Gs83
C65

U. S. COAST & GEODETIC SURVEY
LIBRARY & ARCHIVES
AUG - 3 1954
ACC No.

# SEISMOLOGICAL BULLETIN

June, 1954

MSI - 162

CONTENTS

List of stations ..... 1
Provisional epicenters ..... 2
Seismogram interpretations ..... 4
Local and minor earthquakes ..... 16

U. S. DEPARTMENT OF COMMERCE

Sinclair Weeks, Secretary

U. S. COAST AND GEODETIC SURVEY—WASHINGTON

R. F. A. Studds, Director

FOR OFFICIAL USE

# 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

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

**Balboa Heights, C. Z. (BH)
The Panama Canal
*Boulder City, Nev. (BC)
Bureau of Reclamation
*Bozeman, Mont. (BOZ)
Montana State College
**Burlington, Vt. (BUR)
University of Vermont
*Butte, Mont. (BUT)
Montana School of Mines
*Chicago, Ill. (CHI)
University of Chicago and U. S. Weather Bureau
College, Alaska (COL)
*Columbia, S. C. (COLU)
University of South Carolina
Honolulu, T. H. (HONO)
*Hungry Horse, Mont. (HH)
Bureau of Reclamation
*Lincoln, Nebr. (LIN)
Nebraska Wesleyan University
**Logan, Utah (LOG)
Utah State Agricultural College
*Montezuma, Chile (MONT)
Smithsonian Institution
Nelson, Nev. (NEL)
**New Kensington, Pa. (NK)
Private station, Fred Keller, Sr.
**Philadelphia, Pa. (PHIL)
The Franklin Institute
**Rapid City, S. Dak. (RC)
South Dakota State School of Mines
*Salt Lake City, Utah (SLC)
University of Utah
San Juan, Puerto Rico (SJ)
Sitka, Alaska (SIT)
Tucson, Ariz. (TUC)
Ukiah, Calif. (UK)
International Latitude Observatory
Washington, D. C. (WASH)

*Indicates a station maintained by a local institution in cooperation with the U. S. Coast and Geodetic Survey.
**Indicates a station operating on an independent basis.
Other stations are observatories of the U. S. Coast and Geodetic Survey.

All seismogram interpretations are made or revised at Washington except those for Balboa Heights. All magnitude determinations are by Pasadena unless otherwise stated. Minor earthquakes are listed at the end of the bulletin.

One asterisk (*) following an origin time indicates probable error of one-tenth minute. Two asterisks (**) following an origin time indicate probable error of one-quarter minute. All origin times and locations are determined from P data only. For Pasadena epicenters the time is given in one-tenth minute.

All seismograms are on file in the U. S. Coast and Geodetic Survey, except those from Balboa Heights, Burlington, Logan, and New Kensington which may be obtained on loan by addressing the Seismograph Station Director: - Meteorological and Hydrographic Office, Panama Canal Company, Balboa Heights, Canal Zone; University of Vermont, Burlington, Vermont; Utah State Agricultural College, Logan, Utah; 508 Pershing Drive, New Kensington, Pennsylvania.

| Date 1954 | Origin Time G. C. T. | Lat. | | Long. | | Region, Focal Depth, and Remarks |
|---|---|---|---|---|---|---|
| June | h m s | ° ′ | | ° ′ | | |
| 1 | 20 32 38* | 12 | S. | 74 | W. | Central Peru. |
| 4 | 00 45 18* | 45 | N. | 148 | E. | Kurile Islands. |
| 4 | 06 50 42* | ½ | S. | 91½ | W. | Galapagos Islands. Mag. 6-3/4. |
| 4 | 10 41 37** | | | | | Java Sea. |
| 4 | 16 01 45** | | | | | Central Gulf of California. Mag. 6 |
| 4 | 16 56 46** | | | | | Kermadec Islands. |
| 4 | 20 42 25** | | | | | Gulf of California. Mag. 5½. |
| 5 | 01 48 20* | 18 | N. | 102½ | W. | Near coast of Guerrero, Mexico. Felt. |
| 5 | 04 31 26* | 22 | S. | 69 | W. | Northern Chile. h about 200 km. |
| 5 | 13 14 24* | 36 | N. | 139½ | E. | Central Honshu, Japan. Felt. h about 60 km. |
| 5 | 14 05 32* | 39½ | N. | 21½ | E. | Central Greece. |
| 6 | 16 50 33* | 3½ | S. | 136½ | E. | Western New Guinea. Mag. 7 |
| 6 | 21 58 37* | 32 | N. | 140 | E. | Off south coast of Honshu, Japan. |
| 7 | 10 15 33* | 3½ | S. | 152½ | E. | New Britain region. h about 450 km. Mag. 6-3/4. |
| 8 | 00 16 13* | 47½ | N. | 116 | W. | Northern Idaho. Felt. |
| 9 | 10 02 50* | 18 | N. | 121½ | E. | Near north coast of Luzon, Philippine Islands. Felt at Tuguegarao, Aparri, Laoag, and Baguio. |
| 9 | 10 54 03* | 20½ | S. | 178½ | W. | Fiji Islands. h about 600 km. |
| 10 | 02 59 08** | | | | | New Hebrides Islands. |
| 10 | 04 39 38* | 33½ | N. | 38 | W. | North Atlantic Ocean. |
| 10 | 18 36 49* | 19 | S. | 179 | W. | Fiji Islands. h about 750 km. |
| 10 | 22 37 56* | 29½ | N. | 139½ | E. | South of Honshu, Japan. h about 400 km. |
| 10 | 23 34 00* | 71½ | N. | 8 | W. | Jan Mayen Islands. Felt. |
| 11 | 16 55 45* | 52 | N. | 172½ | E. | Near Islands, Aleutian Islands. h about 60 km. |
| 12 | 05 35 13* | 18 | S. | 179 | W. | Fiji Islands. h about 550 km. Mag. 6½. |
| 13 | 16 57 14* | 22 | S. | 171 | E. | Loyalty Islands. h about 100 km. |
| 14 | 06 45 50* | 17 | S. | 174 | W. | Tonga Islands. |
| 14 | 13 27 58** | | | | | Near south coast of Mindanao, Philippine Islands. Felt at Davao and Dadiangas. |
| 14 | 14 06 08* | 19 | N. | 145 | E. | Marianas Islands. |
| 14 | 16 18 45** | | | | | Sandwich Islands. |
| 15 | 13 29 59* | 5 | S. | 77 | W. | Northern Peru. h about 100 km. Mag. 6-3/4 - 7. |
| 17 | 01 42 22* | 56 | N. | 154½ | W. | Off south coast of Kodiak Island. Mag. 6½. |
| 17 | 18 39 03** | | | | | Kodiak Island aftershock. |
| 18 | 02 01 46* | 56 | N. | 154 | W. | Do. |

| Date 1954 | Origin Time G. C. T. | Lat. | | Long. | | Region, Focal Depth, and Remarks |
|---|---|---|---|---|---|---|
| June | h m s | ° ′ | | ° ′ | | |
| 18 | 17 54 40** | | | | | Sunda Strait. Felt in Djakarta. |
| 19 | 01 56 30* | 30½ | N. | 130 | E. | Off south coast of Kyushu, Japan. |
| 19 | 03 15 40* | 15½ | S. | 42 | E. | Mozambique Channel. |
| 19 | 22 09 15* | 27½ | N. | 112 | W. | Gulf of California. |
| 20 | 20 45 57* | 5 | S. | 146 | E. | Near north coast of New Guinea. h about 60 km. |
| 20 | 22 07 54* | ½ | N. | 18 | W. | Mid-Atlantic Ocean. |
| 21 | 01 48 44* | 23 | S. | 68½ | W. | Northern Chile. h about 150 km. Felt strongly at Montezuma. Mag. 6-1/2 - 6-3/4. |
| 21 | 02 06 53* | 6 | S. | 129 | E. | Banda Sea. |
| 21 | 08 59 20* | 1½ | N. | 84 | W. | Pacific Ocean, west of Ecuador. |
| 21 | 14 24 46* | 55 | N. | 162½ | E. | Near east coast of Kamchatka. h about 60 km. |
| 22 | 09 18 32** | | | | | Kermadec Islands region. h about 60 km. |
| 24 | 07 58 12* | 18½ | N. | 145½ | E. | Marianas Islands. h about 200 km. |
| 25 | 05 20 11* | 73½ | N. | 8 | E. | Arctic Ocean. |
| 28 | 04 57 48** | | | | | Antarctic Ocean, near 59°S., 142°W. |
| 28 | 21 31 45** | | | | | South central Tibet. |
| 28 | 23 24 34* | 0 | | 91½ | W. | Galapagos Islands. |
| 29 | 01 10 50* | 17 | S. | 67½ | W. | West central Bolivia. |
| 30 | 13 26 50* | 7 | N. | 37 | E. | Southwestern Ethiopia. |
| 30 | 15 05 26* | 51½ | N. | 158 | E. | Near southeast coast of Kamchatka. |
| 30 | 15 18 20* | 24 | N. | 109 | W. | Gulf of California. |

