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

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STATION CONSTANTS

Latitude:	42^{o} 30' 26" North
Longitude:	71^{o} 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.

Normal Operating Constants

Instrument	T_o sec.	T_g sec.	Critical Damping	Drum Speed	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

MAIL ADDRESS

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

Date 1954	Phase	Time (GCT)	Remarks
Jan. 2	e	02-29-34	
Jan. 7	i (Pn) e(Sn) i iS_1	07-27-08.0 36.5 44.3 28-07.0	Local Δ = 350 km.
Jan. 7	eLR	07-46.9	CGS: H = 06-48-50 About 500 miles south of Fiji Islands
Jan. 9	iS	12-13-03.5	Local?
Jan. 12	eL	23-53.5	CGS: H = 23-33-46.5 35.0° N, 119.1° W (Near Wheeler Ridge, Calif.) Mg. = 5.7 (Pas) Δ = 4150 km.
Jan. 13	eL	01-23.0	CGS: H = 00-13-06 49° S, 165° E (Off coast of South Island, New Zealand) Mg. = 7 1/4 (Pas)
Jan. 14	iP	19-47-47 (d)	CGS: H = 19-37-38 (Fox Islands, Aleutian Islands)
Jan. 15	eLR	19-26.5	
Jan. 15	iPn i i	19-56-41.9 42.9 57-14.2	Local
Jan. 15	eLR	00-29.2	CGS: H = 23-30-32 19.5° S, 174° W Tonga Islands
Jan. 16	e	03-03-53	
Jan. 16	eLR	23-06.4	CGS: H = 22-45-27 49° N, 129.5° W (Off coast of Vancouver Island, B.C.)
Jan. 17	eLR	04-06.0	

Date 1954	Phase	Time (GCT)	Remarks
Jan. 20	eLR	04-38.3	CGS: H = 04-16-25 8.5° N, 103.5° W (Pacific Ocean, South of Mexico) Mg. = 6 (Pas) Δ = 4850 km.
Jan. 25	iP	02-03-05 (d)	
Jan. 25	iP'	03-48-36	CGS: H = 03-29-28 (Near Negros, P. I.)
Jan. 25	eLR	16-15.5	CGS: H = 16-03-45 33° N, 40° W (North Atlantic Ocean)
Jan. 25	eLR	19-34.2	
Jan. 27	iP	18-23-02 (c)	CGS: H = 18-16-07 (Near coast of Guerrero, Mexico. Felt.) h = 60 km.ca.
Feb. 1	iPP i eSKS iPS eSS i	01-25-16 38 31-57 34-57 40-53 41-13	CGS: H = 01-06-51 24.5° N, 142.5° E (Volcano Islands) Mg. = 7 1/4 (Pas) Δ = 11,750 km.
Feb. 1	eLQ	04-50-41	CGS: H = 04-31-59.5 32 1/4° N, 115 1/4° W (Lower California. Felt) Mg. = 5 3/4 - 6 (Pas)
Feb. 1	iL	13-24-37	CGS: H = 13-05-27.5 32 1/4° N, 115 1/4° W (Lower California. Felt.)
Feb. 1	eL	16-11.5	CGS: H = 15-46-00 (Greenland aftershock)
Feb. 2	iP	04-51-12 (d)	CGS: H = 04-42-12 6.5° S, 81° W (Near coast of Peru)
Feb. 3	iP	18-36-23.5 (c)	CGS: H = 18-23-53 45.5° N, 148.5° E (Kurile Islands) h . 100 km.ca. Δ . 9450 km.

Date 1954	Phase	Time (GCT)	Remarks
Feb. 5	eP'	09-38-53	CGS: H = 09-19-42
	iPP	41-21	4.5° S, 153° E
	e(PPS)	52-57	(Off coast of New Britain)
	eSS	58-02	Mg. = 6 3/4 - 7 (Pas)
Feb. 5	iP	13-15-42 (d)	CGS: H = 13-08-53 7.5° N, 71.5° W (Colombia-Venezuela border) h = 100 km.
Feb. 5	iP	15-24-10 (c)	CGS: H = 15-17-59 17.5° N, 92.5° W (Chiapas, Mexico. Extensive property damage.) Mg. = 6 1/4 (Pas) h = 100 km.ca.
Feb. 7	iP'	06-34-10 (c)	CGS: H = 06-15-21 15° S, 167.5° E (New Hebrides Islands) Mg. = 6 (Pas) h = 100 km.ca.
Feb. 7	iP	22-44-25 (d)	
Feb. 8	iP	00-39-42 (c)	CGS: H = 00-28-20 (Central Chile, Argentina Border region)
Feb. 8	iP	14-29-37 (d)	CGS: H = 14-19-09 22.5°S, 68° W (Northern Chile-Bolivia border) h = 150 km.ca. Δ = 7150 km.
	i_pP	30-03.5	
Feb. 9	iP	09-02-03.5	CGS: H = 08-56-25 19° N, 64° W (Leeward Islands) h = 60 km.ca.
	eS	05-53	
	eT	24-53	
Feb. 9	eP	17-49-45	CGS: H = 17-39-40 53° N, 166.5° W (Fox Islands, Aleutian Islands) h = 100 km.ca.
	ipP	50-04	
Feb. 9	e(P)	23-39-24	CGS: H = 23-27-36 (North Atlantic Ocean about 400 miles southeast of Azores)

Date 1954	Phase	Time (GCT)	Remarks
Feb. 10	iP	23-13-07 (c)	
Feb. 11	iP iPP iSKS iS ePS ePPS eSS	00-43-55 (d) 48-00 54-36 55-30 56-52 57-40 1-02.5	CGS: H = 00-30-16 39.5° N, 101° E (Ningsia Province, China) Mg. = 7 1/4 - 7 1/2 (Pas) Δ = 10,900 km.
Feb. 11	i	07-05-51.5	Local
Feb. 11	iP eS eT	14-39-16 (d) 43-48 15-02-36	CGS: H = 14-33-50 (Leeward Islands)
Feb. 12	iP epP eS	03-18-55 (c) 19-18 23-08	CGS: H = 03-13-49 (Near east coast of Dominican Republic) h = 150 km.ca.
Feb. 14	iP	06-50-38 (c)	CGS: H = 06-41-44 6.5° S, 81° W (Near coast of northern Peru)
Feb. 15	iP	03-30-11.5 (d)	CGS: H = 03-22-45 5.5° N, 82.5° W (South of Panama) Mg. = 6 1/4 - 6 1/2 (Pas)
Feb. 15	eP	12-10-08	CGS: H = 12-03-06 16.5° N, 100° W (Near coast of Mexico)
Feb. 15	i(P)	15-49-40 (d)	CGS: H = 15-40-37 (Foreshock of following)
Feb. 15	iP ePcP eS	19-59-48 (d) 20-01-54 07-08	CGS: H = 19-50-52 6.5° S, 81° W (Near coast of northern Peru) Δ = 5450 km.
Feb. 17	iP	01-50-42 (c)	CGS: H = 01-38-50 51.5° N, 160° E (Off southeast coast of Kamchatka) Δ = 8450 km.

