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COAST & GEODETIC SURVEY
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U. S. DEPARTMENT OF COMMERCE

John T. Connor, Secretary

COAST AND GEODETIC SURVEY—WASHINGTON

H. Arnold Karo, Director

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National Oceanic and Atmospheric Administration

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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) WWNSS
*Bozeman, Mont. (BZM)
Montana State College
*Butte, Mont. (BUT)
Montana School of Mines
*Chicago, Ill. (CHK)
University of Chicago and
U. S. Weather Bureau
College, Alaska (COL) WWNSS
*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 Reclamtion
Guam, M. I. (GUA) WWNSS
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)
Tucson, Ariz. (TUC) WWNSS
Ukiah, Calif. (UKI)
International Latitude Observatory
Washington, D. C. (WAS)

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

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the data from the horizontal components of the seismographs at all stations except College, Honolulu, and Tucson will not be published for earthquakes occurring outside the United States.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

All magnitudes are m_b values of Gutenberg and Richter determined by the C&GS from the P phase only unless otherwise noted. The magnitude quoted is an average value determined from data forwarded by cooperating Standard Stations and other observatories. Mag. (PAS), (PAL), (BRK) are as reported by Pasadena, Palisades and Berkeley respectively.

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

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

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

STATION AND INSTRUMENTAL CONSTANTS (JANUARAY 1964)

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		200,000	17:1	60mm/min	Beginning	Up
H. J. Wirz	Lat. 34°56.5' N		1,853 m.	N 1.0	0.75		200,000				N
In Charge	Long. 106°27.5' W			E 1.0	0.75		200,000				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.	Long cos 9.99467	Std-SP	Basalt.	Z 1.0	0.75		12,500	17:1	60mm/min	Beginning	Up
W. H. Eeslinger	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, Paper	Fractured	Z 1.18	0.5	1.2	130,000	9:1	60mm/min	Beginning	Up
V. B. Uehling	Lat. 35°58'51" N	Z	Monzonite.								
In Charge	Long. 114°50'02" W	Mass 100 lb.	776 m.								
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.								
Bozeman, Mont.	Log cos 9.84489	Std-SP	Granite	Z 1.0	0.75		200,000	17:1	60mm/min	Beginning	Up
A. J. M. Johnson	Lat. 45°36'00.0"N		gneiss	N 1.0	0.75		200,000				N
In Charge	Long.111°38'00.0"W		1,575 m.	E 1.0	0.75		200,000				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
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										

Station	Position	Instrument	Foundation and Elevation	T_o	T_g	T_s	V	Σ	Paper Speed	Time Break Reference Point	Ground Motion Trace "Ip"
*College, Alas.	Log cos 9.62757	Std-SP	Weathered	Z 1.0	0.75		100,000	17:1	60mm/min	Beginning	Up
J. B. Townshend	Lat. 64°54'00.0"N		Schist.	N 1.0	0.75		100,000				N
In Charge	Long. 147°47'30.0"W		320 m.	E 1.0	0.75		100,000				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 9.62825	W-L, Film, Z	Granite	Z 1.19	0.45		40,000**	Near crit.	15mm/min	Beginning	Up
	Lat. 64°51.6' N	B, Film, N&E	schist.	N 1.36	0.45		50,000**	Near crit.			N
	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
1College Outpost	Log cos 9.62781	B, paper, Z	Weathered	Z 1.5	0.53		223,000	Near crit.	60mm/min	Beginning	Up
J. B. Townshend	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.								
Eureka, Nev.	Log cos 9.87826	B, Paper, Z	Dolomite	Z 1.08	0.55		200,000	Near crit.	60mm/min	Beginning	Up
W. DePaoli	Lat. 39°29'00" N	Mass 100 lb.	bedrock.								
In Charge	Long. 115°58'12" W		2,178 m.								
Flaming Gorge, Utah	Log cos 9.87826	B, Film, Z,	Quartzite.	Z 1.06	0.58	1.03		8:1	15mm/min	Beginning	Up
J. Hanfelt	Lat. 40°55'36" N	N&E	1,982 m.	N 1.41	0.41	1.35		11:1			N
In Charge	Long. 109°23'10" W			E 1.48	0.46	1.35		8:1			E
Glen Canyon, Ariz.	Log cos 9.90250	B, Film, Z,	Navajo sand-	Z 1.10	0.37	1.08	25,000**	6:1	15mm/min	Beginning	Up
G. Atkinson	Lat. 36°58'25" N	N&E	stone.	N 1.40	0.42	1.42	50,000**	Critical			N
In Charge	Long. 111°35'35" W		1,339 m.	E 1.37	0.48	1.36	50,000**	18:1			E
Guam, Mariana Islands	Log cos 9.98776	Std-SP	Fractured	Z 1.0	0.75		6,250	17:1	60mm/min	Beginning	Up
K. Cravens	Lat. 13°32'18.0"N		Volcanic	N 1.0	0.75		6,250				N
In Charge	Long. 144°54'42.0"E		tuff.	E 1.0	0.75		6,250				E
		Std-LP	230 m.	Z 30	100		750	Critical	30mm/min	Beginning	Up
				N 30	100		750				N
				E 30	100		750				E
	Log cos 9.98768	W-L, Z	Volcanics	Z 1.01	1.5		5,000	Near crit.	30mm/min	Beginning	Up
	Lat. 13°35'16" N		147 m.	N 7.35	7.0		3,000	Near crit.			N
	Long. 144°51'58" E	Spg, N&E		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	30mm/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	100		1,500		15mm/min		Up
				N 15	100		1,500				N
				E 15	100		1,000				E

DATE 1964	ORIGIN TIME G. C. T.	LAT.	LONG.	FOCAL DEPTH	REGION, MAGNITUDE, AND REMARKS
JAN	H M S	DEG	DEG	KM	
1	04 22 13*	43.7 N	126.3 W	33	OFF COAST OF OREGON. MAG. 3.7.
1	05 14 27*	37.4 N	142.7 E	33	OFF EAST COAST OF HONSHU, JAPAN. MAG. 4.1.
1	09 14 01.8	19.1 S	169.5 E	247	NEW HEBRIDES ISLANDS. MAG. 4.4.
1	09 43 59.5	18.2 N	105.9 W	33	OFF COAST OF JALISCO, MEXICO. MAG. 4.4.
1	09 45 28.7	23.9 S	67.4 W	200	CHILE-ARGENTINA BORDER REGION. MAG. 4.1.
1	12 21 55.4	6.8 S	129.8 E	96	BANDA SEA. MAG. 5.7.
1	14 16 28*	41.4 S	74.4 W	33	OFF COAST OF SOUTHERN CHILE. MAG. 4.7.
1	14 18 53.9	4.3 S	105.9 W	33	NORTHERN EASTER I. CORDILLERA. MAG. 4.6.
1	15 49 47.9	55.9 S	27.1 W	33	SOUTH SANDWICH ISLANDS REGION. MAG. 5.4.
1	16 43 08*	37.7 N	112.5 W	15	UTAH.
1	17 26 43.5	45.4 N	151.9 E	45	KURILE ISLANDS. MAG. 5.6, 5 1/2-5 3/4 (BRK), 6 (PAL).
1	19 45 45*	23.0 N	105.9 W	33	CENTRAL MEXICO. MAG. 4.0.
1	20 02 32.5	3.2 S	139.7 E	33	WEST NEW GUINEA. MAG. 6.3.
1	21 04 28.5	45.5 N	151.8 E	40	KURILE ISLANDS. MAG. 4.2.
1	22 42 27.0	45.5 N	151.7 E	45	KURILE ISLANDS. MAG. 4.7.
1	23 40 44.1	45.5 N	151.9 E	60	KURILE ISLANDS. MAG. 4.5.
2	00 11 15*	6.1 S	105.1 W	33	NORTHERN EASTER I. CORDILLERA. MAG. 4.4.
2	05 01 53.5	53.0 N	159.6 E	40	NEAR EAST COAST OF KAMCHATKA. MAG. 4.9.
2	05 21 00.5	54.6 N	161.5 E	33	NEAR EAST COAST OF KAMCHATKA. MAG. 4.9.
2	06 32 58.9	21.6 S	68.2 W	110	CHILE-BOLIVIA BORDER REGION. MAG. 5.1.
2	17 28 35.5	36.4 N	71.1 E	233	AFGHANISTAN-USSR BORDER REGION. MAG. 4.8.
2	18 16 12.3	3.1 S	130.0 E	33	CERAM. MAG. 4.3.
2	19 15 23.9	8.4 S	157.1 E	33	SOLOMON ISLANDS. MAG. 5.5. FELT AT MUNDA.
2	19 48 37.9	35.0 N	118.4 W	14	CENTRAL CALIFORNIA. MAG. 4.4.
3	00 45 20.4	5.9 S	146.7 E	34	EAST NEW GUINEA REGION. MAG. 4.6.
3	00 59 33.8	8.5 S	157.4 E	61	SOLOMON ISLANDS. MAG. 4.8.
3	03 18 02.4	23.4 S	180.0 W	509	SOUTH OF FIJI ISLANDS. MAG. 4.5.
3	05 20 33*	19.4 S	69.2 W	62	NORTHERN CHILE. MAG. 4.1.
3	06 14 24.4	6.9 S	128.7 E	33	BANDA SEA.
3	07 14 54.2	7.1 S	129.0 E	157	BANDA SEA. FELT AT DARWIN, AUSTRALIA.
3	13 27 44.5	5.0 S	77.3 W	33	NORTHERN PERU. MAG. 4.2.
3	14 41 47*	44.8 N	151.5 E	33	KURILE ISLANDS REGION. MAG. 4.0.
3	16 37 19.4	36.0 N	71.3 E	123	AFGHANISTAN-USSR BORDER REGION. MAG. 4.5.
3	17 20 54.0	52.8 N	173.1 E	33	NEAR ISLANDS, ALEUTIAN ISLANDS. MAG. 4.9.
3	21 24 56.3	20.4 S	178.2 W	520	FIJI ISLANDS REGION. MAG. 5.3.
3	21 48 05.6	53.0 S	21.2 E	33	SOUTH OF AFRICA.
3	22 12 09*	1.5 S	79.3 W	33	ECUADOR. MAG. 4.4.
4	03 41 22.6	3.4 S	149.2 E	33	BISMARCK SEA. MAG. 4.3.

DATE 1964	ORIGIN TIME G. C. T.	LAT.	LONG.	FOCAL DEPTH	REGION, MAGNITUDE, AND REMARKS
JAN	H M S	DEG	DEG	KM	
4	10 38 58.8	21.6 N	121.8 E	33	TAIWAN REGION. MAG. 4.7.
4	16 17 16.5	44.4 N	150.8 E	50	KURILE ISLANDS REGION. MAG. 4.7.
4	16 44 16.9	21.7 N	121.8 E	33	TAIWAN REGION.
4	17 40 23.3	5.5 S	150.0 E	117	NEW BRITAIN REGION. MAG. 5.2.
4	21 12 09.3	52.9 S	20.9 E	33	SOUTH OF AFRICA.
4	22 45 47*	1.9 S	102.3 E	33	SOUTHERN SUMATRA.
5	01 31 27.0	61.9 N	149.5 W	72	SOUTHERN ALASKA. MAG. 4.6.
5	03 05 44.1	20.6 S	179.0 W	650	FIJI ISLANDS REGION. MAG. 4.6.
5	07 06 40.2	54.6 N	161.2 W	33	ALASKA PENINSULA. MAG. 4.1.
5	07 11 26.5	37.6 S	72.5 W	61	CENTRAL CHILE. MAG. 4.3. FELT AT CONCEPCION.
5	08 57 22.3	32.5 N	141.7 E	33	SOUTH OF HONSHU, JAPAN. MAG. 4.8.
5	09 08 16.2	17.0 N	60.6 W	33	LEEWARD ISLANDS. MAG. 4.2.
5	10 11 53.0	26.6 S	175.7 W	31	SOUTH OF TONGA ISLANDS. MAG. 5.1.
5	12 00 05.0	53.8 N	165.3 W	63	FOX ISLANDS, ALEUTIAN ISLANDS. MAG. 4.8.
5	13 57 21.0	41.0 N	109.5 W	15	WYOMING. MAG. 3.9.
5	15 17 43.6	43.1 N	144.4 E	110	HOKKAIDO, JAPAN REGION. MAG. 4.3.
5	15 49 13*	0.4 N	78.2 W	33	COLOMBIA-ECUADOR BORDER REGION. MAG. 4.1.
5	16 25 52.6	61.4 S	154.9 E	33	BALLENY ISLANDS REGION.
5	17 15 14*	29.8 S	105.2 W	33	EASTER ISLAND REGION. MAG. 4.5.
5	17 50 45.3	51.1 N	179.6 W	33	ANDREANOF ISLANDS, ALEUTIAN IS. MAG. 4.3.
5	18 33 54.7	8.0 S	74.5 W	150	PERU-BRAZIL BORDER REGION. MAG. 5.2.
5	20 25 50.4	21.5 S	69.8 W	79	NORTHERN CHILE. MAG. 4.2.
5	23 46 10.7	52.3 S	28.6 E	33	SOUTH OF AFRICA.
6	05 54 42.7	27.2 N	127.3 E	110	RYUKYU ISLANDS. MAG. 5.7.
6	15 07 09.6	44.2 N	82.6 E	33	NORTHERN SINKIANG PROV., CHINA. MAG. 4.5.
6	16 06 35.0	30.4 N	138.3 E	426	SOUTH OF HONSHU, JAPAN. MAG. 4.1.
6	16 12 45.5	23.8 S	67.7 W	206	CHILE-ARGENTINA BORDER REGION. MAG. 4.4.
6	19 35 08.5	44.3 N	114.6 W	15	WESTERN IDAHO. MAG. 4.7.
6	23 06 32.1	6.8 N	73.6 W	36	NORTHERN COLOMBIA. MAG. 4.5.
6	23 15 55.7	34.3 N	116.4 W	16	SOUTHERN CALIFORNIA.
6	23 37 53*	19.3 N	108.3 W	33	REVILLA GIGEDO ISLANDS REGION. MAG. 4.1.
6	23 45 23.4	50.9 N	157.3 E	33	KURILE ISLANDS. MAG. 5.6, 5 1/2-5 3/4 (BRK), 5 1/2 (PAL).
6	23 47 11.4	34.3 N	116.5 W	14	SOUTHERN CALIFORNIA. MAG. 4.4, 4.4 (PAS). FELT AT SAN BERNARDINO AND PALM SPRINGS.
7	01 50 09*	19.2 S	169.4 E	150	NEW HEBRIDES ISLANDS.
7	02 08 19.1	56.8 S	147.7 E	33	WEST OF MACQUARIE ISLAND.
7	02 15 00.6	18.0 S	178.0 W	593	FIJI ISLANDS REGION. MAG. 5.0.
7	03 22 00*	7.0 N	73.6 W	33	NORTHERN COLOMBIA. MAG. 4.2.

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JAN	H M S	DEG	DEG	KM	
7	04 41 53*	18.6 N	105.4 W	33	OFF COAST OF JALISCO, MEXICO. MAG. 3.8.
7	04 50 37*	29.8 N	98.7 E	46	TIBET. MAG. 5.0.
7	05 18 24.5	58.8 S	149.4 E	33	WEST OF MACQUARIE ISLAND.
7	08 46 48.0	54.0 N	165.5 W	80	FOX ISLANDS, ALEUTIAN ISLANDS. MAG. 4.7.
7	10 40 42.9	3.0 S	139.0 E	47	WEST NEW GUINEA. MAG. 5.0.
7	11 06 21*	18.6 N	155.9 W	33	HAWAII REGION. MAG. 4.4.
7	11 55 34.6	39.1 N	114.2 W	33	NEVADA. MAG. 3.6.
7	12 32 54.5	56.8 S	26.1 W	33	SOUTH SANDWICH ISLANDS REGION. MAG. 5.6.
7	12 53 47.4	39.1 N	114.2 W	33	NEVADA. MAG. 3.5.
7	14 00 24*	2.0 N	73.1 W	46	COLOMBIA. MAG. 4.1.
7	15 06 47*	15.2 S	167.2 E	99	NEW HEBRIDES ISLANDS.
7	17 22 27*	6.2 N	72.5 W	213	NORTHERN COLOMBIA. MAG. 3.7.
7	20 04 36*	39.3 N	73.8 E	33	TADZHIK-SINKIANG BORDER REGION. MAG. 4.5.
7	20 52 04.9	4.6 S	103.3 E	89	SOUTHERN SUMATRA. MAG. 5.0.
7	23 12 33.4	18.3 S	173.4 W	33	TONGA ISLANDS. MAG. 4.7.
8	00 15 56*	3.0 N	101.0 W	33	EAST CENTRAL PACIFIC OCEAN. MAG. 4.3.
8	02 11 18*	51.4 N	179.0 W	33	ANDREANOF ISLANDS, ALEUTIAN IS. MAG. 4.2.
8	04 23 46.3	5.0 S	144.3 E	72	NEW GUINEA. MAG. 5.1.
8	05 47 31.8	54.4 N	161.8 W	33	ALASKA PENINSULA. MAG. 4.3.
8	10 04 31.6	46.1 N	77.7 W	33	SOUTHERN QUEBEC. MAG. 3.8. FELT AT DEEP RIVER, ONTARIO.
8	11 58 42.5	18.8 S	173.8 W	33	TONGA ISLANDS. MAG. 4.8.
8	13 42 41.3	52.3 N	173.5 E	33	NEAR ISLANDS, ALEUTIAN ISLANDS. MAG. 4.5.
8	14 34 53*	19.3 S	69.0 W	199	NORTHERN CHILE. MAG. 3.9.
8	16 02 30.0	6.9 S	129.4 E	108	BANDA SEA.
8	18 46 50.4	44.1 N	127.5 W	33	OFF COAST OF OREGON. MAG. 4.2.
8	19 44 13*	69.3 N	15.0 W	33	JAN MAYEN ISLAND REGION. MAG. 4.7.
8	22 30 49.7	3.7 S	119.4 E	90	CELEBES. MAG. 5.2, 8 KILLED, 27 INJURED AND EXTENSIVE PROPERTY DAMAGE AT PINRANG.
8	23 13 56.1	6.9 S	155.3 E	101	SOLOMON ISLANDS. MAG. 4.2.
9	02 59 21.6	41.7 N	141.9 E	50	HOKKAIDO, JAPAN REGION. MAG. 5.0.
9	03 10 56.2	44.3 N	114.6 W	15	WESTERN IDAHO. MAG. 4.5.
9	11 11 54.3	44.3 N	114.8 W	15	WESTERN IDAHO. MAG. 3.6.
9	11 47 45.0	31.1 S	64.4 W	119	CORDOBA PROVINCE, ARGENTINA. MAG. 4.3.
9	18 31 52.4	45.5 N	150.9 E	40	KURILE ISLANDS. MAG. 5.6, 5 3/4-6 (BRK), 5 3/4-6 (PAL).
9	18 38 11*	14.5 N	87.9 W	33	HONDURAS. MAG. 4.7.
9	20 57 01.6	48.6 N	153.1 E	148	KURILE ISLANDS. MAG. 4.8.
9	21 19 38*	1.2 S	89.9 W	33	GALAPAGOS ISLANDS. MAG. 4.0.
9	21 23 08*	20.0 S	178.3 W	649	FIJI ISLANDS REGION. MAG. 4.0.

DATE 1964	ORIGIN TIME G. C. T.	LAT.	LONG.	FOCAL DEPTH	REGION, MAGNITUDE, AND REMARKS
JAN	H M S	DEG	DEG	KM	
9	21 47 09*	42.6 S	174.8 E	61	OFF E. COAST OF S. ISLAND, N.Z. MAG. 5.5.
10	03 34 20*	39.0 N	21.1 E	16	GREECE. MAG. 4.3.
10	04 50 53.4	42.0 N	142.6 E	33	HOKKAIDO, JAPAN REGION. MAG. 5.5, 5 1/2-5 3/4 (BRK), 5 3/4 (PAL).
10	05 37 23*	15.8 S	70.3 W	234	SOUTHERN PERU. MAG. 4.2.
10	10 52 45.6	44.8 N	149.6 E	33	KURILE ISLANDS. MAG. 4.5.
10	11 08 04*	7.1 S	119.1 E	126	FLORES SEA.
10	11 56 33.4	44.1 N	150.8 E	58	KURILE ISLANDS REGION. MAG. 4.1.
10	16 52 36.2	15.4 S	175.0 W	33	TONGA ISLANDS. MAG. 5.0.
10	16 57 26.5	45.4 N	150.0 E	50	KURILE ISLANDS. MAG. 5.4.
10	19 21 58*	2.8 N	127.0 E	33	MOLUCCA PASSAGE.
10	21 52 47.6	6.9 S	129.4 E	117	BANDA SEA. MAG. 5.5.
11	00 40 21*	16.4 N	98.3 W	33	NEAR COAST OF GUERRERO, MEXICO. MAG. 4.5.
11	06 39 55*	15.1 S	172.9 W	33	SAMOA ISLANDS REGION. MAG. 4.2.
11	07 34 15.2	3.6 N	82.7 W	33	SOUTH OF PANAMA. MAG. 4.1.
11	09 24 15.6	14.1 S	169.6 E	33	NEW HEBRIDES ISLANDS. MAG. 4.9.
11	10 23 10.9	11.4 S	90.9 E	33	SOUTH INDIAN OCEAN.
11	14 09 17*	32.3 N	142.0 E	109	SOUTH OF HONSHU, JAPAN. MAG. 4.3.
11	21 23 54.2	40.4 S	72.6 W	33	CENTRAL CHILE. MAG. 4.5.
11	22 02 03*	8.6 S	123.4 E	70	FLORES ISLAND REGION. MAG. 5.5.
12	06 00 13.2	53.2 N	166.3 W	33	FOX ISLANDS, ALEUTIAN ISLANDS. MAG. 5.5, 5 1/2 (BRK).
12	06 40 34.1	3.5 N	82.9 W	33	SOUTH OF PANAMA. MAG. 4.2.
12	08 37 49*	44.1 N	149.5 E	40	KURILE ISLANDS. MAG. 4.3.
12	11 06 03.0	38.8 N	118.0 W	15	CALIFORNIA-NEVADA BORDER REGION.
12	11 13 19.6	5.4 S	146.8 E	229	EAST NEW GUINEA REGION. MAG. 5.6.
12	12 36 18.7	56.0 S	27.6 W	33	SOUTH SANDWICH ISLANDS REGION. MAG. 5.5.
12	12 45 51.1	31.5 N	49.4 E	67	WESTERN IRAN. MAG. 5.2. FELT IN KHUZESTAN.
12	14 21 51.5	10.9 S	74.6 W	94	PERU. MAG. 4.2.
12	14 28 20.0	4.4 S	137.3 E	22	WEST NEW GUINEA. MAG. 5.4.
12	23 33 41*	19.3 S	69.3 W	204	NORTHERN CHILE. MAG. 4.2.
13	04 00 48.3	28.9 S	66.2 W	33	CATAMARCA PROVINCE, ARGENTINA. MAG. 4.8.
13	06 04 48.2	28.7 S	178.0 W	33	KERMADEC ISLANDS. MAG. 3.9.
13	13 25 01.9	46.6 N	152.1 E	20	KURILE ISLANDS. MAG. 4.9.
13	13 32 59.2	19.8 S	175.6 W	190	TONGA ISLANDS. MAG. 4.1.
13	17 23 30.1	2.3 N	102.0 W	33	EAST CENTRAL PACIFIC OCEAN. MAG. 4.9.
13	18 49 09.8	11.6 S	166.2 E	59	SANTA CRUZ ISLANDS. MAG. 5.2.
14	01 11 12.6	52.9 N	159.6 E	50	OFF EAST COAST OF KAMCHATKA. MAG. 4.9.
14	04 17 50.5	28.8 S	176.2 W	89	KERMADEC ISLANDS. MAG. 4.7.