| Date and Station | | Phase (GCT) h m s |
|---|---|---|
| June 1 | | |
| HH | e(P) | 05 50 35 |
| June 1 | | |
| NEL | iP | 05 59 53.9 |
| June 1 | | |
| COL | iP | 07 00 30 |
| NEL | eP | 06 59 17 |
| | e | 59 49 |
| June 1 | | |
| COL | iP | 07 57 46 |
| June 1 | | |
| COL | iP | 08 35 18 |
| June 1 | | |
| NEL | eP | 10 15 24 |
| June 1 | | |
| COL | eP | 12 13 54 |
| June 1 | | |
| COL | eP | 12 38 26 |
| June 1 | | |
| COL | iP | 12 59 36 |
| | i | 13 04 39 |
| NEL | eP | 13 01 01 |
| June 1 | | |
| BC | eP | 17 03 29 |
| NEL | iP | 17 03 27.9 |
| | i | 03 37.0 |
| June 1 | | |
| COL | iP | 17 48 20 |
| | i | 48 44 |
| June 1 | | |
| COL | iP | 18 34 24 |
| BC | eP | 18 33 41 |
| | e | 33 50 |
| | e | 34 07 |
| | e | 34 16 |
| NEL | iP | 18 33 40.0 |
| | e | 33 48 |
| | e | 34 20 |
| TUC | eP | 18 33 46 |
| June 1 | | |
| NEL | eP | 19 47 47 |
| June 1 | | |
| BC | iP | 20 42 55.6 |
| | i | 43 01.2 |
| | i | 43 18.9 |
| BUT | eP | 20 43 34 |
| COL | iP | 20 45 57 |
| | e | 46 22 |
| COL | ePP | 20 49 42 |
| COLU | eP | 20 41 04 |
| HH | iP | 20 43 50 |
| | i | 43 57 |
| | eP'P' | 21 12 00 |
| NEL | iP | 20 42 54.5 |
| | i | 43 37.8 |
| | e | 44 12 |
| SJ | eP | 20 38 57 |
| TUC | iP | 20 42 20 |
| | i | 42 26 |
| WASH | iP | 20 41 30 |
| | i | 41 41 |
| June 1 | | |
| HH | e(P) | 22 28 46 |
| June 2 | | |
| COL | eP | 02 43 18 |
| June 2 | | |
| BC | eP | 09 41 55 |
| COL | iP | 09 41 09 |
| HH | e(P) | 09 42 17 |
| NEL | eP | 09 42 14 |
| June 2 | | |
| BC | e(P) | 10 33 40 |
| COL | eP | 10 34 18 |
| | e | 35 08 |
| NEL | iP | 10 33 39.3 |
| June 2 | | |
| COL | iP | 12 09 24 |
| HH | e(P) | 12 09 16 |
| | e | 10 42 |
| June 2 | | |
| BC | e(P) | 20 52 32 |
| | i | 52 35.0 |
| BUT | eP | 20 52 08 |
| HH | eP | 20 51 56 |
| NEL | eP | 20 52 36 |
| | i | 52 39.4 |
| June 2 | | |
| COL | iP | 21 24 25 |
| HH | e(P) | 21 24 32 |
| June 2 | | |
| COL | iP | 21 37 42 |
| June 3 | | |
| BC | iP | 05 58 00.6 |
| | i | 58 10 |
| BUT | eP | 05 58 38 |
| HH | eP | 05 58 40 |
| NEL | iP | 05 58 02.8 |
| | i | 58 15.4 |
| TUC | iP | 05 58 06 |
| | i | 58 18 |
| June 3 | | |
| HH | e(P) | 09 27 06 |
| June 3 | | |
| HH | iP | 21 35 04.5 |
| June 4 | | |
| HH | e(P) | 00 13 27 |
| June 4 | | |
| BC | eP | 00 56 31 |
| | e | 56 47.8 |
| BUT | iP | 00 55 59 |
| | iPcP | 56 31 |
| HH | iP | 00 55 44 |
| NEL | iP | 00 56 31.0 |
| | i | 56 46.8 |
| TUC | eP | 00 56 59 |
| June 4 | | |
| HH | iP | 02 04 55 |
| SJ | iP | 02 08 40 |
| June 4 | | |
| HH | e(P) | 02 21 26 |
| June 4 | | |
| HH | e(P) | 04 23 40 |
| June 4 | | |
| HH | e(P) | 04 48 02 |
| June 4 | | |
| HH | iP | 06 15 54 |
| June 4 | | |
| BC | iP | 06 58 38.0C |
| | i | 58 59.4 |
| | e | 07 04 25.0 |
| BOZ | eP | 06 59 31NW |
| | ePP | 07 01 33 |
| | eS | 06 34 |
| | eSS | 10 07 |
| | eL | 11 09 |
| BUT | eP | 06 59 37D |
| | iP | 59 38 |
| | i | 59 52 |
| BUT | iPcP | 07 01 00 |
| | e(PPP) | 03 07 |
| | eS | 06 52 |
| | eL | 10 46 |
| COL | eP | 07 02 34D |
| | iP | 02 35 |
| | e | 04 49 |
| | eS | 12 22 |
| | e | 12 40 |
| | eSS | 17 34 |
| | eL | 23 43 |
| COLU | iP | 06 57 43C |
| | i | 58 01 |
| | iPP | 59 11 |
| | eS | 07 03 04 |
| | eL | 05 29 |
| HH | eP | 06 59 56C |
| | iPcP | 07 01 09 |
| | ePP | 01 58 |
| | eS | 07 15 |
| | eP'P' | 30 23 |
| | e | 31 00 |
| NEL | iP | 06 58 34.0C |
| | e | 58 59 |
| | i | 07 00 30.3 |
| PHIL | iP | 06 58 42NE |
| | iPP | 07 00 25 |
| | eS | 05 08 |
| | eL | 08 30 |
| RC | iP | 06 59 16 |
| | ePP | 07 01 06 |
| | eS | 05 53 |
| | eL | 09 50 |
| SJ | eP | 06 57 05 |
| | iPP | 58 08 |
| | eS | 07 01 40 |
| | eL | 03 58 |
| SIT | eP | 07 01 35 |
| | eS | 10 22 |
| | eSS | 15 09 |
| | eL | 18 43 |
| TUC | eP | 06 57 56C |
| | iP | 57 58D |
| | ePP | 59 28 |
| | eS | 07 03 50 |
| | e | 05 07 |
| | eL | 06 31 |
| WASH | iP | 06 58 17C |
| | i | 58 30 |
| | ePP | 07 00 23 |
| | eS | 04 40 |
| June 4 | | |
| BC | eP | 07 32 07 |
| HH | eP | 07 33 25 |
| NEL | iP | 07 32 02.9 |

| Date and Station | | Phase | (GCT) h m s |
|---|---|---|---|
| NEL | | e | 07 32 11 |
| TUC | | eP | 07 31 25 |
| June 4 HH | | eP | 07 42 56 |
| June 4 HH | | e(P) | 08 15 44 |
| NEL | | eP | 08 15 47 |
| June 4 BC | | eP | 09 00 17 |
| HH | | iP | 09 01 09 |
| NEL | | eP | 09 00 14 |
| June 4 NEL | | eP | 09 20 14 |
| TUC | | e(P) | 09 19 36 |
| June 4 BC | | eP' | 11 00 57 |
| BUT | | eP' | 11 00 45 |
| | | e | 00 56 |
| | | ePKS | 04 07 |
| June 4 COL | | ePP | 10 59 52 |
| HH | | eP' | 11 00 35 |
| | | ePP | 02 26 |
| | | e | 02 58 |
| NEL | | iP' | 11 00 53 |
| TUC | | eP' | 11 01 03 |
| | | ePP | 03 43 |
| WASH | | eP' | 11 01 09 |
| | | iP' | 01 25 |
| June 4 COL | | iP | 15 08 53 |
| June 4 BC | | eP | 16 04 09 |
| | | i | 04 12.4 |
| | | eL | 07 09 |
| BOZ | | eP | 16 06 08 |
| | | e(S) | 09 48 |
| | | eL | 12 00 |
| BUT | | eP | 16 06 15 |
| | | e | 06 26 |
| | | e(S) | 10 02 |
| | | iL | 10 35 |
| COL | | eP | 16 10 04 |
| COLU | | eP | 16 07 46 |
| | | eS | 12 14 |
| | | eL | 14 28 |
| HH | | iP | 16 06 40 |
| | | i | 07 49 |
| | | eS | 10 49 |
| | | eL | 12 02 |
| NEL | | iP | 16 04 04.1 |
| | | iL | 06 49.4 |
| PHIL | | eS | 16 13 32 |
| | | eL | 15 38 |
| RC | | eP | 16 06 19 |
| | | eS | 09 48 |
| | | eL | 11 06 |
| SJ | | eP | 16 09 45 |
| SIT | | ePP | 16 10 08 |
| | | eS | 14 17 |
| | | eL | 16 20 |
| TUC | | eP | 16 03 08 |
| | | iP | 03 09 |
| | | e | 03 51 |
| | | iS | 04 19 |
| | | iL | 04 29 |
| June 4 COL | | eP | 16 43 52 |
| | | iP | 43 53 |
| HH | | eP | 16 46 47 |
| NEL | | eP | 16 47 39 |
| | | i | 47 47 |
| June 4 BC | | iP | 17 09 48.2 |
| COL | | iP | 17 10 27 |
| HH | | eP | 17 14 13 |
| NEL | | iP | 17 09 41.4 |
| | | e | 09 57 |
| TUC | | iP | 17 09 44 |
| June 4 BC | | eP | 20 45 03 |
| BOZ | | eP | 20 47 10 |
| | | eS | 50 41 |
| | | eL | 52 40 |
| BUT | | eP | 20 47 09 |
| | | i | 47 16 |
| | | eS | 51 02 |
| | | eL | 52 32 |
| COL | | eP | 20 50 52 |
| COLU | | eL | 20 56 50 |
| HH | | eP | 20 47 31 |
| NEL | | eP | 20 44 55 |
| | | eL | 47 04 |
| PHIL | | e(S) | 20 54 26 |
| | | eL | 58 38 |
| RC | | eP | 20 47 17 |
| | | eS | 50 44 |
| | | eL | 52 19 |
| TUC | | iP | 20 43 59 |
| | | e(S) | 45 02 |
| | | iS | 45 08 |
| | | eL | 45 18 |
| WASH | | eL | 20 58 40 |
| June 5 COL | | iP | 01 18 31 |
| June 5 BC | | iP | 01 53 17.0 |
| | | e | 54 08 |
| BOZ | | eL | 02 04 12 |
| BUT | | iP | 01 54 30 |
| | | i | 54 42 |
| | | eL | 02 04 30 |
| COL | | iP | 01 58 07 |
| | | i | 59 16 |
| COLU | | iP | 01 53 45 |
| | | iPP | 54 23 |
| HH | | iP | 01 54 53 |
| | | ePcP | 56 46 |
| NEL | | iP | 01 53 14.1 |
| | | iPP | 53 55.0 |
| | | i(PcP) | 55 58.0 |
| | | e | 56 29.0 |
| | | eL | 02 00 03 |
| RC | | eP | 01 54 23 |
| | | eL | 02 02 02 |
| SJ | | iP | 01 55 14 |
| TUC | | eP | 01 52 20 |
| | | e | 54 34 |
| | | eL | 55 52 |
| June 5 BUT | | iP | 04 33 11 |
| June 5 HH | | iP | 04 43 24 |
| | | i | 43 55 |
| NEL | | iP | 04 42 34 |
| | | epP | 43 03 |
| SJ | | eP | 04 38 46 |
| TUC | | iP | 04 42 06 |
| June 5 BUT | | iP | 04 57 41 |
| COL | | iP | 04 55 38 |
| HH | | iP | 04 57 32 |
| | | e | 58 04 |
| TUC | | eP | 04 58 12 |
| June 5 HH | | e(P) | 09 25 47 |
| June 5 COL | | iP | 12 57 21 |
| June 5 BUT | | iP | 13 26 07 |
| COL | | iP | 13 23 21 |
| HH | | iP | 13 25 54 |
| | | i | 26 13 |
| NEL | | iP | 13 26 33.8 |
| | | i | 26 46 |
| TUC | | iP | 13 26 59 |
| June 5 BUT | | iP | 14 18 13 |
| HH | | iP | 14 18 06 |
| June 5 HH | | e(P) | 20 09 04 |
| June 5 BC | | iP | 21 06 00 |
| NEL | | iP | 21 05 58.4 |
| TUC | | iP | 21 06 01 |
| June 5 HH | | e(P) | 22 55 38 |
| TUC | | e(P) | 22 55 03 |
| June 6 NEL | | iP | 02 56 21.1 |
| June 6 NEL | | eP | 03 07 02 |
| June 6 COL | | eP | 10 59 53 |
| June 6 COLU | | eP | 11 24 52 |
| NEL | | eP | 11 25 03 |
| June 6 BUT | | eP | 13 07 06 |
| June 6 NEL | | i(P) | 13 23 58.4 |
| June 6 COL | | iP | 14 39 20 |

| Date and Station | | Phase (GCT) h m s |
|---|---|---|
| June 6 | | |
| COL | eP | 14 44 49 |
| HH | eP | 14 42 23 |
| NEL | iP | 14 43 17 |
| June 6 | | |
| HH | iP | 15 35 17 |
| June 6 | | |
| HH | e(P) | 16 19 49 |
| June 6 | | |
| BC | eP | 17 04 59C |
| | ePP | 09 19 |
| BOZ | ePP | 17 10 06 |
| | eSKS | 15 46 |
| | ePS | 18 54 |
| | eSS | 24 34 |
| | eSSS | 29 06 |
| | eL | 35 16 |
| BUT | eP | 17 05 03D |
| | ePP | 09 33 |
| | eSKS | 15 42 |
| | eSS | 24 28 |
| COL | eP | 17 03 24C |
| | iP | 03 25D |
| | iPP | 06 48 |
| | i | 07 44 |
| | i | 08 08 |
| | eSKS | 13 50 |
| | iS | 14 03 |
| | iScS | 14 33 |
| | iPS | 15 08 |
| | ePPS | 15 50 |
| | eSS | 19 35 |
| | e(SSS) | 22 20 |
| | eL | 26 00 |
| | eP'P' | 29 17 |
| COLU | eP' | 17 09 50 |
| | iP' | 10 04C |
| | ePP | 12 32 |
| | iPKS | 13 31 |
| | eSKKS | 19 22 |
| | eSKSP | 22 40 |
| | ePPS | 24 33 |
| | eSS | 30 16 |
| | eSSS | 35 47 |
| | eL | 45 25 |
| HONO | iP | 17 01 50D |
| | eS | 10 28 |
| | eSS | 14 20 |
| | eL | 18 42 |
| HH | eP | 17 04 47 |
| | iP' | 08 20 |
| | iPP | 09 16 |
| | iPKKP | 20 27 |
| | eP'P' | 28 48 |
| NEL | eP | 17 04 59 |
| | eP' | 08 14 |

