GS983
C65

U. S. COAST & GEODETIC SURVEY
LIBRARY & ARCHIVES
JUL - 2 1954

SEISMOLOGICAL BULLETIN

May, 1954

MSI - 161

CONTENTS

List of stations 1
Provisional epicenters 2
Seismogram interpretations 5
Local and minor earthquakes 20

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
May	h m s	° '		° '		
1	00 20 03*	17	S.	174	E.	Fiji Islands region.
1	00 56 32*	17	S.	174	E.	Do.
1	20 53 16*	36½	N.	26	E.	Aegean Sea.
2	03 13 50*	14	N.	141½	E.	Marianas Islands region.
2	17 48 02*	4	N.	94½	E.	Off northwest coast of Sumatra.
2	18 27 20*	53½	N.	160½	E.	Near east coast of Kamchatka.
3	03 58 24*	6	N.	35½	W.	Mid-Atlantic Ocean.
3	05 24 55*	36	N.	21½	E.	Near south coast of Greece.
3	08 51 17*	36	N.	21½	E.	Do.
3	11 03 50**					Near east coast of Kamchatka.
3	13 29 42*	36	N.	27	E.	Dodecanese Islands. Felt.
3	15 29 40*	51½	N.	159½	E.	Off southeast coast of Kamchatka. Mag. 6-3/4 - 7.
3	17 13 32*	12	N.	86	W.	Near coast of Nicaragua. h about 150 km. Mag. 6
3	18 20 26*	31	N.	98½	E.	Sikang province, China.
4	06 24 47*	36	N.	141	E.	Near east coast of Honshu, Japan. Felt in Tokyo.
4	08 33 44**					West central Greece. Felt in Tropea and Patras.
4	16 43 22*	39½	N.	22	E.	Central Greece.
4	16 45 33*	40	N.	21	E.	Do.
4	17 35 05*	52	N.	159½	E.	Off southeast coast of Kamchatka.
4	17 51 22*	74	N.	81	W.	Devon Island region, Canada.
4	23 44 55**					Central Greece.
5	11 01 14*	27½	N.	112½	W.	Gulf of California foreshock. Mag. 5-3/4.
5	11 35 13*	15	N.	147½	E.	Marianas Islands.
5	13 09 46*	27½	N.	112½	W.	Gulf of California. Mag. 6-3/4.
5	17 13 12*	50	N.	156½	E.	Off south coast of Kamchatka. Mag. 6½.
6	09 02 14*	50	N.	155½	E.	Off south coast of Kamchatka. h about 100 km.
7	00 23 00**					Central Peru-Brazil border region. h about 150 km.
7	02 19 37*	43	N.	146	E.	Off east coast of Hokkaido, Japan. h about 60 km.
7	20 55 30**					Marianas Islands, about 250 miles northeast of Guam.
8	20 15 32**					Banda Sea.
9	01 39 20**					Volcano Islands region.
9	14 14 32*	71	N.	12	W.	Near Jan Mayen Island.
9	20 44 15*	24½	N.	125	E.	Ryukyu Islands.

Date 1954	Origin Time G. C. T.	Lat.		Long.		Region, Focal Depth, and Remarks
May	h m s	° '		° '		
10	07 58 48*	26	N.	125	E.	Ryukyu Islands.
10	14 30 38*	17½	S.	179	W.	Fiji Islands. h about 600 km.
11	04 26 45**					Arctic Ocean, northwest of Spitsbergen.
11	22 50 02*	41	N.	141	E.	Off north coast of Honshu, Japan.
12	06 22 14**					Near east coast of Mindanao, Philippine Islands.
13	14 46 38*	17	N.	95½	W.	Oaxaca, Mexico. Minor damage. h about 100 km. Mag. 6¼.
14	22 39 25*	36	N.	137	E.	Near coast of Honshu, Japan. Felt in eastern Honshu. h about 250 km. Mag. 7.
15	13 02 14*	48	N.	122	W.	Northwest Washington. Felt.
16	12 59 51**					Pribilof Islands.
16	20 10 42*	36½	N.	70½	E.	Hindu Kush. h about 200 km.
18	05 11 05*	10½	S.	75½	W.	Central Peru. Felt.
18	10 13 55*	25	N.	125	E.	Ryukyu Islands. Depth slightly greater than normal.
19	06 31 05*	3½	N.	126	E.	Molucca Passage. h about 100 km.
19	09 34 56*	46½	N.	7½	E.	Southern Switzerland. Felt in France, Italy, and Switzerland.
19	23 07 12*	5	S.	151	E.	New Britain. Mag. 6-1/4 - 6-1/2.
21	16 13 15*	56	N.	157	W.	Off east coast of Alaska Peninsula.
23	04 10 27*	46	N.	149½	E.	Kurile Islands. h about 150 km.
23	06 56 42*	3	N.	124	E.	Celebes Sea.
23	23 52 42.5	35	N.	118-3/4	W.	Southwestern California. Felt in Los Angeles. Mag. 5.1.
24	07 28 59*	48½	N.	156	E.	Kurile Islands. Depth slightly greater than normal.
24	08 14 40*	15	N.	145	E.	Marianas Islands. h about 60 km.
25	22 03 34*	39½	N.	22	E.	Central Greece. Several injured and moderate property damage.
26	01 43 03*	51½	N.	159½	E.	Off southeast coast of Kamchatka.
26	09 57 55**					Kermadec Islands.
26	18 57 30*	48½	N.	156	E.	Kurile Islands. Depth slightly greater than normal.
27	06 50 09*	32	N.	131½	E.	Near east coast of Kyushu, Japan.
28	06 52 38**					About 400 miles off coast of Liberia.
28	07 43 00**					Central Greece.
28	08 01 00**					Off coast of Guerrero, Mexico.
29	05 37 21*	18	S.	178	W.	Fiji Islands. h about 550 km.
29	12 11 37*	12	S.	68	W.	Northern Bolivia.
29	14 57 36**					Central Chile-Argentina border. Felt in Chile h about 150 km.

Date 1954	Origin Time G. C. T.	Lat.	Long.	Region, Focal Depth, and Remarks
May	h m s	° '	° '	
29	22 21 00**			Kermadec Islands region.
30	04 41 00*	11½ S.	78 W.	Near coast of Peru.
30	19 46 56**			Celebes Sea.
31	15 48 48*	8 S.	118½ E.	Flores Sea. Mag. 6-1/4 - 6-1/2. h about 150 km.

Date and Station	Phase	Phase (GCT) h m s
May 1		
BC	iP	00 32 44.9
BUT	eP	00 33 10
	i	33 19
COL	iP	00 32 48
HH	eP	00 33 09
NEL	iP	00 32 43
	i	32 56
	i	34 11
TUC	eP	00 32 48
	eL	01 00 18
May 1		
BC	eP	01 09 10
	i	09 15.3
COL	eP	01 09 18
HH	iP	01 09 40.5
NEL	iP	01 09 11
May 1		
COL	iP	05 16 13
May 1		
BC	eP	08 19 05
	i	19 10.1
May 1		
BC	eP	08 27 11
May 1		
COL	iP	09 33 45
May 1		
HH	iP	10 10 36
May 1		
HH	e(P)	10 23 32
May 1		
HH	iP	10 43 08
May 1		
COL	eP	15 10 30
HH	iP	15 11 17
	e	12 17
May 1		
HH	iP	15 37 40
	i	37 57
	e	38 07
May 1		
BC	i(P)	18 01 04.8
	i	01 14.8
COL	iP	17 57 12
	i	57 21
HH	eP	18 00 08
	i	02 49
NEL	iP	18 01 06.5
May 1		
COL	eP	18 17 31
HH	e(P)	18 18 10
	eL	19 54
May 1		
HH	iP	20 09 54
May 1		
BUT	iP	21 06 21
COL	iP	21 05 22
HH	iP	21 06 14
	e	07 00
May 1		
NEL	e(P)	21 58 57
May 1		
HH	e(P)	22 11 45
May 1		
COL	eP	23 28 06
NEL	e(P)	23 32 17
May 1		
HH	e(P)	23 44 27
May 2		
BC	eP	00 11 03
BUT	iP	00 10 50
HH	eP	00 10 40
NEL	iP	00 11 03.0
	i	11 19.0
May 2		
BC	e(P)	00 24 34
BUT	e(P)	00 24 21
HH	e(P)	00 24 11
NEL	iP	00 24 33.6
May 2		
NEL	iP	00 32 52.4
May 2		
SJ	iP	02 40 26
May 2		
BC	iP	03 27 03.1
BUT	e(P)	03 26 55
COL	eP	03 25 00
HH	iP	03 26 47
	ePP	30 09
NEL	iP	03 27 03.3
	e	27 36
May 2		
NEL	e(P)	04 33 11
	e	33 40
May 2		
COL	iP	04 40 16
	e	40 25
May 2		
COL	iP	05 30 11
May 2		
HH	e(P)	07 04 24
May 2		
TUC	eP	10 29 15
May 2		
HH	iP	11 44 47
May 2		
COL	iP	16 20 21
May 2		
BC	iP'	18 07 20.4
	i	07 29.1
	iPKS	10 44.4
	i	11 19.1
BUT	eP'	18 07 06
	ePP	08 50
COL	eP	18 01 40
	ePP	05 33
	ePKKP	18 17
	e(P'P')	27 38
COL	eP	18 01 40
	ePP	05 33
	ePKKP	18 17
	e(P'P')	27 38
COLU	eP'	18 07 40
	ePP	11 16
	eSS	28 18
HH	eP'	18 07 00
	e	08 03
	ePP	08 35
	eSKKS	15 27
NEL	iP'	18 07 20.4
	i	07 28.6
	i	07 42.6
	i	08 29.6
	iPP	09 41.6
	iPKS	10 43.6
SJ	eP'	18 07 54
	i	08 08
	i	08 22
TUC	eP'	18 07 22
May 2		
TUC	e(P)	18 22 48
May 2		
BUT	e(P)	18 31 52
COL	eP	18 29 41
HH	e(P)	18 31 42
NEL	i(P)	18 32 05.8
May 2		
BC	eP	18 37 18
	i	37 32.1
COL	iP	18 33 13
HH	e(P)	18 36 22
NEL	iP	18 37 25
TUC	eP	18 37 56
May 2		
COL	iP	21 34 01
May 2		
BC	e(P)	22 42 26
COL	iP	22 37 53
NEL	eP	22 42 10
	i	42 52.9
May 3		
COL	iP	00 41 05
May 3		
BC	e(P)	01 20 26
May 3		
NEL	e(P)	02 37 50
May 3		
BUT	iP	04 10 17
HH	iP	04 10 23
SJ	eP	04 04 52
TUC	eP	04 10 05
May 3		
COL	eP	05 24 02
HH	e(P)	05 30 34
May 3		
BUT	eP	05 37 50
COL	eP	05 37 01
HH	iP	05 37 43
SJ	eP	05 36 54

