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U. S. COAST & GEODETIC SURVEY
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SEISMOLOGICAL BULLETIN

October, 1954

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U. S. DEPARTMENT OF COMMERCE

Sinclair Weeks, Secretary

U. S. COAST AND GEODETIC SURVEY—WASHINGTON

R. F. A. Studds, Director

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National Oceanic and Atmospheric Administration

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March 4, 2011

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

**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.		Remarks, Focal Depth, and Remarks
Oct.	h m s	° ′		° ′		
1	02 55 31*	11	S.	166	E.	Santa Cruz Islands. Mag. 6.8
1	03 41 34**					Solomon Islands region.
1	06 50 24*	14½	S.	173	W.	Samoa Islands. Felt at Apia. h about 60 km.
1	12 20 39**					Near coast of Chiapas, Mexico
2	10 00 52*	29	N.	140	E.	Bonin Islands region. h about 450 km.
2	19 48 50*	10½	S.	75	W.	Central Peru.
3	02 47 17*	10	S.	165½	E.	Santa Cruz Islands. Mag. 6-3/4 - 7.
3	08 50 45*	54	N.	166½	E.	Komandorski Islands.
3	08 51 23**					Eastern Wyoming. Felt.
3	11 18 46*	60½	N.	151	W.	Kenai Peninsula, Alaska. Minor damage at Anchorage, Seward, Valdez, and Homer. h about 100 km. Mag. 6-3/4 - 7.
3	13 34 14*	17½	N.	145	E.	Marianas Islands. h about 200 km.
3	23 21 36*	1	S.	127½	E.	Molucca Islands.
4	01 33 21*	25	N.	122	E.	Formosa. Felt.
4	08 12 18*	27½	N.	125½	E.	Ryukyu Islands region. h about 100 km.
4	09 32 56*	11	S.	166	E.	Santa Cruz Islands.
4	22 39 20**					New Hebrides Islands region.
5	04 18 13*	33	N.	141	E.	Off south coast of Honshu, Japan. Felt at Tokyo.
5	11 28 17*	55	N.	109	E.	Lake Baikal, U.S.S.R.
6	08 20 09*	52	N.	160½	E.	Off southeast coast of Kamchatka.
6	08 27 48*	52	N.	160	E.	Do.
7	07 57 23**					Chagos Archipelago region, Indian Ocean.
7	19 18 08**					Off east coast of New Guinea.
8	09 14 53*	31½	S.	71½	W.	Central Chile. h about 100 km.
8	10 46 04*	44½	N.	148	E.	Kurile Islands.
9	01 47 13**					Tonga Islands region. h about 150 km.
9	19 12 53*	15½	S.	173½	W.	Tonga Islands region.
10	23 21 40*	7	N.	78	W.	Near coast of Colombia.
11	16 11 45*	52	N.	162	E.	Off southeast coast of Kamchatka.
11	17 11 17**					New Hebrides Islands. h about 150 km.
12	19 23 30**					Northern Algeria. Property damage at Carnot, Attafs, and Dupleix.
13	06 02 10*	4	N.	83	W.	South of Panama.
14	01 35 00*	7	S.	128	E.	Banda Sea.
16	00 28 11*	71	N.	14	W.	Jan Mayen Island region.

Date 1954	Origin Time G. C. T.	Lat.		Long.		Region, Focal Depth, and Remarks
Oct.	h m s	° ′		° ′		
16	01 02 19*	71	N.	14	W.	Jan Mayen aftershock.
16	16 18 40**					Tonga Islands region. h about 250 km.
16	20 15 32**					Jan Mayen aftershock.
17	15 02 26**					Northern Chile.
17	22 57 18*	31½	N.	116½	W.	Lower California. Felt in San Diego and Imperial Counties, California. Mag. 5.8
18	10 55 10**					Andreanof Islands, Aleutian Islands.
19	17 48 14*	57½	N.	32½	W.	North Atlantic Ocean.
20	13 54 51**					Central Formosa.
20	19 54 05*	39	N.	119	W.	Fallon, Nevada.
20	23 41 43*	31	N.	141	E.	South of Honshu, Japan.
21	00 10 07*	41	S.	80½	E.	South Indian Ocean. Mag. 7
21	03 28 25*	54½	N.	162	E.	Near east coast of Kamchatka.
21	06 51 48*	14	N.	90½	W.	Guatemala. Felt in El Salvador. h about 60 km. Mag. 6½.
21	18 01 53*	36½	N.	2	E.	Near coast of Algeria.
21	20 03 00*	10	S.	75	W.	Central Peru. h about 100 km.
22	16 29 12*	33	N.	138	E.	Off south coast of Honshu, Japan.
22	17 13 09**					Off south coast of Honshu, Japan.
23	00 45 08*	45	N.	148	E.	Kurile Islands. h about 100 km.
23	18 03 14*	16	S.	179	W.	Fiji Islands. h about 100 km.
24	09 44 05*	31½	N.	116	W.	Lower California. Felt in San Diego and Imperial Counties, California. Mag. 6.0
24	11 21 18**					Lower California aftershock. Mag. 5.5
24	23 37 10*	39½	N.	27	E.	Western Turkey.
25	19 03 50**					Fiji Islands region. h about 200 km.
26	19 16 42**					Andreanof Islands, Aleutian Islands.
26	20 28 13*	51½	N.	176	W.	Do.
26	22 22 14*	6	N.	82½	W.	South of Panama.
27	03 22 54*	51	N.	176½	W.	Andreanof Islands, Aleutian Islands.
27	09 54 30*	4	S.	105	W.	Pacific Ocean, southwest of Galapagos Islands.
27	10 30 19*	52	N.	174	E.	Near Islands, Aleutian Islands.
27	21 48 41*	40	N.	77	E.	Sinkiang province, China.
27	23 52 06**					Kodiak Island region, Alaska.
28	01 07 27*	22	S.	69½	W.	Northern Chile. Felt at Montezuma. h about 100 km.
29	11 09 10**					Loyalty Islands region.
29	20 00 17**					New Hebrides Islands.
30	16 05 02*	50	N.	157	E.	Northern Kurile Islands.

Date 1954	Origin Time G. C. T.	Lat.		Long.		Region, Focal Depth, and Remarks
Oct.	h m s	° ′		° ′		
30	18 26 56**					New Hebrides Islands region.
30	21 56 50*	38	N.	104	E.	Ningsia province, China.
30	23 43 27*	40	N.	46	E.	Azerbaijan, S.S.R.
30	23 58 13**					Near northeast coast of New Guinea.
31	08 01 39*	51	N.	176½	W.	Andreanof Islands, Aleutian Islands.
31	23 12 52*	18½	S.	170	E.	New Hebrides Islands. Mag. 6¼ - 6½ (Berkeley)
31	23 33 52*	16½	S.	170	E.	New Hebrides Islands.

Date and Station	Phase	Phase (GCT) h m s
Oct. 1		
BH	iP	01 00 24
	iS	00 27
Oct. 1		
HH	e(P)	03 04 24
NEL	eP	03 04 40
Oct. 1		
BC	iP	03 07 59.0
MONT	iP	03 05 11
NEL	iP	03 07 57.3
Oct. 1		
BC	iP	03 08 24.9
	i	08 33
	eS	19 09
BOZ	eP	03 08 50D
	ePP	12 40
	eS	19 36
	e	20 08
	ePS	21 07
	eSS	25 18
	e(SSS)	30 10
	eL	33 06
BUT	eP	03 08 44D
	iP	08 46
	i	09 09
	ePP	12 10
	eSKS	19 17
	iS	19 30
	iPS	20 06
	iPPS	21 07
	i	21 24
	eSS	25 35
	eSSS	29 52
	eL	32 47
CHI	ePP	03 14 40
	eSKS	20 56
	e(S)	22 33
	ePS	24 02
	ePPS	25 07
	eSS	29 35
	e	30 17
	eSSS	34 11
	eL	43 44
COL	iP	03 07 58D
	i	08 07
	iPP	11 21
	iS	18 16
	iScS	18 39
	eSS	23 14
	eSSS	27 11
	eL	29 17
COLU	ePP	03 15 08
	iPP	15 24
	iSKS	21 18
	eS	23 09
	iPS	25 01
	ePPS	26 20
	eSS	31 03
COLU	eSSS	03 36 51
	eL	41 08
HONO	eP	03 04 16C
	iPcP	05 11
	ePP	06 16
	ePPP	06 56
	iS	11 24
	i	12 07
	eL	15 16
T_S = 9 sec. A = 2mm.		
T_L = 16 sec. $A_{max.}$ = 4mm.		
HH	iP	03 08 41D
	ePP	12 32
	iS	19 27
	ePS	20 34
	iPPS	21 01
	e	21 43
	ePKKP	26 01
	eP'P'	34 16
MONT	eP'	03 14 20
	ePP	15 36
LIN	ePP	03 14 03
	eSKS	20 23
	ePS	23 01
	eSS	28 16
	eL	37 08
NEL	iP	03 08 23.7D
	i	08 35.7
	iPP	11 58.7
	i	12 19
	eS	19 08
	ePS	20 23
	ePKKP	26 17
	eP'P'	34 23
	iP'P'	34 27.7
PHIL	ePP	03 15 46
	eSKS	21 26
	eSKKS	22 51
	eS	23 53
	ePS	25 33
	ePPS	27 00
	eSS	32 18
	eSSS	36 18
	eL	46 21
RC	ePP	03 13 21
	iSKS	20 03
	eS	20 53
	ePS	21 41
	eL	36 28
SLC	eP	03 08 40C
	iP	08 43
	i	09 01
	e(PP)	12 32
	e	16 58
	iSKS	19 09
	i	20 00
	iPS	20 58
	eSS	25 39
	eSSS	29 28
	eL	33 10
SJ	iP'	03 14 43D
	ePP	17 02
	ePKS	18 07
	iPKS	18 18
	eSKS	22 07
	eSKKS	23 06
	ePPS	28 30
	eSS	33 29
	ePSPS	35 02
	eSSS	38 35
	eL	54 08
SIT	eP	03 08 09
	eS	18 24
	iS	18 32
	ePS	19 19
	iPS	19 24
	eL	29 50
TUC	eP	03 08 13C
	iP	08 36D
	i	08 47
	e	10 38
	ePP	11 51
	iPP	12 20
	eS	19 13
	iPS	19 50
	e	20 21
	iPPS	20 50
	e	22 05
	eSS	25 16
	e	29 24
	eL	31 20
WASH	ePP	03 15 40
	ePPS	25 14
	e	28 38
	eSS	41 02
Oct. 1		
COL	eP	03 38 48
Oct. 1		
COL	eP	03 52 56
Oct. 1		
BC	iP	03 54 33.5
	e	54 50
BOZ	eP	03 54 56
COL	iP	03 54 07
HH	iP	03 54 49
NEL	iP	03 54 32.8
	e	54 54
SJ	iP	04 00 51
TUC	eP	03 54 46
Oct. 1		
COL	iP	04 02 47
	i	02 56
HH	eP	04 03 29
Oct. 1		
COL	iP	04 37 35
Oct. 1		
COL	eP	04 56 02
	e	56 11
	e	58 48
Oct. 1		
BH	iP	06 09 30
	iS	10 10
HH	e(P)	06 17 28
NEL	iP	06 16 27.1
SJ	eP	06 13 07
Oct. 1		
COL	iP	06 30 49
	e	32 21
Oct. 1		
BC	iP	07 02 01.5
	i	02 19.2
	i	02 34.2
BOZ	eP	07 02 41
BUT	iP	07 02 38
	ipP	02 57
COL	iP	07 02 38
	eS	12 58
	eL	27 02
HH	iP	07 02 40
	ePP	05 54
NEL	iP	07 01 59.7
	i	02 02.0
	ipP	02 19.2
	i	02 48.2
	e	03 10
	ePP	04 03
SLC	eP	07 02 25
	iP	02 29
	ipP	02 44
TUC	eP	07 02 08
	i	02 23
	eL	24 34
Oct. 1		
NEL	eP	08 20 57
Oct. 1		
COL	iP	11 07 00
Oct. 1		
COL	eP	11 26 46
SJ	e(P)	11 33 52
Oct. 1		
COL	eP	11 50 23

