USCGS
.40

SEISMOLOGICAL BULLETIN

COAST & GEODETIC SURVEY
MAR 22 1963
LIBRARY & ARCHIVES

November, 1961

MSI - 251

R 9

CONTENTS

List of stations 1
Provisional epicenters 2
Seismogram interpretations 8
Local and minor earthquakes 21

U. S. DEPARTMENT OF COMMERCE

Luther H. Hodges, Secretary

COAST AND GEODETIC SURVEY—WASHINGTON

H. Arnold Karo, Director

FOR OFFICIAL DISTRIBUTION

National Oceanic and Atmospheric Administration

ERRATA NOTICE

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

Discolored pages
Faded or light ink
Binding intrudes into the text

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

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

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 wil 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 Preliminar 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
Nov.	h m s	°	°	
1	10 42 19.8	17.7 S.	178.6 W.	Fiji Islands. h about 564 km.
1	20 10 42.8	17.9 S.	178.5 W.	Fiji Islands. h about 593 km.
2	05 22 42.0	17.7 S.	178.5 W.	Fiji Islands. h about 566 km.
2	06 59 45.5	33.9 N.	69.6 E.	Afghanistan-Pakistan border. h about 38 km.
2	23 03 55.6	17.2 N.	62.7 W.	Leeward Islands. h about 29 km.
2	23 35 52.5	54.4 N.	162.0 W.	Alaska Peninsula. h about 33 km.
3	04 04 08.0	13.4 S.	167.7 E.	New Hebrides Islands. h about 100 km.
3	15 20 42.3	10.6 S.	165.9 E.	Santa Cruz Islands. h about 33 km.
3	21 05 52.6	19.8 S.	173.9 W.	Tonga Islands. h about 33 km.
3	22 15 42.5	21.9 S.	170.1 E.	Loyalty Islands region. h about 33 km.
3	22 24 48.1	5.3 S.	131.1 E.	Banda Sea. h about 69 km.
4	02 08 46.2	29.8 N.	131.8 E.	Northern Ryukyu Islands. h about 36 km.
4	03 04 20.9	2.9 S.	137.2 E.	Near north coast of New Guinea. h about 35 km.
4	03 38 30.1	50.0 N.	155.5 E.	Northern Kurile Islands. h about 32 km.
4	07 20 19.7	73.7 N.	55.7 E.	Novaya Zemlya. h about 0 km.
4	13 05 06.1	32.4 N.	92.1 E.	Tibet. h about 33 km.
4	14 34 36.9	52.5 N.	176.0 W.	Andreanof Islands, Aleutian Islands. h about 60 km.
4	18 17 01.7	52.2 N.	167.6 W.	Fox Islands, Aleutian Islands. h about 33 km.
5	00 20 04.7	11.5 S.	166.3 E.	Santa Cruz Islands. h about 70 km.
5	03 15 42.1	35.9 N.	140.9 E.	Near east coast of Honshu, Japan. h about 52 km.
5	03 41 40.0	44.2 N.	148.4 E.	Kurile Islands. h about 18 km.
5	08 36 31.6	27.8 N.	55.0 E.	Southern Iran. h about 44 km.
5	09 53 08.3	45.0 N.	111.0 W.	Southwestern Montana. h about 25 km.
5	10 08 12.9	13.0 S.	166.4 E.	New Hebrides Islands. h about 39 km.
5	10 26 05.6	31.8 S.	69.3 W.	San Juan Province, Argentina. h about 100 km.
5	10 36 39.5	45.7 N.	147.9 E.	Kurile Islands. h about 142 km.
5	13 04 54.4	27.3 S.	175.3 W.	Tonga Islands region. h about 33 km.
5	19 26 08.2	33.6 S.	70.1 W.	Chile-Argentina border region. h about 100 km.
5	23 56 25.4	49.4 S.	163.3 E.	About 500 km. southwest of South Island, New Zealand. h about 35 km.
6	05 13 19.9	13.3 S.	76.7 W.	Near coast of Peru. h about 80 km.
6	05 28 22.8	13.3 S.	166.5 E.	New Hebrides Islands. Felt on Banks and Santo. h about 59 km.
6	07 11 42.6	34.5 S.	70.5 W.	Chile-Argentina border region. h about 105 km.
6	07 59 04.1	26.7 N.	91.9 E.	Bhutan. h about 37 km.
6	10 10 23.6	6.6 S.	129.3 E.	Banda Sea. h about 57 km.
6	12 29 05.5	36.0 N.	72.9 E.	Hindu Kush region. h about 191 km.
6	13 09 50.2	5.8 S.	146.5 E.	Near coast of New Guinea. h about 15 km.
6	13 34 55.1	17.5 N.	145.2 E.	Mariana Islands. h about 225 km.
6	18 21 59.9	27.6 S.	66.2 W.	Catamarca Province, Argentina. h about 184 km.

Date 1961	Origin Time G. C. T.	Lat.	Long.	Region, Remarks and Focal Depth
Nov.	h m s	°	°	
7	00 40 06.0	21.3 S.	179.1 W.	Fiji Islands. h about 601 km.
7	01 12 55.7	11.6 N.	126.1 E.	Samar, Philippine Islands. h about 47 km.
7	01 29 08.4	45.7 N.	122.4 W.	Western Oregon-Washington border. Minor damage in Portland, Oregon area. h about 33 km.
7	05 52 20.8	48.2 N.	153.0 E.	Kurile Islands. h about 25 km.
7	08 39 35.6	27.8 N.	54.5 E.	Southern Iran. h about 33 km.
7	12 15 03.5	27.2 S.	176.4 W.	Tonga Islands region. h about 33 km.
7	21 09 47.4	34.3 S.	179.2 W.	Kermadec Islands region. h about 39 km.
7	23 40 04.0	17.1 N.	62.6 W.	Leeward Islands. h about 33 km.
8	04 54 43.8	15.6 N.	95.8 W.	Near coast of Oaxaca, Mexico. h about 45 km.
8	19 28 38.6	4.1 S.	136.0 E.	West New Guinea. Felt at Rabaul. h about 33 km.
8	22 37 17.4	29.3 S.	71.1 W.	Central Chile. h about 55 km.
9	01 09 15.3	22.0 S.	170.0 E.	Loyalty Islands region. h about 33 km.
9	04 19 42.0	22.9 S.	67.9 W.	Northern Chile-Argentina border. Felt at Antofagasta. h about 84 km. Mag. 6¼.
9	12 40 34.6	13.5 N.	144.5 E.	Mariana Islands. h about 57 km.
9	16 01 46.9	51.7 N.	176.0 W.	Andreanof Islands, Aleutian Islands. h about 49 km.
9	17 39 39.3	13.8 S.	165.9 E.	New Hebrides Islands. h about 33 km.
9	18 37 13.7	5.9 S.	129.8 E.	Banda Sea. h about 80 km.
9	23 06 55.9	15.8 S.	174.8 W.	Tonga Islands region. h about 292 km.
10	02 07 34.7	14.3 S.	71.9 W.	Peru. h about 68 km.
10	07 29 59.3	2.4 S.	138.2 E.	West New Guinea. h about 35 km.
10	13 20 04.2	13.6 N.	86.7 W.	Honduras-Nicaragua border region. Felt at San Salvador. h about 38 km.
10	13 52 41.9	13.2 N.	51.1 E.	Off coast of northern Somalia. h about 26 km.
10	18 00 49.6	17.5 S.	178.8 W.	Fiji Islands. h about 586 km.
10	22 43 24.9	62.6 N.	125.0 W.	Mackenzie Mountains, Canada. h about 33 km.
11	08 47 33.8	2.3 S.	138.2 E.	West New Guinea. h about 33 km.
11	12 27 07.7	13.7 N.	90.9 W.	Near coast of Guatemala. h about 90 km.
11	17 42 36.8	52.6 N.	169.3 W.	Fox Islands, Aleutian Islands. h about 33 km.
11	21 46 59.5	8.1 S.	75.0 W.	Peru. h about 117 km.
12	02 15 16.7	0.8 N.	29.5 E.	Congo. h about 39 km. Mag. 5 (Pal).
12	08 21 06.8	16.9 S.	66.9 E.	Mascarene Islands region. h about 34 km.
12	10 15 10.7	45.5 S.	167.3 E.	Near south coast of South Island, New Zealand. h about 19 km.
12	14 11 51.0	15.7 S.	175.6 W.	Tonga Islands region. h about 145 km.
12	18 12 22.0	23.2 S.	180.0	Fiji Islands region. h about 556 km.
12	18 38 36.2	0.2 S.	125.7 E.	Molucca Passage. h about 149 km.
13	07 39 55.6	4.1 S.	136.2 E.	West New Guinea. h about 30 km.

