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BERKELEY—MOUNT HAMILTON—PALO ALTO
SAN FRANCISCO—FERNDALE—FRESNO
MINERAL—ARCATA—RENO—CORVALLIS—SHASTA
MANZANITA LAKE—FALLON—YERINGTON

Earthquakes and the Registration of Earthquakes

From October 1, 1956, to December 31, 1956

BY
DON TOCHER

UNIVERSITY OF CALIFORNIA PRESS
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1958



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, SHASTA, MANZANITA LAKE,

FALLON, AND YERINGTON

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EARTHQUAKES IN NORTHERN CALIFORNIA, NEVADA, AND OREGON

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

Map No. for each epicenter corresponds to a number plotted on the map which follows the list of epicenters.

Date and Origin Time are given in Greenwich Civil Time. Subtract eight (8) hours to convert to Pacific Standard Time (P.S.T.).

M is the Richter Magnitude of the earthquakes as determined from the maximum trace amplitudes recorded for the shock by the standard Wood-Anderson Torsion Seismographs. In routine practice, the nomogram given by Nordquist in the "Bulletin of the Seismological Society of America", 32:164, is used for magnitude determinations.

Q indicates the excellence with which the epicenter has been located: "a" indicates excellent, "b" good, "c" fair, and "d" poor. Under Remarks will be found a short descriptive location of each epicenter, usually with reference to a point named on the map. Information on small foreshocks and aftershocks is sometimes included in the Remarks. When numerous foreshocks or aftershocks accompany a large earthquake, a separate table is generally included following the main list of local shocks, giving origin times, Richter Magnitudes, and, where significant differences in location can be determined, the geographic coordinates. The larger earthquakes of after-shock series are also included in the main list of local shocks.

Information on the intensities of shocks reported felt is also included under Remarks. Reports on felt earthquakes are chiefly those collected by the Seismological Field Survey of 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 Western Mountain Region". This is a quarterly publication, and may be obtained from the District Officer, San Francisco District, Coast and Geodetic Survey, 121 Customhouse, San Francisco 26, California, or from the Director, U.S. Coast and Geodetic Survey, Washington 25, D.C.

Intensities are given by Roman numerals when sufficient information on the effects of the shock is available. These intensity numbers assigned by the Coast and Geodetic Survey are based on the Modified Mercalli Intensity Scale of 1931 (Harry O. Wood and Frank Neumann, "Bulletin of the Seismological Society of America", 21:277-283, 1931), the criteria of which follow in an abridged form.

MODIFIED MERCALLI INTENSITY SCALE OF 1931
(Abridged)

- I. Not felt except by a very few under especially favorable circumstances.
- II. Felt only by a few persons at rest, especially on upper floors of buildings. Delicately suspended objects may swing.
- III. Felt quite noticeably indoors, especially on upper floors of buildings, but many people do not recognize it as an earthquake. Standing motor cars may rock slightly. Vibration like passing truck. Duration estimated.
- IV. During the day felt indoors by many, outdoors by few. At night some awakened. Dishes, windows, doors disturbed; walls made creaking sound. Sensation like heavy truck striking building. Standing motor cars rocked noticeably.
- V. Felt by nearly everyone; many awakened. Some dishes, windows, etc., broken; a few instances of cracked plaster; unstable objects overturned. Disturbances of trees, poles, and other tall objects sometimes noticed. Pendulum clocks may stop.
- VI. Felt by all; many frightened and run outdoors. Some heavy furniture moved; a few instances of fallen plaster or damaged chimneys. Damage slight.
- VII. Everybody runs outdoors. Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable in poorly built or badly designed structures; some chimneys broken. Noticed by persons driving motor cars.
- VIII. Damage slight in specially designed structures; considerable in ordinary substantial buildings with partial collapse; great in poorly built structures. Panel walls thrown out of frame structures. Fall of chimneys, factory stacks, columns, monuments, walls. Heavy furniture overturned. Sand and mud ejected in small amounts. Changes in well water. Disturbed persons driving motor cars.
- IX. Damage considerable in specially designed structures; well designed frame structures thrown out of plumb; great in substantial buildings with partial collapse. Buildings shifted off foundations. Ground cracked conspicuously. Underground pipes broken.
- X. Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations; ground badly cracked. Rails bent. Landslides considerable from river banks and steep slopes. Shifted sand and mud. Water splashed (slopped) over banks.
- XI. Few, if any (masonry) structures remain standing. Bridges destroyed. Broad fissures in ground. Underground pipe lines completely out of service. Earth slips and land slips in soft ground. Rails bent greatly.
- XII. Damage total. Waves seen on ground surfaces. Lines of sight and level distorted. Objects thrown upward into the air.

EARTHQUAKES IN NORTHERN CALIFORNIA, NEVADA, AND OREGON

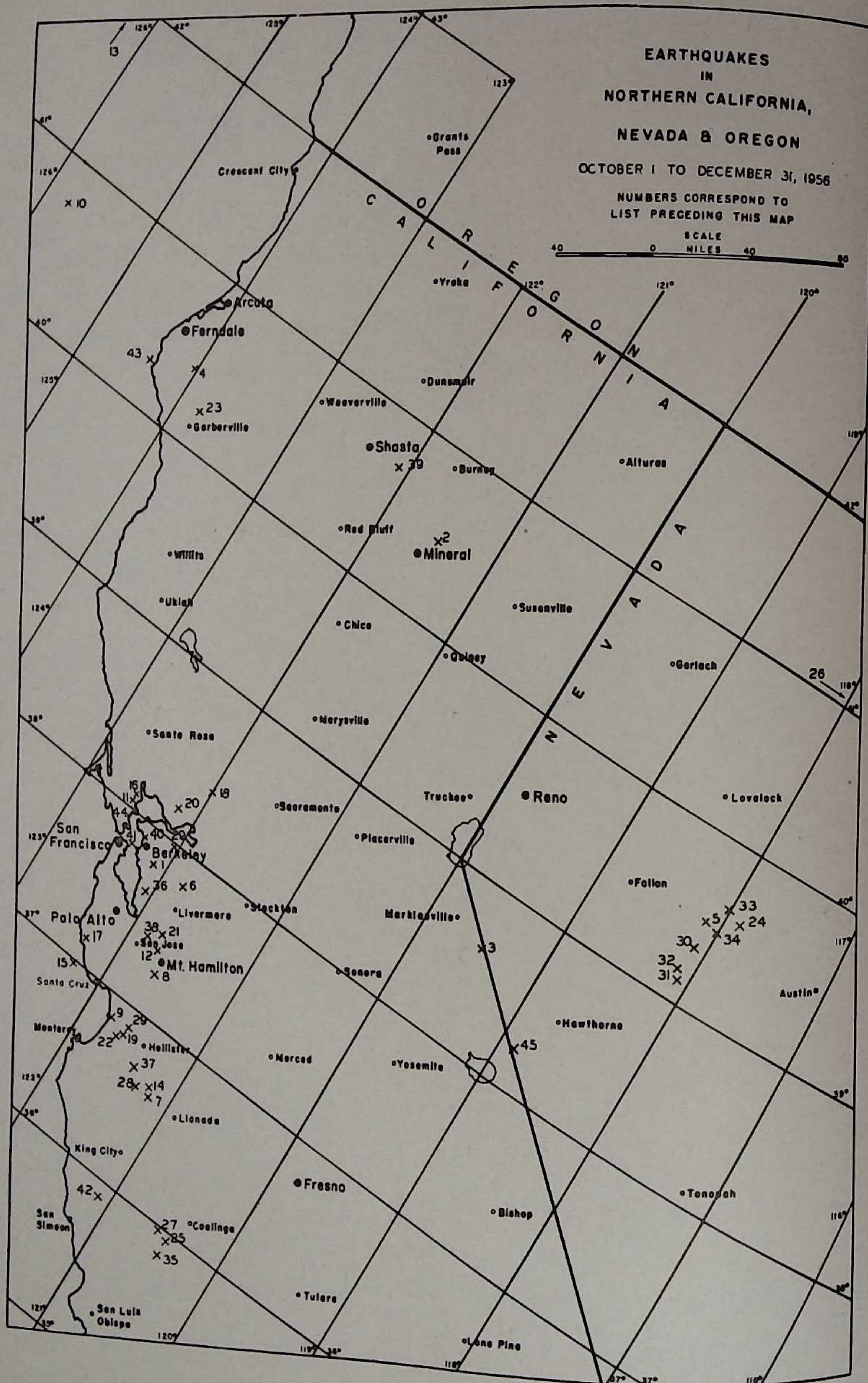
Map No.	Date 1956	Origin Time (G.C.T.)	Latitude North	Longitude West	Q	M	Remarks
1	Oct. 2	20-57-53	37.7°	122.1°	d	1.8	Southeast of Berkeley.
2	Oct. 4	10-11-21	40° 28'	121° 29'	b	2.7	Northeast of Mineral. Largest shock of a minor swarm, which commenced at 0647 GCT, October 4, and continued intermittently for about 48 hours.
3	Oct. 6	11-38-51	38° 38'	119° 29'	b	3.4	East of Markleeville.
4	Oct. 6	12-30-42	40° 25'	124° 00'	b	3.3	Southeast of Ferndale. IV at Phillipville.
5	Oct. 6	14-19-17	39° 31'	118° 06'	b	4.0	East of Fallon, Nevada.
6	Oct. 7	02-38-19	37° 49'	121° 50'	c	3.6	North of Livermore. Felt at San Ramon, Berkeley, and Oakland.
7	Oct. 7	18-12-04	36.6°	121.2°	d	2.6	West of Llanada.
8	Oct. 9	09-01-59	37° 15'	121° 39'	b	3.0	South of Mt. Hamilton.
9	Oct. 10	12-53-51	36° 51'	121° 46'	c	3.1	West of Hollister.
10	Oct. 11	16-48-50	40° 40'	125° 46'	b	6.0	100 miles west of Ferndale. Generally reported felt over a land area of 3,500 square miles of Humboldt County. Outside of this area, the shock was reported felt with slight intensity at Bucks Creek Powerhouse in Plumas County, and at Medford and Shady Cove, Oregon. Maximum intensity V. V at Bayside, Blue Lake, Crannell, Eureka, Ferndale, Fields Landing, Fortuna, Korbel, Petrolia, and Rio Dell.
10	Oct. 11	17-18-19	40° 45'	125° 48'	c	4.8	Aftershock. Felt.
10	Oct. 11	17-22-30	40.7°	125.8°	d	4.8	Aftershock. Felt.
10	Oct. 11	19-38-58	40.7°	125.8°	d	4.3	Aftershock.
10	Oct. 13	22-55-23	40° 45'	125° 48'	c	4.3	Aftershock.
10	Oct. 15	09-04-15	40.7°	125.8°	d	3.6	Aftershock.
11	Oct. 16	00-33-27	38° 03'	122° 32'	c	1.9	North of San Francisco.
12	Oct. 17	22-48-04	37° 24'	121° 44'	b	2.5	Northwest of Mt. Hamilton.
13	Oct. 18	07-15-27	42.5°	126.2°	d	4.2	Off Cape Blanco, Oregon
	Oct. 18	09-11-41					Cape Blanco aftershock.
14	Oct. 19	12-32-03	36° 39'	121° 14'	c	4.1	West of Llanada. Felt on Monterey Peninsula.
13	Oct. 19	23-58-31	42.5°	126.6°	d	4.7	Off Cape Blanco, Oregon.
15	Oct. 21	14-02-30	36° 59'	122° 16'	b	3.2	West of Santa Cruz. Felt over a land area of 150 square miles of Santa Cruz County. Intensity IV at Ben Lomond, Boulder Creek, Davenport, Mt. Hermon and Santa Cruz.
2	Oct. 21	20-33-01	40.5°	121.5°	d	2.7	Near Lassen Peak.