Date and Station		Phase (GCT) h m s
Oct. 1		
BC	eP	12 26 36
	i	26 42.1
BUT	eP	12 27 41
COL	iP	12 31 03
HH	eP	12 27 59
MONT	eP	12 28 50
NEL	iP	12 26 40.7
	i	26 51.9
TUC	eP	12 25 58
Oct. 1		
NEL	eP	12 53 10
Oct. 1		
NEL	e(P)	13 05 12
Oct. 1		
BC	eP	15 30 07
COL	iP	15 29 52
HH	eP	15 30 12
NEL	eP	15 30 06
	i	30 14.3
Oct. 1		
COL	eP	17 18 11
	e	18 27
Oct. 2		
HH	iP	01 38 46
	i(S)	39 13
Oct. 2		
NEL	eP	04 05 23
Oct. 2		
COL	iP	04 44 19
HH	e(P)	04 48 38
Oct. 2		
HH	e(P)	07 29 20
Oct. 2		
BC	iP	10 12 39.6
	i	12 42.6
	ipP	14 17.8
	e	16 00
BOZ	eP	10 12 26
BUT	iP	10 12 21
	e	12 50
	epP	14 05
COL	iP	10 09 46
	ipP	11 32
	i	12 37
HH	iP	10 12 10
	ipP	13 51
	eS	21 24
	eScS	21 41
MONT	eP'	10 19 50
	epP'	21 41
NEL	iP	10 12 40.4
	i	12 46.6
	i	13 02.8
	ipP	14 18.6
	esP	14 40
TUC	eP	10 13 02
Oct. 2		
COL	eP	11 01 16
Oct. 2		
COL	iP	14 16 40
Oct. 2		
SJ	iP	15 04 03
Oct. 2		
COL	iP	16 15 14
HH	e(P)	16 15 17
Oct. 2		
COL	iP	19 04 51
Oct. 2		
BC	eP	19 33 08
	i	33 14.9
COL	eP	19 34 02
HH	eP	19 32 40
MONT	eP	19 33 04
NEL	iP	19 33 08.7
	i	33 19.7
Oct. 2		
COL	iP	20 02 03
HH	eP	19 59 53
MONT	eP	19 52 05
NEL	iP	19 58 57.6
	e	59 05
SJ	e(P)	19 55 05
Oct. 2		
BUT	eP	22 19 47
HH	e(P)	22 20 35
SLC	eP	22 17 40
	e	18 19
	e	18 27
Oct. 3		
HH	i(P)	00 37 42
Oct. 3		
BC	iP	03 06 13.8
	i	00 24.5
	i	00 51.3
	i	01 12.5
	e	07 46
	e	11 14
BOZ	eP	03 00 38D
	eSKS	11 24
	eS	11 52
	ePS	12 36
	e	12 52
	e	13 05
	eSS	17 41
	e	20 40
	eL	24 14
BUT	eP	03 00 33D
	i	01 07
	i	03 03
	i	04 42
	e	06 30
	e	10 34
	eS	11 16
	e	18 42
	eL	24 26
COL	eP	02 59 43
	iP	59 46
	iPcP	59 59
	eS	03 10 02
	iS	10 11
	iScS	10 54
	ePPS	11 18
	eSS	15 00
	eL	21 10
COLU	eSKS	03 13 07
	e	15 42
	iPPS	18 08
	eSS	23 15
	iSS	23 19
	eSSS	27 03
	eL	33 05
HONO	eP	02 56 03D
	i	56 45
	e(S)	03 02 18
	e	03 30
	eL	05 46
$T_L = 20$ sec. $A_{max.} = 7$mm.		
HH	eP	03 00 26
	ePKKP	17 54
	eP'P'	26 11
MONT	eP	03 06 10C
	ePP	07 30
	ePKKP	16 36
NEL	eP	03 00 09C
	iP	00 13.4
PHIL	ePP	03 07 21
	eSKS	13 17
	e3KKS	14 38
	eS	15 31
PHIL	eiS	03 17 16
	e(PPS)	19 02
	eSS	24 13
	eSSS	28 08
	eL	37 23
SLC	eP	03 00 29C
	iP	00 30
	i	00 51
	ePP	04 09
	eS	10 59
	e(PS)	12 48
	e	15 17
	eSS	17 27
	e	18 31
	eSSS	21 21
	e	23 41
	eL	24 25
SJ	iP'	03 06 32
	e	07 30
	ePKS	09 54
	e	12 45
	eSKS	23 45
	eSKKS	25 38
	eL	42 24
SIT	eP	02 59 49
	e	03 00 08
	e	01 21
	eS	10 02
	iPPS	11 03
	e	12 08
	eSS	15 18
	eL	21 26
TUC	iP	03 00 25C
	e	02 36
	e(SKS)	10 30
	eS	11 32
	e(PS)	12 36
	e	13 17
	e	15 44
	eSS	17 22
	eSSS	21 11
	eL	24 39
UK	e	03 00 06
	eS	10 07
	eL	20 18
WASH	e	03 08 29
	eL	42 13
Oct. 3		
NEL	eP	03 26 11
Oct. 3		
BC	eP	07 14 30
COL	eP	07 14 07
HH	e(P)	07 14 53
NEL	eP	07 14 34
Oct. 3		
BOZ	eP	08 52 56

Date and Station		Phase	(GCT) h m s
BOZ		iP	08 52 58
		i	53 08
		e	53 49
		iS	54 05
		iL	54 11
BUT		eP	08 53 20
		i	53 25
		e	54 40
HH		iP	08 53 29
		i	54 00
		i	54 05
		iL	55 44
NEL		eP	08 54 19
SLC		eP	08 52 54
		e	53 07
		i	53 10
		iS	54 00
Oct. 3			
COL		iP	08 56 01
NEL		iP	09 00 14.4
		i	00 38.4
SLC		eP	09 00 03
SJ		eP	09 04 03
TUC		iP	09 00 48
Oct. 3			
COL		eP	09 27 20
Oct. 3			
COL		iP	09 54 45
		i	54 55
Oct. 3			
BH		eP	11 30 09
BC		iP	11 25 23.1C
		i	25 27.6
		i	25 37.1
		i	28 02.1
		iPcP	28 17.1
BOZ		iP	11 24 28.9C
		ipP	24 47
		isPP	26 00
		iS	29 01
		i	30 14
		iL	31 47
BUT		iP	11 24 20C
		ipP	24 40
		i	24 48
		iPP	25 18
		ePcP	27 26
		iS	28 15
		isS	29 12
		i	29 34
		iL	30 10
		iScS	31 02
COL		iP	11 19 52D
COLU		iP	11 27 44D
		ipP	28 00
		iPP	29 35
		ipPP	30 00
		iS	34 57
		isS	35 20
		iScS	37 15
		i	37 57
		iSS	38 31
		iL	38 58
HONO		eP	11 26 15D
		ipP	26 40
		isP	26 55
		ePP	27 47
		iPP	27 50
		eS	32 07
		i(sS)	32 40
		e	34 20
		eL	35 18
T_S = 4 sec. A_S = 3mm.			
T_L = 17 sec. $A_{max.}$ = 8mm.			
HH		iP	11 23 59D
		iS	28 23
		iL	30 27
		iScP	31 13
		i(ScS)	35 15
		eP'P'	57 12
MONT		iP	11 32 49D
		iP'	36 47
		ePP	37 07
		iPKKP	48 30
		eP'P'	56 50
NEL		iP	11 25 25.7C
		iPcP	28 20
		i	29 06.7
		i	29 45.9
		eS	30 56
		iScS	31 42.9
		eL	33 51
PHIL		iP	11 27 29N,W
		ipP	27 47
		i(PP)	29 40
		ePPP	30 37
		iS	34 31
		isS	34 58
		e(ScS)	37 33
		eSS	37 58
		esSS	38 27
		eL	38 41
SLC		iP	11 24 59C
		ipP	25 15
		i(PP)	25 46
		isPP	26 14
		i(PcP)	27 33
		iS	29 59
		isS	30 19
		eL	30 57
SJ		iP	11 30 00D
		ipP	30 17
		ePP	32 43
SJ		epPP	11 33 03
		e	34 42
		isS	39 31
		esPS	40 20
		i	40 30
		eSS	44 07
		eL	47 20
STT		iP	11 20 45S,E
		iS	22 12
		iL	22 47
TUC		iP	11 26 05D
		ipP	26 35
		iPP	27 40
		iPcP	27 58
		i	28 32
		iS	32 00
		isS	32 26
		i	32 56
		eL	35 11
UK		eP	11 24 32
		ePP	25 37
		eS	28 52
		eL	31 02
WASH		iP	11 27 28D
		i	27 44
		isP	28 11
		i	28 35
		iPcP	28 50
		iPP	29 41
		isPP	30 15
		i	31 23
		e	32 07
		eScP	32 25
		eS	34 27
		iS	34 31
		e	37 29
		eL	38 27
Oct. 3			
BC		eP	11 56 32
NEL		i(P)	11 56 30.8
Oct. 3			
BC		eP	12 48 57
HH		iP	12 47 32
NEL		iP	12 48 58.8
Oct. 3			
HH		eP	13 03 33
Oct. 3			
BC		iP	13 46 44.4
BOZ		eP	13 46 40
COL		iP	13 44 33
		ipP	45 19
HH		iP	13 46 27
		epP	47 15
MONT		iP'	13 53 39
NEL		iP	13 46 44.8
		i	46 52.0
		ipP	47 33.2
SLC		iP	13 46 46
Oct. 3			
HH		e(P)	15 39 02
		i	39 25
Oct. 3			
BC		eP	16 24 22
HH		iP	16 22 57
NEL		eP	16 24 25
Oct. 3			
HH		eP	17 30 36
		i	34 20
NEL		eP	17 32 02
		i	33 22.2
Oct. 3			
MONT		eP	18 09 35
Oct. 3			
NEL		eP	18 40 04
Oct. 3			
BC		e(P)	19 02 01
NEL		e(P)	19 02 04
Oct. 3			
HH		e(P)	21 06 41
Oct. 3			
NEL		eP	22 37 34
Oct. 3			
BOZ		eP'	23 40 25
		ePP	41 13
COL		eS	23 45 13
		eSS	51 20
		eL	59 05
COLU		eP'	23 41 06
HONO		eP	23 33 36
		i	33 50
HH		e(P)	23 36 27
		eP'	40 07
		ePP	40 37
		e	43 11
		iPKKP	51 26
MONT		eP'	23 41 30
		iP'	41 35
		ePP	45 21
		eSKKS	51 23