DATE 1964	ORIGIN TIME G. C. T.	LAT.	LONG.	FOCAL DEPTH	REGION, MAGNITUDE, AND REMARKS
JAN	H M S	DEG	DEG	KM	
14	08 24 47*	3.1 S	104.5 E	344	SOUTHERN SUMATRA. MAG. 4.9.
14	08 53 09.9	47.9 N	145.6 E	565	SEA OF OKHOTSK. MAG. 4.1.
14	10 10 44.7	15.9 S	173.0 W	33	TONGA ISLANDS. MAG. 4.5.
14	10 20 10.3	28.1 S	178.1 W	195	KERMADEC ISLANDS. MAG. 4.5.
14	15 06 35.3	13.6 N	120.5 E	44	MINDORO, PHILIPPINE ISLANDS. MAG. 4.5.
14	15 38 13.8	5.2 S	150.8 E	169	NEW BRITAIN REGION. MAG. 5.6. FELT AT RABAUL.
15	01 00 02.9	39.0 N	118.0 W	15	NEVADA.
15	02 23 47.4	45.3 N	150.6 E	45	KURILE ISLANDS. MAG. 5.3.
15	07 37 22*	7.6 S	108.6 W	33	NORTHERN EASTER I. CORDILLERA. MAG. 4.4.
15	08 10 57.2	21.3 N	143.4 E	25	MARIANA ISLANDS REGION. MAG. 4.8.
15	08 25 32*	7.1 S	154.8 E	55	SOLOMON ISLANDS. MAG. 4.9.
15	17 40 01*	25.2 N	95.5 E	78	BURMA-INDIA BORDER REGION. MAG. 4.0.
15	18 46 32.9	28.4 S	178.4 W	211	KERMADEC ISLANDS. MAG. 4.7.
15	21 26 43.2	23.7 N	45.0 W	33	NORTH ATLANTIC RIDGE. MAG. 4.7.
15	21 36 05.0	29.1 N	140.8 E	70	SOUTH OF HONSHU, JAPAN. MAG. 6.4, 6 3/4 (PAS), 6-6 1/4 (BRK), 6-6 1/4 (PAL).
15	22 43 14.3	14.6 S	166.8 E	55	NEW HEBRIDES ISLANDS. MAG. 4.5.
15	23 05 02*	17.4 S	179.7 E	599	FIJI ISLANDS. MAG. 4.3.
15	23 06 36.2	45.9 N	120.0 W	33	WASHINGTON-OREGON BORDER REGION. MAG. 4.2.
16	05 09 57.8	36.8 N	89.5 W	18	NEW MADRID, MISSOURI REGION.
16	10 50 36*	50.5 N	154.0 E	203	KURILE ISLANDS. MAG. 4.8.
16	11 44 41.8	21.5 S	179.1 W	609	FIJI ISLANDS REGION. MAG. 4.4.
16	14 37 37.3	30.4 S	69.5 W	33	CHILE-ARGENTINA BORDER REGION. MAG. 4.0.
16	16 00 00.1				37° 08' 32" N. 116° 02' 37" W. NEVADA TEST SITE. "FORE" . SHOT ELEVATION 797.1 METERS (AEC).
16	17 10 41*	52.5 N	162.9 E	33	OFF EAST COAST OF KAMCHATKA. MAG. 4.2.
16	17 53 39.7	55.3 N	160.1 E	33	KAMCHATKA. MAG. 4.4.
16	18 08 40.2				"FORE" COLLAPSE.
16	20 56 56.4	17.6 N	61.8 W	45	LEEWARD ISLANDS. MAG. 4.3.
16	23 10 34.4	37.3 N	134.8 E	380	SEA OF JAPAN. MAG. 4.1.
17	00 15 06.5	38.2 N	112.7 W	33	UTAH.
17	00 15 37.6	38.2 N	112.7 W	33	UTAH.
17	00 24 41*	17.5 N	99.8 W	33	GUERRERO, MEXICO. MAG. 4.0.
17	02 54 22.6	45.4 N	151.3 E	55	KURILE ISLANDS. MAG. 5.1.
17	02 54 26.8	21.6 S	169.9 E	33	LOYALTY ISLANDS REGION. 5 1/4 (PAL).
17	03 13 56.3	12.3 S	167.1 E	230	SANTA CRUZ ISLANDS. MAG. 4.7.
17	03 25 00.6	36.8 N	71.4 E	94	AFGHANISTAN-USSR BORDER REGION. MAG. 5.2.
17	06 02 19.8	40.3 N	124.6 W	33	NEAR COAST OF NORTHERN CALIF. MAG. 4.3, 3 3/4 (BRK).

DATE 1964	ORIGIN TIME G. C. T.	LAT.	LONG.	FOCAL DEPTH	REGION, MAGNITUDE, AND REMARKS
JAN	H M S	DEG	DEG	KM	
17	07 08 28*	31.1 N	114.2 W	14	GULF OF CALIFORNIA. MAG. 4.3.
17	09 32 51.6	11.4 S	162.4 E	33	SOLOMON ISLANDS. MAG. 4.7.
17	12 14 15.8	24.3 S	177.0 W	51	SOUTH OF FIJI ISLANDS. MAG. 4.7.
17	13 27 22*	3.4 S	77.5 W	33	PERU-ECUADOR BORDER REGION. MAG. 4.1.
17	17 13 30.3	10.8 S	167.7 E	114	SANTA CRUZ ISLANDS.
17	20 15 17.2	39.1 N	114.2 W	33	NEVADA.
17	22 18 13*	16.6 N	98.7 W	33	NEAR COAST OF GUERRERO, MEXICO. MAG. 4.2.
18	00 10 51*	21.7 S	67.8 W	130	CHILE-BOLIVIA BORDER REGION. MAG. 3.8.
18	04 14 37.7	30.0 S	177.9 W	47	KERMADEC ISLANDS REGION. MAG. 4.1.
18	06 53 01.3	17.9 S	69.5 W	157	PERU-BOLIVIA BORDER REGION. MAG. 3.8.
18	07 10 22*	32.5 S	103.7 W	33	WEST CHILE RISE. MAG. 4.5.
18	12 04 40.0	23.1 N	120.5 E	33	TAIWAN. MAG. 5.9, 6 3/4 (PAS), 6 3/4-7 (BRK), 6 1/2-6 3/4 (PAL). 110KILLED, 479 INJURED AND EXTENSIVE PROPERTY DAMAGE.
18	12 32 36.3	23.5 N	122.9 E	33	TAIWAN REGION. MAG. 4.8.
18	13 43 05.6	23.1 N	120.8 E	31	TAIWAN. MAG. 4.5.
18	14 40 54.6	15.2 N	94.2 W	33	NEAR COAST OF OAXACA, MEXICO. MAG. 4.6.
18	14 45 39.4	20.6 N	122.1 E	18	PHILIPPINE ISLANDS REGION. MAG. 4.9.
18	15 17 47.5	13.5 N	143.8 E	33	SOUTH OF MARIANA ISLANDS. MAG. 4.8.
18	16 45 54*	6.9 S	129.3 E	84	BANDA SEA.
18	18 44 05.0	25.1 S	176.9 W	33	SOUTH OF FIJI ISLANDS. MAG. 4.6.
18	21 57 14.4	16.1 N	89.3 W	33	GUATEMALA. MAG. 3.8.
18	22 36 17.6	18.8 N	69.4 W	95	DOMINICAN REPUBLIC REGION. MAG. 5.3.
19	01 58 24*	18.5 S	178.3 W	600	FIJI ISLANDS REGION. MAG. 4.1.
19	02 27 07*	39.1 S	72.4 W	33	CENTRAL CHILE. MAG. 4.5.
19	06 49 55.9	58.6 S	25.1 W	33	SOUTH SANDWICH ISLANDS REGION.
19	07 00 03.3	9.2 S	158.2 E	32	SOLOMON ISLANDS. MAG. 5.7.
19	07 55 09*	5.9 S	134.1 E	33	AROE ISLANDS REGION. MAG. 4.7.
19	08 47 10*	21.8 N	120.9 E	18	TAIWAN REGION. MAG. 4.6.
19	09 13 53.5	26.9 N	54.0 E	33	SOUTHERN IRAN. MAG. 5.6.
19	09 34 11.1	4.2 S	152.8 E	33	NEW BRITAIN REGION. MAG. 5.1. FELT AT RABAUL.
19	16 12 50.0	23.0 N	120.4 E	33	TAIWAN. MAG. 4.8.
19	17 01 16*	45.2 N	141.4 E	136	HOKKAIDO, JAPAN REGION. MAG. 4.0.
19	17 10 46.1	44.1 N	145.0 E	33	HOKKAIDO, JAPAN REGION. MAG. 4.6.
19	23 05 38*	45.9 N	149.9 E	50	KURILE ISLANDS. MAG. 4.1.
19	23 23 05.4	18.6 S	177.0 W	521	FIJI ISLANDS REGION. MAG. 4.5.
20	00 15 48.4	30.2 S	177.8 W	35	KERMADEC ISLANDS REGION. MAG. 4.4.
20	02 27 26*	20.7 S	178.4 W	600	FIJI ISLANDS REGION. MAG. 4.3.
20	04 46 59.7	8.2 N	126.6 E	110	MINDANAO, PHILIPPINE ISLANDS. MAG. 4.9.

DATE 1964	ORIGIN TIME G. C. T.	LAT.	LONG.	FOCAL DEPTH	REGION, MAGNITUDE, AND REMARKS
JAN	H M S	DEG	DEG	KM	
20	13 46 08.3	0.9 N	126.2 E	33	MOLUCCA PASSAGE. MAG. 4.3.
20	15 39 41.5	23.2 N	120.3 E	49	TAIWAN. MAG. 5.1.
20	17 08 37.4	20.7 S	169.9 E	141	NEW HEBRIDES ISLANDS. MAG. 6.1, 6 3/4 (PAS), 7-7 1/4 (BRK), 5 3/4-6 (PAL).
20	20 30 12.6	16.8 N	98.5 W	33	NEAR COAST OF GUERRERO, MEXICO. MAG. 4.3.
20	20 39 16.5	18.8 N	120.7 E	53	LUZON, PHILIPPINE ISLANDS. MAG. 4.8.
20	23 06 26.2	30.0 S	177.9 W	44	KERMADEC ISLANDS REGION. MAG. 5.1.
21	12 35 00*	19.7 S	69.1 W	161	NORTHERN CHILE. MAG. 4.1.
21	15 43 50*	16.6 N	86.4 W	33	CARIBBEAN SEA. MAG. 3.8.
21	16 14 25.6	15.0 N	60.8 W	82	LEEWARD ISLANDS. MAG. 4.1.
21	18 57 47.3	41.4 S	87.8 W	33	WEST CHILE RISE. MAG. 4.5.
21	21 02 20.0	52.2 N	172.4 E	33	NEAR ISLANDS, ALEUTIAN ISLANDS. MAG. 4.6.
21	22 18 13.0	10.6 N	125.3 E	53	LEYTE, PHILIPPINE ISLANDS. MAG. 5.2.
21	23 31 42.4	39.2 N	114.2 W	33	NEVADA. MAG. 3.9.
22	02 15 29.1	45.8 S	75.2 W	33	OFF COAST OF SOUTHERN CHILE. MAG. 4.7.
22	06 46 36.4	30.6 S	178.0 W	166	KERMADEC ISLANDS REGION. MAG. 4.0.
22	08 19 58*	21.6 S	169.7 E	33	LOYALTY ISLANDS REGION. MAG. 4.3.
22	09 12 03.4	4.2 S	136.2 E	71	WEST NEW GUINEA REGION. MAG. 5.1.
22	13 44 20*	47.7 N	152.8 E	33	KURILE ISLANDS. MAG. 4.2.
22	15 58 46.5	22.4 N	93.6 E	88	BURMA-INDIA BORDER REGION. MAG. 6.1, 5 1/2-5 3/4 (PAL).
22	17 41 50*	4.0 S	133.9 E	33	WEST NEW GUINEA REGION.
22	17 58 16.3	20.2 N	147.1 E	39	MARIANA ISLANDS REGION. MAG. 5.1.
22	18 48 30.9	7.6 N	126.9 E	144	MINDANAO, PHILIPPINE ISLANDS. MAG. 4.2.
22	20 01 33*	20.0 S	177.6 W	220	FIJI ISLANDS REGION. MAG. 3.9.
22	21 10 58.8	44.3 N	114.8 W	33	WESTERN IDAHO. MAG. 3.9.
22	21 28 26*	19.0 N	73.1 W	19	HAITI REGION. MAG. 3.8.
22	21 40 37*	50.5 N	173.5 W	33	ANDREANOF ISLANDS, ALEUTIAN IS. MAG. 4.3.
22	22 19 44.1	15.8 S	175.1 W	307	TONGA ISLANDS. MAG. 4.1.
22	22 38 03*	27.1 N	44.1 W	33	NORTH ATLANTIC RIDGE. MAG. 4.2.
22	23 59 43.6	13.7 S	165.9 E	33	NEW HEBRIDES ISLANDS. MAG. 6.0, 6 1/2 (PAS), 6 3/4-7 (BRK), 6-6 1/4 (PAL).
23	01 42 35*	18.5 N	107.4 W	33	OFF COAST OF JALISCO, MEXICO. MAG. 3.8.
23	02 49 22*	17.7 S	178.6 W	520	FIJI ISLANDS REGION. MAG. 3.6.
23	03 04 49.7	44.4 N	114.5 W	33	WESTERN IDAHO. MAG. 4.1.
23	05 17 26.1	30.6 N	137.3 E	478	SOUTH OF HONSHU, JAPAN. MAG. 4.0.
23	05 56 34*	8.4 S	13.3 W	33	ASCENSION ISLAND REGION. MAG. 4.0.
23	09 12 54*	53.6 N	158.2 E	33	NEAR EAST COAST OF KAMCHATKA. MAG. 3.9.
23	10 03 22*	17.8 N	147.0 E	33	MARIANA ISLANDS REGION. MAG. 4.2.
23	11 38 52*	2.5 S	80.1 W	418	NEAR COAST OF ECUADOR. MAG. 3.6.

DATE 1964	ORIGIN TIME G. C. T.	LAT.	LONG.	FOCAL DEPTH	REGION, MAGNITUDE, AND REMARKS
JAN	H M S	DEG	DEG	KM	
23	13 43 46.7	28.7 N	139.4 E	417	BONIN ISLANDS REGION. MAG. 4.0.
23	15 19 31.6	36.9 N	71.2 E	28	AFGHANISTAN-USSR BORDER REGION. MAG. 4.4.
23	16 00 00.2				37° 07' 35" N. 116° 02' 11" W. NEVADA TEST SITE. "OCONTO" . SHOT ELEVATION 1019.9 METERS (AEC).
23	16 08 55.5	11.5 N	122.5 E	47	PANAY, PHILIPPINE ISLANDS. MAG. 4.5.
23	16 39 45.3				"OCONTO" COLLAPSE.
24	02 40 00.1	4.2 S	154.2 E	416	SOLOMON ISLANDS. MAG. 4.3. FELT AT RABAUL.
24	03 35 36*	78.4 N	19.5 W	33	EASTERN GREENLAND. MAG. 4.2.
24	03 52 29.3	5.9 S	154.0 E	85	SOLOMON ISLANDS.
24	05 31 31.2	64.4 N	126.5 W	33	NORTHWEST TERRITORIES, CANADA. MAG. 3.9.
24	06 42 53.9	60.4 N	146.5 W	33	SOUTHERN ALASKA. MAG. 3.7.
24	10 00 47*	35.6 N	74.4 E	215	NORTHWESTERN KASHMIR.
24	10 33 25*	23.5 S	179.9 E	550	SOUTH OF FIJI ISLANDS. MAG. 4.3.
24	13 33 55.2	5.6 S	146.7 E	141	EAST NEW GUINEA REGION.
24	15 17 03.0	15.0 S	173.1 W	33	TONGA ISLANDS. MAG. 4.5.
24	17 17 45.5	38.7 N	129.4 E	542	SEA OF JAPAN. MAG. 5.3.
24	19 53 25.7	17.8 S	178.5 W	584	FIJI ISLANDS REGION. MAG. 4.4.
24	21 12 23.2	21.7 S	176.2 W	32	FIJI ISLANDS REGION. MAG. 4.8.
24	21 31 24.2	44.5 N	150.3 E	33	KURILE ISLANDS REGION. MAG. 4.7.
24	21 44 46*	23.6 S	179.9 E	535	SOUTH OF FIJI ISLANDS. MAG. 4.5.
24	22 44 01*	7.1 S	106.0 E	94	JAVA. MAG. 5.5.
25	02 00 06.0	6.3 S	145.6 E	134	NEW GUINEA.
25	03 40 34.9	16.1 S	173.8 W	33	TONGA ISLANDS. MAG. 4.3.
25	03 46 39.9	1.2 N	85.3 W	33	OFF COAST OF ECUADOR. MAG. 3.7.
25	04 09 14*	20.2 N	143.8 E	33	MARIANA ISLANDS REGION. MAG. 4.4.
25	07 04 32.8	22.6 S	179.7 W	600	SOUTH OF FIJI ISLANDS. MAG. 5.1.
25	07 13 30.8	28.5 N	86.8 E	44	TIBET. MAG. 4.5.
25	12 09 08.8	28.3 S	176.5 W	17	KERMADEC ISLANDS. MAG. 4.5.
25	15 09 17.3	5.2 S	153.1 E	64	NEW IRELAND REGION. MAG. 4.6.
25	17 35 05*	17.0 N	86.9 W	33	CARIBBEAN SEA. MAG. 3.9.
25	18 43 27*	17.1 N	87.2 W	33	CARIBBEAN SEA. MAG. 3.8.
25	19 48 49.1	10.1 N	69.4 W	41	VENEZUELA. MAG. 4.5.
25	21 41 59.9	52.7 N	157.3 E	33	KAMCHATKA. MAG. 4.7.
25	21 46 56*	22.6 S	179.9 W	350	SOUTH OF FIJI ISLANDS. MAG. 4.4.
25	22 09 00.8	5.3 S	153.2 E	42	NEW IRELAND REGION. MAG. 4.8.
25	22 46 18*	17.0 N	86.6 W	33	CARIBBEAN SEA. MAG. 3.9.
25	23 07 29.3	20.8 S	178.8 W	580	FIJI ISLANDS REGION. MAG. 4.5.

DATE 1964	ORIGIN TIME G. C. T.	LAT.	LONG.	FOCAL DEPTH	REGION, MAGNITUDE, AND REMARKS
JAN	H M S	DEG	DEG	KM	
26	09 09 33.9	16.3 S	71.7 W	116	SOUTHERN PERU. MAG. 6.1, 6 3/4 (PAS), 6 1/4-6 1/2 (BRK), 5 1/2-5 3/4 (PAL) 4 INJURED AND SLIGHT DAMAGE AT AREQUIPA.
26	10 02 15.0	23.1 N	120.4 E	37	TAIWAN. MAG. 4.9.
26	12 05 54.3	40.8 N	140.1 E	160	HONSHU, JAPAN. MAG. 4.4.
26	19 53 18.8	6.9 N	73.0 W	160	NORTHERN COLOMBIA. MAG. 3.8.
26	20 55 08*	17.2 N	86.1 W	33	CARIBBEAN SEA. MAG. 3.8.
27	01 12 23.5	0.0 S	17.9 W	33	NORTH OF ASCENSION ISLAND. MAG. 5.3.
27	02 46 33.4	60.9 S	155.2 E	33	MACQUARIE ISLAND REGION.
27	05 07 00.3	13.1 S	166.5 E	46	NEW HEBRIDES ISLANDS. MAG. 4.2.
27	05 29 27*	29.2 N	97.2 E	33	TIBET. MAG. 4.9.
27	06 19 19*	47.3 N	152.1 E	33	KURILE ISLANDS. MAG. 4.4.
27	10 32 13*	19.9 S	115.4 W	33	EASTER ISLAND CORDILLERA. MAG. 4.2.
27	11 21 14*	17.0 N	87.0 W	33	CARIBBEAN SEA. MAG. 3.8.
27	15 36 56*	10.6 S	166.1 E	165	SANTA CRUZ ISLANDS. MAG. 4.3.
27	17 51 47.3	52.5 N	160.8 E	33	OFF EAST COAST OF KAMCHATKA. MAG. 4.1.
27	20 19 30.6	23.1 S	179.4 E	526	SOUTH OF FIJI ISLANDS. MAG. 4.1.
28	00 02 25.7	41.0 N	141.5 E	33	HOKKAIDO, JAPAN REGION. MAG. 4.3.
28	04 56 48.6	43.3 N	125.9 W	17	OFF COAST OF OREGON. MAG. 4.5.
28	05 43 22.1	6.3 S	148.7 E	33	NEW BRITAIN REGION. MAG. 5.1, 5 1/4-5 1/2 (PAL). FELT AT DOILENE.
28	06 17 09.3	20.5 S	177.8 W	473	FIJI ISLANDS REGION. MAG. 4.0.
28	07 29 28*	17.7 S	176.7 W	417	FIJI ISLANDS REGION. MAG. 4.1.
28	09 00 46.9	21.7 N	121.6 E	33	TAIWAN REGION.
28	12 57 07.9	43.2 N	111.4 W	41	EASTERN IDAHO. MAG. 4.2.
28	13 03 41.5	14.2 S	72.1 W	21	PERU. MAG. 4.1.
28	14 09 17.1	36.5 N	70.9 E	207	HINDU KUSH REGION. MAG. 6.1, 6 3/4 (PAS), 6 (PAL). FELT IN NORTHWESTERN PAKISTAN.
28	16 26 05.6	7.0 S	124.5 E	407	BANDA SEA. MAG. 5.1.
28	17 46 16.2	45.3 N	149.8 E	33	KURILE ISLANDS. MAG. 4.4.
28	18 30 43.9	61.2 N	147.8 W	172	SOUTHERN ALASKA. MAG. 4.0.
28	19 10 54*	55.8 N	165.7 E	33	KOMANDORSKY ISLANDS REGION. MAG. 4.3.
29	02 30 00*	21.5 S	68.8 W	136	CHILE-BOLIVIA BORDER REGION. MAG. 4.0.
29	05 45 48*	38.7 N	73.2 E	187	TADZHIK-SINKIANG BORDER REGION. MAG. 3.8.
29	08 47 30*	3.0 N	125.7 E	133	TALAUD ISLANDS. MAG. 4.9.
29	13 07 18*	2.2 S	139.5 E	33	NEAR N. COAST OF WEST NEW GUINEA. MAG. 4.4.
29	17 29 08.0	55.1 N	161.7 E	78	NEAR EAST COAST OF KAMCHATKA. MAG. 4.6.
29	18 37 29*	6.8 S	130.7 E	33	BANDA SEA.
29	22 32 20.9	41.7 N	141.9 E	56	HOKKAIDO, JAPAN REGION. MAG. 4.5.
30	01 11 16.6	6.9 N	72.6 W	151	NORTHERN COLOMBIA. MAG. 3.9.

DATE 1964	ORIGIN TIME G. C. T.	LAT.	LONG.	FOCAL DEPTH	REGION, MAGNITUDE, AND REMARKS
JAN	H M S	DEG	DEG	KM	
30	02 33 55*	20.1 S	69.5 W	33	NORTHERN CHILE. MAG. 4.2.
30	05 39 44.6	24.5 N	108.6 W	49	GULF OF CALIFORNIA. MAG. 4.5.
30	07 37 01*	24.6 S	176.8 W	33	SOUTH OF FIJI ISLANDS. MAG. 3.9.
30	09 06 02*	11.4 N	121.6 E	33	PANAY, PHILIPPINE ISLANDS. MAG. 4.2.
30	12 23 10.3	32.7 N	47.8 E	33	IRAN-IRAQ BORDER REGION.
30	12 39 23.8	1.7 N	99.6 E	133	NORTHERN SUMATRA. MAG. 5.4.
30	17 20 13.5	23.3 N	143.4 E	33	VOLCANO ISLANDS REGION. MAG. 4.7.
30	17 45 54.6	37.3 N	29.9 E	41	TURKEY. MAG. 5.3.
30	21 23 58.2	49.2 N	150.6 E	292	NORTHWEST OF KURILE ISLANDS. MAG. 4.1.
30	22 23 10.4	43.3 N	111.4 W	33	EASTERN IDAHO.
31	00 14 58.4	36.3 N	71.4 E	127	AFGHANISTAN-USSR BORDER REGION. MAG. 4.2.
31	04 17 12.4	61.5 N	151.9 W	33	SOUTHERN ALASKA. MAG. 4.9.
31	06 46 07*	16.9 N	99.0 W	56	NEAR COAST OF GUERRERO, MEXICO. MAG. 3.9.
31	08 06 38.5	47.0 N	138.8 E	433	NEAR E. COAST OF EASTERN RUSSIA. MAG. 3.8.
31	09 23 21*	37.5 N	23.2 E	75	SOUTHERN GREECE. MAG. 4.3.
31	12 30 31*	23.8 N	121.0 E	33	TAIWAN. MAG. 4.5.
31	16 40 09.8	42.2 N	142.1 E	49	HOKKAIDO, JAPAN REGION. MAG. 4.2.
31	17 07 43*	51.3 N	124.7 W	14	BRITISH COLUMBIA. MAG. 4.2.
31	21 46 31.7	0.2 S	77.9 W	33	ECUADOR. MAG. 4.6.

