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COAST & GEODETIC SURVEY
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SEISMOLOGICAL BULLETIN

October, 1961

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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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March 4, 2011

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

Albuquerque, New Mexico (ALQ)
**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the data from the horizontal components of the seismographs at all stations except College, Honolulu, and Tucson will not be published for earthquakes occurring outside the United States.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.

Date 1961	Origin Time G. C. T.	Lat.	Long.	Region, Remarks and Focal Depth
Oct.	h m s	°	°	
1	00 16 03.1	34.4 N.	104.9 E.	Kansu Province, China. h about 32 km.
1	00 43 52.4	43.6 N.	12.5 E.	Central Italy. h about 64 km.
1	03 07 08.5	43.5 N.	86.0 E.	Sinkiang Province, China. h about 25 km.
1	03 29 27.0	55.7 N.	162.0 E.	Kamchatka. h about 33 km.
1	07 44 16.0	22.2 S.	172.8 E.	Loyalty Islands region. h about 122 km.
1	14 17 41.0	37.6 N.	71.8 E.	Hindu Kush region. h about 122 km.
1	19 59 52.2	45.0 N.	110.2 W.	Hebgen Lake, Montana area. h about 19 km.
1	23 12 08.1	24.0 N.	122.3 E.	Near coast of Formosa. h about 33 km.
2	05 53 37.5	33.9 S.	179.6 E.	Off coast of North Island, New Zealand. h about 30 km.
2	06 07 40.1	33.9 S.	179.5 E.	Off coast of North Island, New Zealand. h about 33 km.
2	06 21 36.2	7.4 S.	107.1 E.	Near coast of Java. h about 88 km.
2	07 02 37.6	33.9 S.	179.6 E.	Off coast of North Island, New Zealand. h about 33 km.
2	07 21 44.7	36.7 N.	21.9 E.	Near coast of Greece. Moderate damage in southwestern Peloponnisos. h about 33 km.
2	08 09 07.1	51.4 N.	179.4 E.	Andreanof Islands, Aleutian Islands. h about 45 km.
2	11 52 33.8	1.5 S.	138.3 E.	Near north coast of western New Guinea. h about 41 km.
2	13 02 59.8	13.4 S.	167.7 E.	New Hebrides Islands region. h about 62 km.
2	13 20 21.6	37.4 N.	23.2 E.	Southern Greece. Felt. h about 135 km.
2	21 28 11.5	19.5 S.	69.5 W.	Near Chile-Bolivia border. h about 100 km.
3	01 01 18.2	35.4 N.	24.1 E.	Crete. h about 99 km.
3	06 03 40.1	17.6 S.	167.5 E.	New Hebrides Islands region. h about 33 km.
3	09 34 52.2	34.3 N.	47.9 E.	Western Iran. h about 59 km.
3	11 13 35.6	5.2 S.	153.7 E.	New Britain region. h about 204 km.
3	18 27 05.3	20.5 S.	170.7 E.	Loyalty Islands region. h about 39 km.
3	22 22 16.5	31.6 S.	179.7 W.	Kermadec Islands region. h about 345 km.
3	23 21 14.8	22.5 N.	143.5 E.	Mariana Islands region. h about 25 km.
4	02 21 30.6	33.8 N.	117.8 W.	Orange County, California. Slight damage. h about 18 km. Mag. 4.1.
4	02 23 23.5	13.2 S.	166.5 E.	New Hebrides Islands region. Felt at Vanikoro. h about 66 km.
4	03 23 18.3	28.5 S.	176.7 W.	Kermadec Islands region. h about 100 km.
4	04 15 46.6	19.1 S.	176.7 W.	Fiji Islands region . h about 211 km.
4	04 30 46.9	52.0 N.	159.1 E.	Near east coast of Kamchatka. h about 33 km.
4	06 14 55.0	22.7 N.	143.8 E.	Northern Mariana Islands. h about 154 km.
4	07 08 09.2	21.2 S.	177.8 W.	Fiji Islands region. h about 475 km.
4	07 30 54.8	73.7 N.	53.8 E.	Novaya Zemlya. h about 0 km.
4	10 46 54.9	5.4 S.	154.2 E.	New Britain region. h about 204 km.
4	21 29 15.0	17.6 S.	173.4 W.	Tonga Islands region. h about 80 km.
5	15 41 10.9	1.2 S.	125.6 E.	Molucca Passage. h about 186 km.

Date 1961	Origin Time G. C. T.	Lat.	Long.	Region, Remarks and Focal Depth
Oct.	h m s	°	°	
5	17 24 27.5	58.5 N.	137.4 W.	Southeastern Alaska. h about 33 km.
5	18 08 43.4	19.4 S.	169.0 E.	Loyalty Islands region. h about 58 km.
5	19 27 45.5	18.6 N.	146.9 E.	Mariana Islands region. h about 47 km.
5	22 34 58.9	24.0 N.	121.7 E.	Near coast of Formosa. h about 39 km.
5	23 01 07.3	51.0 N.	149.7 E.	Sea of Okhotsk. h about 518 km.
6	01 25 47.7	48.3 N.	152.6 E.	Kurile Islands. h about 150 km.
6	02 24 55.2	6.0 S.	153.8 E.	Solomon Islands region. h about 46 km.
6	06 46 49.2	10.1 S.	163.0 E.	Solomon Islands region. h about 50 km.
6	07 00 12.2	74.3 N.	51.6 E.	Novaya Zemlya. h about 0 km.
6	08 02 25.9	16.5 N.	98.3 W.	Near coast of Mexico. h about 33 km.
6	09 02 42.6	18.2 S.	69.5 W.	Peru-Chile border. h about 184 km.
6	11 04 22.5	42.4 N.	142.1 E.	Hokkaido, Japan. h about 115 km.
6	13 26 46.3	19.6 N.	122.1 E.	Near coast of Luzon, Philippine Islands. h about 70 km.
6	19 39 12.6	15.4 S.	167.8 E.	New Hebrides Islands region. h about 161 km.
7	04 21 56.1	31.4 N.	70.2 E.	West Pakistan. h about 59 km.
7	08 15 10.0	21.3 S.	68.4 W.	Chile-Bolivia border. h about 144 km.
7	08 15 14.8	56.2 S.	27.0 W.	Sandwich Islands. h about 33 km.
7	09 55 55.4	0.4 S.	80.4 W.	Near coast of Ecuador. h about 56 km.
7	14 18 37.7	28.1 S.	68.0 W.	Catamarca Province, Argentina. h about 33 km.
7	15 54 01.3	43.5 N.	128.8 W.	Off coast of Oregon. h about 25 km.
7	17 26 41.4	20.4 S.	69.0 W.	Northern Chile. h about 100 km.
7	19 24 32.5	56.2 S.	26.8 W.	Sandwich Islands region. h about 33 km.
8	00 53 20.0	3.8 S.	128.5 E.	Ceram. h about 178 km.
8	02 57 49.0	51.6 N.	170.9 W.	Fox Islands, Aleutian Islands. h about 25 km.
8	11 45 25.0	9.8 S.	160.4 E.	Solomon Islands region. h about 94 km.
8	12 41 36.0	30.0 S.	71.4 W.	Near coast of central Chile. h about 65 km.
8	21 56 44.0	53.1 N.	166.7 W.	Fox Islands, Aleutian Islands. h about 48 km.
8	23 41 33.1	1.5 N.	127.2 E.	Halmahera. h about 106 km.
9	01 36 56.0	21.9 S.	175.5 W.	Tonga Islands region. h about 48 km.
9	03 16 58.2	16.1 N.	94.0 W.	Near south coast of Mexico. h about 154 km.
9	06 50 29.7	38.4 N.	91.5 E.	Tsinghai Province, China. h about 33 km.
9	10 27 41.4	5.9 S.	147.7 E.	New Britain region. h about 71 km.
9	10 42 10.6	6.7 S.	128.9 E.	Banda Sea. h about 21 km.
9	11 04 45.6	13.2 S.	167.8 E.	New Hebrides Islands region. h about 26 km.
9	22 14 13.9	2.3 N.	127.1 E.	Halmahera region. h about 33 km.
10	01 46 35.3	46.2 N.	152.7 E.	Kurile Islands. h about 33 km.
10	03 44 38.3	22.9 S.	180.0	South of Fiji Islands. h about 576 km.
10	04 00 24.9	7.4 S.	128.2 E.	Banda Sea. h about 138 km.