Map No.	Date 1956	Origin Time (G.C.T.)	Latitude North	Longitude West	Q	M	Remarks
2	Oct. 23	11-22-56	40.4°	121.5°	d	2.9	Near Lassen Peak.
16	Oct. 27	00-05-20	38° 05'	122° 32'	o	2.6	North of San Francisco.
7	Oct. 27	23-03-27	36° 38'	121° 10'	c	2.9	West of Llanada.
17	Nov. 2	22-45-22	37° 09'	122° 17'	c	2.3	Northwest of Santa Cruz. Blast?
18	Nov. 3	09-00-30	38.4°	122.0°	d	2.6	Southwest of Sacramento.
19	Nov. 5	20-17-20	36° 49'	121° 37'	c	3.0	West of Hollister.
20	Nov. 6	15-37-13	38.2°	122.2°	d	2.3	North of Berkeley.
21	Nov. 7	13-09-01	37° 29'	121° 45'	c	2.5	Northwest of Mt. Hamilton.
14	Nov. 7	23-21-36	36° 40'	121° 12'	c	3.4	West of Llanada.
14	Nov. 7	23-40-34	36.7°	121.2°	d	2.6	West of Llanada.
22	Nov. 8	03-41-02	36° 47'	121° 40'	c	3.0	Southwest of Hollister. Felt at Hollister.
23	Nov. 10	09-06-34	40° 13'	123° 48'	b	4.1	Southeast of Ferndale. V at Eureka, IV at Phillippsville.
13	Nov. 10	18-09-18	42.5°	126.6°	d	3	Off Cape Blanco, Oregon.
24	Nov. 10	20-27-53	39.6°	117.9°	d	4.1	East of Fallon, Nevada.
25	Nov. 16	03-23-09	35° 57'	120° 28'	b	5.0	Southwest of Coalinga. Felt over an area of 8,000 square miles. Intensity VI at Mee Ranch (Lonoak), King City, and San Lucas.
26	Nov. 16	08-26-10	41° 02'	116° 27'	b	4.7	Northeastern Nevada.
27	Nov. 19	13-53-53	35° 59'	120° 34'	c	3.3	Southwest of Coalinga. III at Adelaida (15 miles west of Paso Robles).
28	Nov. 22	16-43-58	36.6°	121.3°	d	4.2	West of Llanada. IV at Big Sur and 7½ miles south of Hollister.
13	Nov. 23	02-51-40	42.8°	126.4°	d	3.2	Off Cape Blanco, Oregon.
2	Nov. 25	08-41-38	40° 28'	121° 32'	a	3.5	Near Lassen Peak.
2	Nov. 28	16-34-18	40° 30'	121° 30'	b	2.8	Near Lassen Peak.
29	Nov. 30	12-55-17	37° 59'	122° 01'	a	2.6	Northeast of Berkeley. Felt at Concord.
29	Dec. 1	14-11-25	36° 52'	121° 36'	b	4.4	West of Hollister. Felt over a land area of approximately 3,200 square miles of the coastal area of west-central California. Maximum intensity V. No damage reported. V at Aromas, Gilroy, Holy City, Morgan Hill, San Jose, Santa Clara, and Watsonville.
11	Dec. 1	19-55-12	38° 02'	122° 30'	b	2.0	North of San Francisco.
30	Dec. 3	14-48-08	39° 22'	118° 05'	c	3.0	East of Fallon, Nevada.
31	Dec. 5	18-05-15	39° 08'	118° 04'	b	4.1	East of Fallon, Nevada.
32	Dec. 6	05-47-23	39° 12'	118° 07'	c	3.9	East of Fallon, Nevada.
33	Dec. 7	04-22-58	39° 39'	118° 00'	c	3.9	East of Fallon, Nevada.
34	Dec. 7	07-12-52	39.5°	118.0°	d	3.6	East of Fallon, Nevada.

Map No.	Date 1956	Origin Time (G.C.T.)	Latitude North	Longitude West	Q	M	Remarks
35	Dec. 11	10-56-53	35° 53'	120° 28'	c	4.1	Near Parkfield.
29	Dec. 11	16-01-50	36° 53'	121° 33'	c	3.0	West of Hollister.
36	Dec. 13	02-35-16	37° 38'	122° 03'	a	1.5	Southeast of Berkeley. Felt at Hayward.
37	Dec. 17	06-35-51	36.7°	121.4°	d	2.6	South of Hollister.
38	Dec. 18	12-30-51	37° 26'	121° 52'	c	2.9	Northwest of Mt. Hamilton.
39	Dec. 19	05-10-44	40° 42'	122° 05'	c	3.8	15 miles east of Shasta. V at Whitmore. III at Ono. Also felt at Cottonwood, Kilaré, Pit Powerhouses Nos. 3, 4, and 5 (PG&E), and Redding.
40	Dec. 20	00-27-35	37° 55'	122° 17'	a	2.1	Near Berkeley. Felt at Berkeley.
41	Dec. 22	11-09-55	37° 49'	122° 22'	a	2.1	Near Treasure Island, San Francisco Bay.
42	Dec. 28	13-39-37	35.9°	121.1°	d	2.6	Northeast of San Simeon.
43	Dec. 29	09-42-44	40° 17'	124° 24'	b	3.3	Near Punta Gorda.
44	Dec. 29	22-12-23	38° 00'	122° 30'	a	1.9	North of San Francisco. Blast?
45	Dec. 31	17-36-16	38° 16'	118° 55'	b	3.8	Hawthorne foreshock.
45	Dec. 31	17-37-45	38° 15'	118° 56'	b	5.0	Hawthorne foreshock.
45	Dec. 31	17-39-24	38° 17'	118° 58'	c	5.1	Southwest of Hawthorne, Nevada. Reported felt over an area of 6,000 square miles of western Nevada and eastern California. Maximum intensity VI assigned to the location south of Hawthorne where the press reported two cracks were found in U.S. Highway 95. V at Hawthorne and Thorne.

THE REGISTRATION OF EARTHQUAKES



Station	North Latitude	West Longitude	Altitude Meters	Station Symbol	Present Auspices And Date
Berkeley	37° 52.3'	122° 15.6'	81	B, BG*	University of California - 1887
Mt. Hamilton	37° 20.4'	121° 38.6'	1282	MH	Lick Observatory - 1887
Palo Alto	37° 25.1'	122° 10.8'	83	PA	Stanford University - 1927
San Francisco	37° 46.4'	122° 27.2'	100	SF	University of San Francisco - 1931
Ferndale	40° 34.6'	124° 15.7'	15	Fe	City of Ferndale - 1933
Fresno	36° 46.1'	119° 47.8'	88	F	Fresno State College - 1935
Mineral	40° 20.8'	121° 36.1'	1495	M	National Park Service, Lassen Volcanic National Park - 1938
Arcata	40° 52.6'	124° 04.5'	59	A	Humboldt State College - 1948
Reno	39° 32.3'	119° 48.8'	1386	R	University of Nevada - 1948
Corvallis	44° 35.1'	123° 18.2'	123	C	Oregon State College - 1950
Shasta	40° 41.7'	122° 23.3'	312	SH	Bureau of Reclamation - 1942
Manzanita Lake	40° 32.2'	121° 33.7'	1800	ML	National Park Service, Lassen Volcanic National Park - 1956
Fallon	39° 28.4'	118° 46.6'	1207	Fa	City of Fallon - 1956
Yerington	38° 59.3'	119° 09.6'	1335	Y	City of Yerington - 1956

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

Earthquakes in the Northern California, Nevada, and Oregon region are included in the following list only if of magnitude 4.5 or greater, or if of special interest. Times are usually not reported for PA, SF, Fe, ML, Fa or Y unless of special interest or in case of defective records at other stations.

Measurement and interpretation of seismograms from all the above listed stations is done at Berkeley; requests for special data or for copies of seismograms should be addressed to Seismographic Station, University of California, Berkeley 4, California.

STATION EQUIPMENT

Type and Component

Station

Short-period Benioff Z	B, MH, PA, M, SH
Short-period Benioff N, E	SH
Short-period Wood-Anderson, N,E	B, MH, PA, SF, M, A
Short-period Sprengnether N,E,Z	F, R
Short-period Sprengnether Z	Y
Short-period Sprengnether E	Fa, Y
Short-period Slichter N,E	C
Short-period Wilson-Lamison Z	C
Long-period Galitzin-Wilip N,E,Z	B
100 kg Bosch-Omori N,E	B
25 kg Bosch-Omori N,E	Fe
80 kg Wiechert Z	B
Loucks-Omori N,E	ML

The three components are indicated by N, E, Z in the "phase" column of the following tabulation of readings. When no letter appears, the phase is read from the vertical component (Z) 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 initial compression or dilatation of the ground as read from the vertical component instrument. N, S, E, or W indicates that the initial ground motion was north, south, east, or west, respectively.

Maximum amplitude of earth displacement in microns (A) and periods 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
1956					
			h. m. s.		
Oct. 1	M	e	07 07 17		
Oct. 1	MH	iP	08 31 43		
Oct. 1	MH	iP	14 25 18		
Oct. 1	MH	e	18 12 35		USCGS: 18 1/2°N, 77°W, 0 = 18 04 40. JAMAICA. Minor damage at Port Maria, St. Ann's Bay, and Moneague
Oct. 2	MH	e	07 56 06		USCGS: 21°N, 108°W, 0 = 07 51 30. Off coast of Jalisco, Mexico.
Oct. 2	B	eP	15 05 50		USCGS: 53°N, 159°E, h = 60 km., 0 = 14 56 26. Near southeast coast of Kamchatka.
	BG	eSNE	13 26		PAS: Magnitude 6 1/4 - 6 1/2
			A T		
		SH	1 1/2 8		
	MH	iP	15 05 55.4	d	
		i	06 08.0	c	
	F	eP	05.6	d	
	M	iP	05 31.6		
		i	41.3		
	R	eP	53.1	c	
		i	06 06.1	d	
		eSE	13 30		
Oct. 2	SH	iP	05 35.6	d	
	B	eP	15 57 48		USCGS: 24°N, 109 1/2°W, 0 = 15 53 30. Southern Gulf of California.
	BG	e(S)NE	16 01 21		
		eQNE	02.2		
			A T		
		Max H	6 20		
	MH	eP	15 57 39.7	c	
		i	58 07.2	c	
	F	eP	57 21		
	M	eP	58 07.4		
	R	eP	57 47.6	d	
	SH	eP	58 10	d	
Oct. 3	B	iP	08 30 27.3	d	USCGS: 20°S, 69 1/2°W, h = 150 km. Northern Chile.
		ipP	52.8		
		esP	31 04.3		
	BG	eN	40 50		PAS: Magnitude 6 1/2
			A T		
		PZ	1 3		
	MH	iP	08 30 24.0	d	
		ipP	49.4	d	
		isP	31 00.9	d	
	F	eP	30 13.2	d	
		e	51		
	M	iP	33.1	d	
		i(sP)	31 11.5		
	R	iP	30 26.0	d	
		epP	51.5	c	
		isP	31 03.4	d	
	SH	iP	30 36.1	d	
		epP	31 02		
Oct. 3	M	eP	11 04 45		
Oct. 3	MH	eP	16 38 04		

Date	Sta.	Phase	Time (GCT) h. m. s.	Ground motion	Remarks
1956					
Oct. 5	MH	eP	21 55 40.5		USCGS: 14°S, 167 1/2°E, h = 100 km., 0 = 21 43 16. New Hebrides Islands.
		epP	56 13.7		
Oct. 6	B	iP	17 11 53.1	d	USCGS: 16°S, 179°W, h = 100 km., 0 = 17 00 14. Fiji Islands.
	MH	iP	54.4	c	
	PA	iP	53.1	d	
	F	eP	58.3	c	
	M	eP	12 03		
	SH		01.7	d	
Oct. 7	MH	iP	04 55 32		
	M	eP	41		
Oct. 7	MH	iP	07 00 44		USCGS: 5°N, 82°W, 0 = 06 52 13. About 100 miles off coast of Panama.
	M	eP	55		
Oct. 7	M	e	07 35 58		
Oct. 7	B	eP	21 40 14.1		USCGS: 13°S, 167°E, h = 100 km., 0 = 21 27 50. New Hebrides Islands.
		e	35		
	BG	eLE	22 06		
	MH	iP	21 40 15.9		
	M	eP	21.6		
	SH	eP	19		
Oct. 8	B	iP	00 33 04.7	d	USCGS: 4°S, 144 1/2°E, h = 100 km., 0 = 00 19 47. Near north coast of New Guinea. Felt at Rabaul and Angoram.
	MH	iP	07.1	d	
	SH	eP	03.9	d	
Oct. 8	M	e	01 27 02		
	R	e	06		
Oct. 8	MH	eP	01 52 19.4	c	USCGS: About 200 miles off coast of Vancouver Island, British Columbia.
	M	e(P)	51 46.2	c	
	SH	eP	37.9	d	
Oct. 8	B	eP	04 41 56.7	c	USCGS: 12°N, 141°E, h = 150 km., 0 = 04 29 04. Marianas Islands region.
	MH	iP	42 00.2	c	
	F	eP	07	c	
	M	eP	41 56.4	c	
		e	42 23.8		
	R	eP	41 59.0	c	
Oct. 8	SH	iP	53.2	c	
	M	e	05 04 02		
Oct. 8	C	e	05 26		
Oct. 8	B	eP	15 07 36		USCGS: 20°S, 174°W, 0 = 14 55 49. Tonga Islands
		e	52		
	BG	eSN	17 19		
		eQNE	28.4		
		eR	32.0		
		A T			
		PZ	1 5		
		Max H	7 11		
	MH	eP	15 07 36.4	d	
	F	eP	41		
	M	eP	47	c	
	R	eP	50.1	d	
Oct. 8	SH	eP	45		
	MH	iP	22 51 13		

Date	Sta.	Phase	Time (GCT) h. m. s.	Ground motion	Remarks
1956					
Oct. 9	MH	iP	04 09 11		USCGS: 19 1/2°S, 174°W, 0 = 06 19 37. Tonga Islands.
	M	eP	07		
	SH		05		
Oct. 9	B	eP	06 31 24		USCGS: 25°N, 46°W, 0 = 10 53 41. Atlantic Ocean.
	BG	eLNE	52.2		
		A T			
		Max H	3 12		
	MH	eP	06 31 22.2	d	
	F	eP	23		
	M	eP	33.2	c	
Oct. 9	SH	eP	33		
	B	eP	11 04 24		
	MH	iP	21.8	d	
		i	29.1	c	
	F	eP	11		
	M	eP	15.6	d	
		i	23.0	c	
	C	eP	20		
	SH	iP	19		
		i	26		
Oct. 9	MH	iP	13 59 09.6	c	
	M	eP	31.9		
	SH		34		
Oct. 9	B	eP	14 57 04		USCGS: 24 1/2°N, 45 1/2°W, 0 = 14 46 18. Atlantic Ocean.
		e	10		
	MH	iP	01.6	d	
		i	07.9	d	
	M	eP	56 56.9	c	
		e	57 01.9	c	
	SH	eP	56 58		
		e	57 05		
Oct. 9	B	eP	17 03 12.3		USCGS: 15 1/2°N, 147 1/2°E, 0 = 16 50 56. Marianas Islands.
	MH	iP	16.1		
	F	eP	23.6		
	M	eP	11.3		
	C	e(P)	06		
	SH	iP	09.4		
Oct. 11	B	iP	02 34 49.7	c	USCGS: 46°N, 150 1/2°E, h = 100 km., 0 = 02 24 33. Kurile Islands. Felt on Hokkaido, Japan. PAS: Magnitude 7 1/4 - 7 1/2
		i	59	d	
	BG	ePP	37 17		
	B	eSN	43 08		
		eNE	44 33		
		eSSNE	47.3		
		eP'P'	03 03 49		
		A T			
		PZ	10 4 1/2		
		PPZ	3 1/2 8		
	MH	iP	02 34 54.6	d	
		ipP	35 22.2		
		iPP	37 36.0		
		iP'P'	03 03 53.8		
	F	eP	02 35 03.7	d	