Date and Station	Phase (GCT) h m s
JAN 01	
BCN IP	00 45 42.4
ES	55 54.8
JAN 01	
GUA IP	03 11 18.3
ES	11 33.0
JAN 01	
RCD E(P)	04 37 56.0
JAN 01	
TUC E(P)	05 05 04.0
JAN 01	
H-05 14 26.5	
37.4N 142.7E	
h ABOUT 033KM	
COL EP	05 23 06.0
EUR I(P)	05 26 15.7
JAN 01	
FGU E(P)	06 09 59.8
JAN 01	
GCA EP	08 02 34.4
EUR EP	08 03 06.5
JAN 01	
COL IP	09 01 43.1
JAN 01	
H-09 43 59.5	
18.2N 105.9W	
h ABOUT 033KM	
TUC EP	09 47 27.0
BCN EP	09 48 25.1
E	49 10.8
GCA EP	09 48 25.8
FGU IP	09 49 02.3
EUR EP	09 49 03.9
SLC EP	09 49 04.9
JAN 01	
EUR EP	10 23 49.2
JAN 01	
COL IP	11 37 54.5
JAN 01	
GCA E(P)	12 03 55.5
E	04 01.2
EUR EP	12 04 34.2
JAN 01	
H-12 21 55.4	
6.8S 129.8E	
h ABOUT 096KM	
COL EP	12 34 57.0
EUR IP'	12 40 24.0
BCN EP'	12 40 26.4
FGU IP'	12 40 32.3
TUC EP'	12 40 34.0
RCD IP'	12 40 39.5
BHP IP'	12 41 39.0
JAN 01	
SJP EP	12 27 29.2
JAN 01	
RCD E(P)	13 08 56.5
JAN 01	
H-14 16 27.6	
41.4S 074.4W	
h ABOUT 033KM	
TUC E(P)	14 28 40.0
JAN 01	
H-14 18 53.9	
04.3S 105.9W	
h ABOUT 033KM	
TUC EP	14 26 00.0
BCN EP	14 26 34.3
GCA E(P)	14 26 39.6
EUR IP	14 27 04.7
FGU EP	14 27 09.4
SLC EP	14 27 09.4
HHM E(P)	14 28 07.0
JAN 01	
H-15 49 47.9	
55.9S 027.1W	
h ABOUT 033KM	
COL IP'	16 09 34.7
JAN 01	
COL IP	16 22 31.7
JAN 01	
H-16 43 08.0	
37.7N 112.5W	
h ABOUT 015KM	
GCA IP	16 43 26.5
BCN EP	16 43 51.1
EL	44 22.2
EUR IP	16 43 57.6
FGU E(P)	16 44 18.0
ALQ E(P)	16 44 33.0
IL	45 43.5
TUC E(P)	16 44 42.0
JAN 01	
GUA IP	16 43 21.0
IS	43 33.6
JAN 01	
COL EP	16 55 12.0
JAN 01	
H-17 26 43.5	
45.4N 151.9E	
h ABOUT 045KM	
COL IP	17 33 56.0
ISCP	39 48.0
HON ES	17 42 16.0
EL	46 08.0
HHM IP	17 36 49.0
UKI E(P)	17 36 51.3
BUT IP	17 37 04.9
EUR IP	17 37 18.3
SLC IP	17 37 29.4
BCN EP	17 37 37.2
E>P	37 50.9
FGU IP	17 37 37.5
GCA IP	17 37 45.0
RCD IP	17 37 46.0
TUC EP	17 38 07.5
ALQ I(P)	17 38 13.0
JAN 01	
GCA E(P)	17 31 43.1
EUR IP	17 32 20.3
ALQ E(P)	17 32 43.0
E	33 51.0
JAN 01	
EUR IP	19 17 55.1
BCN EP	19 18 43.1
EL	19 41.5
GCA E(P)	19 19 12.0
JAN 01	
H-19 45 45.1	
23.0N 105.9W	
h ABOUT 033KM	
TUC E(P)	19 48 15.0
BCN EP	19 49 17.7
GCA E(P)	19 49 18.5
FGU E(P)	19 49 48.6
JAN 01	
H-20 02 32.5	
3.2S 139.7E	
h ABOUT 033KM	
KIP IP	20 13 16.0
COL IP	20 15 08.3
JAN 01	
BCN IP	20 05 43.7
I(S)	05 45.2
JAN 01	
TUC E(P)	20 09 55.0
JAN 01	
BCN E(P)	20 40 16.7
JAN 01	
H-21 04 28.5	
45.5N 151.8E	
h ABOUT 040KM	
COL IP	21 11 43.1
JAN 01	
TUC E(P)	22 05 11.0
JAN 01	
H-22 42 27.0	
45.5N 151.7E	
h ABOUT 045KM	
COL IP	22 49 41.0
BCN EP	22 53 20.3
E>P	53 33.2
TUC E(P)	22 53 51.0
ALQ EP	22 53 56.0
JAN 01	
EUR IP	23 08 02.6
JAN 01	
COL EP	23 20 17.0
JAN 01	
H-23 40 44.1	
45.5N 151.9E	
h ABOUT 060KM	
COL IP	23 47 56.1
EUR IP	23 51 16.9
TUC E(P)	23 52 06.0
ALQ EP	23 52 11.0
JAN 02	
EUR IP	00 01 17.9
JAN 02	
RCD E(P)	00 04 08.5
JAN 02	
H-00 11 14.9	
6.1S 105.1W	
h ABOUT 033KM	
EUR EP	00 19 41.0
FGU EP	00 19 45.0
JAN 02	
UKI E(P)	00 13 20.8
E(S)	13 27.0
JAN 02	
GCA EP	00 50 17.5

Date and Station	Phase	(GCT) h m s
JAN 02		
BHP	IP	00 59 25.0
	IS	59 56.0
JAN 02		
EUR	IP	01 05 48.1
JAN 02		
CSC	E(P)	02 25 24.0
JAN 02		
ALQ	EP	03 12 32.0
JAN 02		
ALQ	EP	03 31 29.0
JAN 02		
ALQ	IP	03 39 25.0
JAN 02		
COL	EP	03 42 08.0
JAN 02		
COL	IP	04 48 35.0
JAN 02		
H-05 01 53.5		
53.0N 159.6E		
h ABOUT 040KM		
COL	IP	05 07 48.8
	IpP	07 59.8
HHM	IP	05 10 57.0
BUT	IP	05 11 13.9
BOZ	EP	05 11 21.5
	IpP	11 33.0
EUR	EP	05 11 35.7
FGU	EP	05 11 52.9
BCN	EP	05 11 57.3
	EpP	12 08.3
GCA	E(P)	05 12 04.0
TUC	E(P)	05 12 30.0
JAN 02		
H-05 21 00.5		
54.6N 161.5E		
h ABOUT 033KM		
COL	IP	05 26 39.7
	E(PCP)	29 59.7
BUT	I(P)	05 29 59.9
BOZ	EP	05 30 17.0
	EpP	30 26.5
EUR	IP	05 30 32.3
FGU	EP	05 30 48.9
BCN	EP	05 30 51.1
	EpP	31 01.6
TUC	E(P)	05 31 27.0

Date and Station	Phase	(GCT) h m s
JAN 02		
H-06 32 58.9		
21.6S 068.2W		
h ABOUT 110KM		
TUC	EP	06 43 43.5
	EpP	44 15.0
GCA	IP	06 44 09.3
BCN	EP	06 44 14.9
	EpP	44 45.0
RCD	IP	06 44 18.5
	IpP	44 50.0
FGU	IP	06 44 19.3
	IpP	44 50.5
SLC	EP	06 44 23.5
EUR	IP	06 44 33.4
BUT	I(P)	06 44 39.2
	I(sP)	45 22.9
BOZ	IP	06 44 44.1
	pP	45 17.0
HHM	EP	06 45 02.0
	IpP	45 34.0
JAN 02		
RCD	E(P)	06 57 17.0
JAN 02		
BHP	IP D	08 54 43.0
	IS	55 10.0
JAN 02		
COL	EP	09 43 00.0
JAN 02		
COL	IP	10 47 45.5
JAN 02		
COL	EP	10 55 02.0
JAN 02		
COL	IP	11 02 38.0
JAN 02		
RCD	EP	11 56 24.6
JAN 02		
EUR	IP	12 06 26.0
JAN 02		
BCN	E(P)	12 32 30.2
	EL	33 10.1
JAN 02		
EUR	IP	12 33 38.1
JAN 02		
COL	EP	13 31 04.0
JAN 02		
COL	EP	14 16 12.0
JAN 02		
EUR	EP	15 43 29.8
JAN 02		
TUC	E(P)	15 50 43.0

Date and Station	Phase	(GCT) h m s
JAN 02		
HHM	EP	16 29 05.5
	I	29 18.5
JAN 02		
TUC	E(P)	16 42 16.0
JAN 02		
CSC	E(P)	16 58 12.0
JAN 02		
H-17 28 35.5		
36.4N 071.1E		
h ABOUT 233KM		
COL	IP	17 39 49.3
	EpP	40 45.0
JAN 02		
COL	EP	18 41 17.0
JAN 02		
TUC	E(P)	18 48 16.0
	E	48 34.0
BCN	E(P)	18 48 50.9
	EL	50 45.4
ALQ	EP	18 49 36.0
JAN 02		
TUC	E(P)	18 58 03.0
JAN 02		
EUR	EP	19 11 43.7
JAN 02		
H-19 15 23.9		
08.4S 157.1E		
h ABOUT 033KM		
COL	EP	19 27 49.0
BCN	EP	19 28 35.4
EUR	EP	19 28 36.7
JAN 02		
BCN	EP	19 18 19.9
	IS	18 32.0
JAN 02		
TUC	E(P)	19 32 06.0
JAN 02		
H-19 48 37.9		
35.0N 118.4W		
h ABOUT 014KM		
BCN	IP	19 49 26.9
	I	49 33.9
	I(S)	50 00.5
	IL	50 11.9
EUR	IP	19 49 51.9
GCA	EP	19 50 07.7
	I	50 22.9
TUC	E(P)	19 50 20.0
	EL	52 22.0
ALQ	EP	19 51 02.0

Date and Station	Phase	(GCT) h m s
JAN 02		
SLC	E(P)	19 51 01.6
	E	51 33.6
UKI	E(P)	19 51 28.0
JAN 02		
EUR	IP	20 54 38.2
JAN 02		
RCD	E(P)	21 04 46.2
JAN 02		
ALQ	EP	21 47 43.0
JAN 02		
FGU	EP	21 52 10.3
	IS	52 32.8
EUR	IP	21 52 13.9
JAN 02		
SLC	EP	21 53 47.6
TUC	IP	21 55 36.8
JAN 02		
TUC	E(P)	22 01 25.0
	E	02 14.0
	E	02 33.0
JAN 02		
COL	EP	22 11 16.0
JAN 02		
COL	EP	22 22 46.0
JAN 03		
RCD	EP	00 01 03.0
JAN 03		
H-00 45 20.4		
05.9S 146.7E		
h ABOUT 034KM		
COL	IP	00 57 53.8
JAN 03		
H-00 59 33.8		
08.5S 157.4E		
h ABOUT 061KM		
COL	IP	01 11 55.7
EUR	IP	01 12 43.4
JAN 03		
COL	EP	02 28 50.0
JAN 03		
TUC	E(P)	02 35 16.0
JAN 03		
H-03 18 02.4		
23.4S 180.0W		
h ABOUT 509KM		
TUC	E(P)	03 29 51.0
EUR	EP	03 29 51.8
FGU	EP	03 30 15.4

Date and Station	Phase (GCT)
	h m s
JAN 03	
FGU EP	04 20 20.4
IS	20 52.7
JAN 03	
FGU EP	04 32 04.3
JAN 03	
RCD EP	05 20 18.8
I	20 31.3
I	21 18.3
JAN 03	
COL IP	05 27 09.4
JAN 03	
BUT E(P)	05 27 57.0
E	27 19.9
JAN 03	
H-06 14 24.4	
6.9S 128.7E	
h ABOUT 033KM	
ALQ EP'	06 33 16.0
JAN 03	
BHP IP	06 27 29.0
IS	28 03.0
JAN 03	
TUC E(P)	07 05 34.0
JAN 03	
COL IP	07 08 48.0
JAN 03	
H-07 14 54.2	
7.1S 129.0E	
h ABOUT 157KM	
COL EP	07 27 53.0
ALQ EP'	07 33 34.0
JAN 03	
RCD EP	08 50 04.1
E	50 17.4
JAN 03	
BHP IP	11 41 05.0
IS	41 27.0
JAN 03	
EUR IP	11 44 51.9
JAN 03	
H-13 27 44.5	
5.0S 077.3W	
h ABOUT 033KM	
ALQ EP	13 36 26.0
TUC E(P)	13 36 41.0
FGU E(P)	13 37 11.5
EUR E(P)	13 37 42.0
JAN 03	
ALQ EP	14 05 53.0
JAN 03	
ALQ E(P)	14 12 12.0

Date and Station	Phase (GCT)
	h m s
JAN 03	
H-14 41 46.7	
44.8N 151.5E	
h ABOUT 033KM	
COL EP	14 49 06.0
JAN 03	
ALQ E(P)	15 30 44.0
JAN 03	
COL EP	15 37 17.0
JAN 03	
ALQ I	15 34 38.5
JAN 03	
COL IP	15 55 46.4
JAN 03	
BOZ EP	16 27 49.2
JAN 03	
H-16 37 19.4	
36.0N 071.3E	
h ABOUT 123KM	
COL EP	16 48 48.0
JAN 03	
ALQ E(P)	16 58 28.0
JAN 03	
ALQ I	17 15 42.5
JAN 03	
TUC E(P)	17 20 37.0
JAN 03	
H-17 20 54.0	
52.8N 173.1E	
h ABOUT 033KM	
COL EP	17 25 58.3
BOZ IP	17 29 28.5
I	29 43.0
EUR IP	17 29 39.4
FGU IP	17 30 00.5
JAN 03	
SJP IP D	19 06 57.5
IS	07 13.5
FGU E(P)	19 12 29.0
ES	13 02.0
JAN 03	
TUC E(P)	19 24 22.0
JAN 03	
EUR IP	19 26 38.9
JAN 03	
EUR EP	20 34 42.9
JAN 03	
BOZ EP	21 07 44.0
HHM E(P)	21 07 48.0

Date and Station	Phase (GCT)
	h m s
JAN 03	
TUC EP	21 15 24.0
JAN 03	
H-21 24 56.3	
20.4S 178.2W	
h ABOUT 520KM	
TUC E(P)	21 36 29.0
E-P	38 33.0
EUR IP	21 36 30.0
GCA EP	21 36 38.2
E-P	38 37.0
ALQ IP	21 36 50.0
I-P	38 54.0
COL IP	21 36 50.5
FGU IP	21 36 53.3
HHM EP	21 36 56.5
BOZ IP	21 36 57.0
JAN 03	
COL EP	21 44 36.0
JAN 03	
H-21 48 05.6	
53.0S 021.2E	
h ABOUT 033KM	
ALQ IP'	22 07 28.0
GCA EP'	22 07 33.5
FGU IP'	22 07 36.1
BCN EP'	22 07 37.3
SLC IP'	22 07 41.3
EUR IP'	22 07 47.3
JAN 03	
TUC E(P)	21 53 56.0
JAN 03	
TUC E(P)	22 05 49.0
F	07 30.0
JAN 03	
H-22 12 09.0	
01.5S 079.3W	
h ABOUT 033KM	
ALQ EP	22 20 18.0
JAN 03	
EUR EP	22 18 20.7
FGU E(P)	22 19 18.8
JAN 03	
EUR IP	22 31 25.8
JAN 03	
RCD EP	23 15 14.4
E	17 53.4

Date and Station	Phase (GCT)
	h m s
JAN 03	
SLC EP	23 19 29.9
FGU EP	23 20 00.9
JAN 03	
COL EP	23 25 18.0
JAN 03	
BHP IP	23 34 05.0
IS	34 32.0
JAN 03	
COL EP	23 49 03.0
JAN 04	
FGU E(P)	00 11 09.6
JAN 04	
RCD E(P)	01 07 27.0
JAN 04	
RCD EP	01 38 33.2
E	38 36.6
JAN 04	
ALQ E(P)	02 24 12.0
JAN 04	
ALQ E(P)	02 35 12.0
JAN 04	
RCD EP	02 54 26.7
JAN 04	
FGU E(P)	03 33 26.9
JAN 04	
BHP IP	03 45 06.0
IS	06 45 48.0
JAN 04	
FGU E(P)	04 03 04.7
ES	03 36.5
JAN 04	
EUR EP	04 13 14.8
JAN 04	
RCD EP	04 24 10.5
E	31 15.2
JAN 04	
FGU EP	06 59 00.2
SLC E(P)	06 59 02.5
EUR EP	06 59 12.7
JAN 04	
COL IP	09 28 48.7
JAN 04	
EUR EP	09 34 50.4
JAN 04	
H-10 38 58.8	
21.6N 121.8E	
h ABOUT 033KM	
COL EP	10 50 14.0
JAN 04	
GUA EP	11 08 21.5

Date and Station	Phase (GCT) h m s
JAN 04	
COL EP	12 13 42.0
JAN 04	
TUC E(P)	12 16 20.0
JAN 04	
EUR EP	12 45 42.5
JAN 04	
ALQ E(P)	13 22 39.0
JAN 04	
FGU EP	13 53 04.5
SLC EP	13 53 09.7
EUR EP	13 53 14.6
HHM EP	13 53 22.0
JAN 04	
COL EP	14 21 07.0
JAN 04	
ALQ E(P)	15 00 11.0
JAN 04	
ALQ EP	15 44 07.0
I	44 50.5
JAN 04	
RCD EP	15 55 49.3
JAN 04	
H-16 17 16.5	
44.4N 150.8E	
h ABOUT 050KM	
COL IP	16 24 38.3
HHM EP	16 27 30.5
I▸P	27 44.0
EUR IP	16 27 58.4
BCN EP	16 28 17.0
E▸P	28 31.0
TUC E(P)	16 28 46.0
E▸P	29 01.0
ALQ IP	16 28 52.0
JAN 04	
TUC E(P)	17 56 47.0
JAN 04	
FGU EP	18 17 13.0
JAN 04	
ALQ E(P)	18 22 49.0
JAN 04	
ALQ E(P)	19 43 49.0
JAN 04	
FGU E(P)	20 12 55.0
TUC E(P)	20 13 10.0

Date and Station	Phase (GCT) h m s
JAN 04	
H-21 12 09.3	
52.9S 020.9E	
h ABOUT 033KM	
ALQ EP'	21 31 25.0
TUC EP'	21 31 33.0
E	33 03.0
GCA EP'	21 31 38.4
FGU IP'	21 31 41.4
SLC IP'	21 31 46.1
BOZ EP'	21 31 49.0
EUR IP'	21 31 51.2
BUT EP'	21 31 53.0
HHM IP'	21 31 59.1
JAN 04	
CSC E(P)	21 30 25.0
JAN 04	
ALQ E(P)	21 40 56.0
GCA E(P)	21 41 05.8
ES	41 36.1
JAN 04	
BCN EP	21 46 42.8
E	47 50.3
JAN 04	
TUC E(P)	22 04 40.0
JAN 04	
FGU E(P)	22 22 05.4
E(S)	22 31.1
JAN 04	
H-22 45 46.6	
01.9S 102.3E	
h ABOUT 033KM	
SLC EP'	23 05 11.1
JAN 04	
TUC EP	22 48 33.0
JAN 04	
FGU EP	23 08 06.1
JAN 05	
H-01 31 27.0	
61.9N 149.5W	
h ABOUT 072KM	
COL IP	01 32 15.4
HHM EP	01 36 37.7
EUR IP	01 37 34.8
JAN 05	
TUC E(P)	02 20 28.0
BCN E(P)	02 21 13.5
EL	22 58.1

Date and Station	Phase (GCT) h m s
JAN 05	
COL IP	02 35 27.2
JAN 05	
H-03 05 44.1	
20.6S 179.0W	
h ABOUT 650KM	
EUR EP	03 17 08.8
TUC EP	03 17 09.0
COL EP	03 17 29.0
JAN 05	
COL IP	03 54 56.3
JAN 05	
COL EP	03 59 52.0
JAN 05	
RCD E(P)	04 35 33.0
JAN 05	
COL EP	05 06 33.0
JAN 05	
COL IP	05 14 15.7
JAN 05	
COL IP	05 50 13.1
JAN 05	
H-07 06 40.2	
54.6N 161.2W	
h ABOUT 033KM	
COL EP	07 09 36.0
EUR EP	07 13 20.7
FGU E(P)	07 13 43.8
JAN 05	
H-07 11 26.5	
37.6S 072.5W	
h ABOUT 061KM	
ALQ E(P)	07 23 24.0
FGU E(P)	07 23 57.3
EUR EP	07 24 03.9
JAN 05	
ALQ E(P)	07 16 29.0
JAN 05	
BCN E(P)	08 32 03.5
JAN 05	
H-08 57 22.3	
32.5N 141.7E	
h ABOUT 033KM	
COL EP	09 06 36.0
ESCP	11 31.0
HHM EP	09 09 03.2
I	09 15.0
EUR IP	09 09 22.6

Date and Station	Phase (GCT) h m s
BCN E(P)	09 09 33.7
E	09 50.2
FGU IP	09 09 40.8
TUC EP	09 10 02.0
ALQ E(P)	09 10 08.0
JAN 05	
BCN E(P)	09 06 06.4
JAN 05	
H-09 08 16.2	
17.0N 060.6W	
h ABOUT 033KM	
SJP EP	09 09 36.2
I	09 48.5
TUC E(P)	09 16 52.0
BCN EP	09 17 23.4
COL EP	09 19 46.0
JAN 05	
SJP EP	09 14 26.3
JAN 05	
BCN EP	09 14 56.8
JAN 05	
H-10 11 53.0	
26.6S 175.7W	
h ABOUT 031KM	
BCN EP	10 24 22.0
E	24 38.3
TUC IP	10 24 28.5
E(▸P)	24 40.5
EPKKP	42 48.0
EUR IP	10 24 32.6
GCA EP	10 24 40.1
ALQ IP	10 24 50.0
FGU E(P)	10 24 55.4
COL IP	10 25 07.7
JAN 05	
BOZ IP	10 30 23.8
IS	30 31.0
BUT E(P)	10 30 30.0
IS	30 56.0
JAN 05	
RCD EP	11 37 48.7
I	37 51.6
JAN 05	
GUA IP	11 44 35.9
ES	45 49.4
JAN 05	
H-12 00 05.0	
53.8N 165.3W	
h ABOUT 063KM	

Date and Station	Phase (GCT) h m s
COL EP	12 03 24.0
HHM EP	12 06 28.8
EUR IP	12 07 02.4
FGU IP	12 07 27.0
BCN EP	12 07 28.2
GCA E(P)	12 07 38.6
TUC EP	12 08 08.5
E	08 17.3
ALQ E(P)	12 08 19.0
IPP	09 56.0
JAN 05	
FGU E(P)	12 29 36.5
JAN 05	
EUR IP	13 26 20.7
JAN 05	
H-13 57 21.0	
41.0N 109.5W	
h ABOUT 015KM	
FGU IP	13 57 24.6
I	57 56.5
SLC EP	13 57 51.7
ES	58 17.2
GCA E(P)	13 58 41.1
EUR IP	13 58 41.8
ALQ E(P)	13 59 01.0
JAN 05	
COL EP	15 06 03.0
JAN 05	
H-15 17 43.6	
43.1N 144.4E	
h ABOUT 110KM	
COL IP	15 25 31.2
EUR IP	15 28 47.5
TUC E(P)	15 29 32.0
JAN 05	
H-15 49 12.7	
.4N 078.2W	
h ABOUT 033KM	
SJP EP	15 54 01.0
ALQ IP	15 57 14.0
TUC E(P)	15 57 20.0
JAN 05	
H-16 25 52.6	
61.4S 154.9E	
h ABOUT 033KM	
FGU EP'	16 44 55.1
COL EP'	16 45 08.0

