

# Bulletin of the Seismographic Stations

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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, 1956, to March 31, 1956

BY  
DON TOCHER



UNIVERSITY OF CALIFORNIA PRESS  
BERKELEY AND LOS ANGELES  
1957



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

JANUARY 1, 1956 TO MARCH 31, 1956

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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.) This will change the date for some of the earthquakes.

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 aftershock 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.

Issued September 23, 1957

Price 75 Cents

MADE IN THE UNITED STATES OF AMERICA

MODIFIED MERCALLI INTENSITY SCALE OF 1931  
(Abridged)

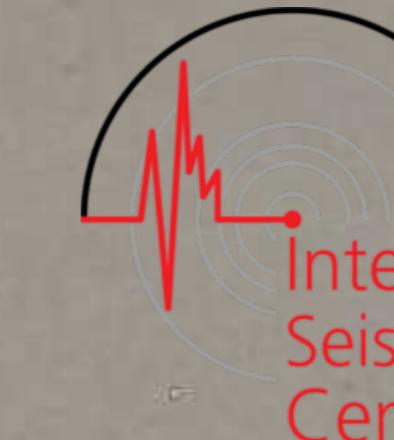
- I. Not felt except by a very few under especially favorable circumstances.
- II. Felt only by a few persons at rest, especially on upper floors of buildings. Delicately suspended objects may swing.
- III. Felt quite noticeably indoors, especially on upper floors of buildings, but many people do not 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

(This list includes only those aftershocks of the 1954 Nevada earthquakes whose magnitudes are 4.0 and above. See the following list for a more complete tabulation of these aftershocks.)

Map No.	Date 1956	Origin Time (G.C.T.)	M	Latitude North	Longitude West	Q	Remarks
1	Jan. 1	06-10-05	2.6	36.8°	121.6°	d	Southwest of Hollister.
2	2	20-21-50	2.4	37° 24'	121° 42'	b	Near Mt. Hamilton
3	6	11-37-14	2.2	37° 55'	121° 58'	c	ENE of Berkeley.
4	9	07 01 24	1.5	37° 25'	121° 45'	b	Northwest of Mt. Hamilton.
5	9	11-11-56	2.4	37° 40'	122° 32'	a	Southwest of San Francisco. IV at Daly City. Felt in Westlake, Colma, and Ingleside Districts.
6	10	08-37-24	4.1	41.5°	119.1°	d	60 miles north of Gerlach, Nevada.
-	10	12-32-15	4.9	43.4°	127.3°	d	Off coast of Oregon.
-	10	15-24-37					Coast of Oregon aftershock.
7	13	10-43-30	3.0	39° 23'	119° 43'	b	12 miles SE of Reno, Nevada.
4	13	16-31-56	2.3	37° 25'	121° 44'	b	Northwest of Mt. Hamilton.
8	14	00-43-21	2.5	37° 22'	121° 42'	b	Near Mt. Hamilton.
9	14	09-54-49	2.5	37° 25'	121° 42'	b	Northwest of Mt. Hamilton.
10	17	18-17-56	4.2	39° 30'	118° 02'	b	40 miles east of Fallon, Nevada.
11	24	07-29-33	3.4	37.3°	118.8°	d	West of Bishop.
12	24	13-32-11	2.0	37° 29'	121° 46'	c	Northwest of Mt. Hamilton.
13	24	18-52-38	2.7	37° 25'	121° 47'	a	Northwest of Mt. Hamilton.
14	25	01-02-06	2.0	40.8°	122.4°	d	Shasta Reservoir.
15	28	22-55-26	4.2	39° 20'	118° 03'	c	40 miles ESE of Fallon, Nevada.
16	30	14-58-17	2.9	39.1°	119.0°	d	Northeast of Yerington, Nevada.
17	31	01-37-44	4.0	38° 15'	118° 55'	c	California-Nevada border, south-west of Hawthorne, Nevada.
18	Feb. 1	18-04-07	3.0	40.3°	124.8°	d	Off Cape Mendocino.
19	1	19-22-54	2.3	37° 56'	122° 02'	c	12 miles northeast of Berkeley.

Map No.	Date	Origin Time (G.C.T.)	M	Latitude		Longitude		Q	Remarks
				North	West				
19	Feb. 2	06-26-22	2.0	37° 59'	122° 01'			c	Northeast of Berkeley.
20	2	16-33-59	2.5	38° 00'	122° 04'			b	Northeast of Berkeley.
21	3	00-35-18	2.9	39° 26'	120° 15'			b	Northwest of Truckee.
8	5	18-29-08	2.5	37° 21'	121° 42'			b	Near Mt. Hamilton.
22	7	00-04-54	2.1	38° 03'	122° 30'	a	18 miles north of San Francisco.		
23	8	23-41-38	2.0	37° 15'	122° 18'	b	Southwest of Palo Alto. Blast?		
24	10	07-45-34	3.0	40.1°	122.5°	d	Southwest of Red Bluff.		
2	10-10-14	2.8	37° 23'	121° 42'	a	Northwest of Mt. Hamilton.			
25	10	18-39-34	1.5	37° 42'	122° 23'	a	South of San Francisco. One of a series of explosions. See special report following this list.		
26	12	12-06-03	3.5	40.3°	124.5°	d	Southwest of Ferndale.		
27	13	21-36-38	2.3	37° 57'	122° 01'	c	ENE of Berkeley.		
28	14	17-26-28	2.3	38° 33'	122° 33'	c	Northeast of Santa Rosa.		
29	14	21-02-11	3.3	40° 30'	121° 34'	b	10 miles north of Mineral.		
30	14	22-15-08	2.8	36.5°	121.1°	d	Southwest of Llanada.		
31	18	23-58-30	4.2	36° 40'	121° 19'	b	12 miles SSE of Hollister. Felt over an area of approximately 1300 square miles of San Benito and Monterey counties. Maximum intensity V at Paicines. IV at Chualar Canyon, 7-1/2 miles south of Hollister, Paloma Station (Carmel Valley), and San Benito.		
31	Feb. 19	00-05-08	2.6			c	Aftershock.		
31	19	00-06-42	3.8	36° 40'	121° 18'	b	Aftershock. Felt 7-1/2 miles south of Hollister and at Paloma Station (Carmel Valley).		
31	19	00-10-33	2.8			c	Aftershock.		
31	19	00-38-14	2.6			c	Aftershock.		
31	19	01-16-27	2.3			c	Aftershock.		
31	19	02-52-56	2.6			c	Aftershock.		
31	19	03-23-37	3.8	36° 40'	121° 18'	b	Aftershock. Felt at Big Sur, 7-1/2 miles south of Hollister, and Paloma Station (Carmel Valley).		
31	19	10-25-48	3.2			c	Aftershock.		
31	21	01-57-49	2.8			c	Aftershock.		



Map No.	Date	Origin Time (G.C.T.)	M	Latitude		Longitude		Q	Remarks
				North	West				
31	Feb. 21	05-20-29	2.9					c	Aftershock.
2	21	21-40-05	2.4	37° 22'	121° 41'	c	Near Mt. Hamilton.		
2	21	21-41-22	3.0	37° 22'	121° 41'	c	Near Mt. Hamilton.		
32	24	03-24-15	3.0	39° 20'	120° 05'	c	Near Truckee.		
33	24	22-50-29	2.3	36° 50'	121° 34'	b	West of Hollister.		
34	25	00-11-42	2.4	38.4°	122.4°	d	East of Santa Rosa.		
4	Mar. 3	22-36-57	1.8	37° 23'	121° 46'	b	Northwest of Mt. Hamilton.		
35	5	19-46-49	3.8	40° 50'	124° 52'	b	40 miles west of Arcata.		
36	7	11-09-30	2.1	37° 50'	121° 45'	a	10 miles north of Livermore.		
37	8	07-11-08	2.7	37° 51'	121° 50'	b	12 miles north of Livermore.		
38	8	07-26-20	4.6	39° 02'	118° 04'	b	45 miles southeast of Fallon, Nevada. V at Kaiser Mine (about 13 miles NW of Gabbs).		
39	10	05-56-14	4.5	40° 18'	124° 14'	b	South of Ferndale. Felt over an area of approximately 2500 square miles of Humboldt County, California. Maximum intensity V. No damage reported. V at Alderpoint, Arcata, Carlotta, Ettersburg, Ferndale, Fields Landing, Fortuna, Holmes, Petrolia, Rio Dell and Weott.		
39	10	06-03-21	3.6	40° 22'	124° 13'	c	Aftershock. Felt.		
39	10	06-05-42	2.6	40.3°	124.2°	d	Aftershock.		
40	10	14-07-56	4.2	39° 19'	118° 28'	c	20 miles southeast of Fallon, Nevada. IV at Fallon.		
41	11	07-49-18	2.8	40° 28'	121° 33'	b	8 miles north of Mineral. IV at Mineral.		
42	11	17-43-00	3.1	40° 18'	124° 17'	c	South of Ferndale. II at Scotia.		
41	19-05-43	3.8	36° 33'	121° 11'	c	Southeast of Hollister. IV at Paloma.			
42	12	01-24-47	3.1	36° 33'	121° 11'	c	Aftershock.		
43	13	22-35-21	2.0	37.2°	122.3°	d	South of Palo Alto. Blast?		
44	15	10-16-11	3.6	36° 37'	121° 20'	c	South of Hollister.		
45	15	15-26-11	2.6	36.5°	121.2°	d	Southeast of Hollister.		
46	16	21-44-10	3.5	40.9°	123.4°	d	East of Arcata.		

Map No.	Date	Origin Time (G.C.T.)	M	Latitude North	Longitude West	Q	Remarks
47	Mar. 18	10-17-41	3.5	40° 31'	121° 36'	c	10 miles north of Mineral. Felt.
47	18	10-22-03	3.7	40° 31'	121° 36'	b	10 miles north of Mineral. VI at Manzanita Lake. V at Lassen Peak and Mineral.
48	19	15-09-23	4.1	40° 08'	119° 40'	c	40 miles NNE of Reno, Nevada (in Pyramid Lake). IV at Flanigan, Nevada. Also felt at Empire (south of Gerlach).
49	20	19-32-07	2.0	38.4°	122.4°	d	35 miles north of Berkeley.
50	21	02-38-31	2.5	36.6°	121.3°	d	Southeast of Hollister.
4	21	20-14-08	2.4	37° 25'	121° 47'	b	Northwest of Mt. Hamilton.
51	23	22-58-03	1.9	37° 14'	122° 13'	c	South of Palo Alto. Blast?
52	25	19-45-07	3.8	41.7°	125.9°	d	85 miles west of Crescent City.
53	31	00-49-18	2.0	38° 05'	122° 26'	b	Northwest of Berkeley.

### AFTERSHOKS OF THE 1954 NEVADA EARTHQUAKES

The following list is a continuation of the lists in preceding bulletins giving the larger aftershocks of the large Nevada earthquakes of 1954. The list is probably nearly complete for shocks of magnitude above 3-1/2, and includes some of lower magnitude.