Date	Sta.	Phase	Time (GCT) h. m. s.	Ground motion	Remarks
1956			18.6		
Oct. 11 cont'd	M	i eSE eP'P' eP i iPP	03 03 35 02 34 41.4 42.7 36 57.8	c d	
	A R	e(S)E eP	42 32 34 53.4	c	
	C	iSN iP eSNE eNEZ	43 16.4 34 21.7 42 11 43 58	NE	
	SH	iP iS e	34 38.8 42 53 44 24		
	PA SF	eP'P' iP iP	03 03 42 02 34 53 48.6	c	
Oct. 11	MH	i	02 48 09		
Oct. 11	B	ePNEZ eNE iSNE	16 49 47.9 50 22 35.4	NWd	40°40'N, 125°46'W, O = 16 48 50. 80 miles west of Eureka, California. Magnitude 6.0.
	MH	ePNEZ i iE iN	49 57.8 59.4 50 03.8 27.5	NWd	Felt in the north-coastal sections of California.
	PA	eSE ePNEZ	51.6 49 53.4	NWd	
	SF	iSNE ePNEZ	50 44.4 49 47.0	NWd	
	F	iSNE ePNEZ	50 34.5 19.9	NWd	
	A	iE	51 02.7		
	Fe	iPNE	49 13.4	E	
	R	iPNE	12	NE	
	M	ePNEZ iPNEZ	50 02.3 49 40.4	SEc NEc	
	SH	iSNE	50 20.6		
	C	iP	49 32.4	c	
	ML	iPNEZ	56.0	SWd	
	Fa	e(P)E	44.0		
Oct. 11	B	ePE eP	16 50 13.8 17 19 18.6		
	MH	eS	20 03.3		40°45'N, 125°48'W, O = 17 18 19. Eureka aftershock. Magnitude 4.8
	PA	eP	19 29.4		
	SF	e(P)	23.7		
	F	eSE	22.0		
	A	iP iPE iSE	20 04.7 19 53.6 18 42.6 58.3	E	

Date	Sta.	Phase	Time (GCT) h. m. s.	Ground motion	Remarks
1956					
Oct. 11 cont'd	Fe	e(P)E	44		
	R	iP	19 34.8		
	M	ePE eSN	09.8 50.4		
	SH	iP	01.7		
	C	iPNZ	24.9		
		iN	56.9		
Oct. 11	B	iP	17 23 30.1		40.7°N, 125.8°W, O = 17 22 30. Eureka aftershock. Magnitude 4.8
		iS	24 16.9		
	MH	iP	23 38.9		
	SF	e(P)N	32.0		
	A	iPE eSE	22 53.2 23 10.8	E	
	SH	iP	11.2		
Oct. 12	B	eP	02 48 51		USCGS: 15 1/2°S, 75°W, h = 60 km., O = 02 37 43. Near coast of Central Peru. Magnitude 6 1/2
	BG	iSNE eSSNE	57 58 03 02 36		
		eLN eR	13.6 16.7		
		A T			
		PZ	1.8 6		
		SH	4 10		
		SSH	2 1/2 11		
		Max H	10 18		
	MH	eP	02 48 46.3		
		i	49 11.6		
	F	eP	48 11.6		
	R	eP	48.5		
	C	eP	49 22		
		e	51 24		
		e	03 02 08		
	SH	eP	02 49 03		
Oct. 12	B	e	12 33 55		USCGS: 42 1/2°N, 144 1/2°E, O = 12 22 48. Near east coast of Hokkaido, Japan. Felt on Hokkaido. PAS: Magnitude 6 1/4 - 6 1/2
	MH	eP	50		
	F	eP	59		
	R	eP	50		
		eSN	42 51		
	C	eP	33 22		
		e	35 38		
	SH	eP	32 24		
		e	33 41		
Oct. 12	B	iP	18 52 49		USCGS: New Hebrides Islands. h = 200 km., O = 18 40 34.
	MH	iP	51		
	SH	eP	55		
Oct. 13	MH	iP	04 58 01		USCGS: 13°N, 56 1/2°W, O = 04 47 32. Off north coast of South America.
	SH	eP	04		
Oct. 13	B	iP	05 14 14		USCGS: 9 1/2°N, 70°W, O = 05 04 40. Western Venezuela.
	MH	iP	10		
	R	eP	05		
	C	eP	34		
	SH	eP	19		
Oct. 13	SH	eP	12 43 45		

Date	Sta.	Phase	Time (GCT) h. m. s.	Ground motion	Remarks
1956					
Oct. 13	B MH R C	eP eP e e	15 22 35 40 24 10		USCGS: 49 1/2°N, 156°E, 0 = 15 12 24. Northern Kurile Islands.
Oct. 13	SH SH	e(P) eP	08 19 07 15		USCGS: 5°S, 149 1/2°E, h = 150 km., 0 = 18 54 06. New Britain. Felt at Numundo and Popondetta.
Oct. 13	B BG MH SH	iP eLE iP eP	19 26 33.5 36.7 26 30.7 57		
Oct. 13	B	eP e eSNEZ	22 56 23.5 57.7 57 11.0		40°45'N, 125°48'W, 0 = 22 55 23. Eureka aftershock. Magnitude 4.3
	BG MH	eLNE e(R) iP	57.4 57.7 56 33.8	d	
		i i	42.5 57 36.6		
	SF	e(P)	56 24.9		
	F	e	57 00.9		
	A	e(P) ePE iSE	56 58.5 55 46.6 56 03.9	d E	
	Fe R	eSNE eP	00 39.4		
	M	i(S)NE iPE	57 34.9 56 13.7		
	SH	iSN iP	56 06.3		
	C	iSN eNZ eSE	40.3 35.9 57 19.1		
Oct. 14	MH	iP	10 55 07		USCGS: 18 1/2°N, 145°E, h = 400 km., 0 = 10 43 28. Marianas Islands.
Oct. 14	SH B	iP eP	54 59 11 20 24		
Oct. 14	MH MH	iP iP	23 21 17 02		
	SH	i e(P)	18 53 17 00		USCGS: 38°N, 141 1/2°E, h = 60 km., 0 = 21 05 36. Off east coast of Honshu, Japan. Felt at Tokyo and northeast Honshu.
Oct. 16	B BG MH F	eP eE eP eP	10 51 42.0 11 01.2 10 51 42.0 50		USCGS: 20°N, 157°W, 0 = 10 44 43. Hawaiian Islands.
Oct. 18	SH B BG	e(P) eP eE	47 07 16 49 20 44		
	MH	eN iP e	23.1 17 00 18 13	d	42.5°N, 126.2°W, 0 = 07 15 27. Off Cape Blanco, Oregon. Magnitude 4.2

Date	Sta.	Phase	Time (GCT) h. m. s.	Ground motion	Remarks
1956					
Oct. 18	M	eNE	16 29		
cont'd		eNE	17 17		
	A	eE e(S)E	16 12.9 41.4		
	R	e	17 04		
	C	iP iSE	16 13.8 47.5		
	SH	iP	20.1		
Oct. 18	MH	e	09 13 15		Cape Blanco aftershock. 0 = 09 11 41.
	C	ePNE iSNE	12 28 13 04		
	SH	eP e(S)	12 37 13 16		
Oct. 18	SH	eP	17 37 19		
Oct. 19	B	iP	12 11 43.3	d	USCGS: 21°S, 179°W, h = 650 km., 0 = 12 00 38. Fiji Islands. PAS: Magnitude 6.
	MH	iP	43.8	d	
	F	iP	48.7	d	
	M	eNE	57		
	R	eP	56.5	d	
	C	iP	12 02		
	SH	eP i	11 51.9 13 41	d	
Oct. 19	BG	eN eRNZ	14 36 58 49.2		USCGS: 56 1/2°S, 122°W, 0 = 14 05 34. South Pacific Ocean.
		R from S A T			
		Max H	18 19		
Oct. 19	F	e	20 52 07		
	SH	iP	14		
Oct. 19	B	iP iPP	20 55 39.0 57 21.5	d	USCGS: 52°N, 177°E, 0 = 20 47 33. Rat Islands, Aleutian Islands. Magnitude 6 3/4.
	BG	eSNE eN eGN eR	21 02 12 04.4 05.9 08.2	NE	
		R from W A T			
		PPZ	3 7		
		PPH	2 1/2 7		
	SH	SH	33 15		
	Max H	Max H	140 21		
	MH	iP	20 55 45.5	3	
		ePP	57 30		
	F	eP	55 56.5	d	
	M	eNE	31		
	R	eP	43.2		
	C	eP	12		
	SH	eP i	24 25.4		
Oct. 19	SH	eP	21 45 39		USCGS: Rat Islands aftershock. 0 = 21 37 45.

Date	Sta.	Phase	Time (GCT) h. m. s.	Ground motion	Remarks
1956					
Oct. 19	B BG	eP eQNE	23 59 57 24 01.2 A T		42.5°N, 126.6°W, 0 = 23 58 31. Off Cape Blanco, Oregon. Magnitude 4.7
	MH	Max H iP i	33 13 24 00 06.9 01 21.2		
	F	eP	00 30.8		
	M	eNE	23 59 52		
	A	eN	29		
	R	eP	24 00 10		
		eN	01 00		
	C	iP	23 59 21.1		
		iSE	57.1		
	SH	eP	26		
Oct. 20	MH	i	03 28 18		
Oct. 20	B	iP	03 38 26.0		USCGS: 51 1/2°N, 170°W, 0 = 03 31 24. Fox Islands, Aleutian Islands.
	MH	eP	32.9		
	F	eP	43		
	SH	eP	12		
		e	40 46		
Oct. 20	SH	e	06 44 09		
Oct. 21	B	e(P)	08 43 54		USCGS: 24°N, 109°W, 0 = 08 39 45. Southern Gulf of California.
	BG	eQNE	48.2 A T		
		Max H	13 20		
	MH	eP	08 43 42		
	F	eP	22		
	R	e	54		
	SH	eP	44 17		
		e	45 00		
		e	47.0		
Oct. 22	B	eP	12 48 34		USCGS: 9 1/2°S, 150°E, 0 = 12 35 10. Near coast of Papua, New Guinea. Felt at Baniara, Esa'Ala, Losuia, and Sagarai.
	MH	eP	33		
	SH	eP	34		
Oct. 22	SH	e(P)	17 15 58		
Oct. 23	BG	e(S)NE eQNE	08 22.1 28.9		USCGS: 3°N, 95°W, 0 = 08 07 35. Northwest of Galapagos Islands. PAS: Magnitude 5 3/4.
	MH	iP	15 30		
		i	44		
	F	eP	17		
	R	eP	36		
Oct. 23	MH	e(PP)	08 59 27		USCGS: 13 1/2°N, 120 1/2°E, h = 100 km. 0 = 08 41 22. Mindoro Island, Philippine Islands. Felt at Manila, Calapan, and Ramblon.
		i	53		
	F	e(PP)	37		
	SH	e(P)	54 33		
		e	58 38		
Oct. 23	B	eP	10 13 31		USCGS: 19°S, 174°W, 0 = 10 01 48. Tonga Islands.
	MH	eP	32		
	F	eP	40		

Date	Sta.	Phase	Time (GCT) h. m. s.	Ground motion	Remarks
1956					
Oct. 24	BG	iPNEZ	14 49 59.9	NWc	USCGS: 12°N, 87°W, 0 = 14 42 10. Near coast of Nicaragua. Minor damage at Managua. Felt in south El Salvador. PAS: Magnitude 7 1/4.
	B	iP	50 00.4	d	
		iPcP	52 00.4		
	BG	iSN	56 24	S	
		i(SS)N	15 00.3		
		eGNE	01.7		
		eR	03.2		
			R from SE		
			A T		
		PZ	18 7 1/2		
		PH	10 9		
		PcPZ	4 6 1/2		
		SH	42 17		
		(SS)H	45 13		
		GH	290 32		
		Max H	640 24		
	MH	iP	14 49 54.5	d	
		i	50 16.8	d	
		iPcP	51 58.0		
	F	eP	49 40.5	d	
		e	51 21		
	M	ePN	50 09		
	A	e(P)E	24		
	R	eP	49 53.3		
		i	56.0		
		eSN	56 13		
	C	iP	50 35.3		
		iPcP	52 15.3		
	SH	eP	50 11		
		iPcP	52 05		
		e	56 52		
Oct. 24	B	iP	14 55 53.0		
	MH	iP	57.2		
	SH	iP	56 01		
Oct. 25	B	ePEZ	05 29 28.8	Wc	USCGS: 12°N, 87°W, 0 = 05 21 40. Nicaragua aftershock. Felt in El Salvador and Nicaragua. PAS: Magnitude 6 1/4 - 6 1/2.
		iPcP	31 28.1	d	
		i	40.7	d	
	BG	eSN	35.8		
		e(SS)N	39.9		
		eGNE	42.0		
		eR	44.7		
			R from E		
			A T		
		PZ	2 5		
		PH	1 1/4 5		
		GH	28 32		
		Max H	32 20		
	MH	eP	05 29 24.2	c	
		i	32.2	d	
		i(PP)	31 36.2		
	F	iP	29 07		
	R	iP	23.2	c	