Date and Station	Phase (GCT) h m s
JAN 05	
BHP EP	16 53 00.0
JAN 05	
EUR IP	16 57 01.5
JAN 05	
H-17 15 14.2	
29.8S 105.2W	
h ABOUT 033KM	
ALQ E(P)	17 25 50.0
JAN 05	
EUR IP	17 29 19.5
JAN 05	
H-17 50 45.3	
51.1N 179.6W	
h ABOUT 033KM	
COL EP	17 55 33.0
EUR EP	17 58 59.0
FGU E(P)	17 59 22.3
JAN 05	
H-18 33 54.7	
08.0S 074.5W	
h ABOUT 150KM	
BHP IP	18 37 53.0
I	38 21.0
SJP EP	18 39 27.4
I	41 15.9
ES	44 00.0
CSC IP	18 41 35.0
ALQ IP	18 42 53.0
I▸P	43 27.5
TUC IP	18 42 57.5
I▸P	43 32.0
GCA EP	18 43 26.0
BCN EP	18 43 33.4
E▸P	44 08.0
E&P	44 27.0
FGU IP	18 43 37.0
I▸P	44 11.2
ES	51 30.2
SLC EP	18 43 44.2
E▸P	44 19.0
EUR IP	18 43 54.1
BOZ EP	18 44 07.0
I▸P	44 40.0
BUT E(P)	18 44 09.0
HHM EP	18 44 27.3
E▸P	44 58.3
COL IP	18 46 39.1
I▸P	47 17.4

Date and Station	Phase (GCT) h m s
JAN 05	
FGU EP	18 57 48.7
JAN 05	
COL EP	19 17 04.0
JAN 05	
FGU E(P)	19 34 31.9
E(S)	34 56.7
JAN 05	
TUC E(P)	19 56 41.0
JAN 05	
COL EP	20 31 28.0
JAN 05	
SLC EP	21 26 10.4
FGU FP	21 26 41.1
JAN 05	
COL EP	21 57 23.0
JAN 05	
SLC EP	22 40 23.8
IS	40 52.3
FGU FP	22 40 55.1
JAN 05	
GUA EP	22 47 26.5
I	47 42.0
JAN 05	
FGU EP	23 00 25.9
SLC IP	23 00 30.8
BUT E(P)	23 00 32.0
EUR EP	23 00 36.0
HHM EP	23 00 43.8
BCN EP	23 01 25.6
JAN 05	
FGU IP	23 29 03.2
BCN EP	23 29 03.8
EUR IP	23 29 12.6
HHM EP	23 29 20.8
JAN 05	
EUR IP	23 41 57.7
JAN 05	
H-23 46 10.7	
52.3S 028.6E	
h ABOUT 033KM	
BHP EP'	00 04 50.0
CSC EP'	00 05 18.0
ALQ EP'	00 05 36.0
I	05 56.0
TUC IP'	00 05 41.5

Date and Station	Phase (GCT) h m s
GCA EP'	00 05 49.3
IP'	05 56.6
FGU EP'	00 05 50.9
IP'	05 57.9
BCN EP'	00 05 51.7
IP'	06 08.3
ISKP	09 52.7
E(SKKS)	15 36.0
SLC EP'	00 05 52.3
I	06 31.8
KIP IP'	00 06 00.0
HON EP'	00 06 00.0
ESPP	22 12.0
I	29 52.0
BOZ EP'	00 06 03.0
EUR IP'	00 06 03.3
BUT EP'	00 06 03.7
HHM EP'	00 06 06.8
COL EP'	00 06 15.0
JAN 05	
TUC E(P)	23 49 36.0
JAN 06	
TUC E(P)	01 03 05.0
JAN 06	
UKI E(P)	01 06 04.0
JAN 06	
EUR IP	02 14 19.5
JAN 06	
FGU EP	02 26 31.5
JAN 06	
ALQ EP	05 53 18.0
JAN 06	
H-05 54 42.7	
27.2N 127.3E	
h ABOUT 110KM	
GUA IP	05 59 21.0
E▸P	59 42.5
E(S)	06 03 18.0
COL IP D	06 05 02.5
EP'P'	34 08.0
HHM EP	06 07 18.6
I▸P	07 41.6
BUT EP	06 07 28.1
EUR IP	06 07 39.2
SLC EP	06 07 45.8
FGU IP	06 07 52.4

Date and Station	Phase (GCT) h m s
BCN EP	06 07 52.5
EpP	08 16.5
E(sP)	08 35.5
EPP	11 35.0
JAN 06	
RCD E(P)	08 37 34.5
IS	41 24.8
JAN 06	
BCN E(P)	09 02 43.8
EL	03 23.1
TUC E(P)	09 03 07.0
JAN 06	
BCN E(P)	09 12 50.9
EL	13 25.9
JAN 06	
ALQ E(P)	10 41 49.0
JAN 06	
BCN E(P)	11 50 54.3
EL	51 35.3
TUC E(P)	11 51 20.0
E	52 10.0
JAN 06	
FGU EP	12 53 12.4
IS	53 43.9
JAN 06	
FGU E(P)	14 31 20.5
JAN 06	
H-15 07 09.6	
44.2N 082.6E	
h ABOUT 033KM	
COL IP	15 17 43.0
JAN 06	
EUR IP	15 13 33.4
JAN 06	
BUT E(P)	15 47 02.0
JAN 06	
EUR EP	15 49 15.9
JAN 06	
H-16 06 35.0	
30.4N 138.3E	
h ABOUT 426KM	
HHM EP	16 17 52.2
JAN 06	
H-16 12 45.5	
23.8S 067.7W	
h ABOUT 206KM	
TUC E(P)	16 23 33.0
JAN 06	
ALQ IP	16 23 51.5
JAN 06	
BUT E(P)	17 54 42.0
JAN 06	
COL EP	18 18 06.0
JAN 06	
EUR IP	18 33 49.2
ALQ IP	18 35 52.0
JAN 06	
H-19 35 08.5	
44.3N 114.6W	
h ABOUT 015KM	
BUT IP	19 35 45.1
I(S)	36 18.0
BOZ EP	19 35 48.5
I	35 54.0
ES	36 20.0
HHM EP	19 36 11.7
IL	37 18.7
SLC EP	19 36 14.3
E(S)	37 09.7
EUR IP	19 36 25.9
FGU IP	19 36 27.1
IL	37 48.1
GCA E(P)	19 37 00.3
BCN E(P)	19 37 25.9
EL	39 29.4
TUC EP	19 38 09.0
JAN 06	
FGU EP	20 08 09.3
IS	08 41.6
JAN 06	
EUR IP	20 52 27.6
JAN 06	
FGU EP	21 36 16.6
IS	36 37.6
JAN 06	
TUC IP	21 54 51.5
JAN 06	
EUR IP	22 25 27.9
JAN 06	
COL EP	22 33 43.0
JAN 06	
HHM E(P)	22 58 18.0
JAN 06	
TUC IP	23 00 42.5
JAN 06	
H-23 15 55.7	
34.3N 116.4W	
h ABOUT 016KM	
BCN IP C	23 16 31.1
E(S)	16 57.9
IL	17 04.3
GCA EP	23 17 09.4
I	17 20.9
TUC E(P)	23 17 12.0
EUR IP	23 17 14.5
FGU E(P)	23 18 04.5
JAN 06	
ALQ EP	23 18 29.0
JAN 06	
H-23 37 52.6	
19.3N 108.3W	
h ABOUT 033KM	
TUC EP	23 40 59.0
BCN EP	23 41 56.5
FGU EP	23 42 42.7
JAN 06	
H-23 45 23.4	
50.9N 157.3E	
h ABOUT 033KM	
COL IP	23 51 41.6
HON E(P)	23 53 58.0
IS	00 00 26.0
E	03 55.0
EL	06 06.0
EUR IP	23 55 21.6
FGU IP	23 55 39.4
BCN IP C	23 55 42.2
IpP	55 55.7
TUC IP	23 56 14.0
FpP	59 27.0
ALQ IP	23 56 18.0
IpP	56 32.0
CSC E(P)	23 57 32.0
JAN 06	
BCN E(P)	23 46 13.8
EL	46 51.8
TUC E(P)	23 46 38.0
F	47 49.0
E	48 36.0
JAN 06	
H-23 47 11.4	
34.3N 116.5W	
h ABOUT 014KM	
BCN IP C	23 47 47.2
GCA IP	23 48 22.4
EUR IP	23 48 30.9
SLC EP	23 49 04.8
I	51 05.0
I	55 30.8
FGU EP	23 49 18.7
ALQ EP	23 49 14.0
I	49 47.0
JAN 06	
BCN I(P)	23 58 02.8
I(S)	59 29.6
IL	59 36.1
JAN 06	
BHP EP	24 03 00.0
JAN 07	
BCN EP	00 06 45.5
E(S)	07 12.2
IL	07 18.6
EUR EP	00 07 33.1
GCA E(P)	00 07 35.1
JAN 07	
BUT EP	00 18 38.0
ES	19 02.0
JAN 07	
BUT IP	00 55 03.6
JAN 07	
H-02 15 00.6	
18.0S 178.0W	
h ABOUT 593KM	
EUR EP	02 26 19.6
TUC E(P)	02 26 21.0
COL IP	02 26 38.9
JAN 07	
TUC E(P)	02 56 02.0
JAN 07	
COL IP	02 59 39.4
JAN 07	
H-04 41 53.0	
18.6N 105.4W	
h ABOUT 033KM	
TUC E(P)	04 45 22.0
E	45 28.0
EUR EP	04 45 55.5
FGU E(P)	04 46 53.3
JAN 07	
H-04 50 37.4	
29.8N 098.7E	
h ABOUT 046KM	
COL IP	05 02 00.3
JAN 07	
COL EP	04 55 48.0
JAN 07	
SJP IP D	05 06 00.0
ES	06 24.0
JAN 07	
COL EP	05 55 46.0
JAN 07	
EUR EP	07 44 20.7

Date and Station	Phase (GCT)
	h m s
JAN 07	
H-08 46 48.0	
54.0N 165.5W	
h ABOUT 080KM	
COL IP	08 50 03.4
FUR IP	08 53 45.5
FGU IP	08 54 09.1
BCN EP	08 54 09.8
E(▸P)	54 30.2
GCA E(P)	08 54 18.6
TUC EP	08 54 49.6
E	54 56.0
E▸P	55 10.0
ALQ IP	08 54 55.0
IPP	56 36.5
I(▸PP)	56 59.0
JAN 07	
KIP EP	08 54 23.0
HON IP	08 54 25.3
JAN 07	
H-10 40 42.9	
3.0S 139.0E	
h ABOUT 047KM	
COL EP	10 53 14.0
ALQ EPP	10 59 50.0
JAN 07	
TUC E(P)	10 53 06.0
JAN 07	
H-11 06 21.3	
18.6N 155.9W	
h ABOUT 033KM	
HON IP	11 07 13.1
IS	07 51.0
KIP IP	11 07 13.7
IS	07 51.0
FUR EP	11 13 56.5
HHM E(P)	11 14 24.7
FGU E(P)	11 14 39.4
COL EP	11 14 47.7
JAN 07	
EUR IP	11 47 30.1
BCN E(P)	11 47 56.6
EL	48 42.0
GCA E(P)	11 47 58.9
E(S)	48 36.7
JAN 07	
H-11 55 34.6	
39.1N 114.2W	
h ABOUT 033KM	

Date and Station	Phase (GCT)
	h m s
EUR IP	11 55 58.6
SLC EP	11 56 17.7
GCA EP	11 56 19.7
I	56 25.2
IS	57 05.7
BCN IP	11 56 24.2
E(S)	56 56.2
IL	57 10.2
TUC E(P)	11 57 21.0
EL	59 22.0
ALQ E(P)	11 57 37.0
EL	59 31.0
JAN 07	
H-12 32 54.5	
56.8S 026.1W	
h ABOUT 033KM	
COL EP'	12 52 42.0
JAN 07	
H-12 53 47.4	
39.1N 114.2W	
h ABOUT 033KM	
FUR IP	12 54 11.7
SLC E(P)	12 54 31.2
ES	55 06.2
GCA EP	12 54 34.2
IS	55 17.4
BCN EP	12 54 36.6
ES	55 11.7
IL	55 23.9
FGU EP	12 54 50.9
ALQ E(P)	12 55 35.0
EL	57 38.0
JAN 07	
TUC E(P)	12 56 02.0
E	57 35.0
JAN 07	
FGU IP	16 25 33.5
IS	25 58.0
JAN 07	
EUR IP	16 33 12.0
JAN 07	
COL IP	16 53 00.0
JAN 07	
COL EP	16 57 45.0
JAN 07	
SJP IP	18 05 00.2
IS	05 08.2
JAN 07	
BCN IP	19 08 23.2
IS	08 35.2
JAN 07	
EUR EP	19 35 17.2

Date and Station	Phase (GCT)
	h m s
JAN 07	
H-20 04 35.8	
39.3N 073.8E	
h ABOUT 033KM	
COL E(P)	20 15 47.0
JAN 07	
H-20 52 04.9	
04.6S 103.3E	
h ABOUT 089KM	
ALQ EP'	21 11 26.0
JAN 07	
SLC EP	20 54 37.1
JAN 07	
FUR EP	21 14 28.3
ALQ E(P)	21 15 05.0
JAN 07	
GCA E(P)	21 39 07.8
E(S)	39 27.3
JAN 07	
COL EP	22 13 36.0
FGU EP	22 15 45.0
JAN 07	
IS	16 04.5
JAN 07	
FUR IP	22 22 20.4
JAN 07	
COL EP	22 42 47.0
JAN 07	
FGU EP	23 04 07.5
ES	04 29.5
JAN 07	
BCN IP	23 09 37.9
IS	09 49.9
JAN 07	
H-23 12 33.4	
18.3S 173.4W	
h ABOUT 033KM	
TUC E(P)	23 24 32.0
EUR EP	23 24 36.0
ALQ EP	23 24 56.0
FGU E(P)	23 25 01.0
COL EP	23 25 08.0
JAN 07	
FUR EP	23 21 46.4
JAN 07	
HHM EP	23 54 47.2
F	55 02.7
JAN 08	
H-00 15 55.7	
03.0N 101.0W	
h ABOUT 033KM	

Date and Station	Phase (GCT)
	h m s
TUC E(P)	00 22 09.0
JAN 08	
EUR IP	00 29 49.5
JAN 08	
COL EP	01 57 57.0
JAN 08	
H-02 11 18.4	
51.4N 179.0W	
h ABOUT 033KM	
COL EP	02 16 01.0
JAN 08	
COL IP	02 18 48.9
JAN 08	
COL EP	03 07 35.0
JAN 08	
FGU EP	03 40 46.0
IS	41 20.5
JAN 08	
H-04 23 46.3	
05.0S 144.3E	
h ABOUT 072KM	
COL IP	04 36 14.5
JAN 08	
COL EP	05 18 47.0
JAN 08	
GUA E(P)	05 27 41.2
I	28 07.5
JAN 08	
H-05 47 31.8	
54.4N 161.8W	
h ABOUT 033KM	
COL EP	05 50 31.0
EUR IP	05 54 15.2
JAN 08	
FGU IP	06 59 09.5
JAN 08	
RCD E(P)	08 04 13.3
JAN 08	
COL EP	08 44 36.0
JAN 08	
H-10 04 31.6	
46.1N 077.7W	
h ABOUT 033KM	
FGU E(P)	10 09 42.0
ALQ E(P)	10 09 52.0
HHM E(P)	10 09 49.8
E	10 28.0
F(S)	14 14.0
EUR IP	10 10 28.9
COL EP	10 12 13.0

Date and Station	Phase	(GCT)
		h m s
WAS	IS	10 08 19.0
CSC	E(S)	10 10 55.0
JAN 08		
ALQ	E(P)	10 31 15.0
JAN 08		
FUR	EP	11 22 28.1
JAN 08		
COL	EP	11 42 25.0
JAN 08		
H-11 58 42.5		
18.8S 173.8W		
h ABOUT 033KM		
TUC	EP	12 10 44.3
FUR	FP	12 10 47.1
FGU	EP	12 11 13.0
COL	IP	12 11 19.4
JAN 08		
COL	IP	12 04 03.3
JAN 08		
COL	EP	13 39 43.0
JAN 08		
H-13 42 41.3		
52.3N 173.5E		
h ABOUT 033KM		
COL	IP	13 47 47.2
FUR	IP	13 51 25.8
JAN 08		
TUC	E(P)	15 03 37.0
	E	05 02.0
JAN 08		
ALQ	E(P)	15 05 58.0
JAN 08		
SLC	EP	16 15 26.1
	E(S)	15 52.1
JAN 08		
COL	EP	17 02 16.0
JAN 08		
ALQ	E(P)	18 05 19.0
JAN 08		
FUR	IP	18 53 19.3
JAN 08		
FUR	IP	19 30 34.9
JAN 08		
H-19 44 13.1		
69.3N 015.0W		
h ABOUT 033KM		
COL	EP	19 52 02.0
JAN 08		
FUR	IP	20 09 44.0
JAN 08		
EUR	IP	20 34 29.5
JAN 08		
GUA	EP	20 49 11.7
	E	49 54.2
JAN 08		
ALQ	E(P)	21 04 02.0
JAN 08		
FGU	FP	21 52 47.3
	IS	53 09.7
JAN 08		
SLC	EP	22 01 23.6
JAN 08		
SLC	E(P)	22 09 44.1
JAN 08		
H-22 30 49.7		
03.7S 119.4E		
h ABOUT 090KM		
HON	E(S)	22 53 54.0
	E(SS)	59 12.0
	EL	23 12 15.0
COL	EP	22 44 01.0
HHM	EP'	22 49 25.0
	EPP	50 32.8
FUR	EP'	22 49 32.3
BCN	EP'	22 49 35.0
	I	49 37.5
FGU	EP'	22 49 39.8
TUC	EP'	22 49 44.0
ALQ	EP'	22 49 48.0
CSC	EP'	22 50 18.0
JAN 08		
TUC	EP	22 54 08.2
JAN 08		
SLC	EP	23 07 52.6
JAN 08		
COL	EP	23 08 26.0
JAN 08		
H-23 13 56.1		
06.9S 155.3E		
h ABOUT 101KM		
COL	EP	23 26 11.0
JAN 08		
SLC	FP	23 14 01.1
JAN 08		
BCN	EP	23 18 43.4
	ES	18 49.9
JAN 08		
SJP	IP D	23 51 41.5
JAN 09		
TUC	FP	00 05 25.0
FGU	EP	00 06 04.0
BCN	EP	00 06 08.4
JAN 09		
EUR	EP	00 15 33.8
JAN 09		
EUR	IP	00 41 23.2
JAN 09		
GUA	IP	01 17 53.0
JAN 09		
H-02 59 21.6		
41.7N 141.9E		
h ABOUT 050KM		
COL	IP	03 07 34.0
HHM	EP	03 10 17.8
	FPP	10 36.8
BUT	EP	03 10 31.8
EUR	EP	03 10 46.1
SLC	EP	03 10 56.1
	IS	12 57.6
FGU	FP	03 11 01.2
	EPCP	11 13.8
	FPP	11 19.7
BCN	EP	03 11 04.2
	IPP	11 23.7
GCA	E(P)	03 11 11.5
TUC	E(P)	03 11 30.0
	E	13 55.0
ALQ	FP	03 11 34.0
JAN 09		
H-03 10 56.2		
44.3N 114.6W		
h ABOUT 015KM		
BUT	E(P)	03 11 32.8
	I	12 55.8
BOZ	E(P)	03 11 36.0
	I	11 40.0
	I(S)	12 11.0
HHM	FP	03 11 59.7
	FL	13 05.0
SLC	FP	03 12 06.9
EUR	IP	03 12 06.8
FGU	IP	03 12 13.0
	IL	13 32.5
BCN	E(P)	03 12 59.9
	I	12 04.1
	F(S)	14 19.9
	IL	15 12.1
COL	EP	03 16 44.0
JAN 09		
HHM	E(P)	03 20 27.0
JAN 09		
BOZ	IP	03 29 01.8
FGU	F(P)	03 29 49.5
JAN 09		
BUT	IP	03 29 38.8
	I	30 13.8
BOZ	I(P)	03 29 39.0
	IL	29 52.0
JAN 09		
BCN	IP	03 32 49.1
	IS	33 01.1
JAN 09		
TUC	E(P)	03 56 50.0
JAN 09		
EUR	EP	04 04 22.6
JAN 09		
BOZ	IP	04 12 32.9
	IL	12 48.0
BUT	EP	04 12 37.8
	I	12 48.8
	I	13 05.8
JAN 09		
HHM	E(P)	04 13 39.0
JAN 09		
BOZ	E(P)	04 58 39.0
	E	58 50.0
	ES	59 22.0
JAN 09		
BUT	IP	04 59 12.8
	I	59 28.8
JAN 09		
BOZ	E(P)	06 44 09.0
	ES	44 38.0
EUR	EP	06 44 45.7
JAN 09		
SLC	EP	06 56 20.6
	ES	56 44.6
FGU	IP	06 56 20.8
	IS	56 43.0
JAN 09		
BOZ	F(P)	06 57 57.0
	F	58 20.0
HHM	F(P)	06 58 19.0
EUR	EP	06 58 21.5
JAN 09		
COL	EP	10 17 37.0

Date and Station	Phase (GCT)
	h m s
JAN 09	
H-11 11 54.3	
44.3N 114.8W	
h ABOUT 015KM	
BUT IP	11 12 33.8
IS	12 58.8
BOZ EP	11 12 37.0
ES	13 05.0
HHM E(P)	11 13 09.0
ES	13 55.0
EUR IP	11 13 09.5
JAN 09	
H-11 47 45.0	
31.1S 064.4W	
h ABOUT 119KM	
ALQ E(P)	11 59 23.0
FGU EP	11 59 58.0
EUR EP	12 00 08.9
JAN 09	
TUC E(P)	13 40 26.0
JAN 09	
COL EP	13 53 05.0
JAN 09	
EUR IP	14 38 50.2
BCN E(P)	14 39 22.0
EL	40 00.0
JAN 09	
EUR IP	16 32 28.2
JAN 09	
COL EP	16 47 12.0
JAN 09	
BOZ EP	18 14 47.0
IS	15 03.0
JAN 09	
EUR EP	18 17 50.3
JAN 09	
H-18 31 52.4	
45.5N 150.9E	
h ABOUT 040KM	
COL EP	18 39 09.1
KIP EP	18 40 33.0
ES	47 34.0
HON EP	18 40 34.0
ES	47 34.0
HHM EP	18 42 02.0
UKI EP	18 42 04.0
BUT EP	18 42 15.8
BOZ EP	18 42 23.0

Date and Station	Phase (GCT)
	h m s
EUR EP	18 42 32.1
EP'P'	19 11 09.7
SLC IP	18 42 42.0
EP'P'	29 11 0.2
BCN IP C	18 42 50.8
I>P	43 01.8
GCA EP	18 42 58.7
TUC IP	18 43 20.2
ALQ EP	18 43 25.5
CSC E(P)	18 44 40.0
BHP EPP	18 50 50.0
JAN 09	
COL EP	19 38 07.0
JAN 09	
FGU IP	19 54 25.7
JAN 09	
COL EP	20 33 58.0
JAN 09	
COL EP	20 45 05.0
JAN 09	
H-20 57 01.6	
48.6N 153.1E	
h ABOUT 148KM	
COL IP	21 03 39.1
EUR IP	21 07 11.0
BCN EP	21 07 30.5
EPCP	08 00.2
JAN 09	
H-21 19 38.4	
01.2S 089.9W	
h ABOUT 033KM	
ALQ EP	21 27 04.0
JAN 09	
H-21 23 08.1	
20.0S 178.3W	
h ABOUT 649KM	
COL IP	21 34 50.6
JAN 09	
SLC EP	21 26 13.2
JAN 09	
COL EP	21 32 54.0
JAN 09	
BCN EP	21 48 22.5
I	48 41.8
JAN 09	
FGU EP	22 09 19.3
ES	09 38.6
JAN 09	
EUR IP	22 22 43.9

Date and Station	Phase (GCT)
	h m s
JAN 10	
COL EP	00 27 55.0
JAN 10	
COL EP	00 40 30.0
JAN 10	
COL IP	03 01 27.0
JAN 10	
COL EP	03 34 08.0
JAN 10	
ALQ EP	04 48 05.0
JAN 10	
GUA E(P)	04 56 45.0
JAN 10	
H-04 50 53.4	
42.0N 142.6E	
h ABOUT 033KM	
COL IP	04 59 02.1
IS	05 05 35.0
SIT EP	05 00 04.0
KIP IP	05 00 11.0
ES	07 46.0
HON E(P)	05 00 17.0
IS	07 48.0
E	11 33.0
EL	12 58.0
HHM IP	05 01 48.0
I>P	02 01.0
BUT EP	05 02 02.8
BOZ IP	05 02 07.0
I>P	02 19.0
EUR IP	05 02 16.7
I>P	02 29.2
SLC IP	05 02 25.2
BCN EP	05 02 32.6
I>P	02 45.4
I<P	02 54.6
FGU IP	05 02 32.6
GCA EP	05 02 41.0
JAN 10	
BHP EP	05 19 25.0
ALQ E(P)	05 21 44.0
JAN 10	
ALQ E(P)	05 45 14.0
JAN 10	
COL IP	05 53 15.1
JAN 10	
BOZ EP	06 25 47.0
JAN 10	
SJP EP	06 44 00.0

