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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 January 1, 1957 to March 31, 1957

BY
DON TOCHER

UNIVERSITY OF CALIFORNIA PRESS
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SEISMOGRAPHIC STATIONS OF THE UNIVERSITY OF CALIFORNIA

Perry Byerly, Director

EARTHQUAKES IN NORTHERN CALIFORNIA, NEVADA, AND OREGON

and

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

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 1957	Origin Time (G.C.T.)	Latitude North	Longitude West	Q	M	Remarks
1	Jan. 1	05-10-36	38° 16'	118° 43'	c	3.8	South of Hawthorne, Nevada.
2	Jan. 7	12-39-00	39° 15'	122° 38'	c	3.3	East of Ukiah.
3	Jan. 8	00-46-43	40° 20'	125° 03'	b	3.7	Off Cape Mendocino.
4	Jan. 10	03-37-54	39° 25'	118° 04'	c	3.7	East of Fallon, Nevada.
5	Jan. 12	13-35-52	39° 20'	118° 05'	c	3.8	East of Fallon, Nevada.
6	Jan. 12	15-18-11	38° 00'	122° 00'	c	2.5	Northeast of Berkeley.
7	Jan. 12	23-05-11	36° 34'	121° 23'	b	3.3	South of Hollister. IV 7 miles south of Hollister.
8	Jan. 12	23-14-30	36° 32'	121° 27'	b	3.3	South of Hollister. IV 7 miles south of Hollister.
9	Jan. 13	19-35-29	39° 30'	118° 05'	c	4.0	35 miles east of Fallon, Nevada.
10	Jan. 22	04-15-46	39.1°	122.9°	d	2.9	East of Ukiah. IV at Finley, Glenhaven, Kelseyville, Lakeport, Lucerne, Nice, and Scotts Valley, Lake County.
10	Jan. 22	19-03-10	39.1°	122.9°	d	2.8	East of Ukiah. Felt in Lake County.
11	Jan. 26	17-37-27	40° 24'	124° 01'	b	3.3	Southeast of Ferndale. II at Petrolia.
12	Jan. 29	04-11-31	37.3°	121.7°	d	2.3	West of Mt. Hamilton. Small foreshock 45 seconds earlier.
13	Jan. 29	21-19-53	35° 52'	122° 07'	c	4.9	Off California coast northwest of San Simeon. Felt over a land area of approximately 5,000 square miles of the coastal areas of west-central California. Intensity V at Big Sur, Cambria, Carmel Valley, Harmony, King City, Lucia, Marina, and Seaside.
14	Feb. 4	15-15-30	38° 00'	122° 13'	c	1.3	North of Berkeley. III in the Berkeley-Oakland area.
15	Feb. 5	12-02-33	36° 39'	121° 18'	b	2.8	Southeast of Hollister.
16	Feb. 8	04-45-38	36.5°	121.2°	d	2.8	North of King City.
17	Feb. 9	16-38-07	41° 10'	126° 18'	b	5.4	115 miles WNW of Arcata.
17	Feb. 9	17-38-25	41° 12'	126° 17'	b	4.7	Aftershock.
18	Feb. 10	08-39-38	38.3°	119.4°	d	3.0	Southeast of Markleeville.
19	Feb. 11	07-54-54	36° 58'	121° 46'	b	2.5	East of Santa Cruz.
20	Feb. 14	13-03-48	37° 25'	121° 46'	b	2.7	Northwest of Mt. Hamilton. IV at San Jose.
21	Feb. 15	08-26-07	36° 56'	121° 39'	b	2.9	WNW of Hollister.

Map No.	Date 1957	Origin Time (G.C.T.)	Latitude North	Longitude West	Q	M	Remarks
21	Feb. 15	10-39-13	36° 56'	121° 39'	b	2.7	Aftershock.
22	Feb. 16	02-22-02	38° 35'	122° 12'	c	2.4	ENE of Santa Rosa.
23	Feb. 18	19-05-03	41.0°	124.2°	d	2.7	Northwest of Arcata. Felt at Eureka.
24	Feb. 28	00-26-38	41.7°	125.8°	d	3.5	100 miles northwest of Arcata.
	Feb. 28	09-26.8				3.5	Off coast of Oregon.
25	Feb. 28	13-15-44	37° 31'	121° 51'	b	2.1	Northwest of Mt. Hamilton.
26	Mar. 2	16-39-52	40.0°	122.3°	d	3.0	Southwest of Red Bluff.
27	Mar. 4	00-07-40	37° 22'	121° 46'	c	2.7	West of Mt. Hamilton. Felt in the San Jose area.
28	Mar. 9	00-51-44	40.9°	123.2°	d	3.8	Northwest of Weaverville.
29	Mar. 9	05-31-55	37° 14'	121° 39'	b	2.6	South of Mt. Hamilton.
30	Mar. 13	21-50-57	40.7°	123.9°	d	3.0	Southeast of Arcata. Felt in Eureka.
31	Mar. 14	19-27-42	40° 16'	123° 50'	b	4.0	Southeast of Ferndale. IV at Eureka, Fortuna, Petrolia.
32	Mar. 18	05-38-39	37° 28'	121° 45'	c	2.4	Northwest of Mt. Hamilton.
33	Mar. 22	16-38-01	37° 41'	122° 29'	a	2.7	First foreshock of 19-44. Felt at Daly City, San Bruno, and San Francisco. This list includes later shocks of this series only if of magnitude 3 or above. A more complete tabulation of the shocks of this series follows this list.
33	Mar. 22	18-48-23	37° 40'	122° 28'	a	3.8	Foreshock. IV at Daly City, Oakland, and San Francisco. Also felt at Berkeley, Hollister, and Santa Cruz.
33	Mar. 22	19-44-21	37° 40'	122° 29'	a	5.3	Principal shock. Magnitude by Pasadena. Epicenter on San Andreas Fault near Mussel Rock in San Mateo County. Focal depth probably 7 to 10 kilometers. This was reportedly the strongest shock felt in the city of San Francisco since 1906. Felt land area was approximately 13,000 square miles of west-central California. No lives lost, about 40 minor injuries reported. Damage of all types was estimated by engineers to be in the neighborhood of one million dollars. Principal building damage occurred to one- and two-story wood-frame houses in the Westlake Palisades tract west of Daly City along the ocean. Several dwellings in this tract sustained structural damage, but damage in general was confined to exterior plaster cracks. State Highway 1 was closed by numerous landslides between Mussel Rock and Thornton. Intensity VII at Colma, Daly City, Mussel Rock, San Bruno, Sharp Park, Edgemar, and Pacific Manor. VI at Agnew, Alameda, Albany, Associated (Avon), Belmont, Belvedere, Berkeley, Bodega Bay, Bolinas, Boyes Hot Springs,

Map No.	Date 1957	Origin Time (G.C.T.)	Latitude North	Longitude West	Q	M	Remarks
			Brisbane, Burlingame, Canyon, Concord, Corte Madera, Crockett, Danville, El Sobrante, Fairfax, Farallon Islands, Fremont, Half Moon Bay, Hillsborough, Kentfield, Marin City, Menlo Park, Millbrae, Mill Valley, Napa, Novato, Oakland, Palo Alto, Pedro Valley, Pescadero, Pinole, Pittsburg, Point Reyes Station, Port Chicago, Port Costa, Redwood City, Richmond, Rockaway Beach, Rodeo, Ross, St. Mary's College (Moraga), San Anselmo, San Carlos, San Francisco, San Geronimo, San Jose, San Leandro, San Lorenzo, San Mateo, San Rafael, Santa Rosa, Sausalito, Sonoma, South San Francisco, Sunnyvale, Tiburon, Vallejo, Vineburg, and Warm Springs. Separate list of foreshocks and aftershocks follows this list. A brief preliminary report on various phases of this earthquake appeared in Mineral Information Service, Vol. 10, No. 5, May 1, 1957, published by the California Division of Mines. A more complete report, now in course of preparation, is scheduled to appear as a Division of Mines Bulletin.
33	Mar. 22	19-50-16				3.2	Aftershock. Felt in San Francisco.
33	Mar. 22	19-51-51				3.0	Aftershock.
33	Mar. 22	19-52-30	37° 44'	122° 30'	b	3.4	Aftershock. Felt in San Francisco.
33	Mar. 22	20-00-26	37° 42'	122° 31'	a	3.1	Aftershock. Felt in San Francisco.
33	Mar. 22	20-03-48	37° 41'	122° 29'	a	3.1	Aftershock.
33	Mar. 22	20-16-41	37° 41'	122° 31'	a	3.0	Aftershock.
33	Mar. 22	20-32-16	37° 42'	122° 31'	a	3.0	Aftershock. Felt in San Francisco and Sonoma.
33	Mar. 22	21-07-47	37° 41'	122° 29'	a	3.6	Aftershock. III in San Francisco.
33	Mar. 22	21-18-29	37° 39'	122° 29'	a	3.8	Aftershock. Felt at Martinez, Oakland, San Anselmo, and San Francisco.
33	Mar. 22	23-14-35	37° 39'	122° 27'	a	4.4	Aftershock. V at Millbrae. IV at Burlingame, Oakland, and San Francisco. Also felt at Alameda, Benicia, Canyon, Castro Valley, Los Gatos, San Anselmo, San Carlos, San Leandro, San Mateo, and Vallejo.
33	Mar. 23	00-26-55	37° 39'	122° 29'	a	4.0	V at San Francisco. IV at San Mateo. Also felt at Canyon, Benicia, Oakland, San Carlos, San Jose, and San Bruno.
33	Mar. 23	02-48-08	37° 42'	122° 30'	a	3.4	Aftershock. V at San Francisco. Also felt at Oakland and San Leandro.
33	Mar. 23	03-28-53	37° 40'	122° 27'	a	3.2	Aftershock. IV at San Francisco.

Map No.	Date 1957	Origin Time (G.C.T.)	Latitude North	Longitude West	Q	M	Remarks
33	Mar. 23	05-42-13	37° 42'	122° 30'	a	3.2	Aftershock. V at San Francisco.
33	Mar. 23	07-54-00	37° 40'	122° 29'	a	3.0	Aftershock.
33	Mar. 23	08-13-48	37° 42'	122° 31'	a	4.2	Aftershock. VI at Menlo Park, and San Francisco. V at Benicia, Oakland, and Port Costa. IV at Boyes Hot Springs, Burlingame, Canyon, Palo Alto, Ryde, St. Mary's College (Moraga), Stinson Beach, and Sunol. Also felt at many other points in the San Francisco Bay area.
33	Mar. 23	12-54-32	37° 39'	122° 29'	a	3.8	Aftershock. Felt at Fallon and San Francisco.
33	Mar. 23	17-36-14	37° 40'	122° 31'	a	3.3	Aftershock.
33	Mar. 23	22-48-00	37° 39'	122° 27'	a	3.5	Aftershock. IV at San Francisco.
33	Mar. 24	00-35-28	37° 40'	122° 29'	a	3.1	Aftershock. IV at San Francisco.
33	Mar. 24	03-35-59	37° 41'	122° 30'	a	3.2	Aftershock. IV at San Francisco.
34	Mar. 25	22-45-42	37° 07'	122° 12'	c	1.8	Northwest of Santa Cruz. Blast?
33	Mar. 27	02-13-25	37° 40'	122° 30'	a	3.1	Aftershock of Mar. 22. Felt at San Francisco.
33	Mar. 27	10-41-53	37° 42'	122° 31'	a	3.1	Aftershock of Mar. 22. Felt at San Francisco.
35	Mar. 27	13-22-12	39° 19'	118° 32'	c	3.6	Southeast of Fallon, Nevada. Felt at Salt Wells, Nevada.
36	Mar. 28	19-59-33	38.4°	122.2°	d	2.0	East of Santa Rosa.
37	Mar. 28	22-37-48	40.1°	122.3°	d	3.1	Southwest of Red Bluff.
	Mar. 31	02-23-01	43° 45'	128° 10'	c	4.0	Off coast of Oregon.
12	Mar. 31	11-50-14	37° 19'	121° 44'	b	2.0	West of Mt. Hamilton.

THE SAN FRANCISCO EARTHQUAKE OF MARCH 22, 1957

Foreshocks and Aftershocks

The following list tabulates the foreshocks and aftershocks of the earthquake near San Francisco at $19^h44^m21.0^s$ G.C.T., March 22, 1957 (Map No. 33). The list includes 133 shocks of magnitude at least 2.0 through March 31, 1957, and is complete for such shocks with the exception of the first four minutes after the main shock (when seismograms from all local stations were hopelessly tangled) and with the possible exception of small shocks which might have occurred immediately after several of the larger aftershocks.

The preceding regional list of earthquakes includes all shocks of this series of magnitude 3.0 and above. In this more detailed list, an entry in the "Remarks" column of "Felt*" indicates that more detailed information on intensities may be found for that shock in the regional list.

Epicenters of the aftershocks are all within about six kilometers of that of the main shock. The focal coordinates which have been given for some of the shocks in this list were determined by use of arrival times at the three stations (B, SF, PA), which are within 45 kilometers of the foci. The San Francisco station is at epicentral distances of 8 to 14 km. (ca) from the foci, which is the same order of distance as the depths of focus. For this reason, focal depths of these shocks can be computed with far more assurance than if the nearest station were farther from the foci.

The time marking system at San Francisco was inoperative at the time of the principal shock, and intermittently during the remainder of March. Consequently, some determinations were necessarily carried through using the sharp S minus P interval at San Francisco instead of an absolute P arrival time. Comparison of such shocks with similar shocks for which absolute time was available at San Francisco indicates that the probable error of a focal distance derived from an S minus P interval is no greater than that due to small timing errors when a focal distance is derived from a P arrival time.

Date	Time G.C.T.	Latitude North	Longitude West	Focal depth km.	Magnitude	Remarks
Mar. 22	16-38-00.7	37°40.6'	122° 38.7'	10.4	2.7	Felt*
	18-48-10	40	28		2.1	
	18-48-23.0	39.7	28.3	7.4	3.8	Felt*
	18-52-27.8	40.2	28.4	9.6	2.2	
	19-04-19.8	39.9	28.4	7.9	2.6	
	19-19-14.7	39.9	28.1	9.0	2.3	
	19-25-18				1.4	
	19-33-15				1.6	
	19-44-21.0	40	29		5.3	Main shock*

Date	Time G.C.T.	Latitude North	Longitude West	Focal depth km.	Magnitude		Remarks
Mar. 22	19-48-22				2.8		
	19-49.1				2.7		
	19-50-16				3.2	Felt*	
	19-51-51				3.0		
	19-52-30.4	44.0	30.1	13.8	3.4	Felt*	
	19-53.1				1.7		
	19-53.6				2.3		
	19-53-44				2.5		
	19-54-26				2.0		
	19-54-34				2.6		
	19-54-57				1.9		
	19-56-33.6	41.7	28.9	10.7	2.7		
	19-57-36				2.2		
	20-00-26.4	42.1	31.2	8.2	3.1	Felt*	
	20-03-10				2.3		
	20-03-48.2	37°40.6'	29.4'	10.1	3.1		
	20-05-15				2.5		
	20-07.5				2.0		
	20-07-41				2.2		
	20-08-12				2.7		
	20-11-37				2.2		
	20-13.3				2.0		
	20-15.6				2.0		
	20-16-40.8	41.4'	31.3'	6.6	3.0		
	20-18.6				2.6		
	20-21-36				1.9		
	20-22-17				2.4		
	20-27.1				2.1	Felt: San Francisco	
	20-28.5				2.5		
	20-29-01				2.1	Felt: San Francisco	
	20-32-16.0	41.9'	31.0'	8.0	3.0	Felt*	
	20-35-35				2.3	Felt: San Francisco	
	20-37-05				1.9		
	20-39-47				1.7		
	20-41-23				2.1		

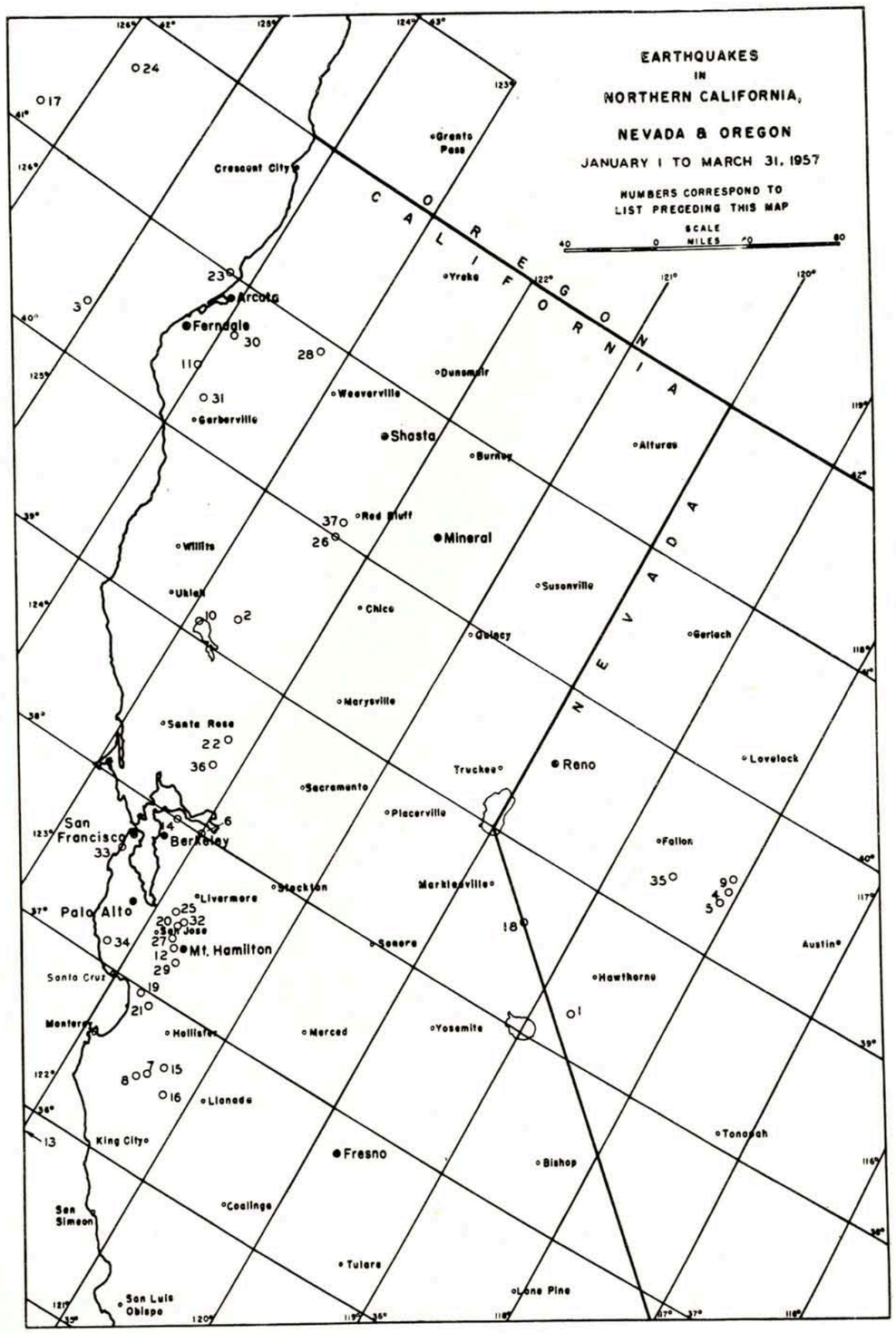
Date	Time G.C.T.	Latitude North	Longitude West	Focal depth km.	Magnitude		Remarks
Mar. 22	20-42-33				1.7		
	20-45-19				1.7		
	20-45.4				2.2		
	20-59.0				1.6		
	20-59-37.7	37° 39.4'	122° 28.9'	10.2	2.7		
	21-01-29				2.0		
	21-07-46.8	37° 40.7'	122° 29.4'	6.7	3.6	Felt*	
	21-10.0				1.7		
	21-12-51				1.7		
	21-14-18				2.0		
	21-18-29.4	39.5'	29.2'	7.4	3.8	Felt*	
	21-26-31				1.7		
	21-29-43.1	41.4'	31.1'	4.2	2.7		
	21-32-00				2.6		
	21-32-45				2.2		
	21-34.8				1.6		
	21-35-46				2.3		
	21-37-54	43.1'	29.9'	10.5	2.7		
	21-46-20				2.6		
	21-52-22				2.0		
	22-01-44				2.2		
	22-26-30.1	39.8'	30.1'	6.9	2.8		
	22-30-22				1.9		
	22-39-57.7	42.3'	30.5'	7.6	2.8		
	22-53-29				2.0		
	23-01-45				1.7		
	23-03-53				1.8		
	23-14-35.0	38.7'	27.2'	5.0	4.4	Felt*	
	23-22.1				1.7		
	23-38.6				1.7		
	23-50.5				1.7		
	23-59.2				2.5		
Mar. 23	00-02.1				2.2		
	00-15-09				2.0		
	00-26-55.1	37° 38.7'	122° 28.9'	4.8	4.0	Felt*	
	00-34-38				1.7		
	01-03-22				2.2		

Date	Time G.C.T.	Latitude North	Longitude West	Focal Depth km.	Magnitude	Remarks
Mar. 23	01-04-49				2.0	
	01-07-05				1.6	
	01-13-15				1.7	
	01-15-33				2.4	
	01-26-02				2.3	
	01-28-57				2.0	
	01-43-29				1.7	
	01-45-30.2	37° 38.8'	122° 30.5'	7.5	2.9	Felt: San Francisco
	02-27-48				2.6	
	02-34-11				2.2	
	02-38-06				1.7	
	02-48-07.9	37° 41.9'	122° 30.3'	8.7	3.4	Felt*
	02-59.6				2.4	
	03-00-15				1.9	Felt: Daly City
	03-08-11				2.2	
	03-09-43				1.6	
	03-27-32				1.6	
	03-28-53.2	37° 40.0'	122° 26.9'	9.4	3.2	Felt*
	04-52-49				1.6	
	05-42-13.3	41.6'	30.1'	8.3	3.2	Felt*
	06-14-23.5	40.7'	31.4'	9.8	2.7	Felt: San Francisco
	06-19-41				1.6	
	06-22-57				1.9	
	07-52-17				2.1	
	07-53-59.6	37° 39.9'	122° 28.9'	8.9	3.0	Felt: Canyon
	08-13-48.3	42.4'	31.1'	9.6	4.2	Felt*
	08-48-07				1.6	IV Burlingame
	09-18-55				1.8	
	10-34-54				1.6	
	10-57.3				2.2	Felt: San Francisco
	10-59-45				1.6	
	11-00.1				1.6	
	11-02-06				2.0	
	11-17-06				1.6	
	11-52-08				2.8	
	12-54-32.5	39.5'	29.2'	7.4	3.8	Felt*

Date	Time G.C.T.	Latitude North	Longitude West	Focal depth km.	Magnitude	Remarks
Mar. 23	13-02-17				1.8	
	13-24-03				2.3	
	13-33-59				1.9	
	13-48-42				1.7	
	13-56-11				2.0	Felt: San Francisco
	14-22-33				2.6	
	14-59-03				1.8	
	16-02-48				2.5	
	16-40-51				2.4	
	16-48-54				1.9	
	16-56-31.9	41.0'	29.8'	5.8	2.8	Felt: San Francisco
	17-36-13.7	40.3'	31.4'	3.7	3.3	
	17-48-17				1.7	
	18-11-54				2.6	
	18-26-42				2.2	
	18-42-58				1.6	
	19-43-36				1.7	
	19-50-52				1.7	
	20-11-53				2.5	
	21-33-44				2.2	
	22-12-09				2.0	
	22-48-00.5	37° 39.1'	122° 27.5'	3.6	3.5	Felt*
	22-49-16				2.6	
	22-53-55				1.9	
	22-55-16				2.3	Felt: San Francisco
	23-06-24				1.6	
	23-23-18				1.8	
Mar. 24	00-35-27.6	39.9'	29.5'	6.1	3.1	Felt*
	01-37-22				1.7	
	02-00-07				2.3	
	02-54-54				2.3	
	03-35-59.5	41.0'	30.1'	9.7	3.2	Felt*
	03-52-00.3	41.0'	30.1'	9.7	2.8	
	04-46-12				2.0	
	05-09-17				1.6	
	05-30-14				2.5	
	05-43-13				2.2	
	06-26-50.6	41.0'	29.4'	10.1	2.7	IV San Francisco

Date	Time G.C.T.	Latitude North	Longitude West	Focal depth km.	Magnitude	Remarks
Mar. 24	07-41-34				2.0	
	09-02.5				1.6	
	11-31.5				1.7	
	14-59-05				1.7	
	15-34-12				2.4	Felt: San Francisco
	17-43-13				1.6	Felt: San Francisco
	19-11-16.4	37° 40.2'	122° 31.1'	1.3	2.8	Felt: San Francisco
	19-52-33.1	41.2'	30.4'	7.0	2.5	Felt: San Francisco
Mar. 25	00-22-23.7	39.9'	31.0'	7.1	2.7	
	02-39-12				2.0	
	03-01-59				2.3	
	04-27-31				1.7	
	04-42-07				1.6	
	05-04-48				2.0	
	08-05-09.8	42.6'	31.2'	8.2	2.7	
	09-31-11.2	39.3'	29.6'	8.5	2.6	
	10-27-30				1.7	
	12-36-09				2.0	Felt: San Francisco
	17-20-17				1.8	
Mar. 26.	05-13-57				1.7	
	05-52-14				1.6	
	07-13-32				1.8	Felt: San Francisco
	07-48-56				2.0	
	09-14-30				2.2	
Mar. 26	14-51-29.1	37° 40.4'	122° 30.7'	10.6	2.7	V San Francisco, Daly City areas
	14-51.8				2.6	
	15-20-53.4	41.3'	31.4'	10.0	2.4	Felt: San Francisco and Daly City
	20-58-19				2.4	
	23-19-49				1.8	
Mar. 27	00-51-41				2.0	
	02-13-24.6	40.1'	30.3'	6.0	3.1	Felt*
	07-04-49				2.3	Felt: San Francisco
	09-09-48				2.8	
	10-41-52.8	37° 42.1'	122° 31.2'	8.2	3.1	Felt*
	12-03-01				1.7	

Date	Time G.C.T.	Latitude North	Longitude West	Focal depth km.	Magnitude	Remarks
Mar. 27	13-05-18				1.7	
	15-58.3				1.9	
Mar. 28	06-14-19				2.0	
	06-24-05				1.6	
	07-46-44				2.2	
Mar. 29	04-52-13				1.6	
	07-05-49				1.6	
	19-27-26				2.8	
Mar. 30	07-48-33				2.9	
	21-12-36				2.4	
Mar. 31	00-03-51				2.0	
	01-35-28				1.6	
	16-43-26				2.4	Felt: San Francisco and Daly City



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
1957			h. m. s.		
Jan 1	B	iP	01 05 56.9	c	USCGS: 53½°N, 159°E. h = 150 km,
	MH	iP	06 02.3	c	0 = 00 56 40. Kamchatka.
		i	12.6	d	
		ePP	08 07.6		
	F	eP	12.8		
	M	iP	05 48.0	c	
		i	06 22.2	c	
	C	iP	05 19		
	SH	iP	42.4		
		i	06 07		
		e	10 38		
		e	11 28		
Jan 1	MH	eP	03 31 59		USCGS: 54½°N, 164°W, 0 = 03 25 05
	M	eP	32		Unimak Island, Aleutian Islands
Jan 1	M	e	07 56 52		
Jan 1	B	iP	10 58 18.7	c	
	MH	iP	19.9	c	
	F	eP	23		
	M	eP	28.6	d	
	SH	iP	27		
Jan 1	M	e	12 49 34		
	SH	eP	35		
Jan 1	M	e	18 24 02		
Jan 2	B	iP	00 46 17.8	d	USCGS: 53°N, 168½°W, 0=00 39 22
	BG	iSE	51 53	E	Fox Islands foreshock
		iQNE	54.5		PAS: Magnitude 6 1/2 - 6 3/4
			A T		
		SH	18 12		
		MaxH	65 17		
	MH	eP	00 46 24.5	d	
		i	38.9	d	
	F	eP	39	d	
	M	iP	08.7	c	
		i	23.9	d	
	R	eP	24		
		e(S)	51 49		
	C	iP	45 44		
	SH	iP	46 03	d	
		e	52 43		
Jan 2	B	eP	02 22 28		Fox Islands Foreshock
	MH	eP	32		
	F	eP	52		
	M	eP	18		
	R	eP	37		
	SH	eP	12		
Jan 2	B	iP	02 24 31.6	d	USCGS: 52½°N, 168°W, 0 = 02 17 35
	BG	iSE	30 03		Fox Islands foreshock
			A T		PAS: Magnitude 6 3/4
		SH	25 9		
	MH	eP	02 24 38.4	d	
	F	eP	51	d	
	M	iP	22.5	d	

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Jan 2 (cont'd)		i	31.8	d	
	R	eP	36.9	d	
		eSN	30 15		
	C	iP	23 55		
		eS	29 39		
		e	34 35		
	SH	iP	24 16.4	d	
		i	32		
		e	30 47		
Jan 2	B	i(P)	02 27 53		Fox Islands foreshock
	C	e(P)	20		
	SH	iP	38.4		
Jan 2	B	iP	03 19 47.1	c	USCGS: 53°N, 168°W, 0 = 03 12 52
	MH	iP	53.7	c	Fox Islands foreshock
		i	20 21.2		PAS: Magnitude 7
	F	eP	05.5	c	
	M	eP	19 38.1	c	
		i	48.3	c	
	R	eP	51.5		
	C	iP	12.0		
	SH	iP	31.8		
Jan 2	B	iP	03 21 40.5	c	Fox Islands foreshock
	MH	iP	46.8	c	
	M	i	29.2	c	
	C	e(P)	01.7		
	SH	iP	14.4		
Jan 2	B	iP	03 37 28.1	d	USCGS: 52½°N, 168½°W, 0 = 03 30 34
	MH	iP	34.6	c	Fox Islands foreshock
		i	38 25.4		
	F	eP	37 51		
	M	eP	18.1	c	
	R	eP	32.6		
	C	iP	36 49.2		
Jan 2	B	iP	03 48 03.1	d	USCGS: 52½°N, 169°W, 0 = 03 41 08
	MH	iP	09.3	d	Fox Islands foreshock
	F	eP	21.5	d	
	M	iP	47 53.8	d	
	R	eP	48 07.2	d	
	C	iP	47 23.7	d	
	SH	iP	47.8	d	
Jan 2	B	iP	03 55 41.1	c	Records confused by foreshocks and
	MH	eP	47.9	c	aftershocks
	F	eP	56 00.8	c	USCGS: 53°N, 168°W, 0 = 03 48 44
	M	e	55 31.4		Fox Islands, Aleutian Islands
	R	eP	46.2	c	PAS: Magnitude 7-7¼
	C	iP	03.3		
	SH	iP	25.1		
Jan 2	B	e(P)	03 58 27		
Jan 2	B	eP	04 07 32		Fox Islands aftershock
	MH	eP	39		
	F	eP	52		
	M	eP	24		
	SH	eP	18		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Jan 2	B	iP	04 10 25		USCGS: 52½°N, 169°W, 0 = 04 03 26
	MH	eP	32	d	Fox Islands aftershock
	F	eP	47	d	
	M	eP	16		
	R	eP	32		
	C	iP	09 48		
	SH	iP	10 10		
Jan 2	B	eP	10 56 26	d	USCGS: 52½°N, 168°W, 0 = 10 49 32
	BG	eSE	11 01 55		Fox Islands aftershock
		eQN	04.5		PAS: Magnitude 6½
			A T		
		SH	6 12		
		Max H	30 17		
	MH	eP	10 56 32.7	c	
		i	38.0	d	
		i	57 48.0		
	F	eP	56 45	d	
	M	eP	16.8	c	
		i	22.5	c	
	R	eP	32	d	
	C	eP	55 48		
		i	54		
	SH	iP	56 11.3		
Jan 2	B	iP	12 54 01.8	c	USCGS: 53°N, 168°W, 0 = 12 47 07
	MH	iP	07.7	d	Fox Islands aftershock
	F	eP	20.3		
	M	iP	53 52.7	d	
		i	58.8	c	
	R	eP	54 06		
	SH	iP	53 45.6		
Jan 2	MH	e	14 17 06		
	M	e	16 52		
Jan 2	B	e	14 23 33		USCGS: 52½°N, 168½°W, 0 = 14 16 32
	MH	e	33		Fox Islands aftershock
	M	eP	12		
Jan 2	B	eP	17 58 51		USCGS: 53°N, 168°W, 0 = 17 51 56
	MH	iP	57.5	c	Fox Islands aftershock
		i	59 08.5	c	
	M	eP	58 42.3		
	R	eP	58		
	SH	iP	35		
Jan 3	B	iP	00 47 56.7	c	USCGS: 53°N, 168°W, 0 = 00 41 02
		i	48 23.1		Fox Islands aftershock
	BG	eLN	55.8		
		eREZ	57.0		
			R from W		
	MH	eP	00 48 02.4	d	
		i	16.9	c	
	F	iP	15.6		
	M	eP	47 47.2	d	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1957			h. m. s.		
Jan 3		i	59.0	c	
(cont'd)	C	eP	18		
	SH	iP	41.4		
		i	53.4		
Jan 3	MH	eP	02 29 57.0	d	USCGS: Fiji Islands, 0 = 02 18 03.
	M	eP	30 05.7	d	
Jan 3	MH	iP	02 53 40.9	c	USCGS: 20°S, 69°W, h = 100 km.,
		ipP	54 09.4		0 = 02 42 00. Northern Chile.
	M	e	53 53		
	SH	eP	52		
Jan 3	M	e	11 52 57		
Jan 3	B	iPNEZ	12 59 15.1	SEC	USCGS: 44°N, 130°E, h = 600 km.,
		epP	13 01 16.1		0 = 12 48 27. Southern Manchuria.
	BG	esP	02 23		PAS: Magnitude 7.
		epPP	04 10		
		iSNE	08 10.6	SW	
		iN	38		
		isSNE	11 41		
		eSKPP'	28 51		
			A T		
		PZ	15 6		
		PH	5 6		
		pPZ	6 6		
		SH	20 8		
	MH	iP	12 59 19.3	c	
		ipP	13 01 22.5		
		eS	08 06		
		iSKPP'	28 53.6		
	A	iPE	12 58 58.9		
		eSE	13 07 37		
	R	iP	12 59 16.8	c	
		iS	13 08 13.3		
	C	iP	12 58 46.3	c	
		ipP	13 00 47.2		
		e	06 21		
		eS	07 31		
	SH	iP	12 59 03.2	c	
		ipP	13 01 03.7		
		eS	07 50		
		e	08 20		
		eSKPP'	28 50		
Jan 3	B	iP	13 54 17.9	c	USCGS: 44°N, 130°E, h = 600 km.,
		epP	56 20		0 = 13 43 29. Manchuria aftershock.
	MH	iP	54 22.3	c	
	F	iP	29.5	c	
	M	iP	10.2	c	
		i	56 57.0		
	R	iP	54 20.0		
	SH	iP	06.8	c	
		e	56 49		
Jan 3	MH	iP	15 59 31.4		
	M	eP	07		
	SH	eP	58 58		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Jan 4	M	iP	01 54 20		
Jan 4	B	eP	12 45 30		USCGS: 7°N, 78°W, 0 = 12 36 10
	MH	eP	24		Near coast of Colombia
	M	eP	17		
	R	e	24		
	C	eP	58		
	SH	eP	36		
Jan 4	B	iP	13 50 38.1		USCGS: Solomon Islands. 0 = 13 38 00
	MH	iP	39.5	d	
	M	eP	44	d	
	SH	e	51 05		
Jan 4	MH	e	14 46 12.0		Explosion on Promontory Peninsula,
	M	e	01.6		Utah, Fired by Southern Pacific
		i	26.9		RR. 0 = 14 45
					Approximately 450 Tons of Explosives.
Jan 5	M	e	01 22 50		USCGS: 44½°N, 149½°E, 0 = 01 12 16.
					Kurile Islands
Jan 5	SH	eP	10 37 39		
		e	39 29		
Jan 5	MH	iP	17 21 58.6		USCGS: 54°N, 165°W, 0 = 17 15 15
	M	eP	46.1		South of Unimak Island, Aleutian
					Islands
	R	eP	22 00		
	SH	eP	21 41		
Jan 6	M	eP	01 49 52.5		USCGS: 26°N, 126°E, 0 = 01 36 58
	SH	eP	50		Ryukyu Islands
Jan 6	M	eP	05 26 00		USCGS: 42°N, 142°E, h = 100 km.,
					0 = 05 15 06. Near south coast of
					Hokkaido, Japan.
Jan 6	MH	iP	20 55 31.4	d	
		i	36.4	c	
	M	eP	29.6		
Jan 7	MH	iP	08 50 15		
Jan 8	MH	iP	10 23 20.8		
	F	e	24 07		
	SH	iP	23 30		
Jan 8	B	eP	17 36 32		USCGS: 52½°N, 168°W, 0 = 17 29 36
	MH	iP	39		Fox Islands aftershock
	F	eP	58		
	M	eP	23		
	R	eP	44		
	SH	eP	17		
Jan 9	MH	iP	01 47 36		USCGS: 54°N, 169°E, 0 = 01 38 50
	M	eP	20		Komandorskie Islands
	R	eP	33		
	SH	eP	15		
Jan 9	B	eP	07 59 46.6		USCGS: 53°N, 167½°W, 0 = 07 52 56
		i	59.7		Fox Islands aftershock
	BG	iSE	08 05 19	E	PAS: Magnitude 6½
		eQNE	07.7		
		eR	09		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Jan 9 (cont'd)			R from W A T		
		SH	7½ 12		
		Max H	45 16		
	MH	iP	07 59 53.4	d	
		i	08 00 05.0	c	
	F	eP	06.3		
		i	19.0		
	M	eP	07 59 37.8	c	
		i	49.3	d	
	R	eP	52		
		e	08 02 39		
	C	iP	07 59 19		
	SH	iP	31.6		
		i	43.4		
Jan 9	MH	iP	10 39 33		USCGS: 34½°N, 141°E, 0 = 10 27 45. Off east coast of Honshu, Japan.
Jan 10	M	eP'	04 33 44		USCGS: 6°N, 95½°E, 0 = 04 14 44. Northern Sumatra.
Jan 10	MH	eP	06 14 11.7	c	USCGS: 14°S, 175½°W, 0 = 06 02 33. Samoa Islands region.
	F	eP	19		
	M	eP	17.6	c	
	SH	eP	16		
Jan 10	F	e(P)	08 22 42		
	M	e(P)	49		
Jan 10	B	eP	13 59 42		USCGS: Central Chile. h = 100 km., 0 = 13 47 26
		e	58		
	MH	iP	38.7	c	
		i	58.8		
	F	eP	30		
	M	eP	48.5	c	
	R	eP	43		
	SH	eP	51		
Jan 11	M	iP	23 44 39.3	c	USCGS: 27°N, 127½°E, 0 = 23 31 50 Ryukyu Islands
Jan 13	B	i	19 36 36.1		39°30'N, 118°05'W, 0 = 19 35 29 East of Fallon, Nevada Magnitude 4.0.
		eSNZ	37 19.6		
	MH	iP	36 25.1	d	
		i	33.3		
		i	37 09.5		
		eNE	18.3		
	M	iP	36 17.1	d	
		i	21.5		
		i	37 03.1		
	R	iP	35 55.1		
		iSN	36 15.2		
	SH	iPEZ	25.7		
	Fa	iPE	35 42.0		
		iSE	50.7		
	Y	iP	47.9		
		iSE	36 00.9		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Jan 14	MH	iP	05 47 32.5	c	USCGS: 20°S, 69°W, h = 200 km., 0 = 05 36 03. Tarapaca Province, Chile.
	SH	eP	46		
Jan 14	MH	iP	14 31 33.1	c	USCGS: 22°S, 179°W, h = 600 km., 0 = 14 20 17. Fiji Islands region.
		epP	33 44		
	F	eP	31 39.0		
		epP	33 55		
	M	iP	31 43.4	c	
		epP	33 50		
	R	eP	31 46		
		epP	33 57		
	SH	iP	31 42.1		
		epP	33 48		
Jan 15	MH	iP	04 18 57.2	d	USCGS: 2°S, 76½°W, h = 100 km., 0 = 04 09 15. Ecuador.
	F	e	19 00.6	d	
	M	eP	06.8		
	R	eP	18 55		
		e	19 13		
	SH	eP	11		
Jan 15	MH	iP	09 06 43		
	M	eP	27		
	SH	eP	22		
Jan 15	MH	iP	12 04 11.7	d	USCGS: Michoacan, Mexico. 0 = 11 58 40.
Jan 15	MH	iP	14 37 28		
	M	eP	37		
Jan 15	MH	iP	21 48 12.0	c	USCGS: 11°N, 86½°W, 0 = 21 40 26. Near coast of Nicaragua.
Jan 15	M	eP	23 06 49		USCGS: Southern Catamarca Province, Argentina. 0 = 22 54 05.
Jan 16	B	e(P')	12 03 30		USCGS: Chagos Island region. 0 = 11 43 30
	MH	eP'	27		
	M	eP'	19		
		i	30		
	R	eP'	26		
	SH	iP'	21		
Jan 16	R	eP	17 35 46		
	SH	eP	41		
Jan 16	B	eP	20 48 08		USCGS: Tonga Islands. 0 = 20 36 07.
	MH	eP	12.4	d	
		i	13.1	c	
		e	21		
	F	eP	16.1	d	
	M	eP	22		
	R	eP	26		
	SH	iP	21.6	d	
Jan 17	B	iP	22 38 09.8	c	USCGS: 33°N, 137½°E, h = 350 km., 0 = 22 26 10. South of Honshu, Japan. Felt in central Honshu.
	MH	iP	13.3		
	F	eP	21.3	c	
		e	41 27		
	M	iP	38 04.5	c	
	R	iP	14.0	c	
	C	iP	37 48	c	

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Jan 17 (cont'd)	SH	iP	38 01.1	c	
		e	40 57		
Jan.18	MH	e(P)	13 18 24		USCGS: Near coast of Guerrero, Mexico.
	M	e(P)	43		0 = 13 12 42.
Jan 19	B	iP	05 27 44.0	d	USCGS = 21½°S, 179°W, h = 650 km.,
		i	28 11		0 = 05 16 37. Fiji Islands region.
	BG	eSNE	36 57		PAS: Magnitude 6½.
			A T		
		PZ	1-1/4 4		
		SH	1-3/4 7		
	MH	iP	05 27 44.8	d	
		i	49.2		
		epP	29 55		
	F	iP	27 48.5	d	
		epP	30 02		
		eSN	37 08		
	M	iP	27 53.2	d	
		i	28 06.9	d	
		epP	30 05		
	R	iP	27 57	d	
		epP	30 10		
	C	iP	28 03.9	d	
	SH	iP	27 52.8	d	
		epP	30 05		
Jan 20	B	eP	14 05 20		USCGS: 29°N, 129½°E, 0 = 13 52 40.
	MH	iP	23.5	c	Northern Ryukyu Islands.
	M	iP	14.4	c	
	R	eP	23		
	SH	iP	12	c	
Jan 21	B	e	10 14 02		USCGS: 23°S, 70½°W, h = 100 km.,
	MH	iP	31 52.0	d	0 = 10 01 46. Chile. Felt at
		i	14 04.2	d	Antofagasta and Pedro de Valdivia.
	M	eP	01.1	d	
		e	17.6	c	
	R	eP	13 53		
	SH	iP	14 04		
Jan 21	MH	iP	13 11 06.0	c	USCGS: 23½°S, 70½°W, h = 150 km.,
		e	34.7		0 = 12 59 20. Chile. Felt at
	M	eP	14.2	c	Antofagasta and Pedro de Valdivia.
	SH	iP	18		
		e	51		
Jan 22	MH	i(P)	05 47 51.1		
	M	eP	59.7		
Jan 22	MH	iP	11 37 56.7		USCGS: 4½°S, 28½°E, 0 = 11 18 23.
		i	38 45.7		Belgian Congo.
	M	eP'	37 44.1		
	R	eP'	48		
Jan 22	B	eP	12 44 24		USCGS: 11°S, 166½°E, 0 = 12 31 54.
	BG	eRNEZ	13 09.7		Santa Cruz Islands.
			R from WSW		
	MH	iP	12 44 26.6	c	
	F	eP	29.1	c	
		e	37.3	c	
	M	eP	27.2	c	

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Jan 22		i	36.6	d	
(cont'd)	R	eP	35		
	SH	eP	26	c	
Jan 22	M	eP	20 52 12		
Jan 23	M	eP	17 40 22		USCGS: 37°N, 22½°E, 0 = 17 26 51
					Near west coast of Greece.
Jan 23	B	e	17 52 29		USCGS: 22°S, 175°W, 0 = 17 40 19
	BG	e(S)NE	18 02 14		Tonga Islands.
		eLN	13.0		
	MH	eP	17 52 16		
	F	eP	23	d	
		e	34		
	M	eP	28	d	
	R	eP	44		
	SH	eP	27		
		e	40		
Jan 23	MH	e(P)	20 07 27		
	M	e(P)	47		
Jan 24	B	eP	01 24 27		USCGS: 6°S, 147°E, h = 100 km.,
	MH	iP	29.7	c	0 = 01 11 11. Near east
		i	25 02.9	d	coast of New Guinea.
	F	eP	24 34.9	d	
	M	e	38		
	R	eP	37		
		e	29 20		
	SH	iP	24 33	d	
		e	28 13		
Jan 24	B	iP	02 16 50.4	d	USCGS: Marianas Islands.
	MH	iP	53.8	d	0 = 02 04 40.
		i	17 01.1		
	F	eP	02		
	M	eP	16 48.8	d	
	R	eP	58.2	d	
	SH	iP	45.8	d	
Jan 24	B	eP	07 27 15		USCGS: 12½°S, 78°W, 0 = 07 16 29.
	BG	iSN	36 01		Near coast of Peru.
		eN	40.4		PAS: Magnitude 6¼.
		eN	48		
		eR	50		
			R from E		
			A T		
		PZ	3/4 5		
		SH	1 3/4 9		
		MaxH	5 17		
	MH	eP	07 27 10.7	c	
	F	e	07		
	M	eP	23	d	
	R	eP	15		
	C	eP	45		
	SH	eP	26		
Jan 24	M	eP	07 55 54		
	SH	eP	53		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Jan 24	B	e(P)	15 03 32.5	c	USCGS: 25½°N, 109½°W, 0 = 14 59 37.
	BG	eQNE	07.4		Southern Gulf of California.
		eR	08.8		
			R from SE		
			A T		
		MaxH	13 20		
	MH	eP	15 03 18.9	c	
		i	28.1	d	
	F	eP	03.8	d	
	M	eP	51.5		
	R	eP	33.3	c	
	SH	eP	04 01.1		
Jan 24	B	e(P)	16 34 36		USCGS: 25½°N, 110°W, 0 = 16 30 45.
	BG	eQNE	38.7		Gulf of California aftershock.
		eR	39.8		
			A T		
		MaxH	11 20		
	MH	eP	16 34 25.1		
	F	eP	08.8	d	
	M	eP	55.9	d	
	R	eP	38		
	SH	e(P)	35 07		
Jan 24	B	eP	17 03 44		USCGS: 25½°N, 109½°W, 0 = 16 59 50.
		i	51		Gulf of California aftershock.
	BG	e(S)NE	06 59		
		eQNE	07.8		
		eR	09.1		
			R from S		
			A T		
		PZ	1½ 2		
		MaxH	16 20		
	MH	iP	17 03 34.5	d	
		i	42.0		
	F	eP	16.4	d	
	M	iP	04 05.3	d	
		i	08.7		
	R	iP	03 49		
	SH	eP	04 11		
		i	17		
Jan 24	B	eP	19 37 10		USCGS: 20°S, 176½°W, 0 = 19 25 16.
	BG	eSNE	47 03		Tonga Islands.
	MH	eP	37 11		
	F	eP	16		
	R	eP	26		
	SH	iP	21		
Jan 24	B	e	20 56 55		PAS: 33°08'N, 116°23'W, 0 = 20 54 49.
	MH	eP	16.7	c	Southeast of Palomar. Magnitude 4.6
		i	31.2		USCGS: V at Campo, Guatay, Pine Valley,
		i	57 43.4		Ranchita, Warner Springs, and
	PA	e	56 34.6		San Diego.
	SF	e	53		
	F	i(P)	10.6	d	

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Jan 24		e	57 07.7		
(cont'd)	M	i	07.2		
	R	e(P)	56 57.4		
		iS	58 31.9		
Jan 25	B	iPEZ	03 44 29.5	Wd	USCGS: 51½°N, 177°W, 0 = 03 36 47.
	BG	ePP	46 19		Andreanof Islands, Aleutian
	B	iPcP	31.6	d	Islands.
	BG	eSNE	50 37		PAS: Magnitude 6½.
		eQN	53.8		
		eREZ	55.8		
			R from W		
			A T		
		PZ	1.8 5		
		PH	1.2 3		
		PPZ	2 8		
		SH	3.3 10		
		MaxH	18 22		
	MH	iP	03 44 35.8	d	
		i	44.6	d	
		iPcP	46 34.6		
	F	iP	44 48.2	d	
		i	45 05		
	M	iP	44 19.3	d	
		i	25.1	d	
		i	45 27.2		
	A	e(P)E	44 05		
	R	iP	35.0	d	
	C	iP	43 53.1	d	
		iPcP	45 41.9	d	
		eSE	49 29		
	SH	iP	44 15.6	d	
Jan 25	M	eP	17 09 33		USCGS: 49½°N, 156°E, 0 = 16 59 48.
	SH	eP	30		Northern Kurile Islands.
Jan 25	B	eP	18 54 09		
	MH	iP	10		
	F	eP	14		
	M	eP	19		
Jan 26	B	iP	01 18 36.8		SEATTLE: 48°20'N, 122°26'W,
	MH	eP	45.4	d	0 = 01 16 06. Near mouth of
	PA	eP	43.2		Skagit River, Washington.
	M	eP	03.3		USCGS: Felt generally over an area
		i	36.7		of approximately 13,000 square
	R	eP	19.9		miles. Maximum intensity VI,
	C	iP	17 04.0	d	at Clearlake, Wash.
		iSN	44.3		
	SH	eP	56.4		
		e	18 30		
Jan 27	SH	eP	08 27 54		
Jan 28	B	eP	05 36 09		USCGS: 27°N, 130½°E, 0 = 05 23 25.
	MH	iP	13.9		Ryukyu Islands.
	M	eP	04.2		
	R	eP	15		
Jan 28	MH	eP	07 20 34		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Jan 28	B	eP	08 27 42.9		USCGS: 15½°S, 173°W, 0 = 08 16 19. Samoa Islands Region.
	BG	eREZ	48.9		
	MH	eP	27 42.6	c	UNITED PRESS: Felt at Pago Pago.
	F	eP	48.4	d	PAS: Magnitude 6½.
	M	iP	53.6	d	
	R	eP	58.7		
Jan 28	MH	iP	11 27 34.0	d	
	M	iP	43.2	d	
Jan 28	MH	iP	18 37 20.5	d	USCGS: 22½°S, 71½°W, 0 = 18 25 27. Near coast of northern Chile. Felt at Pedro de Valdivia.
Jan 28	M	eP	23 28 42		USCGS: 49°N, 156°E, 0 = 23 18 51. Northern Kurile Islands.
Jan 29	M	eP	15 58 23		USCGS: 16°S, 176°W, 0 = 15 46 35. Fiji Islands region.
	SH	e	59 22		
Jan 29	B	iP	21 20 26.4		35°52'N, 122°07'W, 0 = 21 19 53. Off coast of California northwest of San Simeon. Magnitude 4.9. Felt in coastal areas of Central California.
		i!	27.2		
		iN	58.0		
			A T		
		MaxH	31 10		
	MH	iP	21 20 19.9	c	
		i	20.4	d	
		iE	34.4		
		i(S)N	38.0		
		iNE	42.8		
	PA	eP	20.9		
		iE	27.9		
		i(S)E	42.9		
	SF	iP	26.0	d	
		i(S)E	47.4		
		i	57.9		
	F	iP	27.4	d	
		iNEZ	32.7		
		i(S)NE	57.0		
		iEZ	21 02.3		
	M	eP	02.7	d	
		i	03.7	d	
		i	18.8		
		iN	51.1		
	SH	iP	08.8		
		i	19.1		
Jan 30	MH	e	09 57 36		USCGS: 15°S, 173°W, 0 = 09 46 05. Samoa Islands region.
	M	e	32		
Jan 30	M	iP	12 14 01.8	d	USCGS: 65°N, 134°W, 0 = 12 08 27. Yukon, Canada.
Jan 30	M	i	13 37 41		
Jan 30	B	eP	15 40 48		USCGS: 20½°S, 174°W, 0 = 15 29 00. Tonga Island
	MH	iP	50.1	d	PAS: Magnitude 6-6¼.
	F	eP	52.7	c	
		i	54.0		
	M	eP	41 00.1	d	
		i	01.2	d	

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Jan 30 (cont'd)	SH	eP	40 59		
		i	41 13		
Jan 30	MH	e	17 06 11		USCGS: Samoa Islands. 0 = 16 54 40.
	M	eP	07.4		
	SH	eP	07		
Jan 31	B	iP	00 58 55		USCGS: Southern Bolivia. h = 150 km., 0 = 00 47 00.
	MH	eP	51.7		
	F	eP	41.7		
	M	iP	59 01.3	c	
	C	iP	12	c	
	SH	iP	05		
Jan 31	M	eP	08 07 50		
		i	08 07		
Feb 1	B	iP	07 53 45.8		PAS: 33°58'N, 116°20'W, 0 = 07 52 15. Magnitude 4.6.
		eE	55 27		USCGS: V at Desert Hot Springs, Indio, Joshua Tree, Thousand Palms, 29 Palms.
		eNe	55		
	MH	iP	53 35.3		
		i	56.3		
	F	eP	15.2		
		i	26.5		
		iNE	54 20.3		
	M	e(P)	05.3		
		i	13.2		
		i	55 42.5		
	R	e	54 14.0		
		e(S)	55 42.2		
	SH	e	54 34		
		e	56 31		
Feb 1	MH	iP	11 47 50		USCGS: About 150 miles off coast of El Salvador. 0 = 11 40 33. Felt in western El Salvador.
	M	eP	48 03		
Feb 2	M	e	01 20 09		
	SH	e	40		
Feb 2	MH	e(P)	11 58 12		USCGS: 21½°S, 170°E, 0 = 11 45 35. Loyalty Islands region.
		i	59 08		
	M	eP	58 33		
		e	51		
	SH	eP	32		
		e	52		
Feb 2	M	eP	12 07 09		USCGS: 37°N, 141½°E, 0 = 11 55 32. Near east coast of Honshu, Japan.
Feb 3	MH	iP	10 42 48		USCGS: Kamchatka foreshock. 0 = 10 33 09.
	M	eP	32		
Feb 3	B	eP	17 11 16		USCGS: 53½°N, 159°E, 0 = 17 01 47. Kamchatka foreshock.
	MH	iP	21.2	c	
	F	eP	31		
	M	iP	06.4	c	
	R	eP	20		
	SH	iP	00		
Feb 3	B	iP	17 34 18.8	d	USCGS: 53½°N, 159°E, 0 = 17 24 50. Kamchatka.
		e	53		
	BG	eSNE	42 01	NW	PAS: Magnitude 6½ - 6 3/4.
		eRNEZ	50.5		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Feb 3 (cont'd)			A T		
		PZ	1 3/4 5½		
		SH	3 3/4 8		
		MaxH	17 26		
	MH	iP	17 34 23.5	d	
		i	26.5	c	
		i	35 17.3		
	F	eP	34 33.8	d	
	M	eP	08.8	d	
		i	11.9	c	
	R	eP	20.6		
		i	23.7		
	C	iP	33 38.4		
		i	59.8		
	SH	iP	34 03.5	d	
		i	06.3		
Feb 3	MH	eP	18 06 28		
	M	eP	09		
	R	eP	27		
Feb 3	M	eP	19 44 13.1		
Feb 3	B	eP	21 21 22		USCGS: 53½°N, 159°E, 0 = 21 11 53. Kamchatka aftershock.
	MH	iP	26.7	c	
		i	43.9		
	F	eP	38		
	M	eP	12.1	c	
	R	eP	24		
	SH	iP	07		
Feb 3	B	iP	21 27 05		USCGS: 53½°N, 159°E, 0 = 21 17 35. Kamchatka aftershock.
	MH	eP	09.9	d	
	M	eP	26 54.4	d	
	R	eP	27 07		
	SH	iP	26 50		
Feb 3	B	eP	23 07 53.1	c	USCGS: 53½°N, 159°E, 0 = 22 58 24. Kamchatka aftershock.
	BG	eSE	15 36		
			A T		
		PZ	1¼ 4½		
	MH	iP	23 07 58.6	c	
		i	08 11.5		
	F	eP	07		
	M	iP	07 42.8	c	
	R	eP	54.0	d	
	SH	iP	34.3	c	
Feb 3	M	e	23 24 41		
	R	e	43		
Feb 4	B	eP	09 10 02		USCGS: 10°N, 84°W, h = 150, 0 = 09 01 52. Near coast of Costa Rica.
	MH	iP	09 57.3	d	
	F	eP	44		
		e	10 16		
	M	eP	06.7		
	R	eP	09 55		
Feb 4	B	eP	10 37 57		USCGS: About 125 miles off south coast of Kamchatka. 0 = 10 28 27.
	BG	eLN	52.7		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Feb 4 (cont'd)	MH	iP	38 02.0	c	
	F	eP	11	d	
	M	e	37 42		
		i	38 03		
	R	eP	00		
	SH	eP	37 42		
Feb 4	M	eP	17 55 02		
Feb 4	MH	iP	20 24 20.5	c	
	M	eP	23 53.8	c	
	SH	eP	49		
Feb 5	B	eP	04 13 19		USCGS: 18°S, 176½°W, h = 300 km., 0 = 04 02 05. Fiji Islands region.
		epP	14 19		
	MH	eP	13 20.7	c	
		ipP	14 19.8	c	
	F	eP	13 26.2		
		epP	14 23.7		
	M	eP	13 30.8		
		ipP	14 31.0	d	
	R	eP	13 36		
		epP	14 33		
	SH	eP	13 30		
		ipP	14 30		
Feb 5	B	eP	05 02 06		USCGS: 25½°N, 45½°W, 0 = 04 51 20. Mid-Atlantic Ocean.
	BG	eSE	10 53		PAS: Magnitude 6.
		eQN	22.1		
		eR	26.6		
			R from E		
			A T		
		MaxH	10 21		
	MH	iP	05 02 02.2	d	
	F	eP	01 52.3		
		e	02 37		
	M	iP	01 56.3	d	
		i	02 03.5	c	
	R	eP	01 48		
	C	eP	02 02		
	SH	eP	01 58		
Feb 5	B	iP	08 03 51.3		
	MH	iP	47.4	d	
	M	eP	56.2	d	
	R	eP	49		
Feb 5	B	eP	16 09 53	c	USCGS: 11°S, 166°E, 0 = 15 57 27. Santa Cruz Islands.
	MH	iP	53.9	c	
		i	10 14.4		
	F	eP	00.6		
	M	eP	09 59.3	c	
		i	10 21.8		
	R	eP	06		
		e	31		
	SH	eP	09 57		
Feb 5	B	eP	16 41 10	c	USCGS: 18°S, 168°E, h = 100 km., 0 = 16 28 36. New Hebrides Islands.
	MH	iP	11.4	c	

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Feb 5 (cont'd)	F	eP	15.9	c	
	M	eP	17.7	c	
	SH	iP	16		
Feb 6	MH	iP	03 43 25.1		
Feb 6	M	eP	05 45 36.2		
	SH	eP	35		
Feb 6	M	e	07 36 09.2		
Feb 6	MH	eP	12 33 08.3		
Feb 6	MH	e	12 48 54.1		USCGS: Galapagos Islands Foreshock. 0 = 12 41 16.
		e	49 34.6		
	M	e	51.6		
	SH	e	36		
Feb 6	BG	eSN	13 21 30		USCGS: 2°N, 91°W, 0 = 13 06 13. Galapagos Islands region.
		eLNE	29.1		PAS: Magnitude 6.
	MH	eP	14 31.1		
	F	eP	24		
	M	eP	53.0	c	
	SH	e(P)	59		
Feb 6	B	e(P)	13 16 00		USCGS: Galapagos Islands aftershock. 0 = 13 07 30.
	BG	eSN	22 54		PAS: Magnitude 6.
	MH	eP	15 49.5		
	M	iP	16 10.8		
	SH	eP	12		
Feb 6	B	e(P)	13 17 03		Galapagos Islands aftershock.
	BG	eSN	24 00		PAS: Magnitude 5 3/4.
	MH	eP	16 55.5		
	F	e(P)	52		
	M	eP	17 15.1		
Feb 6	M	eP	14 24 50.6		
	SH	eP	44		
Feb 6	MH	eP	20 47 32.4		USCGS: 50°N, 105½°E, 0 = 20 34 55. Lake Baikal region, U.S.S.R.
	F	eP	39.0		
	M	eP	13.1		
		e	18.5		
	R	eP	27		
	SH	eP	09		
		i	15		
		e	52 56		
Feb 7	MH	eP	03 28 15.2		
	M	eP	28.3		
	SH	eP	30		
Feb 7	B	eP	09 15 14	c	USCGS: Cordoba Province, Argentina. 0 = 09 02 23.
	MH	iP	10.6	c	
	F	eP	00.6	c	
	M	eP	19.8	c	
	R	eP	14		
		e	26		
	C	eP	41		
	SH	iP	23		
Feb 7	MH	eP	16 24 35.0		USCGS: 52½°N, 175°W, h = 60 km., 0 = 16 17 09. Andreanof Islands, Aleutian Islands.
	F	e(P)	59		
	M	eP	05.0		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Feb 7 (cont'd)	R	eP	43		
	SH	e	16		
		i	34		
Feb 7	MH	eP	18 17 39.6		USCGS: 50°N, 130°W, 0 = 18 14 19. Off coast of Vancouver Island, British Columbia.
	F	eP	55.1		
	M	eP	05.1		
	R	eP	24		
	C	eP	16 13		
	SH	eP	57		
Feb 7	B	iP	21 53 05.3		
	C	eP	52 48		
	SH	iP	58		
Feb 9	M	eP	00 17 58.2		
		i	18 22.2		
	SH	eP	17 50		
Feb 9	B	eP	08 20 19		USCGS: 11½°N, 138½°E, 0 = 08 07 15. Western Caroline Islands.
	MH	iP	22.7	d	
	M	eP	17.8		
	C	e	21 07		
	SH	iP	20 15		
Feb 9	B	eP	13 42 01		USCGS: 34°S, 180°, h = 150 km., 0 = 13 29 18. Off coast of North Island, New Zealand.
		e	54		PAS: Magnitude 6¼.
	BG	eSKSNE	52 21		
		iSN	50		
		eQNE	14 05.3		
			A T		
	SH		7½ 10		
	MH	eP	13 42 04.1		
		iP	06.0		
		i	51.5		
	F	eP	07.2		
		e	43.7		
	M	eP	13.9		
		i	51.4		
	R	eP	17		
	SH	e(P)	16		
		e	57		
Feb 9	B	iPNEZ	16 39 16.2	NWd	41°10'N, 126°18'W, 0 = 16 38 07. Northwest of Cape Mendocino, California. Magnitude 5.4.
		e(S)NE	40 07.2		
	MH	iP	39 26.4	c	
		eE	40 27.7		
	PA	iP	39 21.2	d	
		iE	40 20.3		
	SF	iP	39 17.0		
		iSE	40 09.1		
	F	eP	39 46.3		
		i	49.4		
		eNE	41 05.3		
	M	iP	39 03.8	c	
		iSE	43.8		
		iN	46.5		
	R	eP	25.9		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Feb 9 (cont'd)		i	34.8		
		eE	40 01.5		
	A	iPNE	38 35.8		
		iSNE	56.6		
	Fe	ePE	38		
		iSE	39 04		
	C	iPNZ	09.0	c	
		iN	14.1		
		eS	54.1		
		eSN	55.5		
	SH	iP	38 56.2		
Feb 9	B	eP	17 39 33.8		41°12'N, 126°17'W, 0 = 17 38 25. Cape Mendocino aftershock. Magnitude 4.7.
		eSNE	40 25.2		
	MH	e(P)	39 44.6		
		iS	40 43.4		
	PA	eP	39 39.1		
		eSN	40 38.1		
	SF	eP	39 34.5		
		iSN	40 25.9		
	F	eP	05.8		
		eNEZ	41 14.3		
	M	iP	39 21.4	c	
		eN	40 01.0		
	R	e(P)	39 48.1		
		i	41 04.9		
	A	ePE	38 53.7		
		iSE	39 13.5		
	Fe	e(S)E	18		
	C	eP	27.0		
		iNE	32.1		
		iSN	40 14.9		
	SH	iP	39 13.9		
Feb 9	B	eP	18 07 44		USCGS: 19°S, 174°W, 0 = 17 56 00. Tonga Islands.
	MH	eP	44.9	c	
		i	52.4	d	
	F	eP	49		
		e	55		
	M	eP	54.5	c	
		i	08 02.4	d	
	R	eP	00.3		
	SH	iP	07 55		
Feb 10	MH	eP	05 58 59.6	c	USCGS: 35½°N, 35°W, 0 = 05 47 59. Azores Islands region.
		e	06 01 32.8		PAS: Magnitude 5 3/4.
	M	e	05 59 09		
		e	06 01 13		
	SH	e(P)	05 58 52		
Feb 10	MH	e	06 32 35.0		
Feb 10	B	eP	22 46 06		USCGS: 10°N, 126°E, 0 = 22 32 15 Mindanao foreshock. Felt at Borongan, Catbalogan, Hinatuan, Mambajao, and Surigao.
	BG	e(S)E	56 41		
		eSSNE	23 05.0		
			A T		
		MaxH	26 22		PAS: Magnitude 6 1/2 - 6 3/4.