Date 1961	Origin Time G. C. T.	Lat.	Long.	Region, Remarks and Focal Depth
Oct.	h m s	°	°	
10	08 25 54.6	5.4 S.	154.3 E.	Solomon Islands region. h about 154 km.
10	11 24 34.6	7.8 S.	123.5 E.	Flores Sea. h about 100 km.
10	17 24 58.9	4.7 S.	138.2 E.	Western New Guinea. h about 36 km.
10	18 00 00.1247			37°11'39" N., 116°12'25" W. Nevada Test Site. CHENA. Shot elevation = 2021.9 meters (AEC).
10	18 44 28.6	16.1 S.	176.3 W.	Fiji Islands region. h about 361 km.
11	00 29 35.6	28.7 S.	175.8 W.	Kermadec Islands. h about 46 km.
11	04 02 39.5	2.5 S.	140.9 E.	Near north coast of New Guinea. h about 18 km.
11	06 19 02.0	15.4 S.	172.4 W.	South of Samoa Islands. h about 25 km.
11	07 03 58.6	57.5 N.	154.1 E.	Kodiak Island. h about 42 km.
11	07 39 59.4	50.0 N.	77.7 E.	Kazakh S.S.R. h about 0 km.
11	09 28 17.7	11.6 S.	166.3 E.	Santa Cruz Islands. h about 52 km.
11	10 43 44.9	19.2 S.	169.6 E.	New Hebrides Islands region. h about 262 km.
11	12 28 35.2	13.3 S.	75.5 W.	Near coast of Peru. h about 137 km.
11	16 04 18.0	24.5 S.	179.8 E.	South of Fiji Islands. h about 560 km.
11	17 20 15.4	29.7 N.	129.7 E.	Ryukyu Islands. h about 52 km.
11	19 47 12.0	32.7 N.	142.0 E.	South of Honshu, Japan. h about 40 km.
11	19 53 02.2	13.2 S.	165.6 E.	New Hebrides Islands region. h about 175 km.
11	20 19 58.0	14.9 S.	167.5 E.	New Hebrides Islands region. h about 87 km.
11	22 01 37.9	10.5 S.	165.9 E.	Santa Cruz Islands. h about 135 km.
12	03 42 49.2	5.4 N.	126.1 E.	Talaud Islands. h about 104 km.
12	05 56 51.0	17.3 N.	99.0 W.	Guerrero, Mexico. h about 60 km.
12	06 01 28.6	3.2 S.	145.1 E.	Near north coast of New Guinea. h about 33 km.
12	07 36 34.6	32.0 S.	179.7 E.	Kermadec Islands. h about 300 km.
12	08 24 10.0	5.6 S.	151.9 E.	New Britain. Felt at Gavit and Rabaul. h about 41 km.
12	13 53 34.4	19.2 N.	64.9 W.	North of Puerto Rico. Felt at San Juan and on St. Thomas, Virgin Islands. h about 40 km.
12	14 27 37.9	43.3 N.	108.8 W.	Wyoming. h about 25 km.
12	19 07 30.0	24.4 N.	120.2 E.	Near west coast of Formosa. Felt. h about 25 km.
12	21 57 36.1	60.7 S.	154.5 E.	South of Macquarie Islands. h about 33 km.
13	02 22 08.2	6.2 N.	126.7 E.	Off southeast coast of Mindanao, Philippine Islands. h about 241 km.
13	04 59 02.2	55.9 S.	27.7 W.	Sandwich Islands. h about 33 km. Mag. $5\frac{1}{4}$-$5\frac{1}{2}$ (Pal).
13	10 46 46.1	60.2 S.	33.8 W.	Sandwich Islands region. h about 33 km. Mag. $5\frac{1}{2}$-$5\frac{3}{4}$ (Pal).
13	14 30 58.4	11.2 N.	123.8 E.	Panay, Philippine Islands. h about 33 km.
13	17 28 21.5	22.0 S.	176.9 W.	Tonga Islands region. h about 55 km.
14	07 00 39.4	33.6 N.	48.1 E.	Western Iran. h about 33 km.
14	11 15 28.2	5.1 S.	150.7 E.	New Britain. h about 35 km.
14	12 30 45.3	33.3 N.	142.2 E.	South of Honshu, Japan. h about 47 km.

Date 1961	Origin Time G. C. T.	Lat.	Long.	Region, Remarks and Focal Depth
Oct.	h m s	°	°	
14	16 13 48.7	19.1 S.	168.4 E.	New Hebrides Islands. Felt at Port Vila. h about 28 km.
14	21 18 03.4	0.9 S.	80.3 W.	Near coast of Ecuador. h about 25 km.
14	21 58 59.7	51.2 N.	159.2 E.	Kamchatka. h about 100 km.
15	17 08 01.3	4.0 S.	102.7 E.	Near southwest coast of Sumatra. h about 101 km.
15	21 05 02.0	39.2 N.	111.4 W.	Central Utah. h about 33 km.
15	21 18 53.3	6.9 S.	125.4 E.	Banda Sea. h about 558 km.
16	01 07 08.2	50.0 N.	157.9 E.	Kamchatka. h about 44 km.
16	02 08 21.0	53.0 N.	168.3 E.	Fox Islands, Aleutian Islands. h about 60 km.
16	03 27 44.1	19.9 S.	176.1 W.	Tonga Islands region. h about 224 km.
16	09 04 44.5	50.3 N.	156.5 E.	Off southern tip of Kamchatka. h about 33 km.
16	09 38 10.3	14.8 S.	167.7 E.	New Hebrides Islands. h about 131 km.
16	09 57 58.4	19.0 S.	170.0 E.	New Hebrides Islands region. h about 257 km.
16	10 01 25.3	18.8 S.	168.4 E.	New Hebrides Islands. h about 28 km.
16	11 42 56.1	38.3 S.	74.4 W.	Off coast of central Chile. h about 25 km.
16	17 55 04.8	5.6 S.	147.2 E.	Bismarck Sea. h about 190 km.
16	19 13 06.5	39.2 N.	111.5 W.	Central Utah. h about 18 km.
17	00 16 16.7	13.7 S.	76.1 W.	Near coast of Peru. h about 42 km.
17	00 59 41.8	39.2 N.	111.5 W.	Central Utah. h about 21 km.
17	03 28 09.7	2.9 S.	141.0 E.	Near north coast of New Guinea. h about 87 km.
17	03 54 46.7	40.0 N.	112.5 W.	Northern Utah. h about 28 km.
17	04 27 31.3	54.8 S.	1.5 E.	Bouvet Island region. h about 33 km. Mag. 5¼ (Pal).
17	09 51 32.8	14.9 S.	168.4 E.	New Hebrides Islands. h about 25 km.
17	11 02 34.4	12.3 N.	143.7 E.	South of Guam. h about 16 km.
18	01 38 28.8	18.0 N.	168.6 E.	New Hebrides Islands. h about 117 km.
18	02 49 59.6	29.9 S.	177.6 W.	Kermadec Islands. h about 65 km.
18	03 56 30.1	20.0 S.	177.7 W.	Fiji Islands region. h about 519 km.
18	06 38 43.8	15.1 S.	173.9 W.	Tonga Islands. h about 91 km.
18	07 31 39.3	17.4 S.	178.6 W.	Fiji Islands region. h about 576 km.
18	10 44 12.2	53.7 N.	165.3 W.	Fox Islands, Aleutian Islands. h about 33 km.
18	15 31 18.5	23.1 N.	94.6 E.	Burma. h about 69 km.
18	16 51 57.3	36.7 S.	73.0 W.	Near coast of southern Chile. Minor damage in area between Curico and Valdivia. h about 33 km. Mag. 6½.
18	18 10 30.4	36.9 S.	73.5 W.	Near coast of southern Chile. h about 55 km.
19	05 09 44.0	35.8 N.	117.9 W.	Kern County, California. Slight damage at Mojave. h about 22 km. Mag. 5.2.
19	08 31 29.3	36.9 S.	72.7 W.	Near coast of southern Chile. h about 61 km.
19	09 12 26.4	55.2 S.	146.7 E.	West of Macquarie Islands. h about 33 km.
19	10 56 55.3	43.0 N.	139.4 E.	Sea of Japan. h about 230 km.
19	11 19 20.1	37.1 S.	70.6 W.	Neuquen Province, Argentina. h about 149 km. Mag. 6¼.

Date 1961	Origin Time G. C. T.	Lat.	Long.	Region, Remarks and Focal Depth
Oct.	h m s	°	°	
19	13 31 57.1	21.6 S.	170.1 E.	New Hebrides Islands. h about 75 km.
19	19 26 32.2	55.3 S.	146.4 E.	South of Australia. h about 50 km.
19	20 24 41.9	17.6 S.	174.0 W.	Tonga Islands. h about 25 km.
20	03 49 58.2	9.4 S.	160.4 E.	Solomon Islands region. Felt at Honiara. h about 21 km.
20	05 40 44.1	51.8 N.	176.0 W.	Andreanof Islands, Aleutian Islands. h about 36 km.
20	08 06 12.9	8.0 S.	117.9 E.	Flores Sea. h about 33 km.
20	08 07 02.0	73.8 N.	53.2 E.	Novaya Zemlya. h about 0 km.
20	17 46 47.4	38.4 N.	97.3 E.	Tsinghai Province, China. h about 33 km.
20	19 02 18.6	36.9 S.	72.7 W.	Off coast of central Chile. h about 33 km.
20	19 19 13.3	33.7 N.	117.9 W.	Orange County, California. Felt. h about 19 km. Mag. 3.8.
20	19 49 50.5	33.6 N.	118.0 W.	Orange County, California. Minor damage at Anaheim, Garden Grove and Santa Ana. h about 17 km. Mag. 4.3.
20	20 07 14.8	33.7 N.	118.0 W.	Orange County, California. Felt. h about 20 km. Mag. 4.0.
20	22 35 34.2	33.7 N.	118.0 W.	Orange County, California. Felt. h about 27 km. Mag. 4.1.
21	11 43 41.3	18.0 S.	178.5 W.	Fiji Islands. h about 618 km.
21	17 34 33.6	10.8 S.	166.2 E.	Santa Cruz Islands. h about 161 km.
21	22 21 52.2	51.6 N.	176.0 W.	Andreanof Islands, Aleutian Islands. h about 35 km.
22	07 01 42.1	0.2 S.	94.6 W.	West of Galapagos Islands. h about 60 km.
22	07 30 41.8	7.3 S.	128.0 E.	Banda Sea. h about 172 km.
22	09 50 30.8	20.0 S.	172.7 E.	New Hebrides Islands. h about 65 km. Mag. 5½ (Brk).
22	13 08 11.1	2.2 N.	95.9 W.	West of Galapagos Islands. h about 65 km.
22	14 41 03.0	17.7 S.	178.7 W.	Fiji Islands. h about 554 km.
22	15 13 32.3	10.5 N.	86.6 W.	Off west coast of Costa Rica. h about 51 km.
22	18 40 26.9	18.0 S.	168.7 E.	New Hebrides Islands. Felt at Port Vila. h about 45 km.
22	22 56 31.8	27.5 N.	54.6 E.	Southern Iran. h about 33 km.
23	00 08 36.6	60.2 S.	33.6 W.	Sandwich Islands. h about 33 km. Mag. 6¼-6½ (Pal).
23	01 24 01.9	28.7 S.	70.3 W.	Central Chile. h about 108 km.
23	02 32 52.8	14.9 S.	166.8 E.	New Hebrides Islands. h about 25 km.
23	04 40 22.1	27.9 N.	54.5 E.	Southern Iran. h about 33 km.
23	06 03 11.9	6.2 S.	130.3 E.	Banda Sea. h about 60 km.
23	07 54 58.9	54.0 N.	163.8 W.	Unimak Island, Aleutian Islands. h about 35 km.
23	08 31 22.1	73.9 N.	53.8 E.	Novaya Zemlya. h about 0 km. Mag. 4¾-5 (Pal).
23	09 14 47.3	3.2 S.	146.6 E.	Bismarck Sea. h about 73 km.
23	10 30 48.8	70.7 N.	53.5 E.	Novaya Zemlya. h about 0 km.
23	14 39 35.3	3.5 N.	126.6 E.	Molucca Passage. h about 20 km. Mag. 6½.
23	14 52 30.5	3.6 N.	126.7 E.	Molucca Passage. h about 33 km.
23	17 11 57.1	16.5 S.	173.9 W.	Tonga Islands. h about 41 km.
23	17 45 20.1	3.3 N.	125.9 E.	Molucca Passage. h about 102 km.