Date and Station	Phase (GCT)
	h m s
JAN 10	
COL EP	07 43 26.0
JAN 10	
COL FP	08 45 12.0
JAN 10	
BUT EP	08 52 56.8
E	05 53 18.8
BOZ EP	08 52 57.9
E(S)	53 24.0
EUR IP	08 53 40.4
JAN 10	
COL EP	08 58 23.0
JAN 10	
COL EP	10 01 30.0
JAN 10	
FGU EP	10 36 50.8
ES	37 21.5
JAN 10	
H-10 52 45.6	
44.8N 149.6E	
h ABOUT 033KM	
COL IP	11 00 08.5
HHM E(P)	11 03 01.0
BOZ EP	11 03 19.0
EUR EP	11 03 32.6
JAN 10	
COL FP	11 05 11.0
JAN 10	
H-11 08 03.6	
7.1S 119.1E	
h ABOUT 126KM	
COL E(P)	11 21 27.0
JAN 10	
H-11 56 33.4	
44.1N 150.8E	
h ABOUT 058KM	
COL IP	12 03 58.6
JAN 10	
EUR EP	12 07 31.7
JAN 10	
FGU EP	12 35 21.9
ES	35 43.4
JAN 10	
COL FP	13 38 32.0
JAN 10	
COL IP	13 40 06.1
JAN 10	
COL IP	15 56 21.5
JAN 10	
BCN I(P)	16 39 26.6

Date and Station	Phase (GCT)
	h m s
JAN 10	
ALQ EP	16 54 02.0
JAN 10	
H-16 52 36.2	
15.4S 175.0W	
h ABOUT 033KM	
BCN EP	17 04 26.1
FUR IP	17 04 31.1
TUC IP D	17 04 32.4
GCA EP	17 04 42.0
ALQ IP	17 04 55.5
BOZ EP	17 05 02.0
HHM E(P)	17 05 04.0
JAN 10	
H-16 57 26.5	
45.4N 150.0E	
h ABOUT 050KM	
COL I(P)	17 04 46.3
KIP E(P)	17 06 20.0
HHM IP	17 07 39.0
BUT EP	17 07 54.8
BOZ IP	17 07 59.5
IPP	08 13.0
FUR IP	17 08 08.9
SLC IP	17 08 19.0
BCN EP	17 08 27.9
GCA EP	17 08 35.5
TUC IP	17 08 56.6
JAN 10	
COL IP	17 11 48.0
JAN 10	
SLC EP	17 19 37.0
JAN 10	
ALQ E(P)	18 43 22.0
JAN 10	
FUR IP	19 39 13.3
JAN 10	
ALQ E(P)	19 55 33.0
JAN 10	
GUA E(P)	20 04 11.0
JAN 10	
COL EP	20 18 16.0
JAN 10	
FUR IP	20 47 18.2
JAN 10	
COL EP	21 14 22.0

Date and Station	Phase (GCT)
	h m s
JAN 10	
GUA EP	21 35 08.1
E(S)	35 16.1
JAN 10	
ALQ EP	21 39 07.0
GCA EP	21 39 16.7
JAN 10	
H-21 52 47.6	
6.9S 129.4E	
h ABOUT 117KM	
ALQ EP'	22 11 31.0
ESKP	14 28.0
JAN 10	
SLC EP	21 55 04.2
JAN 10	
ALQ EP	22 06 19.0
GCA EP	22 06 25.5
ES	06 57.3
JAN 10	
FUR IP	22 32 17.0
I	34 38.0
JAN 10	
GCA E(P)	22 35 01.0
F	35 05.5
JAN 10	
TUC IP	22 49 53.0
JAN 10	
COL EP	23 05 24.0
JAN 11	
H-00 40 21.2	
16.4N 098.3W	
h ABOUT 033KM	
TUC IP	00 44 48.0
EL	50 39.0
ALQ IP	00 44 52.0
E(S)	51 03.0
BCN E(P)	00 45 25.7
ELG	53 29.0
GCA EP	00 45 31.8
FUR IP	00 46 08.9
BOZ EP	00 46 39.9
ALQ E(P)	00 56 34.0
JAN 11	
UKI EP	00 59 57.0
IS	01 03.0
JAN 11	
COL EP	01 32 23.0
JAN 11	
BOZ EP	01 46 56.8
I	47 24.0
BUT EP	01 47 10.1

Date and Station	Phase (GCT)
	h m s
JAN 11	
TUC E(P)	05 32 36.0
JAN 11	
COL EP	06 27 16.0
JAN 11	
H-06 39 55.4	
15.1S 172.9W	
h ABOUT 033KM	
ALQ E(P)	06 52 11.0
COL IP	06 52 13.5
BOZ EP	06 52 14.9
FPP	52 25.0
JAN 11	
GUA EP	07 51 29.4
ES	51 41.1
JAN 11	
COL EP	08 19 28.0
JAN 11	
H-09 24 15.6	
14.1S 169.6E	
h ABOUT 033KM	
COL EP	09 36 48.0
JAN 11	
TUC EP	10 18 52.0
E	19 32.0
JAN 11	
COL EP	10 26 07.0
JAN 11	
H-10 23 10.9	
11.4S 090.9E	
h ABOUT 033KM	
FUR EP'	10 42 41.4
BCN EP'	10 42 58.0
E	43 20.7
TUC EP'	10 43 03.0
ALQ EP'	10 43 05.0
JAN 11	
GCA E(P)	12 43 01.6
JAN 11	
H-14 09 16.6	
32.3N 142.0E	
h ABOUT 109KM	
COL EP	14 18 23.0
HHM EP	14 20 48.5
EUR EP	14 21 09.5
JAN 11	
GCA EP	15 32 18.5
IS	32 37.5
EUR EP	15 32 39.7

Date and Station	Phase (GCT)
	h m s
JAN 11	
BOZ E(P)	16 28 45.0
JAN 11	
ALQ EP	17 22 09.0
JAN 11	
TUC EP	17 59 17.5
JAN 11	
BOZ EP	19 10 18.0
ES	10 26.0
JAN 11	
H-21 23 54.2	
40.4S 072.6W	
h ABOUT 033KM	
TUC E(P)	21 35 55.0
ALQ EP	21 36 06.0
FUR EP	21 36 51.6
JAN 11	
H-22 02 02.8	
08.6S 123.4E	
h ABOUT 070KM	
EUR EP'	22 20 45.6
FGU IP'	22 20 54.0
ALQ EP'	22 21 03.0
ESKP	24 07.0
JAN 11	
SLC EP	22 04 26.8
TUC EP	22 04 53.5
JAN 11	
COL EP	22 37 29.0
JAN 11	
SLC EP	23 02 27.3
FGU IP	23 03 00.2
EUR EP	23 03 16.9
JAN 11	
GUA EP	23 11 20.4
JAN 11	
SLC E(P)	23 06 05.3
ES	06 36.3
JAN 12	
GCA EP	01 19 47.8
JAN 12	
GUA E(P)	02 36 56.1
JAN 12	
GCA EP	03 10 55.3
JAN 12	
FUR EP	03 12 08.8
JAN 12	
H-06 00 13.2	
53.2N 166.3W	
h ABOUT 033KM	

Date and Station	Phase (GCT)
	h m s
COL EP	06 03 41.0
SIT EP	06 04 23.3
KIP IP	06 06 41.2
HON EP	06 06 43.0
UKI EP	06 06 44.0
EL	18 20.0
HHM IP	06 06 45.0
EPP	07 44.5
BUT E(P)	06 07 02.0
BOZ IP	06 07 09.0
I	07 29.0
ES	12 25.0
FUR IP	06 07 19.2
SLC F(P)	06 07 27.3
I	07 32.3
FGU IP	06 07 43.3
BCN IP C	06 07 44.1
ESCP	13 24.3
GCA IP	06 07 53.7
TUC FP	06 08 23.0
ESCP	13 53.0
ALQ FP	06 08 26.0
IPP	10 08.0
CSC IP	06 10 22.0
SJP IP	06 12 28.0
FS	22 37.0
JAN 12	
BHP EP	06 22 30.0
JAN 12	
H-06 40 34.1	
3.5N 082.9W	
h ABOUT 033KM	
BHP IP D	06 42 07.0
I	42 37.0
SJP EP	06 45 29.6
ALQ IP	06 47 53.0
FUR E(P)	06 49 07.1
JAN 12	
EUR EP	07 49 14.7
JAN 12	
COL EP	08 00 40.0
JAN 12	
H-08 37 48.8	
44.1N 149.5E	
h ABOUT 040KM	
COL IP	08 45 19.5

Date and Station	Phase (GCT)
	h m s
EUR EP	08 48 38.0
IPP	48 49.5
JAN 12	
COL IP	09 03 20.6
JAN 12	
H-11 06 03.0	
38.8N 118.0W	
h ABOUT 015KM	
EUR EP	11 06 33.4
IS	06 58.4
BCN E(P)	11 07 01.1
EL	08 12.1
JAN 12	
H-11 13 19.6	
5.4S 146.8E	
h ABOUT 229KM	
GUA IP	11 17 24.8
HON EP	11 23 07.0
KIP EP	11 23 07.0
COL IP	11 25 27.8
EUR IP	11 26 36.7
IPP	30 38.5
HHM EP	11 26 40.5
BCN EP	11 26 41.1
BOZ EP	11 26 48.0
FGU IP	11 26 58.9
SJP IP'	11 32 32.0
JAN 12	
EUR E(P)	12 07 37.9
JAN 12	
BOZ EP	12 24 27.0
ES	24 57.0
JAN 12	
H-12 36 18.7	
56.0S 027.6W	
h ABOUT 033KM	
HHM EP'	12 55 17.5
COL IP'	12 56 05.6
JAN 12	
H-12 45 51.1	
31.5N 049.4E	
h ABOUT 067KM	
COL EP	12 58 11.5
JAN 12	
BOZ EP	13 03 46.0
EUR IP	13 05 13.1
FGU IP	13 05 20.4
ALQ EP	13 05 42.0

Date and Station	Phase (GCT)
	h m s
JAN 12	
H-14 21 51.5	
10.9S 074.6W	
h ABOUT 094KM	
ALQ EP	14 31 13.0
TUC E(P)	14 31 16.0
FGU IP	14 31 56.6
EUR EP	14 32 09.5
JAN 12	
H-14 28 20.0	
04.4S 137.3E	
h ABOUT 022KM	
COL IP	14 41 07.6
JAN 12	
BOZ EP	14 33 59.0
JAN 12	
ALQ E(P)	14 57 48.0
JAN 12	
ALQ F(P)	16 56 22.0
JAN 12	
COL EP	19 01 44.0
JAN 12	
FGU IP	21 00 20.0
JAN 12	
SLC E(P)	21 40 56.3
EUR EP	21 41 43.1
JAN 12	
FUR IP	22 19 07.8
JAN 12	
BOZ EP	22 53 58.0
ES	54 27.0
FGU IP	22 54 07.0
ES	54 42.5
JAN 12	
H-23 33 40.9	
19.3S 069.3W	
h ABOUT 204KM	
EUR E(P)	23 44 50.1
F	45 01.6
JAN 12	
EUR IP	23 37 16.4
JAN 12	
COL EP	23 46 30.0
JAN 13	
COL IP	00 49 33.9
JAN 13	
H-04 00 48.3	
28.9S 066.2W	
h ABOUT 033KM	
TUC E(P)	04 12 23.0

Date and Station	Phase (GCT)
	h m s
ALQ EP	04 12 23.0
BCN EP	04 12 53.1
EPCP	13 00.7
FGU FP	04 12 58.1
EUR IP	04 13 08.5
JAN 13	
GUA E(P)	04 22 45.0
JAN 13	
BUT E(P)	04 24 56.0
E(S)	25 11.0
JAN 13	
COL EP	08 42 34.0
JAN 13	
RCD EP	09 12 57.0
JAN 13	
EUR EP	10 38 49.3
JAN 13	
RCD F(P)	12 06 50.0
JAN 13	
H-13 25 01.9	
46.6N 152.1E	
h ABOUT 020KM	
COL EP	13 32 10.1
BOZ EP	13 35 26.0
E	35 39.0
EUR EP	13 35 35.6
BCN FP	13 35 55.5
TUC EP	13 36 24.5
ALQ EP	13 36 29.0
JAN 13	
H-13 32 59.2	
19.8S 175.6W	
h ABOUT 190KM	
COL EP	13 45 23.1
JAN 13	
EUR IP	13 49 02.2
JAN 13	
COL EP	16 46 36.0
JAN 13	
H-17 23 30.1	
02.3N 102.0W	
h ABOUT 033KM	
TUC E(P)	17 29 46.0
ALQ E(P)	17 30 02.0
GCA E(P)	17 30 26.9
FGU EP	17 30 55.6
EUR IP	17 30 57.0

Date and Station	Phase	(GCT)
		h m s
COL	EP	17 34 44.0
JAN 13		
SLC	EP	18 30 38.7
FGU	EP	18 31 11.1
JAN 13		
H-18 49 09.8		
11.6S 166.2E		
h ABOUT 059KM		
COL	IP	19 01 31.4
BCN	EP	19 01 55.4
	E▸P	02 09.3
	E	02 20.7
EUR	IP	19 01 55.5
	E▸P	02 08.0
TUC	E(P)	19 02 07.0
SLC	E(P)	19 02 11.2
BOZ	EP	19 02 18.0
	E	02 27.0
FGU	E(P)	19 02 26.2
JAN 13		
RHP	IP	18 52 32.0
	IS	53 03.0
JAN 13		
TUC	E(P)	19 12 48.0
JAN 13		
TUC	E(P)	19 24 26.0
JAN 13		
COL	IP	20 30 01.5
JAN 13		
EUR	EP	21 34 46.7
JAN 13		
ALQ	EP	22 10 27.0
GCA	E(P)	22 10 30.0
JAN 13		
EUR	IP	22 20 22.9
BCN	E(P)	22 21 00.0
	EL	21 43.5
JAN 13		
EUR	IP	22 31 39.2
JAN 13		
ALQ	E(P)	22 41 22.0
GCA	EP	22 41 30.2
	ES	41 05.0
JAN 13		
TUC	EP	22 52 38.0
JAN 13		
EUR	EP	23 13 27.7

Date and Station	Phase	(GCT)
		h m s
JAN 14		
H-01 11 12.6		
52.9N 159.6E		
h ABOUT 050KM		
COL	IP	01 17 06.5
EUR	IP	01 20 53.4
	I▸P	21 04.6
SLC	E(P)	01 21 02.7
FGU	E(P)	01 21 11.3
GCA	E(P)	01 21 12.5
	E▸P	21 22.8
BCN	EP	01 21 15.9
	E▸P	21 25.6
	E▸P	21 42.0
RCD	IP	01 21 19.0
	I▸P	21 30.5
TUC	E(P)	01 21 48.0
ALQ	E(P)	01 21 50.0
JAN 14		
RCD	E(P)	02 27 53.0
JAN 14		
TUC	E(P)	04 04 12.0
JAN 14		
H-04 17 50.5		
28.8S 176.2W		
h ABOUT 089KM		
BCN	E(P)	04 30 28.7
TUC	E(P)	04 30 30.0
EUR	EP	04 30 34.4
GCA	E(P)	04 30 42.5
COL	EP	04 31 08.0
JAN 14		
BOZ	EP	05 05 12.0
	ES	05 26.0
JAN 14		
COL	IP	05 39 02.0
JAN 14		
H-08 53 09.9		
47.9N 145.6E		
h ABOUT 565KM		
COL	IP	08 59 42.8
BOZ	EP	09 02 53.5
	E	03 46.0
EUR	IP	09 03 08.7
BCN	EP	09 03 27.8
JAN 14		
H-10 10 44.7		
15.9S 173.0W		
h ABOUT 033KM		

Date and Station	Phase	(GCT)
		h m s
TUC	E(P)	10 22 34.0
ALQ	E(P)	10 22 59.0
COL	I(P)	10 23 08.0
JAN 14		
COL	EP	10 12 31.0
JAN 14		
H-10 20 10.3		
28.1S 178.1W		
h ABOUT 195KM		
TUC	EP	10 32 40.0
EUR	EP	10 32 43.4
COL	EP	10 33 14.0
JAN 14		
RCD	E(P)	10 45 41.0
JAN 14		
HON	EP	11 23 07.0
COL	EP	11 24 11.0
JAN 14		
H-15 06 35.3		
13.6N 120.5E		
h ABOUT 044KM		
COL	IP	15 18 33.8
JAN 14		
H-15 38 13.8		
05.2S 150.8E		
h ABOUT 169KM		
GUA	IP	15 42 31.9
KIP	EP	15 47 42.0
COL	IP	15 50 19.7
EUR	IP	15 51 23.2
	I▸P	52 05.6
	EPP	55 29.0
	EPKKP	16 08 15.5
HHM	E(P)	15 51 27.0
BCN	EP	15 51 27.5
	E▸P	52 12.1
BOZ	EP	15 51 36.0
	E▸P	52 20.0
TUC	E(P)	15 51 43.0
FGU	EP	15 51 45.0
SJP	EP'	15 57 23.0
	E▸P'	58 12.0
JAN 14		
TUC	E(P)	16 11 26.0
JAN 14		
EUR	IP	17 49 57.3

Date and Station	Phase	(GCT)
		h m s
JAN 14		
SLC	EP	18 53 07.0
	IS	53 32.7
FGU	EP	18 53 39.0
JAN 14		
BOZ	IP	19 37 25.0
	IL	37 33.0
BZM	E(P)	19 37 27.0
BUT	IP	19 37 36.5
	IL	37 54.0
HHM	E(P)	19 38 21.0
	ES	39 12.0
JAN 14		
COL	EP	19 43 30.0
JAN 14		
COL	IP	19 57 18.5
JAN 14		
FGU	EP	21 19 45.6
	IS	20 05.8
JAN 14		
BOZ	EP	21 52 55.5
JAN 14		
ALQ	E(P)	22 02 20.0
GCA	E(P)	22 02 24.9
FGU	EP	22 03 31.8
	IS	03 52.6
JAN 14		
COL	IP	22 33 50.9
JAN 14		
GCA	EP	23 22 21.4
EUR	EP	23 22 42.6
JAN 14		
EUR	EP	23 37 40.5
JAN 14		
GUA	E(P)	23 59 08.5
JAN 15		
H-01 00 02.9		
39.0N 118.0W		
h ABOUT 015KM		
EUR	IP	01 00 30.3
JAN 15		
BOZ	EP	01 20 39.0
SLC	E(P)	01 21 22.7
JAN 15		
COL	IP	01 31 05.3
JAN 15		
H-02 23 47.4		
45.3N 150.6E		
h ABOUT 045KM		
HHM	EP	02 33 58.0

Date and Station	Phase (GCT)
	h m s
BOZ IP	02 34 18.0
EUR IP	02 34 28.1
SLC EP	02 34 38.7
FGU EP	02 34 46.4
BCN EP	02 34 46.7
E	35 10.7
GCA EP	02 34 54.6
TUC EP	02 35 16.0
E	35 27.0
ALQ EP	02 35 20.0
JAN 15	
EUR EP	04 20 23.4
JAN 15	
GUA E(P)	04 36 15.5
JAN 15	
COL IP	05 54 02.7
JAN 15	
H-07 37 22.2	
7.6S 108.6W	
h ABOUT 033KM	
ALQ E(P)	07 45 15.0
JAN 15	
H-08 10 57.2	
21.3N 143.4E	
h ABOUT 025KM	
COL EP	08 21 17.0
E(PCP)	25 38.0
EUR EP	08 23 30.2
FGU EP	08 23 49.2
JAN 15	
H-08 25 32.1	
7.1S 154.8E	
h ABOUT 055KM	
COL EP	08 37 54.7
EUR EP	08 38 43.0
JAN 15	
COL IP	09 44 31.1
JAN 15	
EUR EP	09 45 24.9
JAN 15	
FGU E(P)	11 00 46.6
ES	01 22.5
JAN 15	
FGU IP	13 48 03.0
ES	48 32.8
JAN 15	
SIT IP D	13 52 27.4
IS	52 51.0
COL EP	13 54 04.0

Date and Station	Phase (GCT)
	h m s
JAN 15	
COL EP	17 28 31.0
JAN 15	
H-17 40 01.4	
25.2N 095.5E	
h ABOUT 078KM	
COL EP	17 51 52.0
JAN 15	
FGU E(P)	17 47 02.7
JAN 15	
EUR IP	18 17 55.0
JAN 15	
BOZ EP	18 45 28.0
JAN 15	
H-18 46 32.9	
28.4S 178.4W	
h ABOUT 211KM	
GUA EP	18 55 42.8
TUC EP	18 59 02.0
FUR EP	18 59 06.1
COL IP	18 59 36.4
JAN 15	
BCN EP	18 59 43.3
TUC EP	18 59 56.0
EUR IP	18 59 58.6
GCA EP	19 00 05.4
ALQ EP	19 00 14.0
FGU EP	19 00 21.9
COL EP	19 00 31.0
JAN 15	
COL EP	19 11 25.0
JAN 15	
COL IP	19 27 04.3
JAN 15	
ALQ IP	20 01 54.0
E	02 33.0
JAN 15	
COL EP	20 16 23.0
JAN 15	
GCA E(P)	20 21 05.8
E(S)	21 25.3
JAN 15	
TUC E(P)	20 37 06.0
ALQ EP	20 37 18.0
JAN 15	
ALQ EP	20 39 41.0

Date and Station	Phase (GCT)
	h m s
JAN 15	
FGU EP	21 02 34.8
IS	02 55.4
JAN 15	
H-21 26 43.2	
23.7N 045.0W	
h ABOUT 033KM	
SJP EP	21 31 18.8
ALQ EP	21 36 06.0
FGU IP	21 36 20.0
TUC EP	21 36 35.0
E▸P	36 46.0
GCA E(P)	21 36 36.3
BCN EP	21 36 54.6
E▸P	37 04.6
E▪P	37 12.1
FUR EP	21 36 56.1
COL IP	21 38 16.7
JAN 15	
BOZ IP	21 33 13.0
JAN 15	
H-21 36 05.0	
29.1N 140.8E	
h ABOUT 070KM	
GUA IP	21 39 45.2
ES	42 40.0
EL	43 40.0
HON EP	21 45 35.0
KIP IP	21 45 35.2
COL IP C	21 45 38.7
UKI EP	21 47 50.5
I▸P	48 08.5
HHM IP	21 47 58.3
BUT IP	21 48 09.0
EUR IP C	21 48 15.9
I▸P	48 33.9
EPP	51 21.0
SLC IP	21 48 26.3
I▸P	48 44.4
FGU IP	21 48 34.0
GCA IP	21 48 37.3
BCN IP C	21 48 39.2
E▸P	48 58.6
EPP	51 48.0
TUC IP	21 48 52.5
E	49 35.0
E(S)	59 28.0
ALQ IP	21 48 59.5
I▸P	49 17.0

Date and Station	Phase (GCT)
	h m s
CSC EP'	21 54 26.0
SJP IP'D	21 55 01.5
BHP IP'	21 55 02.0
JAN 15	
FGU E(P)	22 01 53.5
JAN 15	
COL EP	22 14 52.0
JAN 15	
EUR IP	22 21 40.1
JAN 15	
SLC EP	22 42 13.2
ES	42 39.7
JAN 15	
H-22 43 14.3	
14.6S 166.8E	
h ABOUT 055KM	
COL IP	22 55 52.3
JAN 15	
BUT IP	22 48 57.0
JAN 15	
BOZ E(P)	22 53 02.0
JAN 15	
COL EP	23 00 48.0
JAN 15	
SLC EP	23 02 04.7
IS	02 33.2
FGU E(P)	23 02 35.5
HHM E(P)	23 02 46.0
E	08 47.0
JAN 15	
H-23 05 02.0	
17.4S 179.7E	
h ABOUT 599KM	
EUR IP	23 16 24.7
TUC EP	23 16 27.0
COL EP	23 16 37.0
ALQ EP	23 16 47.0
JAN 15	
H-23 06 36.2	
45.9N 120.0W	
h ABOUT 033KM	
BUT E(P)	23 08 01.0
E(S)	09 16.0
BOZ EP	23 08 02.0
EUR E(P)	23 08 21.5
JAN 15	
SLC EP	23 11 00.7
IS	11 26.7

