

BERMUDA-COLUMBIA UNIVERSITY
SEISMOGRAPH STATION
SIGNAL HILL
ST. GEORGES BERMUDA

●
SEISMOLOGICAL BULLETIN

By

D. H. SHURBET



June 1, 1952 - May 31, 1953

LAMONT GEOLOGICAL OBSERVATORY
(COLUMBIA UNIVERSITY)

Contribution No. 90

STATION CONSTANTS AND INSTRUMENTS

Latitude: 32°22'46"N

Longitude: 64°40'52"W

Elevation: 41 meters

Bedrock: Calcareous aeolionite

INSTRUMENTS

Three component Short Period Benioff Seismographs (N,E,Z)
To = 1 sec., Tg = 0.2 sec.

Three component Long Period Benioff Seismographs (N,E,Z)
To = 1 sec., Tg = 75 sec.

One Columbia University Vertical Seismograph
To = 10 sec., Tg = 15 sec. (Up to 21 February 1953)
To = 10 sec., Tg = 75 sec. (After 23 February 1953)

Two Milne-Shaw Horizontal Seismographs (NE, NW)
To = 12 sec., V = 250

One Columbia University Microbarograph
To = 10 sec., Tg = 75 sec.

Epicentral data from U. S. Coast and Geodetic Survey preliminary determinations. Amplitudes are Milne-Shaw half trace.

The Bermuda-Columbia University seismograph station, formerly known as the Bermuda Seismograph Station, was initially sponsored by the Bermuda Government, the U. S. Coast and Geodetic Survey, the International Union of Geodesy and Geophysics and the Royal Society of London. Since 1951 new instruments were added under the joint sponsorship of the Bermuda Government and Columbia University. Records obtained prior to 1951 are filed with the U. S. Coast and Geodetic Survey, Washington, D. C. Records obtained after this date are kept in Bermuda. It is requested that exchange bulletins and papers be mailed directly to Bermuda.

BERMUDA - COLUMBIA UNIVERSITY

1

Date	Phase	h	m	s	Remarks
June					
2	II	17	13	18	No U.S.C.G.S. Listing
4	iP	21	36	47	O = 21:30:52 6°N, 77½°W (Fore Shock: Near west coast of Colombia.) Mag. 6 - 6¼ (Pas)
	eS	21	41	33	
	eL	21	46	48	
5	eL	00	19	06	No U.S.C.G.S. Listing
5	e(P)	00	37	03	No U.S.C.G.S. Listing
	e(S)	00	39	20	
	e(T)	00	57	00	
	(Tmax)	00	57	39	
5	iP	06	02	37	O = 05:56:35 6°N, 77½°W (Near west coast of Colombia) Mag. 6¼ (Pas) h ~ 60 km.
	e	06	06	18	
	eLR	06	10	36	
6	e(S)	10	40	33	No U.S.C.G.S. Listing
	eL	10	43	03	
	e	11	13	57	
	max	11	14	30	
	e	11	23	03	
	max	11	23	43	
	e	11	27	35	
max	11	28	13		
6	eL	14	10	00	No U.S.C.G.S. Listing
	eT	14	33	24	
	Tmax	14	33	42	
10	iPP	10	18	36.7	O = 09:58:27 15½°S, 178½°W (Fiji Islands Region) Mag. 6½ - 6¾ (Pas)
	eL	10	53	12	
11	iP	00	42	11.1	O = 00:31:32 32°S, 67½°W (San Juan province, Argentina. Felt in Chile and Western Argentina. Many casual- ties and moderate property damage.) Mag. 7 (Pas)
	iS	00	50	47.4	
	ePPS	00	51	18	
	eL	00	57	48	
	eT	00	59	28	
Tmax	00	59	39	SH 10-12 Sec. 1.9 MM	
14	iP	02	15	51	O = 02:05:33 58°N, 153½°W (Near coast of Alaska Peninsula) h ~ 60 km.

Date	Phase	h	m	s	Remarks
June					
15	eL	15	39	42	O = 15:12:41 66°N, 134°W (Yukon Canada)
16	iPKP ePP i	03 03 03	56 58 59	21 05 12	O = 03:38:20 23°S, 179½°W (Fiji Islands Region) Mag. 6¼ (Pas) h ~ 500 km.
16	iP	16	45	04.6	No U.S.C.G.S. Listing
17	e ePS eL	04 04 05	18 37 11	20 28 28	O = 04:07:42 21½°S, 176°W (Tonga Islands) Mag. 6-6¼ (Pas) 6½ (Berk)
17	eP eS eLR iT Tmax	13 13 13 13 13	24 27 27 39 39	57 15 42 06 24	No U.S.C.G.S. Listing
17	eL	22	56	30	O = 22:37:25 36½°N, 11°W (Off southwest coast of Portugal. Felt)
18	iP iS eLR eT Tmax	01 01 01 01 01	03 05 06 17 18	18 59 30 24 48	O = 00:59:34 16½°N, 61½°W (Leeward Islands) h ~ 100 km.
NOTE: The time mark clock not considered accurate between 18 June 1200 Z and 22 June 1500 Z. During this period the clock was cleaned and oiled.					
22	iP iPP eS eSS e(SSP)	21 21 22 22 22	55 59 06 12 13	14 00 21 42 05	O = 21:41:53 46°N, 153½°E (Kurile Islands) Mag. 7 (Pas) 6½ (Berk)
23	eL	12	57	10	O = 12:03:09 24½°N, 122°E (Near east coast of Formosa) Mag. 5¼ - 6 (Pas)

Date	Phase	h	m	s	Remarks
June					
24	eS eSS eLR	16 16 17	53 59 13	33 54 28	O = 16:29:02 46½°N, 154°E (Kurile Islands)
25	eL eT Tmax	09 09 09	35 51 52	00 28 00	No U.S.C.G.S. Listing
25	eSS	23	55	52	O = 23:19:58 31°N, 101°E
26	eL	00	14	18	(Sikang Province, China)
26	eLR	15	48	06	O = 15:32:57 36½°N, 25½°W (Azores. Felt) T 30 Sec
28	iP eL	16 16	34 43	32 06	O = 16:27:47 16½°N 97½°W (Oaxaca, Mexico) Mag. 5¼ (Pas)
28	iP	19	25	33	No U.S.C.G.S. Listing
29	iP	10	01	54	O = 09:56:36 8½°N, 72½°W (Colombia-Venezuela border) h ~ 150 km.
30	eL	21	52	30	O = 21:04:20 (Near Lake Victoria, East Africa)
July					
2	eL eT Tmax	02 03 03	43 05 06	30 25 06	No U.S.C.G.S. Listing
3	eS eSS	01 01	03 04	26 41	O = 00:52:23 5½°N, 78°W (Near west coast of Colombia)
6	e eL e(T) (Tmax)	06 06 07 07	28 34 18 19	15 35 08 16	O = 06:10:45 (Mid-Atlantic Ocean. About 600 miles Southwest of Liberia)
7	iP epP eS eL	03 03 03 03	04 04 13 28	12 24 18 42	O = 02:53:01 54°N, 164°W (Near south coast of Unimak Island) Mag. 6¼ (Pas)

Date	Phase	h	m	s	Remarks
July					
9	iP iS eLR	18 18 18	20 25 28	27.8 32.5 00	O = 18:15:18 7½°N, 82°W (Off coast of Panama. Felt) Mag. 6½ (Pas)
9	iP eS eLR	20 20 20	42 47 50	07 02 00	O = 20:36 48 7½°N, 82°W (Aftershock) Mag. 6¼ (Pas)
10	iPKP i	16 16	02 03	05 47	O = 15:45:28 18½°S, 180° (Fiji Islands) Mag. 6½ (Pas) h ~ 700 km.
11	iP	04	41	32	O = 04:33:00 (Salta province, Northern Argentina)
13	iPKP i iPP i e	12 12 12 12 12	16 18 19 19 21	12.8 28 09.5 38.7 20	O = 11:58:34 18½°S, 169½°E (New Hebrides Islands) Mag. 7 (Pas) h ~ 300 km.
13	ePKP ePKS eSS eLR	17 17 17 18	54 57 17 52	05 49 27 36	O = 17:34:26 3°S, 128°E (Ceram Sea) Mag. 6¾ - 7 (Pas)
15	iP eL	06 06	12 19	38 00	O = 06:06:20 14½°N, 92½°W (Near coast of Guatemala) Mag. 6 (Pas)
15	e(S) eL	19 19	13 24	07 47	O = 19:03:35 (About 350 miles south of Colima, Mexico)
16	eL	01	57	30	O = 01:31:14 29½°N, 113½°W (Near east coast of Lower California)
17	iP	04	51	44.5	No U.S.C.G.S. Listing
17	ePKP ePP ePS i e(SS) eL	16 16 16 16 16 16	28 29 38 39 44 56	46 15 16 16 17 03	O = 16:09:52 34½°N, 136°E (Southern Honshu, Japan. Many casualties and moderate property damage.) Mag. 7 (Pas) h ~ 100 km.