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Feb 10 (cont'd)	MH	eP	22 46 08.9	c	
		ePKKP	23 02 49.9		
	F	eP	22 46 14		
	M	eP	07.2	c	
		ePKKP	23 02 48.6		
	R	eP	22 46 17		
	SH	eP	04		
Feb 10	MH	e(P)	23 04 47		USCGS: 10½°N, 126°E, 0 = 22 50 52. Mindanao, P.I. Felt at Borongan and Surigao.
	M	e	05 11		PAS: Magnitude 6 3/4.
Feb 11	B	eP	01 28 35		USCGS: 10°N, 126°E, 0 = 01 14 44.
	BG	e(S)E	39 11		Mindanao aftershock. Felt at
		eNE	02 00		Borongan, Hinatuan, Mambajao,
		eR	02		and Surigao.
			R from NW		PAS: Magnitude 6½.
			A T		
		MaxH	27 22		
	MH	eP	01 28 36.6		
		e	33 49.6		
	F	e(P)	28 46.6		
	M	eP	34.4		
		e	32 42.3		
	R	eP	28 42		
	SH	eP	33		
		e	31 28		
Feb 11	SH	e(P)	03 58 20		USCGS: 10°N, 126°E, 0 = 03 44 33. Mindanao aftershock. Felt at Surigao.
Feb 11	MH	e(P)	14 39 34.1		USCGS: 10°N, 126°E, 0 = 14 25 28.
	M	eP	27.3		Mindanao aftershock.
	SH	eP	26		PAS: Magnitude 6¼.
Feb 11	B	eP	16 32 49		
	MH	iP	55.4		
	F	e(P)	33 14		
	SH	iP	32 35		
Feb 11	M	e	21 45 38		
Feb 12	B	iP	01 23 38.9	c	
	MH	iP	41.0	c	
	F	eP	46	c	
	M	e	44.9		
Feb 12	MH	eP	05 21 42.1		
		i	22 05.6		
	M	e	10.0		
Feb 12	MH	eP	09 02 54.8		USCGS: 48½°N, 155°E, 0 = 08 52 48.
	F	eP	03 10		Northern Kurile Islands.
	M	eP	02 40.8		
	R	eP	03 01		
Feb 12	SH	iP	10 00 17		
Feb 12	MH	eP	12 29 42.9		
	M	eP	13.4		
		i	27.8		
	SH	eP	09		
		i	24		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Feb 12	MH	iP	23 38 13.4		
	M	eP	37 57.2		
	SH	eP	53		
Feb 13	M	e	00 43 47		USCGS: 10°N, 126½°E, 0 = 00 29 48. Mindanao aftershock.
	SH	e	35		
Feb 13	B	iP	12 49 30.1	c	USCGS: 18°S, 169°E, h = 200 km., 0 = 12 37 14. New Hebrides Islands.
		e	50 26		
	MH	iP	49 31.3	c	
		i	45.8	d	
	F	iP	36.6	c	
	M	iP	36.9	c	
		i	42.3	c	
	R	iP	44.3	c	
	C	iP	42.7	c	
	SH	iP	36.6	c	
		e	50 37		
Feb 13	M	eP	14 51 14.3		USCGS: 48½°N, 157½°E, 0 = 14 41 34. Northern Kurile Islands.
	SH	eP	10		
Feb 14	MH	eP	06 37 03.9		
Feb 15	B	eP	07 44 18		USCGS: 14°S, 71°W, h = 100 km., 0 = 07 33 10. Southeastern Peru.
	MH	iP	14.7		
	R	eP	17		
	SH	eP	27		
Feb 15	MH	iP	18 50 23.4		
	M	i	51 36.8		
	SH	iP	50 17		
Feb 15	MH	iP	19 02 30.8		USCGS: 13½°N, 141½°E, 0 = 18 49 43. Mariana Islands region.
	SH	eP	24		
Feb 16	MH	iP	14 30 30.0	c	USCGS: 5½°S, 110°E, h = 550 km., 0 = 14 12 30. Java Sea.
	M	iP	27.0	c	
Feb 16	MH	eP	22 57 49.7		USCGS: Near Islands, Aleutian Islands. h = 100 km., 0 = 22 49 28.
	M	eP	36.3		
	SH	e	37		
Feb 17	MH	eP	04 45 28.9		USCGS: Near east coast of Kamchatka. 0 = 04 36 20.
	M	eP	13.5		
Feb 17	SH	e(P)	10 29 30		
Feb 17	MH	eP	10 41 50.9		
	M	eP	56.6		
Feb 17	MH	eP	11 27 40.8		
	M	eP	50.1		
Feb 17	B	iPNEZ	15 53 06.1	NWc	USCGS: 16°N, 96½°W, h = 60 km., 0 = 15 46 45. Oaxaca, Mexico. Felt in the Federal District and Oaxaca.
		ePP	54 26		
		iPcP	55 59.9	d	
	BG	eSNE	58 18	SW	PAS: Magnitude 5 3/4 - 6.
		eQNE	16 01.7		
		eR	05.3		
			R from SE		
			A T		
		SH	1½ 8		
		MaxH	19 22		
	MH	iP	15 53 00.1	c	

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Feb 17 (cont'd)		i	05.3	d	
		iPcP	55 57.8		
		e	16 03 07		
	F	iP	15 52 45.7	c	
		e	54 25.8		
	M	iP	53 16.4	c	
		i	34.0	d	
	R	eP	03.8	c	
		e	16 03.1		
		e	06.3		
	C	iP	15 53 49.2	c	
		e(PP)	55 00		
		iPcP	56 13.5		
		e	16 04 27		
		e	09.9		
	SH	eP	15 53 19.8	c	
		e	27.9		
		e(PP)	54 50		
		i(PcP)	56 03		
		e	16 00.2		
Feb 18	M	eP	00 28 57.3		USCGS: 45°N, 152°E, h = 60 km., 0 = 00 18 34. Kurile Islands.
Feb 18	MH	iP	00 45 59.9		
Feb 18	MH	eP	07 31 57.0		
		e	32 13.8		
	F	eP	05.3		
	M	eP	07.3		
	R	eP	12		
	C	e	33 31		
	SH	eP	32 08		
		e	33 42		
Feb 18	B	eP	15 00 13.8	d	USCGS: 25½°N, 45½°W, 0 = 14 49 30. Mid-Atlantic Ocean.
	MH	iP	11.8	d	
		i	29.1	c	PAS: Magnitude 6¼ - 6½.
	F	eP	02.1		
		e	08.6		
	M	iP	07.2	d	
		i	14.3	c	
	R	eP	14 59 58.1	d	
	C	eP	15 00 08.8	d	
	SH	eP	08.1	d	
		e	54		
Feb 18	B	eP'	16 21 47		
	MH	iP'	47.3		
	M	eP'	49.5		
		i	22 05.8		
	R	eP'	21 48		
	SH	eP'	51		
Feb 18	B	eP	24 00 22		USCGS: 11½°S, 78°W, h = 100 km., 0 = 23 49 52. Near coast of Peru. Felt at Lima.
		epP	41		
		e	54		
	MH	iP	16.2	d	PAS: Magnitude 6 1/2 - 6 3/4.

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Feb 18 (cont'd)		i	27.9		
	F	eP	06.0	d	
	M	iP	29.4		
		epP	27.6		
	R	eP	20		
		epP	40		
	C	eP	54		
		ipP	01 13		
	SH	e(pP)	00 51		
		i	01 02		
Feb 19	MH	eP	07 57 41.2		USCGS: 36½°N, 22°E, 0 = 07 43 54. Near south coast of Greece.
	M	eP	27.3		
	SH	e	42		
Feb 19	M	eP	12 26 24.2		
	SH	eP	21		
Feb 19	B	e(P)	16 44 39.6		Kern County, California. Magnitude 4 - 4¼. Felt at Tehachapi. Foreshock at 16 - 30.8.
		e(S)	45 16.8		
	MH	eP	44 24.8	c	
		i	33.8		
		eSNE	45 04.3		
	PA	e(P)	44 34.1		
	F	eP	07.7	d	
		iS	31.4		
		iNE	31.9		
Feb 19	B	eP	17 22 25		
	MH	iP	18.6		
	M	eP	29.9		
	SH	eP	34		
Feb 19	B	eP	20 07 58		USCGS: 56°N, 164°E, 0 = 19 58 55. Near east coast of Kamchatka.
	MH	eP	08 00.2	c	
	F	eP	14.3		
	M	eP	07 46.6	c	
		e	08 41.1		
	R	eP	07 58		
	SH	iP	42.3		
Feb 20	F	eP	04 54 19		USCGS: 36½°N, 9°E, 0 = 04 41 00. Northern Tunisia. 13 killed, many injured, and extensive property damage in Souk-el-Khemis area. Also felt in Algeria.
	M	eP	09		
Feb 20	B	eP	05 28 30	d	USCGS: 16°S, 72°W, h = 100 km., 0 = 05 17 18. Near coast of southern Peru.
	MH	iP	23.0	d	
		epP	52.7		
	M	eP	45.3	d	
	R	eP	28		
	SH	iP	39	d	
Feb 20	B	eP	08 14 39.4	d	
	MH	eP	35.7	d	
	M	eP	45.4		
	R	eP	37		
	SH	eP	48	d	

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarksσ
1957			h. m. s.		
Feb 20	MH	iP	13 09 10.3	c	USCGS: 53½°N, 160°E, h = 60 km., 0 = 12 59 44. Near east coast of Kamchatka.
	F	eP	19.6	c	
	M	iP	08 55.3	c	
	R	eP	09 06.6		
	SH	iP	08 50.5		
Feb 20	B	iP'	22 17 29		USCGS: 2°N, 97°E, 0 = 21 58 23. Near coast of Kamchatka.
	MH	iP'	30.7		
	F	eP'	33.0		
	M	iP'	26.3		
		i	37.1		
	R	eP'	30		
	C	eP'	20		
	SH	iP'	25		
Feb 21	B	iP	14 37 08.5	c	USCGS: 53°N, 171°W, h = 100 km., 0 = 14 30 06. Fox Islands, Aleutian Islands.
	BG	eSE	42 46		PAS: Magnitude 6 3/4.
	MH	iP	37 14.8	c	
		e(S)	43 06		
	F	iP	37 27.1	c	
		eSNEZ	43 20		
	M	iP	36 59.5	c	
		e	39 51.9		
		e(S)	42 58.6		
	R	iP	37 11.7	c	
		eS	42 54		
	C	iP	36 30.2		
		e	38 55		
		e	40 26		
		i	42 48		
	SH	iP	36 53.6	c	
		i	37 55.4		
		e	39 52		
		e(S)	42 20		
		i	42 57		
Feb 21	B	eP	15 07 51		
	MH	iP	51.4	d	
	M	eP	57.8	d	
	SH	iP	56		
Feb 21	B	eP	19 48 49		USCGS: 31°S, 178°W, 0 = 19 36 05. Kermadec Islands.
	MH	eP	46.4	c	
		e	52.5		
	M	iP	49 03.5	c	
		i	13.2		
	SH	eP	48 58		
Feb 22	B	iP	08 25 33		
	MH	iP	32.4		
	F	eP	26		
	M	eP	40.4		
	SH	eP	41		
Feb 22	MH	e(P)	12 24 15		
	M	i	14		
	R	e(P)	26		
	SH	eP	23 58		
		i	24 08		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Feb 22	F	eP	17 23 06		USCGS: 49°N, 156°E, 0 = 17 12 49.
	M	eP	22 35.3		Kurile Islands foreshock.
	SH	eP	28		
Feb 22	SH	eP	03 44 33		USCGS: Kurile Islands foreshock. 0 = 03 34 46.
Feb 23	M	e(P)	05 07 34		USCGS: 49°N, 156°E, 0 = 04 57 46.
	R	eP	46		Northern Kurile Islands.
	SH	eP	25		
Feb 23	B	eP	13 19 46		USCGS: 49°N, 129°W, 0 = 13 16 51.
	MH	eP	55.0		Off coast of Vancouver Island,
	F	eP	20 09.2		British Columbia.
	M	iP	19 17.9	d	
	R	eP	37		
	C	eP	18 17		
		eE	19 38		
	SH	eP	10	d	
Feb 23	R	eP	19 07 40		USCGS: 12°N, 141°E, 0 = 18 54 37.
	SH	iP	29		Caroline Islands region.
Feb 23	B	eP	20 39 31		USCGS: 24°N, 122°E, 0 = 20 26 12.
	BG	eSKSE	50 03		Formosa. Eleven killed, many
		eREZ	21 10		injured, and extensive property
	MH	iP	20 39 33.6		damage at Hualien and Taipei.
		i	38.7		PAS: Magnitude 7 - 7¼.
		ePP	43 18.1		
	F	eP	39 40.1		
		i	46.6		
	M	eP	25.0		
		i	31.1		
	R	eP	34		
		i	40		
		e	50 26		
	C	iP	39 11		
		i(S)NE	49 04		
	SH	eP	39 23		
		e(S)	49 27		
		e	50 52		
Feb 26	M	eP	06 19 34.2		USCGS: 52½°N, 161°E, 0 = 06 10 22.
	SH	eP	30		Near east coast of Kamchatka.
Feb 27	MH	eP	15 14 47.0	c	USCGS: 24°N, 121½°E, 0 = 15 01 22.
	M	eP	38.8	c	Formosa aftershock.
	SH	eP	36		
Feb 27	MH	iP	16 20 29.4		USCGS: 11½°S, 167°E, 0 = 16 07 58.
	F	e	49		Santa Cruz Islands.
	M	eP	34.5		
Feb 28	MH	iP	07 47 25.3		
Feb 28	MH	iP	08 17 10.0		
Feb 28	B	e(P)	09 28 21		Off coast of Oregon. 0 = 09 26.8.
	MH	eP	25.2	c	Magnitude 3½.
		i	33.6		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Feb 28		i	29 37.8		
(cont'd)	M	eP	28 02.8	c	
		eSNE	56.1		
		i	58.1		
	A	e(S)N	06		
	R	e	43		
	C	e(S)NE	11		
		e	19		
	SH	e(P)	27 56		
Feb 28	B	iP	11 09 45.9	d	USCGS: 51½°N, 180° , 0 = 11 01 45.
	MH	iP	48.7	d	Andreanof Islands, Aleutian
		e	10 40.5		Islands.
	F	eP	00.6	d	
	M	eP	09 33.6	c	
		i	40.0	d	
	R	eP	47.3		
	C	iP	06.4		
	SH	iP	29.5	d	
		i	32.2		
		e	10 45		
Feb 28	MH	e	11 37 18		
	SH	eP	36 44		
Feb 28	MH	iP	15 53 30.3	c	
		i	54 03.1	c	
	M	eP	53 44.3	c	
		i	54 20.1	d	
	R	eP	53 33		
		e	54 08		
	SH	eP	53 50		
		e	54 24		
Mar 1	MH	eP	02 21 27.7	d	USCGS: Near coast of Oaxaca,
	F	e	23.8	d	Mexico. 0 = 02 15 12.
	R	eP	39.8		
Mar 1	B	eP	23 32 52		
	MH	iP	53.0	c	
	M	iP	41.2	c	
Mar 2	B	eP	00 35 36.0	d	USCGS: 18½°N, 78°W, 0 = 00 27 33.
		ePP	37 23		Jamaica. Three killed and five
	BG	iSNE	42 06	NE	injured. Moderate property
		eSSE	45.4		damage at Kingston and Montego
		eQNE	52.7		Bay.
		eN	54.1		PAS: Magnitude 6 3/4.
		eR	54.6		

	R from E	
	A	T
PZ	8½	6½
PH	4	7
PPZ	8½	7
PPH	5¼	7
SH	11	13
MaxH	40	12
MaxZ	35	13

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Mar 2 cont'd	MH	iP	00 35 31.0	d	
		i	36 06.4		
		iPP	37 22.2		
	F	eP	35 17.3	d	
		i	20.3	d	
		iPP	36 59.6		
	M	eP	35 36.3	d	
		i	44.1	d	
	R	eP	28.1		
	C	iP	59.9	d	
		iPP	37 46.7		
		e	42 09		
Mar 2	B	eP	08 23 33		USCGS: 6°S, 151°E, 0 = 08 10 24. Near south coast of New Britain. Felt at Rabaul and Pomio.
		e	38		
	BG	eREZ	53		
			R from W		
	MH	iP	08 23 35.2	d	
		i	41.9		
		iPP	26 55.4		
	F	eP	23 41.7		
		e	48.2		
	M	iP	36.7	d	
		i	42.2		
	R	iP	43.6		
		i	49.8		
		e	27 33		
	C	iP	23 40		
		e	28 55		
	SH	eP	23 36		
Mar 3	MH	iP	03 25 08		USCGS: 8°N, 103°W, 0 = 03 18 23. Off coast of Mexico. PAS: Magnitude 5 3/4.
	M	eP	31.2		
		i	36.2		
Mar 3	M	eP	05 48 53		
	R	e	49 18		
	SH	eP	48 44		
Mar 4	MH	eP	05 53 51		USCGS: South Central Alaska. 0 = 05 47 30.
	M	iP	27		
Mar 4	MH	iP	09 05 51		
Mar 5	B	eP	12 35 22		USCGS: 33°N, 34½°W, 0 = 12 24 35. North Atlantic Ocean. PAS: Magnitude 6 1/2 - 6 3/4.
	BG	eNE	44.2		
		eR	13 01		
			R from E		
			A T		
		MaxH	20 20		
	F	eP	12 35 12		
	M	iP	11		
	R	eP	09		
		e	37 28		
	SH	e(P)	35 08		
Mar 5	M	eP	19 16 09.4		USCGS: 14°S, 167½°E, 0 = 19 03 27. New Hebrides Islands.
Mar 6	M	eP	03 46 40.5		USCGS: Off cost of Chiapas, Mexico. 0 = 03 39 45.

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Mar 6	B	eP	11 36 42		USCGS: 49°N, 155°E, 0 = 11 26 44. Kurile Islands.
	M	iP	34.3		
Mar 6	M	e(P)	15 24 36.6		
Mar 7	B	iP	10 58 29.0	d	USCGS: 19°S, 178½°W, h = 550 km., 0 = 10 47 25. Fiji Islands.
	MH	iP	29.0	d	
		i	39		
	F	eP	33		
	M	iP	38.4	c	
		i	43.8		
Mar 7	M	eP	17 56 44.0		
Mar 7	M	eP	22 05 05.2		USCGS: Arctic Ocean, north of Spitzbergen. 0 = 21 55 42.
Mar 8	M	eP	10 57 40.9		
Mar 8	MH	i(P)	12 28 03.9		USCGS: 39½°N, 23°E, 0 = 12 14 12. Eastern Greece foreshock.
	F	e(P)	02		
	M	eP	27 32.5		
	R	eP	38		
	SH	i	28 16		
Mar 8	B	eP	12 34 39		USCGS: 39½°N, 23°E, 0 = 12 21 08. Eastern Greece. Two dead, many injured, and moderate property damage at Farsala, Larissa, Velestinon, and Volos. PAS: Magnitude 6¼.
	BG	eE	46 05		
		eE	13 01.6		
		eR	08.6		
			R from NNE		
			A T		
		MaxH	42 23		
	MH	i(P)	12 34 47.8		
	F	e(P)	47		
	M	iP	33.7		
	R	eP	35		
	C	eP	23		
		e	35 04		
		ePP	37 56		
	SH	i(P)	34 35		
Mar 8	B	e	13 26 09.2		PAS: 35°43'N, 117°30'W, 0 = 13 24 57. Magnitude 4.0, Southeast of China Lake. USCGS: IV Trona.
		e(S)	27 02.6		
	MH	i	25 52.2		
		i	55.6		
		i(S)	26 44.7		
	F	eP	25 32.9		
		i	34.5		
		iSNEZ	26 02.4		
	M	eP	28.0		
		i	41.3		
		i	27 50.2		
	R	eP	26 15.2		
Mar 8	B	eP	16 46 37.8	d	USCGS: 23°S, 179°E, h = 600 km., 0 = 16 35 11. South of Fiji Islands.
		i	38.2	c	
	MH	iP	38.8	d	
		i	44.8		
	F	eP	41.9		
		e	43.2	c	
	M	eP	46.4	d	
	SH	iP	47		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Mar 9	BG	eLNE	14 25.5		USCGS: 65°N, 149°W, 0 =14 06 52. Central Alaska. Felt at College.
	MH	iP	13 29.9		
	M	eP	12 56.0		
	C	e(P)	34		
	SH	e	13 06		
Mar 9	B	eP	14 29 58		USCGS: 51.3°N, 175.8°W, 0 = 14 22 27.5. Andreanof Islands, Aleutian Islands, Seismic sea wave caused destruction of two villages and $3 million damage on Oahu and Kauai, T.H.
		eSE	36 14		
			A T		
		PZ	26 5½		
		PZ	125 10		
		PH	25 5½		
		PH	75 10		
		SH	275 18		
		MaxH	2000 25		
		MaxH	2600 18		
	MH	iP	14 30 05.0	c	PAS: Magnitude 8-8½.
	F	iP	18.6	c	
	M	iP	29 50.5	c	
	R	eP	56	c	
	C	iP	28	c	
		iN	45		
		eN	34 52		
	SH	iP	29 46		
Mar 9	B	ePNEZ	14 39		Aleutian Islands. Records tangled.
	SH	eP	39		
Mar 9	B	e(P)N	15 17 03		Aleutian Islands.
	SH	iP	16 49		
Mar 9	B	eP	15 49 27		USCGS: 50½°N, 177°W, 0 = 15 41 50. Andreanof Islands, Aleutian Islands.
	MH	ePNE	33		
	C	iPN	00		
Mar 9	B	eP	16 23 49		Aleutian Islands.
	F	e(P)	24 12		
	SH	iP	23 37		
Mar 9	B	iP	16 40 09		USCGS: 51°N, 176°W, 0 = 16 32 30. Andreanof Islands, Aleutian Islands.
	MH	ePNE	17		
	F	eP	29		
	R	eP	15		
	C	e	39 53		
	SH	iP	56		
		i	46 00		
Mar 9	B	eP	16 52 51		USCGS: 51½°N, 174°W, 0 = 16 45 26. Andreanof Islands, Aleutian Islands.
	F	iP	53 12		
	R	eP	52 57		
	SH	iP	37		
Mar 9	B	eP	17 17 32		USCGS: 51½°N, 172½°W, 0 = 17 10 13. Andreanof Islands, Aleutian Islands.
	MH	e(P)NE	44		
	F	eP	52		
	M	iP	23.4		
	R	eP	39		
	C	iP	16 57		
	SH	iP	17 18		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Mar 9	B	eP	18 04 04		Aleutian Islands.
	MH	iP	10.1		
	F	iP	25.1		
	M	iP	03 55.9		
	R	eP	04 09		
	C	e(P)N	03 25		
	SH	iP	49		
Mar 9	B	eP	19 44 54		USCGS: 51°N, 173°W, 0 = 19 37 31. Andreanof Islands, Aleutian Islands.
		i	45 07		
	MH	iP	01.4	c	
		i	14.1		
	F	eP	20		
	M	iP	44 45.8	c	
	R	eP	45 07	d	
		i	13		
	C	e(P)N	44 21		
		i	31		
	SH	iP	40	d	
		i	54		
Mar 9	B	eP	20 08 04		USCGS: 51½°N, 170½°W, 0 = 20 00 56. Fox Islands, Aleutian Islands.
	MH	eP	10.3	c	
	F	eP	24		
	M	Ip	07 46.3	c	
	R	eP	08 10	d	
	SH	iP	07 49	d	
		e	10 21		
		i(S)	13 57		
Mar 9	B	iP	20 29 06.5	c	USCGS: 52°N, 169½°W, 0 = 20 22 02. Fox Islands, Aleutian Islands.
		i	12.3	c	
		i	22.9		
	MH	iP	12.5	c	
	F	eP	25.7		
	M	e(P)	28 52.4		
	R	eP	29 11.0		
	C	eP	28 34		
	SH	eP	51	d	
Mar 9	F	e	20 39 30		Aleutian Islands?
	M	e	38 51.2		
Mar 9	B	e(P)	20 41 05		Aleutian Islands?
	MH	iP	09.7		
	C	iP	40 25		
	SH	iP	46		
Mar 9	B	iP	20 46 18		USCGS: 52½°N, 169½°W, 0 = 20 39 15. Fox Islands, Aleutian Islands.
		eSNE	51 55	SE	PAS: Magnitude 6 3/4 - 7.
			A T		
		PZ	18 9		
		SH	72 13		
		MaxH	370 20		
	MH	eP	20 46 24	d	
		i	28.4	d	
		i	35.5		
	F	eP	38		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Mar 9	M	eP	45 59.1		
cont'd	R	e(P)	46 23		
		i	58		
		eE	51 05		
	C	eP	45 45		
		i	57		
		iSE	50 51		
	SH	e(P)	46 02		
		i	07		
		i	16		
		eS	51 27		
Mar 9	B	iP	22 03 18		USCGS: 53°N, 168°W, 0 = 21 56 24. Fox Islands, Aleutian Islands.
		i	30		
	MH	iP	24.1	d	
	F	eP	38	c	
	M	iP	02 59.2	c	
	R	e(P)	03 32	d	
	C	iP	02 50		
Mar 9	M	eP	23 06 29.5		USCGS: 51½°N, 171°W, 0 = 22 59 26. Fox Islands, Aleutian Islands.
	R	eP	43		
	SH	eP	24		
Mar 9	B	eP	23 14 41		Aleutian Islands.
	MH	iP	47.1		
	F	eP	15 01		
	M	eP	14 20.5		
	R	eP	34		
	SH	eP	15		
Mar 9	B	eP	23 28 26		Aleutian Islands.
	MH	iP	31.6	d	
	F	eP	41		
	M	eP	05.2	d	
	R	eP	18		
	SH	iP	27 59	d	
Mar 10	B	iP	00 18 49.3		Aleutian Islands.
	MH	iP	55.8		
	F	e	19 26		
	M	eP	18 40.3		
	SH	iP	35		
Mar 10	B	eP	00 33 03		Aleutian Islands.
	MH	iP	09.6		
	M	iP	32 53.5		
	SH	eP	48		
Mar 10	B	e(P)	00 48 16		Aleutian Islands?
	MH	i(P)	25		
	F	e(P)	37		
	M	e(P)	47 55		
	R	e(P)	48 24		
	SH	i	04		
Mar 10	B	eP	03 13 36.8		USCGS: 52°N, 176°W, 0 = 03 06 02. Andreanof Islands, Aleutian Islands.
		i	52.6		
	BG	iSNE	19 34	NW	PAS: Magnitude 6 1/2 - 6 3/4.
		eLNE	22.3		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Mar 10			A T		
cont'd		PZ	4 6½		
		PH	2½ 6		
		SH	33 14		
		MaxH	58 16		
		MaxZ	72 18		
	MH	iP	03 13 42.6		
	F	eP	56		
	M	eP	23.9		
	R	eP	41.5		
	C	eP	05.5		
		i	11.4		
		e	17 46		
	SH	iP	13 22.9		
Mar 10	B	e	04 44 41		
	MH	i	18.2		
	M	eP	10.2		
	R	e	33		
	SH	e(P)	04		
		i	47 56		
Mar 10	B	eP	05 40 53		USCGS: 52°N, 174°W, 0 = 05 33 27. Andreanof Islands, Aleutian Islands.
		e	59		
		e	41 04		
	MH	iP	40 59.8		
		i	41 23.7		
	F	eP	22		
	M	eP	40 42.6		
	R	i(P)	41 11		
	C	e	40 28		
	SH	eP	36		
		i	46		
Mar 10	B	eP	06 30 47		Aleutian Islands.
	MH	iP	55.6	c	
	M	eP	40.1	c	
	R	eP	54		
	SH	eP	34		
Mar 10	B	eP	07 30 53.5	d	USCGS: 52°N, 176°W, 0 = 07 23 18. Andreanof Islands, Aleutian Islands.
		i	31 04.9		
	MH	iP	00.3	d	
	F	eP	12		
		i	26		
	M	iP	30 44.7	d	
	R	eP	58.3	d	
	C	iP	20.3		
		i	30.9		
	SH	iP	39.8	d	
		i	48		
Mar 10	B	iP	07 38 27.5	d	USCGS: 53°N, 168°W, 0 = 07 31 36. Fox Islands, Aleutian Islands.
	MH	iP	33.6	c	
	SH	iP	11.9	d	
		i	26.8		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Mar 10	M	e	09 29 06.0		
	SH	e(P)	11		USCGS: 52°N, 171°W, 0 = 11 20 45.
Mar 10	B	eP	11 27 54		
	BG	eSE	33 36		
		eQN	36.3		
		eR	38.6		
			R from W		
			A T		
		SH	13 15		
		MaxH	70 16		
		MaxZ	43 16		
	MH	eP	11 28 00.5	d	
	F	eP	14		
	M	eP	27 44.5	d	
	R	eP	59	d	
	SH	eP	40	d	
		i	29 52		
Mar 10	B	iP	12 20 32		USCGS: Andreanof Islands, Aleutian Islands. 0 = 12 12 18
		i	42		
	MH	iP	38.5	c	
	M	iP	23.3	c	
	R	eP	47		
	SH	iP	18		
Mar 10	B	eP	12 43 13		USCGS: 51°N, 171°W, 0 = 12 36 04. Fox Islands, Aleutian Islands.
	MH	iP	19.4	d	
	F	eP	32.3		
	M	eP	04.6	d	
	R	eP	18		
	SH	eP	42 59		
		i	43 26		
Mar 10	B	iP	12 53 12.4	c	USCGS: 51°N, 177°W, 0 = 12 45 31. Andreanof Islands, Aleutian Islands.
	MH	iP	18.4	c	
	F	eP	31.3		
	M	iP	04.3	c	
	R	eP	17.9		
	SH	iP	52 59		
		i	53 30		
		i	58 07		
Mar 10	B	eP	13 18 10		USCGS: 51½°N, 180° , 0 = 13 10 13. Andreanof Islands, Aleutian Islands.
	MH	iP	15.6	d	
	F	eP	27.8		
	M	eP	01.1	d	
	R	eP	13		
	C	iPNEZ	17 41		
	SH	iP	58	d	
Mar 10	MH	i(P)	13 27 37.5		Aleutian Islands?
	M	e(P)	22.5		
	SH	eP	17		
Mar 10	B	eP	13 36 19		USCGS: 51½°N, 179°W, 0 = 13 28 30. Andreanof Islands, Aleutian Islands.
		i	28		
	MH	iP	25.5	c	
		i	37.9		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Mar 10	F	e	47.3		
cont'd	M	iP	11.0	c	
	R	eP	23		
	C	ePNE	35 46		
		i	36 02		
	SH	iP	05		
Mar 10	B	eP	15 32 19		Aleutian Islands.
		e	29		
	MH	iP	25.8	c	
	F	eP	43		
	M	eP	10.8	c	
	R	eP	26		
	SH	iP	06		
Mar 10	B	iP	15 33 42.8	d	USCGS: 52°N, 173°W, 0 = 15 26 23. Andreanof Islands, Aleutian Islands.
		i	55.3		
	BG	eSE	39 28		Magnitude 6 1/2 - 6 3/4.
			A T		
		PZ	4 5½		
		SH	45 15		
		MaxH	185 16		
	MH	iP	15 33 48.0	d	
	F	eP	34 00.3		
	M	iP	33 32.7	c	
	R	iP	47.8	d	
		iS	39 43		
	C	iP	33 07.8	d	
		eSE	38 30		
	SH	iP	33 28	d	
Mar 10	B	iP	15 42 42.0	d	Aleutian Islands.
		e	52.8		
	MH	iP	47.8	c	
	M	iP	31.6	c	
	SH	iP	27.3	d	
Mar 10	B	e(P)	16 45 11		USCGS: 51½°N, 173½°W, 0 = 16 37 45. Andreanof Islands, Aleutian Islands.
		e	20		
	MH	iP	13.3		
	F	eP	30.3		
	M	eP	44 59.6		
	R	eP	45 13		
	SH	iP	44 53		
		i	45 04		
Mar 10	B	eP	16 47 05		Aleutian Islands.
		i	20		
	MH	iP	12.9		
		i	26.5		
	F	eP	26.0		
		i	40.0		
	M	e(P)	46 59.8		
	R	eP	47 12		
Mar 10	B	eP	19 26 13.1	d	USCGS: 51°N, 177°W, 0 = 19 18 30. Andreanof Islands, Aleutian Islands.
		e	27		
	MH	iP	19.3	d	

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Mar 10	F	eP	31.3		
cont'd		e	46		
	M	iP	05.3	c	
	R	eP	19		
	SH	eP	25 59	d	
Mar 10	B	iP	19 48 16.4	c	USCGS: 51°N, 173°W, 0 = 19 40 55.
		e	29		
	MH	iP	21.8	c	
		i	35.8	d	
	F	eP	35.6		
	M	eP	06.7	d	
	R	eP	21.3	c	
	SH	iP	01.2		
		i	15.6		
Mar 10	MH	iP	21 17 05.6		Aleutian Islands.
	F	eP	17.8		
	M	eP	16 48.0		
	R	eP	17 01		
	SH	eP	16 42		
Mar 10	B	iP	23 44 22.0	d	
		i	35.4		
	MH	iP	27.8	d	
	F	eP	40.6		
	M	eP	13.6	d	
	R	iP	27.4	d	
	SH	iP	08.6	d	
		i	22.1		
Mar 10	B	iP	24 03 44.2	d	USCGS: 53°N, 169°W, 0 = 23 56 50.
	MH	iP	52.6	d	Fox Islands, Aleutian Islands.
	F	eP	04 04.1		
	M	iP	03 34.6	c	
	R	eP	49		
	C	eP	08.2		
	SH	iP	29	d	
Mar 11	B	eP	00 15 07.2	d	USCGS: 52°N, 169°W, 0 = 00 08 07.
		i	19.1		Fox Islands, Aleutian Islands.
	BG	eLN	23.6		
			A T		
		MaxH	6 12		
	MH	eP	00 15 13	d	
		i	21.6		
	F	eP	26.0	d	
		i	38.0		
	M	eP	14 57.5	d	
	R	eP	15 12.0	d	
	C	eN	14 36.7		
	SH	iP	52.4	d	
Mar 11	F	eP	01 58 19.3		USCGS: 50½°N, 170°W, 0 = 01 50 55.
					Fox Islands, Aleutian Islands.
Mar 11	B	iP	02 51 56.4	d	Aleutian Islands.
	MH	iP	52 02.8	d	
	F	eP	15.8	d	

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Mar 11	M	eP	51 46.1	d	
cont'd	R	eP	59		
	SH	iP	41.5	d	
Mar 11	B	iP	03 20 23.2	d	USCGS: 51°N, 177°W, 0 = 03 12 41.
	BG	iSN	26 41		Andreanof Islands, Aleutian
	B	eLNE	30.1		Islands.
			A T		
		PZ	10½ 7		
		PZ	14 11		
		PH	6 7		
		SH	80 16		
		MaxH	240 16		
	MH	iP	03 20 29.0	d	
		i	39.6		
	F	eP	41.7	d	
	M	eP	14.1	d	
	A	eSN	26 15		
	R	eP	20 28	d	
	C	iP	19 50		
		i	20 45		
	SH	iP	09.5	d	
		e	25 21		
		e	26 36		
Mar 11	B	eP	03 29 37		Aleutian Islands.
		e	49		
	MH	iP	44.1	d	
		i	56.2		
	F	eP	57		
		e	30 18		
	M	iP	29 28.9	c	
	C	eN	12		
	SH	eP	24		
Mar 11	B	iP	03 42 40.4	d	USCGS: 51½°N, 177°W, 0 = 03 35 00.
		i	52.1		Andreanof Islands, Aleutian
	MH	iP	46.6	d	Islands.
	F	eP	59.2	d	
		e	43 11.2		
	M	eP	42 31.4	d	
	R	eP	45.2	d	
	SH	iP	27.0	d	
Mar 11	B	iP	04 03 03.0	d	USCGS: 50½°N, 177°W, 0 = 03 55 27.
	MH	iP	09.0	d	Andreanof Islands, Aleutian
	F	eP	21.2	d	Islands.
	M	eP	02 54.9	d	
	R	eP	03 08.5		
	SH	iP	02 49.8	d	
Mar 11	B	iP	04 12 52.9	d	USCGS: 51°N, 177°W, 0 = 04 05 09.
	MH	iP	59.0	d	Andreanof Islands, Aleutian
	F	eP	13 11.7	d	Islands.
	M	eP	12 43.5	d	
	R	iP	57.8	d	
	C	e(P)N	21		
	SH	iP	39.2	d	

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Mar 11	B	eP	06 49 41		USCGS: 51½°N, 168°W, 0 = 06 42 49.
	MH	iP	48.3	c	Fox Islands, Aleutian Islands.
	F	eP	50 01		
	M	iP	49 32.1	c	
	R	eP	47		
	SH	iP	26	d	
Mar 11	F	eP	06 59 18		USCGS: 51½°N, 170½°W, 0 = 06 51 56. Fox Islands, Aleutian Islands.
Mar 11	B	eP	07 15 41.4	c	USCGS: 51°N 177°W, 0 = 07 08 00.
		e	54		Andreanof Islands, Aleutian
	MH	iP	47.4	c	Islands.
	F	eP	16 00.6		
	M	eP	15 32.2	c	
	R	iP	46.1		
	C	e(P)N	07.9		
	SH	eP	27.1	c	
Mar 11	B	eP	07 46 54		USCGS: 51½°N, 178½°W, 0 = 07 39 05.
	MH	iP	59.5	c	Andreanof Islands, Aleutian
	F	eP	47 11.9		Islands.
	M	eP	46 43.7	c	
	R	eP	54		
	C	eN	30		
	SH	iP	40		
Mar 11	B	eP	08 34 42		Aleutian Islands.
		e	35 03		
	MH	iP	34 49.9	c	
	F	eP	35 01.7		
	M	eP	34 32.4	c	
	R	eP	47	c	
	SH	eP	27		
		i	38		
Mar 11	B	eP	08 44 08		USCGS: 53°N, 168°W, 0 = 08 37 15.
	MH	iP	14.3	d	Fox Islands, Aleutian Islands.
	F	eP	28		
	M	e(P)	02.8		
	R	eP	13		
	SH	eP	43 52		
Mar 11	B	iP	08 50 34.7		USCGS: 50½°N, 178°W, 0 = 08 42 48.
		i	40.8		Andreanof Islands, Aleutian
	MH	eP	40.6	d	Islands.
		i	46.8		
	F	e(P)	59.5		
	M	eP	25.7	c	
		i	32.2		
	R	eP	45		
	SH	eP	21.0		
		i	27.6		
Mar 11	B	eP	10 04 13		Aleutian Islands.
	MH	iP	19.1	c	
	M	eP	00.2	c	
	SH	eP	03 56		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Mar 11	B	eP	10 05 45		USCGS: 53°N, 164½°W, 0 = 09 58 42.
	BG	eNEZ	49	NWd	Fox Islands, Aleutian Islands.
	B	i	06 02		PAS: Magnitude 6 3/4 - 7.
	BG	eSN	11 17		
		eRNEZ	15.4		
			A T		
		PZ	23 9		
		PH	11 9		
		SH	55 14		
		MaxH	550 23		
		MaxZ	460 23		
	MH	e(P)	10 05 48.9		
		i	06 03.7		
	F	eP	00		
		e	04.1		
		i	19.1		
	M	eP	05 35.2	c	
		i	43.4	d	
	A	eSE	10 35		
	R	eP	05 52		
		i	57		
	C	iP	07		
		iNE	09		
		iSE	10 15		
	SH	eP	05 26		
		i	32		
		i	37		
		e	11 48		
Mar 11	B	eP	15 03 06		USCGS: 51½°N, 178½°W, 0 = 14 55 19.
	BG	ePP	04 54		Andreanof Islands, Aleutain
	B	eSNE	09 21	SE	Islands.
			A T		PAS: Magnitude 6 3/4.
		PZ	35 9½		
		PH	17 9½		
		PPZ	24 8		
		PPH	20 9		
		SH	145 15		
	MH	iP	15 03 12.6	c	
		i	15.6	d	
	F	eP	26		
		e	28.5		
	M	eP	02 57.7	c	
	A	eN	03 01		
		eSE	08 41		
	R	eP	03 13		
		eS	09 25		
	C	iP	02 35	d	
		iSE	08 18		
	SH	eP	02 53		
		i	58		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Mar 11	B	eP	15 08 57		
	MH	eP	09 00.8	d	
	M	iP	08 54.9	d	
	R	e(P)	09 03		
	SH	iP	08 53		
Mar 11	B	eP	15 43 43		USCGS: 51°N, 179°W, 0 = 15 35 50. Andreanof Islands, Aleutian Islands.
	MH	iP	50.6	c	
	F	eP	44 03		
	M	eP	43 35.4	c	PAS: Magnitude 6½
	R	eP	50		
	C	iP	09	c	
		i(S)N	48 56		
	SH	eP	43 31		
Mar 11	B	e(P)	15 49 34		
	MH	e(P)	35.6		
	M	e	37		
	R	e	37		
	SH	eP	27		
Mar 11	B	iP	20 02 55.0	d	
	F	e	03 12		
	M	iP	02 45.0	c	
	C	eN	27		
	SH	iP	39.7	d	
Mar 11	B	iP	20 46 16		
		i	45		
	MH	iP	21.7	d	
	M	iP	06.8	d	
	R	e	33		
	C	eN	45 58		
Mar 11	F	eP	23 39 44		USCGS: 52°N, 173°W, 0 = 23 32 03. Andreanof Islands, Aleutian Islands.
Mar 12	F	eP	00 25 18		USCGS: 53°N, 168°W, 0 = 00 18 00. Fox Islands, Aleutian Islands.
Mar 12	F	eP	00 41 31		
Mar 12	F	eP	01 10 22		USCGS: 52°N, 174½°W, 0 = 01 02 33. Andreanof Islands, Aleutian Islands.
Mar 12	F	eP	01 54 12		USCGS: 52°N, 173°W, 0 = 01 46 35. Andreanof Islands, Aleutian Islands.
Mar 12	B	iP	05 19 04.9		USCGS: 52½°N, 169°W, 0 = 05 12 08. Fox Islands, Aleutian Islands.
	MH	iP	11.8		
	F	eP	22		
	M	eP	18 54		
	R	e	19 22		
	SH	iP	18 50.5		
Mar 12	B	e(P)	06 09 24	d	USCGS: Fox Islands, Aleutian Islands. 0 = 06 02 47.
	MH	iP	26.2		
		e	30.3	d	
	F	e(P)	41.9		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Mar 12 (cont'd)	M	iP	13.5	d	
	R	eP	28		
	SH	iP	08	d	
Mar 12	B	eP	07 36 10.6	d	USCGS: 51½°N, 173½°W, 0 = 07 28 46. Andreanof Islands, Aleutian Islands.
	BG	eSNE	42 05		
		eLNE	45.0		
			A T		PAS: Magnitude 6¼ - 6½.
		SH	32 16		
		MaxH	115 18		
	MH	iP	07 36 17.1	c	
		i	20.1		
	F	eP	29.0	d	
		i	40.0		
	M	i(P)	02.9	d	
	R	eP	16	d	
		i	32		
		eS	42 15		
	C	eP	35 36		
	SH	eP	53		
		i	56.4		
Mar 12	B	eP	07 47 04		USCGS: 52°N, 178°W, 0 = 07 39 17. Andreanof Islands, Aleutian Islands.
		i	18		
		iPP	49 04		
	MH	iP	47 09.6	c	PAS: Magnitude 6¼ - 6½
		i	21.5	d	
	F	eP	21	d	
	M	iP	46 55.6	d	
		i	47 05.9		
	R	eP	10	d	
	C	eP	46 28		
	SH	eP	51		
		i	48 58		
		e	52 32		
Mar 12	B	iP	08 10 59		USCGS: 51°N, 178°W, 0 = 08 03 13. Andreanof Islands, Aleutian Islands.
	MH	eP	11 04.8	c	
	F	eP	17.7		
	M	iP	10 51.5	c	
	R	iP	11 05		
	C	eP	10 24	c	
	SH	iP	46	c	
		i	15 17		
		e	24		
Mar 12	B	e	10 46 11		USCGS: 51½°N, 174½°W, 0 = 10 38 30. Andreanof Islands, Aleutian Islands.
	MH	iP	45 54.6		
	F	e	46 18		
		e	31		
	M	i	45 52.9		
	R	e	46 17		
	SH	e	45 42		
		i	58		
		i	47 16		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Mar 12	B	iP	11 52 33.7	c	USCGS: 51°N, 177°W, 0 = 11 44 50.
		i	37.3		Andreanof Islands, Aleutian
	BG	iSNE	58 57		Islands.
			A T		PAS: Magnitude 7 - 7¼.
		PZ	30 9		
		PH	23 11		
		SH	140 14		
		MaxH	430 20		
	MH	iP	11 52 37.9	c	
	F	eP	50	d	
		e	56		
	M	iP	22.4	d	
		i	27.8		
	R	eP	37.4		
		i	42.6		
	C	eP	51 58.4		
	SH	eP	52 17		
		eS	58 31		
Mar 12	B	iP	12 53 09.2		USCGS: 53°N, 168½°W, 0 = 12 46 12.
	MH	iP	15.2	d	Fox Islands, Aleutian Islands.
	F	eP	28.3		
	M	eP	52 58		
	R	eP	53 14		
	C	eP	52 30		
	SH	iP	53.7		
		e(S)	59 15		
Mar 12	F	eP	16 44 45		USCGS: 14½°S, 168°E, 0 = 16 32 05.
					New Hebrides Islands.
Mar 12	B	eP	17 08 05		USCGS: 51½°N, 177°W, 0 = 17 00 21.
	MH	i	14.8		Andreanof Islands, Aleutian
	F	eP	23.6		Islands.
	M	eP	07 53.4		
	R	eP	08 08		
	C	eN	07 30		
	SH	e	39		
		i	51		
Mar 12	B	iP	17 32 29.3	c	Probably not part of next shock.
	MH	iP	36.9	d	
Mar 12	B	iP	17 32 51.8		USCGS: 21½°S, 179°W, h = 700 km.,
	MH	iP	52		0 = 17 21 47. Fiji Islands.
	F	eP	56.5		
	M	eP	33 00.9	d	
	SH	iP	59.5	d	
Mar 12	F	eP	18 39 49		USCGS: 18°S, 178½°W, h = 650 km.,
					0 = 18 28 50. Fiji Islands.
Mar 12	B	iP	19 22 14.9	d	USCGS: 16°S, 176½°W, h = 400 km.,
	MH	iP	15.9	d	0 = 19 11 16. Fiji Islands
		ipP	23 41.0		region.
	F	iP	22 20.7	d	
	M	iP	24.3	d	
	R	iP	30.2	d	
	C	eN	35		
	SH	iP	23.9	d	

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Mar 12	B	iP	20 07 10.3		USCGS: 54°N, 165°W, 0 = 20 00 30.
		i	24.8		Near Unimak Island.
	MH	iP	16.4	d	
	F	eP	29.7	d	
	M	iP	06 59.0	d	
	R	iP	07 14.4	d	
	SH	iP	06 53.7	d	
Mar 12	F	eP	21 32 10		USCGS: 1½°S, 79½°W, h = 150 km.,
					0 = 21 23 04. Ecuador.
Mar 12	B	iP	22 34 43.5	c	
	MH	iP	50.3	c	
	F	eP	35 02.0		
	M	eP	34 33.8	c	
	R	eP	50		
	SH	iP	29	c	
Mar 12	B	eP	23 52 48		USCGS: 52°N, 174°W, 0 = 23 45 25.
		e	53 01		Andreanof Islands, Aleutian
	MH	iP	52 54.8	c	Islands.
		i	53 07.0	c	
	F	eP	07		
		e	20		
	M	eP	52 39.0	c	
		i	51.2	c	
	R	eP	55		
		i	53 06		
	SH	eP	52 34		
Mar 13	B	eP	02 55 31.3		USCGS: 52°N, 171½°W, 0 = 02 48 20.
		e	47		Andreanof Islands, Aleutian
	BG	eREZ	03 04.8		Islands.
	MH	iP	02 55 37.9	d	
		i	47.1		
	F	eP	50.3	d	
		e	56 06.8		
	M	iP	55 12.5	c	
	R	eP	37	c	
		e	03 02 26		
	C	eN	02 55 03		
Mar 13	B	eP	03 40 27		USCGS: 52°N, 175°W, 0 = 03 32 58.
		e	40		Andreanof Islands, Aleutian
	MH	iP	32.8	d	Islands.
		i	41.0		
	F	eP	43		
		e	41 00		
	M	eP	40 16.3	d	
		i	31.6		
	R	eP	31		
	C	eN	39 51		
		eN	40 06		
Mar 13	MH	iP	07 29 46.1	d	USCGS: 52°N, 178°W, 0 = 07 21 54.
	F	e	30 08		Andreanof Islands, Aleutian
	M	eP	29 30		Islands.
		i	40		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Mar 13	R	eP	45		
(cont'd)	C	eN	24		
Mar 13	B	e	09 16 52		USCGS: 52½°N, 170°W, 0 = 09 09 34. Fox Islands, Aleutian Islands.
	BG	eE	26.4		
	MH	iP	16 46.8	c	
	F	eP	59		
	M	eP	30.3	c	
	R	eP	42		
Mar 13	B	iP	11 45 32		USCGS: 51°N, 177°W, 0 = 11 37 49. Andreanof Islands, Aleutian Islands.
	MH	iP	38.3	d	
	F	eP	49.6		
	M	iP	23.1	c	
	R	eP	37		
Mar 13	B	e(P)	12 05 21		USCGS: 52°N, 173°W, 0 = 11 57 58. Andreanof Islands, Aleutian Islands.
	MH	iP	23.6	c	
	F	eP	39.6		
	M	eP	07.7	c	
		i	11.6	d	
	R	eP	22		
	C	eN	04 42		
Mar 13	B	e	12 50 26		USCGS: 51½°N, 177°W, 0 = 12 42 35. Andreanof Islands, Aleutian Islands.
	MH	i	27.2		
	F	e	38		
	M	e	11.6		
	R	e	23		
Mar 13	B	iPNEZ	15 49 56.1	SEc	USCGS: 51½°N, 179°W, 0 = 15 42 05. Andreanof Islands, Aleutian Islands.
		eS	56 02		
	BG	iSNE	11	NW	PAS: Magnitude 6-3/4.
			A T		
		PZ	8 7		
		SH	20 9		
		MaxH	110 17		
	MH	iP	15 50 02.0	c	
	F	eP	14.1	c	
		eSNEZ	56 38		
	M	iP	49 47		
	R	iP	50 01.3		
		iS	56 19		
	C	iP	49 20.9	c	
		iSNE	55 06.9		
Mar 13	B	iP	20 06 06.9	d	USCGS: 54°N, 166°W, 0 = 19 59 23. Fox Islands, Aleutian Islands.
	MH	iP	13.4	d	
		i	19.5		
	F	eP	25.7	c	
	M	iP	05 55.1	c	
		i	06 08.5	c	
	R	iP	10.3	c	
		eS	11 37		
	C	iP	05 26.8	d	

