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BERKELEY—MOUNT HAMILTON—PALO ALTO SAN FRANCISCO—FERNDALE—FRESNO MINERAL—ARCATA—RENO—CORVALLIS—SHASTA

Earthquakes and the Registration of Earthquakes

From January 1, 1953, to March 31, 1953

BY
DON TOCHER

UNIVERSITY OF CALIFORNIA PRESS
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SEISMOGRAPHIC STATIONS OF THE UNIVERSITY OF CALIFORNIA

Perry Byerly, Director

EARTHQUAKES IN NORTHERN CALIFORNIA, NEVADA, AND OREGON

and

REGISTRATION OF EARTHQUAKES AT: BERKELEY, MOUNT HAMILTON, PALO ALTO, SAN FRANCISCO, FERNDALE, FRESNO, MINERAL, ARCATA, RENO, CORVALLIS, AND SHASTA

FROM JANUARY 1, 1953 TO MARCH 31, 1953

VOLUME 23 NUMBER 1

By Don Tocher

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EARTHQUAKES IN NORTHERN CALIFORNIA, NEVADA, AND OREGON

The list following this page gives the latitude and longitude of epicenters for earthquakes well enough recorded to permit such a determination.

Map No. refers to the map immediately following the epicenter list.

Date and Origin Time are given in Greenwich Civil Time. Subtract eight (8) hours to get local (Pacific Standard) time. This will change the date for some of the earthquakes.

M refers to the Richter Magnitude, determined from trace amplitudes of the Wood-Anderson Seismographs, and using the nomogram given by Nordquist in the "Bulletin of the Seismological Society of America," 32:164.

Q represents the excellence with which the epicenter has been located, "a" indicating excellent, "b" good, "c" fair, and "d" poor.

Under Remarks will be found a short descriptive location of the epicenter, as well as information on small foreshocks and aftershocks, and the intensity of shocks which were reported felt. Reports on felt earthquakes are chiefly those collected by the United States Coast and Geodetic Survey, which publishes a more complete summary of such reports in "Abstracts of Earthquake Reports for the Pacific Coast and the Western Mountain Region." Intensities are given by Roman numerals when sufficient information on the effects of the shock is available. Criteria of the Modified Mercalli Scale which are used to rate the intensity are:

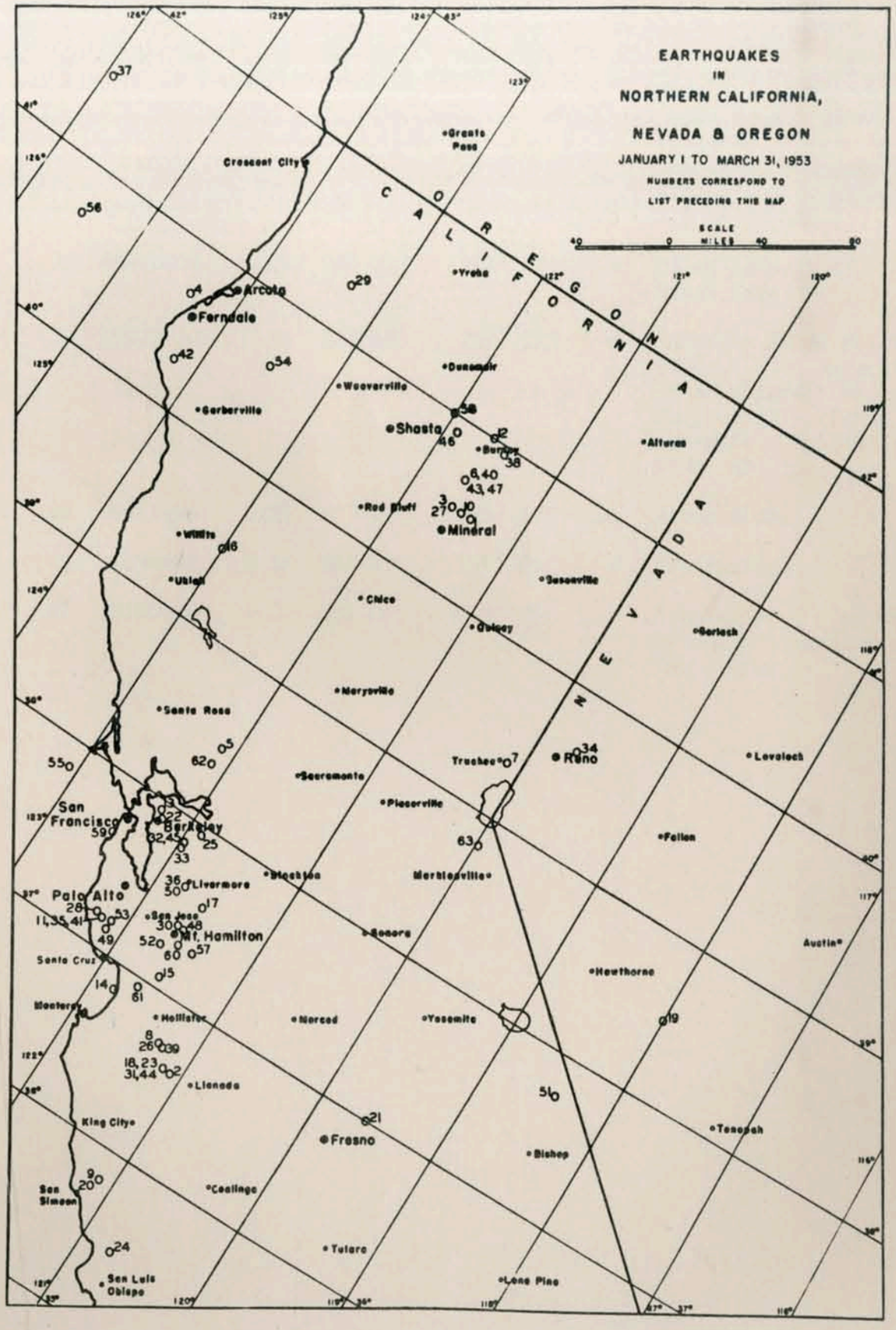
II	Felt by a few people only. Duration or direction not appreciable.
III	Duration or direction appreciable.
IV	Rattling of doors and windows; swinging of suspended objects.
V	Disturbance of movable objects; plaster cracked.
VI	Overthrow of movable objects; cracking of chimneys and other brickwork.
VII	Fall of some chimneys; some damage to buildings.
VIII	General fall of chimneys; great damage to poorly built structures.

EARTHQUAKES IN NORTHERN CALIFORNIA, NEVADA, AND OREGON

Map No.	Date 1953	Origin Time(GCT)	M	Latitude North	Longitude West	Q	Remarks
1	Jan. 2	03-08-36	2.0	40.5°	121.4°	d	14 miles NE of Mineral.
2	2	10-47-53	2.5	36° 37'	121° 05'	c	8 miles west of Llanada.
3	2	19-05-02	3.2	40.5°	121.6°	d	10 miles north of Mineral. Felt at Mineral and Sulphur Works.
4	3	18-40-06	3.6	40.7°	124.4°	d	10 miles NW of Ferndale.
5	7	06-55-20	2.5	38° 27'	122° 06'	b	32 miles east of Santa Rosa.
6	8	23-22-08	3.0	40.7°	121.6°	d	25 miles north of Mineral.
6	8	23-23-07	3.2	40.7°	121.6°	d	25 miles north of Mineral.
7	11	03-19-40	3.1	39° 21'	120° 07'	c	Near Truckee. Aftershock of magnitude 2.6 at 03-29.
8	11	17-07-11	2.7	36° 44'	121° 17'	c	10 miles SE of Hollister.
9	12	13-05-18	3.2	35.8°	121.1°	d	14 miles NE of San Simeon.
10	12	21-58-17	2.6	40.5°	121.5°	d	10 miles north of Mineral.
11	15	00-49-05	2.1	37° 11'	122° 12'	c	16 miles south of Palo Alto. Identical shock 18 1/2 seconds later. Blasts?
12	15	17-07-50	3.0	41.0°	121.6°	d	7 miles NE of Burney.
13	15	21-39-13	2.0	37° 57'	122° 15'	c	7 miles north of Berkeley.
14	22	14-20-32	2.4	36° 51'	121° 49'	c	12 miles SE of Santa Cruz.
15	23	08-02-28	2.0	37° 04'	121° 34'	c	20 miles south of Mt. Hamilton.
16	24	09-59-50	3.9	39.5°	123.0°	d	20 miles ENE of Willits.
17	26	00-43-14	2.3	37° 34'	121° 34'	b	9 miles SE of Livermore.
18	27	22-10-12	2.5	36.6°	121.2°	d	15 miles west of Llanada.
18	27	23-10-35	3.3	36° 36'	121° 09'	b	13 miles west of Llanada.
19	29	21-52-48	3.6	38.5°	118.0°	d	30 miles east of Hawthorne, Nevada.
20	29	20-31-19	3.1	35.8°	121.1°	d	14 miles NE of San Simeon.

Map No.	Date 1953	Origin Time(GCT)	M	Latitude North	Longitude West	Q	Remarks
21	Jan. 31	00-38-29	2.1	37.0°	119.6°	d	20 miles NE of Fresno.
22	Feb. 2	08-48-14	2.4	37° 52'	122° 14'	c	Berkeley Hills. Felt at Albany, Berkeley and El Cerrito.
23	3	07-36-26	2.7	36° 34'	121° 12'	b	15 miles west of Llanada.
24	3	14-50-18	4.1	35° 28'	120° 45'	c	12 miles NNW of San Luis Obispo. USCGS: V at Atascadero, Creston, Morro Bay, Pleyto, and Santa Margarita.
25	3	17-43-29	2.5	37° 57'	121° 53'	b	20 miles ENE of Berkeley.
26	6	01-15-53	3.1	36° 42'	121° 19'	c	10 miles SSE of Hollister.
26	6	04-27-09	3.1	36° 42'	121° 18'	c	10 miles SSE of Hollister.
27	6	22-12-00	2.8	40.5°	121.6°	d	10 miles north of Mineral.
28	6	22-52-10	2.2	37° 12'	122° 15'	c	10 miles SSW of Palo Alto.
29	12	00-12-15	2.5	41.3°	123.3°	d	40 miles SW of Yreka.
30	13	22-10-06	3.2	37° 23'	121° 39'	a	4 miles north of Mt. Hamilton. Shock of slightly smaller magnitude 18 seconds later.
31	15	17-45-50	3.1	36° 34'	121° 13'	c	16 miles west of Llanada.
32	17	16-35-03	2.2	37° 51'	121° 58'	c	15 miles east of Berkeley.
33	18	07-26-51	1.9	37° 48'	121° 58'	c	17 miles ESE of Berkeley.
34	20	23-55-53	3.4	39° 37'	119° 41'	b	8 miles NE of Reno, Nevada. Foreshock of magnitude 3.1 at 23-16-46. Aftershock of magnitude 3.2 at 00-03-25, Feb. 21.
35	21	00-10-48	1.9	37° 13'	122° 13'	c	18 miles NW of Santa Cruz. Blast?
36	23	00-00-56	2.7	37° 38'	121° 47'	a	3 miles south of Livermore.
37	23	07-42-51	4.7	41° 30'	125° 56'	c	About 100 miles WNW of Arcata.
38	23	09-09-50	3.7	40° 57'	121° 29'	b	8 miles NE of Burney. IV at Pittville.

Map No.	Date 1953	Origin Time(GCT)	M	Latitude North	Longitude West	Q	Remarks
39	Feb. 24	20-59-27	3.0	36° 43'	121° 15'	c	12 miles SE of Hollister.
40	25	08-44-43	3.4	40° 40'	121° 38'	c	21 miles N or Mineral.
41	25	21-44-08	1.8	37.2°	122.2°	d	13 miles south of Palo Alto. Blast?
42	26	20-05-51	2.9	40° 18'	124° 12'	c	18 miles south of Ferndale.
43	27	16-55-01	3.3	40° 40'	121° 35'	c	21 miles north of Mineral.
44	28	01-00-20	3.5	36° 34'	121° 09'	a	12 miles west of Llanada.
45	28	11-47-55	1.7	37° 50'	121° 57'	b	17 miles east of Berkeley.
46	28	15-07-42	2.7	40.9°	121.9°	d	12 miles west of Burney.
47	Mar. 2	21-00-22	2.9	40.7°	121.6°	d	12 miles south of Burney.
48	3	19-15-12	2.0	37° 23'	121° 36'	c	4 miles NE of Mt. Hamilton.
49	5	11-48-58	1.7	37° 08'	122° 07'	c	12 miles NNW of Santa Cruz. Blast?
49	5	12-30-28	1.7	37° 08'	122° 07'	c	12 miles NNW of Santa Cruz. Blast?
50	7	08-55-05	1.6	37° 37'	121° 46'	b	3 miles south of Livermore.
51	8	07-37-26	3.4	37° 45'	118° 26'	c	26 miles north of Bishop.
52	8	12-28-26	1.9	37° 15'	121° 42'	c	7 miles SW of Mt. Hamilton.
53	8	23-06-45	2.5	37° 12'	122° 07'	b	15 miles south of Palo Alto.
54	9	00-17-00	2.4	40.6°	123.5°	d	30 miles WSW of Weaverville.
55	12	09-38-18	1.8	37° 50'	123° 04'	c	30 miles west of San Francisco.
56	12	21-35-30	3.5	40.7°	125.5°	d	70 miles west of Arcata.
57	14	05-01-04	2.1	37° 18'	121° 27'	c	10 miles east of Mt. Hamilton.
58	14	08-22-51	2.6	41.0°	122.0°	d	17 miles WNW of Burney.
59	14	17-22-36	2.3	37° 39'	122° 30'	a	South of San Francisco. Felt at Hayward.
60	16	01-16-49	2.5	37° 18'	121° 34'	b	5 miles SE of Mt. Hamilton.



Map No.	Date 1953	Origin Time(GCT)	M	Latitude North	Longitude West	Q	Remarks
61	Mar. 16	08-52-06	4.0	36° 57'	121° 40'	b	18 miles east of Santa Cruz. V at Gilroy and Santa Cruz. IV at Monterey, Morgan Hill, San Jose, Watsonville. Aftershock of magnitude 2.3 at 10-13-13.
62	19	06-20-04	3.0	38° 21'	122° 07'	c	32 miles east of Santa Rosa.
63	22	05-19-00	5.0	38° 49'	119° 59'	a	13 miles NW of Markleeville. V at Meyers. IV at Emigrant Gap, Markleeville, Tahoe City, Yosemite. III at Carson City, Nevada.
63	22	05-57-56	2.9	38° 49'	119° 59'	b	Aftershock.
63	22	06-32-29	3.1	38° 49'	119° 59'	b	Aftershock.
63	22	14-10-25	4.3	38° 49'	119° 59'	b	Aftershock. V at Meyers. IV at Markleeville and Tahoe City.

THE REGISTRATION OF EARTHQUAKES

at

BERKELEY, MOUNT HAMILTON, PALO ALTO, SAN FRANCISCO, FERNDALE

FRESNO, MINERAL, ARCATA, RENO, CORVALLIS, AND SHASTA

All large regional shocks and all distant earthquakes are tabulated on the following pages. Earthquakes in the Northern California, Nevada and Oregon region are included only if of magnitude 5 or greater, or if of special interest. Times of distant shocks are not normally included for Palo Alto, San Francisco, or Ferndale except in cases of defective records at Mount Hamilton, Berkeley, or Arcata, respectively. Communications regarding readings of seismograms should be addressed to Seismographic Station, University of California, Berkeley 4, California. Readings from the Corvallis Station are sent to the University of California by the courtesy of Dr. H. R. Vinyard, Oregon State College.

Station	North Latitude	West Longitude	Altitude Meters	Feet	Station Symbol	Present Auspices and Date Established
Berkeley	37° 52.3'	122° 15.6'	81	266	B, BG*	University of California - 1887
Mt. Hamilton	37° 20.4'	121° 38.6'	1281.7	4205	MH	Lick Observatory 1887
Palo Alto	37° 25.1'	122° 10.8'	83	272	PA	Stanford University - 1927
San Francisco	37° 46.4'	122° 27.2'	100	328	SF	University of San Francisco - 1931
Ferndale	40° 34'	124° 16'	17	55	Fe	City of Ferndale - 1933
Fresno	36° 46.1'	119° 47.8'	88.4	290	F	Fresno State College - 1935
Mineral	40° 21'	121° 35'	1495	4906	M	National Park Service, Lassen Volcanic National Park - 1938
Arcata	40° 52.6'	124° 04.5'	60	195	A	Humboldt State College - 1948
Reno	39° 32.3'	119° 48.8'	1386	4546	R	University of Nevada - 1948
Corvallis	44° 35.1'	123° 18.2'	133	405	C	Oregon State College - 1950
Shasta	40° 41.7'	122° 23.3'	312.4	1025	SH	Bureau of Reclamation - 1942

*B denotes readings of short period instruments, BG of long period instruments (12 sec. Galitzin-Wilip).

STATION EQUIPMENT

Berkeley:
2 - Horizontal-component Wood-Anderson torsion.
1 - Short-period vertical-component Benioff.
3 - Long-period Galitzin-Wilip.
2 - Horizontal-component 100 kg. Bosch-Omori.

Mt. Hamilton:
2 - Horizontal-component Wood-Anderson torsion.
1 - Short-period vertical-component Benioff.

Palo Alto:
2 - Horizontal-component Wood-Anderson torsion.
1 - Short-period vertical-component Benioff.

San Francisco:
2 - Horizontal-component Wood-Anderson torsion.

Ferndale:
2 - Horizontal-component 25 kg. Bosch-Omori.

Fresno:
3 - Components short-period Sprengnether.

Mineral:
2 - Horizontal-component Wood-Anderson torsion.
1 - Short-period vertical-component Benioff.

Arcata:
2 - Horizontal-component Wood-Anderson torsion.

Reno:
3 - Components short-period Sprengnether.

Corvallis:
3 - Components short-period Slichter.

Shasta:
3 - Components short-period Benioff.

For all stations, the three components are indicated by N, E, Z. When no letter appears, the phase is read from the vertical component only.

"c" or "d" following a recorded phase indicates compression or dilitation of the ground as indicated by the vertical component instrument. N, S, E or W following a recorded phase indicates that the ground motion was in that direction, e.g., W ground motion was west.

"i" (impetus) preceding a phase designates sudden beginning of the motion; "e" (emersio) designates gradual beginning.

Maximum amplitude of earth displacement in microns and period in seconds of the indicated phases are given for the Berkeley station in the columns headed A and T. Combined horizontal amplitude of N and E components are designated by H.

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Jan. 1	MH	e	04 48 59.3	c	
	F	eP	49 04.5	d	
	M	eP	07.0	d	
	R	eP	11.2	d	
	SH	e	05.5	c	
1	MH	e	11 24 08.8	d	
	M	e	10.9	c	
2	MH	e(P)	03 19 31.1	d	
	F	e(P)	41.0		
	M	eP	00.6	c	
	R	e	12		
	SH	eP	18 55.4	c	
2	MH	eP	11 32 54.9	d	USCGA: 6°S, 81°W
	M	eP	33 06.5	c	0 = 11-23-00
		e	34 25.5		Near coast of Peru
	R	eP	32 56.6	d	
	SH	e	33 24.0	d	
			34 02.0	c	
2	MH	e	11 50 31.7	c	
3	BG	eE	18 29.9		
	M	e(P)	00 20.5	c	
3	MH	eP	21 37 25.2	d	
		e	43.9	d	
	M	eP	40.8	d	
		e	59.1	c	
	R	eP	28.5	d	
4	B	eP	06 53 12.5	c	USCGS: 48°N, 156°E
	MH	eP	16.3	d	0 = 06-43-15
		e	47.7	d	Kurile Islands
		ePcP	54 07.3	d	
	F	eP	53 27.0	d	
	M	eP	03.9	d	
		ePcP	55.6	c	
	R	iP	15.6	d	
		eP	52 59.0	d	
4	MH	eP	09 29 19.1	c	USCGS: 7°S, 147°E
	F	eP	25.0		0 = 09-15-52
	M	eP	18.9	d	Near east coast of New Guinea
	R	eP	27.6		
	SH	eP	17.0	d	
		ePP	33 10.04	c	
4	MH	e	11 11 53.5	d	
	M	e	38.5	c	
		e	59.3	d	
4	MH	eP	11 27 59.5	d	USCGS: About 200 miles northeast of
	F	eP	28 07.5		Fiji Islands
	M	eP	08.0	c	
	R	eP	16		
	SH	eP	06.5	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Jan. 4	M	eP	22 47 35.5	c	USCGS: 51°N, 157 1/2°E
		e	41.7	d	0 = 22-38-05
	R	e(P)	51.0		Near south coast of Kamchatka
	SH	e	34.0	c	
5	MH	eP	05 01 28.1	d	USCGS: Komandorskie Islands
		e	02 59.9	d	Foreshock. 0 = 04-52-42
	F	eP	01 38.8	c	
	M	eP	12.3	c	
		i	55.2	d	
	R	eP	26.1	d	
5	B	eP	07 56 59.3	c	USCGS: 54°N, 170°E
		i	57 04.8	d	0 = 07-48-17
		i	11.8	c	Komandorskie Islands Region
		e(PP)	58 50.5		Felt: Attu
		e	08 02 25		Pas: Magnitude 6 3/4-7
	BG	i(S)NE	04 03		
	MH	eP	07 57 03.2	c	
		i	11.2	d	
		iPP	58 47.8	d	
		e	08 00 42.0		
		eSE	03 55		
		eN	04 11		
	F	eP	07 57 14.0	d	
		i	22.2	d	
		eN	59 52.5		
	M	eP	56 47.5	c	
		i	53.9	c	
		e	08 02 18.8	d	
		e	05 26.7		
		e	06 48.6		
	R	eP	07 57 00.4	d	
		i	08.2		
		eSE	08 04 09.6	d	
	C	eP	07 56 34		
	SH	eP	42.1	c	
5	M	e	08 20 42.4	c	
5	B	iP	08 32 23.0	c	USCGS: 54°N, 171°E
		iPcP	33 52.0	d	0 = 08-23-46
	MH	eP	32 26.7	c	Kormandorskie Islands
		i	36.2	d	Aftershock
		ePP	34 20.8	d	
		e	37 49.7		
	F	eP	32 40.0	d	
	M	iP	13.4	d	
		i	21.7	c	
		iPcP	33 47.3		
		e	37 40.1		
	R	iP	32 26.7	d	
		e	33 26.3	d	
	C	eP	31 45		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Jan. 5	SH	eP	32 06.6	c	
		i	33 14.8		
		e	37 08.0		
		eSN	38 52.5		
		e	44 09		
5	B	iP	10 16 22.7	c	USCGS: 49°N, 156°E
		e	35.5		0 = 10-06-25
		eSNE	24 23		Kurile Islands
	MH	eP	16 28.2	c	Pas: Magnitude 6 3/4
		iPP	18 25.2	c	
		ePPP	19 56.2	d	
		eSNE	24 34.5		
		eP'P'	46 06.3	d	
	F	iP	16 38.2	c	
		i	51.2	d	
		e	19 00.0		
		eSE	24 54		
		eScSN	26 24		
		eP'P'	45 59.0		
	M	eP	16 14.6	c	
		iPcP	17 26.7		
		e	19 47.4		
		eS	24 11.4		
		eP'P'	46 05.4		
	R	iP	16 26.6	c	
		e	37.5	d	
		ePcP	17 39.6		
		eSNEZ	24 28.6	d	
		eP'P'	45 52.9		
	C	iP	15 50		
		eSN	23 17		
	SH	iP	16 10.1	c	
		e	17 55.8	d	
		e	20 18.4		
		i	21 48.9	d	
		eSNE	23 59		
		eScSN	25 56		
5	B	iP	10 26 22.0	d	USCGS: 49°N, 155 1/2°E
		i	34.0	c	0 = 10-16-25
	MH	eP	26.7	c	Kurile Islands
		i	50.6	c	
		e	27 17.2	d	
	F	eP	26 37.5	d	
	M	iP	13.7	c	
	R	eP	25.6	c	
	SH	iP	09.3	c	
		i	21.7	c	
5	M	e	10 49 40.2	c	
		e	50 59.1	d	
5	MH	e(P)	16 13 58.0	d	USCGS: 49°N, 156°E
	SH	e(P)	24.4	c	0 = 16-03-45. Kurile Islands.

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Jan. 5	MH	eP	16 28 11.3	c	USCGS: Komandorskie Islands
	M	eP	27 54.0		0 = 16-19-20
	R	eP	28 05.4	c	
	SH	eP	27 50.7	c	
5	MH	e	22 58 09.7	c	
	R	e(P)	09.7	c	
6	MH	eP	01 47 48.0	c	
		e	49 42.6		
	F	eP	47 58.0	c	
	M	eP	35.1	c	
	R	eP	45.0	c	
	SH	iP	28.9	c	
6	M	eP	10 36 45.0	d	USCGS: 49°N, 156°E
		e	57.8	c	0 = 10-27-00. Kurile Islands
	SH	eP	40.8	d	
		e	53.0	d	
		e	38 06.8		
6	MH	eP	16 17 18.6	c	USCGS: 21 1/2°S, 68°W, h = 150
		ipP	54.6	c	0 = 16-05-36
		e	18 09.8	d	Chile-Bolivia Border Region.
	F	eP	17 09.4	d	Felt: Calama
		epP	44.8	c	
	M	eP	28.6	d	
		epP	18 03.2	d	
		e	25.9		
	R	eP	17 20.5	d	
		epP	54.1	d	
	SH	eP	31.5	d	
		epP	18 06.8	d	
6	MH	eP	23 31 55.9	d	USCGS: 9 1/2°N, 83°W
		e	32 21.9	d	0 = 23-33-43
		e(PcP)	33 19.8	c	Foreshock Costa Rica
		e	34 14.1	c	
	F	eP	31 45.3	c	
		e(PcP)	33 07.0	d	
	R	eP	32 00.1		
		e	30.0		
	SH	e	33 35.1	d	
		e	35 10.5	c	
7	M	eP	00 14 35.0		USCGS: 41 1/2°N, 20 1/2°E
					0 = 00-01-27. Albania Foreshock.
7	M	eP	01 32 06.0	d	USCGS: 42°N, 20°E
		e	51.5	c	0 = 01-18-56. Albania
7	MH	e(P)	05 58 19.4	d	USCGS: 53 1/2°N, 161°E
		i	27.2	c	0 = 05-48-54
		i	41.8	c	Off east coast of Kamchatka
	F	eP	21.0	c	
	M	eP	04.5	d	
		i	12.3	d	
		i	45.6	c	
	R	eP	17.5	c	
	SH	eP	57 59.2	d	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Jan. 7	MH	eP	12 08 47.1	d	USCGS: 9 1/2°N, 83°W
		e	58.6	d	0 = 12-00-30
	F	eP	40.5	c	Costa Rica - Several injured.
	M	iP	58.5	c	Slight property damage
		e	11 15.5	d	
	R	eP	08 53.0	c	
7	B	iP	14 21 30.2	d	USCGS: 5 1/2°S, 150 1/2°E
		i	46.8		0 = 14-08-20
	BG	eREZ	49.7		New Britain
	MH	i	21 48.1	d	
	F	eP	38.5	c	
	M	eP	32.9	d	
		i	50.9	c	
	R	eP	39.7	c	
		e	53.5		
		ePP	25 31.0	c	
	SH	eP	21 30.8	c	
8	MH	iP	13 17 49.4	d	
	M	i	58.2	c	
9	MH	eP	16 23 51.9	c	
	R	eP	41.0		
10	F	e	02 57 15		Pas: 27.5°N, 114.4°W
	M	e	59 39		0 = 02-52-31. Mag. 5.7
	R	iP	55 42.4		Sierra Vizcaino, Baja California
		e	53.4		USCGS: IV at San Diego, El Cajon,
		eE	58 46.3		Mt. Helix
		eNEZ	54.8		
	SH	eP	56 08		
10	MH	eP	07 39 14.1	d	
		e	54.6	d	
		i	40 06.7	d	
10	MH	eP	10 09 01.8	d	USCGS: 51°N, 171 1/2°W
		e	29.2	d	0 = 10-01-45
	F	eP	15.0	d	Fox Islands, Aleutian Islands
	M	iP	08 47.9	c	
		e	09 01.4	c	
	R	eP	01.6		
10	M	eP	13 49 47.6	c	
		e	50 01.7	c	
		i	25.0		
10	MH	eP	14 40 12.2	d	
	F	eP	19.0	c	
	M	eP	19.9	d	
		e	33.1	c	
	R	eP	24.9		
	SH	eP	19		
10	B	iP	22 18 38.3		Pas: 35°14'N, 118°36'W
		eN	19 40		0 = 22-17-38
	MH	eP	18 29.1	c	Magnitude 4.0 near Bear Mountain
		iS	19 11.8		
	F	iP	18 09.9	c	
		eS	32.5		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Jan. 10	M	eP	19 26.8		
		eNE	20 27.5		
	R	eP	19 00.4	c	
		eS	57.8		
11	MH	eP	01 02 53.1	d	
		e	03 12.0	d	
	M	eP	05.2	d	
11	MH	e	10 33 29.3	c	
	M	e	12.8	c	
11	MH	eP	15 55 40.9	c	
	F	eP	46.0	d	
	M	e	50.2	c	
11	MH	eP	22 04 06.6	c	
	F	eP	03 52.0		
	M	eP	04 16.5	c	
	R	eP	05.3		
11	B	eP	22 59 25.4		USCGS: 65°N, 133°W
		eSN	23 04 32		0 = 22-53-30
		e	08 39		Yukon, Canada
	MH	ePNEZ	22 59 31.1	c	Pas: Magnitude 6 1/2
		e(PcP)	23 02 44.3	c	
		eNE	05 13		
		eNE	09.9		
	F	iP	22 59 39.1	c	
		eSE	23 04 44		
		eN	09 18		
	M	iP	22 59 04.1	c	
		eSN	23 03 57		
		eE	05 34		
		eNZ	09 46		
	R	eP	22 59 14.5		
		e	40.8		
		eN	23 03 41.0		
		eN	56.9		
		e	05 43.5		
		eREZ	06.5		
	C	iP	22 58 21		
		eS	23 02 29		
	SH	ePNZ	22 59 00		
		e	23 02 35		
		eE	03 28.5		
12	MH	eP	03 22 43.1	c	
		e	23 16.5	d	
	M	e	22 59.6	d	
12	MH	eP	05 46 17.4	d	USCGS: 53°N, 161 1/2°E
	F	eP	31.0		0 = 05-36-53
	M	e	23.8		Near east coast of Kamchatka
12	MH	eP	12 42 02.2	c	
	M	eP	04.9		
12	MH	e(P)	12 52 52.0	c	
		e	54 50.0	d	
	M	e(P)	52 37.6	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Jan. 12	B	eP	17 33 24.0	d	USCGS: 49 1/2°N, 156°E h = 60
		i	29.1	d	0 = 17-23-39
		ipP	41.3	d	Kurile Islands
	BG	iSNEZ	41 23	NE	Pas: Magnitude 6 3/4-7
		isSN	52		
		eSSE	45 18		
		iNE	47 47		
		eRNEZ	50.4		
			A T		
		PZ	2.8 5		
		SH	33 17		
	MH	eP	17 33 29.5	d	
		i	50.9	d	
		i	34 58.7	d	
		e	36 29.5	d	
	F	eP	33 42.3	d	
		e	34 02.8	d	
		e	20.5	c	
		eSE	41 52		
	M	iP	33 26.2	c	
		e(S)EZ	41 16		
	R	ePEZ	33 30.4		
		ipP	45.7	c	
		eEZ	34 34.4	d	
		iPPE	35 28		
	C	eP	32 46		
		eL	48 15		
	SH	eP	33 11.5	d	
		ipP	28.9	c	
		iE	49.9		
		eSE	40 54		
		esSNE	41 24		
		eN	42 58		
		eN	43 28		
13	M	eP	02 02 45.0	d	USCGS: 20°N, 108°W
		e	52.1	d	0 = 01-57-30
	R	ePNEZ	31.2		Revilla Giridi Islands Region
		e(PP)E	03 04.5		
14	MH	e	13 06 00.4	c	USCGS: 52 1/2°N, 159 1/2°E
	M	eP	05 37.1	d	0 = 12-56-17. Near east coast of Kamchatka
14	MH	e	21 06 30	c	USCGS: Solomon Islands
	M	e	29	d	0 = 20-53-28
15	MH	iP	08 20 47.0	c	USCGS: 53°N, 159°E
		i	21 12.8	d	0 = 08-11-09
		e	49.9	d	Near east coast of Kamchatka
	F	eP	20 57.7	c	
	M	iP	32.1	c	
		i	21 41.8	d	
	R	eP	20 43.1		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Jan. 15	B	eP	12 11 26.0		Magnitude 5-5 1/2
		e	34.0		USCGS: 19°N, 156°W
	BG	eSN	16.7		0 = 12-04-33
		eQNE	18.6		Near southwest coast of Hawaii, T.H.
		eREZ	19.9		Felt, Oahu and Hawaii
	B	eT	46 17		
			A T		
		MAX H	8.3 9		
	MH	eP	12 11 28.3	d	
		i	36.1		
		ePP	12 47.8	c	
		eT	46 25.5		
	F	eP	11 41.5	c	
		e	59.2	d	
	M	eP	38.8	c	
		i	48.6	d	
		eT	46 59.0		
	R	eP	11 48.5		
		eN	12 21.2		
15	MH	eP	18 20 30.7	c	
	M	eP	16.6	c	
	R	eP	28.9		
17	MH	e	10 43 53.5	c	
	F	eP	58.7	c	
	M	e	44 03.8	c	
17	B	iP	17 39 42.5	d	USCGS: 50 1/2°N, 155°E, h = 150,
		e	57		0 = 17-30-03
		epP	40 12.0		Kurile Islands
	MH	eP	39 46.9	c	
		i	40 11.6	c	
	F	eP	39 57.5	c	
		epP	40 27.2	d	
	M	iP	39 33.2	c	
		epP	40 01.6	d	
		ePP	41 36.6	d	
	R	eP	39 44.7	c	
		eNE	40 59.1		
	SH	eN	39 39.7		
18	MH	eP	18 17 38.3	c	USCGS: 53 1/2°N, 160 1/2°E
		e	54.1	d	0 = 18-08-10
		i	18 41.3	c	Near east coast of Kamchatka
	F	eP	17 49.0	d	
		e	18 07.0	c	
		e	20 19.0	c	
	M	eP	17 23.2	c	
		i	42.3	d	
	R	eP	35.4		
		e	53.1		
	SH	eP	18.8	d	
		eN	37.7		
		e	40.4	d	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Jan. 19	B	eP	01 13 36.5		Baja California
		e	52		Pas: 27.5°N, 114.4°W
		e	14 22		0 = 01-10
		i	33.5		Aftershock of Jan. 10 at 02-52
	BG	eE	53		
	MH	e	13 24.5	d	
		i	40.7	d	
		eN	14 05		
	F	eP	13 04.0		
		iE	26.0		
	M	e	14 04.6	d	
		eNE	15 25		
	R	eEZ	14 52		
	SH	e	15 42		
19	B	e	05 08 42.5		USCGS: 42°N, 143°E
		i	56.2		0 = 04-57-22
	BG	eSNE	17 35		Near southeast coast of
		eREZ	32.0		Hokkaido, Japan. Felt
	MH	eP	08 34.9	d	
		e	44.1	d	
		e	09 07.4	d	
	F	eP	08 44.0	d	
		e	54.5	c	
	M	eP	23.9	d	
	R	eP	43.6		
	SH	eP	20.1	d	
19	MH	eP	05 52 11.1	c	
		e	35.0	d	
	M	eP	51 56.5	d	
19	F	eP	15 00 14.0	c	
		e	30.5	c	
	M	eP	08.3	c	
	SH	eP	06.5	c	
19	B	eP	19 03 09		
	M	iP	05.6	c	
		e	39.2	d	
	F	eP	02 50.0	c	
		e	03 05.2	d	
		e	06 18.0	d	
	M	eP	03 32.3	c	
		e	56.2	d	
	R	eP	23.3	d	
		e	06 46.1		
20	M	eP	02 04 40.1	d	
20	B	eP	02 49 02		USCGS: 19 1/2°S, 169°E
		i	13.9	c	0 = 02-36-22
	MH	iP	06.0	c	Loyalty Islands
		e	14.6	d	
		ePP	52 26.6		
	F	eP	49 10.5	c	
		e	51 08.0		
		ePP	52 29.5	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Jan. 20	M	eP	49 12.5	c	
		e	46.0	d	
	R	eE	16.7		
	SH	eP	10.0	d	
20	MH	iP	05 24 05.2	d	
		e	15.2	d	
		e	30.2	d	
	M	eP	19.2	c	
20	B	eP	08 14 19.0		USCGS: IV at Tehachapi, Calif.
		iS	15 09.0		Pas: 35°19'N, 118°20'W
	MH	eP	14 13.1	c	0 = 08-13-22. Magnitude 4.0
		i	22.8	d	
		eSNE	53		
		i	54.8		
		i	15 05.4		
	F	iPNZ	13 53.2	c	
		i	14 00.3	c	
		iS	13.8		
		iNE	15		
	M	iNEZ	16 06		
	R	eP	14 44.9		
20	MH	e(P)	09 51 38.9	d	USCGS: 9 1/2°N, 79 1/2°W
		i	41.7	c	0 = 09-43-09
		i	52.6	d	Panama. Felt
	M	eP	43.8	d	
	R	eP	39.8	d	
20	B	iP	10 23 53.3	c	USCGS: 11 1/2°S, 165°E
	MH	iP	55.0	c	0 = 10-11-23
		e	24 04.4	d	Santa Cruz Islands
	F	eP	00.5	d	
	M	eP	00.5	d	
20	BG	eREZ	18 24		USCGS: 1 1/2°N, 126°W
	MH	eP	17 47 26.0	d	0 = 17-33-06
		e	48 05.1	d	Molucca Passage
		e	50 33.4	d	Pas: Magnitude 6 1/2
		ePP	51 46.5	d	
	F	eP	47 28.0	c	
		e	51 03		
		e(PP)	52 01		
		e	18 02 04		
		ePKKP	37		
	M	iP	17 47 21.3	c	
	R	e(P)	49.9	d	
		eN	52 02.5		
		ePP	07.6		
		e(S)E	59 38.6		
		e	40.5		
	SH	eP	47 18.5		
		e(P')	51 30		
		ePP	52 06		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Jan. 21	B	iP	01 52 43.2	c	USCGS: 50°N, 156°E, h = 60
		ipP	55.5		0 = 01-43-00
	BG	eSNE	02 00.7		Kurile Islands
		eREZ	09.6		
	MH	iP	01 52 48.5	c	
		i(pP)	53 03.5	d	
		ePP	55 05.5	d	
	F	iP	52 58.6	c	
		ipP	53 11.0	d	
		ePP	55 12	d	
	M	eP	52 33.9	d	
		ipP	46.4	c	
		ePP	54 48.1	c	
	R	eP	52 47.6	c	
		epPEZ	58.6		
		eS	02 00 44.3		
	SH	eP	01 52 24.3	c	
		i	29.3	d	
		i	40.3	d	
21	MH	eP	09 36 44.9	c	USCGS: 52 1/2°N, 159°E
		e	37 02.4	c	0 = 09-27-12
		e	40.9	d	Near southeast coast of Kamchatka
	F	e	13.0		
	M	eP	36 34.6	c	
		e	48.0	c	
22	M	eP	21 46 36.7	c	
		i	52.4	d	
23	MH	eP	08 40 25.5	c	
	M	eP	35.7	d	
	R	eP	29.4		
23	B	iP	09 39 46.7	c	Depth about 550
	MH	iP	47.6	c	USCGS: 17 1/2°S, 177 1/2°E
		epP	41 44.2	c	0 = 09-27-40
	F	eP	39 51.8	c	Fiji Islands
		epP	41 49.0		
	M	eP	39 56.1	c	
		epP	41 53.7	d	
	R	eP	40 00.3		
		e	23.3		
		epP	42 01.7		
23	MH	eP	11 42 09.5		
	F	eP	15.8		
24	C	iP	21 00 27		
24	MH	eP	22 46 57.6	c	USCGS: 58°N, 158°E
	M	eP	35.8	c	0 = 22-37-20
					Central Kamchatka
25	MH	e	11 55 03.8	c	USCGS: 51 1/2°N, 160°E
	F	e	08.5		0 = 11-45-17
	M	e	00.7	c	Off southeast coast of Kamchatka
		i	26.2	c	
		i	57 52.4	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Jan. 25	MH	e	15 51 17.6	c	
		e	52 15.2	d	
	F	eP	51 23.0		
	M	e	24.2	c	
25	B	eP	19 56 31.0		USCGS: 19°N, 73 1/2°W
		eQE	20 07.5		0 = 19-47-58
		eN	13.8		Off west coast of Haiti
		eE	15.3		
		eREZ	17.8		
	MH	eP	19 56 25.7	c	
	F	eP	12.5	c	
	M	e	29.4	d	
26	MH	e	01 56 20.1	c	
		e	35.8	d	
26	B	eP	05 12 10.5		USCGS: 52 1/2°N, 159°E
		e	23.0		0 = 05-02-35
	MH	eP	15.5	c	Near southeast coast of Kamchatka
		i	27.9	c	
		iPcP	13 16.1	d	
	F	eP	12 26.1	c	
	M	iP	00.7	c	
		i	13.1	c	
		ePP	13 59.8	d	
	R	ePEZ	12 12.7	c	
		eNZ	39.7		
	SH	iP	11 55.9	c	
26	MH	eP	07 40 19.2	c	
		e	27.4	c	
	M	eP	03.7	c	
		e	13.0	d	
27	B	e	03 22 29		Overlaps next shock.
	BG	eSNE	29 45		USCGS: 52°N, 159 1/2°E
		eQN	35.3		0 = 03-12-55
	MH	eP	22 31.4	c	Off east coast of Kamchatka
		e	53.3	d	
		ePcP	23 41.8	d	
	F	eP	22 45.0		
	M	eP	16.8	c	
		i	32.1	d	
		i	23 01.6	d	
	R	e	22 36.1		
		eE	26 38		
		eE	29 19		
	SH	eP	22 12		
27	B	eP	03 38 01.5		USCGS: 4 1/2°S, 153°E
		e	28.5		0 = 03-25-02
		e	41 30.5		New Britain Region
	BG	eN	04 04.3		
		e	05.3		
	MH	eP	03 38 01.3	d	
		i	22.4	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Jan. 27		e	36.5		
		e	41 07.4	c	
		ePP	33.8	d	
		i	42.1	d	
	F	e	38 32.7	c	
		e(PP)	41 53.5	c	
	M	eP	38 04.2	d	
		e	14.4	d	
		i	36.8	c	
		i	59.3	d	
	R	eP	09.2		
		e	34.1		
	SH	eP	01.0		
		e	25.6	c	
		ePP	41 37.6		
27	MH	eP	04 16 06.2	d	Phases of this shock mixed with coda of a small shock in southern Sierra Nevada, California.
		i	22.9	c	
	M	i	08.3	c	
		e	17.9	d	USCGS: 52°N, 160°E
	SH	eP	15 47.5		0 = 04-06-24
					Off southeast coast of Kamchatka
27	MH	e	08 27 57.7	d	
	F	e	28 15	c	
	M	e	27 43.9	d	
	R	e	28 01.3		
27	M	iP	17 24 37.6	c	
		e	25 33.2	c	
28	B	eP	12 39 16.0		USCGS: 20°S, 169 1/2°E
	MH	eP	16.9	d	0 = 12-26-29
	F	eP	21.7		Loyalty Islands
		e	42 52.2		
	M	iP	39 24.1	c	
	R	eP	28.2		
	SH	eP	21.5		
29	MH	eP	03 35 40.2	c	
	M	e	10.3	d	
	C	iP	34 47		
29	MH	eP	08 39 12.3	c	San Francisco office of U. W. Weather Bureau reports this shock felt at sea as a submarine disturbance lasting one minute at 0830 GCT, 6.34°N, 85.25°W.
		e	39.0	c	
	F	eP	03.5		
	M	eP	23.2	c	
		ePP	41 15.7		
	R	eP	39 14.2		USCGS: 7°N, 82 1/2°W
		e	25.0		0 = 08-30-38. Off coast of Panama.
29	B	eP	09 31 53.0	c	
	MH	eP	54.2		
		e	32 42.1		
	F	eP	04.0		
	M	eP	31 39.4	c	
	R	eP	51.0		
	SH	eP	33.5		
		e	32 21.5		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Jan. 29	MH	e	19 25 07.3	d	
	M	e	50.2	c	
	SH	e	46.0		
30	MH	iP	02 44 29.4	c	
	M	iP	23.8	c	
	SH	eP	20.2	c	
30	M	e	02 59 45.1	c	USCGS: Tonga Islands Region.
		e	03 00 20.3	d	0 = 02-47-25
30	MH	eP	15 40 19.0	c	USCGS: 52°N, 158 1/2°E
		ePcP	41 18.1	d	0 = 15-30-40
	F	eP	40 30.1		Near southeast coast of Kamchatka
	M	eP	04.7	c	
		iPcP	41 14.9	c	
30	MH	e	18 55 23.6	c	
	M	i	18.1	c	
30	M	e	21 38 06.4		
	SH	e(P)	37 45.5	c	
30	B	eP	21 59 08.5	c	USCGS: 12°S, 166 1/2°E, h = 100,
		i	12.9	c	0 = 21-46-50
		i	36.9		Santa Cruz Islands
		e	22 00 55.0		
		ePP	02 28		
	BG	eSNE	09 26		
		eEZ	10 16		
		eNE	13.9		
		iSSNE	14 53		
		eQN	20.4		
		eREZ	24.5		
	MH	eP	21 59 10.6	c	
		i	14.9	c	
		i	42.1	d	
		i	22 00 27.3	d	
		ePP	02 26.7	c	
		eP'P'	25 42.8	c	
	F	eP	21 59 16.0	c	
		e	20.2	c	
		e	22 01 08		
		eP'P'	25 40.0		
	M	eP	21 59 15.5	c	
		i	20.3	d	
		i	22 00 42.9	c	
		ePP	02 33.3	d	
		e	03 00.3	c	
		ePKKP	16 28.5		
		eP'P'	25 31.1		
	R	eP	21 59 21.3		
		eNEZ	25.8		
		eNEZ	40.9		
		eEZ	22 00 05.0		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Feb. 4	MH	e	11 05 22.2	d	USCGS: 37 1/2°N, 19 1/2°W,
	M	eP	04 48.0	d	0 = 10-53-07
		e	05 07.9	c	North Atlantic Ocean
		ePP	07 34.3		
	SH	eP	04 48.0	d	
		e	05 19.0		
4	MH	eP	12 46 41.2	c	
	F	eP	33.0	c	
	M	iP	39.9	c	
	SH	eP	41.9	c	
4	MH	e	18 51 25	c	USCGS: 48°N, 157°E
	M	eP	18.0	c	0 = 18-41-33. Kurile Islands
		i	38.5	c	
	SH	eP	11.4	c	
5	B	eP	11 56 52.9	c	USCGS: 14°S, 176°W
		e	57 02		0 = 11-45-23
	MH	eP	56 54.2	c	Fiji Islands Region
		i	57 08.8	d	
		e	58 07.2	c	
	F	eP	56 59.5	c	
		e	58 12.0	c	
	M	eP	57 03.6	c	
		i	09.3	d	
		i	15.5	c	
	R	eP	08.0	c	
	SH	iP	02.1	c	
		e	07.7	d	
		e	58 20.5	c	
5	MH	eP	21 48 08.8	c	
6	MH	eP	05 43 00.5	c	USCGS: 51°N, 159°E
		i	16.6	d	0 = 05-33-22
		ePcP	44 06.9	d	Near southeast coast of Kamchatka
	F	eP	43 11.4	c	
	M	eP	42 45.9	d	
		i	43 04.9	c	
	R	eP	42 58.3		
		e	43 05.5		
	SH	eP	42 41.5	c	
		e	46.6	d	
		i	58.8	c	
6	C	eP	06 23 36		
6	M	i	07 05 25.4	d	
6	M	e	09 45 30.0		
	SH	eP	28.5	c	
6	M	eP'	12 47 39.2	c	USCGS: Near Karachi, Pakistan
		e	48 18.7	d	Felt. 0 = 12-48-45
		i	34.6	c	
		e	59 59.6		
6	B	eP	13 24 04.5		USCGS: 42 1/2°N, 143 1/2°E
		e	13.5		0 = 13-12-59

