H A R V A R D U N I V E R S I T Y
S E I S M O G R A P H S T A T I O N

Bulletin Number 38

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STATION CONSTANTS

Latitude: 42° 30' 26" North

Longitude: 71° 33' 45" West

Altitude: 180 meters

INSTRUMENTS

Vertical, North-South, and East-West Benioff Long- and short-period variable reluctance seismographs with mass of 112.7 kg., galvanometric registration, and magnetic damping.

L-B Vertical Seismograph with displacement type transducer and ink registration.

Normal Operating Constants

Instrument	T_o sec.	T_g sec.	% Critical Damping	Drum Speed	V_s	Displacement for acceleration of 10^{-6} gravity
ZSP	1.0	0.2	.6	60 mm/min.		15 mm
NSP	1.0	0.2	.6	60 mm/min.		15 mm
ESP	1.0	0.2	.6	60 mm/min.		15 mm
ZLP	1.0	14.0	.6	30 mm/min.		12 mm
NLP	1.0	14.0	.6	30 mm/min.		12 mm
ELP	1.0	14.0	.6	30 mm/min.		12 mm
L-B Vertical	0.5	0.05	.5	60 mm/min.	100,000	

MAIL ADDRESS

Harvard Seismograph Station
c/o Prof. L. Don Leet
Harvard, Massachusetts, U.S.A.

Date 1952	Phase	Time (GCT)	Remarks
Jan. 1	eP eL_R	07-14-07 34.2	CGS: H = 07-04-36 3½S, 105°W (Pacific Ocean, west of Galapagos Islands.) Dist. (meas) = 6100 km.
Jan. 1	iP	21-40-20	CGS: H = 21-28-38 Central Chile. Felt in Santiago. h = 100 km.ca.
Jan. 2	eP	05-55-22	CGS: H = 05-46-00 58°N, 157° W (Alaska Peninsula)
Jan. 3	eP	02-38-38	CGS: H = 02-31-30 About 200 miles south-west of Costa Rica
Jan. 3	iP eL_R	06-15-53 (d) 50.0	CGS: H = 06-03-52 40½°N, 41½°E (Erzurum Province, Turkey. Heavy casualties and extensive property damage) Dist.(meas) = 8650 km.
Jan. 3	eP eS eL_R	10-12-03 17-53 27.9	CGS: H = 10-05-05 16°N, 99°W (Off south coast of Mexico. Felt.) M = 6½ (Pasadena) Dist. (meas) = 3950 km.
Jan. 4	eP'	06-06-38	CGS: H = 05-47-31 22°S, 169½°E (Loyalty Islands.) Dist.(meas) = 14,000 km.
Jan. 4	eP_n iS_n e	11-40-40.7 42-42 51-06	Submarine Quake?
Jan. 6	iP	15-53-17	CGS: H = 15-48-01 19°N, 72°W (Haiti. Felt.) Dist.(meas) = 2550 km.
Jan. 6	eP eS eT	19-11-12 15-28 32-48	CGS: H = 19-05-25 Near west coast of Puerto Rico.

Date 1952	Phase	Time (GCT)	Remarks
Jan. 9	el_R	23-17.7	CGS: H = 22-56-20 Near east coast of central Sonora, Mexico
Jan. 10	iP	00-23-42.5	
Jan. 10	iP	05-20-50.5 (c)	
Jan. 10	eP	11-49-36.5	CGS: H = 11-39-23 Foreshock of Jan. 12, 20-11-38
Jan. 11	iP' i	04-19-46.5 22-55.5	CGS: H = 04-00-35 7° S, 145½° E (Eastern New Guinea.) Dist.(meas) = 14,650 km.
Jan. 11	eP ipP	07-15-16 35	CGS: H = 07-03-00 45° N, 149° E (Kurile Islands) h = 100 km. ca.
Jan. 12	i(P')	06-19-18.5 (d)	
Jan. 12	iP e eS e eL_Q	20-21-51 (d) 24-15 30-06 34-29 36.5	CGS: H = 20-11-38 55° N, 167° W (Fox Island, Aleutian Islands.) M = 6½ (Pasadena) Dist.(meas) = 6700 km.
Jan. 13	eP' iPP iPS ePPS e e(SS) eL_Q eL_R	04-22-26 23-08 32-52 33-58 39-16 40-05 54.3 59.5	CGS: H = 04-03-37 22° N, 124½° E (Off east coast of Formosa. Felt Ryukyu Is.) Dist.(meas) = 12,600 km.
Jan. 14	eP	00-12-01	CGS: H = 00-00-20 Near east coast of Kamchatka.
Jan. 15	eP eL_R	05-08-45 15.7	CGS: H = 05-03-18 32° N, 42° W (North Atlantic Ocean) h = 60 km.ca.
Jan. 15	iP eL_R	07-09-29 25.5	CGS: H = 07-00-53 4° S, 81° W (Near coast of Peru) Dist.(meas) = 5200 km.

Date 1952	Phase	Time (GCT)	Remarks
Jan. 16	iP	06-18-33.5 (d)	
	i	41	
Jan. 18	iP	12-52-50 (d)	CGS: H = 12-44-18 ½° S, 92° W (Galapagos Islands) Dist.(meas) = 5200 km.
Jan. 18	eP	23-01-04	CGS: H = 22-53-17 3½° N, 78° W (Near west coast of Colombia)
Jan. 19	eP	07-25-51	CGS: H = 07-15-38 52½° N, 166° W (Fox Island, Aleutian Islands)
Jan. 19	eL_R	21-21.2	CGS: H = 21-08-37 North Atlantic Ocean, about 800 miles SW of Azores.
Jan. 19	eP	23-17-50	CGS: H = 23-12-12 31½° N, 41° W (North Atlantic Ocean)
	eL_R	25.5	
Jan. 20	iP	18-17-33 (d)	
Jan. 21	iP	03-53-08.5 (d)	CGS: H = 03-43-04 53° N, 166½° W (Fox Island, Aleutian Islands.) h = 60 km.ca. M = 6¾ Dis.(meas) = 6700 km.
	iS	04-01-28	
	eL_Q	12.5	
	eL_R	15.1	
Jan. 24	iP	09-24-19	
Jan. 26	eL_R	05-30.9	CGS: H = 04-50-50 Near Adak, Aleutian Islands. Felt.
Jan. 26	eL_R	14-51.4	
Jan. 29	eP'	01-14-37	CGS: H = 00-55-30 Near Negros, Philippine Islands
Jan. 30	eP	07-15-05	CGS: H = 07-02-20 44½° N, 149° E Kurile Islands

Date 1952	Phase	Time (GCT)	Remarks
Jan. 31	eP'	08-39-07	CGS: H = 08-20-26 22° S, 179° E (South of Fiji Islands)
Jan. 31	e	20-23-18	
Jan. 31	iP iPP ePPP eS eL_R	20-23-36.5 (d) 24-35 25-00 28-16 30-36	CGS: H = 20-16-43 15½° N, 93½° W (Near coast of Chiapas, Mexico. Felt.) h = 60 km.ca. M = 6¾ (Pasadena) Dist.(meas.) = 3650 km.
Jan. 31	eL_R	21-43.7	CGS: H = 20-55-12 4° S, 30½° E (Ruanda - Urundi. Tanganyika border.) Dist.(meas) = 11,250 km.
Feb. 2	iP eL_R	10-30-54 56.5	CGS: H = 10-20-06 51½° N, 179° W (Andreanof Islands, Aleutian Islands.) h = 100 km.ca. Dist.(meas.) = 7500 km.
Feb. 2	iP i eS eT	12-29-19 (d) 34.5 33-23 51-39	CGS: H = 12-24-02 Off west coast of Puerto Rico Note: Records suggest deeper than normal.
Feb. 2	eL_R	23-57.7	CGS: H = 22-59-45 11° S, 165° E (Santa Cruz Islands.) h = 100 km.ca. Dist.(meas) = 13,500 km.
Feb. 4	eL_R	19-29.8	CGS: H = 19-09-30 Southern Gulf of California
Feb. 5	eP'	17-10-01	CGS: H = 16-50-44 Near north coast of Mindanao, Philippine Islands.
Feb. 6	iP	05-40-46	CGS: H = 05-27-10 Kansu Province, China
Feb. 6	eL_R	07-54.4	CGS: H = 06-54-45 Kermadec Islands.

Date 1952	Phase	Time (GCT)	Remarks
Feb. 6	iP	16-44-32	CGS: H = 16-38-49
	ipP	48	13° N, 88° W
			(Near coast of El Savador)
			h = 100 km.ca.
Feb. 10	eP	06-18-26	CGS: H = 06-10-05
			72½° N, 2° E
			(Jan Mayen Island Region)
			Dist.(meas.) = 5000 km.
Feb. 11	iP	04-02-58	CGS: H = 03-52-43
			Near coast of southern Peru
Feb. 11	iP'	07-19-28 (d)	CGS: H = 07-01-04
	epP'	21-58	6° S, 110° E
	iSKP	22-07	(Java Sea)
	isP'	23-05	h = 700 km.ca.
	eSS	40-28	M = 7 (Pasadena)
			Dist.(meas.) = 15,850 km.
Feb. 12	iP	02-07-07.5	CGS: H = 01-58-02
			9° S, 74° W
			(East-central Peru)
Feb. 12	iP'	20-34-27 (c)	CGS: H = 20-15-30
			Bismark Sea
			h = 100 km. ca.
Feb. 14	eP'	03-57-45	CGS: H = 03-38-06
	iPP	04-00-23	8° S, 125° E
	iSKS	05-16	(Flores Sea, north of Timor Island.)
	iSKKS	07-21	M = 7¼ (Pasadena)
	i	09-20	Dist.(meas) = 15,900 km.
	i(PPS)	14-23	
	iSS	19-52	
	eG	34.2	
Feb. 14	iP	20-09-35.5 (d)	CGS: H = 21-02-35
	eI_R	20.5	7½° N, 76½° W
			(Northwestern Colombia.)
			M = 6¾ (Pasadena)
			Dist.(meas) = 3900 km.
Feb. 16	eP	07-32-37	CGS: H = 07-25-15
			(Near coast of Oaxaca Mexico.)
Feb. 17	eS	17-48-44	CGS: H = 17-35-45
	eL	54.0	Southern Gulf of California.

