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SEISMOLOGICAL BULLETIN

April, 1963

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COAST & GEODETIC SURVEY

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U. S. DEPARTMENT OF COMMERCE

John T. Connor, Secretary

COAST AND GEODETIC SURVEY—WASHINGTON

H. Arnold Karo, Director

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National Oceanic and Atmospheric Administration

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1963

The instrumental results of the following stations are tabulated in this report.

Albuquerque, New Mexico (ALQ) WWNSS
**Balboa Heights, C. Z. (BHP) WWNSS
The Panama Canal Co.
*Boulder City, Nev. (BCN)
Bureau of Reclamation
*Bozeman, Mont. (BOZ)
Montana State College
*Butte, Mont. (BUT)
Montana School of Mines
*Chicago, Ill. (CHK)
University of Chicago and
U. S. Weather Bureau
College, Alaska (COL)
*Columbia, S. C. (CSC)
University of South Carolina
*Eureka, Nev. (EUR)
Eureka Corporation Limited
*Flaming Gorge, Utah (FGU)
Bureau of Reclamation
*Glen Canyon, Ariz. (GCA)
Bureau of Reclamation
Guam, M. I. (GUA)
Honolulu, Hawaii (HON)
*Hungry Horse, Mont. (HHM)
Bureau of Reclamation
Kipapa, Hawaii (KIP) WWNSS
**Philadelphia, Pa. (PHI)
The Franklin Institute
**Rapid City, S. D. (RCD) WWNSS
South Dakota State School of Mines
*Salt Lake City, Utah (SLC)
University of Utah
San Juan, Puerto Rico (SJP)
Sitka, Alaska (SIT)
*Thule, Greenland (THU)
U. S. Army Ionosphere Station
Tucson, Ariz. (TUC) WWNSS
Ukiah, Calif. (UKI)
International Latitude Observatory
Washington, D. C. (WAS)

*Indicates a station maintained by a local institution in cooperation with the Coast and Geodetic Survey.
**Indicates a station operating on an independent basis.
Other stations are observatories of the Coast and Geodetic Survey.
WWNSS indicates the observatories are part of the World-Wide Network of Standard Seismographs.

All seismogram interpretations are made or revised at Washington except those for Balboa Heights. Beginning January 1, 1959, the data from the horizontal components of the seismographs at all stations except College, Honolulu, and Tucson will not be published for earthquakes occurring outside the United States. The horizontal instruments will continue in operation and the seismograms for the local and regional earthquakes will be scaled and the data published.

All magnitude determinations are by Pasadena, unless otherwise stated.

All coordinates of epicenters, origin times and focal depths have been calculated with the use of an electronic computer. The epicenters quoted in this bulletin are those previously reported on the Preliminary Determination of Epicenter cards with some refinement and minor additions.

All seismograms are on file in the Coast and Geodetic Survey. Requests for information on seismogram copies of the World-Wide Network observatories should be addressed to:

U. S. Department of Commerce
Coast and Geodetic Survey
Seismology Division
Washington Science Center
Rockville, Maryland 20852

Date 1963	Origin Time G. C. T.	Lat.	Long.	Region, Remarks and Focal Depth
April	h m s	°	°	
1	01 25 13.2	28.8 S.	68.1 W.	La Rioja Province, Argentina. h about 41 km.
1	02 19 56.9	6.1 S.	149.0 E.	New Britain region. Felt. h about 61 km.
1	03 51 48.0	13.1 S.	167.3 E.	New Hebrides Islands. h about 220 km.
1	04 28 44.9	44.6 N.	141.2 E.	Hokkaido, Japan region. h about 258 km.
1	08 30 36.7	29.2 S.	176.9 W.	Kermadec Islands. h about 48 km.
1	09 22 51.3	35.5 N.	69.8 E.	Hindu Kush region. h about 91 km.
1	11 17 02*	28.8 S.	178.0 W.	Kermadec Islands. h about 33 km.
1	16 31 16.3	39.7 N.	77.8 E.	Southern Sinkiang Province, China. h about 58 km.
1	18 36 25.4	36.6 N.	71.4 E.	Afghanistan-U.S.S.R. border region. h about 233 km.
1	19 56 43.0	14.5 S.	167.4 E.	New Hebrides Islands. h about 196 km.
1	20 37 06.8	36.0 N.	114.8 W.	Southern Nevada. h about 15 km.
2	00 57 45.4	6.9 N.	73.1 W.	Northern Colombia. h about 159 km.
2	03 33 05.9	31.2 S.	177.6 W.	Kermadec Islands. h about 33 km.
2	04 06 57.8	55.2 N.	160.3 E.	Kamchatka. h about 40 km.
2	04 43 31.1	29.5 S.	177.1 W.	Kermadec Islands region. h about 49 km.
2	04 58 32.0	6.1 S.	149.1 E.	New Britain region. h about 67 km.
2	05 20 48.2	31.1 S.	177.5 W.	Kermadec Islands. h about 33 km.
2	09 40 42*	36.1 N.	114.9 W.	Southern Nevada. h about 15 km.
2	11 25 26.8	30.2 S.	177.7 W.	Kermadec Islands region. h about 25 km.
2	11 35 51.9	5.8 S.	105.1 E.	Sunda Strait. h about 93 km.
2	13 40 13.4	44.8 N.	110.7 W.	Yellowstone National Park, Wyoming. h about 33 km.
2	15 29 43*	44.7 N.	110.5 N.	Yellowstone National Park, Wyoming. h about 33 km.
2	16 18 55.3	53.1 N.	171.7 W.	Fox Islands, Aleutian Islands. h about 140 km. Mag. 6¼-6½.
3	01 13 13.4	16.4 N.	46.7 W.	North Atlantic Ridge. h about 33 km.
3	01 21 54.3	14.7 S.	176.4 W.	Fiji Islands region. h about 33 km.
3	01 33 52.6	9.0 S.	124.1 E.	Timor. h about 35 km.
3	01 35 59.3	4.8 S.	78.4 W.	Peru-Ecuador border region. h about 33 km.
3	02 09 36.5	16.4 N.	46.7 W.	North Atlantic Ridge. h about 33 km.
3	07 53 01*	11.9 S.	167.2 E.	Santa Cruz Islands. h about 33 km.
3	09 35 09*	45.0 N.	110.7 W.	Wyoming-Montana border. h about 33 km.
3	09 55 13*	45.1 N.	109.8 W.	Southeastern Montana. h about 33 km.
3	11 21 49.4	29.4 S.	177.1 W.	Kermadec Islands region. h about 53 km.
3	11 44 57.3	8.3 S.	112.6 E.	Java. h about 161 km.

Date 1963	Origin Time G.C.T.	Lat.	Long.	Region, Remarks and Focal Depth
April	h m s	°	°	
3	11 58 07.2	19.1 N.	121.2 E.	Philippine Islands region. h about 70 km.
3	14 47 55.6	55.5 S.	128.1 W.	South Pacific Cordillera. h about 33 km.
3	15 18 36.4	6.1 S.	149.2 E.	New Britain region. h about 63 km.
3	15 54 51.7	61.2 N.	147.8 W.	Southern Alaska. h about 71 km.
3	18 54 08.1	25.1 S.	179.5 W.	South of Fiji Islands. h about 415 km.
3	19 00 38*	14.4 N.	146.7 E.	Mariana Islands. h about 33 km.
4	06 07 21.4	3.9 N.	75.0 W.	Colombia. h about 33 km.
4	08 26 26.5	16.3 S.	73.0 W.	Near coast of Peru. h about 95 km.
4	13 43 24.5	21.1 N.	121.0 E.	Taiwan region. h about 27 km.
4	15 36 26.3	42.3 N.	111.2 W.	Eastern Idaho. h about 33 km.
4	18 25 43.9	30.2 S.	177.6 W.	Kermadec Islands region. h about 23 km.
4	22 01 07.1	29.8 S.	178.1 W.	Kermadec Islands region. h about 62 km.
4	23 27 51.0	30.1 S.	177.9 W.	Kermadec Islands region. h about 36 km.
5	00 51 54.4	38.5 N.	142.1 E.	Near east coast of Honshu, Japan. h about 54 km.
5	02 26 11.1	30.2 S.	177.8 W.	Kermadec Islands region. h about 34 km.
5	06 50 03.1	1.6 S.	99.5 E.	Southern Sumatra. h about 215 km.
5	10 50 03.1	30.1 S.	177.1 W.	Kermadec Islands region. h about 42 km.
5	13 49 01*	43.0 N.	12.7 E.	Central Italy. h about 33 km.
5	17 52 00.129			37°02'14" N., 116°01'26" W. Nevada Test Site. FERRET. Shot elevation 978.408 meters (AEC).
6	00 42 59.7	18.0 S.	69.9 W.	Peru-Bolivia border region. h about 159 km.
6	02 35 28*	1.5 N.	125.3 E.	Molucca Passage. h about 107 km.
6	02 51 47.7	5.2 S.	145.4 E.	East New Guinea region. h about 69 km.
6	05 34 08.9	30.4 S.	176.9 W.	Kermadec Islands. h about 33 km.
6	07 03 06.9	17.6 S.	178.7 W.	Fiji Islands region. h about 529 km.
6	08 12 24.0	36.4 N.	89.7 W.	Southeastern Missouri. h about 18 km.
6	11 19 23.2	63.4 N.	149.6 W.	Central Alaska. h about 42 km.
6	12 07 08.2	63.6 N.	149.7 W.	Central Alaska. h about 49 km.
6	15 09 44.1	30.2 S.	177.9 W.	Kermadec Islands region. h about 33 km.
6	16 26 07*	41.7 N.	141.7 E.	Hokkaido, Japan region. h about 60 km.
6	17 48 53.6	33.5 N.	82.4 E.	Tibet. h about 33 km.
6	18 02 18.4	32.8 S.	178.8 W.	South of Kermadec Islands. h about 45 km.
6	20 18 15.1	40.6 N.	128.7 W.	Off coast of northern California. h about 33 km.
6	21 35 22.5	6.1 S.	149.8 E.	New Britain region. Felt. h about 65 km.
6	23 36 35.8	7.3 S.	132.6 E.	Tanimbar Islands region. h about 33 km.

Date 1963	Origin Time G. C. T.	Lat.	Long.	Region, Remarks and Focal Depth
April	h m s	°	°	
6	23 40 20*	19.9 N.	109.3 W.	Revilla Gigedo Islands region. h about 33 km.
7	03 57 31.4	24.8 S.	176.6 W.	South of Fiji Islands. h about 112 km.
7	07 20 54*	31.5 N.	41.6 W.	North Atlantic Ridge. h about 33 km.
7	08 44 35*	36.0 N.	70.6 E.	Hindu Kush region. h about 244 km.
7	11 03 27*	70.4 N.	13.4 W.	Jan Mayen Island region. h about 58 km.
7	11 16 03.8	71.5 N.	12.9 W.	Jan Mayen Island region. h about 33 km.
7	13 05 10*	24.6 N.	124.6 E.	Southwestern Ryukyu Islands. h about 33 km.
7	15 07 29.0	26.5 N.	129.4 E.	Ryukyu Islands. h about 11 km.
7	15 27 59.4	53.7 N.	170.0 W.	Fox Islands, Aleutian Islands. h about 174 km.
7	22 36 03.6	4.8 S.	103.3 E.	Southern Sumatra. h about 70 km. Mag. 6-6¼ (PAL).
8	00 03 57.1	39.9 N.	104.8 W.	Northeastern Colorado. Slight damage Denver area. h about 20 km.
8	01 49 19.5	11.0 N.	62.6 W.	Near coast of Venezuela. h about 128 km.
8	05 57 30.3	31.7 S.	69.4 W.	San Juan Province, Argentina. h about 132 km.
8	06 24 55.9	5.7 S.	130.2 E.	Banda Sea. h about 76 km.
8	06 43 21.6	41.7 N.	72.6 E.	Kirgiz SSR. h about 46 km.
8	07 56 49.5	18.8 S.	168.5 E.	New Hebrides Islands. Felt Port Vila. h about 34 km.
8	11 19 34.3	47.7 N.	153.2 E.	Kurile Islands. h about 55 km.
8	11 53 21.0	4.2 S.	152.4 E.	New Britain region. h about 154 km.
8	14 38 23.2	27.4 N.	44.3 W.	North Atlantic Ridge. h about 19 km. Mag. 4¼-5 (PAL).
8	20 08 33.7	5.6 S.	151.9 E.	New Britain region. Felt: Pomio and Rabaul. h about 42 km.
8	20 51 00.4	10.4 S.	161.4 E.	Solomon Islands. h about 49 km.
8	22 37 29.7	24.8 S.	179.8 E.	South of Fiji Islands. h about 427 km.
9	00 03 38.7	22.5 N.	85.8 E.	India. h about 33 km.
9	01 39 10.8	71.2 N.	12.7 W.	Jan Mayen Island region. h about 33 km.
9	01 42 06.5	71.6 N.	12.8 W.	Jan Mayen Island region. h about 33 km.
9	02 02 26.2	17.9 S.	178.6 E.	Fiji Islands region. h about 554 km.
9	04 32 26.3	17.8 S.	168.0 E.	New Hebrides Islands. Felt Port Vila. h about 35 km.
9	12 20 57.8	34.6 S.	76.2 W.	Off coast of central Chile. h about 33 km.
9	14 54 04.5	4.0 S.	151.0 E.	New Britain region. h about 33 km.
9	18 41 54.6	10.5 N.	122.6 E.	Panay, Philippine Islands. Felt. h about 58 km.
9	22 57 50.0	11.5 S.	166.1 E.	Santa Cruz Islands. h about 86 km.
10	00 24 57.5	15.0 S.	173.2 W.	Samoa Islands region. h about 33 km.
10	06 56 33.3	6.9 N.	73.1 W.	Northern Colombia. h about 152 km.

Date 1963	Origin Time G. C. T.	Lat.	Long.	Region, Remarks and Focal Depth
April	h m s	°	°	
10	07 50 29.4	9.1 S.	125.1 E.	Timor. h about 33 km.
10	08 29 30*	52.4 N.	170.2 W.	Fox Islands, Aleutian Islands. h about 33 km.
10	11 39 02.6	3.7 N.	148.3 E.	Caroline Islands region. h about 71 km.
10	12 27 35.7	18.5 S.	177.6 W.	Fiji Islands region. h about 559 km.
10	12 48 41*	46.7 N.	154.0 E.	Kurile Islands region. h about 50 km.
10	14 11 53.4	14.0 N.	91.0 W.	Guatemala. h about 161 km.
10	18 32 30.7	36.4 S.	72.8 W.	Near coast of central Chile. h about 45 km.
10	20 16 24.6	47.6 N.	13.3 E.	Austria. Felt. h about 42 km.
10	23 10 32.9	16.1 N.	94.4 W.	Oaxaca, Mexico. h about 33 km.
10	23 23 38.6	10.0 S.	160.8 E.	Solomon Islands. h about 66 km.
11	01 13 49*	52.1 N.	175.7 W.	Andreanof Islands, Aleutian Islands. h about 90 km.
11	02 59 01*	1.8 N.	128.5 E.	Halmahera. h about 225 km.
11	04 12 36*	14.5 N.	92.1 W.	Near coast of Chiapas, Mexico. h about 33 km.
11	09 33 10.1	9.8 S.	116.3 E.	Sumbawa Islands region. h about 39 km.
11	10 04 34.5	47.4 N.	155.7 E.	Kurile Islands region. h about 33 km.
11	11 02 18*	52.5 N.	154.9 E.	Northwest of Kurile Islands. h about 33 km.
11	11 35 53.8	63.6 N.	149.1 W.	Central Alaska. h about 61 km.
11	12 10 25.5	19.9 N.	109.0 W.	Revilla Gigedo Islands region. h about 58 km.
11	13 02 30.5	53.8 N.	164.8 W.	Unimak Islands region. h about 39 km.
11	14 19 10*	79.1 N.	1.4 E.	Svalbard region. h about 15 km.
11	16 45 25.6	60.2 S.	18.8 W.	Southwestern Atlantic Ocean. h about 40 km.
11	19 19 10*	18.2 S.	175.0 W.	Tonga Islands. h about 170 km.
12	00 41 27.7	32.0 N.	78.8 E.	Kasmir-Tibet border region. h about 28 km.
12	04 13 24*	61.2 N.	147.4 W.	Southern Alaska. h about 65 km.
12	08 41 56.7	39.0 S.	176.7 E.	North Island New Zealand. Extensive property damage. h about 106 km.
12	10 44 20.3	44.6 N.	141.3 E.	Hokkaido, Japan region. h about 255 km.
12	13 38 07.0	51.7 N.	174.9 W.	Andreanof Islands, Aleutian Islands. h about 64 km.
12	19 47 54.4	79.5 N.	4.0 E.	Greenland Sea. h about 20 km.
12	20 48 16.8	16.7 S.	173.7 W.	Tonga Islands. h about 33 km.
12	23 59 03*	36.8 N.	22.3 E.	Ionian Sea. h about 33 km.
13	02 20 57.9	6.3 S.	76.7 W.	Northern Peru. h about 125 km. Mag. 6¾-7.
13	02 25 40.7	3.9 S.	102.5 E.	Southern Sumatra. h about 38 km.
13	03 20 35.7	19.5 S.	175.7 W.	Tonga Islands. h about 208 km.

Date 1963	Origin Time G. C. T.	Lat.	Long.	Region, Remarks and Focal Depth
April	h m s	°	°	
13	07 51 43*	32.0 S.	68.4 W.	San Juan Province, Argentina. h about 33 km.
13	09 08 54*	35.5 S.	110.9 W.	Easter Island Cordillera. h about 33 km.
13	11 24 03.4	36.3 N.	141.4 E.	Near east coast of Honshu, Japan. Felt. h about 29 km.
13	14 31 25.5	3.4 S.	135.6 E.	West New Guinea region. h about 69 km.
13	14 49 38.0	35.8 N.	70.9 E.	Hindu Kush region. h about 142 km.
13	15 40 29*	3.5 S.	135.7 E.	West New Guinea region. h about 61 km.
13	16 16 00*	3.5 S.	135.7 E.	West New Guinea region. h about 80 km.
13	17 32 33*	17.1 S.	178.3 W.	Fiji Islands. h about 629 km.
13	18 53 18.0	11.7 N.	87.8 W.	Near coast of Nicaragua. Felt southern El Salvador. h about 33 km.
13	19 43 49.3	25.1 N.	141.8 E.	Volcano Islands region. h about 102 km.
13	22 07 49*	31.9 S.	179.9 E.	Kermadec Islands. h about 352 km.
14	05 32 34.3	31.3 S.	177.7 W.	Kermadec Islands. h about 38 km.
14	06 28 40*	30.4 N.	139.6 E.	South of Honshu, Japan. h about 96 km.
14	07 24 30.5	30.1 N.	140.3 E.	South of Honshu, Japan. h about 33 km.
14	07 52 04.3	30.5 N.	140.7 E.	South of Honshu, Japan. h about 33 km.
14	13 14 25.6	5.3 S.	153.8 E.	New Ireland region. h about 165 km.
14	18 58 24.0	29.4 N.	139.6 E.	South of Honshu, Japan. h about 33 km.
14	20 36 54.2	30.7 N.	139.8 E.	South of Honshu, Japan. h about 115 km.
15	15 01 26*	4.0 S.	129.0 E.	Ceram region. h about 148 km.
15	05 17 10.7	24.3 S.	70.4 W.	Near coast of northern Chile. Felt Antofagasto. h about 100 km.
15	05 40 43.4	23.8 S.	69.0 W.	Northern Chile. h about 112 km.
15	07 32 59.6	60.8 N.	147.5 W.	Southern Alaska. h about 58 km.
15	15 01 42*	12.7 S.	166.7 E.	Santa Cruz Islands. h about 131 km.
15	20 19 29.5	0.8 S.	128.0 E.	Halmahera. h about 106 km.
15	21 22 36*	24.8 N.	96.9 E.	Burma. h about 194 km.
15	22 18 22.7	39.5 N.	110.2 W.	Coal mine rockbrust eastern Utah. h about 0 km.
15	22 35 58.6	14.3 N.	91.9 W.	Guatemala. h about 88 km.
15	23 39 28.1	18.4 S.	173.4 W.	Tonga Islands. h about 33 km.
16	01 29 15.9	0.9 S.	128.2 E.	Halmahera. h about 6 km. Mag. 7¼-7½ (PAL).
16	01 37 00.5	1.1 S.	128.6 E.	Halmahera. h about 42 km.
16	01 55 09.6	0.8 S.	128.0 E.	Halmahera. h about 20 km.
16	02 05 52*	1.3 S.	126.9 E.	Halmahera. h about 33 km.