Date	Sta.	Phase	Time (GCT) h. m. s.	Ground motion	Remarks
1956					
Oct. 25 cont'd	SH	eP	38		
		i(PcP)	31 40		
Oct. 25	MH	eP	19 15 45.6	c	USCGS: 17 1/2°S, 175°W, 0 = 19 04 04. Tonga Islands region.
	F	eP	48		
	M	eP	53.6	c	
	SH	eP	53		
Oct. 26	B	eP	02 59 15		USCGS: 17 1/2°S, 176°E, 0 = 02 47 00. Fiji Islands.
	MH	iP	14.5	c	
	F	eP	20	c	
	M	iP	22.1	c	
	R	iP	27.4	c	
	SH	eP	20		
Oct. 26	B	iP	09 07 59.5		USCGS: 21°S, 178°W, h = 350 km., 0 = 08 56 30. Fiji Islands region.
	MH	iP	59.9	d	
		i	08 11.5	d	
		epP	09 24		
		e	14 02		
	SH	iP	08 08		
Oct. 26	B	eP	23 02 59		USCGS: 14°S, 167°E, 0 = 22 50 24. New Hebrides Islands. Magnitude 6 1/2.
	BG	eSNE	13 19	NE	
		iNE	14 32		
		eSSN	19.0		
		eQN	24.7		
		eRNEZ	28.7		
		R from WSW			
		A T			
		PZ	2 7		
		PH	3/4 7		
		SH	4 1/2 13		
		Max H	50 20		
		Max Z	36 20		
	MH	eP	23 02 59.8	d	
		i	03 03.7		
	F	eP	04		
	R	eP	10.4		
	C	ePNZ	13		
Oct. 27	SH	eP	03		
	MH	eP	00 42 42		
	F	e	45		
Oct. 27	B	eP	15 40 39		USCGS: 12°N, 86°W, h = 200 km., 0 = 15 33 08. Near coast of Nicaragua.
	MH	ePcP	42 38		PAS: Magnitude 5 3/4 - 6.
		eP	40 34.2		
		ePcP	42 35.6		
	M	eP	40 46.3		
	SH	e	42 37		
Oct. 27	MH	e	17 46 15		
Oct. 28	B	iP	03 07 16.3		USCGS: Fiji Islands, 0 = 02 55 03.
	MH	iP	17.0	c	
	F	iP	20	c	
	M	iP	26.0	c	
	R	eP	29	d	
	SH	iP	25		

Date	Sta.	Phase	Time (GCT) h. m. s.	Ground motion	Remarks
1956					
Oct. 28	B	iP	03 41 32.4	c	USCGS: 32°S, 179°W, 0 = 03 28 41. Kermadec Islands.
	BG	iSKSNE	51 57		PAS: Magnitude 6 3/4 - 7.
		iSNE	52 24		
		eNE	04 05.5		
		eRNEZ	08.7		
		R from SW			
		A T			
		PZ	3 1/2 5		
		PH	1 5		
		SKSH	5 1/2 10		
		SH	8 1/2 11		
		Max H	50 20		
		Max Z	28 20		
	MH	iP	03 41 33.0	c	
		i	47.8		
	F	iP	34.6	c	
	M	eP	41.0	c	
		i	42.0	d	
		i	55.0		
	R	eP	43.0	c	
		eE	52 15		
	C	iP	42 00.6		
	SH	iP	41 40.8		
		i	59		
Oct. 28	B	eP	03 59 17		
	MH	eP	17.4	c	
	M	eP	11.0	c	
Oct. 28	MH	iP	05 35 55		
	SH	eP	36 15		
Oct. 28	MH	iP	06 54 30		USCGS: 17°S, 173°W, 0 = 06 42 52. Tonga Islands.
	F	eP	28		
	M	eP	34		
	R	eP	39		
	SH		34		
Oct. 28	M	e(P)	10 58 55		USCGS: 14°N, 123 1/2°E, 0 = 10 45 08. Luzon, Philippine Islands. Felt at Daet, Inbanta, and Legaspi.
	SH	e	59 02		
Oct. 28	B	eP	11 43 53		
	MH	iP	54		
	M	iP	44 04		
	SH	iP	02		
Oct. 29	BG	eLE	00 20.8		
	MH	eP	07 14		
	R	eP	15		
Oct. 29	BG	eLE	03 15.6		
Oct. 29	M	eP	14 29 07		
	SH	eP	09		
Oct. 29	B	iP	15 52 31.1	c	USCGS: 8 1/2°S, 77°W, h = 60 km., 0 = 15 42 08. Central Peru.
		i	54		
	MH	iP	27.4	c	
		i	39.3	c	
	F	iP	16.0	c	

Date	Sta.	Phase	Time (GCT) h. m. s.	Ground motion	Remarks
1956			37.2	c	
Oct. 29	M	eP	28.9	c	
cont'd	R	iP	53 03		
	C	iP	52 40		
	SH	iP	16 22 37		
Oct. 29	MH	e	21 55		
	M	e	21 33		
	SH	e	22 45 34.5	d	USCGS: 22°S, 177°W, h = 200 km., O = 22 33 49. Fiji Islands region.
Oct. 29	B	iP	35.4	d	
	MH	iP	40.3	d	
	F	iP	44.4	c	
	M	iP	48.9		
	R	eP	43.1		
	SH	iP	00 21 27.3	d	USCGS: 66 1/2°N, 17 1/2°W, O = 00 11 03. Near coast of Northern Iceland. Felt.
Oct. 30	MH	iP	06.4	d	
	M	eP	01 17 26		
Oct. 30	MH	e	02 45 54		USCGS: Fiji Islands. h = 500 km., O = 02 34 40.
Oct. 31	MH	iP	14 33.1		USCGS: 26 1/2°N, 54 1/2°E, O = 14 03 38. Southern Iran.
	BG	eN	22 35		Many killed and extensive property damage at Laristan.
	MH	eP	24 02		PAS: Magnitude 6 3/4.
		e	34 11		USCGS: 10°N, 80°W, O = 15 42 12. Near north coast of Panama. Felt at Balboa Heights.
Nov. 1	MH	eP	15 50 44		
		i	51 01		
Nov. 2	MH	iP	02 43 24		
	F	eP	11		
	M	eP	40		
	SH	iP	41		
Nov. 2	MH	e	10 41 12		USCGS: 32°N, 112°W, O = 10 38 55. Southern Arizona.
	M	e	44		
Nov. 3	MH	eP	05 31 33		USCGS: 61°N, 139°W, O = 05 26 02. Southern Yukon, Canada.
	M	eP	10		
Nov. 3	MH	e	10 13 47		USCGS: 52°N, 159°E, O = 10 04 02. Near southeast coast of Kamchatka.
	M	e	38		
Nov. 3	MH	iP	17 03 54		
	M	eP	04 02		
	SH	iP	01		
Nov. 3	B	eP	18 13 39		USCGS: 24°S, 180°, h = 500 km., O = 18 02 04. South of the Fiji Islands.
	MH	iP	38.1	c	
	F	epP	15 31		
		eP	13 43		
	M	epP	15 35		
		eP	13 46		
Nov. 4	B	epP	15 37		
		iP	05 48 49.2	d	USCGS: 35 1/2°N, 140°E, h = 100 km., O = 05 37 15. Near east coast of Honshu, Japan. Felt.
	MH	epP	49 08.7	d	
	F	iP	48 53.1	d	
		eP	49 04	d	
	M	eP	48 44.1	d	

Date	Sta.	Phase	Time (GCT) h. m. s.	Ground motion	Remarks
1956					
Nov. 4		ipP	49 03.9		
cont'd	R	eP	48 53.6	d	
	C	eP	24		
	SH	iP	39.8	d	
Nov. 4	B	eP	07 17 40.8	c	USCGS: 22°S, 175°W, h = 60 km., O = 07 05 43. Tonga Islands. PAS: Magnitude 6 1/2 - 6 3/4.
		epP	56.2		
	BG	eSN	27 38		
		eN	56		
		eSSN	32 53		
		eQNE	37.9		
		A T			
		SH	1 2/3 8		
	MH	iP	07 17 41.9	c	
		ipP	56.5		
	F	eP	47.3	c	
		ipP	18 04.0		
	M	eP	17 51.5	c	
	R	eP	56.6		
		epP	18 10.3		
	C	eP	04		
	SH	iP	17 59.8		
Nov. 4	M	e	07 43 41		P'P' of previous shock?
Nov. 4	MH	iP	08 47 38.3	c	USCGS: 34°S, 68°W, O = 08 35 20. Mendoza Province, Argentina.
		i	48 07.8		
	M	iP	47 48.9		
		i	48 17		
Nov. 4	MH	eP	21 46 31		USCGS: 61°N, 139°W, O = 21 40 55. Yukon, Canada.
	M	eP	06		
Nov. 5	MH	e	06 08 57		
	M	e	09 07		
	F	e	00		
Nov. 5	B	i(T)	18 36 19.7		
		i	30.0		
		i	48.0		
	MH	e(T)	26.8		
		i	40.8		
	PA	e(T)	20.8		
		i	28.6		
Nov. 6	B	eP	00 15 12		USCGS: Tonga Islands. O = 00 03 15.
		e	22		
	MH	eP	13.5	c	
		i	26.5		
	F	eP	18.3	c	
		e	30		
	M	eP	24		
Nov. 6	B	eP	14 26 46		USCGS: 5 1/2°S, 134°E, O = 14 12 35. Aru Islands.
	MH	eP	48		
	M	eP	46		
	SH	eP	43		
Nov. 6	MH	iP	23 22 02.2	c	USCGS: 52°N, 176°W, O = 23 14 20. Andreanof Islands, Aleutian Islands.
	R	eP	00.9	c	
	SH	eP	21 43		
		e	22 12		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1956			h. m. s.		
Nov. 7	MH	e	09 16 28		
	M	e	03		
Nov. 8	B	iP	03 57 22.7	d	USCGS: 24°S, 179°E, h = 550 km., O = 03 45 51. Fiji Islands region.
	MH	iP	23.9	d	
	F	eP	27	d	
	M	i(P)	33.0	c	
	SH	iP	32		
Nov. 8	B	epP	59 30		
		iP	07 01 26.8	d	USCGS: 18°S, 178°W, h = 500 km., O = 06 50 24. Fiji Islands.
		e	36		
	MH	epP	03 14		
		iP	01 28.4	d	
		i	38.7		
		epP	03 17.5		
	F	eP	01 33.5		
		epP	03 20		
	M	eP	01 36.9	d	
		i	37.8	c	
		i	46.0		
		epP	03 24.5		
	R	eP	01 41.3	d	
	C	eP	46.0		
		epP	03 37		
	SH	iP	01 36.5		
		epP	03 23.4		
Nov. 8	M	e	07 28 33		
Nov. 8	M	eP	13 33 18		
		e	35 19		
Nov. 9	MH	eP	06 12 52		USCGS: 36°N, 34 1/2°W, O = 06 01 51. North Atlantic Ocean.
	M	eP	41		
	R	eP	41		
	C	eP	37		
	SH	eP	43		
Nov. 9	B	eP	13 12 31.6	d	USCGS: 17°N, 94°W, h = 150 km., O = 13 06 10. Southern Mexico. Slight damage in Oaxaca Province. PAS: Magnitude 6 1/4 - 6 1/2.
		ipP	13 01		
		iPcP	15 17		
	BG	iSNE	17 38	NE	
		esSNE	18 31		
	B	iScP	49	c	
	BG	iScSNE	22 51	NE	
		eLE	24.3		
		A T			
		PZ	1.1 5		
		PH	3/4 7		
		pPZ	5 4 1/2		
		pPH	1 1/2 10		
		SH	11 11		
		sSH	14 12		
		ScSH	29 11		
		Max H	75 17		
	MH	iP	13 12 24.6	c	
		ipP	55.3		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1956			h. m. s.		
Nov. 9		iPcP	15 16.6		USCGS: 17 1/2°(sic)S, 178°W, h = 350 km., Kermadec Islands. (Latitude probably should read 27 1/2°S.)
Nov. 9		e	22 39		
	F	eP	12 10.2		
	M	eP	38.8	c	
		ipP	13 13.7		
	R	eP	12 24.5	d	
		i	13 11.7		
	C	eP	09.0		
		ipP	40.9		
		e	20 10		
	SH	iP	12 46.7		
		ipP	13 19.2		
		iPcP	15 21.2		
		iScP	18 55		
		e	23.9		
Nov. 9	B	eP	18 08 24		USCGS: 10 1/2°N, 86°W, h = 100 km., O = 00 08 27. Near coast of Costa Rica. PAS: Magnitude 6.
	MH	iP	24.7	c	
		e(pP)	10 10		
	SH	eP	08 33		
		e	09 01		
Nov. 10	B	eP	00 16 18.5	c	USCGS: 10 1/2°N, 86°W, h = 100 km., O = 00 08 27. Near coast of Costa Rica. PAS: Magnitude 6.
		e(PcP)	18 13		
		i	20		
	BG	eQNE	34.2		
	MH	iP	16 13.3	c	
		i	24.9		
		i	45.6		
	F	eP	15 58	c	
	M	i	16 29.6		
	R	iP	13.7	d	
	C	e(P)	52		
		e(PcP)	18 28		
	SH	iP	16 29		
		e(PcP)	18 17		
Nov. 10	B	eP	09 07 16.2	d	
		i	43.2		
		iE	44.5		
	MH	iP	27.5	c	
		eN	08 00.4		
	PA	eiP	07 22.6	d	
		eNE	22.8	SE	
	SF	eP	16.4		
	F	eP	47.0		
		eEZ	08 11.9		
	M	iP	07 02.9	c	
		iSN	23.7		
	A	iPNE	06 48.1		
		iSN	57.1		
	Fe	iP	47		
		iSN	55		
	R	iP	07 24.9	c	
		i	28.2	d	