| Date and Station | | Phase (GCT) h m s |
|---|---|---|
| NEL | ePP | 17 09 04 |
| | ePKKP | 20 35 |
| | eP'P' | 28 37 |
| PHIL | ePP | 17 12 28 |
| | ePKS | 13 23 |
| | eSKS | 17 19 |
| | eSKKS | 18 53 |
| | eSKKKS | 19 23 |
| | eSKSP | 22 10 |
| | eSS | 30 09 |
| | eSSS | 44 16 |
| | e(L) | 48 17 |
| RC | e(P') | 17 09 31 |
| | ePP | 10 18 |
| | eSKS | 16 09 |
| | e(PS) | 19 54 |
| | eSSS | 31 07 |
| | eL | 36 20 |
| SJ | iP' | 17 10 31D |
| | ePP | 14 39 |
| | eSKS | 18 14 |
| | eSKKS | 21 19 |
| | eSKSP | 24 49 |
| | e(PPS) | 26 12 |
| | eSS | 33 30 |
| | e(SSS) | 40 20 |
| | e(L) | 55 34 |
| SIT | eP | 17 04 03 |
| | ePP | 07 15 |
| | eSKS | 14 26 |
| | eS | 14 42 |
| | iS | 14 54 |
| | ePS | 15 28 |
| | ePPS | 16 00 |
| | eSS | 20 35 |
| | eL | 26 41 |
| TUC | eP' | 17 09 15C |
| | ePP | 09 58 |
| | eSKS | 16 00 |
| | eSKKS | 17 08 |
| | iPS | 19 31 |
| | ePKKP | 20 23C |
| | ePPS | 20 33 |
| | eSS | 25 36 |
| | eSSS | 29 52 |
| | eL | 44 56 |
| WASH | eP' | 17 09 44D |
| | iP' | 09 48 |
| | ePP | 12 16 |
| | ePKS | 13 22 |
| | eSSS | 44 14 |
| June 6 | | |
| HH | e(P) | 21 32 18 |
| June 6 | | |
| BC | iP | 22 11 03 |
| | e | 11 29 |
| BUT | iP | 22 10 39 |
| | i | 11 05 |
| | ePP | 13 31 |

| Date and Station | | Phase (GCT) h m s |
|---|---|---|
| COL | iP | 22 08 02 |
| | ipP | 08 24 |
| HH | iP | 22 10 28 |
| | e | 10 49 |
| TUC | eP | 22 11 55 |
| June 7 | | |
| COL | e(P) | 00 02 07 |
| | i | 02 54 |
| June 7 | | |
| COL | iP | 06 19 47 |
| June 7 | | |
| COL | eP | 09 34 50 |
| June 7 | | |
| COL | iP | 09 56 09 |
| HH | eP | 09 59 11 |
| NEL | eP | 10 00 11 |
| June 7 | | |
| BC | eP | 10 28 10C |
| | iP | 28 11D |
| | i | 28 24 |
| | esP | 30 54 |
| BOZ | epP | 10 30 05 |
| | eSKS | 38 05 |
| | eS | 39 08 |
| | ePS | 41 17 |
| | esS | 41 56 |
| | eSS | 45 28 |
| | e | 51 26 |
| BUT | eP | 10 28 17C |
| | ipP | 30 02 |
| | ePP | 32 16 |
| | eSKS | 38 12 |
| | e(S) | 38 56 |
| | esS | 42 03 |
| | e(SS) | 45 44 |
| | e(SSS) | 51 10 |
| | eL | 55 20 |
| COL | iP | 10 27 04C |
| | epP | 28 39 |
| | ipP | 28 41 |
| | esP | 29 11 |
| | ePPP | 32 11 |
| | eS | 36 29 |
| | iS | 36 31 |
| | i | 36 33 |
| | esS | 39 10 |
| | esPS | 40 52 |
| | eSS | 41 58 |
| | i | 45 39 |
| | eL | 50 33 |
| COLU | eP' | 10 33 42C |
| | iPP | 35 21 |
| | epPP | 36 44 |
| | esPP | 37 42 |
| | eSKS | 40 02 |
| | eS | 42 34 |

| Date and Station | | Phase (GCT) h m s |
|---|---|---|
| COLU | e | 10 43 19 |
| | eSS | 51 06 |
| | esSS | 54 06 |
| | eSSS | 56 32 |
| | eL | 11 05 20 |
| HONO | iP | 10 24 26 |
| | ipP | 26 16 |
| | isP | 26 47 |
| | eS | 31 30 |
| | iS | 31 31 |
| | iScS | 33 29 |
| | eL | 36 45 |
| HH | iP | 10 28 13C |
| | ipP | 29 57 |
| | eSKS | 38 08 |
| | eS | 38 45 |
| | esP | 40 11 |
| | iPKKP | 45 05 |
| | eP'P' | 53 18 |
| NEL | iP | 10 28 11C |
| | ipP | 29 54 |
| | iPP | 32 04 |
| PHIL | epPP | 10 37 13 |
| | eS | 42 40 |
| | eSP | 43 54 |
| | ePS | 45 08 |
| | eSPP | 45 32 |
| | eSS | 51 30 |
| | eSSS | 56 26 |
| | eL | 11 13 36 |
| RC | e(P) | 10 28 51 |
| | e | 31 31 |
| | eSKS | 38 42 |
| | eSP | 41 35 |
| SJ | iP' | 10 34 09C |
| | i | 34 17 |
| | epP' | 36 03 |
| | ePP | 36 50 |
| | iPP | 37 11 |
| | ePKS | 37 53 |
| | esPP | 40 11 |
| | eSPP | 49 06 |
| | eSS | 54 50 |
| | eSSS | 11 00 44 |
| SIT | eP | 10 27 18 |
| | epP | 28 34 |
| | iS | 37 01 |
| | iSP | 37 52 |
| | esS | 39 59 |
| | esPS | 41 05 |
| | eSS | 42 22 |
| | esSS | 45 10 |
| | eL | 49 28 |
| TUC | eP | 10 28 28D |
| | iP | 28 29C |
| | epP | 30 11 |
| | ePP | 32 21 |
| | iPP | 32 31 |
| | eS | 39 04 |
| | i | 40 39 |

| Date and Station | | Phase (GCT) h m s |
|---|---|---|
| TUC | eSS | 10 46 12 |
| | eL | 11 02 27 |
| WASH | eP' | 10 33 30 |
| June 7 HH | i(P) | 13 02 06 |
| June 7 BUT | eP | 16 56 36 |
| June 7 NEL | eP | 19 10 50 |
| June 7 BC | eP | 21 08 22 |
| | e | 08 43 |
| | e | 09 03 |
| NEL | eP | 21 08 21 |
| | e | 08 38 |
| | e | 08 50 |
| June 7 COL | eP | 21 21 43 |
| | iP | 21 44 |
| HH | eP | 21 22 50 |
| NEL | eP | 21 22 45 |
| June 7 HH | iP | 21 24 22 |
| June 7 HH | iP | 21 33 28 |
| June 7 NEL | iP | 22 11 02 |
| | i | 11 13 |
| | epP | 11 24 |
| | e | 14 12 |
| June 7 COL | iP | 23 27 42 |
| BC | eP | 23 23 44 |
| SJ | e(P) | 23 21 26 |
| June 7 NEL | eP | 23 23 42 |
| June 8 BUT | eP | 00 17 05 |
| | i | 17 15 |
| | i | 17 27 |
| | iS | 17 53 |
| | iL | 18 04 |
| HH | iP | 00 16 41 |
| | iS | 17 01 |
| NEL | eP | 00 19 05 |
| June 8 HH | eP | 02 08 19 |

| Date and Station | | Phase (GCT) h m s |
|---|---|---|
| June 8 COL | iP | 05 55 02 |
| HH | eP | 05 54 11 |
| | iP | 54 13 |
| June 8 BUT | e(P) | 07 39 17 |
| June 8 COL | eP | 08 42 24 |
| June 8 HH | e(P) | 09 20 15 |
| June 8 HH | iP | 09 44 16 |
| | e | 44 29 |
| June 8 BC | eP | 15 27 53 |
| NEL | eP | 15 27 50 |
| June 8 COL | iP | 16 59 40 |
| | e(S) | 17 01 15 |
| | eL | 01 41 |
| HH | iP | 17 02 56 |
| NEL | eP | 17 04 08 |
| | e | 05 38 |
| | i | 06 46.4 |
| TUC | eP | 17 04 49 |
| June 8 HH | iP | 17 06 26 |
| June 8 HH | eP | 20 56 57 |
| June 8 HH | e(P) | 21 02 36 |
| June 8 HH | e(P) | 21 14 30 |
| SJ | eP | 21 10 11 |
| June 8 COL | iP | 21 53 59 |
| | eS | 54 59 |
| | eL | 55 12 |
| June 8 COL | e(P) | 22 02 24 |
| June 8 HH | e(P) | 23 43 53 |
| June 9 HH | iP | 00 35 49 |
| June 9 NEL | eP | 02 11 55 |

| Date and Station | | Phase (GCT) h m s |
|---|---|---|
| June 9 BC | eP | 04 30 02 |
| | e | 30 13 |
| COL | iP | 04 30 10 |
| NEL | iP | 04 30 03.9 |
| | i | 30 23.5 |
| SJ | eP' | 04 36 11 |
| TUC | eP | 04 30 06 |
| June 9 COL | iP | 05 16 45 |
| HH | eP | 05 16 46 |
| | e | 19 56 |
| NEL | e(P) | 05 14 47 |
| | e | 15 12 |
| | e | 16 05 |
| | e | 16 44 |
| TUC | eP | 05 16 31 |
| June 9 HH | e(P) | 05 45 32 |
| June 9 HH | i(P) | 07 28 25 |
| June 9 COL | eP | 07 36 12 |
| June 9 COL | iP | 10 14 30 |
| HH | iP | 10 16 29 |
| | ePP | 20 34 |
| SJ | eP' | 10 22 23 |
| June 9 BC | eP | 11 05 24 |
| | e | 06 35 |
| COL | iP | 11 05 56 |
| HH | iP | 11 06 02 |
| | e | 09 40 |
| NEL | iP | 11 05 28.1 |
| | e | 05 44 |
| | e | 06 39 |
| TUC | iP | 11 05 34 |
| June 9 COL | eP | 11 12 11 |
| June 9 COL | iP | 13 31 04 |
| June 9 COL | eP | 14 27 55 |

| Date and Station | | Phase (GCT) h m s |
|---|---|---|
| June 9 HH | e(P) | 18 36 58 |
| June 9 HH | eP | 19 07 20 |
| | e | 10 12 |
| June 9 COL | iP | 21 33 04 |
| HH | eP | 21 33 53 |
| NEL | iP | 21 33 39.9 |
| June 9 COL | iP | 21 39 15 |
| June 9 NEL | iP | 22 48 19.5 |
| | e | 49 08 |
| | e | 49 46 |
| TUC | eP | 22 48 14 |
| | epP | 48 29 |
| June 9 HH | e(P) | 22 54 08 |
| June 10 COL | iP | 03 12 03 |
| HH | eP | 03 16 24 |
| NEL | iP | 03 12 05.9 |
| TUC | eP | 03 12 15 |
| June 10 BUT | eP | 04 49 24 |
| COL | iP | 04 50 38 |
| HH | iP | 04 49 25 |
| NEL | iP | 04 49 59.1 |
| SJ | eP | 04 45 43 |
| June 10 HH | e(P) | 10 17 40 |
| June 10 HH | e(P) | 11 04 11 |
| June 10 HH | iP | 12 21 34 |
| June 10 COL | iP | 14 46 40 |
| NEL | iP | 14 49 26.0 |
| HH | iP | 14 48 55 |
| June 10 NEL | eP | 18 17 47 |

