | LPB   | eP    | 17 57 49   |      |     |      |      |
| JUNE  | 22  | LPB   | P     | 18 27 25.2 |      |     |      |      |
|       |     | PNS   | iP    | 18 27 29.0 | C    | 0.9 | 76   |      |
| JUNE  | 22  | USCGS 18 34 07.0, 5.59, 77.1W, h = 33 km., m = 4.6<br>NORTHERN PERU           |       |            |      |     |      |      |
|       |     | PNS   | P     | 18 37 17.2 |      | 1.1 | 6    |      |
|       |     |   | eL    | 43.2       |      |     |      |      |
|       |     | LPB   | P     | 18 37 21.5 |      |     |      | 14   |
|       |     |   | e     | 32.6       |      |     |      |      |
|       |     |   | eL    | 43         |      |     |      |      |
| JUNE  | 22  | PNS   | P     | 19 22 52.3 |      | 0.5 | 2    |      |
| JUNE  | 22  | PNS   | eP    | 19 38 02.4 |      |     |      |      |
|       |     |   | eL    | 51.8       |      |     |      |      |
|       |     | LPB   | eP    | 19 38 05   |      |     |      |      |
|       |     |   | eL    | 52         |      |     |      |      |
| JUNE  | 22  | LPB   | e(P)  | 20 04 45   |      |     |      |      |
| JUNE  | 22  | USCGS 20 16 55.0, 5.6S, 77.3W, h = 33 km., m = 4.4<br>NORTHERN PERU           |       |            |      |     |      |      |
|       |     | PNS   | eP    | 20 20 10   |      |     |      |      |
|       |     |   | eL    | 25         |      |     |      |      |
|       |     | LPB   | eP    | 20 20 15   |      |     |      | 14   |
| JUNE  | 22  | LPB   | eP    | 21 16 32   |      |     |      |      |
|       |     |   | e     | 21 04      |      |     |      |      |
|       |     | PNS   | eP    | 21 16 34   |      |     |      |      |
| JUNE  | 22  | LPB   | eP    | 22 05 10.5 |      |     |      |      |
|       |     | PNS   | eP    | 22 05 10.7 |      |     |      |      |
| JUNE  | 22  | PNS   | P     | 23 06 51.7 |      | 0.4 | 3    |      |
|       |     |   | S     | 07 21      |      |     |      |      |
|       |     | LPB   | eP    | 23 06 53   |      |     |      |      |
| JUNE  | 22  | USCGS 23 10 52.0, 0.1N, 90.9W, h = 33 km., m = 4.2<br>GALAPAGOS ISLANDS       |       |            |      |     |      |      |
|       |     | PNS   | eP    | 23 16 39.7 |      |     |      |      |
|       |     |   | eL    | 26.2       |      |     |      |      |
|       |     | LPB   | P     | 23 16 42   |      |     |      | 28   |
|       |     |   | eL    | 26.3       |      |     |      |      |
| JUNE  | 23  | LPB   | P     | 00 33 15.3 |      |     |      |      |
| JUNE  | 23  | LPB   | P     | 00 48 32.3 |      | 0.9 | 8    |      |
|       |     | PNS   | P     | 00 48 35.2 |      | 0.6 | 3    |      |
|       |     |   | eS    | 49 10      |      |     |      |      |
| JUNE  | 23  | USCGS 00 34 33.1, 5.9S, 147.6E, h = 88 km., m = 5.0<br>EAST NEW GUINEA REGION |       |            |      |     |      |      |
|       |     | PNS   | ePKP  | 00 53 40.2 |      |     |      |      |
|       |     | LPB   | ePKP  | 00 53 45   |      |     |      | 138  |

| MONTH | DAY | STA  | PHASE | TIME       | SIGN | PER | AMPL | DIST |  |
|-------|-----|--|-------|------------|------|-----|------|------|--|
| JUNE  | 23  | LPB  | P     | 00 53 52   |      | 0.6 | 17   |      |  |
| JUNE  | 23  | USCGS 00 59 26.0, 0.0S, 90.8W, h = 33 km., m = 4.3<br>GALAPAGOS ISLANDS      |       |            |      |     |      |      |  |
|       |     | PNS  | eP    | 01 05 10   |      |     |      |      |  |
|       |     | LPB  | eP    | 01 05 16   |      |     |      | 28   |  |
| JUNE  | 23  | USCGS 01 12 07.0, 6.0S, 103.9E, h = 32 km., m = 5.0<br>SOUTH WEST OF SUMATRA |       |            |      |     |      |      |  |
|       |     | PNS  | ePKP  | 01 32 10   |      |     |      |      |  |
|       |     | LPB  | ePKP  | 01 32 15   |      |     |      | 162  |  |
| JUNE  | 23  | PNS  | P     | 02 31 39.3 |      |     |      |      |  |
|       |     |  | e     | 51.7       |      |     |      |      |  |
|       |     |  | S     | 32 39      |      |     |      |      |  |
|       |     | LPB  | P     | 02 31 40.5 |      | 1.2 | 46   |      |  |
|       |     |  | S     | 32 41      |      |     |      |      |  |
| JUNE  | 23  | USCGS 03 43 25.4, 0.2S, 91.5, h = 33 km., m = 4.8<br>GALAPAGOS ISLANDS       |       |            |      |     |      |      |  |
|       |     | PNS  | eP    | 03 49 13.1 |      | 1.3 | 22   |      |  |
|       |     |  | eS    | 54 02      |      |     |      |      |  |
|       |     |  | i     | 35         |      |     |      |      |  |
|       |     |  | L     | 58.6       |      |     |      |      |  |
|       |     | LPB  | P     | 02 49 17.3 |      | 1.8 | 69   | 28   |  |
|       |     |  | i     | 54 38      |      |     |      |      |  |
|       |     |  | L     | 58.8       |      |     |      |      |  |
| JUNE  | 23  | USCGS 04 49 14.0, 0.0S, 91.0W, h = 33 km., m = 4.3<br>GALAPAGOS ISLANDS      |       |            |      |     |      |      |  |
|       |     | PNS  | eP    | 04 55 02   |      |     |      |      |  |
|       |     | LPB  | eP    | 04 55 05.5 |      |     |      | 28   |  |
| JUNE  | 23  | LPB  | eP    | 05 18 19   |      |     |      |      |  |
|       |     | PNS  | eP    | 05 18 22   |      |     |      |      |  |
|       |     |  | S     | 19 01.6    |      |     |      |      |  |
| JUNE  | 23  | LPB  | eP    | 05 19 23.4 |      | 1.0 | 8    |      |  |
| JUNE  | 23  | PNS  | eP    | 05 40 11.6 |      |     |      |      |  |
|       |     | LPB  | P     | 05 40 14.3 |      |     |      |      |  |
| JUNE  | 23  | PNS  | P     | 06 09 14.5 |      | 0.9 | 9    |      |  |
|       |     | LPB  | eP    | 06 09 20   |      |     |      |      |  |
| JUNE  | 23  | PNS  | eP    | 06 17 16.9 |      |     |      |      |  |
|       |     | LPB  | eP    | 06 17 21   |      |     |      |      |  |
| JUNE  | 23  | LPB  | eP    | 06 31 04.2 |      |     |      |      |  |
|       |     | PNS  | eP    | 06 31 59.8 |      |     |      |      |  |
| JUNE  | 23  | LPB  | eP    | 07 02 23.7 |      |     |      |      |  |

| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL | DIST |  |
|-------|-----|---|-------|------------|------|-----|------|------|--|
| JUNE  | 23  | LPB   | eP    | 07 14 39   |      |     |      |      |  |
| JUNE  | 23  | USCGS 08 03 57.0, 8.3S, 11.8.2E, h = 70 km., m = 4.9<br>SUMBAWA ISLAND REGION |       |            |      |     |      |      |  |
|       |     | LPB   | P     | 08 23 53.2 |      | 0.7 | 7    |      |  |
|       |     | PNS   | PKP   | 08 23 51.3 |      |     |      | 168  |  |
|       |     |   | i     | 23 09.3    |      |     |      |      |  |
| JUNE  | 23  | LPB   | eP    | 08 46 12.3 |      |     |      |      |  |
|       |     | PNS   | eP    | 08 46 16.4 |      |     |      |      |  |
| JUNE  | 23  | LPB   | eP    | 08 58 25.4 |      |     |      |      |  |
| JUNE  | 23  | LPB   | eP    | 09 20 56.2 |      |     |      |      |  |
|       |     | PNS   | P     | 09 20 58.2 |      | 0.8 | 3    |      |  |
|       |     |   | eS    | 22 38.2    |      |     |      |      |  |
| JUNE  | 23  | PNS   | eP    | 09 28 23.6 |      | 0.8 | 5    |      |  |
|       |     | LPB   | P     | 09 28 28.4 |      | 0.7 | 6    |      |  |
| JUNE  | 23  | USCGS 09 16 18.6, 29.8N, 51.2E, h = 24 km., m = 5.2<br>SOUTHERN IRAN          |       |            |      |     |      |      |  |
|       |     | PNS   | PKP   | 09 35 15   |      | 1.2 | 8    |      |  |
|       |     |   | PP    | 36 57      |      |     |      |      |  |
|       |     |   | eL    | 10 14.6    |      |     |      |      |  |
|       |     | LPB   | PKP   | 09 35 15.2 |      | 0.8 | 9    | 123  |  |
|       |     |   | PP    | 53         |      |     |      |      |  |
|       |     |   | eL    | 10 14      |      |     |      |      |  |
| JUNE  | 23  | LPB   | eP    | 11 10 06   |      |     |      |      |  |
| JUNE  | 23  | PNS   | eP    | 11 20 14.8 |      |     |      |      |  |
|       |     | LPB   | eP    | 11 20 16   |      |     |      |      |  |
| JUNE  | 23  | USCGS 11 26 19.0, 15.4S, 70.4W, h = 215 km., m = 4.4<br>SUTHERN PERU          |       |            |      |     |      |      |  |
|       |     | PNS   | iP    | 11 27 00.5 |      |     |      | D    |  |
|       |     |   | iS    | 32.0       |      |     |      |      |  |
|       |     | LPB   | iP    | 11 27 04.9 |      | 1.0 | 670  | 26   |  |
|       |     |   | iS    | 37.5       |      |     |      |      |  |
| JUNE  | 23  | PNS   | eP    | 11 55 42.4 |      |     |      |      |  |
|       |     |   | S     | 56 44.8    |      |     |      |      |  |
|       |     | LPB   | eP    | 11 55 42.6 |      |     |      |      |  |
| JUNE  | 23  | PNS   | iP    | 12 43 34.3 |      | 0.6 | 6    |      |  |
|       |     |   | eS    | 44 05.4    |      |     |      |      |  |
|       |     | LPB   | P     | 12 43 37.8 |      | 0.9 | 25   |      |  |
| JUNE  | 23  | USCGS 13 58 40.0, 0.7S, 91.5W, h = 33 km., m = 4.3<br>GALAPAGOS ISLANDS       |       |            |      |     |      |      |  |
|       |     | LPB   | eP    | 14 04 30.5 |      |     |      | 28   |  |
|       |     | PNS   | P     | 14 04 31.0 |      |     |      |      |  |
|       |     |   | eL    | 14         |      |     |      |      |  |