Date 1954	Phase	Time (GCT)	Remarks
Feb. 19	eP eS	00-47-13 52-37	CGS: H = 00-40-25 11.5° N, 87.5° W (Off coast of Nicaragua. Felt at Managua) Mg. = 6 3/4 - 7 (Pas) Δ = 3600 km.
Feb. 19	eLR	14-47.8	CGS: H = 13-28-26 45° N, 91.5° E (Sinkiang, China)
Feb. 19	iP eS	21-41-23 (c) 46-30	CGS: H = 21-34-41 12.5° N, 87.5° W (Near coast of Nicaragua) Mg. = 6 3/4 - 7 (Pas) Δ = 3600 km.
Feb. 19	eP	23-42-54	CGS: H = 23-36-00 18° N, 101.5° W (Near coast of Mexico. Felt: Uruapan)
Feb. 20	iP eS	02-07-30 (c) 12-53	CGS: H = 02-00-43 Aftershock of Feb. 19, 00-40-25
Feb. 20	eP	04-34-45	H = 04-27-47 (Near coast of Nicaragua)
Feb. 20	e iP' ipP' iSP' e i e i e esSS	18-53-29 34 55-37 56-24 59-19 19-02-43 05-39 09-54 16-16 18-09	CGS: H = 18-35-05 7° S, 124.5° E (Flores Sea) Mg. = 6 1/2 - 6 3/4 (Pas) h = 600 km. ca. Δ = 15,800 km.
Feb. 20	iP eT	19-59-27 (c) 23.3	CGS: H = 19-53-00 (Windward Islands region) h = 100 km.ca.
Feb. 20	eP' ePS	21-47-22 58-45	H = 21-28-28 28° S, 177.5° W

Date 1954	Phase	Time (GCT)	Remarks
Feb. 21	iP	01-35-48.5 (c)	CGS: H = 01-29-06 (Near coast of Nicaragua) h = 60 km.ca.
Feb. 21	eP	04-33-56.5 (c)	CGS: H = 04-21-55 (Northern Kurile Islands)
Feb. 21	iP	16-19-56 (c)	CGS: H = 16-09-11 52° N, 175 1/2° W (Andreanof Islands - Aleutian Islands)
Feb. 21	iP	23-45-58.5 (c)	CGS: H = 23-39-25 12.5° N, 87° W (Near coast of Nicaragua) h = 60 km.ca.
Feb. 25	eP	11-22-17	CGS: H = 11-09-44 39° S, 91° W (South Pacific)
Feb. 25	iP	11-56-22 (d)	CGS: H = 11-50-42 52.5° N, 34° W (North Atlantic Ocean)
Feb. 25	eP	22-22-41	CGS: H = 22-15-15 5.5° N, 83° W (South of Panama) Δ . 4200 km.
Feb. 27	eLR	00-36.5	CGS: H = 23-34-32 23° S, 166.5° E (New Hebrides Islands)
Mar. 3	iP' iPP iPKS eSKSP eSS	06-22-09 (d) 24-39 25-40 34-34 43-03	CGS: H = 06-02-55 5.5° S, 142.5° E (Central New Guinea) Mg. = 7 1/4 (Pas) Δ = 14,750 km.
Mar. 3	iP	07-56-19 (c)	CGS: H = 07-44-36 53° N, 160° E (Near east coast of Kamchatka) Δ = 8350 km.
Mar. 3	iP	08-08-56 (d)	
Mar. 3	iP'	15-40-47 (d)	CGS: H = 15-21-27 Aftershock of 06-02-55

Date 1954	Phase	Time (GCT)	Remarks
Mar. 3	eP eS eT	18-41-15 45-11 19-03.2	CGS: H = 18-35-53 (Mona Passage, West Indies) h = 100 km.ca.
Mar. 3	iP epP	20-54-35 (d) 48	CGS: H = 20-46-07 61.5° N, 146.5° W (Southern Alaska) h = 60 km.ca. Δ = 4950 km.
Mar. 6	iP'	00-47-20 (c)	CGS: H = 00-29-27 24° S, 180° (Fiji Islands region) Mg. = 6 1/2 (Berk) h = 550 km.ca. Δ = 13,300 km.
Mar. 7	iP	01-56-20 (d)	CGS: H = 01-44-30 (Ascension Island region)
Mar. 8	iP ipP	18-12-31 (d) 47	CGS: H = 18-05-55 13° N, 89° W (Near coast of El Salvadore) h = 60 km.ca.
Mar. 9	eP eS	02-31-21 39-10	CGS: H = 02-21-43 1.5° N, 30.5° W (Atlantic Ocean, northeast of Brazil) Δ = 6100 km.
Mar. 9	iP eS	05-51-23 06-01-18	CGS: H = 05-39-20 50° N, 157° E (Off south coast of Kamchatka Mg. = 6 1/4 - 6 1/2 (Pas) Δ = 8700 km.
Mar. 9	iP	19-45-45 (c)	CGS: H = 19-38-55 (Northern Colombia)
Mar. 9	eP eS eT	21-41-13 45-19 22-01.8	CGS: H = 21-36-05 19° N, 71° W (Dominican Republic)
Mar. 10	iP	14-17-17.5 (c)	CGS: H = 14-09-07 2° S, 78° W (Ecuador) h = 100 km.ca. Δ = 4900 km.

Date 1954	Phase	Time (GCT)	Remarks
Mar. 11	iP	10-36-39 (d)	CGS: H = 10-30-10
	e	42-28	14.5° N, 90.5° W
			(Guatemala)
			Mg. = 5 1/2 - 5 3/4 (Pas)
			h = 100 km.ca.
			Δ 3600 km.
Mar. 12	iP	05-44-35 (d)	
Mar. 13	iP	18-34-21.5 (c)	
Mar. 14	eLR	09-46.5	CGS: H = 08-52-36
			16° S, 179° W
			(Fiji Islands)
Mar. 14	eLR	18-34.9	CGS: H = 17-44-28
			51.5° N, 160° E
			(Off southeast coast of Kamchatka)
			Δ = 8500 km.
Mar. 18	iP	10-01-34 (c)	H = 09-54-27
	eS	07-18	33.3° N, 116.1° W
	iLR	13-09	Mg. = 6 - 6 1/4
Mar. 18	eP	10-28-21	H = 10-21-07
			Aftershock of above
			Mg. = 5
Mar. 21	eP	06-21-07	CGS: H = 06-09-23
			52° N, 158.5° E
			(Near southeast coast of Kamchatka)
			h = 60 km.ca.
			Δ = 8450 km.
Mar. 21	iP'	00-00-29.5 (c)	CGS: H = 23-42-05
	ePP	01-19	24.5° N, 95° E
	esPP	02-14	(Northwestern Burma. Felt in Eastern India.)
	e	04-34	Mg. = 7 - 7 1/4 (Pas)
	e(SKKS)	08-01	h = 150 km.ca.
	iSP	10-30	Δ = 12500 km.
	iSPP	11-37	
	iSS	16-45	
	isSS	17-52	
	iSSS	21-11	

Date 1954	Phase	Time (GCT)	Remarks
Mar. 22	eLR	07-54.9	CGS: H = 06-49-05 Foreshock of following.
Mar. 22	eLR	10-40.6	CGS: H = 09-38-43 27° S, 176.5° W (Kermadec Islands region) Δ = 13800 km.
Mar. 22	iP	17-17-20.5 (c)	CGS: H = 17-10-50 17° N, 95.5 W (Southern Mexico) h = 60 km.ca.
Mar. 22	iP	19-09-29	CGS: H = 18-58-02 55.5° N, 157° E (Near east coast of Kamchatka) Δ = 8600 km.
Mar. 26	iP	04-48-26 (d)	CGS: H = 04-35-25 42° N, 142° E (Off south coast of Hokkaido, Japan) h = 60 km.ca.
Mar. 27	eP	11-46-27	CGS: H = 11-33-33 44.5° N, 141.5° E (Near west coast of Hokkaido, Japan)
Mar. 27	iP epP	18-29-52 (c) 30-22	CGS: H = 18-21-05 8° S, 75.5° W (Central Peru) h = 150 km.ca. Δ = 5550 km.
Mar. 27	iP	18-47-36 (c)	H_o = 18-40-55 9° N, 84° W h = 100 km.ca.
Mar. 28	iP	17-20-57 (c)	CGS: H = 17-10-40 53° N, 168° W (Fox Islands, Aleutian Islands Δ = 6750 km.
Mar. 28	iP	19-29-47.5 (c)	CGS: H = 19-20-58 7.5 S, 73.5 W h = 100 km.ca.

