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ARCATA--BERKELEY--CONCORD--FRESNO--GRANITE CREEK

JAMESTOWN--LLANADA--MANZANITA LAKE--MINERAL

MOUNT HAMILTON--OROVILLE--PALO ALTO--PARAISO

PRIEST--UKIAH--VINEYARD

Earthquakes and the Registration of Earthquakes

From January 1, 1965 to March 31, 1965

by

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Don Pershing

and

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University of California

Berkeley

1967

BULLETIN OF THE SEISMOGRAPHIC STATIONS

of the University of California

Volume 35, Number 1

January 1, 1965 to March 31, 1965

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INTRODUCTION

Each quarterly issue of the Bulletin includes determinations of epicenters, origin times, magnitudes, and other information available at the time of writing, for earthquakes in northern California and adjoining areas. Recorded arrival times of seismic waves are tabulated only for the major earthquakes in the local area and for teleseisms.

Information items regarding the seismographic stations which comprise the Berkeley network are repeated in every issue. Information of a general nature, such as the Modified Mercalli Intensity Scale, will be found only in the first number of each volume.

PERSONNEL (March 1967)

Station Director	Bruce A. Bolt
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Assistant Research Seismologist	Helen Freedman
Associate	Don Tocher (Earthquake Mechanism Laboratory, ESSA, Institute for Earth Sciences, San Francisco)
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THE BYERLY SEISMOGRAPHIC STATION (BKS)

Standardized equipment began operating in a newly constructed tunnel east of the main campus on June 8, 1962. The closest buildings, part of the Lawrence Radiation Laboratory, are about 0.8 km away. The tunnel was cut into the upper part of the Claremont Formation. Of Miocene age, this formation consists of thin layers of cherty material alternating with shale.

A plan of the tunnel is shown in the diagram. Piers are constructed of reinforced concrete with no isolation from floor and walls. The temperature is stable. A ventilating and dehumidifying system is connected to all rooms.

The short-period world-wide standard instruments are operated with an approximate magnification of 25,000 at 1 sec and the long-period standard instruments with 3,000 at 30 sec.

On March 20, 1964, the Regents of the University of California named this station the "Byerly Seismographic Station" in recognition of the work of Professor Perry Byerly.

HISTORY OF THE UNIVERSITY OF CALIFORNIA STATIONS

"The Seismographic Stations at Mount Hamilton and Berkeley present several items of interest in the history of earthquake science, one of which is that according to the available records they were the first seismographic stations set up in America. Furthermore, they have functioned continuously from their founding to the present day, with improvements in instrumental equipment from time to time as the development of the science and opportunity have permitted.

"Several outstanding figures in the seismology of the 1880's were impressed with the importance of these stations, and Ewing, Milne, and Gray each took a personal interest in aiding one or both stations to obtain their own best and most modern types of instruments."

The quotation is from "History of the University of California Seismographic Stations and Related Activities" by Professor George D. Louderback, published in the Bulletin of the Seismological Society of America, Vol. 32, No. 3, pp. 205-229, 1942. In this paper may be found a detailed account of the development of the Berkeley stations from the installation of the instruments (the first earthquake known recorded at Mount Hamilton was on April 24, 1887) to 1942.

Since 1942, the number of seismographic stations associated with the University of California has increased from six to nineteen in 1964. In 1950, Professor Perry Byerly was appointed Director by the Regents; he had been in charge of instruction and research since 1925. In 1960, the University entered into a contract with the Air Force Office of Scientific Research of the Research Projects Agency of the Department of Defense. Funds were made available under the Vela Uniform program to design and operate a telemetered network of eight new stations in central California and to construct a new seismic vault near the Berkeley campus.

STATIONS IN OPERATION: JANUARY - MARCH 1965

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
Berkeley (Strawberry)	37° 52.6	122° 14.1	276	BKS	Univ. of California, 1962
Mt. Hamilton	37° 20.5	121° 38.5	1282	MHC	Lick Observatory, 1887
Palo Alto	37° 25.0	122° 10.9	83	PAC	Stanford University, 1927
Fresno	36° 46.0	119° 47.8	88	FRE	Fresno City College, 1935
Mineral	40° 20.7	121° 36.3	1495	MIN	National Park Service, 1938
Arcata	40° 52.6	124° 04.5	59	ARC	Humboldt State College, 1948
Manzanita Lake	40° 32.2	121° 33.7	1800	MLC	National Park Service, 1956
Vineyard (local)	36° 45.0	121° 23.1	330	VIN	W.A. Taylor and Co., 1959
(telemeter)	36° 45.0	121° 23.3	380	VIT	
Concord	37° 58.1	122° 04.3	36	CNC	Diablo Valley College, 1960
Paraiso	36° 19.9	121° 22.2	363	PRS	Paraiso Hot Springs, 1961
Llanada	36° 37.0	120° 56.6	475	LLA	Charles McCullough Ranch, 1961
Priest	36° 08.5	120° 39.9	1187	PRI	Federal Aviation Agency, 1961
*Oroville	39° 33.3	121° 30.0	1080	ORV	Department of Water Resources, 1963
Jamestown	37° 56.8	120° 26.3	457	JAS	Department of Water Resources, 1964
**Granite Creek	37° 01.8	121° 59.8	122	GCC	Kenneth McCullough, Santa Cruz, 1965
Ukiah	39° 08.2	123° 12.6	199	UKI	U.S. Coast and Geodetic Survey, 1965

*Established by State of California Department of Water Resources, Sacramento.

**Santa Cruz (SCC) was relocated and renamed Granite Creek (GCC) on February 26, 1965.

Calistoga (CLS), Point Reyes (PRC), and San Francisco (SFB) were discontinued in December, 1964.

STATION INSTRUMENTATION

January - March 1965

Station	Type of Instrument	T _o sec	T _g sec	Component
BRK [△]	Benioff 100 kg	1.0	0.2	Z
BRK	Benioff 100 kg	1.0	8.0	Z
	100X torsion	0.8	-	N,W
	4X torsion	0.8	-	N,W
BKS	Benioff 100 kg	1.0	0.75	N,E,Z
	Sprengnether	30	100	N,E,Z
	Wood-Anderson torsion	0.8	-	S,W
BRX	Press-Ewing moving coil	30	*	N,E,Z
	Galitzin-Wilip moving coil	12	12	N,E,Z
MHC	Wood-Anderson torsion	0.8	-	S,E
PAC	Benioff 100 kg	1.0	0.4	Z
	Wood-Anderson torsion	0.8	-	N,E
FRE	Sprengnether moving coil	2.0	2.0	N,E,Z
MIN	Benioff 100 kg	1.0	0.4	Z
	Wood-Anderson torsion	0.8	-	S,E
ARC	Benioff 14 kg	1.0	0.2	Z
	Wood-Anderson torsion	0.8	-	N,E
MLC	Loucks-Omori	3½	-	S,E
VIN	Torsion 100X	0.8	-	N
	Wood-Anderson torsion	0.8	-	S,W
VIT [△]	Benioff 14 kg	1.0	0.2	Z
CNC [△]	Benioff 100 kg	1.0	0.2	Z
GCC [△]	Benioff 14 kg	1.0	0.2	Z
PRS [△]	Benioff 14 kg	1.0	0.2	Z
LLA [△]	Benioff 14 kg	1.0	0.2	Z
PRI [△]	Benioff 14 kg	1.0	0.2	Z
JAS	Benioff 100 kg	1.0	0.75	N,E,Z
ORV	Benioff 100 kg	1.0	0.75	N,E,Z
ORV	Geotech moving coil	20	100	N,E,Z
UKI	Benioff 14 kg	1.0	0.2	Z

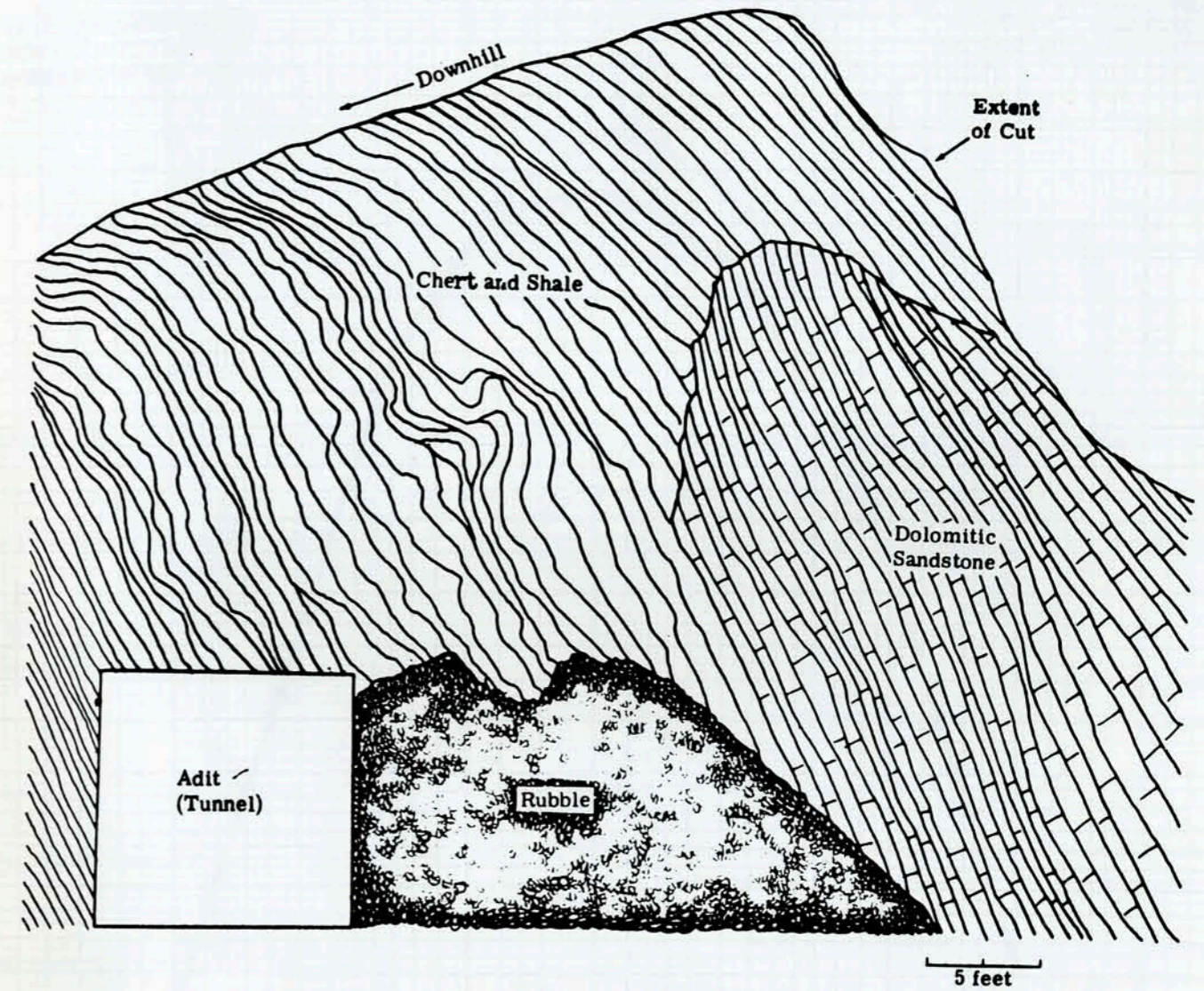
[△]Signals from these seven stations are transmitted via leased telephone lines to recorders at Berkeley.

*Broad-band recording on magnetic tape.

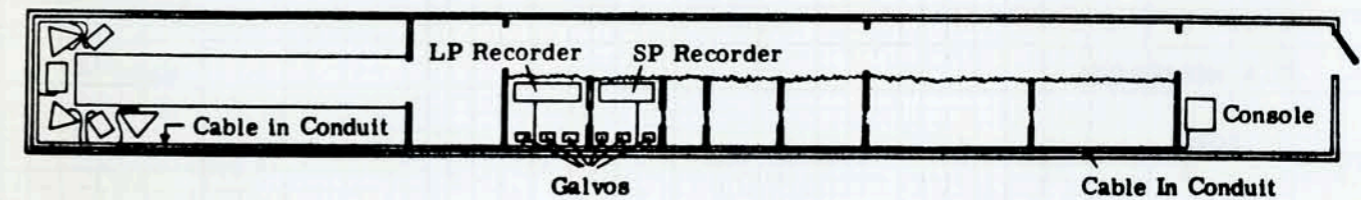
Direction of Motion: In the "Component" column, each horizontal component seismograph is designated by the direction of ground motion corresponding to upward trace motion on the seismogram when it is oriented so that time increases from left to right. On all vertical component (Z) instruments, upward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

Relative magnification curves of instruments recording through the tele-meter system are listed on the following pages. Absolute magnification may be obtained by use of calibration pulses recorded daily from each telemetered station.

BYERLY SEISMOGRAPHIC STATION (BKS) BERKELEY, CALIFORNIA

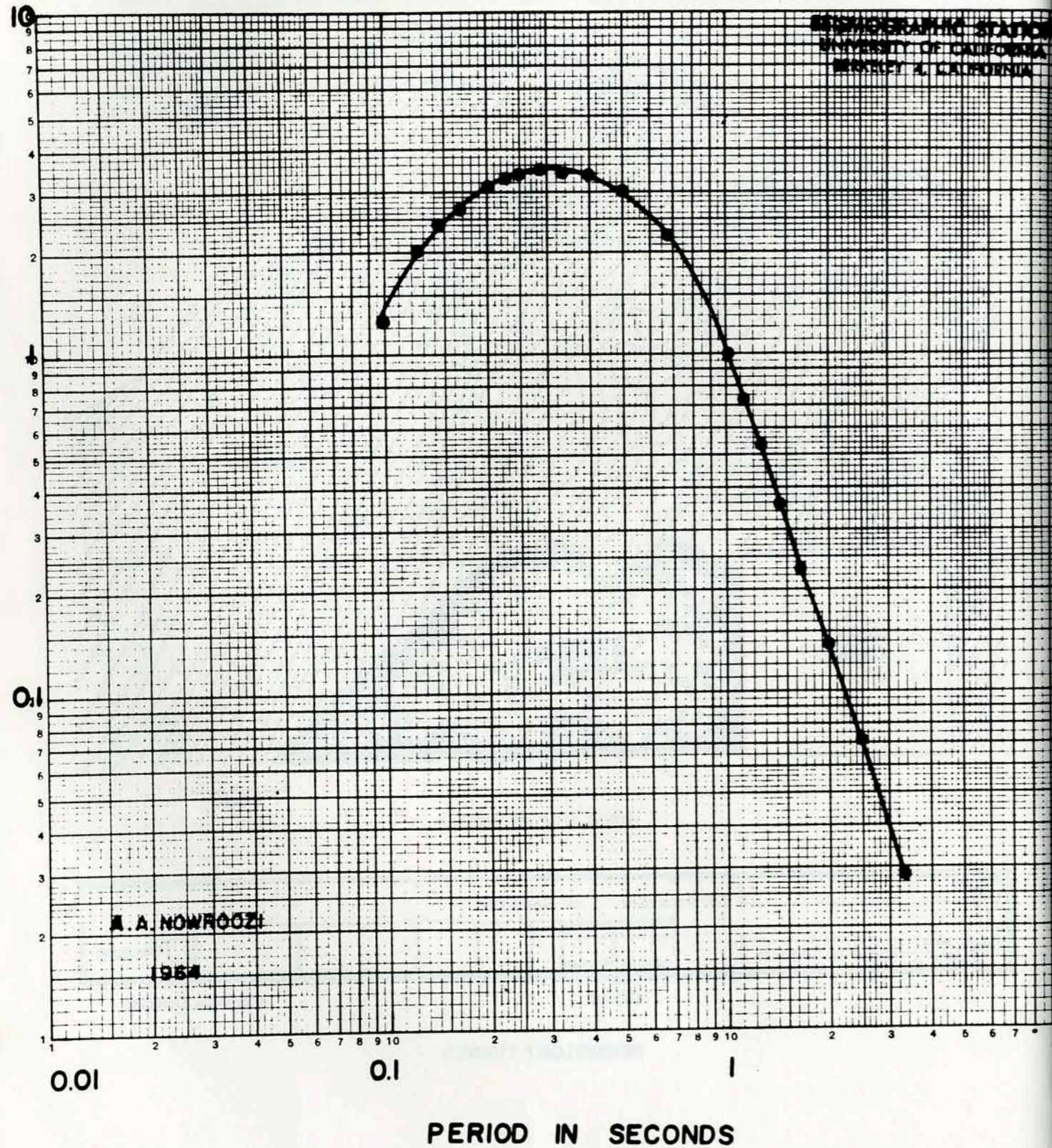


GEOLOGIC SECTION

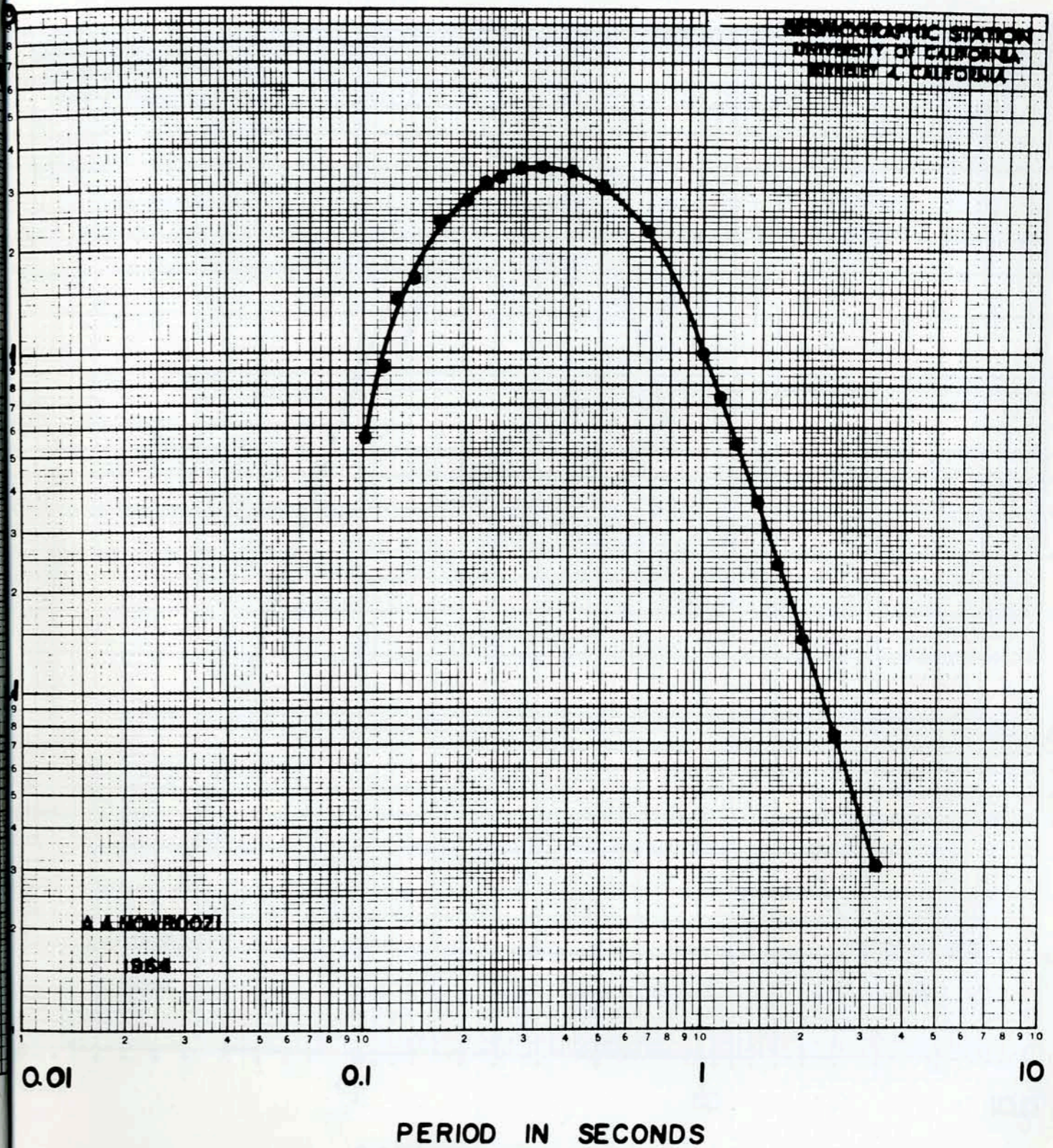


SEISMOLOGY TUNNEL

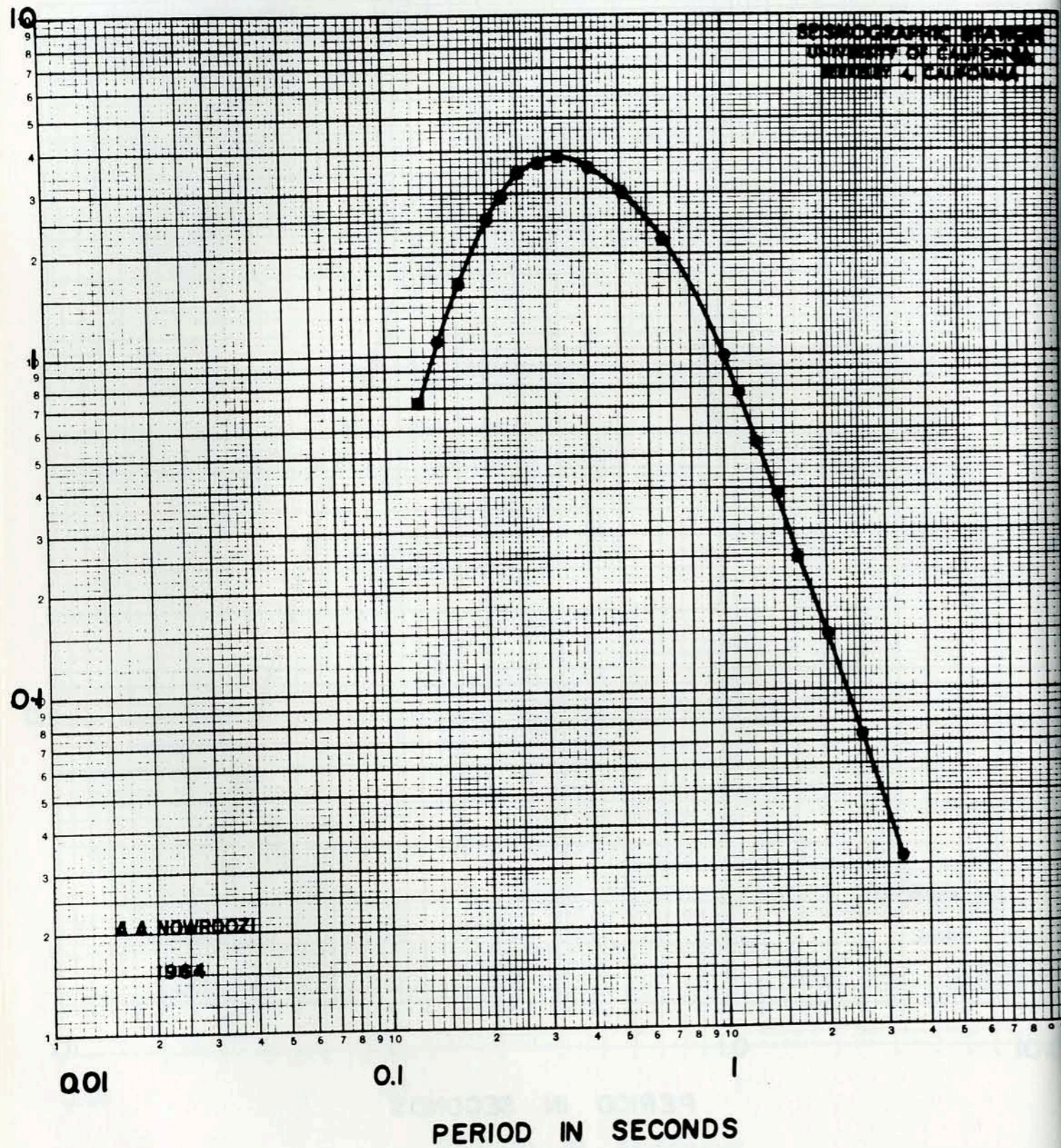
RESPONSE OF SEISMOMETER-DEVELOCORDER SYSTEM. 100KG. Z. S.P



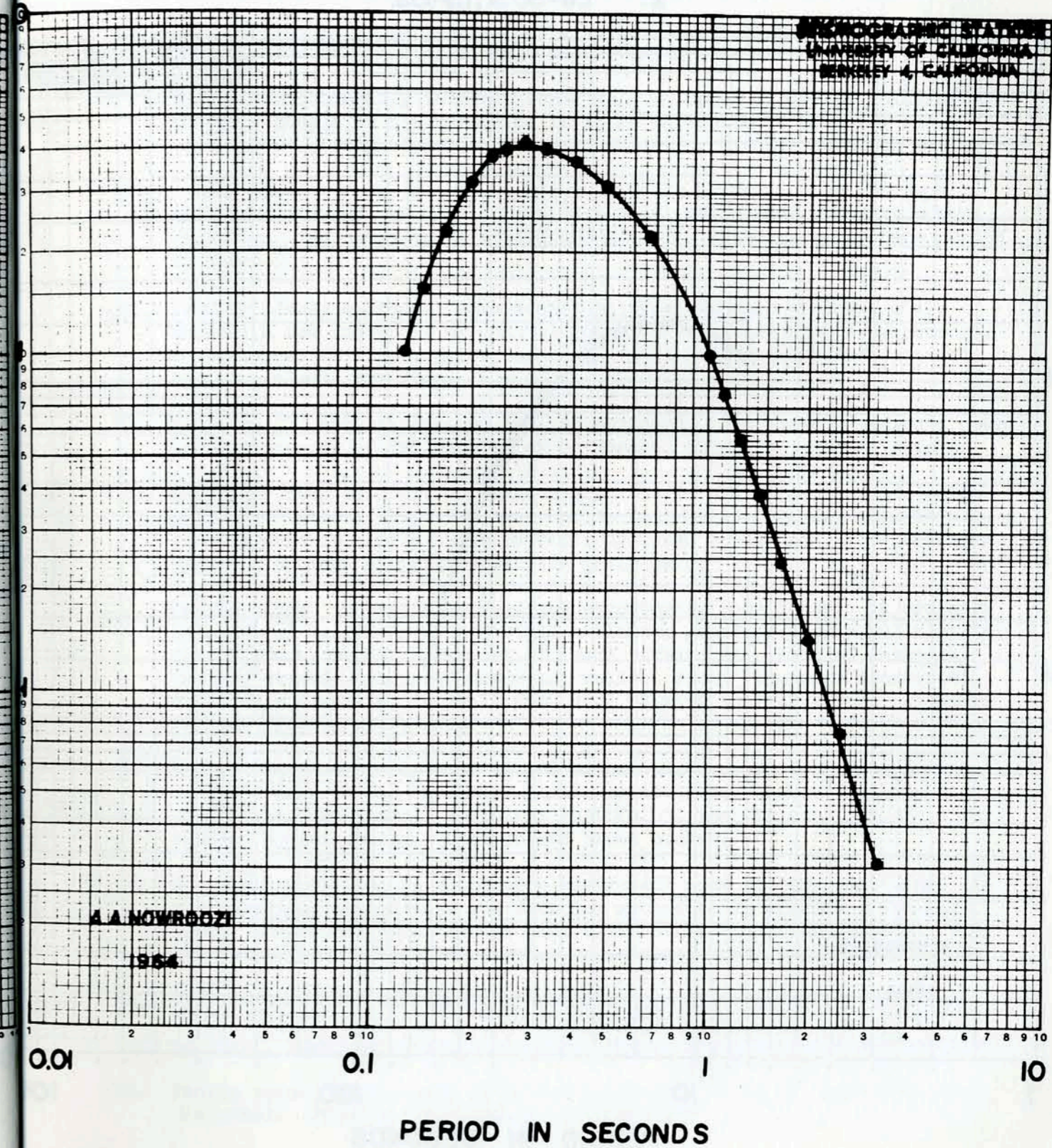
RESPONSE OF SEISMOMETER - HELICORDER SYSTEM. 100KG. Z. S.P



RESPONSE OF SEISMOMETER—HELICORDER SYSTEM. 14.7 KG. Z. S.P



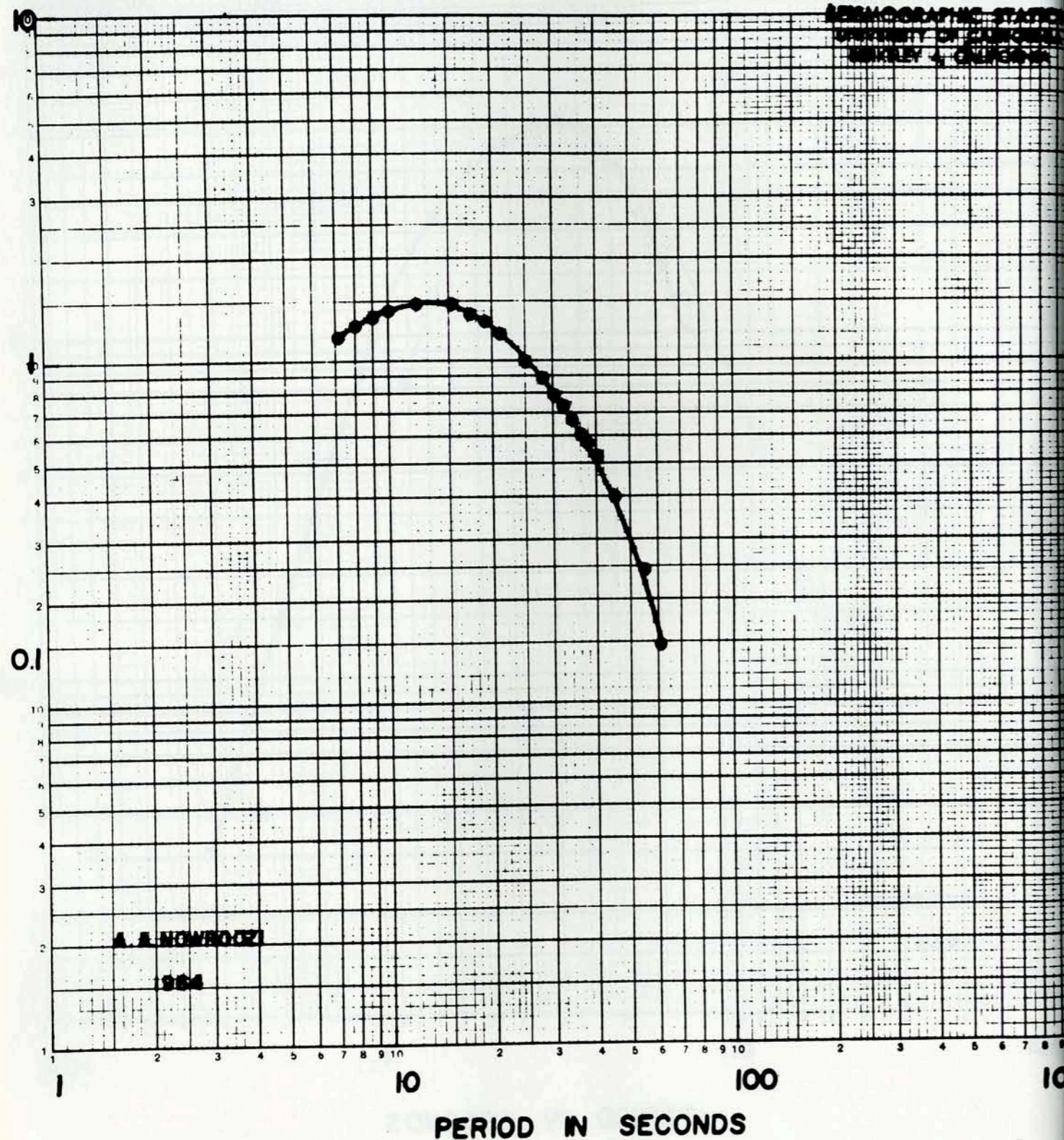
RESPONSE OF SEISMOMETER—DEVELOPORDER SYSTEM. 14.7 KG. Z. S.P



RESPONSE OF SEISMOMETER — HELICORDER

SYSTEM. PRESS-EWING.

Z. T.G=30 S., T.S=15 S.



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.

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 at the U.C. stations (sometimes complemented by data from neighboring stations such as Reno) to permit determination of the epicenter. For the sake of completeness, in cases where these data are not sufficient to determine acceptable epicenters the preliminary epicentral data of the USCGS are quoted. 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 omitted because the available seismographic data were inadequate for epicenter determination. Within the limited region covered by the map of the central Coast Ranges of California, locatable shocks of magnitude 2.5 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 2.5 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.

Epicenters are located by an IBM 7090 computer program. Information on Version I of this program may be found in "Computer Location of Local Earthquakes within the Berkeley Seismographic Network" by Bolt and Turcotte, published in Computers in the Mineral Industries, Part 2 (George Parks, Editor); Stanford University Publications, Geological Sciences, Vol. 9, No. 2, pp. 561-576, 1964.

Explanation of the table:

Map No. for each epicenter corresponds to the number plotted beside that epicenter on the maps. Epicenters without numbers lie outside the area of the map. The underlining of a map number in the table 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).

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.

h is the focal depth given to the nearest kilometer or by the following ranges: a, 0-5; b, 6-10; c, 11-15; d, 16-30 km.

No. of Stas. is the number of stations used by the computer program or used for constructing S-P arcs in locating the epicenter. If the USCGS data are used for the epicenter this column then gives the number of stations in the Berkeley net recording the earthquake.

The quality of the solution is partially reflected by the listed number of stations. The highest quality locations are given to the nearest minute of arc in latitude and longitude and to the tenth of a second origin time. Poorer quality locations are given to the nearest minute in latitude and longitude, to the nearest second in origin time and are denoted by an asterisk.

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.

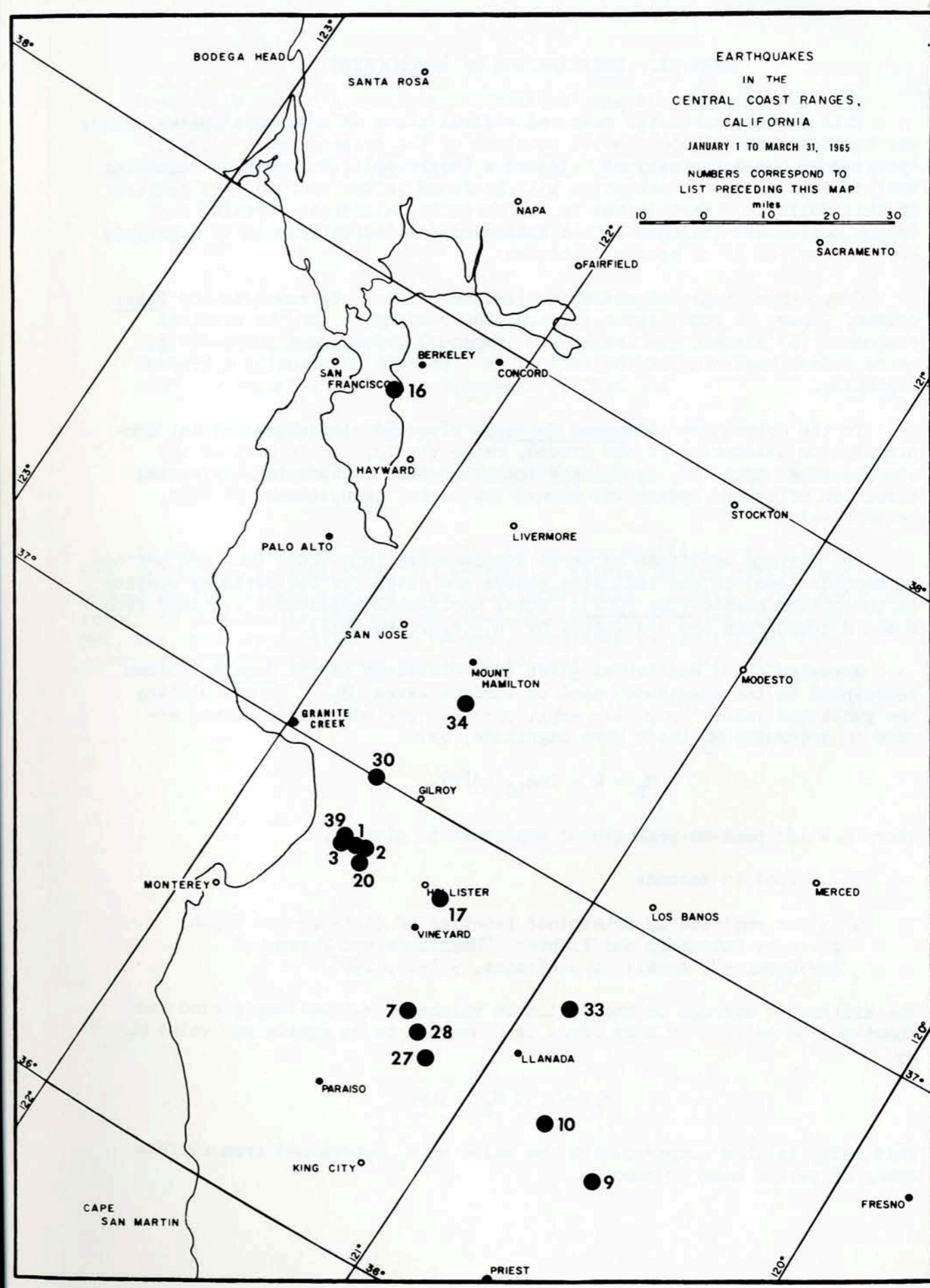
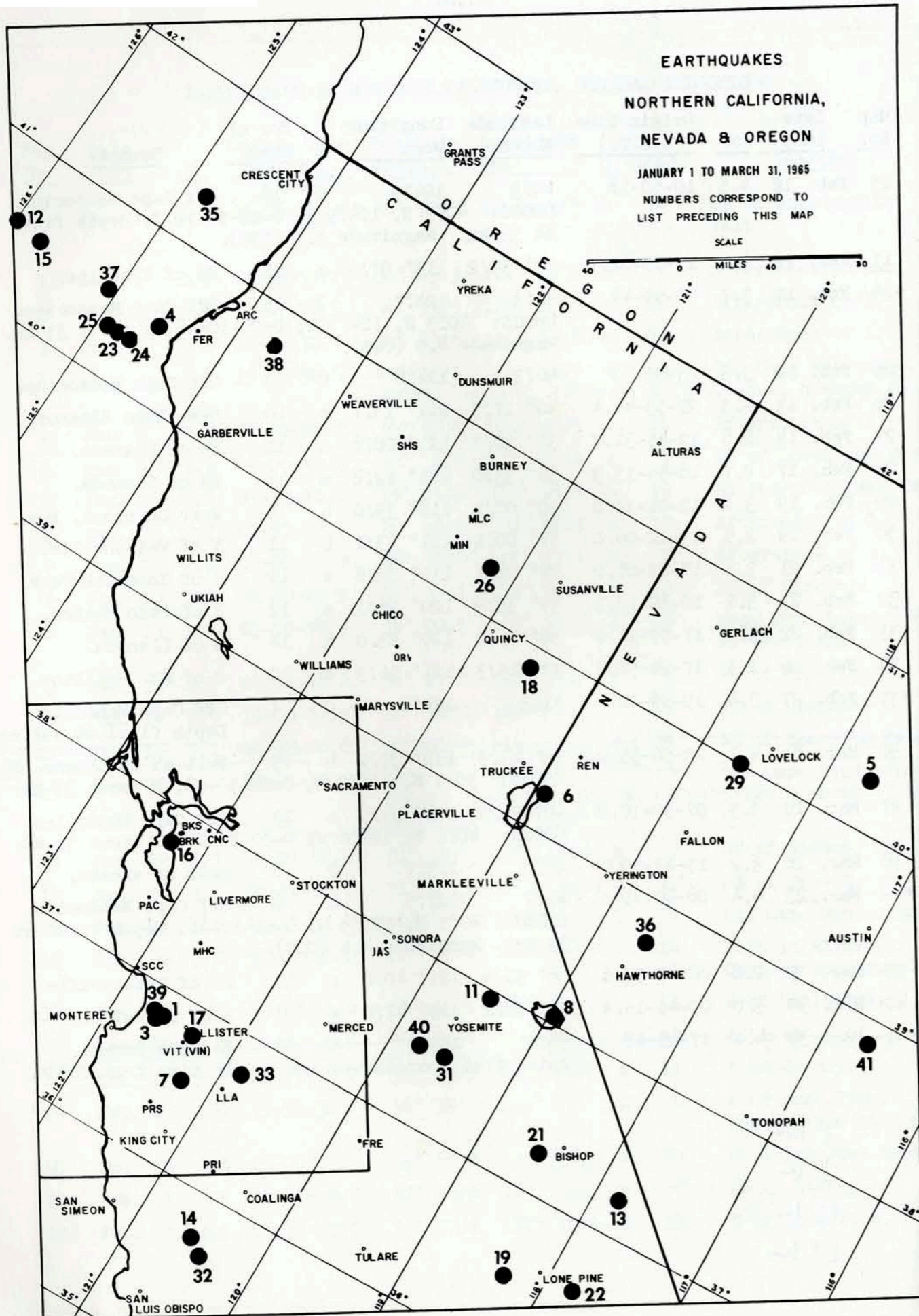
Information on maximum intensities of shocks reported felt is also included under Remarks. Reports on felt earthquakes may be obtained from the Seismological Field Survey of the U.S. Coast and Geodetic Survey, which publishes a more complete summary in "Abstracts of Earthquake Reports for the Pacific Coast and Western Mountain Region". This regular quarterly publication may be obtained from the District Officer, San Francisco District, Coast and Geodetic Survey, 121 Customhouse, San Francisco, California 94126, or from the Director, U.S. Coast and Geodetic Survey, Washington Science Center, Rockville, Maryland 20852. Intensities given in Roman numerals are assigned by the Coast and Geodetic Survey and based on the Modified Mercalli Intensity Scale of 1931.

EARTHQUAKES IN NORTHERN CALIFORNIA, NEVADA, AND OREGON

Map No.	Date 1965	M	Origin Time (G.C.T.)	Latitude North	Longitude West	h	No. of Stas.	Remarks
1	Jan. 1	3.5	09-56-51.3	36° 50.5	121° 39.3	a	14	SE of Watsonville. Felt.
<u>1</u>	Jan. 1	2.6	09-58-59.7	36° 49.3	121° 39.6	b	7	Aftershock of 1.
2	Jan. 1	2.7	10-47-36.5	36° 51.5	121° 37.8	b	12	Aftershock of 1.
3	Jan. 1	3.1	12-16-32.0	36° 49.6	121° 41.8	a	13	Aftershock of 1.
4	Jan. 1	3.6	19-59-36.6	40° 28.5	124° 33.9	a	14	Off Cape Mendocino. USCGS: 40°3 N, 124°6 W; 0=19-59-38.2; h about 20 km.
<u>1</u>	Jan. 2	2.8	00-50-01.2	36° 50.8	121° 38.5	b	11	Aftershock of 1.
5	Jan. 4	3.9	04-06-45.3	40° 17.5	117° 41.1	a	9	NE of Lovelock, Nev.
6	Jan. 5	3.5	07-32-30.7	39° 13.9	119° 55.2	a	12	NE shore of Lake Tahoe
<u>3</u>	Jan. 7	2.7	02-59-37.7	36° 49.3	121° 42.7	a	12	Aftershock of 1.
<u>2</u>	Jan. 7	2.9	03-00-03.9	36° 50.6	121° 37.7	a	7	Aftershock of 1.
7	Jan. 10	3.3	02-00-09.5	36° 34.7	121° 16.1	b	14	SE of Vineyard.
8	Jan. 13	3.7	03-50-58.9	38° 02.5	118° 59.1	d	16	Near Mono Lake. Felt at Leevining.
9	Jan. 13	2.6	04-20-48.2	36° 27.0	120° 34.7	a	9	NE of Priest.
10	Jan. 14	2.9	10-09-32.5	36° 30.9	120° 47.3	b	12	SE of Llanada.
11	Jan. 19	3.1	00-38-26.6	37° 56.0	119° 27.5	a	14	NE of Yosemite Valley
*12	Jan. 22	4.1	00-45-40	40°5	126°0	0	3	Off Cape Mendocino. USCGS: 41°2 N, 129°0 W, 0=00-45-12; h about 47 km. Magnitude 4.9 (CGS).
13	Jan. 22	3.5	10-24-37.3	37° 12.7	117° 50.5	b	9	SE of Bishop, Calif.
14	Jan. 26	3.0	08-36-30.7	35° 43.3	120° 32.7	a	12	SE of Priest.
*15	Jan. 26	3.9	21-11-53	40°5	125°7	0	4	Off Cape Mendocino.
16	Jan. 29	3.2	01-27-20.6	37° 47.0	122° 16.8	c	14	Felt in Alameda, Oakland and Berkeley.
17	Jan. 29	3.3	01-40-51.0	36° 50.1	121° 21.9	a	14	E of Hollister.
<u>1</u>	Jan. 29	3.0	12-09-45.0	36° 51.1	121° 39.3	a	14	Aftershock of 1.
18	Feb. 7	3.5	06-53-32.2	39° 50.5	120° 36.6	a	11	E of Quincy.
*19	Feb. 8	3.0	15-54-32	36° 30'	118° 20'	0	6	W of Lone Pine. Depth fixed at surface
20	Feb. 10	2.8	10-00-04.3	36° 48.8	121° 37.2	a	14	W of San Juan Bautista
21	Feb. 11	3.1	01-31-40.7	37° 16.6	118° 33.3	b	7	SW of Bishop.
22	Feb. 11	3.5	01-35-59.8	36° 37.1	117° 48.5	a	11	E of Lone Pine.

Map No.	Date 1965	M	Origin Time (G.C.T.)	Latitude North	Longitude West	h	No. of Stas.	Remarks
23	Feb. 12	4.5	10-50-18	40°3	124°9	0	16	Off Cape Mendocino. USCGS: 40°3 N, 124°9 W; 0=10-50-19.7; depth fixed at 33 km. Magnitude 4.4 (CGS).
<u>11</u>	Feb. 12	3.1	15-19-02.7	37° 57.2	119° 27.5	a	11	NE of Yosemite.
*24	Feb. 12	3.7	20-50-44	40°3	124°7	0	15	Off Cape Mendocino. USCGS: 40°3 N, 124°7 W; 0=20-50-46; h about 33 km. Magnitude 4.9 (CGS).
*25	Feb. 12	3.3	23-35-30	40°3	124°8	0	3	Off Cape Mendocino.
26	Feb. 13	4.3	21-53-46.4	40° 17.3	121° 13.7	a	10	Near Lake Almanor.
27	Feb. 14	2.8	19-45-31.7	36° 30.7	121° 08.8	a	11	SW of Llanada.
28	Feb. 17	2.7	18-54-13.3	36° 33.0	121° 12.8	a	11	SW of Llanada.
29	Feb. 19	3.2	12-01-30.0	40° 00.1	118° 39.0	b	6	Near Lovelock, Nev.
30	Feb. 19	2.5	13-12-06.0	37° 00.1	121° 43.1	b	11	N of Watsonville.
31	Feb. 21	3.1	17-22-07.2	37° 28.1	119° 32.6	a	12	S of Yosemite Park.
32	Feb. 21	3.1	18-39-18.3	35° 39.9	120° 26.1	a	12	E of Paso Robles.
33	Feb. 22	3.8	17-57-11.8	36° 46.0	120° 53.0	b	14	N of Llanada.
34	Feb. 26	2.5	17-24-58.5	37° 15.3	121° 36.3	a	10	S of Mt. Hamilton.
*35	Feb. 27	3.4	19-58-02	41°3	124°8	0	4	Off Cape Mendocino. Depth fixed at surface.
36	Mar. 8	4.1	22-50-55.9	38° 43.9	118° 37.2	b	13	Felt at Hawthorne, Nev. USCGS: 38°5 N, 118°7 W, 0=22-50-58; h about 33 km.
37	Mar. 10	3.5	02-52-10.9	40° 29.9	125° 01.9	a	12	Off Cape Mendocino. USCGS: 40°6 N, 125°6 W; 0=02-52-08; h about 33 km.
*38	Mar. 16	3.2	15-42-59	40°8	123°7	0	6	East of Arcata.
* -	Mar. 23	4.4	08-40-49	40°7	127°5	0	6	Off Cape Mendocino. USCGS: 40°5 N, 127°9 W; 0=08-40-46; depth fixed at 33 km. Magnitude 4.4 (CGS).
39	Mar. 29	2.8	08-42-59.6	36° 50.4	121° 40.6	a	10	SE of Watsonville.
40	Mar. 30	3.0	09-45-14.4	37° 28.2	119° 47.0	a	8	S of Yosemite.
*41	Mar. 30	4.0	17-45-48	38°7	115°5	33	7	Eastern Nevada. Epicentral coordinates and origin time from USCGS.

3 km
8 km
13 km
23 km



PART II. REGISTRATION OF EARTHQUAKES

This section tabulates measured arrival times of prominent phases of earthquakes recorded at selected 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 Ground Motion, "c" or "d" indicates initial compression or dilatation of the ground, respectively, from a wave 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 (μ) 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).

Berkeley (BKS) magnitudes given for teleseisms in the Remarks column correspond to the magnitude based on surface waves (M_s). In calculating the published value, body wave amplitudes and periods of body waves are used to determine M_B (body wave magnitude) 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).