| MONTH | DAY | STA                  | PHASE | TIME                                     | SIGN | PER | AMPL | DIST |
|-------|-----|----------------------|-------|--|------|-----|------|------|
| JUNE  | 23  | LPB                  | eP    | 16 53 20.5                               |      |     |      |      |
| JUNE  | 23  | USCGS 16 53          |       | 50.2, 56.7N, 152.4W, h = 33 km., m = 4.9 |      |     |      |      |
|       |     | KODIAK ISLAND REGION |       |  |      |     |      |      |
|       |     | LPB                  | ePKP  | 17 13 09                                 |      |     |      | 120  |
|       |     |                      | eL    | 54.2                                     |      |     |      |      |
| JUNE  | 23  | PNS                  | eP    | 18 17 49.0                               |      | 0.7 | 3    |      |
|       |     | LPB                  | eP    | 18 17 51.5                               |      |     |      |      |
| JUNE  | 23  | PNS                  | eP    | 18 28 22.4                               |      | 0.6 | 2    |      |
| JUNE  | 23  | USCGS 19 09          |       | 48.6, 5.6S, 77.3W, h = 33 km., m = 4.2   |      |     |      |      |
|       |     | NORTHERN PERU        |       |  |      |     |      |      |
|       |     | PNS                  | eP    | 19 13 10.2                               |      |     |      |      |
|       |     |                      | eL    | 19                                       |      |     |      |      |
|       |     | LPB                  | eP    | 19 13 14                                 |      |     |      | 13   |
|       |     |                      | eL    | 19.2                                     |      |     |      |      |
| JUNE  | 23  | PNS                  | P     | 19 21 48.1                               |      | 1.0 | 5    |      |
|       |     |                      | i     | 22 00.0                                  |      |     |      |      |
|       |     |                      | eL    | 27.8                                     |      |     |      |      |
|       |     | LPB                  | P     | 19 21 53                                 |      | 1.0 | 16   |      |
|       |     |                      | i     | 22 04.4                                  |      |     |      |      |
|       |     |                      | eL    | 28                                       |      |     |      |      |
| JUNE  | 23  | USCGS 20 02          |       | 52.0, 10S, 91.6W, h = 33 km., m = 4.4    |      |     |      |      |
|       |     | GALAPAGOS ISLANDS    |       |  |      |     |      |      |
|       |     | LPB                  | eP    | 20 08 41.3                               |      |     |      | 28   |
|       |     |                      | eL    | 18                                       |      |     |      |      |
|       |     | PNS                  | eP    | 20 08 46.1                               |      |     |      |      |
|       |     |                      | eL    | 18.3                                     |      |     |      |      |
| JUNE  | 23  | PNS                  | P     | 22 10 16.8                               |      | 0.4 | 5.3  |      |
|       |     |                      | i     | 25.7                                     |      |     |      |      |
|       |     |                      | S     | 52.8                                     |      |     |      |      |
|       |     | LPP                  | eP    | 22 10 20                                 |      |     |      |      |
|       |     |                      | i     | 23                                       |      |     |      |      |
|       |     |                      | S     | 11 08.3                                  |      |     |      |      |
| JUNE  | 23  | PNS                  | eP    | 22 19 02.9                               |      |     |      |      |
| JUNE  | 23  | PNS                  | eP    | 22 58 00.5                               |      |     |      |      |
|       |     | LPB                  | eP    | 22 58 07.2                               |      |     |      |      |
| JUNE  | 24  | LPB                  | eP    | 00 00 13.5                               |      |     |      |      |
|       |     | PNS                  | eP    | 00 00 17                                 |      |     |      |      |
| JUNE  | 24  | PNS                  | P     | 02 01 43.9                               |      |     |      |      |
|       |     | LPB                  | eP    | 02 01 50                                 |      |     |      |      |
| JUNE  | 24  | LPB                  | eP    | 02 31 31.5                               |      |     |      |      |
|       |     | PNS                  | P     | 02 31 37.9                               |      |     |      |      |
|       |     |                      | S     | 32 00                                    |      |     |      |      |

| MONTH | DAY | STA           | PHASE | TIME                                   | SIGN | PER | AMPL | DIST |
|-------|-----|---------------|-------|--|------|-----|------|------|
| JUNE  | 24  | USCGS 02 59   |       | 34.0, 5.8S, 77.3W, h = 33 km., m = 4.4 |      |     |      |      |
|       |     | NORTHERN PERU |       |  |      |     |      |      |
|       |     | LPB           | P     | 03 02 42.5                             |      |     |      |      |
|       |     |               | pP    | 03 01.4                                |      |     |      |      |
|       |     | PNS           | P     | 03 02 45.4                             |      |     |      |      |
|       |     |               | pP    | 56.9                                   |      |     |      |      |
|       |     |               | e     | 04 08                                  |      |     |      |      |
|       |     |               | eL    | 08.8                                   |      |     |      |      |
| JUNE  | 24  | PNS           | eP    | 03 49 56                               |      |     |      |      |
| JUNE  | 24  | PNS           | eP    | 04 23 03.5                             |      |     |      |      |
|       |     |               | eL    | 30.6                                   |      |     |      |      |
|       |     | LPB           | eP    | 04 23 07.5                             |      |     |      |      |
| JUNE  | 24  | PNS           | P     | 04 30 24.8                             |      |     |      |      |
|       |     |               | eS    | 32 10                                  |      |     |      |      |
|       |     | LPB           | P     | 04 30 27.5                             |      |     |      |      |
| JUNE  | 24  | PNS           | eP    | 05 28 51                               |      |     |      |      |
|       |     | LPB           | eP    | 05 28 55                               |      |     |      |      |
| JUNE  | 24  | PNS           | eP    | 05 33 346'                             |      |     |      |      |
|       |     |               | eL    | 48.6                                   |      |     |      |      |
|       |     | LPB           | eP    | 05 33 40.7                             |      |     |      |      |
| JUNE  | 24  | LPB           | P     | 05 59 51                               |      |     |      |      |
| JUNE  | 24  | PNS           | P     | 06 08 52.8                             |      |     |      |      |
|       |     | LPB           | P     | 06 08 57.5                             |      |     |      |      |
| JUNE  | 24  | LPB           | eP    | 06 18 46.5                             |      |     |      |      |
|       |     | PNS           | P     | 06 18 51.6                             |      |     |      |      |
| JUNE  | 24  | PNS           | P     | 06 40 00.6                             |      |     |      |      |
|       |     | LPB           | P     | 06 40 02.8                             |      | 0.9 | 10   |      |
| JUNE  | 24  | LPB           | eP    | 08 02 40                               |      |     |      |      |
|       |     | PNS           | P     | 08 02 40.9                             | D    | 0.6 | 2    |      |
| JUNE  | 24  | LPB           | P     | 08 08 58.7                             |      | 1.0 | 24   |      |
|       |     | PNS           | P     | 08 09 00.4                             |      | 0.5 | 3    |      |
|       |     |               | eS    | 43.4                                   |      |     |      |      |
| JUNE  | 24  | LPB           | P     | 08 42 09.4                             |      |     |      |      |
| JUNE  | 24  | PNS           | eP    | 09 10 51                               |      |     |      |      |
|       |     | LPB           | eP    | 09 10 56.4                             |      |     |      |      |
| JUNE  | 24  | PNS           | P     | 09 29 27.3                             |      | 1.1 | 7    |      |
|       |     | LPB           | eP    | 09 29 28                               |      |     |      |      |
| JUNE  | 24  | PNS           | P     | 10 30 10.0                             |      | 0.9 | 6    |      |
|       |     |               | S     | 49.1                                   |      |     |      |      |
|       |     | LPB           | eP    | 10 30 14.3                             |      |     |      |      |



JUNE

| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL | DIST |  |
|-------|-----|---|-------|------------|------|-----|------|------|--|
| JUNE  | 24  | LPB   | e(P)  | 10 54 03.4 |      |     |      |      |  |
| JUNE  | 24  | USCGS 11 58 59.0, 5.5S, 77.1W, h = 23 km., m = 4.2<br>NORTHERN PERU             |       |            |      |     |      |      |  |
|       |     | PNS   | eP    | 11 02 12.2 |      |     |      |      |  |
|       |     |   | eL    | 08.1       |      |     |      |      |  |
|       |     | LPB   | eP    | 11 02 19   |      | 0.9 | 12   | 14   |  |
|       |     |   | eL    | 0.8        |      |     |      |      |  |
| JUNE  | 24  | LPB   | P     | 13 44 45.5 |      | 0.9 | 17   |      |  |
|       |     | PNS   | P     | 13 44 47.3 |      | 0.6 | 7    |      |  |
| JUNE  | 24  | USCGS 14 03 48.0, 5.7S, 77.1W, h = 53 km., m = 4.7<br>NORTHERN PERU             |       |            |      |     |      |      |  |
|       |     | LPB   | P     | 14 05 54.6 |      |     |      | 14   |  |
|       |     |   | S     | 09 45      |      |     |      |      |  |
|       |     |   | L     | 13.2       |      |     |      |      |  |
|       |     | PNS   | P     | 14 06 57.1 |      | 1.2 | 27   |      |  |
|       |     |   | S     | 09 45      |      |     |      |      |  |
|       |     |   | eS    | 11.1       |      |     |      |      |  |
| JUNE  | 24  | LPB   | P     | 14 57 12.3 |      | 0.9 | 10   |      |  |
|       |     | PNS   | P     | 14 57 15.9 |      | 0.6 | 2    |      |  |
| JUNE  | 24  | LPB   | eP    | 15 16 04   |      |     |      |      |  |
|       |     | PNS   | P     | 15 16 09.1 | D    | 0.8 | 9    |      |  |
| JUNE  | 24  | PNS   | eP    | 16 24 54   |      |     |      |      |  |
|       |     |   | eS    | 25 37.6    |      |     |      |      |  |
|       |     | LPB   | eP    | 16 24 55.5 |      |     |      |      |  |
|       |     |   | S     | 25 27      |      |     |      |      |  |
| JUNE  | 24  | LPB   | eP    | 16 35 42.5 |      |     |      |      |  |
|       |     |   | i     | 36 04.4    |      |     |      |      |  |
|       |     | PNS   | P     | 16 35 55.2 |      | 0.6 | 8    |      |  |
| JUNE  | 24  | LPB   | P     | 16 38 09.4 |      | 1.0 | 20   |      |  |
|       |     | PNS   | P     | 16 38 13.8 | C    | 0.5 | 5    |      |  |
| JUNE  | 24  | LPB   | eP    | 16 50 06   |      |     |      |      |  |
|       |     | PNS   | P     | 16 50 16.3 |      | 0.8 | 3    |      |  |
| JUNE  | 24  | PNS   | eP    | 19 24 22   |      |     |      |      |  |
| JUNE  | 24  | LPB   | eL    | 20 20      |      |     |      |      |  |
| JUNE  | 24  | USCGS 20 12 19.8, 1.6S, 15.7W, h = 33 km., m = 4.4<br>NORTH OF ASCENSION ISLAND |       |            |      |     |      |      |  |
|       |     | PNS   | eP    | 20 21 41.8 |      |     |      |      |  |
|       |     |   | S     | 29 26      |      |     |      |      |  |
|       |     |   | eL    | 38.2       |      |     |      |      |  |
|       |     | LPB   | eP    | 20 21 44   |      |     |      | 54   |  |
|       |     |   | eL    | 38         |      |     |      |      |  |

