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July, 1961

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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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1961

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

**Balboa Heights, C. Z. (BHP)
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)
Lincoln,[1] Nebr. (LIN)
Nebraska Wesleyan University
**Philadelphia, Pa. (PHI)
The Franklin Institute
**Rapid City, S. C. (RCD)
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.

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the data from the horizontal components of the seismographs at all stations except College, Honolulu, and Tucson will not be published for earthquakes occurring outside the United States.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 in the Preliminary Determination of Epicenters cards with some refinement and minor additions.

All seismograms, are on file in the Coast and Geodetic Survey, except those from Balboa Heights, which may be obtained on loan by addressing the Seismograph Station Director, Meteorological and Hydrographic Office, Panama Canal Company, Balboa Heights, Canal Zone.

1 Discontinued as of June, 1961.

STATION AND INSTRUMENTAL CONSTANTS FOR 1961

Station	Position	Instrument	Foundation and Elevation	T_0	T_c	T_z	V	Σ	Paper Speed	Time Break Reference Point	Ground Motion Trace "Up"
Balboa Heights, C. Z. W. H. Esslinger In Charge	Log cos 9.99467 Lat. 8°57'39"N Long. 79°33'29"W	W-A, N&E Mass 1.3g Spg. LP (Series H) Spg. LP (Series N) Spg. SP (Series D-H)	Basalt 36 m.	N 1.0 E 1.0 N 20 E 20 Z 1.9	 20 1.9		1370 1370 5000 5000 3000	14:1	60mm/min.	Beginning	N E
Boulder City, Nev. V. B. Uehling In Charge	Log cos 9.99806 Lat. 35°58'51"N Long. 114°50'02"W	B, film ZNE, Mass 100 lb.	Fractured monzonite 776 m.	Z 1.4 N 1.4 E 1.4	0.45 0.45 0.45		100000** 50000 50000	Near crit. Crit. Crit.	15mm/min.	Beginning	Up N E
Bozeman, Mont. A. J. M. Johnson In Charge	Log cos 9.84437 Lat. 45°40'01"N Long. 111°02'43"W	Spg. N&E W-L, Z	Alluvium glacial drift and lake deposits 500' thick over gneiss and schist. 1490 m.	N 11.1 E 10.9 Z 1.1	8.3 7.6 1.7		8000 8000 24000	3:1 11:1 Under damped	30mm/min. 60mm/min.	Beginning Beginning	N E Up
Butte, Mont. S. W. Mile In Charge	Log cos 9.84167 Lat. 46°00.8' N Long. 112°33.8' W	W-A, N. Mass 2g W-L, NE B, paper, Z Mass 100 lb.	Rhyolite 30 m. thick resting on granite 1758 m.	N 8.02 N 8.0 E 8.0 Z 1.1	 3.8 3.9 0.5		316 12000 12000 50000	50:1 Near crit. Near crit. Near crit.	15mm/min. 30mm/min. 60mm/min.	Beginning Beginning	S N W Up
Chicago, Ill. W. F. Schmidt In Charge	Log cos 9.87251 Lat. 41°47.3' N Long. 87°36.0' W	McC-R, N&E Mass 2.5 kg	Limestone 180 m.	N 10 E 10			335 335	15:1 15:1	15mm/min.	End	N W
*College, Alaska K. Gravens In Charge	Log cos 9.62825 Lat. 64°51.6' N Long. 147°50.2' W	W-L, film, Z B, film, NE W, N	Granite schist. 159 m.	Z 1.19 N 1.36 E 1.40 N 9.5	0.45 0.45 0.45 12.0		40000** 50000 50000 1000	Near crit. Near crit. Near crit. Near crit.	15mm/min.	Beginning	Up N E N
[1]College Outpost K. Gravens In Charge	Log cos 9.62781 Lat. 64°53'08"N Long. 147°48'04"W	B, paper, Z		Z 1.5	0.53		425000	Near crit.	60mm/min.	Beginning	Up
Columbia, S. C. C. F. Mercer In Charge	Log cos 9.91857 Lat. 34°00' N Long. 81°02' W	W-L, ZNE	Consolidated sand 150' thick over granite, 94m.	Z 1.1 N 8.0 E 8.0	1.6 4.1 4.1		24000 13000 13000	Under damped	60mm/min. 30mm/min.	Beginning	Up N E
Eureka, Nev. W. DeFaol[illegible] In Charge	Log cos 9.88751 Lat. 39°29'00"N Long. 115°58'12"W	B, paper, Z Mass 100 lb.	Dolomite bedrock 7150 ft.	Z 1.08	0.55		420000	Near crit.	60mm/min.	Beginning	Up
Flaming Gorge, Utah J. Hanfelt In Charge	Log cos 9.87826 Lat. 40°55'36"N Long. 109°23'10"W	B, film ZNE	Quartzsite 6500 ft.	Z 1.06 N 1.41 E 1.48	0.33 0.35 0.58			6:1 3:1 3:1	15mm/min. 15mm/min. 15mm/min.	Beginning	Up N E

Station	Position	Instrument	Foundation and Elevation		T_o	T_g	T_s	V	Σ	Paper Speed	Time Break Reference Point	Ground Motion Trace "Up"
Glen Canyon, Ariz.	Log cos 9.90250	B, film ZNE	Navajo Sand-	Z	1.10	0.37		25000	8:1	15mm/min.	Beginning	Up
George Atkinson	Lat. 36°58'25"N		stone. 390 ft.	N	1.40	0.43		50000	3:1			N
In Charge	Long. 111°35'35"W			E	1.37	0.45		50000	2:1			E
Guam, Mariana Islands	Log cos 9.98768	W-L, Z	147 ft.	Z	1.01	1.5		5000	Near crit.	30mm/min.	Beginning	Up
J. V. Hastings	Lat. 13°35'16"N	HTL, Z		Z	0.5	0.55		42000	Near crit.	30mm/min.	Beginning	Up
In Charge	Long. 144°51'58"E	Spg, NE		N	7.35	7.0		3000	Near crit.	30mm/min.	Beginning	N
				E	7.09	7.2		3000	Near crit.	30mm/min.	Beginning	E
*Honolulu, Hawaii	Log cos 9.96926	M-S, N&E	Coral 3m.	N	12			124	20:1	15mm/min.	Beginning	N
G. E. Haraden	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		20000		60mm/min.		Up
		Lamont, ZNE		Z	15	75		8000		15mm/min.		Up
				N	15	75		8000				N
				E	15	75		8000				W
Hungry Horse, Mont.	Log cos 9.82255	B-VR, Z	Argillaceous	Z	1.05	0.5		188000	Near crit.	60mm/min.	Beginning	Up
R. D. Bush	Lat. 48°20'58"N		Limestone	Z	1.05	92			Near crit.	30mm/min.	Beginning	Up
In Charge	Long. 114°01'39"W	W-L, N	(Belt series)	N	3.5	3.9		10000	Near crit.	30mm/min.	Beginning	N
		W-L, E	1100 m.	E	3.4	4.1		10000	Near crit.	30mm/min.	Beginning	E
Kipapa, Hawaii	Log cos 9.96893	B-VR, Z	Basalt	Z	1.09	0.2		30000	Near crit.	60mm/min.	Beginning	Up
G. E. Haraden	Lat. 21°35.3' 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	1400	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	1400	15:1			E
In Charge	Long. 75°10'30"W		gravel. 5 m.									
Rapid City, S. Dak.	Log cos 9.85637	W-A, E	Shale	E	6.7			725	15:1	15mm/min.	Beginning	E
E. L. Tullis	Lat. 44°04.6' N	(Dbl. refl.)	1045 m.									
In Charge	Long. 103°12.0' W	Mass 2 g.										
		W-L, Z		Z	1.09	1.6		10000		60mm/min.		Up
Salt Lake City, Utah	Log cos 9.87932	McC-R, N&E	Bonneville	N	9.9			335	15:1	15mm/min.	Beginning	N
A. M. Anderson	Lat. 40°45'55"N	Mass 2.5 kg.	Lake beds	E	10			335	15:1			W
In Charge	Long. 111°50'54"W	W-L, Z	1425 m.	Z	1.2	1.8		24000	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	1280	20:1			W
In Charge	Long. 66°07.1' W	B, Z		Z	1.05	0.5	0.6	20000	Crit.	60mm/min.		Up
*Sitka, Alaska	Log cos 9.73544	W, N&E	Graywacke	N	7.5	16.5	8.2	1000	20:1	15mm/min.	Beginning	S
M. L. Cleven	Lat. 57°03'25"N	Mass 500 g.	19 m.	E	7.5	13.2	8.2	1000	5.5:1			E
In Charge	Long. 135°19'28"W	W-L, Z		Z	1.12	1.5		10000		60mm/min.		Up
Thule, Greenland	Log cos 9.36644	W-L, Z	Glacial	Z	1.3	1.55		12000	Near crit.	60mm/min.	Beginning	Up
Capt. C. R. deZafra	Lat. 76°33.4' N		material									
In Charge	Long. 68°40.5' W		275 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"
*Tucson, Ariz.	Log cos 9.92725	W-A, N&E	Caliche or	N 8.0			466	Crit.	30mm/min.	Beginning	S
C. J. Beers	Lat. 32°14.8' N	Mass 2.3 g.	gravels 100-	E 8.0			457	Crit.			E
In Charge	Long. 110°50.1' W	B, Z(LP)	300m. thick	Z 1.0	77·		50000	Near crit.	30mm/min.		Up
		(SP)	700 m.		0.236		50000		60mm/min.		Up
		B, E		E 1.6	0.5		25000		30mm/min.		W
[2]Tucson Telemeter	Log cos 9.92682	B, Z	Granite	Z 1.1	0.5		425000	Near crit.	60mm/min.	Beginning	Up
C. J. Beers	Lat. 32°20.1' N	Mass 100 lb.									
In Charge	Long. 110°43.4' W										
Ukiah, California	Log cos 9.88968	McC-R, N&E	Alluvium	N 11.9			75	Near crit.	30mm/min.	Beginning	N
L. F. Caouette	Lat. 39°08' N	Mass 10 kg.	180 m. deep.	E 11.6			75				E
In Charge	Long. 123°13' W	W-L, Z	199 m.	Z 1.1	1.4		24000		60mm/min.		Up
*Washington, D. C.	Log cos 9.89117	W-L, Z	Recent allu-	Z 1.5	4.0		10000		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, 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 nine 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 1961	Origin Time G. C. T.	Lat.	Long.	Region, Remarks and Focal Depth
June	h m s	°	°	
26	14 47 27.3	52.2 N.	174.7 E.	Near Islands, Aleutian Islands. h about 40 km. Mag. 5½-5¾(Pal) (Correction for June Bulletin, 1961. MSI - 246).
July				
1	00 02 39.2	54.1 N.	164.3 W.	Unimak Island, Aleutian Islands. h about 34 km.
1	03 48 36.9	13.9 S.	166.1 E.	New Hebrides Islands. h about 33 km.
1	03 52 33.1	14.0 S.	165.7 E.	New Hebrides Islands. h about 33 km.
1	08 00 11.6	29.9 N.	140.5 E.	Bonin Islands region. h about 117 km.
1	10 38 13.0	13.7 S.	165.8 E.	New Hebrides Islands. h about 43 km.
1	11 39 50.5	7.7 S.	148.3 E.	Near east coast of New Guinea. h about 64 km.
1	13 10 40.9	15.3 S.	74.8 W.	Near coast of Peru. h about 68 km.
1	13 33 08.8	17.7 S.	178.7 W.	Fiji Islands. h about 600 km.
1	18 50 57.5	18.0 S.	178.4 W.	Fiji Islands. h about 601 km.
1	23 44 05.7	53.9 N.	169.8 E.	Near Islands region, Aleutian Islands. h about 19 km.
2	02 07 15.0	43.5 N.	142.9 E.	Hokkaido, Japan. h about 100 km.
2	05 12 50.9	5.6 S.	123.8 E.	Banda Sea. h about 33 km.
2	10 10 16.3	20.8 N.	142.6 E.	Mariana Islands region. h about 64 km.
2	11 43 38.1	19.0 S.	174.8 W.	Tonga Islands. h about 108 km.
2	14 09 43.2	21.0 S.	169.4 E.	Loyalty Islands. h about 33 km.
2	16 33 35.4	13.7 S.	165.7 E.	New Hebrides Islands. h about 56 km.
2	16 47 22.7	14.0 S.	166.1 E.	New Hebrides Islands. h about 33 km.
2	18 00 36.3	49.8 N.	171.9 E.	Near Islands region, Aleutian Islands. h about 33 km.
3	07 06 16.5	33.6 N.	106.9 W.	Central New Mexico. h about 15 km.
3	08 26 13.4	2.8 S.	79.7 W.	Near coast of Ecuador. h about 33 km.
3	12 15 27.3	15.3 N.	104.6 W.	Off coast of Michoacan, Mexico. h about 25 km.
3	14 49 30.3	8.7 S.	79.1 W.	Near coast of Peru. h about 57 km.
3	15 48 16.2	11.8 N.	142.2 E.	Mariana Islands region. h about 65 km.
4	02 19 47.3	18.0 S.	167.4 E.	New Hebrides Islands. Felt at Port Vila. h about 33 km.
4	04 56 02.1	40.9 N.	118.1 W.	Western Nevada. h about 33 km. Mag. 5¾ (Brk).
4	06 10 44.8	18.0 N.	146.4 E.	Mariana Islands. h about 145 km.
4	08 23 35.6	44.3 S.	168.4 E.	Near coast of South Island, New Zealand. h about 33 km.
4	11 09 11.0	41.0 N.	117.8 W.	Western Nevada. h about 33 km. Mag. 5¼ (Brk).
4	12 07 20.7	30.4 S.	179.7 W.	Kermadec Islands. h about 361 km.
4	18 07 41.0	3.3 N.	122.6 E.	Celebes Sea. h about 599 km.
4	19 17 48.9	55.9 S.	147.5 E.	Macquarie Islands region. h about 33 km.
4	19 58 29.1	55.7 S.	147.6 E.	Macquarie Islands region. h about 33 km.
5	02 21 56.1	28.7 N.	129.7 E.	Ryukyu Islands. h about 33 km.
5	02 28 41.2	58.4 S.	150.3 E.	About 1000 km. southwest of Macquarie Islands. h about 33 km.

