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

Earthquakes and the Registration of Earthquakes

From January 1, 1961 to March 31, 1961

BY

Ronald Merrill
and
George Mitchell

University of California
1963

SEISMOGRAPHIC STATIONS OF THE UNIVERSITY OF CALIFORNIA

Perry Byerly, Director (retired March, 1963)

Bruce A. Bolt, Director (March, 1963 --)

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, VINEYARD, RUTH, AND CONCORD

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of the University of California

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CONTENTS

INTRODUCTION

Each number in this series includes determinations of epicenters, origin times, and magnitudes, as well as other information available at the time of writing, for earthquakes in northern California and adjoining areas (Part I), and tabulates recorded arrival times of seismic waves and other information for teleseisms and for the larger earthquakes in the local area (Part II).

Information regarding the seismographic stations which comprise the Berkeley network, instruments operated regularly at each station, and any changes in instrumentation during the period covered by this issue will be found on the following two pages.

STATIONS IN OPERATION - January-March 1961

Station	North Latitude	West Longitude	Elev. Meters	Symbol	Present Auspices and Date Established
Berkeley (Haviland)	37° 52.4'	122° 15.6'	81	BRK, BRX	Univ. of California, 1887
Mt. Hamilton	37° 20.5'	121° 38.5'	1282	MHC	Lick Observatory, 1887
Palo Alto	37° 25.0'	122° 10.9'	83	PAC	Stanford Univ., 1927
San Francisco	37° 46.6'	122° 27.1'	100	SFB	Univ. of San Francisco, 1931
Ferndale	40° 34.6'	124° 15.7'	15	FER	City of Ferndale, 1933
Fresno	36° 46.0'	119° 47.8'	88	FRE	Fresno City College, 1935
Mineral	40° 20.7'	121° 36.3'	1495	MIN	Nat'l. Park Service, 1938
Arcata	40° 52.6'	124° 04.5'	59	ARC	Humboldt State College, 1948
Reno	39° 32.3'	119° 48.8'	1386	REN	Univ. of Nevada, 1948
Shasta	40° 41.7'	122° 23.3'	312	SHS	Bureau of Reclamation, 1942*
Corvallis	44° 35.1	123° 18.2'	123	COR	Oregon State Univ., 1950
Manzanita Lake	40° 32.2'	121° 33.7'	1800	MLC	Nat'l. Park Service, 1956
Vineyard (local)	36° 45.0'	121° 23.1'	330	VIN	W. A. Taylor and Co., 1959
Ruth	39° 14'	114° 59'	2270	RU	Kennecott Copper Corp., 1959
Concord	37° 58.1	122° 04.3'	36	CNC	Diablo Valley College, 1960

*Operation of the Shasta station was assumed by the University of California on July 1, 1952. Requests for copies of Shasta seismograms for the period 1942-52 should be addressed to: The Director, U.S. Coast and Geodetic Survey, Washington 25, D.C.

STATION INSTRUMENTATION

January-March 1961

Station	Type of Instrument	T_o sec	T_g sec	Component
BRK	Benioff 100 kg VRT	1.0	0.4	Z
	Benioff 100 kg VRT	1.0	8.0	Z
	Wood-Anderson torsion	0.8	-	S,W
	100X torsion	0.8	-	N,W
BRX	Galitzin-Wilip moving coil	12	12	N,E,Z
	Press-Ewing moving coil	30	90	N,E,Z
MHC	Benioff 100 kg VRT	1.0	0.4	Z
	Wood-Anderson torsion	0.8	-	S,E
PAC	Benioff 100 kg VRT	1.0	0.4	Z
	Wood-Anderson torsion	0.8	-	N,E
SFB	Lehner-Griffith moving coil	1.2	0.3	Z
	Wood-Anderson torsion	0.8	-	S,W
FER	Bosch-Omori 25 kg	12	-	S,W
FRE	Sprengnether moving coil	2.0	2.0	N,E,Z
MIN	Benioff 100 kg VRT	1.0	0.4	Z
	Wood-Anderson torsion	0.8	-	S,E
ARC	Marion-Slichter moving coil	1.1	0.2	Z
	Wood-Anderson torsion	0.8	-	N,E
REN	Sprengnether moving coil	2.0	2.0	N,E,Z
SHS	Benioff 50 kg moving coil	1.5	0.45	N,E,Z
COR	Slichter	1.0	-	N,E,Z
	Wilson-Lamison	1	$1\frac{1}{2}$	Z
MLC	Loucks-Omori	$3\frac{1}{2}$	-	S,E
VIN	Benioff 100 kg VRT	1.0	0.2	Z
	Wood-Anderson torsion	0.8	-	S,W
RU	Press-Ewing moving coil	30	90	N,E,Z
CNC	Benioff 100 kg VRT	1.0	0.2*	Z

*Changes in instrumentation during the quarter covered by this issue:

January 6, 1961 - CNC 0.2 sec galvanometer replaced by 0.5 sec galvanometer.

Direction of Motion: In the "Component" column, each horizontal component seismograph is designated by the direction of ground motion corresponding to upward trace motion on the seismogram when it is oriented so that time increases from left to right. On all vertical component (Z) instruments, upward trace motion corresponds to upward ground motion.

PART I. LOCAL EARTHQUAKES IN NORTHERN CALIFORNIA, NEVADA, AND OREGON

This section includes information on earthquakes in northern California (including adjacent offshore areas) and in adjoining sections of Nevada and Oregon which were well enough recorded to permit a determination of the epicenter. Latitude and longitude of each epicenter and the corresponding date and origin time are tabulated in the following list; epicenters are also plotted on one or both of the two maps immediately following the list.

For the entire northern California region, every effort is made to list all earthquakes of Richter magnitude 3.0 and above, but it is likely that some such shocks have been overlooked because the available seismographic data were inadequate for a good epicenter determination. Within the limited region covered by the map of the central Coast Ranges of California, locatable shocks of magnitude 2.0 and over are included in the tabulation and plotted on the map. Shocks of magnitude 3.0 and over occurring in the limited region are plotted on both maps. Shocks of magnitude less than 3.0 in northern California (and less than 2.0 in the central Coast Ranges) are tabulated only if reported felt or if of special interest for some other reason. Identified artificial earthquakes (explosions) ordinarily are not tabulated.

Explanation of the table:

Map No. for each epicenter corresponds to the number plotted beside that epicenter on the maps. The underlining of a map number in the table (and on the maps) indicates that one point on a map has been used to represent more than one earthquake in the table.

Date and Origin Time are given in Greenwich Civil Time (GCT). Subtract eight (8) hours to convert to Pacific Standard Time (PST) or seven (7) hours to

convert to Pacific Daylight Time (PDT). This will change the date for some of the earthquakes.

M is the Richter magnitude of the earthquake as determined from the maximum trace amplitudes recorded for the shock by standard Wood-Anderson torsion seismographs.

Q is a subjective estimate of the quality of the location of the epicenter by the person making the determination. "a" indicates excellent, "b" good, "c" fair, and "d" poor.

Under Remarks will be found a short descriptive location of the epicenter, usually relative to a point named on the map. Information on small foreshocks and aftershocks is sometimes included under Remarks, but when numerous foreshocks or aftershocks accompany a large earthquake, a separate tabulation may be included following the main list of local shocks.

Information on intensities of shocks reported felt is also included under Remarks. Reports on felt earthquakes are chiefly extracted from those collected by the Seismological Field Survey of the U.S. Coast and Geodetic Survey, which publishes a more complete summary in "Abstracts of Earthquake Reports for the Pacific Coast and Western Mountain Region." This regular quarterly publication may be obtained from the District Officer, San Francisco District, Coast and Geodetic Survey, 121 Custom House, San Francisco 26, California, or from the Director, U.S. Coast and Geodetic Survey, Washington 25, D.C. Intensities given in Roman numerals are assigned by the U.S. Coast and Geodetic Survey and are based on the Modified Mercalli Intensity Scale of 1931.

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. Disturbs 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.

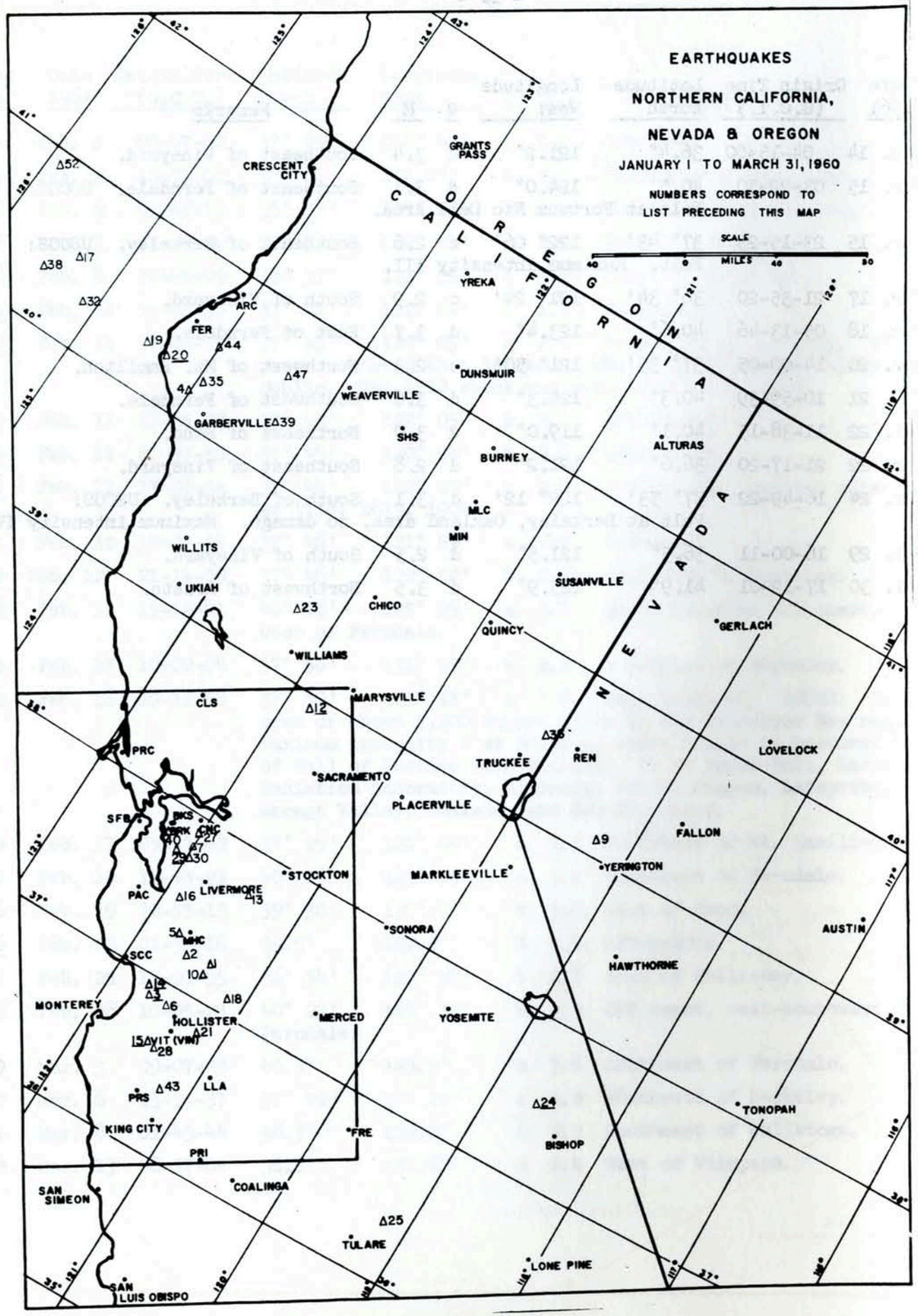
XII. Damage total. Waves seen on ground surfaces. Lines of sight and level distorted. Objects thrown upward into the air.

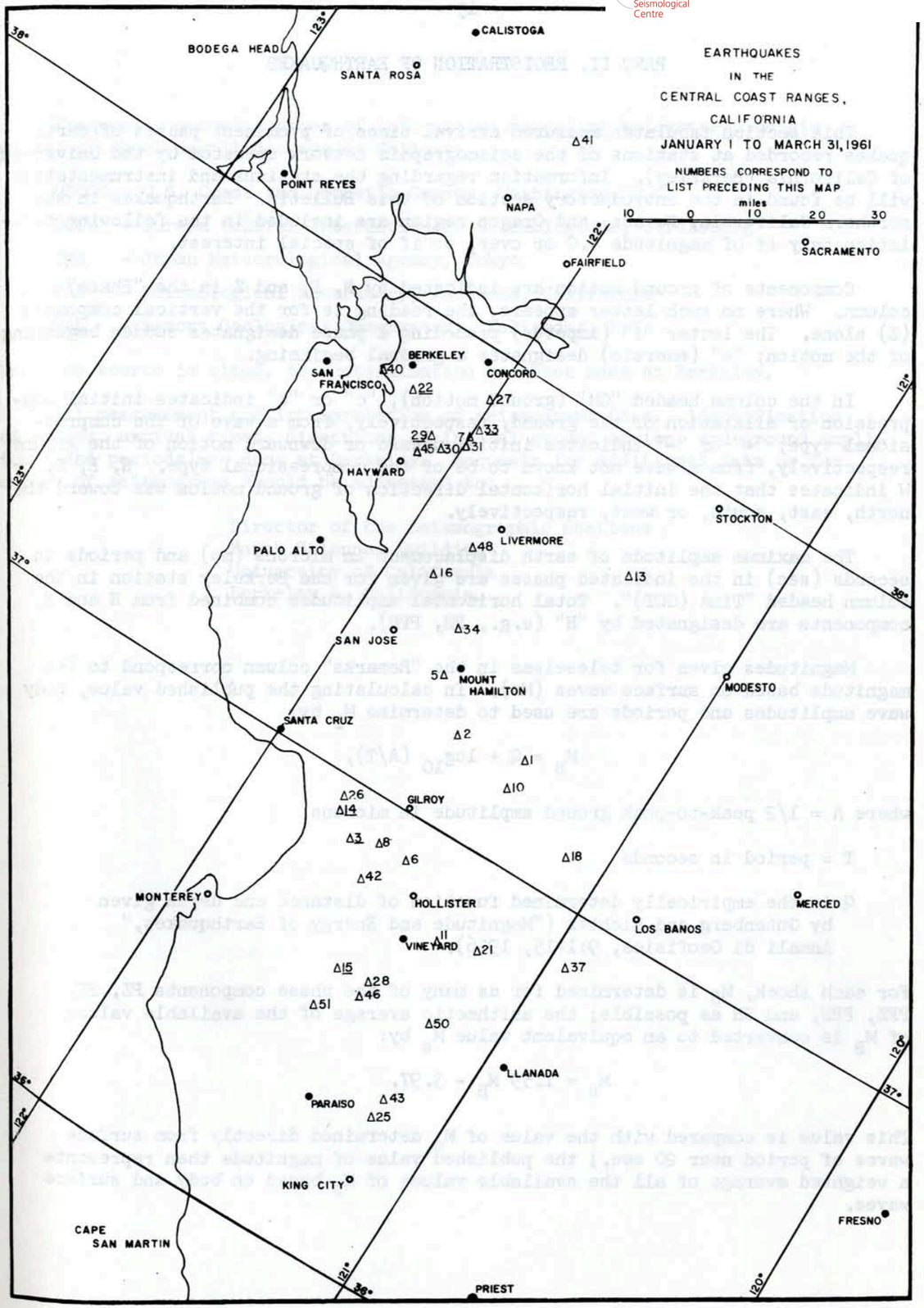
EARTHQUAKES IN NORTHERN CALIFORNIA, NEVADA, AND OREGON

Map No.	Date 1961	Origin Time (G.C.T.)	Latitude North	Longitude West	Q	M	Remarks
1	Jan. 1	10-30-24	37° 14'	121° 22'	b	3.0	Southeast of Mt. Hamilton.
2	Jan. 2	05-40-18	37° 12'	121° 34'	c	2.2	South of Mt. Hamilton.
3	Jan. 3	23-00-21	36° 52'	121° 40'	b	3.6	Northwest of Hollister. Foreshock.
3	Jan. 4	00-30-17	36° 52'	121° 40'	b	4.1	Northwest of Hollister. Felt at Aptos IV. III in San Francisco and Hollister.
4	Jan. 5	17-08-06	40° 11'	124° 01'	c	3.2	Southeast of Ferndale.
5	Jan. 6	16-47-17	37.3°	121.7°	d	2.6	West of Mt. Hamilton.
6	Jan. 7	03-21-26	36° 59'	121° 30'	c	3.4	Northwest of Hollister.
7	Jan. 7	10-26-26	37.8°	122.0°	d	2.3	East of Berkeley.
8	Jan. 8	16-06-22	36.9°	121.6°	d	2.5	Southeast of Santa Cruz.
9	Jan. 8	18-57-30	39.1°	119.3°	d	2.8	Southeast of Reno.
10	Jan. 8	21-19-00	37° 09'	121° 22'	c	2.6	Southeast of Mt. Hamilton.
11	Jan. 10	09-27-31	36° 46'	121° 18'	c	1.8	Southeast of Hollister; USCGS: Felt in Hollister.
12	Jan. 10	22-22-34	38.9°	121.8°	d	2.5	Northwest of Sacramento.
13	Jan. 10	23-04-58	37° 44'	121° 25'	c	3.1	Northwest of Mt. Hamilton.
14	Jan. 13	08-36-12	36° 55'	121° 45'	c	3.5	Southeast of Santa Cruz.
15	Jan. 16	07-07-40	36.6°	121.5°	d	3.2	Southwest of Vineyard.
14	Jan. 17	22-18-30	36° 55'	121° 43'	c	3.4	Southeast of Santa Cruz.
15	Jan. 18	00-00-00	36.9°	121.7°	d	2.5	Southeast of Santa Cruz.
16	Jan. 22	19-43-39	37° 29'	121° 52'	c	2.3	Northwest of Mt. Hamilton.
17	Jan. 23	18-54-28	40° 30'	125° 21'	c	3.4	West of Ferndale.
18	Jan. 25	05-12-41	37° 05'	121° 08'	c	2.2	Northeast of Vineyard.
19	Jan. 26	03-23-01	40.3°	124.5°	d	3.0	Southwest of Ferndale.
20	Jan. 26	15-49-25	40° 19'	124° 18'	c	2.9	South of Ferndale.
21	Jan. 28	21-07-19	36.8°	121.2°	d	2.5	Northeast of Vineyard.
22	Jan. 29	06-17-24	37° 50'	122° 13'	b	2.5	Foreshock.
22	Jan. 29	07-30-29	37° 50'	122° 13'	b	2.7	Southeast of Berkeley.
23	Jan. 30	08-42-45	39.4°	122.3°	d	3.4	East of Ukiah.
24	Feb. 2	00-04-16	37° 27'	118° 38'	b	5.3	Northwest of Bishop. USCGS reports felt in southern Mono County, Taft, Hanford, Fresno, California and Dyer, Nevada.