Date and Station	Phase	(GCT) h m s
May 3		
BC	eP	08 00 35
	i	02 28.1
BUT	eP	08 02 28
HH	eP	08 02 51
NEL	eP	08 02 09
	i	02 36.5
TUC	eP	07 59 18
	iP	59 19
	iS	59 37
	iL	59 52
May 3		
HH	iP	08 28 34
May 3		
BUT	eP	09 04 13
COL	eP	09 03 24
HH	eP	09 04 05
	iP	04 06
NEL	e(P)	09 05 10
SJ	e(P)	09 03 15
May 3		
BC	eP	11 13 47
BUT	eP	11 13 26
COL	iP	11 09 40
HH	e(P)	11 12 56
NEL	eP	11 13 55
May 3		
COL	iP	11 26 07
	i	26 34
May 3		
BC	e(P)	11 49 56
BUT	eP	11 49 48
	iP	49 50
COL	iP	11 47 55
HH	iP	11 49 41.5
NEL	iP	11 49 56.8
	i	50 00.8
May 3		
COL	iP	13 22 43
	ipP	23 27
May 3		
BUT	eP	13 42 49
	i	42 59
COL	iP	13 41 52
COLU	eP	13 42 19
HH	iP	13 42 41
NEL	eP	13 43 42
SJ	eP	13 42 03
	i	42 14
May 3		
COL	iP	13 53 55
	e	54 07
May 3		
NEL	eP	14 12 20
May 3		
BC	eP	15 39 52
	i	40 02.6
	i	40 19.3
	eS	48 10
	eP'P'	16 09 25
BUT	e(P)	15 39 07
	i	39 23
	ePPP	42 20
	e(S)	47 05
	eScS	49 04
	eL	54 31
COL	iP	15 35 48
	e	36 09
	iS	40 41
	i	40 57
	iL	41 13
COLU	eP	15 41 52
	iS	51 49
	eL	16 03 12
HONO	eS	15 44 36
	eL	48 44
T_S = 14 sec. A = 1.2mm.		
T_L=18 sec. $A_{max.}$=1.5mm.		
HH	eP	15 38 58
	e(PP)	41 15
	eS	46 21
	e	47 06
	eScS	48 46
NEL	iP	15 39 55.1
	i	40 04.1
	i	40 21.1
	eP'P'	16 09 19
RC	eP	15 40 02
	eS	48 17
	e	48 32
	eL	55 04
SLC	e(P)	15 39 59
	eS	47 47
	eScS	49 34
	eL	59 23
SJ	e(P)	15 43 37
	ePP	47 20
	eSKS	54 05
	e(S)	55 19
	ePPS	57 25,
	eSS	16 01 51
	eL	09 50
SIT	e(P)	15 37 15
	ePP	38 26
	iPcP	39 13
	iS	42 36
	eL	44 45
TUC	eP	15 40 28
	eS	49 14
	e	55 42
	eL	56 55
WASH	e(P)	15 41 41
	i	42 12
May 3		
COL	eP	16 45 25
May 3		
BC	iP	17 19 15.1
COL	iP	17 15 22
	i	15 35
	ipP	15 52
HH	iP	17 18 20
NEL	iP	17 19 16.6
May 3		
BC	iP	17 20 19.6
	ipP	20 42.6
	isP	20 52.0
	iPP	21 45.9
	i	23 17.1
	eScP	26 20
	iScS	30 25.6
BUT	e(P)	17 21 20
	ipP	21 35
	i(sP)	21 56
	iPcP	23 18
	eScS	31 09
COL	iP	17 24 15
	i	24 31
	ipP	24 52
	ipPP	27 19
COLU	iP	17 18 26
	ipP	18 56
	iS	22 19
	i	22 41
	i	23 18
	eL	24 49
HH	iP	17 21 23
	ipP	21 56
	iScP	26 49
	eS	27 50
NEL	iP	17 20 18.1
	ipP	20 43.1
	isP	20 48.9
	i	21 01.1
	iPcP	22 45.1
	iScP	26 19.1
RC	iP	17 20 21
	ipP	20 54
	e(S)	25 38
	esS	26 36
	eL	28 24
SJ	iP	17 18 02
	ipP	18 28
	isP	18 41
	eS	21 43
	eL	22 45
TUC	eP	17 19 36
	iP	19 37
	e(S)	25 16
	eL	25 46
WASH	iP	17 19 19
	i	19 28
	i(PP)	20 06
	i(S)	23 56
May 3		
HH	eP	17 58 45
May 3		
COL	iP	18 31 48
HH	iP	18 33 56
	ePP	37 44
NEL	e(P')	18 38 57
May 3		
NEL	eP	20 02 18
May 3		
NEL	eP	21 12 25
	i	12 32.3
May 3		
COL	eP	22 09 05
	e	10 46
COLU	eP	22 03 20
	e	03 39
HH	eP	22 06 08
NEL	iP	22 04 59.4
	i	05 16.2
	e	08 00
May 4		
BC	e(P)	00 27 09
COL	iP	00 27 52
	ipP	28 08
	isP	28 15

Date and Station	Phase	(GCT) h m s
NEL	eP	00 27 08
May 4 HH	e(P)	00 35 58
May 4 BC	e(P)	01 39 50
	i	40 05.1
COL	iP	01 35 40
	i	35 55
HH	eP	01 38 49
NEL	eP	01 39 43
	i	39 51.6
	i	40 01.9
May 4 NEL	eP	01 49 26
May 4 NEL	e(P)	02 59 55
	e	03 00 27
May 4 COL	iP	04 02 09
May 4 HH	e(P)	05 27 49
May 4 BC	eP	06 37 02
	i	37 08.9
BUT	eP	06 36 29
	i	36 43
COL	iP	06 33 45
	i	34 18
	i	34 34
HH	eP	06 36 18
	i	36 30
	i	36 49
NEL	eP	06 36 58
	i	37 02.3
TUC	e(P)	06 37 23
May 4 BC	e(P)	06 46 45
	i	46 47.7
COL	iP	06 42 53
	i	43 00
	ipP	43 09
	e	46 30
HH	e(P)	06 45 53
	e	47 55
NEL	eP	06 46 46
	iP	46 48.9
	e	47 15
	e	48 15
TUC	eP	06 47 21
May 4 COL	eP	07 14 30
May 4 COL	eP	08 45 39
HH	iP	08 46 23
	i	46 38
May 4 COLU	eP	10 20 22
HH	e(P)	10 25 05
NEL	iP	10 21 56.8
May 4 NEL	eP	11 22 38
	i	22 53.6
TUC	eP	11 21 57
May 4 COL	iP	16 14 33
	iS	14 41
HH	e(P)	16 19 18
May 4 BC	e(P)	16 28 31
COL	iP	16 29 07
HH	e(P)	16 29 06
NEL	eP	16 28 26
	i	28 37.9
TUC	e(P)	16 28 42
May 4 BC	eP	16 56 47
BUT	iP	16 56 01
	i	56 26
COL	iP	16 55 09
COLU	e(P)	16 55 23
HH	iP	16 55 54.5
NEL	eP	16 56 48
	i	56 51
SJ	eP	16 55 18
May 4 BC	iP	16 58 53.6
	i	58 57.1
BUT	iP	16 58 09
COL	iP	16 57 16
	i	57 43
COLU	e(P)	16 57 30
HH	iP	16 58 02
NEL	iP	16 58 54.4
	i	58 57.6
SJ	iP	16 57 24
TUC	eP	16 59 03
May 4 BC	i(P)	17 19 03.6
May 4 TUC	e	17 36 48
	eL	42 51
May 4 BC	eP	17 45 18
	i	45 21.6
	i	45 36.1
COL	eP	17 46 10
HH	e(P)	17 44 18
NEL	eP	17 45 16
	i	45 21.4
TUC	eP	17 45 54
May 4 HH	e(P)	17 55 25
NEL	iP	17 54 23.7
SJ	eP	17 51 17
May 4 BC	iP	17 59 15.0
	i	59 27.2
BUT	iP	17 57 48
	iL	18 04 12
COL	iP	17 56 36
	iPP	57 02
COLU	e(PP)	18 10 52
HH	iP	17 57 30
	e(S)	18 03 06
NEL	iP	17 59 17.3
	i	59 26.2
	i	59 35.9
	i(PPP)	18 01 53.4
RC	eS	18 03 01
	eL	07 03
TUC	eP	17 59 38
	e	59 50
WASH	eL	18 09 32
May 4 BC	e(P)	18 12 33
NEL	eP	18 12 34
May 4 COL	eP	18 49 19
HH	e(P)	18 48 53
May 4 BC	eP	19 23 24
HH	iP	19 24 34
NEL	iP	19 23 22.5
SJ	iP	19 22 38
TUC	eP	19 22 58
May 4 BC	e(P)	20 10 32
COL	iP	20 11 06
	ipP	11 14
HH	e(P)	20 11 05
NEL	eP	20 10 29
May 4 BC	eP	20 43 25
COL	iP	20 39 23
	i	39 27
	i	39 39
HH	eP	20 42 29
NEL	eP	20 43 26
May 4 BC	e(P)	21 03 14
NEL	eP	21 07 35
May 4 TUC	e(P)	23 01 41
May 4 BUT	eP	23 57 34
COL	iP	23 56 41
HH	iP	23 57 28
NEL	eP	23 58 20
May 5 BC	e(P)	00 24 28
HH	eP	00 23 36
NEL	eP	00 24 27
	i	24 42.6