Date and Station		Phase (GCT)
		h m s
NEL	eP	23 36 43
	eP'	40 20
	ePP	41 02
SJ	ePP	23 42 03
	i	42 14
	i	42 24
TUC	eP'	23 40 38
	ePP	41 57
	e	51 23
	e	58 12
	eL	00 16 36
Oct. 3		
BC	eP	23 51 24
BOZ	eP	23 51 13
	e	51 27
BUT	eP	23 51 19
	e	51 32
NEL	eP	23 51 16
SLC	eP	23 51 08
	e	54 22
	e	56 12
Oct. 4		
BUT	eP	01 46 43
HH	iP	01 46 30
NEL	eP	01 47 12
Oct. 4		
BC	eP	05 25 20
HH	e(P)	05 25 24
NEL	eP	05 25 13
Oct. 4		
BC	eP	07 14 45
HH	i(P)	07 14 39
NEL	iP	07 14 46.2
Oct. 4		
COL	iP	08 15 30
Oct. 4		
BC	iP	08 25 32.6
	e	26 10
BOZ	iP	08 25 14
	ipP	25 51
BUT	iP	08 25 10
	ipP	25 47
COL	iP	08 22 45
	i	23 01
HH	iP	08 24 59
	ipP	25 34

Date and Station		Phase (GCT)
		h m s
HH	eSKS	08 35 27
	iPKKP	42 44
NEL	iP	08 25 32.5
	ipP	26 11.3
	e(PP)	29 19
SLC	eP	08 25 27
	epP	26 04
Oct. 4		
TUC	e(P)	08 54 55
Oct. 4		
BC	iP	09 45 49.6
	e	45 54
	e	46 19
BOZ	eP	09 46 13
	i	46 20
	i	46 45
	e	47 05
BUT	eP	09 46 08
	e	46 15
COL	iP	09 45 23
	i	45 53
	i	46 07
	eS	55 30
	eL	10 09 37
HONO	e(S)	09 49 16
	eL	52 40
HH	iP	09 46 07
	ePP	49 51
NEL	iP	09 45 48.5
	i	45 55.3
	i	46 38.5
	iPPP	49 21.5
SLC	eP	09 46 06
	i	46 11
SJ	e(P)	09 52 07
TUC	eP	09 46 01
Oct. 4		
BC	eP	11 54 37
NEL	iP	11 54 37.6
Oct. 4		
HH	e(P)	13 44 17
Oct. 4		
HH	e(P)	14 16 40
Oct. 4		
HH	e(P)	16 06 32
NEL	iP	16 06 15.2
	e	06 46
	e	06 57
	e	07 20

Date and Station		Phase (GCT)
		h m s
TUC	eP	16 06 26
Oct. 4		
BH	eP	17 06 09
	eS	06 29
Oct. 4		
HH	eP	20 19 01
NEL	iP	20 20 30.0
	i	20 45.0
Oct. 4		
NEL	i(P)	21 49 08.1
Oct. 4		
BH	eP	22 32 34
	eS	33 03
Oct. 4		
BC	iP	22 52 22.3
	e	52 33
COL	iP	22 52 23
HH	eP	22 52 48
NEL	iP	22 52 21.7
	i	52 35.7
SJ	iP'	22 58 21
TUC	eP	22 52 29
Oct. 4		
BH	e	23 29 44
Oct. 5		
COL	iP	01 16 51
Oct. 5		
NEL	eP	01 22 42
HH	eP	01 21 03
	e	21 12
Oct. 5		
BC	eP	04 30 32
BOZ	eP	04 30 15
	i	30 37
BUT	iP	04 30 05
	i	30 16
	i(pP)	30 30
COL	eP	04 27 28
HH	iP	04 30 02
MONT	iP	04 38 11
NEL	iP	04 30 32.7
SLC	eP	04 30 27
TUC	eP	04 30 56
	eL	59 39

Date and Station		Phase (GCT)
		h m s
Oct. 5		
BC	eP	11 40 38
COL	iP	11 36 47
HH	iP	11 39 35
	i	39 56
	ePP	42 52
MONT	iP'	11 48 04
NEL	iP	11 40 39.5
SLC	eP	11 40 19
Oct. 5		
COL	eP	12 04 39
Oct. 5		
COL	eP	14 40 05
Oct. 5		
COL	eP	15 04 19
Oct. 5		
COL	eP	15 09 52
Oct. 5		
COL	eP	16 09 17
Oct. 5		
BUT	eP	18 52 20
HH	iP	18 52 09
MONT	e(P)	19 00 12
Oct. 5		
BH	eP	20 46 33
Oct. 5		
HH	iP	23 27 55
	e	28 28
MONT	iP	23 17 13
NEL	iP	23 27 04.4
	i	27 35.2
	i	27 50.2
Oct. 5		
HH	e(P)	23 48 08
NEL	eP	23 46 48
	i	47 17.5
	i	47 32.3
Oct. 6		
NEL	eP	07 31 25
Oct. 6		
COL	iP	08 26 12
	eL	33 53
HH	eP	08 29 23
	e	29 37
NEL	iP	08 30 18.3

Date and Station		Phase	(GCT) h m s
NEL		i	08 30 30.8
		iPcP	31 12.4
		i	31 35.9
		i	31 50.4
SLC		eP	08 30 06
TUC		eP	08 30 50
Oct. 6			
COL		eP	08 33 50
HH		e(P)	08 37 10
NEL		iP	08 37 56.2
		e	38 09
		e	38 29
SLC		eP	08 37 44
Oct. 6			
NEL		eP	08 57 11
Oct. 6			
COL		eP	09 25 30
		iP	25 33
		iS	25 55
		eL	26 01
Oct. 6			
BOZ		iP	10 26 19
Oct. 6			
COL		eP	11 14 34
NEL		eP	11 18 38
		e	18 49
Oct. 6			
COL		eP	12 17 56
HH		iP	12 14 20
Oct. 6			
HH		e(P)	13 37 54
NEL		eP	13 37 43
		e	37 49
Oct. 6			
HH		e(P)	21 49 47
Oct. 6			
BOZ		eP	23 20 34
COL		iP	23 19 09
HH		e(P)	23 20 15
		e	20 31
NEL		iP	23 19 49.2
		i	19 51.2
		e	20 13
SLC		e(P)	23 20 17
Oct. 7			
BC		iP	03 00 07.3
		e	00 56

Date and Station		Phase	(GCT) h m s
COL		iP	02 59 39
		epP	03 00 25
		esP	00 43
NEL		iP	03 00 36.8
Oct. 7			
NEL		eP	03 58 58
Oct. 7			
BC		iP	07 29 56.4
COL		eP	07 29 53
NEL		iP	07 29 55.0
Oct. 7			
COL		eP	07 44 33
Oct. 7			
BC		e(P)	08 17 09
		i	17 13.5
		i	17 19.8
		i	17 22.3
BOZ		eP'	08 17 00
		e	17 08
HH		eP'	08 16 45
		iPP	19 32
MONT		eP'	08 16 34
NEL		iP'	08 17 09.5
		i	17 14.0
		e	17 54
		ePP	20 43
SLC		eP'	08 17 01
		i	17 14
TUC		eP'	08 17 22
		e	17 34
Oct. 7			
BC		iP	11 21 36.1
NEL		iP	11 21 38.5
Oct. 7			
HH		e(P)	17 31 35
Oct. 7			
BC		eP	19 31 54
BOZ		eP	19 32 07
COL		iP	19 30 57
HH		e(P)	19 35 59
MONT		eP'	19 37 18
NEL		iP	19 31 53.2
		i	31 59.2
		ePP	35 45
SJ		eP'	19 37 45