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Mar 14	F	e(P)	00 43 45		USCGS: 51°N, 178°W, 0 = 00 35 38. Andreanof Islands, Aleutian Islands.
Mar 14	B	eP	01 59 18		USCGS: 52½°N, 169°W, 0 = 01 52 16. Fox Islands, Aleutian Islands.
	MH	iP	24.4	d	
	F	eP	37		
	M	eP	05.1	d	
	R	eP	23		
	C	eP	58 41		
	SH	eP	58		
Mar 14	B	eP	02 53 26		USCGS: 53½°N, 163½°W, 0 = 02 46 55. Off south coast of Unimak Islands.
	F	eP	44.5		
Mar 14	M	eP	04 08 41.5		
	R	eP	57		
	SH	eP	37		
Mar 14	B	iP	10 41 39.5	c	USCGS: Fox Islands, Aleutian Islands. 0 = 10 34 33.
	MH	iP	46.2	c	
	F	eP	58	d	
	M	iP	29.6	c	
		e	42 27.2		
	R	eP	41 44	d	
	SH	eP	24		
Mar 14	B	iP	12 36 12.6	d	USCGS: 53°N, 166½°W, 0 = 12 29 32. Fox Islands, Aleutian Islands.
	MH	iP	18.8	d	
	F	eP	31.7	d	
	M	iP	02.9	d	
		e	38 51.2		
	R	eP	36 16		
	SH	iP	35 57	d	
		e	36 12		
Mar 14	B	iP	13 01 13.5		
	MH	iP	15.6	c	
	M	iP	17.6	d	
	R	eP	24		
	SH	eP	15		
Mar 14	B	iP	14 55 24.6	c	USCGS: 51½°N, 177°W, 0 = 14 47 45. Andreanof Islands, Aleutian Islands.
	BG	iSE	15 01 33		PAS: Magnitude 7½.
			A T		
		PZ	25 10		
		PH	15 4		
		SH	190 18		
	MH	iP	14 55 30.2	c	
	F	ePEZ	43.4	EC	
		eNE	15 01 35		
	M	eP	14 55 15.5	c	
		i	26.2	d	
	A	ePE	05.6		
	R	iP	29.6		
	C	eP	54 48.2		
		iN	55 16		
		iN	59 05		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Mar 14	B	eP	15 12 48		
	F	eP	13 08		
	M	i	12 42.2		
	SH	iP	33.8		
		e	20 05		
Mar 14	B	iP	15 58 42.8	d	USCGS: 51½°N, 177½°W, 0 = 15 51 00. Andreanof Islands, Aleutian Islands.
		i	50.3		
	MH	iP	49.1		
	F	eP	59 00.9	d	
	M	iP	58 34		
	R	eP	47.8		
	C	i	17		
	SH	iP	28.8	d	
Mar 14	B	eP	17 14 08		USCGS: 51°N, 178°W, 0 = 17 06 21. Andreanof Islands, Aleutian Islands.
		i	18		
	MH	eP	14.4	c	
		i	24.2	c	
	F	eP	27		
	M	eP	00.0	c	
		i	19.5	c	
	R	eP	14		
	C	i(P)	13 42		
	SH	iP	54		
		i	14 04		
Mar 14	M	iP	18 22 14.0	c	
	SH	eP	07		
Mar 14	B	iPNEZ	19 28 25.7	SEc	40°16'N, 123°50'W, 0 = 19 27 42. Southern Humboldt County, California. Magnitude 4.0 Intensity IV at Eureka, Fortuna, and Petrolia.
		eN	29 20.6		
	MH	iP	28 35.1	d	
		i	29 04.2		
	PA	iP	28 30.6		
	SF	eP	25.0		
	Fe	iPNE	27 52		
		iSE	28 00		
	F	eP	55.3	c	
		iNE	30 13		
	M	iP	28 12.0	c	
		iSE	34.7		
	A	iPNE	27 54.6	SW	
		iSNE	28 02.4		
	R	iP	37.6		
		iN	29 31.6		
	C	iP	28 48.7	d	
	SH	iP	04.2	d	
Mar 14	B	e	22 26 05		USCGS: 51½°N, 176°W, 0 = 22 18 23. Andreanof Islands, Aleutian Islands.
	MH	eP	03.7	d	
		i	11.6	d	
	F	eP	18		
	M	e	25 52		
	R	eP	26 11		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Mar 15	B	eP	02 58 58		USCGS: 53°N, 167°W, 0 = 02 52 08. Fox Islands, Aleutian Islands.
		iPcP	03 01 35		
	BG	iSE	04 26	W	PAS: Magnitude 6-3/4.
		eQNE	06.9		
			A T		
		PZ	2½ 6		
		SH	16 11		
		MaxH	80 16		
	MH	iP	02 59 04.7		
		i	10.0		
	F	eP	16.3	d	
	M	iP	58 48.5	c	
		i	54.0		
	R	eP	59 02		
Mar 15	B	e(P)	04 20 34		USCGS: 51°N 176°W, 0 = 04 12 56. Andreanof Islands, Aleutian Islands.
		e	22 39		
	MH	iP	20 37.0	d	
		e	22 38		
	F	eP	20 52.5		
	M	e	21.5	c	
		i	34.0	d	
		e	22 25.5		
	R	e	20 40		
Mar 15	MH	e(P)	04 32 37.2		
	M	e(P)	20.9		
Mar 15	MH	iP	05 15 43.3		
	M	e	37.8		
Mar 15	MH	iP	11 12 37.8	d	
	M	eP	21.4		
	SH	eP	15	d	
Mar 15	MH	iP	12 04 52.8	d	USCGS: 51°N, 173°W, 0 = 11 57 28. Andreanof Islands, Aleutian Islands.
		i	05 11.5	d	
	F	eP	04.7	d	
	M	iP	04 37.0	d	
	R	eP	51	d	
	SH	iP	32	d	
Mar 15	MH	eP	16 37 34.1		
	M	eP	20.2	d	
	SH	eP	12		
Mar 15	B	eP	16 44 47		USCGS: 53°N, 167°W, 0 = 16 38 02. Fox Islands, Aleutian Islands.
	MH	iP	54.6	d	
	F	eP	45 07.2	d	
	M	eP	44 37.5	d	
	SH	eP	33	d	
Mar 15	MH	i	22 21 26.9		USCGS: 51½°N, 177°W, 0 = 22 13 25. Andreanof Islands, Aleutian Islands.
	F	eP	32		
	M	eP	03.6	d	
	R	eP	19		
	SH	eP	20 58		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Mar 16	MH	i(P)	00 39 56.8		
	F	i(P)	40 07		
	R	iP	39 34	d	
	SH	iP	07	d	
Mar 16	B	e	02 21 06		USCGS: 51½°N, 175°W, 0 = 02 13 23.
	MH	i	09.2	d	Andreanof Islands, Aleutian
	F	e(P)	15		Islands.
	M	eP	20 44.8	d	
	R	e	21 03		
	SH	e(P)	20 41		
Mar 16	B	iP	02 42 03.4	d	USCGS: 52°N, 179°W, 0 = 02 34 12.
	BG	iSE	48 20	E	Andreanof Islands, Aleutian
		eQNE	51.5		Islands.
		eR	53.6		PAS: Magnitude 6-3/4.
			A T		
		PZ	10 8		
		PH	10 9½		
		SH	140 20		
		MaxH	180 17		
	MH	iP	02 42 09.4	d	
	F	iP	21.5	d	
		e(S)NEZ	49 06		
	M	eP	41 52.1	d	
		i	42 00.6	d	
	A	eE	41 53		
	R	eP	42 04.4		
	C	iP	41 30.7		
		iSE	47 19.1		
	SH	eP	41 48.4	d	
		i	52.8		
		eS	47 47		
Mar 16	B	eP	03 41 24		USCGS: 52°N, 174°W, 0 = 03 33 57.
	MH	iP	29.5	d	
	M	e	22.9		
	R	eP	40		
	C	e	46		
	SH	eP	10		
Mar 16	MH	iP	06 15 09.2	c	
		i	32.4		
	M	eP	17.3	c	
	SH	eP	13		
Mar 16	B	eP	09 38 15		USCGS: 51°N, 177°W, 0 = 09 30 36.
	MH	iP	20.6	d	Andreanof Islands, Aleutian
	F	eP	34		Islands.
	M	eP	05.8	d	
	R	eP	20		
	SH		01		
Mar 16	MH	iP	14 18 49.8	d	
	M	eP	34.1	d	
	SH	eP	31		
Mar 16	MH	iP	15 38 02.8	c	

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Mar 16	MH	eP	20 43 33.7		
	M	eP	19.9	c	
	SH	eP	16		
Mar 16	B	eP	24 08 06		USCGS: 27°N, 127½°E, 0 = 23 55 08.
	MH	eP	06.6		Ryukyu Islands.
	M	iP	01.1		
	SH	eP	07 55		
		i	58		
Mar 17	MH	eP	01 54 59.4	c	USCGS: 51°N, 180° , 0 = 01 46 56.
	M	eP	46.1	c	Andreanof Islands, Aleutian
	R	eP	55 02		Islands.
	SH	eP	54 41		
Mar 17	B	iP	02 56 24.9		USCGS: 51°N, 178½°W, 0 = 02 48 36.
		i	36.9	c	Andreanof Islands, Aleutian
	MH	iP	30.4	d	Islands.
		i	42.8	c	
	F	eP	42.4		
		e	55.4		
	M	eP	16.3	c	
	R	eP	30		
	SH	eP	11		
		i	24		
Mar 17	MH	iP	07 11 39.3	c	USCGS: 52½°N, 169°W, 0 = 07 04 40.
	F	eP	56		Fox Islands, Aleutian Islands.
	M	iP	27.7	c	
	SH	eP	23		
Mar 17	B	eP	08 01 45.9	d	USCGS: 51°N, 179°W, 0 = 07 53 51.
	GB	eSE	08 01		Andreanof Islands, Aleutian
		eQN	10.5		Islands.
		eREZ	13.4		
			R from W		
			A T		
		SH	3 10		
		MaxH	28 22		
	MH	iP	08 01 51.0	d	
	F	eP	02 02.5		
	M	iP	01 36.5	d	
		i	46.4		
	R	eP	50.3	d	
	C	eP	11		
		eSE	07 01		
	SH	iP	01 39.6	d	
Mar 17	B	e	11 37 33		USCGS: 53½°N, 167°W, 0 = 11 30 07.
	MH	iP	27.6		Fox Islands, Aleutian Islands.
	F	eP	40.5		
	M	eP	13.5		
	R	e(P)	35		
	C	e	36 42		
	SH	iP	37 06		
		i	23		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Mar 17	MH	i	15 18 47.0		USCGS: 53°N, 167½°W, 0 = 15 11 42.
	F	eP	52.5		Fox Islands, Aleutian Islands.
	M	iP	23.4		
	R	eP	37		
	C	eP	17 53		
Mar 17	B	eP	16 23 55		USCGS: 52½°N, 166°W, 0 = 16 17 13.
	BG	eQNE	31.6		Fox Islands, Aleutian Islands.
			A T		
		MaxH	16 14		
		MaxH	16 9		
	MH	iP	16 24 02.2	d	
	F	eP	15.7	d	
	M	iP	23 46.7	d	
	R	eP	24 02		
	C	eP	23 18		
	SH	eP	41	d	
Mar 17	M	e(P)	18 36 10		
	SH	e(P)	05		
Mar 17	SH	eP	20 18 17		
Mar 17	B	iP	22 51 27	d	USCGS: 54°N, 166°W, 0 = 22 44 44.
	BG	iSE	56 51	E	Fox Islands, Aleutian Islands.
		eN	58.0		PAS: Magnitude 6½.
		eR	23 00.2		
			R from W		
			A T		
		SH	15 10		
		MaxH	90 20		
	MH	iP	22 51 32.2	d	
		i	49.6		
	F	eP	44.5	c	
		eSEZ	57 13		
	M	iP	51 15.3	c	
		e	57 44.5		
	R	eP	51 31	c	
		eS	56 53		
	C	iP	50 46		
	SH	iP	51 09	c	
Mar 17	M	iP	23 41 32.7		
	SH	eP	27		
Mar 18	B	iP	00 20 05	c	USCGS: 51°N, 179½°W, 0 = 00 12 10.
	MH	iP	11		Andreanof Islands, Aleutian
	F	eP	23	c	Islands.
	M	iP	00.6	c	
	R	e	10		
	C	eP	19 29		
	SH	eP	50	c	
Mar 18	B	eP	02 32 35		USCGS: 52½°N, 171°W, 0 = 02 24 39.
	BG	eSNE	38 23		Fox Islands, Aleutian Islands.
		eN	41.1		
		eREZ	42.7		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Mar 18 (cont'd)			R from W		
			A T		
		MaxH	18 20		
	MH	iP	02 32 41.8	d	
	M	iP	31 52.8	d	
	R	e	32 42		
	C	e	01		
	SH	e	34		
Mar 18	M	iP	02 32 26.7		USCGS: 52½°N, 171°W, 0 = 02 25 26.
		i	38 36.6		Fox Islands, Aleutian Islands.
	SH	iP	33 21		
		i	38 44		
Mar 18	B	e(P)	05 16 27		USCGS: 51½°N, 179°W, 0 = 05 08 34.
	BG	eLN	26.7		Andreanof Islands, Aleutian
	MH	eP	16 30.5	c	Islands.
	F	eP	44.5	d	
	M	eP	16.6	d	
	R	eP	31		
	C	eP	15 50		
	SH	eP	16 12		
Mar 18	B	iP	07 57 41.4	d	Aleutian Islands.
		i	53		
	MH	iP	47.1	d	
		i	50.0		
	F	eP	58		
	M	iP	31.1		
	R	eP	46		
	C	eP	02		
	SH	iP	25.9	d	
Mar 18	B	eP	18 57 33.4		PAS: 34°06'N, 119°10'W, 0 = 18 56 28.
		eNE	58 56.4		USCGS: Magnitude 4.7, South of Oxnard.
			A T		Felt over a land area of approx-
		MaxH	17 8½		imately 2,500 square miles of
	MH	iP	18 57 24.2	d	Southern California, principally
		i	30.1		in Ventura County. Maximum
		iN	40.0		intensity VI. Minor damage at
		i(S)E	58 19.6		Oxnard, Port Hueneme, and Ventura.
	PA	eP	57 26.6	c	
		i	28.0	d	
	F	eP	09.4	c	
		i(S)NE	50.5		
	M	iP	58 05.6	c	
		i	59 20.0		
	R	eP	57 52.0		
		iN	59 13.8		
	C	e(P)	13.7		
	SH	e(P)	58 14.3		
Mar 18	F	eP	18 41 37.0		USCGS: 20°S, 178°W, h = 450 km.,
	M	eP	41.5		0 = 19 30 16. Fiji Islands.
Mar 18	M	e	19 58 00		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Mar 18	MH	iP	20 11 49.2		USCGS: 52°N, 180° , 0 = 20 03 47. Andreanof Islands, Aleutian Islands.
	M	eP	34.7		
	SH	eP	27		
Mar 18	B	eP	21 27 19		USCGS: 6°S, 152°E, 0 = 21 14 12. New Britain. Felt at Karoola, Rabaul, and Warangoi.
			A T		
		PZ	3 6		
	MH	iP	21 27 21.0		
	F	eP	26.9		
	M	eP	22.4		
	R	eP	28		
	C	eP	21		
	SH	eP	20		
Mar 19	MH	i(P)	03 44 24.6		
Mar 19	MH	iP	03 47 13.8		USCGS: 52°N, 175½°W, 0 = 03 39 35. Andreanof Islands, Aleutian Islands.
	M	eP	46 57.7		
	SH	eP	53		
Mar 19	B	eP	08 19 36		USCGS: 52°N, 169°W, 0 = 08 12 40. Fox Islands, Aleutian Islands.
	MH	iP	43.6		
	M	eP	28.3		
	SH	eP	23		
Mar 19	B	iP	08 21 01.9	c	USCGS: 53°N, 168°W, 0 = 08 14 10. Fox Islands, Aleutian Islands.
	BG	eSE	26 53		
	MH	eP	21 07.6	c	
		i	09.4	d	
		i	26.2		
	F	eP	22.2	c	
	M	eP	20 52.0	d	
	R	eP	21 07.7		
	C	eP	20 24		
		e	33		
		e(PP)	22 14		
	SH	eP	20 46.9	d	
Mar 19	B	eP	11 36 29.5	c	USCGS: 51½°N, 176½°W, 0 = 11 28 50. Andreanof Islands, Aleutian Islands.
	BG	eSE	42 44		
	MH	iP	36 35.7	c	
	F	eP	48	c	
	M	eP	20.5	c	
	R	eP	35		
	C	eP	35 54		
		e	37 52		
	SH	eP	36 15.8		
Mar 19	B	iP	12 58 22.8	d	USCGS: 51½°N, 175°W, 0 = 12 50 51. Andreanof Islands, Aleutian Islands.
	BG	iSN	13 04 35	N	
			A T		
		PZ	11 10		PAS: Magnitude 6-3/4.
		PH	13 10		
		SH	40 13		
		MaxH	125 11		
	MH	iP	12 58 28.7	d	
		i	56.0	d	
	F	iP	41.5	d	
	M	iP	14.5	d	

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Mar 19 (cont'd)		i	53.8	d	
	A	e(P)NE	04		
	R	eP	28.7		
	C	eP	57 48		
		eSN	13 03 28		
	SH	iP	12 58 09.3	d	
Mar 19	B	iP	15 54 40.9		USCGS: 52°N, 172½°W, 0 = 15 47 24. Fox Islands, Aleutian Islands.
	MH	eP	46.4		
	F	eP	59.4		
	R	eP	46		
	C	eP	04		
	SH	iP	27.1		
Mar 19	MH	i	17 11 51		USCGS: 52½°N, 171°W, 0 = 17 04 25. Fox Islands, Aleutian Islands.
	M	eP	24.2		
	R	eP	39		
	C	e	07		
	SH	eP	18		
Mar 20	B	eP	00 08 09		USCGS: 52°N, 173°W, 0 = 00 00 51. Andreanof Islands, Aleutian Islands.
	MH	iP	15.5	d	
	F	eP	28.3		
	M	iP	00.4	d	
		i	12.2		
	R	eP	15		
	C	eP	07 33		
	SH	iP	56	d	
		i	08 09		
Mar 20	B	eP	00 29 19		USCGS: 53°N, 169°W, 0 = 00 22 25. Fox Islands, Aleutian Islands.
	MH	iP	26.1		
	F	eP	40		
	M	iP	11.0		
	R	eP	26		
	C	eP	28 43		
	SH	eP	29 04.8		
Mar 20	B	eP	03 32 33		USCGS: 51½°N, 175½°W, 0 = 03 25 00. Andreanof Islands, Aleutian Islands.
	MH	i	44.2		
	F	eP	50		
	M	eP	29.0		
	R	e	43		
	C	eP	32 57		
	SH	eP	33 19		
Mar 20	B	eP	11 08 57.7	c	USCGS: 52°N, 172°W, 0 = 11 01 42. Andreanof Islands, Aleutian Islands.
	BG	eSE	14 48		
		eQN	17.8		
	MH	iP	09 04.2	c	
	F	eP	17.0	c	
	M	iP	08 48.2	c	
	R	iP	09 03.1	c	
	C	eP	08 22	c	
	SH	iP	43.8	c	

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Mar 20	B	e	20 35 38		USCGS: 51½°N, 174½°W, 0 = 20 28 03.
	MH	iP	36.8	d	
	M	eP	21.8	d	
		i	39.0		
	R	eP	46		
	SH	eP	16		
Mar 21	M	eP	00 22 56.8		
Mar 21	B	e	04 36 36		USCGS: 52°N, 173°W, 0 = 04 29 02.
	MH	iP	30.1	d	Andreanof Islands, Aleutian
	F	eP	46		Islands.
	M	eP	15.6	d	
	R	eP	32		
	SH	eP	10		
Mar 21	F	e	08 36 01		PAS: Magnitude 4.7, Baja California.
	M	e	39 00		
	R	e	36 55		
		e	38 37		
Mar 21	B	eP	08 51 42		USCGS: 14½°N, 93°W, 0 = 08 44 46.
	MH	iP	36.0	d	Near coast of Chiapas, Mexico.
	F	iP	21.7	d	
	M	iP	50.5	d	
	R	iP	38	d	
	SH	eP	54	d	
Mar 21	M	iP	13 51 31		
	R	eP	35		
Mar 21	MH	iP	15 53 55		USCGS: 51°N, 175°W, 0 = 15 46 16.
	F	e	54 08		Andreanof Islands, Aleutian
	M	eP	53 40		Islands.
	R	eP	54		
	SH	eP	34		
Mar 21	B	e(P)	17 47 02		USCGS: 51½°N, 177°W, 0 = 17 39 12.
	MH	iP	05.2	d	Andreanof Islands, Aleutian
	F	eP	20		Islands.
	M	eP	46 40.6	d	
	R	eP	47 05		
Mar 22	MH	i	01 24 13		
	M	e	24		
Mar 22	MH	iP	09 43 47.2		Aleutian Islands.
		i	55.7		
	F	eP	44 01		
	M	eP	43 31.9		
		i	41.8		
	R	eP	47		
Mar 22	MH	e	12 10 33		
	M	e	52		
Mar 22	B	iP	14 27 51.0	c	USCGS: 54°N, 166°W, 0 = 14 21 06.
	BG	iPNEZ	53	NWd	Fox Islands, Aleutian Islands.
		iSE	33 12	W	PAS: Magnitude 7.
		eQN	35.3		
		eREZ	36.6		
			R from NW		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Mar 22 (cont'd)			A T		
		PZ	7½ 11		
		PH	12½ 11		
		SH	70 10		
		MaxH	600 24		
		MaxZ	480 25		
	MH	iP	14 27 57.0	d	
	F	eP	28 09.8		
		iSNEZ	33 51.0	SW	
	M	eP	27 38.0	c	
		i	41.4	c	
	A	e(P)E	33		
	R	eP	55		
		e(S)	33 20		
	C	iP	27 12.8		
		iSE	32 04		
	SH	eP	27 32.2	d	
		i	36.6		
		eS	32 48		
		i	34 06		
		eR	36.0		
Mar 22	B	eP	14 39 56		USCGS: 54°N, 165½°W, 0 = 14 33 13.
	MH	iP	40 03.2		Fox Islands, Aleutian Islands.
	F	eP	15		
	M	eP	39 45.8		
	R	e	40 13		
	C	eP	39 17		
		i	30		
	SH	eP	40		
Mar 22	B	e	17 17 11		USCGS: 52½°N, 171°W, 0 = 17 09 51.
	BG	e(S)N	22 32		Fox Islands, Aleutian Islands.
		eQN	24.8		
		eREZ	26.9		
			R from W		
			A T		
		MaxH	28 22		
	MH	iP	17 17 05.0		
	F	eP	18.6		
	M	iP	16 47.3		
		i	17 02.0		
		e	23 00		
	R	eP	17 04		
	C	e	16 34		
	SH	e(P)	45		
		i	57		
Mar 22	B	iPNEZ	19 44 26.5	NEc	37°41'N, 122°29'W, 0 = 19 44 21.
	MH	iP	35.4	d	San Mateo County, California.
		iNEZ	35.6	SEc	PAS: Magnitude 5.3.
	PA	iPNEZ	28.1	SEc	USCGS: Felt land area was approximately
	SF	iPNEZ		NEc	13,000 square miles of west-
	F	iP	58.9	d	central California. No lives were
		i	45 00.7		lost; about 40 minor injuries

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Mar 22		iSN	26.0		reported. Damage of all types was
(cont'd)	M	iPNEZ	04.3	SWd	estimated at one million dollars.
	A	ePN	13.4	S	Intensity VII at Colma, Daly City,
	R	iP	07.2	d	Mussel Rock, San Bruno, and
	C	ePNZ	46 06.0	d	Sharp Park.
		i	07.3	c	Foreshocks and aftershocks are tabu-
		iE	48 20.1		lated in the local shocks section
	SH	iP	45 06.1	d	at the beginning of this Bulletin.
	Fa	i(P)E	17.2		
		iE	20.1		
	Ye	iPEZ	08.7	Wd	
Mar 22	SH	eP	20 16 44.2		
		i	56.8		
Mar 22	B	iPNEZ	21 18 35.1	NEc	Aftershock of 19-44.
		iSNE	39.1		37°39'N, 122°29'W, 0 = 21 18 29.
	MH	iP	43.4	c	Magnitude 3.8. Felt.
		iSNE	55.1		
	PA	iP	36.3		
		iE	38.0		
		iE	44.8		
	SF	iP	32.1		
		iSE	34.1		
	R	e(P)	19 18.2		
		e(S)	55.6		
	SH	e(P)	18.8		
Mar 22	B	iPNEZ	23 14 40.5	NEc	Aftershock of 19-44.
		iN	44.3	N	37°39'N, 122°27'W, 0 = 23 14 35.
		iSN	44.5	S	Magnitude 4.4. Felt.
	MH	iPNEZ	48.6	SEc	
	PA	iPNEZ	41.3	NWd	
		iNZ	42.4		
	SF	iPNEZ	37.7	SWd	
	F	eP	15 11.8		
		i	13.6	c	
		iSNE	40.7		
	M	iP	18.6		
		eS	49.5		
	R	iP	22.2		
		i	25.7		
		i(S)	16 01.4		
	SH	eP	15 20.5		
		i	25.1		
Mar 23	B	iPNEZ	00 27 00.6	NEc	Aftershock of Mar. 22, 19-44.
		iSN	04.6		37°39'N, 122°29'W, 0 = 00 26 55.1
	MH	iPNEZ	08.5		Magnitude 4.0. Felt.
		iNE	18.8		
	PA	iPNEZ	01.4	NWd	
		iN	05.9		
	SF	iPNEZ	26 57.7	c	
		iSE	59.6		
	F	iP	27 33.3		
		i(S)NE	57.3		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Mar 23		iNEZ	28 11.3		
(cont'd)	M	iP	27 38.8	c	
		i	40.6		
		e(S)E	28 09.9		
	R	eP	27 43.2		
		i	56.8		
		iS	28 21.3		
	SH	eP	27 42.4		
Mar 23	MH	eP	00 59 45.4		Aleutian Islands.
	F	e(P)	01 00 04		
	M	eP	00 59 24.8		
	R	eP	47		
	SH	eP	20		
		i	27		
Mar 23	B	eP	05 26 43.8	d	USCGS: 5½°S, 131°E, h = 100 km.,
		e	29 59		0 = 05 12 31. Banda Sea.
		e(P'')	30 38		PAS: Magnitude 7.
	BG	iSKSNE	37 13	NW	
		ePSE	40.2		
		eSSE	46.6		
		eQN	56		
		eREZ	06 02		
			R from W		
			A T		
		PZ	1 5		
		(P'')Z	4 12		
		(P'')H	3-3/4 14		
		SKSH	4-1/2 7		
		MaxH	26 23		
	F	eP	05 26 52.2	d	
		e	30 53		
		e(PP)	31 23		
	M	eP	26 44.3	d	
		i(P'')	30 43.7		
	R	eP	26 51.7	d	
		i(PP)	31 21		
	C	eP	26 37.5		
		i(PP)	30 57.8		
	SH	eP	26 42	d	
		i(P'')	30 47		
Mar 23	M	iP	06 50 16		
		e	33		
	R	eP	30		
Mar 23	B	iPNEZ	08 13 53.8	NEc	Aftershock of Mar 22, 19-44.
		iSN	57.8		37°42'N, 122°31'W, 0 = 08 13 48.
	MH	iP	14 03.3	d	Magnitude 4.2. Felt.
		iNE	14.4		
	PA	iPNEZ	13 56.3	SEc	
		iNE	14 00.3		
	F	iP	26.2	c	
		iN	48.3		
		iNE	53.6		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Mar 23 (cont'd)	M	eP	30.5		
		i	34.1		
	R	eP	34.8		
		i	37.7	d	
		i	15 18.0		
	SH	eP	14 36.4		
Mar 23	F	e(P)	09 00 04		
	M	iP	08 59 34.2		
	R	eP	48		
Mar 23	MH	iP	10 36 07.2		
	F	eP	21		
	M	eP	35 44.0		
		e	38 29.2		
	SH	eP	35 38		
Mar 23	B	iPNEZ	12 54 38.2	NEc	Aftershock of Mar. 22, 19-44. 37°39'N, 122°29'W, 0 = 12 54 32. Magnitude 3.8. Felt.
		iSNE	42.3		
	MH	iP	46.4	c	
		iSNE	57.5		
	PA	iP	39.4	c	
	SF	iPNEZ	35.2	NEc	
		iSE	37.2		
	F	eP	55 12.6		
		iN	38.5		
		iNE	50.0		
	M	e(P)	17.0	c	
		i	43.9		
	R	eP	19.5		
		iE	57.9		
		i	56 07.0		
	SH	e(P)	55 13.3		
		i	56 23.7		
Mar 23	B	eP	13 32 12	d	USCGS: 51½°N, 179°W, 0 = 13 24 33. Andreanof Islands, Aleutian Islands.
		i	26	d	
		e	35		
	MH	eP	16.4	d	
		i	32.0	d	
	F	eP	30	d	
	M	eP	03.7	d	
		i	26.3		
	R	eP	18		
	SH	iP	31 59		
Mar 23	B	eP	13 47 48.5	d	USCGS: 51°N, 179½°W, 0 = 13 39 53. Andreanof Islands, Aleutian Islands.
	MH	iP	54.2	d	
	F	eP	48 06.5	d	
	M	eP	47 40.5	d	
	R	eP	53.9		
	SH	eP	34.6	d	
Mar 24	MH	eP	00 48 19.6		PAS: 33°07'N, 116°26'W, 0 = 00 46 48. Magnitude, 3.7. Southeast of Palomar.
	F	e(P)	06.7		
		e	49 04		
		e	21		
	M	e	51 12		
	R	e	49 32		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Mar 24	C	iP	02 24 25.0	d	
		eN	26 56		
Mar 24	B	iP	04 44 42		USCGS: 51½°N, 175½°E, 0 = 04 36 22. Rat Islands region, Aleutian Islands.
	MH	iP	48.4		
	M	iP	34.6		
	SH	eP	28		
Mar 24	B	eP	04 56 16		
	MH	eP	15.6		
	M	eP	18.2		
Mar 24	MH	eP	05 17 31.2		
		i	44.5		
	M	eP	17.7		
	SH	eP	12		
Mar 24	B	eP	07 37 11		USCGS: 51°N, 179½°W, 0 = 07 29 15. Andreanof Islands, Aleutian Islands.
	MH	iP	16.5		
	F	e	28.9		
	M	eP	01.9		
		i	13.3		
	R	eP	17		
	SH	eP	36 57		
Mar 24	B	ePNEZ	08 25 45.9	SEc	USCGS: 51°N, 130°W, 0 = 08 22 23. Near north coast of Vancouver Island, British Columbia. PAS: Magnitude 6-3/4 - 7.
	BG	i(S)E	28 39		
		eN	30.4		
			A T		
		PZ	4½ 2½		
		PZ	8 8		
		PH	4¼ 2½		
		(S)H	15 11		
		MaxH	65 8		
		MaxZ	40 8		
	MH	iP	08 25 54.0	c	
	F	ePNEZ	26 10.0	SEc	
		e(S)NEZ	29 34		
	M	iP	25 19.8	c	
		i	30.1		
	A	ePNE	03		
	R	eP	38.7	c	
		e	30 09		
	C	iP	24 23	c	
		e(S)N	26 56		
	SH	eP	25 12	c	
Mar 24	B	eP	11 13 11.6		USCGS: 52½°N, 169½°W, 0 = 11 06 10. Fox Islands, Aleutian Islands.
		e(P)	17	c	
	BG	eSE	18 49		
		eQN	21.7		
		eR	23.1		
			R from W		
			A T		
		SH	3½ 14		
		MaxH	33 16		
	MH	eP	11 13 17		
		e(P)	22.9	c	

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Mar 24 (cont'd)	F	eP	31.0		
		e(P)	36.5	c	
	M	eP	03.5		
		i(P)	09.4	c	
	R	e(P)	23	c	
	SH	eP	12 57		
		i(P)	13 04		
Mar 24	B	iP	11 44 02.3	c	USCGS: 52½°N, 171½°W, 0 = 11 36 50. Fox Islands, Aleutian Islands.
		e	46 22		
	MH	iP	44 08.0	c	
		iPcP	46 24.4		
	F	eP	44 21.4	c	
	M	iP	43 53.6	c	
	R	iP	44 07.3		
	SH	iP	43 47.7	c	
		ePcP	46 17		
Mar 24	B	eP	11 50 04		
	MH	iP	06.9	d	
	F	eP	13		
	M	eP	00	d	
	R	eP	49 56	c	
	SH	e(P)	58		
Mar 24	MH	e	12 08 32		
	F	e	55		
	M	e(P)	07 59		
	SH	e(P)	59		
Mar 24	B	e(P)	14 00 22		USCGS: Gulf of California. 0 = 13 56 35.
		e	48		
	MH	iP	09.7		
	F	eP	13 59 51		
	M	eP	14 00 39.3		
		i	01 40.2		
	SH	eP	00 46		
Mar 24	B	e	16 39 46		USCGS: 52½°N, 169½°W, 0 = 16 32 28. Fox Islands, Aleutian Islands.
	MH	i	37.8		
	F	e	46		
	M	e	28.5		
	SH	e	14		
Mar 25	B	iP	00 02 12.0	c	
	MH	iP	09.4	c	
	M	eP	15.4		
	SH	eP	18		
Mar 25	B	eP	00 46 18		USCGS: 53°N, 167°W, 0 = 00 39 29. Fox Islands, Aleutian Islands.
	BG	eSE	51 50		
	MH	iP	46 23.5		
		i	39.2		
	F	eP	35		
	M	eP	08.0		
	R	eP	22		
	SH	eP	01		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Mar 25	B	e(P)	01 11 37		USCGS: 52°N, 176°W, 0 = 01 03 59. Andreanof Islands, Aleutian Islands.
		e	53		
		e	13 40		
	MH	iP	11 40.2		
	F	eP	53		
	M	eP	26.5		
		e	36.9		
	SH	eP	21		
		e	13 29		
Mar 25	B	eP	02 35 47		USCGS: 13½°N, 91°W, 0 = 02 28 36. Near coast of Guatemala. Felt at San Salvador, El Salvador.
	MH	iP	41.1		
		i	46.9		
	F	eP	27.1		
	M	eP	55.6		
		i	36 00.9		
	R	eP	35 44		
	SH	eP	36 00		
Mar 25	MH	iP	08 51 14		
	M	eP	50 57		
	SH	eP	51		
Mar 25	MH	i	10 31 11.3		
	F	e	36.6		
	M	e	12.8		
	R	e	21		
	SH	e	01		
Mar 25	B	eP	14 20 15.3	d	USCGS: 54°N, 165½°W, 0 = 14 13 33. Fox Islands, Aleutian Islands.
		e	22 56		
	BG	eRNEZ	28.9		
			R from WNW		
			A T		
		Max H	6½ 18		
	MH	iP	14 20 21.7	d	
		e	22 54.6		
	F	eP	20 35.0	d	
	M	iP	05.2	d	
		i	22 53.2	c	
	R	iP	20 19.9	d	
	C	eP	19 34.9	d	
	SH	iP	59.8	d	
Mar 25	B	eP	18 30 36	d	USCGS: Revilla Gigedo Islands region. 0 = 18 25 48.
	BG	e(S)NE	34 51	N	
			A T		
		(S)H	3½ 11		
	MH	iP	18 30 28.7	c	
		i	31.8		
	F	eP	14.8	c	
	M	eP	54.8	d	
	R	eP	42		
	SH	eP	59		
Mar 25	B	iP	21 25 14		
	MH	iP	13.9		
	M	eP	17.8		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Mar 26	B	eP	01 35 39.7	d	Probably Revilla Gigedo aftershock.
	BG	e(S)NE	39 53		
	MH	iP	35 32.3	c	
	F	eP	17.7	d	
		e	33		
	M	eP	58.9		
	R	eP	45.5		
	SH	eP	36 03		
Mar 26	B	eP	02 16 56	c	USCGS: 54°N, 165½°W, 0 = 02 10 15. Fox Islands, Aleutian Islands.
		e	17 12		
	BG	eREZ	25.9 R from W		
	MH	iP	02 17 02.6	c	
	F	eP	16	c	
		e	32		
	M	eP	16 45.5	d	
		i	58.0		
	R	eP	59	d	
	C	eP	16		
	SH	eP	40		
Mar 26	MH	e	02 55 35.4		USCGS: 51°N, 177½°W, 0 = 02 47 50. Andreanof Islands, Aleutian Islands.
	M	e	32.5		
Mar 26	B	iP	03 01 58.7	d	Aleutian Islands.
		e	02 23		
	BG	eREZ	14.0		
	MH	iP	02 05.0	c	
	F	eP	17.5	d	
	R	eP	02.9	d	
	SH	eP	01 43		
		e	59		
Mar 26	B	e	03 12 20		USCGS: 51½°N, 170°W, 0 = 03 04 55. Fox Islands, Aleutian Islands.
	MH	eP	09.1		
	F	eP	21		
	M	eP	11 49.6		
		i	12 12.2		
	R	eP	08		
	SH	e	11 49		
Mar 26	MH	i	06 01 54.0		
	F	e	02 05.3		
	M	eP	01 36.2		
	R	eP	49		
	SH	eP	30		
Mar 26	MH	iP	10 25 04.7	d	
	M	eP	24 47.1	d	
Mar 26	B	iP	16 09 48.4	d	USCGS: 50½°N, 180° , 0 = 16 01 53. Andreanof Islands, Aleutian Islands.
		e	11 43		
	MH	iP	09 52.7	d	
		i	10 32.6		
	F	eP	06.5	d	
	M	eP	09 40		
	R	eP	53.5		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Mar 26	C	eP	14		
(cont'd)	SH	eP	34	d	
Mar 26	B	eP	18 24 42		USCGS: 51°N, 179½°W, 0 = 18 16 47. Andreanof Islands, Aleutian Islands.
	MH	iP	47.3		
	F	eP	59.7		
	M	eP	28.7		
	R	eP	47		
	C	eP	06		
	SH	eP	27		
Mar 26	MH	iP	22 55 27		
Mar 27	MH	iP	04 21 14.5		USCGS: 52½°N, 170°W, 0 = 04 13 52. Fox Islands, Aleutian Islands.
	M	eP	20 58		
	R	eP	21 12		
	SH	eP	21 54		
Mar 27	B	e(P)	04 58 18		
	MH	eP	21.7		
	M	e	57 54.3		
	R	e	58 25		
	SH	eP	57 55		
Mar 27	MH	e(P)	07 43 31.6		USCGS: 22°S, 177°W, h = 150 km., 0 = 07 31 56.
	M	e	44 04		
		i	40		
Mar 27	B	eP	13 52 19.2	c	
	MH	iP	25.0	c	
	M	eP	09.9	d	
	SH	eP	04		
Mar 27	MH	e	16 53 19		
	M	eP	00		
	SH	eP	54		
Mar 28	MH	eP	01 22 55.9		USCGS: 51½°N, 174½°W, 0 = 01 15 20. Andreanof Islands, Aleutian Islands.
	M	e	50		
	SH	e	44		
Mar 28	M	eP	04 05 50		
		e	06 23		
Mar 28	M	iP	05 07 32		
	SH	eP	26		
Mar 28	MH	iP	07 37 29		
	M	e	32		
Mar 28	MH	e(P)	09 10 34		PAS: Magnitude 4.5, Baja California.
	F	e	11 35		USCGS: III San Diego.
	M	e(P)	11 11		
Mar 28	MH	e(P)	12 58 33		
	M	eP	23		
	SH	eP	23		
Mar 28	M	e	15 17 30		
Mar 28	B	eP	20 03 06		USCGS: Andreanof Islands, Aleutian Islands. 0 = 19 55 31.
	MH	iP	12.6		
	F	eP	24.3		
	M	eP	02 56.8		
	SH	eP	50		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Mar 28	B	e	20 15 42		USCGS: 51°N, 171½°W, 0 = 20 08 20.
	BG	e(S)E	21 21		Fox Islands, Aleutian Islands.
	MH	eP	15 33.1		
		e	50.3		
	F	eP	42		
	M	eP	23.0		
	SH	eP	17		
Mar 29	B	iP	05 17 18.2	c	USCGS: 53½°N, 167°W, 0 = 05 10 28.
	BG	iSE	22 47	E	Fox Islands, Aleutian Islands.
		eQN	24.8		Magnitude 6½.
		eR	26.3		
			R from E		
			A T		
		PZ	2-3/4 7		
		PH	1-1/2 6		
		SH	32 11		
		MaxH	110 15		
		MaxZ	85 15		
	MH	eP	05 17 23.5	d	
		i	33.5		
	F	eP	37.3	c	
		i	47.3		
		eSE	23 20		
	M	eP	17 06.4	c	
		i	23.1		
	A	e(P)E	16 55		
	R	iP	17 22.8	c	
		i	38.5		
		eSNEZ	22 55		
	C	eP	16 37.6		
		eSE	21 36		
	SH	iP	17 01.6	c	
Mar 29	B	eP	07 32 47.7	c	USCGS: 53½°N, 167°W, 0 = 07 25 58.
	MH	eP	53.6	c	Fox Islands, Aleutian Islands.
	F	eP	33 07.3		
	M	eP	32 38.5	c	
	R	eP	52		
	C	eP	11		
	SH	iP	32.0	c	
Mar 29	B	eP	08 22 52.2	d	USCGS: 53°N, 167°W, 0 = 08 16 03.
	MH	eP	58.0	d	Fox Islands, Aleutian Islands.
	F	eP	23 12		
	M	eP	22 43.1	d	
	R	eP	56		
	SH	eP	37	d	
Mar 29	B	iP	18 50 36.9	c	
	MH	iP	35.7	c	
	M	eP	39.3	c	
	SH	eP	39	c	
Mar 29	MH	iP	19 07 16.2	c	
	F	eP	27.8		
	R	eP	16		
	SH	eP	06 56		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Mar 29	B	iP	22 56 45.5	d	USCGS: 53°N, 169°W, 0 = 22 49 51.
	BG	eSE	23 02 19		Fox Islands, Aleutian Islands.
		eN	05.1		PAS: Magnitude 6 - 6¼.
			A T		
		SH	3¼ 10		
		MaxH	19 18		
	MH	eP	22 56 50.7	d	
		i	57.2	c	
		i	57 03.2	c	
	F	eP	03.9		
	M	eP	56 36.6	d	
	R	eP	52.4		
		eSE	23 02 27		
	C	eP	22 56 09.0		
	SH	iP	30.9	d	
Mar 30	MH	eP	00 50 40.2		USCGS: 51½°N, 179½°W, 0 = 00 42 40.
	F	eP	52.6		Andreanof Islands, Aleutian
	M	eP	26.2	d	Islands.
	R	eP	39		
	C	eP	49 59.8		
		e(S)E	55 50		
	SH	eP	50 21		
Mar 30	B	eP	01 58 27		USCGS: 51½°N, 178°W, 0 = 01 50 39.
	MH	iP	33.6		Andreanof Islands, Aleutian
	F	eP	45.0		Islands.
	M	eP	18.5		
	R	eP	32		
	SH	eP	13		
Mar 30	B	iP	06 44 57.6	d	USCGS: 51°N, 180° , 0 = 06 37 00.
	MH	iP	45 04.5	d	Andreanof Islands, Aleutian
		i	11.4	c	Islands.
		e	50 49.4		
	F	eP	45 15.5		
	M	eP	44 49.3	d	
	R	eP	45 02.9	d	
	C	iP	44 22.6		
	SH	iP	44	d	
		e	50 29		
Mar 30	B	eP	09 24 32		USCGS: 52°N, 175°W, 0 = 09 17 00.
	MH	iP	38.0		Andreanof Islands, Aleutian
		i	51.0		Islands.
	F	eP	51		
	M	eP	22.9		
	R	eP	36		
	C	eP	23 56		
	SH	eP	24 17		
Mar 30	MH	iP	09 30 40.6		
	M	eP	19.9		
	R	eP	27		
	SH	eP	17		
Mar 30	M	e	21 39 08		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Mar 31	B	eP	02 24 47		43°45'N, 128°10'W, 0 = 02 23 01.
	BG	eN	26.4		Off coast of Oregon.
	MH	eP	24 58.3		Magnitude 4.0.
	F	eP	25 19		
	M	iP	24 30.5		
	R	e	54.2		
	SH	eP	21.3		
Mar 31	B	eP	02 34 25		USCGS: Near coast of northern Chile.
		epP	55		h = 100 km., 0 = 02 22 40.
	MH	iP	20.6	d	
		ipP	50.3		
	F	eP	10.5		
	M	eP	30.2	d	
	R	eP	23	d	
	SH	eP	32	d	
		epP	35 02		
Mar 31	M	eP	03 38 32.5		
Mar 31	B	iP	10 16 16.1		USCGS: 51½°N, 178°W, 0 = 10 08 28.
	BG	e(S)E	22 36		Andreanof Islands, Aleutian
	MH	eP	16 22.1	c	Islands.
		i	38.3		
	F	e(P)	42.4		
	M	eP	06.1	c	
		i	07.8	d	
	R	eP	21		
	C	eP	15 41		
	SH	iP	16 02.2		
Mar 31	MH	eP	17 32 34.7		USCGS: 54°N, 158°E, 0 = 17 22 55.
	M	iP	20.0		Kamchatka.
	R	eP	31		
	SH	eP	14		

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SAN FRANCISCO—FERNDALE—FRESNO
MINERAL—ARCATA—RENO—CORVALLIS—SHASTA
MANZANITA LAKE—FALLON—YERINGTON

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From April 1, 1957, to June 30, 1957

BY
DON TOCHER

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BERKELEY AND LOS ANGELES
1959

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Perry Byerly, Director

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and

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EARTHQUAKES IN NORTHERN CALIFORNIA, NEVADA, AND OREGON

The list following this page gives the latitude and longitude of 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.) or seven (7) hours to convert to Pacific Daylight Time (P.D.T.). This will change the date for some of the earthquakes. Pacific Daylight Time was legally in effect throughout California from April 28 to September 29, 1956.

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 1957	Origin Time (G.C.T.)	Latitude North	Longitude West	Q	M	Remarks
1	Apr. 4	06-25-42	37° 23'	121° 45'	b	2.4	Northwest of Mt. Hamilton
2	Apr. 5	00-04-10	40.4°	126.2°	d	4.1	100 miles west of Ferndale.
3	Apr. 7	16-20-30	37° 40'	122° 30'	a	3.3	Aftershock of March 22 at 19-44-21. IV at Millbrae. Also felt in San Francisco. (This list includes aftershocks of this series only if of magnitude 3 or above. A more complete tabulation follows this list.)
4	Apr. 8	09-00-39	37° 36'	121° 56'	c	1.7	Southwest of Livermore.
5	Apr. 8	14-30-33	37° 32'	121° 50'	a	2.6	Southwest of Livermore.
6	Apr. 10	06-34-51	40.4°	124.2°	d	3.3	South of Ferndale.
7	Apr. 15	23-50-05	37° 31'	121° 46'	b	2.7	South of Livermore.
8	Apr. 19	01-29-38	38° 30°	121° 50'	c	1.8	South of Livermore.
9	Apr. 25	06-45-46	39.2°	118.0°	d	4.2	Southeast of Fallon, Nevada.
10	Apr. 26	10-06-29	40° 20'	124° 08'	c	3.1	Southeast of Ferndale.
11	Apr. 26	18-03-07	39° 15'	118° 04'	c	4.0	Southeast of Fallon, Nevada.
12	Apr. 27	00-15-04	37° 44'	122° 32'	a	3.0	Aftershock of Mar. 22 at 19-44-21. Felt in Westlake and Daly City.
13	Apr. 27	00-58-07	38° 00'	122° 22'	b	2.6	Northwest of Berkeley.
14	Apr. 27	05-39-27	39.4°	118.5°	d	4.2	East of Fallon, Nevada. Felt at Fallon.
1	Apr. 28	23-05-11	37° 22'	121° 44'	b	3.3	Northwest of Mt. Hamilton.
16	Apr. 29	08-07-38	37° 57'	122° 00'	b	3.5	Northeast of Berkeley. Felt at Concord, Walnut Creek, and Canyon.
17	Apr. 29	14-06-15	39.2°	118.1°	d	3.9	Southeast of Fallon, Nevada.
3	Apr. 30	06-27-46	37° 40'	122° 31'	a	3.4	Aftershock of Mar. 22 at 19-44-21. V at Daly City and San Francisco. IV at Canyon and San Mateo.
18	Apr. 30	20-31-36	38° 05'	122° 30'	b	2.1	North of San Francisco.
19	May 1	19-36-22	37° 40'	122° 28'	a	3.3	Aftershock of Mar. 22 at 19-44-21. Felt in Westlake and Castro Valley.
15	May 8	16-39-29	37° 25'	121° 47'	b	3.0	Northwest of Mt. Hamilton.
20	May 15	01-50-27	37° 59'	122° 20'	a	3.3	Northwest of Berkeley. IV in the East Bay area (Albany, Berkeley, El Cerrito, Richmond).
20	May 15	05-35-39	38° 00'	122° 22'	a	2.3	Aftershock.
20	May 15	11-06-44	38° 00'	122° 21'	a	2.6	Aftershock.
20	May 17	05-34-05	37° 59'	122° 21'	b	2.1	Aftershock.

Map No.	Date 1957	Origin Time (G.C.T.)	Latitude North	Longitude West	Q	M	Remarks
21	May 17	05-40-50	38° 18'	118° 15'	c	3.6	Southeast of Hawthorne, Nevada.
22	May 22	13-13-43	38.6°	122.2°	d	2.2	Northeast of Santa Rosa.
23	May 24	13-01-53	37° 17'	121° 34'	b	3.1	Southeast of Mt. Hamilton.
24	May 25	16-12-14	37° 14'	121° 34'	b	3.0	Aftershock.
25	May 26	09-04-18	37° 21'	121° 29'	c	2.0	East of Mt. Hamilton.
26	May 28	17-48-34	38° 43'	119° 46'	b	3.2	North of Markleeville.
27	May 29	17-30-06	37° 27'	121° 44'	b	2.8	Northwest of Mt. Hamilton.
28	May 30	10-48-19	39.6°	118.2°	d	3.8	Northeast of Fallon, Nevada.
29	May 30	22-39-31	37° 44'	122° 03'	c	1.9	Southeast of Berkeley. Foreshocks at 2216, 2220, 2223, 2228, and 2231.
30	June 5	18-32-55	40° 30'	124° 00'	c	3.4	Southwest of Ferndale. IV at Petrolia.
31	June 7	23-03-24	38° 04'	122° 31'	c	2.2	North of San Francisco.
32	June 10	17-59-22	39.5°	118.6°	d	3.0	East of Fallon, Nevada. Felt at Stillwater.
33	June 10	21-27-36	40.7°	125.0°	d	3.7	West of Ferndale.
34	June 11	16-57-55	39.2°	118.3°	d	4.2	Southeast of Fallon, Nevada.
35	June 13	10-40-55	37° 42'	122° 31'	a	3.0	Aftershock of Mar. 22 at 19-44-21. IV at San Francisco.
16	June 18	08-09-13	37° 58'	122° 00'	a	2.6	Northeast of Berkeley.
36	June 18	18-30-07	38° 17'	122° 07'	c	2.2	Southwest of Sacramento.
37	June 19	06-16-17	36° 54'	121° 43'	c	3.1	East of Santa Cruz. Felt at Watsonville.
38	June 20	01-40-52	37° 38'	121° 51'	b	2.5	Southwest of Livermore.
39	June 21	00-41-25	37° 42'	119° 17'	c	4.6	East of Yosemite. V at Yosemite Valley. IV at El Portal, June Lake, and Wawona.
40	June 21	18-34-46	38° 22'	122° 16'	c	1.8	East of Santa Rosa.
41	June 22	19-52-58	36.6°	121.3°	d	2.8	Southeast of Hollister.
22	June 25	21-12-43	38.6°	122.2°	d	2.5	West of Sacramento.
42	June 26	13-03-37	36° 54'	121° 40'	c	2.2	West-northwest of Hollister.
42	June 26	13-27-38	36° 54'	121° 40'	c	2.3	West-northwest of Hollister.
42	June 26	13-50-12	36° 54'	121° 40'	c	2.2	West-northwest of Hollister.
42	June 26	16-20-04	36° 54'	121° 40'	c	2.4	West-northwest of Hollister.
43	June 29	09-31-32	36.7°	121.3°	d	2.7	Southeast of Hollister.
44	June 30	10-44-02	36.7°	121.2°	d	2.6	Southeast of Hollister.

THE SAN FRANCISCO EARTHQUAKE OF MARCH 22, 1957

Aftershocks--April 1 to June 30, 1957

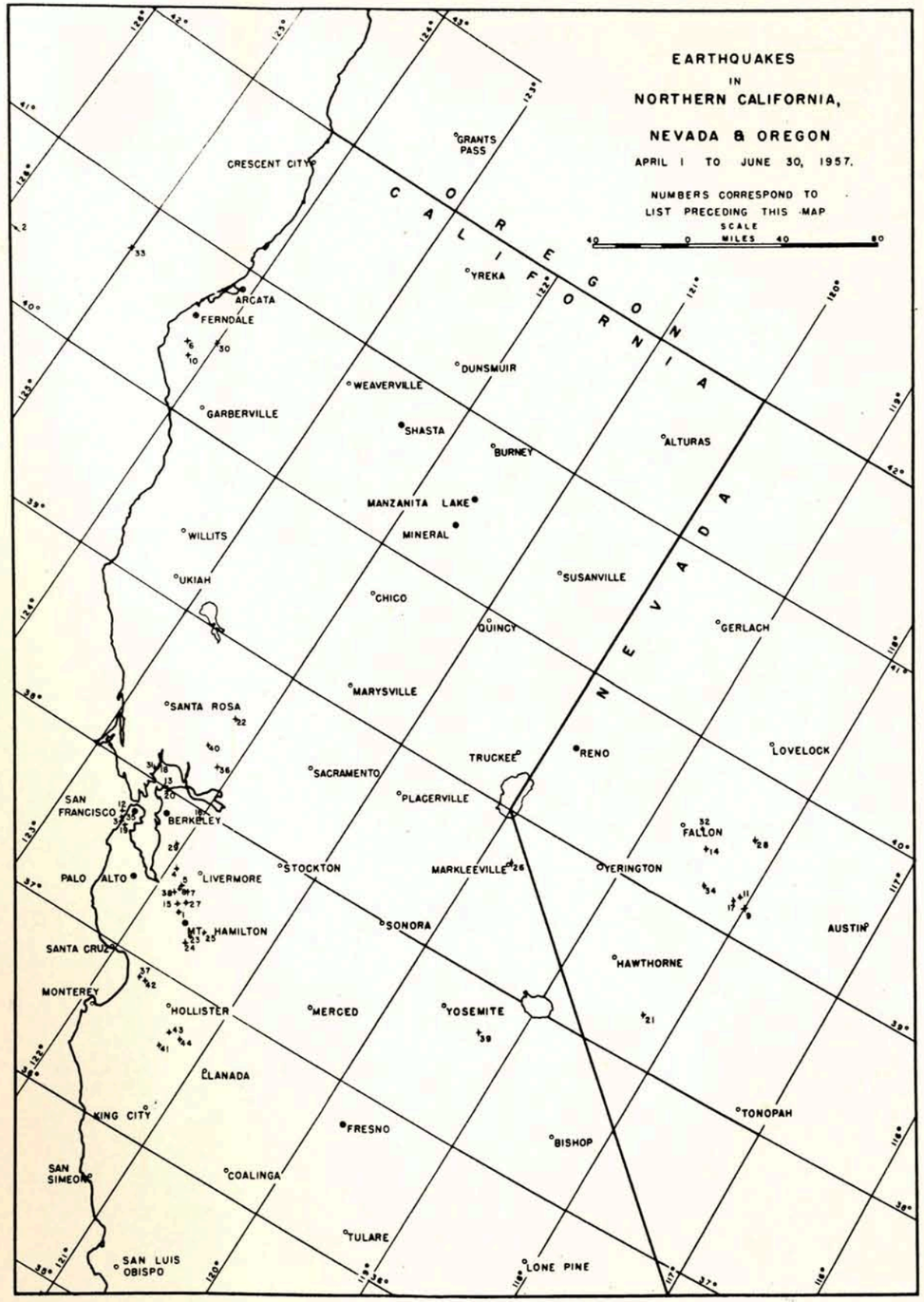
The following list tabulates those aftershocks of the earthquake near San Francisco on March 22, 1957 (at $19^h44^m21.0^s$ GCT) occurring between 00^h GCT, April 1, 1957 and 24^h GCT, June 30, 1957. It is a continuation of a list which appeared with the same title in Volume 27, Number 1 of this series, and the introductory remarks to that list should be consulted if statistical use is to be made of this list.