The arithmetic average of the available values of M_B for long-period and short-period records of body waves is converted to an equivalent value M_s by

$$M_s = 1.59 M_B - 3.97.$$

This value is then compared with the value of M_s determined from surface waves of period near 20 seconds.

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

- USCGS - U.S. Coast and Geodetic Survey, Washington Science Center, Rockville, Maryland
- BCIS - Bureau Central International de Seismologie, Strasbourg, France
- PAL - Lamont Geological Observatory, Palisades, New York
- PAS - Seismological Laboratory, Pasadena, California
- WMSO - Wichita Mountains Observatory, Oklahoma
- BKS - Byerly Seismographic Station, Berkeley
- BRK - indicates the average magnitude determined by the Berkeley network.

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. Readings from the remaining stations in the network other than the five listed (BKS, JAS, MHC, PRI, MIN) are available on request. Requests for additional data or for copies of seismograms should be addressed to the Director.

Date	Sta.	Phase	Time (GCT) h m s	Ground Motion	Remarks
1965					
Jan. 1	JAS	iP	11 46 58.2	c	
Jan. 1	JAS	eP	21 51 35.5	d	USCGS: 35.7°N, 4.4°E, 0 = 21 38 29.2.
	MIN	eP	22.3	d	Algeria. h about 10 km. 4 killed, 40 injured and major property damage at M'Sila. Magnitude 5.2 (CGS).
Jan. 2	MIN	iP	10 24 28.6	c	USCGS: 25.5°N, 122.5°E, 0 = 10 11 35.1. Taiwan region. h about 136 km.
Jan. 2	BKS	iPNEZ	13 56 16.2	SEd	USCGS: 19.1°N, 145.4°E, 0 = 13 44 18.9. Mariana Islands. h about 142 km.
		eGNE	14 16.3		Magnitude 6 $\frac{1}{2}$ (BKS).
		eR	20.0		
			mu sec		
		PZ	0.297 0.7		
	MHC	eP	13 56 19.3	d	
	JAS	iPNEZ	22.9	NWd	
	MIN	iP	15.0	d	
	PRI	eP	25.6	d	
Jan. 2	MIN	iP	18 22 11.0	d	USCGS: 19.1°N, 145.4°E, 0 = 18 10 15.5. Mariana Islands. h about 145 km.
Jan. 4	MIN	eP	03 47 30.6	c	USCGS: 59.9°N, 153.6°W, 0 = 03 41 23. Southern Alaska. h about 122 km.
Jan. 4	BKS	iP	07 18 27.3	c	USCGS: 19.1°S, 177.5°W, 0 = 07 07 31.1. Fiji Islands. h about 570 km.
	MHC	eP	27.4	c	Magnitude 5.5 (CGS).
	JAS	iP	31.4	c	
	MIN	iP	36.9	d	
	PRI	eP	27.3	c	
Jan. 5	BKS	eP	18 17 14	d	USCGS: 20.3°S, 174.1°W, 0 = 18 05 58.6. Tonga Islands. h about 33 km.
		epP	17 46	c	Magnitude 6 $\frac{1}{4}$ (BKS).
		ePPE	20 46	c	
		eSNE	27 34		
		eNE	36 12	SW	
		eGNE	38.1		
	MHC	epP	17 43.5	c	
	JAS	epP	49.0	c	
	PRI	epP	42.5	c	
Jan. 5	JAS	eP	20 57 05.2	c	USCGS: 34.6°N, 138.8°E, 0 = 20 45 50.6. Near south coast of Honshu, Japan. h about 363 km.
Jan. 5	JAS	eP	23 11 39.1	d	USCGS: 15.3°S, 173.1°W, 0 = 23 00 14.8. Tonga Islands. h about 33 km.
Jan. 6	MHC	eP	02 03 55.5	d	USCGS: 44.9°N, 112.7°W, 0 = 02 01 22.2. Eastern Idaho. h about 7 km.
		eS	06 33.0	d	
	JAS	iPNEZ	03 34.3	d	
	MIN	iP	22.8	c	
	PRI	eP	56.4	d	
		eS	06 56.0	d	
Jan. 6	JAS	iP	09 31 35.5	d	USCGS: 41.4°S, 85.4°W, 0 = 09 19 01.2. West Chile Rise. h about 33 km.

Date	Sta.	Phase	Time (GCT) h m s	Ground Motion	Remarks
1965					
Jan. 6	BKS	eP	18 33 31.5	c	USCGS: 60.0°N, 151.8°W, 0 = 18 27 34.0. Kenai Peninsula, Alaska.
	MHC	eP	36.7	d	
	JAS	iP	37.3	d	h about 53 km.
	MIN	iP	15.0	d	
	PRI	eP	50.9	d	
Jan. 7	MIN	iP	13 06 06.0	d	USCGS: 19.3°N, 145.5°E, 0 = 12 54 09.4. Mariana Islands. h about 120 km.
Jan. 7	BKS	eSNE	16 08.0		USCGS: 16.2°N, 97.2°W, 0 = 15 56 32.5. Oaxaca, Mexico. h about 43 km.
		eGNE	10.5		
		eR	12.4		
	MHC	eP	02 35.5	d	
	JAS	eP	35.9	c	
	MIN	eP	56.6	d	
	PRI	eP	29.0	c	
Jan. 8	MIN	eP	11 31 30.5	c	USCGS: 56.3°N, 153.5°W, 0 = 11 25 56.6. Kodiak Island region. h about 33 km.
Jan. 8	BKS	iP	19 08 45.3	c	USCGS: 59.4°S, 24.0°W, 0 = 19 49 46.0. South Sandwich Islands.
	MHC	eP	43.9	d	h about 39 km.
	JAS	eP	42.2	d	
	MIN	eP	48.0	d	
Jan. 8	JAS	eP	20 37 57.9	d	USCGS: 33.8°S, 179.3°E, 0 = 20 24 56. South of Kermadec Islands. h about 33 km.
Jan. 8	BKS	eP	21 17 21.1	c	USCGS: 13.2°S, 112.0°W, 0 = 21 08 06.0. North Easter Island. h about 33 km.
		eSNE	24 30.0		
		eSSNE	28.4		
		eGN	29.7		
		eRN	32.1		
			mu sec		
		PZ	0.79 8		
		SH	3.00 26		
		MaxH	3.09 26		
	JAS	iP	21 17 11.7	d	
	PRI	eP	16 59.4	d	
Jan. 8	JAS	eP	23 29 22.3	d	USCGS: 34.2°S, 179.8°E, 0 = 23 16 20.4. South of Kermadec Islands. h about 20 km.
Jan. 9	JAS	eP	01 52 48.9	d	USCGS: 34.2°S, 179.5°W, 0 = 01 42 44. South of Kermadec Islands. h about 33 km.
Jan. 9	BKS	eP	04 41 48.6	d	USCGS: 34.2°S, 179.9°E, 0 = 04 28 56. South of Kermadec Islands.
	MHC	eP	47.5	d	h about 74 km.
	JAS	eP	52.6	c	
	PRI	eP	43.6	d	
Jan. 9	BKS	iP	12 15 36.9	c	USCGS: 32.2°S, 66.9°W, 0 = 12 03 11.4. San Luis Province, Argentina. h about 132 km.

Date	Sta.	Phase	Time (GCT) h m s	Ground Motion	Remarks
1965					
Jan. 9	BKS	eZ eGNE eRE	14 04.1 16.0 18.0		USCGS: 11.9°N, 126.2°E, 0 = 13 32 46.4. Philippine Island region. h about 5 km.
Jan. 9	JAS MIN JAS	iP eP eP	13 46 42.1 26.3 17 21 52.3	c c c	USCGS: 34.5°S, 179.9°E, 0 = 17 08 52. South of Kermadec Islands. h about 33 km.
Jan. 10	JAS	iP	03 05 17.4	d	USCGS: 45.8°N, 26.6°E, 0 = 02 52 23.9. Rumania. h about 128 km.
Jan. 10	MIN BKS	eP ePNEZ eRE	07 50 41.2 08 20.5	c SWd	USCGS: 5.8°S, 147.3°E, 0 = 07 37 35.1. East New Guinea region. h about 113 km.
Jan. 10	MHC JAS MIN BKS	eP eP eP ePP eP iZ eZ ePP iSNEZ eSSE eGN eRE	07 50 47.2 47.2 43.8 54 12.3 13 48 56.5 49 02.0 52 51.4 52 14.0 59 16.0 14 04 28.0 10 51.0 14.4	d d d d c d d c SWd E	USCGS: 13.5°S, 166.6°E, 0 = 13 36 30.7. New Hebrides Islands. h about 32 km. Magnitude $5\frac{3}{4}$ - 6 (BKS).
Jan. 10	MHC JAS MIN PRI	eP eP eP eP	13 49 01.4 04.6 05.8 03.2	d d c d	
Jan. 10	MIN	eP	14 07 12.2	c	
Jan. 10	JAS	iP	14 15 12.9	c	
Jan. 10	MIN	iP	14.3	d	
Jan. 10	JAS	iP	16 50 55.9	c	USCGS: 24.3°S, 180.0°E, 0 = 16 39 20. South of Fiji Islands. h about 518 km.
Jan. 10	MIN	iP	51 00.1	d	
Jan. 11	MIN	eP	04 17 11.6	c	USCGS: 14.0°N, 89.5°W, 0 = 04 10 04.4. El Salvador. h about 144 km.
Jan. 11	MIN	iP	07 01 10.8	c	USCGS: 6.5°S, 154.4°E, 0 = 06 48 22.3. Solomon Islands. h about 100 km.
Jan. 11	BKS MHC JAS MIN PRI	eP eP eP eP eP	07 32 26.1 26.2 29.8 34.7 25.4	c c c c c	USCGS: 33.9°S, 179.9°E, 0 = 07 19 30.3 South of Kermadec Islands. h about 33 km.

Date	Sta.	Phase	Time (GCT) h m s	Ground Motion	Remarks
1965					
Jan. 11	MIN	eP	10 52 51.7	c	USCGS: 24.5°N, 109.0°W, 0 = 10 48 28. Gulf of California. h about 33 km.
Jan. 11	JAS	iP	11 37 26.6	d	USCGS: 34.1°S, 179.2°E, 0 = 11 24 23. South of Kermadec Islands. h about 33 km.
Jan. 11	JAS MIN	iP iP	11 48 00.1 04.0	c c	USCGS: 21.3°S, 179.1°W, 0 = 11 36 52. Fiji Islands region. h about 642 km.
Jan. 11	BKS MHC JAS MIN	eP eP eP iP	17 03 26.3 32.5 31.6 08.8	c c c c	USCGS: 61.1°N, 151.0°W, 0 = 16 57 27.0. Southern Alaska. h about 59 km.
Jan. 11	PRI	eP	46.4	d	
Jan. 11	JAS	eP	18 10 27.3	d	
Jan. 11	BKS MHC JAS MIN	eP eP eP iP	20 25 31.0 33.3 37.1 23.7	c c c c	USCGS: 43.0°N, 139.2°E, 0 = 20 14 33.5. Eastern Sea of Japan. h about 189 km.
Jan. 11	PRI	iP	28.9	c	
Jan. 11	JAS	eP	43.8	c	
Jan. 11	JAS	iP	22 57 05.3	d	USCGS: 48.8°N, 153.5°E, 0 = 22 47 06.3. Kurile Islands. h about 102 km.
Jan. 12	BKS MHC JAS MIN	eP eP eP eP	04 52 57.0 57.3 59.9 53 07.0	d d d d	USCGS: 21.1°S, 174.7°W, 0 = 04 41 18. Tonga Islands. h about 123 km.
Jan. 12	PRI	eP	52 55.5	d	
Jan. 12	BKS	iP	13 47 27.5	d	USCGS: 9.7°S, 75.0°W, 0 = 13 36 51.0. Peru. h about 48 km.
Jan. 12	MHC	eP	22.6	c	
Jan. 12	JAS	eP	18.3	c	
Jan. 12	MIN	iP	33.1	d	
Jan. 12	PRI	eP	13.0	c	
Jan. 12	BKS	eZ	14 00.5		USCGS: 27.6°N, 88.0°E, 0 = 13 32 24.0. Nepal. h about 23 km.
Jan. 12	MIN	eP	14 46 54.4	c	USCGS: 18.1°S, 178.3°W, 0 = 14 35 45. Fiji Islands. h about 563 km.
Jan. 12	JAS	eP	19 08 36.9	c	USCGS: 34.2°S, 179.3°E, 0 = 18 55 53.6. South of Kermadec Island. h about 187 km.
Jan. 13	MIN	iP	03 46 45.1	d	USCGS: 44.9°N, 112.7°W, 0 = 03 44 23.3. Eastern Idaho. h about 33 km.
Jan. 13	JAS	eP	08 52 27.8	c	USCGS: 39.0°N, 140.7°E, 0 = 08 40 57.0. Honshu, Japan. h about 19 km.
Jan. 13	MIN	eP	14.7	d	
Jan. 13	BKS MHC JAS MIN PRI	eP eP iP eZ eP	17 09 09.5 06.2 08 54.1 09 20.0 08 58.2	d d d d d	USCGS: 36.5°S, 98.6°W, 0 = 16 57 16.0. South Pacific Ocean. h about 33 km.

Date	Sta.	Phase	Time (GCT) h m s	Ground Motion	Remarks
1965					
Jan. 14	BKS	eP	01 45 35.3	c	USCGS: 30.2°N, 129.0°E, 0 = 01 33 14.6.
	MHC	eP	39.4	d	Kyushu, Japan.
	JAS	eP	44.5	d	h about 140 km.
	MIN	eP	30.6	d	
	PRI	eP	46.6	d	
Jan. 14	JAS	eP	07 30 38.3	c	USCGS: 5.5°S, 81.3°W, 0 = 08 25 17.5.
Jan. 14	BKS	ePEZ	08 35 06	Ed	Near coast of Northern Peru.
		iNEZ	36 28	NWc	h about 32 km.
		ePPP	38 40	c	
		eSNEZ	43 06	NEd	
		eScSNE	44 36	NW	
		eSSNE	47 00	NE	
		eGNE	49 48	SW	
		eRNE	53.8		
	MHC	eP	35 02.2	d	
	JAS	eP	34 54.9	d	
	MIN	eP	35 14.7	c	
	PRI	eP	34 51.9	d	
Jan. 14	MIN	iP	12 28 12.6	c	USCGS: 6.8°N, 72.9°W, 0 = 12 18 59.3. Northern Colombia. h about 166 km.
Jan. 15	MIN	eP	00 01 07.9	c	USCGS: 14.4°N, 92.9°W, 0 = 23 54 00. January 14, near coast of Chiapas, Mexico. h about 33 km.
Jan. 15	BKS	eP	03 41 23.5	d	USCGS: 20.9°S, 177.8°W, 0 = 03 30 22.2.
	MHC	eP	24.1	d	Fiji Islands. h about 597 km.
	JAS	eP	29.2	d	
	MIN	iP	32.9	c	
	PRI	eP	23.3	c	
Jan. 15	JAS	iP	04 04 04.8	d	USCGS: 49.9°N, 79.0°E, 0 = 05 59 58.5.
Jan. 15	BKS	eP	06 13 04.7	c	Eastern Kazakh, SSR.
			mu sec		h about 0 km (BLAST).
		PZ	0.13 1.0		Magnitude 5½ (BKS).
	MHC	eP	06 13 07.7	c	
	JAS	iP	05.8	c	
	MIN	iP	12 53.2	c	
	PRI	eP	13 14.6	c	
Jan. 15	JAS	eP	15 40 31.8	d	USCGS: 35.1°N, 111.7°E, 0 = 15 27 22. Eastern China. h about 58 km.
Jan. 15	JAS	eP	18 47 36.4	d	USCGS: 23.6°N, 121.7°E, 0 = 18 34 07.6. Taiwan Island. h about 33 km.
Jan. 15	BKS	eP	20 24 16.0	d	
		epP	25 01.7	c	
	MHC	eP	24 16.9	d	
	JAS	iP	22.3	d	
	MIN	iP	25.5	c	
	PRI	eP	16.9	d	
Jan. 15	JAS	iP	20 55 55.8	c	USCGS: 16.5°S, 172.6°W, 0 = 20 44 27. Samoa Islands. h about 33 km.

Date	Sta.	Phase	Time (GCT) h m s	Ground Motion	Remarks
1965					
Jan. 15	BKS	eP	23 30 09.0	d	USCGS: 13.3°S, 166.3°E, 0 = 23 17 36.0.
		ePPS	41 32	d	New Hebrides Islands.
		eNE	36	W	h about 8 km.
		eSSEZ	45 36	Ed	
		eGNE	52.0		
		eRNE	55.0		
			mu sec		
		PZ	0.89 18		
		MaxH	7.53 16		
	MHC	eP	23 30 10.6	d	
	JAS	eP	14.6	d	
	MIN	eZ	20.7	d	
	PRI	eP	12.4	d	
Jan. 16	BKS	eP	01 21 52.7	d	USCGS: 20.7°S, 178.7°W, 0 = 01 10 42.3.
	MHC	eP	53.2	c	Fiji Islands. h about 520 km.
	JAS	iP	58.7	d	
	PRI	eP	53.1	d	
Jan. 16	JAS	iP	05 42 45.5	d	USCGS: 13.5°S, 166.1°E, 0 = 05 30 12.1.
	MIN	eP	59.2	c	New Hebrides Islands. h about 53 km.
Jan. 16	JAS	iP	06 47 21.4	d	USCGS: 5.7°S, 151.3°E, 0 = 06 34 16.6.
					New Britain region. h about 60 km.
Jan. 16	BKS	iP'	11 51 23.8	c	USCGS: 56.6°S, 27.4°W, 0 = 11 32 37.4.
		epP	36.3	d	South of Sandwich Islands.
		ePKS	54 48.5	d	h about 101 km.
		eSSNE	12 10.0		
		e(G)NE	24.0		Magnitude 6.1 (CGS).
		e(R)Z	30.7		
	MHC	eP'	11 51 24.3	d	
		ePKS	54 48.6	c	
	JAS	eP'	51 21.0	c	
	MIN	iPN	26.7	S	
	PRI	eP'	20.6	c	
		ePKS	54 45.1	c	
Jan. 16	BKS	iP	13 03 08.7	d	USCGS: 25.6°S, 180.0°W, 0 = 12 51 29.
	MHC	eP	08.6	c	South of Fiji Islands.
	JAS	iP	13.0	c	h about 445 km.
	MIN	eP	17.0	d	
Jan. 16	JAS	iP	16 31 33.5	c	USCGS: 2.2°S, 79.8°W, 0 = 16 22 14.
	MIN	eP	38.9	c	Near coast of Ecuador. h about 122 km.
Jan. 16	JAS	eP	21 35 52.1	d	USCGS: 51.6°N, 170.7°W, 0 = 21 28 39.
	MIN	eP	33.8	c	Fox Islands. h about 33 km.
Jan. 17	JAS	eP	01 04 19.2	d	USCGS: 56.9°N, 151.7°W, 0 = 00 58 29.
	MIN	iP	03 57.2	c	Kodiak Island region. h about 33 km.

Date	Sta.	Phase	Time (GCT) h m s	Ground Motion	Remarks
1965					
Jan. 17	BKS	eP eR	02 19 18.3 26 20	c d	USCGS: 58.3°N, 151.8°W, 0 = 02 13 28.6. Kodiak Island region. h about 33 km.
		PZ MaxH	mu sec 0.044 1.0 3.55 26		
	MHC	eP	02 19 24.8	d	
	JAS	iP	24.6	d	
	MIN	iP	02.4	d	
		ipP	15.8	d	
	PRI	eP	37.8	d	
Jan. 17	BKS	eP eRNE	08 31 05.0 51.6	c	USCGS: 15.1°S, 173.7°W, 0 = 08 19 44.5 Tonga Islands. h about 33 km.
	MHC	eP	31 05.1	d	
	JAS	eP	10.8	d	
	MIN	eP	14.7	d	
	PRI	eP	04.5	d	
Jan. 17	BKS	eP	09 12 15.0	d	USCGS: 16.4°S, 174.3°W, 0 = 09 01 07.2 Tonga Islands. h about 123 km.
	MHC	eP	25.2	d	
	JAS	eP	30.2	d	
	MIN	iP	35.7	c	
	PRI	eP	24.9	d	
Jan. 17	BKS	ePNZ	10 54 47.4	Nd	USCGS: 24.5°S, 178.4°E, 0 = 10 43 17.5 South of Fiji Islands. h about 568 km.
	MHC	eP	47.5	d	
	JAS	eP	51.9	d	
	MIN	eP	55.5	d	
	PRI	eP	47.1	d	
Jan. 17	JAS	eP	11 23 34.0	d	
	MIN	eZ	28.7	c	
Jan. 17	JAS	eP	14 54 19.1	d	USCGS: 0.1°S, 103.7°W, 0 = 19 22 42. North of Easter Island. h about 33 km.
Jan. 17	BKS	eNZ	19 45.5	d	
	JAS	eP	30 22.2	d	
	MIN	eZ	58.6	d	
	PRI	eP	10.5	d	
Jan. 17	BKS	eP'	21 16 14.5	d	USCGS: 6.8°S, 109.1°E, 0 = 20 57 41.3 Java. h about 242 km.
	MHC	eP'	15.7	d	
	JAS	eP'	16.1	d	
	MIN	iP'	13.8	c	Magnitude 6.5 (CGS).
	PRI	eP'	18.8	d	
Jan. 18	BKS	eP	00 15 58.7	c	USCGS: 37.7°S, 72.9°W, 0 = 00 03 11.9 Central Chile. h about 52 km.
	MHC	eP	54.7	c	
	JAS	eP	53.1	c	
	MIN	eP	16 13.2	d	
	PRI	eP	15 47.1	c	
Jan. 18	BKS	eP	00 31 18.9	d	USCGS: 30.1°N, 138.6°E, 0 = 00 19 59. South of Honshu, Japan. h about 415 km.
	MHC	eP	22.4	d	
	JAS	eP	24.7	d	
	MIN	eZ	13.9	d	
	PRI	eP	29.7	d	

Date	Sta.	Phase	Time (GCT) h m s	Ground Motion	Remarks
1965					
Jan. 18	JAS	eP	06 45 51.1	c	
Jan. 18	JAS	eP	13 22 16.0	d	
Jan. 18	JAS	iP	16 10 05.6	c	USCGS: 18.3°S, 167.5°E, 0 = 15 57 18.9. New Hebrides Islands. h about 33 km.
Jan. 19	BKS	eP	15 30 53.5	d	USCGS: 28.1°S, 66.8°W, 0 = 15 18 41.6. Catamarca Province, Argentina. h about 146 km.
	MHC	eP	53.2	c	
	JAS	eP	49.5	d	
	MIN	eP	31 01.4	c	
	PRI	eP	30 45.8	c	
Jan. 19	JAS	eP	21 17 32.0	d	USCGS: 32.3°S, 178.2°W, 0 = 21 00 00.0. South of Kermadec Islands. h about 33 km.
Jan. 20	JAS	eP	01 46 00.5	d	USCGS: 32.5°S, 178.0°W, 0 = 01 33 12.8. South of Kermadec Islands. h about 33 km.
	MIN	eP	46 05.5	c	
Jan. 20	JAS	iP	09 31 24.3	d	USCGS: 18.4°S, 167.6°W, 0 = 09 18 34.9. New Hebrides Islands. h about 10 km.
	MIN	eZ	16.4	c	
Jan. 20	MIN	eP	09 51 47.3	d	USCGS: 67.3°N, 136.2°W, 0 = 09 45 56.4. Northern Yukon Territory. h about 33 km.
Jan. 20	JAS	iPNZ	16 48 38.5	Sc	USCGS: 60.0°N, 146.8°W, 0 = 16 42 50.9. Gulf of Alaska. h about 33 km.
	MIN	iP	15.7	d	
Jan. 20	JAS	iP	20 37 35.7	c	USCGS: 46.3°N, 152.3°E, 0 = 20 27 05.6. Kurile Islands. h about 33 km.
Jan. 21	JAS	iP	00 22 39.3	c	
Jan. 21	JAS	iP	02 16 13.2	d	USCGS: 15.9°S, 173.2°W, 0 = 02 04 43.7. Tonga Islands. h about 33 km.
	MIN	iP	17.1	d	
Jan. 21	BKS	eP	06 23 11.2	c	USCGS: 34.2°S, 179.8°E, 0 = 06 09 58. South of Kermadec Islands. h about 33 km.
		eGNE	46.4		
		eRE	51.2		
			mu sec		
		PZ	.238 2.0		Magnitude 5 ³ / ₄ - 6 (BKS).
		MaxH	2.06 48		
	MHC	eP	06 22 52.7	c	
		epP	23 09.5	c	
	JAS	eP	22 58.0	d	
	MIN	eP	23 03.3	c	
	PRI	eP	22 47.5	c	
		epP	23 03.8	c	
Jan. 21	JAS	eZ	11 48 09.5	d	USCGS: 18.0°S, 178.5°W, 0 = 11 37 21. Fiji Islands. h about 600 km.
	MIN	eP	21.8	d	
Jan. 21	BKS	eP	17 10 06.4	c	USCGS: 18.6°S, 169.3°E, 0 = 16 57 51.4. New Hebrides Islands. h about 260 km.
	MIN	eP	07.8	d	
Jan. 21	JAS	iP	21 48 47.5	d	USCGS: 12.8°S, 169.0°E, 0 = 21 37 26.2. Santa Cruz Islands. h about 639 km.
Jan. 22	BKS	eP	05 29 54.0	c	USCGS: 19.7°S, 176.1°W, 0 = 05 18 27.9. Fiji Islands. h about 210 km.
			mu sec		
		PZ	0.014 0.7		

Date	Sta.	Phase	Time (GCT) h m s	Ground Motion	Remarks
1965					
Jan. 22 (Cont.)	MHC	eP	05 29 56.0	c	
	JAS	iPEZ	30 01.9	Ec	
	MIN	eZ	05.9	d	
	PRI	eP	29 56.1	d	
Jan. 23	JAS	iPNEZ	08 15 04.6	SWd	USCGS: 16.3°S, 174.5°W, 0 = 08 03 39.9. Tonga Islands. h about 119 km.
	MIN	iP	08.9	c	
Jan. 23	BKS	eP	20 15 40.0	d	USCGS: 8.8°N, 83.1°W, 0 = 20 07 31.4. Costa Rica. h about 46 km.
	MHC	eP	42.0	d	
	JAS	iP	34.3	d	
	PRI	eP	34.3	c	
Jan. 23	JAS	iPEZ	22 17 49.1	Wd	USCGS: 35.3°N, 72.8°W, 0 = 22 03 09. West Pakistan. h about 200 km.
Jan. 23	JAS	iP	23 33 56.4	d	
Jan. 23	JAS	iP	23 43 54.3	c	
Jan. 24	JAS	iP	00 20 37.2	d	USCGS: 2.4°S, 126.0°E, 0 = 00 11 12.1. Ceram Sea. h about 6 km.
Jan. 24	BKS	eP	00 25 40	c	
		eP'	29 42.5	d	
		ePP	30 10	d	
		eSKSN	35 08	N	Magnitude 7 ³ / ₄ (BKS). Felt at Davao, Philippines, and on Halmahera.
		eSKKSN	36 16	S	
		iss	44 02		
		iP'P'	47 36		
		eG	54 28		
		eR	01 00.9		
			mu sec		
		PZ	8.38 14		
		PPZ	29.1 16		
		MaxH	60.0 16		
	JAS	iP	00 25 57.0	c	
		iP'	29 12.0	d	
		iP'	25 48.4	c	
Jan. 24	PRI	eP	02 17 47.2	c	
Jan. 25	JAS	iP	16 56 36.8	d	USCGS: 13.7°N, 144.3°E, 0 = 16 44 18. Mariana Islands. h about 139 km.
	BKS	eP	39.9	d	
	MHC		43.4	d	
	JAS		36.1	d	
	MIN		44.7	d	
Jan. 26	JAS	iENEZ	05 06 26.6	SWc	USCGS: 23.4°S, 179.8°E, 0 = 04 54 51. South of Fiji Islands. h about 474 km.
Jan. 26	JAS	iP	11 26 04.8	c	USCGS: 28.2°N, 111.7°W, 0 = 11 23 14. Gulf of California. h about 33 km.
		ipP	12.4	c	
		iPP	30 11.3	d	
		ipPP	21.8	d	
	MIN	eP	26 42.2	d	
Jan. 26	JAS	eP	23 34 18.3	d	USCGS: 29.6°N, 142.0°E, 0 = 23 22 18. South of Honshu, Japan. h about 33 km.

Date	Sta.	Phase	Time (GCT) h m s	Ground Motion	Remarks
1965					
Jan. 26	BKS	eZ	23 59 07.4	d	USCGS: 36.1°N, 139.5°E, 0 = 23 47 38.2. Honshu, Japan. h about 104 km.
		iZ	29.0	d	
	MHC	eZ	11.3	d	
	JAS	iP	13.4	d	
		ipP	33.9	d	
		iPP	00 01 30.0	c	
	PRI	eZ	23 59 18.8	d	
Jan. 27	MIN	eZ	00 50 02.2	c	
Jan. 28	JAS	iP	02 53 03.9	c	USCGS: 2.5°S, 102.5°E, 0 = 02 34 03.0. Southern Sumatra. h about 33 km.
		iPP	56 10.9	c	
	MIN	eP	53 00.0	d	
Jan. 28	BKS	eP	04 10 20.0	c	USCGS: 15.3°N, 93.9°W, 0 = 04 03 39.5. Near coast of Chiapas, Mexico. h about 33 km.
		eG	19.2		
		eR	20.3		
			mu sec		
		PZ	0.10 1.2		
	MHC	eP	04 10 13.8	d	
	JAS	iPEZ	09.4	Ed	
		iPcP	12 44.0	d	
		iS	15 44.0		
	PRI	eP	10 02.1	d	
Jan. 28	JAS	eP	05 45 31.1	d	USCGS: 12.9°S, 78.5°W, 0 = 05 35 00. Off coast of Peru. h about 33 km.
Jan. 28	BKS	eNEZ	16 30 30		USCGS: 4.0°S, 104.2°W, 0 = 16 15 35.0. Northern Easter Island. h about 33 km.
		eR	36.3		
			mu sec		
		MaxH	4.5 28		
Jan. 29	BKS	eP	00 15 32.5	d	USCGS: 23.9°N, 108.7°W, 0 = 00 11 22. Gulf of California. h about 33 km.
		eSNEZ	19 04	SWd	
		eGNE	26		
		eR	20 33		
			mu sec		
		PZ	1.80 6		
		SH	3.60 20		
		MaxH	11.6 22		
	MHC	eP	00 15 25.3	d	
	JAS	iP	22.9	c	
	MIN	eP	51.0	d	
	PRI	eP	05.8	d	
Jan. 29	BKS	eP	02 26 10	d	USCGS: 24.2°N, 108.6°W, 0 = 02 21 54.5. Gulf of California. h about 33 km.
		eSNE	29 32		
		eG	30 12		
		eR	31.0		
			mu sec		
		PZ	0.63 8.0		
		SH	2.74 18		
		MaxH	8.78 22		
	JAS	iP	02 25 53.5	d	

Date	Sta.	Phase	Time (GCT) h m s	Ground Motion	Remarks
1965					
Jan. 29	MIN	eP	02 26 22.3	c	
(Cont.)	PRI	eP	25 40.1	d	
Jan. 29	JAS	iP	03 39 34.0	d	USCGS: 21.5°S, 178.9°W, 0 = 03 28 18.0. Fiji Islands. h about 550 km.
	MIN	iP	38.6	d	
Jan. 29	JAS	iP	07 02 15.3	c	USCGS: 23.7°N, 108.5°W, 0 = 06 58 06.6. Gulf of California. h about 33 km.
	MIN	eP	43.9	d	
Jan. 29	JAS	eP	08 33 23.4	d	USCGS: 36.9°S, 72.5°W, 0 = 08 20 42. Near coast of central Chile. h about 33 km.
Jan. 29	BKS	iP	09 44 38.0	d	USCGS: 54.8°N, 161.7°E, 0 = 09 35 25.7. Near east coast of Kamchatka. h about 33 km.
		ePcP	45 47.5	d	
		eSNEZ	52 04	SEd	
		eSSEZ	55 48	wd	
		eGNE	57.9		
		eRE	10 00.4		
			mu sec		
		PZ	0.059 1.3		
		SH	1.24 29		
		MaxH	3.09 24		
	MHC	eP	09 44 43.6	d	
	JAS	iP	45.1	c	
	MIN	iP	26.9	c	
	PRI	eP	54.2	d	
Jan. 30	BKS	eP	04 45 05.5	d	USCGS: 51.6°N, 179.8°W, 0 = 04 37 15.1. Andreanof Islands. h about 33 km.
	MHC	eP	10.9	c	
	JAS	iP	14.9	c	
	MIN	iP	44 56.7	c	
		ipP	59.5	c	
Jan. 30	PRI	eP	45 23.0	d	USCGS: 32.6°S, 178.3°W, 0 = 08 40 35. South of Kermadec Islands. h about 55 km.
Jan. 30	JAS	iP	08 53 22.6	d	USCGS: 50.0°N, 157.9°E, 0 = 15 49 28.9. Kurile Islands. h about 33 km.
Jan. 30	JAS	iP	15 59 14.7	c	USCGS: 13.0°S, 169.4°E, 0 = 17 42 12. Santa Cruz Islands. h about 647 km.
Jan. 30	MHC	eP	17 53 27.4	c	
	JAS	iP	32.4	d	
	MIN	iP	32.5	c	
	PRI	eP	27.4	d	
Jan. 30	BKS	eP	18 17 33.4	d	USCGS: 12.9°S, 169.5°E, 0 = 18 06 21. Santa Cruz Islands. h about 649 km.
	MHC	eP	35.5	d	
	JAS	iP	41.4	d	
		iPP	21 01.8	d	
	MIN	iP	17 40.6	c	
	PRI	eP	37.0	d	
Jan. 31	JAS	eP	01 10 20.1	c	
		iPP	13 46.8	d	
Jan. 31	JAS	iP	03 15 08.3	c	USCGS: 60.3°N, 147.8°W, 0 = 03 09 17. Southern Alaska. h about 33 km.
	MIN	eP	14 46.7	c	

Date	Sta.	Phase	Time (GCT) h m s	Ground Motion	Remarks
1965					
Jan. 31	MIN	eZ	11 10 23.9	c	USCGS: 60.2°N, 146.1°W, 0 = 11 05 01. Southern Alaska. h about 33 km.
Jan. 31	BKS	eP	13 09 21.2	c	USCGS: 21.2°S, 67.8°W, 0 = 12 57 29.1. Chile-Bolivia border. h about 71 km.
		epP	42.0	c	
			mu sec		
		PZ	0.091 6		
	MHC	eP	13 09 17.4	d	
	JAS	iPNEZ	14.4	SEd	
		ipP	38.2	c	
	MIN	eP	25.5	d	
		ipP	45.5	d	
	PRI	eP	09.5	d	
		epP	26.7		
Jan. 31	MHC	eP	15 09 12.8	d	USCGS: 21.1°S, 67.8°W, 0 = 14 57 25. Chile-Bolivia border. h about 71 km.
	JAS	iP	15.1	d	
	MIN	eZ	21.4	d	
	PRI	eP	05.0	c	
Jan. 31	BKS	eP	23 44 12.5	c	USCGS: 51.2°N, 178.6°E, 0 = 23 36 13.4. Rat Islands. h about 33 km.
		ePP	46 30.0	d	
		eSNE	50 40.0	NE	
		eGNE	53.9		
		eRN	55.9		
			mu sec		
		MaxH	2.22 14		
	MHC	eP	23 44 17.8	c	
	JAS	iP	21.2	c	
	MIN	iP	06.6	c	
	PRI	eP	29.3	c	
Feb. 1	BKS	iP	05 38 08.8	d	USCGS: 18.6°S, 178.1°W, 0 = 05 27 04.5. Fiji Islands. h about 472 km.
		epP	39 54.5	d	
			mu sec		
		PZ	0.204 1.0		
	MHC	eP	05 38 09.5	d	
		epP	39 53.3	c	
	JAS	iP	38 15.0	d	
		ipP	39 58.9	c	
		iSE	47 31.0		
		iSKSE	45.6		
	MIN	eP	38 17.7	d	
		iPcP	26.2	c	
		ipP	40 06.6	d	
Feb. 1	JAS	iP	08 44 28.4	d	USCGS: 21.4°S, 178.6°W, 0 = 08 31 20.7. Fiji Islands. h about 510 km.
Feb. 1	JAS	iZ	19 40 24.0	d	USCGS: 5.8°S, 147.4°E, 0 = 19 27 12. East New Guinea. h about 80 km.
	MIN	eP	31.9	c	
Feb. 2	MIN	eP	03 01 48.6	d	USCGS: 5.5°S, 147.0°E, 0 = 02 48 51. East New Guinea. h about 217 km.

Date	Sta.	Phase	Time (GCT) h m s	Ground Motion	Remarks
1965					
Feb. 2	BKS	eP	03 44 19.5	d	USCGS: 14.0°N, 91.0°W, 0 = 03 37 13.9. Guatemala. h about 33 km.
	MHC	eP	13.2	c	
	JAS	ePEZ	08.4	Wc	
		ipP	18.7	d	
	MIN	iP	27.6	c	
	PRI	eP	02.0	c	USCGS: 14.3°N, 90.4°W, 0 = 03 46 36.2. Guatemala. h about 94 km.
Feb. 2	JAS	iP	03 53 26.4	d	
		ipP	34.8	c	
	MIN	eP	44.6	c	
Feb. 2	BKS	eRNZ	04 36 48.0	Nc	USCGS: 17.2°N, 94.5°W, 0 = 04 30 33.1. Chiapas, Mexico. h about 140 km.
			mu sec		
			0.082 1.1		
	MHC	PZ	04 36 41.7	d	
		eP	37.0	SEd	
	JAS	iPNEZ	55.4	d	
	MIN	eP	29.7	d	
	PRI	eP	10 09 57.5	d	USCGS: 21.4°S, 176.2°W, 0 = 09 58 17.7 Fiji Islands. h about 171 km.
Feb. 2	BKS	eP	10 05.2	d	
		ePcP	39.5	d	
		epP	mu sec		
			0.046 1.1		
	MHC	PZ	10 09 57.9	d	
		eP	10 39.6	d	
		epP	03.4	d	
	JAS	iP	10.2	d	
		iPcP	46.4	c	
		ipP	07.4	c	
	MIN	iP	49.3	d	
		ipP	09 57.5	d	
	PRI	eP	10 38.5	d	
		epP	16 15 11.1	d	
Feb. 2	JAS	iZ	16 42 52.2	c	USCGS: 60.7°N, 154.3°W, 0 = 16 36 30. Southern Alaska. h about 10 km.
Feb. 2	JAS	iP			USCGS: 50.0°N, 177.1°W, 0 = 19 21 54. Andreanof Islands. h about 33 km.
Feb. 2	BKS	eP	19 29 32.2	d	
	MHC	eP	38.2	d	
	JAS	iP	41.9	d	
	MIN	eZ	23.4	c	
	PRI	eP	54.7	c	
Feb. 3	JAS	iP	06 36 32.6	d	USCGS: 31.4°S, 68.6°W, 0 = 06 24 12. San Juan Province, Argentina. h about 115 km.
Feb. 3	BKS	eP	18 35 51	c	USCGS: 13.9°N, 92.0°W, 0 = 18 28 51. Off coast of Chiapas, Mexico. h about 56 km.
		eG	46.0		
		eR	49.1		
	MHC	eP	35 42.9	c	
	JAS	eP	38.4	c	
		ipP	38 12.9	c	
	MIN	eZ	35 56.9	d	
Feb. 4	JAS	iP	00 18 53.2	d	

Date	Sta.	Phase	Time (GCT) h m s	Ground Motion	Remarks
1965					
Feb. 4	JAS	iP	01 09 39.3	c	USCGS: 45.5°S, 73.8°W, 0 = 00 56 23. Near coast of Southern Chile. h about 33 km.
Feb. 4	BKS	eP'	03 43 57.0	d	USCGS: 51.8°S, 139.7°E, 0 = 03 25 00.8. South of Australia. h about 33 km.
		eSSNE	04 02 28	NW	
		eSSSE	06 24	W	
		eG	13.5		
		eRNE	20.7		
			mu sec		
		MaxH	4.38 24		
	MHC	eP'	03 43 58.0	c	
	JAS	iP'	44 00.3	d	
		ipP	45 56.9	c	
	MIN	eP'	43 58.3	c	
	PRI	eP'	57.9	c	
Feb. 4	BKS	eP	05 01 57.8	d	USCGS: 51.1°N, 178.4°E, 0 = 04 53 57.7. Rat Islands. h about 40 km. Foreshock of following earthquake.
	MHC	eP	02 02.7	d	
	JAS	iP	05.5	d	
		ipP	11.6	c	
	MIN	eP	01 48.7	d	
	PRI	eP	02 14.1	d	
Feb. 4	BKS	eP	05 09 19.0	c	USCGS: 51.3°N, 178.6°E, 0 = 05 01 21.8. Rat Islands. h about 40 km.
			mu sec		
			25 2.5		
		MaxH	2,000 15		
	MHC	eP	05 09 25.0	c	Magnitude 7 ³ / ₄ (BKS). Slight damage to runways and buildings at U.S. Air Force station on Shemya Island. Seismic Sea Wave generated.
	JAS	iP	27.7	c	
	MIN	iP	10.0	c	
	PRI	eP	36.1	c	
Feb. 4	BKS	iP	05 57 07.5	d	Aleutian aftershock. Magnitude 5.7 (BKS).
	MHC	eP	13.3	d	
		epP	22.9	c	
	PRI	eP	24.9	d	
		epP	34.0	c	
Feb. 4	BKS	eP	06 13 13.7	d	USCGS: 51.7°N, 174.9°E, 0 = 06 04 58. Aleutian aftershock. h about 35 km.
	MHC	eP	19.2	d	
	PRI	eP	30.4	d	Magnitude 5.7 (BKS).
Feb. 4	BKS	eP	06 47 43.0	c	USCGS: 51.7°N, 175.8°E, 0 = 06 39 30.1. Aleutian aftershock. h about 30 km.
		ipP	54.4	c	
			mu sec		
			0.276 1.3		
	MHC	eP	06 47 48.4	d	
	PRI	eP	59.8	c	
Feb. 4	MIN	iP	07 31 29.8	d	USCGS: 51.9°N, 173.2°E, 0 = 07 23 12.3. Aleutian aftershock. h about 25 km.
Feb. 4	BKS	eP	07 48 33.7		USCGS: 50.9°N, 177.7°E, 0 = 07 40 27. Aleutian aftershock. h about 33 km.
	MHC	eP	49.1	c	
	MIN	iP	27.0	c	
	PRI	eP	53.6	c	

Date	Sta.	Phase	Time (GCT) h m s	Ground Motion	Remarks
1965					
Feb. 4	MIN	eZ	08 12 06.3	d	USCGS: 52.1°N, 172.8°E, 0 = 08 04 09.4. Aleutian aftershock. h about 30 km.
Feb. 4	MIN	iP	08 14 25.8	d	USCGS: 51.9°N, 174.3°E, 0 = 08 06 16.6. Aleutian aftershock. h about 40 km.
Feb. 4	MIN	ipP	34.5	c	
Feb. 4	MIN	iZ	08 45 24.6	c	USCGS: 51.7°N, 174.6°E, 0 = 08 37 14.5. Aleutian aftershock. h about 35 km.
Feb. 4	MIN	iP	08 47 07.9	d	USCGS: 51.2°N, 179.3°E, 0 = 08 39 22.6. Aleutian aftershock. h about 25 km.
Feb. 4	BKS	iP	08 48 31.5	d	USCGS: 51.3°N, 179.5°E, 0 = 08 40 40.9. Aleutian aftershock. h about 40 km.
		ipP	49.0	c	
		iPcP	50 02.8	c	
		ePP	13.0	d	
		ePcS	54 09.0	d	
		eSNEZ	59.0	NWc	
		eGNE	58 14.0		
		eR	09 01.1		
			mu sec		
		PZ	0.97 1.5		
		PPZ	2.707 3.0		
		SH	4.6 3.0		
	MHC	eP	08 48 37.0	d	
	MIN	iP	25.1	d	
	PRI	eP	48.7	d	
Feb. 4	MIN	eP	09 14 22.2	c	USCGS: 51.2°N, 177.4°E, 0 = 09 06 27. Aleutian aftershock. h about 40 km.
Feb. 4	MIN	ipP	34.2	c	
Feb. 4	MIN	iP	09 20 06.9	d	USCGS: 50.9°N, 174.3°E, 0 = 09 11 55.5. Aleutian aftershock. h about 35 km.
Feb. 4	MIN	ipP	15.9	d	
Feb. 4	MIN	iP	09 51 01.8	c	USCGS: 51.8°N, 174.6°E, 0 = 09 42 51.6. Aleutian aftershock. h about 15 km.
Feb. 4	JAS	iP	10 00 25.8	d	USCGS: 51.5°N, 175.9°E, 0 = 09 52 02.9. Aleutian aftershock. h about 30 km.
	MIN	iP	07.0	c	
		ipP	16.8	d	
Feb. 4	JAS	iP	10 09 28.7	d	USCGS: 51.7°N, 174.7°E, 0 = 10 01 01. Aleutian aftershock. h about 33 km.
Feb. 4	MIN	iP	09.9	d	
Feb. 4	JAS	iP	10 47 07.3	d	USCGS: 51.7°N, 175.2°E, 0 = 10 38 44. Aleutian aftershock. h about 35 km.
Feb. 4	MIN	iP	46 51.4	c	
Feb. 4	JAS	iP	10 49 52.1	c	USCGS: 51.5°N, 176.5°E, 0 = 10 41 33. Aleutian aftershock. h about 35 km.
Feb. 4	MIN	iP	34.6	c	
Feb. 4	JAS	iP	11 08 45.3	c	USCGS: 51.5°N, 176.5°E, 0 = 11 00 27. Aleutian aftershock. h about 40 km.
Feb. 4	MIN	iP	26.6	d	
Feb. 4	JAS	iP	11 35 56.0	d	USCGS: 51.5°N, 174.9°E, 0 = 11 27 22. Aleutian aftershock. h about 20 km.
Feb. 4	MIN	iP	32.4	c	
		ipP	39.2	c	
Feb. 4	JAS	iP	11 56 38.4	c	USCGS: 51.2°N, 177.2°E, 0 = 11 48 23. Aleutian aftershock. h about 40 km.
		ipP	50.2	c	
Feb. 4	MIN	iP	28.3	c	
Feb. 4	JAS	iP	12 06 25.8	c	USCGS: 51.6°N, 176.3°E, 0 = 11 58 06. Aleutian aftershock. h about 40 km.
	MIN	iP	07.6	d	

Date	Sta.	Phase	Time (GCT) h m s	Ground Motion	Remarks
1965					
Feb. 4	BKS	ePEZ	12 14 34.6	Ec	USCGS: 52.6°N, 172.1°E, 0 = 12 06 04.3. Aleutian aftershock. h about 25 km.
		ipP	50.6	c	
		ePP	16 13.5	c	
		eScSNEZ	24 28.4	NWc	Magnitude 5 $\frac{3}{4}$ (BKS).
			mu sec		
		PZ	1.04 2.5		
		PPZ	0.71 2.5		
	MHC	eP	12 14 40.5	c	
	JAS	iP	42.7	c	
	MIN	eP	24.3	d	
		ipP	41.3	c	
Feb. 4	JAS	iP	12 59 25.9	d	USCGS: 51.6°N, 174.8°E, 0 = 12 50 57.5. Aleutian aftershock. h about 25 km.
Feb. 4	MIN	iP	07.4	c	
Feb. 4	JAS	iP	13 41 40.0	d	USCGS: 51.8°N, 174.6°E, 0 = 13 33 12.9. Aleutian aftershock. h about 33 km.
Feb. 4	MIN	iP	22.9	c	
Feb. 4	JAS	iP	14 27 08.3	c	USCGS: 53.0°N, 171.0°E, 0 = 14 18 27.9. Aleutian aftershock. h about 30 km.
		iPcSE	34 07.3		
		iSNE	12.3	SW	
	MIN	iP	26 51.6	c	
Feb. 4	JAS	iP	14 38 03.1	c	USCGS: 51.4°N, 176.6°E, 0 = 14 29 44.7. Aleutian aftershock. h about 35 km.
Feb. 4	MIN	iP	37 44.3	d	
Feb. 4	JAS	iP	16 00 07.1	d	USCGS: 53.1°N, 170.8°E, 0 = 15 51 25.5. Aleutian aftershock. h about 40 km.
Feb. 4	JAS	iP	16 36 32.5	c	USCGS: 51.5°N, 176.4°E, 0 = 16 28 14.6. Aleutian aftershock. h about 35 km.
Feb. 4	MIN	iP	14.8	d	
Feb. 4	JAS	eP	16 41 09.4	c	USCGS: 52.0°N, 173.1°E, 0 = 16 32 36.0. Aleutian aftershock. h about 30 km.
Feb. 4	MIN	iZ	40 59.7	d	
Feb. 4	JAS	iP	17 12 52.7	d	USCGS: 51.3°N, 176.9°E, 0 = 17 04 35.4. Aleutian aftershock. h about 20 km.
		ISE	19 34.9		
	MIN	eP	12 35.8	c	
Feb. 4	JAS	iP	17 59 08.7	c	USCGS: 51.9°N, 175.2°E, 0 = 17 50 43.4. Aleutian aftershock. h about 25 km.
Feb. 4	MIN	eP	58 52.3	c	
Feb. 4	JAS	iP	18 15 25.2	c	USCGS: 50.9°N, 175.5°E, 0 = 18 06 57. Aleutian aftershock. h about 20 km.
Feb. 4	MIN	iP	10.0	c	
Feb. 4	JAS	iP	18 42 34.9	d	USCGS: 51.2°N, 176.7°E, 0 = 18 34 07.3. Aleutian aftershock. h about 35 km.
		ISE	48 24.7		
	MIN	iP	42 19.1	c	
Feb. 4	JAS	iP	18 48 14.0	c	USCGS: 51.5°N, 174.8°E, 0 = 18 39 47.2. Aleutian aftershock. h about 33 km.
Feb. 4	MIN	iP	47 56.0	c	
Feb. 4	JAS	iP	19 20 32.1	d	USCGS: 51.3°N, 175.1°E, 0 = 19 12 06.7. Aleutian aftershock. h about 36 km.
		ipP	42.1	d	
	MIN	iP	14.0	d	
		ipP	24.0	c	
Feb. 4	MHC	eP	19 55 27.3	c	USCGS: 13.3°N, 44.8°W, 0 = 19 44 05.6. North Atlantic Ridge. h about 33 km.
	JAS	iP	20.7	c	
	MIN	iP	26.2	c	
Feb. 4	JAS	iP	20 02 02.8	c	USCGS: 51.6°N, 175.3°E, 0 = 19 54 37.1. Aleutian aftershock. h about 25 km.

