USCGS
.40

SEISMOLOGICAL BULLETIN

January, 1963

MSI - 265

COAST & GEODETIC SURVEY
MAY 13 1966
LIBRARY BRANCH

CONTENTS

List of stations 1
Station constants 2
Provisional epicenters 5
Seismogram interpretntions 14

U. S. DEPARTMENT OF COMMERCE

Luther H. Hodges, Secretary

COAST AND GEODETIC SURVEY—WASHINGTON

H. Arnold Karo, Director

FOR OFFICIAL DISTRIBUTION

National Oceanic and Atmospheric Administration

ERRATA NOTICE

One or more conditions of the original document may affect the quality of the image, such as:

Discolored pages
Faded or light ink
Binding intrudes into the text

This has been a co-operative project between the NOAA Central Library and the Climate Database Modernization Program, National Climate Data Center (NCDC). To view the original document, please contact the NOAA Central Library in Silver Spring, MD at (301) 713-2607 x124 or Library.Reference@noaa.gov

HOV Services
Imaging Contractor
12200 Kiln Court
Beltsville, MD 20704-1387
March 4, 2011

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. (CHI)
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
Tucson, Ariz. Telemeter (TUT)
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:

Director
U. S. Coast and Geodetic Survey
Washington, D. C. 20230
ATTN: Seismology Data Center

STATION AND INSTRUMENTAL CONSTANTS (JANUARY 1963)

Station	Position	Instrument	Foundation and Elevation	T_o	T_g	T_s	V	Σ	Paper Speed	Time Break Reference Point	Ground Motion Trace "Up"
Albuquerque, N. Mex.	Log cos 9.91367	Std-SP	Granite.	Z 1.0	0.75		400,000	17:1	60mm/min	Beginning	Up
H. J. Wirz	Lat. 34°56.5' N		1,853 m.	N 1.0	0.75		400,000				N
In Charge	Long. 106°27.5' W			E 1.0	0.75		400,000				E
		Std-LP		Z 30	100		3,000	Critical	15mm/min	Beginning	Up
				N 30	100		3,000				N
				E 30	100		3,000				E
Balboa Heights, C. Z.	Log cos 9.99467	Std-SP	Basalt.	Z 1.0	0.75		12,500	17:1	60mm/min	Beginning	Up
W. H. Esslinger	Lat. 8°57'39" N		36 m.	N 1.0	0.75		12,500				N
In Charge	Long. 79°33'29" W			E 1.0	0.75		12,500				E
		Std-LP		Z 30	100		750	Critical	15mm/min	Beginning	Up
				N 30	100		750				N
				E 30	100		750				E
Boulder City, Nev.	Log cos 9.90806	B, Film	Fractured	Z 1.4	0.45		100,000**	Near crit.	15mm/min	Beginning	Up
V. B. Uehling	Lat. 35°58'51" N	Z, N&E	monzonite.	N 1.4	0.45		50,000	Critical			N
In Charge	Long. 114°50'02" W	Mass 100 lb.	776 m.	E 1.4	0.45		50,000	Critical			E
Bozeman, Mont.	Log cos 9.84437	Spg, N&E	Alluvium gla-	N 11.1	8.3		8,000	3:1	30mm/min	Beginning	N
A. J. M. Johnson	Lat. 45°40'01" N		cial drift	E 10.9	7.6		8,000	11:1			E
In Charge	Long. 111°02'43" W	W-L, Z	and lake de-	Z 1.1	1.7		24,000	Under	60mm/min		Up
			posit 500'					damped			
			thick over								
			gneiss and								
			schist.								
			1,490 m.								
Butte, Mont.	Log cos 9.84167	W-A, N	Rhyolite 30 m.	N 8.02			316	50:1	15mm/min	Beginning	S
S. W. Nile	Lat. 46°00.8' N	Mass 2g	thick resting								
In Charge	Long. 112°33.8' W	W-L, N&E	on granite.	N 8.0	3.8		12,000	Near crit.	30mm/min		N
			1,758 m.	E 8.0	3.9		12,000	Near crit.			W
		B, paper, Z		Z 1.1	0.5		50,000	Near crit.	60mm/min		Up
		Mass 100 lb.									
Chicago, Ill.	Log cos 9.87251	McC-R, N&E	Limestone.	N 10			335	15:1	15mm/min	End	N
W. F. Schmidt	Lat. 41°47.3' N	Mass 2.5 kg	180 m.	E 10			335	15:1			W
In Charge	Long. 87°36.0' W										
*College, Alas.	Log cos 9.62825	W-L, Film, Z	Granite	Z 1.19	0.45		40,000**	Near crit.	15mm/min	Beginning	Up
K. Cravens	Lat. 64°51.6' N	B, Film, N&E	schist.	N 1.36	0.45		50,000**	Near crit.			N
In Charge	Long. 147°50.2' W		159 m.	E 1.40	0.45		50,000	Near crit.			E
		W, N		N 9.5	12.0		1,000	Near crit.			N
[1]College Outpost	Log cos 9.62781	B, paper, Z	Weathered	Z 1.5	0.53		425,000	Near crit.	60mm/min	Beginning	Up
K. Cravens	Lat. 64°53'08" N		schist.								
In Charge	Long. 147°48'04" W		183 m.								
Columbia, S. C.	Log cos 9.91857	W-L, Z, N&E	Consolidated	Z 1.1	1.6		24,000	Under	60mm/min	Beginning	Up
C. F. Mercer	Lat. 34°00' N		sand 150'	N 8.0	4.1		13,000	damped	30mm/min		N
In Charge	Long. 81°02' W		thick over	E 8.0	4.1		13,000				E
			granite. 94 m.								

Station	Position	Instrument	Foundation and Elevation	T_o	T_g	T_s	V	Σ	Paper Speed	Time Break Reference Point	Ground Motion Trace "Up"
Eureka, Nev.	Log cos 9.88751	B, paper, Z	Dolomite	Z 1.08	0.55		420,000	Near crit.	60mm/min	Beginning	Up
W. DePaoli	Lat. 39°29'00" N	Mass 100 lb.	bedrock.								
In Chage	Long. 115°58'12" W		2,178 m.	Z 1.1	1.5		25,000	Near crit.	30mm/min		Up
Flaming Gorge, Utah	Log cos 9.87826	B, Film, Z,	Quartzite.	Z 1.06	0.33			6:1	15mm/min	Beginning	Up
J. Hanfelt	Lat. 40°55'36" N	N&E	1,982 m.	N 1.41	0.35			3:1			N
In Charge	Long. 109°23'10" W			E 1.48	0.58			3:1			E
Glen Canyon, Ariz.	Log cos 9.90250	B, Film, Z,	Navajo sand-	Z 1.10	0.37		25,000**	8:1	15mm/min	Beginning	Up
G. Atkinson	Lat. 36°58'25" N	N&E	stone.	N 1.40	0.43		50,000**	3:1			N
In Charge	Long. 111°35'35" W		1,339 m.	E 1.37	0.45		50,000**	2:1			E
Guam, Mariana Islands	Log cos 9.98768	W-L, Z	Volcanics.	Z 1.01	1.5		5,000	Near crit.	30mm/min	Beginning	Up
R. F. White	Lat. 13°35'16" N	HTL, Z	147 m.	Z 0.5	0.55		42,000	Near crit.			Up
In Charge	Long. 144°51'58" E	Spg, N&E		N 7.35	7.0		3,000	Near crit.			N
				E 7.09	7.2		3,000	Near crit.			E
*Honolulu, Hawaii	Log cos 9.96926	M-S, N&E	Coral. 3 m.	N 12			124	20:1	15mm/min	Beginning	N
R. C. Munson	Lat. 21°18'13" N	Mass 1 lb.		E 12			142	20:1			W
In Charge	Long. 158°05'44" W	HTL, Z		Z 0.5	0.5		20,000		60mm/min		Up
		Lamont, Z, N&E		Z 15	75		8,000		15mm/min		Up
				N 15	75		8,000				N
				E 15	75		8,000				W
Hungry Horse, Mont.	Log cos 9.82255	B-VR, Z	Argillaceous	Z 1.05	0.5		188,000	Near crit.	60mm/min	Beginning	Up
R. E. Wendt	Lat. 48°20'58" N		limestone	Z 1.05	92			Near crit.	30mm/min		Up
In Charge	Long. 114°01'39" W	W-L, N&E	(Belt series).	N 3.5	3.9		10,000	Near crit.			N
			1,100 m.	E 3.4	4.1		10,000	Near crit.			E
Kipapa, Hawaii	Log cos 9.96893	B-VR, Z	Basalt.	Z 1.09	0.2		30,000	Near crit.	60mm/min	Beginning	Up
R.C. Munson	Lat. 21°25.3' N		75 m.								
In Charge	Long. 158°00.9' W										
*Philadelphia, Pa.	Log cos 9.88452	W, N&E	Cape May	N 9.0	5.4	7.8	1,400	15:1	20mm/min	End	S
I. M. Levitt	Lat. 39°57'32" N	Mass 500 g.	sand and	E 9.2	4.1	7.4	1,400	15:1			E
In Charge	Long. 75°10'30" W		gravel. 5 m.								
Rapid City, S. Dak.	Log cos 9.85637	Std-SP	Shale.	Z 1.0	0.75		25,000	17:1	60mm/min	Beginning	Up
E. L. Tullis	Lat. 44°04'30" N		995 m.	N 1.0	0.75		25,000				N
In Charge	Long. 103°12'30" W			E 1.0	0.75		25,000				E
		Std-LP		Z 30	100		750	Critical	15mm/min	Beginning	Up
				N 30	100		750				N
				E 30	100		750				E
Salt Lake City, Utah	Log cos 9.87932	McC-R, N&E	Bonneville	N 4.5			335	15:1	15mm/min	Beginning	N
A. M. Anderson	Lat. 40°45'59" N	Mass 2.5 kg.	Lake beds.	E 4.9			335	15:1			W
In Charge	Long. 111°50'54" W	W-L, Z	1,425 m.	Z 1.2	1.8		24,000	Near crit.	60mm/min		Up
San Juan, P. R.	Log cos 9.97726	W, N&E	Limestone.	N 9.8	15.6	10.4		20:1	30mm/min	Beginning	N
M. Vazquez	Lat. 18°22.9' N	Mass 500 g.	80 m.	E 9.8	16.8	10.4	1,280	20:1			W
In Charge	Long. 66°07.1' W	B, Z		Z 1.05	0.5	0.6	20,000	Critical	60mm/min		Up

Station	Position	Instrument	Foundation and Elevation	T_o	T_g	T_s	V	Σ	Paper Speed	Time Break Reference Point	Ground Motion Trace "Up"
*Sitka, Alas.	Log cos 9.73544	W, N&E	Graywacke.	N 7.5	16.5	8.2	1,000	20:1	15mm/min	Beginning	S
W. E. Osbakken	Lat. 57°03'25" N	Mass 500 g.	19 m.	E 7.5	13.2	8.2	1,000	5.5:1			E
In Charge	Long. 135°19'28" W	W-L, Z		Z 1.12	1.5		10,000		60mm/min		Up
Thule, Greenland	Log cos 9.37081	W-L, Z	Glacial	Z 1.3	1.55		12,000	Near crit.	60mm/min	Beginning	Up
Lt. F.J. Lord, Jr.	Lat. 76°25' N		material.								
In Charge	Long. 68°18' W		485 m.								
Tucson, Ariz.	Log cos 9.92696	Std-SP	Metamorphics	Z 1.0	0.75		200,000	17:1	60mm/min	Beginning	Up
C. J. Beers	Lat. 32°18'35" N		985 m.	N 1.0	0.75		200,000				N
In Charge	Long. 110°46'56" W			E 1.0	0.75		200,000				E
		Std-LP		Z 30	100		1,500	Critical	15mm/min	Beginning	Up
				N 30	100		1,500				N
				E 30	100		1,500				E
*	Log cos 9.92725	W-A, N&E	Caliche or	N 8.0			466	Critical	30mm/min	Beginning	S
	Lat. 32°14.8' N	Mass 2.3 g.	gravels 100-	E 8.0			457	Critical			E
	Long. 110°50.1' W	B, Z(LP)	300 m. thick.	Z 1.0	77		50,000	Near crit.	30mm/min		Up
		(SP)	700 m.		0.236		50,000		60mm/min		Up
[2]Tucson, Telemeter	Log cos 9.92682	B, Z	Granite.	Z 1.1	0.5		150,000	Near crit.	60mm/min	Beginning	Up
C. J. Beers	Lat. 32°20.1' N	Mass 100 lb.	1,439 m.								
In Charge	Long. 110°43.4' W										
Ukiah, Calif.	Log cos 9.88968	McC-R, N&E	Alluvium	N 11.9			75	Near crit.	30mm/min	Beginning	S
L. F. Caouette	Lat. 39°08' N	Mass 10 kg.	180 m. deep.	E 11.6			75				W
In Charge	Long. 123°13' W	W-L, Z	199 m.	Z 1.1	1.4		24,000		60mm/min		Up
Washington, D. C.	Log cos 9.89117	W-L, Z	Recent allu-	Z 1.5	4.0		10,000		30mm/min	Beginning	Up
	Lat. 38°53'33" N	Visible	vium on		Pen						
	Long. 77°01'59" W	recorder	schistose		0.5						
			granite. 0 m.								

*These stations operate visible recording seismographs of Coast and Geodetic Survey design similar to the one at Washington.

**Magnifications for film records are stated as read using an 8 power viewer.

B-Benioff Moving Coil, B-VR - Benioff Variable Reluctance, W - Wenner, McC-R - McComb-Romberg, W-A - Wood-Anderson, M-S - Milne-Shaw, HTL - Houston Technical Laboratory, Spg - Sprengnether, Std - World-Wide Network Standardized Seismograph, W-L - Wilson-Lamison.

[1]The seismometer is in a vault about 2.1 miles northeast of the main station. The signal is carried by cable to the main vault where it is fed into a galvanometer and recorded on photographic paper.

[2]The seismometer is about 9 miles northeast of the main station. The signal is transmitted by FM-FM radio to the main recorder room where it is recorded photographically.

Date 1963	Origin Time G. C. T.	Lat.	Long.	Region, Remarks and Focal Depth
January	h m s	°	°	
1	04 05 27.3	6.9 N.	73.1 W.	Northern Colombia. h about 150 km.
1	12 17 35.3	6.8 S.	156.1 E.	Solomon Islands. h about 139 km.
1	12 50 25.6	6.9 N.	73.0 W.	Northern Colombia. h about 155 km.
1	13 48 06.4	20.7 N.	144.5 E.	Mariana Islands. h about 46 km.
1	14 43 06.1	3.4 N.	122.8 E.	Celebes Sea. h about 591 km.
1	16 27 37.9	20.0 S.	175.5 W.	Tonga Islands. h about 129 km.
1	17 49 39.4	6.8 S.	154.6 E.	Solomon Islands. h about 170 km.
1	19 27 36.8	35.4 N.	58.9 E.	Iran. Felt at Kashmar and Torbat-e Heydariyek. h about 33 km.
1	19 35 55.1	40.2 S.	81.3 E.	Mid-Indian Rise. h about 33 km.
1	23 39 09.5	56.6 N.	157.5 W.	Alaska Peninsula. h about 80 km. Mag. 6½.
2	00 53 47.0	17.9 N.	82.0 W.	Caribbean Sea. h about 33 km.
2	01 15 50.6	4.6 S.	105.9 W.	Northern Easter Island Cordillera. h about 33 km.
2	03 23 34.1	5.9 S.	150.6 E.	New Britain region. h about 55 km.
2	04 31 29.6	5.8 N.	78.4 W.	South of Panama. h about 31 km.
2	05 35 40.2	17.5 S.	178.5 W.	Fiji Islands region. h about 547 km.
2	09 24 36.3	4.8 S.	144.6 E.	Near north coast of New Guinea. h about 47 km.
2	09 53 37.0	10.8 N.	84.6 W.	Costa Rica. h about 116 km.
2	11 57 21.2	51.4 N.	178.4 W.	Andreanof Islands, Aleutian Islands. h about 29 km.
2	14 56 05.8	4.2 S.	135.1 E.	West New Guinea region. h about 30 km.
2	15 55 47.8	53.0 S.	117.9 W.	Easter Island Cordillera. h about 33 km.
2	17 59 38.7	4.3 S.	135.2 E.	West New Guinea region. h about 33 km.
2	18 30 51.2	10.8 S.	165.0 E.	Santa Cruz Islands. h about 28 km.
3	03 05 04.3	29.3 N.	130.3 E.	Ryukyu Islands. Felt. h about 51 km. Mag. 5-5½ (PAL).
3	06 35 24.9	13.1 S.	166.0 E.	New Hebrides Islands. h about 40 km.
3	07 13 29.1	52.6 N.	167.7 W.	Fox Islands, Aleutian Islands. h about 33 km.
3	07 36 47.5	23.4 S.	66.9 W.	Jujuy Province, Argentina. h about 150 km.
3	09 39 44.4	5.2 S.	151.6 E.	New Britain region. Felt. h about 53 km. Mag. 5½ (PAL)
3	13 56 33.6	6.8 S.	155.3 E.	Solomon Islands. Felt at Boku. h about 80 km.
3	17 25 34.1	22.1 S.	169.7 E.	Loyalty Islands region. h about 33 km.
3	18 42 13.9	13.0 N.	145.5 E.	South of Mariana Islands. h about 33 km.
3	19 12 53.9	5.8 S.	154.6 E.	Solomon Islands. h about 139 km.
4	00 23 53.8	0.9 N.	27.6 W.	Central Mid-Atlantic Ridge. h about 33 km.
4	05 32 51.4	4.6 S.	153.2 E.	New Ireland region. h about 155 km.

Date 1963	Origin Time G. C. T.	Lat.	Long.	Region, Remarks and Focal Depth
January	h m s	°	°	
4	05 42 35.4	29.7 N.	142.2 E.	South of Honshu, Japan. h about 33 km.
4	06 43 40.9	32.7 S.	178.7 W.	South of Kermadec Islands. h about 31 km.
4	08 47 25.6	46.5 N.	153.9 E.	Kurile Islands. h about 33 km.
4	08 50 13.9	18.8 S.	169.5 E.	New Hebrides Islands. h about 243 km.
4	12 16 42.0	4.8 S.	153.8 E.	New Ireland region. Felt at Rabaul. h about 96 km.
4	21 17 10.4	6.8 N.	73.0 W.	Northern Colombia. h about 169 km.
4	23 50 13.9	46.9 N.	153.8 E.	Kurile Islands. h about 56 km.
5	00 20 17.5	2.9 N.	126.7 E.	Molucca Passage. h about 82 km.
5	03 33 33.1	3.4 N.	125.4 E.	Talaud Islands. h about 123 km.
5	06 52 26.7	65.1 N.	147.9 W.	Alaska. h about 33 km.
5	07 05 26.3	47.0 N.	153.8 E.	Kurile Islands. h about 60 km.
5	11 05 08.2	7.4 S.	73.4 W.	Peru-Brazil border region. h about 178 km.
5	13 04 48.0	17.8 S.	167.8 E.	New Hebrides Islands. Felt at Port Vila. h about 33 km.
5	13 16 43.2	10.0 S.	124.0 E.	Timor. h about 33 km.
5	15 05 00.8	43.0 N.	152.6 E.	Kurile Islands region. Felt. h about 33 km.
5	17 43 33.1	7.1 S.	71.6 W.	Western Brazil. h about 546 km.
5	21 27 03.0	41.0 N.	126.1 W.	Off coast of northern California. h about 33 km.
6	00 50 51.1	5.4 S.	147.2 E.	East New Guinea region. h about 111 km.
6	01 28 07.0	17.1 S.	168.3 E.	New Hebrides Islands. h about 224 km.
6	03 18 57.3	6.1 N.	125.4 E.	Mindanao, Philippine Islands. h about 153 km.
6	04 40 13.1	23.5 N.	108.4 W.	Gulf of California. h about 19 km.
6	06 17 25.7	2.0 S.	80.8 W.	Near coast of Ecuador. h about 32 km. Mag. $4\frac{1}{4}$-$4\frac{1}{2}$ (PAL).
6	07 29 58.5	47.1 N.	153.7 E.	Kurile Islands. h about 56 km.
6	08 04 32.1	41.7 N.	142.3 E.	Hokkaido, Japan region. Felt. h about 67 km.
6	15 24 46.7	5.0 S.	154.0 E.	New Ireland region. h about 111 km.
6	17 25 54.6	62.8 N.	151.1 W.	Central Alaska. h about 122 km.
6	18 07 46.2	44.8 N.	112.2 W.	Montana-Idaho border region. Felt in Upper Madison Valley, Montana. h about 33 km.
6	19 46 59.8	8.9 S.	123.9 E.	Flores Island region. h about 38 km.
6	21 20 56.3	47.8 N.	156.0 E.	Kurile Islands region. h about 22 km.
6	22 08 59.3	33.9 N.	28.0 E.	Eastern Mediterranean Sea. h about 33 km.
6	22 33 31.3	14.8 N.	60.9 W.	Windward Islands. h about 129 km.
7	06 24 49.0	6.4 S.	154.9 E.	Solomon Islands. Felt at Boku. h about 77 km.
7	07 09 55.9	34.0 N.	136.5 E.	Near south coast of southern Honshu, Japan. h about 351 km.

