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SEISMOLOGICAL BULLETIN

COAST & GEODETIC SURVEY

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U. S. DEPARTMENT OF COMMERCE

Luther H. Hodges, Secretary

COAST AND GEODETIC SURVEY—WASHINGTON

H. Arnold Karo, Director

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National Oceanic and Atmospheric Administration

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1962

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

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

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

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the data from the horizontal components of the seismographs at all stations except College, Honolulu, and Tucson will not be published for earthquakes occurring outside the United States.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

All magnitude determinations are by Pasadena, unless otherwise stated. Minor earthquakes are listed at the end of the bulletin.

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

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

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

STATION AND INSTRUMENTAL CONSTANTS (JULY 1962)

Station	Position	Instrument	Foundation and Elevation	T_o	T_g	T_s	V	Σ	Paper Speed	Time Break Reference Point	Ground Motion Trace "Up"
Albuquerque, N. Mex.	Log cos 9.91367	Std-SP	Granite.	Z 1.0	0.75		400,000	17:1	60mm/min	Beginning	Up
H. J. Wirz	Lat. 34°56.5' N		1,853 m.	N 1.0	0.75		400,000				N
In Charge	Long. 106°27.5' W			E 1.0	0.75		400,000				E
		Std-LP		Z 30	100		3,000	Critical	15mm/min	Beginning	Up
				N 30	100		3,000				N
				E 30	100		3,000				E
Balboa Heights, C. Z.	Log cos 9.99467	Std-SP	Basalt.	Z 1.0	0.75		12,500	17:1	60mm/min	Beginning	Up
W. H. Esslinger	Lat. 8°57'39" N		36 m.	N 1.0	0.75		12,500				N
In Charge	Long. 79°33'29" W			E 1.0	0.75		12,500				E
		Std-LP		Z 30	100		750	Critical	15mm/min	Beginning	Up
				N 30	100		750				N
				E 30	100		750				E
Boulder City, Nev.	Log cos 9.90806	B, Film	Fractured	Z 1.4	0.45		100,000**	Near crit.	15mm/min	Beginning	Up
V. B. Uehling	Lat. 35°58'51" N	Z, N&E	monzonite.	N 1.4	0.45		50,000	Critical			N
In Charge	Long. 114°50'02" W	Mass 100 lb.	776 m.	E 1.4	0.45		50,000	Critical			E
Bozeman, Mont.	Log cos 9.84437	Spg, N&E	Alluvium gla-	N 11.1	8.3		8,000	3:1	30mm/min	Beginning	N
A. J. M. Johnson	Lat. 45°40'01" N		cial drift	E 10.9	7.6		8,000	11:1			E
In Charge	Long. 111°02'43" W	W-L, Z	and lake de-	Z 1.1	1.7		24,000	Under	60mm/min		Up
			posit 500'					damped			
			thick over								
			gneiss and								
			schist.								
			1,490 m.								
Butte, Mont.	Log cos 9.84167	W-A, N	Rhyolite 30 m.	N 8.02			316	50:1	15mm/min	Beginning	S
S. W. Nile	Lat. 46°00.5' N	Mass 2g	thick resting								
In Charge	Long. 112°33.8' W	W-L, N&E	on granite.	N 8.0	3.8		12,000	Near crit.	30mm/min		N
			1,758 m.	E 8.0	3.9		12,000	Near crit.			W
		B, paper, Z		Z 1.1	0.5		50,000	Near crit.	60mm/min		Up
		Mass 100 lb.									
Chicago, Ill.	Log cos 9.87251	McC-R, N&E	Limestone.	N 10			335	15:1	15mm/min	End	N
W. F. Schmidt	Lat. 41°47.3' N	Mass 2.5 kg	180 m.	E 10			335	15:1			W
In Charge	Long. 87°36.0' W										
*College, Alas.	Log cos 9.62825	W-L, Film, Z	Granite	Z 1.19	0.45		40,000**	Near crit.	15mm/min	Beginning	Up
K. Cravens	Lat. 64°51.6' N	B, Film, N&E	schist.	N 1.36	0.45		50,000**	Near crit.			N
In Charge	Long. 147°50.2' W		159 m.	E 1.40	0.45		50,000	Near crit.			E
		W, N		N 9.5	12.0		1,000	Near crit.			N
[1]College Outpost	Log cos 9.62781	B, paper, Z	Weathered	Z 1.5	0.53		425,000	Near crit.	60mm/min	Beginning	Up
K. Cravens	Lat. 64°53'08" N		schist.								
In Charge	Long. 147°48'04" W		183 m.								
Columbia, S. C.	Log cos 9.91857	W-L, Z, N&E	Consolidated	Z 1.1	1.6		24,000	Under	60mm/min	Beginning	Up
C. F. Mercer	Lat. 34°00' N		sand 150'	N 8.0	4.1		13,000	damped	30mm/min		N
In Charge	Long. 81°02' W		thick over	E 8.0	4.1		13,000				E
			granite. 94 m.								

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

Station	Position	Instrument	Foundation and Elevation		T_o	T_g	T_s	V	Σ	Paper Speed	Time Break Reference Point	Ground Motion Trace "Up"
*Sitka, Alas.	Log cos 9.73544	W, N&E	Graywacke.	N	7.5	16.5	8.2	1,000	20:1	15mm/min	Beginning	S
W. E. Osbakken	Lat. 57°03'25" N	Mass 500 g.	19 m.	E	7.5	13.2	8.2	1,000	5.5:1			E
In Charge	Long. 135°19'28" W	W-L, Z		Z	1.12	1.5		10,000		60mm/min		Up
Thule, Greenland	Log cos 9.37081	W-L, Z	Glacial	Z	1.3	1.55		12,000	Near crit.	60mm/min	Beginning	Up
Lt. F. J. Lord, Jr.	Lat. 76°25' N		material.									
In Charge	Long. 68°18' W	-	485 m.									
*Tucson, Ariz.	Log cos 9.92725	W-A, N&E	Caliche or	N	8.0			466	Critical	30mm/min	Beginning	S
C. J. Beers	Lat. 32°14.8' N	Mass 2.3 g.	gravels 100-	E	8.0			457	Critical			E
In Charge	Long. 110°50.1' W	B, Z(LP)	300 m. thick.	Z	1.0	77		50,000	Near crit.	30mm/min		Up
		(SP)	700 m.			0.236		50,000		60mm/min		Up
		B, E		E	1.6	0.5		25,000		30mm/min		W
[2]Tucson, Telemeter	Log cos 9.92682	B, Z	Granite.	Z	1.1	0.5		150,000	Near crit.	60mm/min	Beginning	Up
C. J. Beers	Lat. 32°20.1' N	Mass 100 lb.	1,439 m.									
In Charge	Long. 110°43.4' W											
Ukiah, Calif.	Log cos 9.88968	McC-R, N&E	Alluvium	N	11.9			75	Near crit.	30mm/min	Beginning	S
L. F. Caouette	Lat. 39°08' N	Mass 10 kg.	180 m. deep.	E	11.6			75				W
In Charge	Long. 123°13' W	W-L, Z	199 m.	Z	1.1	1.4		24,000		60mm/min		Up
Washington, D. C.	Log cos 9.89117	W-L, Z	Recent allu-	Z	1.5	4.0		10,000		30mm/min	Beginning	Up
	Lat. 38°53'33" N	Visible	vium on			Pen						
	Long. 77°01'59" W	recorder	schistose			0.5						
			granite. 0 m.									

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

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

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

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

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

Date 1962	Origin Time G. C. T.	Lat.	Long.	Region, Remarks and Focal Depth
July	h m s	°	°	
1	01 32 11.0	14.1 S.	167.2 E.	New Hebrides Islands. h about 156 km.
1	01 56 15.6	3.8 S.	150.4 E.	New Ireland region. h about 24 km.
1	03 37 36.2	30.1 N.	102.8 E.	Sikang Province, China. h about 25 km.
1	05 07 37.0	23.8 S.	176.9 W.	Tonga Islands region. h about 25 km.
1	11 46 29.8	40.8 N.	49.9 E.	Caspian Sea. h about 46 km.
1	13 35 05.1	15.7 S.	172.6 W.	Tonga Islands region. h about 65 km.
1	21 23 41.7	40.0 N.	75.4 E.	Sinkiang Province, China. h about 25 km.
2	08 32 43.1	10.6 S.	166.0 E.	Santa Cruz Islands. Felt on Vanikoro. h about 114 km. Mag. $6\frac{1}{2}$-$6\frac{3}{4}$.
2	15 42 22.1	0.2 S.	123.1 E.	Celebes region. h about 136 km.
3	03 16 55.6	36.7 N.	70.9 E.	Hindu Kush. h about 200 km.
3	06 23 36.0	17.5 S.	173.2 W.	Tonga Islands region. h about 25 km.
3	06 31 08.5	28.0 N.	56.2 E.	Iran. h about 25 km.
3	08 34 28.5	17.2 S.	170.8 W.	Tonga Islands region. h about 25 km.
3	18 13 35.6	56.3 S.	142.5 W.	South Pacific Ocean. h about 25 km.
3	18 22 06.3	54.6 S.	132.3 W.	South Pacific Ocean. h about 25 km.
3	20 59 04.8	17.8 S.	167.8 E.	New Hebrides Islands. h about 23 km.
3	21 17 00.2	3.8 N.	31.7 W.	Mid-Atlantic Ocean. h about 33 km.
4	07 07 53.7	14.3 N.	93.2 W.	Off coast of Guatemala. h about 25 km.
4	07 57 45.3	54.5 N.	36.7 W.	About 600 km. south of Greenland. h about 25 km.
4	12 55 52.9	44.0 S.	79.2 W.	Off coast of southern Chile. h about 25 km.
4	17 00 53.5	14.9 S.	167.8 E.	New Hebrides Islands. h about 62 km.
4	23 17 38.0	28.5 S.	177.5 W.	Kermadec Islands. h about 25 km.
5	07 32 33.2	11.3 S.	166.5 E.	Santa Cruz Islands. Felt on Vanikoro. h about 33 km.
5	10 32 28.8	0.6 S.	139.0 E.	New Guinea. h about 25 km.
5	12 09 28.5	54.9 S.	156.3 E.	Macquarie Island region. h about 25 km.
5	17 40 55.3	30.9 N.	141.4 E.	South of Honshu, Japan. h about 23 km.
5	20 49 29.4	23.9 N.	107.7 W.	Off coast of Sinaloa, Mexico. h about 33 km.
6	01 15 34.8	32.6 N.	139.7 E.	South of Honshu, Japan. h about 62 km.
6	02 12 12.0	11.6 N.	57.5 E.	Arabian Sea, east of Socotra. h about 33 km.
6	09 16 15.0	38.0 N.	20.2 E.	Ionian Islands. Felt. h about 30 km. Mag. 5 (Pal).
6	12 12 03.1	16.6 S.	173.6 W.	Tonga Islands region. h about 36 km.
6	13 27 52.1	25.0 S.	176.7 W.	Kermadec Islands region. h about 25 km.
6	15 11 21.8	30.5 N.	130.8 E.	Northern Ryukyu Islands. h about 25 km.
6	15 54 36.4	37.9 N.	20.2 E.	Ionian Sea. h about 129 km.