| Date and Station | | Phase (GCT) h m s |
|---|---|---|
| June 10 | | |
| COL | iP | 18 18 30 |
| June 10 | | |
| BC | iP | 18 48 01.9C |
| | ePcP | 48 23 |
| | ipP | 50 51.7D |
| | i | 51 07.1 |
| | ePP | 51 20 |
| BUT | iP | 18 48 32C |
| | ipP | 51 23 |
| | iPP | 52 12 |
| COL | iP | 18 48 24C |
| | i | 50 52 |
| | ipP | 51 18 |
| | iPP | 51 32 |
| HONO | iP | 18 44 12C |
| | eS | 50 06 |
| HH | iP | 18 48 33C |
| | ipP | 51 25 |
| | ePP | 52 15 |
| | eS | 57 59 |
| | iPKKP | 19 06 10 |
| | eSKKP | 08 43 |
| | eP'P' | 14 20 |
| NEL | iP | 18 48 01.2C |
| | iPcP | 48 17 |
| | ipP | 50 51.0 |
| | iPP | 51 16.2 |
| SJ | eP' | 18 55 39 |
| TUC | iP | 18 48 08C |
| | ipP | 50 57D |
| | iPP | 51 07D |
| June 10 | | |
| NEL | e(P) | 19 16 58 |
| June 10 | | |
| BC | iP | 22 49 49.9 |
| | epP | 51 18 |
| BUT | iP | 22 49 30 |
| | ipP | 50 56 |
| COL | iP | 22 47 01 |
| HH | iP | 22 49 19 |
| | ipP | 50 46 |
| | eS | 58 42 |
| NEL | iP | 22 49 50.4 |
| | ePcP | 50 15 |
| | iPcP | 50 23 |
| | ipP | 51 39 |
| TUC | eP | 22 50 13 |
| | epP | 51 43 |
| June 10 | | |
| HH | e(P) | 23 39 35 |

| Date and Station | | Phase (GCT) h m s |
|---|---|---|
| June 10 | | |
| BUT | eP | 23 43 06 |
| | e | 43 13 |
| COL | iP | 23 41 48 |
| | i | 41 55 |
| HH | eP | 23 42 54 |
| TUC | eP | 23 44 33 |
| June 11 | | |
| COL | iP | 00 02 02 |
| HH | eP | 00 06 31 |
| | i | 06 46 |
| June 11 | | |
| HH | e(P) | 01 02 11 |
| June 11 | | |
| BUT | eP | 03 02 27 |
| HH | eP | 03 03 09 |
| June 11 | | |
| HH | e(P) | 05 30 04 |
| June 11 | | |
| HH | e(P) | 09 05 21 |
| June 11 | | |
| HH | e(P) | 10 52 56 |
| June 11 | | |
| COL | eP | 11 37 12 |
| HH | eP | 11 38 38 |
| June 11 | | |
| COL | eP | 11 52 12 |
| HH | eP | 11 53 01 |
| June 11 | | |
| COL | iP | 11 57 15 |
| June 11 | | |
| HH | eP | 13 26 34 |
| June 11 | | |
| COL | iP | 13 37 43 |
| NEL | eP | 13 37 13 |
| TUC | eP | 13 37 19 |
| | e | 38 50 |
| June 11 | | |
| BUT | iP | 14 09 36 |
| COL | iP | 14 07 28 |
| HH | iP | 14 09 26 |
| | i | 09 45 |
| NEL | eP | 14 09 45 |
| | e | 10 03 |
| | e | 10 42 |

| Date and Station | | Phase (GCT) h m s |
|---|---|---|
| June 11 | | |
| BC | iP | 17 04 59 |
| BUT | eP | 17 04 20 |
| | i | 04 55 |
| COL | iP | 17 00 56 |
| | eS | 05 11 |
| | eL | 05 56 |
| HH | iP | 17 04 03 |
| | ipP | 04 14 |
| | i | 04 21 |
| | eS | 10 42 |
| | esS | 11 14 |
| NEL | iP | 17 05 00 |
| TUC | iP | 17 05 35 |
| | ipP | 05 45 |
| SJ | iP | 17 09 00 |
| June 11 | | |
| HH | e(P) | 21 51 35 |
| June 11 | | |
| COL | iP | 22 15 42 |
| | i | 15 52 |
| June 12 | | |
| NEL | e(P) | 00 36 03 |
| June 12 | | |
| BC | eP | 04 42 39 |
| | e | 42 43 |
| COL | iP | 04 43 06 |
| HH | eP | 04 43 13 |
| NEL | eP | 04 42 38 |
| TUC | eP | 04 42 45 |
| June 12 | | |
| BC | iP | 05 46 34.7D |
| | epP | 48 37C |
| | ePP | 49 43 |
| | eS | 55 59 |
| | eP'P' | 06 13 19 |
| BUT | iP | 05 47 06C |
| | ipP | 49 12 |
| | iPP | 50 37 |
| | epPP | 52 26 |
| | eSKS | 56 41 |
| COL | iP | 05 46 57C |
| | ipP | 49 06 |
| HONO | iP | 05 42 35D |
| HH | iP | 05 47 06C |
| | epP | 49 11 |
| | ePP | 50 36 |
| | epPP | 52 32 |
| | iSKS | 56 39 |

| Date and Station | | Phase (GCT) h m s |
|---|---|---|
| HH | iPKKP | 06 04 52 |
| | iP'P' | 12 58 |
| NEL | iP | 05 46 33.5C |
| | iPcP | 46 48 |
| | ipP | 48 37.0 |
| | iPP | 49 41.5 |
| | i | 49 58 |
| SLC | iP | 05 46 56C |
| | e | 47 34 |
| | ipP | 49 02 |
| | ePP | 50 19 |
| | iPP | 50 22 |
| | eSKS | 56 27 |
| SJ | iP' | 05 52 58C |
| | ePP | 54 13 |
| | ipPP | 55 41 |
| TUC | iP | 05 46 41C |
| | i | 46 48 |
| | epP | 48 41C |
| | ipP | 48 43D |
| | eS | 56 09 |
| | ePKKP | 06 05 06 |
| | eP'P' | 13 10 |
| | eSKPP' | 15 46 |
| June 12 | | |
| COL | eP | 05 56 26 |
| NEL | eP | 05 56 02 |
| June 12 | | |
| SJ | iP | 06 03 31 |
| | i | 03 38 |
| NEL | e(P) | 06 13 16 |
| June 12 | | |
| BH | iP | 06 28 59 |
| BC | eP | 06 35 03 |
| HH | eP | 06 37 44 |
| NEL | iP | 06 35 01.6 |
| SJ | eP | 06 32 28 |
| TUC | eP | 06 34 21 |
| June 12 | | |
| BC | eP | 07 11 53 |
| | e | 12 20 |
| June 12 | | |
| HH | eP | 09 26 39 |
| | i | 27 41 |
| June 12 | | |
| HH | eP | 15 55 11 |
| June 12 | | |
| BC | eP | 21 49 22 |
| | eS | 51 05 |
| | e | 51 11 |

| Date and Station | | Phase (GCT) h m s |
|---|---|---|
| BC | e | 21 51 41 |
| | eL | 52 53 |
| TUC | eP | 21 48 21 |
| | i | 48 27 |
| | i | 48 40 |
| | iS | 49 13 |
| | i | 49 33 |
| | iL | 51 06 |
| June 12 HH | e(P) | 22 46 38 |
| June 12 BUT | eP | 23 00 08 |
| HH | iP | 22 59 56 |
| June 13 COL | iP | 01 10 03 |
| | e | 10 10 |
| HH | e(P) | 01 13 04 |
| TUC | eP | 01 14 25 |
| June 13 COL | iP | 01 14 46 |
| June 13 SJ | iP | 01 41 32 |
| June 13 COL | iP | 05 25 36 |
| June 13 SLC | eP | 06 05 43 |
| June 13 BC | e(P) | 06 39 40 |
| June 13 SJ | e(P) | 07 38 59 |
| June 13 BC | e(P) | 10 31 28 |
| June 13 COL | iP | 15 08 03 |
| June 13 BC | e(P) | 16 01 19 |
| | e | 01 37 |
| NEL | e(P) | 16 01 17 |
| | e | 01 21 |
| June 13 BC | e(P) | 17 06 33 |
| BUT | eP | 17 06 54 |
| HH | iP | 17 07 09 |
| SJ | eP | 17 01 30 |
| June 13 BC | eP | 17 10 11 |
| | e | 10 30 |
| | e(pP) | 10 46 |
| COL | iP | 17 10 16 |
| HH | e(P) | 17 10 44 |
| NEL | eP | 17 10 11 |
| | e | 10 16 |
| | e | 10 30 |
| | i(pP) | 10 46.0 |
| | e(PP) | 14 13 |
| TUC | eP | 17 10 18 |
| June 13 HH | e(P) | 17 40 37 |
| NEL | e(P) | 17 40 43 |
| SJ | eP | 17 42 39 |
| June 13 HH | i(P) | 18 03 18 |
| June 13 HH | i(P) | 21 33 27 |
| June 13 COL | iP | 22 29 21 |
| | i | 29 26 |
| | i | 29 36 |
| HH | e(P) | 22 32 28 |
| June 14 BUT | eP | 05 04 06 |
| | iS | 04 32 |
| HH | eP | 05 04 32 |
| | e(S) | 05 32 |
| June 14 BC | eP | 06 57 44 |
| | e | 57 58 |
| BUT | eP | 06 58 20 |
| | e | 58 53 |
| COL | iP | 06 58 21 |
| HH | eP | 06 58 21 |
| NEL | iP | 06 57 42.9 |
| | e | 57 57 |
| | e | 58 16 |
| TUC | eP | 06 57 49 |
| June 14 BC | e(P) | 06 59 36 |
| BUT | e(P) | 06 59 23 |
| HH | i(P) | 06 59 12 |
| June 14 TUC | e(P) | 09 14 32 |
| June 14 BC | eP | 10 16 37 |
| BUT | eP | 10 16 29 |
| HH | eP | 10 16 33 |
| NEL | eP | 10 16 35 |
| | e | 16 51 |
| SLC | eP | 10 16 25 |
| | e | 17 04 |
| TUC | e(P) | 10 16 16 |
| June 14 NEL | iP | 11 19 08.3 |
| June 14 BUT | eP | 13 41 20 |
| COL | iP | 13 40 27 |
| | i | 40 34 |
| HH | e(P) | 13 42 11 |
| MONT | eP' | 13 48 39 |
| NEL | e(P') | 13 46 36 |
| | e | 47 02 |
| SJ | iP' | 13 48 17 |
| June 14 BC | eP | 14 18 55 |
| BUT | iP | 14 18 43 |
| COL | eP | 14 16 39 |
| HH | iP | 14 18 36 |
| | e | 19 27 |
| NEL | iP | 14 19 54.6 |
| | e | 20 58 |
| June 14 BC | eP' | 16 37 37 |
| BUT | iP' | 16 37 51 |
| COL | eP' | 16 38 32 |
| | iP' | 38 44 |
| HH | iP' | 16 37 54 |
| | ePKS | 41 15 |
| | e(PKKP) | 47 49 |
| MONT | iP | 16 27 25 |
| | i | 27 40 |
| | e(PP) | 29 38 |
| NEL | iP' | 16 37 37.3 |
| | ePP | 38 59 |
| | e | 39 19 |
| | ePKKP | 47 50 |
| SLC | eP' | 16 37 43 |
| SJ | eP | 16 31 17 |
| TUC | eP' | 16 37 29 |
| June 14 NEL | eP | 16 51 08 |
| | e | 51 20 |
| | e | 51 49 |
| June 14 NEL | eP | 17 40 43 |
| | i | 40 48 |
| June 14 HH | iP | 17 46 43 |
| June 14 BC | e(P) | 18 29 21 |
| HH | iP | 18 28 45 |
| NEL | eP | 18 29 26 |
| June 14 BC | e(P) | 19 06 08 |
| | e | 06 22 |
| NEL | eP | 19 06 13 |
| | e | 06 20 |
| June 14 HH | eP | 20 19 03 |
| June 14 HH | e(P) | 22 45 03 |
| June 15 HH | eP | 00 28 04 |
| June 15 TUC | eP | 02 37 50 |
| June 15 NEL | iP | 06 51 27.1 |
| June 15 COL | iP | 07 34 38 |
| June 15 NEL | eP | 10 58 37 |
| June 15 HH | eP | 12 31 22 |
| June 15 BC | iP | 13 39 19.3D |
| | ipP | 39 48.6C |
| | esP | 40 05 |
| | e | 40 20 |
| | eP'P' | 14 09 22 |
| | e | 10 54 |
| BOZ | eP | 13 39 52 |
| | epP | 40 23 |
| | eS | 47 52 |
| | esS | 48 44 |
| | eSS | 52 03 |
| | eL | 54 28 |