Date 1963	Origin Time G. C. T.	Lat.	Long.	Region, Remarks and Focal Depth
January	h m s	°	°	
7	11 48 19.0	0.6 N.	126.0 E.	Molucca Passage. Mag. 5½-5¾ (PAL).
7	18 28 41.1	15.9 S.	173.0 W.	Samoa Island region. h about 33 km.
7	19 19 36.9	17.5 S.	167.7 E.	New Hebrides Islands. h about 33 km.
8	01 31 47.4	39.9 N.	77.9 E.	Sinkiang Province, China. h about 33 km.
8	15 46 44.1	31.3 N.	130.3 E.	Kyushu, Japan. Felt on Kyushu, Shikoku, and Oshima. h about 158 km.
8	19 49 58.0	17.4 S.	173.0 W.	Tonga Islands region. h about 33 km.
9	02 02 38.5	29.0 S.	177.3 W.	Kermadec Islands. h about 72 km.
9	03 13 25.9	18.7 N.	145.4 E.	Mariana Islands. h about 187 km.
9	06 53 27.2	10.1 S.	123.9 E.	Timor. h about 33 km.
9	11 43 38.1	20.1 S.	168.7 E.	Loyalty Islands. h about 33 km.
9	18 22 30.6	3.8 S.	29.2 E.	Lake Tanganyika region. h about 33 km.
9	21 16 06.3	4.2 S.	128.5 E.	Banda Sea. h about 169 km.
9	21 37 31.0	16.0 S.	175.1 W.	Tonga Islands. h about 273 km.
10	05 18 36.9	18.8 N.	106.3 W.	Off coast of Jalisco, Mexico. h about 33 km.
10	06 47 04.9	36.6 N.	70.8 E.	Hindu Kush region. h about 209 km.
10	17 14 07.9	52.6 N.	157.1 E.	Kamchatka. h about 132 km.
10	18 54 48.6	13.1 N.	146.3 E.	South of Mariana Islands. h about 88 km.
10	20 13 06.5	4.1 S.	104.7 E.	Southern Sumatra. h about 213 km.
11	01 07 27.0	37.4 N.	101.6 E.	Tsinghai Province, China. h about 33 km.
11	06 42 45.7	7.6 N.	82.2 W.	South of Panama. h about 73 km.
11	11 41 37.8	35.8 N.	70.6 E.	Hindu Kush region. h about 107 km.
11	12 12 16.9	44.9 S.	75.9 W.	Off coast of southern Chile. h about 33 km. Mag. 5½ (PAL).
11	14 36 15.2	12.5 N.	88.1 W.	Off coast of Central America. h about 79 km.
11	16 09 34.2	24.3 S.	176.2 W.	South of Fiji Islands. h about 33 km.
11	17 05 41.7	29.5 S.	178.6 W.	Kermadec Islands region. h about 221 km.
12	03 40 33.1	4.7 N.	76.7 W.	Colombia. h about 84 km.
12	04 19 27.0	15.1 N.	120.4 E.	Luzon, Philippine Islands. h about 76 km.
12	06 02 12.4	16.9 N.	98.4 W.	Near coast of Guerrero, Mexico. h about 33 km.
12	06 20 16.4	36.1 N.	69.9 E.	Hindu Kush region. h about 129 km.
12	09 13 05.3	1.8 N.	129.3 E.	Halmahera. h about 119 km.
12	12 12 36.5	53.0 N.	170.6 W.	Fox Islands, Aleutian Islands. h about 105 km.
12	23 21 49.3	7.2 N.	125.4 E.	Mindanao, Philippine Islands. h about 59 km.

Date 1963	Origin Time G. C. T.	Lat.	Long.	Region, Remarks and Focal Depth
January	h m s	°	°	
13	02 39 38.7	32.9 N.	116.5 W.	California-Mexico border region. h about 33 km.
13	04 16 22.0	15.4 S.	174.3 W.	Tonga Islands. h about 33 km.
13	07 53 04.2	2.1 N.	125.2 E.	Talaud Islands. h about 146 km.
13	12 49 30.6	6.5 S.	149.2 E.	New Britain region. h about 37 km.
13	13 43 42.7	14.4 S.	171.5 E.	New Hebrides Islands region. h about 644 km.
13	16 21 13.0	49.8 S.	163.6 E.	Auckland Island region. h about 33 km.
13	17 20 21.6	32.0 S.	69.2 W.	Mendoza Province, Argentina. h about 125 km.
14	00 50 40.2	17.9 S.	168.5 E.	New Hebrides Islands. Felt at Port Vila and Forari. h about 59 km.
14	02 18 03.0	62.2 N.	150.1 W.	Central Alaska. h about 98 km.
14	09 50 30.7	12.2 S.	166.6 E.	Santa Cruz Islands. h about 144 km.
14	11 19 45.0	21.4 S.	169.4 E.	Loyalty Islands region. h about 19 km.
14	15 35 17.6	19.8 S.	175.1 W.	Tonga Islands. h about 41 km.
14	18 33 24.2	45.9 N.	26.7 E.	Rumania. h about 117 km.
15	01 32 20.0	68.9 N.	17.1 W.	Iceland region. h about 33 km. Mag. 5 (PAL).
15	02 07 56.0	13.5 S.	167.7 E.	New Hebrides Islands. h about 15 km.
15	02 32 40.7	13.4 N.	145.3 E.	Mariana Islands. h about 40 km.
15	03 22 41.6	12.0 N.	87.7 W.	Near coast of Nicaragua. h about 33 km.
15	05 23 10.2	69.1 N.	16.6 W.	Jan Mayen Island region. h about 33 km. Mag. 5-5½ (PAL).
15	06 32 30.3	37.5 S.	73.3 W.	Near coast of central Chile. h about 56 km.
15	09 47 43.5	10.6 S.	164.9 E.	Santa Cruz Islands region. h about 91 km.
15	12 22 32.5	37.5 N.	101.8 E.	Tsinghai Province, China. h about 33 km.
15	13 08 53.4	25.0 N.	122.0 E.	Taiwan region. h about 19 km.
15	13 50 31.1	11.9 N.	87.7 W.	Near coast of Nicaragua. h about 33 km.
15	15 04 15.6	36.0 N.	23.9 E.	Crete. h about 87 km.
15	17 39 03.8	21.1 S.	178.1 W.	Fiji Islands region. h about 224 km.
15	19 11 02.2	38.7 N.	75.7 E.	Southern Sinkiang Province, China. h about 87 km.
15	19 26 38.1	20.6 S.	177.9 W.	Fiji Islands region. h about 547 km.
15	22 17 46.6	31.5 S.	13.4 W.	South Atlantic Ridge. h about 5 km.
16	03 14 06.2	54.0 S.	133.6 W.	South Pacific Cordillera. h about 33 km.
16	03 38 40.4	54.2 N.	34.9 W.	North Atlantic Ocean. h about 33 km.
16	03 52 56.1	7.5 N.	74.5 W.	Northern Colombia. h about 33 km.
16	04 49 10.5	9.6 N.	93.8 E.	Nicobar Islands region. h about 61 km.

Date 1963	Origin Time G. C. T.	Lat.	Long.	Region, Remarks and Focal Depth
January	h m s	°	°	
16	05 44 54.4	51.4 N.	179.7 W.	Andreanof Islands, Aleutian Islands. h about 53 km.
16	06 38 40.0	54.2 N.	35.0 W.	North Atlantic Ocean. h about 33 km.
16	06 44 56.3	54.2 N.	35.1 W.	North Atlantic Ocean. h about 33 km.
16	12 02 18.9	41.3 N.	42.4 E.	Turkey—U.S.S.R. border region. h about 7 km.
16	12 32 37.1	54.2 N.	35.1 W.	North Atlantic Ocean. h about 33 km.
16	15 09 11.4	23.9 S.	67.7 W.	Chile-Argentina border region. h about 109 km.
16	15 30 07.4	36.4 N.	70.3 E.	Hindu Kush. h about 215 km.
16	16 06 39.1	34.7 N.	137.0 E.	Honshu, Japan. h about 344 km.
16	20 20 51.4	3.9 S.	76.8 W.	Northern Peru. h about 102 km.
16	21 08 36.2	11.1 S.	111.5 E.	South of Java. h about 64 km.
17	03 27 02.5	43.6 S.	83.6 W.	Off coast of southern Chile. h about 33 km.
17	03 52 36.0	52.1 N.	152.5 E.	Northwest of Kurile Islands. h about 394 km.
17	04 22 19.3	10.7 S.	79.0 W.	Near coast of Peru. h about 21 km.
17	04 42 41.8	5.3 S.	151.5 E.	New Britain region. h about 62 km.
17	05 56 54.7	14.0 N.	120.6 E.	Mindoro, Philippine Islands. h about 207 km.
17	19 30 59.9	8.3 S.	75.1 W.	Peru. h about 124 km.
17	20 41 13.5	25.7 N.	125.3 E.	Southwestern Ryukyu Islands. h about 126 km.
18	03 12 06.1	33.1 N.	135.9 E.	Near south coast of southern Honshu. Felt. h about 426 km.
18	05 42 31.5	14.9 S.	167.5 E.	New Hebrides Islands. h about 64 km.
18	05 49 18.4	32.0 S.	117.1 E.	Western Australia. Felt. h about 35 km.
18	12 33 50.5	46.5 N.	154.3 E.	Kurile Islands region. h about 33 km.
18	21 16 45.6	11.5 S.	166.2 E.	Santa Cruz Islands. h about 45 km.
19	02 35 08.6	38.9 N.	74.9 E.	Tadzhik-Sinkiang border region. h about 51 km.
19	07 22 24.6	41.0 N.	142.3 E.	Near east coast of Honshu, Japan. Felt. h about 33 km.
19	19 29 02.0	16.8 N.	84.9 W.	Caribbean Sea. h about 32 km.
19	19 50 56.3	16.9 N.	85.0 W.	Caribbean Sea. h about 17 km.
20	00 19 03.0	23.8 S.	180.0	South of Fiji Islands. h about 560 km.
20	02 49 42.0	55.7 N.	166.0 E.	Komandorsky Islands region. h about 33 km.
20	08 56 06.0	51.8 N.	173.2 W.	Andreanof Islands, Aleutian Islands. h about 30 km.
20	09 24 39.7	44.9 N.	110.9 W.	Yellowstone National Park, Wyoming. h about 28 km.
20	10 56 51.3	50.2 N.	129.5 W.	Vancouver Island region. h about 33 km.
20	13 16 20.7	25.8 N.	110.8 W.	Gulf of California. h about 33 km.
20	19 02 55.0	10.1 S.	161.5 E.	Solomon Islands. h about 89 km.

Date 1963	Origin Time G. C. T.	Lat.	Long.	Region, Remarks and Focal Depth
January	h m s	°	°	
20	22 21 26.9	26.7 N.	110.6 W.	Gulf of California. h about 24 km.
20	22 37 29.6	15.4 S.	167.7 E.	New Hebrides Islands. Felt on Santo. h about 111 km.
21	04 15 43.3	34.5 S.	70.5 W.	Chile-Argentina border region. h about 114 km.
21	04 25 04.6	53.3 N.	157.4 E.	Near east coast of Kamchatka. h about 33 km.
21	05 48 01.1	5.4 S.	148.9 E.	New Britain region. h about 166 km.
21	07 00 43.3	60.4 S.	26.4 W.	South Sandwich Islands region. h about 33 km.
21	07 38 56.4	9.3 N.	83.0 W.	Panama-Costa Rica border region. h about 81 km.
21	09 46 34.9	19.6 S.	177.5 W.	Fiji Islands region. h about 540 km.
21	10 35 37.5	3.0 S.	136.2 E.	East New Guinea region. h about 39 km.
21	11 56 14.4	2.6 S.	150.0 E.	New Ireland region. h about 43 km
21	14 47 03.0	59.4 N.	151.6 W.	Kenai Peninsula, Alaska. h about 57 km.
21	18 35 41.2	18.4 S.	174.9 W.	Tonga Islands. h about 53 km.
21	18 56 49.1	4.2 S.	152.4 E.	New Britain region. h about 110 km.
21	21 02 35.6	37.0 N.	70.8 E.	Hindu Kush region. h about 98 km.
22	04 55 18.4	31.4 N.	89.6 E.	Tibet. h about 58 km.
22	08 32 35.2	11.6 S.	75.0 W.	Peru. h about 47 km.
22	11 29 41.9	30.8 S.	72.0 W.	Near coast of central Chile. h about 38 km.
22	15 27 35.8	23.4 S.	179.5 E.	South of Fiji Islands. h about 529 km.
22	16 07 12.5	48.3 N.	155.4 E.	Kurile Islands. h about 33 km.
22	16 11 35.7	47.3 N.	155.5 E.	Kurile Islands region. h about 33 km.
22	17 07 10.0	14.2 S.	168.5 E.	New Hebrides Islands. h about 33 km.
22	20 44 37.1	19.2 S.	177.6 W.	Fiji Islands region. h about 546 km.
22	23 09 05.8	6.4 S.	146.6 E.	East New Guinea region. h about 91 km.
23	04 39 21.1	48.9 N.	156.3 E.	Kurile Islands region. h about 24 km.
23	14 39 49.4	22.6 S.	178.3 W.	South of Fiji Islands. h about 301 km.
24	02 52 09.1	8.4 N.	60.8 W.	Near coast of Venezuela. h about 62 km.
24	03 58 58.5	40.2 N.	19.7 E.	Albania. h about 34 km.
24	09 29 21.0	6.1 S.	112.9 E.	Java. h about 611 km.
24	10 14 51.4	10.1 S.	160.9 E.	Solomon Islands. h about 28 km.
24	12 09 01.4	15.2 S.	173.6 W.	Samoa Islands region. Felt at Apia. h about 33 km.
24	15 42 13.0	28.2 N.	57.0 E.	Southern Iran. h about 33 km.
24	21 43 11.8	47.6 N.	122.1 W.	King County, Washington. Felt in Seattle—Tacoma area. h about 17 km.

Date 1963	Origin Time G. C. T.	Lat.	Long.	Region, Remarks and Focal Depth
January	h m s	°	°	
24	22 27 32.6	8.0 N.	126.8 E.	Mindanao, Philippine Islands. Felt in Surigao Province. h about 63 km.
24	22 44 16.6	8.1 N.	126.4 E.	Mindanao, Philippine Islands. h about 40 km.
24	23 22 05.8	7.9 N.	126.3 E.	Mindanao, Philippine Islands. h about 55 km.
25	00 05 33.3	61.8 N.	149.1 W.	Southern Alaska. h about 64 km.
25	00 16 04.6	20.4 S.	169.7 E.	New Hebrides Islands. h about 123 km.
25	04 10 36.7	8.0 N.	126.9 E.	Mindanao, Philippine Islands. h about 69 km.
25	12 49 40.9	21.7 N.	143.6 E.	Mariana Islands regions. h about 190 km.
25	13 01 52.8	51.3 N.	178.0 E.	Rat Islands, Aleutian Islands. h about 33 km.
25	14 32 08.3	5.1 S.	147.2 E.	East New Guinea region. h about 32 km.
25	16 14 08.0	21.4 S.	178.7 W.	Fiji Islands region. h about 612 km.
25	16 56 40.1	17.5 S.	176.2 W.	Fiji Islands region. h about 33 km.
25	20 21 30.4	19.0 S.	173.3 W.	Tonga Islands. h about 123 km.
26	03 58 03.4	71.5 N.	8.6 W.	Jan Mayen Island region. h about 33 km.
26	09 58 50.6	44.2 N.	129.5 W.	Off coast of Oregon. h about 33 km.
26	19 12 00.0	15.7 S.	173.5 W.	Tonga Islands. h about 33 km.
26	21 20 41.7	4.7 N.	76.3 W.	Colombia. h about 95 km.
27	00 50 22.4	13.7 S.	175.8 W.	Samoa Islands region. h about 33 km.
27	01 06 50.9	25.5 N.	128.4 E.	Ryukyu Islands. Felt. h about 29 km.
27	01 44 34.1	66.9 N.	162.4 W.	Alaska. h about 33 km.
27	02 27 59.6	19.1 S.	177.6 W.	Fiji Islands region. h about 528 km.
27	03 00 37.3	31.4 N.	115.6 W.	Baja California. h about 33 km. Mag. 1¾.
27	11 47 35.1	59.4 N.	153.3 W.	Southern Alaska. h about 80 km.
27	15 24 47.2	44.4 N.	114.6 W.	Western Idaho. Felt. h about 32 km.
27	15 38 22.8	27.2 N.	127.4 E.	Ryukyu Islands. Felt. h about 126 km.
27	16 52 41.6	10.5 S.	164.8 E.	Santa Cruz Islands region. h about 116 km.
27	18 46 13.1	5.3 S.	152.3 E.	New Britain region. Felt at Gavit, Karlai and Rabaul. h about 59 km.
27	19 35 16.3	40.9 N.	49.7 E.	Eastern Caucasus. Felt at Baku. h about 65 km. Mag. 5½-5¾ (PAL).
28	02 12 13.3	11.2 S.	76.9 W.	Peru. h about 110 km.
28	04 05 31.6	43.7 N.	144.7 E.	Hokkaido, Japan region. Felt. h about 28 km.
28	05 27 08.6	17.4 S.	173.8 W.	Tonga Islands. h about 39 km.
28	07 47 08.4	18.3 S.	173.6 W.	Tonga Islands. h about 33 km.

Date 1963	Origin Time G. C. T.	Lat.	Long.	Region, Remarks and Focal Depth
January	h m s	°	°	
28	10 03 20.3	52.4 S.	159.5 E.	Macquarie Islands region. h about 33 km.
28	10 39 32.2	19.1 S.	169.5 E.	New Hebrides Islands. h about 239 km.
28	12 12 19.9	2.6 S.	149.9 E.	New Ireland region. h about 32 km. Mag. 6½.
28	13 00 48.1	54.7 N.	161.7 W.	Alaska Peninsula. h about 14 km. Mag. 6½.
28	13 49 53.0	55.7 N.	163.1 W.	Unimak Islands region. h about 33 km.
28	13 50 28.1	19.8 S.	178.1 W.	Fiji Islands region. h about 582 km.
28	16 07 18.7	31.2 S.	177.7 W.	Kermadec Islands. h about 33 km.
28	17 04 51.4	31.0 S.	177.9 W.	Kermadec Islands region. h about 33 km.
28	17 04 53.8	30.8 S.	177.9 W.	Kermadec Islands. h about 51 km.
29	01 31 43.2	22.0 S.	179.5 W.	South of Fiji Islands. h about 500 km.
29	04 31 29.6	5.8 N.	78.4 W.	South of Panama. h about 31 km.
29	07 25 48.5	4.7 S.	153.6 E.	New Ireland region. h about 115 km.
29	07 27 16.8	12.8 S.	66.3 E.	Mid-Indian Rise. h about 33 km.
29	08 01 27.4	40.2 N.	144.3 E.	Off east coast of Honshu, Japan. Felt. h about 33 km.
29	09 21 16.2	49.8 N.	155.0 E.	Kurile Islands. h about 140 km. Mag. 6½-6¾.
29	16 54 03.7	15.2 S.	173.4 W.	Tonga Islands. h about 33 km.
29	20 33 36.8	21.1 S.	69.1 W.	Northern Chile. Felt at Iquique. h about 129 km.
29	21 07 56.1	12.8 N.	143.3 E.	South of Mariana Islands. h about 123 km.
29	22 50 22.3	52.7 N.	168.4 W.	Fox Islands. Aleutian Islands. h about 33 km.
30	04 39 53.4	54.6 N.	161.7 W.	Alaska Peninsula. h about 13 km.
30	05 50 59.5	45.0 N.	110.8 W.	Yellowstone National Park, Wyoming. h about 33 km.
30	06 08 26.1	0.3 N.	123.6 E.	Northern Celebes. h about 33 km.
30	09 51 20.4	50.8 N.	157.3 E.	Kurile Islands. h about 12 km.
30	10 10 03.9	55.5 S.	28.3 W.	South Sandwich Islands region. h about 33 km. Mag. 6½.
30	10 33 59.7	29.7 N.	80.6 E.	Nepal-India border region. h about 59 km.
30	23 05 09.6	39.8 N.	104.6 W.	Northeastern Colorado. Felt. h about 33 km.
31	03 09 58.2	63.5 N.	149.2 W.	Central Alaska. h about 53 km.
31	05 06 43.4	27.1 N.	126.7 E.	East China Sea. h about 33 km. Mag. 6-6½ (PAL).
31	09 35 47.1	55.2 S.	28.6 W.	South Sandwich Islands region. h about 33 km.
31	11 27 30.2	54.7 N.	161.6 W.	Alaska Peninsula. h about 33 km.
31	15 07 03.5	36.0 N.	22.0 E.	Mediterranean Sea. h about 53 km.
31	16 21 51.1	22.0 S.	177.7 W.	South of Fiji Islands. h about 391 km.
31	16 40 55.0	45.0 S.	74.5 W.	Near coast of southern Chile. h about 33 km.

Date 1963	Origin Time G. C. T.	Lat.	Long.	Region, Remarks and Focal Depth
January	h m s	°	°	
31	17 06 04.0	41.0 N.	49.8 E.	Eastern Caucasus. h about 47 km.
31	18 44 00.2	52.7 N.	168.6 W.	Fox Islands, Aleutian Islands region. h about 33 km.
31	19 10 22.7	54.2 N.	167.6 E.	Komandorsky Islands region. h about 54 km.
31	20 31 52.8	10.5 S.	165.0 E.	Santa Cruz Islands. h about 74 km.