Date	Sta.	Phase	Time (GCT) h. m. s.	Ground motion	Remarks
1956			41.8		
Nov. 10	C	iP	08 18.7		
cont'd		i	06 56.5		
	SH	iP	11 01 02		
Nov. 10	MH	iP	11 59 29		USCGS: Near coast of Kodiak Island, Alaska. O = 11 53 30.
Nov. 10	B	eP	35		
	MH	eP	14		
	M	eP	08		
	SH	iP	14 53 57		USCGS: 16°N, 121°E, O = 14 39 56.
Nov. 10	MH	eP	57 56		Luzon Island, Philippine Islands.
		e(PP)	53 45		Felt at Manila, Baguio, and
	M	eP	41		Dagupan.
	SH	eP	57 43		
Nov. 10	MH	e	15 07 26		
		e	10 25		
Nov. 10	MH	i	18 35 16		
Nov. 10	B	e	20 28 07.7		39.6°N, 117.9°W, O = 20 27 53.
	MH	eP	27 56.0	c	East of Fallon, Nevada.
		i	28 47.6		Magnitude 4.1
	F	eP	00.4		
		e(S)E	50.9		
	M	eP	27 43.3	c	
		eE	28 21.8		
	SH	eP	27 53.9		
	R	eP	23.0	c	
		iSN	46.2		
	Fa	iPE	11.2		
	Ye	iP	18.6		
		iS	37.6		
Nov. 11	MH	eP	03 24 39.6	d	USCGS: 16 1/2°S, 179°W, h = 650 km.,
		e	47.2		O = 03 13 47.
	M	epP	26 51.7		
		eP	24 48.5	c	
	R	epP	27 01.1		
	SH	epP	04.6		
Nov. 11	M	e	29 03		
Nov. 11	MH	eP	13 27 11		
Nov. 11	SH	eP	16 08 09		
Nov. 11	B	iP	06		
	MH	e	19 25 59.4		USCGS: 44°N, 149°E, O = 19 15 20.
	F	iP	26 13.2		Kurile Islands.
	M	eP	04.3		
	R	e	14		
		eP	25 55		
		e	26 03.1		
	C	iP	17.4		
	SH	eP	25 30.2		
		i	47.7		
Nov. 12	M	e	26 01.0		
Nov. 12	MH	eP	05 16 38		
		i	06 01 24		
			43		

Date	Sta.	Phase	Time (GCT) h. m. s.	Ground motion	Remarks
1956					
Nov. 12	B	iP	07 24 47.4		
	MH	iP	55.5		
		i(pP)	26 52.2		
	M	iP	24 40.9		
		i(pP)	26 45.8		
	R	iP	24 54.2		
	C	eP	13.0		
	SH	iP	35.3		
		i(pP)	26 43		
Nov. 12	MH	i	10 50 59		
		e	51 25		
	M	e	50 37		
Nov. 12	M	e	11 05 48		
Nov. 12	BG	eRNEZ	11 51		
			R from NE		
	MH	e	11 27 36		
	M	e	30		
Nov. 13	M	eP	03 09 01		USCGS: 73°N, 7°E, O = 02 58 37.
					Svalbard region.
Nov. 13	MH	e	07 53 58		USCGS: 21 1/2°S, 174°E, O = 07 40 58.
	F	eP	38		Loyalty Islands region.
	M	eP	41		
	SH	eP	39		
Nov. 13	B	eP	08 48 53		USCGS: Loyalty Islands region.
	MH	eP	52		O = 08 36 17.
	M	eP	49 00		
	SH	eP	48 57		
Nov. 13	MH	eP'	10 14 45		USCGS: 48 1/2°S, 124°E, O = 09 55 29.
	F	eP'	47		Indian Ocean, 1000 miles south of
	M	eP'	49		Australia.
	R	eP'	51	d	
	SH	eP'	48	d	
		ePP	17 02		
Nov. 13	MH	e(P)	13 28 54		
	F	e(P)	29 12		
	M	e	28		
	SH	e(P)	15		
Nov. 14	M	e(PP)	01 09 28		USCGS: 36 1/2°N, 71°E, h = 150 km.,
	SH	e	08 24		O = 00 51 27. Hindu Kush. Felt
		e(PP)	09 29		at Kabul, Afghanistan and at
					Lahore and Parachinar, Pakistan.
Nov. 14	M	eP	14 35 51		
	R	eP	45		
	SH	iP	54		
Nov. 14	MH	iP	22 07 51.4	c	
		e	08 03		
		e	07 34		
Nov. 15	B	e	14 25 42		USCGS: 5°S, 104 1/2°W, O = 14 17 09.
	MH	eP	31	c	Galapagos Islands foreshock.
	F	eP	20		
	M	eP	51	c	

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1956			h. m. s.		
Nov. 15	C	e(P)	26 33		
cont'd	SH	iP	25 55		
		i	26 02		
Nov. 15	MH	eP	17 36 03	c	USCGS: 3°S, 103 1/2°W, 0 = 17 27 55. Pacific Ocean, about 900 miles west of the Galapagos Islands.
	F	eP	35 51		
	M	eP	36 24		
	R	eP	22	d	
	SH	iP	27		
Nov. 16	B	iP	03 23 47.2	d	35°57'N, 120°28'W, 0 = 03 23 09. Near Parkfield, California. Magnitude 5.0.
		eNE	56.7		
		eSE	24 16.0		
	MH	iP	23 37.9	d	Felt over an 8,000 square mile area of west-central California.
		iSN	59.2		
	PA	iPNEZ	42.4	d	Maximum intensity VI.
		iNE	52.8		
		i(S)E	24 07.8		
	SF	iP	23 47.2		
		i	56.2		
		i(S)E	24 19.6		
	F	iP	23 28.1	d	
		iSNE	41.2		
	M	eP	24 18.4	d	
	SH	eP	24.2		
	R	eP	08.2	d	
		i	16.3		
	C	e	25 24.5		
Nov. 16	MH	iP	06 31 29.8		USCGS: Rat Islands, Aleutian Islands. 0 = 06 23 10.
	M	e	32 11		
	SH	eP	31 06		
		e	33 01		
Nov. 16	B	e(P)	08 27 40.9		41°02'N, 116°27'W, 0 = 08 26 10. Northeastern Nevada. Magnitude 4.7
		i	53.4		
		eE	29 04		
		e	18.5		
	MH	iP	27 35.7	d	
		i	52.8		
		i(S)	28 43.8		
		eNE	51.5		
	PA	eP	27 41.0		
		e(S)NE	29 14.0		
	F	e(P)	27 31.9		
		e	45.4		
	M	iP	13.0		
		i	24.1		
	R	eP	26 59.1		
		i(S)E	27 46.5		
	SH	eP	22.1		
		i	35.2		
		i(S)N	28 32.9		
	C	e	04.8		
		e	13.8		
		e(S)	29 37.4		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1956			h. m. s.		
Nov. 16	Ye	iP	26 58.9		
cont'd		i(S)EZ	27 46.7		
Nov. 16	B	iP	09 01 45.0	c	USCGS: 4°S, 139°E, h = 150 km., 0 = 08 48 14. Central New Guinea.
	MH	eP	47.4	d	
	M	eP	45.9	d	
	SH	iP	44.1		
		ipP	02 17.4		
		ePP	05 44		
Nov. 16	B	eP	12 03 26	U	USCGS: 8 1/2°N, 71°W, 0 = 11 53 54. Northwestern Venezuela.
	MH	eP	21.2		
		i	47.1		
	F	eP	13		
	M	eP	28.2		
	R	eP	17.2		
	C	eP	52		
	SH	eP	34		
		e	05 58		
Nov. 16	MH	iP	22 13 44.3		USCGS: 18°S, 69°W, h = 150 km., 0 = 22 02 19. Peru-Bolivia-Chile border region.
		ipP	14 15.3		
	C	e(P)	15		
	SH	iP	13 56		
		ipP	14 27		
Nov. 17	MH	eP	12 25 12.9	c	
	M	e	38.5		
	SH	eP	24		
Nov. 17	B	eP	20 31 35	d	USCGS: 54 1/2°N, 134°W, 0 = 20 27 15. Queen Charlotte Islands region. Felt at Ketchikan and Petersburg, Alaska. PAS: Magnitude 6 1/2
	BG	iNE	40	NE	
		eSN	35 06		
		iN	58		
		A	7 5		
		T	35 8		
		PZ	155 15		
	SH	Max H	20 31 45.4	d	
	MH	iP	32 05.3		
		i	35 31		
		e(S)E	31 54		
	F	eP	08.6	c	
	M	i	10.9	c	
		i	13.8	d	
		i	34 18.2		
	R	eP	31 25.8	c	
		e	31.8		
		e	34 32		
		e(S)N	35 05		
	C	iP	30 12.9	d	
		eS	34 03		
		e	35 11		
	SH	iP	31 01.9	d	
		e	35 28		
		e	57		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1956			h. m. s.		
Nov. 18	F	e(P)	09 59 17		USCGS: 27°S, 176°W, 0 = 09 46 49. Kermadec Islands foreshock.
	M	e(P)	24		
	SH	e(P)	26		
Nov. 18	B	eP	18 28 53		USCGS: 27°S, 176°W, 0 = 18 16 25. Kermadec Islands region.
	BG	e(S)N	38 56		
		eRNEZ	57.0		
			R from SW		
	MH	eP	18 28 50.7	c	
	F	eP	59.5	d	
	M	eP	57.1	d	
	R	eP	59.6	d	
	SH	eP	57		
Nov. 18	MH	e(P)	21 35 34.0	c	USCGS: 28 1/2°N, 129 1/2°E, 0 = 21 22 38. Ryukyu Islands.
	F	e(P)	31		
	M	e	36	c	
	R	e(P)	24.1	c	
	SH	iP	12		
		i	21		
Nov. 19	SH	e	07 28 38		
Nov. 19	B	eP	12 14 50		USCGS: 14°N, 144°E, h = 150 km., 0 = 12 02 26. Marianas Islands.
	MH	eP	52.7	d	
	F	iP	15 00	c	
	M	eP	14 49.5		
	R	iP	58.3	c	
	C	iP	46		
	SH	eP	45		
Nov. 20	MH	i(P)	15 07 57		
	M	e(P)	04 56		
		e	05 05		
Nov. 21	M	e	06 33 06		USCGS: 49°N, 141 1/2°E, 0 = 06 22 10. Off west coast of Sakhalin.
Nov. 21	SH	e(P)	32 48		
Nov. 21	B	eP	07 25 14		
	MH	eP	13.4	c	
		i	30.3	c	
Nov. 21	M	e(P)	23.7		
	B	eP	07 44 47	c	USCGS: 38°N, 142°E, h = 60 km., 0 = 07 33 28. Near coast of Northern Honshu. Felt.
	MH	eP	51.3	c	
		i(pP)	45 01.8	c	
	F	eP	00	c	
	M	eP	44 41.1	c	
	R	eP	51.4	c	
	C	iP	22		
	SH	iP	38		
		i(pP)	50		
Nov. 21		e	48 58		
Nov. 21	MH	eP	08 11 31		
	SH	e	58		
		e	20 12		
Nov. 21		e	21 02		
Nov. 21	MH	eP	22 12 59		USCGS: 15 1/2°N, 99 1/2°W, 0 = 22 06 55. Near coast of Guerrero, Mexico. Felt at Acapulco and Iqual