Date 1963	Origin Time G. C. T.	Lat.	Long.	Region, Remarks and Focal Depth
April	h m s	°	°	
16	02 50 59	0.9 S.	127.9 E.	Halmahera. h about 58 km.
16	03 32 25.0	1.0 S.	128.0 E.	Halmahera. h about 33 km.
16	03 46 32*	1.0 S.	127.9 E.	Halmahera. h about 36 km.
16	04 04 05.0	0.3 S.	127.6 E.	Halmahera. h about 36 km.
16	04 10 13.4	0.9	128.0 E.	Halmahera. h about 24 km.
16	05 19 42.5	6.4 S.	127.6 E.	Banda Sea. h about 316 km.
16	05 31 59.2	18.3 S.	177.8 W.	Fiji Islands. h about 556 km.
16	05 34 35*	44.8 N.	110.4 W.	Yellowstone National Park, Wyoming. h about 33 km.
16	06 27 53.9	1.4 S.	128.0 E.	Halmahera. h about 47 km.
16	07 41 22*	1.2 S.	129.5 E.	Halmahera. h about 222 km.
16	07 45 31*	1.4 S.	127.7 E.	Halmahera. h about 33 km.
16	09 10 29.9	0.9 S.	128.6 E.	Halmahera. h about 39 km.
16	10 41 09*	39.7 N.	110.5 W.	Coal mine rockburst eastern Utah. h about 0 km.
16	12 03 44.4	1.1 S.	127.4 E.	Halmahera. h about 50 km.
16	16 54 12*	48.1 N.	128.6 W.	Vancouver Island region. h about 33 km.
16	18 47 07.9	35.9 N.	44.3 E.	Iraq. h about 60 km.
16	20 00 44.6	1.4 S.	128.9 E.	Halmahera. h about 11 km.
17	00 09 34*	34.3 S.	106.3 W.	Easter Island Cordillera. h about 33 km.
17	01 10 11.0	0.9 S.	127.9 E.	Halmahera. h about 33 km.
17	01 42 54.1	31.7 S.	67.7 W.	San Juan Province, Argentina. h about 88 km.
17	02 11 36.7	19.7 S.	178.3 E.	South of Fiji Islands. h about 125 km. Mag. 6½-6¾ .
17	04 03 06*	1.0 S.	128.3 E.	Halmahera. h about 33 km.
17	08 23 33.4	15.7 S.	174.1 W.	Tonga Islands. h about 120 km.
17	10 20 06.8	1.0 S.	127.7 E.	Halmahera. h about 33 km.
17	10 45 18.5	36.4 N.	70.5 E.	Hindu Kush region. h about 79 km.
17	12 13 34.5	18.3 S.	173.6 W.	Tonga Islands. h about 33 km.
17	17 03 02*	3.5 S.	135.4 E.	West New Guinea region. h about 39 km.
17	17 49 31*	58.3 N.	32.1 W.	North Atlantic Ocean. h about 33 km.
17	17 55 03*	58.2 N.	32.2 W.	North Atlantic Ocean. h about 33 km.
17	18 24 32.0	55.2 S.	28.5 W.	South Sandwich Islands region. h about 49 km.
17	19 08 23.9	5.4 N.	81.6 W.	South of Panama. h about 14 km.
18	01 51 55.2	20.3 S.	177.7 W.	Fiji Islands. h about 531 km.
18	02 37 21.0	0.9 S.	128.2 E.	Halmahera. h about 114 km.

Date 1963	Origin Time G. C. T.	Lat.	Long.	Region, Remarks and Focal Depth
April	h m s	°	°	
18	02 49 05*	0.9 S.	127.8 E.	Halmahera. h about 33 km.
18	03 23 07*	13.2 S.	176.5 W.	Fiji Islands region. h about 403 km.
18	04 27 40*	19.3 N.	109.2 W.	Revilla Gigedo Islands region. h about 33 km.
18	06 43 02*	22.1 S.	178.5 W.	South of Fiji Islands. h about 33 km.
18	10 43 16.9	44.8 N.	110.3 W.	Yellowstone National Park, Wyoming. Slight damage. h about 33 km.
18	14 59 12.6	45.0 N.	111.0 W.	Yellowstone National Park, Wyoming. Felt. h about 33 km.
18	18 19 34.4	24.5 N.	122.1 E.	Taiwan region. h about 10 km.
18	22 01 07.7	1.3 S.	128.8 E.	Halmahera. h about 33 km.
18	22 04 32*	23.0 S.	65.0 W.	Salta Province, Argentina. h about 33 km.
18	22 09 53.9	1.7 S.	128.1 E.	Halmahera. h about 33 km.
19	03 21 08.9	35.8 N.	118.0 W.	Central California. h about 14 km.
19	03 47 22.7	9.8 S.	120.5 E.	Sumba. h about 33 km.
19	06 19 19.1	31.8 N.	115.6 W.	Baja California. h about 15 km.
19	06 20 16.8	32.7 S.	72.0 W.	Near coast of central Chile. h about 33 km.
19	06 58 11*	17.6 S.	167.3 E.	New Hebrides Islands. h about 8 km.
19	07 30 11.9	34.9 N.	25.2 E.	Crete. h about 9 km.
19	07 35 22.7	35.7 N.	96.9 E.	Tsinghai Province, China. h about 33 km. Mag. 7-7¼ (PAL).
19	16 17 47.1	58.7 S.	25.6 W.	South Sandwich Islands region. h about 35 km.
19	16 28 58.4	1.3 S.	128.9 E.	Halmahera. h about 87 km.
19	20 41 30*	1.3 S.	129.0 E.	Halmahera. h about 4 km.
19	22 44 15.3	30.0 S.	177.5 W.	Kermadec Islands region. h about 30 km.
20	00 43 54*	38.4 N.	20.5 E.	Greece. h about 50 km.
20	00 49 57.8	46.5 N.	151.3 E.	Kurile Islands. h about 69 km.
20	01 07 58.4	1.3 S.	128.8 E.	Halmahera. h about 33 km.
20	02 45 28*	69.7 N.	16.5 E.	Northern Norway. h about 34 km.
20	05 46 57.5	27.5 S.	70.6 W.	Near coast of northern Chile. h about 13 km.
20	07 03 45.0	52.3 N.	160.0 E.	Off east coast of Kamchatka. h about 33 km.
20	14 30 59.8	18.8 N.	98.7 W.	Central Mexico. h about 153 km.
20	16 55 53.6	22.7 S.	66.2 W.	Jujuy Province, Argentina. h about 247 km.
20	20 32 19.4	52.2 N.	159.4 E.	Off east coast of Kamchatka. h about 64 km.
20	22 44 17.3	37.2 N.	71.2 E.	Afghanistan-U.S.S.R. border region. h about 104 km.
21	00 57 56.6	16.6 S.	178.3 W.	Fiji Islands region. h about 33 km.

Date 1963	Origin Time G. C. T.	Lat.	Long.	Region, Remarks and Focal Depth
April	h m s	°	°	
21	04 38 21.7	24.2 N.	122.3 E.	Taiwan region. h about 35 km.
21	09 17 04.6	26.5 N.	128.7 E.	Ryukyu Islands. h about 37 km.
21	10 38 30.2	3.2 S.	146.9 E.	Bismarck Sea. h about 33 km.
21	13 02 39.0	35.3 N.	137.8 E.	Honshu, Japan. Felt. h about 20 km.
21	21 17 58*	0.9 S.	128.1 E.	Halmahera. h about 33 km.
21	23 16 50.5	1.5 S.	128.7 E.	Halmahera. h about 33 km.
22	00 51 08.9	31.5 N.	74.0 E.	India-West Pakistan border region. Felt. h about 37 km.
22	01 48 11.3	7.1 S.	129.3 E.	Banda Sea. h about 148 km.
22	07 25 31.6	30.0 S.	177.8 W.	Kermadec Islands region. h about 40 km.
22	08 30 31.2	5.1 S.	154.0 E.	Solomon Islands. h about 138 km.
22	10 41 27*	13.3 N.	144.5 E.	Mariana Islands. h about 97 km.
22	15 06 54.3	19.8 S.	175.3 W.	Tonga Islands. h about 64 km.
22	15 38 19.1	41.3 N.	38.5 E.	Turkey. h about 33 km.
23	02 35 39.9	32.3 S.	72.5 W.	Off coast of central Chile. h about 33 km.
23	02 45 09.9	11.6 S.	166.1 E.	Santa Cruz Islands. h about 141 km.
23	02 51 15.8	46.7 N.	103.5 E.	Mongolia. h about 33 km.
23	03 37 44*	19.9 N.	109.2 W.	Revilla Gigedo Islands region. h about 33 km.
23	06 39 22.5	41.1 N.	47.3 E.	Eastern Caucasus. h about 93 km.
23	07 19 45*	60.7 S.	24.6 W.	South Sandwich Islands region. h about 33 km.
23	09 55 06.9	25.7 N.	99.5 E.	Yunnan Province, China. h about 30 km.
23	11 37 03.9	12.1 N.	125.8 E.	Samar, Philippine Islands. h about 33 km.
23	12 58 06*	50.9 N.	129.1 W.	Vancouver Island region. h about 33 km.
23	14 02 52.3	42.2 N.	19.4 E.	Yugoslavia. Slight damage at Titograd. h about 20 km.
23	15 32 50.1	17.8 S.	178.6 W.	Fiji Islands region. h about 532 km.
23	18 52 27.0	5.2 S.	146.0 E.	East New Guinea region. h about 156 km.
23	19 49 59*	23.8 S.	179.9 E.	South of Fiji Islands. h about 540 km.
23	23 02 19.9	39.3 N.	55.2 E.	Turkmen SSR. h about 30 km.
24	02 33 08.3	1.0 S.	91.6 W.	Galapagos Islands. h about 33 km.
24	03 55 00.0	17.5 S.	174.6 W.	Tonga Islands. h about 130 km.
24	05 33 51.3	10.4 S.	161.3 E.	Solomon Islands. h about 99 km.
24	05 51 46.6	1.1 S.	127.3 E.	Halmahera. h about 53 km.
24	07 10 14*	20.9 S.	66.4 W.	Southern Bolivia. h about 164 km.
24	09 22 09.1	31.1 S.	68.1 W.	San Juan Province, Argentina. h about 78 km.

Date 1963	Origin Time G. C. T.	Lat.	Long.	Region, Remarks and Focal Depth
April	h m s	°	°	
24	13 32 06.8	26.6 N.	129.1 E.	Ryukyu Islands. Felt. h about 10 km.
24	13 33 04.3	39.5 N.	110.4 W.	Coal mine rockburst in eastern Utah. h about 0 km.
24	15 58 07*	52.1 N.	157.3 E.	Kamchatka. h about 33 km.
24	20 31 07.6	36.4 N.	71.3 E.	Afghanistan-U.S.S.R. border region. h about 116 km.
24	20 48 16.4	30.1 S.	177.8 W.	Kermadec Islands region. h about 33 km.
24	21 42 48.8	20.8 S.	179.0 W.	Fiji Islands region. h about 600 km.
24	22 29 34.4	39.8 N.	104.7 W.	Northeastern Colorado. Felt Denver area. h about 20 km.
24	23 22 20.8	28.2 N.	55.9 E.	Southern Iran. h about 66 km.
25	06 05 13.2	62.2 N.	144.1 W.	Central Alaska. h about 18 km.
25	06 05 30.1	42.3 N.	19.3 E.	Yugoslavia. Felt at Titograd. h about 26 km.
25	07 20 11.5	12.2 N.	87.3 W.	Near coast of Nicaragua. h about 75 km.
25	08 12 52.5	4.6 N.	122.5 E.	Celebes Sea. h about 550 km.
25	11 09 29*	4.1 N.	62.3 E.	Carlsberg Ridge. h about 33 km.
25	11 19 20.8	31.8 N.	140.4 E.	South of Honshu, Japan. h about 67 km.
25	11 54 59*	29.9 N.	136.9 E.	South of Honshu, Japan. h about 33 km.
25	12 13 47.6	36.7 N.	68.3 E.	Hindu Kush region. h about 50 km.
25	13 02 29*	23.4 S.	113.0 W.	Eastern Island region. h about 33 km.
25	13 36 14.8	45.1 N.	6.1 E.	France. Slight damage in Isere Department. h about 46 km.
25	16 35 54.2	1.4 S.	128.8 E.	Halmahera. h about 15 km.
25	17 48 02.0	9.8 N.	126.9 E.	Mindanao, Philippine Islands. h about 40 km.
25	17 50 21.4	21.7 S.	177.9 W.	Fiji Islands region. h about 346 km.
25	21 06 44*	28.1 S.	70.0 W.	Central Chile. h about 67 km.
26	05 37 29.5	16.6 S.	73.7 W.	Near coast of southern Peru. Felt: Arequipa. h about 9 km.
26	08 18 11.2	18.1 S.	173.9 W.	Tonga Islands. h about 33 km.
26	12 15 21*	32.4 N.	140.4 E.	South of Honshu, Japan. h about 146 km.
26	15 22 51*	64.4 N.	148.3 W.	Central Alaska. h about 139 km.
26	16 44 14.6	18.2 S.	69.3 W.	Northern Chile. Felt. h about 131 km.
26	23 44 56.7	24.0 N.	122.5 E.	Taiwan region. h about 2 km.
27	03 42 31.1	66.4 N.	19.4 W.	Iceland region. h about 20 km.
27	04 53 50.9	44.8 N.	110.3 W.	Yellowstone National Park, Wyoming. Felt at Old Faithful. h about 33 km.
27	08 33 38.2	16.1 S.	173.9 W.	Tonga Islands. h about 62 km.
27	08 42 58.1	0.9 S.	128.4 E.	Halmahera. h about 27 km. Mag. 5¼-5½ (PAL).

Date 1963	Origin Time G. C. T.	Lat.	Long.	Region, Remarks and Focal Depth
April	h m s	°	°	
27	11 03 36.5	22.4 S.	68.5 W.	Northern Chile. h about 161 km.
27	11 10 19.7	3.3 N.	124.3 E.	Celebes Sea. h about 336 km.
27	13 39 33.9	45.0 N.	111.4 W.	Southwestern Montana. Felt. h about 33 km.
27	15 10 10.2	61.4 N.	147.2 W.	Southern Alaska. h about 33 km.
27	18 54 32*	16.7 S.	172.9 W.	Samoa Islands region. h about 33 km.
27	19 29 45.7	30.5 S.	71.4 W.	Near coast of central Chile. h about 65 km.
28	00 42 11*	40.5 N.	27.4 E.	Northwestern Turkey. h about 160 km.
28	01 51 05.2	01.1 S.	128.6 E.	Halmahera region. h about 12 km.
28	02 05 17.9	23.8 S.	68.7 W.	Northern Chile. h about 107 km.
28	04 04 58.4	30.2 N.	131.0 E.	Kyushu, Japan. h about 33 km.
28	04 33 02.2	37.5 N.	73.0 E.	Takzhik SSR. h about 39 km.
28	04 51 26*	18.9 S.	169.5 E.	New Hebrides Islands. h about 222 km.
28	05 22 05.0	1[illegible].7 S.	78.1 W.	Off coast of Peru. h about 10 km.
28	14 16 05.7	17.6 S.	178.5 W.	Fiji Islands region. h about 503 km.
28	15 25 27*	17.9 S.	174.2 W.	Tonga Islands. h about 33 km.
28	16 38 57.0	20.8 S.	69.5 W.	Northern Chile. h about 122 km.
28	17 28 20*	0.6 S.	128.5 E.	Halmahera. h about 33 km.
28	18 13 27.6	9.8 S.	160.4 E.	Solomon Islands. h about 7 km.
28	19 50 09.3	36.3 N.	71.3 E.	Afghanistan-U.S.S.R. border region. h about 123 km.
28	21 57 28.0	24.2 S.	68.7 W.	Chile-Argentina border region. h about 82 km.
28	23 21 35*	39.3 N.	141.0 E.	Near east coast of Honshu, Japan. h about 33 km.
29	01 20 49.1	8.0 S.	158.7 E.	Solomon Islands. h about 88 km.
29	05 03 26.1	24.3 N.	122.3 E.	Taiwan region. h about 15 km.
29	08 34 26.4	10.8 S.	164.4 E.	Santa Cruz Islands region. h about 69 km.
29	09 21 34*	17.8 S.	13.2 W.	South Atlantic Ridge. h about 33 km.
29	14 51 52.3	64.0 S.	159.2 E.	Balleny Islands region. h about 33 km.
29	20 35 39.3	17.6 N.	92.4 W.	Chiapas, Mexico. h about 9 km.
29	21 44 17.2	51.3 N.	178.7 E.	Rat Islands, Aleutian Islands. h about 56 km. Mag. 6.
30	00 36 04.6	51.3 N.	178.5 E.	Halmahera. h about 79 km.
30	00 58 19.2	0.9 S.	128.8 E.	Halmahera. h about 33 km. Mag. 6¼ .
30	01 27 44.4	1.0 S.	128.9 E.	Halmahera. h about 33 km.
30	02 34 53.7	7.4 N.	126.7 E.	Mindanao, Philippine Islands. h about 33 km.

Date 1963	Origin Time G. C. T.	Lat.	Long.	Region, Remarks and Focal Depth
April	h m s	°	°	
30	03 18 47.9	51.3 N.	178.5 E.	Rat Islands, Aleutian Islands. h about 34 km.
30	03 26 05.2	51.2 N.	178.6 E.	Rat Islands, Aleutian Islands. h about 60 km.
30	05 20 47.8	39.9 N.	20.9 E.	Greece-Albania border region. h about 33 km.
30	06 11 46.9	17.2 N.	100.2 W.	Guerrero Mexico. h about 33 km.
30	06 49 59.6	37.6 N.	72.8 E.	Tadzhik SSR. h about 61 km.
30	07 07 53.3	51.3 N.	178.6 E.	Rat Islands, Aleutian Islands. h about 45 km.
30	08 26 22.8	17.2 S.	175.0 W.	Tonga Islands. h about 220 km.
30	10 03 59*	0.8 S.	67.8 E.	Carlsberg Ridge. h about 33 km.
30	10 20 52.0	10.7 N.	94.4 E.	Andaman Islands region. h about 28 km.
30	11 03 57*	15.0 N.	92.9 W.	Mexico-Guatemala border region. h about 33 km.
30	18 43 07.0	8.3 S.	80.0 W.	Off coast of northern Peru. h about 9 km.
30	23 50 26.9	22.9 S.	66.9 W.	Argentina-Bolivia border. h about 95 km.