Date 1961	Origin Time G. C. T.	Lat.	Long.	Region, Remarks and Focal Depth
July	h m s	°	°	
5	05 02 26.9	15.1 N.	60.4 W.	Windward Islands. h about 60 km.
5	06 22 09.3	40.0 N.	77.6 E.	Sinkiang Province, China. h about 58 km.
5	06 34 30.7	39.7 N.	78.1 E.	Sinkiang Province, China. h about 44 km.
5	08 17 53.0	27.7 N.	54.8 E.	Iran. h about 30 km.
5	23 31 09.5	10.8 S.	161.5 E.	Solomon Islands. h about 46 km.
6	03 42 31.8	41.1 N.	117.6 W.	Western Nevada. h about 33 km.
6	05 12 37.1	15.9 N.	87.2 W.	Near north coast of Honduras. h about 33 km.
6	16 08 20.8	7.0 S.	13.1 W.	Ascension Island region. h about 19 km.
6	18 34 35.4	7.0 S.	120.4 E.	Flores Sea. h about 600 km.
6	22 09 29.4	20.6 S.	169.4 E.	Loyalty Islands region. Felt at Port Vila. h about 27 km. Mag. 6½.
6	23 06 16.4	20.7 S.	169.3 E.	Loyalty Islands region. h about 33 km.
7	02 02 39.0	61.1 N.	148.0 W.	Kenai Peninsula, Alaska. h about 33 km.
7	03 21 19.7	14.4 S.	167.3 E.	New Hebrides Islands. Felt on Santo. h about 184 km.
7	07 42 06.4	9.1 S.	154.2 E.	D'Entrecasteaux Islands. h about 33 km.
7	08 05 06.7	47.2 N.	153.2 E.	Kurile Islands. h about 90 km.
7	12 33 40.8	20.5 S.	169.2 E.	Loyalty Islands region. h about 33 km.
7	13 10 43.8	5.7 S.	149.7 E.	New Britain. h about 57 km. Mag. 6-6¼.
7	14 41 48.8	20.4 S.	169.2 E.	Loyalty Islands region. h about 33 km.
7	15 28 14.5	53.7 N.	159.9 E.	Near east coast of Kamchatka. h about 20 km.
7	17 01 51.9	23.9 N.	98.5 E.	Northern Burma. h about 33 km.
7	22 19 31.6	20.2 S.	169.0 E.	Loyalty Islands region. h about 41 km. Mag. 5-5¼ (Pal).
7	23 42 55.0	20.3 S.	168.9 E.	Loyalty Islands region. h about 33 km.
8	02 35 20.5	20.2 S.	168.7 E.	Loyalty Islands region. h about 33 km. Mag. 5¾ (Pal).
8	03 18 32.8	20.0 S.	168.9 E.	Loyalty Islands region. h about 33 km.
8	03 25 23.4	20.7 S.	169.1 E.	Loyalty Islands region. h about 33 km.
8	05 49 02.0	6.2 S.	77.1 W.	Peru. h about 15 km.
8	11 16 16.1	18.6 N.	145.4 E.	Mariana Islands. h about 193 km.
8	15 08 32.6	20.2 S.	169.0 E.	Loyalty Islands region. h about 33 km.
8	15 34 37.4	20.1 S.	168.7 E.	Loyalty Islands region. h about 26 km. Mag. 6-6¼.
8	16 34 01.3	20.3 S.	169.3 E.	Loyalty Islands region. h about 33 km.
8	21 13 59.5	20.4 S.	169.0 E.	Loyalty Islands region. h about 33 km. Mag. 5¼-5½ (Pal).
8	21 48 42.3	20.4 S.	169.0 E.	Loyalty Islands region. h about 18 km. Mag. 5¼-5½ (Pal).
8	22 13 10.0	20.2 S.	174.4 W.	Tonga Islands. h about 33 km.
9	04 57 36.8	16.4 N.	87.8 W.	Near north coast of Honduras. h about 50 km. Mag. 4¼.
9	06 32 47.5	15.6 N.	87.3 W.	Near north coast of Honduras. h about 46 km.
9	08 05 45.9	29.0 N.	54.7 E.	Iran. h about 25 km.
9	13 51 09.8	16.1 N.	87.9 W.	Near north coast of Honduras. h about 33 km.

Date 1961	Origin Time G. C. T.	Lat.	Long.	Region, Remarks and Focal Depth
July	h m s	°	°	
9	16 46 02.0	51.9 N.	176.2 E.	Rat Islands, Aleutian Islands. h about 33 km.
10	03 49 56.4	19.3 S.	68.4 W.	Chile-Bolivia border. h about 117 km.
10	11 59 50.4	5.8 S.	149.7 E.	New Britain. h about 33 km.
10	12 16 29.4	20.8 S.	179.5 W.	Fiji Islands region. h about 564 km.
10	12 54 03.0	17.9 N.	104.9 W.	Off coast of Michoacan, Mexico. h about 33 km. Mag. 4½ (Brk).
10	14 18 13.7	18.3 N.	89.8 W.	Campeche, Mexico. h about 56 km.
10	14 21 31.0	30.4 S.	179.4 W.	Kermadec Islands. h about 334 km.
11	01 21 06.2	45.2 N.	148.1 E.	Kurile Islands. h about 33 km.
11	05 45 29.5	27.5 S.	177.1 W.	Kermadec Islands region. h about 58 km.
11	08 02 34.7	7.3 S.	128.5 E.	Banda Sea. h about 132 km.
11	09 31 42.6	8.0 N.	93.1 E.	Nicobar Islands. h about 17 km. Mag. 5½-5¾ (Pal).
11	11 23 51.5	21.1 S.	177.7 W.	Fiji Islands region. h about 598 km.
11	16 26 44.1	21.6 S.	175.7 W.	Tonga Islands. h about 90 km.
11	17 23 42.3	27.1 N.	81.0 E.	Northeastern India. h about 25 km.
11	18 35 54.3	6.9 S.	125.7 E.	Banda Sea. h about 530 km.
12	01 38 25.2	4.8 N.	42.9 W.	South of Panama. h about 44 km.
12	02 48 31.0	29.1 N.	23.4 E.	Near east coast of Greece. Felt. h about 33 km.
12	04 47 33.6	3.4 N.	128.1 E.	Molucca Passage. h about 100 km.
12	13 29 56.6	45.4 N.	151.0 E.	Kurile Islands. h about 40 km.
12	14 36 58.6	22.9 S.	171.4 E.	Loyalty Islands region. h about 53 km.
12	17 19 44.9	43.1 S.	74.5 W.	Near coast of southern Chile. h about 33 km.
12	20 43 05.5	1.6 S.	150.6 E.	New Ireland region. h about 54 km.
12	22 37 48.6	5.0 N.	82.9 W.	South of Panama. h about 20 km.
13	01 22 44.4	5.9 S.	147.4 E.	New Britain region. Felt at Pomio, h about 54 km.
13	02 11 43.6	26.6 N.	139.8 E.	Volcano Islands. h about 333 km.
13	07 19 01.9	16.1 S.	173.2 W.	Tonga Islands region. h about 33 km.
13	09 28 53.0	27.4 N.	54.9 E.	Iran. h about 33 km.
13	10 32 02.2	5.4 S.	151.4 E.	New Britain. h about 55 km.
13	11 14 48.8	6.9 S.	146.8 E.	New Britain region. h about 33 km.
13	13 45 02.4	21.4 S.	175.7 W.	Tonga Islands. h about 29 km.
13	14 56 49.0	20.5 S.	168.9 E.	Loyalty Islands region. h about 33 km.
13	21 44 33.4	22.9 N.	122.7 E.	Near east coast of Formosa. h about 33 km.
13	22 10 01.4	25.3 S.	180.0	Kermadec Islands region. h about 468 km.
14	00 06 52.5	15.8 N.	120.9 E.	Luzon, Philippine Islands. h about 168 km.
14	01 07 10.9	5.4 S.	151.9 E.	New Britain. h about 77 km.
14	03 35 25.1	14.8 S.	177.2 W.	Fiji Islands region. h about 100 km.