Date and Station		Phase	(GCT) h m s
Oct. 7			
BC		iP	21 54 26.8
		i	54 41.8
COL		iP	21 50 28
NEL		iP	21 54 28.2
Oct. 7			
COL		iP	22 16 04
Oct. 7			
BC		eP	22 35 11
NEL		iP	22 35 03.5
		i	35 20.0
Oct. 8			
COL		iP	00 55 06
Oct. 8			
NEL		eP	01 00 19
Oct. 8			
COL		iP	01 31 18
Oct. 8			
HH		e(P)	02 11 02
Oct. 8			
NEL		eP	05 26 04
		e	26 24
Oct. 8			
COL		iP	09 06 36
Oct. 8			
BC		iP	09 26 49.8
		i	26 59.8
BOZ		e(P)	09 27 32
BUT		eP	09 27 27
		ipP	27 38
HH		eP	09 27 37
		ipP	27 49
MONT		eP	09 17 02
		i	17 12
		i(S)	19 10
		iL	19 28
NEL		iP	09 26 48.6
		ipP	26 58.1
		i	27 09.1
		i	27 21.1
SJ		eP	09 23 47
TUC		e(P)	09 26 21
		epP	26 31
Oct. 8			
SLC		eP	09 48 38
Oct. 8			
BC		iP	10 57 20.2

Date and Station		Phase	(GCT) h m s
BC		i	10 57 31.2
		i	57 41.9
BOZ		eP	10 56 54
		i	57 05
BUT		eP	10 56 48
		e	57 33
COL		iP	10 53 44
HH		iP	10 56 34
		i	56 45
MONT		e(P')	11 05 36
NEL		iP	10 57 21.0
		i	57 37.3
TUC		eP	10 57 49
Oct. 8			
HH		e(P)	11 10 16
Oct. 8			
HH		e(P)	11 25 32
Oct. 8			
COL		eP	11 51 36
Oct. 8			
COL		eP	13 45 47
HH		eP	13 47 55
		e	48 09
Oct. 8			
COL		iP	14 45 58
Oct. 8			
HH		iP	16 22 09
Oct. 8			
HH		e(P)	18 51 39
Oct. 8			
COL		iP	19 42 40
Oct. 8			
BC		iP	19 44 42.5
COL		iP	19 44 58
HH		iP	19 45 05
NEL		iP	19 44 31.8
		i	45 03.6
Oct. 8			
HH		eP	22 42 41
Oct. 9			
BC		eP	01 39 26
COL		eP	01 38 01
		ipP	38 24
HH		e(P)	01 39 30

Date and Station		Phase (GCT)
		h m s
NEL	eP	01 39 26
Oct. 9		
BC	iP	01 58 48.8
	i	59 23.5
BUT	e(P)	01 59 25
COL	iP	01 59 26
HH	eP	01 59 27
NEL	iP	01 58 48.2
	ipP	59 22.2
	i	02 01 38.8
Oct. 9		
COL	iP	02 15 16
Oct. 9		
COL	iP	05 37 27
Oct. 9		
HH	e(P)	06 40 40
Oct. 9		
HH	e(P)	08 20 55
SLC	e(P)	08 18 44
Oct. 9		
NEL	eP	11 00 54
	e	01 19
Oct. 9		
BC	eP	15 18 52
BUT	e(P)	15 18 41
HH	e(P)	15 18 34
	e	18 57
NEL	iP	15 18 52.6
Oct. 9		
BC	iP	17 28 40.9
	i	28 57.4
	i	29 50.4
	i	30 24.4
BOZ	e(P)	17 28 48
	i	29 10
HH	e(P)	17 29 32
NEL	iP	17 28 44.8
	i	28 51.0
	i	29 54.8
	i	29 59.7
SLC	iP	17 27 44
	ipP	28 10
	i	28 50
TUC	e(P)	17 29 18
	i	29 24
	e(S)	30 28
	iL	31 12

Date and Station		Phase (GCT)
		h m s
Oct. 9		
BH	eP	17 38 30
Oct. 9		
BC	eP	19 24 44
	e	24 58
BOZ	eP	19 25 25
BUT	eP	19 25 21
COL	iP	19 25 18
HH	eP	19 25 21
NEL	eP	19 24 41
	i	24 42.8
	i	24 56.0
	e	25 29
TUC	eP	19 24 47
	eL	48 38
Oct. 9		
NEL	eP	21 00 18
Oct. 9		
NEL	eP	21 55 49
Oct. 10		
COL	iP	03 45 21
Oct. 10		
COL	iP	04 01 21
	iS	01 38
	iL	01 42
Oct. 10		
COL	iP	05 31 57
Oct. 10		
COL	iP	06 47 18
	i	47 30
HH	eP	06 46 30
MONT	iP	06 36 00
NEL	eP	06 46 12
	e	47 45
Oct. 10		
BC	eP	10 10 12
COL	iP	10 10 41
NEL	iP	10 10 08.4
Oct. 10		
NEL	eP	11 40 52
Oct. 10		
COL	iP	11 55 01
Oct. 10		
COL	iP	11 57 59
Oct. 10		
NEL	eP	14 20 19

Date and Station		Phase (GCT)
		h m s
Oct. 10		
BC	eP	14 39 18
NEL	eP	14 39 17
Oct. 10		
HH	e(P)	15 33 18
Oct. 10		
HH	iP	17 55 06
	e(S)	55 38
	eL	55 45
Oct. 10		
COL	iP	19 56 50
HH	e(P)	20 00 54
Oct. 10		
TUC	eP	22 54 07
	iP	54 15
	i(S)	54 43
	i	54 52
	i	55 01
	iL	55 15
Oct. 10		
BC	eP	23 03 58
NEL	eP	23 03 54
Oct. 10		
BH	iP	23 22 21
	iS	22 54
HH	eP	23 30 57
MONT	eP	23 27 58
NEL	iP	23 29 52.8
	i	29 55.0
	i	30 01.3
SJ	iP	23 25 34
TUC	eP	23 29 15
Oct. 11		
COL	iP	01 58 40
Oct. 11		
SJ	e(P)	02 05 54
Oct. 11		
BC	i(P')	06 58 37.4
	i	58 45.1
	i	58 50.9
BOZ	e(P')	06 59 02
BUT	i(P')	06 58 56
COL	i(P')	06 58 11
HH	e(P')	06 58 54
NEL	i(P')	06 58 37.0
SLC	i(P')	06 58 54

Date and Station		Phase (GCT)
		h m s
TUC	e(P')	06 58 49
Oct. 11		
MONT	iP	07 15 15
Oct. 11		
COL	iP	07 26 31
Oct. 11		
BC	eP	08 20 15
	i	20 24.8
COL	iP	08 20 55
	i	21 05
NEL	iP	08 20 13.7
	i	20 22.9
Oct. 11		
MONT	eP	09 01 18
Oct. 11		
COL	iP	13 16 04
Oct. 11		
BC	iP	13 31 27.8
	ipP	31 43.1
BOZ	e(P)	13 32 53
BUT	iP	13 32 49
	ipP	33 08
COL	iP	13 30 48
	ipP	31 18
HH	eP	13 32 38
MONT	eP	13 39 54
	i	40 11
NEL	iP	13 31 26.3
	i	31 36.3
	ipP	31 41.7
SLC	e(P)	13 33 00
TUC	eP	13 30 43
Oct. 11		
BC	iP	13 32 57.3
	i	33 15.8
HH	iP	13 32 59
NEL	iP	13 32 57.5
	ipP	33 14.5
	i	33 20.3
Oct. 11		
BC	iP	16 21 45.2
	i	22 04.2
BUT	eP	16 22 14
COL	iP	16 17 40
HH	eP	16 20 48

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Date and Station		Phase	(GCT) h m s
HH	e		16 22 06
MONT	eP'		16 31 01
NEL	iP		16 21 46.9
	i		22 13.9
	i		22 29.7
SLC	iP		16 21 34
TUC	eP		16 22 19
Oct. 11			
NEL	eP		16 33 56
	e		34 03
Oct. 11			
BC	iP		17 06 39.4
COL	iP		16 59 58
HH	iP		17 04 34
	e		05 16
NEL	eP		17 06 32
Oct. 11			
BC	iP		17 24 06.3
	i		24 13.9
	ipP		24 44.5
COL	iP		17 24 01
	ipP		24 44
HH	eP		17 24 30
	e		25 35
	e		28 21
MONT	eP		17 30 07
NEL	iP		17 24 05.6
	i		27 37.1
SLC	eP		17 24 25
SJ	iP		17 30 08
TUC	iP		17 24 14
	i		24 30
	epP		25 04
	ePP		27 55
Oct. 11			
NEL	iP		19 21 41.7
Oct. 11			
BUT	eP		20 16 07
	eS		16 35
	eL		16 40
Oct. 11			
BUT	eP		21 18 07
	eS		18 32
	eL		18 35
Oct. 12			
COL	iP		04 25 59
Oct. 12			
NEL	eP		04 59 20
	e		59 29
Oct. 12			
BC	iP		09 09 02.7
NEL	eP		09 09 01
Oct. 12			
BC	iP		09 26 42.2
	i		26 54.5
COL	iP		09 23 01
HH	e(P)		09 25 54
NEL	eP		09 26 43
	e		26 55
Oct. 12			
BC	iP		11 44 44
NEL	eP		11 44 43
Oct. 12			
NEL	eP		12 06 26
Oct. 12			
COL	iP		12 21 56
Oct. 12			
COL	iP		15 10 50
Oct. 12			
BUT	iP		16 02 20
Oct. 12			
BC	eP		17 12 51
COL	iP		17 10 21
HH	e(P)		17 12 27
NEL	iP		17 12 51.2
Oct. 12			
BC	eP		17 34 23
COL	eP		17 31 17
HH	iP		17 33 38
NEL	eP		17 34 14
	e		34 34
Oct. 12			
BOZ	eP		19 35 32
BUT	eP		19 35 37
COL	iP		19 35 21
HH	iP		19 35 31
MONT	iP		19 36 27
NEL	eP		19 36 20
SLC	eP		19 35 54
Oct. 12			
COL	iP		21 45 09
NEL	eP		21 45 42
Oct. 12			
BH	eP		22 23 47
Oct. 13			
COL	iP		00 19 06
Oct. 13			
HH	eP		01 50 42
	e		50 56
WASH	eP		01 54 37
	e		57 25
Oct. 13			
COL	iP		02 00 08
Oct. 13			
MONT	eP		04 11 34
Oct. 13			
BC	eP		05 07 01
COL	iP		05 07 06
NEL	eP		05 07 00
	e		07 21
Oct. 13			
BH	eP		06 03 37
BOZ	e(P)		06 10 51
COL	eP		06 14 04
HH	iP		06 11 19
MONT	eP		06 08 20
NEL	iP		06 10 15.6
	i		10 23.5
TUC	eP		06 09 35
Oct. 13			
BC	iP		11 22 01.5
	e		22 08
	e		22 16
BUT	eP		11 22 19
HH	e(P)		11 22 26
NEL	iP		11 22 00.3
	i		22 07.8
	i		22 15.3
SLC	eP		11 22 14
TUC	eP		11 22 01
Oct. 13			
COL	eP		16 00 44
Oct. 13			
COL	iP		21 43 25
Oct. 13			
COL	iP		22 53 05
HH	iP		22 57 18
NEL	eP		22 58 28
	e		58 52
Oct. 14			
BC	eP'		01 53 51
	ePP		55 02
BOZ	eP'		01 53 46
BUT	e(P')		01 53 29
COL	iP		01 48 20
COLU	e		01 54 03
	eP'		54 34
	ePP		57 45
	e		58 18
	e		02 05 29
	eSKSP		08 13
HH	eP'		01 53 43
MONT	iP'		01 54 46
	i		55 15
	e		57 46
	eSKKS		02 05 16
NEL	iP'		01 53 48.6
	i		54 16.3
	i		54 34.5
	iPP		55 08.8
PHIL	ePP		01 58 24
	e(SKS)		02 02 05
	eSKKS		04 11
	e		07 49
	ePPS		10 09
	eSS		16 08
	eL		32 25
SLC	eP'		01 53 49
SJ	eP'		01 55 08
	i		55 54
TUC	eP'		01 53 56
	iP'		53 58
	ePP		55 14
	e		02 07 35
	eL		37 32
Oct. 14			
COL	iP		04 03 12
Oct. 14			
COL	iP		11 51 53
Oct. 14			
COL	iP		17 15 40