The preceding regional list of earthquakes includes all shocks of this series of magnitude 3.0 and above. In this more complete list, an entry in the "Remarks" column of "Felt*" indicates that more detailed information on intensities may be found for that shock in the regional list.

Epicenters of all shocks in this list are within 6 kilometers of epicenter No. 3 on the accompanying map.

Date 1957	Time G.C.T.	Latitude North	Longitude West	Focal depth km.	Magnitude	Remarks
Apr. 1	07-48-17				1.9	
2	11-46-10				1.9	
2	21-21-18				2.0	
3	19-47-26				2.2	
4	17-32-34				1.8	
4	20-06-45				2.8	
4	23-39-08				2.8	
7	16-20-30.3	37° 40.1'	122° 29.6'	6.8	3.3	Felt*
8	00-18-24				2.9	IV at San Francisco.
9	22-21-23				2.4	
10	11-08-43				2.1	Felt at Daly City.
10	11-42-27				2.2	Felt at Daly City.
11	06-25-10	37°42'	122° 32'		2.8	Felt at Daly City and San Francisco.
13	13-21-09				2.2	
13	20-23-35	37° 39'	122° 30'		2.9	III at San Francisco.
14	23-00-02				2.9	Felt.
15	15-24-55				1.8	
15	15-57-56				2.2	
16	15-30-46				2.1	
17	12-53-57				2.1	

Date 1957	Time G.C.T.	Latitude North	Longitude West	Focal Depth Km.	Magnitude	Remarks
Apr. 19	03-53-44				1.8	
21	18-55-24	37° 41'	122° 32'		2.8	III at San Francisco.
21	21-38-09	37° 44'	122° 34'		2.9	Felt at San Francisco.
23	14-34-40				1.9	
27	00-15-04.0	37° 43.8'	122° 32.4'	7.5	3.0	Felt*.
28	11-12-07	37° 39'	122° 30'		2.7	Felt at San Francisco.
30	06-27-46.1	37° 39.6'	122° 30.8'	6.5	3.4	Felt*.
May 1	19-36-22.5	37° 40.0'	122° 28.2'	9.2	3.3	Felt*.
1	23-26-33				2.4	
5	01-12-25				1.8	
6	18-43-59				2.1	
8	19-36-04	37° 40' and San Francisco.	122° 31'		2.7	Felt at Westlake, Palisades
13	01-08-27	37° 44'	122° 34'		2.3	Felt at San Francisco.
16	11-22-37				2.4	
19	03-22-35	37° 44'	122° 34'		2.6	Felt at San Francisco.
19	15-03-14	37° 44'	122° 34'		2.5	IV at San Francisco.
June 3	18-14-47	37° 39' and Daly City.	122° 31'		2.7	Felt at San Bruno
12	07-39-00	37° 44'	122° 33'		2.0	Felt at San Francisco.
12	09-04-47	37° 42'	122° 33'		1.7	Felt at San Francisco.
13	10-40-55.5	37° 41.9'	122° 30.6'	7.5	3.0	IV at San Francisco.
14	03-43-02				2.6	
14	10-22-55				2.1	
15	18-51-18				1.8	
27	04-38-02	37° 39'	122° 29'		2.9	Felt at San Francisco.
27	21-32-51				1.9	
28	09-58-20				2.2	



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 and periods in seconds 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
1957			h. m. s.		
Apr. 1	MH	iP	11 16 20.2	d	
		e	30.4		
	M	eP	16.2	d	
	SH	eP	11		
Apr. 1	BG	eSE	11 48 44		USCGS: 51°N, 173°W, 0 = 11 35 30. Andreanof Islands, Aleutian Islands.
		eQN	51.9		
	MH	iP	42 56.9	c	
	F	eP	43 09		
	M	iP	42 40.8	d	
	R	eP	56		
	C	eP	14		
	SH	iP	36		
Apr. 1	M	iP	15 06 43.5	c	
	R	eP	57		
	SH	iP	39	c	
Apr. 2	B	eP	00 46 55		USCGS: 51°N, 173°W, 0 = 00 39 42. Andreanof Islands, Aleutian Islands.
	BG	eNE	56.0		
	F	eP	47 21.8		
	M	eP	46 54.5		
	R	eP	47 07.5		
	C	eP	46 28		
	SH	eP	48		
Apr. 2	B	iP	08 44 27.6	c	USCGS: 30°N, 137°E, h = 550 km, 0 = 08 33 10. Off south coast of Honshu, Japan.
	MH	iP	31.7		
	F	eP	41.0		
	M	iP	22.8	d	
	R	eP	33.7		
	C	eP	08.6	c	
	SH	eP	19	c	
Apr. 2	MH	iP	19 08 01.9	d	PAS: 35°44'N, 117°13'W, 0 = 19 07 00. Magnitude 3.8. Slate Range, East of Trona.
		iSN	09 04.6		
	F	iPEZ	07 41.3	Ed	
		i(S)NEZ	08 07.8		
Apr. 2	B	e(P)	20 24 18		USCGS: 51-1/2°N, 173°W, 0 = 20 16 57. Andreanof Islands, Aleutian Islands.
	BG	eQNE	33.3		
	MH	i(P)	24 18.7		
	F	eP	38		
	M	iP	09.0	d	
	R	eP	24		
	C	eP	23 40		
	SH	eP	24 03		
Apr. 2	R	eP	20 46 30		USCGS: 51°N, 173-1/2°W, 0 = 20 39 04. Andreanof Islands, Aleutian Islands.
	SH	eP	11		
Apr. 2	B	iP	21 35 15		USCGS: 51°N, 173°W, 0 = 21 27 54. Andreanof Islands, Aleutian Islands.
	BG	eQNE	44.3		
	MH	iP	35 21.0		
	F	eP	33.4		
	M	eP	05.8		
	R	eP	21		
		eS	41 18		
	C	iP	34 40	d	
	SH	iP	35 01.1	d	

Date	Sec.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Apr. 3	M	e(P)	23 16 07		USCGS: 51-1/2°N, 177°W, 0 = 23 09 15. Andreanof Islands, Aleutian Islands.
Apr. 4	B	iPNEZ	00 19 01.1	NWd	USCGS: 58°N, 155-1/2°W, h = 150 km, 0 = 00 13 08. Near coast of Alaska Peninsula. Felt: Kodiak Island.
	BG	eE	26.8		
	MH	iP	19 07.1	d	
	F	eP	19.1	d	
	M	iP	18 46.2	d	
		i	19 04.5		
		i	25 32.2		
	R	iP	19 00.2	d	
		e	25 38		
		eN	29 33		
	C	iPNEZ	18 11.2	d	
		eSE	22 57		
	SH	iP	18 41.4	d	
Apr. 4	M	eP	00 57 33		USCGS: 53°N, 168°W, 0 = 00 50 47. Fox Islands, Aleutian Islands.
	SH	eP	27		
Apr. 4	M	e	02 24 14		
Apr. 4	M	eP	07 02 10.7	c	USCGS: 48°N, 155°E, 0 = 06 52 18. Northern Kurile Islands.
	SH	eP	06		
Apr. 4	M	i(P)	11 13 27.2		USCGS: Southern Mendoza Province, Argentina. 0 = 11 00 20.
	SH	e(P)	20		
Apr. 4	M	e	14 50 40		USCGS: 52-1/2°N, 170-1/2°W, 0 = 14 43 49. Fox Islands, Aleutian Islands.
	SH	e	41		
Apr. 4	M	e	15 44 09		
Apr. 5	B	eP	02 56 54		USCGS: 52°N, 172-1/2°W, 0 = 02 49 39. Fox Islands, Aleutian Islands.
	BG	eSEZ	03 02 42		PAS: Magnitude 6-1/2
		eQN	05.2		
		eR	07.0		
			R from W		
			mu sec		
		Max H	55 20		
	MH	iP	02 57 02.1	c	
		eS	03 02 57		
	F	eP	02 57 14.7	c	
		eSNE	03 03 19.5		
	M	eP	02 56 46.3	c	
	R	iP	57 00.2		
	C	eP	56 19	c	
		eSE	03 01 38		
	SH	iP	02 56 41	c	
		eS	03 02 52		
Apr. 5	M	e	03 27 33		
Apr. 5	B	eP	07 42 40.5	d	USCGS: 26-1/2°S, 177°W, h = 100 km, 0 = 07 30 22. Kermadec Islands Region.
		i	40.9	c	
		epP	43 03		
	BG	eSNE	52 51		PAS: Magnitude 6-3/4
			mu sec		
		pPZ	6 3-1/2		
		pPH	2-1/2 4		
		SH	2-3/4 5-1/2		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Apr. 5 cont'd	MH	iP	07 42 41.2	d	
		eSN	52 53		
	F	eP	42 44.6	d	
	M	eP	50.2	d	
		ipP	43 14.8		
	R	iP	42 53.4	d	
		i	43 20.2		
		eS	53 17		
	C	i	43 25.3		
	SH	iP	42 49.7	d	
		ipP	43 11		
Apr. 5	M	iP	15 14 38		USCGS: 45°N, 148°E, 0 = 15 04 09. Kurile Islands.
Apr. 5	B	i(PcP)	16 21 55.9	d	USCGS: 12-1/2°N, 88°W, h = 100 km, 0 = 16 12 20. Near coast of Nicaragua. Felt: El Salvador.
		i	22 09.7		
	BG	eNE	34.1		
	MH	iP	19 45		
	F	eP	29		
	R	eP	44		
	SH	e	20 26		
		i(PcP)	21 59		
Apr. 5	SH	eP	16 43 54		USCGS: 51-1/2°N, 178-1/2°W, 0 = 16 36 20. Andreanof Islands, Aleutian Islands.
Apr. 5	SH	eP	22 09 57		
Apr. 7	BG	eN	08 18 55		USCGS: 53°N, 167°W, 0 = 08 03 46. Fox Islands, Aleutian Islands.
		eN	21 16		
	M	e(P)	10 24		
Apr. 7	B	eP	10 27 54		USCGS: 1°S, 137-1/2°E, 0 = 10 14 08. Near north coast of New Guinea.
	BG	eSKSE	38 14		
		eE	40.8		PAS: Magnitude 6 - 6-1/4
		eE	46.5		
		eREZ	59		
			R from W		
			mu sec		
		SKSH	4 13		
		Max H	16 20		
		Max Z	17 20		
	M	eP	10 27 57		
	R	eP	28 07		
	SH	eP	27 52		
		ePP	31 57		
Apr. 8	M	e(P)	00 14 05		USCGS: 52°N, 175-1/2°W, 0 = 00 06 37. Andreanof Islands, Aleutian Islands.
Apr. 8	B	eP	20 26 37.7	c	USCGS: 8-1/2°N, 83°W, 0 = 20 18 09. Panama-Costa Rica Border. Felt: San Jose, Costa Rica and Balboa Heights, Canal Zone.
		e(PP)	28 13		
	BG	eSNE	33 30		PAS: Magnitude 6-1/2
		eQN	43.0		
		eR	45.0		
			R from SE		
			mu sec		
		PZ	1-3/4 4-1/2		
		SH	2-1/2 8		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Apr. 8 cont'd	MH	iP	20 26 33.1	c	
	F	eP	18.9		
	M	eP	42.7	c	
	R	eP	31.6	c	
	SH	eP	47.7	c	
Apr. 8	MH	iP	20 51 14.3	c	USCGS: Andreanof Islands, Aleutian Islands. 0 = 20 43 10.
	M	eP	03.6		
	SH	eP	50 55		
Apr. 9	B	iP	00 35 57.1	c	USCGS: 30-1/2°N, 138-1/2°E, h = 450 km, 0 = 00 24 39. Off south coast of Honshu, Japan.
		i!NEZ	59.1	SEc	
		ipP	37 35		Magnitude 6-1/4.
	BG	esPEZ	38 23		
		iSNE	45 20		
		ePSNE	47 09		
			mu sec		
		PZ	4 4		
		SH	2-1/4 7		
		PSH	4 8		
	MH	iP	00 36 01.4	c	
		ipP	37 43.9		
	F	eP	36 08.6	c	
		i	23.1		
		eSNE	45 41.6		
	M	eP	35 52.6	c	
		i	54.7	c	
	R	iP	36 01.1	c	
		ipP	37 43.7		
		eS	45 28		
	C	iP	35 36.2	c	
		epP	37 20		
		eSN	44 40		
	SH	iP	35 49.5	c	
		ipP	37 35		
		i	38 52.3		
		eS	45 03		
Apr. 9	B	iP	02 29 10.2	d	USCGS: 22-1/2°N, 144-1/2°E, 0 = 02 17 06. Mariana Islands region.
	MH	iP	13.9	d	
	F	iP	22.3	d	
	M	iP	08.3	d	
	R	iP	16.8	d	
	C	eP	28 55.4		
	SH	iP	29 05.5	d	
Apr. 9	MH	eP	07 46 45		USCGS: 53°N, 167°W, 0 = 07 39 40. Fox Islands, Aleutian Islands.
	M	eP	19		
	C	eP	45 53		
	SH	eP	46 13		
Apr. 9	B	eP	10 07 15		USCGS: 51°N, 178-1/2°W, 0 = 09 59 27. Andreanof Islands, Aleutian Islands.
	MH	e	30		
	F	eP	34		
		e	44		
	M	iP	07		
	R	eP	19		
	SH	iP	02		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Apr. 9	B	iP	10 46 47.8	d	USCGS: 30-1/2°N, 138°E, h = 500 km,
		i	47 08		0 = 10 35 34. South of
	F	iP	46 59.9	c	Honshu, Japan.
	M	iP	43.6	c	
	R	eP	52.3	d	
	SH	iP	40.8	c	
Apr. 9	B	eP	11 10 00.7		USCGS: 51-1/2°N, 178-1/2°W,
	BG	eLNE	21.8		0 = 11 02 09. Andreanof Islands,
			mu sec		Aleutian Islands.
		PZ	2-1/4 8		
	M	iP	11 10 06.5	c	
		i	10.3	c	
	F	eP	19.5		
	M	eP	09 51.9	d	
	R	eP	10 05.6		
	C	iP	09 27.6		
		e	11 02		
		e(S)	15 19		
	SH	iP	09 47.5		
		e(S)	15 45		
Apr. 9	MH	eP	13 41 37		
	M	eP	23		
	SH	eP	17		
Apr. 9	B	iP	14 19 32.7	c	
	MH	eP	38.2	d	
	F	eP	51.0		
	M	eP	24.1	d	
	R	eP	36		
	SH	iP	18.9	d	
Apr. 9	B	eP	14 36 45		
	MH	eP	52.6	d	
	M	eP	38.3	d	
	R	eP	50		
	SH	eP	34		
Apr. 9	B	eP	17 48 05		USCGS: 51-1/2°N, 179-1/2°W,
	MH	eP	11		0 = 17 40 13. Andreanof Islands,
	F	eP	23		Aleutian Islands.
	M	eP	47 57		
	R	eP	48 09		
	C	eP	47 30		
	SH	eP	52		
Apr. 9	B	eP	20 30 54.3	d	USCGS: 52-1/2°N, 169°W, 0 = 20 23 56.
	BG	eSE	36 28		Fox Islands, Aleutian Islands.
		eQN	39.2		
	MH	eP	31 00.5	d	
	F	eP	12.6		
	M	eP	30 44.4	d	
	R	eP	58	d	
	SH	eP	40.1	d	
Apr. 9	MH	eP	20 37 17		
	M	iP	03		
	SH	eP	36 59		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Apr. 9	MH	eP	22 41 45		USCGS: 51°N, 177-1/2°W, 0 = 22 33 54.
	SH	eP	26		Andreanof Islands, Aleutian Islands.
Apr. 9	MH	iP	22 57 32.8	d	USCGS: 51-1/2°N, 177°W, 0 = 22 49 47.
	F	eP	46		Andreanof Islands, Aleutian Islands.
	M	eP	19.6	c	
	R	eP	33		
	C	eP	56 54		
	SH	eP	57 14	d	
Apr. 10	MH	eP	00 34 41		
	SH	eP	22		
Apr. 10	B	iP	03 32 13.8	d	USCGS: 53°N, 168°W, 0 = 03 25 20.
		ePcP	34 45		Fox Islands, Aleutian Islands.
	BG	iSE	37 44	E	
		eQN	40.3		
		eR	41.2		
	MH	iP	32 19.1	c	
		i	34.5	c	
		iPcP	34 48.4		
	F	eP	32 32		
	M	eP	03.2	c	
		iPcP	34 42.4		
	R	eP	32 16.7		
		eS	37 51		
	C	eP	31 34		
	SH	iP	58.2	c	
		ePcP	34 41		
Apr. 10	B	iP	05 18 26.9	d	USCGS: 15-1/2°N, 98°W, 0 = 05 12 08.
		e(PP)	19 41		Near coast of Oaxaca, Mexico.
	BG	eSE	23 37	E	Magnitude 6-1/2
		eR	28.9		
			R from SE		
			mu sec		
		PZ	7 8		
		PH	2-3/4 7		
		SH	8 10		
		MaxH	80 15		
	MH	iP	05 18 20.4	d	
	F	eP	06.9	d	
		e(S)	23 27		
		iNEZ	28 33		
	M	iP	18 38.1	d	
		i(PP)	19 59.5	c	
	A	e(P)E	18 53		
	R	iP	25.0	d	
	C	eP	19 11.4	d	
	SH	eP	18 42.6	d	
		e(PP)	19 59		
Apr. 10	MH	e	07 35 02		USCGS: 14°N, 91-1/2°W, 0 = 07 28 03.
	M	e	16		Guatemala.
Apr. 10	B	eP	09 16 59.2	d	USCGS: 51°N, 177°W, 0 = 09 09 18.
	MH	eP	17 04.7	d	Andreanof Islands, Aleutian Islands.
		i	23.6	d	

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Apr. 10	F	eP	17.4	d	
cont'd	M	eP	16 50.7	d	
	R	eP	17 03.7		
	C	eP	16 24.5		
	SH	iP	45.8	d	
		e	18 56		
Apr. 10	BG	iPNEZ	11 35 49	NWd	USCGS: 56°N, 154°W, 0 = 11 29 58. Kodiak Islands region. Magnitude 7
		e(S)E	40 36		
			mu sec		
		PZ	50 15		
		PH	55 15		
		(S)H	100 15		
		MaxH	280 15		
		MaxZ	215 15		
	MH	e(P)	11 35 54.0	c	
	F	eP	36 08		
	M	eP	35 35.5	d	
		i	54.2		
	A	ePE	22		
		eE	38 28		
	R	iP	35 50.1	d	
	C	eP	34 59.4		
		eSE	39 14		
	SH	eP	35 29.5	d	
Apr. 10	M	e(P)	12 08 06		
	SH	e(P)	00		
Apr. 10	M	eP	13 00 45.7		
	R	eP	59		
	C	eP	10		
	SH	eP	41		
Apr. 10	B	eP	13 27 51		USCGS: 51-1/2°N, 176-1/2°W, 0 = 13 20 14. Andreanof Islands, Aleutian Islands.
	MH	eP	58.6		
		e	29 59.7		
	M	eP	27 43.5	c	
	C	eP	15		
	SH	eP	38	c	
Apr. 10	MH	iP	13 49 23.6	c	
	M	iP	04.0	c	
	SH	eP	48 57.8		
Apr. 10	MH	e(P)	13 55 13		USCGS: 15°S, 173°W, 0 = 13 43 43. Samoa Islands.
	F	e(P)	11		
	M	e	22		
	SH	e(P)	15		
Apr. 10	MH	i	15 59 12	d	
	SH	eP	58 38	d	
Apr. 10	SH	eP	17 44 08		
Apr. 10	MH	i	20 30 13.2		
	M	e	25 35		
		e	29 48		
Apr. 11	MH	e(P)	01 21 42		
	F	e(P)	45		
	M	eP	46		
		e	24 43		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Apr. 11	M	e(P)	01 52 55		
	SH	e(P)	48		
Apr. 11	MH	eP	06 55 48		USCGS: Samoa Islands. 0 = 06 44 33.
	F	e	54		
	M	eP	59.6		
	SH	eP	59		
Apr. 11	MH	eP	07 05 33.7		
	F	eP	47		
	M	eP	14.3		
	R	eP	30		
	C	eP	04 38		
	SH	eP	05 09		
Apr. 11	MH	i	16 19 13.0		USCGS: 52-1/2°N, 169-1/2°W, 0 = 16 12 08. Fox Islands, Aleutian Islands.
	R	e	23		
	SH	eP	18 53		
Apr. 11	B	eP	17 47 33		USCGS: 52°N, 168-1/2°W, 0 = 17 40 37. Fox Islands, Aleutian Islands.
	BG	eLN	55.6		
	MH	eP	47 38.4	d	
		i	54.1	d	
	F	eP	51.5		
	M	eP	44.2	d	
	R	eP	37		
	C	eP	46 55	d	
	SH	iP	47 18	d	
Apr. 12	B	iP	04 25 34.7	c	USCGS: 51-1/2°N, 178-1/2°W, 0 = 04 17 45. Andreanof Islands, Aleutian Islands.
	MH	iP	40.0	d	
	F	eP	52.4		
	M	eP	25.6	d	
		e(S)	31 20		
	R	eP	25 39.0		
	C	eP	00.7	d	
		e(S)	30 49		
	SH	eP	25 19.9		
		e(S)	31 15		
Apr. 12	B	iP	06 56 48.9	c	USCGS: 51-1/2°N, 176°W, 0 = 06 49 11. Andreanof Islands, Aleutian Islands.
	MH	eP	54.3	d	
	F	eP	57 06.5		
	M	iP	56 40.1	d	
	R	eP	53.2		
	C	eP	13		
	SH	iP	34.5	d	
Apr. 12	MH	e	07 37 43		
	M	eP	29		
Apr. 12	MH	e	10 59 21		
	M	e	07		
Apr. 12	MH	eP	13 11 10		USCGS: Andreanof Islands, Aleutian Islands. 0 = 13 03 45.
	M	eP	10 56		
	SH	eP	52		
Apr. 13	MH	iP	02 39 32.0	c	
	F	eP	46.9		
	M	eP	38 55.1		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Apr. 13	B	eP	03 46 45.4		USCGS: 48-1/2°N, 128°W, 0 = 03 44 00.
	BG	ePNEZ	46	Nwd	Off coast of Vancouver Island,
		iSEZ	49 03		British Columbia.
			mu sec		Magnitude 5-1/2
		PZ	1-1/2 6		
		PH	1-1/4 7		
		SH	5-1/4 12		
		SZ	9 10		
		MaxH	35 12		
		MaxZ	15 10		
	F	eP	03 47 11.2	d	
		eE	48 24		
		eSNE	49 30		
	M	iP	46 20.3	d	
	R	eP	40.6		
	C	iP	45 21.7		
		iS	46 19.6		
	SH	eP	11.7		
		e	49.3		
Apr. 13	B	eP	05 20 28		USCGS: 52-1/2°N, 168-1/2°W,
		e	40		0 = 05 13 32. Fox Islands,
	MH	eP	35.2		Aleutian Islands.
	F	eP	48.0		
	M	eP	19.0		
		i	31.6		
	R	e	40		
	SH	eP	14		
Apr. 13	MH	e	07 37 12		USCGS: 52-1/2°N, 168-1/2°W,
Apr. 13	B	eP	08 06 16		0 = 07 59 23.
	MH	eP	22		
	M	e	10		
Apr. 13	MH	eP	10 24 56.6		USCGS: 5°N, 126-1/2°E, 0 = 10 10 48.
		ePP	29 15.6		Near south coast of Mindanao,
	M	ePP	18.0		Philippine Islands.
Apr. 13	MH	iP	11 57 19.2		
Apr. 13	B	iP	15 51 16.3	d	USCGS: 19°S, 69-1/2°W, h = 150 km,
	MH	iP	13.0	d	0 = 15 39 43. Northern Chile.
	F	eP	01.9	d	
	M	iP	22.7	c	
	R	eP	14.8	d	
	SH	eP	25.0		
Apr. 13	MH	eP	16 43 44		
Apr. 14	B	e(P)	01 07 12		
	BG	eLE	11.2		
	MH	iP	06 57.1		
	F	eP	37.3		
	M	i(P)	07 29.3		
	R	e(P)	10		
	SH	e(P)	35		
Apr. 14	BG	ePP	07 30 55		USCGS: 31°N, 84-1/2°E, 0 = 07 11 50.
		eSKSNE	37 00		Southern Tibet.
		e	40 22		PAS: Magnitude 6-1/4

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Apr. 14 cont'd		eLNE	08 02		
			mu sec		
		PPZ	1 6		
		SKSH	1-1/2 9		
	M	ePP	07 30 33		
Apr. 14	SH	eP	11 44 51		
Apr. 14	B	eP	19 29 20.0		USCGS: 15-1/2°S, 173°W, 0 = 19 17 57.
	BG	iPNEZ	24.0	SWd	Samoa Islands. Felt: Apia.
		iPP	32 11		PAS: Magnitude 8
		iSNE	38 42		
		eNE	42 56		
		eRNEZ	49.9		
			R from SW		
			mu sec		
		PZ	25 8		
		PH	9 10		
		PPZ	8 8		
		SH	140 17		
		MaxH	550 20		
		MaxZ	450 20		
	MH	iP	19 29 21.8	d	
		eR	51.4		
	F	eP	29 26.9		
		eSNE	38 53		
		eRNEZ	50 54		
	M	iP	29 33.1	c	
	A	e(P)NE	29.2		
		eSNE	38 57.2		
	R	iPNEZ	29 31.9	SWd	
		e	35 21		
		eSE	39 13		
	C	iP	29 45.2	d	
		e	37 33		
	SH	iP	29 29.8	d	
		eR	51.3		
Apr. 14	B	eP	20 20 13		
	MH	iP	14.2	c	
	F	eP	18.5		
	SH	eP	23		
Apr. 14	B	iP	21 06 50.1	d	USCGS: 50-1/2°N, 179°W, 0 = 20 59 00.
		e	58		Andreanof Islands, Aleutian Islands.
		e	07 07		
		i	08 47		
	MH	iP	06 56.3	d	
		i	07 13.3		
	F	eP	08.1	d	
	M	iP	06 41.0	d	
		i	08 43.7		
	R	iP	06 55.3	d	
	SH	iP	36.6	d	
		i	08 51		
Apr. 15	M	e	03 05 18.6		

Date	Sec.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Apr. 15	B	iP	10 46 28.0		USCGS: 51-1/2°N, 179°W, 0 = 10 38 37.
		i	48 24		Andreanof Islands, Aleutian Islands.
	MH	eP	46 33.4	c	
	F	eP	44.9		
	M	eP	19.1	c	
	R	eP	32.5	d	
	C	iP	45 52.8	d	
	SH	eP	46 13.4	d	
Apr. 15	MH	iP	18 20 39.8	d	USCGS: 51-1/2°N, 179°W, 0 = 18 21 33.
	F	eP	46		Andreanof Islands, Aleutian Islands.
	M	eP	20		
	R	eP	34		
	C	eP	19 56		
	SH	eP	20 14		
Apr. 15	B	iPNEZ	21 39 53.4	NWd	USCGS: 52-1/2°N, 167°W, 0 = 21 33 05.
		ePcP	42 28		Fox Islands, Aleutian Islands.
	BG	eSE	46 22	W	Magnitude 5-3/4 - 6
		eQNE	47.5		
		eR	48.9		
			mu sec		
		PZ	1-1/2 7		
		SH	1-3/4 11		
		MaxH	21 10		
	MH	iP	21 39 58.6	d	
		iPcP	42 31.6		
	F	iP	40 12.7	d	
	M	iP	39 44.0	d	
		iPcP	42 26.1		
	R	iP	39 58.4	d	
	C	iP	14.9	d	
	SH	iP	38.4	d	
		ePcP	42 23		
Apr. 16	B	iP"	04 22 02.0	d	USCGS: 4-1/2°S, 107-1/2°E, h = 600 km,
		ipP'	24 17.9	d	0 = 04 04 04. Western Java Sea.
	BG	e(sP')E	25 16		
		iSKSE	28 11	E	PAS: Magnitude 7-1/2
		i(S?)E	29 50	W	
	B	iPKKP	31 49.7	d	
	BG	eSKKPEZ	35 36		
		e	38 10		
		eSSE	40.2		
		esSSE	43.4		
			mu sec		
		P"Z	4-3/4 4		
		pP'Z	4 5		
		SKSH	4-3/4 7		
		(S?)H	8 8		
		SKPZ	14 10		
		SKPH	12-1/2 10		
	MH	e(sP)	04 21 48.8		
		iP"	22 03.5	d	
		ipP'	24 19.6		
		iPKKP	31 47.8		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Apr. 16	F	iP"	22 06.1	d	
cont'd		epP'	24 19.7		
		eE	25 27.8		
	M	e(P)	19 00.9		
		e(sP)	21 46.5		
		iP"	59.8	d	
		ipP'	24 14.9		
		iPKKP	31 51.1		
	R	iP"	22 04.1	d	
		ipP'	24 20.2	d	
		eSKP	32 46		
	C	iP"	21 55.0	d	
		ipP'	24 10.5	d	
		eE	29 29		
	SH	iP"	21 58.7	d	
		ipP'	24 15.3		
		e	25 42		
		ePKKP	31 53		
		e(SKP)	32 37		
		e(SKKP)	35 23		
Apr. 16	MH	iP	17 39 36.6		
	F	eP	39.6		
	SH	eP	45		
Apr. 16	B	eP	17 59 48		
	SH	eP	21		
Apr. 16	B	iP	18 29 09.6	d	USCGS: Southern Bolivia. 0 = 18 17 05.
	MH	iP	06.1	d	
	F	eP	28 56		
	M	iP	29 15.1		
	R	e	30 08		
	C	eP	29 34		
	SH	iP	29 17	d	
Apr. 16	B	eP	23 59 39		
	MH	iP	45.3	d	
Apr. 17	M	eP	04 41 25.7	d	USCGS: 56°N, 154°W, 0 = 04 35 47.
					Kodiak Island region.
Apr. 17	B	iP	08 19 35.9		USCGS: 20°S, 176°W, h = 200 km,
		ipP	20 20.6		0 = 08 07 58. Tonga Islands.
	BG	eE	29 35		
	MH	iP	19 36.4	d	
		epP	20 18.2	c	
	F	iP	19 40.1	d	
	M	iP	45.9	c	
		ipP	20 27.1		
	R	eP	19 49.7		
	C	e	20 40		
	SH	iP	19 44.6	d	
		ipP	20 27		
Apr. 17	MH	iP	09 35 14.6	c	USCGS: 52-1/2°N, 171°W, 0 = 09 27 54.
	M	eP	34 53.3	d	
	R	eP	35 08		
	C	eP	34 28		
	SH	eP	48	d	

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Apr. 17	B	iP	13 31 56.1		USCGS: 52-1/2°N, 169°W, 0 = 13 24 58.
	BG	eSE	37 22		Fox Islands, Aleutian Islands.
	MH	iP	32 01.7	c	
	F	eP	14.5	c	
	M	eP	31 45.7	c	
	R	eP	32 00		
	C	eP	31 17		
	SH	eP	31 40		
Apr. 17	M	eP	15 13 48.2		USCGS: 54°N, 164°W, 0 = 15 07 24.
					South of Unimak Island.
Apr. 17	BG	eP	18 16 22		USCGS: 14-1/2°N, 92°W, 0 = 18 09 26.
		eSN	22 03		Mexican-Guatemala border.
		eLNE	26.6		
	MH	iP	16 18.1	d	
	F	eP	03.2		
	M	eP	32.6		
	R	eP	21		
	C	eP	17 02.6		
	SH	eP	16 36		
		e	18 57		
Apr. 18	F	e	00 23 54		USCGS: 52°N, 171°W, 0 = 00 16 17.
	M	i	01		Fox Islands, Aleutian Islands.
	R	e	47		
	SH	e	11		
Apr. 18	B	eP	07 07 44		USCGS: 52°N, 176-1/2°W, 0 = 07 00 03.
	MH	iP	47.2	c	Andreanof Islands, Aleutian Islands.
		i	59.8		
	F	e	08 11		
	M	eP	07 31.3	c	
		i	44.1		
	R	eP	45		
		e	59		
	C	eP	04.0		
		e	17.4		
	S	eP	26		
		i	39		
Apr. 19	B	iP	15 51 47.7	d	USCGS: 51-1/2°N, 168-1/2°W,
		iPcP	54 19.2	d	0 = 15 44 53. Fox Islands,
	BG	eSE	57 22		Aleutian Islands.
		eQN	59.9		
		eR	16 01.4		
			mu sec		
		MaxH	28 10		
	MH	iP	15 51 53.9	d	
		iPcP	54 21.7		
	F	iP	52 07.2	d	
	M	iP	51 38.8	d	
		ePcP	54 15.1		
	R	iP	51 52.8		
	C	iP	11.4	d	
	SH	iP	33.3	d	
		iPcP	54 14.1		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Apr. 19	B	iP	22 26 12.8	d	USCGS: 52°N, 166-1/2°W, 0 = 22 19 26.
	BG	iPNEZ	14	NWd	Fox Islands, Aleutian Islands.
	B	iPcP	28 51.1	d	Magnitude 7
	BG	eSE	31 36	E	
		eQN	33.4		
		eR	34.6		
			mu sec		
		PZ	9 6		
		PH	10 6		
		PcPZ	7 7		
		SH	33 10		
		MaxH	115 9		
	MH	iP	22 26 19.4	d	
		iPcP	28 53.3		
	F	iPNEZ	26 32.8	NWd	
		iSNE	32 15.1		
	M	iP	26 04		
		iPcP	28 49.6		
	A	iPNE	25 48		
		eSNE	30 52		
	R	iPNEZ	26 17.9	NWd	
		iS	31 49.2		
	C	iP	25 35.0	d	
		eSN	30 32		
	SH	iP	25 58.1	d	
		iPcP	28 47.5		
Apr. 19	SH	i	22 44 28.2		
Apr. 20	B	eP	00 21 53		USCGS: Solomon Islands. 0 = 00 09 10.
	MH	eP	55.1	c	
	F	eP	22 00		
	M	eP	21 58.8		
	SH	eP	57		
Apr. 20	MH	ePP	07 01 22.8		
	F	ePP	18		
	M	ePP	44.8		
	R	ePP	34		
Apr. 20	M	e(P)	11 05 45.6	d	
	SH	e(P)	40	d	
Apr. 20	BG	eE	13 01.8		USCGS: 6°S, 147-1/2°E, 0 = 12 30 37.
		eREZ	13.7		Near coast of New Guinea.
	MH	eP	12 44 03.1	c	
	F	eP	10		
	M	eP	03.0	c	
	R	eP	09		
	SH	eP	43 59		
Apr. 20	M	e	14 18 54		
Apr. 20	M	eP	18 01 03.3		USCGS: 52°N, 168°W, 0 = 17 54 20.
	SH	eP	00 57		Fox Islands, Aleutian Islands.
Apr. 20	B	eP	18 14 04		
	M	eP	13 55.2	d	
	SH	eP	49		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Apr. 20	B	eP	20 02 05		USCGS: 51°N, 177°W, 0 = 19 54 24.
	MH	iP	11.6	d	Andreanof Islands, Aleutian Islands.
	M	eP	01 58.5		
	R	eP	02 11		
	SH	eP	01 52		
Apr. 20	M	eP	22 34 53.4		
	SH	eP	48		
Apr. 21	M	e	13 15 31.3		
Apr. 21	B	eP	21 21 56.7	c	USCGS: 7°N, 72°W, 0 = 21 12 26.
	BG	i	22 05	d	Colombia-Venezuela border.
		iSN	29 47.7	N	PAS: Magnitude 6-1/2 - 6-3/4.
		eSSN	33.4		
		iN	37.6		
		eGNE	40.5		
			mu sec		
		PZ	6 5		
		SH	13 9		
		GH	100 25		
		MaxH	110 18		
	MH	iP	21 21 52.3	c	
		i	22 04.8	c	
	F	eP	21 40		
	M	eP	59.0	c	
		i	22 08.4	c	
		i	38.3		
		iPP	24 18.7		
	A	e(P)N	22 20.5		
		eN	31 12.5		
	R	iP	21 48.9	c	
		e	29 53		
	C	eP	22 21.9		
		i	27.9		
		eS	30 36		
	SH	eP	21 33.6		
		i	40.0		
Apr. 21	B	eP	23 25 44		USCGS: 52°N, 176°W, 0 = 23 17 52.
	F	eP	26 00		Andreanof Islands, Aleutian Islands.
	M	eP	25 22.5	c	
		i	34.9		
	R	eP	49		
	C	e	08		
	SH	eP	18		
		i	31		
Apr. 22	MH	iP	13 52 40.5	c	USCGS: 7°N, 72°W, 0 = 13 43 14.
	M	iP	48.1	d	Colombia-Venezuela aftershock.
	R	eP	38		Felt at Caracas and Tachiro, Venezuela. 180 houses destroyed at Tachiro.
Apr. 22	MH	iP	15 46 47.6	c	USCGS: 7°N, 72°W, 0 = 15 37 20.
	M	eP	55.0		Colombia-Venezuela aftershock.
	R	eP	44.5		Felt at Caracas and Tachiro, Venezuela and in northern Colombia.

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Apr. 23	MH	i	06 02 11.8	c	
Apr. 23	MH	iP	22 11 00.7	c	USCGS: 27°S, 68°W, 0 = 21 59 35.
		i	11.3		Northern Chile-Argentina border.
	M	eP	20.0		
Apr. 24	BG	ePP	19 28 08		USCGS: 36°N, 28-1/2°E, 0 = 19 10 05.
		iSKSN	34 39		Turkey foreshock.
		eN	38 20		PAS: Magnitude 6-3/4 - 7
		eSSNE	42.7		
		eQNE	51		
		eR	20 07		
			mu sec		
		PPZ	4-3/4 5		
		PPH	2-3/4 5		
		SKSH	3 8		
		MaxH	100 30		
	MH	e(PP)	19 28 15	c	
	F	eP	24 00		
	M	eP	23 48	c	
	R	eP	50		
	C	eP	34	d	
	SH	eP	48	c	
Apr. 25	B	eP	02 39 22		USCGS: 36-1/2°N, 29°E, 0 = 02 25 36.
	BG	ePP	43 31		Near south coast of Turkey.
		iSKSN	50 03		15 killed at Fethiye, Turkey. Many injured and extensive property damage throughout southeastern Turkey and the Island of Rhodes. Also felt on Cypress, Dodecanese Islands, and in Cairo, Liban, and Israel.
		ePSN	52 50		
		eSSNE	58 02		
		eQNE	03 11.8		
		eR	22		
			R from NNE		
			mu sec		
		PPZ	5-1/4 6		PAS: Magnitude 7 - 7-1/4
		PPH	2-3/4 6		
		SKSH	4 7		
		SSH	19 14		
		MaxH	165 30		
	MH	e(P)	02 39 30.4	c	
		i	48.8		
		e(PP)	43 16.5		
	F	eP	39 29		
		ePP	43 41		
		eSKSNE	50 04		
	M	iP	39 16.6	c	
		i	35.6		
	R	eP	19		
		eSKS	49.9		
	C	iP	39 02.8	d	
		eSKSE	49 33		
	SH	iP	39 16	c	
Apr. 25	M	eP	07 22 10.1		USCGS: 45°N, 100°E, 0 = 07 09 20.
		i	15.1		Outer Mongolia.
Apr. 25	B	iP	07 22 37.7	d	USCGS: 52°N, 173-1/2°W, 0 = 07 15 15.
	BG	eSE	28 25		Andreanof Islands, Aleutian Islands.

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Apr. 25 Cont'd		eQN	31.5		
		eREZ	33.0		
			R from WNW		
			mu sec		
		MaxH	17 17		
	F	eP	07 22 54.6		
	M	iP	29.3	d	
		i	40.6		
	R	eP	42.2		
	C	eP	00		
		i	12.8		
	SH	iP	23.8	d	
		i	36.2		
Apr. 25	M	ePP	11 24 34.5		USCGS: 1-1/2°N, 126°E, 0 = 11 06 02. Molucca passage.
	SH	ePP	35		
Apr. 25	B	eP	14 13 38		USCGS: 60-1/2°N, 145°W, 0 = 14 07 58. Near south coast of Alaska.
	F	eP	56		
	M	eP	20.6		
	R	eP	34.0		
	C	eP	12 39		
	SH	eP	13 17		
Apr. 25	M	i(P)	14 18 16.5		
	SH	e(P)	12		
Apr. 25	F	eP	17 53 30		USCGS: 51-1/2°N, 180° , 0 = 17 45 14. Andreanof Islands, Aleutian Islands.
	R	eP	19		
	SH	eP	52 59		
Apr. 25	B	iP	21 59 30.6	d	PAS: 33°11'N, 115°51'W, 0 = 21 57 39. Southwest end of Salton Sea. Magnitude 5.2
		i	33.6	d	
		eNE	22 01 02		USCGS: Felt over an area of approximately 12,000 square miles of California and western Arizona. Maximum intensity VII.
	PA	eP	21 59 27.8		
		eE	22 01 21.0		
	F	ePEZ	21 59 02.9		
		iNEZ	11.4		
		i(S)E	22 00 14.4		
	R	eP	21 59 36.7		
		i	56.9		
		i	22 01 35.0		
	C	e(P)E	14.3		
		eEZ	04 44		
	SH	eP	00 06.5		
		e	42.5		
		e	02 28		
Apr. 25	B	eP	22 25 59.7		PAS: 33°11'N, 115°51'W, 0 = 22 24 12. Southwest end of Salton Sea. Magnitude 5.1
		i	26 04.8		
		eN	27 15		Felt in the Imperial Valley, California.
		eNE	57		
	PA	e	26 01.8		
	F	e(P)	25 40.3		
		e(S)NE	26 43		
	R	eP	25 51.5		
		i	26 28.7		
		i	28 01.4		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Apr. 25 Cont'd	C	e	27 20		
		e	45		
		e	31 16		
	SH	e(P)	26 36.0		
		i	50.5		
		e	28 59.3		
Apr. 26	MH	i	00 49 09.9		
Apr. 26	M	e	04 40 51.3		
Apr. 26	M	eP	06 47 15.9		USCGS: 36-1/2°N, 29°E, 0 = 06 33 32. Turkey aftershock.
	R	eP	39		
Apr. 26	B	eP	10 29 05		USCGS: 60°N, 147°W, 0 = 10 23 17.
	MH	iP	13.5	c	Near south coast of Alaska.
	F	eP	21		
	M	iP	28 46.8	c	
	R	eP	59		
	C	eP	08		
	SH	eP	41	c	
Apr. 26	M	e	10 47 48.4		
Apr. 26	M	e	11 45 54.3		
		e	49 56.8		
Apr. 26	B	iP	15 19 02.6	c	USCGS: 45°N, 148°E, 0 = 15 08 22. Kurile Islands.
	M	eP	18 55.0		
	R	iP	19 06.4	c	
	SH	iP	18 51.5	c	
Apr. 27	B	e(P)	02 45 56		USCGS: 53°N, 166°W, 0 = 02 39 24. Fox Islands, Aleutian Islands.
		e	46 10		
	BG	eLN	54.3		
	MH	iP	46 10.9	d	
	F	eP	25		
	M	eP	45 56.1	d	
		i	46 09.6		
	R	eP	11		
	SH	eP	45 51	d	
Apr. 27	B	eP	11 43 10	d	USCGS: 20°S, 170°E, h = 100 km, 0 = 11 30 33. Loyalty Islands.
		i	11.1	c	
		epP	28.4		
	MH	iP	11.3	d	
		ipP	28.4	d	
	F	eP	16		
	M	eP	18.1	d	
		ipP	35.5	d	
	R	eP	25		
Apr. 27	B	eP	12 56 44	c	USCGS: Andreanof Islands, Aleutian Islands. 0 = 12 48 45.
	MH	iP	51.2	c	
	F	eP	57 03		
	M	eP	56 27.6	d	
		i	35.9	d	
	R	eP	41		
		e	50		
Apr. 28	B	ePP	01 41 51		USCGS: 7°N, 127°E, 0 = 01 23 40. Off coast of Mindanao, Philippine Islands.
	BG	eSKSE	48 08		
		eRNEZ	02 10.5		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
			R from NW		
Apr. 28					PAS: Magnitude 5-3/4 - 6
Cont'd	MH	eP	01 37 42.7		
		ePP	41 48.4		
	F	ePP	42 06		
	R	ePP	41 59		
	SH	eP	37 34		
		ePP	41 51		
Apr. 28	B	e(P)	10 49 33		USCGS: 6°S, 155°E, h = 60 km,
	BG	eLE	11 17		0 = 10 36 41. Solomon Islands.
		eR	22		Felt at Karoola, Sohano, Tol,
			R from W		and Warramung.
	MH	eP	10 49 31.8		
	SH	eP	35		
Apr. 28	B	eP	14 55 51		USCGS: 52-1/2°N, 168-1/2°W,
		i	56 02	c	0 = 14 48 52. Fox Islands,
	BG	eSE	15 01 21		Aleutian Islands.
		eLN	04.1		
			mu sec		
	SH		2 10		
	MH	eP	14 55 56.3	c	
	F	eP	56 11.7		
	R	eP	55 56		
	C	eP	14		
	SH	eP	37		
Apr. 28	B	e(P)	20 11 34		USCGS: 50-1/2°N, 178°W, 0 = 20 03 42.
	MH	iP	37.0	c	Andreanof Islands,
		i	56.1		Aleutian Islands.
	F	eP	12 07.1		
	SH	eP	11 14		
Apr. 29	B	eP	04 37 00		USCGS: 52-1/2°N, 168-1/2°W,
	BG	eSE	42 37	E	0 = 04 30 04. Fox Islands,
		eQN	45.4		Aleutian Islands.
			mu sec		
	SH		1 7		
	MH	iP	04 37 07.4	c	
		i	47.8		
	F	eP	23		
	R	eP	08		
	C	eP	36 24		
	SH	eP	46		
Apr. 29	B	e	04 44 22		USCGS: 52-1/2°N, 169°W, 0 = 04 37 12.
	MH	e(P)	15.8		Fox Islands, Aleutian Islands.
	SH	e(P)	43 56		
Apr. 29	B	eP	09 32 56		USCGS: 44°N, 147°E, 0 = 09 22 14.
	MH	iP	33 01.8	c	Kurile Islands.
	F	eP	11.5		
	R	eP	01		
	SH	iP	32 46	c	
Apr. 29	B	iP	10 23 41.3	c	USCGS: 22°S, 66°W, h = 200 km,
	MH	iP	38.2	c	0 = 10 11 53. Argentina-Bolivia
	F	eP	27.2		border. Felt at Antofagasta, Chile.
	R	eP	39.1		
	SH	iP	49	c	

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Apr. 29	MH	e	11 10 53.4		
Apr. 30	MH	e	15 26 53.2		
	SH	e	20		
May 1	B	e	23 35 31		USCGS: 52-1/2°N, 171°W, 0 = 23 28 09.
	BG	eQN	43.7		Fox Islands, Aleutian Islands.
		eREZ	45.2		
			R from W		
	MH	iP	23 35 22.5	d	
		i	37.6		
	F	eP	36		
	M	e(P)	11.5		
	R	eP	22		
	C	eP	34 44		
	SH	eP	35 03		
		i	17		
May 2	B	iP	02 29 01.7	c	USCGS: 54°N, 166°W, 0 = 02 22 18.
	MH	iP	07.9	c	Fox Islands, Aleutian Islands.
		i	17.5		
		iPcP	31 42.6		
	F	eP	29 20.6		
	M	eP	28 50.5	c	
		i	29 03.5		
	R	eP	05		
		e	17		
	C	eP	28 21.8	c	
	SH	iP	44	c	
		ePcP	31 34		
May 2	B	eP	04 03 41	c	USCGS: 72°N, 67-1/2°W, 0 = 03 55 34.
		i(PcP)	05 28	d	Baffin Bay.
	BG	eSNE	10 10	NE	PAS: Magnitude 6-1/4 - 6-1/2
		eLE	18		
		eR	21		
			R from NNE		
			mu sec		
		PZ	1-1/2 3		
		SH	2-1/2 9		
		MaxH	22 10		
	MH	iP	04 03 44.1	c	
		i(PcP)	05 29.8		
		e	18 30		
	F	eP	03 43.0		
		eSNE	10 14.7		
	M	iP	03 20.1	c	
		i(PcP)	05 19.9	d	
		e	16 46		
	A	eNE	17 28		
	R	eP	03 22		
	C	iP	02 53	c	
		e	15 09		
		e	17 54		
	SH	iP	03 18	c	
		e	16 18		
		e	17 43		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
May 2	BG	eE	10 51 47		USCGS: 56-1/2°S, 123°W, 0 = 10 34 14. South Pacific Ocean.
		e(S)NE	58 43		
		eSSNE	11 05.1		
		eGE	12		
		eRNZ	17.6		
			R from S		
May 2	B	eP	11 36 12		USCGS: 52-1/2°N, 169°W, 0 = 11 29 13. Fox Islands, Aleutian Islands.
	BG	eE	41.8		
		iN	44.5		
	MH	eP	36 16.3	d	
		e	38 03.1		
	F	eP	36 29.8		
	M	eP	01.3	c	
	R	eP	18		
	C	eP	35 34		
	SH	iP	56	c	
May 2	B	iP	11 45 53.0	c	USCGS: 52-1/2°N, 169°W, 0 = 11 38 52. Fox Islands, Aleutian Islands.
		e	47 33		
			mu sec		
		PZ	1-1/2 6		
	MH	iP	11 45 59.1	c	
	F	eP	46 11.3		
	M	eP	45 43.1	c	
	R	eP	58		
	C	eP	15.7	c	
	SH	eP	35.3		
May 2	M	iP	12 41 46.5		
	SH	eP	42		
May 2	MH	iP	14 01 20.5		USCGS: 51°N, 176-1/2°W, 0 = 13 53 27.
	F	eP	37		
	M	eP	07.5		
	SH	eP	00		
May 2	MH	e	20 23 48		
	M	e	33		
	SH	e(P)	31		
May 2	B	iP"	21 54 07.5	d	USCGS: 7-1/2°S, 120°E, h = 600 km, 0 = 21 36 25. Flores Sea.
		i	56 48.1	c	
	MH	iP"	54 08.5	d	
		i	14.3	c	
	F	iP"	11.9	d	
	M	eP"	07.0	d	
	R	eP"	11	d	
	C	eP"	04	d	
	SH	iP"	05.1	d	
May 2	B	eP	22 04 40		
	MH	iP	38.4		
May 3	MH	eP	01 06 28.8	d	
	M	eP	12.5		
	SH	iP	08		
May 3	B	iP	07 18 25.2	c	USCGS: 51°N, 179-1/2°E, 0 = 07 10 25. Andreanof Islands, Aleutian Islands.
		i	20 16.6	c	
	F	eP	18 43.1		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
May 3	M	eP	16.1	d	
Cont'd	R	eP	30	d	
	C	eP	17 50		
	SH	iP	18 11.2	d	
May 3	B	e(P)	12 26 52		
	M	e	27 14.2		
	SH	e(P)	10		
May 3	B	iP	16 23 02.6	d	USCGS: Andreanof Islands, Aleutian
	MH	iP	08.5	d	Islands. 0 = 16 15 01.
	F	eP	20.4		
	R	eP	07		
	C	eP	22 29		
	SH	eP	50		
May 3	M	eP	21 52 13.0		
	SH	eP	05		
May 4	B	eP	10 19 44		USCGS: 3-1/2°S, 137°E, 0 = 10 05 45.
	BG	eREZ	54		Western New Guinea.
			R from W		
	F	eP	10 19 48.8		
	M	eP	45.5		
	R	eP	49		
	SH	eP	38		
		e(PP)	23 48		
May 4	M	eP	11 29 29.2		USCGS: 52-1/2°N, 166-1/2°W,
	SH	eP	24		0 = 11 22 53. Fox Islands,
					Aleutian Islands.
May 4	C	iP	21 10 15.3		Seattle: 47°21'N, 122°23'W,
		i(S)	52.0		0 = 21 09 25. Puget Sound, near
					Dash Point.
					USCGS: Felt over 2,000 square miles of
					western Washington. Maximum
					intensity V.
May 6	MH	i	10 59 29		
May 6	B	eP	11 25 35		USCGS: 52°N, 173°W, 0 = 11 18 15.
		e	47		Andreanof Islands, Aleutian Islands.
	F	eP	54.5		
	M	eP	27.2	d	
	R	eP	41		
	SH	iP	21	d	
		e	35		
May 6	B	eP	11 27 08.7	c	USCGS: 52°N, 173°W, 0 = 11 19 47.
		e	21.0		
		e	29 37		
	F	eP	27 25.9		
	M	iP	00.2	c	
	R	eP	14	c	
		e	33 40		
	C	iP	26 32	c	
		e	27 25		
	SH	iP	26 54.9	c	
		i	27 08.2		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
May 6	M	eP	11 48 51		USCGS: 17-1/2°S, 176°W, h = 250 km, 0 = 11 37 33. Tonga Islands region.
May 7	MH	eP	01 27 23.6		USCGS: 1°N, 85-1/2°W, 0 = 01 18 28. Off coast of Ecuador.
	M	eP	36.1		
May 7	B	eP	05 44 41.2	c	USCGS: 51-1/2°N, 179-1/2°E, 0 = 05 36 32. Andreanof Islands, Aleutian Islands.
		e	46 23		
	MH	iP	44 36.7	c	
		i	46 22.7		
	F	eP	44 48.8		
		e	45 51.1		
	M	eP	44 22.6	c	
	R	eP	45.7	c	
	C	eP	43 55.4	d	
	SH	eP	44 17.5	c	
		e	45 38		
		e	46 19		
May 7	B	eP	09 16 58		USCGS: 51-1/2°N, 170°W, 0 = 09 09 53. Fox Islands, Aleutian Islands.
	MH	iP	17 04.1	d	
	F	eP	17.5		
	M	e	16 54.6	d	
	SH	eP	44		
		e	19 17		
May 8	F	e	20 05 33		
May 8	BG	eQNE	20 40.3		USCGS: 15-1/2°S, 179°E, h = 400 km, 0 = 20 09 53. Fiji Islands.
			mu sec		
		MaxH	5 16		
	MH	iP	20 21 07.8	d	
	F	e	13.9		
	M	e	16.7	d	
	R	e	21		
May 9	MH	i(P)	10 10 17.1	c	
	M	e(P)	31.3	d	
	SH	e(P)	29	c	
May 9	B	eP	10 53 13.7	d	
	MH	eP	19.4	d	
	M	iP	05.7	c	
	SH	eP	52 59	d	
May 11	M	eP	07 14 12.5		
May 11	B	eP	07 38 12		USCGS: 41-1/2°N, 178-1/2°W, 0 = 07 30 22. Andreanof Islands, Aleutian Islands.
	BG	eSE	44 30		
		eQN	48.3		
		eREZ	49.9		
			R from W		
	MH	eP	07 38 18.9	d	
		i	31.7	d	
	M	eP	04.6	d	
	R	eP	18		
	C	eP	37 38		
	SH	eP	59	d	
May 12	MH	eP	01 29 13.1		
	M	e	06.7		
	SH	e	27		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
May 12	B	iP"	05 06 49.6	d	USCGS: 60-1/2°S, 26°W, 0 = 04 47 44. Sandwich Islands region.
	BG	eE	15 36		
	MH	iP"	06 48.2	d	
	M	eP"	51.5		
	C	eP"	07 19		
	SH	eP"	06 53	d	
May 12	MH	iP	06 59 05.4	c	USCGS: 53°N, 142°E, 0 = 06 48 27. Northern Sakhalin.
	M	eP	58 50.3	c	
	R	eP	59 06		
	SH	eP	58 46		
May 12	MH	e	11 41 16.9		
	M	e	24.0		
May 12	MH	eP"	11 48 14.8	d	USCGS: 8-1/2°S, 107-1/2°E, 0 = 11 29 07. Near south coast of Java.
	M	eP"	12.5	d	
	R	eP"	17		
	SH	eP"	11		
May 12	MH	iP	13 13 49.4	c	
	M	e	53.6		
May 12	MH	eP	22 10 44.0		
	M	eP	54.3		
	SH	eP	53		
May 12	MH	e	23 40 54		
May 13	B	eP	02 31 51		USCGS: 44°N, 135-1/2°E, h = 300 km, 0 = 02 20 55. Sikhota Alin, Siberia.
	MH	iP	54.4	c	
	M	iP	43.6	c	
	R	eP	53		
	SH	iP	40.1	c	
May 13	MH	eP	11 28 50.3	c	
	M	eP	56.1	d	
	SH	eP	55	c	
May 13	B	eP	15 30 53		USCGS: 32-1/2°N, 137°E, h = 400 km, 0 = 15 19 35. South of Honshu, Japan.
	MH	iP	57.3		
	M	iP	49.6		
	R	eP	59		
	SH	eP	45		
May 14	MH	e	02 09 07		
May 14	M	eP	05 27 34.7	c	
	SH	iP	30	c	
May 14	M	e	18 50 56.4		USCGS: Andreanof Islands, Aleutian Islands. 0 = 18 43 28.
	R	eP	58		
	SH	eP	38		
		i	52		
May 15	MH	iP	02 17 26.0	c	USCGS: 17-1/2°N, 93-1/2°W, h = 100 km, 0 = 02 11 05. Chiapas, Mexico.
		i	51.5		
	M	eP	40.0	c	
	R	eP	27		
	C	eP	18 11		
	SH	eP	17 45		
May 15	M	eP	07 56 17		
May 15	M	e	10 40 07		
May 16	M	eP	03 23 01		
	C	eP	22 31		
	SH	eP	53		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
May 16	SH	eP	04 29 29		
May 16	M	eP	08 21 26.0		
	C	eP	20 56		
	SH	eP	21 18		
May 16	MH	iP	09 31 41.8		
	M	eP	31.0		
	R	eP	52		
	C	eP	30 33		
	SH	eP	31 23		
May 16	M	eP	15 07 02.0		USCGS: 28°S, 66°W, h = 100 km, 0 = 14 54 33. Catamarca Province, Argentina.
	R	eP	06 56		
	C	eP	07 22	d	
	SH	eP	04	d	
May 17	B	iP	02 53 43.6		USCGS: 18°S, 176-1/2°W, h = 60 km, 0 = 02 42 03. Fiji Islands region.
	M	eP	53.1		
	R	eP	58		
	C	eP	54 04		
	SH	iP	53 51	d	
May 17	BG	e(P)	20 48 04		USCGS: Revilla Gigedo Islands region. 0 = 20 42 40.
		eSNE	52 26		
			mu sec		
		SH	5-1/2 14		
	MH	eP	20 47 53.9		
		i	48 19.5		
	M	eP	20.1		
	R	eP	10		
	SH	e	35		
May 18	B	eP	05 31 13.5	d	USCGS: 51°N, 171°W, 0 = 05 24 01. Fox Islands, Aleutian Islands.
		ePcP	33 35		
	BG	eSNE	37 04		
		eQNE	39.9		
		eR	41.3		
			mu sec		
		PZ	2 7		
		MaxH	20 12		
	MH	iP	05 31 19.8	d	
		iPcP	33 37.3		
	F	ePE	31 34		
	M	iP	04.9	d	
		iPcP	33 34.5		
	R	eP	31 18.9	d	
	C	iP	30 39.7	d	
	SH	iP	31 02.0	d	
May 19	MH	iP	07 25 38.1	c	USCGS: About 800 miles west of Galapagos Islands. 0 = 07 17 20.
	M	e	26 04.4	c	
	R	eP	25 49		
	C	eP	26 30		
	SH	eP	02		
May 19	MH	eP	21 08 08.8	d	USCGS: 12°N, 87°W, h = 100 km, 0 = 21 00 36. Near coast of Nicaragua.
		i	13.1	d	
	R	eP	07 57		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
May 20	B	e(P)	01 58 54		USCGS: 51°N, 180° , 0 = 01 50 54. Andreanof Islands, Aleutian Islands.
	BG	eSE	02 05 26		
	MH	eP	01 58 57.7		
	R	eP	56		
	C	eP	18		
May 21	B	iPNEZ	01 24 01.2	NWd	USCGS: 21-1/2°N, 144°E, h = 100 km, 0 = 01 11 58. Marianas Islands region.
		epP	26.8	d	
		ePP	27 00		
	BG	iSNE	33 53		PAS: Magnitude 7 - 7-1/4
		esSNE	34 39	SE	
		eSSN	39.5		
		eREZ	45.6		
			R from W		
			mu sec		
		PZ	6-1/2 5		
		PH	2 4		
		pPZ	9 5		
		pPH	2 7		
		SH	16 8		
		SZ	7 8		
		MaxH	25 29		
		MaxZ	20 29		
	MH	iP	01 24 04.8	d	
		i(sP)	43.7		
		eS	33 57		
	F	iPE	24 14		
		eSNE	34 15		
		eNE	35 03		
	M	iP	23 58		
	A	ePE	48.5		
		eSE	33 31.5		
	R	iP	24 08.1	c	
		i	35.8		
		eS	34 06		
	C	iP	23 46.1	d	
		ipP	24 13.6		
		iPP	26 39.7		
		eSE	33 23		
		eE	45		
		e	35 21		
	SH	iP	23 56.3	d	
		ePP	26 57		
		eS	33 38		
May 21	B	eP	11 47 37		USCGS: 36-1/2°N, 141-1/2°E, 0 = 11 36 06. Near east coast of Honshu, Japan. Felt: Tokyo.
	MH	eP	41.9	d	
	R	eP	41		
	C	eP	23		
	SH	eP	29	d	
May 21	M	eP	16 24 03.4	c	
May 22	B	iP	13 37 25.6	c	USCGS: 50°N, 177°W, 0 = 13 29 44. Andreanof Islands, Aleutian Islands.
		iPcP	39 33		
	BG	eSE	43 39	W	PAS: Magnitude 6-1/2
		eNE	47.1		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
			mu sec		
May 22		PZ	2 1-3/4		
Cont'd		SH	15 13		
		MaxH	55 9-1/2		
		MaxZ	30 9		
	MH	iP	13 37 31.2		
		iPcP	39 35.1		
	F	ePN	37 45	N	
	M	eP	14		
	A	ePE	00		
	R	eP	30.5		
	C	eP	36 50		
		e	44 10		
	SH	iP	37 11.9	d	
		iPcP	39 26.1		
	B	iPNEZ	02 47 07.1	SEd	USCGS: 3°N, 76-1/2°W, 0 = 02 37 37.
May 24	BG	iSN	54 40	N	Colombia. Two killed, many
		e(ScS)N	56 46		injured, and moderate property
		eLNE	03 05		damage.
			mu sec		PAS: Magnitude 6-3/4
		PZ	2-1/2 5		
		PH	1-1/4 4		
		SH	5 9		
		MaxH	15 28		
	MH	iP	02 47 02.3	d	
		i	13.9	c	
	F	ePNEZ	46 49	SEd	
	M	iP	47 11.6	d	
		i	24.1	d	
	R	iPNEZ	00.9	SEd	
		eSN	54 29		
	C	iP	47 35.7	d	
		eS	55 29		
	SH	iP	47 15.8	d	
	B	iP	03 43 24.8	d	USCGS: 53°N, 167-1/2°W, 0 = 03 36 33.
May 24	BG	iSNE	48 55	SE	Fox Islands, Aleutian Islands.
		eQNE	51.3		Magnitude 6 - 6-1/4
		eREZ	52.3		
		R from W			
			mu sec		
		SH	3-1/2 9		
		MaxH	25 20		
	MH	iP	03 43 30.9	d	
	F	iP	43.7	d	
	M	iP	14.7	d	
		i	44 30.8		
	R	eP	43 28.9		
	C	eP	42 45.4		
	SH	iP	43 09.0	d	
	B	eP	10 19 49		USCGS: 17°N, 146°E, h = 100 km,
May 24	MH	iP	52.6	d	0 = 10 07 40. Mariana Islands.
	M	iP	47.5	d	