Date 1954	Phase	Time (GCT)	Remarks
Mar. 28	eP	20-47-33	CGS: H = 20-36-22
	eS	56-45	52° N, 176° E
	e (SS)	21-01-45	(Rat Islands, Aleutian Islands)
			Mg. = 6 1/2 (Berk)
Mar. 28	iP	21-09-10.5 (c)	CGS: H = 20-58-09
			52° N, 175.5° E
			(Near Islands, Aleutian Islands)
			Δ = 7650 km.
Mar. 29	iP'	04-19-59 (d)	CGS: H = 04-01-10
			19.5° N, 121.5° E
			(Near north coast of Luzon Island, Philippine Islands)
			Δ = 13050 km.
Mar. 29	iP	06-25-15.5 (c)	CGS: H = 06-17-05
	ipP	27-16	37° N, 3.5° W
	iScP	29-15	(Near south coast of Spain. Extensive property damage at Granada and Malaga.)
	isPP	30-19	
	iS	31-44	Mg. = 7 1/4 - 7 1/2 (Pas)
	iScS	34-00	h = 650 km.ca.
	esS	35-14	Δ = 5700 km.
Mar. 29	iP	14-06-45.5 (d)	CGS: H = 13-58-30
	ipP	07-08	2.5° S, 78.5° W
			(Ecuador. Felt)
			h = 100 km.ca.
			Δ = 4950 km.
Mar. 30	eS	17-01-00	CGS: H = 16-40-03
	eLR	18.5	Foreshock of following
			Mg. = 6
Mar. 30	eS	19-02-48	CGS: H = 18-41-54
	eLQ	15.0	20° N, 155° W
			(Near northeast coast of Hawaii, T.H. Minor damage at Hilo.)
			Mg. = 6 1/2 (Pas)
			Δ = 8050 km.
Mar. 31	eP'	18-43-59	CGS: H = 18-25-48
	iPP	44-34	13.5° N, 58° E
	e(SKKS)	51-46	(Arabian Sea)
	ePS	54-06	Mg. = 7 1/4 - 7 1/2 (Pas)
	iSS	19-00-12	Δ = 11900 km.

Date 1954	Phase	Time (GCT)	Remarks
Apr. 1	iP eS eT	02-27-26 (d) 31-33 50.3	CGS: H = 02-22-16 19.5° N, 65.5° W (Off north coast of Puerto Rico)
Apr. 1	iP ipP	10-20-54.5 21-12.5	
Apr. 1	iP ipP eS eT	14-14-09 (d) 24 18-14 35.6	CGS: H = 14-08-59 19.5° N, 67° W (North of Puerto Rico) h = 60 km.ca. Δ = 2950 km.
Apr. 1	eP eS	18-31-05 41-22	CGS: H = 18-18-47 46.5° N, 153.5° E (Kurile Islands) Mg. = 6 1/4 (pas) h = 60 km.ca. Δ = 9200 km.
Apr. 1	eL	23-29.5	CGS: H = 23-11-22 17.5° N, 92° W (Southern Mexico. Belt) h = 150 km.ca.
Apr. 2	eLR	15-56.6	CGS: H = 14-58-26 28.5° S, 177° W (Kermadec Islands) h = 60 km.ca. Δ = 13300 km.
Apr. 3	iP	00-16-28 (d)	CGS: H = 00-04-40 52.5° N, 159.5° E (Off east coast of Kamchatka)
Apr. 3	eP	08-07-33	CGS: H = 07-59-44 3° N, 80° W (Off coast of Colombia)
Apr. 4	iP	23-27-00 (c)	CGS: H = 23-13-55 42° N, 142.5° E (Near south coast of Hokkaido, Japan) Δ = 10000 km.
Apr. 5	iP eS	14-32-16.5(d) 36-11	

Date 1954	Phase	Time (GCT)	Remarks
Apr. 5	iP ipP isP	18-02-54 (d) 03-21.5 35.5	CGS: H = 17-52-22 23° S, 67.5° W (Argentina-Bolivia-Chile border. Felt: Calama, Chile) h = 150 km.ca. Δ = 7250 km.
Apr. 5	eL	19-47.0	CGS: H = 19-26-00 48° N, 129° W (Off Vancouver Island, British Columbia)
Apr. 5	eL	19-57.2	CGS: H = 19-34-57 48° N, 128° W (Off Vancouver Island, British Columbia)
Apr. 6	i i	16-54-26 55-03.5	
Apr. 7	eLR	19-30.2	
Apr. 7	iP eS	21-30-29 (c) 34-23	
Apr. 8	eLR	17-15.0	CGS: H = 16-39-52 23.5° S, 116° W (Easter Islands region)
Apr. 9	eP	06-27-03	CGS: H = 06-17-30 (Southern Peru-Bolivia border region) h = 200 km.ca.
Apr. 10	iP	03-19-22 (c)	CGS: H = 03-07-47 (Off east coast of Kamchatka)
Apr. 10	iP	06-22-14 (d)	
Apr. 10	iP	10-22-22.5 (d)	CGS: H = 10-15-46 10.5° N, 78° W (Off north coast of Panama. Felt: Balboa Heights)
Apr. 10	eP	11-51-32	
Apr. 11	iP	02-25-30.5 (d)	

Date 1954	Phase	Time (GCT)	Remarks
Apr. 11	ePP eLR	03-24-00 04-01.5	CGS: H = 03-03-03 7° S, 155° E (Solomon Islands)
Apr. 11	iP epP isP	05-50-55.5 (c) 51-29 42.5	CGS: H = 05-40-00 (Northern Chile-Argentina border) h = 150 km.ca.
Apr. 11	iPP ePS	10-44-33 53-43	CGS: H = 10-25-27 12° N, 58° E (Arabian Sea) Δ = 12000 km.
Apr. 11	iP ePP e(PPS)	11-06-30 (c) 10-15 19-50	CGS: H = 10-53-20 37° N, 70.5° E h = 60 km. ca. (Hindu Kush) Δ = 10400 km.
Apr. 11	eP eS	14-51-50 55-49	Caribbean?
Apr. 12	eLR	01-41.3	
Apr. 12	ePn eSn	21-23-40 24-34	Local Δ = 528 km.
Apr. 13	iP ipP isP	07-47-19 (d) 59 48-18.5	CGS: H = 07-36-23 27.5° S, 66° W (Catamarca province, Argentina) h = 200 km.ca. Δ = 7100 km.
Apr. 13	iP	08-01-25.5 (c)	CGS: H = 07-54-51 (Northern Colombia-Venequela Border)
Apr. 14	i(P)	07-33-12.5 (d)	
Apr. 14	iP	07-57-15 (c)	CGS: H = 07-45-27 52.5° N, 158.5° E (Near east coast of Kamchatka)
Apr. 14	iP ipP	08-04-59.5 (c) 05-21.5	CGS: H = 07-54-24 22.5° S, 70° W (Northern Chile. Felt: Antofagasta) h = 100 km.ca.

Date 1954	Phase	Time (GCT)	Remarks
Apr. 14	iP'	13-43-51 (d)	CGS: H = 13-24-47 10° N, 93° E (Andaman Islands region) Δ = 14000 km.
Apr. 15	iP	05-24-52 (d)	
Apr. 16	iP	10-43-19 (d)	CGS: H = 10-30-25 43° N, 142.5° E (Hokkaido, Japan) h = 60 km.ca.
Apr. 17	eP epP	12-22-49 56	CGS: H = 12-09-59 43° N, 141° E (Near west coast of Hokkaido, Japan) h = 60 km.ca.
Apr. 17	iP iS eSS	20-21-35 (c) 31-00 35-21	CGS: H = 2_-10-37 51.5° N, 179° W (Andreanof Islands, Aleutian Islands. Felt on Adak) Mg. 6 3/4 - 7 (Pas) Δ = 7600 km.
Apr. 20	eP eS	01-32-24 36-19	Caribbean?
Apr. 21	eP	10-09-40	CGS: H = 09-57-40 43° N, 46° E (Dagestan A.S.S.R.) Δ = 8500 km.
Apr. 21	iP eS	18-46-59 (c) 52-27	CGS: H = 18-40-45 (Winward Islands)
Apr. 21	iP epP	20-32-33 (c) 47	CGS: H = 20-23-05 13° S, 77° W (Near coast of Peru. Felt at Lima) h = 100 km.ca. Δ = 6150 km.
Apr. 21	eLR	23-14.3	
Apr. 24	iP	08-41-32 (c)	CGS: H = 08-33-04 63° N, 148° W (Southern Alaska. Felt at College) h = 100 km.ca.

