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U. S. DEPARTMENT OF COMMERCE

Frederick H. Mueller, Secretary

COAST AND GEODETIC SURVEY—WASHINGTON

H. Arnold Karo, Director

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National Oceanic and Atmospheric Administration

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1960

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

**Balboa Heights, C. Z. (BH)
The Panama Canal Co.
*Boulder City, Nev. (BC)
Bureau of Reclamation
*Bozeman, Mont. (BOZ)
Montana State College
*Butte, Mont. (BUT)
Montana School of Mines
*Chicago, Ill. (CHI)
University of Chicago and
U. S. Weather Bureau
College, Alaska (COL)
*Columbia, S. C. (COLU)
University of South Carolina
*Eureka, Nev. (EUR)
Eureka Corporation Limited
Guam, M. I. (GUAM)
Honolulu, T. H. (HONO)
*Hungry Horse, Mont. (HH)
Bureau of Reclamation
*Kipapa, T. H. (KIP)
*Lincoln, Nebr. (LIN)
Nebraska Wesleyan University
**Philadelphia, Pa. (PHIL)
The Franklin Institute
**Rapid City, S. D. (RC)
South Dakota State School of Mines
*Salt Lake City, Utah (SLC)
University of Utah
San Juan, Puerto Rico (SJ)
Sitka, Alaska (SIT)
*Thule, Greenland (THULE)
U. S. Army Ionosphere Station
Tucson, Ariz. (TUC)
Tucson, Ariz. Telemeter (TUC-T)
Ukiah, Calif. (UK)
International Latitude Observatory
Washington, D. C. (WASH)

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

All seismogram interpretations are made or revised at Washington except those for Balboa Heights. Beginning January 1, 1959 the data from the horizontal components of the seismographs at all stations except College, Honolulu, and Tucson will not be published for earthquakes occurring outside the United States. The horizontal instruments will continue in operation and the seismograms for the local and regional earthquakes will be scaled and the data published.

All magnitude determinations are by Pasadena unless otherwise stated. Minor earthquakes are listed at the end of the bulletin.

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

All seismograms are on file in the Coast and Geodetic Survey, except those from Balboa Heights, which may be obtained on loan by addressing the Seismograph Station Director, Meteorological and Hydrographic Office, Panama Canal Company, Balboa Height, Canal Zone.

STATION AND INSTRUMENTAL CONSTANTS FOR 1960

Station	Position	Instruments	Foundation and Elevation	T_o	T_g	T_s	V	Σ	Paper Speed	Time Break Reference Point	Ground Motion Trace "Up"
Balboa Heights, C. Z.	Log cos 9.99467	W-A, N&E	Basalt	N 1.0			1370	14:1	60mm/min.	Beginning	N
W. H. Esslinger	Lat. 8°57'39"N	Mass 1.3g	36 m.	E 1.0			1370				E
In Charge	Long. 79°33'29"W	Spg. LP (Series H)		N 20			5000				
		Spg. LP (Series H)		E 20	20		5000				
		Spg. LP (Series D-H)		Z 1.9	1.9		3000				
Boulder City, Nev.	Log cos 9.90806	B, film	Fractured	Z 1.4	0.45		100000**	Near crit.	15mm/min.	Beginning	Up
V. B. Uehling	Lat. 35°58'51"N	ZNE, Mass	monzonite	N 1.4	0.45		50000	crit.			N
In Charge	Long. 114°50'02"W	100 lb.	776 m.	E 1.4	0.45		50000	crit.			E
Bozeman, Mont.	Log cos 9.84437	Spg. N&E	Alluvium	N 11.1	8.3		8000	3:1	30mm/min.	Beginning	N
F. H. C. Schultz	Lat. 45°40'01"N		glacial drift	E 10.9	7.6		8000	11:1			E
In Charge	Long. 111°02'43"W	W-L, Z	and lake de-	Z 1.1	1.7		24000	Under	60mm/min.	Beginning	Up
			posits 500' thick over gneiss and schist. 1490 m.					damped			
Butte, Mont.	Log cos 9.84167	W-A, N.	Rhyolite	N 8.02			316	50:1	15mm/min.	Beginning	S
S. W. Nile	Lat. 46°00.8' N	Mass 2g	30 m. thick								
In Charge	Long. 112°33.8' W	W-L, NE	resting on	N 8.0	3.8		12000	Near crit.	30mm/min.	Beginning	N
			granite	E 8.0	3.9		12000	Near crit.			W
		B, paper, Z	1758 m.	Z 1.1	0.5		50000	Near crit.	60mm/min.		Up
		Mass 100 lb.									
Chicago, Ill.	Log cos 9.87251	McC-R, N&E	Limestone	N 10			335	15:1	15mm/min.	End	N
W. F. Schmidt	Lat. 41°47.3' N	Mass 2.5 kg	180 m.	E 10			335	15:1			W
In Charge	Long. 87°36.0' W										
*College, Alaska	Log cos 9.60205	W-L, film, Z	Granitic	Z 1.19	0.45		40000**	Near crit.	15mm/min.	Beginning	Up
C. J. Beers	Lat. 64°51.6' N	B, film, NE	schist.	N 1.36	0.45		50000	Near crit.			N
In Charge	Long. 147°50.2' W		159 m.	E 1.40	0.45		50000	Near crit.			E
		W, N		N 9.5	12.0		1000	Near crit.			N
[1]College Outpost	Log cos 9.62781	B, paper, Z		Z 1.5	0.53		425000	Near crit.	60mm/min.	Beginning	Up
C. J. Beers	Lat. 64°53'08"N										
In Charge	Long. 147°48'04"W										
Columbia, S. C.	Log cos 9.91857	W-L, ZNE	Consolidated	Z 1.1	1.6		24000	Under	60mm/min.	Beginning	Up
C. F. Mercer	Lat. 34°00' N		sand 150'	N 8.0	4.1		13000	damped	30mm/min.		N
In Charge	Long. 81°02' W		thick over granite, 94m.	E 8.0	4.1		13000				E
Eureka, Nev.	Log cos 9.88739	B, paper, Z	Dolomite	Z 1.23	0.51		500000	Near crit.	60mm/min.	Beginning	Up
R. N. Breckenridge	Lat. 39°30'09"N	Mass 100 lb.	bedrock								
In Charge	Long. 115°59'22"W		6870 ft.								
Guam, Mariana Islands	Log cos 9.98768	W-L, Z	147 ft.	Z 1.01	1.5		5000	Near crit.	30mm/min.	Beginning	Up
J. V. Hastings	Lat. 13°35'16"N	HTL, Z		Z 0.5	0.55		47000	Near crit.	30mm/min.	Beginning	Up
In Charge	Long. 144°51'58"E	Spg, NE		N 7.35	7.0		3000	Near crit.	30mm/min.	Beginning	N
				E 7.09	7.2		3000	Near crit.	30mm/min.	Beginning	E

Station	Position	Instrument	Foundation and Elevation		T_c	T_g	T_s	V	Σ	Paper Speed	Time Break Reference Point	Ground Motion Trace "Up"
*Honolulu, T. H.	Log cos 9.96935	M-S, N&E	Coral 3m.	N	12			174	20:1	15mm/min.	Beginning	N
G. E. Haraden	Lat. 21°18'13"N	Mass 1 lb.		E	12			142	20:1			W
In Charge	Long. 158°05'44"W	HTL Z		Z	0.5	0.5		20000		60mm/min.		Up
		Lamont, ZNE		Z	15	75		8000		15mm/min.		Up
				N	15	75		8000				N
				E	15	75		8000				W
Hungry Horse, Mont.	Log cos 9.82255	B-VR, Z	Argillaceous	Z	1.05	0.5		188000	Near crit.	60mm/min.	Beginning	Up
R. D. Bush	Lat. 48°20'52"N		Limestone	Z	1.05	92			Near crit.	30mm/min.	Beginning	Up
In Charge	Long. 114°01'39"W	W-L, N	(Belt series)	N	3.5	3.9		10000	Near crit.	30mm/min.	Beginning	N
		W-L, E	1110 m.	E	3.4	4.1		10000	Near crit.	30mm/min.	Beginning	E
Kipapa, T. H.	Log cos 9.96893	B-VR, Z	Basalt	Z	1.09	0.2		30000	Near crit.	60mm/min.	Beginning	Up
G. E. Haraden	Lat. 21°35.3' N		75 m.									
In Charge	Long. 158°00.9' W											
Lincoln, Nebr.	Log cos 9.87884	Spg, N&E	Dakota sand-	N	3.95	6.2		4800	2.11:1	15mm/min.	Beginning	N
C. L. Moore	Lat. 40°50.3' N		stone. 366 m.	E	4.3	6.8		4800	2.32:1	15mm/min.	Beginning	E
In Charge	Long. 96°39.2' W											
*Philadelphia, Pa.	Log cos 9.88452	W, N&E	Cape May	N	9.0	5.4	7.8	1400	15:1	20mm/min.	End	S
I. M. Levitt	Lat. 39°57'32"N	Mass 500 g.	sand and	E	9.2	4.1	7.4	1400	15:1			E
In Charge	Long. 75°10'30"W		gravel. 5 m.									
Rapid City, S. Dak.	Log cos 9.85637	W-A, E	Shale	E	6.7			725	15:1	15mm/min.	Beginning	E
E. L. Tullis	Lat. 44°04.6' N	(Dbl. refl.)	1045 m.									
In Charge	Long. 103°12.0' W	Mass 2 g.										
		W-L, Z		Z	1.08	1.6		10000		60mm/min.		Up
Salt Lake City, Utah	Log cos 9.87932	McC-R, N&E	Bonneville	N	9.9			335	15:1	15mm/min.	Beginning	N
A. M. Anderson	Lat. 40°45'55"N	Mass 2.5 kg.	Lake beds	E	10			335	15:1			W
In Charge	Long. 111°50'54"W	W-L, Z	1425 m.	Z	1.2	1.8		24000	Near crit.	60mm/min.		Up
San Juan, P. R.	Log cos 9.97726	W, N&E	Limestone	N	9.8	15.6	10.4		20:1	30mm/min.	Beginning	N
M. Vazquez	Lat. 18°22.9' N	Mass 500 g.	80 m.	E	9.8	16.8	10.4	1780	20:1			W
In Charge	Long. 66°07.1' W	B, Z		Z	1.05	0.5	0.6	20000	crit.	60mm/min.		Up
*Sitka, Alaska	Log cos 9.73544	W, N&E	Graywacke	N	7.5	16.5	8.2	1000	20:1	15mm/min.	Beginning	S
M. L. Cleven	Lat. 57°03'25"N	Mass 500 g.	12 m.	E	7.5	13.2	8.2	1000	5.5:1			E
In Charge	Long. 135°19'28"W	W-L, Z		Z	1.12	1.5		10000		60mm/min.		Up
Thule, Greenland	Log cos 9.36644	W-L, Z	Glacial	Z	1.3	1.55		12000	Near crit.	60mm/min.	Beginning	Up
Capt. C. R. deZafra	Lat. 76°33.4' N		material									
In Charge	Long. 68°40.5' W		275 m.									
*Tucson, Ariz.	Log cos 9.92725	W-A, N&E	Caliche or	N	8.0			466	crit.	30mm/min.	Beginning	S
R. L. Viets	Lat. 32°14.8' N	Mass 2.3 g.	gravels 100-	E	8.0			457	crit.			E
In Charge	Long. 110°50.1' W	B, Z(LP)	300m. thick	Z	1.0	77		50000	Near crit.	30mm/min.		Up
		(SP)	700 m.			0.236		50000		60mm/min.		Up
		B, E		E	1.6	0.5		25000		30mm/min.		W
[2]Tucson Telemeter	Log cos 9.92682	B, Z	Granite	Z	1.1	0.5		425000	Near crit.	60mm/min.	Beginning	Up
R. L. Viets	Lat. 32°20.1' N	Mass 100 lb.										
In Charge	Long. 110°43.4' W											

Station	Position	Instruments	Foundation and Elevation	T_o	T_g	T_s	V	Σ	Paper Speed	Time Break Reference Point	Ground Motion Trace "Up"
Ukiah, Calif.	Log cos 9.88968	McC-R, M&E	Alluvium	N 11.9			75	Near crit.	30mm/min.	Beginning	N
L. F. Caouette	Lat. 39°08' N	Mass 10 kg.	180 m. deep.	E 11.6			75				E
In Charge	Long. 123°13' W	W-L, Z	199 m.	Z 1.1	1.4		24000		60mm/min.		Up
*Washington, D. C.	Log cos 9.89117	W-L, Z	Recent allu-	Z 1.5	4.0		10000		30mm/min.	Beginning	Up
	Lat. 38°53'33"N	Visible	vium on		Pen						
	Long. 77°01'59"W	recorder	Schistose		0.5						
			granite. 0 m.								

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

*Magnifications for film records are stated as read using an 8 power viewer.

B-Benioff Moving Coil, B-VR - Benioff Variable Reluctance, W - Wenner, McC-R - McComb-Romberg, W-A - Wood-Anderson, M-S - Milne-Shaw.
HTL - Houston Technical Laboratory, Spg - Sprengnether, W-L - Wilson-Larison

[1]The Seismometer is in a vault about 2.1 miles northeast of the main station. The signal is carried by cable to the main vault where it is fed into a galvanometer and recorded on photographic paper.

[2]The seismometer is about nine miles northeast of the main station. The signal is transmitted by FM-FM radio to the main recorder room where it is recorded photographically.