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1956			h. m. s.		
Nov. 22	B	eP	08 41 16		USCGS: 8 1/2°N, 82 1/2°W, 0 = 08 32 45. Panama - Costa Rica border.
	MH	eP	10.2	c	
	M	eP	21.5	c	
	R	eP	10	c	
	C	eP	47		
	SH	eP	26		
		e	42 23		
Nov. 22	MH	eP	15 49 36.2	c	USCGS: 15°S, 178°W, 0 = 15 37 49. Fiji Islands.
	M	eP	45.3	c	
	SH	eP	43		
		e	53		
Nov. 22	B	iP	16 44 24.6		36.6°N, 121.3°W, 0 = 16 43 58. Southeast of Hollister, California. Magnitude 4.2. Felt.
		iNEZ	27.8		
		iSNE	45.4		
	MH	iP	15.3	c	
		iN	26.4		
		iSE	27.6		
	PA	iP	18.7	c	
		iSEZ	35.4		
	SF	iP	25.5		
		i	30.8		
		iS	47.7		
	F	iP	19.5	c	
		iS	34.9		
		iNE	35.7		
	M	iP	59.6		
	SH	eP	45 04.2		
		i	10.8		
		iS	53.1		
Nov. 23	MH	eP	02 53 08.3		42.8°N, 126.4°W, 0 = 02 51 40. Off Cape Blanco, Oregon. Magnitude 3.2
	M	iP	52 35.0		
		i	42.0		
		e	53 29.3		
	C	iP	52 15.6		
		iSNE	49.0		
	SH	eP	27		
		i	53 05		
Nov. 23	B	eP	10 07 45.0	c	USCGS: 52 1/2°N, 169 1/2°W, 0 = 10 00 50. Fox Islands, Aleutian Islands.
	MH	eP	51.9	c	
	F	eP	08 04.4		
	M	eP	07 36.4		
	R	eP	50.7	d	
	SH	iP	31.1		
Nov. 24	B	eP	02 08 02.0	d	USCGS: 22 1/2°S, 67°W, h = 150 km., 0 = 01 56 06. Argentina-Bolivia border. Felt at Antofagasta, Chile.
	MH	iP	07 58.5	d	
	F	eP	48.7	d	
	M	eP	08 07.6	d	
		ipP	39.8		
	R	iP	01.0	d	
	C	eP	28		
		e	09 24		
	SH	iP	08 10.8	d	
		ipP	43		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1956			h. m. s.		
Nov. 24	SH	eP	07 41 57		
Nov. 24	MH	eP	07 47 07		
	M	e	46 37		
	C	eP	06		
Nov. 24	MH	iP	08 32 08.4		
	M	e	17.9		
	SH	eP	16		
Nov. 24	MH	iP	15 39 10		
	M	eP	15		
	SH	eP	24		
Nov. 24	MH	e	17 48 54		USCGS: 27°S, 175°W, O = 20 41 58.
Nov. 24	B	eP	20 54 24		Kermadec Islands region.
	BG	eSE	21 04 42		
		eRNEZ	22		
			R from SW		
	MH	iP	20 54 24.5		
	F	eP	28		
	M	eP	35		
	R	eP	37		
	C	eP	47		
	SH	eP	34		
Nov. 24	MH	i	23 13 28		
Nov. 25	MH	eP	07 33 11.1		USCGS: Tonga Islands.
	M	eP	21.5		O = 07 21 36.
	SH	eP	21		
Nov. 25	MH	eP	11 31 49		USCGS: 54°N, 164°W, O = 11 24 59.
	M	e(P)	24		Unimak Island region, Aleutian Islands.
	SH	e	31		
Nov. 25	M	e	12 14 21		
Nov. 25	B	eP	14 26 34		USCGS: 17°S, 71 1/2°W, h = 100 km.,
		epP	47		O = 14 15 10. Near coast of southern Peru.
	MH	iP	29.8		
		ipP	43.4		
	M	eP	39.6		
	R	eP	32		
	C	eP	27 02		
		epP	15		
	SH	eP	26 43		
		epP	55		
Nov. 25	MH	eP	14 57 39.2	c	
	F	eP	43.6		
	M	eP	50.2	c	
	R	eP	56	c	
	SH	eP	47		
Nov. 25	MH	e(P)	15 29 10		
	M	e(P)	28 52		
	C	e(P)	34		
	SH	e	56		
Nov. 25	SH	eP	17 22 29		
		e	23 26		
Nov. 25	M	e	17 32 26		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1956			h. m. s.		
Nov. 25	B	eP	18 20 05.3	c	USCGS: 15°S, 168°E, h = 100 km.,
	BG	eRNEZ	45		O = 18 07 40. New Hebrides Islands.
			A T		
		PZ	2 1/2 7		
	MH	eP	18 20 07.0	c	
		i	19.9		
	F	iP	12.4	c	
	R	eP	27.3		
		eE	30 55		
	C	eP	20 16.6		
	SH	iP	15.7		
		e	23 15		
Nov. 26	B	iP	03 11 43.0	c	USCGS: Bonin Islands.
	MH	iP	46.5	c	O = 02 59 34.
		i	12 15.3		
	F	eP	11 55		
	M	eP	39.9	c	
		e	12 07.9	c	
	R	eP	11 48.7		
	C	eP	26		
	SH	iP	36.3	c	
		i	12 01		
Nov. 26	M	e	05 27 22		USCGS: 1/2°N, 122 1/2°E,
	SH	e	00		O = 05 07 55. Celebes.
Nov. 26	M	eP	05 37 44		
	C	eP	15		
	SH	eP	40		
		e	46		
Nov. 26	SH	e	10 21 00		
Nov. 26	B	eP	12 25 54.6		
	MH	iP	55.9		
	F	eP	26 00		
	M	eP	03.5		
	SH	iP	03		
Nov. 26	B	eP	13 02 36.7		
	MH	eP	36.6		
	F	eP	40		
	M	eP	45.6		
	SH	iP	44		
Nov. 26	SH	eP	14 02 46		USCGS: 26°S, 70 1/2°W, h = 100 km.,
Nov. 26	B	eP	19 01 58	c	O = 18 49 56. Northern Chile.
		epP	02 14		Felt at Antofagasta.
		eSN	12 02		
	MH	eP	01 55.5	c	
		ipP	02 10.8	d	
	F	eP	01 45.6		
		epP	02 00.6		
	M	eP	06.0		
	R	eP	01 58.1		
		epP	02 14.1		
	C	eP	16		
		e	41		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1956			h. m. s.		
Nov. 26 cont'd	SH	iP	08	c	
Nov. 26	B	ipP	24		
		eP	23 42 31.6	d	USCGS: 22°S, 169°E, 0 = 23 29 41. Loyalty Islands. PAS: Magnitude 6 3/4
		i	45.1		
		e	44 21		
	BG	eSNE	53 03		
		eRNEZ	24 10.6		
			R from SW		
			A T		
		PZ	2 1/2 4		
		PH	1 4		
		SH	2 6		
		Max H	18 17		
		Max Z	14 17		
	MH	eP	23 42 32.5	d	
		i	47.8	d	
	F	eP	37.3	d	
	R	eP	43.3		
		e(S)N	53 17		
	C	eP	42 44		
Nov. 27	SH	iP	37.6	d	
	B	eP	01 04 36.6	d	USCGS: 21°S, 168 1/2°E, 0 = 00 51 46. Loyalty Islands.
		i	45.7		
	MH	iP	37.5	d	
		i	44.2	d	
	F	eP	42.3	d	
		i	52.4		
	M	eP	43.7	d	
		e	52.8		
	R	eP	48.0		
		e	57.7		
	C	eP	49		
		e	58		
	SH	iP	40.9	d	
		i	52.9		
Nov. 27	M	e	02 29 07.8		
Nov. 27	B	e(P)	02 32 25		
	MH	i(P)	27.1		
		e	34.7		
	F	e(P)	31		
	M	e(P)	33		
	R	e(P)	32		
	SH	eP	32		
		e	42		
Nov. 27	MH	i	03 35 13		
Nov. 27	B	eP	06 30 20		
	MH	eP	20.7		USCGS: Loyalty Islands aftershock. 0 = 06 17 29.
	F	eP	26		
	M	eP	28		
Nov. 27	SH	eP	27		
	M	eP	07 12 47		USCGS: 5°S, 154°E, 0 = 06 59 34. Solomon Islands.

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1956			h. m. s.		
Nov. 27	MH	eP	07 36 03		
	F	eP	07		
	M	eP	07		
	SH	e(P)	08		
Nov. 27	MH	eP	09 56 55		USCGS: Loyalty Islands aftershock. 0 = 09 44 06.
	M	eP	57 01		
Nov. 27	B	eP	13 31 57	d	USCGS: Loyalty Islands aftershock. 0 = 13 19 05.
		e	32 10		
	MH	eP	31 58.5	d	
		i	32 07.9		
		i	34 44.5		
	F	eP	32 03.4	c	
	M	eP	05.2	c	
	R	eP	09.5		
	C	eP	12		
	SH	iP	05		
Nov. 27	B	e	16 05 13		USCGS: Loyalty Islands aftershock. 0 = 15 52 20.
	MH	e	09.3		
	F	e	15.0		
	M	e	17.5		
	SH	e	13		
		e	07 20		
Nov. 27	B	iP	19 39 00		
	MH	eP	00		
	F	eP	04		
	SH	iP	09		
Nov. 27	SH	e(P)	19 47 21		
Nov. 28	MH	iP	03 56 11.1	d	
	F	e(P)	10		
	M	e(P)	18		
	SH	eP	17		
Nov. 28	B	eP	07 12 06		USCGS: Loyalty Islands aftershock. 0 = 06 59 18.
	MH	iP	06.2	d	
	M	eP	13.5	c	
		e	30.6		
	SH	eP	12		
Nov. 28	MH	eP	09 23 17.2	d	
	F	eP	32		
	M	eP	22 39.6	d	
	R	eP	59.1	d	
	SH	eP	33		
Nov. 28	B	eP	15 24 08.8	c	USCGS: 30°S, 176°W, 0 = 15 11 33. Kermadec Islands.
	MH	eP	09.0	c	
		e	20.0		
	F	eP	12.3	c	
		e	23.1		
	M	eP	18.6		
	R	eP	21.9		
	SH	eP	18.6		
		i	30.2		
Nov. 28	SH	eP	16 43 02		



Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1956			h. m. s.		
Nov. 28	B BG	eP eSNE e(PS)N eQNE eREZ	19 37 06.6 45 10 46 55 51.8 55.6	c	USCGS: 49 1/2°N, 155°E, 0 = 19 27 11. Northern Kurile Islands. PAS: Magnitude 6 3/4 - 7.
			R from W A T		
		PZ SH Max H	2 3/4 7 4 1/2 8 9 20		
	MH	eP	19 37 10.7	c	
	F	i	24.2		
	M	iP	21.5	c	
	R	eP	36 58.5	c	
		iP	37 10.4	c	
		eSE	45 13		
	C	iP	36 33.2		
		e	38 44		
		e	41 26		
	SH	iP	36 54.1	c	
		i	37 02.8		
Nov. 29	MH	e(PP)	04 32 58		USCGS: 58°S, 46 1/2°W, 0 = 04 13 35. South Orkney Islands.
	M	e(PP)	33 14		
	C	e(PP)	46		
	SH	e(PP)	17		
Nov. 29	B	eP	07 28 10		USCGS: 27°N, 141°E, 0 = 07 16 07. Bonin Islands foreshock.
	MH	iP	15.8	c	
	M	eP	05.6	c	
	SH	eP	02		
Nov. 29	B BG	iP e(S) eQNE eR	09 27 27.3 38 11 49.3 51.3	d	USCGS: 27°N, 141°E, 0 = 09 15 20. Bonin Islands. PAS: Magnitude 7.
		A T			
		PZ PH	6 8 2 7		
	MH	eP	09 27 30.6	d	
	F	eP	39.3		
	M	eP	23.8	d	
	R	iP	33.5	d	
		eNE	37 36		
	C	eP	27 09		
	SH	iP	19.9	d	
		e	30 30		
Nov. 29	MH	i	10 03 21		
	M	e	33		
	SH	e	29		
Nov. 29	B	e(P)	14 48 32		USCGS: 27 1/2°N, 141 1/2°E, 0 = 14 36 20. Bonin Islands aftershock.
	MH	eP	32.6		
	M	eP	22.5		
	R	eP	30		
	SH	eP	18		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1956			h. m. s.		
Nov. 29	C	e	22 45 41		
Nov. 30	MH	iP	00 46 18.9		
Nov. 30	B	eP	11 41 37		
	MH	iP	37.0	c	
	F	eP	40		
	M	eP	47.9	d	
	R	eP	52		
	SH	eP	46.7		
Nov. 30	MH	eP	16 45 19		USCGS: Near north coast of Vancouver Island, B.C. 0 = 16 42 03.
	F	e	46 34		
	R	eP	45 04		
	SH	eP	44 39		
Nov. 30	MH	iP	17 03 17.0	c	USCGS: 20 1/2°S, 174 1/2°W, 0 = 16 51 28. Tonga Islands.
		i	27.1		
	F	eP	23		
	R	eP	31		
	SH	eP	27		
Nov. 30	R	e	17 28 18		
	SH	eP	27 51		
Nov. 30	B	eP	19 42 57	d	USCGS: 31 1/2°S, 70°W, h = 150 km., 0 = 19 30 34. San Juan Province, Argentina.
		epP	43 28		
	MH	iP	42 53.3	d	
		ipP	43 26.7		
	F	eP	42 45	d	
	R	iP	57	d	
		epP	43 31		
	C	eP	22		
	SH	iP	05.5		
		ipP	40		
Dec. 1	MH	e	06 46 08		
Dec. 1	B	eP	07 56 41		USCGS: 22°S, 169°E, 0 = 07 43 51. Loyalty Islands.
		e	53		
	MH	eP	40.9		
		i	55.7		
	F	eP	46.8		
		i	58.4		
		i	57 12.1		
	M	iP	56 49.4		
	R	eP	53		
	SH	eP	47		
Dec. 1	B	eP	21 36 24		USCGS: 17 1/2°S, 72 1/2°W, 0 = 21 24 54. Off coast of southern Peru.
	MH	iP	20.0	c	
	M	eP	30.6	c	
	R	e	32		
		e	39 16		
	C	eP	36 55		
	SH	e	52		
Dec. 2	B	eP	01 54 48		USCGS: 18 1/2°N, 69°W, 0 = 01 45 48. Near east coast of Dominican Republic.
	MH	eP	44.0	c	
		i	56.5		
	M	eP	51.3	c	

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
			h. m. s.		
1956					
Dec. 2	MH	eP	02 31 30.1		
	M	e	16.8		
	SH	e	04		
Dec. 2	B	eP	03 06 54.5		
		i	07 00.5		
		i	08.1		
	BG	eSE	12 28		
		eNE	15 24		
		A T			
		SH	1 1/2 7		
	MH	eP	03 07 00.7	c	
		e	07.1		
		i	08 05.4		
	F	eP	07 13.5	c	
		i	20.6		
		i	50.4		
	M	eP	06 45.3	c	
		e	51.6		
		i	59.4		
		i	07 28.3		
	R	eP	06 58		
	C	eP	23		
		e	07 42		
	SH	eP	06 40		
		i	46		
		i	53		
		e	07 54		
Dec. 2	B	eP	16 25 33		
	MH	eP	26		
	M	eP	51		
	R	eP	39		
Dec. 2	MH	eP	16 45 05		
	M	eP	16		
Dec. 3	B	eP	07 19 39		
	MH	iP	45.7	d	
	F	e(P)	20 05	c	
	M	eP	19 30.9	c	
	R	eP	50		
	C	eP	00		
	SH	iP	25		
		i	31		
Dec. 3	B	iP	07 27 02.7		
		i	09.6		
	BG	eSE	32 42		
		eQN	35.4		
		A T			
		PZ	1 1/4 4 1/2		
		SH	4 13		
		QH	9 17		
		Max H	10 1/2 10		
	MH	iP	07 27 09.3	d	
		i	15.8	d	

USCGS: 17°S, 173 1/2°W, 0 = 16 33 36.
Tonga Islands.