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Feb. 6	BG	iSNE	33 05		Near southeast coast of
		eE	36 58		Hokkaido, Japan
		e(SS)N	37 12		
		eQNE	40.8		
		eE	42.2		
		eRNEZ	44.6		
	MH	i	24 11.3	c	
		i	19.5	d	
		i	25 06.8	c	
	F	eP	24 17.7	d	
		i	29.8	d	
	M	eP	23 55.8	d	
		i	24 09.3	d	
		e	25 11.8	c	
	R	ePEZ	24 06.3		
		eEZ	19.0		
		eNZ	59.1		
		eSNEZ	33 10.0		
	SH	eP	23 52.5	c	
		i	24 03.5	d	
		e	25 33		
		eSE	32 42.5		
6	MH	eP	19 22 03.8	c	USCGS: 52°N, 158°E
	F	eP	15.8	c	0 = 19-12-25
	M	eP	21 51.1	c	Near southeast coast of Kamchatka
		e	22 05.5	d	
	R	eP	02.9		
	SH	eP	21 46.6	c	
		e	58.5	c	
6	M	eP	19 50 34.3	d	
		e	48.9	d	
	SH	eP	37.0	c	
7	M	eP	14 05 02.2	c	
7	MH	eP	16 22 36.8	c	
		e	41.1	c	
	M	eP	44.9	c	
		e	56.0	d	
7	B	iP	18 33 07.7	c	USCGS: 49°N, 156°E
		i	18.5	c	0 = 18-23-12 Kurile Islands
	BG	iSE	41 07		
		eN	12		
		eSSNE	46.2		
		eQNE	47.3		
		eRNEZ	51.8		
	MH	eP	33 10.5	d	
		e	25.3	d	
		e	35 03.0	d	
	F	eP	33 21.1	c	
	M	eP	32 56.6	c	
		i	33 10.0	c	
		i	34 06.6	c	
	R	eP	33 08.0		
		eEZ	27.4		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Feb. 7		eE	34 13.1		
		eN	37 06.7		
		eSNZ	41 11.5		
		e	44 08		
	C	eP	32 27		
	SH	eP	52.1	c	
		e	33 05.5	c	
7	M	eP	22 44 49.0	d	USCGS: 35 1/2°N, 24 1/2°E
		e	56.9	d	0 = 22-31-08. Crete
9	MH	i(P)	03 23 09.0	c	USCGS: 30 1/2°S, 177 1/2°W
	F	eP	10.5	d	0 = 03-10-28
		e	26.0	c	Kermadec Islands
	M	eP	16.5	d	
	SH	eP	15.5		
9	M	e	03 38 23.9	c	
	SH	eP	22.5		
		eZ	39 19.2	c	
9	MH	i	14 59 43.1	c	USCGS: 53°N, 160°E.
	F	eP	59.5		0 = 14-50-12
	M	i	40.4	d	Near east coast of Kamchatka
	R	eE	56.5		
	SH	eP	23.1	c	
9	B	iP	21 39 47.0	d	USCGS: 52 1/2°N, 169°W
	BG	eSE	44.2		0 = 21-32-36
		eQNE	48.1		Fox Islands, Aleutian Islands
		eR	49.8		
	MH	e	39 42.7	d	
		e	51.6	c	
		i	59.7	d	
		e(PP)	41 16.6	c	
	F	eP	39 57.9		
		e	40 20.5	c	
		ePcP	42 03.5		
	M	iP	39 36.0	d	
		i	44.1	d	
		e	40 08.7	d	
	R	ePEZ	39 50.5		
		e	40 21.8		
		eEZ	54.8		
		eNE	42 27		
		eE	45 24		
		eN	50.9		
	SH	eP	39 22.5		
		i	30.5	c	
10	MH	e	01 24 41.6	c	USCGS: 43°N, 145°E
	SH	eP	02.5	c	0 = 01-13-19
					Near east coast of Hokkaido, Japan
10	B	iP	08 05 30.6	c	USCGS: 52°N, 169°W
		e	55.9		0 = 07-58-29
	BG	eSE	11.1		Fox Islands, Aleutian Islands
		eN	14.0		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Feb. 10	MH	eP	05 36.9	d	
		i	54.2	c	
		i	06 02.4	c	
	F	eP	05 50.5	c	
	M	eP	21.0	d	
		i	49.2	d	
		i	06 01.3	c	
		i(PP)	38.6	c	
	R	eP	05 35.6		
		eE	54.6		
		e	06 19.1		
	C	eP	04 42		
	SH	eP	05 15.7	d	
		e	31.2	d	
10	MH	eP	13 50 57.0	c	USCGS: Loyalty Islands
		e	51 26.0	d	0 = 13-38-10
	F	eP	01.5	c	
	M	eP	03.3	c	
	SH	eP	01.8	c	
10	MH	eP	14 04 55.1	d	
	F	eP	58.1	c	
	M	e	05 00.3	c	
	SH	eP	04 58.3	c	
10	B	eP	14 10 24.7		USCGS: Loyalty Islands
	MH	eP	24.8	d	0 = 13-57-41
	F	iP	31.9	c	
		e	46.0	c	
	M	iP	32.6	c	
		i	41.3	d	
		e	53.9	d	
	R	eP	37.6		
	SH	eP	30.0	c	
10	B	eP	17 25 26.0		
	MH	iP	26.9	c	
		e	59.9	c	
	F	eP	31.0	c	
	M	iP	35.3	c	
	R	ePEZ	39.8		
	SH	eP	34.0	c	
11	MH	e	12 33 30.4	d	
	M	eP	22.4	d	
		e	31.8	c	
	SH	eP	18.0		
12	MH	e	01 33 14.4	d	USCGS: Yukon Foreshock
		e	34 13.9	c	0 = 01-27-18
	M	e	32 55.6	d	
		e	33 25.9	c	
		e	36 00.3	d	
12	B	eP	02 15 26		
		e	32.5		
	MH	eP	28.9	d	
	M	eP	41.6	d	
	SH	eP	46.0		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Feb. 12	BG	eLE	04 47.9		USCGS: 65°N, 133°W
	MH	eP	37 13.7	c	0 = 04-31-16
		e	39 05.4	c	Yukon, Canada
	F	eP	37 26.0	d	
	M	eP	36 51.5	c	
		e	37 53.2	c	
		e	38 26.9	d	
	R	eP	37 01.3		
		eN	46 51		
	C	eP	36 11		
	SH	eP	48.5		
12	M	e	08 20 38.0	d	
		e	45.2	d	
12	B	e	08 34 30.6	d	USCGS: 35°N, 54 1/2°E,
	BG	eNZ	36 31		0 = 08-15-29
		e(SKS)N	40 33		Northern Iran, heavy casualties and
	B	e	41 03.8	c	extensive property damage.
	BG	ePSN	43 27		Pas. Mag. 7
		eNZ	44 41		
	B	e(PKKP)	45 26		
	BG	eSSN	50.0		
		eN	54.3		
	MH	e(PP)	34 17.6	d	
	F	e	08		
		e	36 44		
		e	46 05.5		
		eN	49 27		
	M	eP	29 39.6	c	
		e(P')	33 22.9	c	
	R	e(P')	21		
		e(PKKP)	45 07		
	SH	e	32 14		
		e	33 43		
		e	45.5		
12	MH	e	09 29 47.4	c	
		e	30 05.2	c	
	M	e	29 27.8	d	
		e	43.3	d	
		i	30 16.7	c	
	SH	e	29 12.3	d	
		i	23.3	c	
12	MH	i	09 54 48.5	d	
	M	e	26.5	d	
	R	e	55 01		
	SH	eP	54 18.0	c	
12	MH	e	10 02 21.3	c	
	M	e	01 52.8	c	
	SH	eP	42.5		
12	SH	i	22 22 50.3	c	
13	F	eP	10 54 12.5		USCGS: New Hebrides Is.
	M	eP	14.7	c	0 = 10-41-23
	SH	eP	13.5		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Feb. 13	MH	e	13 47 51.6	c	
	M	e	28.7	c	
	R	e	45.5		
	SH	e	31.0	c	
13	B	eP	21 59 57.0	d	
	MH	eP	57.9	d	
	F	eP	22 00 01.0	d	
	M	eP	06.8	d	
	SH	eP	06.3	d	
14	F	eP	08 57 02.0		USCGS: Dodecanese Islands.
	M	eP	56 49.1	c	0 = 08-43-10
	SH	eP	47.5	c	
		eSKSNE	09 07 17		
14	MH	e	16 54 43.9	c	
	M	e	31.6	c	
	SH	e(P)	15		
14	B	iP	22 00 20.6	d	USCGS: 18 1/2°N, 146°E
		i	34.4	c	h = 60. 0 = 21-48-12
		i	52.0	c	Marianas Islands
		e	02 08.5	c	Pas. Magnitude 6 3/4
	BG	iSE	10 17		
		eNZ	20		
		eE	12 32		
		eSSN	15 55		
		eQN	21.5		
		eREZ	24.1		
	MH	iP	00 23.7	d	
		i	31.8	d	
		i	01 12.7	d	
	F	eP	00 32.3	d	
		e	41.0	d	
		e	01 05.0	c	
		ePP	03 35.0	c	
		eSNEZ	10 40		
	M	iP	00 19.4	d	
		i	24.8	d	
		e	02 37.2	c	
	R	ePNEZ	00 26.9	d	
		i	58		
		eSNE	10 29		
	C	iP	00 09		
	SH	iP	15.9	d	
		e	35.3	c	
		e	47.6	c	
		e	04 26.6	c	
		eSNE	10 06		
14	B	eP	22 19 49.4	d	USCGS: 1 1/2°S, 77 1/2°W
		epP	20 31.5		h = 200, 0 = 22-10-20
	MH	eP	19 44.0	d	Central Ecuador
		i	49.0	c	
		i	56.9	d	
		epP	20 27.9	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Feb. 14	F	eP	19 33.5	c	
	M	eP	55.4	c	
		i	20 05.5	c	
	R	ePEZ	19 45.0	d	
	C	eP	20 21		
	SH	eP	19 58.6	d	
		e	20 47.6	c	
15	M	eP	09 43 19.6	d	USCGS: 12°S, 77 1/2°W
	R	eP	06		0 = 09-32-25
					Near coast of Peru
15	M	eP	17 29 00.1	d	USCGS: Hokkaido, Japan
	SH	eP	28 56.0		0 = 17-18-05
15	M	eP	20 12 31.8	d	USCGS: Solomon Islands
					0 = 19-59-40
16	M	eP	00 17 59.5	c	USCGS: 42 1/2°N, 143°E
		e	18 17.1	c	0 = 00-06-58
					Near south coast of Hokkaido, Japan
16	R	eNEZ	01 31 31		
16	B	eP	10 18 49.5		USCGS: 8 1/2°N, 83°W
		e	19 06.5		0 = 10-10-22
	MH	eP	18 45.2	d	Near coast of Costa Rica
		e	19 02.7	d	
		ePcP	20 24.9		
	F	eP	18 31.5	c	
		e	19 12.5	c	
	M	eP	18 56.0	c	
		i	19 15.9	c	
		ePcP	20 28.5	c	
		e	54.8	c	
	R	eP	18 44.8	c	
		eNZ	53.2		
		eN	37.3		
	C	eP	19 24		
	SH	eP	00.4	d	
		ePcP	20 30.8	c	
16	M	e	22 46 31.7	c	
	R	e	45 34.5		
18	MH	iP	10 16 22.1	d	
	M	e	30.9	c	
19	M	i(P)	02 55 02.4	d	
	SH	eP	54 56.3	c	
19	B	eP	08 13 07.2	d	Pas: 35°18'N, 118°3?'W
		eSNE	53.6		0 = 08-12-06. Magnitude 4.4
	MH	eP	12 56.7	c	USCGS: V at Arvin, California
		eS	13 27.2		
	F	iP	12 35.9	d	
		iSE	56.9		
	M	eP	13 33.2	d	
		i	14 21.5		
	R	iP	13 25.9	c	
		iSNE	14 24.5		
	SH	eP	13 42.0		
		eSE	14 57.0		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Feb. 19	B	eP	13 18 19.2	d	USCGS: 28°S, 179°W
	BG	eSNE	28 27		0 = 13-05-42
			A T		Kermadec Islands
		SH	8 8		
	MH	iP	13 18 19.4	d	
	F	eP	22.5	d	
		e	19 13	d	
		e	19 41	c	
		e	20 20	c	
		e	21 05	c	
		eS	28 33		
		eNE	36		
	M	eP	18 27.5	d	
		e	19 48.0	c	
	R	eP	18 30.5	d	
		eN	19 17.5		
		e	50.5		
		eS	28 25.5		
	SH	eP	18 27.7	d	
		e	19 46.7	d	
		e	21 16.5	c	
		eSNE	28 21		
19	BG	eSKSE	15 42 22		USCGS: 0°, 18°W, 0 = 15-17-40
		eSSNE	50 20		Mid-Atlantic Ocean
		eN	55.6		
	MH	e	42 38.4	d	
	F	ePP	35 34		
	M	e	31 31.2	c	
		i	39.9	c	
		e	36 01.2		
	R	eP	31 26.5		
		ePPEZ	35 25.5		
	PA	e	31 56.0		
	SH	eP	31 32.5	c	
19	SH	eP	18 26 22.5	d	USCGS: Caroline Islands
					0 = 18-13-30
20	SH	eP	09 15 22.0		
20	M	eP	10 22 57.1	d	
		e	23 12.6	d	
20	SH	eP	18 32 02.2	c	
20	MH	eP	23 34 49.1	c	USCGS: About 300 miles north of
		e	35 09.2	c	Kermadec Islands
		e	27.8	d	0 = 23-22-23
	F	eP	34 54.0	d	
		e	35 32.5	d	
	M	iP	34 59.1	d	
		i	35 09.2	d	
		i	42.4	c	
		e	36 55.4	c	
	R	ePEZ	35 02.8		
	SH	iP	34 57.8	c	
		e	35 47.5		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Feb. 21	MH	eP	22 26 41.0	c	USCGS: North of Puerto Rico
		e	46.0	d	h = 100. 0 = 22-17-44. Felt
22	MH	eP	02 28 39.1	d	USCGS: 87°N, 45°E
	F	eP	43.0		0 = 02-19-00
	M	iP	17.1	c	About 500 miles N. of Spitzbergen
		e	28.3	c	
22	MH	e	07 48 18.8	d	USCGS: Near west coast of
	F	e	31.0		Seward Peninsula, Alaska
	M	eP	47 56.6	d	
		e	48 55.5		
	R	e	10.5		
	SH	eP	47 52.5		
23	F	e(P)	20 28 45	d	USCGS: 51°N, 10°E, 0 = 20-16-19
					Central Germany
23	B	eP	22 26 37.0		USCGS: Tonga Islands Region
	BG	eR	49.1		0 = 22-15-05
	MH	eP	26 38.7	c	
		e	27 00.3	d	
	F	eP	26 42.5	c	
		e	27 24.0		
	M	iP	26 48.2	c	
		i	57.2	d	
		i	27 06.5	c	
	R	ePEZ	26 53.6		
		e	27 08.8		
	SH	eP	26 47.2	c	
23	M	e(P')	01 03 22.8	c	USCGS: 29 1/2°N, 81°E
					0 = 00-46-08 Western Nepal
23	F	eP	01 16 40.0		
	M	iP	00.7	d	
		i	35.1	c	
	R	eP	20		
	SH	eP	15 55.5	c	
		i	16 10.6		
23	MH	e	03 51 14.5	c	USCGS: 53°N, 161°E
		e	52.9	d	0 = 03-41-45
	F	eP	23.0		Off east coast of Kamchatka
	M	eP	50 57.5	c	
	R	eP	51 10		
	SH	eP	50 52.2	c	
23	B	eP	07 43 59.7	c	41°30'N, 125°56'W, 0 = 07-42-51
		eNE	44 53.2		
	BG	eN	45 15		Magnitude: 4.7 100 miles northwest
	MH	iP	44 10.4	c	of Eureka, California
		i	24.6	c	
		eN	45 12.4		
	PA	eP	44 05.4		
		eE	45 03.4		
	F	e(P)	44 31		
	M	eP	43 44.6	c	
		iNEZ	45.8	c	
		iNE	44 30.4		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Feb. 23	R	eP	11		
		e	37.7		
		e	58.5		
		eNE	45 25.5		
	F	ePE	43 21		
		iSNE	42		
	C	eP	46		
		iS	44 27		
	SH	iP	43 36.2	c	
		iNZ	44 13.2		
		eN	46 24.3		
23	SH	eP	23 34 56.5		USCGS: 52 1/2°N, 160°E
					0 = 23-25-46. Off east coast
					of Kamchatka
24	C	eP	19 40 58		
25	B	eP	12 44 02.7		USCGS: 49°N, 156°E
		e	14.7		0 = 12-34-10. Kurile Islands
	MH	eP	07.9	c	
		e	20.0	c	
		e	34.4	c	
	F	eP	18.0	c	
		e	30.0	c	
	M	iP	43 53.8	d	
		i	44 06.2	c	
	R	eP	04.3	c	
	SH	eP	43 49.8	c	
		e	44 01.5	c	
25	B	eP	14 52 07.0		
	MH	eP	13.1	d	
		e	21.0	d	
	F	eP	24.0	d	
	M	eP	51 58.6	d	
		i	52 04.3	d	
	R	eP	11.8	d	
	SH	eP	51 53.3	d	
25	MH	eP	15 43 56.9	c	
	M	eP	44 06.5	d	
	SH	eP	44 05.3	c	
25	MH	eP	19 13 03.7	c	
		e	11.7		
	M	eP	12 35.3	c	
		i	44.3	c	
	C	iP	03		
		e	39		
25	B	eT	20 17 21.2		T Phase of last shock?
	MH	eT	30.5	d	
	PA	eT	26.5		
	M	eT	46.7	c	
25	B	iP	21 22 19.0	d	USCGS: 56°N, 156 1/2°W
		ipP	30.8	c	h = 60, 0 = 21-16-18. Off south
		iPcP	25 24.1	d	coast of Alaska Peninsula.
		i	39.6		Pas: Magnitude 6 3/4

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Feb. 25	BG	eSNE	27 08		
	B	eScP	29 01.0		
	BG	eRNEZ	29.6		
	MH	iP	22 25.4	d	
		i	33.4	d	
		i	24 37.5	c	
		iPcP	25 25.9		
		eScP	29 00.4		
		e	28.5	d	
	F	iP	22 47.5	d	
		i	51.4		
		e	23 56.0		
	M	ePNE	22 06.0		
		eE	27 07		
	R	iPNEZ	22 19.5	d	
		e	23 18		
		iPcPEZ	25 24.1	c	
		eSN	27 12		
		eR	30.7		
		eScSNEZ	33 23	c	
	Fe	eE	22 16		
	C	iP	21 31		
		eS	25 54		
	SH	iP	22 00.1	d	
		epP	13.1		
		e	54.0		
		ePcP	25 18.1	d	
		e	31.5		
		eSNE	26.9		
		eE	28 58		
		e	29.4		
		e	29.8		
26	B	iP	00 41 55.8	d	USCGS: 51°N; 156 1/2°E
		i	42 09.0		0 = 00-32-07
		e	27.0		Near south coast of Kamchatka
		e	40.3		
		e	46 36.6		
	MH	iP	42 01.0	d	
		i	38.6	d	
		iPP	44 13.9	c	
	F	eP	42 10.5	d	
		e	44 56.5		
	M	iP	41 46.6	d	
		iPP	43 51.2	d	
	R	eP	41 57.9	d	
		eEZ	42 42.4	c	
		ePP	44 06	c	
		eSE	49 34		
	C	iP	41 19		
	SH	iP	42.0	d	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Feb. 26	M	eP	02 18 37.0	d	
26	M	eP	02 27 42.9	c	USCGS: Off east coast of Kamchatka
					0 = 02-18-20
26	MH	eP	04 51 51.0	d	USCGS: Off coast of Guerrero, Mexico.
	F	eP	37.5		0 = 04-45-55
	M	eP	52 08.9	d	
		e	31.0	c	
	R	eP	51 56.6		
		e	52 12		
26	B	i(pP)	07 47 46.5	c	USCGS: 50°N, 157°E
	MH	i(pP)	51.9	c	0 = 07-37-45
	F	eP	47.0	d	Off south coast of Kamchatka
		e(pP)	48 02.0	c	
	M	eP	47 23.4	c	
		i(pP)	37.4	c	
		iPcP	48 38.9	c	
	R	eP	47 33.8	c	
		e(pP)EZ	49.2	c	
		e	48 15.1		
	SH	eP	47 18.6	c	
		i(pP)	33.1	c	
26	B	e	10 25 53.0		USCGS: 20°S, 169°E
		i	26 03.6		0 = 10-13-07. Loyalty Islands
	MH	iP	25 48.7	c	
		i	26 04.3	c	
		e	22.4	d	
	F	eP	25 58.0	c	
		e	26 09.0	c	
	M	eP	25 59.3	c	
		i	26 10.4	c	
		i	39.8	c	
		e	27 55.0	d	
	R	eP	26 03.5		
		e	14.7		
	SH	eP	25 58.0	c	
		i	26 08.9	c	
		e	49.7		
26	B	eP	11 54 59.0	c	Magnitude: 7 1/4
	BG	iPP	58 13.5		USCGS: 11°S, 164 1/2°E, 0 = 11-42-26
		iSNE	12 05 27		Santa Cruz Islands Region
			A T		
		PZ	14 11		
		PPZ	10 10		
		MAX H	214 18		
	MH	eP	11 55 02.1	c	
		i	03.6	c	
		e	57 35.6	c	
		iPP	58 22.2	c	
		e	59 45.8	d	
		e	12 06 24.5		
		eR	21.8		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Feb. 26	F	eP	11 55 08.5	c	
		ePP	58 32		
		eSN	12 05 44		
		e	06 43		
		eR	21.7		
	M	eP	11 55 24.2	c	
		i	27.5	d	
		e	58 00.8	d	
		e	12 06 37		
		eR	22.1		
	R	eP	11 55 10.1	c	
		iNEZ	13.1	d	
		ePPN	58 29.5		
		eSNEZ	12 05 57		
	C	eP	11 55 09		
		ePPE	58 21		
		eSE	12 05 37		
		e(P'P')	22 20		
	SH	eP	11 55 03.3		
		ePP	58 16.0		
		eN	36.5		
		eE	12 04.9		
		eSN	05 27.5		
		eE	34.0		
26	M	e(P)	13 25 16.1	d	USCGS: Off southeast coast of
		i	29.9	c	Kamchatka. 0 = 13-15-54
26	B	eP	16 17 57.5		USCGS: 19°N, 73 1/2°W,
		i	18 11.0		0 = 16-09-25
	MH	eP	17 52.8	d	Gulf of Gonaives, Haiti
		i	53.5	c	
		i	18 09.8	d	
		e	22.9		
		ePP	19 44.8	c	
	F	eP	17 39.5	d	
		ePP	19 26		
	M	eP	17 55.6	d	
		e	56.6	c	
		ePP	19 50.8	d	
	R	eP	17 48.8		
		e	18 01.5		
	SH	eP	17 30.2	c	
26	MH	eP	19 53 13.9	d	USCGS: 50°N, 156°E
	M	iP	00.5	d	0 = 19-43-20
		i	08.7	c	Off south coast of Kamchatka
		e	24.2	c	
	SH	eP	52 56.0	d	
		e	53 07.0	d	
27	F	e	05 58 37		USCGS: New Britain
	M	e	28.9	c	0 = 05-45-10
28	B	eP	04 29 56.0	d	USCGS: 18 1/2°N, 105°W
		i	30 06.1	d	0 = 04-24-33
	BG	e(Q)NZ	34 42		Near coast of Colima, Mexico
Feb. 28		eRNZ	37.0		
	MH	eP	29 48.1	d	
		ePP	30 24.8	d	
		e	38.1	d	
	F	eP	29 34.0	d	
		eE	33 53		
		e	34 02		
		eN	38 47		
	M	iP	30 10.0	d	
		i	18.3	c	
		e	44.2	d	
	R	eP	29 56.1	d	
		e	30 07		
		e	38.2		
		eNEZ	41.2		
	SH	eP	30 14.0	d	
28	M	eP	06 00 59.7	c	USCGS: 72°N 0°
		e	01 05.9	c	0 = 05-50-48. Arctic Ocean
28	F	eP	15 35 55.5	c	
28	MH	e	18 52 19.9	d	
	F	eP	24.5		
	M	e	20.1	c	
28	M	i	19 04 20.4	c	
	C	eP	01 25		
28	B	e	21 58 56.5		USCGS: 18 1/2°N, 105°W
	BG	eNE	22 03 20.5	NE	0 = 21-53-15
		e	24.5		Aftershock of 04-24-33
		eRNEZ	05.5		
	MH	eP	21 58 29.5	c	
		e	35.7	c	
	F	eP	08.0	c	
		e	17.0	c	
		e	37.5	c	
		eN	22 00 40		
	M	eP	21 58 49.5	d	
		i	58.8	d	
	R	eP	25.7		
		e	36.7		
		eN	22 03 23		
	SH	eP	21 58 52.0		
		eN	22 04 29.5		
Mar. 1	B	iP	23 09 41.9	c	USCGS: 11°S, 166°E. h = 100
		epP	10 08.8	c	0 = 22 -57-24
	MH	eP	09 42.8	d	Santa Cruz Islands
		ipP	10 10.5	c	
	F	eP	09 49.9	c	
		epP	10 16.0	c	
	M	iP	09 48.0	c	
		ipP	10 14.7	c	
		esP	35.5	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Mar. 1	R	eP	09 53.4		
		epP	10 19.6		
	SH	eP	09 45.6	d	
		ipP	10 12.6	c	
2	M	e	02 25 53.5	c	USCGS: Solomon Islands Region.
		e	26 01.7	d	0 = 02-12-46
2	MH	eP	21 06 10.5	c	USCGS: Off east coast of Kamchatka
		e	19.1	d	0 = 20-56-36
	M	eP	05 56.8	d	
		i	06 14.5	d	
	SH	eP	05 49.0	c	
		e	06 00.0	c	
2	M	e	22 28 23.2		
	R	e	34.5		
2	M	eP	22 54 51.4	d	USCGS: 51°N, 159°E
		e	55 54.0	d	0 = 22-45-18
	R	eP	00.5		Off southeast coast of Kamchatka
		e	57 32.5		
3	B	eP	11 39 46.5		Magnitude 6 3/4-7
		i	50.2		USCGS: 20°S, 169°E
	BG	e	41 36		0 = 11-26-55. Loyalty Islands
		eE	46 14		
		eE	48 29		
		eE	49 27		
		eS	50 19		
		eQNE	12 02 17		
		eNE	03.0		
		eR	06.8		
			A T		
		PZ	1.8 6		
		SH	18 15		
		MAX H	43 18		
	MH	iP	11 39 47.1	c	
		i	51.2	c	
		i	40 15.7	d	
		e	41 32.8	d	
	F	eP	39 49.0		
		i	55.5	c	
		e	41 25.5		
		e(P'P')	12 05 45.5		
	M	eP	11 39 51.6	c	
		i	57.0	d	
		i	40 15.6	d	
		i	41 27.0	c	
	R	eP	11 39 56.5		
		eNZ	40 02.8		
		eNE	22.1		
		e(S)NEZ	50.8		
		e(P'P')	12 05 51.2		
	C	eP	11 39 59		
	SH	eP	51.5		
		i	55.5	d	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Mar. 3		eN	41 10		
		e(PP)	43 20.0		
3	F	eP	12 38 37.5		
	M	eP	43.9	c	
	SH	eP	41.2	c	
		e	39 12.5		
3	M	eP	13 15 40.5	d	USCGS: Loyalty Islands Region
		e	16 14.9	c	0 = 13-02-49
3	M	eP	13 51 48.7	d	USCGS: Loyalty Islands Region
					0 = 13-38-58
3	MH	iP	13 54 06.2	c	USCGS: 19 1/2°S, 168 1/2°E
		i	56.8	d	0 = 13-41-20. Loyalty Islands
	F	eP	11.0	c	Region
	M	e	11.9	d	
	R	eP	17.2	c	
		e	52.7		
	SH	eP	11.0	c	
3	MH	eP	23 01 08.9	c	USCGS: 48°N, 155°E
	M	e	21.1	d	0 = 22-53-54. Kurile Islands
		i	35.2	c	
		e(PP)	03 05.6	c	
	R	eP	23.3		
3	B	eP	23 03 56.0	c	Same as above
	BG	eN	20.8		
		eREZ	22.8		
	MH	eP	04 03.0	c	
		e	50.7		
	F	eP	11.0	d	
		e	05 36		
	M	iP	03 48.1	c	
	R	ePEZ	59.5		
	SH	eP	43.0	d	
		e	54.5	d	
4	B	iP	01 09 36.4	c	USCGS: 28°S, 62 1/2°W,
		ipP	11 40.6		h = 600. 0 = 00-57-52
		e	12 14.0		Santiago Del Estero Province,
	BG	eSKSNE	19 09		Argentina.
		iSNZ	20.0		Pas. Magnitude 6 1/4
	MH	iP	09 33.1		
		i	43.6	d	
		i	59.8	d	
		epP	11 35.6	d	
		e	12 11.7	d	
	F	eP	09 24.0	c	
		epP	11 28.0	d	
	M	iP	09 41.3	c	
		i	10 09.9	d	
		epP	11 47.7	d	
		e	57.9	d	
	R	ePNEZ	09 34.6	d	
		e	58.5		
		epP	11 38.2		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Mar. 4		e(S)	19 13		
		eSNE	18		
	SH	iP	09 43.4	d	
		epP	11 48.3	d	
		e(SKS)NE	19 02		
4	M	e(P)	03 23 55.3	c	
4	MH	iP	06 05 17.8	d	
	M	e(P)	26.2	d	
4	F	eP	07 26 38.0	c	USCGS: 19 1/2°N, 168 1/2°E
	M	eP	40.0	c	0 = 07-13-47
	SH	eP	38.5		Loyalty Islands Region
4	M	eP	09 36 47.8	d	
		e	37 22.2	c	
4	MH	iP	14 59 13.0	c	USCGS: 24°N, 122°E
	M	eP	02.8	d	0 = 14-45-48
	C	eP	58 50		Near east coast of Formosa
	SH	eP	59 00.8	d	
4	B	iP	19 48 01.5		
	MH	iP	47 57.3	d	
		i	48 01.6	d	
	M	eP	48 06.8	d	
	R	eP	47 58.2	d	
		e(S)NE Z	54 48.8		
	SH	iP	48 10.8	d	
5	B	eP	05 59 52.0		USCGS: About 300 miles southwest of Easter Island
	BG	eRNZ	06 22.4		
	MH	eP	05 59 48.7	c	0 = 05-48-40
		e	06 00 19.9	c	
	F	eP	05 59 44.0	d	
		e	06 00 24.0		
		e	57.0	c	
	M	eP	05.4	c	
		e	48.1	d	
	R	ePNZ	01.0		
		e	24.0		
	SH	eP	08.6	c	
5	BG	eN	08 19.8		USCGS: Loyalty Islands Region
		eE	21.2		0 = 07-29-20
	MH	eP	07 42 07.4	c	
	F	eP	11.5		
	M	eP	13.1	c	
	SH	eP	09.5		
5	MH	iP	11 48 19.9	d	
	M	eP	29.1	c	
5	B	iP	19 12 40.0	c	
		i	13 00.8		
		e	26.0		
	BG	eN	56.8		
	MH	eP	12 38.1	c	
		e	13 23.1	d	
		e(PP)	14 22.3	d	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Mar. 5	F	eP	12 34.5	c	
		e	14 09.0		
	M	eP	12 42.3	d	
		e	13 06.0	d	
		e	50.8	c	
		e	14 36.8	c	
	R	eP	12 39.3	c	
		e	13 04.3		
		e	14 27		
	SH	eP	12 42.4	c	
		e	14 42.0		
5	SH	eP	19 57 09.0	c	
5	B	iP	21 10 59.4	c	Magnitude 6 3/4
		ipP	11 12.8	c	USCGS: 51°N, 158°E, h = 60.
		i	21.4		0 = 21-01-23. Near south coast
		i	31.1		of Kamchatka
	BG	eSNE	18 41.0		
		iNEZ	44.0		
		eSSE	22 19		
		eQNE	24 57		
		eREZ	27.3		
			A T		
		PZ	2 6		
		SH	8.6 8		
		MAX H	34 20		
	MH	eP	21 11 04.6	c	
		i	21.3	d	
		i	52.6	d	
		iPcP	12 03.2	d	
		eS	18 53.0		
	F	eP	11 14.0	c	
		epP	28.4		
		eS	19 10		
		eE	13		
		e(P'P')	41 04.0		
	M	iP	10 45.0	c	
		i	50.6	c	
		i	11 03.5	c	
	R	ePNEZ	01.8	c	
		epP	16.0		
		e(PP)N	13 23		
		e	18 41.7	d	
		eSN	49		
	SH	iP	10 45.4	c	
		ipP	58.3	c	
		eSNE	18 07	NE	
		eN	43		
		eScSN	20 28		
5	B	e	21 31 50.5		USCGS: 49°N, 156°E
	MH	e(P)	45.0	c	0 = 21-21-45. Off south coast
		e	59.4	d	of Kamchatka
	F	e	50		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Mar. 5		e	32 06.0	c	
	M	e	31 44.1	c	
	R	e	57		
	SH	eP	24.5	c	
5	B	iP	23 00 54.8	c	USCGS: 14°S, 71 1/2°W, h = 100
	MH	e	50.3	d	0 = 22-49-46. Southern Peru
		i	56.6	d	
	F	eP	39.5		
		e	01 50		
		e(S)EZ	09 38		
	M	eP	01 00.2	c	
		e	02 39.9		
	R	eP	00 51.5	d	
		eN	01 59		
		e(S)E	09 57		
	SH	eP	01 02.5		
6	B	eP	00 55 00.0		
	MH	eP	05.1	c	
	F	eP	10.5		
	M	eP	54 46.3	c	
		i	51.7	c	
		e	55 24.1	d	
	R	ePEZ	01.3		
		e	10		
		eN	55		
		eEZ	59.3		
	SH	eP	54 41.7	c	
		e	55 53.5	d	
6	B	eP	04 32 11		USCGS: 16°S, 177°E
	BG	eRNEZ	56		0 = 04-20-10
	MH	eP	32 09.3	d	Fiji Islands
		e	20.2	d	
	M	eP	18.7	c	
	SH	eP	20.5		
6	B	eP	07 03 32.3		USCGS: 58 1/2°N, 156 1/2°W. h = 100
		ipP	04 01.6	c	0 = 06-57-26 Alaskan Peninsula
	BG	e(S)E	09 05		
		eNEZ	21		
	MH	i ?	03 32.3	d	
		e(pP)	04 08.1	c	
		e	07 09.2	d	
	F	e(pP)	04 20.5	c	
		e	38.5	c	
		e	05 46.5		
	M	eP	03 18.3	c	
		i	32.4	c	
		ipP	47.1	c	
		i	04 54.7	d	
		i	07 03.2	c	
		i	55.1	d	
	R	eP	03 30.4	d	
		epPNZ	59.4	d	
		e	07 06.5		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Mar. 6	C	eP	02 44		
		epP	03 10		
	SH	eP	12.9	c	
		ipP	41.3	c	
		e	07 00.4		
6	F	e	10 28 03.0	c	
		e	39.0	c	
6	MH	eP	22 11 46.9	c	USCGS: Southern Ryukyu Islands
	SH	eP	35.9	c	0 = 21-58-40
		e	56.9	c	
7	MH	i	18 14 05.3	d	
8	F	eP	12 25 07.0	c	
8	B	eP	12 36 35.5		USCGS: 50°N, 156°E, h = 60
		ipP	48.9		0 = 12-26-52. Off south coast
	MH	eP	39.5	c	of Kamchatka
		epP	54.5	d	
		ePcP	37 51.7	d	
	F	eP	36 50.5		
		epP	37 04.5		
	M	eP	36 27.2	c	
		i	56.8	c	
	R	eP	38.3	d	
		epP	52.8		
	SH	eP	22.2	c	
		epP	36.7	d	
		e	56.7		
8	C	eP	21 54 47		
9	BG	eP	10 16 36	c	Magnitude 6 1/2-6 3/4
	B	iP	40.4		USCGS: 4 1/2°S, 153 1/2°E
	BG	i	56.0		0 = 10-03-41
		iPP	20 04.0		New Britain Region
		e(SKS)E	27 01		
		eN	31		
		i(PS)NE	27 58.0		
		i	28 17.0		
		iE	56.0		
		eSSNE	33.2		
		eE	37.2		
		eQN	40.0		
		eRNEZ	43.1		
			A T		
		PZ	1 8		
		SH	6 12		
		MAX H	44 24		
	MH	eP	16 43.0	c	
		i	17 01.8	c	
		e	43.1	d	
		ePP	20 04.1	c	
	F	eP	16 51.5		
		e	17 07.5	d	
		ePP	20 20.5		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Mar. 9	R	ePNZ	16 52.1		
		eNEZ	17 08.9	d	
		ePP	20 54.6		
		eEZ	25 59.6		
		e(S)N	28.0		
		eRZ	45.8		
	C	eP	16 41		
	SH	eP	16 40.0	c	
		e	17 02.0		
		e	18 32.0		
		ePP	20 06.5		
		eE	15.5		
		e(SKS)E	27.4		
9	M	iP	19 06 32.6	c	
	SH	eP	28.0	c	
10	MH	eP	00 10 38.4	d	USCGS: 15°N, 59 1/2°W,
	M	iP	39.4	d	0 = 00-00-35. Windward Islands
10	BG	e	06 26.5		USCGS: 18 1/2°S, 168°E
		eNE	38.8		0 = 05-58-55. New Hebrides
	MH	eP	11 39.1	c	
	F	eP	44.7	d	
		e	12 38.0		
	R	eP	11 49.1		
	SH	eP	43.0	c	
11	MH	eP	11 00 05.5	d	USCGS: 49°N, 154 1/2°E
		e	25.2	c	0 = 10-50-00. Kurile Islands
	F	eP	15.5		
	M	iP	10 59 51.0	c	
		i	11 00 11.0	d	
	R	eP	03.5	c	
	SH	eP	10 59 47.7	c	
		e	11 00 02.1	c	
11	MH	e(P)	11 18 19.5	c	
	M	iP	17 59.1	c	
	SH	eP	51.7	d	
11	SH	eP	17 08 00.0		
13	M	e	06 56 40.4	d	
13	M	e	18 28 03.5	c	
	SH	e(P)	02.0		
14	SH	eP	01 31 51.5	c	
14	B	iP	10 30 49.6	d	
	MH	eP	55.6	c	
	M	eP	40.8	c	
	SH	eP	35.4	c	
14	B	eP	11 19 30.0		
		e	41.5		
		e	21 31		
	BG	eN	29.4		
		eE	30.8		
		eNE	38.7		
	MH	eP	19 36.1	d	
		i	48.4	d	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Mar. 14		i	20 02.0	d	
		e	21 12.2	d	
	F	eP	19 57.0		
	M	eP	21.0	c	
		e	33.3	c	
		e	56.7	c	
		e	21 44.7	c	
	SH	eP	19 15.1		
		e	28.1		
14	BG	eP'	17 18 49		USCGS: Near southeast coast of
		e(SKS)E	25 12		Mindanao, P.I.
		eNZ	27 50		0 = 17-00-32 Felt: Davao
		eQNE	43.8		
		eRZ	49.6		
	MH	eP	14 38.0	d	
	F	eP'	19 04		
	M	eP	14 40.8	c	
		eP'	18 49.6	d	
	SH	eP	14 32.5		
		e	18 08		
		e	27.8		
15	MH	eP	21 08 59.2	c	
	F	eP	09 11.0		
	M	iP	08 43.4	c	
	SH	eP	37.8	c	
16	MH	eP	01 58 41.5	c	
	F	eP	51.0	d	
	M	iP	55.5	d	
	SH	eP	53.8	c	
16	B	eP	05 18 59		Pas: Magnitude 6
	BG	eSN	26.5		
		eRNZ	33.8		
	MH	eP	18 45.1	c	
		e	19 00.0	c	
		e	27.0	c	
	F	e	18 51.5	c	
	M	eP	19 18.9	c	
	R	eE	10.1		
		e	13.1		
	SH	eP	22.0		
16	B	eP	08 35 11.0		USCGS: 18°S, 168°E
	BG	eN	09 08.5		0 = 08-22-26
	MH	eP	08 35 12.4	d	New Hebrides Islands
	F	eP	18.0	d	
	M	eP	19.1	d	
		i	36 03.6	d	
	SH	eP	35 16.5	c	
16	MH	eP	11 24 05.5	c	USCGS: 48°N, 154°E
		e	54.0	c	0 = 11-13-55. Kurile Islands
	F	eP	15.5		
	M	iP	23 52.6	c	
		e	24 21.4	d	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Mar. 16		e	44.8	d	
	SH	iP	23 47.9	c	
		e	24 07.0		
17	MH	eP	06 42 33.9	d	USCGS: 51°N, 154°E
	F	eP	45.5		0 = 06-32-52
	M	eP	18.2	c	Near SE coast of Kamchatka
17	M	eP	08 58 39.4	c	
	SH	eP	41.0	c	
17	B	iP	12 56 03.9	c	
	MH	eP	01.9	c	
	M	eP	07.1	c	
	SH	eP	08.0		
17	B	iP	13 14 23.8	c	USCGS: 50 1/2°N, 156 1/2°E
		ipP	42.4	c	0 = 13-04-33
		i	15 10.6	c	Kurile Islands
		ePP	16 25		
	BG	eSNE	22 15		
		eE	45		
		eQN	28 50		
		eREZ	31.1		
	MH	iP	14 28.7	c	
		ipP	47.9	d	
	F	eP	38.5	c	
		epP	58.0	c	
		e	16 27.5		
	M	iP	14 15.0	c	
		i	22.8	d	
		ipP	34.6	c	
		i	16 08.4	c	
	R	eP	14 26.2		
		epP	45.6		
	C	iP	13 51		
	SH	iP	14 10.4	c	
		ipP	28.3	c	
		i	37.5	c	
		e(PP)E	16 23.0		
		eE	17 33.5		
17	B	iP	16 16 15.5	d	Pas: 35°14'N, 118°32'W
		iSNEZ	17 04.6		0 = 16-15-17
	PA	eP	16 13.6		
		eSE	57.5		
	F	iPNEZ	15 48.4	d	
		iSNE	16 10.0		
	R	e(S)NE Z	17 36		
	SH	e	18 14.5		
18	MH	e(P)	17 17 46.2	d	
		e	18 14.6	d	
	M	e	21 14.1		
18	B	eP	19 19 52		USCGS: 40°N, 27 1/2°E
		e	23 39		0 = 19-06-11
	BG	iPP	23 51		West Turkey
		eSKSNE	30.6		Pas: Magnitude 7 3/4
		iE	31 26		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Mar. 18	MH	eP	19 51.3	d	
		e	23 23.4	d	
		e	50.5	d	
		eE	52.9		
	F	eP	19 52.0	c	
		e	20 10.0	d	
		ePP	23 45.5	d	
		eSKSN	30 29.5		
	M	iP	20 40.4	d	
		e	21 18.8	c	
		e	22 59.1	c	
		iPP	23 43.2	d	
		eE	49.2		
	R	eP	19 42.2		
		e	20 19.8		
		ePP	23 34.0		
		e	24 12.8		
		eSKSN	30 14		
		eN	34.2		
	SH	eP	19 41.0		
18	M	i(P)	21 31 54.5	c	USCGS: 40°N, 27°E, 0 = 21-18-08
					Western Turkey
19	BG	iPEZ	08 37 38.5	d	Magnitude 7 3/4
		i	42 04.0	d	USCGS: 14°N, 61°W, h = 200
		iSNEZ	45 33.5	NE	0 = 08-27-57
			A T		Windward Islands. Felt.
		PZ	43 8		
		SH	100 12		
	MH	iP	08 37 34.6	d	
		i	39 22.3	c	
		eS	45 18.0		
		eSN	30		
		eQN	56 30		
		eP'P'	09 07 25.4		
	F	iP	08 37 22.0	d	
		epP	38 14.9		
		eE	39 36		
		eSNE	45 19		
		e	51.4		
	M	iP	37 36.1	d	
		i	58.6	d	
		e(S)NE	45 27		
	R	iP	37 25.6		
		eN	38 17.8		
		e	46 56		
		eN	51.1		
	Fe	ePE	37 58		
		eSNE	46 00		
	C	iP	37 50		
		eS	45 57		
		e	57 24		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Mar. 19	SH	iP	08 37 39.0	d	
		epP	38 25.5		
		eSNE	45 35		
		e	55		
		eN	46 41		
		eE	47 15		
		eP'P'EZ	09 07.2		
19	MH	eP	10 28 23.6	c	USCGS: 28 1/2°N, 127 1/2°E
		e	47.8	c	0 = 10-15-33. Ryukyu Islands
	M	eP	14.6	d	
		e	58.3	d	
	SH	eP	11.9	d	
		e	54.9	d	
19	MH	iP	19 05 05.6	d	USCGS: 26°S, 178 1/2°E, h = 600
		ipP	07 12.2	c	0 = 18-53-29. South of
	F	eP	05 09.8	c	Fiji Islands
		epP	07 15		
20	C	iP	07 42 07		
21	MH	i	01 35 54.7	d	
22	M	eP	04 44 21.4	c	
	SH	eP	16.0		
22	B	iP	05 19 36.3		38°49'N, 119° 59'W, 0 = 09-19-00.
		eSN	20 04.5		South of Lake Tahoe, California.
		iSNE	05.8		Magnitude 5.0. Felt in vicinity
	MH	iPNEZ	19 35.5	c	of Lake Tahoe.
		iSNE	20 02.8		
	F	iPEZ	19 36.1	c	
		iSE	20 02.2		
	M	iP	19 35.3	d	
		iSE	20 01.1		
	A	ePNE	10.5		
		eSNE	21 04.8		
	R	iPNEZ	19 14.0		
		iSEZ	24.2		
	SH	iP	45.0	d	
		iSN	20 22.1		
22	MH	eP	19 45 08.9	d	USCGS: 52 1/2°N, 159 1/2°E,
	M	eP	44 54.3	c	0 = 19-35-35
	SH	eP	49.5	d	Off east coast of Kamchatka
23	MH	eP	02 18 37.6	c	
	M	iP	23.4	c	
	R	eP	36.7	d	
	SH	iP	18.3	c	
23	M	eP	08 24 56.5	d	
23	M	e	08 35 56.7		
23	B	eP	12 43 12.5		USCGS: 0 = 12-36-13
		e	27.5	c	Foreshock of March 25 at
		e	41.0		05-51-21. Fox Islands,
	BG	eN	51.8		Aleutian Islands.
		eE	52.6		
		e	53.6		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Mar. 23	MH	eP	43 18.6	d	
		i	34.3	d	
		e	45 15.5	d	
		e	59.5	d	
	F	eP	43 39.1	c	
	M	eP	04.4	d	
		e	45 02.4	d	
	R	eP	43 19.4		
		e	29.8		
		e	44 10.2		
		e(S)EZ	48 58		
		eN	49 22		
	SH	eP	42 58.0	c	
		e	43 13.0		
23	M	eP	13 04 54.0	c	
23	B	e(P)	17 07 40.0		Pas: 34°59'N, 118°54'W
	MH	eP	24.0	d	0 = 17-06-37. Near Wheeler Ridge,
	F	eP	05.6	d	California.
		eS	30.1		Magnitude 4.0
	M	iP	08 02.1	c	
	R	e(P)	07 56.5		
	SH	e(P)	08 14		
24	MH	e	03 04 40.8	c	
	M	eP	36.4	d	
	SH	ePEZ	33.8	c	
25	B	iP	05 58 21.5	c	USCGS: 52 1/2°N, 169°W
		i	28.5	c	0 = 05-21-21
	BG	eSN	06 04 19		Fox Islands, Aleutian Islands
		eQNE	06.8		
		eR	08.0		
	MH	iP	05 58 27.9	c	
		i	34.2	d	
		e	41.6	d	
		ePP	59 40.5	c	
	F	eP	58 40.5		
		e	46.7		
		e	59 38.5		
	M	eP	58 12.3	c	
		i	25.9	d	
		i	40.7	d	
	R	e(P)	32.4		
		e	59 09.4		
	C	eP	57 44		
	SH	eP	58 06.4	c	
		iNZ	13.7		
		eNZ	23.5		
		e(S)	06 03 28		
		e	08.1		
25	MH	e(P)	10 33 49.0	c	
		e	34 17.4	c	
	M	e(P)	33 50.9	c	
	SH	eP	50.6	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Mar. 26	MH	eP	02 19 12.1	c	USCGS: 52°N, 161°E
		i	44.1	d	0 = 02-09-35
	M	eP	18 49.9	c	Off east coast of Kamchatka
		e	19 02.5	d	
		i	10.0	c	
	R	eP	11.1	d	
	SH	ePNZ	18 46.1	d	
26	MH	iP	02 37 48.6	c	
	M	eP	54.0	c	
		e	38 05.9	d	
	SH	iPNZ	37 53.0	c	
		iN	38 07.0		
26	MH	eP	05 12 30.5	c	USCGS: 52°N, 161°E
		e	41.7	d	0 = 05-02-57
	M	eP	12.8	c	Off east coast of Kamchatka
		i	27.4	c	
		iPP	14 01.1	c	
	SH	iP	12 10.9	d	
		i	24.4	d	
26	M	eP	14 30 56.1	c	
26	MH	eP	15 15 44.4	c	
		i	59.3	c	
	M	iP	45.0	c	
		e	16 00.3	d	
	SH	iPNZ	15 40.5	c	
		e	55.5	d	
27	M	e(P)	12 03 04.4	c	
30	MH	iP	16 56 30.9	c	
	M	iP	16.5	c	
	R	iP	27.7	c	
	SH	iPNZ	11.3	c	
31	M	eP	01 08 59.7	d	USCGS: Near south coast of Albania.
					0 = 00-55-50

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BERKELEY—MOUNT HAMILTON—PALO ALTO SAN FRANCISCO—FERNDALE—FRESNO MINERAL—ARCATA—RENO—CORVALLIS—SHASTA

Earthquakes and the Registration of Earthquakes

From April 1, 1953, to June 30, 1953

BY
DON TOCHER

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SEISMOGRAPHIC STATIONS OF THE UNIVERSITY OF CALIFORNIA

Perry Byerly, Director

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and

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EARTHQUAKES IN NORTHERN CALIFORNIA, NEVADA, AND OREGON

The list following this page gives the latitude and longitude of epicenters for earthquakes well enough recorded to permit such a determination.

Map No. refers to the map immediately following the epicenter list.

Date and Origin Time are given in Greenwich Civil Time. Subtract eight (8) hours to get Pacific Standard Time; subtract seven (7) hours to get Pacific Daylight Saving Time. Daylight Saving Time was in general use throughout California from April 26 through September 27, 1953. This will change the date for some of the earthquakes.

M refers to the Richter Magnitude, determined from trace amplitudes of the Wood-Anderson Seismographs, and using the nomogram given by Nordquist in the "Bulletin of the Seismological Society of America," 32:164.

Q represents the excellence with which the epicenter has been located, "a" indicating excellent, "b" good, "c" fair, and "d" poor.