Date and Station	Phase	Phase (GCT) h m s
JAN 15		
TUC	E(P)	23 46 49.0
JAN 16		
SJP	EP	00 40 25.0
	ES	40 46.0
JAN 16		
COL	EP	01 08 16.0
JAN 16		
COL	EP	03 05 31.0
JAN 16		
CSC	E(P)	05 13 46.0
JAN 16		
ALQ	EP	05 16 54.0
JAN 16		
EUR	EP	05 49 38.8
JAN 16		
GUA	E(P)	06 24 54.9
JAN 16		
BOZ	IP	06 33 11.0
	IS	33 18.0
BUT	I(P)	06 33 22.0
	E(S)	33 38.0
HHM	E(P)	06 34 06.6
	ES	34 54.0
EUR	E(P)	06 34 52.6
	FL	36 20.6
JAN 16		
TUC	E(P)	06 56 00.0
JAN 16		
COL	EP	07 20 40.0
JAN 16		
COL	EP	09 06 15.0
JAN 16		
TUC	E(P)	09 09 42.0
JAN 16		
COL	EP	10 28 44.0
JAN 16		
H-10 50 35.7		
50.5N 154.0E		
h ABOUT 203KM		
COL	IP	10 56 52.0
EUR	IP	11 00 28.8
FGU	EP	11 00 46.2
TUC	E(P)	11 01 20.0
ALQ	EP	11 01 24.0
JAN 16		
H-11 44 41.8		
21.5S 179.1W		
h ABOUT 609KM		
COL	EP	11 56 36.1
JAN 16		
COL	EP	12 14 13.0
JAN 16		
COL	EP	13 47 06.0
JAN 16		
H-14 37 37.3		
30.4S 069.5W		
h ABOUT 033KM		
ALQ	EP	14 49 14.0
FGU	EP	14 49 45.7
EUR	E(P)	14 49 56.4
JAN 16		
H-16 00 00.1		
37.1N 116.0W		
h ABOUT 000KM		
BCN	IP	16 00 28.2
EUR	IP	16 00 40.4
GCA	IP	16 00 57.5
SLC	IP	16 01 17.5
	I	01 33.2
	IL	02 47.7
TUC	EP	16 01 34.0
	I	01 37.0
	E	02 01.0
FGU	IP	16 01 39.5
UKI	E(P)	16 01 47.2
ALQ	IP	16 02 00.0
	I	02 29.0
	I	03 02.0
BOZ	E(P)	16 02 07.0
	E	02 17.0
BUT	IP	16 02 19.0
	EL	04 51.0
HHM	EP	16 02 45.9
	IL	05 56.0
RCD	IP	16 02 55.0
COL	IP	16 06 42.6
JAN 16		
GUA	E(P)	16 07 02.2
JAN 16		
BCN	E(P)	16 18 28.4
	EL	18 51.0
EUR	IP	16 18 40.9
JAN 16		
BCN	E(P)	16 36 18.5
	EL	36 31.5
JAN 16		
BCN	E(P)	16 59 25.0
	EL	59 48.0
JAN 16		
H-17 10 41.1		
52.5N 162.9E		
h ABOUT 033KM		
COL	IP	17 16 25.3
H-17 53 39.7		
55.3N 160.1E		
h ABOUT 033KM		
COL	IP	17 59 19.3
JAN 16		
BCN	E(P)	18 08 33.0
	E	08 53.5
JAN 16		
H-18 08 40.2		
37.1N 116.0W		
h ABOUT 000KM		
BCN	IP	18 09 07.0
EUR	IP	18 09 18.4
GCA	EP	18 09 36.7
	I	09 44.7
SLC	EP	18 09 58.7
	I	10 13.6
	IL	11 19.7
FGU	EP	18 10 19.5
TUC	E(P)	18 10 20.0
	EL	12 04.0
ALQ	E(P)	18 10 54.0
	E	11 10.0
BOZ	E(P)	18 10 53.0
JAN 16		
FGU	EP	18 43 30.5
JAN 16		
SLC	EP	18 50 15.2
JAN 16		
ALQ	E(P)	20 30 47.0
	E	31 28.0
JAN 16		
ALQ	IP	20 51 26.5
	EL	51 57.5
GCA	EP	20 51 32.9
	ES	52 06.9
TUC	EP	20 51 52.9
	IL	52 42.0
JAN 16		
H-20 56 56.4		
17.6N 061.8W		
h ABOUT 045KM		
SJP	IP	20 58 00.5
ALQ	EP	21 04 58.0
TUC	E(P)	21 05 23.0
	EPP	05 31.0
SLC	E(P)	21 05 39.7
EUR	EP	21 06 03.7
COL	EP	21 08 21.0
JAN 16		
EUR	IP	22 26 13.2
JAN 16		
FGU	IP	22 42 46.3
JAN 16		
ALQ	EP	22 45 49.0
JAN 16		
FGU	IP	23 00 52.1
	ES	01 15.1
JAN 16		
H-23 10 34.4		
37.3N 134.8E		
h ABOUT 380KM		
EUR	I(P)	23 22 04.2
JAN 16		
EUR	IP	23 28 29.6
JAN 17		
H-00 15 06.5		
38.2N 112.7W		
h ABOUT 033KM		
GCA	IP	00 15 29.0
	IS	15 50.7
BCN	EP	00 15 49.2
EUR	EP	00 15 49.7
	I	15 56.7
	IS	16 28.7
FGU	EP	00 16 02.9
TUC	E(P)	00 16 50.0
JAN 17		
H-00 15 37.6		
38.2N 112.7W		
h ABOUT 033KM		
GCA	I(P)	00 16 01.9
	ES	16 22.6
BCN	I(P)	00 16 21.0
	ES	16 59.2
EUR	I(P)	00 16 21.7
	EL	17 12.2
FGU	EP	00 16 34.9
	ES	17 16.5
ALQ	E(P)	00 16 54.0
	EL	17 25.0
JAN 17		
H-00 24 40.8		
17.5N 099.8W		
h ABOUT 033KM		
TUC	E(P)	00 28 45.0

Date and Station	Phase (GCT)
	h m s
ALQ EP	00 28 55.0
BCN EP	00 29 42.4
EUR EP	00 30 13.5
COL EP	00 34 25.0
JAN 17	
BHP IP	00 57 40.0
IS	58 22.0
JAN 17	
COL EP	01 54 21.0
JAN 17	
H-02 54 22.6	
45.4N 151.3E	
h ABOUT 055KM	
COL IP C	03 01 36.7
HHM EP	03 04 30.0
BOZ EP	03 04 49.0
EUR IP	03 04 59.0
BCN EP	03 05 17.5
FGU E(P)	03 05 18.2
RCD E(P)	03 05 27.0
TUC E(P)	03 05 46.0
E>P	06 00.0
ALQ EP	03 05 53.0
JAN 17	
H-02 54 26.8	
21.6S 169.9E	
h ABOUT 033KM	
HON E(P)	03 03 48.0
ES	11 34.0
BCN EP	03 07 31.0
F	07 50.5
COL EP	03 07 33.0
EUR E(P)	03 07 35.8
JAN 17	
H-03 13 56.3	
12.3S 167.1E	
h ABOUT 230KM	
COL IP	03 26 01.7
EUR IP	03 26 20.8
TUC E(P)	03 26 32.0
JAN 17	
H-03 25 00.6	
36.8N 071.4E	
h ABOUT 094KM	
COL IP	03 36 27.5
JAN 17	
ALQ EP	03 49 07.0

Date and Station	Phase (GCT)
	h m s
JAN 17	
BOZ E(P)	05 46 55.5
EUR E(P)	05 47 12.7
JAN 17	
RCD E(P)	05 48 36.0
JAN 17	
H-06 02 19.8	
40.3N 124.6W	
h ABOUT 033KM	
UKI IP	06 02 47.1
EUR IP	06 03 57.9
EL	05 35.9
JAN 17	
COL EP	06 27 52.0
JAN 17	
TUC E(P)	07 07 12.0
JAN 17	
H-07 08 27.9	
31.1N 114.2W	
h ABOUT 014KM	
TUC EP	07 09 19.0
BCN E(P)	07 09 44.1
I	09 51.6
E	10 11.6
GCA EP	07 10 04.4
ALQ E(P)	07 10 27.0
I	11 02.0
EUR E(P)	07 10 32.8
SLC E(P)	07 11 01.6
FGU E(P)	07 11 07.6
JAN 17	
TUC E(P)	07 16 26.0
JAN 17	
RCD EP	07 25 35.0
JAN 17	
SJP EP	08 20 48.5
ES	21 05.0
JAN 17	
TUC E(P)	09 01 10.0
JAN 17	
GUA EP	09 12 16.5
JAN 17	
TUC E(P)	09 26 15.0
JAN 17	
H-09 32 51.6	
11.4S 162.4E	
h ABOUT 033KM	
COL EP	09 45 20.0
EUR IP	09 45 52.9

Date and Station	Phase (GCT)
	h m s
JAN 17	
COL EP	09 34 21.0
JAN 17	
H-12 14 15.8	
24.3S 177.0W	
h ABOUT 051KM	
TUC EP	12 26 46.0
JAN 17	
COL EP	13 09 20.0
JAN 17	
BHP IP D	14 23 25.0
IS	24 15.0
JAN 17	
ALQ E(P)	14 29 30.0
JAN 17	
SLC E(P)	15 42 16.5
JAN 17	
ALQ E(P)	16 06 05.0
JAN 17	
SLC E(P)	17 25 41.4
JAN 17	
COL EP	18 00 39.0
JAN 17	
GCA EP	19 13 25.2
JAN 17	
ALQ EP	19 42 03.0
JAN 17	
ALQ E(P)	19 55 24.0
JAN 17	
H-20 15 17.2	
39.1N 114.2W	
h ABOUT 033KM	
EUR IP	20 15 42.3
BCN E(P)	20 16 05.2
EL	16 55.3
GCA E(P)	20 16 11.1
JAN 17	
EUR IP	20 55 11.5
JAN 17	
COL IP	21 45 28.8
JAN 17	
ALQ EP	22 01 19.0
GCA EP	22 01 24.3
ES	01 57.2
FGU E(P)	22 01 47.2
ES	02 26.7
SLC EP	22 01 56.3
ES	02 21.3

Date and Station	Phase (GCT)
	h m s
JAN 17	
H-22 18 12.9	
16.6N 098.7W	
h ABOUT 033KM	
TUC EP	22 22 36.0
FGU EP	22 23 45.0
JAN 17	
TUC E(P)	22 52 48.0
JAN 17	
FGU EP	22 57 45.5
ES	58 08.0
JAN 17	
FGU EP	23 06 38.8
JAN 17	
SLC EP	23 08 16.3
FGU EP	23 08 46.5
JAN 18	
SLC E(P)	00 11 28.3
JAN 18	
COL EP	00 55 10.0
JAN 18	
BOZ EP	06 56 28.0
ES	57 06.0
EUR EP	06 58 10.8
JAN 18	
H-07 10 21.9	
32.5S 103.7W	
h ABOUT 033KM	
TUC E(P)	07 21 04.0
EUR IP	07 21 50.7
JAN 18	
EUR IP	08 51 06.6
JAN 18	
COL EP	08 54 31.0
JAN 18	
GUA EP	10 56 35.8
JAN 18	
COL IP	11 06 55.2
JAN 18	
H-12 04 40.0	
23.1N 120.5E	
h ABOUT 033KM	
GUA EP	12 10 02.5
ES	14 09.0
ET	35 00.0
COL EP D	12 15 49.0
HON EP	12 16 17.0
IS	25 59.0
KIP IP	12 16 17.8
SIT EP	12 16 41.2

Date and Station	Phase (GCT)
	h m s
HHM EP	12 17 54.8
E(SKS)	28 07.6
BUT EP	12 18 06.0
BOZ EP	12 18 09.9
EPP	21 54.0
EPKKP	34 57.0
EUR IP C	12 18 17.6
IPP	22 13.1
EPKKP	35 20.2
FGU EP	12 18 31.0
BCN E(P)	12 18 37.2
EPP	22 27.2
RCD I(P)	12 18 39.0
GCA E(P)	12 18 40.8
TUC E(P)	12 19 00.0
EPP	23 10.0
EPKKP	34 27.0
ALQ E(P)	12 19 02.0
EPKKP	34 22.0
SJP EP'	12 24 08.5
ESKP	27 44.0
BHP EP'	12 24 11.0
JAN 18	
WAS E(P)	12 11 42.0
JAN 18	
H-12 32 36.3	
23.5N 122.9E	
h ABOUT 033KM	
GUA EP	12 37 39.6
COL EP	12 43 37.5
HHM EP	12 45 45.6
JAN 18	
COL EP	12 57 12.0
JAN 18	
COL EP	13 17 26.0
JAN 18	
H-13 43 05.6	
23.1N 120.8E	
h ABOUT 031KM	
COL EP	13 54 15.0
JAN 18	
GUA E(P)	13 45 06.5
JAN 18	
GUA E(P)	14 13 38.0
JAN 18	
H-14 40 54.6	
15.2N 094.2W	
h ABOUT 033KM	
ALQ IP	14 45 54.0

Date and Station	Phase (GCT)
	h m s
TUC E(P)	14 45 55.0
E	47 07.0
FGU IP	14 46 52.8
EUR EP	14 47 10.5
BOZ E(P)	14 47 35.0
COL EP	14 51 07.0
JAN 18	
H-14 45 39.4	
20.6N 122.1E	
h ABOUT 018KM	
COL IP	14 57 02.0
JAN 18	
GUA E(P)	15 14 10.0
JAN 18	
H-15 17 47.5	
13.5N 143.8E	
h ABOUT 033KM	
GUA IP	15 18 05.0
COL EP	15 28 49.0
EUR EP	15 30 42.3
JAN 18	
GUA EP	16 14 16.2
JAN 18	
COL EP	16 53 29.0
JAN 18	
TUC EP	17 59 00.0
JAN 18	
COL EP	18 39 56.0
JAN 18	
H-18 44 05.0	
25.1S 176.9W	
h ABOUT 033KM	
TUC E(P)	18 56 39.0
EUR EP	18 56 42.7
ALQ IP	18 57 01.0
BOZ EP	18 57 11.5
I(pP)	57 24.0
COL IP	18 57 13.8
JAN 18	
TUC E(P)	19 37 06.0
JAN 18	
COL IP	20 29 26.6
JAN 18	
H-21 57 14.4	
16.1N 089.3W	
h ABOUT 033KM	
ALQ IP	22 02 30.0
FGU EP	22 03 23.7

Date and Station	Phase (GCT)
	h m s
JAN 18	
ALQ E(P)	21 59 24.0
JAN 18	
BOZ E(P)	22 17 30.0
JAN 18	
TUC IP	22 28 26.5
JAN 18	
H-22 36 17.6	
18.8N 069.4W	
h ABOUT 095KM	
SJP IP D	22 37 05.5
IS	37 44.0
BHP IP D	22 39 31.0
CSC IP	22 40 27.0
IS	43 36.0
EPCP	44 44.0
WAS E(pP)	22 41 20.0
ALQ IP	22 43 16.0
IpP	43 39.5
RCD IP	22 43 27.0
EpP	43 51.0
TUC EP	22 43 41.0
FGU IP	22 43 49.9
GCA IP	22 43 55.2
SLC IP	22 44 04.5
IpP	44 27.9
BCN IP	22 44 13.7
EsP	44 47.2
IPCP	45 59.3
BOZ IP	22 44 17.0
IsP	44 51.0
BUT IP	22 44 24.0
EpP	44 48.0
EUR IP	22 44 26.2
EPCP	46 05.0
HHM IP	22 44 36.7
IpP	45 00.5
E(PP)	46 33.5
COL IP	22 47 08.5
JAN 18	
COL IP	22 43 07.4
JAN 18	
TUC IP	22 57 36.0
JAN 19	
BOZ IP	01 29 43.0
IS	29 55.0
BUT E(P)	01 29 58.0
I	30 18.0
HHM E(P)	01 30 41.5
E	31 23.5

Date and Station	Phase (GCT)
	h m s
JAN 19	
H-01 58 23.8	
18.5S 178.3W	
h ABOUT 600KM	
TUC E(P)	02 09 44.0
JAN 19	
H-02 27 06.6	
39.1S 072.4W	
h ABOUT 033KM	
TUC E(P)	02 39 17.0
FGU EP	02 39 48.4
EUR EP	02 39 55.8
JAN 19	
COL IP	02 55 33.6
JAN 19	
BHP IP	03 04 02.0
JAN 19	
COL EP	03 28 37.0
JAN 19	
GUA IP	05 11 31.5
JAN 19	
GUA IP	05 35 30.5
JAN 19	
H-06 49 55.9	
58.6S 025.1W	
h ABOUT 033KM	
TUC EP'	07 08 34.0
EUR EP'	07 08 51.2
FGU EP'	07 08 46.9
RCD E(P')	06 08 47.0
HHM EP'	07 09 01.3
COL EP'	07 09 50.0
JAN 19	
TUC E(P)	07 03 43.0
JAN 19	
RCD EP	07 51 21.0
JAN 19	
H-08 47 09.9	
21.8N 120.9E	
h ABOUT 018KM	
HHM EP	09 00 32.3
JAN 19	
RCD EP	08 49 09.0
JAN 19	
H-09 13 53.5	
26.9N 054.0E	
h ABOUT 033KM	
COL EP	09 26 37.0
TUC EP'	09 32 42.0

Date and Station	Phase (GCT)
	h m s
JAN 19	
H-09 34 11.1	
4.2S 152.8E	
h ABOUT 033KM	
COL EP	09 46 24.0
JAN 19	
COL EP	09 44 14.0
JAN 19	
COL EP	12 08 06.0
JAN 19	
COL IP	12 47 50.0
JAN 19	
TUC E(P)	12 53 49.0
JAN 19	
H-16 12 50.0	
23.0N 120.4E	
h ABOUT 033KM	
COL EP	16 24 00.0
JAN 19	
H-17 01 16.2	
45.2N 141.4E	
h ABOUT 136KM	
COL EP	17 08 57.0
EUR EP	17 12 19.2
JAN 19	
EUR IP	17 06 55.4
JAN 19	
H-17 10 46.1	
44.1N 145.0E	
h ABOUT 033KM	
COL EP	17 18 33.0
FGU E(P)	17 22 10.0
BCN IP	17 22 12.6
ALQ EP	17 22 44.0
JAN 19	
FGU EP	17 29 23.0
JAN 19	
FGU EP	18 08 41.0
JAN 19	
FGU IP	21 59 43.6
IS	22 00 17.1
GCA E(P)	22 00 17.1
E	01 12.1
JAN 19	
TUC EP	22 26 02.0
E	26 46.0
JAN 19	
COL IP	22 42 10.2

Date and Station	Phase (GCT)
	h m s
JAN 19	
H-23 05 38.1	
45.9N 149.9E	
h ABOUT 050KM	
COL IP	23 12 54.0
JAN 19	
H-23 23 05.4	
18.6S 177.8W	
h ABOUT 521KM	
TUC E(P)	23 34 32.0
COL I(P)	23 34 49.0
E>P	36 52.0
JAN 20	
H-00 15 48.4	
30.2S 177.8W	
h ABOUT 035KM	
TUC E(P)	00 28 41.0
EUR EP	00 28 45.4
JAN 20	
COL EP	00 29 05.0
JAN 20	
RCD E(P)	00 44 37.0
JAN 20	
TUC E(P)	01 38 00.0
JAN 20	
H-02 27 26.4	
20.7S 178.4W	
h ABOUT 600KM	
TUC E(P)	02 38 53.0
EUR EP	02 38 53.8
COL IP	02 39 14.9
JAN 20	
SIT EP	03 14 04.5
IS	14 30.0
COL EP	03 15 30.1
JAN 20	
RCD E(P)	04 01 12.0
JAN 20	
H-04 46 59.7	
08.2N 126.6E	
h ABOUT 110KM	
COL IP	04 59 01.1
JAN 20	
COL EP	04 55 14.0
JAN 20	
COL EP	06 05 24.0
JAN 20	
TUC E(P)	07 20 48.0
JAN 20	
GUA EP	07 32 14.0

Date and Station	Phase (GCT)
	h m s
JAN 20	
ALQ E(P)	08 02 20.0
JAN 20	
ALQ E(P)	08 12 42.0
JAN 20	
GCA E(P)	08 32 53.0
EUR EP	08 33 25.4
JAN 20	
BHP IP	08 36 57.0
IS	37 31.0
JAN 20	
SLC IP	10 10 20.0
ES	10 34.5
FGU IP	10 10 33.8
IS	11 00.6
EUR EP	10 11 02.2
JAN 20	
RCD E(P)	10 13 26.0
JAN 20	
COL EP	12 31 22.0
JAN 20	
BOZ EP	15 06 22.0
ES	07 54.0
JAN 20	
H-15 39 41.5	
23.2N 120.3E	
h ABOUT 049KM	
COL IP	15 50 48.5
JAN 20	
COL EP	16 27 14.0
JAN 20	
H-17 08 37.4	
20.7S 169.9E	
h ABOUT 141KM	
GUA E(P)	17 16 16.0
KIP EP	17 17 35.0
IS	24 55.0
HON EP	17 17 36.0
E(>P)	18 07.0
IS	24 55.0
I	26 00.0
ESS	28 28.0
E	30 35.0
EL	32 55.0
SIT EP	17 21 21.5
COL IP D	17 21 21.8
IPP	25 07.8
EPKKP	38 41.8
EP'P'	46 50.0
E	18 07 45.3
BCN IP D	17 21 26.8
I>P	22 06.8
EPP	24 59.3
(sPP)	25 39.3

Date and Station	Phase (GCT)
	h m s
EUR IP D	17 21 29.0
TUC IP D	17 21 33.5
E>P	22 11.0
E	32 32.0
EP'P'	46 57.0
GCA IP	17 21 39.5
SLC IP	17 21 44.5
BUT EP	17 21 49.6
HHM EP	17 21 51.5
EPKKP	38 34.6
EP'P'	46 46.6
FGU IP	17 21 52.4
IPKKP	38 36.1
BOZ IP	17 21 52.5
ALQ IP	17 21 53.0
I	22 00.0
E>P	22 30.0
WAS E(PP)	17 29 03.0
F	30 47.0
SJP EP'	17 27 24.4
EPP	29 28.0
JAN 20	
GUA E(P)	17 14 03.5
JAN 20	
BHP EP	17 16 20.0
JAN 20	
EUR IP	17 45 29.1
JAN 20	
COL EP	18 06 38.0
JAN 20	
SLC EP	18 30 25.9
IS	31 54.9
JAN 20	
COL IP	19 02 35.0
JAN 20	
ALQ EP	20 19 54.0
JAN 20	
COL IP	20 27 10.6
JAN 20	
FGU IP	20 28 47.9
JAN 20	
H-20 30 12.6	
16.8N 098.5W	
h ABOUT 033KM	
TUC EP	20 34 35.0
E(PP)	34 45.0
F	35 08.0
E(LG)	40 07.0
ALQ IP	20 34 39.5
GCA EP	20 35 19.9

Date and Station	Phase (GCT)
	h m s
FGU IP	20 35 43.3
EUR I(P)	20 35 45.7
COL IP	20 40 04.1
JAN 20	
H-20 38 16.5	
18.8N 120.7E	
h ABOUT 053KM	
COL IP	20 49 46.4
JAN 20	
BCN E(P)	20 43 11.2
JAN 20	
COL EP	20 58 37.0
JAN 20	
COL EP	21 09 46.0
JAN 20	
BOZ EP	21 10 58.5
JAN 20	
ALQ E(P)	21 40 43.0
E	41 12.0
JAN 20	
FGU IP	22 15 21.6
TUC E(P)	22 17 06.0
JAN 20	
COL IP	22 20 52.1
JAN 20	
TUC E(P)	22 57 49.0
JAN 20	
H-23 06 26.2	
30.0S 177.9W	
h ABOUT 044KM	
TUC IP	23 19 18.0
EsP	19 36.0
FUR EP	23 19 23.0
EpP	19 34.5
BCN E(P)	23 19 27.0
GCA EP	23 19 28.8
EUR E(P)	23 19 34.5
ALQ IP	23 19 38.0
IsP	19 56.0
JAN 21	
COL IP	01 36 28.2
JAN 21	
RCD E(P)	01 54 01.0
JAN 21	
GUA IP	02 08 36.3
IS	08 43.5
JAN 21	
GUA IP	02 43 55.0