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
May 24	R	eP	57		
Cont'd	C	e	20 00		
	SH	eP	19 45.4	d	
May 24	M	eP	13 00 49		USCGS: 15°S, 173-1/2°W, 0 = 12 49 14.
					Samoa Islands region.
May 25	M	e	08 19 21		
	SH	e	18 45		
May 25	MH	iP	14 35 58.2	c	USCGS: 25-1/2°S, 65°W, 0 = 14 23 37.
	M	eP	36 06		Salta Province, Argentina.
	R	eP	00		
	SH	eP	08	c	
May 25	B	e(P)	19 10 02		
		e	14.0	c	
	MH	eP	04.4	c	
		i	12.6	c	
	C	e(P)	24		
	SH	e(P)	07		
		e	16		
May 25	MH	iP	23 01 24.1	c	
		i	51.9	c	
	R	eP	26		
		e	59		
	C	eP	54		
May 26	M	e(P)	04 23 42		USCGS: Fox Islands, Aleutian Islands.
	SH	e	53		0 = 04 16 44.
May 26	B	eP	06 47 18		USCGS: 41°N, 31°E, 0 = 06 33 31.
	BG	ePP	51 09		Bolu Province, Turkey. 66 killed,
		eSKSN	57 59		many injured, and major property
		iSNE	58 51	E	damage.
		eN	07 02.7		Magnitude 7
		iSSE	05 22		
		eE	12.7		
		eGE	16.3		
			mu sec		
		PZ	0.8 5		
		PPZ	4-3/4 7		
		PPH	4 10		
		SKSH	4-1/4 9		
		SH	7 8		
		SSH	38 16		
		GH	450 30		
	MH	eP	06 47 17.4	c	
		ePP	51 16		
	F	eP	47 22.2	d	
		eSKSN	57 54		
		eSE	58 50		
	M	eP	46 59.0	d	
		i	47 18.8	d	
	A	e(S)E	58 26		
	R	eP	47 01		
		ePP	50 58		
	C	eP	46 45		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
May 26		ePP	50 26		
Cont'd		e(S)E	57 23		
	SH	eP	46 57		
May 26	M	e	09 50 10		USCGS: 41°N, 31°E, 0 = 09 36 33.
	R	eP	06		Turkey aftershock. Felt.
	C	eP	49 49		
May 26	B	i(P)	16 01 20.1		PAS: 33°12'N, 116°08'W, 0 = 15 59 33.
	BG	eN	03 07		Southwest of Salton Sea,
	MH	eP	01 04.0	d	California. Magnitude 5.0
		i	14.4	c	USCGS: Felt over an area of 7,000
	F	ePE	00 54.2		square miles of southern
		i	56.2		California. Maximum intensity V
		iSNEZ	01 59		at Calipatria.
	M	eP	38.1		
		i	02 05.8		
		i	03 55.7		
	A	eE	04 57		
	R	e(P)	01 22		
		e	42.9		
		iE	03 23.5		
	SH	eP	01 42.6		
		e	04 08		
May 27	M	eP	11 04 16		USCGS: 4°N, 83°W, 0 = 10 55 16.
					Off coast of Colombia.
May 28	MH	eP	00 30 27.6	c	USCGS: Samoa Islands. 0 = 00 19 10.
		e	56.5	c	
	M	iP	41.4		
	SH	eP	36.0		
May 28	B	eP	01 26 23		USCGS: 53°N, 169°W, 0 = 01 19 26.
	MH	iP	30.7		Fox Islands, Aleutian Islands.
		i	57.8		
	F	eP	43		
	M	eP	11.9		
	R	eP	31		
	C	eP	25 44		
	SH	eP	26 06		
		i	19		
May 28	M	iP	03 50 57.7	c	USCGS: 25-1/2°N, 95°E, 0 = 05 51 30.
May 28	MH	e	06 11 44		Pakistan-Burma border.
	M	eP	04 54.5		
		e	09 52.7		
	SH	e(PP)	08 53		Southern Nevada.
May 28	MH	e(P)	11 56 18.6		
		i	23.9		
		i	57 29.1		
	F	i(P)	55 51.0	c	
		e(S)N	56 32.8		
	M	e	39.6		
	R	e(P)	11.6		
	SH	e	57 13.9		
	Fa	e(P)E	56 03.0		
	Y	eP	55 58.1		
		e(S)E	56 39.6		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
May 28	B	eP	23 31 42.4	c	USCGS: 15°S, 168°E, h = 300 km,
		epP	32 48		0 = 23 19 39. New Hebrides
	MH	eP	31 43.9	c	Islands.
		epP	32 45.9		
	F	eP	31 49		
	R	eP	56		
	SH	eP	48		
		epP	32 53		
May 29	BG	e(S)N	07 42 58		
		eRNZ	50.2		
			R from S		
	MH	i(P)	07 35 17.5	c	
	F	e(P)	17		
	M	e(P)	43		
	SH	e(P)	41		
May 29	MH	i(P)	21 42 32.6	c	
	M	i	17.6		
	SH	e	24	d	
May 30	B	eP	00 30 45		USCGS: 20°S, 175°W, 0 = 00 18 52.
	BG	eSNE	40 34		Tonga Islands.
		eLNE	51.4		
	MH	eP	30 44.7		
	F	eP	50		
	M	eP	55.5		
	R	eP	59		
	SH	eP	55		
May 30	B	e	12 00 46		
	MH	e	37.5		
	M	i(P)	28.6		
	SH	e	21		
May 30	MH	e	17 30 17		
	SH	e	28 21		
May 30	SH	e	18 28 27		
May 30	B	eP	19 52 45		
	BG	eSN	20 02 38		
	MH	iP	19 52 48.3		
	F	eP	53		
	M	eP	58.5		
	R	eP	53 03		
	SH	eP	52 57		
May 30	B	e	20 00 37		USCGS: 41-1/2°N, 143°E, 0 = 19 49 25.
	MH	eP	36.3		Near south coast of Hokkaido,
	F	eP	51		Japan.
	M	iP	30.0		
	R	eP	42		
	C	eP	10		
	SH	iP	27		
May 30	B	eP	21 09 29		USCGS: 22°S, 179°W, h = 600 km,
	MH	iP	31.6	c	0 = 20 58 15. Fiji Islands region.
	F	eP	35		
	M	iP	40.0	d	
	R	eP	45		
	SH	iP	40	c	

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
May 30	M	e	21 34 30.5		
	SH	eP	21		
May 30	MH	iP	23 09 07		
	F	eP	14		
	M	e	31		
	R	eP	24		
	SH	eP	19		
May 31	B	iP	02 28 08.6	d	USCGS: 27-1/2°S, 63°W, h = 600 km,
		epP	30 12		0 = 02 16 27. Santiago del
	BG	iSN	37 53	S	Estero province, Argentina.
			mu sec		Felt.
		PZ	1-1/4 4		PAS: Magnitude 6-1/4 - 6-1/2
		pPZ	0.8 5		
		SH	4 7		
	MH	iP	02 28 05.2	d	
		ipP	30 09.0		
		eS	37 47		
	F	iP	27 56.7	d	
		epP	29 58		
		eSN	37 26		
	M	iP	28 13.1	d	
		ipP	30 17.4		
	R	iP	28 07.3	d	
		ipP	30 11		
		eS	37 55		
	C	iP	28 31.7	d	
		ipP	30 37.6		
		eSE	38 41		
	SH	iP	28 15.9	d	
		ipP	30 21		
		eS	38 05		
May 31	SH	eP	03 16 35		USCGS: 54°N, 163-1/2°W, 0 = 03 10 18.
					Unimak Island region.
May 31	SH	e(P)	16 26 42		USCGS: 55°N, 169°W, 0 = 16 19 39.
					Fox Islands, Aleutian Islands.
May 31	B	iP	22 07 04.5	d	USCGS: 3-1/2°N, 77°W, h = 100 km,
	BG	eSN	14 38		0 = 21 57 46. Near coast of
	MH	iP	06 59.7	d	Colombia.
		i(pP)	07 35.4		
	F	eP	06 47		
		e	08 00		
	M	iP	07 08.9	d	
	R	eP	06 58.5		
	C	eP	07 33.0	d	
	SH	eP	13.2	d	
		e(pP)	45		
May 31	B	iP	22 25 02.0	d	USCGS: 51°N, 179-1/2°W, 0 = 22 17 10.
	F	iP	19.8	d	Andreanof Islands, Aleutian Islands.
	M	eP	24 52.8	d	
	R	eP	25 06.7	d	
		e	31 30		
	C	eP	24 26.4	d	
		e	30 20		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
May 31	SH	iP	24 48.0	d	
Cont'd		e	30 40		
June 1	MH	eP	01 28 40.6	d	
	F	eP	55		
	M	eP	12.4	d	
	R	eP	28		
	C	eP	27 28		
	SH	eP	28 09		
June 1	B	eP	16 09 45	d	USCGS: 59-1/2°N, 150-1/2°W,
	MH	i(P)	55.5	d	0 = 16 03 52. Kenai Peninsula,
	F	iP	10 02.9		Alaska.
	M	iP	09 29.1	d	
		i	41.5	c	
	R	eP	42		
	C	eP	08 49.5		
	SH	iP	09 24.2	d	
June 1	B	eP	19 43 43		USCGS: 1°N, 91°W, 0 = 19 35 08.
	BG	eSN	50 41		Galapagos Islands.
		eLN	58		
	MH	iP	43 40.5	d	
	M	eP	54.0		
	R	eP	44		
	C	eP	44 24		
	SH	eP	43 59		
June 1	MH	eP	22 36 02.3	c	
	SH	eP	35 43		
June 2	M	i	10 04 44.0	c	
June 2	MH	e(P)	21 31 15.1		USCGS: 52-1/2°N, 160°E, 0 = 21 21 45.
	SH	e(P)	30 56		Near east coast of Kamchatka.
June 3	BG	e(Q)NE	00 03.0		
	F	eNEZ	02 19		
	M	e	00 15		
	SH	e	17		
June 4	M	e	10 29 35.7	c	
June 4	B	iP	11 27 16.3	c	USCGS: 10-1/2°S, 166-1/2°E,
	MH	iP	18.0	c	0 = 11 14 50. Santa Cruz Islands.
		ePP	30 27.8		
	F	iP	27 23.8	c	
		ePP	30 38		
	M	iP	27 21.8	c	
		iPP	30 36.1		
	R	iP	27 27	c	
		ePP	30 45		
	C	eP	27 25.2	c	
	SH	iP	21.7	c	
		ePP	30 34		
June 4	B	iPEZ	17 16 04.7	Ec	USCGS: 17-1/2°S, 178°W, h = 550 km,
		ipP	18 07.4	d	0 = 17 05 02. Fiji Islands.
		esP	19 07		PAS: Magnitude 6-1/4 - 6-1/2
	BG	eSNE	25 06	NW	
		esSNE	28.8		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
			mu sec		
June 4		PZ	1-1/4 5		
Cont'd		SH	1 7		
	MH	iP	17 16 05.1	c	
		i	54.7		
		ipP	18 07.7		
	F	iP	16 10.2	c	
		ipP	18 13.3		
		esP	19 14		
		eSE	25 16		
	M	iP	16 13.9	c	
		ipP	18 17.3	d	
	R	iP	16 17.7	c	
		epP	18 22		
		eS	25 33		
	C	eP	16 22.8	c	
		epP	18 27.3		
	SH	iP	16 13.3	c	
		ipP	18 17.0	d	
June 4	MH	iP"	20 37 12.8	d	USCGS: Central Sumatra, 0 = 20 18 05.
		i	28.8	c	
	SH	eP"	08		
		e	38 58		
June 4	MH	e	22 45 52		
	SH	e	46 33		
June 4	MH	i	23 33 44.8		
		i	34 36.2		
	F	e	33 22		
	R	e	34 19		
		e	35 17		
June 5	MH	iP	07 26 25.4	c	USCGS: 52-1/2°N, 35°W, 0 = 07 16 17.
	F	eP	20		North Atlantic Ocean.
	M	iP	08.4	d	
	SH	eP	08		
June 5	BG	eNE	07 40 46		
	R	e	41 07		
	C	e	40 55		
June 5	F	iP	08 33 11.8	d	USCGS: Southern Alaska. 0 = 08 26 53.
	M	eP	32 35.1	c	
	R	eP	50		
	SH	eP	32		
June 5	M	e(P)	09 16 15.5		USCGS: 53°N, 167°W, 0 = 09 09 40. Fox Islands, Aleutian Islands.
June 5	M	e	09 54 52.4	c	
June 5	B	iP	12 14 58.8	d	
	MH	iP	15 04.6	d	
	M	eP	14 49.6	d	
	SH	iP	45.3	d	
June 5	B	eP	14 06 57.3	d	USCGS: 53°N, 162-1/2°E, 0 = 13 57 42.
	MH	iP	07 02.8	d	Off east coast of Kamchatka.
	F	iP	13.6	d	
	M	eP	06 47.4	d	

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
June 5	R	eP	07 00.0	d	
Cont'd	C	eP	06 21.0		
	SH	iP	43.4	d	
		e	07 58		
June 6	B	iP	03 38 09.5	d	USCGS: 52°N, 178°W, 0 = 03 30 22.
	MH	iP	15.1	d	Andreanof Islands, Aleutian Islands.
	F	eP	28		
		e	37		
	M	eP	37 59.8	c	
		i	38 19.3		
	R	eP	14		
	C	eP	37 32		
		e	42		
	SH	eP	55.5		
June 6	B	eP	05 45 39		USCGS: 52°N, 171-1/2°W, 0 = 05 38 27.
		i	55		Fox Islands, Aleutian Islands.
	BG	eSE	51 24		
		eREZ	55.9		
			R from W		
	F	eP	05 45 59		
	M	eP	29.2	c	
		i	39.7	c	
	R	eP	44		
	C	eP	02		
	SH	eP	24	c	
June 6	BG	eSKSEZ	20 14 36		USCGS: 3°N, 126-1/2°E, 0 = 19 49 47.
		eREZ	37.5		Molucca Passage.
	SH	e(P")	07 41		
June 7	M	i	01 38 05.5		
June 7	MH	iP	02 54 34.1	c	USCGS: 51-1/2°N, 179°W, 0 = 02 46 40.
	F	eP	41		Andreanof Islands, Aleutian Islands.
	M	eP	20.5	d	
		i	36.4	d	
	R	eP	35		
	SH	eP	15		
June 7	MH	iP	21 04 31.6	c	USCGS: Fiji Islands. 0 = 20 52 25.
	F	eP	36		
	M	eP	39.4		
	SH	iP	38.7	c	
June 8	M	eP	04 06 59.1	d	
	SH	eP	57		
June 8	M	eP	06 20 53.7	d	USCGS: 2-1/2°S, 150°E, 0 = 06 07 47.
	R	eP	21 06		New Ireland.
	SH	eP	20 52	d	
June 8	M	eP	09 10 26.8	d	USCGS: Near east coast of Kamchatka.
	SH	eP	24		0 = 09 01 28.
June 8	B	iP	17 23 34.7	c	USCGS: 16-1/2°S, 173-1/2°W,
	MH	eP	33.2	c	0 = 17 12 03. Tonga Islands.
	F	iP	34.9	c	Felt at Apia.
	M	iP	45.2	c	
	R	eP	49		
	C	eP	56		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
June 8		e	24 20		
Cont'd	SH	eP	23 43.9	d	
June 8	F	eP	22 39 11		USCGS: 19-1/2°S, 168°E, 0 = 22 26 17. Loyalty Islands.
	SH	eP	11		
June 9	SH	e(P)	12 56 16		
June 9	MH	e(P)	20 58 33.0		
	M	e(P)	12.1	c	
	C	e(P)	57 43		
June 9	SH	e	23 58 04		
June 10	MH	i(P)	00 54 34.9		
	M	iP	44.5	c	
	SH	iP	42.8		
June 10	B	eP"	01 18 49		USCGS: 9°S, 117°E, 0 = 00 59 54. Sumbawa Island.
		iPP	20 00		
	BG	iSKSE	25 32	W	PAS: Magnitude 6-3/4
		ePSEZ	29.5		
		eSS	36.1		
			mu sec		
		SKSH	2 7		
		SSH	6-1/2 18		
	MH	eP"	01 18 49.8		
		i(PP)	20 09.0		
	F	eP"	18 53		
		e(SKKS)NE	27 08		
	M	eP"	18 48.5	c	
		i	19 09.4		
		i(SKP)	22 11.9		
	R	eP"	18 52		
		e	19 23		
		i(PP)	20 17		
		e	27 03		
		e	32 34		
	C	e(PP)	19 42		
		eSKSE	25 26		
	SH	eP"	18 46		
		e(PS)	29 05		
June 10	MH	eP	02 38 49.4	c	USCGS: 51-1/2°N, 176°W, 0 = 02 31 00. Andreanof Islands, Aleutian Islands.
	M	e	56.5		
	SH	eP	29		
June 10	B	eP	03 25 36.5	c	USCGS: 13-1/2°N, 143-1/2°E, h = 150 km, 0 = 03 13 11. Mariana Islands. Felt: Guam.
		e	27 44		
		ePP	38 56		
	BG	eSNE	35 51		PAS: Magnitude 6-3/4 - 7
			mu sec		
		PZ	1 6		
		SH	1-1/2 9		
	MH	iP	03 25 40.0	c	
		iPP	29 00.5		
	F	eP	25 47		
	M	iP	36.6	c	
	R	eP	44.9		
	C	eP	26.4	c	
		iNEZ	28.2	d	

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
June 10	SH	iP	31.2	c	
Cont'd		ePP	28 48		
June 11	B	e	04 11 22		USCGS: 54°N, 165°W, 0 = 04 04 33. Unimak Island region.
		eSE	16 30		
	MH	iP	11 20.2	c	
	F	eP	30		
	M	eP	01.7	c	
	R	eP	16.6		
	C	eP	10 30		
	SH	eP	55		
June 11	M	iP	07 11 03.4	c	USCGS: Near southeast coast of Kamchatka. 0 = 07 01 39.
		i	18.2		
	C	ePNEZ	10 37		
	SH	iP	58	c	
June 11	B	iP	15 02 20.1	c	USCGS: 30°S, 178°W, h = 100 km, 0 = 14 49 47. Kermadec Islands. Felt: Raoul Islands.
	BG	eSNE	12 40	SW	
		ePS	13 52		PAS: Magnitude 6-3/4 - 7
		e(SS)NE	17.9		
		eRNEZ	28.5		
			R from SW		
			mu sec		
		PZ	2 5		
		PH	1-1/4 5		
		SH	19 14		
		PSZ	3 13		
		MaxH	40 26		
		MaxZ	23 26		
	MH	iP	15 02 20.3	c	
		i	37.9		
	F	eP	23	c	
	M	e	30		
	R	eP	32	c	
		eNE	13 19		
	C	eP	02 39.1	c	
		eNE	13 40		
	SH	eP	02 29.0	c	
		e	13 44		
	PA	eP	02 19	c	
	SF	eP	19	c	
June 11	MH	i	15 20 24.1	c	
June 11	MH	e	15 28 31.4		
	F	e	29		
	R	e	23		
	SH	e	27		
June 11	B	e	19 03 24		USCGS: 18°N, 120-1/2°E, 0 = 18 49 24. Near coast of Luzon, P.I. Moderate property damage at Vigan. Felt: northern and central Luzon.
		e	06 47		
		e	07 12		
		e(SKS)E	13 22		
		eN	14 57		
		eNE	21.3		
	MH	eP	03 13.5	c	
		e	06 58.8		

Date	Sta.	Phase	Time (GCT)	Ground	Remarks
1957			h. m. s.		
June 11	F	e	07 28		
Cont'd	M	eP	03 05.4		
		e	06 30.1		
	R	eP	03 14		
		eNE	13 50		
	C	eP	02 53	c	
		eN	14 22		
	SH	eP	03 03	d	
		e	06 18		
		e	14.0		
June 11	B	eP	24 01 34		USCGS: 52°N, 176°W, 0 = 23 53 57. Andreanof Islands, Aleutian Islands.
		e	03 18		
		eSE	07 37	E	
			mu sec		
		PZ	1 5		
		SH	7-1/2 15		
	MH	iP	24 01 39.4	c	
		i	07 00.8		
	F	eP	01 52		
	R	eP	37.5		
		eNZ	07 11.5		
	C	e	01 05		
	SH	eP	19		
June 12	M	e	01 38 08.8	c	USCGS: 52-1/2°N, 175-1/2°W, 0 = 01 30 36. Andreanof Islands, Aleutian Islands.
	SH	e	37 55		
June 12	M	e	07 35 05.2		
June 12	B	iP	08 39 43.9	c	USCGS: 41-1/2°N, 142-1/2°E, 0 = 08 28 34. Near south coast of Hokkaido, Japan.
		e	40 07		
	MH	iP	39 48.3	c	
	F	iP	57.4	c	
	M	iP	37.7	c	
	R	iP	47.7	c	
	C	iP	16.4	c	
	SH	iP	33.2	c	
June 12	M	e	09 06 37.8		
		e	07 45.4		
June 12	M	eP	10 13 23.7	d	USCGS: 11°S, 78°W, 0 = 10 02 37. Near coast of Peru.
June 12	M	e(P)	10 35 25.8	c	
June 13	B	eP	10 48 09	c	USCGS: 51-1/2°N, 175°W, 0 = 10 40 38. Andreanof Islands, Aleutian Islands.
	BG	ePP	50 48		PAS: Magnitude 7
	B	eS	54 06		
	BG	iSE	13	E	
		eEZ	57 13		
		eREZ	59.0		
			R from W		
			mu sec		
		PZ	5-1/2 6-1/2		
		PPZ	5-1/2 7		
		SH	(80) 16		
		MaxH	(285) 20		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
June 13	F	ePEZ	10 48 29		
Cont'd	M	eP	01.0	c	
		i	23.0	d	
		e	54 10.4		
	A	e(S)E	53 32		
	R	eP	48 14	c	
		eSE	54 08		
	C	eP	47 35		
		eSNE	53 11		
		eNE	55 30		
	SH	eP	47 55.5	c	
		iS	53 59		
		eE	56 40		
		eR	58.4		
June 14	MH	iP	05 55 17.7	c	
	M	eP	24.6	c	
	SH	eP	23	c	
June 14	M	e	06 04 59.8		
June 14	B	iP	06 31 55.4	d	USCGS: 52°N, 175-1/2°W, 0 = 06 24 20. Andreanof Islands, Aleutian Islands. Magnitude 6-1/4
	BG	eSE	37 53		
		eQNE	41.0		
		eRNEZ	42.9		
			R from WNW		
			mu sec		
		SH	6 14		
		MaxH	26 21		
		MaxZ	16 21		
	MH	eP	06 32 01.5	d	
		i	18.9	c	
		i	37 47.4		
	F	eP	32 14	d	
	M	iP	31 47.0	d	
		i	32 07.7	c	
		eS	37 40.0		
	R	eP	32 00.3	d	
		e(S)N	38 08		
	C	ePNZ	31 19.5		
	SH	eP	41.6	d	
		e	34 51		
		e	37 37		
June 15	B	eP'	01 04 29		USCGS: 34°S, 56°E, 0 = 00 44 15. Indian Ocean.
		ePP	09 59		PAS: Magnitude 6 - 6-1/4
		eSKSEZ	11 41		
		e(SKKS)E	15 00		
		eSSNE	31.4		
		eRNEZ	R from NE		
	MH	iP'	01 04 26.6		
		i(P_2')	06 08.3		
		i	10 29.2		
	F	eNE	04 44		
		eN	09 46		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
June 15 Cont'd	M	eP'	04 26.7	c	
		e(P_2')	05 56.3		
		e	09 46.4		
	R	eP'	04 31		
		e(P_2')	05 59		
		e	09 46		
	SH	eP'	04 28		
		e(P_2')	05 54		
		e	09 44		
June 15	B	eP	18 25 30		USCGS: 52°N, 171°W, 0 = 18 18 20. Fox Islands, Aleutian Islands.
	BG	i	43	d	
		eSE	31 15	E	Magnitude 6
		eQN	34.0		
		eREZ	35.3		
			R from W		
			mu sec		
		PZ	1-1/4 6		
		SH	2 8		
		MaxH	25 20		
	MH	iP	18 25 36.6	d	
	F	eP	49	d	
		eSE	31 53		
	M	eP	25 21.7	c	
	R	iP	36	d	
		eS	31 19		
		eNE	23		
	C	e(P)N	24 51		
	SH	eP	25 15.8	d	
		e	31 28		
June 16	M	e(P)	02 24 18.1	c	USCGS: 53°N, 169°W, 0 = 02 17 23. Fox Islands, Aleutian Islands.
	SH	e(P)	14		
June 16	M	e	08 38 42.9		
June 16	M	i	12 15 02.5	d	
June 16	M	e	15 17 48.5		
June 17	B	iP	06 28 08.3	d	USCGS: 15°S, 173-1/2°W, 0 = 06 16 44. Samoa Islands region.
	BG	eSNE	37 28		Felt at Apia.
		eRNEZ	49		Magnitude 5-3/4
			R from SW		
			mu sec		
		PZ	0.6 4		
		SH	0.7 7		
		MaxH	3-1/2 20		
	MH	iP	06 28 08.6	d	
	F	eP	13.7	d	
	M	eP	19.2	d	
		i	39.7		
	R	eP	23.6	d	
	C	eP	30.2	d	
	SH	iP	18.3	d	
		i	24.3		
June 17	M	e	07 39 49.7		USCGS: 52°N, 174-1/2°W, 0 = 07 32 25. Andreanof Islands, Aleutian Islands.
	SH	e(P)	40		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
June 17	MH	iP	16 13 29.5	d	
	SH	eP	22		
June 18	BG	ePP	02 32 15		USCGS: 14-1/2°N, 96°E, 0 = 02 12 12. Gulf of Martaban, Burma.
		e	35 26		
		e(PS)E	41 39		
			mu sec		
		PPZ	0.6 7		
	M	eP'	02 31 06.2		
		ePP	32 04.3		
	SH	ePP	31 58		
June 18	M	iP	05 56 20.6		USCGS: Near south coast of Hokkaido, Japan. 0 = 05 45 19.
	SH	iP	16.3		
June 18	M	eP	11 32 31.0		USCGS: 18°N, 120-1/2°E, h = 60 km, 0 = 11 18 53. Northern Luzon, Philippine Islands. Felt at Aparri and Tuguegarao.
	SH	eP	27		
June 18	MH	eP	11 46 12.6		USCGS: 37°N, 116°W, 0 = 11 45 03. Southern Nevada.
		i	27.0		
		i	47 24.5		
	F	eP	45 51	c	
		iN	46 52.5		
		iN	47 08.3		
	M	eP	46 24.2	d	
		i	48 07.4		
	R	eP	46 11.3		
		e	47 08.4		
	SH	e	00		
		e	48 21		
June 18	B	eP	18 09 07	c	USCGS: 25°S, 170°E, 0 = 17 56 03. Loyalty Islands region.
		e	12		
	BG	eSN	20 04		PAS: Magnitude 6
		iPSNE	21 12		
		eSSN	25.8		
		eRNEZ	37.6		
			R from SW		
			mu sec		
		PZ	0.8 6		
		SH	9 16		
		MaxH	35 20		
		MaxZ	22 20		
	MH	iP	18 09 07.4	c	
	F	eP	12		
	M	eP	14.5	c	
	R	eP	23		
	SH	eP	14		
June 18	M	i	21 31 22.8		
	SH	e	05		
June 19	BG	eP	01 41 58		USCGS: 24°S, 175-1/2°W, 0 = 01 29 48. Tonga Islands.
		eSN	51 53		PAS: Magnitude 6-1/4 - 6-1/2
		eRNEZ	02 05.6		
			R from SW		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
June 19			mu sec		
Cont'd		MaxH	10 20		
	MH	iP	01 41 57.1	d	
		i	42 07.8	d	
	F	eP	02		
		i	12.4		
	M	e(P)	09.0	c	
		i	18.7		
	R	eP	12		
		i	22.0		
	C	e(P)	29		
	SH	eP	07	d	
		i	17		
June 19	M	eP	05 29 28.7	c	USCGS: 51°N, 179°E, 0 = 05 21 37. Rat Islands, Aleutian Islands.
	SH	eP	23		
		e	30 39		
June 19	BG	eP	08 13 34	d	USCGS: 16-1/2°S, 176-1/2°E,
		eSNE	23 41	NE	0 = 08 01 30. Fiji Islands.
		eSSNE	28.0		Magnitude 6-3/4
		eQN	35.4		
		eREZ	37.4		
			R from SW		
			mu sec		
		PZ	2-1/2 7		
		SH	6 9		
		MaxH	60 20		
		MaxZ	40 20		
	MH	iP	08 13 37.2	d	
		i	14 13.8		
	F	e(P)NE	13 44		
		eN	24 14		
	M	eP	13 43.7		
		i	55.3		
	R	eP	48		
	C	eP	55		
	SH	e	14 01.3	d	
June 20	B	iPEZ	01 18 39.0	Wd	USCGS: 20°N, 145-1/2°E, 0 = 01 06 25. Mariana Islands.
	BG	e(S)NE	28 34		
			mu sec		
		PZ	2 3		
	MH	iP	01 18 42.5	d	
	F	iPNZ	50.5	d	
	M	iP	38.0	d	
		i	47.5	c	
	R	iPNE	46.9		
	C	iPNEZ	25.8	d	
		iE	46.8		
		eN	29 07		
	SH	iP	18 33.9	d	
June 21	SH	eP	18 47 50		USCGS: 48°N, 155°E, 0 = 18 38 03. Kurile Islands region.

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
June 22	B	iP	06 25 47.7	d	USCGS: 16°N, 94°W, 0 = 06 19 06.
		iPcP	28 27		Near coast of Chiapas, Mexico.
	BG	iSNE	31 07	NE	Felt: Tehuantepec and San Salvador.
		eQNE	35.4		Magnitude 6-1/2
			mu sec		
		PZ	4 5		
		PH	1-1/2 5		
		SH	14 9		
		MaxH	130 24		
	MH	iP	06 25 41.7	d	
	F	ePE	29		
		eSE	30 28		
	M	iP	25 56.1		
		i	26 22.0		
	R	eP	25 43		
	C	eP	26 27	d	
		eSE	32 11		
	SH	eP	26 00.0	d	
June 22	M	eP	19 33 32.5		USCGS: 16°N, 45-1/2°W, 0 = 19 22 22. Mid-Atlantic Ocean.
June 22	B	eP	24 04 14		USCGS: 1-1/2°S, 137°E, 0 = 23 50 23.
		ePP	08 22		Near north coast of New Guinea.
	BG	eSNE	14 58		Extensive damage in Geelvink Bay
		eE	17.2		area.
		eSSNE	22.8		PAS: Magnitude 7-1/4
		eREZ	35		
			R from W		
			mu sec		
		PZ	2 5		
		SH	4-1/2 9		
		MaxH	110 20		
		MaxZ	100 20		
	MH	eP	24 04 14.6	c	
		i	23.5	d	
		i(PP)	08 32.6		
	F	eP	04 25		
		ePP	08 38		
	M	eP	04 15.7		
		ePP	08 17.0		
	R	ePP	29		
	C	ePEZ	03 49		
	SH	eP	04 13		
		eR	35.7		
June 23	M	e(P)	03 04 43.1	d	
June 23	B	eP	03 32 03		USCGS: 58-1/2°N, 137°W, 0 = 03 27 02.
		i(S)E	35 16		Near coast of southeastern Alaska.
			mu sec		Felt: Sitka.
		PZ	1-3/4 5		
		(S)H	4 10		
	MH	iP	03 32 09.6	c	
		i(S)	35 46.8		
	F	iP	32 21.4		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
June 23	M	eP	31 36.1	c	
Cont'd		i	35 17.7	d	
	A	e(P)E	31 33.3		
	R	eP	55.2		
	C	ePNEZ	30 55		
		e(S)E	34 11		
	SH	eP	31 34		
		e	35 58		
June 23	SH	e(P)	03 49 54		USCGS: 14°S, 173-1/2°W, 0 = 03 38 25. Samoa Islands. Felt at Apia.
June 23	M	e	13 50 06.3	d	
June 24	BG	e(S)NE	10 01 49		USCGS: 16°N, 94°W, 0 = 09 49 47.
		eNE	06.6		Mexico aftershock. Felt:
	MH	iP	09 56 21.4	d	Tehuantepec.
		i	39.0		
	F	eP	06		
	M	eP	36.3	d	
	R	eP	23.9	d	
	C	e	57 26		
	SH	eP	56 39		
June 24	B	e	13 31 31		USCGS: 37°N, 116°W, 0 = 13 30 03.
	MH	i	12.7	c	Southern Nevada.
		i	20.6		
	F	eP	30 52		
		iEZ	57.3		
	R	e	31 16.6	d	
		iE	40.9		
	SH	e	49.7	d	
June 26	MH	i(P)	15 34 07.2	c	
	SH	e(P)	33 58		
June 27	B	iP	00 21 06.7	d	USCGS: 56-1/2°N, 116°E, 0 = 00 09 28.
	BG	ePNEZ	07.1	NWd	Northeast of Lake Baikal, U.S.S.R.
	B	i	15.1		Damage at Chita.
		i	25.0		PAS: Magnitude 7-1/2
	BG	ePP	24 00		
		eN	39		
		iSE	30 44	E	
		eSSE	35.6		
			mu sec		
		PZ	46 7-1/2		
		PH	17 8-1/2		
		PPZ	16 8		
		PPH	13 11		
		SH	115 12-1/2		
		MaxH	280 18		
	MH	iP	00 21 10.6	d	
		i	26.0		
		i	22 49.9		
	F	iP	21 16.5	d	
		eE	29 38		
		eSE	30 58		
	M	iP	20 55.0	d	
		i	21 13.1		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
June 27	A	e(P)E	20 36.3		
Cont'd		eSE	30 06.3		
	R	iP	21 03.8	d	
		eE	30 53.3		
	C	eP	20 30	d	
		eSNE	29 30		
	SH	iP	20 51.9	d	
		e(S)E	30 20		
June 28	B	eP	11 33 00.8		PAS: 35°10'N, 118°40'W, 0 = 11 32 03.
		e	49		West of Tehachapi. Magnitude 4.1
	MH	iP	32 50.9	c	USCGS: V at Tehachapi.
		i	56.9		
		i	33 24.6		
	F	iP	32 31.1		
		i(S)EZ	53.8		
	M	e(P)	33 26		
		i	34 22.4		
	R	eP	33 20		
		e	34 20		
June 29	B	iP	00 23 44.5	c	
	MH	iP	41.0	c	
	SH	iP	53.6	c	
June 29	B	eP	07 55 02		USCGS: 51-1/2°N, 166°W, 0 = 07 48 18.
	BG	eSE	08 00 31		Fox Islands, Aleutian Islands.
		eQNE	02.9		
	MH	iP	07 55 08.9	d	
		i	19.2		
	F	eP	22		
	M	iP	54 52.3		
		i	57 34.9		
	R	iP	55 08	d	
		eSEZ	08 00 39		
	C	eP	07 54 20		
	SH	iP	47.6	d	
		e	57 35		
June 29	B	eP	10 57 30		USCGS: 51-1/2°N, 178°W, 0 = 10 49 42.
	MH	iP	36.4	d	Andreanof Islands, Aleutian Islands.
		i	45.7	d	
	F	eP	48		
	M	iP	20.5		
		i	30.6		
	R	eP	34.3		
	C	eP	53 54	d	
	SH	iP	56 16.0	c	
June 29	R	e(P)	22 45 28		USCGS: 56°N, 116°E, 0 = 22 33 52.
					Lake Baikal aftershock.

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

Earthquakes and the Registration of Earthquakes

From July 1, 1957 to September 30, 1957

BY

DON TOCHER

and

JACK CAMERON

UNIVERSITY OF CALIFORNIA PRESS
BERKELEY AND LOS ANGELES
1959

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, AND MANZANITA LAKE,

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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 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.

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.

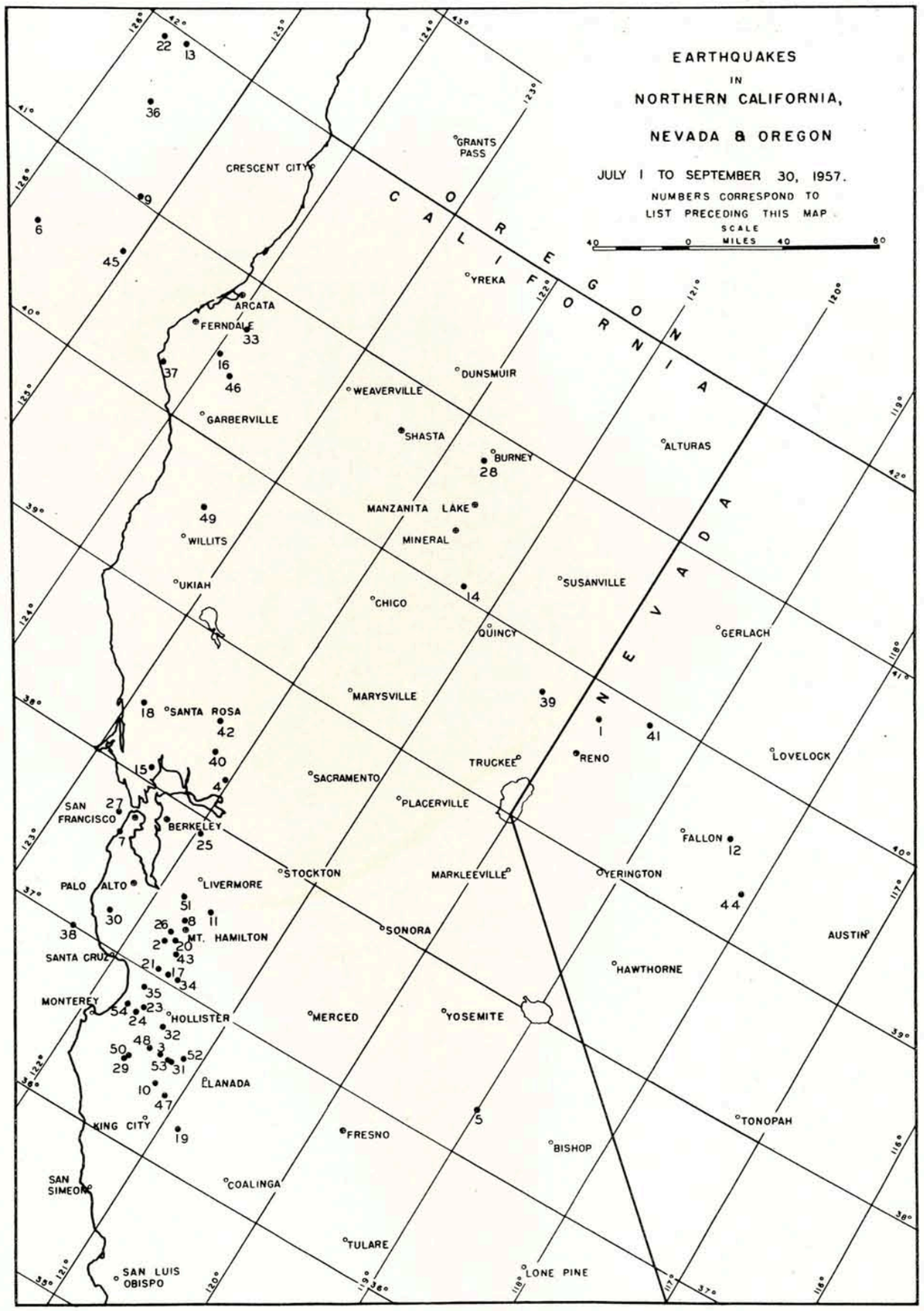
XII. Damage total. Waves seen on ground surfaces. Lines of sight and level distorted. Objects thrown upward into the air.

EARTHQUAKES IN NORTHERN CALIFORNIA, NEVADA, AND OREGON

Map No.	Date 1957	Origin Time (G.C.T.)	Latitude North	Longitude West	Q	M	Remarks
1	July 1	19-54-53	39.8°	119.8°	d	2.7	North of Reno.
2	July 2	02-36-23	37° 13'	121° 45'	c	2.2	Southwest of Mt. Hamilton.
3	July 2	20-15-14	36.6°	121.3°	d	2.7	West of Llanada.
4	July 3	06-29-09	38° 16'	122° 02'	c	3.1	Northeast of Berkeley. Felt at Fairfield.
4	July 3	07-05-48	38° 16'	122° 02'	b	3.3	Northeast of Berkeley. Felt at Cordelia (5 miles southwest of Fairfield).
5	July 5	11-28-31	37.3°	119.0°	d	3.3	West of Bishop.
-	July 5	11-40-00.4	37° 08.1'	116°02.5'	-	-	"Hood" atomic explosion, fired from balloon. Apparent magnitude from ground waves 4.3.
6	July 11	00-31-36	40° 32'	125° 46'	b	3.6	West of Ferndale.
7	July 12	08-27-24	37° 39'	122° 30'	a	2.1	Aftershock of Mar. 22, 1957.
8	July 15	06-40-08	37° 23'	121° 42'	b	2.5	Near Mt. Hamilton.
-	July 15	11-30-00.1	37° 09.0'	116° 06.5'	-	-	"Diablo" atomic explosion, fired from tower.
9	July 15	23-23-47.3	41° 01'	125° 12'	c	4.4	West of Arcata.
10	July 21	01-29-20	36° 26'	121° 13'	b	3.1	North of King City.
11	July 22	06-22-25	37° 31'	121° 34'	c	2.3	South of Livermore.
12	July 22	17-24-01	39° 34'	118° 24'	b	4.0	Northeast of Fallon, Nevada.
7	July 23	04-28-54	37° 39'	122° 29'	b	1.9	Aftershock of Mar. 22, 1957.
13	July 26	04-50-22	41° 57'	125° 37'	b	4.3	West of Crescent City.
14	July 26	08-42-49	40° 04'	121° 17'	c	3.2	Northwest of Quincy.
15	July 26	22-37-53	38° 05'	122° 34'	b	2.1	Northwest of Berkeley.
16	July 28	13-56-06	40° 29'	123° 58'	c	3.2	Southeast of Ferndale.
17	July 29	06-03-54	37° 03'	121° 35'	b	2.5	Northwest of Hollister.
18	Aug. 2	18-27-59	38.4°	122.9°	d	2.3	West of Santa Rosa.
19	Aug. 3	09-31-22	36° 15'	120° 53'	c	2.5	East of King City.
20	Aug. 7	16-28-22	37° 15'	121° 41'	a	2.9	Southwest of Mt. Hamilton.
21	Aug. 12	17-19-30	37° 03'	121° 40'	b	2.4	Northwest of Hollister.
22	Aug. 13	14-36-06	41° 55'	125° 48'	c	4.2	Off California-Oregon border.
23	Aug. 13	22-52-45	36.8°	121.6°	d	2.5	Foreshock of 2314.
22	Aug. 13	22-55-08	41.9°	125.8°	d	3.2	Aftershock of 1436.
24	Aug. 13	23-14-06	36° 45'	121° 38'	c	3.5	Southwest of Hollister. Felt at San Juan Bautista.

Map No.	Date 1957	Origin Time (G.C.T.)	Latitude North	Longitude West	Q	M	Remarks
25	Aug. 15	04-41-14	37° 54'	121° 58'	b	1.9	East of Berkeley.
26	Aug. 15	09-03-13	37° 17'	121° 45'	b	2.9	Southwest of Mt. Hamilton.
7	Aug. 17	05-24-11	37° 39'	122° 28'	a	2.9	Aftershock of Mar. 22, 1957. IV in San Francisco area.
-	Aug. 18	12-00-00.0	37° 07.7'	116° 06.4'	-	-	"Shasta" atomic explosion, fired from tower.
27	Aug. 19	16-36-23	37° 45'	122° 35'	b	2.3	West of San Francisco.
28	Aug. 20	00-47-47	40.8°	121.7°	d	3.5	Near Burney.
29	Aug. 21	07-38-34	36° 28'	121° 31'	c	3.6	Northwest of King City.
30	Aug. 21	19-01-18	37° 12'	122° 14'	c	1.9	South of Palo Alto. Blast?
7	Aug. 27	12-34-34	37° 40'	122° 30'	b	1.8	Aftershock of Mar. 22, 1957.
31	Aug. 29	13-48-45	36.6°	121.2°	d	2.8	West of Llanada.
32	Aug. 31	09-36-35	36° 45'	121° 24'	c	2.6	South of Hollister.
-	Aug. 31	12-30-00.1	37° 11.2'	121° 04.1'	c	-	"Smokey" atomic explosion, fired from tower.
33	Sept. 3	01-20-07	40.7°	123.9°	d	3.0	South of Arcata.
34	Sept. 3	05-19-21	37° 03'	121° 30'	c	3.9	Northwest of Hollister. Felt over approximately 1,500 square miles of the coastal area from San Francisco to Watsonville. No damage reported. IV at Aromas, Coyote, Gilroy, Morgan Hill, Mount Hermon, San Francisco, San Jose, San Martin, and Watsonville.
7	Sept. 3	11-42-07	37° 40'	122° 34'	b	1.9	Aftershock of Mar. 22, 1957.
35	Sept. 3	12-43-12	36° 55'	121° 41'	c	2.3	East of Santa Cruz.
36	Sept. 3	16-38-41	41° 32'	125° 35'	b	4.5	Northwest of Arcata.
37	Sept. 4	04-59-08	40° 15'	124° 18'	c	3.7	South of Ferndale. Felt at Ferndale.
30	Sept. 4	21-05-44	37° 12'	122° 15'	c	2.2	South of Palo Alto. Blast?
38	Sept. 5	21-59-45	37.0°	122.4°	d	2.0	West of Santa Cruz.
39	Sept. 6	05-46-08	39° 45'	120° 18'	c	3.5	Northwest of Reno.
40	Sept. 6	22-55-02	38° 23'	122° 13'	c	2.0	East of Santa Rosa.
3	Sept. 7	19-05-51	36.6°	121.3°	d	2.4	South of Hollister.
7	Sept. 11	04-59-20	37° 42'	122° 32'	a	2.0	Aftershock of Mar. 22, 1957. Felt in Sunset District, San Francisco.
7	Sept. 14	02-25-20	37° 40'	122° 32'	a	2.1	Aftershock of Mar. 22, 1957.
41	Sept. 15	08-28-55	39° 55'	119° 25'	c	3.7	Northeast of Reno.
42	Sept. 18	09-37-30	38° 34'	122° 19'	c	2.3	Northeast of Santa Rosa.
43	Sept. 18	12-21-06	37° 11'	121° 37'	b	2.0	South of Mt. Hamilton.
44	Sept. 19	10-50-13	39.3°	118.1°	d	3.7	Southeast of Fallon, Nevada.

Map No.	Date 1957	Origin Time (G.C.T.)	Latitude North	Longitude West	Q	M	Remarks
-	Sept. 19	16-59-59.5	37° 11.7'	116° 12.2'	-	-	"Rainier" underground atomic explosion.
45	Sept. 19	19-02-23	40° 41'	125° 04'	c	3.7	West of Ferndale.
46	Sept. 21	00-02-30	40.4°	123.8°	d	2.7	Foreshock.
46	Sept. 21	01-19-37	40.4°	123.8°	d	3.3	Southeast of Ferndale.
47	Sept. 21	06-54-26	36.4°	121.1°	d	2.8	North of King City.
48	Sept. 21	14-30-05	36.6°	121.4°	d	2.5	South of Hollister.
7	Sept. 23	15-29-11	37° 39'	122° 31'	a	1.7	Aftershock of Mar. 22, 1957.
7	Sept. 24	00-27-16	37° 38'	122° 30'	a	1.7	Aftershock of Mar. 22, 1957.
49	Sept. 25	12-35-22	39° 38'	123° 22'	c	2.7	North of Ukiah. Several small aftershocks recorded at Ukiah.
50	Sept. 25	23-33-31	36.5°	121.5°	d	2.7	South of Hollister.
51	Sept. 28	15-17-19	37° 31'	121° 48'	b	3.1	Northwest of Mt. Hamilton.
52	Sept. 28	19-10-14	36° 39'	121° 08'	c	2.8	West of Llanada.
53	Sept. 28	21-04-39	36° 36'	121° 14'	b	4.5	Southeast of Hollister. IV at Big Sur and 7½ miles south of Hollister.
53	Sept. 29	01-38-10	36° 36'	121° 14'	c	2.7	Aftershock.
54	Sept. 30	05-16-09	36° 46'	121° 43'	b	2.9	Northeast of Monterey.



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

*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, or ML 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 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 (mu) and periods in seconds (sec) 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.

Original records from the vertical-component Wilson-Lamison seismograph at Ukiah, California, are made available regularly through the courtesy of the Director, U.S. Coast and Geodetic Survey, for use in determining epicenters of local earthquakes.