Date 1954	Phase	Time (GCT)	Remarks
Apr. 24	eP	18-45-52	CGS: H = 18-32-52 43° N, 141.5° E (Central Hokkaido, Japan)
Apr. 25	iP i eS	00-38-43.5 55 47-39	CGS: H = 00-27-54 0°, 15.5° W (Atlantic Ocean, about 500 miles southwest of Liberia) Δ = 7,250 km.
Apr. 25	eP eS	06-30-43 34-45	Caribbean?
Apr. 25	iP eS eT	10-01-39 (c) 05-45 22.5	CGS: H = 09-56-30 (Off northeast coast of Dominican Republic)
Apr. 25	iP	20-40-47 (d)	CGS: H = 20-33-26.5 36.8° N, 121.8° W (Near coast of central California. Minor damage) Mg. 5.2 (Pas)
Apr. 26	eP e	02-24-08 25	CGS: H = 02-11-04 42° N, 143° E (Near south coast of Hokkaido, Japan)
Apr. 26	e	02-35-30	
Apr. 26	iP eS	09-25-50 (d) 32-41	CGS: H = 09-17-20 1/2° S, 91.5° W (Galapagos Islands)
Apr. 26	iP ipP	17-53-22 32	
Apr. 26	iP iPP ePPP eS e(sS) eSS	20-36-33.5 (c) 39-25 41-12 46-11 35 51-12	CGS: H = 20-24-44 51° N, 158.5° E (Off southeast coast of Kamchatka) Mg. = 6 1/4 - 6 3/4 (Pas) h = 60 km.ca. Δ = 8500 km.
Apr. 27	eL	02-14-59	New Madrid

Date 1954	Phase	Time (GCT)	Remarks
Apr. 27	iP iPP iS	10-13-44.5 (c) 15-15 19-41	CGS: H = 10-06-24 6° N, 82.5° W (South of Panama) Mg. = 7 (Pas) Δ = 4150 km.
Apr. 27	eP' i ePPP eSS	21-41-30 43 48-10 22-04-51	CGS: H = 21-21-35 56° S, 147° E (South of Tasmania)
Apr. 28	iP	05-02-03.5 (d)	CGS: H = 04-50-51 51.5° N, 175° E (Near Islands, Aleutian Islands)
Apr. 29	iP eS	10-56-29 11-02-14	CGS: H = 10-49-27 Foreshock of following Mg. = 7 1/4 - 7 1/2 (Pas)
Apr. 29	eP eS	11-41-36 47-10	CGS: H = 11-34-34 29.5° N, 112.5° W (Gulf of California. Minor damage in western Mexico) Mg. 7 1/2 - 7 3/4 (Pas) Δ = 3950 km.
Apr. 29	eP	13-19-30	CGS: H = 13-12-32 (Gulf of California aftershock)
Apr. 30	eP eLR	00-14-45 49.1	CGS: H = 00-03-10 53° N, 162° E (Off east coast of Kamchatka)
Apr. 30	iP	12-12-14.5 (d)	CGS: H = 12-01-10 51.5° N, 179° W (Andreanof Islands, Aleutian Islands)
Apr. 30	iP iPP iS iScS iSS	13-13-33 (c) 16-05 22-31 23-35 26-55	CGS: H = 13-02-36 39.5° N, 22° E (Central Greece. 24 Killed, 137 injured, and ₤10 million damage) Mg. = 7 (Pas)
Apr. 30	iP	16-20-39 (d)	
Apr. 30	eP	19-44-26	CGS: H = 19-33-30 (Central Greece aftershock)

Date 1954	Phase	Time (GCT)	Remarks
Apr. 30	iP iS	23-15-05 23-41	CGS: H = 23-04-30 1/2° N, 19° W (Mid-Atlantic Ocean)
Apr. 30	eP	23-50-48	
May 1	eP	14-32-21.5	
May 2	eP' ePP e eL	18-07-21 10-45 58 19-40.5	CGS: H = 17-48-02 4° N, 94.5° E (Off northwest coast of Sumatra) Δ = 14700 km.
May 3	eP	04-07-04.5	CGS: H = 03-58-24 6° N, 35.5° W (Mid-Atlantic Ocean)
May 3	eL	08-17-40	BCIS: 07-58.8 (Sonora, Mexico)
May 3	iP	09-02-24.5	CGS: H = 08-51-20 36.5° N, 21° E (Near south coast of Greece)
May 3	iP iS	15-41-33 (d) 51-15	CGS: H = 15-29-40 51.5° N, 159.5° E (Off southeast coast of Kamchatka) Mg. = 6 3/4 - 7 (Pas) Δ = 8500 km.
May 3	iP iPP iS	17-20-00 (c) 21-22 25-10	CGS: H = 17-13-32 12° N, 86° W (Near coast of Nicaragua) Mg. = 6 (Pas) h = 150 km.ca. Δ = 3700 km.
May 4	e eL	18-05-01 08-01	CGS: H = 17-51-22 74° N, 81° W (Devon Island region, Canada) Δ = 3500 km.
May 5	iP i iS i iL	13-16-51.5 59.5 22-39.5 27-58 28-20	CGS: H = 13-09-46 27.5° N, 112.5° W (Gulf of California) Mg. = 6 3/4 (Pas) Δ = 3950 km.

Date 1954	Phase	Time (GCT)	Remarks
May 19	iPKS	06-53-28 (d)	CGS: H = 06-31-05 3.5° N, 126° E (Molucca Passage) h = 100 km.ca.
May 19	iP'	23-26-22 (d)	CGS: H = 23-07-12 5° S, 151° E (New Britain) Mg. = 6 1/4 - 6 1/2 (Pas) Δ = 14,100 km.
May 20	eP'	02-36-30	BCIS: H = 02-16.3
May 21	eP	01-08-34	
May 21	eL	16-44.5	CGS: H = 16-13-15 56° N, 157° W (Off east coast of Alaska Peninsula)
May 21	i(P)	22-41-56	
May 23	iP	04-22-47.5	CGS: H = 04-10-27 46° N, 149.5° E (Kurile Islands) h = 150 km.ca. Δ = 9,400 km.
May 23	eL	08-11.5	
May 23	eP	23-12-30	
May 23	iP	23-59-57 (d)	CGS: H = 23-52-42.5 35° N, 118 3/4° W (Southwestern California) Mg. 5.1 (Pas)
May 24	eP	07-41-11	CGS: H = 07-28-59 48.5° N, 156° E (Kurile Islands)
May 25	eP	22-14-31	CGS: H = 22-03-34 39.5° N, 22° E (Central Greece) Δ = 7400 km.
May 26	eP	04-58-00	

Date 1954	Phase	Time (GCT)	Remarks
May 26	iP e	19-09-43 (d) 56	CGS: H = 18-57-30 48.5° N, 156° E (Kurile Islands)
May 26	iP	20-29-52 (d)	
May 29	iP i	15-09-14 (d) 51	CGS: H = 14-57-18 35° S, 69° W (Mendoza province, Argentina)
May 29	iP	16-41-11 (c)	
May 29	i	23-08-25	CGS: H = 22-21-00 (Kermadec Islands region)
May 30	iP	04-50-30 (c)	CGS: H = 04-41-00 11.5° S, 78° W (Near coast of Peru)
May 30	eP	13-39-09	
May 30	iP i	20-05-52 (d) 09-08.5	CGS: H = 19-46-56 (Celebes Sea)
May 31	iP	01-35-41 (c)	
May 31	iP' ePKS e(SSS) e	16-08-12.5 22-49 45-24 49-23	CGS: H = 15-48-33 7° S, 119° E (Flores Sea) Mg. = 6 1/4 - 6 1/2 (Pas) Δ = 15,900 km.
May 31	iP	21-32-44 (d)	
June 1	iP	20-42-06 (c)	CGS: H = 22-32-38 12° S, 74° W (Central Peru)
June 2	eP	08-08-48	
June 2	iP	09-56-44 (d)	
June 4	eP	00-57-19	CGS: H = 00-45-18 45° N, 148° E (Kurile Islands)