JUNE

| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL | DIST |  |
|-------|-----|---|-------|------------|------|-----|------|------|--|
| JUNE  | 24  | LPB   | eP    | 22 10 45   |      |     | 0.8  | 6    |  |
| JUNE  | 24  | PNS   | eP    | 23 34 42.6 |      |     |      |      |  |
|       |     | LPB   | P     | 23 34 44   |      |     |      |      |  |
|       |     |   | eL    | 42         |      |     |      |      |  |
| JUNE  | 24  | PNS   | P     | 23 48 22.6 |      | 0.9 | 8    |      |  |
|       |     | LPB   | P     | 23 48 23.4 |      | 0.8 | 12   |      |  |
| JUNE  | 25  | LPB   | eP    | 00 01 12.2 |      | 0.7 | 11   |      |  |
|       |     | PNS   | P     | 00 01 15.6 |      | 0.8 | 6    |      |  |
| JUNE  | 25  | USCGS 01 19 08.0, 0.0S, 90.9W, h = 33 km., m = 4.7<br>GALAPAGOS ISLANDS |       |            |      |     |      |      |  |
|       |     | LPB   | P     | 01 24 55.5 |      |     |      |      |  |
|       |     |   | i     | 30 46      |      |     |      |      |  |
|       |     |   | eL    | 34.7       |      |     |      |      |  |
|       |     | PNS   | P     | 01 24 58   |      | 1.8 | 22   |      |  |
|       |     |   | eS    | 29 40      |      |     |      |      |  |
|       |     |   | L     | 34         |      |     |      |      |  |
| JUNE  | 25  | LPB   | eP    | 01 58 51   |      |     |      |      |  |
|       |     | PNS   | P     | 01 58 55.9 |      | 0.6 | 2    |      |  |
| JUN   | 25  | PNS   | P     | 02 21 56.9 |      | 0.7 | 3    |      |  |
| JUNE  | 25  | PNS   | P     | 02 56 26.1 |      |     |      |      |  |
|       |     | LPB   | eP    | 02 56 27   |      |     |      |      |  |
| JUNE  | 25  | PNS   | e(P)  | 02 57 00.6 |      |     |      |      |  |
| JUNE  | 25  | LPB   | eP    | 03 06 06   |      |     |      |      |  |
|       |     | PNS   | eP    | 03 06 06.9 |      | 1.1 | 5    |      |  |
|       |     |   | eL    | 11.8       |      |     |      |      |  |
| JUNE  | 25  | PNS   | P     | 03 41 54.0 |      | 1.4 | 12   |      |  |
|       |     | LPB   | eP    | 03 41 57   |      | 1.2 | 19   |      |  |
| JUNE  | 25  | LPB   | e(P)  | 03 50 45.5 |      |     |      |      |  |
|       |     | PNS   | P     | 03 50 56.2 |      |     |      |      |  |
| JUNE  | 25  | LPB   | eP    | 04 02 15   |      |     |      |      |  |
|       |     |   | eL    | 28         |      |     |      |      |  |
|       |     | PNS   | P     | 04 02 15   |      | 1.2 | 8    |      |  |
|       |     |   | eL    | 27.8       |      |     |      |      |  |
| JUNE  | 25  | LPB   | eP    | 04 19 17.3 |      | 1.0 | 6    |      |  |
|       |     | PNS   | P     | 04 19 23.1 |      | 0.5 | 6    |      |  |
| JUNE  | 24  | PNS   | P     | 04 26 00.5 |      | 1.0 | 6    |      |  |
|       |     | LPB   | eP    | 04 26 02   |      | 0.8 | 6    |      |  |
| JUNE  | 24  | PNS   | P     | 04 42 42.7 |      | 1.2 | 21   |      |  |
|       |     |   | i     | 51.6       |      |     |      |      |  |
|       |     |   | eL    | 52.4       |      |     |      |      |  |
|       |     | LPB   | eP    | 04 42 47.5 |      | 1.0 | 28   |      |  |
|       |     |   | eL    | 52.5       |      |     |      |      |  |



| JUNE  |     |   |       |            |            |     |      |      |    |
|-------|-----|---|-------|------------|------------|-----|------|------|----|
| MONTH | DAY | STA   | PHASE | TIME       | SIGN       | PER | AMPL | DIST |    |
| JUNE  | 25  | PNS   | P     | 04 51 19.5 |            | 1.4 | 35   |      |    |
|       |     |   | eL    | 05 00.9    |            |     |      |      |    |
|       |     | LPB   | P     | 04 51 21.6 |            | 1.2 | 4    |      |    |
|       |     |   | eL    | 05 01      |            |     |      |      |    |
| JUNE  | 25  | PNS   | eP    | 05 07 57.6 |            |     |      |      |    |
| JUNE  | 25  | LPB   | eP    | 05 37 58   |            |     |      |      |    |
|       |     |   | PNS   | P          | 05 37 58.8 |     | 1.4  | 12   |    |
| JUNE  | 25  | LPB   | eP    | 05 45 04.5 |            |     |      |      |    |
|       |     |   | PNS   | eP         | 05 45 05.6 |     |      |      |    |
| JUNE  | 25  | LPB   | eP    | 05 54 47.5 |            | 1.4 | 13   |      |    |
|       |     |   | eL    | 06 03      |            |     |      |      |    |
|       |     | PNS   | eP    | 05 54 52.2 |            | 1.5 | 13   |      |    |
|       |     |   | eL    | 06 02.9    |            |     |      |      |    |
| JUNE  | 25  | LPB   | e(P)  | 06 50 39   |            | 0.7 | 15   |      |    |
| JUNE  | 25  | USCGS 06 43 16.0, 31.4S, 111.7W, h = 33 km., m = 4.8<br>EASTERN ISLANDS REGION  |       |            |            |     |      |      |    |
|       |     | LPB   | P     | 06 51 06   |            |     |      | 42   |    |
|       |     |   | PNS   | P          | 06 51 08.1 |     | 1.0  | 6    |    |
|       |     | PNS   | ePP   | 33 02.8    |            |     |      |      |    |
|       |     |   |       |            |            |     |      |      |    |
| JUNE  | 25  | USCGS 06 46 28.7, 0.7S, 15.9W, h = 33 km., m = 4.9<br>NORTH OF ASCENCION ISLAND |       |            |            |     |      |      |    |
|       |     | PNS   | P     | 06 55 50.6 |            | 1.8 | 29   |      |    |
|       |     |   | S     | 07 03 32   |            |     |      |      |    |
|       |     | LPB   | eL    | 11.9       |            |     |      |      |    |
|       |     |   | PNS   | P          | 06 55 50.7 |     | 1.3  | 29   | 54 |
|       |     | LPB   | eS    | 12         |            |     |      |      |    |
|       |     |   |       |            |            |     |      |      |    |
| JUNE  | 25  | PNS   | P     | 07 47 54.7 |            | 0.9 | 4    |      |    |
|       |     |   | LPB   | eP         | 07 47 58   |     | 0.8  | 9    |    |
| JUNE  | 23  | PNS   | eP    | 07 51 45.4 |            |     |      |      |    |
|       |     | LPB   | eP    | 07 51 48.5 |            |     |      |      |    |
| JUNE  | 25  | LPB   | eP    | 07 55 02.5 |            |     |      |      |    |
| JUNE  | 25  | LPB   | e(P)  | 08 14 12   |            |     |      |      |    |
| JUNE  | 25  | USCGS 09 08 25.0, 50.3S, 135.0E, h = 33 km.,<br>SOUTH OF AUSTRALIA              |       |            |            |     |      |      |    |
|       |     | LPB   | ePKP  | 09 26 56   |            |     |      | 110  |    |
|       |     |   | PNS   | ePKP       | 09 26 57.6 |     |      |      |    |
| JUNE  | 25  | PNS   | P     | 09 32 47.9 |            | 0.9 | 5    |      |    |
|       |     |   | LPB   | P          | 09 32 48.7 |     |      |      |    |