Date 1961	Origin Time G. C. T.	Lat.	Long.	Region, Remarks and Focal Depth
Nov.	h m s	°	°	
13	09 12 12.3	35.9 N.	70.4 E.	Hindu Kush. h about 123 km.
13	16 31 26.6	14.9 S.	167.0 E.	New Hebrides Islands. h about 43 km.
13	19 38 15.5	46.8 N.	153.9 E.	Kurile Islands. h about 39 km.
13	19 45 30.7	30.3 S.	177.8 W.	Kermadec Islands. h about 33 km.
14	00 56 53.5	4.1 S.	135.9 E.	West New Guinea. h about 33 km.
14	01 06 01.3	24.1 N.	121.8 E.	Near east coast of Formosa. h about 33 km.
14	04 42 26.5	7.3 N.	82.4 W.	Off south coast of Panama. h about 29 km. Mag. 6¼.
14	10 02 32.3	36.0 N.	139.1 E.	Near east coast of Honshu, Japan. Felt at Tokyo. h about 163 km.
14	10 28 33.4	47.0 N.	153.7 E.	Kurile Islands. h about 26 km.
14	12 38 51.9	33.9 S.	179.6 W.	Kermadec Islands region. h about 51 km.
14	13 11 14.1	19.5 S.	69.6 W.	Chile-Bolivia border region. h about 121 km.
14	15 20 30.6	21.9 S.	179.0 W.	Fiji Islands. h about 590 km.
14	17 14 03.9	5.7 S.	104.1 E.	Near south coast of Sumatra. h about 33 km.
14	22 26 47.9	44.2 N.	147.6 E.	Kurile Islands. h about 25 km.
15	04 22 50.5	3.9 S.	105.0 E.	Southeast Sumatra. h about 112 km.
15	05 38 54.3	34.9 N.	119.1 W.	Kern County, California. Felt. h about 26 km. Mag. 4.9.
15	07 17 12.4	43.1 N.	145.1 E.	Near east coast of Hokkaido, Japan. Felt. h about 43 km. Mag. 6¼-6½.
15	13 41 37.3	15.2 S.	173.1 W.	Samoa Islands region. h about 33 km.
15	14 25 49.5	7.3 N.	126.8 E.	Near east coast of Mindanao, Philippine Islands. h about 136 km.
15	19 26 55.5	20.9 S.	175.7 W.	Tonga Islands. h about 44 km.
15	22 01 43.6	56.5 S.	25.6 W.	Sandwich Islands. h about 40 km.
16	03 17 26.4	4.1 S.	142.8 E.	Near north coast of New Guinea. h about 33 km.
16	08 19 54.1	18.5 N.	68.8 W.	Dominican Republic. h about 152 km.
16	16 03 54.8	20.2 S.	172.9 E.	New Hebrides Islands region. h about 33 km.
17	08 13 49.8	17.7 S.	178.6 W.	Fiji Islands. h about 598 km.
17	09 16 12.7	58.3 S.	25.9 W.	Sandwich Islands. h about 33 km.
17	14 49 03.0	52.4 N.	170.7 W.	Fox Islands, Aleutian Islands. h about 27 km.
17	19 03 55.9	19.4 S.	175.6 W.	Tonga Islands. h about 196 km.
17	21 34 38.0	13.3 S.	167.3 E.	New Hebrides Islands. h about 60 km.
17	22 12 29.4	15.3 S.	167.8 E.	New Hebrides Islands. Felt on Santo. h about 140 km.
18	01 43 07.6	32.7 N.	73.6 E.	West Pakistan. h about 48 km.
18	03 18 35.5	35.4 N.	117.8 W.	Kern County, California. Felt at China Lake and Randsburg. h about 23 km. Mag. 4.
18	03 18 44.2	45.5 N.	26.7 E.	Romania. h about 100 km.
18	06 02 34.3	0.9 S.	126.9 E.	Halmahera region. h about 38 km.
18	07 27 40.3	56.2 S.	25.2 W.	Sandwich Islands. h about 25 km.
18	10 09 10.4	29.9 N.	138.9 E.	South of Honshu, Japan. h about 339 km.

Date 1961	Origin Time G. C. T.	Lat.	Long.	Region, Remarks and Focal Depth
Nov.	h m s	°	°	
18	10 34 05.8	8.8 S.	74.7 W.	Peru. h about 50 km.
18	11 16 56.8	27.0 S.	176.3 W.	Tonga Islands region. h about 61 km.
18	11 47 56.6	21.4 S.	175.8 W.	Tonga Islands. h about 114 km.
18	14 27 51.4	18.4 S.	167.4 E.	New Hebrides Islands. h about 25 km.
18	22 09 51.9	23.9 N.	121.7 E.	Near east coast of Formosa. Felt. h about 38 km.
19	00 35 12.1	51.3 N.	178.5 W.	Andreanof Islands, Aleutian Islands. h about 60 km.
19	03 40 58.5	18.3 S.	167.4 E.	New Hebrides Islands. h about 24 km.
19	08 05 15.8	3.9 S.	101.9 W.	Galapagos Islands region. h about 33 km.
19	10 12 48.4	6.9 S.	154.9 E.	Solomon Islands region. h about 42 km.
19	23 21 55.5	0.8 N.	124.3 E.	Celebes region. h about 157 km.
20	04 03 56.7	50.8 N.	92.3 E.	Outer Mongolia-Siberia border. h about 33 km.
20	04 32 34.7	38.0 N.	141.2 E.	Near east coast of Honshu, Japan. h about 33 km.
20	06 40 19.7	54.7 N.	161.8 E.	Near east coast of Kamchatka. h about 60 km.
20	08 53 33.7	33.6 N.	118.1 W.	Orange County, California. Felt. h about 33 km. Mag. 4.
20	11 44 19.4	21.8 S.	169.9 E.	Loyalty Islands region. h about 33 km. Mag. 5½-5¾ (Pal).
20	12 21 51.6	21.9 S.	169.9 E.	Loyalty Islands region. h about 33 km.
20	13 04 04.6	22.1 S.	169.9 E.	Loyalty Islands region. h about 33 km.
20	17 58 17.5	31.3 N.	40.8 W.	Azores region. h about 34 km. Mag. 5-5¼ (Pal).
20	18 51 36.7	21.7 S.	170.0 E.	Loyalty Islands region. h about 24 km.
20	19 08 06.6	5.0 S.	144.4 E.	Near north coast of New Guinea. Felt on Mendi, Simbai, Manam. h about 65 km.
20	23 07 47.5	28.3 N.	138.9 E.	South of Honshu, Japan. h about 525 km.
21	01 16 45.7	44.0 N.	145.4 E.	Near east coast of Hokkaido, Japan. h about 110 km.
21	05 00 10.5	40.3 N.	70.2 E.	Tadzhik S.S.R. h about 66 km.
21	06 38 50.6	10.6 N.	62.9 W.	Near coast of Venezuela. h about 44 km.
21	08 03 52.7	10.4 N.	62.7 W.	Near coast of Venezuela. h about 38 km.
21	08 08 08.7	22.1 S.	169.9 E.	Loyalty Islands region. h about 33 km.
21	11 06 40.2	0.8 N.	122.4 E.	Northern Celebes. h about 112 km.
21	18 04 54.7	13.6 S.	66.3 E.	Mascarene Islands region. h about 33 km.
21	20 19 58.8	62.2 N.	156.4 W.	Southern Alaska. h about 60 km.
22	02 45 26.1	21.6 S.	169.8 E.	Loyalty Islands region. h about 33 km.
22	03 28 08.9	21.6 S.	170.0 E.	Loyalty Islands region. h about 33 km.
22	08 51 41.8	19.3 N.	100.5 W.	Michoacan, Mexico. h about 60 km.
22	10 18 15.0	51.7 N.	177.1 W.	Andreanof Islands, Aleutian Islands. h about 33 km.
22	10 36 12.7	21.4 S.	170.2 E.	Loyalty Islands region. h about 52 km.
22	11 06 39.2	21.6 S.	169.9 E.	Loyalty Islands region. h about 37 km.
22	12 27 03.8	15.4 N.	91.7 W.	Guatemala. h about 84 km.