Date 1961	Origin Time G. C. T.	Lat.	Long.	Region, Remarks and Focal Depth
July	h m s	°	°	
14	04 22 15.9	17.9 S.	178.2 W.	Fiji Islands. h about 540 km.
14	08 52 17.0	11.4 S.	112.9 E.	South of Java. h about 33 km.
14	21 44 12.8	53.4 N.	169.8 W.	Fox Islands, Aleutian Islands. h about 33 km.
15	00 17 53.5	13.3 N.	120.6 E.	Luzon, Philippine Islands. h about 70 km.
15	05 43 11.0	48.8 N.	157.4 E.	Off south coast of Kamchatka. h about 31 km.
15	06 03 43.2	20.2 S.	169.1 E.	Loyalty Islands region. h about 25 km.
15	07 57 19.2	58.0 S.	146.9 E.	About 1000 km. southwest of Macquarie Islands. h about 33 km.
15	11 54 14.8	3.8 S.	131.4 E.	Ceram. h about 100 km.
15	13 55 26.5	6.8 S.	116.9 E.	Java Sea. h about 565 km.
15	20 15 14.4	15.7 S.	166.8 E.	New Hebrides Islands. h about 33 km.
15	20 33 23.0	20.4 S.	178.2 W.	Fiji Islands. h about 511 km.
16	00 47 52.6	58.6 N.	137.2 W.	Southeastern Alaska. h about 33 km.
16	01 51 04.2	3.7 S.	131.2 E.	Banda Sea. h about 42 km.
16	02 47 23.1	10.9 S.	162.4 E.	Solomon Islands. h about 104 km.
16	05 22 39.1	19.0 S.	175.4 W.	Tonga Islands. h about 200 km.
16	06 47 26.4	18.9 S.	175.6 W.	Tonga Islands. h about 206 km.
16	09 04 40.2	36.4 N.	70.7 E.	Hindu Kush. h about 206 km.
16	14 01 35.8	23.0 S.	171.4 E.	Loyalty Islands region. h about 15 km. Mag. $5\frac{1}{2}$ (Brk).
16	15 33 44.2	19.2 S.	173.7 W.	Tonga Islands. h about 100 km.
16	20 00 08.6	34.6 S.	178.4 W.	Kermadec Islands region. h about 67 km.
16	20 57 40.9	40.9 N.	29.9 W.	Azores. h about 33 km.
16	21 08 45.6	49.5 S.	155.1 E.	Kurile Islands. h about 29 km.
16	23 03 26.9	18.1 S.	179.3 W.	Fiji Islands. h about 591 km.
17	01 01 09.7	16.8 N.	97.6 W.	Oaxaca, Mexico. h about 40 km. Mag. $4\frac{1}{4}$-$4\frac{1}{2}$ (Brk).
17	03 30 50.4	16.8 N.	97.7 W.	Oaxaca, Mexico. h about 33 km.
17	05 13 21.3	27.8 N.	55.1 E.	Iran. h about 16 km.
17	09 08 07.9	17.3 N.	105.1 W.	Off coast of Michoacan, Mexico. h about 33 km.
17	09 17 49.0	37.7 S.	72.4 W.	Near coast of central Chile. h about 33 km.
17	14 02 48.2	1.8 N.	29.5 W.	Mid-Atlantic Ocean. h about 25 km.
17	14 53 30.9	41.2 N.	72.3 E.	Kirghiz S.S.R. h about 64 km.
17	15 04 45.8	2.6 S.	142.0 E.	Near northeast coast of New Guinea. h about 33 km.
17	15 32 50.4	2.8 S.	141.9 E.	Near northeast coast of New Guinea. h about 33 km.
17	16 20 19.1	35.8 N.	141.3 E.	Near east coast of Honshu, Japan. Felt. h about 51 km.
17	17 08 18.8	5.4 S.	152.5 E.	New Britain. h about 64 km.
18	07 16 59.2	28.0 S.	176.8 W.	Kermadec Islands region. h about 60 km.
18	13 03 28.3	5.9 S.	128.5 E.	Banda Sea. h about 25 km.

Date 1961	Origin Time G. C. T.	Lat.	Long.	Region, Remarks and Focal Depth
July	h m s	°	°	
18	14 03 36.5	29.4 N.	131.6 E.	Northern Ryukyu Islands. Felt on Kyushu, Japan. h about 21 km. Mag. 6½-6¾.
18	14 34 08.1	29.7 N.	131.5 E.	Northern Ryukyu Islands. h about 33 km.
18	15 16 12.5	29.7 N.	131.3 E.	Northern Ryukyu Islands. h about 35 km.
18	15 36 45.4	29.7 N.	131.7 E.	Northern Ryukyu Islands. h about 25 km.
18	16 20 07.7	29.7 N.	131.4 E.	Northern Ryukyu Islands. h about 33 km.
18	16 22 46.9	28.2 S.	66.5 W.	Catamarca Province, Argentina. h about 37 km.
18	16 48 38.1	29.7 N.	131.5 E.	Northern Ryukyu Islands. h about 33 km.
18	18 33 38.2	29.7 N.	131.7 E.	Northern Ryukyu Islands. h about 33 km.
18	19 29 07.5	29.3 N.	131.8 E.	Northern Ryukyu Islands. h about 33 km.
18	21 26 30.5	13.9 N.	56.6 E.	Socotra Island region. h about 43 km.
18	23 42 36.5	29.8 N.	131.5 E.	Northern Ryukyu Islands. h about 39 km.
19	00 10 42.9	40.9 N.	139.6 E.	Near west coast of Honshu, Japan. h about 33 km.
19	03 50 42.0	59.0 S.	25.3 W.	Sandwich Islands. h about 39 km.
19	05 29 59.3	29.7 N.	131.9 E.	Northern Ryukyu Islands. h about 43 km.
19	06 33 18.1	29.8 N.	131.7 E.	Northern Ryukyu Islands. h about 27 km.
19	09 19 27.8	37.0 N.	142.0 E.	Off east coast of Honshu, Japan. h about 62 km.
19	10 35 41.4	29.9 N.	131.5 E.	Northern Ryukyu Islands. h about 20 km.
19	11 58 43.7	29.8 N.	131.5 E.	Northern Ryukyu Islands. h about 31 km.
19	18 00 26.9	19.6 S.	173.7 W.	Samoa Islands region. h about 33 km.
19	18 26 37.9	23.7 S.	179.9 E.	Fiji Islands region. h about 531 km.
19	19 31 54.7	18.1 S.	167.7 E.	New Hebrides Islands. Felt at Port Vila. h about 50 km.
19	19 45 33.2	29.7 N.	131.8 E.	Northern Ryukyu Islands. h about 33 km.
19	22 36 36.5	51.9 N.	173.4 W.	Andreanof Islands, Aleutian Islands. h about 42 km.
19	23 00 56.7	37.9 N.	20.2 E.	Ionian Sea. h about 37 km.
20	02 04 50.5	2.2 N.	127.5 E.	Molucca Passage. h about 27 km.
20	03 04 42.8	29.6 N.	131.5 E.	Northern Ryukyu Islands. h about 33 km.
20	06 47 43.4	10.9 N.	124.8 E.	Leyte, Philippine Islands. h about 37 km.
20	07 00 19.9	10.4 N.	124.9 E.	Leyte, Philippine Islands. h about 25 km.
20	08 44 20.2	18.3 N.	103.4 W.	Near coast of Michoacan, Mexico. h about 33 km.
20	09 02 44.9	30.4 N.	131.7 E.	Northern Ryukyu Islands. h about 33 km.
20	09 04 32.2	21.1 S.	168.6 E.	Loyalty Islands. h about 17 km.
20	10 33 16.0	4.9 N.	82.1 W.	South of Panama. h about 33 km.
20	13 18 04.2	20.8 S.	64.7 W.	Southern Bolivia. h about 128 km.
20	15 10 26.7	17.6 S.	178.7 W.	Fiji Islands. h about 570 km.
20	17 21 49.3	24.5 S.	177.3 W.	Tonga Islands region. h about 117 km.
20	19 58 03.0	32.0 S.	177.2 W.	Kermadec Islands. h about 44 km.

Date 1961	Origin Time G. C. T.	Lat.	Long.	Region, Remarks and Focal Depth
July	h m s	°	°	
21	01 10 36.7	22.4 S.	171.5 E.	Loyalty Islands region. h about 112 km.
21	02 48 58.7	8.3 N.	93.4 E.	Nicobar Islands. h about 24 km.
21	04 32 28.2	40.5 N.	30.5 W.	Turkey. h about 33 km.
21	07 44 04.0	11.4 S.	166.4 E.	Santa Cruz Islands. h about 52 km.
21	13 07 12.9	19.5 S.	169.5 E.	New Hebrides Islands. h about 33 km.
21	17 59 14.4	30.2 N.	131.4 E.	Northern Ryukyu Islands. h about 38 km.
21	18 34 20.0	29.6 N.	131.4 E.	Northern Ryukyu Islands. h about 33 km.
21	18 50 54.7	29.8 N.	131.7 E.	Northern Ryukyu Islands. h about 33 km.
21	19 05 15.3	22.5 S.	176.0 W.	Tonga Islands. h about 25 km.
21	22 39 53.2	29.8 N.	131.6 E.	Northern Ryukyu Islands. h about 32 km.
22	02 42 32.1	25.1 S.	175.5 W.	Tonga Islands region. h about 33 km.
22	05 21 20.9	20.8 S.	178.8 W.	Fiji Islands. h about 584 km.
22	09 56 33.7	7.3 S.	107.8 E.	Java. h about 110 km.
22	10 27 51.8	20.3 S.	174.0 W.	Tonga Islands. h about 25 km.
22	13 53 56.1	36.6 N.	70.2 E.	Northeastern Afghanistan. h about 200 km.
22	16 24 31.7	12.2 N.	88.6 W.	Off coast of Nicaragua. h about 33 km.
22	18 12 28.1	54.1 S.	140.4 E.	About 1000 km. southwest of Macquarie Islands. h about 34 km.
22	20 53 30.0	40.8 N.	72.2 E.	Kirghiz S.S.R. h about 54 km.
23	00 05 32.8	20.0 N.	105.0 W.	Jalisco, Mexico. h about 75 km.
23	11 14 27.0	7.6 S.	151.0 E.	New Britain region. h about 41 km.
23	11 29 22.3	23.7 S.	66.3 W.	Juyjuy Province, Argentina. h about 168 km.
23	12 09 53.1	21.1 S.	65.4 W.	Southern Bolivia. h about 89 km.
23	13 35 55.6	25.7 S.	70.0 W.	Northern Chile. h about 40 km.
23	14 03 39.8	18.6 S.	168.2 E.	New Hebrides Islands. Felt at Port Vila, Tanna and Erromango. h about 44 km. Mag. 5¾-6 (Brk).
23	14 16 34.3	18.5 S.	168.1 E.	New Hebrides Islands. Felt at Port Vila, Tanna, Erromango. h about 33 km.
23	14 37 56.9	6.8 N.	123.5 W.	Pacific Ocean, about 3000 km. northwest of Galapagos Islands. h about 33 km. Mag. 5¾-6.
23	15 24 07.3	18.5 N.	155.8 W.	Hawaii. Felt on islands of Hawaii and Ohau. h about 33 km.
23	15 28 52.6	18.5 S.	168.2 E.	New Hebrides Islands. Felt at Port Vila. h about 44 km.
23	15 30 17.2	18.3 S.	168.2 E.	New Hebrides Islands. h about 33 km. Mag. 5½ (Brk).
23	21 51 07.5	18.5 S.	168.3 E.	New Hebrides Islands. Slight damage at Port Vila. Tidal wave at Port Vila and Forari. h about 44 km. Mag. 7-7½.
23	22 01 55.3	18.5 S.	168.3 E.	New Hebrides Islands. h about 37 km.
23	22 41 01.2	18.1 S.	168.1 E.	New Hebrides Islands. h about 33 km.
23	23 22 07.8	18.7 S.	168.0 E.	New Hebrides Islands. h about 18 km.
23	23 46 18.5	18.6 S.	168.2 E.	New Hebrides Islands. h about 23 km.
24	00 34 53.7	18.2 S.	168.0 E.	New Hebrides Islands. h about 33 km.
24	01 30 56.6	21.2 S.	179.2 W.	Fiji Islands region. h about 598 km.