#### Coordinates of the original earthquakes:

Date 1954	Origin Time (G.C.T.)	Latitude	Longitude	Magnitude
July 6	11-13-20	39° 25' N	118° 32' W	6.8
August 24	05-51-32	39° 35' N	118° 27' W	6.8
December 16	11-07-13	39° 19' N	118° 12' W	7.2
December 16	11-11-28	Epicenter about 30 miles north of preceding.		7.1

#### Aftershocks - First Quarter of 1956

Date 1956	Origin Time (G.C.T.)	M	Latitude North	Longitude West	Q
Jan. 3	15-34-45	3.5	39° 18'	118° 05'	c
3	15-38-44	3.2	39° 18'	118° 02'	c
4	09-13-16	3.6	39.4°	118.0°	d
10	03-46-33	3.4	39.1°	118.2°	d
17	11-37-19	3.4	39.0°	118.2°	d
17	18-17-56	4.2	39° 30'	118° 02'	b
23	02-27-14	3.5	39.5°	118.0°	d
27	23-25-42	3.3	39° 47'	118° 30'	c
Feb. 3	08-38-15	3.4	39.5°	118.1°	d
6	11-19-03	3.8	39.5°	118.5°	d
6	18-41-47	3.6	39° 04'	118° 11'	c
15	12-14-40	3.4	39° 13'	118° 07'	c
24	07-29-12	3.3	39° 09'	118° 05'	c

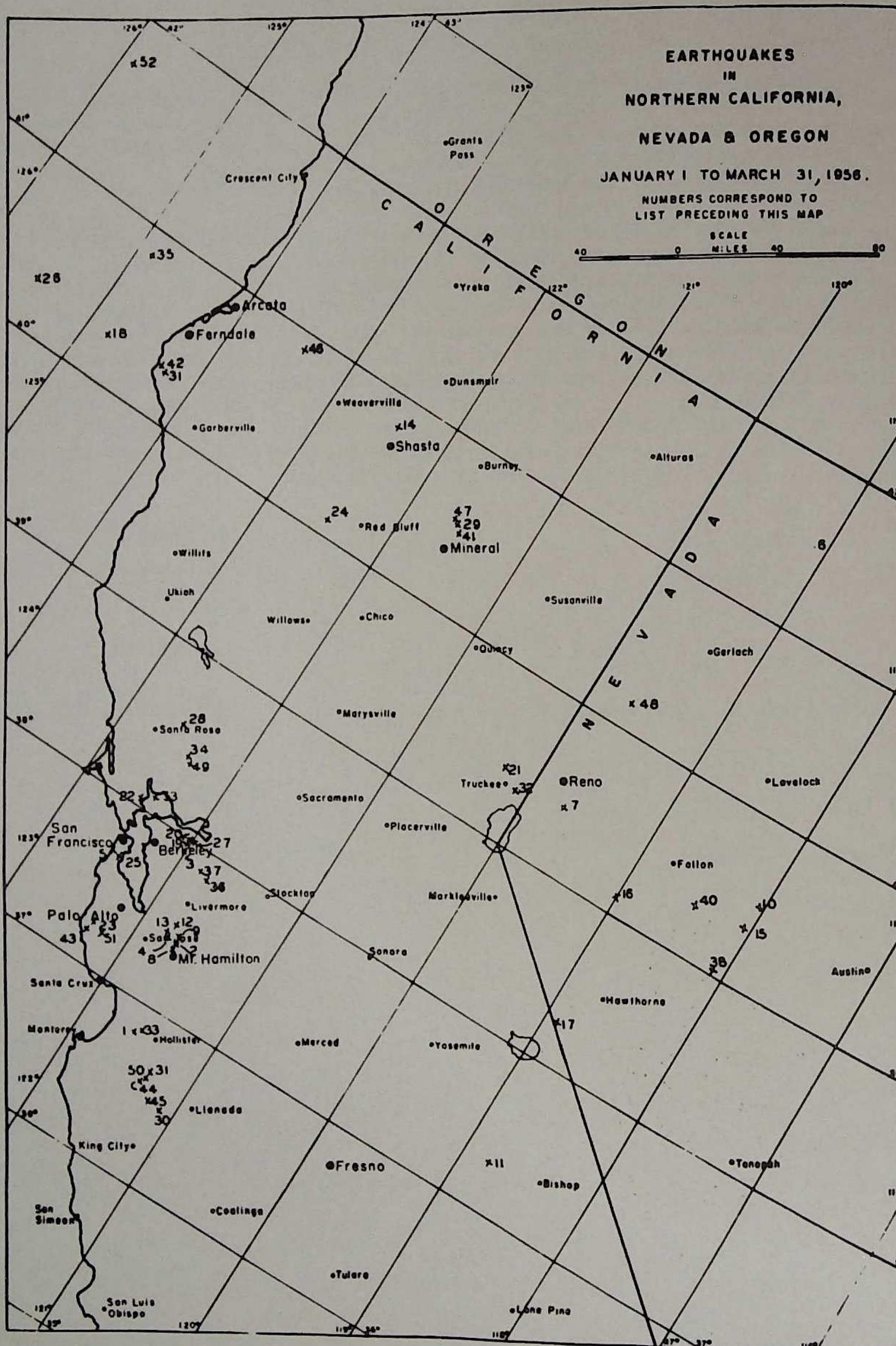
## EXPLOSIONS IN SAN FRANCISCO BAY

Date 1956	Origin Time (G.C.T.)	M	Latitude North	Longitude West	S
Mar. 7	17-54-47	3.9	39° 43'	118° 00'	c
8	07-26-20	4.6	39° 02'	118° 04'	b
10	14-07-56	4.2	39° 19'	118° 28'	c
18	00-27-06	3.6	39° 35'	118° 33'	c

Between October 1954 and March 1956 a number of explosive charges were set off in connection with a project of the State Division of Highways to relocate the Bayshore Freeway through the tidal mud flat between Candlestick Point and Sierra Point in the northeastern corner of San Mateo County. The approximate location is indicated on the epicenter map as number 25.

All but two of these explosions were recorded on the seismographs at Berkeley, San Francisco, Palo Alto, and Mt. Hamilton. Determination of Richter magnitudes by methods applicable to local earthquakes yielded magnitudes from 1.1 to 1.8 for these explosions. The District IV Office of the Division of Highways has kindly supplied the approximate times of each of their explosions, which were set off in the Bay muds in order to obtain uniform displacement of the underlying Bay mud as embankment construction progressed. All shots during the 18 months period were fired between 1 mile and 1.9 miles south of the San Francisco-San Mateo County line at an approximate elevation of 30 feet below sea level. In the following list, origin times were determined instrumentally from seismograms except for the two which were not recorded:

Date 1956	Origin Time (G.C.T.) h m s	Date 1956	Origin Time (G.C.T.) h m s
Feb. 10	18-39-54	Mar. 1	17-34-15
10	21-57-43	2	17-46-42
10	22-05 (not recorded)	2	18-00 (not recorded)
13	22-00-14	5	21-35-06
24	21-36-39	12	00-24-49
27	00-15-57	20	19-12-11



## 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 4.5 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.

Station	North Latitude	West Longitude	Altitude Meters	Feet	Station Symbol	Present Auspices and Date
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'	123	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.  
 1 - Vertical-component short-period Sprengnether.

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:  
 2 - Horizontal-component short-period Slichter.  
 1 - Vertical-component short-period Wilson-Lamison.

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 dilatation 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
1956			h. m. s.		
Jan. 1	F	e	23 26 53		USCGS: 7°S 129°E h = 150
		e	27 30		0 = 23 08 28 Timor Island
	M	e	18		region. Felt: Northern Territory,
	R	e	01		Australia.
					Pas: M = 6
Jan. 2	MH	iP	09 39 11		USCGS: 19°S 180° h = 600
	M	eP	20		0 = 09 28 06 Fiji Islands.
Jan. 3	B	iP	00 27 12.2		Pas: 33°45'N 117°30'W 0 = 00 25 49.4
		eN	28 16		Santa Ana Mtns., California.
	MH	eP	27 01.7		M = 4.7
		i	08.6		USCGS: Felt over an area of
		eE	55		approximately 9000 square
		eN	28 08		miles of Southern California.
	F	eP	26 43.9		Slight damage reported from
		e	52		several towns in Riverside
		eE	27 31		County.
		iN	37		
	M	eP	40		
	R	en	27		
Jan. 3	MH	e	05 50 24		USCGS: 43-1/2°N 147°E 0 = 10 41 08
	M	e	49 54		Southern Kurile Islands.
Jan. 3	M	iP	10 51 48		USCGS: 51°N 180° 0 = 13 03 41
	MH	eP	13 11 47		Andreanof Islands, Aleutian Islands.
Jan. 3	M	e	14 26 58		Pas: 32°23'N 116°00'W 0 = 14 24 01
	i	28 42			M = 4.7 Baja California,
	R	e	26 25		Southeast of Tecate.
	i	28 15			USCGS: Felt over an area of approxi-
					mately 3500 square miles in Cali-
					fornia. Maximum intensity V. No
					damage reported.
Jan. 3	B	eP	15 50 55		USCGS: 48-1/2°N 155°E 0 = 15 40 55
		i	51 08		Kurile Islands.
	MH	iP	00		
		i	14		
	SH	iP	50 42		
		i	55		
	M	iP	47		
	R	iP	59		
Jan. 3	MH	eP	23 31 27		USCGS: 54-1/2°N 163°W 0 = 23 24 52
	F	eP	44		Unimak Island, Alaska.
	M	e	22		
	R	e	33		
Jan. 4	MH	eP	06 57 08		
Jan. 5	MH	e(P)	01 07 25		
	SH	e(P)	40		
Jan. 5	M	e(P)	22 42 34		
					USCGS: Southern Kurile Islands
					Aftershock. 0 = 22 31 37