Date and Station		Phase (GCT) h m s
TUC	e(P)	00 24 50
May 5		
BC	e(P)	00 40 46
COL	eP	00 36 34
	i	36 4[illegible]
HH	e(P)	00 39 51
NEL	e(P)	00 40 39
	e	40 51
	i	43 07.6
TUC	eP	00 41 33
May 5		
BUT	e(P)	01 46 07
	eP	46 14
HH	e(P)	01 43 56
	eL	45 31
May 5		
NEL	eP	02 04 04
	e	07 01
May 5		
COL	e(P)	03 10 37
HH	eP	03 11 19
May 5		
BC	iP	03 16 22.5
NEL	iP	03 16 21.9
May 5		
BC	e(P)	03 23 26
COL	eP	03 19 21
HH	e(P)	03 22 34
NEL	eP	03 23 27
TUC	e(P)	03 23 58
May 5		
NEL	e(P)	03 53 04
May 5		
HH	iP	04 40 10
NEL	i(P)	04 39 53.9
TUC	e(P)	04 39 24
May 5		
BC	e(P)	04 56 54
	i	57 05.9
COL	iP	04 52 46
	e	52 57
	e	53 05
HH	eP	04 55 55
	i	57 10

Date and Station		Phase (GCT) h m s
NEL	eP	04 56 56
	e	57 07
TUC	eP	04 57 27
May 5		
NEL	eP	06 20 14
May 5		
COL	eP	11 07 28
May 5		
BC	eP	11 03 27
	i(S)	05 25.5
	i	05 32.5
	iL	05 56.0
BOZ	e(P)	11 06 12
	e(S)	09 04
	eL	10 33
BUT	eP	11 05 37
	i	05 49
	e(S)	09 14
	eL	11 05
CHI	eS	11 11 03
	eL	14 13
COL	eP	11 09 26
COLU	eL	11 15 57
HH	eP	11 05 58
	iS	09 17
	eL	12 02
NEL	eP	11 03 20
	i	05 35.9
RC	e(P)	11 05 32
	eS	08 36
	eL	09 21
SJ	eP	11 09 21
SLC	e(P)	11 04 43
	eL	08 13
TUC	iP	11 02 28
	i	02 46
	eS	03 24
	i	03 41
	iL	04 00
WASH	eL	11 19 28
May 5		
NEL	e(P)	11 16 24
May 5		
BC	iP	11 48 02.9
	i	48 19.7
BUT	iP	11 47 56
	i	48 11
COL	iP	11 46 01

Date and Station		Phase (GCT) h m s
HH	iP	11 47 48
	iPP	50 57
	ePPP	51 53
NEL	iP	11 48 02.9
	i(PP)	51 12.3
TUC	eP	11 48 24
May 5		
BC	e(P)	11 54 37
	e	54 48
HH	e(P)	11 56 27
NEL	eP	11 54 28
	i	56 49.9
TUC	eP	11 53 32
	iP	53 33
	i	53 51
	i	54 39
	iL	54 55
May 5		
BUT	eP	12 03 17
HH	iP	12 03 09
NEL	iP	12 03 24.2
May 5		
COL	iP	12 48 15
TUC	e(P)	12 47 55
May 5		
HH	e(P)	13 12 22
May 5		
BC	iP	13 11 55.5
	i	12 58.8
	iL	14 02.3
BOZ	iP	13 14 03
	e(PP)	14 36
	i(S)	17 33
	eL	18 48
BUR	iP	13 16 54
	eS	22 28
	eL	25 14
BUT	eP	13 14 06
	iP	14 07
	i	14 15
	i	14 28
	eS	17 39
	iL	18 28
CHI	iP	13 15 07
	eS	19 31
	eL	21 23
COL	iP	13 17 54
	i	18 11
	ePP	19 47
	eS	24 23
	eL	27 08

Date and Station		Phase (GCT) h m s
COLU	eP	13 15 35
	iP	15 40
	iS	20 17
	i	20 33
	iL	22 55
HH	iP	13 14 31
	eS	18 04
	eL	18 26
LIN	iP	13 14 02
	eS	17 33
	eL	18 07
NEL	iP	13 11 51.7
RC	i(P)	13 14 01
	eS	17 39
	iS	17 46
	iL	18 01
SJ	iP	13 17 52
	ePP	19 40
	ePPP	20 30
	eS	24 21
	eSS	27 24
	eL	29 47
SLC	eP	13 12 58
	i	13 09
	e(PP)	13 32
	eS	15 04
	eL	15 32
SIT	iS	13 22 02
	eL	23 17
TUC	iP	13 10 59
	i	11 15
	i	11 21
	i	11 28
	iS	11 44
	i	11 53
	iL	12 11
UK	eP	13 13 24
	eL	16 10
WASH	eP	13 16 13
	iP	16 17
	i	16 34
	i	16 45
	eS	21 11
	eL	22 41
May 5		
COL	e(P)	13 47 46
May 5		
HH	iP	14 37 45
NEL	iP	14 37 59.7
May 5		
BC	e(P)	14 48 01
COL	iP	14 45 58

Date and Station	Phase	Phase (GCT) h m s
HH	iP	14 47 47
NEL	iP	14 48 02.2
May 5		
BC	e(P)	15 10 13
NEL	e(P)	15 10 03
May 5		
BC	iP	17 23 39.4
	iPcP	24 16.4
BUT	iP	17 23 01
	i	23 15
COL	iP	17 19 41
COLU	iP	17 25 35
HH	iP	17 22 45.5
	i(PcP)	23 48
	ePP	24 56
	ePPP	25 46
	eS	30 23
	eScS	32 30
	eP'P'	52 46
NEL	iP	17 23 40.1
	i	23 52.9
	i	24 01.3
	iPcP	24 09.9
SJ	e(P)	17 27 09
TUC	iP	17 24 11
WASH	e(P)	17 25 25
	e	25 40
May 5		
BUT	e(P)	18 13 01
	iP	13 02
COL	eP	18 10 56
HH	eP	18 12 40
	i	12 55
May 5		
HH	e(P)	18 26 48
May 5		
COL	iP	20 06 47
May 5		
BUT	eP	21 03 56
	i	04 18
HH	e(P)	21 04 32
NEL	eP	21 00 12
May 5		
HH	e(P)	21 21 06
May 5		
COL	iP	21 46 47
May 5		
COL	iP	22 30 21
HH	e(P)	22 33 31
NEL	iP	22 34 29.3
May 5		
NEL	e(P)	22 46 41
May 5		
BC	iP	22 52 33.0
May 5		
HH	e(P)	23 25 28
May 6		
HH	e(P)	00 18 33
May 6		
BUT	iP	00 22 09
HH	iP	00 22 01
NEL	iP	00 22 15.2
May 6		
COL	eP	00 33 42
May 6		
NEL	iP	00 59 18.5
	i	59 25.5
May 6		
NEL	e(P)	03 30 39
	i	30 55.6
May 6		
COL	eP	04 03 00
May 6		
COL	eP	04 59 49
	e	05 00 31
May 6		
BC	iP	09 12 36.2
	ipP	13 08.7
	iS	20 59.7
	eP'P'	41 37
BUT	iP	09 12 00
	i	12 15
	ipP	12 33
	isP	12 51
	iPP	14 18
	eS	19 49
	eScS	21 34
	e(SS)	23 41
COL	iP	09 08 41
	i(S)	13 42
	eL	16 01
COLU	iP	09 14 30
	epP	15 06
	esP	15 15
	iS	24 31
	e(SS)	29 26
	eL	32 48
HH	iP	09 11 43
	eS	19 17
	eScS	21 17
	e	22 24
	eP'P'	40 55
NEL	iP	09 12 37.6
	ipP	13 11.8
	isP	13 20.8
	i	13 52.3
	iP'P'	41 36.0
SLC	eP	09 12 25
	eS	20 38
	eScS	22 03
SJ	iP	09 16 04
	ePP	20 12
	eS	27 34
	eSS	34 45
SIT	iP	09 09 44
	iS	15 41
	esS	16 27
	eL	18 23
TUC	iP	09 13 08
	ipP	13 41
	isP	13 52
WASH	iP	09 14 20
	ipP	14 56
	iPP	17 23
May 6		
COL	iP	11 13 22
	i	13 41
May 6		
COL	eP	11 39 12
	e	39 31
HH	e(P)	11 41 58
May 6		
NEL	e(P)	14 06 05
	e	06 35
May 6		
NEL	eP	14 13 27.0
May 6		
BC	eP	16 27 02
HH	eP	16 26 59
NEL	iP	16 27 03.3
TUC	e(P)	16 30 45
May 6		
NEL	eP	18 09 59
May 6		
BC	e(P)	21 06 35
May 6		
SJ	iP	22 41 22
	i(S)	42 21
May 6		
BC	e(P)	23 13 27
NEL	iP	23 13 25.8
May 7		
BC	iP	00 32 36.2
	ipP	33 12.7
BUT	iP	00 33 15
COLU	eP	00 30 36
	epP	31 11
HH	iP	00 33 29.5
	e	34 48
	e(pPP)	36 57
NEL	iP	00 32 34.3
	i	32 53.3
	ipP	33 11.8
	isP	33 27.3
SJ	iP	00 28 29
	ipP	29 00
	e	33 29
TUC	iP	00 32 00
	ipP	32 36
	esP	32 51
May 7		
NEL	eP	00 37 58
May 7		
BC	e(P)	01 23 37
NEL	eP	01 23 23
May 7		
BC	iP	02 30 59.9
	ipP	31 18.9
BUT	iP	02 30 28
	ipP	30 47
COL	iP	02 27 26
	ipP	27 41
	isP	27 49
HH	iP	02 30 13
	ipP	30 32
NEL	iP	02 31 01.2
	ipP	31 19.4
TUC	eP	02 31 28
	epP	31 47
May 7		
COL	eP	04 50 18
HH	e(P)	04 52 21
May 7		
BC	iP	05 48 23.2
COL	iP	05 48 50