Map No.	Date 1961	Origin Time (G.C.T.)	Latitude North	Longitude West	Q	M	Remarks
24	Feb. 2	00-07-42	37° 25'	118° 40'	c	5.1	Aftershock of 0004.
25	Feb. 2	12-31-00	36° 21'	121.2°	d	2.2	Northwest of King City.
26	Feb. 6	01-47-19	36° 57'	121° 45'	b	2.4	Southeast of Santa Cruz.
27	Feb. 7	23-09-06	37° 53'	122° 01'	d	1.9	East of Berkeley.
28	Feb. 8	18-48-09	36° 37'	121° 25'	c	3.1	South of Hollister.
29	Feb. 11	14-05-30	37° 44'	122° 04'	c	1.2	Foreshock.
29	Feb. 11	17-08-09	37° 45'	122° 05'	a	2.6	Southeast of Berkeley. The press reported that 10 shocks were felt at Castro Valley and Dublin. The 1708 shock was reported hardest felt.
29	Feb. 11	17-35-07	37° 45'	122° 05'	b	2.6	Aftershock.
29	Feb. 11	17-37-53	37° 45'	122° 04'	b	2.6	Aftershock.
30	Feb. 11	17-38-34	37° 44'	122° 03'	c	2.5	Aftershock. Smaller aftershocks at 1758, 1819, 1904.
31	Feb. 12	19-24-14	37° 46'	121° 59'	a	2.0	Foreshock.
29	Feb. 12	21-14-09	37° 46'	122° 02'	b	2.3	Southeast of Berkeley.
32	Feb. 13	15-12-01	40° 18'	125° 05'	a	3.6	About 40 miles off coast, southwest of Ferndale.
33	Feb. 15	10-02-04	37° 50'	121° 59'	b	2.1	Southeast of Berkeley.
22	Feb. 16	20-12-58	37° 50'	122° 13'	a	3.6	Near Berkeley. USCGS: Felt over area of about 1,200 square miles in San Francisco Bay region. Maximum intensity V at Berkeley where cracks in basement floor of Hall of Justice were widened. IV at Bacon Hall, Lawrence Radiation Laboratory, Alvarado, Aptos, Canyon, Lafayette, Moraga Valley, Oakland, and San Francisco.
34	Feb. 17	05-17-49	37° 25'	121° 44'	c	2.1	Northwest of Mt. Hamilton.
35	Feb. 19	14-43-23	40° 18'	123° 55'	c	3.2	Southeast of Ferndale.
36	Feb. 19	22-55-15	39° 30'	120° 05'	b	3.3	West of Reno.
36	Feb. 20	01-33-16	39.5°	120.0°	d	2.8	Aftershock.
37	Feb. 25	17-01-59	36° 54'	120° 57'	b	2.8	East of Hollister.
38	Feb. 28	10-05-25	40° 23'	125° 32'	b	3.7	Off coast, west-southwest of Ferndale.
39	Mar. 3	09-07-28	40.3°	123.3°	d	3.6	Southeast of Ferndale.
40	Mar. 6	13-54-37	37° 49'	37° 19'	c	2.2	Southwest of Berkeley.
41	Mar. 8	01-43-44	38.5°	122.2°	d	2.3	Southeast of Calistoga.
42	Mar. 13	08-37-04	36.8°	121.6°	d	2.4	West of Vineyard.

Map No.	Date 1961	Origin Time (G.C.T.)	Latitude North	Longitude West	Q	M	Remarks
43	Mar. 14	04-15-00	36.4°	121.2°	d	3.4	Southeast of Vineyard.
44	Mar. 15	03-22-50	40.5°	124.0°	d	3.1	Southeast of Ferndale. USCGS: Felt at Fortuna Rio Dell area.
45	Mar. 15	23-15-23	37° 43'	122° 06'	c	2.6	Southeast of Berkeley. USCGS: Felt. Maximum intensity III.
46	Mar. 17	21-35-20	36° 34'	121° 24'	c	2.9	South of Vineyard.
47	Mar. 18	05-13-46	40.6°	123.4°	d	3.7	East of Ferndale.
48	Mar. 20	14-00-05	37° 35'	121° 50'	c	2.3	Northwest of Mt. Hamilton.
49	Mar. 21	10-59-39	40.3°	124.3°	d	3.6	Southwest of Ferndale.
20	Mar. 22	11-38-15	40.1°	119.0°	d	3.0	Northeast of Reno.
50	Mar. 22	21-17-20	36.6°	121.2°	d	2.8	Southeast of Vineyard.
22	Mar. 24	16-49-22	37° 53'	122° 12'	c	3.1	South of Berkeley. USCGS: Felt at Berkeley, Oakland area, no damage. Maximum intensity IV.
51	Mar. 29	16-00-11	36.5°	121.5°	d	2.5	South of Vineyard.
52	Mar. 30	17-12-01	41.9°	125.9°	d	3.5	Northwest of Arcata.





PART II. REGISTRATION OF EARTHQUAKES

This section tabulates measured arrival times of prominent phases of earthquakes recorded at stations of the seismographic network operated by the University of California (Berkeley). Information regarding the stations and instrumentation will be found in the introductory section of this Bulletin. Earthquakes in the northern California, Nevada, and Oregon region are included in the following tabulation only if of magnitude 4.0 or over, or if of special interest.

Components of ground motion are indicated by N, E, and Z in the "Phase" column. Where no such letter appears, the reading is for the vertical component (Z) alone. The letter "i" (impetus) preceding a phase designates sudden beginning of the motion; "e" (emersio) designates a gradual beginning.

In the column headed "GM" (ground motion), "c" or "d" indicates initial compression or dilatation of the ground, respectively, from a wave of the compressional type; "+" or "-" indicates initial upward or downward motion of the ground, respectively, from a wave not known to be of the compressional type. N, E, S, or W indicates that the initial horizontal direction of ground motion was toward the north, east, south, or west, respectively.

The maximum amplitude of earth displacement in microns (mu) and periods in seconds (sec) in the indicated phases are given for the Berkeley station in the column headed "Time (GCT)". Total horizontal amplitudes combined from N and E components are designated by "H" (e.g., PH, PPH).

Magnitudes given for teleseisms in the "Remarks" column correspond to the magnitude based on surface waves (Ms). In calculating the published value, body wave amplitudes and periods are used to determine M_B by:

$$M_B = Q + \log_{10} (A/T),$$

where A = 1/2 peak-to-peak ground amplitude in microns,

T = period in seconds

Q is the empirically determined function of distance and depth given by Gutenberg and Richter ("Magnitude and Energy of Earthquakes," Annali di Geofisica, 9:1-15, 1956).

For each shock, M_B is determined for as many of the phase components PZ, PH, PPZ, PPH, and SH as possible; the arithmetic average of the available values of M_B is converted to an equivalent value M_s by:

$$M_s = 1.59\ M_B - 3.97.$$

This value is compared with the value of M_s determined directly from surface waves of period near 20 sec.; the published value of magnitude then represents a weighted average of all the available values of M_s based on body and surface waves.

Frequently quoted sources of information regarding epicenters, origin times, or shock magnitudes are as follows:

USCGS - U.S. Coast and Geodetic Survey, Washington, D.C.

BCIS - Bureau Central Internationale Seismologique, Strasbourg

JMA - Japan Meteorological Agency, Tokyo

PAS - Seismological Laboratory, Pasadena, California

PAL - Lamont Geological Observatory, Palisades, N.Y.

Where no source is cited, the determination has been made at Berkeley.

All measurement and interpretation of seismograms (i.e., identification of phases, arrival times, directions of initial ground motion, and ground amplitudes and periods)are done at Berkeley. Requests for additional data or for copies of seismograms should be addressed to:

Director of the Seismographic Stations
Earth Sciences Building
University of California
Berkeley 4, California.

1961			h. m. s.		
Jan. 1	BRK	iP	16 49 19.1	d	USCGS: 18.2°S, 178.1°W, 0 = 16 38 23.8.
	MHC	iP	20.0	d	Fiji Islands region.
	FRE	eP	24		h about 600 km.
	MIN	iP	29.5	c	
	REN	eP	33.3		
	COR	eP	37.4		
	SHS	iP	27.4	d	
Jan. 2	REN	eP	10 50 33.9		
Jan. 2	BRK	iP	10 24 10.2	c	USCGS: 12.5°S, 166.3°E, 0 = 10 11 58.1.
	BRX	ePP	27 20		Santa Cruz Islands region.
		iSNE	34 26		h about 140 km.
		eNE	35.9		Magnitude 6¼.
		eSSNE	39.9		
		eQN	45.7		
		eRNEZ	49.4		
			R from WSW		
			mu sec		
		SH	2.3 20		
		PZ	5.0 7		
		PH	1.8 10		
		PPZ	2.6 7		
	MHC	iP	10 24 11.7	c	
	FRE	eP	17.5		
	MIN	iP	16.7	c	
	ARC	i(P)	10.0	c	
	REN	iP	22.3	c	
	COR	iP	19.0	c	
	SHS	eP	16	c	
	VIN	eP	11.6		
	RU	iP	40	c	
	CNC	eP	11.2	c	
	PAC	iP	09.6	c	
Jan. 2	MIN	eP	16 30 56.5	c	USCGS: 51.2°N, 157.7°E, 0 = 16 21 30.0.
	COR	eP	30.9		Near east coast Kamchatka.
	SHS	eP	53		h about 40 km.
Jan. 2	BRK	eP	23 19 56		USCGS: 10.4°S, 160.9°E, 0 = 23 07 23.9.
	MHC	eP	56.9	c	Solomon Islands. h about 100 km.
	MIN	eP	20 01.1	c	
	SHS	eP	19 59.2		
Jan. 3	MHC	iP	08 30 15.0	c	
Jan. 3	MHC	eP	14 16 35.6	c	
Jan. 3	MHC	iP	15 02 15.1	c	
Jan. 3	MHC	iP	17 53 30.9	c	USCGS: 20.5°S, 68.8°W, 0 = 17 41 51.2.
	MIN	eP	39.6	c	Southern Bolivia. h about 100 km.
	REN	eP	54 15.1		
	COR	iP	54 00.7	c	
	SHS	iP	53 42.7	d	
Jan. 3	MHC	e(P)	22 07 33		
	MIN	iP	00.0	c	
	SHS	eP	06 51.3		
Jan. 4	CNC	iP	00 30 38.4	d	36.9°N, 121.7°W, 0 = 00 30 17
	BRK	iP	36.9	d	West of Hollister.

1961			h. m. s.		
Jan. 4		i	37.9		Magnitude 4.1.
(Cont.)		e(S)N	51.7		
		iNE	53.0		
	MHC	iPNEZ	26.6		
		iSN	33.7		
	SFB	eP	36.7		
		eSNE	53		
	MIN	iP	31 12.5	c	
		i	32 00.7		
	FRE	eP	30 43.2	(c)	
		eN	31 03.7		
	SHS	eP	19.4		
		e	41		
	PAC	ePE	30 30.4		
		iN	39.9		
		iE	40.8		
	VIN	iPNEZ	22.5		
		iNE	23.8		
		i(S)E	28.0		
Jan. 4	MIN	eP	01 54 22.9	c	
Jan. 4	MIN	iP	07 27 30.5	c	USCGS: 46.0°N, 122.0°W, 0 = 07 26 01.
		i	38.3	d	15 miles south-southeast of
		e	29 01.4		Mt. St. Helens, Washington
	REN	e(P)	27 52.7		(Seattle). Maximum intensity V.
	SHS	eP	25		Felt.
Jan. 4	MHC	iP	12 10 12.8	d	USCGS: 17.7°N, 101.2°W, 0 = 12 04 35.5.
		i	26.6	c	Near coast of Guerrero, Mexico.
	REN	iP	18.4	d	h about 49 km.
	VIN	eP	07.5		
Jan. 4	MIN	eP	13 36 41.3	d	USCGS: 17.5°S, 178.9°W, 0 = 13 25 35.6.
	REN	eP	46.0		Fiji Islands. h about 591 km.
	SHS	e(P)	49.9		
Jan. 4	MIN	eP	19 13 21.8	d	
	REN	eP	48.9		
	SHS	eP	21		
Jan. 5	BRK	eP	14 14 00		USCGS: 51.8°N, 176.3°W, 0 = 14 06 25.9.
	BRX	ePcP	15 57		Andreanof Island, Aleutian Islands.
		iSEZ	20 05		Felt: Adak. h about 37 km.
		eQNE	22.8		PAS: Magnitude 6¾.
		eRNEZ	24.6		
			R from WNW		
			mu sec		
		PZ	6.9 9		
		PH	5.1 9		
		SH	25 14		
		MaxH	6.5 22		
	MHC	iP	14 14 06.4	c	
		i	17.4	d	
	FRE	eP	21		
	MIN	eP	13 50.5	c	
	ARC	e(P)	45.5		
	REN	iP	14 05.7	c	

1961			h.	m.	s.		
Jan. 5	VIN	eP			11		
(Cont.)							
Jan. 5	BRK	iP	15	20	15.9	d	USCGS: 45.9°N, 149.3°E, 0 = 15 09 37.9.
	MHC	iP			11.8	c	Kurile Islands. h about 19 km.
	MIN	eP		19	59.0	d	
	REN	eP		20	10.9		
	SHS	eP		19	55.9		
	VIN	e			55		
Jan. 5	BRK	eP	16	07	16.9	d	USCGS: 4.1°S, 143.0°E, 0 = 15 53 56.0.
	MHC	iP			19.2	d	New Guinea. Felt. h about 108 km.
	MIN	eP			19		PAS: Magnitude 6¾ - 7.
	REN	iP			26.5	c	
	SHS	eP			14.4		
	VIN	e			21		
Jan. 5	BRK	iP	18	10	33.7	(c)	USCGS: 21.2°S, 169.5°E, 0 = 17 57 51.1.
	BRX	iSN			21.5	NE	Loyalty Islands region.
		iPSNE			22.4	NE	h about 53 km.
		eGNE			34		Magnitude 6¾.
		eRZ			37.8		
			R from SW				
			mu		sec		
		MaxZ	15		21		
		MaxH	35		23		
		PZ	4.8		8		
		SH	6.3		12		
	MHC	iP	18	10	34.9	c	
	FRE	eP			38.0		
	MIN	iP			41.3	d	
	ARC	iP			38.3	d	
	REN	eP			45.5		
	SHS	eP			39.5		
	VIN	eP			36		
	SFB	eP			32		
Jan. 5	BRK	iP	18	27	20.1	c	USCGS: 21.1°S, 170.0°E, 0 = 18 14 36.7.
	MHC	iP			21.7	c	Loyalty Islands region.
	FRE	eP			24		h about 67 km.
	MIN	eP			27.6	c	PAS: Magnitude 6¾.
	ARC	e(P)			26		
	REN	iP			32.1	c	
	SHS	eP			26		
	VIN	eP			21		
Jan. 5	SHS	eP	19	14	13		
Jan. 5	SHS	eP	20	17	54		USCGS: 11.6°N, 143.5°E, 0 = 20 05 12.2.
							Mariana Islands region.
							h about 25 km.
Jan. 5	MIN	eP	00	10	14.5	d	USCGS: 32.6°S, 178.6°W, 0 = 23 57 29.6.
	REN	e			11 02.6		Kermadec Islands region.
	SHS	e(P)			10 13.1		h about 166 km.
Jan. 6	BRK	e(P)	01	31	49		USCGS: 42.7°N, 143.4°E, 0 = 01 20 30.8.
	MHC	eP			39.7	c	Hokkaido, Japan. h about 21 km.
	FRE	eP		32	03		
	MIN	eP		31	27.8	c	