Date 1960	Origin Time G. C. T.	Lat.	Long.	Region, Focal Depth, and Remarks
Jan.	h m s	°	°	
1	04 11 40*	49 N.	153½ E.	Kurile Islands.
1	04 17 32*	27½ N.	142 E.	Bonin Islands.
1	05 57 26*	18½ N.	147 E.	Mariana Islands.
1	23 12 31*	56 N.	162½ E.	Near east coast of Kamchatka.
2	01 52 18*	54 N.	157½ E.	Kamchatka.
2	03 21 52*	15½ S.	68 W.	Bolivia, h about 150 km. Mag. 6¼.
2	05 06 54*	2½ N.	96 E.	Off coast of Sumatra.
2	06 59 36*	56½ N.	163½ E.	Near east coast of Kamchatka.
2	08 27 14**			Sandwich Islands.
2	12 21 51**			South Atlantic Ocean, west of Bouvet Island.
2	21 22 51*	5 S.	152½ E.	New Britain.
3	06 55 25*	16 N.	99 W.	Near coast of Oaxaca, Mexico.
3	09 57 32*	44½ N.	111½ W.	Hebgen Lake, Mont.
3	11 24 00*	44 N.	84½ E.	Sinkiang Province, China.
3	11 38 30*	61 N.	152 W.	South-Central Alaska.
3	19 40 48*	44½ N.	111 W.	Hebgen Lake, Mont.
3	20 19 30*	39½ N.	15½ E.	Tyrrhenian Sea. h about 250 km.
3	21 20 13*	45 N.	148 E.	Kurile Islands. h about 150 km.
4	03 57 03*	26 N.	90 E.	India-Pakistan border.
4	06 16 30*	11½ N.	42½ E.	French Somaliland.
4	06 19 49	4½ S.	153½ E.	New Britain.
4	12 51 52*	45 N.	27 E.	Romania.
4	13 34 20*	18 N.	120½ E.	Luzon, P. I.
4	15 05 39*	5½ S.	77½ W.	Northern Peru.
5	05 13 48*	19 S.	69½ W.	Northern Chile.
5	09 32 07*	15 S.	173 W.	Samoa Islands region.
6	07 37 36**			Santa Cruz Islands.
6	13 11 00*	10½ S.	167 E.	Santa Cruz Islands.
6	18 45 08*	23½ N.	95 E.	Burma.
6	20 16 29*	6½ S.	133 E.	Banda Sea.
7	08 15 21*	6½ N.	94 E.	Nicobar Islands.
7	13 28 16**			Sandwich Islands.
7	23 17 18*	6½ N.	94½ E.	Nicobar Islands.
8	02 35 00*	58½ S.	26 W.	Sandwich Islands.
8	11 29 18*	55 S.	27½ W.	do.
8	14 45 53*	55½ S.	27½ W.	do.
9	03 58 45*	37 N.	29 E.	Southwestern Turkey.
9	07 23 50*	36 N.	69 E.	Hindu Kush. h about 150 km.

Date 1960	Origin Time G. C. T.	Lat.	Long.	Region, Focal Depth, and Remarks
Jan.	h m s	°	°	
9	07 41 57*	1 S.	124 E.	Celebes.
9	17 49 07*	55½ N.	165 W.	Unimak Island region.
10	06 26 00*	12 N.	145 E.	Mariana Islands region. h about 100 km.
11	02 27 38*	28½ N.	131 E.	Ryukyu Islands.
11	02 51 07*	13½ N.	120½ E.	Off coast of Luzon, P. I.. Felt at Manila.
11	03 10 14*	16 N.	96½ E.	Near south coast of Burma.
11	14 53 29*	9 S.	127 E.	Timor Island region.
11	17 49 58*	29 S.	176 W.	Kermadec Islands.
11	22 54 03*	2 S.	140½ E.	Near north coast of New Guinea.
12	01 52 37*	23½ N.	122 E.	Near east coast of Formosa.
12	03 09 10*	55½ S.	27 W.	Sandwich Islands region.
12	22 22 34*	17 S.	173 W.	Tonga Islands.
13	07 26 26*	3½ S.	140 E.	Northern New Guinea.
13	15 40 34*	16 S.	72 W.	**Southern Peru.** Many casualties and extensive property damage at Arequipa. h about 200 km. Mag. 7½.
13	16 29 41*	51½ N.	180	Andreanof Islands, Aleutian Islands.
14	02 41 24**			Near coast of northern Sumatra.
14	10 25 52*	37 N.	140 E.	Honshu, Japan.
14	12 49 07*	57 N.	162½ E.	Near east coast of Kamchatka.
14	15 58 56*	3 S.	127½ E.	Ceram Island region.
14	20 55 10*	44½ N.	148 E.	Kurile Islands.
14	21 25 15*	11 N.	43 W.	Atlantic Ocean.
15	09 30 24*	15 S.	75 W.	Near coast of southern Peru. 4 injured and minor damage in Ica Province. Felt in Lima area. h about 150 km. Mag. 7
15	23 38 50**			Northern Celebes region.
16	06 59 00*	59½ S.	149½ E.	About 500 miles southwest of Macquarie Islands.
16	12 30 56*	20½ S.	178 W.	Fiji Islands region. h about 600 km.
16	15 32 56*	22½ S.	173½ E.	Lovalty Islands region.
16	18 38 40*	13 S.	167½ E.	New Hebrides Islands region. h about 200 km.
16	20 49 31*	63 N.	151 W.	Alaska. Felt at College. h about 150 km.
16	21 41 44*	10 S.	161½ E.	Solomon Islands.
16	23 32 28*	4½ S.	152 E.	New Britain. Felt at Rabaul.
17	02 57 58*	14½ S.	74½ W.	Near coast of southern Peru. h about 150 km. Mag. 6¼.
17	04 19 07*	40½ N.	142 E.	Off coast of northern Honshu, Japan.
18	00 14 30*	16 S.	174½ W.	Tonga Islands region. h about 100 km.
18	01 04 11**			About 650 miles southwest of Prince Edward Islands.
18	09 04 43*	5 N.	126½ E.	Off south coast of Mindanao, P. I. Felt at General Santos and Davao.
18	19 30 18*	9 N.	77 W.	Off coast of Panama. Felt at Balboa Heights. h about 100 km.

Date 1960	Origin Time G. C. T.	Lat.	Long.	Region, Focal Depth, and Remarks
Jan.	h m s	°	°	
18	22 00 40**			Southern Pakistan.
19	02 16 52*	52 N.	158 E.	Near southeast coast of Kamchatka. Mag. 6¼ - 6½.
19	08 50 24*	17 N.	98 W.	Near coast of Oaxaca, Mexico.
19	09 15 04*	23 S.	180	South of Fiji Islands. h about 600 km. Mag. 6.
19	16 10 36*	24 N.	142 E.	Volcano Islands. h about 100 km.
19	21 26 39**			Southwestern Turkey.
20	01 03 25*	3½ N.	31 W.	Mid-Atlantic Ocean.
20	02 50 02*	17½ S.	178 W.	Fiji Islands. h about 500 km.
20	03 25 50*	36½ N.	122 W.	Near coast of central California. Minor damage near Hollister. Mag. 5.
20	19 56 14*	4½ S.	153½ E.	New Britain region. Felt at Rabaul.
21	10 43 33*	16 S.	179½ E.	Fiji Islands. h about 600 km.
21	16 43 51*	6 N.	126 E.	Near south coast of Mindanao, P. I..
21	17 43 46*	15½ S.	174 W.	Samoa Islands region. Felt at Apia. h about 100 km.
22	02 14 11*	42 N.	142½ E.	Near south coast of Hokkaido, Japan.
22	13 35 54*	0	125 E.	Molucca Passage.
23	04 24 45**			Off northwest coast of Luzon, P. I.
23	04 40 56*	4 S.	127½ E.	Ceram Island region. Mag. 6½.
23	06 24 08*	17 S.	177 W.	Fiji Islands region. h about 400 km.
23	07 31 14*	4 S.	127½ E.	Ceram Island region. Mag. 6 3/4.
23	17 56 30*	4 S.	127½ E.	Ceram Island region. Mag. 6 1/2 - 6 3/4.
23	21 57 08*	5½ S.	152 E.	New Britain. Felt at Rabaul.
24	00 39 33*	43½ N.	127½ W.	Off coast of Oregon. Mag. 4½ (Berk).
24	04 21 42*	15½ S.	179 W.	Fiji Islands. Mag. 6¼ - 6½.
24	09 14 03**			Banda Sea.
24	09 17 59*	20½ S.	180	Fiji Islands region. h about 600 km.
24	12 16 23*	4½ S.	143½ E.	New Guinea. h about 100 km.
24	16 56 44*	14½ S.	166½ E.	New Hebrides.
24	18 33 45*	52½ N.	160 E.	Near east coast of Kamchatka.
25	08 46 25*	52½ N.	160 E.	do.
25	11 26 31*	52½ N.	160 E.	do.
25	16 29 26*	16 S.	179 W.	Fiji Islands. Mag. 6¼.
26	03 17 03*	16½ S.	14½ W.	South Atlantic Ocean.
26	04 17 36*	38 N.	116½ W.	Nevada.
26	09 37 00*	44½ N.	149½ E.	Kurile Islands.
26	09 52 00*	39½ N.	39½ E.	Turkey.
26	13 05 40*	38 N.	29 E.	do.
26	18 19 55*	13 N.	87½ W.	Near coast of Nicaragua. Felt at San Salvador. h about 60 km.
26	20 27 05*	46 N.	26½ E.	Romania. h about 150 km.

Date 1960	Origin Time G. C. T.	Lat.	Long.	Region, Focal Depth, and Remarks
Jan.	h m s	°	°	
26	22 21 19*	30 S.	178 W.	Kermadec Islands. Felt on Raoul Island.
29	07 33 44*	36½ N.	70½ E.	Hindu Kush. h about 200 km.
29	07 46 17*	53 S.	10 E.	Bouvet Island region.
29	08 10 18*	4 S.	142½ E.	New Guinea. Felt at Ambunti.
29	22 47 20**			Mariana Islands region.
30	02 45 03*	22 N.	144½ E.	do.
30	04 10 40**			Kermadec Islands.
30	15 27 23	21½ N.	143½ E.	Volcano Island region.
30	17 56 05*	21½ N.	142½ E.	Mariana Islands region.
30	18 38 10*	22 N.	144 E.	do.
31	03 34 42*	21½ N.	143½ E.	do.
31	04 03 11*	12½ S.	167½ E.	Santa Cruz Islands. h about 200 km.
31	05 08 18*	33½ N.	134½ E.	Near east coast of Shikoku, Japan.
31	08 19 50*	21½ N.	143½ E.	Mariana Islands region.
31	13 52 00*	34 N.	91 E.	Chinghai Province, China.
31	16 12 29**			Mariana Islands region.
31	17 26 38**			Near east coast of Kamchatka.
31	19 07 23*	16 S.	172½ W.	Samoa Islands region.
31	20 28 14*	21½ N.	143½ E.	Mariana Islands region.

Date and Station		Phase (GCT) h m s
Jan. 1		
HUT	eP	01 29 30
	eL	30 33
RC	e(P)	01 30 35
	e	31 41
Jan. 1		
RC	e(P)	01 38 10
	e	39 17
Jan. 1		
RC	eP	02 12 14
	e	13 21
Jan. 1		
RC	eP	02 40 07
COL	iP	02 41 49
EUR	iP	02 40 37
HH	iP	02 41 38
RC	eP	02 40 49
TUC	iP	02 39 13
	eL	44 53
TUC-T	eP	02 39 13
	i	23
	eL	44 43
Jan. 1		
BOZ	eP	04 21 46
HUT	eP	04 21 42
COL	iP	04 18 26
EUR	iP	04 21 57
HH	iP	04 21 25
THULE	iP	04 20 47
TUC	iP	04 22 48
TUC-T	eP	04 22 48
Jan. 1		
HUT	eP	04 29 49
COL	eP	04 27 23
EUR	eP	04 29 52
HH	eP	04 29 38
RC	eP	04 30 25
THULE	iP	04 29 14
	e	33 18
Jan. 1		
COL	e(P)	05 38 03
Jan. 1		
HUT	eP	06 10 04
COL	eP	06 07 59

Date and Station		Phase (GCT) h m s
EUR	iP	06 10 02
GUAM	iP	05 58 49
	iS	05 58 49
HH	iP	06 09 55
RC	iP	06 10 37
THULE	iP	06 09 56
TUC	eP	06 10 35
TUC-T	iP	06 10 35
Jan. 1		
COL	e(P)	06 20 45
Jan. 1		
HH	e(P)	06 49 09
Jan. 1		
EUR	eP	07 29 38
THULE	eP	07 28 30
Jan. 1		
EUR	eP	08 05 57
	i	06 47
Jan. 1		
HUT	eP	08 28 01
	eL	29 04
EUR	eP	08 29 14
SLC	eP	08 28 38
Jan. 1		
COL	e(P)	08 50 29
HH	i(P)	08 53 25
THULE	eP	08 46 27
	e	46 37
Jan. 1		
RC	eP	09 29 15
	e	30 23
Jan. 1		
HH	iP	10 59 07
	iS	59 43
EUR	iP	11 06 45
RC	iP	11 06 10
	e	07 59
SJ	e(P)	11 01 45
	e	54
TUC	eP	11 05 47
TUC-T	eP	11 05 46
Jan. 1		
THULE	eP	16 02 31