Date and Station	Phase (GCT)
	h m s
JAN 21	
COL IP	03 30 24.1
JAN 21	
ALQ EP	04 00 23.0
JAN 21	
RCD E(P)	04 42 34.0
JAN 21	
COL IP	05 09 41.7
JAN 21	
COL EP	06 37 25.0
JAN 21	
ALQ E(P)	08 31 40.0
JAN 21	
SJP EP	10 36 08.8
COL EP	10 44 17.0
JAN 21	
RCD EP	11 15 04.5
JAN 21	
BHP IP	12 12 25.0
JAN 21	
COL EP	15 00 01.0
JAN 21	
H-15 43 49.8	
16.6N 086.4W	
h ABOUT 033KM	
ALQ E(P)	15 49 19.0
JAN 21	
H-16 14 25.6	
15.0N 060.8W	
h ABOUT 082KM	
SJP IP D	16 15 55.5
IS	17 03.0
COL EP	16 26 00.0
JAN 21	
RCD EP	17 48 25.0
JAN 21	
ALQ E(P)	17 49 04.0
I(S)	49 45.5
JAN 21	
COL IP	17 56 22.0
JAN 21	
HHM EP	18 11 00.0
E	11 27.0
JAN 21	
H-18 57 47.3	
41.4S 087.8W	
h ABOUT 033KM	
ALQ E(P)	19 09 46.0
BOZ EP	19 10 41.0
I	10 52.0

Date and Station	Phase (GCT)
	h m s
JAN 21	
H-21 02 20.0	
52.2N 172.4E	
h ABOUT 033KM	
COL IP	21 07 31.8
EUR IP	21 11 09.5
TUC F(P)	21 12 07.0
JAN 21	
FGU EP	22 12 56.4
ES	13 25.9
JAN 21	
H-22 18 13.0	
10.6N 125.3E	
h ABOUT 053KM	
COL EP	22 30 14.0
SJP EP'	22 37 59.0
JAN 21	
COL EP	22 26 22.0
JAN 21	
HHM E(P)	23 25 19.0
E	26 51.0
JAN 21	
H-23 31 42.4	
39.2N 114.2W	
h ABOUT 033KM	
EUR IP	23 32 06.2
GCA EP	23 32 28.6
I	32 34.3
BCN E(P)	23 32 31.6
EL	33 18.0
FGU EP	23 32 44.6
JAN 21	
TUC E(P)	23 33 49.0
ALQ E(P)	23 34 04.0
JAN 22	
EUR EP	00 06 08.1
JAN 22	
GCA EP	00 12 33.9
JAN 22	
H-02 15 29.1	
45.8S 075.2W	
h ABOUT 033KM	
ALQ E(P)	02 28 03.0
JAN 22	
TUC E(P)	02 18 33.0
JAN 22	
COL EP	03 02 17.0
JAN 22	
RCD EP	03 47 46.0

Date and Station	Phase (GCT)
	h m s
JAN 22	
ALQ E(P)	05 28 03.0
JAN 22	
FGU EP	05 32 43.6
JAN 22	
BOZ EP	05 45 48.0
ES	46 20.0
FGU EP	05 45 55.3
ES	46 30.2
JAN 22	
TUC E(P)	05 51 31.0
JAN 22	
COL EP	06 20 30.0
JAN 22	
COL EP	07 19 32.0
JAN 22	
COL EP	07 59 27.0
JAN 22	
COL FP	08 37 31.0
JAN 22	
H-09 12 03.4	
04.2S 136.2E	
h ABOUT 071KM	
COL EP	09 24 46.0
JAN 22	
COL EP	09 43 28.0
JAN 22	
COL EP	11 43 33.0
JAN 22	
FGU EP	12 25 12.2
JAN 22	
H-13 44 19.5	
47.7N 152.8F	
h ABOUT 033KM	
COL EP	13 51 18.0
JAN 22	
ALQ E(P)	14 11 02.0
BOZ E(P)	14 13 12.0
JAN 22	
BOZ F(P)	14 16 38.0
JAN 22	
TUC E(P)	14 22 25.0
JAN 22	
COL EP	14 43 04.0
JAN 22	
TUC E(P)	15 14 48.0
E	15 31.0
JAN 22	
COL FP	15 35 31.0

Date and Station	Phase (GCT)
	h m s
JAN 22	
H-15 58 46.5	
22.4N 093.6E	
h ABOUT 088KM	
COL IP D	16 10 54.3
HHM EP'	16 17 07.5
EUR EP'	16 17 16.4
BUT EP'	16 17 26.0
ALQ IP'	16 17 30.5
JAN 22	
COL EP	16 43 17.0
JAN 22	
FGU EP	16 52 42.0
JAN 22	
SLC E(P)	17 18 57.1
E	19 01.9
ES	19 38.9
FGU IP	17 19 01.1
I	19 37.0
I	20 29.0
BUT EP	17 19 41.1
I	20 07.1
EUR EP	17 19 50.2
HHM E(P)	17 20 12.0
E	20 19.0
E(S)	21 09.0
JAN 22	
H-17 58 16.3	
20.2N 147.1E	
h ABOUT 039KM	
GUA EP	17 59 56.0
E	18 00 07.0
ES	01 12.5
COL EP	18 08 29.0
HHM E(P)	18 10 28.5
E▸P	10 39.0
BOZ EP	18 10 41.0
I▸P	10 52.0
EUR IP	18 10 37.9
FGU IP	18 10 58.6
TUC E(P)	18 11 09.0
ALQ IP	18 11 21.0
JAN 22	
BOZ E(P)	17 16 27.0
E(S)	17 00.0
JAN 22	
BOZ EP	17 18 55.0
ES	19 26.0

Date and Station	Phase (GCT)
	h m s
JAN 22	
H-18 48 30.9	
07.6N 126.9E	
h ABOUT 144KM	
COL EP	19 00 31.0
JAN 22	
FGU EP	19 12 44.8
JAN 22	
BOZ EP	19 17 25.0
ES	17 55.0
JAN 22	
BOZ EP	19 22 42.0
ES	23 14.0
JAN 22	
COL EP	19 29 18.0
JAN 22	
BOZ EP	19 30 15.0
ES	30 44.0
JAN 22	
FGU EP	19 30 21.1
IS	30 58.5
JAN 22	
H-20 01 32.6	
20.0S 177.6W	
h ABOUT 220KM	
COL EP	20 13 55.0
E	15 49.0
JAN 22	
COL EP	20 23 26.0
JAN 22	
TUC E(P)	20 26 55.0
JAN 22	
COL IP	20 53 50.0
JAN 22	
SJP IP	21 09 56.4
EL	10 19.5
JAN 22	
H-21 10 58.8	
44.3N 114.8W	
h ABOUT 033KM	
BUT E(P)	21 11 28.1
I	11 30.1
E(S)	12 06.0
JAN 22	
BOZ EP	21 11 35.0
IS	12 09.0
HHM E(P)	21 12 02.0
I	12 11.0
IL	13 03.0
SLC E(P)	21 12 02.6
EL	12 59.1
EUR IP	21 12 13.0
FGU E(P)	21 12 24.1
IL	13 34.8

Date and Station	Phase (GCT)
	h m s
JAN 22	
H-21 28 25.7	
19.0N 073.1W	
h ABOUT 019KM	
SJP E(P)	21 30 05.3
E	30 22.0
ELG	31 55.5
JAN 22	
H-21 40 37.3	
50.5N 173.5W	
h ABOUT 033KM	
COL IP	21 45 06.4
HHM EP	21 47 52.0
BOZ EP	21 48 15.1
EUR EP	21 48 21.8
TUC E(P)	21 49 19.0
JAN 22	
H-22 19 44.1	
15.8S 175.1W	
h ABOUT 307KM	
COL IP	22 31 35.7
BOZ EP	22 31 40.0
JAN 22	
CSC E(P)	22 25 34.0
JAN 22	
BOZ IP	21 28 59.1
IS	29 05.0
JAN 22	
H-22 38 03.4	
27.1N 044.1W	
h ABOUT 033KM	
FGU EP	22 47 30.1
BOZ EP	22 47 38.0
JAN 22	
COL IP	22 59 56.7
JAN 22	
GCA EP	23 38 05.9
E(S)	38 22.9
JAN 22	
H-23 59 43.6	
13.7S 165.9E	
h ABOUT 033KM	
HON EP	00 08 32.0
EPP	10 31.0
ES	15 44.0
EL	19 28.0
SIT E(P)	00 12 19.5
COL IP D	00 12 19.6
EUR IP D	00 12 40.0
EPP	16 15.2
EPPP	18 01.2
EPKKP	30 40.4

Date and Station	Phase (GCT)
	h m s
BCN EP	00 12 42.2
TUC EP	00 12 48.0
E(PS)	24 47.0
EPKKP	30 28.0
SLC EP	00 12 56.8
HHM EP	00 12 57.0
BOZ EP	00 13 01.9
FGU EP	00 13 04.2
ALQ EP	00 13 08.0
JAN 23	
SJP EP	00 03 51.0
E	07 15.0
JAN 23	
FGU EP	00 11 18.2
JAN 23	
BUT E(P)	00 13 49.0
JAN 23	
COL EP	00 26 28.0
JAN 23	
COL IP	00 36 49.8
JAN 23	
WAS E(P)	01 00 59.5
E	01 45.0
JAN 23	
COL IP	01 39 14.0
JAN 23	
H-01 42 34.7	
18.5N 107.4W	
h ABOUT 033KM	
TUC EP	01 45 52.0
ALQ EP	01 46 27.0
BCN EP	01 46 52.7
FGU E(P)	01 47 30.7
EUR EP	01 47 31.9
JAN 23	
COL IP	02 26 36.1
JAN 23	
H-02 49 22.2	
17.7S 178.6W	
h ABOUT 520KM	
TUC E(P)	03 00 47.0
JAN 23	
H-03 04 49.7	
44.4N 114.5W	
h ABOUT 033KM	
BUT EP	03 05 24.0
HHM E(P)	03 06 02.0
E(S)	06 44.0

Date and Station	Phase (GCT)
	h m s
EUR IP	03 06 06.9
JAN 23	
GUA E(P)	03 31 49.0
JAN 23	
COL EP	03 47 23.0
JAN 23	
COL EP	04 31 04.0
JAN 23	
EUR EP	04 43 01.6
JAN 23	
COL EP	04 52 09.0
JAN 23	
H-05 17 26.1	
30.6N 137.3E	
h ABOUT 478KM	
GUA EP	05 21 10.5
COL EP	05 26 22.0
EUR EP	05 28 59.0
JAN 23	
FGU E(P)	05 48 14.6
ES	48 46.3
JAN 23	
FGU E(P)	05 54 14.8
ES	54 49.8
JAN 23	
FGU EP	07 13 20.8
ES	14 00.3
JAN 23	
COL IP	07 47 38.6
JAN 23	
GCA EP	08 51 44.7
JAN 23	
H-09 12 54.1	
53.6N 158.2E	
h ABOUT 033KM	
COL EP	09 18 48.1
JAN 23	
COL EP	09 42 21.0
JAN 23	
RCD E(P)	09 54 29.0
JAN 23	
H-10 03 21.5	
17.8N 147.0E	
h ABOUT 033KM	
COL EP	10 13 51.0
JAN 23	
ALQ E(P)	11 14 18.0
JAN 23	
H-11 38 51.9	
2.5S 080.1W	
h ABOUT 418KM	

Date and Station	Phase (GCT)
	h m s
ALQ IP	11 46 27.5
JAN 23	
ALQ E(P)	11 40 38.0
JAN 23	
BUT EP	12 06 47.0
ES	07 04.0
JAN 23	
H-13 43 46.7	
28.7N 139.4E	
h ABOUT 417KM	
COL IP	13 52 53.2
EUR EP	13 55 25.2
FGU EP	13 55 43.7
JAN 23	
RCD E(P)	13 46 19.0
JAN 23	
GUA EP	15 53 04.3
ES	53 18.0
JAN 23	
H-16 00 00.2	
37.1N 116.0W	
h ABOUT 000KM	
BCN IP C	16 00 28.2
EUR IP	16 00 40.7
GCA EP	16 00 58.3
I	01 05.3
SLC EP	16 01 18.0
I	01 39.0
EL	02 39.5
TUC EP	16 01 35.0
E	02 03.0
EL	03 27.0
FGU IP	16 01 40.0
I	02 00.0
ALQ EP	16 02 00.0
I	02 32.0
EL	04 12.0
JAN 23	
HHM E(P)	16 06 03.0
JAN 23	
BCN EP	16 17 44.6
JAN 23	
H-16 39 45.3	
37.0N 116.0W	
h ABOUT 000KM	
BCN EP	16 40 10.6
E(S)	40 33.7
EUR IP	16 40 23.1
GCA EP	16 40 43.5
SLC E(P)	16 41 17.0
E(S)	41 23.0

Date and Station	Phase (GCT)
	h m s
FGU E(P)	16 41 24.5
TUC E(P)	16 41 28.0
EL	43 15.0
JAN 23	
ALQ IP	16 42 14.5
JAN 23	
COL EP	17 06 09.0
JAN 23	
FGU EP	17 49 11.0
IS	49 44.7
JAN 23	
EUR EP	18 36 54.3
JAN 23	
COL EP	18 41 11.0
JAN 23	
COL IP	18 44 01.0
JAN 23	
FGU EP	19 28 27.0
JAN 23	
COL EP	20 12 12.0
JAN 23	
EUR EP	20 17 14.8
JAN 23	
COL IP	20 23 22.4
JAN 23	
EUR EP	20 25 25.1
JAN 23	
ALQ E(P)	20 36 22.0
JAN 23	
EUR IP	20 43 47.1
JAN 23	
ALQ E(P)	22 08 32.0
JAN 23	
TUC IP	22 50 52.5
JAN 24	
EUR EP	00 19 04.9
JAN 24	
SLC EP	00 22 47.0
JAN 24	
TUC EP	00 25 07.0
JAN 24	
CSC E(P)	01 14 30.0
JAN 24	
TUC E(P)	02 23 11.0
JAN 24	
H-02 40 00.1	
04.2S 154.2E	
h ABOUT 416KM	
COL IP	02 51 29.0
I▸P	53 00.0

Date and Station	Phase (GCT)
	h m s
EUR IP	02 52 27.7
I▸P	54 01.8
JAN 24	
EUR IP	02 50 56.8
JAN 24	
COL EP	03 14 58.0
JAN 24	
H-05 31 31.2	
64.4N 126.5W	
h ABOUT 033KM	
COL IP	05 33 44.0
HHM E(P)	05 35 27.0
BOZ EP	05 36 07.0
RCD EP	05 36 49.0
FGU E(P)	05 36 57.5
EUR EP	05 37 02.9
ALQ IP	05 37 56.0
JAN 24	
BUT E(P)	05 40 42.0
RCD E(P)	05 40 42.0
JAN 24	
H-06 42 53.9	
60.4N 146.5W	
h ABOUT 033KM	
COL IP	06 44 02.9
JAN 24	
FGU EP	07 10 45.3
JAN 24	
COL EP	07 35 23.0
JAN 24	
BOZ EP C	07 54 38.5
ES	55 07.0
FGU EP	07 54 46.9
IS	55 25.0
JAN 24	
COL EP	09 55 24.0
JAN 24	
H-10 33 24.5	
23.5S 179.9E	
h ABOUT 550KM	
TUC EP	10 45 10.0
EUR EP	10 45 10.2
JAN 24	
EUR EP	11 10 59.4
JAN 24	
EUR EP	14 20 38.2

Date and Station	Phase (GCT)
	h m s
JAN 24	
H-15 17 03.0	
15.0S 173.1W	
h ABOUT 033KM	
COL IP	15 29 20.2
JAN 24	
COL IP	16 05 05.3
JAN 24	
TUC E(P)	16 33 55.0
JAN 24	
H-17 17 45.5	
38.7N 129.4E	
h ABOUT 542KM	
GUA E(sP)	17 24 26.0
COL IP	17 26 11.1
KIP IP	17 27 24.2
HHM IP	17 28 42.8
E(pP)	30 39.0
BUT EP	17 28 54.2
E(pP)	30 59.2
BOZ IP	17 28 58.0
EpP	30 57.9
EUR IP	17 29 09.6
EpP	31 0808
SLC EP	17 29 15.6
FGU IP	17 29 21.5
RCD IP	17 29 25.0
BCN IP C	17 29 25.9
E(pP)	31 34.0
EPP	32 57.2
GCA IP	17 29 29.9
TUC IP	17 29 48.0
E	30 07.0
ALQ IP	17 29 50.5
E	29 57.0
JAN 24	
COL EP	17 55 49.0
JAN 24	
FUR IP	18 53 44.1
JAN 24	
BCN I(P)	19 12 42.2
JAN 24	
BCN EP	19 13 05.7
JAN 24	
BCN EP	19 26 50.0
JAN 24	
H-19 53 25.7	
17.8S 178.5W	
h ABOUT 584KM	

Date and Station	Phase (GCT)
	h m s
BCN EP	20 04 40.1
EUR IP	20 04 44.6
TUC EP	20 04 46.0
COL IP	20 05 02.9
FGU EP	20 05 09.0
JAN 24	
ALQ E(P)	20 03 12.0
JAN 24	
GUA E(P)	20 13 08.8
JAN 24	
H-21 12 23.2	
21.7S 176.2W	
h ABOUT 032KM	
BCN EP	21 24 40.1
E	25 04.4
TUC E(P)	21 24 44.0
EUR EP	21 24 46.4
I	26 14.4
ALQ EP	21 25 07.0
I	25 30.0
FGU EP	21 25 10.6
COL IP	21 25 15.3
JAN 24	
H-21 31 24.2	
44.5N 150.3E	
h ABOUT 033KM	
COL IP	21 38 51.3
HHM E(P)	21 41 39.0
EPCP	42 10.0
BOZ E(P)	21 42 01.0
E	42 17.0
EUR IP	21 42 10.0
FGU E(P)	21 42 27.6
BCN EP	21 42 28.6
E	42 45.6
E(PCP)	43 09.6
GCA E(P)	21 42 36.2
ALQ EP	21 43 02.0
JAN 24	
GCA E(P)	21 34 54.5
JAN 24	
H-21 44 46.1	
23.6S 179.9E	
h ABOUT 535KM	
BCN EP	21 56 29.1
TUC EP	21 56 33.0

Date and Station	Phase (GCT)
	h m s
JAN 24	
SLC E(P)	22 34 59.6
JAN 24	
H-22 44 00.6	
07.1S 106.0E	
h ABOUT 094KM	
EUR EP'	23 03 03.4
ALQ EP'	23 03 09.0
JAN 24	
TUC IP	22 56 04.6
JAN 24	
FGU IP	23 00 49.6
IS	01 13.6
JAN 24	
FGU EP	23 06 33.4
ALQ EP	23 06 52.0
JAN 24	
BCN E(P)	23 38 37.4
E(S)	39 08.4
JAN 24	
CSC E(P)	23 59 35.0
JAN 25	
BCN E(P)	00 29 36.7
I	26 41.7
JAN 25	
COL IP	02 44 53.2
JAN 25	
H-03 40 34.9	
16.1S 173.8W	
h ABOUT 033KM	
GCA E(P)	03 52 37.1
ALQ E(P)	03 52 52.0
COL I(P)	03 52 59.5
JAN 25	
H-03 46 39.9	
01.2N 085.3W	
h ABOUT 033KM	
BHP EP	03 49 00.0
JAN 25	
EUR IP	03 49 46.2
JAN 25	
H-04 09 13.5	
20.2N 143.8E	
h ABOUT 033KM	
EUR EP	04 21 47.1
FGU EP	04 22 06.7
JAN 25	
H-07 04 32.8	
22.6S 179.7W	
h ABOUT 600KM	
TUC EP	07 16 10.0

Date and Station	Phase (GCT)
	h m s
EUR EP	07 16 10.7
JAN 25	
H-07 13 30.8	
28.5N 086.8E	
h ABOUT 044KM	
COL IP	07 25 24.8
EPP	28 21.0
JAN 25	
COL EP	09 14 42.0
JAN 25	
COL EP	10 04 14.0
JAN 25	
SJP EP	11 55 40.0
JAN 25	
H-12 09 08.8	
28.3S 176.5W	
h ABOUT 017KM	
EUR EP	12 21 58.6
ALQ E(P)	12 22 07.0
JAN 25	
COL IP	12 16 16.9
JAN 25	
BOZ EP	14 34 42.2
ES	34 50.0
JAN 25	
COL IP	14 51 39.9
JAN 25	
RCD EP	14 52 04.0
JAN 25	
H-15 09 17.3	
05.2S 153.1E	
h ABOUT 064KM	
COL IP	15 21 32.4
JAN 25	
COL EP	15 26 30.0
JAN 25	
COL IP	16 33 26.0
JAN 25	
H-17 35 04.9	
17.0N 086.9W	
h ABOUT 033KM	
ALQ E(P)	17 40 29.0
TUC E(P)	17 40 41.0
JAN 25	
ALQ E(P)	17 48 32.0
JAN 25	
ALQ E(P)	18 06 27.0
JAN 25	
EUR EP	18 13 15.1
I	13 51.1

Date and Station	Phase	Phase (GCT) h m s
JAN 25		
EUR	EP	18 30 01.2
JAN 25		
BCN	I(P)	18 38 42.7
JAN 25		
H-18 43 26.8		
17.1N 087.2W		
h ABOUT 033KM		
ALQ	E(P)	18 48 46.0
JAN 25		
EUR	EP	19 27 04.0
JAN 25		
H-19 48 49.1		
10.1N 069.4W		
h ABOUT 041KM		
SJP	EP	19 50 55.0
	IS	52 27.0
BCN	E(P)	19 58 34.3
JAN 25		
COL	EP	20 00 53.0
JAN 25		
CSC	E(P)	20 15 15.0
JAN 25		
CSC	E(P)	20 55 13.0
JAN 25		
TUC	EP	21 25 30.0
JAN 25		
H-21 41 59.9		
52.7N 157.3E		
h ABOUT 033KM		
COL	IP	21 48 05.5
BUT	I(P)	21 51 47.1
EUR	IP	21 51 53.0
FGU	EP	21 52 09.9
	EPCP	52 53.6
BCN	E(P)	21 52 14.4
JAN 25		
H-21 46 55.6		
22.6S 179.9W		
h ABOUT 350KM		
TUC	E(P)	21 58 57.0
COL	EP	21 59 19.9
JAN 25		
COL	EP	22 06 36.0
JAN 25		
H-22 09 00.8		
5.3S 153.2E		
h ABOUT 042KM		
COL	IP	22 21 18.1
JAN 25		
EUR	IP	22 27 16.7
JAN 25		
H-22 46 18.4		
17.0N 086.6W		
h ABOUT 033KM		
COL	EP	22 56 40.0
JAN 25		
BUT	IP	22 51 11.6
JAN 25		
COL	IP	22 57 55.4
JAN 25		
H-23 07 29.3		
20.8S 178.8W		
h ABOUT 580KM		
BCN	E(P)	23 18 55.0
EUR	EP	23 19 00.0
GCA	E(P)	23 19 09.3
ALQ	IP	23 19 21.0
COL	IP	23 19 21.2
FGU	EP	23 19 24.4
JAN 25		
FGU	EP	23 28 36.9
JAN 25		
EUR	EP	23 54 08.6
JAN 26		
BCN	E(P)	00 12 09.6
JAN 26		
BOZ	EP	00 29 43.0
JAN 26		
COL	EP	00 31 10.0
JAN 26		
EUR	IP	00 42 30.3
BCN	IP	00 43 26.6
	IS	43 53.0
GCA	E(P)	00 44 00.3
JAN 26		
COL	EP	04 16 30.0
JAN 26		
BOZ	E(P)	08 00 31.0
RCD	E(P)	08 00 33.0
JAN 26		
UKI	EP	08 20 56.9
JAN 26		
H-09 09 33.9		
16.3S 071.7W		
h ABOUT 116KM		
BHP	IP	09 15 02.0
	IS	19 42.0
SJP	IP C	09 16 12.6
	IPP	17 38.0
	EsPP	18 02.0
	ES	21 27.5
	E	22 26.0
CSC	IP	09 18 24.0
	I(sP)	18 57.0
WAS	IP	09 18 59.5
	IsP	19 25.5
ALQ	IP	09 19 36.0
	E	19 50.0
	EP'P'	48 45.0
TUC	IP D	09 19 38.0
	EPCP	20 20.0
	ES	27 47.0
	E	48 29.0
GCA	IP	09 20 04.9
	EP'P'	48 39.6
BCN	IP D	09 20 12.7
	IsP	20 52.2
	E	23 37.0
	E(S)	28 48.4
	E(SCS)	29 51.4
	P'P'	48 32.9
RCD	IP	09 20 15.0
	EP'P'	48 39.0
FGU	IP	09 20 16.1
	EP'P'	48 21.7
EUR	IP C	09 20 31.2
	FsPP	23 52.8
	E(S)	29 25.8
	EP'P'	48 36.3
SLC	IP	09 20 22.2
	I(sP)	20 47.6
	EP'P'	48 37.7
BOZ	EP C	09 20 43.1
	ES	29 48.0
BUT	EP	09 20 48.1
HHM	EP	09 21 02.2
HON	E	09 23 06.0
	E(S)	33 28.0
	ESS	40 10.0
	E	46 22.0
	EL	52 20.0
COL	IP D	09 23 01.3
GUA	EP'	09 28 57.0
	IPP	32 18.1
JAN 26		
H-10 02 15.0		
23.1N 120.4E		
h ABOUT 037KM		
COL	IP	10 13 24.4
HHM	EP	10 15 31.0
JAN 26		
H-12 05 54.3		
40.8N 140.1E		
h ABOUT 160KM		
COL	IP	12 14 06.3
EUR	IP	12 17 16.4
BCN	EP	12 17 33.2
JAN 26		
COL	EP	12 49 11.0
JAN 26		
EUR	EP	14 13 03.6
JAN 26		
COL	EP	17 47 49.0
JAN 26		
COL	EP	19 03 52.0
JAN 26		
COL	IP	19 22 10.7
JAN 26		
BCN	EP	19 40 39.1
	IL	41 07.3
JAN 26		
EUR	EP	20 19 52.3
JAN 26		
COL	IP	20 35 07.8
JAN 26		
H-20 55 07.8		
17.2N 086.1W		
h ABOUT 033KM		
ALQ	EP	21 00 33.0
TUC	E(P)	21 00 50.0
JAN 26		
HHM	E(P)	21 42 23.0
	E	43 37.0
EUR	EP	21 42 50.7
JAN 26		
COL	EP	21 53 13.0
JAN 26		
BCN	IP	22 00 59.7
	IS	01 04.2
JAN 26		
SLC	E(P)	22 01 55.7
	ES	02 21.8
EUR	EP	22 02 27.1
JAN 26		
EUR	IP	22 20 51.9
TUC	E(P)	22 21 28.0
JAN 26		
ALQ	E(P)	23 01 34.0
JAN 27		
COL	IP	01 16 46.3