1961			h.	m.	s.		
Jan. 6	REN	eP			53.0		
(Cont.)	SHS	eP			23		
Jan. 6	BRK	eP	06	29	12		USCGS: 52.0°N, 176.0°W, 0 = 06 21 38.2.
	MHC	iP			17.0	d	Andreanof Islands, Aleutian Islands.
	MIN	iP			01.7	d	h about 40 km.
	REN	iP			31.1	c	
	SHS	eP		28	57.0		
	VIN	e(P)		29	22		
Jan. 6	ARC	eP	10	26	44.0		
Jan. 6	MHC	eP	10	54	46.5		USCGS: 14.3°N, 95.8°W, 0 = 10 48 22.9.
	MIN	eP		55	13.0	d	Off south coast of Mexico.
	REN	eP			00.8		h about 45 km.
Jan. 7	BRK	iP	11	41	42.2	d	USCGS: 24.5°S, 179.5°E, 0 = 11 30 12.0.
	MHC	iP			42.2	c	South of Fiji Islands.
	MIN	eP			50.7	d	h about 568 km.
	SHS	eP			51		
Jan. 7	BRK	eP'	18	35	51		USCGS: 57.4°S, 24.7°W, 0 = 18 16 54.3.
	MHC	iP'			50.6	d	Sandwich Islands. h about 51 km.
	FRE	eP'			48		PAL: Magnitude 5½.
	MIN	eP'			53.8	d	
	REN	iP'			53.0	d	
	SHS	eP'			56		
	VIN	eP'			50		
Jan. 8	MHC	eP	07	44	18.1	d	
	FRE	eP			22		
Jan. 8	BRK	eP	10	12	44		USCGS: 26.1°S, 179.6°E, 0 = 10 01 06.6.
	MHC	iP			44.5	d	Kermadec Islands region.
	MIN	eP			53.6	c	h about 538 km.
Jan. 9	MHC	iP	03	19	19.6	d	USCGS: 31.4°N, 41.0°W, 0 = 03 08 37.7.
	FRE	eP			10		North Atlantic Ocean.
	MIN	eP			09.5	d	h about 25 km.
	REN	eP			18.9		PAL: Magnitude 4¾.
	SHS	eP			13		
Jan. 9	BRK	eP	10	25	59	d	USCGS: 21.4°S, 169.1°E, 0 = 10 13 17.7.
	MHC	iP		26	00.6	d	Loyalty Islands. h about 82 km.
	FRE	eP			04		
	MIN	eP			06.1	c	
	REN	eP			12.5		
	SHS	eP			05		
Jan. 9	MHC	i(P)	11	16	39.6	c	USCGS: 17.8°N, 61.1°W, 0 = 11 06 58.4.
	MIN	eP			19.8	d	Leeward Islands. h about 25 km.
Jan. 9	MHC	iP	11	30	51.4	d	USCGS: 17.7°N, 61.0°W, 0 = 11 11 12.5.
	MIN	eP			51.7	d	Leeward Islands. h about 52 km.
	REN	e(P)			42.5		
	SHS	eP			55		
	VIN	eP			49		
Jan. 9	MHC	iP	19	31	46.1	d	USCGS: 17.9°N, 61.0°W, 0 = 19 22 05.6.
	FRE	eP			34		Leeward Islands. h about 31 km.
	VIN	eP			44		PAL: Magnitude 4½.
Jan. 9	MHC	iP	19	34	37.5	d	USCGS: 17.8°N, 61.6°W, 0 = 19 24 59.5.
	VIN	eP			36		Leeward Islands. h about 31 km.
Jan. 9	SHS	eP	21	20	42		

1961			h. m. s.		
Jan. 10	BRK	iP	14 32 04.9	c	USCGS: 50.3°N, 155.9°E, 0 = 14 22 19.4.
	BRX	eSEZ	39 43	SE	Kurile Islands. h about 25 km.
		iSSNEZ	43 48	SEd	PAS: Magnitude 6¾.
		iGNE	45 57		
		iRZ	48.4		
			R from WNW		
			mu sec		
		PZ	2.6 16.5		
		PH	1.9 19		
		SH	19 28		
		MaxZ	22 28		
		MaxH	27 27		
	MHC	iP	14 32 11.2	c	
	FRE	iP	21		
	MIN	iP	31 57.3	c	
	ARC	iP	46.3	d	
	REN	iP	32 09.1	c	
	SHS	eP	31 53		
	VIN	eP	32 15.8		
	RU	iP	32		
Jan. 11	BRK	eP	12 07 01		USCGS: 52.5°N, 170.7°W, 0 = 11 58 23.8.
	BRX	eSE	12 34		Fox Islands, Aleutian Islands.
		eGN	15.2		h about 42 km.
		eREZ	16.9		
	MHC	iP	12 07 06.2	d	
	MIN	eP	06 50.8	d	
		i	07 23.3	d	
	REN	eP	05.3	d	
	SHS	eP	06 45		
	VIN	eP	07 12		
	RU	eP	44		
	CNC	eP	01		
Jan. 11	SHS	e(P)	12 13 00		
Jan. 11	MHC	iP	19 41 02.6	d	USCGS: 24.8°S, 68.5°W, 0 = 19 29 07.8.
	FRE	eP	40 53		Near coast of northern Chile.
	MIN	eP	41 20.5	c	h about 128 km.
	REN	iP	05.9	c	
	SHS	e(P)	15		
Jan. 12	MIN	eP	05 28 58.7	d	USCGS: 20.2°S, 168.9°E, 0 = 05 16 06.8.
	SHS	eP	28 56		New Hebrides Islands.
					h about 25 km.
Jan. 12	BRK	iP	14 19 32		USCGS: 57.8°N, 155.5°W, 0 = 14 13 34.1.
	MHC	iP	36.8	c	Alaska Peninsula. h about 71 km.
	FRE	eP	52		
	MIN	iP	18.5	d	
	REN	iP	32.2	c	
	SHS	iP	13	d	
	CNC	eP	32		
Jan. 14	MIN	eP	02 34 41.2	c	USCGS: 53.3°N, 172.3°E, 0 = 02 26 23.8.
	REN	eP	55.1		Near Islands, Aleutian Islands.
	SHS	eP	37		h about 25 km.
Jan. 14	BRK	iP	16 26 37.5	c	USCGS: 6.8°N, 73.1°W, 0 = 16 17 26.1.

1961			h. m. s.		
Jan. 14	MHC	iP	34.0	c	Colombia. h about 159 km.
(Cont.)	FRE	e(P)	20		
	MIN	iP	40.7	c	
	REN	iP	29.9	c	
	SHS	eP	44		
	VIN	eP	31		
Jan. 14	BRK	eP	16 45 34		USCGS: 53.9°N, 163.4°W, 0 = 16 38 54.8.
	BRX	eSNEZ	50 46		Unimak Island region.
		eQN	52.8		h about 38 km.
		eREZ	53.8		PAL: Magnitude 5¾.
	MHC	iP	45 33.4	d	
	FRE	eP	54		
	MIN	eP	13.1	d	
		e	48 08.0		
	REN	eP	45 37.3		
	SHS	eP	08		
	RU	eP	46 15		
	CNC	eP	45 35		
Jan. 15	BRK	iP	12 04 18.5	c	USCGS: 39.8°N, 142.8°E, 0 = 11 53 09.9.
	MHC	eP	21.7	c	Near east coast of Honshu, Japan.
	MIN	eP	11.7	c	h about 65 km.
	REN	eP	22.7		
Jan. 15	BRK	iP	16 57 12.3	d	USCGS: 20.5°S, 169.5°E, 0 = 16 44 44.8.
		ipP	45.0		Loyalty Islands region.
	BRX	e(S)N	17 08.6		
		e(sS)E	09.5		
		eN	21.1		
		eE	24.3		
		eZ	25.8		
			R from SW		
	MHC	iP	16 57 13.7	d	
		i	46.9	d	
	FRE	i(P)	27.5		
		e	50		
	MIN	eP	19.1	d	
		i	51.9	d	
	REN	iP	25.0	c	
	SHS	eP	18		
	VIN	eP	56 13		
	RU	eP	57 38	d	
	CNC	eP	14		
Jan. 15	MIN	eP	20 12 02.1	c	
Jan. 15	BRK	iP	20 52 13.2	c	USCGS: 5.2°S, 110.0°E, 0 = 20 34 14.3.
	MHC	iP	14.9	c	Java Sea. h about 565 km.
	MIN	iP	11.7	c	
	REN	iP	15.8	c	
	SHS	eP	11		
Jan. 16	BRK	eP	04 04 17		USCGS: 18.3°N, 102.4°W, 0 = 03 58 52.5.
		e	32		Near coast of Michoacan, Mexico.
	BRX	eSN	09 06		Felt. h about 153 km.
		eREZ	12.0		
			R from SE		

1961			h. m. s.			
Jan. 16 (Cont.)	MHC	iP	04 12.1	c		
		i	18.1	d		
	FRE	eP	03 57			
	MIN	eP	04 31.4	d		
	REN	eP	19.1			
	VIN	eP	08			
Jan. 16	BRK	eP	07 31 41.5	(c)	USCGS: 36.0°N, 141.7°E, 0 = 07 20 12.6. Near east coast of Honshu, Japan. Felt: Central and northeastern Honshu. h about 41 km.	
		iSP	33 26.0			
		e	39			
		e	59			
	BRX	iSE	41 03	NEd	PAS: Magnitude 6¾ - 7.	
		eSSNE	45.8			
		iQNE	50.4			
		eR	53.2			
			R from NW			
			mu sec			
		SH	20 25			
	MHC	iP	07 31 46.1	c		
	FRE	iP	50	c		
	MIN	eP	34.6	c		
	REN	iP	45.7	c		
	SHS	eP	32			
	VIN	eP	50			
	RU	eP	32 18			
		e(S)EN	41 53			
	CNC	iP	31 42.9	(c)		
	SFB	eP	44			
Jan. 16	REN	e(P)	08 59 52.0		USCGS: 36.1°N, 141.6°E, 0 = 08 48 19.6. Near east coast of Honshu, Japan. h about 123 km.	
	SHS	eP	30			
Jan. 16	BRK	eP	11 31 09		USCGS: 35.9°N, 140.6°E, 0 = 11 19 46.5. Near east coast of Honshu, Japan. h about 157 km.	
	BRX	iSE	40 37			
		eQNE	50.0			
		eRNEZ	53.0			
	MHC	iP	11 31 12.3	d		
		i	22.5	c		
	FRE	e(P)	19			
		e	34			
	MIN	eP	03.6	c		
	REN	eP	14.2			
	SHS	eP	30 59			
	VIN	eP	19			
Jan. 16	BRK	iP	12 23 47.3	(c)	USCGS: 36.4°N, 141.7°E, 0 = 12 12 34.4. Honshu, Japan. h about 105 km. Magnitude 6¼ - 6½.	
		i	24 08.0	d		
		i	25 19.2			
		e(PP)	26 15			
	BRX	iSNEZ	33 27	NEd		
		iSSE	37 55			
		iGE	42 43	NE		
		eRZ	45.7			
			R from WNW			

1961			h. m. s.			
			mu	sec		
Jan. 16 (Cont.)		SH	9.7	22		
		MaxH	12	18		
		MaxZ	10	18		
	MHC	e(P)	12 23 58.3		d	
	FRE	eP	24 16			
	MIN	eP	23 50.4		d	
		i	24 05.3		c	
	REN	eP	01.2		(d)	
		i	11.6			
	SHS	eP	23 48			
	VIN	eP	24 04			
Jan. 16	REN	eP	13 20 55.7			USCGS: 35.8°N, 140.8°E, 0 = 13 09 17.7. Near east coast of Honshu, Japan. h about 144 km.
	SHS	eP	31			
Jan. 16	BRK	(e)P	14 15 30			USCGS: 36.5°N, 141.2°E, 0 = 14 04 05.3. Near east coast of Honshu, Japan. h about 127 km.
	MHC	eP	28.0		d	
	FRE	eP	40			
	MIN	iP	20.0		d	
	REN	eP	30.0			
	SHS	eP	16			
Jan. 16	BRK	eP	15 52 43			USCGS: 36.6°N, 140.7°E, 0 = 15 41 25.4. Near east coast of Honshu, Japan. h about 132 km.
	BRX	iSNE	16 02.0			PAS: Magnitude 6¼.
		eGN	11.3			
		eRZ	14.3			
	MHC	iP	15 52 46.8		d	
		i	59.9		d	
	FRE	eP	56			
	MIN	e(P)	36.1		c	
	REN	iP	47.3		d	
		i	53 01.0			
	SHS	eP	52 33			
	CNC	eP	42			
Jan. 17	MIN	iP	00 41 02.2		c	USCGS: 36.5°N, 141.8°E, 0 = 00 29 35.7. Near east coast of Honshu, Japan. h about 100 km.
Jan. 17	MIN	eP	04 28 08.3		c	USCGS: 59.0°N, 135.9°W, 0 = 04 23 36.3. Southeastern Alaska. h about 109 km.
	REN	e(P)	26.3			
Jan. 17	MHC	iP	06 53 06.2		c	USCGS: 36.4°N, 141.4°E, 0 = 06 41 38.5. Near east coast of Honshu, Japan. h about 83 km.
	MIN	iP	52 55.4		d	
	REN	iP	53 06.6		c	
	SHS	iP	52 52.7		d	
Jan. 17	BRK	eP	23 18 11			USCGS: 21.7°S, 169.3°E, 0 = 23 05 27.6. Loyalty Islands region. h about 35 km.
	BRX	eRZ	44			PAL: Magnitude 5½.
	MHC	iP	18 16.1		d	
		i	26.7		d	
	FRE	eP	30			
	MIN	eP	21.5			
	REN	eP	26.6			
	SHS	eP	21			
Jan. 17	MHC	iP	23 24 55.3		d	

1961			h.	m.	s.		
Jan. 17	REN	eP		25	11.1		
(Cont.)	SHS	eP		24	46		
Jan. 18	MHC	iP	15	21	59.9	c	USCGS: 24.5°S, 176.3°W, 0 = 15 09 47.3.
	MIN	eP		22	10.0		Tonga Islands region. h about 25 km.
Jan. 18	SHS	eP	20	00	49		USCGS: 61.7°N, 150.4°W, 0 = 19 55 12.8.
							Southern Alaska. h about 150 km.
Jan. 19	MHC	eP	04	33	50.2	d	USCGS: 14.4°S, 166.7°E, 0 = 04 21 16.0.
	MIN	e(P)		34	07		New Hebrides Islands region.
	SHS	eP		33	56		h about 26 km.
							PAL: Magnitude 6.
Jan. 19	MHC	eP	06	07	11.6	c	USCGS: 21.6°S, 170.3°E, 0 = 05 54 25.5.
	FRE	e(P)			17		Loyalty Islands. h about 100 km.
	MIN	eP			28		
	REN	e(P)			33.1		
	SHS	eP			23		
Jan. 19	BRK	(e)P	17	32	12		USCGS: 49.9°N, 155.8°E, 0 = 17 22 16.9.
	BRX	eRZ			49		Kurile Islands. h about 31 km.
	MHC	eP		32	09.8	d	PAL: Magnitude $5\frac{1}{4}$ - $5\frac{1}{2}$.
		i			20.4	c	
	FRE	e(P)			21		
		e			34		
	MIN	iP		31	52.5	c	
	ARC	eP			47.5		
	REN	eP		32	09.6		
	SHS	eP		31	54		
		e		32	04		
	VIN	e(P)			14		
Jan. 19	MIN	eP	20	59	48.4	c	
	SHS	eP			43		
Jan. 20	MIN	iP	01	02	31.1	d	USCGS: 56.7°N, 152.1°W, 0 = 00 56 59.7.
	REN	eP			42.9		Near Kodiak Island, Alaska.
	SHS	iP			23.6	d	h about 55 km.
Jan. 20	SHS	eP	01	06	54		
Jan. 20	BRK	(e)P	01	56	34		USCGS: 20.2°N, 108.8°W, 0 = 01 51 53.2.
	BRX	iSNE	02	00.7		SW	Off coast of Jalisco, Mexico.
		eRNZ		02			h about 84 km.
	MHC	eP	01	56	28.3	c	PAL: Magnitude $4\frac{3}{4}$.
	FRE	eP			12		
	REN	eP			40.8		
	SHS	eP		57	02		
Jan. 20	MIN	iP	05	28	44.3	c	USCGS: 56.6°N, 152.0°W, 0 = 05 23 16.1.
	REN	eP			59.1		Near Kodiak Island, Alaska.
	SHS	iP			39.5	d	h about 58 km.
Jan. 20	MHC	eP	08	57	12.7	c	USCGS: 61.9°N, 155.7°W, 0 = 08 50 50.5.
	MIN	iP		56	50.1	d	Southern Alaska. h about 82 km.
	REN	eP		57	03.9		
	SHS	e(P)		56	45.2		
Jan. 20	SHS	eP	13	38	36.5		USCGS: 56.7°N, 152.2°W, 0 = 13 33 12.8.
							Near Kodiak Island, Alaska.
							h about 44 km.
Jan. 20	BRK	eP	17	15	00.4	(d)	USCGS: 56.6°N, 152.3°W, 0 = 17 09 15.7.
	BRX	iSE		19	44		Near Kodiak Island, Alaska.