Date and Station		Phase (GCT) h m s
HH	iP	05 48 56
NEL	iP	05 48 22.3
TUC	iP	05 48 29
May 7 COL	eP	07 16 13
May 7 COL	eP	08 45 02
May 7 BC	e(P)	13 10 20
NEL	eP	13 10 24
	e	13 50
May 7 BC	eP	16 24 15
COLU	e(P)	16 28 04
NEL	iP	16 24 12.9
	iPcP	24 17.9
	ipP	24 29.9
TUC	e(P)	16 23 43
May 7 NEL	iP	17 13 21.8
	i	14 34.5
May 7 NEL	eP	17 19 58
May 7 NEL	iP	17 55 14.9
May 7 NEL	iP	18 23 55.5
May 7 BC	eP	21 08 21
BUT	eP	21 08 12
	iP	08 14
HH	iP	21 08 05
NEL	iP	21 08 20.9
May 7 COL	iP	21 28 49
	ipP	29 11
NEL	eP	21 26 13
May 7 NEL	iP	23 51 08.2
May 7 NEL	e(P)	23 54 37
May 8 HH	e(P)	00 15 40
May 8 NEL	eP	03 26 22
May 8 NEL	eP	06 42 55
May 8 COL	iP	08 21 09
May 8 HH	e(P)	08 38 40
May 8 NEL	iP	09 06 23.2
	i	06 56.5
May 8 BC	eP	11 00 33
	i	00 42.3
	e	08 17
BUT	iP	11 01 48
COL	eP	11 05 11
	i	05 18
COLU	eP	11 00 29
HH	eP	11 02 00
NEL	iP	11 00 30.0
TUC	eP	10 59 41
May 8 COL	eP	11 46 35
May 8 COL	eP	13 15 25
May 8 COL	iP	14 21 55
May 8 COL	eP	14 33 24
May 8 COL	iP	15 48 00
NEL	i(P)	15 48 18.6
May 8 NEL	iP	19 36 59.2
	ipP	37 13.0
TUC	e(P)	19 37 02
May 8 BC	i(P')	20 34 12.8
COL	eP	20 28 47
HH	eP'	20 34 11
NEL	iP'	20 34 19.8
	i	34 30.0
SJ	iP'	20 36 22
	i	36 33
May 8 HH	e(P)	21 47 11
May 8 HH	eP	22 18 15
May 8 HH	eP	22 40 06
May 9 HH	e(P)	01 29 21
May BC	iP	01 52 01.0
BUT	iP	01 51 47
	i	53 01
COL	iP	01 56 31
HH	iP	01 51 38
	i	52 50
NEL	iP	01 52 01.1
	i	52 44.1
	i	53 23.1
TUC	e(P)	01 52 23
May 9 NEL	e(P)	04 44 17
May 9 COL	eP	05 26 16
May 9 BC	i(P)	06 02 34.2
COL	iP	05 59 20
HH	eP	06 01 52
NEL	i(P)	06 02 34.2
May 9 COL	eP	07 02 49
May 9 HH	eP	08 51 09
May 9 NEL	e(P)	09 56 24.3
May 9 BUT	iP	10 18 14
May 9 BC	iP	14 24 43.1
	i	24 47.6
BUT	eP	14 23 29
	i	23 34
COL	iP	14 22 16
	i	22 35
	iPP	23 54
	i(PcP)	24 18
HH	iP	14 23 17
NEL	iP	14 24 44.4
	e	25 18
TUC	eP	14 24 58
May 9 HH	eP	15 39 25
NEL	iP	15 38 26.6
	i	39 30.1
TUC	eP	15 37 51
May 9 NEL	iP	16 06 47.5
May 9 HH	eP	16 25 37
May 9 HH	e(P)	17 44 39
May 9 HH	eP	20 25 52
BUT	eP	20 57 28
	iP	57 29
	i	57 42
COL	iP	20 55 08
HH	iP	20 57 19
	i	57 34
NEL	e(P)	20 57 53
	e	59 39
May 9 BC	iP	22 34 23.1
COL	iP	22 34 49
HH	e(P)	22 38 49
NEL	iP	22 34 21.8
	e	34 38
TUC	iP	22 34 28
	e	34 46
May 10 HH	e(P)	02 36 49
May 10 HH	e(P)	03 59 10
May 10 COL	eP	04 54 40
May 10 HH	e(P)	05 12 27
May 10 COL	eP	05 30 51
May 10 BC	e(P)	05 48 12
COL	eP	05 47 48
NEL	e(P)	05 48 09.5

B.4297-4.

Date and Station	Phase	(GCT) h m s
May 10		
HH	e(P)	06 13 33
May 10		
COL	iP	06 30 21
	i	30 32
May 10		
COL	iP	06 38 12
	ipP	38 27
	inP	38 40
	ePP	38 08
HH	eP	06 39 23
	e	43 14
SJ	eP	06 45 13
	i	46 08
May 10		
COL	eP	06 48 25
HH	e(P)	06 50 12
NEL	eP	06 54 20
SJ	iP	06 56 09
	e	56 28
May 10		
BUT	e(P')	06 59 04
	ePP	07 00 18
COL	eP	06 53 44
	ePP	57 08
COLU	eP'	07 00 24
	eL	29 46
HH	e(P)	06 54 34
	eP'	59 22
	e	07 04 01
	ePKKP	10 51
NEL	iP'	06 59 37.0
	e	59 51
	iPP	07 00 21.5
SJ	iP'	07 01 27
	ePP	04 49
May 10		
BUT	eP	08 11 54
	iP	11 55
	i	12 09
COL	iP	08 09 34
	ePcP	09 51
	e(PPP)	13 47
HH	iP	08 11 46
NEL	iP	08 12 19.6
	e	12 33
May 10		
BC	iP	14 41 55.2
BUT	iP	14 42 26
	e	43 18
COL	iP	14 42 17
	i	42 34
	i	42 54
	eS	52 01
HH	iP	14 42 27
	ePP	45 55
NEL	iP	14 41 54.8
	iPcP	42 00
	i	42 24.5
	iPP	45 03.0
SJ	iP	14 48 19
May 10		
HH	i(P)	15 59 07
May 10		
NEL	eP	16 07 24
May 10		
HH	e(P)	17 55 16
NEL	eP	17 54 27
May 10		
BC	eP	19 34 18
HH	iP	19 33 57
NEL	iP	19 34 13.5
May 10		
COL	eP	20 46 20
	e	46 41
May 10		
NEL	eP	21 48 19
May 11		
HH	e(P)	00 13 52
May 11		
BC	iP	04 36 43.6
	i	36 51.6
BUT	e(P)	04 35 18
	i	35 38
COLU	e(P)	04 36 24
HH	eP	04 35 10
NEL	iP	04 36 45.0
	i	36 52.8
TUC	eP	04 37 05
	e	37 14
May 11		
BC	eP	04 59 44
COL	eP	04 59 17
HH	eP	05 00 07
NEL	eP	04 59 43
	i	59 49.6
TUC	eP	04 59 55
May 11		
COL	eP	06 50 57
HH	eP	06 53 14
May 11		
COL	iP	10 10 48
NEL	eP	10 16 24
May 11		
BC	e(P)	10 41 46
NEL	iP	10 41 45.1
TUC	e(P)	10 41 48
May 11		
COL	iP	11 41 26
	i	41 48
HH	e(P)	11 41 41
NEL	eP	11 42 56
TUC	e(P)	11 41 56
May 11		
COL	eP	12 06 21
May 11		
COL	iP	12 41 40
May 11		
COL	iP	15 01 28
May 11		
HH	i(P)	19 54 47
NEL	e(P)	19 58 35
May 11		
COLU	iP	20 07 10
	i	07 27
May 11		
COLU	eP	21 53 37
May 11		
NEL	e(P)	22 28 17
May 11		
BC	iP	23 01 58.6
BUT	eP	23 01 25
	i	01 27
COL	iP	22 58 28
HH	eP	23 01 13
NEL	iP	23 01 59.5
TUC	eP	23 02.25
May 12		
HH	iP	02 29 13
NEL	eP	02 22 59
May 12		
NEL	eP	02 30 03
May 12		
COL	eP	04 39 51
HH	e(P)	04 45 19
May 12		
BC	eP	05 16 29
	e	16 44
NEL	iP	05 16 23.5
TUC	eP	05 15 29
May 12		
BC	ePKKP	06 52 08
COL	iP	06 34 36
COLU	e(PP)	06 44 59
HH	eP	06 36 23
	ePP	40 43
	ePKKP	52 03
NEL	e(P)	06 37 15
	eP'	40 49
	iPKKP	51 55.9
	e	52 08
SJ	eP'	06 42 13
	iP'	42 25
TUC	ePKKP	06 51 48
May 12		
BC	eP	08 12 35
	i	12 36.8
	i	12 48.6
BUT	e(P)	08 13 59
HH	eP	08 14 21
NEL	eP	08 12 31
	iP	12 32.9
	i	12 36.6
	i	12 59.6
TUC	eP	08 11 36
	e	15 53
May 12		
NEL	e(P)	09 09 09
TUC	e(P)	09 07 55

R 4297-4.