Date 1961	Origin Time G. C. T.	Lat.	Long.	Region, Remarks and Focal Depth
Oct.	h m s	°	°	
23	19 20 54.3	19.8 S.	178.1 W.	Fiji Islands. h about 499 km.
23	20 38 26.5	3.5 N.	126.2 E.	Molucca Passage. h about 33 km.
24	00 18 18.6	42.9 N.	144.6 E.	Hokkaido, Japan. h about 14 km.
24	01 19 31.3	4.1 N.	127.3 E.	Molucca Passage. h about 33 km.
24	07 25 24.7	44.7 N.	146.5 E.	Kurile Islands. h about 126 km.
24	07 36 17.1	16.5 S.	178.3 E.	Fiji Islands. h about 40 km.
24	15 30 11.9	0.3 N.	123.9 E.	Northern Celebes. h about 130 km.
24	18 04 32.3	59.3 S.	25.2 W.	Sandwich Islands region. h about 33 km.
24	22 28 00.9	38.1 S.	73.3 W.	Near coast of southern Chile. Felt. h about 49 km.
25	08 54 34.6	9.6 S.	78.4 W.	Off coast of Peru. h about 110 km.
25	12 49 07.9	34.7 S.	178.4 W.	Kermadec Islands region. h about 25 km.
25	14 20 32.4	20.5 S.	174.3 W.	Tonga Islands. h about 114 km.
25	16 24 20.8	14.2 N.	56.6 E.	Gulf of Aden. h about 66 km.
25	22 38 20.7	20.1 S.	174.3 W.	Tonga Islands. h about 125 km.
26	00 38 22.8	3.1 S.	148.1 E.	Bismarck Sea. h about 33 km. Mag. 6¼.
26	08 16 02.4	38.0 S.	72.8 W.	Off coast of southern Chile. h about 43 km.
26	11 11 26.2	17.9 S.	167.7 E.	New Hebrides Islands. h about 124 km.
26	15 27 05.9	0.3 S.	98.7 E.	Off west coast of Sumatra. h about 34 km. Mag. 6.
26	15 41 51.5	22.4 S.	170.9 E.	Loyalty Islands region. h about 35 km.
26	16 05 49.5	0.1 S.	98.6 E.	Off west coast of Sumatra. h about 87 km.
26	17 22 19.0	17.4 N.	100.2 W.	Guerrero, Mexico. h about 91 km.
26	19 28 38.4	0.5 S.	98.8 E.	Off west coast of Sumatra. h about 62 km.
26	21 56 16.5	6.9 N.	73.0 W.	Colombia. h about 154 km.
27	02 37 10.4	17.9 S.	167.7 E.	New Hebrides Islands. h about 17 km.
27	08 30 26.6	70.7 N.	53.5 E.	Novaya Zemlya. h about 0 km.
27	10 30 42.9	6.2 S.	105.4 E.	Sumatra. h about 33 km.
28	01 34 55.7	17.5 S.	178.9 W.	Fiji Islands. h about 518 km.
28	05 30 04.5	9.3 S.	80.0 W.	Off coast of Peru. h about 33 km.
28	06 00 33.7	11.6 S.	166.4 E.	Santa Cruz Islands. h about 34 km.
28	06 20 09.2	19.0 S.	168.4 E.	New Hebrides Islands. h about 66 km.
28	06 48 07.6	18.8 S.	178.1 W.	Fiji Islands. h about 571 km.
28	09 22 39.9	20.3 S.	174.1 W.	Tonga Islands. h about 76 km.
28	10 46 42.2	33.6 N.	48.5 E.	Western Iran. h about 52 km.
28	14 49 17.5	38.6 S.	73.9 W.	Near coast of southern Chile. h about 53 km.
28	18 23 30.9	13.7 S.	165.8 E.	New Hebrides Islands. h about 33 km.
28	22 44 30.2	13.9 S.	166.0 E.	New Hebrides Islands. h about 37 km.
28	22 45 45.6	53.4 N.	109.3 E.	Lake Baikal, U.S.S.R. region. h about 33 km.
28	23 31 32.7	13.9 S.	166.3 E.	New Hebrides Islands. h about 225 km.

Date 1961	Origin Time G. C. T.	Lat.	Long.	Region, Remarks and Focal Depth
Oct.	h m s	°	°	
29	02 22 20.5	13.7 S.	165.7 E.	New Hebrides Islands. h about 25 km.
29	09 12 15.7	49.0 N.	128.7 W.	Vancouver Island region. h about 16 km. Mag. $5\frac{3}{4}$.
29	14 00 12.0	49.4 N.	127.6 W.	Vancouver Island region. h about 56 km.
29	14 47 16.8	49.0 N.	128.3 W.	Vancouver Island region. h about 33 km. Mag. $4\frac{3}{4}$-5 (Pal).
29	18 30 00.131			37°02'55" N., 116°01'52" W. Nevada Test Site. MINK. Shot elevation = 1036.3 meters (AEC).
29	23 55 55.9	13.8 S.	166.0 E.	New Hebrides Islands. h about 25 km.
30	01 44 52.1	42.5 N.	126.6 W.	Off coast of Oregon. h about 33 km.
30	02 16 32.7	42.3 N.	126.7 W.	Off coast of Oregon. h about 36 km. Mag. 5-$5\frac{1}{4}$ (Pal).
30	04 47 59.8	50.8 N.	158.3 E.	Off southern tip of Kamchatka. h about 32 km.
30	08 33 27.8	73.8 N.	53.5 E.	Novaya Zemlya. h about 0 km. Mag. $5\frac{1}{4}$-$5\frac{1}{2}$ (Pal).
30	13 13 57.6	1.1 N.	29.8 W.	Atlantic Ocean. h about 33 km.
30	17 35 03.3	28.5 N.	178.1 W.	Kermadec Islands. h about 219 km.
30	21 15 35.2	28.9 N.	141.8 E.	South of Honshu, Japan. h about 31 km.
30	22 36 19.5	29.3 N.	141.8 E.	South of Honshu, Japan. h about 80 km.
31	01 42 53.3	51.9 N.	176.1 E.	Rat Islands, Aleutian Islands. h about 35 km.
31	03 19 28.0	5.0 S.	104.1 E.	Near coast of Sumatra. h about 27 km.
31	03 46 03.2	31.2 S.	178.3 W.	Kermadec Islands. h about 232 km.
31	08 29 17.2	73.6 N.	56.2 E.	Novaya Zemlya. h about 0 km. Mag. $4\frac{3}{4}$ (Pal).
31	08 38 00.5	75.1 N.	56.7 E.	Novaya Zemlya. h about 0 km.
31	08 39 11.1	21.9 N.	142.9 E.	Mariana Islands region. h about 270 km.
31	23 58 50.7	43.6 N.	146.5 E.	Off east coast of Hokkaido, Japan. h about 15 km.