Date and Station		Phase (GCT)
		h m s
Oct. 14		
COL	iP	17 19 34
Oct. 14		
COL	iP	18 39 54
Oct. 14		
TUC	e(P)	22 13 59
Oct. 15		
NEL	eP	03 59 45
	i	59 52.3
Oct. 15		
HH	e(P)	12 04 22
NEL	eP	12 04 37
Oct. 15		
HH	e(P)	12 09 49
Oct. 15		
BH	eP	15 51 57
Oct. 15		
HH	e(P)	18 25 46
Oct. 15		
COL	eP	22 30 00
	i	30 48
Oct. 16		
BC	iP	00 38 17.6
BOZ	eP	00 37 07
COL	iP	00 35 56
HH	eP	00 36 54
NEL	iP	00 38 21.2
SLC	eP	00 37 40
TUC	iP	00 38 34
Oct. 16		
COL	iP	01 10 07
HH	e(P)	01 11 04
NEL	eP	01 12 29
Oct. 16		
HH	iP	01 49 27
Oct. 16		
HH	eP	02 29 56
Oct. 16		
COL	eP	03 09 36
HH	e(P)	03 10 33
Oct. 16		
BOZ	e(P)	04 34 38
BUT	eP	04 34 30
	e	36 09
HH	eP	04 34 12
	e	34 33
	eL	37 01
NEL	eP	04 33 24
	i	33 36
	iL	34 40
SLC	eP	04 33 42
	i	33 55
	i	34 08
	eL	35 09
Oct. 16		
COL	eP	05 16 02
	i	16 09
Oct. 16		
BC	eP	06 25 31
NEL	eP	06 25 51
Oct. 16		
BC	iP	06 53 17.6
COL	iP	06 53 58
NEL	iP	06 53 08.8
Oct. 16		
NEL	i(P')	07 38 09.9
SJ	i(P')	07 40 19
Oct. 16		
COL	eP	08 15 36
Oct. 16		
BC	iP	16 30 16.8
	ipP	31 20.8
COL	iP	16 30 50
	ipP	31 57
HH	eP	16 30 53
	epP	31 53
NEL	iP	16 30 16.0
	epP	31 19
Oct. 16		
HH	e(P)	16 43 41
Oct. 16		
BH	eP	17 05 04
Oct. 16		
COL	eP	17 41 50
Oct. 16		
HH	iP	18 21 30
NEL	iP	18 21 42.9
Oct. 16		
NEL	iP	18 25 04.2
	i	25 08.6
Oct. 16		
NEL	iP	19 29 23.3
Oct. 16		
BH	eP	19 50 05
	eS	51 02
BC	eP	19 57 21
	i	57 32.1
NEL	iP	19 57 19.2
	i	57 22.3
	ipP	57 37.9
SJ	e(P)	19 52 30
Oct. 16		
COL	eP	20 23 28
HH	iP	20 24 17
NEL	eP	20 25 42
TUC	eP	20 25 56
Oct. 16		
BH	eP	22 33 43
Oct. 16		
COL	eP	22 45 32
Oct. 16		
BC	iP	23 09 48.3
NEL	eP	23 10 10
Oct. 17		
BC	eP	03 22 22
COL	iP	03 18 39
	e	18 50
	e	19 08
HH	e(P)	03 21 23
NEL	eP	03 22 10
Oct. 17		
COL	iP	05 58 11
Oct. 17		
COL	eP	09 15 47
Oct. 17		
NEL	eP	10 53 53
Oct. 17		
COL	iP	11 10 27
Oct. 17		
BC	iP	14 34 15.5
COL	iP	14 35 53
NEL	eP	14 34 15
Oct. 17		
BC	iP	15 14 02.3
BUT	eP	15 14 37
HH	iP	15 14 50
NEL	iP	15 14 01.1
	i	14 06.1
	i	14 30.4
SJ	iP	15 10 14
	iPcP	12 02
TUC	iP	15 13 32
Oct. 17		
COL	iP	16 47 01
NEL	eP	16 46 39
Oct. 17		
COL	iP	17 44 25
Oct. 17		
SLC	iP	18 09 06
Oct. 17		
COL	eP	19 32 33
	i	33 40
Oct. 17		
COL	eP	19 46 05
HH	e(P)	19 48 09
Oct. 17		
BC	iP	20 14 59.9
NEL	iP	20 14 57.6
Oct. 17		
COL	iP	22 33 32
NEL	eP	22 27 09
	e	28 27
Oct. 17		
BOZ	eP	23 00 55
	i	01 03
	i	02 05
	i(S)	03 43
	eL	04 00
BUT	iP	23 00 55
	i	00 59
	i	01 10
	i	02 27
	iS	03 31
	iL	04 05
COL	iP	23 04 44
	eS	10 40
	iL	13 42
COLU	eP	23 03 31
	eS	08 33
	eL	10 17
HONO	eS	23 10 37
	eL	13 10

Date and Station		Phase (GCT) h m s
HH	iP	23 01 20
	i	01 25
	eS	04 31
	eL	04 48
LIN	e(P)	23 01 41
	e(S)	05 22
	iL	07 12
NEL	iP	22 58 28.9
	i	58 30.9
RC	i(P)	23 01 16
	i	02 26
	i	02 58
	eS	04 34
	eL	05 27
SLC	eP	22 59 50
	i	59 52
	i	59 56
	i	23 00 10
	iS	01 18
	eL	02 34
SJ	eP	23 05 56
TUC	iP	22 58 35
	i	59 01
	i	59 06
	i(S)	59 28
	i	59 47
	iL	59 58
UK	eP	22 59 37
	eS	23 01 08
	eL	01 24
WASH	e(P)	23 04 34
	e(S)	09 50
	eL	12 20
Oct. 18		
COL	eP	01 50 04
Oct. 18		
BH	iP	02 41 07
	iS	41 54
HH	e(P)	02 49 05
NEL	iP	02 47 55
SJ	iP	02 44 44
Oct. 18		
BC	eP	04 17 38
HH	iP	04 18 41
NEL	eP	04 17 37
SJ	eP	04 14 10
Oct. 18		
BC	iP	08 46 26.6
NEL	iP	08 46 22.8

Date and Station		Phase (GCT) h m s
TUC	eP	08 45 29
Oct. 18		
COL	eP	09 14 53
NEL	eP	09 17 26
Oct. 18		
NEL	eP	10 56 01
Oct. 18		
BC	iP	10 58 49.7
COL	iP	10 59 13
NEL	iP	10 58 48
TUC	eP	10 58 56
Oct. 18		
BC	eP	11 03 34
BOZ	eP	11 03 03
COL	iP	10 59 39
HH	iP	11 02 36
	ePcP	04 42
NEL	eP	11 03 31
TUC	e(P)	11 04 08
Oct. 18		
NEL	eP	11 08 58
Oct. 18		
NEL	eP	18 29 40
Oct. 18		
NEL	iP	22 54 10.3
Oct. 19		
COL	iP	00 00 26
Oct. 19		
COL	iP	01 15 34
Oct. 19		
COL	eP	03 36 23
HH	e(P)	03 36 15
Oct. 19		
BH	eP	05 29 25
	eS	30 07
Oct. 19		
COL	iP	06 52 34
Oct. 19		
NEL	eP	13 01 51
Oct. 19		
NEL	eP	14 04 31
Oct. 19		
COL	eP	14 42 15