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
July 1	MH	iP	02 34 27.5	d	USCGS: 22°S, 176°W, h = 60 km,
		i(pP)	51.2		0 = 02 22 26. Tonga Islands.
	F	eP	33		
	M	iP	35.8		
	SH	iP	35.5	d	
July 1	BG	ePP	19 49 18		USCGS: 25°N, 94°E, 0 = 19 30 16.
		e	46		India-Burma Border. Felt in
		e(S)N	56 44		India and East Pakistan.
		e	58 54		
	M	ePP	49 10		
	R	ePP	16		
		e	33		
	SH	iP"	48 32		
		ePP	49 11		
July 2	BG	e(P)	00 56 39	c	USCGS: 36°N, 53°E, 0 = 00 42 23.
		ePPNZ	01 00 57		Northern Iran, Approximately
		ePPPNZ	03 19		2,000 dead and extensive property
		eNZ	05 06		damage throughout northern
		eSKSNEZ	07 19		Iran.
		ePSNZ	10 19		PAS: Magnitude $7\frac{1}{4}$ - $7\frac{1}{2}$.
		ePPSNZ	11 20		
		eSSNEZ	16 16		
			mu sec		
		PZ	1.5 7		
		PPZ	7 11		
		PPH	5.5 12		
		SKSH	3 9		
		PSZ	6.5 10		
		PSH	14 15		
		SSH	14 15		
		MaxH	95 26		
	MH	e(P)	00 56 43		
		i	01 00 00.0		
	F	e(P)	00 56 42		
	M	e	01 00 32		
	R	e(P)	00 56 31		
		ePP	01 00 46		
	C	e(P)	00 56 08		
	SH	e(P)	26		
July 2	MH	eP	22 34 42		
July 3	B	iP	06 14 06.0	c	USCGS: 24°S, 180°, h = 550 km,
	MH	iP	06.4	c	0 = 06 02 37. Fiji Islands
	F	eP	10	c	region.
	R	eP	18	c	
	SH	iP	14.3	c	

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
July 3	M	eP	09 13 51		USCGS: 58°N, 137°W, 0 = 09 09 14. Near coast of southeastern Alaska.
July 3	MH	eP	09 26 55		
July 3	B	iP	12 32 32.4		USCGS: 50½°N, 179°W, 0 = 12 24 37. Andreanof Islands, Aleutian Islands.
		i	34 28		
		eSNE	38 52		PAS: Magnitude 6 - 6¼.
			mu sec		
		PZ	3/4 6		
		SH	3½ 13		
	MH	iP	12 32 37.6	d	
		i	54.1		
	F	eP	50		
	M	iP	23		
	R	ePEZ	37	d	
	C	iP	31 57		
	SH	eP	32 15		
		i	18.1	d	
July 3	F	eP	17 11 24		USCGS: 54°N, 165°W, 0 = 17 04 26. Fox Islands, Aleutian Islands.
	R	eP	08		
July 4	B	iP"	08 47 59.2		USCGS: 4°S, 102°E, h = 100 km, 0 = 08 29 01. Near south coast of Sumatra.
	F	eP"	48 03		
	M	iP"	47 57		
	R	eP"	48 00		
	SH	iP"	47 55.2		
July 4	B	iP	19 31 44.9	d	USCGS: 20°N, 146°E, h = 150 km, 0 = 19 19 45. Mariana Islands.
	MH	iP	48.6	d	
	F	eP	56		
	M	iP	44		
	R	iP	52	d	
	C	iP	31.3	d	
	SH	iP	39.9	d	
July 4	BG	eN	22 29.3		USCGS: 32°N, 113°W, 0 = 22 25 13. Arizona - Mexico Foreshock. IV at San Diego.
	B	e	22 29 55		
			mu sec		
		MaxH	25 15		PAS: Magnitude 4.8
	MH	eP	22 27 25		
	F	eP	26 58		
	M	e(P)	27 57		
	R	eP	29		
		iE	30.6		
	C	eE	33 46		
July 4	BG	eNE	23 31.8		USCGS: 31°N, 114°W, 0 = 23 27 12. Arizona - Mexico Foreshock. Felt at San Diego.
			mu sec		
		MaxH	20 15		PAS: Magnitude 4.6
	MH	eP	23 29 38		
	F	e(P)	13		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
July 4		eE	31 00		
cont'd	R	eP	29 33		
		eEN	32 30		
July 5	BG	eN	01 01.8		USCGS: 32°N, 114°W, 0 = 00 58 00. Arizona - Mexico Border. Felt at San Diego.
			mu sec		
		MaxH	23 15		PAS: Magnitude 4.7
	MH	eP	01 00 02		
		e	14		
	F	e(P)	00 59 53		
		e	01 00 10		
		eEN	01 37		
		eE	52		
	R	eP	00 10		
		eE	03 02		
	C	eE	06 32.4		
	SH	eP	00 42		
July 5	B	e	11 41 26	c?	37° 08' 05" N, 116° 02' 27" W, 0 = 11 40 00.4. "Hood" Nuclear Explosion. Epicenter and origin time from Bull. Seism. Soc. Am., 48:283.
		e	41		
	BG	eNEZ	43.1		
	B	eA	12 09 06		
	MH	e(P)	11 41 10.5		"A" in Phase column denotes beginning of airborne waves.
		i	19.9		
		i	42 20.8		
		eN	29		
		iA	12 05 25.2		
	F	e(P)	11 40 50.5	c	
		eE	41 24.9		
		eA	51 50		
	M	e(P)	11 41 23.7	d	
		eA	12 09 42		
	R	e(P)	11 41 01.9	d	
		eEZ	11.2	c	
		eNZ	16.9	Sd	
		e(S)N	42 05.4		
		eEZ	07.8		
		eA	12 02 00		
	SH	e(P)	11 41 33		
	PA	e	26.8	c?	
		eA	12 07 44		
July 5	B	e(P)	12 46 32		USCGS: 28½°S, 179°W, 0 = 12 33 56. Kermadec Islands.
	BG	eN	57 08		
	MH	eP	46 32		
	M	eP	41		
	R	e(P)	44		
	SH	iP	40.3	c	
July 7	BG	eRNEZ	16 17		
			R from SW		
July 7	B	eP	16 24 09	(c)	USCGS: 6½°S, 156°E, 0 = 16 11 15. Solomon Islands. Slight damage at Buin. Felt at Aropa, Karoola, Kieta, and Rabaul
	BG	e(SKS)E	34 47		
		ePSNEZ	36 17		PAS: Magnitude 6-3/4
		eSSN	41.1		
		eREZ	52.3		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
July 7			R from W		
cont'd	MH	eP	16 24 11		
	F	eP	13		
	M	iP	13		
	R	eP	19		
	C	e(P)	12		
	SH	eP	11	(c)	
July 8	B	iP	15 37 26.9	c	USCGS: 14½°N, 91°W, h = 150 km.,
		ePcP	39 51	c	0 = 15 30 33. Guatemala.
	BG	eSN	43 04	N	Moderate Damage in Western
		eScSN	47 37	N	Guatemala and Chiapas, Mexico.
			mu sec		Felt in Western Salvador.
		PZ	1.3 4		Berk: Magnitude 6.
		PH	0.9 3½		
		SH	1.5 10		
	MH	iP	15 37 20.5	c	
		iPcP	39 49.6	c	
	F	eP	37 07		
	M	eP	34		
	R	iP	22		
	SH	iP	38.3	c	
July 9	MH	eP"	10 17 16		USCGS: 6°S, 104°E, h = 60 km.,
	F	eP"	15		0 = 09 58 09. Near South Coast
	M	eP"	12.0		of Sumatra
	R	eP"	16		
	SH	eP"	10	(c)	
July 9	F	eP	18 07 44		
	SH	e(P)	08		
July 10	F	eP	04 50 07		USCGS: 52½°N, 170°W, 0 = 04 42 48.
	R	e(P)	48 56		Fox Islands, Aleutian Islands.
	SH	e	49 37		
July 10	B	iP	09 12 41.7	NWc	USCGS: 8°N, 82½°W, 0 = 09 04 08.
		ePP	14 26		Near Coast of Panama.
	BG	iSNE	19 40	SE	Felt on Board Ship at
		eRNEZ	28		Lat. 7° 22' N, Long. 82° 48' W.
			R from S		PAS: Magnitude 6½ - 6-3/4
			mu sec		
		PZ	7 6		
		PH	3.7 7		
		SH	18 14		
		MaxH	65 22		
	MH	iP	09 12 36.2	c	
	F	iP	22.2	c	
	M	iP	47.6	c	
	R	iP	37.6	c	
		i	53.6		
		i(PP)	14 12.6		
		e(S)EN	19.4		
	C	ePNZ	13 13.4	Wc	
	SH	iP	12 51.1	c	

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
July 13	B	eP	01 06 28		USCGS: 52°N, 169½°W, 0 = 00 59 28.
	BG	eSNE	13 08	SE	Fox Islands, Aleutian Islands.
		eQN	15.0		BERK: Magnitude 5.6
		eREZ	16.1		
			R from W		
			mu sec		
		PZ	0.4 6		
		SH	1 9		
	MH	eP	01 06 36		
		e	44		
	F	eP	50		
	M	eP	21	d	
		e	29	d	
	R	eP	36.6		
	C	eP	05 54		
	SH	iP	06 18.4	d	
July 13	F	eP	01 55 36		USCGS: 52½°N, 169½°W, 0 = 01 48 18.
	M	e	37		Fox Islands, Aleutian Islands.
	SH	eP	03		
		e	10		
July 13	B	eP	09 43 28		USCGS: 15°S, 173°W, 0 = 09 32 05.
	BG	eSNE	52 49		Samoa Islands Region.
		eR	10 05		
			R from SW		
	MH	eP	09 43 29		
	F	eP	35		
	M	eP	40		
	R	eP	44		
	SH	eP	38		
July 13	MH	e(P)	14 10 09		USCGS: 14½°S, 173½°W, 0 = 13 58 45.
	F	eP	05		Samoa Islands Aftershock.
	SH	e(P)	13		
July 13	MH	e	19 00 51		
	F	eP	27		
	R	eP	34		
July 14	B	iP	02 37 14.5	c	USCGS: 46°N, 151½°E, 0 = 02 26 54.
	BG	eSNE	45 36		Kurile Islands.
	MH	iP	37 19.1	c	
	F	eP	29		
	M	iP	07	c	
	R	eP	18.5		
	C	iP	36 44.4	d	
	SH	iP	37 00.9	c	
July 14	B	iPNEZ	06 36 06.1	SWd	USCGS: 27°S, 178°W, h = 150 km.,
		i	22.9	d	0 = 06 23 52. Kermadec Islands
		epP	55		Region.
	BG	eP	06	SWd	PAS: Magnitude 7 - 7¼
		e(PP)	39 19		
		e	40 24		
		iSNE	46 10	S(W)	
		iSZ	16	c	
		eSP	47 06		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
			mu sec		
July 14 cont'd		PZ	12 7		
		PH	3.6 8		
		(PP)Z	2.6 7		
		SH	36 10		
		SZ	10 10		
	MH	iPNEZ	06 36 06.1	SWd	
		epP	55		
		eSNEZ	46 09	Sc	
		e	16	c	
		e(SP)	47 15		
	F	iP	36 09.9	SWd	
		eSNE	46 15		
	M	iP	36 15	d	
	A	ePNE	11.5		
		eSNE	46 21.5		
	R	iP	36 19.1	d	
		iSNE	46 26		
	C	iP	36 26	SWd	
		e(S)NE	46 34		
	SH	iP	36 15.1	d	
July 14	M	e	07 02 27		
July 14	B	iP	08 23 25.6	c	USCGS: 30°S, 177°W, 0 = 08 10 45. Kermadec Islands
		e(PP)	27 02		
	BG	i	23 46		PAS: Magnitude 6-3/4
		eSKSNE	33 51	SE	
		eSNE	34 04	SW	
		eQNE	45.8		
		eRNEZ	49.1		
			R from SSW		
			mu sec		
		PZ	4 5		
		SH	22 13		
		MaxH	80 24		
		MaxZ	40 18		
	MH	iP	08 23 25.3	c	
		e	45		
		ePP	26 52		
	F	iP	23 29.7		
		e	38.0		
	M	eP	34	c	
	R	iP	38	c	
		eSKSE	34 09		
		eSN	22		
	C	iP	23 45.5	c	
		e(S)E	34 35		
	SH	eP	23 34	c	
July 14	B	eP	09 28 50		USCGS: 12½°N, 144°E, 0 = 09 16 12. Mariana Islands.
	MH	eP	53.8	d	
	M	eP	50		
	SH	iP	47.4	c	

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
July 14	B	eP	09 54 15	c	USCGS: 20°S, 174½°W, 0 = 09 42 27. Tonga Islands.
	MH	iP	15.8	c	
	F	eP	21		
	M	eP	28	c	
	R	eP	30.5		
	SH	iP	26.2	d	
July 15	M	eP	09 48 59	c	USCGS: 36°N, 7½°W, 0 = 09 36 30. West of Gibraltar. Felt at Ayamonte, Cartaya, Huelva, and Lepe Spain.
July 15	B	eP	23 24 45.2		41° 01' N, 125° 12' W, 0 = 23 23 47. Off Coast of Northern California.
		eS	25 27.2		
	MH	iP	24 57.6		BERK: Magnitude 4.4.
		eE	25 49		
	F	eP	16		
	A	iPNE	24 03.7	SE	
		iE	09.2		
		iSNE	14.7		
	R	eP	53.7		
		eNE	26 11		
	C	eP	24 46.4		
	PA	eP	50.9		
	SF	eSE	25 30		
		iN	30.4		
	Fe	iPNE	24 03		
		iSNE	14		
July 16	F	e(P)	19 30 46		USCGS: 54½°N, 164°W, 0 = 19 23 42. Unimak Island, Aleutian Islands.
July 17	B	iP	11 22 35.2	c	USCGS: 11°S, 167°E, 0 = 11 10 10. Santa Cruz Islands.
		ipP	23 06.0		
	BG	ePEZ	22 36	Ec	Berk. Depth 150 km.
		eSN	32 44	S	PAS: Magnitude 6¼ - 6½.
		eN	45.2		
		eE	47.7		
		eR	52.9		
			R from W.		
			mu sec		
		PZ	6.8 8		
		PH	2.3 7		
		pPZ	6.8 8		
		SH	3.8 8		
	F	iP	11 22 42.6	c	
		ipP	23 13.7		
	R	iP	22 47	c	
		ipP	23 19		
	C	iP	22 44.1	c	
		ipP	23 13.6		
		eSE	32 59		
	PA	iP	22 34.3	c	
		ipP	23 05.5		
July 18	F	eP	01 22 10		USCGS: 53°N, 169°W, 0 = 01 14 52. Fox Islands, Aleutian Islands.
	M	eP	21 47.6	d	

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
July 18	B	iP	12 18 04.1	c	USCGS: 30°N, 139°E, h = 400 km.
	MH	iP	07.5		0 = 12 06 39. South of
		i	19.8		Honshu Japan. Felt in
	F	iP	15.8	c	Honshu.
	M	eP	17 58.3	c	
	R	iP	18 09	c	
	C	iP	17 44.2		
July 19	M	eP	12 05 10.0	d	USCGS: 54°N, 166°W, 0 = 11 58 39.
					Fox Islands, Aleutian Islands.
July 20	MH	i(P)	10 14 18.2	d	
	F	e	15 31		
	M	e	27		
	R	e	30		
July 20	M	e	10 46 32		
July 20	F	eP	11 22 50		USCGS: 50½°N, 156°E, h = 60 km.
		e	23 06		0 = 11 12 53. Off South
	M	iP	22 26.4	c	Coast of Kamchatka.
	R	eP	38		
July 20	B	eP	14 19 09		USCGS: 43°N, 145°E, 0 = 14 08 14.
	MH	eP	14		Near East Coast of
	F	eP	23		Hokkaido Japan.
	M	iP	02.3	d	
	R	eP	13		
July 20	B	iP	15 50 35.5	c	USCGS: 19½°S, 174°W, 0 = 15 38 47.
		i	48.7	d	Tonga Islands.
	MH	iP	36.8	c	
	F	iP	39.9	c	
		i	52.4	c	
	M	iP	46.0	c	
	R	iP	50	c	
	C	eP	57.3		
July 21	B	eP	00 35 31		Northern Chile - Argentina Border.
	MH	iP	28.1	c	
	F	eP	18		
	R	eP	30	d	
July 21	B	eP	06 11 04		USCGS: 14½°N, 92°W, h = 100 km.
		i(PcP)	13 36		0 = 06 04 11. Near Coast
	BG	eSN	16 46		of Guatemala. Felt at
		eQNE	20.9		San Salvador.
		eR	23.8		BERK: Magnitude 5-3/4 - 6.
			mu sec		
		PZ	0.8 5		
		SH	1.6 9		
		MaxH	22 23		
	MH	iP	06 10 59.1		
		iPP	12 16.3		
	F	eP	10 44		
		ePP	12 14		
	M	eP	11 12.7	c	
		i	17.0	d	
	R	eP	01	c	
	C	eP	41		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
July 21	M	iP	17 32 07.6		41½°N, 113°W, 0 = 17 30 00.0.
	R	eP	31 51.6		Southern Pacific Railroad explosion at
					Promontory Point Utah. Same location
					as January 5, 1957 blast. 1,700,000#
					of explosive. Amacol and dynamite
					in 2 - 1300 ft. tunnels parallel to
					200 ft. cliff wall (quartzite).
					One tunnel 100 ft. in from wall
					and other 200 ft. in. Also two
					coyote holes 200 ft. in and 1300 ft.
					apart.
July 21	BG	eLN	19 42.2		
		eNE	48.4		
July 21	B	eP	19 49 20		USCGS: 28°S, 175°W, h = 150 km.
	MH	iP	20.9	d	0 = 19 37 10. Kermadec
		i	32.0		Islands Region.
	F	eP	24	d	
	M	iP	29.9	d	
		i	41.3		
	R	eP	34	d	
July 22	B	iP	06 29 51.5	c	USCGS: 33½°S, 178°W, 0 = 06 16 52.
		e	30 11		Kermadec Islands Region.
	BG	eSKSN	40 10		BERK: Magnitude 6¼ - 6½.
		eSN	40		
		eNE	41 01		
		eQNE	54.0		
		eRNEZ	57		
			R from SW.		
			mu sec		
		PZ	1.0 4		
		SH	2.0 8		
		MaxH	7 20		
	MH	iP	06 29 51.8		
		e	30 12		
	F	eP	29 54	c	
	M	iP	30 00.5	d	
	R	eP	03.5	c	
	C	eP	12.2		
		e	31.2		
July 22	B	eP	06 34 46		USCGS: 34°S, 177½°W, 0 = 06 21 50.
		e	35 08		Kermadec Islands Aftershock.
	MH	eP	34 48		
	F	e(P)	52		
	M	eP	57.1	d	
July 22	B	iP	10 27 55.4	c	USCGS: 34½°N, 136°E, h = 350 km.
	MH	iP	59.3	c	0 = 10 16 31. Southern Honshu,
	F	e(P)	28 07		Japan.
	M	iP	27 54.9	c	
	R	eP	28 00		
	C	eP	27 33		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
July 22	B	eP	14 04 28		USCGS: 53°N, 167°W, 0 = 13 57 41.
	BG	e(S)NE	10.0		Fox Islands, Aleutian Islands.
		eQN	13.4		
	MH	eP	04 35	d	
	F	e(P)	48		
	R	eP	33		
July 23	B	eP	00 52 51.9	c	USCGS: 52°N, 177°W, 0 = 00 45 12.
	BG	e	53 43		Andreanof Islands, Aleutian Islands.
		eSE	58 45		PAS: Magnitude 6¼ - 6½.
		eQNE	01 02.0		
		eREZ	04.4		
			R from W.		
			Mu. Sec.		
		PZ	1.8 7		
		PH	1.0 7		
		SH	22 16		
		MAX.H	47 16		
	MH	iP	00 52 57.9		
		i	53 08.1		
	F	eP	10		
	M	e	52 44.3	d	
	R	eP	57		
		eSN	58 53		
	C	eP	52 17		
		e	53 06		
		e(S)E	57 55		
July 23	MH	iP	03 58 17.9	c	
July 23	B	eP	06 33 30		USCGS: 20½°S, 170°E, 0 = 06 20 43.
	BG	eNE	45 06		Loyalty Islands.
		eRNEZ	07 01		
			R from SW.		
	MH	iP	06 33 31.1	d	
	F	eP	36	c	
	M	eP	38	c	
	R	eP	43		
	C	eP	44		
July 23	B	eP	13 41 52		USCGS: 25°S, 180°, h = 600 km.
	MH	iP	52.1	c	0 = 13 30 17. Kermadec
	F	e(P)	57		Islands Region.
July 24	B	eP	02 09 56.0	c	USCGS: 30°S, 70½°W, Slightly
		e	10 07		deeper than normal. 0 = 01 57 25.
	BG	iSNE	20 13	NW	Central Chile-Argentina border.
		eSSNE	25.8		Felt at Copiapo, La Serena,
			Mu. Sec.		Santiago, and Valparaiso Chile.
		PZ	1.8 4		PAS: Magnitude 6½.
		SH	2.5 6		
		MAX.H	6 20		
	MH	eP	02 09 51.7	c	
		e	10 04.1		
	F	eP	09 44	c	
	M	eP	10 02.0	c	
	R	eP	09 55	c	

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
July 24		e	10 07		
cont'd		e(S)	20 14		
	C	eP	10 22	c	
		i	10 26		
		eSE	21 02		
July 24	B	e	10 09 46		USCGS: 18°S, 169½°E, 0 = 09 56 57.
	MH	iP	39.6	c	New Hebrides Islands.
	F	eP	42		
		e	53		
	M	eP	43		
		i	53.4	c	
	R	e(P)	46		
July 24	B	eP	10 59 59	c	USCGS: 27°S, 66°W, h = 150 km.
	MH	iP	55.9	c	0 = 10 47 44. Catamarca
	F	e(P)	47		Province, Argentina. Felt
	M	iP	11 00 04	c	at Antofagasta, Chile.
	R	e(P)	10 59 56	c	
	C	eP	11 00 25		
		e(S)E	10 56		
July 24	B	iP	11 15 11.7	c	USCGS: 20°S, 169°E, 0 = 11 02 30.
	BG	e(S)NE	25 38		New Hebrides Islands
		eRNEZ	40		PAS: Magnitude 6½.
			R from SW		
			mu sec		
		PZ	1.5 6		
		MaxH	11 18		
	MH	iP	11 15 08.7	c	
	F	eP	14		
	M	eP	15.0	c	
	R	e(P)	20	c	
	C	eP	25		
July 25	MH	iP	01 09 07.0	c	
	M	iP	52.8	c	
July 25	B	eP	07 50 05		USCGS: 51°N, 177°W, 0 = 07 42 25.
	BG	eSNE	56 17		Andreanoff Islands, Aleutian Islands.
		eQNE	59.3		BERK: Magnitude 6¼.
		eREZ	08 01		
			R from W		
			mu sec		
		SH	7.0 15		
		MaxH	24 16		
	MH	iP	07 50 12.2	c	
	F	eP	24		
	M	eP	49 55.7	c	
		i	50 12.6	d	
	R	e(P)	07		
		eE	56 47.5		
	C	eP	49 32		
July 26	B	e	04 51 34		41° 57' N, 125° 37' W, 0 = 04 50 22.
		eSNE	52 31.1		Off Coast California -
	BG	eLNE	52.8		Oregon Border.
			mu sec		BERK: Magnitude 4¼.

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
July 26		MaxH	7½ 10		
cont'd	MH	iP	04 51 44.9	c	
		i	52 52.5		
	M	eP	51 15.8	c	
		iN	58.3		
	A	ePNE	50 49.4		
		iSN	51 08.8		
	R	eP	37		
	C	iP	11.5	d	
		iSE	47.0		
		iNZ	48.8		
	SF	iSNE	52 31.7		
July 27	M	eP	06 56 10.5	d	USCGS: 14½°N, 91½°W, 0 = 06 49 00. Guatemala.
July 27	F	i(P)	18 56 26.3	c	USCGS: 6½°S, 151½°E, 0 = 18 43 01. New Britain Region.
July 27	B	eP	21 07 19		USCGS: 51½°N, 180°, 0 = 20 59 21.
	MH	iP	26.0	c	Andreanof Islands, Aleutian Island
	F	eP	38		
	R	eP	25		
	C	eP	06 50		
July 28	B	eP	08 46 07		USCGS: 17°N, 99°W, 0 = 08 40 04.
		i	33		Guerrero, Mexico. 68 dead,
		i	47		many injured. Heavy damage
		eGE	53.6		in Mexico City and Acapulco.
		eLgNEZ	56.4		PAS: Magnitude 7½.
	BG	ePNEZ	46 08	NWc	
		eSN	51 21		
			mu sec		
		PZ	8.4 7		
		PH	5.3 7		
		SH	190 16		
		GH(WA)	1200 35		
	MH	iP	08 46 01.1	c	
		eNE	47 40.5		
	F	eP	45 47	c	
	M	eP	46 18.0	c	
	A	ePNE	39		
	R	eP	06.1	c	
	C	eP	55.5	c	
		i	47 00.5		
		eGE	55.6		
July 28	F	e(P)	10 04 18		USCGS: 17°N, 99°W, 0 = 09 58 30.
	R	eP	33		Mexico Aftershock.
July 28	B	eP	13 40 20		USCGS: 17½°N, 99°W, 0 = 13 34 20.
	BG	e(S)N	45 12		Mexico Aftershock.
		eLNE	48.1		
			mu sec		
		MaxH	9 20		
	MH	iP	13 40 14.3	c	
		e	43 26.7		
	F	iP	40 00.3	c	

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
July 28	M	eP	31.8	c	
cont'd	R	iP	19.2	c	
	C	eP	41 06		
		eN	45 01		
July 29	BG	e	00 25.9		USCGS: 17°N, 99°W, 0 = 00 11 20. Mexico Aftershock.
July 29	M	eP	09 24 18.7		USCGS: 0 = 09 11 49. Fiji Islands Region.
July 29	MH	e	16 47 25.6		
July 29	B	iP	17 27 16.4	c	USCGS: 23½°S, 71½°W, 0 = 17 15 14.
	BG	ePNEZ	16	NWc	Near Coast of Chile. Felt
		ePP	30 17		at Antofagasta.
		e	32 39		PAS: Magnitude 7 - 7¼.
		iSNE	37 07	NE	
		eSSNE	42.2		
			mu sec		
		PZ	4.4 5		
		PH	1.3 4		
		SH	11 10		
	MH	iP	17 27 12.6	c	
		i	29.9		
		e	37 14.5		
	F	eP	17 26 58	c	
	M	iP	27 23.0	c	
	R	eP	15.2	c	
		eSNZ	37 06.5		
		eSE	07.0		
	C	iP	27 44	c	
		eN	35 01		
July 30	M	e(P)	11 27 28.2	c	
July 31	M	eP"	07 51 37.7	c	USCGS: 6½°S, 105°E, h = 100 km. 0 = 07 32 39. Sunda Strait.
Aug. 1	MH	iP	16 26 05.5	d	USCGS: 52°N, 170°W, 0 = 16 18 48. Fox Islands, Aleutian Islands.
Aug. 1	MH	iP	17 10 12.4	c	USCGS: 30°S, 177½°W, 0 = 16 57 30.
		i	29.5		Kermadec Islands.
	F	eP	16		
Aug. 1	MH	iP	22 19 55.5		USCGS: 16°N, 97°W, 0 = 22 13 40.
	R	iP	59.3	c	Near coast of Mexico.
Aug. 3	M	eP"	07 02 58.6		USCGS: 7°S, 103°E, 0 = 06 43 40. Off South Coast of Sumatra.
Aug. 3	B	e	08 27 33		USCGS: 28°S, 176½°W, 0 = 08 15 45.
		e	28 34		Kermadec Islands Region.
	BG	eSN	38 37		
		eRNEZ	58		
			R from SW		
			mu sec		
		MaxH	6 18		
	MH	e(P)	08 27 23.7		
		i	26.0		
		i	28 15.4		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Aug. 3	F	e	27 54		
cont'd	M	e	28 03		
		i	24		
	SH	e	29 24		
Aug. 3	M	eP	10 30 47.9		USCGS: 50°N, 157°E, 0 = 10 21 10. Northern Kurile Islands.
		i	31 06.9		
	SH	iP	30 43.8		
Aug. 3	M	eP	11 53 46.5		USCGS: 21°N, 145°E, 0 = 11 41 41. Mariana Islands Foreshock.
	SH	iP	43.6		
Aug. 3	MH	iP	11 57 06.2		USCGS: 21°N, 145°E, 0 = 11 44 55. Mariana Islands Region.
	M	eP	00.6		
	SH	eP	56 57		
Aug. 4	BG	e(PS)EZ	01 05 04		USCGS: 3½°S, 145°E, 0 = 00 39 12. Near North Coast of New Guinea. Felt at Angoram, Bogia, and on Karkar and Manam Islands.
		eN	09.9		
		eN	18.8		
		eREZ	21.8		
			R from W.		
			mu sec		
		MaxH	10 25		
		MaxZ	5 21		
Aug. 4	B	eP	06 12 38		USCGS: 17°N, 100°W, 0 = 06 06 36. Mexico Aftershock. Felt.
	BG	eSNE	17 36		PAS: Magnitude 6¼.
		eRNEZ	23.3		
			mu sec		
		PZ	0.8 5		
		PH	0.7 6		
		SH	3.2 9		
		MaxH	17 14		
	MH	iP	06 12 32.1		
		e	22 21		
	F	eP	12 18		
	M	eP	49.8		
	R	eP	37.6		
Aug. 4	BG	eSN	11 39 13		USCGS: 17°N, 99½°W, 0 = 11 28 24. Mexico Aftershock. Felt.
		eLE	42.7		
	MH	iP	34 21.8		
		i	39.4		
	F	eP	08		
	M	eP	39.5		
	R	eP	24		
		e	33		
Aug. 4	MH	iP	14 19 21.8		
	F	eP	08		
	R	eP	26		
Aug. 4	BG	eP	14 22 19		USCGS: 17°N, 99½°W, 0 = 14 16 18. Mexico Aftershock. Felt.
		eSNE	27 22		PAS: Magnitude 6¼.
		eR	33.2		
			mu sec		
		PZ	0.6 5		
		SH	2.8 9		
		MaxH	21 22		
	MH	iP	14 22 14.1		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remark
1957			h. m. s.		
Aug. 4	M	eP	30.0		
cont'd	R	eP	20		
	SH	e	41		
Aug. 4	B	e	21 29 48		USCGS: 45°S, 35°E, 0 = 21 08 51. Prince Edward Islands Region.
	MH	e	12.2		
	F	e	07		
	M	e(P')	28 48.8		
		e	29 09		
	R	e	06		
	SH	e	07		
Aug. 5	B	e	04 42 04		
	MH	i	41 59.2		
	F	e	42 02		
	SH	e	41 49		
Aug. 5	MH	iP	08 00 33.9		
	F	eP	39		
	M	eP	43.5		
	SH	iP	41.9		
Aug. 5	MH	i	14 11 25		
	SH	e	32		
Aug. 5	MH	iP	17 41 10		USCGS: 16°N, 96°W, h = 100 km., 0 = 17 34 54. Near Coast of Oaxaca, Mexico.
	R	eP	13		
Aug. 5	SH	i	17 44 08.1		
Aug. 5	B	e	21 43 36		USCGS: Kermadec Islands Region. 0 = 21 30 39.
	MH	eP	15.4		
		i	36.0		
	F	eP	18		
Aug. 7	M	e	09 29 39.3		
Aug. 7	MH	iP	12 26 21.4		
		i	30.2		
		i	27 28.6		
	M	e(P)	26 30.5		
	R	e(P)	12		
Aug. 7	B	eP	19 51 51		USCGS: 19½°S, 178°W, h = 550 km., 0 = 19 40 46. Fiji Islands.
	MH	iP	52.1	d	
		epP	53 55.3		
	F	iP	51 56.5	d	
	R	eP	52 05		
Aug. 8	B	eP	04 49 15.6	d	USCGS: 19°N, 109°W, 0 = 04 44 20. Revilla Gigedo Islands.
	BG	eSE	53 14		
		eN	28		
			mu sec		
		SH	4.4 11		
	MH	iP	04 49 07.7	d	
		i	21.3	d	
	F	eP	48 54		
	M	iP	49 34.7	c	
		i	51.8		
	R	eP	21	d	
	SH	eP	38		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Aug. 8	M	i	08 12 31.2		
Aug. 8	B	e(P)	22 47 33		USCGS: 7½°S, 13°W, 0 = 22 33 02.
	MH	i(P)	26.0		Ascension Islands Region.
	F	e(P)	12		
	R	e	38		
Aug. 9	BG	eP	02 43 12		USCGS: 2°S, 137°E, 0 = 02 29 20.
		e(SKS)E	53 49		New Guinea.
		eQN	03 11.2		
		eR	20.2		
			R from W		
			mu sec		
		MaxH	8 17		
		MaxZ	4 17		
	MH	iP	02 43 13.0	c	
		iPP	47 26.1		
	M	ePP	21.8		
	R	eP	43 23		
	SH	eP	08		
Aug. 9	M	iP	11 09 51.5	d	USCGS: 46°N, 151°E, h = 100 km.,
	SH	iP	47.2	d	0 = 10 59 46. Kurile Islands.
Aug. 10	SH	iP	00 11 39.6	d	USCGS: 46½°N, 151°E, 0 = 00 01 30.
					Kurile Islands.
Aug. 10	B	iP	02 29 53		USCGS: 21½°S, 179½°W, h = 600 km.,
	MH	eP	53.0	c	0 = 02 18 38. Fiji Islands Region.
		ipP	31 59.0		
	F	eP	29 57		
	M	iP	30 02.9	d	
	R	eP	07		
	SH	iP	00.9	c	
Aug. 10	F	eP	04 07 21		USCGS: 17°S, 172°W, 0 = 03 55 46.
	M	eP	28		Tonga Islands.
		e	39		
	SH	eP	28		
Aug. 10	M	e	07 12 12		
Aug. 10	F	eP	09 55 01		USCGS: Samoa Islands. 0 = 09 43 40.
	M	eP	06		
	SH	eP	05		
Aug. 11	BG	eSNE	14 03.5		USCGS: 31½°S, 177½°W, 0 = 13 40 18.
		eRNEZ	22		Kermadec Islands.
			R from SW		
	M	eP	13 53 13.5		
Aug. 11	B	eP	21 50 42		USCGS: 17½°S, 169°E, 0 = 21 38 05.
	BG	eSNE	22 01 17	SW	New Hebrides Islands.
		eSSE	06.8		PAS: Magnitude 6-3/4.
		eQN	16		
		eR	22		
			R from SW		
			mu sec		
		PZ	1.1 7		
		SH	1.3 7		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Aug. 11		MaxH	14 20		
cont'd	MH	iP	21 50 44.0	d	
	F	eP	49	d	
		i	52 07.6		
	M	eP	50 50.8		
	R	eP	55	d	
	C	eP	54		
	SH	iP	48.1	d	
Aug. 12	M	iP	08 07 18.7	c	USCGS: 52½°N, 160½°E, 0 = 07 58 05.
					Near east coast of Kamchatka.
Aug. 12	B	iP	11 30 58.5	c	USCGS: 33°N, 140°E, h = 200 km.,
	MH	iP	31 02.0	c	0 = 11 19 20. South of
	F	eP	10	c	Honshu, Japan
	M	eP	30 53.1	c	
	R	eP	31 03	c	
	C	eP	30 35.5	c	
Aug. 13	B	eP	12 05 54		USCGS: 61°N, 148°W, 0 = 12 00 03.
	BG	eLE	13.8		Southern Alaska.
	MH	iP	06 01.4		
	F	eP	13		
	M	eP	05 36.8		
	R	eP	51		
	C	eP	04 57		
		eSNE	09 04		
	SH	iP	05 32.3		
Aug. 13	MH	iP	14 37 29.4	c	41° 55' N, 125° 48' W, 0 = 14 36 06.
		i	38 36.9		Off California - Oregon border.
	M	iP	37 01.8	d	Magnitude 4.2
	R	eP	26		
	SH	iP	36 51.8	c	
		eSN	37 25		
	A	ePNE	36 34.1		
		eSNE	54.4		
	C	eP	57.0		
		iSE	37 35.2		
Aug. 14	M	eP	09 27 40		USCGS: Rat Islands, Aleutian Islands.
	SH	eP	35		0 = 09 19 54.
Aug. 14	M	e	09 42 16.7	c	
	SH	i	11.1	c	
Aug. 14	F	eP	18 38 36		USCGS: 21°S, 176½°W, h = 200 km.,
	SH	eP	40.0		0 = 18 26 52. Tonga Islands.
		epP	39 32.0		
Aug. 15	B	eP	08 41 29.0	c	USCGS: 10°N, 80°W, 0 = 08 32 56.
		ePcP	43 00.7		Near north coast of Panama.
	MH	iP	41 24.5	c	Felt: Isthmus of Panama.
	F	eP	10	c	
	M	eP	33.0	c	
	R	iP	22.5	c	
	SH	eP	37.1		
		iPcP	43 04.2	c	

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Aug. 15	B	epP	20 59 04		USCGS: 4½°S, 155°E, h = 500 km.,
	BG	eSE	21 06 56		0 = 24 45 20. Solomon
		eNE	07 16		Islands Region.
			mu. sec.		
		pPZ	0.9 6		
		SH	1.7 8		
	MH	epP	20 59 17		
	R	epP	17		
	SH	eP	57 18		
		epP	59 08		
Aug. 16	BG	eSE	03 49 21		USCGS: 5°S, 154°E, 0 = 03 26 05.
		eE	04 06.5		New Britain region. Felt at
	SH	i	03 38 28.4		Karoola, Londolovit, Namatanai,
		e	39 24		and Rabaul.
Aug. 16	BG	eSE	12 20 32		USCGS: 5°S, 155°E, 0 = 11 57 16.
		eE	37.5		Solomon Islands. Felt at
	MH	e	12 10 52.3		Karoola, Londolovit, Namatanai,
	F	e	43		and Rabaul, New Britain.
	M	e	36.7		
	R	e	46		
	SH	e	36		
Aug. 16	MH	iP	21 06 30.6	d	USCGS: 24½°N, 143°E, 0 = 20 54 20.
	F	eP	39		Volcano Islands.
	SH	eP	20		
Aug. 16	BG	ePNEZ	23 38 24	NWc	USCGS: 10½°N, 104°W, 0 = 23 31 55.
	B	ePP	39 50		Pacific Ocean.
	BG	eSNE	43 39		PAS: Magnitude 6½ - 6-3/4.
		eNE	45.6		
		eRNEZ	47.2		
			R from SSE		
			mu. sec.		
		PZ	3.9 7		
		PH	2.4 8		
		SH	53 14		
		MaxH	220 18		
		MaxZ	100 16		
	MH	iP	23 38 16.9	c	
	F	eP	04	d	
	A	eNE	39 00		
	R	eP	38 28	d	
	C	iPNZ	39 15.6	c	
	SH	eP	38 42		
Aug. 17	F	eP	04 31 38		
	M	eP	29.9		
	SH	eP	26		
Aug. 17	B	iP	12 51 20.2	c	USCGS: 29°N, 141°E, 0 = 12 39 23.
	MH	iP	24.3	c	Bonin Islands Region.
	F	iP	32.6	c	
	M	iP	16.9	c	
		i	24.4		
	R	iP	25.8	c	
	SH	iP	12.6	c	

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Aug. 18	BG	e(S)E	07 14 29		
		eRNZ	18.0		
			R from S		
Aug. 18	BG	e(PP)	08 53 17		USCGS: 12°N, 124°E, 0 = 08 36 57.
		eSE	09 01 38		Philippine Islands. Felt at
		eNE	02 21		Catarman, Masbate, and
	M	e(P)	08 50 51.6		Roxas City.
Aug. 18	BG	eN	10 55.8		USCGS: 21°N, 156°W, 0 = 10 41 57.
		e(R)EZ	56.8		Hawaiian Islands.
	B	eT	11 23 08		
	MH	iP	10 48 39.6	d	
		i	46.5	d	
		eT	11 23 11		
	F	e	10 48 53		
	M	eP	50.4	c	
		eT	11 23 32		
	R	eP	10 48 59		
	SH	eP	48		
Aug. 18	B	eA	12 30 02		37° 07' 41" N, 116° 06' 23" W,
	MH	e(P)	01 18	c	0 = 12 00 00.0. "Shasta"
		eA	25 21		nuclear explosion. Epicenter
		e	27 07		and origin time from Bull.
	PA	e	01 32		Seism. Soc. Am., 48:283.
		eA	29 26		"A" in phase column denotes
	F	e(P)	00 54		beginning of airborne waves.
		e(S)NE	01 36		
		iA	17 43		
		e	22 03		
	M	eP	01 23		
		eA	30 38		
	R	e	01 11.8	d	
		eNE	02 01		
		eA	21 47		
		i	22 09		
Aug. 18	MH	iP	21 16 42.8		USCGS: 16½°N, 99°W, 0 = 21 10 42.
	F	eP	28		Mexico Aftershock.
	M	eP	54.1		
	R	eP	47		
Aug. 18	B	eP	21 18 29		
	BG	eSNE	24 06		
		eQNE	28.0		
		eR	31.2		
			R from SE		
			mu. sec.		
		MaxH	18 21		
	MH	iP	21 18 23.4	d	
	F	eP	16		
	M	eP	37		
	R	eP	26		
	C	eP	19 07		
	SH	iP	18 41.9		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Aug. 18	B	i(P)	21 20 59.6		
	SH	i(P)	21 03.5	c	
Aug. 18	B	iP	21 52 18	c	USCGS: 50°N, 157°E, 0 = 21 42 30. Northern Kurile Islands.
	BG	eSNE	22 00 09	NW	PAS: Magnitude 6½.
		e	12		
		eQNE	06.5		
		eRNEZ	08.9		
			R from WNW		
			mu. sec.		
		PZ	1.4 5		
		SH	8.0 11		
		MaxH	30 21		
		MaxZ	16 21		
	MH	iP	21 52 23.4	c	
		i	47.0		
		iPP	54 45.8		
	F	eP	52 34	c	
	M	eP	10.2	c	
		i	23.6	d	
	R	iP	21.7	c	
	C	iP	51 44.3	c	
		iSE	59 08.5	E	
	SH	iP	52 05.2	c	
Aug. 19	BG	eP	11 47 22		USCGS: 10°S, 161°E, 0 = 11 34 36. Solomon Islands Foreshock.
		e(SKS)NE	57 56		PAS: Magnitude 6½.
		e(S)N	58 50		
		eR	12 16		
			R from SW		
			mu. sec.		
		PZ	1.0 7		
		(SKS)H	1.3 8		
		(S)H	1.3 9		
	MH	iP	11 47 27.7	c	
	F	eP	29		
	M	eP	25.9	c	
	R	eP	32		
	SH	eP	24		
Aug. 19	B	iP	21 39 03.2	d	USCGS: 51½°N, 171°W, 0 = 21 31 55. Fox Islands, Aleutian Islands.
	BG	e(S)E	44 53		
		eQNE	47.5		
		eR	49.5		
	MH	iP	39 09.2	d	
		iPcP	41 27.7		
	F	eP	39 22	d	
	R	eP	09		
	C	eP	38 27		
	SH	iP	49.0		
Aug. 20	BG	eP	06 39 54		USCGS: 10°S, 161°E, 0 = 06 27 07. Solomon Islands Foreshock.
		eSE	50 18		PAS: Magnitude 6-6¼.
		eE	07 06.0		
		eR	08.2		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Aug. 20			R from W		
cont'd			mu. sec.		
		PZ	1.0 8		
		SH	2.3 8		
		MaxH	7½ 20		
	MH	eP	06 39 57		
	F	eP	40 00		
	M	e	04.6		
	SH	eP	39 53		
Aug. 20	BG	eP	12 14 36	c	USCGS: 10°S, 161°E, 0 = 12 01 54. Solomon Islands.
		eSE	25 08		PAS: Magnitude 6½.
		eNZ	26 14		
		eSSNE	30.5		
		eREZ	40		
			R from WSW		
			mu. sec.		
		PZ	1.4 8		
		PH	0.8 10		
		SH	5.2 15		
		MaxH	11 20		
	MH	iP	12 14 40.0	c	
		i	54.1	d	
		iPP	18 29.3		
	F	eP	14 49	c	
	M	eP	43.4		
		i	53.0		
		ePP	18 32.1		
	R	eP	14 51		
	C	eP	44.8		
		eSNE	25.4		
	SH	iP	14 41.4	c	
		e	55		
Aug. 20	B	eP	22 24 26.9		USCGS: 52°N, 173°W, 0 = 22 17 05. Andreanof Islands, Aleutian Islands.
		i	41.0		
		e	55		
	MH	iP	33.0	c	
		i	47.2	c	
	F	eP	45		
	R	eN	47		
	C	iP	23 49.4		
	SH	iP	24 12.0	c	
		i	26.1		
	SH	eP	22 44 36.5		USCGS: 50½°N, 96½°E, 0 = 22 32 06. Outer Mongolia.
Aug. 20	MH	iP	23 09 02.8	d	
	F	eP	07		
	SH	eP	11.6		
Aug. 21	F	eP	11 58 31		USCGS: 52½°N, 168°W, 0 = 11 51 12. Fox Islands, Aleutian Islands.
	M	iP	57 58.2	c	
	R	eP	58 18		
	SH	iP	57 51.0	d	

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Aug. 21	F	iP	15 44 56.3		USCGS: 44½°N, 147°E, 0 = 15 33 57.
	R	eP	46		Kurile Islands.
	SH	iP	30.5	d	
Aug. 21	F	eP	17 50 04.5		USCGS: 15°S, 173½°W, 0 = 17 38 38.
	SH	eP	08		Samoa Islands Region.
Aug. 21	SH	iP	18 33 09.1		
Aug. 21	B	iP	19 38 14.9	c	USCGS: 51½°N, 171°W, 0 = 19 31 08.
	BG	eLNE	47.0		Fox Islands, Aleutian Islands.
	MH	iP	38 20.6	c	
	R	eP	34		
	SH	iP	00.0	d	
Aug. 22	B	eP	01 13 36		
	MH	iP	39.5	d	
	F	eP	48		
	M	iP	34.3	c	
	R	eP	45		
	SH	eP	31		
Aug. 22	M	e	01 49 09.0		
Aug. 22	F	e(P)	03 49 41		USCGS: 41½°N, 142½°E, 0 = 03 37 57.
	M	iP	01.7	d	Near south coast of Hokkaido,
	SH	iP	48 58.2	d	Japan.
		e	49 17		
Aug. 22	M	eP	08 09 29		USCGS: 1°N, 126°E, 0 = 07 55 06.
		ePP	13 38		Molucca Passage.
	R	e	57		
	SH	ePP	39		
Aug. 22	MH	eP	12 54 56.8	c	
		i	57 07.1		
	M	eP	54 16.0	c	
	C	eP	53 16.8		
	SH	iP	54 09.1		
Aug. 22	B	iP	16 56 12.7		USCGS: 15°S, 168°E, 0 = 16 43 35.
	MH	iP	12.5	d	New Hebrides Islands.
		i	47.8		
	F	eP	19.0		
	SH	eP	16		
Aug. 23	B	eP	02 13 02		USCGS: 6°S, 154½°E, 0 = 02 00 05.
	BG	eSE	23 17		Solomon Islands. Felt at
		eREZ	40.3		Rabaul, Kokopo, Namatanai,
			R from W		Sohano, Londolovit, and Aropa.
			mu. sec.		PAS: Magnitude 6-1/2.
		PZ	1.2 7		
		PH	1.1 13		
		SH	5.4 14		
	MH	iP	02 13 04.5	c	
	F	e	33		
	M	eP	01.7		
	R	e	35		
	SH	e(P)	02		
Aug. 23	MH	iP	11 55 58.4	d	USCGS: 24°N, 122°E, 0 = 11 42 34.
	F	eP	56 05		Off east coast of Formosa.
	M	eP	55 50		Moderate damage at Taipeh.

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Aug. 23	R	eP	58		
cont'd	SH	iP	47.1	d	
		e	56 18		
Aug. 23	MH	e	12 31 19.8	c	Southern Nevada.
		i	32 28.6		
		e	55 50		
		e	57 23		
	F	eP	30 51		
		iE	31 42.6		
		e	45 45		
		e	47 59		
		i	52 13		
		e	59		
	M	e	31 30.4	d	
	R	e	12		
		e	52 34		
	SH	e	31 49		
Aug. 23	SH	iP	13 21 14.3		
Aug. 23	MH	iP	13 47 03.9	d	USCGS: 6°S, 154°E, h = 100 km.,
					0 = 13 33 51. Solomon Islands.
Aug. 23	B	eP	15 17 18		USCGS: Revilla Gigedo Islands.
	BG	eSNE	21 23		0 = 15 12 24.
		eN	23.5		
	MH	iP	17 11.3	d	
	F	eP	16 58		
	R	eP	17 24		
Aug. 23	SH	eP	17 33 10		USCGS: Near east coast of Kamchatka.
					0 = 17 24 20.
Aug. 23	MH	i	20 24 08.7	c	
	F	e	03		
Aug. 23	MH	iP"	23 09 59.8	d	USCGS: 7°S, 112°E, h = 100 km.,
	SH	e	07 22		0 = 22 51 10. Java.
Aug. 24	MH	iP	01 13 49.4	d	
	SH	eP	57.8		
Aug. 24	B	e(P)	15 09 32.7		
	MH	iP	42.6	d	
		i	52.0	d	
		i	10 46.3		
	PA	iP	09 36.9	d	
		i	43.5		
	SF	eP	32		
	SH	i	19.8		
Aug. 25	B	iP	15 14 57.5	c	
	MH	iP	55.8	c	
	SH	iP	15 00.3	d	
Aug. 26	B	iP	07 01 23.8	d	USCGS: 51°N, 177°W, 0 = 06 53 43.
	MH	iP	29.7	d	Andreanof Islands, Aleutian Islands.
		i	42.8	c	
	F	eP	42		
	M	iP	15.2	d	
	R	eP	29		
	SH	eP	10	d	
		e	23		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Aug. 26	B	iPNEZ	11 40 58.6	NWc	USCGS: 19°S, 63°W, 0 = 11 28 50. Southern Bolivia. Felt at Potosi, Santa Cruz, Sucre, and Valle Grande.
		e	42 47		
	BG	eSE	50 58		
		eN	51 03		
		eSSN	56.3		PAS: Magnitude $6\frac{1}{4}$ - $6\frac{1}{2}$.
			mu. sec.		
		PZ	3.6 5		
		PH	2.2 4		
		SH	5.3 10		
	MH	iP	11 40 55.2	c	
		i	42 43.2		
		eP'P'	12 08 06.0		
	F	iP	11 40 44.9	c	
	M	iP	41 02.4	c	
	R	iP	40 56	c	
	C	iP	41 22.6	c	
	SH	iP	05.9	c	
Aug. 26	B	e(P)	14 08 18		USCGS: 2°S, 81°W, 0 = 13 58 48. Near coast of Ecuador. Felt in western Ecuador.
	MH	iP	16.0	d	
		i	22.0	c	
	F	eP	04		
	M	i	35.1	d	
	R	eP	19		
	C	eP	56	d	
	SH	eP	32		
Aug. 26	MH	i	15 33 26		
Aug. 26	MH	iP	18 34 22.1	d	USCGS: 19°S, 63°W, 0 = 18 22 18. Southern Bolivia Aftershock.
	C	eP	49.1		
	SH	eP	32	c	
Aug. 26	SH	eP	19 03 49		
Aug. 27	M	iP	01 34 07		
Aug. 27	MH	iP	14 47 50.9		
	SH	iP	41.8		
Aug. 27	MH	eP	17 49 44		
	F	eP	50 03		
Aug. 27	MH	e	20 44 55		
	F	e	56		
	C	eP	43 30		
	SH	eP	44 07		
Aug. 27	B	iP	21 08 00.2	c	USCGS: $25\frac{1}{2}$°S, 178°E, h = 650 km., 0 = 20 56 29. South of Fiji Islands.
	MH	iP	00.6	c	
	F	eP	04	c	
	SH	iP	08.0	c	
Aug. 28	B	eP	08 31 40		USCGS: $28\frac{1}{2}$°S, 175°W, 0 = 08 19 10. Kermadec Islands Region.
	BG	eR	09 00.5		
			R from SW		
	MH	iP	08 31 40.2	d	
		i	52.8		
	F	iP	43.8		
	M	eP	49.0	d	
		i	50.0	c	
	SH	iP	48.9		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Aug. 28	C	eP	13 40 56		
	SH	e	42 21		
Aug. 28	MH	eP	13 46 12		
	M	iP	04.8	c	
	SH	eP	03.5		
		e	11		
Aug. 28	B	iP	13 48 40.0		
	MH	iP	43.8	c	
		i	49.9	d	
		i	49 47.0		
	M	iP	48 38.6	c	
		i	49 46.4		
	SH	iP	48 34.9		
		e	41.5		
		e	49 38		
		e	45		
Aug. 28	MH	iP	13 56 19.8	c	
		e	26.2		
	SH	iP	11.5	c	
		i	18.2		
Aug. 28	MH	iP	20 12 12.3	c	
	SH	iP	04.7		
Aug. 28	B	i(P)	23 29 25.4		
	MH	eP	25		
		i	29.2		
	F	e(P)	33		
	SH	eP	13		
Aug. 28	B	iP	23 34 33.4	d	USCGS: 21°N, 145°E, 0 = 23 22 21. Mariana Islands.
	MH	iP	37.0	d	
		i	44.3	d	
	F	iP	44.6		
	C	eP	19		
	SH	eP	27	d	
		i	40 10.3		
Aug. 28	B	iP	24 02 26.4	d	USCGS: 21°N, 145°E, 0 = 23 50 15. Mariana Islands.
	MH	iP	30.0	d	
		i	36.8		
	F	eP	38		
	C	eP	12		
	SH	iP	20.8	d	
Aug. 29	SH	iP	00 45 09.1		
Aug. 29	B	eP	01 09 59		USCGS: 21°N, 145°E, 0 = 00 57 45. Mariana Islands Aftershock.
		e	10 07		
	MH	iP	02.3	d	
		i	06.5	c	
	F	iP	11.0	c	
		e	24		
	M	iP	09 57.3	d	
	SH	iP	53.9		
Aug. 29	MH	iP	02 27 37.4	d	
	M	eP	28.4	c	
	SH	iP	25.0		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Aug. 29	MH	iP	03 49 35.3		
	SH	eP	22		
Aug. 29	MH	iP	07 41 04.4	d	
	M	eP	40 55.6		
	SH	i	41 16		
Aug. 29	MH	iP	12 59 31.8	c	USCGS: San Juan Province, Argentina.
		i	58.1		h = 150 km., 0 = 12 47 06.
	M	e	41		
	SH	e	38		
		i	13 00 10		
Aug. 29	MH	iP	16 52 35		USCGS: Mariana Islands Region.
	SH	iP	26		0 = 16 40 22.
Aug. 30	M	eP	04 03 20		USCGS: Kermadec Islands Region.
	SH	iP	18		0 = 03 50 36.
Aug. 30	MH	i(P)	12 41 19.5	c	
		i(S)	42 28.3		
		e	13 07 49		
	PA	e	08 48		
		e	10 20		
	F	e(P)	12 40 51		
		eNS	41 40		
		e	58 06		
		i	29.3		
	M	e(P)	41 30		
		e	42 47		
	R	e(P)	41 15		
		e	13 02 33		
Aug. 30	MH	i	15 50 04.7	c	
	SH	iP	49 49.2	c	
Aug. 30	MH	iP	17 05 11		USCGS: 37½°N, 141°E, h = 60 km.,
	SH	eP	04 59		0 = 16 53 47. Near east coast
					of Honshu, Japan.
Aug. 30	MH	eP	20 57 27		USCGS: Mariana Islands Region.
	SH	iP	16.8	d	0 = 20 45 18.
		i	21 07 32.8		
Aug. 30	MH	iP	21 23 35.4		
	SH	iP	25.6		
Aug. 31	MH	eP	00 21 17		
Aug. 31	MH	eP	12 31 09.1		37° 11' 14" N, 116° 04' 04" W,
		i	42.1		0 = 12 30 00.1. "Smokey"
		i	32 22		Nuclear Explosion. Epicenter
		eA	55 26		and Origin Time From Bull.
		e	57 37		Seism. Soc. Am., 48:283.
	PA	e	31 30		"A" in phase column denotes
		eA	58 00		beginning of airborne
		e	59 53		waves.
	F	eP	30 50	c	
		e	31 36		
		eA	47 56		
		i	52 19		
	M	e	31 23		
		eA	13 00 53		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Aug. 31		i	10 13		
(cont'd)	R	eA	12 52 20		
Sept. 1	M	e	16 57 19		
	SH	i	56 31		
Sept. 1	B	iP	24 12 05.5	d	USCGS: 18°N, 147½°E, 0 = 23 59 54.
	BG	eSE	22 05		Mariana Islands.
		eREZ	37.7		
			R from W		
			mu sec		
		PZ	1.6 4		
	MH	iP	24 12 08.9	d	
		i	25.3	c	
	F	iP	16.8	d	
	M	eP	04.9	d	
	C	eP	11 54		
	SH	iP	12 01.3	d	
Sept. 2	MH	i	00 39 54.4	c	USCGS: 18°N, 147°E, h = 100 km.,
	M	e	30.8	d	0 = 00 27 26. Mariana Islands.
	SH	e	22		
Sept. 2	MH	eP	05 50 52.5		
	F	eP	51 00		
	M	eP	03		
	SH	eP	00		
Sept. 2	MH	iP	07 10 27.1	c	
	F	iP	30.4	d	
	M	iP	05.6	d	
Sept. 2	B	iP	09 57 51.4	c	USCGS: 15°S, 173½°W, 0 = 09 46 30.
	BG	eSNE	10 07 09		Samoa Islands. Felt at Apia.
		eQNE	16.0		Magnitude: 6 - 6¼.
		eR	20.2		
			R from SW		
			mu sec		
		PZ	1.0 7		
		SH	1.3 9		
		MaxH	10 20		
	MH	iP	09 57 52.3	c	
		i	58 34.0	d	
	F	iP	57 57.6	c	
	M	eP	58 02.6	c	
	SH	iP	01.2	c	
Sept. 2	M	e	10 04 23		
Sept. 2	MH	i(P)	12 41 20.9	c	
		i	42 23.5		
		e	13 05 47.9		
		i	07 37.4		
		e	11 57		
	F	eP	12 40 50		
		e(S)N	41 35.7		
		e	57 49		
		i	13 02 32.9		
	M	e(P)	12 41 24		
		i	43 09.1		
		e	13 11 16		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Sept. 2	B	iP	14 27 04.3	d	USCGS: 51½°N, 168°W, 0 = 14 20 13. Fox Islands, Aleutian Islands.
		i	15.2		
		i	25.9		
	BG	eS	32 31		
	MH	iP	27 10.8	d	
		i	20.8		
	PA	iP	07.7	d	
	F	iP	24.5	d	
	M	iP	26 55.7	d	
		i	27 07.3		
		i	29 38.8		
	R	iP	27 10	d	
	C	iP	26 27.2	d	
	SH	iP	50.0	d	
Sept. 2	SH	iP	18 11 31.8		
Sept. 2	B	eP	18 16 15		
	MH	iP	18.5	c	
	F	eP	30		
	R	eP	22		
	SH	iP	10.0	c	
Sept. 2	B	eP	18 31 23		
	MH	iP	26.1	d	
		i	34 19		
		i	36 32		
	R	eP	31 28		
	SH	iP	16.2	d	
		e	34 10		
		e	36 25		
Sept. 2	SH	e	19 02 38		
Sept. 2	B	eP	19 35 38		
	MH	iP	40.8	d	
	SH	iP	32.0	c	
Sept. 2	B	iP	20 31 26.4	d	
	MH	iP	28.6	d	
		i	49.9		
	F	iP	34.4		
	SH	iP	30.1	d	
Sept. 2	MH	i	22 40 28		
Sept. 2	SH	i	23 30 28.7	c	
Sept. 3	B	eP	06 19 07		USCGS: 12°S, 167°E, 0 = 06 06 42 Santa Cruz Islands.
	MH	eP	08		
	F	eP	10		
	M	eP	15		
	R	eP	20		
	SH	iP	12		
Sept. 3	MH	eP	07 56 46		USCGS: 53°N, 167°W, 0 = 07 49 52. Fox Islands, Aleutian Islands.
		i	57 03		
	F	eP	01		
	M	eP	56 29		
	SH	eP	25		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Sept. 3	B	iP	14 40 06.7		USCGS: Mariana Islands Region. 0 = 14 28 12.
	MH	iP	11.3	d	
		i	17.9	c	
	F	iP	20.8	c	
	R	eP	15		
	SH	eP	03		
Sept. 3	MH	iP	14 51 38.8	c	USCGS: 21½°S, 179½°E, h = 600 km., 0 = 14 40 24. Fiji Islands Region.
		epP	53 47.9		
	F	eP	51 43	c	
		epP	53 51		
	SH	iP	52 02.6		
Sept. 3	B	iP	16 39 47.8	c	41° 32' N, 125° 35' W, 0 = 16 38 41. Northwest of Cape Mendocino. Magnitude 4.5.
		eSNE	40 37.8		
	MH	eP	39 57.9	d	
		i	40 56.2		
	PA	iP	39 52.8	c	
		eNE	40 50.3		
	F	e	21		
		e	41 33		
	A	iPNE	39 04.8		
		iSNE	22.0		
	Fe	iSE	23.5		
	SH	iP	23.1	c	
	C	iP	34.8	c	
		iSE	40 14.8		
Sept. 3	SH	i	18 07 05.3		
		i	24.2		
Sept. 4	MH	eP	01 43 50	c	USCGS: 12°S, 167½°E, 0 = 01 31 23. Santa Cruz Islands.
	F	iP	56.8	d	
	R	eP	44 01		
	SH	eP	43 47		
Sept. 4	SH	iP	04 31 59.9		USCGS: Fox Islands, Aleutian Islands. 0 = 04 25 05.
Sept. 4	M	e(P)	04 45 11.7	d	
	SH	e(P)	07		
Sept. 4	MH	e	04 54 19		USCGS: South Indian Ocean, about 1000 Miles South of Kerguelen Islands. 0 = 04 33 51.
	F	eP'	53 52		
	M	e	54 17		
	SH	e	22		
Sept. 4	M	eP	13 06 31		
Sept. 4	B	iT	18 00 10.7		
		i	13.5		
	MH	iT	19.9		
		i	26.9		
	PA	iT	10.0		
		i	17.2		
		i	21.8		
		i	26.2		
	SF	eTE	06.5		
Sept. 4	MH	e	20 10 45		
	SH	eP	18		
Sept. 4	SH	e(P)	21 19 01		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Sept. 5	MH	iP	01 33 42.4	c	
		i	34 16.9		
	SH	eP	33 54		
Sept. 5	M	iP	04 07 49.8	c	USCGS: 55-1/2°N, 159°W, 0 = 04 01 49. Alaska Peninsula.
	SH	eP	44		
Sept. 5	MH	iP	04 15 44.2	d	
		i	52.3		
	M	eP	38.4	d	
		i	46.9	d	
	SH	eP	40.5		
		i	49.0		
Sept. 5	F	eP	07 35 12		USCGS: 53-1/2°N, 160-1/2°E, 0 = 07 25 19. Near east coast of Kamchatka.
	M	eP	34 36.6	d	
		e	37 13.9		
	SH	eP	34 27		
Sept. 5	M	eP	07 42 09	c	
Sept. 5	MH	iP	19 09 22.1	c	USCGS: 20°S, 67°W, h = 150 km., 0 = 18 58 42. Southern Bolivia.
Sept. 6	B	iP	00 29 36.8	d	USCGS: 20°S, 68°W, h = 100 km., 0 = 00 17 55. Chile-Bolivia border.
	MH	iP	33.1	d	
		i(pP)	59.8	c	
		i	35 44.7		
	F	iP	29 23.7	c	
	M	iP	43.1	c	
	R	iP	35.7		
	C	eP	30 04		
	SH	iP	29 45.1	d	
		i	35 51.8		
Sept. 6	MH	iP	01 27 05.2	c	
		i	57.0		
	M	iP	01.0	c	
		i	51.3	d	
	SH	iP	26 57.5	d	
		i	27 48.1		
Sept. 6	B	iP	05 02 19.4		USCGS: 51°N, 177°W, 0 = 04 54 37. Andreanof Islands, Aleutian Islands.
	BG	eQN	12.1		
		eR	14.5		
	MH	iP	02 25.0	d	
	M	eP	11.1	d	
	R	eP	25		
	SH	iP	03.6	d	
		i	20.7		
Sept. 7	MH	iP	01 19 53.5	c	USCGS: 8-1/2°N, 72°W, 0 = 01 10 32. Western Venezuela. Felt at Cucuta, Colombia.
	M	iP	20 00.3	c	
	R	eP	19 50		
	SH	iP	20 02.9	d	
Sept. 7	B	i	06 58 37.9		USCGS: 50°N, 156°E, 0 = 06 48 36. Northern Kurile Islands.
	MH	iP	28.1	c	
		i	42.3	c	
	F	eP	39		
		i	52.6		
	M	eP	15.0	c	
		i	28.5	d	