Date and Station	Phase (GCT) h m s
JAN 01	
COL IP	01 30 36.0
IS	31 01.8
JAN 01	
EUR EP	02 53 43.0
EL	54 25.0
JAN 01	
FGU EP	03 06 49.2
IS	07 18.2
JAN 01	
MHM IP	03 54 44.4
IS	54 49.4
BUT EP	03 55 21.0
ES	55 51.5
BOZ EP	03 55 35.0
ES	56 21.0
EUR E(P)	03 56 52.6
E	59 52.4
JAN 1	
H-04 05 27.3	
6.9N 073.1W	
h ABOUT 150KM	
BHP P	04 07 03.0
SJP IP	04 08 30.2
IS	10 50.0
ALQ IP	04 13 02.5
GCA EP	04 13 39.5
E	14 45.7
FGU EP	04 13 45.1
BCN EP	04 13 53.5
EUR IP	04 14 11.6
EsP	14 48.1
BOZ EP	04 14 15.0
COL IP	04 17 06.8
I	17 18.0
IPP	20 05.0
JAN 01	
COL EP	04 38 28.0
JAN 01	
BUT I(P)	04 49 50.2
E	52 11.5
JAN 01	
COL EP	05 53 29.0
JAN 01	
EUR IP	06 30 13.7
EL	30 35.7
JAN 01	
COL E(P)	07 20 40.0
I	21 44.0
JAN 01	
COL EP	08 59 34.0

Date and Station	Phase (GCT) h m s
JAN 01	
COL EP	10 11 51.0
JAN 01	
COL IP	10 21 22.2
JAN 01	
BCN IP	10 28 45.4
EUR EP	10 28 45.7
EL	29 34.5
JAN 01	
GCA E(P)	10 30 22.8
JAN 01	
EUR EP	10 46 39.2
EL	47 01.5
JAN 01	
FGU EP	11 14 47.6
JAN 1	
H-12 17 35.3	
6.8S 156.1E	
h ABOUT 139KM	
KIP IP	12 26 40.0
COL IP	12 29 43.0
IsP	30 18.0
I	31 25.0
I(PP)	33 19.0
I	47 36.0
EUR IP	12 30 33.8
IsP	31 08.4
EPP	34 11.8
BCN EP	12 30 36.6
SJP EP'	12 36 35.1
I	36 44.0
JAN 01	
COL IP	12 28 26.0
I	28 37.0
JAN 1	
H-12 50 25.6	
06.9N 073.0W	
h ABOUT 155KM	
BHP E(P)	12 52 15.0
EUR EP	12 59 08.5
ALQ E(P)	12 59 19.8
JAN 01	
GCA E(P)	13 00 24.0
E(S)	01 18.0
JAN 1	
H-13 48 06.4	
20.7N 144.5E	
h ABOUT 046KM	
GUA EP	13 49 51.0
EL	51 28.0
COL IP	13 58 22.0
THU IP	14 00 19.0

Date and Station	Phase (GCT) h m s
BUT EP	14 00 33.8
EUR IP	14 00 34.5
BOZ EP	14 00 39.0
BCN EP	14 00 45.0
SLC EP	14 00 46.0
FGU IP	14 00 54.5
GCA E(P)	14 00 55.0
ALQ IP	14 01 17.0
SJP EP'	14 07 28.6
E	11 34.0
JAN 01	
EUR E	14 13 15.8
JAN 01	
COL IP	14 27 04.0
JAN 01	
COL EP	14 59 29.0
JAN 01	
EUR E	15 10 49.3
JAN 01	
COL EP	15 39 51.0
JAN 1	
H-16 27 37.9	
20.0S 175.5W	
h ABOUT 129KM	
KIP EP	16 35 38.0
BCN EP	16 39 34.9
EsP	19 40 06.7
EUR IP	16 39 40.5
EsP	40 12.5
TUT IP	16 39 41.0
EsP	40 07.0
EsP	40 25.5
GCA IP	16 39 50.8
sP	40 21.0
ALQ IP	16 40 02.5
IsP	40 33.5
FGU IP	16 40 06.6
sP	40 38.8
BUT EP	16 40 10.0
IsP	40 42.8
EPP	43 30.0
COL IP	16 40 11.2
IsP	40 46.0
IsP	41 09.0
E	56 33.0
JAN 1	
H-17 49 39.4	
06.8S 154.6E	
h ABOUT 170KM	

Date and Station	Phase (GCT) h m s
COL IP	18 01 45.9
I	02 01.0
EsP	02 36.0
EUR IP	18 02 38.8
E	03 09.9
JAN 01	
BCN EP	18 38 34.6
ES	39 06.4
EUR EP	18 38 47.7
E	39 36.7
TUC IP	18 39 40.0
IS	40 12.0
JAN 01	
COL EP	19 20 03.0
JAN 1	
H-19 27 36.0	
39.4N 058.9E	
h ABOUT 033KM	
COL IP	19 39 34.0
E	39 45.0
JAN 01	
H-19 35 55.1	
40.2S 081.3E	
h ABOUT 033KM	
COL EP'	19 55 33.8
E	55 41.0
TUC EP'	19 56 02.0
BUT EP'	19 56 02.3
E	57 13.4
ALQ EP'	19 56 03.0
EUR EP'	19 56 06.9
IPP	20 00 00.8
JAN 01	
BHP P	20 43 36.0
JAN 1	
H-23 39 09.5	
36.6N 137.5W	
h ABOUT 080KM	
COL IP	23 41 24.0
I	42 24.0
IS	43 04.0
IL	43 24.0
SIT EP	23 41 38.7
ES	44 02.0
MHM IP	23 44 49.0
IsP	45 07.5
I	50 07.5
UKI EP	23 45 00.4
EsP	45 16.0
EPCP	48 21.9
ESCP	51 42.4

Date and Station	Phase	Phase (GCT) h m s
BUT	IP	23 45 08.2
	I>P	45 25.0
	E	46 56.5
	EPCP	48 11.0
	ES	50 04.3
	E	50 27.0
	ESCP	51 45.0
BOZ	EP	23 45 18.0
	E>P	45 35.0
	E(PP)	46 33.0
	E(PCP)	48 03.0
	E(S)	50 47.0
	ESCP	51 49.0
EUR	IP	23 45 30.6
	E>P	45 47.6
	EPP	46 24.6
SLC	IP	23 45 41.8
	E>P	45 58.0
	EPP	46 39.0
	E(PCP)	48 20.0
	E	48 37.5
	ESCP	51 38.0
	E	51 58.0
FGU	IP	23 45 52.1
	I	56 06.5
	I	56 42.5
KIP	P	23 45 56.5
	I>P	47 14.0
	ES	51 30.2
	I	51 53.0
	EL	53 34.0
	ET	00 20 57.0
HON	IP 1	23 45 57.7
	I>P	47 16.0
	ES	51 31.0
	EL	53 42.0
	ET	00 21 10.0
BCN	IP	23 45 58.6
	E(PP)	47 32.3
	E	48 21.0
GCA	IP	23 46 06.5
	PP	46 24.5
	I	49 28.5
	E	51 41.5
THU	I(P)	23 46 12.0
TUC	IP	23 46 40.0
	ES	52 47.0
TUT	IP	23 46 40.2
	I>P	46 57.8
	I	47 31.1
	E	50 37.0
ALQ	IP	23 46 42.0
	I	47 02.2
	I	49 04.5
	ES	52 50.0
CHI	IP	23 47 24.0
CSC	IP	23 48 35.0
	IS	56 11.0
GUA	EP	23 49 15.0
	ES	57 28.0
SJP	IP	23 50 47.3
	I	51 01.0
	I	51 06.0
BHP	P	23 50 48.0
JAN 01		
CHI	E	23 44 46.0
	E	52 00.0
ALQ	EP	23 45 53.0
JAN 02		
BUT	EP	00 02 10.2
JAN 02		
EUR	I	00 16 59.3
	E	18 19.7
BOZ	EP	00 17 06.0
COL	EP	00 18 15.0
JAN 02		
BCN	E(P)	00 18 10.3
JAN 02		
COL	EP	00 31 44.0
	I	31 51.0
JAN 02		
COL	EP	00 42 46.0
JAN 2		
H-00 53 47.0		
17.9N 082.0W		
h ABOUT 033KM		
CSC	E(P)	00 57 39.0
ALQ	EP	00 59 33.0
BCN	EP	01 00 31.3
EUR	E	01 00 51.2
BUT	E(P)	01 00 56.0
	E	01 19.0
COL	EP	01 04 22.0
JAN 02		
COL	EP	00 58 53.0
JAN 02		
H-01 15 50.6		
04.6S 105.9W		
h ABOUT 033KM		
BCN	EP	01 23 34.3
	E	24 38.7
GCA	E(P)	01 23 35.6
EUR	IP	01 24 03.5
	E	25 08.8
BUT	E(P)	01 24 47.5
JAN 02		
BUT	EP	02 47 40.2
	ES	48 09.0
JAN 02		
BUT	EP	02 55 07.5
	ES	55 35.5
JAN 02		
BUT	EP	02 58 42.7
	ES	59 11.5
JAN 02		
ALQ	EP	03 18 32.0
JAN 2		
H-03 23 34.1		
05.9S 150.6E		
h ABOUT 055KM		
COL	EP	03 35 56.0
EUR	IP	03 36 59.1
JAN 02		
COL	IP	05 56 42.7
JAN 02		
EUR	EP	06 23 37.6
	E	24 01.6
JAN 02		
EUR	E	06 50 51.5
JAN 02		
COL	EP	07 16 33.0
	I	16 42.0
JAN 02		
EUR	E	09 02 20.9
JAN 02		
EUR	EP	09 08 41.1
JAN 2		
H-09 24 36.3		
04.8S 144.6E		
h ABOUT 047KM		
COL	EP	09 37 08.0
JAN 02		
EUR	E(P)	09 31 34.2
	E(S)	31 57.2
JAN 2		
H-09 53 37.0		
10.8N 084.6W		
h ABOUT 116KM		
BHP	IP	09 54 54.0
ALQ	IP	09 59 48.0
GCA	E(P)	10 01 25.6
FGU	EP	10 00 38.5
EUR	IP	10 01 01.2
COL	EP	10 04 32.0
JAN 02		
COL	E(P)	10 25 11.0
JAN 02		
BHP	P	11 42 10.0
JAN 02		
H-11 57 21.2		
51.4N 178.4W		
h ABOUT 029KM		
COL	EP	12 02 02.0
EUR	EP	12 05 28.3
BCN	E(P)	12 06 03.1
JAN 2		
H-14 56 05.8		
04.2S 135.1E		
h ABOUT 030KM		
KIP	EP	15 07 21.0
HON	EP	15 07 22.0
	E(S)	16 36.0
	E	24 37.0
	EL	28 42.0
COL	EP	15 08 56.0
	I	09 30.0
	I	09 50.0
EUR	E(P)	15 10 28.7
ALQ	EP'	15 14 47.0
BHP	EP'	15 15 43.0
JAN 02		
EUR	E(P)	14 59 25.5
JAN 02		
EUR	E(P)	15 45 36.5
JAN 2		
H-15 55 47.8		
53.0S 117.9W		
h ABOUT 033KM		
TUT	E(P)	16 08 22.6
BCN	EP	16 08 39.3
EUR	IP	16 08 54.7
COL	EP'	16 14 39.0
JAN 02		
BHP	P	16 05 10.0
	S	28 30.0
JAN 02		
COL	EP	16 23 49.0
EUR	EP	16 24 32.9
JAN 02		
EUR	EP	16 50 46.1
JAN 02		
TUC	IP	17 08 23.0
	IS	08 43.0
ALQ	EP	17 08 53.0
	IS	09 32.0

Date and Station	Phase (GCT)
	h m s
JAN 02	
TUC IP	17 46 08.0
IS	46 19.0
JAN 02	
COL EP	17 51 06.0
JAN 2	
H-17 59 38.7	
4.3S 135.2E	
h ABOUT 033KM	
COL EP	18 12 28.0
JAN 02	
EUR IP	18 23 24.0
JAN 2	
H-18 30 51.2	
10.8S 169.0E	
h ABOUT 028KM	
COL IP	18 43 16.0
I	43 26.0
I	43 34.0
EUR EP	18 45 42.6
JAN 02	
TUC IP	20 42 51.0
IS	43 00.0
JAN 02	
TUC IP	21 08 39.0
IS	08 50.0
JAN 02	
TUC IP	21 41 06.0
IS	41 18.0
JAN 02	
TUC IP	22 15 21.0
IS	15 30.0
JAN 02	
TUC IP	22 31 41.0
IS	31 49.0
JAN 02	
TUC IP	22 56 38.0
IS	56 47.0
JAN 03	
COL EP	00 21 36.0
JAN 3	
H-03 05 04.3	
29.3N 130.3E	
h ABOUT 051KM	
COL IP	03 15 10.0
I>P	15 24.0
I<P	15 30.0
IPP	17 08.0
THU EP	03 16 33.5
BUT EP	03 17 42.1
BOZ EP	03 17 46.0
EUR IP	03 17 51.3
FGU EP	03 18 04.8

Date and Station	Phase (GCT)
	h m s
BCN EP	03 18 05.8
E	18 15.0
GCA EP	03 18 11.2
TUC EP	03 18 29.0
ALQ E(P)	03 18 30.5
HON E	03 24 18.0
EL	33 20.0
JAN 03	
BOZ EP	03 41 26.0
ES	41 38.0
BUT EP	03 41 36.5
ES	41 39.7
JAN 03	
BHP P	04 13 28.0
JAN 03	
COL EP	05 16 38.0
EUR E	05 19 16.1
JAN 03	
BUT E(P)	05 26 09.1
JAN 03	
BOZ EP	05 31 23.0
ES	31 34.0
BUT EP	05 31 33.6
ES	31 51.1
JAN 03	
COL EP	05 35 26.0
JAN 3	
H-06 35 24.9	
13.1S 166.0E	
h ABOUT 040KM	
COL EP	06 47 56.0
E	48 13.0
EUR E	06 48 20.7
JAN 03	
COL EP	06 04 36.0
E	44 46.0
JAN 3	
H-07 13 29.1	
52.6N 167.7W	
h ABOUT 033KM	
COL IP	07 17 13.0
EUR E	07 20 40.7
JAN 3	
H-07 36 47.8	
23.4S 066.9W	
h ABOUT 150KM	
ALQ IP	07 47 39.0
EUR E	07 48 28.9
JAN 03	
BOZ EP	08 18 36.0

Date and Station	Phase (GCT)
	h m s
JAN 03	
COL EP	08 39 07.0
EUR E(P)	08 42 27.5
JAN 3	
H-09 39 44.4	
05.2S 151.6E	
h ABOUT 053KM	
GUA IP	09 44 16.0
ES	47 52.0
KIP IP	09 49 20.6
COL IP	09 52 02.0
I	52 42.0
I	52 56.0
I	53 17.0
E	10 17 36.0
EUR IP	09 53 04.3
I>P	53 20.3
EPP	57 21.6
BCN EP	09 53 07.9
I>P	53 24.4
EPP	57 19.4
FGU E(P)	09 53 16.1
GCA E(P)	09 53 19.6
BOZ EP	09 53 21.0
E>P	53 37.0
ALQ EP	09 53 39.0
EPP	57 57.8
CSC EP'	09 58 39.0
SJP EP'	09 59 09.9
I>P'	59 26.0
HON E	09 57 18.0
EL	10 05 24.0
JAN 03	
EUR E	10 09 32.1
JAN 03	
BHP P	10 39 20.0
JAN 03	
COL IP	12 39 18.0
I	36 00.0
JAN 3	
H-13 56 33.6	
06.8S 155.3E	
h ABOUT 080KM	
COL IP	14 08 49.0
I	09 01.0
I	09 20.0
I	09 39.0
EUR IP	14 09 42.0
E>P	10 07.5
JAN 03	
COL EP	16 41 45.0

Date and Station	Phase (GCT)
	h m s
JAN 03	
TUC IP	17 10 02.0
IS	10 18.0
ALQ EP	17 10 28.0
IS	11 07.0
JAN 3	
H-17 25 34.1	
22.1S 169.7E	
h ABOUT 033KM	
COL EP	17 38 42.0
JAN 03	
EUR E	17 32 18.3
JAN 03	
COL IP	17 35 37.9
JAN 03	
HHM IP	18 39 04.3
IS	39 08.0
JAN 03	
COL E(P)	18 42 50.0
JAN 3	
H-18 42 13.9	
13.0N 145.3E	
h ABOUT 033KM	
GUA IP	18 42 28.0
IS	42 37.0
COL EP	18 53 13.0
E	53 32.0
EUR E	18 55 05.0
JAN 03	
EUR IP	18 45 57.2
JAN 03	
BCN IP	19 10 28.0
ES	10 35.4
EUR E(P)	19 11 23.1
E	12 07.5
JAN 3	
H-19 12 53.9	
05.8S 154.6E	
h ABOUT 139KM	
COL EP	19 25 00.0
E>P	25 30.0
EUR IP	19 25 55.6
E	26 06.4
JAN 03	
BOZ EP	20 42 23.0
JAN 03	
TUC IP	21 15 29.0
IS	16 03.0
ALQ EP	21 15 30.0
ES	16 06.0
JAN 03	
EUR E	22 02 21.2

Date and Station	Phase	Time (GCT) h m s
JAN 03		
ALQ	IP	22 04 38.0
	IS	05 18.0
JAN 03		
EUR	IP	22 25 19.2
JAN 03		
TUC	IP	22 28 42.0
	IS	29 07.0
JAN 03		
TUC	IP	22 55 38.0
	IS	55 49.0
JAN 03		
TUC	IP	23 30 02.0
	IS	30 14.0
JAN 04		
EUR	EP	00 11 36.9
	E(S)	12 05.9
JAN 4		
H-00 23 53.8		
.9N 027.6W		
h ABOUT 033KM		
SJP	EP	00 31 41.0
BHP	EP	00 33 05.0
	ES	40 30.0
THU	IP	00 35 53.0
ALQ	IP	00 36 04.5
TUC	EP	00 36 22.0
BOZ	EP	00 36 27.0
SLC	EP	00 36 28.5
BUT	EP	00 36 32.5
	I	37 22.9
HHM	IP	00 36 37.7
BCN	EP	00 36 39.8
	I	36 46.3
	EPP	40 02.7
EUR	IP	00 36 43.4
	I	36 50.6
JAN 04		
SJP	E(P)	00 30 25.0
	E	30 47.0
JAN 04		
COL	EP	01 09 25.0
JAN 04		
COL	EP	01 50 11.0
JAN 04		
COL	EP	02 03 53.0
JAN. 04		
COL	EP	03 18 29.0
	E	18 44.0
JAN 04		
COL	EP	03 38 07.0
JAN 04		
COL	IP	03 58 22.6
JAN 04		
COL	EP	05 01 43.0
JAN 4		
H-05 32 51.4		
04.6S 153.2E		
h ABOUT 155KM		
COL	EP	05 44 53.0
JAN 4		
H-05 42 35.4		
29.7N 142.2E		
h ABOUT 033KM		
GUA	IP	05 46 24.0
COL	EP	05 52 05.0
	E	52 18.0
BUT	E(P)	05 54 31.7
	E	54 37.6
	E	55 40.7
BOZ	E(P)	05 54 40.0
	E	55 45.0
EUR	IP	05 54 43.4
TUC	EP	05 55 21.0
ALQ	EP	05 55 27.0
JAN 04		
COL	IP	06 34 08.0
JAN 4		
H-06 43 40.9		
32.7S 178.7W		
h ABOUT 031KM		
EUR	EP	06 56 49.1
	I	57 04.6
COL	EP	06 57 26.0
JAN 04		
TUC	EP	06 56 21.0
JAN 04		
EUR	EP	07 42 23.0
	E	42 58.8
JAN 04		
COL	IP	08 26 32.0
JAN 4		
H-08 47 25.6		
46.5N 153.9E		
h ABOUT 033KM		
COL	EP	08 54 25.0
EUR	EP	08 57 51.6
JAN 4		
H-08 50 13.9		
18.8S 169.5E		
h ABOUT 243KM		
COL	EP	09 02 43.0
BCN	EP	09 02 48.5
EUR	EP	09 02 50.9
JAN 04		
EUR	E	09 32 54.1
COL	EP	09 34 37.0
JAN 04		
TUC	IP	09 59 51.0
	IS	10 00 29.0
JAN 04		
COL	EP	10 10 19.0
EUR	E	10 13 55.2
JAN 04		
COL	EP	10 31 14.0
JAN 04		
COL	IP	10 56 11.0
JAN 4		
H-12 16 42.0		
4.8S 153.8E		
h ABOUT 096KM		
GUA	I(P)	12 21 07.0
KIP	EP	12 26 02.0
	ES	33 36.0
	EL	39 44.0
HON	E(P)	12 26 08.0
	IS	33 31.0
	ESCS	35 55.0
	EL	39 16.0
COL	EP	12 28 47.0
	I	29 23.0
	I	30 21.0
	I	30 29.0
	ESKS	38 56.0
	E	46 16.0
EUR	EP	12 29 46.4
	I>P	30 12.9
	EPP	33 12.9
	E	44 24.6
BCN	E(P)	12 29 58.1
	E>P	30 22.0
	E	31 49.5
	E	34 02.0
JAN 04		
BUT	EP	13 23 28.1
	ES	23 45.0
JAN 04		
FGU	EP	13 35 42.0
	I	36 56.0
JAN 04		
EUR	EP	13 47 33.1
COL	EP	13 49 05.0
JAN 04		
EUR	EP	17 08 03.6
JAN 04		
BHP	P	17 46 20.0
JAN 04		
TUC	IP	19 00 33.0
	IS	00 44.0
JAN 04		
COL	EP	20 44 48.0
JAN 4		
H-21 17 10.4		
6.8N 073.0W		
h ABOUT 169KM		
BHP	E(P)	21 18 58.0
	ES	20 02.0
SJP	EP	21 20 12.0
EUR	EP	21 25 53.0
	E>P	26 29.0
COL	EP	21 28 48.0
	E>P	29 31.0
	E>P	30 06.0
JAN 04		
COL	EP	21 24 11.0
JAN 04		
FGU	EP	21 55 32.9
	ES	55 49.9
JAN 4		
H-23 50 13.9		
46.9N 153.8E		
h ABOUT 056KM		
COL	IP	23 57 09.0
THU	IP	23 59 36.0
EUR	EP	24 00 35.3
	E>P	00 53.5
BCN	EP	24 00 55.8
JAN 5		
H-00 20 17.5		
02.9N 126.7E		
h ABOUT 082KM		
EUR	EP'	00 38 40.8
JAN 05		
COL	EP	00 32 11.7
JAN 05		
EUR	IP	00 39 43.2
COL	IP	00 39 55.0
JAN 05		
SLC	E(P)	00 40 00.0
GCA	IP	00 40 54.9
JAN 5		
H-03 33 33.1		
03.4N 125.4E		
h ABOUT 123KM		

Date and Station	Phase (GCT)
	h m s
COL EP	03 45 59.0
E	46 42.0
JAN 05	
COL EP	04 03 55.0
JAN 05	
UKI IP	04 51 47.0
ES	51 56.8
JAN 05	
COL EP	04 59 40.0
JAN 05	
COL EP	05 47 08.0
JAN 5	
H-06 52 26.7	
65.1N 147.9W	
h ABOUT 033KM	
COL IP	06 52 31.7
HHM EP	06 57 45.0
EUR EP	06 58 49.2
FGU EP	06 58 58.2
JAN 5	
H-07 05 26.3	
47.0N 153.8E	
h ABOUT 060KM	
BOZ EP	07 15 40.0
EUR IP	07 15 47.4
E	16 34.8
SLC EP	07 15 57.7
BCN EP	07 16 06.4
E	17 11.4
JAN 05	
BUT E(P)	07 06 43.3
JAN 05	
BOZ EP	07 07 12.0
COL IP	07 11 29.6
JAN 05	
UKI EP	08 12 14.6
IS	12 58.2
JAN 05	
THU EP	09 06 34.0
JAN 05	
EUR E	10 13 56.1
JAN 5	
H-11 05 08.2	
7.4S 073.4W	
h ABOUT 170KM	
EUR EP	11 15 05.4
EPP	15 46.1
COL IP	11 17 49.6