Date 1961	Origin Time G. C. T.	Lat.	Long.	Region, Remarks and Focal Depth
Nov. 22	h m s 13 01 40.1	° 2.7 N.	° 84.8 W.	Off coast of Ecuador. h about 37 km.
22	20 16 13.3	4.2 S.	135.9 E.	West New Guinea. h about 33 km.
22	20 39 15.8	26.9 S.	176.4 W.	Tonga Islands region. h about 43 km.
22	22 30 43.4	8.7 S.	110.4 E.	Near south coast of Java. h about 100 km.
23	05 54 53.6	32.4 S.	178.7 W.	Kermadec Islands. h about 33 km.
23	10 35 49.0	10.8 N.	84.9 W.	Nicaragua-Costa Rica border region. h about 33 km.
23	11 17 27.7	5.6 S.	80.3 W.	Peru. h about 61 km.
23	15 26 55.8	18.7 S.	175.0 W.	Tonga Islands. h about 128 km.
23	16 58 47.4	23.5 S.	176.0 W.	Tonga Islands region. h about 15 km.
24	07 43 40.6	38.3 S.	74.4 W.	Off coast of central Chile. h about 48 km.
25	06 18 11.2	18.0 S.	178.4 W.	Fiji Islands. h about 593 km.
25	14 11 22.9	6.3 S.	154.9 E.	Solomon Islands. h about 81 km.
25	20 19 50.4	36.2 N.	141.4 E.	Near east coast of Honshu, Japan. Felt on Honshu. h about 45 km.
25	22 54 50.0	22.1 S.	175.7 W.	Tonga Islands. h about 33 km.
26	03 32 06.8	33.6 S.	177.5 W.	Kermadec Islands region. h about 33 km.
26	05 26 27.6	4.7 S.	151.4 E.	New Britain region. h about 145 km.
26	14 17 45.4	29.2 N.	43.7 W.	Azores region. h about 33 km.
26	18 12 18.9	5.6 S.	146.3 E.	Near north coast of New Guinea. h about 52 km.
26	19 03 59.0	9.4 S.	150.7 E.	D'Entrecasteaux Islands. h about 36 km.
27	00 55 45.7	39.0 N.	106.1 W.	Colorado. h about 33 km.
27	01 54 20.6	56.4 S.	28.2 W.	Sandwich Islands. h about 163 km.
27	05 57 07.6	31.6 N.	131.1 E.	Near south coast of Kyushu, Japan. Felt on Kyushu. h about 25 km. Mag. 6¼-6½ (Pas).
27	10 53 44.0	49.0 S.	120.8 E.	About 1500 km. south of Australia. h about 33 km.
27	16 49 44.8	1.0 S.	126.9 E.	Halmahera region. h about 44 km.
27	17 10 38.1	0.4 S.	127.6 E.	Halmahera region. h about 33 km. Mag. 6¼-6½.
27	17 47 59.9	1.9 S.	127.0 E.	Halmahera region. h about 25 km.
27	23 30 45.1	60.0 S.	158.8 E.	Macquarie Islands. h about 33 km.
28	00 37 12.3	19.1 S.	177.5 W.	Fiji Islands. h about 530 km.
28	02 40 22.0	0.4 S.	127.8 E.	Halmahera region. h about 33 km.
28	05 01 51.5	0.9 S.	127.1 E.	Halmahera region. h about 33 km.
28	07 53 43.5	46.6 N.	153.6 E.	Kurile Islands. h about 81 km.
28	08 47 41.6	6.1 S.	130.2 E.	Banda Sea. h about 107 km.
28	08 58 48.4	40.2 N.	25.9 E.	Dardenelles. Felt. h about 17 km.
28	10 14 44.5	35.7 N.	73.6 E.	India-Pakistan border. h about 31 km.
28	16 37 58.5	35.9 N.	140.2 E.	Near east coast of Honshu, Japan. h about 101 km.
28	18 34 36.1	56.9 S.	142.7 E.	About 1200 km. southwest of Macquarie Islands. h about 33 km.
28	22 55 09.4	14.8 S.	167.3 E.	New Hebrides Islands. Felt on Santo. h about 146 km.

Date 1961	Origin Time G. C. T.	Lat.	Long.	Region, Remarks and Focal Depth
Nov.	h m s	°	°	
29	04 43 09.3	38.5 S.	75.9 W.	Off coast of central Chile. h about 60 km.
29	09 28 11.7	37.0 S.	18.6 W.	South Atlantic Ocean. h about 33 km.
29	10 54 55.1	7.3 S.	130.7 E.	Tanimbar region. h about 39 km.
29	17 50 06.0	52.2 N.	158.4 E.	Near southeast coast of Kamchatka. h about 80 km.
29	20 38 09.2	7.2 S.	76.4 W.	Peru. h about 33 km.
29	21 55 44.7	23.1 S.	170.9 E.	Loyalty Islands region. h about 29 km.
29	22 15 39.9	18.3 S.	168.1 E.	New Hebrides Islands. **Felt at Port Vila.** h about 33 km.
29	23 16 07.3	38.1 S.	177.7 E.	Near east coast of North Island, New Zealand. h about 33 km.
30	12 20 07.3	43.8 N.	132.1 E.	Near Vladivostok, **U.S.S.R.** h about 469 km.
30	14 14 32.8	14.4 S.	170.9 E.	New Hebrides Islands region. h about 42 km.
30	16 46 49.4	3.3 S.	127.2 E.	Ceram Sea. h about 39 km.
30	18 27 25.3	18.2 S.	168.0 E.	New Hebrides Islands. **Felt at Port Vila.** h about 33 km.
30	20 03 34.1	17.3 S.	178.5 W.	Fiji Islands. h about 556 km.
30	21 43 16.1	2.3 N.	126.7 E.	Molucca Passage. h about 33 km.

Date and Station		Phase (GCT)
		h m s
Nov. 1		
COL	iP	00 06 40
	i	07 31
TUC	e(P)	00 10 47
Nov. 1		
FGU	e(P)	00 43 35
TUC	eP	00 41 38
TUT	eP	00 41 38
Nov. 1		
COL	e(P)	02 09 50
	e	10 04
Nov. 1		
COL	eP	06 03 37
	i	04 08
FGU	e(P)	06 07 32
HHM	iP	06 08 47
Nov. 1		
COL	e(P)	09 10 37
	ePP	12 43
Nov. 1		
TUC	eP	10 03 06
	eL	08 51
TUT	e(P)	10 03 05
Nov. 1		
COL	iP	10 53 59
	i	54 08
FGU	eP	10 54 05
HHM	iP	10 54 08
TUC	iP	10 53 41
TUT	iP	10 53 42
Nov. 1		
EUR	iP	13 23 46
Nov. 1		
COL	iP	15 16 11
	i	17 06
Nov. 1		
COL	iP	16 04 53
	i	04 56
Nov. 1		
COL	e(P)	17 36 04
Nov. 1		
COL	iP	20 22 20
	i	22 38
EUR	iP	20 22 05
FGU	e(P)	20 22 25
Nov. 1		
COL	e(P)	21 51 04
	i	51 11

Date and Station		Phase (GCT)
		h m s
Nov. 1		
EUR	i(P)	22 31 52
Nov. 1		
FGU	iP	23 29 46
Nov. 1		
FGU	iP	23 45 11
	eS	45 43
SLC	eP	23 44 40
Nov. 2		
COL	e(P)	01 21 55
	e	22 03
Nov. 2		
COL	e(P)	01 39 17
Nov. 2		
COL	e(P)	02 07 03
Nov. 2		
FGU	eP	03 11 34
Nov. 2		
COL	iP	05 34 21
EUR	iP	05 34 03
FGU	e(P)	05 33 16
	e	34 18
GCA	e(P)	05 34 15
TUC	iP	05 34 05
TUT	eP	05 34 06
Nov. 2		
COL	iP	06 31 18
	i	32 08
EUR	iP	06 32 18
Nov. 2		
COL	eP	07 11 37
Nov. 2		
FGU	e(P)	09 12 24
	e	13 19
EUR	iP	10 49 31
GCA	e(P)	10 52 19
	e	52 32
Nov. 2		
EUR	iP	13 23 55
Nov. 2		
GUA	iP	13 40 17
Nov. 2		
EUR	eP	15 21 07
Nov. 2		
EUR	e(P)	20 33 11
Nov. 2		
COL	eP	23 15 21

Date and Station		Phase (GCT)
		h m s
EUR	iP	23 12 57
FGU	e(P)	23 12 22
HHM	eP	23 13 04
SJP	iP	23 04 49
	iS	05 34
Nov. 2		
BCN	eP	23 43 03
COL	eP	23 38 50
	i	39 10
	iPP	40 11
	iPcP	42 37
EUR	iP	23 42 38
	ePP	44 29
Nov. 3		
FGU	eP	02 21 40
Nov. 3		
EUR	iP	03 48 40
Nov. 3		
COL	eP	04 16 32
EUR	e(P)	04 16 51
Nov. 3		
COL	eP	05 21 21
	i	21 55
EUR	eP	05 23 22
GUA	iP	05 12 58
HHM	i(P)	05 24 52
Nov. 3		
SJP	eP	05 37 41
	e(S)	38 20
Nov. 3		
EUR	iP	06 08 57
Nov. 3		
EUR	iP	10 32 46
Nov. 3		
EUR	eP	13 52 48
Nov. 3		
COL	eP	15 33 05
EUR	iP	15 33 30
Nov. 3		
COL	iP	17 04 16
EUR	iP	17 07 33
	i	07 41
HHM	eP	17 07 13
	i	07 33