| JUNE  |     |   |       |            |            |     |      |      |   |
|-------|-----|---|-------|------------|------------|-----|------|------|---|
| MONTH | DAY | STA   | PHASE | TIME       | SIGN       | PER | AMPL | DIST |   |
| JUNE  | 25  | USCGS 10 03 51.0, 5.5S, 77.3W, h = 33 km., m = 4.2<br>NORTHERN PERU |       |            |            |     |      |      |   |
|       |     | PNS   | eP    | 07 07 05.4 |            |     |      |      |   |
|       |     |   | eL    | 10.3       |            |     |      |      |   |
|       |     | LPB   | P     | 10 07 11.4 |            | 0.7 | 8    | 4    |   |
| JUNE  | 25  | PNS   | eP    | 10 40 40   |            |     |      |      |   |
|       |     |   | LPB   | eP         | 10 40 41   |     |      |      |   |
| JUNE  | 25  | LPB   | eP    | 11 52 11.5 |            |     |      |      |   |
|       |     |   | PNS   | eP         | 22 52 18.7 |     |      |      |   |
| JUNE  | 25  | LPB   | eP    | 12 12 49.5 |            |     |      |      |   |
|       |     |   | PNS   | eP         | 12 12 53.3 |     |      |      |   |
| JUNE  | 25  | PNS   | eP    | 13 50 54   |            |     |      |      |   |
|       |     |   | LPB   | eP         | 13 50 56   |     |      |      |   |
| JUNE  | 25  | LPB   | eP    | 14 01 29   |            |     |      |      |   |
|       |     |   | PNS   | eP         | 14 01 35.6 |     |      |      |   |
| JUNE  | 25  | PNS   | eP    | 14 50 51   |            |     |      |      |   |
| JUNE  | 25  | PNS   | eL    | 14 52.9    |            |     |      |      |   |
|       |     |   | LPB   | eL         | 14 53      |     |      |      |   |
| JUNE  | 25  | LPB   | eP    | 15 06 31.5 |            |     |      |      |   |
|       |     |   | PNS   | iP         | 15 06 37.5 |     | C    | 0.6  | 7 |
|       |     | S   |       | 07 34.4    |            |     |      |      |   |
|       |     |   |       |            |            |     |      |      |   |
| JUNE  | 25  | LPB   | eP    | 16 37 07   |            |     |      |      |   |
|       |     |   | eL    | 46         |            |     |      |      |   |
|       |     | PNS   | eP    | 16 37 07.4 |            |     |      |      |   |
|       |     |   | eL    | 46.2       |            |     |      |      |   |
| JUNE  | 25  | PNS   | P     | 16 39 22.6 |            | 0.6 | 6    |      |   |
|       |     |   | LPB   | eP         | 16 39 24   |     |      |      |   |
| JUNE  | 25  | LPB   | P     | 17 48 56.5 |            |     |      |      |   |
|       |     |   | PNS   | P          | 17 48 56.7 |     | 0.7  | 2    |   |
|       |     | S   |       | 49 45.2    |            |     |      |      |   |
|       |     |   |       |            |            |     |      |      |   |
| JUNE  | 25  | LPB   | eP    | 18 22 30   |            |     |      |      |   |
|       |     |   | eL    | 45         |            |     |      |      |   |
|       |     | PNS   | eL    | 18 45.1    |            |     |      |      |   |
|       |     |   |       |            |            |     |      |      |   |
| JUNE  | 25  | PNS   | P     | 20 14 08.0 |            | 0.5 | 2    |      |   |
|       |     |   | LPB   | P          | 20 14 11   |     | 0.5  | 8    |   |
| JUNE  | 25  | LPB   | e(P)  | 20 24 09   |            |     |      |      |   |
| JUNE  | 25  | LPB   | eP    | 21 38 49   |            |     |      |      |   |
|       |     |   | PNS   | eP         | 21 38 52.3 |     |      |      |   |
| JUNE  | 25  | PNS   | eP    | 22 23 21.4 |            |     |      |      |   |
|       |     |   | LPB   | eP         | 22 23 22.5 |     |      |      |   |

| MONTH | DAY | STA        | PHASE                    | TIME   | SIGN | PER | AMPL | DIST |
|-------|-----|------------|--------------------------|--|------|-----|------|------|
| JUNE  | 25  | PNS<br>LPB | P<br>P                   | 22 24 12.8<br>22 24 13   |      | 1.0 | 6    |      |
| JUNE  | 25  | PNS<br>LPB | e(P)<br>P                | 23 07 54<br>23 07 54.8   |      |     |      |      |
| JUNE  | 25  | LPB        | P                        | 23 41 14   |      | 0.8 | 4    |      |
| JUNE  | 25  | USCGS      |                          | 23 33 18.0, 39.6N, 143.4E, h = 17 km., m = 5.3<br>OFF E CST OF HONSHU, JAPAN |      |     |      |      |
| JUNE  | 25  | PNS<br>LPB | ePKP<br>eL<br>ePKP<br>eL | 23 52 54<br>00 42.1<br>23 52 56<br>42  |      | 1.4 | 12   | 144  |
| JUNE  | 26  | PNS        | eP                       | 00 23 52.8   |      |     |      |      |
| JUNE  | 26  | PNS        | P                        | 00 32 01.2   |      |     |      |      |
| JUNE  | 26  | LPB<br>PNS | eP<br>eP                 | 00 38 40<br>00 38 41.8   |      |     |      |      |
| JUNE  | 26  | USCGS      |                          | 01 42 19.5, 40.1N, 124.4W, h = 10 km., m = 5.5<br>NR CST OF N CALIFORNIA     |      |     |      |      |
|       |     | LPB        | eP<br>eS<br>eL           | 01 54 13<br>02 04 00<br>20.8   |      | 1.8 | 95   | 77   |
|       |     | PNS        | P<br>S<br>eSS<br>L       | 01 54 13.6<br>02 04 02<br>09 00<br>02 22                                     |      | 1.8 | 71   |      |
| JUNE  | 26  | PNS<br>LPB | P<br>e<br>P              | 02 12 36.0<br>14 20.6<br>02 12 39.2  |      | 1.6 | 26   |      |
| JUNE  | 26  | PNS        | eP                       | 02 19 47.0   |      |     |      |      |
| JUNE  | 26  | PNS        | P                        | 03 35 21.4   |      |     |      |      |
| JUNE  | 26  | PNS<br>LPB | P<br>eS<br>eP            | 03 39 53.5<br>40 20<br>03 39 56  |      | 0.3 | 2    |      |
| JUNE  | 26  | USCGS      |                          | 04 53 45.3, 5.7S, 77.2W, h = 27 km., m = 4.9<br>NORTHERN PERU                |      |     |      |      |
|       |     | PNS        | P<br>i<br>S<br>L         | 04 56 57.6<br>57 06.8<br>05 00 25<br>02.1                                    |      | 1.2 | 34   |      |
|       |     | LPB        | P                        | 04 57 00<br>13.7   |      | 1.3 | 76   | 14   |
|       |     |            | i<br>eS                  | 05 00 32   |      |     |      |      |

| MONTH | DAY | STA        | PHASE          | TIME   | SIGN   | PER        | AMPL    | DIST |
|-------|-----|------------|----------------|--|--------|------------|---------|------|
| JUNE  | 26  | LPB<br>PNS | eP<br>P        | 05 20 35<br>05 20 35.4   |        |            |         |      |
| JUNE  | 26  | PNS        | P              | 05 33 35.8   |        |            |         |      |
| JUNE  | 26  | PNS<br>LPB | eP<br>eP       | 06 09 24.4<br>06 09 32.7   |        |            |         |      |
| JUNE  | 26  | PNS        | eP             | 06 29 44.9   |        |            |         |      |
| JUNE  | 26  | USCGS      |                | 06 33 49.0, 5.8S, 77.6W, h = 33 km., m = 4.3<br>NORTHERN PERU            |        |            |         |      |
|       |     | LPB<br>PNS | eP<br>eP       | 06 36 53<br>06 36 57   |        |            |         |      |
| JUNE  | 26  | PNS        | P<br>i<br>eL   | 06 49 35.0<br>55.6<br>55.6   |        |            |         |      |
|       |     | LPB        | eP<br>eL       | 06 49 42.5<br>54   |        |            |         |      |
| JUNE  | 26  | LPB<br>PNS | P<br>P<br>e(S) | 07 41 24.6<br>07 41 28.6<br>45 19  |        | 0.8<br>0.8 | 15<br>5 |      |
| JUNE  | 26  | PNS<br>LPB | eP<br>eP       | 09 13 34<br>09 13 38   |        |            |         |      |
| JUNE  | 26  | LPB        | eP             | 10 39 58.3   |        |            |         |      |
| JUNE  | 26  | USCGS      |                | 10 25 48.2, 42.1N, 142.7E, h = 33 km., m = 5.5<br>HOKKAIDO, JAPAN REGION |        |            |         |      |
|       |     | LPB        | ePKP<br>eL     | 10 43 19.5<br>11 32.5  |        | 0.7        | 14      | 143  |
|       |     | PNS        | PKP<br>eL      | 10 43 20.0<br>11 32.1  |        | 1.6        | 32      |      |
| JUNE  | 26  | USCGS      |                | 10 47 46.0, 40.2N, 124.4W, h = 33 km., m = 5.1<br>NR CST OF N CALIFORNIA |        |            |         |      |
|       |     | PNS        | eP<br>e        | 10 59 32<br>38   |        |            |         |      |
|       |     | LPB        | eP             | 10 59 35   |        |            |         | 77   |
| JUNE  | 26  | LPB<br>PNS | P<br>iP        | 11 51 25.7<br>11 51 29.4   | C<br>C | 0.8        | 82      |      |
| JUNE  | 26  | USCGS      |                | 13 43 37.4, 32.3N, 141.6E, h = 25 km., m = 4.6<br>SOUTH OF HONSHU, JAPAN |        |            |         |      |
|       |     | LPB<br>PNS | ePKP<br>ePKP   | 14 03 18.7<br>14 03 21.1   |        | 0.8        | 6       | 149  |
| JUNE  | 26  | USCGS      |                | 14 06 54.0, 0.1S, 91.0W, h = 33 km., m = 4.5<br>GALAPAGOS ISLANDS        |        |            |         |      |
|       |     | PNS<br>LPB | eP<br>eP       | 14 12 39.7<br>14 12 41   |        |            |         | 28   |