Date 1952	Phase	Time (GCT)	Remarks
Feb. 20	eP	09-20-07	CGS: H = 09-40-06
	i	19.5	16° S, 74° W
			(Near coast of southern Peru)
			h = 150 km.ca.
			Dist.(meas) = 6450 km.
Feb. 21	eL	24-03.9	CGS: H = 23-44-49
			23½° N, 109° W
			(Gulf of California)
			M = 5½ (Berkeley)
Feb. 23	eP	17-57-08	West Indies Region?
	eS	18-01-11	
	eT	17-52	
Feb. 23	eL_R	21-48.5	CGS: H = 21-35-15
			29° N, 43° W
			(North Atlantic Ocean)
Feb. 24	e(T)	10-54-28	West Indies Region?
Feb. 25	eP	01-31-36	CGS: H = 01-17-00
	e(P')	35-11	17° S, 173½° W
	ePP	36-13	(Tonga Islands.Felt: Apia)
	i	48	M = 6.9 (Pasadena)
	eSKKS	43-09	Dist.(meas) = 12,250 km.
	iPS	45-36	
	i	46-05	
	i	50-46	
	eSS	51-44	
	i(PSPS)	52-37	
	eL_R	02-08.5	
Feb. 26	iP	11-40-21.5 (c)	CGS: H = 11-31-04
	iP_cP	41-17	14½° S, 70° W
	ePP	42-32	h = 300 km.ca.
	ipPP	43-21	
	iS	47-52	
	isS	49-37	
Feb. 26	iP	15-46-00.5	CGS: H = 15-39-23
	ipP	13	11½° N, 86½° W
	iPP	47-23	(Near coast of Nicaragua)
	eL_R	53.7	h = 100 km.ca.
			M = 6 (Pasadena)
			Dist.(meas) = 3700 km.
Feb. 26	eL_R	22-08.8	CGS: H = 21-06-49
			12½° S, 166° E
			Santa Cruz Islands)

Date 1952	Phase	Time (GCT)	Remarks
Feb. 27	eP	07-50-44	West Indies Region?
	eT	08-11-23	
Feb. 27	iP	17-07-36 (d)	CGS: H = 16-58-29 60° N, 155° W (Southern Alaska) Dist.(meas) = 5700 km.
Mar. 1	iP'	06-23-33 (d)	CGS: H = 06-04-05 Near northern coast of Celebes Island
Mar. 1	eP	15-43-59	CGS: H = 15-31-02 Near east coast of Hokkaido, Japan
Mar. 2	eP	18-59-31	CGS: H = 18-52-56 11° N, 86½° W (Near coast of Nicaragua) h = 100 km.ca. Dist.(meas) = 3750 km.
	ipP	46	
	esS	19-05-28	
	eL	10.0	
Mar. 3	eL_R	08-12.6	CGS: H = 07-12-39 21½° S, 174½° W (Tonga Islands) Dist.(meas) = 12,650 km.
Mar. 3	iP	17-48-46 (d)	CGS: H = 17-42-07 11° N, 86½° W (Near coast of Nicaragua) h = 100 km. ca. Dist.(meas) = 3750 km.
	ipP	49-04.5	
	eL_R	18-00.6	
Mar. 4	iP	01-35-44 (d)	CGS: H = 01-22-41 42½° N, 143½° E (Near east coast of Hokkaido, Japan. Heavy casualties and extensive property damage. Seismic sea wave.) M = 8¼ (Pasadena) Dist.(meas) = 9950 km.
	ePP	39-33	
	i	46-11	
	iS	32	
Mar. 4	iP	02-52-45 (d)	CGS: H = 02-39-42 Hokkaido, Japan aftershock.
Mar. 4	iP	04-06-31 (d)	CGS: H = 03-53-36 43° N, 146° E Off east coast of Hokkaido
Mar. 4	iP	04-24-15	CGS: H = 04-11-09 Hokkaido Japan aftershock
Mar. 4	iP	07-22-51.5	

Date 1952	Phase	Time (GCT)	Remarks
Mar. 4	iP	07-26-34 (c)	
Mar. 4	iP	11-16-00	
Mar. 4	iP	14-32-52	CGS: H = 14-19-40 42° N, 145½° E (Off east coast of Hokkaido, Japan.)
Mar. 4	iP eL_R	16-43-55.5 17-24.6	CGS: H = 16-31-00 43° N, 146° E (Off east coast of Hokkaido, Japan.)
Mar. 4	eP	18-39-28	CGS: H = 18-26-27 42° N, 144° E (Near east coast of Hokkaido, Japan)
Mar. 4	iP'	19-49-28 (c)	CGS: H = 19-30-28 10° S, 161½° E (Solomon Islands) M = 6¾ (Pasadena) Dist.(meas) = 13,800 km.
Mar. 4	iP eS eL_R	20-09-12 (c) 20-41 39.3	CGS: H = 19-56-10 42° N, 146° E (Dist.(meas) = 9850 km. (Off east coast of Hokkaido)
Mar. 4	iP	21-02-24 (c)	CGS: H = 20-12-20 Hokkaido, Japan aftershock
Mar. 5	iP	01-33-15 (d)	CGS: H = 01-20-21 43° N, 145½° E (Off east coast of Hokkaido)
Mar. 5	iP eL_R	04-02-05 (d) 38.5	CGS: H = 03-49-03 Aftershock of Mar.4, 19-56-10
Mar. 5	iP eL_R	09-30-05 10-09.5	CGS: H = 09-17-08 43° N, 145½° E (Off east coast of Hokkaido)
Mar. 5	iP	09-35-10	CGS: H = 09-22-15 42½° N, 145½° E (Off east coast of Hokkaido)

Date 1952	Phase	Time (GCT)	Remarks
Mar. 5	eP	15-33-09	CGS: H = 15-46-08
	eL	16-04.2	24½° N, 108½° W
			(Gulf of California)
			M = 5¾-6 (Pasadena)
			Dist.(meas) = 3950 km.
Mar. 5	eP	16-07-15	CGS: H = 15-54-18
			43° N, 145½° E
			(Off east coast of Hokkaido)
Mar. 5	iP	22-59-05	CGS: H = 22-46-09
			43° N, 145° E
			(Off east coast of Hokkaido)
Mar. 7	eP	07-46-15	CGS: H = 07-32-38
	eS	57-38	36° N, 136½° E
	eSS	08-04-33	(Honshu, Japan. Felt)
	eL_Q	22.9	M = 6½ (Pasadena)
			Dist.(meas) = 10,850 km.
Mar. 7	iP	04-05-30	CGS: H = 03-52-29
			42½° N, 145½° E
			(Off east coast of Hokkaido)
Mar. 7	iP	11-57-27	CGS: H = 11-44-32
			43° N, 145½° E
			(Off east coast of Hokkaido)
Mar. 7	iP	18-28-56	CGS: H = 18-16-02
	eL_R	19-12.6	43° N, 146° E
			(Off east coast of Hokkaido)
Mar. 8	i(P)	19-35-55	CGS: H = 19-28-50
	eL_R	46.7	(Off coast of Nicaragua)
			11° N, 88½° W
Mar. 9	iP	04-01-30	
Mar. 9	iP	05-52-03.5 (d)	CGS: H = 05-44-29
			70½° N, 15° W
			(Jan Mayen Island region)
Mar. 9	iP	17-16-47 (c)	CGS: H = 17-03-43
	ePP	20.22	42° N, 145½° E
	eSKS	27-14	(Near south coast of Hokkaido, Japan. Slight property damage)
	iS	47	
	eSS	33-34	
	eL_Q	45-32	M = 7 (Pasadena)
	eL_R	48-34	Dist.(meas) = 10,000 km.

Date 1952	Phase	Time(GCT)	Remarks
Mar. 9	iP	20-08-15	CGS: H = 20-00-17
	ePP	10-00	59½° N, 136° W
	$iPcP$	10-04	(Alaska-Canada border.
	e	11-59	Felt: Sitka)
	eS	14-41	M = 6 (Pasadena)
	eL_R	20-20	Dist.(meas) = 4700 km.
Mar. 9	eP	22-05-00	CGS: H = 21-54-30
	epP	31	Northern Argentina - Chile border region
			h = 200 km. ca.
Mar. 10	iP	18-13-58.5 (c)	CGS: H = 18-00-55
			42½° N, 144½° E
Mar. 10	i(P)	22-32-13	Near east coast of Hokkaido)
Mar. 15	iP	01-32-17	
Mar. 15	eP'	11-35-21	CGS: H = 11-15-46
			5½° S, 100½° E
			Off southwest coast of Sumatra
Mar. 16	iP	09-53-25 (c)	
Mar. 16	eP	22-22-23	CGS: H = 22-09-23
			42½° N, 144° E
			(Near east coast of Hokkaido)
Mar. 17	eP	04-17-07.5	CGS: H = 04-14-40
	iS	37.5	Southwestern Quebec
Mar. 18	iPP	11-15-18	CGS: H = 10-56-27
			12° S, 168° E
			(Santa Cruz Islands)
			Dist.(meas) = 11,450 km.
Mar. 19	iP	01-38-43 (d)	CGS: H = 01-27-23
			40° N, 29° E
			(Northwestern Turkey)
Mar. 19	eL_R	09-59.3	CGS: H = 09-04-18
			41° N, 125° E
			(Near Korea-Manchuria border. Felt:Seoul)
Mar. 19	iP'	11-16-14 (c)	CGS: H = 10-57-09
	iPP	17-52	9½° N, 127° E
	e	24-57	(Off east coast of Mindanao,
	iPS	28-02	Philippine Islands)
	iSS	35-40	M = 7½-7¾ (Pasadena)
	eSSS	39-31	Dist.(meas) = 13,950 km.

Date 1952	Phase	Time (GCT)	Remarks
Mar. 31	e(P)	15-23-45	
Mar. 21	e(P)	15-25-30.5	
Mar. 21	eL_R	16-16.2	CGS: H = 15-07-44 11° S, 165° E (Santa Cruz Islands) h = 60 km. ca.
Mar. 21	eL_R	17-10.2	CGS: H = 16-10-38 11° S, 165° E (Santa Cruz Islands) h = 60 km. ca.
Mar. 22	eP iS eL_Q eL_R	18-26-21 34-58 49.8 52.9	CGS: H = 18-15-43 52° N, 173° W (Andreanof Islands, Aleutian Islands.) M = 6½-6½ (Pasadena) Dist. (meas) = 7100 km.
Mar. 23	eL_R	14-15.6	CGS: H = 13-13.25 11° S, 165° E (Santa Cruz Islands) h = 60 km. ca.
Mar. 23	eL_R	16-27.3	CGS: H = 15-21-50 Near Samoa, Philippine Is.
Mar. 24	eP	10-05-31	CGS: H = 09-57-24 Central Ecuador
Mar. 24	eP	18-23-09	
Mar. 25	iP'	09-48-53 (d)	CGS: H = 02-29-42 5½° S, 150° E (New Britain) Dist. (meas) = 14,300 km.
Mar. 25	iP	13-58-11	
Mar. 26	iP	03-49-40	CGS: H = 03-42-15 5½° N, 83° W (Pacific Ocean, south of Panama)
Mar. 26	iP	11-12-22	
Mar. 26	iP	11-21-27	

Date 1952	Phase	Time (GCT)	Remarks
Mar. 26	iP	18-18-29 (c)	
		20-49	
Mar. 27	iP	16-21-32	CGS: H = 16-09-50
	eL_R	44.0	Ascension Island region
Mar. 28	iP	06-04-10	These may not be from
	i	07-31.5	same event.
Mar. 29	eP	07-29-52	
Mar. 31	iP	16-18-17 (c)	
	i	35	
Apr. 1	e	00-52-04	CGS: H = 00-37-41.5
			48.0° N, 113.8° W
			(Northwestern Montana, Felt.)
Apr. 1	eP'	01-21-29	CGS: H = 01-08-36
			17° S, 169° E
			(New Hebrides Islands)
Apr. 1	ePS	14-37-24	CGS: H = 14-08-47
	eL_R	15-02.5	15° S, 175½° W
			(Samoa Islands region)
			M = 6¼ (Pasadena)
			Dist.(meas) = 12,300 km.
Apr. 2	eP	10-53-01	
Apr. 2	iP	18-41-49 (d)	CGS: H = 18-34-50
	eL_R	57.3	16½° N, 99½° W
			(Near coast of Guerrero,
			Mexico. Felt.)
			M = 6¼-6½ (Pasadena)
Apr. 3	iP	16-03-20.5 (c)	
Apr. 4	iP	03-04-44.5 (c)	CGS: H = 02-52-55
	eL_R	35.0	52° N, 159½° E
			(Near east coast of Kamchatka)
			M = 6¼ (Pasadena)
			Dist.(meas) = 8450 km.
Apr. 5	eL_R	09-34.4	CGS: H = 08-33-12
			15½° S, 177½° E
			(Fiji Islands)
			Dist.(meas.) = 12,850 km.
Apr. 8	iP	00-27-18 (d)	CGS: H = 00-19-04
	ipP	29-10	9° S, 70½° W
			(Western Brazil)
			h = 600 km. ca.