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Date 1962	Origin Time G. C. T.	Lat.	Long.	Region, Remarks and Focal Depth
July	h m s	°	°	
6	17 00 00.147			37°10'37" N., 116°02'43" W. Nevada Test Site. SEDAN. Shot elevation = 1114.6 meters (AEC).
6	18 40 59.4	60.3 N.	152.1 W.	Kenai Peninsula, Alaska. h about 67 km.
6	23 05 32.2	36.6 N.	70.4 E.	Hindu Kush. Felt in Afghanistan, Pakistan, and Tadzhik S.S.R. Minor damage. h about 203 km. Mag. 6 (Pal).
7	03 00 22.6	30.7 N.	84.4 E.	Tibet. h about 25 km.
7	06 12 48.9	51.3 N.	178.6 E.	Rat Islands, Aleutian Islands. h about 60 km.
7	07 14 35.3	51.1 N.	178.9 E.	Rat Islands, Aleutian Islands. h about 61 km.
7	11 47 19.4	7.3 S.	128.3 E.	Banda Sea. h about 30 km.
7	12 47 07.7	37.5 N.	19.8 E.	Ionian Sea. h about 33 km.
7	19 04 16.7	11.3 S.	164.8 E.	Santa Cruz Islands. h about 25 km.
7	21 20 57.7	51.9 N.	158.6 E.	Near south coast of Kamchatka. h about 33 km.
8	02 25 55.8	14.4 S.	75.5 W.	Near coast of southern Peru. h about 88 km.
8	03 22 07.3	51.3 N.	178.7 E.	Rat Islands, Aleutian Islands. h about 91 km.
8	04 03 56.8	55.5 S.	30.1 W.	Sandwich Islands. h about 25 km.
8	05 29 12.0	2.6 S.	78.0 W.	Ecuador. h about 21 km.
8	07 30 49.7	8.1 N.	38.0 W.	North Atlantic Ocean. h about 25 km.
8	12 02 33.2	22.0 S.	179.8 W.	Fiji Islands. h about 600 km.
8	13 00 23.7	18.1 N.	99.9 W.	Guerrero, Mexico. h about 192 km.
8	15 58 15.8	37.7 N.	115.2 W.	Southern Nevada. h about 33 km.
8	17 20 01.2	0.3 S.	121.8 E.	Celebes. h about 58 km.
8	22 54 44.7	28.1 S.	176.5 W.	Kermadec Islands region. h about 25 km.
8	23 21 51.5	54.0 N.	160.5 E.	Near east coast of Kamchatka. h about 22 km.
9	09 59 07.8	56.0 S.	158.1 E.	Macquarie Island region. h about 25 km.
9	13 53 00.0	44.0 N.	147.8 E.	Kurile Islands. h about 66 km.
10	04 21 12.9	39.1 S.	74.2 W.	Off coast of central Chile. h about 33 km.
10	05 12 06.4	20.8 S.	178.7 W.	Fiji Islands. h about 584 km.
10	10 06 04.5	38.6 N.	26.1 E.	Aegean Sea. Felt on Chios and Lesbos. h about 33 km.
10	12 56 03.8	22.3 S.	177.2 W.	Tonga Islands. h about 333 km.
10	19 21 36.9	6.5 S.	75.2 W.	Central Peru. h about 46 km.
11	01 03 59.3	31.8 N.	66.9 E.	Afghanistan. h about 25 km.
11	07 17 27.4	53.2 N.	159.6 E.	Kamchatka. h about 69 km.
11	12 40 30.7	11.9 N.	122.1 E.	Panay, Philippine Islands. Felt. h about 25 km.
11	13 58 28.8	7.0 N.	73.1 W.	Colombia. Felt at Bogota. h about 132 km.
11	16 52 44.8	31.9 S.	178.5 W.	Kermadec Islands region. h about 37 km.
12	01 40 37.9	19.9 S.	177.5 W.	Tonga Islands region. h about 321 km.

Date 1962	Origin Time G. C. T.	Lat.	Long.	Region, Remarks and Focal Depth
July	h m s	°	°	
12	08 16 42.0	18.9 N.	121.4 E.	Luzon, Philippine Islands. h about 95 km.
12	09 33 21.8	17.9 S.	178.7 W.	Fiji Islands region. h about 545 km.
12	22 50 58.8	3.9 S.	104.1 W.	South Pacific Ocean. h about 25 km. Mag. 5 (Pal).
13	03 31 56.6	9.9 N.	122.6 E.	Panay, Philippine Islands. Felt. h about 52 km.
13	04 10 49.9	32.4 S.	179.7 W.	Kermadec Islands region. h about 87 km.
13	05 01 08.6	30.5 N.	79.6 E.	Tibet-India border. h about 25 km.
13	16 00 00.153			37°03'18" N., 116°02'00" W. Nevada Test Site. MERRIMAC. Shot elevation = 814.1 meters (AEC).
13	22 19 23.3	56.2 N.	164.0 E.	Komandorskie Islands region. h about 59 km.
13	22 55 48.4	11.9 S.	75.1 W.	Peru. h about 91 km.
14	01 02 57.5	51.5 N.	179.1 E.	Rat Islands, Aleutian Islands. h about 72 km.
14	02 23 42.6	36.4 N.	89.8 W.	Southern Missouri. h about 18 km.
14	06 44 26.5	27.3 N.	56.7 E.	Iran. h about 30 km.
14	15 58 53.7	30.4 N.	79.5 E.	Tibet-India border. h about 40 km.
14	18 30 00.123			36°48'09" N., 115°55'30" W. Nevada Test Site. SMALLBOY. Shot elevation = 941.2 meters (AEC).
14	19 43 52.6	40.3 N.	124.4 W.	Off coast of northern California. Felt in Humboldt County. h about 25 km. Mag. 4.9.
14	20 23 14.6	16.9 N.	99.1 W.	Southern Mexico. h about 25 km.
14	20 38 01.3	50.2 N.	155.8 E.	Kurile Islands. h about 60 km.
14	23 34 33.7	18.7 N.	145.5 E.	Mariana Islands. h about 198 km.
15	06 47 22.5	39.8 N.	140.9 E.	Honshu, Japan. h about 103 km.
15	08 06 24.7	14.1 S.	172.2 E.	New Hebrides Islands region. h about 632 km.
15	09 33 42.9	14.6 N.	146.5 E.	Mariana Islands region. h about 57 km.
15	11 59 21.9	45.0 N.	110.2 W.	Wyoming-Montana border. Felt in Yellowstone National Park. h about 25 km.
15	12 37 38.0	20.2 S.	173.7 W.	Tonga Islands. h about 33 km.
15	14 43 50.1	9.3 S.	78.9 W.	Near coast of Peru. h about 80 km.
15	15 12 44.1	40.2 N.	142.4 E.	Honshu, Japan. h about 55 km.
15	17 03 13.9	51.3 N.	178.4 W.	Andreanof Islands, Aleutian Islands. h about 25 km.
15	19 34 09.4	20.3 S.	169.2 E.	Loyalty Islands. h about 24 km.
15	21 52 24.5	14.3 N.	53.3 E.	Gulf of Aden. h about 33 km.
16	02 04 52.6	52.1 S.	138.9 E.	South of Tasmania. h about 14 km.
16	04 49 21.5	11.2 S.	79.8 W.	Near coast of Peru. h about 75 km.
16	06 17 04.0	28.2 N.	142.5 E.	Bonin Islands region. h about 38 km.
16	07 03 50.5	38.2 N.	22.6 E.	Southern Greece. Felt. h about 99 km.

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Date 1962	Origin Time G. C. T.	Lat.	Long.	Region, Remarks and Focal Depth
July	h m s	°	°	
16	07 50 09.8	17.8 S.	178.4 W.	Fiji Islands region. h about 519 km.
16	08 28 10.8	11.8 S.	166.4 E.	Santa Cruz Islands. Felt on Vanikoro. h about 57 km.
16	09 25 58.7	13.2 S.	167.1 E.	New Hebrides Islands region. Felt in Banks Islands. h about 208 km.
16	12 54 40.6	62.3 N.	153.1 W.	Alaska. Felt. h about 39 km. Mag. 6 (Pal).
16	16 16 40.9	34.8 S.	108.6 W.	850 km. south of Easter Island. h about 25 km.
16	20 07 13.4	19.9 S.	175.7 W.	Tonga Islands region. h about 114 km.
17	00 18 14.5	17.3 S.	178.8 W.	Fiji Islands. h about 538 km.
17	04 12 45.4	11.6 N.	87.1 W.	Nicaragua. h about 25 km.
17	05 32 08.8	43.0 S.	74.9 W.	Near coast of southern Chile. h about 26 km.
17	09 40 51.0	14.5 N.	93.0 W.	Near coast of Chiapas, Mexico. h about 33 km.
17	15 53 37.4	15.7 S.	168.2 E.	New Hebrides Islands. h about 164 km.
17	17 20 22.9	43.1 N.	144.5 E.	Hokkaido, Japan. h about 30 km. Mag. $4\frac{3}{4}$-5 (Pal).
17	23 12 09.0	7.8 S.	148.1 E.	New Britain region. h about 42 km.
18	00 13 22.6	11.2 N.	121.9 E.	Panay, Philippine Islands. h about 164 km.
18	01 21 02.8	4.3 S.	152.9 E.	New Britain region. Felt at Rabaul. h about 51 km.
18	05 53 48.1	9.6 S.	119.8 E.	Sumba. h about 68 km.
18	09 23 33.2	7.3 S.	119.7 E.	Flores Sea. h about 533 km.
18	10 10 12.7	15.3 N.	148.1 E.	Mariana Islands region. h about 16 km.
18	14 41 45.0	21.5 S.	175.8 W.	Tonga Islands region. h about 218 km.
19	00 52 13.9	5.1 S.	153.6 E.	New Britain region. h about 49 km.
19	03 39 45.3	17.3 S.	173.3 W.	Tonga Islands region. h about 15 km.
19	12 02 31.3	20.6 S.	68.7 W.	Bolivia-Chile border region. h about 160 km.
19	22 05 45.0	39.8 N.	140.7 E.	Honshu, Japan. h about 93 km.
20	04 36 41.0	51.5 N.	173.6 W.	Fox Islands, Aleutian Islands. h about 25 km.
20	09 02 10.0	39.5 N.	118.2 W.	Nevada. Felt. h about 33 km. Mag. $5\frac{1}{4}$.
20	16 27 20.9	21.0 S.	174.8 W.	Tonga Islands region. h about 28 km.
20	23 31 37.8	5.6 S.	128.7 E.	Banda Sea. h about 297 km.
21	03 07 03.5	37.0 N.	55.4 E.	Northern Iran. h about 33 km.
21	17 28 42.7	36.5 N.	71.6 E.	Hindu Kush. h about 107 km.
22	00 16 07.2	3.2 S.	137.5 E.	Western New Guinea. h about 104 km.
22	00 21 00.8	86.9 N.	50.8 E.	North of Franz Josef Land. h about 33 km.
22	00 21 30.9	5.9 S.	151.7 E.	New Britain region. h about 81 km.
22	13 36 56.6	8.5 S.	158.9 E.	Solomon Islands. h about 144 km.
22	18 09 57.7	24.0 S.	180.0	South of Fiji Islands. h about 634 km.