Date 1961	Origin Time G. C. T.	Lat.	Long.	Region, Remarks and Focal Depth
July	h m s	°	°	
24	01 46 28.9	18.4 S.	168.4 E.	New Hebrides Islands. Felt at Port Vila. h about 33 km.
24	01 53 29.9	2.1 S.	79.4 W.	Ecuador. h about 33 km.
24	01 58 52.3	18.3 S.	168.4 E.	New Hebrides Islands. Felt at Port Vila. h about 23 km.
24	02 07 18.6	1.6 S.	78.3 W.	Ecuador. h about 30 km.
24	03 44 48.2	18.3 S.	168.2 E.	New Hebrides Islands. h about 33 km.
24	08 48 09.7	0.1 N.	124.1 E.	Northern Celebes region. h about 104 km.
24	09 49 37.7	18.4 S.	167.8 E.	New Hebrides Islands. h about 33 km.
24	10 39 23.7	50.8 N.	128.9 W.	Vancouver Island region. h about 25 km.
24	11 01 46.7	18.9 S.	168.4 E.	New Hebrides Islands. Felt at Port Vila. h about 16 km.
24	18 09 49.6	3.8 S.	130.9 E.	Ceram Sea. h about 33 km.
24	20 06 14.9	18.7 S.	168.2 E.	New Hebrides Islands. h about 33 km.
25	01 30 34.4	18.9 S.	167.6 E.	New Hebrides Islands. h about 40 km.
25	02 26 27.2	18.7 S.	168.2 E.	New Hebrides Islands. h about 33 km.
25	02 48 13.4	8.9 S.	71.4 W.	Western Brazil. h about 593 km.
25	05 15 37.2	15.8 N.	96.7 W.	Near coast of Oaxaca, Mexico. h about 33 km.
25	05 59 40.6	55.1 N.	164.2 E.	Near east coast of Kamchatka. h about 32 km.
25	08 00 56.9	38.4 S.	78.6 E.	Indian Ocean, about 1500 km. northeast of Kerguelen Islands. h about 19 km.
25	08 50 40.5	18.3 S.	167.6 E.	New Hebrides Islands. h about 33 km.
25	10 01 58.9	18.4 S.	175.7 W.	Tonga Islands. h about 221 km.
25	11 08 16.3	18.4 S.	168.2 E.	New Hebrides Islands. h about 25 km.
25	12 00 54.7	20.9 N.	123.3 E.	Off southeast coast of Formosa. h about 33 km.
25	17 56 35.8	8.3 S.	110.1 E.	Near south coast of Java. h about 131 km.
25	18 39 24.1	0.0	124.7 E.	Celebes region. h about 43 km.
26	01 34 18.2	35.9 S.	104.5 W.	About 1000 km. southeast of Easter Island. h about 24 km.
26	02 55 59.9	7.5 S.	128.0 E.	Banda Sea. h about 96 km.
26	09 18 58.8	37.1 S.	177.1 E.	North Island, New Zealand. Felt. h about 83 km.
26	20 38 07.4	27.6 N.	132.5 E.	South of Honshu, Japan. h about 33 km.
27	02 07 23.1	30.5 S.	178.6 W.	Kermadec Islands. h about 469 km.
27	06 09 25.9	18.4 S.	70.2 W.	Bolivia-Chile border. Felt at Arica, Chile. h about 47 km.
27	08 27 46.9	17.8 S.	178.1 W.	Fiji Islands. h about 562 km.
27	10 30 17.4	18.2 S.	167.5 E.	New Hebrides Islands. h about 33 km.
27	11 33 49.6	19.1 S.	169.2 E.	New Hebrides Islands. h about 173 km.
27	15 33 38.1	34.8 S.	179.0 W.	Kermadec Islands region.
27	18 35 44.2	34.9 N.	25.4 E.	Aegean Sea. Felt. h about 33 km.
27	19 00 02.2	23.3 S.	67.2 W.	Juyjuy Province, Argentina. h about 246 km.
27	19 28 32.2	6.3 S.	150.0 E.	New Britain. h about 33 km.
27	23 59 26.9	53.7 N.	110.7 E.	Lake Baikal region, U.S.S.R. h about 33 km.

Date 1961	Origin Time G. C. T.	Lat.	Long.	Region, Remarks and Focal Depth
July	h m s	°	°	
28	00 01 13.9	4.6 N.	125.5 E.	South of Mindanao, Philippine Islands. h about 80 km.
28	00 34 19.5	27.1 N.	126.6 E.	Ryukyu Islands. h about 149 km.
28	01 05 30.0	2.2 S.	77.1 W.	Ecuador. h about 136 km. Mag. 6¼.
28	04 54 55.1	18.6 S.	167.9 E.	New Hebrides Islands. h about 50 km.
28	06 11 38.7	18.7 S.	167.7 E.	New Hebrides Islands. h about 41 km. Mag. 5¾ (Brk).
28	08 29 09.2	18.9 S.	167.8 E.	New Hebrides Islands. h about 33 km.
28	10 13 50.5	20.0 N.	109.3 W.	About 500 km. west of Jalisco, Mexico. h about 33 km. Mag. 5½ (Brk).
28	10 38 13.1	19.0 N.	109.2 W.	About 500 km. west of Jalisco, Mexico. h about 19 km. Mag. 5¼-5½ (Brk).
28	12 38 48.1	17.2 S.	172.5 W.	Tonga Islands. h about 33 km.
28	13 20 36.5	0.7 S.	122.4 E.	Celebes region. h about 33 km.
28	15 19 40.0	43.6 N.	146.1 E.	Near east coast of Hokkaido, Japan. h about 34 km.
28	16 38 20.6	19.8 S.	167.9 E.	New Hebrides Islands. h about 33 km.
28	16 59 31.9	17.3 S.	172.7 W.	Tonga Islands. h about 33 km.
28	17 17 04.8	20.6 S.	170.0 E.	Loyalty Islands. h about 125 km.
28	20 01 48.7	35.8 N.	27.5 E.	Aegean Sea. h about 33 km.
28	23 57 09.7	8.0 S.	149.5 E.	Near east coast of New Guinea. h about 38 km.
29	01 53 28.3	57.1 S.	25.8 W.	Sandwich Islands. h about 33 km.
29	10 31 42.4	16.6 S.	174.3 E.	Fiji Islands. h about 33 km.
29	11 55 36.1	57.0 S.	25.1 W.	Sandwich Islands. h about 33 km.
29	16 27 19.0	24.1 S.	176.1 W.	Tonga Islands. h about 23 km. Mag. 5½ (Brk).
29	23 35 39.3	6.9 S.	118.7 E.	Flores Sea. h about 33 km.
30	02 31 10.4	3.9 S.	103.3 E.	Sumatra. h about 146 km.
30	07 25 46.8	5.4 S.	78.7 W.	Northern Peru. h about 42 km.
30	08 08 07.7	7.0 S.	146.1 E.	Near north coast of New Guinea. h about 44 km.
30	11 02 06.7	11.2 N.	124.7 E.	Leyte, Philippine Islands. h about 49 km.
30	14 06 17.3	18.3 S.	168.5 E.	New Hebrides Islands. h about 37 km.
30	15 36 16.8	20.4 S.	174.1 W.	Tonga Islands. h about 33 km.
30	17 42 11.8	3.8 S.	130.9 E.	Ceram. h about 29 km.
31	00 07 07.0	35.7 N.	120.4 W.	San Luis Obispo County, California. Felt. h about 23 km. Mag. 4½.
31	00 15 55.3	5.3 S.	107.2 E.	Near north coast of Java. h about 244 km.
31	05 02 17.4	33.0 N.	140.9 E.	South of Honshu, Japan. h about 35 km.
31	08 30 41.1	18.7 S.	168.3 E.	New Hebrides Islands. h about 30 km.
31	19 08 41.5	9.8 S.	117.6 E.	Sumbawa. h about 32 km.

Date and Station		Phase	(GCT) h m s
July 1			
COL		iP	00 05 55
		i	06 29
		eS	08 51
EUR		iP	00 09 37
FGU		eP	00 10 01
GCA		eP	00 10 12
RCD		eP	00 10 15
THU		eP	00 10 12
TUC		eP	00 10 43
		ePP	12 30
TUT		eP	00 10 43
July 1			
GUA		eP	01 28 22
July 1			
COL		iP	02 01 39
July 1			
FGU		eP	02 18 41
July 1			
EUR		eP	03 05 37
TUC		eP	03 05 38
July 1			
BOZ		eP	03 43 35
EUR		e(P)	03 44 18
SLC		eP	03 43 38
		eS	44 14
July 1			
COL		iP	04 01 13
		i	01 27
EUR		eP	04 01 32
July 1			
COL		iP	04 05 11
		i	05 25
EUR		eP	04 05 30
July 1			
COL		iP	08 07 12
July 1			
BCN		eP	08 12 26
COL		iP	08 09 35
EUR		eP	08 12 13
FGU		iP	08 12 32
		epP	13 04
GCA		e(P)	08 12 35
		epP	13 09

Date and Station		Phase	(GCT) h m s
GUA		eP	08 04 01
		ipP	04 33
RCD		e(P)	08 12 40
TUT		iP	08 12 51
July 1			
COL		iP	10 50 49
		i	51 09
EUR		eP	10 51 08
July 1			
COL		eP	11 52 27
July 1			
COL		eP	12 49 40
EUR		eP	12 51 31
TUC		e(P)	12 50 23
TUT		eP	12 50 24
July 1			
BCN		eP	13 21 05
		eP'P'	50 03
BOZ		eP	13 21 41
COL		iP	13 24 05
		epP	24 17
		i	24 29
CSC		eP	13 19 26
FGU		iP	13 21 13
		epP	21 25
		eP'P'	50 05
GCA		eP	13 21 00
RCD		eP	13 21 13
SLC		eP	13 21 10
SJP		eP	13 17 25
		iPcP	19 59
TUC		eP	13 20 31
		ipP	20 43
TUT		iP	13 20 32
		eP'P'	50 10
July 1			
COL		eP	13 44 15
EUR		eP	13 44 47
July 1			
EUR		eP	14 44 31
July 1			
COL		e(P)	15 45 22
EUR		eP	15 45 58
July 1			
COL		iP	16 09 52
		i	09 59