Date and Station	Phase (GCT)
	h m s
JAN 5	
H-13 04 48.0	
17.8S 167.8E	
h ABOUT 033KM	
COL IP	13 17 39.0
EUR IP	13 17 52.3
BCN E(P)	13 17 53.4
JAN 5	
H-13 16 43.2	
10.0S 124.0E	
h ABOUT 033KM	
COL E(P)	13 30 23.0
EPP	34 20.0
EUR IP'	13 35 32.3
EPKKP	48 44.6
BUT EP'	13 35 33.7
BCN EP'	13 35 36.9
BOZ EP'	13 35 37.0
E	36 32.0
SLC EP'	13 35 38.8
FGU EP'	13 35 41.6
GCA EP'	13 35 43.3
HON ES	13 21 24.0
E	25 15.0
EL	28 06.0
JAN 05	
BUT EP	13 35 11.0
JAN 05	
EUR E	14 45 57.0
JAN 05	
H-15 05 00.8	
43.0N 152.6E	
h ABOUT 033KM	
COL IP	15 12 29.4
E	12 39.0
JAN 05	
COL EP	16 04 15.0
E	07 27.0
EUR EP	16 05 43.4
JAN 5	
H-17 43 33.1	
7.1S 071.6W	
h ABOUT 946KM	
SJP IP	17 48 24.0
ALQ IP	17 52 02.5
EPP	53 47.3
ESCP	56 03.5
SLC EP	17 52 51.1
EPCP	53 29.8

Date and Station	Phase (GCT)
	h m s
EUR IP	17 53 02.0
IPCP	53 31.5
EPP	54 55.5
EPP	55 38.8
E(S)	18 00 44.7
COL IP	17 55 37.8
E	55 56.0
EPP	57 31.0
JAN 05	
EUR E	17 45 50.9
JAN 05	
COL IP	18 23 35.0
JAN 05	
EUR E	18 56 25.3
JAN 05	
COL EP	20 14 22.0
EUR EP	20 17 04.8
JAN 05	
ALQ EP	20 33 08.0
JAN 05	
COL EP	20 43 28.0
JAN 5	
H-21 27 03.0	
41.0N 126.1W	
h ABOUT 033KM	
UKI EP	21 27 46.5
EUR IP	21 28 56.4
EL	30 32.3
COL EP	21 32 42.0
JAN 05	
EUR IP	22 24 51.2
JAN 05	
COL EP	22 35 02.0
JAN 05	
ALQ EP	22 49 12.0
GCA EP	22 50 20.1
ES	50 51.1
JAN 6	
H-00 50 51.1	
5.4S 147.2E	
h ABOUT 111KM	
COL EP	01 03 12.0
JAN 6	
H-01 28 07.0	
17.1S 168.3E	
h ABOUT 824KM	
COL EP	01 40 34.0
JAN 06	
FGU EP	01 58 07.4

Date and Station	Phase (GCT)
	h m s
JAN 6	
H-03 18 57.3	
06.1N 125.4E	
h ABOUT 153KM	
COL IP	03 31 08.0
IPP	31 47.0
SJP EP'	03 38 36.8
JAN 06	
THU IP	03 34 50.0
JAN 06	
ALQ EP	04 33 52.0
I	33 58.0
JAN 6	
H-04 40 13.1	
23.5N 108.4W	
h ABOUT 819KM	
TUC IP	04 42 23.9
EL	44 32.9
ALQ EP	04 42 59.0
BCN EP	04 43 26.2
EL	47 28.0
GCA E(P)	04 43 28.6
EUR IP	04 44 12.8
E	44 26.1
FGU EP	04 44 16.5
SLC EP	04 44 17.1
BOZ EP	04 45 11.0
CHI I	04 45 24.0
I	45 34.0
I	45 41.0
JAN 06	
EUR E	04 52 39.6
JAN 06	
COL EP	04 56 19.0
JAN 6	
H-06 17 25.7	
2.0S 080.8W	
h ABOUT 032KM	
BHP P	06 20 03.0
SJP IP	06 22 47.4
ALQ EP	06 25 31.5
TUC EP	06 25 38.0
GCA EP	06 26 06.6
BCN EP	06 26 15.5
SLC E(P)	06 26 27.0
E	26 40.0
EUR IP	06 26 36.9
EP	28 13.9
E	29 16.7

Date and Station	Phase	Phase (GCT) h m s
BOZ	EP	06 26 52.0
BUT	EP	06 26 59.7
COL	EP	06 29 48.0
JAN 06		
FGU	EP	06 38 20.9
JAN 06		
FGU	EP	07 25 20.4
	I	25 47.4
	E	26 17.4
JAN 6		
H-07 29 58.5		
47.1N 153.7E		
h ABOUT 056KM		
COL	IP	07 36 52.2
	I	37 03.4
THU	E(P)	07 39 13.0
BOZ	EP	07 40 12.0
EUR	IP	07 40 19.0
	EPCP	40 52.7
TUC	EP	07 41 09.0
ALQ	EP	07 41 13.8
JAN 06		
FGU	EP	07 57 47.6
JAN 6		
H-08 04 32.1		
41.7N 142.3E		
h ABOUT 067KM		
COL	IP	08 12 41.1
EUR	EP	08 15 53.4
JAN 06		
COL	IP	08 55 45.0
JAN 06		
ALQ	IP	10 02 11.0
	IS	03 44.0
JAN 06		
COL	EP	10 08 30.0
JAN 06		
COL	EP	11 27 33.0
JAN 06		
EUR	IP	15 07 40.5
JAN 6		
H-15 24 46.7		
5.0S 154.0E		
h ABOUT 111KM		
COL	EP	15 36 52.0
	E*P	37 19.0
EUR	EP	15 37 52.5
	E	39 52.5
JAN 06		
COL	EP	16 47 06.0

Date and Station	Phase	Phase (GCT) h m s
JAN 6		
H-17 25 54.6		
62.8N 151.1W		
h ABOUT 122KM		
COL	IP	17 26 36.3
BOZ	EP	17 31 39.0
EUR	IP	17 32 06.4
	E	31 29.2
	EL	38 30.8
	E	43 39.4
FGU	IP	17 32 18.4
ALQ	IP	17 33 12.8
JAN 6		
H-18 07 46.2		
44.8N 112.2W		
h ABOUT 033KM		
BOZ	EP	18 08 08.0
	E	08 20.0
BUT	IP	18 08 08.2
	ES	08 24.3
SLC	EP	18 08 47.0
	E	08 54.3
	EL	09 42.3
FGU	EP	18 08 50.3
	IL	09 55.3
HHM	E(P)	18 09 00.0
	IS	09 44.0
EUR	EP	18 09 14.1
	I	09 19.8
	EL	10 39.8
GCA	EP	18 09 40.6
BCN	EP	18 09 53.5
	E	11 10.4
	ES	12 29.8
	EL	12 34.3
ALQ	EP	18 10 18.0
UKI	E(P)	18 10 25.0
	E	11 05.0
TUC	E(P)	18 10 54.0
	ES	13 23.8
COL	IP	18 13 40.0
JAN 06		
EUR	E	18 45 11.2
JAN 06		
BOZ	EP	19 06 34.0
	ES	06 51.0
JAN 06		
COL	E(P)	19 08 37.0
JAN 06		
BUT	EP	19 37 18.0
	I	37 22.7
	ES	37 38.3

Date and Station	Phase	Phase (GCT) h m s
JAN 06		
TUC	EP	19 42 51.0
	ES	43 33.0
JAN 6		
H-19 46 59.8		
8.9S 123.9E		
h ABOUT 038KM		
COL	EP	20 00 30.0
EUR	IP'	20 05 46.3
ALQ	IP'	20 06 03.9
	ESKP	09 16.5
JAN 06		
BUT	EP	19 54 09.8
	ES	54 30.5
JAN 06		
ALQ	EP	21 13 15.5
JAN 6		
H-21 20 56.3		
47.8N 156.0E		
h ABOUT 022KM		
COL	IP	21 27 41.6
	IL	42 07.0
	I	42 23.0
THU	IP	21 30 13.5
BUT	EP	21 30 55.3
	EPCP	31 34.3
BOZ	EP	21 31 03.0
EUR	IP	21 31 10.3
	IPCP	31 40.6
	IPP	33 38.0
SLC	EP	21 31 20.3
FGU	EP	21 31 29.8
BCN	EP	21 31 30.1
GCA	EP	21 31 38.0
TUC	IP	21 32 02.0
ALQ	IP	21 32 06.5
HON	E	21 36 12.0
	EL	41 40.0
JAN 6		
H-22 08 59.3		
33.9N 028.0E		
h ABOUT 033KM		
COL	IP	22 21 16.1
JAN 6		
H-22 33 31.3		
14.8N 060.9W		
h ABOUT 129KM		
SJP	IP	22 35 00.7
COL	EP	22 45 03.0

Date and Station	Phase	Phase (GCT) h m s
JAN 06		
EUR	I	22 36 56.1
JAN 06		
EUR	E	22 43 11.0
JAN 06		
BCN	EP	23 16 50.4
JAN 06		
BUT	EP	23 49 46.0
	E	49 48.4
	ES	50 03.7
JAN 06		
COL	EP	23 54 43.0
JAN 06		
BUT	EP	23 57 49.8
	E	57 51.8
	ES	58 06.8
JAN 07		
BUT	EP	01 05 28.0
	E	05 30.2
	ES	05 45.0
JAN 07		
EUR	E	01 44 58.3
JAN 07		
BUT	IP	01 51 50.5
	IS	52 08.4
JAN 07		
BOZ	EP	01 57 18.0
	ES	57 36.0
BUT	IP	01 57 21.1
	IS	57 38.5
JAN 07		
EUR	E(P)	05 04 47.1
	I	04 49.9
JAN 7		
H-06 24 49.0		
06.4S 154.9E		
h ABOUT 077KM		
COL	IP	06 37 03.6
	I*P	03 37 22.0
EUR	IP	06 37 58.2
	E	38 37.2
GCA	EP	06 38 10.7
SJP	IP'	06 44 07.8
JAN 07		
EUR	E	06 50 01.6
JAN 07		
BUT	EP	06 50 15.4
	ES	50 36.5
JAN 07		
BUT	EP	07 08 04.6
	I	08 08.8
	IS	08 39.7
BOZ	EP	07 08 21.0

Date and Station	Phase (GCT)
	h m s
EUR EP	07 08 41.7
I(S)	09 38.7
JAN 7	
H-07 09 55.9	
34.0N 136.5E	
h ABOUT 351KM	
COL IP	07 18 45.0
BUT EP	07 21 22.2
EUR IP	07 21 33.3
JAN 07	
BUT EP	07 27 21.9
E	27 23.7
ES	27 57.0
JAN 07	
BOZ EP	07 33 24.0
E	33 41.0
BUT EP	07 33 26.7
I	33 29.7
IS	33 44.6
JAN 07	
BOZ EP	07 37 13.0
EUR EP	07 37 34.5
JAN 07	
EUR IP	08 56 06.3
COL EP	08 56 26.0
JAN 07	
THU IP	10 08 57.5
JAN 07	
COL EP	10 34 54.0
JAN 07	
BUT EP	10 41 55.2
ES	42 12.2
JAN 07	
BOZ EP	10 52 45.0
ES	53 02.0
BUT IP	10 52 47.2
ES	53 04.7
JAN 7	
H-11 48 19.0	
.6N 126.0E	
h ABOUT 019KM	
COL EP	12 01 07.0
EUR E(P)	12 02 55.2
EP'	06 53.9
BUT E(P')	12 06 28.0
E	07 11.4
GCA E(P')	12 06 50.2
FGU EP'	12 07 01.6
ALQ IP'	12 07 10.5
I	07 25.2

Date and Station	Phase (GCT)
	h m s
BHP EP'	12 08 06.0
SJP EP'	12 08 48.5
HON E	12 10 05.0
E	19 50.0
EL	24 10.0
KIP E	12 11 06.0
EL	24 12.0
JAN 07	
THU EP	12 06 18.0
JAN 07	
EUR E	12 17 53.5
JAN 07	
COL EP	12 54 28.0
JAN 07	
BOZ EP	14 33 20.0
ES	33 38.0
BUT EP	14 33 22.5
E	33 24.7
IS	33 40.2
JAN 07	
COL IP	18 44 28.8
JAN 07	
TUC EP	19 10 15.0
ES	10 28.0
JAN 07	
TUC IP	19 13 45.0
IS	13 56.0
JAN 7	
H-19 19 36.9	
17.5S 167.7E	
h ABOUT 033KM	
COL E(P)	19 32 28.0
E	32 51.0
E	33 13.0
EUR E	19 32 42.0
JAN 07	
TUC IP	20 02 48.0
IS	03 04.0
JAN 07	
HHM EP	20 19 09.7
I	19 13.7
JAN 07	
BHP P	21 18 42.0
JAN 07	
BHP P	21 49 02.0
JAN 07	
EUR IP	22 24 49.4
JAN 07	
TUC EP	22 56 29.0
IS	56 40.0
JAN 08	
COL EP	00 13 34.0

Date and Station	Phase (GCT)
	h m s
JAN 08	
COL EP	01 52 36.0
JAN 08	
ALQ IP	02 15 42.0
JAN 08	
COL EP	04 16 06.0
JAN 08	
HHM IP	06 45 23.0
E	45 38.0
COL EP	06 50 04.0
JAN 08	
BUT EP	07 17 40.6
I	17 43.1
IS	17 57.6
JAN 08	
THU IP	07 27 57.5
COL EP	07 29 29.0
E	30 47.0
JAN 08	
BUT EP	07 31 10.8
I	31 13.0
IS	31 38.1
JAN 08	
COL EP	08 13 22.0
JAN 08	
ALQ I	09 20 42.5
JAN 08	
COL EP	09 37 37.0
JAN 08	
COL EP	10 01 35.0
JAN 08	
EUR E	10 45 02.2
JAN 08	
EUR E(P)	13 17 01.9
JAN 8	
H-15 46 44.1	
31.3N 130.3E	
h ABOUT 158KM	
THU IP	15 57 46.0
HHM EP	15 58 48.9
E▸P	59 27.9
BUT E(P)	15 58 50.3
I▸P	59 39.9
EUR IP	15 59 11.4
I▸P	59 50.6
FGU EP	15 59 25.5
E▸P	16 00 04.5
JAN 08	
HHM EP	19 12 22.0
JAN 08	
TUC EP	19 13 28.0
IS	13 40.0

Date and Station	Phase (GCT)
	h m s
JAN 08	
HON IP	19 40 30.9
IS	41 05.0
KIP IP	19 40 32.2
IS	41 08.6
EUR E	19 47 15.4
JAN 8	
H-19 49 58.0	
17.4S 173.0W	
h ABOUT 033KM	
EUR EP	20 01 53.5
TUC EP	20 01 54.0
JAN 08	
KIP IP	20 06 17.8
IS	06 53.0
HON EP	20 06 18.0
ES	06 50.0
JAN 08	
TUC IP	21 55 47.0
IS	56 00.0
JAN 08	
TUC IP	21 56 40.0
IS	56 58.0
JAN 08	
TUC IP	22 16 16.0
IS	16 25.0
JAN 08	
EUR EP	22 24 09.6
JAN 09	
BUT EP	00 15 33.7
E	15 35.7
IS	15 50.9
JAN 09	
KIP IP	01 41 52.9
IS	42 27.9
HON EP	01 41 53.0
IS	42 28.0
EUR E	01 48 23.4
JAN 09	
KIP EP	01 46 02.0
ES	46 37.0
JAN 9	
H-02 02 38.5	
29.0S 177.3W	
h ABOUT 072KM	
BCN EP	02 15 19.0
E▸P	15 37.0
TUC EP	02 15 21.0
TUT E(P)	02 15 23.1
EUR IP	02 15 25.9
E	15 52.1
GCA EP	02 15 32.7

Date and Station	Phase (GCT)
	h m s
ALQ IP	02 15 42.0
JAN 9	
H-03 13 25.9	
18.7N 145.4E	
h ABOUT 187KM	
GUA IP	03 14 42.0
THU IP	03 25 31.0
HHM EP	03 25 32.0
E▸P	26 19.0
EUR IP	03 25 40.6
I▸P	26 27.1
BUT IP	03 25 40.7
E▸P	26 24.8
BOZ EP	03 25 47.0
E▸P	26 33.0
BCN EP	03 25 51.4
E▸P	26 35.5
SLC EP	03 25 52.3
E▸P	26 39.3
E▸P	26 55.3
GCA EP	03 26 00.5
▸P	27 45.5
FGU IP	03 26 01.0
E▸P	26 42.3
TUT EP	03 26 12.9
E▸P	26 58.4
TUC EP	03 26 13.0
ALQ IP	03 26 23.0
I▸P	27 09.5
JAN 09	
SJP IP	03 35 02.6
JAN 09	
EUR E	04 05 04.4
JAN 09	
BCN E(P)	06 05 07.0
E	05 13.0
ES	06 00.5
EUR EP	06 05 23.1
E	05 38.1
E	07 00.4
JAN 09	
GCA E(P)	06 06 46.9
JAN 09	
EUR E	06 45 05.7
JAN 9	
H-06 33 27.2	
10.1S 123.9E	
h ABOUT 033KM	
EUR EP	07 12 17.2
JAN 09	
EUR IP	08 38 52.0
JAN 09	
COL EP	13 42 40.0
E	44 06.0
JAN 09	
COL EP	14 07 58.5
JAN 09	
HON EP	14 37 10.0
ES	37 44.0
KIP IP	14 37 10.7
IS	37 45.7
JAN 09	
COL E(P)	15 56 32.0
I	57 04.0
JAN 09	
COL EP	16 54 28.5
JAN 09	
COL EP	16 58 35.0
JAN 09	
EUR E(P)	18 32 21.1
JAN 09	
KIP EP	19 23 57.0
ES	24 32.0
JAN 09	
BOZ EP	19 25 12.0
E(S)	25 26.0
BUT EP	19 25 20.7
ES	25 39.2
JAN 09	
BOZ EP	19 40 07.0
E(S)	40 20.0
BUT EP	19 40 15.6
ES	40 35.4
JAN 09	
BOZ EP	19 46 20.0
E(S)	46 33.0
BUT EP	19 46 28.2
ES	46 47.2
HHM EP	19 47 04.0
E	47 15.0
ES	48 03.0
FGU EP	19 47 16.5
E	48 11.9
EUR E	19 47 45.5
JAN 9	
H-21 37 31.0	
16.0S 175.1W	
h ABOUT 273KM	
EUR EP	21 49 00.8
JAN 09	
COL EP	22 00 37.5
JAN 09	
HON IP	22 06 34.6
IS	06 40.0
KIP IP	22 06 35.7
IS	06 40.7
JAN 09	
EUR EP	22 21 17.3
JAN 09	
COL IP	23 05 15.4
I	05 22.4
JAN 09	
FGU IP	23 48 05.3
JAN 09	
ALQ IP	23 54 56.2
JAN 10	
COL EP	02 31 47.6
I	31 57.6
JAN 10	
EUR E(P)	04 28 10.2
JAN 10	
COL EP	05 14 26.0
JAN 10	
H-05 18 36.9	
18.8N 106.3W	
h ABOUT 033KM	
TUC IP	05 21 55.0
ALQ E(P)	05 22 28.0
EUR EP	05 23 27.4
JAN 10	
CHI E	05 23 00.0
JAN 10	
COL EP	05 45 11.0
JAN 10	
H-06 47 04.9	
36.6N 070.8E	
h ABOUT 209KM	
COL IP	06 58 22.0
JAN 10	
EUR IP	07 44 01.2
JAN 10	
COL EP	09 12 17.0
I	12 29.0
I	13 00.0
I	13 46.0
JAN 10	
GCA EP	12 26 02.9
JAN 10	
FGU IP	13 51 53.1
I(S)	52 13.6
SLC EP	13 51 55.9
E(S)	52 17.3
EUR EP	13 52 35.0
I	52 45.9
ALQ EP	13 52 48.0
JAN 10	
GCA EP	13 53 11.4
ES	53 49.4
TUC E(P)	13 53 32.8
E	53 35.5
JAN 10	
H-17 14 07.9	
32.6N 157.1E	
h ABOUT 132KM	
COL IP	17 20 07.0
EUR IP	17 23 50.5
E▸P	24 21.8
JAN 10	
H-18 54 48.6	
13.1N 146.3E	
h ABOUT 088KM	
GUA IP	18 55 14.0
COL IP	19 05 38.0
I▸P	05 58.0
HHM EP	19 07 24.0
EUR IP	19 07 28.8
JAN 10	
TUC IP	20 27 12.0
IS	27 26.0
JAN 10	
GUA EP	20 56 10.0
JAN 10	
EUR EP	22 20 37.9
JAN 10	
TUC IP	22 58 00.0
IS	58 11.0
JAN 10	
GUA EP	23 41 41.0
JAN 11	
H-01 07 27.0	
37.4N 101.6E	
h ABOUT 033KM	
COL IP	01 18 04.0
I	18 22.0
JAN 11	
CSC EP	03 46 32.0
JAN 11	
ALQ EP	05 05 47.5
I	05 59.0
EUR E	05 05 48.1
JAN 11	
H-06 42 45.7	
07.6N 082.2W	
h ABOUT 073KM	
BHP IP	06 43 31.0
ES	44 08.0
SJP EP	06 47 04.3

Date and Station	Phase (GCT)
	h m s
ALQ IP	06 49 34.7
TUT EP	06 49 44.3
FGU EP	06 50 24.0
EUR IP	06 50 48.2
COL EP	06 54 09.0
E	06 54 44.0
JAN 11	
EUR I(P)	07 12 31.0
JAN 11	
EUR IP	08 15 33.9
E	08 15 55.4
JAN 11	
COL EP	08 50 10.0
JAN 11	
ALQ EP	09 23 15.5
JAN 11	
H-11 41 37.8	
35.8N 070.6E	
h ABOUT 107KM	
COL EP	11 53 10.0
IpP	11 53 39.0
JAN 11	
ALQ EP	11 52 10.5
JAN 11	
KIP EP	11 53 29.0
ES	11 54 04.0
JAN 11	
EUR IP	12 00 45.7
JAN 11	
H-12 12 16.9	
44.9S 075.9W	
h ABOUT 033KM	
BHP EP	12 21 40.0
SJP EP	12 22 45.2
ALQ IP	12 24 41.0
TUC IP	12 24 41.0
TUT EP	12 24 41.9
BCN EP	12 25 05.2
FGU EP	12 25 16.9
SLC EP	12 25 19.3
EUR IP	12 25 20.8
I	12 25 43.8
IPKKP	12 42 43.8
BOZ EP	12 29 39.0
BUT EP	12 29 43.4
COL IP	12 31 09.0