B 4297-4

| Date and Station | | Phase (GCT) |
|---|---|---|
| | | h m s |
| BUT | iP | 13 39 58D |
| | i | 40 08 |
| | ipP | 40 29 |
| | iScP | 44 27 |
| | eS | 48 04 |
| | eSS | 52 18 |
| | eL | 55 19 |
| COL | iP | 13 42 34D |
| | ipP | 43 05 |
| | iPP | 46 08 |
| | iS | 53 00 |
| | esS | 53 53 |
| COLU | iP | 13 37 21.5D |
| | ipP | 37 50 |
| | isP | 38 00 |
| | i(PP) | 38 48 |
| | ePP | 38 56 |
| | iPcP | 39 25 |
| | i(pPP) | 39 54 |
| | eS | 43 14 |
| | e(sS) | 43 45 |
| | i | 44 08 |
| | eL | 46 06 |
| | i | 55 43 |
| HH | iP | 13 40 15D |
| | ipP | 40 47 |
| | i(PP) | 42 21 |
| | epPP | 43 01 |
| | eS | 48 38 |
| | esS | 49 28 |
| | eL | 56 20 |
| | e(PKKP) | 14 02 49 |
| | eP'P' | 09 05 |
| MONT | iP | 13 34 16 |
| NEL | iP | 13 39 17.7D |
| | epP | 39 40 |
| | ePP | 41 39 |
| | eP'P' | 14 09 16 |
| PHIL | iP | 13 38 06S |
| | epP | 38 36 |
| | eS | 44 35 |
| | isS | 45 29 |
| | eScS | 47 50 |
| | eL | 49 00 |
| RC | eP | 13 39 22 |
| | ipP | 39 52 |
| | eS | 46 56 |
| | isS | 47 49 |
| SIC | iP | 13 39 31D |
| | i | 39 39 |
| | ipP | 39 57 |
| | isP | 40 11 |
| | i(PcP) | 40 21 |
| | eS | 47 09 |
| | iS | 47 12 |
| | esS | 47 43 |
| | eScS | 49 08 |
| | eSS | 50 58 |
| | e(sSS) | 52 01 |
| SJ | iP | 13 35 23C |
| | ipP | 35 50 |
| | isP | 36 03 |
| | eS | 39 46 |
| | eL | 40 30 |
| TUC | iP | 13 38 43D |
| | ipP | 39 13D |
| | isP | 39 27 |
| | eS | 45 44 |
| | esS | 46 34 |
| | eSS | 49 27 |
| | esSS | 50 12 |
| | eL | 51 20 |
| WASH | iP | 13 38 01 |
| | ipP | 38 28 |
| | e(PP) | 40 29 |
| | e(S) | 45 21 |
| June 15 | | |
| BC | i(P) | 13 42 37.1 |
| COL | iP | 13 38 51C |
| | i | 40 29 |
| | i | 40 54 |
| HH | i(P) | 13 41 46 |
| NEL | i(P) | 13 42 36.7 |
| SLC | i(P) | 13 42 25 |
| TUC | i(P) | 13 43 06 |
| June 15 | | |
| BC | e(P) | 20 50 18 |
| HH | eP | 20 49 50 |
| | e | 50 53 |
| June 16 | | |
| COL | iP | 02 13 05 |
| HH | e(P) | 02 19 21 |
| June 16 | | |
| COL | eP | 15 02 01 |
| June 16 | | |
| BC | e(P) | 16 04 34 |
| | e | 05 02 |
| | e | 05 46 |
| | e | 05 55 |
| BOZ | eP | 16 05 54 |
| BUT | eP | 16 06 02 |
| HH | e(P) | 16 05 49 |
| | e | 06 12 |
| NEL | eP | 16 05 01 |
| | e | 06 11 |
| | e | 07 21 |
| TUC | e(P) | 16 04 37 |
| | e | 09 40 |
| | eL | 25 58 |
| June 16 | | |
| BC | e(P) | 17 19 33 |
| COL | iP | 17 19 59 |
| NEL | eP | 17 19 31 |
| June 16 | | |
| HH | e(P) | 22 20 43 |
| June 17 | | |
| COL | eP | 00 04 23 |
| HH | iP | 00 07 33 |
| NEL | eP | 00 08 55 |
| June 17 | | |
| BUT | eP | 01 18 12 |
| June 17 | | |
| BC | iP | 01 49 05D |
| | i | 49 15.0C |
| | e | 49 51 |
| | iPcP | 51 45.3 |
| BOZ | iP | 01 48 22C |
| | ePP | 49 10 |
| | eS | 53 11 |
| | eL | 55 20 |
| BUT | iP | 01 48 14D |
| | i(PcP) | 51 30 |
| | eS | 53 00 |
| | eL | 54 33 |
| COL | iP | 01 44 38C |
| | i(S) | 46 02 |
| | eL | 46 14 |
| COLU | iP | 01 51 45D |
| | ePP | 53 42 |
| | eS | 59 15 |
| | e(SS) | 02 03 12 |
| | eL | 04 53 |
| HONO | iP | 01 49 18D |
| | eS | 54 51 |
| | eL | 57 11 |
| HH | iP | 01 47 55D |
| | iPP | 48 55 |
| | i(PcP) | 51 26 |
| | eS | 52 21 |
| | e | 52 36 |
| | eL | 54 23 |
| | i | 55 05 |
| NEL | iP | 01 49 07D |
| | oPcP | 51 41 |
| | e | 53 23 |
| | e | 55 39 |
| PHIL | eP | 01 51 36W |
| | eS | 59 04 |
| | eL | 02 03 36 |
| RC | iP | 01 49 12 |
| | ePP | 50 30 |
| | eS | 54 40 |
| | iS | 54 45 |
| | e | 54 54 |
| | e | 55 14 |
| | eL | 57 04 |
| SLC | eP | 01 48 48 |
| | eS | 53 56 |
| | eL | 56 22 |
| SJ | iP | 01 54 00 |
| | eS | 02 03 26 |
| | eSS | 08 34 |
| | eL | 16 05 |
| SIT | eP | 01 44 53 |
| | e(S) | 46 28 |
| | eL | 47 00 |
| TUC | iP | 01 49 48D |
| | i | 50 01C |
| | iPP | 51 13 |
| | i(PcP) | 52 00 |
| | eS | 55 48 |
| | eSS | 58 42 |
| | eL | 59 41 |
| UK | eP | 01 48 05 |
| | eS | 52 31 |
| | eL | 54 31 |
| WASH | eP | 01 51 35 |
| | iP | 51 36 |
| | ePP | 53 28 |
| | e(S) | 58 33 |
| | e(SS) | 02 02 58 |
| | eL | 06 37 |
| June 17 | | |
| HH | i(P) | 02 17 29 |
| June 17 | | |
| BUT | eP | 02 21 44 |
| COL | iP | 02 18 57 |
| HH | iP | 02 21 32 |
| | i | 21 52 |
| June 17 | | |
| COL | eP | 03 18 42 |
| June 17 | | |
| HH | e(P) | 04 44 01 |
| June 17 | | |
| HH | iP | 06 02 24 |
| | e | 03 18 |
| June 17 | | |
| HH | iP | 06 04 25 |
| June 17 | | |
| COL | iP | 06 11 11 |