Date	Sta.	Phase	Time (GCT) h m s	Ground Motion	Remarks
1965					
Feb. 4	BKS	eZ	20 12.8		USCGS: 51.6°N, 174.7°E, 0 = 19 57 49.1. Aleutian aftershock. h about 25 km.
		eRE	18.3		
	JAS	iP	06 17.3	c	
		ipP	25.8	d	
	MIN	iP	05 59.0	d	USCGS: 51.5°N, 175.4°E, 0 = 20 47 12.1. Aleutian aftershock. h about 30 km.
Feb. 4	JAS	iP	20 55 36.3	d	USCGS: 51.8°N, 174.2°E, 0 = 22 30 05.1. Aleutian aftershock. h about 31 km.
		ipP	44.9	d	
Feb. 4	JAS	iP	22 38 32.3	d	USCGS: 52.0°N, 176.6°E, 0 = 00 31 35.5. Aleutian aftershock. h about 40 km.
Feb. 5	JAS	iP	00 39 52.8	d	USCGS: 51.5°N, 174.9°E, 0 = 02 58 28.5. Aleutian aftershock. h about 36 km.
	MIN	eZ	24.5	d	
Feb. 5	JAS	iP	03 06 55.3	d	
		ipP	07 04.7	d	
	MIN	eP	06 39.2	c	
		ipP	47.7	d	
Feb. 5	JAS	iP	05 15 05.9	d	USCGS: 51.4°N, 176.8°E, 0 = 05 06 50. Aleutian aftershock. h about 46 km.
	MIN	iP	14 48.4	d	USCGS: 51.8°N, 175.1°E, 0 = 06 39 49. Aleutian aftershock. h about 25 km.
Feb. 5	JAS	iP	06 48 15.3	c	USCGS: 52.3°N, 174.3°E, 0 = 09 32 09. Aleutian aftershock. h about 41 km.
	MIN	iP	47 59.0	d	
Feb. 5	BKS	eP	09 40 28	c	
		ipP	37.5	d	
		eScP	45 32	d	
		eSNEZ	47 08	NEd	Magnitude 5½ (BKS).
		eSSEZ	50 40	Wc	
		eGE	50.9		
		eR	53 10		
			mu sec		
		PZ	0.188 1.6		
		SH	5.4 16		
	MHC	eP	09 40 32.4	c	
		epP	44.9	d	
	JAS	iP	35.8	d	
		ipP	47.6	d	
		iScP	45 57.8	c	
	MIN	iP	40 17.9	d	
	PRI	eP	45.2	d	
		epP	55.7	d	
Feb. 5	JAS	iP	13 47 16.4	c	USCGS: 52.0°N, 174.0°E, 0 = 13 38 46. Aleutian aftershock. h about 35 km.
	MIN	iP	46 58.2	d	USCGS: 51.5°N, 176.7°E, 0 = 22 15 59. Aleutian aftershock. h about 25 km.
Feb. 5	JAS	iP	22 24 18.8	c	
		ipP	30.8	c	
	MIN	iP	00.7	c	
		ipP	15.2	d	
Feb. 6	BKS	eP	01 46 52.8	c	USCGS: 53.2°N, 161.9°W, 0 = 01 40 33. South of Alaska. h about 33 km. Magnitude 6¼ - 6½ (BKS).
		ePcP	49 46.0	c	
		eS	52 06.0		
		eScP	52		
		eG	53 50		
		eR	54.0		

Date	Sta.	Phase	Time (GCT) h m s	Ground Motion	Remarks
1965					
Feb. 6			mu sec		
(Cont.)		PZ	2.25 3.3		
	MHC	eP	01 46 59.6	c	
	JAS	iP	47 01.3	d	
	MIN	iP	46 42.6	c	
		iPcP	49 41.5	c	
	PRI	eP	47 12.0	c	
		ePP	48 24.2		
		ePcP	49 48.3	d	
Feb. 6	JAS	iP	04 11 13.7	d	USCGS: 52.1°N, 175.7°E, 0 = 04 02 53. Aleutian aftershock. h about 35 km.
	MIN	eP	10 55.4	d	
Feb. 6	JAS	iP	12 30 49.4	c	USCGS: 51.8°N, 175.3°E, 0 = 12 22 26.2. Aleutian aftershock. h about 35 km.
	MIN	eP	32.2	c	
		ipP	44.3	d	
Feb. 6	JAS	iP	14 19 38.3	c	USCGS: 51.7°N, 174.2°E, 0 = 14 11 10.1. Aleutian aftershock. h about 38 km.
		ipP	48.8	d	
	MIN	eP	21.8	c	
Feb. 6	BKS	ePNEZ	16 56 47.8	NWd	USCGS: 53.3°N, 161.8°W, 0 = 16 50 29. South of Alaska. h about 33 km.
		ePP	58 06.0	d	
		ePcP	59 40.0	d	
		eSNE	17 01 58.0		Magnitude 6¼ - 6½ (BKS).
		eG	03.5		
			mu sec		
		PZ	8.05 12		
	MHC	eP	16 56 54.0	d	
	JAS	iP	55.6	d	
	MIN	eP	35.3	c	
		iPcP	59 37.5	c	
	PRI	eP	57 06.8	d	
Feb. 6	BKS	iP	18 15 35.0	d	USCGS: 51.3°N, 176.5°E, 0 = 18 07 24.7. Aleutian aftershock. h about 33 km.
	MHC	eP	40.2	c	
	JAS	iP	42.9	c	
		ipP	47.8	d	
	PRI	eP	51.4	c	
Feb. 6	BKS	eP	18 18 38.0	c	USCGS: 51.5°N, 176.5°E, 0 = 18 10 28.8. Aleutian aftershock. h about 35 km.
	MHC	eP	42.8	c	
	JAS	iP	46.9	d	
		ipP	53.5	d	
		iS	25 28.9		
	PRI	eP	18 53.0	c	
Feb. 6	JAS	iP	21 11 39.4	d	USCGS: 52.8°N, 172.0°E, 0 = 21 02 59.6. Aleutian aftershock. h about 20 km.
Feb. 6	BKS	eP	22 34 10.2	d	USCGS: 51.9°N, 178.5°E, 0 = 22 26 10.5. Aleutian aftershock. h about 33 km.
	MHC	eP	18.0	c	
	JAS	iP	18.3	c	
	MIN	iP	01.4	c	
	PRI	eP	25.0	d	
Feb. 6	BKS	eP	22 43 17.0	c	USCGS: 51.3°N, 174.5°E, 0 = 22 34 44.8. Aleutian aftershock. h about 35 km.
	JAS	iP	12.9	c	

Date	Sta.	Phase	Time (GCT) h m s	Ground Motion	Remarks
1965					
Feb. 6 (Cont.)	MIN	ipP	22 43 22.4	d	
Feb. 6	BKS	eP	23 31 49.7	c	USCGS: 51.5°N, 176.5°E, 0 = 23 23 40.4, Aleutian aftershock. h about 33 km.
Feb. 6	MHC	eP	53.8	c	
Feb. 6	JAS	iP	58.7	c	
Feb. 6	MIN	iP	41.0	d	
Feb. 6	PRI	eP	32 04.0	c	USCGS: 51.9°N, 173.4°E, 0 = 23 48 16.9, Aleutian aftershock. h about 31 km.
Feb. 6	BKS	eP	23 56 46.8	c	
Feb. 6	JAS	iP	49.7	c	
Feb. 7	PRI	ipP	57 00.0	d	
Feb. 7	JAS	eP	56 58.5	d	USCGS: 52.2°N, 172.1°E, 0 = 01 00 12.5, Aleutian aftershock. h about 30 km.
Feb. 7	MIN	eZ	01 08 50.5	c	
Feb. 7	BKS	eP	02 25 32.4	d	USCGS: 51.4°N, 173.4°E, 0 = 02 17 09.2, Aleutian aftershock. h about 40 km.
Feb. 7	MHC	eP	26 15.8	c	
Feb. 7	JAS	iP	32 37.2	c	
Feb. 7	MIN	iP	25 23.7	c	
Feb. 7	PRI	eP	48.6	c	
Feb. 7	BKS	eP	04 32 00	d	USCGS: 51.9°N, 175.3°E, 0 = 04 11 19, Aleutian aftershock. h about 25 km.
Feb. 7	MHC	eP	19 40.3	c	
Feb. 7	JAS	eZ	43.6	d	
Feb. 7	MIN	iZ	26 28.7	c	
Feb. 7	PRI	eP	19 35.1	c	
Feb. 7	JAS	iP	04 25 08.1	c	USCGS: 51.8°N, 176.3°E, 0 = 04 24 29, Aleutian aftershock. h about 33 km.
Feb. 7	JAS	iP	04 32 53.3	c	USCGS: 51.5°N, 175.0°E, 0 = 04 35 48, Aleutian aftershock. h about 30 km.
Feb. 7	JAS	iP	04 44 14.1	d	USCGS: 51.7°N, 174.9°E, 0 = 05 58 54, Aleutian aftershock. h about 25 km.
Feb. 7	BKS	eP	06 07 13.0	c	
Feb. 7	MHC	eP	17.8	d	
Feb. 7	JAS	iP	21.1	d	
Feb. 7	MIN	iP	03.9	d	
Feb. 7	PRI	eP	28.8	c	
Feb. 7	BKS	eP	08 48 27	c	USCGS: 51.8°N, 174.7°E, 0 = 08 40 05, Aleutian aftershock. h about 35 km.
Feb. 7	MHC	eP	26.3	c	
Feb. 7	JAS	iP	31.9	d	
Feb. 7	JAS	ipP	39.9	c	

Date	Sta.	Phase	Time (GCT) h m s	Ground Motion	Remarks
1965					
Feb. 7 (Cont.)	MIN	iP	08 48 14.5	c	
Feb. 7	PRI	eP	25.2	c	
Feb. 7	BKS	eS	09 40 12	c	USCGS: 51.4°N, 179.1°E, 0 = 09 25 51.1, Aleutian aftershock. h about 30 km.
Feb. 7	BKS	eG	44 30	c	
Feb. 7	MHC	MaxH	8 24	c	
Feb. 7	MHC	eP	09 33 53.6	d	
Feb. 7	JAS	iP	56.5	c	
Feb. 7	JAS	iSE	40 27.2	c	
Feb. 7	MIN	iP	33 43.5	c	
Feb. 7	PRI	eP	34 05.6	d	
Feb. 7	BKS	eR	11 45 20	c	USCGS: 52.2°N, 172.4°E, 0 = 11 23 14.8, Aleutian aftershock. h about 35 km.
Feb. 7	MHC	eP	31 48.5	c	
Feb. 7	JAS	iPNEZ	51.9	SEc	
Feb. 7	MIN	eZ	34.8	c	
Feb. 7	PRI	eP	59.9	c	
Feb. 7	BKS	eP	11 53 58	d	USCGS: 51.2°N, 177.3°E, 0 = 11 45 52.8, Aleutian aftershock. h about 33 km.
Feb. 7	MHC	eP	54 04.7	d	
Feb. 7	JAS	eP	04.9	c	
Feb. 7	MIN	iP	53 49.2	d	
Feb. 7	PRI	eP	54 17.4	d	
Feb. 7	JAS	iP	12 30 00.5	c	USCGS: 53.0°N, 171.7°E, 0 = 12 21 21.1, Aleutian aftershock. h about 25 km.
Feb. 7	MIN	iZ	29 25.7	d	
Feb. 7	BKS	eP	13 29 06	c	USCGS: 51.1°N, 175.8°E, 0 = 13 20 46.3, Aleutian aftershock. h about 40 km.
Feb. 7	MHC	eP	01	d	
Feb. 7	JAS	iP	07.0	d	
Feb. 7	MIN	iP	28 51.3	d	
Feb. 7	PRI	eP	29 12.8	d	
Feb. 7	MHC	eZ	16 11 53.0	c	USCGS: 51.3°N, 179.0°E, 0 = 16 03 52.3, Aleutian aftershock. h about 40 km.
Feb. 7	JAS	iP	57.1	d	
Feb. 7	PRI	eZ	12 06.1	c	
Feb. 7	JAS	iP	17 21 41.2	c	USCGS: 52.2°N, 173.1°E, 0 = 17 13 08.2, Aleutian aftershock. h about 35 km.
Feb. 7	JAS	iP	17 28 58.7	c	USCGS: 50.9°N, 173.7°E, 0 = 17 20 27, Aleutian aftershock. h about 40 km.
Feb. 7	JAS	iP	17 48 54.8	c	USCGS: 50.9°N, 173.5°E, 0 = 17 40 17, Aleutian aftershock. h about 40 km.
Feb. 7	JAS	iP	18 07 40.0	c	USCGS: 51.4°N, 175.0°E, 0 = 17 59 15.6, Aleutian aftershock. h about 40 km.
Feb. 7	BKS	eP	19 38 22.0	d	USCGS: 55.2°N, 165.2°E, 0 = 19 29 23.9, Komandorsky Islands region. h about 20 km.
Feb. 7	MHC	eP	26.0	d	
Feb. 7	JAS	iP	29.3	c	
Feb. 7	MIN	eP	11.3	c	
Feb. 7	PRI	eP	37.6	c	
Feb. 8	JAS	iP	06 31 10.9	c	
Feb. 8	JAS	ipPNZ	20.7	Nd	
Feb. 8	MIN	eP	53.5	d	
Feb. 8	MIN	ipP	32 03.1	c	

Date	Sta.	Phase	Time (GCT) h m s	Ground Motion	Remarks
1965					
Feb. 8	BKS	epP	06 42 49.8	c	USCGS: 18.6°N, 145.6°E, 0 = 06 30 49.0 Mariana Islands. h about 116 km.
	MHC	eP	45.4	c	
	JAS	iP	56.6	d	
	MIN	iP	48.5	c	
	PRI	eP	58.4	d	
Feb. 8	JAS	iP	06 51 39.1	d	USCGS: 50.9°N, 173.4°E, 0 = 06 43 04. Aleutian aftershock. h about 35 km.
	JAS	ipP	40.9	d	
Feb. 8	JAS	iP	07 22 36.7	d	USCGS: 51.5°N, 175.9°E, 0 = 07 14 14.5 Aleutian aftershock. h about 25 km.
	MIN	eP	18.7	c	
Feb. 8	BKS	eP	07 31 27.5	d	USCGS: 51.8°N, 174.6°E, 0 = 07 23 08.8 Aleutian aftershock. h about 33 km.
	MHC	eP	30.3	d	
	JAS	iP	36.1	d	
	JAS	ipP	47.1	d	
	MIN	eP	18.3	d	
		epP	27.4	c	
	PRI	eP	39.7	c	USCGS: 52.1°N, 176.7°E, 0 = 09 29 25. Aleutian aftershock. h about 25 km.
Feb. 8	BKS	iP	09 37 42.8	c	
	MIN	eP	24.7	c	
Feb. 8	JAS	eP	09 46 12.8	c	USCGS: 52.2°N, 177.6°E, 0 = 09 37 51. Aleutian aftershock. h about 25 km.
	MIN	iP	04.2	d	
	PRI	eZ	46.0	c	
Feb. 8	BKS	eP	10 17 36	c	USCGS: 51.7°N, 175.0°E, 0 = 10 09 18. Aleutian aftershock. h about 25 km.
	MHC	eP	42.2	d	
	JAS	iP	45.4	d	
		ipP	51.8	d	
	MIN	eP	26.4	d	
		ipP	33.3	d	
	PRI	eP	53.1	d	USCGS: 51.4°N, 176.6°E, 0 = 13 34 23. Aleutian aftershock. h about 20 km.
Feb. 8	BKS	eP	13 42 37.8	c	
	JAS	iP	44.9	c	
Feb. 8	MHC	eP	15 49 56.5	c	USCGS: 52.5°N, 172.0°E, 0 = 15 41 19. Aleutian aftershock. h about 25 km.
	JAS	iP	59.0	c	
		ipP	50 05	c	
	MIN	iP	49 41.2	c	USCGS: 55.1°N, 165.7°E, 0 = 15 46 49. Komandorsky Islands. h about 40 km.
Feb. 8	BKS	iP	15 55 44.1	c	
		ipP	56.0	d	
		iPcP	57 03	d	
		eSNEZ	16 02 54	SEc	
		iSS	06 26	d	
		eGNE	07.7		
		eRE	10.1		
			mu sec		
		PZ	2.26 8		
		SH	6.9 24		
		MaxH	7.1 16		
	MHC	eP	15 55 50.7	c	
	JAS	iP	51.5	d	
		eS	16 03 13.7		
	MIN	iP	15 55 33.0	d	

Date	Sta.	Phase	Time (GCT) h m s	Ground Motion	Remarks
1965					
Feb. 8	MHC	eP	17 46 25.7	c	USCGS: 55.2°N, 165.3°E, 0 = 17 37 24.6. Komandorsky Islands. h about 30 km.
	JAS	iP	28.6	d	
	MIN	iP	09.1	d	
Feb. 8	JAS	iP	21 42 59.0	c	USCGS: 28.7°N, 142.2°E, 0 = 21 31 02.5. Bonin Islands. h about 40 km.
Feb. 8	JAS	iP	23 34 32.9	c	USCGS: 55.1°N, 165.2°E, 0 = 23 25 52.6. Komandorsky Islands. h about 40 km.
Feb. 9	BKS	iP	04 42 52.7	d	USCGS: 51.6°N, 179.0°E, 0 = 04 34 55. Aleutian aftershock. h about 40 km.
	MHC	eP	58.3	c	
	JAS	iP	43 01.3	c	
		ipP	06.2	d	
	MIN	iP	42 42.6	c	
	PRI	eP	43 08.9	c	
Feb. 9	BKS	iP	05 54 21.3	c	USCGS: 18.8°S, 169.2°E, 0 = 05 42 06.8. New Hebrides Islands. h about 223 km.
	MHC	eP	22.5	c	
	JAS	iPNEZ	27.4	SEc	
	MIN	eP	28.1	c	
		ipP	41.7	c	
	PRI	iP	23.5	c	
Feb. 9	JAS	iP	08 25 38.0	c	USCGS: 28.6°N, 142.4°E, 0 = 08 13 37. Bonin Islands. h about 33 km.
Feb. 9	JAS	iP	12 04 27.9	c	USCGS: 17.0°S, 68.4°W, 0 = 11 53 00.5. Peru-Bolivia border. h about 61 km.
Feb. 9	MHC	eP	17 12 07.8	d	USCGS: 26.1°S, 179.5°E, 0 = 17 00 27.9. South of Fiji Islands. h about 491 km.
	JAS	iP	12.0	d	
	PRI	eP	07.3	d	
Feb. 9	BKS	eZ	17 45 54	d	USCGS: 52.8°N, 171.9°E, 0 = 17 37 15.9. Aleutian aftershock. h about 41 km.
	MHC	eP	51.2	c	
	JAS	iPNEZ	53.3	NWd	
	MIN	iP	30.8	d	
	PRI	eP	57.7	c	
Feb. 9	MHC	eP	18 27 00.4	d	USCGS: 51.8°N, 173.9°E, 0 = 18 18 21.2. Aleutian aftershock. h about 10 km.
	JAS	iP	26 54.7	d	
	MIN	eZ	41.1	d	
	PRI	eP	27 10.4	d	
Feb. 9	JAS	iZ	20 38 33.7	d	
Feb. 9	JAS	iP	23 19 59.1	d	
	MIN	eZ	49.8	d	
Feb. 10	JAS	iP	00 46 25.8	d	USCGS: 52.4°N, 173.5°E, 0 = 00 38 06.1. Aleutian aftershock. h about 35 km.
Feb. 10	BKS	eP	01 37 41.3	c	USCGS: 12.2°S, 167.2°E, 0 = 01 25 46.5. Santa Cruz Islands. h about 268 km.
	MHC	eP	42.7	c	
	JAS	iP	47.5	c	
	MIN	iP	48.0	d	
	PRI	eP	45.0	c	
Feb. 10	MIN	iP	02 16 50.2	c	USCGS: 52.2°N, 172.9°E, 0 = 02 08 32.9. Aleutian aftershock. h about 33 km.
Feb. 10	JAS	iP	04 32 42.9	c	
	MIN	iP	31.8	c	

Date	Sta.	Phase	Time (GCT) h m s	Ground Motion	Remarks
1965					
Feb. 10	JAS	iP	05 14 14.0	c	USCGS: 50.7°N, 175.0°E, 0 = 05 06 44. Aleutian aftershock. h about 33 km
	MIN	iP	53.1	c	
Feb. 10	JAS	iP	06 08 59.1	d	USCGS: 14.7°S, 167.2°E, 0 = 06 37 58.0 New Hebrides Islands. h about 156 km.
Feb. 10	JAS	iP	06 50 19.5	d	USCGS: 51.4°N, 175.2°E, 0 = 08 12 00.1 Aleutian aftershock. h about 35 km
Feb. 10	BKS	eZ	08 20 17.2	d	
	MHC	eP	21.5	c	
	JAS	iP	23.9	c	
	MIN	eP	07.5	c	
	PRI	eP	31.6	c	
Feb. 10	JAS	iP	09 59 56.0	d	USCGS: 51.6°N, 171.7°E, 0 = 09 51 14. Aleutian aftershock. h about 33 km
Feb. 10	JAS	iP	11 16 30.1	d	USCGS: 50.5°N, 176.6°E, 0 = 11 08 12. Aleutian aftershock. h about 35 km
	MIN	iP	12.0	c	
Feb. 10	JAS	iZ	11 22 04.7	c	USCGS: 52.2°N, 175.3°E, 0 = 15 16 50. Aleutian aftershock. h about 33 km
Feb. 10	JAS	iP	15 25 13.1	c	
Feb. 10	JAS	iP	17 40 33.1	c	USCGS: 51.0°N, 176.7°E, 0 = 18 27 53. Aleutian aftershock. h about 25 km
Feb. 10	JAS	iP	18 36 12.3	d	
	MIN	iP	35 56.4	d	
Feb. 10	JAS	iZ	18 49 08.1	c	
Feb. 10	MIN	iP	22 33 26.4	d	USCGS: 51.3°N, 173.7°E, 0 = 00 31 46. Aleutian aftershock. h about 35 km
Feb. 11	JAS	iP	00 40 31.3	d	USCGS: 51.4°N, 175.2°E, 0 = 01 05 13. Aleutian aftershock. h about 35 km
Feb. 11	JAS	iP	01 13 37.8	c	USCGS: 51.8°N, 173.8°E, 0 = 01 10 30. Aleutian aftershock. h about 30 km
	MIN	iP	20.4	c	
Feb. 11	JAS	iP	01 19 01.8	d	USCGS: 21.8°S, 176.4°W, 0 = 02 33 22. Fiji Islands region. h about 17 km
	MIN	eP	49.5	d	
Feb. 11	BKS	eP	02 45 11.5	c	
	MHC	eP	11.7	c	
	JAS	iP	17.5	c	
		eS	56 08.3	c	
	MIN	eP	45 20.8	c	
	PRI	eP	11.2	c	
Feb. 11	JAS	iP	06 33 49.1	d	USCGS: 51.2°N, 177.1°E, 0 = 06 25 33. Aleutian aftershock. h about 33 km
	MIN	iZ	39.9	d	
Feb. 11	JAS	iP	06 47 47.5	c	USCGS: 52.2°N, 171.2°E, 0 = 06 39 00. Aleutian aftershock. h about 40 km
	MIN	iP	42.8	d	
Feb. 11	JAS	iP	06 55 06.3	d	USCGS: 52.9°N, 171.6°E, 0 = 06 46 48. Aleutian aftershock. h about 25 km
	MIN	eP	54 46.6	d	
Feb. 11	JAS	iP	09 03 40.1	d	USCGS: 52.4°N, 178.4°E, 0 = 08 55 55. Aleutian aftershock. h about 33 km
	MIN	iP	24.8	c	
Feb. 11	JAS	iP	13 12 16.7	c	USCGS: 51.0°N, 175.9°E, 0 = 13 04 44. Aleutian aftershock. h about 35 km
	MIN	eP	11 59.0	c	
Feb. 11	JAS	iP	15 36 09.9	c	USCGS: 51.3°N, 176.1°E, 0 = 15 27 34. Aleutian aftershock. h about 34 km
	MIN	iP	18.7	c	
		ipP	35 52.8	d	
		ipP	36 01.8	c	

Date	Sta.	Phase	Time (GCT) h m s	Ground Motion	Remarks
1965					
Feb. 11	MHC	eP	16 19 51.9	d	USCGS: 1.4°S, 77.8°W, 0 = 16 10 30.4. Ecuador. h about 190 km.
	JAS	iP	47.6	d	
		ipP	20 30.8	d	
	MIN	iP	03.2	c	
Feb. 11	JAS	iP	19 21 43.7	c	
Feb. 11	BKS	eP	21 54 47.3	c	USCGS: 31.6°N, 113.9°W, 0 = 21 52 17. Gulf of California. h about 33 km.
		eSNE	56 29	SW	
		eGNE	57 16		
	MHC	eP	54 29.2	c	
	JAS	eP	18.4	c	
	PRI	eP	16.9	c	
Feb. 12	BKS	eP	00 51 30.5	d	USCGS: 51.5°N, 175.8°E, 0 = 00 43 17.1 Aleutian aftershock. h about 33 km.
		epP	39.7	c	
		eSNEZ	58 10.0	NEc	
		eG	01 01.5		
			mu sec		
		PZ	0.056 0.8		
	MHC	eP	00 51 35.7	c	
	JAS	iP	38.5	d	
		ipP	49.3	d	
		eSNE	58 27.0		
	MIN	iP	51 22.2	d	
		ipP	31.7	c	
	PRI	eP	47.6	c	
Feb. 12	BKS	ePEZ	01 03 37.0	Wd	USCGS: 52.2°N, 172.8°E, 0 = 00 55 06.2. Aleutian aftershock. h about 25 km.
		epP	46.0	c	
		eR	17.2		
			mu sec		
		PZ	0.054 1.4		
	MHC	eP	01 03 42.5	d	
	JAS	iP	43.0	c	
		iSN	10 38.3	c	
	MIN	eP	03 24.6	c	
		ipP	35.9	c	
	PRI	eP	50.3	d	
Feb. 12	JAS	iP	01 26 23.6	d	USCGS: 52.0°N, 173.0°E, 0 = 01 18 21.5. Aleutian aftershock. h about 33 km.
Feb. 12	JAS	iP	01 44 28.4	c	USCGS: 52.1°N, 172.8°E, 0 = 01 35 53.6. Aleutian aftershock. h about 33 km.
Feb. 12	JAS	eP	03 38 49.9	c	USCGS: 50.4°N, 176.6°E, 0 = 03 30 32. Aleutian aftershock. h about 33 km.
	MIN	eZ	33.4	d	
Feb. 12	JAS	iP	05 25 58.7	d	USCGS: 51.9°N, 172.9°E, 0 = 05 17 23.0. Aleutian aftershock. h about 33 km.
	MIN	eP	45.5	d	
Feb. 12	JAS	iP	09 09 38.3	d	USCGS: 50.4°N, 178.1°E, 0 = 09 01 26.4. Aleutian aftershock. h about 35 km.
	MIN	eP	21.4	d	
Feb. 12	JAS	iP	11 56 41.7	d	USCGS: 51.2°N, 173.7°E, 0 = 11 47 59. Aleutian aftershock. h about 27 km.
	MIN	eP	15.3	d	
Feb. 12	JAS	iP	12 20 40.2	d	USCGS: 52.2°N, 171.3°E, 0 = 12 11 58.0. Aleutian aftershock. h about 35 km.
		ipP	50.2	c	

Date	Sta.	Phase	Time (GCT) h m s	Ground Motion	Remarks
1965					
Feb. 12 (Cont.)	MIN	eP	12 20 21.9	c	
		ipP	32.6	d	
Feb. 12	JAS	iP	12 27 53.4	c	USCGS: 51.2°N, 175.7°E, 0 = 12 19 32. Aleutian aftershock. h about 30 km
	MIN	eP	36.0	d	
Feb. 12	JAS	iP	12 45 07.5	c	USCGS: 9.7°N, 104.9°W, 0 = 12 38 44. Off coast of Mexico. h about 33 km
	MIN	iP	29.6	d	
Feb. 12	JAS	iZ	15 35 41.5	d	USCGS: 51.7°N, 174.7°E, 0 = 16 32 57. Aleutian aftershock. h about 25 km
Feb. 12	JAS	iP	16 41 24.8	d	
					USCGS: 51.5°N, 173.2°E, 0 = 18 41 42. Aleutian aftershock. h about 30 km
Feb. 12	JAS	iP	18 50 17.6	c	
					USCGS: 52.2°N, 171.6°E, 0 = 21 51 34. Aleutian aftershock. h about 30 km
Feb. 12	JAS	iP	22 00 15.7	c	
					USCGS: 52.2°N, 174.8°E, 0 = 23 19 02. Aleutian aftershock. h about 35 km
Feb. 12	JAS	iP	23 27 32.5	c	
		ipP	38.9	d	
	MIN	eP	19.2	d	
Feb. 13	JAS	eZ	01 08 52.7	c	USCGS: 51.0°N, 173.9°E, 0 = 01 00 00. Aleutian aftershock. h about 35 km
					USCGS: 51.4°N, 172.7°E, 0 = 02 15 07. Aleutian aftershock. h about 29 km
Feb. 13	JAS	iP	02 23 44.8	c	
	MIN	iP	26.6	c	
Feb. 13	JAS	iP	02 56 15.0	d	USCGS: 51.2°N, 174.2°E, 0 = 02 47 46. Aleutian aftershock. h about 35 km
	MIN	eP	55 58.1	d	
Feb. 13	JAS	iZ	03 48 58.1	c	
Feb. 13	JAS	iP	03 58 40.6	c	
	MIN	eP	22.1	d	
Feb. 13	JAS	iP	04 54 02.9	c	USCGS: 51.3°N, 174.1°E, 0 = 04 45 32. Aleutian aftershock. h about 33 km
	MIN	eP	53 44.5	d	
Feb. 13	MIN	eP	10 15 28.3	c	USCGS: 51.2°N, 171.6°E, 0 = 15 08 45. Aleutian aftershock. h about 30 km
Feb. 13	JAS	iP	15 17 27.6	c	
	MIN	iP	10.0	d	USCGS: 50.7°N, 175.1°E, 0 = 15 25 22. Aleutian aftershock. h about 30 km
Feb. 13	JAS	iP	15 33 49.9	d	
	MIN	eP	30.7	c	USCGS: 51.1°N, 174.3°E, 0 = 17 59 45. Aleutian aftershock. h about 30 km
Feb. 13	JAS	iP	18 08 23.4	c	
	MIN	eZ	11.3	c	USCGS: 51.3°N, 178.0°E, 0 = 18 16 39. Aleutian aftershock. h about 27 km
Feb. 13	MHC	eP	18 17 10.7	d	
	JAS	iP	15.0	d	
		ipP	25.2	d	
	MIN	eP	16 56.8	c	
	PRI	eP	17 21.0	c	
Feb. 13	MHC	eP	18 24 47.4	d	
	JAS	iP	52.0	c	
		ipP	25 03.3	d	
	MIN	eP	24 33.4	c	
		ipP	42.8	d	
	PRI	eP	58.9	d	
Feb. 13	JAS	iP	19 45 12.6	d	
Feb. 13	JAS	iP	21 52 33.2	c	
	MIN	eZ	49.8	d	

Date	Sta.	Phase	Time (GCT) h m s	Ground Motion	Remarks
1965					
Feb. 13	JAS	iP	22 42 39.1	d	USCGS: 22.8°N, 68.2°W, 0 = 22 30 33. Northern Chile. h about 33 km.
Feb. 14	JAS	iP	00 18 36.7	c	USCGS: 50.4°N, 176.2°E, 0 = 00 10 14.1. Aleutian aftershock. h about 25 km.
	MIN	eZ	35.2	d	
Feb. 14	JAS	iP	09 08 29.0	c	USCGS: 51.9°N, 172.0°E, 0 = 08 59 53.5. Aleutian aftershock. h about 30 km.
Feb. 14	JAS	iP	10 46 43.9	d	USCGS: 52.3°N, 172.6°E, 0 = 10 38 07.3. Aleutian aftershock. h about 30 km.
	MIN	eP	34.0	d	
Feb. 14	JAS	iP	12 29 52.3	d	USCGS: 50.7°N, 173.5°E, 0 = 12 21 17. Aleutian aftershock. h about 35 km.
	MIN	eP	32.6	c	
Feb. 14	JAS	iP	16 04 39.1	d	USCGS: 51.7°N, 176.5°E, 0 = 15 56 18.0. Aleutian aftershock. h about 30 km.
Feb. 14	JAS	iP	17 10 19.9	c	USCGS: 55.1°N, 165.6°E, 0 = 17 01 13.9. Komandorsky Islands. h about 20 km.
	MIN	eP	05.8	d	
Feb. 14	JAS	iP	18 06 18.2	c	USCGS: 72.8°N, 5.4°E, 0 = 17 55 42.4. Norwegian Sea. h about 19 km.
	MIN	iP	05 59.6	d	
Feb. 14	JAS	iP	18 19 33.9	c	USCGS: 52.1°N, 172.6°E, 0 = 18 10 58. Aleutian aftershock. h about 35 km.
	MIN	iP	15.8	c	
Feb. 14	BKS	eR	20 08		USCGS: 73.0°N, 6.5°E, 0 = 19 37 17.8. Greenland Sea. h about 33 km.
	JAS	iP	19 48 00.2	d	
Feb. 14	BKS	eR	21 39		USCGS: 52.4°N, 173.9°E, 0 = 21 17 34.4. Aleutian aftershock. h about 39 km.
	JAS	iP	26 03.7	c	
		iPcP	27 55.3	c	
	MIN	iP	25 45.4	d	
		ePcP	27 26.4	c	
Feb. 15	BKS	eP	01 33 02	c	USCGS: 51.4°N, 179.1°E, 0 = 01 25 08.8. Aleutian aftershock. h about 42 km.
		eS	39 24		
		eR	45		
			mu sec		
		PZ	0.9 0.9		Magnitude 6.0 (BKS).
	MHC	eP	01 33 07.7	c	
	JAS	iP	01.5	c	
		iSE	39 43.5		
	MIN	iP	32 53.6	d	
	PRI	eP	33 19.3	d	
Feb. 15	JAS	iP	05 10 03.8	c	USCGS: 52.2°N, 172.7°E, 0 = 05 01 27.2. Aleutian aftershock. h about 33 km.
	MIN	eP	09 39.1	c	
Feb. 15	JAS	iP	06 13 35.3	c	USCGS: 52.3°N, 172.6°E, 0 = 06 04 57.5. Aleutian aftershock. h about 26 km.
Feb. 15	JAS	iZ	06 39 33.2	d	USCGS: 45.9°S, 76.0°W, 0 = 06 26 16.3. Off coast of Southern Chile. h about 33 km.
Feb. 15	JAS	iP	06 50 16.8	d	USCGS: 51.4°N, 179.5°E, 0 = 06 42 11.2. Aleutian aftershock. h about 28 km.
	MIN	iP	00.4	d	
Feb. 15	JAS	iP	08 06 55.8	c	USCGS: 51.9°N, 170.8°E, 0 = 07 59 53.4. Aleutian aftershock. h about 33 km.
Feb. 15	JAS	iP	08 20 07.9	c	
Feb. 15	JAS	iP	09 50 54.3	c	USCGS: 55.3°N, 167.1°W, 0 = 09 43 00. Fox Islands. h about 35 km.

Date	Sta.	Phase	Time (GCT) h m s	Ground Motion	Remarks
1965					
Feb. 15	BKS	eSE eSSE ePPE eR	10 10 00 16 50 23 32 30 00	W E	USCGS: 0.4°N, 19.2°W, 0 = 09 42 22. Central Mid-Atlantic Ridge. h about 33 km.
Feb. 15	JAS	iZ	09 56 47.2	c	USCGS: 51.2°N, 173.6°E, 0 = 10 14 39. Aleutian aftershock. h about 33 km.
Feb. 15	JAS	iP	10 23 12.1	d	
Feb. 15	JAS	iP	10 57 33.4	c	USCGS: 3.0°N, 125.9°E, 0 = 10 43 19.8. Talaud Island. h about 33 km.
Feb. 15	JAS	iP	11 01 17.0	d	
Feb. 15	MIN	iZ	01.4	c	
Feb. 15	JAS	iP	11 13 18.7	c	
Feb. 15	BKS	eR	11 31 24		
Feb. 15	JAS	iP	22 31.4	d	USCGS: 53.6°N, 81.3°E, 0 = 12 34 54.8. Central Russia. h about 11 km.
Feb. 15	BKS	eP	12 47 41	d	
	MHC	eP	44.2	c	
	JAS	iP	41.0	c	
	MIN	iP	27.8	c	
	PRI	eP	50.0	c	
Feb. 15	JAS	iP	14 53 39.2	d	USCGS: 10.2°S, 161.0°E, 0 = 14 40 53. Solomon Islands. h about 33 km.
Feb. 15	JAS	iP	15 50 01.8	c	USCGS: 52.1°N, 171.9°E, 0 = 15 41 12. Aleutian aftershock. h about 35 km.
Feb. 15	JAS	iZ	22 16 22.6	c	
Feb. 16	MHC	eP	01 03 06.7	d	USCGS: 51.2°N, 177.5°E, 0 = 00 54 59. Aleutian aftershock. h about 45 km.
Feb. 16	JAS	iP	11.6	d	
		ipP	27.2	d	
	MIN	eZ	02 57.6	c	
	PRI	eP	03 19.3	d	
Feb. 16	JAS	iP	03 12 12.5	c	USCGS: 26.4°N, 109.9°W, 0 = 08 46 07. Gulf of California. h about 33 km.
Feb. 16	BKS	eP	08 49 47.2	c	
		eNE	52 48.0		
		eR	53 46.0		
		mu sec			
		PZ	0.091 1.0		
		MaxH	5.770 20		
	MHC	eP	08 49 35.1	d	
	JAS	iZ	32.9	c	
	MIN	eP	50 03.9	d	
	PRI	eP	49 18.3	c	
Feb. 16	JAS	iP	10 50 08.7	d	USCGS: 29.6°N, 140.7°E, 0 = 10 38 11. South of Honshu, Japan. h about 101 km.
Feb. 16	BKS	eP	11 02 56.2	c	USCGS: 26.4°N, 110.0°W, 0 = 10 59 11. Gulf of California. h about 33 km.
		e(S)NE	05 52.0		
		e(R)	06.5		
		mu sec			
		PZ	0.225 1.2		
		MaxH	7.40 20		
					Magnitude 5.3.

Date	Sta.	Phase	Time (GCT) h m s	Ground Motion	Remarks
1965					
Feb. 16	MHC	eP	11 02 44.3	d	
(Cont.)	JAS	iP	41.8	c	
	MIN	eP	03 12.8	c	
	PRI	eP	02 24.7	c	
Feb. 16	BKS	eP	12 35 36	d	USCGS: 39.5°N, 141.8°E, 0 = 12 24 08.8. Honshu, Japan. h about 33 km.
		eSNE	44 30		
		eLgNE	54.6		
		eRE	56.6		
	MHC	eP	35 36.7	c	
	JAS	iP	32.6	d	
	MIN	eP	17.9	d	
	PRI	eP	48.2	d	
Feb. 16	JAS	iP	14 27 06.4	d	USCGS: 51.1°N, 175.6°E, 0 = 14 18 42. Aleutian aftershock. h about 33 km.
Feb. 16	MIN	iP	26 47.5	d	USCGS: 52.0°N, 175.8°E, 0 = 21 09 47.2. Aleutian aftershock. h about 40 km.
Feb. 16	JAS	iP	21 18 13.0	c	USCGS: 51.5°N, 179.0°E, 0 = 00 50 44.9. Aleutian aftershock. h about 40 km.
Feb. 17	MIN	eZ	00 58 32.7	c	USCGS: 51.9°N, 175.1°E, 0 = 02 52 26.0. Aleutian aftershock. h about 34 km.
Feb. 17	BKS	ePEZ	03 00 42.3	Wd	
		epP	52.0	c	
		mu sec			
		PZ	0.03 1.0		
	MHC	eP	03 00 54.1	d	
		epP	01 04.0	c	
	JAS	iP	00 50.9	d	
	MIN	iP	33.1	d	
	PRI	eP	59.0	d	
		epP	01 08.7	c	
Feb. 17	BKS	eNZ	04 12.0		USCGS: 57.1°N, 153.4°W, 0 = 04 01 35.5. Kodiak Island region. h about 20 km.
	JAS	eP	07 35.5		
	MIN	iP	13.1	c	
Feb. 17	MIN	eZ	04 58 40.2	c	USCGS: 57.1°N, 152.9°W, 0 = 04 53 06.0. Kodiak Island region. h about 33 km.
Feb. 17	MIN	eP	09 20 17.0	d	
Feb. 17	BKS	ePEZ	10 19 14.2	Ec	USCGS: 51.2°N, 178.3°E, 0 = 10 11 13.7. Aleutian aftershock. h about 35 km.
		epP	24.5	c	
	MHC	eP	20.1	c	
		epP	29.4	d	
	JAS	eP	23.8		
	MIN	iP	05.4	c	
		ipP	16.1	d	
	PRI	eP	31.1	c	
		epP	41.5	c	
Feb. 17	BKS	ePNEZ	10 26 58.8	SEc	USCGS: 51.8°N, 176.6°E, 0 = 10 18 51.3. Aleutian aftershock. h about 44 km.
		epP	27 10.7	c	
		eSNE	33 36	NW	
		eGNE	38 00		
		eRE	40.3		

Date	Sta.	Phase	Time h m s	Ground Motion	Remarks
1965					
Feb. 17 (Cont.)			mu sec		
		PZ	0.33 1.3		
		SH	2.66 20		
		MaxH	3.08 28		
	MHC	eP	10 27 04.6	c	
		epP	16.8	c	
	JAS	iP	08.8		
	MIN	eP	26 49.3	c	
	PRI	eP	27 15.7	c	
		epP	28.7	d	
Feb. 17	JAS	iP	10 47 56.5	d	USCGS: 50.8°N, 176.7°E, 0 = 10 39 38. Aleutian aftershock. h about 32 km
Feb. 17	MIN	iP	38.3		USCGS: 50.8°N, 175.4°E, 0 = 11 49 14. Aleutian aftershock. h about 40 km
Feb. 17	JAS	eP	11 57 40.9	c	USCGS: 51.6°N, 176.2°E, 0 = 12 52 49. Aleutian aftershock. h about 30 km
Feb. 17	MIN	eP	18.5		USCGS: 19.9°S, 178.0°W, 0 = 13 05 36. Fiji Island region. h about 558 km
Feb. 17	JAS	eP	13 01 23.4	c	USCGS: 21.6°N, 142.8°E, 0 = 18 23 51. Mariana Island region. h about 290 km.
Feb. 17	MIN	eP	00 53.4	d	
Feb. 17	MIN	iP	13 16 47.4		
Feb. 17	BKS	eHEZ	18 35 34.5	Ec	
			mu sec		
		PZ	0.147 0.8		
	MHC	eP	18 35 38.2	c	
	JAS	iP	41.7		
	MIN	iP	31.6	c	
	PRI	eP	44.5	c	
Feb. 18	BKS	eP	02 29 39.7	c	USCGS: 51.0°N, 173.6°E, 0 = 02 21 17. Aleutian aftershock. h about 45 km
		epP	50.0	c	
	MHC	eP	45.2	d	
	MIN	iZ	31.1	c	
	PRI	eP	56.4	c	
Feb. 18	MIN	eZ	04 45 11.6	c	USCGS: 51.9°N, 174.1°E, 0 = 07 26 57. Aleutian aftershock. h about 36 km
Feb. 18	BKS	eP	07 35 18.0	d	
	MHC	eP	23.9	d	
		epP	35.0	d	
	JAS	eP	26.4		
	MIN	iP	08.5	d	
	PRI	eP	34.8	d	
		epP	44.8	c	
Feb. 18	MIN	eP	07 42 55.9	d	USCGS: 51.3°N, 172.2°E, 0 = 07 33 33. Aleutian aftershock. h about 40 km
Feb. 18	JAS	eP	08 42 27.3	d	USCGS: 51.8°N, 176.4°E, 0 = 08 34 00. Aleutian aftershock. h about 15 km
Feb. 18	MIN	eP	09.0	d	
Feb. 18	BKS	iP	09 43 13.4	d	USCGS: 51.6°N, 174.9°E, 0 = 09 34 57. Aleutian aftershock. h about 20 km
	MHC	eP	17.2	d	
	JAS	eP	20.3		
	MIN	iP	02.5	c	
		ipP	14.0	d	
	PRI	eP	28.3	d	
		epP	37.5	c	

Date	Sta.	Phase	Time (GCT) h m s	Ground Motion	Remarks
1965					
Feb. 18	JAS	eZ	19 36 05.2		USCGS: 59.2°N, 147.5°W, 0 = 19 30 19.9. Gulf of Alaska. h about 30 km.
	MIN	eZ	35 41.6	d	
Feb. 18	BKS	iP	22 42 19.0	d	USCGS: 9.9°S, 71.2°W, 0 = 22 32 19.6. Peru-Brazil border. h about 594 km.
			mu sec		
		PZ	0.156 0.8		
	MHC	eP	22 42 15.3	d	
	MIN	iP	24.2	c	
	PRI	eP	06.5	d	
Feb. 18	BKS	eE	23 08.4	E	
		e(G)NE	25.0		
Feb. 18	BKS	eP	23 21 33.3	d	USCGS: 51.4°N, 179.1°E, 0 = 23 13 36.3. Aleutian aftershock. h about 28 km.
		ipP	45.9	c	
		ePP	23 30.0	d	
		eSNE	27 10.0	d	
		eGNE	31 20.0		
		eRNE	33.4		
			mu sec		
		PZ	1.05 8		
		SH	3.48 20		
		MaxH	8.33 24		
	MHC	eP	23 21 38.9	d	
	JAS	iP	42.2		
	MIN	iP	24.3	c	
		iScP	27 09.0	d	
	PRI	eP	21 49.8	d	
		epP	22 01.8	d	
		eScP	27 22.7	d	
Feb. 18	JAS	eP	23 35 04.5		USCGS: 51.4°N, 174.7°E, 0 = 23 26 38.9. Aleutian aftershock. h about 44 km.
Feb. 18	MIN	iP	34 46.4	c	
Feb. 18	MIN	iZ	23 46 17.3	d	USCGS: 41.3°N, 139.0°E, 0 = 23 35 00.2. Hokkaido, Japan. h about 12 km.
Feb. 19	BKS	eP	03 33 01.1	c	USCGS: 51.6°N, 175.0°E, 0 = 03 24 43.1. Aleutian aftershock. h about 23 km.
		epP	11.2	d	
		eSNE	39 42	NE	
		e(G)NE	42.8		
		eRN	45.5		
			mu sec		
		PZ	0.061 1.0		
		SH	1.18 12		
	MHC	eP	33 07.2	d	
	JAS	iP	09.7		
	MIN	eP	32 52.4	d	
		ipP	33 02.8	d	
	PRI	eP	18.3	d	
Feb. 19	MIN	eP	04 54 47.4	d	USCGS: 51.3°N, 173.6°E, 0 = 04 46 34. Aleutian aftershock. h about 45 km.
Feb. 19	JAS	iP	06 30 33.9		USCGS: 51.2°N, 177.8°E, 0 = 06 22 23.4. Aleutian aftershock. h about 40 km.
	MIN	eP	18.4	c	