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1956					
Jan. 6	MH	eP	h. m. s. 05 56 04		USCGS: 36-1/2°N 11°W 0 = 05 43 38 Off coast of Portugal.
		i	23		
	M	eP	55 53		
Jan. 6	MH	iP	07 07 14		USCGS: 51°N 179-1/2°W 0 = 06 59 17 Andreanof Islands, Aleutian Islands.
	SH	eP	06 57		
	M	eP	07 00		
	R	e	29		
Jan. 6	MH	e	17 59 50		USCGS: 51°N 179-1/2°W 0 = 17 51 32 Andreanof Islands, Aleutian Islands.
	SH	e	14		
		e	30		
Jan. 6	MH	iP	22 36 33		USCGS: 39°N 142°E 0 = 22 25 02 Near East Coast of Honshu, Japan. Felt: Honshu.
	SH	e	25		
	F	e	49		
	M	e	24		
	R	e	40		
Jan. 6	MH	i(P)	22 42 43		USCGS: Guerrero, Mexico. 0 = 23 32 50
Jan. 6	MH	iP	23 38 58		
	F	eP	40		
Jan. 7	MH	i(P)	10 23 58		USCGS: 51°N 179-1/2°W 0 = 10 15 59 Andreanof Islands, Aleutian Islands.
	SH	e	51		
	F	e(P)	24 13		
	M	i(P)	23 46		
	i		50		
	R	e(P)	58		
Jan. 7	MH	iP	10 38 23		USCGS: 5°S 148°E 0 = 10 25 08 Bismarck Sea.
	i		29		
	SH	iP	27		
	M	iP	30		
Jan. 7	BG	eLE	16 57 29		USCGS: 65-1/2°N 133-1/2°W
	MH	iP	47 06		0 = 16 41 04 Yukon, Canada.
	i		20		
	SH	e	46 57		
	i		49 02		
	F	eP	47 15		
	M	iP	46 40		
Jan. 8	B	eP	07 17 31		USCGS: 17°N 99-1/2°W 0 = 07 11 26 Guerrero, Mexico. Many injured and heavy damage at Acapulco.
	BG	eSNE	22 23		
	eQNE		24.8		
	eR		27.5		
	A	T			
	PZ		5 6		
	Max H		130 22		
	MH	iP	07 17 23.0	c	
	i		31		
	iPcP		20 36		
	i		25 46		
	er		26.8		
	SH	eP	17 45		
	eR		28.3		
	F	eP	17 08		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1956					
Jan. 8 (contd)	R	e	h. m. s. 18 52		
		iP	17 27		
		er	26.9		
	C	eP	18 16		
		eR	28.7		
Jan. 8	B	eP	21 05 57.5	c	USCGS: 19°S 70°W 0 = 20 54 13 Northern Chile. Slight damage at Arica. Pas: M = 7-1/4
		e	04.5		
	BG	i(pP)	06 07	NWc	
		iSNE	15 33	SE	
		eRNEZ	31.0		
		A	T		
		PZ	5 5		
		(pP)Z	17 7		
		(pP)H	6-1/2 7		
		SH	34 7		
	MH	iP	21 05 53.7	c	
		i(pP)	06 05.3	c	
		i	08 19		
	SH	eP	06 06	c	
		e	07 58		
	F	eSN	15 48	c	
		eP	05 43	c	
		e	56		
		e	06 19		
	M	iP	03	c	
	R	iP	05 55	c	
	A	ePE	06 07		
		eE	16 02		
	C	eP	06 26		
		i(S)	16 25		
Jan. 8	MH	eP	23 10 01		USCGS: Northern Chile aftershock. 0 = 22 58 22
		i	13		
	M	e	17		
Jan. 9	B	e(pP)	03 27 32		USCGS: Northern Chile aftershock. 0 = 03 15 40
		ep	17		
	MH	i(pP)	29		
		SH	41		
		F	21		
	M	e	42		
	R	e	20		
Jan. 9	MH	iP	08 04 26		USCGS: Northern Chile aftershock. 0 = 07 52 48
		i(pP)	38		
	B	eP	08 08 44		
		ep	44		
	MH	eP	47		
	F	eP	12 17 13		
Jan. 9	BG	ep	19 24		USCGS: 23°S 179°E h = 650 0 = 12 05 53 Fiji Islands region. Pas: M = 6-1/2
		esSNE	26 40		
		esSNE	30.6		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1956			h. m. s.		
Jan. 9 (contd)		A	T		
	PZ	3	6		
	pPZ	4-1/2	6		
	SH	21	13		
	eP	12	17 13	c	
	ipP	19	26		
	e(S)	26	46		
	eP'P'	43	31		
	eSKPP'	46	00		
	iP	17	22	c	
	ipP	19	34		
	eSN	26	44		
	eP'P'	43	46		
	e	44	32		
	iP	17	17	c	
	ipP	19	31		
	esP	20	39		
	eSN	26	53		
	ip'P'	43	48		
	M	iP	17 23		
		ipP	19 35		
		eP'P'	43 39		
		eSKPP'	46 09		
	R	eP	17 24		
		epP	19 39		
Jan. 9	BG	eQNE	13 28.8		
		A	T		
	MH	Max H	25 22		
	MH	eP	13 18 10		
	F	e	12		
	M	eP	31		
	R	eP	17		
Jan. 9	M	i	16 34 09		
Jan. 9	MH	iP	17 07 50		USCGS: 16°N 92°W h = 200
		ipP	08 29		0 = 17 01 23 Chiapas, Mexico.
	F	eP	07 37		
		epP	08 18		
	M	eP	04		
		e(pP)	49		
	R	eP	07 52		
Jan. 10	B	eP	09 04 52	c	USCGS: 25°S 176°W 0 = 08 52 36
		e(PP)	08 29		Tonga Islands region.
	BG	e(S)NE	15 08		Pas: M = 7-1/2
		eXNE	24		
		eGNE	25.8		
		eR	29		
		A	T		
	PZ	11	12		
	PH	6	12		
	(PP)Z	6-1/2	8		
	XH	28	14		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1956			h. m. s.		
Jan. 10 (contd)		A	T		
		(contd)			
	MH	Max H	150 X 16		
		Max Z	100 16		
		iP	09 04 52	c	
		i	05 42	c	
		eR	28.9		
	SH	e	05 05		
	F	eP	04 56		
	M	e	05 02		
	R	i	34		
	A	e	06		
	C	eLE	29.3		
		eP	05 33		
		eL	30.4		
Jan. 10	MH	e(P)	09 38 56		
		e	41 31		
	F	e(P)	39 02		
		e	41 41		
	M	e(P)	39 07		
		e	41 48		
	R	e(P)	39 10		
Jan. 10	MH	iP	10 30 42		USCGS: 25°S 176°W 0 = 10 18 25
		eP	46		Tonga Islands region aftershock.
		M	52		
		R	54		
	B	ipNEZ	12 33 54.7	d	43.4°N 127.3°W 0 = 12 32 15
	BG	eN	35 23		M = 4.9 Off the coast of
		e	37 36		Oregon.
		A	T		
		Max H	20 12		
		iP	12 34 03.6	c	
		i	04.3	d	
		i	36 43.7		
	PA	iP	33 59.5		
	F	iP	34 25.1	d	
	M	eP	33 31.8		
		i	35.6		
		eNE	34 39.8		
	R	eP	33 59.2		
	SH	eP	23.9		
	A	ePNE	09.7		
	C	iP	04		
		e	36 19		
Jan. 10	MH	eP	15 26 25		Coast of Oregon aftershock.
		i	29		0 = 15 24 37
		F	47		
		M	25 54		
		C	26		
		eP	26 06		
		e(S)	15 35 56		
Jan. 10	MH	e			

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1956			h. m. s.		
Jan. 10	M	e	36 25		
(contd)	R	e	12		
Jan. 10	MH	iP	18 30 33		
Jan. 10	MH	iP	21 30 21		
Jan. 10	MH	e	21 44 23		
	F	e	34		
Jan. 10	MH	eP	22 06 20		USCGS: 25°S 175-1/2°W O = 21 54 05 Tonga Islands region aftershock.
Jan. 11	B	eP'	06 29 12		USCGS: 7-1/2°N 94°E O = 06 10 03 Nicobar Islands.
		e	25		
	MH	e	31 09		
		eP'	29 15		
		e(PP)	30 55		
	F	eP'	29 17		
	M	eP'	10		
		e	30 37		
	R	eP'	29 12		
		e	30 41		
Jan. 11	M	eP	06 49 52		
Jan. 11	B	iP	06 50 39.1	c	USCGS: 33°N 139°E h = 200
	MH	iP	42.7	c	O = 06 38 05
	SH	iP	30.9		
	M	iP	33.4	c	
Jan. 11	M	eP'	07 29 52		USCGS: Nicobar Islands aftershock. O = 07 10 49
Jan. 11	MH	e	10 40 39		
	M	e	23		
Jan. 11	B	eP	10 57 50		USCGS: Kermadec Islands region.
	MH	eP	51		
	F	eP	54		
	M	iP	58 01		
	R	eP	04		
Jan. 11	MH	e(P)	12 07 51		USCGS: Solomon Islands. h = 100
		e	08 11		
			15		
			05		
			18		
Jan. 11	MH	eiP	12 55 55		USCGS: Chile - Mendoza Province,
	R	e	56 00		Argentina. O = 12 43 10
					Felt in Chile.
Jan. 11	MH	iP	15 58 59		
Jan. 11	MH	eP	20 43 53		USCGS: 16-1/2°S 168°E O = 20 31 16
					New Hebrides Islands.
Jan. 11	MH	e	21 24 08		USCGS: 8-1/2°S 157°E O = 21 11 04
	F	e	07		Solomon Islands.
	R	e	07		
Jan. 11	MH	iP	23 53 52		
	F	eP	48		
	M	eP	54 04		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1956			h. m. s.		
Jan. 12	MH	eP	00 46 11		
	F	eP	00		
	M	eP	34		
	R	eP	21		
Jan. 12	MH	eP	02 28 34		
		e	32 20		
	F	e	28 43		
	M	e(P)	53		
		e	32 30		
Jan. 12	MH	i	04 38 36		
	F	e	41		
	M	e	47		
Jan. 12	B	eP	04 49 43		USCGS: 18°S 70°W O = 04 38 00
	MH	eP	40		Northern Chile.
		e	58		
	F	eP	28		
	M	eP	49		
	R	iP	42		
Jan. 12	M	eP	05 58 52		USCGS: 47-1/2°N 20°E O = 05 46 05
	R	e	57		Northern Hungary. Heavy casualties and extensive property damage.
Jan. 12	MH	eP	06 22 32		USCGS: 22-1/2°S 177-1/2°W
	F	eP	35		O = 06 10 25 Tonga Islands region.
	M	eP	53		
Jan. 12	MH	eP	07 54 26		USCGS: 5°N 75-1/2°W h = 200
		epP	55 05		O = 07 45 27 Western Columbia.
	M	e(pP)	16		
	R	eP	54 25		
		epP	55 07		
Jan. 12	MH	eP	12 22 01		
	F	eP	05		
Jan. 12	MH	iP	22 35 12		
	F	eP	17		
	M	eP	26		
Jan. 12	MH	e	22 59 34		
	F	e	28		
	M	e	58 47		
Jan. 13	MH	eP	00 57 12		
	F	eP	13		
	M	eP	23		
Jan. 13	MH	iP	02 17 42		
		i(pP)	18 44		
	SH	iP	17 50		
	F	eP	46		
	M	eP	51		
Jan. 13	MH	eP	02 46 49		
			47 33		
Jan. 13	MH	e	03 14 53		USCGS: Tonga Islands region.
	F	eP	58		O = 03 02 50
Jan. 13	MH	eP	03 17 03		USCGS: Tonga Islands region.
	F	eP	07		O = 03 04 50
	M	eP	14		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1956				h. m. s.	
Jan. 13	B	eP	03 36 17		USCGS: 57-1/2°N 163°E O = 03 27 13
		e	45		Near East coast of Kamchatka.
	BG	e(S)N	14 23		
	MH	eP	36 22		
		i	52		
		e	39 11		
	SH	eP	36 00		
		i	29		
	F	eP	33		
		e	37 05		
	M	eP	36 05		
		i	35		
	R	e	22		
			47		
Jan. 13	MH	eP	06 29 34		USCGS: 29°S 167-1/2°E O = 06 16 14
	F	e	43		Norfolk Island region.
Jan. 13	MH	iP	12 24 56		USCGS: 24°S 177°W O = 12 12 41
	F	eP	25 00		Tonga Islands region.
	M	eP	07		
		i	17		
Jan. 13	MH	iP	15 16 32		
		i	35		
	SH	eP	45		
	M	eP	41		
	R	eP	35		
Jan. 13	MH	iP	23 35 04		
		i	33		
Jan. 14	MH	eP	03 54 02		
	M	eP	17		
Jan. 14	MH	iP	07 59 10		
Jan. 14	B	eP	14 16 04		USCGS: 51-1/2°N 173°W O = 14 08 41
	BG	eSNE	21 59		Fox Islands, Aleutian Islands.
		eN	24.7		
		eR	28.3		
			R from NW		
		A	T		
	SH	10 16			
	Max H	40 16			
	MH	iP	14 16 09		
		i	22		
	SH	e	22 17		
	SH	iP	15 49		
		i	16 01		
		eSNE	21 30		
	F	eP	16 15		
	M	iP	15 54		
Jan. 14	MH	eP	14 35 40		USCGS: 43°N 145°E O = 14 24 40
	SH	eP	28		Near East coast of Hokkaido.
	F	eP	56		
	M	eP	33		
Jan. 14	SH	e	17 13 52		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1956				h. m. s.	
Jan. 14	MH	iP	18 45 07		USCGS: 8°N 38 $\frac{1}{2}$ °W O = 18 32 54
	SH	e	08		Mid-Atlantic Ocean.
	M	e	14		
Jan. 14	MH	iP	22 22 00		USCGS: 18°S 173°W h = 200
		i	14		O = 22 10 42 Tonga Islands
	SH	e	09		region.
	F	eP	27		
	M	eP	03		
Jan. 15	MH	e	01 35 56		USCGS: About 50 miles South of
	SH	e	47		Guam. O = 01 23 10
	M	e	36 27		
		e	29		
Jan. 15	SH	e	01 42 03		
Jan. 15	MH	e	09 14 20		USCGS: 25°S 176°W O = 10 16 45
Jan. 15	MH	iP	10 29 01		Tonga Islands region.
	SH	eP	11		
	F	eP	07		
	M	eP	13		
Jan. 15	MH	iP	13 53 46		USCGS: Queen Charlotte Islands
	SH	eP	23		region. O = 13 49 39
	M	eP	30		
Jan. 15	MH	iP	18 53 58		USCGS: Tonga Islands. O = 18 42 03
	SH	eP	54 08		
	F	eP	01		
Jan. 16	B	eP	23 47 09		c USCGS: $\frac{1}{2}$ °S 80 $\frac{1}{2}$ °W O = 23 37 37
		ePcP	48 20		Near coast of Ecuador. Heavy
		ePP	49 22		property damage at Portoviejo
	BG	iSN	54 51		and Bahia de Caraquez. Felt
		iNEZ	55		on board M/S Equateur at
		iScSNE	57 03		1.06°S 81.08°W
		eSSNE	58.8		Pas: M = 7 $\frac{1}{4}$ - 7 $\frac{1}{2}$
		eNE	24 03 3		
		eRNEZ	08.0		
		A	T		
		PZ	35	4	
		PH	11	6	
		PcPZ	10	6	
		PPZ	6	5	
		PPH	6 $\frac{1}{2}$	6	
		SH	130	14	
		SZ	20	10	
		Max H	220	20	
		Max Z	160	19	
	MH	iP	23 47 06		c
		i	19		
		iPP	49 17		
		iS	54 43		
		iP	47 23		c
		i	44		
		iPcP	48 29		
		e(S)N	55 11		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1956			h. m. s.		
Jan. 16 (contd)	F M	eP iP i	46 52 47 20 30	c c	
	R	e(S) ePN iN eSN	55 06 47 09 23 54 56		
	C BG MH F M	iP e(S)N iP 08 16 00 09 03 08 55 09 30	47 46 55 06 08 16 00 09 03 08 55 09 30		USCGS: Pacific Ocean, about 1000 miles Southwest of Galapagos Islands. O = 08 00 45
Jan. 17	MH	e(P)	05 57 45		USCGS: Mendoza Province, Argentina. O = 05 45 06
	M	e(P)	56		USCGS: 24°S 70°W O = 08 07 17 Northern Chile. Felt: Atacama and Antofagasta Provinces.
Jan. 18	B	eP	08 19 23		
	BG	e(S)N	29 17		
	MH	iP i	19 19 27		
	SH	iP	19 32		
	F	eP	06		
	R	eP	23		
Jan. 18	MH	iP	11 56 13		
	M	eP	55 56		
Jan. 19	MH	e(P)	11 20 01		USCGS: 6°S 155°E O = 18 07 05 Solomon Islands.
Jan. 20	F M	eP eP	04 43 52 27		USCGS: 47°N 154°E O = 04 33 30 Kurile Islands.
Jan. 20	B BG	eP eN eREZ	05 10 18 18.8 22.6		USCGS: 52½°N 170°W O = 05 03 10 Fox Islands, Aleutian Islands.
	Max H	R from W A T	5 16		
	MH	iP	05 10 24		
	SH	eP	02		
	F	eP	37		
	R	eP	36		
Jan. 20	MH	e(P)	11 17 56		
	M	i(P)	40		
Jan. 21	MH	iP	08 16 05		
	F	ipP	22		USCGS: 15°N 93°W h = 150 O = 08 09 33 Off coast of Guatemala.
	M	eP	15 52		
	MH	iP	16 19		
	SH	ipP	36		
Jan. 21	B	eP	12 34 55		
	MH	iP	53		USCGS: 23°S 176°W O = 12 22 42 Tonga Islands region.
	SH	i	35 02		
	F	eP	11		
	M	eP	34 55		
	R	eP	35 11		
			15		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1956			h. m. s.		
Jan. 21	MH	iP	18 06 04		
	SH	ipP	33		USCGS: 21°S 67½°W h = 100 O = 17 54 15 Southern Bolivia.
	M	eP	16		
	R	epP	46		
	M	eP	13		
	R	eP	06		
Jan. 21	M	eP	18 57 18		USCGS: Ecuador aftershock. O = 18 47 33
Jan. 22	MH	e(P)	00 17 11		
	M	e(P)	26		USCGS: Kodiak Island. O = 00 50 46
Jan. 22	M	eP	00 56 38		USCGS: Kodiak Island. O = 00 57 50
Jan. 22	MH	e(P)	01 03 37		
	M	e(P)	14 28 23		
	M	e(P)	32		
Jan. 23	MH	eP	00 52 46		USCGS: 58°N 154½°W O = 00 46 35 Kodiak Island region, Alaska.
	SH	eP	15		
	M	iP	20		
	i		24		
Jan. 23	B	eP	03 56 34		USCGS: 55½°N 162°E h = 60 O = 03 47 27 Near East Coast of Kamchatka.
	BG	eSE	04 03 59		
		eSSE	07.7		
		eREZ	12.1		
		R from W			Pas: M = 6½ - 6-3/4
		A	T		
		SH	1	8	
		Max H	9	20	
		Max Z	6	20	
	MH	iP	03 56 39		
	SH	eP	18		
	F	eP	50		
	M	iP	23		
	R	eP	35		
Jan. 23	MH	iP	12 02 03		
	M	eP	20		
Jan. 24	MH	eP	00 46 53		
	F	eP	47 02		
	M	eP	46 35		
Jan. 24	M	i	03 11 52		
Jan. 24	MH	iP	03 50 02		
	M	iP	49 56		
Jan. 24	B	eP	08 18 31		
	MH	eP	31		
	SH	eP	39		
	F	eP	35		
	M	eP	41		
Jan. 24	MH	e	13 35 17		
	M	eP	34 55		
Jan. 25	M	iP	06 39 06		USCGS: About 300 miles off coast of Ecuador. O = 06 29 58
	R	eP	38 56		
	e		39 22		
Jan. 25	M	ip	07 43 45		
Jan. 25	F	eP	11 00 13		USCGS: Tonga Islands region.