Date and Station		Phase (GCT) h m s
Oct. 19		
HH	e(P)	17 04 00
Oct. 19		
BC	iP	17 58 00.4
	i	58 37.6
BOZ	eP	17 56 51
	e(PP)	58 30
BUT	iP	17 56 57
	i	57 09
COL	iP	17 56 58
	i	57 17
	iPcP	58 09
	e	18 03 09
COLU	eP	17 55 54
	i	56 07
	eL	18 06 49
HH	iP	17 56 48
	i	57 55
	iPcP	58 24
	e	18 03 00
NEL	iP	17 58 01.2
	iPcP	59 00.3
PHIL	eS	18 00 03
	eL	02 40
SLC	iP	17 57 22
SJ	eP	17 56 46
TUC	eP	17 58 07
	e(S)	18 06 23
	eL	16 10
Oct. 19		
BC	eP	19 02 18
BOZ	eP	19 01 12
BUT	e(P)	19 01 18
COL	iP	19 01 18
HH	eP	19 01 09
NEL	iP	19 02 22.7
TUC	eP	19 02 26
Oct. 19		
HH	e(P)	21 09 35
Oct. 20		
NEL	eP	05 58 41
Oct. 20		
BUT	e(P)	12 37 39
HH	iP	12 37 51
NEL	iP	12 37 04.3

Date and Station		Phase (GCT) h m s
TUC	e(P)	12 35 37
Oct. 20		
BC	eP'	14 12 52
COL	eP	14 06 05
	e	06 12
HH	eP	14 08 10
	iP	08 15
	i	08 28
NEL	eP'	14 12 54
Oct. 20		
BOZ	e(P)	19 56 20
BUT	e(P)	19 56 11
	e	57 05
	e(S)	57 53
	eL	58 09
HH	e(P)	19 56 28
	eL	58 41
NEL	eP	19 55 02
	i	55 16
SLC	eP	19 55 31
	eS	56 32
	eL	56 39
Oct. 20		
HH	e(P)	20 07 23
Oct. 20		
BC	eP	23 53 46
NEL	iP	23 53 48.6
Oct. 20		
BC	iP	23 54 09.4
BOZ	eP	23 53 53
	iP	53 54
	i	54 11
BUT	iP	23 53 47
	i	54 06
	i	54 21
COL	iP	23 51 13
COLU	eL	00 51 05
HH	iP	23 53 36
	e(PP)	56 16
NEL	iP	23 54 09.7
	i	55 38.1
	iPP	57 22.9
RC	eP	23 54 (25)
	e	58 (30)
SLC	iP	23 54 05
	i	54 20

Date and Station		Phase (GCT)
		h m s
TUC	eP	23 54 33
	eS	00 05 06
	eL	20 30
Oct. 21		
BC	iP'	00 30 23.7
	i	31 27.2
	i	31 33.2
BOZ	e(P')	00 30 21
	i	30 29
	i	30 35
	i	30 46
	e(PP)	34 21
	eSS	56 38
	eL	01 07 22
BUT	e(P')	00 30 18
	i	30 34
	ePP	35 22
	e(PPP)	39 51
	eL	01 20 35
CHI	ePPP	00 39 37
	e	40 51
	e	46 55
	eSS	56 40
	eL	01 15 51
COL	iP'	00 29 42D
COLU	eP'	00 30 25
	eL	01 14 05
HH	e(P')	00 30 18
	e	33 01
	ePP	35 24
	e	37 06
NEL	eP'	00 30 19
	i	31 26.2
	e	34 43
	iPP	35 22.7
PHIL	e(P')	00 31 48
	ePP	34 52
	ePPP	38 26
	ePcSP'	42 26
	e	44 29
	eSS	54 31
	eSSS	01 02 12
	eL	25 29
RC	eP'	00 30 (27)
	e(PP)	34 (24)
	eL	01 29 (14)
SLC	eP'	00 30 22
	i	30 36
	e	31 46
	ePP	35 38
	e	40 24
	eSS	57 16
	eSSS	01 04 10
	eL	27 20
SJ	eP'	00 29 46
	ePP	32 45

Date and Station		Phase (GCT)
		h m s
TUC	eP'	00 30 19
	i	31 42
	i	32 50
	iPP	35 22
	i	35 56
	eSSS	01 02 18
	eL	24 32
UK	eSKS	01 37 50
	e	48 16
	eSS	56 05
WASH	e(P')	00 31 18
	e	32 22
	ePP	34 35
Oct. 21		
NEL	eP	01 56 21
Oct. 21		
BC	iP	03 38 19.7
COL	iP	03 34 04
	i	34 10
	i	34 22
HH	e(P)	03 37 29
NEL	iP	03 38 20.6
	i	38 28.8
	i	38 37.4
TUC	eP	03 38 53
Oct. 21		
BH	iP	06 54 39
BC	iP	06 58 03.9
	ipP	58 19.2
	iPcP	07 00 58.7
	i	01 17.5
	iScP	04 38.2
	i(ScS)	08 35.7
BOZ	iP	06 58 49
	i	59 56
	eS	07 04 23
	eL	06 30
BUT	eP	06 58 56
	ipP	59 14
	iPP	07 00 26
	iPcP	01 16
	e(S)	04 13
	eL	07 07
CHI	eP	06 57 34
	e	58 09
	eS	07 02 14
	esS	02 47
	eL	03 58
COL	iP	07 02 16
	ipP	02 35
	isP	02 45
	iPcP	02 52
	i	03 09

Date and Station		Phase (GCT)
		h m s
COLU	iP	06 56 41
	ipP	56 58
	iPP	57 15
	i	59 33
	eS	07 00 30
	iS	00 38
	iL	02 06
HH	eP	06 59 16
	epP	59 34
	i	59 39
	iPcP	07 01 22
	i	01 38
	i	01 54
	eS	05 30
NEL	iP	06 58 02.0
	isP	58 30.0
	i	58 43.2
	iPP	59 13.3
	isPP	59 36.3
	i(PcP)	07 01 16.7
	iScP	04 37.7
	i	05 11.9
	eScS	08 10
	eP'P'	31 43
PHIL	eP	06 57 55
	eS	07 02 38
	eL	03 30
RC	eP	06 58 (19)
	e(S)	07 33 (02)
	eL	34 (39)
SLC	iP	06 58 18
	ipP	58 36
	isP	58 45
	iPcP	07 01 03
	eS	03 40
	eL	05 08
SJ	eP	06 56 59
	e(pP)	57 17
TUC	iP	06 57 19
	i	57 36
	iPP	58 15
	ipPP	58 42
	eS	07 01 50
	iS	01 53
	isS	02 11
	eL	05 24
WASH	e(P)	06 57 35
	i(pP)	57 57
	i	58 16
	iPP	58 28
	i	59 19
	iS	07 02 03
	i	02 21
	eL	03 20
Oct. 21		
BUT	eP	07 04 59
HH	iP	07 05 09

Date and Station		Phase (GCT)
		h m s
SLC	iP	07 04 46
TUC	iP	07 04 22
Oct. 21		
HH	e(P)	07 29 20
NEL	e(P)	07 29 49
SJ	eP	07 27 59
TUC	e(P)	07 31 13
Oct. 21		
BOZ	e(P)	07 54 44
HH	e(P)	07 55 03
SLC	e(P)	07 53 39
	e	56 43
	eL	58 16
TUC	e(P)	07 52 17
	iP	52 21
	i	52 27
	i(S)	53 06
	i	53 33
	iL	53 54
Oct. 21		
COL	iP	10 47 04
Oct. 21		
BH	eP	13 17 09
	iS	17 27
Oct. 21		
BH	eP	13 18 47
	iS	19 07
Oct. 21		
BC	eP	16 22 04
NEL	eP	16 22 02
Oct. 21		
BC	eP	17 49 05
MONT	eP	17 44 46
NEL	iP	17 49 03.5
	i	49 11.0
Oct. 21		
BOZ	eP	18 13 55
HH	e(P)	18 13 53
NEL	eP	18 14 41
	i	14 56.6
Oct. 21		
COL	iP	18 52 25
Oct. 21		
NEL	e(P)	19 08 03

Date and Station		Phase (GCT) h m s
Oct. 21		
BC	iP	20 12 57.6
BOZ	iP	20 13 31
BUT	eP	20 13 36
COL	iP	20 16 01
HH	iP	20 13 52
MONT	eP	20 06 06
NEL	iP	20 12 56.6
	e	13 15
	ipP	13 25.6
	isP	13 39.6
	i	13 51.8
	i	14 01.1
SLC	iP	20 13 09
SJ	iP	20 09 00
	i	13 50
TUC	iP	20 12 22
Oct. 21		
BC	eP	20 23 42
MONT	iP	20 16 26
NEL	iP	20 23 41.2
Oct. 21		
HH	e(P)	22 42 26
Oct. 21		
BC	eP	22 57 05
NEL	iP	22 57 02.4
Oct. 22		
BC	eP	00 04 09
COL	iP	00 04 45
NEL	eP	00 04 08
	e	04 44
Oct. 22		
COL	iP	00 13 27
Oct. 22		
COL	eP	00 15 46
Oct. 22		
BC	iP	00 20 44.1
COL	iP	00 16 21
HH	e(P)	00 19 44
NEL	eP	00 20 05
	i	20 45.2
	e	21 07
	e	21 37

Date and Station		Phase (GCT) h m s
Oct. 22		
COL	iP	00 52 34
	ipP	53 08
Oct. 22		
BC	eP	01 49 09
COL	eP	01 46 04
HH	iP	01 48 33
MONT	eP'	01 56 49
NEL	iP	01 49 10.5
Oct. 22		
BC	iP	03 58 50.1
BOZ	eP	04 00 03
BUT	e(P)	04 00 07
HH	eP	04 00 28
MONT	eP	04 01 06
NEL	iP	03 58 47.5
	i	59 10.5
TUC	eP	03 58 07
	iP	58 17
	e	04 05 04
Oct. 22		
BC	iP	07 41 06.1
NEL	iP	07 41 05.4
TUC	iP	07 41 07
Oct. 22		
COL	iP	12 54 22
HH	eP	12 58 27
NEL	iP	12 59 55.6
	i	13 00 08.4
Oct. 22		
COL	eP	16 20 56
NEL	e(P)	16 23 10
Oct. 22		
BC	eP	16 41 41
COL	iP	16 38 44
HH	iP	16 41 08
	e	42 30
MONT	eP'	16 49 27
NEL	iP	16 41 43.4
	i	41 48.7
	i	42 10.6
	i	43 08.9