Date and Station	Phase	(GCT)
		h m s
APR 1		
28.8S 068.1W		
h ABOUT 041KM		
H-01 25 13.2		
EUR	EP	01 37 28.0
BUT	EP	01 37 44.4
APR 01		
BCN	IP	01 52 53.5
APR 1		
H-02 19 56.9		
6.1S 149.0E		
h ABOUT 061KM		
COL	EP	02 32 21.0
EUR	EP	02 33 29.0
	I	33 34.0
SJP	EP'	02 39 23.5
APR 1		
H-03 51 48.0		
13.1S 167.3E		
h ABOUT 220KM		
COL	EP	04 03 59.2
	E▸P	04 50.0
EUR	E(P)	04 04 14.3
	E▸P	05 10.5
TUC	E(P)	04 04 22.8
APR 01		
HHM	EP	04 03 52.1
APR 01		
HHM	EP	04 09 34.1
APR 1		
H-04 28 44.9		
44.8N 141.2E		
h ABOUT 258KM		
COL	IP	04 36 17.1
	I▸P	37 10.0
SIT	EP	04 37 22.3
THU	EP	04 38 10.0
HHM	EP	04 39 07.0
BUT	EP	04 39 21.4
	E▸P	40 23.0
	EPP	41 40.4
BOZ	EP	04 39 27.0
EUR	IP	04 39 37.7
	I▸P	40 37.2
	IPP	42 11.2
	ES	48 29.5
	ESCS	49 10.0
FGU	IP	04 39 52.3
	E▸P	41 18.3
BCN	IP	04 39 56.0
	E▸P	40 57.0
RCD	EP	04 39 57.2
GCA	IP	04 40 02.3
	E▸P	41 02.5
TUC	IP	04 40 23.5
	E▸P	41 24.0
	EPP	43 22.0
ALQ	EP	04 40 26.5
	I▸P	41 31.0
APR 01		
BUT	E(P)	05 07 30.4
APR 01		
EUR	IP C	06 12 05.3
	I	12 41.5
APR 01		
ALQ	EP	08 26 20.0
	E	26 54.0
TUC	IP	08 26 25.0
FGU	EP	08 27 18.2
	E	27 55.0
EUR	EP	08 28 13.6
	E	28 29.0
COL	EP	08 31 35.0
	E	32 14.0
APR 1		
H-08 30 36.7		
29.2S 176.9W		
h ABOUT 048KM		
TUC	EP	08 43 23.1
EUR	I(P)	08 43 27.5
COL	E(P)	08 44 07.0
APR 1		
H-09 22 51.3		
35.5N 069.8E		
h ABOUT 091KM		
COL	IP	09 34 27.5
	I	35 01.0
	I	35 10.0
EUR	EP'	09 41 13.6
APR 01		
H-11 17 02.4		
28.8S 178.0W		
h ABOUT 033KM		
EUR	E(P)	11 29 42.7
APR 01		
BOZ	E(P)	12 48 10.2
	E	48 18.0
	ES	48 33.0
APR 01		
BUT	IP	12 48 36.0
	IS	48 57.0
HHM	EP	12 49 10.9
	IS	50 14.9
APR 01		
	I	49 21.4
COL	E(P)	14 14 08.0
EUR	EP	14 16 57.8
APR 01		
EUR	E(P)	15 08 45.5
APR 1		
H-16 31 16.3		
39.7N 077.8E		
h ABOUT 058KM		
COL	EP	16 42 23.0
APR 01		
EUR	EP	16 57 55.0
APR 1		
H-18 36 25.4		
36.6N 071.4E		
h ABOUT 233KM		
COL	IP	18 47 38.5
	E▸P	48 34.0
APR 1		
H-19 56 43.0		
14.5S 167.4E		
h ABOUT 196KM		
COL	EP	20 09 02.0
APR 01		
H-20 37 06.8		
36.0N 114.8W		
h ABOUT 015KM		
GCA	EP	20 37 53.1
	ES	38 28.6
EUR	IP	20 38 01.8
TUC	EP	20 38 25.0
APR 01		
EUR	IP	20 48 01.8
	I	48 04.4
	ES	48 55.7
APR 01		
FGU	EP	21 25 12.4
	IS	25 56.9
APR 01		
TUC	EP	21 38 18.3
APR 01		
TUC	IP	21 59 17.5
APR 01		
TUC	EP	23 04 55.0
APR 01		
FGU	IP	23 25 38.3
	IS	26 50.0
EUR	IP	23 25 43.6
APR 01		
APR 02		
TUC	EP	00 15 49.0
HHM	EP	23 59 50.8
APR 2		
H-00 57 45.4		
6.9N 073.1W		
h ABOUT 159KM		
SJP	IP	01 00 48.3
	E(S)	03 07.0
TUC	IP	01 05 33.0
GCA	IP	01 05 57.5
FGU	EP	01 06 01.2
EUR	IP	01 06 28.0
	I	06 47.7
APR 2		
H-04 06 57.8		
55.2N 160.3E		
h ABOUT 040KM		
COL	EP	04 12 36.0
EUR	IP	04 16 30.6
FGU	E(P)	04 16 49.7
APR 2		
H-04 43 31.1		
29.5S 177.1W		
h ABOUT 049KM		
EUR	EP	04 56 22.9
COL	EP	04 57 00.0
APR 2		
H-04 58 32.0		
06.1S 149.1E		
h ABOUT 067KM		
COL	EP	05 10 58.7
APR 2		
H-05 20 48.2		
31.1S 177.5W		
h ABOUT 033KM		
EUR	EP	05 33 48.5
APR 02		
HHM	EP	05 49 57.8
APR 02		
ALQ	EP	06 41 32.0
	E	43 06.0
APR 02		
H-09 40 42.4		
36.1N 114.9W		
h ABOUT 015KM		
BCN	I(P)	09 40 43.6
GCA	EP	09 41 28.5
	ES	42 04.0

Date and Station	Phase (GCT)
	h m s
EUR EP	09 41 36.8
ES	42 19.0
I(L)	42 31.2
COL I(P)	09 47 27.0
APR 02	
TUC E(P)	09 42 18.8
ALQ E(P)	09 42 46.0
APR 02	
FGU EP	09 56 14.5
I	56 25.0
APR 02	
HHM IP	10 55 52.8
APR 2	
H-11 25 26.8	
30.2S 177.7W	
h ABOUT 025KM	
EUR E(P)	11 38 25.6
APR 2	
H-11 35 51.9	
5.8S 105.1E	
h ABOUT 093KM	
HHM EP'	11 54 45.8
EUR IP'	11 54 55.3
EPP	57 07.0
ESKP	58 13.0
ALQ EP'	11 55 11.0
EPP	58 08.0
APR 2	
H-13 40 13.4	
44.8N 110.7W	
h ABOUT 033KM	
BOZ EP	13 40 29.4
I(S)	40 43.2
I(L)	40 48.0
I	40 53.0
BUT EP	13 40 43.1
I	40 44.4
IS	41 10.1
FGU EP	13 41 11.8
I	41 25.6
ES	42 16.1
HHM EP	13 41 16.8
I	41 29.3
E(S)	42 23.8
SLC E(P)	13 41 21.7
E	41 27.7
ES	42 22.2
RCD E(P)	13 41 36.0
EUR EP	13 41 49.1
I	42 15.3
E(L)	43 20.1

Date and Station	Phase (GCT)
	h m s
APR 02	
H-15 29 42.6	
44.7N 110.5W	
h ABOUT 033KM	
BOZ EP	15 29 59.6
I(S)	30 14.5
I(L)	30 19.0
I	13 30 24.0
BUT EP	15 30 13.7
IS	30 39.2
FGU IP	15 30 41.3
I	30 51.8
HHM EP	15 30 48.8
I	30 59.8
E(S)	31 57.0
SLC E(P)	15 30 51.1
E	30 57.2
ES	31 45.7
COL E(P)	15 35 34.0
APR 02	
BUT IP	15 33 58.3
ES	34 21.2
HHM E(P)	15 34 34.0
E(S)	35 39.0
APR 02	
HHM EP	15 58 02.8
APR 2	
H-16 18 55.3	
53.1N 171.7W	
h ABOUT 140KM	
COL IP D	16 22 44.2
ES	25 46.0
IPCP	26 59.0
I	29 44.0
I	30 30.0
ISCP	30 40.0
IPCS	31 02.0
ISCS	34 18.0
EsSCS	34 58.0
SIT EP	16 23 29.9
ES	27 17.9
KIP IP	16 25 22.4
HON IP	16 25 22.9
IS	30 36.0
UKI EP	16 25 42.9
EpP	26 15.9
EPCP	28 07.2
ESCP	31 38.5
HHM IP	16 25 44.1
EpP	26 16.8
EPCP	28 07.8
EpCP	28 44.8
ES	31 16.0
ESCP	31 38.8
ESCS	35 45.8

Date and Station	Phase (GCT)
	h m s
BUT IP	16 26 01.5
IpP	26 35.0
IPCP	28 13.4
EPCP	28 49.2
ISCP	31 47.2
ES	32 11.8
BOZ IP	16 26 11.5
IpP	26 44.5
EPCP	28 13.4
ESCP	31 51.6
SLC IP	16 26 30.7
IpP	27 03.9
EPCP	28 25.1
ESCP	31 59.2
ES	32 35.2
FGU IP	16 26 41.2
EpP	27 15.4
I	29 05.3
IS	32 06.6
BCN IP	16 26 41.8
IpP	27 15.6
IPCP	28 29.5
ISCP	32 06.3
E(S)	32 55.1
GCA IP	16 26 51.0
IPCP	28 33.0
I	31 11.0
RCD IP	16 26 54.8
PCP	28 35.2
E	34 16.4
TUC IP	16 27 20.0
IpP	27 54.0
ES	34 05.4
ALQ IP	16 27 25.0
CSC IP	16 29 15.0
SJP IP	16 31 13.8
IpP	31 50.0
I	41 28.0
E(S)	41 32.0
I	41 54.0
APR 02	
COL EP	16 57 42.7
APR 02	
COL E	17 06 30.0
APR 02	
TUC E(P)	18 01 57.9
APR 02	
GCA E(P)	19 08 05.0
COL E	19 08 34.0
APR 02	
COL E	21 22 07.0
APR 02	
HHM E(P)	21 56 35.0
TUC EP	21 59 16.0

Date and Station	Phase (GCT)
	h m s
APR 02	
TUC EP	22 36 02.0
APR 02	
TUC EP	23 00 10.0
APR 02	
COL E	23 48 53.0
APR 3	
H-01 13 13.4	
16.4N 046.7W	
h ABOUT 033KM	
SJP E(P)	01 17 30.7
TUC IP	01 23 17.1
I	23 18.0
I	23 22.8
GCA EP	01 23 23.8
BCN EP	01 23 41.8
COL IP	01 25 19.9
APR 03	
BCN EP	01 20 06.0
APR 3	
H-01 21 54.3	
14.7S 176.4W	
h ABOUT 033KM	
TUC EP	01 33 52.7
COL EP	01 34 13.0
ALQ EP	01 34 16.0
APR 03	
H-01 35 59.3	
04.8S 078.4W	
h ABOUT 033KM	
SJP E(P)	01 41 30.1
ALQ EP	01 44 34.9
APR 03	
ALQ EP	02 06 23.0
ES	07 26.0
FGU IP	02 06 37.0
APR 3	
H-02 09 36.5	
16.4N 046.7W	
h ABOUT 033KM	
TUC EP	02 19 40.3
I	19 46.0
BCN EP	02 20 03.1
COL IP	02 21 43.0
APR 03	
TUC E(P)	05 18 25.0
BCN E(P)	05 19 02.4
EL	19 37.9

Date and Station	Phase	Phase (GCT) h m s
APR 03		
COL	E	05 40 30.0
APR 03		
COL	E	06 29 42.0
APR 03		
H-07 53 00.7		
11.9S 167.2E		
h ABOUT 033KM		
COL	IP	08 05 26.7
TUC	IP	08 05 57.0
APR 03		
H-09 35 03.3		
45.0N 109.9W		
h ABOUT 033KM		
BOZ	EP	09 35 22.8
	ES	35 37.0
BUT	EP	09 35 36.4
	IS	36 01.8
HHM	EP	09 36 08.8
	I	36 23.3
	ES	37 16.8
FGU	I(P)	09 36 12.1
SLC	E(P)	09 36 19.3
	ES	37 17.3
EUR	IP	09 36 47.8
APR 03		
H-09 55 12.6		
45.1N 109.8W		
h ABOUT 033KM		
BOZ	E(P)	09 55 32.0
	ES	55 46.5
BUT	EP	09 55 45.8
	IS	56 11.2
HHM	EP	09 56 19.8
SLC	E(P)	09 56 28.0
	ES	57 24.8
EUR	EP	09 56 59.8
APR 03		
COL	E	10 16 06.0
APR 03		
UKI	EP	10 55 17.9
	IS	55 23.4
APR 3		
H-11 21 49.4		
29.4S 177.1W		
h ABOUT 053KM		
TUC	E(P)	11 34 36.0
ALQ	E(P)	11 34 52.0
COL	EP	11 35 15.0
APR 3		
H-11 58 07.2		
19.1N 121.2E		
h ABOUT 070KM		
COL	EP	12 09 31.0
HHM	EP	12 11 32.8
APR 03		
COL	E	12 15 29.0
APR 03		
COL	E	12 40 57.0
APR 03		
COL	IP	12 52 19.0
APR 03		
COL	E	12 59 56.0
APR 03		
COL	E	14 40 31.0
APR 03		
COL	E	14 43 28.0
APR 3		
H-14 47 55.6		
55.5S 128.1W		
h ABOUT 033KM		
TUC	EP	15 00 44.0
	I	00 45.9
BCN	EP	15 01 01.2
EUR	IP	15 01 17.2
COL	EP'	15 06 42.0
APR 03		
HON	ES	15 10 22.0
	EL	24 36.0
APR 03		
KIP	E(S)	15 10 34.0
	E	11 06.0
	EL	24 38.0
APR 3		
H-15 18 36.4		
6.1S 149.2E		
h ABOUT 063KM		
COL	EP	15 31 03.0
APR 3		
H-15 54 51.7		
61.2N 147.8W		
h ABOUT 071KM		
COL	IP	15 55 49.1
HHM	EP	15 59 51.8
	EpP	16 00 03.8
BUT	IP	16 00 14.0
EUR	IP	16 00 48.8
	EPP	01 35.8
	EPCP	03 53.6
SLC	EP	16 00 54.2
BCN	EP	16 01 19.6
	EpP	01 32.2
ALQ	EP	16 01 57.0
TUC	IP	16 02 01.1
APR 03		
BCN	EP	16 14 41.9
TUC	E(P)	16 14 42.0
EUR	EP	16 14 45.5
ALQ	EP	16 14 54.0
APR 03		
BHP	IP	16 40 27.0
APR 03		
ALQ	EP	17 06 19.9
APR 03		
TUC	EP	18 23 49.2
APR 03		
BOZ	EP	18 27 46.0
	ES	28 00.4
BUT	EP	18 28 00.0
	ES	28 25.5
APR 03		
HHM	EP	18 28 44.8
APR 03		
TUC	EP	18 41 20.2
APR 03		
GCA	IP	18 43 17.7
	IS	43 54.3
APR 3		
H-18 54 08.1		
25.1S 179.5W		
h ABOUT 418KM		
EUR	E(P)	19 06 10.8
APR 03		
H-19 00 38.0		
14.4N 146.7E		
h ABOUT 033KM		
GUA	IP	19 01 09.0
	ES	01 22.0
APR 03		
FGU	E(P)	19 13 22.6
	IS	14 18.9
APR 03		
HHM	EP	21 16 40.0
	I	17 00.8
APR 03		
TUC	EP	21 58 13.3
APR 03		
TUC	IP	22 00 51.9
APR 03		
TUC	IP	22 53 40.5
APR 03		
GCA	EP	23 19 29.5
APR 04		
EUR	EP	00 11 53.1
	E	12 34.8
APR 04		
HHM	E(P)	01 58 49.0
APR 04		
FGU	EP	02 05 57.5
	IS	06 44.0
RCD	E(P)	02 06 11.7
APR 04		
EUR	E	03 36 42.0
APR 4		
H-06 07 21.4		
3.9N 075.0W		
h ABOUT 033KM		
SJP	E(P)	06 11 19.7
ALQ	EP	06 15 17.0
EUR	E(P)	06 16 25.0
APR 04		
COL	EP	06 39 28.0
EUR	E	06 39 51.0
APR 04		
FGU	EP	07 49 05.7
	IS	49 52.7
RCD	E(P)	07 49 13.2
ALQ	E(P)	07 49 32.0
	ES	50 38.0
APR 4		
H-08 26 26.5		
16.3S 073.0W		
h ABOUT 095KM		
ALQ	EP	08 36 26.0
EUR	E(P)	08 37 20.9
APR 04		
BUT	EP	11 25 35.3
	ES	25 59.5
APR 4		
H-13 43 24.5		
21.1N 121.0E		
h ABOUT 027KM		
COL	EP	13 54 46.0
APR 04		
FGU	IP	15 24 12.5
	ES	25 18.5
APR 4		
H-15 36 26.3		
42.3N 111.2W		
h ABOUT 033KM		

Date and Station	Phase (GCT)
	h m s
FGU IP	15 36 59.5
ES	38 05.5
BOZ E(P)	15 37 20.0
E	37 22.4
E(L)	38 01.5
BUT E(P)	15 37 32.5
I	37 37.2
I(L)	38 08.6
EUR EP	15 37 35.8
I	37 51.6
E(S)	38 48.1
E(L)	38 55.6
HHM E(P)	15 38 00.0
APR 04	
FGU IP	17 04 33.2
ES	05 00.4
APR 04	
FGU IP	17 17 20.3
ES	18 47.5
EUR EP	17 17 57.0
I	18 13.6
E(L)	19 08.7
APR 4	
H-18 25 43.9	
30.2S 177.6W	
h ABOUT 023KM	
EUR EP	18 38 42.4
APR 04	
TUC IP	19 25 57.9
APR 04	
TUC IP	20 21 15.5
APR 04	
HHM EP	21 01 12.7
APR 04	
COL IP	21 51 02.0
ES	51 36.0
TUC IP	21 58 10.0
ES	58 24.0
APR 4	
H-22 01 07.1	
29.8S 178.1W	
h ABOUT 062KM	
EUR EP	22 14 00.4
I▸P	14 16.6
COL EP	22 14 34.0
APR 04	
TUC IP	22 52 39.0
APR 04	
FGU IP	23 47 10.2
APR 04	
EUR EP	23 51 14.2
E(S)	52 05.2

Date and Station	Phase (GCT)
	h m s
APR 05	
EUR E	00 00 49.0
APR 05	
BCN I(P)	00 35 30.8
APR 5	
H-00 51 54.4	
38.5N 142.1E	
h ABOUT 054KM	
COL IP	01 00 26.0
I▸P	00 37.0
EUR EP	01 03 29.9
I▸P	03 39.9
APR 05	
BCN EP	01 09 52.5
ES	10 05.0
APR 05	
HHM EP	02 03 03.6
APR 5	
H-02 26 11.1	
30.2S 177.8W	
h ABOUT 034KM	
TUC IP	02 39 04.0
I▸P	39 20.5
EUR EP	02 39 08.5
COL EP	02 39 43.0
APR 05	
BOZ EP	03 08 37.5
ES	08 52.4
BUT IP	03 08 51.1
E(S)	08 12.1
APR 05	
HHM E(P)	03 09 33.0
APR 05	
COL EP	05 38 12.0
HHM EP	05 40 22.4
EUR E(P)	05 40 43.4
EUR E	05 43 58.5
APR 5	
H-06 50 03.1	
1.6S 099.5E	
h ABOUT 215KM	
EUR EP'	07 08 52.7
APR 05	
TUC E(P)	08 13 41.0
APR 05	
EUR E	08 30 19.5
COL IP	08 31 19.8
APR 05	
EUR E	10 08 54.3
FGU E(P)	10 09 42.5

Date and Station	Phase (GCT)
	h m s
APR 05	
BOZ E(P)	10 21 46.0
ES	22 01.0
BUT EP	10 22 01.6
ES	22 30.2
HHM E(P)	10 22 15.0
FGU E(P)	10 22 47.5
EUR E(P)	10 23 14.2
APR 05	
BUT EP	10 43 30.7
APR 5	
H-10 50 03.1	
30.1S 177.1W	
h ABOUT 042KM	
TUC E(P)	11 02 53.0
EUR E(P)	11 02 57.2
APR 05	
BOZ EP	12 16 39.0
E	16 41.5
ES	16 58.0
BUT EP	12 16 53.7
ES	17 19.7
HHM E(P)	12 17 25.0
ES	18 34.3
EUR E	12 18 03.4
COL IP	12 19 42.2
APR 05	
COL IP	12 36 50.6
ES	37 12.0
APR 05	
EUR E(P)	12 50 07.4
APR 05	
EUR IP	15 06 49.6
APR 05	
TUC EP	16 56 32.0
ALQ EP	16 57 04.0
IS	57 44.0
GCA EP	16 57 24.7
IS	57 56.7
APR 05	
H-17 52 00.0	
37.0N 116.0W	
h ABOUT 000KM	
BCN EP	17 52 26.7
EUR IP	17 52 41.8
GCA IP	17 52 59.0
TUC EP	17 53 37.0
FGU IP	17 53 41.2
I	55 27.7