Under Remarks will be found a short descriptive location of the epicenter, as well as information on small foreshocks and aftershocks, and the intensity of shocks which were reported felt. Reports on felt earthquakes are chiefly those collected by the United States Coast and Geodetic Survey, which publishes a more complete summary of such reports in "Abstracts of Earthquake Reports for the Pacific Coast and the Western Mountain Region." Intensities are given by Roman numerals when sufficient information on the effects of the shock is available. Criteria of the Modified Mercalli Scale which are used to rate the intensity are:

II Felt by a few people only. Duration or direction not appreciable.

III Duration or direction appreciable.

IV Rattling of doors and windows; swinging of suspended objects.

V Disturbance of movable objects; plaster cracked.

VI Overthrow of moveable objects; cracking of chimneys and other brickwork.

VII Fall of some chimneys; some damage to buildings.

VIII General fall of chimneys; great damage to poorly built structures.

EARTHQUAKES IN NORTHERN CALIFORNIA, NEVADA, AND OREGON

Map No.	Date 1953	Origin Time (G.C.T.)	M	Latitude North	Longitude West	Q	Remarks
1	Apr. 2	16-20-16	2.4	36.8°	121.4°	d	4 miles south of Hollister.
2	2	22-56-12	3.2	40.7°	121.6°	d	15 miles south of Burney.
3	6	18-28-20	3.6	42.4°	122.9°	d	20 miles ESE of Grants Pass, Oregon.
4	7	01-12-01	3.5	37.9°	117.8°	d	30 miles WSW of Tonopah, Nevada.
5	7	06-07-19	3.4	37.9°	118.3°	d	40 miles SSE of Hawthorne, Nevada.
6	9	22-56-48	2.2	37° 12'	122° 15'	b	16 miles south of Palo Alto.
7	10	05-11-44	3.9	37° 32'	118° 59'	c	30 miles NW of Bishop. IV at June Lake, III at Long Valley Dam.
8	10	07-20-02	2.7	36° 42'	121° 17'	c	13 miles SE of Hollister.
9	11	03-26-14	3.2	40° 26'	124° 18'	c	10 miles south of Ferndale. Felt at Ferndale.
10	12	19-35-11	2.7	36° 49'	121° 33'	c	7 miles west of Hollister.
11	15	00-29-10	3.1	35° 50'	121° 04'	c	14 miles NNE of San Simeon. IV at Bryson.
12	16	19-05-48	2.2	38° 04'	122° 28'	b	17 miles NW of Berkeley.
13	24	23-40-15	2.1	37° 56'	122° 24'	a	Quarry blast at Richmond, 8 miles NW of Berkeley.
14	25	00-42-30	2.7	37° 21'	121° 38'	b	Near Mt. Hamilton.
15	25	16-34-45	4.1	40.5°	126.2°	d	100 miles west of Ferndale.
16	26	03-28-55	2.9	40.5°	124.6°	d	20 miles WSW of Ferndale.
17	27	10-04-10	2.6	37° 08'	121° 36'	c	15 miles south of Mt. Hamilton.
18	29	05-26-53	3.5	36° 00'	121° 09'	c	14 miles south of King City.
19	30	14-00-48	2.9	40.6°	121.6°	d	15 miles north of Mineral.
19	May 1	03-35-38	2.1	40.6°	121.6°	d	15 miles north of Mineral.
20	1	22-16-51	3.0	36.4°	120.8°	d	22 miles NE of King City
21	3	13-28-55	2.2	37.6°	118.9°	d	33 miles NW of Bishop.

Map No.	Date 1953	Origin Time (G.C.T.)		Latitude North	Longitude West	Q	Remarks
22	May 4	05-40-26	2.4	37° 27'	121° 44'	a	9 miles NW of Mt. Hamilton.
23	6	04-00-24	2.5	40° 28'	121° 33'	c	10 miles north of Mineral.
24	6	21-48-23	3.3	40° 27'	124° 38'	c	10 miles SW of Ferndale.
25	10	13-18-35	2.9	39.8°	123.5°	d	30 miles north of Willits.
26	11	09-28-49	2.6	40° 30'	121° 30'	c	12 miles north of Mineral.
27	14	09-36-09	3.7	35° 45'	121° 05'	b	9 miles NE of San Simeon.
28	14	21-06-51	2.4	36° 45'	121° 19'	c	8 miles SE of Hollister.
29	15	03-43-17	3.9	36° 36'	121° 02'	c	7 miles west of Llanada.
30	17	10-02-50	2.5	40.5°	125.5°	d	65 miles west of Ferndale.
31	17	13-56-21	2.0	41° 21'	122° 42'	c	25 miles south of Yreka.
32	18	09-27-59	2.9	40° 18'	124° 21'	b	18 miles south of Ferndale.
33	18	11-46-56	2.3	40.5°	119.5°	d	SW of Gerlach, Nevada.
34	18	22-42-07	2.4	37° 12'	121° 32'	c	12 miles SE of Mt. Hamilton.
35	20	21-27-26	2.4	36.7°	121.4°	d	South of Hollister.
36	23	21-16-22	3.6	37° 18'	121° 37'	a	Near Mt. Hamilton. III at Lick Observatory.
36	24	10-58-08	2.3	37° 18'	121° 37'	b	Aftershock.
37	25	00-23-30	4.0	36° 49'	121° 28'	b	5 miles SW of Hollister. V at Hollister, IV at Gilroy, Morgan Hill, and San Juan Bautista.
38	25	04-07-59	3.2	39.3°	123.3°	d	Between Ukiah and Willits. VI at Capella and Ukiah. V at Potter Valley. IV at Hopland, Lakeport, Upper Lake, Willits.
39	25	14-57-53	2.8	40° 35'	123° 45'	c	26 miles east of Ferndale.
40	25	16-34-58	2.9	41° 10'	123° 18'	c	34 miles NW of Weaverville.
41	26	08-35-39	2.6	41.3°	123.4°	d	42 miles NW of Weaverville.
42	28	01-54-08	3.0	40.5°	124.4°	d	10 miles SW of Ferndale.

Map No.	Date 1953	Origin Time (G.C.T.)	M	Latitude North	Longitude West	Q	Remarks
43	May 28	03-51-13	4.3	35° 53'	120° 30'	b	20 miles SW of Coalinga. IV at Paso Robles, II at San Miguel.
43	28	07-58-33	3.5	35° 53'	120° 30'	c	Aftershock. Felt at San Miguel.
44	29	10-20-16	2.9	35.9°	121.2°	d	20 miles south of King City.
45	30	11-12-39	3.0	40.3°	124.6°	d	30 miles SW of Ferndale.
46	30	14-55-53	3.2	39° 38'	120° 00'	b	12 miles NW of Reno, Nevada.
47	30	20-45-44	3.6	40° 28'	124° 27'	c	13 miles SW of Ferndale.
48	31	23-51-17	3.2	36.1°	120.4°	d	Near Coalinga.
49	June 1	02-30-39	3.0	40° 30'	121° 11'	c	25 miles NE of Mineral.
50	1	03-16-54	3.3	39.6	118.0°	d	40 miles east of Fallon, Nevada.
51	4	00-28-27	2.2	37° 57'	121° 54'	b	20 miles ENE of Berkeley.
52	4	09-20-29	3.9	40° 26'	125° 20'	c	55 miles west of Ferndale.
53	4	12-28-55	2.8	40.2°	124.6°	d	30 miles SW of Ferndale.
53	5	12-03-08	2.9	40° 12'	124° 38'	c	30 miles SW of Ferndale.
54	5	12-11-43	3.0	40° 13'	124° 28'	c	25 miles SSW of Ferndale.
55	5	21-21-12	1.9	37° 14'	122° 15'	b	12 miles SSW of Palo Alto. Blast?
56	6	18-00-20	1.8	37° 58'	122° 28'	b	12 miles north of San Francisco.
57	6	20-26-33	2.9	36.0°	120.3°	d	10 miles south of Coalinga.
58	9	01-49-57	2.4	37° 02'	121° 55'	c	6 miles NE of Santa Cruz.
59	10	05-28-39	2.5	37.2°	119.3°	d	40 miles NE of Fresno. Felt at Big Creek (near Huntington Lake).
60	10	21-19-03	2.0	37° 13'	122° 12'	b	14 miles south of Palo Alto. Blast?
61	11	23-35-43	2.2	38° 03'	122° 28'	c	18 miles north of San Francisco.
62	12	02-45-36	2.2	36° 52'	121° 37'	c	Near Hollister.
63	12	17-50-00	3.1	37° 44'	122° 04'	a	12 miles SE of Berkeley. IV in San Francisco Bay region.

Map No.	Date 1953	Origin Time (G.C.T.)	M	Latitude North	Longitude West	Q	Remarks
63	June 13	00 00 30	2.8	37° 44'	122° 04'	c	Aftershock. Felt.
64	13	00-01-14	3.1	37° 15'	122° 01'	c	SW of San Jose.
65	13	22-54-05	3.2	36° 46'	121° 17'	a	8 miles SE of Hollister. Felt at Hollister.
66	14	11-05-19	2.5	36° 48'	121° 38'	c	12 miles WSW of Hollister.
67	18	03-31-15	2.5	40° 12'	124° 12'	c	22 miles WNW of Garberville.
68	19	11-24-50	2.8	36.3°	120.7°	d	20 miles east of King City.
69	22	15-22-35	4.3	35° 56'	120° 23'	c	15 miles WSW of Coalinga. Felt at Paso Robles and Coalinga.
70	23	21-38-05	1.9	37° 15'	122° 15'	c	12 miles south of Palo Alto. Blast?
71	26	05-40-32	3.1	40.4°	124.3°	d	12 miles south of Ferndale.
72	27	14-15-58	3.3	39° 17'	119° 35'	c	15 miles SE of Reno, Nevada.
73	27	22-39-22	2.5	37° 42'	121° 46'	c	Near Livermore.
74	28	01-43-16	3.7	39° 38'	120° 02'	b	14 miles NW of Reno, Nevada. Aftershock of magnitude 2.6 at 03-00-59.
75	28	12-45-13	4.6	40° 45'	127° 26'	c	170 miles west of Arcata.
76	28	13-24-24	3.3	39.9°	118.8°	d	SW of Lovelock, Nevada.
77	29	11-08-24	3.1	39° 43'	122° 23'	c	25 miles west of Chico. V at Orland, IV at Willows.
78	29	13-24-03	3.0	40° 40'	121° 56'	c	25 miles east of Shasta.

THE REGISTRATION OF EARTHQUAKES

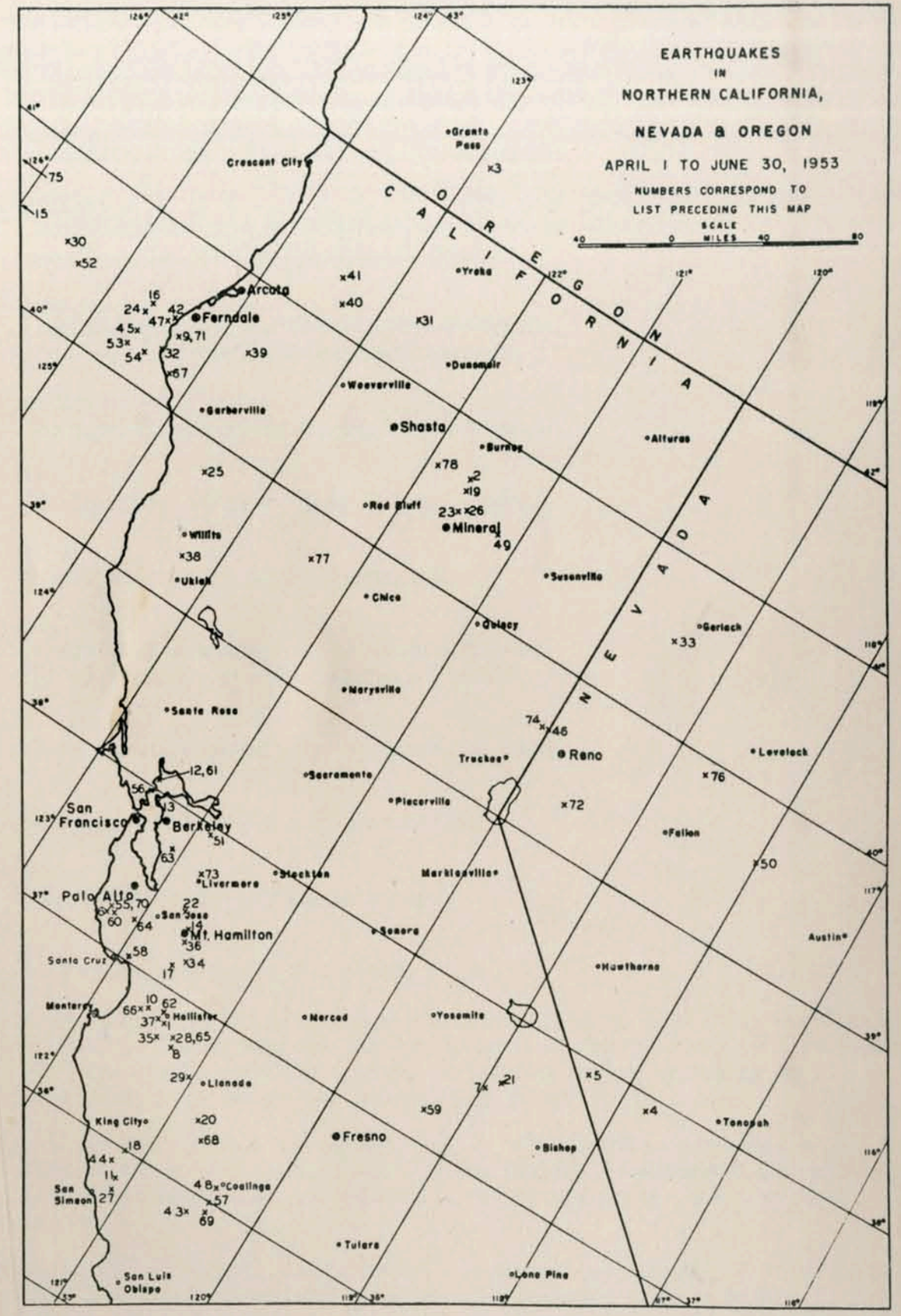
at

BERKELEY, MOUNT HAMILTON, PALO ALTO, SAN FRANCISCO, FERNDALE, FRESNO, MINERAL, ARCATA, RENO, CORVALLIS, AND SHASTA

All large regional shocks and all distant earthquakes are tabulated on the following pages. Earthquakes in the Northern California, Nevada and Oregon region are included only if of magnitude 5 or greater, or if of special interest. Times of distant shocks are not normally included for Palo Alto, San Francisco, or Ferndale except in cases of defective records at Mount Hamilton, Berkeley, or Arcata, respectively. Communications regarding readings of seismograms should be addressed to Seismographic Station, University of California, Berkeley 4, California. Readings from the Corvallis Station are sent to the University of California by the courtesy of Dr. H. R. Vinyard, Oregon State College.

Station	North Latitude	West Longitude	Altitude Meters	Feet	Station Symbol	Present Auspices and Date Established
Berkeley	37° 52.3'	122° 15.6'	81	266	B, BG*	University of California - 1887
Mt. Hamilton	37° 20.4'	121° 38.6'	1281.7	4205	MH	Lick Observatory - 1887
Palo Alto	37° 25.1'	122° 10.8'	83	272	PA	Stanford University - 1927
San Francisco	37° 46.4'	122° 27.2'	100	328	SF	University of San Francisco - 1931
Ferndale	40° 34'	124° 16'	17	55	Fe	City of Ferndale - 1933
Fresno	36° 46.1'	119° 47.8'	88.4	290	F	Fresno State College - 1935
Mineral	40° 21'	121° 35'	1495	4906	M	National Park Service Lassen Volcanic National Park - 1938
Arcata	40° 52.6'	124° 04.5'	60	195	A	Humboldt State College - 1948
Reno	39° 32.3'	119° 48.8'	1386	4546	R	University of Nevada - 1948
Corvallis	44° 35.1'	123° 18.2'	133	405	C	Oregon State College - 1950
Shasta	40° 41.7'	122° 23.3'	312.4	1025	SH	Bureau of Reclamation - 1942

*B denotes readings of short period instruments, BG of long period instruments (12 sec. Galitzin-Wilip).



STATION EQUIPMENT

Berkeley:
2 - Horizontal-component Wood-Anderson torsion.
1 - Short-period vertical-component Benioff.
3 - Long-period Galitzin-Wilip.
2 - Horizontal-component 100 kg. Bosch-Omori.

Mt. Hamilton:
2 - Horizontal-component Wood-Anderson torsion.
1 - Short-period vertical-component Benioff.

Palo Alto:
2 - Horizontal-component Wood-Anderson torsion.
1 - Short-period vertical-component Benioff.

San Francisco:
2 - Horizontal-component Wood-Anderson torsion.

Ferndale:
2 - Horizontal-component 25 kg. Bosch-Omori.

Fresno:
3 - Components short-period Sprengnether.

Mineral:
2 - Horizontal-component Wood-Anderson torsion.
1 - Short-period vertical-component Benioff.

Arcata:
2 - Horizontal-component Wood-Anderson torsion.

Reno:
3 - Components short-period Sprengnether.

Corvallis:
3 - Components short-period Slichter.

Shasta:
3- Components short-period Benioff.

For all stations, the three components are indicated by N, E, Z in the "phase" column. When no letter appears, the phase is read from the vertical component only. "i" (impetus) preceding a phase designates sudden beginning of the motion; "e" (emersio) designates gradual beginning.

In the column headed "Ground Motion", "c" or "d" indicates compression or dilitation of the ground as indicated by the vertical component instrument. N, S, E or W indicates that ground motion was north, south, east, or west, respectively.

Maximum amplitude of earth displacement in microns (A) and period in seconds (T) of the indicated phases are given for the Berkeley station in the column headed "Time (GCT)". Combined horizontal amplitude of N and E components are designated by H.

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
April 1	MH	e	07 59 00.3	c	
	M	e	58 55.9	d	
		e	08 00 33.3	d	
	SH	eP	07 58 56.2	c	
1	B	eP	10 59 11.5		USCGS: 0°, 81°W
	MH	iP	06.8	c	0 = 10 49 41
		i	21.4		Near Coast of Ecuador
	F	eP	58 52.6		(Foreshock)
	M	eP	59 17.1	d	
		i	42.7	c	
	R	eP	04.3		
		eNZ	07.7	c	
		eN	11 00 36.5		
	SH	e	10 59 36.4	c	
		e	11 00 11.8		
1	B	e	11 30 54.3		USCGS: 0°, 81°W
	MH	eP	46.5	c	0 = 11 21 23
		i	50.1	d	Near Coast of Ecuador
		i	31 39.9	d	
	F	e	30 37.1		
	M	eP	58.5	d	
		e	31 28.3	c	
		i	44.3	c	
	R	e	30 53.8	d	
	SH	e(P)	31 05.3		
		e	34.4		
1	B	eP	18 23 15.9	c	USCGS: Bonin Islands
	MH	eP	20.1	c	0 = 18 11 20.
		i	50.8	c	
	F	i	44.4	d	
		e	24 05.7		
		e	15.9		
	M	eP	23 12.4	c	
		e	19.3	c	
	R	eP	20.7	c	
1	MH	eP	22 46 45.3	d	USCGS: 7½°N, 78½°W
	M	e	47 23.0	c	0 = 22 37 51
	R	eP	46 40.6		Near Coast of Panama
		e	47 17.9		
		e	49 07.6		
2	B	eP	04 09 04.9	d	USCGS: 5°S, 151½°E
		ipP	21.9	c	0 = 03 56 06
	BG	eSE	19 30		New Britain
		eREZ	37		
	MH	eP	09 07.2	c	
		iP	10.6	d	
		ipP	28.5	d	
		ePP	12 43.3	d	
	F	eP	09 13.2		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
April 2		epP	30.4	c	
		e	10 19.4		
		e	13 00.5	c	
	M	eP	09 08.2	c	
		i	16.7	d	
		ipP	25.5	c	
		i	39.4	c	
		e	12-58.5		
	R	eP	09 15.1	d	
		epP	31.6	c	
		eSNEZ	19 44.6		
	SH	eP	09 05.7	c	
		i	18.4	c	
		i	45.1	d	
		e	12 11.1		
		eSNE	19 32.4		
2	M	e(P)	10 28 02.7	c	
	SH	e(P)	27 53.0	c	
3	B	eP	04 29 38.9	d	
		i	44.6	d	
		i	30 15.8		
	MH	eP	29 38.8	c	USCGS: 15½°S, 172°W
		i	45.8	d	0 = 04 18 15
		i	30 06.2	d	Samoa Islands Region
		i	42.3	c	
	F	eP	29 42.5	c	
		e	49.2	d	
		e	30 42.7		
	M	eP	29 49.2	c	
		e	55.5	d	
		i	30 22.8	d	
	R	eP	29 52.6	c	
		e	30 22.1		
		eN	40 04.6		
	SH	eP	29 48.6	c	
3	MH	iP	16 36 45.2	c	USCGS: 53°N, 160°E
	M	iP	29.9	c	0 = 16 27 15
		e	57.5	c	Near East Coast of Kamchatka
	SH	iP	25.3	c	
3	M	e	18 03 12.6	c	USCGS: Near East Coast of Honshu, Japan
		e	23.1	c	0 = 17 51 39
4	SH	e	04 44 24.5		
4	B	eP	06 03 47.4	d	USCGS: 36½°N, 141°E
		e	04 04.1		0 = 05 52 15
	BG	eN	22 18		Near East Coast of Honshu, Japan
	MH	iP	03 52.0	d	Felt: Tokyo
		i	04 37.1	d	
		e	09 09.4	d	
	M	iP	03 42.0		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
April 4		e	51.0		
		e	09 35.2		
	R	eP	03 52.1		
		e	04 01.6		
		eEZ	09 38		
	SH	eP	03 38.4		
		e	46.4		
		e	09 29		
4	MH	eP	07 16 22.8	d	
		e	35.7	c	
	M	eP	15 58.8	c	
	SH	eP	56.6		
		e	16 10.3		
4	M	eP	10 34 30.8	c	
5	MH	e	04 12 07.2	c	
	SH	e	00.	c	
5	MH	eP	09 07 16.3	c	USCGS: Kermadec Islands
		i	22.9	d	0 = 08 54 30
	F	eP	18.2	c	
	R	eP	27	c	
		e	43	d	
	SH	eP	24.3	c	
		e	53.4		
5	MH	e(P)	10 29 00.6	d	USCGS: 22°N, 123°E
	F	e	48	d	0 = 10 15 30
	SH	eP	28 50.2	c	Off Coast of Formosa
		eNZ	29 00.7	d	
		e	10.4	d	
6	MH	i(P)	00 08 06.5	d	
		e	14.5	c	
		e	37.3	d	
	M	e(P)	07 46.8	c	
		e	08 37.1	d	
	R	e(P)	07 59		
		i	08 35.5		
	SH	eP	07 43.4	d	
		e	08 29.9	c	
6	B	eP	00 50 32.8	d	USCGS: 70°S, 132°E
		e	53.8		0 = 00 36 12
		e(P')	54 25.6	d	Banda Sea
		ePP	54.8	d	
	MH	iP	50 36.3	c	
		e	51 16.3	c	
		e	42.8	c	
		ePP	55 01.9	d	
		e	15.6	d	
	F	eP	50 41.3		
		e	54 43.3		
		eE	51.6		
		ePP	55 09.6	d	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
April 6	M	eP	50 33.7	d	
		e	46.7		
		e	54 40.9	d	
		i	58.1	d	
	R	eP	50 40.6	d	
		e	51 04.1	d	
		e	53 50		
		iPP	55 08.1	c	
	SH	eP	50 31.5	d	
		eNEZ	54 05.1		
		ePP	54.8		
6	MH	eP	12 24 20.3	d	USCGS: 52°N, 155°E
		i	45.9	d	0 = 12 14 41
		i	25 12.8	c	Near East Coast of Kamchatka
	F	eP	24.34.6	d	
	M	eP	04.2	c	
		i	08.0	d	
		i	58.5	c	
	R	ePNZ	19.8	d	
	SH	eP	23 55.8	d	
		i	24 03.9	d	
		eNZ	17.8		
		e	48		
7	SH	e(P)	02 13 20.0		
		i	34.5	c	
		e	14 24.8		
7	B	iP	17 39 53.8	c	USCGS: Fiji Islands Region
	MH	iP	54.6	c	0 = 17 27 34
		i	58.1	c	
		i	40 07.6	c	
		e	42 05.5	d	
		e(PP)	43 12.6	c	
	F	iP	39 57.8	c	
		ePP	43 07.9		
	M	eP	40 02.9	c	
		i	08.4	d	
		e	42 09.1	c	
	R	iP	40 06.3	c	
	SH	iPNZ	02.2	c	
		i	11.0		
		e	42 04.0		
		eN	43 24.5		
7	MH	eP	20 45 08.1	d	
		i	13.1	c	
		e	25.1	d	
	M	e	16.9	c	
	SH	eP	16.4	c	
		e	20.6	d	
		e	46 47.9		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
April 8	SH	eP	01 12 19.3	d	
		e	28.7	c	
		e	16 27.2		
8	R	eP	05 23 11.5		USCGS: Near East Coast of Kamchatka.
	SH	eP	22 56.0		0 = 05 13 39
		e	23 08.2		
8	MH	eP	08 25 56.6	e	USCGS: Central Chile
		epP	26 19.3	d	0 = 08 13 30
	R	eP	02.5		
		e	30.5		
	SH	ePNZ	10.8	c	Felt: Santiago & Vicinity
		epP	32.1	d	
9	MH	iP	15 57 18.9	c	
		e	30.2	c	
		e	56.6	d	
	M	eP	05.8	c	
		i	41.5	d	
	R	i	30.2		
	SH	eP	00.9	d	
9	MH	eP	16 28 03.0	c	
	M		18.9	c	
10	MH	e	06 52 31.3	d	
	M	e	55.6	c	
	R	e	43.2		
10	MH	e	19 22 26.2	d	
		e	56.2	d	
	M	eP	36.0	c	
		i	45.9	c	
11	MH	i	03 31 37.7	c	
	M	e	32 24.6		
	R	e	31 35.4		
	SH	e	25.2	d	
12	MH	iP	06 17 48.3	c	
		e	18 20.5	d	
	F	eP	17 51.4	d	
	M	eP	56.7	d	
	SH	eP	56.3	c	
12	M	eP	07 31 18.6	d	USCGS: 53°N, 160°E
		e	38.1	d	0 = 07 22 00
	R	e	41.7	c	Off East Coast of Kamchatka
	SH	eP	14.4	d	
12	MH	iP	15 19 53.6	c	
		epP	20 36.5	c	USCGS: Central Chile - Argentina
	F	eP	19 44.4	c	Border, h = 200.0
		e	21 52	d	0 = 15 08 00
		e	25 08.6		
	M	iP	20 02.4	c	
		epP	45.2	c	
	R	eP	19 55.0	d	

Date	Sta.	Phase	(Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
April 12		epP	20 40.5		
	SH	ePNZ	04.5	d	
		iEZ	05.2	d	
		eNE	57		
12	MH	eP	22 39 58.1	c	USCGS: 53°N, 160°E
		e	40 40.1	d	0 = 22 30 24
	F	eP	08	c	Off East Coast of Kamchatka.
		e	41 12		
	M	e	39 57.0	c	
	R	eP	54.6	d	
	SH	iP	38.4	c	
		e	59.5		
		eN	40 13.6		
		i	51.1		
14	MH	e	05 19 17.4	d	
		e	20 24.7	c	
	M	e	18 41.6	c	
		i	49.7	c	
	SH	eP	40.7	c	
		e	52.6		
13	B	iP	13 39 16.8	d	USCGS: 7½°S, 71½°W
		epP	41 18.0		h = 650, 0 = 13 29 26
		ePP	53		Western Brazil
	BG	iSNEZ	47 08.5		Pas: Magnitude 7
		esSNEZ	50 46		
		eSSNE	51 55		
	B	eP'P'	14 07 35.5		
		e	46.0		
			A T		
		PZ	6 5		
		SH	60 10		
	MH	eP	13 39 10.3	d	
		i	42 23.8	d	
		i	43 59.8	c	
		eS	47 05.4		
		eNE	08.5		
		eP'P'	14 07 40.9		
		e(SKPP')	10 04.6		
	F	iPEZ	13 38 58.7	d	
		i(pP)	40 47.2		
		eSNEZ	46 45.2	c	
		eP'P'	14 07 16.9		
		eNZ	47		
	M	iP	13 39 19.4	d	
		i	56.3	d	
		eP'P'	14 06 51.7		
		e	07 32.2		
	A	ePNE	13 39 30.6		
		eSNE	47 47.0		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
April 13	R	iPNEZ	13 39 11.1	d	
		epPNEZ	41 13.3		
		iSNE	47 08.8		
		eP'P'	14 07 23		
		e	45.6		
		e(SKPP')	10 05		
	C	iPE	13 39 44		
		iSE	48 05		
	SH	iPNEZ	39 22.9		
		iPcPNZ	47.9		
		iPP	42 00.1	d	
		eSNE	47 29.9		
		e	38.0		
		eP'P'	06 49.1	c	
		e	07 28.6	d	
		eEZ	37.9		
		e	09 39.4	d	
		e	56.9		
14	R	e	23 55 42.6		USCGS: East Central Peru
15	MH	eP	00 54 41.5	c	0 = 23 44 05
		e	54.1	c	
	M	e	38.9		
15	B	eP	01 26 52.7		USCGS: 49°N, 156°E, 0 = 01 16 57
		ipP	27 06.9		Kurile Islands
		e	28 05.5		
	BG	eSNE	34 51.0		
		eQNE	41.2		
		eE	43.7		
	MH	eP	26 57.7	c	
		epP	27 11.8	c	
		e	23.5	d	
		e	28 33.0	c	
	F	eP	27 07.7	c	
		e	57.5		
	M	eP	26 44.8	c	
		ipP	58.5	c	
		i	27 24.6	d	
	R	eP	26 57		
		epP	27 10		
		e	47		
		eSNE	34 57		
	SH	iPNEZ	26 40.5	c	
		ipPNZ	52.5	d	
		e	27 27.5		
15	M	e	07 15 25.2	d	
		e	47.2	d	
15	MH	eP	09 06 55.6	c	
		e	07 07.4	c	
		e	17.3	c	
	F	eP	01.2	c	
	M	eP	02.7	d	
		e	12.9	d	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
April 15	R	eP	07.6	c	
15	M	eP	13 48 20.7	c	
15	MH	eP	18 16 40.4	c	USCGS: 53°N, 159°E
		i	17 16.3	c	0 = 18 07 05
	F	eP	16 50.1	c	Near East Coast of Kamchatka.
	M	eP	25.6	c	
		e	49.8	d	
	R	eP	37.1	c	
		e	17 01.5	d	
		eE	52.5		
16	MH	eP	05 46 58.8	c	
		e	47 08.3	c	
		e	33.3	c	
	F	eP	03.0		
		e	13.0	c	
	M	e	02 .9	c	
		e	05.9	c	
		e	35.9	d	
	R	e	12		
	SH	eP	04.9		
		e	14.4		
		e	33.	d	
16	BG	eRNZ	08 20.6		
		eE	22.2		
	MH	eP	05 12.6	d	
		e	21.7	d	
		e	39.2	c	
	F	e	12.5		
	M	e	37.4	c	
		e	56.3	d	
	R	eP	35.3	d	
	SH	eP	15.5		
16	M	eP	09 05 18.3	d	USCGS: Northern Kurile Islands
		i	24.3	c	0 = 08 55 40
		i	29.8	c	
	R	eP	35		
	SH	eP	11.6		
		eNZ	19.8		
		e	51.5		
16	M	e	14 26 20.5	c	
	SH	eP	15.8		
		eE	40.3		
17	B	eP	00 12 58.0	c	USCGS: 5°S, 77°W, 0 = 00 02 50
		e(PcP)	13 37.5		Northern Peru
	BG	eSN	21 13		Pas: Magnitude 6 - 6¼
		eNE	33.4		
	MH	iP	12 54.6	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
April 17		i	13 28.4	d	
	F	eP	12 41.5	c	
	M	eP	13 04.5	c	
		e	24.2	d	
		i	50.0	d	
	R	eP	12 56.0	d	
		e	13 06.0	d	
	SH	eP	08.5	c	
		eNZ	47		
17	B	e(SS)N	11 40 05		USCGS: New Britain Region Foreshock.
		eQN	46.7		0 = 11 10 17
		eREZ	54.2		
	MH	eP	23 20.3	d	
		e	51.2	c	
		e	24 15.0	c	
	F	e	23 20		
		e	28 10		
	SH	eP	23 14.2		
		e	19.0		
		e	24 11.5		
18	M	e	00 24 52.0	c	
	SH	eP	12.4	d	
18	B	eP	03 29 21.5		
	MH	eP	27.2	d	
		i	37.4	d	
	F	eP	32.0		
	M	eP	30.4	c	
		e	30 00.5	d	
	R	eP	29 34.7		
	SH	eP	30.0		
		e	33 06.2		
18	F	eP	04 10 51.0	c	
	M	eP	47.4	c	
18	BG	eSN	23 37 43		USCGS: 10°N, 102°W, 0 = 23 25 40
		eE	39 58		Off South Coast of Mexico.
		eNZ	40 13		
	MH	eP	32 05.5	c	
		ePcP	34 46.9	d	
	F	eP	31 50.5		
		e	33 54.0		
	M	eP	32 26.9	c	
		i	48.3	c	
		ePP	33 52.7	d	
	R	eP	32 15.8		
		e	34 18		
		e	44 10		
	SH	eP	32 29.9	c	
		e	34 54.5		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
April 19	MH	e	12 26 35.6	d	USCGS: New Hebrides Islands Region
	M	eP	32.8	c	0 = 12 13 12
		e	43.6	c	
	SH	eP	30.5	c	
19	R	eP	16 06 39		USCGS: Off South Coast of Kyushu,
		e	07 45.3		Japan
	SH	eP	06 27.4	c	0 = 15 54 05
19	B	eP	22 55 33.0		USCGS: 50½°N, 179°W, 0 = 22 47 39
		i	40.4		Andreanof Islands, Aleutians
	BG	eSEZ	23 01 49		Felt: Adak.
		eNE	03 13		
		eE	04.2		
	MH	iP	22 55 41.4	d	
		i	56 04.3	d	
	F	eP	55 54.0		
		ePP	57 23.0		
	M	eP	55 25.3	c	
		e	56 23.5		
	R	eP	55 38.8	c	
		eEZ	55.1		
		e	58 51.3		
		eS	23 01 47		
		e	02 03.4		
	SH	eP	22 55 19.8	c	
		eNZ	38.1	d	
20	M	eP	05 24 28.5	d	
20	BG	eSN	11 22 23.		USCGS: Kermadec Islands
		eN	31.2		0 = 11 00 31
	MH	eP	13 06.9	c	
		e	37.7	c	
	F	eP	12.0	c	
	M	iP	17.1	c	
		i	38.4	d	
	R	eP	21.8	c	
		e	14 24		
		eE	15 22		
		e	20.1		
22	MH	e	04 14 41.4	d	
22	MH	eP	10 15 43.7	d	
23	SH	ePNZ	07 21 27		
		eNE	22 13		
23	B	eP	16 37 22		USCGS: 40°S, 154°E, 0 = 16 24 17
		e	43.5		New Britain Region
		ePP	41 02.5		Pas: Magnitude 7½ - 7 3/4
		eSKSN	48 24		
		eN	31		
		e(S)EZ	38		
		e	49 56		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
April 29	SH	eP	44 08.0	c	
		e	16.8		
29	MH	e	20 32 10.4	d	USCGS: 43°N, 143°E, 0 = 20 21 00
	R	e	16.3		Hokkaido, Japan
	SH	e(P)	31 55.0		
29	MH	eP	22 03 26.6	c	USCGS: 49½°N, 156°E, 0 = 21 53 30
		i	46.6	d	Kurile Islands
		e	04 19.0	c	
	F	e	03 37		
		e	53.0		
	R	eP	24.5	c	
		e	41.4	d	
	SH	iP	08.0	c	
		e	24.5	c	
30	MH	eP	01 18 59.3	c	USCGS: Near East Coast of Kamchatka
		e	19 08.9	d	0 = 01 09 23
	SH	eP	18 40.5		
30	B	iP	06 39 27.5	c	
		i	29.8	c	
		i	41.5	d	
		ePP	42 25		
		eSNE	49 40		
		e(ScS)NE	50 15		
		e(SP)NEZ	51 18.5		
		i	56 30		
		eNE	59.4		
		eN	07 03.3		
		eRNEZ	06.1		
			A T		
		MAXH	70 20		
	MH	iP	06 39 29.6	d	
		i	32.9	d	
		e	40 06.3	d	
	F	eP	39 34.5	c	
		i	36.5	c	
		e	53.0	c	
	M	ePNE	38.5		
	R	eP	39.8		
		iPNEZ	41.6	c	
		eNE	40 28		
		eEZ	42 15.5		
		eEZ	50 19		
		e	07 05.1		
	C	iP	06 39 42		
		eR	07 08.1		
	SH	eP	06 39 34.6	c	USCGS: 20½°S, 170°E, 0 = 06 26 40
		eE	50 15.5		Loyalty Islands
		eE	51 38.0		Pas: Magnitude 6 3/4
30	F	e	08 15 05		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
April 30		e	16 51		
		eN	55		
		e	19 47		
		e	22 04.5		
30	MH	eP	19 32 59.1	c	
	SH	eP	50.5	c	
		e	33 51.5		
May 1	B	eP	00 09 27.5		
	BG	eRNZ	29.8		
	MH	eP	09 23.8	c	
		i	27.5	d	
		e	43.9	c	
	F	eP	19.0	c	
		e	38.5		
	R	eP	34.3		
		e	56		
	SH	eP	43.6		
1	B	eP	06 49 24.3		Pas: 35°07'N, 118°27'W, 0 = 06 48 22
		iS	50 13.0		Near Tehachapi, California
	MH	eP	49 14.4	c	USCGS: IV at Tehachapi
		iNEZ	15.4		
		i	22.8		
		eSNE	50 01.0		
	F	ePNZ	48 55.0	d	
		iS	49 19.9		
		eNE	21.0		
		eN	53.2		
	M	eE	49 55.5		
		eE	51 20.5		
	R	eP	49 30.6		
		eSEZ	50 45.0		
	SH	eP	01.5		
		e	13.5		
		eE	54.5		
		eSEZ	51 35		
2	B	eP	18 47 34.2		USCGS: Off East Coast of Kamchatka
	BG	eSNE	55.6		0 = 18 38 12
		eQN	19 02.0		
		eRE	04.9		
	MH	eP	18 47 40.5	c	
	F	eP	54.5		
		e	48 04.0	d	
	M	eP	47 29.9	c	
		i	35.6	c	
		e	39.9	d	
	R	eP	40.6		
		e	48 07		
	SH	eP	47 23.5	c	
2	SH	eP	22 39 32.0	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
May 2	MH	eP	23 14 15.5	d	
		e	26.7	c	
	M	eP	25.8	c	
	R	e	17.5		
	SH	eP	26.8	c	
3	M	eP	13 24 07.2	c	
4	MH	eP	04 13 25.1	c	USCGS: 53½°N, 161°E, 0 = 04 03 53
		e	34.3	c	Off East Coast of Kamchatka
	F	eP	32.0	d	
	M	eP	04.7	d	
		e	10.9	c	
		e	43.4	c	
	R	eP	20.1		
		e(PcP)	14 24.0		
	SH	eP	12 56.5	d	
		e	13 06.5	d	
4	MH	e	06 46 05.4	c	
	M	e	09.5	d	
4	B	eP	11 38 32.0		USCGS: 53½°N, 161°E, 0 = 11 29 08
		e	41.0		Near East Coast of Kamchatka
		e	39 20.0		
	BG	eSNE	46 03		
		eQNE	52.3		
	MH	eP	38 34.2	d	
		e	42.2	c	
		ePcP	40 40.4	c	
	F	eP	38 47.5	c	
	M	eP	18.9	c	
		i	32.8	d	
		e	40 40.4	d	
	R	eP	38 34.0	c	
		e	45.2		
		eSNE	46 01.5		
	SH	eP	38 15.5		
		i	27.7		
		e	42 55.0		
		e	49 37.5		
4	MH	eP	14 03 11.3	d	USCGS: Off East Coast of Kamchatka
	M	e	02 58.1	d	0 = 13 53 45
	R	eP	03 08		
	SH	eP	02 51.5		
4	BG	eQNE	15 00.3		USCGS: 30½°N, 114°W, 0 = 14 55 10
		e	00.8		Northern Gulf of California
	MH	e	00 06.4		
	F	eP	14 57 12.0	c	
		e	58 11.5		
		eE	59 11.0		
		eN	34.0		
	M	e	15 01 18.2	d	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
May 4		e	40.9	d	
	R	e	14 57 41		
		e	15 00 57.5		
		e	02 02.5		
		e	04 38		
	SH	e	14 58 32.0		
		e	15 01 48.5		
4	B	iP	15 38 14.4	c	USCGS: 28°S, 62½°W, h = 600
		ipP	40 16.9	d	0 = 15 26 30
		esP	41 43.0		Santiago De Estero, Argentina
	BG	eSKSE	47 48		Pas: Magnitude 6½
		iSN	48 02.0		
	MH	eP	38 11.2	c	
		ipP	40 13.7	d	
		isP	40.7	d	
		i	41 40.6	c	
		eSKS	48 02.5		
	F	eP	38 02.1	c	
		epP	40 04.2	d	
		eSNEZ	47 36.0		
	M	eP	38 19.5	c	
		epP	40 21.0	c	
		e	41 05.2	d	
		eSKS	48 07.2		
	R	eP	38 13.5	c	
		epP	40 14.7	c	
		e	41 03.0		
		e(S)NEZ	47 57.0	c	
	SH	iP	38 22.0	c	
		epP	40 20.0		
		eE	25.0		
		eSKSNE	47 53.5		
		eSNZ	48 11.5		
4	M	e	15 56 10.4	d	
		e	35.2	c	
	R	e	15		
	SH	e(P)	08.5	d	
		e	58 31.0		
4	BG	eE	21 03.1		Pas: Gulf of California, 0 = 20 58
		eNZ	03.3		Magnitude 5
	MH	eP	20 59 48.6	c	
		e	21 00 01.5	c	
		e	03 08.0	d	
	F	e	20 59 55		
		eE	21 02 04		
		eE	58		
	M	eP	21 00 21.8	d	
		e	38.8	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
May 4		i	59.2	c	
		e	03 40.0	c	
	R	ePNZ	00 01.9	d	
		e	03 07.5	c	
		eN	15.2		
		e	06 21		
	SH	e	00 37.5		
4	B	iP	21 21 30.5	d	USCGS: 20½°S, 68°W, h = 100
		epP	59.5		0 = 21 09 45
	MH	eP	26.7	d	Chile-Bolivia Border
		i	28.6	c	
		ipP	57.0	d	
	F	eP	17.0		
	M	eP	35.8	d	
		epP	22 07.2	d	
	SH	eP	21 39.0	d	
		epP	22 09.5	c	
4	B	eP	23 36 43.0	d	
	MH	iP	49.3	d	
		i	51.0	c	
	F	eP	58.8		
		e	37 11.5		
	M	iP	36 34.7	d	
		i	47.6	d	
		i(PcP)	37 15.2	d	
	SH	eP	36 29.8	d	
		e	42.5		
5	MH	eP	04 10 35.6	d	
	M	eP	30.9	d	
	SH	eP	28.0		
		e	55.0	d	
5	MH	e	05 38 09.8	c	
	M	e	00.0	c	
	SH	e	37 54.5		
		e	38 02.0	c	
5	MH	e	06 37 33.8	d	
5	SH	eP	08 43 09.8	c	
		e	16.3	d	
5	MH	e	14 42 59.7	c	
	R	eP	43 06.6		
	SH	eP	15.5	d	
5	MH	eP	18 20 14.8	d	
	R	eP	16.4	d	
	SH		26.0	d	
6	MH	e	06 28 54.3	c	
6	B	eP	17 29 28.5		USCGS: 36½°S, 73°W, h = 100
		i	31.6	d	0 = 17 16 48. Central Chile
		ipP	48.3		Several killed. Minor property
		eSKSNE	39 56		damage in Concepcion and
		eSNEZ	40 13.5		vicinity.
	BG	eSSNE	46 03		Pas: Magnitude 7.6
		e	49 28		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
May 6		e	53 20		
	MH	eP	29 26.1	c	
		ipP	45.4	c	
		ePP	32 24.6	c	
		eSKSE	39 55.5		
		e	40 01.0		
		eN	07.5		
		e(PKKP)	47 43.6	c	
		eP'P'	55 38.9		
		eE	58.1		
	F	eP	29 16.5	c	
		e	19.5	c	
		epP	35.4	d	
		eSKSE	39 48.5		
		eNZ	53.5		
		eN	41 03.5		
		eP'P'	55 30		
		eN	58.8		
	M	eSN	40 08		
		eE	28		
	A	ePE	29 58		
		eSNE	40 17.5		
	R	eP	29 29.3	c	
		e	42.4		
		ipP	50	d	
		e	30 33.2		
		i	33 19		
		eSKSN	39 58.9		
		e(S)E	40 17.4		
		e(PKKP)	47.4		
		eP'P'	55.5		
	C	eP	29 55		
		eSKSE	40 25		
		eE	57 13		
		eE	18 03 37		
	SH	eP	17 29 38.0		
		i	41.2	c	
		eE	33 32.0		
		eSNE	40 07		
		e	28		
		iE	32		
		e(PKKP)	47.3		
		eP'P'	55 36.5		
		eRE	18 00.2		
		eNZ	00.7		
7	MH	e	12 20 05.4	c	
		e	14.0	d	
7	MH	e	13 33 40.2	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
May 7		e	34 02.8	c	
	SH	e(P)	33 47.5		
7	MH	eP	15 38 16.1	c	USCGS: Off East Coast of Kamchatka
	SH	eP	37 57.0	d	0 = 15 28 50
7	B	eP	18 09 57.2		
	BG	eN	28.0		
		eN	40.1		
	MH	eP	09 54.8	d	
		e	10 02.1	c	
	M	e	12 06.5	c	
	SH	eP	10 09.0	c	
		e	16.3	d	
7	MH	eP	18 56 25.2	d	
		e	47.2	c	
	M	eP	38.9	c	
7	MH	e	19 52 30.8	c	
	M	e	25.4	d	
8	MH	iP	03 27 32.5	c	
	e		48.5	c	
	F	eP	35.5		
	M	e	42.4		
8	MH	eP	04 05 45.3	c	USCGS: About 400 miles Southwest of
		i	53.2	c	Azores Islands. 0 = 03 54 50
		i	06 06.6	c	
	M	eP	05 38.5	c	
	R	eP	34		
9	SH	e(P)	11 50 11.5		
9	MH	eP	21 11 35.8	d	
		i	41.8	c	
	SH	eP	45.0	c	
		e	12 15.5	d	
10	BG	eE	05 56.5		USCGS: New Hebrides Islands
	MH	eP	23 28.0	c	0 = 05 10 45
		i	41.1	d	
	F	eP	32.5	c	
		e	45.5	d	
	R	eP	38.9	c	
	SH	eP	32.0	c	
10	MH	iP	15 51 15.4	d	
	SH	eP	24.0	c	
10	MH	eP	20 00 59.1	d	USCGS: Honshu, Japan. 0 = 19 49 10
		e	01 05.2	c	Felt: Tokyo
	R	e	03.8		
	SH	eP	00 37.0		
		e	49.8	c	
11	R	e	02 45 02		
	C	iP	42 53		
11	R	e	04 50 41.9		
		e	51 00.9	d	
	SH	eP	51 06.8	d	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
May 11	B	eP	10 29 29.6	SWd	USCGS: 21½°S, 169°E, 0 = 10 16 36
		i	36.5	d	Loyalty Islands
		iEZ	42.0		Pas: Magnitude 6.7
	BG	iSKSNE	39 58.0	NW	
		iSNEZ	40 19.0		
		eNE	41 28		
		eSSE	45 34		
		eQNE	52 52		
		eE	56.8		
		eR	57.4		
			A T		
		PZ	3.8 4		
		MAXH	36 18		
	MH	eP	10 29 30.7	d	
		e	37.1	d	
		i	42.6	d	
		i	30 37.5	c	
	F	eP	29 34.5	d	
		i	42.1	d	
		eSN	40 28		
		eP'P'	55 37.0		
	M	eNE	29 38.5		
	R	eP	41.6	d	
		e	30 09.3	d	
		e	55.3		
		eN	33 14.3		
		eSNE	40 14.8		
		e(SdS)N	47.8		
	C	eP	29 44		
		eSE	40 12		
	SH	eP	29 35.2	d	
		e	46.4	c	
		e	58.5	c	
		e	33 15.5	d	
		eSKSE	40 01.0		
11	MH	e	21 01 42.7	d	
	R	e	02 04.2		
	SH	e(P)	01 51.0		
12	MH	eP	12 46 40.7	c	USCGS: Andreanof Islands, Aleutian
	M	eP	25.7	c	Islands. h = 100. 0 = 12 39 02
		i	47.7	d	Felt: Adak and Great Sitkin
		e	47 35.4	d	
	R	e(P)	46 41.2		
		e	45		
		e	47 04		
	SH	eP	46 20.4	d	
		i	23.8	c	
		e	36.0		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
May 12		e	45.3		
12	M	e	16 41 06.9	c	
13	MH	eP	04 24 59.8	c	USCGS: 52°N, 174°E, h = 100
		iPcP	26 22.4	d	0 = 04 16 28. Near Islands,
	F	eP	25 11.5		Aleutian Islands
	M	eP	24 38.0	d	
		i	25 23.8	c	
	R	eP	24 58.4		
		e	25 31.4		
		e	26 12.1		
		e	30 14.6		
	SH	eP	24 32.5		
		i	45.1	c	
		e	25 53.1	c	
		ePP	26 18.5	c	
		e	30 17.5		
13	R	e	06 09 32.7		
13	MH	e	11 14 57.4	c	
	M	eP	15 12.5	d	
		e	30.0	c	
	SH	eP	11.0		
13	B	eP	12 05 29.2	c	Loyalty Islands?
	BG	eSNE	15 50.5		
		eN	27.4		
		eNE	31.6		
			A T		
		MAXH	16 16		
	MH	eP	12 05 27.9	c	
		e	43.6	d	
	F	eP	32.0	d	
	M	eP	37.3	c	
		i	55.1	d	
	R	eP	39	c	
		e	08 36.5		
		e(S)NZ	16.3		
	SH	eP	05 34.0		
		e	07 07		
13	M	eP	12 50 10.1	d	
13	M	eP	13 24 54.1	c	
13	F	e(P)	13 29 22		May be PP accompanying Mineral
	M	e(P)	28 24.9	d	eP 13 24 54.1
		i	41.0	c	
	R	e(P)	42.8	c	
	SH	e(P)	15.5		
13	R	e	22 45 25.5		
13	BG	eNE	23 57.9		
	MH	eP	53 51.2	c	
	F	e	54 21.0		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
May 13	M	eP	53 31.6	d	
		i	37.4	c	
	R	eP	50		
14	MH	e	00 25 09.6	c	
	M	e	24 42.6	d	
		e	53.0	c	
		e	25 45.8	c	
14	MH	e	01 04 58.5	c	
	M	e	05 38.5	c	
14	MH	e	01 42 21.4		
	M	e	42.5	d	
14	MH	eP	01 48 58.6	c	Off Coast of Oregon?
	F	eP	49 15.1	d	
	M	eP	48 23.4	d	
	R	eP	43.3	c	
	SH	eP	16.2	d	
14	M	e	02 03 55.7	d	
14	M	e	02 11 14.6	c	
14	M	e	02 16 58.1	d	
14	B	eP	02 22 10.5	d	USCGS: Marianas Islands.
		e	28.5		0 = 02 09 57
	BG	eRNZ	52.4		
	MH	eP	22 13.6	d	
		e	23.5	d	
		e	28.4	d	
	F	eP	21.5	d	
		e	58.0		
	M	iP	09.5	d	
		i	26.0	c	
		e	24 02.5	d	
	R	eP	22 18.4	d	
		e	32.5		
	SH	iP	06.3	d	
14	M	e	29 38.6	d	
14	M	e	33 31.0	c	
		e	37 43.8	d	
14	MH	e	02 43 08.0	c	
		e	47.4	d	
	M	e	41 32.6	c	
14	MH	e	03 10 38.1	c	
		e	11 26.9	c	
	M	e	12 37.8	c	
	R	e	39		
14	BG	eRNZ	07 47 28		USCGS: 50°N, 130°W, 0 = 07 41 44
	MH	eP	45 02.4	d	Off Coast of Vancouver, B.C.
		e	18.7	c	
		e	53.5		
	F	eP	19.0	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
May 14		e	43.0	c	
	M	eP	44 26.2	d	
		i	45 30.0	d	
		e	48 54.0		
	R	eP	44 47.7	c	
		e	45 43.1		
	SH	eP	44 20.2	d	
		eE	49.8		
14	BG	eEZ	18 33 23		USCGS: 50°N, 130°W, 0 = 18 27 41
	MH	iP	30 57.1	c	Vancouver Aftershock
	F	eP	31 12.0		
	M	eP	30 22.1	d	
		i	31.4	c	
		e	35 53		
	R	eP	30 41.9	d	
		e	57.2		
		e	31 29.7		
		e	54.4		
	C	eP	29 22		
		eSE	32 42		
	SH	eP	30 12.0	c	
		e	18.5	d	
		eN	32 22.5		
		eE	34.1		
15	MH	eP	09 44 32.6	c	USCGS: Andreanof Island,
		i	40.5	d	Aleutian Islands. h = 100
	M	eP	11.9	c	0 = 09 36 47
		i	20.2	d	Felt: Adak
		i	28.7	c	
	R	eP	15.6		
		e	38.1		
		e	45 20.1		
	SH	eP	44 07.5	d	
		i	19.0	c	
16	M	eP	08 50 52.8	d	
		e	51 40.1	c	
16	B	iP	17 08 33.1	c	
		i(pP)	09 06.1	c	
	MH	iP	08 36.6	d	
		i(pP)	09 09.8	c	
	M	iP	08 31.1	d	
		i(pP)	09 04.7	c	
	R	eP	08 40.0	d	
		e(pP)	09 11.0		
	SH	eP	08 28.0	d	
		i(pP)	09 00.9	c	
17	F	e	13 34 07.0		
		e	31.0	c	
	M	e	30 47.8	d	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
May 17	R	e(P)	41.1	d	
		e	33 40.8		
		e	34 04.1		
	SH	e	30 42.0		
		e	32 39		
17	MH	e	17 33 10.1	d	USCGS: Off Southeast Coast of Kamchatka
		e	28.1	d	0 = 17 23 30
		e	38.8	c	
	M	e	00.2	d	
		e	23.9		
	R	e	05.0		
	SH	eP	32 47.0	c	
		e	55.2	d	
17	MH	e	17 41 14.2		
	M	e	40 57.4		
	SH	e	41		
		e	57.5		
17	MH	e	18 41 11.4		USCGS: Near East Coast of Kamchatka
	M	e	15.4		0 = 18 31 54
	SH	e	08		
17	B	iP	22 23 41.7	c	USCGS: Near East Coast of Honshu, Japan
		e	48.5		h = 100. 0 = 22 12 05
		e	24 12.5		Felt
	MH	eP	23 45.5	c	
		e	24 14.7	c	
	F	eP	23 53.7	c	
		e	24 26.0		
		e	25 53.5		
	M	iP	23 36.3	c	
		i	53.9	c	
		iPP	26 09.0	c	
	R	iP	23 46.0	c	
		e	24 03.9		
		e	11.8		
	C	eP	23 18		
	SH	iP	32.4	c	
		e	24 18.5	c	
		e	26 16.5	c	
17	MH	iP	23 17 58.3	d	
	M	e	18 05.3	c	
18	B	iP	08 05 12.3	c	USCGS: 10°S, 161°E. h = 60
		epP	28.5		0 = 07 52 36. Solomon Islands
		e	06 17		
	MH	eP	05 13.6	d	
		ipP	29.6	c	
		i	06 02.5	c	
		ePP	08 47.1	c	
	F	eP	05 21.0	c	
		e	07 11.0		
	M	eP	05 17.5	d	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
May 18		ipP	35.3	d	
	R	eP	23.7	d	
		epP	37.7	d	
		e(S)	15 53.2	c	
	SH	eP	05 15.0	d	
		epP	30.0		
		e(S)NE	15 37.5		
18	B	eP	08 22 54.0		USCGS: 28½°N, 44°W, 0 = 08 12 12
	MH	eP	49.4	c	Mid-Atlantic Ocean
		e	23 08.3	c	
	F	eP	22 41.5	c	
	M	iP	43.1	d	
		e	23 19.7	c	
	R	eP	22 36.0	c	
		e	23 01.4		
	SH	eP	22 44.5	d	
18	M	e(P)	08 32 34.8		May belong to preceding or following shock.
18	MH	e(P')	08 34 43.0	d	Phases not sharp.
	F	e(P')	45		USCGS: Near South Coast of Sumatra
		e	59	c	0 = 08 15 26
	M	e(P')	28.7	c	
		e	39.9	d	
	R	e(P')	32.2		
		e	41.7		
	SH	e(P')	34.5		
		e(PP)	36 22.5		
19	B	eP	02 49 17.0		
		e	50 04.5		
	MH	eP	49 25.3	d	
		i	39.0	c	
	F	eP	41.0	c	
	M	iP	48 49.2	d	
		i	49 09.1	d	
	R	eP	08.4	d	
	C	eP	47 48		
		e	48 47		
	SH	eP	41.0	d	
19	M	e	03 08 48.4	d	
19	B	eP	03 20 44		USCGS: 51°N, 159°E, 0 = 03 11 06
		i	49.3		Off South Coast of Kamchatka
		i	56.6		Pas: Magnitude 6½
	BG	e	21 44		
		eSNE	28 24		
		eQNE	34.5		
			A T		
	MAXH		5 20		
	MH	eP	03 20 46.7	c	
		i	52.0	d	
		i	21 01.6	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
May 19		e	24 07.9		
	F	eP	20 57.5	d	
		e	21 11.5	c	
	M	eP	20 10.4	c	
		i	37.7	d	
		e	22 53.5	d	
	R	eP	20 44.7	d	
		eNZ	58.5		
		eSN	28 28		
19	MH	eP	06 02 21.9	c	USCGS: 52½°N, 158½°E, 0 = 05 52 40
		e	03 06.5	d	Near East Coast of Kamchatka
	M	eP	02 06.1	c	
		e	27.8	d	
	R	e	27.6		
	SH	eP	01 59.0		
19	M	i	08 06 57.6	c	
19	MH	eP	16 20 29.7	c	
	F	eP	46.5	d	
	M	eP	19 56.4	c	
	R	eP	20 11.9		
		e	21 22.4		
	SH	eP	19 46.5		
20	BG	e(SKS)N	08 09 33		USCGS: 53°S, 134°W, 0 = 07 45 26
		eN	14.9		South Pacific Ocean
		eN	24.2		Pas: Magnitude 6¼ - 6½
		eREZ	27.9		
	MH	e	07 58 30.5		
	F	e	33.0		
	M	e	46.7		
	SH	e	49		
20	MH	e	11 02 20.8	d	USCGS: Celebes Region. h = 200
		e	42.2		0 = 10 43 50
	F	e(P')	12.5		
	M	e	33.9	d	
		e	42.7	c	
	R	e(P')	12.3	d	
		e	53.6		
		e	03 28	d	
	SH	e	01 11.0		
		e	02 05.5		
		e	28.5		
20	MH	e	13 05 40.7	d	
	R	e	36		
20	MH	eP	13 21 13.2	c	
		i	28.2	d	
	M	e(P)	30.9	d	
	R	e(P)	18.5	c	
20	B	eP	23 17 35.5		USCGS: 50°N, 130°W, 0 = 23 14 23
		e	53.5		Off Coast of Vancouver, B. C.