Date	Phase	h	m	s	Remarks
July					
18	iP eS e eLR	18 19 19 19	51 00 09 14	13 43 05 15	O = 18:39:40 23°S, 114½°W (Easter Islands Region)
20	eP eS eL	06 06 06	02 05 06	48 27 12	No U.S.C.G.S. Listing
21	iP iPcP eS eSS eLR	12 12 12 12 12	00 02 07 10 17	30.4 13 11 52 48	O = 11:52:11.5 35.1°N, 118.9° W (Tulare Valley, Southern California. Sev- eral killed and extensive property damage.) Mag. 7½ (Pas)
21	eS eSS eLR	19 19 20	56 59 03	13 36 28	O = 19:41:18 35°N, 119°W (Southern California Aftershock. Felt) Mag. 5½ - 5¾ (Berk)
21	eP eS eL eT Tmax	21 21 21 21 21	43 45 45 57 59	16 34 54 30 08	O = 21:40:08 (Leeward Islands) h ~ 100 km.
22	e(S) e(T) (Tmax)	10 10 10	14 24 25	54 40 30	No U.S.C.G.S. Listing
22	e(S) e eL	23 23 23	15 20 39	54 26 36	No U.S.C.G.S. Listing
23	iP eS iPP eLR	00 00 00 00	46 53 48 59	44 19 37 48	O = 00:38:33 35.1°N, 118.9°W (Aftershock) Mag. 6 (Pas)
23	iP	01	05	38	O = 00:59:17 14°N, 91½°W (Near coast of Guatemala)
23	eLR	08	19	06	O = 07:53:17 35°N, 118½°W (Southern California Aftershock. Felt) Mag. 5½ - 5¾ (Berk)

Date	Phase	h	m	s	Remarks
July					
24	eS	09	26	38	O = 09:10:00 (Northern Chile)
24	ePP e e(PS) eLR	22 22 22 22	27 33 36 57	32 39 02 48	O = 22:09:20 42½°N, 145½°E (Off east coast of Hokkaido, Japan. Felt: Hokkaido and Northern Honshu) h ~ 60 km.
25	eL e(T) (Tmax) e max e max	07 07 07 07 07 07 07	13 42 43 52 53 57 57	32 27 12 44 42 17 35	No U.S.C.G.S. Listing
25	eL	15	25	45	No U.S.C.G.S. Listing
25	eS eSS eLR	19 19 19	24 28 31	40 03 55	O = 19:09:42 35°N, 119°W (Southern California Aftershock. Felt) Mag. 5½ - 5¾ (Berk) 6¼ Pas
25	eLR	20	05	47	O = 19:43:20 35°N, 118½°W (Southern California Aftershock. Felt) Mag. 5¾ (Berk) 6 (Pas)
27	ePKP iPP ePPP iSKS i ePS	08 08 08 08 08 08	41 42 45 47 49 52	21 54 32 33 03 50	O = 08:23:22 20½°S, 179°W (Fiji Islands) h ~ 500 km.
29	i(PcP) i e eSSS eLR	07 07 07 07 07	13 14 19 22 25	01 46.8 45 55 45	O = 07:03:45 35°N, 119°W (Southern California. Slight property dam- age.) Mag. 6½ (Pas) 6¼ - 6½ (Berk)
29	iP eS eL	20 20 20	06 15 36	16 58 48	O = 19:54:27 53½°N, 175°W (Andreanof Islands, Aleutian Islands. Felt)

Date	Phase	h	m	s	Remarks
July					
31	iP eL	12 12	17 31	20 15	O = 12:09:08 35½°N, 118½°W (Southern California. Felt) Mag. 6 (Pas) 6-6¼ (Berk)
31	iP	12	27	19.7	O = 12:16:35 34°S, 72½°W (Near coast of Central Chile. Felt) h ~ 100 km.
31	iP iS eT Tmax	19 19 19 19	23 25 37 37	38.4 49.2 12 24	No U.S.C.G.S. Listing
August					
3	eP eS eSS eLR	13 13 13 13	22 29 32 35	14 00 12 12	O = 13:13:48 12½°S, 78°W (Near coast of Peru)
5	iP	22	06	16	No U.S.C.G.S. Listing
6	eL	05	25	30	O = 05:06:10 (Mid-Atlantic Ocean. About 800 miles Northeast of Brazil.)
6	e(S) e(T) (Tmax)	06 06 06	03 11 12	32 31 02	No U.S.C.G.S. Listing
7	eL	16	55	15	O = 16:31:49 35°N, 119°W (Southern California Aftershock) Mag. 5-5¼ (Berk)
7	eL	22	49	24	O = 21:53:31 43°N, 144½°E (Near east coast of Hokkaido, Japan)
8	eP iS eT Tmax	05 05 05 05	22 25 36 37	42 01 26 18	No U.S.C.G.S. Listing
13	eLR	12	10	30	O = 11:55:50 6°N, 83°W (South of Panama)

Date	Phase	h	m	s	Remarks
August					
13	e(P) eLR e max	21 21 21 21	19 23 28 29	00 02 22 22	O = 21:14:11 (North Atlantic Ocean. About 900 miles southwest of the Azores)
13	eL	22	03	15	No U.S.C.G.S. Listing
13	eL	23	00	30	No U.S.C.G.S. Listing
14	eL	17	22	09	O = 16:01:07 (Near south coast of Indo-China)
14	ePKS	23	39	36	O = 23:16:42 6°S, 155°E
15	eLQ eLR	00 00	12 20	18 00	(Solomon Islands)
16	eLR	15	03	24	O = 13:51:35 (Solomon Islands Region) Mag. 6¼ (Pas)
17	ePP eSKS eSKKS ePS eLQ eLR	16 16 16 16 16 16	21 27 28 31 48 55	44 36 39 19 24 30	O = 16:02:05 30½°N, 91½°E (Eastern Tibet) Mag. 7¼ - 7½ (Pas)
18	eL	00	10	12	O = 23:54:10 (About 100 miles off Oaxaca, Mexico)
18	eP eS e(SKs)	13 13 13	15 23 25	28 57 26	O = 13:04:50 (Central Chile-Argentina border region)
19	e(P) i	10 10	58 58	14 38	No U.S.C.G.S. Listing
19	iP eS eL eT Tmax	14 14 14 14 14	06 09 10 21 23	59 46 18 10 52	O = 14:03:00 16°N, 60½°W (Leeward Island)