Date and Station	Phase (GCT)
	h m s
HON E(S)	12 37 52.0
E	12 39 05.0
ESS	12 44 38.0
E	12 54 14.0
EL	12 58 50.0
JAN 11	
BUT EP	13 10 28.8
E	13 10 46.0
JAN 11	
H-14 36 15.2	
12.5N 088.1W	
h ABOUT 079KM	
BHP P	14 38 25.0
CSC EP	14 41 11.0
SJP E(P)	14 41 24.1
ALQ IP	14 42 01.0
TUC IP	14 42 11.0
FGU EP	14 42 52.8
SLC EP	14 43 02.5
EUR IP	14 43 17.4
I	14 45 38.5
BUT E(P)	14 43 39.5
COL IP	14 46 54.0
EPCP	14 47 28.0
EPP	14 49 27.0
JAN 11	
H-16 09 34.2	
24.3S 176.2W	
h ABOUT 033KM	
EUR E	16 22 07.4
COL EP	16 22 40.0
JAN 11	
COL EP	17 03 46.0
JAN 11	
H-17 05 41.7	
29.5S 178.6W	
h ABOUT 221KM	
TUC IP	17 18 15.0
EUR IP	17 18 17.6
E	17 19 21.1
SLC E(P)	17 18 33.2
COL EP	17 18 48.0
JAN 11	
FGU IP	17 13 38.3
IS	17 13 57.9
JAN 11	
COL IP	17 32 04.6
EUR E	17 35 49.1

Date and Station	Phase (GCT)
	h m s
JAN 11	
TUC EP	19 24 40.0
ES	19 24 49.0
JAN 11	
CSC EP	19 38 43.0
JAN 11	
FGU EP	19 40 50.5
JAN 11	
FGU EP	19 47 37.3
ES	19 47 56.4
JAN 11	
FGU EP	20 54 37.4
JAN 11	
COL IP	21 22 33.4
JAN 11	
EUR I	22 22 39.0
JAN 11	
GCA EP	22 50 24.8
ES	22 51 01.8
JAN 11	
FGU IP	23 15 02.1
IS	23 15 33.1
JAN 11	
COL EP	23 52 24.0
JAN 12	
EUR EP	00 15 31.6
I(S)	00 15 55.8
JAN 12	
EUR I(P)	00 17 03.4
I	00 17 28.7
COL EP	00 18 12.0
JAN 12	
FGU IP	03 23 42.3
E	03 23 59.3
JAN 12	
H-03 40 33.1	
04.7N 076.7W	
h ABOUT 084KM	
BHP IP	03 41 50.0
ES	03 42 47.0
SJP IP	03 44 27.0
ES	03 47 40.0
ALQ IP	03 48 08.5
IpP	03 48 27.3
TUC IP	03 48 19.0
GCA IP	03 48 45.5
FGU IP	03 48 53.6
SLC EP	03 49 04.2
EpP	03 49 28.7
EPCP	03 50 27.7
EPP	03 51 03.2
ESCP	03 54 20.5

Date and Station	Phase (GCT)
	h m s
EUR IP	03 49 17.8
IPCP	03 50 37.1
BOZ EP	03 49 29.0
BUT IP	03 49 34.3
EpP	03 49 56.8
IPCP	03 50 48.0
THU IP	03 51 53.0
COL IP	03 52 21.8
I	03 52 33.8
IpP	03 52 46.0
JAN 12	
ALQ EP	03 46 34.5
JAN 12	
EUR E	04 05 10.3
JAN 12	
H-04 19 27.0	
15.1N 120.4E	
h ABOUT 076KM	
COL EP	04 31 16.0
JAN 12	
H-06 02 12.4	
16.9N 098.4W	
h ABOUT 033KM	
TUC EP	06 06 33.0
ALQ IP	06 06 38.0
GCA E(P)	06 07 17.1
FGU IP	06 07 32.5
EUR E	06 07 55.2
CHI E	06 08 12.0
BOZ EP	06 08 37.0
BUT EP	06 08 41.0
COL EP	06 12 05.0
JAN 12	
H-06 20 16.4	
36.1N 069.9E	
h ABOUT 129KM	
THU I(P)	06 30 3 .0
COL IP	06 31 46.0
I	06 31 58.0
JAN 12	
H-09 13 05.3	
1.8N 129.3E	
h ABOUT 119KM	
COL IP	09 25 33.0
E	09 25 41.0
EpP	09 26 05.0
JAN 12	
EUR E	10 42 29.2

Date and Station	Phase (GCT)
	h m s
JAN 12	
FGU EP	10 48 37.6
I	48 54.2
JAN 12	
EUR E(P)	10 52 26.4
JAN 12	
COL IP	11 10 40.6
IL	11 16.4
JAN 12	
FGU EP	11 31 13.0
EUR IP	11 31 17.4
I	31 41.0
JAN 12	
FGU EP	11 46 15.0
ES	46 41.0
JAN 12	
EUR E	11 48 32.6
JAN 12	
COL EP	11 59 47.0
EUR I(P)	12 00 22.9
JAN 12	
H-12 12 36.5	
53.0N 170.6W	
h ABOUT 105KM	
COL IP	12 16 25.0
I	16 45.0
EUR EP	12 19 55.3
IPCP	22 08.6
JAN 12	
HHM E(P)	13 45 24.2
E	45 30.2
JAN 12	
COL EP	15 16 22.0
E	16 44.0
JAN 12	
SJP IP	16 21 16.4
IS	21 27.0
JAN 12	
ALQ EP	16 34 07.0
ES	34 20.0
JAN 12	
ALQ EP	16 34 07.5
I	34 20.0
JAN 12	
COL IP	18 59 59.9
I	19 00 20.0
EUR I(P)	19 03 39.1
JAN 12	
TUC EP	19 54 02.0
ES	55 00.0
GCA EP	19 54 08.2
EUR IP	19 54 25.2
E	56 27.9

Date and Station	Phase (GCT)
	h m s
JAN 12	
TUC IP	21 52 58.0
IS	53 28.0
ALQ EP	21 53 20.0
ES	53 31.0
EUR E	21 54 35.0
JAN 12	
TUC IP	21 58 23.0
IS	58 40.0
JAN 12	
EUR IP	22 20 08.2
JAN 12	
TUC EP	22 54 55.0
IS	55 07.0
JAN 12	
H-23 21 49.3	
07.2N 125.4E	
h ABOUT 059KM	
COL EP	23 34 06.0
EUR EP'	23 40 10.9
ALQ IP'	23 40 28.7
JAN 13	
ALQ EP	02 25 18.0
JAN 13	
H-02 39 38.7	
32.9N 116.5W	
h ABOUT 033KM	
BCN EP	02 40 31.6
I	40 37.0
ES	41 21.6
TUC IP	02 40 50.0
I	41 05.0
GCA IP	02 41 01.7
IL	42 31.2
EUR IP	02 41 15.5
E	41 41.7
EL	43 10.5
ALQ EP	02 41 41.0
IS	43 09.0
FGU E(P)	02 41 55.0
ES	44 43.0
SLC E(P)	02 42 25.0
ES	44 25.5
COL EP	02 46 54.0
E	53 24.0
JAN 13	
H-04 16 22.0	
15.4S 174.3W	
h ABOUT 033KM	
EUR EP	04 28 14.8
GCA EP	04 28 26.3

Date and Station	Phase (GCT)
	h m s
ALQ EP	04 28 38.0
COL EP	04 28 42.0
I	29 05.0
E	29 40.0
JAN 13	
ALQ EP	06 55 41.0
EUR EP	06 56 41.6
JAN 13	
HHM IP	07 32 37.2
IS	32 41.2
JAN 13	
FGU E(P)	08 28 36.6
JAN 13	
BOZ EP	08 38 21.0
ES	38 38.0
BUT EP	08 38 22.5
ES	38 39.4
EUR E	08 39 38.4
JAN 13	
HON EP	09 44 50.0
ES	45 28.0
KIP IP	09 44 51.0
ES	45 32.0
JAN 13	
H-12 49 30.6	
06.5S 149.2E	
h ABOUT 037KM	
COL EP	13 02 01.0
E	02 13.0
JAN 13	
EUR I	12 57 31.1
JAN 13	
COL EP	13 33 18.0
JAN 13	
H-13 43 42.7	
14.4S 171.5E	
h ABOUT 644KM	
COL IP	13 55 11.0
E	56 22.0
E>P	57 22.0
BCN I(P)	13 55 18.1
EUR IP	13 55 19.0
ALQ IP	13 55 46.0
JAN 13	
COL E(P)	13 51 39.0
JAN 13	
COL EP	14 03 14.0
JAN 13	
COL EP	14 12 31.0
JAN 13	
COL EP	14 52 19.0

Date and Station	Phase (GCT)
	h m s
JAN 13	
COL EP	15 42 42.0
JAN 13	
COL EP	16 20 17.0
JAN 13	
COL EP	16 30 31.0
E	30 47.0
JAN 13	
H-17 20 21.6	
32.0S 069.2W	
h ABOUT 125KM	
EUR IP	17 32 36.7
I>P	33 06.7
BOZ E(P)	17 32 50.0
BUT EP	17 32 55.3
E>P	33 25.2
JAN 13	
BUT E(P)	17 46 57.8
E	47 20.3
JAN 13	
EUR EP	20 46 56.0
E	47 23.6
I(S)	48 42.0
GCA EP	20 47 42.2
JAN 13	
BOZ EP	21 01 01.0
ES	01 17.0
BUT EP	21 01 15.7
ES	01 39.7
JAN 13	
BCN EP	21 10 19.5
ES	11 01.7
EUR E(P)	21 10 57.1
E	12 42.4
JAN 13	
COL EP	21 24 30.0
E	25 29.0
JAN 13	
FGU EP	22 25 01.3
IS	25 27.8
EUR E	22 25 35.8
JAN 13	
COL EP	22 25 48.0
JAN 13	
ALQ EP	23 03 41.5
JAN 14	
COL EP	00 09 02.0
JAN 14	
H-00 50 40.2	
17.9S 168.5E	
h ABOUT 059KM	
EUR I(P)	01 03 28.4

Date and Station	Phase (GCT)
	h m s
COL EP	01 03 29.0
JAN 14	
COL EP	01 33 34.0
JAN 14	
EUR EP	01 35 01.1
I(S)	36 54.0
BCN IP	01 35 22.2
GCA EP	01 38 53.1
JAN 14	
COL IP	01 51 00.6
IS	52 12.0
IL	52 24.0
EUR E	01 55 01.3
JAN 14	
COL IP	02 13 20.0
JAN 14	
H-02 18 03.0	
62.2N 130.1W	
h ABOUT 098KM	
COL IP	02 18 47.7
IS	19 12.0
IL	19 24.0
HHM IP	02 23 13.7
BUT EP	02 23 35.9
E+P	23 57.6
BOZ EP	02 23 45.0
E+P	24 06.0
EUR IP	02 24 10.7
E+P	24 31.4
I	25 43.1
FGU IP	02 24 23.6
ALQ EP	02 25 18.0
JAN 14	
UKI EP	05 36 49.0
ES	36 54.0
JAN 14	
COL IP	06 37 31.0
JAN 14	
COL E(P)	06 46 02.0
E	46 12.0
JAN 14	
EUR IP	06 49 20.7
JAN 14	
FGU IP	09 22 29.2
JAN 14	
COL IP	09 54 38.0
EUR EP	09 55 14.0
I	55 38.0

Date and Station	Phase (GCT)
	h m s
JAN 14	
H-11 19 45.0	
21.4S 169.4E	
h ABOUT 019KM	
COL IP	11 32 52.6
I	33 07.0
E	34 18.0
EUR IP	11 32 56.0
THU IP	11 38 23.0
HON E	11 47 15.0
EL	56 42.0
JAN 14	
COL EP	11 37 40.0
JAN 14	
COL EP	11 38 56.0
I	59 08.0
JAN 14	
COL E(P)	12 42 04.0
JAN 14	
COL EP	12 46 41.0
E	47 11.0
BUT EP	12 49 21.6
EUR EP	12 49 22.7
JAN 14	
COL IP	13 46 18.0
JAN 14	
H-15 35 17.6	
19.8S 175.1W	
h ABOUT 041KM	
COL E(P)	15 48 00.0
E	48 26.0
JAN 14	
H-18 33 24.2	
45.9N 026.7E	
h ABOUT 117KM	
HHM EP	18 45 22.2
EUR EP	18 46 01.4
JAN 14	
UKI EP	18 33 28.0
ES	33 32.0
JAN 14	
THU IP	18 41 32.0
JAN 14	
COL E(P)	18 44 02.0
I	44 24.0
JAN 14	
COL E(P)	18 48 20.0
I	48 39.0
I	49 00.0
JAN 14	
COL IP	19 21 22.0
EUR E	19 25 19.5

Date and Station	Phase (GCT)
	h m s
JAN 14	
FGU EP	21 34 56.2
ES	35 15.7
JAN 14	
TUC IP	21 38 42.0
IS	39 04.0
JAN 14	
TUC IP	22 39 19.0
IS	39 31.0
JAN 14	
ALQ EP	23 03 42.0
ES	03 58.0
JAN 15	
HHM EP	00 07 39.2
IS	07 42.2
JAN 15	
H-01 32 20.0	
68.9N 017.1W	
h ABOUT 033KM	
THU I(P)	01 36 03.5
COL IP	01 40 11.0
E	40 43.0
E	42 27.0
HHM E(P)	01 40 59.3
BOZ EP	01 41 12.0
FGU EP	01 41 41.6
EUR EP	01 42 04.2
GCA EP	01 42 11.1
ALQ EP	01 42 12.0
BCN EP	01 42 23.9
E	42 46.1
TUC EP	01 42 38.0
JAN 15	
SJP EP	01 52 10.9
JAN 15	
H-02 07 56.0	
13.5S 167.7E	
h ABOUT 015KM	
COL IP	02 20 31.0
I	20 40.0
I	20 46.0
E	20 50.0
EUR IP	02 20 49.6
JAN 15	
GUA IP	02 09 50.0
JAN 15	
H-02 32 40.7	
13.4N 145.3E	
h ABOUT 040KM	
GUA IP	02 32 51.0
KIP E(P)	02 42 12.0

Date and Station	Phase (GCT)
	h m s
COL IP	02 43 37.0
I	43 48.0
HHM EP	02 45 24.2
THU EP	02 45 29.0
EUR IP	02 45 29.0
EPP	48 59.2
E	49 34.7
BUT EP	02 45 34.5
E	48 49.4
BOZ EP	02 45 40.0
EPP	49 11.0
SLC EP	02 45 43.0
GCA EP	02 45 48.2
FGU EP	02 45 49.5
TUC EP	02 45 58.0
ALQ EP	02 46 09.5
JAN 15	
EUR EP	03 15 26.1
JAN 15	
COL EP	03 22 10.0
EUR EP	03 24 01.0
JAN 15	
GUA P	03 25 52.0
E	26 08.0
JAN 15	
H-03 22 41.6	
12.0N 087.7W	
h ABOUT 033KM	
ALQ EP	03 28 37.0
EUR EP	03 29 52.3
E	38 26.2
COL EP	03 33 30.0
EPCP	34 04.0
JAN 15	
SJP EP	04 17 13.5
EL	18 32.0
JAN 15	
GUA I	04 36 03.0
I	36 16.0
JAN 15	
COL EP	04 46 48.0
E	47 02.0
EUR E(P)	04 48 36.7
JAN 15	
H-05 23 10.2	
69.1N 016.6W	
h ABOUT 033KM	
THU IP	05 26 55.0

Date and Station	Phase	Phase (GCT) h m s
COL	IP	05 31 01.0
	I	31 13.0
HHM	EP	05 31 50.3
BOZ	EP	05 32 02.0
BUT	E(P)	05 32 07.8
	EL	49 08.0
FGU	E(P)	05 32 30.4
EUR	EP	05 32 54.2
	EPCP	33 43.9
SLC	EP	05 32 56.5
GCA	EP	05 33 00.4
ALQ	EP	05 33 00.8
TUC	EP	05 33 28.0
JAN 15		
EUR	I	05 36 30.2
JAN 15		
COL	EP	06 03 39.0
JAN 15		
H-06 32 30.3		
37.5S 073.3W		
h ABOUT 056KM		
ALQ	EP	06 44 26.8
EUR	EP	06 45 06.6
JAN 15		
SJP	E(P)	06 40 38.3
JAN 15		
GUA	P	08 19 43.0
JAN 15		
EUR	E	08 32 16.9
JAN 15		
H-09 47 43.5		
10.6S 164.9E		
h ABOUT 091KM		
COL	IP	10 00 00.0
	I	00 09.0
	I>P	00 15.0
BCN	EP	10 00 24.6
EUR	IP	10 00 27.2
	I>P	00 42.5
	E	00 54.5
SLC	E(P)	10 00 49.4
JAN 15		
TUC	EP	10 01 09.0
JAN 15		
BUT	EP	10 58 45.6
	ES	59 05.3
JAN 15		
GUA	IP	11 47 56.0
	I	48 11.0

Date and Station	Phase	Phase (GCT) h m s
JAN 15		
COL	EP	11 58 06.0
EUR	E(P)	12 00 31.5
JAN 15		
H-12 22 32.5		
37.5N 101.8E		
h ABOUT 033KM		
COL	IP	12 33 08.0
	I	33 21.0
	I	34 16.0
HHM	E(P)	12 35 29.5
JAN 15		
H-13 50 31.1		
11.9N 087.7W		
h ABOUT 033KM		
ALQ	EP	13 56 27.3
FGU	EP	13 57 19.6
EUR	EP	13 57 41.6
BOZ	E(P)	13 57 58.0
COL	EP	14 01 21.0
	E	08 08.0
JAN 15		
ALQ	EP	14 11 45.4
JAN 15		
EUR	E	14 14 01.9
JAN 15		
COL	EP	14 47 05.0
	E	47 21.0
JAN 15		
H-15 04 15.6		
36.0N 023.9E		
h ABOUT 087KM		
THU	EP	15 13 45.5
COL	EP	15 16 13.0
	E>P	16 29.0
SJP	I(P)	15 16 16.0
JAN 15		
HHM	EP	15 31 47.5
	>P	32 17.5
JAN 15		
COL	IP	16 15 02.0
	I	15 25.0
JAN 15		
EUR	E	16 35 51.8
JAN 15		
COL	EP	16 54 55.0
JAN 15		
H-17 39 03.8		
21.1S 178.1W		
h ABOUT 224KM		
BCN	EP	17 51 03.0

Date and Station	Phase	Phase (GCT) h m s
EUR	IP	17 51 07.8
	E	51 14.6
	EPP	54 14.9
GCA	EP	17 51 15.6
COL	IP	17 51 33.0
	I	51 42.0
	E	55 21.0
BUT	E(P)	17 51 34.9
JAN 15		
H-19 11 02.2		
38.7N 075.7E		
h ABOUT 087KM		
COL	EP	19 22 15.0
HHM	E(P)	19 24 01.6
JAN 15		
BUT	EP	19 23 26.0
	ES	23 47.0
FGU	EP	19 24 08.9
	ES	25 52.9
JAN 15		
H-19 26 38.1		
20.6S 177.9W		
h ABOUT 547KM		
UKI	IP	19 37 45.0
BCN	IP	19 38 03.1
	E	38 41.3
	E(S)	47 36.3
EUR	IP	19 38 08.2
	E	38 50.2
	I	40 52.2
	E	43 20.6
TUC	IP	19 38 09.0
GCA	IP	19 38 16.7
SLC	EP	19 38 24.3
	E	38 37.8
COL	IP	19 38 30.7
	I>P	40 28.0
	EPP	42 12.0
	ES	48 31.0
	EPKKP	56 18.0
	EP'P'	20 04 15.0
FGU	IP	19 38 32.4
	ESKS	48 11.9
	IS	48 36.0
BUT	EP	19 38 34.9
	E>P	40 37.0
HHM	IP	19 38 35.6
BOZ	EP	19 38 39.0
SJP	IP'	19 44 20.7
JAN 15		
HHM	IP	19 56 11.1

Date and Station	Phase	Phase (GCT) h m s
JAN 15		
COL	IP	21 40 44.0
JAN 15		
TUC	IP	21 57 53.0
	IS	58 02.0
JAN 15		
H-22 17 46.6		
31.5S 013.4W		
h ABOUT 005KM		
COL	IP'	22 37 11.0
	I	37 22.0
JAN 15		
EUR	IP	22 35 32.2
JAN 15		
BHP	P	22 50 50.0
JAN 15		
ALQ	EP	23 39 56.0
JAN 15		
COL	EP	23 56 14.0
JAN 15		
TUC	EP	23 57 52.0
	IS	58 02.0
EUR	E	23 59 33.4
JAN 16		
BCN	EP	00 09 36.6
	ES	10 05.8
JAN 16		
BCN	IP	00 59 32.6
	ES	59 48.8
JAN 16		
BUT	E(P)	01 29 33.2
JAN 16		
FGU	EP	02 34 16.3
	ES	34 48.8
JAN 16		
BCN	EP	02 45 38.2
	E	46 19.9
JAN 16		
GCA	EP	02 59 30.7
JAN 16		
H-03 14 06.2		
54.0S 133.6W		
h ABOUT 033KM		
TUC	EP	03 26 55.0
BCN	EP	03 27 09.0
	E	27 55.0
ALQ	IP	03 27 10.5
EUR	IP	03 27 25.2
COL	EP'	03 32 50.0
JAN 16		
BHP	P	03 50 24.0

Date and Station	Phase (GCT)
	h m s
JAN 16	
H-03 52 56.8	
7.0N 073.1W	
h ABOUT 139KM	
BHP EP	03 54 36.0
ES	55 35.0
SJP IP	03 56 02.8
ALQ EP	04 00 32.5
TUC IP	04 00 46.0
GCA EP	04 01 09.8
FGU EP	04 01 14.7
EUR IP	04 01 41.4
COL EP	04 04 36.0
JAN 16	
TUC IP	04 37 58.0
IS	38 26.0
ALQ EP	04 38 37.0
IS	39 56.0
JAN 16	
H-04 49 10.5	
9.6N 093.8E	
h ABOUT 061KM	
COL EP	05 02 19.0
JAN 16	
FGU EP	04 55 01.7
ES	55 26.7
JAN 16	
SLC IP	04 55 58.3
IS	56 22.2
JAN 16	
SJP IP'	05 11 13.6
JAN 16	
ALQ EP	05 38 37.5
IS	39 55.3
GCA E(P)	05 39 41.9
JAN 16	
H-05 44 54.4	
51.4N 179.7W	
h ABOUT 053KM	
COL IP	05 49 37.4
I	50 16.0
ES	53 17.0
E(PCP)	53 36.0
ESCP	57 15.0
EPCS	57 20.0
ESCS	06 01 01.0
HHM EP	05 52 35.7
BUT EP	05 52 52.6
BOZ EP	05 53 02.0