Date 1952	Phase	Time (GCT)		Remarks
Apr. 8	eP	03-06-27		CGS: H = 02-54-55
	epP	42		53½° N, 161° E
				(Near east coast of Kamchatka)
				h = 60 km.ca.
Apr. 8	iP	03-19-04	(d)	CGS: H = 03-07-30
	epP	17		Same location as above
Apr. 8	eP'	10-19-18		CGS: H = 10-00-08
	ePP	21-21		Sulu Sea
	e	37-20		
	eL_R	11-07.6		
Apr. 8	eL_R	21-46.1		
Apr. 9	eL_R	08-25.3		CGS: H = 07-57-10
				About 100 miles southwest of Galapagos Islands
Apr. 9	iP	16-34-16	(d)	CGS: H = 16-29-29.5
	eS	38-10		35.4° N, 97.8° W
	eL	40-33		(Slight property damage in central Oklahoma. Felt in seven states)
				M = 5.5 (Pasadena)
				h = 125 km.
Apr. 10	eP'	06-16-36		CGS: H = 05-57-20
	eL_R	53.4		25° N, 126° E
				Ryukyu Islands
Apr. 11	iP	04-57-33		
Apr. 12	eL_R	02-34.4		
Apr. 14	iP	23-48-04.5	(d)	CGS: H = 23-37-20
	i	28		25° S, 69½° W
	i	45		(Northern Chile)
				h = 100 km.ca.
Apr. 14	iP'	24-09-04.5		CGS: H = 23-49-45
	iPP	11-18		3½° N, 126½° E
	eSKSP	21-37		(Molucca Passage)
	ePS	22-13		
	ePPS	23-08		
	eSS	28-20		
	eL_R	55-20		
Apr. 15	eP	06-12-51		CGS: H = 05-59-53
	eL_R	53.2		43° N, 143½° E
				(Hokkaido, Japan)
				Dist.(meas) = 9850 km.

Date 1952	Phase	Time (GCT)	Remarks
	ePP	19-21-07	CGS: H = 19-08-12
	eSKS	26-59	58° S, 24° W
	eSKKS	27-59	(Sandwich Islands region)
	ePS	30-04	Dist.(meas) = 11,850 km.
	iSS	36-20	
	eL_R	48.4	
Apr. 16	iP	03-52-42.5 (c)	CGS: H = 03-40-19
			47° N, 154° E
			(Kurile Islands region)
			Dist.(meas) = 9100 km.
Apr. 17	iP	11-54-51 (c)	CGS: H = 11-43-18
			Central Argentina - Chile border region
Apr. 19	iP	10-05-48 (c)	CGS: H = 09-58-53
	ePP	07-05	7° N, 71½° W
	iS	11-22	(Colombia-Venezuela
	iSS	13-42	border. Minor property damage.)
			h = 60 km.ca.
			M = 6¾-7 (Pasadena)
			Dist.(meas.) = 5900 km.
Apr. 19	eP'	11-30-58	CGS: H = 11-11-45
	eL_R	12-13.1	Bismarck Sea
Apr. 19	eP'	19-44-41	CGS: H = 19-26-12
	eL_R	20-19.9	Sandwich Islands region
Apr. 19	iP	21-10-41	
Apr. 20	eL	08-05.0	CGS: H = 07-07-36
			22° S, 175° W
			(Tonga Islands)
			h = 100 km.ca.
Apr. 21	eL	23-33.0	CGS: H = 23-15-07
			7½° N, 83° W
			(Off coast of Panama)
Apr. 22	eL	05-33.8	CGS: H = 04-25-42
			27° S, 176½° W
			(Kermadec Islands region)
Apr. 22	e	17-08-12	CGS: H = 16-54-42.5
			46° N, 111½° W
			(Western Montana. Felt)
Apr. 24	eL	13-12.2	

Date 1952	Phase	Time (GCT)	Remarks
Apr. 25	e	06-09-07	CGS: H = 06-02-00
	eL	24.6	8° N, 83° W
			(Near coast of Costa Rica)
			M = 6½-6½ (Pasadena)
			Dist.(meas) = 3950 km.
Apr. 26	iP	02-08-18.5 (d)	CGS: H = 01-56-05
			Near coast of southern Kamchatka.
Apr. 27	eL	13-40.9	
Apr. 27	eL	14-54.0	
Apr. 27	eL	18-56.0	
Apr. 28	eP	11-06-19	CGS: H = 10-54-18
	eL	40.0	42½° N, 143° E
			(Hokkaido, Japan)
			M = 6½ (Pasadena)
			Dist.(meas) = 10,050 km.
Apr. 29	eL	04-10.0	CGS: H = 03-07-35
			15° S, 44½° E
			(Mozambique Channel)
			h = 200 km. ca.
Apr. 29	iP	19-54-23 (c)	CGS: H = 19-42-25
	i	39	Central Chile
			M = 6 ca. (Pasadena)
Apr. 30	e(P)	14-25-25	
May 1	eL	02-34.1	
May 1	iP	15-15-28 (d)	CGS: H = 15-04-07
			Near Islands, Aleutian Islands
May 1	eP	16-16-28	CGS: H = 16-10-41
	eL	22-23	28° N, 43½° W
			(North Atlantic Ocean)
May 3	iP	12-24-01 (d)	CGS: H = 12-14-09
			15° S, 76½° W
			(Off coast of southern Peru)
			Dist.(meas) = 6300 km.
May 4	eL	15-07.3	CGS: H = 14-15-16
			24½° S, 177½° W
			(Tonga Islands region)
			Dist.(meas) = 13,000 km.

Date 1952	Phase	Time (GCT)	Remarks
May 6	iP	17-28-33.5 (c)	CGS: H = 17-21-02
	eL	39.2	41½° N, 125° W
			(Off coast of nothern Calif.)
May 6	iP	22-33-59 (c)	CGS: H = 22-26-40
	eL	47-44	(Off coast of Colima, Mexico)
May 7	i	06-35-42	Teleseismic
May 7	eL_R	16-35-29	CGS: H = 16-14-36
			51° N, 131° W
			(Near Queen Charlotte Is.)
May 8	eP	01-12-26 (c)	CGS: H = 00-58-40
	eL_R	52.8	35½° N, 140° E
			(Honshu, Japan)
			h = 60 km.ca.
			M = 6¼-6½ (Pasadena)
			Dist.(meas) = 10,800 km.
May 8	iP	09-49-12.5 (d)	CGS: H = 09-38-55
			Southern Peru
May 8	eP'	21-29-58	CGS: H = 21-10-40
	iPP	32-25 (c)	2½° N, 127° E
	iPPP	34-57	(Molucca Passage)
	e(PPS)	45-15	M = 6½-6¾ (Pasadena)
	eSS	50-02	Dist.(meas) = 14,700 km.
	eL_R	22-16.6	
May 8	iP'	22-08-33 (d)	CGS: H = 21-49-36
			5½° S, 145° E
			(Northern New Guinea)
			h = 200 km.ca.
May 9	iP	15-38-35.5 (c)	CGS: H = 15-31-31
	eL	52.7	39½° N, 119⅜° W
			(California-Nevada border)
			M = 5½ (Pasadena)
			4⅜-5 (Berkeley)
May 9	iP'	18-06-39.5 (c)	CGS: H = 17-47-40
	epP'	46	6½° S, 155° E
	isP'	58	(Solomon Islands)
	ePP	08-31	h = 60 km.ca.
	i	54	M = 7 (Pasadena)
	ePS	18-34	Dist.(meas) = 13,900 km.
	ePPS	20-04	
	eSS	25-20	
	eL_R	45.9	

Date 1952	Phase	Time (GCT)	Remarks
May 10	eP	14-36-00	
May 10	iP	17-23-25 (d)	
	e	26-11	
May 10	eL	19-58.9	
May 13	eP	19-38-20	CGS: H = 19-31-45
	ipP	42	10½° N, 85° W
	ePP	39-27	(Costa Rica)
	e	40-42	h = 100 km.
	iP_cP	54	M = 6.9 (Pasadena)
	eP_cS	44-58	Dist.(Meas) = 3700 km.
	eL_R	46.5	
May 14	iP	00-49-57 (c)	CGS: H = 00-36-59
	eS	01-00-48	43° N, 145½° E
	ePS	01-49	(Near east coast of Hokkaido,
	eL_R	27.1 ca.	Japan)
			Dist.(meas) = 9800 km.
May 14	iP	21-17-36 (c)	CGS: H = 21-11-36
	eS	22-25	16½° N, 86½° W
	eL_R	26.3	(Off north coast of Honduras)
			M = 5.9 (Berkeley)
			Dist.(meas) = 3200 km.
May 15	iP	11-18-57 (d)	CGS: H = 11-07-45
			Rat Island, Aleutian Islands
May 15	iP	18-50-36 (d)	CGS: H = 18-43-52
	eS	55-50	Foreshock of May 16,
	eL_R	19-03.5	05-42-09
			M = 5½-5¾ (Pasadena
May 15	iP	21-17-33	CGS: H = 21-06-50
	ipP	58.5	Northern Chile
			h = 100 km.ca.
May 16	iP	05-48-48 (c)	CGS: H = 05-42-09
	eS	54-09	14° N, 92½° W
	eL_R	06-06.3	(Near coast of Guatemala)
			M = 5¾ (Pasadena)
			Dist.(meas) = 3650 km.
May 16	iP	10-59-02 (c)	CGS: H = 10-52-18
			16½° N, 96½° W
			Oaxaca, Mexico
			h = 100 km.ca.

Late 1952	Phase	Time (GCT)	Remarks
May 16	iP	20-52-48 (c)	CGS: H = 20-45-40
	e	53-15	$6\frac{1}{2}^{\circ}$ N, 79° W
	iS	58-30	(Off coast of Panama. Felt)
	eL_R	21-02.6	M = 6.9 (Pasadena)
			Dist.(meas) = 4050 km.
May 17	iP	10-01-14.5 (d)	CGS: H = 09-48-16
	eL	33.6	$42\frac{1}{2}^{\circ}$ N, $144\frac{1}{2}^{\circ}$ E
			(Near east coast of Hokkaido, Japan)
			M = $6\frac{1}{2}$-$6\frac{3}{4}$ (Pasadena)
			Dist.(meas) = 9950 km.
May 19	iP	01-05-01	
May 19	eP	18-45-21	CGS: H = 18-32-24
	eS	56-03	43° N, $144\frac{1}{2}^{\circ}$ E
	eS_cS	29	(Near east coast of Hokkaido)
	ePPS	57-38	Dist.(meas) = 9850 km.
	eL_Q	19-13.8	
	eL_R	17.5	
May 22	eL_R	24-08.3	CGS: H = 23-08-21
			29° N, $131\frac{1}{2}^{\circ}$ E
			(Ryukyu Islands)
			h = 60 km.ca.
			Dist.(meas) = 11,650 km.
May 23	eL_R	05-22.1	CGS: H = 04-20-52
			33° N, 136° E
			(Near south coast of Honshu)
			h = 60 km.ca.
			M = 6 (Pasadena)
			Dist.(meas.) = 11,200 km.
May 23	eP	22-24-00	CGS: H = 22-12-26
	eL_R	51.3	20° N, 156° W
			(Near west coast of Hawaii)
			M = 6 (Pasadena)
			Dist.(meas.) = 8050 km.
May 24	iP	02-09-37 (c)	CGS: H = 01-59-05
	eL_R	31.0	$21\frac{1}{2}^{\circ}$ S, 71° W
			Near coast of northern Chile)
			M = $6\frac{3}{4}$ (Pasadena)
			Dist.(meas.) = 6950 km.
May 24	eL	04-33-20	CGS: H = 04-15-15
			36.1° N, 114.7° W
			(Arizona-Nevada border)
			M = 5 (Pasadena)
May 24	iP	10-24-13.5 (c)	