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Date 1962	Origin Time G. C. T.	Lat.	Long.	Region, Remarks and Focal Depth
July	h m s	°	°	
22	23 49 27.0	3.5 S.	145.6 E.	Bismarck Sea. h about 28 km.
23	01 12 52.6	10.7 N.	86.5 W.	Off coast of Costa Rica. h about 44 km.
23	06 05 18.4	36.1 N.	89.8 W.	Southern Missouri. Felt in Arkansas, Missouri, and Tennessee. h about 18 km.
23	07 19 35.0	22.9 S.	67.8 W.	Northern Chile. h about 193 km.
23	22 11 54.6	19.0 N.	65.1 W.	Virgin Islands region. Felt on Saint Thomas and in eastern Puerto Rico. h about 25 km.
23	23 09 12.4	14.1 S.	166.8 E.	New Hebrides Islands. Felt on Santo. h about 99 km.
24	03 59 35.4	11.2 N.	85.7 W.	Costa Rica. h about 173 km.
24	16 23 10.8	10.3 N.	121.5 E.	Sulu Sea. h about 21 km.
24	21 08 22.1	15.4 N.	92.5 W.	Mexico-Guatemala border region. h about 131 km. Mag. 5½ (Brk), 5¼-5½ (Pal).
25	00 11 52.2	14.4 S.	76.1 W.	Near coast of southern Peru. h about 46 km.
25	04 37 46.5	19.0 N.	81.2 W.	West of Jamaica. h about 33 km. Mag. 6.
25	06 05 15.9	14.3 S.	75.5 W.	Near coast of southern Peru. h about 100 km.
25	06 55 56.7	16.3 S.	75.0 W.	Near coast of southern Peru. h about 33 km.
26	02 33 17.8	4.7 S.	80.9 W.	Off coast of northern Peru. h about 33 km.
26	04 23 11.9	47.1 N.	153.9 E.	Kurile Islands. h about 35 km.
26	05 02 14.0	5.5 S.	151.1 E.	New Britain. h about 93 km.
26	07 01 01.8	5.3 S.	150.8 E.	New Britain. h about 71 km.
26	08 14 44.8	7.4 N.	82.7 W.	South of Panama. Felt at Balboa Heights. h about 33 km. Mag. 6¾.
26	21 32 17.9	56.4 S.	25.7 W.	Sandwich Islands region. h about 25 km.
27	01 16 50.8	21.7 N.	144.4 E.	North of Mariana Islands. h about 100 km.
27	06 11 55.3	14.8 S.	167.6 E.	New Hebrides Islands. Felt on Santo. h about 205 km.
27	11 51 41.0	15.5 S.	167.2 E.	New Hebrides Islands. h about 139 km.
27	12 38 35.1	51.6 N.	174.1 W.	Andreanof Islands, Aleutian Islands. h about 60 km.
27	19 26 34.6	13.2 S.	167.1 E.	Santa Cruz Islands region. h about 286 km.
27	21 00 00.159			37°07'47" N., 116°03'23" W. Nevada Test Site. WICHITA. Shot elevation = 1063.4 meters (AEC).
28	00 05 10.8	16.2 S.	173.2 W.	Samoa Islands region. Felt at Apia. h about 40 km. Mag. 5½ (Pal).
28	02 32 26.0	4.1 S.	79.7 W.	Ecuador. h about 110 km.
28	06 02 12.6	31.6 S.	71.4 W.	San Juan Province, Argentina. h about 53 km.
28	12 17 36.5	37.8 N.	21.3 E.	Southern Greece. h about 113 km.
28	13 58 39.3	14.3 N.	93.0 W.	Near coast of Chiapas, Mexico. h about 63 km. Mag. 4½ (Pal).
28	19 43 00.3	36.9 N.	141.9 E.	Off east coast of Honshu, Japan. h about 39 km.
28	20 46 26.0	44.6 N.	148.6 E.	Kurile Islands. h about 32 km.

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Date 1962	Origin Time G. C. T.	Lat.	Long.	Region, Remarks and Focal Depth
July	h m s	°	°	
28	21 54 42.4	42.5 N.	142.8 E.	Hokkaido, Japan. h about 48 km.
29	03 37 24.4	25.5 N.	125.4 E.	Ryukyu Islands. h about 184 km.
29	08 57 46.1	23.6 N.	114.3 E.	Kwangtung Province, China. Felt at Hong Kong. h about 65 km.
29	18 19 49.9	41.4 S.	173.2 E.	South Island, New Zealand. h about 75 km.
30	00 46 31.7	37.1 S.	72.4 W.	Near coast of southern Chile. h about 30 km.
30	06 58 35.6	2.5 S.	77.0 W.	Ecuador-Peru border. h about 146 km.
30	10 19 38.3	14.6 N.	93.1 W.	Near coast of Chiapas, Mexico. h about 46 km. Mag. $4\frac{1}{2}$-5 (Pal).
30	10 51 03.2	39.7 N.	141.8 E.	Honshu, Japan. h about 37 km.
30	14 04 38.2	19.8 S.	176.9 W.	Tonga Islands. h about 33 km.
30	17 16 47.4	3.4 S.	143.7 E.	Near north coast of New Guinea. Felt. h about 33 km. Mag. $6\frac{3}{4}$-7.
30	18 57 50.7	6.6 N.	73.0 W.	Central Colombia. h about 204 km.
30	20 18 52.3	5.2 N.	76.4 W.	Western Colombia. 47 killed, 300 injured in Caldas Province; property damage over 400,000 square mile area. Felt at Balboa Heights, Canal Zone. h about 69 km. Mag. $6\frac{3}{4}$.
31	01 25 32.7	36.5 N.	22.7 E.	Near south coast of Greece. h about 109 km.
31	02 19 08.7	3.1 S.	143.7 E.	Near north coast of New Guinea. h about 33 km.
31	05 09 17.5	32.5 N.	132.1 E.	Near coast of Shikoku, Japan. h about 33 km.
31	05 13 04.1	18.8 N.	120.8 E.	Near north coast of Luzon, Philippine Islands. h about 39 km.
31	07 22 46.1	40.1 N.	143.0 E.	Off east coast of Honshu, Japan. h about 66 km.
31	11 25 03.8	19.4 S.	66.7 W.	Southern Bolivia. h about 267 km.

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Date and Station		Phase	(GCT) h m s
July 1			
RCD		e(P)	00 19 55
July 1			
ALQ		eP	00 25 42
EUR		eP	00 25 66
July 1			
GUA		iP	00 58 44
		iS	58 58
July 1			
ALQ		eP	01 45 17
BCN		eP	01 44 49
COL		iP	01 44 34
		ipP	45 10
EUR		iP	01 44 50
July 1			
COL		iP	02 08 35
		i	08 40
EUR		e(P)	02 09 37
July 1			
ALQ		eP'	03 55 15
BCN		eP'	03 56 01
COL		iP	03 48 53
		i	49 03
EUR		iP'	03 56 32
FGU		eP'	03 56 20
July 1			
GCA		e(P)	04 02 42
TUC		eP	04 00 35
July 1			
ALQ		eP	05 20 31
COL		iP	05 20 44
		i	21 16
EUR		iP	05 20 12
July 1			
BOZ		eP	06 54 20
July 1			
COL		iP	11 58 02
		i	58 16
EUR		eP	12 00 04
July 1			
ALQ		e(P)	13 47 12
COL		iP	13 47 22
EUR		eP	13 46 48
July 1			
ALQ		e(P)	15 29 48
		e	30 54
FGU		eP	15 28 46
		eS	29 24
July 1			
ALQ		e(P)	15 44 49
July 1			
BCN		e(P)	17 12 22
EUR		eP	17 13 02
July 1			
EUR		eP	18 08 19
July 1			
COL		eP	19 16 09
July 1			
EUR		eP	20 47 03
July 1			
FGU		eP	20 59 36
July 1			
COL		iP	21 34 54
		i	35 05
July 1			
COL		iP	21 33 15
July 1			
ALQ		iP	22 46 37
July 2			
COL		e(P)	08 31 40
		e	34 16
July 2			
ALQ		iP	08 45 50
		ePP	49 31
BCN		eP	08 45 20
BOZ		eP	08 45 44
BUT		iP	08 45 38
COL		iP	08 44 55
		i	45 16
		i	45 24
		i	46 40
		iPP	48 18
EUR		iP	08 45 20
		iPP	48 45
		ePKKP	09 03 03
		eP'P'	11 05
FGU		eP	08 45 44
GCA		e(P)	08 45 33
HON		iP	08 41 08
KIP		iP	08 41 10
SLC		eP	08 45 37
		e	46 39
SJP		eP'	08 51 39
SIT		eP	08 44 55
TUC		iP	08 45 35
		i	46 04
		ePP	49 10
TUT		iP	08 45 36
		ePP	49 09
		e(PKKP)	09 03 09
July 2			
ALQ		e(P)	08 59 09
		e	59 13
		i	09 02 52
BCN		iP	08 57 07
EUR		eP	08 58 02
		iS	58 56
July 2			
COL		i(P)	10 01 15
July 2			
COL		iP	10 31 19
July 2			
COL		eP	12 19 01
		i	19 10
July 2			
COL		eP	15 55 08
		epP	55 52
		esP	56 29
EUR		eP'	16 00 47
July 2			
ALQ		e(P)	19 18 02
EUR		e(P)	19 19 18
TUT		eP	19 18 09
July 2			
COL		iP	22 20 47
July 3			
GUA		iP	00 32 52
		eS	33 00
July 3			
COL		eP	02 22 44
		e	22 55
July 3			
COL		iP	03 28 12
		epP	29 05
		e	29 30
July 3			
TUT		e(P)	04 49 23
July 3			
ALQ		eP	06 35 59
COL		iP	06 36 09
EUR		iP	06 35 36
TUC		eP	06 35 38
TUT		eP	06 35 39
July 3			
COL		eP	06 43 46
July 3			
EUR		eP	07 50 00
July 3			
EUR		eP	08 32 37
July 3			
COL		iP	08 46 59
EUR		e(P)	08 46 26
July 3			
COL		eP	11 06 02
July 3			
COL		iP	13 22 54
		e	23 06
EUR		eP	13 27 08
		i	27 33
July 3			
EUR		iP	13 46 25
July 3			
COL		e(P)	18 11 22
July 3			
COL		eP'	18 32 27
		i	32 45
EUR		eP	18 27 14
		ePP	31 13
TUT		eP	18 26 49
July 3			
ALQ		eP	18 35 13
		e	45 04
		ePKKP	52 12
BCN		eP	18 35 11
COL		eP'	18 40 34
EUR		eP	18 35 26
TUT		eP	18 35 00
July 3			
ALQ		iP	21 28 43

Date and Station		Phase (GCT) h m s
COL	eP	21 30 31
	e	31 37
EUR	iP	21 29 25
FGU	eP	21 28 59
SLC	eP	21 29 11
TUT	eP	21 29 06
July 3		
ALQ	iP	23 12 40
July 4		
ALQ	eP	07 13 07
EUR	eP	07 14 21
TUC	eP	07 13 13
TUT	iP	07 13 12
	e	13 18
July 4		
ALQ	eP	08 06 47
BCN	e(P)	08 07 16
BUT	eP	08 06 18
COL	eP	08 06 37
EUR	iP	08 07 04
FGU	eP	08 06 28
TUC	eP	08 07 23
TUT	eP	08 07 21
	e	07 39
July 4		
ALQ	eP	08 07 28
COL	eP	08 07 19
FGU	iP	08 07 10
TUT	eP	08 08 07
July 4		
RCD	e(P)	08 12 34
July 4		
ALQ	eP	08 52 37
COL	eP	08 52 32
EUR	eP	08 52 47
July 4		
EUR	eP	09 01 38
FGU	e(P)	09 01 02
July 4		
ALQ	eP	09 11 29

Date and Station		Phase (GCT) h m s
BCN	eP	09 12 17
BOZ	e(P)	09 13 09
BUT	eP	09 13 14
COL	eP	09 13 25
EUR	eP	09 12 12
	i	12 45
FGU	e(P)	09 11 37
	e	12 26
TUC	eP	09 11 35
TUT	eP	09 11 35
July 4		
COL	iP	09 16 39
July 4		
ALQ	eP	09 55 40
EUR	eP	09 55 57
July 4		
ALQ	eP	13 08 16
EUR	e(P)	13 09 01
July 4		
CSC	e(P)	16 09 28
TUT	eP	16 13 56
July 4		
SLC	eP	16 41 32
July 4		
COL	iP	17 05 56
EUR	eP	17 09 36
July 4		
BCN	eP	17 13 44
COL	iP	17 13 30
EUR	iP	17 13 45
July 4		
EUR	eP	23 30 31
July 4		
EUR	eP	23 57 14
July 5		
FGU	eP	03 09 57
	i	10 18
July 5		
ALQ	e(P)	05 46 42
COL	eP	05 46 36
EUR	eP	05 47 00

Date and Station		Phase (GCT) h m s
FGU	e(P)	05 46 24
July 5		
ALQ	eP	06 44 22
EUR	eP	06 45 37
TUC	eP	06 44 27
TUT	eP	06 44 27
July 5		
EUR	eP	07 11 48
FGU	e(P)	07 11 12
July 5		
COL	iP	07 42 04
July 5		
COL	iP	07 44 59
EUR	eP	07 45 20
July 5		
FGU	eP	08 18 53
July 5		
COL	eP	10 44 55
July 5		
EUR	eP	13 02 35
July 5		
ALQ	eP	13 46 04
EUR	eP	13 47 09
July 5		
EUR	eP	14 22 47
July 5		
EUR	eP	14 52 26
FGU	iP	14 51 44
	iS	52 01
GCA	eP	14 52 02
	eS	52 38
SLC	eP	14 51 46
July 5		
EUR	eP	15 06 57
July 5		
EUR	e(P)	16 27 46
July 5		
ALQ	eP	17 53 47
BOZ	e(P)	17 53 02
EUR	iP	17 53 01
	ePP	56 00
FGU	eP	17 53 20
GUA	eP	17 45 00
	eS	48 18