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1956			h. m. s.		
Jan. 25	M	iP	19		0 = 10 47 53
(contd)	R	eP	24		
Jan. 27	BG	eLN	14 12.6		USCGS: 26°S 176°W 0 = 13 38 45
	MH	iP	13 51 05		Tonga Islands region.
	F	eP	11		
	M	iP	17		
	i		35		
	R	eP	18		
Jan. 27	MH	iP	17 51 34		
	M	e	37		
	R	e	33		
Jan. 28	MH	i	04 53 24		
	M	e	34		
Jan. 28	MH	e	07 55 59		USCGS: 4½°S 151½°E h = 100
	SH	eP	47		0 = 07 42 52 New Britain.
	F	eP	56		Pas: M = 6½
	M	eP	49		
	R	eP	57		
Jan. 28	M	e(P)	21 28 26		
Jan. 28	B	e(P)	22 56 26		39°20'N 118°03'W 0 = 22 55 26
	MH	iP	22.7		Central Nevada.
	M	iP	14.9		M = 4.2
	F	eP	15.6		
	R	iP	55 53.3		
Jan. 29	M	iSNE	13.4		
	R	eP	03 40 43		
Jan. 29	R	e	46		
Jan. 29	MH	i	09 27 54		
	M	e	28 04		
Jan. 29	MH	eP	16 42 39		USCGS: Off Southeast coast of
	i		43		Kamchatka. 0 = 16 32 53
	F	eP	49		
	M	eP	23		
Jan. 29	F	e	22 37 43		USCGS: 21°N 121°E 0 = 22 20 53
	e		38 35		South of Formosa.
	M	e(P)	34 28		
	e(PP)		37 27		
	R	e	50		
Jan. 30	MH	iP	02 04 31		
	M	eP	39		
Jan. 30	MH	eP	08 45 39		USCGS: Fiji Islands. h = 600
	M	iP	47		0 = 08 34 32
Jan. 30	B	eP	08 56 19		USCGS: 38½°S 177½°E 0 = 08 43 01
	BG	eN	09 07.7		Near North coast of North Island,
	eR		29.0		New Zealand.
	MH	eP	R from SW		Pas: M = 6½
	F	eP	08 56 19		
	e		22		
	M	eP	09 00 21		
	R	eP	08 56 28		
			31		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1956			h. m. s.		
Jan. 30	M	eP	15 03 35		USCGS: Andreanof Islands.
					Aleutian Islands. 0 = 14 55 51
Jan. 30	B	eP	19 20 52		USCGS: About 400 miles South of
	MH	eP	51		Fiji Islands. h = 500
	F	eP	55		0 = 19 09 12
	M	eP	21 00		
Jan. 31	B	e	05 36 22		USCGS: Volcano Islands region.
	MH	eP	20		0 = 05 24 14
	SH	i	26		
	F	e	11		
	R	e	27		
	SH	ip	31		
Jan. 31	B	ip	09 29 26.3	d	USCGS: 4°S 152°E h = 400
	MH	epP	30 50	d	0 = 09 17 11 New Ireland.
		ip	29 28.6	d	
		i	37.8	d	
		ipP	30 53	d	
		e	32 50	d	
		eP'P'	55 14	d	
		iP	29 27.7	d	
		epP	30 49	d	
		iE	31 27	d	
		F	29 35.0	d	
		R	37.7	d	
		C	37	d	
Feb. 1	B	eP	01 45 43		USCGS: 20°S 169°E 0 = 01 32 55
	MH	ip	42		Loyalty Islands.
		i	46 04		
		ip	45 50		
		R	55		
Feb. 1	MH	i	04 41 39		
Feb. 1	MH	ip	05 32 53		
	R	e	49		
Feb. 1	B	ipNEZ	13 53 25.5	NWd	USCGS: 19°N 145½°E h = 350
	BG	ipP	54 51		0 = 13 41 44 Marianas Islands.
		eSP	55 23		
		isNE	14 02 59		
		i	03 05		
		esSNE	04 47		
		ePKKP	12 02		
		A	T		
		PZ	8		
		PH	2½		
		pPZ	7		
		sPZ	5		
		SH	33		
		SZ	14		
		ip	13 53 29.3	d	
		ipP	54 55.6	d	
		is	14 03 10		
		ipKKP	12 01		
		SH	13 53 21.3	d	

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1956			h. m. s.		
Feb. 1 (contd)	F	ipP	14 44.9		
		eS	14 02 44	d	
	M	iP	13 53 36.7		
		epP	55 06		
		eSE	14 03 23		
	M	ePNE	13 53 26		
	R	eSNE	14 02 58	d	
	R	iP	13 53 33.2		
		epP	55 00		
	A	eS	14 03 14		
	C	ePE	13 53 15		
	C	iP	23		
Feb. 1	B	iS	14 02 46		
	MH	iP	15 23 46		USCGS: $39\frac{1}{2}^{\circ}$ N $16^{\circ}$ E h = 200
	F	iP	47		0 = 15 10 46 Near West
	R	eP	45		coast of Italy. Felt.
Feb. 1	MH	iP	16 37 15		USCGS: Northern Chile. 0 = 16 25 28
Feb. 2	MH	e	01 29 50		
	R	e	38		
Feb. 2	B	e	03 32 55		USCGS: $17\frac{1}{2}^{\circ}$ N $46\frac{1}{2}^{\circ}$ W 0 = 03 21 45
	MH	e(P)	49		Atlantic Ocean.
		i	55		
	F	e	33 06		
	R	e(P)	32 40		
Feb. 2	B	eP	15 00 36		USCGS: $16^{\circ}$ N $98\frac{1}{2}^{\circ}$ W 0 = 14 54 18
	BG	eE	10.4		Off coast of Guerrero, Mexico.
		eN	12.1		
	MH	iP	00 30		
		e	01 58		
	SH	e	02 00		
	F	eP	00 11		
	R	eP	34		
		e	01 43		
		e	03 42		
Feb. 2	BG	eSN	17 05 53		USCGS: $16^{\circ}$ N $98\frac{1}{2}^{\circ}$ W 0 = 16 54 32
		eQNE	09.7		Off coast of Guerrero, Mexico.
		eR	11.9		
		R From SE			
	MH	iP	17 00 44		
	F	eP	23		
	R	eP	48		
Feb. 2	MH	i(P)	17 18 15		
Feb. 2	MH	i(P)	17 47 39		Guerrero aftershock.
Feb. 3	MH	eP	14 52 59		
	R	e	52		
Feb. 3	B	eP	18 53 08		
Feb. 4	MH	eP	07		
	B	eP	03 04 29		
	MH	eP	25		
	F	eP	16		
	R	eP	29		
				USCGS: $0^{\circ}$ $81^{\circ}$ W 0 = 02 55 02	
				Near coast of Ecuador.	