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
May 20		e	18 42.5		
	BG	eE	20 34		
		eEZ	21.2		
	MH	eP	17 45.3	c	
		e	18 19.3	c	
		e	43.3	d	
	F	eP	01.0	c	
		e	41.5	c	
	M	eP	17 10.4	c	
		i	18 22.7	d	
		e	20 54.5		
	SH	eP	17 02.0	c	
21	MH	eP	02 03 07.7	c	USCGS: Near South Coast of Guatemala h = 100. 0 = 01 56 10
		e	24.3	c	
		e	05 39.4	c	
	M	eP	03 21.3	c	
		e	37.0	d	
	R	eP	09.4	c	
		e	27.9	d	
21	MH	e(P)	10 20 39.0	d	USCGS: Andreanof Islands Aleutian Islands. 0 = 10 12 37
	F	e(P)	59.0		
	R	e(P)	43.4	c	
	SH	e(P)	18.5		
21	B	iP	12 33 05.0	c	
	BG	i(S)EZ	35 48.1		
		iN	36 09		
		eLEZ	36.9		
	MH	eP	33 13.7	d	
		e	21.7	c	
	F	eP	29.5	c	
	M	eP	32 38.0	d	
		i	36 05.2	c	
	A	eE	02.0		
	R	eP	32 57.1	d	
		e	33 59.2		
		eNZ	37.4		
	C	eP	31 39		
		e	34 00		
	SH	eP	32 30.9	c	
		eNE	36 34.5		
	F	e(P)	13 40 23.0	c	
		e	53.0		
		e	42 07.0	c	
	M	i(P)	39 32.7	c	
		e	42.3		
	R	e(P)	50.3		
		e	40 32.3	c	
22	F	e	15 38 49.5		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
May 22	B	eP	20 25 19.9	c	USCGS: 18°S, 178½°W, h = 600, 0 = 20 14 26. Fiji Islands
		epP	27 23.0	c	
	MH	eP	25 21.6	c	
		ipP	27 24.6	c	
	F	eP	25 24.9	c	
		epP	27 28.4	d	
	M	eP	25 28.8	c	
		e	54.5	d	
		epP	27 32.5	d	
		i(PP)	28 42.9	c	
	R	eP	25 33.5	c	
		epP	27 37	d	
	SH	eP	25 28.3	d	
		epP	27 32.5	d	
23	B	iP	07 53 51.9	c	Pas: 35°03'N, 119°08.5'W, 0 = 07 52 55 North of Wheeler Ridge, California Magnitude 4.2
		i	54 03.0		
		iSNEZ	36		
	MH	eP	53 41.6	d	
	F	eP	24.5	c	
		iSE	47.1		
	M	eP	54 20.5	c	
		i	55 29.8		
		i	43.5		
	R	eP	54 06.5		
		e	26.0	d	
		eSNEZ	55 12.0	c	
	SH	eP	54 33.5		
		eN	52.0		
		eSE	55 48		
		eE	56 01		
23	SH	eP	11 45 02.0		
23	MH	iP	20 00 22.8	c	
		e	46.2	d	
	M	iP	29.7	c	
		i	45.9	d	
	SH	eP	28.0	d	
		e	52.0		
24	B	iP'	01 38 37.4	d	USCGS: 51°S, 28°W, 0 = 01 19 55 Sandwich Islands Region
		i	48.4		
		e	58		
	BG	iPP	40 24		
		ePSN	50 24		
		eN	02 01.4		
		eNEZ	20.4		
	MH	eP'	01 38 35.6	d	
		i	46.3	c	
		e	40 05.3	c	
	F	eP'	38 33.5	c	
		ePP	40 14.5	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
May 24		e	53.5	c	
	M	eP'	38 39.1	c	
		i	39 00.6	d	
		e	40 32.4	c	
		e	52 11.2		
	R	eP'	38 38.5	c	
		e	48.5		
		e	39 04		
		e	40 07		
		e	11.8	c	
	SH	eP'	38 39.7	c	
		e	39 01.7	c	
24	R	eP	02 56 27		USCGS: 40½°N, 111½°W, 0 = 02 54 29
		e	57 37	d	North Central Utah
		eSNZ	44		V at Lehi, Utah
24	MH	eP	06 06 35.3	d	USCGS: 10½°N, 85½°W, 0 = 05 58 40
	M	eP	54.0	d	Near Coast of Costa Rica
		ePcP	08 34.2	d	
25	B	iP	03 24 59.0		Pas: 35°00'N, 119°01'W, 0 = 03 24 01
		eSNE	25 43.8		Magnitude 4.8
	MH	iP	24 48.9	c	Felt widely in Southern California
	A	eP	53.8		
	F	iPNZ	31.0	d	
		eSN	51.0		
	M	iP	25 27.7	c	
		iS	26 46.9		
	R	eP	25 11.3	c	
	SH	eP	33.0		
25	MH	eP'	12 57 23.5	d	USCGS: 3½°S, 101°E, 0 = 12 38 13
		i	58 40.7	d	Off South Coast of Sumatra
	F	eP'	57 25.5	d	
		e	59 50.5		
		e	13 00 42.0		
	M	eP'	12 57 17.8	c	
	R	eP'	24.4	d	
		e	37.2	c	
		eE	13 00 10.9		
	SH	eP'	12 57 16.0	c	
		e	59 00.5		
25	B	eP	17 50 04.0		USCGS: 51°N, 159°E, 0 = 17 40 30
		i	15.5		Off South Coast of Kamchatka
	BG	eE	58 02		
		eN	14		
		eQN	18 04.1		
	MH	eP	17 50 09.7	d	
		e	20.9	d	
	F	eP	20.5	c	
		e	33.5	c	
	M	eP	49 54.8	c	
		i	50 02.1	d	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
May 25		i	11.3	d	
	R	eP	08.5		
		e	14.6		
		e	31	d	
	C	e	53 48		
	SH	eP	49 50.4	d	
		e	50 07.5	c	
25	MH	eP	22 10 10.6	d	
		e	24.4	c	
		i	38.5	c	
	F	eP	15.0	d	
	M	eP	21.4	c	
	R	eP	26.0	d	
	SH	eP	21.0	c	
26	B	iP	01 54 16.0	c	USCGS: 42°N, 142½°E, h = 60
		e(pP)	33.0		0 = 01 43 11. Near South Coast of
		i	38.8	c	Hokkaido, Japan
	BG	eSNEZ	02 03 21.0		
		eN	47		
		eSSN	07 54		
		eN	11.4		
		eQNE	13.4		
		eRZ	15.4		
	MH	eP	01 54 20.0	c	
		i	31.1	d	
		i(pP)	36.8	c	
		i	55 00.2	d	
	F	eP	54 29.5	c	
	M	eP	09.6	c	
		e	15.5		
		i	22.3	c	
		i	55 02.2	d	
		e	56 04.3	d	
	R	eP	54 19.5	c	
		e(pP)	36.3	c	
	SH	eP	05.0	d	
		e	23.2	c	
		e	46.5		
		eSE	02 02 58		
26	F	e(P)	03 37 21.0	d	
	M	e(P)	36 30.3	c	
		e	56.6	c	
	R	e	51		
	SH	e(P)	20.0		
26	MH	iP	05 30 25.7	c	
	SH	eP	33.5	c	
26	MH	e	09 19 34.8	c	
		e	20 17.6	d	
	M	e	19 41.9	d	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
May 26	M	e	12 04 25.1	c	
		e	39.7	c	
27	BG	eSE	18 39 34		USCGS: Kermadec Islands
		eNE	40 11		0 = 18 16 54
		e	41 04		
		elE	57.1		
	MH	eP	29 30.3	d	
		i	43.8	d	
	F	eP	35.0		
	M	eP	36.1	c	
	R	eP	42.8		
	SH	e	40.3	d	
		e	53.3	d	
27	B	eP	19 11 18.9	c	USCGS: 20½°N, 146°E, 0 = 18 59 12
	MH	iP	22.8	d	Marianas Islands
		i	27.6	d	
	F	eP	31.0	d	
		e	12 08.0	c	
	M	iP	11 17.5	d	
		i	21.1	d	
		e	12 29.8		
	R	eP	11 26.7	d	
		e	53		
	SH	eP	14.5	d	
		ePP	14 11.2		
28	BG	e(R)NEZ	00 33.4		
	MH	eP	09 23.3	d	
	F	eP	28.0	d	
	M	eP	31.3	c	
	R	eP	36	c	
	SH	eP	30.0	c	
28	M	eP	03 40 39.2	d	USCGS: 48½°N, 157½°E, 0 = 03 31 00
		i	41 01.7	d	Kurile Islands
	SH	eP	40 33.5	c	
		e	46.5		
		i	57.3	c	
28	MH	e	18 14 45.3	d	USCGS: 4½°S, 152°E, h = 100
	SH	e	31.5		0 = 18 01 41. New Britain
28	R	e(P)	20 10 27.6		
29	SH	e(P)	02 58 52.0		USCGS: 48½°N, 158°E, 0 = 02 49 18
29	BG	eN	06 55.4		Kurile Islands
	M	e(P)	53 28.0	d	
		e	53.7		
30	MH	eP	07 28 48.6	d	
		i	29 01.3	c	
	F	eP	28 59.5	c	
		e	29 15.0	c	
	M	e(P)	28 42.5	d	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
May 30		e	53.0	d	
		e	29 16.8	c	
	R	eP	28 54	c	
		e	29 09	d	
	SH	eP	28 40.5	c	
		e	57.4	c	
30	MH	e(P)	20 50 08.4	c	
		e	43.8	c	
	F	e(P)	11.2	c	
	M	e(P)	16.0	c	
	R	e(P)	20		
31	R	e(P)	04 20 27.0	d	USCGS: Near West Coast of Honshu, Japan
		e	55.6		0 = 04 08 30
31	BG	eNE	05 20.5		USCGS: 9°S, 118°E, h = 100
		e	26 29		0 = 05 00 15, Flores Sea
	MH	eP'	18 59.6	d	
		ePP	20 11.3		
	F	eP'	19 02.0	d	
	M	eP'	18 56.8	d	
		e	20 32.7	c	
	R	eP	19 01.0	d	
		e	20 21.5		
	SH	e	01.0		
		ePP	21 12		
31	F	e	05 32 40.5		May belong to Preceding Shock
	M	e	29 16.4	c	
		e	32 27.1	d	
		e	33 12.4	d	
	R	e	32 21.0		
		e	33 07.5		
31	B	iP	19 47 10.0	c	USCGS: Wallis Islands Region. h = 600
		e	32.0		0 = 19 36 30
		e	48 06.5		
	MH	iP	47 06.7	c	
		i	15.5	c	
		i	24.8	c	
		epP	49 07.6	d	
	F	eP	47 10.6	c	
		e	51.5	c	
		epP	49 10.6	c	
	M	iP	47 20.1	c	
		i	34.3	d	
		epP	49 16.8	d	
	SH	iP	47 14.0	c	
		e	48.0	c	
		epP	49 15.5	d	
31	B	eP	20 07 21.0		USCGS: 20°N, 70½°W, 0 = 19 58 35
	BG	eN	08 42		Near North Coast of Dominican
		iSNE	14 28		Republic. Felt
		i	42		Pas: Magnitude 7.0

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
May 31		eE	18.4		
	MH	iP	07 16.8	c	
		i	21.7	c	
		i	09 49.8	c	
		eN	22.4		
		e	29.7		
	F	eP	07 03.6	c	
		e	08.0	d	
		eN	24.7		
	M	i	07 27.0	d	
		eNE	22.6		
		e	25.1		
	A	ePE	07 51		
		eN	24.0		
	R	eP	07 06.0		
		e	34.5		
		e	08 03.0		
		eE	15.5		
		eNE	09 27		
	C	eP	07 35		
		e	25 18		
	SH	iP	07 22.4	d	
		i	26.7	c	
		eE	44.0		
		eN	17 04		
		eE	27.3		
31	MH	eP	21 04 58.6	d	USCGS: Aftershock of 19 58 35
		i	05 22.1	c	0 = 20 56 18
	F	eP	04 45.5	d	
	M	eP	05 00.6	d	
		e	06 29.9	d	
	R	e	04 54.0		
		e	05 09.0		
	C	eP	15		
	SH	eP	03.0		
June 2	M	i	00 47 39.6	c	
		e	55.2	c	
		e	49 28.7	d	
		e	50 34.2	d	
2	B	eP	18 02 03.2	d	USCGS: 30°N, 142°E, 0 = 17 50 13
	BG	eQNE	24 26		South of Honshu, Japan
	MH	eP	02 08.6	d	
		e	22.1	c	
	F	eP	16.0	d	
	M	eP	01 59.1	d	
	R	eP	02 09.0	d	
		e	21.0	d	
	SH	iP	01 56.0	d	
		e	02 06.6		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
June 2		e	34.0		
2	BG	eN	22 40.2		USCGS: 19½°N, 70°W, 0 = 22 15 54
	MH	eP	24 36.9	d	Near North Coast of Dominican
		e	53.0	c	Republic
		e	25 20.3	c	
	F	eP	24 24		
		e	25 13.0	d	
	M	e	24 40.9	c	
		i	25 05.9	c	
	R	e	24 49.0		
	SH	eP	42.4	c	
		i	48.4	c	
3	MH	e	16 10 52.1	c	
	M	iP	46.5	d	
	SH	eP	43.0	d	
		e	11 18.0		
3	MH	i	18 01 24.0	c	USCGS: 52°N, 159°E, 0 = 17 51 48
	F	e	36.5		Near East Coast of Kamchatka
	M	eP	10.7	d	
		i	40.5	d	
	R	e	21.5		
		e	33.5		
	SH	eP	04.5	c	
		e	18.5	c	
		e	32.1	d	
4	MH	e	12 42 03.7		
	M	e	41 54.6	d	
	SH	eP	51.5	c	
4	R	e	19 27 05		USCGS: 44½°N, 110½°W, 0 = 19 24 32
		eN	29 01		Yellowstone National Park,
		e	05.0		Wyoming. Felt
		e	21.0		
5	MH	iP	18 24 30.4	d	USCGS: Dominican Republic Aftershock
		e	41.7	d	0 = 18 15 50
	M	eP	31.4	d	
	SH	eP	36.0		
5	MH	e	23 53 25.9	d	
	M	e	29.0	d	
	R	e	17		
	SH	e(P)	26.5	d	
6	M	eP	04 08 35.9	d	
		e	52.5	c	
6	MH	e	06 16 11.5	d	USCGS: 56°N, 35°W, 0 = 06 06 15
	F	eP	09.5		North Atlantic Ocean
	M	e	15 54.3		
	R	eP	52.5		
6	MH	eP	12 16 11.5	c	USCGS: 56°N, 35°W, 0 = 12 06 13
	F	eP	08.0	c	North Atlantic Ocean
	M	eP	15 54.9	c	
	R	eP	51		
6	M	e	12 52 19.7	d	
6	B	iP	13 08 05.8	c	USCGS: 14°N, 144½°E, h = 100

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
June 6		ipP	26.6		0 = 12 55 40. Marianas Islands
		e	34.5		Felt: Guam
	MH	eP	07.9	c	
		i	13.1	d	
		ipP	30.8	d	
		i	44.6	c	
		e	11 44.9		
	F	eP	08 16.1	c	
		epP	38.0	c	
		e	09 25.5	d	
		e	58.6	c	
	M	iP	08 04.1	d	
		i	14.3	d	
		ipP	27.7	c	
		i	09 04.5	d	
		e	11 40.5	d	
	R	eP	08 12.5	d	
		epP	35.0	c	
		e	42.5	d	
		e	11 52.0		
		eSE	18 37.0		
	SH	eP	08 01.0	d	
		epP	22.8	c	
		e	11 33.5	c	
		eSN	18 14.0		
		eN	48.5		
6	M	e	13 43 50.9	d	
6	MH	eP	17 17 03.9	c	USCGS: Off South Coast of Kamchatka
	F	eP	14.0	d	0 = 17 07 15
		e	24.5	c	
	M	eP	16 50.4	d	
		e	17 28.3	d	
	R	eP	02.5		
	SH	eP	16 44.8	c	
7	MH	eP	02 08 38.9	d	USCGS: 53°N, 142½°E, 0 = 01 58 00
		e	45.1	d	Northern Sakhalin
	M	eP	25.4	c	
		e	30.8	c	
	SH	eP	21.0	c	
7	BG	eN	05 40.2		
	MH	e	08 48.8		
		e	09 03.6	c	
	M	e	13.3	c	
		e	20.2		
	SH	eP	12.5	c	
7	B	iP	12 32 42.8	d	USCGS: 20°N, 70°W, 0 = 12 23 56
		i	50.1	c	Near North Coast of Dominican
	BG	eSSN	42 46		Republic. Felt
		eE	43 46		
		e	49 52		
		eN	52.4		
	MH	eP	32 38.4	c	
		i	50.3	d	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
June 7		ePcP	33 48.6	d	
	F	eP	32 25.0	d	
		e	27.4	d	
		e	37.9	c	
	M	eP	39.5	c	
		i	33 21.5		
	R	e	32 50.5		
		i	33 03.9	c	
	SH	eP	32 44.5	c	
8	BG	eNE	03 30.5		
	MH	e	09 55.2	c	
	M	i	38.7	d	
		e	52.3	c	
	SH	e(P)	41		
8	MH	e	11 23 20.0	d	
		e	35.2	c	
	F	eP	34.5	c	
	M	e	13.8	c	
8	B	e	11 50 03.5		USCGS: 52°N, 159½°E, 0 = 11 40 25
	BG	eSE	57 35.0		Near East Coast of Kamchatka
		eREZ	12 06.5		
	MH	eP	11 50 02.2	c	
		i	10.0	c	
		i	18.4	c	
		i	51 18.6		
	F	eP	50 19.6	c	
		e(PcP)	51 08.9	c	
	M	e	49 46.6	c	
		i	50 03.5	d	
	R	e	00.5		
		iNEZ	07.8		
	SH	eP	49 42.0	c	
		eNZ	50.2	d	
		e	58.0	c	
		e	51 10.5		
9	B	e	01 48 31.8	c	USCGS: 53°N, 160°E, 0 = 01 39 00
		e	49 04.8		Near East Coast of Kamchatka
	BG	eSNEZ	56 01		
		eEZ	57 29		
		eSSNE	02 00 01		
		eQNE	01.5		
		eREZ	04.0		
	MH	i	01 48 32.2	d	
		i	37.1	c	
		i	49 02.8	d	
	F	eP	48 42.9	c	
		e	57.5	c	
		e	50 07.0	c	
	M	eP	48 16.9	c	
		e	30.8	d	
		i	59.7	c	
	R	i	29.4	d	
	SH	eP	11.9	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
June 9		e	25.0	c	
		e	49 51.0	d	
9	MH	eP	05 46 03.4	c	USCGS: About 400 Miles South of
		i	07.3	d	Honshu, Japan. 0 = 05 33 49
	M	eP	45 54.8	c	
		e	46 11.2	c	
	SH	eP	45 51.3	c	
9	M	eP	07 09 51.3	d	
	SH	eP	46.0	c	
9	B	e	08 07 47		
	BG	eNE	09 00		
		eLNE	35.0		
	MH	eP	07 43.7	c	
	F	eP	51.0	c	
	M	eP	53.8	d	
		e	08 27.7	d	
	SH	eP	07 52.5	c	
9	M	e	10 18 30.0	d	
		e	40.8	c	
9	MH	e	18 50 37.3	c	
		i	42.4	c	
	SH	eP	49 50.5	d	
		e	50 02.0	c	
9	BG	eNE	21 39.5		
		eN	47.5		
	MH	eP	12 30.9	c	
10	BG	eNE	04 12.3		
		eNE	12 47		
		eE	17 13		
		eN	19.0		
		eNEZ	23.5		
10	MH	eP	09 01 44.0	d	
10	MH	e	11 15 41.4	d	
	M	e	51.1	d	
		e	57.1	d	
	SH	e	43		
		e	50.3		
10	BG	e(PP)	18 42 33.5		USCGS: 4°S, 128°E, 0 = 18 23 43
		eNE	58		Near South Coast of Ceram Island
		e	44 45		
		e(PS)E	51 54		
		eNZ	54 02		
		eE	09		
		eREZ	19 15.5		
		e	17.1		
	MH	e(PP)	18 42 31.0	c	
		e	38.0	c	
	F	e(P')	13.0		
		e	50.5	d	
	M	e(PP)	27.4	d	
		e	39.6	c	
	R	i(PP)	46.8	c	
		i	54.2	d	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
June 11	SH	e(P)	38 08.5	c	
		e	12.5	c	
		e(P')	42 15		
11	M	eP	01 11 56.4	c	
11	MH	e	13 11 00.9	c	
	F	e(P)	06.0		
	M	e	10.9	c	
		e	33.4	c	
	SH	eP	10.3	d	
11	BG	eNE	13 59.4		
	MH	eP	37 21.8	c	
		e	37.1	d	
	F	eP	28.0	c	
	M	eP	32.3	c	
		e	41.2	c	
	SH	eP	30.7	c	
11	B	iP	14 45 13.2	d	USCGS: Near SW Coast of Colombia
	MH	eP	07.7	d	0 = 14 36 00
		e	16.0	c	
	F	eP	44 55.5		
	M	eP	45 19.8	d	
	R	eP	08.2		
	SH	e(P)	21.0	c	
11	MH	e	21 05 17.6	d	
		e	35.9	d	
	F	e	21.5		
	SH	e	20.0	c	
		e	29.0	c	
12	M	e	06 02 55.4	c	
13	M	eP	06 10 57.3	d	
		e	11 39.9	c	
	SH	eP	10 53.0	d	
13	M	eP	15 54 35.0	c	USCGS: Off Coast of El Salvador
					0 = 15 47 10
13	B	iP	23 01 16.7	c	USCGS: New Hebrides Islands. h = 150
		epP	56.2		0 = 22 48 47
		e	02 40.5		
	MH	iP	01 17.7	c	
		i	29.1	d	
		ipP	57.4	c	
		i	02 15.1	c	
		e	05 17.5		
	F	eP	01 22.5	c	
		epP	02 02.5	c	
		eN	04 05.5		
	M	iP	01 23.2	d	
		ipP	02 03.9	c	
		i	48.7	c	
	R	iP	01 29.0		
		epPNEZ	02 07.5		
	SH	iP	01 22.3	c	
		e	36.9	c	
		epP	02 01.8	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
June 14		e	46.5	d	
14	B	e(P)	04 19 18.5		Pas: 32°50'N, 115°40'W, 0 = 04 17 28
		e(S)	20 44.5		Near Imperial, California, Mag. 5.5
	MH	eP	19 05.3	c	USCGS: Sharp shock felt over approxi-
		i	17.4	c	mately 4800 square miles of Southern
		i	42.8	c	California, principally in Imperial
		eE	49.2		and San Diego Counties
		eN	54.2		
		e(S)E	20 32.0		
		i	52.6		
		iN	58.3		
	M	eP	19 40.9	c	
		i	20 03.8	c	
		eN	21.9		
		i	24.6	d	
		eE	37.3		
		i	21 51.0		
		eN	51.9		
		iM	22 01.7		
	Fe	eE	23.0		
		eN	23.1		
	R	eP	19 22.6	c	
		iNZ	52.0		
		iEZ	21 28.7		
		iN	32.9		
	SH	eP	19 48.0	c	
		e	20 27.5		
		i	33.0	c	
		e	21 35.0		
		eN	22 10.0		
		i	18.5		
		eNE	27		
14	B	e	04 32 01		Aftershock
	MH	iP	31 41.9	c	Pas: 32°50'N, 115°40'W, 0 = 04 29 58
		i	55.5	c	Magnitude 4.8
		i	32 10.3	d	USCGS: V at El Centro, California
		i	33 04.3		
		eN	23.4		
	M	e	32 27.0	d	
		i	32.2	c	
	R	i	20.0		
	SH	e	26		
14	MH	e	10 44 10.9	d	
	M	eP	42 22.5	c	
		e	44 09.8		
	SH	eP	42 19.0	c	
		e	44 00.0		
		e	06.0	c	
14	MH	e	10 59 31.8	c	
		e	11 00 26.0	d	
	M	e	10 59 43.5	c	
		e	11 00 23.8	d	
	SH	e	10 59 41.5		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
June 14		e	53.5		
	MH	e	12 16 00.3	c	
	M	eP	15 51.8	c	
	SH	eP	47.8	c	
15	MH	e	17 37 20.7	c	
	M	e	18.5	c	
	SH	e(P)	36 52.0	c	
		e	37 14.5	d	
15	B	eP	17 53 08		USCGS: 56½°N, 154°W, 0 = 17 47 14
		i	14.5		Near South Coast of Kodiak
		e	56 32		Pas: Magnitude 6½
	BG	iSN	57 46		Portland, Oregon: eP 17 52 15
		eE	56		eS 17 56 15
		iE	59 53		(From private station of Mr.
		e	18 00.8		William Geitz.)
			A T		
		MAXH	170 18		
	MH	iP	17 53 15.0	d	
		i	54 03.6	c	
		e	18 01.9		
	F	eP	17 53 28.0	d	
		i	36.7	d	
		eN	54 19		
		eSE	58 29		
	M	iP	52 55.0	d	
		i	53 23.9	d	
		e	57 49.2		
		e	18 00.1		
	A	ePN	17 52 41		
		eN	58 58		
	R	iP	53 09.1	c	
		i	56 50.3	c	
		iEZ	57 57.7		
	C	eP	52 17		
		eSN	56 28		
	SH	iP	52 49.2	d	
		e	56.5		
		e	56 27.5		
		e	46.5		
		eN	57.2		
		eE	57 21.5		
15	F	e(P)	18 00 10.5	c	Aftershock?
	M	iP	17 59 58.9	c	
	R	i	18 00 04.0	c	
	SH	eP	17 59 55.0	c	
		e(S)NE	18 03 42.0		
16	M	e	07 04 58.6	d	
		i	05 20.6		
	SH	eP	04 57.4	d	
16	B	eP	10 04 59.5		USCGS: 31°N, 141°E, 0 = 09 53 06
		i	05 14.8		South of Honshu, Japan
	BG	eSNEZ	14 41.0		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
June 16		eSSE	19 45		
		eQN	25.5		
		eE	26.2		
	MH	iP	05 05.0	c	
		i	17.0	d	
	F	eP	14.5		
	M	eP	04 52.1	d	
		i	58.3	c	
		i	05 09.1	d	
		e	08 12.0	c	
	R	eP	05 03.4		
		i	09.2	d	
	SH	eP	04 49.0		
		i	55.2	d	
16	B	iP	16 14 10.7	d	USCGS: About 250 miles South of Tonga Islands. h = 100
		ipP	38.6	c	0 = 16 01 57
	BG	eSNE	24 14.5		
	PA	iP	14 10	d	
		ipP	38	d	
	F	eP	13.3	c	
		ipP	41.9	d	
		e	17 16.5		
	M	eP	14 19.4	c	
		ipP	47.8	d	
		i	15 03.3	c	
	R	iP	14 23.3	c	
	SH	eP	18.0	c	
		ipP	46.7	d	
16	B	eP	19 54 38.7	c	USCGS: 55½°N, 160°E, h = 60
		ipP	48.6	c	0 = 19 48 25. Near South Coast of
	BG	eSE	59 40.5		Alaska Peninsula
		eEZ	20 02 59		Pas: Magnitude 6¼ - 6½
		eN	03 15		
	PA	eP	19 54 42	d	
		ipP	52	c	
	R	i	50	c	
	SH	eP	18.0	c	
		ipP	30.4	c	
		e	45.5	d	
		e	57 27.2	d	
		eSE	59 09.0		
16	M	e	20 01 06.9	d	
	SH	eP	05.3	c	
		e(S)E	04 57.0		
17	BG	eN	01 52 31		USCGS: 52°N, 171°W, 0 = 01 36 31
		eN	54 51		Fox Islands, Aleutian Islands
		eN	56 36		
	MH	iP	43 45.2	d	
	F	e(P)	44 04.5	d	
	M	eP	43 30.5	c	
		e	44 15.6		
	R	ePNEZ	43 46.3		
	SH	eP	26.5	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
June 17	B	eP	03 25 14.5	d	
	MH	eP	14.6	c	
	M	eP	17.9	c	
		i	26 14.9	d	
17	B	iP	14 19 41.4	c	USCGS: 15½°S, 75°W, h = 60
		e	54.5	c	0 = 14 08 33. Near Coast of
	MH	iP	37.9	c	Southern Peru
		i	20 02.3	d	
	F	eP	19 26.5	c	
		e	37.5	c	
		e	20 05.0	c	
	M	eP	19 47.7	c	
		i	20 14.0	d	
	R	eP	19 39.9	c	
	SH	eP	50.5	c	
18	M	iP	06 57 25.1	d	
		i	32.5	c	
18	B	iP	10 17 44.0	d	USCGS: 6½°S, 155°E, 0 = 10 04 48
		i	19 57.5	c	Solomon Islands
	BG	eNE	21 46.0		
		e(S)E	28 38		
		eN	29 28		
		eN	33.0		
		eE	35.0		
	MH	eP	17 46.7	d	
		i	18 41.3	c	
	F	iP	17 52.1	d	
		e	18 03.6	c	
	M	eP	17 47.1	c	
		i	56.4	d	
		e	19 21.6	d	
	R	eP	17 51.5		
	SH	iP	45.9	d	
		e	56.0	d	
18	MH	e	18 37 58.5	c	
		e	39 08.9	c	
	SH	iP	38 11.1	c	
19	MH	eP	05 14 00.2	c	USCGS: 56½°N, 114°E, 0 = 05 02 15
	M	iP	13 44.0	c	Northeast of Lake Baikal, USSR
		i	51.5	d	
	SH	iP	39.9	d	
19	SH	eP	18 43 28.7	c	
19	M	e	19 48 33.7	c	
		i	47.3	c	
		e	49 17.4	d	
19	B	e	22 38 22		USCGS: 26°N, 110°W, 0 = 22 34 30
	BG	eQNE	42.7		Gulf of California

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
June 19		eRNEZ	43.9		
	MH	eP	38 04.2	d	
		i	15.7		
	F	eP	37 52.5		
	M	eP	38 37.8	d	
		e	54.7	d	
	R	iPEZ	18.6	c	
	SH	eP	42.0		
20	MH	iP	11 04 26.5	d	
	M	eP	29.7	d	
		e	39.4	c	
		e	55.9	c	
20	M	eP	13 37 00.4	c	
20	B	iP	23 19 53.3		Pas: 35°22'N, 118°30'W, 0 = 23 18 52
		i	20 33.5		USCGS: Felt
	MH	iP	19 42.5	c	
	F	ePNEZ	21.7		
		iNEZ	24.7	d	
		iSNEZ	43.7	d	
	M	eE	20 12.5		
	R	e	02.0	c	
	SH	eP	31.5		
21	B	eP	10 08 35.8	c	
	MH	iP	39.3	d	
	R	eP	44.0	d	
	SH	iP	31.5	c	
		e	39.5	d	
21	MH	iP	16 14 50.8	d	
		i	15 01.1	d	
23	SH	e	00 19 40.5	d	
23	M	e	06 49 50.3	d	
23	B	eP	14 03 11.5	d	USCGS: 51°N, 157½°E, 0 = 13 53 28
		i	24.6		Near South Coast of Kamchatka
		e	37.5		Pas: Magnitude 6½
	BG	eSE	10 57.0		
		eNZ	11 00		
		eN	24		
		eQN	17 11		
		eREZ	19.9		
		eN	20.1		
	MH	eP	03 16.3	c	
		i	20.1	c	
		i	38.9	d	
		e	58.9	c	
	F	eP	26.5	c	
		i	30.2	c	
	M	eP	01.9	c	
		i	15.9	c	
	R	eP	14.0	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
June 23		i	27.9	c	
	SH	iPEZ	02 57.0	c	
		iNEZ	03 11.2	c	
		e	05 54.6		
		eSE	10 30.5	c	
23	MH	e	21 20 16.4	c	USCGS: Solomon Islands. 0 = 21 07 10
	F	i	14.8	d	
	SH	eP	07	c	
		e	27 54		
24	MH	iP	04 30 37.4	d	
		i	56.1	c	
24	B	iP	21 29 00.0	d	USCGS: 45°N, 151°E, 0 = 21 18 30
		e	34.5		Kurile Islands
	MH	iP	04.7	d	
		i	21.6	c	
		i	26.8	d	
		e	42.5	c	
	F	iP	14.3	d	
	M	iP	28 52.3	d	
		i	57.8	c	
	SH	iP	48.0	d	
25	M	eP	07 20 19.9	d	USCGS: 7°S, 155°E, 0 = 07 07 19
		e	32.1	d	Solomon Islands
25	B	eP	08 33 02.8		USCGS: New Hebrides Islands Region
	MH	eP	13.8	d	0 = 08 20 42
		i	15.5	c	
		i	22.2	c	
		i	27.0	c	
	F	eP	18.6	c	
	M	iP	21.0	c	
		i	30.3	c	
	R	iP	26.1	c	
	SH	eP	19.6	d	
		iNZ	21.1	c	
25	BG	eP	10 59 53	c	USCGS: 8½°S, 123½°E, 0 = 10 44 57
		iEZ	11 04 34		Foreshock at 10 43 56
		eE	13.6		Off East Coast of Flores Island
		eNE	14 16		Pas: Magnitude 6 3/4 - 7
	MH	e(P)	00 01.7	d	
		e(P'')	02 40.9	d	
		i(PP)	03 44.5	d	
		i	04 41.5	c	
	F	e(P'')	02 42	c	
		e	03 29.5	c	
		e	44.5	d	
		e	04 19.5	c	
		e	45.8	c	
	M	e(P'')	02 37.6	d	
		e(PP)	03 50.9	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
June 25		e	04 38.2	c	
	R	eE	03 05.4		
		e	07.9	c	
		e	04 45.1	c	
	C	e(P'')	02 52		
		e	13 39		
	SH	e	10 59 27.6		
		e	50.1		
		e	11 02 36.6		
		i	03 18.1		
		e	41.6		
		eNEZ	04 31		
		eE	14 13.6		
		eN	19 57		
25	MH	e	11 14 20.1	d	May be part of Preceding Shocks
		e	25.0	d	
		e	16 36.9	d	
	M	e	13 23.7	c	
		e	14 20.4	c	
		e	17 08		
25	SH	ePEZ	12 08 08.2	c	
25	B	iP	18 08 36.2	d	USCGS: 22½°S, 68½°W, h = 100
	MH	eP	32.6	d	0 = 17 56 40. Northern Chile.
		e	46.4	c	Felt
		i	09 07.1	c	
	F	eE	08 30		
	M	eP	41.2	d	
		i	58.0	c	
		i	09 26.5	c	
	R	eP	08 33.5		
		iNEZ	35.5		
	C	eP	09 00		
	SH	ePNEZ	08 44.7	d	
		i	51.2		
		iNEZ	09 12.7	d	
25	MH	iP	21 58 56.5	c	USCGS: 10½°N, 61°W, h = 100
		i	59 10.0	d	0 = 21 48 55. Trinidad
		i	27.2	d	
		i	42.4	d	
		e	22 00 17.0	c	
	M	iP	21 58 59.0	c	
		i	59 02.6	d	
		e	26.6	c	
	SH	eP	02.5		
26	SH	eP	03 43 47.4	d	
		e	58.2	c	
26	BG	e	06 01 43		USCGS: 8°S, 124°E, 0 = 05 42 50
		e(PP)	02 27		Flores Island Region

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
June 26		eNZ	06 00		
		eE	08 14		
		eNEZ	09 36		
		eN	10 13		
		eN	39		
		eEZ	53		
		e	13 24		
		eNE	18 24		
		eE	25 06		
		eN	30 04		
	MH	iP'	01 34.4	d	
		i	02 05.8	c	
		e(PP)	33.0	c	
		e(PS)	12 19.6		
	F	eP'	01 45.3		
	M	eP'	31.9	d	
		e	48.6	d	
		e(PP)	02 27.9		
		e	03 06.4	d	
		e(PS)	12 20		
	R	eP'	01 35.9	d	
	SH	e	36.3	d	
		e	02 15.4		
		e	27.7		
		e	03 24.8		
		eN	14.3		
		e	19 53		
26	B	eP	07 46 32.5		
	MH	iP	33.7	c	
		i	50 29.6	c	
	F	ePNZ	46 37.2		
	M	eP	40.8	d	
		e	47 00.2	c	
	SH	eP	46 40	d	
		e	48 40.6		
		e	52.5		
26	M	i	13 41 02.2	c	
	SH	ePNZ	01.0	d	
		e	42 14.3		
26	SH	eP	21 10 39.8		
26	BG	eQE	23 41.2		
		eN	42.4		
		e(R)	42.8		
	F	eNZ	39 59.3		
	R	iN	41 23.1		
		e	25.2	c	
27	BG	eSKSN	08 04 08		USCGS: 24°S, 178½°E, h = 550
		eEZ	11		0 = 07 43 01. South of
		e(sS)N	08 10		Fiji Islands
	MH	iP	07 54 32	d	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
June 27	F	iP	36.4		
	M	iP	41.4	c	
	R	eP	43.8	d	
	SH	ePNEZ	39.4	d	
		e(pP)	56 46		
		eE	08 01.8		
		eSKSN	04 23.7		
		e	05 18.5		
27	BG	eREZ	10 29.4		USCGS: 4½°S, 153°E, 0 = 09 47 58
	MH	eP	00 44	c	Solomon Islands
		e	01 01		
	M	e	00 58.2	c	
	SH	eP	46.5		
		e	56.8	d	
		e	01 54.1	d	
		e(PP)	04 29		
27	SH	ePEZ	11 00 24.5	d	
28	BG	eSNE	05 58 38		USCGS: 31°N, 141½°E, 0 = 05 37 05
		eQN	06 09.7		South of Honshu, Japan
		eR	12.4		
	M	e	05 48 53.5	d	
		e	49 40.1	c	
	SH	eP	48 46	d	
		e	58.9		
28	B	iP	12 46 27.8		40°45'N, 127°26'W, 0 = 12 45 13
	MH	iPNEZ	37.7	d	Magnitude 4.6. 150 Miles off
		i	53.3		Coast of Northern California
		eSNE	47 40.9		
	M	eP	46 21.0	c	
		i(S)	47 05.0		
		eNE	13		
	A	ePE	45 54.1		
		eSNE	46 23.5		
	SH	ePEZ	13.0	c	
		iNZ	14.7		
		i	24.1	d	
		iSNEZ	57.8	c	
28	SH	eP	14 54 16.3	d	USCGS: Southern Honshu, Japan
		e	24.3	c	0 = 14 42 34
		e	55 15.8		
29	BG	eSNE	03 43 29		USCGS: 7°N, 82½°W, 0 = 03 27 43
		eE	47 10		Off Coast of Panama
		eE	49.6		
		eN	50.1		
	MH	e(P)	36 19.8	c	
		e	32.0	d	
	M	e(P)	36.6	d	
		e	56.6	c	
29	M	e(P)	12 01 00.5	c	
	SH	eP	00 49.6	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
June 29		e	58.6		
29	SH	eP	13 04 18	d	
		eE	11.0		
29	SH	eP	13 37 04.5	c	
29	SH	eP	16 30 06.1	c	
30	MH	eP	01 25 57.4	c	USCGS: 11½°S, 75½°W, 0 = 01 15 10
	M	eP	26 09.7	c	Central Peru
		e	29.6	c	
	C	eP	26 32		
	SH	eP	11.5	d	
		i	12.5	c	
30	MH	eP	03 14 22.9	c	USCGS: Marianas Islands Region
		i	40.4	d	0 = 03 02 05
	M	iP	21.8	c	
	SH	iP	13.4	c	
30	MH	iP	07 47 15.6	c	USCGS: 54°N, 160°E, h = 60
		ipP	29.7	c	0 = 07 37 53
	F	iP	26.7	c	Near East Coast of Kamchatka
		ipP	40.7	c	
	M	iP	00.5	c	
		i(pP)	16.1	d	
		i	33.2	d	
	R	ePNEZ	12.3	c	
	SH	iP	46 55.6	c	
		i	47 32.6		
		e	51 57.6		
30	MH	eP	13 33 39.0	c	USCGS: 8°S, 76½°W, 0 = 13 23 14
	M	e?	31 06.1	c	Northern Peru
		eP	33 49.6	d	
		e	34 00.1	c	
	SH	e?	30 57		
		e	31 34		
30	SH	eP	22 51 48.9	c	
		e	59.7	d	

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Earthqakes and the Registration of Earthquakes

From July 1, 1953, to September 30, 1953

BY
DON TOCHER

UNIVERSITY OF CALIFORNIA PRESS
BERKELEY AND LOS ANGELES
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Perry Byerly, Director

EARTHQUAKES IN NORTHERN CALIFORNIA, NEVADA, AND OREGON

and

REGISTRATION OF EARTHQUAKES AT: BERKELEY, MOUNT HAMILTON, PALO ALTO, SAN FRANCISCO, FERNDALE, FRESNO, MINERAL, ARCATA, CORVALLIS, SHASTA AND RENO

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EARTHQUAKES IN NORTHERN CALIFORNIA, NEVADA, AND OREGON

The list following this page gives the latitude and longitude of epicenters for earthquakes well enough recorded to permit such a determination.