Date	Phase	h	m	s	Remarks
August					
20	iP	05	55	22	O = 05:49:28 16°N, 92°W (Mexico-Guatemala border) h 200 km.
20	iP iS eL eT Tmax	08 08 08 08 08	34 36 36 48 49	16 24 42 06 00	O = 08:31:05 (Off northwest coast of Puerto Rico) h ~ 100 km.
20	iP ePP eS eLR	15 15 15 15	33 35 41 48	54 54 12 54	O = 15:24:59 43°N, 127°W (Off coast of Oregon) Mag. 7 - 7¼ (Pas)
21	eL	22	47	06	No U.S.C.G.S. Listing
22	Ep eLR	22 23	49 02	41 42	O = 22:41:22 35.3°N, 190.0°W (Near Bakersfield, California. Two killed and extensive property damage.) Mag. 6 (Pas) 6.1 (Berk)
24	iP eS	15 15	04 08	31 18	O = 14:59:28 (Near mouth of Orinoco River, Venezuela)
27	iP eS eLQ	11 11 11	38 47 55	50 30 10	O = 11:27:54 55½°N, 160°W (Alaska Peninsula) h ~ 60 km.
28	iP eS eSS	11 11 11	03 12 19	35.3 28 28	O = 10:52:41 55°N, 160°W (Near south coast of Alaska Peninsula)
28	eP eS	13 13	08 18	57 57	O = 12:57:04 34°S, 106°W (Easter Islands Region)
28	eL	15	13	18	O = 14:21:49 (Indian Ocean. About 1800 miles south of Capetown, South Africa.)
28	e(P) i(S)	23 23	39 42	28 48	No U.S.C.G.S. Listing

Date	Phase	h	m	s	Remarks
August					
29	eL	16	46	24	O = 16:15:05 (Fox Islands. Aleutian Islands) h ~ 60 km.
30	iP	04	47	50.5	No U.S.C.G.S. Listing
	iS	04	50	07	
	eT	05	01	36	
	Tmax	05	02	00	
30	eP	15	03	46	O = 14:59:13 32°N, 41°W (North Atlantic Ocean)
	eS	15	07	42	
	eL	15	08	30	
	eT	15	23	16	
	Tmax	15	24	08	
31	eSKS	16	34	10	O = 16:09:33 42°N, 142½°E (Near south coast of Hokkaido, Japan. Felt: Hokkaido and northern Honshu)
	eLR	16	56	42	
September					
7	eL	03	36	30	O = 02:38:58 16°S, 177°W (Fiji Islands)
7	eL	05	13	18	O = 04:38:22 (Andreanof Islands Aftershock)
8	iP	15	19	10	No U.S.C.G.S. Listing
9	iP	13	00	48.5	O = 12:54:42 9°N, 84½°W (Near coast of Costa Rica. Felt: Panama and Costa Rica) Mag. 6¾ - 7 (Pas) (Berk)
	eLR	13	08	40	
11	e	05	40	28	O = 05:28:22 9°N, 85½°W (Near coast of Costa Rica)
	eLR	05	42	18	
11	iPKP	22	23	13	O = 22:03:44 (Celebes Sea)
11	eSKS	22	52	40	O = 22:26:41 29°S, 177°W (Kermadec Islands) Mag. 6½ - 7 (Berk)
	eSS	23	04	09	
	eL	23	24	18	

Date	Phase	h	m	s	Remarks
September					
14	eL	10	29	48	O = 09:34:10 34°N, 93½°E (Chinghai province, China)
21	iP	02	39	36.8	O = 02:30:30 22½°S, 65°W (Argentina-Bolivia border) Mag. 7¼ (Pas) h ~ 250 km.
	iS	02	46	51.5	
	iT	02	54	39	
	Tmax	02	55	04	
22	eL	12	05	25	O = 11:41:27 40½°N, 124°W (Cape Mendocino, California) Mag. 5½ (Pas) 5½ - 5¾ (Berk)
				T 32 Sec	
24	eL	07	34	00	O = 07:19:00 (Off coast of Guatemala)
24	e	17	55	57	O = 17:38:41 7°S, 75°W (Central Peru)
	eL	18	03	24	
24	iP	20	40	00	O = 20:29:30 56½°N, 157°W (Near south coast of Alaska Peninsula) h ~ 100 km.
	ePS	20	49	14	
	eL	20	56	25	
25	eL	09	10	42	O = 08:56:30 44½°N, 28°W (North Atlantic Ocean)
	e(T)	09	34	48	
	(Tmax)	09	35	15	
30	ePP	13	12	09	O = 12:52:00 28½°N, 102°E (Szechwan province, China) Mag. 6½ (Pas)
	e(SKS)	13	17	46	
	eL	13	44	30	
				T 45 Sec	
October					
1	eL	10	08	21	No U.S.C.G.S. Listing
				T 35 Sec	
2	eS	12	29	56	O = 12:24:42 (Off south coast of Puerto Rico)
	eT	12	41	12	
	Tmax	12	41	45	
3	i	07	34	43	No U.S.C.G.S. Listing
	i	07	36	13	

Date	Phase	h	m	s	Remarks
October					
3	iP eLR T 30 Sec	07	43	07	O = 07:36:45 6½°N, 83°W (Off south coast of Panama) Mag. 6½ (Berk)
3	e(S) eL eT Tmax	15	31	15	No U.S.C.G.S. Listing
4	e(S) eL	04	23	34	No U.S.C.G.S. Listing
5	eL	22	59	00	O = 22:04:28 37°N, 93°E (Chinghai Province, China)
6	e e	02	48	24	No U.S.C.G.S. Listing
6	eL	23	11	42	O = 22:29:35 53½°N, 161°E (Off east coast of Kamchatka)
10	e ePPS eLR T 40 Sec	16	22	21	O = 15:55:35 (Samoa Islands Region) Mag. 6¼ - 6½ (Pas)
10	e e(S) eL	19	12	28	O = 18:47:37 30½°N, 69°E (Central Pakistan)
10	iPKP	21	29	30	O = 21:09:38 (Near southwest coast of Sumatra)
11	eSS eLQ	00	54	41	O = 00:13:59 6°S, 149° E (New Britain)
12	eP eP	08	10	20	No U.S.C.G.S. Listing
12	e(S) eT Tmax	15	03	34	No U.S.C.G.S. Listing

Date	Phase	h	m	s	Remarks
October					
12	eP eS eL eT Tmax	17	53	45	No U.S.C.G.S. Listing
13	iP iS eT Tmax	20	55	50.8	O = 20:52:20 20°N, 73½°W (Windward Passage)
13	eSS eL	00	02	18	O = 23:24:10 34°S, 178°W (South of Kermadec Islands)
14	eP eS eL	00	02	15	O = 23:56:03 8½°N, 83°W (Near south coast of Costa Rica)
14	iP eS eL eT Tmax	22	07	28	O = 22:03:41 48°N, 70°W (Southeastern Quebec, Canada. Felt.)
18	ePP ePKS e(PPS) e eSS eL	05	44	11	O = 05:22:32 16°S, 168°E (New Hebrides) Mag. 6½ - 6¾ (Pas)
18	iP eL eT Tmax	12	03	06	O = 11:57:36 13°N, 46°W (Atlantic Ocean)
18	ePPS eSS eL	21	03	43	O = 20:33:14 16°S, 173°W (Samoa Islands)
19	e(P)	22	08	51	No U.S.C.G.S. Listing
20	eL	01	16	42	O = 01:04:35 57°N, 57°W (Off coast of Labrador)

Date	Phase	h	m	s	Remarks
October					
21	eL	02	25	18	O = 02:11:25 9½°N, 84½°W (Near coast of Costa Rica. Foreshock)
21	eL	02	44	30	O = 02:30:46 9½°N, 84½°W (Near coast of Costa Rica)
21	eL	06	23	30	O = 06:09:05 9½°N, 84½°W (Near coast of Costa Rica. Aftershock)
21	eL	06	49	54	O = 06:35:44 9½°N, 84½°W (Near coast of Costa Rica. Aftershock)
24	iS eT Tmax	16 16 16	36 54 54	08 00 23	No U.S.C.G.S. Listing
25	iP iS eT Tmax	04 04 04 04	28 30 42 42	12 23 22 52	No U.S.C.G.S. Listing
25	e eL	14 14	48 52	09 30	O = 14:31:09 26°N, 112°W (Lower California) Mag. 5¼ (Pas)
26	ePS	09	09	02	O = 08:41:03 34½°N, 137°E (Near south coast of Honshu, Japan.) (Felt) Mag. 5¼ - 6 (Pas) h ~ 300 km.
26	eS e eL	16 16 16	11 19 42	47 03 30	O = 15:46:14 39°N, 143°E (Off east coast of Honshu, Japan.) (Foreshock.)
26	eS e eL	18 18 18	27 34 45	54 24 30	O = 18:02:00 39°N, 143°E (Off east coast of Honshu, Japan. Felt) Mag. 6½ (Pas)
26	eL	20	09	36	O = 19:19:12 38½°N, 143½°E (Off east coast of Honshu, Japan. Felt) Mag. 6 (Pas)