Date and Station		Phase	(GCT) h m s
July 1			
COL		eP	17 25 26
		e	25 33
July 1			
COL		eP	18 00 18
		i	00 22
		i	00 48
July 1			
COL		iP	19 02 38
		ePcP	02 45
		e	03 07
EUR		eP	19 02 19
FGU		eP	19 02 44
GCA		eP	19 02 29
HON		iP	18 58 16
TUC		iP	19 02 20
TUT		e(P)	19 04 24
July 1			
COL		iP	20 48 22
July 1			
COL		iP	21 21 19
EUR		eP	21 21 08
TUT		e(P)	21 21 14
July 1			
FGU		eP	22 36 13
		e	37 17
July 1			
BCN		eP	23 53 30
COL		iP	23 49 22
		iPP	49 45
EUR		eP	23 53 09
FGU		iP	23 53 28
		ePcP	54 35
GCA		eP	23 53 39
RCD		iP	23 53 38
TUC		iP	23 54 07
TUT		eP	23 54 08
July 2			
EUR		e(P)	01 32 11
July 2			
COL		eP	01 54 00
July 2			
COL		iP	02 15 08
		epP	15 22
		e	16 07
		ePcP	16 31

Date and Station		Phase	(GCT) h m s
EUR		eP	02 18 22
HHM		iP	02 17 54
July 2			
COL		e(P)	04 29 21
EUR		eP	04 29 14
July 2			
COL		e(P)	05 26 08
July 2			
EUR		eP	06 11 59
July 2			
EUR		eP	07 28 07
		eS	29 32
FGU		eP	07 27 35
		eS	28 33
HHM		eP	07 27 21
		iS	28 21
RCD		eP	07 28 10
SLC		eP	07 27 53
July 2			
EUR		e(P)	08 54 59
July 2			
COL		iP	10 20 37
EUR		iP	10 22 49
FGU		eP	10 23 09
		epP	24 17
GUA		eP	10 12 47
		i(pP)	13 02
		i	13 19
HHM		iP	10 22 39
July 2			
COL		eP	11 56 09
		epP	56 39
		e	57 05
		e	58 40
EUR		e(P)	11 55 29
TUC		eP	11 55 39
July 2			
HHM		iP	12 59 04
July 2			
COL		eP	16 46 09
		e(pP)	46 36
		ePcP	46 55
July 2			
COL		iP	17 00 02
EUR		eP	17 00 22

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Date and Station		Phase (GCT) h m s
July 2		
EUR	eP	17 04 13
FGU	eP	17 03 21
	i	03 24
	iS	04 00
GCA	eP	17 03 33
	eS	04 16
July 2		
COL	iP	18 06 04
EUR	eP	18 09 33
FGU	eP	18 09 56
HHM	iP	18 09 02
July 2		
COL	e(P)	18 44 11
EUR	eP	18 38 27
FGU	eP	18 37 27
	i	37 30
	iS	38 06
GCA	eP	18 37 42
	iS	38 21
July 2		
BOZ	eP	21 41 03
EUR	iP	21 40 31
	iS	42 12
FGU	eP	21 39 33
	i	39 41
	i(S)	40 18
GCA	eP	21 39 47
	i	39 53
	iS	40 34
HHM	i(P)	21 41 34
RCD	eP	21 40 36
SLC	eP	21 40 02
	eS	40 55
	eL	46 33
TUT	eP	21 40 50
July 2		
EUR	eP	21 54 43
FGU	eP	21 53 52
	i	53 55
	iS	54 30
GCA	eP	21 54 06
	i	54 07
	eS	54 45
July 2		
FGU	e(P)	22 14 33
	iS	15 10

Date and Station		Phase (GCT) h m s
July 2		
FGU	iP	23 49 25
	eS	49 59
July 2		
GUA	eP	23 52 02
July 3		
FGU	e(P)	01 49 03
	eS	49 39
July 3		
BCN	eP	04 11 53
EUR	eP	04 11 25
	i	11 41
	iS	12 42
July 3		
COL	e(P)	05 25 44
EUR	eP	05 26 29
July 3		
COL	e(P)	06 39 16
July 3		
FGU	e(P)	06 31 08
	eS	31 43
July 3		
BCN	eP	07 08 21
EUR	eP	07 08 46
	eS	10 59
FGU	e(P)	07 08 04
	e	08 09
	iS	08 24
	iL	09 52
GCA	eP	07 07 38
	i	07 39
	iS	08 40
RCD	eP	07 09 19
TUC	eP	07 07 13
	i	07 24
	iS	08 10
TUT	eP	07 07 11
July 3		
COL	eP	07 21 54
EUR	eP	07 22 06
July 3		
COL	eP	08 38 38
EUR	eP	08 35 34
FGU	eP	08 35 16
GCA	eP	08 34 57
	e	35 03
SJP	eP	08 31 33
TUC	eP	08 34 33

Date and Station		Phase (GCT) h m s
TUT	eP	08 34 33
July 3		
COL	iP	09 11 01
July 3		
FGU	eP	10 32 40
	eS	33 17
July 3		
BCN	eP	12 20 29
EUR	eP	12 21 02
FGU	eP	12 21 03
TUC	eP	12 19 30
	eS	22 29
TUT	e(P)	12 19 37
July 3		
BCN	eP	14 59 04
BOZ	eP	14 59 42
COL	iP	15 02 20
EUR	iP	14 59 26
FGU	iP	14 59 10
	epP	59 26
GCA	eP	14 58 57
HHM	iP	15 00 04
RCD	eP	14 59 12
SJP	eP	14 55 34
TUC	eP	14 58 26
TUT	eP	14 58 27
July 3		
COL	eP	15 59 29
EUR	iP	15 55 22
GUA	iP	15 49 00
	iS	49 33
	i	50 53
	i	54 12
July 3		
EUR	e(P)	19 14 57
FGU	e(P)	19 13 43
GCA	e(P)	19 14 41
	eS	15 39
July 3		
FGU	eP	20 44 12
	eS	45 08
July 3		
EUR	eP	21 15 08
	e(S)	16 54

Date and Station		Phase (GCT) h m s
July 3		
FGU	iP	22 14 17
	iS	14 56
GCA	eP	22 14 24
	e	14 30
	iS	15 10
RCD	e(P)	22 16 56
TUT	e(P)	22 15 29
July 3		
EUR	e(P)	22 46 17
FGU	eP	22 43 59
	eS	44 36
July 3		
EUR	eP	23 17 14
July 3		
COL	eP	23 23 09
July 4		
COL	iP	00 19 26
	e	19 35
July 4		
COL	iP	02 01 30
July 4		
COL	iP	02 32 42
	epP	32 59
TUT	e(P)	02 33 13
July 4		
HHM	eP	03 07 05
July 4		
HON	iP	03 15 18
July 4		
TUC	eP	03 39 27
TUT	e(P)	03 39 27
July 4		
BUT	eP	04 57 36
	e(S)	59 20
COL	eP	05 02 06
	eL	12 22
CSC	e(P)	05 01 48
FGU	iP	04 57 40
	i	57 60
GCA	iP	04 57 34
	i	57 56
	i(S)	59 20
	iL	59 36
HHM	iP	04 57 59
	i(S)	05 00 11

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Date and Station		Phase (GCT) h m s
RCD	eP	04 58 44
	eS	05 02 04
SLC	eP	04 57 13
	eS	58 24
SJP	iP	05 04 52
THU	eP	05 04 00
TUC	eP	04 58 35
	i	59 15
	i(S)	05 01 28
	iL	01 32
UKI	eP	04 57 05
July 4		
BUT	eP	05 37 05
FGU	eP	05 36 47
	i	37 09
	i(S)	39 01
GCA	eP	05 37 03
	iS	38 29
HHM	e(P)	05 37 35
	iS	39 39
SLC	eP	05 36 31
UKI	eP	05 36 35
July 4		
BUT	eP	06 23 06
COL	eP	06 21 03
	ePcP	21 16
	e(pP)	22 05
	ePP	24 38
	eP'P'	49 43
FGU	eP	06 23 26
	e	23 35
GCA	eP	06 23 26
GUA	iP	06 11 51
	epP	12 12
	iS	12 44
	i	15 00
HHM	iP	06 23 00
RCD	eP	06 23 40
SLC	eP	06 23 19
SJP	eP'	06 29 55
	ePP	33 06
THU	eP	06 23 01
TUC	eP	06 23 37
	e	30 16
July 4		
BUT	eP	11 10 44
	e(S)	12 22

Date and Station		Phase (GCT) h m s
COL	eP	11 15 12
FGU	iP	11 10 46
	i	11 08
	i(S)	12 32
GCA	eP	11 10 43
	i	11 07
	i(S)	12 29
HHM	i(P)	11 11 05
	iS	13 19
RCD	eP	11 11 50
	eS	15 09
SLC	eP	11 10 20
	e	10 35
	eS	12 10
TUC	eP	11 11 41
	i	12 20
	i(S)	14 35
	iL	14 39
TUT	eP	11 11 39
UKI	eP	11 10 25
July 4		
COL	eP	14 40 05
	e	40 14
July 4		
EUR	iP	15 11 06
	i	11 52
July 4		
THU	eP	15 47 47
July 4		
EUR	eP'	19 36 50
FGU	eP'	19 36 14
July 4		
EUR	eP'	20 17 28
July 4		
BCN	eP	21 32 59
BUT	eP	21 33 10
EUR	iP	21 31 51
	i	32 20
FGU	eP	21 32 55
	i	33 17
	i	34 54
GCA	e(P)	21 32 50
	i	33 16
	i	34 38
HHM	e(P)	21 33 13
SLC	eP	21 32 44
TUC	e(P)	21 34 02
	e	36 49

Date and Station		Phase (GCT) h m s
TUT	eP	21 33 52
UKI	e(P)	21 32 35
July 4		
COL	iP	22 59 15
	i	23 01 31
EUR	eP	22 58 49
July 4		
EUR	eP	23 12 58
July 4		
COL	iP	23 28 25
July 5		
FGU	eP	00 12 53
July 5		
EUR	eP	01 34 48
July 5		
EUR	eP	01 44 55
July 5		
COL	iP	02 32 09
FGU	iP	02 35 03
	eP'	40 10
GCA	eP'	02 41 05
	e	42 43
GUA	eP	02 26 31
	epP	26 43
HHM	iP	02 34 28
RCD	e(P)	02 35 07
	eP'	44 24
THU	eP	02 33 32
July 5		
BCN	eP	03 59 40
COL	iP	03 55 50
EUR	eP	03 59 09
	e	04 11 48
RCD	eP	03 59 46
July 4		
COL	iP	05 14 05
	ipP	14 20
	esP	14 37
CSC	eP	05 08 04
EUR	eP	05 19 24
FGU	eP	05 10 44
GCA	e(P)	05 11 20
	epP	11 34
HHM	iP	05 11 53

