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SEISMOLOGICAL BULLETIN

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January, 1955

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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)
**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 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, and Logan 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.

STATION AND INSTRUMENTAL CONSTANTS FOR 1955

Station	Position	Instruments	Foundation and elevation	T_o	T_g	T_s	V	∢	Paper Speed	Time Break Reference Point	Ground Motion Trace "UP"
Balboa Heights, C. Z. W. H. Esslinger, In Chg.	Log cos 9.99467 Lat. 8°57'39"N. Long. 79°33'29"W.	W-A, N & E Mass 1.8g	Basalt 36m.	N 1.0 E 1.0			1370 1370	14:1 18:1	60mm/min.	Beginning	N E
Boulder City, Nev. F. Werner, In Chg.	Log cos 9.90806 Lat. 35°58'51"N. Long. 114°50'02"W.	B, film, ZNE Mass 100 lb	Fractured monzonite. 776m.	Z 1.4 N 1.4 E 1.4	.45 .45 .45		12000 5000 5000	Near crit. crit. crit.	15mm/min.	Beginning	Up N E
Bozeman, Mont. A. J. M. Johnson, In Chg.	Log cos 9.88437 Lat. 45°40'01"N. Long. 111°02'43"W.	McC-R, N & E Mass 10kg. W-L, Z	Alluvium, glacial drift, and lake de- posits 500' thick over gneiss and schist. 1490m.	N 11.1 E 10.9 Z 1.2	 1.7		270 270	13:1 12:1 Near crit.	15mm/min. 60mm/min.	Beginning Beginning	N E Up
*Burlington, Vt. E. C. Jacobs, In Chg.	Log cos 9.85339 Lat. 44°28.8' N. Long. 73°11.8' W.	M-S, NE&NW Mass 1 lb.	Glacial hardpan 100m.	NE 12 NW 12			250 250	20:1 20:1	8mm/min.	End	SW NW
Butte, Mont. Stephen Nile In Chg.	Log cos 9.84167 Lat. 46°00.8' N. Long. 112°33.8' W.	W-A, N Mass 2g. W-L, ZNE	Rhyolite 30m. thick resting on granite. 1758m.	N 8.5 Z 1.1 N 8.0 E 8.0	 1.7 4.0 4.0		570	16:1 Near crit. Near crit. Near crit.	15mm/min. 60mm/min. 30mm/min.	Beginning Beginning	S Up N W
Chicago, Ill. W. F. Schmidt In Chg.	Log cos 9.87251 Lat. 41°47.3' N. Long. 87°36.0' W.	McC-R, N & E Mass 2.5kg.	Limestone 180m.	N 10 E 10			335 335	15:1 15:1	15mm/min.	End	N W
*College, Alaska C. J. Beers In Chg.	Log cos 9.62825 Lat. 64°51.6' N. Long. 147°50.4' W.	B, film, ZNE Mass 100 lb. W, N	Granitic schist. 159m.	Z 1.5 N 1.5 E 1.5 N 9.3	.45 .45 .45 16		12000	Near crit. Near crit. Near crit. Near crit.	15mm/min.	Beginning	Up N E N
College Outpost	Log. cos 9.62773 Lat. 64°53'25"N. Long. 147°47'43"W.	B, paper, Z		Z 1.5	.53		6000	Near crit.	60mm/min.		Up
Columbia, S. C. C. F. Mercer In Chg.	Log. cos 9.91857 Lat. 34°00' N. Long. 81°02' W.	W-L, ZNE	Consolidated sand 150' thick over granite. 94m.	Z 1.1 N 8.0 E 8.0	1.6 4.1 4.1		15000 2000 2000	Near crit. Near crit. Near crit.	60mm/min. 30mm/min.	Beginning	Up N E
*Honolulu, T. H. R. L. White In Chg.	Log cos 9.96926 Lat. 21°18'13"N. Long. 158°05'44"W.	M-S, N & E Mass 1 lb. N-L, E Spg. Z	Coral. 3m.	N 12 E 12 E 1.2 Z 1.65	 1.6		124 142 4800	20:1 20:1 8:1 crit.	30mm/min. 60mm/min.	Beginning	N W W Up

Station	Position	Instruments	Foundation and Elevation	T_o	T_g	T_s	V	ϵ	Paper Speed	Time Break Reference Point	Ground Motion Trace "UP"
Hungry Horse, Mont.	Log cos 9.82255	B, film, ZNE	Argillaceous	Z 1.4	.45		13000	Near crit.	15mm/min.	Beginning	Up
C. H. Spencer,	Lat. 48°20'58"N.	Mass 100 lb.	limestone (Belt	N 1.4	.45		5000	Near crit.			N
In Chg.	Long. 114°01'39"W.		Series). 1100m.	E 1.4	.45		5000	Near crit.			E
Lincoln, Nebr.	Log cos 9.87886	McC-R, E	Dakota sand-	E 8			200	10:1	15mm/min.	Beginning	E
W. French Jr.	Lat. 40°50.3' N.	Mass 2.5kg.	stone. 366m.								
In Chg.	Long. 96°39.2' W.										
Logan, Utah	Log cos 9.87283	W-A, N & E	Bonneville Lake	N 12			700	10:1	15mm/min.	Beginning	S
J. S. Williams	Lat. 41°44.5' N.	(dbl. refl.)	beds. 1455m.	E 7.3			700	10:1			E
In Chg.	Long. 111°48.8' W.	Mass 2g.									
		Spg, Z		Z 1.9	2.2			Near crit.	60mm/min.		Up
Montezuma, Chile	Log cos 9.96525	W-L, Z	Sandstone	Z 1.2	0.5		10000	Near crit.	60mm/min.	Beginning	Up
J. Zimmerman	Lat. 22°40 S.		2748m.								
In Chg.	Long. 68°56' W.										
Nelson, Nev.	Log cos 9.90955	B, paper, Z	Volcanic Rock	Z 1.5	.45		100000	Near crit.	60mm/min.	Beginning	Up
F. Werner	Lat. 35°42½' N.	Mass 100 lb.	1200m.								
In Chg.	Long. 114°49½' W.										
Philadelphia, Pa.	Log cos 9.88452	W, N & E	Cape May sand	N 9.0	9.4	7.9	1400	22:1	20mm/min.	End	S
I. M. Levitt,	Lat. 39°57'32"N.	Mass 500g.	and gravel.	E 9.0	9.4	7.1	1400	34:1			E
In Chg.	Long. 75°10'30"W.		5m.								
Rapid City, S. Dak.	Log cos 9.85637	W-A, E	Shale	E 6			590	20:1	15mm/min.	Beginning	E
E. L. Tullis	Lat. 44°04.6' N.	(dbl. refl.)	1045m.								
In Chg.	Long. 103°12.0' W.	Mass 2g.									
Salt Lake City, Utah	Log cos 9.87932	McC-R, N & E	Bonneville Lake	N 9.7			335	10:1	15mm/min.	Beginning	N
A. M. Anderson	Lat. 40°45'55"N.	Mass 2.5kg.	beds. 1425m.	E 10.0			335	10:1			W
In Chg.	Long. 111°50'54"W.	W-L, Z		Z 1.2	1.8			Near crit.	60mm/min.		Up
San Juan, Puerto	Log cos 9.97726	W, N & E	Limestone	N 9.9	25.5	11.0	1280	20:1	30mm/min.	Beginning	N
Rico.	Lat. 18°22.9' N.	Mass 500g.	80m.	E 10.1	16.8	10.8	1280	20:1			E
Paul Ledig,	Long. 66°07.1' W.	B, Z		Z 1.04	0.5			crit.	60mm/min.		Up
In Chg.											
*Sitka, Alaska	Log cos 9.73544	W, N & E	Graywacke	N 7.6	12.8	8.0	1000	13:1	15mm/min.	Beginning	N
T. Skillman,	Lat. 57°03'25"N.	Mass 500g.	19m.	E 7.7	12.0	8.1	1000	14:1			W
In Chg.	Long. 135°19'28"W.										
*Tucson, Ariz.	Log cos 9.92725	W-A, N & E	Caliche or	N 8.0			466	crit.	30mm/min.	Beginning	S
M. L. Cleven	Lat. 32°14.8' N.	Mass 2.3g.	gravels 100-300m	E 8.0			457	crit.			E
In Chg.	Long. 110°50.1' W.	B, Z	thick. 770m.	Z 1.0	77.0			Near crit.	30mm/min.		Up
					0.236				60mm/min.		Up
		B, E		E 1.8	0.5			Near crit.	30mm/min.	Beginning	E

Station	Position	Instruments	Foundation and Elevation	T_o	T_g	T_s	V	ζ	Paper Speed	Time Break Reference Point	Ground Motion Trace "UP"
Ukiah, Calif. L. F. Caouette In Chg.	Log cos 9.88968 Lat. 39°08' N. Long. 123°13' W.	McC-R, N & E Mass 10 kg.	Alluvium 180m. deep. 199m.	N 11.9 E 11.6			75 75	Near crit.	30mm/min.	Beginning	N E
*Washington, D. C.	Log cos 9.89117 Lat. 38°53'33"N. Long. 77°01'59"W.	W-L, Z Visible recorder	Recent alluvium on schistose granite. 0m.	Z 1.5	1.7 Pen 0.5	1.5			30mm/min.	Beginning	Up

*These stations operate visible recording seismographs of Coast and Geodetic Survey design similar to the one at Washington.

B - Benioff, W - Wenner, McC-R - McComb-Romberg, W-A - Wood-Anderson, M-S - Milne-Shaw, N-L - Neumann-Laberre, Spg - Sprengnether, W-L - Wilson-Lamison

Date 1955	Origin Time G. C. T.	Lat.		Long.		Region, Focal Depth and Remarks
Jan.	h m s	° '		° '		
1	10 34 41*	28½	N.	44	W.	North Atlantic Ocean.
1	10 49 32*	28½	N.	44	W.	Do.
1	12 13 54**					Fallon, Nevada aftershock. Mag. 5.1
1	18 03 08*	51	N.	178½	W.	Andreanof Islands, Aleutian Islands.
1	18 37 41*	51½	N.	178½	W.	Andreanof Islands, Aleutian Islands. h about 60 km.
2	02 09 50**					Western New Guinea.
2	07 21 53**					Fiji Islands. h about 400 km.
3	01 07 02*	39	N.	22	E.	Central Greece. Slight damage at Kentron.
3	18 41 50**					Near coast of Peru. h about 60 km.
3	19 29 16**					Near west coast of Sumatra.
4	12 07 48**					Off south coast of Honshu, Japan.
5	00 50 12*	50	S.	162½	E.	Off coast of South Island, New Zealand. Mag. 6-1/2 - 6-3/4.
5	12 44 44*	15	S.	76	W.	Near coast of Peru.
5	15 28 20*	54½	N.	161	E.	Near east coast of Kamchatka.
5	15 35 08*	0		78	W.	Northern Ecuador.
5	17 48 35*	16	S.	167½	E.	New Hebrides Islands. Mag. 6-3/4.
5	23 42 03*	16	S.	167½	E.	New Hebrides Islands. Damage on Malekula. Mag. 6-3/4 - 7.
6	01 59 43**					New Hebrides aftershock.
6	02 22 35*	16	S.	167½	E.	Do.
6	04 02 00**					Off coast of Guerrero, Mexico.
6	05 04 24*	42½	N.	148	E.	Hokkaido, Japan.
6	06 59 47**					New Hebrides aftershock.
6	09 48 19*	16	S.	167½	E.	Do.
7	05 30 56*	14½	N.	90½	W.	Guatemala. h about 150 km.
7	09 44 28*	16½	S.	78	E.	Indian Ocean.
8	07 33 36*	11½	S.	166½	E.	Santa Cruz Islands. h about 60 km. Mag. 6-3/4 - 7.
8	07 52 57*	39	N.	22½	E.	Greece.
8	09 00 32*	31½	N.	141	E.	Off south coast of Honshu, Japan. h about 100 km.
8	09 58 42*	5	S.	106	W.	West of Galapagos Islands.
8	19 03 55*	50½	N.	158	E.	Near south coast of Kamchatka.
9	00 27 48*	54½	N.	162	E.	Near east coast of Kamchatka.
9	04 00 44*	55	N.	161½	E.	Near east coast of Kamchatka. h about 60 km.
9	09 10 50*	39	N.	118	W.	Fallon, Nevada aftershock.