Date and Station		Phase	(GCT) h m s
Oct. 1			
COL	iP		00 26 51
	i		27 14
	i		27 37
	i		28 29
EUR	e(P)		00 29 38
HHM	iP		00 29 06
Oct. 1			
COL	eP		03 17 41
Oct. 1			
COL	iP		03 34 57
EUR	iP		03 39 53
	i		40 05
FGU	eP		03 39 10
Oct. 1			
COL	eP		07 57 12
EUR	eP		07 57 05
Oct. 1			
BCN	eP		09 20 43
Oct. 1			
BOZ	eP		12 12 25
BUT	iP		12 12 41
	eS		13 02
Oct. 1			
COL	iP		14 29 06
	e		29 40
Oct. 1			
BCN	eP		15 28 34
Oct. 1			
BCN	eP		15 46 27
Oct. 1			
BCN	eP		17 17 30
EUR	iP		17 17 18
FGU	e(P)		17 18 25
	e		18 44
Oct. 1			
BCN	eP		18 18 17
EUR	eP		18 18 01
	i		18 40
Oct. 1			
BOZ	eP		20 00 09
BUT	eP		20 00 23
	eS		00 44
COL	iP		20 06 03
EUR	eP		20 01 38
FGU	e(P)		20 00 56
	e		01 02
	eS		01 58
HHM	eP		20 00 58
	iS		02 01
Oct. 1			
BCN	eP		20 12 14
EUR	eP		20 12 03
	i		12 36
Oct. 1			
BCN	eP		22 30 29
EUR	eP		22 30 42
Oct. 1			
FGU	eP		23 00 12
	eS		00 50
Oct. 1			
BUT	eP		23 25 27
COL	eP		23 23 08
	e		23 42
EUR	eP		23 25 37
HHM	iP		23 25 17
Oct. 1			
BCN	eP		23 37 44
EUR	eP		23 37 36
Oct. 1			
COL	iP		23 45 29
	i		45 43
EUR	eP		23 44 56
Oct. 2			
FGU	eP		02 56 23
	eS		56 45
Oct. 2			
BCN	eP		06 06 48
COL	eP		06 07 22
EUR	eP		06 06 55
FGU	e(P)		06 07 24
GUA	eP		06 03 24
TUC	eP		06 06 49
TUT	eP		06 06 50
Oct. 2			
EUR	iP		06 12 38
	i		12 49
Oct. 2			
COL	eP		06 17 09
EUR	eP		06 20 57
TUC	eP		06 20 51
TUT	eP		06 20 51
Oct. 2			
BUT	eP'		06 40 36
	e		43 53
COL	eP		06 35 28
	e		36 17
CSC	eP'		06 41 25
EUR	eP'		06 40 27
	i		40 39
	i		43 57
	i		57 14
FGU	eP'		06 40 46
	e		44 09
HHM	iP'		06 40 32
SLC	eP'		06 40 42
WAS	eP'		06 41 02
Oct. 2			
BCN	eP		07 04 50
EUR	eP		07 04 38
Oct. 2			
BCN	e(P)		07 15 34
BUT	eP'		07 20 31
COL	e(P)		07 16 37
EUR	eP		07 15 53
FGU	e(P)		07 16 21
GUA	eP		07 12 31
	e		12 56
TUC	eP		07 15 49
TUT	eP		07 15 49
Oct. 2			
BOZ	eP		07 34 32
BUT	eP		07 34 35
COL	eP		07 33 44
CSC	eP		07 33 51
EUR	eP		07 35 06
FGU	eP		07 34 46
HHM	iP		07 34 27
SLC	eP		07 34 52
Oct. 2			
FGU	e(P)		08 08 38
Oct. 2			
COL	eP		08 13 59
	i		14 17
	i		14 26
EUR	eP		08 16 19
	i		17 27
FGU	eP		08 17 51
	e		18 01
HHM	iP		08 16 55
	i		17 34
Oct. 2			
EUR	eP		09 49 15
Oct. 2			
BUT	eP		10 41 42
Oct. 2			
EUR	eP		11 19 14
Oct. 2			
EUR	eP		11 24 00
Oct. 2			
COL	eP		12 05 07
	e		05 24
Oct. 2			
COL	eP		12 31 01
	i		31 19
	e		32 30
EUR	eP		12 28 25
Oct. 2			
BCN	eP		12 50 25
EUR	iP		12 50 14
Oct. 2			
EUR	e(P)		13 03 10
Oct. 2			
HHM	eP		13 32 51
Oct. 2			
BCN	eP		16 23 17
EUR	iP		16 23 05
	i		23 09
	iS		23 39
Oct. 2			
COL	iP		19 15 40
Oct. 2			
BCN	eP		20 01 21
Oct. 2			
SJP	iP		21 16 15
	iS		16 26
Oct. 2			
COL	e(P)		21 42 34
	e		43 27
EUR	eP		21 39 33
	i		39 48
HHM	eP		21 40 04
SJP	i(P)		21 35 16

Date and Station		Phase (GCT) h m s
Oct. 2		
COL	iP	21 49 56
Oct. 3		
COL	eP	01 13 19
HHM	e(P)	01 14 00
Oct. 3		
BCN	eP	03 00 18
EUR	eP	03 00 05
	i	00 09
	iS	00 48
Oct. 3		
COL	eP	03 03 18
Oct. 3		
COL	iP	06 16 31
EUR	iP	06 15 42
Oct. 3		
COL	iP	06 49 20
	i	49 59
CSC	e(P)	06 44 05
EUR	iP	06 45 26
TUC	eP	06 44 14
TUT	eP	06 44 14
Oct. 3		
GUA	e(P)	07 07 44
Oct. 3		
COL	eP	09 46 57
Oct. 3		
GUA	eP	10 29 21
Oct. 3		
COL	iP	11 26 16
Oct. 3		
EUR	iP	12 53 05
	ipP	53 37
Oct. 3		
COL	eP	17 40 37
Oct. 3		
COL	eP	18 40 06
	e	40 24
EUR	e(P)	18 40 55
Oct. 3		
BCN	eP	19 12 30
BOZ	e(P)	19 12 52
COL	eP	19 11 53
	i	12 13
EUR	eP	19 12 29

Date and Station		Phase (GCT) h m s
Oct. 3		
EUR	iP	22 34 48
Oct. 3		
COL	eP	23 31 33
EUR	i(P)	23 33 42
FGU	e(P)	23 33 51
GUA	iP	23 23 36
Oct. 4		
BCN	eP	02 22 23
	eL	24 53
EUR	iP	02 23 00
	iL	24 41
FGU	e(P)	02 23 57
	eL	26 51
HHM	eP	02 25 09
SLC	e(P)	02 24 14
TUC	eP	02 23 03
TUT	eP	02 23 03
Oct. 4		
BCN	eP	02 36 08
COL	iP	02 35 52
	i(pP)	36 15
EUR	eP	02 36 11
	i	36 58
	e	38 04
	e(PP)	39 56
	ePKKP	53 50
FGU	e(P)	02 36 18
HHM	eP	02 36 30
TUC	e(P)	02 36 21
TUT	e(P)	02 36 22
Oct. 4		
EUR	eP	03 01 57
Oct. 4		
BUT	eP	03 06 30
Oct. 4		
EUR	eP	03 35 59
	e	36 11
Oct. 4		
COL	eP	04 28 10
	e	28 38
	epP	29 08
Oct. 4		
COL	iP	04 36 50
	e	37 15
EUR	iP	04 40 35
	iPcP	41 02
	iPP	42 33

Date and Station		Phase (GCT) h m s
FGU	eP	04 40 52
Oct. 4		
COL	eP	05 10 11
	i	10 46
Oct. 4		
COL	eP	06 24 54
	ipP	25 34
EUR	iP	06 27 10
FGU	eP	06 27 29
HHM	iP	06 26 58
Oct. 4		
COL	eP	07 20 15
EUR	eP	07 19 52
Oct. 4		
EUR	eP	07 40 40
Oct. 4		
COL	eP	07 38 40
EUR	iP	07 41 51
HHM	e(P)	07 40 49
Oct. 4		
COL	eP	08 25 12
EUR	eP	08 23 22
Oct. 4		
COL	eP	09 47 17
EUR	iP	09 49 13
FGU	e(P)	09 49 34
HHM	eP	09 49 07
Oct. 4		
EUR	eP	10 07 33
Oct. 4		
COL	iP	10 58 56
	i	59 13
	e(pP)	59 55
EUR	eP	10 59 52
Oct. 4		
COL	eP	15 53 01
Oct. 4		
COL	iP	16 37 46
	e	38 11
Oct. 4		
EUR	iP	18 00 42
Oct. 4		
COL	eP	18 47 10
Oct. 4		
BCN	eP	19 01 10
	e	02 08

Date and Station		Phase (GCT) h m s
Oct. 4		
EUR	iP	20 08 46
Oct. 4		
COL	iP	21 41 44
EUR	eP	21 41 11
Oct. 4		
TUT	e(P)	23 02 04
Oct. 5		
BCN	eP	00 08 13
Oct. 5		
EUR	eP	01 33 59
Oct. 5		
TUT	e(P)	03 21 29
Oct. 5		
COL	eP	03 45 19
Oct. 5		
FGU	e(P)	04 04 52
Oct. 5		
GUA	e(P)	06 56 23
Oct. 5		
FGU	e(P)	07 47 18
Oct. 5		
EUR	eP	09 52 42
Oct. 5		
EUR	eP	12 36 18
Oct. 5		
HHM	iP	14 10 13
Oct. 5		
COL	eP	14 16 38
Oct. 5		
FGU	e(P)	14 29 04
	e(S)	31 30
Oct. 5		
COL	eP	15 53 40
Oct. 5		
BUT	e(P)	17 19 44
Oct. 5		
COL	eP	17 26 24
	e	28 42
EUR	iP	17 29 37
HHM	e(P)	17 28 35
	e	32 29
	e	33 19
	i	33 33
SIT	eP	17 24 54
Oct. 5		
EUR	iP	18 00 42