Date	Sta.	Phase	Time (GCT) h m s	Ground Motion	Remarks
1965					
Feb. 19	MIN	eP	09 47 32.3	c	USCGS: 50.5°N, 175.7°E, 0 = 09 38 30. Aleutian aftershock. h about 33 km.
Feb. 19	MIN	eP	10 08 35.6	d	USCGS: 20.1°S, 177.7°W, 0 = 09 57 17. Fiji Islands. h about 478 km.
Feb. 19	BKS	eP	10 21 03.8	c	USCGS: 12.4°S, 166.4°E, 0 = 10 08 41.6 Santa Cruz Islands. h about 65 km.
		eSNE	31 12	SW	
		ePPSNE	32 16	NE	
		eGNE	42.0		
		eRNE	46.0		
			mu sec		
		PZ	0.031 0.7		
		MaxH	1.27 30		
	MHC	eP	10 21 05.0	d	
	JAS	eZ	08.5		
	MIN	iP	11.1	c	
	PRI	eP	07.5	c	
Feb. 19	BKS	eP	19 00 42.0	c	USCGS: 51.1°N, 178.4°E, 0 = 18 52 42 Aleutian aftershock. h about 35 km.
		ipP	53.5	d	
		iZ	01 21.0	d	
		ePP	02 33.5	c	
		eSN	07 12.0	N	
		eGNE	10.6		
		eRE	12.7		
			mu sec		
		PZ	0.05 0.8		
		SH	0.77 20		
		MaxH	1.4 20		
	MHC	eP	19 00 48.1	c	
	JAS	iP	51.0		
	MIN	eP	33.4	c	
		ipP	46.4	d	
	PRI	eP	59.3	c	
Feb. 19	MIN	eZ	23 48 30.5	c	USCGS: 51.7°N, 176.4°E, 0 = 23 40 2 Aleutian aftershock. h about 40 km.
Feb. 20	MIN	eZ	02 33 28.8	d	USCGS: 34.8°N, 139.3°E, 0 = 02 21 4 Near coast of Honshu, Japan. h about 19 km.
Feb. 20	MIN	eP	05 27 41.0	d	USCGS: 15.2°S, 173.5°W, 0 = 06 12 Tonga Islands. h about 33 km.
Feb. 20	JAS	iP	06 24 04.5	d	
	MIN	eP	08.4	c	
Feb. 20	JAS	iP	07 33 42.5	d	USCGS: 26.6°N, 51.9°W, 0 = 16 29 3 North Atlantic Ocean. h about 33 km.
Feb. 20	JAS	iP	16 39 26.5	d	
	MIN	eZ	29.1	c	
Feb. 20	BKS	eP	20 06 53	d	USCGS: 54.7°N, 172.8°E, 0 = 19 58 Near Aleutian Islands. h about 33 km.
	MHC	eP	59.7	c	
	JAS	iP	07 02.1	c	
		ipP	07.1	d	
	MIN	eP	06 43.5	d	
	PRI	eP	07 11.7	c	

Date	Sta.	Phase	Time (GCT) h m s	Ground Motion	Remarks
1965					
Feb. 20	BKS	eP	20 52 14.7	c	USCGS: 51.7°N, 176.4°E, 0 = 20 44 03.9. Aleutian aftershock. h about 33 km.
	MHC	eP	19.3	c	
	JAS	iP	23.0	c	
		ipP	29.3	c	
	MIN	iP	05.7	d	
Feb. 20	BKS	eP	21 21 42.8	d	USCGS: 18.4°S, 72.4°W, 0 = 21 10 14. Off coast of Northern Chile. h about 33 km. Magnitude $5\frac{1}{4}$ - $5\frac{1}{2}$ (BKS).
		PZ	0.037 0.8		
	MHC	eP	21 21 38.6	c	
	JAS	iP	36.0	d	
	MIN	eP	49.8	d	
	PRI	eP	30.8	c	
Feb. 20	BKS	eP	22 14 42.0	d	USCGS: 50.4°N, 178.2°E, 0 = 22 06 38.3. Aleutian aftershock. h about 32 km.
		epP	53.0	c	
		eR	27.5		
	MHC	eP	14 45.7	d	
	JAS	iP	48.9	d	
		ipP	15 00.9	c	
	MIN	iP	14 33.4	d	
		ipP	41.9	c	
	PRI	eP	57.2	c	
Feb. 20	BKS	eP	22 28 16.9	c	USCGS: 51.4°N, 176.7°E, 0 = 22 20 08.6. Aleutian aftershock. h about 35 km.
		epP	27.6	c	
	MHC	eP	23.0	c	
	JAS	iP	26.3	c	
		ipP	36.2	d	
	MIN	iP	08.9	d	
	PRI	eP	35.6	c	
Feb. 21	JAS	iP	03 03 06.5	d	USCGS: 50.1°N, 176.6°E, 0 = 02 54 47. Aleutian aftershock. h about 33 km.
		ipP	15.5	d	
	MIN	eZ	02 57.3	c	
Feb. 21	JAS	iP	04 28 14.7	d	USCGS: 50.7°N, 175.5°E, 0 = 04 19 51. Aleutian aftershock. h about 33 km.
	MIN	eZ	27 59.4	c	
Feb. 21	JAS	iP	04 49 25.3	d	USCGS: 44.7°N, 148.1°E, 0 = 04 38 46.3. Kurile Islands. h about 61 km.
	MIN	iP	10.4	d	
Feb. 21	JAS	iP	05 54 39.6	d	USCGS: 51.1°N, 177.8°E, 0 = 05 46 27.1. Aleutian aftershock. h about 30 km.
	MIN	iP	21.7	d	
Feb. 21	JAS	iP	06 00 31.8	d	USCGS: 50.8°N, 177.1°E, 0 = 05 51 58. Aleutian aftershock. h about 33 km.
Feb. 21	BKS	eP	11 25 33.8	c	USCGS: 15.1°S, 173.2°W, 0 = 11 14 15.1. Tonga Islands. h about 33 km.
		eSNE	34 54.0	NE	
		eSSNE	38 44.0	SW	
		eGNE	43.6		
		eRNE	46.2		
			mu sec		
		PZ	1.17 9		
		SH	1.34 20		
		MaxH	5.2 22		

Date	Sta.	Phase	Time (GCT) h m s	Ground Motion	Remarks
1965					
Feb. 21 (Cont.)	MHC	eP	11 25 34.5	c	
	JAS	iP	40.3	c	
	MIN	eP	45.1	d	
	PRI	eP	31.0	c	
		epP	53.0	c	
Feb. 21	JAS	iP	12 14 21.0	c	USCGS: 51.7°N, 171.0°E, 0 = 12 05 38. Aleutian aftershock. h about 40 km
Feb. 21	BKS	eG	14 35.0		USCGS: 3.5°S, 149.8°E, 0 = 13 58 00.8. Bismarck Sea. h about 33 km.
		eR	39.3		
	MIN	eZ	11 06.5	c	USCGS: 22.6°S, 69.0°W, 0 = 14 09 19.1 Northern Chile. h about 109 km.
Feb. 21	BKS	eP	14 21 09.2	d	
	MHC	eP	05.6	d	
	JAS	iP	03.3	c	
	MIN	eP	14.8	c	
		epP	42.9	c	
	PRI	eP	20 57.2	c	USCGS: 13.8°S, 166.0°E, 0 = 17 08 07 New Hebrides Islands. h about 20 km
Feb. 21	JAS	iP	17 20 47.0	c	USCGS: 51.2°N, 177.6°E, 0 = 19 44 44 Aleutian aftershock. h about 20 km
Feb. 21	JAS	iP	19 53 02.2	d	
Feb. 21	JAS	iP	22 39 54.7	c	
Feb. 21	JAS	iP	23 20 12.8	d	USCGS: 19.5°N, 108.9°W, 0 = 02 22 46 Revilla Gigedo Island region. h about 33 km.
Feb. 22	MHC	eP	02 27 30.5	d	
	JAS	iP	29.7	d	
	MIN	eP	45.4	c	
	PRI	eP	15.5	d	USCGS: 53.6°N, 175.9°W, 0 = 03 52 09 Andreanof Islands. h about 35 km
Feb. 22	JAS	eP	03 59 48.9	c	USCGS: 52.2°N, 172.0°E, 0 = 04 46 13 Aleutian aftershock. h about 33 km
Feb. 22	JAS	iP	04 54 53.0	d	USCGS: 51.4°N, 177.1°E, 0 = 07 27 30 Aleutian aftershock. h about 35 km
Feb. 22	JAS	iP	07 35 44.8	c	USCGS: 51.9°N, 173.4°E, 0 = 09 14 51 Aleutian aftershock. h about 35 km
Feb. 22	BKS	eP	09 23 15.0	d	
		epP	24.7	d	
		eSNE	30 00.0	SW	
		eScSNE	33.0		
		eRE	37.0		
	MHC	eP	23 21.0	c	
	JAS	iP	23.9	c	
		ipP	33.6	d	
	MIN	eP	05.6	d	
	PRI	eP	31.7	d	
		epP	41.7	d	
Feb. 22	JAS	iP	11 26 43.3	d	USCGS: 51.9°N, 171.1°E, 0 = 11 17 Aleutian aftershock. h about 25 km
		ipP	50.6	d	
	MIN	eP	24.9	d	
		ipP	31.2	c	

Date	Sta.	Phase	Time (GCT) h m s	Ground Motion	Remarks
1965					
Feb. 22	JAS	iZ	12 00 57.5	c	USCGS: 51.2°N, 177.4°E, 0 = 11 52 42.5. Aleutian aftershock. h about 25 km.
Feb. 22	JAS	eP	13 45 53.8	d	USCGS: 50.6°N, 176.5°E, 0 = 13 37 29. Aleutian aftershock. h about 35 km.
Feb. 22	JAS	iP	13 54 53.0	d	USCGS: 26.3°S, 177.5°W, 0 = 13 42 28. South of Fiji Islands. h about 33 km.
Feb. 22	JAS	iP	14 15 21.4	c	USCGS: 55.4°N, 164.8°E, 0 = 14 06 15.8. Komandorsky Islands. h about 30 km.
Feb. 22	BKS	eGNE	20 57.4		USCGS: 21.2°N, 106.8°W, 0 = 20 47 01. Off coast of Central Mexico.
		eRE	58		
Feb. 22	JAS	eP	51 22.5	d	h about 33 km.
Feb. 22	JAS	iZ	21 27 09.6	d	USCGS: 19.1°N, 106.2°W, 0 = 21 22 36. Off coast of Jalisco, Mexico. h about 33 km.
Feb. 22	BKS	eP	21 50 19.5	c	USCGS: 16.8°S, 175.7°E, 0 = 21 38 15.5. Fiji Islands. h about 73 km.
		eG	10.5		
		eR	14.0		
			mu sec		
		MaxH	2.26 32		
	JAS	iP	21 50 23.6	d	
Feb. 23	JAS	iP	07 15 27.8	d	USCGS: 52.6°N, 173.0°E, 0 = 07 07 13. Aleutian aftershock. h about 40 km.
Feb. 23	JAS	iP	07 49 56.7	c	USCGS: 18.3°S, 168.2°E, 0 = 07 37 11. New Hebrides Islands. h about 33 km.
Feb. 23	BKS	ePEZ	22 23 51.5	Ed	USCGS: 25.7°S, 70.5°W, 0 = 22 11 50.2. Near coast of Northern Chile. h about 80 km.
		ipP	24 08.0	d	
		isP	13.0	d	
		ePPNEZ	26 52.8	SEd	
		iSNEZ	33 54.0	NEd	Magnitude 6 ³ / ₄ (BKS). Damage reported.
		iPSNE	34 40.0	SE	
		iSSNE	38 56.0	NW	
		eGNE	45.0		
		iR	49.3		
			mu sec		
		PZ	16.2 16		
		PPZ	0.79 2.5		
	MHC	eP	22 23 48.5	d	
		epP	24 09.5	d	
		eP'P'	51 15.4	d	
	JAS	iPNEZ	23 46.2	SEd	
		ipPE	55.8	W	
		iSN	33 44.1		
	MIN	iP	23 58.4	d	
		ipP	24 18.1	d	
	PRI	eP	23 40.8	d	
		epP	24 01.6	d	
		eP'P'	51 17.9	c	

Date	Sta.	Phase	Time (GCT) h m s	Ground Motion	Remarks
1965					
Feb. 23	JAS	iP	22 50 40.7	c	USCGS: 14.0°N, 92.2°W, 0 = 08 09 17.2 Near coast of Chiapas, Mexico. h about 56 km.
	MIN	eP	55.9	c	
Feb. 24	BKS	eP	08 16 16	c	USCGS: 14.2°N, 92.1°W, 0 = 09 37 17.6 Near coast of Chiapas, Mexico. h about 33 km. USCGS: 51.1°N, 177.6°E, 0 = 14 21 18 Aleutian aftershock. h about 35 USCGS: 52.2°N, 174.4°E, 0 = 20 53 52 Aleutian aftershock. h about 34
		ePPNEZ	17 44	SEc	
		eSNE	21 52	NW	
		eSSNE	22 28	NW	
		eGNE	25.5		
		eR	27.0		
			mu sec		
		PZ	2.2 8		
		SH	3.88 12		
		MaxH	11.5 20		
	MHC	eP	08 16 04.5	c	
	JAS	iP	04.6	d	
	MIN	eP	20.9	c	
	PRI	eP	15 55.9	d	
Feb. 24	JAS	eZ	09 44 04.3	c	
	MIN	eP	18.6	c	
Feb. 24	JAS	iP	14 29 31.5	c	
	MIN	eZ	13.1	d	
Feb. 24	BKS	iP	21 02 11.2	d	
		ipP	21.0	c	
			mu sec		
		PZ	0.051 0.9		
	MHC	eP	16.0	c	
		epP	26.0	c	
	JAS	iP	18.7	d	
		ipP	29.7	c	
	MIN	eP	00.8	c	
		epP	07.2	c	
	PRI	eP	27.2	d	
Feb. 24	BKS	eP	21 31 17.3	c	
		ipP	25.5	c	
	MHC	eP	20.8	c	
	JAS	iP	26.3	d	
		ipP	33.7	c	
	MIN	eP	09.0	c	
		ipP	15.4	d	
	PRI	eP	33.8	c	
Feb. 24	JAS	iZ	23 07 23.4	c	
Feb. 25	JAS	eP	01 21 43.8	d	
Feb. 25	JAS	iP	01 45 27.7	d	
	MIN	eP	26.0	c	

Date	Sta.	Phase	Time (GCT) h m s	Ground Motion	Remarks
1965					
Feb. 25	BKS	eZ	02 13.6		USCGS: 61.2°N, 146.7°W, 0 = 02 02 37.4. Southern Alaska. h about 40 km.
	JAS	eP	06 56.7	c	
	MIN	eZ	43.9	c	
Feb. 25	JAS	iP	03 42 13.1	d	USCGS: 51.8°N, 175.0°E, 0 = 03 33 49. Rat Islands. h about 33 km.
	MIN	eZ	08.6	d	
Feb. 25	JAS	iP	03 54 21.1	d	USCGS: 5.5°S, 152.0°E, 0 = 04 51 27.8. New Britain region. h about 35 km. Magnitude $6\frac{1}{4}$ - $6\frac{1}{2}$ (BKS).
	MIN	eP	24.4	d	
Feb. 25	BKS	eP	05 04 25.4	c	
		iPcP	28.3	d	
		iZ	35.0	c	
		iPEZ	26.0	Ec	
		eSNE	15 06.0	SW	
		ePSNEZ	16 06.0	SEc	
		eSSNE	21 24	SW	
		eGN	28.2		
		eRE	30.7		
			mu sec		
		PZ	4.55 12		
		SH	4.84 24		
		MaxH	29.0 20		
	MHC	eP	05 04 27.5	c	
	JAS	iP	31.9	d	
		iPcP	35.5	c	
		eSE	15 03.2		
	MIN	eP	04 27.9	c	
		iPcP	32.2	c	
	PRI	eP	31.0	c	
Feb. 25	BKS	eP	05 30 38	c	USCGS: 52.1°N, 173.2°E, 0 = 05 22 14.5. Aleutian aftershock. h about 35 km.
		epP	49.5	d	
	MHC	eP	44.8	d	
		epP	54.6	c	
	JAS	iP	46.8	c	
		eS	37 39.9		
	MIN	iP	30 29.5	d	
	PRI	eP	56.0	d	
		epP	31 05.1	c	
Feb. 25	JAS	iP	05 40 36.5	d	USCGS: 51.9°N, 173.4°E, 0 = 06 20 57.5. Aleutian aftershock. h about 30 km.
	MIN	eP	16.3	d	
Feb. 25	JAS	iP	06 29 30.4	d	USCGS: 15.0°N, 60.0°W, 0 = 06 28 22.1. Windward Islands. h about 49 km.
	MIN	eP	16.2	d	
Feb. 25	BKS	eP	06 38 20.6	c	
	MHC	eP	17.5	c	
	JAS	iP	10.0	c	
	MIN	eP	17.6	c	
		ipP	33.5	d	
	PRI	eP	10.7	c	

Date	Sta.	Phase	Time (GCT) h m s	Ground Motion	Remarks
1965					
Feb. 25	BKS	eP	09 29 03.2	c	USCGS: 41.2°S, 91.2°W, 0 = 09 16 35.8
	MHC	eP	00.2	c	Southern Pacific Ocean.
	JAS	iP	00.5	c	h about 33 km.
	MIN	eZ	13.0	c	
	PRI	eP	28 52.8	c	
Feb. 25	JAS	iP	10 32 15.8	c	USCGS: 5.5°S, 152.3°E, 0 = 10 19 11.0
	MIN	eP	13.0	c	New Britain region. h about 31 km
Feb. 25	JAS	iP	12 36 07.8	c	USCGS: 51.1°N, 178.1°E, 0 = 12 27 51.8
	MIN	eP	43.8	c	Aleutian aftershock. h about 33 km
Feb. 25	JAS	iP	13 43 53.9	d	USCGS: 51.3°N, 174.2°E, 0 = 13 35 25.8
	MIN	iP	36.2	c	Aleutian aftershock. h about 33 km
Feb. 25	JAS	iP	15 04 29.1	c	USCGS: 20.7°S, 174.3°W, 0 = 14 52 49.8
	MIN	eZ	45.8	d	Tonga Islands. h about 139 km.
Feb. 25	JAS	iP	17 24 09.1	c	USCGS: 50.8°N, 177.4°E, 0 = 17 15 43.8
					Aleutian aftershock. h about 40 km
Feb. 25	JAS	iZ	19 05 32.9	c	USCGS: 5.5°S, 151.2°E, 0 = 18 52 38.8
					New Britain region. h about 137 km
Feb. 25	BKS	eP	19 35 49.5	c	USCGS: 11.4°S, 166.1°E, 0 = 19 23 33.8
		iPcP	53.0	c	Santa Cruz Islands. h about 86 km
		iZ	37 14.0	c	
		eSE	46 40	W	
		eG	57.0		
		eRNE	20 00.9		
			mu sec		
		PZ	0.068 1.5		
		SH	1.97 36		
		MaxH	6.03 28		
	MHC	eP	19 35 51.5	c	
	JAS	iP	56.5	c	
		iPcP	36 00.4	c	
		iPP	39 11.8	c	
	MIN	eZ	35 56	d	
	PRI	eP	53.5	c	
Feb. 25	JAS	iP	21 49 43.8	d	USCGS: 50.6°N, 175.5°E, 0 = 01 07 02.8
Feb. 26	JAS	iP	01 15 35.9	c	Aleutian aftershock. h about 33 km
Feb. 26	BKS	eP	04 54 09.3	c	USCGS: 18.8°S, 176.1°W, 0 = 04 42 28.8
		eGNE	05 13.8	c	Fiji Islands. h about 33 km.
		eR	17.0		
	MHC	eP	54 14.2	d	
	JAS	iP	10.3	d	
	MIN	iP	28	d	
	PRI	eP	14.0	d	
Feb. 26	BKS	eP	05 47 43.5	d	USCGS: 18.9°S, 176.3°W, 0 = 05 36 02.8
		eSNE	57 34	SW	Fiji Islands. h about 61 km.
		eGNE	06 07.0		
		eRNE	10.3		

Date	Sta.	Phase	Time (GCT) h m s	Ground Motion	Remarks
1965					
Feb. 26			mu sec		
(Cont.)		SH	4.23 36		
		MaxH	7.37 35		
	MHC	eP	05 47 43.4	c	
	JAS	iP	49.3	c	
	MIN	iP	53.0	d	
	PRI	eP	43.6	d	
Feb. 26	BKS	eRE	09 56.0		
	MHC	eZ	14 52	d	
	JAS	iP	55.6	d	
	MIN	eP	48	d	
	PRI	eP	54.8	d	
Feb. 26	JAS	iP	15 46 40.4	d	USCGS: 50.2°N, 130.0°W, 0 = 15 43 19.4.
	MIN	eP	08	c	Vancouver Island region.
					h about 33 km.
Feb. 26	JAS	eP	20 33 58.6	c	USCGS: 52.0°N, 171.6°E, 0 = 20 25 18.
					Aleutian aftershock. h about 30 km.
Feb. 26	BKS	iPNEZ	23 45 24.5	SED	USCGS: 6.9°N, 73.0°W, 0 = 23 36 12.2.
		iP	38.0	c	Northern Colombia.
		ePcP	46 22	d	
		iSEZ	52 52	Ec	Magnitude $5\frac{3}{4}$ - 6 (BKS). Felt at Bogota,
		esSE	53 30	W	Bucaramanga, and Cucuta.
		eRE	00 02.0		
			mu sec		
		PZ	2.12 7		
		MaxH	2.78 60		
	MHC	eP	23 45 20.0	d	
	JAS	iPEZ	14.5	Ed	
		eSN	52 57.2		
	MIN	iP	45 38	d	
	PRI	eP	10.4	d	
Feb. 27	JAS	iP	01 59 25.3	d	USCGS: 51.3°N, 175.6°E, 0 = 01 50 02.
					Aleutian aftershock. h about 33 km.
Feb. 27	BKS	ePEZ	02 14 30.3	Wd	USCGS: 25.1°N, 128.2°E, 0 = 02 01 36.3.
		epP	42.5	c	Ryukyu Island region.
	MHC	eP	29.8	d	h about 33 km.
		epP	42.5	c	
	JAS	iP	35.7	c	
	PRI	eP	40.7	d	
		epP	52.8	d	
Feb. 27	JAS	iP	04 21 21.9	c	USCGS: 25.1°N, 128.2°E, 0 = 04 08 22.5.
					Ryukyu Island region. h about 33 km.
Feb. 27	BKS	eP	07 49 26.5	c	USCGS: 28.5°N, 112.1°W, 0 = 07 46 29.1.
		epP	39.1	c	Gulf of California. h about 33 km.
		ePcP	54 32.0	d	
		iSNEZ	51 54	SWc	Magnitude $6\frac{1}{4}$ - $6\frac{1}{2}$ (BKS).
			mu sec		
		PZ	4.35 11		
		SH	38.6 40		

Date	Sta.	Phase	Time (GCT) h m s	Ground Motion	Remarks
1965					
Feb. 27 (Cont.)	MHC	eP	07 49 16.0	d	
		ePcP	54 47.4	d	
	JAS	iPNEZ	49 14.9	NEd	
		iSN	51 52.2		
	MIN	iP	49 57.0	c	
	PRI	eP	48 57.7	d	
		eS	51 23.4		
		ePcP	54 49.0	d	
Feb. 27	BKS	eNE	10 58.5		USCGS: 28.7°N, 112.0°W, 0 = 10 52 45. Gulf of California. h about 33 km
		eRNE	59.0		
	JAS	iP	55 37.0	c	
	PRI	eZ	09	c	
Feb. 27	JAS	iP	11 43 47.3	d	USCGS: 24.2°N, 5.1°E, 0 = 11 29 59.0. South Algeria. h about 0 km.
	MIN	iP	42.4	c	
Feb. 27	JAS	eP	17 41 29.2	d	USCGS: 51.4°N, 176.6°E, 0 = 17 33 10. Aleutian aftershock. h about 35 km
Feb. 28	JAS	iZ	01 07 12.0	c	USCGS: 50.3°N, 177.7°E, 0 = 00 59 15. Aleutian aftershock. h about 32 km
Feb. 28	MHC	eP	01 24 31.8	d	USCGS: 50.4°N, 177.7°E, 0 = 01 16 21. Aleutian aftershock. h about 34 km
	JAS	iP	35.0	d	
	MIN	iP	18.0	c	
	PRI	eP	43.2	c	
Feb. 28	JAS	iP	12 31 39.5	c	USCGS: 24.0°S, 179.9°W, 0 = 12 20 09. South of Fiji Islands.
	MIN	eP	45.0	d	h about 529 km.
Feb. 28	JAS	iP	13 45 14.5	c	
March 1	BKS	eP	07 33 55.0	c	USCGS: 5.5°S, 152.1°E, 0 = 07 20 55. New Britain. h about 35 km.
		iPcP	34 03.3	d	
		ePP	37 00.0	c	
		eSNE	44 20.0	SE	Magnitude $5\frac{1}{2}$ - $5\frac{3}{4}$ (BKS). Felt at Rabaul, Doilene, and Kar...
		ePSE	45 24.0	W	
		eSSE	50.0		
		eGNE	57.0		
		eRE	08 01 20		
			mu sec		
		PZ	1.19 15		
		PPZ	1.13 12		
		SH	1.73 16		
		MaxH	5.8 20		
	MHC	eP	07 33 54.9		
	JAS	iP	34 00.1	c	
		iPP	37 35.3	c	
	MIN	eZ	33 59.0	c	
	PRI	eP	58.3	c	
March 1	JAS	iP	08 00 06.5	c	USCGS: 5.2°S, 152.1°E, 0 = 07 46 57. New Britain region. h about 33 km
March 1	JAS	iP	08 32 28.0	d	USCGS: 21.1°N, 121.2°E, 0 = 08 18 57. Taiwan region. h about 42 km.

Date	Sta.	Phase	Time (GCT) h m s	Ground Motion	Remarks
1965					
March 1	JAS	iP	09 16 44.3	d	USCGS: 29.0°S, 69.8°W, 0 = 09 04 35.5. Chile-Argentine border. h about 103 km.
March 1	JAS	eP	09 21 49.1	c	USCGS: 5.4°S, 152.0°E, 0 = 09 08 45.0. New Britain region. h about 29 km.
	MIN	eP	43.0	c	
March 1	JAS	iP	10 26 10.2	d	USCGS: 44.0°N, 127.4°W, 0 = 10 24 12. Off coast of Oregon. h about 33 km.
March 1	JAS	iP	13 35 28.0	d	USCGS: 21.2°N, 121.2°E, 0 = 13 20 56.7. Taiwan region. h about 42 km.
March 1	JAS	eP	14 02 05.4	c	USCGS: 61.7°N, 147.7°W, 0 = 13 56 07. Southern Alaska. h about 43 km.
March 1	BKS	e(sP)	16 06 57	d	USCGS: 41.4°S, 85.6°W, 0 = 15 54 24.5. West Chile Rise. h about 33 km.
		e(S)E	17 20	SW	
		e(L)NE	30.0		
		e(P'P')	31.3		
		eRE	34.6		
	MHC	e(P)	06 53.7	c	
	JAS	iP	56.9	c	
	PRI	e(P)	46.3	c	
March 1	BKS	eP	19 30 22.9	d	USCGS: 52.2°N, 173.9°E, 0 = 19 22 01.6. Aleutian aftershock. h about 30 km.
		ipP	34.0	d	
		eGNE	41.5		
		eR	43.0		
	MHC	eP	30 29.0	c	
	JAS	iPNEZ	31.7	NWd	
	PRI	eP	39.7	d	
March 1	JAS	iP	20 30 22.3	c	
		iPcP	31 08.8	c	
		iPP	33 25.8	d	
March 1	BKS	eP	21 38 54.1	c	USCGS: 15.4°N, 92.5°W, 0 = 21 32 11.8. Mexico-Guatemala border. h about 93 km.
		ipP	39 04.3	c	
		iPcP	41 26.6	c	
		iSNEZ	44 20	NEc	
		iGNE	47 05		
		eR	48 52		
			mu sec		
		PZ	2.86 6		
		SH	10.3 20		
		MaxH	28.5 30		
	MHC	eP	21 38 47.9	d	
	JAS	iP	43.4	d	
		iPcP	41 23.4	d	
		eSE	43 54.8	c	
		iScSN	49 02.6		
	MIN	iP	39 00.0	c	
	PRI	eP	38 36.5	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
			h m s		
1965					
March 1	BKS	eP	22 03 30.5	d	USCGS: 23.5°S, 179.0°E, 0 = 21 52 04.4 South of Fiji Islands. h about 541 km.
		PZ	0.10 0.8		
	MHC	eP	22 03 31.0	d	
	JAS	iPEZ	36.0	Wd	
	PRI	eP	30.7	d	
March 1	JAS	iP	23 57 57.5	c	USCGS: 51.6°N, 172.7°E, 0 = 23 49 09.0 Aleutian aftershock. h about 35 km.
March 2	JAS	iP	00 05 03.0	d	USCGS: 27.3°S, 177.9°W, 0 = 23 52 32.0 March 1. Kermadec Islands.
	MIN	eZ	08.0	c	h about 33 km.
March 2	JAS	iZ	03 03 36.6	c	USCGS: 27.4°S, 177.7°W, 0 = 02 50 35.5 Kermadec Islands. h about 33 km.
March 2	JAS	iZ	04 52 40.3	d	USCGS: 27.1°S, 177.6°W, 0 = 04 40 13.0 Kermadec Islands. h about 33 km.
March 2	JAS	iP	05 26 23.3	c	USCGS: 27.3°S, 177.7°W, 0 = 05 13 54.0 Kermadec Islands. h about 33 km.
March 2	JAS	iP	05 52 49.8	d	USCGS: 27.3°S, 177.7°W, 0 = 05 40 20.0 Kermadec Islands. h about 33 km.
March 2	BKS	eP	06 10 00.5	d	USCGS: 27.3°S, 177.5°W, 0 = 05 57 36.0 Kermadec Islands. h about 33 km.
		eSNE	20 24	NW	
		eSSNE	25 36	SW	
		eGNE	31.4		
		eR	35.0		
			mu sec		
		MaxH	2.0 20		
	MHC	eP	06 09 58.3	d	
	JAS	iP	10 05.6	d	
	MIN	iP	10.0	c	
	PRI	eP	09 59.7	d	
March 2	BKS	eP	07 37 31	c	USCGS: 27.4°S, 177.7°W, 0 = 07 25 05.0 Kermadec Islands. h about 68 km.
	MHC	eP	25.4	c	
	JAS	iP	31.1	d	
	PRI	eP	25.2	d	
March 2	BKS	eP	09 32 06.0	c	USCGS: 27.2°S, 177.9°W, 0 = 09 19 41.0 Kermadec Islands. h about 39 km.
		iZ	32.5	d	
		ePSNE	43 24.0	NE	
		eSSNE	48.0		Magnitude 6 - 6 $\frac{1}{4}$ (BKS).
		eRNE	57.5		
			mu sec		
		PZ	1.73 6.0		
		MaxH	2.3 16		
	MHC	eP	09 32 06.0	c	
	JAS	iP	10.7	c	
	MIN	eP	19.0	c	
	PRI	eP	05.1	c	
March 2	JAS	iP	10 36 02.3	c	USCGS: 26.9°S, 177.7°W, 0 = 10 23 33.0 South of Fiji Islands. h about 33 km.

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
			h m s		
1965					
March 2	JAS	iP	10 41 37.1	c	
March 2	JAS	iP	10 44 05.8	c	USCGS: 51.4°N, 174.7°E, 0 = 10 35 40.0. Aleutian aftershock. h about 33 km.
March 2	JAS	iP	11 50 57.1	c	USCGS: 51.2°N, 174.5°E, 0 = 11 42 25.9. Aleutian aftershock. h about 11 km.
March 2	JAS	iP	11 55 15.8	c	USCGS: 5.3°S, 152.3°E, 0 = 11 42 33.3. New Britain region. h about 40 km.
March 2	JAS	eP	12 39 07.6	c	USCGS: 27.3°S, 177.6°W, 0 = 12 26 39.0 Kermadec Islands. h about 33 km.
March 2	JAS	iP	13 05 49.9	c	USCGS: 26.9°S, 178.0°W, 0 = 12 53 26.0 South of Fiji Islands. h about 75 km.
March 2	JAS	iP	13 09 57.8	c	USCGS: 27.3°S, 177.6°W, 0 = 12 57 38.0 Kermadec Islands. h about 33 km.
March 2	JAS	iP	14 35 38.5	c	USCGS: 27.3°S, 177.7°W, 0 = 14 23 08.6. Kermadec Islands. h about 34 km.
March 2	MIN	eZ	42.0	c	
March 2	JAS	iP	14 44 44.9	c	USCGS: 27.4°S, 177.6°W, 0 = 14 32 08.9. Kermadec Islands. h about 9 km.
March 2	MIN	eP	49	c	
March 2	JAS	iP	15 01 08.9	c	
March 2	JAS	iP	15 25 07.5	c	USCGS: 27.0°S, 177.7°W, 0 = 15 12 39.6. Kermadec Islands. h about 33 km.
March 2	JAS	iP	15 32 47.3	d	USCGS: 27.1°S, 176.7°W, 0 = 15 20 22.0. Kermadec Islands. h about 33 km.
March 2	JAS	iP	15 35 52.2	c	USCGS: 27.3°S, 178.2°W, 0 = 15 23 28.0 Kermadec Islands. h about 89 km.
March 2	JAS	iP	16 00 59.1	d	USCGS: 27.1°S, 177.5°W, 0 = 15 48 31.6. Kermadec Islands. h about 33 km.
March 2	JAS	iP	16 37 33.2	c	USCGS: 27.0°S, 177.7°W, 0 = 16 25 04.0. Kermadec Islands. h about 33 km.
March 2	JAS	iP	16 46 50.7	c	USCGS: 27.0°S, 177.7°W, 0 = 16 34 26.9. South of Fiji Islands. h about 70 km.
March 2	JAS	eP	19 15 43.5	c	
March 2	JAS	iP	19 41 44.5	c	USCGS: 27.5°S, 177.5°W, 0 = 19 29 17.0 Kermadec Islands. h about 33 km.
March 2	JAS	eP	20 03 28.7	c	USCGS: 27.2°S, 177.9°W, 0 = 19 51 01.0. Kermadec Islands. h about 33 km.
March 2	MIN	eP	35.0	c	
March 2	JAS	eP	20 36 47.1	d	USCGS: 27.3°S, 177.5°W, 0 = 20 24 19.0 Kermadec Islands. h about 33 km.
March 2	BKS	iP	21 47 53.7	c	USCGS: 28.2°N, 139.3°E, 0 = 21 36 38.4. Bonin Islands region. h about 495 km.
		esP	49 39.5	c	
			mu sec		
		PZ	0.16 0.8		
	MHC	eP	21 48 00.6	c	
		esP	49 54.3	d	
		ePP	51 12.2	d	
	JAS	iPEZ	47 59.7	Ec	
		isP	49 53.2	d	
		eS	57 26.4		

Date	Sta.	Phase	Time (GCT) h m s	Ground Motion	Remarks
1965					
March 2	MIN	iP	21 47 50.0	c	
(Cont.)		isP	49 43.0		
March 2	JAS	iP	21 55 03.5	c	USCGS: 38.6°N, 28.3°E, 0 = 22 00 07.8.
March 2	JAS	iP	22 13 42.6	d	Turkey. h about 45 km.
March 2	JAS	eP	22 54 31.0	c	USCGS: 27.9°S, 177.5°W, 0 = 22 42 00.1
March 2	JAS	iP	23 43 01.9	c	Kermadec Islands. h about 33 km.
March 2	JAS	iP	23 50 06.0	d	USCGS: 26.7°S, 178.0°W, 0 = 23 30 42.8
March 3	JAS	iP	01 04 34.8	d	South of Fiji Islands. h about 109 km.
March 3	JAS	iP	01 14 54.4	c	USCGS: 51.4°N, 170.3°E, 0 = 00 55 47.
March 3	JAS	iP	01 47 44.0	c	Aleutian aftershock. h about 33 km.
March 3	JAS	iP	01 55 54.1	d	USCGS: 27.2°S, 177.7°W, 0 = 01 02 24.
March 3	BKS	eP	03 29 29.0	c	Kermadec Islands. h about 33 km.
		eSNE	39 52.0	SW	
		ePSNE	40 44	SE	
		eSSNE	44 56	NE	Magnitude $5\frac{1}{2}$ - $5\frac{3}{4}$ (BKS).
		eGNE	51.0		
		eRE	54.6		
			mu sec		
		PZ	0.73 10		
		MaxH	2.04 28		
	MHC	eP	03 29 27.4	c	
	JAS	iP	32.5	c	
	MIN	eP	38.0	c	
	PRI	eP	26.5	c	
March 3	JAS	iP	04 35 33.7	c	USCGS: 27.8°S, 177.3°W, 0 = 04 23 05
March 3	JAS	iP	05 23 33.3	c	Kermadec Islands. h about 33 km.
March 3	JAS	iP	06 05 26.3	d	USCGS: 28.1°S, 177.5°W, 0 = 05 11 01
March 3	BKS	eP	06 28 04.9	c	Kermadec Islands. h about 33 km.
	MHC	eP	07.8	c	
	JAS	iP	04.5	c	
	MIN	iP	27 53.0	c	
	PRI	eP	28 14.5	c	
March 3	JAS	iP	06 45 46.6	c	USCGS: 27.2°S, 177.6°W, 0 = 05 52 57
March 3	JAS	iP	07 14 10.8	d	Kermadec Islands. h about 33 km.
March 3	JAS	iP	07 30 41.8	c	USCGS: 49.8°N, 78.1°E, 0 = 06 14 57
March 3	JAS	iP	07 33 40.4	d	Eastern Kazakh SSR. h about 0 km
March 3	MIN	iP	28.0	d	(BLAST).
March 3	JAS	iP	07 30 41.8	c	USCGS: 27.8°S, 177.5°W, 0 = 07 01 44
March 3	JAS	iP	07 33 40.4	d	Kermadec Islands. h about 33 km.
March 3	MIN	iP	28.0	d	USCGS: 44.6°N, 101.7°E, 0 = 07 20 44
March 3	MIN	iP	28.0	d	Mongolia. h about 33 km.

Date	Sta.	Phase	Time (GCT) h m s	Ground Motion	Remarks
1965					
March 3	JAS	eZ	07 46 11.5	d	
March 3	JAS	eP	08 05 52.7	d	USCGS: 50.8°N, 177.6°E, 0 = 07 57 40.
March 3	JAS	iZ	09 19 03.2	d	Aleutian aftershock. h about 39 km.
March 3	BKS	eP	10 51 04.0	d	USCGS: 51.7°N, 175.3°E, 0 = 10 42 34.4.
	MHC	eP	50 55.5	d	Aleutian aftershock. h about 44 km.
	JAS	iP	58.2	d	
	MIN	eP	40.0	c	
	PRI	eP	51 06.0	c	
March 3	JAS	iP	10 56 23.5	d	
March 3	JAS	iP	11 37 48.4	c	USCGS: 27.3°S, 177.6°W, 0 = 11 25 24.0.
March 3	BKS	eP	11 48 51	d	Kermadec Islands. h about 76 km.
	eR		12 14.0		USCGS: 27.2°S, 177.6°W, 0 = 11 36 28.3.
	MHC	eP	11 48 53.5	d	Kermadec Islands. h about 33 km.
	JAS	iP	56.7	d	
	MIN	iP	49 04.0	c	
	PRI	eP	48 52.2	d	
March 3	JAS	iZ	12 34 06.6	d	
March 3	JAS	eP	12 37 57.1	d	
March 3	JAS	iZ	13 57 59.6	c	
March 3	JAS	iP	14 04 32.5	c	USCGS: 50.0°N, 179.0°E, 0 = 13 56 23.2.
March 3	JAS	iP	14 12 10.3	d	Aleutian aftershock. h about 22 km.
March 3	JAS	iP	14 44 54.3	d	USCGS: 51.2°N, 174.7°E, 0 = 14 36 26.0.
March 3	BKS	eP	14 51 27.5	d	Aleutian aftershock. h about 25 km.
	eSNE		15 01 52.0	SW	USCGS: 27.0°S, 177.8°W, 0 = 14 39 05.0.
	eLNE		13.0		Kermadec Islands. h about 43 km.
	eR		16.6		Magnitude $5\frac{1}{2}$ - $5\frac{3}{4}$ (BKS).
			mu sec		
		PZ	0.191 1.7		
	MHC	eP	14 51 27.5	d	
	JAS	iP	32.7	d	
	MIN	iP	42.0	c	
		ipP	48.0	d	
	PRI	eP	26.8	d	
March 3	BKS	eP	15 27 07.3	c	USCGS: 5.5°S, 151.9°E, 0 = 15 14 09.7.
	ePPE		30 37.0	d	New Britain region. h about 44 km.
	eSKSNE		37 40.0		
	eR		54 27.0		Magnitude $6\frac{1}{2}$ - $6\frac{3}{4}$ (BKS).
			mu sec		
		PZ	8.06 18		
		PPZ	4.0 24		
	MHC	eP	15 27 09.1	c	
	JAS	iP	13.3	c	
	MIN	iSKSE	37 50.2		
	PRI	eP	27 14.0	c	
		eP	12.8	d	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
			h m s		
1965					
March 3	JAS	iP	15 42 05.0	c	
March 3	BKS	eP	16 56 00.0	c	USCGS: 53.1°N, 171.2°E, 0 = 16 47 25.7. Aleutian aftershock. h about 23 km.
			mu sec		
		PZ	0.095 1.5		
	MHC	eP	16 56 04.5	c	
	JAS	iP	07.6	c	
		ipP	15.6	d	
		iSE	03 06.3	c	
	MIN	iP	55 54.0	d	
	PRI	eP	56 16.0	c	
		epP	27.4	c	
March 3	JAS	iP	17 01 26.2	c	
March 3	JAS	iP	19 39 44.0	d	USCGS: 45.7°N, 150.9°E, 0 = 19 29 16.1. Kurile Islands. h about 33 km.
March 3	JAS	iP	20 07 45.8	c	USCGS: 27.1°S, 177.7°W, 0 = 19 55 16.7. Kermadec Islands. h about 33 km.
	MIN	eP	50.0	c	
March 3	JAS	iP	21 24 46.0	c	USCGS: 27.2°S, 177.7°W, 0 = 21 12 16.5. Kermadec Islands. h about 33 km.
		ipP	51.0	d	
March 3	JAS	iP	23 35 25.2	d	
March 4	BKS	eP	01 50 57.0	d	USCGS: 51.4°N, 176.7°E, 0 = 01 42 48.8. Aleutian aftershock. h about 48 km.
	MHC	eP	51 02.8	d	
	JAS	iP	06.0	d	
	MIN	iP	50 47.0	d	
	PRI	eP	51 13.7	d	
March 4	BKS	eP	02 01 51.8	c	USCGS: 5.4°S, 147.0°E, 0 = 01 48 54.1. East New Guinea region. h about 191 km.
			mu sec		
		PZ	.072 0.8		
	JAS	iP	02 01 58.3	d	
	MIN	iP	52.0	d	
	PRI	eP	57.6	d	
March 4	BKS	eP	02 09 35.8	c	USCGS: 51.5°N, 176.3°E, 0 = 02 01 27.1. Aleutian aftershock. h about 25 km.
		ipP	49.0	d	
	MHC	eP	43.5	c	
	JAS	iP	46.9	d	
	MIN	eP	27.0	d	
	PRI	eP	56.0	c	
March 4	JAS	iP	02 32 46.6	d	USCGS: 52.4°N, 160.5°E, 0 = 02 23 11.1. Off east coast of Kamchatka. h about 33 km.
March 4	JAS	iP	04 05 08.1	c	USCGS: 20.9°S, 174.8°W, 0 = 03 53 15.1. Tonga Island. h about 52 km.
	MIN	eP	12.0	d	
March 4	JAS	iP	05 37 08.0	d	
March 4	JAS	iP	06 10 08.8	d	USCGS: 14.7°S, 173.5°W, 0 = 05 58 43.1. Samoa Islands. h about 33 km.
March 4	BKS	eP	06 38 31.5	c	USCGS: 52.0°N, 175.0°E, 0 = 06 30 16.1. Aleutian aftershock. h about 40 km.
		ePcP	40 11.8	d	
			mu sec		
		PZ	0.033 1.0		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
			h m s		
1965					
March 4	MHC	eP	06 38 36.3	c	
(Cont.)		ePcP	40 14.1	c	
	JAS	iP	38 30.0	c	
	MIN	eP	22.0	c	
	PRI	eP	47.6	c	
		ePcP	40 19.5	c	
March 4	JAS	iP	07 35 43.2	c	USCGS: 5.4°S, 151.7°E, 0 = 07 22 40.4. New Britain region. h about 62 km.
March 4	JAS	iP	08 36 50.5	c	USCGS: 27.3°S, 177.6°W, 0 = 08 24 19.1. Kermadec Islands. h about 33 km.
	MIN	eP	55.0	c	
March 4	JAS	iP	09 07 57.2	c	
March 4	JAS	iP	14 51 38.4	d	
March 4	JAS	iP	21 22 42.8	d	
March 4	JAS	iZ	23 20 37.1	d	USCGS: 27.3°S, 177.4°W, 0 = 23 08 03.3. Kermadec Islands. h about 33 km.
March 5	BKS	eP	06 22 59.0	c	USCGS: 51.2°N, 179.3°E, 0 = 06 15 01.1. Aleutian aftershock. h about 25 km.
		ePcP	24 49.7	c	
		eSE	29 18.0		
		eSSE	32.5		
		eRE	35.0		
			mu sec		
		PZ	0.081 1.2		
		MaxH	4.0 20		
	MHC	eP	06 23 04.2	c	
		epP	16.4	c	
	JAS	iPNZ	07.4	Sc	
		ipP	15.9	c	
		iSE	29 36.4		
	MIN	eP	22 49.4	c	
		ipP	23 06.5	d	
	PRI	eP	13.8	c	
		epP	25.4	d	
March 5	JAS	iP	06 28 59.8	d	
March 5	JAS	iP	06 34 15.1	c	USCGS: 49.9°N, 177.4°E, 0 = 06 25 56. Aleutian aftershock. h about 15 km.
	MIN	eP	33 57.2	c	
March 5	JAS	iP	11 52 01.2	c	
March 5	JAS	iP	13 51 11.0	d	USCGS: 52.3°N, 174.9°E, 0 = 13 42 44.1. Aleutian aftershock. h about 35 km.
		eS	57 57.6		
March 5	JAS	iP	14 10 03.6	d	USCGS: 50.3°N, 177.8°E, 0 = 14 01 47.6. Aleutian aftershock. h about 15 km.
March 5	BKS	eP	14 43 56.0	d	USCGS: 27.0°S, 63.3°W, 0 = 14 32 19.2. Santiago del Estero Province, Argentina. h about 573 km.
		ePcP	44 02.0	c	
		eSNE	53 36		
			mu sec		
		PZ	0.368 1.7		
	MHC	eP	14 43 52.9	d	Magnitude 5 $\frac{1}{4}$ - 5 $\frac{1}{2}$ (BKS).
	JAS	iP	50.8	d	
		iPcP	55.5	c	

Date	Sta.	Phase	Time (GCT) h m s	Ground Motion	Remarks
1965					
March 5 (Cont.)		isP iPP iSE iSKSN	14 44 24.7 45 52.1 53 19.5 29.2	d c	
	MIN	iP iPcP	44 00.6 07.1	d d	
March 5	PRI	eP	43 46.0	d	
March 5	JAS	iP	16 42 02.5	c	USCGS: 51.5°N, 176.6°E, 0 = 16 33 52.7 Rat Islands. h about 35 km.
March 5	JAS	eP	17 21 28.4	c	USCGS: 29.1°S, 177.3°W, 0 = 17 08 51.8 Kermadec Islands region. h about 21 km.
March 5	BKS	eP eSE eR	18 07 30.3 13 52 20.3	c W	USCGS: 52.3°N, 174.2°E, 0 = 17 59 13.5 Aleutian aftershock. h about 35 km.
	MHC	eP	07 37.6	c	
	JAS	iP	30.9	c	
	MIN	eZ	29.0	c	
	PRI	eP	49.5	d	
March 5	JAS	iP	19 49 13.2	d	USCGS: 27.5°S, 177.0°W, 0 = 19 36 43.1 Kermadec Islands. h about 33 km.
March 5	MIN	eP	27.9	c	
March 5	JAS	iP	21 12 45.7	d	USCGS: 27.2°S, 177.7°W, 0 = 21 00 14.8 Kermadec Islands. h about 33 km.
March 5	JAS	iP	21 37 35.4	c	USCGS: 21.0°S, 68.4°W, 0 = 21 25 53.1 Chile-Bolivia border. h about 83 km.
March 5	JAS	iP	21 54 02.8	d	USCGS: 12.0°S, 166.3°E, 0 = 21 41 34.7 Santa Cruz Islands. h about 58 km.
March 5	BKS	eR	23 51.5	c	USCGS: 53.0°N, 171.1°E, 0 = 23 29 23.8 Aleutian aftershock. h about 45 km.
	MHC	eP	38 01	c	
	JAS	iP	03.2	c	
		ipP	11.6	d	
		iSE	45 17.4	c	
	MIN	iZ	38 15.5	c	
	PRI	eP	15.6	c	
March 6	JAS	iP	04 19 17.6	d	USCGS: 26.7°S, 177.3°W, 0 = 04 06 48.8 South of Fiji Islands. h about 24 km.
		ipP	22.6	c	
	MIN	iP	22.3	d	
		epP	28.4	c	
March 6	JAS	iP	06 01 22.6	d	USCGS: 52.3°N, 172.4°E, 0 = 05 52 58.8 Near Aleutian Islands. h about 44 km.
March 6	BKS	eSNE eScSNEZ	08 34 40 38 00	SW SWc	USCGS: 52.4°N, 174.2°E, 0 = 08 19 30.8 Aleutian aftershock. h about 25 km.
			mu sec		
		MaxH	2.92 24		
	MHC	eP	08 28 05.3	c	