Date 1955	Origin Time G. C. T.	Lat.	Long.	Region, Focal Depth and Remarks
Jan.	h m s	° ′	° ′	
9	11 06 52**			Sandwich Islands.
10	04 25 44*	37 N.	71 E.	Hindu Kush. h about 100 km.
10	09 38 43*	1/2 S.	80 W.	Near coast of Ecuador. Felt at Quito.
10	10 07 28*	37 N.	114½ W.	Southern Nevada. Mag. 4-3/4 - 5.
10	13 15 54*	40 N.	118½ W.	Fallon aftershock.
10	19 31 50*	15 N.	92½ W.	Mexico-Guatemala border. h about 100 km.
10	21 43 10*	14½ S.	175 W.	Samoa Islands. h about 100 km.
11	00 35 58*	20 S.	79½ W.	Northern Chile. Felt at Antofagasta.
11	07 35 36**			Near south coast of Honshu, Japan. Felt at Tokyo and Yokohama.
11	09 21 12*	35 N.	23½ E.	Western Crete.
11	10 20 02*	48 N.	124½ W.	Near coast of Washington. Felt at Quinault, Port Angeles, and Victoria, British Columbia.
11	12 48 10*	13 S.	167½ E.	New Hebrides Islands.
11	13 48 11*	27 N.	127½ E.	Ryukyu Islands.
11	15 41 27**			Near coast of Guatemala.
11	23 03 07*	11 N.	86½ W.	Near coast of Nicaragua.
12	19 25 56*	21½ S.	69 W.	Northern Chile. Felt at Antofagasta.
13	00 14 29**			About 600 miles northeast of Sandwich Islands.
13	02 03 43*	53 N.	167½ W.	Fox Islands, Aleutian Islands. Felt in Unalaska. Mag. 6.9
13	02 35 45*	53 N.	167½ W.	Fox Islands aftershock. Felt in Unalaska.
13	02 44 47**			Fox Islands aftershock.
13	08 31 40*	20½ S.	70 W.	Northern Chile aftershock. Felt at Antofagasta.
14	07 44 40**			Assam-Burma border region. h about 100 km.
15	19 55 14*	35 N.	141 E.	Near east coast of Honshu, Japan.
16	13 30 15**			Near south coast of Sumatra.
16	23 21 45**			Indian Ocean, about 350 miles northeast of Prince Edward Islands.
17	02 21 46*	36½ N.	139½ E.	Honshu, Japan. Felt at Tokyo and Yokohama.
17	02 40 17*	20 S.	176½ W.	Tonga Islands. h about 200 km.
17	21 27 40**			Off coast of Jalisco, Mexico.
18	08 42 03*	5 N.	87½ W.	Galapagos Islands region.
18	14 36 32*	19 S.	179 W.	Samoa Islands. h about 400 km.
18	16 51 26*	36½ S.	98½ W.	Southeast of Easter Island.
18	19 48 36**			Santa Cruz Islands region.
19	02 10 07*	39½ N.	118½ W.	Near Fallon, Nevada.

Date 1955	Origin Time G. C. T.	Lat.		Long.		Region, Focal Depth, and Remarks
Jan.	h m s	° ′		° ′		
19	04 34 25*	2	S.	13	W.	Atlantic Ocean, south of Liberia.
19	15 33 07*	1	N.	78½	W.	Colombia-Ecuador border. h about 100 km.
19	19 02 40**					Kodiak Island region.
20	03 48 50*	15½	N.	104½	W.	Off coast of Mexico. Mag. 6-1/4.
21	09 06 00**					Jujuy province, Argentina.
21	14 18 33*	53	N.	168	W.	Fox Islands, Aleutian Islands. Felt in Unalaska and Adak.
22	05 28 35*	8	S.	67½	E.	Chagos Islands region.
22	21 11 00**					Fiji Islands. h about 650 km.
23	22 21 14**					Near southwest coast of Java.
24	00 49 20*	4	S.	104	W.	Southwest of Galapagos Islands.
24	05 47 50**					Near coast of Guerrero, Mexico.
24	14 33 38*	18	S.	179½	W.	Fiji Islands.
25	04 09 30**					Off south coast of Java.
25	07 24 30**					Tennessee-Arkansas-Missouri border. Slight property damage.
25	14 19 29*	19½	N.	109½	W.	Revilla Gigedo Islands region.
25	14 50 05*	80	N.	3	W.	Arctic Ocean, off west coast of Spitzbergen.
25	23 07 10*	22½	S.	65½	W.	Jujuy province, Argentina. h about 250 km.
26	02 50 00**					About 500 miles south of Juan Fernandez Islands.
26	07 31 09**					Galapagos Islands region.
27	13 11 34**					Off coast of Oaxaca, Mexico. h about 60 km.
27	16 16 05*	43	N.	140½	E.	Near west coast of Hokkaido, Japan.
27	18 38 20*	17½	S.	177	W.	Fiji Islands region. h about 400 km.
28	07 42 00**					Off south coast of Crete.
28	17 02 33*	33	N.	82½	E.	Tibet.
29	17 03 35*	51½	N.	159½	E.	Off southeast coast of Kamchatka.
31	02 27 12**					Andreanof Islands, Aleutian Islands.
31	02 44 15*	46	N.	152½	E.	Kurile Islands.
31	05 03 03*	12½	S.	57	W.	Mato Grosso, Brazil. Mag. 6-3/4.
31	15 03 10*	31½	S.	71½	W.	Central Chile. Felt at Santiago.
31	16 02 07*	46½	N.	153	E.	Kurile Islands. Mag. 6-1/4 - 6-1/2.

Date and Station		Phase (GCT)
		h m s
Jan. 1		
NEL	iP	00 03 12.5
Jan. 1		
COL	eP	00 19 58
Jan. 1		
NEL	eP	04 22 38
Jan. 1		
HH	e(P)	06 09 48
Jan. 1		
COL	eP	10 19 55
TUC	eP	10 23 39
Jan. 1		
BOZ	eP	10 44 15
COL	iP	10 45 59
COLU	eP	10 41 12
	eS	46 32
	eL	50 05
HH	e(P)	10 44 26
LOG	eP	10 44 21
MONT	eP	10 44 16
NEL	iP	10 44 46.8
	i(PcP)	45 40.4
	e	48 15
SJ	e(P)	10 39 47
TUC	eP	10 44 30
	eL	11 06 03
Jan. 1		
HH	eP	10 47 54
Jan. 1		
BC	iP	10 59 38.2
	i	59 49.3
	iPcP	11 00 17.7
BOZ	e(P)	10 59 06
BUT	e(P)	10 59 13
COL	iP	11 00 50
COLU	eP	10 56 03
	eS	11 01 29
	eL	04 56
HH	eP	10 59 15
LOG	eP	10 59 11
MONT	eP	10 59 08
NEL	iP	10 59 37.8
	e	11 00 02

Date and Station		Phase (GCT)
		h m s
SJ	eP	10 54 36
TUC	eP	10 59 22
	eL	11 20 36
Jan. 1		
BC	iP	11 02 58.4
	i	03 09.9
NEL	iP	11 02 59.0
	i	03 11.0
Jan. 1		
BC	iP	12 14 57.9
	i	15 09.5
	iL	18 12.5
BOZ	eP	12 16 07
	e(S)	18 07
	eL	18 21
BUT	eP	12 16 09
	e(S)	18 06
	eL	18 19
COL	eP	12 20 15
HH	eP	12 16 20
	i	17 15
	eL	18 58
LOG	e(P)	12 15 22
	e	15 43
	eL	16 33
NEL	iP	12 15 01
	i	15 13.3
SLC	e(P)	12 15 31
	iS	16 39
	iL	16 48
TUC	eP	12 16 07
	e(S)	17 43
	eL	18 33
Jan. 1		
COL	iP	12 53 15
Jan. 1		
SLC	eP	14 37 23
Jan. 1		
BC	eP	17 03 26
	i	03 39.5
COL	iP	17 04 05
HH	e(P)	17 03 56
MONT	eP	17 04 08
NEL	iP	17 03 24.8
	i	03 41.6
	i	03 53.9
TUC	eP	17 03 27
	eL	40 34

Date and Station		Phase (GCT)
		h m s
Jan. 1		
NEL	eP	18 02 12
Jan. 1		
BC	eP	18 11 53
	e	12 07
BOZ	eP	18 11 17
BUT	eP	18 11 04
COL	iP	18 07 54
	i	07 58
COLU	iP	18 14 15
	i	14 30
HH	iP	18 10 52
	ePcP	12 56
	eS	16 41
NEL	iP	18 11 49.9
	i(PcP)	13 18.1
SLC	eP	18 11 35
SJ	iP	18 16 06
TUC	eP	18 12 22
	i	12 39
Jan. 1		
BC	eP	18 46 11
	i	46 20.2
	ipP	46 29.1
BOZ	iP	18 45 44
BUT	eP	18 45 35
COL	iP	18 42 22
	i	42 25
	i	46 28
COLU	iP	18 48 41
	epP	48 56
HH	iP	18 45 19
	ePcP	47 02
	ePP	47 22
	eS	51 02
NEL	eP	18 46 13
	ipP	46 28.7
SLC	eP	18 46 02
SJ	iP	18 50 34
	i	50 45
TUC	iP	18 46 49
	ipP	47 07
Jan. 1		
NEL	eP	19 33 20
Jan. 1		
COL	eP	19 59 34

Date and Station		Phase (GCT)
		h m s
Jan. 1		
COL	iP	22 09 18
Jan. 1		
COL	iP	23 17 55
HH	eP	23 21 54
Jan. 2		
COL	iP	02 22 42
MONT	iP'	02 29 36
Jan. 2		
HH	e(P)	02 51 51
Jan. 2		
HH	e(P)	05 52 58
Jan. 2		
BC	iP	07 33 31.2
COL	iP	07 33 58
	ipP	35 30
HH	eP	07 34 05
NEL	eP	07 33 30
TUC	iP	07 33 37
Jan. 2		
HH	eP	17 20 17
Jan. 2		
BC	eP	17 22 09
	e	22 21
COL	iP	17 17 33
HH	eP	17 20 58
	i	21 09
NEL	iP	17 22 13.2
	i(pP)	22 23.1
Jan. 2		
BOZ	e(P)	22 09 27
BUT	e(P)	22 09 19
HH	e(P)	22 10 01
	eL	11 59
NEL	eP	22 08 12
	i	08 27
	iS	09 14
	iL	09 23
SLC	e(P)	22 08 38
	eS	09 46
	eL	09 50
TUC	e(P)	22 09 59
	eL	11 58
Jan. 2		
COL	iP	22 42 24

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Date and Station	Phase	Phase (GCT) h m s
Jan. 2		
HH	e(P)	23 30 26
Jan. 2		
HH	e(P)	23 34 36
Jan. 3		
COL	eP	00 17 55
Jan. 3		
BC	iP	01 20 30.8
	i	20 35.8
BOZ	eP	01 19 45
	iP	19 46
BUT	iP	01 19 47
	i	19 52
	eL	47 13
COL	iP	01 18 51
COLU	iP	01 19 06
HH	iP	01 19 39
	ePP	22 57
NEL	iP	01 20 31.8
	i	20 36.8
	iPP	24 22.8
TUC	iP	01 20 37
Jan. 3		
COL	iP	01 44 37
	i	45 16
HH	iP	01 47 00
	e	47 39
Jan. 3		
BUT	eP	02 41 57
COL	eP	02 40 01
HH	iP	02 41 46
	i	41 55
	i	42 03
MONT	iP'	02 48 39
NEL	iP	02 42 00.0
	i	42 16.8
Jan. 3		
BOZ	eP	05 31 32
Jan. 3		
BOZ	e(P)	07 41 26
BUT	e(P)	07 41 27
HH	e(P)	07 41 22
	eL	43 51
Jan. 3		
HH	e(P)	08 36 04
Jan. 3		
COL	iP	09 17 19
Jan. 3		
HH	e(P)	10 33 38
Jan. 3		
COL	iP	12 11 09
Jan. 3		
BOZ	e(P)	13 41 04
HH	e(P)	13 41 33
Jan. 3		
HH	e(P)	16 03 07
Jan. 3		
COL	eP	17 30 34
Jan. 3		
COL	iP	18 47 51
Jan. 3		
BC	iP	18 52 20.2
	i	52 27.3
	ipP	52 33.6
BOZ	eP	18 52 54
	e	53 48
BUT	iP	18 53 01
COL	iP	18 55 18
COLU	eP	18 50 39
	iS	57 43
	iScS	19 00 28
	eL	04 34
HH	eP	18 53 15
	i	53 23
	i	54 03
MONT	iP	18 44 14
	i(S)	45 57
NEL	iP	18 52 18.4
	ipP	52 32.5
	iPcP	52 53.6
	i	53 23.1
SLC	eP	18 52 32
	eS	19 01 14
	eL	18 15
SJ	eP	18 48 35
TUC	iP	18 51 46
	ipP	52 00
	ePP	53 58
	eS	59 48
	eL	19 06 50
Jan. 3		
BC	eP'	19 48 42
COL	ePP	19 46 41
HH	e(P)	19 43 33
	eP'	48 21
	ePP	49 47
NEL	iP'	19 48 41.8
	i	48 59.0
	i	49 34.0
	iPP	51 09.5
	ePKS	52 05
	i	52 31.7
Jan. 3		
COL	eP	21 39 13
Jan. 3		
HH	e(P)	20 26 31
Jan. 3		
HH	e(P)	22 29 15
Jan. 4		
BC	eP	02 47 31
BUT	eP	02 46 53
COL	eP	02 44 53
	e	45 10
HH	eP	02 46 44
	e	47 05
NEL	iP	02 47 02.6
	i	47 21.8
Jan. 4		
COL	iP	07 41 54
Jan. 4		
HH	e(P)	08 57 15
Jan. 4		
BC	eP	12 04 47
COL	eP	12 04 26
	i	04 47
HH	e(P)	12 04 59
NEL	eP	12 04 46
Jan. 4		
BC	eP	12 20 12
BUT	eP	12 19 49
COL	iP	12 17 10
HH	iP	12 19 37
MONT	eP'	12 27 50
NEL	iP	12 20 13.0
Jan. 4		
COL	iP	14 42 25
Jan. 4		
NEL	eP	15 07 59
	e	07 46
Jan. 4		
COL	eP	20 59 31
	eL	21 10 20
HH	e(P)	21 01 52
NEL	eP	21 02 25
Jan. 4		
COL	eP	21 28 44
Jan. 4		
COL	iP	21 39 57
	i	40 31
	i(pP)	40 53
Jan. 4		
NEL	eP	22 44 39
	e	45 18
Jan. 4		
HH	i(P)	23 42 26
Jan. 5		
COL	iP	00 08 33
HH	eP	00 09 53
NEL	iP	00 09 56.7
Jan. 5		
HH	e(P)	00 29 50
Jan. 5		
BC	iP'	01 08 58.1
	i	09 28.3
	i(PP)	10 55.7
	ePKKP	19 46
BOZ	iP'	01 09 13D
	iPP	10 44
	e	11 34
	ePKKP	19 17
	e	19 43
	e	22 20
BUT	eP'	01 09 11
	iP'	09 14
	iPP	10 40D
	ePKKP	19 17
	e	23 09
	eL	39 07
COL	e	01 06 53C
	iP'	09 07
	i	09 12
	eSKKS	17 21
	iPKKP	19 10
	eSS	27 05
	eL	41 06
COLU	iP	01 09 34C
	iPP	11 52