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Date and Station		Phase	(GCT) h m s
Oct. 5			
BCN		eP	18 21 41
COL		iP	18 21 37
		ipP	21 48
EUR		iP	18 21 45
		e	25 23
FGU		eP	18 22 08
HHM		e(P)	18 22 05
SJP		eP'	18 27 43
TUC		iP	18 21 51
TUT		iP	18 21 51
Oct. 5			
COL		eP	19 38 07
EUR		iP	19 40 11
		ipP	40 24
		isP	40 38
FGU		eP	19 40 31
GUA		eP	19 29 06
Oct. 5			
COL		iP	22 46 01
EUR		iP	22 48 29
		ipP	48 43
		e	52 46
GUA		eP	22 40 17
HHM		iP	22 48 08
Oct. 5			
BCN		eP	23 11 07
COL		iP	23 07 14
		i	07 32
		e	08 06
EUR		iP	23 10 48
		i	11 04
		i	11 20
FGU		e(P)	23 11 03
Oct. 5			
FGU		e(P)	23 49 44
		e(S)	50 36
Oct. 6			
BCN		eP	01 02 24
EUR		iP	01 01 41
		i	01 49
		iS	02 17
Oct. 6			
BCN		eP	01 36 17
		epP	36 52
BOZ		eP	01 35 50
COL		iP	01 32 28
		ipP	32 58
		i	33 11
EUR		iP	01 35 57
		ipP	36 31
FGU		e(P)	01 36 15
HHM		iP	01 35 27
		i	36 17
Oct. 6			
COL		iP	02 37 14
		i	37 29
		i	37 36
EUR		eP	02 38 10
Oct. 6			
COL		eP	03 32 22
EUR		iP	03 33 10
FGU		e(P)	03 32 27
HHM		eP	03 32 15
Oct. 6			
EUR		eP	06 06 14
Oct. 6			
BCN		eP	06 59 47
COL		iP	06 59 11
		i	59 19
EUR		eP	06 59 44
		i	59 53
Oct. 6			
COL		iP	07 07 53
EUR		iP	07 11 03
HHM		e(P)	07 10 05
Oct. 6			
BCN		eP	08 07 40
BUT		eP	08 08 48
COL		iP	08 12 21
		i	12 48
		e	13 12
CSC		eP	08 07 39
EUR		eP	08 08 12
		i	08 19
FGU		eP	08 08 00
GGA		e(P)	08 07 36
SLC		eP	08 08 05
TUC		eP	08 06 50
TUT		eP	08 06 50
		eL	12 26
Oct. 6			
COL		eP	09 14 38
EUR		eP	09 12 49
SJP		iP	09 09 32
Oct. 6			
EUR		iP	09 16 48
Oct. 6			
COL		eP	09 49 56
Oct. 6			
COL		iP	11 12 22
		i	12 42
		ePP	14 00
EUR		iP	11 16 36
		ipP	17 11
HHM		eP	11 15 08
Oct. 6			
COL		iP	13 38 11
		i	39 35
Oct. 6			
COL		eP	15 11 07
Oct. 6			
COL		iP	16 59 04
EUR		iP	17 02 53
Oct. 6			
COL		eP	17 05 28
		i	05 50
Oct. 6			
COL		iP	17 38 15
		i	38 32
		i	38 56
EUR		eP	17 41 56
		ipP	42 07
Oct. 6			
EUR		iP	18 00 41
Oct. 6			
COL		eP	19 51 40
EUR		iP	19 51 53
		ipP	52 30
Oct. 6			
COL		eP	21 56 02
EUR		iP	21 58 15
Oct. 7			
COL		eP	04 33 59
Oct. 7			
COL		iP	07 47 59
Oct. 7			
BUT		eP	08 26 55
COL		eP'	08 33 47
EUR		iP	08 26 39
		i	26 51
FGU		e(P)	08 26 25
HHM		iP	08 27 08
		i	27 37
SJP		iP	08 22 25
TUC		eP	08 25 49
TUT		eP	08 25 49
Oct. 7			
COL		iP'	08 35 02
		i	35 09
SJP		eP	08 27 27
Oct. 7			
EUR		eP	08 44 07
Oct. 7			
BHP		iP	09 59 10
BUT		eP	10 05 16
COL		eP	10 08 10
		ePP	11 12
CSC		eP	10 02 38
EUR		eP	10 04 57
FGU		eP	10 04 38
HHM		iP	10 05 36
SJP		iP	10 01 00
TUT		eP	10 03 52
Oct. 7			
COL		eP	10 48 30
Oct. 7			
COL		eP	11 26 20
Oct. 7			
EUR		iP	14 30 51
		i	31 03
FGU		e(P)	14 30 39
HHM		iP	14 31 19
Oct. 7			
EUR		eP	15 55 58
TUC		eP	15 53 53
Oct. 7			
BCN		eP	15 56 34
BOZ		e(P)	15 56 25
COL		iP	15 58 38
		i	59 14
		i	16 02 58
		eS	03 45

Date and Station		Phase (GCT) h m s
CSC	eP	16 01 24
EUR	iP	15 56 35
	eL	59 07
FGU	e(P)	15 56 55
	e	57 26
GCA	eP	15 57 01
HHM	iP	15 56 05
	i	56 44
TUC	iP	15 58 16
	i	58 21
	eL	16 05 10
WAS	eP	16 01 29
	e	16 11
Oct. 7		
COL	iP	16 09 58
Oct. 7		
TUT	eP	16 53 53
Oct. 7		
COL	eP	17 25 47
Oct. 7		
EUR	iP	17 38 08
	isP	38 45
FGU	eP	17 37 54
GCA	eP	17 37 43
HHM	iP	17 38 38
SJP	iP	17 33 54
TUC	eP	17 37 19
TUT	iP	17 37 19
Oct. 7		
COL	eP	19 21 41
Oct. 7		
COL	e(P)	19 31 40
Oct. 7		
COL	iP'	19 44 18
	i	44 27
Oct. 7		
FGU	eP	23 02 50
Oct. 7		
FGU	eP	23 10 29
Oct. 8		
SLC	eP	00 09 57
Oct. 8		
FGU	eP	00 21 14
Oct. 8		
COL	iP	03 02 00

Date and Station		Phase (GCT) h m s
EUR	iP	03 05 21
	i	06 04
GCA	e(P)	03 05 22
	e	06 14
HHM	iP	03 04 52
TUC	eP	03 06 23
	e	06 34
Oct. 8		
COL	iP	03 34 25
EUR	eP	03 37 42
Oct. 8		
COL	iP	07 20 10
EUR	iP	07 23 30
Oct. 8		
BCN	eP	08 55 21
EUR	iP	08 55 57
	i	56 12
	iL	57 11
GCA	e(P)	08 56 07
	e	56 20
	e	57 27
Oct. 8		
SJP	iP	08 49 20
Oct. 8		
COL	eP	11 57 45
EUR	iP	11 58 24
Oct. 8		
EUR	iP	12 53 44
	i	54 11
FGU	eP'	12 53 34
GCA	eP	12 53 23
HHM	iP	12 54 15
	i	54 45
SJP	iP	12 50 10
TUC	iP	12 52 57
Oct. 8		
COL	iP	17 18 32
EUR	iP	17 22 13
	i	22 39
Oct. 8		
BOZ	e(P)	18 10 52
BUT	eP	18 11 05
HHM	iP	18 12 59
Oct. 8		
TUT	e(P)	21 12 22

Date and Station		Phase (GCT) h m s
Oct. 8		
GCA	e(P)	21 48 43
TUC	eP	21 48 01
	iS	48 39
	iL	48 41
TUT	e(P)	21 48 09
Oct. 8		
BOZ	e(P)	22 03 44
COL	eP	22 00 17
EUR	iP	22 03 50
	i	04 04
	i	04 17
	iPcP	06 11
FGU	eP	22 04 15
GCA	e(P)	22 04 22
HHM	iP	22 03 17
	i	03 30
	iPcP	06 00
SJP	eP	22 09 08
Oct. 8		
COL	iP	23 54 06
	ipP	54 36
	isP	54 48
	i	55 23
EUR	eP	23 56 17
	eP'	59 54
	iPP	24 00 52
	ePPP	03 19
	iPKKP	11 00
	i	11 11
FGU	eP	23 59 52
	e(PPP)	24 03 27
GCA	eP	24 00 02
	ePKKP	10 47
GUA	eP	23 46 18
	i	47 52
HHM	e(P)	23 59 55
	ePPP	24 03 16
SJP	e(P')	24 01 18
	i	01 46
Oct. 9		
COL	eP	00 04 17
CSC	eP	00 04 06
Oct. 9		
EUR	iP	00 21 29
	i	21 57
SJP	e(P)	00 17 16
	i	17 46
Oct. 9		
COL	iP	01 49 50

Date and Station		Phase (GCT) h m s
EUR	eP	01 49 21
Oct. 9		
HHM	e(P)	01 55 53
Oct. 9		
FGU	eP	03 05 48
Oct. 9		
COL	iP	03 11 15
EUR	iP	03 14 37
Oct. 9		
COL	iP	03 26 54
	i	27 24
	i	27 36
CSC	eP	03 21 38
EUR	iP	03 23 00
	i	23 20
FGU	eP	03 22 43
HHM	e(P)	03 23 51
TUC	eP	03 21 51
	i	22 02
TUT	eP	03 21 51
	e	22 09
Oct. 9		
FGU	e(P)	04 08 58
Oct. 9		
COL	eP	06 00 32
EUR	eP	06 04 01
Oct. 9		
COL	iP	07 01 22
Oct. 9		
COL	iP	09 53 34
Oct. 9		
FGU	e(P)	10 14 09
Oct. 9		
COL	e(P)	10 40 14
EUR	e(P)	10 41 11
Oct. 9		
COL	iP	11 17 17
	i	17 22
	i	17 30
EUR	iP	11 17 36
TUC	eP	11 17 45
Oct. 9		
EUR	eP	13 08 54
Oct. 9		
EUR	iP	19 55 34