Date and Station	Phase (GCT)
	h m s
EUR IP	05 53 06.2
E>P	53 20.2
E(S)	59 53.5
SLC EP	05 53 20.2
BCN EP	05 53 29.3
FGU EP	05 53 31.5
GCA EP	05 53 38.9
ALQ IP	05 54 13.0
E>P	54 26.4
SJP IP	05 57 49.9
JAN 16	
KIP E(P)	06 27 30.0
JAN 16	
H-06 38 40.0	
54.2N 035.0W	
h ABOUT 033KM	
COL IP	06 47 38.0
EPCP	48 30.0
ALQ IP	06 47 49.9
EUR EP	06 48 04.2
EPCP	49 08.6
JAN 16	
H-06 44 56.3	
54.2N 035.1W	
h ABOUT 033KM	
FGU IP	06 53 46.7
COL IP	06 53 53.4
ALQ IP	06 54 06.0
GCA EP	06 54 15.0
EUR EP	06 54 21.8
EPCP	55 20.3
JAN 16	
THU IP	06 53 15.0
JAN 16	
TUC EP	06 54 00.0
JAN 16	
THU IP	07 50 17.0
JAN 16	
H-12 32 37.1	
54.2N 035.1W	
h ABOUT 033KM	
THU I(P)	12 37 58.0
HHM E(P)	12 41 08.8
COL IP	12 41 34.4
ALQ EP	12 41 46.0
EUR EP	12 42 01.8

Date and Station	Phase (GCT)
	h m s
JAN 16	
BCN EP	12 51 46.3
E	51 54.0
ES	52 27.0
EUR EP	12 52 29.5
ES	53 49.5
GCA E(P)	12 52 30.8
E	52 41.8
ES	53 47.8
JAN 16	
H-15 09 11.4	
23.9S 067.7W	
h ABOUT 109KM	
ALQ IP	15 20 07.0
EUR IP	15 20 57.1
E	21 35.4
HHM IP	15 21 25.8
JAN 16	
H-15 30 07.4	
36.4N 070.3E	
h ABOUT 215KM	
COL IP	15 41 25.0
JAN 16	
EUR IP	16 03 13.4
JAN 16	
H-16 06 39.1	
34.7N 137.0E	
h ABOUT 344KM	
COL IP	16 15 24.0
I	15 43.0
HHM EP	16 17 50.2
JAN 16	
EUR E	20 07 38.5
JAN 16	
H-20 20 51.4	
03.9S 076.8W	
h ABOUT 102KM	
COL E(P)	20 33 10.0
JAN 16	
EUR E	20 44 32.4
JAN 16	
EUR E(P)	21 02 49.0
I(S)	04 13.0
JAN 16	
H-21 08 36.2	
11.1S 111.5E	
h ABOUT 064KM	
HHM EP'	21 27 35.9
EUR EP'	21 27 41.2
JAN 16	
COL EP	21 21 29.5

Date and Station	Phase (GCT)
	h m s
JAN 16	
GCA EP	22 11 49.7
JAN 16	
EUR IP	22 26 56.7
JAN 16	
ALQ EP	23 10 34.8
JAN 16	
BCN E(P)	23 47 05.0
JAN 17	
SJP IP	00 37 25.2
IS	37 35.0
JAN 17	
BHP P	00 54 28.0
JAN 17	
EUR EP	01 00 21.0
E	01 11.2
GCA EP	01 01 24.1
JAN 17	
H-03 27 02.5	
43.6S 083.6W	
h ABOUT 033KM	
EUR EP	03 39 47.4
I	40 17.6
BOZ E(P)	03 40 21.0
JAN 17	
H-03 52 36.0	
52.1N 152.5E	
h ABOUT 394KM	
COL IP	03 58 30.0
E	58 39.0
ESCS	04 08 30.0
EUR IP	04 02 11.4
JAN 17	
H-04 22 19.3	
10.7S 079.0W	
h ABOUT 021KM	
SJP IP	04 28 42.3
I	28 49.0
I	29 14.0
EUR EP	04 32 31.4
COL IP	04 35 22.0
I	35 29.0
JAN 17	
H-04 42 41.8	
05.3S 151.5E	
h ABOUT 062KM	
COL EP	04 55 00.0
EUR I	04 56 00.6
JAN 17	
H-05 56 54.7	
14.0N 120.6E	
h ABOUT 207KM	

Date and Station	Phase	(GCT) h m s
COL	IP	06 08 32.0
SJP	EP'	06 16 16.0
JAN 17		
BHP	P	14 08 38.0
	S	09 15.0
JAN 17		
COL	EP	16 41 59.0
	I	42 12.0
JAN 17		
H-19 30 59.9		
8.3S 075.1W		
h ABOUT 124KM		
ALQ	EP	19 40 00.0
EUR	EP	19 41 01.5
	I	41 43.2
	EPCP	41 47.4
COL	IP	19 43 47.7
	I	44 21.0
JAN 17		
GCA	E(P)	19 47 53.3
	I	48 56.3
JAN 17		
H-20 41 13.5		
25.7N 125.3E		
h ABOUT 126KM		
COL	IP	20 51 46.3
	I+P	52 22.0
	ES	21 00 25.0
	E	01 08.0
HHM	IP	20 53 59.1
BUT	EP	20 54 09.0
	E	54 32.8
	E(S)	21 05 01.6
EUR	EP	20 54 18.2
	E	54 39.9
	EPP	58 01.9
JAN 17		
ALQ	EP	22 22 39.6
JAN 17		
BHP	P	22 31 19.0
	S	31 56.0
JAN 17		
EUR	IP	22 31 59.3
	E	32 07.0
JAN 17		
HHM	EP	22 55 07.1
	E	56 00.1
JAN 17		
ALQ	EP	23 53 42.0
	ES	53 47.0
JAN 18		
ALQ	EP	00 07 16.0
JAN 18		
COL	IP	00 25 19.0
JAN 18		
HON	EP	01 29 16.0
KIP	E(P)	01 29 17.0
JAN 18		
EUR	IP	02 29 16.9
	IS	29 40.1
JAN 18		
H-03 12 06.1		
33.1N 135.9E		
h ABOUT 426KM		
COL	IP	03 20 53.0
THU	EP	03 22 30.5
HHM	IP	03 23 19.1
	E	23 45.1
	E	25 13.1
BUT	IP	03 23 30.7
	E	25 25.0
BOZ	EP	03 23 35.0
EUR	IP	03 23 40.9
	E+P	25 19.9
	I	25 35.1
SLC	IP	03 23 50.2
	E	25 45.7
GCA	EEP	03 24 01.0
ALQ	IP	03 24 23.0
JAN 18		
SJP	EP'	03 32 22.5
JAN 18		
EUR	EP	04 43 06.2
JAN 18		
H-05 49 18.4		
32.0S 117.1E		
h ABOUT 035KM		
ALQ	EP'	06 08 51.0
JAN 18		
COL	EP	05 58 27.0
JAN 18		
EUR	IP	06 42 26.4
	E(S)	42 52.4
JAN 18		
EUR	IP	07 33 52.2
JAN 18		
EUR	EP	07 58 39.9
JAN 18		
COL	IP	08 03 20.0
JAN 18		
COL	IP	11 53 09.0
JAN 18		
H-12 33 50.5		
46.5N 154.3E		
h ABOUT 033KM		
COL	EP	12 40 48.0
EUR	EP	12 44 13.2
JAN 18		
COL	IP	13 46 00.0
JAN 18		
HHM	E(P)	16 14 12.2
	ES	15 15.2
JAN 18		
EUR	IP	17 30 49.2
	E(S)	31 11.4
JAN 18		
BOZ	E(P)	21 11 15.0
JAN 18		
EUR	IP	21 12 23.3
	E	12 32.3
	E(S)	13 07.8
BCN	EP	21 12 31.6
	I	12 59.2
	I	13 33.3
GCA	EP	21 14 12.2
JAN 18		
COL	EP	21 14 28.0
JAN 18		
H-21 16 45.6		
11.5S 166.2E		
h ABOUT 045KM		
COL	EP	21 29 10.0
JAN 18		
BCN	IP	21 24 57.4
	ES	25 09.6
JAN 18		
TUC	IP	21 54 09.0
	IS	54 25.0
JAN 18		
GCA	EP	22 18 32.4
JAN 18		
EUR	EP	22 26 40.2
JAN 19		
COL	EP	00 30 09.0
	E	31 55.0
JAN 19		
COL	EP	02 45 55.0
	I	46 24.0
JAN 19		
COL	EP	03 37 15.0
JAN 19		
COL	EP	06 01 31.0
JAN 19		
BOZ	EP	06 22 34.0
JAN 19		
COL	EP	06 25 42.0
JAN 19		
GCA	EP	06 44 42.0
JAN 19		
H-07 22 24.6		
41.0N 142.3E		
h ABOUT 033KM		
COL	IP	07 30 42.3
	I	31 01.0
THU	EP	07 32 36.5
HHM	EP	07 33 24.3
BOZ	EP	07 33 45.0
ALQ	IP	07 34 40.9
JAN 19		
ALQ	EP	09 56 12.2
EUR	E	09 56 55.3
JAN 19		
EUR	E	12 20 54.0
JAN 19		
ALQ	EP	13 03 30.0
JAN 19		
ALQ	EP	13 23 17.0
JAN 19		
COL	IP	18 59 59.0
JAN 19		
H-19 29 02.0		
16.8N 084.9W		
h ABOUT 032KM		
ALQ	EP	19 34 37.5
JAN 19		
SJP	IP	19 43 41.8
	I(S)	44 38.6
JAN 19		
EUR	IP	19 45 22.8
	IS	46 06.3
BCN	EP	19 45 30.8
JAN 19		
H-19 50 53.3		
16.9N 085.0W		
h ABOUT 017KM		
ALQ	IP	19 56 33.2
	EL	20 02 07.2
TUC	EP	19 56 49.0
EUR	E	19 57 50.7
BOZ	EP	19 58 00.0
HHM	E(P)	19 58 16.3
COL	EP	20 01 27.0
	E	03 52.0
JAN 19		
COL	IP	21 33 11.1

Date and Station	Phase (GCT) h m s
JAN 19	
COL IP	21 55 50.6
E	56 26.0
EUR IP	21 57 21.8
JAN 19	
EUR IP	22 20 58.2
IS	21 54.2
JAN 19	
BOZ EP	22 28 30.0
JAN 19	
BOZ EP	23 22 58.0
JAN 20	
EUR EP	01 06 45.0
IS	07 28.5
JAN 20	
H-02 49 42.0	
55.7N 166.0E	
h ABOUT 033KM	
EUR E	02 58 52.5
I	59 00.5
JAN 20	
EUR IP	03 28 16.3
JAN 20	
HHM EP	04 41 27.8
IS	41 31.8
JAN 20	
EUR IP	05 28 13.9
I	28 24.9
JAN 20	
HHM EP	05 50 51.8
ES	08 51 53.0
JAN 20	
HHM EP	07 19 48.8
JAN 20	
HHM EP	07 47 20.8
JAN 20	
H-08 56 06.0	
51.8N 173.2W	
h ABOUT 030KM	
HHM EP	09 03 16.8
BOZ EP	09 03 43.0
EUR IP	09 03 47.4
I	03 59.8
I	04 32.2
I(PP)	05 09.4
FGU EP	09 04 11.5
GCA EP	09 04 20.5
TUC EP	09 04 49.0
JAN 20	
H-09 24 39.7	
44.9N 110.9W	
h ABOUT 028KM	

Date and Station	Phase (GCT) h m s
BOZ EP	09 24 53.5
ES	25 09.0
BUT EP	09 25 08.3
ES	25 33.7
HHM EP	09 25 41.8
I	25 53.8
FGU E(P)	09 25 48.6
EUR E(P)	09 26 18.2
I	26 41.1
JAN 20	
BOZ EP	09 29 26.5
BUT EP	09 29 41.7
E	30 07.1
JAN 20	
KIP E(P)	09 37 12.0
JAN 20	
H-10 56 51.3	
50.2N 129.5W	
h ABOUT 033KM	
HHM EP	10 59 17.8
ES	11 02 13.8
BUT EP	10 59 43.3
E	11 03 10.4
E	03 38.2
E	03 55.0
E	05 05.9
BOZ E(P)	10 59 58.5
EUR E(P)	11 00 16.8
I	00 54.2
FGU EP	11 00 49.0
GCA EP	11 01 05.7
ALQ EP	11 01 50.0
TUC EP	11 01 52.0
JAN 20	
UKI E(P)	11 00 19.0
JAN 20	
UKI EP	12 01 04.6
ES	01 13.4
JAN 20	
H-13 16 20.7	
25.8N 110.8W	
h ABOUT 033KM	
TUC I(P)	13 17 51.0
IS	18 53.0
TUT E(P)	13 17 52.0
E	18 38.4
IL	19 33.5
ALQ IP	13 18 42.2
IL	21 16.0

Date and Station	Phase (GCT) h m s
BCN EP	13 18 55.0
E	19 48.0
E	20 23.0
E(S)	21 25.0
EL	22 25.0
GCA IP	13 19 01.3
EL	21 59.8
EUR IP	13 19 43.7
I	20 36.4
E(S)	21 34.3
IL	23 45.1
E	24 36.8
SLC EP	13 19 51.7
E	20 15.7
EL	24 07.0
E	25 09.0
FGU EP	13 19 52.8
EL	23 56.3
BOZ EP	13 20 53.0
BUT EP	13 20 56.2
EL	29 17.7
HHM EP	13 21 20.9
E	21 46.9
JAN 20	
CHI E	13 17 48.0
I	18 18.0
I	18 42.0
JAN 20	
HHM EP	13 58 19.9
IS	58 23.0
JAN 20	
HHM EP	14 52 17.9
JAN 20	
EUR E	15 02 47.0
JAN 20	
EUR E	18 19 52.5
JAN 20	
EUR IP	19 00 11.2
JAN 20	
H-19 02 59.0	
10.1S 161.5E	
h ABOUT 089KM	
COL IP	19 15 13.0
E>P	15 35.0
I>P	15 48.0
EUR E(P)	19 15 50.7
I	15 53.4
I>P	16 14.0
I>P	16 28.1
BUT E(P)	19 16 03.0
JAN 20	
EUR E	19 25 18.0
COL EP	19 25 37.0

Date and Station	Phase (GCT) h m s
JAN 20	
HHM E(P)	21 17 36.9
E(S)	18 31.9
JAN 20	
H-22 21 26.9	
26.7N 110.8W	
h ABOUT 024KM	
TUT EP	22 22 49.2
EL	24 22.0
E	24 34.9
TUC IP	22 22 50.0
IL	24 12.0
ALQ EP	22 23 40.0
ES	25 18.0
BCN EP	22 23 51.5
E	24 26.0
EL	26 39.0
E	28 56.3
E	32 03.0
GCA EP	22 23 59.6
EL	27 23.6
EUR IP	22 24 41.3
EL	28 45.2
FGU EP	22 24 50.7
EL	28 40.2
BUT E(P)	22 25 51.8
HHM EP	22 26 17.9
COL IP	22 29 41.0
JAN 20	
CHI I	22 23 24.0
I	23 27.0
JAN 20	
H-22 37 29.6	
15.4S 167.7E	
h ABOUT 111KM	
COL E(P)	22 49 55.0
EUR E	22 50 15.3
I>P	50 49.7
JAN 20	
TUC EP	23 01 32.0
IS	01 56.0
JAN 20	
COL EP	23 18 13.0
EUR E(P)	23 20 58.3
JAN 21	
EUR E(P)	01 44 44.2
COL EP	01 45 02.0
JAN 21	
COL EP	03 09 03.0
I	09 57.0
E	13 02.0

Date and Station	Phase (GCT)
	h m s
JAN 21	
EUR I(P)	03 15 59.5
JAN 21	
EUR EP	03 48 49.6
I	48 51.2
I(S)	49 22.6
IL	49 29.3
JAN 21	
SJP IP	04 14 50.8
I(S)	15 55.2
JAN 21	
H-04 15 43.3	
34.5S 070.5W	
h ABOUT 114KM	
TUC EP	04 27 22.0
ALQ IP	04 27 23.8
GCA EP	04 27 45.8
FGU IP	04 27 58.1
EUR IP	04 28 06.1
BUT EP	04 28 24.4
E	08 29 07.6
E	04 29 55.8
JAN 21	
H-04 25 36.9	
55.3N 161.9E	
h ABOUT 117KM	
COL IP	04 31 00.7
I	31 06.0
I(PP)	31 36.0
EUR IP	04 34 55.3
I	35 39.5
JAN 21	
KIP EP	05 21 34.0
JAN 21	
H-05 48 01.1	
5.4S 148.9E	
h ABOUT 166KM	
COL IP	06 00 13.5
E>P	00 54.0
EUR E(P)	06 01 18.8
JAN 21	
BOZ EP	05 50 03.0
ES	50 13.5
BUT EP	05 50 17.8
ES	50 40.0
EUR E	05 51 36.6
JAN 21	
H-07 00 43.3	
60.4S 026.4W	
h ABOUT 033KM	
EUR EP'	07 19 39.2
BUT EP'	07 19 45.8
COL IP'	07 20 38.4
I	20 50.5
I	21 02.0
JAN 21	
H-07 38 56.4	
09.3N 083.0W	
h ABOUT 081KM	
SJP EP	07 43 10.5
EUR EP	07 46 43.5
COL EP	07 50 07.0
E>P	50 30.0
JAN 21	
SJP EP	08 58 13.1
JAN 21	
H-09 46 34.9	
19.6S 177.5W	
h ABOUT 540KM	
COL IP	09 58 24.0
E	10 00 10.0
JAN 21	
EUR IP	09 51 47.2
IS	52 09.9
JAN 21	
H-10 35 37.5	
03.0S 136.2E	
h ABOUT 039KM	
COL IP	10 48 18.0
JAN 21	
BUT E(P)	11 17 48.6
JAN 21	
H-11 56 14.4	
2.6S 150.0E	
h ABOUT 043KM	
COL IP	12 08 25.1
I	08 44.0
JAN 21	
H-14 47 03.0	
59.4N 151.6W	
h ABOUT 057KM	
COL IP	14 48 29.0
I	49 09.0
IL	49 54.0
BUT EP	14 52 38.3
EUR IP	14 53 08.3
E>P	53 22.8
FGU EP	14 53 25.5
BCN EP	14 53 38.8
E>P	53 54.8
TUC EP	14 54 20.0
JAN 21	
EUR EP	17 02 43.8
IS	03 17.3
FGU IP	17 34 10.0
IS	34 25.0
JAN 21	
H-18 35 41.2	
18.4S 174.9W	
h ABOUT 053KM	
TUC EP	18 47 43.0
EUR EP	18 47 44.5
E	48 06.5
ALQ IP	18 48 07.0
COL IP	18 48 17.0
I>P	48 35.0
JAN 21	
H-18 56 49.1	
04.2S 152.4E	
h ABOUT 110KM	
COL IP	19 08 55.3
E>P	09 20.0
JAN 21	
ALQ EP	22 06 42.3
JAN 21	
COL EP	22 12 32.0
E	13 46.0
JAN 21	
EUR EP	22 19 06.2
E(S)	19 22.9
JAN 21	
EUR EP	22 32 09.0
E	32 21.1
JAN 21	
FGU EP	23 13 28.8
ES	14 00.9
JAN 21	
UKI IP	23 24 51.0
IS	25 00.0
JAN 22	
COL IP	00 12 44.3
I	13 56.0
JAN 22	
COL IP	00 21 19.0
JAN 22	
FGU EP	00 35 37.3
JAN 22	
FGU EP	00 47 19.3
ES	47 37.8
JAN 22	
EUR E	04 42 17.9
JAN 22	
H-04 55 18.4	
31.4N 089.6E	
h ABOUT 058KM	
COL IP	05 06 51.0
E	07 37.0
JAN 22	
COL EP	05 04 23.0
JAN 22	
COL EP	05 42 43.0
JAN 22	
TUC EP	05 48 45.0
IS	49 45.0
JAN 22	
ALQ E(P)	05 51 16.5
JAN 22	
COL EP	07 18 03.0
EUR IP	07 22 06.4
I	22 25.1
JAN 22	
COL EP	08 11 18.0
E	14 23.0
EUR I(P)	08 13 28.2
JAN 22	
H-08 32 35.2	
11.6S 075.0W	
h ABOUT 047KM	
SJP E(P)	08 39 11.2
ALQ EP	08 42 04.5
TUC EP	08 42 07.0
FGU EP	08 42 46.2
EUR IP	08 43 03.6
I	43 33.0
COL EP	08 45 45.0
JAN 22	
COL IP	09 25 13.0
JAN 22	
COL EP	09 32 50.0
JAN 22	
H-11 29 41.9	
30.8S 072.0W	
h ABOUT 038KM	
ALQ EP	11 41 10.0
FGU EP	11 41 46.7
EUR E(P)	11 41 55.4
I	42 14.9
COL EP'	11 48 31.0
JAN 22	
BOZ EP	12 04 22.0
JAN 22	
EUR E(P)	13 10 36.8
I	10 45.1
ES	11 18.0
JAN 22	
THU IP	13 11 00.0