USCGS: 53°N, 169°W, 0 = 07 12 44.
Fox Islands foreshock.

USCGS: 53°N, 169°W, 0 = 07 20 08.
Fox Islands, Aleutian Islands.

PAS: Magnitude 6 1/2 - 6 3/4.

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
			h. m. s.		
1956					
Dec. 3	F	eP	22		
cont'd		i	28		
	M	eP	26 54.4	d	
		i	27 01.0	d	
	R	eP	09		
		e	15		
	C	eP	26 23.8		
	SH	eP	48		
		i	54		
Dec. 3	B	eP	07 51 50		USCGS: 52 1/2°N, 169°W, 0 = 07 44 55. Fox Islands aftershock.
	MH	eP	51 57.2		
		e(P)	53 32		
	F	eP	52 10		
		e	18		
	M	eP	51 41.9		
		i	49.9		
	R	eP	51 58		
	C	eP	14		
	SH	eP	51 36		
Dec. 3	B	e(P)	07 54 05		Fox Islands aftershock. ?
	MH	i(P)	13.7		
	M	e(P)	53 58.0		
	C	e(P)	32		
	SH	e(P)	52		
Dec. 3	B	e	07 59 48		
	MH	e(P)	44		
	M	e(P)	29.4		
	SH	e(P)	23		
		e	37		
Dec. 3	MH	e	08 09 51		
Dec. 3	MH	eP	10 39 37.7		
	M	eP	18.8		
	SH	eP	13		
Dec. 3	MH	iP	22 18 38		USCGS: 50°N, 156°E, 0 = 08 44 28. Kurile Islands.
Dec. 4	MH	eP	08 54 19.6		
	M	iP	09.9		
	SH	eP	05		
		e	12		
Dec. 4	SH	e(P)	08 59 04		USCGS: 45 1/2°S, 106°W, 0 = 10 07 54. South Pacific Ocean.
Dec. 4	B	iP	10 20 27.8	d	
		e	50		
	BG	eSN	30 55		
		eSSN	36 38		
		A T			
		PZ	2 6		
		SH	1 8		
		SSH	8 15		
	MH	eP	10 20 25	c	
	F	eP	20		
	M	eP	39		
	R	eP	45		
	SH	eP	41	d	
		e	22 58		



Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
			h. m. s.		
1956					
Dec. 4	B	eP	10 49 05		USCGS: 53°N, 169°W, 0 = 10 42 10. Fox Islands aftershock.
		i	29		
	MH	eP	11	c	
		e	51 53		
	F	eP	49 26	c	
	M	iP	48 58	c	
	R	eP	49 11		
Dec. 4	SH	eP	48 51		
Dec. 4	MH	eP	13 32 31	c	USCGS: Samoa Islands. 0 = 13 21 07. Felt at Apia.
	M	eP	43		
	SH	eP	41		
Dec. 4	SH	iP	21 12 33		
		e	13 05		
Dec. 4	B	eP	23 08 20	d	USCGS: 15°N, 92°W, h = 150 km., 0 = 23 01 35. Guatemala. Felt in western El Salvador. PAS: Magnitude 6.
		iPcP	10 52		
	BG	eSNE	13 53		
		eLN	18.5		
		A T			
	SH		5 1/2 8		
	MH	eP	23 08 13	d	
		i	39		
		iPcP	10 47		
	F	eP	07 57		
	R	iP	08 15		
		i	33		
	C	iP	59		
	SH	eP	33		
		e	57		
		iPcP	10 55		
Dec. 7	M	eP	03 01 07		
Dec. 7	MH	iP	14 49 29.8		
Dec. 8	MH	e	14 12 54		USCGS: Near southeastern Sumatra. h = 100 km., 0 = 14 30 33.
		e	14 36		
	F	e(P)	12 32		
	R	e(P)	25		
		e	13 44		
		iE	59		
Dec. 8	B	eP	16 18 18.4		USCGS: 51°N, 179 1/2°W, 0 = 16 10 27. Andreanof Islands, Aleutian Islands. Magnitude 6 1/2.
	BG	eSE	24 32		
		eQNE	27.9		
		eREZ	32.7		
		R from W			
		A T			
	PZ		2 1/2 7		
	PH		1 1/2 7		
	SH		28 16		
	MH	iP	16 18 23.7	d	
		i	35.5		
		i	24 10.6		
	F	eP	18 34		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
			h. m. s.		
1956					
Dec. 8	R	eP	21		USCGS: 53°N, 169°W, 0 = 05 19 06. Fox Islands aftershock.
cont'd		eS	24 41		
	C	iP	17 45.3		
		eS	23 51		
	SH	iP	17 54.6		
		i	19 17		
		e(S)	23 50		
Dec. 9	MH	eP	05 26 11		
	R	eP	11		
	SH	eP	25 52		
Dec. 9	MH	eP	08 07 25		
Dec. 9	MH	iP	17 10 23.9		USCGS: Off east coast of Kamchatka. 0 = 17 00 45.
		i	45.7		
	SH	iP	04		
Dec. 10	SH	eP	08 38 31		USCGS: 51°N, 179 1/2°W, 0 = 08 30 45. Andreanof Islands, Aleutian Islands.
Dec. 10	MH	e	08 49 20		
	SH	e(P)	26		
Dec. 10	B	iP	23 27 16.8	d	USCGS: Argentine-Chile border. 0 = 23 15 00.
	MH	iP	13.3	d	
	F	iP	03.5		
	SH	iP	37.7	d	
Dec. 11	MH	iP	06 41 08.8	c	USCGS: 50°N, 156°E, 0 = 06 30 58. Northern Kurile Islands.
		i	42 03.0		
	R	e	41 13		
	SH	eP	40 37		
		i	41 05		
		e	23		
	B	eP	13 17 56		
		e	19 28		
	BG	e	53		
		eQNE	20.1		
		A T			
		Max H	42 17		
	MH	eP	13 17 45.1	d	
		i	59.0		
		eN	19 51		
	F	eP	17 30.3		
		i	51.3		
		iN	19 15		
	M	eP	18 20	c	
		i	19 01		
	A	eE	22 02		
	R	iP	18 02.3	c	
		i	20 47.7		
	C	e(P)	19 24		
	SH	eP	18 30		
		e	43		
		e	21 27		

Date	Sta.	Phase	Time (GCT) h. m. s.	Ground motion	Remarks
1956					USCGS: 12°N, 143°E, 0 = 19 34 24. Marianas Islands.
Dec. 13	B	eP	19 47 13	c	
	MH	iP	14.4		
		i	27.7		
	F	eP	21.5		
	M	eP	09.9	c	
		i	22.9	d	
	R	eP	19		
	C	eP	16		
	SH	iP	08		
		i	22		
Dec. 13	MH	e(P)	22 04 41		
	F	e(P)	05 01		
	M	e(P)	04 01		
	R	e(P)	22		
	SH	e(P)	03 54		
Dec. 14	MH	iP	19 37 20		
		i	41		
	M	eP	31		
Dec. 15	B	iP	17 36 40.4	c	USCGS: 13°S, 167 1/2°E, h = 150 km., 0 = 17 24 24. New Hebrides Islands.
		ipP	37 19.1		
	BG	eLE	18 05		PAS: Magnitude 6 - 6 1/4.
		A T			
		PZ	1 1/4 6		
	F	eP	17 36 48	c	
		ipP	37 27		
	M	eP	36 47.0	c	
		i	55.0	d	
		ipP	37 25.6		
	R	iP	36 53	c	
		ipP	37 32		
	C	eP	36 51.3		
		e	37 16		
		epP	29		
	SH	iP	36 46.2	c	
		ipP	37 25.3	c	
		e	40 41		
Dec. 15	M	i	20 18 10		
Dec. 16	B	iP	01 50 59.5	SE	USCGS: 6 1/2°N, 78°W, 0 = 01 41 52. Near west coast of Colombia. Felt at Balboa Heights.
	BG	iSN	58 21		PAS: Magnitude 6 1/2.
		eScSN	02 00 41		
		A T			
		PZ	2 1/4 5		
		SH	3 3/4 9		
		Max H	9 20		
	F	eP	01 50 42	c	
	M	eP	57.6	d	
		i	51 10.4		
	R	iP	50 48		
		e	57 37		
		eSN	58 09		
	C	iP	51 28.2		
	SH	iP	08		

Date	Sta.	Phase	Time (GCT) h. m. s.	Ground motion	Remarks
1956					
Dec. 16	M	iP	19 05 40		
		i	58		
Dec. 16	M	iP	22 05 22		
		i	07 13		
Dec. 18	MH	iP	02 26 21	c	USCGS: Bonin Islands. 0 = 02 14 12.
	M	eP	08	c	
	R	e(P)	27		
	SH	eP	05		
Dec. 18	B	eP	02 43 14.4		USCGS: 25 1/2°S, 68 1/2°W, 0 = 02 31 00. Chile-Argentina border. Felt at Antofagasta and Copiapo, Chile.
		epP	28.6		
	BG	iSN	53 16	N	
		eSSNE	58.5		
		eGN	03 05		
		eREZ	09.3		
		R from SE			
		A T			
		PZ	3 1/2 7		
		PH	1 1/4 7		
		pPZ	6 6		
		SH	25 14		
		Max H	75 25		
		Max Z	50 25		
	MH	eP	02 43 13	c	
		ipP	26	c	
	F	eP	00.8		
		ipP	16.4		
		e(S)	53 09		
	M	eP	43 20.5	c	
		ipP	35.3	c	
	A	eE	40		
	R	eP	14	c	
		i	16		
		ipP	30		
		eE	53 38		
	C	iP	43 36.6	d	
		e(S)E	54 07		
	SH	eP	43 23		
		i	24.4		
		ipP	37.8		
Dec. 18	MH	e	08 57 14		Possibly off coast of northern California.
		e	58 20		
	M	eP	56 46		
		i	57 32		
	A	eE	56 48		
	R	e	57 20		
	SH	iP	56 35		
Dec. 18	F	eP'	19 40 16		USCGS: 36°S, 77°E, 0 = 19 20 06. South Indian Ocean.
	M	e(P')	28		
	R	eP'	16		
		e	41 30		
	SH	eP'	40 12		
		e	41 06		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1956			h. m. s.		
Dec. 18	B	iP	21 24 30.3	c	USCGS: 34 1/2°N, 139°E, h = 100 km., O = 21 12 49. Near south coast of Honshu, Japan. Felt at Tokyo.
	MH	iP	34.3	c	
	F	eP	43	c	
	M	e(P)	23.8		
	R	eP	34.0	c	
Dec. 19	SH	iP	20.4	c	USCGS: 51 1/2°N, 157°E, O = 01 18 10. Southern Kamchatka.
	B	eP	01 27 52	c	
		ipP	28 06		
	MH	iP	27 57.0	c	
		ipP	28 11.4	c	
		i	19.7		
		i	51.4		
	F	eP	08		
		ipP	22	c	
	M	iP	27 42.9	c	
Dec. 19		ipP	57.3	c	USCGS: 29°N, 139 1/2°E, h = 450 km., O = 04 36 20. Bonin Islands region.
		i	28 58.4		
	R	eP	27 55		
		ipP	28 09		
	SH	iP	27 38.6	c	
		ipP	52.4		
		i	31 21.1		
	B	iP	04 47 36.9	d	
	MH	iP	40.7	c	
		i!	41.1	d	
Dec. 20		i	44.7	c	Northeastern Nevada.
		i	48 42.8		
	F	eP	47 48.0		
	M	iP	32.7	d	
	R	iP	42.4	d	
	C	iP	17.5		
	SH	iP	29.9	d	
		i	49 09		
	MH	e	03 59 03	d	
		i	04 00 14		
Dec. 20	M	e(P)	03 58 34		USCGS: 27°S, 176°W, O = 10 59 56. Kermadec Islands. PAS: Magnitude 6 1/2.
	R	e	18		
		e	57		
	SH	e	46		
		e	59 42		
Dec. 20	B	eP	11 12 21		USCGS: 46°N, 150°E, O = 19 47 51. Kurile Islands.
	MH	eP	20	d	
	F	iP	24	c	
	M	eP	29	d	
	R	eP	33	d	
Dec. 20	SH	eP	29		
	B	iP	19 58 15.4		
	MH	iP	20.2	d	
	F	eP	29.6	d	
	M	iP	07.3	d	
	R	eP	18		
	SH	iP	03.4		



Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks		
1956			h. m. s.				
Dec. 21	M	eP	07 34 39		USCGS: 51°N, 131°W, O = 08 58 53. Queen Charlotte Islands. PAS: Magnitude 6 3/4.		
	B	ePNEZ	09 02 26.1	SEC			
Dec. 21	BG	eSEZ	05 18				
		A	T				
		PZ	20 7 1/2				
		PH	15 7 1/2				
		SH	60 14				
		Max H	250 17				
	MH	iP	09 02 34.3	c			
		i	40.9	d			
	F	iP	49.2	c			
	M	iP	01 59.7	c			
Dec. 21		i	02 06.3	d			
	A	ePE	01 40				
		e(S)E	04 02				
	R	iP	02 17.5	c			
		i	05 36.8				
		e	06 58				
		iE	07 14				
	C	eP	00 59.9	c			
		i	01 01.1	d			
		iN	02 53.1				
Dec. 21	SH	iP	01 52.0	c			
		eE	04 57				
		eEZ	05 27				
		iE	06 35				
	M	e	18 23 04				
	SH	e(P)	22 42				
	Dec. 21	B	eP	20 21 53			USCGS: 34°N, 140°E, O = 18 11 07. Near south coast of Honshu, Japan. USCGS: 34°N, 139°E, O = 20 10 06. South coast of Honshu, Japan.
		MH	iP	57.3			
		F	eP	22 06			
		M	iP	21 49.3			
R		eP	54				
SH		eP	44				
M		i	20 54 43				
SH		e	20				
		i	48				
MH		iP	24 07 05.1				
Dec. 21	M	e	06 52		USCGS: 54°N, 161 1/2°E, O = 23 57 36. Kamchatka.		
	SH	eP	39				
	B	eP	22 50 49				
	BG	e(S)E	23 01 28				
		eQNE	18				
		eR	23.1				
		R from SW					
	MH	eP	22 50 50				
	F	eP	54				
	M	eP	51 00				
Dec. 22	R	eP	02		USCGS: 29 1/2°S, 177°W, O = 22 38 12. Kermadec Islands.		
	SH	eP	50 59				

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1956			h. m. s.		
Dec. 22	B	e(P)	23 24 26		USCGS: 33 1/2°N, 139°E, 0 = 23 12 35. Honshu aftershock.
	MH	eP	28		
	F	e(P)	41		
	M	eP	20		
		i	27		
	R	eP	28		
	C	iP	09		
Dec. 22	MH	eP	23 50 02		
	M	eP	51		
	SH	eP	50		
Dec. 23	B	iP	08 49 28.3	d	USCGS: 22°N, 144 1/2°E, h = 100 km., 0 = 08 37 26. Marianas Islands region. PAS: Magnitude 6 1/2.
		epP	55		
	BG	eSN	59 26		
		eNE	09 00 02		
		A T			
		SH	1 1/2 6		
	MH	iP	08 49 32.2	d	
		i	47.0		
	F	iP	41.2	d	
	M	iP	26.1	d	
		i	30.5	d	
	R	iP	35.2	d	
	C	iP	12.9		
	SH	iP	23.0	d	
		i	52 21		
Dec. 23	M	e(P)	17 39 05		
	SH	e(P)	01		
Dec. 24	M	eP	00 25 42		
Dec. 24	M	eP	00 48 26		
Dec. 24	B	eP	04 42 21		
	MH	iP	16.2		
		ePcP	44 04		
	M	eP	42 26.4		
		ePcP	44 10		
Dec. 24	M	e	08 41 25		
Dec. 24	M	e	09 12 03		
Dec. 25	MH	eP	03 09 35		
	M	eP	17		
Dec. 25	B	eP	04 41 26		
	MH	eP	25	d	
	F	eP	29		
	M	eP	34		
	SH	eP	33	d	
		e(pP)	42 23		
Dec. 25	MH	eP	06 38 44		
Dec. 25	M	iP	09 03 11		
Dec. 25	B	eP	09 44 20		
	BG	eSNE	53 08		
		eSSE	57.2		
		eQNE	10 05.7		
		eR	07.1		
					USCGS: 48 1/2°N, 28°W, 0 = 02 58 48. North Atlantic Ocean.
					USCGS: 20°S, 176°W, h = 200 km., 0 = 04 29 49. Tonga Islands.
					USCGS: 48 1/2°N, 28°W, 0 = 09 33 37. North Atlantic Ocean. PAS: Magnitude 6 1/2.

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1956			h. m. s.		
Dec. 25			R from E		USCGS: 9 1/2°S, 112°E, 0 = 07 34 18. Off coast of Java. USCGS: 10°S, 166°E, 0 = 07 46 24. Santa Cruz Islands. PAS: Magnitude 6.
cont'd			A T		
		PZ	2 3/4 7 1/2		
		PH	1 1/4 7		
		SH	5 1/2 14		
		Max H	21 15		
		Max Z	13 15		
	MH	eP	09 44 25.4	d	
	F	iP	16	d	
		i	22		
	M	iP	05.3	d	
		i	12.2		
	R	eP	04		
	C	eP	43 54		
	SH	eP	44 06		
Dec. 25	MH	eP	13 49 02		
	F	e	24		
	M	e	17		
	SH	e	50 17		
Dec. 26	MH	eP	05 36 07		
	M	iP	35 43		
Dec. 26	MH	eP''	07 53 23		
	M	eP''	20		
Dec. 26	B	eP	07 58 48		
	BG	eRNZ	08 24		
		R from SW			
		A T			
		PZ	1 5		
		Max H	5 1/2 20		
	MH	iP	07 58 49.0	d	
	F	iP	57	c	
	M	iP	54.5	c	
	R	eP	59 01		
	C	eP	03		
	SH	eP	58 52.9		
Dec. 26	MH	eP	19 13 24		
	M	eP	39		
	C	eP	14 11		
Dec. 27	B	iP	00 25 57.8	d	
		i	26 21.4		
	BG	ipPNEZ	27 18		
		isP	42		
		iPP	29 36		
		iSNE	35 47	NE	
		esSN	38 24		
		eNE	47.3		
	B	eP'P'	52 47		
		A T			
		PZ	4 1/2 4		
		PH	1 1/2 1 1/2		
		ppZ	17 8		
		pPH	6 8		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1956			h. m. s.		
Dec. 27			cont'd		
cont'd			A T		
	MH	PPZ	6 4		
		SH	100 16		
		sSH	45 15		
	MH	iP	00 25 58.3	d	
		i	26 01.0		
		i	29.9		
		eP'iP'	52 56		
	F	eP	26 02.1	d	
		i	05.5		
		e	36 00		
	M	iP	26 09.0	d	
		eP'iP'	52 29.4		
	A	eNE	26 05		
		eNE	36 01		
	R	eP	26 11		
		i	14.6		
		e	36 18		
	C	iP	26 16.4	d	
		i	37.2		
		i	29 59		
	SH	iP	26 06.8	d	
		e	36 09		
		e	40 13		
		e	44 37		
		eP'iP'	52 51		
Dec. 28	MH	e	04 36 17.6		
		i	37 50.9		
Dec. 28	M	e	39 38.8		
Dec. 28	SH	e	06 19 28		
Dec. 28	B	eP	14 37 49		
		epP	38 26	c	
		ePP	42 14	d	
	BG	iSN	49 05		
		eE	44	N	
		eQN	15 03.5		
		eRNEZ	11.2		
		R from SW			
		A T			
		ppZ	2 5		
		PPZ	1 1/2 6		
		SH	3 3/4 9		
		Max H	40 20		
		Max Z	30 20		
	MH	eP	14 37 49.3		
		ipP	38 27.0	c	
	F	eP	37 51.7	d	
		epP	38 28.4	c	
		ePP	42 17		
	M	eP	37 57.9	c	
		epP	38 36.1	d	

USCGS: 39°S, 177 1/2°E, h = 150 km.,
 0 = 14 24 45. Near coast of
 North Island, New Zealand.
 Moderate damage in Gisborne and
 vicinity.
 Magnitude 6 3/4.

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1956			h. m. s.		
Dec. 28			41 49.2		
cont'd	R	e	38 00	c	
		eP	37	d	
	C	epP	46		
		e(pP)	42 46		
	SH	e(PP)	37 57		
		iP	38 36		
		epP	42 28		
Dec. 28	B	ePP	19 26 11	c	
	BG	eP	30 07	SW	
		eSNE	12		
		e	32.0		
		eR	R from S		
			A T		
		SH	20 10		
		SZ	9 9		
		Max H	45 16		
		Max Z	31 13		
	MH	eP	19 26 03.5	c	
		i	30.1		
	F	eP	25 49	c	
		e	26 26		
	M	eP	30.6	c	
	R	iP	16.2	c	
		eSE	30 21		
		eE	32 52		
	C	eP	27 15		
		e	25		
	SH	eP	26 36		
	SF	eP	12		
Dec. 28	MH	eP	21 23 40		
	F	eP	44		
	M	eP	49		
	SH	eP	48		
Dec. 29	B	eP	09 46 48		
	MH	eP	53	d	
	M	eP	39	d	
	SH	iP	35		
Dec. 29	B	iP	19 38 29		
	MH	iP	29.4	c	
	F	eP	34	c	
	M	eP	39.0	c	
	R	eP	42		
	SH	iP	39		
Dec. 29	B	eP	20 34 11		
	BG	eSNE	44 05		
		eSSN	49.1		
		eQNE	54.3		
		eR	21 00		
			A T		
		SH	4 1/2 8		
		Max H	16 20		

USCGS: 21°N, 109°W, 0 = 19 21 30.
 Off south coast of Baja California.

USCGS: 15 1/2°S, 176°W, 0 = 21 12 02.
 Fiji Islands region.

USCGS: Near south coast of
 Kamchatka. 0 = 09 37 47.

USCGS: 21°S, 180°, h = 600 km.,
 0 = 19 27 16. Fiji Islands.

USCGS: 21°S, 175 1/2°W, 0 = 20 22 12.
 Tonga Islands.
 PAS: Magnitude 6 1/4 - 6 1/2

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1956			h. m. s.		
Dec. 29 cont'd	MH	eP	20 34 11.6	c	
	F	eP	15		
	M	eP	21.5	c	
	R	eP	24		
	C	eP	31		
	SH	eP	21		
Dec. 30	MH	eP	06 57 59		
		e	07 00 24		
	M	eP	06 57 58		
		e	07 00 16		
Dec. 30	B	iP	09 11 40		
	MH	iP	43		
	M	e	43		
Dec. 30	B	iP	09 50 20		
	MH	eP	23.6	c	
	M	eP	14.9	c	
	R	eP	25		
	SH	iP	12		
Dec. 31	MH	iP	01 39 50.2	d	
	M	eP	58.8	d	
Dec. 31	MH	eP	04 53 26.6	c	USCGS: 72°N, 16 1/2°E, O = 04 42 29. Off east coast of Norway.
	M	eP	06.6	c	USCGS: 31°N, 114°W, O = 09 03 40. Northern Gulf of California.
Dec. 31	MH	e	09 06 40.8		
	F	e	08 52.0		
		e	06 22		
		e	08 24		
	M	e	06 34.9		
		e	10 02.3		
	R	e	06 14		
Dec. 31	B	eP	17 37 02.1		38°16'N, 118°55'W, O = 17 36 16. Hawthorne foreshock. Magnitude 3.8
	MH	e(S)N	40.8		
		eP	36 57.6		
		i	37 29.1		
	PA	eP	03.9		
	SF	e(P)E	08		
		eSE	45		
	F	eP	36 47.8	c	
		eSN	37 10.0		
	M	eP	05.7	d	
		i	09.4	c	
		i	35.2		
	SH	iP	13.9		
	R	ePNZ	36 43.7	Nc	
		iSE	37 04.1		
	Y	iP	36 30.9		
		iSE	41.6		
	Fa	iPE	41.2		
		iSE	56.5		
Dec. 31	B	iP	17 38 30.8		38°15'N, 118°56'W, O = 17 37 45. Hawthorne foreshock. Magnitude 5.0. Felt.
		iSN	39 08.3		
	MH	iPEZ	38 27.3		
		iSN	39 00.3	c	



Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1956			h. m. s.		
Dec. 31 cont'd	PA	iP	38 32.0		
	SF	iP	34.0		
		iS	39 11.6		
	F	iP	38 15.8	d	
		iSN	38.3		
	M	iP	34.6	c	
		iE	39 19.9		
	SH	iP	38 41.6		
		i	48.6		
		iN	39 39.4		
	C	e(P)	35.3		
		e	40 03.1		
	R	iP	38 12.2		
		iSNE	32.8		
	Y	iP	37 59.6		
	Fa	iPE	38 09.5		
		iSE	24.6		
Dec. 31	B	iP	17 40 08.8		38°17'N, 118°58'W, O = 17 39 24. Southwest of Hawthorne, Nevada. Magnitude 5.1 USCGS: Principal shock felt over an area of 6,000 square miles of western Nevada and eastern California. Maximum intensity VI. All seismograms confused by motion of preceding shock.
		iSN	47.3		
	MH	ePE	06.3		
		iE	36.7		
		iN	41.5		
	PA	e(P)N	14.2		
	SF	e(P)	16.0		
		iS	50.5		
	F	i(P)	39 55.3		
		i(S)NE	40 18.2		
	M	i(S)N	58.3		
	C	iP	41 13.7		
	R	i(P)	39 51.0	d	