Map No. refers to the map immediately following the epicenter list.

Date and Origin Time are given in Greenwich Civil Time. Subtract eight (8) hours to get local (Pacific Standard) time. This will change the date for some of the earthquakes.

M refers to the Richter Magnitude, determined from trace amplitudes of the Wood-Anderson Seismographs, and using the nomogram given by Nordquist in the "Bulletin of the Seismological Society of America," 32:164.

Q represents the excellence with which the epicenter has been located, "a" indicating excellent, "b" good, "c" fair, and "d" poor.

Under Remarks will be found a short descriptive location of the epicenter, as well as information on small foreshocks and aftershocks, and the intensity of shocks which were reported felt. Reports on felt earthquakes are chiefly those collected by the United States Coast and Geodetic Survey, which publishes a more complete summary of such reports in "Abstracts of Earthquake Reports for the Pacific Coast and the Western Mountain Region." Intensities are given by Roman numerals when sufficient information on the effects of the shock is available. Criteria of the Modified Mercalli Scale which are used to rate the intensity are:

II	Felt by a few people only. Duration or direction not appreciable.
III	Duration or direction appreciable.
IV	Rattling of doors and windows; swinging of suspended objects.
V	Disturbance of movable objects; plaster cracked.
VI	Overthrow of movable objects; cracking of chimneys and other brickwork.
VII	Fall of some chimneys; some damage to buildings.
VIII	General fall of chimneys; great damage to poorly built structures.

EARTHQUAKES IN NORTHERN CALIFORNIA, NEVADA, AND OREGON

Map No.	Date 1953	Origin Time (G.C.T.)	M	Latitude North	Longitude West	Q	Remarks
1	July 1	09-56-08	2.4	40.5°	123.6°	d	35 miles east of Ferndale.
2	3	22-00-45	3.8	40.4°	126.0°	d	90 miles west of Ferndale.
3	6	19-38-51	3.8	38.6°	118.1°	d	East of Hawthorne, Nevada.
4	8	03-01-15	3.5	42.4°	119.1°	d	Southeast Oregon.
5	8	03-37-37	3.1	40.6°	124.3°	d	4 miles west of Ferndale.
6	11	11-01-47	1.5	37° 20'	121° 40'	b	Near Mt. Hamilton.
7	14	01-48-12	2.8	36.6°	121.2°	d	15 miles SE of Hollister.
8	14	09-28-10	2.6	36° 55'	121° 29'	c	6 miles NW of Hollister
9	15	16-00-28	2.9	38° 39'	120° 10'	c	20 miles west of Markleeville.
10	17	07-28-34	3.9	40° 14'	124° 30'	c	27 miles SSW of Ferndale.
11	24	20-55-51	2.5	37° 12'	122° 12'	b	15 miles south of Palo Alto. Blast?
12	25	16-13-58	3.8	37° 07'	121° 46'	b	15 miles SSE of San Jose. Felt as light shock in San Francisco Bay area.
13	28	03-27-40	2.4	36° 48'	121° 18'	c	7 miles SE of Hollister
14	28	15-54-32	2	37° 17'	121° 37'	b	Near Mt. Hamilton.
15	29	10-34-06	3.3	40.6°	125.1°	d	45 miles west of Ferndale.
16	30	23-32-23	2.5	38.8°	120.0°	d	12 miles NE of Markleeville.
17	Aug. 1	17-19-13	3.0	40° 36'	121° 26'	b	19 miles NE of Mineral.
18	1	20-48-16	3.3	40.3°	120.0°	d	35 miles ESE of Susanville.
19	4	14-23-24	3.3	40° 29'	125° 11'	c	50 miles west of Ferndale.
20	6	00-09-33	1.6	37° 18'	121° 41'	b	Near Mt. Hamilton.
21	6	21-33-25	1.3	38° 12'	122° 10'	c	25 miles north of Berkeley.
22	7	00-22-48	3.1	40.6°	124.0°	d	10 miles east of Ferndale.
23	7	05-16-20	3.1	39° 59'	120° 01'	c	31 miles NNW of Reno.
24	7	23-51-34	3.5	40.7°	123.8°	d	20 miles SE of Arcata.

Map No.	Date 1953	Origin Time (G.C.T.)	M	Latitude North	Longitude West	Q	Remarks
25	Aug. 10	03-04-27	3.1	36° 41'	121° 21'	b	11 miles south of Hollister.
26	10	23-35-56	1.5	38° 03'	122° 28'	a	17 miles north of San Francisco.
27	14	01-40-06	2.9	36.3°	120.3°	d	8 miles north of Coalinga.
28	14	09-22-50	2.3	36.5°	121.2°	d	20 miles north of King City.
29	15	04-15-41	3.0	40° 28'	124° 06'	b	11 miles SE of Ferndale. Press reported a light shock jarred the Ferndale area.
30	15	04-54-49	3.3	40° 20'	124° 22'	c	17 miles south of Ferndale.
31	16	23-07-23	2.2	36° 58'	122° 15'	a	11 miles west of Santa Cruz.
32	20	01-39-03	2.7	40.8°	122.1°	d	NE of Shasta.
32	20	01-48-09	3.2	40.8°	122.1°	d	NE of Shasta.
33	20	05-37-45	3.2	39° 40'	119° 40'	c	12 miles NE of Reno.
34	21	10-28-00	2.1	38.3°	122.6°	d	SE of Santa Rosa.
35	22	11-31-28	2.7	39° 13'	120° 13'	b	SW of Truckee.
36	23	12-21-58	3.3	40° 29'	121° 43'	b	10 miles NW of Mineral. V at Mineral. Awakened some people at Manzanita Lake.
37	24	10-42-56	3.5	39° 15'	120° 18'	b	8 miles SW of Truckee.
38	26	00-00-10	2.0	37° 59'	122° 26'	a	14 miles north of San Francisco. Tiny aftershock at 0035.
39	28	07-00-29	2.1	38° 42'	122° 04'	a	16 miles SE of Berkeley.
40	30	04-16-47	2.6	40.8°	121.6°	d	SE of Burney.
41	Sept. 1	04-50-52	2.8	36° 47'	121° 26'	c	Near Hollister.
42	1	19-17-54	2.2	37° 15'	122° 13'	b	11 miles south of Palo Alto. Blast?
43	2	09-41-20	3.0	35.9°	120.8°	d	30 miles SE of King City.
44	4	03-54-25	3.5	35° 54'	120° 19'	c	15 miles south of Coalinga. IV at Creston and Paso Robles.
45	5	17-28-00	2.2	37° 31'	121° 48'	a	10 miles south of Livermore.
46	6	04-38-21	2.4	36° 45'	121° 13'	c	Southeast of Hollister.
47	9	04-54-53	2.2	37° 25'	121° 37'	b	North of Mt. Hamilton.

Map No.	Date 1953	Origin Time (G.C.T.)	M	Latitude North	Longitude West	Q	Remarks
48	Sept. 9	18-04-30	2.3	37° 12'	122° 19'	c	16 miles SSW of Palo Alto.
49	11	17-07-58	1.9	37° 36'	121° 52'	c	SW of Livermore.
50	12	18-54-33	4.6	40.6°	126.7°	d	115 miles west of Ferndale.
51	13	20-57-08	2.1	37° 13'	121° 55'	c	South of San Jose.
52	13	22-28-26	3.3	38.7°	119.7°	d	Near Markleeville.
53	15	01-24-33	2.7	36° 35'	121° 12'	c	15 miles west of Llanada. Aftershock of magnitude 2.3 at 02-23-00.
54	15	09-40-41	3.6	40° 16'	124° 18'	c	20 miles south of Ferndale. III at Westport (Mendocino County).
54	18	03-12-19	3.0	40.3°	124.3°	d	25 miles south of Ferndale.
55	19	22-59-28	1.9	38° 03'	122° 26'	a	15 miles NW of Berkeley.
56	20	06-14-57	2.0	37.3°	121.5°	d	Near Mt. Hamilton.
57	22	07-30-27	2.7	37° 01'	121° 33'	c	14 miles NW of Hollister.
58	22	07-36-58	3.8	36.4°	121.2°	d	North of King City.
59	22	20-46-20	3.4	39° 12'	120° 08'	c	South of Truckee.
60	23	06-21-51	3.5	35.7°	121.1°	d	Near San Simeon. V at Bryson.
61	26	03-34-29	5.3	39° 32'	119° 59'	b	8 miles west of Reno, Nevada. Sharp shock felt over approximately 12,000 square miles of western Nevada and northeastern California. Minor damage at Reno, Nevada. Maximum intensity VI at Olinghouse Canyon, Reno, and Vista, Nevada, and at Floriston, California. V at Cinnabar Hill Ranch, Fernley, Sparks, and Virginia City, Nevada, and at Baxter, Chilcoot, and La Porte, California
61	26	03-43-19	2.7				Aftershock.
61	26	04-16-33	3.0				Aftershock.
61	26	04-17-20	3.0				Aftershock.
61	26	04-37-54	2.8				Aftershock.
61	26	05-04-00	3.4				Aftershock.

Map No.	Date 1953	Origin Time (G.C.T.)	M	Latitude North	Longitude West	Q	Remarks
62	26	17-16-18	2.5	36° 42'	121° 45'	c	9 miles NE of Monterey.
63	28	22-52-45	2.7	36.6°	121.2°	d	15 miles west of Llanada.
61	29	10-16-43	3.1				Aftershock of September 26 at 03-34.

THE REGISTRATION OF EARTHQUAKES

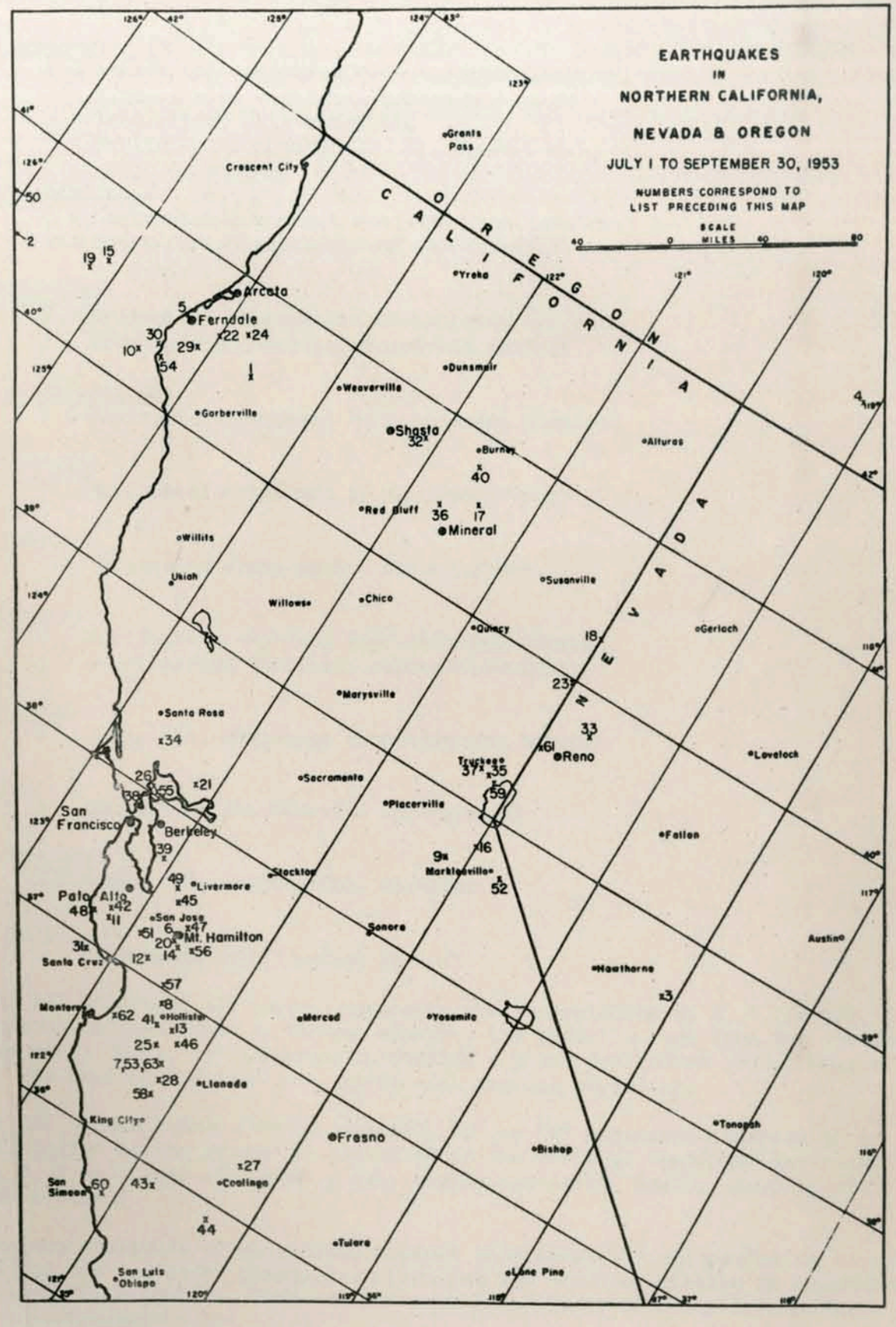
at

BERKELEY, MOUNT HAMILTON, PALO ALTO, SAN FRANCISCO, FERNDALE
FRESNO, MINERAL, ARCATA, RENO, CORVALLIS AND SHASTA

All large regional shocks and all distant earthquakes are tabulated on the following pages. Earthquakes in the Northern California, Nevada and Oregon region are included only if of magnitude 5 or greater, or if of special interest. Times of distant shocks are not normally included for Palo Alto, San Francisco, or Ferndale except in cases of defective records at Mount Hamilton, Berkeley, or Arcata, respectively. Communications regarding readings of seismograms should be addressed to Seismographic Station, University of California, Berkeley 4, California. Readings from the Corvallis Station are sent to the University of California by the courtesy of Dr. H. R. Vinyard, Oregon State College.

Station	North Latitude	West Longitude	Altitude Meters	Feet	Station Symbol	Present Auspices and Date Established
Berkeley	37° 52.3'	122° 15.6'	81	266	B, BG*	University of California - 1887
Mt. Hamilton	37° 20.4'	121° 38.6'	1281.7	4205	MH	Lick Observatory - 1887
Palo Alto	37° 25.1'	122° 10.8'	83	272	PA	Stanford University - 1927
San Francisco	37° 46.4'	122° 27.2'	100	328	SF	University of San Francisco - 1931
Ferndale	40° 34'	124° 16'	17	55	Fe	City of Ferndale - 1933
Fresno	36° 46.1'	119° 47.8'	88.4	290	F	Fresno State College - 1935
Mineral	40° 21'	121° 35'	1495	4906	M	National Park Service Lassen Volcanic National Park - 1938
Arcata	40° 52.6'	124° 04.5'	60	195	A	Humboldt State College - 1948
Reno	39° 32.3'	119° 48.8'	1386	4546	R	University of Nevada - 1948
Corvallis	44° 35.1'	123° 18.2'	133	405	C	Oregon State College - 1950
Shasta	40° 41.7'	122° 23.3'	312.4	1025	SH	Bureau of Reclamation - 1942

*B denotes readings of short period instruments, BG of long period instruments (12 sec. Galitzin-Wilip).



STATION EQUIPMENT

Berkeley:
2 - Horizontal-component Wood-Anderson torsion.
1 - Short-period vertical-component Benioff.
3 - Long-period Galitzin-Wilip.
2 - Horizontal-component 100 kg. Bosch-Omori.

Mt. Hamilton:
2 - Horizontal-component Wood-Anderson torsion.
1 - Short-period vertical-component Benioff.

Palo Alto:
2 - Horizontal-component Wood-Anderson torsion.
1 - Short-period vertical-component Benioff.

San Francisco:
2 - Horizontal-component Wood-Anderson torsion.

Ferndale:
2 - Horizontal-component 25 kg. Bosch-Omori.

Fresno:
3 - Components short-period Sprengnether.

Mineral:
2 - Horizontal-component Wood-Anderson torsion.
1 - Short-period vertical-component Benioff.

Arcata:
2 - Horizontal-component Wood-Anderson torsion.

Reno:
3 - Components short-period Sprengnether.

Corvallis:
3 - Components short-period Slichter.

Shasta:
3 - Components short-period Benioff.

For all stations, the three components are indicated by N, E, Z, in the "phase" column. When no letter appears, the phase is read from the vertical component only. "i" (impetus) preceding a phase designates sudden beginning of the motion; "e" (emersio) designates gradual beginning.

In the column headed "Ground Motion", "c" or "d" indicates compression or dilitation of the ground as indicated by the vertical component instrument. N, S, E or W indicates that ground motion was north, south, east, or west, respectively.

Maximum amplitude of earth displacement in microns (A) and period in seconds (T) of the indicated phases are given for the Berkeley station in the column headed "Time (GCT)". Combined horizontal amplitude of N and E components are designated by H.

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
July 1	B	eP	03 09 14.0		USCGS: 50½°N, 157°E, h = 60
		ipP	29.3	c	0 = 02 59 35
	MH	eP	20.3	c	Near South Coast of Kamchatka
		ipP	34.7	c	Pas: Magnitude 6-3/4.
		i	10 18.7	d	
	F	iPEZ	09 32.4	c	
		ipPEZ	45.1	c	
	M	iP	06.3	c	
		ipP	20.5	c	
		i	23.1	d	
		i	41.5	d	
	R	eP	18.0	c	
		iSNEZ	17 13		
	SH	iPNEZ	09 01.6	c	
		ipPEZ	15.6		
		i	10 04.1		
		eN	11 24.5		
		e	12 45.1		
		eNZ	13 57.5		
		eSNEZ	16 40.1		
July 1	MH	e	06 01 29.7	d	
		e	02 00.5	d	
	M	eP	01 12.5	c	
		e	35.3	d	
	R	e	24.2	c	
	SH	eP	07.7	c	
		e	29.7		
July 2	B	iP	07 09 11.8	c	USCGS: 18½°S, 169°E, h = 200
		ipP	10 12.5	c	0 = 06 56 51
		ePP	12 34.5	d	New Hebrides Islands.
		eSKSNE	19 12		Pas: Magnitude 7-3/4.
		eNE	20 54		
		eP'P'	35 25.8		
	MH	iPNEZ	09 13.0	c	
		i	15.3	c	
		ipP	10 15.2	c	
		iPP	12 36.2	d	
		eSKSN	19 14.0		
		e	16.3		
		eE	21.0		
		eP'P'	35 23.7		
	F	iP	09 17.7	c	
		iNE	19.0		
		iNE	22.8		
		iN	10 03.2		
		iE	28.5		
		iN	44.0		
		i	11 36.4	d	
		iN	12 00.5		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
July 2		iE	18 24.0		
		iE	20 12.8		
	M	iP	09 18.9	c	
		eNE	20.0		
		i	21.5	c	
		i	10 33.1	c	
		iPP	12 49.8	d	
		eN	21 13.0		
		eP'P'	35 13.9		
		e	36 22.2		
	A	ePNE	09 15.0		
		eSKSNE	19 16.9		
	R	iP	09 24.4	c	
		i	52.2	d	
		iPP	12 54.8		
		eSKSE	19 25.8		
		eN	21.4		
	C	iP	09 25		
		eSKSN	19 30		
		e	39 38		
	SH	iPNEZ	09 17.4	c	
		iE	26.7		
		iNZ	29.7		
		i	49.4		
		ipPN	10 18.7		
		i	22.7		
		eE	51		
		iPPEZ	12 46.7	d	
		eSKSNE	19 19.2		
		e(S)	33.7		
		eP'P'	35 12	c	
		e	20	d	
		e	36 19.4	c	
		e	55 30.7	c	P'P'P' ?
July 2	SH	eP	08 59 26.6		USCGS: 42°N, 144½°E, 0 = 08 48 26
		e	40.7		Near East Coast of Hokkaido, Japan.
July 2	MH	iP	13 42 33.2	c	USCGS: 15°S, 75°W, h = 60
		e	49.7	d	0 = 13 31 26
	M	e	44.1	c	Near Coast of Southern Peru.
		e	43 11.1		
	R	e	42 29.1	d	
	SH	eP	39.3		
		e	45.7		
		e	49.5		
July 2	MH	eP	22 00 37.0	c	
	SH	eP	41.5	d	
		e	03 39.0		
July 2	SH	eP	22 41 12.0		USCGS: Ryukyu Islands Region
					0 = 22 28 36

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
July 3	MH	eP	05 44 16.7	c	
	M	eP	13.4	c	
		e	45 04.7	d	
	SH	eP	44 09.4	c	
		i	10.2	d	
		e	56.7		
July 3	M	e	16 39 37.7		
	SH	eP	29	c	
		e	42	d	
		e	49.5	c	
July 3	B	eP	18 48 16.9		
		i	48.6		
	MH	iP	17.3	c	
		i	22.8	c	
		i	43.3	c	
		i	49 21.6	d	
	M	e	48 19.9	c	
		i	27.5	d	
		i	45.7	d	
	R	e	18.4		
		e	50 33.1	c	
	SH	eP	48 19.5	c	
		e	46.4		
July 3	SH	eP	20 30 14.0	d	
July 4	MH	e	01 52 17	e	
	M	e	53 04.5	c	
	R	e	52 32.3	c	
July 4	M	e	08 07 02.4	c	
	SH	eP	06 29	c	
		e	07 10		
July 4	M	eP	10 02 10.4	c	
July 4	M	eP	19 54 49.1	c	USCGS: Kermadec Islands
	R	e	51.7		0 = 19 41 58.
	SH	eP	48		
July 5	M	e	02 25 52.7	d	USCGS: 51°N, 178½°W, h = 100
		i	56.2	c	0 = 02 18 20
	R	eN	50.6		Andreanof Island,
		e	26 14.2	d	Aleutians. Felt: Adak.
July 5	BG	eN	08 27.4		
	MH	iP	07 05	c	
July 5	M	e	10 39 18.4	c	
July 5	M	e	11 51 47.8	c	
July 5	B	e	13 06 23.5		
		e	38.0		
	F	e	33.8		
	M	eP	22.2	d	
		e	36.3	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
July 5	R	e	30.3		
	PA	eP	23.7	c	
	SH	eE	19		
July 5	M	eP	13 14 43.1	d	USCGS: 42½°N, 157°E, 0 = 13 04 58
		e	48.7		Kurile Islands.
July 5	M	iP	14 15 40.2	c	
July 6	B	iP	22 09 02.0	c	USCGS: Southeastern New Guinea.
	BG	eLN	35.4		0 = 21 55 30.
		eN	39.9		
		eNZ	44.6		
	F	eP	09 10.5	c	
	M	eP	04.9	c	
	R	i	12.6	d	
	PA	eP	01.8	c	
	SH	ePNE	02		
		eN	29.4		
		eN	19 07.4		
July 7	F	iP'	04 26 28.3	d	USCGS: 1°N, 100°E, 0 = 04 07 33
	M	eP'	21.1	c	Sumatra.
	R	eP'NEZ	25.8	d	
	PA	eP'	24.1	c	
		e	27 35.0	c	
	SH	eP'N	26 22.5		
		eN	29.9		
		eSKSE	33 24		
July 7	F	eP	13 54 14.6		USCGS: 47½°N, 156°E, 0 = 13 44 03
	M	eP	53 50.7	c	Kurile Islands.
		i	54 06.9	c	
	R	eNE	01.5		
		e	03.9	c	
	PA	eP	02.5	c	
	SH	ePNE	53 47.4		
		eE	54 50.2		
July 7	B	eP	17 40 18.2		USCGS: 31°N, 141½°E, 0 = 17 28 25
		e	25		South of Honshu, Japan.
		eSNE	50 54		
		eN	59.7		
		eN	18 01.2		
		e	04.4		
	PA	iP	17 40 19.4	c	
	M	eP	08.6	d	
		i	21.2	d	
	R	ePN	13.5		
		eEZ	15.4	c	
	SH	ePE	11.3		
July 7	BG	eNE	21 20.4		USCGS: 24°N, 45°W, 0 = 20 46 03
	M	e	20 56 46.2	d	North Atlantic Ocean.

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
July 8	B	iP	13 12 56.0	c	USCGS: Fox Island, Aleutian Islands
	F	eP	13 13.7	c	0 = 13 06 10.
	M	iP	12 46.7	c	
		i	52.6	c	
		e	13 03.8	c	
		e	21.7	d	
	R	i	00.9	d	
	PA	eP	12 59	c	
July 9	MH	e	07 19 22	c	
	M	e	18 45.6	c	
	R	i	19 06.0	c	
	SH	ePNE	18 37.0		
		eE	22 55.5		
July 9	MH	eP	08 14 00	c	USCGS: Northern Chile, h = 100.
		e(pP)	28	d	0 = 08 02 17. Felt: Montezuma.
	M	eP	08.0	d	
		e(pP)	36.0	d	
	SH	iPNE	11.0		
		iE	18.9		
		eE	45.0		
		eN	50.5		
		eN	15 02		
July 9	M	e	09 12 44.5	c	
		e	13 18.5		
July 9	MH	iP	11 25 41	c	
	M	eP	46.5	c	
July 9	M	eP	12 44 07.7	d	
		e	23.0	d	
July 9	B	eP	21 34 29.4	d	USCGS: 30°N, 42½°W, 0 = 21 23 48
	BG	i	35 50		North Atlantic Ocean
	B	ePP	36 48.5		Pas: Magnitude 6½ - 6-3/4.
	BG	iSNE	43 18		
		eQE	54.6		
		eRZ	56.9		
	MH	iP	34 29	d	
		i	35	d	
		e	35 46	c	
		ePP	36 52		
	F	i	34 19.9	c	
	M	eP	19.8	d	
		e	48.1	d	
	R	iP	14.2	c	
	C	eP	20		
		eSE	43 03		
		eL	55 00		
	SH	ePE	34 23.6		
		eN	44.4		
		eE	37 14		
		eE	42 44.5		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
July 10	MH	e	07 31 28	d	USCGS: 16°S, 76°W, 0 = 07 20 18.
		e	45	d	off Coast of Peru.
	M	e	37.5	d	
		e	32 16.3	d	
July 10	MH	e	08 19 28	c	
	M	eP	29.5	c	
		i	37.4	c	
		e	20 33.0	c	
	SH	ePE	19 28		
		eE	41		
July 10	MH	e	12 54 24	d	
		e	55 18	d	
	M	e	00.0	d	
		e	58 53.3		
	R	e	54 40.5	c	
		e	58 08.4	c	
July 10	B	eP	15 28 33.0	d	
	MH	eP	34	d	
		e	30 04	c	
	M	i	28 33.9	c	
	SH	ePNe	32.3		
		eN	30 04.8		
		eN	31 18.3		
		e(S) E	36 02.8		
July 12	M	e	00 56 18.1	c	
July 12	BG	eP	06 56 50	d	USCGS: 2°S, 139½°E, 0 = 06 43 05
		ePP	07 00 51	d	near North Coast of New Guinea
		iSKSE	07 18		Pas: Magnitude 6½.
		eNZ	27	d	
		eEZ	15 23		
	MH	iP	06 56 54.5	c	
		e	57.9	d	
	F	eSKSE	07 07 38.2		
	M	eP	06 56 48.6	c	
		i	58.5	c	
		ePP	07 00 53.7		
	R	eP	06 56 58.0	d	
		ePP	07 00 55.5	d	
		eN	08 27.5		
	SH	ePN	06 56 43		
		eE	07 01.1		
		eSKSNE	07 25.6		
July 12	M	e	08 40 39.4	c	
		e	41 08.9	d	
July 13	M	e	06 40 34.3	d	
July 13	M	e	10 45 05.8	c	
July 13	B	iP	19 31 41.1	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
July 13	MH	eP	41.3	c	
		i	47.9	c	
		e	58.4	d	
		e	32 07.1	c	
	F	iP	31 45.4	c	
		e	32 42.8	d	
	M	eP	31 51.8	c	
		e	33 13.4	c	
	R	iP	31 56.3	c	
		e	32 11.8	c	
	SH	iPNE	31 51.0		
		eE	32 38.5		
July 13	B	iP	21 41 10.3	c	USCGS: 18°S, 169½°E, 0 = 21 28 35.
		e	47 36	d	New Hebrides Islands.
	MH	iP	41 11.5	c	
		e	42 11.5	c	
	F	iP	41 16.1	c	
		e	42 16.6	c	
	M	iP	41 18.2	c	
	R	iP	22.6	c	
	SH	ePNE	16.5		
		eNE	51		
		eE	51 58		
July 15	MH	eP	02 45 23.9	c	USCGS: 48½°N, 154½°E, h = 60,
		epP	37.3	c	0 = 02 35 25 Kurile Islands,
	M	eP	11.9	c	
		ipP	24.4	c	
	R	iPEZ	23.6	c	
	SH	eNE	19.2		
July 15	M	iP	08 39 18.1	c	
		e	34.6	c	
July 15	M	eP	10 14 52.5	c	
July 15	MH	e	22 45 32	c	USCGS: Off North Coast of Formosa.
	M	iP	28.2	d	0 = 22 32 20 Felt.
	R	e	34.3		
		eNEZ	36.1	d	
	C	eP	12		
	SH	ePNE	25.4		
		eE	38.6		
July 16	MH	e	06 48 45	c	
		e	58	c	
	M	e	49 13.0	d	
		e	35.3	d	
	R	e	07.6	d	
July 17	M	eP	13 14 33.9	c	
		e	49.0	c	
	R	i	16.1	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
July 17	MH	eP	13 40 13	c	
July 18	MH	e	03 48 47.0	d	
July 19	M	eP	13 10 48.5	d	
		e	12 18.3	d	
July 20	B	iP	08 20 14.6	c	USCGS: 21°S, 177°W, h = 100,
		i	42.1	c	0 = 08 08 20. Tonga Islands Region
		i	21 02.0		Pas: Magnitude 6½.
		e	24 01.5		
	BG	iSNE	30 17.5		
		eSSNE	35.4		
		eQNE	41.4		
	PA	iP	20 13.8	c	
		e	37.1	c	
		e	21 02.4		
	F	iP	20 18.5	c	
		i	21 05.0	c	
	M	eP	20 24.0	d	
		i	54.5	d	
		i	21 09.4	d	
		i	22 04.3	d	
	R	iPNEZ	20 29.1	c	
		i	21 16.3	d	
		eE	23 10.6		
	SH	ePE	20 23.0		
		eE	21 01.3		
		eE	29 49.0		
July 20	M	eP	08 46 59.7	d	
		e	50 14.2	c	
July 21	M	eP	06 05 46.8	c	
		e	56.1	c	
July 21	B	e(P)	08 54 07.0		Off Coast of Oregon.
	BG	eSE	55 48		
	M	eP	53 43.1	c	
	R	e	54 25.7		
	A	eN	53 51.5		
	SH	ePE	33		
July 21	M	e	12 48 23.2	d	
July 21	C	ePE	15 53 19		
July 21	B	iP	17 35 29.5	c	USCGS: 27½°N, 128°E, 0 = 17 22 39.
		i	40.5	c	Ryukyu Islands
	PA	eP	30.3		
	F	iP	35.6	d	
	R	iP	33.6	d	
	C	ePN	10		
	SH	iPE	22.5		
		iE	33.5		
		eE	39 15.0		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
July 22	B	iP	05 20 53.1	c	Compression from NW,
		epP	21 08.0	c	USCGS: 51°N, 157°E, h = 60
	BG	eN	28 31		0 = 05 11 15. Near South Coast of
		iSNE	44.0		Kamchatka. Magnitude 6 3/4.
		i	46.0		
		isSE	29 08.0		
		eE	31.6		
		eQNE	33.9		
		eN	34.8		
		e	35.1		
			A T		
		PZ	3.6 6		
		SH	11 7		
	PA	eP	05 20 56.4	c	
	F	iP	21 08.9	c	
		i	33.0	c	
	M	eP	20 45.0		
		eS	28 25.3		
	R	iP	20 56.7	c	
		i	21 11.2	c	
		eSNEZ	28 43		
		eEZ	29 23		
	C	ePN	20 20		
		eSN	27 39		
	SH	ePNE	20 40.3		
		iE	55.8		
		iE	21 01.7		
		eN	23 48.8		
		eSE	28 17		
		eN	42		
July 22	M	e	10 19 56.9	c	USCGS: 48½°N, 128°W, 0 = 10 17 39.
		e	20 06.0	d	Off Coast of Vancouver, B.C.
	C	iN	19 56		
July 22	M	e	10 38 30.5	c	Vancouver?
	C	eP	28		
July 22	B	eP	10 40 09.5		USCGS: 48½°N, 128°W, 0 = 10 37 20.
		e(S)	42 21		Off Coast of Vancouver, B.C.
		eN	42.6		
	F	iP	40 29.7		
	M	iP	39 39.0	c	
		i	57.6	c	
	A	eN	40 56.5		
		iEZ	58.4	c	
	C	iPN	39 35		
		eN	41 25		
	SH	ePNE	39 30.5		
		eNE	54		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
July 22		eE	42.5		
		eN	42.7		
July 22	M	e	13 03 08.5	c	USCGS: 42½°N, 143°E, 0 = 12 52 12.
	R	eEZ	27	c	Near South Coast of Hokkaido, Japan
July 22	M	eP	18 00 58.0	c	USCGS: North Atlantic Ocean Foreshock.
		i	01 06.6	c	0 = 17 50 22.
July 22	BG	eSNE	18 24 09		USCGS: 26½°N, 44½°W, 0 = 18 04 30
		e	50		North Atlantic Ocean.
		eNE	31 13		
		eN	36.2		
		eE	37.7		
	M	iP	15 06.6	c	
		e	29.9	c	
July 23	M	iP	05 06 58.0	c	
		i	07 03.9	c	
		i	11.4	c	
	R	e	09.8	d	
July 23	M	eP	11 02 11.8	d	USCGS: Andreanof Island, Aleutian
		i	20.5	d	Islands. h = 60, 0 = 10 54 55.
		i	28.0	c	Felt: Adak.
		e	48.4		
July 23	F	e	18 34 10.8	d	USCGS: Off Southeast Coast of
	M	e	33 39.3	d	Kamchatka. 0 = 18 24 14.
	R	eEZ	57.7	c	
		eNEZ	34 17	d	
July 24	MH	iP	11 04 01.0	d	USCGS: 11°S, 166°E, 0 = 10 51 34.
		e	11.5	d	Santa Cruz Islands.
	M	eP	04.5	c	
		i	13.8	d	
	R	e	10.1	c	
July 24	R	e	21 34 33.1	c	
July 25	MH	i	07 53 25	c	
	M	iP	17.6	d	
		i	54 01.3	c	
	SH	iP	53 14.4	d	
		e	50.9		
July 25	B	eP	17 38 56.5		
	BG	eN	59.9		
	MH	eP	38 56.5	c	
		i	39 02.5	c	
		i	09.0	c	
	F	e	00.6	d	
	M	eP	06.7	c	
		i	18.7	d	
		e	40 12.8	c	
	R	iPNZ	39 11.1	d	
	SH	ePZ	05	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
July 25		e	18		
July 26	M	e	07 56 51.5	d	
		e	56.0	d	
		e	57 05.4	d	
July 26	MH	iP	13 16 18.0	c	USCGS: Near South Coast of Peru
		i	30.0	d	h = 60, 0 = 13 05 20
		i	44.0	d	Felt: Ica.
	M	eP	28.3	c	
		e	44.2	c	
		e	17 42.3	d	
	R	iP	16 20.7	d	
	SH	eP	31.3	c	
		e	47.8	c	
July 26	B	iP	17 05 13.9	c	USCGS: 17½°N, 145°E, h - 200
		ipP	58.9		0 = 16 53 16, Marianas Islands
	BG	i	09 01.5		Pas: Magnitude 7.
		iSNEZ	15 05.5		
		e	24 54		
		e	30 57		
	MH	iP	05 17.0	c	
		ipP	06 02	c	
		i	08 56	c	
		eS	15 17		
	F	iP	05 24.5	c	
		iSNE	15 24.5		
		i	25.2	d	
	M	iP	05 12.4	c	
		i	24.0	c	
		i	06 04.1	c	
		i	08 34.7	c	
		eS	15 01.0		
	A	eE	05 04.3		
		eE	14 43		
	R	iP	05 21.7	c	
		iSNEZ	15 19		
	SH	iPEZ	05 09.4	c	
		i	16.3	c	
		epP	51.9		
		e	08 00.4	c	
		eS	14 46.1		
		eNE	55		
		eE	15 06		
July 26	M	iP	17 49 29.1	d	
		i	44.7	c	
	R	e	46.7	c	
	SH	eP	21.4	d	
		e	51 26.4		
July 26	M	e	19 00 16.7	c	
	SH	eP	12	d	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
July 26		e	24.5	c	
July 27	M	eP	09 13 22.8	d	
July 27	M	eP	15 22 34.1	c	USCGS: 34½°N, 140½°E, 0 = 15 10 58
		i	45.1	c	Near East Coast of Honshu, Japan
					Felt: Tokyo.
July 28	MH	eP	05 50 08.8	d	
		i	14.6	d	
		i	22.3	c	
		i	36.5	c	
	R	iP	10.6	c	
July 28	B	iP	07 50 52.1	d	USCGS: 21°S, 178½°W, h = 550
		i	51 28.9		0 = 07 39 41.
		e	52 44		Fiji Islands Region
		ipP	49.2		Pas: Magnitude 6¼.
	BG	eSNE	08 00 04		
		iE	31		
		e	52		
		eN	03 44		
	MH	iP	07 50 52.4	d	
		i	51 06.0	c	
		e	52 47.8		
	F	iP	50 56.5		
	R	iP	51 05.6	d	
		eNE	08 00.6		
	C	iP	07 51 12		
	SH	iPNZ	00.7	d	
		i	20.6		
		ipP	53 00		
		eS	08 00 21.6		
		eNE	24		
		eN	44.6		
July 28	MH	e	08 20 19.0	d	
		e	32.5	c	
		e	42.0	d	
	SH	e	41	c	
July 28	MH	e	09 48 33.4	c	
		e	40.1	d	
		e	55.7	d	
July 28	MH	e(P)	18 10 41	d	
	M	e(P)	17.9		
	SH	e	20.3		
		e	33.8		
July 28	MH	e	21 32 36	c	
	SH	eP	22.9		
		e	28.4		
July 29	MH	i	11 20 46.6	d	
	M	eP	59.0	d	
		i	21 05.0	c	
		e	20.6	d	
	SH	eP	20 59.5	d	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
		e	21 15.3		
July 29	MH	i	15 37 51.6	c	
July 29	BG	eP	18 22 56.0	c	USCGS: 13°N, 90½°W, 0 = 18 15 34
		eNE	24 39		Off Coast of Guatemala
		i	45.0		Pas: Magnitude 6.
		eSNZ	28 50		
		eLN	31 51		
		eScSNE	33 13		
		eRNZ	38.1		
	MH	eP	22 50.5	c	
		i	55.9	c	
		i	23 25.9	d	
		e	24 47.5	c	
	F	iPNZ	22 37.3	d	
	M	iP	23 08.1	d	
		e	24 44.1	c	
		eL	42 09		
	R	iP	22 51.9	c	
	C	iPN	23 32		
		eLN	40 25		
	SH	ePEZ	23 08	c	
		e	13		
		e	29.9		
		eNE	25 01		
		eS	29 10		
		eE	38 44		
July 29	B	iP	23 29 27.0		USCGS: 16°S, 173°W, 0 = 23 18 02
	BG	iSNEZ	38 48.5		Fiji Islands Region, Felt: Apia
		eNE	42 56		Pas: Magnitude 6½.
		eN	49.8		
		eRNEZ	50.4		
	MH	eP	29 27.8	c	
		e	43.6	c	
	F	iP	32.1		
	M	e	55.1	c	
		e	57 11		
	R	iP	29 42.0	c	
	C	ePN	44		
	SH	iPNEZ	36.7	c	
		e	45.7		
July 30	MH	eP	05 37 16.8	d	USCGS: North Central Utah
	M	eP	11.4	c	0 = 05 35 06
		i	11.9	d	
	R	iPNEZ	36 50.5	c	
July 30	BG	e	06 14 43		USCGS lists a shock in North Central
		eSNE	25 06		Utah, 0 = 06 13 00
		eN	37.2		Arrivals from Utah are nearly
	F	iP	06 14 59.1		coincident with arrivals from
	M	iP	15 06.1	d	a more distant shock. Probably
		i	18.7	c	in the Southwest Pacific Area.

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
July 30		e	16 12.5		
	R	eP	14 44.1	d	Utah?
		e(P)	15 09.3		Pacific?
	SH	eP	04.5	d	
		e	14.0		
July 30	M	eP	06 38 08.1	c	USCGS: 57°N, 160°E, 0 = 06 28 53
		e	13.3	d	Off Southeast Coast of Kamchatka.
		e	21.8	c	
July 30	MH	eP	07 02 16.1	d	
		e	47.1	d	
		e	56.5	c	
	M	eP	24.0	c	
		e	32.0	d	
	R	eP	26.2		
	SH	eP	24.0		
		e	46.0		
July 30	M	eP	08 36 54.3	c	USCGS: Near South Coast of Honshu,
	SH	eP	51.1	e	Japan. 0 = 08 24 50.
		e	56.9		
July 30	M	e	09 45 27.3	c	
July 30	B	iP	21 14 45.2	c	USCGS: 22°S, 69°W, h = 100
	MH	eP	41.6	d	0 = 21 02 54. Northern Chile
		i	42.7	c	Felt: Antofagasta.
		i	15 29.5	c	
	F	iP	14 31.5	d	
	M	eP	50.2	d	
		i	15 00.2	c	
	R	iP	14 43.2	d	
	SH	eP	52.7	d	
		e	15 02.3		
		e	25.2		
July 30	BG	eP	23 56 39.5	c	USCGS: 19°N, 145°E, h = 200
		e	57 41		0 = 23 44 44
		e	58 10		Marianas Islands.
		e	24 00 40		
		iSNEZ	06 25		
		iNE	07 44		
		eN	11 32		
		eQN	16.9		
		eREZ	21.6		
	MH	iP	23 56 43.7	c	
		i	53.8	c	
		i	57 31.5	c	
		i	43.3	d	
		i	58 24.0	c	
		i	41.6	c	
		i	59 06.5	c	
	F	iPEZ	56 50.9	c	
		eSN	24 06 47.0		
	M	iP	23 56 38.3	c	
		i	57 37.8	d	
		i	50.2	d	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
July 30	R	iP	56 46.9		
		eSNE	24 06 39.0		
	C	ePN	23 56 29		
	SH	iPNEZ	35.3	c	
		e	48.3		
		e	57 28.8		
		eSNE	24 06 17		
July 31	M	i	00 19 49.9	d	
		i	56.0	d	
July 31	B	eP	00 43 08.0		
		i	52.3	c	
July 31	M	eP	06 20 01.0	c	
	SH	eP	19 57.9		
July 31	MH	iP	10 20 50.2	d	
		e	21 02.1	d	
		e	22.2	c	
	M	eP	00.1	c	
		i	49.0	c	
July 31	MH	eP	14 23 44.9	c	
		e	56.3	d	
	M	eP	52.3	c	
		e	24 06.9	d	
July 31	B	eP	23 10 20.0	c	USCGS: Mendoza Province, Argentina 0 = 22 57 30. Felt.
	BG	e(S)E	20 52		
		eN	21 00		
	MH	e	10 15.2	d	
		i	19.2	c	
		e	31.1	d	
	F	iP	07.9	c	
	M	e	35.4	c	
	R	e(P)	18.7	d	
	SH	eP	27.5	d	
		e	49.3		
August 1	BG	eP	00 41 46.0	c	USCGS: 18½°S, 174°W, 0 = 00 30 07 Tonga Islands
		eSE	51 25		
		e	52 30		
		eQN	01 00.9		
	MH	eP	00 41 45.7	d	
	F	i	51.0	c	
	M	eP	55.4	c	
		e	43 13		
	R	eP	41 58.5	c	
	SH	eP	55.2	d	
		e	42 07.7	d	
August 1	M	eP	10 24 58.0	d	
		e	25 18.4	d	
	SH	e	24 53.0		
August 1	MH	iP	12 20 35.8	d	
	M	eP	45.9	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Aug. 1		e	58.3	d	
Aug. 1	MH	eP	16 14 45.4	c	
	M	eP	34.5	c	
	SH	eP	30.1	c	
		e	44.6	c	
Aug. 1	M	e	18 26 29.6	c	
		e	51.7	c	
Aug. 2	MH	eP	08 57 37.3	d	USCGS: 21°S, 170°E, 0 = 08 44 51 Loyalty Islands.
		e	46.6	c	
		e	58 34.6	d	
	F	eP	57 44.6		
	M	eP	45.1	c	
		e	58 15.6	d	
	R	eP	57 48.8		
Aug. 2	B	eP	17 28 10.0		USCGS: Marianas Islands. 0 = 17 15 51 Mixed with next shock.
		e	35.0		
	BG	eSNE	38 24.5		
		eNE	43 11		
		eNE	44 35		
	MH	iP	28 11	c	
		i	36	d	
	F	iP	22.2		
	M	e	10.1	c	
		e	34.0	c	
	R	iP	19.2	c	
	SH	eP	06.5	d	
		i	07.5	c	
		i	24.3		
Aug. 2	B	eP	17 32 48.0		USCGS: Loyalty Islands. 0 = 17 19 59
	MH	eP	47	d	Mixed with last shock.
	F	i	33 00.2		
	M	eP	32 57.5	c	
		e	33 26.3	d	
	R	eP	32 59.6	c	
		e	33 32.2	c	
	SH	ePEZ	32 55.2		
Aug. 2	MH	iP	21 11 27.1	c	USCGS: Bonin Islands, h = 200 0 = 20 59 29
		e	43.2	d	
		e	12 41.8	d	
	F	iP	11 35.2	c	
	M	iP	21.6	d	
		i	31.7	c	
		i	12 39.5	c	
	R	iPEZ	11 30.3	c	
	SH	ePNEZ	17.8	c	
		i	26.5		
		e	12 26.6	c	
Aug. 3	MH	eP	04 16 09.0	c	
		e	19.3	d	
	M	eP	22.8	c	
		e	30.7	d	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Aug. 3	e		42.0	d	
Aug. 3	MH	eP	14 29 00.6	c	USCGS: 17½°S, 173°W, h = 60
		e	10.5	d	0 = 14 17 35
		e	19.1	d	Tonga Islands.
	F	iPNEZ	04.6		
	M	eP	29 10.7	c	
		i	29.0	c	
		e	41.8	c	
	R	ePNEZ	15.4	d	
		e	25.0	d	
	SH	eP	09.7	c	
		i	20.5		
Aug. 4	SH	eP	07 55 34	c	
		e	56 15		
Aug. 4	B	eP	10 29 16.5		USCGS: Off Coast of Vancouver, B.C.
	BG	eSEZ	31 40		0 = 10 26 22.
	MH	iP	29 26.1	c	
		i	34.7	d	
		e	47.8	c	
	F	iP	41.3	c	
	M	iP	28 49.9	d	
		i	29 20.4	d	
		i	36.1	d	
	R	iPNEZ	10.6	c	
	SH	iPNEZ	28 41.7	d	
		e	29 33.5	c	
		e	30 08.3	d	
		e(S)N	31.0		
Aug. 4	MH	e	11 10 51.2	c	
	F	e	51.2	d	
	M	e	15.6	c	
		e	30.5	c	
	R	e	35.3	c	
	SH	ePNZ	07.0		
Aug. 4	MH	eP	11 38 32.4	d	USCGS; Off Coast of Vancouver, B.C.
	F	iP	47.3	c	0 = 11 35 27.
	M	eP	37 56.4	d	
		e	38 17.6	c	
	R	e	16.1	c	
	SH	ePNEZ	37 47.0	d	
		iN	56.6		
		eN	38 26		
Aug. 4	B	iP	14 05 33.1	c	USCGS: New Hebrides Islands, h = 200
		epP	06 20.0		0 = 13 53 16
	BG	eSNEZ	15 43		
		e(sS)NE	17 11		
	MH	eP	05 34.9	c	
		e	55.6	d	
		e	06 14.8	d	
		e(pP)	23.1	c	
		i	32.8	d	
	F	iP	05 39.3	c	
		i	06 31.9	d	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Aug. 4	R	eP	05 45.2	c	
	SH	iP	38.3	c	
		i	58.3	d	
		ipPNEZ	06 25.8	d	
		iNEZ	29.7	c	
Aug. 5	M	eP	12 04 51.3	d	
		e	05 14.8		
	R	e	04 57.4	c	
	SH	iP	49.4	c	
Aug 5	SH	eP	16 00 07	d	
Aug. 6	M	iP	06 28 01.0	c	USCGS: 57½°N, 156½°E, 0 = 06 18 32
		i	15.5	c	Near South Coast of Kamchatka.
		i	26.9	c	
	R	e	06.6	d	
	SH	eP	27 56.2	c	
		e	28 10.7	c	
		e	32.9		
Aug. 6	MH	eP	09 10 30.4	d	USCGS: 52½°N, 159½°E, 0 = 09 00 49
		i	44.3	c	Off East Coast of Kamchatka.
	M	eP	10.6	d	
		i	17.4	c	
		i	39.4	c	
		i	11 03.3	d	
	R	e	10 22.5	d	
	SH	eP	05.2	c	
		e	32.7		
		e	11 27.4		
Aug. 6	M	eP	19 08 49.7	d	USCGS: 45°N, 86°E, 0 = 18 55 42
		e	57.0	d	Sinkiang Province.
	SH	eP	47.7	c	
		e	54.8		
Aug. 6	MH	eP	20 52 22.2	d	USCGS: Off Southeast Coast of Kamchatka
		e	30.6	d	h = 60, 0 = 20 42 49.
	F	eP	40.4	c	
	M	e	14.1	c	
		e	25.3		
	SH	eP	03.8		
		e	10	c	
Aug. 7	MH	eP	06 29 21.6	d	USCGS: 54°N, 163½°W, 0 = 06 22 43
		e	37.8	d	Off Coast of Unimak Island.
		e	46.3	c	
	M	eP	08.0	c	
		e	18.7	d	
	SH	eP	28 58.3	d	
		e	29 12.8	d	
Aug. 7	M	eP	10 14 34.3	c	
Aug. 8	M	e(P)	09 44 09.5	d	USCGS: Off South Coast of Peru
Aug. 8	MH	eP	11 51 13.0	d	0 = 09 32 40
		e	28.2	c	
	M	eP	16.2	d	
		e	47.1	d	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Aug. 8	SH	eP	15	d	
		e	37.6	d	
Aug. 8	M	e	13 24 38.6	c	
		e	52.4		
Aug. 8	MH	eP	16 38 37.4	d	
		e	39 06.4	c	
	M	e	38 47.3	c	
Aug. 8	M	eP	18 48 50.4	c	USCGS: 52½°N, 159½°E, 0 = 18 39 30
		i	49 00.9	d	Off East Coast of Kamchatka.
		i	07.2	c	
	R	eP	03.4	d	
	SH	eP	48 46.7	c	
		e	57		
Aug. 9	F	e(P)	00 34 36.9	c	USCGS: Fiji Islands Region.
	M	e(P)	38.5	d	0 = 00 22 05.
		e	35 14.1	d	
	SH	eP	34 37.9		
		e	55.1		
Aug. 9	C	ePN	03 43 30		
Aug. 9	B	eP	06 05 15.0		USCGS: 22°S, 68½°W, h = 150
		epP	45.0		0 = 05 53 24. Northern Chile
		e	58.5		Felt: Calama
	MH	eP	11.3	d	Pas: Magnitude 6-1/4.
		e	21.4	d	
		ipP	42.8	c	
		i	55.3	c	
	F	i	05 02.5	c	
		e	46.3	d	
	M	eP	20.5	d	
		i	30.5	d	
		epP	50.9	c	
		i	06 05.9	d	
		i	29.0	c	
	R	e	05 03.7	d	
	SH	iP	23.7	d	
		epP	54.2	c	
		i	06 08	d	
Aug. 9	BG	ePP	07 58 40		USCGS: 38½°N, 21°E, 0 = 07 41 05
		eE	50		Near West Coast of Greece.
		e(PKS)F	08 00 41		
		eSKSNE	05 20		
		eE	06 09		
		eN	07 20		
		eSSNE	12 35		
		eE	17 37		
	MH	eP	07 54 42.7	d	
	F	e	44.1	c	
	M	e	29.1	c	
		i	36.9	c	
	R	e	30.8	d	
	SH	eP	31		
		e	37.8	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Aug. 9	M	eP	15 18 49.2	c	USCGS: Sinkiang Province, China
					0 = 15 05 29.
Aug. 9	B	eP	16 23 38.8	c	USCGS: 24°N, 141½°E, h = 100
		epP	55.5		0 = 16 11 35. Bonin Islands.
	MH	iP	42.7	c	
		ipP	24 01.5	c	
	F	iP	23 50.3	c	
	M	iP	35.7	c	
		ipP	54.9	d	
		i	24 04.0	d	
	R	iP	23 44.8	c	
	SH	iP	32.2	c	
		e	47.7		
Aug. 9	MH	iP	22 01 29.4	d	Pas: 37°30'N, 114°20'W, 0 = 22 00 00
		i(S)	02 39.1		Lincoln County, Nevada
		eE	03 05.3		Magnitude 4.5.
	F	ePNZ	01 20.2	c	
		iNE	02 19.7		
	M	iP	01 36.9	c	
		i(S)	02 53.6		
		i	03 21.4		
	R	iNZ	01 31.7		
	SH	e	02 14		
		e	03 55		
Aug. 10	F	e	01 24 57.0	c	
	M	e	25 03.0	c	
		i	13.9	c	
	R	e	06.7	c	
	SH	e(P)	01.4		
		i	11.9	d	
Aug. 10	M	eP	07 17 36.1	c	
		i	50.6	c	
		e	18 01.3	c	
		e	49.5	c	
Aug. 10	MH	iP	10 51 30.9	d	USCGS: Solomon Islands Region
		e	55.6	d	0 = 10 38 48.
		e	52 01.4	d	
	F	iP	51 36.4		
	M	eP	33.0	d	
		e	52 07.6	d	
		e	23.8	d	
	R	iP	51 39.6	d	
	SH	eP	31.2	d	
Aug. 10	MH	eP	12 09 24.2	c	USCGS: 6°N, 82½°W, 0 = 12 00 50
		e	32.8	d	Off South Coast of Panama
	M	e	34.0	d	
Aug. 11	B	eP	03 45 58.5		USCGS: 38½°N, 21°E, 0 = 03 32 24
	BG	e(PP)NZ	49 57.5		Near West Coast of Greece
		e	52 44		Pas: Magnitude 6-3/4.
		eSKSNEZ	56 40		
		e(S)NE	57 25		
		ePSNE	58 45		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Aug. 11		eE	04 08 56		
			A T		
		MAXH	32 20		
	MH	eP	03 45 59.3	d	
		i	46 05.7	d	
		e	48 45.7	d	
		ePP	49 49.9	c	
		ePKKP	04 02 37.3	c	
		e	03 10.7	c	
	F	iP	03 45 56.7	c	
		e(PP)NEZ	49 54.6	c	
	M	eP	45 45.2	c	
		i	51.5	d	
		i	46 05.7	c	
		ePP	49 33.8	d	
		e(PPP)	51 29.2	c	
		ePKKP	04 02 50.5	c	
	R	iP	03 45 46.2	c	
		ePP	49 33.5	c	
	C	eN	45 42		
		eSKSN	56 10		
	SH	eP	45 44	c	
		e	46 09		
		e	28.6		
		e	49 20.6		
		e	50 19.4	d	
		e	51 40.4	d	
		eSKSNE	56 05		
		e	57.3		
		ePKKP	04 02 47		
Aug. 11	C	eN	04 22 10		
Aug. 11	M	e	04 45 51.1	c	
Aug. 11	MH	eP	12 17 02.0	d	USCGS: Andreanof Islands, Aleutian
	M	eP	16 47.7	d	Islands, 0 = 12 09 10.
		e	17 13.9	c	
		ePcP	18 57.8		
	R	eP	17 00.0	c	
	SH	ePNE	16 42.3		
		e	52.1	d	
		e	17 36		
Aug. 11	SH	e(PP)E	12 59 56.8		USCGS: 38½°N, 21°E, 0 = 12 43 24
		eEZ	59.3	d	Greece.
		i	13 00 03	c	
Aug. 11	MH	eP	13 24 40.4	d	USCGS: Greece, 0 = 13 11 06.
	M	eP	27.6	d	
	R	eP	27.5	c	
Aug. 11	MH	eP	20 17 01.2	c	
	SH	iP	09.2	d	
		e	43.5		
Aug. 11	MH	e	20 35 11.2	d	
Aug. 12	MH	eP	06 21 36.1	d	USCGS: 38½°N, 21°E, 0 = 06 08 03
		e	22 07.5	d	Greece.