Date and Station		Phase (GCT) h m s
HON	eP	17 50 26
	eS	58 02
July 5		
BCN	e(P)	18 26 05
July 5		
EUR	eP	18 47 34
July 5		
EUR	iP	20 20 07
July 5		
ALQ	e(P)	20 52 08
BCN	e(P)	20 52 49
EUR	eP	20 53 24
FGU	e(P)	20 53 29
TUT	e(P)	20 51 48
July 6		
COL	eP	01 24 52
EUR	iP	01 27 39
July 6		
ALQ	e(P)	02 15 48
	e	17 23
July 6		
EUR	e(P)	02 21 47
FGU	eP	02 21 55
July 6		
FGU	e(P)	02 27 55
July 6		
ALQ	eP'	02 31 27
BCN	eP'	02 31 22
BOZ	eP'	02 31 06
COL	e(P)	02 26 03
	iPP	30 15
EUR	iP'	02 31 20
	iPP	33 22
TUC	e(P')	02 31 31
	eP'	31 35
	ePP	34 09
TUT	eP'	02 31 35
July 6		
HON	e(P)	02 35 31
	eL	03 15 26
July 6		
ALQ	eP	09 29 24
BCN	eP	09 29 40
BOZ	eP	09 28 55

Date and Station		Phase (GCT)
		h m s
BUT	eP	09 28 55
COL	eP	09 28 07
	ipP	28 17
EUR	eP	09 29 28
	e(PP)	33 37
	e(P'P')	55 44
HHM	eP	09 28 49
	i	29 59
RCD	eP	09 28 42
SLC	eP	09 29 14
SJP	eP	09 28 01
TUC	eP	09 29 44
TUT	eP	09 29 44
	ePP	33 47
July 6		
HON	e(P)	09 41 32
	e	46 40
	e	57 51
	eL	10 06 40
July 6		
FGU	eP	10 28 14
July 6		
FGU	eP	10 29 07
July 6		
GUA	iP	11 58 40
	eS	58 54
July 6		
BOZ	e(P)	12 02 20
July 6		
ALQ	iP	12 24 20
COL	iP	12 24 28
	i	24 50
	i	25 02
EUR	iP	12 23 57
	i	24 21
FGU	eP	12 24 23
TUC	eP	12 23 56
TUT	iP	12 23 57
July 6		
ALQ	eP	13 40 48
COL	eP	13 41 07
EUR	eP	13 40 31
July 6		
COL	eP	15 21 23

Date and Station		Phase (GCT)
		h m s
EUR	eP	15 24 06
FGU	eP	15 24 19
July 6		
COL	eP	16 06 16
HHM	eP	16 07 03
July 6		
COL	eP	16 33 45
July 6		
ALQ	eP	17 02 00
	i	02 27
	iL	04 12
BCN	iP	17 00 29
BUT	eP	17 02 17
EUR	iP	17 00 40
FGU	iP	17 01 40
	i	01 55
	iL	03 18
GCA	eP	17 00 57
	i	01 02
HHM	e(P)	17 02 47
	eL	05 19
SLC	eP	17 01 17
UKI	e	17 02 10
July 6		
EUR	eP	17 13 34
July 6		
ALQ	iP	18 48 16
COL	iP	18 42 13
	iS	43 03
EUR	eP	18 47 08
FGU	eP	18 47 22
HHM	eP	18 46 15
SIT	eP	18 43 05
July 6		
ALQ	eP	23 02 45
July 6		
ALQ	eP	23 19 35
	iPP	24 04
	i	33 00
BCN	eP	23 19 32
	ePP	23 49
	eSKS	29 51

Date and Station		Phase (GCT)
		h m s
BOZ	eP	23 18 48
	ePP	22 49
	e	23 57
	eSKS	29 01
	e(S)	30 45
BUT	eP	23 18 46
	ePP	22 41
	e	27 45
	eSKS	29 01
	eS	29 51
COL	iP	23 16 50
	iPcP	17 00
	ipP	17 44
	isP	18 00
	iPP	19 44
	iPPP	21 32
	iS	26 08
	eScS	26 30
	isS	27 12
CSC	eP	23 19 18
	ePP	23 40
	iSKS	29 30
EUR	iP	23 19 15
	i	40 05
FGU	eP	23 19 08
	ipP	19 52
	iPP	23 15
	eSKS	29 26
GCA	e(P')	23 22 37
GUA	iP	23 16 19
	epP	17 07
	esP	17 34
	eS	25 08
HON	iP	23 19 25
	ipP	20 42
	iPP	23 52
	ipPP	25 06
	iSKS	29 49
	iS	31 09
	iSP	32 48
	i	33 12
	i	34 08
	iPPS	34 22
	i(SS)	38 38
	i	40 24
	i(SSS)	42 37
	iL	50 12
	i	57 07
HHM	iP	23 18 35
	iSKS	28 48
KIP	e(P)	23 19 40
	e(PP)	23 37
RCD	iP	23 18 55
	epP	19 45
	ePP	22 58
	eS	30 09
	eL	46 22

Date and Station		Phase (GCT)
		h m s
SIT	eP	23 17 43
	epP	18 39
	ePP	21 00
	eS	27 48
THU	iP	23 15 45
	ipP	16 38
	isP	16 57
	i	19 21
	eS	24 09
UKI	eP'	23 22 33
WAS	eP	23 18 48
July 7		
COL	eP	03 12 12
July 7		
EUR	e(P)	06 00 57
July 7		
ALQ	iP	06 22 14
	eS	29 52
	e(SS)	33 20
	iL	39 24
BCN	eP	06 21 29
BOZ	eP	06 21 02
BUT	eP	06 20 52
	eS	27 22
	eL	30 48
COL	iP	06 17 38
	iS	21 16
CSC	eP	06 23 57
	eS	33 08
EUR	iP	06 21 08
FGU	iP	06 21 30
GCA	eP	06 21 40
GUA	e(P)	06 21 21
HON	iP	06 19 37
	e(PP)	20 42
	iL	26 54
	iScS	29 58
HHM	eP	06 20 37
	i	20 50
	e(S)	26 54
	eL	37 28
KIP	iP	06 19 37
	eT	56 02
	iT	56 17
RCD	eP	06 21 44
	eS	26 55
SLC	eP	06 21 21

Date and Station		Phase (GCT)
		h m s
SJP	iP	06 25 46
	ipP	25 58
SIT	e(P)	06 18 25
THU	iP	06 21 05
	i	21 17
	e	21 26
	ePP	22 40
UKI	e(P)	06 20 35
WAS	eP	06 23 48
July 7		
COL	iP	06 25 10
July 7		
COL	eP	06 51 21
EUR	eP	06 51 55
July 7		
COL	eP	07 05 01
EUR	iP	07 08 29
July 7		
ALQ	eP	07 24 01
COL	iP	07 19 26
EUR	iP	07 22 53
FGU	e(P)	07 23 11
HHM	eP	07 22 23
SJP	iP	07 27 34
	ipP	27 45
THU	e(P)	07 22 51
July 7		
EUR	eP	08 20 09
UKI	iP	08 19 03
July 7		
COL	iP	10 02 05
EUR	eP	10 08 39
July 7		
ALQ	eP	10 29 04
COL	iP	10 24 31
EUR	iP	10 27 58
July 7		
COL	eP	12 00 34
EUR	eP'	12 05 58
July 7		
EUR	eP	15 24 16

Date and Station		Phase (GCT)
July 7		h m s
EUR	eP	19 17 10
July 7		
COL	eP	19 23 49
July 7		
ALQ	eP	21 31 46
COL	iP	21 27 06
EUR	iP	21 30 49
FGU	eP	21 31 06
RCD	eP	21 31 14
TUC	eP	21 31 42
July 8		
CSC	e(P)	00 33 11
July 8		
ALQ	eP	02 35 36
COL	eP	02 39 13
EUR	eP	02 36 31
FGU	eP	02 36 17
July 8		
ALQ	iP	03 31 28
BCN	eP	03 30 45
BOZ	eP	03 30 18
COL	iP	03 26 54
	eL	30 00
EUR	iP	03 30 23
FGU	iP	03 30 46
HON	eP	03 28 57
	eS	34 36
	eL	36 48
HHM	eP	03 29 51
KIP	iP	03 28 52
	eT	04 05 27
	iT	05 32
RCD	eP	03 30 59
	e	31 29
SLC	eP	03 30 36
SJP	iP	03 35 02
	ipP	35 14
THU	iP	03 30 19
TUC	iP	03 31 22

Date and Station		Phase (GCT)
		h m s
TUT	iP	03 31 22
	epP	31 46
	ePcP	32 27
July 8		
FGU	eP	04 13 24
	i	14 20
July 8		
COL	eP'	04 23 35
	iP'	23 41
	i	24 03
	eSKS	30 58
EUR	eP'	04 22 42
	ePKKP	32 54
July 8		
ALQ	iP	05 37 38
EUR	eP	05 38 42
July 8		
ALQ	eP	07 41 47
BUT	eP	07 42 22
COL	eP	07 43 53
EUR	iP	07 42 35
FGU	e(P)	07 42 04
RCD	eP	07 41 39
TUC	eP	07 42 09
TUT	eP	07 42 08
July 8		
EUR	eP	08 21 28
July 8		
EUR	eP	08 56 22
July 8		
GUA	eP	09 02 14
	eS	02 52
COL	eP	09 12 30
EUR	eP	09 14 22
July 8		
THU	eP	09 41 05
July 8		
EUR	e(P)	11 12 52
July 8		
ALQ	iP	12 14 30
COL	iP	12 14 30
EUR	iP	12 14 09
FGU	eP	12 14 32

Date and Station		Phase (GCT)
		h m s
TUC	iP	12 14 09
TUT	e(P)	12 14 14
July 8		
ALQ	eP	13 04 20
	e	07 38
	eL	09 48
BCN	eP	13 05 06
COL	iP	13 09 47
EUR	eP	13 05 36
	eL	13 47
FGU	eP	13 05 25
TUC	e(P)	13 04 11
	e(L)	08 30
July 8		
EUR	eP	13 25 30
July 8		
EUR	eP	14 08 39
July 8		
ALQ	eP	16 00 06
	i	00 32
	i	02 12
BCN	iP	15 58 44
EUR	iP	15 58 45
	iS	59 10
FGU	eP	15 59 40
GCA	eP	15 59 08
	i(S)	59 46
SLC	e(P)	15 59 29
TUC	eP	15 59 51
	e	16 00 16
	eL	01 43
TUT	eP	15 59 52
	e	16 00 17
	e(S)	01 31
	eL	01 42
July 8		
HHM	e(P)	17 04 17
	i	05 07
July 8		
COL	eP	17 32 54
July 8		
BOZ	eP	17 48 50
BUT	eP	17 48 38
EUR	e(P)	17 49 18
	iL	50 39

Date and Station		Phase	(GCT)
			h m s
July 8			
COL	eP		21 21 40
July 8			
COL	iP		23 08 09
EUR	eP		23 07 35
TUC	eP		23 07 30
TUT	eP		23 07 31
July 8			
COL	eP		23 27 42
EUR	eP		23 31 32
July 9			
TUC	eP		01 44 05
July 9			
COL	iP		02 43 20
	i		43 32
EUR	eP		02 47 13
July 9			
BOZ	eP		07 02 23
BUT	iP		07 02 36
EUR	eP		07 03 47
	eL		05 24
HHM	eP		07 03 12
	i		03 22
	eS		04 03
RCD	e(P)		07 03 32
	e(S)		04 56
SLC	e(P)		07 03 11
July 9			
COL	iP		09 52 35
	iS		53 34
EUR	eP		09 57 25
July 9			
EUR	eP		11 40 24
July 9			
COL	e(P)		13 28 06
EUR	eP		13 31 28
July 9			
COL	iP		14 00 37
EUR	eP		14 03 53
July 9			
EUR	eP		14 40 45
July 9			
GUA	e(P)		17 33 23