Date and Station		Phase (GCT) h m s
Jan. 1		
THULE	eP	16 20 20
Jan. 1		
SJ	iP	19 31 12
	i(S)	31 30
	iL	33
Jan. 1		
HUT	eP	23 21 34
COL	iP	23 17 59
	i	18 11
EUR	iP	23 21 57
HONO	eP	23 20 49
HH	eP	23 21 16
	i	22 43
KIP	iP	23 20 49
THULE	eP	23 20 39
TUC	eP	23 22 54
	iP	22 56
TUC-T	iP	23 22 55
	e	23 32
Jan. 1		
EUR	eP	01 52 44
Jan. 2		
RC	eP	02 02 32
COL	iP	01 58 18
EUR	iP	02 02 10
HH	eP	02 01 31
	i	02 44
TUC	iP	02 03 05
TUC-T	iP	02 03 05
Jan. 2		
TUC-T	e(P)	03 07 44
	i	08 02
Jan. 2		
RC	eP	03 32 37
	epP	33 13
BOZ	eP	03 33 06
	epP	34 00
HUT	eP	03 33 12
	e	33 4[illegible]
	e	34 04
COL	iP	03 35 21
	ipP	35 59
	ePP	39 17
COLU	eP	03 31 47
	epP	32 25

Date and Station		Phase (GCT) h m s
EUR	iP	03 32 55
	ipP	33 32
	isP	49
HH	iP	03 33 25
	ipP	34 02
RC	iP	03 32 36
	ipP	33 12
	esP	29
SLC	eP	03 32 47
SJ	eP	03 28 32
	epP	29 09
THULE	eP	03 34 49
	epP	35 27
TUC	iP	03 32 05
TUC-T	iP	03 3[illegible] 05
	ipP	32 39
	isP	3[illegible] 58
Jan. 2		
EUR	eP	04 11 14
HH	eP	04 10 35
	iL	11 38
Jan. 2		
RC	ePKS	05 29 37
COL	eP	05 21 00
EUR	eP'	05 26 06
HH	eP'	05 25 54
	eP'	27 36
SJ	e(P')	05 26 56
	e	27 29
	ePKS	34 06
THULE	eP	05 20 59
TUC	e(P')	05 26 19
	e	38
	ePKS	30 11
TUC-T	e(P')	05 26 24
	e	35
Jan. 2		
TUC-T	eP	06 43 22
Jan. 2		
RC	eP	07 09 25
HUT	eP	07 08 39
COL	eP	07 05 05
EUR	iP	07 09 01
	ePPP	12 12
HONO	eP	07 [illegible] 1[illegible]

Date and Station		Phase (GCT) h m s
HH	eP	07 08 24
KIT	e(P)	07 07 55
	iP	07 59
THULE	eP	07 07 43
TUC	eP	07 09 59
TUC-T	eP	07 09 59
Jan. 2		
BH	iP	08 18 23
	iS	19 06
Jan. 2		
COL	eP	08 47 01
	i	47 10
EUR	eP	08 46 13
HH	iP	08 46 22
TUC	eP	08 45 57
TUC-T	eP	08 45 57
Jan. 2		
EUR	eP	08 56 06
Jan. 2		
COL	iP	09 26 53
EUR	eP	09 27 13
Jan. 2		
COL	iP	10 24 34
Jan. 2		
EUR	eP	11 22 03
TUC-T	eP	11 21 32
	i	21 40
Jan. 2		
EUR	eP	11 27 42
HH	e(P)	11 27 10
Jan. 2		
EUR	eP	11 53 26
HH	eP	11 52 37
	iL	53 37
Jan. 2		
BUT	eP	12 41 19
	ePP	44 02
COL	e(P)	12 41 50
	iPP	12 42 33
	e	46 28
EUR	eP	12 41 05
	i	41 26
HH	eP	12 41 15
	eScS	51 03
RC	eP	12 41 08
THULE	eP	12 41 20

Date and Station		Phase (GCT) h m s
TUC	eP	12 41 01
TUC-T	eP	12 41 00
	iP	41 02
	ePcP	42 57
Jan. 2		
COL	eP	12 50 17
EUR	eP	12 50 42
TUC-T	eP	12 50 59
	e	51 02
Jan. 2		
EUR	eP	15 38 53
Jan. 2		
COL	eP	16 18 40
Jan. 2		
COL	iP	19 28 19
	i(S)	29 23
	iL	29 33
HH	eP	19 32 12
Jan. 2		
EUR	eP	19 39 28
HH	e(P)	19 39 17
Jan. 2		
COL	iP	21 35 17
EUR	iP	21 36 18
HH	iP	21 36 25
SJ	e(P')	21 42 19
	iP'	42 27
Jan. 2		
COL	e(P)	23 00 52
	e	01 11
EUR	iP	22 53 13
	eS	54 21
	eL	54 26
Jan. 2		
HH	e(P)	22 50 52
Jan. 2		
EUR	iP	23 04 47
RC	eP	23 05 24
Jan. 2		
EUR	eP	23 27 38
Jan. 3		
BUT	iP	00 17 28
	eL	18 30
EUR	eP	00 18 49
HH	eP	00 18 03
	iL	19 05
RC	e(P)	00 18 47

Date and Station		Phase (GCT) h m s
Jan. 3		
EUR	eP	00 55 31
Jan. 3		
EUR	iP	01 30 45
Jan. 3		
EUR	e(P)	03 24 42
Jan. 3		
COL	e(P)	03 31 08
EUR	iP	03 34 08
Jan. 3		
EUR	iP	03 35 06
Jan. 3		
RC	eP	04 52 57
TUC	e(P)	04 50 16
	eL	51 28
TUC-T	eP	04 50 21
	iL	51 24
Jan. 3		
EUR	eP	05 13 46
RC	eP	05 14 13
Jan. 3		
BC	eP	07 00 50
BUT	eP	07 01 41
	e	02 03
COL	iP	07 05 27
	eL	28 11
COLU	eP	07 00 46
EUR	iP	07 01 18
HH	eP	07 02 17
RC	eP	07 01 22
	iP	01 26
SLC	eP	07 01 11
THULE	eP	07 05 53
TUC	iP	06 59 58
	eL	05 41
TUC-T	iP	06 59 59
	eL	07 05 41
Jan. 3		
EUR	eP	09 53 10
RC	eP	09 53 18
Jan. 3		
BOZ	eP	09 57 51
	eL	58 54

Date and Station		Phase (GCT) h m s
BUT	iP	09 58 02
	eL	59 10
EUR	eP	09 59 07
	eL	10 00 20
HH	iP	09 58 37
	iL	59 43
RC	e(P)	09 59 03
	i	59 24
	eL	10 00 20
SLC	eP	09 58 36
	iL	09 59 32
Jan. 3		
EUR	eP	10 20 07
Jan. 3		
HH	e(P)	10 56 42
Jan. 3		
EUR	eP	11 29 00
GUAM	iP	11 20 33
	iS	20 59
Jan. 3		
EUR	eP	11 32 59
Jan. 3		
BOZ	eP	11 37 05
BUT	eP	11 37 01
COL	iP	11 34 40
EUR	eP	11 37 27
HH	iP	11 36 48
RC	eP	11 37 15
THULE	eP	11 34 00
Jan. 3		
BC	eP	11 45 20
BOZ	eP	11 44 25
BUT	eP	11 44 15
COL	iP	11 39 37
	iS	11 40 23
	iL	40 35
EUR	iP	11 44 49
HH	iP	11 43 53
	i	47 30
RC	iP	11 45 08
SLC	eP	11 44 55

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Date and Station		Phase	(GCT)
			h m s
SIT	e(P)		11 40 44
	e		40 50
	eL		42 27
TUC	iP		11 46 02
TUC-T	iP		11 46 01
	i		46 11
Jan. 3			
EUR	eP		11 47 46
Jan. 3			
EUR	eP		11 51 27
Jan. 3			
COL	eP		14 01 13
EUR	eP		14 05 09
Jan. 3			
EUR	iP		15 18 47
Jan. 3			
EUR	eP		18 01 46
Jan. 3			
BOZ	iP		19 41 07
	eL		41 45
BUT	iP		19 41 19
	iL		42 33
EUR	eP		19 42 23
HH	iP		19 41 53
	iL		43 00
RC	e(P)		19 42 32
	i		42 40
	eL		43 47
SLC	e(P)		19 41 54
	e		19 41 58
	e		19 42 55
Jan. 3			
BC	eP		20 32 16
BUT	iP		20 31 30
COL	iP		20 30 48
COLU	eP		20 30 37
EUR	iP		20 32 03
HH	iP		20 31 24
SLC	iP		20 31 49
SJ	eP		20 30 30
THULE	eP		20 28 06
TUC	iP		20 32 19
TUC-T	iP		20 32 18
Jan. 3			
BOZ	eP		20 37 56
	eL		38 43
BUT	iP		20 38 09
	iL		39 10
HH	iP		20 38 43
	iL		39 48
RC	e(P)		20 39 25
	eL		40 43
SLC	e(P)		20 38 41
	eP		20 38 43
	i		20 38 50
	i		20 39 40
Jan. 3			
BC	eP		21 31 16
	epP		31 39
BUT	iP		21 30 41
	epP		31 15
COL	iP		21 27 35
	ipP		27 59
	eS		34 11
	e		36 44
EUR	iP		21 30 57
	ipP		31 23
HH	iP		21 30 27
RC	iP		21 31 20
	epP		42
SLC	eP		21 31 05
SIT	eP		21 28 37
THULE	eP		21 29 41
	epP		30 23
	es		36 22
TUC	iP		21 31 45
TUC-T	iP		21 31 44
Jan. 3			
HH	e(P)		21 59 33
Jan. 3			
COL	eP		23 31 50
Jan. 4			
EUR	eP		02 02 51
Jan. 4			
COL	eP		03 40 30
EUR	eP		03 43 47
Jan. 4			
COL	iP		04 09 10
Jan. 4			
EUR	iP		04 17 59
TUC	eP		04 18 01
TUC-T	eP		04 18 02
Jan. 4			
THULE	eP		06 29 03
	e		29 40
Jan. 4			
COL	iP		06 32 05
EUR	iP		06 33 08
GUAM	iP		06 24 20
HH	eP		06 33 12
Jan. 4			
COL	eP		10 37 00
	e		38 25
EUR	iP		10 36 36
TUC	iP		10 36 37
TUC-T	iP		10 36 38
	e		37 00
Jan. 4			
HH	e(P)		10 59 47
Jan. 4			
COL	iP		13 03 11
EUR	eP		13 04 54
HH	iP		13 04 10
THULE	iP		13 00 34
Jan. 4			
COL	iP		13 46 01
HH	eP		13 47 59
SIT	eP		13 46 46
Jan. 4			
EUR	eP		15 10 47
Jan. 4			
BC	eP		15 15 11
BUT	eP		15 15 50
COL	iP		15 18 27
EUR	iP		15 15 32
HH	iP		15 16 07
RC	iP		15 15 12
	i		22
SLC	eP		15 15 21
SJ	iP		15 11 18
THULE	iP		15 18 03
	i		18 14
TUC	iP		15 14 33
	i		48
TUC-T	iP		15 14 33
Jan. 4			
EUR	eP		21 02 34
Jan. 5			
BUT	eP		02 40 03
EUR	iP		02 39 34
HH	eP		02 40 18
RC	e(P)		02 39 50
TUC-T	eP		02 38 51
Jan. 5			
COL	e(P)		03 01 31
Jan. 5			
BOZ	eP		04 03 55
	eL		05 01
HH	iP		04 04 41
	iL		05 49
RC	e(P)		04 05 20
	eL		06 27
SLC	e(P)		04 04 41
	i(P)		04 04 48
	i		04 05 38
Jan. 5			
EUR	eP		04 54 44
Jan. 5			
BUT	eP		05 25 36
COLU	eP		05 23 14
EUR	iP		05 25 19
HH	iP		05 25 49
RC	eP		05 25 02
SJ	eP		05 21 05
TUC	eP		05 24 35
TUC-T	eP		05 24 27
Jan. 5			
HH	e(P)		06 19 26
Jan. 5			
EUR	eP		06 37 01
TUC	eP		06 36 57
TUC-T	eP		06 36 58

Date and Station		Phase (GCT)
		h m s
Jan. 5		
EUR	eP	06 51 47
TUC	eP	06 51 42
TUC-T	eP	06 51 44
Jan. 5		
BOZ	eP	09 44 33
BUT	eP	09 44 29
COL	iP	09 44 29
EUR	iP	09 43 58
HH	eP	09 44 30
	ePP	47 38
RC	eP	09 44 57
SLC	eP	09 44 17
TUC	iP	09 43 59
	e	16
TUC-T	iP	09 43 59
	e	36
Jan. 5		
EUR	iP	10 27 26
Jan. 5		
EUR	iP	10 41 18
HH	iP	10 40 56
Jan. 5		
COL	eP	18 57 01
	e(S)	19 00 41
	iL	01 07
EUR	iP	19 01 03
Jan. 5		
EUR	eP	22 31 27
Jan. 5		
TUC	e(P)	23 04 32
Jan. 6		
EUR	eP	00 04 10
Jan. 6		
HH	e(P)	04 32 04
Jan. 6		
COL	eP	07 50 05
EUR	iP	07 50 31
TUC	eP	07 50 42
TUC-T	eP	07 50 42
Jan. 6		
RC	eP	13 23 49
COL	iP	13 23 26