Date 1952	Phase	Time (GCT)	Remarks
May 24	eP'	16-26-21	CGS: H = 16-05-53
	ePP	28-09	Off west coast of Sumatra
	ePPP	31-17	M = $6\frac{1}{2}$-$6\frac{3}{4}$ (Pasadena)
	e	33-52	
	e(SKSP)	37-51	
	e	39-15	
	ePPS	40-27	
	eSS	46-25	
	eSSS	51-37	
	eL_R	17-16.5	
May 26	ePS	03-14-51	CGS: H = 02-46-25
	eL_R	44.1	Assam
May 28	iP	05-21-30	
May 28	eP	08-12-07	CGS: H = 07-59-09
	ePP	18.3	$38\frac{1}{2}^\circ$ N, 136° E
	i_sPP	18-11	(Central Honshu, Japan. Felt)
	iSKS	22-08	h = 400 km. ca.
	epS	24-49	M = $6\frac{3}{4}$-7 (Pasadena)
			Dist. (meas.) = (10,850 km.
May 31	eP	05-14-29	
May 31	eL_R	06-13.8	
May 31	eL_R	12-56.1	CGS: H = 11-50-50
			Loyalty Islands Region
June 3	iP	00-35-59.5 (d)	
June 3	iP	13-34-07.5 (c)	CGS: H = 13-21-12
			$44\frac{1}{2}^\circ$ N, $143\frac{1}{2}^\circ$ E
			(Near east coast of Hokkaido)
June 3	eL_R	19-50.3	CGS: H = 18-49-10
			5° S, 153° E
			(Solomon Islands)
			h = 100 km. ca.
June 4	eL_R	07-16.3	CGS: H = 06-19-45
			Northern Kashmir - Tibet border
June 4	iP	21-37-57 (d?)	CGS: H = 21-30-52
	eL	45.7	Foreshock of June 5, 05-56-35
			M = 6-$6\frac{1}{4}$ (Pasadena)

Date 1952	Phase	Time (GCT)	Remarks
June 5	iP	06-03-44.5 (c)	CGS: H = 05-56-35
	iS	09-30	6° N, 77½°W
	eL_R		(Near west coast of Colombia)
			h = 60 km.
			M = 6¼ (Pasadena)
			Dist.(meas.) = 4050 km.
June 6	iP	08-46-17	CGS: H = 08-34-30
			Southern Kamchatka
June 6	e(P)	13-15-35	
June 7	eL_R	07-25.6	CGS: H = 06-15-13
			Santa Cruz Islands region
June 10	ePP	10-17-54	CGS: H = 09-58-27
	ePPP	20-13	15½° S, 178½° W
	eS	25-46	(Fiji Islands region)
	ePS	27-34	M = 6½-6¾ (Pasadena)
	ePPS	28-52	Dist.(meas.) = 12,450 km.
	e(SS)	34-49	
	eL_Q	44.5	
June 11	iP	00-43-14.5(c)	CGS: H = 00-31-32
	e	44-30	32° S, 67½° W
	iS	52-46	(San Juan Province,
	i	54-25	Argentina. Felt in Chile
	eL_R	01-11.3	and western Argentina
			Many casualties and
			moderate property damage
			M = 7 (Pasadena)
			Dist.(meas) = 8250 km.
June 11	iP	03-12-10 (d)	CGS: H = 03-00-28
			Aftershock of above
June 12	eP	11-11-33	CGS: H = 11-00-09
			Near southeast coast of Crete
June 13	iP	01-18-26 (c)	CGS: H = 01-07-58
			Near west coast of Greece
June 14	iP	02-14-32 (d)	CGS: H = 02-05-33
			58° N, 153½° W
			(Near coast of Alaska Peninsula)
			h = 60 km.ca.
			Dist.(meas.) = 5650 km.

DATE 1952	Phase	Time (GCT)	Remarks
June 15	iP	15-20-28.5(d)	CGS: H = 15-12-41
	iL_Q	33-51	66° N, 134° W
			(Yukon, Canada)
			Dist.(meas.) = 4600 km.
June 15	eP	16-33-49	CGS: H = 16-20-20
			40° N, 143½° E
			(Off east coast of Honshu)
June 16	iP'	03-56-13 (c)	CGS: H = 03-38-20
			23° S, 173½° W
			(Fiji Islands Region)
			h = 500 km. ca.
			M = 6½ (Pasadena)
			Dist.(meas.) = 13,150 km.
June 16	eP	06-17-57	
June 17	eL_R	05-07.1	CGS: H = 04-07-40
			21½° S, 176° W
			(Tonga Islands)
			M = 6-6¼ (Pasadena)
			Dist.(meas.) = 12,700 km.
June 17	iP	17-49-15.5 (d)	
June 17	iP	22-45-50 (d)	CGS: H = 22-37-25
			36½° N, 11° W
			(Off southwest coast of Portugal. Felt.)
June 18	iP	01-05-54 (c)	CGS: H = 00-59-34
	eS	10-24	16½° N, 61½° W
	eT	30-29	(Leeward Islands)
			h = 100 km. ca.
June 19	iP	01-50-19 (d)	
June 19	eL	13-00.8	CGS: H = 12-12-56
			23° N, 100° E
			(Southern Yunnan Province, China)
			M = 6½ (Pasadena)
			Dist.(meas) = 12,800 km.
June 19	e	21-29-23	CGS: H = 20-57-01
	e	48	Tonga Islands region
	eSS	31-53	
	eSSS	37-22	
	eL_R	51.9	

Date 1952	Phase	Time (GCT)	Remarks
June 20	ePS eL	06-15-10 36.8	CGS: H = 05-46-20 25½° N, 122° E (Near north coast of Formosa.) M = 6½ (Pasadena) Dist.(meas.) = 12,350 km.
June 20	eP_n eS_n	09-40-04 42-37	CGS: H = 09-38-06 39½° N, 82½° W (Southeastern Ohio. Felt)
June 21	iP eL	06-41-22 (c) 07-12.9	CGS: H = 21-41-53 Foreshock of June 22, 21-41-53 M = 6½ (Pasadena)
June 21	iP ipP	16-41-36 (d) 47	CGS: H = 16-31-33 18° S, 72½° W Off coast of southern Peru h = 60 km.
June 22	iP'	04-16-12 (c)	CGS: H = 04-07-57 1½° S, 80½° W (Near coast of Ecuador) Dist. (meas.) = 4830 km.
June 22	eP eL	10-20-40 (c) 47.7	CGS: H = 10-08-14 Foreshock of following
June 22	iP ePP iS eL	21-54-18 57-37 22-04-33 13.7	CGS: H = 21-41-53 46° N, 153½° E (Kurile Islands) M = 7 (Pasadena) Dist.(meas.) = 9250 km.
June 22	eP	22-12-30	CGS: H = 22-00-04 46½° N, 154° E (Kurile Islands region)
June 24	eP iS	16-41-33 51-43	CGS: H = 16-29-02 46½° N, 154° E (Kurile Islands) Dist.(meas.) = 9250 km.
June 26	eL	15-49.3	CGS: H = 15-32-57 36½° N, 25½° W (Azores. Felt.)
June 28	eP	05-13-06	CGS: H = 05-01-43 55½° N, 165° E (Off east coast of Kamchatka)

Date 1952	Phase	Time (GCT)	Remarks
June 28	iP eL	16-34-35.5(c) 48.3	CGS: H = 16-27-49 16½° N, 97½° W (Oaxaca, Mexico) M = 5¾ (Pasadena) Dist.(meas.) = 3700 km.
June 29	eP	08-15-16	CGS: H = 08-04-47 52½° N, 171½° W (Fox Island, Aleutian Islands.)
June 29	iP ipP	10-03-12 (d) 46 (d)	CGS: H = 09-56-36 8½° N, 72½° W (Colombia - Venezuela border) h = 150 km.ca. Dist.(Meas.) = 3700 km.
June 29	iP	16-05-11.5(d)	CGS: H = 15-52-08 42° N, 142° E (Off south coast of Hokkaido, Japan)
June 29	iP	16-55-12.5(d)	CGS: H = 16-43-51 55½° N, 162° E (Near east coast of Kamchatka) h = 60 km.ca.

Philip R. Berger
Observer

L. Don Leet
Seismologist in Charge

H A R V A R D U N I V E R S I T Y
S E I S M O G R A P H S T A T I O N

Bulletin Number 39

July 1, 1952 through December 31, 1952

Part B of Paper Number 131, published under the auspices of the Committee on Experimental Geology and Geophysics and of the Division of Geological Sciences at Harvard University

STATION CONSTANTS

Latitude:	42° 30' 26" North
Longitude:	71° 33' 45" West
Altitude:	180 meters

INSTRUMENTS

Vertical, North-South, and East-West Benioff Long- and short-period variable reluctance seismographs with mass of 112.7 kg., galvanometric registration, and magnetic damping.

L-B Vertical Seismograph with displacement type transducer and ink registration.

Normal Operating Constants

Instrument	T_o sec.	T_g sec.	% Critical Damping	Drum Speed	V_s	Displacement for acceleration of 10^{-6} gravity
ZSP	1.0	0.2	.6	60 mm/min.		15 mm
NSP	1.0	0.2	.6	60 mm/min.		15 mm
ESP	1.0	0.2	.6	60 mm/min.		15 mm
ZLP	1.0	14.0	.6	30 mm/min.		12 mm
NLP	1.0	14.0	.6	30 mm/min.		12 mm
ELP	1.0	14.0	.6	30 mm/min.		12 mm
L-B Vertical	0.05	0.05	.5	60 mm/min.	100,000	

MAIL ADDRESS

Harvard Seismograph Station
c/o Prof. L. Don Leet
Harvard, Massachusetts, U.S.A.

Date 1952	Phase	Time (GCT)	Remarks
July 10	iP'	16-02-56 (d)	CGS: H = 15-45-28 18½° S, 180° h = 700 km.ca. M = 6-1/2 (Pas.)
July 11	iP	04-43-43 (d)	CGS: H = 04-33-00 Salta Province, northern Argentina
July 12	iP	02-54-56.5 (d)	CGS: H = 02-46-32 Southern Ecuador
July 12	iP	15-24-38 (c)	
July 13	iP' ePP iSKS iSKKS iPS iSKKP eSS	12-17-01 (c) 18-46 23-38 25-14 28-43 30-21 35-14	CGS: H = 11-58-34 18½° S; 169½° E h = 300 km.ca. M = 7 (Pas.) Dist. = 13,750 km.
July 13	eP' ePP iPKS e eSKSP ePPS	17-53-47 56-46 57-27 18-03-30 06-49 08-56	CGS: H = 17-34-26 3° S, 128° E M = 6¾-7 (Pas.) Dist. = 15,250 km.
July 15	eP eS eLQ	06-12-58 (d) 18-24 23.5	CGS: H = 06-06-20 14½° N, 92½° W M = 6 (Pas.) Dist. = 3650 km.
July 15	eP	19-11-19	CGS: H = 19-03-35 About 350 miles south of Colima, Mexico
July 16	iP e	01-38-23 (d) 50-09	CGS: H = 01-31-14 29½° N, 113½° W Near east coast of Lower California.
July 16	e	03-22-27	BCIS: H = 03-02-45 Samoa Iles
July 17	iP	04-52-55 (d)	BCIS: H = 04-43.3 Coastal Region, southern Peru.