| JUNE  |     |  |       |            |      |     |      |       |  |
|-------|-----|--|-------|------------|------|-----|------|-------|--|
| MONTH | DAY | STA  | PHASE | TIME       | SIGN | PER | AMPL | DIST  |  |
| JUNE  | 26  | LPB  | eP    | 15 10 42   |      |     |      |       |  |
|       |     | PNS  | eP    | 15 10 44.9 |      |     |      |       |  |
| JUNE  | 26  | PNS  | P     | 15 32 18.0 |      | 1.4 | 16   |       |  |
|       |     | LPB  | eP    | 15 32 20.5 |      |     |      |       |  |
| JUNE  | 26  | PNS  | P     | 15 59 28.3 |      | 1.6 | 26   |       |  |
|       |     | LPB  | e(P)  | 15 59 30   |      |     |      |       |  |
| JUNE  | 26  | LPB  | eP    | 16 10 11   |      |     |      |       |  |
|       |     | PNS  | P     | 16 10 17.7 |      | 1.4 | 14   |       |  |
| JUNE  | 26  | LPB  | eP    | 16 22 27   |      |     |      |       |  |
|       |     | PNS  | iP    | 16 22 29.0 | D    |     |      |       |  |
| JUNE  | 26  | PNS  | P     | 16 26 40.8 |      |     |      |       |  |
|       |     | LPB  | eP    | 16 26 45   |      |     |      |       |  |
| JUNE  | 26  | USCGS 16 31 20.0, 17.1S, 70.8W, h = 119 km., m = 4.2<br>NEAR COAST OF PERU |       |            |      |     |      |       |  |
|       |     | LPB  | iP    | 16 32 02.7 | D    | 0.9 | 425  | 2.8   |  |
|       |     |  | S     | 32.5       |      |     |      |       |  |
|       |     | PNS  | iP    | 16 31 58.5 | D    |     |      |       |  |
|       |     |  | S     | 27.3       |      |     |      |       |  |
| JUNE  | 26  | USCGS 16 34 12.7, 5.6S, 77.2W, h = 34 km., m = 5.0<br>NORTHERN PERU        |       |            |      |     |      |       |  |
|       |     | PNS  | eP    | 16 37 24.2 |      | 1.2 | 12   |       |  |
|       |     |  | i     | 36.7       |      |     |      |       |  |
|       |     |  | i     | 41 17      |      |     |      |       |  |
|       |     | LPB  | P     | 16 37 31.5 |      | 1.0 | 24   | 14    |  |
|       |     |  | eL    | 43.7       |      |     |      |       |  |
| JUNE  | 26  | PNS  | P     | 16 45 01.0 |      | 0.5 | 11   |       |  |
|       |     | LPB  | eP    | 16 45 04   |      |     |      | 160.7 |  |
| JUNE  | 26  | PNS  | P     | 16 58 56.0 |      | 0.5 | 4    |       |  |
|       |     |  | eS    | 59 19.9    |      |     |      |       |  |
|       |     | LPB  | eP    | 16 58 57   |      |     |      |       |  |
| JUNE  | 26  | LPB  | eP    | 17 54 56   |      |     |      |       |  |
|       |     | PNS  | P     | 17 54 57.0 |      | 0.6 | 7    |       |  |
| JUNE  | 26  | LPB  | P     | 19 06 24   |      | 0.8 | 15   |       |  |
|       |     | PNS  | P     | 19 06 25.7 |      | 0.5 | 6    |       |  |
|       |     |  | S     | 58.2       |      |     |      |       |  |
| JUNE  | 26  | PNS  | e(P)  | 19 11 25.3 |      |     |      |       |  |
|       |     |  | eL    | 27.8       |      |     |      |       |  |
|       |     | LPB  | eP    | 19 11 29   |      |     |      |       |  |
| JUNE  | 26  | LPB  | eP    | 19 22 41.5 |      |     |      |       |  |
|       |     | PNS  | P     | 19 22 43.8 |      | 0.7 | 4    |       |  |
| JUNE  | 26  | PNS  | e(P)  | 19 36 00   |      |     |      |       |  |

| JUNE  |     |   |       |            |      |     |      |      |   |
|-------|-----|---|-------|------------|------|-----|------|------|---|
| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL | DIST |   |
| JUNE  | 26  | PNS   | P     | 20 10 22.0 |      |     |      | 0.6  | 4 |
|       |     |   | eS    | 11 00      |      |     |      |      |   |
| JUNE  | 26  | USCGS 20 51 09.6, 5.6S, 77.3W, h = 33 km., m = 4.4<br>NORTHERN PERU |       |            |      |     |      |      |   |
|       |     | PNS   | P     | 20 54 25.8 |      | 1.2 | 8    |      |   |
|       |     |   | eS    | 57 52.2    |      |     |      |      |   |
|       |     |   | eL    | 59.9       |      |     |      |      |   |
|       |     | LPB   | P     | 20 54 30.7 |      | 1.2 | 37   | 13.8 |   |
|       |     |   | eS    | 57 52.2    |      |     |      |      |   |
|       |     |   | eL    | 59.9       |      |     |      |      |   |
| JUNE  | 26  | PNS   | P     | 21 06 19.3 |      | 0.6 | 3    |      |   |
|       |     |   | S     | 54.2       |      |     |      |      |   |
| JUNE  | 26  | PNS   | eP    | 21 22 02.0 |      |     |      |      |   |
|       |     | LPB   | P     | 21 22 08   |      |     |      |      |   |
| JUNE  | 26  | PNS   | eP    | 21 41 37.5 |      |     |      |      |   |
|       |     | LPB   | eP    | 21 41 31   |      |     |      |      |   |
| JUNE  | 26  | LPB   | eP    | 22 07 06   |      |     |      |      |   |
|       |     | PNS   | eP    | 22 07 11.5 |      |     |      |      |   |
| JUNE  | 26  | LPB   | eP    | 22 58 16   |      |     |      |      |   |
|       |     | PNS   | P     | 22 58 20.0 |      | 0.7 | 4    |      |   |
| JUNE  | 26  | PNS   | P     | 23 24 03.0 |      | 0.4 | 3    |      |   |
| JUNE  | 26  | PNS   | P     | 23 36 44.3 |      |     |      |      |   |
|       |     | LPB   | eP    | 23 36 46.5 |      |     |      |      |   |
| JUNE  | 27  | LPB   | eP    | 00 37 45   |      |     |      |      |   |
| JUNE  | 27  | PNS   | eP    | 01 55 55.9 |      |     |      |      |   |
|       |     |   | eS    | 56 38      |      |     |      |      |   |
| JUNE  | 27  | PNS   | P     | 02 06 34.3 |      | 0.5 | 3    |      |   |
|       |     | LPB   | eP    | 02 06 38   |      |     |      |      |   |
| JUNE  | 27  | PNS   | P     | 02 32 53.5 |      | 0.8 | 3    |      |   |
|       |     | LPB   | eP    | 02 32 55   |      |     |      |      |   |
| JUNE  | 27  | LPB   | eP    | 03 15 20.5 |      |     |      |      |   |
|       |     |   | eS    | 19 08      |      |     |      |      |   |
|       |     | PNS   | eP    | 03 15 24.9 |      |     |      |      |   |
| JUNE  | 27  | LPB   | P     | 03 26 21.3 |      | 1.0 | 12   |      |   |
|       |     | PNS   | P     | 03 26 25.6 |      | 0.5 | 4    |      |   |
| JUNE  | 27  | PNS   | iP    | 03 44 15.8 | C    |     |      |      |   |
|       |     |   | S     | 42.3       |      |     |      |      |   |
|       |     | LPB   | P     | 03 44 16.7 | C    | 0.9 | 11   |      |   |
|       |     |   | iS    | 45.5       |      |     |      |      |   |
| JUNE  | 27  | LPB   | P     | 03 51 14.3 |      | 0.6 | 6    |      |   |
|       |     | PNS   | P     | 03 51 17.1 |      |     |      |      |   |



| MONTH | DAY | STA  | PHASE | TIME       | SIGN | PER | AMPL | DIST |  |
|-------|-----|--|-------|------------|------|-----|------|------|--|
| JUNE  | 27  | PNS  | P     | 04 10 23.7 |      | 0.5 | 3    |      |  |
|       |     |  | S     | 47         |      |     |      |      |  |
| JUNE  | 27  | PNS  | eP    | 05 08 06.0 |      |     |      |      |  |
|       |     | LPB  | e(P)  | 05 08 06.5 |      |     |      |      |  |
| JUNE  | 27  | PNS  | P     | 05 10 53.0 |      | 0.5 | 3    |      |  |
|       |     |  | S     | 11 17.3    |      |     |      |      |  |
|       |     | LPB  | eP    | 05 10 55   |      |     |      |      |  |
| JUNE  | 27  | PNS  | eP    | 05 30 36.9 |      |     |      |      |  |
|       |     | LPB  | eP    | 05 30 38.5 |      |     |      |      |  |
| JUNE  | 27  | LPB  | eP    | 05 31 13   |      |     |      |      |  |
|       |     | PNS  | e(P)  | 05 35 41   |      |     |      |      |  |
| JUNE  | 27  | PNS  | eP    | 05 37 40.8 |      |     |      |      |  |
|       |     | LPB  | e(P)  | 05 37 45   |      |     |      |      |  |
| JUNE  | 27  | PNS  | iP    | 06 42 59.7 | D    | 0.4 | 5    |      |  |
| JUNE  | 27  | USCGS 07 10 35.0, 5.6S, 77.1W, h = 37 km., m = 4.4<br>NORHTERN PERU              |       |            |      |     |      |      |  |
|       |     | LPB  | eP    | 07 13 45.6 |      |     | 14   |      |  |
|       |     | PNS  | eP    | 07 13 47.8 |      |     |      |      |  |
| JUNE  | 27  | PNS  | P     | 07 59 47.0 |      |     |      |      |  |
|       |     | LPB  | eP    | 07 59 51.5 |      |     |      |      |  |
| JUNE  | 27  | PNS  | P     | 08 08 21.9 |      | 0.4 | 3    |      |  |
|       |     |  | eS    | 51.7       |      |     |      |      |  |
|       |     | LPB  | eP    | 08 08 24   |      |     |      |      |  |
| JUNE  | 27  | LPB  | P     | 08 56 44.8 | D    | 0.9 | 3    |      |  |
|       |     |  | S     | 57 14.4    |      |     |      |      |  |
|       |     | PNS  | P     | 08 56 51.6 |      |     |      |      |  |
|       |     |  | S     | 57 25.3    |      |     |      |      |  |
| JUNE  | 27  | PNS  | eP    | 09 38 44.9 |      |     |      |      |  |
|       |     |  | e(L)  | 44         |      |     |      |      |  |
|       |     | LPB  | eP    | 09 38 51   |      |     |      |      |  |
| JUNE  | 27  | PNS  | eP    | 10 13 54.1 |      |     |      |      |  |
|       |     | LPB  | eP    | 10 13 59   |      |     |      |      |  |
| JUNE  | 27  | PNS  | eP    | 10 30 16.8 |      |     |      |      |  |
|       |     | LPB  | eP    | 10 30 21   |      |     |      |      |  |
| JUNE  | 27  | USCGS 11 47 45.0, 7.5S, 74.3W, h = 102 km., m = 4.5<br>PERU-BRAZIL BORDER REGION |       |            |      |     |      |      |  |
|       |     | PNS  | P     | 11 50 12.8 |      | 0.6 | 4    |      |  |
|       |     | LPB  | P     | 11 50 18   |      | 0.7 | 20   | 9.1  |  |