Date	Sta.	Phase	Time (GCT) h m s	Ground Motion	Remarks
1965					
March 6 (Cont.)	JAS	iP	08 27 58.9	d	
	MIN	eP	42.0	c	
	PRI	eP	28 10.6	c	
March 6	JAS	eP	10 32 16.8	d	USCGS: 17.5°S, 178.7°W, 0 = 10 21 17.9. Fiji Islands. h about 573 km.
	MIN	eP	20.5	c	
March 6	BKS	eP	11 20 38.2	d	USCGS: 18.4°S, 132.9°W, 0 = 11 10 53.1. South Pacific Ocean. h about 35 km.
		ipP	44.2	d	
	MHC	eP	35.5	d	
		epP	41.5	d	
	JAS	iP	40.2	d	
		ipP	46.1	d	
	MIN	iP	54.7	c	
		ipP	21 01.5	c	
	PRI	eP	20 28.5	d	
		epP	35.5	c	
March 6	BKS	eP	13 49 21.7	d	USCGS: 52.1°N, 175.4°E, 0 = 13 41 17.0. Aleutian aftershock. h about 35 km.
		eSNE	56.0		
		eScSNE	59.6		
		eR	14 02.0		
			mu sec		
		MaxH	2.92 24		
	MHC	eP	13 49 19.0	d	
	JAS	iPP	51 28.5	c	
	PRI	eP	49 48.0	d	
March 6	JAS	iZ	13 55 02.5	d	
March 6	JAS	iP	14 43 54.3	d	USCGS: 50.4°N, 177.8°E, 0 = 14 35 42.3. Aleutian aftershock. h about 33 km.
	MIN	eP	37.8	d	
March 6	JAS	iP	17 14 27.0	d	
March 6	JAS	iP	17 18 46.8	d	
March 6	JAS	iP	18 33 52.9	c	USCGS: 51.3°N, 176.3°E, 0 = 18 25 34.8. Aleutian aftershock. h about 34 km.
	MIN	eP	36.4	d	
March 6	JAS	iP	20 37 29.3	c	USCGS: 20.1°N, 121.3°E, 0 = 20 23 49.5. Philippine Islands. h about 8 km.
	MIN	eP	20.1	c	
March 7	JAS	iP	01 38 38.1	c	
March 7	JAS	iP	01 48 40.3	d	USCGS: 46.1°N, 137.1°E, 0 = 01 37 55.6. Sea of Japan. h about 328 km.
	MIN	iP	26.9	c	
March 7	BKS	ePEZ	01 55 44.4	Ec	USCGS: 30.3°S, 177.9°W, 0 = 01 43 11.4. Kermadec Islands. h about 60 km.
		iZ	56 09.5	c	
		eSNEZ	02 06 04.0	SWd	
		eGNE	17.8		
		eRNE	21.6		
			mu sec		
		PZ	1.66 24		
		SH	4.25 24		
		MaxH	5.87 18		
	BRK	eP	01 55 43.4	c	
	JAS	iP	47.9	c	
	MIN	iP	55.3	c	
	PRI	eP	42.2	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
			h m s		
1965					
March 7	JAS	iP	02 59 49.4	c	USCGS: 51.6°N, 174.0°E, 0 = 02 51 18.5.
	MIN	eP	42.3	c	Aleutian aftershock. h about 25 km.
March 7	JAS	iP	06 42 19.6	d	USCGS: 3.3°N, 79.0°W, 0 = 06 33 17.7.
					South of Panama. h about 33 km.
March 7	JAS	iP	07 51 49.4	d	
	MIN	eP	45.8	d	
March 7	JAS	iP	08 01 37.2	c	
	MIN	eP	34.9	c	
March 7	BKS	eP	11 12 48.8	d	USCGS: 51.8°N, 176.4°E, 0 = 11 04 39.3.
		epP	13 08.0	d	Aleutian aftershock. h about 35 km.
		eR	25.0		
	MHC	eP	12 54.0	c	
		epP	13 14.1	d	
	JAS	iP	12 56.5	c	
		ipP	13 15.9	d	
		eSE	20 38.8	E	
	MIN	iP	12 40.0	c	
		ipP	59.6	c	
	PRI	eP	13 05.3	c	
		epP	25.2	d	
March 7	JAS	iP	16 21 23.8	d	
March 7	JAS	iP	17 10 45.8	d	USCGS: 19.9°S, 168.8°E, 0 = 16 58 03.
					New Hebrides Islands.
					h about 49 km.
March 7	JAS	iP	22 40 59.3	c	USCGS: 52.5°N, 175.9°E, 0 = 22 32 41.
	MIN	eZ	43.7	c	Aleutian aftershock. h about 33 km.
March 7	JAS	iP	22 57 41.0	d	USCGS: 41.1°S, 91.2°W, 0 = 22 45 17.9.
					Southern Pacific Ocean.
					h about 33 km.
March 8	BKS	eP	12 10 22.0	d	USCGS: 62.5°N, 150.4°W, 0 = 12 04 21.0.
			mu sec		Central Alaska. h about 104 km.
		PZ	0.034 0.8		
	MHC	eP	12 10 28.1	d	
	JAS	iP	26.1	d	
	MIN	iP	04.3	d	
	PRI	eP	41.1	d	
March 8	JAS	iP	12 36 19.9	c	USCGS: 44.6°S, 75.1°W, 0 = 12 23 14.
					Off coast of Southern Chile.
					h about 33 km.
March 8	JAS	iP	12 52 48.5	d	USCGS: 51.6°N, 173.5°W, 0 = 12 45 22.3.
					Andreanof Island. h about 38 km.
March 8	JAS	iP	14 46 19.9	d	
March 8	BKS	eP	15 15 09.0	c	USCGS: 17.7°S, 178.9°W, 0 = 15 04 16.2.
			mu sec		Fiji Islands. h about 589 km.
			0.039 1.0		
	MHC	eP	15 15 09.6	c	
	JAS	iP	14.1	c	
	MIN	iP	21.1	c	
	PRI	eP	09.8	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
			h m s		
1965					
March 8	BKS	eP	19 35 15.5	d	USCGS: 22.3°S, 171.4°E, 0 = 19 22 45.6.
		epP	48.2	d	Loyalty Island region.
			mu sec		h about 125 km.
		PZ	0.10 1.0		Magnitude $5\frac{3}{4}$ - 6 (BKS).
	MHC	eP	19 35 16.5	d	
	JAS	iP	20.3	d	
		ipP	51.8	c	
	MIN	eP	23.0	d	
	PRI	eP	16.3	c	
March 8	JAS	iP	22 20 14.0	c	USCGS: 59.6°N, 145.3°W, 0 = 22 14 34.1.
					Gulf of Alaska. h about 33 km.
March 8	BKS	ePEZ	23 23 28.7	Ed	USCGS: 24.6°S, 67.1°W, 0 = 23 11 31.7.
			mu sec		Chile-Argentina border.
			0.059 0.8		h about 168 km.
	MHC	eP	23 23 25.3	d	
	JAS	iP	21.8	d	
	MIN	iP	34.6	c	
	PRI	eP	17.6	d	
March 9	BKS	eP	01 47 48.8	c	USCGS: 17.0°S, 177.4°W, 0 = 01 36 45.4.
			mu sec		Fiji Islands. h about 386 km.
		PZ	0.178 1.0		
	MHC	eP	01 47 49.5	c	Magnitude $5\frac{3}{4}$ - 6 (BKS).
		epP	48 00.5	c	
	JAS	iP	47 53.8	c	
		ipP	48 09.0	d	
	MIN	iP	47 59.0	d	
	PRI	eP	49.4	c	
		epP	48 00.5	c	
March 9	JAS	iP	10 42 34.7	c	USCGS: 27.0°S, 177.7°W, 0 = 10 30 16.
	MIN	eP	40.5	c	South of Fiji Islands.
					h about 103 km.
March 9	JAS	iP	10 49 25.1	c	
	MIN	eZ	31.0	d	
March 9	JAS	iP	12 44 02.0	c	USCGS: 50.2°N, 178.3°E, 0 = 12 35 52.
					Aleutian aftershock. h about 30 km.
March 9	JAS	iP	13 06 56.7	c	USCGS: 42.3°N, 142.1°E, 0 = 12 55 42.1.
	MIN	eP	43.5	c	Hokkaido, Japan. h about 23 km.
March 9	JAS	iP	17 41 46.3	c	USCGS: 11.7°S, 166.5°E, 0 = 17 29 29.1.
					Santa Cruz Islands. h about 125 km.
March 9	BKS	eP	18 11 34.0	c	USCGS: 39.4°N, 24.0°E, 0 = 17 57 53.7.
		ePP	15 20	d	Aegean Sea. h about 18 km.
		eSNE	22 40	NE	Magnitude $6\frac{1}{4}$ - $6\frac{1}{2}$ (BKS). Two killed
		ePSNZ	24 14	Sc	and heavy damage on Alonesos Island.
		eSSNE	29 10	NE	Felt throughout Greece and in Canak-
		eP'P'NEZ	36 12	SWd	kale and Edremit, Turkey. Seismic
		eGNE	38.3		sea wave reported on Pelagos and
		eRN	44.0		Skiathos Islands.

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
			h m s		
1965					
March 9			mu sec		
(Cont.)		MaxH	16.4 20		
	MHC	eP	18 11 28	d	
	JAS	iP	22.7	c	
	MIN	eP	15.5	c	
	PRI	eP	32.8	d	
		epP	49.2	d	
March 9	JAS	eZ	18 46 11.9	c	USCGS: 7.0°N, 82.2°W, 0 = 18 37 31.5. South Panama. h about 33 km.
March 10	JAS	iP	00 38 15.3	c	USCGS: 18.0°S, 178.4°W, 0 = 00 27 17.9. Fiji Islands. h about 589 km.
	MIN	eP	20.2	d	
March 10	JAS	iP	02 27 41.2	d	USCGS: 4.1°S, 143.5°E, 0 = 02 14 22. New Guinea. h about 122 km.
	MIN	eP	38.8	c	
March 10	BKS	eP	08 38 20.0	c	USCGS: 51.9°N, 176.3°E, 0 = 08 30 11.1. Rat Islands. h about 39 km.
	MHC	eP	28.0	c	
	JAS	iP	26.8	c	
March 10	JAS	iP	11 28 14.5	c	USCGS: 17.1°S, 174.2°W, 0 = 11 16 50.1. Tonga Islands. h about 125 km.
	MIN	eP	20.4	c	
March 10	BKS	eP	16 04 56.0	d	USCGS: 21.9°S, 179.6°E, 0 = 15 53 37.8. South of Fiji Islands. h about 547 km.
		PZ	0.218 1.0		
	MHC	eP	16 04 56.5	d	
	JAS	iP	59.7	d	Magnitude $5\frac{1}{2}$ - $5\frac{3}{4}$ (BKS).
	MIN	iP	05 03.6	d	
	PRI	eP	04 56.0	d	
March 10	MHC	eZ	20 35 33.7	d	USCGS: 62.5°N, 147.3°W, 0 = 20 29 34.5. Central Alaska. h about 85 km.
	JAS	iP	33.0	c	
	MIN	eP	09.6	d	
March 10	JAS	eP	21 58 59.4	d	USCGS: 56.3°N, 155.6°W, 0 = 21 52 57.6. Alaska Peninsula. h about 33 km.
	MIN	eP	40.6	c	
March 11	JAS	iP	02 06 42.9	c	
March 11	MHC	eP	05 38 33.3	d	USCGS: 18.8°S, 169.2°E, 0 = 05 26 17.3. New Hebrides Islands. h about 219 km.
	JAS	iP	36.4	c	
	PRI	eP	34.2	d	
March 11	JAS	iZ	08 14 39.0	c	USCGS: 18.4°S, 169.7°E, 0 = 08 01 45. New Hebrides Islands. h about 25 km.
March 11	JAS	eP	08 41 27.6		USCGS: 45.3°N, 150.4°E, 0 = 08 31 01.3. Kurile Islands. h about 49 km.
March 11	JAS	eP	12 11 27.9	d	USCGS: 51.9°N, 176.5°E, 0 = 12 03 12.2. Rat Islands. h about 35 km.
	MIN	eZ	14.0	c	
March 11	MHC	eP	12 16 21.0	d	
	JAS	iP	21.7	d	
	MIN	eP	05.6	d	
	PRI	eP	32.8	c	
March 11	JAS	iP	17 26 31.5	d	
March 11	JAS	iP	17 37 10.2	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
			h m s		
1965					
March 11	JAS	iP	19 27 28.6	c	USCGS: 42.5°N, 142.8°E, 0 = 19 16 21.6. Hokkaido, Japan. h about 37 km.
March 12	JAS	iP	01 41 19.2	d	
March 12	JAS	iP	02 03 19.3	d	USCGS: 50.4°N, 177.9°E, 0 = 01 55 09.1. Rat Islands. h about 40 km.
	MIN	eZ	03.8	d	
March 12	JAS	iP	02 24 52.2	d	USCGS: 50.4°N, 177.9°E, 0 = 02 16 42.4. Rat Islands. h about 41 km.
March 12	JAS	iP	05 10 13.8	d	
	MIN	eZ	19.8	d	
March 12	JAS	iP	06 57 44.7	c	
	MIN	eZ	23.7	c	
March 12	JAS	iP	09 01 12.3	d	
	MIN	eP	23.3	c	
March 12	JAS	iP	09 41 53.7	c	USCGS: 51.6°N, 175.0°E, 0 = 09 33 30.8. Rat Islands. h about 38 km.
March 12	JAS	iP	17 43 22.4	c	USCGS: 26.8°S, 176.5°W, 0 = 17 31 02.2. South of Fiji Islands. h about 48 km.
March 12	JAS	iP	19 35 35.2	c	USCGS: 51.9°N, 174.9°E, 0 = 19 29 03.0. Near Aleutian Islands. h about 43 km.
March 12	JAS	iP	21 33 02.3	c	USCGS: 11.8°S, 164.6°E, 0 = 21 20 30. Santa Cruz Islands. h about 44 km.
March 12	JAS	iZ	22 29 20.8	d	USCGS: 27.0°S, 71.0°W, 0 = 22 16 54.1. Near coast of Northern Chile. h about 33 km.
March 12	BKS	eZ	23 04.3		USCGS: 5.8°S, 77.8°W, 0 = 22 54 44.7. Northern Peru. h about 52 km.
	MHC	eP	04 46.6	c	
	JAS	iP	04 41.2	d	
March 13	JAS	iZ	01 35 37.5	c	USCGS: 27.1°S, 69.6°W, 0 = 01 23 26. Northern Chile. h about 75 km.
March 13	JAS	iP	02 46 09.2	d	
March 13	JAS	iP	04 23 04.4	c	USCGS: 39.1°N, 23.9°E, 0 = 04 08 40.5. Aegean Sea. h about 12 km.
	MIN	eZ	22 57.8	c	
March 13	BKS	eP	07 39 45	d	USCGS: 53.1°N, 162.2°W, 0 = 07 33 23.0. South of Alaska. h about 37 km.
		ePcP	42 12	d	
		eSEZ	44 56	Ec	
		eL	46 20		
		eNEZ	47.0		
	MHC	eP	39 51.0	d	
	JAS	iP	50.8	d	
		iPcP	42 36.3	c	
	MIN	eP	39 31.9	d	
		ePcP	42 31.0	d	
		iPP	42.1	d	
	PRI	eP	40 11.2	d	
March 13	JAS	iP	09 07 57.4	c	USCGS: 26.8°S, 176.3°W, 0 = 08 55 34.7. South of Fiji Islands. h about 31 km.
	MIN	eP	08 03.4	d	

Date	Sta.	Phase	Time (GCT) h m s	Ground Motion	Remarks
1965					
March 13	JAS	iP	14 05 48.1	d	USCGS: 20.4°S, 177.6°W, 0 = 13 54 33.0. Fiji Islands. h about 470 km.
		iPP	07 36.2	d	
	MIN	eP	05 53.0	c	
March 13	JAS	iP	15 34 11.1	d	USCGS: 51.3°N, 178.0°E, 0 = 15 26 03.2. Rat Islands. h about 53 km.
		ipP	23.9	c	
	MIN	eP	33 54.5	c	
		ipP	34 07.0	d	
March 13	JAS	iP	17 17 34.3	d	USCGS: 51.1°N, 176.1°E, 0 = 17 09 19.2. Rat Islands. h about 35 km.
	MIN	eP	22.9	c	
March 14	JAS	iP	08 58 19.6	d	USCGS: 18.8°N, 94.6°W, 0 = 08 52 22.2. Gulf of California. h about 97 km.
	MIN	eP	39.0	d	
March 14	MIN	eP	12 15 48.3	c	USCGS: 37.5°N, 140.8°E, 0 = 12 04 18. Honshu, Japan. h about 73 km.
March 14	MIN	eP	13 55 33.7	c	
March 14	BKS	ePNZ	16 06 52.0	Sc	USCGS: 36.3°N, 70.7°E, 0 = 15 53 06.6. Hindu-Kush region. h about 219 km.
		epP	07 50.8	d	
		esP	08 07.5	d	
		eP'	10 16.5	c	Magnitude 7 ³ / ₄ (BKS). Felt in India. Light damage in Afghanistan and West Pakistan.
		ePP	59.5	c	
		eP'P'	30 49.0	c	
			mu sec		
		PZ	28.1 22		
		PPZ	8.18 12		
	MHC	eP	16 06 56.0	c	
	JAS	iP	53.4	c	
	MIN	eS	17 02.2		
	PRI	eP	07 03.4	c	
March 14	BKS	iP	16 22 34.2	d	
			mu sec		
		PZ	0.078 0.8		
	MHC	eP	16 22 31.2	c	
	MIN	iP	40.3	c	
	PRI	eP	27.5	c	
March 14	BKS	eP	22 50 34.5	c	USCGS: 4.6°N, 82.6°W, 0 = 22 41 36.1. South of Panama. h about 33 km.
		e(R)NE	23 05.8		
	MHC	eP	50 22.5	d	
	JAS	iP	15.7	d	
	MIN	eZ	31.3	c	
	PRI	eP	07.5	d	
March 14	BKS	eP	23 59 55.8	d	USCGS: 16.2°S, 177.3°W, 0 = 23 49 00. Fiji Islands. h about 427 km.
	MHC	eP	56.4	c	
	JAS	iP	51.4	c	
	MIN	eP	00 00 05.9	c	
	PRI	eP	23 59 56.6	c	
March 15	BKS	eP	03 12 29.5	c	USCGS: 15.0°S, 173.9°W, 0 = 03 01 13. Tonga Islands. h about 33 km.
		e(S)NE	22 16.0	SE	
		eRNE	33.5		

Date	Sta.	Phase	Time (GCT) h m s	Ground Motion	Remarks
1965					
March 15			mu sec		
(Cont.)		MaxH	1.04 30		
	MHC	eP	03 12 33.5	c	
	JAS	iZ	39.6	c	
	MIN	eP	43.4	c	
	PRI	eP	31.5	c	
March 15	MHC	eP	05 08 28	c	USCGS: 51.7°N, 174.1°E, 0 = 04 59 58.9. Aleutian aftershock. h about 21 km.
		epP	34.2	c	
	JAS	iP	28.2	c	
	MIN	eP	11.7	d	
	PRI	eP	37.7	c	
		epP	45.3	c	
March 15	MIN	eZ	06 16 18.8	c	USCGS: 23.6°S, 176.8°W, 0 = 06 04 00.5. South of Fiji Islands. h about 33 km.
March 15	JAS	iP	07 20 12.2	d	
March 15	BKS	eP	08 34 16	c	USCGS: 51.3°N, 174.1°E, 0 = 08 25 54.5. Aleutian aftershock. h about 33 km.
		eSNEZ	41 00	NWc	
			mu sec		
		PZ	0.736 8.0		
	MHC	eP	34 14.0	d	
	JAS	iP	24.3	c	
		ipP	39.3	d	
		iPP	36 13.6	d	
		i(pPP)	34.0	c	
	MIN	eP	34 06.8	c	
		ipP	18.0	d	
	PRI	eP	33.7	d	
March 15	JAS	iP	10 48 57.6	c	USCGS: 22.2°S, 175.2°E, 0 = 10 36 18.8. South of Fiji Islands. h about 33 km.
March 15	JAS	eP	11 03 14.7	c	USCGS: 51.1°N, 174.0°E, 0 = 10 54 42.0. Aleutian aftershock. h about 9 km.
		ipP	30.3	c	
	MIN	eP	02 58.1	c	
		epP	03 13.7	d	
March 15	JAS	iP	12 44 51.9	c	USCGS: 55.7°N, 154.5°W, 0 = 12 38 52. South of Alaska. h about 18 km.
	MIN	eP	30.6	c	
March 15	BKS	eRE	14 43.0		USCGS: 6.5°S, 153.2°E, 0 = 14 02 42.1. New Britain region. h about 38 km.
	MHC	eP	15 41.5	d	
	JAS	iP	45.0	c	
	MIN	eZ	46.7	c	
	PRI	eZ	22.8	d	
March 16	JAS	iZ	03 09 33.9	d	
March 16	BKS	iP	10 51 01.8	c	USCGS: 23.7°S, 179.8°E, 0 = 10 39 40.5. South of Fiji Islands. h about 580 km.
	MHC	eP	02.0	c	
	JAS	iP	07.0	c	
		i(pP)	13.1	d	
		i(PP)	54 34.4	c	

Date	Sta.	Phase	Time (GCT) h m s	Ground Motion	Remarks
1965					
March 16 (Cont.)	MIN	i(pPP) eP PRI	10 54 41.0 51 10.9 01.7	c d c	
March 16	JAS	iZ	13 15 44.2	c	USCGS: 40.0°N, 143.2°E, 0 = 13 04 29. Off coast of Honshu, Japan. h about 41 km.
March 16	JAS	iP	14 56 26.7	c	USCGS: 52.1°N, 171.7°E, 0 = 14 47 47. Aleutian aftershock. h about 30 km.
March 16	BKS	eP eS eGNE eR	16 57 24.3 17 06 30.0 15.0 18.3	d d	USCGS: 40.8°N, 142.9°E, 0 = 16 46 15.5. Near east coast of Honshu, Japan. h about 34 km. Magnitude $5\frac{1}{4}$ - $5\frac{1}{2}$ (BKS). Felt at Morioka and Aomori.
			mu sec		
		PZ	1.54 14		
		MaxH	11.85 22		
	MHC	eP	16 57 28.4	d	
	JAS	iP	30.9	d	
		ipP	52.3	c	
	MIN	eP	17.5	d	
	PRI	eP	36.8	d	
March 16	JAS	eP	17 25 33.6	c	
March 17	MHC	eP	08 02 50.4	c	USCGS: 51.0°N, 172.2°E, 0 = 07 54 14. Aleutian Islands. h about 30 km.
	JAS	iP	53.3	c	
	MIN	eP	35.1	c	
	PRI	eP	03 01.7	c	
March 17	MIN	eZ	14 17 53.7	d	
March 17	BKS	eHEZ e(S)NEZ e(G)NE eR	14 35 38.0 42 40 45 36 48.3	Wc SWc NE	USCGS: 52.8°N, 171.9°E, 0 = 14 27 12.5. Aleutian Islands. h about 23 km.
			mu sec		
		SH	0.99 22		
		MaxH	2.26 20		
	MIN	eP	14 35 49.0	d	
	JAS	iP	51.5	d	
		i(pP)	36 12.6	c	
		i(sP)	53.6	c	
	MIN	iP	35 34.0	d	
		ipP	38.4	d	
	PRI	eP	36 00.0	d	
March 17	JAS	i(P)	14 41 10.9	c	
	MIN	e(P)	01.5	c	
March 18	JAS	iP	01 26 43.3	c	
March 18	BKS	iP epP esP eSNEZ ePSNE	06 33 37.5 34 30.8 52 43 08 44 08	d d d SEc NE	USCGS: 19.9°S, 176.1°W, 0 = 06 22 02.9. Fiji Islands. h about 151 km.

Date	Sta.	Phase	Time (GCT) h m s	Ground Motion	Remarks
1965					
March 18 (Cont.)		eSSN eSSSNE e(L)NE eR	06 47 40 51.3 53.8 57.2	N	
			mu sec		
		PZ	1.09 10		
		SH	4.02 18		
		MaxH	2.73 20		
	MHC	eP	06 33 38.4	c	
	JAS	iP	44.0	c	
		iPcP	53.5	c	
		ipP	34 35.3	c	
		iPPP	39 04.6	d	
	MIN	iP	33 48.3	d	
		iPcP	57.9	d	
		ipP	34 43.2	d	
	PRI	eP	36.9	c	
March 18	MIN	eP	12 05 38.4	c	
March 18	JAS	iP	12 59 34.7	d	USCGS: 55.8°S, 26.7°W, 0 = 12 40 49.3. South Sandwich Islands. h about 92 km.
	MIN	eP	40.4	c	
March 18	BKS	eP	16 26 56.5	d	USCGS: 17.7°S, 178.9°W, 0 = 16 15 56.1. Fiji Islands. h about 507 km.
			mu sec		
		PZ	0.112 1.2		
	MHC	eP	16 26 57.5	d	
	JAS	iP	27 06.7	d	
	MIN	eZ	16.7	c	
	PRI	eP	26 57.6	d	
March 19	JAS	iP	05 22 25.4	d	USCGS: 50.5°N, 176.6°E, 0 = 05 14 07. Rat Island. h about 33 km.
	MIN	eP	08.4	c	
March 19	JAS	iP	05 36 24.2	d	
		ipP	34.5	d	
	MIN	eP	05.8	c	
March 19	JAS	iP	07 43 49.8	c	USCGS: 50.0°N, 174.9°E, 0 = 07 35 21.7. Aleutian Islands. h about 35 km.
	MIN	eP	33.2	c	
March 19	JAS	iP	12 04 18.6	c	USCGS: 40.8°N, 143.0°E, 0 = 11 52 55.8. Near east coast of Honshu, Japan. h about 25 km.
	MIN	eP	09.7	c	
March 19	JAS	iP	15 10 42.2	d	
March 19	JAS	iP	15 47 17.1	c	USCGS: 27.1°S, 176.4°W, 0 = 15 34 52. Kermadec Islands. h about 33 km.
March 19	BKS	ePP ePSNEZ eSSNEZ eGNE eRE	16 40 12 49 50 55 30 17 06.8 12.4	d SWd Wd	USCGS: 2.0°S, 119.8°E, 0 = 16 20 51.4. Celebes. h about 46 km.
			mu sec		
		PPZ	0.73 9		
		MaxH	4.22 44		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
			h m s		
1965					
March 19	JAS	iP	16 39 22.0	c	
(Cont.)	MIN	eZ	34.1	c	
March 19	JAS	iP	16 50 15.9	c	
March 19	BKS	ePNZ	17 48 17.0	Sd	USCGS: 19.7°S, 178.7°W, 0 = 17 37 18.6. Fiji Islands. h about 617 km.
			mu sec		
		PZ	0.104 1.0		
	MHC	eP	17 48 17.8	c	
	JAS	iP	22.8	d	
	MIN	iP	26.5	c	
	PRI	eP	17.6	c	
March 19	JAS	iP	22 32 28.7	d	USCGS: 7.8°S, 104.9°W, 0 = 22 23 53. Northern Easter Island Cordillera. h about 33 km.
March 19	JAS	iP	23 16 49.9	d	
	MIN	iP	44.1	c	
March 20	JAS	iP	06 42 53.0	c	USCGS: 34.7°N, 138.0°E, 0 = 06 31 18. Near south coast of Honshu, Japan. h about 119 km.
March 20	JAS	iP	13 14 00.3	d	USCGS: 19.0°S, 69.6°W, 0 = 13 02 29. Northern Chile. h about 64 km.
	MIN	eP	12.0	d	
March 21	BKS	iP	01 28 50.0	c	USCGS: 50.1°N, 178.3°E, 0 = 01 20 46.0. Rat Island. h about 21 km.
			mu sec		
		PZ	0.019 0.7		
	MHC	eP	01 28 55.7	c	
		epP	29 04.6	c	
	JAS	iP	28 58.9	d	
		ipP	29 05.9	d	
	MIN	eP	28 41.1	d	
		ipP	50.5	d	
	PRI	eP	29 06.9	c	
March 21	JAS	iP	01 54 33.4	c	USCGS: 44.7°N, 147.1°E, 0 = 01 43 59. Kurile Islands. h about 135 km.
	MIN	eP	18.5	c	
March 21	BKS	eP	09 50 26.0	d	USCGS: 11.7°N, 86.4°W, 0 = 09 42 41.3. Near coast of Nicaragua. h about 36 km.
		epP	35.8	d	
		ePP	52 22.7	d	
		eSNE	56 44	NE	
		e(SS)N	59 36	N	
		e(ScS)NE	10 10 20		
		eGNE	02.4		
		eRE	05.4		
			mu sec		
		PZ	0.625 12		
		PPZ	0.042 0.7		
		SH	0.71 24		
		MaxH	7.05 22		
	MHC	eP	09 50 20.4	c	
		epP	32.5	c	
	JAS	iP	16.1	d	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
			h m s		
1965					
March 21		iPcP	09 52 19.3	d	
(Cont.)		iPP	27.7	d	
		iSE	56 12.3		
	MIN	eP	50 32.8	d	
	PRI	eP	10.0	c	
		epP	21.0	d	
March 21	JAS	iP	11 19 01.9	d	
March 21	BKS	e(pP)	11 22 46.5	d	USCGS: 1.5°S, 126.5°E, 0 = 11 08 16.2. Molucca Sea. h about 33 km.
		ePP	26 59.0	d	
		epPP	27 18.7	d	
		eP'EZ	26 18	d	Magnitude 6.7 (BKS).
		eSKSNZ	33 18	Ec	
		eSSNE	41 40		
		eGNE	52.6		
		eRE	57.3		
			mu sec		
		SH	3.51 14		
		MaxH	21.1 44		
	MHC	e(pP)	11 22 43.5	c	
	JAS	eP	46.9	c	
		ipP	58.2	d	
		iPP	26 58.8	d	
		ipPP	27 24.8		
	MIN	epP	22 57.1	c	
		ePP	26 43.7	c	
	PRI	e(pP)	22 48.0	d	
		e(pp)	26 57.0	c	
		epPP	27 15.4	c	
March 21	BKS	eZ	11 38 11.5	c	
	MHC	e(P)	06.5	c	
	JAS	iZ	37 54.6	c	
	MIN	eZ	38 06.1	c	
	PRI	e(P)	02.2	d	
March 21	BKS	eP	12 53 08.3	c	USCGS: 36.2°N, 136.6°E, 0 = 12 41 47.5. Near west coast of Honshu, Japan. h about 270 km.
			mu sec		
		PZ	0.072 0.8		
	MHC	eP	12 53 12.4	d	
	JAS	iP	13.7	d	
	MIN	iP	02.3	d	
	PRI	eP	20.0	d	
March 21	JAS	iP	14 39 54.9	c	USCGS: 45.1°N, 146.6°E, 0 = 14 29 08.7. Kurile Islands. h about 33 km.
	MIN	eP	40.4	c	
March 21	JAS	iP	19 13 04.0	c	USCGS: 45.5°N, 150.6°E, 0 = 19 02 32.9. Kurile Islands. h about 14 km.
	MIN	eP	12 50.8	c	
March 22	BKS	ePNZ	02 56 04.2	Sd	USCGS: 15.3°S, 173.4°W, 0 = 02 44 47.5. Tonga Islands. h about 51 km.
		ipP	21.4	c	
		iPP	58 44	d	
		epPPNEZ	59 00	NEc	Magnitude 5.9 - 6.4 (BKS).

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1965			h m s		
March 22 (Cont.)		iPPP	03 00 28	c	
		eSNE	05 08	SE	
		eSSNEZ	07 20	SWc	
		eGNE	13.4		
		eRNE	16.6		
			mu sec		
		PZ	2.91 10		
		SH	7.47 20		
		MaxH	32.9 22		
	MHC	eP	02 56 04.7	d	
		epP	19.0	c	
	JAS	iP	10.8	d	
		iPP	58 45.0	d	
		eS	03 05 38.0		
		i(PS)E	06 22.0		
	MIN	e(P)	02 56 23.1	c	
	PRI	eP	04.5	d	
		epP	17.3	c	
March 22	BKS	eP	03 17 28.0	d	USCGS: 23.8°S, 66.7°W, 0 = 03 05 33.3. Jujuy Province, Argentina. h about 176 km.
			mu sec		
		PZ	0.151 1.3		
	MHC	eP	03 17 24.7	d	
	JAS	iP	22.2	d	
		iScP	24 10.3	d	
	MIN	eP	17 33.0	d	
	PRI	eP	17.2	d	
March 22	JAS	iP	08 00 00.6	c	USCGS: 13.9°N, 90.9°W, 0 = 07 53 07.4. Near coast of Guatemala. h about 60 km.
	MIN	eP	17.9	d	
March 22	BKS	eP	11 42 56.7	c	USCGS: 21.7°N, 142.9°E, 0 = 11 31 16. Mariana Islands. h about 309 km.
	MHC	eP	56.5	c	
	JAS	iP	43 03.2	c	
	MIN	iZ	42 54.0	d	
	PRI	eP	43 06.5	c	
March 22	JAS	iP	15 22 56.4	c	USCGS: 8.8°N, 39.7°W, 0 = 15 11 01.5. Central Mid-Atlantic Ridge. h about 28 km.
March 22	JAS	iP	18 29 55.1	d	
March 22	JAS	iZ	19 40 12.6	c	
March 22	BKS	eP	20 58 07.2	c	USCGS: 22.4°S, 68.1°W, 0 = 20 46 16.2. Northern Chile. h about 110 km.
	MHC	eP	03.8	d	
	JAS	iP	01.0	d	
	MIN	iP	13.2	d	
	PRI	eP	57 50.9	c	
March 22	JAS	iZ	22 10 58.3	c	USCGS: 51.9°N, 174.9°E, 0 = 22 02 24. Near Aleutian Islands. h about 33 km.
	MIN	iZ	11 03.8	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1965			h m s		
March 22	BKS	eFNZ	23 08 54.0	Sd	USCGS: 31.9°S, 71.5°W, 0 = 22 56 26.5. Near coast of Central Chile. h about 46 km.
		epP	09 07.0	d	
		iSNEZ	19 12	SEc	
		eSSNE	24 20	NE	
		eGNE	31.0		
		eRNE	36.6		Magnitude 6.0 (BKS).
			mu sec		
		PZ	3.28 10		
		SH	8.3 10		
		MaxH	7.06 40		
	MHC	eP	23 08 50.8	d	
		epP	09 03.7	d	
	JAS	iP	08 49.2	d	
		ipP	09 01.8	d	
		iSE	19 06.8	E	
		iScSE	36.3	W	
	MIN	eP	09 00.6	e	
		ipP	12.7	d	
	PRI	eP	08 43.5	d	
		epP	56.0	d	
March 23	JAS	iP	08 26 38.7	c	USCGS: 51.5°N, 175.0°E, 0 = 08 18 14.2. Rat Islands. h about 38 km.
	MIN	eZ	21.0	d	
March 23	JAS	iP	10 37 33.2	d	USCGS: 51.3°N, 178.0°E, 0 = 10 29 23.9. Rat Islands. h about 48 km.
	MIN	eP	15.5	d	
March 23	BKS	eP	12 53 01.8	c	
	MHC	eP	07.9	d	
	JAS	iP	00.8	c	
	MIN	eP	52 53.0	c	
	PRI	eP	53 18.0	c	
March 23	JAS	iP	13 44 00.3	c	
	MIN	iP	43 41.6	c	
March 23	JAS	iP	15 34 56.4	d	
March 23	BKS	iP	18 27 23.2	c	USCGS: 15.2°S, 173.5°W, 0 = 18 16 08.4. Tonga Islands. h about 75 km.
		eSE	36 34	E	
		eGNE	45.5		
		eRNE	48.0		
	MHC	eP	27 21.3	d	
	JAS	eP	29.2	d	
	MIN	eZ	23.5	c	
	PRI	eP	21.7	d	
March 23	JAS	iP	19 38 42.7	d	USCGS: 15.4°S, 173.2°W, 0 = 19 27 17.4. Tonga Islands. h about 50 km.
March 23	JAS	iN	21 29 34.2	N	USCGS: 11.0°N, 86.6°W, 0 = 21 21 53. Near coast of Nicaragua. h about 33 km.

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
			h m s		
March 24	BKS	ePEZ	00 05 22.0	Wd	USCGS: 15.2°S, 173.5°W, 0 = 23 54 14.7.
		epP	37.5	c	Tonga Islands. h about 130 km.
		eSNE	14 40.0	NE	
		eGNE	22.7		Magnitude 5.9 (BKS).
		eRNE	25.7		
			mu sec		
		PZ	0.515 23		
		SH	3.84 22		
		MaxH	22.4 24		
	MHC	eP	00 05 21.6	c	
	JAS	iP	28.8	d	
		eSN	14 53.5		
	MIN	eZ	05 32.6	d	
	PRI	eP	21.6	c	
		epP	42.5	c	
March 24	JAS	iP	07 13 38.1	d	USCGS: 56.6°N, 152.4°W, 0 = 07 07 45.4.
	MIN	iP	16.5	c	Kodiak Island region. h about 20 km.
March 24	MIN	eP	07 42 16.7	c	USCGS: 56.6°N, 152.0°W, 0 = 07 36 46.6.
					Kodiak Island region. h about 20 km.
March 24	MHC	eP	08 11 55.0	d	USCGS: 16.3°S, 167.9°E, 0 = 07 59 39.0.
	JAS	iP	59.6	c	New Hebrides Islands. h about 189 km.
	MIN	eZ	12 01.9	d	
	PRI	eP	11 55.7	c	
March 24	BKS	ePNE Z	08 13 48	NWd	USCGS: 56.6°N, 152.4°W, 0 = 08 08 05.2.
		e(PcP)	16 36	d	Kodiak Island region.
		e(S)NE	18 24		h about 30 km.
		e(G)NE	19 56		
		e(R)NE	20 52		
			mu sec		
		PZ	1.64 16		
		SH	2.18 16		
		MaxH	6.2 22		
	MHC	eP	13 57.2	c	
	JAS	iP	57.0	c	
	MIN	iP	34.9	c	
	PRI	eP	14 12.4	d	
March 24	JAS	iP	08 20 52.1	c	
	MIN	eZ	44.5	c	
March 24	JAS	iP	09 53 42.4	d	USCGS: 13.4°S, 167.1°E, 0 = 09 41 30.4.
					New Hebrides Islands. h about 210 km.
March 24	JAS	iP	10 19 35.0	c	USCGS: 20.1°S, 174.1°W, 0 = 10 07 43.
	MIN	eZ	42.1	c	Tonga Islands. h about 33 km.

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
			h m s		
March 24	JAS	iP	10 22 30.5	d	USCGS: 52.4°N, 171.5°E, 0 = 10 13 48.
	MIN	eZ	21 24.6	c	Near Aleutian Islands.
					h about 35 km.
March 24	JAS	eP	13 35 48.1	c	USCGS: 57.8°N, 148.6°W, 0 = 13 30 04.5.
	MIN	eZ	25.6	c	Gulf of Alaska. h about 13 km.
March 24	JAS	iP	18 36 08.6	d	USCGS: 25.4°S, 177.3°W, 0 = 18 23 59.9.
	MIN	iP	13.7	d	South of Fiji Islands.
					h about 143 km.
March 24	JAS	iP	18 45 32.2	c	USCGS: 23.6°S, 115.3°W, 0 = 18 35 21.
					Easter Island Cordillera.
					h about 33 km.
March 24	BKS	eR	23 48 40		
March 25	JAS	iP	02 01 09.2	c	
March 25	BKS	eP	07 29 29.5	c	USCGS: 14.3°S, 167.4°E, 0 = 07 17 21.4.
	MHC	eP	31.2	d	New Hebrides Islands.
	JAS	iP	35.9	c	h about 205 km.
	MIN	eZ	36.1	d	
	PRI	eP	32.9	d	
March 25	BKS	eP	09 01 40	c	USCGS: 52.3°N, 172.6°E, 0 = 08 53 13.6.
		e(S)E	08 34	W	Near Islands. h about 31 km.
		eGNE	11.6		
		e(R)	14.5		
	MHC	eP	01 47.0	d	
	JAS	iP	48.7	d	
	MIN	eP	30.9	d	
	PRI	eP	56.0	d	
March 25	JAS	iP	09 38 32.5	c	USCGS: 52.1°N, 172.6°E, 0 = 09 29 55.6.
	MIN	eP	14.2	c	Near Islands. h about 30 km.
March 25	JAS	iP	18 45 47.7	d	USCGS: 7.4°S, 153.9°E, 0 = 18 32 50.5.
	MIN	eP	33.8	c	New Britain region. h about 96 km.
March 25	JAS	iP	20 49 03.0	d	USCGS: 38.1°S, 80.2°W, 0 = 20 36 32.
					Southeast Central Pacific Ocean.
					h about 33 km.
March 25	JAS	iP	23 38 38.6	c	
March 25	JAS	iZ	23 47 45.6	c	
March 26	BKS	eP	00 31 57.4	d	USCGS: 20.0°S, 178.1°W, 0 = 00 20 56.3.
	MHC	eP	58.2	d	Fiji Islands. h about 567 km.
	JAS	iP	32 02.1	d	
		i(PP)	34 22.0	c	
	PRI	eP	31 57.6	d	
March 26	JAS	iP	02 30 33.7	c	USCGS: 45.5°N, 151.4°E, 0 = 02 20 01.6.
					Kurile Islands. h about 33 km.
March 26	JAS	iP	09 13 00.5	c	
March 26	MHC	eP	16 24 34.4	c	USCGS: 22.2°S, 175.0°W, 0 = 16 12 36.9.
	MIN	eP	40.4	d	Tonga Islands region. h about 33 km.
March 26	JAS	iP	21 42 46.5	d	USCGS: 52.0°N, 171.4°E, 0 = 21 34 03.4.
	MIN	eZ	26.5	d	Near Islands. h about 30 km.
March 27	JAS	iP	09 05 47.7	c	USCGS: 43.8°N, 126.9°W, 0 = 09 03 58.
	MIN	iP	16.6	d	Off coast of Oregon. h about 33 km.

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
			h m s		
1965					
March 27	JAS	iP	14 31 16.5	d	USCGS: 40.4°N, 138.3°E, 0 = 14 19 42.
		ipP	23.8	c	Eastern Sea of Japan.
	MIN	eP	03.4	c	h about 25 km.
March 27	JAS	iP	20 26 53.8	c	USCGS: 43.5°N, 125.9°W, 0 = 20 25 15.
					Off coast of Oregon. h about 33 km.
March 27	JAS	iP	21 04 37.3	c	
March 27	MIN	eP	22 50 35.4	c	USCGS: 46.4°N, 13.1°E, 0 = 22 36 24.
					Austria. h about 33 km.
March 28	JAS	iP	01 46 10.5	c	USCGS: 50.8°N, 173.0°E, 0 = 01 37 35.
	MIN	eP	45 52.9	c	Aleutian Islands region.
					h about 33 km.
March 28	JAS	iZ	02 46 14.5	d	
March 28	JAS	iP	02 57 00.5	c	USCGS: 52.0°N, 171.4°E, 0 = 02 48 21.0.
	MIN	eP	56 43.0	c	Near Islands. h about 55 km.
March 28	JAS	iZ	08 53 47.0	c	USCGS: 32.3°N, 131.4°E, 0 = 08 41 11.
					Kyushu, Japan. h about 33 km.
March 28	JAS	iP	09 29 10.8	d	
March 28	BKS	eP	10 11 07.5	d	USCGS: 15.7°S, 74.1°W, 0 = 09 59 58.0.
		epP	18.8	d	Near coast of Peru. h about 45 km.
		e(S)N	20 16.0		
		e(G)NE	30.5		
		e(R)NE	34.5		
	MHC	eP	11 03.0	c	
		epP	15.7	c	
	JAS	iP	00.4	c	
		ipP	13.0	c	
	MIN	eP	11.1	c	
		epP	26.0	c	
	PRI	eP	10 53.9	c	
		epP	11 07.6	d	
March 28	BKS	eP	13 32 08.0	c	USCGS: 55.1°N, 162.1°E, 0 = 13 22 57.6.
		e(PcP)	33 31.5	c	Near east coast of Kamchatka.
		ePP	34 11	d	h about 33 km.
		eSNEZ	39 32	NEd	
		eSSNEZ	43 10	NEd	
		e(SSS)NE	45 24	N	
		eRNE	47.6		
			mu sec		
		PZ	0.625 12		
		SH	3.28 32		
		MaxH	3.06 28		
	MHC	eP	13 32 14.1	d	
		epP	24.9	d	
	JAS	iP	16.0	c	
	MIN	eP	31 57.4	c	
	PRI	eP	32 25.5	d	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
			h m s		
1965					
March 28	BKS	ePNEZ	16 45 42.7	SEd	USCGS: 34.4°S, 71.2°W, 0 = 16 33 14.6.
		ipPNZ	50.0	Nd	Near coast of Central Chile.
		eSE	55 59.0	E	h about 61 km.
		ePP	48 44.0	d	
		esPPNEZ	49 24.0	NEc	Magnitude 7.2 - 7.5 (BKS).
		eSS	17 01 40.0		
		eSSS	05 46.0		
		eG	08		
			mu sec		
		PZ	15.9 15		
	MHC	eP	16 45 42.7	d	
		epP	51.1	c	
	JAS	ipNEZ	37.9	SEd	About 400 dead or missing, many injured, and extensive property damage in Central Chile.
		iSE	55 51.9		
		i(sS)E	58.9		
	MIN	iP	45 49.9	d	
		ipP	58.6	c	
		eSE	56 18.3		
	PRI	eP	45 32.1	d	
		epP	40.7	c	
		e(S)	55 45.0	d	
March 29	BKS	eP	00 17 56.4	d	USCGS: 14.7°N, 146.6°E, 0 = 00 05 36.3.
	MHC	eP	18 05.8	d	Mariana Islands. h about 61 km.
	JAS	iP	17 59.1	d	
	MIN	eZ	55.7	d	
	PRI	eP	18 01.0	d	
March 29	JAS	iP	07 37 03.4	d	USCGS: 32.5°S, 71.5°W, 0 = 07 24 41.
					Near coast of Central Chile.
					h about 70 km.
March 29	JAS	iP	09 41 44.3	d	USCGS: 56.3°N, 126.3°E, 0 = 09 30 42.
					Eastern Russia. h about 33 km.
March 29	BKS	eP	10 35 19.5	c	USCGS: 53.0°N, 168.4°W, 0 = 10 28 10.6.
		e(R)	44.0		Fox Islands. h about 33 km.
	MHC	e(P)	35 13.1	d	
	JAS	iP	12.3	d	
	MIN	eP	34 52.7	d	
	PRI	e(P)	35 20.5	d	
March 29	BKS	ePEZ	10 58 46.2	Ec	USCGS: 40.8°N, 142.8°E, 0 = 10 47 37.6.
		epP	55.0	c	Near east coast of Honshu, Japan.
		eSNEZ	11 07 52.0	NEd	h about 33 km.
		eLNE	15.7		
		eRE	19.0		
			mu sec		
		PZ	4.05 14		
		SH	7.14 22		
		MaxH	10.9 20		
	MHC	eP	10 58 51.1	d	
	JAS	iP	52.7	c	
		ipP	59 01.7	c	
		iSE	11 08 07.0		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
			h m s		
1965					
March 29 (Cont.)	MIN	eP	10 58 39.1	c	
	PRI	eP	58.6	d	
		epP	59 11.2	c	
March 29	JAS	iP	11 26 29.7	d	USCGS: 40.5°N, 141.2°E, 0 = 11 16 18.5. Near east coast of Honshu, Japan. h about 208 km.
	MIN	eZ	45.5	c	
March 29	BKS	eP	14 40 53.2	c	USCGS: 52.2°N, 175.4°E, 0 = 14 32 41.2. Rat Islands. h about 34 km.
		epP	41 03.3	c	
		eSNE	47 32	NE	
		eScSNEZ	50 52	NEc	
		eLNE	52.2		
		eRE	54.0		
			mu sec		
		SH	1.23 18		
		MaxH	3.64 24		
	MHC	eP	14 41 02.1	c	
		epP	10.5	d	
	JAS	eP	03.0	d	
		eSE	47 50.2		
	PRI	eP	41 11.5	c	
		epP	20.7	d	
March 29	JAS	eP	14 46 29.5	c	
March 29	JAS	iP	17 53 40.5	d	USCGS: 17.0°N, 99.7°W, 0 = 17 47 48. Guerrero, Mexico. h about 33 km.
March 29	JAS	iP	18 06 20.2	c	USCGS: 51.8°N, 173.2°E, 0 = 17 57 47. Near Islands. h about 30 km.
March 29	JAS	iP	22 19 14.6	d	
March 30	BKS	eP	00 09 42.5	d	USCGS: 28.7°S, 178.4°W, 0 = 23 57 33.5, March 29. Kermadec Islands. h about 228 km.
		epP	10 37.7	c	
		eSNEZ	19 46.0	SEC	
		eGNE	32.0		
	MHC	eP	09 42.7	d	
			mu sec		
		PZ	0.025 0.8		
		SH	1.43 24		
		MaxH	1.63 28		
	JAS	iP	00 09 47.3	d	
		i(PcP)	10 04.7	d	
		ipP	37.8	c	
		i(PPP)	13 10.2	c	
		iSE	19 50.5		
		eSSE	20 05.2		
	MIN	eP	09 52.4	c	
	PRI	eP	41.5	d	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
			h m s		
1965					
March 30	BKS	eP	00 32 42.5	d	USCGS: 20.0°S, 173.9°W, 0 = 00 21 00.2. Tonga Islands. h about 33 km.
		iZ	55.5	c	
		ePP	36 08.0	d	
		eSN	42 18.0	S	Magnitude 5.2 - 5.6 (BKS).
		e(SSS)NE	51.2		
		eGNE	52.0		
		eR	56.3		
			mu sec		
		PZ	0.862 10		
		SH	2.24 20		
		MaxH	4.75 18		
	MHC	eP	00 32 43.0	d	
	JAS	iP	48.8	d	
		eSE	42 37.9		
	MIN	eP	32 53.0	c	
	PRI	eP	42.3	d	
March 30	JAS	iP	02 01 22.7	d	
March 30	BKS	iPEZ	02 35 08.3	Wd	USCGS: 50.6°N, 177.9°E, 0 = 02 27 07.2. Rat Islands. h about 51 km.
		iPP	36 56.5	c	
		iPcSN(E)	40 47.0	NE	
		eSNE	41 46.0	E	Magnitude 6.7 - 7 (BKS).
			eG	44 52.0	
			mu sec		
		PZ	38 16		
		PPZ	2.81 2.0		
		MaxH	135 9.0	d	
	MHC	eP	02 35 14.0	c	
		epP	21.1	c	
	JAS	iPEZ	17.6	Wd	
	MIN	iP	34 59.9	d	
	PRI	eP	35 25.1	d	
		epP	31.8	d	
March 30	BKS	iP	02 39 03.5	d	
	MHC	eP	09.5	d	
	PRI	eP	20.7		
March 30	BKS	eP	02 54 36.8	d	
	MHC	eP	43.2	d	
	MIN	iP	39.9	c	
	PRI	eP	54.3	d	
March 30	BKS	eP	03 01 20.3	d	USCGS: 50.4°N, 177.5°E, 0 = 02 53 15.5. Rat Islands. h about 33 km.
	MIN	iP	12.6	c	
	PRI	eP	37.5	d	
March 30	BKS	eP	03 10 59.7	c	USCGS: 50.4°N, 177.9°E, 0 = 03 02 57. Rat Islands. h about 30 km.
	MHC	eP	11 05.7	c	
	MIN	e(P)	10 51.2	d	
	PRI	eP	11 16.5	c	

Date	Sta.	Phase	Time (GCT)			Ground Motion	Remarks
			h	m	s		
1965							
March 30	MHC	eP	03	33	21.5	c	
	MIN	eP			37.1	c	
	PRI	eP			32.0	d	
		e(pP)			45.4	d	
March 30	BKS	eP	03	38	18.0	d	
	MHC	eP			23.9	d	
	MIN	iZ			08.6	c	
	PRI	eP			35.5	d	
March 30	MIN	eZ	04	15	21.2	c	
March 30	BKS	e(P)	04	40	55.8	c	USCGS: 50.4°N, 177.6°E, 0 = 04 32 50.0.
	MHC	e(P)			41 01.0	d	Rat Islands region. h about 35 km.
	MIN	eP			40 47.2	c	
	PRI	e(P)			41 12.5	c	
March 30	JAS	iPEZ	06	33	17.7	Wd	USCGS: 50.1°N, 177.3°E, 0 = 06 25 01.1.
	MIN	iP			00.7	c	Rat Islands region. h about 30 km.
March 30	BKS	eP	07	18	57.2	c	USCGS: 50.2°N, 177.8°E, 0 = 07 10 53.4.
	MHC	eP			19 03.2	c	Rat Islands region. h about 35 km.
	JAS	iP			06.2	d	
		i(pP)			15.5	d	
	MIN	iP			18 52.1	c	
	PRI	eP			19 13.0	c	
March 30	JAS	iP	07	30	24.3	c	USCGS: 50.2°N, 177.7°E, 0 = 07 21 10.6.
							Rat Islands region. h about 33 km.
March 30	JAS	iP	07	48	52.7	d	USCGS: 50.3°N, 177.4°E, 0 = 07 40 37.5.
							Rat Islands region. h about 32 km.
March 30	JAS	iP	08	01	39.1	c	USCGS: 51.4°N, 176.8°E, 0 = 07 53 23.
	MIN	eZ			22.7	c	Rat Islands region. h about 35 km.
March 30	JAS	iP	08	09	40.1	c	USCGS: 50.3°N, 177.9°E, 0 = 08 01 26.7.
							Rat Islands region. h about 30 km.
March 30	JAS	iP	08	19	21.2	d	USCGS: 50.5°N, 177.5°E, 0 = 08 11 07.3.
							Rat Islands region. h about 35 km.
March 30	JAS	eP	09	13	25.5	d	
March 30	JAS	iP	10	38	16.5	c	USCGS: 6.4°S, 154.5°E, 0 = 10 25 22.0.
							Solomon Islands. h about 70 km.
March 30	JAS	iP	11	23	45.2	d	USCGS: 50.5°N, 177.7°E, 0 = 11 15 31.9.
							Rat Islands region. h about 30 km.
March 30	MHC	eP	11	40	21.4	c	
	PRI	eP			23.0	c	
March 30	JAS	iP	11	50	55.6	d	USCGS: 51.6°N, 174.7°E, 0 = 11 42 26.9.
							Near Islands. h about 20 km.
March 30	JAS	iP	12	21	55.7	d	USCGS: 35.8°N, 135.2°E, 0 = 12 10 29.5.
	MIN	iP			44.0	d	Southern Honshu, Japan.
							h about 341 km.
March 30	JAS	iP	12	43	25.8	c	USCGS: 51.1°N, 178.2°E, 0 = 12 34 59.
	MIN	iP			01.5	d	Rat Islands region. h about 25 km.
March 30	JAS	eP	12	46	35.5	c	USCGS: 50.9°N, 176.3°E, 0 = 12 38 16.
		e(pP)			45.7	c	Rat Islands region. h about 40 km.
March 30	JAS	eP	14	08	09.1	c	USCGS: 13.8°N, 90.8°W, 0 = 14 01 00.
							Near coast of Guatemala.
							h about 33 km.