Date and Station		Phase (GCT)
		h m s
COLU	iPKS	01 12 57
	i	15 12
	eSKSP	22 12
	eSS	29 52
	eSSS	34 42
	eL	46 00
HONO	iP	01 02 24C
	i	02 40
	e	19 19
	eL	28 38
HH	e	01 08 58
	iP'	09 08
	ePP	11 01
	e	12 05
	e	15 32
	e(S)	18 27
	iPKKP	19 12
	ePS	20 55
	e	21 53
	ePPS	22 06
MONT	eP	01 03 41
	ePP	07 30
	ePKKP	20 42
	eP'P'	28 52
NEL	e(P)	01 05 12
	iP'	08 57.6D
	iPP	09 42.3
	i	09 55.8
	ePKKP	19 36
	iPKKP	19 58.7
SLC	eP'	01 09 08C
	iPP	10 23
	ePKKP	19 30
	iPKKP	19 33
	ePS	20 04
	e(SS)	29 54
	eL	39 33
SJ	eP'	01 09 29
	iP'	09 31
	ePP	11 46
	ePKS	12 52
	eSKS	16 50
	eSKKKS	19 09
	e	24 41
	eSS	29 51
	eSSS	34 25
	eL	48 58
TUC	e(P)	01 05 04
	eP'	08 54
	iPP	09 39
	ePKKP	19 53
	iPKKP	20 06
	eSS	25 46
	eSSS	29 32
	eL	39 45
WASH	eP'	01 09 44
	iP'	09 50
	i	10 15
	ePP	12 28
	ePKS	14 07
	eL	02 02 10

Date and Station		Phase (GCT)
		h m s
Jan. 5		
MONT	iP	03 28 27
Jan. 5		
BOZ	eP	08 23 10
HH	e(P)	08 23 09
	eL	25 33
SLC	eP	08 22 08
	e(S)	22 22
	eL	22 33
Jan. 5		
MONT	iP	12 47 09
	i	47 44
	iL	49 54
NEL	eP	12 55 14
Jan. 5		
NEL	iP	14 58 11.9
Jan. 5		
BOZ	eP	15 37 42
	i	37 52
BUT	eP	15 37 32
COL	iP	15 34 02
	i	37 23
HH	iP	15 37 17
	i(PcP)	38 38
NEL	iP	15 38 19
SLC	iP	15 38 05
	i	38 15
TUC	iP	15 38 51
	i	39 02
Jan. 5		
BOZ	eP	15 44 34
BUT	eP	15 44 42
COL	iP	15 47 28
HH	eP	15 44 58
MONT	eP	15 40 28
SJ	iP	15 40 02
Jan. 5		
BC	e(P)	18 01 44
	i	01 54.8
	i	02 10.3
	ePP	05 15
	ePKKP	19 15
BOZ	e(P)	18 02 18
	ePP	06 02
BUT	e(P)	18 02 09
	e	03 14

Date and Station		Phase (GCT)
		h m s
BUT	eS	18 13 06
	eL	28 28
COL	iP	18 01 26C
	eL	24 04
COLU	ePP	18 08 38
	eSKKS	15 35
	ePKKP	17 55
	iPS	18 22
	eSS	24 45
	eSSS	29 18
	eL	40 15
HONO	i(P)	17 57 46
	i	58 19
	iPcP	58 54
	eS	18 04 47
T_S = 8 sec. A = 2mm.		
HH	eP	18 02 09D
	ePP	05 55
	ePKKP	18 55
	eP'P'	27 10
MONT	eP'	18 07 22
	ePP	07 59
NEL	eP	18 01 39C
	i	01 52.8
	i	02 12.5
	iPP	05 15.8
	ePKKP	19 22
SLC	eP	18 01 58
	eSKS	12 44
	i	13 29
	ePKKP	19 16
	eL	32 45
SJ	eP'	18 07 45
TUC	iP	18 01 55C
	i	02 21
	i	03 07
	iPP	05 26
	e	07 15
	eS	12 38
	ePS	14 02
	ePKKP	19 08
	eL	26 20
WASH	eL	18 46 26
Jan. 5		
COL	iP	18 24 33
Jan. 5		
COL	iP	20 03 25
Jan. 5		
NEL	eP	21 17 57
Jan. 5		
NEL	iP	21 27 13
Jan. 5		
BH	eP	21 41 52
	eS	42 25

Date and Station		Phase (GCT)
		h m s
Jan. 5		
HH	e(P)	21 51 26
Jan. 5		
NEL	eP	23 46 18
Jan. 5		
BC	eP	23 55 06C
	iPP	58 47.7
	eP'P'	00 21 01
BOZ	e(P)	23 55 51
BUT	e(P)	23 55 49
	ePP	59 18
	eS	00 06 38
	e(SS)	12 09
	eL	20 06
COL	iP	23 54 55D
	i	55 04
	i	55 28
	ePPP	00 00 10
	eS	05 38
	e(SS)	10 28
	eSSS	14 40
	eL	16 28
COLU	ePS	00 11 23
	eSS	17 52
	eSSS	22 22
	eL	38 50
HONO	eP	23 51 06
	e(S)	57 47
	eL	00 02 08
T_L = 14 sec. $A_{max.}$ = 5mm.		
HH	eP	23 55 32
	i	55 48
	ePP	59 23
	ePKKP	00 12 21
	eP'P'	20 42
MONT	e(P')	00 01 09
	iPP	01 39
NEL	eP	23 55 05C
	iPP	58 45.0
	i	59 00.1
	eP'P'	00 20 48
PHIL	ePP	00 02 50
	e	05 13
	eSKS	07 52
	ePS	12 14
	e	14 52
	eSS	18 22
	e(SSS)	24 32
	eL	32 19
SLC	eP	23 55 29
	eSKS	00 06 11
	eSS	13 13
	eL	25 33

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Date and Station	Phase	Phase (GCT) h m s
SJ	eP'	00 01 22
	ePKS	04 44
TUC	eP	23 55 22
	ePP	58 52
	e(PPP)	00 01 06
	eS	06 07
	e	06 27
	ePS	07 32
	i	08 17
	eSS	12 26
WASH	eL	00 41 12
Jan. 6		
BC	iP	00 45 14.3
BOZ	eP	00 45 54
BUT	e(P)	00 45 52
COL	iP	00 45 50
	i(pP)	46 04
HH	eP	00 45 52
NEL	iP	00 45 13.7
	e	45 26
Jan. 6		
COL	eP	00 57 33
Jan. 6		
COL	eP	01 25 25
Jan. 6		
BC	e(P)	02 13 16
COL	iP	02 12 34
NEL	eP	02 12 47
	e	13 04
TUC	eP	02 12 58
Jan. 6		
BC	eP	02 35 33
	e	35 43
	i	36 00.3
	ePP	39 15
BOZ	ePP	02 40 11
COL	iP	02 35 27
	i	35 37
	iS	46 08
	eL	59 23
COLU	ePS	02 52 13
	eL	03 16 53
HH	eP	02 36 18
	ePP	40 02
	ePKKP	53 02
	eP'P'	03 01 17
NEL	eP	02 35 39
	i	35 59.7
NEL	i	02 36 38.9
	iPP	39 16.7
TUC	e(P)	02 36 04
	e	36 47
	e(PS)	48 15
	eL	03 03 56
Jan. 6		
COL	iP	02 44 19
Jan. 6		
COL	iP	02 47 29
	e(pP)	48 15
Jan. 6		
COL	eP	03 00 59
Jan. 6		
COL	eP	03 04 41
Jan. 6		
COL	eP	03 15 58
Jan. 6		
COL	eP	03 39 01
Jan. 6		
COL	eP	04 01 52
Jan. 6		
BC	eP	04 07 33
	i	09 58.4
	eL	15 10
COL	eP	04 12 08
	e	13 29
HH	eP	04 09 00
NEL	iP	04 07 29.4
	i	07 56.9
	i	08 50.9
	eL	15 07
TUC	eP	04 06 37
	e	06 40
	e	08 02
	eL	12 13
Jan. 6		
COL	iP	04 16 31
Jan. 6		
COL	iP	04 23 20
	e(pP)	23 44
NEL	eP	04 23 55
Jan. 6		
BC	iP	05 16 04.8
BOZ	eP	05 15 40
BUT	eP	05 15 33
COL	iP	05 12 36
HH	iP	05 15 20
MONT	eP'	05 24 06
NEL	iP	05 16 05.7
	i	16 20.0
SLC	eP	05 15 57
TUC	eP	05 16 32
Jan. 6		
BC	eP	07 12 55
COL	iP	07 12 37
NEL	eP	07 12 55
Jan. 6		
HH	eP	08 37 30
SLC	e(P)	08 34 20
Jan. 6		
BOZ	e(PP)	10 05 07
COL	iP	10 01 09
HH	eP	10 01 52
NEL	iP	10 01 22.7
	i	01 44.7
	i	02 14.7
	i	02 56.7
	iPP	04 56.7
SLC	ePP	10 05 32
	eL	39 12
TUC	e(P)	10 01 33
	ePP	05 13
	eS	12 52
	eL	30 47
Jan. 6		
COL	eP	10 07 56
Jan. 6		
HH	eP	10 51 19
TUC	e(P)	10 51 26
Jan. 6		
COL	iP	11 25 35
HH	e(P)	11 27 02
Jan. 6		
COL	eP	17 27 54
Jan. 6		
COL	iP	17 40 25
Jan. 6		
HH	e(P)	20 09 58
Jan. 6		
COL	eP	21 06 33
Jan. 6		
COL	iP	22 12 56
	i	13 09
	i	13 16
	i	13 24
Jan. 7		
NEL	eP	00 11 34
Jan. 7		
HH	e(P)	01 51 42
Jan. 7		
BUT	e(P)	04 59 21
HH	e(P)	05 01 15
SLC	e(P)	04 57 51
TUC	e(P)	05 01 06
Jan. 7		
NEL	eP	05 28 20
Jan. 7		
BC	i(P)	05 37 05.0
	ipP	37 39.2
BOZ	iP	05 37 47
BUT	eP	05 37 55
COL	iP	05 41 14
	ipP	41 52
	i	42 30
COLU	iP	05 35 37
HH	eP	05 38 14
LOG	eP	05 37 23
MONT	iP	05 38 39
	i(ScP)	44 08
NEL	iP	05 37 03.2
	ipP	37 37.4
	ePP	38 03
SLC	eP	05 37 18
TUC	eP	05 36 21
	ipP	36 56
Jan. 7		
HH	e(P)	05 43 50
Jan. 7		
BOZ	e(P)	07 46 53
BUT	e(P)	07 46 47
HH	e(P)	07 46 52
	eL	49 10
SLC	eP	07 45 49
	eS	46 56
	eL	47 05

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Date and Station		Phase (GCT)
		h m s
Jan. 7		
BOZ	e(P)	08 03 09
BUT	e(P)	08 03 11
	e	04 50
HH	e(P)	08 03 11
	eL	05 40
LOG	e(P)	08 02 18
	eL	03 33
SLC	e(P)	08 02 19
	eS	03 21
	eL	03 31
Jan. 7		
BC	iP'	10 05 06.9
BOZ	eP'	10 04 15
	i	04 46
BUT	eP'	10 04 19
	i	04 54
COL	iP'	10 03 24
HH	eP'	10 04 10
	iP'	04 13
	i	04 49
LOG	eP'	10 04 30
MONT	iP'	10 03 40
	ePP	06 03
	ePKS	07 02
NEL	iP'	10 04 29.0
	i	05 07.8
SLC	eP'	10 04 16
	e	05 06
	ePP	03 28
SJ	iP'	10 04 08
TUC	eP'	10 04 35
	e	05 27
	ePP	09 03
Jan. 7		
BC	iP	10 13 15.8
COL	iP	10 13 19
Jan. 7		
BC	iP	13 58 43.6
NEL	eP	13 58 48
Jan. 7		
HH	e(P)	15 42 24
SLC	e(P)	15 44 28
Jan. 7		
COL	eP	16 15 04

Date and Station		Phase (GCT)
		h m s
Jan. 7		
NEL	eP	16 35 58
Jan. 7		
NEL	eP	16 39 56
Jan. 7		
HH	e(P)	20 30 35
Jan. 7		
HH	e(P)	21 55 49
Jan. 7		
HH	e(P)	22 14 29
Jan. 8		
HH	e(P)	02 27 58
Jan. 8		
BC	iP	03 56 40.4
Jan. 8		
HH	eP	05 12 49
Jan. 8		
SJ	e(P)	05 25 58
Jan. 8		
HH	e(P)	06 50 29
Jan. 8		
BC	eP	06 59 54
	e	07 00 09
HH	eP	07 03 02
MONT	eP	07 01 28
Jan. 8		
BC	eP	07 46 26
	ipP	46 43.8
	i	46 47.9
	isP	46 58.3
	i	48 32.6
BUT	e(P)	07 46 44
	eS	58 19
	eSS	08 04 00
	eL	11 41
COL	eP	07 46 02C
	e	51 50
	eS	56 03
	eScS	56 42
	eSS	08 02 24
	eL	08 06
COLU	ePP	07 53 19
	e	58 15
	eSKS	59 41
	iPS	08 03 13
	eSS	09 27
	eSSS	14 18
	eL	25 00
HONO	e(P)	07 42 30
	e(S)	49 48
	eL	53 52