| Date and Station | | Phase | (GCT) h m s |
|---|---|---|---|
| June 17 | | | |
| COL | | eP | 07 52 17 |
| June 17 | | | |
| BC | | e(P) | 09 56 15 |
| | | e | 56 36 |
| HH | | e(P) | 09 54 48 |
| NEL | | eP | 09 56 31 |
| | | e | 56 39 |
| | | e | 56 52 |
| June 17 | | | |
| COL | | eP | 14 13 14 |
| June 17 | | | |
| BC | | e(P) | 16 45 33 |
| | | e | 45 49 |
| | | e | 46 19 |
| BOZ | | e(P) | 16 45 54 |
| NEL | | eP | 16 45 47 |
| June 17 | | | |
| BC | | e(P) | 18 45 24 |
| | | ePP | 46 45 |
| BOZ | | eP | 18 45 03 |
| COL | | iP | 18 41 16 |
| | | i | 41 18 |
| | | eS | 43 33 |
| | | eL | 43 56 |
| HH | | eP | 18 44 34 |
| | | iPcP | 48 04 |
| NEL | | iP | 18 45 45.9 |
| June 17 | | | |
| BC | | e(P) | 19 20 39 |
| | | e | 21 23 |
| | | e | 21 57 |
| NEL | | eP | 19 20 51 |
| June 17 | | | |
| HH | | e(P) | 19 26 03 |
| June 17 | | | |
| HH | | i(P) | 19 57 58 |
| June 17 | | | |
| COL | | i(P) | 20 28 07 |
| HH | | eP | 20 30 00 |
| | | iP | 30 01 |
| NEL | | eP | 20 31 05 |
| June 17 | | | |
| HH | | iP | 21 22 23 |
| June 17 | | | |
| BC | | e(P) | 23 54 28 |
| | | e | 54 46 |
| BC | | e | 23 54 50 |
| | | e | 55 22 |
| June 18 | | | |
| BC | | e(P) | 01 57 17 |
| | | e | 57 41 |
| NEL | | iP | 01 57 18 |
| June 18 | | | |
| BC | | e(P) | 02 08 23 |
| | | e | 08 37 |
| | | e | 08 43 |
| BOZ | | eP | 02 07 45 |
| COL | | iP | 02 03 59 |
| HH | | iP | 02 07 16 |
| | | ePcP | 10 46 |
| NEL | | iP | 02 08 28.9 |
| SLC | | eP | 02 08 08 |
| June 18 | | | |
| COL | | iP | 09 15 06 |
| June 18 | | | |
| HH | | e(P) | 10 21 45 |
| NEL | | eP | 10 23 07 |
| June 18 | | | |
| BOZ | | eP | 12 07 49 |
| June 18 | | | |
| HH | | eP | 12 48 54 |
| | | e | 49 59 |
| | | i | 53 58 |
| June 18 | | | |
| NEL | | eP | 12 55 10 |
| June 18 | | | |
| COL | | eP | 15 15 07 |
| June 18 | | | |
| BC | | e(P) | 17 39 15 |
| NEL | | e(P) | 17 39 21 |
| | | e | 40 32 |
| June 18 | | | |
| BC | | iP' | 18 13 50.9 |
| | | ePP | 17 12 |
| | | ePKS | 17 29 |
| BOZ | | eP' | 18 13 52 |
| COL | | eP | 18 08 41 |
| | | e | 12 10 |
| COLU | | iP' | 18 14 33D |
| | | i | 14 39 |
| HH | | iP' | 18 13 46 |
| | | e | 14 07 |
| HH | | ePP | 18 15 34 |
| | | eSKKS | 22 29 |
| NEL | | eP' | 18 13 47 |
| | | iP' | 14 00.3 |
| | | ePP | 16 20 |
| | | iPKS | 17 22.2 |
| SLC | | eP' | 18 13 58 |
| | | e | 14 26 |
| | | iPKS | 17 25 |
| | | e | 17 53 |
| TUC | | eP' | 18 14 25 |
| WASH | | iP' | 18 14 26 |
| | | i | 14 47 |
| | | e | 15 27 |
| June 18 | | | |
| BC | | e(P) | 19 58 02 |
| June 18 | | | |
| BC | | e(P) | 20 29 29 |
| | | e | 29 31 |
| June 18 | | | |
| BC | | i(P) | 21 51 47.6 |
| | | e | 54 07 |
| June 18 | | | |
| BC | | i(P) | 22 11 04.8 |
| June 18 | | | |
| TUC | | e(P) | 22 28 44 |
| | | e | 35 34 |
| June 18 | | | |
| BC | | i(P) | 22 49 08.2 |
| | | e | 49 15 |
| | | e | 49 28 |
| COL | | eP | 22 46 33 |
| | | e | 46 39 |
| June 18 | | | |
| BC | | iP | 23 06 06.2 |
| | | i | 06 10.8 |
| | | e | 06 19 |
| | | i | 06 23.9 |
| June 18 | | | |
| BC | | i(P) | 23 19 35.2 |
| | | e | 21 14 |
| June 19 | | | |
| BC | | iP | 02 09 30.9 |
| BOZ | | eP | 02 09 09 |
| | | e | 09 18 |
| COL | | eP | 02 06 36 |
| | | iP | 06 38 |
| HH | | eP | 02 08 58 |
| | | eS | 19 18 |
| | | eScS | 19 35 |
| | | ePKKP | 26 45 |
| NEL | | iP | 02 09 32 |
| | | e | 09 37 |
| | | e | 09 55 |
| | | e | 10 11 |
| SLC | | eP | 02 09 24 |
| | | i | 09 35 |
| | | i | 10 08 |
| TUC | | eP | 02 09 54 |
| June 19 | | | |
| COL | | iP | 02 24 20 |
| June 19 | | | |
| BC | | eP' | 03 35 29 |
| BOZ | | eP' | 03 35 15 |
| HH | | eP' | 03 35 21 |
| NEL | | eP' | 03 35 33 |
| | | iP' | 35 37.3 |
| | | i | 35 45 |
| SLC | | iP' | 03 35 25 |
| TUC | | eP' | 03 35 31 |
| | | iP' | 35 36 |
| June 19 | | | |
| MONT | | iP | 05 12 56 |
| | | iS | 14 02 |
| SJ | | iP | 05 17 30 |
| June 19 | | | |
| COL | | iP | 07 17 17 |
| NEL | | eP | 07 21 33 |
| TUC | | e(P) | 07 22 07 |
| June 19 | | | |
| NEL | | eP | 08 23 42 |
| | | e | 24 02 |
| TUC | | eP | 08 23 47 |
| June 19 | | | |
| BC | | eP | 12 39 42 |
| | | e | 40 27 |
| NEL | | eP | 12 39 53 |
| June 19 | | | |
| BC | | iP | 12 46 42.4 |
| | | i | 47 26.3 |
| | | i | 47 31.9 |
| June 19 | | | |
| COL | | eP | 12 59 54 |
| June 19 | | | |
| NEL | | iP | 15 16 28.2 |
| | | i | 16 45.3 |

B.4297-4.

| Date and Station | | Phase (GCT) |
|---|---|---|
| | | h m s |
| June 19 | | |
| COL | iP | 17 04 20 |
| June 19 | | |
| COL | iP | 18 26 52 |
| June 19 | | |
| BC | eP | 19 41 43 |
| HH | e(P) | 19 42 24 |
| NEL | iP | 19 41 48.4 |
| TUC | iP | 19 41 55 |
| June 19 | | |
| BC | e(P) | 21 01 08 |
| | i | 01 24.4 |
| | e | 01 45 |
| NEL | eP | 21 01 16 |
| June 19 | | |
| COL | eP | 21 53 52 |
| June 19 | | |
| BC | iP | 22 11 20.4 |
| | i | 11 42.8 |
| | eS | 12 47 |
| | eL | 13 03 |
| BOZ | eP | 22 13 28 |
| COL | iP | 22 17 24 |
| HH | eP | 22 14 03 |
| NEL | iP | 22 11 20.8 |
| | e(S) | 12 59 |
| | eL | 13 21 |
| SLC | e(P) | 22 12 32 |
| | eL | 16 14 |
| TUC | iP | 22 10 31 |
| | i | 10 40 |
| | i | 10 47 |
| | iS | 11 14 |
| | iL | 11 43 |
| June 20 | | |
| BC | eP | 01 13 17 |
| COL | eP | 01 13 56 |
| NEL | e(P) | 01 13 16 |
| | e | 13 25 |
| June 20 | | |
| COL | eP | 04 14 50 |
| June 20 | | |
| HH | eP | 05 33 51 |
| NEL | iP | 05 33 01.2 |
| | ipP | 33 31.5 |
| | e | 33 43 |

| Date and Station | | Phase (GCT) |
|---|---|---|
| | | h m s |
| June 20 | | |
| TUC | eP | 07 07 57 |
| June 20 | | |
| COL | eP | 15 10 14 |
| June 20 | | |
| HH | iP | 15 32 25 |
| June 20 | | |
| HH | e(P) | 16 18 47 |
| June 20 | | |
| COL | iP | 17 57 43 |
| June 20 | | |
| BOZ | eP | 19 24 08 |
| HH | eP | 19 21 45 |
| | e(S) | 22 41 |
| | i | 22 51 |
| | iL | 23 05 |
| June 20 | | |
| COL | iP | 20 58 27 |
| | i | 58 35 |
| | ipP | 58 44 |
| HH | iP | 20 59 41 |
| | ePP | 21 03 51 |
| | iPKKP | 16 05 |
| MONT | iPP | 21 08 20 |
| NEL | eP | 20 59 38 |
| | e | 21 00 24 |
| | ePP | 03 04 |
| | e | 03 54 |
| SJ | iP' | 21 05 27 |
| | i | 06 14 |
| | iPP | 08 47 |
| June 20 | | |
| HH | eP | 22 21 12 |
| MONT | eP | 22 17 27 |
| NEL | eP | 22 18 49 |
| | ePP | 21 21 |
| June 21 | | |
| BC | eP | 02 00 02 |
| | ipP | 00 42.2 |
| | esP | 01 05 |
| | e(S) | 09 25.0 |
| BOZ | iP | 02 00 06C |
| | ipP | 00 36 |
| CHI | eS | 02 08 02 |
| | isS | 09 09 |
| | esP | 10 04 |
| | eSS | 12 30 |
| | eL | 15 56 |
| COL | eP | 02 02 43D |
| | ipP | 03 14 |

| Date and Station | | Phase (GCT) |
|---|---|---|
| | | h m s |
| COLU | iP | 01 58 26C |
| | ipP | 58 53 |
| | iPcP | 59 07 |
| | isP | 59 19 |
| | iS | 02 06 16 |
| | isS | 07 06 |
| | i(ScS) | 08 04 |
| | eSS | 10 39 |
| | eL | 13 11 |
| | e | 26 24 |
| HH | iP | 02 00 52D |
| | ipP | 01 22 |
| | isP | 01 45 |
| | ipPP | 04 40 |
| | eS | 10 56 |
| | esS | 12 01 |
| | i(PKKP) | 19 21 |
| | e | 21 43 |
| | eP'P' | 27 25 |
| | eSKPP' | 30 35 |
| MONT | iP | 01 49 04 |
| NEL | iP | 02 00 05.8D |
| | ipP | 00 29.2 |
| | isP | 01 06 |
| | e(PP) | 02 30 |
| | e(S) | 09 25 |
| PHIL | eP | 01 58 57 |
| | epP | 59 26 |
| | epPP | 02 01 57 |
| | e | 04 07 |
| | iS | 07 17 |
| | isS | 08 37 |
| | e | 09 33 |
| | e | 09 34 |
| | e(SSS) | 14 12 |
| | eL | 22 49 |
| SLC | iP | 02 00 15 |
| | iPcP | 00 28 |
| | ipP | 00 44 |
| | isP | 00 58 |
| SJ | iP | 01 56 15 |
| | ipP | 56 42 |
| | esP | 57 05 |
| | iPP | 57 56 |
| | ePcP | 58 14 |
| | eS | 02 02 08 |
| | iS | 04 14 |
| | i | 02 28 |
| | eL | 05 26 |
| | iL | 05 42 |
| TUC | iP | 01 59 34D |
| | ipP | 02 00 03C |
| | isP | 00 14 |
| | epPP | 02 56 |
| | eS | 08 28 |
| | esS | 09 19 |
| | eSS | 13 11 |
| | eL | 16 56 |
| WASH | iP | 01 58 53 |
| | ipP | 59 21 |
| | i | 02 00 15 |

| Date and Station | | Phase (GCT) |
|---|---|---|
| | | h m s |
| June 21 | | |
| BC | eP' | 02 25 37 |
| BOZ | iP | 02 25 11 |
| | e | 26 07 |
| | ePP | 26 16 |
| | e | 35 39 |
| COL | iP | 02 20 11 |
| | i | 20 40 |
| COLU | eP' | 02 26 24 |
| HH | iP' | 02 25 33 |
| | ePP | 26 19 |
| | iPKKP | 36 17 |
| | e | 47 43 |
| NEL | iP | 02 25 37.9 |
| | e | 26 19 |
| | iPP | 26 40 |
| | i | 27 46.2 |
| | ePKKP | 36 12.7 |
| SLC | iP' | 02 25 40 |
| | ePP | 27 04 |
| SJ | iP | 02 26 55 |
| | i | 27 44 |
| | ePP | 31 24 |
| TUC | iP' | 02 25 46 |
| | i | 27 51 |
| WASH | iP' | 02 26 25 |
| | i | 28 07 |
| June 21 | | |
| BC | eP | 09 07 34 |
| | e | 07 45 |
| BOZ | eP | 09 08 04 |
| COL | iP | 09 11 18 |
| HH | iP | 09 08 42 |
| | i | 09 48 |
| NEL | iP | 09 07 34 |
| | e | 07 48 |
| | iPP | 09 15.9 |
| SLC | eP | 09 07 50 |
| SJ | iP | 09 04 40 |
| | eS | 09 03 |
| TUC | eP | 09 06 56 |
| | eL | 10 20 02 |
| June 21 | | |
| TUC | eP | 09 23 48 |
| June 21 | | |
| BC | eP | 14 34 30 |
| | epP | 34 43 |
| | esP | 34 53 |
| | ePcP | 34 59 |
| | e(PPP) | 38 03 |