Date 1952	Phase	Time (GCT)	Remarks
July 1	i(P)	20-21-25 (d)	
July 2	eP	17-08-41	CGS: H = 16-57-10 Near east coast of Kamchatka
July 3	iP	00-59-39 (d)	CGS: H = 00-52-23 5½° N, 78° W (Near west coast of Colombia. Dist. = 4100 km.
July 3	iP	09-08-29.5 (c)	
July 5	iP i	17-32-46 (d) 33-41	CGS: H = 17-19-47 36½° N, 71° E (Hindu Kush, Afghanistan) h = 200 km.ca.
July 5	iP	21-31-26 (c)	BCIS: H = 21-21.6 Aleutian Islands Region
July 5	iP	23-17-45 (d)	BCIS: H = 23-06-17 30½° S, 70° W
July 6	iP	06-21-27.5 (c)	CGS: H = 06-10-45 Mid-Atlantic Ocean, about 600 miles SW of Liberia
July 7	iP e eL_R	03-02-58 (d) 11-20 21-7	CGS: H = 02-53-01 (Near south coast of Unimak Island.) M = 6¼ (Pas.) Dist. = 6550 km.
July 7	eP' i	13-08-14 11-16	CGS: H = 12-49-07 Bismarck Sea
July 8	iP	01-11-38.5 (c)	CGS: H = 00-59-23 42° N, 131° E (Sea of Japan) h = 600 km.ca. Dist. = 10,350 km.
July 9	iP iS eL	18-22-23.5 (d) 28-09 32.5	CGS: H = 18-15-18 7½° N, 82° W M = 6½ (Pas.) Dist. = 3950 km.
July 9	iP iS eL	20-43-55 (c) 49-40 54.5	CGS: H = 20-36-48 Aftershock of above M = 6¼ (Pas.)
July 10	i(P)	02-41-27.5 (d)	

Date 1952	Phase	Time (GCT)	Remarks
July 17	eP	16-23-28	CGS: H = 16-09-52
	ipP	48 (d)	34½° N, 136° E
	eSKS	33-59	h = 100 km.ca.
	e(SKKS)	34-31	M = 7 (Pas.)
	eS	51	Dist. = 11,000 km.
	epS	35-27	
	eSS	41-48	
	eL	55.3	
July 18	eL	06-16.3	
July 18	eP	18-51-32	CGS: H = 18-39-40
	ePP	54-18	23° S, 114½° W
	eS	19-01-20	(Easter Is. Region)
	eSS	06-18	Dist. = 8450 km.
	eL	16.6	
July 18	eL	23-22.0	CGS: H = 23-01-50
			Michoacan, Mexico
July 19	eP	02-13-34	
July 21	eP	11-59-28	CGS: H = 11-52-11.5
			35.1° N, 118.9° W
			(Tulare Valley, Southern California. Several killed, extensive damage.
			M = 7½ (Pas.)
			Dist. = 4150 km.
July 21	iP	15-21-10.5 (c)	
July 21	iP	16-16-09 (c)	
July 21	eP	17-49-58	CGS: H = 17-42-47
			35½° N, 118½° W, after-shock.
			M = 5¼-5½ (Berk.)
July 21	iP	19-48-30 (c)	CGS: H = 19-41-18
			35° N, 119° W, Aftershock.
			M = 5½-5¾ (Berk.)
July 23	iP	00-45-43	CGS: H = 00-38-33
			35½° N, 118½° W, After-shock.
			M = 6 (Pas.)
July 23	iP	01-06-00	CGS: H = 00-59-17
			14° N, 91½° W
			Dist. = 3650 km.

Date 1952	Phase	Time GCT)	Remarks
July 23	eP	13-24-20	CGS: H = 13-17-02 Southern Calif. Aftershock M = 5.4 (Berk.)
July 24	iP e	09-20-30 (d) 39	CGS: H = 09-10-00 Northern Chile
July 24	iP	22-22-12	CGS: H = 22-09-20 42½° N, 145½° E h = 60 km.ca. Dist. = 9850 km.
July 25	iP	19-16-59	CGS: H = 19-09-42 35° N, 119° W. Aftershock.
July 25	iP	19-50-34	CGS: H = 19-43-20 35° N, 118½° W. Aftershock.
July 27	ePP iSP	08-42-20 51-20	CGS: H = 08-23-22 20½° S, 179° W h = 500 km.ca. Dist. = 12,900 km.
July 29	iP	07-11-00	CGS: H = 07-03-45 35° N, 119° W M = 6½ (Pas.) Dist. = 4150 km.
July 29	eP eL	20-05-03 29.6	CGS: H = 19-54-27 53½° N, 175° W Dist. = 7100 km.
July 30	iP	03-44-38 (d)	CGS: H = 03-32-02 45° N, 150½° E
July 31	iP eL	12-16-19 (c) 28.8	CGS: H = 12-09-08 35½° N, 118½° W M = 6 (Pas.) Dist. = 4100 km.
July 31	iP	12-28-19 (c)	CGS: H = 12-16-35 34° S, 72½° W h = 100 km.ca.
Aug. 1	iP eL	13-11-51 (d) 27.0	CGS: H = 13-04-28 35° N, 119° W Aftershock M = 5 (Berk.)
Aug. 1	iP i	21-47-38 (d) 52 (d)	

Date 1952	Phase	Time (GCT)	Remarks
Aug. 3	iP	13-23-23 (c)	CGS: H = 13-13-48
	eL_R	42.1	$12\frac{1}{2}^{\circ}$ S, 78° W
			Dist. = 6050 km.
Aug. 3	iP	16-46-39 (d)	CGS: H = 16-35-54
	i	46	Eastern Romania
Aug. 4	iP	17-19-57.5 (d)	BCIS: Coastal Region of Peru
Aug. 6	iP	05-15-56 (c)	CGS: H = 05-06-10
	i	16-02	Mid-Atlantic, about 800 miles NE of Brazil
Aug. 7	eL_R	16-53.2	CGS: H = 16-31-49
			35° N, 119° W, Aftershock
			M = $5-5\frac{1}{4}$ (Berk.)
Aug. 7	iP	22-06-28.5 (c)	CGS: H = 21-53-31
	eL_R	41.2	43° N, $144\frac{1}{2}^{\circ}$E
			Dist. = 9850 km.
Aug. 8	iP	19-06-36 (d)	
Aug. 10	iP	00-32-11 (d)	CGS: H = 00-21-48
	epP	37	$52\frac{1}{2}^{\circ}$ N, 173° W
			h = 100 km.ca.
Aug. 10	iP	10-39-13 (d)	
	i	40-00	
	eL_R	11-10-00	
Aug. 11	eP	23-50-14	BCIS: H = 23-39-25
	eL_R	24-17.9	24° S, $64\frac{3}{4}^{\circ}$ W
Aug. 12	iP'	06-50-16 (c)	CGS: H = 06-31-03
	i	37	Off northwest coast of
	i	53-34	Sumatra
Aug. 12	eL_R	16-30.9	CGS: H = 15-55-51
			$35\frac{1}{2}^{\circ}$ N, $140\frac{1}{2}^{\circ}$ E
			Dist. = 10,750 km.
Aug. 13	iP	09-41-13 (d)	CGS: H = 09-29-40
			Eastern Kamchatka
Aug. 13	eL_R	12-13.7	CGS: H = 11-55-50
			6° N, 83° W
Aug. 13	eP	21-20-08	CGS: H = 21-14-11
	eS	24-38	North Atlantic, about 900
	eL_R	26.7	miles southwest of the
			Azores.
Aug. 13	eP	22-52-38	BCIS: North Atlantic

Date 1952	Phase	TIME (GCT)	Remarks
Aug. 14	eP'	16-20-22	BCIS: H = 16-01.6
	i	23-01	2° N, 99½° E
	iPP	40	h = 300 km.ca.
	eL_R	17-13.6	
Aug. 14	iP'	23-35-46 (d)	CGS: H = 23-16-42
	iP'	36-00	6° S, 155° E
	iPP	37-37	(Solomon Is.)
	e(PPPS)	50-27	Dist. = 13,850 km.
	eSS	54-59	
	eL_R	24-15-45	
Aug. 15	iP	19-31-43 (c)	
Aug. 15	eP	23-34-07	BCIS: H = 23-22-30
			32½° S, 71½° W
Aug. 16	ePP	14-12-42	CGS: H = 13-51-35
	eL_R	53.5	Solomon Is. Region
			M = 6¼ ca. (Pas.)
Aug. 17	eL_R	05-40.1	CGS: H = 04-24-23
			19° S, 65° E
Aug. 17	eL_R	11-50.6	CGS: H = 10-48-53
			Aftershock of 8/14/52,
			23-16-42
Aug. 17	iP	16-16-23 (c)	CGS: H = 16-02-05
	iPP	20-41	30½° N, 91½° E
	ePPP	23-03	(Eastern Tibet)
	ePS	29-57	M = 7¼-7½ (Pas.)
	iPPS	31-01	Dist. = 11,750 km.
	eSS	35-51	
	iSSS	39-43	
	e	45.4	
	eL_Q	49.5	
	eL_R	54.2	
Aug. 18	eP	05-38-36	BCIS: Argentina
Aug. 18	iP	13-16-24.5 (c)	CGS: H = 13-04-50
	iS	25-50	Central Chile - Argentina
	eL_R	42.7	border region.
Aug. 18	iP	24-01-12 (c)	CGS: H = 23-54-10
	eL_R	15.7	About 100 miles offcoast of
			Oaxaca, Mexico
Aug. 19	iP	14-08-56 (c)	CGS: H = 14-03-00
	eS	14-15	16° N, 60½° W
	eL_R	16-34	(Leeward Is.)
	eT	32-59	Dist. = 3050 km.

Date 1952	Phase	Time (GCT)	Remarks
Aug. 19	eP	19-17-22	
	eL_R	34.6	
Aug. 20	iP	05-55-39 (c)	CGS: H = 05-49-28
	eL_R	06-11.0	16° N, 92° W
			h = 200 km.ca.
			Dist. = 3550 km.
Aug. 20	iP	08-36-37 (c)	CGS: H = 08-31-05
	eS	40-27	Off NW Coast of Puerto Rico
			h = 100 km.ca.
Aug. 20	eL_R	10-29.1	BCIS: H = 09-14.5
			NE of North Is., New Zealand
Aug. 20	eP	15-32-39.5	CGS: H = 15-24-59
	ePP	34-16	43° N, 127° W
	iS	38-58	(Off coast of Oregon)
	eL_R	44.9	M = 7-7½ (Pas.)
			Dist. = 4450 km.
Aug. 21	iP	04-29-42 (d)	CGS: H = 04-18-18
			Near east coast of Crete
Aug. 21	eP	09-52-23	CGS: H = 09-44-48
	eL_R	10-08.4	43° N, 127.5° W, Aftershock
Aug. 21	eL_R	19-30.9	CGS: H = 19-08-30
			43½° N, 127° W, Aftershock
Aug. 21	eP	22-39-02	
Aug. 22	iP	22-48-33 (c)	CGS: H = 22-41-22
	eL_Q	23-00.7	35.3° N, 119.0° W.
			(Near Bakersfield, Calif.)
			2 killed, extensive damage)
			M = 6 (Pas.)
Aug. 23	eP	10-16-24	CGS: H = 10-09-06
	eL_Q	28.6	34½° N, 118° W
			M = 4½ (Pas.)
Aug. 23	iP	14-29-45 (d)	CGS: H = 14-22-33
	eL_R	40.3	7° N, 82° W
			M = 5½ (Pas.)
			Dist. = 4000 km.
Aug. 24	iP	06-07-22 (d)	
Aug. 27	iP	11-37-25.5 (c)	CGS: H = 11-27-54
	ipP	36	55½° N, 160° W
	eS	45-09	h = 60 km.ca.
			Dist. = 6200 km.