Date and Station	Phase (GCT)
	h m s
JAN 27	
H-01 12 23.5	
.0S 017.9W	
h ABOUT 033KM	
SJP EP	01 21 22.5
CSC IP	01 23 22.0
RCD EP	01 25 03.0
ALQ IP	01 25 18.0
FGU EP	01 25 27.5
TUC I(P)	01 25 33.8
SLC EP	01 25 36.1
GCA E(P)	01 25 41.5
BCN E(P)	01 25 48.4
E	28 55.9
EUR IP	01 25 51.3
JAN 27	
COL EP	01 43 26.0
JAN 27	
COL IP	03 08 36.3
JAN 27	
COL EP	03 11 35.0
JAN 27	
COL EP	03 45 43.0
JAN 27	
BOZ EP	04 33 45.0
JAN 27	
H-05 07 00.3	
13.1S 166.5E	
h ABOUT 046KM	
COL EP	05 19 30.0
JAN 27	
H-05 29 27.3	
29.2N 097.2E	
h ABOUT 033KM	
COL IP	05 40 59.0
JAN 27	
H-06 19 19.0	
47.3N 152.1E	
h ABOUT 033KM	
EUR EP	06 29 48.1
JAN 27	
GCA E(P)	07 59 33.0
JAN 27	
UKI IP	09 44 16.8
IS	44 21.8
JAN 27	
H-10 32 13.4	
19.9S 115.4W	
h ABOUT 033KM	

Date and Station	Phase (GCT)
	h m s
EUR EP	10 42 13.6
JAN 27	
COL EP	10 44 18.0
JAN 27	
EUR EP	10 45 39.2
JAN 27	
H-11 21 14.4	
17.0N 087.0W	
h ABOUT 033KM	
TUC E(P)	11 26 48.0
JAN 27	
COL EP	11 55 25.0
JAN 27	
EUR IP	11 57 00.4
BCN E(P)	11 57 14.4
EL	58 54.4
JAN 27	
BOZ E(P)	12 36 06.0
JAN 27	
HHM E(P)	12 49 37.0
E(S)	50 42.0
JAN 27	
HHM E(P)	13 14 10.0
JAN 27	
EUR IP	13 29 40.5
JAN 27	
COL EP	13 34 03.0
JAN 27	
BOZ EP	14 41 48.5
ES	42 19.0
FGU EP	14 41 53.2
ES	42 27.2
JAN 27	
H-15 36 56.2	
10.6S 166.1E	
h ABOUT 165KM	
COL IP	15 49 01.4
JAN 27	
BOZ EP	17 31 43.0
ES	31 52.0
HHM E(P)	17 32 16.0
E	32 51.0
JAN 27	
H-17 51 47.3	
52.5N 160.8E	
h ABOUT 033KM	
EUR EP	18 01 25.2
JAN 27	
COL EP	18 42 55.0
JAN 27	
ALQ E(P)	19 07 31.0

Date and Station	Phase (GCT)
	h m s
JAN 27	
BOZ EP	19 15 19.0
ES	15 27.0
JAN 27	
COL EP	20 11 56.0
JAN 27	
ALQ EP	20 18 03.0
E	18 44.0
JAN 27	
SLC IP	20 21 51.0
IS	21 56.0
FGU EP	20 22 24.2
E(S)	22 50.6
JAN 27	
COL EP	20 56 30.0
JAN 27	
COL IP	21 36 34.0
JAN 27	
SJP IP	22 03 26.7
IS	03 33.5
JAN 27	
COL EP	22 12 52.0
JAN 27	
EUR IP	22 21 10.4
JAN 27	
EUR EP	23 00 15.4
JAN 27	
GCA E(P)	23 18 10.8
ES	18 28.8
JAN 27	
EUR IP	23 23 57.5
JAN 27	
FGU EP	23 48 26.3
JAN 27	
BCN E(P)	23 51 41.3
EL	52 17.3
JAN 28	
H-00 02 25.7	
41.0N 141.5E	
h ABOUT 033KM	
COL EP	00 10 44.0
EUR EP	00 13 56.0
BCN EP	00 14 13.5
JAN 28	
BCN E(P)	00 25 00.0
EL	25 20.0
JAN 28	
FGU E(P)	01 42 46.1
IS	43 24.1
EUR EP	01 43 25.9

Date and Station	Phase (GCT)
	h m s
JAN 28	
BOZ EP	01 47 09.0
ES	47 42.0
EUR EP	01 47 51.9
JAN 28	
CSC E(P)	02 40 25.0
JAN 28	
BOZ EP	02 42 03.0
ES	42 14.0
BUT E(P)	02 42 15.0
ES	42 37.0
HHM E(P)	02 42 50.0
JAN 28	
CSC E(P)	03 04 33.0
JAN 28	
TUC E(P)	04 55 23.0
JAN 28	
H-04 56 48.6	
43.3N 125.9W	
h ABOUT 017KM	
EUR EP	04 58 52.8
JAN 28	
H-05 43 22.1	
6.3S 148.7E	
h ABOUT 033KM	
GUA EP	05 47 56.5
COL IP	05 55 52.8
EUR EP	05 56 58.0
SJP EP'	06 02 53.0
E	03 24.2
JAN 28	
H-06 17 09.3	
20.5S 177.8W	
h ABOUT 473KM	
TUC E(P)	06 28 45.0
COL IP	06 29 08.0
JAN 28	
H-07 29 28.3	
17.7S 176.7W	
h ABOUT 417KM	
COL IP	07 41 19.6
JAN 28	
H-09 00 46.9	
21.7N 121.6E	
h ABOUT 033KM	
COL EP	09 12 01.0
JAN 28	
EUR IP	10 44 33.4
BCN E(P)	10 44 53.0
IL	45 49.8

Date and Station	Phase	Phase (GCT) h m s
GCA	EP	10 45 40.1
JAN 28		
SLC	E(P)	12 13 07.7
JAN 28		
H-12 57 07.9		
43.2N 111.4W		
h ABOUT 041KM		
BOZ	EP	12 57 46.0
	ES	58 18.0
SLC	E(P)	12 57 46.7
FGU	EP	12 57 51.4
	I	57 53.5
	IS	59 31.6
BUT	E(P)	12 58 01.0
	IS	58 35.0
EUR	EP	12 58 23.7
HHM	E(P)	12 58 29.0
JAN 28		
H-14 09 17.1		
36.5N 070.9E		
h ABOUT 207KM		
GUA	E(P)	14 20 51.5
COL	IP C	14 20 33.2
	ES	29 46.0
	EP'P'	47 29.0
SIT	EP	14 21 27.0
	E▸P	22 15.5
HHM	IP C	14 22 20.0
	E▸P	23 10.0
	PP	26 15.0
	E	31 04.0
	IS	33 02.0
	P'P'	48 12.0
BUT	IP C	14 22 29.8
	I▸P	23 19.3
BOZ	IP	14 22 32.0
	I▸P	23 21.0
	E	26 18.0
	EP'P'	47 10.0
WAS	E(P)	14 22 34.5
	E▸P	23 28.5
	F	25 46.5
RCD	IP	14 22 39.5
	I▸P	23 32.0
	IPP	26 44.0
	I▸PP	27 20.0
FGU	IP	14 22 54.3
SLC	I(P)	14 22 54.7
	IPP	27 08.6
EUR	IP C	14 23 00.0
	EP'	27 00.5
	I	30 34.0
	PKKP	30 46.2
UKI	EPP	14 26 57.0
GCA	EP	14 23 11.4
BCN	EP C	14 23 16.2
	I▸P	24 09.4
	EP'	26 58.7
	EPP	27 42.2
	EPKKP	38 34.2
	E	39 27.9
ALQ	IP	14 23 21.5
	E(▸P)	24 18.0
CSC	E(P')	14 26 45.0
HON	EP'	14 27 35.0
	ES	34 42.0
	ESP	36 18.0
	ESS	42 10.0
	ESSS	46 58.0
	EL	53 50.0
TUC	E(P)	14 23 32.0
	EP'	27 22.0
	E(PP)	38 22.0
SJP	E(P')	14 27 57.0
	I	29 19.6
	IPKKP	38 20.6
BHP	IP'	14 27 57.0
JAN 28		
COL	EP	16 18 10.0
JAN 28		
COL	EP	16 24 18.0
JAN 28		
COL	EP	16 48 08.0
JAN 28		
BOZ	EP	16 51 59.0
JAN 28		
COL	EP	17 02 34.0
JAN 28		
BOZ	EP	17 03 01.0
	ES	03 14.0
JAN 28		
TUC	E(P)	17 44 06.0
ALQ	EP	17 44 07.0
FGU	EP	17 45 10.2
COL	IP	17 49 29.3
JAN 28		
H-17 46 16.2		
45.3N 149.8E		
h ABOUT 033KM		
COL	IP	17 53 39.2
JAN 28		
H-18 30 43.9		
61.2N 147.8W		
h ABOUT 172KM		
COL	IP	18 31 41.9
JAN 28		
SLC	EP	19 00 05.1
	ES	00 21.7
FGU	IP	19 00 37.1
EUR	EP	19 00 54.4
JAN 28		
H-19 10 53.9		
55.8N 165.7E		
h ABOUT 033KM		
COL	IP	19 16 09.2
BOZ	E(P)	19 19 48.0
	E	20 12.0
JAN 28		
ALQ	E(P)	20 27 43.0
JAN 28		
TUC	E(P)	21 09 04.0
	E	09 45.0
JAN 28		
ALQ	EP	21 28 17.0
JAN 28		
GUA	E(P)	21 29 22.5
JAN 28		
EUR	EP	22 05 02.2
JAN 28		
COL	EP	22 14 45.0
JAN 28		
EUR	IP	22 28 12.1
JAN 28		
CSC	E(P)	22 31 56.0
JAN 28		
BCN	EP	22 44 29.8
JAN 28		
EUR	IP	22 51 04.5
JAN 28		
EUR	IP	22 57 13.5
JAN 28		
EUR	EP	23 19 11.4
JAN 28		
BOZ	EP	23 32 09.0
	ES	32 17.0
JAN 28		
BCN	E(P)	23 40 52.1
	EL	41 23.6
JAN 29		
EUR	EP	00 17 24.2
JAN 29		
EUR	FP	01 15 40.1
JAN 29		
BCN	EP	01 48 34.8
	IL	48 53.2
GCA	EP	01 48 47.9
	ES	49 14.0
EUR	IP	01 48 49.4
JAN 29		
BOZ	IP	03 16 58.0
	IL	17 04.0
HHM	E(P)	03 17 39.0
	E(S)	18 18.0
JAN 29		
EUR	EP	04 52 57.1
JAN 29		
EUR	EP	04 55 06.1
JAN 29		
FGU	E(P)	05 20 48.3
JAN 29		
H-05 45 48.0		
38.7N 073.2E		
h ABOUT 187KM		
COL	FP	05 56 52.0
JAN 29		
BCN	EP	07 44 13.6
JAN 29		
FGU	E(P)	07 47 16.8
	I	47 19.5
GCA	E(P)	07 47 37.7
	ES	48 13.4
JAN 29		
COL	EP	08 12 23.0
JAN 29		
SLC	E(P)	08 13 35.2
JAN 29		
H-08 47 29.9		
03.0N 125.7E		
h ABOUT 133KM		
COL	EP	08 59 55.0
FGU	EP'	09 05 55.9
ALQ	IP'	09 06 05.5
SJP	EP'	09 07 38.5
JAN 29		
BCN	EP	09 54 00.9
JAN 29		
ALQ	EP	11 29 03.0
JAN 29		
COL	EP	12 45 49.0
EUR	FP	12 49 31.0
JAN 29		
H-13 07 18.4		
02.2S 139.5E		
h ABOUT 033KM		
COL	EP	13 19 50.0

Date and Station	Phase (GCT)
	h m s
JAN 29	
FUR FP	14 49 25.5
JAN 29	
ALQ EP	15 13 19.0
JAN 29	
COL EP	15 26 49.0
JAN 29	
TUC E(P)	15 56 56.0
JAN 29	
BOZ FP	15 58 47.5
E	59 21.0
JAN 29	
ALQ IP	16 33 08.0
E	33 48.0
JAN 29	
SJP IP	16 53 55.5
I(S)	54 10.5
JAN 29	
EUR IP	17 03 21.2
JAN 29	
H-17 29 08.0	
55.1N 161.7E	
h ABOUT 078KM	
COL EP	17 34 38.0
EUR IP	17 38 31.5
RCD E(P)	17 38 56.0
JAN 29	
TUC E(P)	18 55 16.0
JAN 29	
COL IP	19 20 39.8
JAN 29	
COL IP	20 22 32.1
JAN 29	
COL EP	20 31 36.0
JAN 29	
ALQ IP	21 12 06.0
JAN 29	
FGU E(P)	22 25 06.8
JAN 29	
EUR IP	22 27 49.3
JAN 29	
H-22 32 20.9	
41.7N 141.9E	
h ABOUT 056KM	
COL IP	22 40 32.8
EUR EP	22 43 44.1
BCN FP	22 44 02.6
JAN 29	
BCN EP	23 05 41.6
ES	05 53.6

Date and Station	Phase (GCT)
	h m s
FGU EP	23 06 41.3
JAN 30	
COL EP	00 26 08.0
JAN 30	
COL EP	02 16 22.0
JAN 30	
EUR IP	03 55 59.2
JAN 30	
BCN I(P)	04 10 43.1
EL	11 09.0
JAN 30	
FGU EP	05 36 03.4
IS	36 37.2
JAN 30	
H-05 39 44.6	
24.5N 108.6W	
h ABOUT 049KM	
TUC EP	05 41 39.6
EL	43 22.0
ALQ IP	05 42 18.0
BCN EP	05 42 44.6
E	43 14.1
FLG	46 43.1
EUR IP	05 43 31.9
SLC EP	05 43 35.1
FGU IP	05 43 35.5
RCD EP	05 44 17.0
BOZ EP	05 44 28.5
I	44 35.0
HHM EP	05 44 59.0
COL EP	05 48 17.0
JAN 30	
ALQ FP	07 28 27.0
JAN 30	
SJP IP	07 49 31.0
EL	50 20.0
JAN 30	
BOZ EP	08 16 45.5
ES	17 18.0
FGU E(P)	08 16 50.2
IS	17 28.2
JAN 30	
COL EP	08 25 29.0
JAN 30	
H-09 06 01.9	
11.4N 121.6E	
h ABOUT 033KM	
COL EP	09 18 11.0
JAN 30	
COL EP	10 25 10.0

Date and Station	Phase (GCT)
	h m s
JAN 30	
BCN IP C	11 50 59.8
I	51 15.3
I(S)	51 38.8
IL	51 54.3
EUR EP	11 51 43.1
TUC FP	11 51 51.0
ALQ E(P)	11 52 03.5
JAN 30	
H-12 23 10.3	
32.7N 047.8E	
h ABOUT 033KM	
COL EP	12 35 27.0
JAN 30	
H-12 39 23.8	
01.7N 099.6E	
h ABOUT 133KM	
COL IP	12 52 46.6
BOZ EP'	12 58 10.0
EUR EP'	12 58 15.3
BCN EP'	12 58 26.7
ALQ EP'	12 58 30.0
JAN 30	
EUR EP	12 56 05.0
JAN 30	
EUR EP	13 01 08.0
RCD IP	13 01 22.0
FGU IP	13 01 23.2
BCN EP	13 01 25.2
TUC EP	13 01 42.0
ALQ EP	13 01 45.0
JAN 30	
ALQ E(P)	13 10 46.0
JAN 30	
EUR IP	15 45 38.6
JAN 30	
COL EP	16 18 20.0
JAN 30	
ALQ IP	16 53 24.0
JAN 30	
H-17 20 13.5	
23.3N 143.4E	
h ABOUT 033KM	
COL IP	17 30 19.0
HHM EP	17 32 26.5
BOZ FP	17 32 39.0
EUR EP	17 32 39.0

Date and Station	Phase (GCT)
	h m s
ALQ IP	17 33 22.0
JAN 30	
H-17 45 54.6	
37.3N 029.9E	
h ABOUT 041KM	
COL IP	17 57 50.7
HHM EP	17 58 46.1
BOZ EP	17 58 53.7
FGU E(P)	17 59 05.0
EUR E(P)	17 59 30.0
JAN 30	
COL EP	18 04 19.0
JAN 30	
ALQ EP	18 36 36.0
JAN 30	
COL EP	18 37 15.0
JAN 30	
ALQ EP	19 00 52.0
JAN 30	
BOZ IP	19 06 07.0
ES	06 16.0
HHM E(P)	19 06 39.0
ES	07 13.0
JAN 30	
ALQ E(P)	19 42 26.0
E	43 06.0
JAN 30	
ALQ EP	19 46 42.0
JAN 30	
H-21 23 58.2	
49.2N 150.6E	
h ABOUT 292KM	
COL IP	21 30 27.3
EUR EP	21 33 58.3
JAN 30	
BOZ EP	21 33 46.0
ES	34 25.0
FGU E(P)	21 34 07.6
IS	34 36.6
JAN 30	
ALQ E(P)	21 31 40.0
JAN 30	
SLC E(P)	21 53 39.1
JAN 30	
FGU IP	22 11 07.1
JAN 30	
ALQ E(P)	22 21 23.0
I	22 09.0

Date and Station	Phase (GCT)
	h m s
JAN 30	
H-22 23 10.4	
43.3N 111.4W	
h ABOUT 033KM	
BOZ IP	22 23 46.5
IS	24 18.0
SLC E(P)	22 23 52.9
ES	24 29.1
FGU EP	22 23 54.9
I(S)	24 38.3
BUT E(P)	22 23 56.0
ES	24 36.0
HHM E(P)	22 24 42.0
JAN 30	
EUR IP	22 23 56.8
JAN 31	
H-00 14 58.4	
36.3N 071.4E	
h ABOUT 127KM	
COL EP	00 26 23.0
JAN 31	
FGU EP	00 37 21.6
IS	37 55.9
JAN 31	
FGU IP	02 10 08.7
JAN 31	
SIT EP	02 40 48.0
IS	41 54.3
JAN 31	
COL IP	03 20 36.4
JAN 31	
H-04 17 12.4	
61.5N 151.9W	
h ABOUT 033KM	
COL IP	04 18 11.9
SIT E(P)	04 19 28.0
HHM EP	04 22 33.1
E(SCP)	29 45.1
BOZ EP	04 23 03.0
EUR IP	04 23 29.2
SLC EP	04 23 35.7
FGU IP	04 23 43.7
RCD IP	04 23 50.5
BCN EP	04 24 00.7
ALQ IP	04 24 36.0
TUC EP	04 24 40.0
CSC EP	04 26 18.0
E	26 40.0

Date and Station	Phase (GCT)
	h m s
JAN 31	
ALQ EP	04 30 36.0
JAN 31	
COL EP	04 42 25.0
JAN 31	
CSC E	04 44 23.0
JAN 31	
COL EP	05 51 00.0
JAN 31	
COL EP	06 00 36.0
JAN 31	
COL EP	06 26 24.0
JAN 31	
H-06 46 06.9	
16.9N 099.0W	
h ABOUT 056KM	
TUC E(P)	06 50 24.0
ALQ IP	06 50 29.0
FGU EP	06 51 34.3
JAN 31	
COL EP	07 11 00.0
JAN 31	
BCN EP	07 48 16.9
EL	48 54.9
TUC E(P)	07 48 34.0
JAN 31	
EUR EP	07 49 19.7
JAN 31	
H-08 06 38.5	
47.0N 138.8E	
h ABOUT 433KM	
COL IP	08 13 51.1
JAN 31	
ALQ IP	08 30 51.5
TUC EP	08 31 00.6
JAN 31	
GUA E	10 35 56.5
JAN 31	
BCN E(P)	11 02 49.8
EL	03 31.0
JAN 31	
ALQ EP	14 49 54.0
JAN 31	
COL EP	16 21 30.0
JAN 31	
COL EP	16 39 31.0
JAN 31	
TUC E(P)	16 44 42.0

Date and Station	Phase (GCT)
	h m s
JAN 31	
H-16 40 09.8	
42.2N 142.1E	
h ABOUT 049KM	
COL EP	16 48 18.0
JAN 31	
BOZ E(P)	16 51 14.0
ES	51 47.0
JAN 31	
H-17 07 43.1	
51.3N 124.7W	
h ABOUT 014KM	
HHM EP	17 09 33.9
EUR E(P)	17 11 02.4
ALQ EP	17 12 26.0
JAN 31	
BUT E(P)	17 11 17.0
JAN 31	
ALQ EP	17 15 26.0
JAN 31	
HHM EP	18 15 16.8
FGU E(P)	18 16 09.1
E(S)	16 19.2
JAN 31	
ALQ E(P)	18 46 34.0
JAN 31	
ALQ E(P)	19 59 42.0
I	59 47.0
JAN 31	
SLC EP	20 07 43.0
FGU EP	20 08 15.2
JAN 31	
TUC E(P)	20 49 26.0
E	50 21.0
BCN E(P)	20 50 27.6
IL	51 58.8
JAN 31	
ALQ EP	20 53 00.0
JAN 31	
H-21 46 31.7	
00.2S 077.9W	
h ABOUT 033KM	
SJP IP C	21 51 21.2
ALQ IP	21 54 39.5
I	54 45.0
TUC EP	21 54 46.0
FGU IP	21 55 24.2
EUR EP	21 55 46.1
BOZ EP	21 55 57.0

Date and Station	Phase (GCT)
	h m s
COL IP	21 58 48.7
JAN 31	
EUR EP	22 29 50.3
JAN 31	
FGU EP	22 47 25.0
IS	47 45.0
JAN 31	
JAN 31	
FGU EP	22 59 38.4
IS	23 00 01.2
JAN 31	
SLC E(P)	23 00 44.4
FGU EP	23 01 14.2
JAN 31	
SLC EP	23 01 43.2
IS	02 12.4
JAN 31	
BCN EP	23 45 55.8
FL	46 27.0