1961			h.	m.	s.		
Jan. 20		iNE		21.2			h about 46 km.
(Cont.)		eRNEZ		22.0			PAS: Magnitude $6\frac{1}{4}$ - $6\frac{1}{2}$.
	MHC	iP		15	06.1	d	
	FRE	iP			19.2	d	
	MIN	iP		14	44.5	d	
	ARC	iP			32.5	c	
	REN	iP		15	00.5	d	
	SHS	iP		14	40.2	d	
	RU	iP		15	25		
Jan. 20	MIN	e	19	49	59.3	d	
	SHS	eP		48	52		
Jan. 20	SHS	eP	21	36	32		USCGS: 57.0°N, 152.1°W, 0 = 21 31 08.7.
							Near Kodiak Island, Alaska.
							h about 43 km.
Jan. 20	MIN	eP	21	42	58.7	d	USCGS: 56.7°N, 153.1°W, 0 = 21 37 23.4.
	ARC	i(P)			56.1	c	Near Kodiak Island, Alaska.
	SHS	eP			54		h about 14 km.
Jan. 20	REN	eP	22	46	28.2		USCGS: 38.3°N, 141.2°E, 0 = 22 34 51.1.
	SHS	eP			04		Near east coast of Honshu, Japan.
							h about 52 km.
Jan. 21	SHS	eP	06	25	21		
Jan. 21	MIN	eP	13	24	54.8	d	USCGS: 56.5°N, 152.1°W, 0 = 13 19 28.2.
	SHS	eP			50		Near Kodiak Island, Alaska.
							h about 63 km.
Jan. 21	BRK	iP	14	56	20.2	c	USCGS: 8.7°N, 82.8°W, 0 = 14 47 57.0.
	MHC	iP			16.5	d	Costa Rica. Panama border region.
	FRE	eP			03		h about 40 km.
	MIN	eP			26.8	d	
	REN	eP			15.9		
Jan. 22	BRX	ePEZ	03	36	32		USCGS: 12.0°S, 166.2°E, 0 = 03 24 04.5.
		iSNE		46	56		Santa Cruz Islands. h about 25 km.
		ePPSNE		48	.0		Magnitude $6\frac{1}{2}$.
		eSSEZ		52	.0		
		iGN		58	.4		
		iREZ	04	01	.6		
			R from WSW				
			mu		sec		
		PZ	4.0		15		
		PH	1.5		24		
		SH	13		26		
		MaxZ	53		19		
		MaxH	120		18		
	MHC	eP	03	36	39		
	FRE	eP			35		
	MIN	eP			47.4	c	
	REN	iP			50.6	c	
	SHS	eP			38.0		
	VIN	e(P)			49		
	RU	eP		37	02		
		eR	04	04	44		
Jan. 22	BRK	eP	16	21	53.7	d	USCGS: 28.7°S, 174.8°W, 0 = 16 09 37.3.
	BRX	eR			50.0		Kermadec Islands. h about 68 km.

1961			h. m. s.			
Jan. 22			R from SW			
(Cont.)	MHC	iP	16 21 55.2	d		
	FRE	iP	58.6	d		
	MIN	eP	22 05.4	c		
		i	16.4			
	REN	iP	08.4	c		
	SHS	eP	05			
		e	15			
Jan. 23	BRK	iP	04 59 13.3	c	USCGS: 43.1°N, 145.3°E, 0 = 04 48 21.4.	
	MHC	iP	18.1	d	Kurile Islands. h about 46 km.	
	FRE	eP	23			
	MIN	iP	06.1	d		
	REN	eP	17.3			
	SHS	iP	04.7	d		
Jan. 23	MIN	iP	14 30 07.2	c		
	SHS	eP	02			
Jan. 24	MIN	eP	06 19 26.8	d		
Jan. 24	BRK	iP	07 37 19.1	d	USCGS: 15.7°S, 167.7°E, 0 = 07 24 59.9.	
		i	51.4	c	New Hebrides Islands region.	
		e(PP)	40 35		h about 142 km.	
	BRX	eE	39.5			
		eE	50.7			
		e(G)N	59.8			
		eE	08 01.4			
	MHC	iP	07 37 20.5	d		
		i	51.9	d		
	MIN	eP	25.3	c		
		i	58.7	c		
	REN	iP	31.6	d		
		i	38 04.3			
	SHS	eP	37 23.5			
		e	56.8			
	VIN	eP	04.8			
		e	53			
	RU	e(P)	48			
		eR	08 06.2			
	CNC	eP	07 37 19			
Jan. 24	ARC	eP	14 39 29.5			
	SHS	eP	44.7			
Jan. 24	BRK	eP	23 21 10	(c)	USCGS: 8.4°N, 82.9°W, 0 = 23 12 49.0.	
		i	19.2	c	Panama - Costa Rica border.	
	MHC	iP	05.6	c	h about 78 km.	
		i	43.9	d		
	FRE	eP	20 53			
	MIN	eP	21 16			
	ARC	iP	31.1	c		
	REN	eP	05.5			
	SHS	eP	20.2			
	CNC	eP	10			
	PAC	iP	09.0	c		
Jan. 25	BRK	eP	05 33 59		USCGS: 14.0°S, 165.9°E, 0 = 05 21 25.4.	
	BRX	eSNZ	44.5		New Hebrides Islands region.	

1961			h. m. s.			
Jan. 25		eGN	55.9		h about 21 km.	
(Cont.)		eR	59.9		PAL: Magnitude 5½.	
			R from WSW			
	MHC	iP	05 34 03.4	d		
	FRE	eP	33 10			
	MIN	eP	34 08.0	c		
	REN	iP	13.6	d		
	SHS	eP	04.7			
Jan. 25	REN	eP	07 22 30.2			
Jan. 25	MIN	iP	19 13 56.2		USCGS: 50.0°N, 156.0°E, 0 = 19 04 22.8.	
	REN	eP	14 17.2		Kurile Islands. h about 98 km.	
	SHS	eP	13 52.1			
Jan. 26	MHC	iP	13 25 04.2	c	USCGS: 21.4°S, 169.5°E, 0 = 13 12 22.6.	
	MIN	eP	09.1	d	Loyalty Islands region.	
	REN	e(P)	26.3		h about 77 km.	
	SHS	eP	10			
Jan. 26	BRX	iPEZ	16 26 02	Ec	USCGS: 21.5°S, 169.5°E, 0 = 16 13 25.1.	
		ePP	29.8		Loyalty Islands region.	
		iSNE	36.6	SW	h about 119 km.	
		ePSNE	37.7		Magnitude 6 - 6¼.	
		iSS	42.2			
		iSSS	46.2			
		eGN	49.3			
		iREZ	53.3			
			R from SW			
			mu sec			
		PZ	1.8 15			
		PPZ	1.1 12			
		SH	4.5 26			
		MaxH	7.2 16			
		MaxZ	5.7 18			
	MHC	iP	16 26 05.6	d		
	FRE	eP	08			
	MIN	iP	09.6	c		
	REN	eP	20.7			
	SHS	e(P)	08			
	RU	eP	31	c		
		e(S)	37 09			
		eR	57 27			
	CNC	eP	26 05			
Jan. 26	BRK	eP	19 01 34		USCGS: 20.8°S, 169.5°E, 0 = 18 48 56.9.	
	BRX	iR	29.6		Loyalty Islands region.	
			R from SW		h about 106 km.	
	MHC	iP	19 01 35.5	c		
	FRE	eP	40.5			
	MIN	eP	41.0	c		
	SHS	eP	40.3			
	CNC	iP	36.4	d		
Jan. 27	BRK	iP	01 05 08.4	c	USCGS: 6.6°S, 154.7°E, 0 = 00 52 20.5.	
	MHC	iP	11.0	c	Solomon Islands. Felt: Rabaul.	
	FRE	eP	18		h about 59 km.	
	MIN	eP	13.7	c		

1961			h.	m.	s.		
Jan. 27	REN	iP			18.8	c	
(Cont.)	SHS	eP		04	10.6		
Jan. 27	MIN	eP	14	08	14.5	d	USCGS: 5.0°S, 151.2°E, 0 = 13 55 13.0. New Ireland region. Felt: Rabaul. H about 66 km.
Jan. 27	MHC	eP	14	59	36.0	c	USCGS: 21.3°S, 169.3°E, 0 = 14 46 52.5. Loyalty Islands region. h about 72 km.
	FRE	e(P)			38.5		
	MIN	eP			42.7	d	
	REN	eP			46.7		
	SHS	eP			41.1		
Jan. 27	MHC	eP	15	18	35.8	c	USCGS: 21.3°S, 169.4°E, 0 = 15 05 53.5. Loyalty Islands region. h about 68 km.
	MIN	eP			42.9		
	REN	eP			48.6		
	SHS	eP			41		
Jan. 27	BRK	iP	15	23	26.1	d	
	MHC	iP			26.9	c	
	FRE	eP			30		
	MIN	eP			35.5	d	
	REN	eP			38.9		
	SHS	iP			34.8	d	
Jan. 27	SHS	eP	20	17	13		USCGS: 45.6°N, 149.3°E, 0 = 20 07 00.4. Kurile Islands. h about 60 km.
Jan. 28	MHC	eP	02	04	10.8	c	
	MIN	eP		03	39.3		
	COR	iP			12.3	c	
	SHS	e(P)			46		
Jan. 28	BRK	e	03	35	44		USCGS: 13.6°S, 76.3°W, 0 = 03 24 46.9. Near coast of Peru. Felt: Lima. h about 86 km.
		i			49	c	PAL: Magnitude 5.
	BRX	eSE		44	23		
		eNEZ			49.0		
		eQN			53.6		
		eRNEZ			57.9		
	MHC	eP		35	28.9	c	
		i			44.5	d	
	FRE	eP			35		
	MIN	eP			41.4	c	
		i			56.2		
	ARC	e		36	08.2		
	REN	eP		35	33.4		
		i			49.2		
	COR	eP		36	04.3		
		i			20.3		
	SHS	eP			46		
		e			60		
	VIN	e			42		
	RU	eP		35	26	d	
		eSNZ		43	48		
		eR		56	34		
Jan. 28	BRK	eP	05	25	34		
	MHC	eP			32.9	d	
	FRE	eP			44		
	MIN	eP			19.0	d	

1961			h.	m.	s.		
Jan. 28		e			45.2	d	
(Cont.)	REN	eP			50.8		
	SHS	e			45		
Jan. 28	CNC	iP	08	13	46.9	(d)	USCGS: 35.5°N, 118.1°W, 0 = 08 12 45.3. Kern County, California. Felt: Bakersfield, China Lake, Los Angeles, Mojave. h about 21 km. Magnitude 5½.
		i			48.2	d	
	BRK	iP			47.1	c	
		i			48.3	c	
		eSE		14	37.6		
		iN			49.7		
	MHC	iP		13	37.6	c	
		iN		14	24.0		
		iE			27.4		
	MIN	eP			08.8	c	
		i			12.6	c	
		iSN		15	22.4		
		iE			22.7		
	SHS	eP		14	20		
		eZ			40		
	PAC	iP		13	43.2	c	
		iN		14	47.7		
		iE			50.0		
	FRE	iP		13	16.7		
		eNZ			31		
	VIN	iP			32.7	c	
		eNZ		14	13		
	RU	eP		13	55	c	
	REN	iP			52.8		
		iZ		14	0.7		
		iZ			21.7		
		iZ			53.0		
Jan. 28	BRK	iP	14	18	41.6	c	USCGS: 45.1°S, 106.4°W, 0 = 14 06 12.6. South Pacific Ocean about 1200 miles south of Easter Island. h about 25 km.
	BRX	eRNEZ	15	00	.5		
	MHC	iP	14	18	38.4	c	
		i			49.6	c	
	FRE	eP			35.1		
	MIN	eP			52.5	d	
	REN	iP			48.4	c	
	COR	eP		19	14.6		
	SHS	eP		18	55		
	VIN	eP			36		
	CNC	eP			41.9	c	
Jan. 28	MHC	iP	14	34	36.2	c	
	REN	eP			47.1		
	SHS	eP			40		
Jan. 28	MHC	eP	14	47	32.4	c	USCGS: 13.8°S, 165.8°E, 0 = 14 34 56.1. New Hebrides Islands region. h about 128 km.
	MIN	eP			31.8		
	SHS	e(P)			26		
Jan. 28	BRK	eP	19	55	46		USCGS: 21.4°S, 169.5°E, 0 = 19 43 01.4. Loyalty Islands region. h about 50 km.
	BRX	eN	20	06	18		PAS: Magnitude 6¼.
		eGNE		19	.0		
		eRNEZ		24			
		R from SW					

1961			h.	m.	s.		
Jan. 28	MHC	eP	19	55	46.2	d	
(Cont.)	FRE	eP			52		
	MIN	eP			52.3	c	
	REN	eP		56	00		
	COR	e(P)			15.1		
	SHS	eP		55	52		
	VIN	e(P)			40		
	RU	eP		56	12		
		eSN	20	07	18		
Jan. 29	REN	e(P)	01	03	34.0		USCGS: 14.0°S, 165.9°E, 0 = 00 50 35.0. New Hebrides Islands region. h about 123 km.
	SHS	eP			02		
Jan. 29	MHC	iP	03	29	34.7	c	
Jan. 29	BRK	eP	13	31	40.0	c	USCGS: 52.0°N, 175.9°W, 0 = 13 23 54.7. Andreanof Islands, Aleutian Islands. h about 41 km.
	BRX	eR		42			
			R from NW				
	MHC	iP	13	31	33.0	d	
		i			46.7	d	
		i		33	35.1	d	
	FRE	e(P)		31	43.5		
		e			59		
	MIN	eP			18.3	c	
		i			31.5	c	
	REN	eP			32.1		
		i			45.1		
	COR	eP		30	51.0		
		i		31	03.7		
	SHS	iP			13.3	d	
		e			27		
	VIN	eP			38		
		e			53		
	CNC	eP			40		
Jan. 30	COR	eP	05	34	13.5		
	SHS	iP			43	d	
Jan. 30	BRK	iP	12	19	06.3		USCGS: 65.3°N, 149.9°W, 0 = 12 12 39.7. Central Alaska. Felt. h about 34 km.
	MHC	iP			12.6	c	
	FRE	eP			25		
	MIN	iP		18	47.3	d	PAL: Magnitude 5½.
	REN	eP		19	00		
	COR	iP		18	10.8	c	
	SHS	eP			42		
	VIN	eP		19	18		
Jan. 31	BRX	eP	00	54	19	d	USCGS: 56.0°N, 153.9°W, 0 = 00 48 36.5. Near Kodiak Island, Alaska. h about 26 km. Magnitude 6.
		i			26	d	
		iSNE		59	13		
		eRNEZ	01	01.5			
				mu	sec		
		MaxH	15		20		
		PZ	6.5		14		
		SH	11		13		
	MIN	iP	00	54	12.8	d	
	REN	iP			26.7	d	

1961			h.	m.	s.		
Jan. 31	COR	iP		53	34.0	c	
(Cont.)	SHS	eP		54	07.5	d	
Jan. 31	FRE	eP	06	26	15		USCGS: 17.2°S, 166.8°E, 0 = 06 13 15.2. New Hebrides Islands. h about 60 km.
Jan. 31	MIN	eP	18	39	54.9	c	USCGS: 51.6°N, 178.4°W, 0 = 18 32 19.5. Andreanof Islands, Aleutian Islands. h about 53 km.
	REN	eP		40	19.3		
	COR	iP		39	27.2	d	
	SHS	iP			50.2	c	
Jan. 31	BRK	iP	21	42	14.0	d	
	MIN	eP			36.4		
	REN	iP			16.4	c	
	SHS	eP			43		
Jan. 31	BRK	iP	22	39	10.6	c	
	MIN	e(P)			06.2	c	
	SHS	eP			04		
Feb. 1	MHC	iP	00	39	23.2	d	USCGS: 50.3°N, 129.9°W, 0 = 00 36 57.2. Vancouver Island region. h about 23 km.
	FRE	eP			34		
	MIN	eP		38	42.6	c	
	REN	iP		39	02.0	c	PAL: Magnitude 5½.
	COR	eP		37	45.0		
	SHS	eP		38	36		
	RU	eP		39	32	c	
Feb. 1	MHC	eP	05	06	21.4		USCGS: 11.9°N, 143.9°E, 0 = 04 53 41.1. Mariana Islands region. h about 58 km.
	MIN	eP			18.9	d	
	REN	e(P)			28.7		
	SHS	eP			16		
Feb. 1	MHC	e	07	51	02		
	FRE	e			18		
	MIN	eP		50	26.8	d	
	REN	iP			47.0	c	
	COR	eP		49	41.8		
	SHS	eP		50	19		
Feb. 1	BRK	iP	20	20	09.3	c	USCGS: 18.1°S, 178.4°W, 0 = 20 09 14.1. Fiji Islands. h about 601 km.
	MIN	iP			19.7	d	
	SHS	iP			18	d	
Feb. 2	CNC	eP	00	05	02.5		37° 27'N, 118° 38'W, 0 = 00 04 16 Northwest of Bishop. h about 25 km. USCGS felt report: So. Mono Co., Dyer, Nev., Taft, Hanford, Fresno, O'Neals and Wishon. Magnitude 5.3.
		e(S)			42		
	BRK	iP			04.1	c	
		i(P*)NE			12.0	SW	
		eSE			41.9		
	MHC	iPEZ	00	04	57.8	c	
		iE		05	30.1		
		iN			33.3		
	MIN	iP			16.5	c	
	SHS	eP			25	c	
	PAC	iP			03.1	c	
	REN	iP		04	54.9	d	
	VIN	iP			56	c	
		e(S)N		05	28		
	ARC	iP			58.9	c	
		e(S)N		07	12.4		