Date	Sta.	Phase	Time (GCT)			Ground Motion	Remarks
			h	m	s		
1965							
March 30	JAS	iP	15	06	25.4	c	USCGS: 50.5°N, 177.8°E, 0 = 14 57 05.
							Rat Islands region. h about 47 km.
March 30	JAS	iP	15	19	57.0	c	USCGS: 50.4°N, 177.5°E, 0 = 15 11 42.
							Rat Islands region. h about 30 km.
March 30	JAS	iP	16	10	57.2	c	USCGS: 41.0°N, 142.7°E, 0 = 15 59 34.1.
							Near east coast of Honshu, Japan.
March 30	JAS	iP	16	16	06.8	d	h about 32 km.
March 30	JAS	iP	17	29	52.8	c	USCGS: 53.7°N, 165.6°W, 0 = 16 09 02.4.
	MIN	eZ			38.8	c	Fox Islands region. h about 30 km.
							USCGS: 43.3°N, 145.7°E, 0 = 17 18 56.
							Hokkaido, Japan, region.
March 30	JAS	iP	19	11	07.3	c	h about 33 km.
							USCGS: 50.2°N, 159.4°E, 0 = 19 01 27.6.
							Kurile Islands region.
March 31	JAS	iP	00	41	49.5	d	h about 33 km.
							USCGS: 51.3°N, 176.0°E, 0 = 00 33 37.
							Rat Islands region. h about 35 km.
March 31	JAS	iP	06	34	59.9	c	USCGS: 52.1°N, 176.2°E, 0 = 06 26 39.
	MIN	eP			43.2	c	Rat Islands region. h about 35 km.
March 31	JAS	iP	08	29	37.0	c	USCGS: 51.4°N, 178.3°E, 0 = 08 21 28.5.
	MIN	eP			19.3	c	Rat Islands region. h about 44 km.
March 31	BKS	eP	10	00	57	c	USCGS: 38.6°N, 22.4°E, 0 = 09 47 30.7.
		iPP			04 58	c	Greece. h about 78 km.
		iSKSE			11 38	E	Magnitude $6\frac{3}{4}$ - 7 (BKS). 3 killed,
		iPS			13 54	d	16 injured, major property damage at
		eSS			20 18		Batras and Agrinion. Felt in south-
		eG			28 10		ern Italy.
		eR			33.5		
					mu		
					sec		
		PZ			4.35		
		PPZ			5.45		
		MaxH			57.4		
	MHC	eP	10	01	00.3	d	
		e(pP)			18.0	d	
	JAS	iP			00 53.4	c	
		iPP			04 38.1	c	
		iSKSE			11 25.7		
		iSKKSE			53.5		
		iScSE			12 14.2		
	MIN	iP			00 47.1	c	
	PRI	eP			01 02.5	d	
		epP			20.4	d	
March 31	JAS	iZ	10	17	36.1	c	
	MIN	eZ			41.7	c	
March 31	JAS	iP			25 49.2	c	
March 31	JAS	iP	10	54	19.8	d	USCGS: 50.3°N, 178.2°E, 0 = 10 46 08.6.
	MIN	iP			02.2	c	Rat Islands region. h about 30 km.
March 31	JAS	iP	13	31	39.0	c	USCGS: 50.2°N, 177.9°E, 0 = 13 23 25.5.
	MIN	eP			21.4	c	Rat Islands region. h about 35 km.

Date	Sta.	Phase	Time (GCT)			Ground Motion	Remarks
			h	m	s		
1965							
March 31	JAS	iP	17	32	51.2	d	
March 31	JAS	iP	19	56	43.3	c	USCGS: 50.3°N, 178.0°E, 0 = 19 48 29.7.
		ipP			52.5	c	Rat Islands region. h about 25 km.
March 31	JAS	iZ	19	47	20.2	d	USCGS: 50.2°N, 177.7°E, 0 = 19 38 08.2.
	MIN	iZ		45	54.4	c	Rat Islands region. h about 47 km.
March 31	JAS	iP	21	21	42.1	c	USCGS: 50.2°N, 177.9°E, 0 = 21 13 30.1.
		ipP			52.9	d	Rat Islands region. h about 30 km.
March 31	BKS	eP	22	40	38.5	c	USCGS: 50.4°N, 177.5°E, 0 = 22 32 31.9.
		epP			45.7	d	Rat Islands region. h about 30 km.
	MHC	eP			44.5	c	
		epP			52.0	c	
	JAS	iZ			37.2	c	
	MIN	eZ			21.2	c	
	PRI	eP			55.5	c	
		epP		41	03.0	c	
March 31	JAS	iP	23	56	27.6	c	USCGS: 50.3°N, 177.7°E, 0 = 23 48 22.3.
		ipP			46.6	d	Rat Islands region. h about 25 km.

18 JUL 1967

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ARCATA--BERKELEY--CONCORD--FRESNO--GRANITE CREEK

JAMESTOWN--LLANADA--MANZANITA LAKE--MINERAL

MOUNT HAMILTON--OROVILLE--PALO ALTO--PARAISO

PILARCITOS--PRIEST--UKIAH--VINEYARD

Earthquakes and the Registration of Earthquakes

From April 1, 1965 to June 30, 1965

by

Cinna Lomnitz,

Don Pershing

and

William Bakun

University of California

Berkeley

1967

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INTRODUCTION

Each quarterly issue of the Bulletin includes determinations of epicenters, origin times, magnitudes, and other information available at the time of writing, for earthquakes in northern California and adjoining areas. Recorded arrival times of seismic waves are tabulated only for the major earthquakes in the local area and for teleseisms.

Information items regarding the seismographic stations which comprise the Berkeley network are repeated in every issue. Information of a general nature, such as the Modified Mercalli Intensity Scale, will be found only in the first number of each volume.

PERSONNEL (April 1967)

Station Director	Bruce A. Bolt
Director Emeritus	Perry Byerly
Associate Research Seismologist	Cinna Lomnitz
Assistant Research Seismologist	Helen Freedman
Associate	Don Tocher (Earthquake Mechanism Laboratory, ESSA, Institute for Earth Sciences, San Francisco)
Associate Engineer	Walter Marion
Full-time Technical Staff	G. Mitchell, R. Sell, M. Hilger, D. Pershing
Research Assistants	W. Bakun K. Casaday, J. Derr, A. Qamar, J. Zanetti
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THE BYERLY SEISMOGRAPHIC STATION (BKS)

Standardized equipment began operating in a newly constructed tunnel east of the main campus on June 8, 1962. The closest buildings, part of the Lawrence Radiation Laboratory, are about 0.8 km away. The tunnel was cut into the upper part of the Claremont Formation. Of Miocene age, this formation consists of thin layers of cherty material alternating with shale.

A plan of the tunnel is shown in the diagram. Piers are constructed of reinforced concrete with no isolation from floor and walls. The temperature is stable. A ventilating and dehumidifying system is connected to all rooms.

The short-period world-wide standard instruments are operated with an approximate magnification of 25,000 at 1 sec and the long-period standard instruments with 3,000 at 30 sec.

On March 20, 1964, the Regents of the University of California named this station the "Byerly Seismographic Station" in recognition of the work of Professor Perry Byerly.

HISTORY OF THE UNIVERSITY OF CALIFORNIA STATIONS

"The Seismographic Stations at Mount Hamilton and Berkeley present several items of interest in the history of earthquake science, one of which is that according to the available records they were the first seismographic stations set up in America. Furthermore, they have functioned continuously from their founding to the present day, with improvements in instrumental equipment from time to time as the development of the science and opportunity have permitted.

"Several outstanding figures in the seismology of the 1880's were impressed with the importance of these stations, and Ewing, Milne, and Gray each took a personal interest in aiding one or both stations to obtain their own best and most modern types of instruments."

The quotation is from "History of the University of California Seismographic Stations and Related Activities" by Professor George D. Louderback, published in the Bulletin of the Seismological Society of America, Vol. 32, No. 3, pp. 205-229, 1942. In this paper may be found a detailed account of the development of the Berkeley stations from the installation of the instruments (the first earthquake known recorded at Mount Hamilton was on April 24, 1887) to 1942.

Since 1942, the number of seismographic stations associated with the University of California has increased from six to nineteen in 1964. In 1950, Professor Perry Byerly was appointed Director by the Regents; he had been in charge of instruction and research since 1925. In 1960, the University entered into a contract with the Air Force Office of Scientific Research of the Research Projects Agency of the Department of Defense. Funds were made available under the Vela Uniform program to design and operate a telemetered network of eight new stations in central California and to construct a new seismic vault near the Berkeley campus.

STATIONS IN OPERATION: APRIL - JUNE 1965

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
Berkeley (Strawberry)	37° 52!6	122° 14!1	276	BKS	Univ. of California, 1962
Mt. Hamilton	37° 20!5	121° 38!5	1282	MHC	Lick Observatory, 1887
Palo Alto	37° 25!0	122° 10!9	83	PAC	Stanford University, 1927
Fresno	36° 46!0	119° 47!8	88	FRE	Fresno City College, 1935
Mineral	40° 20!7	121° 36!3	1495	MIN	National Park Service, 1938
Arcata	40° 52!6	124° 04!5	59	ARC	Humboldt State College, 1948
Manzanita Lake	40° 32!2	121° 33!7	1800	MLC	National Park Service, 1956
Vineyard (local)	36° 45!0	121° 23!1	330	VIN	W.A. Taylor and Co., 1959
(telemeter)	36° 45!0	121° 23!3	380	VIT	
Concord	37° 58!1	122° 04!3	36	CNC	Diablo Valley College, 1960
Paraiso	36° 19!9	121° 22!2	363	PRS	Paraiso Hot Springs, 1961
Llanada	36° 37!0	120° 56!6	475	LLA	Charles McCullough Ranch, 1961
Priest	36° 08.5	120° 39!9	1187	PRI	Federal Aviation Agency, 1961
*Oroville	39° 33!3	121° 30!0	1080	ORV	Department of Water Resources, 1963
Jamestown	37° 56!8	120° 26!3	457	JAS	Department of Water Resources, 1964
Granite Creek	37° 01!8	121° 59!8	122	GCC	Kenneth McCullough, Santa Cruz, 1965
Ukiah	39° 08!2	123° 12!6	199	UKI	U.S. Coast and Geodetic Survey, 1965
Pilarcitos Creek	37° 30!0	122° 22!9	91	PCC	Sare Ranch, 1965

*Established by State of California Department of Water Resources, Sacramento.

18 JUL 1967

STATION INSTRUMENTATION

April - June 1965

Station	Type of Instrument	T _o sec	T _g sec	Component
BRK ^Δ	Benioff 100 kg	1.0	0.2	Z
BRK	Benioff 100 kg	1.0	8.0	Z
	100X torsion	0.8	-	N,W
	4X torsion	0.8	-	N,W
BKS	Benioff 100 kg	1.0	0.75	N,E,Z
	Sprengnether	30	100	N,E,Z
	Wood-Anderson torsion	0.8	-	S,W
BRX	Press-Ewing moving coil	30	*	N,E,Z
MHC	Wood-Anderson torsion	0.8	-	S,E
PAC	Benioff 100 kg	1.0	0.4	Z
	Wood-Anderson torsion	0.8	-	N,E
FRE	Sprengnether moving coil	2.0	2.0	N,E,Z
MIN	Benioff 100 kg	1.0	0.4	Z
	Wood-Anderson torsion	0.8	-	S,E
ARC	Benioff 14 kg	1.0	0.2	Z
	Wood-Anderson torsion	0.8	-	N,E
MLC	Loucks-Omori	3½	-	S,E
VIN	Sprengnether	2.0	0.2	N,E,Z
VIT ^Δ	Benioff 14 kg	1.0	0.2	Z
CNC ^Δ	Benioff 100 kg	1.0	0.2	Z
GCC ^Δ	Benioff 14 kg	1.0	0.2	Z
PRS ^Δ	Benioff 14 kg	1.0	0.2	Z
LLA ^Δ	Benioff 14 kg	1.0	0.2	Z
PRI ^Δ	Benioff 14 kg	1.0	0.2	Z
JAS	Benioff 100 kg	1.0	0.75	N,E,Z
ORV	Benioff 100 kg	1.0	0.75	N,E,Z
ORV	Geotech moving coil	20	100	N,E,Z
UKI	Benioff 14 kg	1.0	0.2	Z
PCC	Benioff 14 kg	1.0	0.2	Z

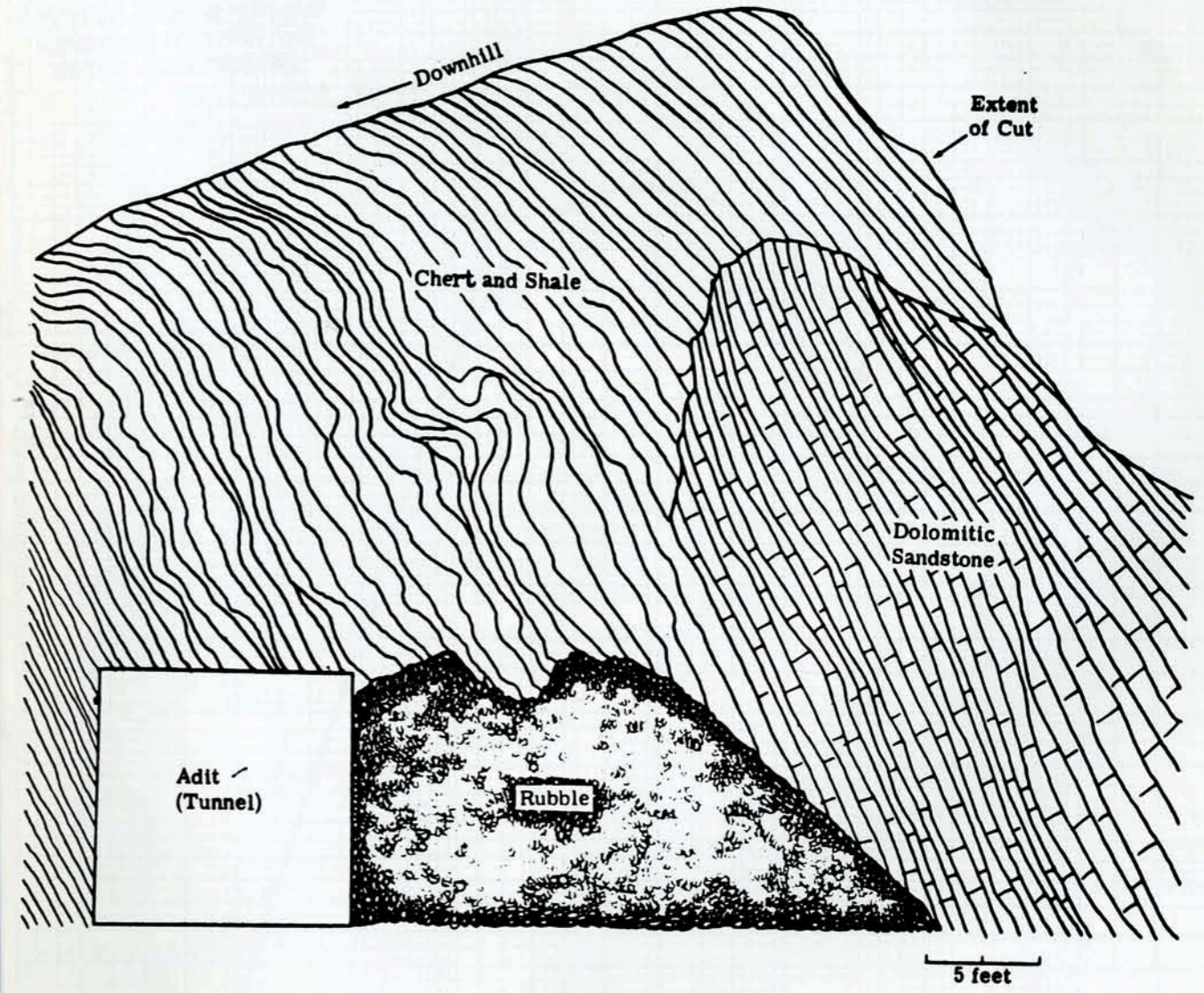
ΔSignals from these seven stations are transmitted via leased telephone lines to recorders at Berkeley.

*Broad-band recording on magnetic tape.

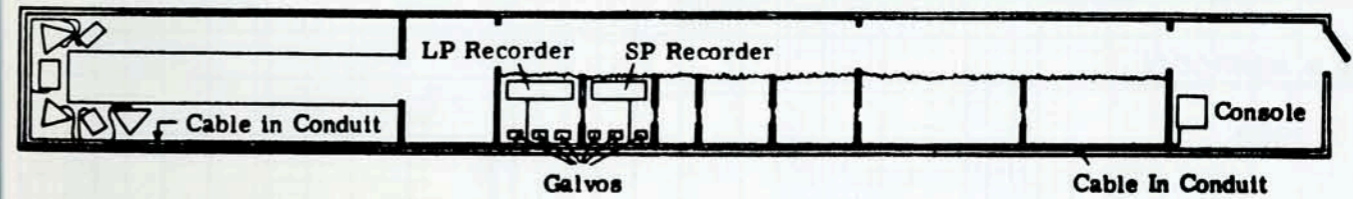
Direction of Motion: In the "Component" column, each horizontal component seismograph is designated by the direction of ground motion corresponding to upward trace motion on the seismogram when it is oriented so that time increases from left to right. On all vertical component (Z) instruments, upward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

Relative magnification curves of instruments recording through the tele-meter system are listed on the following pages. Absolute magnification may be obtained by use of calibration pulses recorded daily from each telemetered station.

BYERLY SEISMOGRAPHIC STATION (BKS)
BERKELEY, CALIFORNIA



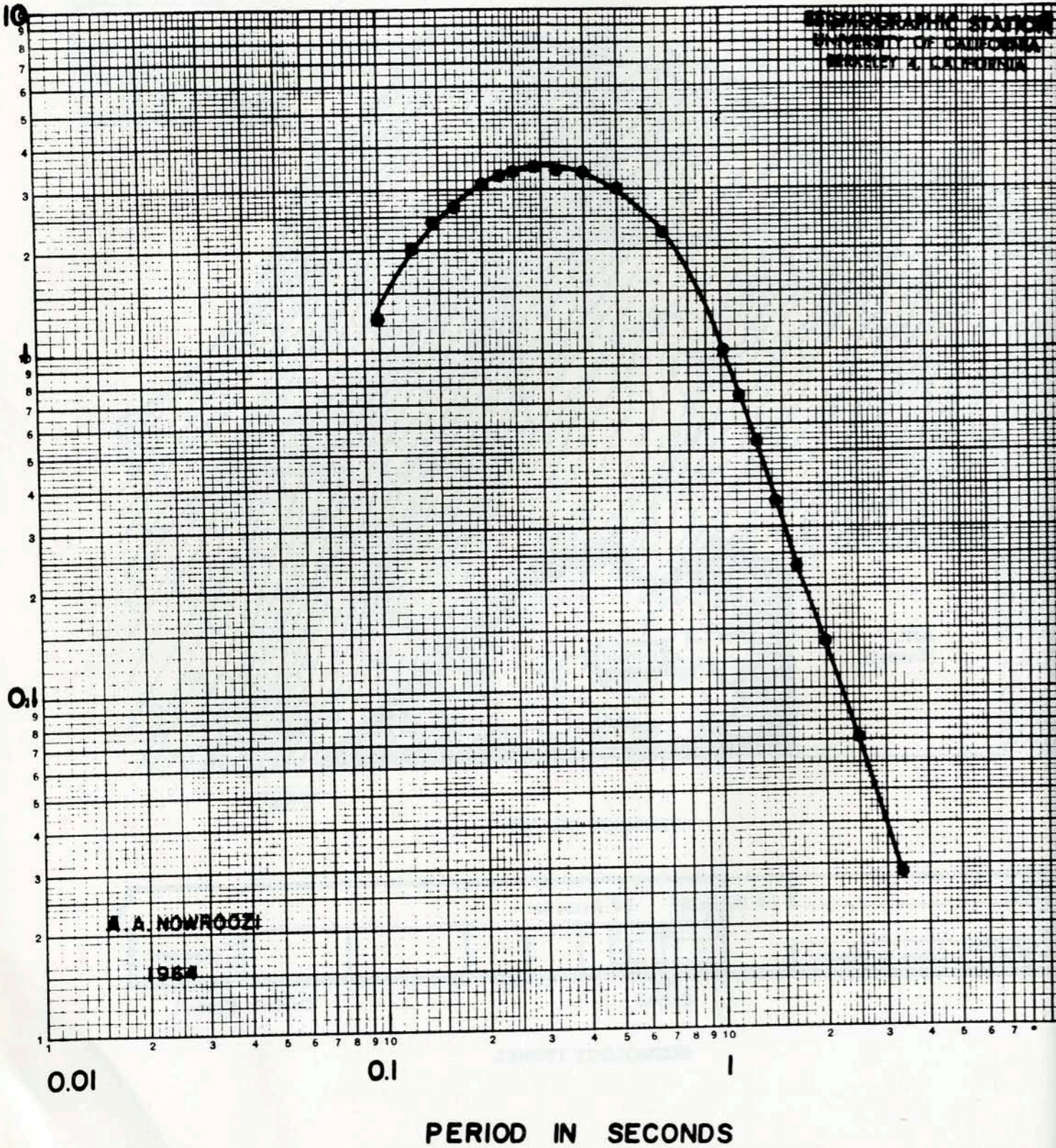
GEOLOGIC SECTION



SEISMOLOGY TUNNEL

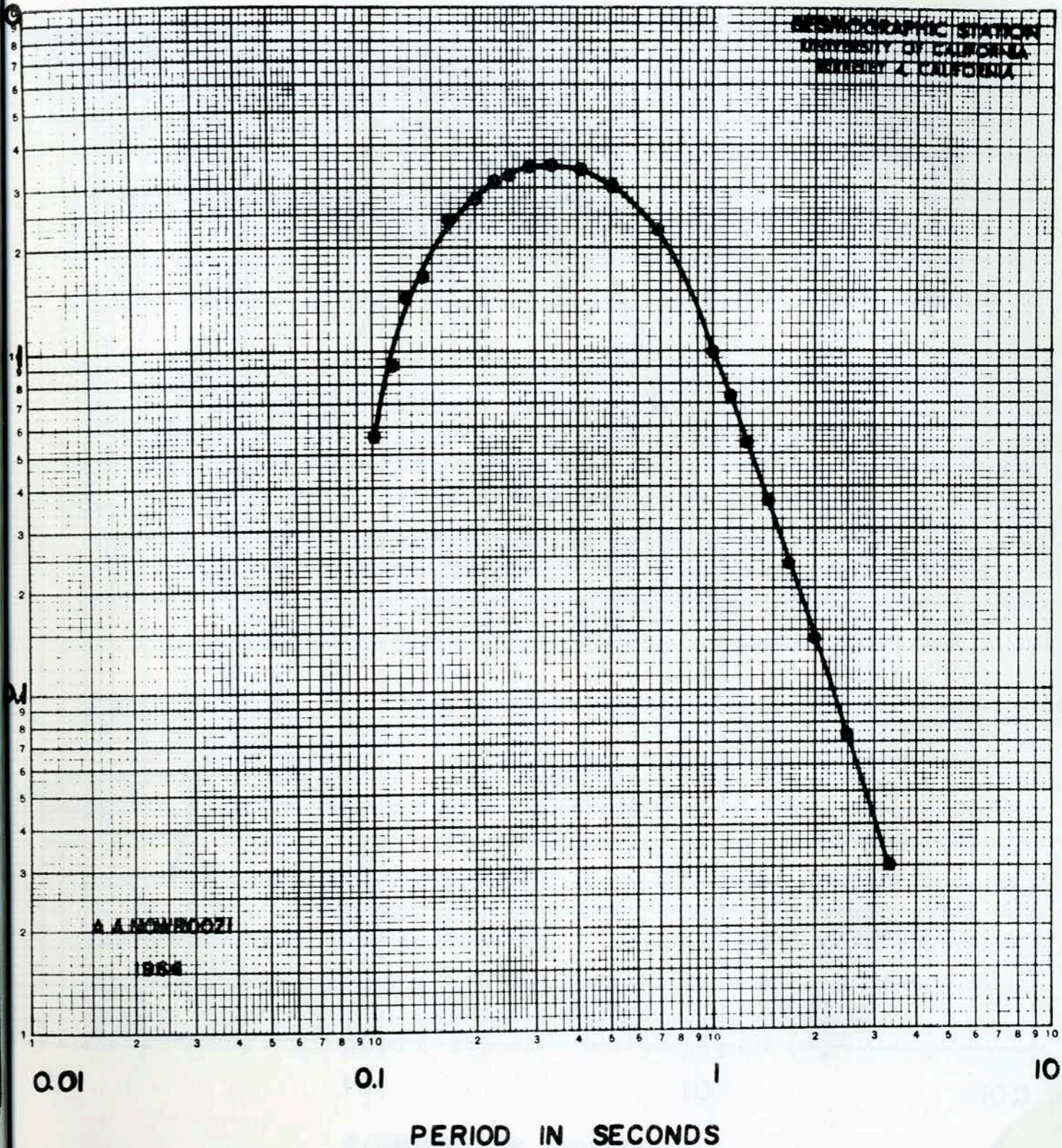
RESPONSE OF SEISMOMETER-DEVELOCORDER SYSTEM. 100KG. Z. S.P

SEISMOGRAPHIC STATION
UNIVERSITY OF CALIFORNIA
BERKELEY 4, CALIFORNIA

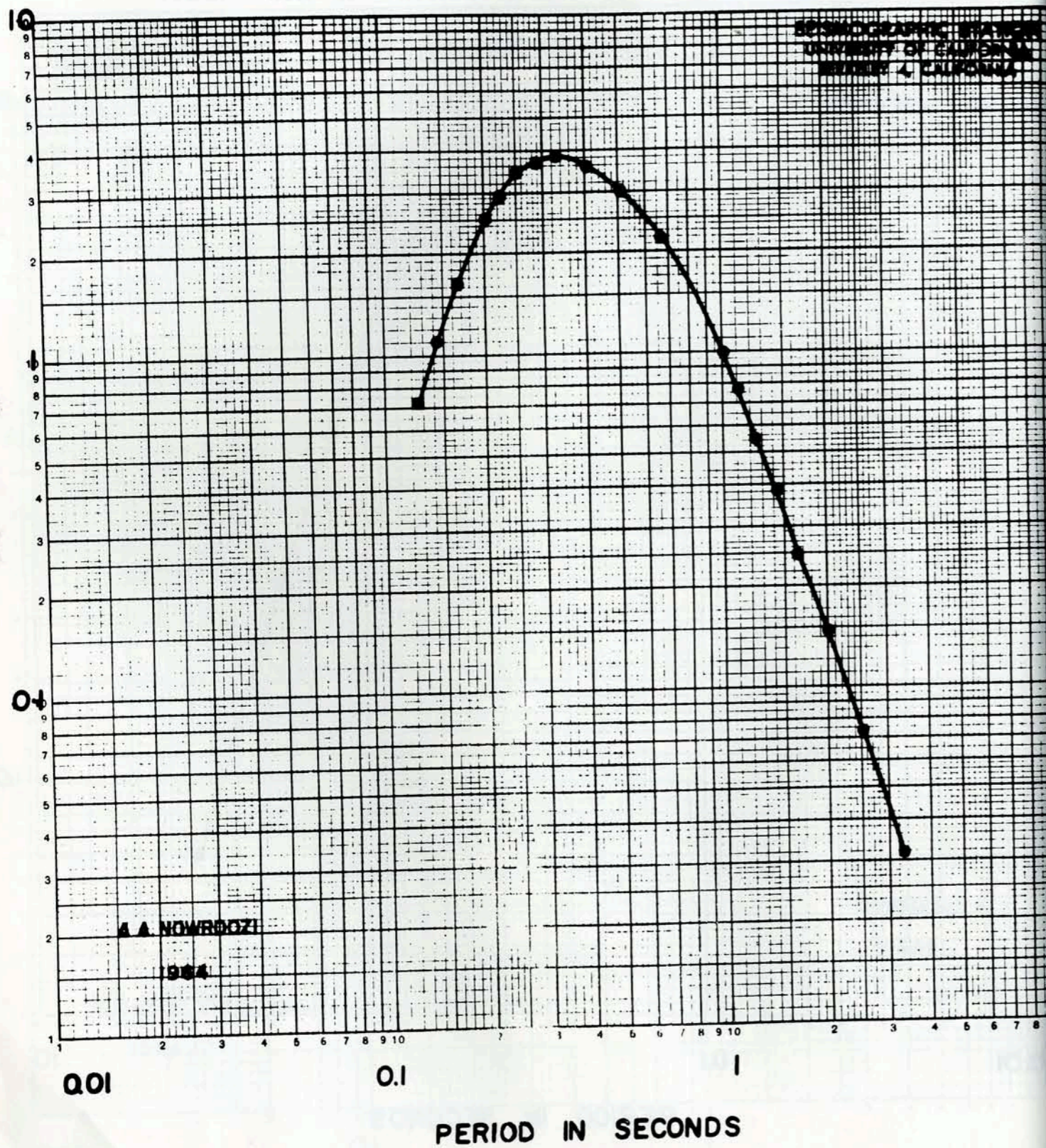


RESPONSE OF SEISMOMETER - HELICORDER SYSTEM. 100KG. Z. S.P

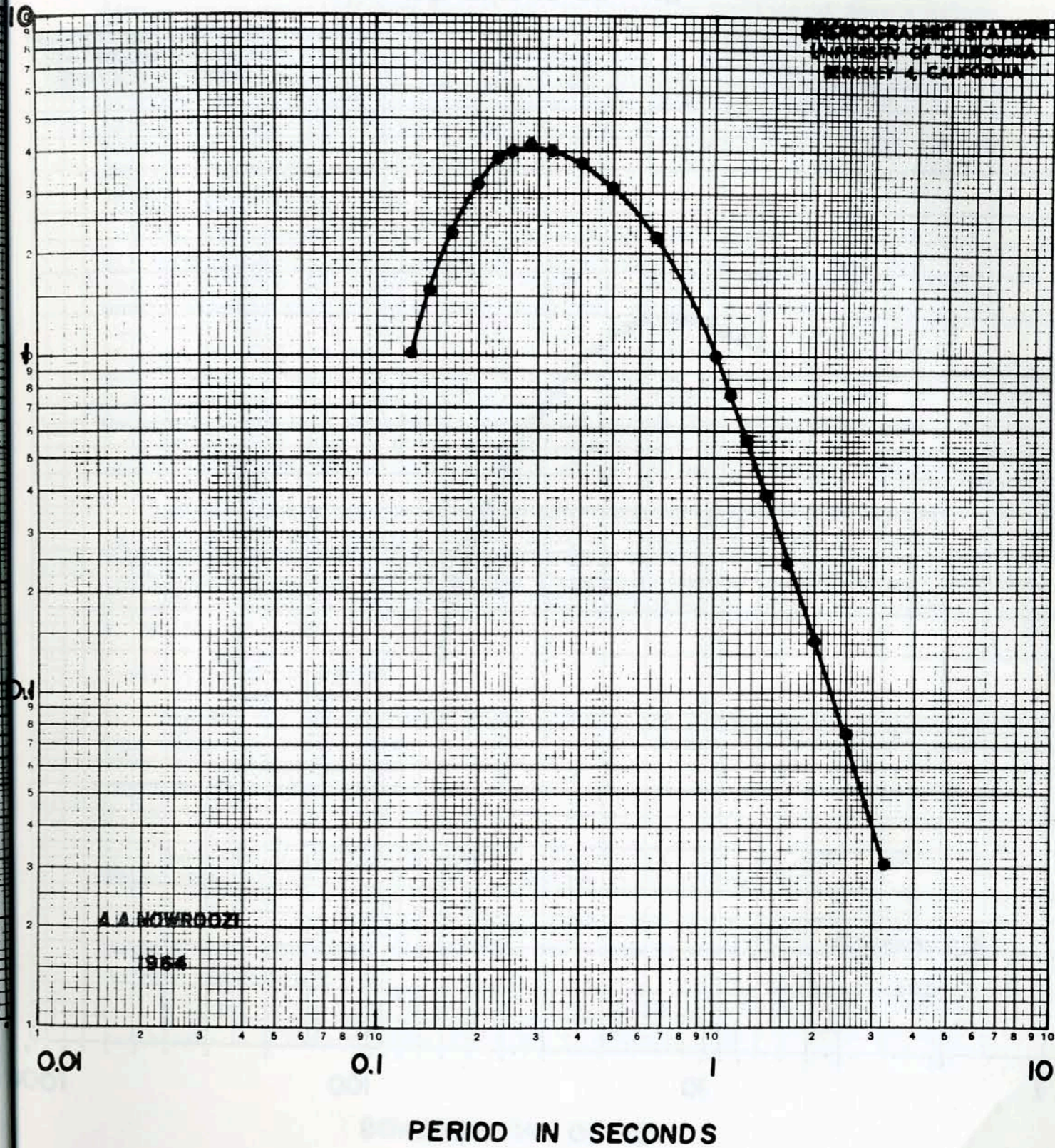
SEISMOGRAPHIC STATION
UNIVERSITY OF CALIFORNIA
BERKELEY 4, CALIFORNIA



RESPONSE OF SEISMOMETER—HELICORDER SYSTEM. 14.7 KG. Z. S.P

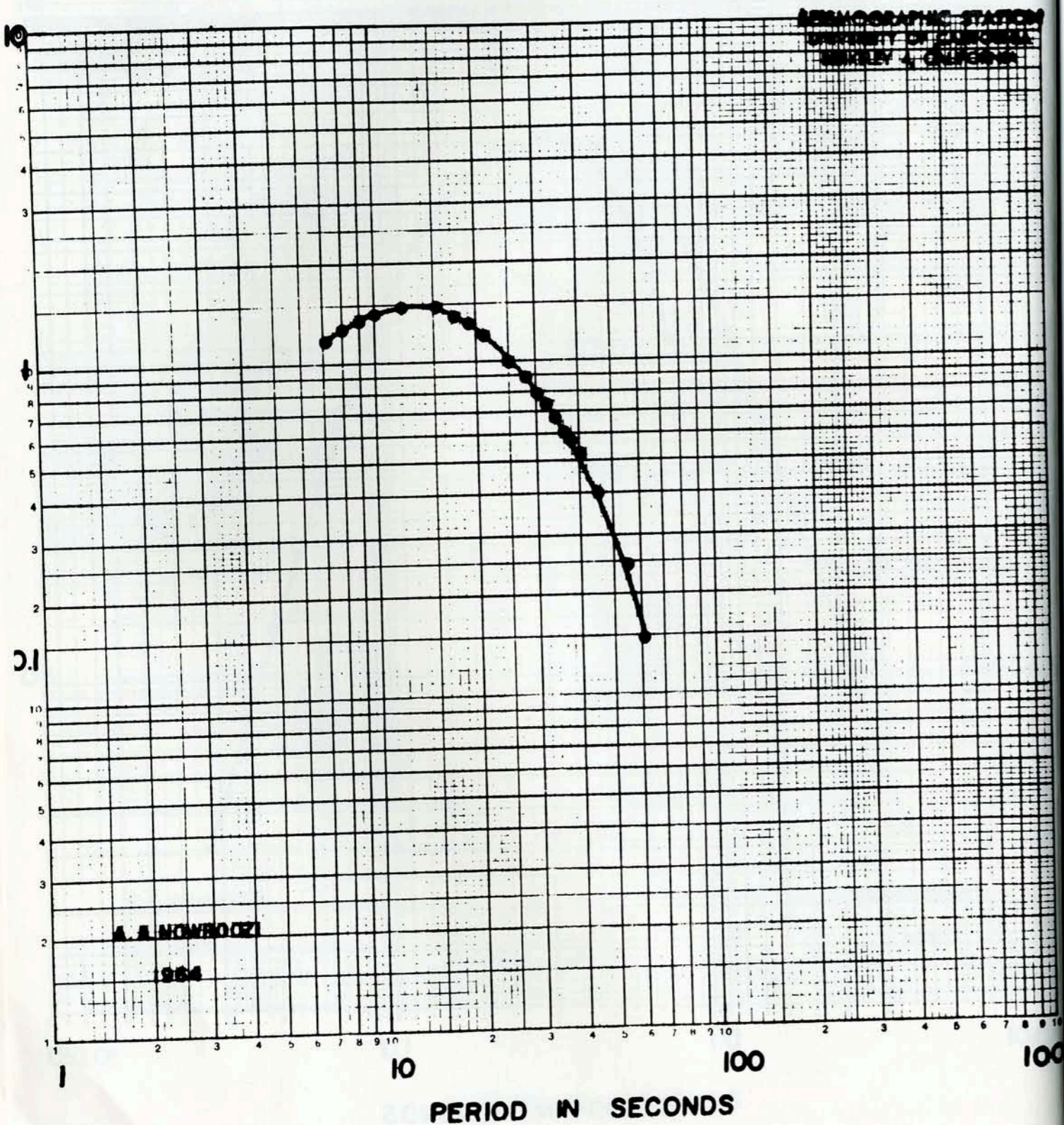


RESPONSE OF SEISMOMETER—DEVELOCORDER SYSTEM. 14.7 KG. Z. S.P



RESPONSE OF SEISMOMETER - HELICORDER SYSTEM. PRESS-EWING.

Z. T.G=30S, T.S=15S.



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 at the U.C. stations (sometimes complemented by data from neighboring stations such as Reno) to permit determination of the epicenter. For the sake of completeness, in cases where these data are not sufficient to determine acceptable epicenters the preliminary epicentral data of the USCGS are quoted. 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 omitted because the available seismographic data were inadequate for epicenter determination. Within the limited region covered by the map of the central Coast Ranges of California, locatable shocks of magnitude 2.5 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 2.5 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.

Epicenters are located by an IBM 7090 computer program. Information on Version I of this program may be found in "Computer Location of Local Earthquakes within the Berkeley Seismographic Network" by Bolt and Turcotte, published in Computers in the Mineral Industries, Part 2 (George Parks, Editor); Stanford University Publications, Geological Sciences, Vol. 9, No. 2, pp. 561-576, 1964.

Explanation of the table:

Map No. for each epicenter corresponds to the number plotted beside that epicenter on the maps. Epicenters without numbers lie outside the area of the map. The underlining of a map number in the table 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).

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.

h is the focal depth given to the nearest kilometer or by the following ranges: a, 0-5; b, 6-10; c, 11-15; d, 16-30 km.

No. of Stas. is the number of stations used by the computer program or used for constructing S-P arcs in locating the epicenter. If the USCGS data are used for the epicenter this column then gives the number of stations in the Berkeley net recording the earthquake.

The quality of the solution is partially reflected by the listed number of stations. The highest quality locations are given to the nearest minute of arc in latitude and longitude and to the tenth of a second origin time. Poorer quality locations are given to the nearest minute in latitude and longitude, to the nearest second in origin time and are denoted by an asterisk.

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.

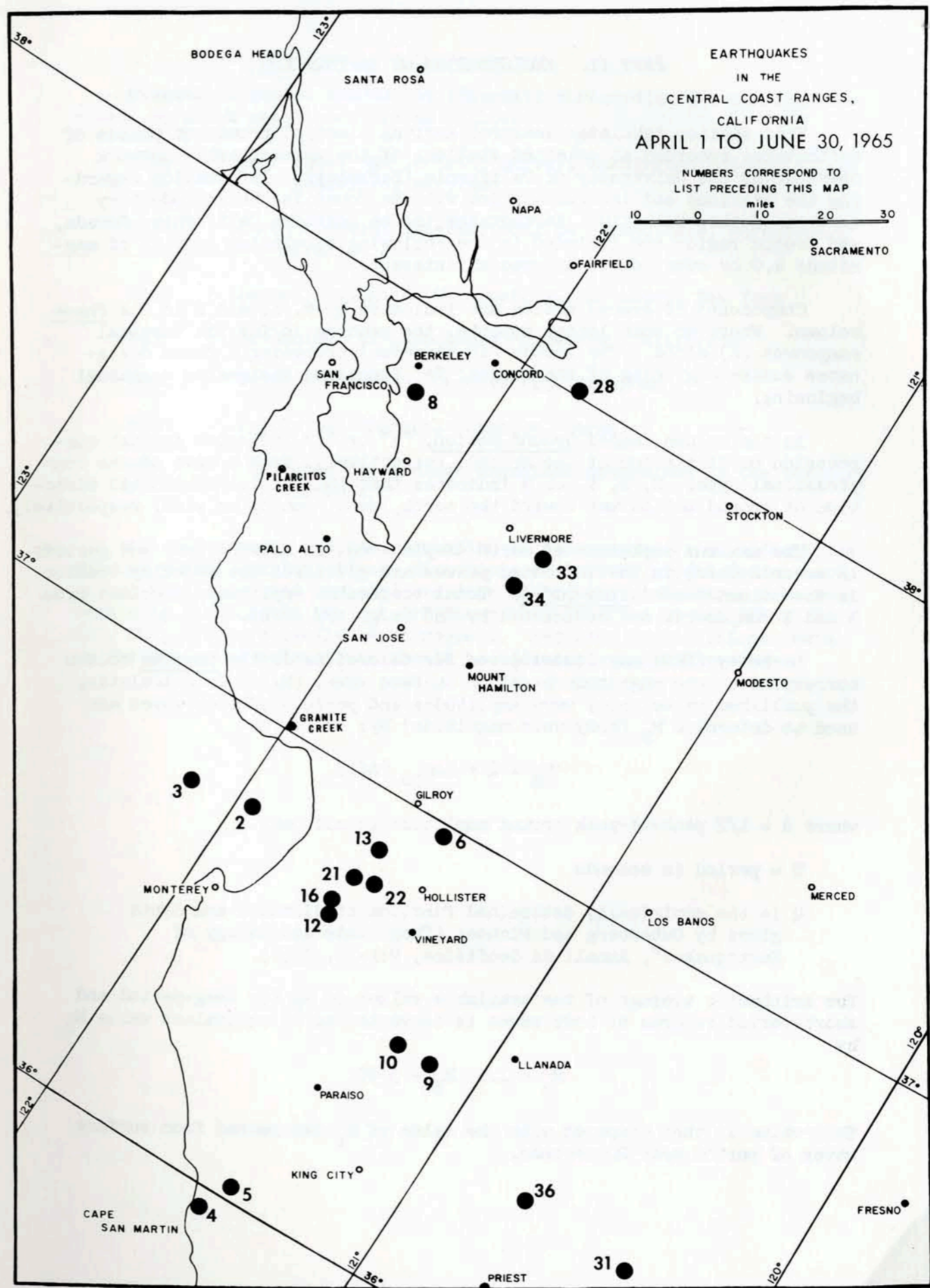
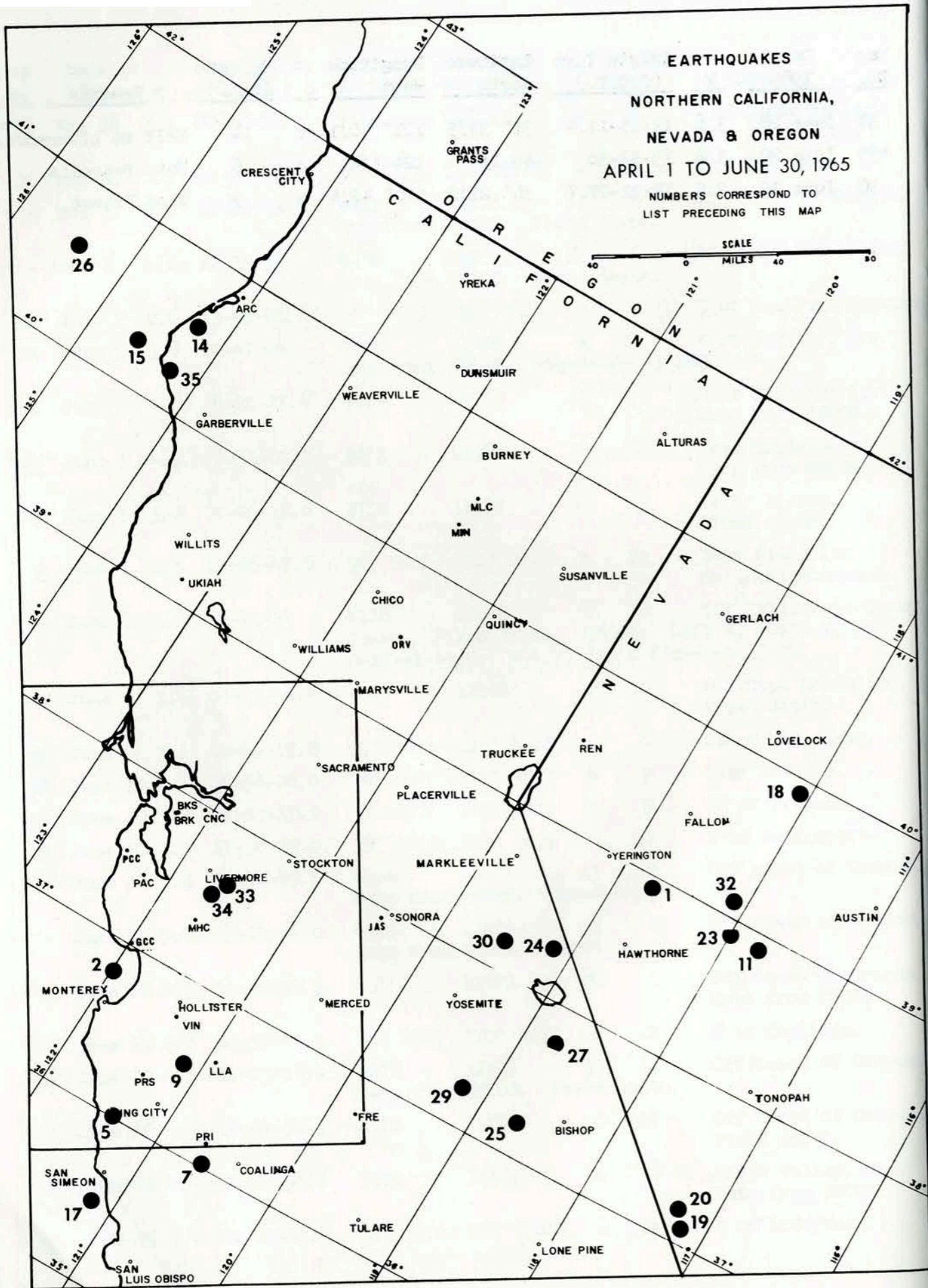
Information on maximum intensities of shocks reported felt is also included under Remarks. Reports on felt earthquakes may be obtained from the Seismological Field Survey of the U.S. Coast and Geodetic Survey, which publishes a more complete summary in "Abstracts of Earthquake Reports for the Pacific Coast and Western Mountain Region". This regular quarterly publication may be obtained from the District Officer, San Francisco District, Coast and Geodetic Survey, 121 Customhouse, San Francisco, California 94126, or from the Director, U.S. Coast and Geodetic Survey, Washington Science Center, Rockville, Maryland 20852. Intensities given in Roman numerals are assigned by the Coast and Geodetic Survey and based on the Modified Mercalli Intensity Scale of 1931.