Date 1952	Phase	Time (GCT)	Remarks
Aug. 27	eP	17-06-14	CGS: H = 17-01-00
	ipP	34	18½° N, 66½° W
	eS	10-21	(Puerto Rico. Felt.)
	eL_R	11.3	h = 100 km.ca.
	eT	27.4	Dist. = 2650 km.
Aug. 27	iP	22-08-53 (d)	CGS: H = 21-58-36
			52½° N, 170° W
			h = 60 km.ca.
Aug. 28	iP	11-02-21 (c)	CGS: H = 10-52-41
	eS	10-07	55° N, 160° W
	eL	22.0	Dist. = 6200 km.
Aug. 28	iP	13-09-28 (d)	CGS: H = 12-57-04
	eS	19-54	34° S, 106° W
	e	20-36	(Easter Is. Region)
	eL_Q	31.2	Dist. = 9150 km.
	eL_R	36.2	
Aug. 28	eP'	14-40-45	CGS: H = 14-21-49
	eL_R	15-17.6	Indian Ocean, about 1800 miles south of Capetown.
Aug. 28	iP	15-29-28 (c)	CGS: H = 15-23-15
	ipP	53	16° N, 91½° W
			h = 150 km.ca.
			Dist. = 3500 km.
Aug. 29	eP'	05-47-20	BCIS: H = 05-28-17
	ePP	49-38	6° N, 95¾° E
	ePKS	50-45	Near north coast of Sumatra
	eSKS	52-29	h = 100 km.ca.
	eL_R	06-32.7	
Aug. 29	eP	16-25-23	CGS: H = 16-15-05
	epP	34	Fox Island, Aleutian Is.
			h = 60 km.ca.
Aug. 31	iP	16-22-37.5 (c)	CGS: H = 16-09-33
	eS	33-25	42° N, 142½° E
	eL_R	54.2	Dist. = 10,050 km.
Aug. 31	eP	22-07-12	BCIS: H = 21-56.0
			Coastal Region of Central Chile
Sept. 4	i(P)	06-55-45	
Sept. 5	iP'	05-37-26 (d)	CGS: H = 05-18-25
	eL_R	06-37.3	6° S, 155° E

Date 1952	Phase	Time (GCT)	Remarks
Sept. 7	eP epP	04-40-49 59	CGS: H = 04-30-17 51½° N, 173° W h = 60 km.ca. Dist. = 7150 km.
Sept. 7	iP ipP	09-43-12 (c) 24	CGS: H = 09-32-39 Aftershock of above
Sept. 8	iP'	15-18-46 (d)	BCIS: H = 14-59-16 6¼° S, 130° E
Sept. 9	iP iPP eS	13-01-39 (d) 02-57 07-11	CGS: H = 12-54-42 9° N, 84½° W M = 6¾-7 (Pas.) Dist. = 3900 km.
Sept. 10	e(P) eL_R	06-58-08 07-13.6	
Sept. 10	eP'	19-06-11	BCIS: H = 18-47-02 10½° N, 123½° E M = 5 ca. (Manila)
Sept. 10	eL_R	20-58.5	BCIS: H = 20-38-32 6½° N, 85° W
Sept. 11	iP eL_R	05-35-22 (d) 44.3	CGS: H = 05-28-22 9° N, 85½° W
Sept. 11	eL_R	09-16.2	
Sept. 11	eP' eSKS eL_R	22-45-36 52-32 23-24.1	CGS: H = 22-26-41 29° S, 177° W M = 6½-7 (Berk.) Dist. = 13,350 km.
Sept. 11	eL_R	24-28.1	CGS: H = 23-23-13 Aftershock of above
Sept. 14	eL_R	10-28.1	CGS: H = 09-34-10 34° N, 93½° E Dist. = 11,400 km.
Sept. 15	iP	11-13-30 (d)	CGS: H = 11-01-27 Central Chile-Argentina border h = 100 km.ca.
Sept. 15	eL_R	12-22.3	CGS: H = 11-28-14 Central Pakistan
Sept. 15	eL_R	14-29-48	CGS: H = 14-05-45 Near coast of Colima, Mex. h = 100 km.ca.

Date 1952	Phase	Time (GCT)	Remarks
Sept. 16	iP	17-44-21.5 (c)	CGS: H = 17-32-35
	i	31	West-Central Argentina
Sept. 18	e	06-17-31	
	i	21-04.5	
Sept. 19	eL_R	15-32.4	CGS: H = 14-31-04
			Solomon Islands
Sept. 20	eP'	13-17-41	BCIS: H = 12-57-44
	eL_R	14-13.5	56.1° S, 145.1° E
			M = $6\frac{1}{2}$-$6\frac{3}{4}$ (Wellington)
Sept. 20	iP'	15-23-16	BCIS: Probably S. Pacific
Sept. 20	eP	21-20-23	CGS: H = 21-10-15
			$16\frac{1}{2}$° S, 77° W
Sept. 21	iP	02-40-48 (c)	CGS: H = 02-30-30
	ipP	41-53	$22\frac{1}{2}$° S, 65° W
	iPPP	44-37	(Argentina-Bolivia border)
	iS	49-06	h = 250 km.ca.
	ipS	50-17	M = $7\frac{1}{4}$ (Pas.)
	isS	49	Dist. = 7100 km.
	iSS	53-11	
Sept. 21	eL_R	12-07.8	CGS: H = 11-12-09
			$33\frac{1}{2}$° N, 142° E
			Dist. = 10,850 km.
Sept. 21	iP	13-12-01.5 (c)	
Sept. 21	iP'	23-03-49.5 (d)	CGS: H = 22-44-33
	iPP	06-31.5 (c)	Celebes Sea
Sept. 22	iP	09-36-34 (c)	CGS: H = 09-25-15
	i	53 (c)	$55\frac{1}{2}$° N, $162\frac{1}{2}$° E
			h = 60 km.ca.
Sept. 22	eL	11-59-06	CGS: H = 11-41-27
			$40\frac{1}{2}$° N, 124° W
			M = $5\frac{1}{2}$ (Pas.)
			Dist. = 4350 km.
Sept. 22	iP	17-33-14 (c)	CGS: H = 17-22-57
	epP	43	$20\frac{1}{2}$° S, 67° W
	esP	57	h = 150 km.ca.
Sept. 23	iP	02-17-50 (d)	CGS: H = 02-06-00
			San Juan Prov., Argentina

Date 1952	Phase	Time (GCT)	Remarks
Sept. 24	eP	07-25-39	CGS: H = 07-19-10
	eL_R	39.2	Off coast of Guatemala
Sept. 24	iP	17-47-36 (d)	CGS: H = 17-38-41
	eL_R	18-04.8	7° S, 75° W
			Dist. = 6550 km.
Sept. 24	iP	20-38-43 (d)	CGS: H = 20-29-30
	ePP	40-45	56½° N, 157° W
	eL_R	57.4	h = 100 km.ca.
			Dist. = 5950 km.
Sept. 25	eP	09-02-56	CGS: H = 08-56-30
	eL_R	12.2	44½° N, 28° W
Sept. 26	iP	12-34-17.5 (c)	BCIS: H = 12-27.7
			State of Michoacan, Mexico
Sept. 26	eL_R	18-25.6	CGS: H = 17-23-26
			Solomon Islands
Sept. 27	e(P)	17-33-35	Tacubaya: H = 17-26-28
			16° 43' N, 95° 20' W
			h = 100 km.ca.
Sept. 27	iP	19-17-38 (c)	CGS: H = 19-05-46
	iS	27-34	50½° N, 157° E
	eL_R	47.0	h = 100 km.ca.
			Dist. = 8700 km.
Sept. 28	eL_R	02-43-38	CGS: H = 02-21-20
			58½° N, 137° W
Sept. 28	iP	03-11-30.5 (c)	
Sept. 28	ePP	14-34-55	BCIS: H = 14-16-25
			55° S, 27¾° W
Sept. 28	i	19-21-33 (d)	
Sept. 29	eP	05-53-43	BCIS: H = 05-44.8
			Southern Mexico
Sept. 30	eSKS	13-17-02	CGS: H = 12-52-00
	ePS	20-23	28½° N, 102° E
	ePPS	21-25	M = 6½ (Pas.)
	eSS	26-31	Dist. = 12,150 km.
	eL_R	47.7	

Date 1952	Phase	Time (GCT)	Remarks
Oct. 1	eI_R	02-17.4	CGS: H = 01-53-33 49° N, 129° W
Oct. 1.	eL_R	10-11.8	
Oct. 2	iP	03-23-10.5(d)	CGS: H = 03-10-12 43° N, 143° E
Oct. 2.	eP	12-30-14	CGS: H = 12-24-42
	eS	34-15	Off south coast of Puerto Rico
Oct. 2	eL_R	14-01.2	BCIS: H = 13-04.0 Fiji Is. Region
Oct. 3	eP	07-37-13	
	e(S)	40-34	
Oct. 3	eP	07-44-04	CGS: H = 07-36-45
	iPP	45-31	6½° N, 83° W
	eS	49-40	M = 6½ (Berk.)
	eL_R	55.0	Dist. = 4000 km.
Oct. 4	eL_R	04-39.4	BCIS: H = 04-04-05 11¼° N, 14° W
Oct. 5	eP	11-05-53	CGS: H = 10-55-00 Near west coast of Greece
Oct. 5	eL_R	23-03.7	CGS: H = 22-04-28 37° N, 93° E
Oct. 6	iP	14-16-25(d)	CGS: H = 14-07-01 Central Peru h = 100 km.
Oct. 6	iP	19-52-07(d)	BCIS: H = 19-46-50
	eL_R	20-02.6	56½° N, 28¼° W
Oc6. 6	iP	22-41-14(d)	CGS: H = 22-29-35
	eL_R	23-14.2	53½° N, 161° E Dist. = 8250 km.
Oct. 7	eP	04-38-39	CGS: H = 04-28-30 Near coast of Northern Chile
Oct. 7	eL_R	19-05.3	CGS: H = 18-02-10 Central Tibet
Oct. 8	eP	03-32-06	

Date 1952	Phase	Time (GCT)	Remarks
Oct. 8	iP	20-41-35	CGS: H = 21-34-22
	eL_R	56.4	28° N, 114° W
Oct. 10	eL_R	16-47.7	CGS: H = 15-55-35 Samoa Islands Region M = 6¼-6½
Oct. 10	eP	19-01-24	CGS: H = 18-47-37
	ePPS	15-08	30½° N, 69° E
	e(PSPS)	20-14	Dist. = 10,950 km.
	eL_R	34.9	
Oct. 10	eP'	21-29-15	CGS: H = 21-09-38
	i	32-47	Near SW coast of Sumatra
Oct. 11	eL_R	01-15.0	CGS: H = 00-13-59 6° S, 159° E
Oct. 12	iP	06-41-15(c)	BCIS: H = 06-31.4 Probably coastal region of Southern Peru
Oct. 13	eP	07-07-03	BCIS: H = 06-55.5 Central Chile
Oct. 13	iP	20-57-27(c)	CGS: H = 20-52-20
	iS	21-01-26	20° N, 73½° W
Oct. 13	eL_R	24-26.7	CGS: H = 23-24-10 34° S, 178° W
Oct. 14	iP_n	22-05-05.8(d)	CGS: H = 22-03-41 48° N, 70° W
Oct. 15	iP	02-23-07(c)	CGS: H = 02-12-29
	ipP	34	Northern Chile h = 100 km.ca.
Oct. 15	iP	19-16-55(c)	CGS: H = 19-04-00 43° N, 145½° E Dist. = 9850 km.
Oct. 16	eP	10-00-53	CGS: H = 09-47-51 41½° N, 142° E h = 60 km. ca. Dist. = 10,100 km.
Oct. 18	ePS	05-53-18	CGS: H = 05-22-32
	eSS	06-00-35	16° S, 168° E
	eL_R	21.5	M = 6½-6¾ (Pas.) Dist. = 13,700 km.