| MONTH | DAY | STA  | PHASE | TIME       | SIGN | PER | AMPL | DIST  |  |
|-------|-----|--|-------|------------|------|-----|------|-------|--|
| JUNE  | 27  | USCGS PERU 12.16 52.0, 11.4S, 74.6W, h = 13 km., m = 4.6               |       |            |      |     |      |       |  |
|       |     | PNS  | P     | 12 18 46.8 |      | 0.8 | 5    |       |  |
|       |     |  | S     | 20 58.3    |      |     |      |       |  |
|       |     |  | eL    | 21.6       |      |     |      |       |  |
|       |     | LPB  | eP    | 12 18 50   |      |     |      | 7.9   |  |
|       |     |  | eS    | 21 06      |      |     |      |       |  |
|       |     |  | eL    | 22         |      |     |      |       |  |
| JUNE  | 27  | PNS  | P     | 13 08 38.8 |      |     |      |       |  |
|       |     | LPB  | e(P)  | 13 08 42   |      |     |      |       |  |
| JUNE  | 27  | LPB  | e(P)  | 13 40 03   |      |     |      |       |  |
| JUNE  | 27  | PNS  | eP    | 13 48 01.4 |      |     |      |       |  |
|       |     | LPB  | eP    | 13 48 05   |      |     |      |       |  |
| JUNE  | 27  | LPB  | eP    | 13 55 11   |      |     |      |       |  |
|       |     | PNS  | eP    | 13 55 16.6 |      |     |      |       |  |
| JUNE  | 27  | LPB  | eP    | 14 39 42.5 |      |     |      |       |  |
|       |     | PNS  | eP    | 14 39 45.6 |      | 0.6 | 2    |       |  |
| JUNE  | 27  | LPB  | eP    | 15 30 24.5 |      |     |      |       |  |
| JUNE  | 27  | LPB  | e(P)  | 16 28 54   |      |     |      |       |  |
|       |     | PNS  | eP    | 16 28 56   |      |     |      |       |  |
|       |     |  | S     | 29 37.6    |      |     |      |       |  |
| JUNE  | 27  | LPB  | P     | 16 36 32.7 |      | 0.9 | 65   |       |  |
|       |     | PNS  | P     | 16 36 34.3 |      | 0.7 | 10   |       |  |
| JUNE  | 27  | LPB  | eP    | 16 39 05   |      |     |      |       |  |
|       |     | PNS  | P     | 16 39 05.6 |      | 0.5 | 4    |       |  |
| JUNE  | 27  | LPB  | eP    | 17 26 22   |      |     |      |       |  |
|       |     | PNS  | P     | 17 26 27.1 |      | 0.5 | 4    |       |  |
| JUNE  | 27  | PNS  | eP    | 17 31 28   |      |     |      |       |  |
|       |     | LPB  | eP    | 17 31 28.2 |      | 0.8 | 7    |       |  |
| JUNE  | 27  | PNS  | eP    | 17 59 04.8 |      |     |      |       |  |
|       |     |  | S     | 27.8       |      |     |      |       |  |
|       |     | LPB  | eP    | 17 59 06   |      |     |      |       |  |
| JUNE  | 27  | PNS  | eP    | 18 54 25.8 |      |     |      |       |  |
|       |     | LPB  | eP    | 18 54 28   |      |     |      |       |  |
| JUNE  | 27  | PNS  | eP    | 20 54 10.7 |      |     |      |       |  |
|       |     | LPB  | eP    | 20 54 11   |      |     |      |       |  |
| JUNE  | 27  | PNS  | eP    | 22 13 45.6 |      |     |      |       |  |
|       |     | LPB  | eP    | 22 13 47   |      |     |      |       |  |
| JUNE  | 27  | USCGS 22 10 03.8, 6.1N, 120.9E, h = 60 km., m = 5.3<br>SANGINE ISLANDS |       |            |      |     |      |       |  |
|       |     | PNS  | PKP   | 22 30 06.8 |      | 1.3 | 26   |       |  |
|       |     |  | eL    | 23 27.5    |      |     |      |       |  |
|       |     | LPB  | PKP   | 22 30 07.3 |      | 1.3 | 38   | 167.3 |  |
|       |     |  | i     | 13.2       |      |     |      |       |  |
|       |     |  | eL    | 23 27      |      |     |      | 271   |  |



JUNE

| MONTH | DAY | STA   | PHASE | TIME       | SIGN       | PER | AMPL | DIST  |
|-------|-----|---|-------|------------|------------|-----|------|-------|
| JUNE  | 27  | PNS   | P     | 22 33 47.3 |            |     |      |       |
|       |     |   | i     | 34 10.4    |            |     |      |       |
| JUNE  | 27  | LPB   | P     | 22 33 47.5 |            | 1.0 | 22   |       |
|       |     |   | i     | 34 09.4    |            |     |      |       |
| JUNE  | 27  | LPB   | P     | 23 06 46.4 |            |     |      |       |
|       |     |   | PNS   | 23 06 50.5 |            | 0.4 | 3    |       |
| JUNE  | 27  | PNS   | P     | 23 08 07.0 |            | 0.8 | 4    |       |
| JUNE  | 27  | LPB   | eP    | 23 13 40.5 |            |     |      |       |
|       |     |   | PNS   | 23 13 42.4 |            | 0.6 | 3    |       |
| JUNE  | 27  | LPB   | eP    | 23 52 40.5 |            |     |      |       |
| JUNE  | 28  | LPB   | eP    | 00 22 15   |            |     |      |       |
|       |     |   | PNS   | 00 22 20   |            |     |      |       |
| JUNE  | 28  | PNS   | eP    | 02 24 16.5 |            |     |      |       |
|       |     |   | S     | 40.5       |            |     |      |       |
| JUNE  | 28  | LPB   | eP    | 02 24 19   |            |     |      |       |
|       |     |   |       |            |            |     |      |       |
| JUNE  | 28  | LPB   | eP    | 03 44 52   |            |     |      |       |
|       |     |   | PNS   | 03 44 56.2 |            |     |      |       |
|       |     |   | S     | 46 45.9    |            |     |      |       |
| JUNE  | 28  | LPB   | P     | 04 06 19.0 |            | 0.9 | 22   |       |
|       |     |   | S     | 07 15.7    |            |     |      |       |
|       |     |   | PNS   | 04 06 21.2 |            | 0.6 | 12   |       |
| JUNE  | 28  | PNS   | S     | 07 21.2    |            |     |      |       |
|       |     |   | e(P)  | 04 19 11.6 |            |     |      |       |
| JUNE  | 28  | LPB   | eP    | 05 55 09.5 |            |     |      |       |
|       |     |   | PNS   | 05 55 12.1 |            | 0.4 | 2    |       |
| JUNE  | 28  | LPB   | P     | 06 26 30.7 |            | 0.9 | 34   |       |
|       |     |   | PNS   | 06 26 32.8 |            | 1.0 | 10   |       |
| JUNE  | 28  | PNS   | P     | 07 40 34.7 |            | 1.5 | 15   |       |
|       |     |   | LPB   | eP         | 07 40 35.5 |     |      |       |
| JUNE  | 28  | LPB   | eP    | 08 08 50   |            |     |      |       |
|       |     |   | PNS   | 08 08 53.3 |            | 0.8 | 4    |       |
|       |     |   | i     | 09 06.6    |            |     |      |       |
| JUNE  | 28  | LPB   | eP    | 09 14 18   |            |     |      |       |
| JUNE  | 28  | LPB   | eP    | 09 20 25   |            |     |      |       |
|       |     |   | e     | 24 36      |            |     |      |       |
|       |     |   | PNS   | eP         | 09 20 25.2 |     |      |       |
| JUNE  | 28  | USCGS 09 44 07.7, 39.3N, 142.7E, h = 33 km., m = 4.7<br>NR E CST OF HONSHU, JAPAN |       |            |            |     |      |       |
|       |     | PNS   | ePKP  | 10 03 42.7 |            | 0.9 | 4    |       |
|       |     | LPB   | PKP   | 10 03 43.6 |            | 0.7 | 5    | 144.9 |

JUNE

| MONTH | DAY | STA  | PHASE | TIME       | SIGN       | PER | AMPL | DIST  |  |
|-------|-----|--|-------|------------|------------|-----|------|-------|--|
| JUNE  | 28  | PNS  | P     | 12 33 13.5 |            |     |      |       |  |
|       |     |  | LPB   | eP         | 12 33 16.2 |     | 1.2  | 16    |  |
| JUNE  | 28  | LPB  | eP    | 13 31 53.5 |            |     |      |       |  |
|       |     |  | S     | 32 13.5    |            |     |      |       |  |
| JUNE  | 28  | PNS  | eP    | 13 49 14   |            |     |      |       |  |
|       |     |  | LPB   | eP         | 13 49 18   |     |      |       |  |
| JUNE  | 28  | USCGS 14 24 00.1, 40.5N, 143.4E, h = 20 km., m = 4.6<br>OFF E CST OF HONSHU, JAPAN |       |            |            |     |      |       |  |
|       |     | PNS  | ePKP  | 14 43 35.4 |            |     |      |       |  |
|       |     | LPB  | ePKP  | 14 43 30   |            |     |      | 144.5 |  |
| JUNE  | 28  | PNS  | iP    | 16 36 04.7 |            | 0.6 | 3    |       |  |
|       |     |  | S     | 25.6       |            |     |      |       |  |
| JUNE  | 28  | LPB  | eP    | 16 50 30   |            |     |      |       |  |
|       |     |  | PNS   | P          | 16 50 34.1 |     | 0.6  | 3     |  |
| JUNE  | 28  | LPB  | S     | 51 13.7    |            |     |      |       |  |
|       |     |  | eP    | 17 54 52.5 |            |     |      |       |  |
| JUNE  | 28  | PNS  | eP    | 17 54 56.7 |            |     |      |       |  |
|       |     |  |       |            |            |     |      |       |  |
| JUNE  | 28  | PNS  | eP    | 18 55 55   |            |     |      |       |  |
|       |     |  | eS    | 56 53.2    |            |     |      |       |  |
|       |     |  | LPB   | eP         | 18 55 55.5 |     |      |       |  |
| JUNE  | 28  | LPB  | P     | 19 05 10.3 |            | 1.0 | 20   |       |  |
|       |     |  | PNS   | P          | 19 05 14.4 |     |      |       |  |
|       |     |  | S     | 36.3       |            |     |      |       |  |
| JUNE  | 28  | PNS  | P     | 19 08 52.8 |            | 1.2 | 18   |       |  |
|       |     |  | L     | 17.6       |            |     |      |       |  |
| JUNE  | 28  | LPB  | eP    | 19 08 53.5 |            |     |      |       |  |
|       |     |  |       |            |            |     |      |       |  |
| JUNE  | 28  | PNS  | P     | 20 07 53.8 |            | 0.8 | 4    |       |  |
| JUNE  | 28  | PNS  | eP    | 20 18 36.7 |            |     |      |       |  |
|       |     |  | LPB   | eP         | 20 18 43   |     |      |       |  |
| JUNE  | 28  | PNS  | P     | 20 29 21.3 |            | 0.5 | 3    |       |  |
|       |     |  | S     | 30 33.3    |            |     |      |       |  |
|       |     |  | LPB   | eP         | 20 29 23   |     | 1.1  | 15    |  |
| JUNE  | 28  | LPB  | e     | 27.4       |            |     |      |       |  |
|       |     |  | e(P)  | 20 55 53   |            |     |      |       |  |
| JUNE  | 28  | LPB  | P     | 21 19 43.2 |            |     |      |       |  |
|       |     |  | e     | 21 07.2    |            |     |      |       |  |
| JUNE  | 28  | PNS  | P     | 21 19 45.1 |            | 0.6 | 5    |       |  |
|       |     |  | eS    | 20 41.8    |            |     |      |       |  |
| JUNE  | 28  | LPB  | eP    | 21 41 43   |            |     |      |       |  |
|       |     |  | PNS   | eP         | 21 41 45.8 |     |      |       |  |