Date and Station		Phase (GCT)
		h m s
Nov. 3		
COL	iP	18 35 48
Nov. 3		
COL	iP	20 45 26
EUR	iP	20 48 49
FGU	iP	20 48 17
	i	48 43
Nov. 3		
COL	iP	21 18 37
EUR	iP	21 18 03
FGU	eP	21 18 29
GCA	ePP	21 22 31
Nov. 3		
COL	e(P')	22 15 27
EUR	eP'	22 15 07
Nov. 3		
COL	iP	22 23 36
	e	24 26
Nov. 3		
COL	eP	22 50 10
EUR	iP	22 51 24
Nov. 3		
COL	iP	23 03 19
Nov. 3		
FGU	eP	23 16 43
Nov. 4		
FGU	iP	00 57 23
	iS	57 27
Nov. 4		
EUR	eP	01 55 07
Nov. 4		
COL	eP	02 18 47
EUR	iP	02 21 28
HHM	iP	02 21 08
	i	21 20
Nov. 4		
THU	eP	02 50 32
	e	50 52
Nov. 4		
COL	iP	03 17 00
EUR	eP	03 18 27
	eP'	22 42
GUA	iP	03 08 32
	i	08 39

Date and Station		Phase (GCT)
		h m s
KIP	iP	03 15 19
SJP	eP'	03 24 15
Nov. 4		
BCN	eP	03 48 59
BOZ	e(P)	03 48 28
BUT	eP	03 48 28
COL	iP	03 45 03
	i	45 23
FGU	eP	03 48 58
HHM	iP	03 48 07
	i	48 20
	iPcP	49 21
THU	eP	03 47 30
TUC	eP	03 49 31
TUT	eP	03 49 31
Nov. 4		
EUR	iP	05 24 07
Nov. 4		
EUR	iP	07 31 15
Nov. 4		
COL	e(P)	12 31 53
	e	32 02
EUR	e(P)	12 32 15
Nov. 4		
COL	iP	13 16 32
Nov. 4		
EUR	iP	14 12 39
Nov. 4		
COL	iP	14 38 56
	ipP	39 11
EUR	iP	14 42 28
	iPP	43 15
	iS	44 21
	iPcP	47 48
FGU	iP	14 42 51
Nov. 4		
BCN	eP	18 24 37
BOZ	eP	18 24 10
COL	iP	18 20 46
EUR	iP	18 24 13
	i	24 41
FGU	eP	18 24 39
HHM	iP	18 23 44
	iPP	24 40
	ePcP	26 20

Date and Station		Phase (GCT)
		h m s
SJP	eP	18 29 22
TUC	eP	18 25 17
Nov. 4		
EUR	iP	21 15 38
Nov. 4		
COL	iP	21 28 50
EUR	iP	21 32 20
	i	32 32
Nov. 4		
COL	iP	23 49 41
EUR	iP	23 49 20
FGU	eP	23 49 43
TUC	eP	23 49 20
Nov. 5		
COL	e(P)	00 19 03
EUR	iP	00 18 34
Nov. 5		
COL	eP	00 32 04
EUR	eP	00 32 50
	ipP	33 04
	ePP	35 25
Nov. 5		
COL	iP	00 54 25
EUR	iP	00 57 44
	i	57 52
HHM	iP	00 57 16
Nov. 5		
COL	eP	01 13 01
Nov. 5		
EUR	e(P)	02 00 47
Nov. 5		
COL	iP	03 04 40
EUR	eP	03 04 20
Nov. 5		
COL	eP	03 24 35
EUR	eP	03 27 32
	i	27 46
Nov. 5		
COL	iP	03 49 20
EUR	iP	03 52 38
HHM	e(P)	03 52 10
THU	eP	03 51 30
Nov. 5		
EUR	eP	04 53 00

Date and Station		Phase (GCT)
		h m s
Nov. 5		
FGU	eP	06 54 51
	eS	55 22
Nov. 5		
COL	iP	08 49 05
Nov. 5		
EUR	e(P)	09 12 45
FGU	eP	09 12 28
Nov. 5		
BOZ	iP	09 53 20
BUT	eP	09 53 33
EUR	eP	09 54 48
	i	55 00
	eS	56 31
FGU	eP	09 54 13
	iS	55 09
HHM	iP	09 54 09
	iS	54 24
	iL	55 13
SLC	eP	09 54 12
Nov. 5		
COL	eP	10 20 47
	e	21 15
EUR	eP	10 21 08
Nov. 5		
EUR	iP	10 38 22
Nov. 5		
BOZ	eP	10 47 12
BUT	eP	10 47 36
COL	iP	10 43 59
	i	44 09
	ipP	44 32
	i	49 40
EUR	iP	10 47 21
	ipP	47 57
FGU	eP	10 47 39
HHM	iP	10 46 51
	ipP	47 25
KIP	iP	10 45 24
SLC	eP	10 47 30
TUC	iP	10 48 10
Nov. 5		
COL	e(P)	12 56 39
Nov. 5		
COL	i(P)	13 18 12
	i	18 22
EUR	iP	13 17 36

Date and Station		Phase (GCT)
		h m s
TUC	eP	13 17 31
Nov. 5		
EUR	iP	19 38 32
Nov. 5		
BUT	eP	19 54 10
FGU	eP	19 54 30
	i	54 37
	eS	55 22
Nov. 6		
COL	iP	00 16 27
Nov. 6		
FGU	e(P)	00 51 59
Nov. 6		
GCA	e(P)	04 23 20
Nov. 6		
COL	eP	05 26 31
EUR	iP	05 23 47
	epP	24 03
FGU	eP	05 23 23
	epP	23 49
HHM	iP	05 24 24
	ipP	24 40
SJP	eP	05 19 50
	epP	20 05
THU	eP	05 26 10
TUC	eP	05 23 08
Nov. 6		
COL	iP	05 40 52
	i	41 51
EUR	iP	05 41 14
GUA	eP	05 35 28
	eS	40 33
HHM	eP	05 41 33
SJP	eP'	05 47 26
Nov. 6		
COL	iP	06 20 10
	i	20 34
EUR	eP	06 23 25
GCA	eP	06 23 47
Nov. 6		
BUT	eP	07 24 25
EUR	iP	07 24 06
FGU	eP	07 23 58

B-4297-4

Date and Station		Phase (GCT)
		h m s
HHM	eP	07 24 37
SJP	e(P)	07 20 46
Nov. 6		
COL	iP	08 11 01
Nov. 6		
EUR	eP	09 14 24
Nov. 6		
EUR	eP	10 05 26
Nov. 6		
COL	iP	12 40 26
Nov. 6		
COL	e(P)	12 54 26
Nov. 6		
COL	i(P)	13 20 59
EUR	e(P)	13 20 38
Nov. 6		
BUT	eP	13 47 11
COL	iP	13 45 09
EUR	iP	13 47 10
	i	48 09
HHM	iP	13 47 03
	iPP	50 18
Nov. 6		
BCN	eP	13 52 50
EUR	eP	13 52 37
	iS	53 34
FGU	e(P)	13 52 53
	eS	53 47
Nov. 6		
FGU	eP	17 51 59
Nov. 6		
EUR	eP	21 37 05
Nov. 6		
GCA	e(P)	22 30 02
Nov. 6		
FGU	eP	23 15 38
	eS	17 08
Nov. 6		
BCN	eP	23 29 10
Nov. 7		
GCA	eP	00 30 25
Nov. 7		
COL	iP	00 51 59
	iPcP	52 14
EUR	iP	00 51 38

Date and Station		Phase (GCT)
Nov. 7		h m s
BOZ	eP'	01 31 13
	ePP	33 31
COL	iP	01 24 51
	i	25 30
	iS	34 31
EUR	iP'	01 31 04
	i(PP)	33 24
FGU	eP'	01 31 44
GUA	eP	01 17 06
	ePP	17 47
	eS	21 53
HHM	iP'	01 30 43
	i(PP)	32 39
SLC	eP'	01 31 25
SJP	eP'	01 32 40
Nov. 7		
EUR	iP	02 45 47
Nov. 7		
EUR	iP	02 51 27
Nov. 7		
FGU	e(P)	04 18 53
	eS	19 46
Nov. 7		
COL	iP	05 59 18
Nov. 7		
EUR	iP	06 02 47
FGU	e(P)	06 03 05
Nov. 7		
EUR	iP	08 37 02
Nov. 7		
COL	iP	08 52 15
Nov. 7		
EUR	iP	09 17 26
Nov. 7		
EUR	eP	10 44 31
Nov. 7		
COL	eP	10 56 57
EUR	iP	10 53 07
HHM	eP	10 54 07
	i	54 14
Nov. 7		
EUR	iP	11 09 01
	i	09 15
Nov. 7		
GUA	eP	11 27 56
Nov. 7		
BCN	eP	12 27 43