Date and Station		Phase (GCT)
		h m s
HONO		
T_S = 4 sec. A = 1.5mm.		
T_L = 20 sec. $A_{max.}$=2.5mm.		
HH	eP	07 46 42
	ipP	47 02
	ePP	50 39
	e	08 03 20
	ePKKP	03 57
	eP'P'	12 17
MONT	eIP	07 53 06
	e	54 30
	ePKKP	08 03 06
PHIL	eSKS	07 59 46
	ePS	08 03 59
	ePPS	05 20
	eSS	10 51
	eL	29 05
RC	e(PP)	07 51 53
	eSKS	58 19
	eL	08 20 26
SLC	eP	07 46 45
	epP	47 01C
	isP	47 18
	ePP	50 36
	eS	57 59
	eSSS	08 07 51
SJ	eP'	07 52 42
	ePKS	56 13
TUC	eP	07 46 27C
	ipP	46 53
	i	47 51
	ePP	50 32
	eS	57 34
	ePS	58 07
	ePPS	59 10
	eSS	08 03 34
	eSSS	07 22
	eL	10 55
UK	e(P)	07 46 28
	e	50 02
	e	57 28
	eL	08 07 44
Jan. 8		
BUT	eP	08 05 42
COL	iP	08 04 48
HH	iP	08 05 35
MONT	e(P)	08 06 48
SLC	eP	08 06 02
WASH	e(P)	08 04 42
	eL	31 26
Jan. 8		
SLC	eP	09 08 32
	eS	09 42
	eL	09 50

Date and Station		Phase (GCT)
		h m s
Jan. 8		
BC	iP	09 12 47.9
	i	12 56.2
BUT	eP	09 12 26
	i	12 35
	eL	47 25
COL	iP	09 09 52
	ipP	10 12
HH	iP	09 12 15
MONT	eP'	09 20 23
SLC	eP	09 12 43
	eL	50 31
TUC	eP	09 13 11
Jan. 8		
BC	eP	10 06 35
	i	06 44.7
BUT	e(P)	10 07 49
	eL	25 19
COL	eP	10 10 37
	i	10 45
	e	11 21
	e	13 25
HH	eP	10 08 07
MONT	iP	10 06 22
SLC	eP	10 07 10
	e	07 34
	eL	21 47
TUC	eP	10 06 07
Jan. 8		
HH	iP	13 01 49
MONT	eP	12 57 18
SJ	iP	12 56 51
Jan. 8		
COL	eP	15 43 49
Jan. 8		
COL	eP	15 57 33
	i(pP)	57 50
Jan. 8		
HH	e(P)	16 59 27
Jan. 8		
HH	e(P)	17 29 35
Jan. 8		
HH	e	18 14 52
SLC	eP	18 11 32
	e	12 44

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Date and Station		Phase	(GCT) h m s
Jan. 8			
BC		iP	19 14 19.1
COL		iP	19 10 16
HH		iP	19 13 23
		iPcP	14 31
NEL		iP	19 14 22.1
		e	14 36
		e	14 50
TUC		iP	19 14 52
Jan. 8			
MONT		e(P)	21 36 38
Jan. 8			
COL		iP	21 46 06
HH		eP	21 50 11
Jan. 8			
BOZ		e(P)	22 35 23
HH		e(P)	22 35 53
		eL	37 56
SLC		eP	22 34 30
		eS	35 37
		eL	36 45
Jan. 8			
TUC		eP	22 55 44
Jan. 9			
BC		iP	00 37 45.0
BOZ		eP	00 37 09
COL		iP	00 33 28
HH		eP	00 36 43
LOG		eP	00 37 27
MONT		eP'	00 47 03
NEL		iP	00 37 45.8
SLC		eP	00 37 31
TUC		eP	00 38 19
		ePcP	38 56
Jan. 9			
BOZ		e(P)	01 37 29
HH		e(P)	01 37 28
		e	37 53
		iL	39 58
Jan. 9			
COL		eP	01 48 01
Jan. 9			
COL		iP	02 21 13
		ipP	22 02
Jan. 9			
BC		eP	02 40 09
NEL		eP	02 40 07
Jan. 9			
HH		eP	02 54 45
		eS	55 21
NEL		eP	03 02 18
Jan. 9			
BC		iP	03 52 34.7
COL		iP	03 48 56
HH		iP	03 51 48
NEL		eP	03 52 36
Jan. 9			
BC		iP	04 10 34.2
		e	11 25
COL		iP	04 06 17
HH		iP	04 09 32
		epP	09 55
		i(PcP)	10 54
MONT		eP'	04 19 52
NEL		iP	04 10 35.3
		i	10 44.8
		iPcP	11 26.3
TUC		eP	04 11 08
Jan. 9			
NEL		eP	05 08 00
Jan. 9			
COL		iP	05 37 28
Jan. 9			
BC		eP	08 03 46
BUT		eP	08 03 35
COL		eP	08 01 28
HH		eP	08 03 24
NEL		iP	08 03 46.6
Jan. 9			
COL		iP	08 50 23
Jan. 9			
BOZ		iP	09 12 55
		i	13 24
BUT		eP	09 12 50
		i	13 13
		e(S)	14 50
		eL	15 03
HH		eP	09 13 11
		i	13 28
HH		eS	09 14 54
		e	15 43
		iL	15 57
LOG		eP	09 12 13
		i	12 34
		eS	13 15
		eL	13 35
SLC		eP	09 12 09
		i	12 29
		iS	13 31
		iL	13 40
Jan. 9			
HH		e(P)	09 38 31
Jan. 9			
BOZ		eP	10 02 28
HH		e(P)	10 02 55
NEL		eP	10 00 04
TUC		eP	09 59 31
		i	59 38
		i(S)	10 00 11
		iL	00 55
Jan. 9			
HH		e(P)	11 08 55
Jan. 9			
BC		iP'	11 25 41.0
		e	29 25
BOZ		eP'	11 25 51
BUT		eP'	11 25 52
COL		e	11 26 35
		iP'	26 45
		i	26 54
		iP'	27 10
		iPP	29 51
HH		iP'	11 25 56
		i	26 25
MONT		iP	11 15 15
		i	15 39
		iPP	16 53
		eS	20 33
		eL	21 49
NEL		iP'	11 25 40.3
		i	27 01.3
SLC		eP'	11 25 45
SJ		iP	11 19 10
TUC		e	11 29 30
Jan. 9			
BOZ		eP	12 00 52
BUT		eP	12 01 06
		e(S)	02 51
		eL	03 02
HH		eP	12 01 00
LOG		e(P)	12 00 02
		e	00 24
		e	01 16
		eL	01 26
SLC		eP	12 00 06
		eS	00 20
		iL	00 31
Jan. 9			
COL		eP	12 04 47
HH		iP	12 03 46
Jan. 9			
HH		eP	12 36 43
Jan. 9			
BOZ		eP	12 48 09
SLC		eP	12 47 08
		eS	48 13
		eL	48 22
Jan. 9			
NEL		eP	13 24 14
Jan. 9			
HH		eP	14 16 11
SLC		e(P)	14 13 26
		eS	14 31
		eL	14 38
Jan. 9			
NEL		eP	14 35 33
		e	35 40
Jan. 9			
BC		eP	14 55 40
COL		eP	14 54 49
HH		e(P)	14 54 24
		e	55 55
NEL		eP	14 55 31
		e	55 35
TUC		eP	14 55 33
Jan. 9			
HH		eP	17 01 49
Jan. 9			
COL		eP	18 42 48
HH		eP	18 45 54
		e	48 46
NEL		eP	18 46 56
		e	47 06

Date and Station		Phase (GCT) h m s
Jan. 10		
BUT	eP	00 15 29
HH	e(P)	00 16 13
Jan. 10		
HH	e(P)	01 08 28
Jan. 10		
COL	iP	04 37 15
	ipP	37 39
	i	38 02
HH	iP	04 39 01
	e	42 01
Jan. 10		
COL	iP	07 34 34
Jan. 10		
BC	eP	09 47 30
BOZ	eP	09 48 07
BUT	eP	09 48 14
COL	eP	09 51 02
HH	eP	09 48 31
	iP	48 33
LOG	eP	09 47 46
	e	48 23
MONT	eP	09 44 02
	iPP	44 27
	i	44 45
	e	49 10
NEL	e(P)	09 47 31
SJ	iP	09 43 52
	iPP	44 12
TUC	iP	09 46 52
	eL	10 01 58
Jan. 10		
BOZ	e(P)	10 09 52
BUT	eP	10 10 06
	e(S)	11 54
	eL	12 01
HH	e(P)	10 10 25
	eS	12 26
	e	13 02
	eL	13 17
LOG	eP	10 08 49
	eS	09 47
	eL	10 03
NEL	iP	10 07 52
SLC	eP	10 08 30
	i(S)	09 23
	eL	09 30

Date and Station		Phase (GCT) h m s
Jan. 10		
NEL	eP	10 45 51
Jan. 10		
COL	eP	11 00 11
HH	e(P)	11 01 07
Jan. 10		
COL	iP	12 30 15
Jan. 10		
BOZ	eP	13 17 57
	eL	20 15
BUT	eP	13 18 06
	eS	19 48
	eL	20 08
HH	eP	13 18 06
	eL	20 34
LOG	e(P)	13 17 25
	i	17 34
	iS	18 40
	eL	19 13
SLC	eP	13 17 09
	i	17 33
	eS	18 13
	eL	18 22
TUC	e(P)	13 18 18
	e	18 51
	eL	21 04
Jan. 10		
NEL	eP	13 48 08
Jan. 10		
NEL	e(P)	15 14 25
Jan. 10		
COL	eP	15 34 29
Jan. 10		
NEL	eP	18 33 13
	e	33 21
Jan. 10		
BC	iP	19 37 51.4
	ipP	38 08.4
	isP	38 28.8
BOZ	eP	19 38 37
BUT	eP	19 39 03
COL	iP	19 42 09
	i	42 48
	iPcP	43 08
COLU	iP	19 36 40
	i	36 47
	ipP	36 59
HH	eP	19 39 05
	iPcP	41 19
	eS	45 04

Date and Station		Phase (GCT) h m s
MONT	iP	19 39 52
	ipP	40 12
	e	41 38
NEL	iP	19 37 49.4
	ipP	38 06.5
	ePcP	40 54
SLC	eP	19 38 06
	e	38 24
TUC	e(P)	19 37 07
	ipP	37 23
Jan. 10		
HH	e(P)	19 55 03
Jan. 10		
HH	e(P)	21 10 19
	e	10 56
Jan. 10		
BOZ	iP	21 55 30
BUT	iP	21 55 25
COL	iP	21 55 24
HH	iP	21 55 26
	e	56 01
	e(PP)	58 57
SLC	eP	21 55 13
Jan. 10		
HH	e(P)	22 21 52
	i	21 59
Jan. 10		
HH	e(P)	22 43 47
Jan. 10		
BH	eP	23 16 15
	eS	16 52
NEL	eP	23 23 10
Jan. 10		
NEL	eP	23 34 24
Jan. 11		
BC	iP	00 47 17.4
BOZ	eP	00 47 45
BUT	iP	00 47 50
HH	iP	00 48 02
MONT	iP	00 36 42
NEL	iP	00 47 15.8
SJ	iP	00 43 26
TUC	eP	00 46 47

Date and Station		Phase (GCT) h m s
Jan. 11		
BUT	eP	01 13 29
HH	eP	01 13 18
	e	13 31
Jan. 11		
NEL	iP	01 49 19.8
Jan. 11		
COL	eP	02 01 32
Jan. 11		
BC	iP	02 13 06.0
NEL	iP	02 13 51.8
Jan. 11		
COL	iP	02 25 26
NEL	eP	02 22 00
Jan. 11		
COL	iP	02 41 16
	i	41 31
	iS	41 55
Jan. 11		
BUT	eP	04 58 14
HH	eP	04 58 51
	e	59 25
	eL	05 00 33
Jan. 11		
HH	e(P)	05 45 40
	e	46 13
MONT	iP	05 34 01
NEL	eP	05 44 50
Jan. 11		
NEL	eP	06 16 39
Jan. 11		
BC	eP	07 47 52
COL	iP	07 44 41
HH	eP	07 47 13
NEL	iP	07 47 52.8
TUC	eP	07 48 17
Jan. 11		
COL	iP	09 33 24
HH	eP	09 34 07
NEL	eP	09 36 49
Jan. 11		
BOZ	e(P)	10 23 54
	eS	25 59
	eL	26 12

Date and Station		Phase	(GCT)
			h m s
BUT	e(P)		10 24 01
	i		24 33
	eS		25 53
	eL		26 03
HH	e(P)		10 21 44
	eS		23 09
	eL		23 19
SLC	eP		10 23 15
	e		24 22
	e		24 33
Jan. 11			
COL	iP		10 31 30
Jan. 11			
BOZ	eP		11 23 30
HH	e(P)		11 26 00
Jan. 11			
COL	eP		11 43 23
Jan. 11			
BC	iP		13 01 05
BOZ	eP		13 01 29
COL	iP		13 00 48
HH	eP		13 01 24
NEL	iP		13 01 04.1
TUC	iP		13 01 15
Jan. 11			
BUT	eP		13 11 30
	eS		13 18
	eL		13 28
HH	e(P)		13 13 58
SLC	eP		13 10 38
Jan. 11			
MONT	eP		13 24 48
Jan. 11			
BUT	eP		13 59 25
HH	iP		13 59 18
MONT	e(P')		14 06 14
	e		06 48
NEL	iP		13 59 32.6
	i		14 00 05.8
Jan. 11			
BC	iP		14 01 35.1
	i		01 49.1
	ePP		05 32
BOZ	iP		14 01 17
BUT	iP		14 01 12
	i		01 25
	i		01 51