| JUNE  |     |   |       |            |      |     |      |       |  |  |
|-------|-----|---|-------|------------|------|-----|------|-------|--|--|
| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL | DIST  |  |  |
| JUNE  | 28  | LPB   | eP    | 21 56 19   |      |     |      |       |  |  |
| JUNE  | 28  | USCGS 22 50 34.0, 21.3S, 68.2W, h = 143km., m = 4.3<br>CHILE-BOLIVIA BOURDER REGION |       |            |      |     |      |       |  |  |
|       |     | LPB   | iP    | 22 51 44.7 |      | 0.9 | 144  | 5.3   |  |  |
|       |     | PNS   | iP    | 11 51 48.4 | C    |     |      |       |  |  |
|       |     | S   | S     | 52 42.8    |      |     |      |       |  |  |
| JUNE  | 29  | LPB   | ePKP  | 00 08 05.7 |      |     |      |       |  |  |
|       |     |   | eL    | 56         |      |     |      |       |  |  |
|       |     | PNS   | eL    | 00 56      |      |     |      |       |  |  |
| JUNE  | 29  | PNS   | iP    | 01 24 27.4 | D    | 0.6 | 7    |       |  |  |
|       |     | S   | S     | 48.8       |      |     |      |       |  |  |
| JUNE  | 29  | USCGS 01 51 28.3, 0.3S, 91.7W, h = 33 km., m = 4.3<br>GALAPAGOS ISLANDS             |       |            |      |     |      |       |  |  |
|       |     | PNS   | eP    | 01 57 20   |      |     |      |       |  |  |
|       |     | LPB   | eP    | 01 57 20.2 |      |     |      | 28    |  |  |
| JUNE  | 29  | USCGS 02 27 40.0, 21.7S, 67.2W, h = 225 km., m = 4.2<br>CHILE-BOLIVIA BORDER REGION |       |            |      |     |      |       |  |  |
|       |     | PNS   | iP    | 02 29 02.8 | C    |     |      |       |  |  |
|       |     | S   | S     | 30 05.6    |      |     |      |       |  |  |
|       |     | LPB   | iP    | 02 28 58.6 | C    | 0.7 | 289  | 4.7   |  |  |
|       |     |   | eS    | 29 59.4    |      |     |      |       |  |  |
| JUNE  | 29  | PNS   | P     | 04 19 37.9 |      | 0.4 | 2    |       |  |  |
|       |     | S   | S     | 20 01.3    |      |     |      |       |  |  |
| JUNE  | 29  | PNS   | eP    | 04 29 00.8 |      |     |      |       |  |  |
|       |     | LPB   | eP    | 04 29 02   |      |     |      |       |  |  |
| JUNE  | 29  | USCGS 04 20 46.9, 40.0N, 142.8E, h = 52 km., m = 4.6<br>NR E CST OF HONSHU, JAPAN   |       |            |      |     |      |       |  |  |
|       |     | LPB   | ePKP  | 04 40 23.8 |      |     |      | 144.6 |  |  |
|       |     | PNS   | ePKP  | 04 40 24.4 |      |     |      |       |  |  |
| JUNE  | 29  | LPB   | eP    | 05 09 04.3 |      |     |      |       |  |  |
|       |     | PNS   | P     | 05 09 07.6 |      |     |      |       |  |  |
| JUNE  | 29  | LPB   | P     | 05 53 09.4 |      |     |      |       |  |  |
|       |     | PNS   | P     | 05 53 13.4 |      |     |      |       |  |  |
|       |     | S   | S     | 54 34.9    |      |     |      |       |  |  |
| JUNE  | 29  | USCGS 06 21 48.1, 13.6N, 90.2W, h = 97 km., m = 4.7<br>NEAR COAST OF GUATEMALA      |       |            |      |     |      |       |  |  |
|       |     | PNS   | P     | 06 28 47.6 |      | 1.0 | 11   |       |  |  |
|       |     | L   | L     | 40.6       |      |     |      |       |  |  |
|       |     | LPB   | P     | 06 28 50.5 |      | 0.9 | 6    | 38    |  |  |
|       |     |   | eL    | 41.3       |      |     |      |       |  |  |
| JUNE  | 29  | LPB   | P     | 06 54 25.3 |      | 0.9 | 6    |       |  |  |

| JUNE  |     |  |       |            |      |     |      |      |  |  |
|-------|-----|--|-------|------------|------|-----|------|------|--|--|
| MONTH | DAY | STA  | PHASE | TIME       | SIGN | PER | AMPL | DIST |  |  |
| JUNE  | 29  | LPB  | eP    | 08 30 08.8 |      |     |      |      |  |  |
| JUNE  | 29  | LPB  | eP    | 08 40 24   |      |     |      |      |  |  |
|       |     | PNS  | eP    | 08 40 28   |      |     |      |      |  |  |
| JUNE  | 29  | LPB  | e(P)  | 09 21 06   |      |     |      |      |  |  |
| JUNE  | 29  | LPB  | eP    | 09 38 51   |      |     |      |      |  |  |
|       |     | PNS  | eP    | 09 38 57.6 |      |     |      |      |  |  |
| JUNE  | 29  | PNS  | e(P)  | 10 03 08   |      |     |      |      |  |  |
| JUNE  | 29  | PNS  | eP    | 10 39 57.6 |      |     |      |      |  |  |
|       |     | LPB  | eP    | 10 40 00   |      |     |      |      |  |  |
| JUNE  | 29  | LPB  | eP    | 10 42 56   |      |     |      |      |  |  |
| JUNE  | 29  | USCGS 11 07 10.5, 11.6S, 166.4E, h = 123 km., m = 5.0<br>SANTA CRUZ ANDS |       |            |      |     |      |      |  |  |
|       |     | PNS  | PKP   | 11 26 17.6 |      |     |      |      |  |  |
|       |     | LPB  | ePKP  | 11 26 17.7 |      | 1.0 | 5    | 119  |  |  |
| JUNE  | 29  | PNS  | P     | 11 28 06.4 |      | 0.4 | 1    |      |  |  |
|       |     |  | eS    | 29 05      |      |     |      |      |  |  |
|       |     | LPB  | eP    | 11 28 10   |      |     |      |      |  |  |
| JUNE  | 29  | LPB  | eP    | 12 08 15   |      |     |      |      |  |  |
|       |     | PNS  | e(P)  | 12 08 18   |      |     |      |      |  |  |
| JUNE  | 29  | PNS  | eP    | 13 40 37   |      |     |      |      |  |  |
|       |     | LPB  | eP    | 13 40 40.6 |      |     |      |      |  |  |
| JUNE  | 29  | LPB  | eP    | 13 55 58   |      |     |      |      |  |  |
|       |     | PNS  | eP    | 13 56 04.1 |      |     |      |      |  |  |
| JUNE  | 29  | PNS  | eP    | 14 53 51.4 |      |     |      |      |  |  |
|       |     |  | eS    | 57 40      |      |     |      |      |  |  |
|       |     | LPB  | eP    | 14 53 54   |      |     |      |      |  |  |
| JUNE  | 29  | LPB  | eP    | 15 40 48.5 |      |     |      |      |  |  |
|       |     |  | eL    | 58         |      |     |      |      |  |  |
|       |     | PNS  | P     | 15 40 52.0 |      | 0.7 | 4    |      |  |  |
|       |     |  | eL    | 58.1       |      |     |      |      |  |  |
| JUNE  | 29  | LPB  | eP    | 15 49 32   |      |     |      |      |  |  |
|       |     | PNS  | P     | 15 49 35.4 |      | 0.9 | 4    |      |  |  |
| JUNE  | 29  | LPB  | eP    | 16 01 25.8 |      |     |      |      |  |  |
|       |     | PNS  | iP    | 16 01 34.7 | D    | 0.3 | 6    |      |  |  |
|       |     |  | eS    | 57         |      |     |      |      |  |  |
| JUNE  | 29  | PNS  | eP    | 17 13 17.8 |      |     |      |      |  |  |
|       |     |  | eS    | 17 32.4    |      |     |      |      |  |  |
|       |     | LPB  | eP    | 17 13 19   |      |     |      |      |  |  |
|       |     |  | eS    | 17 34.5    |      |     |      |      |  |  |
| JUNE  | 29  | PNS  | P     | 18 27 03.0 |      | 1.2 | 9    |      |  |  |
|       |     | LPB  | P     | 18 27 03.5 |      | 1.0 | 8    |      |  |  |