Date and Station		Phase	(GCT)
			h m s
July 9			
COL	eP		21 47 35
	iS		48 32
	iL		48 50
July 9			
ALQ	e(P)		22 04 11
July 9			
ALQ	e(P)		23 42 34
July 10			
ALQ	eP		00 55 44
	e		57 19
COL	iP		00 51 02
EUR	iP		00 54 33
TUC	e(P)		00 55 32
TUT	eP		00 55 33
July 10			
EUR	eP		04 33 54
TUC	iP		04 33 12
	e		33 21
TUT	eP		04 33 12
July 10			
ALQ	iP		05 23 57
COL	iP		05 23 57
	ipP		26 09
EUR	iP		05 23 36
TUC	iP		05 23 36
TUT	e(P)		05 23 32
July 10			
BHP	iP		05 39 34
	iS		40 18
July 10			
ALQ	eP		09 41 50
COL	iP		09 37 28
EUR	eP		09 40 46
July 10			
EUR	eP		10 19 27
July 10			
COL	iP		13 08 26
EUR	eP		13 07 59
July 10			
ALQ	iP		19 30 34
COL	iP		19 34 26
	i		34 35
EUR	eP		19 31 36

Date and Station		Phase	(GCT)
			h m s
July 10			
BCN	eP		20 59 43
COL	eP		21 04 05
July 11			
SLC	e(P)		00 06 27
	e		06 53
July 11			
COL	iP		01 16 06
	e(PP)		19 25
July 11			
EUR	iP		03 24 37
July 11			
EUR	eP		07 01 38
July 11			
ALQ	iP		07 28 03
COL	iP		07 23 19
EUR	iP		07 27 05
HHM	eP		07 26 29
RCD	iP		07 27 30
TUC	eP		07 28 00
July 11			
GUA	iP		07 58 07
	eS		58 19
July 11			
ALQ	eP		09 06 58
BCN	eP		09 06 56
TUC	eP		09 07 07
July 11			
ALQ	eP		11 44 09
July 11			
ALQ	eP'		12 59 12
COL	iP		12 52 36
	i		53 08
EUR	eP		12 54 43
	eP'		57 59
	e(PP)		58 49
	i		59 17
	ePKKP		13 10 39
GUA	eP		12 45 29
	eL		49 50
HON	e(P)		12 51 55
	ePP		55 06
	eS		13 02 16
	ePPS		03 11
	e		04 52
	e		06 56
	eSSS		11 35
	eL		15 30

Date and Station		Phase	(GCT)
			h m s
HHM	e(P)		12 54 28
SJP	eP'		13 00 12
July 11			
COL	iP		12 53 43
July 11			
ALQ	eP		13 10 00
FGU	eP		13 06 17
July 11			
COL	iP		13 48 52
July 11			
ALQ	eP		14 06 05
BHP	iP		14 00 02
	iS		01 19
COL	eP		14 10 09
EUR	eP		14 07 14
SJP	eP		14 01 33
July 11			
ALQ	eP		14 14 00
July 11			
HON	eP		15 41 50
	eS		45 50
	eL		46 28
July 11			
BCN	eP		16 45 32
EUR	iP		16 45 41
	iL		46 16
July 11			
EUR	eP		17 05 50
July 11			
EUR	eP		20 35 24
July 11			
EUR	iP		22 33 31
July 11			
FGU	eP		23 13 05
July 12			
COL	eP		01 52 48
	ipP		54 15
EUR	eP		01 52 26
TUC	eP		01 52 27
TUT	eP		01 52 27
July 12			
COL	eP		06 57 35
EUR	iP		07 01 20

Date and Station		Phase (GCT)
		h m s
July 12		
COL	eP	08 28 06
July 12		
ALQ	eP	09 45 08
COL	iP	09 45 03
EUR	eP	09 44 44
FGU	eP	09 45 09
TUC	eP	09 44 46
TUT	iP	09 44 47
July 12		
SLC	eP	17 58 42
July 12		
SLC	eP	19 06 40
July 12		
EUR	eP	20 29 15
July 12		
ALQ	e(P)	20 34 43
BCN	eP	20 33 50
	e	34 10
EUR	eP	20 34 35
	eL	36 25
GCA	e(P)	20 34 12
	i	34 26
	eS	35 33
July 12		
COL	eP	20 36 33
July 12		
ALQ	eP	22 58 23
BHP	iP	22 56 55
COL	eP	23 02 49
CSC	eP	22 59 05
EUR	iP	22 59 11
FGU	eP	22 59 13
GCA	e(P)	22 58 51
HHM	eP	23 00 13
TUT	iP	22 58 06
July 12		
HON	eP	23 09 06
	ePP	10 26
	eS	15 14
	eL	17 14
	iScS	19 20
July 13		
HHM	eP	01 10 41
	e	12 38

Date and Station		Phase (GCT)
		h m s
July 13		
ALQ	eP'	03 50 35
COL	eP	03 44 07
	ePP	47 16
GUA	iP	03 36 52
	e	37 49
	e	39 25
	eS	41 03
HON	eP	03 43 43
	eS	53 32
	eSS	58 32
	eSSS	04 01 18
	eL	03 56
SJP	eP'	03 51 41
July 13		
ALQ	e(P)	04 01 12
July 13		
EUR	iP	04 23 53
TUC	eP	04 23 42
July 13		
COL	iP	05 13 07
	ePP	16 02
July 13		
GCA	iP	09 18 18
July 13		
ALQ	eP	13 44 49
COL	eP	13 50 02
EUR	eP	13 47 04
TUC	eP	13 44 52
TUT	eP	13 44 51
July 13		
HHM	e(P)	15 05 01
	e(S)	06 01
July 13		
ALQ	eP	16 01 59
	i	02 29
	eL	04 10
BCN	iP	16 00 26
BOZ	e(P)	16 02 24
BUT	eP	16 02 21
COL	iP	16 06 44
EUR	iP	16 00 41
FGU	eP	16 01 39
	e	05 00
	eL	03 21
HHM	e(P)	16 02 49

Date and Station		Phase (GCT)
		h m s
SLC	e(P)	16 01 28
	e	01 41
	eL	02 46
July 13		
COL	iP	16 28 54
July 13		
ALQ	eP	17 58 28
	e	59 28
	e	18 00 14
BCN	iP	17 56 28
BUT	e(P)	17 58 42
COL	eP	18 02 47
EUR	iP	17 56 41
FGU	e(P)	17 57 41
July 13		
SLC	eP	19 46 32
	e	49 08
July 13		
EUR	eP	20 13 25
July 13		
FGU	e(P)	20 35 41
July 13		
BCN	e(P)	22 29 02
BUT	eP	22 28 16
COL	iP	22 24 40
	i	24 53
CSC	e(P)	22 30 59
EUR	iP	22 28 38
HON	eS	22 34 17
	eSS	37 42
	eL	40 17
HHM	e(P)	22 27 58
July 13		
ALQ	iP	23 05 14
BCN	eP	23 05 52
BUT	eP	23 06 31
COL	iP	23 08 55
	epP	09 25
EUR	iP	23 06 12
FGU	iP	23 06 57
	e	06 30
HHM	iP	23 06 48
	ePP	09 22
	i	09 49

Date and Station		Phase (GCT)
		h m s
SJP	eP	23 02 05
July 14		
ALQ	eP	01 12 17
BCN	eP	01 11 34
COL	iP	01 07 42
	iPcP	11 41
	iScP	15 14
EUR	iP	01 11 12
FGU	iP	01 11 34
	e	13 00
SJP	iP	01 15 52
July 14		
ALQ	e(P)	02 27 06
	e	29 38
	e	30 51
CSC	e(P)	02 29 23
July 14		
EUR	eP	08 08 35
July 14		
ALQ	e(P)	15 06 02
July 14		
COL	iP	16 10 51
	i	11 03
	e(PP)	13 45
July 14		
HON	iP	17 38 28
	iS	38 56
	iL	38 59
KIP	iP	17 38 28
	iS	38 57
	iL	39 00
July 14		
ALQ	e(P)	18 32 09
BCN	iP	18 30 22
July 14		
ALQ	eP	19 47 30
	iS	50 36
BCN	eP	19 46 05
BUT	eP	19 46 23
COL	eP	19 49 47
CSC	e(P)	19 50 45
	ePP	51 56
EUR	eP	19 45 32
FGU	eP	19 46 38
GCA	eP	19 46 30

Date and Station		Phase (GCT)
		h m s
HON	e	19 52 05
	e	56 24
	eL	58 18
HHM	eP	19 46 32
	eL	48 56
KIP	eT	20 26 28
RCD	iP	19 47 39
UKI	iP	19 44 21
July 14		
ALQ	eP	20 27 37
BCN	eP	20 28 24
COL	eP	20 33 05
FGU	eP	20 28 42
GCA	eP	20 28 18
July 14		
ALQ	iP	20 48 59
	epP	49 13
BCN	eP	20 48 24
BOZ	eP	20 47 54
COL	iP	20 44 29
	i	44 48
CSC	eP	20 50 19
FGU	eP	20 48 21
GCA	e(P)	20 48 31
HON	eS	20 53 14
	e	56 38
	eL	58 57
HHM	eP	20 47 31
	epP	47 43
KIP	e(P)	20 46 32
	eT	21 35 07
RCD	eP	20 48 30
THU	iP	20 46 55
	epP	47 07
July 14		
ALQ	eP	23 47 29
COL	iP	23 44 41
FGU	eP	23 47 06
GUA	eP	23 35 51
HHM	e(P)	23 46 39

Date and Station		Phase (GCT)
		h m s
July 15		
CSC	e(P)	01 35 53
July 15		
ALQ	eP	03 38 13
THU	eP	03 31 06
	i	31 43
	i	32 15
	e	32 52
July 15		
HHM	eP	03 46 38
July 15		
FGU	eP	04 36 13
HHM	eP	04 36 15
	i	36 26
	iS	37 15
July 15		
BOZ	iP	05 44 00
BUT	iP	05 44 15
	i(S)	44 36
	iL	44 38
FGU	eP	05 44 48
RCD	eP	05 45 28
July 15		
HHM	eP	05 59 50
	i	06 00 02
	iS	00 24
July 15		
ALQ	iP	06 59 40
	ipP	07 00 04
BCN	eP	06 59 08
	epP	59 33
BOZ	eP	06 58 46
	ipP	59 11
BUT	eP	06 58 38
	ipP	59 04
COL	iP	06 55 47
	i	56 00
	i	56 22
	iS	07 02 31
FGU	eP	06 59 08
	ipP	59 33
GCA	eP	06 59 12
	ipP	59 40
GUA	eP	06 52 46
HON	eP	06 56 44
	e	57 20
	eS	07 04 19
	e	06 24
	eL	10 26

Date and Station		Phase (GCT)
		h m s
HHM	eP	06 58 26
	ipP	58 50
KIP	iP	06 56 42
RCD	iP	06 59 15
	ipP	59 40
SLC	iP	06 59 01
	epP	59 26
THU	eP	06 57 36
	e	57 50
	e	58 07
July 15		
COL	iP	08 17 53
July 15		
ALQ	eP	09 47 03
BUT	eP	09 46 23
COL	iP	09 44 29
	e	46 55
	e	47 05
FGU	eP	09 46 42
GUA	iP	09 34 14
	e(S)	34 46
HHM	eP	09 46 17
July 15		
ALQ	e(P)	12 02 04
BOZ	iP	11 59 37
BUT	eP	11 59 52
COL	eP	12 05 21
EUR	iP	12 01 05
FGU	eP	12 00 25
	i	00 32
HHM	iP	12 00 27
	i	00 38
	eL	01 26
RCD	e(P)	12 00 47
	eP	01 06
	e(S)	02 11
SLC	iP	12 00 30
July 15		
COL	iP	12 50 24
July 15		
HHM	eP	14 16 41
	eS	17 22
July 15		
ALQ	eP	14 52 47