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Aug. 12	M	eP	23.5	c	
		e	43.8	c	
Aug. 12	MH	eP	06 51 11.0	d	USCGS: Fiji Islands Region, h = 600
		epP	53 10.9	d	0 = 06 40 19.
		e	15.0	d	
	M	eP	51 19.7	d	
		e	31.3	d	
		epP	53 20.9	d	
	SH	epPNZ	19	d	
		eN	41		
		e	43		
Aug. 12	B	eP	09 37 27.5		USCGS: 38½°N, 21°E, 0 = 09 23 55
	BG	e	38 13		Near West Coast of Greece.
	B	e	40 32.0		Heavy casualties and extensive
	BG	e	41 01		property damage.
		ePPNEZ	24		Pas: Magnitude 7-1/4.
		eE	44 48		
		eNZ	58		
		eSKSNE	48 04		
			A T		
		PZ	½ 4		
		SKSH	6½ 8		
		MAXH	160 20		
	MH	eP	09 37 28.6	d	
		i	34.4	d	
		i	47.3	c	
		i	38 06.1	c	
		i	40 30.3	d	
		ePP	41 25.2	c	
		e	50 15.1		
		ePKKP	54 06.0	d	
		e	06.9	c	
	F	iP	37 28.2	c	
		eSKSE	48.02		
	M	eP	37 14.9	c	
		i	35.1	c	
		i	40 17.5	d	
		eSKS	47 54.1		
		ePKKP	54 14.6		
	A	eSKSN	09 48 36.6		
		eN	10 21.4		
	R	iP	09 37 16.7		
	C	ePN	36 57		
		eN	40 35		
		eSKSN	47 37		
		eIE	10 05 09		
	SH	ePNZ	09 37 15	c	
		e	40		
		eEZ	38 44		
		e	40 29		
		e	41 35		
		eSKSN	47 47		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Aug. 12		eNE	48 35		
		e	54 13		
Aug. 12	M	e	10 21 04.2	d	
Aug. 12	MH	eP	11 47 20.9	d	USCGS: 38½°N, 21°E, 0 = 11 33 46
		e	38.3	c	Greece.
	M	eP	07.2	c	
		i	25.6	c	
	R	eP	08.8	d	
Aug. 12	B	eP	12 18 57.5		USCGS: 38°N, 21°E, 0 = 12 05 22
	MH	iP	59.0	c	Off West Coast of Greece
		e	19 11.3	c	Pas: Magnitude 6.
		e	21 28.3	c	
		e	22 17.8	d	
		e	31 40		
	F	iP	18 56.6	c	
	M	eP	45.5	c	
		i	19 01.7	c	
		i	21 15.6	d	
		e	57.8	c	
	R	iP	18 46.2	c	
	SH	ePNZ	44.4	c	
		eN	19 49.6		
		eN	29.8		
Aug. 12	MH	e	12 35 34.1	d	
		e	36 04.7	d	
Aug. 12	MH	e	13 14 15.9	c	
		e	39.4	c	
	SH	eP	15 00	d	
Aug. 12	MH	eP	13 52 56.0	c	USCGS: 38½°N, 21°E, 0 = 13 39 23
		e	53 05.1	c	Greece.
	M	eP	52 45.4	c	
		e	54.8	d	
	R	eP	46.2	d	
	SH	eP	44	c	
Aug. 12	B	eP	14 22 15		USCGS: 38°N, 21°E, 0 = 14 08 38
	MH	eP	15.1	c	Off West Coast of Greece.
		e	23 01.7	d	
		ePP	26 10.6	d	
	F	eP	22 14.7	c	
	M	eP	02.5	d	
		e	25.5	c	
	R	eP	03.6	c	
	SH	eP	02.7	d	
		eEZ	21.5		
		eE	23 39.5		
Aug. 12	MH	eP	16 22 07.8	c	USCGS: Greece, 0 = 16 08 32.
	F	eP	07.2	c	
	R	e	21 55.8	d	
	SH	eP	52.5	c	
Aug. 12	B	eP	17 05 39.0	c	USCGS: 22°S, 175°W, 0 = 16 53 42
	BG	eSN	15 24		Tonga Islands.
		eQNE	25.4		Magnitude 6½ - 6-3/4.

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Aug. 13		eRNEZ	30.5		
			A T		
		PZ	1½ 6		
		SH	6½ 10		
		MAXH	60 20		
	MH	eP	17 05 39.5	c	
		i	52.4		
		i	06 03.4	d	
		e	32 55		
		e	34.8		
	F	eP	05 43.6	d	
		eSN	15 40.8		
	M	eP	05 50.8	d	
		i	06 03.5	c	
		eL	40.0		
	R	ePEZ	05 53.6	c	
	SH	eP	48.3	c	
		iNEZ	06 02.3	c	
		eE	07 18		
Aug. 12	M	e	18 18 00.2	d	
Aug. 12	MH	e	20 38 46.1	c	
	M	e	46.0	c	
	SH	eP	34.7	d	
		e	59.5	d	
Aug. 12	MH	e	20 47 32.7	c	
		e	45.5	c	
	SH	eP	12.8	c	
		e	27.3		
Aug. 13	B	eP	01 37 38.5		
	MH	eP	36.0	c	
		i	43.3	d	
		e	38 06.7	c	
	F	eP	37 28.8	c	
	M	eP	48.0	d	
		e	56.1	d	
	R	eP	43.2	d	
	SH	eP	52.0	c	
Aug. 13	MH	eP	03 35 40.8	c	USCGS: 38½°N, 21°E, 0 = 03 22 06
		e	58.6	c	Greece.
	M	eP	30.0	d	
	R	eP	30.0	c	
	SH	eP	28.6		
Aug. 13	MH	e	04 27 10.0	d	
		e	23.6	c	
	M	e	04.1	c	
		e	22.1	c	
	SH	e(P)	01.1	c	
Aug. 13	BG	eNE	06 17 09		USCGS: 53°N, 167°W, 0 = 06 02 12
		iN	18 16		Fox Islands, Aleutian Islands.
		eEZ	19		
	MH	eP	09 05.8	c	
		e	23.7	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Aug. 13		e	37.3	c	
	M	eP	08 48.6	d	
		e	59.7	d	
		ePcP	11 31.5	d	
	R	e	09 13.8		
	SH	eP	08 43.0	d	
		i	09 10.6	c	
Aug. 13	MH	eP	07 48 29.6	d	
	M	eP	38.5	c	
Aug. 13	B	eP	09 35 55.0	c	USCGS: 21½°S, 170°E, h = 150
		i	36 02.0	c	0 = 09 23 23
		e	18.5		Loyalty Islands.
	BG	e	38 41		
		e	39 25		
		eSNE	46 17		
		e	47 24		
		eNE	51.4		
		eNE	58.9		
			A T		
		MAXH	17 20		
	MH	eP	09 35 56.7	c	
		i	36 03.6	d	
		i	35.5	d	
		i	37 38.8	c	
		e	39 50.7	d	
	F	iP	36 01.0	c	
		i	07.8	d	
	M	eP	03.2	c	
		i	09.9	d	
		i	38.8	d	
		e	39 36.1	c	
	R	eP	36 08.1		
		i	13.8	c	
		eN	46 56.3		
	SH	eP	36 02.2	c	
		iEZ	18.7		
		i	23.7		
		i	40.7		
		e	38 00.7		
		eE	43.2		
		e	39 35.0	c	
		eSE	46 22.2		
		eN	46.6		
Aug. 13	MH	e	09 53 52.8	c	
		e	54 32.0		
	M	e	53 48.5	c	
		e	56.9	c	
Aug. 13	MH	e	10 14 46.8	c	
		i	15 15.3	c	
		e	17 06.3	c	
	F	iP	14 32.3	d	
	M	eP	59.0	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Aug. 13		i	15 07.5	c	
		i	17.5	c	
	R	ePNZ	14 47.2	c	
	SH	iP	15 04.1		
		e	16 05.2		
		e	17 12.7		
Aug. 13	MH	e	10 30 25.0	c	USCGS: 38½°N, 21°E, 0 = 10 16 50
	M	e	10.2	c	Greece.
		e	24.9	d	
Aug. 13	MH	eP	21 02 17.3	d	
	SH	iP	00.1	d	
Aug. 13	MH	e	21 58 15.3	c	
Aug. 13	MH	e	22 19 14.5	d	
Aug. 14	MH	e	04 17 50.8	d	
	M	i	46.1	c	
	SH	eP	43.6	c	
		e	18 22.8	d	
Aug. 14	MH	e	07 22 31.8	d	
		e	43.9	d	
Aug. 14	MH	eP	21 58 33.1	d	
Aug. 15	MH	e	05 13 35.4	c	
		i	14 07.7	c	
		i	21.3	c	
Aug. 15	MH	iP	05 57 55.3	d	
		e	58 40.5	c	
	M	e	57 56.0	d	
Aug. 15	M	eP	13 04 35.5	c	
		e	06 34.5	c	
Aug. 16	B	iP	03 20 08.4	d	USCGS: 7°S, 74°W, h = 150
		ipP	42.5	d	0 = 03 09 50
	MH	iP	04.1	d	Central Peru - Brazil Border.
		i	16.4	c	
		ipP	38.1	c	
		e	21 56.7	d	
	F	iP	19 51.5	d	
	M	iP	20 14.0	d	
		i	22 38.2		
	R	iNEZ	20 34.3		
	SH	iPNEZ	17.7		
		ipP	48.0		
Aug. 16	M	eP	04 16 23.4	d	
		e	31.9	c	
	C	ePN	15 08		
	SH	eP	16 30.2		
		e	17 29.0		
Aug. 16	MH	iP	06 16 09.4	c	
		i	25.5	d	
	M	eP	15 38.9	d	
		e	54.1	c	
		e	16 40.4	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Aug. 17	MH	i	02 32 09.5	d	USCGS: 38½°N, 21°E, 0 = 02 12 22
	SH	e	33 26.0		Greece.
		e	34 34		
Aug. 17	MH	eP'	03 33 58.0	d	USCGS: 7½°S, 115°E, 0 = 03 14 33
		e	34 41.2	c	Java Sea.
		e	56.4	c	
	M	e	31.5	c	
		e	48.9	d	
Aug. 17	MH	eP	18 26 30.0	c	
		i	40.5	d	
	M	eP	16.5	d	
		e	26.6	d	
	R	eP	28.2		
	SH	iPNEZ	12.1	d	
		i	42.1	d	
Aug. 17	BG	eE	22 08 31		USCGS: 76½°N, 92°W, 0 = 21 47 22
		eNE	09.9		Devon Island, Canada.
	M	e	21 53 51.3	d	
		e	54 47.8		
Aug. 19	M	e	07 05 02.1	d	
Aug. 19	M	eP	08 30 52.9	d	USCGS: 14½°N, 59½°W, h = 100
		e	31 34.0	d	0 = 08 21 00. Windward Islands
Aug. 19	M	e	08 46 08.3	c	
Aug. 19	M	e	08 53 51.8	c	
		e	54 03.5	d	
		e	10.3	d	
Aug. 19	M	eP	10 23 08.2	c	
		e	18.5	c	
		e	31.1	c	
Aug. 20	MH	eP	01 30 38.2	d	
Aug. 21	MH	eP	13 40 36.4	c	USCGS: 18°N, 67°W, 0 = 13 31 30
		i	47.1	d	Near West Coast of Puerto Rico.
		i	59.1	d	
	M	eP	40.2	c	
		i	52.0	d	
		e	42 18.0		
	SH	eP	40 42.1		
		e	51.6		
		e	41 08.4		
Aug. 21	MH	eP	16 55 04.6	c	USCGS: 4°N, 76½°W, h = 150
		epP	32.0	c	0 = 16 45 57. Western Columbia
		i	35.2	c	Felt.
		i(PcP)	56 09.3	d	
	F	eP	54 51	c	
		epP	55 18	c	
	M	eP	16 55 13	c	
		epP	41.6	d	
		e	53.2	c	
	R	iP	04.0	d	
		ipP	31.7	d	
	SH	iP	17.0	c	
		epP	44.0	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Aug. 21	M	eP	19 12 20.6	c	
		e	39.8	c	
Aug. 22	M	eP	00 34 32.2	d	USCGS: 6°S, 147°E, 0 = 00 21 06
		e	55.9	c	Near East Coast of New Guinea.
		e	35 01.8	d	
		e	38 52.9		
	SH	eP	34 30.0	d	
		e	54.2	d	
		eN	35 20		
		e	38.2		
Aug. 22	M	eP	01 20 54.5	c	USCGS: 36°N, 3½°E, 0 = 01 08 00
		e	21 11.3	d	Northern Algeria. Felt: Aumale.
Aug. 22	C	eP	04 05 46		
		e	55		
Aug. 22	MH	e	05 53 13.0	c	
		e	34.4	c	
	M	e	26.5	c	
		e	40.3	d	
		e	50.7	c	
	SH	e	23	c	
		e	55 46		
Aug. 23	M	e	01 33 09.3	c	
		e	28.1	d	
Aug. 23	BG	e(PS)E	07 46 04		USCGS: 1°S, 14°W, 0 = 07 18 06.
		e(SS)NE	51.6		Mid-Atlantic Ocean
		eN	08 04.4		
Aug. 23	M	eP	11 00 21.5	c	
Aug. 24	MH	eP	03 55 37.5	c	
		e	56 03.5	c	
Aug. 24	MH	iP	04 47 11.3	c	USCGS: 5°N, 72°W, 0 = 04 37 36
		i	13.5	c	Central Columbia.
	M	eP	17.1	c	
		e	34.2	d	
	R	e	24.5		
	SH	eP	21.7		
		e	34.7		
Aug. 24	B	iP	13 27 57.5	d	USCGS: 14½°N, 91°W, h = 100
		e	28 10.0		0 = 13 21 00. Guatemala
		iPcP	30 22.1	d	Pas: Magnitude 6½.
	BG	eSNEZ	33 38		
		eScSN	38 04		
		iNE	47.0		
			A T		
		MAXH	16 20		
	MH	iP	13 27 51.2	d	
		i	28 03.3	d	
		ePcP	30 19.4	d	
	F	iP	27 36.9	d	
		ePcP	30 14.8		
	M	iP	28 04.8	d	
		i	12.5	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Aug. 24		i	19.9	c	
		iPcP	30 24.6	c	
		eS	34 10.8		
		e(ScS)	38 16.8		
	A	e(P)N	28 21.3		
	R	iP	27 52.8	d	
		i	28 08.0	d	
		eE	33 31.9		
	C	eP	28 36		
		eS	34 37		
	SH	ePNZ	28 09	d	
		e	22.3	d	
		iPcPEZ	30 25.7	c	
		e	42.5		
		e	34 09.6		
		eN	38 08.5		
		e(ScS)E	20.5		
		eNE	51		
Aug. 24		e(P)	15 12 26		
Aug. 25	BG	eP	02 16 56	c	USCGS: 5°S, 152°E, 0 = 02 04 13
		e	17 15	c	New Britain.
		eSKSN	27 40		Pas: Magnitude 6½ - 6-3/4.
		eSNEZ	28 01		
		e(PS)NE	29 14		
		eSSNE	34.0		
		eN	40.1		
		eREZ	45.2		
			A T		
		MAXH	57 20		
	MH	e	02 17 23.6	c	
		e	33.0	c	
		e	18 00.0	c	
	M	e	17 13.0	c	
		e	47.5		
	R	e	17 25.8		
	SH	e	14.9		
		i	21.4	d	
		eE	49.1		
Aug. 25	M	e	11 45 48.1	c	
		e	46 04.3	d	
Aug. 25	MH	iP	11 49 15.7	d	USCGS: Andreanof Islands, Aleutian
		i	18.8	d	Islands. 0 = 11 41 30.
		e	22.0	c	
	M	eP	00.6	c	
		i	13.3	d	
		i	23.4	c	
		iPcP	51 08.2	d	
	R	eP	49 14.4		
	SH	eP	48 55.2	c	
		ePcP	51 05.9		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Aug. 25	M	e	13 16 58.7	c	
		e	17 10.5	c	
Aug. 25	MH	eP	14 04 18.5	d	
		e	35.0	c	
		e	43.4	d	
	M	e(P)	13.8	c	
	SH	e(P)	04.4		
		e	11.5		
Aug. 26	MH	eP	11 07 39.0	c	
	M	eP	08 14.8	c	
		i	21.5	d	
Aug. 26	B	eP	19 15 58.0	d	
		e	16 27.5	c	
	MH	eP	15 54.6	d	
		i	59.7	d	
		e	17 05.0	d	
	F	eP	15 47.3	c	
	M	e	16 09.1	c	
		e	16.0	c	
		i	46.0	c	
	R	e(P)	03.9		
	SH	e	08.9		
Aug. 27	MH	eP	12 38 38.0	d	
	M	eP	48.5	c	
Aug. 27	MH	e	12 44 46.2		
	M	e	55.4	d	
Aug. 27	MH	e	13 35 19.2	d	
	M	e	41.6		
		e	58.8		
	R	e	25.0		
Aug. 27	MH	i	21 05 12.6	c	
		e	48.1	d	
	M	e	06.9	d	
		e	55.0	d	
	R	e	30.6		
	SH	e	04.7		
Aug. 27	MH	eP	22 27 29.2	d	
		e	56.3	d	
		e	28 09.0	c	
	F	eP	27 38.5		
	M	iP	17.1	c	
		i	28 24.0	d	
	R	eP	27 28.6		
		e	35 19.9		
	SH	eP	27 14.0	d	
Aug. 27	MH	e	23 51 09.6	d	
		e	21.7	d	
	M	i	14.9	c	
Aug. 28	C	eP	00 35 22		
Aug. 28	MH	e	00 58 46.1	d	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Sept. 2	F	e	18.8		
	M	e	37.6	d	
		e	48.5	c	
	R	e	36.2		
	SH	eP	40.5	d	
		e	41 07.5		
Sept. 2	MH	eP	18 36 25.0	d	
		e	46.4	c	
	F	eP	30.4	c	
	M	eP	34.5	d	
	R	eP	40.1	c	
	SH	iP	34.0	d	
Sept. 3	MH	eP	01 13 30.6	d	
	M	e	21.1	c	
		i	40.0	d	
	SH	iP	17.1	c	
		e	34.6	c	
Sept. 3	BG	e	17 56 17		
	MH	e	53 49.9	c	
		e	54 11.3	c	
	F	e	05.1		
	M	eP	53 13.9	c	
		e	32.3	d	
	R	e	34.6		
		e	45.7		
	SH	eP	05.6		
		e	20.8		
Sept. 4	MH	e	06 28 33.4	d	
		e	29 04.1	d	
	M	i	28 43.6	c	
Sept. 4	B	eP	07 32 47.6	c	USCGS: 50°N, 156½°E, h = 60
		epP	33 02.6	c	0 = 07 23 05. Kurile Islands
	BG	eSN	40 35		Pas: Magnitude 6-3/4 - 7.
		eE	44 30		
		e	39		
		eNE	47.1		
		eEZ	49.4		
	MH	eP	32 53.2	c	
		ipP	33 08.9	c	
		iPcP	56.5	c	
		e	35 29.9	c	
		eS	40 49		
		eP'P'	08 02 44.7	d	
	F	iPNEZ	07 33 03.7	c	
		epP	19.4	c	
		eSE	41 09		
	M	iP	32 39.8	c	
		i	53.4	c	
		i	33 08.4	d	
		e	35 04.8		
		eS	40 25.5		
		eP'P'	08 02 46.4	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Sept. 4	R	iP	07 32 51.0	c	
		ipP	33 06.6	c	
		e	20.6		
		eSNE	40 46.4		
	Fe	e(P)NE	32 30		
		eSE	40 03		
	C	ePN	32 15		
		iS	39 33		
		eL	47.9		
	SH	iPNEZ	32 34.7	c	
		ipPNEZ	48.7	c	
		iE	33 24.7		
		eN	33.7		
		e	34 24.7	c	
		eS	39 43		
		eE	49.5		
Sept. 4	MH	i(P)	08 00 23.6	c	May be part of last shock.
	F	e	28.3		
	M	e(P)	32.7	c	
		e	45.4		
	SH	i(P)	31.2	d	
Sept. 4	B	iP	14 19 47.6	c	USCGS: 32°S, 71°W, 0 = 14 07 13
		i	20 08.9	c	Near Coast of Central Chile
		i	58.4	d	Several injured. Minor property
	BG	e	23 04	c	damage.
		eSE	30 07		Pas: h = 50, Magnitude 6-3/4 - 7.
		e	14	d	
		e	35 59		
		e	48.0		
	MH	iP	19 43.9	c	
		i	20 18.7	c	
		i	40.2		
	F	iP	19 35.2	c	
	M	eP	54.0	c	
		i	20 02.4	d	
		i	31.1	c	
		i	21 12.8	d	
		e	23 32.4		
	R	iP	19 47.9	c	
		e	20 42.4		
	SH	iPNEZ	19 56.6	c	
		i(pP)	20 09.1	d	
		e	25 38		
		e	27 42		
		eSE	30.2		
		e	37 15		
Sept. 5	MH	eP	12 21 35.2	c	
Sept. 5	MH	eP	14 32 13.4	c	USCGS: 38°N, 23°E, 0 = 14 18 41
	F	eP	22.9		Eastern Greece. Several
	R	eP	11.6		casualties and moderate
	SH	eP	09.2	c	property damage.
		eE	33.7		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Sept. 5	MH	e	15 31 57.0	c	
		e	32 12.5	d	
Sept. 5	B	iP	19 07 51.9		USCGS: 51°N, 157°E, 0 = 18 58 09
	BG	eSN	15 36		Near South Coast of Kamchatka
		eE	40		Pas: Magnitude 6½.
		eLN	21 58		
		eE	24.0		
	MH	eP	07 57.7	c	
		e	08 11.8	d	
		i	37.0	c	
	F	iP	08.1	c	
	R	eP	07 55.5	c	
		eS	15 46		
	C	ePN	07 21		
		eS	14 35		
	SH	iPEZ	07 39.2	c	
		iEZ	49.7	c	
		eEZ	08 37.5		
		e	13 01.7		
		eSE	15 14.7		
Sept. 5	MH	e	21 20 04.3	d	
	SH	iP	19 53.9	d	
Sept. 5	MH	e	22 25 33.0	c	
Sept. 6	MH	eP	01 45 17.0	c	USCGS: 50½°N, 90°E, 0 = 01 32 24
	SH	e	01 44 59.9		Outer Mongolia
Sept. 6	MH	e	07 25 18.0	d	
		e	34.2	c	
Sept. 6	MH	eP	07 50 45.7	c	USCGS: 5½°S, 149°E, 0 = 07 37 24
		e	51 24.6	c	New Britain Island Region.
		ePP	54 28.4		
	F	eP	50 47.5		
	R	eP	48.3		
	SH	eP	38.8	d	
		ePP	54 32.8		
Sept. 6	MH	eP	08 22 11.4	d	
		i	16.0	d	
		e	23 44.3	c	
	F	eP	22 23.7		
	R	eP	06.6		
	SH	iP	21 47.2	d	
		e	22 40.0		
Sept. 6	MH	e	08 28 13.7		
	R	e	07.8		
	SH	e	27 33.9	d	
Sept. 7	MH	eP	01 42 19.2	c	USCGS: Marianas Islands Region
		e	33.3	d	0 = 01 29 50.
	SH	eP	11.2		
Sept. 7	BG	e	04 49 07		USCGS: 41°N, 33°E, 0 = 03 58 56
		e	05 00.5		Northern Turkey. Felt.
	F	e	04 12 40		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Sept. 7	B	eP	05 11 05.5		USCGS: Marianas Islands Region.
	MH	eP	12.4	d	0 = 04 58 40.
		e	20.6	c	
		e	12 17.1	c	
	F	eP	11 17.0	c	
	R	eP	15.1		
	SH	ePEZ	01.7	c	
Sept. 7	SH	e	10 30 55.1	d	
Sept. 7	MH	e	20 05 21.8	d	
	SH	i	10.2	c	
Sept. 7	MH	e	23 30 10.4	c	
		i	14.3	c	
	F	e	24.3		
	C	ePNEZ	28 57		
Sept. 8	MH	e	00 13 40.9	c	
	C	ePNEZ	12 03		
	SH	e(P)	28.2		
		e	13 04.7		
Sept. 9	MH	iP	00 18 35.7	c	USCGS: Marianas Islands
		e	48.2	c	0 = 00 06 08.
	F	eP	45.5		
	M	eP	34.2	d	
		e	44.4	c	
		e	19 38.4	d	
	R	eP	18 40.5		
	SH	eP	29	c	
		e	42		
		e	19 14		
Sept. 10	BG	ePP	04 24 20	d	USCGS: 32°E, 35°N, 0 = 04 06 00
		eN	27 40		Near West Coast of Cyprus.
		eEZ	32 00		Heavy casualties and extensive
		eN	33 43		property damage.
		eE	39 13		Pas: Magnitude 6½.
		eE	55 16		
	MH	e	20 16.9	c	
		e	23 35.3	c	
		ePP	24 24.7	c	
		e(PKKP)	36 12.3	c	
	F	e(P)	20 06.8		
	M	e(P)	19 54.8	c	
		e	23 17.1	c	
		ePP	24 01.1	d	
	R	e(P)	19 55.9		
	SH	e(P)	53.3	c	
		e	20 03.8	d	
		e	23 48.8		
		e(PP)	24 10.3	c	
Sept. 10	M	e	10 15 45.9	d	
Sept. 10	MH	eP	17 15 24.6	c	
	M	eP	35.1	d	
		e	16 04.9	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Sept. 10	R	eP	15 39.5		
	SH	eP	32.7		
		e	52.8		
Sept. 10	MH	e	19 48 26.4	c	
		e	37.2	c	
Sept. 11	SH	eEZ	02 56 59.2		
Sept. 11	MH	i	03 33 32.5	d	
		e	48.0	c	
	M	eP	41.5	d	
		i	58.4	d	
	SH	eP	41.7		
		e	57.2	c	
Sept. 11	MH	iP	18 04 47.1	c	USCGS: South of Honshu, Japan
	M	eP	38.5	c	0 = 17 52 40.
	SH	ePEZ	34.7	c	
Sept. 12	MH	eP	15 14 15.8	c	USCGS: New Britain. 0 = 15 01 09.
	M	e	15 56.8		
	R	eP	14 26.1		
	SH	eP	16.9		
Sept. 13	MH	i	19 56 09.2	d	
Sept. 13	MH	eP	21 20 38.3	d	
		e	48.4	c	
	F	eP	43.8		
	M	eP	44.3		
	R	eP	49.3		
	SH	iP	42.0	d	
		e	21 00.9	d	
		e	28.0		
Sept. 14	B	eP	00 38 39.7		USCGS: 18½°S, 178½°E, h = 60
	BG	eSN	48 31.7		0 = 00 26 36. Fiji Islands.
	MH	eP	38 39.1	c	Several killed and extensive
		i	42.4	c	property damage.
		i	39 00.0	c	Seismic sea wave.
		i	12.1	c	Pas: Magnitude 6-3/4.
		e	40 22.0	c	
		ePP	41 41.4	c	
	F	eP	38 45.0		
		i	48.6	c	
		e	44 19.7		
		e(P'P')	01 05 36.1		
	M	eP	00 38 49.1	d	
		i	39 06.6	c	
		i	44.1	c	
	R	eP	38 54.6		
		iEZ	56.7		
		eE	49 15		
		e(P'P')	01 05 36.9		
	SH	ePEZ	00 38 46.7	d	
		i	50.1	d	
		eN	49 15.0		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Sept. 14	MH	eP	09 07 41.8	c	USCGS: 52°N, 161½°E, 0 = 08 58 12.
		i	54.6	c	Off Southeast Coast of Kamchatka.
	M	eP	28.6	c	
		i	37.6	d	
		i	59.6	d	
	R	eP	36.4		
Sept. 14	MH	eP	09 52 43.7	d	USCGS: Fiji Islands Region
		e	53 01.5	c	h = 500. 0 = 09 41 17.
	M	eP	52 48.3	d	
		e	53 13.2	c	
Sept. 14	B	eP	10 33 54.5		
	MH	eP	53.8	c	
		i	58.3	c	
		i	34 17.5	d	
	F	eP	33 46.7		
		e	53.1		
		e	34 33.9		
	M	eP	33 50.3	c	
		e	34 02.8	c	
		e	16.0	c	
		e	35 46.3	c	
	R	eP	33 49.3		
		e	34 02.7		
	SH	eP	33 50.6		
Sept. 14	B	eP'	11 31 56.3		USCGS: 52½°N, 26°E, 0 = 11 12 06
	MH	iP'	59.9	c	Indian Ocean.
		i	32 04.2	d	
		i	16.9		
		e	46.9		
		ePP	35 41.5		
	F	eP'	31 51.2		
		e	32 00.1		
	M	eP'	31 55.2	d	
		e	32 06.0	c	
		i	24.5	d	
		e	36 18.3		
	R	eP'	31 55.0		
	SH	eP'	55.1		
		eE	32 46.0		
		eN	34 53.2		
Sept. 14	MH	e	14 25 43.9	c	USCGS: 49°N, 158°E, h = 60
	M	eP	30.3	d	0 = 14 16 00. Northern Kurile
		i	55.6	c	Islands.
	SH	eP	25.8	d	
		e	39.5	d	
Sept. 14	M	eP	15 09 36.1	c	USCGS: 38°N, 20½°E, 0 = 14 56 15
		e	56.6		Near West Coast of Greece. Felt.
Sept. 15	M	e	06 12 28.6	c	
		e	39.3	d	
	SH	eP	25.6	d	
Sept. 15	MH	eP	07 10 20.3	d	
	M	e	33.3	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Sept. 15	M	e	07 52 24.4	c	
	SH	eP	20.0		
Sept. 15	M	eP	09 54 30.2	c	
	SH	eP	26.5	c	
Sept. 15	MH	eP	11 14 28.7	d	USCGS: 9°S, 156½°E, 0 = 11 01 34
	M	eP	33.0	d	Solomon Islands.
		e	15 07.2	c	
	R	eP	14 39.8		
	SH	e	29.5		
		e	58.5	c	
Sept. 15	M	e	11 42 00.6	d	
		e	20.5	d	
		e	43 01.1	d	
	SH	eP	41 56.9	c	
		e	42 16.2		
		e	45.7		
Sept. 15	MH	eP	11 51 27.9	d	
	M	eP	14.9	c	
Sept. 16	MH	e(P)	01 18 15.4	c	
	F	e(P)	23.8		
	M	e(P)	29.5	d	
		e	45.1	c	
	R	e(P)	33.1	d	
	SH	e(P)	24.3	d	
Sept. 16	B	eP	02 00 13.0		USCGS: 15°S, 174½°W, 0 = 01 48 42
	BG	eSE	09 37.3		Solomon Islands Region.
		eR	21.6		Pas: Magnitude 6¼.
	MH	iP	00 10.6	c	
		i	22.5	d	
		i	30.5	d	
	F	eP	18.3		
	M	eP	19.3	c	
		i	27.2	d	
		e	40.3	d	
		e	01 12.4	c	
	R	eP	00 23.9		
	SH	eP	18.5	d	
		e	38.4		
Sept. 16	MH	e	04 26 33.5	c	
		e	51.8	c	
	F	e	38.9		
	M	e	44.4	d	
		e	27 12.7	c	
	R	e	26 49.4	c	
	SH	e	43.3		
Sept. 16	MH	eP	12 27 18.4	c	
		e	27.5	c	
Sept. 16	B	iP	17 57 48.9		USCGS: About 250 Miles off Coast of
	BG	iSNE	18 01 59.7		Colima, Mexico. 0 = 17 53 00
			A T		Magnitude 5½ - 5-3/4.
		SH	4¼ 10		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Sept. 16	MH	eP	17 57 40.9	d	
		e	56.3	c	
		e	18 02 18.0		
	F	eP	17 57 28.0		
	M	eP	58 08.8	c	
	R	eP	57 53.6		
Sept. 16	MH	e	18 23 47.9	c	
	M	iP	11.1	c	
		e	24 04.2	d	
	SH	eP	23 09.2		
Sept. 16	MH	eP	21 51 50.5	d	USCGS: 47°N, 152½°E, h = 60
		epP	52 05.6	d	0 = 21 41 37. Kurile Islands.
		i	37.0	c	
	SH	eP	51 33.7		
		epP	48.1		
Sept. 17	MH	e	05 37 47.8	d	
	M	e	23.3	c	
Sept. 17	BG	eN	09 29 49		USCGS: Zacatecas Province, Mexico
	MH	eP	20 36.7	d	0 = 09 15 50.
		e	55.5	d	
	M	eP	55.3	d	
		i	21 00.0	c	
		i	23.8	d	
	R	eP	20 39.2		
Sept. 17	B	eP	21 23 30.6	d	USCGS: 20½°S, 174°W, h = 100
		e	24 02.8		0 = 21 11 48. Tonga Islands.
		e	19.1		Pas: Magnitude 6-3/4 - 7.
	BG	iSN	33 13.4		
		eSSN	37 59.9		
		eLN	43.0		
			A T		
		PZ	2½ 5		
		SH	6 10		
	MH	eP	21 23 30.0	c	
		i	24 12.5	d	
		i	20.9	d	
	M	eP	23 42.6	d	
		i	51.3	d	
		i	24 01.6	c	
	R	eP	23 44.3		
		i	47.2	c	
	SH	eP	38.7	c	
		iNEZ	42.0	c	
		iNZ	52.1	c	
		eN	24 16.8		
		e	20.4		
Sept. 18	MH	eP	04 28 41.1	d	
		e	44.8	c	
	M	eP	51.5	c	
		e	29 10.4	c	
	R	eP	28 56.4		
	SH	iP	50.1	d	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Sept. 18	MH	e	10 30 06.7	c	
	M	e	15.7	d	
Sept. 18	MH	eP	15 20 03.2	c	
		e	15.6	c	
	R	eP	12.7		
Sept. 18	BG	e	23 01.0		
	MH	eP	22 33 26.9	d	
		e	39.8	d	
		e	34 19.4		
	M	e	33 54.5	d	
	R	e	41.6		
	SH	e	36.0	c	
		e	34 05.6		
Sept. 19	MH	eP	18 35 45.6	c	
		e	36 01.8	c	
		e	15.4	c	
	M	e	35 59.3	d	
		e	36 43.1		
	R	e	00.5		
	SH	e	35 55.1		
Sept. 20	MH	eP	02 49 23.8	d	
Sept. 20	MH	e	07 47 27.3	c	
		e	48.6	c	
	SH	e	19.9		
Sept. 20	MH	eP	09 22 12.1	d	USCGS: 51°N, 179°W, h = 100
		i	18.5	c	0 = 09 14 22. Andreanof Islands,
		i	31.6	c	Aleutian Islands.
		i	50.3	d	
		e	23 07.0	d	
	R	eP	22 15.1		
	SH	eP	21 53.0	d	
		e	56.8		
Sept. 20	MH	e	13 39 47.5	d	
		e	58.5	c	
		e	40 35.4	d	
Sept. 20	B	eP	19 15 00.5		
	MH	eP	14 59.5	c	
		i	15 01.4	d	
		e	44.2	d	
		e	16 34.2		
	M	eP	15 00.8	d	
		e	12.4	d	
		e	23.1	c	
	R	e	14 59.3		
	SH	e	15 01.8		
		e	37.2		
Sept. 21	M	e	03 43 07.4	c	
		e	21.2	c	
Sept. 21	MH	iP	14 57 17.0	c	
	SH	e(P)	56 54.2		
Sept. 21	MH	eP	21 06 28.5	c	
		e	42.4	d	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Sept. 22	B	iP	11 02 34.1	d	
		e	47.6		
	MH	eP	37.5	c	
		e	44.4	d	
		e	03 03.5	c	
	M	eP	02 36.5	c	
		i	53.4	d	
	R	e	34.6		
	SH	iEZ	37.2	d	
		e	03 11.4		
Sept. 23	MH	iP	01 46 26.5	c	
		e	47 26.7	d	
	M	eP	46 31.3	c	
	SH	iP	29.5	c	
Sept. 23	B	iP	02 24 19.9	c	USCGS: 50½°N, 156°E, h = 60
		ipP	34.6	c	0 = 02 14 36. Northern Kurile
	BG	eSNZ	32 12		Islands.
		iNE	15		Pas: Magnitude 7.
		eSSN	35 53		
		eN	38 40		
		eLN	40 43		
	MH	eP	24 25.4	c	
		ipP	40.4	c	
		i	45.2	d	
		i	25 33.8	d	
		i	26 16.9	d	
		e(PP)	42.7	d	
		eSNE	32 23.4		
		e	50.5		
	M	iP	24 11.5	c	
		ipP	24.0	c	
		iPP	26 31.0	d	
		e	32 36.5		
	A	e(P)N	24 02.4		
		eE	13.0		
	R	iP	23.6	c	
		iN	43.9		
		iE	50.5		
		iN	32 49.0		
		iE	33 20.6		
		iE	46.7		
	C	eP	23 56		
		eS	31 18		
		eL	39 44		
	SH	iP	24 07	c	
		ipP	22	d	
		e	25 03	d	
		ePP	26 26	d	
		iSNE	31 50		
		isSNE	32 25		
		eN	33 21		
		eN	35 59		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Sept. 24	MH	e	10 49 32.7	d	
		e	40.9	c	
	M	i	09.9	c	
Sept. 24	MH	eP	16 16 37.3	d	USCGS: 27°N, 128°E, 0 = 16 03 40
		ipP	50.7	c	Ryukyu Islands.
	M	eP	28.8	d	
		epP	42.1	c	
	SH	iP	25.6	d	
		ipP	39.2	c	
		i	47.9	c	
Sept. 25	M	e	00 55 33.7	d	USCGS: Bonin Islands. 0 = 00 43 13
Sept. 25	B	eP	00 57 14.0		USCGS: 28½°N, 140½°E, 0 = 00 45 13
	MH	eP	19.2	c	Bonin Islands
		e	45.2	d	
		i	58 16.6	c	
	M	eP	57 10.7	d	
	R	eP	20.0	c	
	SH	iP	07.7	c	
		e	58 13.9		
Sept. 25	M	eP	02 21 05.3	c	
Sept. 25	MH	e	03 07 48.9	d	
		e	08 13.8	c	
	F	e	07 56		
	M	eP	08 00.0	d	
	R	e	07 56.9		
	SH	e	59.3		
Sept. 25	M	e	03 40 39.8	c	
Sept. 25	M	e	05 42 48.4	c	
	SH	e	44.6	c	
Sept. 25	B	iP	13 53 11.0	c	USCGS: 28°N, 140°E, 0 = 13 41 08
	BG	eSNE	14 03.4		Bonin Islands
	MH	iP	13 53 15.0	c	
		i	44.4	d	
		e	56 31.0	c	
	F	eP	53 22		
	M	eP	06.4	d	
		i	46.8	d	
		ePP	56 02.8		
	R	eP	53 16.4		
		eE	55 39.5		
		eN	14 03 16.7		
	SH	eP	13 53 02.7	d	
		iNEZ	03.4	c	
		eNZ	25.0		
		e	43.2		
Sept. 25	MH	eP	20 20 35.2	c	
		e	21 13.5	d	
	SH	e(P)	20 07.0		
Sept. 25	M	e(pP)	20 57 35.5	d	USCGS: 54°N, 160°E, h = 60
	SH	i(P)	24.4		0 = 20 48 20. Off East Coast
		i(pP)	38.7		of Kamchatka.