Date and Station		Phase (GCT) h m s
May 12		
COL	iP	09 15 45
May 12		
BC	i(P)	09 19 30.0
COL	eP	09 18 46
HH	eP	09 18 27
NEL	iP	09 19 30.6
TUC	e(P)	09 20 03
May 12		
HH	e(P)	10 00 48
May 12		
COL	eP	12 14 35
HH	eP	12 17 39
	e	19 40
NEL	eP	12 18 29
May 12		
COL	eP	15 02 32
	iP	03 35
May 12		
HH	e(P)	15 59 08
May 12		
COL	iP	17 46 45
HH	eP	17 50 30
	e	57 42
NEL	eP	17 52 01
	i	52 19.4
May 12		
HH	iP	19 09 04
May 12		
HH	eP	20 31 55
May 12		
NEL	eP	23 46 18
	e	46 41.8
May 13		
HH	e(P)	06 09 35
May 13		
HH	e(P)	06 20 17
May 13		
HH	e(P)	07 46 42
May 13		
COL	iP	09 34 55
	i	35 06
HH	e(P)	09 37 17
May 13		
COL	iP	09 53 01

Date and Station		Phase (GCT) h m s
May 13		
HH	e(P)	11 04 34
May 13		
COL	eP	11 16 53
May 13		
BC	e(P)	13 01 53
COL	iP	13 00 03
NEL	iP	13 01 53.0
	i	01 55.0
SJ	iP	12 59 29
May 13		
BC	iP	14 52 02.4
	ipP	52 18.2
	i(PP)	53 04.9
	i(S)	56 30.9
	iPcP	55 32.4
BOZ	eP	14 52 57
	ePP	54 12
	epPP	54 28
	e(PcP)	55 24
	eS	58 01
	esS	58 35
	eL	15 00 10
BUT	eP	14 53 03
	iP	53 04
	ePP	54 18
	i	54 38
	eS	58 13
	esS	59 02
CHI	eP	14 52 23
	ipP	52 45
	iPP	53 06
	eS	56 45
	iS	56 51
	iL	57 37
COL	iP	14 56 32
	eS	15 04 38
	esS	05 02
	eScS	06 15
	eSS	08 22
	eL	11 00
COLU	iP	14 51 25
	iS	55 23
HONO	iP	14 56 28
	e	56 54
	eS	15 04 26
HH	iP	14 53 24
	ipP	53 41
	iPP	54 28
	eS	58 52
	e	15 24 17
	eP'P'	28 10
LIN	eP	14 51 48
	e	54 44

Date and Station		Phase (GCT) h m s
LIN	iS	14 56 01
	eL	56 16
NEL	iP	14 52 00.5
	i	53 19.0
	i	53 41.0
	iS	56 32.0
	i	15 00 13.0
PHIL	eP	14 52 33
	ePP	53 14
	iS	57 23
	eL	58 32
RC	eP	14 52 28
	epP	52 41
	iPP	53 26
	iS	57 02
	eL	58 02
	eScS	59 19
SLC	eP	14 52 19
	eS	57 01
	eScS	58 53
	eL	15 00 06
SJ	iP	14 52 27
	iPP	53 10
	iPcP	55 40
	eS	57 09
	eL	58 05
SIT	eP	14 55 26
	epP	55 42
	eS	15 02 29
	iS	02 37
	eSS	06 06
	eL	08 01
TUC	eP	14 51 13
	ipP	51 37
	iS	55 04
	iL	55 51
WASH	iP	14 52 22
	i	52 39
	ipP	52 54
	i(PP)	53 43
	i	54 40
	eS	56 58
	isS	57 20
	eL	58 20
May 13		
BC	iP	15 17 56.2
COL	eP	15 22 11
	e	22 27
NEL	iP	15 17 54.1
May 13		
COL	eP	15 26 06
NEL	eP	15 25 01
May 13		
COL	iP	15 33 40

Date and Station		Phase (GCT) h m s
May 13		
NEL	iP	16 44 46.4
May 13		
BC	iP	18 31 59.4
COL	iP	18 30 28
HH	iP	18 31 57
NEL	iP	18 31 59.8
	i	35 23.2
	i	36 37.2
May 13		
COL	iP	19 18 26
May 13		
NEL	iP	20 05 03.8
May 13		
COL	iP	21 05 25
	i	05 37
HH	eP	21 08 02
NEL	eP	21 08 57
May 13		
NEL	eP	21 16 13.8
May 13		
NEL	eP	21 28 21
May 14		
HH	e(P)	00 25 23
May 14		
HH	iP	01 04 09
NEL	e(P)	01 03 12
SJ	eP	00 58 54
	iP	58 55
May 14		
HH	e(P)	06 54 28
May 14		
HH	e(P)	10 09 53
May 14		
BC	i(P)	16 27 26.0
HH	e(P)	16 28 33
NEL	iP	16 27 24.1
May 14		
BC	eP	17 43 12
HH	e(P)	17 43 15
	i	43 59
NEL	iP	17 43 09.1
May 14		
NEL	e(P)	17 59 35

B 4297-4

Date and Station	Phase	h m s
May 14		
NEL	eP	20 14 35
May 14		
COL	iP	20 48 10
May 14		
HH	e(P)	21 29 35
May 14		
BC	iP	22 51 21.1D
	ipP	52 14.1
	i	53 56.6
	iPP	54 30.1
	iS	23 01 14.6
	eP'P'	18 38
	e	19 58
	i(SKPP')	20 55.6
BOZ	eP	22 51 00
	epP	52 26
	ePP	54 01
	e	55 19
	eS	23 00 33
	eSPP	01 40
	e	02 09
	esSS	05 45
	e	09 30
	eL	11 13
BUR	iP	22 52 26
	ipP	53 31
	isP	53 55
BUT	iP	22 50 54
	i	51 15
	e	52 19
	eS	23 00 25
	esPS	00 46
	e	01 29
	e	07 00
	eL	10 30
COL	iP	22 48 10C
	epP	48 48
	iPcP	49 31
	i	50 58
	i	51 04
	e	51 30
	e(ScP)	52 13
	e	53 27
	eS	55 02
	i	55 14
	isS	56 41
	iScS	57 35
	i(SS)	59 12
	eL	23 00 12
COLU	iP	22 57 04
	epPP	58 02
	iSKS	23 03 05
	epS	04 56
	ePPS	07 05
	e(SS)	11 28
	eL	22 29
HONO	iP	22 48 54D
	eS	56 37
HONO	e	22 58 14
	eL	23 03 10
T_L=17 sec. $A_{max.}$=1.5mm.		
HH	iP	22 50 42D
	ipP	51 06
	ePP	53 22
	iPP	53 32
	e	54 28
	e	55 19
	e	59 56
	eS	59 58
	esS	23 00 29
	esPS	01 40
	e	02 14
	e	02 50
	e	17 32
	e	21 09
	e	37 47
NEL	iP	22 51 21.3D
	i	51 49.3
	i	52 21.3
	i	54 13.3
	i	23 20 54.6
PHIL	eP	22 52 36
	ePP	56 35
	ipPP	59 39
	iSKS	23 02 50
	eS	03 41
	e(pS)	04 32
	esS	05 05
	ePS	05 28
	esPS	06 10
	iPPS	06 51
	eSS	10 32
	eSSS	14 11
	eL	24 28
RC	iP	22 51 28W
	epP	52 33
	ePP	54 26
	epPP	55 29
	esPP	55 46
	eS	23 01 24
	eSP	02 07
	e	02 36
	esS	03 04
	eSSS	13 29
SLC	eP	22 51 13
	e	52 40
	eS	23 01 01
	e	02 08
	e	02 41
SJ	iP'	22 57 51D
	epP'	58 55
	ePP	59 16
	i	59 24
	e	23 00 47
	e	03 40
	eSKS	04 24
	eSKKS	05 36
	eS	06 40
	eSPP	10 17
SJ	i	23 10 47
	e	17 23
	eL	27 48
SIT	iP	22 49 04SE
	ipP	49 58
	isP	50 23
	iPP	51 13
	i	51 37
	iScP	53 23
	ePcS	53 58
	eS	56 58
	esS	57 56
	e	58 28
	i(ScS)	58 43
	eSS	23 00 18
	eL	03 33
TUC	iP	22 51 45D
	ipP	52 50
	isP	53 11
	i	54 48
	iPP	55 09
	isPP	56 30
	eSKS	23 01 51
	eSP	03 16
	esPS	04 30
	e(SS)	11 08
WASH	iP	22 52 41
	ipP	56 46
	e(pPP)	57 40
	isPP	58 10
May 14		
NEL	e(P)	23 38 04
	i	39 47.4
May 14		
TUC	e(P)	23 57 38
	e	00 03 38
May 15		
BC	e(P)	00 58 37
NEL	e(P)	00 58 27
May 15		
HH	e(P)	02 38 27
May 15		
COL	iP	03 24 41
HH	e(P)	03 29 19
May 15		
COL	eP	03 59 01
HH	eP	04 01 31
May 15		
COL	e(P)	06 02 23
HH	e(P)	06 05 15
	e	08 03
NEL	iP	06 08 23.6
	i	08 35.1
May 15		
COL	iP	09 05 17
May 15		
COL	eP	09 16 11
May 15		
COL	iP	11 30 54
NEL	eP	11 31 03
May 15		
COL	iP	11 35 36
NEL	iP	11 35 44.8
May 15		
COL	iP	12 36 42
HH	eP	12 37 22
May 15		
BC	eP	13 05 23
	e	09 13
BUT	iP	13 03 52
	i	03 59
	e	04 48
	eL	05 45
COL	eP	13 07 08
	iP	07 09
	i	07 21
HH	iP	13 03 33
	i	04 03
	iS	04 35
	i	04 58
	iL	05 10
NEL	iP	13 05 25.9
	i	06 07.9
	i	09 19.4
May 15		
COL	iP	13 19 13
	i(pP)	19 23
	i	19 32
May 15		
NEL	iP	15 59 17
May 15		
COL	iP	16 53 22
May 15		
HH	e(P)	17 25 24
May 15		
HH	e(P)	17 41 55
May 15		
COL	iP	21 46 30
May 15		
BC	eP	23 31 04
BUT	e(P)	23 31 38