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Sept. 7 cont'd	R	e(P)	27		
	SH	iP	10.1	c	
		i	24.6		
Sept. 7	B	eP	10 14 34.1	d	USCGS: 51-1/2°N, 178-1/2°W, 0 = 10 06 47. Andreanof Islands, Aleutian Islands.
	BG	ePPEZ	16 24		
		iSNE	20 49		
		eQN	24.9		
		eREZ	26.4		
			R from WNW		
	MH	iP	10 14 39.9	d	
		i	15 22.9		
		i	20 24.6		
	F	iP	14 53.0	d	
		i	15 00.9		
	M	eP	14 24.9	d	
		i	41.3		
		e(S)	20 18.1		
	R	iP	14 34.7		
		i	15 09.2		
		i	20 57.2		
	C	iP	13 58.3	c	
	SH	eP	14 17.8	d	
		eS	20 15.6		
Sept. 7	SH	iP	15 17 33.8		
		i	18 01.5		
		e	14		
Sept. 8	M	eP	10 26 52		USCGS: 52°N, 171°W, 0 = 10 19 48. Fox Islands, Aleutian Islands.
Sept. 8	MH	e	13 01 28		
		i	02 25		
	F	e	00 57		
	M	e	46		
Sept. 8	M	eP	13 32 12		USCGS: 5°S, 152°E, h = 60 km., 0 = 13 18 55. New Britain. Felt at Rabaul and Kokopo.
Sept. 9	B	eP'	00 33 21		USCGS: 48°S, 100°E, 0 = 00 13 30. South Indian Ocean.
	BG	eLNE	01 23.9		
	MH	iP'	00 33 21.8	c	
	F	e(P')	29		
	M	eP'	26		
	R	eP'	31		
	SH	eP'	26		
Sept. 9	B	eP	09 12 09		USCGS: 15°S, 176-1/2°W, 0 = 09 00 33. Fiji Islands region.
		eSNE	21 50		
		eQNE	31.0		
		eR	35.4		
	MH	iP	12 10.3	d	
		i	21.8		
	F	iP	16		
	M	eP	19.5		
	R	eP	25		
	SH	iP	18.2	d	

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Sept. 11	B	iP	13 52 46.6		USCGS: 19°S, 178°W, h = 500 km.,
	MH	iP	47.7	d	0 = 13 41 44. Fiji Islands region.
	M	iP	56.9	c	
	SH	iP	55.7		
Sept. 11	SH	eP	14 40 11		USCGS: New Ireland region.
					0 = 14 26 45.
Sept. 11	B	iP	23 33 31.9	c	USCGS: 16°S, 172°W, 0 = 23 22 09.
	MH	iP	32.2	c	Samoa Islands region.
		i	41.5	d	Felt at Apia.
		i	34 02.0	d	
		e(P'P')	24 01 29		
	F	iP	23 33 35.5	c	
	R	eP	47		
	C	ePNE	59		
Sept. 12	B	iPNEZ	00 35 25.5	NWc	USCGS: 17-1/2°N, 85°W, 0 = 00 28 02.
	BG	ePP	36 59		About 100 miles north of Honduras.
		iSNE	41 22		Felt at Havana, Cuba.
		eQN	44.4		Magnitude 6-1/4.
		eRE	46.1		
			mu sec		
		PZ	2 4		
		PH	2 4		
		PPZ	3 6		
		SH	8-1/2 10		
		MaxH	36 20		
	MH	iP	00 35 20.2	c	
		i	39.1	c	
	F	iP	05	c	
	M	iP	28.5	c	
		i	40.3	d	
	R	iP	17	c	
	C	iP	55.8	c	
	SH	iP	32.2	c	
		i	43.7		
		iPP	37 02.4		
Sept. 12	MH	iP	01 33 20.1	d	USCGS: 21°N, 145°E, 0 = 01 21 06.
	SH	eP	11		Mariana Islands.
Sept. 12	MH	eP	04 07 30		USCGS: 15-1/2°N, 98-1/2°W,
	F	eP	15		h = 60 km., 0 = 04 01 24. Off
	M	eP	46		coast of Guerrero, Mexico.
	R	eP	34		
	SH	eP	51		
Sept. 12	MH	e	09 05 48		
	F	e	48		
	M	e	47		
	SH	e	48		
Sept. 12	M	i	09 55 10.6		
	R	e	54 42		
	SH	e	55 26		
Sept. 12	R	eNE	12 54 57		
	SH	e	55 26		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Sept. 13	M	e	09 23 34		
	SH	e	36		
Sept. 13	MH	iP	12 55 42.8	d	
	M	eP	50.9	d	
	SH	iP	54.0	c	
Sept. 13	MH	iP	16 36 21.1	c	
	SH	eP	36		
Sept. 13	MH	iP	18 15 49.3	d	
	SH	iP	16 02.5	d	
Sept. 14	SH	e	01 22 26		
Sept. 14	M	e	03 23 04		
	C	eP	22 00		
	SH	e	23 05		
Sept. 14	M	eP	10 57 01	c	
	SH	i	56.7	d	
		i	58 39.7	c	
Sept. 14	R	e	15 53 54		
	SH	e	54 26		
Sept. 14	MH	eP	17 16 14		USCGS: 1-1/2°S, 80-1/2°W,
	SH	eP	32		0 = 17 06 49. Near coast of
					Ecuador.
Sept. 14	SH	e	17 20 30		
	e		22 24		
Sept. 14	SH	e	20 35 37		
Sept. 15	SH	e	00 26 04		
Sept. 15	B	eP"	04 41 02	d	USCGS: 5-1/2°S, 108°E, h = 300 km.,
	MH	iP"	02.7	d	0 = 04 22 34. Near north coast
	F	eP"	06	d	of Java. Felt in southern
	M	eP"	40 59.3	d	Priangan.
		i	41 01.2	c	
	R	eP"	04	d	
	SH	iP"	40 57.3	d	
		i	41 43.6		
Sept. 15	MH	e	04 53 50		
	SH	e	54 35		
Sept. 15	MH	eP	18 55 08	c	USCGS: 6°S, 153-1/2°E, h = 150 km.,
	M	e	20		0 = 18 42 20. Solomon Islands.
	SH	eP	07		Felt at Rabaul and Karoola.
Sept. 15	MH	iP	21 35 38.1	c	
	SH	eP	40		
Sept. 15	B	e(P)	22 14 54		USCGS: 51°N, 174-1/2°W, 0 = 22 07 21.
	MH	eP	56.5	d	Andreanof Islands,
		i	15 34.5		Aleutian Islands.
	F	eP	14		
	R	eP	14 59		
	SH	iP	33.4	d	
	MH	e	22 20 47		
	SH	i	39.4	c	
Sept. 16	F	eP	01 44 30		USCGS: 82°N, 120°E, 0 = 01 34 36.
	M	e	03		Arctic Ocean.
	SH	eP	43 57		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Sept. 16	MH	i(P)	02 04 47.7		
	F	e	56		
	M	e	05 21		
	SH	e	24		
Sept. 16	MH	eP	09 13 59.9	c	USCGS: 54°N, 158-1/2°E, 0 = 09 04 23. Kamchatka.
		e	14 29.7		
	M	eP	13 46.2	c	
		e	15 14		
	SH	eP	13 37		
		e	15 06		
Sept. 16	M	eP	09 31 15	c	
	SH	e	16		
Sept. 16	SH	eP	09 45 16		
Sept. 16	MH	eP	12 51 20.4	c	
		i	30.1		
		i	52 28.6		
		e	13 16 48		
	PA	e	12 51 55.2		
		e	13 19 25		
	F	eP	12 50 51		
		e	13 08 48		
	M	e	12 51 28.3		
		e	13 23 43		
	R	e	12 51 13		
		e	13 14 38		
	SH	e	12 51 42		
		e	13 28 50		
Sept. 16	SH	e	12 58 18		
Sept. 16	MH	eP	15 15 16.2		
		e	17 56		
	F	e	15 29		
	R	e	32		
	SH	e	16 00		
Sept. 16	SH	i(P)	15 40 14.8	c	
Sept. 16	SH	i(P)	18 39 37.6	c	
Sept. 16	SH	eP	19 18 32		
Sept. 16	MH	e(P)	19 59 17		
	SH	e(P)	58 51		
Sept. 17	MH	eP	05 10 23.3	d	
	M	e	35.0	c	
	SH	iP	34.1	d	
		i	11 06.3	d	
Sept. 17	MH	eP	15 56 40.7		
	SH	eP	45		
Sept. 17	SH	iP	18 55 56.1	d	USCGS: 30-1/2°N, 139°E, 0 = 18 44 02. Off south coast of Honshu, Japan.
Sept. 18	MH	eP	01 08 47.3	d	USCGS: 53°N, 160°E, 0 = 00 59 20. Near east coast of Kamchatka.
	M	eP	32		
	SH	iP	28.3	c	
		i	09 03.8	d	

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Sept. 18	MH	e(P)	11 38 57		
		i	39 03		
	SH	e(P)	38 55		
Sept. 18	B	eP	18 22 00		USCGS: 52-1/2°N, 168°W, 0 = 18 15 10. Fox Islands, Aleutian Islands.
	MH	eP	07		
	F	eP	24		
	R	e	15		
	SH	iP	21 49.5	d	
		i	22 00.2		
Sept. 18	MH	i(P)	23 10 07		
	SH	e(P)	09 35		
Sept. 19	MH	iP	01 05 45.5		
	M	iP	56.1		
Sept. 19	B	eP	13 48 55		USCGS: 52°N, 168°W, 0 = 13 42 06. Fox Islands, Aleutian Islands.
		e	51 56		
	BG	eSN	56 58		
	MH	i	49 04.1	d	
	M	eP	48 51.9	d	
	R	eP	49 01.7		
	C	eP	48 19		
	SH	iP	41.1	d	
		i	52.2		
Sept. 19	B	eP	14 11 22		
	MH	iP	22.9	c	
	SH	iP	30.1	c	
Sept. 19	B	eP	17 01 14.8		37°11'45"N, 116°12'11"W, 0 = 16 59 59.5. "Rainier" underground nuclear explosion. Epicenter and origin time from Bull. Seism. Soc. Am., 48:283.
		e	25.0		
		i	33.1		
		i	38.2		
		i	02 47.3		
		i	57.8		
	MH	eP	01 07.2	d	
		i	19.6	d	
		eN	49.7		
		i	02 14.8		
	PA	e	01 21.8		
		e	24.6		
		i	29.7		
	F	eP	00 48.2	d	
		e	53.2	d	
		iN	01 33.5		
	R	e	01		
		e	09		
		i	02 10.3		
		eE	03 49		
	SH	i	02 03.9	c	
		i	10.3		
		e	47		
		e	03 04		
		i	36.5		
		i	04 02.7		
Sept. 19	MH	i(P)	17 14 21.5	c	USCGS: 19°S, 176°W, h = 200 km., 0 = 17 02 02. Tonga Islands.

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Sept. 20	MH	eP	06 38 08		
	SH	eP	37 44		
Sept. 20	MH	iP	07 07 07.4	c	
	SH	iP	11.2	c	
Sept. 20	M	eP	08 08 59.4	d	
	SH	iP	55.1	d	
		i	09 11.4		
Sept. 20	B	eP	08 35 38		USCGS: 46°N, 151-1/2°E, 0 = 08 25 19. Kurile Islands.
	MH	eP	43.4	d	
	M	iP	31.3	d	
	SH	iP	26.1	d	
Sept. 20	MH	eP	14 14 39.8	d	
	SH	iP	00.2	c	
Sept. 20	SH	eP	17 59 29		
Sept. 20	MH	e	19 14 40	d	
	SH	i(P)	12 44.5	d	
		e	14 08.9		
Sept. 20	MH	iP	23 14 38.8	d	USCGS: 52°N, 170-1/2°W, 0 = 23 07 22. Fox Islands, Aleutian Islands.
	F	eP	50		
	SH	eP	22		
Sept. 21	M	e	12 27 27		
	SH	e	15		
		i	28 01		
Sept. 21	SH	e(P)	13 52 59		
Sept. 22	M	e	06 21 29		
	A	eNE	00		
	SH	iP	13.1		
Sept. 23	B	eP	09 21 02		USCGS: 52°N, 177-1/2°W, 0 = 09 12 55. Rat Islands, Aleutian Islands.
	MH	iP	08.4	c	
	M	eP	20 53.1	c	
	SH	iP	47.8	d	
Sept. 23	M	e	09 56 27.3	d	
	SH	i(P)	17.5	d	
		i	34.0		
Sept. 23	MH	eP	12 31 09.7	d	
		i	22.0	c	
		i	32 21.7		
		e	55 02		
	PA	e	31 18.8	d	
		e	30.7		
		i	32 27.1		
		e	13 03 44		
	F	eP	12 30 49.1		
		e	48 02		
		i	51 35		
		i	52 13		
	M	e(P)	31 22.4		
		e	44.3		
	R	eP	11.5		
		e	53 28		
	SH	e	31 57		
Sept. 23	MH	eP	12 45 44.0		
	M	iP	38.0	d	

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Sept. 23	MH	eP	18 55 37.5		USCGS: 16°S, 173°W, 0 = 18 44 10. Samoa Islands Region.
	F	eP	41		
	SH	eP	46		
Sept. 24	B	e	01 56 09		
	MH	eP	01.4		
	F	eP	04		
	M	eP	16.2	c	
	SH	eP	12		
Sept. 24	B	eP	08 35 06		USCGS: 5-1/2°N, 127-1/2°E, 0 = 08 21 05. Near south coast of Mindanao, Philippine Islands. Felt on Mindanao Island and on Koror Island, West Caroline Islands.
		i	38 50.8		PAS: Magnitude 7-3/4.
	BG	ePPNEZ	39 31		
		eSKSE	45 16		
		iSNEZ	46 20		
		i(PS)E	48 43		
		eSSE	52 29		
		eQN	09 03.6		
		eREZ	07.3		
			R from WNW		
			mu sec		
		PZ	1.7 9		
		PPZ	2.9 9		
		PPH	12 20		
		MaxH	240 30		
		MaxZ	130 24		
	MH	eP	08 35 08.5	c	
		e	38 05.7		
		i	55.2		
		ePKKP	51 03		
	F	eP	35 15		
		i	38 40		
		i	59		
	M	eP	35 05.5	d	
		e	38 26.2		
		ePKKP	51 13.9		
	R	eP	35 12		
		e	38 52		
	C	eP	35 00		
		e	38 41		
	SH	eP	35 03		
		i	13.9		
		i(PP)	38 33.2		
		ePKKP	51 18		
Sept. 24	MH	iP	14 07 08.8	d	
	SH	eP	00		
Sept. 25	B	e	06 01 47		USCGS: 34°N, 38-1/2°W, 0 = 05 50 56. Near Azores Islands.
	BG	e(S)NE	10 42		PAS: Magnitude 6-1/4 - 6-1/2.
	MH	eP	01 43.3	c	
		i	54.9	d	
	F	eP	47		
	M	eP	32.3	c	
		i	53.3		
	R	e	39		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Sept. 25	C	e(P)	40		
cont'd	SH	eP	35		
Sept. 25	MH	eP	06 32 14.6		
	M	eP	31 59.2		
	SH	eP	56		
Sept. 25	MH	iP	07 46 14.6		
	M	e	27		
	SH	iP	13.9		
Sept. 25	M	e	09 52 17		
	SH	e	09		
Sept. 25	MH	e	16 51 04		USCGS: Mindanao Aftershock.
		e	55 52		0 = 16 36 37.
	SH	eP	50 43		
Sept. 25	B	eP	18 12 58		
	MH	eP	59.2		
	SH	iP	13 03.8		
Sept. 25	SH	e	18 53 07		
Sept. 25	MH	i(P)	21 21 20		
	SH	eP	23		
Sept. 26	M	e	05 40 10		
Sept. 26	MH	e(P)	06 26 28.2	c	
	M	e	17.0	c	
	SH	iP	07.5	c	
Sept. 26	MH	iP	08 10 35.2	c	USCGS: 17°N, 99°W, 0 = 08 03 50.
		i	43.3	d	Near coast of Chiapas, Mexico.
	F	iP	20.6		
	M	eP	47.4		
	R	eP	37		
Sept. 26	MH	i(P)	13 41 56.9	c	USCGS: 15°N, 92-1/2°W, h = 150 km.,
		i	42 08.0	c	0 = 13 35 22. Guatemala-Mexico
	F	e	41 50		border.
	M	e(P)	42 12		
Sept. 26	MH	iP	22 21 05.6	c	
	SH	eP	20 32		
Sept. 27	BG	e	04 37 01		USCGS: 1°S, 127°E, 0 = 04 08 23.
		eREZ	05 05		Spice Islands.
			R from WSW		
Sept. 27	MH	e(PP)	04 36 35		USCGS: 1°S, 127-1/2°E, 0 = 04 18 49.
	M	i(P")	12.8		Spice Islands aftershock.
	SH	i(P")	11.3	d	
Sept. 27	B	iP	05 06 57.4	c	USCGS: 64°N, 178°E, 0 = 04 58 52.
	MH	iP	07 02.9	c	Eastern Siberia.
	F	iP	14.1		
	M	eP	06 43.1	c	
	R	eP	55.1	c	
	C	iP	09.9	c	
	SH	iP	38.1	c	
Sept. 27	MH	iP	05 55 16.3	d	USCGS: 53°N, 168°W, 0 = 05 48 15.
	M	eP	54 58.7		Fox Islands, Aleutian Islands.
	SH	iP	54.7		
Sept. 27	MH	i	11 24 19.0	c	USCGS: 52-1/2°N, 169°W, 0 = 11 16 52.
	F	e(P)	22		Fox Islands, Aleutian Islands.

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Sept. 27	M	i	23 49		
cont'd	SH	e	51		
Sept. 27	B	iP	18 58 27.5	c	
	SH	iP	18.2		
Sept. 28	B	iPNEZ	00 38 47.8	SEc	USCGS: 30-1/2°N, 137-1/2°E,
			mu sec		h = 500 km., 0 = 00 27 31.
		PZ	2.2 5		Off south coast of Honshu, Japan.
	MH	iPNEZ	00 35 51.7	SEc	PAS: Magnitude 6-3/4.
	F	iPNEZ	59.4	SEc	
	M	iP	43	c	
	R	iPNEZ	52.5	SEc	
	C	iPNEZ	26.7	SEc	
	SH	iP	39.2	SEc	
		eSE	47 53		
Sept. 28	MH	iP	13 01 23.0	c	
		i	02 18.6		
	F	eP	00 51.7		
	R	eP	01 16		
Sept. 28	B	iP	14 31 05.4	d	USCGS: 20-1/2°S, 178°W, h = 650 km.,
	BG	iPNEZ	05.6	SWd	0 = 14 20 00. Fiji Islands.
	B	ipP	33 07.6	c	PAS: Magnitude 7-1/2.
		esP	34 09	c	
	BG	e	36 59		
		iSNE	40 16.6	SE	
		i(SP)NE	41 09		
		isSN	44 13		
		iN	43		
		eP'P'	58 05		
			mu sec		
		PZ	16 4		
		PH	5 3		
		SH	110 13		
	MH	iP	14 31 06.4	d	
		ipP	33 07.5		
		eSNE	40 18		
		iP'P'	57 51.5		
	F	iP	31 08.1	d	
		iE	34 21.7		
		iNE	39 27.6		
	A	ePE	31 11		
		eSE	40 26		
	R	iP	31 18.9	d	
		iNE	19.4	SW	
		e	32 30		
		i	40 45.4		
	C	iP	31 23.8	d	
		eN	33 44		
		eSNE	40 53		
	SH	iPNEZ	31 13.8	SWd	
		epP	33 18		
		iSNE	40 32	SW	
		eP'P'	57 52		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Sept. 28	B	iP	14 55 10.5	d	USCGS: 20-1/2°S, 178-1/2°W,
	MH	iP	11.5	d	h = 600 km., 0 = 14 44 02.
	F	iP	14.9		Fiji Islands aftershock.
	R	iP	23.9		
	SH		18.9	d	
Sept. 28	B	i(pP)	21 15 56		USCGS: 17-1/2°N, 146°E, h = 200 km.,
	MH	iP	10.9	d	0 = 21 03 18. Mariana Islands.
		i(pP)	54.9	c	
		i	59.1	d	
	C	eNE	43		
	SH	iP	02	d	
		i(pP)	52		
Sept. 28	B	iP	21 05 05.1	c	36°36'N, 121°14'W, 0 = 21 04 39.
		eNE	20.1		San Benito County, California.
		eSE	24.8		Magnitude 4.5. Felt.
		iE	30.0		
		iN	32.5		
	MH	iP	04 55.5	d	
		iNE	56.1		
		iSNE	05 07.5		
	PA	iP	04 59.5		
		iSNE	05 16.0		
	SF	eP	04.7		
		i	06.0		
	F	iP	00.8	c	
	R	eP	32		
		i	06 14.6		
	SH	iP	05 45		
Sept. 29	B	iP	07 17 10.3	d	USCGS: 20°S, 178°W, h = 650 km.,
	MH	iP	11.2	d	0 = 07 06 11. Fiji Islands.
	F	iP	15.3	d	
	R	eP	23.2	d	
	SH	iP	16.6	d	
Sept. 29	B	iP	08 24 55.9	c	USCGS: 25°S, 178-1/2°E, h = 600 km.,
		epP	26 59		0 = 08 13 22. South of Fiji
	BG	eSN	34 29		Islands.
		esSNE	38.1		Magnitude 6-1/4.
			mu sec		
		PZ	2.5 5		
		SH	8.7 10		
	MH	iP	08 24 56.0	c	
		ipP	27 00.2		
	F	eP	24 59.7	c	
		epP	27 10.7	d	
	R	eP	25 07.9	c	
		epP	27 19		
	C	eP	25 15		
	SH	iP	08	c	
Sept. 29	B	eP	08 51 17.5		
	MH	eP	17.3	c	
		i	53 45.0	c	

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Sept. 29	MH	iP	13 40 15	d	USCGS: 53-1/2°N, 160°E, 0 = 13 30 42.
	F	eP	36		Near east coast of Kamchatka.
	R	e	23		
	SH	iP	39 55		
Sept. 29	B	iP	13 49 13.2		
	MH	iP	13.5	c	
	F	iP	17.7		
	R	eP	27		
	SH	iP	21		
Sept. 29	B	eP	18 57 28	c	
	MH	iP	34.4	c	
	SH	iP	11		
Sept. 29	MH	iP	20 03 46		USCGS: 13°S, 77°W, 0 = 19 53 30.
		i	04 19		Near coast of Peru.
Sept. 30	B	eP	11 14 34		USCGS: 29-1/2°N, 140°E, 0 = 11 02 36.
	MH	eP	36.9		South of Honshu, Japan.
	SH	iP	26		
Sept. 30	MH	e	15 30 11.4	c	
Sept. 30	MH	eP	20 33 38		USCGS: 24-1/2°N, 143°E, 0 = 20 21 30.
	SH	iP	28		Volcano Islands.

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From October 1, 1957 to December 31, 1957

BY

DON TOCHER

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BERKELEY AND LOS ANGELES
1959

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Perry Byerly, Director

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and

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EARTHQUAKES IN NORTHERN CALIFORNIA, NEVADA, AND OREGON

The list following this page gives the latitude and longitude of 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 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.

Original seismograms from the short-period Wilson-Lamison vertical-component instrument at Ukiah, California, are available routinely for use in locating epicenters of local earthquakes through the courtesy of the Director, U.S. Coast and Geodetic Survey.

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.

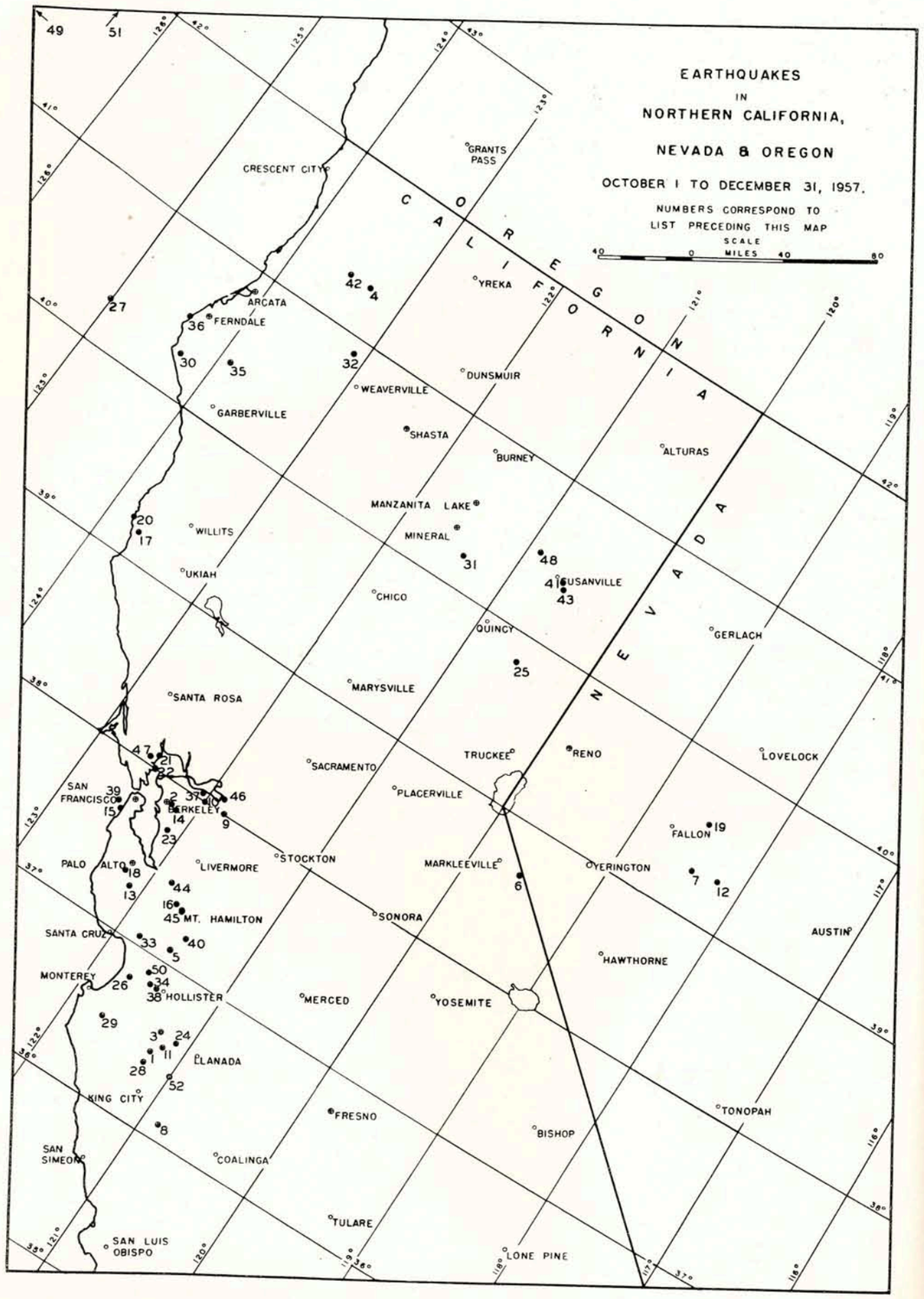
XII. Damage total. Waves seen on ground surfaces. Lines of sight and level distorted. Objects thrown upward into the air.

EARTHQUAKES IN NORTHERN CALIFORNIA, NEVADA, AND OREGON

Map No.	Date 1957	Origin Time (G.C.T.)	Latitude North	Longitude West	Q	M	Remarks
1	Oct. 1	12-55-57	36° 28'	121° 14'	c	3.3	Southwest of Llanada.
2	Oct. 1	17-29-42	37° 52'	122° 12'	b	2.2	Near Berkeley. Felt.
3	Oct. 2	09-57-42	36° 37'	121° 15'	b	2.7	West of Llanada.
4	Oct. 6	17-27-02	41.3°	123.3°	d	3.6	Northeast of Arcata.
5	Oct. 13	22-02-43	37° 05'	121° 33'	c	2.4	Northwest of Hollister.
6	Oct. 16	01-07-35	38° 41'	119° 35'	c	3.8	East of Markleeville.
7	Oct. 17	10-14-09	39° 17'	118° 26'	c	4.6	Southeast of Fallon, Nevada. Felt at Fallon.
8	Oct. 19	00-04-38	36° 06'	120° 52'	b	3.3	Southeast of King City.
9	Oct. 19	09-47-57	38° 00'	121° 51'	c	2.9	Northeast of Berkeley.
10	Oct. 20	10-46-32	38° 00'	122° 01'	b	2.0	Northeast of Berkeley.
11	Oct. 25	15-36-27	36° 32'	121° 10'	c	2.7	Southwest of Llanada.
12	Oct. 25	15-40-54	39.3°	118.2°	d	3.9	Southeast of Fallon, Nev.
13	Oct. 26	06-03-05	37° 17'	122° 07'	b	2.8	South of Palo Alto.
14	Oct. 26	13-00-00	37° 51'	122° 08'	c	1.8	East of Berkeley.
15	Oct. 28	02-38-12	37° 40'	122° 31'	a	2.4	Aftershock of March 22, 1957. Felt in outer Mission District of San Francisco.
16	Oct. 29	04-42-55	37° 21'	121° 43'	b	1.6	Northwest of Mt. Hamilton.
17	Oct. 31	02-47-46	39° 11'	123° 41'	b	4.7	West of Ukiah. Felt over a land area of approximately 4,000 square miles, principally in Mendocino County. Slight damage reported: plaster cracked at Willits; knickknacks fell and broke at Comptche. VI at Willits and Comptche. V at Boonville, Calpella, Elk, Mendocino, Nashmead, Navarro, Philo, and Talmage.
17	Oct. 31	14-37-54	39.2°	123.7°	d	2.4	Aftershock. Felt at Comptche and Philo.
18	Oct. 31	19-47-06	37° 21'	122° 13'	a	4.1	Southwest of Palo Alto. Felt over a land area of approximately 2,500 square miles of the coastal area of west-central California. V at Ben Lomond. IV at Alvarado, Aptos, Boulder Creek, El Granada, Los Gatos, Pescadero, and Soquel.
18	Oct. 31	20-13-07	37° 20'	122° 12'	b	2.2	Aftershock.
19	Nov. 1	04-51-57	39.6°	118.5°	d	3.8	Northeast of Fallon, Nevada.
20	Nov. 1	20-50-57	39° 15'	123° 47'	c	3.6	Northwest of Ukiah. V at Comptche. IV at Philo.
21	Nov. 2	21-23-57	38° 05'	122° 30'	c	2.0	Northwest of Berkeley.
22	Nov. 9	00-43-30	38° 00'	122° 28'	a	2.5	Northwest of Berkeley.

Map No.	Date 1957	Origin Time (G.C.T.)	Latitude North	Longitude West	Q	M	Remarks
23	Nov. 9	17-33-16	37° 43'	122° 07'	b	2.5	Southeast of Berkeley. Felt at San Leandro, Castro Valley, and Hayward.
24	Nov. 12	11-39-52	36.6°	121.1°	d	3.0	West of Llanada.
25	Nov. 16	02-36-55	39° 49'	120° 34'	c	3.2	Southeast of Quincy.
26	Nov. 16	07-59-54	36.8°	121.7°	d	2.4	Northeast of Monterey.
-	Nov. 17	06-00-29	45.3°	123.8°	d	4	Northwestern Oregon. Felt over a land area of approximately 4,500 square miles of northwestern Oregon. VI at Salem. V at Dallas, Newberg, Otis, Willamina, and Yamhill.
27	Nov. 17	06-32-21	40° 18'	125° 00'	b	4.2	Off Cape Mendocino.
28	Nov. 18	01-11-42	36° 23'	121° 14'	c	3.1	Northwest of King City.
10	Nov. 18	05-01-34	37° 58'	122° 00'	c	2.3	Northeast of Berkeley.
29	Nov. 18	07-26-32	36.5°	121.7°	d	3.3	Southeast of Monterey.
15	Nov. 20	07-47-53	37° 39'	122° 30'	a	2.5	Aftershock of March 22, 1957. Felt in Westlake Palisades.
30	Nov. 20	18-41-28	40° 14'	124° 17'	b	3.4	South of Ferndale. Felt over a land area of approximately 500 square miles of southwestern Humboldt County. V at Petrolia. IV at Honeydew.
31	Nov. 22	23-48-33	40.2°	121.4°	d	2.7	Southeast of Mineral.
-	Nov. 25	18-55-09	44.6°	130.7°	d	5.1	Off the coast of Oregon.
-	Nov. 25	20-32-25	44½°	129½°		5	Aftershock. Epicenter and origin time by USCGS.
32	Nov. 25	22-08-44	40.9°	123.1°	d	2.9	Northwest of Weaverville.
-	Nov. 25	22-16-44	45°	130°		4-3/4	Oregon aftershock. Epicenter and origin time by USCGS.
33	Nov. 26	12-26-48	37° 03'	121° 49'	b	2.2	Northeast of Santa Cruz.
34	Dec. 1	08-42-40	36° 50'	121° 32'	c	2.6	West of Hollister. Foreshock of December 11 at 2345.
35	Dec. 4	06-23-41	40.4°	123.9°	d	2.3	Southeast of Ferndale.
36	Dec. 5	11-10-23	40.5°	124.4°	d	3.0	Southwest of Ferndale.
37	Dec. 6	00-11-10	38° 02'	122° 03'	c	1.8	Foreshock.
10	Dec. 6	04-25-52	38° 00'	122° 00'	b	2.6	Northeast of Berkeley.
38	Dec. 10	23-05-51	36° 50'	121° 28'	c	3.0	Foreshock of December 11 at 2345. IV 7½ miles south of Hollister.
38	Dec. 10	23-22-41	36° 50'	121° 28'	c	2.8	Foreshock of Dec. 11 at 2345.
38	Dec. 11	00-30-39	36° 50'	121° 28'	c	2.4	Foreshock of 2345.
38	Dec. 11	01-41-18	36° 50'	121° 28'	c	3.0	Foreshock of 2345. IV 7½ miles south of Hollister.

Map No.	Date 1957	Origin Time (G.C.T.)	Latitude North	Longitude West	Q	M	Remarks
39	Dec. 11	15-59-34	37° 42'	122° 34'	c	1.6	Southwest of San Francisco. Felt at Daly City.
38	Dec. 11	23-45-50	36° 50'	121° 28'	c	3.2	West of Hollister.
38	Dec. 12	00-18-04	36° 50'	121° 28'	c	2.4	Aftershock.
10	Dec. 12	08-33-22	38° 01'	121° 59'	c	2.0	Northeast of Berkeley.
40	Dec. 14	16-38-37	37.2°	121.5°	d	2.5	Southeast of Mt. Hamilton.
41	Dec. 15	16-46-52	40.4°	120.6°	d	3.4	Foreshock of Dec. 16 at 0933.
42	Dec. 15	22-28-43	41.3°	123.5°	d	2.7	Northeast of Arcata.
41	Dec. 16	09-33-16	40.4°	120.6°	d	3.1	Foreshock.
43	Dec. 16	09-33-23	40° 22'	120° 33'	c	3.7	Southeast of Susanville.
44	Dec. 17	06-22-48	37° 27'	121° 51'	a	2.8	Foreshock.
44	Dec. 17	08-24-22	37° 27'	121° 51'	a	3.0	Northeast of San Jose.
45	Dec. 17	15-56-27	37° 20'	121° 39'	a	2.4	Near Mt. Hamilton.
46	Dec. 19	14-19-17	38° 05'	121° 53'	c	2.3	Northeast of Berkeley. Foreshock at 14-17-16. Aftershock at 15-12-30.
47	Dec. 19	19-04-37	38° 03'	122° 34'	c	1.7	Northwest of Berkeley.
41	Dec. 19	22-43-07	40.4°	120.6°	d	2.9	Aftershock of December 16 at 0933.
48	Dec. 19	23-44-12	40.5°	120.9°	d	3.8	Northwest of Susanville. Probably deeper than normal.
49	Dec. 26	12-20-35	41° 27'	127° 19'	c	4.7	West-northwest of Arcata.
50	Dec. 28	08-37-06	36.9°	121.6°	d	3.0	Northwest of Hollister.
51	Dec. 29	21-56-58	42.0°	126.4°	d	3.7	Northwest of Arcata.
52	Dec. 31	22-32-55	36.4°	121.0°	d	2.9	Northeast of King City.



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

*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, or ML 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 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 (mu) and periods in seconds (sec) 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
1957			h. m. s.		
Oct. 2	SH	iP	06 08 49		
Oct. 2	B	eP	12 38 00		USCGS: 11°N, 63°W, 0 = 12 27 55.
	BG	eSNE	46 08		Venezuela foreshock. Felt, Trinidad.
		eQN	59.9		
		eRNEZ	13 03		PAS: Magnitude 6-1/2 - 6-3/4.
			R from E		
			mu sec		
		PZ	1.4 6		
	MH	eP	12 37 55.9	c	
		i	57.7	c	
		i	38 08.7		
	F	iP	37 47.7	c	
	A	eE	38 17		
	R	eP	37 49	c	
	C	eP	38 14.3	d	
	SH	iP	03.5		
		i	08.4		
		eE	41 45		
Oct. 2	B	eP'	21 18 29		USCGS: 6-1/2°S, 69-1/2°E, 0 = 20 58 39.
	MH	iP'	29	c	Chagos Islands.
	F	eP'	35		
	R	eP'	23		
	SH	eP'	19		
Oct. 3	SH	iP	06 12 18.6		USCGS: 4°S, 134°E, 0 = 05 58 12.
					New Guinea.
Oct. 3	MH	i(P)	06 49 14		USCGS: 10-1/2°N, 62-1/2°W, 0 = 06 39 08.
	F	e(P)	48 57		Venezuela foreshock.
	SH	iP	49 20.6		
Oct. 4	MH	iP	01 12 30.5	d	USCGS: 21-1/2°S, 178°W, h = 400 km.,
	F	eP	34		0 = 01 01 00. Fiji Islands region.
	SH	iP	38.8	d	
Oct. 4	BG	ePEZ	05 36 08	Wc	USCGS: 11°N, 63°W, h = 60 km.,
		ePP	38 26		0 = 05 26 09. Near coast of
		eSNE	44 20		Venezuela.
		eQNE	55.4		PAS: Magnitude 6-3/4.
		eR	06 01		Trinidad: 11.0°N, 62.5°W,
			mu sec		0 = 05 26 15. Felt at Trinidad.
		PZ	9.5 6		
		PH	3.9 7		
		PPZ	5.3 7		
		SH	20 12		
		MaxH	180 19		
	MH	iP	05 36 04.4	c	
		i	13.7	c	
	F	eP	35 52	c	
	R	iP	57.3	c	
	C	eP	36 26		
	SH	iP	11.1		
Oct. 4	MH	iP	06 15 52.2	c	USCGS: 11°N, 62-1/2°W, 0 = 06 05 50.
	F	eP	37		Venezuela aftershock.
	SH	eP	57		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Oct. 4	F	e	19 37 21		
	SH	iP	36 53.7		
Oct. 4	MH	i(P)	20 59 00.1		Near coast of Venezuela.
	SH	i(P)	58 48.5		Trinidad: 10.6°N, 62.6°W, 0 = 20 49 05.
Oct. 4	MH	iP	23 04 26.0		
	SH	iP	03 42.0		
Oct. 4	B	iP	24 03 50.2	c	USCGS: 53°N, 178°E, 0 = 23 55 45.
	MH	iP	56.2	c	Rat Islands, Aleutian Islands.
		i	04 34.4		
	F	e	46		
	SH	iP	03 35.8		
Oct. 5	MH	i(P)	07 50 38.3		
	SH	i(P)	46.8		
Oct. 6	B	eP	01 04 11		USCGS: 11°N, 62-1/2°W, 0 = 00 54 05.
	BG	eLN	26.4		Venezuela aftershock.
	MH	iP	04 09.6	c	
	F	iP	06.5	d	
	SH	iP	14.3		
Oct. 6	SH	iP	21 37 28.9		USCGS: 49-1/2°N, 155°E, h = 60 km., 0 = 21 27 51. Northern Kurile Islands.
Oct. 6	B	e(P)	23 34 29		USCGS: 52°N, 174°W, 0 = 23 27 00.
	BG	eN	43.0		Andreanof Islands, Aleutian Islands.
		eLE	45.2		
	MH	eP	34 30.7		
		i	42.8		
	F	eP	43		
	SH	eP	10		
Oct. 7	MH	e(P)	04 05 45.8		USCGS: 21°S, 174-1/2°W, 0 = 03 53 53.
	F	e(P)	51		Tonga Islands.
Oct. 7	MH	i(P)	05 17 00.3		USCGS: 53-1/2°N, 165°W, 0 = 05 10 17.
	F	eP	15		Unimak Island region.
	SH	iP	16 38.5		
Oct. 7	B	eP	12 35 03		
	MH	iP	06.0		
	SH	iP	34 59.7		
Oct. 7	MH	i(P)	13 01 20.5	c	
		i	02 18.6		
	PA	e(P)	01 27.8	c	
	F	eP	00 51		
	R	eP	01 15		
Oct. 7	B	eP	13 29 22		USCGS: 51°N, 159°E, 0 = 13 19 45.
	BG	eSE	37 02		Off southeast coast of Kamchatka.
	MH	iP	29 24.6	d	
		i	46.9		
	F	eP	29		
	R	eP	22		
	C	e	00		
	SH	eP	03		
Oct. 7	SH	iP	15 18 16.3		
Oct. 7	SH	iP	15 34 25.9		
Oct. 7	MH	e(P)	16 34 09		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Oct. 7	B	eP	16 59 53	c	USCGS: 20°S, 179°W, h = 650 km.,
	MH	iP	50.4	c	0 = 16 48 47. Fiji Islands.
	F	eP	56		
	SH	iP	59.4	c	
Oct. 8	MH	e(P)	05 41 33		USCGS: 46°N, 153°E, 0 = 05 31 53.
	SH	e	56		Kurile Islands.
Oct. 8	B	iP	07 05 26.9	d	USCGS: 23-1/2°S, 68°W, h = 150 km.,
		epP	59		0 = 06 53 31. Northern Chile.
		esP	06 15		Felt: Antofagasta.
	MH	iP	05 23.3	d	
		ipP	56.2		
		isP	06 11.9		
	F	eP	05 13		
	R	eP	26		
	C	eP	52		
	SH	iP	35.3	d	
		ipP	06 07.7		
Oct. 8	SH	iP	23 38 34		
Oct. 10	BG	eLN	01 58.4		USCGS: 52-1/2°N, 169-1/2°W,
	MH	eP	50 14		0 = 01 43 00. Fox Islands,
	F	eP	27		Aleutian Islands.
	R	eP	11		
	SH	iP	49 54		
Oct. 10	BG	eLN	03 54.0		USCGS: 52-1/2°N, 166-1/2°W,
	MH	iP	46 03.4		0 = 03 39 11. Fox Islands,
	F	eP	15		Aleutian Islands.
	R	eP	03		
	C	ePE	45 19		
	SH	iP	43.2		
Oct. 10	MH	iP	03 58 13.8	d	USCGS: 22°S, 178-1/2°E, h = 700 km.,
	F	eP	18		0 = 03 46 59. South of
	SH	iP	22.0	d	Fiji Islands.
Oct. 10	F	e	05 52 18		USCGS: 52°N, 174-1/2°W, 0 = 05 44 32.
	SH	iP	51 44.7		Andreanof Islands, Aleutian Islands.
Oct. 10	B	eP	07 45 43		USCGS: 52°N, 174°W, 0 = 07 38 18.
		e	55		Andreanof Islands, Aleutian Islands.
	BG	eLN	55		
	MH	iP	45 49.4	d	
		i	59.3	d	
	F	eP	46 02		
	R	e	01		
	SH	iP	45 29.8	d	
		i	42.8		
Oct. 10	MH	iP	18 56 06.3		USCGS: 23°S, 179°W, h = 400 km.,
		ipP	57 32.6		0 = 18 44 30. Fiji Islands region.
	SH	iP	56 14.6		
		epP	57 38		
Oct. 10	B	eP	19 00 40		USCGS: 54°N, 166°W, 0 = 18 53 59.
	BG	eSN	06 03		Fox Islands, Aleutian Islands.
		eREZ	09.5		Magnitude 5-3/4.

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Oct. 10 cont'd			R from NW mu sec		
		SH	1.6 8		
		MaxH	13 20		
	MH	iP	19 00 47.0	d	
		iPcP	03 22.8		
	F	eP	01 00		
	R	eP	00 45		
	C	e(P)E	18 59 59		
	SH	iP	19 00 23.9		
Oct. 11	B	iP	20 40 56.1	d	BCIS: 33°S, 70°W, h = 150 km.,
	MH	iP	52.2	d	0 = 20 28 25. Chile-Argentina
	F	eP	43		border.
	R	iP	57		
Oct. 12	MH	eP"	17 06 06		USCGS: 59°S, 16°W, 0 = 16 46 30. Sandwich Islands region.
Oct. 12	B	eP	17 47 51		USCGS: 14°N, 145°E, h = 100 km.,
	MH	iP	54.4	d	0 = 17 35 26. Mariana Islands.
Oct. 12	B	eP"	19 16 04		USCGS: 8°S, 111°E, 0 = 18 57 02.
		e	21		Near south coast of Java.
	MH	iP"	05.3		
		i	18.6		
	F	iP"	08.9		
	R	eP"	07		
Oct. 13	B	eP	04 28 44		USCGS: 52-1/2°N, 160°E, 0 = 04 19 17.
	BG	eSE	36 18		Off southeast coast of Kamchatka.
			mu sec		
		PZ	1.0 7		
		SH	5 18		
	MH	iP	04 28 47.1	d	
		i	56.2		
	F	eP	57		
	R	eP	46		
	SH	iP	29.7		
Oct. 14	MH	iP	08 27 43.9		USCGS: 11°N, 63°W, 0 = 08 17 36.
	SH	eP	45		Near coast of Venezuela.
Oct. 14	MH	eP	12 58 11.2		BCIS: Santa Cruz Islands. h = 60 km.,
	SH	iP	13.4		0 = 12 46.0.
Oct. 14	SH	eP	13 34 49		USCGS: 51-1/2°N, 173°W, 0 = 13 27 42. Andreanof Islands, Aleutian Islands.
Oct. 15	B	eP	04 10 27		USCGS: 9°N, 84°W, 0 = 04 02 07.
	MH	eP	20.2		Near south coast of Costa Rica.
		i	26.5		
	F	eP	08		
	R	eP	21		
	C	e(P)E	11 06		
	SH	eP	10 37.3		
Oct. 15	B	eP	04 29 37		BCIS: Tonga Islands. 0 = 04 17 30.
	MH	iP	37.7		
	SH	iP	46		
Oct. 15	B	iP	06 07 47.3	d	USCGS: 30°S, 179°W, h = 150 km.,
	MH	iP	47.5	d	0 = 05 55 21. Kermadec Islands.

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Oct. 15 cont'd	R	eP	59		
	SH	iP	56.5		
Oct. 15	SH	iP	13 14 04.1		
Oct. 15	SH	iP	18 28 44.8		
Oct. 16	MH	iP	01 59 58.2		
Oct. 16	MH	iP	07 02 01.7		
	SH	iP	33.5		
Oct. 17	B	eP	10 15 03.3		39°17'N, 118°26'W, 0 = 10 14 09.
		i	11.8		Southeast of Fallon, Nevada.
		e	51.7		Magnitude 4.6. Felt at Fallon.
	MH	iP	02.1		
		i	10.4		
		iN	35.4		
	PA	eP	06.0	c	
		i	13.2		
		eE	56.0		
	F	iP	02.9		
		iE	40.4		
	R	iPEZ	14 31.2	Wc	
		iSNE	47.0		
	SH	iP	15 04.4		
		i	12.8		
		iS	54.2		
		iNE	55.6		
Oct. 17	MH	e(P)	13 22 00.9		
		i	12.9		
	F	eP	07		
Oct. 17	B	e	14 33 35		USCGS: 31°N, 141-1/2°E, 0 = 14 21 44.
	MH	eP	32.2		South of Honshu, Japan.
	SH	iP	26.4		
Oct. 17	F	eP	14 40 08		USCGS: 46°N, 27°W, 0 = 14 29 18. North Atlantic foreshock.
Oct. 17	MH	iP	14 48 28.6		USCGS: 47°N, 27-1/2°W, 0 = 14 37 36.
	F	eP	23		North Atlantic Ocean.
	R	eP	12		
Oct. 17	MH	i	17 40 13.7		
Oct. 17	MH	iP	17 47 22.6	c	USCGS: 46°N, 27-1/2°W, 0 = 17 36 25.
	F	iP	17.5		North Atlantic aftershock.
	R	eP	06		
	SH	iP	08.8	c	
Oct. 18	MH	iP	08 02 02.7		BCIS: Sea of Japan.
	SH	iP	01 48.3		
Oct. 18	MH	e	09 42 38		
Oct. 18	MH	i	12 40 16		
Oct. 18	MH	iP	19 21 40.6		USCGS: 22°S, 172°E, 0 = 19 08 53.
	F	iP	45.5		Loyalty Islands region.
	SH	iP	46.7		
Oct. 18	MH	iP	21 50 08.7	d	Tacubaya: 17°50'N, 95°14'W,
		ipP	38.9		h = 100-150 km., 0 = 21 44 20.
	C	ePE	51 00		Felt.
	SH	eP	50 29		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Oct. 19	MH	iP	00 12 16.7		BCIS: Bolivia. 0 = 00 00.0.
	SH	iP	29.8		
Oct. 19	MH	e	18 11 56		
	F	e	12 14		
	R	e	11 44		
	SH	iP	15.8		
Oct. 19	B	eP	18 42 15		USCGS: 23 1/2°N, 122°E, 0 = 18 28 50.
		i	26.2	d	Near east coast of Formosa. Several
	BG	eSKSNE	52 44		killed at Hotai and slight damage
		eSNE	53 27		at Taipei.
		eR	19 14		PAS: Magnitude 6-1/2 - 6-3/4.
			R from NW		
			mu sec		
		SKSH	2.4 10		
		MaxH	13 27		
	MH	iP	18 42 18.2	c	
		i	28.2		
		ePP	45 36.1		
	F	eP	42 24		
		i	34.8		
	R	eP	17		
	C	i(P)E	41 53		
	SH	iP	42 06.2		
		i	17.0		
Oct. 19	B	iPNEZ	21 52 32.8	SEc	JMA: 44-1/4°N, 146-1/4°E, h = 120 km.,
	MH	iP	37.8	c	0 = 21 42 00. Felt.
	F	iP	46.9	c	Off northeast coast of Hokkaido, Japan.
	R	iP	36.3	c	PAS: Magnitude 6-1/2 - 6-3/4.
	C	iP	03	c	
	SH	iP	21.8	c	
Oct. 20	B	eP	12 16 10		USCGS: 11-1/2°N, 42°W, 0 = 12 04 22.
	MH	iP	09.1	c	Atlantic Ocean.
		i	17 14.4		
	F	eP	15 59		
	R	eP	59		
	C	eP	16 14		
	SH	iP	10.1		
Oct. 21	B	iP	00 29 40.1		USCGS: 11°S, 167°E, h = 100 km.,
	MH	iP	42.2		0 = 00 17 25. Santa Cruz Islands.
	F	eP	48		
	R	eP	53		
	SH	eP	45		
Oct. 21	B	eP	06 54 43		BCIS: Fox Islands, Aleutian Islands.
	MH	eP	49.3		0 = 06 47 45.
	SH	iP	29.5		
Oct. 21	MH	iP	07 15 56.4		USCGS: 22°S, 179-1/2°W, h = 600 km.,
	F	eP	16 01		0 = 07 04 39. Fiji Islands
	SH	iP	04.2		region.
Oct. 21	MH	eP	14 36 36		USCGS: 34°N, 38°W, 0 = 14 25 46.
	SH	eP	29		North Atlantic Ocean.
Oct. 22	MH	eP	05 43 05		BCIS: Kurile Islands, near 45°N,
	SH	iP	42 48.9		148°E. 0 = 05 32 23.