Date and Station		Phase (GCT)
		h m s
EUR	iP	13 23 48
HH	e(P)	13 24 18
SLC	eP	13 24 06
TUC	eP	13 24 02
TUC-T	iP	13 24 02
Jan. 6		
COL	eP	15 08 59
EUR	e(P)	15 09 27
	i	32
Jan. 6		
EUR	iP	16 44 55
Jan. 6		
HH	e(P)	19 01 49
THULE	iP	18 57 18
Jan. 6		
COL	iP	20 05 28
Jan. 6		
COL	iP	20 29 37
EUR	eP	20 27 53
Jan. 6		
BOZ	eP	22 26 53
HH	iP	22 26 34
TUC-T	eP	22 28 06
Jan. 6		
HH	i(P)	22 47 39
Jan. 6		
COL	iP	23 09 39
THULE	iP	23 08 11
Jan. 6		
COL	e(P)	23 48 47
Jan. 7		
COL	e(P)	01 54 39
Jan. 7		
EUR	eP	05 57 14
Jan. 7		
COL	ePP	08 32 12
	e	32 41
EUR	iP'	08 34 28
HH	e(P')	08 34 23
RC	eP'	08 34 30
SJ	eP'	08 35 23

Date and Station		Phase (GCT)
		h m s
TUC	e(P')	08 34 57
TUC-T	eP'	08 34 45
Jan. 7		
EUR	eP	09 18 18
Jan. 7		
COL	eP	11 03 36
	i	11 03 45
EUR	eP	11 03 09
TUC	eP	11 03 07
TUC-T	iP	11 03 08
	i	20
Jan. 7		
COL	iP	13 16 10
HH	e(P)	13 15 26
Jan. 7		
RC	eP'	13 47 01
BOZ	eP'	13 47 12
BUT	eP'	13 47 13
COL	iP'	13 47 58
	i	48 05
	ePP	14 02 22
	eSKS	05 14
	eSKPS	12 28
	eL	38 10
EUR	iP'	13 47 08
	i	48 35
HH	iP'	13 47 15
	ePP	49 07
	eSKSP	14 00 39
RC	eP'	13 47 01
	iPP	49 19
	ePKKP	57 23
SLC	eP'	13 47 05
SJ	iP	13 40 29
THULE	iP'	13 47 31
TUC	e(P')	13 47 13
	i	39
	ePKKP	57 46
	eL	14 23 05
TUC-T	eP'	13 47 39
	ePKKP	57 39
Jan. 7		
EUR	eP	13 57 13
	e	14 00 41
Jan. 7		
COL	eP	14 11 51

Date and Station		Phase (GCT)
		h m s
Jan. 7		
COL	eP	14 55 48
	i	55 53
EUR	eP	14 54 57
HH	eP	14 55 04
Jan. 7		
COL	eP	15 11 05
Jan. 7		
COL	iP	15 26 18
	e	30 00
Jan. 7		
BC	e(P)	17 34 08
COL	eP	17 34 09
EUR	iP	17 34 11
HH	eP	17 34 30
SLC	eP	17 34 27
Jan. 7		
RC	eP	19 41 31
Jan. 7		
COL	e(P)	23 31 12
HH	eP'	23 36 20
RC	e(P)	23 31 23
	eP'	36 34
SJ	eP'	23 37 19
Jan. 8		
HH	eP	01 01 34
	iL	02 43
RC	eP	01 02 19
	e	03 37
Jan. 8		
COL	iP	02 17 18
Jan. 8		
COL	iP	02 20 19
EUR	iP	02 23 42
Jan. 8		
BUT	eP'	02 54 07
COL	eP'	02 54 51
	i	55 02
EUR	iP'	02 54 01
HH	iP'	02 54 11
THULE	eP'	02 54 27
TUC	eP'	02 53 46

Date and Station		Phase (GCT) h m s
Jan. 8		
BC	eP	07 56 00
BUT	eP	07 56 36
COL	iP	07 56 41
	i	57 00
EUR	iP	07 56 06
HH	eP	07 56 38
SLC	eP	07 56 25
TUC	eP	07 56 05
TUC-T	eP	07 56 05
	iP	06
Jan. 8		
COL	iP	10 24 21
HH	eP	10 23 33
Jan. 8		
BUT	eP'	11 48 18
COL	eP'	11 49 02
	i	49 10
EUR	eP'	11 48 12
	i	49 42
HH	iP'	11 48 22
RC	eP'	11 48 06
SJ	iP	11 41 31
THULE	eP'	11 48 37
TUC	e(P')	11 47 58
	e	48 42
TUC-T	eP'	11 47 58
	e	48 47
Jan. 8		
EUR	iP	11 58 19
Jan. 8		
BC	e(P)	12 11 13
TUC	e(P)	12 09 20
	i	26
	iL	10 09
TUC-T	e(P)	12 09 23
	eL	10 09
Jan. 8		
COL	eP	12 54 10
Jan. 8		
COL	eP	13 17 49
Jan. 8		
SJ	iP	14 58 08
	e	26

Date and Station		Phase (GCT) h m s
Jan. 8		
BC	eP'	15 05 41
COL	eP'	15 05 39
	i	05 46
EUR	iP'	15 04 50
	i	06 14
HH	iP'	15 04 58
	e	08 12
RC	eP'	15 04 44
	e	05 57
SLC	eP'	15 04 47
THULE	eP'	15 05 15
TUC-T	e(P')	15 04 34
	e	05 26
Jan. 8		
COL	iP	15 17 12
EUR	iP	15 14 54
Jan. 8		
COL	eP	15 24 40
Jan. 8		
COL	eP	15 44 43
Jan. 8		
COL	iP	15 48 32
HH	iP	15 47 42
Jan. 8		
COL	eP	18 13 49
Jan. 8		
COL	eP	21 59 24
EUR	eP	22 02 40
	i	52
HH	e(P)	22 02 21
TUC-T	eP	22 01 52
Jan. 8		
COL	iP	22 12 15
	iS	12 43
	iL	12 55
Jan. 8		
EUR	eP	23 01 55
Jan. 8		
COL	eP	23 58 50
Jan. 9		
COL	iP	01 41 02
HH	eP	01 40 14
Jan. 9		
EUR	eP	01 55 16

Date and Station		Phase (GCT) h m s
HH	eP	01 54 35
	iL	55 39
RC	eP	01 56 17
SLC	eP	01 54 45
Jan. 9		
EUR	eP	03 13 37
Jan. 9		
COL	eP	03 55 06
EUR	eP	03 58 35
HH	e(P)	03 58 03
TUC	eP	03 59 41
Jan. 9		
BOZ	eP	04 11 50
COL	iP	04 10 48
EUR	iP	04 12 19
HH	iP	04 11 41
RC	eP	04 11 40
THULE	eP	04 08 26
Jan. 9		
EUR	eP	04 23 48
HH	iP	04 23 13
	iL	24 19
RC	e(P)	04 23 45
SLC	eP	04 23 20
Jan. 9		
COL	iP	04 58 07
EUR	iP	04 57 48
TUC	eP	04 57 50
TUC-T	eP	04 57 50
Jan. 9		
COL	eP	06 09 54
Jan. 9		
HH	e(P)	06 44 24
Jan. 9		
BC	eP	07 38 00
BOZ	eP	07 37 17
BUT	eP	07 37 15
COL	iP	07 35 20
	i	35 53
	ipP	36 09
	i	37 52
	iPP	38 10
	eS	44 27
	eSKS	45 37

Date and Station		Phase (GCT) h m s
COLU	eP'	07 41 42
EUR	iP	07 37 44
	e	40 17
	iPF	41 02
	iPKKP	53 30
	e	08 00 44
	iP'P'	01 34
HH	iP	07 37 03
	iPF	40 53
	e	53 10
	iPKKP	53 55
RC	iP	07 37 23
	iPP	41 21
SLC	eP	07 37 39
	e	40 17
	e	41 09
SJ	eP'	07 42 12
SIT	iP	07 36 13
THULE	iP	07 34 15
	iPP	36 39
TUC	e(P)	07 38 22
	e	38 31
	eP'	42 13
	ipPP	43 03
	ePPP	45 21
TUC-T	eP	07 38 20
	e	38 32
	eP'	42 39
Jan. 9		
SJ	iP	07 53 08
Jan. 9		
BC	eP'	08 00 49
COL	eP	07 55 00
GUAM	iP	07 47 36
HH	eP'	08 00 39
	e	01 21
RC	e(P')	08 00 55
SJ	iP'	08 02 45
TUC	eP'	08 00 57
TUC-T	e(P')	08 00 50
	e	00 58
Jan. 9		
BC	eP	10 03 00
COL	eP	09 59 14
EUR	eP	10 02 36
HH	iP	10 02 06

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Date and Station		Phase (GCT)
		h m s
RC	eP	10 03 16
	e	28
TUC	eP	10 03 39
	e	52
TUC-T	eP	10 03 39
Jan. 9		
COL	iP	10 21 31
Jan. 9		
COL	eP	13 20 35
	i	20 51
	iS	22 09
	iL	22 21
EUR	iP	13 24 47
HH	eP	13 23 42
SIT	e(P)	13 20 19
	e	24
Jan. 9		
EUR	eP	13 45 55
Jan. 9		
COL	iP	17 21 54
EUR	iP	17 25 29
Jan. 9		
RC	eP	17 56 41
COL	iP	17 52 12
	eS	17 54 47
	iL	55 45
EUR	iP	17 56 13
HH	iP	17 55 35
	iPP	57 00
RC	iP	17 56 50
	iPP	57 29
TUC	iP	17 57 22
	ePP	58 45
TUC-T	eP	17 57 21
	ePP	58 45
Jan. 9		
COL	eP	18 38 26
Jan. 9		
EUR	eP	19 08 33
Jan. 9		
COL	e(P)	21 15 53
Jan. 9		
PH	eP	21 18 00
	eS	18 43
Jan. 9		
EUR	e(P)	22 26 03

Date and Station		Phase (GCT)
		h m s
HH	e(P)	22 25 44
Jan. 9		
COL	eP	22 43 46
	eL	47 45
EUR	eP	22 47 46
Jan. 10		
COL	iP	05 40 15
HH	iP	05 39 27
Jan. 10		
COL	eP	05 58 03
	eL	06 02 44
EUR	eP	06 03 03
HH	eP	06 02 25
Jan. 10		
BUT	eP	06 39 00
COL	eP	06 37 06
EUR	iP	06 38 58
GUAM	iP	06 26 25
	iS	26 43
HH	eP	06 38 51
Jan. 10		
COL	iP	07 43 29
HH	iP	07 42 42
Jan. 10		
BOZ	eP	09 28 49
Jan. 10		
EUR	eP	12 28 55
HH	iP	12 28 17
Jan. 10		
TUC	e(P)	13 09 50
TUC-T	eP	13 09 51
Jan. 10		
COL	e(P)	15 43 42
Jan. 10		
COL	iP	20 12 21
	iL	16 22
Jan. 10		
COL	iP	22 59 36
HH	eP	23 02 22
RC	eP	23 03 13
THULE	eP	23 02 31

Date and Station		Phase (GCT)
		h m s
Jan. 10		
COL	iP	23 34 51
	iS	23 38 23
	iL	39 01
EUR	iP	23 38 52
HH	iP	23 38 14
RC	eP	23 39 27
TUC	eP	23 39 59
TUC-T	eP	23 39 59
Jan. 11		
COL	iP	00 04 12
	eL	07 51
EUR	eP	00 08 12
HH	e(P)	00 07 35
Jan. 11		
BUT	eP	02 40 24
COL	iP	02 37 55
EUR	iP	02 40 32
HH	iP	02 40 13
RC	iP	02 40 54
	e	41 05
THULE	iP	02 39 21
TUC	iP	02 41 09
TUC-T	iP	02 41 09
Jan. 11		
COL	eP	03 03 11
Jan. 11		
COL	eP	03 23 00
THULE	e(P)	03 23 04
Jan. 11		
COL	eP	05 40 06
Jan. 11		
COL	e(P)	05 48 54
Jan. 11		
COL	eP	08 58 42
EUR	eP	09 02 09
Jan. 11		
COL	eP	09 34 46
	i	35 02
SLC	eP	09 40 51
Jan. 11		
BUT	eP	12 10 48

Date and Station		Phase (GCT)
		h m s
COL	eP	12 14 16
EUR	iP	12 10 18
HH	iP	12 11 09
RC	eP	12 10 07
	e	10 28
	e	11 18
TUC	eP	12 09 06
	i	25
	i	37
TUC-T	eP	12 09 05
Jan. 11		
EUR	iP'	15 12 36
HH	iP'	15 12 31
RC	eP'	15 12 48
TUC-T	eP'	15 12 47
Jan. 11		
RC	eP	15 50 15
	e	51 33
Jan. 11		
COL	eP	18 03 29
EUR	eP	18 02 54
TUC	eP	18 02 50
	e	03 05
TUC-T	eP	18 02 50
Jan. 11		
RC	iP	19 09 26
	eS	09 46
	eL	10 04
EUR	iP	19 09 27
	iS	10 06
	iL	10
TUC	i(P)	19 12 59
Jan. 11		
SLC	eP	21 55 59
Jan. 11		
COL	iP	23 06 37
GUAM	e(P)	22 57 54
	eS	23 01 04
	eL	01 34
SJ	eP'	23 13 56
	e	14 11
Jan. 12		
COL	iP	02 03 45
GUAM	eP	01 57 51
	eT	02 21 14