Date and Station		Phase (GCT) h m s
Oct. 22		
BC	eP	17 25 45
BUT	eP	17 25 24
COL	iP	17 22 49
HH	iP	17 25 13
NEL	iP	17 25 47.3
Oct. 22		
NEL	eP	17 36 47
	i	37 00.2
Oct. 22		
MONT	eP	17 51 48
Oct. 22		
COL	e(P)	18 04 29
Oct. 22		
COL	iP	18 08 07
Oct. 22		
COL	iP	21 13 42
Oct. 22		
COL	iP	21 53 25
Oct. 22		
COL	iP	22 47 50
Oct. 22		
COL	iP	22 59 17
Oct. 23		
BC	iP	00 56 14.7
	ipP	56 52.7
BOZ	eP	00 55 48
	epP	56 27
BUT	eP	00 55 41
	e(pP)	56 13
HH	iP	00 55 27
	ipP	56 05
MONT	eP'	01 04 28
NEL	iP	00 56 15.6
	i	56 30.4
	i	56 33.8
	ipP	56 53.4
SLC	iP	00 56 06
	epP	56 44
TUC	iP	00 56 43
	ipP	57 21
Oct. 23		
COL	iP	02 00 05
Oct. 23		
HH	e(P)	04 11 53

Date and Station		Phase (GCT) h m s
Oct. 23		
COL	eP	04 31 53
HH	e(P)	04 34 09
Oct. 23		
COL	eP	07 57 01
Oct. 23		
TUC	e(P)	08 29 01
Oct. 23		
COL	eP	11 49 23
	iP	49 25
Oct. 23		
COL	eP	15 07 05
Oct. 23		
BC	eP	18 20 16
BOZ	eP	18 20 51
BUT	eP	18 20 48
COL	iP	18 20 40
HH	iP	18 20 48
NEL	iP	18 20 15.4
	i	20 20.3
	i	20 31.5
	ipP	20 53.3
Oct. 23		
COL	eP	19 13 57
Oct. 23		
HH	e(P)	20 39 58
Oct. 23		
COL	iP	20 54 24
Oct. 24		
HH	iP	02 53 29
MONT	iP	02 42 20
NEL	iP	02 52 39.1
	i	53 05.9
Oct. 24		
HH	iP	05 26 12
NEL	iP	05 26 37.4
	e	26 55
Oct. 24		
MONT	eP	05 33 51
Oct. 24		
HH	e(P)	05 50 39
Oct. 24		
BOZ	eP	09 47 41
	iS	49 11
	eL	50 30
	iL	50 38

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Date and Station		Phase (GCT)
		h m s
BUT	eP	09 47 41
	i	47 57
	e(S)	50 50
	eL	51 39
COL	iP	09 51 35
COLU	eP	09 50 14
	eS	55 12
	i	55 45
	eL	56 26
HONO	e	09 58 45
	eL	10 02 18
HH	iP	09 48 08.5
	eS	51 36
	eL	53 37
PHIL	e(P)	09 51 35
	eS	56 33
	eL	59 39
MONT	eP	09 55 25
NEL	iP	09 45 13.6
SLC	eP	09 46 34
	iP	46 36
	i	47 01
	iS	48 24
	iL	48 52
SJ	eP	09 52 40
TUC	iP	09 45 15
	i	45 37
	i	45 45
	iS	46 04
	i	46 13
	iL	46 27
UK	eS	09 48 31
	eL	10 48 55
WASH	eL	10 01 06
Oct. 24		
NEL	iP	10 58 30.1
Oct. 24		
BOZ	eP	11 24 41
	e	25 09
BUT	eP	11 24 35
	eL	29 31
HH	eP	11 25 30
	eL	30 34
SLC	e(P)	11 23 56
	eL	26 57
TUC	i(P)	11 22 31
Oct. 24		
COL	iP	13 21 50

Date and Station		Phase (GCT)
		h m s
Oct. 24		
COL	iP	14 43 30
Oct. 24		
COL	eP	16 10 53
HH	e(P)	16 20 45
BC	eP	16 15 22
NEL	iP	16 15 24.0
Oct. 24		
COL	eP	09 00 37
Oct. 24		
COL	iP	09 42 47
Oct. 24		
BC	eP	22 45 14
MONT	iP	22 42 27
NEL	iP	22 45 15.2
Oct. 24		
COL	eP	22 54 36
Oct. 24		
COL	eP	23 48 58
HH	eP	23 49 53
Oct. 25		
NEL	eP	02 42 00
Oct. 25		
HH	e(P)	04 39 10
	i	39 29
Oct. 25		
NEL	eP	05 12 00
Oct. 25		
MONT	iP	06 33 53
	e	37 17
Oct. 25		
BC	iP	13 13 06.2
NEL	iP	13 13 06.3
Oct. 25		
COL	eP	13 28 09
Oct. 25		
BC	iP	14 28 03.6
NEL	iP	14 28 13.2
Oct. 25		
COL	eP	16 27 31
Oct. 25		
COL	iP	16 38 41
SJ	i(P')	16 45 55

Date and Station		Phase (GCT)
		h m s
Oct. 25		
COL	eP	19 16 15
	epP	17 05
NEL	eP	19 15 42
	epP	16 28
	i(sPP)	20 34
Oct. 25		
COL	eP	19 28 55
Oct. 25		
COL	eP	20 30 39
Oct. 26		
COL	iP	02 16 09
Oct. 26		
COL	eP	02 28 38
Oct. 26		
HH	e(P)	05 16 19
Oct. 26		
BC	eP	05 26 39
NEL	iP	05 26 39.2
SJ	e(P)	05 23 30
Oct. 26		
COL	iP	10 46 09
HH	e(P)	10 47 06
Oct. 26		
COL	eP	17 01 30
SLC	eP	16 59 10
Oct. 26		
BOZ	eP	19 24 40
COL	eP	19 21 18
	iP	21 21
	i	21 36
HH	iP	19 24 16
	e	26 26
Oct. 26		
BC	eP	20 36 51
BOZ	eP	20 36 09
COL	eP	20 32 48
	iP	32 53
HH	iP	20 35 44
	ePcP	37 51
NEL	eP	20 36 43
Oct. 26		
COL	eP	20 48 27
HH	iP	20 51 22

Date and Station		Phase (GCT)
		h m s
Oct. 26		
COL	eP	21 05 30
HH	eP	21 08 26
Oct. 26		
HH	e(P)	22 23 41
Oct. 26		
BH	iP	22 23 18
	iS	24 06
BC	iP	22 30 08.5
BOZ	e(P)	22 30 45
HH	iP	22 31 09
MONT	eP	22 28 39
NEL	iP	22 30 06.7
SJ	iP	22 26 54
TUC	eP	22 29 27
Oct. 27		
BC	eP	03 31 23
	i	31 33.7
BOZ	eP	03 30 54
BUT	eP	03 30 44
	e	31 03
COL	eP	03 27 31
	i	27 36
	i	27 46
COLU	eP	03 33 53
	e	34 18
HH	iP	03 30 27.5
	i	30 39
	ePcP	32 44
NEL	eP	03 31 23
	i	31 34.6
	i	32 07.3
SJ	eP	03 35 47
TUC	eP	03 31 57
	i	32 11
Oct. 27		
COL	eP	05 14 07
	i	14 18
HH	e(P)	05 15 25
	i	15 35
Oct. 27		
COL	iP	08 32 47
Oct. 27		
BC	eP	10 02 19

Date and Station		Phase	(GCT) h m s
COL		eP	10 06 20
HH		eP	10 03 51
MONT		eP	10 02 02
NEL		eP	10 02 17
		i	02 24.5
SLC		e(P)	10 02 53
TUC		eP	10 01 42
		eL	12 24
Oct. 27			
COL		iP	10 35 30
		ipP	35 55
HH		iP	10 38 34
		i	40 19
TUC		e(P)	10 40 05
Oct. 27			
HH		e(P)	11 41 09
Oct. 27			
NEL		iP	14 13 57.5
Oct. 27			
COL		eP	15 27 52
		i	27 57
		i	28 07
HH		eP	15 30 49
Oct. 27			
COL		eP	16 28 08
Oct. 27			
COL		iP	17 19 45
Oct. 27			
COL		iP	20 37 00
Oct. 27			
COL		iP	21 59 53
HH		eP	22 01 43
		e	01 50
MONT		iP	22 08 27
Oct. 27			
BC		eP	23 58 50
COL		eP	23 54 19
		e(S)	57 10
		eL	57 25
HH		e(P)	23 57 42
NEL		iP	23 58 46.4
		i	59 58.2
Oct. 28			
BC		eP	00 05 11
NEL		eP	00 05 10
Oct. 28			
BC		iP	01 18 24.7
		ipP	19 10.0
		i	19 21.5
HH		eP	01 19 35
		ipP	19 59
MONT		iP	01 07 45
NEL		iP	01 18 45.2
		ipP	19 08.2
		e	19 20
		e	19 39
SJ		iP	01 15 01
TUC		eP	01 18 16
		e	18 38
Oct. 28			
BUT		eP	02 04 13
Oct. 28			
BC		iP	03 32 18.1
		i	32 31.4
COL		eP	03 32 57
NEL		iP	03 32 16.5
		i	32 26.7
TUC		iP	03 32 19
Oct. 28			
COL		eP	03 51 36
Oct. 28			
COL		eP	04 53 53
Oct. 28			
COL		iP	06 34 28
Oct. 28			
COL		eP	09 48 21
		epP	49 20
Oct. 28			
HH		iP	12 29 13
Oct. 28			
BOZ		eP	13 10 51
BUT		e(P)	13 10 00
		e	10 23
		eL	10 30
HH		iP	13 09 18
Oct. 28			
COL		eP	13 51 30
		epP	51 46
HH		iP	13 52 22
		ipP	52 39
Oct. 28			
HH		e(P)	14 19 54
NEL		eP	14 18 47
Oct. 28			
COL		eP	14 47 59
		ePcP	48 10
		epP	48 27
Oct. 28			
HH		e(P)	15 26 41
Oct. 28			
BUT		eP	15 51 43
COL		eP	15 48 16
HH		iP	15 51 30
Oct. 28			
NEL		eP	16 34 23
Oct. 28			
BC		iP	19 10 27.9
NEL		iP	19 10 27.0
		e	10 36
Oct. 28			
HH		eP	19 34 37
		eS	35 18
BC		eP	19 45 04
NEL		iP	19 45 02.6
Oct. 28			
COL		iP	21 43 32
Oct. 28			
COL		e(P)	23 04 14
Oct. 29			
COL		iP	00 55 42
Oct. 29			
COL		eP	05 12 45
Oct. 29			
COL		iP	06 38 28
		i	38 42
		iS	39 19
		iL	39 32
Oct. 29			
BOZ		eP	09 12 20
HH		eP	09 12 17
Oct. 29			
COL		eP	09 35 28
HH		e(P)	09 38 23
NEL		eP	09 39 12
Oct. 29			
COL		eP	10 45 17
Oct. 29			
BC		iP	11 22 20.4
COL		iP	11 22 19
TUC		eP	11 21 27
		e	21 36
Oct. 29			
HH		e(P)	11 22 50
NEL		iP	11 22 19.7
		i	22 26.2
		i	22 46.5
TUC		eP	11 22 27
		i	22 36
		eL	54 52
Oct. 29			
HH		e(P)	12 56 24
Oct. 29			
BC		eP	14 05 09
HH		i(P)	14 06 28
NEL		iP	14 05 06.6
		i	05 15.9
Oct. 29			
HH		e(P)	14 14 47
Oct. 29			
BUT		eP	14 24 41
Oct. 29			
NEL		eP	14 49 14
Oct. 29			
COL		eP	15 10 31
Oct. 29			
HH		e(P)	16 13 14
Oct. 29			
HH		e(P)	18 54 13
		eL	54 59
NEL		iP	18 57 14.9
Oct. 29			
NEL		e(P)	19 46 04.7
Oct. 29			
COL		eP	20 00 27
Oct. 29			
COL		iP	20 13 05
		i	13 13
Oct. 29			
BC		iP	21 48 09.7
		i	48 49.5
COL		iP	21 44 02
		ipP	45 06
HH		i(P)	21 46 18
		ipP	47 11
		i	48 20
		e	52 04