Date	Phase	h	m	s	Remarks
October					
27	eS eL	03 04	43 05	10 30	O = 03:17:12 39°N, 143°E (Off east coast of Honshu, Japan) (Aftershock) Mag. 6½ (Pas)
28	iP eS eL eT Tmax	04 04 04 04 04	33 36 37 46 47	36 20 00 40 50	O = 04:29:51 18½°N, 73½°W (Haiti. Several killed and extensive property damage.) max H 12 Sec 19 MM
28	eS eSS e	06 07 07	57 04 20	53 03 00	O = 06:31:04 40°N, 144°E (Off east coast of Honshu, Japan)
31	eL	00	43	54	O = 23:51:37 (Sikang Province, China)
31	eS ePS eSS e eL	17 17 17 17 17	03 04 10 18 26	05 46 31 46 09	O = 16:37:14 39°N, 143°E (Off east coast of Honshu, Japan)
November					
1	e eSKS ePS e	00 00 00 00	10 10 15 23	01 38 31 01	O = 23:45:36 23½°S, 178°W (Fiji Islands Region) h ~ 150 km.
4	iP e(S) eL	17 17 17	11 21 34	10.3 55 06	O = 16:58:20 52½°N, 159°E (Near east coast of Kamchatka. Seismic sea wave) Mag. 8¼ (Pas) 8½ (Berk)
4	iP	17	33	48	No U.S.C.G.S. Listing
4	i(P)	17	35	34	No U.S.C.G.S. Listing
4	iP	17	49	20	No U.S.C.G.S. Listing
4	iP e(PP)	18 18	41 45	38 07	O = 18:28:52 52½°N, 160°E (Near east coast of Kamchatka)

Date	Phase	h	m	s	Remarks
November					
4	i(P)	19	03	53	No U.S.C.G.S. Listing
4	iP	19	53	27	O = 19:40:41 52½°N, 159½°E (Near east coast of Kamchatka)
4	i(P)	19	54	20	No U.S.C.G.S. Listing
4	i(P)	20	52	54	No U.S.C.G.S. Listing
4	iP eS	21 21	01 12	45 39	O = 20:48:53 50°N, 157°E (Near south coast of Kamchatka) SH 15 Sec 3.6 MM
4	iP eL	21 21	13 35	39 54	O = 21:00:53 52½°N, 159½°E (Kamchatka Aftershock)
4	iP	22	05	47	O = 21:52:50 50°N, 158½°E (Off south coast of Kamchatka)
4	iP	22	32	08	No U.S.C.G.S. Listing
4	eP eS eSS	22 22 22	25 36 42	44 15 54	O = 22:12:54 52°N, 161°E (Kamchatka Aftershock) SH 10 Sec 2.6 MM
4	iP	23	41	58	O = 23:28:58 50°N, 158°E (Off south coast of Kamchatka)
5	iP iS eL	02 02 03	32 43 06	59 48 12	O = 02:19:58 50½°N, 157°E (Near south coast of Kamchatka) SH 10 Sec 1.9 MM
5	iS eL	03 04	53 16	29 06	O = 03:29:44 51°N, 159°E (Near south east coast of Kamchatka) SH 10 Sec 1.3 MM
5	iS eL	06 06	22 42	00 57	O = 05:57:43 49°N, 156°E (Kurile Islands) SH 8 Sec 1.4 MM
5	iS	13	29	53	O = 13:06:24 52°N, 159½°E (Kamchatka Aftershock)

Date	Phase	h	m	s	Remarks
November					
5	eL	15	34	12	O = 14:48:41 50°N, 156½°E (Off south coast of Kamchatka)
5	eS	19	31	36	O = 19:08:26 53½°N, 161½°E (Off east coast of Kamchatka)
5	e(S) eL	23 23	09 31	29 06	No U.S.C.G.S. Listing
6	e eL	06 06	18 27	02 18	No U.S.C.G.S. Listing
6	e e(L)	14 14	30 57	10 36	No U.S.C.G.S. Listing
6	iP	19	58	53	O = 19:45:57 51½°N, 159½°E (Off south coast of Kamchatka)
6	ePKP ePP i(PKS) ePS eSS eLR	20 20 20 20 20 20	06 09 10 20 28 53	54 32 10 11 07 00	O = 19:47:20 5°S, 145½°E (Near north coast of New Guinea)
7	eL	00	15	06	No U.S.C.G.S. Listing
7	eL	03	09	06	No U.S.C.G.S. Listing
7	iPP eS e(SSS) eL	21 21 21 21	04 08 12 15	15 51 09 06	O = 20:54:58 26°N, 110½°W (Lower Gulf of California) Mag. 6¼ (Pas) 6¾ (Berk)
7	eS	22	29	43	O = 22:05:19 47°N, 155°E (Kurile Islands)
8	iS eSS eL	19 20 20	57 03 16	30 36 18	O = 19:33:18 48½°N, 156°E (Kurile Islands)
9	iS eL	00 01	46 07	24 30	O = 00:22:15 48½°N, 155½°E (Kurile Islands)

Date	Phase	h	m	s	Remarks
November					
9	eL	01	59	06	O = 01:17:39 52½°N, 160°E (Near east coast of Kamchatka)
9	eS eL	04 05	59 20	12 30	O = 04:35:05 49°N, 158°E (Off south coast of Kamchatka)
9	eP eS eL	06 06 06	10 20 41	10 57 06	O = 05:56:54 49°N, 157°E (Off south coast of Kamchatka)
9	eL	16	09	06	O = 15:31:06 45°N, 151½°E (Kurile Islands)
		T 18 Sec			
9	e eL	21 21	05 28	49 10	No U.S.C.G.S. Listing
10	iP eS eSS eL	01 01 01 01	08 18 24 35	00 51 57 06	O = 00:55:00 50°N, 158½°E (Off south coast of Kamchatka)
10	e eL	06 06	30 51	10 10	No U.S.C.G.S. Listing
10	eL	10	26	06	No U.S.C.G.S. Listing
10	eSKS eL	20 21	49 12	54 00	O = 20:26:40 53½°N, 160°E (Near east coast of Kamchatka)
11	e eL	01 01	20 41	12 24	No U.S.C.G.S. Listing
11	e(S) eL	19 20	44 04	12 18	No U.S.C.G.S. Listing
12	e(T) (Tmax)	01 01	05 06	33 06	No U.S.C.G.S. Listing
12	i eL	17 17	05 27	29 03	No U.S.C.G.S. Listing
13	iP e(SKS) eS eLQ	08 08 08 08	11 22 22 35	45.5 21 40 03	O = 07:58:45 50½°N, 157°E (Near south coast of Kamchatka)

Date	Phase	h	m	s	Remarks
November					
13	e(S) eL	15 16	45 06	55 09	No U.S.C.G.S. Listing
13	eP eS eSS eL	22 22 22 23	38 49 55 10	47 29 25 20	O = 22:25:34 50°N, 158°E (Off south coast of Kamchatka)
14	iP iS eL eT Tmax	05 05 05 05 05	19 21 22 32 32	26 52 25 02 50	O = 05:16:00 20½°N, 73°W (Windward Passage)
15	iP iS eSS eLR	05 05 05 05	12 22 27 37	53 23 12 03	No U.S.C.G.S. Listing SH 7 Sec 1 MM
16	eS	02	11	48	O = 01:47:54 50½°N, 157°E (Near south coast of Kamchatka)
16	e(S) eL	04 04	34 55	12 50	No U.S.C.G.S. Listing
16	e eSS eLR	08 08 08	17 19 36	11 15 24	O = 07:38:25 (Near north east coast of New Guinea)
16	eS eL	15 15	20 24	12 30	O = 15:05:02 2°N, 29½°W (Mid-Atlantic Ocean)
		T 15 Sec			
	eT Tmax	16 16	02 02	04 12	
18	e(S) eL	08 09	37 01	23 12	O = 08:13:25 49½°N, 156½°E (Off coast of Kamchatka)
18	e(L)	09	42	50	No U.S.C.G.S. Listing
20	iP eL	15 15	43 49	18 18	O = 15:37:17 12½°N, 88°W (Off coast of Nicaragua) Mag. 6¼ (Pas) 6¼ - 7 (Berk) h ~ km.