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Date and Station		Phase (GCT) h m s
HH	eP	02 05 53
THULE	eI	02 04 48
Jan. 12		
COL	eP'	03 28 54
	iP'	03 29 01
HH	eP'	03 28 14
SJ	eP	03 21 26
THULE	eP'	03 28 25
Jan. 12		
COL	iP	03 34 21
EUR	eP	03 38 11
Jan. 12		
COL	iP	06 50 32
HH	eP	06 49 44
Jan. 12		
COL	eP	07 47 30
TUC	eP	07 42 26
	e	42 47
Jan. 12		
TUC	eP	08 07 12
Jan. 12		
COL	iP	11 26 05
EUR	eP	11 25 33
Jan. 12		
COL	e(P)	12 47 53
HH	e(P)	12 50 46
Jan. 12		
COL	eP	13 00 43
Jan. 12		
COL	e(P)	15 01 54
HH	e(P)	15 04 50
Jan. 12		
COL	iP	15 14 50
HH	e(P)	15 14 01
Jan. 12		
EUR	eP	17 02 06
Jan. 12		
EUR	eP	20 09 08
Jan. 12		
COL	iP	22 35 07
HH	eP	22 35 04
TUC-T	eP	22 34 32
Jan. 12		
EUR	eP	23 16 55
TUC	eP	23 16 11
	eL	17 34
TUC-T	e(P)	23 16 07
	eL	17 40
Jan. 12		
SJ	eP	23 53 35
	iS	54 49
Jan. 13		
COL	eP	01 33 53
Jan. 13		
COL	eP	02 00 25
EUR	eP	02 03 56
Jan. 13		
EUR	iP	06 46 53
TUC	iP	06 46 53
Jan. 13		
EUR	eP	07 35 25
GUAM	eP	07 23 23
	iS	24 18
	eT	27 26
Jan. 13		
COL	iP	07 39 07
EUR	eP	07 40 27
HH	eP	07 40 22
SJ	iP'	07 46 21
	i	27
Jan. 13		
EUR	eP	08 57 47
Jan. 13		
BH	iP	15 45 50D
RC	eP	15 50 59D
	e	51 15
	epP	51 41
	eS	59 26
	eL	16 07 12
BOZ	eP	15 51 32D
	e(pP)	52 09
	ePP	54 08
	esPP	55 07
EUT	eP	15 51 37C
	epP	52 20
	eS	16 00 35
	eL	16 09 43
COLU	iP	15 49 15D
	eS	56 24
COL	iP	15 53 51C
	ipP	54 20
	isP	54 32
	iPP	57 54
COL	iS	16 04 22
	ipS	05 30
	iPS	06 38
	i	10 12
	i(SKKP)	16 11 16
	iL	20 32
EUR	iP	15 51 19D
GUAM	eP'	15 59 49(D)
	ipP'	16 00 35
	iPKS	03 35
	iSKS	06 41
	iSS	21 49
HONO	eP	15 53 34
	iS	16 03 48
	iSS	10 38
	eL	17 44
HH	iP	15 51 52D
	eS	16 01 19
	i	16 12 24
KIP	e(P)	15 53 27
	eP	29
	ipP	54 02
RC	iP	15 51 03D
	epP	51 55
	eS	59 44
	eL	16 04 14
SLC	iP	15 51 11D
	e	15 51 31
	iS	16 00 02
	eL	16 08 55
SJ	iP	15 47 07D
	i	15
	iPP	48 38
SIT	iP	15 53 20C
	epP	51
THULE	eP	15 53 25D
	ipP	54 14
	iPP	57 21
	e(S)	16 04 30
	e	10 46
TUC	iP	15 50 26D
	i	32
	ipP	51 07
	iPP	52 47
	eS	58 10
	iS	38
	iSS	16 02 49
	esSS	16 03 48
	iL	06 13
	iPP'	16 17 03
UKIAH	iP	15 51 43D
	iS	16 01 16
	eL	12 07
WASH	iP	15 49 47C
	iPP	51 50
	eS	57 31
WASH	eScS	15 59 12
	eSS	16 01 38
Jan. 13		
HH	eP	16 19 24
RC	eP	16 19 20
SLC	iP	16 19 43
THULE	eP	16 18 52
TUC	iP	16 20 02
Jan. 13		
RC	eP	16 38 25
EUT	eP	16 37 47
COL	iP	16 34 33
	i(ScP)	42 07
HH	iP	16 37 31
	iPcP	39 30
	e(ScP)	43 35
KIP	eP	16 36 30
	eT	17 12 22
	iT	12 39
RC	iP	16 38 38
SLC	iP	16 38 15
	i	16 38 26
SJ	iP	16 42 43
THULE	iP	16 38 01
TUC	iP	16 39 02
UKIAH	eP	16 37 28
Jan. 13		
COL	iP	17 06 20
Jan. 13		
EUR	iP	18 31 32
HH	eP	18 32 43
RC	eP	18 32 08
	e	45
TUC	eP	18 29 58
	e	31 04
	iL	33 58
Jan. 13		
HH	iP	18 56 43
	e	57 11
Jan. 13		
EUR	iP	21 01 50
TUC	eP	21 00 19
	eL	04 16

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Date and Station		Phase (GCT)
		h m s
Jan. 13		
COL	iP	21 23 37
	i(S)	24 50
	iL	25 08
EUR	eP	21 28 22
HH	eP	21 27 28
Jan. 13		
COL	eP	22 41 36
Jan. 14		
EUR	eP'	03 00 30
SJ	eP'	03 01 18
	e	34
TUC	ePP	03 04 13
Jan. 14		
COL	iP	06 35 18
SJ	e(P')	06 42 31
Jan. 14		
COL	iP	07 51 12
HH	iP	07 50 24
Jan. 14		
EUR	eP	08 35 52
TUC	eP	08 34 20
Jan. 14		
HH	eP	08 42 11
Jan. 14		
COL	iP	09 32 00
EUR	iP	09 35 57
TUC	eP	09 36 56
Jan. 14		
HH	e(P)	09 54 10
Jan. 14		
POZ	eP	10 37 40
PUT	eP	10 37 34
COL	iP	10 34 49
EUR	iP	10 37 46
GUAM	iP	10 30 51
	i	34 15
	iS	34 58
HH	iP	10 37 22
RC	iP	10 38 09
SLC	eP	10 37 55
	e	38 12
THULE	iP	10 36 36

Date and Station		Phase (GCT)
		h m s
TUC	iP	10 38 26
	e	42 28
Jan. 14		
COL	iP	12 54 35
EUR	eP	12 58 32
RC	eP	12 58 56
THULE	eP	12 57 12
TUC	eP	12 58 31
Jan. 14		
COL	eP	13 10 01
EUR	eP	13 14 00
HH	e(P)	13 10 41
Jan. 14		
COL	e(P)	13 46 27
Jan. 14		
COL	e(P)	16 12 03
Jan. 14		
COL	iP	17 33 16
Jan. 14		
PUT	iP	18 27 21
	iL	28 22
Jan. 14		
COL	eP	18 53 21
EUR	eP	18 57 20
Jan. 14		
COL	iP	19 16 51
HH	eP	19 16 05
THULE	eP	19 16 19
Jan. 14		
EUR	eP	19 26 02
Jan. 14		
COL	iP	21 02 50
EUR	eP	21 06 09
HH	eP	21 05 41
THULE	iP	21 04 58
Jan. 14		
COL	iP	21 38 00
EUR	iP	21 36 29
HH	iP	21 36 24
RC	iP	21 35 32
SLC	eP	21 36 10

Date and Station		Phase (GCT)
		h m s
SJ	iP	21 30 26
THULE	iP	21 36 10
TUC	eP	21 36 02
Jan. 15		
COL	eP	03 12 30
Jan. 15		
EUR	eP	04 51 46
HH	eP	04 52 23
Jan. 15		
EUR	eP	08 34 58
Jan. 15		
GUAM	iP	09 27 19
	iS	27 33
Jan. 15		
HH	iP	09 35 31C
RC	eP	09 40 40C
	eP'P'	10 09 46
POZ	eP	09 41 16C
	epP	41 49
PUT	eP	09 41 21C
	epP	41 51
	eS	50 03
	eL	09 59 55
COL	iP	09 43 40D
	i	43 52
	ipP	44 19
	iPP	47 46
	iSKS	09 54 12
	iS	54 49
	iSKSP	56 11
	e	59 13
	eL	10 10 45
COLU	eP	09 39 00
	eS	45 58
EUR	iP	09 41 02C
	ipP	36
	iP'P'	10 09 31
GUAM	eP'	09 49 45
HONO	eP	09 43 10
	eS	53 36
	i	55 00
	eSS	10 00 04
	eL	07 00
HH	iP	09 41 36C
	eP'P'	10 09 18
RC	iP	09 40 43C
	iS	49 28
	iP'P'	10 09 44

Date and Station		Phase (GCT)
		h m s
SLC	eP	09 40 53C
	eS	49 48
	eL	10 00 00
SJ	iP	09 37 00D
	epP	38
	iPP	38 26
SIT	eP	09 43 00
	e	11
THULE	iP	09 43 18
	i	43 30
	ePP	46 58
	eKKP	10 00 38
TUC	iP	09 40 07C
	i	40 15
	iPcP	41 01
	iPP	42 26
	iS	48 08
	eSS	52 18
	eL	55 03
	iL	59 12
	iP'P'	10 10 01
UKIAH	eP	09 41 29
	epP	42 14
WASH	iP	09 39 35
	ipP	40 15
	iPcP	40 49
	e(ScP)	43 39
	iS	47 10
	eL	56 55
Jan. 15		
GUAM	iP	09 57 46
	iS	58 00
Jan. 15		
COL	eP	10 52 48
HH	eP	10 53 42
RC	eP	10 53 42
THULE	eP	10 50 26
Jan. 15		
POZ	eP	14 53 19
EUR	eP	14 52 17
Jan. 15		
COL	eP	16 46 48
	e	47 26
EUR	iP	16 41 56
THULE	eP	16 36 48
Jan. 15		
COL	eP	17 20 38
EUR	iP	17 21 34

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Date and Station		Phase	(GCT) h m s
GUAM		iP	17 10 14
		iS	10 29
Jan. 15			
COL		eP	21 40 38
		i	41 16
COLU		eP	21 35 07
EUR		iP	21 35 53
THULE		iP	21 40 39
Jan. 15			
COL		iP	23 54 34
Jan. 16			
EUR		eP	04 09 32
Jan. 16			
COL		e(P)	04 20 01
Jan. 16			
COL		eP	05 37 35
		i	37 45
EUR		iP	05 40 28
TUC		eP	05 42 34
Jan. 16			
EUR		iP	11 49 54
Jan. 16			
RC		eP	12 42 21
COL		iP	12 42 49
		epP	44 50
		eS	52 39
EUR		iP	12 41 30
GUAM		iP	12 39 59
TUC		iP	12 42 27
		e	44
Jan. 16			
EUR		eP	13 02 51
Jan. 16			
THULE		eP	14 33 47
Jan. 16			
COL		eP	15 06 36
EUR		eP	15 08 57
Jan. 16			
COL		iP	15 46 09
EUR		iP	15 45 08
TUC		e(P)	15 46 08
		e	26
Jan. 16			
COL		eP	17 26 24

Date and Station		Phase	(GCT) h m s
Jan. 16			
COL		iP	18 43 17
EUR		iP	18 46 36
Jan. 16			
COL		iP	18 50 58
		ipP	51 52
EUR		iP	18 51 15
Jan. 16			
RC		iP	20 56 13
		epP	56 33
BOZ		eP	20 55 14
		e	56 06
FUT		iP	20 55 05
		e	55 19
COL		iP	20 50 05
		iS	50 24
		iL	50 30
COLU		eP	20 58 22
EUR		iP	20 55 43
		iPcP	58 32
		iScP	21 02 06
		i	02 58
HONO		iP	20 57 13
		iPcP	59 06
HH		iP	20 54 44
		iScP	21 01 44
		e	02 31
KIP		iP	20 57 12
		iPcP	59 05
RC		iP	20 55 55
SLC		iP	20 55 46
		esP	56 22
SJ		iP	21 00 35
		epP	55
SIT		iP	20 51 46
		iS	53 27
THULE		iP	20 55 12
		i	34
		iScP	21 01 53
TUC		iP	20 56 54
		epP	57 17
		iPcP	58 58
		iScP	21 02 36
TUC-T		iP	20 56 53
		iPcP	58 58
		iScP	21 02 36
UKIAH		iP	20 55 23
		ePcP	58 29

Date and Station		Phase	(GCT) h m s
Jan. 16			
RC		eP	21 54 54
COL		iP	21 54 17
EUR		iP	21 54 52
HONO		eP	21 50 49
KIP		iP	21 50 49
TUC-T		eP	21 55 06
Jan. 16			
EUR		iP	22 57 44
		iS	58 07
Jan. 16			
COL		e(P)	23 44 54
		e	45 09
EUR		iP	23 45 54
SJ		eP'	23 53 01
Jan. 17			
EUR		eP	00 12 10
		i	35
Jan. 17			
BOZ		eP	01 08 47
EUR		eP	01 10 49
RC		eP	01 10 43
SJ		e(P)	01 06 33
		e	45
THULE		eP	01 13 06
TUC		eP	01 09 54
TUC-T		eP	01 09 54
		e	10 03
Jan. 17			
HH		iP	03 03 04
		iS	07 26
RC		eP	03 08 12
		epP	03 54
SIT		eP	03 08 53
COL		iP	03 11 13
COLU		eP	03 06 32
EUR		iP	03 08 33
		i	42
		ipP	09 11
		e(ScS)	10 54
		eP'P'	37 09
		epP'P'	44
RC		iP	03 08 18
SJ		iP	03 04 31