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Date and Station		Phase (GCT)
		h m s
NEL	iP	21 48 09.7
	i	48 32.2
	i	48 49.0
Oct. 29		
BC	eP	23 10 16
NEL	eP	23 10 31
Oct. 29		
HH	i(P)	23 52 20
Oct. 30		
BC	iP	02 03 22.6
	i	03 54.7
HH	iP	02 06 20
NEL	iP	02 03 17.6
	i(S)	03 42
Oct. 30		
HH	e(P)	02 37 41
	eL	38 24
Oct. 30		
HH	e(P)	06 42 38
	eL	43 21
Oct. 30		
NEL	iP	07 06 01.9
TUC	iP	07 06 05
Oct. 30		
HH	e(P)	07 56 29
	eL	57 10
Oct. 30		
BC	eP	08 59 02
NEL	eP	08 58 57
TUC	eP	08 57 59
Oct. 30		
NEL	eP	12 20 50
Oct. 30		
BC	eP	14 15 45
COL	iP	14 16 08
	i	19 14
NEL	eP	14 15 43
Oct. 30		
TUC	eP	15 18 16
Oct. 30		
HH	eP	15 20 45
	eL	23 50
NEL	iP	15 22 25.1
	i	22 41.6
Oct. 30		
BC	iP	16 15 27.7
	i	15 34.7

Date and Station		Phase (GCT)
		h m s
COL	iP	16 11 34
	e	11 50
HH	iP	16 34 35.5
NEL	iP	16 15 28.6
	e	15 36
	e	15 45
Oct. 30		
HH	eP	16 55 49
Oct. 30		
BC	eP	18 39 51.6
	i	40 23.1
	i	40 35.4
HH	e(P)	18 40 37
NEL	eP	18 39 51
	i	39 54.9
Oct. 30		
NEL	eP	21 04 08
Oct. 30		
HH	e(P)	21 55 13
Oct. 30		
BOZ	eP	22 09 59
BUT	eP	22 09 54
COL	iP	22 07 23
HH	iP	22 09 43
NEL	eP	22 14 14
	e	14 31
Oct. 30		
COL	iP	22 43 45
HH	e(P)	22 41 03
Oct. 30		
BOZ	eP	23 56 43
COL	iP	23 55 11
HH	iP	23 56 30
Oct. 31		
COL	iP	00 10 53
SJ	eP	00 17 56
Oct. 31		
BOZ	eP	02 46 55
	i	47 05
BUT	e(P)	02 47 03
	i	47 10
	cS	47 45
	eL	47 54
HH	eP	02 47 37
SIG	e(P)	02 46 35
Oct. 31		
COL	eP	03 13 39

Date and Station		Phase (GCT)
		h m s
Oct. 31		
COL	eP	03 34 42
Oct. 31		
NEL	eP	04 47 35
Oct. 31		
HH	e(P)	06 20 04
Oct. 31		
COL	iP	07 52 19
Oct. 31		
BC	eP	08 10 06
BOZ	eP	08 09 38
	e	10 05
HH	iP	08 09 13
	e	11 11
NEL	eP	08 10 06
	e	10 16
TUC	eP	08 10 44
	i	11 01
Oct. 31		
COL	iP	08 29 48
Oct. 31		
BC	eP	09 22 02
COL	iP	09 26 53
	e	27 52
HH	e(P)	09 23 40
	e	26 34
NEL	iP	09 21 58
	i	22 01
	i	22 18.9
TUC	iP	09 21 06
	i	21 22
	i	21 27
	eL	25 48
Oct. 31		
COL	eP	10 49 48
Oct. 31		
COL	eP	10 58 28
Oct. 31		
BC	eP	11 26 04
COL	eP	11 33 37
NEL	eP	11 26 04
TUC	eP	11 26 08
Oct. 31		
COL	iP	11 47 25
	e	47 36
	e	48 28
	e	49 30

Date and Station		Phase (GCT)
		h m s
Oct. 31		
COL	eP	14 27 35
HH	iP	14 30 30
Oct. 31		
COL	eP	19 40 37
Oct. 31		
BUT	eP	20 57 44
COL	iP	20 57 45
	i	58 17
HH	iP	20 57 46
NEL	iP	20 57 07.5
	i	57 24
	i	21 02 57
TUC	iP	20 57 15
Oct. 31		
COL	iP	23 25 52
	iPP	29 23
	i	30 08
HONO	e(P)	23 21 54
	ePcP	22 32
	eL	37 17
HH	eP	23 26 23
	ePP	30 19
NEL	iP	23 25 54.2
	ePPP	31 20
SJ	eP'	23 32 04
TUC	iP	23 26 04
	i	26 25
	eS	00 37 04
	ePS	38 15
	eSS	43 26
	eL	54 28
Oct. 31		
COL	eP	23 46 53
NEL	iP	23 46 54.0
	i	47 02.2
	i	47 19.0
	e	48 18
	iPP	50 59.0
PHIL	e	23 50 12
	e	54 07
	eL	00 10 11
TUC	eP	23 47 04
	ePS	59 03

Local and Minor Earthquakes

day	hour
BOZ	
Oct.	
3	10.3
	10.4 (2)
8	20.4
29	18.9
BUT	
Oct.	
4	19.3
5	16.9
8	20.4
21	22.6
24	00.7
28	03.3
29	05.7
	18.9
COL	
Oct.	
4	18.5
	19.3
	20.2
	21.7
5	09.8
	17.1
6	04.3
	13.6
11	18.8
	21.3
	22.0
14	05.2
	13.6
	14.1
15	02.2
	02.5
	05.5
	06.7
	10.7
	22.3
16	00.2
	22.3
17	21.9
27	12.2
29	06.0
	15.9
HONO	
Oct.	
11	16.5
12	01.7
MONT	
Oct.	
1	00.4
	08.2
	12.0
	13.6
2	15.2
3	00.8
	07.5
	21.9
4	01.5
	06.6
	08.8
	16.3
5	13.6
	23.6

Local and Minor Earthquakes

day	hour
MONT	
6	08.8
7	14.8
	16.3
8	03.4
	09.7
	23.3
9	03.9
	10.8
10	11.4
11	02.4
	15.8
	19.2
	20.7
12	11.9
13	11.2
	17.1
	22.2
14	10.3
15	23.9
16	14.9
18	20.6
19	06.8
	12.8
20	06.6
	10.3
	12.4
	13.6
21	18.1
22	13.3
	14.8
	17.4
	19.0
23	01.7
	05.9
	11.1
	16.8
24	09.7
	20.1
25	01.7
	05.1
	11.5
	23.3
26	05.2
	16.8
27	04.1
28	10.6
	13.2
SJ	
Oct.	
1	20.2
2	20.6
11	13.6
19	01.8
21	15.5
25	02.8
28	19.9
29	23.4
TUC	
Oct.	
1	02.9
	02.9
	20.5
3	08.9
5	02.7
	08.0

Local and Minor Earthquakes

day	hour
TUC	
Oct.	
6	08.9
	23.3
7	11.4
8	09.8
	09.9
	12.6
9	00.3
	02.0
	08.3
	14.0
10	09.1
	10.2
	23.5
11	06.0
	08.3
13	02.4
	04.2
14	12.0
15	09.5
16	04.6
	08.1
	19.5
	19.9
17	20.2
	22.9
18	00.3
	04.5
	05.9
	06.1
	08.2
	08.5
	11.5
	12.6
	14.8
	21.6
	23.7
19	06.0
20	04.4
	05.2
	08.2
	19.9
	21.9
	22.1
21	02.8
	07.3
	22.7
22	05.3
23	03.0
	03.5
	03.6
	04.1
	08.1
	09.1
	10.8
	19.4
24	03.2
	04.2
	05.5
	07.4
	07.5
	10.0
	10.1
	10.4
	10.7
	11.5
	13.0

Local and Minor Earthquakes

day	hour
TUC	
Oct.	
24	14.1
	18.0
	21.0
25	00.1
	00.9
	04.4
	06.5
	06.9
	17.1
	17.2
	21.8
26	02.8
	06.2
	08.5
	16.4
	23.3
27	13.1
	13.2
	21.2
28	00.0
	11.5
29	06.8
	08.5
	08.7
30	02.1
	02.1
	11.3
	14.3
	18.3
	18.7
31	02.3
	02.8
	12.5

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