Date and Station		Phase (GCT) h m s
RCD	eP	05 10 49
SLC	eP	05 11 28
SJP	iP	05 04 01
	i(S)	05 12
TUC	eP	05 11 09
	epP	11 23
TUT	eP	05 09 09
July 5		
COL	iP	05 58 12
	i	58 14
HHM	iP	06 01 26
July 5		
COL	e(P)	06 33 13
July 5		
COL	iP	06 45 38
	i	45 45
July 5		
COL	i(P)	08 30 33
July 5		
EUR	eP	10 59 38
July 5		
COL	iP	11 19 49
July 5		
EUR	e(P)	11 46 36
July 5		
COL	eP	11 56 08
July 5		
BCN	eP	15 28 32
July 5		
FGU	eP	15 57 27
	iS	58 06
July 5		
BCN	eP	17 00 15
BUT	eP	16 59 57
COL	eP	17 04 33
EUR	iP	16 59 07
	i	59 39
FGU	eP	17 00 33
	e	02 04
GCA	eP	17 00 31
	e	01 36
July 5		
HHM	eP	22 59 29
RCD	e(P)	22 57 02

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Date and Station		Phase (GCT) h m s
GCA	eP	15 47 56
GUA	eP	15 42 21
	epP	42 34
	eS	48 09
HHM	iP	15 48 06
	e(S)	58 39
SLC	eP	15 47 59
SJP	eP'	15 53 41
TUC	eP	15 47 50
	e	49 09
	eP'	53 26
	eL	16 10 24
TUT	eP	15 47 51
	eP'	53 27
UKI	eP	15 47 22
WAS	eP'	15 53 28
	e	54 26
July 8		
COL	e(P)	16 47 03
EUR	eP	16 47 07
TUT	eP	16 47 14
July 8		
BCN	eP	21 27 03
COL	eP	21 27 01
	iP	27 14
	ePP	31 35
EUR	eP	21 27 05
FGU	eP	21 26 57
GCA	eP	21 27 18
GUA	eP	21 21 49
HON	eS	21 31 08
SJP	eP'	21 33 03
TUC	eP	21 27 11
	i	27 21
TUT	eP	21 27 11
July 8		
BCN	eP	22 01 49
COL	iP	22 01 45
EUR	iP	22 01 41
FGU	eP	22 02 14
GCA	eP	22 02 02

Date and Station		Phase (GCT) h m s
GUA	eP	21 58 29
	e(S)	22 02 45
HON	eS	22 05 50
	eL	10 51
SJP	eP'	22 07 48
TUC	eP	22 01 56
	i	02 16
TUT	eP	22 01 57
July 8		
COL	eP	22 25 56
	e	26 19
EUR	eP	22 25 22
FGU	eP	22 25 48
GCA	eP	22 25 31
TUT	eP	22 25 20
July 8		
SJP	e(P)	22 49 19
July 8		
FGU	eP	23 48 57
	eS	49 19
July 9		
COL	iP	00 01 27
July 9		
THU	e(P)	04 21 25
July 9		
COL	eP	05 07 54
	e	08 33
EUR	eP	05 04 15
FGU	eP	05 03 49
GCA	eP	05 03 38
TUC	e(P)	05 03 08
	i(pP)	03 22
TUT	eP	05 03 08
July 9		
BHP	i(S)	06 39 16
BCN	eP	06 39 10
BUT	eP	06 39 57
COL	iP	06 43 14
CSC	eP	06 37 10
	e(S)	40 50
EUR	eP	06 39 29
FGU	eP	06 39 09
SLC	eP	06 39 22

Date and Station		Phase (GCT) h m s
THU	eP	06 43 01
TUC	eP	06 38 28
	eS	43 34
	eL	48 48
TUT	eP	06 38 28
WAS	eP	06 38 10
July 9		
THU	e(P)	07 21 19
July 9		
EUR	e(P)	07 43 46
GCA	eP	07 38 58
RCD	e(P)	07 39 09
July 9		
COL	iP	08 18 20
	ePP	21 05
EUR	eP	08 20 56
FGU	eP	08 21 05
GCA	eP	08 20 12
July 9		
EUR	eP	09 03 56
July 9		
EUR	e(P)	09 24 15
July 9		
SJP	e(P)	10 13 04
July 9		
COL	e(P)	13 38 24
July 9		
BOZ	eP	13 58 03
EUR	eP	13 57 52
	ePP	14 00 17
FGU	eP	13 57 26
	ePP	59 51
GCA	eP	13 57 13
	ePP	59 38
TUC	eP	13 56 48
	ePP	59 10
July 9		
EUR	eP	14 19 56
FGU	eP	14 18 33
July 9		
EUR	e(P)	16 12 44
July 9		
BCN	e(P)	16 55 00

Date and Station		Phase (GCT) h m s
COL	iP	16 51 04
	e	51 18
	e(S)	55 00
	i	17 04 03
EUR	eP	16 53 15
	e	54 37
FGU	eP	16 54 57
GCA	e(P)	16 55 09
SJP	eP	16 59 10
	i	59 29
TUC	eP	16 55 36
TUT	eP	16 55 36
July 9		
FGU	eP	17 07 28
	eS	07 51
July 9		
EUR	eP	18 28 41
July 9		
FGU	eP	19 30 10
	eS	30 50
GCA	e(P)	19 30 25
	e	30 36
	eS	31 06
July 9		
FGU	eP	20 57 17
	eS	57 54
July 9		
COL	eP	22 24 38
July 9		
COL	eP	23 51 33
July 10		
RCD	e(P)	01 37 12
July 10		
FGU	e(P)	01 47 23
	eS	48 59
July 10		
FGU	e(P)	04 28 47
TUT	e(P)	04 29 48
July 10		
BCN	eP	04 01 04
	epP	01 31
BOZ	eP	04 01 33
	epP	02 01
BUT	eP	04 01 38
	epP	02 05

Date and Station		Phase (GCT) h m s
COL	eP	04 03 45
	epP	04 14
CSC	eP	03 59 17
	epP	59 45
	eS	04 06 44
EUR	iP	04 01 21
FGU	eP	04 01 06
	epP	01 38
GCA	eP	04 00 56
	epP	01 24
GUA	eP'	04 09 29
	epP'	10 00
SLC	eP	04 01 14
SJP	eP	03 57 04
TUC	eP	04 00 31
	ipP	01 01
	isP	01 17
	ePP	03 05
	e	04 51
TUT	eP	04 00 31
WAS	eP	03 59 47
	epP	04 00 13
July 10		
RCD	iP	05 01 04
July 10		
FGU	eP	10 34 25
	eS	34 54
July 10		
COL	e(P)	12 12 19
July 10		
COL	iP	12 28 28
EUR	eP	12 28 06
TUC	e(P)	12 28 07
July 10		
BCN	e(P)	12 58 37
BOZ	eP	12 59 57
BUT	eP	13 00 01
COL	eP	13 03 32
	e	04 40
EUR	iP	12 59 12
FGU	eP	12 59 19
GCA	eP	12 58 44
SLC	eP	12 59 12
TUC	iP	12 57 36
	eS	13 00 07

Date and Station		Phase (GCT) h m s
July 10		
EUR	eP	13 48 09
July 10		
EUR	eP	14 08 27
July 10		
BOZ	eP	14 24 41
COL	eP	14 31 43
	ePP	34 33
EUR	eP	14 24 18
GCA	e(P)	14 23 51
TUC	eP	14 23 58
July 10		
FGU	eP	15 00 19
July 10		
COL	iP	16 09 27
July 10		
RCD	eP	17 54 32
July 10		
HON	iP	18 08 10
July 10		
COL	eP	18 37 18
	e	38 27
July 10		
EUR	e(P)	18 56 04
July 10		
EUR	e(P)	19 37 33
July 10		
EUR	eP	20 15 05
July 10		
EUR	eP	21 27 21
July 10		
EUR	eP	23 26 59
GCA	eP	23 27 16
	e	27 39
July 11		
COL	iP	01 28 36
EUR	eP	01 31 56
July 11		
EUR	e(P)	05 43 33
July 11		
COL	iP	05 58 49
EUR	eP	05 58 16
GCA	eP	05 58 21
TUC	iP	05 58 13
	i	58 23
EUR	eP	07 06 48

Date and Station		Phase (GCT) h m s
July 11		
EUR	eP	08 21 01
July 11		
BCN	eP'	09 50 55
	ePP	53 01
COL	e(P)	09 45 05
	ePP	48 55
CSC	ePP	09 53 56
EUR	iP'	09 50 47
FGU	eP	09 50 48
	ePP	52 46
GCA	eP'	09 50 44
	ePP	52 54
GUA	eP	09 40 45
	ePcP	41 23
HHM	iP'	09 50 33
SJP	eP'	09 51 26
TUC	eP'	09 51 05
	ePP	54 39
	e	57 17
WAS	iP'	09 51 06
	ePP	53 25
July 11		
EUR	e(P)	10 45 45
July 11		
COL	iP	11 35 48
July 11		
EUR	eP	11 46 05
FGU	e(P)	11 46 23
July 11		
SIT	eP	15 05 23
July 11		
COL	iP	16 39 32
EUR	eP	16 39 02
July 11		
COL	eP	17 35 55
	e	56 02
July 11		
COL	eP	18 48 19
	epP	50 19
	ePP	51 22
EUR	iP'	18 53 40
July 11		
EUR	e(P)	23 30 08
FGU	eP	23 29 49
	eS	30 14

Date and Station		Phase (GCT) h m s
July 11		
EUR	e(P)	23 46 06
FGU	iP	23 45 54
	eS	46 25
July 12		
EUR	eP	01 23 17
July 12		
BHP	iP	01 39 43
	iS	41 06
BCN	eP	01 46 25
EUR	eP	01 46 46
FGU	eP	01 46 25
HHM	i(P)	01 47 27
RCD	eP	01 46 24
SJP	eP	01 43 08
TUC	eP	01 45 43
July 12		
COL	e(P)	03 00 17
HHM	i(P)	03 01 05
July 12		
COL	eP	04 59 56
	ePP	05 03 11
EUR	e(P)	05 01 43
July 12		
FGU	eP	08 47 44
	eS	48 17
July 12		
COL	i(P)	09 48 23
July 12		
FGU	eP	10 04 59
	eS	05 24
July 12		
COL	eP	12 26 12
	e	26 38
EUR	e(P)	12 23 33
July 12		
COL	iP	12 43 41
	e	47 48
July 12		
BCN	eP	13 40 56
COL	iP	13 37 15
	ePP	39 12
	eS	43 05
EUR	eP	13 40 37
HHM	i(P)	13 40 21*

Date and Station		Phase (GCT) h m s
RCD	eP	13 41 03
THU	eP	13 39 33
July 12		
BCN	eP	14 50 01
COL	e(P)	14 50 05
EUR	eP	14 50 03
July 12		
COL	eP	15 28 00
	e	28 24
July 12		
EUR	eP	17 32 45
FGU	eP	17 32 38
July 12		
BCN	e(P)	20 32 25
EUR	eP	20 33 01
	e	34 46
GCA	eP	20 34 17
July 12		
COL	eP	20 55 10
EUR	e(P)	20 56 17
July 12		
GCA	eP	21 33 11
July 12		
BHP	iP	22 39 05
	iS	40 30
EUR	eP	22 46 09
FGU	eP	22 45 48
GCA	eP	22 45 37
SJP	eP	22 42 31
July 13		
FGU	eP	01 25 36
	eS	26 02
July 13		
COL	eP	01 35 15
July 13		
COL	e(P)	02 21 09
EUR	eP	02 23 36
July 13		
COL	eP	04 08 54
July 13		
COL	eP	04 49 31
	e	50 28
July 13		
COL	eP	04 57 22
July 13		
EUR	eP	06 16 09
TUT	e(P)	06 17 09