Date	Phase	h	m	s	Remarks
November					
21	e(L)	04	14	42	No U.S.C.G.S. Listing
21	iP	04	18	02	O = 04:14:59 20°N, 63°W (Northeast of Puerto Rico)
	iS	04	20	18	
	eL	04	20	36	
	eT	04	32	05	
	Tmax	04	32	30	
21	iP	06	13	43	O = 06:10:38 18°N, 68°W (Mona Passage) h ~ 100 km.
	iS	06	15	58	
	eL	06	16	21	
	eT	06	26	22	
	Tmax	06	27	40	
21	iP	07	09	17	O = 07:06:13 (About 200 miles northeast of Puerto Rico)
	iS	07	11	30	
	eL	07	11	50	
	iT	07	23	23	
	Tmax	07	23	50	
21	eP	13	43	07	O = 13:40:02 20°N, 63°E (Northeast of Puerto Rico)
	eS	13	45	22	
	eL	13	45	42	
21	e(L)	17	57	10	O = 17:26:50 66°N, 166°W (Western Alaska)
			T 12 Sec		
22	eS	08	01	54	O = 07:46:37 35.8°N, 121.1°W (San Luis Obispo County, California. Slight property damage) Mag. 6 (Pas) 6.1 (Berk)
	eSS	08	05	06	
	eSSS	08	06	17	
	eL	08	08	30	
22	eP	21	46	02	No U.S.C.G.S. Listing
	eS	21	48	18	
	eT	21	59	36	
	Tmax	22	00	15	
23	e	05	50	00	
	e(L)	05	50	48	
	eT	06	05	54	
	Tmax	06	06	15	

Date	Phase	h	m	s	Remarks
November					
25	iP	13	29	44	No U.S.C.G.S. Listing
	iS	13	31	59	
	eT	13	43	16	
	Tmax	13	43	34	
28	eL	01	25	24	O = 01:12:56 7°N, 79°W (Off south coast of Panama. Felt in Bal- boa Heights)
28	eS	08	28	56	O = 08:05:30 52°N, 160°E (Near east coast of Kamchatka)
	eL	08	49	00	
28	ePKS	21	24	07	O = 21:01:27 6½°S, 155½°E (Solomon Islands) h ~ 100 km.
	ePS	21	33	55	
	eLR	22	04	10	
			T 50 Sec		
29	iP	03	13	00	No U.S.C.G.S. Listing
	iS	03	15	13	
	eT	03	26	17	
	Tmax	03	27	00	
29	iP	08	35	27	O = 08:22:34 53°N, 160°E (Near east coast of Kamchatka) Mag. 7 (Pas) 7¼ (Berk)
	ePP	08	38	50	
	iS	08	45	46	
	eLQ	08	58	50	
	eLR	09	03	30	
29	iP	23	57	03	O = 23:46:25 56°N, 155°W (Off south coast of Alaska Peninsula)
	ePP	23	59	27	
30	ePPP	00	01	24	Mag. 6¼ (Pas) 7-7¼ (Berk)
	iS	00	05	30	
	iScS	00	06	52	
	eSS	00	09	39	
	eSSS	00	12	35	
			SH 15 Sec 5.1 MM max H 18 Sec 11.7 MM		
30	eS	19	52	15	O = 19:28:44 52½°N, 159°E (Near east coast of Kamchatka)
	eL	20	08	30	
December					
3	e	10	34	54	No U.S.C.G.S. Listing

Date	Phase	h	m	s	Remarks
December					
3	i(P)	22	38	30	No U.S.C.G.S. Listing
4	iP	04	03	33	O = 03:51:25 52°N, 178°E (Rat Islands, Aleutian Islands)
	e(PP)	04	06	31	Mag. 6 (Berk) h ~ 100 km.
	eSS	04	18	36	
	e	04	24	36	
	eLR	04	27	51	(Off north coast of Dominican Republic)
5	iP	00	57	19	
	iS	00	59	36	O = 00:54:07
	eL	01	00	04	
	eT	01	09	52	
	Tmax	01	11	36	
5	iP	01	17	07	No U.S.C.G.S. Listing
	eS	01	18	36	
	eT	01	29	45	
	Tmax	01	30	40	
5	eL	07	13	42	O = 06:59:59 (Southern Honduras — Nicaragua border)
5	eL	21	03	00	No U.S.C.G.S. Listing
6	iP	02	21	14	No U.S.C.G.S. Listing
	Is	02	53	32	
	eT	03	03	58	
	Tmax	03	05	24	
6	ePKP	11	00	40	O = 10:41:14 8°S, 157°E (Solomon Islands)
	ePP	11	03	13	Mag. 7 (Pas) 7¼ - 7½ (Berk)
	ePKS	11	04	21	
	ePS	11	13	41	
	eSS	11	21	48	
6	ePKS	21	13	35	O = 20:50:35
	eL	21	53	48	(Solomon Islands Aftershock)
			T 30 Sec		
7	iP	01	02	36	O = 00:50:12 53°N, 172½°E (Near Islands, Aleutian Islands)
	iS	01	12	42	Mag. 6¼ (Pas)
	eSS	01	17	58	
	e(LQ)	01	23	46	
	e(LR)	01	28	00	
			SH 8 Sec 1.2 MM		

Date	Phase	h	m	s	Remarks
December					
7	eS	16	56	46	O = 16:33:10 51½°N, 159°E (Off south east coast of Kamchatka)
	eL	17	18	45	
			T 18 Sec		
7	eL	21	30	45	O = 20:20:02 (Solomon Islands)
8	eL	16	07	42	O = 15:09:30 23°N, 99½°E (China-Burma border)
8	iP	20	41	44	No U.S.C.G.S. Listing
	eS	20	42	54	
	eT	20	49	22	
	Tmax	20	49	48	
9	iP	11	53	04	No U.S.C.G.S. Listing
	eS	11	55	20	
	eT	12	06	36	
	Tmax	12	06	52	
9	i(P)	15	17	08	No U.S.C.G.S. Listing
	e(S)	15	19	20	
	e(T)	15	30	47	
	(Tmax)	15	31	08	
10	iP	06	07	11	O = 05:58:06 71°N, 7°W (Jan Mayen Island Region)
	e	06	09	32	
	iS	06	14	18	
	eLR	06	21	24	
			T 40 Sec		
10	eL	09	05	00	O = 08:06:03 15½°S, 173½°W (Samoa Islands)
11	iP	01	37	03	O = 01:33:43 19°N, 70°W (Near north coast of Dominican Republic)
	eS	01	39	26	
	eT	01	49	59	
	Tmax	01	51	15	

Date	Phase	h	m	s	Remarks
December					
11	iP	09	11	24	O = 08:58:18 49°N, 155°E (Kurile Islands) Mag. 6 (Pas) h ~ 60 km.
	ipP	09	11	35	
	iPP	09	14	56	
	i(S)	09	22	24	
	i	09	22	40	
	e(PS)	09	23	22	
	e(PPS)	09	23	45	
	e(SS)	09	29	00	
eLR	09	38	42		
12	iP	00	58	26	O = 00:47:56 56½°N, 154°W (Near south coast of Kodiak Island, Alaska)
	eS	01	06	56	
	eSS	01	11	04	
	eLQ	01	13	24	
14	iP	10	41	55	O = 10:38:39 19°N, 69°W (Dominican Republic)
	iS	10	44	11	
	eL	10	44	30	
	eT	10	54	29	
	Tmax	10	55	56	
15	eS	10	08	40	O = 09:45:12 51½°N, 160½°E (Off east coast of Kamchatka)
	eL	10	26	36	
17	iP	23	15	21	O = 23:03:58 34½°N, 24°E (Near south coast of Crete) Mag. 6¾ (Pas)
	Compression				
	iS	23	24	42	
	eL	23	34	00	
18	iP	07	24	49	No U.S.C.G.S. Listing
	eS	07	26	57	
	eT	07	39	05	
	Tmax	07	39	31	
18	eP	09	01	57	No U.S.C.G.S. Listing
	iS	09	04	20	
	eT	09	15	44	
	Tmax	09	16	26	
18	iP	09	33	07	O = 09:20:28 53½°N, 162°E (Off east coast of Kamchatka)
	i(pP)	09	33	22	
	eS	09	43	28	
	e(SKS)	09	43	41	
	e(LQ)	09	55	20	
	T 26 Sec.				