Date and Station		Phase	(GCT) h m s
Oct. 9			
EUR		eP	22 01 51
FGU		e(P)	22 00 19
Oct. 9			
COL		eP	22 26 50
Oct. 9			
FGU		eP	23 05 54
		eS	06 38
Oct. 10			
COL		iP	01 53 41
EUR		iP	01 57 06
		i	57 23
Oct. 10			
COL		iP	03 35 24
Oct. 10			
COL		iP	03 56 44
		epP	58 46
EUR		eP	03 56 25
		epP	58 28
		ePP	59 54
FGU		e(P)	03 56 48
		epP	58 54
TUC		eP	03 56 25
		iP	56 26
		epP	58 24
TUT		eP	03 56 25
Oct. 10			
COL		eP	04 13 26
		e	14 42
Oct. 10			
EUR		eP	04 29 31
Oct. 10			
COL		eP	04 57 09
Oct. 10			
BCN		eP	06 47 44
EUR		eP	06 47 55
Oct. 10			
COL		eP	07 41 53
Oct. 10			
BCN		eP	08 39 34
COL		iP	08 37 57
		ipP	38 34
		i	38 40
EUR		iP	08 38 54
		ipP	39 31
		i	41 13

Date and Station		Phase	(GCT) h m s
Oct. 10			
GUA		eP	10 29 25
Oct. 10			
EUR		e(P)	12 39 06
Oct. 10			
COL		iP	17 21 31
Oct. 10			
COL		iP	17 37 44
EUR		iP	17 39 04
		iPP	43 22
		e	51 47
		i	52 47
SJP		eP'	17 45 00
Oct. 10			
BCN		eP	18 00 30
EUR		iP	18 00 39
GCA		e(P)	18 01 00
		eS	01 56
Oct. 10			
FGU		eP	18 44 02
		i	44 05
		eS	44 24
GCA		e(P)	18 44 21
		eS	44 55
Oct. 10			
BCN		eP	18 55 48
BOZ		eP	18 56 25
COL		iP	18 56 17
EUR		iP	18 55 54
FGU		eP	18 56 20
HHM		iP	18 56 23
		i	56 33
TUT		iP	18 55 57
		epP	57 29
Oct. 10			
EUR		eP	20 39 56
Oct. 10			
EUR		eP	20 52 42
Oct. 10			
COL		iP	21 19 19
Oct. 10			
COL		eP	21 31 03
Oct. 10			
COL		eP	22 20 20
EUR		iP	22 20 09
Oct. 10			
COL		eP	23 06 38

Date and Station		Phase	(GCT) h m s
Oct. 10			
COL		e	23 11 49
Oct. 11			
COL		eP	00 29 14
Oct. 11			
BCN		eP	00 42 13
COL		iP	00 42 57
EUR		iP	00 42 20
TUC		iP	00 42 16
		i	42 20
TUT		iP	00 42 17
Oct. 11			
EUR		iP	00 49 59
Oct. 11			
COL		e(P)	02 38 21
Oct. 11			
COL		i(P)	03 55 13
TUC		eP	03 54 52
TUT		e(P)	03 54 53
		e	55 56
Oct. 11			
COL		eP	04 15 14
Oct. 11			
COL		eP	05 11 58
		e	15 05
Oct. 11			
COL		e(P)	05 43 26
Oct. 11			
COL		iP	06 31 24
Oct. 11			
BCN		eP	07 10 37
BOZ		eP	07 09 55
BUT		eP	07 09 45
COL		iP	07 05 54
EUR		iP	07 10 11
FGU		iP	07 10 31
HHM		iP	07 09 25
		eScP	16 29
SJP		eP	07 15 29
TUC		iP	07 11 23
		e	11 38
TUT		iP	07 11 22
Oct. 11			
COL		e(P)	07 18 41

Date and Station		Phase	(GCT) h m s
Oct. 11			
COL		iP	07 50 10
EUR		iP	07 53 03
FGU		e(P)	07 52 59
HHM		eP	07 52 19
Oct. 11			
COL		e(P)	08 38 12
Oct. 11			
COL		iP	08 48 22
Oct. 11			
COL		e(P)	09 17 15
Oct. 11			
BCN		eP	09 41 15
COL		iP	09 40 40
		ePP	43 47
EUR		eP	09 41 03
		iPP	44 42
HHM		iP	09 41 23
TUC		eP	09 41 17
TUT		eP	09 41 17
Oct. 11			
COL		eP	10 07 15
Oct. 11			
COL		e(P)	10 56 03
EUR		eP	10 56 18
TUT		e(P)	10 55 48
Oct. 11			
COL		eP	11 42 58
Oct. 11			
COL		e(P)	11 59 17
Oct. 11			
COL		i(P)	12 13 14
Oct. 11			
COL		e(P)	12 28 11
Oct. 11			
COL		iP	12 41 41
		e	42 07
EUR		iP	12 39 01
FGU		eP	12 38 46
		e	39 09
TUC		eP	12 38 06
		e	38 29
TUT		iP	12 38 06
		i	38 29

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

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

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

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

Date and Station		Phase (GCT)
		h m s
EUR	iP	05 48 39
	i	48 53
HHM	iP	05 48 09
	i	50 19
SJP	iP	05 53 30
	i	53 49
Oct. 20		
EUR	eP	08 00 59
FGU	e(P)	08 00 55
TUC	eP	08 00 18
Oct. 20		
EUR	iP	08 17 57
Oct. 20		
EUR	eP'	08 25 07
Oct. 20		
EUR	eP	10 20 36
HHM	e(P)	10 21 32
TUC	eP	10 22 15
UKI	eP	10 19 24
Oct. 20		
COL	iP	15 53 30
Oct. 20		
EUR	eP	16 57 57
Oct. 20		
COL	iP	17 57 28
HHM	iP	17 59 43
Oct. 20		
EUR	eP	19 14 56
FGU	e(P)	19 14 49
Oct. 20		
BCN	eP	19 20 08
EUR	eP	19 20 43
GCA	e(P)	19 20 51
	i	21 04
	eL	22 24
TUT	e(P)	19 20 53
Oct. 20		
BCN	eP	19 50 45
CSC	eP	19 49 31
EUR	eP	19 51 22
	i	51 41
FGU	eP	19 52 23
GCA	eP	19 51 27
	i	51 43
	i	53 02

Date and Station		Phase (GCT)
		h m s
HHM	iP	19 53 31
	eL	57 41
SLC	eP	19 52 39
TUT	e(P)	19 51 26
Oct. 20		
BCN	eP	20 08 22
EUR	eP	20 08 46
FGU	e(P)	20 09 40
	e	10 10
GCA	e(P)	20 08 59
	i	09 07
	i(S)	10 26
Oct. 20		
COL	iP	20 51 45
	i	51 48
	iS	52 07
Oct. 20		
BCN	eP	21 43 33
EUR	iP	21 44 13
	iL	45 48
FGU	e(P)	21 45 35
GCA	e(P)	21 44 18
	e	44 21
	i	44 34
	eS	45 53
HHM	e(P)	21 46 16
Oct. 20		
EUR	eP	21 55 56
FGU	eP	21 56 12
Oct. 20		
BCN	eP	22 36 26
EUR	iP	22 37 06
FGU	e(P)	22 38 29
	eL	41 12
GCA	e(P)	22 37 08
	e	37 33
	iL	38 47
HHM	e(P)	22 39 13
	eL	43 53
SLC	eP	22 38 17
TUT	e(P)	22 37 10
Oct. 20		
FGU	eP	23 17 20
Oct. 20		
FGU	eP	23 40 59

Date and Station		Phase (GCT)
		h m s
Oct. 21		
CSC	eP	01 56 47
Oct. 21		
COL	eP	02 58 51
EUR	eP	02 58 55
SJP	iP	02 51 44
	iS	53 02
Oct. 21		
BCN	eP	04 39 48
EUR	eP	04 40 24
	iL	42 04
GCA	e(P)	04 40 40
	e	41 45
Oct. 21		
CSC	eP	07 56 06
Oct. 21		
BCN	eP	08 49 04
EUR	eP	08 49 30
Oct. 21		
EUR	iP	09 59 35
Oct. 21		
BOZ	eP	11 55 33
	ePP	59 07
BUT	eP	11 55 28
COL	iP	11 55 20
	i	55 38
	epP	57 29
	eS	12 05 04
EUR	iP	11 55 02
	ipP	57 10
	ePP	58 16
	ePKKP	13 30
FGU	eP	11 55 27
	ePP	58 58
GCA	iP	11 55 11
HON	iP	11 51 00
HHM	iP	11 55 29
	iPP	59 03
	iPKKP	12 13 16
KIP	iP	11 51 00
SLC	eP	11 55 18
TUC	iP	11 55 04
	i	55 20
TUT	iP	11 55 04
	epP	57 13
Oct. 21		
COL	eP	15 32 28

Date and Station		Phase (GCT)
		h m s
Oct. 21		
EUR	eP	16 10 36
Oct. 21		
COL	iP	16 55 55
Oct. 21		
COL	iP	17 38 44
	eS	39 09
Oct. 21		
COL	iP	17 46 41
	ipP	47 20
	i	47 43
EUR	iP	17 47 06
	ipP	47 42
	iPP	50 33
FGU	eP	17 47 30
GCA	eP	17 47 19
HHM	iP	17 47 21
SLC	eP	17 47 21
SJP	iP'	17 53 23
TUC	iP	17 47 17
Oct. 21		
COL	eP	22 26 22
	iP	26 24
	i	26 41
	eS	30 05
EUR	iP	22 29 51
	i	30 03
	i	30 09
	i	31 41
FGU	e(P)	22 30 15
HHM	iP	22 29 20
	iPcP	31 29
SJP	iP	22 34 41
TUT	e(P)	22 30 52
Oct. 21		
FGU	e(P)	23 14 48
	eS	15 24
Oct. 22		
EUR	e(P)	00 08 25
SJP	e(P)	00 04 54
Oct. 22		
BOZ	eP	07 10 20
EUR	iP	07 09 50
FGU	eP	07 09 41
GCA	eP	07 09 18