Date 1954	Phase	Time (GCT)	Remarks
June 4	iP	06-59-11.5 (d)	CGS: H = 06-50-42
	iS	07-06-05	1/2° S, 91.5° W
			(Galapagos Islands)
			Mg. = 6 3/4 (Pas)
			Δ = 5,200 km.
June 4	iP'	11-01-13 (d)	CGS: H = 10-41-31
			(Java Sea)
June 4	eP	16-08-36	CGS: H = 16-01-45
	eS	14-36	(Central Gulf of California)
	eL	20.0	Mg. = 6 (Pas)
June 4	eS	20-55-37	CGS: H = 20-42-25
			(Gulf of California)
June 5	iP	01-55-22	CGS: H = 01-48-20
	iPP	56-46	18° N, 102.5° W
			(Near coast of Guerrero,
			Mexico. Felt)
June 5	iP	04-11-45	CGS: H = 04-30-59
			(Jujuy province, Argentina)
			h = 100 km.ca.
June 5	iP'	21-11-44	BCIS: H = 20-53.0
			h = 150 km.
June 6	iP'	17-10-03	CGS: H = 16-50-33
	iPP	13-32	3.5° S, 136.5° E
	eSS	30.2	(Western New Guinea)
	eG	48.0	Mg. = 7 (Pas)
			Δ = 14,850 km.
June 7	iP	10-33-48	CGS: H =10-15-33
	iPP	35-42	3.5° S, 152.5° E
	e(SKKS)	42-00	(New Britain Region)
	e	51-04	Mg. = 6 3/4 (Pas)
	e	53-45	h = 450 km.ca.
			Δ = 13,850 km.
June 13	eP	17-04-22	BCIS: H = 16-59-40
	eS	08-31	20° N, 75° W
			(Dominican Republic)

Date 1954	Phase	Time (GCT)	Remarks
June 15	iP	13-38-30 (d)	CGS: H = 13-29-59
	ipP	54	5° S, 77° W
	iPcS	43-52	(Northern Peru)
	iS	45-20	Mg. = 6 3/4 - 7 (Pas)
	isS	46-03	h = 100 km.ca.
	i	48-12	Δ = 5300 km.
	i	49-09	
June 17	iP	01-51-31 (d)	CGS: H = 01-42-22
	i	38	56° N, 159.5° W
	i	52-24	(Off south coast of
	iPP	53-23	Kodiak Island)
	eS	59-07	Mg. = 6 1/2 (Pas)
	eSS	03-08	Δ = 6100 km.
	eL	04.4	
June 18	iP'	18-14-15 (d)	CGS: H = 17-54-40
	iPP	17-52	(Sunda Strait. Felt:
			Djakarta)
June 20	i	21-08-04	CGS: H = 20-45-57
			5° S, 146° E
			(Near north coast of
			New Guinea)
			h = 60 km.ca.
June 20	eP	22-18-31	CGS: H = 22-07-54
			1/2° N, 18° W
			(Mid-Atlantic Ocean)
			Δ = 7150 km.
June 21	iP	01-59-14 (c)	CGS: H = 01-48-44
	ipP	42	23° S, 68.5° W
	isP	57	(Northern Chile)
	iS	02-07-49	Mg. = 6 1/2 - 6 3/4 (Pas)
			h = 150 km.ca.
			Δ = 7300 km.
June 21	eP'	02-26-17	CGS: H = 02-06-53
	iP'	25	6° S, 129° E
			(Banda Sea)
June 21	eP	09-07-16	CGS: H = 08-59-20
			1.5° N, 84° W
			(Pacific Ocean west of
			Ecuador)
			Δ = 4700 km.
June 28	eL	05-53.3	

Date 1954	Phase	Time (GCT)	Remarks
June 29	eP	01-21-00	CGS: H = 01-10-50
	i	22-17	17° S, 67.5° W
			(West Central Bolivia)
June 30	eP	15-17-18	CGS: H = 15-05-26
			51.5° N, 158° E
			(Near southeast coast of Kamchatka)
June 30	iP	15-25-25 (d)	CGS: H = 15-18-20
			24° N, 109° W
			(Gulf of California)

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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 43

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Part A of Paper Number 158, 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	Displacement for acceleration of 10^{-6} gravity
ZSP	1.0	0.2	.6	60 mm/min.	15 mm
NSP	1.0	0.2	.6	60mm/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	1.0	0.05	.5	60 mm/min.	

MAIL ADDRESS

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

Date 1954	Phase	Time (GCT)	Remarks
July 1	eP	03-27-04	CGS: H = 03-15-16 52 N, 159 1/2 E (Off east coast of Kamchatka)
July 2	iP' ePP	03-04-07 (d) 05-44	CGS: H = 02-45-09 13.5 N, 123.5 E (Southeastern Luzon, P.I.) Mg. 6 3/4 (Pas)
July 3	eL	01-25.6	CGS: H = 00-33-10 (Uganda-Belgian Congo border region)
July 3	iP' ipP' iPP i(sPS) eL	22-50-54 51-27 54-10 23-05-42 44.7	CGS: H = 22-31-28 6.5 S, 106 E (Near southwest coast of Java) Mg. 7 (Pas) h = 100 km.ca. Δ = 16,100 km.
July 4	e	16-47-38	CGS: H = 16-32-50 44.9 N, 110.8 (Yellowstone National Park. Felt)
July 6	iP ePP eS eSS	08-16-59 19-50 27-10 32-40	CGS: H = 08-04-42 46.5 N, 153.5 E (Kurile Islands) Mg. 6 3/4 - 7 (Pas) h = 100 km.ca. Δ = 9,200 km.
July 6	iP ePP eS eQ eR	11-20-13 21-17 25-48 27-50 30-30	CGS: H = 11-13-19 39.5 N, 118.5 W (Near Fallon, Nevada) Mg. 7 (Pas) Δ = 3,900 km.
July 6	iP eS eQ eR	22-14-38 20-18 23-40 25-10	CGS: H = 22-07-41 Aftershock of above Mg. 6 3/4 (Pas)
July 8	i i	02-33-33 35-13	CGS: H = 02-13-56 Aftershock of above Mg. 5 1/2 (Pas)
July 8	iL i	19-50-17.5 54-17.5	CGS: H = 19-31-57 Aftershock of above Mg. 5 1/2 (Pas)

Date 1954	Phase	Time (GCT)	Remarks
July 9	eL	13-19.2	CGS: H = 12-20-38 16 S, 174.5 W (Tonga Islands region) h = 100 km.ca. Δ = 12,250 km.
July 9	eP	15-51-10	CGS: H = 15-38-18 43.5 N, 147 E (Off east coast of Hokkaido, Japan) Δ = 9,750 km.
July 9	iP	18-41-36.5	CGS: H = 18-28-22 41 N, 138.5 E (Off northwest coast of Honshu, Japan)
July 10	iP i	16-13-54 14-04	CGS: H = 16-00-45 (Off coast of central Chile)
July 10	iP iPP	23-09-51 13-34.5	CGS: H = 22-56-53 37 N, 70.5 E (Hindu Kush) h = 200 km.ca. Δ = 10,450 km.
July 11	e e	05-16-15 19-53	
July 11	eL	07-26.3	
July 12	eL	16-56.8	
July 12	eL	18-26.6	CGS: H = 17-32-10 46 N, 153 E (Kurile Islands)
July 13	e(pP') i eL	08-24-18 26-35 09-05.2	CGS: H = 08-04-44 3 S, 151 E (New Britain Region) Δ = 13,950 km.
July 13	eL	22-57.2	CGS: H = 22-07-40 (Northern Kurile Islands)
July 15	eL	00-57.5	CGS: H = 00-34-32 (Samoa Islands region)
July 18	eS e	01-20-00 25.4	CGS: H = 00-56-50 (Revilla Gigedo Islands region)