Date and Station		Phase	(GCT)
			h m s
COL	iP		13 58 47
HH	iP		14 01 01
	ePP		04 27
MONT	eP'		14 08 19
NEL	iP		14 01 35.3
	ipP		01 49.8
	e		02 32
	ePP		05 29
SLC	eP		14 01 30
Jan. 11			
COL	eP		15 47 28
HH	e(P)		15 50 49
NEL	i(P)		15 50 50.0
	e		51 39
Jan. 11			
BC	iP		15 48 09.7
BOZ	eP		15 48 50
BUT	e(P)		15 48 47
COL	eP		15 52 10
HH	i(P)		15 49 18
MONT	iP		15 49 05
TUC	eP		15 47 31
Jan. 11			
COL	eP		18 02 50
HH	eP		18 05 48
	e		08 28
Jan. 11			
HH	e(P)		18 22 56
Jan. 11			
NEL	eP		19 02 12
Jan. 11			
HH	e(P)		20 05 44
Jan. 11			
BC	eP		21 19 19
NEL	eP		21 19 17
Jan. 11			
HH	eP		21 47 41
	e		48 02
TUC	eP		21 47 49
Jan. 11			
BC	iP		22 37 53.7
BUT	eP		22 38 28

Date and Station		Phase	(GCT)
			h m s
COL	eP		22 40 21
HH	iP		22 38 41
	e		39 09
	e		39 23
MONT	iP		22 26 57
NEL	iP		22 37 52.1
	ipP		38 34.6
Jan. 11			
COL	eP		23 00 43
Jan. 11			
BC	eP		23 10 13
	e		11 17
COL	eP		23 14 12
	i		14 38
HH	eP		23 11 17
MONT	eP		23 10 24
NEL	iP		23 10 10.2
	e		10 20
	e		10 34
SLC	eP		23 10 23
SJ	e(P)		23 08 16
TUC	eP		23 09 30
	eL		30 30
Jan. 12			
COL	eP		00 37 34
HH	eP		00 40 34
	i		43 26
Jan. 12			
COL	iP		00 57 09
	ipP		58 03
Jan. 12			
HH	e(P)		02 17 00
Jan. 12			
COL	iP		02 41 16
	i		41 31
HH	eP		02 44 44
	e		45 05
	e		50 05
	e		50 32
	eL		51 35
Jan. 12			
BOZ	eP		03 23 47
BUT	e(P)		03 23 13
	eS		25 12
	eL		25 34
HH	e(P)		03 24 00
	eL		26 01

Date and Station		Phase	(GCT)
			h m s
SLC	eP		03 22 58
	eS		24 01
	eL		24 10
Jan. 12			
COL	iP		04 40 55
Jan. 12			
COL	iP		04 44 56
Jan. 12			
COL	eP		05 10 56
Jan. 12			
HH	e(P)		07 22 10
Jan. 12			
BC	iP		07 30 27.3
	e		30 42
COL	iP		07 27 13
	i		27 39
HH	iP		07 29 48
MONT	eP		07 38 17
	e		38 41
NEL	iP		07 30 28.4
	i		30 35.2
TUC	eP		07 30 53
Jan. 12			
COL	iP		09 08 32
SIT	iP		09 08 09
	eS		11 41
	eL		12 25
Jan. 12			
BC	iP		09 25 09.7
COL	eP		09 22 51
NEL	eP		09 25 10
Jan. 12			
HH	e(P)		11 26 17
Jan. 12			
BOZ	eP		12 00 13
	e(S)		01 55
BUT	eP		12 00 00
	eS		01 44
	eL		01 55
HH	e(P)		12 00 00
	eL		02 30
SLC	eP		11 59 04
	eS		12 00 12
	eL		00 20
Jan. 12			
HH	eP		13 05 27

Date and Station		Phase (GCT) h m s
Jan. 12		
COL	iP	15 20 51
	i	21 01
Jan. 12		
COL	eP	15 44 19
Jan. 12		
NEL	eP	16 58 05
Jan. 12		
HH	i(P)	17 04 27
Jan. 12		
BC	eP	19 37 26
BOZ	eP	19 37 53
BUT	eP	19 38 00
	epP	38 25
HH	iP	19 38 11
LOG	e(P)	19 37 40
MONT	iP	19 26 18
NEL	iP	19 37 22.3
	ipP	37 48.3
	i	38 00.3
SJ	eP	19 35 15
TUC	eP	19 36 53
	epP	37 19
Jan. 12		
COL	iP	19 50 14
	i	51 15
Jan. 12		
HH	e(P)	20 03 35
	eL	06 10
Jan. 12		
HH	eP	22 48 17
	e	48 28
MONT	iP	22 36 31
Jan. 12		
NEL	eP	23 02 53
Jan. 12		
BC	iP	23 07 54.4
MONT	e(P)	23 09 39
NEL	iP	23 07 52.7
	i	08 06.6
Jan. 12		
HH	e(P)	23 28 51
Jan. 13		
BOZ	eP'	00 33 38
	ePP	35 58

Date and Station		Phase (GCT) h m s
BUT	eP'	00 33 39
	ePP	36 09
COL	iP'	00 34 58
HH	eP'	00 33 44
	ePP	36 24
	ePKS	37 17
	eSKS	41 46
LOG	eP'	00 33 35
	ePP	36 23
MONT	iP	00 23 55
	i	24 14
	e(PP)	26 22
NEL	iP'	00 33 28.5
	i	34 13.2
	ePP	35 17
SLC	eP'	00 33 32
SJ	eP	00 27 18
	i	27 36
TUC	eP'	00 33 19
Jan. 13		
BC	iP	02 11 24.3D
	iPcP	13 20.5
	iS	17 39.3
	e	20 40
BOZ	iP	02 10 43
	i	11 11
	e(PP)	12 28
	iPcP	12 32
	eS	16 35
	iS	16 37
	eL	19 20
BUT	eP	02 10 44C
	iP	10 46
	i	11 00
	iPP	13 14
	iS	16 25
	e	16 49
	eL	18 54
CHI	eP	02 12 59
	e(PP)	15 36
	eS	20 16
	iS	20 21
	iScS	22 47
	eSS	24 01
	eL	25 05
COL	eP	02 07 24D
	iP	07 27D
	iS	10 25
	iL	12 01
COLU	eP	02 14 02C
	iP	14 05D
	ePP	16 18
	ePPP	17 33
	iS	22 23

Date and Station		Phase (GCT) h m s
COLU	iScS	02 23 54
	iSS	26 45
	iSSS	29 25
	iL	31 55
HONO	iP	02 10 21D
	i	10 33
	iPP	11 49
	iPcP	12 46
	eS	15 36
	i	15 39
	eL	17 04

T_S = 4 sec. A = 6mm.
T_L = 12 sec. $A_{max.}$=32mm.

Date and Station		Phase (GCT) h m s
HH	eP	02 10 26C
	iP	10 27D
	iPP	11 53
	iPcP	12 08
	i	13 06
	eS	15 52
	iL	16 58
LIN	eP	02 12 25
	ePP	14 25
	eS	19 18
	eSS	23 07
	eL	26 17
LOG	eP	02 11 09C
	iP	11 10
	e	18 30
	eL	21 08
MONT	eP	02 18 33
	eP'	22 24
	ePP	23 17
	ePKKP	33 11
	e	36 41
	eP'P'	41 39
NEL	eP	02 11 24C
	iP	11 25.4D
	iPP	13 16.1
	i	13 23.9
	i	16 06.9
PHIL	eP	02 13 56
	iP	14 01
	ePP	16 12
	ePPP	17 47
	iS	22 08
	iScS	23 50
	eSS	25 55
	e	27 03
	eL	28 49
SLC	iP	02 11 13C
	i	11 35
	iPcP	13 00
	iS	17 14
	eL	20 01
SJ	iP	02 16 06C
	eS	26 17
	iS	26 23
	ePPS	31 26
	eL	38 00

Date and Station		Phase (GCT) h m s
TUC	eP	02 12 04C
	iP	12 06
	ePCP	13 04
	iPP	13 44
	ePPP	14 17
	eS	18 42
	iS	18 49
	eL	21 42
UK	eP	02 10 31
	e	11 09
	eS	15 47
	iS	15 52
	eL	17 24
Jan. 13		
BC	iP	02 43 26.5
	i	43 53.3
BOZ	eP	02 42 55
	e	44 56
BUT	eP	02 42 46
COL	iP	02 39 29C
HH	iP	02 42 28
	i	42 49
	i	42 57
	ePP	44 06
	iPcP	45 08
	eS	47 43
	iL	49 03
LOG	eP	02 43 12
	e(S)	49 43
	eL	53 39
MONT	eP'	02 54 40
NEL	iP	02 43 27.5
SLC	eP	02 43 15
SJ	iP	02 48 08
	i	48 20
TUC	iP	02 44 06
Jan. 13		
BC	iP	02 52 27.0
BOZ	eP	02 51 56
HH	iP	02 51 29
	i	54 09
NEL	iP	02 52 28.0
	i	54 29.5
SLC	eP	02 52 16
TUC	iP	02 53 07
Jan. 13		
BC	iP	02 58 25.4
HONO	eP	03 07 42

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Date and Station		Phase	(GCT) h m s
HONO		e	03 09 53
HH		eP	02 57 50
		iP	57 52
		e	03 00 29
NEL		iP	02 58 50.5
TUC		eP	02 59 28
Jan. 13			
COL		iP	03 15 39
NEL		eP	03 18 48
Jan. 13			
COL		eP	03 21 42
Jan. 13			
COL		iP	03 23 54
NEL		iP	03 27 51.8
Jan. 13			
TUC		eP	04 26 59
Jan. 13			
HH		e(P)	07 33 43
Jan. 13			
BC		iP	08 43 01.7
BOZ		eP	08 43 30
BUT		eP	08 43 35
HH		eP	08 43 47
MONT		iP	08 32 19
NEL		iP	08 43 00.8
TUC		iP	08 42 32
Jan. 13			
HH		e(P)	09 38 49
Jan. 13			
HH		eP	12 01 09
		e	03 49
Jan. 13			
HH		e(P)	16 00 05
MONT		i(P)	16 08 25
NEL		eP	16 00 41
Jan. 13			
HH		e(P)	16 49 48
MONT		iP	16 39 05
		e	40 50
Jan. 13			
HH		e(P)	20 09 35

Date and Station		Phase	(GCT) h m s
Jan. 13			
COL		iP	20 29 44
Jan. 14			
BOZ		eP	00 48 12
BUT		eP	00 48 20
HH		e(P)	00 48 25
		eL	50 33
Jan. 14			
BOZ		eP	02 59 25
		e(S)	03 01 18
		eL	01 25
BUT		eP	03 00 51
HH		e(P)	02 59 25
		eL	03 01 42
Jan. 14			
COL		eP	03 35 29
Jan. 14			
COL		iP	04 28 25
Jan. 14			
COL		iP	05 31 17
Jan. 14			
COL		eP	07 56 41
		i	57 01
		i	57 14
Jan. 14			
HH		e(P)	09 04 33
		e	04 42
		eL	05 30
Jan. 14			
BOZ		eP	12 23 40
BUT		eP	12 23 39
		eS	25 19
		eL	25 32
HH		e(P)	12 26 08
SLC		eP	12 22 44
		eS	23 47
		eL	23 57
Jan. 14			
COL		iP	12 33 32
HH		eP	12 36 29
		e	39 08
Jan. 14			
COL		iP	18 16 09
Jan. 14			
NEL		eP	20 04 57
Jan. 14			
COL		eP	21 55 58

Date and Station		Phase	(GCT) h m s
Jan. 14			
NEL		eP	23 38 22
Jan. 15			
TUC		eP	00 50 23
Jan. 15			
HH		e(P)	07 39 38
Jan. 15			
NEL		eP	08 43 31
Jan. 15			
NEL		eP	08 46 10
Jan. 15			
COL		eP	11 26 55
Jan. 15			
HH		e(P)	13 31 36
Jan. 15			
TUC		eP	14 02 17
Jan. 15			
COL		iP	14 30 03
Jan. 15			
COL		iP	15 44 20
Jan. 15			
COL		iP	16 11 55
		i	12 05
HH		eP	16 12 21
NEL		eP	16 13 41
Jan. 15			
COL		iP	16 51 21
		i	51 31
HH		iP	16 51 47
Jan. 15			
HH		e(P)	19 06 51
Jan. 15			
HH		e(P)	19 16 07
Jan. 15			
BC		iP	20 07 28.0
COL		iP	19 59 45
HH		eP	20 06 50
MONT		eP	20 15 12
NEL		iP	20 07 28.5
		e	07 49
Jan. 15			
BOZ		eP	20 49 31
HH		e(P)	20 49 22
		e	49 55
		eL	52 03

Date and Station		Phase	(GCT) h m s
SLC		eP	20 48 36
		eS	49 48
		eL	49 58
Jan. 16			
COL		iP	04 05 16
Jan. 16			
BUT		eP	06 02 19
Jan. 16			
COL		iP	08 37 44
Jan. 16			
COL		iP	09 58 30
Jan. 16			
COLU		iP	12 50 09
Jan. 16			
BC		iP'	13 49 20.3
		i	50 37.8
BOZ		eP'	13 49 28
COL		e(PP)	13 48 27
MONT		eP'	13 50 09
		iP'	50 15
		i	50 38
NEL		eP'	13 49 32
		iPP	52 04.3
		iPKS	53 36.9
Jan. 16			
BC		eP	13 56 31
		e	56 40
BOZ		eP	13 57 14
BUT		e(P)	13 57 08
COL		iP	13 57 12
		i	57 23
NEL		iP	13 56 40.5
		i	57 03.1
TUC		eP	13 56 37
		e	56 47
Jan. 16			
TUC		iP	14 01 25
Jan. 16			
COL		iP	15 52 36
Jan. 16			
BC		iP	15 58 11.9
BOZ		iP	15 58 50
BUT		iP	15 58 46
COL		iP	15 58 42
HH		iP	15 58 47