Date and Station		Phase (GCT)
		h m s
COL	eP	12 28 22
EUR	iP	12 27 48
TUC	eP	12 27 46
TUT	iP	12 27 46
Nov. 7		
EUR	eP	14 01 33
Nov. 7		
EUR	eP	14 48 37
Nov. 7		
EUR	eP	19 41 56
Nov. 7		
FGU	eP	21 07 28
Nov. 7		
EUR	e(P)	21 23 03
	e	23 11
Nov. 7		
HHM	eP	21 45 17
Nov. 7		
COL	eP	23 36 06
Nov. 7		
HHM	e(P)	23 49 13
EUR	iP	23 49 02
SJP	iP	23 41 00
	i(S)	41 42
Nov. 8		
SJP	e(P)	02 16 25
Nov. 8		
EUR	e(P)	03 47 22
Nov. 8		
GCA	eP	04 00 12
Nov. 8		
BCN	eP	05 00 20
COL	iP	05 04 52
	ipP	05 02
EUR	iP	05 00 48
	ipP	00 57
	i	01 16
FGU	eP	05 00 32
HHM	iP	05 01 43
	ipP	01 57
TUC	eP	04 59 29
	ipP	59 42
Nov. 8		
EUR	e(P)	08 39 36
Nov. 8		
SJP	iP	10 07 36
	iS	07 57

Date and Station		Phase (GCT)
Nov. 8		h m s
EUR	eP	12 04 47
Nov. 8		
EUR	iP	13 25 10
Nov. 8		
COL	e(P)	14 15 42
Nov. 8		
EUR	iP	15 31 17
Nov. 8		
HHM	iP	15 56 21
Nov. 8		
EUR	eP	16 55 15
	i	55 25
Nov. 8		
COL	eP	18 44 03
HHM	iP	18 46 20
Nov. 8		
COL	eP	19 41 27
Nov. 8		
COL	e(P)	19 10 10
Nov. 8		
BOZ	eP	20 15 54
FGU	eP	20 16 33
HHM	eP	20 16 53
Nov. 8		
EUR	e(P)	20 51 09
Nov. 8		
FGU	iP	23 51 46
	eS	52 17
Nov. 9		
FGU	eP	00 07 54
	eS	08 23
Nov. 9		
BCN	eP	01 22 19
COL	eP	01 22 24
EUR	eP	01 22 24
	ePP	26 03
SJP	eP'	01 29 17
Nov. 9		
GCA	eP	03 31 02
Nov. 9		
BCN	eP	04 31 06
BOZ	eP	04 31 37
BUT	eP	04 31 43
COL	iP	04 33 46

B-4297-4

Date and Station		Phase	(GCT) h m s
EUR	iP		04 31 26
	iPcP		31 38
	ipP		32 11
FGU	eP		04 31 12
GUA	iP'		04 39 16
HHM	iP		04 31 55
SJP	iP		04 27 28
	i		28 01
	iPP		29 00
	ePPP		33 31
TUC	eP		04 30 38
TUT	iP		04 30 38
Nov. 9			
COL	iP		06 14 25
EUR	iP		06 17 43
Nov. 9			
EUR	e(P)		06 36 15
Nov. 9			
COL	e(P)		07 22 37
Nov. 9			
EUR	iP		07 53 00
Nov. 9			
EUR	eP		09 21 03
Nov. 9			
EUR	i(P)		10 04 58
Nov. 9			
COL	iP		10 15 32
Nov. 9			
FGU	eP		10 43 23
	eS		43 46
Nov. 9			
COL	iP		10 58 28
Nov. 9			
EUR	iP		11 52 27
Nov. 9			
EUR	eP		12 11 58
HHM	e(P)		12 13 08
Nov. 9			
EUR	eP		12 41 56
Nov. 9			
EUR	iP		12 53 25
HHM	iP		12 53 19
Nov. 9			
COL	e(P)		13 29 28
Nov. 9			
COL	iP		13 43 53
	i		44 30

Date and Station		Phase	(GCT) h m s
EUR	eP		13 47 17
HHM	iP		13 46 47
Nov. 9			
BOZ	e(P)		16 09 36
COL	eP		16 06 13
	i		06 20
	iPP		06 43
	i		07 23
EUR	iP		16 09 40
	i		09 54
	iPP		11 05
FGU	e(P)		16 10 04
HHM	iP		16 09 09
	i		09 26
	e(PcP)		11 18
THU	eL		16 18 21
Nov. 9			
COL	eP		17 11 12
Nov. 9			
COL	eP		17 27 41
Nov. 9			
COL	iP		17 34 45
HHM	eP		17 39 53
	i		40 29
Nov. 9			
COL	eP		17 45 32
Nov. 9			
COL	iP		17 52 17
EUR	iP		17 52 37
Nov. 9			
COL	eP		18 16 17
Nov. 9			
EUR	iP		18 39 22
Nov. 9			
COL	iP		18 45 51
EUR	iP		18 46 16
Nov. 9			
WAS	eP		19 15 36
Nov. 9			
GCA	e(P)		20 35 28
Nov. 9			
GCA	eP		22 18 22
Nov. 9			
BCN	eP		23 18 16
BOZ	eP		23 18 56
COL	iP		23 18 49
	epP		19 56

Date and Station		Phase	(GCT) h m s
EUR	iP		23 18 21
FGU	eP		23 18 49
HHM	iP		23 18 52
TUC	iP		23 18 23
TUT	eP		23 18 23
Nov. 10			
GCA	e(P)		00 18 48
Nov. 10			
COL	e(P)		00 51 10
Nov. 10			
EUR	eP		02 03 21
Nov. 10			
BCN	eP		02 18 26
BUT	eP		02 18 34
COL	iP		02 20 59
	ipP		21 23
	i(sP)		21 35
CSC	eP		02 16 14
	epP		16 38
EUR	iP		02 18 25
	ipP		18 50
FGU	eP		02 18 10
HHM	iP		02 18 57
	ipP		19 22
SLC	eP		02 18 15
SJP	iP		02 14 03
	i(pP)		14 24
	ePcP		17 13
TUC	eP		02 17 31
TUT	eP		02 17 31
Nov. 10			
EUR	eP		02 46 51
Nov. 10			
EUR	e(P)		03 26 15
TUC	eP		03 24 36
TUT	eP		03 24 37
Nov. 10			
COL	e(P)		06 20 25
Nov. 10			
EUR	eP		06 48 50
Nov. 10			
COL	iP		07 42 33
	e		43 25

Date and Station		Phase	(GCT) h m s
GUA	eP		07 34 00
SJP	eP'		07 49 49
Nov. 10			
COL	i(P)		08 27 52
	i		27 56
Nov. 10			
COL	iP		10 58 42
	i		58 50
Nov. 10			
COL	e(P)		10 28 56
Nov. 10			
COL	eP		11 43 33
Nov. 10			
COL	e(P)		13 02 47
	e		03 25
Nov. 10			
COL	e(P)		13 30 47
EUR	eP		13 27 07
FGU	eP		13 26 43
Nov. 10			
EUR	e(P)		14 11 44
Nov. 10			
COL	e(P)		15 28 50
Nov. 10			
EUR	iP		15 58 47
Nov. 10			
EUR	eP		16 12 47
Nov. 10			
GCA	eP		17 12 22
	e		14 23
Nov. 10			
EUR	eP		17 56 10
Nov. 10			
BCN	eP		18 12 07
	epP		14 05
BOZ	eP		18 12 42
COL	iP		18 12 30
	ipP		14 50
	e(S)		22 15
EUR	iP		18 12 11
	ipP		14 15
FGU	eP		18 12 37
	epP		14 41
KIP	iP		18 08 09
HHM	iP		18 12 38
	i		12 56

Date and Station		Phase (GCT)
		h m s
SLC	eP	18 12 30
TUT	iP	18 12 15
	ipP	14 14
UKI	eP	18 11 47
Nov. 10		
BCN	eP	22 49 08
BOZ	e(P)	22 47 45
COL	iP	22 45 59
	iS	49 00
EUR	eP	22 48 36
HHM	iP	22 46 55
	iS	51 22
THU	eP	22 48 20
Nov. 10		
COL	eP	23 54 45
Nov. 11		
FGU	eP	00 53 17
Nov. 11		
BCN	eP	04 15 38
	e	16 51
FGU	e(P)	04 17 02
TUC	eP	04 15 11
TUT	e(P)	04 15 11
Nov. 11		
COL	e(P)	09 00 08
SJP	eP'	09 07 25
Nov. 11		
THU	eP	10 27 18
Nov. 11		
GGA	e(P)	11 32 37
Nov. 11		
BCN	eP	12 33 18
BOZ	eP	12 34 05
BUT	eP	12 34 21
COL	iP	12 37 32
	iPcP	38 19
CSC	eP	12 32 00
	epP	36 32
EUR	eP	12 33 45
FGU	eP	12 33 24
HHM	eP	12 34 31
	iPcP	36 38
SLC	eP	12 33 34
TUC	eP	12 32 34