| Date and Station | | Phase (GCT) h m s |
|---|---|---|
| COL | iP | 14 30 16 |
| | ipP | 30 28 |
| | iPP | 30 58 |
| HH | eP | 14 33 32 |
| | ePcP | 35 06 |
| | ePP | 35 29 |
| June 21 | | |
| NEL | iP | 14 34 33.9 |
| | ipP | 34 52 |
| | isP | 35 02 |
| SLC | iP | 14 34 19 |
| TUC | e(P) | 14 35 07 |
| June 12 | | |
| BC | e(P) | 18 18 32 |
| COL | eP | 18 14 04 |
| | iP | 14 07 |
| | eS | 16 32 |
| | eL | 16 44 |
| HH | eP | 18 17 21 |
| NEL | iP | 18 18 34 |
| June 21 | | |
| MONT | iP | 19 11 16 |
| | iS | 11 31 |
| June 21 | | |
| BC | eP | 20 59 36 |
| June 21 | | |
| NEL | eP | 23 42 23 |
| June 22 | | |
| HH | e(P) | 04 17 11 |
| NEL | eP | 04 17 25 |
| | e | 17 33 |
| June 22 | | |
| BC | eP | 06 27 26 |
| | e | 27 43 |
| BOZ | eP | 06 27 27 |
| COL | eP | 06 33 51 |
| | e | 34 01 |
| HH | eP | 06 27 23 |
| | eL | 30 14 |
| NEL | iP | 06 27 08.4 |
| | e | 27 28 |
| SLC | e(P) | 06 27 10 |
| TUC | eP | 06 28 14 |
| | e | 28 20 |
| June 22 | | |
| BC | eP | 09 31 16 |
| | epP | 31 32 |
| BC | ePP | 09 34 43 |
| | epPP | 34 51 |
| | esPP | 35 17 |
| | e(PPP) | 36 18 |
| BOZ | eP | 09 31 21 |
| COL | eP | 09 31 47 |
| | iP | 31 55 |
| | epP | 32 16 |
| NEL | iP | 09 31 13.2 |
| | ipP | 31 29.0 |
| SLC | eP | 09 31 37 |
| | epP | 31 52 |
| TUC | eP | 09 31 16 |
| | epP | 31 33 |
| June 22 | | |
| HH | i(P) | 09 48 32 |
| June 22 | | |
| BC | eP | 10 10 24 |
| TUC | eP | 10 10 26 |
| June 22 | | |
| COL | iP | 11 29 04 |
| June 22 | | |
| BC | e(P) | 11 50 55 |
| HH | e(P) | 11 50 12 |
| | ePP | 52 42 |
| June 22 | | |
| NEL | eP | 12 27 35 |
| | e | 29 04 |
| June 22 | | |
| NEL | eP | 12 43 27 |
| | e | 44 43 |
| June 22 | | |
| BC | eP | 12 51 31 |
| | i | 51 47.6 |
| | e | 52 28.1 |
| HH | eP | 12 53 16 |
| June 22 | | |
| BC | e(P) | 17 09 44 |
| NEL | e(P) | 17 09 36 |
| | i | 09 44 |
| | e | 10 38 |
| | e | 11 21 |
| June 22 | | |
| BC | eP | 19 14 57 |
| | e | 15 36 |
| BOZ | eP | 19 13 51 |
| COL | eP | 19 13 03 |
| HH | eP | 19 13 08 |
| | i | 13 21 |
| | e | 16 50 |
| NEL | eP | 19 14 55 |
| | iP | 14 57 |
| | e | 15 39 |
| | e | 16 18 |
| SLC | e(P) | 19 14 41 |
| SIT | eP | 19 10 42 |
| | eS | 11 08 |
| | eL | 11 12 |
| June 22 | | |
| NEL | eP | 23 52 12 |
| June 23 | | |
| BC | e(P) | 00 07 32 |
| | e | 08 29 |
| NEL | eP | 00 07 23 |
| June 23 | | |
| BC | eP | 01 17 42 |
| NEL | eP | 01 17 36 |
| HH | e(P) | 01 18 25 |
| June 23 | | |
| COL | eP | 05 44 47 |
| June 23 | | |
| HH | e(P) | 06 49 38 |
| June 23 | | |
| BOZ | e(P) | 07 28 40 |
| HH | eP | 07 25 20 |
| | i | 25 39 |
| | e(S) | 26 43 |
| | iL | 26 56 |
| June 23 | | |
| HH | e(P) | 08 08 11 |
| June 23 | | |
| BC | e(P) | 09 08 44 |
| NEL | eP | 09 08 39 |
| | e | 09 04 |
| June 23 | | |
| HH | eP | 09 47 36 |
| June 23 | | |
| HH | e(P) | 11 53 43 |
| June 23 | | |
| NEL | eP | 15 23 11 |
| | e | 24 31 |
| SLC | eP | 15 23 21 |
| June 23 | | |
| SLC | eP | 15 27 22 |
| June 23 | | |
| MONT | e(P) | 15 33 31 |
| NEL | eP | 15 33 18 |
| | e | 33 45 |
| June 23 | | |
| COL | eP | 16 55 37 |
| June 23 | | |
| BOZ | iP | 22 08 43 |
| | iS | 08 54 |
| | iL | 09 00 |
| BUT | eP | 22 09 01 |
| | eS | 09 16 |
| | eL | 09 19 |
| HH | iP | 22 09 35 |
| | i(S) | 10 22 |
| June 23 | | |
| HH | e(P) | 22 23 13 |
| June 23 | | |
| HH | e(P) | 23 20 44 |
| June 24 | | |
| NEL | eP | 00 44 44 |
| June 24 | | |
| BC | e(P) | 04 11 51 |
| | e | 12 59 |
| BOZ | eP | 04 12 53 |
| COL | eP | 04 15 55 |
| | e | 16 09 |
| | e | 16 44 |
| HH | eP | 04 13 21 |
| | e | 15 07 |
| NEL | eP | 04 11 40 |
| | e | 11 46 |
| | e | 12 51 |
| TUC | eP | 04 11 01 |
| June 24 | | |
| BC | eP | 06 17 40 |
| HH | eP | 06 17 55 |
| NEL | eP | 06 17 43 |
| | e | 18 30 |
| June 24 | | |
| BC | e | 07 05 50 |
| NEL | eP | 07 05 35 |
| June 24 | | |
| NEL | eP | 07 42 48 |
| | e | 42 52 |
| June 24 | | |
| BC | e(P) | 08 10 48 |

| Date and Station | | Phase (GCT) |
|---|---|---|
| | | h m s |
| BC | ipP | 08 11 36.1 |
| | e | 12 17 |
| | ePP | 14 11 |
| BOZ | iP | 08 10 32 |
| | epP | 11 19 |
| | epPP | 14 53 |
| BUT | iP | 08 10 29 |
| | epP | 11 15 |
| COL | iP | 08 08 24 |
| HH | iP | 08 10 20 |
| | epP | 11 06 |
| | ePP | 13 31 |
| | eS | 20 20 |
| | e | 20 37 |
| MONT | eP' | 08 17 40 |
| NEL | iP | 08 10 38.8 |
| | e | 11 17 |
| | ipP | 11 24.4 |
| | ePP | 14 03 |
| | e(pPP) | 14 33 |
| SLC | iP | 08 10 41 |
| | epP | 11 28 |
| TUC | iP | 08 11 01 |
| | ePP | 14 35 |
| June 24 | | |
| SJ | i(P) | 08 20 13 |
| June 24 | | |
| TUC | e(P) | 08 56 05 |
| June 24 | | |
| MONT | iP | 14 39 43 |
| | iS | 39 58 |
| | iL | 40 06 |
| NEL | eP | 14 50 24 |
| June 24 | | |
| BC | eP | 15 45 30 |
| | e(S) | 51 00 |
| COL | eP | 15 48 23 |
| | i | 50 40 |
| HH | eP | 15 46 01 |
| | e | 46 12 |
| NEL | iP | 15 45 20.6 |
| | i | 45 31 |
| | ipP | 45 37.1 |
| | i | 50 49.9 |
| SLC | eP | 15 45 22 |
| | e | 45 33 |
| June 24 | | |
| COL | eP | 16 55 56 |
| | ipP | 56 41 |
| June 24 | | |
| COL | iP | 17 02 40 |
| | e | 02 51 |
| NEL | iP | 17 06 28.2 |
| | e | 06 52 |
| June 24 | | |
| NEL | iP | 19 08 59.7 |
| | e | 11 12 |
| | e | 13 24 |
| June 25 | | |
| HH | e(P) | 00 42 05 |
| June 25 | | |
| NEL | eP | 02 31 23 |
| | e | 31 36 |
| June 25 | | |
| HH | i(P) | 03 10 18 |
| | e | 14 38 |
| June 25 | | |
| HH | e(P) | 03 27 33 |
| June 25 | | |
| BC | eP | 05 31 01 |
| | e(PcP) | 31 22 |
| BOZ | eP | 05 29 47 |
| BUT | eP | 05 29 39 |
| | ePcP | 30 34 |
| COL | iP | 05 27 55 |
| | i | 28 01 |
| | iPP | 29 55 |
| | iPcP | 30 01 |
| HH | iP | 05 29 23 |
| NEL | iP | 05 30 50.7 |
| | i | 30 56 |
| | iPcP | 31 13.5 |
| | ePP | 33 11 |
| SLC | e(P) | 05 30 05 |
| | e | 30 13 |
| TUC | eP | 05 31 06 |
| June 25 | | |
| HH | iP | 06 42 00 |
| June 25 | | |
| COL | eP | 08 45 55 |
| June 25 | | |
| HH | e(P) | 10 11 05 |
| June 25 | | |
| COL | iP | 15 02 45 |
| June 25 | | |
| NEL | eP | 17 33 25 |
| June 25 | | |
| COL | iP | 18 39 32 |
| COL | e | 18 39 45 |
| June 25 | | |
| BC | eP | 20 22 25 |
| NEL | eP | 20 22 21 |
| June 25 | | |
| NEL | eP | 21 59 57 |
| June 25 | | |
| MONT | eP | 22 00 31 |
| June 25 | | |
| BC | iP | 23 35 23.9 |
| BOZ | eP | 23 34 54 |
| BUT | iP | 23 34 49 |
| COL | iP | 23 32 21 |
| HH | iP | 23 34 38 |
| | iPP | 37 49 |
| NEL | iP | 23 35 09.7 |
| SLC | iP | 23 35 06 |
| June 26 | | |
| NEL | iP | 00 35 21.8 |
| | e | 35 31 |
| June 26 | | |
| SJ | iP | 03 17 23 |
| | i | 17 32 |
| June 26 | | |
| HH | e(P) | 10 47 58 |
| | e | 51 34 |
| June 26 | | |
| BC | e(P) | 11 10 56 |
| | e | 11 30 |
| | e | 11 52 |
| NEL | eP | 11 13 23 |
| June 26 | | |
| BOZ | eP | 11 44 56 |
| June 26 | | |
| BC | eP | 12 03 48 |
| | ePP | 05 34 |
| COL | iP | 11 59 38 |
| | i | 59 52 |
| | i | 59 59 |
| HH | e(P) | 12 02 35 |
| | i | 02 44 |
| NEL | iP | 12 03 33.2 |
| SLC | eP | 12 03 23 |
| June 26 | | |
| NEL | iP | 13 48 54.1 |
| June 26 | | |
| NEL | iP | 15 26 48.6 |
| June 26 | | |
| BC | eP | 15 55 58 |
| | e | 56 15 |
| HH | eP | 15 56 36 |
| NEL | eP | 15 55 58 |
| | ePP | 57 01 |
| June 26 | | |
| HH | e(P) | 20 08 01 |
| June 26 | | |
| HH | e(P) | 20 45 10 |
| SJ | iP | 20 40 42 |
| June 26 | | |
| MONT | iP | 21 38 11 |
| | iS | 38 23 |
| | iL | 38 26 |
| June 26 | | |
| COL | iP | 23 36 11 |
| June 27 | | |
| COLU | eP | 00 45 04 |
| June 27 | | |
| COL | iP | 01 44 36 |
| HH | eP' | 01 49 57 |
| MONT | iP' | 01 51 02 |
| June 27 | | |
| COL | iP | 08 56 23 |
| | i | 56 34 |
| HH | iP | 08 55 35 |
| June 27 | | |
| NEL | eP | 09 25 25 |
| June 27 | | |
| BOZ | e(P) | 12 45 13 |
| HH | eP | 12 44 54 |
| June 27 | | |
| COL | iP | 14 10 35 |
| HH | e(P) | 14 08 23 |
| NEL | eP | 14 07 23 |
| June 27 | | |
| COL | eP | 14 19 45 |
| HH | eP | 14 21 34 |
| NEL | eP | 14 21 49 |
| June 27 | | |
| COL | iP | 16 28 08 |