1961			h.	m.	s.		
Feb. 2	FRE	iP		04	40.5		
(Cont.)	COR	eP		06	18.7		
Feb. 2	CNC	eP	00	08	29.9		37° 25'N, 118° 40'W, 0 = 00 07 42. Northwest of Bishop. Magnitude 5.1. Aftershock of 0004.
	BRK	iP			30.3		
		i(P*)E			39.0		
		eSE		09	08.0		
	MHC	iP		08	24.2	c	
		iN			26.4		
		iSE			56.5		
	MIN	iP			43.6	c	
		iSNE		09	32		
	PAC	iP		08	29.8		
		iNE			31.3		
		iSE		09	06.7		
	VIN	eP*E		08	24		
	ARC	e		09	30.0		
	FRE	eP		08	05		
	COR	i(P)N		09	55.9		
	REN	iPNEZ		08	19.4	c	
Feb. 2	MHC	eP	05	52	37.6	c	USCGS: 47.0°N, 121.5°W, 0 = 05 50 18.4. Washington. h about 40 km.
	MIN	eP		51	55.9	c	
	REN	eP		52	13.8		
	COR	iP		50	57.8	c	
	SHS	eP		51	52		
	VIN	eP		52	46		
Feb. 2	BRK	iP	11	25	53.8	d	USCGS: 13.7°N, 144.9°E, 0 = 11 13 31.3. Mariana Islands. Felt: Guam. h about 139 km.
		e		26	21.8		
		e			44		
	MHC	iP		25	57.0	d	
		i		26	23.8		
	FRE	eP			05		
	MIN	iP		25	52.9	d	
	REN	iP		26	01.1	(d)	
	COR	iP		25	42.6	d	
	SHS	eP			50		
	VIN	iP			59.0	d	
	CNC	eP			54		
	PAC	iP			54.6	d	
Feb. 3	MHC	eP	13	43	26	d	USCGS: 36.6°N, 141.0°E, 0 = 13 31 44.7. Near east coast of Honshu, Japan. Felt. h about 103 km.
	MIN	e			05		
	REN	eP			27		
	SHS	eP			02		
Feb. 4	BRK	iP	01	24	31.5	d	USCGS: 18.3°S, 69.5°W, 0 = 01 13 07.0. Northern Chile. Felt: Arequipa, Peru. h about 158 km.
		epP		25	01		
	MHC	iP		24	27.4	d	
		ipP			57.0	c	
	FRE	eP			18		
	MIN	eP			36.6	d	
		i			56.8	d	
	REN	iP			29.6	d	
	COR	iP			58.0	d	
	SHS	iP			40.2	d	

1961			h.	m.	s.		
Feb. 4	VIN	iP			25.4	d	
(Cont.)	RU	eR		48.	7		
	CNC	eP		24	31.0	d	
		epP		25	00		
	PAC	iP		24	27.9	d	
Feb. 4	MHC	e(P)	06	56	07	d	
	MIN	e			21		
	REN	e(P)			12		
	SHS	e(P)			27		
Feb. 4	MIN	e(PP)	09	10	04		USCGS: 24.8°N, 95.3°E, 0 = 08 51 48.6. Northern Burma. h about 135 km.
	REN	e(PP)			27		
	SHS	e			26		
	RU	e		20	04		
Feb. 4	BRK	eP	12	59	08.0	(d)	USCGS: 49.9°N, 156.3°E, 0 = 12 49 33.8. Kamchatka. h about 145 km.
	MHC	iP			12.9	d	
		i	13	00	04.0	c	
	FRE	iP	12	59	23.7	d	
	MIN	iP		58	59.4	d	
		ipP		59	22.2	c	
	REN	iP			11.4	d	
	SHS	iP		58	55.2	d	
	VIN	eP		59	17		
	CNC	eP			09		
Feb. 4	MHC	eP	15	36	51		
		i		37	08.9	c	
	FRE	eP		36	55		
	MIN	eP		37	12.6	d	
		e		41	03		
	REN	iP		37	06.7	d	
	SHS	eP			15		
	VIN	eP			00		
Feb. 4	MHC	(e)P	19	22	41	d	USCGS: 24.2°N, 122.6°E, 0 = 19 09 14.1. Off east coast of Formosa. h about 31 km. PAL: Magnitude 5¾.
	MIN	eP			26	c	
		i			33	d	
	REN	eP			41.5		
	COR	iP			11.3	c	
	SHS	eP			24		
Feb. 5	BRK	iP	07	50	52.9	(d)	USCGS: 18.5°S, 177.9°W, 0 = 07 39 55.4. Fiji Islands. h about 580 km.
	MHC	iP			53.6	d	
	FRE	eP			58		
	MIN	iP		51	03.1	c	
	REN	iP			07.0	c	
	COR	eP			11.5		
	SHS	eP			01		
	CNC	eP		50	53.9		
Feb. 5	BRK	eP	15	47	00.5	c	USCGS: 8.0°N, 82.8°W, 0 = 15 38 34.0. South of Panama. Felt: Balboa Heights. h about 49 km. Magnitude 5¼ - 5½.
		e		48	36.2		
	BRX	eSN		53	56		
		eQNE	16	00			
		eR		04.	6		
				mu	sec		
		PZ		1.0	12		

1961			h.	m.	s.		
Feb. 5 (Cont.)		SH	1.6		20		
		MaxH	3.1		26		
	MHC	iP	15	46	51.5	d	
	FRE	eP			44		
	MIN	iP		47	07.5	d	
		epP			24.3		
	REN	iP		46	55.0	c	
	COR	iP		47	32.8	d	
	SHS	eP			11		
	VIN	e(P)		46	52		
	RU	eP			31	c	
		eSN		52	55		
	CNC	iP		47	01.7		
	PAC	iP		46	59.9	d	
Feb. 6	MHC	e(P)	06	39	45.8	d	USCGS: 21.1°S, 174.6°W, 0 = 06 27 49.6. Tonga Islands region.
	MIN	e			57		
Feb. 6	BRK	e	10	42	10		USCGS: 19.4°S, 69.2°W, 0 = 10 30 03.5.
	MHC	eP		41	34.8	d	Northern Chile. Felt: Arequipa,
	FRE	e			56		Peru. h about 120 km.
	MIN	eP			44.5	c	
		epP		42	15.3		
	REN	iP		41	37.3	c	
	SHS	eP			48		
	VIN	e		42	03		
	RU	e(R)	11	06.1			
	CNC	e	10	42	11		
Feb. 6	BRK	eP	12	19	49		USCGS: 51.7°N, 174.5°W, 0 = 12 12 21.8.
	MHC	iP			54.9	d	Andreanof Islands, Aleutian Islands.
	FRE	eP		20	08		h about 34 km.
	MIN	eP		19	39.7	c	PAL: Magnitude $5\frac{1}{4}$ - $5\frac{1}{2}$.
	REN	eP			53.6		
	COR	eP			12.8		
	SHS	eP			34		
	VIN	eP			59.5		
		epP		20	12		
	RU	eR			32.7		
Feb. 6	BRK	eP	18	26	01		USCGS: 44.9°N, 149.3°E, 0 = 18 15 23.4.
	MHC	eP			02.6	c	Kurile Islands. h about 33 km.
	FRE	eP			19		
	MIN	eP		25	45.5	c	
		e		26	06.6	c	
	REN	eP			02.9		
	COR	eP		25	23.2		
	SHS	eP			42		
Feb. 6	BRK	eP	19	41	37.5	c	USCGS: 4.7°S, 154.3°E, 0 = 19 29 30.1.
	MHC	e(P)			46.4	c	Solomon Islands region.
	FRE	eP			45		h about 400 km.
	MIN	eP			40	d	
	REN	iP			48.1	c	
	SHS	eP			38		
Feb. 6	MHC	iP	20	24	25.5	c	USCGS: 10.8°S, 161.8°E, 0 = 20 11 51.0.
		epP			45.5	d	Solomon Islands region.

1961			h.	m.	s.		
Feb. 6 (Cont.)	MIN	eP			29.1	c	h about 80 km.
Feb. 6	BRK	eP	21	58	01		USCGS: 6.8°S, 155.3°E, 0 = 21 45 13.5.
	BRX	iP			01	c	Solomon Islands. Felt.
		iSEZ	22	08	42		h about 59 km.
		iPS		09	46		Magnitude $6\frac{1}{2}$ - $6\frac{3}{4}$.
		eSS			14.6		
		eSSS			18.2		
		eQN			21.1		
		eREZ			24.8		
			R from W				
			mu		sec		
		PZ	3.6		7		
		MaxH	28		22		
		SH	4.5		14		
	MHC	iP	21	58	03.5	c	
		ipP			31.1	d	
		iPP	22	01	43.6		
	FRE	eP	21	58	07.1	d	
		e			10		
	MIN	iP			05.4	c	
	REN	iP			12.0	c	
	COR	e(P)			04.1		
	SHS	iP			03.1	c	
	RU	iP			29.4	c	
		eS	22	08	59		
	CNC	eP	21	58	04	c	
Feb. 7	BRX	eG	03	37	23		USCGS: 13.6°N, 89.9°W, 0 = 03 21 15.1.
	MHC	eP		28	13	c	Near coast of Guatemala. Felt.
	MIN	eP			26.9	d	h about 128 km.
	REN	eP			14.7		
	RU	eG			38.2		
Feb. 7	MIN	iP'	05	30	41.7	d	USCGS: 4.7°S, 103.0°E, 0 = 05 11 40.9.
	REN	eP'			46.2		Near coast of Sumatra. Felt:
	SHS	eP'			41		Palembang. h about 40 km.
Feb. 7	FRE	eP	06	11	50		USCGS: 49.1°N, 129.0°W, 0 = 06 08 30.6.
	MIN	iP		10	58.4	c	Vancouver Island region.
	REN	eP		11	19.2		h about 25 km.
	COR	eP		09	59.0		
	SHS	eP		10	50		
Feb. 7	SHS	eP	14	37	18		USCGS: 33.5°S, 72.3°W, 0 = 14 24 35.1. Near coast of Chile. Felt: Santiago and Valparaiso Provinces. h about 40 km.
Feb. 7	MIN	eP	21	12	13.8	d	USCGS: 44.1°N, 147.1°E, 0 = 21 01 37.3.
	REN	eP			24.6		Kurile Islands. h about 36 km.
	SHS	iP			09.1	d	
Feb. 7	BRK	eP	23	34	53	c	USCGS: 51.7°N, 177.1°W, 0 = 23 27 18.9.
	MHC	eP			58.3	c	Andreanof Islands, Aleutian Islands.
	FRE	eP		35	06.4		Felt: Adak. h about 60 km.
	MIN	eP		34	43	c	
	REN	iP			57.5	c	

1961			h.	m.	s.		
Feb. 7 (Cont.)	COR	eP			16		
	SHS	iP			38.5	c	
	RU	e(R)Z		48	31		
Feb. 8	BRK	eP	02	49	00.0	c	USCGS: 15.4°S, 167.5°E, 0 = 02 36 40.5. New Hebrides Islands region. h about 162 km.
	MHC	iP			01.2	c	
	MIN	eP			06.9	c	
	REN	eP			12.6		
	SHS	iP			05	c	
	RU	e(G)	03	17	42		
	CNC	eP	02	49	00.8		
Feb. 8	BRK	eP	08	14	15.7	d	USCGS: 10.4°S, 71.0°W, 0 = 08 04 13.4. Brazil-Peru border. h about 600 km. PAS: Magnitude 5¾.
		epP		16	18		
	BRX	eSNEZ		22	26		
	MHC	iP		14	11.7	d	
		ipP		16	11.6	d	
	FRE	eP		14	02		
	MIN	iP			21.5	c	
		epP		16	25.0		
	ARC	iP		14	33.5	d	
	REN	iP			13.2	c	
		ipP		16	17.2		
	SHS	eP		14	23		
		epP		16	24		
	VIN	iP		14	09.1	d	
		epP		16	12		
	RU	iP		13	54	d	
		iS		21	46		
	CNC	eP		14	15.4	d	
		epP		16	17		
	PAC	iP		14	14.4	c	
Feb. 8	MHC	i(P)	08	42	30.5		
	MIN	e(P)			21.9		
	RU	e			55		
Feb. 8	BRK	eP	12	11	31.2	d	USCGS: 18.9°S, 174.9°W, 0 = 11 59 52.3. Tonga Islands. h about 76 km.
	MHC	iP			31.4	c	
	FRE	eP			35		
	MIN	iP			41.9	d	
	REN	eP			46.1		
Feb. 8	BRK	iP	18	01	53.9	d	USCGS: 20.5°S, 178.1°W, 0 = 17 50 45.2. Fiji Islands region. h about 543 km.
	MHC	iP			54.5	c	
	FRE	iP			58.8	d	
	MIN	iP		02	04.4	c	
	REN	iP			07.8	c	
	SHS	eP			03		
	CNC	eP			01 55.0	d	
Feb. 9	BRK	iP	02	20	45.7	c	USCGS: 28.4°S, 177.4°W, 0 = 02 08 15.9. Kermadec Islands region. h about 37 km. PAS: Magnitude 6¼.
		i		21	03.1	c	
		ePP		24	00		
		iSN		31	07		
		eN			35.9		
		eSS			36.3		
		eR			46		

1961			h.	m.	s.		
Feb. 9 (Cont.)			R from SW				
			mu		sec		
		PZ	2.6		9		
		PPZ	0.75		10		
		SH	4.5		22		
		MaxH	9.8		24		
		MaxZ	4.9		23		
	MHC	iP	02	20	45.7	c	
		i			58.9	d	
		i		21	03.4		
	FRE	eP		20	48		
		e		21	52		
	MIN	iP		20	55.1	c	
		i		21	13.2	c	
	ARC	iP		20	52.0	d	
	REN	iP			58.0	c	
		i		21	16.0		
	SHS	iP		20	54.9	c	
	VIN	eP			44		
	RU	iP		21	10	c	
		e(S)EZ		31	41		
		eR		48	37		
	CNC	iP		20	46.6	c	
		epP		21	03		
		iPP		24	15		
Feb. 9	MHC	iP	02	38	01.6	c	
	MIN	eP			56	c	
Feb. 9	MHC	iP	09	16	22.9	c	USCGS: 10.1°S, 165.5°E, 0 = 09 04 05.0. Santa Cruz Islands. h about 83 km.
	FRE	eP			29		
	MIN	eP			28.3	d	
	REN	iP			33.2	c	
	SHS	eP			25.8		
Feb. 9	MHC	e	17	54	48		USCGS: 31.0°N, 115.6°W, 0 = 17 50 41.0. Baja California. h about 25 km.
	FRE	eP		52	38		PAS: Magnitude 4¾ - 5.
		e		53	51		
	MIN	e		55	58		
	REN	e			25		
Feb. 11	BRK	iP	06	23	51.5	c	USCGS: 28.9°N, 139.5°E, 0 = 06 12 29.8. South of Honshu, Japan. h about 400 km.
	MHC	iP			55.4	c	
	FRE	eP		24	04		
	MIN	eP		23	47.4	c	
	REN	iP			56.9	c	
	SHS	iP			44.5	c	
	RU	e		42	47		
	CNC	eP		23	52	c	
Feb. 11	MIN	eP	11	40	00.5	c	USCGS: 23.5°S, 66.8°W, 0 = 11 28 07.0. Jujuy Province, Argentina. h about 220 km.
	REN	i(P)		39	54.4	c	
	SHS	eP		40	03		
Feb. 11	BRK	iP	21	13	35.4	c	USCGS: 28.5°S, 177.5°W, 0 = 21 01 08.7. Kermadec Islands. h about 67 km.
	BRX	ePP			16.8		
		iSNZ			23.9	Sc	PAS: Magnitude 6¾.
		eGN			37		

1961			h. m. s.		
Feb. 11 (Cont.)		eREZ	39		
			R from SW		
			mu	sec	
		PZ	4.8	6	
		PPZ	3.2	6	
		SHN	4.0	14	
		MaxH	5.7	24	
		MaxZ	3.6	24	
	MHC	iP	21 13	35.8	c
		i		52.3	d
	FRE	iP		38.5	c
	MIN	iP		45.2	c
	REN	iP		48.2	c
	SHS	iP		45.0	c
	VIN	eP		35	
	RU	iP	14	01	c
		e(R)	41	28	
	CNC	iP	13	36.7	c
Feb. 11	MHC	iP	21 39	57.6	d
	FRE	e(P)		56	
	MIN	eP		52.1	c
	REN	e(P)		48.6	
	SHS	eP		53.5	
Feb. 11	MHC	iP	22 56	00.8	d
	REN	i(P)		03.8	c
Feb. 12	BRK	eP	01 30	56	
	MHC	iP		52.3	d
	MIN	e(P)	31	10	
	REN	iP		03.4	c
	SHS	e(P)		10	
Feb. 12	FRE	e	03 56	48	
	REN	e	57	34	
	RU	e	56	41	d
Feb. 12	MHC	eP	12 20	21.0	c
	MIN	eP		33.8	c
	SHS	eP		31.7	
Feb. 12	BRK	iP	13 08	28.7	d
		iPcP		39.3	d
	MHC	iP		30.2	d
		iPcP		40.6	c
	FRE	iP		35.6	d
	MIN	iP		35.8	c
		ePcP		47.0	c
	REN	iP		41.6	
		iPcP		52.0	
	SHS	iP		34.5	d
	VIN	iP		30.2	d
	CNC	eP		29.8	d
		ePcP		40.0	
Feb. 12	MIN	eP	14 00	02.0	c

USCGS: 24.4°S, 66.9°W, 0 = 22 44 07.2.
Salta Province, Argentina.
h about 169 km.