Date and Station		Phase (GCT)
		h m s
TUT	eP	12 32 34
Nov. 11		
COL	eP	17 46 26
EUR	eP	17 49 57
Nov. 11		
COL	iP	19 59 21
Nov. 11		
COL	iP	21 59 48
	epP	22 00 22
EUR	eP	21 57 02
SJP	e(P)	21 52 43
Nov. 11		
THU	e(P)	22 34 56
Nov. 11		
FGU	eP	23 03 08
Nov. 12		
COL	e(P)	01 14 56
Nov. 12		
BCN	eP'	02 34 28
COL	eP'	02 34 44
EUR	eP'	02 34 24
	iPP	36 34
FGU	eP'	02 34 16
HHM	iP'	02 34 11
SJP	eP	02 28 40
TUC	iP'	02 34 28
TUT	iP'	02 34 28
Nov. 12		
BCN	eP	04 21 47
EUR	e(P)	04 21 33
	iL	22 53
Nov. 12		
COL	e(P)	04 39 04
	e	39 45
Nov. 12		
FGU	eP	05 02 10
	eS	02 41
Nov. 12		
COL	eP	06 45 08
	iS	45 48
Nov. 12		
COL	e(P)	07 11 18
Nov. 12		
COL	eP	08 11 22
Nov. 12		
EUR	iP'	08 41 32

Date and Station		Phase (GCT)
		h m s
HHM	eP'	08 40 57
Nov. 12		
COL	e(P)	10 44 10
Nov. 12		
COL	iP	14 24 01
EUR	eP	14 23 37
FGU	e(P)	14 24 03
Nov. 12		
EUR	iP	15 07 10
TUC	eP	15 05 32
TUT	eP	15 05 33
Nov. 12		
EUR	eP	16 55 26
Nov. 12		
GGA	eP	17 24 20
Nov. 12		
COL	eP	18 24 32
	ipP	26 32
EUR	iP	18 24 11
TUC	iP	18 24 11
Nov. 12		
COL	e(P)	19 01 56
Nov. 12		
COL	e(P)	19 08 22
Nov. 12		
FGU	eP	19 29 37
	eS	30 01
Nov. 12		
FGU	eP	23 54 46
	eS	55 16
Nov. 13		
FGU	iP	00 12 00
	eS	12 31
Nov. 13		
COL	iP	00 37 40
Nov. 13		
HHM	iP	01 19 09
Nov. 13		
COL	iP	04 27 27
Nov. 13		
COL	eP	07 52 42
	i	52 49
SJP	eP'	07 59 50
	e	08 00 11
Nov. 13		
SJP	iP	08 14 56
	i	17 04

Date and Station		Phase (GCT)
		h m s
Nov. 13		
COL	eP	09 23 43
	ipP	24 31
GGA	e(P)	09 48 33
Nov. 13		
COL	eP	10 12 23
Nov. 13		
COL	eP	10 53 16
FGU	eP	10 48 57
	eL	55 37
TUT	e(P)	10 47 47
	e(S)	53 47
	eL	54 14
Nov. 13		
COL	eP	12 33 34
Nov. 13		
COL	e(P)	15 09 09
Nov. 13		
COL	eP	16 44 05
EUR	eP	16 44 23
Nov. 13		
GGA	eP	17 41 33
Nov. 13		
COL	iP	19 45 15
	e(pP)	45 28
EUR	iP	19 48 42
	ipP	48 54
HHM	e(P)	19 48 14
Nov. 13		
FGU	eP	20 24 35
	i(S)	24 45
Nov. 13		
COL	eP	20 33 31
	i	33 42
Nov. 13		
EUR	eP	23 46 49
Nov. 14		
EUR	iP	00 37 03
Nov. 14		
COL	eP	01 01 04
	i	01 18
Nov. 14		
COL	eP	01 06 55
Nov. 14		
COL	iP	02 02 01
	i	02 11
HHM	iP	02 02 13

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

Date and Station	Phase (GCT)
	h m s
Nov. 15	
COL e(P)	21 04 04
Nov. 15	
COL iP	21 23 32
i	27 50
EUR eP	21 26 30
i	27 02
Nov. 15	
COL iP'	22 21 32
i	21 41
EUR eP'	22 20 33
FGU eP'	22 21 16
HHM iP'	22 20 44
SJP eP	22 13 59
Nov. 16	
FGU eP	00 04 52
eS	05 24
Nov. 16	
EUR e(P)	02 19 48
Nov. 16	
COL iP	03 30 12
Nov. 16	
BOZ e(P)	08 27 49
BUT eP	08 27 58
COL iP	08 30 43
i	32 37
CSC eP	08 24 05
eS	27 32
EUR iP	08 28 01
i(pP)	28 49
ePP	29 56
iScP	33 40
FGU eP	08 27 25
GCA eP	08 27 31
HHM iP	08 28 13
iPcP	29 15
SJP iP	08 20 36
iS	21 07
TUC eP	08 27 17
TUT iP	08 27 16
WAS e(P)	08 24 31
Nov. 16	
COL e(P)	09 43 40
Nov. 16	
COL e(P)	13 11 22
Nov. 16	
COL i(P)	14 13 12

Date and Station	Phase (GCT)
	h m s
Nov. 16	
COL e(P)	14 29 43
Nov. 16	
TUT iP	15 13 11
Nov. 16	
COL e(P)	16 16 52
EUR iP	16 16 49
ipP	17 01
i	17 24
ePP	19 29
GCA eP	16 16 59
Nov. 16	
BCN eP	17 20 03
COL iP	17 20 17
EUR eP	17 19 49
Nov. 16	
FGU eP	18 33 52
eS	34 17
Nov. 16	
FGU eP	22 52 15
iS	52 39
Nov. 16	
FGU eP	23 49 45
eS	50 14
Nov. 17	
EUR eP	02 06 54
FGU eP	02 07 39
Nov. 17	
EUR iP	02 18 11
Nov. 17	
COL e(P)	02 44 54
Nov. 17	
EUR e(P)	03 33 48
Nov. 17	
COL e(P)	06 03 25
Nov. 17	
COL eP	07 01 54
Nov. 17	
COL eP	07 15 06
Nov. 17	
COL iP	08 25 29
iPcP	25 37
i	31 56
EUR iP	08 25 11
iPcP	25 17
FGU eP	08 25 36
GCA eP	08 25 21
HHM iP	08 25 38
iPcP	25 48

Date and Station	Phase (GCT)
	h m s
Nov. 17	
COL e(P)	09 16 40
Nov. 17	
COL iP'	09 36 07
i(PP)	38 09
EUR eP'	09 35 10
ePKKP	44 59
HHM eP'	09 35 19
iPP	35 38
Nov. 17	
COL e(P)	11 29 34
iPP	31 07
CSC e(P)	11 26 17
Nov. 17	
COL iP	12 14 30
i	14 45
Nov. 17	
COL iP	13 06 25
i	06 35
Nov. 17	
COL iP	13 09 38
i(S)	10 42
HHM eP	13 13 46
Nov. 17	
EUR eP	14 29 01
FGU eP	14 28 11
i(S)	28 36
GCA eP	14 28 32
Nov. 17	
COL e(P)	14 46 58
Nov. 17	
COL iP	14 53 00
i	53 19
i	53 46
eL	15 01 03
EUR iP	14 56 32
iPcP	58 40
iS	15 02 24
HHM iP	14 56 01
i	56 11
i	58 30
ePcP	58 42
iS	15 02 11
SJP iP	15 01 34
Nov. 17	
FGU eP	16 21 07
eS	21 38
Nov. 17	
COL iP	16 22 06
i	22 19
Nov. 17	
HHM e(P)	17 31 00

Date and Station	Phase (GCT)
	h m s
Nov. 17	
BCN eP	19 15 46
COL iP	19 16 19
ipP	17 11
EUR eP	19 15 49
ipP	16 33
FGU eP	19 16 16
HHM eP	19 16 22
TUT iP	19 15 50
ipP	16 42
Nov. 17	
COL eP	21 47 08
i	47 54
EUR e(P)	21 47 27
Nov. 17	
EUR eP	22 26 48
Nov. 17	
GCA e(P)	22 32 03
Nov. 17	
FGU eP	23 47 21
iS	47 24
Nov. 18	
FGU eP	00 21 55
eS	22 27
Nov. 18	
COL e(P)	01 54 59
Nov. 18	
FGU eP	02 06 13
iS	06 35
GCA eP	02 06 29
Nov. 18	
HHM eP	02 19 40
Nov. 18	
FGU e(P)	02 31 33
Nov. 18	
BCN eP	03 18 45
EUR iP	03 19 42
iS	20 13
FGU eP	03 20 44
eL	23 05
GCA eP	03 19 57
iS	21 17
SLC eP	03 20 49
TUC iP	03 20 11
iS	21 48
iL	21 56