| Date and Station | | Phase | (GCT) h m s |
|---|---|---|---|
| COL | | i | 16 28 32 |
| June 27 | | | |
| BC | | iP | 16 52 53.4 |
| | | e | 53 34 |
| June 27 | | | |
| BC | | eP | 17 30 14 |
| | | e | 30 45 |
| June 28 | | | |
| HH | | e(P) | 01 11 54 |
| MONT | | iP | 01 01 02 |
| June 28 | | | |
| COL | | eP | 02 01 16 |
| HH | | e(P) | 01 56 11 |
| June 28 | | | |
| BC | | eP' | 03 44 58 |
| COL | | eP | 03 38 52 |
| HH | | eP' | 03 45 06 |
| NEL | | eP' | 03 44 37 |
| June 28 | | | |
| HH | | e(P) | 04 00 15 |
| June 28 | | | |
| HH | | e(P) | 04 14 02 |
| June 28 | | | |
| SLC | | eP | 04 47 48 |
| | | e | 48 32 |
| | | e | 49 08 |
| June 28 | | | |
| BC | | eP | 05 11 25 |
| | | e | 11 45 |
| COL | | e(P') | 05 16 32 |
| MONT | | eP | 05 08 16 |
| NEL | | eP | 05 11 23 |
| TUC | | eP | 05 11 03 |
| June 28 | | | |
| BC | | eP | 05 50 19 |
| | | e | 52 35 |
| June 28 | | | |
| COL | | iP | 09 47 21 |
| NEL | | eP | 09 48 48 |
| | | e | 49 10 |
| June 28 | | | |
| NEL | | eP | 20 45 03 |
| | | e | 45 16 |
| June 28 | | | |
| NEL | | eP | 21 17 37 |
| | | e | 17 45 |

| Date and Station | | Phase | (GCT) h m s |
|---|---|---|---|
| June 28 | | | |
| COL | | iP | 21 43 37 |
| | | e | 43 59 |
| | | ePP | 46 30 |
| June 28 | | | |
| HH | | eP | 21 49 20 |
| June 28 | | | |
| BC | | eP | 22 15 16 |
| June 28 | | | |
| BC | | eP | 23 32 40 |
| BOZ | | eP | 23 33 22 |
| HH | | iP | 23 33 47 |
| | | e | 34 06 |
| | | ePcP | 34 58 |
| MONT | | iP | 23 30 57 |
| NEL | | iP | 23 32 28 |
| | | iPcP | 32 37 |
| | | e | 34 21 |
| SLC | | iP | 23 32 52 |
| TUC | | iP | 23 31 49 |
| June 29 | | | |
| BC | | iP | 01 22 04.2 |
| | | ePcP | 22 45 |
| | | e | 23 23 |
| BOZ | | eP | 01 22 29 |
| COLU | | iP | 01 20 14 |
| HH | | iP | 01 22 47 |
| | | ePP | 26 00 |
| MONT | | iP | 01 12 16 |
| NEL | | iP | 01 22 03.1 |
| SLC | | iP | 01 22 14 |
| SJ | | iP | 01 17 57 |
| | | iPP | 19 07 |
| TUC | | iP | 01 21 34 |
| June 29 | | | |
| BC | | eP | 12 29 52 |
| June 29 | | | |
| COL | | iP | 12 48 15 |
| June 29 | | | |
| BC | | eP | 12 57 12 |
| | | e | 58 13 |
| June 29 | | | |
| COL | | e(P) | 13 55 02 |
| HH | | e(P) | 13 57 54 |

| Date and Station | | Phase | (GCT) h m s |
|---|---|---|---|
| June 29 | | | |
| BC | | iP | 18 08 12.3 |
| | | i | 08 15.7 |
| June 29 | | | |
| COL | | eP | 18 31 39 |
| HH | | eP | 18 34 04 |
| NEL | | eP | 18 34 45 |
| | | e | 35 42 |
| June 29 | | | |
| BOZ | | eP | 19 26 56 |
| HH | | iP | 19 26 49 |
| | | i | 27 03 |
| | | e(S) | 27 41 |
| | | iL | 27 58 |
| NEL | | eP | 19 26 10 |
| | | e | 27 52 |
| | | e | 28 27 |
| | | eL | 30 17 |
| June 29 | | | |
| NEL | | eP | 20 09 28 |
| | | e | 10 04 |
| June 29 | | | |
| TUC | | eP | 23 16 16 |
| June 30 | | | |
| NEL | | iP | 03 52 30.0 |
| June 30 | | | |
| BC | | i(P) | 06 31 26.2 |
| | | e | 32 50 |
| HH | | e(P) | 06 30 24 |
| June 30 | | | |
| HH | | iP | 07 10 20 |
| June 30 | | | |
| HH | | eP | 09 40 53 |
| | | e | 41 06 |
| June 30 | | | |
| BC | | eP' | 13 46 03 |
| | | e | 46 40 |
| HH | | eP' | 13 45 46 |
| | | iPP | 47 12 |
| NEL | | eP' | 13 46 07 |
| TUC | | eP' | 13 46 09 |
| | | ePP | 48 45 |
| | | e(SS) | 14 03 41 |
| | | eL | 29 06 |
| June 30 | | | |
| HH | | e(P) | 14 16 58 |
| June 30 | | | |
| BC | | eP | 15 15 38 |

| Date and Station | | Phase | (GCT) h m s |
|---|---|---|---|
| COL | | iP | 15 11 37 |
| HH | | eP | 15 14 35 |
| | | i | 15 56 |
| NEL | | iP | 15 15 44.0 |
| SLC | | eP | 15 15 18 |
| TUC | | eP | 15 16 16 |
| June 30 | | | |
| BC | | eP | 15 21 26 |
| | | e | 23 06 |
| CHI | | eL | 15 28 19 |
| COL | | eP | 15 27 02 |
| COLU | | eP | 15 23 56 |
| | | eL | 32 30 |
| HH | | eP | 15 23 41 |
| | | e | 24 19 |
| NEL | | eP | 15 21 23 |
| | | eS | 24 18 |
| | | eL | 25 03 |
| PHIL | | eL | 15 32 34 |
| RC | | eP | 15 23 05 |
| | | eS | 27 07 |
| | | eL | 29 21 |
| SLC | | eP | 15 22 20 |
| | | e | 23 22 |
| | | e(S) | 26 15 |
| | | eL | 27 12 |
| TUC | | eP | 15 20 25 |
| | | i | 20 44 |
| | | eS | 22 10 |
| | | iL | 22 42 |
| WASH | | eL | 15 36 42 |
| June 30 | | | |
| HH | | iP | 15 46 13 |
| NEL | | iP | 15 46 37.9 |
| | | e | 46 53 |
| June 30 | | | |
| HH | | iP | 16 01 43 |
| | | i | 01 55 |
| June 30 | | | |
| NEL | | e(P) | 17 08 35 |
| June 30 | | | |
| HH | | eP | 18 31 18 |
| NEL | | iP | 18 30 10.0 |
| | | e | 31 19 |
| June 30 | | | |
| COLU | | e(P) | 20 14 53 |

| Date and Station | Phase | Phase (GCT) h m s |
|---|---|---|
| June 30 | | |
| COL | iP | 20 50 20 |
| June 30 | | |
| HH | eP | 23 01 52 |

Local and Minor Earthquakes

| day | hour |
|---|---|
| BOZ | |
| June | |
| 17 | 01.3 |
| 27 | 01.2 |
| BUT | |
| June | |
| 2 | 22.5 |
| 9 | 20.5 |
| 12 | 20.9 |
| 23 | 22.0 |
| 27 | 14.2 |
| COL | |
| June | |
| 1 | 23.7 |
| 2 | 06.9 |
| 5 | 06.4 |
| | 10.2 |
| | 20.3 |
| 6 | 05.0 |
| 8 | 08.1 |
| | 09.1 |
| | 09.7 |
| 13 | 04.4 |
| | 21.5 |
| 14 | 07.8 |
| 15 | 00.1 |
| | 00.5 |
| | 02.7 |
| | 06.1 |
| | 10.7 |
| | 14.6 |
| 17 | 15.5 |
| | 22.5 |
| 18 | 01.0 |
| | 02.7 |
| | 04.9 |
| | 10.3 |
| | 13.1 |
| | 23.4 |
| 19 | 03.5 |
| | 05.7 |
| | 08.1 |
| | 16.1 |
| | 19.4 |
| 20 | 03.3 |
| | 18.0 |
| 21 | 10.4 |
| | 19.4 |
| 22 | 06.0 |
| | 14.0 |
| | 21.2 |
| 23 | 14.3 |
| | 23.7 |
| 24 | 09.4 |

Local and Minor Earthquakes

| day | hour |
|---|---|
| COL | |
| June | |
| 24 | 13.0 |
| | 13.5 |
| | 21.7 |
| 25 | 16.0 |
| | 21.6 |
| 26 | 02.8 |
| | 06.6 |
| | 23.1 |
| 27 | 11.0 |
| 28 | 10.2 |
| | 13.0 |
| | 14.4 |
| | 20.0 |
| HONO | |
| June | |
| 3 | 01.4 |
| 7 | 21.1 |
| 22 | 22.0 |
| MONT | |
| June | |
| 15 | 11.6 felt |
| 18 | 01.8 |
| 19 | 06.4 |
| 20 | 19.8 |
| 21 | 17.8 |
| 22 | 10.1 |
| 24 | 18.8 |
| 27 | 07.6 |
| | 09.5 |
| | 23.1 |
| 29 | 17.2 |
| 30 | 02.3 |
| | 12.5 |
| SLC | |
| June | |
| 24 | 23.0 |
| | 23.1 |
| 30 | 22.7 |
| | 23.1 |
| | 23.2 |
| SJ | |
| June | |
| 4 | 00.8 |
| 8 | 23.1 |
| 10 | 18.2 |
| 11 | 07.6 |
| | 08.6 |
| 13 | 03.6 |
| | 09.3 |
| 19 | 10.3 |
| 22 | 14.0 |
| 23 | 20.9 |
| 24 | 14.6 |
| | 15.5 |
| | 15.7 |
| 28 | 08.8 |
| TUC | |
| June | |
| 3 | 10.3 |

Local and Minor Earthquakes

| day | hour |
|---|---|
| TUC | |
| June | |
| 4 | 17.0 |
| 5 | 07.8 |
| | 08.9 |
| 7 | 03.3 |
| 10 | 04.4 |
| 12 | 04.8 |
| | 21.8 |
| | 22.0 |
| 13 | 02.2 |
| 14 | 21.3 |
| 17 | 19.3 |
| 19 | 04.5 |
| 21 | 06.7 |
| 22 | 11.8 |
| | 12.8 |
| 27 | 19.4 |
| 30 | 11.9 |

Local and Minor Earthquakes

U 4297-4