USCGS: 35.0°S, 106.9°W, 0 = 01 19 16.5.
Easter Islands region.
h about 25 km.

PAL: Magnitude 5.

USCGS: 31.3°N, 109.2°W, 0 = 03 51 14.0.
Mexico-Arizona border. Felt.
h about 25 km.

USCGS: 15.1°S, 175.2°W, 0 = 12 09 21.8.
Samoa Islands region.
h about 287 km.

USCGS: 13.2°S, 171.8°E, 0 = 12 57 15.3.
East of New Hebrides Islands region.
h about 598 km.

USCGS: 59.5°N, 150.1°W, 0 = 13 54 30.6.

1961			h. m. s.		
Feb. 12 (Cont.)					
Feb. 12	BRK	iP	22 04	24.1	c
		ePcP		56	
		ePP	06	41	
	BRX	iP	04	25	c
		iSNEZ		13.0	SEd
		iSSEZ		17.0	
		iGNZ		20.5	
		iR		23.5	
			R from NW		
			mu	sec	
		PZ	3.3	14	
		SH	27	30	
		MaxH	53	24	
		MaxZ	36	24	
	MHC	iP	22 04	28.6	d
		i		39.6	d
	FRE	eP		37.5	
		epP	05	08.5	
	MIN	eP	04	17.6	c
		i		33.2	c
	ARC	iP		06.6	c
	REN	iP		27.6	c
		ipP	05	01.0	
	SHS	eP	04	13.7	
	VIN	eP		31	
	RU	iP		48	c
		iSEN	13	49	
	PAC	iP	04	26.3	d
Feb. 12	BRK	iP	23 37	14.3	d
		e	38	31	
	MHC	iP	37	19.7	c
		i(pP)		34.3	
	FRE	eP		29.5	
	MIN	eP		07.9	d
	ARC	iP	36	59.5	d
	REN	eP	37	18.1	
	SHS	eP		04	
	VIN	eP		23	
Feb. 13	BRK	eP	06 56	55	
	BRX	iSN	07 06	.4	
		eGNE		14.9	
		eR		18.5	
			R from SW		
	MHC	iP	06 56	53.8	c
		ePP	59	54	
	FRE	eP	56	59.7	
	MIN	eP	57	05.7	c
	REN	iP		11.0	c
	SHS	eP		09	
	VIN	eP	56	54	

Kenai Peninsula, Alaska.
h about 79 km.
USCGS: 43.9°N, 147.6°E, 0 = 21 53 43.5.
Kurile Islands. h about 45 km.
PAS: Magnitude 6¾ - 7.

USCGS: 44.1°N, 147.7°E, 0 = 23 26 37.4.
Kurile Islands. h about 50 km.

USCGS: 17.1°S, 173.7°W, 0 = 06 45 25.0.
Tonga Islands region.
h about 43 km.
PAS: Magnitude 5¾.

1961			h. m. s.		
Feb. 13	RU	eP	57 29		
(Cont.)		eSN	07 07 28		
Feb. 13	BRK	iP	16 38 03.5	d	USCGS: 43.5°N, 147.9°E, 0 = 16 27 24.2.
	BRX	eSE	47.2		Kurile Islands. h about 64 km.
		eR	57		PAS: Magnitude 6 - 6¼.
			R from W		
	MHC	iP	16 38 07.7	c	
		i	21.1	c	
	FRE	iP	16.5	c	
	MIN	iP	37 56.3	c	
	REN	iP	38 06.7	c	
	SHS	iP	37 52.2	c	
	VIN	eP	38 10		
	RU	iP	28		
		e	47 55		
	CNC	eP	38 05	d	
Feb. 13	BRK	eP	22 47 54		USCGS: 44.0°N, 147.8°E, 0 = 22 37 13.8.
	MHC	eP	57.9	c	Kurile Islands. h about 50 km.
	MIN	iP	45.7	c	
	REN	iP	57.7	d	
	SHS	eP	42		
Feb. 14	MHC	iP	00 26 16.3	c	USCGS: 43.7°N, 147.6°E, 0 = 00 15 37.6.
	FRE	eP	29.9		Kurile Islands. h about 50 km.
	MIN	eP	09.1	c	
	REN	iP	19.5	d	
	SHS	eP	05	c	
Feb. 14	MHC	e(P)	03 02 02	c	USCGS: 43.8°N, 147.8°E, 0 = 02 51 09.7.
	MIN	eP	01 39.5	c	Kurile Islands. h about 50 km.
	REN	iP	02 02.9	d	
	SHS	eP	01 36		
Feb. 14	SHS	eP	03 26 04		USCGS: 43.8°N, 147.7°E, 0 = 03 15 30.3.
					Kurile Islands. h about 50 km.
Feb. 14	BRK	eP	03 32 44		USCGS: 43.8°N, 147.6°E, 0 = 03 22 06.6.
	BRX	eR	46		Kurile Islands. h about 50 km.
	MHC	iP	03 32 47.0	d	PAS: Magnitude 6 - 6¼.
		e	36 18		
	FRE	eP	32 57.4		
	MIN	eP	36.2	d	
		ePPP	36 44		
	REN	iP	47.5	c	
	SHS	eP	32 32		
	VIN	eP	49.4	d	
	RU	eP	33 07		
		e(S)N	42 09		
Feb. 14	BRK	eP	05 57 29.0		USCGS: 42.3°S, 74.2°W, 0 = 05 44 25.5.
	MHC	iP	25.9	c	Near coast of southern Chile. Felt:
	SHS	eP	38.1		Puerto Montt and Ancud.
					h about 40 km.
Feb. 14	MHC	eP	16 02 36.1	c	USCGS: 15.5°S, 175.1°W, 0 = 15 50 52.2.
	RU	e(R)	26 32		Samoa Islands region.
					h about 25 km.
Feb. 15	BRK	eP	02 22 00.0	d	USCGS: 22.3°S, 171.3°E, 0 = 02 09 26.4.

1961			h. m. s.		
Feb. 15	MHC	iP	00.8	d	Loyalty Islands region.
(Cont.)	MIN	eP	08.4	d	h about 128 km.
Feb. 15	MHC	eP	06 39 58.7	c	USCGS: 26.2°S, 177.5°W, 0 = 06 27 14.0.
	SHS	eP	40 08		Tonga Islands region.
					h about 150 km.
Feb. 15	BRK	eP	10 55 54		USCGS: 43.8°N, 147.4°E, 0 = 10 45 14.0.
	BRX	eP	54	c	Kurile Islands. h about 51 km.
		iSE	11 04 38	SE	PAS: Magnitude 6 - 6¼.
		eSSE	09.1	E	
		eGE	12.0		
		eR	15.0		
			R from NW		
			mu sec		
		PZ	1.6 16		
		PH	2.7 20		
		SH	3.1 24		
		MaxZ	4.6 24		
		MaxH	8.2 32		
	MHC	iP	10 55 58.2	c	
	FRE	eP	56 08		
	MIN	eP	55 47.6	d	
	REN	iP	58.7	d	
	SHS	eP	43		
	VIN	eP	56 02		
	RU	eP	17	c	
	CNC	eP	55 55		
	PAC	iP	56.9	d	
Feb. 16	BRK	iP	14 05 31.3	d	USCGS: 43.8°N, 147.4°E, 0 = 13 54 52.9.
	MHC	iP	35.3	c	Kurile Islands. h about 50 km.
		i(pP)	45.0	d	PAS: Magnitude 6 - 6¼.
	FRE	eP	45.0		
	MIN	iP	24.4	c	
		ipP	39.2	c	
	REN	iP	34.9	c	
	SHS	eP	18		
	RU	eP	06 01	(d)	
Feb. 17	BRK	iP	06 21 03.3	c	USCGS: 6.9°N, 73.1°W, 0 = 06 11 52.7.
	MHC	eP	20 58.9	c	Colombia. h about 159 km.
	MIN	eP	21 06.1	c	
	REN	iP	20 55.8	c	
	SHS	eP	21 10		
	VIN	eP	20 56		
Feb. 18	MHC	eP	01 14 58.6	c	USCGS: 44.4°N, 147.5°E, 0 = 01 04 07.2.
	MIN	eP	35.8	d	Kurile Islands. h about 50 km.
	REN	eP	58.9		
	SHS	eP	31		
Feb. 18	BRK	eP	12 18 21		USCGS: 22.7°S, 171.3°E, 0 = 12 05 36.3.
		e	32		Loyalty Islands region.
	BRX	eRNEZ	45.7		h about 38 km.
			R from SW		
	MHC	iP	12 18 22.0	c	
	FRE	eP	27		

1961			h.	m.	s.		
Feb. 18	MIN	eP			29.3	c	
(Cont.)	REN	eP			33.9		
	SHS	eP			25		
	VIN	eP			14		
Feb. 19	MIN	eP	08	01	09		USCGS: 56.2°N, 153.5°W, 0 = 07 55 26.6.
		e		03	58		Kodiak Island, Alaska.
	SHS	eP		00	54		h about 40 km.
Feb. 19	MIN	eP	12	16	50		USCGS: 56.3°N, 153.5°W, 0 = 12 11 15.7.
							Kodiak Island, Alaska.
							h about 39 km.
Feb. 19	MIN	eP	13	13	19.3	c	USCGS: 56.3°N, 153.4°W, 0 = 13 07 45.5.
	SHS	eP			14.3		Kodiak Island, Alaska.
							h about 44 km.
Feb. 20	BRK	iP	13	11	27.4	d	USCGS: 3.3°N, 96.5°W, 0 = 13 03 38.6.
	MHC	iP			20.9	c	Galapagos Islands region.
	MIN	iP		10	44.8	d	h about 25 km.
	REN	i(P)			59.4	c	
	SHS	eP			40		
	VIN	eP		11	16		
	RU	eR		20	52		
Feb. 20	BRK	iP	18	38	13.8	d	USCGS: 32.0°S, 68.1°W, 0 = 18 25 45.0.
		epP			45		San Juan Province, Argentina.
	MHC	iP			10.3	d	Felt: Mendoza. h about 120 km.
		i			26.1	d	
		ipP			42.7	c	
	FRE	eP			02		
	MIN	eP			19.5	d	
	ARC	iP			29.3	c	
	REN	iP			14.3		
	COR	iP			39.2	c	
	SHS	iP			22.5	d	
		epP			52		
	VIN	iP			07.8	d	
		epP			40		
	RU	iP			01	d	
	CNC	iP			14.2	d	
		epP			46		
		iSP			57		
Feb. 20	BRK	eP	22	36	50.0	d	USCGS: 2.4°S, 77.6°W, 0 = 22 26 59.1.
	MHC	iP			44.8	d	Ecuador. h about 25 km.
	FRE	eP			33		
	MIN	eP			55.2	c	
	ARC	iP		37	12.3	c	
	REN	iP		36	46.5	d	
	SHS	eP			59		
	RU	eP			25		
	CNC	eP			49		
Feb. 21	MIN	eP'	19	30	31.8	c	USCGS: 48.9°S, 106.5°E, 0 = 19 10 55.4.
	REN	eP'			40		Indian Ocean, southwest of Australia.
	COR	eP'			40.1		h about 25 km.
Feb. 22	MIN	eP	02	56	56.4	d	USCGS: 51.4°N, 179.9°E, 0 = 02 49 14.4.
	SHS	eP			50		Andreanof Islands, Aleutian Islands.

1961			h.	m.	s.		
							h about 50 km.
Feb. 22 (Cont.)							
Feb. 22	BRK	iP	22	06	00.4	c	USCGS: 28.6°S, 177.3°W, 0 = 21 53 33.8.
		ipP			16.5	c	Kermadec Islands region.
		i		07	17.9	c	h about 66 km.
	BRX	eSNZ			16.3		Magnitude 5¾.
		eRNZ			31.0		
					R from SW		
					mu	sec	
		SH			1.6	8	
		MaxH			3.3	18	
		MaxZ			2.0	18	
	MHC	iP	22	06	00.5	c	
		ipP			15.3	c	
	FRE	eP			03		
	MIN	eP			10.1	c	
		ipP			26.8	c	
	REN	iP			13.3	c	
		ipP			29.7		
	SHS	iP			09.3	c	
		epP			25		
	VIN	eP		05	59		
	RU	eP		06	26		
		eR		33	49		
Feb. 23	BRK	eP	04	27	37		USCGS: 38.4°N, 142.8°E, 0 = 04 16 24.3.
	BRX	eSNZ			36.7	Sd	Off north coast of Honshu, Japan.
		eN		46	15	N	Felt. h about 116 km.
	MHC	iP		27	43.5	c	PAL: Magnitude 5¾.
	FRE	eP			53		
	MIN	eP			31.5	c	
	REN	iP			44.0	c	
	SHS	eP			27		
	RU	eP		28	00		
		eNZ		37	36		
	CNC	eP		27	43		
Feb. 24	MHC	iP	03	17	15.9	c	USCGS: 26.2°N, 125.7°E, 0 = 03 04 16.1.
		i			24.8	c	Ryukyu Islands. h about 50 km.
	MIN	eP			08.4	c	
	ARC	eP		16	59.7		
	SHS	iP		17	05.5	c	
Feb. 25	BRK	iP	05	06	38.9	c	USCGS: 21.8°S, 179.6°W, 0 = 04 55 25.1.
	MHC	iP			39.2	c	Fiji Islands region.
	FRE	eP			43		h about 608 km.
	MIN	iP			48.3	d	
	REN	iP			51.5	c	
	SHS	i(P)			52.0	c	
	VIN	eP			39		
	CNC	eP			40		
Feb. 25	BRK	iP	08	35	57.2	c	USCGS: 23.6°S, 179.9°W, 0 = 08 24 32.0.
	MHC	iP			57.9	c	South of Fiji Islands region.
	FRE	eP		36	02		h about 563 km.
	MIN	eP			07.6	d	

1961			h.	m.	s.		
Feb. 25	REN	eP			10.8		
(Cont.)	SHS	iP			05.4		
	VIN	iP		35	56.9		
	CNC	eP			58		
Feb. 25	MIN	eP	11	35	17.8	c	
Feb. 25	BRK	eP	15	13	33		USCGS: 15.5°S, 175.8°W, 0 = 15 02 04.8.
	BRX	eSNE		23	07		Samoa Islands region.
		eQNE		32	.0		h about 62 km.
		eRNEZ		34	.8		
			R from SW				
			mu		sec		
		SH	0.9		15		
		MaxZ	1.6		32		
		MaxH	3.4		32		
	MHC	iP	15	13	34.0	c	
	FRE	eP			37		
	MIN	iP			43.8	c	
	REN	iP			48.4	c	
	SHS	eP			42		
	VIN	eP			32		
Feb. 26	BRK	eP	06	00	05.8	d	USCGS: 32.9°S, 111.2°W, 0 = 05 48 46.3.
	BRX	iSE		09	29		Easter Island region.
		iSNEZ			32	NW	h about 29 km.
		eSSNZ		13	.8		PAS: Magnitude 6½ - 6¾.
		iGE		19	11		
		eRNZ		22	.4		
			R from S				
			mu		sec		
		SH	1.8		12		
		GH	7.5		39		
		MaxH	8.3		25		
	MHC	iP	06	00	02.6	d	
	FRE	iP	05	59	57.1	d	
	MIN	eP	06	00	19.6	d	
	REN	iP			15.3	d	
	SHS	eP			22		
	VIN	eP	05	59	59		
	RU	eP	06	00	10		
		eS		09	37		
	CNC	eP		00	06	d	
Feb. 26	BRK	iP	18	23	10.5	c	USCGS: 31.6°N, 131.2°E, 0 = 18 10 48.7.
	BRX	ePP		26	26		Near coast of Kyushu, Japan.
		eSNE		33	14		1 killed, several injured, and
		eSSN		38	.8		extensive property damage at
		iGN		45	.3		Miyazaki. 3 ft. tsunami observed
		eREZ		49	.5		in southwest Shikoku.
			R from WNW				h about 54 km.
			mu		sec		PAS: Magnitude 7 - 7¼.
		PZ	18		10		
		PH	9.5		12		
		SH	62		13		
		PPZ	7.1		8		