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Date and Station		Phase (GCT)
		h m s
HHM	eP	07 10 45
TUC	eP	07 08 39
TUT	eP	07 08 39
Oct. 22		
BCN	eP	10 03 17
COL	eP	10 03 21
EUR	iP	10 03 20
	ipP	03 33
FGU	eP	10 03 45
GCA	eP	10 03 30
HHM	e(P)	10 03 15
TUC	eP	10 03 25
	ipP	03 42
	e	05 12
	eL	31 43
TUT	iP	10 03 26
Oct. 22		
COL	iP	13 16 03
	i	16 11
Oct. 22		
BOZ	eP	13 16 25
BUT	eP	13 16 30
COL	eP	13 19 44
EUR	eP	13 15 54
FGU	eP	13 15 47
GCA	eP	13 15 23
HHM	iP	13 16 50
SLC	eP	13 15 52
SJP	eP	13 14 39
TUC	eP	13 14 43
TUT	eP	13 14 45
Oct. 22		
EUR	eP	13 22 17
FGU	eP	13 22 09
GCA	eP	13 21 45
HHM	eP	13 23 13
TUC	eP	13 21 07
Oct. 22		
EUR	e(P)	13 29 25
Oct. 22		
EUR	eP	14 36 38

Date and Station		Phase (GCT)
Oct. 22		h m s
COL	iP	14 52 42
	e	53 13
	epP	54 47
EUR	iP	14 52 24
FGU	eP	14 52 50
HHM	e(P)	14 52 51
TUC	iP	14 52 28
	epP	54 29
TUT	iP	14 52 28
	ipP	54 29
Oct. 22		
BUT	e(P)	15 21 13
COL	iP	15 24 34
CSC	eP	15 18 46
EUR	eP	15 21 01
FGU	eP	15 20 32
GCA	e(P)	15 20 07
HHM	iP	15 21 41
	iPP	23 27
SJP	e(P)	15 18 17
TUC	eP	15 19 55
TUT	eP	15 19 55
Oct. 22		
FGU	e(P)	15 45 29
Oct. 22		
COL	iP	18 12 19
Oct. 22		
COL	iP	18 53 15
EUR	iP	18 53 30
Oct. 22		
COL	eP	19 08 11
	i	09 41
	i	11 03
EUR	eP	19 12 55
Oct. 22		
EUR	e(P)	19 19 55
Oct. 22		
FGU	eP	22 49 27
Oct. 22		
COL	eP	23 09 15
Oct. 23		
BCN	eP'	00 27 21
BOZ	e(P')	00 27 23
BUT	eP'	00 27 33

Date and Station		Phase (GCT)
		h m s
COL	eP'	00 28 14
	iP'	28 23
	i	28 33
	i	30 46
	iPKKP	32 49
	eSKKP	39 14
	eP'P'	44 59
	iP'P'	45 35
EUR	e(P)	00 24 18
	eP'	27 28
	ePP	28 40
	ePKKP	37 37
	e	40 41
	eSKKP	41 32
FGU	e(P')	00 27 23
	ePP	28 38
	ePKKP	37 42
GCA	e(P')	00 27 15
	ePP	28 21
HHM	eP'	00 27 35
	iP'	27 57
	i	29 30
SLC	eP'	00 27 16
SJP	eP	00 20 57
TUC	eP'	00 27 12
	e	27 49
	eL	01 02 35
Oct. 23		
BCN	eP	01 35 44
BUT	eP	01 36 21
	epP	36 44
EUR	iP	01 36 02
	ipP	36 25
FGU	eP	01 35 52
	epP	36 15
GCA	eP	01 35 40
	epP	36 02
HHM	iP	01 36 32
	ipP	36 55
SJP	eP	01 32 21
	ipP	32 42
TUC	eP	01 35 18
	epP	35 41
Oct. 23		
COL	eP	02 11 41
Oct. 23		
COL	eP	02 45 37
EUR	e(P)	02 45 55
Oct. 23		
EUR	eP	03 07 53
HHM	e(P)	03 07 31

Date and Station		Phase (GCT)
Oct. 23		h m s
COL	e(P)	04 24 18
Oct. 23		
COL	e(P)	04 31 05
EUR	eP	04 34 34
HHM	e(P)	04 34 03
Oct. 23		
COL	eP	04 53 01
Oct. 23		
COL	iP	07 58 15
	i	58 25
	i	58 57
EUR	iP	08 01 55
	ipP	02 11
TUC	e(P)	08 03 02
	e	03 18
Oct. 23		
BUT	eP	08 41 32
COL	iP	08 39 06
EUR	iP	08 42 17
HHM	iP	08 41 15
Oct. 23		
EUR	eP'	09 34 27
Oct. 23		
BUT	eP	10 41 20
COL	iP	10 38 58
EUR	iP	10 42 03
FGU	eP	10 41 52
GCA	e(P)	10 42 17
HHM	iP	10 41 02
TUC	eP	10 42 45
TUT	eP	10 42 44
Oct. 23		
BCN	eP'	14 58 15
	e	15 00 03
BOZ	e(P')	14 57 51
COL	iP	14 52 10
	i	52 25
	i(PP)	55 18
	eS	15 02 33
EUR	eP'	14 57 13
	e	57 40
	iPP	58 28
	i	59 34
	e	15 00 46
	ePKKP	09 18
	eSKPP'	22 24

Date and Station		Phase (GCT)
		h m s
FGU	e(P)	14 54 32
	eP'	58 15
HON	iP	14 51 20
HHM	e(P)	14 53 53
	eP'	57 16
KIP	iP	14 51 19
SJP	eP'	14 59 33
	iP'	59 55
	ePP	15 03 27
	i	12 47
TUC	eP'	14 58 30
TUT	iP'	14 58 30
	i	59 11
Oct. 23		
EUR	iP	14 58 07
	iPP	15 02 29
Oct. 23		
GCA	e(P)	15 09 03
Oct. 23		
COL	iP	16 40 10
EUR	eP	16 45 17
Oct. 23		
EUR	iP	17 00 42
Oct. 23		
BCN	eP	17 23 45
COL	iP	17 24 23
	i	29 43
EUR	iP	17 23 50
FGU	eP	17 24 17
GCA	eP	17 24 00
HHM	iP	17 24 23
KIP	iP	17 19 38
TUC	iP	17 23 50
TUT	iP	17 23 50
Oct. 23		
COL	eP	17 57 50
	e	58 08
	e	58 21
Oct. 23		
COL	iP	19 32 49
EUR	eP	19 32 27
Oct. 23		
GCA	eP	19 40 58

Date and Station		Phase (GCT)
		h m s
Oct. 23		
EUR	eP	20 44 27
	i	44 39
HHM	e(P)	20 45 12
Oct. 23		
COL	eP	20 51 00
EUR	eP'	20 56 55
Oct. 23		
COL	iP	21 49 15
Oct. 24		
FGU	e(P)	00 21 11
Oct. 24		
COL	iP	00 26 19
EUR	iP	00 29 35
Oct. 24		
COL	iP	01 31 56
Oct. 24		
COL	eP	04 03 23
EUR	iP	04 04 01
Oct. 24		
BCN	eP	06 31 53
EUR	eP	06 31 42
	iS	32 16
Oct. 24		
EUR	iP	06 35 32
	iS	35 52
FGU	e(P)	06 36 21
	e	36 44
Oct. 24		
BOZ	eP	07 36 05
BUT	iP	07 35 59
	ipP	36 27
COL	iP	07 32 53
	ipP	33 23
	isP	33 39
	i	33 52
EUR	iP	07 36 13
	i	36 21
	i(pP)	36 37
FGU	eP	07 36 30
GCA	eP	07 36 39
HON	iP	07 34 14
HHM	iP	07 35 43
	ipP	36 14
KIP	iP	07 34 14
SLC	eP	07 36 23

Date and Station		Phase (GCT)
		h m s
TUC	iP	07 37 01
	ipP	37 31
Oct. 24		
BCN	eP	07 48 41
COL	iP	07 48 50
EUR	iP	07 48 40
FGU	eP	07 49 06
GCA	eP	07 48 51
	ePP	52 11
HHM	iP	07 49 06
SLC	eP	07 49 05
TUC	iP	07 48 39
Oct. 24		
EUR	eP	08 10 29
	eL	11 54
FGU	eP	08 10 14
	e(S)	11 17
Oct. 24		
BCN	eP	11 58 29
Oct. 24		
COL	iP	15 42 58
EUR	eP'	15 48 40
SJP	iP'	15 50 38
Oct. 24		
COL	iP'	18 24 25
	i	24 48
	e	27 21
EUR	eP'	18 23 27
HHM	iP'	18 23 38
Oct. 24		
BCN	eP	19 40 41
EUR	eP	19 40 59
	eL	43 18
TUC	e(P)	19 39 47
	i	39 53
	iS	40 29
	iL	40 33
Oct. 24		
EUR	iP	22 40 42
FGU	e(P)	22 40 18
Oct. 25		
EUR	eP	00 03 42
HHM	iP	00 04 42
Oct. 25		
COL	e(P)	00 18 27