Date and Station	Phase (GCT)
	h m s
JAN 22	
BUT EP	14 39 46.0
ES	40 08.0
HHM E(P)	14 40 20.8
JAN 22	
EUR EP	14 58 29.0
ES	58 51.0
JAN 22	
EUR EP	16 01 56.5
JAN 22	
H-16 07 12.5	
48.3N 155.4E	
h ABOUT 033KM	
COL IP	16 13 54.0
I	14 08.0
EUR IP	16 17 26.2
ALQ EP	16 18 21.0
JAN 22	
H-16 11 35.7	
47.3N 155.5E	
h ABOUT 033KM	
COL IP	16 18 22.0
I	18 34.0
I	18 41.0
EUR IP	16 21 54.2
E	22 29.5
JAN 22	
TUC EP	16 27 10.0
IS	27 38.0
JAN 22	
TUC IP	16 45 29.0
IS	46 12.0
BCN EP	16 45 56.0
E	47 23.0
JAN 22	
EUR IP	17 47 02.8
JAN 22	
FGU EP	18 31 19.5
ES	31 53.5
ALQ EP	18 31 34.0
JAN 22	
H-20 44 37.1	
19.2S 177.6W	
h ABOUT 546KM	
EUR EP	20 36 01.5
COL IP	20 56 23.8
E+P	58 22.0
JAN 22	
ALQ EP	20 48 38.3
JAN 22	
COL IP	21 23 09.0

Date and Station	Phase (GCT)
	h m s
JAN 22	
ALQ E(P)	21 56 13.0
JAN 22	
TUC IP	21 56 23.0
IS	56 41.0
JAN 22	
TUC IP	22 16 04.0
IS	16 12.0
JAN 22	
EUR E	22 40 19.8
JAN 22	
H-23 09 05.8	
06.4S 146.6E	
h ABOUT 091KM	
COL IP	23 21 34.0
I	22 08.0
JAN 22	
TUC EP	23 14 15.0
IS	14 23.0
JAN 22	
TUC IP	23 15 24.0
IS	15 33.0
JAN 23	
EUR IP	01 11 55.9
IS	12 18.5
JAN 23	
EUR EP	01 13 10.0
IS	13 31.5
JAN 23	
H-04 39 21.1	
48.9N 156.3E	
h ABOUT 024KM	
COL IP	04 45 57.0
EUR EP	04 49 29.9
E	49 47.9
JAN 23	
COL EP	05 11 09.0
EUR E	05 11 37.2
JAN 23	
COL EP	05 43 28.0
EUR E(P)	05 47 19.2
JAN 23	
COL EP	09 05 45.0
E	06 34.0
E	06 42.0
EUR E(P)	09 06 06.3
ALQ IP	09 06 25.5
JAN 23	
COL EP	10 08 34.0
JAN 23	
BOZ EP	12 23 06.0
E	23 22.3

Date and Station	Phase (GCT)
	h m s
JAN 23	
EUR IP	13 22 01.4
I	22 06.8
E(S)	22 40.3
BCN EP	13 22 28.0
E(S)	23 19.5
JAN 23	
H-14 39 49.4	
22.6S 178.3W	
h ABOUT 301KM	
COL IP	14 52 17.0
E	58 21.0
JAN 23	
FGU IP	17 00 56.5
JAN 23	
TUC EP	18 25 49.0
IS	26 07.0
JAN 23	
TUC IP	19 53 57.0
IS	54 17.0
JAN 23	
COL IP	19 55 17.0
JAN 23	
BOZ EP	20 02 26.0
ES	02 42.0
BUT EP	20 02 41.7
ES	03 07.5
JAN 23	
EUR E(P)	21 03 51.9
E(S)	04 09.5
E	04 34.6
JAN 23	
COL EP	21 21 26.0
JAN 23	
TUC IP	21 56 21.0
IS	56 42.0
JAN 23	
COL EP	22 11 13.0
JAN 23	
EUR IP	22 22 02.0
JAN 23	
TUC EP	22 57 50.0
IS	58 02.0
EUR IP	22 59 17.0
JAN 23	
COL EP	23 18 14.0
E	18 24.0
JAN 23	
FGU EP	23 23 45.3
ES	24 17.3
JAN 24	
HHM IP	00 10 41.0

Date and Station	Phase (GCT)
	h m s
JAN 24	
H-02 52 09.1	
08.4N 060.8W	
h ABOUT 062KM	
SJP EP	02 54 47.3
ALQ IP	03 00 55.0
GCA EP	03 01 31.0
FGU EP	03 01 31.1
SLC EP	03 01 40.6
BUT IP	03 01 58.5
E	02 19.3
EPP	04 09.8
EUR IP	03 01 58.8
EPCP	02 44.6
HHM EP	03 02 09.8
COL EP	03 04 20.0
E	04 52.0
E	08 48.0
JAN 24	
H-03 58 58.5	
40.2N 019.7E	
h ABOUT 034KM	
COL EP	04 10 41.0
JAN 24	
UKI E(P)	05 23 47.3
JAN 24	
BUT EP	06 19 29.8
ES	19 46.6
JAN 24	
COL IP	08 04 18.0
JAN 24	
H-09 29 21.0	
06.1S 112.9E	
h ABOUT 611KM	
COL EP	09 42 02.0
E	45 27.0
HHM IP'	09 47 08.8
BUT IP'	09 47 13.5
BOZ EP'	09 47 16.0
SLC EP'	09 47 19.5
BCN EP'	09 47 20.5
EPP	49 19.5
E+P'	49 34.0
FGU EP'	09 47 22.6
ALQ EP'	09 47 29.0
I	47 44.0
I(SKP)	50 06.0
JAN 24	
EUR I(P)	09 56 58.5

Date and Station	Phase	(GCT) h m s
JAN 24		
H-10 14 51.4		
10.1S 160.9E		
h ABOUT 028KM		
COL	IP	10 27 19.0
	I	27 27.0
EUR	IP	10 27 56.1
JAN 24		
COL	EP	10 43 36.0
JAN 24		
H-12 09 01.4		
15.2S 173.6W		
h ABOUT 033KM		
KIP	I(P)	12 16 42.4
UKI	EP	12 20 22.0
	E	20 33.6
BCN	EP	12 20 43.5
	E	20 55.0
EUR	IP	12 20 49.0
	EPP	23 08.3
TUC	EP	12 20 51.0
GCA	IP	12 21 00.2
SLC	EP	12 21 08.4
	E	21 20.6
ALQ	IP	12 21 14.0
FGU	EP	12 21 17.1
BUT	EP	12 21 19.6
	I	21 30.4
	EPP	24 36.1
COL	IP	12 21 20.0
	I	21 30.0
	I	21 40.0
HHM	E(P)	12 21 20.9
	E	21 33.9
BOZ	E(P)	12 21 26.0
	E	21 36.0
JAN 24		
H-15 42 13.0		
28.2N 057.0E		
h ABOUT 033KM		
COL	EP	15 54 47.0
	E	54 51.0
	E	54 56.0
JAN 24		
EUR	IP	15 57 23.1
JAN 24		
BOZ	E(P)	16 34 38.0
JAN 24		
HHM	EP	18 40 14.9
	IS	40 17.9
JAN 24		
HHM	EP	18 41 32.9
	IS	41 38.9
JAN 24		
FGU	E(P)	20 03 19.4
JAN 24		
BCN	EP	20 26 44.0
JAN 24		
COL	EP	20 40 26.0
JAN 24		
H-21 43 11.8		
47.6N 122.1W		
h ABOUT 017KM		
HHM	EP	21 44 32.0
	I	44 46.0
	IL	46 00.0
BUT	IP	21 44 49.6
	I	45 10.6
	IL	46 40.6
BOZ	EP	21 45 04.5
EUR	IP	21 45 28.3
ALQ	EP	21 47 14.0
TUC	EP	21 47 18.0
COL	IP	21 48 11.0
JAN 24		
COL	EP	21 44 03.0
JAN 24		
UKI	E(P)	21 47 42.0
JAN 24		
TUC	IP	21 54 20.0
	IS	54 35.0
JAN 24		
TUC	EP	22 15 35.0
	IS	15 45.0
JAN 24		
TUC	EP	22 27 05.0
	IS	27 16.0
JAN 24		
H-22 27 32.6		
08.0N 126.8E		
h ABOUT 063KM		
COL	IP	22 39 41.0
	I	39 54.0
	I	40 32.0
	I	44 51.0
EUR	E	22 41 39.9
ALQ	EP'	22 46 08.8
SJP	EP'	22 47 20.5
HON	E	22 49 17.0
	EL	23 01 28.0
JAN 24		
H-22 44 16.6		
08.1N 126.4E		
h ABOUT 040KM		
COL	EP	22 56 27.0
JAN 24		
TUC	EP	22 54 54.0
	IS	55 05.0
JAN 24		
ALQ	IP	23 07 21.0
	IS	07 24.0
JAN 24		
H-23 22 05.8		
7.9N 126.3E		
h ABOUT 055KM		
COL	EP	23 34 18.0
	E	34 55.0
JAN 24		
TUC	EP	23 39 16.0
	IS	39 27.0
JAN 25		
H-00 05 33.3		
61.8N 149.1W		
h ABOUT 064KM		
EUR	IP	00 11 38.8
FGU	IP	00 11 52.2
TUC	EP	00 12 50.0
JAN 25		
H-00 16 04.6		
20.4S 169.7E		
h ABOUT 123KM		
COL	IP	00 28 53.0
	IpP	29 25.0
BCN	EP	00 28 55.5
	EpP	29 27.5
EUR	IP	00 28 57.7
	IpP	29 30.1
TUC	IP	00 29 02.0
GCA	EP	00 29 07.4
SJP	EP'	00 34 55.0
JAN 25		
COL	IP	00 40 00.0
JAN 25		
COL	EP	00 51 27.0
	I	51 37.0
	I	52 08.0
JAN 25		
EUR	EP	03 56 06.7
JAN 25		
H-04 10 36.7		
08.0N 126.9E		
h ABOUT 069KM		
COL	EP	04 22 44.0
	EpP	23 02.0
	E	23 53.0
JAN 25		
COL	IP	04 41 06.0
JAN 25		
COL	IP	05 12 54.4
	I	14 17.0
JAN 25		
BUT	E(P)	05 22 39.5
JAN 25		
BCN	EP	05 40 59.3
	E(S)	41 39.5
EUR	EP	05 41 38.1
	E	42 06.1
JAN 25		
BCN	EP	06 34 35.8
	E(S)	35 14.9
EUR	E(P)	06 35 03.7
	E	36 56.9
JAN 25		
BCN	UP	07 59 10.5
JAN 25		
GCA	EP	08 00 39.4
	E	01 30.7
JAN 25		
COL	IP	08 07 54.0
JAN 25		
COL	IP	09 14 59.0
JAN 25		
BUT	EP	10 01 43.2
JAN 25		
FGU	IP	11 11 23.6
	IS	11 32.6
EUR	E(P)	11 12 29.9
	E	13 49.4
ALQ	EP	11 12 57.0
	I	14 03.5
BCN	E(P)	11 12 59.5
	E	14 25.5
JAN 25		
GCA	EP	11 13 13.4
	E	13 53.9
JAN 25		
COL	IP	11 25 03.0
	E	25 19.0
EUR	I(P)	11 28 23.2
JAN 25		
H-12 49 40.9		
21.7N 143.6E		
h ABOUT 190KM		
GUA	IP	12 51 39.0
	IS	53 16.0

Date and Station	Phase (GCT)
	h m s
KIP IP	12 58 47.7
IpP	59 34.0
COL IP	12 59 38.9
I	13 00 36.0
THU IP	13 01 31.5
HHM IP	13 01 41.0
IpP	02 26.0
BUT IP	13 01 50.4
IpP	02 36.9
I	03 09.4
I	03 15.4
I	04 32.5
EUR IP	13 01 52.4
EpP	02 39.0
EsP	02 54.7
E	06 24.3
BOZ EP	13 01 56.0
EpP	02 46.0
BCN EP	13 02 03.5
EpP	02 51.0
E	10 40.0
ESCS	11 22.0
SLC EP	13 02 03.7
EpP	02 50.9
EsP	03 20.0
FGU IP	13 02 11.1
IpP	02 57.5
TUC IP	13 02 25.0
ALQ IP	13 02 34.0
IpP	03 21.0
JAN 25	
H-13 01 52.8	
51.3N 178.0E	
h ABOUT 033KM	
COL IP	13 06 47.0
EUR EP	13 10 17.7
E	10 47.9
JAN 25	
SJP IP	13 11 34.2
JAN 25	
GCA EP	14 03 13.0
E	04 00.0
JAN 25	
TUC IP	14 13 06.0
IS	14 02.0
JAN 25	
BCN E(P)	14 16 21.2
JAN 25	
COL EP	16 05 03.0
I	05 20.0
EUR E(P)	16 08 31.8

Date and Station	Phase (GCT)
	h m s
JAN 25	
H-16 14 08.0	
21.4S 178.7W	
h ABOUT 612KM	
COL IP	16 26 00.2
JAN 25	
BCN EP	16 16 29.0
ES	16 54.0
EUR EP	16 16 56.8
E(S)	17 44.0
GCA EP	16 17 10.6
I(S)	17 24.0
JAN 25	
H-16 56 40.1	
17.5S 176.2W	
h ABOUT 033KM	
COL IP	17 09 12.0
JAN 25	
EUR E(P)	17 28 34.6
JAN 25	
COL EP	17 41 32.0
JAN 25	
FGU EP	18 45 39.9
I	46 09.0
JAN 25	
TUC IP	19 49 45.0
IS	50 05.0
ALQ IP	19 50 17.0
ES	50 56.0
JAN 25	
TUC IP	20 17 17.0
IS	17 28.0
JAN 25	
H-20 21 30.4	
19.0S 173.3W	
h ABOUT 123KM	
BCN E(P)	20 33 15.9
EUR E(P)	20 33 19.0
TUC EP	20 33 22.0
FGU E(P)	20 33 48.7
COL IP	20 33 57.1
I	34 37.0
JAN 25	
FGU E(P)	21 45 59.4
JAN 25	
TUC IP	22 50 07.0
IS	50 21.0
JAN 25	
GCA E(P)	23 00 22.3
E(S)	00 54.3
JAN 25	
ALQ EP	23 03 38.6

Date and Station	Phase (GCT)
	h m s
JAN 25	
SJP IP	23 13 48.2
IS	14 46.0
JAN 25	
ALQ EP	23 33 39.0
IS	34 00.0
JAN 26	
FGU IP	00 06 13.0
JAN 26	
ALQ EP	00 25 15.8
JAN 26	
COL EP	00 28 12.0
JAN 26	
HHM IP	01 19 38.6
JAN 26	
FGU EP	03 13 13.5
JAN 26	
COL EP	04 00 29.0
JAN 26	
COL EP	06 08 03.0
E	08 18.0
JAN 26	
COL E	07 32 32.0
JAN 26	
COL E	07 51 07.0
JAN 26	
EUR E	07 57 51.7
JAN 26	
COL EP	08 29 53.0
JAN 26	
H-09 58 50.6	
44.2N 129.5W	
h ABOUT 033KM	
HHM E(P)	10 01 32.2
EUR IP	10 01 32.6
I	02 09.0
BOZ E(P)	10 01 58.0
BCN EP	10 02 09.5
ALQ EP	10 03 25.0
COL EP	10 03 58.0
JAN 26	
COL EP	10 13 12.0
EUR EP	10 17 06.0
JAN 26	
COL EP	12 58 26.0
JAN 26	
EUR IP	13 27 28.7
JAN 26	
EUR E	13 41 54.8

Date and Station	Phase (GCT)
	h m s
JAN 26	
COL EP	14 00 09.0
JAN 26	
COL IP	14 42 02.0
JAN 26	
COL EP	14 55 04.0
I	55 12.0
JAN 26	
FGU IP	15 26 02.6
I(S)	27 11.4
JAN 26	
BHP P	16 06 51.0
JAN 26	
COL IP	16 55 37.5
JAN 26	
EUR IP	17 59 57.2
JAN 26	
EUR E(P)	18 44 25.9
E	45 06.4
JAN 26	
H-19 12 00.0	
15.7S 173.5W	
h ABOUT 033KM	
BCN EP	19 23 44.6
TUC EP	19 23 50.0
EUR E(P)	19 23 50.2
ALQ EP	19 24 14.0
FGU EP	19 24 18.3
COL IP	19 24 23.1
JAN 26	
FGU IP	21 07 17.7
I	07 42.7
EUR E	21 07 51.3
JAN 26	
GCA E(P)	21 17 28.7
E	18 47.5
JAN 26	
H-21 20 41.7	
04.7N 076.3W	
h ABOUT 095KM	
BHP P	21 21 59.0
SJP IP	21 24 37.3
ALQ IP	21 28 18.0
TUC IP	21 28 29.0
FGU IP	21 29 03.7
pP	29 27.2
EUR EP	21 29 27.3
pP	29 49.3
IPCP	30 45.7

Date and Station	Phase (GCT)
	h m s
COL IP	21 32 30.2
I▸P	32 51.0
JAN 26	
SJP IP	23 27 45.0
IS	28 04.0
JAN 27	
BUT EP	00 06 48.8
ES	07 13.3
JAN 27	
H-00 50 22.4	
13.7S 175.8W	
h ABOUT 033KM	
EUR E(P)	01 02 14.3
JAN 27	
H-01 06 50.9	
25.5N 128.4E	
h ABOUT 029KM	
COL IP	01 17 26.6
THU EP	01 18 47.5
EUR IP	01 19 58.4
I	20 12.8
BCN EP	01 20 11.4
EPP	23 56.4
FGU EP	01 20 12.0
JAN 27	
H-01 44 34.1	
66.9N 162.4W	
h ABOUT 033KM	
COL IP	01 46 06.0
EUR E	01 51 48.6
JAN 27	
H-02 27 59.6	
19.1S 177.6W	
h ABOUT 528KM	
EUR E(P)	02 39 25.4
COL IP	02 39 47.0
JAN 27	
SLC IP	02 36 08.2
JAN 27	
H-03 00 37.3	
31.4N 115.6W	
h ABOUT 033KM	
TUC EP	03 01 39.0
BCN EP	03 01 46.1
I	02 01.1
EL	03 02.0
GCA IP	03 02 13.4
I	02 34.5
IL	04 04.5
EUR EP	03 02 34.7
I	03 15.1
E(S)	03 56.7
L	04 52.8
ALQ EP	03 02 40.0
BUT EP	03 04 09.2
EL	08 51.3
BOZ E(P)	03 04 15.8
HHM EP	03 04 38.5
COL IP	03 08 06.1
JAN 27	
COL EP	03 19 31.0
JAN 27	
BCN E(P)	03 26 56.4
JAN 27	
SLC IP	06 39 42.7
JAN 27	
COL IP	08 29 26.0
JAN 27	
SJP IP	10 26 36.8
IS	26 56.0
JAN 27	
BOZ EP	10 59 02.2
BUT IP	10 59 15.3
ES	59 35.7
HHM E(P)	10 59 49.5
ES	11 00 50.0
JAN 27	
H-11 47 35.1	
59.4N 153.3W	
h ABOUT 080KM	
COL IP	11 49 05.8
IS	50 10.0
IL	50 44.0
SIT EP	11 49 50.5
IS	51 35.2
HHM EP	11 52 59.5
I▸P	53 13.5
EL	59 57.5
BUT EP	11 53 16.6
I▸P	53 34.7
BOZ EP	11 53 26.2
E▸P	53 45.0
EUR IP	11 53 46.4
I▸P	54 04.7
PCP	56 39.8
I	57 02.5
SCP	12 00 15.2
E	00 55.2
FGU IP	11 54 03.1
▸P	54 22.2
E	12 07 08.1
BCN EP	11 54 15.3
E	54 25.3
I▸P	54 34.4
EPP	57 12.8
GCA EP	11 54 21.0
ALQ EP	11 54 55.0
I▸P	55 15.1
I(PCP)	57 27.0
ISCP	12 00 45.5
TUC EP	11 54 57.0
JAN 27	
SLC E(P)	11 54 12.7
SJP IP	11 59 17.7
JAN 27	
FGU IP	12 10 21.9
E	11 02.5
JAN 27	
COL IP	13 45 24.3
I	46 42.0
JAN 27	
FGU EP	14 15 57.4
JAN 27	
BHP P	15 24 37.0
S	24 48.0
JAN 27	
H-15 24 47.2	
44.4N 114.6W	
h ABOUT 032KM	
BUT IP	15 25 24.4
I	25 26.4
IS	25 55.7
BOZ E(P)	15 25 32.0
ES	26 09.0
HHM IP	15 25 47.7
IL	26 51.5
SLC EP	15 25 49.7
ES	26 42.0
EUR EP	15 25 57.7
I	26 04.3
E(S)	27 05.2
GCA EP	15 26 40.0
EL	29 44.0
UKI EP	15 26 51.4
EL	29 10.2
BCN IP	15 26 51.7
ES	27 20.3
EL	28 57.0
ALQ EP	15 26 58.0
IS	28 18.8
EL	30 34.0
TUC EP	15 27 45.0
COL IP	15 30 34.6
IPCP	33 49.7
E	39 41.0
JAN 27	
H-15 38 22.8	
27.2N 127.4E	
h ABOUT 126KM	
COL EP	15 48 41.0
JAN 27	
BUT EP	15 49 09.4
IS	49 40.2
BOZ EP	15 49 30.5
ES	49 58.0
EUR E(P)	15 49 45.2
JAN 27	
HHM EP	16 36 05.5
IS	37 34.5
EUR E(P)	16 36 50.9
JAN 27	
COL EP	16 50 46.0
JAN 27	
H-16 52 41.6	
10.5S 164.8E	
h ABOUT 116KM	
COL EP	17 04 55.0
JAN 27	
TUC IP	17 40 51.0
IS	41 10.0
ALQ IP	17 41 21.8
GCA I(P)	17 41 43.1
JAN 27	
H-18 46 13.1	
05.3S 152.3E	
h ABOUT 059KM	
COL IP	18 58 30.0
I	58 50.0
E	59 25.0
EUR EP	18 59 31.2
I▸P	59 42.8
BCN E(P)	18 59 34.2
E▸P	59 47.2
E	19 00 30.7
HHM EP	18 59 37.5
SJP EP'	19 05 43.4
JAN 27	
H-19 35 16.3	
40.9N 049.7E	
h ABOUT 065KM	
THU IP	19 44 53.5
COL IP	19 46 44.6
I	47 06.0
ES	56 08.0