1961			h.	m.	s.		
Feb. 26		MaxH	100		23		
(Cont.)	MHC	iP	18	23	14.3	c	
		ePP		26	30.6		
	FRE	iP		23	21.7	c	
	MIN	eP			04.8	c	
	ARC	iP		22	55.6	c	
	REN	iP		23	14.0	c	
	SHS	eP			01		
	VIN	eP			16		
	RU	eP			31	c	
	PAC	iP			11.0	c	
	SFB	eP			08		
Feb. 27	BRK	iP	01	17	02.6	d	USCGS: 6.7°N, 73.0°W, 0 = 01 07 51.3.
	MHC	iP		16	58.1	d	Colombia. h about 200 km.
	FRE	eP			44.3		
	MIN	iP		17	05.3	d	
		ePP		19	07.5	d	
	ARC	iP		17	20.1	c	
	REN	iP		16	54.9	d	
	SHS	iP		17	09.0	d	
	VIN	iP		16	54.5	d	
	CNC	iP		17	02.3	d	
Feb. 27	SHS	eP	01	23	25		
Feb. 27	BRK	eP	10	42	40.2	d	USCGS: 38.9°S, 72.4°W, 0 = 10 29 48.3.
	BRX	e(S)N		53	14		Southern Chile. Felt.
		eRNZ	11	11	.8		h about 57 km.
	MHC	iP	10	42	38.6	d	
	FRE	eP			33		
	MIN	eP			48.6		
	REN	e(P)			52		
	SHS	eP			49.5		
	RU	e(P)			38	(d)	
		eS		53	06		
	CNC	(e)P		42	41	c	
Feb. 27	BRK	eP	13	13	32		USCGS: 52.7°N, 168.8°W, 0 = 13 06 35.8.
	MHC	iP			40.9	c	Fox Islands, Aleutian Islands.
	FRE	eP			47.0		h about 56 km.
	MIN	eP			18.6	c	
	ARC	(e)(P)			14	c	
	REN	eP			34.1		
	SHS	eP			12		
	VIN	eP			46.0		
Feb. 28	BRK	eP	21	30	26.3	d	USCGS: 24.2°S, 68.1°W, 0 = 21 18 28.7.
	MHC	iP			23.3	c	Northern Chile-Argentine border.
	FRE	eP			13.6		h about 130 km.
	MIN	eP			32.1	d	
	REN	iP			26.2	c	
	SHS	eP			35		
	VIN	eP			20		
	CNC	eP			26.3	d	
Mar. 1	MHC	iP	00	36	03.6	c	USCGS: 13.3°N, 143.2°E, 0 = 00 23 42.5.
	MIN	e(P)		35	55		Mariana Islands region.

1961			h. m. s.		
Mar. 1	SHS	eP	57		h about 221 km.
(Cont.)					
Mar. 1	MHC	eP	19 38 37.5	d	USCGS: 13.8°N, 146.2°E, 0 = 19 26 13.5.
	MIN	iP	38.6	c	Mariana Islands. h about 73 km.
	SHS	eP	32		
Mar. 1	MHC	eP	23 50 16.7	d	USCGS: 2.8°S, 105.7°W, 0 = 23 42 43.8.
	MIN	eP	51 00.0		About 900 miles west of Galapagos
	REN	eP	50 55.1		Islands. h about 59 km.
	SHS	e	51 08		
Mar. 2	SHS	iP	00 13 28	c	
Mar. 2	BRX	eSN	15 33.9		USCGS: 4.7°S, 106.3°W, 0 = 15 18 54.3.
		eR	39		About 1000 miles west of Galapagos
	MHC	e	27 02		Islands. h about 25 km.
	MIN	eP	28 28.8	c	
	REN	eP	27 20.8		
	SHS	eP	32		
Mar. 3	MIN	eP	02 17 49.0	c	
Mar. 3	BRK	eP	06 38 29		USCGS: 23.0°S, 171.4°E, 0 = 06 25 37.9.
	MHC	eP	25.1	d	Loyalty Islands region.
	FRE	eP	30		h about 27 km.
	MIN	eP	32.6	d	
	REN	eP	37.8		
	SHS	eP	31.7		
Mar. 4	BRK	eP	10 31 21		USCGS: 20.4°S, 67.5°W, 0 = 10 19 33.7.
		epP	51		Near Chile-Bolivia border.
	MHC	iP	17.1	d	h about 109 km.
		ipP	45.8	d	
	MIN	eP	26.5	d	
		i(PcP)	35.6	c	
	REN	iP	19.7	c	
	SHS	iP	29.9	d	
		epP	32 00		
	CNC	eP	31 21		
		epP	51		
Mar. 4	MHC	iP	21 16 33.1	d	USCGS: 12.7°N, 88.0°W, 0 = 21 09 09.9.
		ipP	48.1	d	Near coast of El Salvador.
	MIN	eP	45	d	h about 85 km.
	REN	eP	33.9		
Mar. 4	MIN	eP	22 37 16.6	c	USCGS: 37.8°N, 141.6°E, 0 = 22 26 01.2.
	SHS	eP	13.5		Near coast of Honshu, Japan.
					h about 61 km.
Mar. 5	BRK	iP	01 38 59.7	c	USCGS: 10.7°S, 161.6°E, 0 = 01 26 26.1.
	BRX	eSE	49 29		Solomon Islands region.
		e(SS)NE	55.3		h about 99 km.
		eREZ	02 05.0		PAS: Magnitude $6\frac{1}{4}$.
			R from W		
	MHC	iP	01 39 02.0	c	
		i	12.5	d	
		ePP	42 21.6		
	FRE	eP	39 07		
	MIN	eP	05.2	c	
		i	26.5	c	

1961			h. m. s.		
Mar. 5	REN	iP	11.4	c	
(Cont.)		i	22.5		
	SHS	iP	03.7	d	
	VIN	eP	02		
	CNC	eP	00.6	c	
	PAC	iP	00.2	d	
		i	10.3	c	
	SFB	eP	38 59		
Mar. 5	BRK	eP	21 37 49		USCGS: 21.0°S, 176.6°W, 0 = 21 26 23.6.
	MHC	eP	51		Tonga Islands. h about 300 km.
	FRE	eP	53		
		e	38 39		
	MIN	eP	37 58.7	c	
	SHS	iP	58.3	c	
Mar. 7	BRK	iP	10 23 01.9		USCGS: 28.3°S, 175.7°W, 0 = 10 10 38.9.
		e	25 17		Kermadec Islands region.
		ePP	26 12		h about 43 km.
		eR	49.5		PAS: Magnitude $7\frac{1}{4}$ - $7\frac{1}{2}$.
	BRX	iSN	33 29	S	
		iSSN	38.2		
		iSSSNE	42.0		
			mu	sec	
		PZ	17	12	
		PH	8.2	12	
		SHN	45	24	
		MaxH	140	17	
	MHC	iP	10 23 02.6	d	
	FRE	iP	05.4	d	
	MIN	iP	12.0	d	
		ipP	46.3	d	
	ARC	iP	11.3	d	
	REN	iP	14.9	d	
		i	39.7		
	COR	iP	25.6	c	
	SHS	iP	12.0	d	
	VIN	eP	00		
	RU	iP	29	d	
	CNC	iP	03.8	d	
		ePP	26 15		
	PAC	iP	23 01.3	d	
	SFB	eP	01		
Mar. 7	MIN	eP	10 41 02.2	c	
Mar. 7	MHC	iP	10 49 40.1	d	
	MIN	eP	18.2		
	REN	e	30.1		
	SHS	e	31		
Mar. 7	FRE	e(P)	19 28 50		USCGS: 38.4°S, 78.1°E, 0 = 19 08 36.1.
	REN	iP	51.4	d	Indian Ocean. h about 30 km.
	SHS	e	29 34		PAS: Magnitude 6.
Mar. 7	COR	e(P)	20 01 49		USCGS: 28.0°S, 176.0°W, 0 = 19 48 41.5.
	SHS	eP	15		Kermadec Islands region.
					h about 50 km.

1961			h. m. s.		
Mar. 7	FRE	e	23 25 12		USCGS: 4.7°S, 153.2°E, 0 = 23 11 59.6.
	SHS	eP	24 50		New Britian region. Felt. h about 90 km.
Mar. 8	MHC	eP	00 24 37	c	USCGS: 52.7°N, 164.7°W, 0 = 00 17 58.9.
	MIN	e(P)	21		Unimak Island, Aleutian Islands.
	REN	iP	35.8	c	h about 34 km.
	SHS	iP	16.4	c	
Mar. 8	BRK	eP	13 05 20	c	USCGS: 40.0°S, 74.3°W, 0 = 12 52 28.8.
	MHC	iP	16.9	c	Near southern coast of Chile. h about 96 km
Mar. 9	MHC	iP	04 11 06.8	d	USCGS: 10.9°N, 41.7°W, 0 = 03 59 08.7.
	FRE	eP	10 46		Altantic Ocean. h about 27 km.
	MIN	eP	53.6	c	
	REN	eP	47.7		
	SHS	eP	56		
	VIN	eP	54		
Mar. 9	MHC	eP	12 57 51.9	d	USCGS: 66.1°N, 155.5°W, 0 = 12 51 01.6.
	MIN	eP	27.5	c	Central Alaska. h about 32 km.
	SHS	e(P)	31		
Mar. 9	MHC	iP	14 21 49.8	d	
	MIN	e	22 01.6		
Mar. 10	MHC	iP	15 13 20.0	c	
	MIN	eP	44.3	d	
Mar. 10	MHC	iP	15 43 41.8	d	USCGS: 23.5°S, 65.4°W, 0 = 15 31 37.2.
	MIN	eP	50.2		Jujuy Province, Argentina.
					h about 118 km.
Mar. 10	BRK	iP	23 48 36.7	(c)	USCGS: 10.1°S, 161.4°E, 0 = 23 36 08.8.
	MHC	iP	38.2	c	Solomon Islands region.
		ipP	49 01.0	c	h about 139 km.
	MIN	eP	48 41.9	c	
	REN	iP	49.1	d	
	SHS	eP	40		
Mar. 11	BRK	eP	01 41 32		USCGS: 48.7°N, 154.6°E, 0 = 01 31 34.4.
		epP	46		Kurile Islands. h about 26 km.
	BRX	iSE	49 33		Magnitude 6½.
		eSS	53 33		
		e(G)NE	56.2		
		eREZ	58.5		
			R from W		
			mu sec		
		PZ	2.2 5		
		SH	5.0 7		
	MHC	iP	01 41 36.4	c	
		i	42 37.3		
	FRE	eP	41 49		
	MIN	eP	23.2	c	
	REN	iP	34.6	c	
		ipP	51.6		
	COR	e(P)	09.7		
	SHS	eP	19		
		epP	36		
	RU	eP	57	c	
		eSNEZ	50 19		
		e	57 19		

1961			h. m. s.		
Mar. 11		eR	02 01 58		
(Cont.)					
Mar. 12	BRK	eP	02 54 50		USCGS: 17.4°N, 107.3°W, 0 = 02 49 33.4.
	BRX	eSE	58 59		Off west coast of Mexico.
		eR	03 01.1		h about 57 km.
			mu sec		Magnitude 5¼ - 5½.
		PZ	1.9 5		
		MaxH	6.0 15		
	MHC	eP	02 54 43.1	c	
		i	52.5	d	
	FRE	eP	31		
	MIN	eP	55 08.6	c	
	REN	iP	54 56.4	c	
	SHS	eP	55 12		
	VIN	eP	54 39		
	RU	eP	48		
		eSN	58 41		
		eR	03 02 24		
	CNC	eP	02 54 52		
Mar. 12	MHC	eP	12 14 01.4	d	USCGS: 19.2°N, 107.1°W, 0 = 12 09 10.7.
	MIN	eP	26.4	c	Off west coast of Mexico.
	REN	eP	16.1		h about 64 km.
	RU	e(R)	19.8		
Mar. 12	MHC	e	15 01 25.8	c	USCGS: 43.8°N, 129.1°W, 0 = 14 59 16.8.
	FRE	e(P)	43		Off coast of northern California.
	MIN	eP	00 54.7	c	h about 19 km.
	COR	eP	19.9		
	SHS	eP	44.8		
Mar. 12	BRK	eP	23 34 01.1		USCGS: 28.4°S, 176.0°W, 0 = 23 21 42.5.
	BRX	eSNE	44 21		Tonga Islands region.
		esPSNE	45.8		h about 113 km.
		eR	59		Magnitude 6¼ - 6½.
			R from SW		
			mu sec		
		PZ	2.5 5		
		MaxH	7.6 19		
	MHC	iP	23 34 01.3	d	
	FRE	eP	05	d	
	MIN	eP	10.1	d	
	REN	iP	13.7	d	
	SHS	iP	10.6	d	
	VIN	eP	33 49.8		
	RU	iP	34 28	d	
	CNC	eP	02		
Mar. 13	BRK	eP	08 08 43	c	USCGS: 19.2°N, 107.3°W, 0 = 08 03 43.9.
		e	09 41		Off west coast of Mexico.
	BRX	iPNEZ	08 43	SEd	h about 49 km.
		eSNE	12 51	NW	PAS: Magnitude 6¼ - 6½.
		eQE	13.7		
		iR	14.8		
			R from S		

1961			h.	m.	s.		
			mu		sec		
Mar. 13 (Cont.)		PZ	7.8		6		
		PH	5.2		7		
		SH	9.8		11		
		MaxH	52		15		
	MHC	eP		08 08	34.7	d	
	FRE	eP			20		
	MIN	eP			58.5	c	
	REN	iP			47.2	c	
	SHS	e(P)		09	05		
	VIN	eP			29		
	RU	iP		08	27	d	
		eSNEZ		12	36		
	CNC	eP		08	44	(d)	
	PAC	iP			42.0	c	
	SFB	eP			44		
Mar. 13	MHC	eP	09	19	27.2	d	
	MIN	eP			36.8	c	
Mar. 13	BRK	eP'	20	54	12		USCGS: 56.1°S, 27.3°W, 0 = 20 35 12.7. Sandwich Islands. h about 25 km.
		e			23		
	MHC	iP'			07.0		
	MIN	eP'			15.2	d	
	SHS	eP'			16		
Mar. 14	MHC	eP	01	23	38		USCGS: 16.9°S, 176.5°W, 0 = 01 11 55.4. Tonga Islands region. h about 60 km.
		e			24 57		
	FRE	e(P)			23 54		
	MIN	e			25 10	c	
	REN	e(P)			24 04.3		
	SHS	e(P)			23 45		
	RU	eR			46.2		
Mar. 14	MIN	eP	12	05	51.8	c	USCGS: 67.8°N, 164.9°W, 0 = 11 58 53.9. Bering Strait. h about 78 km.
Mar. 15	BRX	e	10	29	11	c	USCGS: 3.3°S, 150.6°E, 0 = 10 14 55.5. New Ireland region. Felt: Rabaul. h about 21 km. PAS: Magnitude 6.
		e(S)N			38 47		
		e(SS)NEZ			44 50		
		eGN			51.5		
		eR			55.6		
		R from W					
	MIN	eP	10	28	01.4	d	
	REN	eP			09.7		
	SHS	eP			27 58		
		ePP			31 44		
	RU	eR			55.0		
Mar. 16	BRK	iP	04	42	14.0	(c)	USCGS: 25.1°S, 180.0°E, 0 = 04 30 39.0. Kermadec Islands region. h about 482 km.
	MHC	iP			14.5	c	
	FRE	eP			18		
	MIN	iP			23.4	d	
	SHS	iP			22.0	c	
Mar. 16	MHC	iP	05	06	20.1	(c)	USCGS: 51.7°N, 176.1°E, 0 = 04 58 00.4. Rat Islands, Aleutian Islands. h about 39 km.
	MIN	eP			05.0	c	
	REN	(e)P			18.8	d	
	COR	eP		05	40.5		