EARTHQUAKES IN NORTHERN CALIFORNIA, NEVADA, AND OREGON

Map No.	Date 1965	M	Origin Time (G.C.T.)	Latitude North	Longitude West	h	No. of Stas.	Remarks
* -	Apr. 5	5.1	09-27-32.5	43°9	127°8	33	4	Off coast of Oregon. Data from USCGS. Fixed depth.
1	Apr. 6	3.7	15-57-05.5	38° 56.7	118° 42.0	c	9	Near Walker Lake, Nev. USCGS: 39°0 N, 118°8 W; O=15-57-05; M=3.9; h= 33 km.
2	Apr. 6	3.3	10-31-59.1	36° 48'	121° 58'	a	8	Felt at Capitola.
3	Apr. 6	2.5	11-23-10.4	36° 49.6	122° 06.7	a	8	Monterey Bay.
4	Apr. 6	2.5	20-49-24.4	35° 57.0	121° 27.3	a	7	N of San Simeon.
5	Apr. 8	3.0	01-05-40.6	36° 01.8	121° 24.0	a	10	N of San Simeon.
6	Apr. 8	2.8	21-41-12.0	36° 57.9	121° 27.6	b	11	SE of Gilroy.
7	Apr. 9	3.0	12-50-19.3	36° 01.9	120° 38.7	a	10	S of Priest.
8	Apr. 11	2.7	01-19-07.4	37° 48.5	122° 12.5	b	8	Near Oakland.
9	Apr. 11	3.5	05-41-56.6	36° 30.6	121° 09.0	a	11	Near Pinnacles National Monument.
10	Apr. 13	2.7	03-58-52.4	36° 30.1	121° 14.1	a	7	Near Pinnacles National Monument.
*11	Apr. 13	4.6	13-14-22.1	38°9	117°7	33	11	SW of Austin, Nev. Data from USCGS. Fixed depth.
12	Apr. 14	2.5	23-00-44.3	36° 42.9	121° 36.8	a	6	E of Salinas.
* -	Apr. 18	3 1/4	01-16-27	41°9	126°6	0	5	Off N California coast. Fixed depth.
* -	Apr. 18	4.9	06-33-58.8	41°5	127°1	20	15	Off California-Oregon Coast. Epicentral coordinates from USCGS.
13	Apr. 18	2.8	15-45-09.3	36° 53.5	121° 33.6	a	13	N of San Juan Bautista.
* -	Apr. 18	4.4	20-49-25	43°9	127°2	33	2	Off coast of Oregon. Data from USCGS. Fixed depth.
14	Apr. 25	3.1	08-25-57.6	40° 33.9	124° 14.5	c	4	Near Ferndale.
*15	Apr. 27	3.6	05-19-12.4	40°3	124°6	0	13	SW of Ferndale. Fixed depth.
* -	Apr. 29	4.2	04-29-16	44°5	127°9	33	2	Off coast of Oregon. Data from USCGS. Fixed depth.
16	Apr. 30	2.6	22-08-08.3	36° 43.3	121° 37.7	a	7	N of Salinas.
17	May 12	3.0	17-55-08.7	35° 29.5	121° 10.2	c	6	SW of San Simeon.
* -	May 13	4.3	19-14-16	40.7	127.1	0	6	Off coast of northern California. Fixed depth. USCGS: 40°3 N, 126°7 W; O=19-14-23; depth fixed at 33 km.
*18	May 21	3.2	06-51-35	39°9	118°1	0	6	Near Dixie Valley, Nev. Fixed depth.
*19	May 25	3.8	00-48-13.3	37.1	117.2	33	6	N of Death Valley. Data from USCGS. Fixed depth.

Map No.	Date 1965	M	Origin Time (G.C.T.)	Latitude North	Longitude West	h	No. of Stas.	Remarks
*20	May 28	3.8	08-18-51	37°2	117°3	15	9	N of Death Valley. Data from USCGS.
21	May 30	2.5	00-21-48.1	36° 47'3	121° 36'7	a	10	N of Salinas.
* -	May 31	5.5	05-07-43.4	44°1	128°8	33	7	Off coast of Oregon. Data from USCGS. Fixed depth.
* -	June 1	4.8	12-33-38	44°8	129°8	33	1	Off coast of Oregon. Data from USCGS. Fixed depth.
22	June 1	2.6	13-45-21.0	36° 48'3	121° 33'6	a	9	S of San Juan Bautista
*23	June 2	3.8	20-47-04	38°9	118°0	a	11	E of Rawhide, Nev. Data from USCGS. Magnitude by BKS.
*24	June 3	4.8	16-26-27.4	38°3	119°2	15	14	Near Bridgeport. Data from USCGS.
*24	June 3	4.9	16-31-02.2	38°3	119°3	15	14	Near Bridgeport. Data from USCGS.
*25	June 5	3.2	01-06-18.6	37°2	118°7	33	7	SW of Bishop. Fixed depth.
2	June 7	2.5	15-06-47.6	36° 30'1	121° 07'8	a	10	Near Pinnacles National Monument.
* -	June 8	3.8	12-41-34	41°8	126°8	0	10	Off California-Oregon Coast. Fixed depth. USCGS: 42°1 N, 126°4 W, 0=12-41-43.0. M=4.7; depth fixed at 33 km.
26	June 9	3.4	03-57-44.4	40°4	125°3	0	10	Off Cape Mendocino. Fixed depth.
27	June 9	3.1	22-49-17.8	37° 46'1	118° 44'8	c	6	SE of Mono Lake.
28	June 10	2.6	02-58-00.0	38° 00'7	121° 49'7	b	9	Near Antioch.
29	June 10	3.2	14-33-17.9	37° 15'1	119° 11'5	a	9	NE of Fresno.
30	June 10	3.3	17-36-29.0	38° 10'9	119° 32'7	a	10	W of Bridgeport.
* -	June 14	5.2	09-40-09.5	44°6	129°5	33	9	Off coast of Oregon. Data from USCGS. Fixed depth.
* -	June 14	5.0	13-05-54.0	44°5	129°4	33	3	Off coast of Oregon. Data from USCGS. Fixed depth.
* -	June 17	4.5	11-22-52.3	43°1	126°1	20	3	Off coast of Oregon. Data from USCGS.
31	June 20	2.7	02-56-43.5	36° 19'5	120° 21'9	c	11	N of Coalinga.
* -	June 20	4.6	17-23-55.4	42°8	126°4	33	11	Off coast of Oregon. Data from USCGS. Fixed depth.
* -	June 20	4.7	18-04-30.3	42°8	126°6	0	17	Off coast of Oregon. Fixed depth.
*32	June 25	4.4	00-18-56.1	39°1	118°1	16	14	Dixie Valley, Nev. Data from USCGS.
33	June 25	3.4	01-01-01.1	37° 38'6	121° 38'4	a	14	E of Livermore.

Map No.	Date 1965	M	Origin Time (G.C.T.)	Latitude North	Longitude West	h	No. of Stas.	Remarks
34	June 28	3.6	11-15-11.4	37° 33'5	121° 40'1	b	14	Felt at Livermore.
*35	June 29	3.6	13-53-30	40 1/4°	124 1/4°	c	6	Near Petrolia.
36	June 30	2.5	15-21-27.7	36° 21'2	120° 42'4	a	9	N of Priest.



PART II. REGISTRATION OF EARTHQUAKES

This section tabulates measured arrival times of prominent phases of earthquakes recorded at selected 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 Ground Motion, "c" or "d" indicates initial compression or dilatation of the ground, respectively, from a wave 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 (μ) 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).

Berkeley (BKS) magnitudes given for teleseisms in the Remarks column correspond to the magnitude based on surface waves (M_S). In calculating the published value, body wave amplitudes and periods of body waves are used to determine M_B (body wave magnitude) 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).

The arithmetic average of the available values of M_B for long-period and short-period records of body waves is converted to an equivalent value M_S by

$$M_S = 1.59 M_B - 3.97.$$

This value is then compared with the value of M_S determined from surface waves of period near 20 seconds.

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

- USCGS - U.S. Coast and Geodetic Survey, Washington Science Center, Rockville, Maryland
- BCIS - Bureau Central International de Seismologie, Strasbourg, France
- PAL - Lamont Geological Observatory, Palisades, New York
- PAS - Seismological Laboratory, Pasadena, California
- WMSO - Wichita Mountains Observatory, Oklahoma
- BKS - Byerly Seismographic Station, Berkeley
- BRK - indicates the average magnitude determined by the Berkeley network.

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. Readings from the remaining stations in the network other than the five listed (BKS, JAS, MHC, PRI, MIN) are available on request. Requests for additional data or for copies of seismograms should be addressed to the Director.

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
1965					
Apr. 1	JAS	iP	13 39 25.1	c	USCGS: 31:2 N, 142:0 E, 0 = 13 27 30.8. Honshu, Japan. h about 9 km.
Apr. 1	JAS	iP	13 55 20.6	c	USCGS: 20:6 S, 173:6 W, 0 = 13 43 32.6. Tonga Island. h about 46 km.
Apr. 1	MIN	eP	25.7	d	
Apr. 1	BKS	eP	21 33 36.5	c	USCGS: 50:0 S, 114:1 W, 0 = 21 20 43.8. Easter Island Cordillera.
		eSNE	44 16.0	SWc	
		eSSNE	50.0	(N)Wc	h about 33 km.
		eSSS(N)E	53.5	W	
		eLE	56.9		
		eRN	22 01.5		
	MHC	eP	21 33 30.2	c	
	JAS	iP	31.4	c	
	PRI	eP	23.4	c	
Apr. 1	JAS	iP	22 31 24.4	d	USCGS: 31:2 N, 141:9 E, 0 = 22 19 33. South of Honshu, Japan. h about 33 km.
Apr. 2	JAS	iP	13 31 56.7	d	
Apr. 2	JAS	iP	15 55 55.5	c	USCGS: 27:1 N, 179:2 W, 0 = 15 44 01.0. Kermadec Island region. h about 382 km.
		i(PP)	57 35.1	d	
Apr. 2	JAS	iP	16 17 42.5	c	USCGS: 50:5 N, 177:4 E, 0 = 16 09 28. Rat Island region. h about 31 km.
Apr. 2	JAS	iP	16 36 47.7	d	USCGS: 50:4 N, 177:1 E, 0 = 16 28 21.7. Rat Island region. h about 35 km.
	MIN	eP	19.8	c	
Apr. 2	JAS	iP	17 07 34.1	c	USCGS: 50:2 N, 177:4 E, 0 = 16 59 16. Rat Island region. h about 13 km.
Apr. 2	JAS	iP	17 27 28.0	d	USCGS: 50:4 N, 177:6 E, 0 = 17 19 15.4. Rat Island region. h about 34 km.
Apr. 2	JAS	iP	22 33 35.8	d	USCGS: 30:0 N, 138:1 E, 0 = 22 22 11. South of Honshu, Japan. h about 450 km.
Apr. 2	JAS	iP	23 27 52.7	d	
Apr. 3	BKS	eP	02 46 07.5	d	USCGS: 51:6 N, 175:8 E, 0 = 02 37 56.1. Rat Island region. h about 38 km.
	MHC	eP	13.3	c	
	JAS	iP	16.5	d	
	MIN	iP	45 58.3	c	
	PRI	eP	24.6	c	
Apr. 3	JAS	iP	03 41 50.4	d	USCGS: 26:4 S, 176:4 W, 0 = 03 29 29 South of Fiji Island. h about 33 km.
	MIN	eP	56.8	c	
Apr. 3	JAS	eP	03 39 03.2	c	USCGS: 51:6 N, 174:2 E, 0 = 03 30 33.8 Near Aleutian Islands. h about 33 km.
Apr. 3	JAS	iP	06 56 10.4	c	USCGS: 10:7 S, 166:0 E, 0 = 06 44 01. Santa Cruz Island. h about 194 km.
Apr. 3	JAS	iP	08 08 59.6	c	
	MIN	eP	57.5	c	
Apr. 3	BKS	e(R)	09 17.7		USCGS: 26:8 S, 176:4 W, 0 = 08 39 40.8

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
1965					
Apr. 3	MHC	eP	08 51 50.6	d	South of Fiji Islands. h about 109 km.
(Cont.)	JAS	iP	54.3	d	
		i(PcP)	59.9	c	
		i(pP)	52 06.8	c	
		i(sP)	42.5	d	
	MIN	eP	00.4	c	
Apr. 3	JAS	iP	09 45 46.2	c	USCGS: 17:1 S, 174:3 W, 0 = 09 33 50. Tonga Islands. h about 33 km.
Apr. 3	BKS	eP	11 27 00.3	d	USCGS: 16:0 N, 97:9 W, 0 = 11 20 43.5. Near coast of Oaxaca, Mexico.
		eSNE	32 06.0	NEd	
		eLNE	34.5		
		eRL	38.3		Magnitude 5 - 5.3 (BKS).
			mu sec		
		PZ	1.67 12		
		SH	5.10 16		
		MaxH	3.19 20		
	JAS	iP	11 26 51.1	d	
		i(PPP)	27 43.0	c	
		eSE	32 01.7		
	MIN	eP	27 09.9	c	
	PRI	eP	26 41.0	c	
		epP	55.1	c	
Apr. 3	BKS	(e)P	11 35 26.0	c	USCGS: 16:1 N, 97:8 W, 0 = 11 29 13.0. Oaxaca, Mexico. h about 45 km.
			mu sec		
		PZ	0.132 1.7		
		MaxH	4.47 20		Magnitude 4.8 - 5 (BKS).
	MHC	eP	11 35 17.8	c	
	JAS	iP	16.6	NWc	
		iSE	37 45.2		
	MIN	eZ	35 38.9	d	
	PRI	eP	07.8	c	
Apr. 3	JAS	iZ	13 51 22.8	c	USCGS: 14:8 N, 97:6 W, 0 = 13 44 54.5. Off coast of Oaxaca, Mexico. h about 33 km.
Apr. 3	JAS	iP	18 44 11.0	c	USCGS: 26:5 N, 176:3 W, 0 = 18 31 40.0. South of Fiji Islands. h about 33 km.
Apr. 4	JAS	iP	00 02 31.6	d	
Apr. 4	BKS	eP	13 38 52.5	c	USCGS: 51:9N, 175:2 E, 0 = 13 30 37.8. Rat Island. h about 40 km.
		ipP	39 03.8	c	
		iPcP	40 32.7	d	
		eSNE	45 28	NE	Magnitude 5.4 (BKS).
		e(L)E	48 48	W	
		eRNE	51.0		
			mu sec		
		PZ	1.845 8		

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
1965					
Apr. 4 (Cont.)		SH	5.31 24		
		MaxH	10.6 22		
	MHC	eP	13 38 57.0	c	
		epP	39 09.3	c	
		ePcP	40 35.2	d	
	JAS	iP	39 00.2	c	
		ipP	10.2	d	
		iPcP	40 35.8	d	
		eSE	45 48.7		
	MIN	eP	38 43.7	d	
		ipP	54.6	c	
		iPcP	40 28.2		
	PRI	eP	39 07.8	c	
		epP	20.4	c	
		ePcP	40 39.7	c	
Apr. 4	JAS	iP	13 44 27.4	c	
	MIN	eP	19.6	d	
Apr. 4	BKS	e(P)	15 49 00	d	USCGS: 26:9 S, 176:1 W, 0 = 15 36 11.9.
		eSNE	58 50	NWd	South of Fiji Islands. h about 33 km.
		e(PS)	59 42	d	Magnitude 5 $\frac{1}{2}$ - 5 $\frac{3}{4}$ (BKS).
		eLNE	16 09.0		
		eR	13.2		
			mu sec		
		PZ	1.59 10		
		SH	1.97 14		
		MaxH	6.84 16		
	MHC	eP	15 48 28.0	c	
	JAS	iP	35.5	c	
		i(PS)	50 00.5		
	MIN	iP	48 40.5	d	
	PRI	(e)P	26.9	c	
Apr. 4	JAS	iP	16 05 11.6	d	USCGS: 26:9 S, 176:1 W, 0 = 15 52 47.7.
					South of Fiji Island. h about 29 km.
Apr. 4	JAS	iP	16 22 30.6	c	USCGS: 27:1 S, 176:0 W, 0 = 16 10 08.3.
	MIN	eP	37.9	c	Kermadec Islands. h about 28 km.
Apr. 4	MHC	eP	16 45 00.5	c	USCGS: 26:9 S, 176:0 W, 0 = 16 32 41.9.
	JAS	iP	07.8	c	South of Tonga Island.
	MIN	eZ	13.4	c	h about 12 km.
	PRI	(e)P	01.5	c	
Apr. 4	BKS	eP	20 20 04.0	d	USCGS: 8:8 S, 74:5 W, 0 = 20 09 41.1.
	MHC	eP	00.0	d	Peru - Brazil border.
	JAS	iP	19 56.1	d	h about 143 km.
		ipP	20 32.3	c	
	MIN	iP	10.1	c	
	PRI	eP	19 50.3	d	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
1965					
Apr. 4	JAS	iP	20 40 35.9	c	USCGS: 4:9 N, 76:1 W, 0 = 20 31 35.0.
		MIN	50.8	d	Colombia. h about 102 km.
Apr. 4	JAS	iZ	22 50 24.2	d	
Apr. 5	BKS	eSNE	03 37 56	NE	USCGS: 37:7 N, 21:8 E, 0 = 03 12 54.2
		ePS	39 20	c	South Greece. h about 34 km.
		eSSE	44.6		
		eSSSN	48.5		
		e(P'P')	51.3		
		e(L)NE	53.8		
		e(R)	59.4		
			mu sec		
		MaxH	7.1 40		
	MHC	e(P)	03 26 35.5	c	
	JAS	iP	29.2	c	
	MIN	eZ	21.3	c	
	PRI	(e)P	37.5	c	
Apr. 5	BKS	eSNE	06 52 00	SWc	USCGS: 3:2 S, 148:4 E, 0 = 06 21 34.2.
		eGN	58.8		Bismarck Sea. h about 10 km.
		e(R)E	07 08.8		
	JAS	iP	06 34 52.6	d	
	MIN	eP	49.3	c	
Apr. 5	JAS	iP	07 36 15.3	c	USCGS: 10:5 S, 164:1 E, 0 = 07 23 30.
					Santa Cruz Island region. h about 27 km.
Apr. 5	JAS	iP	07 46 11.8	c	
	MIN	eP	02.3	c	
Apr. 5	JAS	iP	09 29 29.5	c	USCGS: 43:9 N, 127:8 W, 0 = 09 27 32.5.
		ipP	36.7	d	Off coast of Oregon. h about 33 km.
	MIN	iP	28 58.8	c	Magnitude 5.1 (CGS).
Apr. 5	JAS	iP	11 16 52.0	d	
	MIN	eP	56.3	c	
Apr. 5	BKS	eP	14 02 30.4	d	USCGS: 44:6 N, 151:1 E, 0 = 13 52 13.4.
		ipP	51.3	d	Kurile Island region.
		eSNE	10 56	NEd	h about 81 km.
		eSSE	15 00	Wd	
		eGNE	17.7		Magnitude 5 (BKS).
		eRE	20.6		
			mu sec		
		PZ	.065 1.0		
		SH	2.94 32		
		MaxH	2.50 28		
	MHC	(e)P	14 02 35.0	d	
	JAS	iP	38.0	d	
		ipP	58.2	c	
		iPcP	03 28.0	d	
	MIN	iP	02 23.2	d	
	PRI	eP	44.0	c	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
1965					
Apr. 5		epP	14 03 05.1	c	
(Cont.)					
Apr. 5	JAS	iP	14 31 50.5	d	
Apr. 5	JAS	iP	14 46 01.9	c	USCGS: 26:7 S, 176:3 W, 0 = 14 33 39.0. South of Fiji Island. h about 45 km.
Apr. 5	JAS	iP	17 04 39.8	c	USCGS: 52:8 N, 172:4 E, 0 = 16 55 51.3. Near Aleutian Islands. h about 42 km.
Apr. 5	JAS	iP	17 54 23.5	d	USCGS: 51:4 N, 179:9 W, 0 = 17 46 23.7. Andreanof Island. h about 20 km.
Apr. 5	JAS	iP	18 11 59.2	d	USCGS: 51:2 N, 178:6 E, 0 = 18 03 51.6. Rat Island region. h about 36 km.
Apr. 5	MIN	iP	18 21 42.1	c	
Apr. 5	JAS	iP	18 21 22.8	c	
Apr. 5	JAS	iP	19 41 05.0	c	USCGS: 50:4 N, 178:9 E, 0 = 19 32 59. Rat Island. h about 47 km.
Apr. 5	JAS	iP	19 41 05.0	c	USCGS: 50:4 N, 178:9 E, 0 = 19 32 59. Rat Island. h about 47 km.
Apr. 5	JAS	eZ	22 54 38.3	c	USCGS: 20:2 S, 173:9 W, 0 = 22 42 47.2. Tonga Island. h about 102 km.
Apr. 6	JAS	iP	02 35 48.5	d	USCGS: 51:0 N, 178:8 E, 0 = 02 27 47.7. Rat Island. h about 87 km.
Apr. 6	MIN	eZ	03 27 31.8	c	
Apr. 6	MHC	eP	03 27 28.6	d	USCGS: 52:2 N, 173:3 E, 0 = 03 19 01.7. Near Aleutian Islands. h about 30 km.
Apr. 6	JAS	iP	03 27 34.8	d	
Apr. 6	MIN	eP	04 59.0	d	
Apr. 6	BKS	e(R)N	04 59.0	d	
Apr. 6	JAS	iP	05 39 39.8	d	
Apr. 6	MIN	eP	05 31 44.5	d	
Apr. 6	BKS	ePE	05 43 32.5	Ec	USCGS: 36:1 N, 139:6 E, 0 = 05 31 59.7. Honshu, Japan. h about 69 km.
Apr. 6	MHC	eP	05 36.5	c	
Apr. 6	JAS	iP	05 39.1	c	
Apr. 6		i(pP)	05 53.7	d	
Apr. 6		i(PP)	05 26.8	d	
Apr. 6	MIN	eP	05 26.3	c	
Apr. 6	PRI	eP	05 44.5	c	
Apr. 6	BKS	ePP	10 01 46.0	c	USCGS: 0:5 S, 119:9 E, 0 = 09 42 28.2. Northern Celebes. h about 33 km.
Apr. 6		ePSNE	10 10 38.0	SW	
Apr. 6		eSSN	10 17 28	Nc	
Apr. 6		eSSSE	10 21.0		
Apr. 6		eL	10 28.0		
Apr. 6		eGNE	10 28.7		
Apr. 6		eRE	10 33.6		
Apr. 6		SH	mu sec 7.38 40		
Apr. 6	MHC	e(PP)	10 01 42.2	c	
Apr. 6	JAS	iPP	10 57.3	d	
Apr. 6	PRI	e(PP)	10 58.2	d	
Apr. 6	JAS	iZ	10 12 00.4	c	
Apr. 6	JAS	iP	12 13 31.4	c	USCGS: 21:0 S, 178:7 W, 0 = 12 02 17.

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
1965					
Apr. 6	MIN	eP	12 13 35.1	d	Fiji Island region. h about 554 km.
(Cont.)					
Apr. 6	JAS	iZ	12 42 37.0	d	USCGS: 50:8 N, 180:0 E, 0 = 12 34 36. Rat Island region. h about 33 km.
Apr. 6	BKS	eP	13 26 57.7	d	USCGS: 51:3 N, 179:8 W, 0 = 13 19 02.2. Andreanof Island. h about 46 km.
Apr. 6	MHC	eP	13 26 38.8	d	
Apr. 6	JAS	iP	13 26 57.2	d	
Apr. 6	MIN	eP	13 27 00.1	c	
Apr. 6	PRI	e(P)	13 26 42.4	c	
Apr. 6	BKS	eP	13 27 09.0	c	
Apr. 6	MHC	eP	13 38 46.0	d	USCGS: 50:2 N, 178:3 E, 0 = 13 30 45.1. Rat Island. h about 40 km.
Apr. 6	JAS	iP	13 45.7	d	
Apr. 6		ipP	13 55.4	d	
Apr. 6	MIN	eP	13 39 04.5	c	
Apr. 6	PRI	eP	13 38 36.9	c	
Apr. 6	JAS	iP	14 25 07.8	d	USCGS: 50:3 N, 178:7 E, 0 = 14 17 00.0. Rat Island. h about 35 km.
Apr. 6	MIN	eP	14 24 50.4	c	
Apr. 6	JAS	iP	17 00 37.2	c	USCGS: 14:2 N, 92:6 W, 0 = 16 53 58. Near coast of Chiapas, Mexico. h about 57 km.
Apr. 6	JAS	iP	17 39 14.8	d	USCGS: 27:1 S, 176:3 W, 0 = 17 26 46.7. Kermadec Island. h about 38 km.
Apr. 6	MHC	eZ	17 15.2	d	
Apr. 6	JAS	iP	19 31 27.5	c	USCGS: 3:1 S, 78:2 W, 0 = 19 21 49.7. Peru - Ecuador border. h about 97 km.
Apr. 6	JAS	iP	19 23.9	c	
Apr. 6	MIN	eP	19 32 07.3	c	
Apr. 6	PRI	eP	19 31 38.3	c	
Apr. 6	JAS	iP	20 36 43.8	d	
Apr. 6	JAS	iP	21 17 17.8	d	
Apr. 6	JAS	iP	22 00 57.2	c	USCGS: 45:4 N, 149:9 E, 0 = 21 50 21.9. Kurile Island. h about 16 km.
Apr. 7	JAS	iZ	09 50 50.7	c	USCGS: 50:5 N, 176:5 E, 0 = 09 42 30. Rat Island. h about 25 km.
Apr. 7	MIN	eP	09 33.2	c	
Apr. 7	BKS	eP	18 00 07.5	c	USCGS: 21:0 S, 178:8 W, 0 = 17 48 59.7. Fiji Island. h about 568 km.
Apr. 7	MHC	eP	18 07.9	d	
Apr. 7	JAS	iP	18 13.2	d	
Apr. 7	PRI	eP	18 07.4	d	
Apr. 7	JAS	iP	19 05 27.5	c	BKS: Southern California 0 = 19 04 30 Magnitude 3 1/2 (BKS).
Apr. 7		iS	19 59.1	c	
Apr. 7	PRI	eP	16.6	d	
Apr. 7		eS	48.0	d	
Apr. 8	JAS	iP	02 06 04.5	c	USCGS: 50:2 N, 178:5 E, 0 = 01 57 53.8. Rat Island. h about 29 km.
Apr. 8	BKS	iP	13 02 22.2	d	USCGS: 17:6 S, 178:7 W, 0 = 12 51 27.8. Fiji Island. h about 575 km.
Apr. 8	MHC	eP	13 22.0	c	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
1965					
Apr. 8	JAS	iP	13 02 27.7	c	
(Cont.)	MIN	eP	20.8	c	
	PRI	eP	22.2	c	
Apr. 8	BKS	eSNE	13 59 08	NW	USCGS: 52:2 N, 173:5 E, 0 = 13 43 52.8. Near Aleutian Islands. h about 46 km.
		eGNE	14 02.2		
		eRE	04.4		
			mu sec		
		SH	3.39 16		
		MaxH	8.70 28		
	MHC	(e)P	13 52 20.0	c	
		epP	33.0	d	
	JAS	iP	23.7	c	
	MIN	eP	06.3	d	
	PRI	eP	31.2	c	
		epP	45.2	c	
Apr. 8	MHC	(e)P	14 39 52	d	USCGS: 52:0 N, 173:4 E, 0 = 14 31 10.9. Near Aleutian Islands. h about 34 km.
	JAS	iP	43.8	c	
	MIN	eP	28.8	d	
	PRI	eP	40 02.0	c	
Apr. 9	JAS	iP	03 11 13.2	c	USCGS: 51:7 N, 176:3 E, 0 = 03 02 53.0. Rat Island. h about 33 km.
	MIN	eP	10 55.0	d	
Apr. 9	BKS	eP	10 58 10	c	USCGS: 32:6 S, 178:3 W, 0 = 10 45 29.4. South of Kermadec Island. h about 52 km. Magnitude 5.6 (BKS).
		eSN	11 09 00	N	
		eGNE	21 44		
		eRE	25.0		
			mu sec		
		SH	2.42 16		
		MaxH	8.58 18		
	MHC	eP	10 58 13.2	c	
	JAS	iP	18.4	c	
	MIN	eP	22.7	c	
	PRI	eP	01.0	d	
Apr. 9	JAS	iP	14 44 47.9	c	USCGS: 33:5 N, 137:6 E, 0 = 14 32 21.1. Near south coast of Honshu, Japan. h about 332 km.
	MIN	iP	43 35.6	d	
Apr. 9	JAS	iP	17 39 22.6	c	USCGS: 59:6 N, 144:9 W, 0 = 17 33 45.3. Gulf of Alaska. h about 52 km.
	MIN	eP	38 57.7	d	
Apr. 9	JAS	iP	18 33 10.7	d	USCGS: 54:8 S, 118:4 W, 0 = 18 20 01.5. Easter Island Cordillera. h about 33 km.
Apr. 9	JAS	iZ	23 06 44.3	d	
Apr. 9	BKS	eR	23 39.4		
Apr. 10	BKS	eE	00 38.8		USCGS: 35:1 N, 24:3 E, 0 = 23 57 03.2. April 9, Crete. h about 51 km.
	JAS	iP	10 45.8	d	
		iPP	14 23.4	d	
	MIN	iP	10 39.5	d	
Apr. 10	JAS	iP	00 21 06.7	d	USCGS: 50:8 N, 175:8 E, 0 = 00 12 44.

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
1965					
Apr. 10	(Cont.) MIN	eP	00 20 48.5	c	Rat Island. h about 33 km.
Apr. 10	JAS	iP	01 31 10.4	c	USCGS: 52:8 N, 172:0 E, 0 = 01 22 30.6. Near Aleutian Islands. h about 13 km.
	MIN	eP	30 53.5	c	
Apr. 10	MHC	e(P)	14 58 34.1	d	USCGS: 20:2 S, 173:7 W, 0 = 14 46 50.7. Tonga Islands. h about 33 km.
	JAS	iP	40.3	d	
	MIN	eP	44.5	d	
	PRI	eP	33.3	d	
Apr. 10	JAS	iP	17 03 42.3	c	USCGS: 53:1 N, 170:9 E, 0 = 16 54 55.8. Near Aleutian Islands. h about 8 km.
	MIN	eP	23.2	d	
Apr. 10	BKS	eP	22 43 43.5	d	USCGS: 17:8 S, 178:8 W, 0 = 22 32 46.6. Fiji Islands region. h about 543 km.
		iPcP	53.0	c	
		epP	45 41.5	d	
		ePP	46 36.0	d	
		eSNE	52 48.0	NW	
		eSSNE	55 50.0	SWc	
		eSSSNE	23 01 20.0	SE	
		eGNE	04 22.0		
			mu sec		
		PZ	0.537 1.3		
		PPZ	2.83 20		
		SH	4.20 20		
	MHC	eP	22 43 44.1	d	
		epP	45 41.8	d	
	JAS	iP	43 49.6	c	
		ipP	45 49.8	c	
		iSE	53 03.8		
	MIN	eP	43 52.9	d	
		ipP	45 51.9	c	
	PRI	(e)P	43 44.7	c	
		epP	45 39.3	d	
Apr. 10	BKS	eP	23 04 16.5	c	USCGS: 13:4 S, 170:3 E, 0 = 22 53 04.8. New Hebrides Islands. h about 644 km.
	MHC	eP	18.3	c	
	JAS	iP	23.7	c	
	MIN	iP	24.0	d	
	PRI	eP	19.5	c	
Apr. 10	JAS	iP	23 13 27.6	d	
		i(PcP)	14 03.7	d	
	MIN	e(PcP)	13 13.5	c	
Apr. 11	JAS	iP	00 25 11.7	d	USCGS: 42:7 S, 173:9 E, 0 = 00 11 08.8. South Island, New Zealand. h about 7 km.
		i(PP)	28 24.2	d	
	MIN	eZ	25 27.5	c	
Apr. 11	BKS	e(PP)	00 43 22	Sc	
		e(S)	48 48	d	
		i(ScS)E	51 42	W	
		e(R)E	56.0		

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
1965					
Apr. 11 (Cont.)	JAS	iZ	00 41 55.5	c	
	MIN	eP	11.3	c	
Apr. 11	JAS	iZ	02 23 21.7	c	USCGS: 30°6 S, 178°1 W, 0 = 02 10 42.0. Kermadec Islands. h about 68 km.
	MIN	eP	27.0	c	
Apr. 11	BKS	eP	05 04 26.5	d	USCGS: 19°8 N, 109°2 W, 0 = 04 59 39.3. Revilla Gigedo Islands region. h about 33 km.
		eSNE	08 30.0	SW	
		eRN	10.0		
			mu sec		Magnitude 4.8 - 5 (BKS).
		PZ	0.75 12		
		SH	9.93 16		
		MaxH	4.93 20		
	MHC	eP	05 04 18.8	c	
	JAS	iP	12.9	c	
		iPP	48.2	c	
	MIN	eP	45.6	c	
		ePP	05 04.7	d	
	PRI	eP	04 03.0	d	
Apr. 11	JAS	iP	12 51 09.6	d	USCGS: 22°0 S, 175°3 W, 0 = 13 25 46.0. Tonga Islands region. h about 33 km.
Apr. 11	JAS	iP	13 37 47.7	d	
Apr. 11	JAS	iZ	17 06 18.6	c	
	MIN	eZ	17.6	d	
Apr. 11	JAS	iP	17 16 25.3	d	USCGS: 30°7 S, 178°1 W, 0 = 17 03 45.8. Kermadec Islands. h about 67 km.
	MIN	eP	29.6	c	
Apr. 11	BKS	iPN	19 03 12.5	Sd	USCGS: 26°2 S, 178°5 E, 0 = 18 51 38.1. South of Fiji Islands. h about 581 km.
			mu sec		
		PZ	0.20 1.0		
	MHC	eP	19 03 12.3	d	
	JAS	iP	17.3	d	
		i(PP)	05 21.7	d	
	MIN	eP	03 30.7	d	
	PRI	eP	11.9	d	
Apr. 12	JAS	iP	01 53 29.0	c	USCGS: 51°2 N, 175°7 E, 0 = 01 44 55. Rat Islands. h about 30 km.
Apr. 12	BKS	e(L)NE	04 11.5		USCGS: 56°6 N, 152°7 W, 0 = 03 59 40.2. Kodiak Islands region. h about 33 km.
		e(R)EZ	12.6		
	JAS	iP	05 33.8	c	
	MIN	eP	11.8	c	
Apr. 12	BKS	e(L)NE	04 50.9		USCGS: 52°7 N, 167°4 W, 0 = 04 36 11. Fox Islands. h about 16 km.
		e(R)Z	52.5		
	MHC	eP	43 08.3	d	
	JAS	iP	10.3	c	
	MIN	eP	42 52.0	c	
	PRI	eP	43 19.0	c	
Apr. 12	BKS	e(L)NE	04 50.9		USCGS: 52°7 N, 167°4 W, 0 = 04 36 11. Fox Islands. h about 16 km.
		e(R)Z	52.5		
	MHC	eP	43 08.3	d	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
			h m s		
1965					
Apr. 12 (Cont.)	JAS	iP	04 43 10.3	c	
	MIN	eP	42 52.0	c	
	PRI	eP	43 19.0	c	
Apr. 12	JAS	iZ	04 50 08.0	c	
	MIN	eZ	51 08.8	d	
Apr. 12	JAS	iP	09 04 09.0	d	USCGS: 32°5 S, 178°1 W, 0 = 08 51 16.7. South of Kermadec Islands. h about 22 km.
Apr. 12	JAS	iZ	09 18 47.5	d	USCGS: 53°5 N, 164°7 W, 0 = 09 11 49.5. Unimak Island region. h about 35 km.
	MIN	eP	25.7	c	
Apr. 12	JAS	iP	16 02 17.8	d	USCGS: 36°0 N, 139°5 E, 0 = 15 50 39.8. Honshu, Japan. h about 77 km.
Apr. 12	JAS	iP	17 38 25.2	d	USCGS: 15°2 S, 175°7 W, 0 = 17 26 57.8. Tonga Islands. h about 118 km.
Apr. 12	BKS	eP	19 48 49.2	c	USCGS: 26°5 S, 70°8 W, 0 = 19 36 41.7. Near coast of northern Chile. h about 52 km.
	MHC	eP	45.4	d	
	JAS	iP	48.3	d	
		iZ	57.6	c	
		iZ	49 15.5	d	
	MIN	iP	48 55.4	c	
	PRI	eP	47.6	d	
Apr. 12	JAS	iP	20 38 50.2	d	USCGS: 32°3 S, 178°5 W, 0 = 20 26 15.3. South of Kermadec Islands. h about 167 km.
		iPcP	39 01.1	d	
Apr. 12	BKS	iPNE	20 52 35.2	SEc	USCGS: 30°2 N, 138°5 E, 0 = 20 41 16.3. South of Honshu, Japan. h about 421 km.
		epP	54 10.4	d	
			mu sec		Magnitude 5.7 - 6 (BKS).
	MHC	PZ	0.536 0.7		
		eP	20 52 39.0	c	
		epP	54 14.3	d	
	JAS	iP	52 31.7	c	
		ipP	54 16.3	c	
	MIN	iP	52 30.3	c	
	PRI	eP	46.1	c	
		epP	54 22.5	c	
Apr. 12	JAS	iP	21 40 45.9	d	USCGS: 32°6 S, 178°0 W, 0 = 21 27 59. South of Kermadec Islands. h about 33 km.
		iPcP	41 02.6	d	
Apr. 13	JAS	iP	07 41 22.2	d	USCGS: 15°7 S, 168°2 E, 0 = 07 28 43.8. New Hebrides Islands. h about 21 km.
	MIN	eP	30.3	c	
Apr. 13	BKS	eP	13 15 17.5	c	USCGS: 38°9 N, 117.7 W, 0 = 13 14 22.1. SW of Austin, Nevada. Magnitude 4.6 (BKS).
	MHC	eP	16.2	d	
	JAS	iP	14 51.3	d	
	MIN	iP	15 03.6	d	
Apr. 13	JAS	iP	15 31 44.4	d	USCGS: 51°5 N, 172°1 E, 0 = 15 23 06.0.
		iPcP	54.1	d	

Date	Sta.	Phase	Time(GCT)			Ground Motion	Remarks
			h	m	s		
1965							
Apr. 13 (Cont.)	MIN	iP	15	31	27.1	d	Near Aleutian Islands. h about 35 km.
		ePcP			37.2	d	
Apr. 13	JAS	iP	17	35	01.6	c	USCGS: 26:8 S, 175:9 W, 0 = 17 22 38.6. South of Tonga Islands.
		iPcP			36.8	c	
	MIN	eP			16.2	d	h about 33 km.
Apr. 13	JAS	iP	18	03	48.4	d	USCGS: 50:7 N, 177:2 E, 0 = 17 55 32.9 Rat Islands. h about 32 km.
		iPcP			04 07.1	c	
	MIN	eP			03 30.9	c	
Apr. 13	JAS	iP	23	29	33.3	d	USCGS: 54:2 N, 163:4 W, 0 = 23 22 57.2 Unimak Island region.
	MIN	eP			14.0	c	h about 36 km.
Apr. 14	JAS	iP	04	57	30.5	d	USCGS: 18:7 N, 107:8 W, 0 = 04 52 36. Off coast of Jalisco, Mexico. h about 33 km.
Apr. 14	JAS	iP	06	51	15.9	c	
	MIN	eP			50 47.2	d	
Apr. 14	JAS	iP	07	41	25.4	d	USCGS: 56:3 N, 153:5 W, 0 = 07 35 39.4 Kodiak Island region.
		iPP			42 27.6	d	h about 27 km.
	MIN	eP			41 13.5	c	
Apr. 14	JAS	iP	08	33	01.4	d	
	MIN	eP			32 51.7	c	
Apr. 14	MIN	iP	10	25	11.8	d	USCGS: 18:1 N, 94:1 W, 0 = 10 18 49.2 Gulf of Compeche. h about 106 km.
Apr. 14	JAS	iP	10	59	45.5	c	USCGS: 31:6 S, 67:5 W, 0 = 10 47 02. San Juan Province, Argentina. h about 29 km.
Apr. 14	JAS	iP	11	04	50.1	c	USCGS: 51:6 N, 159:5 E, 0 = 10 55 04. Off east coast of Kamchatka. h about 24 km.
		ipP			05 00.0	c	
Apr. 14	JAS	iP	17	53	03.5	d	USCGS: 20:4 S, 177:8 W, 0 = 17 41 44. Fiji Islands region. h about 458 km.
Apr. 14	MIN	eZ	22	00	06.2	c	
Apr. 15	JAS	iP	04	45	08.7	d	USCGS: 23:7 S, 179:6 W, 0 = 04 33 32. South of Fiji Islands. h about 460 km.
	MIN	iP			12.5	c	
Apr. 15	BKS	(e)P	05	22	44.0	c	USCGS: 24:9 N, 122:6 E, 0 = 05 09 51. Taiwan region. h about 190 km.
		PZ			mu sec 0.103 1.1		
	MHC	eP	05	22	47.4	c	Magnitude 5½ (BKS).
	JAS	iP			48.8	c	
		ipP			23 10.4	c	
	MIN	iP			22 39.3	d	
	PRI	eP			53.8	c	
Apr. 15	BKS	eP	20	09	54.0	c	USCGS: 34:1 N, 117:5 W, 0 = 20 08 31 Southern California.
	MHC	eP			44.8	c	

Date	Sta.	Phase	Time(GCT)			Ground Motion	Remarks
			h	m	s		
1965							
Apr. 15 (Cont.)	JAS	iP	20	09	43.3	c	h about 15 km.
	MIN	iZ			10 23.2	c	Magnitude 4.7 (BKS). Slight damage in San Bernardino Valley area.
Apr. 15	JAS	iP	23	51	39.4	c	USCGS: 17:6 S, 173:4 W, 0 = 23 39 55. Tonga Islands. h about 45 km.
		i(PcP)			52.0	d	
Apr. 16	BKS	e(P)	00	27	40	c	USCGS: 22:3 S, 175:5 W, 0 = 00 15 52.3. Tonga Islands. h about 120 km.
	MHC	eP			39.2	c	
	JAS	iP			44.9	c	
	PRI	eP			33.8	c	
Apr. 16	BKS	eP	10	11	44.0	d	USCGS: 20:1 S, 169:2 E, 0 = 09 59 06.2. New Hebrides Islands. h about 62 km.
	MHC	eP			44.6	c	
	JAS	iP			49.6	c	
	PRI	eP			45.4	c	
Apr. 16	JAS	iP	13	03	30.6	d	USCGS: 21:7 S, 68:1 W, 0 = 12 51 48.7. Chile - Bolivia border. h about 127 km.
		ipP			56.3	c	
	PRI	eP			24.5	d	
Apr. 16	JAS	iP	14	42	07.1	c	USCGS: 50:6 N, 177:3 E, 0 = 14 33 51.9. Rat Islands. h about 38 km.
Apr. 16	JAS	iP	23	06	40.8	d	USCGS: 31:3 S, 68:0 W, 0 = 22 54 23.5. San Juan Province, Argentina. h about 151 km.
Apr. 16	BKS	iP	23	29	14.0	c	USCGS: 64:7 N, 160:1 W, 0 = 23 22 18.6. Central Alaska. h about 5 km.
		ipP			30 30	d	
		eS			34 52	d	
		eR			39.0		Magnitude 6.3 (BKS).
					mu sec 2.36 7		
	MHC	eP	23	29	18.8	d	
	JAS	iP			19.0	d	
		ipP			32.6	c	
		iPP			30 26.2	d	
	MIN	iP			28 57.4	c	
		i(PP)			29 56.1	c	
	PRI	eP			29 32.3	c	
Apr. 17	JAS	iP	02	13	52.5	c	
Apr. 17	JAS	iP	02	41	01.2	c	
	MIN	eP			40 29.4	c	
Apr. 17	JAS	iP	03	01	14.9	d	
	MIN	eZ			36.6	d	
Apr. 17	BKS	(e)P	03	04	51.3	d	USCGS: 7:2 S, 67:9 E, 0 = 02 45 04.8. Mid-Indian Rise h about 33 km.
	MHC	eP			45.5	d	
	JAS	iP			50.9	d	
	MIN	eP			03 41.9	d	
		ipP			50.9	d	
	PRI	eP			04 56.5	c	
Apr. 17	BKS	eP	13	32	34.3	c	USCGS: 35:2 N, 118:6 W, 0 = 13 31 34.1

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
1965					
Apr. 17	PRI	eP	13 32 05.4	d	Central California. h about 33 km Magnitude 3.5 (BKS).
(Cont.)	JAS		33 22.5	c	
Apr. 18	JAS	iP	01 02 34.1	d	
	MIN	iP	06.1	c	
Apr. 18	BKS	iP	06 35 16.3	c	
		iSNE	36 16.8		
			mu sec		
		PZ	16.54 20		
		PH	23.5 22		
	MHC	eP	06 35 25.6	c	BKS: 42:3 N, 128:9 W, 0 = 06 33 32.8. Off coast of California - Oregon.
		eS	36 35.5		
	JAS	eP	35 30.8	c	Magnitude 5.2 (BKS).
		i(S)E	36 34.9		
	MIN	iP	35 03.4	d	
	PRI	eP	46.1	c	
Apr. 18	JAS	e(S)	37 13.5	d	USCGS: 4:7 S, 151:7 E, 0 = 08 06 39.5 New Britian region. h about 142 km.
		iP	08 20 12.1	d	
Apr. 18	BKS	eP'	09 58 16.6	c	USCGS: 59:8 S, 26:8 W, 0 = 09 39 18.7 Sandwich Islands region. h about 29 km.
		epP'	25.8	c	
		ePPNE	10 01 20.0	NW	
		ePSNE	11 30.0	NEc	
		eSSNE	17 32.0	SW	Magnitude 5 $\frac{1}{2}$ - 6 (BKS).
		eLNE	33.0		
		eRN	39.6		
	MHC	eP'	09 58 15.1	c	
	JAS	iP'	15.2	c	
		iS	10 10 29.9		
	MIN	eZ	09 58 19.5	d	
	PRI	eP'	12.9	c	
Apr. 18	JAS	iZ	10 10 32.1	c	USCGS: 59:7 S, 26:4 W, 0 = 12 41 54. South Sandwich Islands region. h about 25 km.
Apr. 18	BKS	eP'	13 00 54.2	c	
		ipP'	01 22.5	d	
		ePP	02 28.0	c	
		ePPSNE	14 18.0	SEd	
		eSSNE	19 50.0	(N)W	
		ePSPS	20 50.0	d	
		eSS	24.2		
		eGNE	35.3		
		eR	41.5		
	MHC	eP'	00 52.7	d	
	JAS	iP'	51.5	d	
		i(PPS)	14 34.2	c	
	MIN	eP'	00 56.1	c	
	PRI	eP'	49.7	d	
Apr. 18	MHC	eP	13 10 29.2	c	USCGS: 11:8 N, 89:8 W, 0 = 13 03 06.