Date and Station		Phase (GCT) h m s
BUT	e	23 31 40
HH	iP	23 31 52
NEL	iP	23 31 03.0
	i	31 08.9
	e	31 46
TUC	eP	23 30 37
May 16 HH	eP	02 08 12
	i	08 32
May 16 HH	eP	02 26 50
May 16 COL	eP	02 52 51
May 16 COL	eP	03 14 41
May 16 COL	iP	03 27 02
HH	eP	03 29 59
May 16 HH	e(P)	04 06 01
May 16 BC	iP	13 07 46.0
	i	07 49.3
	ePcP	09 48
BUT	eP	13 07 17
	ePP	08 41
COL	eP	13 03 07
	iP	03 08
	i	03 14
	i	03 19
	eS	05 12
	eL	05 40
	i	07 08
HH	eP	13 06 42
	iPcP	08 33
	i	09 24
NEL	iP	13 07 47.1
	i	07 50.1
	iPcP	09 50.1
TUC	eP	13 08 26
May 16 COL	iP	15 04 49
HH	eP	15 09 13
NEL	eP	15 10 39
May 16 COL	eP	16 10 36
HH	eP	16 11 20

Date and Station		Phase (GCT) h m s
May 16 COL	iP	17 11 24
May 16 HH	eP	17 47 58
May 16 BUT	eP	20 23 56
COL	iP	20 21 59
	ipP	22 42
	isP	23 14
HH	eP	20 23 43
	epP	24 27
	ePP	27 34
NEL	e(pP)	20 25 35
	ePP	29 15
May 16 NEL	eP	21 52 58
May 17 HH	e(P)	00 10 28
May 17 NEL	eP	04 27 15
May 17 BC	e(P)	05 27 48
NEL	iP	05 27 34.4
TUC	eP	05 27 37
May 17 HH	e(P)	09 24 08
May 17 HH	e(P)	10 41 26
NEL	eP	10 42 13
May 17 BC	eP	13 20 16
BUT	eP	13 21 21
May 17 HH	iP	13 21 34.5
NEL	iP	13 20 14.4
TUC	eP	13 19 53
	epP	20 06
May 17 HH	eP	13 49 24
May 17 HH	e(P)	17 01 04
May 17 NEL	eP	17 15 21
May 17 HH	e(P)	17 23 49
	e	27 26

Date and Station		Phase (GCT) h m s
May 17 BC	iP	21 02 09.8
HH	iP	21 01 14
	i	03 28
NEL	iP	21 02 11.1
	i	03 50.6
May 17 HH	eP	21 37 03
SJ	eP	21 31 54
May 17 NEL	eP	22 49 32
TUC	eP	22 48 34
May 18 HH	e(P)	00 13 49
May 18 NEL	iP	02 39 08.7
May 18 NEL	iP	02 42 06.3
TUC	eP	02 41 27
May 18 BC	eP	05 21 13
BUT	iP	05 21 52
	i	22 19
COL	iP	05 24 16
	e	27 55
HH	eP	05 22 07
	i	22 14
NEL	iP	05 21 11.8
SJ	iP	05 17 17
TUC	eP	05 20 37
May 18 HH	e(P)	05 50 24
May 18 BC	e(P)	10 27 44
BUT	iP	10 27 08
	ipP	27 22
COL	eP	10 24 47
HH	iP	10 26 57
	ipP	27 12
NEL	eP	10 27 31
	ipP	27 45.1
May 18 NEL	eP	10 42 47
	i	45 17.1

Date and Station		Phase (GCT) h m s
May 18 HH	e(P)	13 51 23
May 18 COL	eP	14 29 32
May 18 COL	eP	14 55 40
May 18 NEL	e(P)	15 59 50
May 18 COL	eP	21 30 07
May 18 COL	eP	22 01 21
May 18 COL	eP	23 22 30
May 19 COL	iP	04 32 35
HH	iP	04 32 55
	e	34 39
May 19 COL	eP	06 27 47
May 19 COL	eP	06 34 31
May 19 COL	iP	06 43 35
	ePcP	43 51
	ipP	44 07
HH	e(P)	06 45 25
	ePP	49 35
	ePPP	51 14
	iPKKP	07 00 45
	i	00 59
NEL	iPP	06 49 33.8
SJ	iP'	06 51 17
May 19 NEL	iP	07 00 31.1
	i	00 40.3
May 19 HH	e(P)	07 17 23
May 19 COL	iP	09 40 13
	i	40 27
	ipP	41 14
May 19 BUT	eP	09 46 35
COL	iP	09 45 55
HH	eP	09 46 26
NEL	eP	09 47 25

R 4297-4

Date and Station	Phase	(GCT) h m s
TUC	eP	09 47 30
May 19 COL	iP	10 36 48
May 19 HH	e(P)	18 22 12
May 19 BC	iP	18 43 41.1
HH	iP	18 44 26
NEL	iP	18 43 39.6
	e	45 53
May 19 COL	eP	21 26 32
	ipP	26 58
May 19 COL	iP	22 15 59
HH	e(P)	22 12 50
May 19 COL	eP	22 19 39
May 19 NEL	iP	23 13 21.8
HH	iP	23 14 10.5
	i	14 39
May 19 BC	iP	23 20 45.3
	ePP	24 35
BUT	eP	23 20 53
COL	iP	23 19 40
	i	20 25
	i	25 01
	i	25 06
HH	iP	23 20 48.5
	ePP	24 36
	eSKS	31 28
	ePKKP	37 35
	eP'P'	45 49
NEL	iP	23 20 45.0
	i	21 37.0
	ePP	24 34
SJ	iP'	23 26 48
TUC	e(P)	23 21 00
	ePP	24 57
	eL	50 44
May 20 BC	e(P)	01 03 26
NEL	e(P)	01 03 34
May 20 BUT	eP'	02 35 39
COL	iP'	02 35 26
	ePP	37 56
HH	eP'	02 35 38
	ePP	39 13
NEL	eP'	02 35 29
May 20 BC	eP	05 53 31
NEL	eP	05 53 36
	e	54 36
May 20 HH	e(P)	07 27 49
May 20 COL	eP	08 37 37
May 20 HH	e(P)	11 46 13
May 20 TUC	eP	13 50 53
May 20 COL	eP	14 09 20
	e	10 12
May 20 HH	e(P)	17 27 11
	e(S)	27 45
May 20 COL	iP	17 48 21
May 20 NEL	e(P)	21 13 14
May 20 COL	iP	23 43 25
May 21 COL	iP	01 10 11
May 21 NEL	e(P)	03 40 59W
May 21 COL	iP	05 22 25
May 21 BC	eP'	05 25 49
BUT	iP'	05 25 04
	i	25 08
	i	25 13
COL	iP'	05 24 50
HH	eP'	05 24 49
	iP'	24 50
	e	25 29
	e	25 59
NEL	iP'	05 25 49.5
	e	29 40.5
TUC	eP'	05 26 08
May 21 COL	iP	06 42 09
May 21 BC	eP	07 41 04
COL	eP	07 41 51
HH	eP	07 41 51
NEL	iP	07 41 03.5
TUC	eP	07 40 34
May 21 COL	iP	08 33 48
	e	34 24
May 21 BUT	eP	10 00 36
COL	eP	10 04 00
HH	eP	10 00 55
NEL	eP	09 59 37
TUC	eP	09 58 52
May 21 BC	iP	16 20 06.6
	i	20 14.4
BUT	eP	16 19 23
COL	iP	16 15 45
	i(S)	17 52
HH	iP	16 19 00
	e(PcP)	22 20
	i	22 24
	eL	25 57
NEL	iP	16 20 08.5
	i(pP)	20 36.5
	i	20 50.7
SJ	eP	16 25 07
TUC	eP	16 20 47
May 21 NEL	eP	16 26 24
May 21 BC	eP	17 38 45
	i	38 59
COL	eP	17 40 45
HH	eP	17 38 09
NEL	iP	17 38 45.0
	i	39 01.0
TUC	eP	17 39 49
May 21 COL	iP	17 44 28
May 21 COL	eP	23 16 36
HH	eP	23 14 00
NEL	iP	23 14 35.4
TUC	eP	23 15 37
May 22 BC	eP	00 13 39
NEL	eP	00 13 36
TUC	eP	00 12 46
May 22 BUT	e(P)	00 45 31
TUC	eP	00 43 51
May 22 BUT	eP	04 11 23
	e	11 36
HH	eP	04 11 12
NEL	e(P)	04 11 38
	e	11 52
May 22 COL	iP	05 43 25
May 22 COL	iP	12 14 10
	i	14 20
	i	14 36
	i	14 46
HH	eP	12 15 17
NEL	eP	12 15 13
	e	15 28
May 22 NEL	i(P)	14 52 10.4
May 22 TUC	eP	15 36 02
May 22 NEL	e(P)	15 58 13
May 22 COL	iP	16 20 30
May 22 COL	iP	16 25 02
NEL	eP	16 27 02
May 22 HH	e(P)	19 08 48