Date and Station		Phase (GCT) h m s
July 13		
EUR	eP	07 08 59
July 13		
COL	eP	07 31 24
EUR	eP	07 30 53
GCA	eP	07 31 03
July 13		
COL	eP	09 41 32
EUR	eP'	09 47 30
July 13		
BCN	eP	10 45 27
COL	eP	10 44 22
EUR	eP	10 45 22
FGU	eP	10 45 01
GUA	iP	10 36 34
	i	36 42
July 13		
COL	e(P)	11 27 25
EUR	eP	11 28 33
July 13		
BCN	eP	11 45 11
July 13		
COL	iP	13 47 28
July 13		
COL	eP	13 57 56
	e	58 14
EUR	eP	13 57 26
GCA	eP	13 57 34
	e	57 57
TUT	eP	13 57 25
July 13		
COL	eP	14 12 38
	e(S)	13 53
July 13		
COL	e(P)	15 09 53
EUR	e(P)	15 09 54
July 13		
EUR	eP	16 41 27
July 13		
TUT	e(P)	18 42 10
July 13		
EUR	e(P)	18 52 50
July 13		
RCD	e(P)	19 28 00

Date and Station		Phase (GCT) h m s
July 13		
COL	e(P)	19 41 27
EUR	e(P)	19 44 10
July 13		
BUT	eP	21 58 11
COL	eP	21 55 39
	e	55 55
	ePP	58 40
GUA	eP	21 48 38
	i	49 51
	eS	53 53
	eT	22 11 20
HHM	iP	21 57 45
July 13		
TUC	iP	22 22 02
July 13		
COL	e(P)	22 49 30
July 13		
COL	eP	23 50 27
July 14		
EUR	eP	00 13 53
UKI	e(P)	00 13 25
July 14		
EUR	eP	01 20 30
July 14		
COL	eP	03 47 42
July 14		
COL	eP	04 34 01
EUR	eP	04 33 42
TUT	eP	04 33 45
July 14		
FGU	e(P)	07 03 58
July 14		
EUR	eP	09 11 38
July 14		
EUR	eP	13 45 24
TUT	eP	13 43 05
July 14		
EUR	eP	15 04 31
July 14		
COL	iP	18 44 35
EUR	eP	18 43 40
FGU	eP	18 42 14
July 14		
RCD	iP	20 03 18
	iS	03 23

Date and Station		Phase (GCT) h m s
July 14		
EUR	e(P)	20 15 18
July 14		
EUR	e(P)	20 49 49
July 14		
EUR	eP	21 51 35
HHM	eP	21 51 03
	ePP	53 31
TUT	e(P)	21 52 33
July 14		
EUR	eP	23 54 01
July 15		
COL	iP	00 29 50
	ipP	30 02
	ePP	33 22
EUR	e(P)	00 32 01
	ePKKP	47 35
FGU	eP	00 35 18
SJP	eP'	00 37 33
TUC	eP	00 48 14
July 15		
FGU	iP	01 41 05
July 15		
FGU	e(P)	02 15 40
July 15		
FGU	eP	02 25 08
July 15		
COL	e(P)	02 53 21
July 15		
EUR	eP	04 13 24
July 15		
COL	iP	05 49 42
	ipP	50 41
EUR	iP	05 53 15
FGU	e(P)	05 53 34
GCA	e(P)	05 53 42
HHM	e(P)	05 52 43
RCD	eP	05 53 42
July 15		
COL	eP	06 16 53
EUR	eP	06 16 57
July 15		
COL	iP	07 41 56
RCD	e(P)	07 41 41

Date and Station		Phase (GCT)
		h m s
July 15		
EUR	eP	08 16 39
July 15		
COL	eP	11 33 25
July 15		
COL	eP	12 07 03
July 15		
BOZ	eP'	14 13 28
COL	eP	14 08 10
CSC	eP'	14 14 14
EUR	eP'	14 13 19
HHM	iP'	14 13 19
RCD	eP'	14 13 37
TUT	eP'	14 13 38
WAS	eP'	14 14 22
	ePP	16 26
July 15		
COL	eP	15 18 21
July 15		
COL	iP	17 53 39
July 15		
HHM	e(P)	19 53 14
July 15		
COL	eP	20 27 59
	e	28 09
EUR	eP	20 28 12
July 15		
COL	iP	20 45 19
	epP	47 47
CSC	eP'	20 53 36
EUR	eP	20 44 57
TUC	eP	20 44 58
TUT	eP	20 44 58
July 15		
EUR	eP	23 18 25
July 16		
COL	eP	00 50 19
	eS	52 09
EUR	eP	00 53 00
HHM	e(P)	00 51 53
	iS	56 42
TUT	e(P)	00 54 17
July 16		
SIT	eP	01 48 23

Date and Station		Phase (GCT)
		h m s
July 16		
SIT	eP	02 55 45
July 16		
COL	iP	02 59 43
	ipP	03 00 04
EUR	iP	03 00 16
July 16		
BOZ	iP	03 07 02
BUT	eP	03 06 53
	iS	07 11
EUR	eP	03 08 15
FGU	eP	03 07 42
	eS	08 38
HHM	iP	03 07 40
	iS	08 30
July 16		
FGU	eP	04 20 10
	eS	20 47
July 16		
GUA	iP	04 38 07
	e	38 28
July 16		
COL	iP	05 34 59
	ipP	35 51
EUR	eP	05 34 30
FGU	eP	05 34 56
	epP	35 51
GCA	eP	05 34 21
	epP	35 35
TUC	eP	05 34 31
TUT	eP	05 34 32
July 16		
BCN	eP	06 59 10
	e(pP)	07 00 05
COL	iP	06 59 45
	epP	07 00 42
EUR	eP	06 59 17
	ipP	07 00 12
FGU	eP	06 59 42
	ipP	07 00 40
GCA	eP	06 59 28
	epP	07 00 24
HHM	iP	06 59 47
TUC	iP	06 59 17
	i	59 49
	epP	07 00 13
	e	00 18
TUT	eP	06 59 17
	epP	07 00 14

Date and Station		Phase (GCT)
		h m s
July 16		
COL	iP	09 15 58
July 16		
TUT	eP	10 54 30
July 16		
COL	eP	12 14 54
	e	17 00
SIT	eP	12 12 32
July 16		
COL	i(P)	13 36 01
July 16		
COL	e(P)	13 41 35
July 16		
COL	i(P)	14 05 09
July 16		
BCN	eP	14 14 41
COL	iP	14 14 47
EUR	iP	14 14 45
FGU	eP	14 14 01
GCA	eP	14 14 55
	e	15 22
HON	eP	14 11 35
	iS	18 32
SJP	eP'	14 20 41
TUC	eP	14 14 48
TUT	eP	14 14 49
July 16		
COL	e(P)	18 11 07
EUR	eP	18 12 56
July 16		
FGU	eP	19 14 32
	e	15 13
July 16		
BCN	eP	20 13 11
EUR	eP	20 12 56
TUC	eP	20 13 11
TUT	eP	20 13 13
July 16		
EUR	eP	21 04 08
FGU	eP	21 07 33
TUC	eP	21 08 11
July 16		
BCN	eP	21 19 15

Date and Station		Phase (GCT)
		h m s
BOZ	eP	21 18 50
BUT	eP	21 18 40
COL	iP	21 15 23
EUR	iP	21 18 57
FGU	eP	21 19 15
GCA	eP	21 19 25
	ipP	19 39
RCD	eP	21 19 23
THU	eP	21 17 50
TUC	eP	21 19 49
TUT	eP	21 19 49
July 16		
FGU	eP	22 35 45
	eS	36 15
July 16		
COL	iP	23 15 08
	e	15 25
FGU	eP	23 15 13
GCA	eP	23 14 58
GUA	eP	23 11 13
TUC	eP	23 14 50
TUT	eP	23 14 51
July 17		
COL	e(P)	00 08 47
SIT	eP	00 04 39
July 17		
BHP	iP	01 05 31
	iS	09 15
BCN	eP	01 06 25
BOZ	eP	01 07 27
	eS	12 40
BUT	eP	01 07 30
COL	iP	01 11 02
CSC	eP	01 06 09
	eS	10 30
EUR	iP	01 06 57
	eS	10 07
FGU	iP	01 06 42
	eL	15 13

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

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

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

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Date and Station		Phase (GCT) h m s
HHM	eP	06 43 29
	i	43 40
	iS	44 30
July 21		
COL	iP	07 56 27
EUR	eP	07 56 51
July 21		
COL	e(P)	08 59 11
July 21		
EUR	e(P)	09 47 12
July 21		
EUR	e(P)	10 14 03
July 21		
EUR	eP	10 38 52
July 21		
EUR	eP	11 12 34
July 21		
COL	iP	13 20 09
	iS	28 52
EUR	eP	13 20 15
HON	e(S)	13 23 50
	eL	31 12
TUC	eP	13 20 21
TUT	eP	13 20 22
July 21		
COL	iP	14 26 38
	i	26 49
July 21		
COL	eP	14 46 30
July 21		
COL	eP	16 28 51
July 21		
EUR	eP	17 15 59
July 21		
EUR	eP	18 11 58
FGU	eP	18 12 12
HHM	eP	18 11 37
July 21		
EUR	eP	18 47 02
FGU	eP	18 47 18
July 21		
BOZ	e(P)	19 03 33
BUT	eP	19 03 27
COL	e(P)	19 00 55

Date and Station		Phase (GCT) h m s
EUR	eP	19 03 38
FGU	eP	19 03 51
GUA	eP	18 55 28
HHM	iP	19 03 17
RCD	eP	19 03 58
July 21		
COL	iP	19 18 16
EUR	eP	19 17 45
GCA	eP	19 17 53
July 21		
BUT	eP	22 52 29
COL	iP	22 49 58
	ePcP	50 42
	ePP	52 17
EUR	iP	22 52 39
FGU	eP	22 52 53
GUA	eP	22 44 31
HHM	iP	22 52 20
RCD	eP	22 52 59
July 21		
FGU	iP	23 32 44
	eS	33 08
July 21		
EUR	e(P)	23 39 47
July 21		
GCA	eP	23 45 56
	i	46 04
	e	46 38
July 22		
FGU	eP	00 17 29
	iS	17 53
July 22		
FGU	eP	02 37 52
	eS	38 12
July 22		
COL	iP	02 55 37
EUR	eP	02 55 05
TUT	eP	02 55 03
July 22		
FGU	eP	04 12 42
	e	13 08
July 22		
COL	iP	05 33 17
EUR	e(P)	05 32 55