Date and Station		Phase (GCT)
		h m s
COL	eP	14 56 40
EUR	eP	14 53 47
FGU	eP	14 53 32
July 15		
ALQ	eP	15 25 00
COL	eP	15 21 04
	i	21 12
EUR	eP	15 24 11
HHM	eP	15 23 45
July 15		
HHM	e(P)	16 53 29
July 15		
ALQ	eP	17 12 29
COL	iP	17 07 56
EUR	iP	17 11 23
FGU	eP	17 11 46
HHM	eP	17 10 52
July 15		
UKI	iP	19 37 26
July 15		
COL	iP	19 41 20
	iS	41 58
EUR	iP	19 45 31
	i	45 53
July 15		
COL	eP	20 04 26
July 16		
COL	eP	00 12 12
July 16		
COL	eP	01 19 12
	i	19 15
July 16		
THU	e(P)	01 45 35
July 16		
SLC	eP	02 08 09
July 16		
ALQ	eP'	02 24 06
	e	27 30
COL	eP'	02 24 02
CSC	eP'	02 24 35
EUR	iP'	02 24 01
THU	eP'	02 24 47

Date and Station		Phase (GCT)
July 16		h m s
EUR	eP	02 34 51
	eL	36 19
UKI	eP	02 33 16
July 16		
COL	e(P)	02 57 05
HHM	eP	03 00 07
July 16		
BHP	iP	03 00 38
	iS	00 56
July 16		
BHP	iP	04 53 54
BCN	eP	04 59 04
BOZ	eP	04 59 45
BUT	eP	04 59 51
COL	iP	05 02 19
CSC	eP	04 57 31
EUR	iP	04 59 26
FGU	iP	04 59 12
GCA	eP	04 58 58
SLC	eP	04 59 20
SJP	iP	04 55 47
THU	eP	05 02 03
	e	02 19
TUC	eP	04 58 24
TUT	iP	04 58 24
July 16		
BUT	eP	06 29 09
COL	eP	06 26 43
EUR	eP	06 29 15
FGU	eP	06 29 33
HHM	e(P)	06 29 09
July 16		
COL	eP	06 31 16
July 16		
COL	eP	06 59 26
July 16		
COL	eP	07 15 38
EUR	eP	07 17 00
FGU	eP	07 16 38

Date and Station		Phase (GCT)
July 16		h m s
COL	iP	08 01 52
	e	02 10
EUR	eP	08 01 34
FGU	eP	08 01 56
July 16		
COL	eP	08 40 32
EUR	eP	08 40 56
	i	41 09
July 16		
COL	eP	09 04 09
July 16		
BCN	eP	09 38 27
COL	iP	09 38 10
	i	38 56
EUR	iP	09 38 29
	ePKKP	56 04
HON	eS	09 41 10
	eSS	45 56
	eL	50 30
July 16		
ALQ	eP	09 39 44
BCN	eP	09 39 14
BUT	eP	09 39 36
EUR	iP	09 39 16
FGU	eP	09 39 38
GCA	eP	09 39 27
HHM	eP	09 39 34
July 16		
COL	iP	11 33 07
	i	33 15
EUR	eP	11 32 09
HHM	eP	11 32 18
July 16		
ALQ	eP	12 45 49
EUR	e(P)	12 46 57
July 16		
ALQ	iP	13 02 12
	e	04 18
BCN	eP	13 01 35
BOZ	eP	13 00 39
BUT	eP	13 00 29

Date and Station		Phase (GCT)
		h m s
COL	iP	12 55 34
CSC	eP	13 03 49
EUR	iP	13 01 05
	iPcP	03 54
	iScP	07 34
	eL	11 47
FGU	iP	13 01 17
GCA	eP	13 01 38
HON	eP	13 02 22
	e	04 19
	iS	08 41
	iL	11 42
HHM	iP	13 00 08
	eS	04 30
	iL	08 22
KIP	iP	13 02 21
RCD	e(P)	13 01 24
	eS	06 45
SLC	iP	13 01 10
SJP	iP	13 06 03
THU	eP	13 00 43
	ePP	01 36
	e	02 34
	e	03 46
TUC	iP	13 02 17
WAS	eP	13 03 32
	eS	10 38
	eL	14 48
July 16		
TUC	eP	13 39 28
TUT	eP	13 39 27
July 16		
SIT	eP	13 57 03
	eS	59 28
July 16		
ALQ	eP	16 27 48
BCN	eP	16 27 57
EUR	iP	16 28 18
HHM	eP	16 29 06
TUT	eP	16 27 34
July 16		
GUA	iP	17 51 36
July 16		
COL	eP	20 19 48

Date and Station		Phase (GCT)
July 16		h m s
COL	iP	21 17 32
July 16		
FGU	e(P)	22 44 31
HHM	eP	22 43 57
July 17		
EUR	eP	00 29 38
July 17		
COL	eP	01 10 23
July 17		
ALQ	iP	04 18 50
COL	eP	04 23 39
CSC	eP	04 17 51
EUR	eP	04 20 03
FGU	eP	04 19 39
	e	19 45
HHM	eP	04 20 45
	iPP	22 34
SJP	eP	04 17 30
WAS	e(P)	04 18 42
July 17		
ALQ	iP	05 44 32
BCN	eP	05 44 51
BUT	eP	05 45 28
COL	eP'	05 50 59
EUR	iP	05 45 08
FGU	eP	05 45 02
HON	eP	05 45 55
	ePP	49 57
	e	50 33
	eSKS	56 36
	eS	57 38
	ePS	58 52
	iSS	06 04 18
	eL	18 00
HHM	eP	05 45 40
RCD	iP	05 45 08
SLC	iP	05 45 06
SJP	eP	05 42 22
THU	eP'	05 52 07
TUC	iP	05 44 28
TUT	iP	05 44 26

Date and Station		Phase (GCT)
		h m s
WAS	iP	05 44 26
	e(PP)	47 22
July 17		
FGU	eP	05 56 07
	e	56 59
HHM	eP	05 56 00
	i	56 11
	iS	57 02
July 17		
EUR	eP	07 18 35
July 17		
ALQ	eP	07 55 38
BCN	iP	07 54 24
EUR	iP	07 54 12
	iS	54 54
FGU	eP	07 55 52
SLC	eP	07 56 35
TUC	eP	07 55 25
TUT	eP	07 55 25
July 17		
ALQ	iP	09 46 02
BCN	eP	09 46 50
BUT	eP	09 47 47
COL	iP	09 51 12
CSC	eP	09 45 48
EUR	iP	09 47 17
FGU	eP	09 46 59
HHM	eP	09 48 08
	i	48 11
THU	e(P)	09 51 06
TUC	eP	09 46 07
TUT	eP	09 46 06
July 17		
EUR	eP	10 56 09
July 17		
ALQ	eP	17 32 25
BCN	eP	17 31 52
	e	32 05
BUT	eP	17 31 21
COL	iP	17 28 19
	iS	34 34

Date and Station		Phase (GCT)
		h m s
EUR	iP	17 31 35
FGU	eP	17 31 52
	i	32 04
HON	eP	17 29 42
	iS	36 54
	eSS	40 32
	eL	43 50
HHM	eP	17 31 06
	i	31 47
KIP	iP	17 29 47
RCD	e(P)	17 32 11
	eS	41 24
SLC	e(P)	17 31 57
THU	eP	17 30 19
	e	31 13
TUT	eP	17 32 22
	e	32 35
WAS	eP	17 33 21
July 17		
COL	e(P)	23 24 50
July 17		
EUR	iP	23 57 52
	iS	58 18
FGU	e(P)	23 59 23
	e	24 00 16
HHM	e(P)	23 59 35
	e	24 00 54
July 18		
COL	iP	01 33 13
	ipP	33 31
EUR	eP	01 34 13
GUA	eP	01 25 28
July 18		
GUA	iP	02 36 22
	e	36 37
July 18		
HHM	e(P)	03 18 01
July 18		
COL	iP	04 24 13
July 18		
ALQ	eP'	06 12 56
EUR	eP'	06 12 37
July 18		
ALQ	iP	06 16 11
	i	16 44

Date and Station		Phase (GCT)
July 18		h m s
EUR	eP'	09 41 27
July 18		
ALQ	iP	09 44 17
July 18		
EUR	eP	10 13 56
GUA	iP	10 01 28
	eS	01 47
July 18		
ALQ	eP	10 23 31
BCN	eP	10 22 58
	e	24 38
BOZ	eP	10 22 59
COL	iP	10 20 56
EUR	iP	10 22 51
FGU	eP	10 23 10
	i	24 17
GUA	iP	10 11 08
	eS	11 44
HHM	iP	10 22 44
RCD	iP	10 23 25
TUC	eP	10 23 20
TUT	eP	10 23 20
July 18		
CSC	eP	10 20 40
EUR	iP	10 24 54
SJP	eP	10 20 03
	e(S)	22 08
WAS	eP	10 21 42
July 18		
THU	e(P)	13 01 10
July 18		
COL	iP	14 54 14
EUR	eP	14 53 46
July 18		
HHM	e(P)	20 30 04
July 18		
EUR	eP	20 45 53
TUT	iP	20 44 43
July 18		
BCN	eP	23 08 26
July 18		
BCN	eP	23 59 55

Date and Station		Phase (GCT)
July 19		h m s
COL	iP	01 04 28
	i	05 00
EUR	eP	01 05 25
GUA	eP	00 56 51
July 19		
SJP	eP	01 15 08
July 19		
THU	eP	01 56 54
	e	57 10
	e	57 40
July 19		
COL	iP	03 52 20
EUR	eP	03 51 46
July 19		
EUR	eP	06 27 57
July 19		
BHP	iP	06 28 16
	iS	29 06
July 19		
EUR	eP	11 27 36
TUC	eP	11 27 35
July 19		
BCN	e(P)	12 13 34
EUR	eP	12 13 52
FGU	iP	12 13 39
HHM	eP	12 14 22
	e	14 49
SJP	iP	12 09 44
TUC	eP	12 13 04
TUT	eP	12 13 03
July 19		
COL	iP	12 59 54
July 19		
GUA	iP	17 43 08
	e(S)	45 20
July 19		
COL	eP	22 14 09
	i	14 52
EUR	eP	22 17 15
July 19		
BCN	e(P)	23 03 29
GCA	e(P)	23 05 16
July 20		
COL	eP	01 28 18
EUR	eP	01 31 42

Date and Station		Phase (GCT)
		h m s
HHM	eP	01 31 13
July 20		
ALQ	eP	04 45 39
COL	iP	04 41 02
EUR	eP	04 44 25
HHM	eP	04 43 54
July 20		
THU	iP	05 36 52
	e	37 06
	e	37 40
July 20		
ALQ	eP	07 29 35
	iS	31 00
BCN	iP	07 28 43
EUR	iP	07 29 04
	iL	29 58
FGU	eP	07 29 24
	i	29 36
	iS	50 26
GCA	iP	07 28 28
	i(S)	28 39
July 20		
ALQ	e(P)	09 04 32
	i	05 20
BOZ	e(P)	09 04 06
COL	eP	09 08 26
EUR	iP	09 02 35
	iS	02 58
FGU	iP	09 03 51
	iL	05 34
GCA	eP	09 03 37
	i	03 54
	iL	05 02
HHM	eP	09 04 26
	iL	06 58
RCD	eP	09 05 02
SLC	iP	09 03 28
	eL	04 55
TUC	e(P)	09 04 27
	i	05 01
	eL	07 07
TUT	e(P)	09 04 26
	i	05 00
	eL	07 01
UKI	e(P)	09 03 18
	e	04 10

Date and Station		Phase (GCT)
July 20		h m s
WAS	e(P)	09 18 28
July 20		
COL	eP	13 32 18
July 20		
EUR	eP	14 28 08
July 20		
ALQ	eP	16 39 59
BCN	eP	16 39 31
COL	iP	16 40 12
EUR	iP	16 39 39
FGU	eP	16 40 04
July 20		
BCN	eP	17 18 36
EUR	iP	17 17 02
	eL	18 39
FGU	eP	17 18 10
HHM	eP	17 18 03
UKI	iP	17 15 50
July 20		
THU	e(P)	18 53 27
July 20		
ALQ	eP	23 02 22
July 21		
COL	iP	03 18 53
July 21		
COL	eP	06 15 59
July 21		
EUR	eP	07 11 29
July 21		
ALQ	eP	07 42 43
EUR	eP	07 43 42
July 21		
COL	iP	08 30 49
July 21		
ALQ	eP	10 38 46
EUR	e(P)	10 39 05
July 21		
EUR	e(P)	18 08 43
July 21		
EUR	eP	19 35 40
July 21		
HHM	e(P)	20 35 03
July 21		
ALQ	eP	21 08 24