Date and Station		Phase (GCT)
		h m s
May 22		
BUT	eP	21 18 41
	i	19 09
May 22		
HH	e(P)	22 08 54
	e	09 12
May 22		
COL	iP	23 02 13
NEL	eP	23 02 25
May 23		
NEL	eP	00 36 23
May 23		
HH	e(P)	01 05 04
May 23		
NEL	e(P)	01 16 15
May 23		
BC	i(P)	01 36 34.9
May 23		
NEL	e(P)	02 59 41
May 23		
BC	i(P)	03 47 04.7
BUT	e(P)	03 47 16
HH	e(P)	03 47 28
	e	47 57
NEL	eP	03 46 53
	iP	47 03.6
May 23		
BC	iP	04 21 19.0
	i	21 21.2
	ipP	21 48.7
BUT	iP	04 20 44
	ipP	21 20
COL	iP	04 17 36
	ipP	18 10
	eS	23 22
	iS	23 23
HH	iP	04 20 29.5
	epP	20 58
	iPcP	21 12
	eS	28 36
	e	29 06
	eScS	30 08
	eP'P'	49 19
NEL	iP	04 21 19.1
	esP	22 09
TUC	iP	04 21 48
	epP	22 19
May 23		
BC	e(P)	04 49 23
NEL	e(P)	04 49 25
May 23		
BC	eP'	07 15 25
BUT	e(P')	07 14 43
COL	eP	07 09 27
	e	10 16
HH	e(P)	07 11 19
	e	14 26
	ePP	15 49
NEL	e(P)	07 11 45
	iP'	15 24.3
	ePKKP	26 19
SJ	eP'	07 17 10
TUC	eP'	07 15 47
May 23		
BC	e(P)	10 05 10
NEL	e(P)	10 05 00
May 23		
HH	e(P)	13 41 09
May 23		
BUT	eL	13 45 08
HH	e(P)	13 43 28
	e(S)	44 14
May 23		
COL	eP	15 43 02
May 23		
BC	i(P)	16 20 50.2
COL	eP	16 23 49
HH	e(P)	16 21 34
NEL	eP	16 20 36
	e	20 45
TUC	eP	16 20 01
May 23		
BC	e(P)	17 37 16
NEL	eP	17 37 54
May 23		
BC	i(P)	23 11 57.4
COL	eP	23 16 15
HH	e(P)	23 13 13
NEL	eP	23 11 55
TUC	e(P)	23 11 11
	e	11 32
May 23		
BC	iP	23 53 37.0
	i	53 42.3
	i	53 51.0
	iS	53 53.5
BOZ	eL	23 59 10
BUT	eP	23 55 41
	eL	59 02
COL	eP	23 59 32
COLU	eL	00 09 09
HH	iP	23 56 02.5
	eL	59 53
NEL	iP	23 53 35.1
SJ	eP	00 01 39
TUC	eP	23 54 30.5
	i	54 34
	i	55 00
	i	55 12
	i	55 40
	iS	55 48
	iL	56 28
	i	56 31
May 24		
COL	iP	00 02 06
May 24		
TUC	eP	00 40 31
May 24		
BC	e(P)	03 57 50
COL	eP	03 53 55
NEL	e(P)	03 57 51
May 24		
HH	e(P)	04 10 02
May 24		
COL	eP	04 44 10
May 24		
COL	eP	05 16 22
	i	16 32
May 24		
BC	eP	06 02 26
NEL	eP	06 02 25
TUC	eP	06 02 32
May 24		
BC	eP	07 39 33
	i	39 39.2
	ipP	40 49.0
BUT	e(P)	07 39 00
HH	eP	07 38 41
NEL	iP	07 39 34.2
	i	39 39.7
	ipP	39 46.7
	e	40 12
TUC	eP	07 40 06
May 24		
BC	iP	08 27 34.4
	ipP	27 59.4
BUT	iP	08 27 27
	ipP	27 52
COL	eP	08 25 30
	iP	25 32
HH	iP	08 27 19
NEL	iP	08 27 34.5
	epP	27 59
	esP	28 16
TUC	eP	08 27 56
May 24		
COL	iP	10 55 43
	i	55 52
May 24		
COL	iP	15 02 42
May 24		
BC	iP	16 51 13.1
COL	iP	16 50 46
	i	50 51
HH	iP	16 50 17
NEL	iP	16 51 14.3
May 24		
HH	e(P)	17 26 02
May 24		
COL	iP	19 23 41
May 24		
NEL	eP	20 49 41
May 24		
BC	e(P)	21 08 42
COL	iP	21 13 04
NEL	iP	21 08 40.5
	i	08 49.5
	i	09 02
TUC	e(P)	21 08 07
May 24		
BC	e(P)	21 22 51
NEL	eP	21 20 01

Date and Station		Phase	(GCT) h m s
May 24			
NEL		e(P)	21 46 38
May 24			
BC		e(P)	22 06 39
NEL		e(P)	22 05 39
May 24			
COL		iP	22 43 12
HH		e(P)	22 45 07
May 25			
BC		e(P)	00 39 22
BUT		e(P)	00 39 04
HH		eP	00 38 50
NEL		iP	00 39 23.8
		i	39 29.3
May 25			
COL		iP	01 37 48
NEL		eP	01 41 41
TUC		eP	01 42 17
May 25			
BC		e(P)	07 28 41
COL		iP	07 29 22
NEL		e(P)	07 28 39
May 25			
COL		iP	07 48 47
May 25			
COL		eP	11 10 15
HH		e(P)	11 12 00
NEL		e(P)	11 12 16
May 25			
COL		eP	15 05 18
May 25			
COL		e(P)	22 14 42
		e	14 52
		e	14 59
May 25			
BC		eP	22 17 02
BUT		iP	22 16 15
COL		iP	22 15 20
COLU		eP	22 15 36
HH		iP	22 16 06
NEL		iP	22 17 00.5
		e(PP)	20 47
SJ		iP	22 15 30
TUC		e(P)	22 17 07
May 26			
BC		eP	01 53 15
		i	53 19.1
		i	53 28.1
		i	53 52.6
BUT		eP	01 52 39
COL		iP	01 49 11
		i	49 19
		i	49 43
HH		eP	01 52 18
NEL		iP	01 53 16.9
		i	53 19.6
		i	53 27.8
		i	53 48.6
TUC		eP	01 53 47
May 26			
COL		iP	04 39 43
		i	39 49
May 26			
COL		iP	04 54 50
May 26			
COL		iP	06 26 12
May 26			
COL		iP	07 04 22
May 26			
BC		eP	10 10 52
		i	10 59.6
COL		eP	10 11 31
NEL		eP	10 10 50
		e	11 00
		e	11 15
		e	11 26
TUC		eP	10 10 51
		eL	38 19
May 26			
HH		e(P)	10 28 08
May 26			
COL		eP	10 44 22
NEL		e(P)	10 50 35
		e	51 18
May 26			
HH		e(P)	12 46 02
May 26			
COL		eP	13 40 40
May 26			
COL		eP	18 17 56
		i	18 06
May 26			
BC		iP	19 08 05.0
		i	08 19.0
		i	08 29.2
BUT		eP	19 07 29
COL		iP	19 04 11
		ipP	04 20
		iPP	04 46
		i	05 00
HH		eP	19 07 13
NEL		iP	19 08 06.7
		ipP	08 20.5
		e(PcP)	08 40
		i	08 48.2
TUC		eP	19 08 36
May 26			
BC		e(P)	19 52 54
COL		iP	19 48 25
HH		e(P)	19 51 36
NEL		iP	19 52 42.5
		e	52 56
May 26			
HH		eP	22 13 54
May 26			
HH		iP	23 34 48
May 27			
NEL		e(P)	02 26 39
May 27			
COL		eP	03 50 01
May 27			
COL		eP	03 52 32
May 27			
BUT		iP	07 02 37
		i	02 47
COL		iP	07 00 03
HH		iP	07 02 27
NEL		eP	07 03 01
		i	03 13.5
TUC		eP	07 03 26
May 27			
NEL		e(P)	07 59 17
May 27			
COL		iP	10 05 15
		i(PcP)	05 21
		ipP	05 34
HH		eP	10 08 00
May 27			
TUC		e(P)	10 36 18
		e	38 52
May 27			
BC		e(P)	10 42 50
NEL		e(P)	10 41 35
		e	41 43
May 27			
COL		iP	16 30 38
		e	31 59
NEL		iP	16 36 31.1
		e	37 57
May 27			
HH		e(P)	22 20 26
May 28			
NEL		e(P)	00 00 20
May 28			
BC		e(P)	00 47 12
NEL		e(P)	00 47 03
May 28			
HH		iP	02 09 40
May 28			
BC		i(P)	04 17 34.0
NEL		e(P)	04 17 39
May 28			
BC		i(P)	05 06 24.4
NEL		iP	05 06 24.0
		i	06 30.0
May 28			
HH		e(P)	07 23 32
May 28			
BUT		iP	07 55 41
		i	55 44
COL		iP	07 54 46
HH		iP	07 55 33.5
May 28			
BC		iP	08 06 18.1
		i	06 39.7
		eScP	13 16
BUT		iP	08 07 28
COLU		eP	08 06 30
HH		iP	08 07 50
		i(PcP)	10 38
NEL		iP	08 06 16.2
		i	06 38.2
		iScP	13 00.2