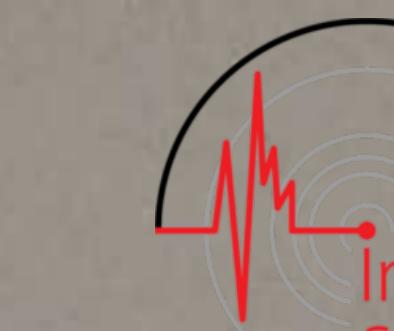
Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1956			h. m. s.		
Feb. 4	B	eP	20 31 22		
	MH	eP	26		
	M	eP	18		
	R	eP	27		
Feb. 5	M	eP	02 34 27		
Feb. 5	M	eP	09 39 16		
	R	e	37		
Feb. 7	B	eP	02 18 02		Pas: $34^{\circ}35'N$ $118^{\circ}36'W$ 0 = 02 16 56
	MH	eP	17 54		M = 4.2 North of Castaic,
	F	eP	18 29		California. Felt as far as
	eSE		17 35		Los Angeles.
			18 04		
	M	eP	32		
	R	e	35		
Feb. 7	B	eP	03 17 44		Pas: $34^{\circ}35'N$ $118^{\circ}36'W$ 0 = 03 16 39
	eSNE		18 35		M = 4.6
	MH	iP	17 34.0	c	USCGS: Felt over an area of
	i		40.4		approximately 3000 square
	eSN		18 20		miles. Maximum intensity VI
	SH	e(P)	27		at Elizabeth Lake Canyon,
	M	eP	13.4		where it reportedly caused
	i		19 12.3		a slide.
	eN		39		
	F	iP	17 16.7	c	
	iSE		46.3		
	PA	eP	40.4		
	R	eP	18 01		
	e		17		
			46		
	e		19 22		
Feb. 7	M	eP	06 52 37		USCGS: Northwestern Columbia.
Feb. 7	M	eP	07 12 47		0 = 07 03 29
	R	eP	38		USCGS: Queen Charlotte Islands.
Feb. 7	M	eP	17 02 29		0 = 16 59 25
Feb. 7	M	e	17 42 20		
Feb. 8	M	iP	08 30 58		
Feb. 8	B	e	22 01 43		
	MH	i	39		
	M	e	26		
	R	e	39		
Feb. 9	M	eP	00 59 14		USCGS: $48\frac{1}{2}^{\circ}$ N $122\frac{1}{2}^{\circ}$ W 0 = 00 57 12
	i		33		Northwestern Washington.
	R	e	32		Felt: Everett to Bellingham.
	C	iP	58 18		
		e(S)E	59 06		
Feb. 9	MH	e	06 52 24		
	M	e	25		
Feb. 9	MH	eP	07 40 58		USCGS: $5\frac{1}{2}^{\circ}$ N $83^{\circ}$ W 0 = 07 32 18
	SH	eP	41 14		South of Panama.
	M	eP	09		
	R	e	40 59		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1956			h. m. s.		
Feb. 9	MH	eP	08 34 45		USCGS: Queen Charlotte Islands region. 0 = 08 31 20
	F	e	35 18		
	M	eP	34 26		
		i	39		
	R	e	47		
	C	eP	33 33		
Feb. 9	MH	e	08 48 29		Baja California foreshock.
	M	e	47 49		
Feb. 9	MH	eP	14 18 13.5		Pas: M = 4.7 0 = 14 16 24 Pas: 31°45'N 115°55'W 0 = 14 32 38
Feb. 9	B	iPNEZ	14 34 36.4	SED	Pas: M = 6.8 Baja California. Main shock, with fault trace. Damage at El Alamo; New Spring appeared. Serious damage at San Miguel, unoccupied at the time.
	eE		36 09		
	eGE		36.3		
	eN		36.7		
	A	T			
	PZ	25	7½		
	PH	25	7½		
	MH	iP	14 34 26.9	d	USCGS: Main shock felt over a land area of approximately 20,000 square miles of California and Arizona. Maximum intensity in California VI.
	iN		51.3		
	iE		35 22.3		
	iN		22.9		
	SH	eP	09.1		
	i		14.9		
	F	eP	34 07.8	d	
	i		09.9	d	
	M	eP	35 02.0	d	
	i		04.2	c	
	R	ePNEZ	34 45.2	SED	
	A	ePNE	35 23	SE	
	eGNE		37.7		
	PA	iP	34 31.4	d	
	Fe	ePNE	35 22		
	eGNE		37.6		
	C	eP	36 04	d	
	eGE		38.3		
Feb. 9	B	eP	15 03 36		Baja California aftershock. Pas: M = 5.3 0 = 15 01 33
	MH	e	29		
	F	e	27		
	M	e	04 07		
	R	e	08		
	PA	eP	03 31.4		
	C	e	05 11		
Feb. 9	B	eP	15 26 24		Baja California aftershock. Pas: 31°45'N 115°55'W 0 = 15 24 26 M = 6.1
	i		27 24		
	e		28 38		
	MH	iP	26 14.8		
	eE		27 31.4		
	eN		32.8		
	SH	e	04		
	F	iP	25 57		
	e		26 13		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1956			h. m. s.		
Feb. 9 (contd)	M	i	52.7		
	R	i	35		
	PA	iP	28 40		
	C	e(P)	26 18.7		
		e	27 55		
			32 09		
Feb. 9	B	eP	16 31 57		Baja California aftershock.
	BG	eLNE	34.2		Pas: M = 5.8 0 = 16 29 53
			A T		
		Max H	125 20		
	MH	eP	16 31 46.4		
		i	50.7		
	SH	e	32 34		
	F	e(P)	31 29		
	M	eP	32 23.7		
		i	29.7		
	R	eP	07		
			34 25		
	PA	eP	31 50.0		
	C	e	33 32		
		e	37 40		
Feb. 9	B	eP	17 01 52		Baja California aftershock.
	BG	eLNE	04.2		Pas: M = 5.7 0 = 16 59 53
			A T		
		Max H	55 20		
	MH	iP	17 01 42.7		
	SH	e	02 30		
	F	iP	01 25		
	M	eP	02 18.7		
	R	eP	02		
		e	04 14		
	C	e	03 31		
	B	eP	18 50 42		Baja California aftershock.
	BG	eLNE	52.9		Pas: M = 5.7 0 = 18 48 45
			A T		
		Max H	100 20		
	MH	eP	18 50 33.0		
		i	37.5		
	SH	eP	51 16.6		
		i	22.7		
		e	54 03		
	F	eP	50 14.6		
	M	eP	51 10.9		
	R	eP	50 55		
		e	52 14		
	C	eP	56 25		
Feb. 9	MH	eP	22 07 17		USCGS: 36½°N 139°E 0 = 21 55 33
	SH	e	04		Central Honshu, Japan. Felt:
	M	eP	06 57		Tokyo.
Feb. 9	MH	eP	23 10 23		
	SH	e	36		
	M	eP	10		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1956			h. m. s.		
Feb. 10	B	e	00 14 05		USCGS: 37°N 142°E h = 60
	MH	e	13 59		0 = 00 02 40 Off coast
	SH	e	56		of Honshu, Japan.
	F	e	14 18		
	R	e	17		
	C	e	13 36		
Feb. 10	B	e	00 08 18		Baja California aftershock.
	BG	eLE	10.0		Pas: M = 4.6
			A T		0 = 00 05
			Max H 5 17		
	MH	e	00 07 20		
	SH	e	10 52		
	F	e	07 19		
	M	i	08 02		
	R	e	41		
Feb. 10	B	e	04 20 30		Baja California aftershock.
	BG	eLNE	22.7		Pas: M = 5.0
			A T		0 = 04 18 15
			Max H 8 18		
	MH	eP	04 20 02		
	SH	e	22 34		
	F	e	20 01		
	M	e	54		
	R	e	21 00		
Feb. 10	B	eP	13 53 55		USCGS: About 100 miles off coast of
	MH	eP	50		Peru. 0 = 13 43 20
	SH	eP	54 05		
	M	eP	01		
	R	e	53 56		
Feb. 10	B	e(P)	14 32 13		Baja California aftershock.
	BG	eLNE	34.8		Pas: M = 4.9
	MH	eP	32 01		0 = 14 30 12
		i	09		
	F	eP	31 42		
	M	eP	32 37		
	R	e	54		
Feb. 10	B	eP	15 11 31		Baja California aftershock.
	BG	eLNE	14.1		Pas: M = 5.0
			A T		0 = 15 09 29
			Max H 5 16		
	MH	iP	15 11 22		
		i	29		
	F	eP	04		
	M	eP	56		
	R	eP	44		
Feb. 10	B	eP	18 14 53		Baja California aftershock.
	BG	eLNE	16.9		Pas: M = 5.5
			A T		0 = 18 12 54
			Max H 90 18		
	MH	eP	18 14 43.7		
		i	52.1		
	SH	e	15 30		

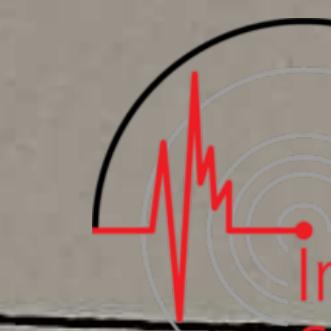
Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1956			h. m. s.		
Feb. 10	F	eP	14 24		
(contd)	M	e	15 21		
	R	eP	01		
	C	eP	16 19		
		e	20 55		
Feb. 11	MH	e	02 41 25		Baja California aftershock.
Feb. 11	B	eP	02 59 44		Pas: M = 5.1
	BG	eLNE	03 02.1		0 = 02 57 46
			A T		
			Max 9 18		
	MH	iP	02 59 35.3		
	SH	eP	03 00 22		
	F	eP	02 59 16		
	M	eP	03 00 17		
	R	eP	02 59 57		
Feb. 11	B	eP	05 21 10		Baja California aftershock.
	BG	eLNE	23.5		Pas: M = 5.0
			A T		
			Max H 5 16		
	MH	eP	05 21 01		
	F	e	20 56		
	M	eP	21 42		
	R	eP	21		
Feb. 11	MH	iP'	05 56 59		USCGS: 5°N 94½°E 0 = 05 38 38
	M	e	57 56		Off North coast of Sumatra.
Feb. 11	B	e	06 13 35		Baja California aftershock.
	BG	eLNE	15.7		Pas: M = 5.0
			A T		0 = 06 11 24
			Max H 7 18		
	MH	eP	06 13 14		
	F	eP	12 56		
	M	eP	13 50		
	B	iP	06 26 31		Baja California aftershock.
	BG	eLNE	28.6		Pas: M = 5.4
			A T		0 = 06 24 25
			Max H 22 20		
	MH	eP	06 26 22		
	SH	eP	27 08		
	F	eP	26 05		
	M	eP	27 00		
	R	eP	26 41		
Feb. 11	SH	e(P)	10 53 13		Baja California aftershock.
	M	eP	17		Pas: M = 4.6 0 = 16 59
Feb. 11	SH	e	17 04 45		USCGS: 19°N 119½°E 0 = 11 49 20
	M	e(P)	01 39		Off Northwest coast of Luzon, P.I.
Feb. 12	B	eP	12 03 02		Felt: Northern Luzon.
	BG	e(S)E	13 36		Pas: M = 6½ - 6¾
	MH	iP	03 09		
			19		
		i	06 26		
		i	02 58		
	SH	eP	03 08		
		e			



Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1956				h. m. s.	
Feb. 12 (contd)	F	e	06 02		
	M	eP	03 14		
	R	eP	00		
		i	15		
	R	eP	08		
		e	05 21		
		e	06 17		
		e	08 05		
	C	iP	02 44		
Feb. 13	MH	iP	01 17 08		
	SH	iP	20		
	M	eP	13		
	R	e	16		
Feb. 13	M	e(P)	03 58 25		USCGS: 19°N 120°E O = 03 44 45 Luzon aftershock.
Feb. 13	M	eP	14 34 23		USCGS: Luzon aftershock. O = 14 20 48
Feb. 13	B	eP	15 42 21		USCGS: 19½°N 66½°W h = 60
		epP	39		O = 15 33 14 Off North coast
	MH	iP	19		of Puerto Rico. Felt: San
		ipP	36		Juan.
	SH	eP	23		
		epP	41		
	M	eP	19		
		epP	37		
Feb. 14	B	iP	01 04 30		USCGS: 35½°N 139½°E h = 60
		e	40		O = 00 52 50 Near East
		e	05 34		coast of Honshu, Japan.
	MH	iP	04 34		Several injured and minor
	SH	eP	20		property damage at Tokyo.
		e	40		Pas: M = 5-3/4 - 6
	F	eP	42		
	M	eP	24		
	R	eP	34		
Feb. 14	SH	eP	08 34 43		USCGS: 19°N 119½°E O = 08 21 03
	M	eP	45		Luzon aftershock.
Feb. 14	MH	eP	10 06 16		USCGS: 37°N 1½°E O = 09 53 26
	SH	eP	10		Near coast of Algiers.
	M	eP	11		
	R	i	19		
Feb. 14	SH	eP	12 47 27		
	M	e	40		
Feb. 14	SH	eP	12 48 45		USCGS: 18½°N 119½°E O = 12 33 48
	M	eP	48		Luzon aftershock.
	R	eP	57		
Feb. 14	B	e	14 48 22		Baja California aftershock.
	BG	eLNE	49.8		Pas: 31°30'N 115°30'W
		A	T		O = 14 45 32 M = 5.0
	MH	Max H	20 18		
		i(P)	14 47 33		
		i	44		

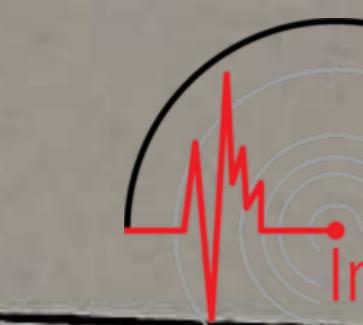
Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1956				h. m. s.	
Feb. 14 (contd)	SH	e	49 35		
	F	e	47 20		
	M	e	48 05		
	R	e	47 48		
Feb. 14	B	iP	18 35 39		Baja California aftershock.
	BG	eNEZ	36.5		USCGS: Felt over a large area of
		eGNE	37.4		Southern California. Maximum
		i	37 51		intensity V. No damage reported.
		GH	380 30		Pas: 31°30'N 115°30'W
	MH	iP	18 35 29.9		O = 18 33 34 M = 6.3
			35.2		
	SH	eP	36 15		
		eE	38 50		
	F	eP	35 08		
	M	eP	36 08		
		eE	39 42		
	R	eP	35 48		
		eNE	38.1		
	A	eLE	39.3		
	C	eP	37 06		
		eE	41 33		
Feb. 14	M	e(P)	19 07 10		USCGS: 42½°N 143°E O = 21 08 36
Feb. 14	SH	e(P)	21 19 31		Hokkaido, Japan. Felt.
	M	e(P)	35		Baja California aftershock.
Feb. 15	B	eP	01 22 45		USCGS: Felt over a large area of
	BG	eN	23.5		Southern California. Maximum
		eGNE	24.5		intensity V. No damage
	MH	iP	22 35.2		reported.
		eN	59		Pas: 31°30'N 115°30'W
		eE	23 36		O = 01 20 38 M = 6.4
	SH	eP	20		
	F	eP	22 15		
		i	18		
	M	eP	23 12		
		i	22		
	R	iP	22 54		
		e	25 16		
	A	eN	23 34		
		eN	26 27		
	C	iP	24 08		
		e	28 15		
Feb. 15	B	eP	02 30 45		Baja California aftershock.
	BG	eLE	33.0		Pas: M = 5.3
			A T		O = 02 28 39
	MH	Max H	6 15		
	F	eP	17		
		e	32		
	M	eP	31 16		
	R	eP	30 53		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1956					
Feb. 15	B BG	e eLNE	07 10 31 12.1	h. m. s. A T	Baja California aftershock. Pas: M = 5.2 O = 07 07 47
	MH	Max H e(P)	14 18 07 09 41		
	SH	e	10 29		
	F	e	09 30		
	M	e(P)	10 22		
Feb. 15	BG	eLNE	08 40.4	Baja California aftershock. Pas: M = 5.0 O = 08 35 54	
	Max H	A T	12 20		
	MH	e(P)	08 37 53		
	F	e	49		
	M	e(P)	38 30		
	R	e(P)	38 10		
		e	40 35		
Feb. 15	MH	i(P)	12 07 42	USCGS: Kurile Islands region O = 11 57 38	
	SH	i(P)	27		
	M	e	37		
Feb. 15	B	iP	13 00 35	USCGS: $8\frac{1}{2}^{\circ}$ S $74\frac{1}{2}^{\circ}$ W h = 150 O = 12 50 12 Peru. Two	
	MH	iP	31	killed in Callejon - Huaylas	
	SH	iP	44		
	M	eP	40		
	R	i	53		
	C	eP	32		
Feb. 15	MH	eP	18 56 43	Baja California aftershock.	
	M	e	57 56	Pas: M = 4.9 O = 18 54 44	
Feb. 15	BG	eRNZ	21 00.6	USCGS: $13\frac{1}{2}^{\circ}$ S $111\frac{1}{2}^{\circ}$ W O = 20 36 03	
	MH	i	20 45 27	Pacific Ocean.	
Feb. 16	B	eP	00 29 54	USCGS: $22\frac{1}{2}^{\circ}$ N $143^{\circ}$ E h = 100	
	MH	eP	57	O = 00 17 53 Marianas	
	SH	iP	30 41	Islands region.	
	M	iP	29 50		
Feb. 16	MH	i	54		
	SH	e	05 54 39	Baja California aftershock.	
	F	e	58 34	Pas: M = 4.9 O = 05 53 02	
	R	e	54 57		
Feb. 16	SH	e	55 48		
	F	e	08 18 10	Baja California aftershock.	
	M	e	15 23	Pas: M = 5.0 O = 08 12 28	
	R	e	17 34		
Feb. 16	SH	e(P)	15 31		
Feb. 17	MH	e	18 47 22		
Feb. 17	BG	eLNE	02 28 05		
			09 29.5		
	Max H	A T	18 18	Baja California aftershock.	
				Pas: M = 4.9 O = 09 25 00	



Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1956					
Feb. 17 (contd)	MH F	e(P) e	09 27 01 26 58	h. m. s.	
	M	e(P)	28 36		
	R	e(P)	27 41		
Feb. 17	BG	eLE	11 00.0		USCGS: $47^{\circ}$ S $15^{\circ}$ W O = 09 53 55
	MH	iP'	10 13 00		South Atlantic Ocean.
	SH	eP'	06		
	M	iP'	05		
	R	eP'	01		
Feb. 17	MH	e	10 41 59		Baja California aftershock.
	i	42 43			
	SH	e	45 40		
	F	e	41 57		
	M	e	44 19		
	R	e	42 38		
Feb. 17	SH	iP	14 25 15		
	M	iP	20		
	R	eP	31		
Feb. 18	M	e	01 48 11		USCGS: $10^{\circ}$ S $79^{\circ}$ W O = 01 37 16
	R	e(P)	47 40		Near coast of Peru.
Feb. 18	B	iP	07 45 38.3	c	USCGS: $30^{\circ}$ N $137\frac{1}{2}^{\circ}$ E h = 450
	BG	ipP	47 22.3		O = 07 34 16 South of
		isP	48 09		Honshu, Japan. Felt: Honshu.
	B	ePP	46		
	B	iSNE	54 56	NW	
	BG	iNE	56 56		
	B	eP'P'	08 12 35		
		eSKPP'	15 10		
	PZ	A T			
	PH	2 1			
	PPZ	1/3 3/4			
	SH	6 6			
	MH	38 8			
	iP	07 45 42.1	c		
	epP	47 26			
	iPP	48 58			
	eS	55 03			
	e	08 04 28			
	i	10 11			
	e	11 18			
	eP'P'	12 29			
	eSKPP'	15 07			
	SH	07 45 30.9	c		
	eP	47 16			
	epP	54 41			
	eSE	08 04 33			
	i	11 25			
	e	12 26			
	e(P'P')	15 00			
	eSKPP'				

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1956			h. m. s.		
Feb. 18 (contd)	F	eP	07 45 50	c	
	M	eS	55 18	c	
	M	iP	45 33.6	c	
	i		48 06		
	e		08 11 23		
	R	eP	07 45 43	c	
		e(pP)	47 32		
		eS	55 05		
Feb. 18	B	i	08 26 05		Part of Japan shock?
	MH	i	04		
	SH	e	19		
	M	i	08		
Feb. 18	SH	e	08 34 25		Part of Japan shock?
Feb. 18	M	eP	10 34 33		USCGS: 5°S 79½°W O = 10 24 20 Northern Peru.
	R	eP	20		
Feb. 18	B	iP	23 58 54.8	c	36°40'N 121°19'W O = 23 58 30 Near Hollister, California.
	eE		59 16.9		
	MH	iP	58 44.7	SED	
	iSN		55.4		USCGS: Felt over an area of
	iNE		56.5		approximately 1300 square
	PA	iP	49.0	d	miles of San Benito and
	F	eP	52.3	c	Monterey counties. Maximum
	eSE		59 08.7		intensity V.
	SH	eP	34.9		Largest aftershocks:
	M	iP	29.9		Feb. 19, O = 00 06 42 M = 3.8
	i		24 00 16.8		Feb. 19, O = 03 23 27 M = 3.8
	R	iP	23 59 24	c	
Feb. 19	B	iP	02 21 38.8	SEC	USCGS: 52°N 131½°W O = 02 18 00 Queen Charlotte Islands.
	BG	iSE	24 35	E	Pas: M = 6-3/4
	i		39		
	PZ	A	19		
	PH	T	8		
	SH	20	10		
	Max H	80	16		
	Max Z	145	14		
	MH	115	9		
	iP	02 21 47.0	c		
	SH	05.0	c		
	F	iP	22 01	c	
	M	eP	21 11.7	c	
	R	iP	30.4	c	
	e		24 48		
	C	iP	20 11.5	c	
Feb. 19	MH	eP	02 43 20		USCGS: 52°N 131½°W O = 02 39 35 Queen Charlotte Islands aftershock.
	F	eP	34		
	M	eP	42 44		
	R	eP	43 03		
	C	eP	41 43		
Feb. 19	B	eP	04 19 18		USCGS: 58½°N 154°W O = 04 13 16 Alaska Peninsula.
	e		29		
	e		21 33		