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Sept. 26	B	eP	01 12 13.4		USCGS: 50°N, 157½°E, h = 60
		e	22.7		0 = 01 02 30.
	BG	eSNEZ	19 58.4		Near South Coast of Kamchatka.
	MH	iP	12 15.1	c	
		ipP	29.5	d	
		i	47.2	d	
		i	13 08.7	d	
		ePP	14 10.9		
	F	eP	12 24.1		
	M	iP	00.9	c	
		i	13.5	d	
		i	21.3	d	
		i	49.0	d	
	R	iP	12.9	c	
		ipP	26.5		
		eE	20 06		
		eN	29		
	SH	iP	11 56.3	c	
		e	14 45.8		
		e	15 13.3		
Sept. 26	MH	eP	03 50 06.6	d	USCGS: Southwestern Yukon, Canada
		i	11.3	c	0 = 03 44 35.
		e	20.3	c	
	M	eP	49 39.5	c	
		i	44.8	d	
		i	50 04.4	c	
		e	51 00.1		
	SH	ePNZ	49 36.3		
		e	50 16.3		
Sept. 26	M	iP	11 47 38.4	c	
Sept. 26	BG	e	20 18.3		USCGS: 3°S, 148½°E, 0 = 19 35 00
		eN	22.3		Bismark Sea.
	MH	eP	19 48 12.1	d	
		e	54.0	c	
		ePP	51 46.6		
	F	eP	48 19.1		
	M	eP	11.9	c	
	SH	eP	10.3	d	
		e	26.1	d	
Sept. 27	B	iP	06 15 47.8		USCGS: 14°N, 58°W, 0 = 06 05 27
	BG	eSN	24 13.5		Windward Islands Region
		eSSN	28 23.5		
		eGN	31.0		
		eN	36.3		
	MH	eP	15 44.0	d	
		i	54.4	c	
		i	16 24.4	d	
		e	19 32.4	c	
	F	iP	15 32.9	d	
	M	eP	44.3	d	
		i	16 40.6	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Sept. 27	C	eP	15 58		
	SH	iP	47.7	c	
		e	16 00.3		
		e	55.5		
		e	19 40.7		
Sept. 27	M	iP	07 45 19.0	c	USCGS: 29°N, 140°E, 0 = 07 33 25
	SH	iP	15.6	c	Bonin Islands Region.
		e	56.5		
Sept. 27	M	eP	10 01 02.5	c	
Sept. 27	MH	eP	10 05 00.5	d	USCGS: Kermadec Islands Region
	M	iP	09.3	c	0 = 09 52 20
		i	42.8	d	
	SH	iP	08.4		
		e	16.7		
Sept. 27	MH	e	14 14 43.2		
Sept. 28	B	iP	06 02 09.2	d	USCGS: 22½°S, 65°W, h = 250
		e	41.1		0 = 05 50 21
		epP	03 15.5		Bolivia-Argentina Border Region.
	MH	iP	02 05.5	d	
		e	13.4	c	
		ipP	03 12.3	c	
		e	08 06.2		
	M	eP	02 14.0	d	
		i	42.0		
		ipP	03 20.9	c	
	SH	iP	02 17.3	d	
		e	45.5		
		ipP	03 23.6	c	
		eSNE	12 05		
Sept. 28	MH	eP	06 43 53.7	c	USCGS: 44½°N, 128°W, 0 = 06 41 41
	M	eP	11.9	d	Off Coast of Oregon.
		i	29.5	c	
	C	eP	42 32		
	SH	eP	43 04.2		
		e	24.0		
Sept. 28	MH	i	13 23 33.3	c	
		e	24 38.5	d	
		i	26 19.9	d	
	M	e	23 08.3	c	
		i	17.0	d	
		i	27.2	c	
	SH	i	04.2	d	
		e	49.3		
Sept. 28	M	e	16 00 14.3	d	
		i	27.0	c	
Sept. 28	MH	e	19 58 03.1		
		i	13.5	d	
		i	26.4	d	
Sept. 28	MH	eP	23 46 23.4	c	
		i	33.9	c	
	F	e	57		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Sept. 28	M	i	29.0	c	
	SH	e	28.1		
		e	47 44.7		
Sept. 29	B	iP	01 49 30.8	c	USCGS: 36½°S, 177°E, h = 300
		ipP	50 44.2	d	0 = 01 36 45. Off North Coast
	BG	iPP	53 20.9		of North Island, New Zealand.
		iNE	28.1		Felt: Wellington
		eSNZ	02 00 16.3		Pas: Magnitude 7¼.
		iPSN	01 53.9		
		esSNEZ	02 17.7		
		eSSNE	06.6		
		eE	16 13		
			A T		
		PZ	5 5		
		pPZ	4½ 4		
		PPZ	6 7		
		PPH	14 13		
		SH	35 13		
		PSH	30 14		
		sSH	70 12		
		SSH	30 13		
	MH	eP	01 49 28.5	c	
		i	50 05.1	d	
		epP	44.8		
		i	51 13.1	c	
		i	54 20.8		
		eS	02 00 11.8		
	F	ePN	01 49 34.5		
		esSN	02 02 39.7		
	M	eP	01 49 38.5	c	
		i	46.5	c	
		i	53.3	d	
		i	58.0	d	
		i	50 05.3	d	
		i	51 18.2	c	
		e	55 20.0		
		eP'P'	02 14 38.7	c	
	SH	iP	01 49 38.8	c	
		i	47.0		
		epP	50 52.7		
		eE	52 55.8		
		ePP	53 32.4		
		eE	50.8		
		eE	56 08.6		
		eSKSE	59 41.5		
		eN	44.8		
		eSE	02 00 33.8		
		eN	01 55.7		
		ePSNE	02 03.4		
		e(sS)E	43.6		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Sept. 29	MH	e	02 06 33.9	c	PKKP of Last Shock?
		i	42.1	d	
		e	07 28.2	d	
	M	e	06 29.8	d	
		i	35.4	d	
		i	08 31.0	d	
Sept. 29	MH	i(P)	03 30 46.7	c	USCGS: Near West Coast of Costa Rica.
	M	e(P)	50.9		0 = 03 22 20.
Sept. 29	M	iP	04 48 49.9	c	USCGS: Near North Coast of Columbia.
					0 = 04 39 40. Felt: Goajina.
Sept. 29	MH	e	11 51 22.2	d	
		i	44.8	d	
Sept. 29	M	e	21 08 50.6	c	
		i	09 40.0	c	
Sept. 30	MH	eP'	05 13 31.0	d	USCGS: 6°S, 100½°E, 0 = 04 54 15
		i	49.1	c	Off Southwest Coast of Sumatra.
		i	14 03.6	c	
		i(PP)	15 51.4	c	
	M	eP'	13 22.8	c	
		i	35.5	d	
		i	59.5	c	
		e(PP)	15 55.9	c	
	F	eP'	13 31.0	d	
	SH	eP'	18.9	d	
		e	46.4	d	
		e	54.6	d	
		ePP	15 44.4		
Sept. 30	MH	eP	07 01 03.9	c	USCGS: 50½°N, 156°E, h = 60
		e	20.4	d	0 = 06 51 15. Near South Coast
	M	eP	00 49.6	c	of Kamchatka.
		epP	01 03.7	d	
		e	16.5	d	
		e	25.9	d	
	SH	iP	00 45.1	d	
		ipP	59.1	d	
Sept. 30	B	iP	23 08 51.8	d	USCGS: 22°N, 107½°W, 0 = 23 04 08
		e	09 04.9		Off Coast of Sinaloa, Mexico
		e	19.3		Felt: Mazatlan.
		i	28.8	d	Pas: Magnitude 6-3/4.
	BG	iSNEZ	12 31	d	
		iN	41.3		
		iE	53.1		
		eE	13 40.7		
	B	eGNE	13.8		
	BG	e	14.8		
			A T		
		PZ	20 6		
		PH	15 7		
		SZ	285 22		
		SH	190 16		
	MH	eP	23 08 42.2	d	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Sept. 30		i	49.7	c	
		i	53.1	d	
		i	09 49.1	d	
		eS	12 22.5		
		eNE	13.6		
	M	eP	09 07.1	d	
		eNE	29		
		i	10 06.2	c	
		e	14 24.5		
		eNE	15 10		
	A	ePNE	09 29		
		eN	15.3		
		eE	17.2		
	R	iPNZ	08 53.1	c	
		iNEZ	12.8		
	C	eP	09 52		
		eS	14 29		
		eL	17 26		
		e	19 27		
	SH	iP	09 13.1	c	
		e(PP)	49.9		
		e	10 12.4		
		eE	11 02.4		
		iE	45.2		
		eN	12 49.6		
		eE	13 03		
		eE	17		
		eN	16 18		
		eLN	17 21		

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BERKELEY—MOUNT HAMILTON—PALO ALTO SAN FRANCISCO—FERNDALE—FRESNO MINERAL—ARCATA—RENO—CORVALLIS—SHASTA

Earthqakes and the Registration of Earthquakes

From October 1, 1953, to December 31, 1953

BY
DON TOCHER

UNIVERSITY OF CALIFORNIA PRESS
BERKELEY AND LOS ANGELES
1955

SEISMOGRAPHIC STATIONS OF THE UNIVERSITY OF CALIFORNIA

Perry Byerly, Director

EARTHQUAKES IN NORTHERN CALIFORNIA, NEVADA, AND OREGON

and

REGISTRATION OF EARTHQUAKES AT: BERKELEY, MOUNT HAMILTON, PALO ALTO, SAN FRANCISCO, FERNDALE, FRESNO, MINERAL, ARCATA, RENO, CORVALLIS AND SHASTA

OCTOBER 1, 1953 TO DECEMBER 31, 1953

VOLUME 23 NUMBER 4

Don Tocher

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UNIVERSITY OF CALIFORNIA PRESS

BERKELEY AND LOS ANGELES

1955

EARTHQUAKES IN NORTHERN CALIFORNIA, NEVADA, AND OREGON

Map No.	Date 1953	Origin Time (G.C.T.)	M	Latitude North	Longitude West	Q	Remarks
1	Oct. 1	03-56-15	3.4	36° 15'	121° 50'	c	25 miles south of Monterey. IV at Big Sur.
2	3	03-18-05	3.2	37° 58'	121° 46'	a	25 miles west of Stockton.
3	4	01-19-57	2.7	39° 45'	119° 27'	c	20 miles NE of Reno.
4	5	14-17-44	3.0	37° 02'	121° 39'	b	20 miles south of Mt. Hamilton. Aftershock of magnitude 2.8 at 14-36-42.
5	5	16-53-34	3.3	39.4°	119.2°	d	West of Fallon, Nevada.
6	6	12-25-41	2	36.6°	121.3°	d	Southeast of Hollister.
7	7	20-51-07	3.0	37° 04'	121° 39'	c	South of Mt. Hamilton.
8	8	23-40-46	3.9	40° 19'	124° 25'	b	20 miles SSW of Ferndale. Felt at Ferndale.
9	11	00-08-17	2.6	37° 53'	122° 13'	b	Near Berkeley.
10	12	19-37-00	3.7	39° 31'	119° 36'	c	East of Reno, Nevada.
11	16	03-45-35	3.4	35° 57'	120° 32'	c	Southwest of Coalinga.
12	18	10-19-58	2.8	40.5°	121.6°	d	North of Mineral.
13	19	23-35-25	3.8	37° 21'	121° 35'	a	Near Mt. Hamilton.
14	24	13-24-30	3.6	35.9°	121.1°	d	South of King City.
15	25	06-43-25	3.2	36.5°	121.5°	d	Northwest of King City.
16	26	01-43-55	2.9	40° 36'	123° 56'	c	15 miles east of Ferndale.
17	26	15-50-57	3.0	36° 52'	121° 37'	c	11 miles west of Hollister.
18	28	01-27-38	2.0	37° 45'	121° 55'	c	Northwest of Livermore.
19	29	12-41-11	3.3	39° 21'	120° 13'	b	Near Truckee.
20	29	19-19-49	3.4	40° 20'	124° 24'	c	17 miles SSW of Ferndale.
21	29	23-58-46	3.4	36° 47'	121° 21'	c	5 miles SE of Hollister.
22	30	18-53-27	4.2	44°	130°	d	Off coast of Oregon.
23	Nov. 2	00-52-06	3.4	36.4°	121.3°	d	Northwest of King City.
24	2	03-02-56	2.5	38° 16'	122° 24'	c	Southeast of Santa Rosa.

Map No.	Date 1953	Origin Time (G.C.T.)	M	Latitude North	Longitude West	Q	Remarks
25	Nov. 2	07-18-12	2.8	40° 22'	123° 59'	c	20 miles SE of Ferndale.
26	4	06-10-21	3.5	41.8°	125.8°	d	75 miles west of Crescent City.
	4	21-58	Near Corvallis, Oregon. Felt at Corvallis.				
27	6	16-29-12	3.0	36° 33'	121° 16'	b	20 miles SSE of Hollister.
27	6	17-14-15	3.1	36° 33'	121° 16'	b	20 miles SSE of Hollister.
28	7	12-20-51	3.8	41.3°	127.3°	d	165 miles west of Arcata. Foreshocks at 1039, 1130, and 1133. Aftershocks at 1231 and 1234.
29	12	13-25-33	3.5	40.3°	125.9°	d	75 miles off Cape Mendocino.
30	13	05-02-04	3.4	40° 37'	120° 55'	c	40 miles NE of Mineral.
31	18	06-57-08	3.2	41.2°	124.1°	d	20 miles north of Arcata.
32	19	23-04-02	2.0	37° 48'	121° 47'	b	8 miles north of Livermore.
33	20	00-06-08	3.3	36° 33'	121° 16'	c	20 miles west of Llanada.
34	20	05-18-12	2.2	37° 49'	122° 12'	a	5 miles SE of Berkeley. Felt in East Oakland and San Leandro.
35	23	11-16-48	2.1	37° 20'	121° 45'	c	6 miles west of Mt. Hamilton. Foreshock of magnitude 2.0 at 10-46-58.
36	25	23-54-10	2.2	38.3°	122.1°	d	30 miles north of Berkeley.
37	26	14-30-52	3.2	38° 45'	119° 36'	c	ENE of Markleeville.
38	27	04-41-05	2.4	39.3°	120.0°	d	East of Truckee.
39	27	09-25-46	2.5	38.2°	122.1°	d	25 miles NE of Berkeley.
40	Dec. 7	20-10-01	3.2	39.1°	120.0°	d	Lake Tahoe region.
41	8	01-45-10	2.7	39.8°	123.9°	d	20 miles south of Garberville.
42	8	10-59-01	3.1	36° 38'	121° 17'	b	15 miles SE of Hollister.
42	8	11-36-23	3.0	36° 38'	121° 17'	b	Aftershock.
42	8	13-55-26	2.5	36° 38'	121° 17'	c	Aftershock.
43	10	02-12-50	1.8	37° 55'	122° 18'	b	NW of Berkeley.
44	10	17-20-35	2.7	37° 02'	121° 36'	b	20 miles south of Mt. Hamilton.

Map No.	Date 1953	Origin Time (G.C.T.)	M	Latitude North	Longitude West	Q	Remarks
45	Dec. 12	22-07-01	2.4	36.7°	121.4°	d	South of Hollister.
46	15	06-13-08	2.2	37.1°	121.6°	d	NW of Hollister.
47	15	06-13-08	2.0	39.6°	119.6°	d	NE of Reno, Nevada. Origin time almost identical to preceding shock.
48	16	00-05-26	3.5	36° 55'	121° 39'	b	Foreshock of Dec. 17 at 0513. Five miles east of Watsonville. IV at Aptos. Also felt at Gilroy, Moss Landing, and Los Gatos.
	16	04-32	4+				Northwestern Oregon. Felt over an area of approximately 3000 square miles in northwestern Oregon and across the Columbia River at a few localities in Washington. Maximum intensity VI at Portland, Oregon and Vancouver, Washington.
49	16	10-54-22	3.7	36° 33'	121° 24'	c	20 miles south of Hollister. V at Hollister and 7 miles south of Hollister.
48	16	23-09-39	3.8	36° 55'	121° 40'	b	Foreshock of Dec. 17 at 0513. IV at Glenwood, Moss Landing, San Francisco and South San Francisco.
48	17	04-50-30	3.7	36° 55'	121° 40'	b	Foreshock of 0513. IV at Hollister, 7 miles south of Hollister, Moss Landing, and San Juan Bautista.
48	17	04-53-54	2.6	36° 55'	121° 40'	c	Foreshock of 0513.
48	17	05-13-12	4.2	36° 55'	121° 40'	a	14 miles NW of Hollister. Felt over approximately 3500 square miles of the coastal region of west central California. Maximum intensity VI at Watsonville and on the Chittenden Pass road 5 miles west of Chittenden Junction (boulders strewn on road). V at Alviso, Chualar Canyon, Gilroy, Hollister, Los Gatos, Mt. Hermon, and Santa Cruz.
48	17	05-39-41	3.6	36° 55'	121° 40'	b	Aftershock. IV at Moss Landing and 7 miles south of Hollister.
48	17	06-54-47	3.5	36° 55'	121° 40'	b	Aftershock. II at Moss Landing.
50	17	22-11-26	1.9	37° 13'	122° 15'	b	15 miles south of Palo Alto. Blast?

Map No.	Date 1953	Origin Time (G.C.T.)	M	Latitude North	Longitude West	Q	Remarks
51	Dec. 21	06-37-39	3.1	39.4°	123.1°	d	14 miles east of Willits. IV at Willits. Small aftershocks at 06-44-43 and 09-10-09.
52	21	14-03-39	1.7	37° 22'	121° 44'	a	NW of Mt. Hamilton.
53	23	11-45-03	3.7	42.5°	127.1°	d	200 miles NW of Arcata.
54	24	07-17-39	4.0	40° 45'	121° 33'	c	30 miles north of Mineral.
55	27	04-45-52	3.7	41.4°	125.7°	d	85 miles NW of Ferndale.
56	27	12-46-53	2.3	37° 50'	122° 13'	a	3 miles SE of Berkeley.
57	27	19-42-24	3.4	40.9°	122.2°	d	Northeast of Shasta.
48	28	01-32-42	3.8	36° 54'	121° 37'	c	Aftershock of Dec. 17 at 0513. IV at Gilroy and Hollister.
58	28	06-44-08	3.1	39.4°	122.7°	d	30 miles NE of Ukiah.

THE REGISTRATION OF EARTHQUAKES

at

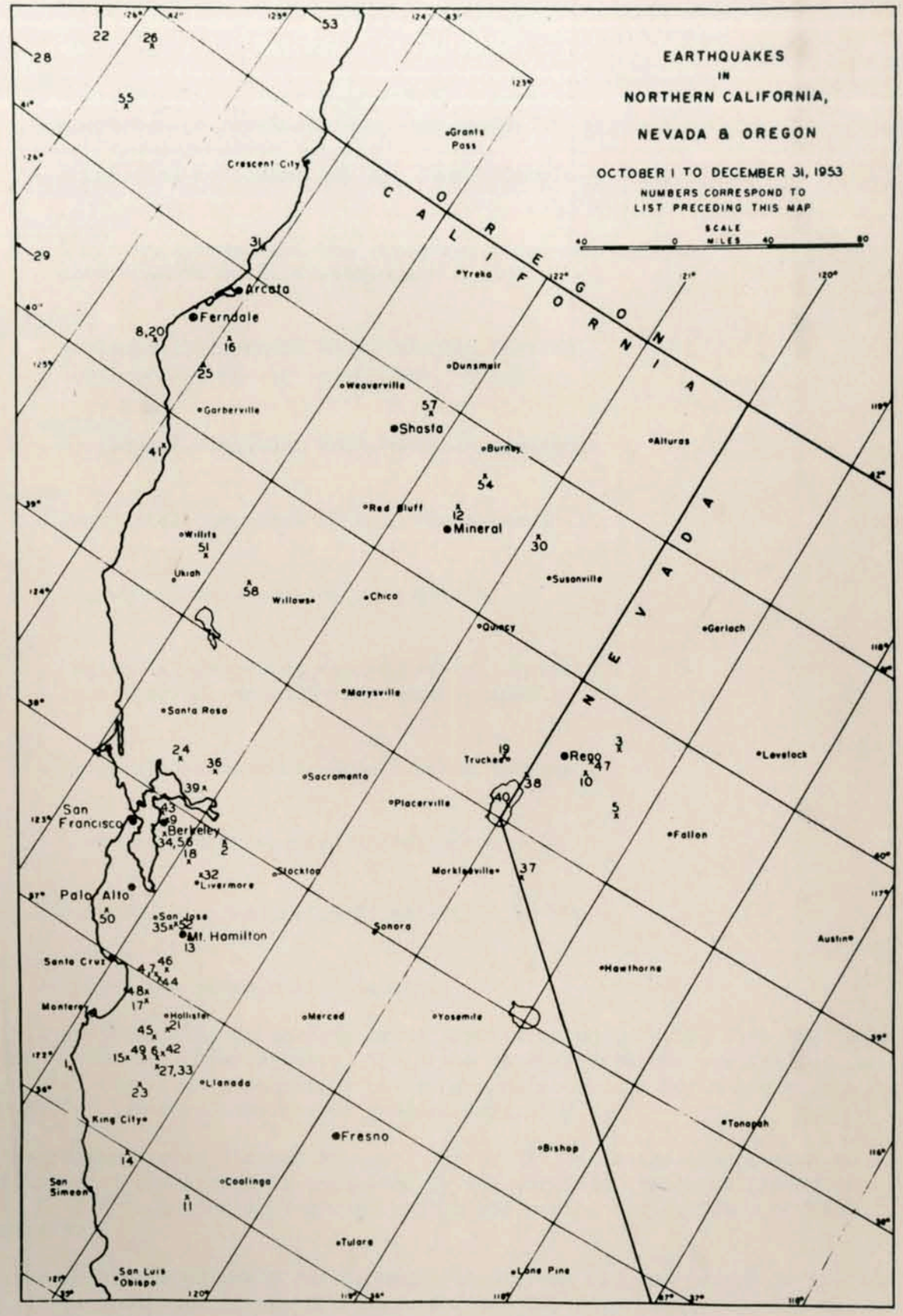
BERKELEY, MOUNT HAMILTON, PALO ALTO, SAN FRANCISCO, FERNDALE, FRESNO, MINERAL, ARCATA, RENO, CORVALLIS, AND SHASTA

All large regional shocks and all distant earthquakes are tabulated on the following pages. Earthquakes in the Northern California, Nevada and Oregon region are included only if of magnitude 5 or greater, or if of special interest. Times of distant shocks are not normally included for Palo Alto, San Francisco, or Ferndale except in cases of defective records at Mount Hamilton, Berkeley, or Arcata, respectively. Communications regarding readings of seismograms should be addressed to Seismographic Station, University of California, Berkeley 4, California. Readings from the Corvallis Station are sent to the University of California by the courtesy of Dr. H. R. Vinyard, Oregon State College.

Station	North Latitude	West Longitude	Altitude Meters	Feet	Station Symbol	Present Auspices and Date Established
Berkeley	37° 52.3'	122° 15.6'	81	266	B, BG*	University of California - 1887
Mt. Hamilton	37° 20.4'	121° 38.6'	1281.7	4205	MH	Lick Observatory - 1887
Palo Alto	37° 25.1'	122° 10.8'	83	272	PA	Stanford University - 1927
San Francisco	37° 46.4'	122° 27.2'	100	328	SF	University of San Francisco - 1931
Ferndale	40° 34.6'	124° 15.7'	15	50	Fe	City of Ferndale - 1933
Fresno	36° 46.1'	119° 47.8'	88.4	290	F	Fresno State College - 1935
Mineral	40° 20.8'	121° 36.1'**	1495	4906	M	National Park Service Lassen Volcanic National Park - 1938
Arcata	40° 52.6'	124° 04.5'	60	195	A	Humboldt State College - 1948
Reno	39° 32.3'	119° 48.8'	1386	4546	R	University of Nevada - 1948
Corvallis	44° 35.1'	123° 18.2'	133	405	C	Oregon State College - 1950
Shasta	40° 41.7'	122° 23.3'	312.4	1025	SH	Bureau of Reclamation - 1942

*B denotes readings of short period instruments, BG of long period instruments (12 sec. Galitzin-Wilip).

**Maps currently used by the U. S. Forest Service indicate this change from the formerly published longitude of 121° 35'.



STATION EQUIPMENT

Berkeley:
2 - Horizontal-component Wood-Anderson torsion.
1 - Short-period vertical-component Benioff.
3 - Long-period Galitzin-Wilip.
2 - Horizontal-component 100 kg. Bosch-Omori.

Mt. Hamilton:
2 - Horizontal-component Wood-Anderson torsion.
1 - Short-period vertical-component Benioff.

Palo Alto:
2 - Horizontal-component Wood-Anderson torsion.
1 - Short-period vertical-component Benioff.

San Francisco:
2 - Horizontal-component Wood-Anderson torsion.

Ferndale:
2 - Horizontal-component 25 kg. Bosch-Omori.

Fresno:
3 - Components short-period Sprengnether.

Mineral:
2 - Horizontal-component Wood-Anderson torsion.
1 - Short-period vertical-component Benioff.

Arcata:
2 - Horizontal-component Wood-Anderson torsion.

Reno:
3 - Components short-period Sprengnether.

Corvallis:
3 - Components short-period Slichter.

Shasta:
3 - Components short-period Benioff.

For all stations, the three components are indicated by N, E, Z in the "phase" column. When no letter appears, the phase is read from the vertical component only. "i" (impetus) preceding a phase designates sudden beginning of the motion; "e" (emersio) designates gradual beginning.

In the column headed "Ground Motion", "c" or "d" indicates compression or dilitation of the ground as indicated by the vertical component instrument. N, S, E or W indicates that ground motion was north, south, east, or west, respectively.

Maximum amplitude of earth displacement in microns (A) and period in seconds (T) of the indicated phases are given for the Berkeley station in the column headed "Time (GCT)". Combined horizontal amplitude of N and E components are designated by H.

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Oct. 1	MH	iP	00 58 21.4	c	
		i	29.5	c	
		i	34.2	d	
		iPP	01 00 21.5	d	
	M	e	00 58 33.8	c	
		i	01 00 15.8	d	
		e	30.5	d	
Oct. 1	MH	iP	05 43 17.5	d	
	M	iP	26.6	c	
	SH	i	29.3	d	
Oct. 1	MH	e	10 24 40.2	d	
	M	e	24.4	d	
		e	39.5	c	
	SH	iP	19.8	c	
Oct. 1	MH	eP	14 08 39.1	c	USCGS: Solomon Islands Region
		e	09 12.9	d	0 = 13.
	M	eP	08 43.7	d	
		e	09 03.8	c	
	SH	eP	08 41.9		
Oct. 1	MH	eP	16 11 52.2	d	
	R	e	54.4		
Oct. 2	BG	eN	02 00 57		
Oct. 2	MH	i	19 20 26.8	c	
	SH	iEZ	19 51.3	d	
Oct. 3	MH	eP	12 50 23.8	d	
		e	35.6	d	
Oct. 3	C	eP	13 44 10		
Oct. 3	MH	iP	16 04 09.8	d	
		i	13.1		
		i	22.3	d	
	M	e	03 45.3	c	
		i	04 05.8	d	
	R	eN	34.2		
Oct. 3	MH	eP	23 13 54.7	c	USCGS: 15°N, 144½°E, 0 = 23 01 22
		i	14 00.0	c	Marianas Islands. Felt: Guam.
		e	28.1	c	
	M	eP	13 50.7	c	
	SH	iP	47.9	c	
Oct. 5	B	iP	04 41 03.2	c	USCGS: 53½°N, 160½°E, 0 = 04 31 40
		e	44.6		Near East Coast of Kamchatka.
	BG	ePcP	42 09.3		Pas: Slightly deeper than normal..
		eSNE	48 31.5		Magnitude 6-3/4 - 7.
		eN	47		
		eN	49 14		
		iScSN	50 47		
		eN	52 52		
		eRNEZ	57.1		
			A T		
		PZ	1½ 8		
		SH	6 10		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Oct. 5	MH	iP	04 41 09.6	c	
		i	42 01.7	c	
		i	25.9		
		e	46 08.8		
	M	eP	40 54.3	c	
		i	41 04.7	d	
		i	21.4	d	
		i	43 10.0	c	
		eS	48 13.6		
	R	iPN	41 07.1		
		iN	18.6		
		eSN	48 35		
	SH	iP	40 49.2	c	
		iNE	41 17.7		
		i	38.4	d	
		i	42 03.7	c	
		e	45 57		
		eSNEZ	48 04		
		eN	43		
		eN	50 35		
Oct. 5	M	e	07 53 29.0	c	
		e	39.8	c	
Oct. 5	M	i	08 39 09.5	d	
Oct. 5	MH	eP	10 06 01.7	d	USCGS: 53½°N, 162°E, 0 = 09 56 40
		i	28.8	c	Off East Coast of Kamchatka.
	M	eP	05 46.0	d	
		e	06 06.6	d	
		e	30.0	c	
	R	eN	01.2		
	SH	iP	05 41.5	c	
		eN	06 02		
		e	07 38		
		e	08 46		
Oct. 5	B	eP	14 24 07.8	d	
	MH	eP	04.3	d	
		e	14.3	d	
		i	32.3	d	
	M	eP	13.2	d	
		e	23.3	c	
		i	54.4	d	
	R	eN	05.0		
	SH	iPEZ	16.6		
		e	25 10.4	c	
Oct. 5	MH	e	15 58 38.6	d	
		e	50.6	d	
	M	e	32.6	c	
	SH	e	19.7		
Oct. 5	MH	e	16 26 15	c	
	M	e	22	d	
	SH	e	20	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Oct. 5	B	eP	23 29 36.5	d	USCGS: 9°S, 152½°E, 0 = 23 16 22
	BG	eE	40 56		Off East Coast of Papua, New Guinea
		e	54.3		
		eNE	24 02.4		
	MH	eP	23 29 36.0	c	
		ePP	33 17		
	M	eP	29 38.1	d	
	R	eP	43.8		
	SH	eP	36.5	c	
Oct. 6	M	e(P)	03 14 38.9	c	
Oct. 6	B	iP	07 30 43.0	c	USCGS: 51½°N, 158°E, h - 60,
	MH	iP	48.1	c	0 = 07 21 10. Near Southeast
		i	52.8	d	Coast of Kamchatka.
		i	57.9	d	
		e	31 06.2	d	
		e	35.7	c	
	M	i	30 42.1	d	
	R	i	45.9		
		e	31 35.8		
	SH	eP	30 24.6		
		iNEZ	29.1	c	
		e	45.3	d	
		i	31 36.9	d	
Oct. 6	B	e	21 51 21.9		USCGS: 3½°S, 151°E, 0 = 21 38 16
	BG	iSE	22 01 55.4		New Britain Region.
		iSSE	08 11		Pas: Magnitude 6-3/4 - 7.
		eLN	18.2		
		e	19.3		
	MH	eP	21 51 21.1	c	
		ePP	55 04.1	c	
	M	eP	51 22.9	c	
		ePP	55 04.9		
	R	eP	51 29.4		
		eSNE	22 02 15		
		e	05 10		
	SH	eP	21 51 19.5		
		i	25.6	c	
		eE	54 49		
		eSE	22 01 56		
		eE	03 50		
		eN	07 43		
Oct. 6	B	eP	23 06 25		USCGS: 23°S, 171°E, 0 = 22 53 34
	MH	eP	24.0	d	Loyalty Islands Region.
	M	eP	31.d	d	
	R	eP	36.5		
		eS	17 09		
	SH	eN	06 31		
Oct. 6	MH	i	23 43 03.6	d	
	SH	e	17.7	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Oct. 7	MH	eP	07 35 55.5	d	USCGS: Northwestern Columbia
		i	36 07.2	c	0 = 07 26 47.
	M	eP	03.5	d	
		e	17.3		
Oct. 8	MH	eP	04 27 11.9	d	USCGS: 25½°N, 143½°E, 0 = 04 15 10
		i	16.2	c	Bonin Islands.
		i	24.0	c	
	M	eP	05.1	d	
		i	12.5	c	
		i	29.0	d	
	R	eP	14.8		
	SH	iP	01.9	d	
Oct. 8	M	eP	05 05 15.5	c	
Oct. 8	M	e	11 20 50		
Oct. 8	MH	eP	17 16 07.4	c	
	M	eP	03.5	c	
	SH	iP	00.7		
Oct. 9	M	e	04 19 38	d	
Oct. 10	M	iP	02 05 41.7	c	
Oct. 10	SH	e	16 21 02		
Oct. 10	MH	eP	18 51 46.0	c	Pas: 31.8°N, 116.1°W, 0 = 18 49.1
		i	52 53.1		Magnitude 5.0. Baja, California
	R	eP	07.0		
	SH	iN	55 24.0		
Oct. 10	MH	eP	22 08 21	c	USCGS: 8°S, 158°E, 0 = 21 55 32
	SH	eP	22		Solomon Islands.
Oct. 11	B	eP	13 18 21.1		USCGS: 50°N, 155½°E, h = 60
	BG	iS	26 19.6		0 = 13 08 34.
		eSSE	30 22		Pas: Magnitude 6-3/4.
		eLE	32.4		
		eE	35.1		
	MH	iP	18 25.4	d	
		i	27.5	c	
		iPcP	38.3	d	
		iPP	20 45.7	c	
	M	iP	18 13.1	d	
		i	15.8		
	R	eP	23.5		
		e	21 06		
		eSNE	26 27		
	C	eP	17 47		
		eS	25 12		
		e	33.6		
	SH	eP	18 07	c	
		iEZ	10.9		
		i	20 06.0	c	
Oct. 12	MH	eP	07 06 47.3	c	
Oct. 12	MH	eP	14 39 25	c	
Oct. 13	MH	eP	05 36 03	c	
Oct. 13	M	e	08 39 54.0	d	
	SH	e	45.2		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Oct. 13	B	iP	08 56 23.4	d	USCGS: 30°N, 113½°W, 0 = 08 53 45
	BG	eSE	58 24		Northern Gulf of California.
		iLE	59 10		Pasadena: Magnitude 6 - 6¼.
	MH	iP	56 14.5	c	
		i	16.9	c	
		eE	58 01		
		eN	59.1		
		e	59.9		
	M	eP	56 53		
	A	ePN	57 13		
	R	iP	56 29.1	d	
		eE	59 43		
		eE	59.9		
	C	eP	57 17		
		eL	09 02 15		
	SH	eP	08 56 54		
		i	57 03.3	c	
		eE	58 16		
		eE	09 00.6		
Oct. 13	MH	e	17 15 47	c	
		e	17 34	c	
	R	e	15 32		
		e	16 12		
	SH	e	15 05	c	
Oct. 14	M	iP	06 11 21.1	c	USCGS: Off Coast of Ecuador.
Oct. 14	MH	eP	08 24 46.5	c	0 = 08 15 30 GCT.
		e	25 04.1	d	
	M	eP	24 57.8	d	
Oct. 14	BG	iP	14 58 07.3	c	USCGS: 43°N, 144½°E, h = 100
		iSN	15 06 58		0 = 14 47 17 GCT. Near East
		iN	07 58		Coast of Hokkaido, Japan.
	MH	iP	14 58 12.3	c	
		i	13.9	d	
		ipP	40.0	d	
	R	iP	11.8	c	
		iSN	15 07 05.5		
		eN	08 00		
	C	eP	14 57 39		
		iS	15 06 05		
	SH	iP	14 57 56.1	c	
Oct. 14	MH	i	17 21 52.8	c	
Oct. 15	M	eP	05 35 55.1	c	
		e(PP)	37 56.6	c	
	SH	e(PP)	52.3		
Oct. 15	M	e	09 36 40.2	d	
Oct. 15	M	e	09 59 14.8	c	
Oct. 15	MH	iP	14 38 36.4	c	USCGS: 28½°N, 141°E, 0 = 14 26 33
		e	55.5	d	Bonin Islands.
	R	eP	39.0		
	SH	iP	25.2	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Oct. 15	MH	eP	20 42 54	d	
	M	e	21	c	
		e	43 00	d	
		e	44 12	c	
Oct. 15	MH	iP	23 24 20.1	d	
	SH	eP	38.1		
Oct. 16	MH	eP	07 27 21.3	c	
	M	e	27.6	d	
Oct. 16	MH	eP	08 57 37.0	c	USCGS: 15°N, 45°W, 0 = 08 46 29
		e	57.1	d	Mid-Atlantic Ocean.
		i	58 00.7	d	
	M	e	57 45.8		
Oct. 16	M	e	09 28 01.7	c	USCGS: 16°N, 45½°W, 0 = 09 16 48
		e	17.1	c	Mid-Atlantic Ocean.
Oct. 16	B	eP	09 59 37.2	c	USCGS: 16°N, 96½°W, 0 = 09 53 15
		e	10 00 42.6		Oaxaca, Mexico
		eSE	05 01.7		Pas: Magnitude 6.
		eLNE	09.0		
		eRNEZ	12.0		
	MH	eP	09 59 31.2	c	
		e	10 00 15		
	F	iP	09 59 17.1		
		eSN	10 04 16		
		eLE	08.7		
	M	eP	09 59 47.5	c	
		e	10 01 35.9	d	
		e	10 15		
		e	11 06		
		e	13.9		
	A	ePE	09 59 53.7		
		eE	10 00 15.9		
		eLN	12		
	R	iP	09 59 35.1	c	
		eE	10 09.8		
	C	iP	00 23		
		e	16 07		
	SH	eP	09 59 51.7		
		e	10 02 34		
Oct. 16	MH	e	14 42 39.1	d	
	M	e	49.9	c	
Oct. 17	MH	eP	01 44 14.1	c	
		e	37	c	
		e	46 05	c	
	M	e	44 25.3	d	
		e	42.5	c	
	R	e	15.7	d	
Oct. 17	B	e	21 16 59		USCGS: 52°N, 159°E, 0 = 21 07 22
		e	17 48		Near Southeast Coast of Kamchatka.
	BG	eSNEZ	24 30		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Oct. 17		e	29.4		
		eN	30.8		
	MH	eP	16 59.5	d	
		i	18 10.7	c	
	F	e	17 16	c	
		e	18 06		
	M	e	16 56	c	
	R	e	17 01		
		e	20 47		
	SH	e	16 41		
Oct. 17	MH	e	23 53 02	c	USCGS: 52°N, 159°E, 0 = 23 43 20 Near East Coast of Kamchatka.
	M	e	06		
Oct. 18	MH	e	04 19 21.2	d	
Oct. 19	MH	i	04 23 04.2	c	
Oct. 19	MH	i	08 54 52.7	c	
Oct. 19	MH	i	18 34 00.2	c	USCGS: 19½°N, 65½°W, h = 60, 0 = 18 25 18. North of Puerto Rico.
		i	07.3	d	
		i	38.0	d	
	SH	e	35.6		
Oct. 20	C	eP	11 04 25		
Oct. 20	MH	iP	15 54 39.6	d	
Oct. 21	MH	iP	18 53 32.0	c	USCGS: 38°N, 20½°E, 0 = 18 39 50 Near West Coast of Greece.
		iPP	57 21.8		Minor damage on Cephalonia.
	F	eP	53 28.9	d	Pas: Magnitude 6½.
		e	57 11.7	c	
	R	eP	53 20.3		
		e	54 58.1		
		e(PP)	57 08.0		
	SH	eP	53 16.1		
Oct. 21	SH	e	22 02 38.8		
Oct. 22	MH	iP	13 12 26.5	d	USCGS: 51°N, 156°E, h = 60
		i	38.4	c	0 = 13 02 39. Near South
	M	iP	09.8	c	Coast of Kamchatka.
	R	e	32		
	SH	eP	05.4	c	
Oct. 22	MH	i	15 21 19.6	c	
		i	34.4	c	
	M	e	21.8		
	SH	i	20 59.9	c	
Oct. 23	MH	e	18 05 27.8	d	
Oct. 24	MH	i(P)	04 29 58.6	d	
		i	30 11.9	c	
Oct. 24	B	iP	23 32 43.8	d	USCGS: 35½°S, 179½°W, 0 = 23 19 40
		e	57.4	c	Off North Coast of North Island,
	BG	eSNE	43 09		New Zeland.
		eEZ	41		
		eN	44 06		
		eE	44		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Oct. 24		eLE	55.0		
	MH	eP	32 43.7	d	
		i	48.8	d	
		i	57.7	c	
		i	33 10.9	d	
		ePP	36 24.3		
	F	eP	32 48.4		
		e	33 01		
	M	iP	32 53.3	d	
		i	33 01.6	d	
	R	eP	04.2		
	SH	eP	32 52.1		
		e	33 20.4		
		e	40.6		
		e	36 50.5		
		eSKSN	43 21.3		
Oct. 25	B	i	01 06 24.4	c	USCGS: Near West Coast of Costa
	BG	eSN	12 58		Rica. 0 = 00 58 10.
	MH	iP	06 09.1	c	
		i	18.0	d	
		i	46.9	c	
	M	eP	20.6	d	
		e	28.9	c	
		e	45.9		
		e	08 03.0		
	SH	eP	06 24.4		
Oct. 25	B	eP	07 31 54.2	c	USCGS: Easter Islands Region
	BG	eSE	41 01		0 = 07 21 10
		eNE	42		
		eNE	42 10		
		eN	23		
		eN	45 58		
	MH	eP	31 47.7		
		i	53.0	c	
		i	32 08.9	c	
		e	34.4		
		e	33 37.9	c	
	M	eP	32 10.3	c	
	R	eP	01.6		
	SH	eP	13.1	c	
		e	38.4		
Oct. 25	MH	i	15 51 06.4	d	
		i	52 49.7	c	
	M	e	54.7	d	
Oct. 26	MH	e	09 10 18.3	c	
		i	32.0	c	
		e	11 14.3	d	
	M	eP	10 08.9	d	
Oct. 26	MH	iP	11 01 09.5	c	USCGS: Near Coast of El Salvador, h = 100, 0 = 10 53 50.

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Oct. 27	B	eP	03 51 42.5	c	USCGS: 43°N, 145°E, 0 = 03 40 45
		i	53.8	d	Near East Coast of Hokkaido,
	MH	eP	46.7	c	Japan.
		i	58.0	c	
		e	53 19.6	c	
	F	eP	51 56.5		
		i	52 10.2	d	
	M	eP	51 35.1	c	
		i	47.4	c	
		i	52.9	d	
		ePP	54 11.4		
	R	iPNEZ	51 46.4		
		iEZ	52 00.3		
	SH	iP	51 31.5	d	
		i	43.0	c	
		eN	04 00 36		
		eE	01 24		
Oct. 27	MH	eP	10 54 58.2	d	USCGS: New Britain Island Region
		e	55 04.5	c	0 = 10 41 39.
		e	25.7	c	
		ePP	58 40.3	c	
		e	59 01.6	c	
	F	eP	55 04.6		
	M	eP	54 58.7	d	
		e	55 39.8	d	
		ePP	58 44.7	d	
	SH	iP	54 56.2	d	
		i	58 50.5	d	
Oct. 27	MH	e	15 45 29.9	c	
		e	52.5		
	F	e	49.5		
	R	e	32.9		
	C	eP	44 24		
		e(S)	48 34		
	SH	e	44 53.6		
Oct. 27	C	iP	18 28 30		USCGS: 19°S, 66°W, h = 300,
Oct. 27	BG	iP	18 32 13.8	d	0 = 18 20 48. Southern Bolivia.
		ipP	33 20.7	c	Felt: Calama, Chile.
		iPP	35 06.8		Pas: Magnitude 6-3/4.
		iSN	41 44		
		eE	42 06		
		eN	43 10		
		iN	37		
	MH	iP	32 10.2	d	
		i	20.1	c	
		ipP	33 16.3	c	
		ePP	34 59.3		
		eS	41 35		
	F	iP	32 00.4	d	
		ipP	33 05.7	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
		iPP	35 54.6	c	
		iSNE	41 19		
		eN	43		
	M	iP	32 18.9	d	
		i	38.5		
		ipP	33 24.4	d	
	R	iPE	32 12.6		
		ipPEZ	33 18.9		
	C	iP	32 39		
		ipP	33 46		
		iS	42 32		
	SH	iP	32 21.7	d	
		epP	33 28.0		
		e	52.9		
		ePP	35 14.9		
		iSNEZ	41 59.0		
		eN	42 14		
		e	21		
Oct. 27	MH	e	19 02 17.9		SKPP of Preceding Shock?
	M	e	21.7		
	SH	e	01 56.8		
		e	02 16.6		
Oct. 27	MH	eP	20 43 33.6	d	
		i	41.1	d	
		i	57.2	c	
	F	eP	38.3	c	
	M	iP	44.3	c	
		e	51.8	c	
	SH	iP	42.6	d	
		e	44 17.8		
Oct. 27	F	e	21 12 11.7		
Oct. 28	M	e	02 21 02.1		
	R	e	08.9		
Oct. 28	C	eP	04 11 23		
Oct. 28	F	e	05 12 49.7		
	M	e	10 12.6		
		e	11 31.7		
		e	12 05.4		
	R	eEZ	11 35		
		eNE	14 51		
Oct. 28	M	e	08 45 33.2	c	
		e	46 25.9	d	
	SH	e	46.7		
		i	48 00.8	c	
Oct. 28	B	eP	08 53 17.7		USCGS: 16½°N, 98°W, 0 = 08 47 06,
	BG	eSN	58 36		Near Coast of Oaxaca, Mexico.
		eN	59 51		Pas: Magnitude 5-3/4.
		eLN	09 01.9		
	F	eP	08 52 59	c	
	M	eP	53 30.3	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
		i	54 22.9	c	
		e	09 04.0		
	R	iP	08 53 18.6		
		e	59 34		
Oct. 28	B	eP	12 19 31.0		USCGS: 49°N, 156°E, 0 = 12 09 36
		e(PP)	22 25.6		Kurile Islands.
	BG	eSE	27 26		
		eE	48		
		eN	55		
		eR	37.3		
	F	eP	19 43.3		
	M	eP	21.1	c	
		i	22.0	d	
		i	37.8	d	
		i	20 23.2	c	
	R	eP	19 34.7		
	SH	eP	16.6		
		e	46.4		
Oct. 28	B	iP	13 54 56.3	d	USCGS: 19°S, 178°W, h = 400, 0 = 13 43 40,
	F	iP	55 02.6	c	Fiji Islands.
	M	eP	06.1	c	
		i	07.9	c	
	R	ePEZ	11.8		
	SH	eP	05.1		
Oct. 29	MH	eP	14 54 46.7	c	USCGS: Near East Coast of Kamchatka,
		i	55.5	c	0 = 14 45 13.
		i	55 45.1	d	
	M	e(P)	54 32.8	c	
	SH	eP	27.0		
Oct. 29	MH	e	17 23 42	c	
	SH	e	24 03		
Oct. 31	MH	e	19 47 59.4	d	
	R	e	56.2		
	SH	e	48 09.2	c	
Nov. 1	B	iP	00 26 02.2	d	USCGS: 50°N, 159°E, 0 = 00 16 25
	MH	iP	07.9	c	Off Southeast Coast of
		i	13.4	d	Kamchatka.
		i	27 03.1	d	
	F	iP	26 18.8	c	
	M	iP	25 53.4	d	
		i	58.0	c	
		i	26 29.6	c	
		i	55.4	d	
	R	i	17.7		
Nov. 1	MH	e(P)	18 30 30.2	c	USCGS: 22°N, 122°E, 0 = 18 16 50
		e	56.2		Off East Coast of Formosa
Nov. 1	B	e	21 05 47.8		USCGS: Kurile Islands Region
	BG	eSNE	14 08		0 = 20 55 32
	MH	eP	05 47.6	c	
	F	eP	59.1		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Nov. 1	M	eP	35.9	d	
	R	eP	47.6		
	SH	eP	31.1		
Nov. 2	M	e	04 32 50.5	d	USCGS: Kurile Islands, 0 = 04 22 35.
		e	33 26.9	d	
		e	35.9	c	
Nov. 4	M	e(P)	01 44 22.5	c	
		e	42.7	d	
Nov. 4	MH	eP	01 47 03.6	c	USCGS: 71°N, 18°E, 0 = 01 35 55
	F	eP	05.0		Off North Coast of Norway.
	M	eP	46 43.1		
Nov. 4	MH	iP	02 33 23.1	c	USCGS: 16°S, 179°W, 0 = 02 21 35
		i	32.8	c	Fiji Islands Region.
	F	eP	27.6		
	M	iP	31.8	d	
		i	35.8	c	
		i	44.6	c	
	SH	iP	30.2	c	
Nov. 4	B	eP	04 01 37.2	c	USCGS: 12½°S, 166½°E, 0 = 03 49 04
		i	48.3	c	New Hebrides Islands
		e	02 19	d	Pas: Magnitude 7.3.
		e	05 05	d	
		e	06 07	c	
	BG	iSKSNE	12 03		
	MH	eP	01 39.0	c	
		i	02 17.0		
		e	05 12.4		
	F	iP	01 44.7	c	
		i	06 18.1	d	
	M	eP	01 44.0	c	
		i	02 25.5	d	
		i	04 53.1	d	
		eNE	14 07		
	A	eE	01 45		
	R	ePEZ	49.9		
		i	02 16.0		
		i	03 23.7		
		eE	11 28.2		
	C	eP	01 48		
		eSKS	12 11		
		eL	27.8		
	SH	eP	01 41.0		
		eE	12 03		
		eN	36		
Nov. 4	B	iP	04 17 15.1	c	USCGS: 12½°S, 166½°E, 0 = 04 04 44
		i	18 32.6	c	New Hebrides Islands Aftershock.
		e	20 38	d	
	MH	eP	17 13.1	c	
	F	eP	22.7	c	
	M	e	17.2	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Nov. 4		i	22.2	d	
		e	55.9	d	
	R	iP	28.2		
	C	eP	25		
	SH	eP	15.1		
Nov. 4	B	eP	06 16 19.4		USCGS: 39°N, 129°E, h = 650, 0 = 06 05 15
	MH	eP	23.2	d	Off East Coast of Korea.
		i	48.4	c	
		e	17 09.5	c	
		ipP	18 31.5	c	
	F	eP	16 31.3		
	M	iP	13.0	c	
		ipP	18 21.0		
	R	eEZ	16 31.4		
		epP	18 30.3		
Nov. 4	MH	e	08 59 51.5	d	USCGS: New Hebrides Islands Region,
	M	e	50.1	d	h = 60, 0 = 08 47 19.
Nov. 4	MH	eP	09 44 45.7	c	USCGS: Solomon Islands Region,
	M	eP	51.0	d	0 = 09 32 10.
Nov. 4	B	e(P)	12 40 10.5	d	USCGS: 12°S, 166½°E, 0 = 12 27 41
		i	34.5	c	New Hebrides Islands.
	BG	eSKSNE	50 28		Pas: Magnitude 6½.
	MH	eP	40 06.7	c	
		i	13.1	c	
		i	39.7	d	
		i	41 17.5	d	
	F	eP	40 21.6	d	
	M	eP	16.9	c	
		e	43 52	c	
	R	eEZ	40 32.8		
	SH	iP	14.6	c	
		i	28.4	c	
		e	43 49	c	
		e	46 57		
Nov. 4	MH	e	22 12 52	c	
Nov. 5	BG	iNZ	04 53 52		
		eE	05 14.6		
	MH	i	04 26 32.5	c	
Nov. 5	F	i	07 37 45.6	c	
	M	e	41.2	c	
Nov. 5	MH	e(P'')	08 39 22	c	USCGS: 36½°N, 70°E, h = 200
		i	45	d	0 = 08 21 35, Hindu Kush.
		e	41 07	d	
	M	e	38 17	c	
		e	22	c	
		i(P'')	39 07		
Nov. 6	M	eP	04 48 42	c	USCGS: Tonga Islands. 0 = 04 36 54
Nov. 7	MH	iP	07 37 42.2	c	
	M	e(P)	45.3	d	
Nov. 7	MH	eP'	13 22 17	c	USCGS: Near West Coast of Sumatra
	M	eP'	13		0 = 13 03 07.