Date and Station		Phase (GCT)
		h m s
NEL	iP	15 58 10.9
SLC	eP	15 58 36
TUC	iP	15 58 19
	i	58 27
Jan. 16		
COL	eP	16 27 02
Jan. 16		
COL	iP	20 04 19
Jan. 16		
BOZ	e(P)	22 45 23
HH	e(P)	22 45 46
Jan. 16		
COL	iP	23 03 19
Jan. 16		
BUT	eP'	23 41 47
COL	eP'	23 41 46
HH	iP'	23 41 36
TUC	e(P')	23 41 36
Jan. 16		
COL	iP	23 44 36
Jan. 16		
COL	eP	23 54 14
Jan. 17		
NEL	eP	02 04 06
Jan. 17		
BC	iP	02 33 57.4
	i	34 14.9
	i	34 34.5
BOZ	eP	02 33 36
BUT	iP	02 33 32
COL	iP	02 30 46
HH	iP	02 33 19
MONT	iP'	02 41 41
NEL	iP	02 33 58.4
	i	34 07.4
	i	34 16.2
SLC	eP	02 33 51
TUC	iP	02 34 23
	i	34 42
Jan. 17		
BC	iP	02 52 14.1
	i	52 30.2
	ipP	52 59.8
	i	53 13.3

Date and Station		Phase (GCT)
		h m s
BOZ	epP	02 53 41
BUT	eP	02 52 49
	ipP	53 38
COL	iP	02 52 47
	ipP	53 37
HH	iP	02 52 50
	epP	53 39
NEL	iP	02 52 13.5
	ipP	52 59.5
	e	53 19
SLC	eP	02 53 27
TUC	iP	02 52 19
	i	52 35
	ipP	53 08
Jan. 17		
HH	e(P)	03 10 33
Jan. 17		
COL	eP	03 37 48
HH	eP	03 40 00
Jan. 17		
SLC	eP	12 14 33
	eS	15 46
	eL	16 03
Jan. 17		
BUT	eP	12 22 08
HH	e(P)	12 20 48
Jan. 17		
HH	e(P)	12 22 52
Jan. 17		
COL	iP	13 14 49
Jan. 17		
HH	e(P)	15 17 09
Jan. 17		
HH	e(P)	16 16 53
Jan. 17		
COL	eP	17 27 38
HH	e(P)	17 34 39
Jan. 17		
BC	eP	18 02 21
BUT	eP	18 02 10
COL	iP	18 00 03
HH	eP	18 02 02
NEL	iP	18 02 21.8
	i	02 47.6

Date and Station		Phase (GCT)
		h m s
Jan. 17		
BC	eP	21 31 46
	e	33 08
BOZ	eP	21 33 11
HH	e(P)	21 33 42
NEL	iP	21 31 42.9
	e	32 05
TUC	eP	21 30 42
	eL	34 29
Jan. 17		
BC	eP	22 22 36
BUT	e(P)	22 23 13
HH	iP	22 23 26
MONT	iP	22 11 41
NEL	iP	22 22 35.4
	e	22 55
SJ	iP	22 18 54
Jan. 18		
BUT	eP	02 16 34
Jan. 18		
COL	eP	03 35 44
Jan. 18		
BC	eP	07 09 49
	e	10 20
COL	eP	07 10 24
	iP	10 33
	ipP	11 00
HH	e(P)	07 10 26
NEL	iP	07 09 48.1
Jan. 18		
COL	iP	07 12 28
HH	eP	07 11 00
Jan. 18		
HH	e(P)	07 20 53
Jan. 18		
BH	eP	03 44 12
	e(S)	46 25
BC	iP	08 49 39.7
	i	49 51.1
BOZ	iP	08 50 23
	e	52 09
BUT	iP	08 50 31
COL	iP	08 53 35

Date and Station		Phase (GCT)
		h m s
HH	iP	08 50 51
	e	52 19
MONT	iP	08 48 40
NEL*	iP	08 49 38.0
	i	49 58.7
SLC	iP	08 49 56
	i	50 09
	e	51 46
SJ	iP	08 47 27
TUC	iP	08 48 57
	eL	59 30
Jan. 18		
TUC	eP	11 37 21
Jan. 18		
COL	eP	13 23 16
	i	23 25
	i	24 14
Jan. 18		
MONT	iP	13 49 49
Jan. 18		
BC	iP	14 48 12.9
	e	49 33
	ipP	49 39.1
BOZ	iP	14 48 51
	ipP	50 17
BUT	eP	14 48 44
	iP	48 46
	ipP	50 12
COL	iP	14 48 40
HH	eP	14 48 46
	ipP	50 14
	ePP	51 42
MONT	e(PP)	14 53 31
NEL	iP	14 48 11.6
	epP	49 33
	ipP	49 38.5
	i	49 58.4
SLC	e(P)	14 50 01
TUC	iP	14 47 18
	epP	48 43
Jan. 18		
COL	eP	15 31 25
Jan. 18		
HH	iP	16 52 26
NEL	iP	16 53 14.0

Date and Station		Phase (GCT) h m s
Jan. 18		
BC	eP	17 03 07
	i	03 12.9
	i	03 25.6
BOZ	eP	17 03 50
	i	04 02
	i	04 16
BUT	eP	17 03 54
	i	04 05
COLU	iP	17 03 04
HH	eP	17 04 07
MONT	eP	16 57 27
	i	58 08
	eL	17 07 12
NEL	iP	17 03 01.3
	i	03 08.8
	i	03 24.3
SLC	eP	17 03 34
	e	03 37
SJ	eP	17 01 55
TUC	eP	17 02 40
	eL	22 32
Jan. 18		
HH	iP	18 55 43
Jan. 18		
HH	e(P)	19 23 02
	i	24 58
Jan. 18		
COL	eP	20 01 10
HH	eP	20 01 52
TUC	e(P)	20 02 04
	eL	33 00
Jan. 18		
COL	eP	23 25 16
Jan. 19		
COL	iP	00 24 20
Jan. 19		
HH	e(P)	00 57 48
	i	58 04
Jan. 19		
COL	iP	01 30 43
HH	eP	01 29 39
MONT	eP	01 20 01
Jan. 19		
HH	e(P)	01 51 50
	e	53 58
SLC	eP	01 50 29
	eS	51 39
	eL	51 47
Jan. 19		
BOZ	eP	01 56 18
BUT	eP	01 56 12
	eS	58 03
	eL	58 22
HH	e(P)	01 56 09
	eL	58 47
SLC	eP	01 55 20
	eS	56 26
	eL	56 34
Jan. 19		
BOZ	eP	02 12 10
	eS	14 27
	eL	14 39
BUT	eP	02 12 25
	i	12 36
	iS	13 57
	eL	14 10
COL	iP	02 16 25
HH	eP	02 12 28
	iL	15 08
TUC	eP	02 12 28
	i	13 05
	e(S)	14 10
	iL	15 09
Jan. 19		
BOZ	e(P)	02 19 14
	eS	21 08
	eL	21 20
BUT	e(P)	02 19 09
	eS	20 47
	eL	20 58
HH	e(P)	02 19 23
	eL	21 47
Jan. 19		
BOZ	eP	03 31 40
	e(S)	33 40
	eL	33 55
BUT	eP	03 31 47
	eS	33 28
	eL	33 36
HH	e(P)	03 31 53
	eL	34 14
SLC	eP	03 30 55
	eS	31 07
	eL	31 15
Jan. 19		
COL	iP	03 52 20
COL	epP	03 52 47
	eL	04 13 04
Jan. 19		
HH	e(P)	04 48 12
MONT	eP	04 44 25
Jan. 19		
SIC	iP	13 42 00
Jan. 19		
BOZ	iP	15 42 22
	e	43 27
BUT	iP	15 42 30
COL	iP	15 45 14
HH	iP	15 42 46
	e	43 41
	e	45 06
MONT	iP	15 38 28
NEL	iP	15 41 48.1
	epP	42 15
SLC	iP	15 41 59
SJ	iP	15 37 52
	ePcP	41 30
TUC	iP	15 41 11
	e	41 31
Jan. 19		
MONT	iP	15 55 19
Jan. 19		
COL	iP	17 07 38
HH	iP	17 09 53
Jan. 19		
COL	iP	19 04 17
HH	eP	19 08 06
NEL	iP	19 09 27.3
Jan. 19		
COL	iP	20 48 09
	i	48 44
Jan. 19		
COL	iP	22 59 05
Jan. 19		
COL	eP	23 32 55
HH	e(P)	23 32 43
	e	35 44
Jan. 19		
HH	iP	23 53 50
Jan. 20		
HH	eP	03 32 41
NEL	eP	03 33 43
Jan. 20		
BH	eP	03 54 16
BC	iP	03 53 54.8
	iPP	54 14.6
	i	54 49.8
	i	55 18.8
	i	56 33.8
BOZ	eP	03 55 09
	i	55 33
	ePP	56 16
	e	58 00
BUT	eP	03 55 14
	i	55 35
	ePP	56 30
	ePcP	57 07
	eS	04 00 29
	eL	02 32
CHI	iS	04 00 07
	eL	04 03
COL	iP	03 58 41
HONO	e(P)	03 57 43
	eL	04 10 36
T_L = 10 sec. $A_{max.}$ = 2.5mm.		
HH	eP	03 55 36
	e	56 59
	e	58 25
MONT	iP	03 57 58
NEL	iP	03 53 50.7
	eL	59 59
RC	e(P)	03 54 15
	e	57 43
	eL	04 02 15
SLC	eP	03 54 28
	iP	54 30
	i	54 53
	eS	59 07
	eL	04 01 01
SJ	iP	03 56 02
	ePP	57 28
	eS	04 01 36
	eL	03 44
TUC	iP	03 53 03
	i	53 31
	e(PP)	53 47
	i	54 01
	iS	56 34
	eL	57 22

Date and Station		Phase (GCT) h m s
Jan. 20		
NEL	eP	04 25 49
Jan. 20		
BC	eP	06 05 49
NEL	eP	06 05 47
TUC	eP	06 04 56
Jan. 20		
COL	eP	06 13 39
HH	eP	06 15 44
NEL	eP	06 16 13
	e	16 25
Jan. 20		
COL	iP	07 42 48
Jan. 20		
MONT	iP	08 26 54
Jan. 20		
COL	iP	10 54 26
Jan. 20		
BC	iP	13 08 07.1
NEL	iP	13 08 03.8
TUC	iP	13 07 09
Jan. 20		
COL	eP	17 26 15
Jan. 20		
HH	e(P)	18 24 40
Jan. 20		
COL	iP	18 44 19
	i	44 22
	i(S)	44 49
HH	e(P)	18 46 34
Jan. 20		
HH	eP	19 06 56
Jan. 20		
COL	eP	20 12 09
Jan. 20		
HH	e(P)	20 42 20
Jan. 20		
COL	eP	20 55 47
HH	eP	20 57 37
Jan. 21		
BC	eP	05 12 41
COL	iP	05 08 31
NEL	eP	05 12 42

Date and Station		Phase (GCT) h m s
Jan. 21		
BC	iP	09 17 40.5
BUT	eP	09 18 16
HH	iP	09 18 28
	e	19 01
MONT	iP	09 06 43
NEL	iP	09 17 39.0
	e	18 12
TUC	iP	09 17 11
Jan. 21		
BC	iP	14 26 17.4
	i	26 35.1
BOZ	iP	14 25 46
	e	26 05
BUT	eP	14 25 38
	e	27 05
COL	iP	14 22 20
	eS	25 19
	eL	26 30
HH	iP	14 25 21
	ePP	26 39
	i	27 58
	e	28 24
	eS	30 41
	eScS	35 38
	i	46 17
NEL	iP	14 26 18.7
	i	27 10.0
SLC	eP	14 26 05
	iP	26 07
	i	27 43
TUC	eP	14 26 56
	iP	26 58
	i	27 18
Jan. 21		
HH	i(P)	14 46 17
Jan. 21		
COL	eP	15 22 43
Jan. 21		
NEL	eP	17 31 39
Jan. 21		
COL	eP	18 10 05
	i	10 30
HH	iP	18 10 36
	e	12 38
	i	13 05
NEL	iP	18 13 47.2

Date and Station		Phase (GCT) h m s
Jan. 21		
COL	iP	22 01 35
Jan. 21		
NEL	eP	22 14 01
Jan. 21		
COL	iP	23 10 52
Jan. 21		
HH	eP	23 28 36
Jan. 22		
COL	iP	02 28 40
Jan. 22		
COL	eP'	05 48 11
HH	e(P')	05 48 07
	e	51 03
NEL	iP'	05 48 37.2
	i	48 52.0
SLC	e(P')	05 48 45
Jan. 22		
COL	eP	06 55 09
Jan. 22		
HH	eP	08 24 58
Jan. 22		
NEL	i(P)	12 32 57.4
Jan. 22		
COL	iP	15 34 06
	i	35 20
NEL	iP	15 39 35.2
Jan. 22		
BH	iP	16 19 37
	eS	20 18
BC	eP	16 27 14
COL	eP	16 30 42
HH	e(P)	16 28 02
NEL	iP	16 27 10.8
	i	27 14.4
Jan. 22		
HH	eP	16 21 14
	eL	22 06
Jan. 22		
COL	iP	19 10 03
Jan. 22		
COL	iP	19 27 59
Jan. 22		
BOZ	e(P)	19 36 55
BUT	eP	19 36 43