Date and Station		Phase	(GCT) h m s
THULE		eP	03 10 51
TUC		iP	03 07 38
		i	46
TUC-T		eP	03 07 38
		i	46
Jan. 17			
GUAM		iP	03 11 12
EUR		eP	03 22 42
TUC		eP	03 21 48
Jan. 17			
COL		e(P)	04 13 19
Jan. 17			
COL		eP	04 27 30
EUR		iP	04 30 40
		i	53
RC		eP	04 31 03
THULE		iP	04 29 25
TUC		eP	04 31 37
TUC-T		eP	04 31 37
Jan. 17			
EUR		eP	12 13 34
TUC		e(P)	12 14 38
TUC-T		eP	12 14 39
Jan. 17			
EUR		eP	14 04 48
Jan. 17			
EUR		eP	20 26 09
Jan. 17			
BOZ		eP	22 11 00
EUR		eP	22 11 37
HH		e(P)	22 11 48
		e	12 17
Jan. 18			
COL		iP	00 26 51
		epP	27 19
EUR		eP	00 26 25
TUC		eP	00 26 20
TUC-T		eP	00 26 21
Jan. 18			
EUR		eP'	01 24 03
RC		iP'	01 23 54

Date and Station		Phase (GCT) h m s
TUC	eP'	01 23 44
	e	51
TUC-T	iP'	01 23 45
Jan. 18		
BOZ	eP	01 43 02
Jan. 18		
EUR	eP	04 34 27
Jan. 18		
EUR	eP	08 17 26
Jan. 18		
COL	iP	09 17 17
	i	17 27
EUR	eP	09 19 12
	eP'	23 21
	ePKKP	34 42
GUAM	eP	09 09 40
HH	e(P)	09 19 01
SJ	eP'	09 24 59
	i	25 09
Jan. 18		
BH	iP	11 00 05
	iS	01 34
EUR	eP	11 07 07
SJ	eP	11 03 30
Jan. 18		
COL	e(P)	12 37 14
Jan. 18		
HH	e(P)	16 04 01
Jan. 18		
EUR	eP	17 01 37
Jan. 18		
COL	iP	18 45 55
Jan. 18		
BH	iP	19 30 53
	iS	31 16
BC	eP	19 38 21
BOZ	eP	19 38 44
BUT	eP	19 38 58
COL	iP	19 41 49
COLU	eP	19 35 42
EUR	eP	19 38 39
	ipP	39 01
HH	iP	19 39 10
RC	iP	19 38 05
SLC	eP	19 38 24
	e	39 20
SJ	iP	19 33 37
	i	51
	iS	36 10
THULE	iP	19 41 14
TUC	iP	19 37 40
TUC-T	iP	19 37 40
Jan. 18		
COL	iP	22 13 16
THULE	eP	22 12 12
Jan. 19		
BC	eP	02 27 09
BOZ	eP	02 26 38
BUT	eP	02 26 30
COL	iP	02 23 06
	i	23 18
	iPP	24 20
COLU	eP	02 29 04
EUR	iP	02 26 48
	i	27 06
HH	iP	02 26 13
RC	iP	02 27 13
SLC	eP	02 26 58
	e	27 31
THULE	iP	02 25 34
	i	25 56
	iPcP	27 00
	eS	32 36
TUC	iP	02 27 42
	e	28 27
TUC-T	iP	02 27 42
UKIAH	iP	02 26 20
Jan. 19		
COL	i(P)	04 05 34
Jan. 19		
EUR	eP	04 34 21
Jan. 19		
EUR	eP	06 15 29
HH	iP	06 15 42
SJ	e(P)	06 08 49
	i	56
	iS	10 06
Jan. 19		
BC	eP	08 55 46
	eL	09 03 23
BOZ	eP	08 56 45
BUT	eP	08 56 51
COL	iP	09 00 22
COLU	eP	08 55 27
EUR	eP	08 56 16
HH	iP	08 57 12
RC	eP	08 56 15
SLC	eP	08 56 08
SJ	eP	08 56 34
THULE	eP	09 00 44
TUC	iP	08 54 56
	ePP	55 19
	e(S)	58 54
	eL	09 00 32
TUC-T	iP	08 54 56
	eS	58 53
	iL	09 00 52
Jan. 19		
BC	eP	09 26 48
BUT	eP	09 27 18
COL	iP	09 27 12
	ipP	29 13
	iPP	30 54
EUR	iP	09 26 52
	epP	28 56
GUAM	iP	09 23 10
HONO	eP	09 23 05
HH	eP	09 27 18
KIP	eP	09 23 07
SLC	eP	09 27 08
THULE	eP'	09 32 48
	epP'	34 07
TUC	iP	09 26 52
	epP	28 55
TUC-T	iP	09 26 53
	epP	28 55
Jan. 19		
HH	i(P)	09 44 28
Jan. 19		
EUR	eP	11 15 00
Jan. 19		
EUR	eP	11 25 54
Jan. 19		
COLU	eP	12 05 16
EUR	iP	12 08 35
HH	e(P)	12 03 07
	i	08 59
RC	eP	12 08 10
TUC	eP	12 06 18
TUC-T	eP	12 06 18
Jan. 19		
EUR	eP	13 27 52
Jan. 19		
BOZ	eP	16 23 03
COL	iP	16 20 37
	ipP	21 05
EUR	iP	16 22 59
HH	iP	16 22 46
	ipP	23 10
RC	iP	16 23 29
SLC	eP	16 23 11
THULE	iP	16 22 26
TUC-T	eP	16 23 34
Jan. 19		
EUR	iP	19 40 31
TUC	iP	19 40 31
TUC-T	iP	19 40 31
Jan. 19		
GUAM	iP	19 46 42
	iS	46 54
	iL	47 14
Jan. 19		
RC	e(P)	20 10 27
Jan. 19		
COL	iP	20 44 28
	iL	45 34
Jan. 19		
HH	eP	21 39 35
THULE	eP	21 36 20
Jan. 20		
BC	eP	01 15 53
EUR	iP	01 15 57
HH	iP	01 15 50

Date and Station		Phase	(GCT) h m s
RC		eP	01 15 06
SLC		eP	01 15 40
SJ		eP	01 10 41
THULE		eP	01 15 13
TUC		eP	01 15 34
		iP	35
TUC-T		iP	01 15 34
Jan. 20			
BOZ		eP	01 29 53
Jan. 20			
COL		iP	03 01 51
EUR		iP	03 01 31
HH		iP	03 01 58
TUC		iP	03 01 33
TUC-T		iP	03 01 33
Jan. 20			
BC		eP	03 27 15
		e(S)	28 26
		eL	03 29 52
FUT		eP	03 28 44
COL		eP	03 32 24
COLU		eP	03 32 32
EUR		iP	03 27 10
HH		eP	03 28 58
		eL	32 44
RC		iP	03 29 41
		eL	35 49
SLC		eP	03 28 01
SJ		eP	03 35 04
THULE		eP	03 34 23
TUC		iP	03 28 15
		i	41
		eL	30 48
		iL	31 15
TUC-T		iP	03 28 16
		e	43
		eL	30 55
		iL	31 13
UKIAH		eP	03 26 34
		i	52
		e(S)	27 16
		eL	27 27
Jan. 20			
EUR		iP	03 49 13
UKIAH		e(P)	03 48 43
		e	49 30
Jan. 20			
HH		e(P)	05 59 37
Jan. 20			
HH		e(P)	06 10 42
		e	12 06
Jan. 20			
TUC		e(P)	08 17 40
TUC-T		eP	08 17 39
Jan. 20			
BH		iP	10 57 31
		iS	57 57
Jan. 20			
COL		eP	11 42 15
Jan. 20			
COL		iP	11 49 08
EUR		eP	11 48 47
TUC-T		e(P)	11 48 53
Jan. 20			
COL		eP	11 53 30
EUR		eP	11 53 08
TUC		eP	11 53 11
TUC-T		eP	11 53 12
Jan. 20			
RC		eP	16 23 08
Jan. 20			
HH		e(P)	17 02 05
Jan. 20			
HH		e(P)	19 28 27
		e	29 17
Jan. 20			
COL		eP	20 08 34
EUR		eP	20 09 32
GUAM		eP	20 01 05
HH		e(P)	20 08 57
Jan. 20			
HH		e(P)	21 29 47
Jan. 20			
COL		eP	22 35 21
Jan. 21			
COL		iP	04 11 32
EUR		iP	04 14 59
TUC		eP	04 16 02
TUC-T		eP	04 16 02
Jan. 21			
EUR		eP	04 43 10
Jan. 21			
COL		e(P)	10 29 49
TUC		eP	10 29 14
TUC-T		eP	10 29 15
Jan. 21			
BOZ		eP	10 55 29
FUT		eP	10 55 23
COL		iP	10 55 10
		ipP	57 20
EUR		iP	10 54 54
HH		eP	10 55 28
RC		eP	10 55 51
SLC		eP	10 55 13
TUC		eP	10 54 58
		e	55 07
		eL	11 20 30
TUC-T		eP	10 54 59
Jan. 21			
BOZ		eP	11 44 32
TUC		eP	11 43 15
TUC-T		eP	11 43 17
Jan. 21			
HH		e(P)	12 40 28
Jan. 21			
RC		eP	14 29 58
		iP	30 07
		eL	30 56
EUR		iP	14 30 35
HH		e(P)	14 32 32
		eL	35 24
TUC		e(P)	14 32 52
		eL	35 05
Jan. 21			
RC		eP	15 27 23
		iP	15 27 31
		eL	15 28 26
EUR		iP	15 27 59
Jan. 21			
HH		iP	16 06 50
Jan. 21			
COL		eP	16 56 19
Jan. 21			
COL		iP	17 56 04
		ipP	56 36
EUR		iP	17 55 34
HH		eP	17 56 05
TUC-T		iP	17 55 36
		epP	56 07
Jan. 21			
HH		eP	20 54 06
Jan. 21			
HH		eP	21 32 19
		e	34 13
Jan. 21			
BOZ		eP	22 37 48
		eL	38 36
FUT		eP	22 38 02
		eL	39 00
HH		iP	22 38 36
		iL	39 40
RC		e(P)	22 40 21
Jan. 22			
EUR		eP	01 50 09
		i	20
Jan. 22			
HH		iP	02 16 59
Jan. 22			
RC		eP	02 24 58
COL		iP	02 22 26
		i	22 39
EUR		eP	02 25 39
HH		iP	02 25 12
RC		eP	02 26 02
		e	11
THULE		iP	02 23 21
Jan. 22			
BOZ		eP	03 48 09
RC		e(P)	03 49 03
Jan. 22			
EUR		iP	07 36 10
RC		eP	07 37 04
		e	27
Jan. 22			
EUR		iP	07 49 16

Date and Station		Phase (GCT) h m s
Jan. 22		
EUR	iP	08 52 55
HH	e(P)	08 53 31
SJ	eP	08 48 57
Jan. 22		
EUR	eP	11 37 48
HH	iP	11 37 53
Jan. 22		
COL	eP	13 48 52
	ePP	52 33
HH	e(P')	13 54 38
KIP	eP	13 47 58
Jan. 22		
HONO	eP	13 57 48
Jan. 22		
HH	iP	17 27 44
	iL	28 23
Jan. 22		
COL	eP	18 24 23
Jan. 22		
HH	iP	18 28 26
	iL	29 05
Jan. 22		
HH	eP	22 39 34
Jan. 23		
SJ	iP	02 30 18
Jan. 23		
THULE	eP	02 56 41
Jan. 23		
BC	iP	03 11 11
	eL	12 04
Jan. 23		
TUC-T	eP	03 14 41
	i	45
Jan. 23		
HH	eP	03 49 07
Jan. 23		
KIP	eP	04 29 44
Jan. 23		
COL	eP	04 36 23
Jan. 23		
HH	iP'	05 00 51
BC	eP'	04 58 42
BOZ	eP'	04 59 43
BUT	eP'	04 59 28

Date and Station		Phase (GCT) h m s
COL	iP	04 54 05
	ePP	57 30
	e	57 42
	eS	05 05 12
	e	05 59
	e(SS)	10 59
	eSS	05 11 27
	eL	20 21
COLU	eP'	05 00 25
	ePKS	04 10
EUR	iP	04 55 52
	eP'	59 40
GUAM	eP	04 46 19
HONO	eP	04 52 54
HH	eP	04 55 45
	eP'	59 37
	ePP	05 00 18
	e(PS)	10 30
KIP	eP	04 52 55
	A = 2 mm.	
RC	iP'	04 59 53
	ePP	05 01 31
SLC	eP'	04 59 45
SJ	eP'	05 01 03
	i	43
	ePP	05 30
THULE	eP	04 55 17
	ePKKP	05 10 42
TUC	eP'	04 59 51
	e	05 00 24
	ePP	01 07
	e(SKS)	07 25
	ePS	11 03
	ePPS	13 46
	eL	36 42
TUC-T	iP	04 59 51
	i	05 00 03
	iPP	01 07
WASH	iP'	05 00 28
Jan. 23		
BC	eP	06 34 23
	epP	36 08
BUT	eP	06 36 07
COL	iP	06 36 01
	ipP	06 37 35
EUR	iP	06 35 40
	ipP	37 13
HH	iP	06 36 08
RC	eP	06 35 33