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Nov. 7	BG	eRNEZ	16 39.9		Southwest Pacific Area?
	MH	e(P)	16 13 39.4	c	
	M	e(P)	37.8	c	
		e	49	d	
	SH	e	45		
		e	14 10		
Nov. 8	MH	e	01 26 07	c	
	M	e	25 54	d	
Nov. 8	B	e	15 35 54	d	
	MH	iP	42.6	c	
		i	57.9	d	
		e(PP)	38 24	c	
	M	e	36 14	d	
		e	24		
		i(PP)	38 31.7	d	
		e	45.0	d	
	SH	e	36 09		
		e	38 29		
Nov. 8	M	e	21 28 39		
Nov. 9	MH	eP	02 06 50.0	c	
	M	eP	41.9	c	
	SH	i	39.1	d	
Nov. 9	M	eP	04 30 43	d	
Nov. 9	B	eP	17 35 08		USCGS: 52½°N, 159°E, h = 60,
	BG	eSNE	42 45		0 = 17 25 42. Near East Coast
		eRNEZ	51.5		of Kamchatka.
			A T		Pas: Magnitude 6½.
		SH	8 10		
		MAXH	80 23		
	MH	i	17 35 18.9	d	
		e	38 34		
	F	eP	35 18.3		
		i	29.9		
	M	eP	34 58	c	
	R	eP	35 10		
	SH	eP	34 53	c	
		e	36 31		
		e(S)E	42 19		
Nov. 10	SH	i	05 06 45.6	d	
Nov. 10	M	e	15 19 30		USCGS: Azores. 0 = 15 08 35.
Nov. 10	B	iP	23 49 59.4	c	USCGS: 50½°N, 157°E, h = 60,
	BG	e(pP)	50 16	c	0 = 23 40 20. Near South Coast
		iSNE	57 48		of Kamchatka.
		iEZ	58		Pas: Magnitude 7 - 7¼.
		esSN	58 18		
		eScSNE	59 47		
		eREZ	24 06.4		
			A T		
		PZ	6 6		
		(pP)Z	12 6		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Nov. 10			A T		
		SH	7 7		
		sSH	32 9		
		ScSH	18 9		
		MAXH	100 28		
		MAXZ	150 28		
	MH	iP	23 50 05.1	d	
		i	19.9	d	
		i	52 25.5	d	
	F	i	50 05.3	c	
		i	36.9	c	
		e	52 24		
	M	eP	49 50.8	c	
		i	50 03.2	c	
		e	57 33		
	R	iP	50 03.2		
		iEZ	24.3		
	SH	iP	49 45.8	c	
Nov. 11	M	e	07 41 05	d	USCGS: Ryukyu Islands Region 0 = 07 27 55.
	SH	iP	40 39		
Nov. 12	MH	iP	03 17 53.2	d	USCGS: 10°S, 160½°E, 0 = 03 05 17 Solomon Islands
		i	18 11.9	c	
		e	29	c	
	M	e(P)	17 57	c	
		e	18 05		
Nov. 12	MH	iP	15 46 27.7	c	
		i	39.0	d	
	F	e	11	c	
	M	e	34.4	c	
		e	48 18	d	
Nov. 13	MH	iP	11 23 42.1	c	USCGS: About 400 miles Southwest of Guam. 0 = 11 10 41.
	F	eP	46.9		
	M	i	42.5	c	
	R	e	54		
	SH	i	42.9	c	
Nov. 13	MH	i	16 18 02.4	d	
	F	e	05.6		
	M	e	17 40.3		
	R	e	18 13.3		
	SH	e	03.0		
Nov. 13	MH	eP''	16 36 08.0	d	USCGS: 3½°N, 96°E, 0 = 16 17 02 Near West Coast of Sumatra.
		i	20.6	c	
		i(PP)	38 02.6	c	
	F	eP''	36 11.5		
		e	37 32.5		
		e	38 19.7		
	R	eP''	36 08.5	d	
		e(PP)	38 06.3		
	SH	iP''	36 02.7	d	
		e	37 47.5		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Nov. 13	BG	eP	19 28 14	d	USCGS: 13°S, 166°E, 0 = 19 15 37 New Hebrides Islands.
		eSN	38 36		
		eE	40 02		Pas: Magnitude 6-3/4.
		eR	53.8		
	MH	iP	28 15.3	d	
	F	e	19.1		
	R	e	47.1		
	SH	e	17.6		
Nov. 14	MH	iP	20 13 09.7	d	USCGS: 52°N, 160°E, 0 = 20 03 27
	F	eP	21.1	d	Off Southeast Coast of
	M	eP	12 47.3	d	Kamchatka.
		i	13 39.0	c	
		e	15 16.4	c	
	SH	eP	12 43.0	c	
		i	13 48.2	c	
		e	15 50.4		
Nov. 15	MH	iP	17 33 54.9	c	
	M	e	34 08.2	d	
	R	e	09.4		
Nov. 16	M	e	09 54 29.1	c	
Nov. 16	MH	eP	16 13 44.4	d	USCGS: Loyalty Islands. 0 = 16 00 53.
	F	eP	50		
	SH	eP	49	c	
Nov. 16	F	eP	16 29 42.6		USCGS: Loyalty Islands. 0 = 16 16 44
	M	eP	44.3	c	
Nov. 16	B	eP	17 30 20.1		USCGS: 21½°S, 169°E, 0 = 17 17 27
	MH	iP	21.6	d	Loyalty Islands.
	F	eP	26.1		
	R	eP	31.1	c	
	SH	iP	25.6		
Nov. 16	M	eP	22 15 31.0	c	
	SH	iP	27.7	c	
Nov. 17	F	iP	04 32 32.2	c	USCGS: 20°S, 168°E, 0 = 04 19 35
	M	eP	33.6	c	Loyalty Islands
	SH	iP	32.2		
Nov. 17	MH	iP	05 41 15.8	d	USCGS: 5½°S, 147°E, 0 = 05 27 53
	M	eP	16.0	d	Off Northeast Coast of New
		ePP	45 12.2		Guinea.
	SH	iP	41 13.9	d	
Nov. 17	MH	eP	09 58 15.3	d	USCGS: Loyalty Islands. 0 = 09 45 23.
	F	iP	21.0	c	
	M	eP	22.0	c	
	R	eP	27.1		
	SH	iP	20.3	c	
Nov. 17	M	eP	11 57 18.8	d	USCGS: 43°N, 46°E, 0 = 11 43 50
		e	23.7	c	Degestan A.S.S.R.
Nov. 17	B	iP	13 36 55.5	dSE	USCGS: 14°N, 92°W, 0 = 13 29 52
		iPcP	39 19.7	c	Near Coast of Guatemala.
	BG	iSNE	42 40		Pas: Magnitude 7.4 ± .

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Nov. 17		e	45.6		
		eQNE	47.2		
			A T		
		PZ	25 7		
		PH	20 9		
		SH	25 10		
		MAXH	700 28		
MH	MH	iP	13 36 49.0	d	
	F	iP	35.3	d	
		e(PP)	38 01.6		
		eSN	42 26		
	M	iP	37 03.6	d	
		i	42.2	c	
		i	39 27.2	c	
		eS	42 55		
	A	ePNE	37 19		
		eSNE	43 30		
	R	iP	36 52.0	d	
		eSNE	42 45		
	C	iP	37 35		
		eS	43 37		
		e	52.0		
	SH	iP	37 08.0	d	
		iPcP	39 25.0	c	
Nov. 17	M	eP	20 13 51.0	c	USCGS: 32°N, 39°W, 0 = 20 03 10
		i	14 01.6	d	North Atlantic Ocean.
Nov. 17	M	eP	22 52 50.8	d	USCGS: Near East Coast of Kamchatka. 0 = 22 43 30.
Nov. 17	M	e	23 35 30.9	c	
Nov. 18	M	iP	03 10 36.8	c	USCGS: New Hebrides Islands, h = 200
		epP	11 22.3	c	0 = 02 58 18.
Nov. 18	M	e	04 43 24.9	d	
Nov. 18	M	e	07 25 01.3	d	
Nov. 18	M	e	10 20 13.2	d	
Nov. 18	M	e	13 39 18.0	c	
Nov. 18	M	eP	14 34 01.2	c	USCGS: 16°N, 94°W, h = 60, 0 = 14 27 15
		e	17.2	c	Chiapas, Mexico.
	R	e(P)	33 49.4	d	
Nov. 19	MH	e	03 47 34.8	d	
	M	i	29.6	c	
	SH	i	27.0	c	
Nov. 19	M	e	10 15 11.5	c	
Nov. 20	MH	iP	02 39 35.6	c	USCGS: 20½°S, 69½°W, h = 60
	M	eP	40.2	c	0 = 02 27 46. Northern
	SH	iP	42.8	d	Chile. Felt.
Nov. 20	B	iP	21 16 23.9	d	
	MH	iP	24.2	d	
	M	eP	33.5	d	
	R	e	17 00.5	d	
	SH	iP	16 33.1		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Nov. 21	MH	i	01 14 04.4	d	
	M	e(P)	13.0	c	
	R	e	17.0		
	SH	i	12.1	c	
Nov. 21	M	iP	08 18 12.3		
	SH	i	13.4		
Nov. 21	MH	i	08 34 17.0	c	
	M	e	19.9	c	
Nov. 22	M	e	08 18 52.6	d	
Nov. 23	B	eP	03 54 22.1	d	USCGS: 13°N, 145°E, 0 = 03 41 45
		e	25.8	c	Off Coast of Guam.
	MH	iP	25.9	c	
		i	29.3	d	
	F	eP	36.1		
	M	iP	25.7	d	
	R	eP	34.8		
	SH	i	18.2	c	
Nov. 23	MH	eP	06 01 29.9	d	USCGS: 42°N, 90½°E, 0 = 05 47 58
	M	eP	13.4	d	Sinkiang Province, China.
Nov. 24	MH	i	03 01 43.1	c	
	M	e	47.4	d	
Nov. 24	B	eP	05 47 17.8	c	Pas: 35° 53'N, 116° 58'W, 0 = 05 46 06.
		i	31.4	c	Magnitude 4.9. Panamint
		i	48 30.4	c	Range, California.
	MH	iP	47 07.9	c	
	F	iP	46 46.4	c	
	M	iP	47 36.2	d	
	R	eP	24.9	d	
		iSEZ	48 26.0		
	SH	eP	47 45.0		
		iEZ	49 24.8		
Nov. 24	MH	iP	09 15 00.2	d	USCGS: 14°N, 92°W, h = 100, 0 = 09 08 18
	M	iP	21.1	c	Near Coast of Guatemala.
	R	eP	08.6		
Nov. 24	MH	iP	10 10 59.1	c	USCGS: Off Northwest Coast of
	M	iP	46.5	c	Hokkaido, Japan. 0 = 09 59 50.
	SH	iP	39.4	c	
Nov. 24	MH	i	13 00 04.8		
Nov. 24	MH	e	17 45 56.6		
Nov. 25	M	e	10 51 12.7	c	
	SH	i	11.7	c	
Nov. 25	MH	i	17 35 22.6	c	
	M	e	36.0	c	
	SH	e	33.5		
Nov. 25	MH	iP	17 48 11.3	c	
	M	iP	19.8	c	
	SH	iP	17.4	c	
Nov. 25	BG	iPNE	18 00 32	NW	USCGS: 34°N, 141°E, 0 = 17 48 49
		iPPN	03 31		Near South Coast of Honshu, Japan.
		iSNE	10 06		Felt: Honshu and Hokkaido.

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
			A T		Seismic Sea Wave.
		PH	60 10		CMO: "Boso-Oki Earthquake."
		SH	50 10		Pas: Magnitude 8¼.
		MAXH	700 25		
	MH	iP	18 00 34.5	d	
		eSNE	10 11.3		
	F	ePN	00 45		
	M	iP	25.9	d	
		iPP	03 18.8	d	
	A	ePNE	00 18		
	R	iP	35.9		
		iSE	10 12.2		
	C	iP	00 09		
		iS	09 21		
		e	20 50		
	SH	iP	00 21.8	d	
		ePP	03 08		
		iSNE	09 46		
Nov. 25	MH	iP	19 14 07.8	d	USCGS: 34°N, 141°E, 0 = 19 02 23
	M	e	07.3	c	Honshu, Japan Aftershock.
	SH	iP	13 54.7	d	
Nov. 25	M	i	21 59 28.3	d	
	SH	i	24.1	c	
Nov. 25	MH	eP	22 04 02.5	c	
		i	14.6	d	
	M	e	03 58.6	d	
	SH	i	56.3	d	
Nov. 25	MH	eP	23 47 48.7	d	USCGS: 34°N, 141½°E, 0 = 23 36 03
	M	i	40.0	c	Honshu, Japan Aftershock.
	SH	i	36.0	c	
Nov. 25	MH	iP	23 51 26.9	c	
	M	eP	16.9	c	
	SH	iP	13.6	c	
Nov. 26	BG	iP	00 15 11	d	USCGS: 34°N, 141°E, 0 = 00 03 28
		iSNE	24 46		Off South Coast of Honshu, Japan.
			A T		Felt.
		PZ	3½ 6		Pas: Magnitude 6-3/4.
		MAXH	25 16		
	MH	iP	00 15 13.8	c	
		e	17 32		
	F	ePN	15 23		
	M	eP	03.2		
		i	16 48.5	c	
	R	iP	15 14.2		
		eE	24 59		
	C	eP	14 47		
	SH	iP	59.3	d	
		eNE	24 32		
Nov. 26	MH	iP	01 31 24.3	d	USCGS: Honshu, Japan Aftershock
	M	eP	20.1	d	0 01 19 43.

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Nov. 26	SH	iP	17.0	c	
Nov. 26	B	iP	01 59 08.7	d	USCGS: 34°N, 141°E, 0 = 01 47 27
	MH	iP	12.6	d	Off South Coast of Honshu,
	F	ePN	23		Japan.
	M	iP	02.8	c	
	R	eP	12.3		
	C	eP	58 46		
	SH	iP	59.6	d	
Nov. 26	M	eP	02 08 32.5	d	USCGS: Honshu, Japan Aftershock
	SH	eP	29.8	d	0 = 01 56 58
Nov. 26	M	e	03 16 41.8	d	
	SH	e	37.4	d	
Nov. 26	MH	e	03 35 56.3	c	
	M	e	36 03.2	c	
	SH	i	35 57.0	c	
Nov. 26	M	e	03 44 47.2	d	USCGS: 34°N, 141°E, 0 = 03 33 00
					Honshu, Japan Aftershock.
Nov. 26	MH	iP	04 33 19.0	c	USCGS: 34°N, 141°E, 0 = 04 21 35.
	M	eP	09.5	c	Honshu, Japan Aftershock.
	SH	iP	06.3	d	
Nov. 26	SH	i	04 44 31.4	c	
Nov. 26	B	e	05 15 40	d	USCGS: 34°N, 141°E, 0 = 05 03 59
	MH	iP	43.9	c	Honshu, Japan Aftershock.
	M	eP	34.0	d	
	SH	iP	31.0	c	
Nov. 26	MH	iP	05 13 50.6	c	USCGS: Honshu, Japan Aftershock
	M	eP	40.2	d	0 = 05 08 05.
	SH	eP	36.8	c	
Nov. 26	B	iP	08 25 53.8	d	USCGS: 34°N, 141°E, 0 = 08 14 12
	BG	eSNE	35 34		Off South Coast of Honshu, Japan.
			A T		Felt.
		PZ	4 4		Pas: Magnitude 6-3/4 - 7.
		MAXH	30 18		
	MH	iP	08 25 58.3	d	
		i	28 38.2	c	
	F	iP	26 08.0	d	
	M	iP	25 48.5	d	
	R	iP	58.6	d	
		iE	35 49		
	C	eP	25 32		
	SH	iP	45.1	d	
		eSE	35 10		
Nov. 26	B	iP	08 31 29.6	d	USCGS: 34°N, 141°E, 0 = 08 19 49
	MH	iP	34.8		Honshu, Japan Aftershock.
	M	iP	24.2	d	
	R	eP	34.2		
	SH	iP	20.5	d	
Nov. 26	B	iP	08 38 14.8	d	USCGS: 34°N, 141°E, 0 = 08 26 34
	MH	iP	18.9	d	Honshu, Japan Aftershock.
	F	eP	28		
	M	iP	09.5	d	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Nov. 26	R	eP	19		
	SH	iP	06.1	d	
Nov. 26	MH	e	08 43 01.5	c	
	M	i	42 48.1	c	
	SH	e	44.1	d	
Nov. 26	MH	e	08 51 10.1	c	
	M	e	50 58.3	d	
	SH	e	54.2	c	
Nov. 26	M	e	09 10 57.8	c	
Nov. 26	M	e	09 26 55.5	d	
Nov. 26	MH	i	11 02 58.3	c	
	F	e	03 10.5		
	M	e	02 30.8	d	
	R	e	54		
	SH	e	33.8		
Nov. 26	B	eP	11 48 00.5	d	USCGS: 34°N, 141°E, 0 = 11 36 20
	MH	iP	05.0	c	Honshu, Japan Aftershock.
	F	eP	14.6		
	M	iP	47 55.6	c	
	R	eP	48 05		
	SH	iP	47 52.0		
Nov. 26	MH	iP	11 53 17.3	c	USCGS: 34°N, 141°E, 0 = 11 41 33
		i	32.8	d	Honshu, Japan Aftershock.
	M	iP	07.7	c	
		i	22.9	c	
	SH	iP	04.5	c	
		e	19.3		
Nov. 26	B	iP	11 55 45.5	d	USCGS: Honshu, Japan Aftershock.
	MH	iP	49.4	d	0 = 11 44 05.
	F	eP	59.2		
	M	iP	40.0	d	
	R	e	56 20	d	
	SH	iP	55 36.7	d	
		e	51.7		
Nov. 26	MH	e	12 04 58.3	c	
	M	e	41.1	d	
	SH	e	37	c	
Nov. 26	M	e	12 22 06.7	c	
Nov. 26	MH	iP	14 41 02.1	c	Japan?
	M	eP	40 52.4		
	SH	iP	49.4		
Nov. 26	MH	i	19 38 31.9	c	
	F	e	26.1		
	M	e	08.6	c	
	SH	i	05.6	d	
Nov. 27	B	eP	00 13 02.2		USCGS: 34°N, 141°E, 0 = 00 01 20
	MH	iP	06.8	c	Honshu, Japan Aftershock.
	F	eP	15		
	M	eP	12 57.1	c	
	SH	iP	53.9	d	
Nov. 27	MH	eP	01 16 15.1	d	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Nov. 27	M	eP	05.7	c	
Nov. 27	M	eP	01 36 21.1	c	USCGS: 34°N, 141°E, 0 = 01 24 46
	SH	iP	17.7	c	Honshu, Japan Aftershock.
Nov. 27	M	eP	02 06 11.2	d	USCGS: 34°N, 141°E, 0 = 01 54 36
	SH	iP	07.8	d	Honshu, Japan Aftershock.
Nov. 27	B	eP	05 16 39.9		
	M	iP	43.5	c	
	SH	iP	30.8	d	
Nov. 27	M	e	07 01 00.6	d	
		e	20.0	c	
	SH	e	02.2		
Nov. 27	M	e	10 02 42.5	d	
Nov. 27	B	iP	11 41 43.5	d	USCGS: 33½°N, 141½°E, h = 60
		ipP	59.3	c	0 = 11 30 06. Off South
		i	42 36.2	c	Coast of Honshu, Japan.
	MH	iP	41 47.4	d	
		i	42 43.0	c	
	F	iP	41 56.4	d	
		e	43 23		
	M	eP	41 38.0	d	
		ipP	54.5	c	
		i	42 31.1	c	
	R	iP	41 47.7		
		ipP	42 03.2		
		i	43 17.6		
	C	e	41 41		
	SH	iP	34.5	d	
		ipP	51.1	d	
		i	42 27.5	c	
Nov. 27	B	eP	13 42 30		Japan?
	MH	eP	33.1	c	
	M	eP	23.7	c	
		e	38.6	d	
	SH	e	22.5		
		i	35.2	d	
Nov. 27	B	eP	18 43 15.5		Two Shocks?
		e(P)	55.2	d	USCGS: 33½°N, 141°E, 0 = 18 31 31
					Honshu, Japan Aftershock.
	MH	iP	20.8	c	
		i(P)	59.2	d	
	M	eP	10.6	c	
		i	31.6		
		e(P)	49.6	d	
		i	59.1	d	
	SH	eP	07.6	d	
		e(P)	46.7		
		i	44 24.6	d	
Nov. 27	MH	e	22 56 37.3	c	
	F	e	57.2		
	M	e	05.0	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Nov. 27		e	31.7	d	
	R	e	24		
	SH	e	27	c	
Nov. 27	MH	iP	23 13 36.7	d	
		i	46.2		
	F	eP	40.1		
	M	iP	44.1	d	
		i	14 11.3	d	
	R	eP	13 48.6		
Nov. 27	M	e	23 39 57	c	
	SH	e	56		
Nov. 28	B	iP	02 22 20.3	c	USCGS: 33½°N, 141½°E, 0 = 02 10 35
	MH	iP	23.3	c	Honshu, Japan Aftershock.
		i	43.2	c	
	F	e	32.1		
	M	iP	14.0	c	
		i	20.3	c	
		i	34.9	c	
	R	eP	23.3		
	SH	iP	10.1	d	
Nov. 28	B	iP	02 54 41.0	c	Japan?
	MH	iP	44.2	c	
	M	iP	34.8	c	
	SH	iP	31.4	c	
Nov. 28	M	eP	03 11 04.4	c	
Nov. 28	B	eP	04 37 02	d	USCGS: Honshu, Japan Aftershock
	MH	eP	04.5	d	0 = 04 25 16.
	M	iP	36 55.6	c	
	SH	eP	51.9	d	
Nov. 28	B	eP	05 22 56.5	d	USCGS: Honshu, Japan Aftershock
	MH	iP	59.3	d	0 = 05 11 11.
	F	eP	23 08.0		
	M	eP	22 49.7	d	
	R	eP	54.7		
	SH	iP	46.5	d	
Nov. 28	MH	eP	07 08 01.8	c	
	M	eP	07 51.3	c	
	R	eP	08 01.6		
	SH	iP	07 47.8	c	
Nov. 28	M	eP	10 02 19.5	d	USCGS: 53°N, 161°E, 0 = 09 53 02
		e	37.4		Off East Coast of Kamchatka.
Nov. 28	MH	e	14 12 42	c	
	M	e	12	d	
	SH	i	08.7	c	
Nov. 28	B	eP	14 25 06	d	USCGS: 34°N, 141½°E, h = 60
	MH	iP	09.9	c	0 = 14 13 30. Honshu,
		ipP	24.8	c	Japan Aftershock.
		i	35.3	d	
	F	eP	20		
	M	eP	00.3	d	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Nov. 28		epP	14.8	c	
		i	27.6	d	
	R	eP	10.5		
	SH	eP	24 56.6	d	
		ipP	25 11.7	c	
Nov. 28	MH	iP	19 40 37.3	c	USCGS: 34½°N, 141°E, 0 = 19 28 53
	M	eP	27.2	d	Honshu, Japan Aftershock.
	SH	iP	24.3	c	
Nov. 28	M	e	20 05 36	c	
	SH	e	27		
Nov. 28	M	e	20 30 54	d	USCGS: 37°N, 20°E, 0 = 20 17 21
		e	31 04	c	Off West Coast of Greece.
Nov. 28	M	e	21 20 18.9	d	
		e	35.9	c	
Nov. 28	MH	iP'	23 30 41.9	d	
		i	58.0	c	
	F	iP'	46.9	c	
	M	eP'	37.1	d	
		e(PP)	33 41.4	c	
	R	eP'	30 43		
	SH	iP'	35.1	d	
Nov. 29	M	e	00 49 29	c	USCGS: 44°N, 86°E, 0 = 00 35 40
					Northern Sinkiang Province, China.
Nov. 29	MH	e	04 19 08.4	d	USCGS: 34½°N, 141½°E, 0 = 04 07 19
		i	29.6		Honshu, Japan Aftershock.
	M	eP	18 52.4	d	
	SH	eP	48.4	c	
Nov. 29	MH	iP	13 45 06.6	c	
	M	e	11.8	c	
Nov. 29	MH	e	14 51 06.8	c	
	M	e	39.8	c	
	SH	e	35.7		
Nov. 29	MH	eP	18 32 51.8	c	USCGS: Near East Coast of Honshu,
		i	33 09.0	d	Japan. 0 = 18 21 07.
	F	eP	03.7		
	SH	eP	32 37.0	c	
		i	58.6	c	
Nov. 29	C	eP	23 51 30		
Nov. 30	MH	eP	05 54 58.5	c	USCGS: Fiji Island Region.
	F	eP	55 02.8		0 = 05 42 43.
	M	iP	04.4	c	
	R	eP	10.0		
	SH	e	05.8		
Nov. 30	M	e(P)	13 34 29.1	d	USCGS: 39°N, 21½°E, 0 = 13 21 01
					Near West Coast of Greece.
Nov. 30	B	iP	13 55 09.0	d	USCGS: Honshu, Japan Aftershock
	MH	eP	12.6	c	0 = 13 43 31.
		e	25.8	c	
		e	56 26.3	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Nov. 30	M	iP	55 03.6	c	
		i	20.2	c	
		e	41.6	d	
	SH	iP	54 59.4	c	
Nov. 30	MH	iP	14 46 49.4	c	
	M	eP	43.3	c	
	SH	eP	41.2		
Dec. 1	B	iP	04 23 05.4	d	USCGS: 52°N, 179½°E, h = 100
		i	39.2	c	0 = 04 15 15. Andreanof
	MH	iP	10.7	c	Islands, Aleutian Islands.
		i	43.3	d	
		i	24 57.8	c	
		i	28 35.5	c	
	F	iP	23 24.0	d	
		eS	29 44.9		
		eN	50.7		
	M	iP	22 55.5	c	
		e	23 22.8	d	
		i	55.1	d	
		i	24 33.4	d	
		e	28 26.2		
	R	eP	23 08.9	c	
		iSN	24 24.6		
	SH	iP	22 50.1	c	
		e	24 25.5		
		i	28 28.9	c	
Dec. 1	MH	iP	04 40 30.2	d	
		e	47.6	c	
Dec. 1	B	iP	05 21 07.9	c	USCGS: 29°N, 128½°E, h = 60
					0 = 05 08 30
		i	22 04.4	d	Ryukyu Islands.
		ePP	24 29	c	Pas: Magnitude 6-3/4 - 7.
	BG	iSNE	31 22		
		eE	32 51		
			A T		
		PZ	7½ 5		
		SH	13 10		
	MH	iPNEZ	05 21 11.9	cSE	
		i	22 08.4	d	
		i	35.4	c	
		i	24 22.6	c	
		iPP	33.1	d	
		eSN	31 31		
	F	iP	21 19.0	c	
		i	48.7	c	
		ePP	24 45		
		iSNE	31 45		
	M	eP	21 02.0	c	
		i	03.1	c	
		iPP	24 21.7	d	
	R	iP	21 11.3	c	
		e	51	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Dec. 1	SH	iP	20 59.5	d	
Dec. 1	B	iP	05 37 53.4	d	
	MH	eP	57.5	d	
	M	iP	48.6	c	
	SH	iP	44.9	d	
Dec. 1	MH	iP	10 23 32.2		
	M	e	18.3		
Dec. 1	R	i	16 16 53.6	c	
	SH	i	39.4	c	
Dec. 1	MH	iP	20 43 04.4	c	USCGS: Near Coast of Nicaragua
	F	e	42 56	d	0 = 20 35 35
	M	eP	43 18	c	
	SH	eP	20		
Dec. 1	B	iP	21 34 02.3	c	USCGS: 25°S, 180°, h = 500
	MH	iP	02.9	c	0 = 21 22 27. About 450 miles
		i(pP)	35 53.3	d	South of Fiji Islands.
	F	iP	34 07.4	c	
		i(pP)	35 58.8	c	
	M	eP	34 11		
		e(pP)	36 04		
	SH	iP	34 10.4	c	
		e(pP)	35 57		
Dec. 2	SH	e	00 42 11		
Dec. 2	M	e	04 25 26.4	d	
	SH	e	23.4		
Dec. 2	B	eP	04 38 26.6	c	USCGS: 3½°S, 141½°E, 0 = 04 24 50
	BG	ePP	42 21	d	Northern New Guinea.
		e	45 07		Pas: Magnitude 6-3/4.
		iSKSNE	49 00		
		iPSNE	51 14		
		iN	53 03		
		iSSE	56 36		
		eRN	05 08.5		
			A T		
		PPZ	3½ 7		
		SKSH	11 10		
		PSH	10 12		
		MAXH	70 20		
	MH	eP	04 38 25.2	d	
		ePP	42 22		
		e	43 45		
	F	eP	38 32		
	M	eP	25.9	c	
		ePP	42 24		
	R	eP	38 39	c	
	SH	iP	23.6	c	
		ePPEZ	42 23	d	
		eSKSE	49 01		
Dec. 2	M	e	06 21 43.4	d	
	SH	i	39.9		
Dec. 2	M	e	06 30 42.2	c	
Dec. 2	M	eP	07 12 01.7	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Dec. 2	SH	eP	11 57.9		
Dec. 2	B	iP	09 59 00.2	c	USCGS: 33½°N, 141½°E, 0 = 09 47 17
	MH	eP	03.9	d	Honshu, Japan Aftershock.
	F	eP	10.4		
	M	eP	58 53.6	c	
	R	eP	59 04.6	d	
	SH	eP	58 50.1		
Dec. 2	B	i	10 42 23.8	c	USCGS: 33½°N, 141½°E, h = 60,
	MH	e	20.2	d	0 = 10 30 31. Honshu, Japan
	M	eP	03.7	c	Aftershock.
		i	13.5	c	
	SH	eP	41 59.9		
		i	42 14.8	c	
Dec. 2	C	eP	20 51 24		
Dec. 2	MH	iP	21 35 45.6	d	
	F	eP	50.8		
	M	eP	55.3	c	
	SH	eP	54.2		
Dec. 3	M	iP	01 23 33.4	d	USCGS: 2°S, 140½°E, 0 = 01 09 57
	SH	iP	31.5	d	Off North Coast of New Guinea.
Dec. 3	M	e	10 52 54.4	c	
Dec. 3	MH	iP	12 19 38.1	d	USCGS: Off East Coast of Kamchatka
	F	iP	48.8	c	0 = 12 10 10.
	M	iP	23.7	d	
	R	eP	35.5	d	
	SH	eP	18.7	c	
		e	20 32		
Dec. 3	MH	e	15 33 32.2	c	
	M	e	41.3	c	
	SH	e	44.1	c	
Dec. 3	M	iP	20 02 05.6	c	
Dec. 3	M	e	20 52 18.6	d	
Dec. 4	M	eP	08 36 08.0	c	USCGS: Honshu, Japan Aftershock
					0 = 08 24 29.
Dec. 4	BG	iPNZ	14 57 50.4	d	USCGS: 49½°N, 129°W, 0 = 14 45 46
		iSEZ	15 00 16		Off Coast of Vancouver Island.
		iNZ	24		Pas: Magnitude 6.
			A T		
		PZ	14 8		
		PH	10 8		
		SH	100 11		
		(S)Z	100 12		
	MH	iP	14 57 58.5	d	
		eSNEZ	15 00 37.5		
		eRNZ	01 42		
	F	iP	14 58 15.1	d	
	M	iP	57 23.4	d	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Dec. 4		eSNE	59 30		
	A	ePN	57 15.6		
		eN	59 49		
	R	eP	57 41.3	c	
		e	58 35.6	d	
		eNE	15 01 13.9		
	C	eP	14 56 24		
		e	57 30		
		e	59 35		
	SH	iP	57 15.5	d	
		eSN	59 14		
Dec. 4	B	iP	21 58 31.7	c	USCGS: Fiji Islands Region.
	MH	iP	32.8	c	0 = 21 46 42.
	F	iP	37.4	c	
	M	eP	41.0	c	
	R	iP	45.0	c	
	SH	iP	40.9	c	
Dec. 4	B	iP	09 52 58.6	d	USCGS: 34°N, 141½°E, 0 = 09 41 17
	MH	eP	53 02.6	d	Honshu, Japan Aftershock.
	F	eP	11.9		
	M	iP	52 53.2	d	
	R	eP	53 01.7		
	SH	iP	52 49.6	d	
Dec. 5	M	i	10 08 38.0	c	
Dec. 5	B	iP	18 51 06.0	d	USCGS: 34°N, 141½°E, 0 = 18 39 25
	MH	iP	10.1	d	Honshu, Japan Aftershock.
	F	eP	18.5	d	
	M	eP	00.7	d	
	R	iP	10.7	d	
	C	eP	50 42		
	SH	iP	57.3	d	
Dec. 5	MH	iP	22 58 48.9	c	
Dec. 6	M	eP	04 15 26.1	c	USCGS: 52°N, 160½°E, 0 = 04 06 03
		e	51.1	c	Off East Coast of Kamchatka.
Dec. 6	M	e	07 46 26.1	c	
Dec. 6	MH	iP	11 29 14.6	c	
Dec. 6	MH	eP	21 33 10.4	d	
Dec. 7	M	e	00 16 59.2	d	
Dec. 7	B	iP	02 17 28.7	d	USCGS: 22°S, 68½°W, 0 = 02 05 37
		e	18 07.5		Northern Chile. Heavy casualties
	BG	iANEZ	11		and extensive property damage.
	B	e(PP)	21 04		Pas: Magnitude 7¼ - 7½.
	BG	eSNE	27 22		Phases labelled A and B are the most
		eBNEZ	27.9		prominent phases in the P and S Groups,
			A T		respectively.
		PZ	16 8		
		PH	6½ 8		
		AZ	35 10		
		AH	12 9		
		(PP)Z	11½ 8		
		SH	20 12		
		BZ	40 15		
		BH	65 10		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Dec. 7	MH	iP	02 17 25.0	d	
		i	18 52.6	d	
		e(S)	27 06.4		
		i	28 23		
	F	iP	17 15.4	c	
		eNE	27 00		
		iNE	42		
	M	iP	17 34.1	d	
		i	21 25.6		
	R	iP	17 27.5	d	
		iE	27 45		
	SH	iP	17 37.3	d	
Dec. 7	MH	i	02 48 52.6		
	M	e	49 12		
Dec. 7	B	iP	14 22 52.4		USCGS: 39½°N, 141½°E, 0 = 14 11 32
		i	23 06.6		Near East Coast of Honshu,
	MH	eP	22 55.4	c	Japan. Felt.
		i	23 07.2	c	
		i	15.3	d	
	F	eP	05.9	d	
	M	eP	22 44.9	c	
	R	eP	56.6		
	SH	ePE	40.7		
Dec. 7	B	eP	18 56 00.4		USCGS: 20½°S, 174°W, 0 = 18 44 10
	MH	iP	01.5	c	Tonga Islands.
		i	10.3		
	F	iP	05.6	c	
	R	eP	15.9		
	SH	ePE	10.4		
Dec. 7	M	e	19 21 17.5		USCGS: Honshu, Japan Aftershock
					0 = 19 09 41.
Dec. 8	MH	i	00 28 57.4	c	
Dec. 8	M	e	00 34 00.9	c	
Dec. 8	B	eP	02 22 41.6	d	USCGS: 29½°N, 142°E, 0 = 02 10 47
	MH	iP	45.5	d	Bonin Islands Region
	F	iP	54.5	c	
	M	iP	33.2	d	
	R	eP	46.9	c	
Dec. 8	MH	e	03 18 13.2	d	
Dec. 8	MH	iP	04 36 03.5	d	
	M	eP	07.7	d	
	R	eP	14.9		
Dec. 8	M	e	13 48 53.0	c	
Dec. 8	MH	i	18 45 15.3	c	
	R	e	17		
Dec. 9	MH	iP	04 04 37.5	d	
	M	eP	46.8	d	
Dec. 9	M	e	04 48 39.3	c	
Dec. 10	B	eP	01 43 14.6	c	USCGS: 9½°S, 159°E, h = 100
	MH	eP	17.4	c	0 = 01 30 36. Solomon
	F	eP	22	c	Islands.

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Dec. 10	M	eP	20.6	d	
	R	eP	26.9	c	
	SH	ePN	19.6		
Dec. 10	B	iP	13 26 20.3	d	
	MH	iP	18.8	d	
	M	iP	21.7	d	
	R	e	19.6		
Dec. 11	M	e	21 06 11.4		
Dec. 12	B	iP	05 42 22.0	c	USCGS: Marianas Islands Region, h = 300
		ipP	43 37.5	c	0 = 05 30 40
	MH	iP	42 25.7	c	
		ipP	43 41.8	d	
	M	iP	42 19.8	c	
		ipP	43 36.2	c	
		i	44 07.0	d	
	R	iP	42 30.3		
	SH	ePNE	16.8		
Dec. 12	MH	i	08 07 54.9	c	
	F	i	08 09.6	c	
	M	iP	07 19.3	c	
		i	35.7		
		i	48.2		
	R	e	08 05		
	C	eP	06 19		
	SH	eNE	07 10		
Dec. 12	B	eP	08 31 39.1		USCGS: 49°N, 129½°W, 0 = 08 28 38
	BG	eSNEZ	34.2		Off Coast of Vancouver Island,
	MH	eP	31 48.3	d	British Columbia.
	F	iP	32 05.0	d	
	M	iP	31 14.1	d	
	A	eN	33.6		
	R	iP	31 33.8		
	C	eP	30 14		
		e	32 39		
	SH	iPNE	31 06		
Dec. 12	M	e	09 29 53	c	
Dec. 12	B	iP	17 41 08.4	d	USCGS: 3½°S, 81°W, 0 = 17 31 22
		i	13.6	d	Near Coast of Peru. Several killed
	BG	ePPNEZ	43 36		and heavy property damage in
		eSNE	48 58		Tumbes and Corrales.
		eScSNE	50.6		Pas: Magnitude 7-3/4.
		eR	59.7		
			A T		
		PZ	60 11		
		PH	35 12		
		SH	120 14		
		MAXH	300 19		
		MAXZ	220 22		
	MH	iP	17 41 03.6	d	
		i	09.7	d	
		i	21.8	d	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Dec. 12		i	43 44.7	d	
		eSNE	48 54		
		eNE	58.1		
	F	eP	40 51.4		
		e	42 40.7		
	M	eP	41 17.7	d	
		i	43 05.8	c	
		e	49 31		
		e	18 00.7		
	A	ePE	17 41 42		
		eSNE	49 40		
	R	eP	41 06	d	
		i	11.3	d	
		eSNE	48 57		
	C	eP	41 42		
		eS	50 00		
		e	18 00.1		
	SH	ePE	17 41 20.5		
		eNE	43 08		
		eSN	49 24		
Dec. 12	M	e	18 27 37	c	
Dec. 13	B	iP	07 05 41.2	d	USCGS: 50°N, 158½°E, 0 = 06 56 00 Off South Coast of Kamchatka.
	BG	eE	13 44		
	MH	iP	05 46.3	d	
	F	iP	56.7	d	
	M	iP	32.5	d	
	R	iP	44.8	d	
	SH	iPNE	27.8		
Dec. 13	MH	eP	08 29 26		
	F	e	30		
	M	e	35		
	R	e	39		
Dec. 13	M	iP	23 22 20.8	d	
Dec. 14	MH	i	00 24 52.6		
	F	e	52.6		
	M	e	59.5		
Dec. 14	MH	eP	08 51 42.4		
	F	eP	27.7		
	M	eP	58.3		
	R	eP	44.9		
Dec. 14	M	eP	10 50 35.1	d	USCGS: 19°N, 122°E, 0 = 10 37 01 Off North Coast of Luzon, Phillipine Islands. Felt: Aparri.
Dec. 14	M	eP	13 53 18.2	c	USCGS: 19½°N, 122°E, 0 = 13 39 46 Off North Coast of Luzon, Phillipine Islands. Felt: Aparri.
Dec. 14	MH	iP	21 03 26.0	c	
	M	eP	36.1	d	
	SH	ePE	37.7		
Dec. 15	B	iP	03 57 03.7	d	
	F	eP	15.0		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
	M	iP	02.7	d	
	R	eP	11.4		
	SH	iPNE	56 59.4		
Dec. 16	MH	e	02 59 24.4		
	F	e	25.5		
	M	e	29.5		
	SH	e	24.1		
Dec. 16	MH	eP	04 33 57.5		USCGS: Felt over Approximately 3000 square miles in NW Oregon and across the Columbia River at a few localities in Washington.
	M	eP	15.0		
	C	iP	32 12		
	SH	eP	33 13.0		
Dec. 16	MH	iP	06 25 05.1		
	M	e	18		
Dec. 16	MH	e	08 55 54.3	c	
	M	e	54 42.2	c	
	SH	e	39.3		
Dec. 16	C	eP	10 36 00		
Dec. 17	MH	iP	23 01 48.4	c	
	M	eP	02 05.2	d	
	R	eP	01 53.3		
Dec. 18	M	e	05 36 22.9	c	
Dec. 18	M	e	07 39 08.6		
Dec. 18	MH	eP	07 53 40.7	c	
	M	eP	15.2	d	
	R	eP	28.1		
Dec. 18	M	i	08 17 00.1		
Dec. 18	MH	eP	08 25 39.4	d	
	F	eP	41.4		
		e	26 52		
	M	eP	25 49.5	d	
	SH	eP	49.1	c	
Dec. 18	M	e	08 13 03.3	d	
Dec. 18	MH	iP	11 50 06.1	d	
	M	eP	18.3	d	
	SH	eP	18.7	d	
Dec. 18	B	i	18 56 12.8	c	
		e	19 00 01.8		
Dec. 18	MH	e	20 25 47		
Dec. 19	MH	eP	13 43 03.5		
	R	e	07		
Dec. 19	B	eP	23 46 54		USCGS: Kermadec Islands 0 = 23 34 14.
	MH	eP	54	c	
	F	eP	57		
	M	eP	47 04	c	
	SH	iP	03	c	
Dec. 20	B	iP	00 32 28.1	c	USCGS: 39½°N, 136½°E, h = 300 0 = 00 21 19. Sea of Japan.
	MH	iP	32.2	c	
		e	35 22		
	F	iP	32 40.5	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Dec. 20	M	iP	21.2	c	
		e	33 18		
	R	iP	32 31	c	
	SH	iP	17.6	c	
Dec. 20	MH	e	04 19 54		
Dec. 20	MH	eP	05 29 26		USCGS: 24°S, 176°E, 0 = 05 16 40 South of Fiji Islands.
Dec. 20	B	eP	09 32 15.8		USCGS: Central Chile. 0 = 09 19 40 Slight damage at Illapel.
	BG	eSN	42 42		
	MH	iP	32 19.9		
	F	eP	05.8		
	M	eP	23.9		
	R	eP	16.8		
	SH	iP	25.4		
Dec. 20	B	iP	21 31 55.4	c	USCGS: 34½°N, 140½°E, 0 = 21 20 14 Near South Coast of Honshu Japan.
		i	33 52.0	c	
	MH	iP	31 59.4	c	
	F	iP	32 07.9	c	
		e	34 03.6		
	M	iP	31 50.1	c	
	R	iP	32 00.3	c	
Dec. 21	MH	e	01 56 42		USCGS: 38½°N, 75°E, 0 = 01 41 56 Tadzhik S.S.R. - China Border.
Dec. 21	B	iP	17 47 25.3		USCGS: 42°N, 141½°E, 0 = 17 36 12 Near South Coast of Hokkaido, Japan.
		e	41		
		e	49 15		
	MH	eP	47 29		
		e	46		
	F	eP	38		
		i	55		
	M	iP	18.3		
	R	eP	28		
		e	44		
	SH	iP	12.9		
		i	31.9		
Dec. 22	MH	iP	08 15 10.0		
	R	e(P)	06.1		
	SH	i(P)	14 49.3		
		i	15 12.1		
Dec. 22	SH	e	11 27 25		USCGS: Near East Coast of Honshu, Japan. Felt: Tokyo. 0 = 11 15 55.
Dec. 22	MH	i	14 45 30.9	d	
	M	e	23.8	d	
Dec. 22	SH	e	18 59 06		USCGS: 16°N, 119°E, 0 = 18 45 18. Near West Coast of Luzon, P.I.
Dec. 22	SH	e	19 39 08		
Dec. 22	B	iP	21 08 23.5		
	MH	iP	24.0		
	F	eP	28.1		
	M	iP	33.1		
	R	eP	36.6		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Dec. 22	SH	iP	31.4		
Dec. 23	MH	eP	00 52 41		
	M	eP	51		
	R	iP	57		
Dec. 23	MH	eP	04 54 54.1	c	USCGS: 1°N, 77°W, 0 = 04 45 23
	M	eP	55 04.1	c	Southwestern Columbia. Many injured and extensive property damage in Narino State Columbia.
		e	57.6		
	R	eP	55.8		
Dec. 23	MH	e	16 32 17		
Dec. 23	B	iP	18 40 22.5		USCGS: 47½°N, 157½°E, 0 = 18 30 30 Kurile Islands Region.
	MH	iP	27.2		
	F	eP	37		
	M	iP	14.1		
	SH	iP	09.5		
Dec. 23	MH	e	19 11 11		
	M	e	57		
Dec. 23	M	e	20 39 20.5		
Dec. 24	B	eP	02 43 11.2		USCGS: 51½°N, 159½°E, 0 = 02 33 39 Near East Coast of Kamchatka.
	BG	eSNE	50 56		
	MH	eP	43 14.2		
		e	44 18		
	F	eP	43 26		
		e	44 36		
	M	eP	43 01.8		
	R	eP	12.5		
Dec. 24	MH	e	04 11 44		
Dec. 24	B	iP	23 30 46.3	c	USCGS: 52°N, 159°E, 0 = 23 21 09
	MH	iP	51	c	Off East Coast of Kamchatka.
	F	eP	31 01		Pas: Magnitude 5-3/4 - 6.
		e	29		
		e	32 22		
	M	iP	30 38	c	
		i	31 23		
	R	eP	30 50	c	
	C	eP	12		
Dec. 25	B	iP	02 01 01	c	USCGS: 52°N, 159°E, 0 = 01 51 26
	BG	eSNE	08 32		Off East Coast of Kamchatka.
		eN	56		Pas: Magnitude 6-3/4.
		eScSN	10 44		
		eN	12 42		
		eN	13.8		
		eREZ	17.0		
			A T		
		PZ	6 7		
		SH	150 22		
	MH	iP	02 01 05.9	c	
		i	30.7		
		i	03 13.1		
	F	eP	01 13		
	M	eP	00 47.7	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Dec. 25		i	01 15.6		
	R	eP	01.7		
	C	eP	00 26		
		eS	07 14		
		eL	12.4		
	SH	eP	00 41		
		eSE	08 08		
Dec. 25	MH	iP	02 29 11.0	c	USCGS: 17½°N, 62°W, 0 = 02 19 30
	M	eP	10.7	c	Leeward Islands
Dec. 25	MH	eP	02 35 09.7	c	USCGS: Leeward Islands Aftershock.
	M	eP	09.6	c	0 = 02 25 29.
Dec. 25	MH	iP	02 45 17.5		USCGS: Southern Peru. 0 = 02 34 03
	M	eP	27.4		
Dec. 25	MH	iP	06 55 29.2		USCGS: Southern Peru. 0 = 06 44 05
	M	eP	40.5		
	R	eP	31.2		
Dec. 25	B	eP	16 24 49.2		USCGS: 34½°N, 141°E, 0 = 16 13 09
	MH	eP	56.6		Off Coast of Honshu, Japan.
	F	eP	25 03.7		
	R	eP	24 55.0		
	SH	eP	41.1		
Dec. 26	B	e	01 56 09.2		
	MH	e	55 57.4		
		e	56 08.0		
	M	e	25.1		
	R	e	25.4		
Dec. 26	M	e	05 35 27.3		
Dec. 26	MH	e	10 14 49.3		USCGS: Near East Coast of Kamchatka.
	M	e	41.6		0 = 10 05 20.
Dec. 26	B	e(P)	13 22 08.3		USCGS: 51½°N, 160°E, 0 = 13 12 35
	MH	i(P)	14.5	c	Off East Coast of Kamchatka.
		i	23 00.5	d	
	F	e(P)	22 22		
	M	iP	21 57.1	d	
		i	22 40.0	c	
	R	e(P)	10		
	SH	iP	21 52.9	c	
		e	22 42.1		
Dec. 26	M	eP	18 23 15	c	USCGS: Off Southeast Coast of Kamchatka. 0 = 18 13 43.
Dec. 27	M	e	11 30 27	d	
	R	e	37		
	SH	e	19		
Dec. 27	B	iP	23 38 17.4	c	
	MH	iP	17.9	d	
	F	iP	22.7	d	
	M	iP	27.9	c	
	R	iP	32.0	d	
	SH	iP	26.2	d	
Dec. 30	MH	iP	02 35 02.5	d	USCGS: 18°S, 174°W, 0 = 02 23 20
	M	eP	11.9	d	Tonga Islands

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Dec. 30	MH	eP	08 30 24.0	d	
		i	45.3	c	
	F	eP	30		
	M	eP	35	c	
		i	58.2	c	
	R	eP	40		
	SH	eP	33		
Dec. 30	MH	iP	16 17 49.9		USCGS: 50°N, 161°E, 0 = 16 08 09
	F	eP	18 01		Off Southeastern Coast of Kamchatka
	M	e	17 45.5		
	R	eP	46		
	SH	eP	30		
Dec. 30	MH	e(P)	18 24 10		
	F	e(P)	26		
	M	e(P)	23 35		
	R	e(P)	58		
	SH	e(P)	27		
Dec. 31	B	eP	09 31 48		USCGS: 23°S, 172½°E, 0 = 09 19 01
	MH	eP	48		Loyalty Islands Region.
	F	eP	53		
	M	eP	55		
	R	eP	59		
	SH	eP	54		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1953			h. m. s.		
Dec. 30	MH	eP	08 30 24.0	d	
		i	45.3	c	
	F	eP	30		
	M	eP	35	c	
		i	58.2	c	
	R	eP	40		
	SH	eP	33		
Dec. 30	MH	iP	16 17 49.9		USCGS: 50°N, 161°E, 0 = 16 08 09
	F	eP	18 01		Off Southeastern Coast of Kamchatka
	M	e	17 45.5		
	R	eP	46		
	SH	eP	30		
Dec. 30	MH	e(P)	18 24 10		
	F	e(P)	26		
	M	e(P)	23 35		
	R	e(P)	58		
	SH	e(P)	27		
Dec. 31	B	eP	09 31 48		USCGS: 23°S, 172½°E, 0 = 09 19 01
	MH	eP	48		Loyalty Islands Region.
	F	eP	53		
	M	eP	55		
	R	eP	59		
	SH	eP	54		