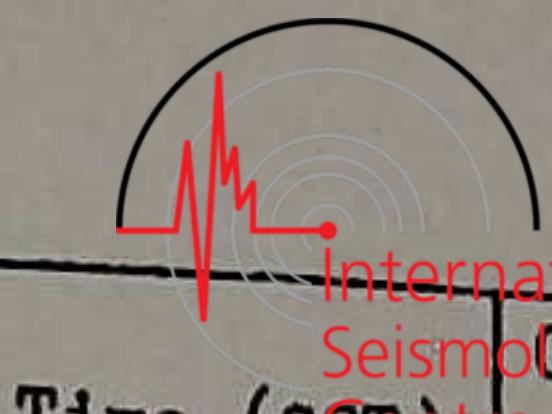
Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1956			h. m. s.		
Feb. 19 (contd)	MH	e	22 35		
		e	26 04		
	SH	eP	19 24	c	
		e	26 05		
	F	eP	18 57	c	
		e	25 58		
	M	iP	19 36	c	
		i	26 12		
		e	19 03	c	
		i	18		
	R	eP	26 00		
	C	eP	19 16	c	
		e	18 26	d	
Feb. 19	MH	e	04 46 06		
	M	e	50		
Feb. 19	MH	eP	05 52 30		USCGS: 23°S 176°W O = 05 40 22 Tonga Islands.
	SH	eP	40		
	M	eP	45		
Feb. 19	MH	iP	15 00 04		USCGS: 22½°S 180° h = 600 O = 14 48 45
		eP	02 08		
	SH	iP	00 12		
	F	eP	07		
Feb. 19	SH	e	20 26 45		
Feb. 20	SH	e	08 10 47		USCGS: 24°N 124°E O = 07 57 38 Ryukyu Islands.
	M	e	48		
Feb. 20	M	e(P)	13 13 45		USCGS: Near coast of Oaxaca, Mexico. O = 13 06 40
	BG	eLE	21 24.9		USCGS: 39½°N 30½°E O = 20 31 35 Turkey. Four killed and many injured at Istanbul, with extensive property damage at Eskisehir.
		eRNZ	30.0		
	M	e	20 45 10		
	R	e	13		
Feb. 22	SH	e	03 52 17		USCGS: 54°N 163°W O = 05 21 18 Near Unimak Island, Alaska.
Feb. 22	M	e	05 27 56		
	R	e	53		
Feb. 22	MH	iP'	10 19 10		USCGS: 5°S 67°E O = 09 59 24 Chagos Islands region.
Feb. 23	B	iP	01 31 43		USCGS: 31°N 42°W O = 01 21 03 North Atlantic Ocean.
	BG	eLN	51.4		
		eR	57.0		
			R from NE		
			A T		
	Max H	10	20		
	MH	iP	01 31 42		
			29		
	SH	iP	34		
	F	eP	34		
		e	33 13		
	M	iP	31 32		
	R	iP	27		
	C	iP	32		
Feb. 23	MH	iP	22 48 24		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1956			h. m. s.		
Feb. 24	B BG	eP eSN eRNEZ	09 31 56 42 48 10 00.0 R from SW A T SH $3\frac{1}{2}$ 8 Max H 10 20 iP 09 31 57 58 F e 32 01 M eP 08 R eP 09 56 15 MH e(P) 18 M e(P) 18		USCGS: $32^{\circ}\text{S } 179\frac{1}{2}^{\circ}\text{E}$ O = 09 19 01 Kermadec Islands region. $M = 6\frac{1}{4}$
Feb. 24	BG	eLNE	14 09.3		USCGS: About 150 miles East of Trinidad. O = 09 45 45
Feb. 24	BG	i(P)	06 39		Baja California aftershock. Pas: M = 4.7
	F	e	37		O = 14 04
	M	e	07 16		
	R	e	28		
		e	08 12		
		e	09 19		
Feb. 25	MH	eP	06 01 28		
Feb. 26	MH	i(P)	11 46 11		USCGS: Santa Cruz Islands region. O = 11 33 44
Feb. 27	MH	eP	03 32 50		USCGS: Central Kamchatka.
Feb. 27	R	eP	47		O = 03 23 20
Feb. 27	BG	eLNE	05 45.4		
		A T			
	MH	Max H	6 18		
	MH	e(P)	05 42 34		
	F	e(P)	13		
	R	e(P)	34		
Feb. 27	B	e	08 45 16		USCGS: $52^{\circ}\text{N } 174^{\circ}\text{W}$ h = 100
	MH	eP	17		O = 08 37 58 Andreanof Islands,
	F	eP	33		Aleutian Islands.
Feb. 27	R	e	04		
Feb. 27	MH	eP	14 23 00		
Feb. 28	B	eP	24 55		
Feb. 28	MH	iP	00 52 12		
		i	11		
	M	e	29		
	R	e(P)	12		
Feb. 28	MH	eP	03 59 30		
Feb. 28	MH	iP	10 49 03		
Feb. 28	B	eP	11 25 22		
	MH	eP	17		
	SH	eP	36		
	M	eP	33		
	R	eP	22		
Feb. 29	MH	e	07 09 41		USCGS: $23^{\circ}\text{S } 70^{\circ}\text{W}$ O = 11 13 20
	SH	e	43		Northern Chile. Felt strongly at Antofagasta and Portozuelo.
					USCGS: $29\frac{1}{2}^{\circ}\text{N } 141^{\circ}\text{E}$ O = 06 57 52
					South of Honshu, Japan.

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1956			h. m. s.		
Feb. 29	M	e	36		
(contd)	R	e	51		
Feb. 29	F	e(P)	09 02 47		Baja California aftershock.
		e	04 05		USCGS: O = 09 01 08
		e	06 41		Pas: M = 4.7
Mar. 1	F	e(P)	02 54 55		Baja California aftershock.
		e	59 26		USCGS: O = 02 52 54 Intensity III at San Diego.
Mar. 1	MH	eP	14 11 38		Pas: M = 4.8
	F	eP	49		USCGS: $58^{\circ}\text{N } 159^{\circ}\text{E}$ O = 14 01 56
	M	eP	20		Near Southeast Coast of Kamchatka.
Mar. 2	R	eP	31		
Mar. 2	B	eP	12 02 36		USCGS: $63\frac{1}{2}^{\circ}\text{N } 149\frac{1}{2}^{\circ}\text{W}$ O = 11 56 20
		e	04 34		Alaska. Felt: College, McKinley
	BG	e(S)N	05 37		Park and Talkeetna.
		eE	08 12		
	MH	eP	14.9		
		i	12 02 41		
		iPcP	03 26		
	M	eP	05 37		
		iPcP	02 17		
	R	eP	47		
		iPcP	05 28		
	SH	eP	02 30		
		i	10		
	C	eP	36		
Mar. 2	M	e	01 41		
		iP	14 58 18		
	R	e	05		
Mar. 2	B	eP	14 59 39		USCGS: $45\frac{1}{2}^{\circ}\text{N } 149\frac{1}{2}^{\circ}\text{E}$ h = 100
		iP	43.6		O = 14 49 18 Kurile Islands.
	MH	eP	54		
	F	eP	31.3		
	M	iP	42		
	R	eP	28		
	SH	eP	c		
Mar. 2	B	eP	19 51 41		
	MH	eP	40		
	M	eP	52		
	SH	e	52 22		
		iP	00 16 51.0		USCGS: $15^{\circ}\text{S } 173\frac{1}{2}^{\circ}\text{W}$ O = 00 05 25
		i	53.0		Samoa Islands region.
Mar. 3	B	eSNE	26 11		$M = 6\frac{1}{2} - 6-3/4$
		eRNEZ	37.4		
		R from SW			
		A T			
	PZ	2 $\frac{1}{2}$	4		
	SH	5	11		
	Max H	32	22		
	Max Z	24	22		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1956			h. m. s.		
Mar. 3 (contd)	MH	iP	00 16 51.4	d	
		i	54.0	d	
		i	17 20.4	d	
	F	iP	16 55.5	d	
		i	58.4	d	
	M	eP	17 01.1	d	
		i	03.9	d	
	R	iP	05.9		
	C	eP	10		
	SH	eP	16 57		
		i	17 01		
Mar. 3	B	eP	06 25 13.9		Pas: 35°05'N 119°14'W 0 = 06 24 12 M = 4.2 East of Maricopa, California.
	MH	iP	04.8		
	PA	eP	08.7		
	F	iP	24 45.6		
		iSNE	25 09.8		
	M	eP	41.7		
	R	eP	33		
Mar. 3	B	eP	18 25 16		Baja California aftershock.
	MH	eP	05		
	M	e	26 23		
		e	28 21		
	R	eP	25 30		
		e	27 56		
	SH	e	28 32		
Mar. 3	B	eP	22 17 48		
	MH	eP	41		
	M	eP	18 10		
Mar. 4	MH	eP	16 26 34		USCGS: 52½°N 158½°E 0 = 16 16 54 Near Southeast coast of
	M	eP	19		Kamchatka.
	R	eP	31		
	SH	eP	15		
Mar. 5	MH	e	03 52 40		USCGS: 52°N 159½°E 0 = 03 42 25 Near Southeast coast of
	SH	e	05		Kamchatka.
Mar. 5	SH	e	10 34 09		
Mar. 5	B	eP	23 40 39		USCGS: 44½°N 144°E 0 = 23 29 41 Near North coast of Hokkaido,
		e	54		Japan. Felt. M = 6½ - 6-3/4
	MH	iP	44		
		i	49		
	F	iP	54		
	M	iP	33		
	R	eP	42		
Mar. 5	MH	e(P)	23 56 51		
Mar. 7	MH	e(P)	15 31 24		USCGS: Sinkiang Province, China. 0 = 23 42 53
	F	e	19		
		e	32 39		Baja California aftershock.
	M	e(P)	31 58		
Mar. 7	M	e(P)	19 01 38		Pas: M = 4.8 0 = 15 29

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1956			h. m. s.		
Mar. 8	B	e	11 12 30		
	MH	eP	24		
	F	eP	39		
	M	eP	07		
	R	i	22		
	SH	eP	36		
Mar. 9	BG	eLNE	04 28.5		
		Max H	A T 7 18		Baja California aftershock. Pas: 0 = 04 25 01 M = 4.9
	MH	e	04 27 03		
	F	e	26 44		
	M	e	27 48		
	R	e(P)	27 16		
Mar. 9	MH	eP	07 58 52		
	M	eP	54		
Mar. 9	MH	iP	17 46 23		
	M	eP	28		
	SH	eP	26		
Mar. 10	MH	iP	03 53 45		
	F	eP	50		
	M	eP	54		
	SH	eP	52		
Mar. 10	MH	i	04 40 15		
	M	eP	39 57		
	R	e	40 09		
Mar. 10	MH	i	05 20 47		
	i	53			
Mar. 10	B	iP	05 56 58.9	d	40°18'N 124°14'W 0 = 05 56 14 South of Ferndale, California.
		iSNEZ	57 31.6	d	M = 4.5 Largest aftershock: 0 = 06 03 21, M = 3.6
	MH	iP	08.8	d	
	PA	iP	04.1		
	SF	ePE	56 58.8		
	A	iPNE	25.5	SW	
		iE	30.3		
		iSE	34.0		
	FE	iP	22		
		iS	28		
	M	iP	47.2	c	
	SH	iP	39.9	c	
	F	eP	57 30		
	R	eP	09.9		
		e	52		
	C	eP	20.4		
		i(S)	58 09.8		
Mar. 10	MH	i	08 59 22		
		i	09 00 08		
	M	e	08 59 12		
	R	e	09		
Mar. 10	MH	i	11 03 10		



Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1956			h. m. s.		
Mar. 10	F	e	14 14 49		Baja California aftershock.
		e	16 10		Pas: M = 5.0
	R	e	15 39		0 = 14 12 54
		e	17 33		
Mar. 10	M	e(P)	15 09 46		
		e	12 56		USCGS: 22 $\frac{1}{2}$ S 176°W h = 200
Mar. 10	B	eP	19 45 23		0 = 19 33 40 Tonga Islands.
	BG	e(S)NE	55 24		
		A	T		
	MH	PZ	1 $\frac{1}{2}$ 5		
	MH	iP	19 45 24		
		i	29		
	F	eP	33		
	M	eP	33		
	R	eP	37		
	C	eP	45		
	SH	eP	33		
Mar. 10	MH	e(PP)	21 55 52		USCGS: $\frac{1}{2}$ N 125 $\frac{1}{2}$ E 0 = 21 37 01
	M	i(P)	51 57		Molucca Passage.
		e	56 18		
	R	e(PP)	02		
	F	e(PP)	55 57		
Mar. 10	BG	eLNE	22 06 3		
	M	e	07 16		
	R	e	06 35		
Mar. 12	B	eP	20 02 05		USCGS: 15°S 175°W 0 = 19 50 37
	BG	eNE	12 06		Samoa Islands region.
	MH	iP	02 06		
		i	25		
	F	eP	11		
	M	iP	16		
	i	22			
	R	eP	20		
	SH	eP	13		
Mar. 12	SH	e	22 47 31		
Mar. 13	MH	eP	01 49 16		
	M	eP	22		
Mar. 13	B	eP	13 21 49.2	c	USCGS: Dominican Republic 0 = 01 40 29
	i	53.4			
	e	22 05			
	BG	ePP	23 46		USCGS: 7°N 82°W 0 = 13 13 10
	iSN	iSN	28 46		Off South coast of Panama.
		A	T		Felt: El Salvador and Canal
	PZ	6	2 $\frac{1}{2}$		Zone.
	PH	9	3		M = 6-3/4 - 7
	SH	12	10		
	Max H	20	20		
	MH	iP	13 21 42.9	d	
		i	49.0		
		i	22 01.4		
	eS	28 41			