Date and Station		Phase (GCT) h m s
BUT	eS	19 38 27
	eL	38 44
HH	e(P)	19 36 40
	eL	39 07
Jan. 22		
COL	iP	20 09 45
	ipP	10 31
Jan. 22		
COL	eP	20 28 26
Jan. 22		
BH	eP	20 46 01
	iS	46 33
HH	iP	20 52 25
NEL	iP	20 52 14.8
	i	53 43.1
Jan. 22		
COL	iP	21 22 36
HH	iP	21 22 45
NEL	eP	21 22 12
TUC	iP	21 22 20
Jan. 22		
HH	e(P)	21 35 20
Jan. 22		
COL	iP	21 45 26
	i	45 42
Jan. 22		
BC	eP	23 51 55
BOZ	eP	23 52 41
HH	e(P)	23 52 55
NEL	eP	23 51 53
TUC	eP	23 51 33
Jan. 23		
HH	e(P)	00 34 31
	e	35 12
Jan. 23		
BC	e(P)	06 45 54
NEL	e(P)	06 46 29
Jan. 23		
NEL	eP	08 08 00
Jan. 23		
NEL	eP	08 30 49
Jan. 23		
NEL	eP	12 19 30

Date and Station		Phase	Phase (GCT) h m s
Jan. 23			
COL		eP	12 45 03
Jan. 23			
BOZ		eL	13 26 24
BUT		eP	13 24 24
		eS	26 06
		eL	26 19
HH		e(P)	13 26 51
SLC		eP	13 23 30
TUC		eP	13 24 49
		e	26 52
Jan. 23			
COL		iP	14 07 36
Jan. 23			
BC		iP	15 21 46.8
		e	22 18
COL		iP	15 17 50
HH		e(P)	15 20 54
NEL		iP	15 21 47.9
SLC		e(P)	15 21 37
Jan. 23			
BH		iP	15 16 50
BC		iP	15 25 06.9
COL		iP	15 29 25
HH		eP	15 26 23
NEL		iP	15 25 04.6
Jan. 23			
COL		iP	15 37 24
HH		e(P)	15 40 17
SLC		e(P)	15 39 15
TUC		e(P)	15 40 28
		e	42 39
Jan. 23			
HH		e(P)	17 53 29
Jan. 23			
BOZ		eP	18 51 09
Jan. 23			
SLC		eP	19 35 40
		e	35 59
		eS	37 09
		eL	37 15
Jan. 23			
SJ		i(P)	20 20 13
Jan. 23			
HH		eP	20 50 10
Jan. 23			
BC		iP'	22 40 34.5
		ePKS	43 57
BOZ		iP'	22 40 27
COL		eP	22 35 16
COLU		eP'	22 41 13
HH		iP'	22 40 20
		e	40 40
MONT		eP'	22 41 06
		ePP	44 50
NEL		iP'	22 40 35.0
		ePKS	43 58
SLC		e(P')	22 40 50
		ePKS	43 56
TUC		ePP	22 44 11
WASH		eP'	22 41 04
Jan. 23			
HH		e(P)	23 36 51
Jan. 24			
COL		eP	00 42 16
Jan. 24			
BC		iP	00 57 00.7
BOZ		eP	00 58 08
HH		iP	00 58 31
MONT		iP	00 56 36
NEL		eP	00 56 58
SLC		eP	00 57 32
		i	57 49
TUC		eP	00 56 21
Jan. 24			
COL		eP	02 26 34
HH		e(P)	02 29 29
Jan. 24			
COL		eP	02 35 19
Jan. 24			
HH		iP	04 15 45
Jan. 24			
HH		eP	04 39 10
Jan. 24			
HH		e(P)	04 51 32
Jan. 24			
BC		eP	05 53 18
COL		eP	05 57 56
		e(pP)	58 46
HH		eP	05 54 46
NEL		eP	05 53 15
SLC		eP	05 53 42
TUC		eP	05 52 25
		eL	57 55
Jan. 24			
HH		eP	09 29 21
Jan. 24			
COL		iP	10 42 49
Jan. 24			
COL		eP	13 56 49
NEL		eP	13 56 54
Jan. 24			
BC		iP	14 45 57.9
COL		iP	14 46 22
HH		eP	14 46 32
NEL		iP	14 45 56.7
Jan. 24			
COL		eP	17 19 17
HH		eP	17 21 38
Jan. 24			
COL		iP	17 51 02
Jan. 24			
HH		i(P)	18 47 08
Jan. 25			
HH		e(P)	00 40 53
NEL		iP	00 38 41.0
		i	38 48.7
		e	39 37
TUC		eP	00 37 46
Jan. 25			
SLC		eP	01 46 01
		e	46 06
		e	46 32
Jan. 25			
HH		e(P)	03 35 13
Jan. 25			
HH		iP'	04 28 40
MONT		iP'	04 29 27
NEL		iP	04 28 54.2
		iPKS	32 17.5
		i	32 32.5
SLC		eP'	04 28 53
TUC		ePP	04 32 24
Jan. 25			
HH		e(P)	04 53 22
Jan. 25			
HH		eP	05 54 12
Jan. 25			
HH		e(P)	06 39 13
Jan. 25			
COLU		e(P)	07 26 31
		e(S)	27 41
		iL	28 17
HH		eP	07 29 28
		eL	35 57
Jan. 25			
COL		iP	08 12 33
HH		eP	08 15 35
Jan. 25			
NEL		eP	09 04 44
Jan. 25			
COL		eP	10 28 28
Jan. 25			
BC		eP	12 24 57
		e(S)	25 32
		iL	25 40.9
NEL		eP	12 24 50
		e(S)	25 34
		eL	25 46
SLC		e(P)	12 26 44
		eL	28 10
TUC		e(P)	12 25 57
		eL	27 29
Jan. 25			
BC		eP	14 23 31
		i	23 40.5
COL		eP	14 28 39
HH		eP	14 25 32
MONT		eP	14 29 22
NEL		iP	14 23 28.0
		i	23 47.1
SLC		eP	14 24 17
		e	25 09

Date and Station		Phase (GCT)
		h m s
TUC	eP	14 22 32
	eS	24 43
	eL	25 39
Jan. 25		
BC	eP	15 00 05
	i	00 14.0
	i	00 25.4
BOZ	e(P)	14 59 03
	e	15 08 32
	eL	12 13
BUT	eP	14 58 53
	i	59 02
	i	59 10
	i	59 22
	e(S)	15 06 26
	iScS	08 50
	eL	10 24
CHI	eSS	15 09 22
	eL	10 16
COL	iP	14 56 52
	i	57 07
	eS	15 02 07
	eL	06 14
HH	iP	14 58 36
	i	58 44
	iPP	15 00 31
NEL	iP	15 00 08.2
	i	00 13.0
	iPcP	00 57.7
	iPP	02 28.1
	i	02 32.4
	i	02 54.2
RC	eSS	15 09 23
	eL	13 28
SLC	eP	14 59 32
	e	11 28
	eL	14 59
SJ	e(P)	15 01 08
TUC	i(PP)	15 02 52
Jan. 25		
COL	iP	15 42 39
HH	eP	15 43 24
Jan. 25		
COL	eP	16 10 06
	e	10 49
Jan. 25		
COL	eP	16 21 23
	i	21 44
Jan. 25		
NEL	eP	18 01 10
	e	02 13

Date and Station		Phase (GCT)
		h m s
Jan. 25		
COL	i(P)	18 35 39
Jan. 25		
COL	iP	18 36 29
Jan. 25		
COL	iP	23 13 59
Jan. 25		
BUT	eP	23 19 02
	epP	20 03
HH	eP	23 19 13
	epP	20 15
MONT	iP	23 08 07
	i(S)	08 43
NEL	eP	23 18 26
	ipP	19 28.5
SLC	eP	23 18 38
	epP	19 39
SJ	iP	23 14 29
TUC	eP	23 17 58
Jan. 25		
BOZ	eP	23 28 51
	i	29 25
	e(S)	31 15
	eL	31 31
BUT	e(P)	23 28 46
	e	29 09
	eS	31 05
	eL	31 23
HH	eP	23 29 05
	eL	32 00
SLC	eP	23 28 11
	i	28 24
	iS	29 28
	iL	29 36
Jan. 26		
HH	e(P)	01 52 56
Jan. 26		
BC	eP	01 55 47
MONT	eP	01 48 07
NEL	eP	01 55 46
	i	56 05.9
Jan. 26		
BC	e(P)	03 02 19
	e	02 31
HH	e(P)	03 02 25
MONT	iP	02 54 41
NEL	eP	03 02 16

Date and Station		Phase (GCT)
		h m s
TUC	eP	03 01 55
Jan. 26		
MONT	eP	03 50 22
Jan. 26		
BC	iP	04 06 30.3
BOZ	eP	04 06 54
COL	iP	04 06 05
	i	06 35
HH	iP	04 06 47
NEL	iP	04 06 29.3
SLC	eP	04 06 46
TUC	eP	04 06 42
Jan. 26		
COL	iP	05 38 44
Jan. 26		
NEL	eP	06 01 49
Jan. 26		
BC	eP	07 38 53
HH	e(P)	07 40 20
MONT	eP	07 37 34
NEL	eP	07 38 57
	iP	39 03.0
SLC	eP	07 39 26
TUC	eP	07 38 18
Jan. 26		
HH	e(P)	09 12 48
	eL	15 00
SLC	e(P)	09 11 29
	e	11 47
	eS	12 39
	eL	12 42
Jan. 26		
BOZ	e(P)	09 42 50
	eL	44 22
BUT	e(P)	09 42 46
	eS	44 33
	eL	44 44
HH	e(P)	09 42 41
	eL	45 08
SLC	e(P)	09 41 47
	eS	42 58
	eL	43 07
Jan. 26		
BUT	e(P)	12 34 48

Date and Station		Phase (GCT)
		h m s
COL	eP	12 34 15
NEL	eP	12 33 19
Jan. 26		
COL	eP	14 21 55
	e	22 13
Jan. 26		
COL	iP	15 49 22
	i	49 50
Jan. 26		
HH	e(P)	16 46 28
Jan. 26		
HH	iP	18 13 12
	i	14 29
NEL	iP	18 13 35.4
	e	14 07
Jan. 26		
HH	e(P)	19 41 50
NEL	e(P)	19 44 38
Jan. 26		
COL	iP	20 31 07
Jan. 26		
COL	iP	20 41 45
Jan. 26		
COL	eP	23 58 43
Jan. 27		
HH	iP	00 01 04
Jan. 27		
BC	ePP	00 29 28
NEL	e(P)	00 26 51.5
	iPP	29 20.3
	i	29 53.3
	e	31 40
Jan. 27		
HH	e(P)	02 17 04
Jan. 27		
COL	eP	03 56 29
Jan. 27		
COL	iP	07 07 47
Jan. 27		
BUT	eP	07 47 38
Jan. 27		
BOZ	eP	07 55 13
HH	e(P)	07 55 53
	e	56 13
	eL	57 24
SLC	eP	07 54 47
	i	55 10

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Date and Station	Phase	Phase (GCT) h m s
Jan. 27		
COLU	e(P)	09 12 58
HH	e(P)	09 13 20
NEL	eP	09 13 13
SJ	iP	09 04 58
	e(S)	05 14
	iS	05 18
	iL	05 27
Jan. 27		
COL	iP	11 07 02
Jan. 27		
HH	eP	11 33 46
	eL	34 33
Jan. 27		
HH	e(P)	11 42 05
	eL	42 47
Jan. 27		
NEL	e(P)	13 12 56
Jan. 27		
BC	iP	13 17 23.3
	ipP	17 37.7
	eL	26 55
BOZ	iP	13 18 12
	ipP	18 28
BUT	iP	13 18 20
	ipP	18 34
COL	iP	13 21 45
COLU	eP	13 16 28
	iP	16 38
HH	eP	13 18 39
	ipP	18 54
	ePcP	20 32
MONT	e(P)	13 19 44
	epP	19 57
NEL	iP	13 17 21.6
	ipP	17 34.6
	i	17 50.6
	iPP	18 03.6
SLC	eP	13 17 40
	ipP	17 57
TUC	iP	13 16 38
	ipP	16 53
	iPP	17 08
	i(S)	21 07
	eL	23 50
Jan. 27		
COL	eP	15 26 33
HH	e(P)	15 28 36
Jan. 27		
BC	iP	16 27 54.0
BOZ	eP	16 27 28
BUT	iP	16 27 21
COL	iP	16 24 20
HH	iP	16 27 07
MONT	eP'	16 35 50
NEL	iP	16 27 54.9
SLC	eP	16 27 45
TUC	eP	16 28 22
Jan. 27		
COL	iP	16 57 17
Jan. 27		
HH	eP	18 50 06
NEL	eP	18 49 09
Jan. 27		
BC	iP	18 49 50.6
	ipP	51 16.9
BOZ	iP	18 50 27
	ipP	51 59
	ePP	53 54
BUT	iP	18 50 23
	ipP	51 51
	ePP	53 56
COL	iP	18 50 19
	ipP	51 43
	i	51 54
	i	52 20
	iS	19 00 17
HH	iP	18 50 24
	epP	51 56
	e(PP)	53 42
	ePKKP	19 08 18
MONT	iP	18 51 23
	epP	52 53
	ePP	55 02
NEL	iP	18 49 49.4
	i	50 23.4
	ipP	51 15.4
SLC	iP	18 50 13
	epP	51 37
TUC	iP	18 49 57
	ipP	51 23
	ePP	53 02
Jan. 27		
HH	e(P)	20 59 19
Jan. 27		
HH	e(P)	21 45 50
Jan. 27		
HH	e(P)	23 22 50
Jan. 28		
HH	i(P)	00 05 41
Jan. 28		
COL	iP	00 29 55
Jan. 28		
COL	iP	00 42 08
HH	iP	00 45 10
Jan. 28		
HH	e(P)	03 24 49
Jan. 28		
HH	e(P)	05 32 53
Jan. 28		
BOZ	eP	07 55 07
COL	iP	07 54 19
HH	iP	07 55 02
SJ	e(P)	07 54 14
Jan. 28		
COL	iP	10 02 44
TUC	e(P)	10 02 19
Jan. 28		
HH	eP	12 13 56
SLC	e(P)	12 12 47
	eS	14 37
	eL	14 54
TUC	iP	12 11 25
	i	11 42
	i(S)	12 36
	iL	12 58
Jan. 28		
BOZ	eP	15 40 38
	eL	42 15
BUT	e(P)	15 40 24
	eS	42 03
	eL	42 10
HH	eP	15 40 23
	e	42 15
	eL	42 56
SLC	eP	15 39 38
	iS	40 41
	iL	40 54
Jan. 28		
COL	iP	17 14 15C
	iPP	17 05
COL	e(S)	17 24 07
	eSS	28 31
	eL	39 40
HH	eP	17 16 10
	e	19 22
	e	19 54
	iPP	20 03
MONT	eP'	17 22 28
	iP'	22 35
Jan. 28		
HH	e(P)	19 58 53
Jan. 28		
HH	e(P)	20 06 02
Jan. 28		
COL	iP	23 20 02
Jan. 28		
COL	eP	23 56 53
HH	iP	23 59 03.5
Jan. 29		
HH	eP	01 32 09
	iL	33 13
Jan. 29		
COL	iP	02 36 55
Jan. 29		
COL	iP	04 39 29
Jan. 29		
COL	eP	07 24 45
Jan. 29		
COL	iP	11 27 32
Jan. 29		
BC	iP	12 25 20.0
COL	iP	12 25 55
	i	26 44
HH	e(P)	12 25 56
NEL	iP	12 25 20.2
Jan. 29		
COL	iP	12 28 25
Jan. 29		
HH	i(P)	14 42 16
Jan. 29		
BC	eP	15 05 53
NEL	eP	15 06 02
Jan. 29		
BOZ	e(P)	15 19 07
HH	e(P)	15 18 23