Date and Station	Phase (GCT)
	h m s
ALQ EP	17 54 00.0
I	54 30.0
I	56 03.0
BUT E(P)	17 54 23.5
IL	57 14.3
HHM E(P)	17 54 44.0
COL IP	17 58 44.6
APR 05	
HHM EP	20 00 52.2
APR 05	
FGU IP	21 38 03.5
EUR E(P)	21 38 26.7
APR 05	
HHM EP	22 15 16.2
EUR IP	22 16 47.5
APR 05	
EUR EP	22 20 38.4
ES	21 12.7
APR 05	
TUC EP	22 53 01.0
APR 05	
EUR E(P)	23 09 07.0
FGU EP	23 09 22.0
APR 05	
BCN E(P)	23 34 06.9
ES	34 37.9
EUR E	23 34 51.6
APR 06	
ALQ EP	00 36 20.0
I	36 39.0
APR 6	
H-00 42 59.7	
18.0S 069.9W	
h ABOUT 159KM	
ALQ EP	00 53 13.0
E▸P	53 38.0
EUR EP	00 54 05.8
APR 06	
HHM IP	01 04 36.5
IS	04 43.2
APR 6	
H-02 51 47.7	
05.2S 145.4E	
h ABOUT 069KM	
COL IP	03 04 16.5
I▸P	04 40.0
APR 6	
H-05 34 08.9	
30.4S 176.9W	
h ABOUT 033KM	
EUR EP	05 47 05.0

Date and Station	Phase	Phase (GCT) h m s
GCA	D(P)	05 47 11.3
ALQ	E(P)	05 47 19.0
APR 06		
ALQ	E(P)	06 23 48.0
APR 6		
H-07 03 06.9		
17.6S 178.7W		
h ABOUT 529KM		
HON	EP	07 10 26.0
KIP	EP	07 10 26.0
BCN	EP	07 14 25.8
	E▸P	16 26.4
EUR	IP	07 14 30.2
	E(PP)	17 45.4
TUC	IP	07 14 32.1
	E▸P	16 31.0
GCA	IP	07 14 40.5
COL	IP	07 14 47.6
FGU	IP	07 14 56.2
HHM	EP	07 14 57.2
BOZ	EP	07 15 00.0
APR 06		
TUC	E(P)	07 43 40.5
EUR	E	07 44 24.2
APR 06		
ALQ	E(P)	08 19 08.0
	E	19 39.0
APR 06		
ALQ	IP	09 29 53.0
	I	31 55.0
APR 06		
HHM	EP	11 09 35.2
APR 6		
H-11 19 23.2		
63.4N 149.6W		
h ABOUT 042KM		
COL	IP	11 19 50.8
	I(S)	20 12.0
SIT	EP	11 21 37.6
	ES	24 21.0
HHM	IP	11 24 40.2
	EL	32 02.2
BUT	IP	11 25 03.3
	I	25 14.6
	I	25 42.1
	IPP	25 52.1
	E	32 57.1
	I	33 40.6
BOZ	EP	11 25 12.5
	EL	34 12.0
EUR	IP	11 25 40.7
	IPCP	28 33.7
	ISCP	32 24.0
	ESCS	36 23.0
	EL	39 17.0
SLC	EP	11 25 44.5
RCD	IP	11 25 52.6
FGU	IP	11 25 52.7
	IPCP	28 38.2
BCN	EP	11 26 11.5
GCA	D(P)	11 26 13.5
ALQ	IP	11 26 46.8
	IPCP	28 58.0
TUC	IP	11 26 51.9
HON	EP	11 27 14.0
	EL	40 11.0
KIP	IP	11 27 14.2
CSC	IP	11 28 21.0
SJP	IP	11 30 36.9
APR 06		
WAS	EP	11 44 24.0
	E	48 39.0
APR 6		
H-12 07 08.2		
63.6N 149.7W		
h ABOUT 049KM		
COL	IP	12 07 34.9
	I(S)	07 55.0
HHM	EP	12 12 24.3
BUT	EP	12 12 50.1
BOZ	EP	12 12 59.0
EUR	EP	12 13 24.6
	IPCP	16 17.2
	ESCP	20 03.5
RCD	EP	12 13 37.3
ALQ	EP	12 14 32.0
TUC	EP	12 14 37.0
APR 06		
COL	IP	14 22 35.0
	I	22 58.0
APR 06		
TUC	EP	15 03 55.0
EUR	E	15 05 32.8
APR 6		
H-15 09 44.1		
30.2S 177.9W		
h ABOUT 033KM		
COL	E(P)	15 23 17.0
APR 06		
RCD	EP	15 35 46.0
APR 06		
EUR	E(P)	16 14 22.7
APR 06		
TUC	IP	16 24 57.9
APR 6		
H-16 26 07.4		
41.7N 141.7E		
h ABOUT 080KM		
COL	IP	16 34 17.5
	I▸P	34 36.0
EUR	E(P)	16 37 29.3
APR 06		
BOZ	EP	17 18 35.0
	ES	18 53.5
BUT	EP	17 18 48.5
	ES	19 14.2
APR 06		
HHM	E(P)	17 19 30.0
APR 6		
H-17 48 53.6		
33.5N 082.4E		
h ABOUT 033KM		
COL	IP	18 00 29.5
APR 6		
H-18 02 18.4		
32.8S 178.8W		
h ABOUT 045KM		
TUC	IP	18 15 21.0
	I▸P	15 34.0
EUR	IP	18 15 26.6
	I▸P	15 40.2
ALQ	EP	18 15 40.0
APR 06		
SJP	IP	18 30 27.5
	IS	30 45.0
APR 06		
BOZ	E(P)	18 41 18.5
	E(S)	41 33.0
BUT	IP	18 41 35.2
	IS	41 59.7
EUR	E(P)	18 43 02.4
APR 06		
HHM	E(P)	18 42 18.0
	ES	43 10.0
APR 06		
EUR	E(P)	19 38 20.0
APR 6		
H-20 18 15.1		
40.6N 128.7W		
h ABOUT 033KM		
EUR	EP	20 20 38.0
APR 06		
TUC	EP	20 20 18.9
APR 06		
HHM	IP	20 49 47.2
	IS	49 50.7
APR 6		
H-21 35 22.5		
06.1S 149.8E		
h ABOUT 065KM		
EUR	EP	21 48 50.1
	I	48 58.2
SJP	EP'	21 54 49.2
APR 06		
EUR	E	21 53 19.9
APR 06		
COL	EP	22 16 28.0
HHM	EP	22 18 39.3
TUC	IP	22 19 06.0
APR 06		
EUR	IP	22 24 22.4
APR 06		
ALQ	EP	22 46 47.0
	ES	47 18.0
GCA	EP	22 46 51.5
	IS	47 27.5
EUR	E(P)	22 48 20.0
APR 06		
TUC	EP	22 55 32.5
APR 6		
H-23 40 19.5		
19.9N 109.3W		
h ABOUT 033KM		
TUC	IP	23 43 17.0
ALQ	EP	23 43 59.0
GCA	IP	23 44 16.3
EUR	IP	23 44 55.2
FGU	I(P)	23 44 57.0
APR 06		
GCA	IP	23 45 38.0
	I	45 40.7
APR 07		
EUR	EP	01 57 44.3
	E(S)	58 45.4
APR 07		
EUR	E	02 21 15.1

Date and Station	Phase (GCT)
	h m s
APR 7	
H-03 57 31.4	
24.8S 176.6W	
h ABOUT 112KM	
KIP EP	04 06 09.0
TUC IP	04 09 55.0
I▸P	10 23.9
EUR IP	04 09 57.2
I▸P	10 26.8
E(PP)	13 14.1
GCA IP	04 10 06.0
ALQ I(P)	04 10 06.3
E	10 46.5
COL EP	04 10 28.0
APR 07	
ALQ EP	04 30 14.5
APR 07	
KIP IP	04 47 23.7
I	47 29.0
APR 07	
SJP IP	05 04 21.0
I	04 34.0
APR 7	
H-07 20 54.4	
31.5N 041.6W	
h ABOUT 033KM	
FGU IP	07 30 19.6
EUR EP	07 30 56.8
COL EP	07 31 56.0
APR 07	
BUT IP	07 34 08.3
IS	34 34.1
HHM E(P)	07 34 49.0
APR 07	
COL EP	07 53 54.8
EUR E(P)	07 55 41.2
APR 07	
COL IP	09 41 28.7
EUR IP	09 44 58.5
APR 07	
BUT IP	10 30 22.0
IS	30 49.9
APR 7	
H-11 03 27.3	
70.4N 013.4W	
h ABOUT 058KM	
COL E(P)	11 11 08.0
APR 7	
H-11 16 03.8	
71.5N 012.9W	
h ABOUT 033KM	
COL EP	11 23 41.0
BUT EP	11 24 58.1
FGU E(P)	11 25 25.7
SLC EP	11 25 31.7
EUR IP	11 25 48.8
E	26 36.6
TUC EP	11 26 24.0
APR 7	
H-13 05 10.2	
24.6N 124.6E	
h ABOUT 033KM	
COL EP	13 16 00.0
HHM EP	13 18 09.1
APR 7	
H-15 07 29.0	
26.5N 129.4E	
h ABOUT 011KM	
COL EP	15 18 01.0
HHM EP	15 20 13.1
BUT EP	15 20 25.5
EUR EP	15 20 33.3
I	20 40.8
E	22 17.7
APR 07	
FGU E(P)	15 20 16.5
E	20 48.5
APR 7	
H-15 27 59.4	
53.7N 170.0W	
h ABOUT 174KM	
COL IP	15 31 33.6
I	32 04.0
IS	34 30.0
EPCP	36 28.0
ISCP	39 37.0
SIT EP	15 32 19.3
HHM IP	15 34 35.1
I▸P	35 13.1
IPCP	37 04.1
I	37 49.1
BUT IP	15 34 53.1
E▸P	35 30.6
BOZ EP	15 35 03.7
E▸P	35 40.5
ESCP	40 44.0
EUR IP	15 35 09.3
E▸P	35 46.7
IPP	37 09.8
ISCP	40 46.4
SLC EP	15 35 22.0
FGU IP	15 35 33.0
IS	40 58.5
BCN EP	15 35 33.7
GCA IP	15 35 43.0
TUC IP	15 36 12.1
I▸P	36 51.0
ALQ IP	15 36 18.5
I▸P	36 57.0
IPP	38 31.0
SJP IP	15 40 08.1
I▸P	40 51.0
APR 07	
BUT EP	15 40 39.0
TUC EP	15 41 18.9
APR 07	
KIP EP	16 08 50.0
APR 07	
SLC EP	21 06 23.1
ES	06 54.9
EUR EP	21 07 07.9
E(S)	07 52.0
APR 07	
FGU IP	21 06 57.3
ES	07 27.8
APR 07	
FGU IP	21 22 28.3
APR 07	
COL EP	21 49 52.0
EPP	54 00.0
APR 7	
H-22 36 03.6	
04.8S 103.3E	
h ABOUT 070KM	
GUA IP	22 44 15.0
HON E()P	22 49 45.0
E	23 01 22.0
E	03 12.0
EL	18 06.0
KIP EP	22 49 45.0
E	23 02 56.0
EL	18 03.0
FGU EP'	22 54 58.8
I	55 15.8
ESKP	58 40.8
EUR IP'	22 55 01.1
I	55 10.1
IPP	57 18.7
ESKP	58 21.7
PPP	23 00 11.5
▸PPP	00 30.0
SKKP	08 11.3
BUT EP'	22 55 05.0
ESKP	58 17.5
BOZ EP'	22 55 07.0
EPP	57 33.0
ESKP	58 24.0
RCD EP'	22 55 09.8
BCN EP'	22 55 11.5
ISKP	58 39.3
SLC EP'	22 55 12.1
EPP	57 37.1
ISKP	58 35.9
GCA IP'	22 55 16.6
ISKP	58 43.3
ALQ EP'	22 55 18.0
ISKP	58 57.0
WAS IP'	22 55 38.0
CSC IP'	22 55 47.0
SJP IP'	22 56 00.0
I	56 51.0
I	23 00 35.0
BHP PP'	22 56 07.0
APR 07	
SLC EP	22 40 51.8
EL	41 18.8
GUA EP	22 50 59.0
APR 07	
SLC E(P)	22 46 04.7
EL	46 31.1
APR 07	
HHM E(P)	22 51 53.1
IP'	55 01.1
EUR E	22 52 42.8
APR 07	
EUR	22 55 01.1
E	23 11 35.5
APR 08	
H-00 03 57.1	
39.9N 104.8W	
h ABOUT 020KM	
FGU EP	00 04 57.9
I	05 02.4
I(L)	05 48.1
RCD E(P)	00 05 18.0
ALQ E(P)	00 05 23.0
I	05 30.0
I(S)	06 37.0
GCA I(P)	00 05 37.5
I	05 50.5
I(S)	06 48.3
EUR IP	00 06 04.3
I	06 22.0
E(S)	07 59.5

Date and Station	Phase	(GCT) h m s
APR 08		
SLC	EP	00 05 36.1
	EL	06 50.1
BUT	EP	00 06 36.1
APR 8		
H-01 49 19.5		
11.0N 062.6W		
h ABOUT 128KM		
SJP	EP	01 51 17.7
	EL	52 39.0
ALQ	EP	01 57 36.2
	I	57 51.8
EUR	IP	01 58 40.3
COL	IP	02 01 06.5
APR 08		
FGU	E(P)	02 46 39.5
	ES	47 18.5
APR 08		
FGU	E(P)	04 10 20.2
	E	10 51.0
APR 08		
EUR	E(P)	04 54 16.1
APR 8		
H-05 57 30.3		
31.7S 069.4W		
h ABOUT 132KM		
ALQ	EP	06 08 58.0
FGU	IP	06 09 33.0
EUR	IP	06 09 42.8
HHM	EP	06 10 11.1
APR 8		
H-06 43 21.6		
41.7N 072.6E		
h ABOUT 046KM		
COL	IP	06 54 25.0
APR 08		
SJP	IP	07 25 30.8
	IS	25 48.0
APR 8		
H-07 56 49.5		
18.8S 168.5E		
h ABOUT 034KM		
COL	E(P)	08 09 42.0
APR 08		
EUR	EP	08 09 20.5
	ES	09 47.6
APR 08		
EUR	E	08 38 10.0
APR 08		
ALQ	E(P)	10 40 36.0
	ES	41 34.0
APR 8		
H-11 19 34.3		
47.7N 153.2E		
h ABOUT 055KM		
COL	IP	11 26 27.4
	I▸P	26 48.0
EUR	IP	11 29 55.5
	I▸P	30 10.5
APR 8		
H-11 53 21.0		
4.2S 152.4E		
h ABOUT 154KM		
GUA	IP	11 57 36.0
KIP	EP	12 02 37.0
COL	IP	12 05 20.6
	I▸P	06 00.0
EUR	IP	12 06 23.0
BCN	IP	12 06 27.9
APR 8		
H-14 38 23.2		
27.4N 044.3W		
h ABOUT 019KM		
SJP	IP	14 43 17.0
ALQ	EP	14 47 41.8
FGU	IP	14 47 51.5
	E	48 55.3
HHM	E(P)	14 48 07.0
EUR	IP	14 48 28.0
	I	48 33.2
	E(PP)	50 38.8
COL	IP	14 49 41.0
APR 08		
COL	EP	15 30 54.0
APR 08		
EUR	E(P)	16 00 09.8
APR 08		
GCA	IP	18 02 37.5
	IS	03 13.0
EUR	E	18 03 01.7
APR 08		
EUR	IP	19 03 05.9
APR 08		
TUC	EP	19 38 27.9
ALQ	EP	19 38 59.8
APR 08		
EUR	I(P)	19 48 36.3
APR 8		
H-20 08 33.7		
05.6S 151.9E		
h ABOUT 042KM		
COL	E(P)	20 20 54.0
EUR	IP	20 21 55.2
APR 08		
EUR	EP	20 32 26.4
	ES	32 52.4
FGU	E(P)	20 33 14.2
APR 08		
BOZ	EP	20 45 53.2
APR 8		
H-20 51 00.4		
10.4S 161.4E		
h ABOUT 049KM		
COL	IP	21 03 26.5
EUR	IP	21 04 03.1
APR 08		
BUT	EP	21 07 23.2
	ES	07 39.3
APR 08		
BOZ	EP	21 13 49.4
	ES	14 03.5
BUT	EP	21 14 02.3
	ES	14 25.3
FGU	EP	21 14 44.3
APR 08		
EUR	EP	22 24 44.9
	ES	25 13.1
APR 08		
EUR	I	22 27 27.1
APR 08		
EUR	IP	22 33 52.5
APR 8		
H-22 37 29.7		
24.8S 179.8E		
h ABOUT 427KM		
TUC	IP	22 49 30.9
EUR	IP	22 49 32.1
APR 08		
TUC	EP	22 53 38.0
APR 09		
EUR	E	00 24 14.3
APR 9		
H-01 42 06.5		
71.6N 012.8W		
h ABOUT 033KM		
COL	EP	01 49 44.0
EUR	IP	01 51 52.3
ALQ	E(P)	01 52 02.0
TUC	EP	01 52 27.5
APR 9		
H-02 02 26.2		
17.9S 178.6W		
h ABOUT 554KM		
HON	IP	02 09 45.0
KIP	IP	02 09 45.3
EUR	IP	02 13 47.9
	I	13 53.6
	E▸P	15 48.5
TUC	IP	02 13 50.0
	E▸P	15 50.3
	ES	23 22.5
	IPKKP	32 16.0
	EP'P'	40 13.0
	E	42 56.0
GCA	IP	02 13 58.3
	E▸P	16 01.3
COL	IP	02 14 06.2
	I▸P	16 11.0
	ES	23 37.0
ALQ	IP	02 14 11.0
	I▸P	16 14.0
FGU	IP	02 14 13.4
	I▸P	16 17.9
BUT	I(P)	02 14 14.5
	E▸P	16 18.3
BOZ	EP	02 14 18.0
	E▸P	16 23.0
APR 09		
EUR	E	02 40 14.5
APR 09		
COL	EP	03 14 24.0
APR 09		
BUT	EP	04 14 25.5
	ES	14 49.8
EUR	EP	04 14 55.1
	ES	15 56.5
APR 09		
H-04 32 26.3		
17.8S 168.0E		
h ABOUT 035KM		
EUR	E(P)	04 45 34.6
APR 09		
BOZ	EP	07 09 08.3
BUT	IP	07 09 22.2
	IS	09 50.7
FGU	EP	07 09 46.2
EUR	E	07 10 27.9
APR 09		
EUR	EP	08 51 55.1
	E	51 57.3
	ES	52 35.6

Date and Station	Phase (GCT)
	h m s
APR 09	
EUR E	09 17 35.2
APR 09	
TUC EP	10 29 27.1
APR 09	
ALQ EP	11 09 08.0
TUC IP	11 09 19.1
APR 09	
EUR EP	11 52 07.6
E	55 51.5
APR 09	
FGU IP	12 15 40.1
APR 9	
H-12 20 57.8	
34.6S 076.2W	
h ABOUT 033KM	
TUC IP	12 32 33.0
FGU IP	12 33 11.1
APR 09	
EUR EP	12 38 56.1
APR 09	
EUR E	12 52 40.2
APR 09	
EUR EP	12 59 02.1
APR 09	
EUR EP	13 19 16.6
APR 09	
EUR IP	14 18 20.5
E	20 58.8
APR 9	
H-18 41 54.6	
10.5N 122.6E	
h ABOUT 058KM	
COL IP	18 54 01.3
SJP EP'	19 01 54.8
APR 09	
EUR IP	18 45 04.4
IPCP	45 16.0
APR 09	
EUR E(P)	19 07 24.7
COL EP	19 08 38.0
APR 09	
TUC IP	19 16 18.0
APR 09	
COL IP	19 41 33.3
EUR E(P)	19 43 10.8
APR 09	
EUR E	20 24 59.8
APR 09	
TUC IP	21 57 29.1