Date and Station		Phase (GCT) h m s
SJ	e(P)	08 08 02
TUC	iP	08 05 25
	eS	09 06
May 28		
COL	e(P')	09 38 46
	ePP	40 14
May 28		
BC	iP	10 15 39.6
	i	15 48.6
BUT	iP	10 15 50
HH	eP	10 15 45
	i	16 17
NEL	eP	10 15 36
	iP	15 38.7
	i	15 48.2
	i	16 12.9
TUC	e(P)	10 15 26
May 28		
TUC	eP	10 59 45
May 28		
COL	e(P)	11 11 17
	e	11 52
May 28		
BC	e(P)	12 06 55
HH	iP	12 07 41
	e	09 08
NEL	iP	12 06 55.3
	i	09 23.5
May 28		
NEL	e(P)	12 13 09
	e	13 15
May 28		
HH	e(P)	13 20 39
May 28		
BC	iP	13 34 57.7
	i	35 06.9
COL	iP	13 35 27
HH	iP	13 35 31
	e(PP)	39 12
NEL	iP	13 34 56.6
	i	35 13.6
	i	35 30.4
	i(PP)	38 17.8
TUC	iP	13 35 02
	i	35 40
May 28		
HH	e(P)	13 52 42
May 28		
COL	iP	15 07 23
May 28		
COL	iP	15 48 57
May 28		
HH	e(P)	17 33 14
May 28		
BC	e(P)	19 30 03
HH	e(P)	19 31 13
NEL	eP	19 29 51
May 28		
HH	e(P)	22 30 36
May 28		
BC	i(P)	23 54 54.8
BUT	iP	23 55 28
COL	iP	23 55 29
HH	eP	23 55 29
NEL	iP	23 54 52
TUC	eP	23 54 59
May 29		
BC	e(P)	00 23 33
NEL	iP	00 23 28.6
TUC	eP	00 22 35
May 29		
HH	eP	00 45 55
May 29		
BUT	e(P)	04 24 52
HH	e(P)	04 25 36
TUC	e(P)	04 26 10
May 29		
BC	iP	05 48 42.9
	i	49 03.9
	ipP	50 45.4
	eS	58 07
BUT	iP	05 49 13
	ipP	51 19
COL	iP	05 49 06
	ipP	51 11
	i	51 27
	eSKS	58 38
	iS	58 53
HH	iP	05 49 14
	ipP	51 19
	ePP	52 47
	eSKS	58 48
	iPKKP	06 07 02
	e	15 08
NEL	iP	05 48 41.6
	i	48 52.8
	i	49 08.0
	ipP	50 44.8
	i	50 47.8
SJ	iP'	05 55 07
TUC	iP	05 48 48.5
	iPcP	48 55
	epP	50 50
	ePP	52 20
	eS	58 22
	eSKPP'	06 17 57
May 29		
COL	iP	06 26 35
May 29		
COL	eP	09 12 27
May 29		
COL	iP	10 52 06
HH	eP	10 49 02
NEL	eP	10 47 42
TUC	eP	10 47 00
May 29		
BC	i(P)	11 14 54.1
May 29		
TUC	e(P)	11 48 18
May 29		
COL	eP	12 14 11
May 29		
BC	iP	12 22 24.5
BUT	iP	12 22 58
COL	iP	12 25 11
HH	iP	12 23 12
NEL	eP	12 22 22
	iP	22 23.2
TUC	eP	12 21 50
May 29		
BC	iP	15 09 43.9
BUT	iP	15 10 18
	i	10 58
HH	iP	15 10 30
NEL	iP	15 09 42.5
	i	09 50.5
	i	10 03.5
	i	10 21.5
	i	10 37.5
TUC	eP	15 09 16
May 29		
HH	e(P)	16 40 28
May 29		
HH	eP	17 24 44
TUC	eL	17 32 22
WASH	e	17 29 00
May 29		
COL	iP	19 12 47
May 29		
COL	eP	20 45 03
HH	e(P)	20 47 38
	i	47 47
May 29		
BC	eP	22 33 29
BUT	eP	22 34 13
	i	34 25
COL	iP	22 34 19
	i	34 31
HH	e(P)	22 34 07
	e	34 22
NEL	iP	22 33 37.5
	i	33 49.0
	e	34 02
TUC	eP	22 33 41
	eL	23 07 27
May 30		
HH	e(P)	00 45 34
May 30		
COL	iP	02 35 18
	ipP	35 49
May 30		
COL	iP	03 28 22
May 30		
BUT	eP	04 03 35
COL	eP	04 01 40
HH	iP	04 03 28
NEL	eP	04 03 42
May 30		
BC	eP	04 50 50
	i	51 11.8
BUT	eP	04 51 50
	iP	51 54
COL	iP	04 54 12
	i	54 21
COLU	eP	04 49 24

Date and Station		Phase (GCT) h m s
HH	eP	04 52 02
	i	52 11
NEL	eP	04 51 03
	i	51 07.7
TUC	eP	04 50 27
May 30 TUC	e(P)	06 09 28
May 30 HH	iP	09 30 14
May 30 HH	eP	10 54 40
May 30 NEL	eP	16 14 29
May 30 COL	iP	18 22 16
May 30 BC	eP'	20 05 15
BUT	eP'	20 05 05
COL	iP	19 59 25
COLU	e(P')	20 05 48
HH	e(P')	20 04 53
NEL	iP'	20 05 14.3
	i	05 25.0
	i	05 50.5
SJ	eP'	20 07 06
TUC	eP'	20 05 22
WASH	e(PP)	20 09 16
	e	10 42
May 30 NEL	i(P)	20 08 40.5
May 30 COL	iP	20 19 14
NEL	e(P)	20 16 54
TUC	e(P)	20 20 36
May 30 COL	iP	22 56 31
May 31 COL	eP	01 01 10
May 31 BC	e(P)	01 34 44
HH	iP	01 34 56
NEL	iP	01 35 04

Date and Station		Phase (GCT) h m s
May 31 NEL	eP	02 30 35
May 31 COL	iP	04 27 54
	i	28 25
May 31 BC	eP	06 23 15
COL	iP	06 22 09
	i	22 22
	i	22 26
HH	e(P)	06 23 17
NEL	eP	06 23 14
May 31 COL	eP	06 29 08
May 31 COL	eP	07 50 43
	e	50 55
May 31 HH	eP	09 20 09
May 31 HH	e(P)	11 12 49
May 31 BUT	eP'	16 07 32
	iP'	07 35
	ePP	09 12
	iPKKP	17 30
COL	e(P)	16 02 20
	e	05 16
	e	07 44
COLU	eP'	16 08 22
HH	iP'	16 07 28
	i	08 29
	e	08 52
	iPP	09 03
	e	11 45
	iPKKP	17 37
	e	20 51
NEL	iP'	16 07 37.0
	ePP	09 32
	iPKS	11 13.0
	ePKKP	17 23
	e	21 14
SJ	iP'	16 08 44
	i	10 12
	ePP	13 49
	ePPP	17 46
	eSKKS	20 57
	eSKSP	24 14
	eSS	34 30
	eL	58 32

Date and Station		Phase (GCT) h m s
TUC	eP'	16 07 46
	e(PP)	11 02
	e(PS)	20 45
	eL	40 31
WASH	iP'	16 08 18
	i	08 44
	i	08 51
	i	09 09
	ePP	11 52
May 31 HH	eP	16 48 27
NEL	e(P)	16 48 00
May 31 HH	e(P)	17 31 50
May 31 NEL	e(P)	18 30 18
May 31 HH	eP	18 57 28
May 31 NEL	eP	21 32 07

Date and Station	Phase (GCT) h m s

Local and Minor Earthquakes

day	hour
BOZ	
May	
15	13.1
BUT	
May	
1	20.1
2	12.5
	17.8
	22.9
3	07.4
	17.4
4	03.7
6	02.1
	03.6
	13.6
	20.9
	20.9
	21.0
8	18.3
9	09.3
	12.3
	12.7
	18.5
10	20.7
	21.1
11	13.0
	13.1
	22.3
12	02.0
	05.3
	12.9
	22.5
13	12.2
18	22.0
	23.6
21	00.8
	19.5
23	00.1
	12.3
25	06.2
	10.0
27	16.2
COL	
May	
2	07.6
	19.0
	23.1
3	06.0
	09.0
	17.3
4	16.2
	17.0
8	12.5
9	01.9
	07.9
	17.8
10	11.5
11	00.4
	15.7
13	20.7
14	03.6
15	03.4
16	00.1
	01.4
18	11.5

Local and Minor Earthquakes

day	hour
COL	
May	
20	13.8
21	10.4
	12.9
22	02.0
	14.9
25	10.2
26	00.2
	03.9
	10.9
	13.4
	22.2
27	17.2
	21.8
28	02.3
	05.9
	08.2
	13.3
29	13.8
30	04.3
31	00.4
	01.7
	12.5
	16.3
HONO	
May	
15	01.4
SJ	
May	
1	07.9
2	10.2
8	07.0
	19.7
16	20.3
23	03.7
	03.8
25	09.6
26	01.3
31	16.6
	18.8
TUC	
May	
1	22.1
2	02.8
3	01.2
	09.0
	10.1
	10.2
4	13.1
5	02.4
	11.2
	11.4
	13.3
	13.9
	14.1
	15.1
	17.5
	18.2
	18.6
	19.8
	22.9
6	00.4
	01.4

Local and Minor Earthquakes

day	hour
TUC	
May	
6	05.4
	05.9
	10.9
	11.2
	12.2
	11.8
7	01.3
	12.9
	20.5
8	01.2
	06.7
	12.3
9	00.1
	00.7
	01.1
	02.9
	04.7
	09.9
	17.4
11	04.2
	16.6
12	09.8
	09.9
15	03.8
16	03.7
17	04.7
	12.2
18	05.0
19	21.8
20	07.4
	07.5
22	06.8
24	21.8
	23.8
25	10.8
26	00.9
28	17.5
29	05.9
	22.9
30	05.0
31	08.1

Local and Minor Earthquakes