Date and Station		Phase (GCT) h m s
SLC	eP	06 35 58
TUC	iP	06 35 42
	i	35 55
	e	36 14
	ipP	37 16
TUC-T	iP	06 35 32
	ipP	37 15
Jan. 23		
EUR	iP	07 19 26
Jan. 23		
BH	iP'	07 51 08
BC	eP'	07 49 01
BOZ	eP'	07 50 01
BUT	e(P')	07 49 46
COL	iP	07 44 23
	iPP	48 01
	eS	55 20
	e	57 51
	e(SS)	08 01 08
	ePKKP	08 01 48
	eL	19 56
COLU	eP'	07 50 50
	ePP	54 26
EUR	iP	07 46 12
GUAM	eP	07 36 34
HONO	eP	07 43 13
HH	eP	07 46 02
	eP'	49 53
	ePP	50 38
	ePS	08 00 07
KIP	eP	07 43 13
	t = 1 - 1.5 sec.	
	A = 4 mm.	
RC	iP'	07 50 11
	ePP	51 39
SLC	eP'	07 50 02
SJ	eP'	07 51 20
	i	52 03
	ePP	55 45
THULE	eP	07 45 30
	eP'	48 56
	ePP	49 51
	ePS	59 55
	ePSPS	08 05 07
TUC	eP'	07 50 09
	e	50 24
	ePP	51 24
	e	52 20

Date and Station		Phase (GCT) h m s
TUC-T	iP'	07 50 07
	iPP	51 28
	i	40
WASH	iP'	07 50 45
Jan. 23		
SJ	e(P)	08 01 14
	i	40
Jan. 23		
HH	iP	08 17 04
	iL	18 10
Jan. 23		
TUC-T	eP	09 07 26
Jan. 23		
EUR	eP	09 49 56
Jan. 23		
EUR	eP	12 18 07
TUC-T	iP	12 17 33
	i	38
Jan. 23		
COL	iP	12 30 54
EUR	eP	12 30 24
HH	e(P)	12 30 53
TUC	iP	12 30 23
	e	30 40
TUC-T	iP	12 30 24
	i	29
	e	45
Jan. 23		
HH	iP	12 33 22
	i	35 18
Jan. 23		
TUC-T	iP	13 26 28
Jan. 23		
HH	iP	15 04 21
	iL	05 26
RC	eP	15 05 06
	eL	06 11
Jan. 23		
BH	iP'	18 16 29
BC	eP'	18 14 17
BOZ	eP'	18 15 16
BUT	eP'	18 15 04
COL	eP	18 09 39
	iP	09 41
	iPP	13 21
	iPKKP	27 03
	eL	45 30

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Date and Station		Phase (GCT) h m s
COLU	eP'	18 16 05
EUR	eP	18 11 10
	eP'	15 13
	ePP	16 02
	i	18 20
	iPKKP	25 59
	e	28 04
GUAM	eP	18 01 56
	eS	06 22
HONO	eP	18 08 30
HH	eP'	18 15 10
	e	15 50
	ePKKP	26 05
KIP	eP	18 08 31
SLC	eP'	18 15 18
SJ	eP'	18 16 40
	i	17 19
	ePP	20 25
THULE	eP	18 10 53
	eP'	14 11
	ePKKP	26 19
	ePSPS	30 24
TUC	eP'	18 15 27
	e(PS)	18 26 20
	e	31 52
	eL	54 34
TUC-T	iP'	18 15 27
	e	16 47
	e(PKS)	19 14
WASH	eP'	18 16 01
Jan. 23		
SJ	iP	21 47 02
	i	12
	eL	47 31
Jan. 23		
BC	eP	22 09 41
COL	iP	22 09 34
EUR	iP	22 10 36
GUAM	eP	22 01 49
HH	iP	22 10 43
KIP	eP	22 06 50
Jan. 23		
COL	iP	22 31 32
	i	22 31 56
EUR	iP	22 32 33
	i	56
Jan. 23		
COL	eP	23 49 57
EUR	eP	23 50 59
Jan. 24		
BC	eP	00 41 32
BOZ	eP	00 42 23
BUT	eP	00 42 09
COL	iP	00 44 54
	e(S)	49 24
	eL	52 02
COLU	eP	00 46 50
EUR	eP	00 41 51
HH	iP	00 42 05
	eL	46 52
RC	iP	00 43 38
SLC	eP	00 42 24
SJ	iP	00 49 20
THULE	eP	00 47 19
TUC	e(P)	00 43 35
	eP	43 37
	e(S)	00 47 05
	eL	48 52
TUC-T	iP	00 43 38
	eS	47 06
UKIAH	e(P)	00 40 53
	iP	55
	eL	42 33
Jan. 24		
COL	iP	03 31 18
EUR	iP	03 32 19
HH	eP	03 32 27
Jan. 24		
THULE	eP	04 10 47
Jan. 24		
BC	eP	04 32 58
BOZ	eP	04 34 32
BUT	eP	04 34 27
COL	iP	04 34 16
	e	38 24
	iS	04 44 40
	eL	58 56
COLU	eP'	04 40 17
EUR	iP	04 34 01
HONO	eP	04 29 42
	iS	36 12
	eL	39 42
HH	iP	04 34 29
RC	iP	04 34 53
SLC	eP	04 34 19
THULE	eP'	04 40 13
TUC	iP	04 34 05
	ipP	34 32
	ePP	37 14
	e(S)	04 42 56
	eL	54 06
TUC-T	iP	04 34 05
	ipP	29
UKIAH	iP	04 33 33
	eL	57 27
Jan. 24		
EUR	eP	06 19 57
Jan. 24		
COL	eP	06 38 10
EUR	iP	06 35 51
RC	eP	06 34 55
SLC	eP	06 35 29
SJ	iP	06 27 52
	iS	28 41
	eL	52
Jan. 24		
COL	eP	07 45 02
	e	48 19
	eL	49 03
Jan. 24		
COL	iP	09 27 18
Jan. 24		
RC	eP	09 28 30
COL	iP	09 29 54
	epP	32 10
EUR	iP	09 28 34
HH	iP	09 30 00
	i	33 44
TUC	iP	09 29 34
TUC-T	iP	09 29 35
	epP	31 51
SLC	eP	09 29 50
Jan. 24		
EUR	eP	12 12 11
Jan. 24		
COL	eP	12 28 51
	ipP	29 17
Jan. 24		
COL	e(P)	14 59 20
EUR	eP	15 03 00
Jan. 24		
TUC-T	eP	16 10 03
Jan. 24		
HONO	e(P)	16 40 00
	eS	16 43 48
	eL	47 14
Jan. 24		
COL	eP	17 09 28
	i	09 42
EUR	iP	17 09 46
TUC-T	eP	17 09 55
Jan. 24		
COL	iP	18 39 46
EUR	iP	18 43 30
RC	eP	18 44 03
TUC-T	eP	18 43 56
Jan. 24		
COL	eP	18 44 07
Jan. 24		
COL	e(P)	21 24 46
Jan. 25		
COL	iP	00 23 45
EUR	iP	00 27 04
HH	iP	00 26 36
TUC-T	eP	00 27 52
Jan. 25		
TUC	iP	00 47 33
	i	47 46
	e(S)	48 19
	iS	00 48 21
	eL	48 26
TUC-T	eP	00 47 32
	i	51
	eL	48 44
Jan. 25		
COLU	e(P)	01 47 23
Jan. 25		
EUR	eP	06 37 54
Jan. 25		
COL	e(P)	06 43 18

Date and Station		Phase (GCT)
		h m s
EUR	eP	06 45 45
Jan. 25		
BC	e(P)	08 56 34
	eP	56 45
COL	eP	08 52 25
EUR	iP	08 56 10
	i	20
	i	53
HH	e(P)	08 55 42
SLC	eP	08 56 31
THULE	eP	08 55 02
TUC-T	eP	08 57 16
Jan. 25		
EUR	iP	10 33 49
THULE	eP	10 27 12
Jan. 25		
COL	eP	11 32 32
	e	32 42
EUR	iP	11 36 12
Jan. 25		
COL	eP	11 49 02
HH	eP	11 51 09
Jan. 25		
BOZ	eP	14 14 38
Jan. 25		
TUC-T	eP	14 25 50
Jan. 25		
BC	eP	16 41 44
BOZ	eP	16 42 21
BUT	eP	16 42 15
COL	eP	16 41 58
	iS	16 52 24
	eL	17 07 36
EUR	iP	16 41 45
	iPP	44 49
	eSKPP'	17 11 19
HH	eP	16 42 15
SLC	eP	16 42 04
TUC-T	iP	16 41 49
	e	46 30
	iSKPP'	17 11 24
Jan. 25		
COL	iP	16 46 40

Date and Station		Phase (GCT)
		h m s
Jan. 25		
COL	iP	16 56 21
TUC-T	eP	16 56 11
Jan. 25		
COL	iP	17 11 32
Jan. 25		
COL	eP	18 42 54
Jan. 25		
EUR	eP	19 29 33
Jan. 25		
HH	iP	19 31 43
	iL	32 47
Jan. 25		
THULE	e(P)	20 55 05
Jan. 26		
COL	eP	02 01 13
THULE	eP	01 59 45
Jan. 26		
HH	eP	03 24 43
THULE	eP	03 21 27
Jan. 26		
COLU	e(P)	03 29 21
Jan. 26		
BC	iP	04 17 41
BOZ	e(P)	04 20 10
BUT	eP	04 19 54
COL	eP	04 21 23
EUR	iP	04 18 01
HH	eP	04 20 20
	eL	23 28
SLC	eP	04 18 57
	e	19 51
TUC	iP	04 18 50
	e	04 19 04
	e(S)	04 20 03
	iL	04 20 20
TUC-T	eP	04 18 49
	i	52
	i	19 11
	iL	04 20 25
Jan. 26		
BC	iP	04 24 49
	eL	25 38
Jan. 26		
COL	iP	09 01 25

Date and Station		Phase (GCT)
		h m s
Jan. 26		
COL	eP	09 44 36
EUR	iP	09 47 55
HH	iP	09 47 27
THULE	eP	09 46 47
TUC-T	eP	09 48 44
Jan. 26		
COL	eP	10 03 53
EUR	iP	10 05 54
HH	eP	10 05 05
THULE	e(P)	10 01 36
	iP	01 49
Jan. 26		
COL	iP	10 41 21
HH	e(P)	10 44 11
Jan. 26		
BOZ	eP	13 18 36
COL	iP	13 17 37
EUR	iP	13 19 10
HH	iP	13 18 30
THULE	eP	13 15 15
TUC-T	eP	13 19 28
Jan. 26		
HH	e(P)	13 26 13
Jan. 26		
HH	iP	13 47 15
Jan. 26		
BOZ	eP	18 27 16
COL	eP	18 30 38
COLU	eP	18 24 52
	e	25 10
	eS	28 56
HH	iP	18 27 42
	i	27 58
KIP	eP	18 30 48
SLC	eP	18 26 48
SJ	eP	18 24 46
	i	25 07
THULE	eP	18 30 29
TUC-T	eP	18 25 52

Date and Station		Phase (GCT)
		h m s
Jan. 26		
COL	eP	20 37 58
EUR	iP	20 39 42
HH	iP	20 38 57
	e	39 35
THULE	eP	20 35 24
	i	35 57
TUC-T	eP	20 40 41
Jan. 26		
BC	eP	22 34 21
COL	eP	22 34 57
HONO	eP	22 30 54
	e	31 08
KIP	iP	22 30 56
THULE	eP'	22 40 16
	iPP	42 01
TUC	iP	22 34 20
TUC-T	iP	22 34 20
Jan. 26		
HH	eP	23 24 00
Jan. 26		
HH	eP	23 50 37
SJ	e(P)	23 51 12
	i	51
Jan. 27		
HH	eP	00 13 08
TUC	i(P)	00 14 22
TUC-T	eP	00 14 16
	iP	22
UKIAH	e(P)	00 11 30
	eL	12 07
Jan. 27		
HH	e(P)	01 21 45
Jan. 27		
COL	iP	01 46 30
	iS	01 47 00
	iL	47 06
HH	e(P)	01 51 21
Jan. 27		
HH	e(P)	02 41 01
Jan. 27		
COL	e(P)	04 58 50
Jan. 27		
HH	iP	12 28 14