Date and Station	Phase (GCT)
	h m s
APR 09	
EUR IP	22 19 57.5
APR 09	
EUR IP	22 24 58.4
APR 09	
ALQ E(P)	22 30 13.0
APR 09	
TUC EP	22 52 40.8
APR 9	
H-22 57 50.0	
11.5S 166.1E	
h ABOUT 086KM	
COL EP	23 10 08.0
EsP	10 21.0
TUC EP	23 10 42.0
I	10 44.9
EsP	11 11.9
APR 09	
EUR E(P)	23 12 37.5
APR 09	
EUR IP	23 36 39.1
I	36 51.4
APR 09	
EUR E	23 56 00.8
APR 10	
EUR E	00 06 43.5
APR 10	
H-00 24 57.5	
15.0S 173.2W	
h ABOUT 033KM	
EUR E(P)	00 36 43.0
TUC EP	00 36 43.7
E	37 05.0
ALQ EP	00 37 08.0
FGU E(P)	00 37 09.7
COL IP	00 37 16.2
I	37 38.0
GCA E(P)	00 37 54.2
APR 10	
EUR EP	00 47 49.0
ES	48 57.8
APR 10	
EUR EP	01 40 29.2
E	41 31.9
APR 10	
EUR EP	03 47 50.7
TUC E(P)	03 47 52.0
COL IP	03 48 09.5
APR 10	
BOZ EP	06 49 57.0
ES	50 09.0

Date and Station	Phase (GCT)
	h m s
BUT IP	06 50 11.0
I	50 35.8
IL	50 37.8
APR 10	
BOZ EP	06 52 03.0
BUT IP	06 52 17.5
I	52 41.3
IL	52 43.3
APR 10	
H-06 56 33.3	
06.9N 073.1W	
h ABOUT 152KM	
BHP P	06 58 09.0
SJP E(P)	06 59 36.7
E	07 01 53.0
TUC IP	07 04 21.8
GCA IP	07 04 45.3
FGU IP	07 04 50.6
EUR EP	07 05 15.7
EsP	05 54.7
COL E(P)	07 08 22.0
APR 10	
EUR IP	07 45 38.7
TMAP	06 00 04.0
APR 10	
H-07 50 29.4	
09.1S 125.1E	
h ABOUT 033KM	
KIP E(P)	08 02 43.0
E(sP)	02 54.0
HON EP	08 02 48.0
ES	12 58.0
E	18 22.0
EL	24 44.0
COL EP	08 04 01.0
EUR EP	08 05 46.0
IP'	09 16.0
IPP	10 46.4
E	11 23.1
BUT EP'	08 09 16.9
BOZ EP'	08 09 20.5
GCA IP'	08 09 23.8
FGU IP'	08 09 24.1
TUC IP'	08 09 27.5
ALQ IP'	08 09 34.0
CSC EP'	08 10 08.0
SJP EP'	08 10 37.1
I	11 33.0

Date and Station	Phase (GCT)
	h m s
APR 10	
H-08 29 29.5	
52.4N 170.2W	
h ABOUT 033KM	
COL IP	08 33 26.1
EUR EP	08 36 54.7
APR 10	
EUR EP	11 08 58.7
APR 10	
H-11 39 02.6	
03.7N 148.3E	
h ABOUT 071KM	
COL EP	11 50 42.0
APR 10	
GUA EP	11 43 13.1
APR 10	
EUR I(P)	12 15 28.1
APR 10	
H-12 27 35.7	
18.5S 177.6W	
h ABOUT 559KM	
EUR EP	12 38 56.4
TUC IP	12 38 56.8
ALQ EP	12 39 17.8
COL IP	12 39 18.5
EsP	41 21.0
APR 10	
EUR I(P)	12 33 16.2
APR 10	
H-12 48 40.6	
46.7N 154.0E	
h ABOUT 050KM	
COL IP	12 55 37.0
EUR EP	12 59 01.8
APR 10	
ALQ E(P)	12 50 13.0
E	52 29.0
APR 10	
GCA E(P)	12 51 37.5
I	52 09.0
ES	53 38.0
APR 10	
COL EP	13 15 51.4
APR 10	
H-14 11 53.4	
14.0N 091.0W	
h ABOUT 161KM	
TUC IP	14 17 10.0
EUR IP	14 18 20.4
APR 10	
TUC E(P)	14 20 40.0

Date and Station	Phase (GCT)
	h m s
COL EP	14 28 11.4
APR 10	
EUR EP	15 07 25.8
APR 10	
H-18 32 30.7	
36.4S 072.8W	
h ABOUT 045KM	
TUC EP	18 44 20.9
IpP	13 44 31.9
ALQ EP	18 44 24.0
IpP	44 34.0
FGU EP	18 44 58.4
EUR IP	18 45 03.9
APR 10	
FGU IP	19 07 07.8
ES	07 40.0
APR 10	
EUR EP	19 23 17.4
APR 10	
BOZ EP	19 41 47.0
ES	42 10.0
BUT EP	19 42 02.4
ES	42 25.4
FGU E(P)	19 42 36.9
APR 10	
EUR EP	19 44 59.2
APR 10	
COL EP	20 20 01.0
APR 10	
EUR E(P)	21 06 24.3
APR 10	
TUC IP	22 22 09.0
APR 10	
EUR IP	22 24 37.0
APR 10	
EUR E(P)	22 45 32.8
APR 10	
BOZ EP	22 59 33.7
E(S)	59 48.0
BUT EP	22 59 46.9
ES	23 00 13.7
APR 10	
H-23 10 32.9	
16.1N 094.4W	
h ABOUT 033KM	
TUC E(P)	23 15 19.0
I	15 32.0
ALQ EP	23 15 25.0
FGU EIP	23 16 23.9
EUR EP	23 16 43.0

Date and Station	Phase (GCT)
	h m s
COL EP	23 20 40.0
I	21 11.0
APR 10	
EUR EP	23 10 32.9
E	11 17.7
E(PP)	14 13.1
APR 10	
FGU EP	23 12 26.2
APR 10	
H-23 23 38.6	
10.0S 160.8E	
h ABOUT 066KM	
COL IP	23 36 02.5
APR 10	
FGU E(P)	23 51 15.6
ES	51 46.6
APR 11	
SIT EP	00 44 25.0
ES	44 42.0
COL EP	00 45 08.0
APR 11	
H-01 13 48.8	
52.1N 175.7W	
h ABOUT 090KM	
COL EP	01 18 07.1
E(S)	21 53.0
EUR	01 21 36.0
IPCP	23 26.1
TUC IP	01 22 36.1
APR 11	
TUC E(P)	01 15 16.0
APR 11	
H-04 12 36.0	
14.5N 092.1W	
h ABOUT 033KM	
ALQ EP	04 17 51.0
TUC E(P)	04 17 56.0
EUR EP	04 19 06.9
APR 11	
EUR E(P)	04 59 00.0
APR 11	
EUR EP	06 34 15.4
ES	34 38.5
APR 11	
EUR E	07 29 00.0
APR 11	
BHP P	08 46 54.0
APR 11	
COL EP	08 59 10.0
EUR EP	09 02 43.9

Date and Station	Phase (GCT)
	h m s
APR 11	
H-09 33 10.1	
9.8S 116.3E	
h ABOUT 039KM	
COL E(P)	09 47 00.0
EUR IP'	09 52 10.0
E	54 11.8
ALQ EP'	09 52 12.0
APR 11	
H-10 04 34.5	
47.4N 155.7E	
h ABOUT 033KM	
COL EP	10 11 21.0
IpP	11 38.0
EL	19 27.0
EUR IP	10 14 49.0
ALQ EP	10 15 45.0
APR 11	
H-11 02 17.6	
52.5N 154.9E	
h ABOUT 033KM	
COL I(P)	11 08 42.0
E	08 52.0
EUR IP	11 12 21.0
APR 11	
H-11 35 53.8	
63.6N 149.1W	
h ABOUT 061KM	
COL IP	11 36 18.7
IS	36 40.0
EUR IP	11 42 08.0
FGU IP	11 42 20.2
ALQ E(P)	11 43 11.0
APR 11	
ALQ EP	11 48 03.0
I	48 31.0
APR 11	
H-12 10 25.5	
19.9N 109.0W	
h ABOUT 058KM	
TUC IP	12 13 21.1
ALQ EP	12 13 58.0
EUR EP	12 14 59.5
FGU IP	12 15 05.6
COL EP	12 19 30.0
APR 11	
H-13 02 30.5	
53.8N 164.8W	
h ABOUT 039KM	
COL EP	13 05 47.0

Date and Station	Phase (GCT)
	h m s
EUR IP	13 09 27.5
pP	09 39.0
TUC IP	13 10 33.2
IpP	10 43.9
ALQ EP	13 10 39.0
SJP EP	13 14 39.4
APR 11	
EUR EP	13 04 03.9
E	05 07.1
APR 11	
SLC EP	13 51 46.9
ES	52 11.8
FGU IP	13 51 51.2
IS	52 20.2
EUR EP	13 52 23.1
E	53 40.1
APR 11	
H-14 19 10.5	
79.1N 001.4E	
h ABOUT 015KM	
TUC EP	14 29 37.0
APR 11	
COL E(P)	14 25 49.0
APR 11	
SJP IP	14 43 23.5
I(S)	43 38.0
APR 11	
BCN EP	16 10 42.4
APR 11	
TUC E(P)	16 20 38.0
APR 11	
H-16 45 25.6	
60.2S 018.8W	
h ABOUT 040KM	
TUC EP'	17 04 09.8
FGU IP'	17 04 21.7
EUR EP'	17 04 25.3
COL EP'	17 05 11.0
E	05 24.0
I	05 43.0
APR 11	
TUC E(P)	18 01 45.0
APR 11	
EUR EP	18 07 43.3
COL EP	18 11 51.0
APR 11	
FGU EP	18 42 38.2
ES	43 19.2

Date and Station	Phase (GCT)
	h m s
APR 11	
H-19 19 10.5	
18.2S 175.0W	
h ABOUT 170KM	
COL IP	19 31 28.9
APR 11	
EUR E(P)	19 51 09.4
APR 11	
ALQ IP	21 08 28.0
APR 11	
TUC IP	22 02 04.0
APR 11	
EUR IP	22 25 34.0
APR 11	
TUC IP	23 04 55.1
APR 11	
BCN EP	23 38 21.5
ES	38 47.5
APR 11	
BCN EP	23 54 46.0
ES	54 17.5
APR 12	
FGU IP	00 34 19.8
IS	34 54.8
APR 12	
H-00 41 27.7	
32.0N 078.8E	
h ABOUT 028KM	
COL IP	00 53 18.2
FGU EP'	01 00 07.0
APR 12	
ALQ EP	00 44 41.0
APR 12	
SJP E(P)	01 10 16.5
EL	11 16.0
APR 12	
UKI EP	02 31 10.5
E	31 40.0
APR 12	
TUC E(P)	04 12 50.0
ALQ EP	04 13 26.0
FGU E(P)	04 14 33.7
APR 12	
H-04 13 23.7	
61.2N 147.4W	
h ABOUT 065KM	
COL IP	04 14 20.0
IS	15 06.0
FGU E(P)	04 19 33.9
TUC EP	04 20 32.1
E	20 43.2

Date and Station	Phase (GCT)
	h m s
APR 12	
BCN IP	05 19 57.2
APR 12	
BCN EP	05 21 48.5
ES	22 39.0
TUC E(P)	05 22 39.0
ES	24 21.0
APR 12	
SIT EP	07 16 15.2
IS	16 24.7
APR 12	
H-08 41 56.7	
39.0S 176.7E	
h ABOUT 106KM	
KIP E(P)	08 52 24.0
TUC EP	08 55 21.0
EUR EP	08 55 28.1
FGU E(P)	08 55 42.0
APR 12	
FGU IP	09 48 24.3
E	49 24.7
APR 12	
H-10 44 20.3	
44.6N 141.3E	
h ABOUT 255KM	
COL IP	10 51 53.9
EUR EP	10 55 14.1
FGU E(P)	10 55 30.1
BCN EP	10 55 32.3
APR 12	
H-13 38 07.0	
51.7N 174.9W	
h ABOUT 064KM	
COL EP	13 42 27.0
BOZ EP	13 45 50.0
EUR IP	13 45 53.2
FGU EP	13 46 19.6
TUC E(P)	13 46 54.0
ALQ EP	13 47 03.0
SJP EP	13 50 46.6
EpP	51 02.0
APR 12	
KIP EP	14 19 28.0
APR 12	
ALQ E(P)	19 02 48.0

Date and Station	Phase (GCT)
	h m s
APR 12	
H-19 47 54.4	
79.5N 004.0E	
h ABOUT 020KM	
TUC EP	19 58 20.2
APR 12	
FGU EP	19 54 18.4
APR 12	
H-20 48 16.8	
16.7S 173.7W	
h ABOUT 033KM	
BCN EP	21 00 06.2
TUC IP	21 00 11.0
SLC EP	21 00 29.9
BUT EP	21 00 41.5
COL IP	21 00 43.8
IpP	01 02.0
ALQ I(P)	21 00 36.0
APR 12	
FGU IP	20 57 35.8
BUT EP	20 58 37.0
E	58 59.3
APR 12	
BCN EP	23 08 17.4
ES	08 28.9
APR 12	
SLC EP	23 09 59.0
EL	10 25.0
APR 13	
SLC EP	00 17 44.5
ES	18 08.5
APR 13	
COL IP	01 36 34.3
APR 13	
H-02 20 57.9	
06.3S 076.7W	
h ABOUT 125KM	
BHP P	02 24 30.0
SJP IP	02 26 25.0
I	26 30.0
CSC IP	02 28 24.0
IS	34 23.0
CHK E(P)	02 29 30.0
ES	36 20.0
ESCS	39 10.0
PHI EP	02 29 13.0
E(PP)	31 04.0
ES	35 46.0
ALQ IP	02 29 40.0
IS	36 32.0

Date and Station	Phase (GCT)
	h m s
TUC IP	02 29 43.9
IPCP	31 40.0
ES	37 50.0
E	45 06.0
E	48 33.0
BCN IP C	02 30 21.1
IpP	30 50.4
IPCP	31 20.2
SLC IP D	02 30 31.5
EpP	31 01.0
EPCP	31 24.0
BOZ IP D	02 30 55.0
EPCP	31 37.0
BUT IP	02 31 00.6
IpP	31 26.5
IS	39 08.2
ESCS	40 16.0
EP'P'	03 00 22.0
HON EP	02 33 19.0
E	33 51.0
IS	43 34.0
E	44 28.0
ESS	49 09.0
EL	55 53.0
KIP EP	02 33 18.0
ES	43 34.0
E	44 30.0
EL	56 02.0
COL IP D	02 33 33.2
EpP	34 04.0
IPP	37 01.0
E(pPP)	37 35.0
ES	44 04.0
APR 13	
H-02 25 40.7	
03.9S 102.5E	
h ABOUT 038KM	
HHM E(P')	02 45 16.0
APR 13	
FGU IP	02 27 20.6
APR 13	
FGU E(P)	02 56 55.6
APR 13	
H-03 20 35.7	
19.5S 175.7W	
h ABOUT 208KM	
TUC IP	03 32 28.0
COL IP	03 32 56.8
IpP	33 58.0
APR 13	
FGU IP	04 13 27.9
EUR E(P)	04 14 27.0
APR 13	
EUR IP	04 19 19.5
APR 13	
EUR EP	05 22 01.5

Date and Station	Phase (GCT) h m s
APR 13	
H-07 51 43.3	
32.0S 068.4W	
h ABOUT 033KM	
ALQ EP	08 03 27.0
APR 13	
SLC IP	08 48 25.4
ES	48 40.7
APR 13	
EUR EP	08 56 27.4
APR 13	
GUA EP	10 16 28.0
FGU IP	10 27 43.3
IS	28 19.5
APR 13	
EUR IP	10 55 14.0
APR 13	
EUR EP	10 58 20.0
APR 13	
H-11 24 03.4	
36.3N 141.4E	
h ABOUT 029KM	
COL EP	11 32 55.5
E	33 20.0
APR 13	
H-14 31 25.5	
3.4S 135.6E	
h ABOUT 069KM	
GUA EP	14 35 47.0
ES	39 32.0
HON IP	14 42 30.0
IpP	42 48.7
ES	51 40.0
KIP IP	14 42 30.0
IpP	42 48.0
IS	51 46.0
E	59 20.0
EL	15 04 18.0
COL IP	14 44 05.9
IpP	44 20.0
TUC EP'	14 49 56.0
BHP IP'	14 50 55.0
SJP EP'	14 51 12.0
APR 13	
EUR IP	14 45 53.0
APR 13	
H-14 49 38.0	
35.8N 070.9E	
h ABOUT 142KM	
COL IP	15 01 06.5
IpP	01 36.0

Date and Station	Phase (GCT) h m s
APR 13	
H-15 40 29.3	
03.5S 135.7E	
h ABOUT 061KM	
COL EP	15 53 11.0
APR 13	
H-16 16 00.4	
03.5S 135.7E	
h ABOUT 080KM	
COL EP	16 28 40.0
APR 13	
COL EP	16 21 34.0
APR 13	
BOZ IP	16 29 07.0
IS	29 10.2
APR 13	
H-17 32 33.0	
17.1S 178.3W	
h ABOUT 629KM	
TUC EP	17 43 46.0
APR 13	
BOZ EP	18 27 46.0
ES	28 00.4
APR 13	
ALQ E(P)	18 33 52.0
APR 13	
H-18 53 18.0	
11.7N 087.8W	
h ABOUT 033KM	
CSC EP	18 58 25.0
ALQ E(P)	18 59 15.0
TUC E(P)	18 59 22.0
I	59 26.2
FGU IP	19 00 07.8
COL EP	19 04 09.0
APR 13	
H-19 43 49.3	
25.1N 141.8E	
h ABOUT 102KM	
COL EP	19 53 41.6
FGU IP	19 56 23.7
APR 13	
FGU E(P)	19 58 50.3
E	59 23.3
APR 13	
UKI IP	21 10 56.4
E(S)	11 15.4
APR 13	
H-22 07 49.4	
31.9S 179.9E	
h ABOUT 352KM	
TUC EP	22 20 18.0

Date and Station	Phase (GCT) h m s
APR 13	
TUC IP	22 53 26.0
APR 14	
ALQ E(P)	00 08 05.0
APR 14	
TUC E(P)	00 56 17.9
FGU E(P)	00 56 53.9
APR 14	
BCN IP	03 50 10.5
GCA IP	03 50 57.3
IS	51 33.8
APR 14	
FGU E(P)	04 45 21.2
APR 14	
EUR E(P)	05 28 51.0
APR 14	
H-05 32 34.3	
31.3S 177.7W	
h ABOUT 038KM	
TUC IP	05 45 31.4
GCA E(P)	05 45 42.9
COL E(P)	05 46 05.0
APR 14	
EUR EP	05 52 25.0
APR 14	
ALQ EP	05 56 14.0
APR 14	
H-06 28 40.5	
30.4N 139.6E	
h ABOUT 096KM	
COL IP	06 38 08.0
APR 14	
FGU E(P)	06 51 05.1
APR 14	
H-07 24 30.5	
30.1N 140.3E	
h ABOUT 033KM	
COL EP	07 34 05.0
BUT EP	07 36 37.0
APR 14	
EUR EP	07 38 54.9
APR 14	
FGU IP	07 47 01.6
APR 14	
H-07 52 04.3	
30.5N 140.7E	
h ABOUT 033KM	
COL EP	08 01 35.0
FGU EP	08 04 32.1

Date and Station	Phase (GCT) h m s
APR 14	
TUC IP	09 02 07.0
APR 14	
SJP EP	09 33 35.9
I(S)	33 55.0
APR 14	
TUC E(P)	10 11 55.0
APR 14	
COL EP	11 14 44.0
APR 14	
BUT EP	11 36 46.8
ES	37 08.0
APR 14	
H-13 14 25.6	
05.3S 153.8E	
h ABOUT 165KM	
COL IP	13 26 27.4
IpP	27 07.0
APR 14	
TUC E(P)	13 33 21.0
APR 14	
COL IP	15 16 03.8
APR 14	
BOZ EP	15 38 36.2
ES	38 48.5
BUT EP	15 38 50.2
I	38 52.2
IS	39 29.5
FGU E(P)	15 39 17.4
I	39 27.5
E(S)	39 42.9
SLC EP	15 39 37.2
ES	40 36.7
APR 14	
BUT EP	15 41 57.2
ES	42 24.5
APR 14	
FGU E(P)	15 49 17.4
I	49 27.5
I	49 42.9
APR 14	
H-18 58 24.0	
29.4N 139.5E	
h ABOUT 033KM	
BUT IP	19 10 35.5
FGU IP	19 11 00.7
APR 14	
COL IP	19 40 15.0
APR 14	
ALQ EP	20 04 51.5
ES	05 30.0