Date	Phase	h	m	s	Remarks
December					
18	iP	22	29	06	O = 22:17:01 51°N, 179°W (Andreasof Islands, Aleutian Islands)
19	e(SKKS)	19	31	56	O = 19:06:20 15°S, 175°W (Samoa Islands Region) h ~ 250 km.
21	eL	07	08	20	O = 05:51:06 (Banda Sea) T 30 Sec
22	eP	22	37	33	O = 22:24:42 54°N, 160½°E (Near east coast of Kamchatka) Mag. 6¾ (Pas)
	iS	22	47	51	
	SH 8 Sec 2.1 MM				
	eL	23	12	54	T 30 Sec
24	eL	09	45	58	O = 08:33:25 5½°S, 151½°E (New Britain. Foreshock)
24	ePKP	18	59	12	O = 18:39:33 5½°S, 151½°E (New Britain) Mag. 7 (Pas)
	iPKS	19	02	44	
	eSS	19	19	47	
	eSSP	19	20	01	
	eLR	19	44	30	
24	eL	22	44	30	O = 21:37:05 5½°S, 151½°E (New Britain. Aftershock)
25	eSS	03	08	58	O = 02:28:39 5½°S, 151½°E (New Britain. Aftershock)
	eL	03	31	36	
25	eL	04	25	09	No U.S.C.G.S. Listing
25	eSS	22	56	30	O = 22:22:42 29°N, 69½°E (Central Pakistan)
	eL	23	13	06	
27	eS	01	49	25	O = 01:25:54 53°N, 160°E (Near east coast of Kamchatka)
	eL	02	09	42	
28	eS	05	14	42	O = 04:55:06 65½°N, 167½°W (Near west coast of Seward Peninsula, Alaska)
	eSS	05	19	01	
	eL	05	28	18	
	T 24 Sec				

Date	Phase	h	m	s	Remarks
December					
28	ePKS	15	24	29	O = 15:01:19 6°N, 127°E (Off east coast of Mindanas, P.I., Felt: Davao)
	eL	16	06	36	
29	eS	02	32	15	O = 02:09:13 49°N, 158°E (Off south coast of Kamchatka)
	eL	02	57	48	
30	iP	12	13	02.5	O = 12:07:02 10½°N, 84°W (Costa Rica. Felt)
	eS	12	17	50	
	eLR	12	20	05	
31	iP	01	43	08	O = 01:38:14 12°N, 59°W (Atlantic Ocean, south of Barbados)
	eS	01	46	41	
	eL	01	47	21	
	eT	02	02	30	
	Tmax	02	05	26	
31	iP	19	57	13	No U.S.C.G.S. Listing
	iS	19	59	25	
	eL	19	59	48	
	eT	20	10	14	
	Tmax	20	11	36	
31	e(S)	22	08	17	O = 21:43:49 49°N, 156°E (Kurile Islands)
	eL	22	32	12	
				T 30 Sec	
January					
3	e(L)	19	00	24	No U.S.C.G.S. Listing
5	eP	08	00	48	O = 07:48:17 54°N, 170°E (Komandorskie Islands Region. Felt: Attu) Mag. 6¼ - 7 (Pas)
	eSKS	08	11	03	
	eSS	08	16	06	
	eLQ	08	21	12	
				T 16 Sec	
5	eP	10	19	33	O = 10:06:25 49°N, 156°E (Kurile Islands) Mag. 6¼ (Pas)
	iSKS	10	30	06	
	iS	10	30	30	
	eSS	10	36	29	
	eL	10	48	30	

Date	Phase	h	m	s	Remarks
January					
6	iP	16	14	47	O = 16:05:36 21½°S, 68°W (Chile-Bolivia border Region. Felt: Cala- ma) h ~ 150 km.
	eS	16	22	14	
	e(PS)	16	23	06	
	eSS	16	25	29	
6	e	23	31	37	O = 23:23:43 9½°N, 83°W (Costa Rica. Foreshock)
	e(L)	23	35	15	
7	eS	06	12	03	O = 05:48:54 53½°N, 161°E (Off east coast of Kamchatka)
	eL	06	30	12	
7	iP	12	06	31	O = 12:00:30 9½°N, 83°W (Costa Rica. Several injured and slight property damage)
	eS	12	11	20	
	eL	12	12	00	
				T 15 Sec	
7	ePKP	14	27	53	O = 14:08:20 5½°S, 150½°E (New Britain)
	ePP	14	30	32	
	ePKS	14	31	18	
	e(PS)	14	41	06	
	eLQ	14	06	09	
				T 30 Sec	
7	eLR	14	12	15	
				T 50 Sec	
9	e(L)	17	00	54	No U.S.C.G.S. Listing
9	e(L)	17	14	52	No U.S.C.G.S. Listing
11	iP	23	02	41	O = 22:53:30 65°N, 133°W (Yukon, Canada) Mag. 6½ (Pas) 6 (Berk)
				Compression	
	ePP	23	04	38	
	eS	23	10	08	
	eLR	23	19	18	
12	eP	17	36	33	O = 17:23:39 49½°N, 156°E (Kurile Islands) Mag. 6¾ - 7 (Pas) 6¼ (Berk) h ~ 60 km.
	eS	17	47	10	
	e	17	47	37	
	eSS	17	53	30	
	eLQ	18	00	30	
	eLR	18	06	30	
			T 45 Sec		

Date	Phase	h	m	s	Remarks
January					
15	iP Dilatation	08	23	59	O = 08:11:09 53°N, 159°E (Near east coast of Kamchatka)
15	eP eS e(L)	12 12 12	16 27 48	53 02 24	O = 12:04:33 19°N, 156°W (Near southwest coast of Hawaii, T.H. Felt: Oahu and Hawaii) Mag. 5 - 5½ (Berk)
16	iP Dilatation	12	48	37	No U.S.C.G.S. Listing
19	e eL	05 05	23 46	14 24	O = 04:57:22 42°N, 143°E (Near southeast coast of Hokkaido, Japan. Felt.) T 35 Sec
20	iPKP i eL	17 17 18	52 53 42	46 06 06	O = 17:33:06 1½°N, 126°E (Molucca Passage) Mag. 6½ (Pas) T 40 Sec
21	iP eS e eL	01 02 02 02	55 06 06 30	57 28 50 12	O = 01:43:00 50°N, 156°E (Kurile Islands) h ~ 60 km.
25	eP eS eL	19 19 19	51 54 55	35 19 15	O = 19:47:58 19°N, 73½°W (Off west coast of Haiti)
27	iS	03	36	22	O = 03:12:55 52°N, 159½°E (Off east coast of Kamchatka)
27	eL	04	29	30	O = 03:25:02 4½°S, 153°E (New Britain Region)
29	e(S) e(L)	08 08	42 43	00 15	O = 08:30:38 7°N, 82½°W (Off coast of Panama)
30	ePP iPKS e e(SS) eLQ	22 22 22 22 22	07 09 21 26 44	56 17 38 13 30	O = 21:46:50 12°S, 166½°E (Santa Cruz Islands) h ~ 100 km.