Date and Station		Phase (GCT)
		h m s
EUR	eP	21 09 34
FGU	eP	21 09 12
SJP	eP	21 05 52
	iP	05 57
TUC	eP	21 08 29
TUT	eP	21 08 29
July 21		
EUR	eP	22 52 36
July 21		
SLC	eP	23 14 46
July 22		
EUR	eP	00 30 23
FGU	e(P)	00 30 10
July 22		
EUR	eP	00 34 53
GUA	iP	00 26 07
	i	26 11
	i	26 18
	i(pP)	26 26
	i	27 47
July 22		
GCA	e(P)	03 31 08
	e	31 12
July 22		
EUR	eP	04 34 10
July 22		
THU	eP	04 46 06
July 22		
COL	iP	05 10 15
July 22		
EUR	eP	10 12 13
July 22		
BCN	eP	13 49 51
COL	iP	13 49 06
EUR	iP	13 49 50
FGU	eP	13 50 13
GUA	eP	13 42 16
	ipP	42 48
HON	eS	13 53 11
	e	54 02
	eL	59 42
July 22		
TUC	e(P)	17 07 38
	eL	08 21

Date and Station		Phase (GCT)
		h m s
TUT	e(P)	17 07 40
	eL	08 24
July 22		
EUR	eP	18 21 45
July 22		
BCN	e(P)	18 29 53
TUC	eP	18 28 15
	eL	29 04
TUT	e(P)	18 28 16
	eL	29 03
July 22		
COL	iP	20 09 04
	iS	09 20
July 22		
FGU	eP	22 34 01
July 22		
COL	iP	23 23 14
	i	23 30
July 23		
COL	iP	00 01 54
	i	02 35
July 23		
ALQ	eP	01 05 04
July 23		
BHP	eP	01 14 33
	eL	16 17
BCN	eP	01 19 55
BUT	eP	01 20 36
COL	iP	01 23 54
	e	24 20
	ePP	26 16
CSC	eP	01 18 05
FGU	eP	01 19 56
GCA	eP	01 19 43
SJP	eP	01 17 38
TUC	eP	01 19 11
TUT	eP	01 19 10
	i	19 21
WAS	eP	01 18 55
July 23		
COL	e(P)	05 49 10
July 23		
ALQ	e(P)	06 09 09
	e	10 41

Date and Station		Phase (GCT)
July 23		h m s
ALQ	iP	06 20 24
COL	iP	06 17 36
FGU	eP	06 21 27
July 23		
COL	iP	06 25 47
July 23		
ALQ	eP	07 30 20
COL	iP	07 25 11
FGU	eP	07 30 58
July 23		
COL	eP	11 07 52
July 23		
BOZ	eP	11 13 04
FGU	e(P)	11 12 11
	e	13 55
HHM	eP	11 13 40
	e	13 52
	i	14 04
	iS	14 49
July 23		
FGU	e(P)	11 26 04
HHM	eP	11 29 49
July 23		
EUR	eP	14 31 13
FGU	e(P)	14 33 40
July 23		
EUR	eP	14 41 40
July 23		
COL	iP	14 51 05
July 23		
COL	iP	15 10 28
	i	10 47
EUR	eP	15 09 59
July 23		
THU	e(P)	20 51 34
July 23		
ALQ	eP	22 19 27
COL	iP	22 23 04
CSC	eP	22 16 34
	i	16 44
	e	20 04
EUR	eP	22 20 34
FGU	e(P)	22 19 57

Date and Station		Phase (GCT)
		h m s
HHM	eP	22 20 40
SJP	iP	22 12 15
	iS	12 24
TUT	eP	22 19 50
July 23		
COL	iP	23 21 40
EUR	eP	23 22 01
July 23		
ALQ	e(P)	23 59 29
July 24		
SJP	iP	03 19 16
	eS	19 42
July 24		
ALQ	eP	04 05 31
COL	iP	04 10 18
CSC	eP	04 04 27
EUR	eP	04 06 46
FGU	iP	04 06 23
GCA	eP	04 06 11
SJP	eP	04 04 00
TUC	eP	04 05 39
TUT	eP	04 05 39
July 24		
EUR	eP	09 47 43
FGU	eP	09 46 36
	e	47 03
July 24		
COL	iP	10 07 12
July 24		
EUR	eP	10 22 21
FGU	eP	10 22 37
July 24		
COL	iP	16 35 27
July 24		
ALQ	iP	21 13 19
	eS	17 32
BHP	iP	21 11 35
BCN	iP	21 14 09
	e	24 07
BOZ	eP	21 14 55
BUT	eP	21 15 06

Date and Station		Phase (GCT)
		h m s
COL	iP	21 18 28
CSC	iP	21 12 59
	i(S)	19 17
EUR	eP	21 14 36
FGU	iP	21 14 15
	i	14 36
GCA	eP	21 13 58
	ePP	14 50
	eL	19 04
HON	iP	21 18 31
	ipP	19 00
	iS	26 55
	i(sS)	27 42
	eSSS	34 20
	eL	36 46
HHM	eP	21 15 22
	e(S)	21 21
KIP	iP	21 18 31
PHI	eP	21 14 08
	e(S)	19 23
RCD	e(P)	21 14 20
SLC	iP	21 14 24
	e	14 46
SJP	eP	21 13 36
	eS	17 57
SIT	eP	21 17 25
THU	eP	21 18 32
	e	18 56
	e	20 15
TUC	eP	21 13 22
	epP	13 49
	eS	17 38
TUT	iP	21 13 22
	eScS	24 06
WAS	eP	21 13 53
	iP	14 19
	i	17 31
July 24		
SJP	iP	21 18 42
	iS	18 55
July 24		
FGU	eP	21 46 18
July 24		
BHP	iP	22 40 06
	iS	40 43

Date and Station		Phase (GCT)
July 25		h m s
FGU	iP	00 05 31
	eS	06 03
GCA	e(P)	00 05 51
	e(S)	06 44
SLC	iP	00 04 59
	eL	05 25
July 25		
BUT	eP	00 22 59
COL	iP	00 25 14
	i	25 31
FGU	eP	00 22 19
SJP	eP	00 18 33
TUC	eP	00 21 36
July 25		
SJP	iP	00 41 31
July 25		
SJP	iP	03 04 54
July 25		
COL	i(P)	03 56 38
HON	iP	03 48 55
	iS	49 25
KIP	iP	03 48 57
July 25		
COL	eP	04 17 43
July 25		
ALQ	eP	04 43 31
	iS	48 04
BHP	iP	04 40 11
	iS	41 53
BCN	eP	04 44 28
BOZ	eP	04 44 46
	eS	50 30
BUT	eP	04 45 03
COL	eP	04 48 09
	i	48 15
	eS	56 45
	eL	05 03 11
CSC	eP	04 41 14
	i	41 32
	i	43 55
FGU	e(P)	04 44 11
	e	44 19
GCA	eP	04 44 14

Date and Station		Phase (GCT)
		h m s
HON	iP	04 49 08
	i	49 13
	iS	58 36
HHM	iP	04 45 14
	e	45 24
	eS	51 14
PHI	iP	04 42 48
	iS	46 41
RCD	e(P)	04 44 13
	eS	49 10
SLC	iP	04 44 27
SJP	eP	04 41 05
	eS	43 40
THU	eP	04 47 40
TUC	eP	04 43 50
WAS	iP	04 42 21
	e(S)	45 54
July 25		
COL	iP	04 57 51
July 25		
ALQ	eP	06 14 53
BUT	e(P)	06 16 19
COL	iP	06 18 31
FGU	eP	06 15 35
TUC	eP	06 14 53
TUT	eP	06 14 53
July 25		
FGU	e(P)	07 12 28
	e	15 00
July 25		
COL	iP	07 23 01
July 25		
BUT	eP	08 25 59
July 25		
FGU	eP	11 18 21
July 25		
COL	iP	11 22 28
	i	23 02
July 25		
GUA	iP	11 25 27
July 25		
ALQ	iP	14 46 34
EUR	eP	14 47 46

Date and Station		Phase (GCT)
		h m s
GCA	e(P)	14 46 26
July 25		
GCA	e(P)	17 06 38
July 25		
ALQ	iP	19 10 51
July 26		
HHM	iP	00 23 02
	e	23 28
July 26		
UKI	e(P)	00 38 33
	e	39 04
July 26		
HHM	iP	00 55 20
July 26		
ALQ	eP	02 41 42
EUR	eP	02 42 45
FGU	eP	02 42 29
SJP	eP	02 39 02
July 26		
ALQ	eP	04 34 32
COL	iP	04 30 10
	i	30 20
EUR	iP	04 33 37
FGU	eP	04 33 56
HHM	eP	04 33 07
July 26		
COL	iP	05 14 34
EUR	eP	05 15 35
July 26		
GUA	eP	06 32 14
July 26		
COL	iP	07 13 23
EUR	eP	07 14 25
July 26		
ALQ	eP	08 21 36
BHP	iP	08 15 36
BCN	iP	08 22 27
	e	28 35
BOZ	iP	08 23 02
BUT	iP	08 23 06

Date and Station		Phase (GCT)
		h m s
COL	eP	08 26 11C
	iP	26 13D
	iPP	29 03
	iS	35 40
	iSS	40 20
	eL	45 14
CSC	eP	08 20 21D
EUR	iP	08 22 49D
FGU	eP	08 22 25
GCA	iP	08 22 13
	i	22 15
GUA	eP'	08 33 56
HON	iP	08 26 20
	iS	35 47
HHM	eP	08 23 28
KIP	iP	08 26 20
PHI	eP	08 21 20
	eS	26 41
RCD	eP	08 22 23
	ePP	24 00
SLC	iP	08 22 38
SJP	iP	08 19 11
	eS	22 54
SIT	eP	08 25 19
	ePP	27 44
THU	iP	08 25 50
TUC	eP	08 21 43
	eS	27 23
TUT	iP	08 21 43
UKI	iP	08 23 27
WAS	iP	08 21 08
	i(S)	25 06
July 26		
COL	iP	13 14 58
	iS	15 26
July 26		
COL	iP	15 02 49
July 26		
BCN	eP	17 12 48
July 26		
BHP	iP	18 14 02
	iS	14 41

Date and Station		Phase (GCT)
July 26		h m s
BHP	iP	18 59 41
	iS	19 00 21
EUR	iP	19 06 59
July 26		
FGU	eP	19 16 36
July 26		
HHM	eP	20 30 54
	e	31 24
July 26		
COL	iP'	21 52 08
HHM	iP'	21 51 20
July 26		
HHM	eP	22 47 40
July 26		
ALQ	eP	22 55 52
July 27		
ALQ	eP	01 29 53
BUT	eP	01 29 13
EUR	iP	01 29 10
	ipP	29 39
FGU	eP	01 29 30
July 27		
HHM	iP	04 11 47
July 27		
ALQ	eP	04 24 20
COL	iP	04 29 30
EUR	eP	04 25 35
FGU	eP	04 25 17
TUC	eP	04 24 22
TUT	eP	04 24 21
July 27		
THU	eP	04 57 01
July 27		
COL	iP	06 24 17
	ipP	25 03
EUR	eP	06 24 34
TUC	e(P)	06 24 41
July 27		
BUT	eP	08 03 30
FGU	eP	08 04 09