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1956			h. m. s.		
Mar. 13 (contd)	F	eP	21 31		
		i	36		
	M	eS	28 15		
		eP	21 54	d	
		i	22 00		
	R	i	14		
		iPP	23 57		
		eP	21 43	d	
		i	49		
	C	eSN	28 37		
		eP	22 19		
	SH	i	25		
		eP	21 58		
Mar. 13	M	e	19 30 50		USCGS: 54°N 169°E 0 = 19 22 15
	SH	eP	41		Komander Island.
Mar. 14	MH	i	03 33 02		
		i	47		
Mar. 14	BG	eLNE	05 34.2		Baja California aftershock.
	MH	iP	31 31		Pas: M = 4.9
		i	32 51		0 = 05 29 34
	M	e	07		
	R	e	34 42		
		e	31 48		
	SH	e	34 17		
		e	35 12		
Mar. 14	F	e	15 51 33		Baja California aftershock.
	SH	e	55 16		Pas: M = 4.8 0 = 15 49
Mar. 15	M	e(P)	04 08 01		
Mar. 15	B	eP	15 37 12		USCGS: 7 $\frac{1}{2}$ N 82 $\frac{1}{2}$ W 0 = 15 28 33
	MH	iP	06		South of Panama.
	F	eP	36 53		
	M	iP	37 22		
	R	eP	07		
Mar. 15	MH	iP	15 53 30		USCGS: 7 $\frac{1}{2}$ N 82 $\frac{1}{2}$ W 0 = 15 44 55
		i	43		South of Panama.
	M	eP	40		
Mar. 15	MH	iP	17 23 58		
	M	eP	24 13		
	SH	eP	11		
Mar. 15	B	eP	20 28 21		USCGS: 20°S 69 $\frac{1}{2}$ W 0 = 20 16 30
	MH	eP	16		Northern Chile.
		i	21		
	F	e	41		
	M	eP	20		
	R	eP	27		
	C	eP	20		
	SH	eP	47		
		e	29		
Mar. 15	MH	iP	29 13		
	M	e(P)	20 55 25		
			54 37		

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Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1956			h. m. s.		
Mar. 15	MH	e	23 07 38		
	F	e	08 49		
	M	e	56		
Mar. 16	MH	e	01 24 58		
Mar. 16	B	eP	01 39 20		
	MH	eP	20		
	F	eP	25		
	M	eP	30		
	SH	eP	29		
Mar. 16	MH	eP	07 06 18		Baja California aftershock.
Mar. 16	MH	e	10 35 09		Pas: M = 4.6
	F	e	03		O = 10 33
	M	e(P)	37 23		
	R	e	35 44		
			36 02		
Mar. 16	B	eP	10 54 42		Baja California aftershock.
	MH	iP	33		Pas: M = 4.5
	F	e	31		O = 10 52
Mar. 16	MH	eP	14 24 20		USCGS: 23°S 176°W O = 14 12 11
	F	eP	24		Tonga Islands region.
	M	eP	31		
	SH	eP	29		
Mar. 16	B	eP	19 14 48		USCGS: Tonga Islands region.
	MH	eP	48		
	e	15 02			
	F	eP	14 51		
	M	eP	57		
	SH	eP	56		
Mar. 16	B	iP	20 30 58.4		Pas: 34°15'N 116°45'W O = 20 29 34
	eE	32 18			M = 4.8 Near Baldwin Lake, Calif.
	MH	eP	30 49.9		USCGS: Felt over an area of approximately
	i	59.2			8000 square miles of Southern California
	eE	31 46.8			Maximum intensity VI. No damage reported
	PA	e(P)	30 56.5		
	eE	31 16			
	F	eP	30 29.3		
	i	38.3			
	M	eP	31 23		
	eE	23.6			
	SH	e	33 16		
	R	eP	31 40		
		18			
Mar. 16	MH	eP	23 28 04		
	F	eP	16		
	M	eP	27 48		
	SH	eP	44		
Mar. 16	B	eP	23 36 21.7		Pas: 34°15'N 116°45'W O = 23 34 57
	eNE	37 41			M = 4.4 Near Baldwin Lake, Calif.
	MH	eP	36 11.9		Felt.
	i	24.8			
	eNE	37 29.6			

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Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1956			h. m. s.		
Mar. 16 (contd)	PA	e(P)	36 17.8		
	F	i	33.2		
		eP	35 54		
	M	eS	36 43		
		eP	56		
	SH	i	38 38		
		SH	37 10		
Mar. 17	B	iP	11 53 37	c	
		epP	54 00		
	MH	iP	53 42.6	c	USCGS: 40°N 141°E h = 150
		epP	54 06		0 = 11 42 31 Northern Honshu,
	M	iP	53 31.8	c	Japan. Felt.
		ipP	56.0		
	R	eP	43	c	
	SH	eP	28	c	
Mar. 17	MH	e(P)	12 24 04		
	M	e	23 42		
	C	e(P)	12		
		eE	43		
	SH	e	24 04		
	B	eP	20 08 10		USCGS: 10°S 154°E 0 = 19 54 56
	MH	eP	07		Solomon Sea foreshock.
	M	e	16		
	R	eP	23		
	SH	eP	07		
Mar. 17	MH	eP	23 54 54		USCGS: 10°S 154°E 0 = 23 41 42
	M	eP	55 00		Solomon Sea.
	SH	eP	54 59		
	B	eP'	17 18 01		
	MH	eP'	02		
	F	eP'	08		
	M	eP'	07		
	R	eP'	13		
	SH	eP'	05		
Mar. 18	B	eP	15 10 14.4		40°08'N 119°40'W 0 = 15 09 23
		eSNE	50.9		Pyramid Lake, Nevada.
	MH	eP	13.5		M = 4.1
		i	17.4		USCGS: Felt at Flannigan and
	PA	iP	21.4		Empire, Nevada.
	F	e	22.4		
	R	iP	09 34.3		
		eS	53.0		
	M	iP	49.9		
		i	10 11.4		
	SH	iP	09 58.5		
		e	10 31		
Mar. 19	MH	eP	17 49 15		USCGS: 6°S 150°E 0 = 17 35 57
	F	eP	20		New Britain.
	M	eP	24		
	SH	e	39		

Date	Sta.	Phase	Time (OCT)	Ground motion	Remarks
1956			h. m. s.		
Mar. 20	MH	iP	04 24 43		USCGS: $51\frac{1}{2}^{\circ}\text{N } 159\frac{1}{2}^{\circ}\text{E}$ $O = 04 15 00$
	M	eP	12		Off Southeast coast of Kamchatka.
	R	e	51		
Mar. 20	MH	i	05 08 23		
Mar. 20	M	e	05 37 01		
	SH	e	04		USCGS: $5^{\circ}\text{S } 152\frac{1}{2}^{\circ}\text{E}$ $h = 60$
Mar. 20	MH	e	09 54 42		$O = 09 41 36$ Near coast
	F	e	45		of New Britain.
	M	e	48		
	R	e	58		
	SH	e(P)	36		
Mar. 20	B	eP	12 43 13		
	MH	iP	08		
	i		12		
	e		44 43		
	F	eP	42 56		
	M	eP	43 24		
	R	eP	13		
	SH	eP	27		
Mar. 20	MH	eP	17 23 22		USCGS: $19^{\circ}\text{S } 178\frac{1}{2}^{\circ}\text{W}$ $h = 500$
	ipP		25 13		$O = 17 12 15$ Fiji Islands.
	M	eP	23 33		
	SH	eP	31		
Mar. 20	MH	eP	20 30 08		
	e		20		
	M	e	13		
	SH	e	16		
Mar. 21	M	eP	05 08 30		USCGS: $41^{\circ}\text{N } 48\frac{1}{2}^{\circ}\text{E}$ $O = 04 54 46$
	MH	e(P)	09 56 54		Azerbaijan S.S.R.
	M	e(P)	32		
Mar. 21	B	iP	15 59 28		
	MH	eP	28		
	i		33		
	F	eP	39		
	M	eP	38		
Mar. 21	B	iT	17 57 17.5		
	MH	iT	25.7		
	PA	iT	17.8		
	SH	eTE	14		
Mar. 22	BG	iPNEZ	06 43 39	SEd	USCGS: $3\frac{1}{2}^{\circ}\text{S } 79^{\circ}\text{W}$ $h = 100$
	B	epP	44 04		$O = 06 33 55$ Ecuador.
	BG	ePP	45 52		
	iSNE		51 34		Felt: Guayaquil.
	esSNE		52 12		
	B	eP'P'	07 13 38		$M = 6\frac{1}{2}$
		e	14 03	d	
	PZ	A	T	d	
	PH	$3\frac{1}{2}$	4		
	PPZ	$1\frac{3}{4}$	5		
		$1\frac{3}{4}$	5		

Date	Sta.	Phase	Time (OCT)	Ground motion	Remarks
1956			h. m. s.		
Mar. 22 (contd)	MH	PPH	A	T	
		SH	1	5	
	MH	iP	3	7	
		epP			
		eP'P'			
	M	i	06 43 34.5	d	
		epP	57		
	M	eP	07 13 39		
		ipP	14 04		
	M	e	06 43 45.4	d	
		e	44 09.0		
	R	eP	46 35		
		eP'P'	07 13 35		
	R	eP	06 43 37	d	
		eSE	51 30		
	C	eP	44 12	d	
		epP	34		
	SH	eP	43 48	d	
		epP	44 12		
		e	38		
		ePP	46 13		
		eP'P'	07 13 33		
		i	57		
Mar. 22	MH	eP	15 58 43		
Mar. 23	M	eP	04 39 55		
	R	eP	40 08		
	SH	eP	39 52		
Mar. 23	B	iP	05 23 51		USCGS: $5^{\circ}\text{S } 151^{\circ}\text{E}$ $O = 05 10 48$
	BG	eREZ	52.2		New Britain.
	MH	eP	23 54		
	M	eP	55		
	C	eP	53		
Mar. 23	SH	eP	52		
	MH	eP	15 08 25		USCGS: Tonga Islands. $O = 14 56 52$
	M	eP	36		
	R	eP	43		
	SH	eP	36		
Mar. 23	B	iP	20 13 39		USCGS: $6^{\circ}\text{S } 155^{\circ}\text{E}$ $O = 20 00 44$
	e		50		Solomon Islands.
	MH	iP	41		
	M	iP	43		
	SH	eP	41		
Mar. 23	B	iP	21 24 24.4		Pas: $35^{\circ}05'\text{N } 119^{\circ}10'\text{W}$ $O = 21 23 25$
	e		25 34		M = 4.3 North of Wheeler Ridge,
	MH	eP	24 12.7		California.
	SH	e(P)	25 03.4		USCGS: IV at Bakersfield. Felt
	M	e	26 29.9		as far Southwest as Taft and
		iP	24 52.5		Maricopa.
		eNE	25 06.9		
	R	eP	26 03.7		
		e(S)	24 40.9		
	PA	eP	25 45		
		eP	24 19.6		



Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1956				h. m. s.	
Mar. 31 (contd)	F	eP		42 51	
	M	eP		43 16	Felt: Antofagasta.
	R	eP		08	
	SH	eP		19	
Mar. 31	B	eP	08 28	39	USCGS: $3\frac{1}{2}^{\circ}\text{N}$ $78\frac{1}{2}^{\circ}\text{W}$ h = 100
	MH	eP		34	0 - 08 19 17 Near coast of
	F	eP		21	Colombia, Felt: Narino
	M	iP		45	District.
	R	eP		34	
	SH	e		53	