Date and Station	Phase (GCT)
	h m s
APR 14	
H-20 36 54.2	
30.7N 139.8E	
h ABOUT 115KM	
COL IP	20 46 17.3
BUT IP	20 48 50.1
APR 14	
BUT IP	21 02 13.9
ES	02 41.9
APR 15	
H-05 17 10.7	
24.3S 070.4W	
h ABOUT 100KM	
TUC EP	05 28 03.3
E>P	28 24.2
E<P	28 33.2
APR 15	
H-05 40 43.4	
23.8S 069.0W	
h ABOUT 112KM	
SJP EP	05 48 21.1
ALQ IP	05 51 35.0
E>P	52 01.5
TUC IP	05 51 36.0
I>P	52 03.0
I<P	52 13.5
GCA E(P)	05 52 01.3
FGU IP	05 52 12.3
BUT IP	05 52 42.0
E>P	53 09.7
COL EP	05 54 45.0
APR 15	
H-07 32 59.6	
60.8N 147.5W	
h ABOUT 058KM	
COL IP	07 34 01.5
IS	35 00.0
ALQ EP	07 40 03.5
TUC EP	07 40 07.0
APR 15	
ALQ EP	07 33 23.5
APR 15	
TUC E(P)	09 13 40.0
APR 15	
TUC E(P)	10 07 37.5
ALQ EP	10 08 16.5
APR 15	
BUT EP	14 17 46.9
ES	18 15.5

Date and Station	Phase (GCT)
	h m s
APR 15	
H-15 01 25.8	
04.0S 129.0E	
h ABOUT 148KM	
COL I(P)	15 14 01.0
APR 15	
BOZ EP	15 57 08.4
BUT IP	15 57 22.3
ES	57 46.5
APR 15	
BUT I(P)	16 48 21.5
APR 15	
FGU IP	17 51 32.9
APR 15	
EUR EP	18 21 58.0
APR 15	
EUR IP	22 03 01.8
APR 15	
H-22 18 22.7	
39.5N 110.2W	
h ABOUT 000KM	
FGU IP	22 18 52.3
SLC IP	22 18 55.1
ES	19 20.3
GCA IP	22 19 10.8
I(S)	19 46.8
EUR EP	22 19 33.8
I	19 44.8
ALQ EP	22 20 04.0
I	22 22.0
TUC E(P)	22 20 31.5
I	20 35.0
IS	22 05.9
APR 15	
FGU IP	22 29 10.7
ES	29 36.2
APR 15	
H-22 35 58.6	
14.3N 091.9W	
h ABOUT 088KM	
ALQ EP	22 41 10.0
FGU IP	22 42 06.2
EPP	43 08.2
EUR EP	22 42 25.8
COL EP	22 46 17.4
IPCP	46 55.0
APR 15	
TUC E(P)	22 53 24.0
APR 15	
H-23 39 28.1	
18.4S 173.4W	
h ABOUT 033KM	

Date and Station	Phase (GCT)
	h m s
KIP EP	23 47 23.0
TUC E(P)	23 51 27.0
EUR IP	23 51 29.5
GCA IP	23 51 38.8
FGU IP	23 51 56.2
BUT EP	23 51 59.8
COL IP	23 52 03.2
APR 16	
FGU IP	00 55 46.8
IS	56 12.6
GCA IP	00 56 04.8
IS	56 41.8
APR 16	
EUR IP	01 21 36.0
I>P	21 54.6
I(PP)	23 20.9
APR 16	
H-01 29 15.9	
00.9S 128.2E	
h ABOUT 006KM	
HON EP	01 41 01.0
ES	50 47.0
KIP EP	01 41 02.0
COL EP D	01 42 09.0
EPP	45 21.0
BUT EP	01 43 53.8
EP'	47 45.9
EPP	48 36.3
EUR EP	01 43 59.7
BOZ E(P)	01 44 07.0
EP'	47 57.5
HHM EP'	01 48 02.0
SLC EP'	01 48 05.2
CSC EP'	01 48 51.0
BHP P'	01 49 12.5
SJP EP'	01 49 17.9
EPP	53 34.0
APR 16	
H-01 37 00.5	
01.1S 128.6E	
h ABOUT 042KM	
HON EP	01 48 43.0
KIP EP	01 48 46.0
HVO IP	01 48 59.1
IS	59 01.0
COL EP	01 49 48.0

Date and Station	Phase (GCT)
	h m s
TUC EP'	01 55 42.0
EPKKP	02 07 24.5
BHP P'	01 56 52.0
SJP EP'	01 57 06.0
EPP	02 01 06.0
APR 16	
H-01 55 09.6	
00.8S 128.0E	
h ABOUT 020KM	
GUA EP	02 00 03.0
HON EP	02 06 55.0
KIP EP	02 06 57.0
HVO IP	02 07 13.9
COL EP	02 08 01.0
EPP	11 18.0
SLC EP	02 09 37.6
EP'	13 44.7
BUT EP	02 09 43.3
EP'	13 34.7
PP	14 24.6
TUC EP'	02 13 54.0
ALQ EP'	02 14 08.0
BHP EP'	02 15 02.5
SJP IP'	02 15 10.0
APR 16	
H-02 05 51.7	
01.3S 126.9E	
h ABOUT 033KM	
KIP EP	02 17 38.0
HVO EP	02 17 50.3
COL EP	02 18 46.0
ALQ IP'	02 24 22.5
TUC EP'	02 24 28.2
APR 16	
TUC EP'	02 07 24.5
APR 16	
H-02 50 59.4	
00.9S 127.9E	
h ABOUT 058KM	
COL EP	03 03 46.0
APR 16	
H-03 32 25.0	
01.0S 128.0E	
h ABOUT 033KM	
COL EP	03 45 17.0
TUC EP'	03 51 08.8
ALQ EP'	03 51 13.0

Date and Station	Phase	(GCT)
		h m s
APR 16		
H-03 46 32.4		
1.0S 127.9E		
h ABOUT 036KM		
COL EP		03 59 21.0
APR 16		
EUR EP		04 02 06.3
APR 16		
FGU E(P)		04 03 44.9
APR 16		
H-04 10 13.4		
.9S 128.0E		
h ABOUT 024KM		
COL EP		04 23 07.0
ALQ EP'		04 29 03.0
APR 16		
H-05 31 59.2		
18.3S 177.8W		
h ABOUT 556KM		
EUR EP		05 43 18.9
TUC IP		05 43 21.0
	E>P	45 48.0
GCA IP		05 43 29.7
ALQ EP		05 43 41.0
COL IP		05 43 41.7
	E>P	45 18.0
APR 16		
H-05 34 34.2		
44.8N 110.4W		
h ABOUT 056KM		
BOZ EP		05 34 52.4
	ES	35 06.0
BUT IP		05 35 06.3
	I	35 07.9
	IS	35 32.2
FGU IP		05 35 33.9
	I	35 46.9
	E(S)	36 44.7
SLC E(P)		05 35 44.7
	E	35 50.2
	ES	36 40.2
EUR EP		05 36 12.7
APR 16		
H-07 41 22.3		
1.2S 129.5E		
h ABOUT 222KM		
COL E(P)		07 53 57.0
APR 16		
H-07 45 31.5		
1.4S 127.7E		
h ABOUT 033KM		
COL E(P)		07 58 24.0

Date and Station	Phase	(GCT)
		h m s
APR 16		
ALQ IP		08 35 40.0
	I	36 19.0
APR 16		
H-09 10 29.9		
.9S 128.6E		
h ABOUT 039KM		
COL EP		09 29 20.0
APR 16		
ALQ E(P)		09 28 48.0
APR 16		
EUR EP		10 17 41.7
TUC E(P)		10 19 24.0
APR 16		
H-10 41 08.9		
39.7N 110.5W		
h ABOUT 000KM		
FGU IP		10 41 37.7
	IS	42 00.7
GCA IP		10 41 56.6
	IS	42 25.6
EUR E(P)		10 42 22.6
	E	42 30.1
ALQ E(P)		10 42 28.0
APR 16		
ALQ EP		10 59 16.0
TUC E(P)		10 59 22.0
APR 16		
BUT EP		11 57 40.1
	ES	58 03.5
APR 16		
H-12 03 44.4		
1.1S 127.4E		
h ABOUT 050KM		
COL EP		12 16 33.0
	I>P	16 47.0
EUR EP'		12 22 15.5
FGU IP'		12 22 23.2
TUC IP'		12 22 27.0
	EPP	23 44.0
SJP EP'		12 23 37.5
	IP'	24 11.0
APR 16		
ALQ E(P)		12 21 03.0
	I	22 32.5
APR 16		
COL EP		13 00 13.0
APR 16		
ALQ E(P)		14 21 04.0
	I	23 15.0
FGU E(P)		14 22 02.6

Date and Station	Phase	(GCT)
		h m s
COL EP		14 23 01.0
APR 16		
TUC E(P)		14 23 15.2
APR 16		
EUR E(P)		14 47 18.5
APR 16		
ALQ E(P)		15 10 09.0
APR 16		
EUR EP		15 58 36.0
TUC E(P)		16 00 18.0
ALQ EP		16 00 23.0
APR 16		
GCA IP		16 40 19.0
	IS	40 48.0
EUR E(P)		16 40 28.0
APR 16		
H-16 54 11.8		
48.1N 128.6W		
h ABOUT 033KM		
EUR EP		16 57 11.7
ALQ EP		16 58 54.0
APR 16		
FGU IP		17 28 36.0
APR 16		
EUR EP		17 57 40.8
APR 16		
H-18 47 07.9		
35.9N 044.3E		
h ABOUT 060KM		
COL EP		18 59 08.2
	E	59 35.0
APR 16		
EUR E(P)		18 52 47.0
	E	53 07.5
APR 16		
EUR E(P)		18 56 01.0
APR 16		
BCN IP		19 01 56.5
	ES	02 01.0
APR 16		
FGU IP		22 18 51.0
	I	19 15.0
	IS	20 19.5
APR 16		
EUR IP		22 23 18.7
APR 16		
FGU EP		22 26 32.3
APR 16		
FGU E(P)		22 28 29.0
	ES	29 00.0

Date and Station	Phase	(GCT)
		h m s
APR 16		
TUC IP		22 57 42.0
APR 17		
BCN IP		00 06 11.4
	IS	06 22.7
APR 17		
H-00 09 34.2		
34.3S 106.3W		
h ABOUT 033KM		
TUC EP		00 20 23.2
EUR EP		00 21 08.7
FGU E(P)		00 21 16.0
APR 17		
GCA E(P)		01 07 20.5
APR 17		
H-01 10 11.0		
.9S 127.9E		
h ABOUT 033KM		
COL EP		01 23 02.0
EUR EP'		01 28 26.7
	E	29 05.7
APR 17		
H-02 11 36.7		
19.7S 178.3E		
h ABOUT 125KM		
HON EP		02 20 00.0
	ES	26 50.0
	ESS	30 20.0
	EL	32 06.0
KIP E(P)		02 20 03.0
	ES	26 54.0
	ESS	30 22.0
	EL	33 14.0
UKI EP D		02 23 36.5
BCN EP D		02 23 55.4
EUR IP C		02 23 59.2
TUC IP		02 24 02.0
GCA IP		02 24 09.4
COL IP C		02 24 13.0
	I	24 24.0
SLC EP		02 24 15.7
FGU IP		02 24 24.1
BUT IP		02 24 25.3
	E	25 17.9
	ES	35 31.3
BOZ EP		02 24 30.0
	E	24 44.0
CSC EP'		02 30 24.0

Date and Station	Phase (GCT)
	h m s
APR 17	
BUT EP	06 27 30.7
ES	27 58.4
APR 17	
EUR EP	06 53 18.6
APR 17	
H-08 23 33.4	
15.7S 174.1W	
h ABOUT 120KM	
TUC IP	08 35 15.8
EUR EP	08 35 16.5
GCA IP	08 35 25.7
COL IP	08 35 44.7
I▸P	36 22.0
APR 17	
FGU IP	08 25 43.4
APR 17	
H-10 20 06.8	
1.0S 127.7E	
h ABOUT 120KM	
COL E(P)	10 32 57.0
APR 17	
H-10 45 18.5	
36.4N 070.5E	
h ABOUT 079KM	
COL EP	10 56 52.0
APR 17	
H-12 13 34.5	
18.3S 173.6W	
h ABOUT 033KM	
EUR E(P)	12 25 35.0
FGU E(P)	12 25 53.2
COL IP	12 26 10.8
APR 17	
SIT IP	16 59 45.1
APR 17	
H-17 49 30.8	
58.3N 032.1W	
h ABOUT 033KM	
COL EP	17 58 12.0
EUR E(P)	17 58 59.0
APR 17	
H-17 55 02.6	
58.2N 032.2W	
h ABOUT 033KM	
COL EP	18 03 40.0
E(S)	10 48.0
EUR E(P)	18 04 23.0
APR 17	
EUR IP	18 14 19.6

Date and Station	Phase (GCT)
	h m s
APR 17	
H-18 24 32.0	
55.2S 028.5W	
h ABOUT 049KM	
COL EP'	18 44 15.0
APR 17	
H-19 08 23.9	
05.4N 081.6W	
h ABOUT 014KM	
FGU IP	19 16 28.0
EUR EP	19 16 47.9
APR 17	
TUC IP	20 56 37.9
APR 17	
EUR EP	21 45 56.7
I▸P	46 10.2
APR 17	
EUR IP	22 22 17.7
APR 17	
EUR EP	23 24 46.8
APR 18	
SIT IP	00 59 05.2
IS	59 12.4
APR 18	
H-01 51 55.2	
20.3S 177.7W	
h ABOUT 531KM	
EUR IP	02 03 24.8
TUC IP	02 03 25.0
COL IP	02 03 47.7
E▸P	05 45.0
FGU IP	02 03 49.6
APR 18	
EUR EP	02 13 40.9
TUC E(P)	02 13 43.2
COL EP	02 14 04.0
APR. 18	
H-03 23 07.2	
13.2S 176.5W	
h ABOUT 403KM	
EUR E(P)	03 34 17.0
TUC EP	03 34 20.8
COL EP	03 34 38.0
APR 18	
TUC E(P)	04 19 21.0
APR 18	
H-04 27 39.6	
19.3N 109.2W	
h ABOUT 033KM	
TUC IP	04 30 45.0

Date and Station	Phase (GCT)
	h m s
ALQ EP	04 31 21.8
BCN EP	04 31 41.6
E	32 19.1
E	32 46.5
GCA E(P)	04 31 47.5
EUR EP	04 32 22.0
FGU EP	04 32 27.8
APR 18	
H-06 43 01.5	
22.1S 178.5W	
h ABOUT 033KM	
EUR E(P)	06 55 33.0
APR 18	
EUR EP	09 16 43.0
EL	20 22.5
APR 18	
H-10 43 16.9	
44.8N 110.3W	
h ABOUT 033KM	
BOZ EP	10 43 34.5
ES	43 49.5
BUT EP	10 43 48.9
ES	44 14.9
FGU IP	10 44 15.7
I	44 27.3
ES	45 20.2
SLC E(P)	10 44 20.0
E	44 32.6
ES	45 30.2
EUR EP	10 44 53.6
APR 18	
BOZ EP	12 12 14.4
ES	12 29.0
BUT EP	12 12 29.5
ES	12 53.6
FGU EP	12 12 49.6
EUR E(P)	12 13 24.0
APR 18	
GCA E(P)	14 07 22.0
E(S)	08 08.0
APR 18	
H-14 59 12.6	
45.0N 111.0W	
h ABOUT 033KM	
BOZ I(P)	14 59 23.5
IS	59 35.8
FGU IP	15 00 17.0
IS	01 10.5
SLC E(P)	15 00 25.8
ES	01 13.0
EUR EP	15 00 46.4

Date and Station	Phase (GCT)
	h m s
COL EP	15 05 08.0
APR 18	
ALQ EP	16 30 36.5
APR 18	
EUR E(P)	17 02 03.0
E	02 44.0
APR 18	
BUT EP	17 32 43.8
I(S)	33 05.7
FGU IP	17 33 17.9
APR 18	
EUR E(P)	17 35 06.0
E	35 47.4
APR 18	
ALQ E(P)	18 26 03.0
ES	27 07.0
APR 18	
BCN IP	19 09 44.9
IS	09 52.9
APR 18	
BOZ IP	20 01 10.0
IS	01 22.0
APR 18	
EUR E(P)	20 47 22.0
APR 18	
BUT EP	21 01 24.8
IS	01 46.8
APR 18	
FGU E(P)	21 27 32.7
E	28 01.2
ALQ EP	21 28 48.0
APR 18	
FGU IP	21 55 40.5
IS	56 09.2
EUR EP	21 56 00.1
APR 18	
H-22 04 31.5	
23.0S 065.0W	
h ABOUT 033KM	
EUR EP	22 16 30.0
APR 18	
EUR EP	22 17 57.4
IL	18 09.6
APR 18	
TUC IP	22 53 20.1
APR 19	
H-03 21 08.9	
35.8N 118.0W	
h ABOUT 014KM	
BCN EP	03 21 54.5
I	21 57.8
IS	22 32.3

Date and Station	Phase	Phase (GCT) h m s
FUR	IP	03 22 12.7
	IS	23 10.6
GCA	E(P)	03 22 34.0
	E	22 46.0
	EL	24 05.5
TUC	E(P)	03 22 57.0
	E	23 23.3
ALQ	E(P)	03 23 33.5
APR 19		
EUR	EP	03 40 37.5
ALQ	EP	03 42 14.0
APR 19		
H-03 47 22.7		
9.8S 120.5E		
h ABOUT 033KM		
EUR	EP'	04 06 18.1
ALQ	EP'	04 06 32.0
APR 19		
COL	E(P)	03 59 25.0
APR 19		
EUR	IP	04 00 19.6
	ES	00 49.6
APR 19		
ALQ	EP	04 10 57.0
APR 19		
EUR	EP	06 01 48.8
APR 19		
H-06 19 19.1		
31.8N 115.6W		
h ABOUT 015KM		
TUC	EP	06 20 23.3
EUR	EP	06 21 14.0
	E	23 35.6
APR 19		
H-06 20 16.8		
32.7S 072.0W		
h ABOUT 033KM		
ALQ	EP	06 31 55.0
FGU	IP	06 32 30.0
EUR	EP	06 32 38.3
APR 19		
BCN	EP	06 20 42.6
	ES	21 39.6
APR 19		
TUC	E(P)	06 53 38.0
APR 19		
H-07 30 11.9		
34.9N 025.2E		
h ABOUT 009KM		
COL	E(P)	07 42 25.0
APR 19		
H-07 35 22.7		
35.7N 096.9E		
h ABOUT 033KM		
GUA	I(P)	07 44 07.0
	E	44 19.0
	ES	51 06.0
COL	EP	07 46 17.5
	I	47 24.0
	ES	55 15.0
	EL	08 02 59.0
	E	14 42.0
SIT	EP	07 47 19.0
	ES	57 22.0
	EL	08 15 00.0
HON	E(P)	07 48 24.0
	EPP	51 56.0
	IS	58 56.0
	I	08 00 22.0
	E	01 49.0
	E	04 42.0
	EL	10 48.0
HHM	IP C	07 48 30.3
BUT	EP	07 48 42.9
	EPP	52 35.0
BOZ	EP	07 48 45.0
EUR	EP C	07 49 04.4
	EPP	52 15.6
FGU	EP	07 49 07.6
ALQ	EP	07 49 37.2
	E	08 00 20.0
	E	09 24.0
CSC	EP'	07 54 35.0
	EPKS	08 02 13.0
KIP	ES	07 58 56.0
	IPPS	08 00 19.0
	ESS	04 42.0
	EL	07 10 44.0
APR 19		
FGU	IP	08 30 22.8
APR 19		
EUR	EP	11 01 31.4
	ES	01 52.6
APR 19		
COL	IP	14 21 29.3
EUR	IP	14 21 50.5
APR 19		
BCN	EP	15 05 42.6
	ES	06 39.6
APR 19		
EUR	EP	15 19 30.0
APR 19		
H-16 17 47.1		
58.7S 025.6W		
h ABOUT 035KM		
TUC	EP'	16 36 24.7
FGU	IP'	16 36 36.0
COL	IP'	16 37 39.4
APR 19		
SLC	EP	16 30 51.8
	E	31 10.3
	EL	31 25.7
APR 19		
EUR	EP	16 46 37.7
ALQ	E(P)	16 46 47.0
	I	49 09.5
TUC	IP	16 48 38.0
APR 19		
SLC	EP	17 42 37.0
	ES	43 09.3
APR 19		
EUR	EP	19 55 58.7
APR 19		
ALQ	EP	21 09 43.0
APR 19		
TUC	E(P)	21 53 21.5
APR 19		
EUR	EP	22 24 36.5
	IL	24 45.0
APR 19		
EUR	IP	22 28 38.0
	IL	28 50.0
APR 19		
H-22 44 15.3		
30.0S 177.5W		
h ABOUT 030KM		
TUC	IP	22 57 07.8
	IpP	57 22.8
EUR	EP	22 57 12.0
	pP	57 22.8
APR 19		
TUC	IP	22 50 13.0
APR 19		
BCN	IP	23 39 15.3
	IS	39 27.2
APR 20		
H-00 49 57.8		
46.5N 151.3E		
h ABOUT 069KM		
COL	IP	00 57 04.0
	IpP	57 21.0
	IsP	57 32.0
EUR	IP	01 00 29.0
	EpP	00 46.0
TUC	EP	01 01 17.7
	EpP	01 32.3
ALQ	I(P)	01 01 22.3
	E	02 44.0
APR 20		
EUR	IP	03 15 36.1
	IpP	15 46.0
APR 20		
H-05 46 57.5		
27.5S 070.6W		
h ABOUT 013KM		
ALQ	EP	05 58 15.0
	I	58 27.0
TUC	IP	05 58 15.0
	I	58 25.7
FGU	IP	05 58 52.7
EUR	EP	05 59 03.2
BUT	EP	05 59 21.8
APR 20		
GUA	IP	06 25 09.0
EUR	EP	06 37 45.9
APR 20		
H-07 03 45.0		
52.3N 160.0E		
h ABOUT 033KM		
EUR	EP	07 13 27.0
ALQ	EP	07 14 26.0
APR 20		
COL	EP	07 09 16.0
APR 20		
EUR	EP	08 24 20.0
TUC	EP	08 24 20.9
APR 20		
EUR	EP	13 13 52.5
APR 20		
H-14 30 59.8		
18.8N 098.7W		
h ABOUT 153KM		
TUC	EP	14 34 51.1
ALQ	IP	14 34 56.0
	I	35 02.0
FGU	IP	14 36 01.0
EUR	EP	14 36 17.0
APR 20		
EUR	EP	16 39 03.7
	EL	40 09.0
APR 20		
H-16 55 53.6		
22.7S 066.2W		
h ABOUT 247KM		
TUC	EP	17 06 36.9