Date and Station		Phase (GCT) h m s
July 22		
COL	e(P)	06 20 56
EUR	eP	06 25 19
July 22		
EUR	eP	07 36 29
FGU	e(P)	07 36 44
July 22		
EUR	eP	10 15 36
July 22		
COL	iP	10 40 40
	i	40 52
EUR	eP	10 40 05
FGU	eP	10 40 31
GCA	eP	10 40 03
July 22		
FGU	eP	10 58 24
July 22		
COL	eP	11 49 08
	e	49 21
July 22		
COL	iP	14 05 14
	epP	06 05
	ePP	08 07
EUR	e(P')	14 15 44
RCD	e(P')	14 15 57
July 22		
COL	e(P)	16 35 18
CSC	eP	16 29 35
EUR	eP	16 31 36
FGU	eP	16 31 13
July 22		
COL	iP	17 37 41
July 22		
BCN	eP	18 03 29
EUR	eP	18 03 16
	i	03 30
	iS	04 37
July 22		
EUR	eP	18 31 32
July 22		
FGU	eP	18 49 24
	i	49 55
July 22		
EUR	e(P)	19 36 15
July 22		
EUR	eP	20 41 53

Date and Station		Phase (GCT) h m s
July 22		
COL	iP	21 04 32
	i	04 39
July 22		
EUR	eP	21 14 29
July 22		
EUR	e(P)	22 40 48
FGU	e(P)	22 41 02
	i	41 27
HHM	iP	22 41 52
July 22		
FGU	eP	23 54 03
	i	54 12
July 23		
BCN	eP	00 09 42
BUT	eP	00 11 06
COL	iP	00 14 42
	i(pP)	14 52
	iPcP	15 50
	ePP	16 35
CSC	e(P)	00 10 55
	epP	11 06
EUR	iP	00 10 19
	ipP	10 29
	eL	17 28
FGU	iP	00 10 13
	eL	16 39
GCA	eP	00 09 39
HHM	iP	00 11 28
SLC	eP	00 10 18
SJP	e(P)	00 10 15
TUC	eP	00 08 41
July 23		
EUR	e(P)	02 40 28
FGU	eP	02 40 47
	eS	41 39
July 23		
COL	eP	03 54 12
July 23		
EUR	e(P)	06 51 55
July 23		
FGU	eP	05 59 36
	iS	06 00 00
GCA	eP	05 59 57
	iS	06 00 33

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

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

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Date and Station		Phase (GCT) h m s
July 25		
GUA	eP	09 44 37
	e	44 52
July 25		
COL	iP	10 14 14
	ipP	15 21
GCA	e(P)	10 13 57
	epP	14 53
TUC	eP	10 13 46
July 25		
COL	eP	11 21 15
EUR	eP	11 21 24
July 25		
COL	eP	12 12 09
EUR	e(P)	12 14 34
HHM	e(P)	12 14 10
July 25		
GCA	e(P)	13 25 02
	e	26 03
July 25		
COL	e(P)	16 03 20
EUR	eP	15 57 23
July 25		
COL	iP	16 56 45
	e	56 57
EUR	eP	17 00 11
July 25		
BOZ	eP'	18 58 03
COL	iP	18 49 42
	i	50 06
	ePcP	50 22
	ePP	52 15
	iS	56 33
CSC	eP'	18 58 50
EUR	eP'	18 58 01
FGU	iP'	18 58 09
HHM	eP	18 52 24
	eP'	57 57
RCD	eP'	18 58 13
SJP	eP'	18 59 24
	i	59 58
TUT	eP'	18 58 14
July 25		
COL	eP	20 36 11
HHM	eP	20 35 15
SIT	eP	20 34 40
	eS	35 00

Date and Station		Phase (GCT) h m s
July 25		
FGU	eP	23 04 25
July 25		
FGU	eP	23 50 55
	eS	51 25
July 26		
BCN	eP	01 45 44
BOZ	eP	01 46 36
EUR	eP	01 46 05
FGU	eP	01 46 10
GCA	eP	01 45 49
HHM	iP	01 46 52
RCD	eP	01 46 27
TUC	eP	01 45 19
TUT	eP	01 45 20
July 26		
COL	iP	02 27 59
July 26		
COL	e(P)	03 09 12
EUR	eP'	03 14 30
FGU	eP'	03 14 38
July 26		
EUR	eP	03 25 10
July 26		
COL	eP	08 57 51
	e	09 00 05
SIT	eP	08 56 07
July 26		
BCN	e(P)	09 31 16
	e	32 19
	eP'	36 12
COL	e(P)	09 33 07
	eS	43 07
EUR	e(P)	09 32 24
	ePKKP	48 07
FGU	eP'	09 36 09
HON	eP	09 29 16
KIP	iP	09 29 17
TUC	e(P)	09 32 20
July 26		
COL	eP	11 58 03
July 26		
COL	eP	12 12 36
July 26		
COL	e(P)	13 12 11

Date and Station		Phase (GCT) h m s
EUR	eP	13 08 37
FGU	eP	13 08 14
RCD	e(P)	13 08 17
July 26		
COL	e(P)	13 42 10
July 26		
COL	e(P)	14 09 55
July 26		
COL	eP'	16 45 44
EUR	eP	16 37 54
July 26		
HHM	e(P)	20 50 35
July 26		
EUR	eP	22 09 51
July 26		
CSC	e(P)	22 29 13
July 26		
GCA	eP	23 54 49
July 27		
COL	eP	02 20 11
EUR	eP	02 19 35
GCA	eP	02 19 42
TUC	eP	02 19 31
TUT	eP	02 19 31
July 27		
TUT	eP	04 27 26
July 27		
EUR	e(P)	05 32 00
	e	32 50
July 27		
EUR	eP	05 43 25
July 27		
CSC	eP	06 18 40
EUR	eP	06 20 45
HHM	iP	06 21 17
SJP	iP	06 16 29
July 27		
GUA	iP	07 00 47
July 27		
COL	iP	08 39 27
	ipP	41 37
EUR	eP	08 39 09
GCA	eP	08 39 18
TUC	iP	08 39 11

Date and Station		Phase (GCT) h m s
TUT	eP	08 39 11
July 27		
COL	iP	09 16 02
July 27		
EUR	e(P)	10 14 00
July 27		
COL	eP	10 43 12
EUR	eP	10 43 21
July 27		
BCN	eP	11 46 34
COL	iP	11 46 28
	ipP	47 11
EUR	eP	11 46 35
TUC	iP	11 46 42
July 27		
COL	iP	14 13 00
	i	13 14
EUR	eP	14 16 27
July 27		
COL	e(P')	15 53 05
EUR	e(P)	15 47 01
July 27		
EUR	eP	16 04 35
July 27		
COL	e(P)	16 23 33
July 27		
GCA	e(P)	18 03 25
	e	03 36
	e	03 49
	e	04 22
July 27		
COL	eP	18 47 55
HHM	eP	18 48 39
RCD	e(P)	18 47 54
July 27		
GCA	eP	19 03 59
July 27		
EUR	eP	19 15 23
GCA	eP	19 14 50
TUC	eP	19 13 47
TUT	eP	19 13 48
July 27		
COL	iP	21 35 26

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

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

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Date and Station		Phase	(GCT) h m s
July 30			
EUR		e(P)	21 32 31
July 30			
EUR		eP	22 55 49
July 31			
BCN		eP	00 08 15
BOZ		e(P)	00 10 02
BUT		eP	00 10 02
COL		e(P)	00 13 48
EUR		iP	00 08 25
		iS	09 36
		iL	09 48
FGU		e(P)	00 09 33
		eS	12 23
GCA		eP	00 08 56
		i	09 16
		iS	11 03
HHM		e(P)	00 10 24
		eL	14 18
RCD		e(P)	00 10 53
SLC		e(P)	00 09 12
TUC		eP	00 09 17
		eS	11 46
		eL	11 53
UKI		eP	00 08 05
July 31			
COL		eP'	00 34 34
CSC		eP'	00 35 23
		epP'	36 28
EUR		eP'	00 34 44
FGU		eP'	00 34 39
GCA		eP'	00 34 51
		ePP	37 56
July 31			
FGU		e(P)	02 31 59
		eS	32 33
July 31			
COL		eP	04 05 52
		i	05 57
July 31			
COL		iP	05 11 30
EUR		eP	05 14 18
HHM		e(P)	05 13 57
July 31			
EUR		eP	06 18 05

Date and Station		Phase	(GCT) h m s
July 31			
EUR		e(P)	06 32 51
July 31			
EUR		eP	07 09 02
July 31			
EUR		eP	08 43 45
July 31			
COL		eP	10 35 06
July 31			
EUR		eP	10 52 52
		eS	54 37
SLC		eP	10 52 23
July 31			
GCA		e(P)	18 48 48
July 31			
EUR		e(P)	19 27 41
HHM		e(P)	19 26 04
		i	26 34
July 31			
BCN		eP	21 30 03
EUR		eP	21 30 52
		eS	33 19
GCA		eP	21 30 30
		i	30 54
July 31			
EUR		e(P)	23 33 13
		eS	34 39
July 31			
EUR		eP	23 58 36
		eS	59 27
HHM		iP	23 58 49

Date and Station		Phase	(GCT) h m s

Date and Station		Phase	(GCT) h m s

Date and Station	Phase (GCT)
	h m s
Local and Minor Earthquakes	
July	
BOZ	
30	00.4
BUT	
9	18.4
	19.1
16	19.4
19	09.5
	12.0
21	06.7
23	05.7
	10.4
	11.8
29	13.0
30	00.1
31	05.2
	05.3
	10.9
COL	
1	09.1
	18.0
	20.7
2	00.7
	13.0
3	07.3
4	12.9
5	06.1
	11.3
6	01.5
	16.3
7	00.9
	01.2
	21.6
8	13.3
	21.7
9	00.0
	01.7
	23.9
10	16.2
	22.4
11	07.8
	20.5
12	04.1
	16.3
13	13.8
14	13.3
16	18.3
	23.6
17	20.2
18	12.1
20	03.6
	08.2
	18.5
21	02.7
23	13.3
26	02.5
27	05.2
	09.2
	16.7
29	07.1
30	14.0
	21.7
	23.1
31	04.1

Date and Station	Phase (GCT)
	h m s
EUR	
1	19.8
	22.45
3	12.7
4	17.3
1	19.85
	21.4
5	15.4
	17.0
6	01.8
	03.7
	05.95
	07.5
	14.2
7	01.7
8	00.0
	01.3
	21.4
10	14.6
11	09.8
12	22.4
13	16.6
20	16.4
21	02.2
	21.5
	21.8
22	04.2
	10.1
25	10.2
26	01.6
29	06.7
	13.0
30	10.6
FGU	
1	03.7
3	10.6
	19.2
4	22.1
10	23.7
13	06.2
17	22.6
20	23.4
24	08.1
30	02.8
GCA	
1	22.6
9	07.8
13	06.2
14	19.8
17	10.7
20	00.6
22	16.9
24	11.1
25	08.1
	08.2
27	06.3
30	09.8
	23.9
31	02.5
	10.3
SJP	
4	08.7
7	12.6

Date and Station	Phase (GCT)
	h m s
SJP (Con't.)	
8	01.6
9	21.4
13	01.2
	09.4
17	13.5
18	08.2
	07.8
21	09.6
25	14.7
TUC	
2	21.7
5	02.6
6	09.0
	19.1
10	23.5
13	08.7
21	02.0
28	06.8
TUT	
13	08.7
20	02.0
27	18.05
29	20.0
UKI	
23	07.9

Date and Station	Phase (GCT)
	h m s

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