Date 1954	Phase	Time (GCT)	Remarks
July 18	iP eL	06-46-06 07-15	CGS: H = 06-34-35 55 N, 161.5 E (Near east coast of Kamchatka) Δ = 8,050 km.
July 18	eP e iS eL	09-21-11 25-00 33-45 55.5	CGS: H = 09-07-44 35.5 N, 140.5 E (Near East Coast of Honshu, Japan. Felt) Mg. 6 1/2 (Pas) Δ = 10,750 km.
July 19	iP	02-25-53	CGS: H = 02-15-16 (Near coast of northern Chile. Felt: Antofagasta) h = 60 km.ca.
July 20	e	02-34.5	
July 21	eL	05-46.2	CGS: H = 04-38-51 27.5 N, 101 E (Szechwan province, China)
July 22	iP eS	22-34-17 38-14	BCIS: (Dominican Republic)
July 23	iP iS	04-44-56 (c) 54-20	CGS: H = 04-33-26 31 S, 70.5 W (Central Chile-Argentina border) Mg. 6 3/4 (Pas) h = 60 km.ca.
July 23	iP i	20-46-26 (c) 55	BCIS: H = 20-36.3 (North of Chile) h = 100 km.ca.
July 25	eP	11-06-50	CGS: H = 11-00-15 10 N, 72.5 W (Northwestern Venezuela)
July 26	iP iPP iS	20-28-14 (c) 31-28 38-32	CGS: H = 20-15-45 41 S, 73 W (Central Chile) Mg. 6 1/4 - 6 1/2 (Pas)
July 26	iP eS	22-17-27 (c) 23-38	CGS: H = 22-09-57 12.5 N, 44 W Mg. 6 1/4 (Pas) Δ = 4,150 km.

Date 1954	Phase	Time (GCT)	Remarks
July 27	iP	06-54-12 (c)	
July 27	e	21-05-05	CGS: H = 20-57-45
	e	06-20	(Mid-Atlantic Ocean)
	eL	16.3	
July 29	eP	03-33-37	CGS: H = 03-23-46 16.5 S, 70.5 W (Southern Peru) h = 100 km.ca.
July 29	iP	03-46-25	CGS: H = 03-34-20
	iPP	49-24	49.5 N, 158 E
	eS	56-26	(Off south coast of Kamchatka) Mg. 6 (Pas) Δ = 8,600 km.
July 29	iP	19-57-09	Local
	iS	18	
July 30	eP	08-58-23	CGS: H = 08-46-00
	iS	09-08-35	36.5 N, 97 W (Pacific Ocean, southeast of Easter Island) Mg. 6 1/2 (Pas) Δ = 9,100 km.
July 31	iP	01-13-39	CGS: H = 00-59-57
	iPP	17-49	39 N, 104 E
	i	18-27	(Ningsia province, China)
	eS	24-28	Mg. 6 1/2 (Pas)
	e	26-53	Δ = 11,000 km.
Aug. 2	eL	10-37.3	CGS: H = 10-18-53
	i	40-20	39.5 N, 118.5 W (Near Fallon, Nevada) Mg. 5 1/4 - 5 1/2 (Pas)
Aug. 2	eP	23-41-01	CGS: H = 23-28-33
	eS	51-24	37 S, 99.5 W
	eL	00-09.8	(Southeast of Easter Island)
Aug. 3	iP	18-29-17 (c)	CGS: H = 18-18-11
	eL	55.3	40 N, 25 E (Northern Greece)

Date 1954	Phase	Time (GCT)	Remarks
Aug. 5	iP e(S)	09-00-56 (c) 08-55	CGS: H = 08-49-52 52 N, 176 E (Rat Islands, Aleutian Islands) Mg. 6 (Pas) h = 60 km.ca.
Aug. 6	eL	00-48.3	CGS: H = 23-43-45 (Near northeast coast of New Guinea)
Aug. 6	iP eL	16-30-04.5 48.5	CGS: H = 16-19-45 1 S, 23.5 W (Mid-Atlantic Ocean)
Aug. 7	iP i	09-47-32 48-15	CGS: H = 09-37-42 (Bolivia-Chile-Peru border region) h = 200 km.ca.
Aug. 9	ePn iSn	17-37-58 38-46	Local. H = 17-36-56 Δ = 460 km.
Aug. 9	iP epP eS eSS eLR	19-28-26 30-45 37-56 42-50 58.2	CGS: H = 19-16-48 53 N, 161 E (Off east coast of Kamchatka) Mg. 6 1/2 - 6 3/4 (Pas) h = 60 km.ca.
Aug. 10	iP	06-14-27	
Aug. 11	iP eS eT	11-17-43 22-00 38-15	CGS: H = 11-12-36 19.5 N, 69.5 W (Near north coast of Dominican Republic) h = 100 km.ca. $\bar{\Delta}$ = 2,500 km.
Aug. 12	iP	23-29-56.5	CGS: H = 23-18-14 53 N, 159 E (Near east coast of Kamchatka)
Aug. 14	iP	01-48-33.5	CGS: H = 01-36-43 51 N, 160.5 E (Off southeast coast of Kamchatka) Δ = 8,400 km.

Date 1954	Phase	Time (GCT)	Remarks
Aug. 18	eP	04-57-32	CGS: H = 04-42-20
	iP'	05-01-41	21.5 S, 176 W
	i	46	(Tonga Islands)
	ePP	02-21	Mg. 7 (Pas)
	i(S)	07-24	h = 150 km.ca.
	iSKS	08-31	Δ = 12,150 km.
	iSKKS	09-28	
	iPS	11-12	
	iSS	17-30	
	eL	32.5	
Aug. 20	eP	23-06-52	CGS: H = 22-59-16
			71 N, 13.5 W
			(Jan Mayen foreshock)
Aug. 21	iP	00-33-12 (c)	CGS: H = 00-25-35
	i	40	71 N, 13.5 W
			(Jan Mayen foreshock)
Aug. 21	eP	04-20-49	CGS: H = 04-13-14
			71 N, 14.5 W
			(Jan Mayen foreshock)
Aug. 21	eP'	06-57-48	CGS: H = 06-38-33
			7 N, 126.5 E
			(Near east coast of Mindanao, Philippine Islands)
Aug. 21	iP	07-10-10	
	ipP	38	
Aug. 21	iP	07-27-23	CGS: H = 07-19-46
			70.5 N, 14 W
			(Jan Mayen foreshock)
Aug. 21	eP	13-12-38	CGS: H = 13-05-05
			70.5 N, 14 W
			(Jan Mayen foreshock)
Aug. 21	eP	17-47-40	CGS: H = 17-40-05
	i	48-11	71 N, 14 W
			(Jan Mayen foreshock)
Aug. 21	iP	22-58-40	CGS: H = 22-51-00
	eS	23-04-44	72 N, 13 W
		11-20	(Jan Mayen Islands region)
Aug. 22	iP	02-59-12 (c)	CGS: H = 02-51-42
			71.5 N, 13.5 W
			(Jan Mayen aftershock)