Date and Station	Phase (GCT)
	h m s
EUR EP	17 07 23.2
APR 20	
COL EP	18 34 36.0
I	34 45.0
APR 20	
H-20 32 19.4	
52.2N 159.4E	
h ABOUT 064KM	
EUR IP	20 42 01.4
FGU E(P)	20 42 30.0
TUC E(P)	20 42 56.0
APR 20	
HON ES	20 47 18.0
EL	53 16.0
APR 20	
EUR EP	20 55 59.4
ES	56 31.0
APR 20	
TUC IP	21 53 54.8
APR 20	
EUR EP	22 31 25.7
IS	32 02.0
APR 20	
TUC IP	22 49 39.1
APR 20	
BCN EP	23 08 28.3
IS	08 39.9
EUR E(P)	23 09 15.6
EL	10 27.0
APR 20	
EUR EP	23 19 05.5
APR 20	
SLC EP	23 26 56.3
ES	27 22.8
APR 21	
SLC IP	00 05 11.8
I	05 32.8
IS	05 38.3
EUR E(P)	00 05 52.6
EL	06 41.0
APR 21	
EUR EP	00 36 20.1
IL	36 45.0
APR 21	
H-00 57 56.6	
16.6S 178.3W	
h ABOUT 033KM	
COL IP	01 10 26.0
APR 21	
H-04 38 21.7	
24.2N 122.3E	
h ABOUT 035KM	

Date and Station	Phase (GCT)
	h m s
GUA EP	04 43 33.0
ES	47 54.0
COL IP	04 49 21.0
I	49 40.0
BUT EP	04 51 39.0
EUR EP	04 51 49.7
FGU IP	04 52 03.0
HON ES	04 59 16.0
EL	05 07 38.0
KIP ES	04 59 18.0
EL	05 07 50.0
APR 21	
EUR EP	07 56 47.6
ES	57 09.0
APR 21	
H-09 17 04.6	
26.5N 128.7E	
h ABOUT 037KM	
COL EP	09 27 33.0
BUT EP	09 29 58.8
EUR EP	09 30 06.0
FGU IP	09 30 21.2
BCN E(P)	09 30 31.6
APR 21	
H-10 38 30.2	
03.2S 146.9E	
h ABOUT 033KM	
GUA EP	10 42 25.0
ES	46 32.0
COL EP	10 50 50.0
HON ES	10 56 54.0
EL	11 05 52.0
APR 21	
H-13 02 39.0	
35.3N 137.8E	
h ABOUT 020KM	
COL EP	13 11 50.0
EUR EP	13 14 44.5
APR 21	
EUR EP	13 47 46.5
E	48 55.0
APR 21	
BCN EP	15 31 07.5
IS	31 44.7
EUR EP	15 31 24.0
E	31 34.5
E(S)	32 23.0
APR 21	
TUC IP	21 56 19.1

Date and Station	Phase (GCT)
	h m s
APR 21	
TUC IP	22 09 58.0
ALQ EP	22 10 30.2
I	11 08.0
APR 21	
EUR IP	22 17 17.3
APR 21	
EUR EP	22 22 56.2
APR 22	
BUT EP	01 05 42.0
APR 22	
ALQ EP	05 58 59.8
APR 22	
H-07 25 31.6	
30.0S 177.8W	
h ABOUT 040KM	
BCN EP	07 38 21.8
E	38 39.4
TUC IP	07 38 22.9
I	38 38.6
E	39 06.0
E	39 29.0
EUR IP	07 38 27.6
I	38 43.9
GCA IP	07 38 34.0
APR 22	
H-08 30 31.2	
05.1S 154.0E	
h ABOUT 138KM	
EUR IP	08 43 32.6
P	44 11.4
APR 22	
TUC E(P)	09 15 23.9
APR 22	
EUR E(P)	09 27 47.7
I	27 58.7
APR 22	
EUR E	09 34 47.0
APR 22	
EUR E	09 38 02.7
APR 22	
EUR EP	10 22 48.4
APR 22	
H-10 41 26.8	
13.3N 144.5E	
h ABOUT 097KM	
GUA EP	10 41 42.0
S	42 05.0
EUR EP	10 54 12.4
APR 22	
COL IP	10 43 27.0

Date and Station	Phase (GCT)
	h m s
EUR EP	10 45 00.6
ES	45 23.3
APR 22	
BUT EP	11 04 13.5
ES	04 38.5
APR 22	
EUR I(P)	11 11 17.3
APR 22	
BOZ EP	11 14 25.6
ES	14 46.0
BUT EP	11 14 38.8
ES	14 40.6
E	15 05.0
EUR E	11 15 48.1
I	15 32.5
APR 22	
TUC EP	11 59 07.0
APR 22	
EUR EP	14 07 58.3
ES	09 11.6
APR 22	
H-15 06 54.3	
19.8S 175.3W	
h ABOUT 064KM	
EUR EP	15 19 02.5
E	19 39.1
APR 22	
H-15 38 19.1	
41.3N 038.5E	
h ABOUT 033KM	
EUR EP	15 51 47.5
APR 22	
EUR IP	15 39 05.8
ES	39 25.8
APR 22	
TUC IP	16 41 42.0
APR 22	
TUC IP	17 50 20.0
EUR E(P)	17 51 23.4
APR 22	
EUR I(P)	17 52 36.4
APR 22	
TUC E(P)	18 03 18.0
I	04 24.0
APR 22	
TUC IP	18 07 39.8
APR 22	
ALQ E(P)	18 41 50.0
ES	42 30.0
TUC IP	18 41 51.2
APR 22	
TUC IP	20 53 29.4

Date and Station	Phase	Phase (GCT) h m s
APR 22		
TUC	IP	21 57 44.8
APR 22		
TUC	IP	22 01 14.2
APR 22		
TUC	IP	22 07 57.1
APR 22		
EUR	EP	22 21 37.6
	IS	22 32.9
APR 22		
BCN	EP	23 16 32.5
	E	16 36.5
EUR	EP	23 17 23.9
	ES	18 14.6
APR 22		
TUC	E(P)	23 19 19.5
	I	19 44.2
APR 22		
TUC	IP	23 26 58.0
APR 22		
TUC	IP	23 28 59.0
APR 23		
ALQ	EP	00 28 53.0
APR 23		
GCA	IP	01 36 42.7
	IS	37 17.0
EUR	E	01 37 12.2
ALQ	E(P)	01 37 33.0
	ES	38 36.0
APR 23		
ALQ	EP	02 33 40.0
APR 23		
H-02 35 39.9		
32.3S 072.5W		
h ABOUT 033KM		
BCN	EP	02 47 39.6
EUR	IP	02 47 59.3
APR 23		
H-02 45 09.9		
11.6S 166.1E		
h ABOUT 141KM		
COL	EP	02 57 22.0
	I	57 38.0
	IpP	57 50.0
EUR	EP	02 57 49.0
	pP	03 01 20.7
APR 23		
H-02 51 15.8		
46.7N 103.5E		
h ABOUT 033KM		
COL	IP	03 00 50.6
	I	01 17.0
	ES	08 20.0
BUT	E(P)	03 03 36.2
	E	03 42.8
BOZ	E(P)	03 03 41.0
	E	03 47.0
FGU	IP	03 04 04.2
BCN	EP	03 04 20.8
	E	05 29.3
ALQ	EP	03 04 35.0
	I	04 42.0
TUC	E(P)	03 04 38.7
	E	04 47.0
APR 23		
H-03 37 44.1		
19.9N 109.2W		
h ABOUT 033KM		
TUC	EP	03 40 42.0
ALQ	E(P)	03 41 10.0
EUR	IP	03 42 20.0
APR 23		
FGU	E(P)	03 42 06.9
	E	42 24.7
APR 23		
H-06 39 22.5		
41.1N 047.3E		
h ABOUT 093KM		
COL	EP	06 50 47.0
APR 23		
EUR	E	06 54 09.6
APR 23		
H-07 19 44.8		
60.7S 024.6W		
h ABOUT 033KM		
EUR	EP'	07 38 42.7
	I	38 54.2
FGU	EP'	07 39 37.5
COL	EP'	07 39 41.9
	I	39 58.0
	I	40 07.0
APR 23		
BCN	IP	09 13 48.3
	IS	13 49.8
APR 23		
EUR	EP	09 16 55.4
APR 23		
EUR	EP	09 23 39.7
APR 23		
H-09 55 06.9		
25.7N 099.5E		
h ABOUT 030KM		
COL	EP	10 06 51.0
APR 23		
TUC	E(P)	10 31 50.5
	E	32 30.0
APR 23		
EUR	E	10 36 28.6
APR 23		
EUR	EP	11 42 15.8
	ES	42 44.4
APR 23		
EUR	E	11 52 21.3
APR 23		
H-12 58 05.5		
50.9N 129.1W		
h ABOUT 033KM		
EUR	EP	13 01 33.3
FGU	IP	13 02 02.9
COL	EP	13 02 04.0
TUC	E(P)	13 03 07.0
APR 23		
H-14 02 52.3		
42.2N 019.4E		
h ABOUT 020KM		
COL	EP	14 14 21.0
	I	14 31.0
APR 23		
FGU	EP	14 09 29.8
	IS	10 18.6
APR 23		
EUR	E	14 15 20.6
APR 23		
TUC	EP	15 00 35.0
APR 23		
TUC	E(P)	15 16 03.0
	I	16 05.0
	I	16 09.5
BUT	EP	15 17 09.8
APR 23		
H-15 32 50.1		
17.8S 178.6W		
h ABOUT 532KM		
EUR	IP	15 44 13.4
TUC	IP	15 44 15.0
COL	IP	15 44 31.3
	EpP	46 40.0
APR 23		
TUC	E(P)	17 38 31.0
APR 23		
ALQ	EP	18 39 49.0
APR 23		
H-18 52 27.0		
05.2S 146.0E		
h ABOUT 156KM		
COL	IP	19 04 44.3
	EpP	05 15.0
EUR	E(P)	19 05 54.1
APR 23		
FGU	IP	19 43 33.1
	IS	43 59.1
APR 23		
H-19 49 58.6		
23.8S 179.9E		
h ABOUT 540KM		
EUR	E(P)	20 01 39.8
COL	EP	20 02 07.0
	EpP	04 08.0
FGU	IP	20 02 10.1
APR 23		
EUR	EP	21 08 58.4
APR 23		
TUC	IP	21 49 08.0
APR 23		
TUC	IP	21 57 23.3
APR 23		
COL	IP	22 07 47.0
TUC	IP	22 14 46.3
APR 23		
COL	EP	22 13 58.0
APR 23		
EUR	EP	22 20 52.9
COL	IP	22 21 15.6
APR 23		
EUR	IP	22 24 18.7
APR 23		
COL	IP	22 34 24.1
APR 23		
H-23 02 19.9		
39.3N 055.2E		
h ABOUT 030KM		
COL	IP	23 13 58.0
APR 23		
BCN	IP	23 28 47.6
APR 24		
FGU	EP	00 17 44.9
	IS	18 29.9
APR 24		
BCN	IP	00 37 48.9
APR 24		
COL	EP	01 33 13.0
EUR	EP	01 36 41.0

Date and Station	Phase (GCT)
	h m s
APR 24	
H-02 33 08.3	
1.0S 091.6W	
h ABOUT 033KM	
BHP P	02 36 47.0
BCN EP	02 41 06.3
FGU IP	02 41 19.3
FUR EP	02 41 30.7
COL EP	02 45 00.0
APR 24	
ALQ E(P)	02 39 39.0
APR 24	
H-03 55 00.0	
17.5S 174.6W	
h ABOUT 130KM	
BCN IP	04 06 44.4
EUR IP	04 06 48.7
ALQ EP	04 07 13.0
FGU IP	04 07 16.7
COL IP	04 07 19.0
IpP	08 06.0
APR 24	
EUR EP	04 48 40.7
E	49 50.4
FGU E(P)	04 48 55.7
E	49 57.2
APR 24	
H-05 33 51.3	
10.4S 161.3E	
h ABOUT 099KM	
COL EP	05 46 12.0
EpP	46 33.0
EUR IP	05 46 46.9
APR 24	
H-05 51 46.6	
1.1S 127.3E	
h ABOUT 053KM	
FUR E(P)	06 06 39.8
ALQ EP'	06 10 34.0
SJP EP'	06 12 14.9
APR 24	
EUR E	06 27 06.2
APR 24	
H-07 10 13.9	
20.9S 066.4W	
h ABOUT 164KM	
EUR EP	07 21 44.6

Date and Station	Phase (GCT)
	h m s
APR 24	
H-09 22 09.1	
31.1S 068.1W	
h ABOUT 078KM	
ALQ EP	09 33 43.0
IPCP	34 11.0
FGU IP	09 34 18.6
IPCP	34 48.6
EUR IP	09 34 28.0
APR 24	
EUR EP	09 49 31.3
IS	50 13.1
APR 24	
EUR E	11 58 28.1
APR 24	
H-13 32 06.8	
26.6N 129.1E	
h ABOUT 010KM	
COL IP	13 42 38.6
I	42 51.0
BUT EP	13 45 02.8
E	45 16.3
FUR IP	13 45 12.3
E	46 14.8
FGU I(P)	13 45 26.8
APR 24	
H-13 33 02.9	
39.5N 110.3W	
h ABOUT 000KM	
FGU IP	13 33 33.3
SLC IP	13 33 35.5
IL	34 01.0
EUR IP	13 34 14.5
I	34 30.0
ALQ EP	13 34 27.0
I	34 44.0
IL	35 53.0
BCN E(P)	13 34 28.2
E	34 31.4
ES	35 39.7
GCA IP	13 34 14.5
TUC E(P)	13 35 12.6
APR 24	
BCN EP	14 00 25.4
E	00 37.2
APR 24	
FGU EP	14 23 39.3
ES	23 59.3
APR 24	
TUC E(P)	15 11 07.9

Date and Station	Phase (GCT)
	h m s
APR 24	
H-15 58 07.4	
52.1N 157.3E	
h ABOUT 033KM	
COL I(P)	16 04 12.6
EUR IP	16 08 01.2
APR 24	
BOZ EP	19 41 29.0
BUT EP	19 41 42.4
ES	42 07.4
FGU EP	19 42 10.1
EUR E(P)	19 42 46.3
APR 24	
H-20 31 07.6	
36.4N 071.3E	
h ABOUT 116KM	
COL EP	20 42 35.0
E	43 09.0
E	43 20.0
APR 24	
H-21 42 48.8	
20.8S 179.0W	
h ABOUT 600KM	
HON IP	21 50 26.1
KIP IP	21 50 26.5
BCN IP	21 54 14.8
EUR IP	21 54 18.5
E(pP)	56 27.4
TUC IP	21 54 18.9
EpP	56 40.5
FGU I(P)	21 54 32.5
SLC EP	21 54 34.7
COL IP	21 54 38.4
EpP	56 54.0
APR 24	
ALQ IP	21 54 06.0
IS	54 10.0
APR 24	
COL EP	22 03 32.0
E	04 34.0
APR 24	
EUR IP	22 18 15.2
APR 24	
EUR IP	22 21 06.2
APR 24	
H-22 29 34.4	
39.8N 104.7W	
h ABOUT 020KM	
FGU IP	22 30 33.9
I	30 41.4
IS	31 29.9

Date and Station	Phase (GCT)
	h m s
ALQ E(P)	22 31 05.0
E(S)	32 08.0
EUR EP	22 31 43.6
SLC IP	22 31 15.0
E(S)	32 28.0
TUC E(P)	22 32 19.5
APR 24	
FGU IP	22 43 19.0
I	43 37.5
SLC IP	22 43 22.0
ES	43 47.5
EUR EP	22 44 09.5
APR 24	
TUC E(P)	22 47 46.5
APR 24	
SLC IP	23 42 27.9
IS	42 54.5
FGU IP	23 43 00.7
I	43 35.0
EUR E(P)	23 43 12.7
E(S)	44 02.7
APR 25	
EUR E	01 21 29.0
APR 25	
BOZ EP	04 18 55.0
BUT EP	04 19 08.8
ES	19 35.8
FGU E(P)	04 19 20.2
EUR E	04 19 20.9
APR 25	
EUR IP	06 03 12.0
IS	03 46.6
APR 25	
H-06 05 13.2	
62.2N 144.1W	
h ABOUT 018KM	
COL IP	06 06 00.5
IS	06 44.8
EUR E	06 11 08.1
ALQ EP	06 12 14.8
TUC EP	06 12 20.5
APR 25	
EUR I	06 14 17.6
APR 25	
H-08 12 52.5	
04.6N 122.5E	
h ABOUT 550KM	
HON EP	08 24 01.0
KIP EP	08 24 01.0

Date and Station	Phase (GCT) h m s
HON EP	08 24 01.0
KIP EP	08 24 01.0
COL IP	08 24 32.6
EUR IP	08 26 29.5
IP'	30 24.7
PP	31 06.6
E	33 05.7
PKKP	41 36.6
BCN EP'	08 30 30.0
F	31 19.6
E	33 08.5
FGU IP'	08 30 31.5
EPP	31 37.0
I	33 11.5
TUC EP'	08 30 37.6
EPP	32 05.9
E	33 14.6
ALQ IP'	08 30 42.0
F	31 50.0
I	33 20.0
SJP EP'	08 32 14.3
APR 25	
ALQ E(P)	09 48 51.0
EUR E	09 49 34.1
APR 25	
H-11 19 20.8	
31.8N 140.4E	
h ABOUT 067KM	
COL IP	11 28 40.1
BUT EP	11 31 15.4
E	31 35.2
EUR IP	11 31 23.8
I	31 43.3
BCN E(P)	11 31 44.1
ALQ E(P)	11 32 05.0
TUC E(P)	11 32 05.5
APR 25	
COL E(P)	11 22 22.0
APR 25	
SLC E(P)	11 30 16.5
E(S)	31 35.0
APR 25	
FGU E(P)	11 31 25.7
APR 25	
H-11 54 58.6	
29.9N 136.9E	
h ABOUT 033KM	
EUR E(P)	12 07 23.5
FGU E(P)	12 07 32.4