Date and Station	Phase (GCT) h m s
HHM IP	19 48 10.5
pP	48 23.5
BUT IP	19 48 20.1
E	48 48.0
E	51 41.0
EPP	52 11.2
BOZ EP	19 48 21.5
SLC E(P)	19 48 33.2
EUR IP	19 48 52.4
IpP	49 05.6
ALQ EP	19 49 03.7
BCN EP	19 49 08.0
E	51 59.6
E(P')	52 57.7
EPP	53 36.7
JAN 27	
COL EP	21 32 18.0
JAN 27	
TUC IP	21 40 57.0
IS	41 16.0
ALQ EP	21 41 20.0
ES	41 28.0
JAN 27	
GCA E(P)	21 42 47.2
JAN 27	
COL EP	22 30 37.0
JAN 27	
COL E(P)	23 16 57.0
JAN 27	
COL EP	23 30 10.0
JAN 27	
HON EP	23 58 51.0
ES	59 25.0
KIP IP	23 58 52.5
IS	59 26.0
JAN 28	
BCN EP	00 27 01.6
E	28 06.2
ALQ E(P)	00 27 03.5
EUR EP(I)	00 27 14.9
JAN 28	
COL EP	00 29 00.0
ES	30 24.0
JAN 28	
EUR E(P)	00 35 06.7
JAN 28	
H-02 12 13.3	
11.2S 076.9W	
h ABOUT 110KM	
SJP IP	02 18 22.4
IPCP	21 16.0

Date and Station	Phase (GCT) h m s
ALQ IP	02 21 26.5
TUC IP	02 21 29.0
GCA EP	02 21 57.2
BCN EP	02 22 04.7
E	22 42.6
FGU IP	02 22 09.7
SLC EP	02 22 16.7
EUR IP	02 22 25.8
EpP	22 51.4
EsP	22 59.5
BOZ EP	02 22 40.0
BUT IP	02 22 45.9
E	23 23.7
E	24 27.2
THU I(P)	02 24 55.0
JAN 28	
COL EP	02 23 02.0
JAN 28	
H-04 05 31.6	
43.7N 144.7E	
h ABOUT 028KM	
COL IP	04 13 22.6
HHM EP	04 16 13.5
BOZ EP	04 16 34.0
EUR IP	04 16 41.7
IPP	19 19.8
SLC EP	04 16 51.7
BCN EP	04 17 00.3
I	17 17.0
GCA EP	04 17 06.5
ALQ EP	04 17 32.0
JAN 28	
H-05 27 08.6	
17.4S 173.8W	
h ABOUT 039KM	
COL IP	05 39 38.3
JAN 28	
EUR E(P)	05 39 59.0
JAN 28	
BUT EP	05 56 03.2
ES	56 21.2
JAN 28	
FGU E(P)	07 31 30.4
JAN 28	
H-07 47 08.4	
18.3S 173.8W	
h ABOUT 033KM	
EUR E(P)	07 59 09.5

Date and Station	Phase (GCT) h m s
ALQ EP	07 59 33.0
FGU E(P)	07 59 35.0
COL IP	07 59 44.0
JAN 28	
H-10 39 32.2	
19.1S 169.5E	
h ABOUT 239KM	
COL IP	10 52 03.1
EpP	52 57.0
EUR IP	10 52 09.4
EpP	53 04.2
TUC IP	10 52 15.0
GCA EP	10 52 20.3
BUT EP	10 52 28.2
ALQ IP	10 52 34.0
JAN 28	
H-12 12 19.9	
02.6S 149.9E	
h ABOUT 032KM	
GUA EP	12 16 15.0
KIP EP	12 22 04.0
ES	29 52.0
EL	35 00.0
HON E(P)	12 22 06.0
ES	29 40.0
ESS	33 44.0
E	36 50.0
COL IP	12 24 31.3
ES	34 36.0
UKI E(P)	12 25 20.4
EUR IP	12 25 41.5
EPP	29 32.4
PPP	31 00.8
HHM EP	12 25 46.6
BUT IP	12 25 53.6
E	26 43.1
E	27 20.1
EPP	29 49.6
EPPP	31 17.1
GCA E(P)	12 25 57.9
FGU EP	12 26 05.9
TUC E(P)	12 26 06.0
ALQ E(P)	12 26 18.0
SJP EP'	12 31 51.0
JAN 28	
ALQ EP	12 42 39.0
JAN 28	
BOZ EP	12 56 01.0

Date and Station	Phase (GCT) h m s
JAN 28	
H-13 00 48.1	
54.7N 161.7W	
h ABOUT 014KM	
COL IP	13 03 45.0
IS	05 52.0
IL	06 14.0
SIT EP	13 04 20.0
HHM EP	13 06 56.6
E	10 35.6
UKI EP	13 06 59.0
ES	12 02.0
EL	14 42.0
BUT EP	13 07 17.1
EPP	08 10.1
E	08 57.0
E	09 10.0
IS	12 23.9
IL	13 46.7
BOZ EP	13 07 26.5
E	08 04.5
E	08 59.5
KIP EP	13 07 30.0
ES	12 48.0
EL	12 14 16.0
ET	41 38.0
EUR IP	13 07 33.8
I	07 42.8
IPP	08 23.2
E(S)	13 11.8
IL	13 52.8
SLC EP	13 07 47.5
I	08 03.2
EPP	08 43.2
EPPP	09 09.7
IPCP	10 15.2
FGU EP	13 07 57.8
E(S)	14 02.8
SCS	18 09.8
GCA EP	13 08 10.9
ES	14 07.9
THU IP	13 08 12.0
TUC EP	13 08 40.0
ALQ IP	13 08 47.4
IPCP	10 38.0
CHI IP	13 09 32.0
CSC IP	13 10 40.0
IS	18 39.0
BHP EP	13 12 49.0
SJP IP	13 12 50.0
ES	22 44.0
JAN 28	
CHI E	13 01 00.0
E	01 21.0
E	16 15.0

Date and Station	Phase (GCT) h m s
JAN 28	
BUT EP	13 36 55.1
JAN 28	
COL EP	13 40 15.0
JAN 28	
COL EP	13 48 33.0
JAN 28	
H-13 49 53.0	
55.7N 163.1W	
h ABOUT 033KM	
COL EP	13 52 41.0
I	52 52.0
JAN 28	
H-13 50 28.1	
19.8S 178.1W	
h ABOUT 582KM	
EUR I	14 01 52.6
TUC EP	14 01 55.0
COL IP	14 02 13.0
I▸P	04 21.0
FGU IP	14 02 17.8
BUT EP	14 02 19.1
JAN 28	
H-16 07 18.7	
31.2S 177.7W	
h ABOUT 033KM	
EUR IP	16 20 21.0
COL IP	16 20 55.0
E(P')	24 35.0
JAN 28	
COL EP	16 29 44.0
EUR E	16 33 22.2
JAN 28	
ALQ EP	17 19 37.0
I	19 44.5
JAN 28	
COL EP	17 53 30.0
EUR E(P)	17 57 00.9
JAN 28	
ALQ EP	19 19 37.0
ES	19 46.0
JAN 28	
FGU EP	19 48 41.4
JAN 28	
GCA E(P)	19 50 01.1
JAN 28	
COL IP	22 16 51.0
E	17 19.0
JAN 28	
TUC IP	23 02 16.0
IS	02 27.0

Date and Station	Phase (GCT) h m s
JAN 29	
H-01 31 43.2	
22.0S 179.5W	
h ABOUT 500KM	
COL EP	01 43 48.0
I	44 21.0
JAN 29	
COL EP	02 51 59.0
JAN 29	
COL IP	02 59 45.0
JAN 29	
BHP P	03 46 14.0
JAN 29	
H-04 31 29.6	
05.8N 078.4W	
h ABOUT 031KM	
BHP P	04 32 21.0
S	33 00.0
SJP EP	04 35 28.8
ALQ EP	04 38 55.0
EUR EP	04 40 05.9
COL EP	04 43 16.0
JAN 29	
BHP P	06 46 28.0
JAN 29	
BUT IP	06 47 58.3
ES	48 14.8
JAN 29	
H-07 25 48.5	
4.7S 153.6E	
h ABOUT 115KM	
COL IP	07 37 53.0
JAN 29	
H-07 27 16.8	
12.8S 066.3E	
h ABOUT 033KM	
BOZ EP'	07 46 58.0
BUT IP'	07 47 00.3
EUR EP'	07 47 13.9
E	47 30.5
JAN 29	
COL IP	07 30 17.0
JAN 29	
H-08 01 27.4	
40.2N 144.3E	
h ABOUT 033KM	
COL IP	08 09 42.0
E	09 53.0
EUR EP	08 12 51.5
I	13 04.9

Date and Station	Phase (GCT) h m s
JAN 29	
H-09 21 16.2	
49.8N 155.0E	
h ABOUT 140KM	
COL IP	09 27 40.0
IS	32 47.0
SIT EP	09 28 44.1
E	28 51.5
ES	34 46.0
ESCS	38 36.0
KIP IP	09 29 30.9
E▸P	30 05.0
ET	10 18 54.0
THU I(P)	09 30 15.0
HHM EP	09 30 41.7
I	30 48.7
UKI EP	09 30 47.4
E	30 55.4
E▸P	31 17.0
BUT EP	09 30 57.3
I	31 06.3
E	31 41.9
IPP	33 18.3
BOZ EP	09 31 05.0
E	31 13.9
E▸P	31 34.0
E	32 10.0
EUR IP	09 31 14.8
I	31 35.5
E	32 07.0
PP	33 44.8
PPP	35 11.7
EPCP	35 47.9
ESCS	40 35.3
SLC EP	09 31 24.4
E	31 34.0
FGU EP	09 31 32.6
BCN IP	09 31 35.4
I	31 43.9
I▸P	32 09.3
EPP	34 02.4
GCA E(P)	09 31 41.8
E	31 50.4
TUC IP	09 32 06.0
ALQ IP	09 32 10.0
I▸P	32 40.5
CSC EP	09 33 28.0
ES	43 34.0
HON IS	09 36 24.0
E	40 45.0
EL	42 22.0
ET	10 19 05.0
JAN 29	
THU EP	09 37 10.8

Date and Station	Phase (GCT) h m s
JAN 29	
COL EP	12 18 08.0
JAN 29	
FGU IP	12 18 42.5
E	28 28.5
JAN 29	
EUR EP	15 11 04.5
JAN 29	
GCA IP	15 25 33.5
I(S)	26 03.5
BCN EP	15 25 59.1
E(S)	26 43.4
FGU E(P)	15 26 29.4
JAN 29	
GCA EP	16 10 54.3
ES	11 09.5
EUR E(P)	16 11 26.7
I(S)	12 09.5
JAN 29	
H-16 54 03.7	
15.2S 173.4W	
h ABOUT 033KM	
COL IP	17 06 23.0
I	06 34.0
I	06 39.0
JAN 29	
COL IP	19 14 16.4
I	14 26.0
JAN 29	
TUC EP	19 57 40.0
IS	57 54.0
JAN 29	
COL EP	20 03 05.0
JAN 29	
TUC IP	20 02 14.0
IS	02 34.0
JAN 29	
H-20 33 36.8	
21.1S 069.1W	
h ABOUT 129KM	
SJP EP	20 40 56.9
I▸P	41 25.0
EPP	42 32.0
ALQ IP	20 44 12.0
TUC IP	20 44 14.0
GCA E(P)	20 44 39.1
BCN IP	20 44 45.6
IPCP	45 05.8
FGU IP	20 44 50.4
E▸P	45 19.9

Date and Station	Phase (GCT)
	h m s
EUR EP	20 45 03.8
IPCP	45 16.2
I	45 23.9
I*P	45 31.9
BOZ EP	20 45 15.7
COL EP	20 47 27.0
JAN 29	
H-21 07 56.1	
12.8N 143.3E	
h ABOUT 123KM	
GUA IP	21 08 30.0
COL EP	21 18 52.0
I	19 29.0
EUR IP	21 20 43.6
I*P	21 15.1
JAN 29	
FGU E(P)	21 21 39.4
JAN 29	
H-22 50 22.3	
52.7N 168.4W	
h ABOUT 033KM	
COL IP	22 54 07.0
E	54 39.0
EUR EP	22 57 37.9
JAN 29	
FGU IP	23 13 15.3
IS	13 15 48.3
JAN 30	
HHM EP	01 09 09.7
ES	09 11.7
BOZ EP	01 09 21.8
ES	09 34.0
BUT EP	01 09 35.7
ES	09 58.1
FGU E(P)	01 10 20.3
JAN 30	
COL EP	02 03 55.0
I	04 26.0
JAN 30	
COL EP	02 08 49.0
JAN 30	
BUT EP	02 47 01.8
ES	47 24.3
HHM E(P)	02 47 44.7
ES	48 33.7
JAN 30	
ALQ EP	03 17 19.0
JAN 30	
HHM EP	03 52 03.7
I	52 13.7
IS	53 06.7

Date and Station	Phase (GCT)
	h m s
JAN 30	
H-04 39 53.4	
54.6N 161.7W	
h ABOUT 013KM	
COL E(P)	04 42 50.0
EL	46 36.0
HHM EP	04 46 01.7
EUR IP	04 46 38.0
I	46 50.6
I	47 20.5
EPCP	49 15.4
FGU EP	04 47 03.2
THU IP	04 47 16.0
TUC IP	04 47 46.0
ALQ EP	04 47 50.5
I(PCP)	49 43.0
SJP I(P)	04 51 57.6
JAN 30	
KIP ET	05 20 45.0
JAN 30	
H-05 50 59.5	
45.0N 110.8W	
h ABOUT 033KM	
BOZ EP	05 51 14.9
ES	51 26.0
BUT EP	05 51 28.9
E(S)	51 51.0
FGU EP	05 52 02.7
IL	53 04.2
SLC E(P)	05 52 10.0
E	52 17.3
E(S)	52 41.3
EL	53 14.8
EUR EP	05 52 39.3
JAN 30	
H-06 08 26.1	
00.3N 123.6E	
h ABOUT 033KM	
COL EP	06 21 20.0
JAN 30	
COL EP	06 28 02.0
JAN 30	
BUT E(P)	06 35 44.9
E	35 49.4
ES	36 05.9
JAN 30	
COL EP	09 15 39.0
I	15 55.0
E	16 08.0
JAN 30	
COL EP	09 41 29.0

Date and Station	Phase (GCT)
	h m s
JAN 30	
H-09 51 20.4	
50.8N 157.3E	
h ABOUT 012KM	
COL IP	09 57 41.5
JAN 30	
H-10 10 03.9	
55.5S 028.3W	
h ABOUT 033KM	
BHP P	10 21 56.0
S	31 44.0
SJP EP	10 22 12.0
ES	32 16.0
CSC EP	10 23 50.0
E(PP)	27 34.0
ALQ E(P)	10 24 41.0
EP'	28 50.5
EPP	30 30.0
ES	37 30.0
EPKKP	39 35.6
GCA E(P')	10 28 44.3
BCN EP'	10 28 48.0
EPP	30 09.4
EPPP	32 12.9
FGU EP'	10 28 50.1
EPKKP	39 15.1
SLC EP'	10 28 52.7
EPP	30 07.2
EPPP	32 31.0
ESKKP	42 40.0
BUT EP'	10 28 59.0
E*P'	29 18.5
EPP	30 39.0
EPPP	33 23.5
EPKKP	38 49.0
E	41 55.5
ESKKP	42 21.5
BOZ EP'	10 28 59.7
EPP	30 35.0
HHM IP'	10 29 02.7
UKI EP'	10 29 03.0
THU IP'	10 29 18.5
COL EP'	10 29 42.0
E	35 35.0
ISKS	36 52.0
ESKKS	39 04.0
E	44 21.0
IL	11 18 32.0
JAN 30	
H-10 33 59.7	
29.7N 080.6E	
h ABOUT 059KM	
COL IP	10 45 56.0

Date and Station	Phase (GCT)
	h m s
KIP EP	10 47 58.0
E	49 46.0
E	11 04 02.0
EL	11 56.0
JAN 30	
CHI EP	10 34 45.0
E	49 12.0
E	11 02 12.0
JAN 30	
COL IP	10 57 11.0
JAN 30	
COL EP	11 00 31.0
I	00 44.0
JAN 30	
COL IP	11 05 00.0
JAN 30	
COL IP	11 14 04.0
JAN 30	
COL EP	11 33 26.0
JAN 30	
COL IP	11 43 25.0
I	43 42.0
JAN 30	
COL IP	11 51 07.1
I	51 16.0
JAN 30	
COL EP	11 57 59.0
E	58 09.0
JAN 30	
COL IP	12 37 03.6
I	37 17.0
JAN 30	
COL IP	12 39 42.0
I	41 31.0
JAN 30	
COL IP	12 44 20.3
I	44 33.3
JAN 30	
COL IP	12 56 01.9
JAN 30	
COL IP	13 02 33.9
JAN 30	
BUT EP	13 13 45.5
ES	14 08.5
FGU EP	13 14 18.1
HHM EP	13 14 18.7
I	14 29.7
ES	15 18.7
JAN 30	
ALQ EP	14 44 06.0
JAN 30	
BOZ EP	14 45 34.0
ES	46 15.0

Date and Station	Phase	Phase (GCT) h m s
BUT	EP	14 46 09.5
	E(S)	46 39.5
FGU	EP	14 46 31.5
	ES	47 10.0
JAN 30		
COL	IP	14 51 36.0
JAN 30		
COL	EP	14 59 45.5
JAN 30		
COL	IP	15 30 36.0
JAN 30		
COL	IP	15 36 29.4
	I	36 45.9
JAN 30		
ALQ	EP	15 45 26.5
JAN 30		
COL	IP	15 57 16.0
	I	57 28.0
JAN 30		
COL	IP	16 37 34.7
JAN 30		
COL	IP	16 55 40.6
JAN 30		
TUC	IP	18 21 40.0
	IS	21 59.0
JAN 30		
COL	EP	18 43 52.0
JAN 30		
ALQ	IP	18 46 38.0
	IS	46 47.0
JAN 30		
HHM	E(P)	18 47 15.7
JAN 30		
BCN	EP	19 43 39.2
	ES	44 10.8
ALQ	EP	19 44 21.0
	ES	45 28.0
JAN 30		
BCN	EP	19 44 46.2
	ES	45 18.0
JAN 30		
COL	E(P)	19 50 10.0
JAN 30		
GCA	IP	20 44 15.2
	I	45 22.2
JAN 30		
TUC	IP	21 58 02.0
	IS	58 20.0
JAN 30		
H-23 05 09.6		
39.8N 104.6W		
h ABOUT 033KM		

Date and Station	Phase	Phase (GCT) h m s
FGU	IP	23 06 08.6
	IS	07 00.4
ALQ	EP	23 06 23.0
	I	07 45.5
JAN 30		
COL	IP	23 29 44.1
	I	29 55.1
JAN 30		
COL	IP	23 49 17.0
JAN 31		
SJP	IP	00 39 49.4
JAN 31		
GCA	IP	02 47 43.4
	I	48 22.0
JAN 31		
THU	IP	02 48 03.5
JAN 31		
H-03 09 58.2		
63.5N 149.2W		
h ABOUT 053KM		
COL	IP	03 10 24.3
	IS	10 44.0
HHM	IP	03 15 13.7
BOZ	EP	03 15 45.6
ALQ	EP	03 17 19.0
TUC	EP	03 17 24.0
JAN 31		
COL	IP	03 35 04.0
JAN 31		
EUR	EP	03 51 36.9
GCA	IP	03 52 05.2
	I	52 22.5
ALQ	EP	03 52 11.0
JAN 31		
ALQ	IP	03 59 50.0
JAN 31		
ALQ	EP	04 17 50.4
JAN 31		
COL	EP	04 40 53.0
JAN 31		
COL	EP	04 56 48.0
JAN 31		
GCA	IP	04 59 33.1
	IS	59 51.1
JAN 31		
H-05 06 43.4		
27.1N 126.7E		
h ABOUT 033KM		
GUA	EP	05 11 32.0
	ES	15 32.0

Date and Station	Phase	Phase (GCT) h m s
COL	EP	05 17 13.0
	E(S)	26 18.0
THU	IP	05 18 29.0
HHM	IP	05 19 28.7
BUT	IP	05 19 39.5
	E	20 52.5
	E	22 07.5
	E	24 13.5
	E(S)	30 32.0
BOZ	EP	05 19 44.2
	EPP	23 08.0
	E(L)	23 28.0
EUR	IP	05 19 50.1
SLC	EP	05 19 57.8
	E	20 19.0
ALQ	EP	05 20 29.0
JAN 31		
ALQ	EP	06 07 07.0
BCN	EP	06 07 34.5
	E	07 45.6
BOZ	EP	06 09 08.0
JAN 31		
UKI	IP	07 02 23.5
	I	02 26.2
JAN 31		
COL	IP	07 37 47.2
JAN 31		
H-09 35 47.1		
55.2S 028.8W		
h ABOUT 033KM		
COL	IP'	09 55 31.3
	I	55 42.0
	I	55 54.2
JAN 31		
H-11 27 30.2		
54.7N 161.6W		
h ABOUT 033KM		
COL	IP	11 30 25.0
	I	30 34.1
	I	31 04.7
EUR	E(P)	11 34 12.6
JAN 31		
KIP	EP	12 08 42.0
JAN 31		
H-15 07 03.5		
36.0N 022.0E		
h ABOUT 053KM		
COL	IP	15 19 04.0
HHM	IP	15 19 46.7

Date and Station	Phase	Phase (GCT) h m s
JAN 31		
BCN	EP	15 59 53.2
	I	16 00 26.3
	ES	01 06.2
EUR	EP	16 00 01.0
GCA	IP	16 00 30.1
	ES	01 25.1
JAN 31		
H-16 21 51.1		
22.0S 177.7W		
h ABOUT 391KM		
COL	IP	16 34 07.0
	EPP	35 39.0
JAN 31		
H-16 40 55.0		
45.0S 074.5W		
h ABOUT 033KM		
ALQ	IP	16 53 27.0
COL	EP'	16 59 47.0
JAN 31		
H-17 06 04.0		
41.0N 049.8E		
h ABOUT 047KM		
THU	I(P)	17 15 33.0
COL	IP	17 17 33.7
HHM	EP	17 18 59.7
JAN 31		
COL	IP	18 07 09.0
JAN 31		
H-18 44 00.2		
52.7N 168.6W		
h ABOUT 033KM		
COL	EP	18 47 46.1
JAN 31		
COL	EP	19 00 32.3
JAN 31		
H-19 10 22.7		
54.2N 167.6E		
h ABOUT 054KM		
COL	IP	19 15 36.9
JAN 31		
COL	IP	19 30 40.9
JAN 31		
EUR	E(P)	19 43 46.3
JAN 31		
COL	EP	20 14 09.0
JAN 31		
COL	EP	20 44 10.9
JAN 31		
COL	IP	22 13 16.8