JUNE

| MONTH | DAY | STA   | PHASE | TIME       | SIGN | PER | AMPL | DIST |  |
|-------|-----|---|-------|------------|------|-----|------|------|--|
| JUNE  | 29  | LPB   | eP    | 18 38 42   |      |     |      |      |  |
|       |     | PNS   | P     | 18 38 46.2 |      | 0.8 | 3    |      |  |
|       |     |   | e     | 53.8       |      |     |      |      |  |
| JUNE  | 29  | USCGS 18 43 26.0, 5.5S, 77.1W, h = 33 km., m = 4.5<br>NORHTERN PERU |       |            |      |     |      |      |  |
|       |     | PNS   | eP    | 18 46 38   |      | 1.1 | 6    |      |  |
|       |     |   | i     | 50.0       |      |     |      |      |  |
|       |     |   | eL    | 52.1       |      |     |      |      |  |
|       |     | LPB   | eP    | 18 46 44.5 |      | 0.9 | 17   | 14   |  |
|       |     |   | eL    | 52         |      |     |      |      |  |
| JUNE  | 29  | PNS   | P     | 19 23 34.6 |      | 1.5 | 0    |      |  |
| JUNE  | 29  | LPB   | eP    | 21 49 07.7 |      |     |      |      |  |
|       |     | PNS   | eP    | 21 49 11   |      |     |      |      |  |
| JUNE  | 29  | LPB   | P     | 21 55 13.5 |      |     |      |      |  |
|       |     | PNS   | iP    | 21 55 14.5 | C    | 0.7 | 11   |      |  |
| JUNE  | 29  | PNS   | eP    | 22 01 46.2 |      |     |      |      |  |
|       |     | LPB   | eP    | 22 01 48   |      |     |      |      |  |
| JUNE  | 29  | LPB   | eP    | 22 39 09   |      |     |      |      |  |
|       |     | PNS   | eP    | 22 39 15   |      |     |      |      |  |
| JUNE  | 29  | PNS   | P     | 22 41 15.3 |      | 0.8 | 3    |      |  |
|       |     | LPB   | P     | 22 41 17   |      |     |      |      |  |
|       |     |   | e     | 29         |      |     |      |      |  |
| JUNE  | 29  | PNS   | P     | 23 31 33.5 |      | 1.3 | 9    |      |  |
|       |     | LPB   | eP    | 23 31 38   |      | 1.1 | 12   |      |  |
| JUNE  | 29  | LPB   | eP    | 23 49 55.5 |      |     |      |      |  |
|       |     | PNS   | eP    | 23 49 57   |      |     |      |      |  |
| JUNF  | 29  | PNS   | eP    | 23 53 00.8 |      |     |      |      |  |
|       |     | LPB   | eP    | 23 52 56.7 |      |     |      |      |  |
|       |     |   | eS    | 53 12      |      |     |      |      |  |
| JUNE  | 30  | PNS   | P     | 01 16 11.6 |      |     |      |      |  |
| JUNE  | 30  | USCGS 02 09 47.0, 5.4S, 77.1W, h = 24 km., m = 4.1<br>NORHTERN PERU |       |            |      |     |      |      |  |
|       |     | PNS   | P     | 02 13 03.5 |      | 1.0 | 4    |      |  |
|       |     |   | eS    | 16 00      |      |     |      |      |  |
|       |     | LPB   | P     | 02 13 04.8 |      |     |      | 13.9 |  |
|       |     |   | eS    | 16 08      |      |     |      |      |  |
| JUNE  | 30  | PNS   | P     | 02 36 27.5 |      |     |      |      |  |
|       |     | LPB   | eP    | 02 36 36.5 |      |     |      |      |  |
| JUNE  | 30  | LPB   | P     | 03 19 36.7 | D    | 1.0 | 127  |      |  |
|       |     |   | S     | 11 20.4    |      |     |      |      |  |
|       |     | PNS   | P     | 03 10 38.6 | C    | 0.9 | 16   |      |  |
|       |     |   | S     | 11 21.4    |      |     |      |      |  |



JUNE

| MONTH | DAY | STA  | PHASE | TIME       | SIGN | PER | AMPL | DIST  |  |
|-------|-----|--|-------|------------|------|-----|------|-------|--|
| JUNE  | 30  | LPB  | e(P)  | 05 57 43.5 |      |     |      |       |  |
|       |     |  | S     | 58 22      |      |     |      |       |  |
|       |     | PNS  | P     | 05 57 56.3 |      | 0.4 | 6    |       |  |
|       |     |  | S     | 58 20      |      |     |      |       |  |
| JUNE  | 30  | USCGS 07 42 00.0, 0.8S, 91.8W, h = 33 km., m = 4.3<br>GALAPAGOS ISLANDS          |       |            |      |     |      |       |  |
|       |     | LPB  | eP    | 07 47 46.8 |      |     |      |       |  |
|       |     | PNS  | eP    | 07 47 48   |      |     |      |       |  |
| JUNE  | 30  | PNS  | iP    | 07 57 26.1 | C    |     |      |       |  |
|       |     |  | (S)   | 40         |      |     |      |       |  |
|       |     | LPB  | P     | 07 57 21.3 | C    | 1.0 | 36   |       |  |
| JUNE  | 30  | USCGS 09 35 29.4, 13.0N, 145.2E, h = 38 km., m = 5.2<br>SOUTH OF MARIANA ISLANDS |       |            |      |     |      |       |  |
|       |     | PNS  | PKP   | 09 55 10.9 |      | 1.2 | 33   |       |  |
|       |     |  | e     | 58 41      |      |     |      |       |  |
|       |     |  | eL    | 10 43.9    |      |     |      |       |  |
|       |     | LPB  | PKP   | 09 55 11.8 |      | 1.7 | 105  | 147.6 |  |
|       |     |  | eSS   | 17 52      |      |     |      |       |  |
|       |     |  | L     | 44         |      |     |      |       |  |
| JUNE  | 30  | PNS  | P     | 10 58 28.4 |      | 0.6 | 2    |       |  |
|       |     | LPB  | eP    | 10 58 28.5 |      |     |      |       |  |
| JUNE  | 30  | PNS  | eP    | 11 22 46.5 |      |     |      |       |  |
|       |     |  | i     | 51.3       |      |     |      |       |  |
|       |     | LPB  | eP    | 11 22 51.7 |      | 0.7 | 7    |       |  |
| JUNE  | 30  | LPB  | eP    | 12 06 12.5 |      |     |      |       |  |
|       |     | PNS  | P     | 12 06 12.8 |      | 0.6 | 2    |       |  |
| JUNE  | 30  | PNS  | eP    | 12 47 59.7 |      |     |      |       |  |
|       |     |  | eS    | 48 54      |      |     |      |       |  |
| JUNE  | 30  | LPB  | eP    | 12 49 32.5 |      |     |      |       |  |
|       |     | PNS  | eP    | 12 49 32.9 |      | 0.8 | 3    |       |  |
| JUNE  | 30  | PNS  | P     | 12 53 37.7 |      | 0.8 | 3    |       |  |
|       |     | LPB  | eP    | 12 53 38.5 |      |     |      |       |  |
| JUNE  | 30  | PNS  | eP    | 13 16 02.8 |      |     |      |       |  |
|       |     | LPB  | eP    | 13 16 09   |      |     |      |       |  |
| JUNE  | 30  | USCGS 13 13 01.6, 12.8N, 145.2E, h = 43 km., m = 4.6<br>SOUTH OF MARIANA ISLANDS |       |            |      |     |      |       |  |
|       |     | PNS  | P     | 13 32 44.0 |      | 1.1 | 8    |       |  |
|       |     | LPB  | eP    | 13 32 47.5 |      | 1.0 | 22   | 146.8 |  |
| JUNE  | 30  | PNS  | P     | 13 42 45.2 | C    | 1.1 | 34   |       |  |
|       |     |  | L     | 56.2       |      |     |      |       |  |
|       |     | LPB  | P     | 13 42 47.7 | D    | 0.9 | 25   |       |  |
|       |     |  | eL    | 55.8       |      |     |      |       |  |
| JUNE  | 30  | PNS  | P     | 13 45 37.9 |      | 1.0 | 8    |       |  |
|       |     |  | i     | 59.5       |      |     |      |       |  |
|       |     | LPB  | eP    | 13 45 38   |      |     |      |       |  |

JUNE



| MONTH | DAY | STA | PHASE | TIME       | SIGN | PER | AMPL | DIST |
|-------|-----|-----|-------|------------|------|-----|------|------|
| JUNE  | 30  | PNS | P     | 13 50 51.1 |      | 0.7 | 3    |      |
|       |     |     | eS    | 51 28.8    |      |     |      |      |
|       |     | LPB | eP    | 13 50 54   |      | 0.7 | 5    |      |
| JUNE  | 30  | LPR | eP    | 13 52 18   |      |     |      |      |
|       |     | PN  | P     | 13 52 18.1 |      |     |      |      |
|       |     |     | eS    | 53 50      |      |     |      |      |
| JUNE  | 30  | LPB | eP    | 15 08 12.5 |      |     |      |      |
|       |     | PNS | eP    | 15 08 14.6 |      | 1.5 | 15   |      |
| JUNE  | 30  | LPB | eP    | 15 30 41   |      |     |      |      |
|       |     | PNS | eP    | 15 30 43.3 |      |     |      |      |
|       |     |     | eS    | 34 11      |      |     |      |      |
| JUNE  | 30  | PNS | P     | 17 36 43.1 |      | 0.5 | 2    |      |
|       |     | LPB | eP    | 17 37 46   |      |     |      |      |
| JUNE  | 30  | LPB | e(P)  | 17 50 15.5 |      |     |      |      |
| JUNE  | 30  | PNS | P     | 19 16 00.8 |      | 1.0 | 13   |      |
|       |     | LPB | P     | 19 16 03.0 |      | 0.9 | 8    |      |
| JUNE  | 30  | PNS | eP    | 19 41 00   |      |     |      |      |
|       |     | LPB | eP    | 19 41 04.5 |      |     |      |      |
| JUNE  | 30  | PNS | P     | 20 13 29.3 |      | 1.3 | 22   |      |
|       |     |     | eL    | 26.9       |      |     |      |      |
|       |     | LPB | P     | 20 13 32.2 |      | 1.0 | 14   |      |
| JUNE  | 30  | PNS | P     | 20 30 21.6 |      | 1.3 | 17   |      |
|       |     |     | S     | 37 39      |      |     |      |      |
|       |     |     | L     | 46.9       |      |     |      |      |
|       |     | LPB | P     | 20 30 24.7 |      | 1.2 | 31   |      |
|       |     |     | eL    | 47         |      |     |      |      |
| JUNE  | 30  | PNS | P     | 20 32 56.5 |      | 1.2 | 13   |      |
|       |     | LPB | eP    | 20 32 57   |      |     |      |      |
| JUNE  | 30  | PNS | eP    | 21 17 47.7 |      |     |      |      |
|       |     | LPB | eP    | 21 17 51   |      |     |      |      |
| JUNE  | 30  | LPB | P     | 21 22 04   |      | 1.0 | 28   |      |
|       |     | PNS | P     | 21 22 06.1 |      | 0.7 | 9    |      |
|       |     | (S) |       | 50         |      |     |      |      |
| JUNE  | 30  | PNS | eP    | 22 39 33.6 |      |     |      |      |
| JUNE  | 30  | LPB | P     | 23 48 42.5 |      | 0.6 | 4    |      |
|       |     | PNS | eP    | 23 48 46.4 |      |     |      |      |
| JUNE  | 30  | LPB | P     | 23 58 42   |      | 0.4 | 7    |      |
|       |     | PNS | P     | 23 58 46.2 |      | 0.6 | 5    |      |

# CURVAS ISODIASTEMATI