Date and Station		Phase (GCT) h m s
Jan. 29		
BC	eP	17 13 50
	i(PcP)	14 31.4
BOZ	eP	17 13 20
	e	13 55
COL	iP	17 09 47
	i	09 54
HH	eP	17 12 56
MONT	eP'	17 22 55
	ePKS	26 22
NEL	iP	17 13 52.2
	iPcP	14 32.9
SLC	e(P)	17 13 41
TUC	eP	17 14 40
Jan. 29		
BC	eP	17 43 17
NEL	eP	17 43 16
Jan. 29		
COL	eP	18 03 20
Jan. 29		
BC	iP	18 05 27.8
	i	05 36.9
BOZ	eP	18 06 20
BUT	eP	18 06 28
COL	iP	18 09 53
HH	eP	18 06 47
	ePP	08 25
MONT	e(P)	18 07 56
	e	08 08
NEL	iP	18 05 26.1
	i	05 35.0
SLC	eP	18 05 47
TUC	eP	18 04 41
	ePP	05 05
	eL	12 04
Jan. 29		
COL	iP	19 37 09
	iS	37 18
Jan. 29		
COL	eP	20 14 10
HH	e(P)	20 16 24
Jan. 29		
HH	e(P)	20 39 14
Jan. 29		
COL	iP	23 24 25

Date and Station		Phase (GCT) h m s
COL	ipP	23 25 30
Jan. 29		
NEL	eP	23 39 35
Jan. 30		
HH	e(P)	00 37 56
Jan. 30		
HH	e(P)	01 07 26
Jan. 30		
COL	iP	01 16 27
Jan. 30		
HH	iP	06 13 42
Jan. 30		
COL	eP	07 05 51
Jan. 30		
HH	e(P)	08 19 45
Jan. 30		
HH	eP	08 50 06
MONT	eP	08 46 40
NEL	iP	08 49 10.1
	e	49 18
Jan. 30		
COL	eP	09 13 34
Jan. 30		
COL	iP	09 31 56
Jan. 30		
HH	e(P)	11 03 39
Jan. 30		
NEL	eP	11 22 44
Jan. 30		
HH	e(P)	13 05 23
Jan. 30		
COL	iP	15 44 56
HH	e(P)	15 46 57
Jan. 30		
NEL	iP	17 23 09.0
Jan. 30		
BC	iP	17 47 21.5
HH	iP	17 48 06
NEL	iP	17 47 20.3
Jan. 30		
HH	e(P)	18 18 26
Jan. 30		
BC	eP	19 19 07

Date and Station		Phase (GCT) h m s
NEL	eP	19 19 08
Jan. 30		
COL	eP	19 26 09
Jan. 30		
COL	iP	19 51 25
Jan. 30		
COL	iP	19 53 47
Jan. 30		
COL	iP	19 56 54
NEL	eP	19 56 09
Jan. 30		
COL	eP	20 00 30
Jan. 30		
COL	iP	21 42 35
	i	43 50
Jan. 30		
HH	e(P)	23 41 18
Jan. 31		
HH	e(P)	00 28 47
Jan. 31		
BC	eP	02 35 29
BOZ	e(P)	02 35 05
COL	iP	02 31 39
HH	eP	02 34 34
	e	36 59
	i	37 06
	e	40 55
NEL	iP	02 35 30.6
	e	36 05
SJ	eP	02 40 02
	i	40 07
TUC	eP	02 36 06
Jan. 31		
BC	iP	02 55 09.9
BOZ	eP	02 54 42
COL	iP	02 51 25
HH	iP	02 54 20
NEL	iP	02 55 10.3
TUC	eP	02 55 39
Jan. 31		
HH	e(P)	04 38 46
Jan. 31		
BH	eP	05 09 19

Date and Station		Phase (GCT) h m s
BC	iP	05 14 33.70
	eS	24 00
	eP'P'	42 10
BOZ	iP	05 14 48D
	e	18 17
	eS	24 30
	eL	39 12
BUT	eP	05 14 54D
	iP	14 55
	i	15 13
	ePP	17 49
	eL	42 17
CHI	e(P)	05 13 13
	eS	21 23
	eL	28 38
COL	iP	05 16 57D
COLU	iP	05 12 10
	iPcP	13 26
	eS	19 27
	eSS	23 03
	eL	26 27
HH	iP	05 15 07D
	i	15 18
	ePP	18 01
	iPKKP	34 03
	eP'P'	41 53
MONT	iP	05 06 35D
	i	06 43
	i	07 30
	i(S)	09 46
	iL	10 15
NEL	iP	05 14 32.60
	eP'P'	42 04
SLC	eP	05 14 36D
	iP	14 37
	i	14 51
	i	15 03
	eL	37 02
SJ	iP	05 09 29D
	iPcP	12 22
	eS	14 38
	eL	16 09
TUC	iP	05 14 13D
	i	15 13
	ePP	16 35
	e(S)	23 51
	eL	35 18
	eP'P'	42 12
WASH	iP	05 12 32D
	ePcP	13 40
	eL	33 12
Jan. 31		
HH	e(P)	06 08 50

Date and Station		Phase	(GCT) h m s
Jan. 31			
BC		eP	07 41 23
HH		eP	07 40 46
NEL		iP	07 41 23.6
Jan. 31			
BC		iP	07 59 45.1
HH		iP	07 59 07
NEL		iP	07 59 45.9
Jan. 31			
NEL		eP	08 33 22
Jan. 31			
COL		eP	09 20 36
Jan. 31			
COL		eP	10 00 42
HH		e(P)	10 01 39
Jan. 31			
HH		e(P)	11 53 44
Jan. 31			
HH		eP	12 38 26
Jan. 31			
COL		eP	12 54 10
HH		e(P)	12 54 18
NEL		eP	12 54 43
Jan. 31			
COL		iP	13 12 52
HH		eP	13 13 47
Jan. 31			
COL		iP	13 29 52
Jan. 31			
HH		e(P)	14 12 18
Jan. 31			
HH		e(P)	14 38 03
NEL		eP	14 39 29
Jan. 31			
BC		iP	14 45 36.2
COL		iP	14 45 42
Jan. 31			
COL		iP	15 14 48
Jan 31			
BC		iP	15 15 17.3
BOZ		e(P)	15 15 47
BUT		eP	15 15 53
BUT		i	15 16 04
		i	16 30
HH		iP	15 16 04
MONT		eP	15 05 28
		i	05 37
		iL	07 32
NEL		iP	15 15 14.1
SJ		iP	15 12 06
TUC		eP	15 14 48
WASH		e(P)	15 14 26
Jan. 31			
HH		eP	15 33 47
		e	34 17
Jan. 31			
COL		iP	15 57 45
Jan. 31			
BC		iP	16 12 57.3
		e(S)	21 53
BOZ		iP	16 12 30
		i	12 37
		e(S)	21 06
		e	21 32
		eSS	25 12
		eL	30 12
		eP'P'	41 49
BUT		iP	16 12 24
		i	12 32
		i	12 48
		iPcP	13 16
		e(S)	20 55
		eScS	22 25
		eSS	25 16
		eL	27 55
CHI		e(P)	16 14 11
		eS	23 28
		eL	36 58
COL		iP	16 09 13C
		eS	14 48
		iS	15 02
		e	16 10
		iL	17 24
COLU		eP	16 14 49
		eS	25 25
		iS	25 29
		eL	37 47
HONO		eP	16 10 45
		eS	17 17
		i	17 48
		eL	21 32
TL = 13sec. $A_{max.}$=2.5mm.			
HH		eP	16 12 08
		iP	12 09
		eP'P'	41 30
MONT		eP'	16 21 35
NEL		iP	16 12 58.1
		eP'P'	41 33
SLC		eP	16 12 49
		i	13 08
		e(S)	21 40
		eL	30 22
SJ		e(PP)	16 21 35
		eSKS	27 12
		eS	28 24
		eSS	35 46
		eSSS	40 14
		eL	46 03
TUC		eP	16 13 26
		ePP	16 09
		e	17 25
		e(S)	22 28
		eL	31 42
WASH		eP	16 14 40
		i	15 04
		eL	39 15
Jan. 31			
COL		eP	17 15 16
Jan. 31			
BOZ		e(P)	19 29 36
COL		iP	19 30 42
NEL		eP	19 30 29
		e	30 51
Jan. 31			
COL		eP	19 48 50
Jan. 31			
COL		eP	20 25 21
ADDENDA			
Jan. 16			
HH		e(P)	00 12 34
HH		iP	02 20 43
		iS	21 16
HH		eP	03 40 47
		i	40 57
HH		eP	05 56 42
HH		e(P)	07 21 40
HH		iP	12 52 06
HH		iP'	13 49 22
		e	49 44
		ePP	51 19

Local and Minor Earthquakes		Local and Minor Earthquakes		Local and Minor Earthquakes		Local and Minor Earthquakes	
day	hour	day	hour	day	hour	day	hour
BOZ		MONT		TUC		TUC	
Jan.		Jan.		Jan.		Jan.	
29	00.5	2	22.3	1	14.2	14	00.8
			23.7		18.3		03.0
BUT		4	01.2		19.6		03.9
Jan.			11.7	3	13.4		04.7
3	05.3	5	07.5	4	01.4		05.1
	23.6	6	22.8	5	08.4		05.2
6	23.4	9	00.3	6	00.2		05.3
7	18.9		07.4		04.4		11.0
10	23.4	10	07.6		08.6		11.6
12	22.7		09.6		09.0		12.4
14	15.2		16.8		10.6		12.6
15	18.9	11	18.2		13.6	15	01.1
	18.9		22.9		16.1		03.1
	23.1	13	17.6	7	07.8		04.2
19	00.7	14	10.4		08.1		07.8
	01.1	15	07.5		12.8		11.3
	23.6		09.4		15.6		19.6
21	00.1		19.1	8	18.2		19.7
22	23.4	16	12.7		22.6		20.8
24	15.2	17	18.0	9	01.6	16	03.9
26	00.3		22.4		02.2		04.9
27	00.0	18	04.5		02.3		07.4
	07.9		13.4		02.4		13.9
	07.9		18.3		05.8		14.0
	07.9		18.9		06.1		21.2
	23.5	20	21.4		07.6	17	07.9
29	01.5	21	10.4		10.2		22.4
		24	17.6		12.0	18	18.8
COL		25	17.5		12.8	19	00.5
Jan.		26	05.5		14.2		01.9
1	12.2		14.7		14.5		01.9
	13.5	27	19.4		14.8		02.3
	22.1	28	02.6		16.6		03.5
	22.1		02.8		17.3		05.4
	22.2	29	02.4		17.3		11.1
	22.4		04.7		17.8		11.3
2	04.6	30	17.6		18.1		15.7
4	14.4		22.2		18.5	21	12.0
	17.0				18.8		12.4
7	01.8	SJ			19.2		23.5
	02.7	Jan.			20.0	22	02.5
14	04.1	2	11.6		21.5		03.7
	05.9	5	04.2	10	00.2		12.6
	06.6	7	00.2		02.2		19.6
18	16.6	13	01.7		02.6		19.6
	22.0		07.6		05.9	23	11.3
19	00.4		07.7		06.1		17.8
	05.0		08.3		09.5		18.7
	12.4		12.5		09.5	25	07.6
23	23.9		13.3		10.1		14.2
24	06.6		15.6		13.1		15.0
	09.0	14	09.6		13.2		23.5
	14.7		09.8		21.8	26	03.0
	21.3	16	20.6	11	05.0		08.2
25	04.8	17	12.4		05.9		09.7
	06.6	19	04.1		10.4	27	00.4
	08.8		17.4		11.4		09.5
	13.2	20	11.1		13.2	28	01.5
26	16.8		11.4		15.9		01.5
			20.8	12	03.4		03.3
HONO		21	13.4		04.6		10.7
Jan.		22	05.5		11.1		11.0
13	23.7	30	04.6		12.0		12.2
15	01.4				12.2	29	05.5
31	17.3			13	04.1	30	04.5

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Local and Minor Earthquakes				
day	hour			
TUC				
Jan.				
30	08.8			
	11.6			
	20.8			
31	00.6			
	02.9			
	03.6			