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Date and Station		Phase (GCT)
Jan. 27		h m s
BUT	eP	12 54 05
COL	eP	12 52 03
HH	eP	12 53 56
Jan. 27 TUC-T	eP	13 10 05
Jan. 27 HH	e(P)	13 34 44
Jan. 27 THULE	e(P)	22 26 54
	e	28 27
Jan. 27 EUR	iP	23 51 33
	i	52 06
Jan. 28 EUR	iP	00 58 26
TUC-T	eP	00 58 27
Jan. 28 BC	eP	01 56 10
EUR	iP	01 56 12
KIP	e(P)	01 53 12
TUC	eP	01 56 10
TUC-T	eP	01 56 10
	i	14
Jan. 28 EUR	iP	02 38 17
TUC	eP	02 36 47
TUC-T	eP	02 36 39
	iP	42
Jan. 28 TUC-T	eP	02 51 01
Jan. 28 EUR	eP	02 58 37
TUC-T	iP	02 57 50
Jan. 28 EUR	iP	02 59 00
Jan. 28 HH	eP	04 44 16
Jan. 28 EUR	iP	06 06 40
TUC-T	eP	06 05 03
	i	28
Jan. 28 COL	iP	08 56 55
EUR	iP	09 00 11
		h m s
HH	eP	08 59 43
THULE	iP	08 58 57
Jan. 28 COL	e(P)	15 34 08
Jan. 28 THULE	eP	15 58 03
	e(S)	58 49
Jan. 28 RC	e(P)	20 49 43
	e	50 27
Jan. 28 COL	eP	22 02 38
GUAM	iP	21 52 02
	iS	52 47
THULE	iP	22 04 50
Jan. 29 GUAM	iP	22 50 24
	iS	52 11
Jan. 29 EUR	eP	01 12 33
Jan. 29 COL	e(P)	01 20 14
EUR	iP	01 16 22
Jan. 29 COL	iP	07 45 02
	e	46 12
THULE	iP	07 44 00
	e	45 08
Jan. 29 BOZ	eP	08 05 52
BUT	eP	08 05 46
COL	eP	08 07 16
EUR	iP	08 05 45
HH	iP	08 05 53
	i	06 05
RC	e(P)	08 05 38
	i	50
	e	08 21
THULE	eP	08 05 49
Jan. 29 COL	eP	08 22 56
	e	23 29
COLU	eP'	08 29 31
EUR	iP	08 24 12
	i	35
		h m s
SJ	eP'	08 30 06
	iP'	30 08
	i	30 45
Jan. 29 BC	eP	15 39 27
COL	eP	15 43 39
EUR	iP	15 39 52
TUC-T	i(P)	15 39 44
	i	53
Jan. 29 HH	eP	16 56 40
Jan. 29 HONO	eP	19 11 07
	eS	11 31
	eL	11 44
KIP	eP	19 11 07
	eS	11 38
	eL	11 43
Jan. 29 EUR	iP	21 45 10
Jan. 29 BC	eP	23 00 07
BUT	eP	22 59 50
COL	eP	22 57 38
EUR	iP	22 59 52
HH	iP	22 59 41
RC	iP	23 00 23
THULE	e(P)	22 59 28
	iP	59 30
TUC-T	iP	23 00 26
Jan. 30 THULE	eP	00 21 31
Jan. 30 EUR	iP	01 17 19
Jan. 30 BH	iP	01 44 28
	iS	45 42
EUR	iP	01 51 37
SJ	iP	01 45 57
	i	48 15
TUC	iP	01 50 42
TUC-T	iP	01 50 42
		h m s
Jan. 30 BC	eP	02 57 45
BOZ	eP	02 57 35
BUT	eP	02 57 28
COL	eP	02 55 18
EUR	iP	02 57 32
HH	iP	02 57 20
RC	iP	02 58 03
SLC	eP	02 57 44
THULE	iP	02 57 09
	e	57 26
TUC	eP	02 58 05
TUC-T	iP	02 58 06
	i	15
Jan. 30 EUR	iP	03 21 03
Jan. 30 EUR	eP	03 55 33
Jan. 30 EUR	iP	04 01 17
Jan. 30 EUR	iP	04 23 47
Jan. 30 BH	iP	04 29 03C
	iS	29 21
Jan. 30 BC	eP	04 58 00
BUT	eP	04 57 43
EUR	eP	04 57 20
	i	57 45
HH	iP	04 57 34
SLC	eP	04 57 57
THULE	iP	04 57 22
TUC	eP	04 58 18
TUC-T	iP	04 58 19
Jan. 30 COL	eP	05 20 13
EUR	eP	05 17 17
HH	e(P)	05 17 53
RC	eP	05 17 08

Date and Station		Phase (GCT)
		h m s
RC	eP	05 17 08
SJ	eP	05 13 07
	i	15
TUC-T	eP	05 16 19
	i	29
Jan. 30		
EUR	eP	07 43 43
Jan. 30		
BUT	eP	08 09 53
EUR	iP	08 09 57
RC	eP	08 10 28
TUC-T	eP	08 10 30
Jan. 30		
EUR	eP	09 06 53
Jan. 30		
EUR	iP	09 10 26
HH	eP	09 10 15
THULE	eP	09 10 04
Jan. 30		
EUR	eP	09 33 57
TUC-T	eP	09 32 27
Jan. 30		
COL	iP	10 09 19
THULE	eP	10 07 02
Jan. 30		
COL	iP	11 05 33
	i	11 06 16
EUR	iP	11 05 04
	i	44
HH	eP	11 05 34
TUC-T	eP	11 05 04
	e	43
Jan. 30		
EUR	eP	11 22 31
HH	eP	11 22 20
THULE	e(P)	11 22 09
TUC	eP	11 23 06
Jan. 30		
COL	e(P)	12 28 22
EUR	iP	12 32 13
HH	eP	12 30 36

Date and Station		Phase (GCT)
		h m s
THULE	eP	12 31 00
Jan. 30		
EUR	eP	12 45 33
THULE	eP	12 42 41
Jan. 30		
EUR	eP	13 12 43
Jan. 30		
EUR	eP	14 34 02
THULE	e(P)	14 33 42
Jan. 30		
COL	eP	15 07 41
EUR	iP	15 09 57
HH	eP	15 09 45
THULE	eP	15 09 35
Jan. 30		
BC	eP	15 40 10
BUT	eP	15 39 53
COL	eP	15 37 42
EUR	iP	15 39 57
HH	iP	15 39 46
RC	eP	15 40 27
THULE	iP	15 39 41
Jan. 30		
BC	eP	15 59 37
COL	e(P)	15 57 10
EUR	iP	15 59 24
HH	iP	15 59 12
THULE	eP	15 59 01
TUC-T	eP	15 59 57
Jan. 30		
BH	iP	17 02 15D
	iS	03 12
COL	eP	17 12 38
HH	eP	17 09 52
THULE	eP	17 12 18
Jan. 30		
EUR	eP	17 47 12
	i	48 04
THULE	eP	17 47 38

Date and Station		Phase (GCT)
		h m s
TUC-T	eP	17 48 40
Jan. 30		
EUR	eP	17 54 33
HH	eP	17 54 21
THULE	e(P)	17 54 11
Jan. 30		
BC	eP	18 08 55
BUT	eP	18 08 38
COL	eP	18 06 29
HH	eP	18 08 30
THULE	eP	18 08 19
TUC	eP	18 09 15
TUC-T	iP	18 09 15
	i	24
Jan. 30		
EUR	iP	18 23 41
Jan. 30		
EUR	iP	18 43 28
Jan. 30		
BOZ	eP	18 50 49
BUT	eP	18 50 43
COL	eP	18 48 30
EUR	iP	18 50 46
HH	iP	18 50 35
RC	iP	18 50 19
SLC	eP	18 50 59
THULE	eP	18 50 23
	i	51 04
TUC	iP	18 51 20
TUC-T	eP	18 51 19
	iP	22
	e	53 35
Jan. 30		
THULE	eP	19 04 51
Jan. 30		
EUR	iP	19 43 22
Jan 30		
EUR	iP	20 03 20
Jan 30		
BUT	eP	21 43 35
COL	eP	21 41 24

Date and Station		Phase (GCT)
		h m s
EUR	iP	21 43 37
HH	iP	21 43 26
TUC-T	eP	21 44 11
	e	44 43
Jan. 30		
EUR	eP	22 07 53
SLC	eP	22 08 05
Jan. 30		
EUR	eP	22 15 01
Jan. 31		
EUR	eP	00 24 35
Jan. 31		
EUR	eP	00 47 58
Jan. 31		
EUR	eP	02 48 54
Jan. 31		
TUC-T	eP	03 33 01
Jan. 31		
BOZ	eP	03 47 22
COL	e(P)	03 45 23
EUR	eP	03 47 18
HH	iP	03 47 07
RC	iP	03 47 49
SLC	eP	03 47 30
THULE	iP	03 46 56
TUC	iP	03 47 51
TUC-T	iP	03 47 51
Jan. 31		
BOZ	eP	04 16 10
COL	iP	04 15 25
	ipP	16 18
EUR	iP	04 15 46
	ipP	16 38
HH	iP	04 16 03
	ipP	16 58
SLC	eP	04 16 02
TUC	iP	04 15 56
	ipP	16 51
TUC-T	iP	04 15 56
	ipP	16 50

Date and Station		Phase (GCT)
		h m s
Jan. 31		
EUR	eP	04 38 58
Jan. 31		
EUR	eP	04 57 21
Jan. 31		
BOZ	eP	05 20 37
BUT	eP	05 20 33
COL	iP	05 17 52
EUR	iP	05 20 42
HH	iP	05 20 19
RC	eP	05 21 07
SLC	eP	05 20 54
THULE	iP	05 19 26
TUC	e(P)	05 21 32
TUC-T	eP	05 21 21
	i	46
	e	22 32
Jan. 31		
COL	eP	08 30 12
EUR	iP	08 32 27
HH	eP	08 32 16
THULE	eP	08 32 04
Jan. 31		
COL	iP	12 17 27
	iS	18 29
	iL	18 40
Jan. 31		
COL	iP	14 03 23
HH	eP	14 05 27
Jan. 31		
EUR	eP	15 01 41
HH	e(P)	15 02 16
RC	eP	15 01 22
TUC	eP	15 00 37
TUC-T	eP	15 00 37
	i	40
Jan. 31		
BUT	eP	15 17 08
COL	e(P)	15 22 15
EUR	eP	15 17 11
HH	iP	15 17 00
RC	eP	15 17 42

Date and Station		Phase (GCT)
		h m s
SLC	eP	15 18 22
THULE	iP	15 16 48
TUC-T	iP	15 17 44
Jan. 31		
EUR	eP	16 10 42
Jan. 31		
BUT	eP	16 25 04
COL	eP	16 22 52
EUR	iP	16 25 06
HH	iP	16 24 56
RC	eP	16 25 37
SLC	eP	16 25 18
THULE	iP	16 24 44
TUC	iP	16 25 40
TUC-T	iP	16 25 40
Jan. 31		
COL	eP	17 32 09
EUR	eP	17 36 04
Jan. 31		
EUR	eP	18 53 32
TUC-T	eP	18 52 22
Jan. 31		
BUT	eP	19 19 54
COL	iP	19 19 52
HH	eP	19 19 51
SLC	eP	19 19 46
TUC	eP	19 19 19
TUC-T	iP	19 19 20
Jan. 31		
EUR	eP	20 30 31
	iS	31 06
	iL	10
Jan. 31		
BUT	eP	20 40 49
COL	eP	20 38 37
EUR	iP	20 40 50
HH	iP	20 40 39
RC	iP	21 41 22
TUC	iP	20 41 25

Date and Station		Phase (GCT)
		h m s
TUC-T	iP	20 41 25

Date and Station		Phase (GCT)
		h m s

Date and Station	Phase (GCT)
	h m s
Local and Minor Earthquakes	
Jan.	
BOZ	
1	08.5
	16.3
2	04.2
	11.9
3	00.3
	03.4
	09.9
	10.3
4	13.7
	15.1
5	08.6
7	16.7
8	01.0
	23.0
9	01.9
	04.4
10	22.5
14	11.0
22	17.5
	18.5
23	15.1
25	19.5
26	03.0
26	08.6
28	07.8
	10.9
Jan.	
BUT	
1	12.3
	16.3
	18.6
2	01.7
	03.7
	04.2
	09.3
	11.9
3	03.4
	09.9
	10.3
4	08.5
	09.3
	13.7
5	01.0
7	23.6
8	01.0
	05.0
	23.0
9	01.9
	04.4
10	03.8
	23.5
13	08.9
14	05.1
	11.0
15	07.2
15	14.9
16	17.0
17	14.5
	22.2
23	21.2
24	03.0
	07.0

Date and Station	Phase (GCT)
	h m s
BUT	
25	19.5
26	03.0
27	01.7
29	17.4
30	01.5
31	09.8
	10.3
Jan.	
COL	
4	06.2
11	06.4
	21.2
12	23.6
15	11.8
16	03.3
	03.7
	13.7
18	10.5
19	07.4
21	12.2
22	09.1
23	04.3
	12.8
24	16.1
25	15.5
26	04.8
27	02.2
	02.5
	04.8
	13.5
29	01.9
	13.1
31	05.7
Jan.	
EUR	
3	04.5
10	15.8
11	17.1
16	06.8
	07.5
	08.3
	08.9
17	05.1
24	01.9
28	10.0
Jan.	
KIP	
19	04.5
Jan.	
RC	
14	05.2
Jan.	
SJ	
2	04.4
	16.6
4	21.0
7	12.7
8	17.5
10	05.2
13	00.2
	02.8
15	09.7

Date and Station	Phase (GCT)
	h m s
SJ	
18	19.8
21	04.8
	10.0
22	10.0
	10.7
23	02.2
	08.7
	21.6
24	00.8
	10.9
	15.0
26	00.7
	05.2
	16.3
29	09.5
30	05.1
	08.4
Jan.	
SIT	
29	01.3
Jan.	
TUC	
2	10.3
	10.8
	14.1
3	20.9
	21.2
4	00.5
	04.4
	04.7
	11.2
	11.3
6	03.4
8	12.2
12	07.4
13	17.8
15	02.4
20	09.6
23	03.2
31	05.9
	06.4
Jan.	
UKIAH	
2	05.6
6	05.5
19	01.9

Date and Station	Phase (GCT)
	h m s

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