Date 1952	Phase	Time (GCT)	Remarks
Oct. 18	eP	12-04-41	CGS: H = 11-57-36
	ePPP	06-02	13° N, 46° W
	eS	10-27	Dist. = 3950
	eL_R	14-15	
Oct. 18	eL_R	21-30.6	CGS: H = 20-33-14 16° S, 173° W
Oct. 19	iP	03-47-48(d)	CGS: H = 03-40-33 63⅒° N, 19° W
Oct. 20	eP	01-08-35	CGS: H = 01-04-35
	e	12-07	57° N, 57° W Dist. = 1,900 km.
Oct. 20	eP	16-29-40	CGS: H = 16-18-00 Central Kamchatka h = 60 km.ca.
Oct. 21	eL_R	02-50.7	CGS: H = 02-30-46 9½° N, 84½° W Dist. = 3,850 km.
Oct. 21	eL_R	06-57.8	CGS: H = 06-35-44 Aftershock
Oct. 23	iP	04-26-23(c)	CGS: H = 04-14-55 Dodecanese Island, Aegean Sea
Oct. 23	iP	09-54-24(c)	
Oct. 23	eP	19-53-31.5	CGS: H = 19-46-36 32° N, 113½° W
Oct. 25	iP	14-38-24(c)	CGS: H = 14-31-09
	eL_Q	48.9	26° N, 112° W M = 5¾ (Pas.)
Oct. 25	iP	18-16-02(d)	CGS: H = 18-08-50 Lower California
Oct. 26	eP	16-06-16	CGS: H = 15-53-03 Foreshock of following
Oct. 26	eP	18-15-13	CGS: H = 18-02-00
	eL_R	59.3	39° N, 143° E M = 6½ (Pas.) Dist. = 10,300 km.

Date 1952	Phase	Time (GCT)	Remarks
Oct. 26	iP	19-32-31(d)	CGS: H = 19-19-12 39½° N, 143½° E M = 6 (Pas.) Dist. = 10,300 km.
Oct. 26	iP	20-40-48(d)	CGS: H = 20-27-28 40½° N, 143° E
Oct. 27	iP eL_R	03-30-36(c) 04-13.8	CGS: H = 03-17-12 39° N, 143° E Aftershock M = 6½ (Pas.)
Oct. 28	iP iS eL_R	04-35-09.5(d) 39-31 41.0	CGS: H = 04-29-51 18½° N, 73½° W Dist. = 2600 km.
Oct. 28	iP eL_R	06-44-15(d) 07-25.7	CGS: H = 06.31-04 40° N, 144° E Dist. = 10,150 km.
Oct. 29	eP	08-15-16	CGS: H = 09-04-20 52° N, 177° E h = 100 km.ca.
Oct. 31	eL_R	17-36.3	CGS: H = 16-37-14 39° N, 143° E Dist. = 10,300 km.
Oct. 31	eL_R	24-54.1	CGS: H = 23-51-37 Sikang Prov. ,China
Nov. 1	eL_R	24-49-28	CGS: H = 23-45-36 23½° S, 178° W h = 150 km.ca. Dist. = 13,050 km.
Nov. 3	e(P)	00-51-29	Tacubaya: H = 00-44-00 16° 29' N, 98° 13' W h = 50 km.ca.
Nov. 3	eP	10-59-23	Tacubaya: H = 10-52-49 14° 26' N, 94° 29' W
Nov. 4	eP iS	17-10-07 20-15	CGS: H = 16-58-20 52½° N, 159° E M = 8½ (Pas.), 8½ (Berk.) Dist. = 8450 km.
Nov. 4	iP	18-40-38.5(d)	CGS: H = 18-28-52 52½° N, 160° E

Date 1952	Phase	Time (GCT)	Remarks
Nov. 4	iP	19-02-22(d)	
	iP	19-02-51(d)	
	iP	19-31-28(d)	
	iP	19-44-06(d)	
Nov. 4	iP	19-52-27.5(d)	CGS: H = 19-40-41 52½° N, 159½° E
Nov. 4	iP	20-41-20(d)	
	iP	20-48-08(d)	
	iP	20-49-14(d)	
	iP	21-51-52(d)	
Nov. 4	iP	21-00-44(d)	CGS: H = 20-48-53 50° N, 157° E
Nov. 4	iP	21-09-16(c)	
Nov. 4	iP	21-12-38.5(d)	CGS: H = 21-00-53 52½° N, 159½° E
Nov. 4	iP	21-24-28(d)	
	iP	21-42-03.5(d)	
	eP	21-53-01	
	iP	21-56-09(d)	
Nov. 4	iP	22-04-50(d)	CGS: H = 21-52-50 50° N, 158½° E
Nov. 4	iP	22-06-24.5(d)	
Nov. 4	iP	22-24-40(d)	CGS: H = 22-12-54 52° N, 161° E
Nov. 4	iP	22-29-49.5(d)	
	iP	22-31-06(c)	
	iP	22-43-57(c)	
	iP	22-47-47.5(c)	
	eP	22-48-59	
	iP	22-54-04(d)	
	iP	23-06-29.5(d)	
	eP	23-38-26	
Nov. 4	eP	23-41-00	CGS: H = 23-28-58 50° N, 158° E
Nov. 4	eP	23-47-15	
	eP	23-53-17	
	eP	24-01-25	
Nov. 5	iP	00-28-19(d)	
	eP	00-33-24	
	iP	00-43-54(d)	
	iP	00-56-04.5(d)	

Date 1952	Phase	Time (GCT)	Remarks
Nov. 5	eP	02-32-00	CGS: H = 02-19-58 50½° N, 157° E
Nov. 5	iP	03-13-07(d)	
Nov. 5	iP	03-41-34.5(c)	CGS: H = 03-29-44 51° N, 159° E
Nov. 5	iP	03-45-36.5(d)	
	iP	04-53-23(c)	
	iP	05-02-23(d)	
Nov. 5	iP	06-09-54.5(c)	CGS: H = 05-57-43 49° N, 156° E
Nov. 5	iP	06-47-24(d)	
	eP	07-08-01	
	iP	07-17-05.5(c)	
	eP	07-35-07	
	eP	07-51-28	
Nov. 5	iP	08-00-42(d)	
	iP	08-34-35(d)	
	eP	08-50-17	
	iP	09-10-24.5(d)	
	eP	09-14-13	
	iP	09-16-46(c)	
	eP	09-23-20	
	eP	11-30-23	
Nov. 5	iP	11-46-28(d)	CGS: H = 11-34-37 51½° N, 159° E
Nov. 5	iP	11-58-37(c)	CGS: H = 11-46-34 50° N, 157° E
Nov. 5	iP	13-18-12.5(d)	CGS: H = 13-06-24 52° N, 159½° E
Nov. 5	iP	14-22-52(d)	
Nov. 5	eP	14-38-16	BCIS: H = 14-26.0 Kurile Islands Region
	iP	15-00-45(d)	
Nov. 5	iP	15-00-45(d)	CGS: H = 14-48-41 50° N, 156½° E
	eS	10-43	
	eL_R	33.4	
Nov. 5	eP	15-13-52	
	iP	15-19-07.5(c)	
	iP	15-47-30.5(d)	
	iP	16-46-52(d)	

Date 1952	Phase	Time (GCT)	Remarks
Nov. 5	iP	19-24-17(d)	CGS: H = 19-08-26
	eL_R	51.1	53½° N, 163½° E
Nov. 5	iP	19-47-09.5(c)	
	iP	20-22-48.5(c)	
Nov. 5	iP	20-42-30(c)	CGS: H = 20-30-22
			49° N, 159° E
Nov. 5	iP	21-20-35(c)	
Nov. 5	iP	21-58-04(d)	CGS: H = 21-46-00
			49½° N, 157° E
Nov. 5	iP	22-06-10.5(c)	
Nov. 5	iP	22-57-52(d)	CGS: H = 22-46-10
	eL_R	23-22.7	53½° N, 160° E
Nov. 5	iP	23-46-30.5(c)	
Nov. 6	iP	01-10-19(c)	
	iP	01-10-54(c)	
	iP	02-35-57(d)	
	iP	02-39-29(d)	
Nov. 6	iP	04-06-21	CGS: H = 03-54-21
			50° N, 158½° E
Nov.6	iP	05-08-31(c)	
	iP	05-16-17.5(d)	
	iP	05-54-07.5(c)	
	iP	06-00-16(c)	
	i	51(d)	
	iP	07-10-17.5(c)	
Nov. 6	iP	11-09-10(c)	CGS: H = 10-57-11
			52° N, 159½° E
Nov. 6	eP	19-57-49	CGS: H = 19-45-57
			51½° N, 159½° E
Nov. 6	eP'	20-06-41	CGS: H = 19-47-20
	iPP	09-02	5° S, 145½° E
	ePS	19-05	Dist. = 14,450 km.
Nov. 7	iP	04-07-13(c)	
	iP	06-37-46(d)	
Nov. 7	eP	12-20-55	CGS: H = 12-09-09
			52° N, 161° E

Date 1952	Phase	Time(GCT)	Remarks
Nov. 7	iP	13-53-29 (c)	CGS: H = 13-41-45 52° N, 161° E
Nov. 7	iP eS	14-20-31.5(c) 30-25	CGS: H = 14-08-25 49° N, 157° E
Nov. 7	eP	15-52-52	
Nov. 7	eP eS eL_R	21-02-02 07-37 13-14	CGS: H = 20-54-58 26° N, 110½° W M = 6¼(Pas.) 6¾(Berk.) Dist. = 3900 km
Nov. 7	eP	22-17-38	CGS: H = 22-05-19 47° N, 155° E
Nov. 7	eP' eL_R	23-31-09 24-19.2	CGS: H = 23-12-04 31° S, 177° W Dist. = 13,450
Nov. 8	eP eS eL_R	19-45-28 55-41 20-18.7	CGS: H = 19-33-18 48½° N, 156° E
Nov. 8	eP eP	20-27-02 22-29-45	
Nov. 9	eP	00-34-29	CGS: H = 00-22-15 48½° N, 155½° E
Nov. 9	iP	01-29-25(c)	CGS: H = 01-17-39 52½° N, 160° E
Nov. 9	eP eP	01-48-44 01-50-59	
Nov. 9	eP	04-47-14	CGS: H = 04-35-05 49° N, 158° E
Nov. 9	iP	05-10-37(d)	
Nov. 9	eP	05-18-09	CGS: H = 05-06-29 53½° N, 159½° E
Nov. 9	iP	05-44-21(c)	CGS: H = 05-32-15 49½° N, 156½° E
Nov. 9	eP	06-08-59	CGS: H = 05-56-54 49° N, 157° E

Date 1952	Phase	Time (GCT)	Remarks
Nov. 9	iP	06-41-19.5(d)	
	iP	14-50-28.5(d)	
	iP	15-20-29 (c)	
	iP	15-34-40(c)	
Nov. 9	iP	15-43-43.5(d)	CGS: H = 15-31-06 45° N, 151½° E
Nov. 9	iP	15-45-31(c)	
	iP	15-59-51.5(d)	
	eP	16-16-13	
Nov. 9	eP	20-54-09	BCIS: H = 20-42-00 Kurile Is. Region
Nov. 10	iP'P	00-48-35(d)	BCIS: H = 00-29.5 Sumatra, probably deep
Nov. 10	eP	01-07-01	CGS: H = 00-55-00 50° N, 158½° E
Nov. 10	eP	09-51-58	
Nov. 10	eP	20-38-22	CGS: H = 20-26-40 53½° N, 160° E
Nov. 10	eP	23-05-56	
	eP	23-42-03	
Nov. 11	eP	01-22-11	
	iP	05-38-53.5(d)	
	iP	08-27-52(d)	
	iP	08-31-11(c)	
	iP	12-03-06(d)	
	iP	14-22-24.5(c)	
	iP	14-27-15(d)	
Nov. 11	iP	19-32-33.5(d)	
	iP	23-50-41.5(d)	
Nov. 12	eP	00-52-59	
	iP	04-47-41(c)	
	eP	08-15-49	
	iP	09-37-45.5(d)	
	iP	16-10-04(d)	
	iP	20-11-23.5(d)	
	eP	20-24-35	
Nov. 13	iP	08-10-46(d)	CGS: H = 07-58-45 50½° N, 157° E Dist. 8,250 km.
	eS	20-40	
	eSS	25-48	
	eL_R	36.1	