Date	Phase	h	m	s	Remarks
January					
31	i(PcP) e(ScS) eL	22 22 22	03 13 24	41 08 12	O = 21:52:25 15°S, 18°W (Mid-Atlantic Ocean) T 24 Sec
February					
1	eS	20	59	08	O = 20:38:57 54°N, 165°W (Fox Islands, Aleutian Islands) h ~ 100 km.
2	eS eL	09 10	54 17	06 00	O = 09:30:00 49°N, 156°E (Kurile Islands)
3	eL	21	09	30	No U.S.C.G.S. Listing
4	e(LQ)	11	08	57	O = 10:53:07 37½°N, 19½°W (North Atlantic Ocean) T 18 Sec
6	eL	14	03	18	O = 13:12:59 42½°N, 143½°E (Near south east coast of Hokkaido, Japan) T 40 Sec
7	eP ePP eS eL	18 18 18 19	36 40 47 07	24 17 17 54	O = 18:23:12 49°N, 156°E (Kurile Islands)
9	eS eL	21 22	53 10	40 58	O = 21:32:36 52½°N, 169°W (Fox Islands, Aleutian Islands)
10	eS eSS eL	08 08 08	19 24 36	32 25 00	O = 07:58:29 52°N, 169°W (Fox Islands, Aleutian Islands)
12	iP i(SKS) i(S) eL	08 08 08 08	28 39 39 56	47 15 52 06	O = 08:15:29 35°N, 54½°E (Northern Iran. Heavy casualties and extensive property damage in Turut and vicinity.) Mag. 7 (Pas)
14	e(SKS) e e eL	22 22 22 22	13 18 25 45	53 30 11 54	O = 21:48:12 18½°N, 146°E (Marianas) Mag. 6¾ (Pas) h ~ about 60 km.

Date	Phase	h	m	s	Remarks
February					
15	eL	22	29	44	No U.S.C.G.S. Listing
16	e(LQ)	10	23	05	O = 10:10:22 8½°N, 83°W (Near coast of Costa Rica)
	e(LR)	10	24	24	
19	iP	15	27	12	O = 15:17:40 0°, 18°W (Mid-Atlantic Ocean)
	iS	15	34	56	
	eL	15	41	00	
	eT	16	24	24	
	Tmax	16	26	24	
SH 12 Sec 1.8 MM					
20	e(P)	19	14	21	No U.S.C.G.S. Listing
	e(S)	19	14	40	
21	eP	22	21	02	O = 22:17:44 (North of Puerto Rico. Felt.) h ~ 100 km.
	iS	22	23	23	
	eT	22	35	00	
	Tmax	22	35	42	
22	eL	08	15	15	O = 07:40:53 (Near west coast of Seward Peninsula, Alaska)
22	eL	23	12	15	O = 22:15:05 (Tonga Islands Region)
23	eS	04	05	02	O = 03:41:45 53°N, 161°E (Off east coast of Kamchatka)
	eL	04	26	15	
24	iP	20	05	50	No U.S.C.G.S. Listing
	eS	20	07	50	
25	iP	21	26	53	O = 21:16:18 56°N, 156½°W (Off south coast of Alaska Peninsula) Mag. 6% (Pas) h ~ 60 km.
	e(S)	21	35	26	
	e	21	35	56	
	e(SS)	21	40	08	
	e	21	43	00	
	eLR	21	46	47	
T 40 Sec					
26	e(S)	00	55	26	O = 00:32:07 51°N, 156½°E (Near south coast of Kamchatka)

Date	Phase	h	m	s	Remarks
February					
26	iPP	12	03	53	O = 11:42:26 11°S, 164½°E (Santa Cruz Islands Region) Mag. 7¼ (Pas) (Berk)
	ePKS	12	05	04	
	eSS	12	21	25	
	eL	12	44	48	
26	iP	16	13	08	O = 16:09:25 19°N, 73½°W (Gulf of Gonaives, Haiti)
	eS	16	15	49	
	eL	16	16	42	
27	eL	06	56	00	O = 05:45:10 (New Britain)
28	ePP	04	33	41	O = 04:24:33 18½°N, 105°W (Near coast of Colima, Mexico)
	eS	04	38	11	
	eLR	04	43	06	
28	ePP	22	02	18	O = 21:53:15 (Near coast of Colima, Mexico. After- shock)
	eS	22	06	48	
	eL	22	11	00	
March					
2	eL	03	21	12	O = 02:12:46 (Solomon Islands Region) h ~ 60 km.
3	iPKP	11	46	11	O = 11:26:55 20°S, 169°E (Loyalty Islands) Mag. 6¾ (Pas) 7 (Berk)
	ePKS	11	49	40	
	eSKKS	11	55	32	
	ePPS	12	00	24	
	eLR	12	28	30	
T 45 Sec					
3	eL	23	08	08	No U.S.C.G.S. Listing
T 26 Sec					
3	eS	23	18	13	O = 22:53:54 48°N, 155°E (Kurile Islands)
	eL	23	43	21	
4	iP	01	07	06	O = 00:57:52 28°S, 62½°W (Santiago del Estero province, Argentina) Mag. 6¼ (Pas) h ~ 600 km.
	iS	01	14	31	
	SH 7 Sec 1.8 MM				
i(ScS)	01	16	01		
	e(SSS)	01	21	53	

Date	Phase	h	m	s	Remarks
March					
5	eP eS eT Tmax	04	44	31	No U.S.C.G.S. Listing
5	eL	06	29	24	No U.S.C.G.S. Listing
5	e(S) eL	19	17	50	No U.S.C.G.S. Listing
5	iP iS e(LQ)	21	14	15	O = 21:01:23 51°N, 158°E (Near south coast of Kamchatka) Mag. 6¼ (Pas) (Berk) h ~ 60 km.
5	eS	21	45	55	O = 21:21:45 49°N, 156°E (Off south coast of Kamchatka)
9	ePKS ePS eSS eLR T 50 Sec	10	26	27	O = 10:03:41 4½°S, 153½°E (New Britain Region) Mag. 6½ (Pas) 6¼ (Berk)
13	e(L)	06	56	06	No U.S.C.G.S. Listing
14	iPKS eL	17	23	10	O = 17:00:32 (Near south east coast of Mindanao, P.I. Felt: Davao)
16	e(S) eL T 30 Sec	05	29	10	No U.S.C.G.S. Listing
17	eS eL	06	56	29	O = 06:32:52 51°N, 159°E (Near south east coast of Kamchatka)
17	eP iS eSS eLR	13	17	37	O = 13:04:33 50½°N, 156½°E (Kurile Islands) SH 10 Sec 1.2 MM

Date	Phase	h	m	s	Remarks
March					
18	iP e eS eLR	19	17	38	O = 19:06:11 40°N, 27½°E (West Turkey. Heavy casualties and extensive property damage.) Mag. 7¼ (Pas) 8 (Berk)
19	iP eS Tmax	08	32	00	O = 08:27:57 14°N, 61°W (Windward Islands. Felt: Paramaribo, Dutch Guiana and Trinidad) Mag. 7¼ (Pas) (Berk) h ~ 200 km.
					PH 33 MM
23	eS eSS eL	12	57	14	O = 12:36:13 52½°N, 169°W (Fox Islands. Foreshock)
25	eP eS eSS eL	06	02	50	O = 05:51:21 52½°N, 169°W (Fox Islands, Aleutian Islands)
26	eS eL	02	32	53	O = 02:09:35 52°N, 161°E (Off east coast of Kamchatka)
29	eL	11	12	06	No U.S.C.G.S. Listing
April					
1	eS eSS	11	02	24	O = 10:49:41 0°, 81°W (Near coast of Ecuador. Foreshock)
1	eS eSS	11	34	09	O = 11:21:23 0°, 81°W (Near coast of Ecuador)
1	eS eL	22	48	31	O = 22:37:51 7½°N, 78½°W (Near coast of Panama)
2	iPP e e eL	04	18	55	O = 03:56:06 5°S, 151½°E (New Britain) h ~ 60 km.
					T 35 Sec