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Oct. 22	MH	iP	07 36 33.4		
	SH	eP	21		
		i	27.4		
Oct. 22	SH	iP	19 25 33.4		
Oct. 22	B	eP	20 55 29.3		USCGS: 43-1/2°N, 146°E, 0 = 20 44 38.
		i	47.6		Near northeast coast of Hokkaido,
	MH	iP	33.9	c	Japan.
		i	51.7		
Oct. 23	MH	iP	04 47 52.5		USCGS: 19°N, 64°W, 0 = 04 38 30.
	SH	iP	55.2		Puerto Rico. Felt.
Oct. 23	BG	eP	06 04 01	c	USCGS: 52-1/2°N, 169-1/2°W,
		iSE	09 33	E	0 = 05 56 52. Fox Islands,
		eREZ	13.4		Aleutian Islands.
			R from WNW		PAS: Magnitude 6-1/4.
			mu sec		
		PZ	2.2 7		
		PH	1.0 7		
		SH	6.8 10		
		MaxH	46 20		
	MH	eP	06 04 10.5		
	F	eP	20		
		i	27.4		
	R	eP	00		
	SH	iP	03 43.1		
Oct. 23	SH	iP	16 32 16.5		
Oct. 23	SH	iP	20 38 40.3		
Oct. 23	MH	iP	24 04 13.8	c	USCGS: 32°S, 67°W, 0 = 23 51 33.
	R	eP	12		San Luis Province, Argentina.
	SH	iP	25.5		
Oct. 24	BG	eP	00 30 08		USCGS: 14-1/2°S, 168°E, 0 = 00 17 37.
		eSN	40 18		New Hebrides Islands.
		eRNEZ	55.5		PAS: Magnitude 6-1/2.
			R from SW		
			mu sec		
		PZ	2.0 8		
		MaxH	11 26		
	MH	iP	00 30 12.3		
	F	eP	20		
	R	eP	24		
	SH	iP	26.5		
Oct. 24	B	iP	09 18 39.6	c	USCGS: 20-1/2°S, 179°W, h = 550 km.,
		epP	20 36		0 = 09 07 30. Fiji Islands.
	BG	iSNE	27 55	SW	
		esSNE	31.4		
	MH	iP	18 40.2	c	
		ipP	20 35.6		
	F	iP	18 44.0	c	
	R	iP	53.1		
	C	ePE	57		
	SH	iP	48.2	c	
		ipP	20 46.7		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Oct. 24	MH	eP	20 19 43		USCGS: 29°S, 68°W, 0 = 20 07 15.
	F	eP	36		La Rioja Province, Argentina.
	R	e	50		Moderate damage at Villa Castelli,
					Vinchina, and Jaque.
Oct. 24	B	eP	21 48 30	d	USCGS: 25°N, 109-1/2°W, 0 = 21 44 28.
	BG	eSNE	51 50		Gulf of California.
		eQNE	52.4		PAS: Magnitude 6.
		eR	55.0		
			mu sec		
		PZ	6.0 8		
		PH	7.8 10		
		SH	20 13		
		MaxH	210 20		
	MH	eP	21 48 20	d	
	F	iP	03.9	d	
	R	iP	33.1	d	
	C	eP	49 34		
	SH	iP	48 56.1		
		eSE	52 47		
Oct. 25	B	e(P)	01 24 44		BCIS: Gulf of California.
	MH	i(P)	35.4	c	Aftershock. 0 = 01 20 40.
	F	e(P)	15		
	R	e(P)	41		
Oct. 25	MH	i	02 51 39.9		
	R	e	44		
Oct. 25	B	e(P)	04 44 51		USCGS: 52-1/2°N, 169-1/2°W,
	MH	iP	52.8	c	0 = 04 37 35. Fox Islands,
		iPcP	47 06.2		Aleutian Islands.
	F	eP	45 06		
	R	eP	44 52		
	SH	iP	30.2		
Oct. 25	MH	iP	06 32 39.8		USCGS: 21-1/2°N, 121-1/2°E,
	SH	iP	29.1		0 = 06 19 06. Off coast of
					Formosa.
Oct. 25	B	eP	10 13 17	c	USCGS: 50-1/2°N, 156-1/2°E,
	BG	iSN	21 11		0 = 10 03 32. Near south coast
		iN	36		of Kamchatka.
		eSSNE	25.0		PAS: Magnitude 6-3/4.
		eRNEZ	30		
			R from WNW		
			mu sec		
		PZ	1.7 6		
		SH	12 10		
		SZ	5.8 9		
	MH	iP	10 13 22.6	c	
	F	eP	32		
	R	iP	21		
	C	ePE	12 42		
	SH	iP	13 04.0	c	
		iSE	20 47.5	W	
Oct. 25	MH	iP	16 28 56		BCIS: Utah, 0 = 16 26.4.

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Oct. 26	B	iP	08 37 21.6	d	USCGS: 20-1/2°S, 178°W, h = 600 km.,
		epP	39 31.8		0 = 08 26 12. Fiji Islands.
	BG	iSN	46 34		PAS: Magnitude 6 - 6-1/4.
	MH	iP	37 22.3	d	
		i	33.3		
		ipP	39 28.5	c	
	F	eP	37 26		
		epP	39 37		
	R	iP	37 35.1	d	
	C	eP	39		
	SH	iP	29.7	d	
Oct. 26	MH	iP"	14 35 44		USCGS: 2°S, 116°E, 0 = 14 16 57.
					Borneo.
Oct. 27	B	iP	22 41 41.2	d	USCGS: 56°N, 161°E, 0 = 22 32 25.
		i	54.1		Kamchatka.
	BG	iSNE	48 59	SE	PAS: Magnitude 6-1/2 - 6-3/4.
			mu sec		
		SH	6 10		
	MH	iP	22 41 46.9	d	
		i	42 06.9		
	F	iP	41 57.7		
	R	iP	42.8		
	C	eP	00		
	SH	iP	24.7	d	
		i	34.1		
Oct. 27	MH	i(P)	23 09 38.7		USCGS: 11-1/2°S, 166-1/2°E,
	SH	e	33.4		0 = 22 56 55. Santa Cruz Islands.
Oct. 28	B	eP	06 04 08.0	d	USCGS: Panama foreshock.
	MH	iP	03.1	d	0 = 05 55 35.
	F	eP	03 50		
	R	eP	04 02		
Oct. 29	MH	iP'	02 40 21		USCGS: 2°S, 116°E, 0 = 02 21 30.
	M	eP'	17		Borneo aftershock.
Oct. 29	SH	iP	04 49 28		
Oct. 29	MH	e	07 09 53		
Oct. 29	B	eP	08 09 57.6		USCGS: 50°N, 179°W, 0 = 08 02 05.
	MH	iP	10 02.3		Andreanof Islands, Aleutian Islands.
	M	iP	09 47.5		
Oct. 30	MH	ePP	02 01 22		USCGS: 36°N, 27-1/2°E, 0 = 01 43 03.
					Dodecanese Islands. Felt: Isle of
					Karpathos.
Oct. 30	B	e	02 20 01		USCGS: 53°N, 167°W, 0 = 02 13 08.
		e	07		Fox Islands, Aleutian Islands.
	BG	e(S)E	25.4		
		eLNE	28		
	MH	eP	20 01.7		
		i	06.6		
	F	eP	15		
	M	iP	19 46.2		
		i	20 00		
	R	eP	19 57		
	C	eP	15		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Oct. 30	B	eP	02 58 20		USCGS: 50-1/2°N, 179°W, 0 = 02 50 26.
		e	30		Andreanof Islands, Aleutian
	MH	eP	25.5		Islands.
		i	35.2		
	M	iP	10.9		
	R	e	35		
Oct. 30	MH	e(P)	18 32 03		
	SH	i(P)	08		
Oct. 30	SH	eP	19 54 14		BCIS: Andreanof Islands.
					0 = 19 46 36.
Oct. 30	SH	eP	20 31 48		
Oct. 30	MH	eP	20 39 06		
	SH	eP	17		
Oct. 31	MH	iP	02 48 24.4	c	USCGS: 39°N, 140°E, 0 = 02 36 56.
	F	iP	33.4	c	Honshu, Japan. Felt: Tokyo.
	M	iP	14.2	c	Later arrivals obscured by following
	R	eP	24.9	c	shock.
	C	iP	47 53	c	
	SH	iPNEZ	48 10.5		
Oct. 31	B	iP	02 48 15.3	d	39°11'N, 123°41'W, 0 = 02 47 46.
		iSE	47.6		West of Ukiah, California.
	MH	iP	25.5	d	Magnitude 4.7. Felt in
		iNE	35.9		Mendocino County.
		i(S)N	49 03.8		
	PA	iPNEZ	48 21.5	c	
		i(S)E	56.1		
	SF	eP	15.4		
		iNEZ	19.8		
		eSN	47		
	F	iP	49.4	d	
	M	iP	18.6	c	
		i(S)N	46.1		
	A	iPNE	15.2		
		iE	22.2		
		iSE	50.4		
	R	iP	36.2		
		i	47.2		
	C	eP	49 07.5		
	SH	iP!	48 16.8		
Oct. 31	B	eP	04 36 40.6	d	USCGS: 8°S, 161°E, 0 = 04 24 04.
	MH	iP	42.8	d	Solomon Islands region.
		i	50.4	c	
	F	eP	49		
	M	eP	46.2	d	
		i	54.3		
	R	eP	54		
	SH	iP	43.6	d	
Oct. 31	MH	eP	07 55 17		BCIS: Central Chile, near 30°S, 71°W.
		e	29		0 = 07 43.0.
	M	eP	34		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Oct. 31	B	eP	10 16 33.6	c	USCGS: 6-1/2°N, 83°W, 0 = 10 07 54.
	BG	eSNE	23 36	SE	Off coast of Panama. Felt at
		eSSNE	27.1		Balboa Heights, Canal Zone and on
		eNE	32.2		board S.S. Hai Huang at 7°30'N,
			mu sec		83°16'W.
		PZ	5.1 8		PAS: Magnitude 6-1/2 - 6-3/4.
		PH	2.8 9		
		SH	50 17		
		MaxH	105 21		
	MH	iP	10 16 28.0	c	
		eS	23 30		
	F	eP	16 17		
	M	eP	39	c	
		i	55		
		iPP	18 30		
	R	iP	16 30.1		
	C	iP	17 06		
	SH	eP	16 44		
Oct. 31	MH	iP	10 39 31		BCIS: Santa Cruz Islands.
	F	eP	37		0 = 10 26 52.
	M	eP	35		
	SH	eP	33		
Oct. 31	MH	iP	16 33 09		USCGS: 1-1/2°N, 86°W, 0 = 16 24 17.
	F	eP	32 57		Galapagos Islands region.
	R	eP	33 10		
	SH	eP	28		
Oct. 31	B	iPNEZ	19 47 15.9	SWd	37°21'N, 122°13'W, 0 = 19 47 05.
		eN	22.0		Near Palo Alto, California.
		iSNE	23.1	NW	Magnitude 4.1. Felt.
	MH	iPNEZ	14.7		
		iNE	21.8		
	PA	iPNEZ	08.2		
	SF	iP	14.5	d	
		iS	20.5		
	F	eP	39		
	R	eP	56		
	SH	eP	48 00		
Nov. 1	MH	i	04 56 29		
	SH	iP	11.0		
Nov. 1	MH	iP	10 14 24		USCGS: 47°N, 121°W, 0 = 10 12 00.
	M	iP	13 38.9		Near Mt. Rainier, Washington.
	R	e	14 21		
	C	iP	12 40.5		
		iN	47.5		
		iN	13 12.5		
Nov. 1	MH	iP	15 01 06		BCIS: 16°N, 90-1/4°W, 0 = 14 54 11.
					Guatemala.
Nov. 1	MH	eP	15 16 18		
Nov. 2	MH	iP	01 25 20		USCGS: 52-1/2°N, 169°W, 0 = 01 18 18.
	F	eP	36		Fox Islands, Aleutian Islands.
	R	eP	22		
	SH	eP	00		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Nov. 2	MH	iP	07 27 38		USCGS: 15°N, 93-1/2°W, h = 100 km.,
	F	eP	29		0 = 07 20 58. Near coast of
	M	eP	54		Chiapas, Mexico.
	R	eP	37		
	C	eP	28 21		
	SH	eP	27 58		
		e(PcP)	30 24		
Nov. 2	SH	i(P)	18 01 03		
Nov. 2	B	eP	18 42 58		USCGS: 13°S, 166-1/2°E, 0 = 18 30 24.
		e	43 12		New Hebrides Islands.
	BG	eRNEZ	19 08.5		
			R from SW		
			mu sec		
		MaxH	20 20		
	MH	iP	18 43 00.0		
		i	14.1		
	F	eP	04		
	R	eP	11		
	C	e(P)N	13		
	SH	iP	01.7		
		i	16.3		
Nov. 2	SH	e(P)	20 27 42		
Nov. 3	SH	e(P)	04 50 52		
Nov. 3	SH	i(P)	10 07 52		
Nov. 3	MH	i(P)	10 38 19		USCGS: 6°S, 147°E, 0 = 10 24 51.
	M	i(P)	15		Near northeast coast of
	SH	e(P)	16		New Guinea. Felt: Lae.
Nov. 4	MH	eP	02 38 21		USCGS: 52°N, 175-1/2°W, 0 = 02 30 30.
		e(PP)	40 12		Andreanof Islands,
	M	e	37 59		Aleutian Islands.
	R	e(P)	38 11		
	SH	eP	37 48		
Nov. 5	B	eP	10 05 48.9	c	USCGS: 13°S, 169°E, h - 650 km.,
	MH	eP	50.7	c	0 = 09 54 29. New Hebrides
		i	58.7		Islands region.
		epP	08 02.2		
	F	eP	05 57		
	M	eP	56.3		
		epP	08 07.8		
	R	eP	06 02		
	SH	iP	05 54.1		
Nov. 5	F	e	19 59 24		USCGS: 51°N, 178-1/2°W, 0 = 19 51 15.
	M	eP	58 57		Andreanof Islands,
	R	eP	59 11		Aleutian Islands.
	C	e(P)	58 30		
	SH	iP	51.8		
Nov. 5	B	e	23 51 57		
		e	52 04		
		i	12		
		e	57		
	MH	iP	51 38.1		
		i	52 40		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Nov. 5	F	eP	51 32		
Cont'd	R	e	53 04		
Nov. 6	MH	iP	05 11 03.9		USCGS: 24-1/2°S, 65°W, h = 200 km.,
	M	eP	12		0 = 04 59 01. Salta Province,
	R	eP	03		Argentina.
	SH	eP	14		
Nov. 6	MH	eP	13 23 46		USCGS: 45°N, 149-1/2°E, 0 = 13 12 53.
	M	eP	21		Kurile Islands.
	R	eP	33		
	SH	eP	17		
Nov. 6	MH	iP	16 25 24.4		
	SH	eP	24 53		
Nov. 7	B	eP	03 09 19		USCGS: 24°S, 112-1/2°W, 0 = 02 58 53.
	MH	eP	16.0		South Pacific Ocean.
	F	eP	10		
	M	eP	35		
	R	eP	30		
	C	e(P)	10 03		
	SH	eP	09 37		
Nov. 7	B	iP	04 23 24.9	c	USCGS: 52°N, 179°E, h = 150 km.,
	MH	iP	31.0	c	0 = 04 15 35. Rat Islands,
	F	iP	42.3		Aleutian Islands.
	M	iP	16.0	c	
	R	eP	29		
	C	e(P)N	22 48		
	SH	iP	23 10.7	c	
Nov. 7	MH	e	04 28 50		
	M	e	42		
Nov. 7	BG	eLN	07 06		USCGS: 57-1/2°S, 143-1/2°W,
					0 = 06 21 56. South Pacific Ocean.
Nov. 9	B	i(P)	04 24 52.2	d	
		i	25 59.9	d	
	SH	e(P)	24 58		
Nov. 9	M	e(P)	06 40 06		
Nov. 10	B	eP	02 49 18		USCGS: 7°S, 155-1/2°E, 0 = 02 36 21.
	MH	eP	19.9		Solomon Islands. Felt at Aropa.
		ePP	52 42		
	F	eP	49 26		
	M	eP	21		
	R	eP	29		
	SH	iP	19.9		
Nov. 10	M	i(P)	03 46 38		
Nov. 10	B	eP	05 40 23.1	c	USCGS: 24-1/2°S, 175-1/2°W,
	MH	eP	22.6	c	0 = 05 28 10. Tonga Islands
		i	36.1		region.
	F	eP	27		
	M	eP	33.6	c	
	SH	eP	33		
Nov. 10	MH	eP	06 02 20.8		USCGS: 6-1/2°S, 147°E, 0 = 05 48 57.
	M	e	29		Near northeast coast of New
	SH	eP	23		Guinea. Felt at Lae.

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Nov. 10	B	eP	08 37 55		Near south coast of Honshu, Japan.
	MH	eP	59		JMA: 34.3°N, 139.3°E, 0 = 08 26 03.
	F	eP	38 08		
	M	iP	37 52		
	SH	eP	48		
Nov. 10	B	eP	09 52 25		BCIS: 34-1/2°N, 139°E, 0 = 09 40 38.
	MH	e	33		Near the south coast of
	M	eP	20		Honshu, Japan.
	SH	eP	17		
Nov. 10	B	iP	10 30 28.4	d	USCGS: 8°N, 74-1/2°W, 0 = 10 21 14.
		i	48.0		Northern Colombia.
	MH	iP	23.6	d	
		i	43.8		
	F	iP	10.5		
	M	iP	31.7	d	
		i	47.4		
	C	eP	54		
	SH	iP	34.7		
Nov. 10	B	eP	19 31 55	d	USCGS: 34°N, 139-1/2°E, 0 = 19 20 05.
	MH	iP	59.3	d	Near southeast coast of Honshu,
		i	32 32		Japan. Felt: Tokyo.
	F	eP	08		
	M	iP	31 51.5	c	
	SH	eP	47		
Nov. 10	MH	e	19 42 13		BCIS: Near the south coast of
	F	e	31		Honshu, Japan. 0 = 19 30.5.
	M	e	13		
	SH	e	09		
Nov. 10	B	eP	20 04 58		BCIS: Near the south coast of
	MH	iP	05 02.1		Honshu, Japan. 0 = 19 53 07.
	M	eP	04 53		
	SH	iP	50		
Nov. 11	M	iP	01 37 08		
Nov. 11	B	eP	18 26 40		USCGS: Near the coast of Guerrero,
	MH	iP	34.7		Mexico. 0 = 18 20 38. Felt at
	F	eP	20		Acapulco and in the Federal
	R	e(P)	46		District.
Nov. 12	MH	eP	00 10 37.9		USCGS: 19°N, 81-1/2°W, 0 = 00 03 02.
	R	eP	29		Cayman Islands.
	SH	eP	50		
Nov. 12	B	eP	00 32 18		USCGS: 24°S, 177°W, 0 = 00 20 03.
	MH	eP	18.5		Tonga Islands region.
	SH	iP	27		
Nov. 12	SH	eP	05 37 47		USCGS: Andreanof Islands, Aleutian
					Islands. 0 = 05 30 28.
Nov. 12	MH	iP	10 12 55.1		
	M	eP	26		
	C	eP	11 54		
	SH	eP	12 19		
Nov. 13	B	iP	17 35 35.4	c	USCGS: 33°S, 179°W, 0 = 17 22 41.
	BG	eSKSNE	46 01		Kermadec Islands region.
		iSN	23		PAS: Magnitude 6-1/2 - 6-3/4.

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Nov. 13		eRNEZ	18 02.6		
cont'd			R from SW		
			mu sec		
		PZ	4.3 8		
		PH	2.1 10		
		SH	16 10		
		MaxH	70 25		
	MH	iP	17 35 35.3	c	
		i	47.0		
	F	iP	38.1		
	M	eP	44	c	
	R	iP	47		
	C	eN	36 01		
	SH	i	35 56.2	c	
Nov. 14	MH	eP	04 42 38		USCGS: 51°N, 179°W, 0 = 04 34 41.
	SH	eP	18		Andreanof Islands,
					Aleutian Islands.
Nov. 14	SH	eP	05 27 26		USCGS: Andreanof Islands, Aleutian
					Islands. 0 = 05 20 17.
Nov. 15	SH	eP	05 47 23		
Nov. 15	M	eP	06 14 00		USCGS: 52°N, 171-1/2°W, 0 = 06 06 55.
	R	eP	12		Fox Islands, Aleutian Islands.
	SH	eP	13 52		
Nov. 15	M	eP	06 47 27		BCIS: Fox Islands, Aleutian Islands.
					0 = 06 40.6.
Nov. 15	F	eP	13 38 33		
	M	iP	37 45		
	C	iPN	13.2		
	SH	eP	40		
Nov. 15	B	eP	16 40 07	c	USCGS: 51-1/2°N, 158°E, 0 = 16 30 29.
		i	22		Near east coast of Kamchatka.
	BG	iSE	47 56		
		eN	54 23		
		eLNE	56		
	F	eP	40 27		
		i	38		
	R	eP	12		
		i	25		
	SH	eP	39 55		
		i	40 08		
Nov. 16	B	eP	01 56 28		USCGS: 51-1/2°N, 177°W, 0 = 01 48 48.
	MH	iP	34.3		Andreanof Islands,
	F	iP	47.0		Aleutian Islands.
	M	iP	19.7		
	R	eP	33		
	SH	eP	15		
Nov. 16	MH	i(P)	05 14 15		USCGS: 17°N, 85°W, 0 = 05 06 46.
	M	e(P)	20		Off north coast of Honduras.
	R	e(P)	13		
Nov. 16	R	e	22 27 22		
Nov. 16	R	e	23 51 22		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Nov. 17	B	iP	06 07 36.0	c	USCGS: 49°N, 148-1/2°E, h = 350 km.,
		e	08 11		0 = 05 57 48. Sea of Okhotsk.
		epP	57		
	MH	eP	07 40.6	c	
		i	08 15		
		ipP	09 02		
	F	iP	07 49.9		
	M	iP	28.2	c	
		i	08 07		
		ipP	49		
	R	iP	07 33.9		
	C	iP	04.5		
	SH	iP	24.2	c	
		i	08 04		
		ipP	45		
Nov. 17	M	iP	06 01 48.0	d	45.3°N, 123.8°W, 0 = 06 00 29.
	R	e	02 14		West-central Oregon.
	C	iPNEZ	00 44.0	NWd	Magnitude 4. Felt in north-
	SH	eP	01 42		western Oregon.
Nov. 17	B	iP	06 33 11.9	c	40°18'N, 125°00'W, 0 = 06 32 21.
		iSNZ	53.7		Off Cape Mendocino, California.
	MH	iP	21.0		Magnitude 4.2.
		e(S)N	34 14.0		
	PA	ePEZ	33 16.8	c	
	SF	ePEZ	13		
	F	eP	43		
	M	iP	02.7		
		i	22.8		
		i	25.9		
	A	iPNE	32 38.0	NE	
		iSNE	50.3		
	Fe	ePNE	34.4		
		iSNE	45.2		
	R	eP	33 23		
	C	ePNZ	28.9		
		eSN	34 14.6		
	SH	iP	32 55.6	c	
		iSNZ	33 23.0		
Nov. 17	B	e(P)	06 45 48		USCGS: Baja California.
	F	e(P)	25		0 = 06 43 00.
	M	e(P)	46 15		PAS: Magnitude 5.
	R	e(P)	45 54		
	SH	e	46 28		
Nov. 17	B	iP	18 06 23.7	c	USCGS: 30-1/2°N, 138°E, h = 450 km,
		epP	08 02.9		0 = 17 55 04. South of Honshu,
	MH	iP	06 27.4	c	Japan.
		epP	08 06.5		
	F	iP	06 34.4		
	M	iP	18.7	c	
	R	eP	28	c	
	C	iP	03.1		
	SH	iP	15.7	c	

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Nov. 18	B	eP	10 19 52		USCGS: 51-1/2°N, 179-1/2°W,
	MH	eP	58	d	0 = 10 12 00. Andreanof Islands,
	F	eP	20 10		Aleutian Islands.
	M	eP	19 43	d	
	R	eP	20 02		
	C	eN	19 20		
	SH	eP	39		
Nov. 18	SH	e(P)	14 01 38		
Nov. 18	M	eP	15 23 28		USCGS: 44°N, 148°E, 0 = 15 12 53.
	R	eP	40		Kurile Islands.
	SH	iP	24.9		
Nov. 18	SH	i(P)	20 41 01.7		
Nov. 19	M	eP	01 57 19		USCGS: 27-1/2°N, 129°E, 0 = 01 44 36.
	R	e	46		Ryukyu Islands.
	SH	iP	17.2		
Nov. 19	B	iP	11 33 42.8	c	USCGS: 28-1/2°N, 140-1/2°E,
	MH	iP	46.8	c	0 = 11 21 39. Bonin Islands
	M	eP	39.1	c	region.
	R	eP	48		
	SH	iP	35.8		
Nov. 19	SH	iP	16 23 20.7		USCGS: 47°N, 152-1/2°E, h = 100 km.,
					0 = 16 13 29. Kurile Islands.
Nov. 19	B	eP	23 26 40		USCGS: 31-1/2°N, 140°E, 0 = 23 14 45.
	SH	iP	31.7		Off south coast of Honshu, Japan.
Nov. 20	MH	eP	02 47 42		USCGS: 23-1/2°N, 143-1/2°E,
	M	eP	36		0 = 02 35 29. Volcano Islands.
	SH	eP	33		
Nov. 20	B	eP	12 47 02	d	USCGS: 54°N, 165°W, 0 = 12 40 23.
	BG	ePP	48 28		Unimak Island.
		iSE	52 25		Magnitude 6-1/4 - 6-1/2.
		iQN	54.7		
		eREZ	55.8		
			R from WNW		
			mu sec		
		PZ	2.7 7		
		PH	1.5 7		
		PPZ	1.8 7		
		SH	18 11		
		MaxH	120 20		
		MaxZ	70 20		
	MH	eP	12 47 08	d	
	F	eP	20		
	M	eP	46 51	d	
		i	49 44		
	R	eP	47 06		
		eSN	52 30		
	C	eP	46 22		
	SH	eP	46		
Nov. 22	M	e(P)	12 07 33		
Nov. 22	B	eP	16 18 24		USCGS: 22-1/2°S, 172-1/2°E,
	MH	iP	25		0 = 16 05 35.
		i	44		Loyalty Islands region.

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Nov. 22 cont'd	F	eP	29		
	R	eP	36		
	SH	eP	29		
Nov. 22	B	iP	18 14 24.4	c	USCGS: 29°N, 139-1/2°E, h = 400 km.,
	MH	iP	28.4	c	0 = 18 03 02. Bonin Islands region
	C	eP	04		
	SH	iP	16.9		
Nov. 23	B	iP	01 05 29.5	c	USCGS: 53°N, 167-1/2°W, Depth slightly
		ePcP	08 03		greater than normal. 0 = 00 58 36.
	BG	eSE	10 59		Fox Islands, Aleutian Islands.
		eQN	13.5		
		eREZ	14.8		
			mu sec		
		SH	2.1 10		
		MaxH	13 20		
	MH	iP	01 05 36.1	c	
		iPcP	08 04.7		
	F	eP	05 48		
	M	iP	19.6	c	
		iPcP	07 59.1		
	R	iP	05 34		
	C	iP	04 50.1		
	SH	iP	05 14.0		
Nov. 23	B	eP	01 03 35		USCGS: 52°N, 172°E, 0 = 00 55 00.
	MH	eP	41		Near Islands, Aleutian Islands.
	SH	iP	21		
Nov. 23	B	eP	18 48 44		BCIS: 51-3/4°N, 178°E, 0 = 18 40 44.
	MH	iP	49		Rat Islands, Aleutian Islands.
	C	eP	08		
	SH	eP	30		
Nov. 23	B	eP	22 17 00		USCGS: 23°S, 173°E, 0 = 22 04 13.
	MH	iP	02		Loyalty Islands region.
Nov. 24	B	eP	01 33 28		USCGS: 51°N, 177-1/2°W, 0 = 01 25 35.
		e	34		Andreanof Islands,
	MH	i(P)	40		Aleutian Islands.
	M	eP	11		
		i	16		
	R	e	37		
	SH	eP	06		
Nov. 24	B	eP	08 12 10		
	MH	eP	10		
	M	eP	12		
Nov. 25	B	iP	04 17 12.8	c	USCGS: 62-1/2°N, 151°W, h = 150 km.,
		e(pP)	36.2		0 = 04 11 09. Alaska.
	MH	iP	19.3	c	
	F	eP	29		
	M	iP	16 56.3	c	
		i	17 44.8		
	R	eP	06		
	C	ePN	16 23		
	SH	eP	50		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Nov. 25	M	eP	04 28 19		BCIS: Unimak Island region, near
	C	eP	27 53		54°N, 165°W. 0 = 04 21.7.
Nov. 25	B	eP	07 43 39		USCGS: 50-1/2°N, 175-1/2°W,
	MH	iP	46		0 = 07 36 08. Andreanof Islands,
	M	iP	32		Aleutian Islands.
	R	eP	46		
	SH	iP	23		
Nov. 25	BG	ePNZ	18 57 23		44.6°N, 130.7°W, 0 = 18 55 09.
		eLNE	59.0		Off the coast of Oregon.
			mu sec		Magnitude 5.1.
		MaxH	16 10		
	MH	eP	18 57 34.5	c	
	F	iP	55.0	c	
	M	eP	07.0		
	A	eLNE	47		
	R	eP	31		
	C	iPNZ	56 27.4	NC	
		iSN	57 24.4		
	SH	eP	56 57		
Nov. 25	MH	e	19 35 58		Coast of Oregon aftershock?
	M	e	32		
	R	e	54		
	C	e	33 45		
	SH	e	34 16		
Nov. 25	B	e(P)	20 34 34		USCGS: 44-1/2°N, 129-1/2°W,
	BG	eLN	36.2		0 = 20 32 25. Oregon aftershock.
			mu sec		Magnitude about 5.
		MaxH	14 10		
	MH	eP	20 34 41.3		
	F	eP	35 01		
	A	eLN	34 53		
	R	eP	39		
	C	eP	33 32		
		i	35		
	SH	eP	34 04		
Nov. 25	BG	eLNE	22 21.2		USCGS: 45°N, 130°W, 0 = 22 16 44.
			mu sec		Oregon aftershock.
		MaxH	8 8		Magnitude about 4-3/4.
	MH	e	22 19 38		
	R	eP	22		
	C	eP	18 18		
Nov. 25	MH	i	22 54 02		USCGS: 1-1/2°S, 116-1/2°E,
		i(PP)	54		0 = 22 35 00.
	M	e(P")	53 47		Near east coast of Borneo.
	R	e(P")	50		
	SH	e(P")	45		
Nov. 26	B	eP"	05 28 53		USCGS: 2°S, 116°E, 0 = 05 10 00.
	MH	iP"	51	d	Near east coast of Borneo.
		e(PP)	29 51		
	F	eP"	28 53		
	M	eP"	47	d	
		e(PP)	29 33		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Nov. 26		e(PKKP)	39 26		
cont'd	R	eP"	28 51		
	SH	eP"	44		
Nov. 26	MH	i(P)	11 35 40		BCIS: Andreanof Islands foreshock.
	M	i(P)	34		0 = 11 27 57.
	SH	e(P)	24		
Nov. 26	B	eP	11 43 22		USCGS: 51-1/2°N, 176°W, 0 = 11 35 44.
	BG	e(S)E	49 29		Andreanof Islands,
		eQN	52.7		Aleutian Islands.
		eREZ	55		
			mu sec		
		MaxH	5 16		
	MH	iP	11 43 28		
		i	46		
	F	eP	41		
	M	iP	14		
	R	eP	29		
	SH	eP	08		
Nov. 28	B	iP	03 17 59		USCGS: 10°S, 75-1/2°W, h = 600 km.,
	MH	iP	55.6	c	0 = 03 07 55. Brazil-Peru border.
		epP	19 52		
	M	iP	18 03.8	c	
	R	eP	17 57		
	C	e(P)N	18 17		
	SH	iP	08.6	c	
Nov. 28	B	iP	21 02 44.0	d	USCGS: 15°S, 168-1/2°E, 0 = 20 50 10.
	BG	eSE	12 51		New Hebrides Islands.
		eLN	28.0		
			mu sec		
		PZ	1.6 7		
		MaxH	6.5 18		
	MH	iP	21 02 45.7	d	
	F	eP	51		
	M	iP	51.0		
	R	eP	57		
	SH	iP	48.3	d	
Nov. 29	B	iPNEZ	22 31 21.7	SEd	USCGS: 21°S, 66°W, h = 200 km.,
		iNEZ	26.8	SEd	0 = 22 19 38. Southern Bolivia.
		epP	32 28.5		Slight damage in northern Chile.
	BG	i	33 29		PAS: Magnitude 7-3/4 - 8.
		iSNE	41 05	NE	
		esSNE	42 47		
		isSSNE	47 54		
	B	eP'P'	58 16		
		e(pP'P')	59 30		
		eP'P'P'	23 18 14		
			mu sec		
		PZ	40 6½		
		PH	27 8		
		SH	250 14		
	MH	iP	22 31 17.9	d	
		ipPN	32 27		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Nov. 29	F	eP	31 08.0	d	
cont'd		i	13.1	d	
		iSNE	40 39		
		i(P'P')	58 30		
		i(pP'P')	59 30		
		eP'P'P'	23 18 04		
	M	eP	22 31 26.2	d	
		eNE	32.2		
	A	ePE	36.3		
		eNE	42.3		
		eSNE	41 35		
	R	iP	31 20.0	d	
		i	25.0	d	
		i	34 49		
	C	iPNEZ	31 46.7	SEd	
		iNEZ	51.7	SEd	
		iSE	41 53		
	SH	eP	31 30	d	
		eS	41 20		
		iP'P'	58 18.2		
Nov. 30	B	e(P')	02 19 31		BCIS: 7.0°S, 52.0°E, 0 = 01 59 42.
	MH	eP'	23		Amirante Isles.
	M	eP'	24		
	R	iP'	26		
	SH	eP'	23		
Nov. 30	MH	eP	17 51 00		USCGS: 83-1/2°N, 112-1/2°E,
	F	eP	06		0 = 17 41 15. Arctic Ocean.
	M	eP	50 42		
	R	eP	47		
	SH	eP	34		
Nov. 30	B	iP	19 42 08.6	d	
	MH	iP	05.2	d	
	R	eP	08		
	SH	iP	17.2	d	
Nov. 30	B	iP	20 38 17.6	c	USCGS: 49°N, 154°E, 0 = 20 28 18.
	MH	iP	23.4	c	Kurile Islands.
	F	iP	33.0	c	
	M	iP	09.7	c	
	R	iP	21.9		
	SH	iP	05.8	c	
Nov. 30	SH	e(P)	21 47 12		USCGS: 47°N, 154-1/2°E, 0 = 21 37 11.
					Kurile Islands.
Nov. 30	B	eP	22 04 18		USCGS: 47°N, 154°E, 0 = 21 54 10.
	BG	e(S)E	12.5		Kurile Islands.
	MH	eP	04 24		
	F	eP	33		
	M	eP	14		
	R	eP	23		
	SH	eP	07		
Nov. 30	B	iP	23 12 41.5	d	
	MH	iP	45.2	d	
	SH	iP	34.2		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Dec. 1	MH	e	01 10 49		USCGS: 47-1/2°N, 153-1/2°W,
	M	e	35		0 = 01 00 26. Kurile Islands.
	R	e	42		
	SH	eP	22		
Dec. 1	B	eP	01 19 18		USCGS: 47-1/2°N, 154°E, 0 = 01 09 00.
	MH	i	33		Kurile Islands.
	M	eP	04		
	R	eP	16		
	SH	eP	18 56		
Dec. 1	B	eP	01 45 17		USCGS: 52-1/2°N, 170°W, 0 = 01 38 14.
	BG	eRNZ	57		Fox Islands, Aleutian Islands.
	MH	eP	45 25		
	F	eP	31		
	M	i	14		
	R	e(P)	28		
	SH	e(P)	01		
Dec. 1	B	eP	07 33 59.9	d	BCIS: Western Mexico. 0 = 07 29.0.
	MH	eP	52.0	d	
	F	eP	37		
	M	eP	16.9	c	
	R	eP	06		
Dec. 1	MH	e	10 10 55		USCGS: 47°N, 154°E, 0 = 10 00 05.
	M	eP	03		Kurile Islands.
	SH	eP	00		
Dec. 1	B	iP	11 18 40.5	d	
	MH	iP	44.6	d	
	M	eP	42.9	d	
	SH	eP	44		
Dec. 1	B	e(P)	19 12 39		USCGS: 52-1/2°N, 170°W, 0 = 19 05 35.
	MH	eP	43		Fox Islands, Aleutian Islands.
	F	eP	59		
	M	eP	31		
	R	eP	45		
	SH	eP	26		
Dec. 2	M	iP	00 23 59		
Dec. 2	M	iP	24 07 55		USCGS: 83°N, 25°W, h = 100 km.,
					0 = 23 58 58. Near northeast
					coast of Greenland.
Dec. 3	B	iP	01 53 53.3	c	USCGS: 51-1/2°N, 178°W, 0 = 01 46 05.
		e	54 06		Andreanof Islands, Aleutian
	F	iP	11.2	c	Islands.
	M	iP	53 45.7	c	
	R	iP	58.2	c	
	C	iP	17.3	c	
	SH	iP	39.5	c	
Dec. 3	F	eP	21 53 44		USCGS: 52°N, 169°W, 0 = 21 46 18.
	R	eP	27		Fox Islands, Aleutian Islands.
	SH	eP	09		
Dec. 3	B	iP	23 39 03.2	d	USCGS: 51°N, 178-1/2°W, 0 = 23 31 16.
	M	iP	38 54.1	d	Andreanof Islands, Aleutian
	R	eP	39 07		Islands.
	C	eP	38 29.6	d	
	SH	i	53.6		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Dec. 4	PA	e(P)	02 53 21.5		PAS: 34°08'N, 116°21'W, 0 = 02 51 43.
	F	eP	52 53		West of 29 Palms, California.
		iN	53 43.2		Felt.
	M	eP	38.0		
	R	e	39		
Dec. 4	B	i(P)	03 50 48.0	c	BCIS: 45-1/4°N, 99.4°E, 0 = 03 37 44.
	BG	iNEZ	51.3	NWd	USCGS: 45-1/2°N, 99-1/2°E,
		ePP	54 22		0 = 03 37 45. Outer Mongolia.
		eNEZ	38		20 injured, 13 missing and damage
		eSKSNE	04 01 26		in Bayankhonger, Ara Khangai, and
		eSNZ	42		Uber Khangai district.
	B	eSSNE	07.3		Extensive ground breakage.
		eP'P'	16 22		PAS: Magnitude 8.6.
			mu sec		
		PZ	50 10		
		PH	32 10		
		PPZ	43 9 1/2		
		PPH	44 10		
		SH	115 10		
		SZ	40 10		
		MaxH	900 19		
	MH	eNE	03 50 57		
	PA	iP	48.1	d	
	F	eP	58	c	
	M	eP	32.5	c	
		i	39.5		
		eP'P'	04 16 12		
	A	eNE	03 50 36		
		e(SKS)NE	04 01 09		
	R	eP	03 50 39	c	
		i	53	d	
		e(S)E	04 01 39		
	C	eP	03 50 14.6	d	
		e	18.3	d	
		i	27		
		e(S)N	04 00 54		
	SH	eP	03 50 30		
		i	33.6		
		eP'P'	04 16 09		
Dec. 4	B	eP	04 05 41.4	c	
	PA	iP	45.0	c	
	M	iP	33.2	c	
	C	eP	14		
	SH	iP	29.3		
Dec. 4	M	eP	04 31 42		
	SH	eP	38		
Dec. 4	M	eP	04 41 39		
	SH	eP	36		
Dec. 4	M	eP	05 13 37		USCGS: Outer Mongolia aftershock.
	SH	eP	34		0 = 05 00 48.
Dec. 4	B	eP	07 29 42		USCGS: Tonga Islands region.
	F	eP	46		0 = 07 17 28.

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Dec. 4	M	iP	51.9	d	
cont'd	SH	iP	50.6	d	
Dec. 4	F	eP	09 22 27		USCGS: 45-1/2°N, 99°E, 0 = 09 09 10.
	M	eP	07		Outer Mongolia aftershock.
	R	eP	13		
	SH	eP	05		
Dec. 4	SH	eP	11 32 12		USCGS: 45-1/2°N, 100-1/2°E,
					0 = 11 19 30. Outer Mongolia
					aftershock.
Dec. 4	B	e(P)	12 35 49		
Dec. 4	B	eP	13 33 05	d	USCGS: 45°N, 101-1/2°E,
	F	eP	15		0 = 13 20 08. Outer Mongolia.
	M	iP	32 55 c		
		i	35 59		
	R	eP	33 02		
	SH	eP	32 51		
Dec. 4	MH	eP	22 29 57		USCGS: 45°N, 99-1/2°E, 0 = 22 16 59.
	F	eP	30 05		Outer Mongolia aftershock.
	M	eP	29 47		
	SH	eP	44		
Dec. 5	M	eP	10 45 36		BCIS: South of Tonga Islands.
	SH	eP	35		0 = 10 33.3.
Dec. 6	M	e(P)	03 59 49		USCGS: 45°N, 150-1/2°E, h = 60 km.,
	R	e	04 00 10		0 = 03 49 33. Kurile Islands.
	SH	e(P)	03 59 43		
Dec. 6	B	iP	08 47 02		USCGS: 44-1/2°N, 150-1/2°E,
	MH	iP	06.8		0 = 08 36 21. Kurile Islands.
	M	eP	46 40		
	R	eP	47 01		
	SH	eP	46 35		
		i	47 50		
Dec. 6	B	iP'	10 00 18		BCIS: Sandwich Islands, near
	M	eP'	20		57°S, 28°W, 0 = 09 41 29.
	SH	eP'	21		
Dec. 7	M	e	03 34 23		USCGS: 6-1/2°S, 123-1/2°E,
	R	e	35 34		h = 550 km., 0 = 03 16 43.
					Flores Sea.
Dec. 7	B	eP	08 30 57		USCGS: 15-1/2°N, 92°W, 0 = 08 24 03.
	BG	eLE	42.9		Guatemala.
	MH	iP	30 51		
	F	eP	37		
	M	iP	31 06		
		i	36		
	R	iP	30 53		
Dec. 7	M	e(P)	13 26 08		
Dec. 7	B	eP	14 24 24		USCGS: 43-1/2°N, 100°E,
	M	eP	07		0 = 14 11 15. Outer Mongolia
					aftershock.
Dec. 7	BG	eLNE	22 42.8		USCGS: 13-1/2°N, 82°W, 0 = 22 18 49.
	MH	e	27 18		Off east coast of Nicaragua.
	F	e	26 39		
	M	i	27 00		
	R	e(P)	26 49		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Dec. 8	B	iP	06 26 38		USCGS: 45°N, 100-1/2°E, 0 = 06 13 02.
	MH	iP	36		Outer Mongolia aftershock.
	R	e	47		
Dec. 8	B	eP	09 35 19		BCIS: Probably Andreanof Islands
	MH	eP	24		region.
	M	iP	14		
		i	40 53		
	SH	eP	35 10		
Dec. 8	M	i	09 40 53		
	SH	i(P)	39		
Dec. 8	B	eP	12 28 06		USCGS: 35°N, 142°E, 0 = 12 16 30.
	MH	eP	09		Off east coast of Honshu, Japan.
	F	eP	19		
	M	eP	00		
	R	eP	09		
	SH	iP	27 56		
Dec. 8	B	i	14 53 18		USCGS: 34-1/2°N, 142°E, 0 = 14 41 34.
	MH	iP	12		Off east coast of Honshu, Japan.
		e	24		
	F	e	32		
	M	iP	02		
		i	13		
	R	e	21		
Dec. 8	M	eP	15 42 04		USCGS: 45°N, 99°E, 0 = 15 29 15.
	SH	eP	02		Outer Mongolia aftershock.
Dec. 8	M	eP	16 39 11		USCGS: Outer Mongolia aftershock.
	R	e	26		0 = 16 26 33.
Dec. 8	SH	eP	21 13 10		
Dec. 9	MH	e(P)	04 20 20		
	F	e(P)	19		
	R	e	22 52		
Dec. 9	BG	e(S)N	22 18.7		USCGS: 65-1/2°N, 133°W,
		eQE	23.0		0 = 22 07 43. Yukon.
		eR	24.5		
			R from N		
	MH	iP	22 13 43		
	F	eP	52		
	M	iP	17		
	R	eP	27		
	C	eP	36		
Dec. 10	BG	ePEZ	14 48 53	Ec	USCGS: 6°S, 154-1/2°E, 0 = 14 35 57.
		eSNE	59 33		Solomon Islands. Felt at Aropa,
		e(PS)NE	15 00.7		Buin, and Rabaul.
		eSSNE	05.9		PAS: Magnitude 6-3/4.
		eQN	12.5		
		eR	16		
			mu sec		
		PZ	5.0 9		
		PH	1.9 10		
		SH	5.0 9		
	MH	eP	14 48 54	c	
		e	15 14 51		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Dec. 10 cont'd	F	eP	14 49 01		
	M	iP	48 58	c	
	R	ePE	49 04		
	SH	eP	48 55		
Dec. 10	B	iP	19 39 49.6	d	
	MH	iP	55.7	d	
	SH	iP	33.9	d	
Dec. 11	B	eP	18 23 00		USCGS: 30-1/2°N, 142°E, 0 = 18 11 07. South of Honshu, Japan.
		e	36		
	BG	eQN	43.7		
	MH	eP	23 03		
	F	eP	09		
	M	eP	22 58		
	R	eP	23 03		
	SH	ePE	22 57		
Dec. 12	B	eP	08 01 35.8		PAS: 34°16'N, 116°10'W, 0 = 08 00 06. Northwest of 29 Palms, California. Magnitude 4.4.
	MH	iP	28.5	c	
		i	47.9		
		i	59.1		
	PA	iP	34.4	c	
	F	eP	06		
		e	15		
		iNE	02 04.8		
	M	eP	01 59.3	c	
		e	02 15.3		
	R	e	04		
	SH	eP	07		
Dec. 12	MH	iP	09 59 42		USCGS: 14-1/2°S, 167-1/2°E, 0 = 09 47 02. New Hebrides Islands.
	M	eP	46		BCIS: New Hebrides aftershock. 0 = 09 49 45.
Dec. 12	MH	iP	10 02 25		
	M	eP	31		
Dec. 12	M	e(P)	14 41 05		
	SH	e(P)	03		
Dec. 12	B	e	18 51 16		USCGS: 13-1/2°S, 167°E, 0 = 18 38 19. New Hebrides Islands.
	BG	eRNEZ	19 17		
			R from SW		
	MH	i	18 50 54		
		i	51 10		
	F	e	01		
	M	e	08		
	R	e	21		
	SH	e	50 56		
Dec. 12	SH	iP	19 05 34.1	c	
Dec. 13	B	iPNEZ	01 40 58.9	NWc	USCGS: 7°N, 76°W, h = 100 km., 0 = 01 31 57. Colombia. Felt throughout western Colombia.
		i	42 13.0		PAS: Magnitude 6-3/4
	BG	eSE	48 17		
		eLNE	57.0		
			mu sec		
		PZ	2.0 5		
		PH	1.7 6		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Dec. 13 cont'd	MH	iP	01 40 53.9	c	
		i	41 04.1		
	F	iP	40 40.6	c	
	M	iP	41 02.2	c	
		i	42 15.4		
		i	44 45.1		
	A	ePNE	41 17.6	NW	
	R	iP	40 51.9	c	
		eE	41 22		
	C	iP	26	c	
	SH	iP	05.7	c	
Dec. 13	B	e(PP)	02 03 52		USCGS: 34-1/2°N, 48°E, 0 = 01 44 59. Iran. Major damage. Farsinaj destroyed, 1392 killed, many injured.
	BG	e(PS)	13.0		
		e	14.0		
			mu sec		
		(PP)Z	3.7 9		PAS: Magnitude 7-1/4.
	MH	e	02 00 17		
		e	02 28		
	F	e	36		
	M	eP	01 59 09	c	
		e	02 02 02		
	R	e	16		
	C	e(PP)	49		
	SH	eP	01 59 08		
Dec. 13	M	eP	13 22 05		
	SH	eP	00		
Dec. 13	SH	e(P)	17 17 11		
Dec. 13	MH	eP	17 41 41		USCGS: 15°S, 173-1/2°W, 0 = 17 30 19. Samoa Islands.
	SH	iP	49.8	d	
Dec. 13	MH	eP	20 16 57		USCGS: 6-1/2°S, 155-1/2°E, 0 = 20 03 58. Solomon Islands aftershock.
	SH	eP	57		
Dec. 13	M	e	20 26 24		
Dec. 13	B	eP	20 33 23	d	USCGS: 52-1/2°N, 170°W, 0 = 20 26 22. Fox Islands, Aleutian Islands.
	BG	eSE	38 56		
		iQN	41 53		
		eREZ	45.9		
			R from W		
	MH	iP	20 33 29.7	d	
		i	56		
	F	eP	41		
	M	eP	13		
	R	eP	27		
	C	e(P)	32 54		
	SH	eP	33 08		
Dec. 14	MH	eP	16 10 55		BCIS: 52-1/2°N, 169-1/2°W, 0 = 16 03 46. Fox Islands, Aleutian Islands.
		i	11 09		
	M	e	10 52		
	SH	eP	39		
Dec. 14	MH	eP	23 16 19		BCIS: Colombia aftershock. 0 = 23 07 24.
	M	eP	27		
Dec. 15	M	e	21 21 45		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Dec. 16	MH	iP	03 56 47		BCIS: Tonga Islands region, h = 100 km
	M	iP	58.1	d	0 = 03 45 30.
		i	59 08		
	SH	iP	56 56.7	d	
Dec. 16	B	iP	17 30 47.7	c	USCGS: 50°N, 127°W, 0 = 17 27 47.
	BG	eSNE	33 04		Vancouver Island.
		eQNE	33.6		
		eR	35		
			mu sec		
		PZ	7.0 6		
		PH	10 3		
		SH	5.8 6		
	MH	iP	17 30 55.6	c	
		i	31 02.0		
	F	eP	10		
	M	iP	30 18.4	c	
		i	52.6		
	A	iPNE	02.6		
		iN	14.9		
	R	iP	35.8	c	
		iN	32 17.8		
	C	iP	29 15	c	
		eN	34 31		
	SH	iP	30 10.7	c	
Dec. 17	MH	i	05 19 47		USCGS: 53-1/2°N, 162°E, 0 = 05 10 11.
	F	e(P)	43		Near east coast of Kamchatka.
	F	eP	17		
	R	e(P)	32		
	SH	eP	13		
Dec. 17	B	iP	14 02 30.8	c	USCGS: 12-1/2°S, 166-1/2°E,
		i	34.7	c	h = 100 km., 0 = 13 50 12.
	BG	ipP	03 06		Santa Cruz Islands.
		ePP	05 44		PAS: Magnitude 7-3/4
		epPP	06 18		
		eSE	12 45		
		eR	28.5		
			mu sec		
		PZ	60 9		
		PH	21 9		
		pPZ	57 10		
		PPZ	15 9		
		SH	44 11		
		MaxH	390 21		
	MH	iP	14 02 33.9	c	
	F	eP	37	c	
		e	39	d	
		i	42.9	c	
		epP	03 15.6	c	
	M	ePEZ	02 37.5		
		i	42.5	c	
		epP	03 16	c	
	A	e(P)NE	02 35		
		eN	03 10		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Dec. 17 cont'd	R	eP	02 44	c	
		i	47.6	c	
		ipP	03 21.0	c	
		eSNE	12 59		
	C	iP	02 45.3	c	
		ipP	03 17.1	c	
	SH	eP	02 37		
Dec. 19	M	iP	09 45 07.2	c	BCIS: Near east coast of Kamchatka.
	SH	iP	02.5	c	0 = 09 36.0.
Dec. 19	M	e	12 13 12		USCGS: Kamchatka. 0 = 12 03 55.
Dec. 20	MH	iP	10 24 14		USCGS: Andreanof Islands, Aleutian
	M	iP	23 59		Islands. 0 = 10 16 20.
	SH	eP	54		
Dec. 20	B	eP	11 31 13		USCGS: 30-1/2°S, 71°W, 0 = 11 18 42.
	MH	iP	06		Central Chile.
		i	17		
	F	e(P)	30 58		
	M	e	31 20		
	R	e(P)	11		
	SH	eP	19		
Dec. 20	MH	iP	13 00 03.8		
	M	iP	12 59 43.8		
	SH	iP	39.3		
Dec. 22	M	eP	09 59 44.3		BCIS: Near south coast of Kamchatka.
	SH	iP	39.7		0 = 09 50 10.
Dec. 23	BG	eLNE	13 08.8		USCGS: 35°N, 36-1/2°W, 0 = 12 34 03.
	MH	i(P)	12 44 57		Atlantic Ocean.
		i	45 07		
	F	e(P)	44 55		
	M	i	52		
	R	e	41		
Dec. 23	M	e	13 42 06		
Dec. 24	M	e	06 56 49		
Dec. 24	F	eP	15 52 04		USCGS: Northern Chile.
	M	iP	22		0 = 15 40 04.
	R	eP	15		
	SH	eP	24		
Dec. 25	MH	iP	02 18 42		USCGS: 53-1/2°N, 162°E,
	F	eP	54		0 = 02 09 20. Near east coast
	M	iP	27		of Kamchatka.
	SH	iP	22		
Dec. 25	M	e(P)	06 04 52		
		i	06 19		
	SH	e(P)	05 02		
Dec. 25	M	i(P)	06 16 34		
	SH	e(P)	26		
Dec. 25	M	e(P)	13 49 52		
Dec. 25	MH	iP	13 51 34.1		USCGS: 55°N, 161°E, 0 = 13 42 12.
	M	iP	18.1		Near east coast of Kamchatka.
	SH	iP	13.0		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Dec. 25	B	eP	16 36 09		USCGS: 10-1/2°N, 62-1/2°W,
	MH	iP	04		0 = 16 26 01. Venezuela. Felt at
		i	30		Point Fortin, Port of Spain and
	F	e	05		St. Augustine, Trinidad, B.W.I.
	M	iP	08		
		i	37		
	SH	eP	12		
Dec. 26	M	eP	06 51 12		USCGS: 53-1/2°N, 162°E, 0 = 06 42 03.
	R	eP	23		Near east coast of Kamchatka.
	SH	eP	07		
Dec. 26	F	iP	12 22 09.0	c	USCGS: 32-1/2°S, 178°W, 0 = 12 09 11.
					Kermadec Islands.
Dec. 26	B	iP	12 21 56.6	c	41°27'N, 127°19'W, 0 = 12 20 35.
		eNEZ	58.8		Off coast of northern California.
	BG	e(R)EZ	22.3		Magnitude 4.7.
			mu sec		
		MaxH	35 15		
		MaxZ	13 13		
	MH	iP	12 22 06.1	c	
		eN	26.1		
	PA	iP	00.9	c	
	SH	e(P)	21 58.6		
	M	iP	44.3	c	
		eNE	22 17.9		
		e(S)NE	37.5		
	A	iPE	21 15.9		
		iSNE	45.2		
	C	iPN	42.2		
		eN	22 58		
	SH	iP	21 35.5	c	
Dec. 26	M	iP	12 55 21		
	SH	eP	14		
Dec. 26	M	iP	13 23 00.6	c	
	SH	iP	22 50.7	c	
Dec. 26	B	e(P)	14 23 40		
	M	i	31		
	SH	e(P)	18		
Dec. 27	F	e(P)	07 56 59		BCIS: North Atlantic Ocean,
	M	e(P)	46		southwest of Iceland.
Dec. 27	B	iP	08 38 53.2	d	BCIS: Northwest Pacific.
	M	eP	51.8	d	
	R	eP	39 00		
	SH	eP	38 49		
Dec. 27	SH	e(P)	08 42 38		May be from preceding shock.
Dec. 27	M	i(P)	09 06 57		
Dec. 27	SH	iP	09 45 43		
Dec. 27	M	eP	13 14 00		JMA: 40.6°N, 142.5°E, h = 80 km.,
					0 = 13 03 01. Off northeast
					Honshu, Japan. Felt.
Dec. 27	SH	eP	15 09 50		USCGS: 53-1/2°N, 162°E. 0 = 15 00 45.
					Off east coast of Kamchatka.
Dec. 27	SH	e(P)	19 57 43		

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Dec. 28	MH	e	02 18 38		BCIS: 11°S, 163°E, 0 = 02 05 43.
	M	e	34		Solomon Islands.
	SH	e	19		
Dec. 28	B	iP	14 48 39.5	d	USCGS: 18°S, 64-1/2°W, 0 = 14 36 40.
	BG	eLN	15 19.0		Bolivia.
	MH	iP	14 48 35.1	c	
		i	39.7	d	
	F	eP	25		
	M	eP	43		
	R	eP	36		
	C	e(P)N	49 09		
	SH	eP	48 46		
Dec. 28	MH	iP	15 41 29.4	d	USCGS: Southern Bolivia.
					0 = 15 29 27.
Dec. 28	B	iP	19 12 46		USCGS: 16°S, 172°W, 0 = 19 01 22.
		i	56		Tonga Islands region.
	MH	iP	46.5		
		i	57.5		
		i	13 15		
	F	eP	12 51		
	M	eP	56		
	R	iP	13 02		
	SH	eP	12 56		
Dec. 29	MH	i(P)	03 44 59		
	M	e(P)	24		
	C	i(P)	43 59		
Dec. 29	M	eP	14 24 19		USCGS: 13°N, 144°E, 0 = 14 11 40.
	SH	e	26 02		Marianas Islands.
Dec. 29	B	eP	15 24 31.0	c	USCGS: Coquimbo Province, Chile.
		e	52		0 = 15 12 08. Felt.
	MH	iP	28.6	c	
		i	41.6		
	F	eP	20		
	M	eP	39	d	
	R	eP	31		
	SH	iP	40.8	c	
Dec. 29	B	eP	19 22 30		USCGS: 34°S, 70-1/2°W, h = 100 km.,
	MH	iP	27		0 = 19 09 55. Central Chile.
	M	eP	38		Felt.
	SH	iP	39		
Dec. 30	M	i(P)	04 17 23		
Dec. 30	MH	i	12 53 07		USCGS: 53-1/2°N, 166°W, 0 = 12 46 04.
	M	e(P)	52 38		Fox Islands, Aleutian Islands.
	R	e	58		
	SH	e	37		
Dec. 30	M	eP	13 39 04		USCGS: 10-1/2°N, 62°W, 0 = 13 28 51.
					Near coast of Venezuela.
					Felt: Port of Spain, Trinidad.
Dec. 30	M	e(P)	14 12 12		USCGS: 19°N, 120-1/2°E, 0 = 13 58 26.
					Near north coast of Luzon, P.I.
					Felt at Aparri, Bangued, Laoag,
					Tagudin, and Vigan.

Date	Sta.	Phase	Time (GCT)	Ground motion	Remarks
1957			h. m. s.		
Dec. 31	MH	iP	10 31 40		USCGS: 58°N, 32°W, 0 = 10 21 35.
	F	eP	43		North Atlantic Ocean.
	M	i	25		
	R	eP	19		
	SH	eP	20		
Dec. 31	MH	iP	13 12 59		USCGS: 25°N, 46°W, 0 = 13 02 20.
	M	iP	54		North Atlantic Ocean.
		i	13 00		
Dec. 31	MH	iP	14 42 28		USCGS: 45°S, 165-1/2°E, 0 = 14 28 15.
		e(PP)	46 42		Off coast of South Island,
	F	e(PP)	45		New Zealand.
	M	e(PP)	33		
		e	58		
	R	e(PP)	46		
	SH	e	57		
Dec. 31	MH	e	14 58 32		
	F	e	25		
	M	e	16		
	R	e	17		
Dec. 31	B	eP'	21 35 58		USCGS: 45°S, 96-1/2°E, 0 = 21 16 03.
		e	36 09		South Indian Ocean.
	MH	eP'	35 58		
		i	36 12		
	F	eP'	00		
	M	eP'	00		
	R	e	13		
	SH	eP'	35 58		