Date 1954	Phase	Time (GCT)	Remarks
Aug. 22	iP	10-15-37 (c)	CGS: H = 10-08-02 71 N, 14.5 W (Jan Mayen aftershock)
Aug. 30	iP eL	08-10-13.5 44.3	CGS: H = 07-57-25 44 N, 147.5 E (Kurile Islands) Mg. 6 1/4 (Pas) h = 60 km.ca. Δ = 9,550 km.
Sept. 4	eP'	03-47-42	CGS: H = 03-28-32 3 S, 139.5 E (Northern New Guinea) Mg. 6 1/4 (Pas) Δ = 14,850 km.
Sept. 4	eL	14-13.3	CGS: H = 13-11-49 11.5 S, 166 E (Santa Cruz Islands)
Sept. 4	iP	21-20-04	BCIS: H = 21-08-16 53 N, 159 1/4 E (Near southeast coast of Kamchatka)
Sept. 5	eP' i(PS) eL	08-04-24 15-52 45.5	CGS: H = 07-45-31 19 S, 176 E Mg. 6 1/2 (Pas) (Fiji Islands region)
Sept. 5	iP ipP	14-22-14 (c) 36	BCIS: H = 14-11-19 (North Chile region) h = 100 km.ca.
Sept. 5	eP eS	16-16-36 20-31	BCIS: H = 16-11.5 (North of Puerto Rico)
Sept. 5	iP ipP	17-50-26 38	BCIS: H = 17-39-24 26 S, 70.5 W (North coast of Chile)
Sept. 6	iP ipP iPP iS isS eL	18-42-40 57 45-24 52-25 49 19-08.5	CGS: H = 18-30-48 51 N, 158 E (Near southeast coast of Kamchatka) Mg. 6 1/4 (Pas) h = 60 km.ca.

Date 1954	Phase	Time (GCT)	Remarks
Sept. 9	iP	01-14-10.5	CGS: H = 01-04-37
	ipP	41	36 N, 1.5 E
	iPP	16-23	(Northern Algeria)
	isS	22-17	Mg. 6 3/4 (Pas)
	isSS	26-07	Δ = 6,150 km.
	iL	01-30.5	
Sept. 9	eP	01-59-25	CGS: H = 01-49-48
			(Northern Algeria aftershock)
Sept. 9	eP	03-02-00	CGS: H = 02-52-22
			36 N, 1.5 E
			(Northern Algeria aftershock)
Sept. 9	e	03-50-32	cGS: H = 03-43-55
			(Central Nicaragua)
Sept. 9	eP	09-38-18.5	CGS: H = 09-29-41
			36 N, 1.5 E
			(Northern Algeria aftershock)
Sept. 10	eP	05-53-39	CGS: H = 05-44-04
			36 N, 2 E
			(Northern Algeria aftershock)
Sept. 13	eP'	02-28-25	CGS: H = 02-09-55
	iPP	29-21	21 S, 175.5 W
	isPP	30-01	(Tonga Islands)
	iSKS	34-59	Mg. 6 3/4 (Pas)
	iS	36-55	h = 150 km.ca.
	iPS	38-47	Δ = 12,600 km.
	iPPS	39-56	
	iSS	44-59	
	eL	03-00.7	
Sept. 15	iP'	18-13-47 (d)	CGS: H = 17-56-08
	i	14-39	18-S, 178.5 W
	i	53	Mg. 7 (Pas)
	iPP	17-44	(Fiji Islands)
	iS	23-52	h = 600 km.ca.
	iPS	24-46	
Sept. 15	iP	22-32-32	BCIS: H = 22-22.4
			(Near coast of Peru)
Sept. 16	e	05-04.7	
Sept. 16	iP	10-33-03	

Date 1954	Phase	Time (GCT)	Remarks
Sept. 17	eP'	01-32-36	CGS: H = 01-13-08
	i	35-01	4.5 S, 153.5 E
	eL	02-12.5	(New Ireland region)
			Δ = 14,050 Km.
Sept. 17	eL	08-34.5	CGS: H = 07-33-25
			25 N, 122 E
			(Near north coast of Formosa. Felt)
Sept. 17	eP	11-17-57	CGS: H = 11-03-19
	ipP	18-48	20.5 S, 177.5 W
	iP'	21-40	(Fiji Islands region)
	iPP	22-39	Mg. 7 - 7 1/4 (Pas)
	i	23-57	h = 250 km.ca.
	iSKS	28-01	Δ = 12,850 km.
	i	29-54	
	i	32-00	
	ipPS	33-01	
	eSS	38-00	
	esSS	40-06	
Sept. 17	eP	19-08-54 (c)	CGS: H = 19-01-52
			(Colombia-Venezuela border)
Sept. 18	eP'	15-31-41	
Sept. 18	eP	18-37-05	CGS: H = 18-24-50
	i	18	(Kurile Islands)
Sept. 19	iP	10-56-37 (d)	
Sept. 20	eP	00-14-53	CGS: H = 00-10-09
			53 N, 35.5 W
			(North Atlantic Ocean)
Sept. 20	eP'	00-58-59	CGS: H = 00-39-28
	iP'	02-20	1.5 S, 120.5 E
	iPPP	06-44	(Celebes)
	iPS	14-25	Mg. 5 3/4 (Pas)
	i	21-25	Δ = 15,300 km.
Sept. 21	iP'	03-59-42	CGS: H = 03-40-22
	i	52	(Sumbawa Islands)
	i	04-03-05.5	h = 150 km.ca.
Sept. 23	iP	21-55-45.5	CGS: H = 21-43-36
	iS	22-05-46	49 N, 156 E
	eL	25.4	(Kurile Islands region)
			Mg. 6 1/4 (Pas)
			Δ = 8,850 km.

Date 1954	Phase	Time (GCT)	Remarks
Sept. 25	eP eS eT	19-27-34.5 31-29 48-17	CGS: H = 19-22-17 19 N, 70 W (Dominican Republic)
Sept. 27	eP	16-51-17	CGS: H = 16-38-2 42.5 N, 142 E (Southern Hokkaido, Japan) h = 60 km.ca. Δ = 9900 km.
Sept. 28	iP eL	00-36-47 01-09.5	CGS: H = 00-25-00 52 N, 160 E (Off southeast coast of Kamchatka)
Sept. 28	eL	13-50.3	CGS: H = 12-53-06 15.5 S, 173 W (Samoa Islands region) Δ = 11,950 km.
Sept. 29	eL	00-07.4	CGS: H = 23-25-10 (Pacific Ocean 500 miles southeast of Easter Island)
Sept. 30	eP eS eT	21-50-00.5 54-20.5 22-13-08	CGS: H = 21-44-46 (Near east coast of Dominican Republic)
Oct. 1	eP' iPP iSKS iPS iPPS eL	03-14-26.5 16-00 21-40 25-57 27-28 03-40.2	CGS: H = 02-55-31 11 S, 166 E (Santa Cruz Islands) Mg. 6 3/4 (Pas) Δ = 13,450 km.
Oct. 1	eL	07-45.3	CGS: H = 06-50-24 14.5 S, 177 W (Samoa Islands. Felt: Apia) h = 60 km.ca.
Oct. 8	iP	05-26-34 (d)	
Oct. 8	eP	09-26-24	CGS: H = 09-14-53 31.5 S, 71.5 W (Central Chile) h = 100 km.ca.
Oct. 8	iP	10-58-48 (d)	
Oct. 8	iP i	16-13-29 40	

Date 1954	Phase	Time (GCT)	Remarks
Oct. 10	iP	23-28-53 (c)	CGS: H = 23-21-40 7 N, 78 W (Near coast of Colombia)
Oct. 11	iP	16-24-28	CGS: H = 16-11-45 52 N, 162 E (Off southeast coast of Kamchatka) Δ = 8,250 km.
Oct. 14	eP' ePn	01-54-31 57-44	CGS: H = 01-35-00 7 S, 128 E (Banda Sea) Δ = 15,650 km.
Oct. 16	iP iS	06-47-32 49-27.5	Local Quake Δ = 1,000 km.ca.
Oct. 16	eP	18-22-04	
Oct. 17	iP	15-13-12.5	CGS: H = 15-05-28 (Northern Chile)
Oct. 17	iP iS LQ	23-04-37.5 (c) 10-32 12-40	CGS: H = 22-57-18 31.5 N, 116.5 W (Lower California) Mg. 5.8 (Pas) Δ = 4,100 km.
Oct. 19	eP ePn i eS i	17-54-17 55-32 57-51 59-09 45	CGS: H = 17-48-14 57.5 N, 32.5 W (North Atlantic Ocean) Δ = 3,200 km.
Oct. 20	i	00-55-39	
Oct. 21	iP ipP iS iL	06-58-24 (c) 36 07-03-34 07-30	CGS: H = 06-51-48 14 N, 90.5 W (Guatemala) Mg. 6 1/2 (Pas) h = 60 km.ca. Δ = 3,600 km.
Oct. 21	iP	20-12-08	CGS: H = 20-03-00 10 S, 75 W (Central Peru) h = 100 kmca.
Oct. 24	eP	02-52-14	