Date 1952	Phase	Time(GCT)	Remarks
Nov. 13	iP	22-37-45(d)	CGS: H = 22-25-34 50° N, 158° E
Nov. 14	eP	05-02-14	
	e	27	
Nov.14	iP	05-21-03(c)	CGS: H = 05-16-00
	iS	24-51.5	20½° N, 73° W
	eT	39-34	Dist. = 2450 km.
Nov. 14	eP	11-10-23	
Nov.14	iP	11-49-34(c)	CGS: H = 11-40-45 6° S, 77° W Dist. = 5350 km.
Nov.14	e(P)	23-37-50	
Nov. 15	iP	05-11-22(c)	Stutt: H = 05-01.5 Kamchatka Region.
Nov. 16	iP	01-59-57(c)	CGS: H = 01-47-54 50½° N, 157° E
Nov. 16	iP	04-22-22(d)	
Nov. 16	eP'	07-57-39	CGS: H = 07-38-25.
	eL_R	08-39.0	Near NE coast of New Guinea
Nov. 16	eP	12-42-08	
Nov. 16	iP	15-14-41(c)	CGS: H = 15-05-02
	eL_R	31.6	2° N, 29½° W
Nov. 18	iP	08-25-34	CGS: H = 08-13-25 48½° N, 156½° E
Nov. 18	iP	08-54-36	CGS: H = 08-42-30 50½° N, 156° E
Nov. 20	iP	05-35-14(c)	
Nov. 20	iP	15-43-54(c)	CGS: H = 15-37-17
	ipP	44-06	12½° N, 88° W
	iPPP	45-17	h = 60 km. ca.
	eS	49-12	M = 6¼(Pas.), 6¾-7(Berk.) Dist. = 3650 km.
Nov. 21	iP	02-40-01.5(d)	
	i	12.5	
	iP	03-31-42(c)	

Date 1952	Phase	Time (GCT)	Remarks
Nov. 21	iP	06-16-01.5(d)	CGS: H = 06-10-38
	eS	19-51	18° N, 68° W
	eT	37-16	h = 100 km.ca.
Nov. 21	iP	07-38-09(c)	BCIS: H = 07-26.5 SE Kamchatka
Nov. 21	iP	07-57-28(d)	
Nov. 21	iP	13-45-40(d)	CGS: H = 13-40-02 20° N, 63° E
Nov. 22	eL_R	08-05.6	CGS: H = 07-46-37 35.8° N, 121.1° W Dist. = 4,300 km.
Nov. 24	eP	00-26-03	
	iP	21-47-31(d)	
	iP	22-27-20(d)	
Nov. 25	eP	13-31-44	Caribbean Area
	eS	35-37	
Nov. 25	iP	14-37-11	
	e	46	
Nov. 26	eP	00-18-34	
	eS	24-57	
Nov. 26	eP_n	07-54-26	
	$e(S_n)$	55-57	
Nov. 26	eP	13-37-00	CGS: H = 13-25-18 Foreshock of 11/29, 08-22-34
Nov. 26	iP	24-03-23	
Nov. 27	eP_n	04-40-39	
	$e(S_n)$	42-28	
Nov. 27	eP	07-42-35	
Nov. 27	iP	15-29-18.5(c)	
Nov. 28	eP	01-20-01	
Nov. 28	iP	08-17-20(d)	CGS: H = 08-05-30 52° N, 160° E
Nov. 28	iP'	21-20-21(d)	CGS: H = 21-01-27 $6\frac{1}{2}$° S, $155\frac{1}{2}$° E h = 100 km.ca. Dist. = 13,900 km.

Date 1952	Phase	Time (GCT)	Remarks
Nov. 29	eP	08-34-23	CGS: H = 08-22-34
	iPP	37-14	53° N, 160° E
	iPPP	39-12	M = 7 (Pas.), 7½ (Berk.)
	eS	43-58	Dist. = 8,300 km.
	iSS	49-05	
Nov. 29	iP	18-34-15(c)	
Nov. 29	eP	23-55-40	CGS: H = 23-46-25
	iS	24-03-07	56° N, 155° W
	eS_cS	05-29	M = 6¾ (Pas.), 7-7¼ (Berk.)
	eSS	06-57	Dist. = 5900 km.
Nov. 30	eP	06-13-55	
Nov. 30	eP	06-44-20	CGS: H = 06-35-14
			56½° N, 154° W
Nov. 30	i(P)	07-38-20	CGS: H = 07-27-20
	e	39-22	About 750 mi. SW of Juan Fernandez Islands
Nov. 30	eP	18-43-31	
Nov. 30	iP	19-40-32(d)	CGS: H = 19-28-44
	eS	50-09	52½° N, 159° E
	eL_R	20-18.8	
Nov. 30	iP	20-40-48(d)	
Nov. 30	eL_R	25-02.5	CGS: H = 23-57-40
			Kermadec Islands Region
Dec. 2	eP	21-32-08	
Dec. 3	iP	00-41-57.5(c)	
Dec. 3	eL_R	10-36.7	Tacubaya: H = 10-17-08
			12° 07' N, 90° 51' W
Dec. 3	eP	11-11-46	BCIS: H = 10-59-49
			Kamchatka aftershock
Dec. 3	iP	14-19-47.5(d)	
Dec. 3	iP	22-37-25.5(d)	BCIS: H = 22-25-30
			Off south coast of Kamchatka
Dec, 3	iP	23-29-25.5(d)	BCIS: H = 23-18.9
			Bolivia

Date 1952	Phase	Time(GCT)	Remarks
Dec. 4	iP	04-02-26.5(c)	CGS: H = 03-51-25
	eL_R	25.4	52° N, 178° E
			h = 100 km.ca.
			Dist. = 7,550 km.
Dec. 4	iP	11-01-40.5(c)	CGS: H = 10-49-35
			49° N, 157° E
Dec. 5	iP	00-59-19(d)	BCIS: H = 00-54-08
	eS	01-03-17	$19\frac{1}{2}$° N, 70° W.
	eT	19-47	
Dec. 5	eP	07-06-29	CGS: H = 06-59-59
			Southern Honduras-Nicaragua border
Dec. 6	ePP	11-02-21	CGS: H = 10-41-14
	e(SS)	19-44	8° S, 157° E
	e	24.9	Dist. = 13,850
Dec. 6	eL	21-50.7	CGS: H = 20-50-35
			Solomon Islands after-shock
Dec. 7	eP	01-01-28	CGS: H = 00-50-12
			53° N, $172\frac{1}{2}$° E
			Dist. = 7,700 km.
Dec. 8	iP	04-00-45(d)	
Dec. 9	eP	05-59-33	
Dec. 10	eP	03-07-03	
Dec. 10	eP	06-06-03	CGS: H = 05-58-06
	eS	12-37	71° N, 7° W
	eL_R	15.6	Dist. = 4,650 km.
Dec. 10	eL_R	09-00.2	CGS: H = 08-06-03
			$15\frac{1}{2}$° S, $173\frac{1}{2}$° W
Dec. 11	eP	01-39-06	CGS: H = 01-33-43
			19° N, 70° W
Dec. 11	iP	09-10-25.5(c)	CGS: H = 08-58-18
	iPP	13-34	49° N, 155° E
	iS	20-27	h = 60 km.ca.
	eL_R	10-09.4	Dist. = 8,850 km.
Dec. 11	eP	13-23-54	

1952 Date	Phase	Time (GCT)	Remarks
Dec. 12	eL_R	01-16.4	CGS: H = 00-47-56 56½° N, 154° W
Dec. 14	iP'	05-08-58(c)	BCIS: H = 04-49-22 10° S, 120½° E h = 150 km.ca.
Dec. 14	iP eS eT	10-43-51(d) 48-03 11-04-18	CGS: H = 10-38-39 19° N, 69° W Dist. = 2,550 km.
Dec. 14	eP	11-02-27	CGS: H = 10-55-32 9° N, 83° W
Dec. 14	iP	12-16-43(c)	BCIS: H = 12-05.0 Kamchatka
Dec. 15	iP epP	05-16-44.5(d) 17-13	CGS: H = 05-06-14 Northern Chile h = 150 km.ca.
Dec. 15	eP	09-57-24	CGS: H = 09-45-12 51½° N, 160½° E
Dec. 15	iP'	16-57-31(d)	CGS: H = 16-38-35 6° S, 156° E
Dec. 17	iP iS	23-15-20.5(c) 24-39	CGS: H = 23-03-58 34½° N, 24° E M - 6¾ (Pas) Dist. = 7,850 km.
Dec. 18	iP	09-32-06(c)	CGS: H = 09-20-28 53½° N, 162° E
Dec. 19	eP	07-05-10	
Dec. 20	iP	04-17-30(c)	CGS: H = 04-05-48 53° N, 160° E
Dec. 21	eP'	01-31-03	CGS: H = 01-11-56 Bismark Sea
Dec. 21	eP'	06-10-42	CGS: H = 05-51-06 Banda Sea
Dec. 21	eP'	11-51-35	
Dec. 21	iP	14-14-23(d)	
Dec. 22	eP iS	22-36-20 45-48	CGS: H = 22-24-42 54° N, 160½° E Dist. = 8,200 km.
Dec. 24	iP	16-01-35.5(c)	CGS: H = 15-49-27 50° N, 155½° E

Date 1952	Phase	Time (GCT)	Remarks
Dec. 24	iP' iSS eL	18-58-41(c) 19-17-47 32.2	CGS: H = 18-39-33 5½° S, 151½° E M = 7 (Pas) Dist. = 14,000 km.
Dec. 24	iP'	21-56-15(d)	CGS: H = 21-37-05 Aftershock
Dec. 25	eP'	02-47-47	CGS: H = 02-28-39 Aftershock
Dec. 25	iP'	03-38-58.5(d)	
Dec. 25	eP'	04-10-10	CGS: H = 03-51-01 5½° S, 151½° E
Dec. 25	eL_R	23-13.5	CGS: H = 22-22-42 29° N, 69½° E
Dec. 26	iP	24-05-52(d)	BCIS: H = 23-55-56 40.0° N, 15.5° E h = 250-300 km.
Dec. 27	iP	01-37-39(c)	CGS: H = 01-26-54 53° N, 160° E
Dec. 28	eP	05-04-38	CGS: H = 04-55-06 65½° N, 167½° W
Dec. 28	eP'	15-20-45	CGS: H = 15-01-19 6° N, 127° E
Dec. 29	iP	02-21-18(c)	CGS: H = 02-09-13 49° N, 158° E Dist. = 8,700 km.
Dec. 29	eP	12-36-43	CGS: H = 12-24-52 51° N, 160° E
Dec. 30	iP	06-52-50(c)	CGS: H = 06-44-22 61° N, 148½° W h = 100 km.ca.
Dec. 30	eP eS	12-13-47 19-21	CGS: H = 12-07-02 10½° N, 84° W Dist. = 3,750 km.
Dec. 31	iP	01-44-51(d)	CGS: H = 01-38-14 12° N, 59° W Dist. = 3,500 km.

Date 1952	Phase	Time(GCT)	Remarks
Dec. 31	iP	12-28-41(d)	CGS: H = 12-16-28 $52\frac{1}{2}^{\circ}$ N, $160\frac{1}{2}^{\circ}$ E
Dec. 31	eP	15-00-08	CGS: H = 14-48-41 Near north coast of Crete
Dec. 31	eP	17-30-10	CGS: H = 17-18-44 Same as above
Dec. 31	eP	19-59-30	
Dec. 31	eP	21-55-58	CGS: H = 21-43-49 49° N, 156° E

Philip R. Berger