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Date and Station		Phase (GCT)
		h m s
HHM	iP	08 03 32
	e	03 54
	eS	05 26
July 27		
BHP	iP	08 47 54
	iS	48 34
July 27		
COL	e(P)	12 04 12
EUR	e(P)	12 04 29
July 27		
BOZ	eP	12 46 16
COL	iP	12 42 53
EUR	iP	12 46 21
HHM	eP	12 45 50
TUC	eP	12 47 21
TUT	eP	12 47 21
July 27		
ALQ	eP	12 45 22
FGU	iP	12 46 12
SJP	eP	12 42 53
TUC	eP	12 45 28
TUT	eP	12 45 28
July 27		
BHP	iP	14 08 02
	iS	08 44
July 27		
EUR	eP	14 59 44
July 27		
COL	iP	19 38 42
	i	39 33
July 27		
ALQ	e(P)	21 02 20
	iL	04 15
BCN	iP	21 00 28
BUT	e(P)	21 02 25
EUR	iP	21 00 33
FGU	eP	21 01 40
GCA	eP	21 00 59
	e	01 24
	eS	01 48
HHM	e(P)	21 02 52

Date and Station		Phase (GCT)
		h m s
SLC	e(P)	21 01 23
	e	01 37
	eS	02 21
	eL	02 51
July 27		
BHP	iP	22 00 10
	iS	00 53
FGU	eP	22 07 33
SJP	eP	22 03 16
July 27		
FGU	eP	23 02 09
July 28		
ALQ	iP	00 17 26
BCN	eP	00 16 56
BOZ	eP	00 17 37
BUT	eP	00 17 35
COL	iP	00 17 35
	eS	28 08
EUR	iP	00 17 03
FGU	iP	00 17 30
GCA	eP	00 17 32
HON	iP	00 12 48
HHM	iP	00 17 35
KIP	iP	00 12 49
SLC	iP	00 17 21
July 28		
SJP	iP	01 04 27
	eS	05 04
July 28		
ALQ	eP	02 40 48
COL	iP	02 44 45
EUR	eP	02 44 42
HHM	iP	02 42 25
July 28		
ALQ	eP	06 13 43
EUR	eP	06 14 28
FGU	eP	06 14 20
HHM	iP	06 14 58
July 28		
EUR	eP	06 54 52

Date and Station		Phase (GCT)
		h m s
July 28		
EUR	eP	10 15 00
July 28		
COL	eP	12 29 20
HHM	eP	12 30 03
July 28		
ALQ	iP	14 03 49
BCN	eP	14 04 36
BOZ	eP	14 05 26
BUT	eP	14 05 34
COL	iP	14 08 58
CSC	eP	14 03 34
EUR	iP	14 05 04
FGU	eP	14 04 45
GCA	eP	14 04 27
HHM	iP	14 05 55
SLC	eP	14 04 55
WAS	e(P)	14 05 11
July 28		
COL	iP	14 40 26
	e	41 13
July 28		
BHP	iP	16 19 31
	iS	20 14
July 28		
UKI	e(P)	18 00 49
July 28		
ALQ	eP	19 09 48
July 28		
ALQ	iP	19 55 30
BCN	eP	19 54 57
BOZ	eP	19 54 39
COL	iP	19 51 45
EUR	iP	19 54 43
FGU	iP	19 55 00
GCA	eP	19 55 06
HHM	eP	19 54 20
July 28		
ALQ	eP	20 58 12

Date and Station		Phase (GCT)
		h m s
BCN	eP	20 57 38
COL	iP	20 54 00
EUR	iP	20 57 20
FGU	eP	20 57 37
HHM	eP	20 56 52
TUC	eP	20 58 21
TUT	iP	20 58 21
July 28		
COL	iP	22 02 49
EUR	eP	22 06 03
HHM	eP	22 05 36
July 28		
SLC	eP	23 07 43
	e	08 11
July 29		
SLC	iP	00 47 56
July 29		
BHP	iP	03 08 03
	iS	08 39
July 29		
COL	iP	03 47 56
EUR	eP	03 50 27
HHM	eP	03 50 08
July 29		
ALQ	eP	04 59 16
July 29		
ALQ	e(P)	06 56 36
EUR	e(P)	06 56 56
July 29		
ALQ	eP	07 40 53
July 29		
COL	eP	09 09 06
July 29		
HHM	eP	12 04 43
July 29		
FGU	eP	12 13 24
July 29		
ALQ	eP	13 11 27
	i	15 40
EUR	eP	13 12 43
TUC	eP	13 11 31

Date and Station		Phase (GCT)
		h m s
TUT	eP	13 11 32
July 29		
BHP	eP	13 48 32
	iS	48 48
July 29		
COL	eP	18 39 55
July 29		
FGU	eP	21 24 18
July 29		
UKI	iP	21 46 08
July 29		
SLC	eP	22 35 40
July 29		
SLC	iP	23 55 29
	e	56 38
July 30		
EUR	e(P)	00 59 09
July 30		
BHP	eP	01 37 52
	iS	38 39
July 30		
BHP	eP	01 55 31
	iS	56 17
July 30		
COL	iP	02 11 20
EUR	eP	02 15 18
July 30		
COL	iP	03 35 12
July 30		
COL	iP	07 10 51
EUR	eP	07 07 58
FGU	eP	07 07 34
	ipP	08 07
July 30		
EUR	eP	09 16 47
July 30		
BUT	eP	10 26 32
COL	iP	10 29 55
CSC	eP	10 24 33
EUR	eP	10 26 01
FGU	eP	10 25 44
TUC	eP	10 24 50
July 30		
COL	iP	10 59 30

Date and Station		Phase (GCT)
		h m s
EUR	eP	11 02 37
HHM	eP	11 02 12
July 30		
EUR	e(P)	11 22 15
July 30		
COL	iP	14 17 22
EUR	eP	14 16 59
July 30		
EUR	eP	16 12 19
July 30		
ALQ	iP	16 53 04
COL	eP	16 54 21
EUR	e(P)	16 54 04
July 30		
ALQ	iP	17 31 07
BHP	iP'	17 36 08
BCN	e(P)	17 30 24
	e	33 53
BOZ	eP	17 30 46
	eSKS	41 08
BUT	eP	17 30 40
COL	iP	17 29 15
	i	29 41
	iPP	32 40
	eS	39 40
	e(PKKP)	47 43
	eL	51 39
	eP'P'	55 42
CSC	eP'	17 35 53
	e	38 00
EUR	iP	17 30 31C
	i	33 31
	i	34 09
FGU	eP	17 30 53
GCA	e(P)	17 30 50
GUA	eP	17 20 40
HON	iP	17 27 07
	e	29 58
	e	31 00
	iS	35 29
	i(SS)	39 46
	eL	41 54
HHM	eP	17 30 36D
	iP'	34 38D
KIP	iP	17 27 08

Date and Station		Phase (GCT)
		h m s
SLC	eP	17 30 45
	iPP	35 03
SJP	iP'	17 36 27
	ipP'	37 41
	eSKP	39 36
SIT	eP	17 29 35
	eS	40 10
TUT	eP	17 31 02
	e(PP)	35 13
UKI	iP	17 31 10
WAS	eP'	17 35 53
	ePP	37 57
	eSKS	42 07
	eSKKS	43 46
	i	52 38
July 30		
ALQ	iP	19 05 25
	e	06 44
BHP	iP	18 59 26
	iS	19 00 39
EUR	iP	19 06 34
FGU	eP	19 06 08
GCA	eP	19 06 02
SJP	eP	19 00 53
	i(S)	03 13
July 30		
ALQ	e(P)	19 45 21
	e	47 16
COL	eP	19 40 47
EUR	eP	19 44 16
July 30		
ALQ	iP	20 26 27
BHP	iP	20 20 05
BCN	eP	20 27 16
BOZ	eP	20 27 44
	eS	34 46
BUT	eP	20 27 50
COL	iP	20 30 39
	iS	40 24
	eL	50 28
CSC	eP	20 24 48
	i(S)	29 34
EUR	iP	20 27 37D
FGU	eP	20 27 12

Date and Station		Phase (GCT)
		h m s
GCA	eP	20 27 04
HON	iP	20 31 00
	i	31 08
	i	31 31
HHM	iP	20 28 09C
	e(S)	35 21
KIP	eP	20 30 59
PHI	eP	20 25 40
SLC	eP	20 27 23
	eS	34 03
SJP	eP	20 22 38D
	i(S)	24 54
	iL	25 44
SIT	eP	20 29 55
	eS	38 56
TUT	iP	20 26 40
UKI	iP	20 29 17
	e	32 00
WAS	iP	20 25 39C
	iS	30 46
July 30		
EUR	e(P)	20 58 30
July 30		
HHM	eP	22 51 33
July 31		
EUR	iP	01 29 53
July 31		
HHM	eP	01 38 08
July 31		
COL	iP	02 31 36
EUR	eP	02 32 5C
SJP	iP'	02 38 50
July 31		
BHP	eP	02 46 28
	iS	47 12
July 31		
COL	eP	05 19 02
EUR	iP	05 21 50
FGU	eP	05 22 03
HHM	iP	05 21 28
	e	21 53

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Date and Station		Phase (GCT)
July 31		h m s
COL	iP	05 24 37
	ePP	27 19
	eS	34 06
EUR	iP	05 26 54
	e	30 08
	ePP	31 01
	ePKKP	43 27
	e	45 57
HON	eP	05 24 49
HHM	iP	05 26 38
	e	27 12
KIP	iP	05 24 49
SJP	eP'	05 32 38
July 31		
COL	eP	07 31 03
	e	31 11
EUR	eP	07 34 10
July 31		
BHP	iP	08 52 57
	iS	53 38
SJP	eP	08 56 32
July 31		
EUR	iP	11 36 15
FGU	eP	11 36 01
GCA	e(P)	11 35 48
HHM	iP	11 36 44
TUC	iP	11 35 28
TUT	eP	11 35 28
July 31		
COL	iP	11 46 02
	i	46 11
EUR	eP	11 45 29
July 31		
HHM	e(P)	14 44 40
July 31		
BCN	eP	14 56 45
July 31		
THU	eP	20 38 08
	e	38 36
July 31		
ALQ	eP	21 36 40
	e	37 11
July 31		
ALQ	iP	22 54 23

Local and Minor Earthquakes

Date and Station	Phase (GCT)
	h m s
July	
ALQ	
3	12.5
7	03.8
	20.9
9	22.8
10	01.1
16	00.3
	19.9
20	21.6
21	20.8
26	22.7
29	02.7
BCN	
2	07.3
	07.7
	09.1
	09.3
	11.5
	11.8
	12.5
	19.5
14	18.1
BOZ	
15	04.6
BUT	
8	17.3
	18.0
	20.8
9	06.6
10	10.4
15	14.2
17	05.9
23	11.2
	11.4
	11.5
24	09.8
COL	
1	17.4
2	14.0
	21.8
6	23.7
9	23.3
11	19.7
14	02.9
21	07.1
	13.3
23	01.5
EUR	
1	17.2
2	01.1
5	18.6
7	15.0
9	17.4
10	21.0
	23.7
12	00.2
EUR	
15	23.8
18	23.2
20	14.5
26	17.2
31	02.1
FGU	
3	01.3
6	07.3
	14.3
7	03.8
8	15.0
	17.8
9	07.0
11	16.9
12	21.6
	23.2
13	00.6
	15.9
14	07.6
	22.0
16	00.3
	02.1
17	14.0
	23.8
18	19.0
19	10.4
	19.0
22	22.1
24	14.6
25	02.1
	08.0
	18.1
	19.5
	22.4
26	18.9
	23.1
27	15.0
	19.6
	23.8
28	13.4
29	23.9
30	09.7
	22.3
GCA	
2	07.0
	09.0
8	06.5
14	18.5
29	21.9
HHM	
9	06.6
	14.8
11	22.8
17	02.1
	14.3
19	03.0
20	17.1
	20.7
RCD	
3	16.6
5	08.2
6	22.9
10 (2)	21.2
11	20.8
	21.3
12 (2)	18.1
	20.1
23	06.2
SJP	
2	15.0
12	16.4
16	04.3
28	20.3
29	14.4
TUC	
1	16.1
	17.2
2	07.3
	08.8
	09.0
19	07.7
20	07.5
22	19.6
22	21.3
23	13.2
24	12.9
28	23.6
29	06.9
	15.7
UKI	
7	08.3
	14.5