Date 1954	Phase	Time (GCT)	Remarks
Oct. 24	eP eS eL	09-51-19 57-35 10-03-19	CGS: H = 09-44-05 31.5 N, 116 W (Lower California) Mg. 6 (Pas) Δ = 4,050 km.
Oct. 31	eL	00-14.7	CGS: H = 23-12-52 18.5 S, 170 E (New Hebrides Islands) Mg. 6 1/4
Nov. 1	iP ipP eL	21-02-58 (d) 03-09 15.3	CGS: H = 20-56-22 14 N, 92 W (Off coast of Guatemala) h = 60 km.ca.
Nov. 2	iPP' ipP' iPP iSKP e ePP S eSSS	08-43-45.5 44-03 46-23 47-18 55-38 58-33 09-11-54	CGS: H = 08-24-08 7.5 S, 119 E (Sumbawa Islands region) Mg. 6 1/2 (Pas) Δ = 16,100 km.
Nov. 2	e	08-58-22	
Nov. 2	eP'	10-46-26	CGS: H = 10-26-47 (Sumbawa Islands aftershock)
Nov. 2	eP'	10-59-26	CGS: H = 10-39-47 (Sumbawa Islands afterhock)
Nov. 5	eP	22-58-26.5	CGS: H = 22-46-44 52.5 N, 160.5 E (Off east coast of Kamchatka) Δ = 8,300 km.
Nov. 7	eL	16-20.4	CGS: H = 05-18-57 24.5 S, 176 W (Tonga Islands region)
Nov. 8	iP ipP eS	02-20-32 45 24-40	CGS: H = 02-15-28 20 N, 71 W (Haiti-Dominican Republic border) h = 60 km.ca.
Nov. 9	eL	00-53.4	

Date 1954	Phase	Time (GCT)	Remarks
Nov. 10	iP ipP	07-36-12 45	CGS: H = 07-24-52 56.5 N, 160 E (Kamchatka) h = 100 km.ca. Δ = 7,950 km.
Nov. 12	iP iS iL	12-34-00.5 39-48 44-55	CGS: H = 12-26-47 31.5 N, 116 W (Lower California. Felts San Diego and El Centro) Mg. 6.1 (Pas) Δ = 4,000 Km.
Nov. 18	iP i eL	05-32-06 32-24 06-05.2	CGS: H = 05-20-04 49 N, 155 E (Kurile Islands) h = 100 km.ca. Δ = 8,850 km.
Nov. 19	iP	06-08-25	CGS: H = 05-56-03 41 N, 131.5 E (Sea of Japan) Mg. 6 1/2 (Pas) h = 600 km.ca. Δ = 10,450 km.
Nov. 20	iP	07-12-17	CGS: H = 07-02-26 (Southern Peru) h = 150 km.ca.
Nov. 21	eL	08-42.7	CGS: H = 07-37-27 29 S, 178 W (Kermadec Islands)
Nov. 23	iP	10-11-30.5	CGS: H = 09-59-45 53 N, 159.5 E (Off coast of Kamchatka) Mg. 5 1/2 (Pas) h = 60 km.ca.
Nov. 23	iP	10-29-22	CGS: H = 09-59-45 52.5 N, 160 E (Off coast of Kamchatka) Mg. 5 3/4 (Pas) h = 60 km.ca.
Nov. 23	iP	16-02-54.5	CGS: H = 15-52-29 19.5 S, 69 W (Chile-Bolivia border)

Date 1954	Phase	Time (GCT)	Remarks
Nov. 23	iP iSP eL	21-24-45 25-34 57.5	CGS: H = 21-12-55 52 N, 160.5 E (Off southeast coast of Kamchatka) h = 60 km.ca. Mg. 6 (Pas)
Nov. 25	iP iS	11-24-20 30-36	CGS: H = 11-16-36 40.5 N, 126 W (Off Cape Mendocino, Calif.) Mg. 6 1/2 (Pas)
Nov. 25	eI	21-08.5	CGS: H = 20-48-50 15 N, 94.5 W (Off coast of Chiapas, Mexico)
Nov. 27	eP	16-09-06	CGS: H = 16-02-22 12 N, 87 W (Near coast of Nicaragua)
Nov. 29	iP	01-50-48	CGS: H = 01-39-02 53.5 N, 160 E (Near east coast of Kamchatka)
Dec. 2	iP	23-20-22.5	CGS: H = 23-13-25 (Nicaragua)
Dec. 3	eL	09-07.4	CGS: H = 08-46-02 44 N, 127 W (Off coast of Oregon) 4,400 Km. = Δ
Dec. 4	iP' eL	07-19-36 08-04.5	CGS: H = 07-00-29 5 S, 152.5 E (New Britain region) Mg. 6 1/2 (Pas)
Dec. 4	iP i iS eT	18-15-34 43 19-39 36-16	CGS: H = 18-10-23 20 N, 69 W (Near north coast of Dominican Republic)
Dec. 4	iP ePP isPP iS isS	18-37-41 38-40 39-22 42-54 43-16	CGS: H = 18-31-07 11 N, 61 W (Near Trinidad) Mg. 6 1/4 (Pas) h = 60 km. ca. Δ = 3,600 km.

Date 1954	Phase	Time (GCT)	Remarks
Dec. 6	eL	04-02.3	CGS: H = 02-51-40 3.5 S, 151 E (New Ireland region) Δ = 13,950 Km.
Dec. 9	iP	14-23-21	CGS: H = 14-13-27 15.5 S, 76 W (Off coast of Peru)
Dec. 10	iP ipP iS iL	13-06-05 21.5 10-42 13-29	CGS: H = 13-00-27 18.5 N, 81.5 W (West of Jamaica) Mg. 6 1/4 (Pas)
Dec. 11	iP i i iS eL i	13-03-04 05-29 39 07-47 21-23 27-21	CGS: H = 12-57-07 52.5 N, 32 W (North Atlantic Ocean) Mg. 6 1/2 (Pas)
Dec. 19	iP iS	10-34-00 42-25	CGS: H = 10-23-40 23 S, 66.5 W (Jujuy province, Argentina) Mg. 6 1/2 (Pas) h = 250 km.ca.
Dec. 21	iP eS iL	20-03-52 09-53 12-46	CGS: H = 19-56-25 41 N, 124 W (Humboldt County, Calif.) Mg. 6 1/2 (Pas)
Dec. 23	iP	16-38-13	CGS: H = 16-27-16 38 N, 21 E (Near west coast of Greece)
Dec. 27	iSKP	07-10-07	CGS: H = 06-47-27 4.5 S, 130 E (Banda Sea)
Dec. 28	iP'	01-19-44	CGS: H = 01-00-37 5 S, 152.5 E (New Britain Region)
Dec. 28	iP'	01-28-25	CGS: H = 01-09-20 (New Britain aftershock)
Dec. 28	iP'	02-33-20.5	CGS: H = 02-14-13 (New Britain aftershock)

Date 1954	Phase	Time (GCT)	Remarks
Dec. 28	iP	02-35-08	BCIS: H = 02-23-33
	i	14	31.75 S, 68 W
Dec. 28	iP	18-23-40	
Dec. 30	iP	11-42-39	CGS: H = 11-32-28
	ipP	55	53 N, 168 W (Fox Islands, Aleutian Islands) Mg. 6 1/2 (Pas)

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