Date and Station	Phase (GCT) h m s
APR 25	
H-13 02 28.9	
23.4S 113.0W	
h ABOUT 033KM	
TUC EP	13 12 02.8
E	13 03.0
ALQ EP	13 12 23.0
I	13 15.0
EUR IP	13 12 52.8
I	13 04.8
COL IP	13 15 35.1
APR 25	
EUR E	14 49 05.6
APR 25	
H-16 35 54.2	
01.4S 128.8E	
h ABOUT 015KM	
GUA EP	16 40 48.0
KIP E(P)	16 47 43.0
HON E(P)	16 47 44.0
COL EP	16 48 46.0
EPP	52 08.0
ALQ EP'	16 54 39.0
APR 25	
H-17 48 02.0	
09.8N 126.9E	
h ABOUT 040KM	
EUR I(P)	18 02 15.4
APR 25	
H-17 50 21.4	
21.7S 177.9W	
h ABOUT 346KM	
TUC IP	18 02 15.0
E▸P	03 41.9
ALQ EP	18 02 35.2
E▸P	04 04.0
COL IP	18 02 38.9
E▸P	04 08.0
APR 25	
TUC IP	20 39 17.1
ALQ EP	20 39 40.0
I	39 49.0
EUR IP	20 39 49.5
ES	40 11.8
APR 25	
EUR IP	22 21 50.9
ES	22 33.9
APR 25	
TUC IP	22 54 22.0

Date and Station	Phase (GCT) h m s
APR 25	
TUC IP	22 56 20.8
E	57 08.0
APR 25	
SLC EP	23 52 29.5
IS	52 54.5
APR 26	
COL EP	00 17 09.0
APR 26	
ALQ E(P)	00 36 29.0
APR 26	
COL EP	00 47 58.0
APR 26	
COL EP	00 58 18.0
I	58 21.0
E	58 36.0
TUC EP	01 03 23.2
BCN E(P)	01 03 24.2
E	03 45.2
ES	04 45.2
EUR IP	01 04 12.2
APR 26	
EUR IP	01 06 20.2
APR 26	
COL EP	04 15 33.0
EUR EP	04 19 29.0
IS	20 26.0
ALQ EP	04 20 31.0
I	20 39.0
APR 26	
BHP P	04 46 58.9
APR 26	
ALQ EP	05 46 24.0
E	46 45.0
APR 26	
EUR E	05 48 57.9
APR 26	
EUR E(P)	06 59 51.8
APR 26	
COL EP	07 42 16.0
E	43 02.0
APR 26	
H-08 18 11.2	
18.1S 173.9W	
h ABOUT 033KM	
TUC IP	08 30 11.0
EUR IP	08 30 12.0
COL IP	08 30 45.1
APR 26	
H-12 15 20.8	
32.4N 140.4E	
h ABOUT 146KM	

Date and Station	Phase (GCT) h m s
EUR E(P)	12 27 12.6
I	27 32.7
APR 26	
COL E(P)	12 20 16.0
E	21 20.0
APR 26	
EUR E(P)	13 19 47.8
APR 26	
H-15 22 51.3	
64.4N 148.3W	
h ABOUT 139KM	
COL I(P)	15 23 06.0
IS	23 18.0
IL	23 20.0
EUR I(P)	15 29 00.8
APR 26	
H-16 44 14.6	
18.2S 069.3W	
h ABOUT 131KM	
SJP IP	16 51 05.7
I	51 39.0
ALQ EP	16 54 33.0
EUR IP	16 55 27.6
E▸P	55 58.8
COL EP	16 57 57.0
I▸P	58 22.0
APR 26	
EUR IP	18 48 56.4
APR 26	
EUR E	19 50 33.9
APR 26	
ALQ IP	21 35 57.0
APR 26	
EUR E(P)	22 37 53.4
APR 26	
EUR I(P)	23 00 51.0
APR 26	
H-23 44 56.7	
24.0N 122.5E	
h ABOUT 002KM	
COL EP	23 56 02.0
EUR EP	23 58 30.3
APR 26	
SLC EP	23 54 16.3
IS	54 41.0
EUR E(P)	23 55 04.7
APR 27	
EUR EP	00 15 21.3
APR 27	
COL IP	02 08 38.2

Date and Station	Phase (GCT) h m s
APR 27	
H-03 42 31.1	
66.4N 019.4W	
h ABOUT 020KM	
COL EP	03 50 38.0
EUR IP	03 52 21.4
TUC EP	03 52 48.0
I	52 50.8
APR 27	
H-04 53 50.9	
44.8N 110.3W	
h ABOUT 033KM	
BOZ IP	04 54 09.5
IS	54 24.4
BUT IP	04 54 22.8
I	54 24.6
IS	54 50.7
SLC E(P)	04 55 01.3
E	55 07.3
ES	55 41.3
EUR IP	04 55 30.4
E	55 57.3
COL E(P)	04 59 52.0
APR 27	
H-08 33 38.2	
16.1S 173.9W	
h ABOUT 062KM	
TUC EP	08 45 28.0
EpP	45 54.3
ALQ E(P)	08 45 50.0
COL IP	08 45 58.2
IpP	46 22.0
APR 27	
H-08 42 58.1	
.9S 128.4E	
h ABOUT 027KM	
KIP EP	08 54 43.0
ES	09 04 34.0
EL	14 02.0
HON E(P)	08 54 46.0
ES	09 04 27.0
E	07 45.0
E	09 06.0
EL	14 02.0
COL EP	08 55 49.0
E(PP)	59 25.0
ALQ EP'	09 01 47.0
BHP EP'	09 02 53.0
SJP EP'	09 03 24.1
APR 27	
EUR EP	09 58 45.2
ES	59 20.2

Date and Station	Phase (GCT) h m s
APR 27	
ALQ EP	10 35 35.0
APR 27	
H-11 03 36.5	
22.4S 068.5W	
h ABOUT 161KM	
ALQ IP	11 14 17.1
pP	14 41.0
TUC IP	11 14 19.1
IpP	14 43.7
EUR IP	11 15 08.1
BUT I(P)	11 15 25.2
IpP	15 49.7
IsP	16 00.3
APR 27	
SJP IP	11 11 23.9
APR 27	
H-13 39 33.9	
45.0N 111.4W	
h ABOUT 033KM	
BOZ EP	13 39 46.3
ES	40 01.0
BUT IP	13 40 00.0
I	40 01.2
IS	40 24.5
SLC EP	13 40 36.8
ES	41 34.3
EUR EP	13 41 08.3
APR 27	
H-15 10 10.2	
61.4N 147.2W	
h ABOUT 033KM	
COL IP	15 11 04.6
IS	11 41.0
SIT EP	15 11 57.8
EUR E(P)	15 16 08.2
ALQ E(P)	15 17 10.0
APR 27	
EUR E	17 18 32.2
APR 27	
H-18 54 32.3	
16.7S 172.9W	
h ABOUT 033KM	
COL EP	19 06 59.0
APR 27	
EUR IP	19 02 40.0
APR 27	
BOZ EP	19 18 33.5
ES	18 45.5
BUT E(P)	19 18 41.5
E(S)	19 12.0

Date and Station	Phase (GCT) h m s
FGU EP	19 19 03.2
ES	19 50.2
APR 27	
H-19 29 45.7	
30.5S 071.4W	
h ABOUT 065KM	
SJP I(P)	19 38 24.2
TUC EP	19 41 09.0
ALQ EP	19 41 11.0
FGU IP	19 41 47.2
EUR IP	19 41 56.1
APR 27	
ALQ E(P)	22 13 06.0
E	13 37.5
APR 27	
COL EP	22 55 20.0
APR 28	
FGU E(P)	00 46 46.5
I	47 10.0
APR 28	
SLC EP	00 55 35.0
IS	56 00.6
FGU IP	00 56 08.0
IS	56 43.5
EUR EP	00 56 22.4
APR 28	
H-02 05 17.9	
23.8S 068.7W	
h ABOUT 107KM	
ALQ EP	02 16 11.1
I	16 38.5
TUC EP	02 16 13.0
E	16 40.0
E	16 50.0
EUR I(P)	02 17 00.9
APR 28	
H-04 04 58.4	
30.2N 131.0E	
h ABOUT 033KM	
COL EP	04 14 58.0
EUR IP	04 17 41.8
FGU I(P)	04 17 57.3
APR 28	
H-05 22 05.0	
11.7S 078.1W	
h ABOUT 010KM	
ALQ IP	05 31 29.8
I	31 42.0
TUC IP	05 31 31.0
I	31 44.2

Date and Station	Phase (GCT) h m s
FGU IP	05 32 13.5
EUR IP	05 32 27.7
I	32 21.7
COL IP	05 35 15.3
I	35 29.0
EPP	38 47.0
APR 28	
EUR E	05 39 26.5
APR 28	
ALQ EP	11 20 51.5
APR 28	
COL EP	12 18 09.6
I	19 00.0
EUR E(P)	12 23 41.1
APR 28	
ALQ EP	13 42 22.2
E	42 19.0
APR 28	
H-14 16 05.7	
17.6S 178.5W	
h ABOUT 503KM	
EUR IP	14 27 30.7
TUC IP	14 27 32.5
EpP	29 28.0
COL IP	14 27 49.2
E	28 06.0
EpP	29 46.0
ALQ EP	14 27 53.8
APR 28	
H-15 25 26.8	
17.9S 174.2W	
h ABOUT 033KM	
COL IP	15 38 01.3
E	38 17.0
APR 28	
COL EP	16 06 43.0
EUR IP	16 10 04.1
APR 28	
H-16 38 57.0	
20.8S 069.5W	
h ABOUT 122KM	
TUC EP	16 49 33.0
APR 28	
COL E(P)	17 37 51.0
APR 28	
H-18 13 27.6	
09.8S 160.4E	
h ABOUT 007KM	
COL IP	18 25 57.5
I	26 23.0
EUR IP	18 26 36.3
I	26 51.7

Date and Station	Phase	(GCT) h m s
APR 28		
COL	EP	19 05 06.0
APR 28		
H-19 50 09.3		
36.3N 071.3E		
h ABOUT 123KM		
COL	IP	20 01 35.7
APR 28		
ALQ	E(P)	20 07 40.0
APR 28		
H-21 57 28.0		
24.2S 068.7W		
h ABOUT 082KM		
EUR	EP	22 09 15.8
APR 28		
EUR	EP	22 30 24.4
APR 28		
H-23 21 35.3		
39.3N 141.0E		
h ABOUT 033KM		
COL	EP	23 30 08.7
EUR	EP	23 33 15.3
APR 29		
H-01 20 49.1		
8.0S 158.7E		
h ABOUT 088KM		
COL	IP	01 33 04.7
	E	33 29.0
APR 29		
COL	EP	03 50 57.0
APR 29		
H-05 03 26.1		
24.3N 122.3E		
h ABOUT 015KM		
COL	EP	05 14 28.0
BUT	EP	05 16 46.5
APR 29		
TUC	EP	05 10 31.5
	E	10 34.0
COL	EP	05 11 01.0
APR 29		
EUR	E	06 13 19.1
APR 29		
BUT	EP	07 42 32.0
	E	42 34.5
	IS	43 04.5
APR 29		
EUR	E	07 55 55.8
ALQ	EP	07 57 44.0

Date and Station	Phase	(GCT) h m s
APR 29		
H-08 34 26.4		
10.8S 164.4E		
h ABOUT 069KM		
COL	IP	08 46 47.0
	I	47 02.0
	E	51 29.0
EUR	E(P)	08 47 14.9
APR 29		
EUR	I(P)	08 43 39.0
APR 29		
EUR	EP	09 31 26.1
	I	31 28.8
APR 29		
COL	EP	10 16 31.5
APR 29		
EUR	EP	13 03 41.0
	ES	04 04.2
APR 29		
COL	IP	13 52 26.5
APR 29		
H-14 51 52.3		
64.0S 159.2E		
h ABOUT 033KM		
KIP	EP	15 04 58.0
TUC	EP'	15 10 37.5
EUR	IP'	15 10 45.3
	E	11 39.6
	E	23 13.1
	E	23 40.8
COL	EP'	15 10 52.0
	I	11 08.0
	EPP	13 36.0
FGU	IP'	15 10 54.0
APR 29		
BOZ	EP	17 01 13.5
	ES	01 43.0
FGU	EP	17 02 08.4
EUR	E(P)	17 02 26.9
APR 29		
BUT	EP	17 01 37.2
	ES	02 04.5
APR 29		
EUR	E	17 22 38.3
APR 29		
EUR	E	17 35 39.5
APR 29		
EUR	EP	19 16 40.8
APR 29		
EUR	E(P)	20 28 27.7

Date and Station	Phase	(GCT) h m s
APR 29		
H-20 35 39.3		
17.6N 092.4W		
h ABOUT 009KM		
BHP	P	20 39 16.0
CSC	EP	20 40 08.0
ALQ	IP	20 40 29.0
TUC	IP	20 40 37.0
SJP	E(P)	20 41 07.7
SLC	EP	20 41 38.0
EUR	IP	20 41 49.6
	I	42 03.9
	IPP	43 11.7
BUT	EP	20 42 16.0
COL	IP	20 45 46.0
APR 29		
BOZ	EP	20 41 50.0
	ES	42 10.0
APR 29		
ALQ	E(P)	21 32 31.0
APR 29		
H-21 44 17.2		
51.3N 178.7E		
h ABOUT 056KM		
COL	IP	21 49 05.3
	ES	52 44.0
	IL	53 04.0
SIT	EP	21 49 56.8
KIP	EP	21 51 06.0
	ES	56 40.0
HON	EP	21 51 08.0
	S	56 40.0
UKI	EP	21 52 03.2
HHM	EP	21 52 09.0
BUT	EP	21 52 24.0
	E	53 01.5
	IPCP	54 09.0
	I	55 20.0
	ESCP	57 56.0
BOZ	EP	21 52 30.0
	E	53 16.0
	ESCP	58 00.5
EUR	IP	21 52 36.1
	ESCP	57 52.1
	IS	59 15.5
	EL	22 00 27.2
SLC	EP	21 52 49.9
	E	53 43.1
FGU	IP	21 52 59.2
	ISCP	58 16.7

Date and Station	Phase	(GCT) h m s
TUC	IP	21 53 35.0
ALQ	IP	21 53 41.5
	IPP	53 59.9
	PCP	54 56.0
	ISCP	58 42.0
	IS	22 01 24.0
CSC	EP	21 55 27.0
BHP	P	21 57 14.0
SJP	EP	21 57 14.9
	IPP	57 31.0
APR 29		
COL	IP	21 56 40.0
APR 29		
EUR	IP	22 16 56.9
APR 29		
TUC	IP	22 52 59.5
APR 29		
TUC	IP	22 59 42.9
APR 30		
ALQ	EP	00 31 09.2
	I	31 30.0
APR 30		
H-00 36 04.6		
51.3N 178.5E		
h ABOUT 079KM		
COL	EP	00 40 53.0
TUC	EP	00 45 22.1
ALQ	EP	00 45 29.0
APR 30		
H-00 58 19.2		
00.9S 128.8E		
h ABOUT 033KM		
HON	E(P)	01 10 06.0
	E	10 30.0
	E	11 40.0
	ES	19 45.0
	EL	28 58.0
KIP	E(P)	01 10 10.0
	ES	19 42.0
COL	EP C	01 11 07.0
BCN	EP'	01 16 49.3
SLC	EP'	01 17 00.9
TUC	EP'	01 17 02.0
	I	17 08.0
	E	19 32.0
FGU	IP'	01 17 05.1
ALQ	EP'	01 17 07.0
	E	17 12.0
CSC	EP'	01 17 46.0
BHP	EP'	01 18 11.0

Date and Station	Phase (GCT)
	h m s
APR 30	
BUT I(P)	01 28 09.6
APR 30	
BCN EP	02 33 53.9
ES	34 44.5
EUR E(P)	02 34 29.6
APR 30	
H-02 34 53.7	
7.4N 126.7E	
h ABOUT 033KM	
COL EP	02 47 10.0
APR 30	
H-03 18 47.9	
51.3N 178.5E	
h ABOUT 034KM	
COL EP	03 23 40.0
I	24 20.0
EUR IP	03 27 10.8
E(PP)	29 32.3
ALQ EP	03 28 16.0
APR 30	
BUT IP	03 22 32.3
I(S)	23 59.5
APR 30	
H-03 26 05.2	
51.2N 178.6E	
h ABOUT 060KM	
COL IP	03 30 56.0
I	31 15.0
ES	34 48.0
BOZ EP	03 34 19.5
BUT E(P)	03 34 22.6
EUR IP	03 34 25.0
E(PP)	36 42.0
SLC EP	03 34 38.0
BCN EP	03 34 47.8
I▸P	35 00.6
TUC EP	03 35 23.6
ALQ EP	03 35 30.5
I▸P	35 44.0
APR 30	
EUR IP	03 33 53.7
APR 30	
EUR E	03 41 17.7
APR 30	
FUR E	04 47 21.5
APR 30	
EUR EP	05 40 25.6

Date and Station	Phase (GCT)
	h m s
APR 30	
H-06 11 46.9	
17.2N 100.2W	
h ABOUT 033KM	
TUC E(P)	06 15 54.0
BCN EP	06 16 48.6
FGU E(P)	06 16 39.8
EUR IP	06 17 20.2
COL EP	06 21 32.0
APR 30	
H-07 07 53.3	
51.3N 178.6E	
h ABOUT 045KM	
COL IP	07 12 44.0
BUT EP	07 15 59.3
BOZ EP	07 16 09.0
EUR IP	07 16 14.6
I	17 08.0
ESCP	21 47.7
ES	22 58.3
SLC EP	07 16 27.5
BCN EP	07 16 37.3
ESCP	21 56.3
FGU IP	07 16 38.5
I	18 14.3
TUC IP	07 17 13.1
ES	22 16.5
ALQ EP	07 17 19.0
I▸P	17 33.5
APR 30	
KIP EP	07 15 12.0
FGU E(P)	07 21 43.8
APR 30	
HON ES	07 20 20.0
EL	24 08.0
APR 30	
H-08 26 22.8	
17.2S 175.0W	
h ABOUT 220KM	
BCN IP	08 37 57.9
EUR IP	08 38 02.9
COL IP	08 38 31.5
E▸P	39 30.0
APR 30	
COL EP	08 36 39.0
EUR EP	08 40 08.8
BUT I(P)	08 41 25.2

Date and Station	Phase (GCT)
	h m s
APR 30	
H-10 03 58.6	
00.8S 067.8E	
h ABOUT 033KM	
BCN EP'	10 23 36.3
EUR EP'	10 23 37.5
TUC EP'	10 23 46.0
APR 30	
H-10 20 52.0	
10.7N 094.4E	
h ABOUT 028KM	
EUR EP'	10 40 01.6
APR 30	
COL E(P)	10 33 08.0
APR 30	
H-11 03 57.2	
15.0N 092.9W	
h ABOUT 033KM	
TUC EP	11 09 07.0
I	09 08.5
EUR IP	11 10 20.1
APR 30	
SLC EP	16 32 49.5
ES	32 54.8
APR 30	
TUC E(P)	16 49 45.0
APR 30	
ALQ EP	17 09 55.0
ES	10 35.0
APR 30	
ALQ E(P)	17 15 20.0
APR 30	
H-18 43 07.0	
08.3S 080.0W	
h ABOUT 009KM	
BHP P	18 47 10.0
ALQ EP	18 52 03.0
TUC E(P)	18 52 05.0
BCN EP	18 52 41.8
FGU IP	18 52 47.8
SLC EP	18 52 55.8
BOZ EP	18 53 21.0
BUT E	18 53 24.7
COL IP	18 55 59.5
I	56 11.0
APR 30	
H-23 50 26.9	
22.9S 066.9W	
h ABOUT 095KM	

Date and Station	Phase (GCT)
	h m s
ALQ EP	00 01 18.5
TUC EP	00 01 20.3