Date and Station		Phase (GCT)
		h m s
Oct. 25		
COL	eP	00 47 52
Oct. 25		
COL	iP	05 51 25
	i	51 40
	i	51 51
EUR	eP	05 54 48
	i	54 58
FGU	e(P)	05 55 10
HHM	e(P)	05 54 18
TUC	eP	05 56 02
Oct. 25		
COL	iP	06 52 41
	e	53 21
EUR	iP	06 54 34
FGU	e(P)	06 54 54
GUA	eP	06 41 01
HHM	iP	06 54 29
Oct. 25		
BCN	eP	09 04 12
BOZ	eP	09 04 50
BUT	eP	09 04 56
COL	iP	09 07 25
	ipP	07 47
CSC	eP	09 02 31
EUR	iP	09 04 34
	i(pP)	04 51
	eP'P'	34 02
FGU	eP	09 04 19
HHM	iP	09 05 11
	i	07 18
SLC	eP	09 04 27
SJP	eP	09 00 40
	ipP	00 58
	iPP	01 34
TUC	eP	09 03 37
	iP	03 38
TUT	iP	09 03 38
Oct. 25		
COL	iP	11 47 01
EUR	eP	11 46 39
Oct. 25		
EUR	e(P)	13 02 26

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

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

Date and Station		Phase (GCT)
		h m s
EUR	eP	14 03 18
FGU	e(P)	14 03 49
GCA	e(P)	14 04 11
HHM	e(P)	14 02 37
TUC	eP	14 05 00
Oct. 29		
BOZ	e(P)	14 50 11
BUT	eP	14 49 56
COL	eP	14 51 37
	i	51 59
	i(S)	55 24
EUR	eP	14 50 22
	i	50 37
FGU	e(P)	14 50 54
GCA	eP	14 51 17
HHM	e(P)	14 49 33
	eL	52 03
TUC	eP	14 52 03
	i	52 07
	eL	15 00 31
Oct. 29		
WAS	e(P)	15 06 11
Oct. 29		
BCN	eP	18 30 28
GCA	eP	18 31 04
	eS	31 52
Oct. 29		
COL	eP	19 33 01
FGU	e(P)	19 32 33
GCA	eP	19 32 45
TUC	eP	19 33 30
Oct. 29		
COL	eP	19 35 46
Oct. 29		
COL	e(P)	19 57 07
Oct. 29		
FGU	eP	21 55 03
	iS	55 34
GCA	e(P)	21 55 13
	eS	55 50
Oct. 29		
HHM	e(P)	22 15 21

Date and Station		Phase (GCT)
		h m s
Oct. 29		
COL	eP	23 27 57
Oct. 29		
COL	eP	23 43 42
Oct. 30		
EUR	eP	00 08 54
Oct. 30		
TUC	eP	00 39 10
	e	39 43
Oct. 30		
FGU	eP	00 51 09
	iS	51 46
GCA	eP	00 51 19
	eS	52 03
Oct. 30		
BCN	eP	01 47 35
BUT	eP	01 47 27
COL	eP	01 50 20
EUR	eP	01 46 58
FGU	eP	01 47 56
GCA	e(P)	01 47 57
HHM	iP	01 47 24
TUC	eP	01 48 41
TUT	iP	01 48 43
UKI	eP	01 46 46
Oct. 30		
COL	e(P)	01 53 48
Oct. 30		
BCN	eP	02 19 17
BOZ	eP	02 19 20
	eL	22 47
BUT	eP	02 19 09
COL	eP	02 22 00
	e	25 30
CSC	e(P)	02 23 31
EUR	eP	02 18 37
FGU	eP	02 19 38
GCA	eP	02 19 39
	eL	22 41
HHM	iP	02 18 07
	eL	20 24
SLC	eP	02 19 17
SJP	eP	02 26 13

Date and Station		Phase (GCT)
		h m s
TUC	eP	02 20 22
	i	20 24
	eL	24 47
TUT	iP	02 20 22
UKI	eP	02 17 36
WAS	iP	02 23 43
Oct. 30		
COL	eP	03 40 45
Oct. 30		
COL	iP	04 54 17
EUR	eP	04 57 56
FGU	eP	04 58 14
HHM	e(P)	04 58 22
TUC	eP	04 58 49
Oct. 30		
FGU	e(P)	05 30 03
	eS	30 40
Oct. 30		
BCN	eP	07 28 14
GCA	e(P)	07 25 24
TUC	e(P)	07 26 50
	iL	27 28
Oct. 30		
BCN	eP	08 44 43
COL	iP	08 41 13
EUR	iP	08 44 23
FGU	eP	08 44 10
GCA	eP	08 44 37
HHM	iP	08 43 23
	i	44 14
TUC	iP	08 45 07
TUT	eP	08 45 06
Oct. 30		
COL	e(P)	08 49 03
Oct. 30		
COL	eP	09 29 20
Oct. 30		
COL	e(P)	10 53 32
Oct. 30		
EUR	eP	13 26 38
GCA	e(P)	13 25 30
	e	26 23
HHM	e(P)	13 26 34

Date and Station		Phase (GCT)
		h m s
Oct. 30		
COL	e(P)	13 50 58
Oct. 30		
COL	e(P)	14 06 33
Oct. 30		
FGU	e(P)	14 34 35
	eS	35 12
Oct. 30		
BOZ	eP	16 04 38
COL	iP	16 01 13
EUR	iP	16 04 42
FGU	eP	16 05 06
HHM	i(P)	16 04 11
	i	04 23
	i	06 20
Oct. 30		
COL	eP	17 48 10
EUR	eP	17 47 39
	ipP	48 35
TUC	eP	17 48 29
TUT	i(P)	17 47 36
Oct. 30		
COL	e(P)	18 02 27
Oct. 30		
BOZ	eP	21 27 52
COL	iP	21 25 12
	i	25 26
EUR	iP	21 27 48
	i	28 04
FGU	eP	21 28 07
GCA	eP	21 28 11
HHM	eP	21 27 31
SLC	eP	21 28 02
Oct. 30		
COL	e(P)	22 45 53
EUR	eP	22 48 23
FGU	e(P)	22 48 41
HHM	e(P)	22 48 06
Oct. 30		
COL	iP	23 03 45
EUR	e(P)	23 09 39
	i	09 48
	i	09 58

Date and Station		Phase (GCT)	Date and Station		Phase (GCT)	Date and Station		Phase (GCT)	Date and Station		Phase (GCT)
		h m s			h m s			h m s			h m s
Oct. 31											
BGN	eP	00 01 27	FGU	e(P)	08 51 34						
				e(pP)	52 44						
EUR	iP	00 01 34									
	i	01 42	GUA	iP	08 41 11						
	iS	02 25									
			HHM	iP	08 51 04						
Oct. 31				i	52 20						
COL	iP	01 48 55									
	e	49 37	Oct. 31								
	eL	53 18	COL	iP	13 15 19						
CSC	eP	01 55 13	Oct. 31								
			SJP	i(P)	14 09 08						
EUR	iP	01 52 29									
	i	53 00	Oct. 31								
	i	53 15	EUR	e(P)	19 31 23						
	iScP	57 50									
			Oct. 31								
FGU	eP	01 52 51	COL	eP	20 30 29						
				e	36 06						
HHM	iP	01 51 57									
	iPcP	53 45	Oct. 31								
			TUC	iP	21 28 30						
SJP	iP	01 57 02		e	28 44						
	i	57 11									
			Oct. 31								
TUC	eP	01 53 30	FGU	eP	23 40 42						
				i	40 43						
Oct. 31				eS	41 13						
EUR	eP	02 50 36									
Oct. 31											
GOA	eP	02 58 49									
Oct. 31											
EUR	eP'	03 38 38									
Oct. 31											
COL	e(P)	03 39 44									
EUR	iP	03 41 51									
FGU	eP	03 42 02									
Oct. 31											
COL	eP	03 59 19									
EUR	iP	03 58 43									
TUC	eP	03 58 38									
	e	58 52									
Oct. 31											
COL	iP	05 03 54									
Oct. 31											
COL	iP	08 37 02									
EUR	iP	08 40 14									
Oct. 31											
COL	eP	08 45 31									
EUR	iP	08 48 48									
Oct. 31											
BUT	eP	08 51 13									
EUR	eP	08 51 15									
	e(pP)	52 25									

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Date and Station	Phase (GCT)
	h m s
Local and Minor Earthquakes	
October	
COL	
3	23.9
8	05.2
9	15.1
11	18.1
15	05.8
18	12.9
19	02.8
20	10.4
	12.7
24	07.1
26	10.9
27	06.5
	19.1
	19.9
28	09.1
	16.7
EUR	
1	15.5
4	13.6
7	07.4
8	11.5
9	02.7
10	06.2
16	16.1
18	18.2
FGU	
1	01.0
2	02.9
	13.0
4	06.2
	11.2
5	23.3
6	02.6
7	06.2
8	11.5
	16.6
9	05.6
	21.1
	23.8
10	21.6
11	14.6
	20.9
	21.8
12	03.9
14	00.9
	23.8
16	15.6
	16.1
	17.2
18	00.3
	06.6
19	01.3
	23.8
20	01.3
	05.2
	23.2
21	00.5
22	23.9
23	09.4
25	00.2
	22.0
	23.9
26	22.1

Date and Station	Phase (GCT)
	h m s
FGU (Con't.)	
27	04.6
	23.7
29	03.4
	05.9
30	23.6
GGA	
1	15.5
12	22.1
15	23.2
17	21.0
GUA	
9	19.7
16	18.3
	19.6
	22.1
HHM	
13	18.0
24	13.1
SJP	
3	03.8
7	09.0
	09.8
	15.8
8	03.6
9	21.0
12	14.2
18	05.1
	14.6
20	09.3
23	05.6
24	07.3
27	05.0
	05.1
28	23.3
TUC	
8	08.9
	21.9
13	07.9
16	08.2
	09.1
19	05.0
20	05.9
22	02.5
27	10.7
	11.8
28	23.0
30	03.8
	07.3
	07.7
	10.2
31	02.3

Date and Station	Phase (GCT)
	h m s

Date and Station	Phase (GCT)
	h m s

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