Date and Station		Phase (GCT)
		h m s
TUT	eP	03 20 11
UKI	eP	03 20 11
Nov. 18		
COL	eP	03 29 46
EUR	eP	03 31 29
HHM	iP	03 30 35
Nov. 18		
BCN	eP	04 06 33
EUR	eP	04 06 19
GCA	eP	04 06 08
Nov. 18		
COL	eP	06 15 25
EUR	eP'	06 21 33
SJP	eP'	06 23 04
Nov. 18		
FGU	eP	06 31 19
	eS	31 40
Nov. 18		
COL	iP'	07 47 34
	ipP	47 44
EUR	eP'	07 46 37
HHM	e(P)	07 39 03
	eP'	46 45
Nov. 18		
FGU	eP	08 28 57
	e	29 20
Nov. 18		
COL	eP	10 18 21
	e	18 33
EUR	eP	10 20 56
	i	21 24
HHM	eP	10 20 39
CSC	eP'	10 27 02
Nov. 18		
BCN	eP	10 45 35
BUT	eP	10 45 13
COL	iP	10 47 05
	ipP	47 21
EUR	eP	10 44 19
	iPcP	44 56
FGU	eP	10 44 03
HHM	iP	10 44 53
	iPcP	45 29

Date and Station		Phase (GCT)
		h m s
SJP	iP	10 39 55
	i	40 22
TUT	eP	10 43 24
Nov. 18		
BCN	eP	11 30 32
BUT	eP	11 30 06
COL	iP	11 30 12
	ePKKP	55 12
EUR	iP	11 29 38
	ipP	29 55
	i	30 07
	iPP	33 02
FGU	eP	11 30 03
GCA	eP	11 29 45
	epP	30 02
HHM	eP	11 30 08
TUC	eP	11 29 34
TUT	eP	11 29 33
Nov. 18		
COL	i(P)	12 00 41
EUR	eP	12 00 11
Nov. 18		
COL	e(P)	14 40 50
EUR	eP	14 41 00
Nov. 18		
EUR	e(P)	15 47 03
Nov. 18		
COL	e(P)	18 05 12
Nov. 18		
HHM	eP	18 12 32
Nov. 18		
COL	iP	18 27 58
	i	28 22
	ePP	30 45
EUR	i(P)	18 27 26
GCA	e(P)	18 27 37
TUT	eP	18 27 27
Nov. 18		
FGU	eP'	18 55 16
HHM	eP'	18 55 21
Nov. 18		
EUR	iP	21 52 47
Nov. 18		
FGU	eP	22 01 28
	eS	01 50

Date and Station		Phase (GCT)
Nov. 18		h m s
BUT	eP	22 23 10
COL	iP	22 20 54
	ipP	21 12
EUR	iP	22 23 23
	i(pP)	23 43
	i	24 02
	iPP	27 20
FGU	eP	22 23 35
GUA	eP	22 15 06
HHM	iP	22 23 03
SJP	eP'	22 29 33
THU	eP	22 21 57
Nov. 18		
EUR	iP	23 27 00
Nov. 19		
BCN	eP	00 44 40
BOZ	eP	00 43 13
COL	iP	00 39 50
	i(PP)	40 10
	e(PcP)	43 57
CSC	eP	00 46 11
EUR	iP	00 43 18
	ipP	43 31
	iPP	45 50
	iS	49 50
FGU	eP	00 43 42
HHM	iP	00 42 48
	ipP	42 57
	i	43 36
	i(PcP)	44 52
SLC	eP	00 43 31
SJP	iP	00 48 04
	ipP	48 14
TUT	eP	00 44 18
Nov. 19		
COL	i(P)	01 38 20
Nov. 19		
COL	eP	02 04 14
Nov. 19		
COL	iP	03 53 55
	i	54 08
EUR	eP	03 54 06
Nov. 19		
COL	i(P)	06 58 54
Nov. 19		
EUR	iP	07 02 23

Date and Station		Phase (GCT)
Nov. 19		h m s
EUR	iP	08 13 31
	i	14 17
	e	15 03
FGU	e(P)	08 13 30
HHM	eP	08 14 31
SLC	e(P)	08 13 32
SJP	e(P)	08 14 18
TUT	eP	08 12 23
Nov. 19		
COL	iP	10 25 10
	ipP	25 29
EUR	iP	10 26 04
Nov. 19		
EUR	e(P)	13 16 34
Nov. 19		
COL	e(P)	15 48 09
Nov. 19		
COL	e(P)	18 38 50
Nov. 19		
EUR	iP	21 01 13
Nov. 19		
EUR	iP'	22 41 11
FGU	eP'	22 40 50
Nov. 19		
EUR	eP	23 00 55
	i	01 06
	iS	01 58
GCA	e(P)	23 01 19
	e	01 28
Nov. 19		
BCN	eP	23 20 34
Nov. 19		
COL	iP	23 34 30
	ipP	35 11
	e	44 41
	ePKKP	52 19
EUR	eP	23 36 33
	i	36 52
	iP'	40 15
	iPP	40 58
	ePKKP	51 05
FGU	eP'	23 40 22
	e	44 09
GCA	eP'	23 40 22
	eS	50 50
GUA	eP	23 26 58
	eS	31 01

B-4297-4

Date and Station		Phase (GCT)
		h m s
HHM	e(P')	23 39 57
	i	43 26
SJP	eP'	23 41 38
	i	42 12
	i	42 58
TUC	eP	23 40 27
TUT	eP	23 40 27
	i	41 44
Nov. 20		
COL	e(P)	02 58 47
Nov. 20		
BUT	eP	04 16 08
COL	eP	04 13 28
	i	14 22
EUR	iP	04 16 38
	i	17 08
FGU	eP	04 16 37
GCA	e(P)	04 16 53
HHM	iP	04 15 55
THU	e(P)	04 13 07
Nov. 20		
COL	iP	04 41 16
EUR	iP	04 44 15
	i	44 33
FGU	e(P)	04 44 32
HHM	iP	04 43 51
Nov. 20		
BUT	eP	06 49 25
COL	iP	06 45 54
EUR	iP	06 49 47
	iPcP	50 48
FGU	eP	06 50 03
GCA	eP	06 49 46
	e	50 15
HHM	eP	06 49 08
TUC	iP	06 50 42
TUT	e(P)	06 50 42
	ePcP	51 45
Nov. 20		
BCN	eP	08 54 30
EUR	iP	08 55 06
	i	55 35
	i(S)	56 46
FGU	e(P)	08 56 06

Date and Station		Phase (GCT)
		h m s
GCA	eP	08 55 11
	i	55 27
	eS	56 52
HHM	e(P)	08 57 15
SLC	eP	08 56 21
TUC	e(P)	08 55 09
TUT	eP	08 55 09
Nov. 20		
BCN	eP	11 35 26
Nov. 20		
BCN	eP	11 56 50
COL	iP	11 57 27
	i	57 49
EUR	iP	11 57 29
GUA	e(P)	11 52 20
SJP	eP'	12 03 27
Nov. 20		
COL	eP	12 35 00
Nov. 20		
COL	eP	13 17 13
EUR	i(P)	13 17 09
SJP	eP'	13 23 10
Nov. 20		
COL	e(P)	14 55 42
	e	56 12
Nov. 20		
COL	iP	17 48 08
	ePcP	48 29
EUR	iP	17 48 27
Nov. 20		
BCN	eP	18 08 27
BUT	eP	18 07 57
COL	iP	18 09 21
	i	09 34
CSC	eP	18 05 03
EUR	iP	18 08 25
	iPP	10 10
FGU	eP	18 07 47
GCA	eP	18 08 07
HHM	iP	18 07 57
	i	08 13
SLC	eP	18 08 10
SJP	eP	18 03 52
	eS	08 50

Date and Station		Phase (GCT)
		h m s
THU	e(P)	18 09 48
TUC	eP	18 08 14
	iS	16 43
	eL	24 51
TUT	iP	18 08 14
Nov. 20		
COL	e(P)	18 37 33
Nov. 20		
COL	eP	19 04 44
Nov. 20		
COL	iP	19 20 37
SJP	eP'	19 27 44
	i(pP)	28 09
Nov. 20		
COL	e(P)	20 13 04
Nov. 20		
COL	iP	23 16 47
	i	17 09
EUR	iP	23 19 19
	iPcP	19 30
	ipP	20 38
	iPP	22 34
FGU	e(P)	23 19 36
	e	21 30
GUA	iP	23 11 04
HHM	iP	23 19 02
TUT	iP	23 19 54
Nov. 21		
COL	e(P)	00 53 36
EUR	eP	00 54 10
Nov. 21		
COL	iP	01 08 20
Nov. 21		
COL	iP	01 24 26
	ipP	24 50
EUR	iP	01 27 43
	ipP	28 15
COL	iP	01 58 14
Nov. 21		
COL	iP	05 11 22
	i	11 29
Nov. 21		
COL	eP	06 50 46
EUR	eP	06 48 21
SJP	e(P)	06 40 54
	eS	42 23