Date	Phase	h	m	s	Remarks
April					
3	e	04	45	18	O = 04:18:15 15½°S, 172°W (Samoa Islands Region)
	e(SS)	04	54	00	
	eL	05	22	11	
4	eL	06	45	36	O = 05:52:15 36½°N, 141°E (Near east coast of Honshu, Japan. Felt: Tokyo)
6	iPKP	00	56	05	O = 00:36:12 7°S, 132°E (Banda Sea)
	i	00	56	10	
	e	01	09	57	
	e(SS)	01	19	05	
	eLR	01	47	00	
		T 40 Sec			
14	iP	13	36	17	O = 13:29:26 7½°S, 71½°W (Western Brazil) Mag. 7 (Pas) h ~ 650 km.
		Dilatation			
	ePP	13	38	01	
	ePPP	13	39	09	
	eS	13	41	44	
e	13	45	17		
15	e(S)	01	41	25	O = 01:16:57 49°N, 156°E (Kurile Islands)
17	eP	00	10	23	O = 00:02:50 5°S, 77°W (Northern Peru) Mag. 6 - 6¼ (Pas)
	eS	00	16	15	
	eSS	00	19	16	
	eLR	00	20	50	
		T 40 Sec			
17	eL	12	19	18	O = 11:10:17 (New Britain Region. Foreshock)
18	e	23	40	03	O = 23:25:40 10°N, 102°W (Off south coast of Mexico)
	e	23	43	35	
	eLR	23	45	42	
		T 40 Sec			
19	eL	23	28	36	O = 22:47:39 50½°N, 179°W (Andreanof Islands, Aleutian Islands. Felt: Adak)

Date	Phase	h	m	s	Remarks
April					
20	eL	20	28	15	O = 20:10:35 (About 800 miles south west of Cape Verde Islands)
23	ePKP	16	43	51	O = 16:24:17 4°S, 154°E (New Britain Region. Minor damage) Mag. 7½ - 7¾ (Pas)
	ePP	16	46	41	
	iSS	17	04	37	
	eL	17	20	50	
24	eP	02	19	17	O = 02:09:44 76½°N, 6°E (Off west coast of Spitzbergen)
	eS	02	26	59	
	eL	02	33	06	
29	ePKS	03	54	20	O = 03:31:18 (Solomon Islands)
	eSKKS	04	00	12	
	e	04	03	35	
	eL	04	34	54	
30	eL	06	38	42	O = 06:25:24 (About 150 miles south of Panama)
30	iPKP	06	45	55	O = 06:26:40 20½°S, 170°E (Loyalty Islands) Mag. 6¾ (Pas)
	iPKS	06	49	21	
	e	07	01	27	
	eLR	07	28	24	
		T 42 Sec			
May					
2	eS	19	01	47	O = 18:38:12 (Off east coast of Kamchatka)
	e	19	12	38	
	eL	19	24	08	
4	eS	11	52	25	O = 11:29:08 53½°N, 161°E (Near east coast of Kamchatka)
	eL	11	13	24	
4	iP	15	35	46	O = 15:26:30 28°S, 62½°W (Santiago del Estero, Argentina) Mag. 6½ (Pas) h ~ 600 km.
		Dilatation			
	iS	15	43	16	
e	15	44	36		

Date	Phase	h	m	s	Remarks
May					
6	iP	17	27	48	O = 17:16:48 36½°S, 73°S (Central Chile. Several killed and minor property damage in Concepcion and vicinity) Mag. 7½ - 7¾ (Pas) h ~ 100 km.
	ePP	17	30	18	
	ePPP	17	32	08	
	iS	17	36	53	
	eSS	17	41	17	
	e	17	45	02	
	eLQ	17	46	30	
	eLR	17	50	45	
7	eL	19	51	42	No U.S.C.G.S. Listing
8	eL	04	05	02	O = 03:54:50 (About 400 miles south west of Azores, Islands)
9	iP	08	41	56.4	No U.S.C.G.S. Listing
	iS	08	44	06	
	eL	08	44	18	
		T	15	Sec	
	eT	08	56	24	
	Tmax	08	56	51	
11	ePKP	10	35	50	O = 10:16:36 21½°S, 169°E (Loyalty Islands) Mag. 6¾ (Pas) 7 (Berk)
	iPKS	10	39	20	
	eSKKS	10	45	10	
	eLR	11	18	30	
		T	44	Sec	
13	eL	04	59	28	O = 04:16:28 52°N, 174°E (Near Islands, Aleutian Islands) h ~ 100 km.
13	e	12	12	05	No U.S.C.G.S. Listing
	e(S)	12	30	24	
	e	12	33	20	
	eL	12	51	30	
14	eL	08	10	48	O = 07:41:44 50°N, 130°W (Off coast of Vancouver, B.C.)
14	eL	18	52	36	O = 18:27:41 50°N, 130°W (Vancouver Aftershock)

Date	Phase	h	m	s	Remarks
May					
17	iP	10	10	25	No U.S.C.G.S. Listing
18	iP	08	16	29	O = 08:12:12 28½°N, 44°W (Mid-Atlantic Ocean)
	iS	08	20	11	
	eLR	08	20	36	
		T	34	Sec	
	eT	08	34	22	
	Tmax	08	35	18	
					PH 8 Sec 2.8 MM
19	iP	03	24	00	O = 03:11:06 51°N, 159°E (Off south coast of Kamchatka) Mag. 6½ (Pas) (Berk)
	eS	03	34	43	
	eLR	03	50	30	
		T	30	Sec	
20	eSKS	08	10	15	O = 07:45:26 53°S, 134°W (South Pacific Ocean) Mag. 7¼ (Pas)
	e	08	19	03	
	eLR	08	35	03	
20	iPKP	11	03	22.6	O = 10:43:50 (Celebes Region) h ~ 200 km.
20	e	23	34	28	O = 23:14:23 50°N, 130°W (Off coast of Vancouver, British Columbia)
	eL	23	39	06	
21	iP	02	02	23	O = 01:56:10 (Near south coast of Guatemala) h ~ 100 km.
	eL	02	10	05	
21	eL	12	55	18	O = 12:29:51 50°N, 130°W (Aftershock off Coast of Vancouver)
24	iP	01	32	58	O = 01:19:55 51°S, 28°W (Sandwich Islands Region)
	ePP	01	36	46	
	eSKS	01	43	28	
	eS	01	43	43	
	e	01	44	17	
	eLQ	01	57	30	
	eLR	02	01	40	

Date	Phase	h	m	s	Remarks
*May					
24	iP	06	04	44	O = 05:58:40 10½°N, 85½°W (Near coast of Costa Rica)
25	eS	18	04	08	O = 17:40:30 51°N, 159½°E (Off south coast of Kamchatka)
	eL	18	24	24	
26	e(S)	02	08	41	O = 01:43:11 42°N, 142½°E (Near south coast of Hokkaido, Japan) h ~ 60 km.
	e(PS)	02	10	34	
	eLR	02	33	42	
	T	36 Sec			
31	iPKP	05	20	05	O = 05:00:15 9°S, 118°E (Flores Sea) h ~ 100 km.
	eLR	06	15	54	
31	eP	06	14	42	No U.S.C.G.S. Listing
	eS	06	16	54	
	eT	06	28	04	
	Tmax	06	28	54	
31	iP	20	01	47	O = 19:58:35 20°N, 70½°W (Near north coast of Dominican Republic. Felt.) Mag. 7 (Pas) 7½ (Berk)
	eS	20	04	12	
	e	20	04	15	
	Tmax	20	18	18	
31	eP	20	59	29	O = 20:56:18 20°N, 70½°W (Near north coast Dominican Republic. Aftershock)
	eS	21	01	35	
	eT	21	11	55	
	Tmax	21	13	25	
31	eP	21	31	39	No U.S.C.G.S. Listing
	eS	21	34	01	