1961			h.	m.	s.		
Mar. 16 (Cont.)	SHS	eP		06	00		
Mar. 16	MHC	i(P')	14	04	20.4	c	USCGS: 8.2°S, 122.0°E, 0 = 13 45 35.6. Flores Sea. Some casualties and major property damage at Ende. h about 74 km. PAS: Magnitude 6¼.
	FRE	ePP		05	11		
	MIN	eP'		04	14.4	d	
	REN	eP'			30.4		
		iPP		05	37.4		
	SHS	ePP			03.0		
	RU	e(PP)			43		
		eSN		13	49		
		eSSN		22	27		
		eGN		35	23		
Mar. 16	MIN	eP	15	36	43.4	c	USCGS: 50.0°N, 154.3°E, 0 = 15 26 56.2. Kurile Islands. h about 42 km.
	REN	iP			55.1	d	
Mar. 17	REN	i(P)	02	33	55.3	c	
	SHS	eP			32 57.0		
Mar. 17	MHC	eP	14	18	49.9	d	USCGS: 24.1°S, 175.9°W, 0 = 14 06 56.4. Tonga Islands region. h about 123 km.
		i(PcP)		19	00.0	d	
	MIN	eP			08.0	d	
Mar. 17	MHC	iP	16	29	06.3	d	
	FRE	e			10		
	REN	iP			42.3	d	
Mar. 17	BRK	eP	20	22	42		USCGS: 24.3°S, 175.6°W, 0 = 20 11 17.4. Tonga Islands region. h about 79 km. PAS: Magnitude 6.
	BRX	eSN			32 46		
		eRNEZ			48		
		R from SW					
	MHC	iP	20	22	41.8	d	
		ipP		23	01.6	d	
	FRE	eP		22	45		
	MIN	eP			54.2	c	
	REN	iP			54.9	d	
	SHS	eP			50		
	VIN	eP			40		
Mar. 18	MHC	iP	08	38	55.5	c	USCGS: 24.3°S, 174.2°W, 0 = 08 27 02.9. Tonga Islands region. h about 25 km.
	FRE	e(P)		39	06		
	MIN	eP			05.4	d	
	REN	eP			24.4		
	SHS	eP			05		
Mar. 18	BRK	iP	10	28	05.6		USCGS: 29.7°N, 138.6°E, 0 = 10 16 51.1. South of Honshu, Japan. h about 477 km.
	MHC	iP			09.4	c	
	MIN	iP			00.9	d	
	REN	eP			11.2		
	SHS	eP		27	57	c	
Mar. 18	BRX	ePP	15	14	05		USCGS: 49.9°S, 163.3°E, 0 = 14 54 59.3. South of New Zealand. h about 38 km. PAS: Magnitude 6¾ - 7.
		eSKSNE		20	19		
		e(S)NE		21	48		
		ePSNEZ		23	38		
		eSSNE			29.3		
		eGNE			39.4		
		eRNEZ			44		
		R from SW					

1961			h.	m.	s.		
			mu		sec		
Mar. 18 (Cont.)		PPZ	2.1		11		
		SKSH	1.3		18		
		(S)H	1.8		28		
		SSH	13		34		
		GH	55		46		
		RH	17		18		
	FRE	ePP	15	14	04		
	MIN	e(PS)		24	31.6		
	REN	iPP		14	24.4	d	
	RU	ePP			42		
		e(S)E		22	34		
		e(PS)E		24	26		
		eSSE		30	39		
		eQE		41	21		
Mar. 19	MIN	e	05	03	00		USCGS: 40.2°N, 143.2°E, 0 = 04 51 54.1. Off east coast of Honshu, Japan. h about 48 km.
	REN	eP			17.1		
	SHS	eP			03		
Mar. 19	MHC	iP'	05	18	17.3	d	USCGS: 6.4°S, 105.5°E, 0 = 04 59 19.3. Soenda Strait. Felt: Djakarta. h about 120 km.
	MIN	eP'			13.8	c	
	SHS	eP'			12		
Mar. 19	MHC	eP	07	26	38.4	d	
	MIN	e			49		
	SHS	eP			46.7		
Mar. 19	MHC	e	09	30	30		USCGS: 36.8°N, 141.0°E, 0 = 09 18 50.7. Honshu, Japan. h about 75 km.
	MIN	eP			19.2	c	
	REN	eP			46.5		
	SHS	eP			17		
Mar. 19	MHC	eP	12	18	36.2	c	USCGS: 16.4°S, 167.3°E, 0 = 12 05 47.7. New Hebrides Islands. h about 16 km.
	FRE	(e)P			43	c	
	MIN	(e)P			51	d	
	SHS	eP			51		
Mar. 19	MHC	iP	14	29	11.9	d	
	MIN	eP			25.6	d	
Mar. 19	FRE	eP	20	46	08		USCGS: 24.1°S, 176.1°W, 0 = 20 33 55.7. Tonga Islands region. h about 39 km.
	REN	eP			18.8		
Mar. 19	MHC	eP	22	46	03		
Mar. 20	BRK	eP	06	24	06.7	d	USCGS: 11.3°N, 86.5°W, 0 = 06 16 21.1. Off west coast of Nicaragua. Felt: Managua. h about 60 km.
		e(PcP)		26	01		PAS: Magnitude 6 - 6¼.
	BRX	eSN		30	27		
		e(G)N			33.6		
		eQN			36.1		
		eR			39.1		
			mu		sec		
		SH	2.0		26		
		MaxH	13		24		
		MaxZ	7.2		20		
	MHC	iP	06	24	01.4	c	
		i(PcP)		26	01.9		
	FRE	eP		23	47		
		e		34	06		
	MIN	iP		24	14.8	c	

1961			h.	m.	s.		
Mar. 20 (Cont.)	REN	iP			00.1	c	
	COR	eP			41.6		
	RU	eP		23	37		
	CNC	eP		24	06.7	(d)	
Mar. 20	BRK	iP	11	48	53.7	c	USCGS: 46.3°N, 142.7°E, 0 = 11 38 39.3. Sakhalin Island. h about 354 km.
	MHC	iP		49	02.8	c	
	FRE	eP			12		
	MIN	iP		48	51.2	c	
	REN	eP		49	01.6		
	COR	iP		48	27.8	c	
	SHS	eP			46.7	c	
Mar. 20	BRK	eP	16	04	38.1	d	USCGS: 18.4°S, 175.3°W, 0 = 15 53 26.1. Tonga Islands. h about 178 km.
		epP		05	27.0	d	
	BRX	ipP			23	c	PAS: Magnitude 6½ - 6¾.
		e(pPP)		08	20		
		iSNEZ		14	02	SWUp	
		eRNEZ		26			
			R from SW				
			mu		sec		
		pPZ	10.7		8		
		SH	12		23		
	MHC	iP	16	04	38.5	d	
		ipP		05	28.0		
	FRE	iP		04	43.7	c	
		epP		05	35		
	MIN	eP		04	48.4	d	
		epP		05	37.4		
	REN	iP		04	51.9	d	
		ipP		05	45.7		
	COR	iP		04	59.5	d	
	SHS	iP			47.5	d	
		epP		05	37		
	RU	iP			07	d	
		ipP			52		
		iS		15	00		
	CNC	eP		04	39.3	d	
		epP		05	28.2	d	
	PAC	iP		04	37.7	c	
Mar. 20	BRK	iP	23	54	45.7	c	USCGS: 24.1°S, 176.0°W, 0 = 23 42 36.8. Tonga Islands region. h about 25 km.
	BRX	iSNE	24	04	50		PAS: Magnitude 6¼.
		ePPSNE		05	43		
		eRNZ		18.6			
			R from SW				
			mu		sec		
		PZ	3.0		8		
		PZ	2.5		8		
		SH	6.3		14		
		SH	7.3		20		
		MaxZ	11.3		20		
		MaxH	25.5		20		
	MHC	eP	23	54	38.0	c	
		ipP			46.2	c	

1961			h. m. s.		
Mar. 20	FRE	eP	49		
(Cont.)	MIN	iP	56.7	d	
	REN	iP	55 00.3	d	
	SHS	eP	54 55		
	RU	eP	55 32	c	
	CNC	eP	54 46.9	c	
Mar. 21	MHC	iP	09 33 48.5	d	USCGS: 21.8°S, 179.9°W, 0 = 09 22 31.7.
	FRE	eP	51.4	c	South of Fiji Islands.
	MIN	iP	57.2	d	h about 595 km.
	REN	iP	34 00.7	d	
	COR	eP	26.3		
	SHS	eP	33 55.9		
Mar. 21	BRK	iP	20 07 34.8	d	USCGS: 22.9°S, 171.3°E, 0 = 19 54 44.4.
	BRX	eR	35.1		Loyalty Islands region.
	MHC	iP	07 35.3	d	h about 19 km.
	FRE	eP	39.8	d	
	MIN	eP	43.1	d	
	REN	iP	48.2	d	
	SHS	eP	41.1		
Mar. 22	MHC	eP	04 26 51.8	c	USCGS: 9.0°S, 157.9°E, 0 = 04 14 03.4.
	MIN	eP	27 01.7	d	Solomon Islands. h about 41 km.
	REN	eP	13.3		
	SHS	eP	26 58		
Mar. 22	MHC	iP	14 07 55.4	c	USCGS: 18.1°S, 178.3°W, 0 = 13 56 59.5.
	MIN	eP	08 03.9	c	Fiji Islands. h about 610 km.
	SHS	eP	02		
Mar. 22	MHC	iP	14 27 13.4	d	USCGS: 11.8°N, 86.8°W, 0 = 14 19 46.5.
	MIN	eP	26.6	d	Off west coast of Nicaragua. Felt:
	REN	eP	15.0		Managua. h about 172 km.
Mar. 22	BRK	eP	21 40 17.9	(c)	USCGS: 24.6°S, 179.3°E, 0 = 21 28 41.6.
	MHC	iP	18.5	c	South of Fiji Islands.
	FRE	eP	39 22		h about 517 km.
	MIN	iP	40 27.4	d	
	SHS	iP	26.7	c	
Mar. 24	BRK	eP	15 24 32.1	c	
	MHC	iP	29.0	c	
	MIN	eP	56.9	c	
	REN	eP	38.9		
Mar. 24	BRK	iP	23 08 39.4	d	USCGS: 35.7°N, 140.9°E, 0 = 22 57 14.3.
		iPcP	55.0	d	Near east coast of Honshu, Japan.
	BRX	eR	30 40		h about 102 km.
	MHC	eP	08 49		
	MIN	eP	38.6	d	
	REN	eP	41.3		
		iPcP	58.8		
	COR	eP	30		
	SHS	eP	35		
	RU	e(P)	09 17		
Mar. 27	BRK	eP	09 02 07.2		USCGS: 36.6°N, 116.3°W, 0 = 09 00 39.7.
		e(S)EN	03 13		Southwestern Nevada.
	CNC	eP	02 07.2	(c)	h about 24 km.
	MHC	iP	01 47.1	d	PAS: Magnitude $4\frac{1}{2}$.

1961			h. m. s.		
Mar. 27		iS	02 52.0		
(Cont.)	MIN	iP	02.4	d	
	FRE	iP	01 26.1	d	
	VIN	iP	44.6	c	
		eSE	02 55		
	REN	eP	01 41.8		
		i	02 48.6		
	RU	eP	01 28		
		eS	02 16		
Mar. 27	MHC	iP	21 03 52.5	d	
	MIN	eP	04 14.3	d	
		e	36.0	c	
	REN	eP	09.3		
Mar. 28	MHC	eP	06 06 45.0	c	USCGS: 52.8°N, 167.7°W, 0 = 05 59 50.5.
	MIN	eP	28.0	c	Fox Islands. Aleutian Islands.
	REN	eP	43.0		h about 49 km.
	COR	eP	05 59		
	SHS	iP	06 24.5	d	
Mar. 28	BRK	eP	09 50 18		USCGS: 0.2°N, 123.6°E, 0 = 09 35 55.4.
	BRX	eP	17		Northern Celebes. h about 83 km.
		ePP	54 46		PAS: Magnitude $6\frac{3}{4}$ - 7.
		iSKKSNE	10 01 34		
		ePS	03 59		
			mu	sec	
		PZ	3.0	16	
		PPZ	4.4	24	
		MaxH	146	40	
		MaxZ	107	40	
	MHC	iP	09 50 21.8	d	
		iPP	54 23.1	d	
		iSPP	55 03.2	c	
	FRE	eP	50 24.3	d	
	MIN	iP	09.3	d	
		iPP	54 21.2	c	
	ARC	e(PP)	29.8		
	REN	eP	50 25.2		
		iPP	54 15.2	d	
	COR	eP	50 10.1		
		iPP	54 17.0	c	
	SHS	eP	50 11.9		
		ePP	54 17		
	VIN	e(PP)	18		
	RU	eP	50 40	c	
		ePP	55 21		
Mar. 28	BRK	iP	12 36 44.7	d	USCGS: 51.7°N, 176.2°W, 0 = 12 29 12.7.
		ePcP	38 49.1		Andreanof Islands, Aleutian Islands.
	BRX	ePP	38 07		h about 60 km.
		eSN	42 49		PAS: Magnitude $6\frac{1}{4}$.
		eG	45 53		
		eR	47 36		
			R from WNW		
	MHC	iP	12 36 50.9	d	

1961			h.	m.	s.		
Mar. 28 (Cont.)		ipP		37	10.6	d	
	FRE	eP			04	d	
	MIN	iP		36	35.2	d	
		ipP			54.0	c	
		iPP		38	36.1		
		i(S)		42	27.6		
	ARC	i(P)		36	29.0	d	
	REN	iP			49.3	d	
	COR	iP			07.3	d	
		ipP			26.8		
		iS		42	15.9		
	SHS	iP		36	30	c	
		eS		42	26		
	VIN	eP		36	55.0		
	RU	epP		37	15	c	
	CNC	iP		36	45.3	d	
		ePcP		38	50.2		
Mar. 28	MIN	eP	14	06	22.5	c	USCGS: 52.0°N, 176.0°W, 0 = 13 58 58.8. Andreanof Islands, Aleutian Islands. h about 89 km.
	REN	eP			50		
	COR	eP		05	57		
	SHS	eP		06	18		
Mar. 28	BRK	iP	21	13	49.5	d	USCGS: 22.1°S, 68.0°W, 0 = 21 01 56.2. Chile-Bolivia border. Felt: Antofagasta. h about 125 km.
		epP		14	19		
		isP			32.2		
	BRX	iP		13	50		PAS: Magnitude 6.
		esP		14	32		
		eSN		24	13		
		i(SKS)N			29		
		eSKSN			28.4		
				mu	sec		
		PZ		3.4	6		
		PZ		2.9	12		
		MaxZ		2.9	17		
	MHC	iP		13	45.2	d	
		ipP		14	17.0	d	
	FRE	iPN		13	37.4	d	
		ipPN		14	32.9	d	
	MIN	eP		13	54		
	ARC	iP		14	05.9	d	
	REN	iP		13	48.1	d	
		isP		14	31.5		
	COR	iP			15.7	d	
	SHS	iP		13	57.5	d	
		epP		14	31		
	RU	iP		13	33	d	
		i		14	13		
Mar. 29	MIN	eP	06	55	16		USCGS: 33.5°N, 140.9°E, 0 = 06 43 43.3. Near east coastof Honshu, Japan. h about 116 km.
	REN	eP			23.5		
Mar. 29	MIN	eP	18	21	37.0	d	USCGS: 37.1°N, 141.3°E, 0 = 18 10 24.4. Near east coast of Honshu, Japan. h about 127 km.

1961			h.	m.	s.		
Mar. 30	BRK	eP	07	47	36		USCGS: 22.0°N, 107.8°W, 0 = 07 42 59.4. Gulf of California. h about 20 km.
	BRX	eP			37		PAL: Magnitude 5½.
		ePP		48	07		
		iSEN		51	21	SW	
		iGNEZ		52	04		
		eNE			44		
		eR		53	01		
				mu	sec		
		SH	14.5		20		
		PZ	1.1		8		
	MHC	eP	07	47	27.3	d	
	FRE	eP			10.7		
	MIN	eP			53.2	d	
		iPP		48	21.9	d	
	ARC	i(P)			26.5	d	
	REN	iP		47	37.5	d	
	COR	ePE		48	42.7		
	SHS	eP		47	58.3		
	VIN	eP			21.6		
	RU	iP			15	c	
		eSE		50	39		
Mar. 30	BRK	eP	09	01	07		USCGS: 15.2°S, 172.8°W, 0 = 08 49 45.6. Samoa Islands region. h about 25 km.
	BRX	eSNZ		10	31		PAS: Magnitude 5¾ - 6.
		eN		11	04		
		eGNE		19	12		
		eR		22.3			
			R from SW				
	MHC	eP	09	01	09.4	d	
	FRE	eP			13		
	MIN	eP			18.5	c	
	REN	iP			23.6	d	
	COR	e(P)E			45.3		
	SHS	eP			18.3		
	VIN	eP			09		
	RU	e(P)		02	02		
		i(S)N		11	28		
Mar. 30	MIN	eP	11	11	00.6	d	USCGS: 22.2°N, 107.8°W, 0 = 11 06 10.5. Gulf of California. h about 37 km.
	REN	eP		10	45.5		
Mar. 31	MHC	i(P)	05	32	00.7	d	USCGS: 31.2°N, 135.1°E, 0 = 05 20 18.3. South of Honshu, Japan. h about 280 km.
	MIN	e(P)			03.1	d	
	REN	eP			13.9		
Mar. 31	MIN	eP	11	15	21.4	c	USCGS: 43.7°N, 101.6°E, 0 = 11 02 34.9. Outer Mongolia. h about 25 km.
Mar. 31	FRE	eP	21	09	09		
	MIN	eP			15.1	c	