Date and Station		Phase (GCT)
Nov. 21		h m s
BUT	eP'	07 26 03
EUR	iP'	07 26 18
FGU	eP'	07 26 15
HHM	iP'	07 25 55
Nov. 21		
COL	eP	08 15 49
EUR	iP	08 13 24
SJP	eP	08 05 56
	eS	07 25
Nov. 21		
COL	eP	08 21 19
Nov. 21		
COL	e(P)	11 02 15
Nov. 21		
COL	e(P)	11 12 52
Nov. 21		
COL	eP	11 19 44
EUR	eP'	11 25 08
FGU	eP'	11 25 16
Nov. 21		
EUR	eP'	18 24 52
Nov. 21		
COL	e(P)	19 53 26
Nov. 21		
EUR	eP	20 20 20
SJP	iP	20 12 16
	iS	13 03
Nov. 21		
COL	iP	20 21 11
EUR	eP	20 26 09
	iPP	26 27
HHM	iP	20 25 39
Nov. 22		
EUR	iP	00 13 52
Nov. 22		
COL	eP	02 58 31
	i	59 35
EUR	eP	02 58 29
SJP	eP'	03 04 27
Nov. 22		
EUR	iP	03 54 55
Nov. 22		
EUR	eP	08 57 51

B-4297-4

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

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

B-4297-4

Date and Station		Phase	(GCT) h m s
Nov. 27			
HHM		e(P)	11 13 20
Nov. 27			
BOZ		eP	12 29 59
Nov. 27			
BCN		eP'	17 29 17
COL		eP	17 23 28
		i	23 58
		iPP	26 50
CSC		e(P')	17 31 47
EUR		i(P)	17 25 14
		iP'	29 12
		i	32 01
		ePKKP	42 13
FGU		e(P)	17 25 33
GCA		eP'	17 29 33
GUA		e(P)	17 15 35
HHM		e(P)	17 25 16
		eP'	28 45
		e	40 19
		ePKKP	42 56
SJP		iP'	17 31 10
THU		eP'	17 28 31
TUT		eP'	17 29 24
Nov. 27			
COL		iP	18 36 12
Nov. 27			
EUR		e(P)	19 22 27
Nov. 27			
EUR		e(P)	22 10 00
Nov. 27			
FGU		iP	23 29 55
		iS	30 00
Nov. 28			
COL		iP	00 49 03
EUR		eP	00 48 31
HHM		e(P)	00 49 26
SLC		eP'	00 57 10
Nov. 28			
COL		eP	02 53 09
EUR		e(P)	02 52 01
Nov. 28			
HHM		iP	04 56 17
Nov. 28			
HHM		eP	05 21 21

Date and Station		Phase	(GCT) h m s
Nov. 28			
HHM		e(P)	05 37 49
Nov. 28			
SLC		eP	06 09 58
Nov. 28			
COL		eP	06 47 32
Nov. 28			
COL		iP	08 00 38
EUR		iP	08 04 04
HHM		eP	08 03 35
Nov. 28			
BOZ		eP	09 11 22
BUT		eP	09 11 21
COL		iP	09 10 20
EUR		e(P)	09 11 53
HHM		iP	09 11 14
Nov. 28			
EUR		e(P)	10 12 01
Nov. 28			
COL		iP	10 26 28
EUR		eP'	10 32 35
Nov. 28			
THU		eP	11 18 36
Nov. 28			
EUR		eP	12 22 05
Nov. 28			
COL		eP	14 55 57
EUR		eP	14 59 27
Nov. 28			
COL		iP	15 11 50
Nov. 28			
COL		iP	16 46 49
EUR		eP	16 49 12
HHM		eP	16 49 21
Nov. 28			
EUR		eP	18 52 53
Nov. 28			
COL		eP	20 22 40
		e	23 40
Nov. 28			
GCA		eP	20 48 37
		eS	49 01
Nov. 28			
HHM		eP	21 57 40
Nov. 28			
GCA		eP	22 48 23

Date and Station		Phase	(GCT) h m s
Nov. 28			
FGU		eP	23 40 05
Nov. 28			
FGU		iP	23 49 19
		eS	49 50
Nov. 28			
EUR		eP	00 07 43
FGU		e(P)	00 07 18
GCA		e(P)	00 07 27
		e	08 28
HHM		e(P)	00 09 26
Nov. 29			
COL		e(P)	01 56 36
Nov. 29			
EUR		eP	04 55 44
FGU		eP	04 55 38
GCA		eP	04 55 25
HHM		i(P)	04 56 16
TUC		iP	04 55 00
TUT		iP	04 55 00
Nov. 29			
FGU		eP'	05 36 47
HHM		eP'	05 37 50
Nov. 29			
EUR		eP	05 49 59
Nov. 29			
COL		iP	08 54 21
		iS	54 33
Nov. 29			
COL		eP'	09 47 06
EUR		eP'	09 47 22
TUC		eP'	09 47 12
TUT		eP'	09 47 12
Nov. 29			
COL		iP	10 38 05
		e	39 32
Nov. 29			
FGU		iP	16 02 32
Nov. 29			
COL		iP	17 56 06
EUR		iP	17 59 42
Nov. 29			
COL		eP	19 24 00
Nov. 29			
COL		eP	20 48 01
		ePP	51 00

Date and Station		Phase	(GCT) h m s
EUR		iP	20 48 19
HHM		e(P)	20 48 44
SJP		e(P)	20 43 53
		ipP	44 06
TUT		e(P)	20 47 16
Nov. 29			
COL		iP	22 09 00
		ipP	09 11
EUR		eP'	22 13 56
SJP		eP'	22 14 49
TUT		eP	22 09 00
Nov. 29			
COL		eP	22 28 30
Nov. 29			
EUR		eP	23 48 35
Nov. 30			
COL		iP	01 19 51
		e	20 21
EUR		eP	01 22 51
Nov. 30			
EUR		eP	02 33 39
Nov. 30			
COL		e(P)	04 15 00
Nov. 30			
EUR		eP	05 59 35
Nov. 30			
COL		e(P)	06 24 05
Nov. 30			
BCN		eP	08 23 52
GCA		e(P)	08 24 43
		e	24 53
HHM		e(P)	08 24 21
		e	15 13
Nov. 30			
COL		eP	10 40 21
Nov. 30			
EUR		iP	12 31 13
FGU		eP	12 31 26
HHM		e(P)	12 30 44
COL		iP	12 28 02
		i	28 17
Nov. 30			
COL		iP	14 27 04

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
EUR iP	14 27 13						
Nov. 30							
EUR iP	16 58 46						
Nov. 30							
COL eP	17 47 14						
Nov. 30							
COL iP	17 58 45						
EUR eP	18 02 19						
Nov. 30							
COL eP	18 40 19						
EUR eP	18 40 28						
i	40 56						
TUT eP	18 40 37						
Nov. 30							
FGU eP	23 46 13						
eS	46 43						

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
Local and Minor Earthquakes		GCA					
		3	19.8				
		4	05.3				
Nov.		6	13.9				
BOZ		8	18.7				
25	11.1	10	21.4				
		11	03.3				
BUT		15	19.7				
13	02.6	16	17.5				
17	11.3	17	14.5				
	12.7	18	00.4				
	13.4	19	16.5				
24	11.3	24	23.3				
25	11.1	25	09.9				
COL		HHM					
2	12.8	21	22.8				
4	05.2						
	11.6	SJP					
6	21.7	2	04.9				
7	09.6	6	04.1				
	12.8	10	05.0				
11	12.6		09.0				
14	16.8	11	22.1				
16	17.2	16	08.3				
19	10.4	28	02.5				
	12.0		03.2				
	19.1						
20	23.1	TUC					
21	20.1	3	08.9				
22	23.4	11	03.9				
23	07.7	26	02.7				
	10.9						
	15.8						
25	05.2						
26	21.1						
EUR							
3	00.8						
5	22.5						
6	23.5						
7	06.3						
9	21.6						
	23.9						
10	00.2						
	01.1						
11	00.8						
16	17.5						
17	03.7						
	14.5						
21	22.5						
24	18.6						
26	02.6						
	20.2						
FGU							
2	22.1						
5	18.0						
10	22.4						
13	23.7						
15	16.7						
16	18.0						
22	21.2						
	23.1						
25	09.9						
27	00.9						
	16.7						
29	00.8						

S-4297-4