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
1965					
Apr. 18	JAS	iP	13 10 32.6	c	Off coast of Central America. h about 33 km.
(Cont.)	MIN	eZ	50.5	d	
	PRI	eP	20.7	c	
Apr. 18	BKS	eP	14 20 20.0	d	USCGS: 26:9 S, 176:1 W, 0 = 14 08 01.4. South of Fiji Islands.
	MHC	eP	18.7	c	
	JAS	iP	25.7	d	
	MIN	eP	30.2	c	
	PRI	eP	17.5	c	
Apr. 18	JAS	iP	20 51 20.9	c	USCGS: 43:9 N, 127:2 W, 0 = 20 49 25. Off coast of Oregon. h about 33 km. Magnitude 4.4 (CGS).
Apr. 18	JAS	iP	22 23 19.4	c	USCGS: 38:5 S, 71:1 W, 0 = 22 20 27.3. Southern Chile - Argentina border. h about 33 km.
Apr. 19	JAS	iP	00 22 05.3	d	USCGS: 19:4 N, 108:0 W, 0 = 00 17 16. Revilla Gigedo Islands region. h about 33 km.
	MIN	eZ	29.8	c	
Apr. 19	JAS	iZ	02 31 24.3	d	
Apr. 19	JAS	iP	02 42 05.3	c	USCGS: 22:0 S, 175:0 W, 0 = 02 30 18.6. Tonga Islands region. h about 33 km.
Apr. 19	JAS	iP	05 27 43.2	c	USCGS: 51:9 N, 175:6 E, 0 = 05 19 22. Rat Islands. h about 33 km.
	MIN	eZ	25.3	c	
Apr. 19	JAS	iP	07 22 00.2	c	USCGS: 62:1 N, 150:2 W, 0 = 07 15 54.4. Central Alaska. h about 83 km.
	MIN	eP	21 37.4	c	
Apr. 19	JAS	iP	08 24 53.1	c	USCGS: 1:8 N, 98:5 E, 0 = 08 06 00. Northern Sumatra. h about 55 km.
Apr. 19	JAS	iP	08 58 25.9	d	USCGS: 60:6 N, 141:3 W, 0 = 08 52 51.8. Southeastern Alaska. h about 33 km.
Apr. 19	BKS	eP	23 53 45.9	d	USCGS: 34:9 N, 138:0 E, 0 = 23 41 58.8. Near south coast of Honshu, Japan. h about 36 km.
		ipP	53.7	d	
		iPcP	54 01.9	c	
		ePP	56 40.0	d	
		eSNE	00 03 28.0	SEd	
		eSSS	11 40.0	d	
		e(L)NE	12.4		
		eREZ	16.2		
			mu sec		
		PZ	0.75 12		
		SH	1.18 20		
		MaxH	2.66 36		
	MHC	e(P)	23 53 48.5	c	
		epP	57.8	c	
	JAS	iP	52.3	d	
		ipP	59.7	d	
		iPcP	54 03.3	d	
	MIN	iPcP	06.0	c	
	PRI	eP	53 56.4	c	

Date	Sta.	Phase	Time(GCT) h m s	Ground Motion	Remarks
1965 Apr. 19 (Cont.)					
Apr. 20	JAS	epP iP	23 54 05.4 04 53 45.7	c d	USCGS: 53:6 N, 169:2 E, 0 = 04 44 55.5 Komandorsky Islands. h about 27 km.
Apr. 20	BKS	eP eSE eSSE e(L)NE e(R)E	06 51 37.2 58 22.0 07 01 12 03.5 06.0	d E E	USCGS: 52:4 N, 172:0 E, 0 = 06 43 08.8 Near Aleutian Islands. h about 35 km.
	MHC	eP	06 51 43.6	c	
	JAS	iP ipP isP	46.9 57.3 52 13.5	d c c	
	MIN	eP	51 28.9	d	
	PRI	eP	54.5	c	
Apr. 20	BKS	epP eP	52 05.3 06 59 31.0	c c	USCGS: 54:6 N, 161:4 E, 0 = 06 50 17 Near east coast of Kamchatka. h about 33 km.
	MHC	eP	36.8	c	
	JAS	epP iP ipP isP	46.6 38.9 48.7 07 00 19.7	c c c d	
	MIN	eP	59 20.9	c	
	PRI	eP	47.4	c	
Apr. 20	JAS	e(pP) iP	58.4 07 06 20.5	d c	USCGS: 38:9 N, 138:8 E, 0 = 06 54 45 Near west coast of Honshu, Japan.
Apr. 20	JAS	iP	15 45 35.9	d	
Apr. 20	BKS	eP	17 27 34.3	d	USCGS: 14:8 N, 146:9 E, 0 = 17 15 19 Mariana Islands. h about 60 km.
	MHC	eP	37.3	d	
	JAS	iP	41.5	d	
	MIN	eP	33.3	d	
Apr. 20	BKS	epP eP	43.2 22 31 00.0	d c	USCGS: 50:5 N, 177:0 E, 0 = 22 22 53 Rat Islands. h about 54 km.
	PRI	eP	05.5	c	
	MHC	eP	08.1	d	
	JAS	eP	30 51.2	c	
	MIN	iP	31 16.6	c	
Apr. 21	JAS	eP iP	06 10 08.8	d	USCGS: 20:4 S, 174:4 W, 0 = 05 58 19 Tonga Islands. h about 33 km.
Apr. 21	BKS	eP	08 36 02.0	c	USCGS: 20:9 S, 174:6 W, 0 = 08 24 13 Tonga Islands. h about 33 km.
	MHC	eP	02.0	d	
	JAS	iP	08.6	c	
	MIN	eP	12.7	c	
Apr. 21	PRI	eP	35 52.7	c	
Apr. 21	JAS	iP	10 16 57.1	d	USCGS: 51:4 N, 177:2 E, 0 = 10 08 2 Rat Islands. h about 33 km.

Date	Sta.	Phase	Time(GCT) h m s	Ground Motion	Remarks
1965					
Apr. 21	MHC	eP	10 42 26.0	c	USCGS: 20:4 S, 174:6 W, 0 = 10 30 39.5. Tonga Islands. h about 33 km.
	JAS	eP	32.0	c	
	MIN	eZ	36.7	c	
	PRI	eP	25.0	c	
Apr. 21	BKS	e(P)	12 01 59.2	d	USCGS: 19:2 N, 108:2 W, 0 = 11 57 02.6. Revilla Gigedo Islands region. h about 33 km.
	MHC	e(P)	50.0	d	
	JAS	eP	52.8	c	
	MIN	eP	02 19.1	d	
	PRI	eP	01 37.3	d	
Apr. 21	BKS	eP	20 39 28.0	d	USCGS: 19:0 N, 108:1 W, 0 = 20 34 22.8. Revilla Gigedo Islands region. h about 33 km.
		e(S)NE e(R)E	43 30.0 47.0	Wd	
	MHC	eP	39 14.0	d	
	JAS	iP	12.8	d	
		iPP	43.1	d	
	PRI	eP	38 59.0	d	
Apr. 21	JAS	iP	21 33 15.1	d	USCGS: 18:8 N, 107:9 W, 0 = 21 28 22.6. Off coast of Jalisco, Mexico. h about 30 km.
Apr. 22	BKS	iP	01 17 58.7	d	USCGS: 14:3 S, 167:3 E, 0 = 01 05 50.2. New Hebrides Islands. h about 204 km.
		e(S)NE	28 08.0	WEd	
		eSS	33 28.0	d	
		eSSS	37.3	c	
		eLqN	39.0		
		eNEZ	40.2		
		e(R)E	43.6		
	MHC	(e)P	18 00.0	d	
	MIN	eP	05.0	d	
	PRI	eP	00.8	c	
Apr. 22	JAS	iP	13 35 29.0	d	USCGS: 18:9 N, 107:9 W, 0 = 13 30 36.4. Off coast of Jalisco, Mexico. h about 33 km.
	MIN	eZ	54.0	c	
Apr. 22	BKS	iP	18 44 12.0	d	USCGS: 51:8 N, 176:1 E, 0 = 18 36 01.2. Rat Islands. h about 37 km.
		eSNE	50 42.0	NE	
		eLNE	54 12.0	SWc	
		eR	56.0		
		mu sec			
		PZ	0.035 1.0		
		SH	0.838 18		
		MaxH	2.4 20		
	MHC	eP	18 44 17.8	d	
	JAS	iP	21.2	d	
		iScP	49 42.9	c	
		iSE	51 03.5		
Apr. 22	PRI	eP	44 28.5	c	
Apr. 22	JAS	iP	22 23 51.4	d	USCGS: 5:6 S, 78:6 W, 0 = 22 13 54.7. Northern Peru. h about 18 km.

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
1965					
Apr. 23	BKS	e(P)	05 11 06	c	USCGS: 19°2 N, 108°2 W, 0 = 05 06 02.2 Revilla Gigedo Islands region. h about 33 km.
	MHC	e(P)	10 51.4	d	
	JAS	iP	51.4	NWc	
Apr. 24	BKS	eSNE	00 28 00	NE	USCGS: 32°8 S, 178°4 W, 0 = 00 04 33. South of Kermadec Islands. h about 33 km.
		eGNE	40.7		
		eRNE	44.0		
		SH	mu sec .948 24		
		MaxH	2.27 20		
	MHC	eP	00 17 28.2	d	
	JAS	iP	27.3	c	
	PRI	eP	20.0	d	
Apr. 24	JAS	iP	02 50 04.7	d	USCGS: 34°8 N, 120°3 W, 0 = 07 29 43. Southern California. h about 14 km. Magnitude 3.6 (BKS).
Apr. 24	BKS	eP	07 30 36.3	c	
	MHC	eP	28.2	d	
	JAS	iP	34.7		
	PRI	eP	08 16 05.9	c	
Apr. 24	JAS	iP	08 16 05.9	c	USCGS: 19°2 N, 121°2 E, 0 = 08 02 26. Philippine Islands region. h about 43 km.
Apr. 24	BKS	eP	10 26 44.3	c	USCGS: 58°6 N, 153°2 W, 0 = 10 20 50. Kodiak Island region. h about 58 km.
	MHC	e(P)	50.9	c	
	JAS	iP	51.3	d	
		ipP	27 06.4	c	
		isP	13.1	d	
	PRI	eP	26 44.3	c	
Apr. 24	JAS	iP	13 33 35.3	d	USCGS: 12°7 N, 82°0 W, 0 = 13 25 41. Caribbean Sea. h about 33 km.
Apr. 24	JAS	iP	20 21 25.9	c	USCGS: 53°0 N, 171°0 E, 0 = 20 12 42. Near Aleutian Islands. h about 2 km.
Apr. 24	BKS	eP	22 08 17.0	d	USCGS: 11°4 N, 140°1 E, 0 = 21 55 26. West Caroline Islands. h about 59 km.
		eR	35.8		
	MHC	eP	08 20.6	c	
	JAS	iP	23.7	c	
		ipP	31.7	c	
		isP	50.1	d	
	PRI	eP	25.7	c	
Apr. 25	JAS	iP	00 32 10.3	c	USCGS: 24°6 N, 142°5 E, 0 = 00 19 55. Volcano Islands region. h about 78 km.
Apr. 25	BKS	eP	00 38 34	d	
		e(PS)E	49 45	(E)d	
		e(SS)	56.0		
		eR	01 04.7		
	MHC	eP	00 38 00.6	c	
	JAS	iZ	03.8	d	
	PRI	eP	37 56.8	c	
Apr. 25	BKS	eP	01 12 18.3	c	USCGS: 24°5 N, 142°7 E, 0 = 01 00 1

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
1965					
Apr. 25		ePcP	01 12 24.4	c	Volcano Islands region. h about 15 km.
(Cont.)		ePP	15 08.1	c	
	MHC	eP	12 22.0		
		ePcP	27.8	c	
	JAS	iP	24.9	d	
		iPcP	31.5	c	
	PRI	eP	28.0	d	
		ePcP	50.7	c	
Apr. 25	BKS	iP	01 51 24.1	d	USCGS: 51°5 N, 178°8 E, 0 = 01 43 28. Rat Islands. h about 49 km.
		i(pP)	36.7	c	
	MHC	eP	30.2	c	
		e(pP)	45.2	c	
	JAS	iP	33.1	c	
		ipP	44.1	d	
	PRI	(e)P	40.5	c	
		e(pP)	55.0	c	
Apr. 25	JAS	eZ	01 59 20.0	d	
Apr. 25	JAS	eZ	02 58 30.2	c	USCGS: 32°6 S, 178°0 W, 0 = 02 45 39.1. South of Kermadec Islands. h about 33 km.
Apr. 25	JAS	iPcP	07 05 46.9	c	USCGS: 5°4 S, 151°8 E, 0 = 06 52 43.1. New Britain Region felt at Rabaul. h about 49 km.
Apr. 25	JAS	iP	08 47 51.9	d	USCGS: 52°0 N, 175°9 E, 0 = 08 39 31.6. Rat Islands. h about 45 km.
Apr. 25	JAS	iP	09 20 30.1	c	USCGS: 51°3 N, 176°5 W, 0 = 09 12 38.9. Andreanof Islands. h about 48 km.
Apr. 25	JAS	iP	14 17 59.1	d	USCGS: 27°3 N, 141°5 E, 0 = 14 05 55.4. Bonin Islands region. h about 53 km.
Apr. 25	JAS	iP	14 42 03.1	d	USCGS: 46°6 N, 152°5 E, 0 = 14 31 41.2. Kurile Islands. h about 33 km.
Apr. 25	JAS	iP	14 54 13.9	c	USCGS: 18°9 N, 107°9 W, 0 = 14 49 22.6. Off coast of Jalisco, Mexico. h about 33 km.
Apr. 25	JAS	iP	15 32 08.8	d	USCGS: 51°4 N, 174°5 E, 0 = 15 23 40.1. Near Aleutian Islands. h about 38 km.
		ipP	19.9	c	
Apr. 25	JAS	iP	15 41 02.0	d	USCGS: 51°5 N, 174°2 E, 0 = 15 32 32.6. Near Aleutian Islands. h about 36 km.
		ipP	12.1	c	
Apr. 25	BKS	eP	21 23 14	c	
		eSNEZ	29 04	SEd	
		eGNE	32.4		
		eRE	34.2		
	MHC	e(P)	23 20.3	c	

Date	Sta.	Phase	Time(GCT)			Ground Motion	Remarks
			h	m	s		
1965							
Apr. 25 (Cont.)	JAS	iP	21	23	15.0	c	
		iPP	24	04.5		d	
	PRI	e(P)	23	17.0		d	
Apr. 25	JAS	iP	21	41	19.1	d	USCGS: 29:7 N, 130:7 E, 0 = 21 28 40.5 Ryukyu Islands. h about 28 km.
		ipP			29.6	d	USCGS: 56:1 S, 27:3 W, 0 = 21 45 54.1 South Sandwich Islands. h about 33 km.
Apr. 25	JAS	iP	22	04	45.0	c	
Apr. 26	BKS	eP	02	02	35.5	d	USCGS: 58:9 N, 142:7 W, 0 = 01 57 14.4 Gulf of Alaska. h about 33 km.
		eSNE		07	02	NEc	
		eLNE		08.1			Magnitude 4.8 (BKS).
			mu	sec			
		PZ	1.40	6			
		SH	2.09	18			
		MaxH	4.63	28			
	MHC	eP	02	02	42.6	d	
	JAS	iP			40.7	c	
		ipP			47.2	d	
		iPP	03	13.3		c	
	PRI	eP	02	55.8		c	
Apr. 26	JAS	eZ	06	05	17.2	c	USCGS: 1:3 S, 77:8 W, 0 = 08 39 04. Ecuador. h about 193 km.
Apr. 26	JAS	iP	08	48	21.7	c	USCGS: 1:7 S, 126:6 E, 0 = 09 47 25. Molucca Sea. h about 15 km.
Apr. 26	BKS	ePP	10	06	20	c	
		ePS		15	46	d	
		eSS		21	20	Ed	
		eSSSE		25	28		
		e(R)NE		36.4		d	
	JAS	iPP	06	35.9		c	USCGS: 12:7 S, 174:1 W, 0 = 13 32 54 Tonga Islands. h about 33 km.
Apr. 26	JAS	iP	13	17	53.7	c	
Apr. 26	JAS	iZ	13	44	43.9	c	USCGS: 54:5 N, 162:6 W, 0 = 20 29 07 Alaska Peninsula. h about 53 km.
Apr. 26	BKS	eP	20	35	30.0	d	
		epP			40.2	c	
		eSNE		40	38	SEd	
		eGNE		42	52		
		eRE		43.7			
			mu	sec			
		PZ	0.077	1.1			
		SH	3.94	16			
		MaxH	6.81	20			
	MHC	eP	20	35	37.8	c	
		epP			52.5	c	
	JAS	iP			39.2	d	
		eSE		40	58.0		
		i(s)E		41	28.9		
		iScP		42	02.6		

Date	Sta.	Phase	Time(GCT)			Ground Motion	Remarks
			h	m	s		
1965							
Apr. 26 (Cont.)	PRI	eP	20	35	50.4	c	
		epP		36	05.7	c	
Apr. 26	BKS	e(SKS)	22	38	20	c	USCGS: 21:1 N, 120:7 E, 0 = 22 15 42.5. Taiwan region. h about 33 km.
		ePS		40	36	c	
		ePPS		41	52	c	
		eSS		46	08	c	
		ePSPS		47.0		c	
		eP'P'		51.0		d	
		eLE		54.3			
		eR	23	00.5			
	MHC	(e)(P)	22	29	12.2	d	
	JAS	i(P)			17.6	c	
		iPP		32	18.7	c	
	PRI	e(P)		29	20.0	d	
Apr. 26	JAS	iP	22	39	52.7	d	USCGS: 30:9 S, 177:4 W, 0 = 22 27 11. Kermadec Islands. h about 33 km.
Apr. 26	JAS	eP	23	06	17.1	d	USCGS: 51:3 N, 179:0 E, 0 = 22 58 13.4. Rat Islands. h about 48 km.
Apr. 27	JAS	iP	00	38	45.9	d	USCGS: 51:1 N, 179:0 E, 0 = 00 30 39.1. Rat Islands. h about 44 km.
Apr. 27	MHC	eP	05	20	13.2	d	BKS: 40:3 N, 124:6 W, 0 = 05 19 12.4. Northern California. S.W. of Ferndale Magnitude 3.6 (BKS).
	JAS	iP			17.0	c	
	MIN	eE		19	51.6		
	PRI	eP		20	33.9	d	
Apr. 27	JAS	ePP	11	12	50.6	c	USCGS: 7:0 S, 129:5 E, 0 = 10 54 28.0. Banda Sea. h about 67 km.
Apr. 27	JAS	iP	11	23	56.6	c	
Apr. 27	JAS	iP	13	27	15.2	d	USCGS: 51:2 N, 175:4 E, 0 = 13 18 51. Rat Islands. h about 33 km.
Apr. 27	JAS	iP	14	22	47.4	d	USCGS: 35:7 N, 23:5 E, 0 = 14 09 07.1. Crete. h about 50 km.
Apr. 27	JAS	iP	14	59	17.3	c	USCGS: 24:1 S, 179:5 W, 0 = 14 47 35. South of Fiji Islands. h about 405 km.
Apr. 27	BKS	iP	15	18	24.9	d	USCGS: 35:8 S, 103:2 W, 0 = 15 06 42.6. Southern Pacific Ocean. h about 33 km.
	MHC	eP			21.2	c	
	JAS	iP			21.1	c	
	PRI	eP			12.1	c	
Apr. 27	BKS	eP	20	18	09	c	USCGS: 1:5 N, 85:2 W, 0 = 20 09 18. Off coast of Ecuador. h about 33 km.
		ePP		20	12	c	
		eSNE		25	20	NWc	
		eScSNE		28	08	SE	
		eSSNE		29	16		
		e(L)		31.5			
		eRNE		33.0			
			mu	sec			
	PZ		0.577	14			

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
1965					
Apr. 27 (Cont.)		PPZ	0.577 14		
		SH	3.28 26		
		MaxH	9.00 36		
	MHC	eP	20 18 17	c	
	JAS	iP	03.8	d	
		eS	25 20.4		
	PRI	eP	17 54.0	c	
Apr. 28	JAS	iP	01 33 21.3	c	USCGS: 52:0 N, 176:1 W, 0 = 01 25 42. Andreanof Islands. h about 47 km.
Apr. 28	JAS	iP	09 45 52.1	c	USCGS: 58:6 N, 143:3 W, 0 = 09 40 19. Gulf of Alaska. h about 5 km.
Apr. 28	JAS	iP	09 53 14.2	d	USCGS: 14:2 S, 76:2 W, 0 = 09 42 10.2 Near coast of Peru. h about 73 km.
Apr. 28	MHC	eP	10 39 03.1	c	USCGS: 27:1 S, 176:5 W, 0 = 10 26 44. Kermadec Islands. h about 33 km.
	JAS	iP	10.3	d	
	PRI	eP	01.8	c	
Apr. 28	JAS	iE	14 14 09.9	E	
Apr. 28	JAS	iZ	14 35 10.8	c	
Apr. 28	JAS	iP	16 54 37.8	d	USCGS: 26:4 S, 177:3 W, 0 = 16 42 12. South of Fiji Islands. h about 33 km.
Apr. 28	JAS	iP	20 42 59.7	d	
Apr. 28	JAS	iP	20 59 20.9	d	
Apr. 29	JAS	iP	04 31 16.5	c	USCGS: 44:5 N, 127:9 W, 0 = 04 29 16. Off coast of Oregon. h about 33 km. Magnitude 4.2 (CGS).
Apr. 29	JAS	iP	06 18 52.8	c	USCGS: 52:1 N, 152:2 E, 0 = 06 09 31 Northwest of Kurile Islands. h about 451 km.
Apr. 29	JAS	iP	07 19 28.3	c	USCGS: 40:3 S, 73:6 W, 0 = 07 06 35. Near coast of central Chile. h about 33 km.
Apr. 29	JAS	iP	08 19 51.1	d	USCGS: 1:6 N, 85:2 W, 0 = 08 11 08. Off coast of Ecuador. h about 33 km.
Apr. 29	BKS	iP	09 55 53.2	c	USCGS: 22:1 S, 179:8 E, 0 = 09 44 34 South of Fiji Islands. h about 540 km.
	MHC	eP	53.1		
	JAS	iPNE	58.8	NEd	
	PRI	eP	53.3		
Apr. 29	BKS	eP	11 31 35.1		USCGS: 15:3 N, 145:6 E, 0 = 11 19 24 Mariana Islands. h about 134 km.
	MHC	eP	37.9	d	
	JAS	eP	41.0		
Apr. 29	JAS	eP	43.6		
	PRI	eP	43.6		
Apr. 29	JAS	iP	11 41 07.8	d	USCGS: 32:5 S, 179:1 W, 0 = 11 28 14 South of Kermadec Islands. h about 64 km.

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
1965					
Apr. 29	JAS	eP	14 29 08.9	d	
Apr. 29	MHC	iP'	16 06 58.8	c	USCGS: 5:6 S, 110:2 E, 0 = 15 48 57.1. Java Sea. h about 504 km.
	JAS	iP	59.9	c	
	PRI	iP'	07 01.6	c	
Apr. 29	JAS	iP	22 44 52.6	d	USCGS: 32:6 S, 177:4 W, 0 = 22 32 04.9. South of Kermadec Islands. h about 33 km.
Apr. 30	JAS	eZ	02 37 07.6	c	
Apr. 30	JAS	iP	02 41 37.6	d	
Apr. 30	JAS	iP	03 17 32.7	d	
Apr. 30	JAS	iP	04 10 31.0	c	
Apr. 30	JAS	iP	16 09 23.6	NWc	USCGS: 51:6 N, 175:0 E, 0 = 16 00 57.5. Rat Islands. h about 33 km.
Apr. 30	BKS	iP	19 17 44.0		
May 1	BKS	eP	02 03 47		USCGS: 60:4 N, 145:9 W, 0 = 01 58 02.9. Southern Alaska. h about 13 km.
	MHC	e(P)	53.5		
	JAS	iP	52.2	Nd	
		ipP	04 03.7	c	
	PRI	eP	03 52.0		
May 1	JAS	iP	04 23 10.8	c	USCGS: 30:9 N, 141:7 E, 0 = 04 11 19.1. South of Honshu, Japan. h about 38 km.
May 1	BKS	eP	13 15 27.3	d	USCGS: 12:3 N, 143:7 E, 0 = 13 02 44.5. South of Mariana Islands. h about 5 km. Magnitude 5 - 5 1/2 (BKS).
	MHC	eP	36.1		
	JAS	iP	30.3	d	
	JAS	iP	34.2	Ed	
	PRI	eP	36.0	d	
May 1	JAS	iP	20 00 23.2	d	USCGS: 53:4 N, 172:6 W, 0 = 19 53 16. Andreanof Islands. h about 33 km.
May 1	BKS	eP	21 33 36.2	d	USCGS: 60:4 N, 146:0 W, 0 = 21 27 54.4. Southern Alaska. h about 33 km.
		e(R)	40 52		
		mu sec			
	MaxH		3.0 20		Magnitude 4 3/4 - 5 (BKS).
	MHC	eP	21 33 42.0	d	
	JAS	iP	41.3	d	
	PRI	eP	56.0	d	
May 1	JAS	iP	22 15 13.5	c	USCGS: 19:1 N, 108:1 W, 0 = 22 10 25.6. Revilla Gigedo Islands. h about 33 km.
May 2	JAS	iP	00 15 13.6	c	USCGS: 30:9 N, 141:8 E, 0 = 00 03 22.2. South of Honshu, Japan. h about 33 km.
May 2	JAS	iZ	00 46 51.6	c	USCGS: 30:9 N, 141:8 E, 0 = 00 34 49.8. South of Honshu, Japan.
May 2	JAS	iP	05 59 15.3	d	USCGS: 19:8 S, 69:5 W, 0 = 05 47 43.7. Northern Chile. h about 117 km.
May 2	JAS	iP	07 26 29.4	c	USCGS: 28:9 N, 128:9 E, 0 = 07 13 42. Ryukyu Island. h about 30 km.

Date	Sta.	Phase	Time(GCT) h m s	Ground Motion	Remarks
1965					
May 2	JAS	iP	09 16 15.2	d	USCGS: 51:9 N, 142:9 E, 0 = 09 05 32.0 Sakhalin Island. h about 5 km.
May 2	BKS	iP	11 03 18.0	d	USCGS: 20:3 S, 178:9 W, 0 = 10 52 13.5 Fiji Islands. h about 581 km.
		e(pP)	55	d	
	MHC	eP	17.8	d	
	JAS	iP	23.8	d	
May 2	JAS	iP	18 38 55.3	d	USCGS: 51:2 N, 174:1 E, 0 = 18 30 03. Near Aleutian Islands. h about 33 km.
May 3	BKS	eZ	01 22 34		USCGS: 32:5 S, 70:6 W, 0 = 01 09 31.5 Chile - Argentina border. h about 77 km.
	MHC	e(P)	21 43		
May 3	JAS	iP	03 32 19.9	d	USCGS: 36:0 N, 114:7 W, 0 = 03 30 50. Southern Nevada. h about 5 km. Felt at Boulder City. Magnitude 3.9 (CGS).
May 3	MHC	e(P)	05 04 52		USCGS: 13:5 N, 89:3 W, 0 = 10 01 35. El Salvador. h about 23 km.
May 3	BKS	e(P)	10 08 22		
		ePcP	10 30		
		eSNE	14 57		
		eG	20 20		
		eLqNE	32		
		eR	22 30		
			mu sec		
		PZ	1 5		
		PPZ	2 12		
		MaxH	70 20		
	JAS	eP	10 08 48.8	c	USCGS: 51:3 N, 174:5 E, 0 = 12 44 51. Aleutian Islands. h about 39 km.
May 3	JAS	iP	12 53 18.4	c	USCGS: 26:8 S, 69:8 W, 0 = 12 51 57. Northern Chile. h about 19 km.
May 3	JAS	iP	13 04 06.9	c	
May 3	MHC	e(P)	13 25 02.4	d	
		e(P)	03.6	d	
May 3	JAS	iZ	13 35 59.2	d	
May 3	BKS	e(P)	16 19 34.5	c	
	PRI	eP	32.5	c	
May 3	BKS	iP	16 21 08.2	d	USCGS: 24:2 S, 67:8 W, 0 = 16 09 09. Chile - Argentina border. h about 114 km.
	MHC	eP	04.6	d	
	JAS	iP	02.6	d	
	PRI	eP	20 57.2	d	
May 3	JAS	iP	17 49 31.4	c	USCGS: 52:0 N, 175:8 E, 0 = 17 40 00. Rat Islands. h about 42 km.
May 4	JAS	iP	08 48 23.6	c	USCGS: 41:7 N, 79:4 E, 0 = 08 34 30. Kirgiz - Sinkiang border. h about 6 km.
May 4	JAS	iP	12 21 12.3	d	USCGS: 16:5 S, 73:2 W, 0 = 12 10 40. Near coast of Peru. h about 78 km.

Date	Sta.	Phase	Time(GCT) h m s	Ground Motion	Remarks
1965					
May 4	JAS	iP	18 15 45.6	d	USCGS: 20:1 S, 173:9 W, 0 = 18 03 57.7. Tonga Islands. h about 33 km.
May 5	JAS	iP	00 29 37.9	d	USCGS: 19:6 S, 169:3 E, 0 = 00 17 06. New Hebrides Islands. h about 142 km.
May 5	JAS	iP	03 12 19.1	c	USCGS: 20:5 S, 69:5 W, 0 = 03 00 43.4. Northern Chile. h about 96 km.
May 5	JAS	iP	07 21 18.3	c	USCGS: 17:0 S, 176:9 W, 0 = 07 09 29.3. Fiji Islands. h about 33 km.
May 5	JAS	iP	09 24 38.8	c	USCGS: 13:9 S, 75:9 W, 0 = 09 13 56.7. Peru. h about 94 km.
May 5	JAS	iP	21 44 52.5	d	USCGS: 42:9 N, 145:7 E, 0 = 21 33 54.9. Hokkaido, Japan. h about 61 km.
May 5	JAS	iP	23 35 50.7	c	USCGS: 14:7 N, 146:2 E, 0 = 23 23 24.9. Mariana Islands. h about 56 km.
May 6	JAS	iP	02 37 10.4	d	USCGS: 25:0 S, 68:4 W, 0 = 02 25 12.0. Chile - Argentina border. h about 90 km.
	MIN	iP	22.9	d	
May 6	BKS	eP	08 15 03.3		
	MHC	e(P)	14 56		
May 6	JAS	iP	14 37 14.7	d	USCGS: 6:1 S, 149:1 E, 0 = 14 24 04.3. New Britain region. h about 74 km.
May 6	JAS	iP	19 54 05.5	c	USCGS: 18:8 N, 108:0 W, 0 = 19 49 04. Revilla Gigedo Islands. h about 33 km.
May 6	BKS	e(P)	20 00 06.5		USCGS: 19:1 N, 108:0 W, 0 = 19 55 01. Off coast of Jalisco, Mexico. h about 33 km.
	MHC	eP	19 59 51.3		
	JAS	iP	50.5	c	
	MIN	eZ	20 00 15.6	d	
May 7	JAS	iP	02 41 37.8	c	USCGS: 13:9 N, 145:4 E, 0 = 02 29 03.9. Mariana Islands. h about 57 km.
	MIN	iZ	37.9	c	
May 7	JAS	iP	13 21 06.7	d	USCGS: 56:0 S, 27:6 W, 0 = 13 02 24.5. South Sandwich Islands region. h about 102 km.
		i(PP)	24 30.6	d	
May 7	JAS	iP	15 56 16.1	d	USCGS: 32:5 S, 178:2 W, 0 = 15 43 23.0. South of Kermadec Islands. h about 33 km.
		iPcP	23.0	d	
May 7	JAS	iP	16 40 37.0	d	
		iPcP	42.8	c	
May 7	BKS	eZ	16 45 34	c	USCGS: 32:4 S, 178:3 W, 0 = 16 32 30.6. South of Kermadec Islands. h about 33 km.
	MHC	eZ	27.3	d	
	JAS	iP	19.9	c	
	PRI	eZ	32.7	d	
May 7	JAS	iP	17 05 03.5	c	USCGS: 32:5 S, 178:2 W, 0 = 16 52 11.9. South of Kermadec Islands. h about 33 km.

Date	Sta.	Phase	Time(GCT) h m s	Ground Motion	Remarks
1965					
May 7	JAS MIN	iP iP	22 51 38.9 20.8	c d	USCGS: 52:7 N, 175:6 W, 0 = 22 44 17. Andreanof Islands. h about 200 km.
May 8	BKS MHC JAS	eP eP iP	00 08 04.3 01.0 07 58.4	d d d	USCGS: 22:2 S, 68:5 W, 0 = 23 56 11.6. Northern Chile. h about 84 km.
		ipP i(sP) eSE	08 28.6 44.5 18 42.2	d c	
May 8	MIN PRI JAS	eP eP iP	08 10.1 07 52.3 01 32 25.0	d c	USCGS: 80:2 N, 122:9 E, 0 = 01 22 31. East of Severnaya, Zemlya. h about 33 km.
May 8	BKS MHC JAS	eP eNEZ eP	11 45 12.4 12 12.4 11 45 09.2	c c c	USCGS: 28:0 S, 70:8 W, 0 = 11 32 57.1 Near coast of northern Chile. h about 35 km. Felt: La Serena.
		iP iPcP ipP	07.2 19.1 23.8	c d c	
	MIN	eP ipP	18.4 35.4	c c	
May 9	PRI JAS	eP iP	01 41 39.4 04 15 38.9	c c	USCGS: 12:3 N, 144:0 E, 0 = 04 02 50 South of Mariana Islands. h about 23 km.
May 9	JAS MIN	iP eZ	27.6	c	
May 9	JAS MIN	iP eP	14 19 32.3 49.0	d d	USCGS: 6:5 N, 82:5 W, 0 = 14 11 08.1 South of Panama. h about 56 km.
May 9	JAS	iP	20 08 35.4	c	USCGS: 2:9 S, 77:4 W, 0 = 19 58 52.1 Peru - Ecuador border region. h about 108 km.
May 9	JAS MIN	iP eP	22 18 06.7 17 44.5	c c	USCGS: 50:6 N, 152:8 W, 0 = 22 12 11 Kodiak Island region. h about 33 km.
May 9	JAS MIN	iZ eZ	23 52 45.2 52.8	c d	USCGS: 16:6 N, 99:9 W, 0 = 23 46 44 Near coast of Guerrero, Mexico. h about 33 km.
May 10	JAS MIN	iP eP	00 02 49.0 53.5	d d	USCGS: 23:4 S, 179:8 W, 0 = 23 51 South of Fiji Islands. h about 555 km.
May 10	JAS	iP iPcP	11 11 08.3 21.9	d c	
May 11	MIN	eZ	11 33 16.8	c	
May 11	JAS MIN	iP eP	12 13 12.6 12 12 45.7	c c	USCGS: 51:7 N, 174:9 E, 0 = 12 04 Near Aleutian Islands. h about 30 km.

Date	Sta.	Phase	Time(GCT) h m s	Ground Motion	Remarks
1965					
May 11	BKS	eP epP ePP i(PcP) eSNEZ e(L)NEZ	17 43 35.0 49.0 44 39.5 46 48.0 48 26.0 50 08.0	d d c c SEc	USCGS: 61:4 N, 149:6 W, 0 = 17 37 38.3. h about 58 km.
			mu sec		
		PZ MaxH	0.1 1 3.5 40		
	MHC	eP epP	17 43 41.4 55.0	d d	
	JAS	iPNZ ipPN isPN iSE	40.5 54.9 59.1 48 35.6	Nd S S	
	MIN	iP ipP isP	43 17.8 31.2 35.4	d d c	
	PRI	eP epP	54.6 44 08.4	d d	
May 11	JAS	iP	17 50 19.4	d	
May 11	JAS	iP i(S)N	18 19 52.6 22 03.0	d	USCGS: 44:7 N, 111:0 W, 0 = 18 17 24.0. Hebgen Lake region. h about 33 km.
May 12	MIN	eP	19 57.6	d	
May 12	JAS MIN	iP eP	08 19 42.2 37.1	d c	USCGS: 3:5 S, 137:9 E, 0 = 08 05 57.2. West New Guinea. h about 78 km. Felt: Darwin.
May 12	BKS	ePP ipPP eSKSNE ePSZ ePPSEZ eSSEZ e(L)NEZ eREZ	10 52 08.0 31.5 58 17 11 01 18 02 16 07 24 18.2 22.0	d c NW	USCGS: 6:2 S, 130:3 E, 0 = 10 33 43.5. Banda Sea. h about 125 km. Felt: Darwin.
	MHC JAS	ePP eZ	10 52 16 48 50.3	c d	
	MIN	iPP eP ePP ePP	52 17.2 47 55.7 52 17.8 24.0	d c c c	
May 12	PRI JAS	ePP i(P)	11 03 08.9	c	
May 12	MIN BKS MHC JAS MIN	eZ eP eP iP iP	12.3 17 24 13.6 14.0 18.9 27.2	c c c c c	USCGS: 26:2 S, 178:4 E, 0 = 17 12 37.3. South of Fiji Islands. h about 560 km.

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965			h m s		
May 12 (Cont.)	PRI	eP	17 24 13.5	c	
May 12	BKS	eP	19 47 17.2	c	USCGS: 21:9 S, 65:9 W, 0 = 19 35 41.6
	MHC	eP	16.4	d	Southern Bolivia.
	JAS	iP	13.6	Ed	h about 283 km.
		iPcP	19.8	d	
		ipP	48 20.9	d	
	PRI	eP	47 08.5	d	
May 12	JAS	eP	20 59 07.3	E	
May 13	JAS	iZ	00 17 10.0	d	USCGS: 19:6 N, 65:4 W, 0 = 00 08 16.6
					Puerto Rico region. h about 30 km.
May 13	BKS	eP	02 34 28.5	c	USCGS: 19:3 S, 63:8 W, 0 = 02 23 23.
	MHC	eP	25.6	c	Southern Bolivia.
	JAS	iP	34 22.7	c	h about 589 km.
		ipP	36 29.6	d	
		iSN	37 29.5		
	MIN	iZ	34 35.0	c	
	PRI	eP	18.3	c	
May 13	JAS	iP	03 05 24.9	c	USCGS: 53:9 N, 159:8 E, 0 = 02 56 03
					Near east coast of Kamchatka. h about 100 km.
May 13	JAS	iP	04 22 06.6	d	USCGS: 4:8 N, 76:3 W, 0 = 04 13 08.6
					Columbia. h about 126 km. Felt: Cali and Bogota
May 13	JAS	iP	16 47 47.0	c	USCGS: 46:1 N, 151:2 E, 0 = 16 37 25
	MIN	eP	31.3	d	Kurile Islands. h about 68 km.
May 13	JAS	iZ	17 34 04.4	d	USCGS: 26:4 N, 109:0 W, 0 = 17 30 09
					Gulf of California. h about 33 km.
May 13	BKS	eP	19 15 26.7	d	USCGS: 40:3 N, 126:7 W, 0 = 19 14 23
	MHC	eP	36.7	d	Off coast of northern California.
	JAS	iP	47.1	c	Magnitude 4.4 (BKS).
	MIN	iP	20.8	c	
	PRI	eP	55.6	c	
May 13	JAS	iP	19 34 43.0	d	USCGS: 33:2 N, 138:0 E, 0 = 19 23 11
		iFP	37 46.0	c	Near south coast of Honshu, Japan.
		e(S)E	43 34.1		h about 324 km.
May 13	JAS	iP	21 02 59.2	c	USCGS: 23:3 S, 175:4 W, 0 = 20 50 50
					Tonga Islands region. h about 60 km.
May 14	JAS	iP	02 01 05.2	d	USCGS: 27:6 S, 177:1 W, 0 = 01 48 44
	MIN	eP	10.4	c	Kermadec Islands. h about 77 km.
May 14	MHC	eP	02 39 11.5	c	USCGS: 19:0 S, 169:5 E, 0 = 02 27 00
	JAS	iP	16.6	c	New Hebrides Islands.
	MIN	eP	17.1	d	h about 259 km.
	PRI	eP	12.7	c	
May 14	JAS	iP	09 54 19.1	d	USCGS: 50:4 N, 178:0 E, 0 = 09 46 00
					Rat Islands. h about 46 km.

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965			h m s		
May 14	JAS	iP	16 58 29.5	c	USCGS: 50:3 N, 177:7 E, 0 = 16 50 15.6.
	MIN	eP	12.5	c	Rat Islands. h about 33 km.
May 14	JAS	iP	23 39 31.7	d	USCGS: 20:7 S, 177:7 W, 0 = 23 28 13.7.
	MIN	eP	35.1	c	Fiji Islands region. h about 467 km.
May 15	JAS	iP	06 26 30.9	Ec	USCGS: 35:9 N, 114:8 W, 0 = 06 25 01.5.
					California - Nevada border region. h about 5 km. Felt: Boulder City Magnitude 3.8 (CGS).
May 15	JAS	iZ	12 42 44.4	d	USCGS: 19:5 N, 146:0 E, 0 = 12 30 45.
	MIN	eZ	35.0	c	Mariana Islands. h about 159 km.
May 15	BKS	ePP	16 57 15	d	USCGS: 48:0 S, 165:6 E, 0 = 16 39 02.
		ePPSN	17 07 20	SE	Off west coast of New Zealand.
		eSS	12 15	c	h about 15 km.
		e(PSPS)NEZ	13 05	S	
		e(G)NE	23.0		
		eRNE	28.0		
			mu sec		
		MaxH	1.42 18		
May 15	JAS	iP	20 04 14.0	c	USCGS: 51:1 N, 178:4 E, 0 = 19 55 56.0.
					Rat Islands. h about 23 km.
May 15	JAS	iP	21 09 56.3	c	USCGS: 52:3 N, 173:2 E, 0 = 21 01 17.7.
					Aleutian Island region. h about 10 km.
May 15	JAS	iP	23 44 22.6	c	USCGS: 16:1 S, 174:7 W, 0 = 23 33 12.4.
					Tonga Islands. h about 253 km.
May 16	BKS	e(PP)	00 16 24	d	USCGS: 4:1 S, 135:1 E, 0 = 23 58 34.4.
		e(S)NE	24 20	NE	West New Guinea region. h about 33 km.
		e(SS)NE	31 00	SWc	
		e(SSS)NE	35 30	NE	
		e(L)NE	40.2		
		e(R)	45.2		
May 16	BKS	eN	05 30 14	S	USCGS: 4:6 S, 105:5 W, 0 = 05 15 10.0.
		eRNEZ	36.2		Northern Easter Island
	JAS	iP	23 23.5	c	Cordillera. h about 16 km.
		iPP	25 27.3	c	
	MIN	eZ	23 55.1	c	
May 16	JAS	iZ	05 51 55.6	c	USCGS: 38:6 N, 140:8 E, 0 = 05 40 30.4.
	MIN	iP	43.7	d	Honshu, Japan. h about 76 km.
May 16	JAS	iP	11 45 19.4	d	USCGS: 45:6 N, 151:4 E, 0 = 11 34 37.2.
	MIN	i(P)	04.7	c	Kurile Islands. h about 11 km.
May 16	BKS	eP	11 50 03.5	d	USCGS: 5:3 N, 125:7 E, 0 = 11 35 46.0.
		ePP	54 04	d	Mindanao, Philippine Islands.
		eSKSE	12 00 26	E	h about 36 km.
		ePSNEZ	03 10	SEc	
		eSSEZ	08 00	Ed	
		ePSPNZ	09 20	Nd	

Date	Sta.	Phase	Time(GCT) h m s	Ground Motion	Remarks
1965					
May 16 (Cont.)		e(G)N eREZ	12 18.5 22.9		
			mu sec		
		MaxH	2.3 20		
	MHC	e(PP)	11 54 03.0	c	
	JAS	iP	50 10.7	d	
		i(PP)	54 13.0	d	
	MIN	e(P')	53 27.2	c	
	PRI	ePP	54 07.7	c	
May 16	MIN	eZ	16 00 09.1	c	USCGS: 5:2 N, 82:4 W, 0 = 15 51 16.1 South of Panama h about 33 km.
May 16	JAS	eP	21 14 36.8	d	USCGS: 51:5N, 174:7 E, 0 = 21 06 07. Aleutian Island region. h about 31 km.
May 17	JAS	iP	15 41 55.1	c	
May 17	BKS	eP	17 32 50.2	d	USCGS: 22:5 N, 121:3 E, 0 = 17 19 25 Taiwan region. h about 21 km.
		ePcP	52.5	d	
		epP	59.4	d	
		ePP	36 42.5	d	
		eSKSNEZ	43 23	SEd	
		ePSNEZ	45 24	SEc	
		e(SS)Z	50 10	SEC	
		e(SSS)NZ	54 14		Magnitude 5 3/4 - 6 (BKS). Felt: HongKong.
		eLNE	57 16		
		eRNEZ	18 03.6		
			mu sec		
		PZ	.172 1.3		
		PPZ	.069 1.2		
	MHC	eP	17 32 54.0	d	
	JAS	iP	54.6	c	
		iPcP	57.6	d	
		iPP	36 54.6		
		iSKSE	43 28.1		
	PRI	eP	33 00.4	d	
May 17	JAS	iP	18 15 45.1	d	
		iPP	17 34.4	c	
			41.9	d	
May 17	MIN	eZ	20 30 31.7	d	USCGS: 55:1 N, 165:8 E, 0 = 20 21 Komandorsky Islands region. h about 68 km.
	JAS	iP	16.2	d	
	MIN	iP	01 25 10.8	c	USCGS: 17:6 S, 49:9 E, 0 = 01 04 Malagasay Republic. h about Felt: Tananarive and Tamatave
May 18	JAS	iZ	43.8	c	
	MIN	iP'	24 35.5	d	USCGS: 25:2 N, 142:8 E, 0 = 08 04 Volcano Islands region. h about 10 km.
May 18	JAS	iP	08 16 32.7	c	
	MIN	eP	25.0	c	
May 18	BKS	eP	09 04 24.6	d	USCGS: 18:0 S, 168:5 E, 0 = 08 52 New Hebrides Islands.
	MHC	eP	25.5	c	

Date	Sta.	Phase	Time(GCT) h m s	Ground Motion	Remarks
1965					
May 18 (Cont.)	JAS	iP	09 04 30.4	c	h about 143 km.
		ipP	05 07.4	d	
	MIN	eP	04 31.0	c	
	PRI	eP	26.8	c	
May 18	JAS	iP	15 33 57.7	d	USCGS: 32:6 S, 70:4 W, 0 = 15 26 37.2. Chile - Argentina border region. h about 117 km.
May 18	JAS	iP	16 48 15.2	d	USCGS: 22:6 S, 70:1 W, 0 = 16 36 25.9. Near coast of northern Chile. h about 35 km.
May 18	JAS	iP	21 42 17.1	d	USCGS: 17:9 S, 167:2 E, 0 = 21 29 29.8. New Hebrides Islands. h about 29 km.
May 18	BKS	eP	22 57 14.5	d	USCGS: 43:7 N, 146:5 E, 0 = 22 46 31.7. Kurile Islands. h about 45 km.
	MHC	eP	19.0	c	
	JAS	iP	21.5	c	
		i(pP)	28.1	c	
		i(sP)	34.1	d	
	MIN	eP	07.2	c	
	PRI	eP	28.0	c	
May 19	BKS	eP	03 13 40.5	d	USCGS: 9:2 S, 159:0 E, 0 = 03 00 59.0. Solomon Islands. h about 50 km.
	MHC	eP	42.3	d	
	JAS	iP	46.7	d	Felt: Honiara.
	MIN	eP	44.5	d	
	PRI	e(P)	43.2	c	
May 19	JAS	iZ	03 19 55.3	d	USCGS: 52:4 N, 173:4 E, 0 = 03 11 12.5. Near Aleutian Islands. h about 49 km.
	MIN	eZ	42.5	c	
May 19	BKS	iP	04 33 28.2	c	USCGS: 22:5 S, 176:3 W, 0 = 04 21 26.7. South of Fiji Islands. h about 33 km.
		eSE	43 22	c	
		eLNE	54.1		
		eR	57.4		Felt: Tonga
	MHC	eP	33 49.0	c	
	JAS	iP	33.7	c	
		iPcP	54.4	c	
	MIN	eP	38.4	d	
	PRI	eP	28.2	d	
May 19	BKS	eP	06 20 31	c	USCGS: 27:6 N, 110:9 W, 0 = 06 17 12.0. Gulf of California. h about 33 km.
		eSNE	23 13	SW	
		eR	24 34	d	
			mu sec		
		PZ	0.043 1.0		
		MaxH	17.4 20.		
	MHC	eP	06 20 27.5	c	
	JAS	iP	21.0	c	
		i(s)E	23 00.3		
	MIN	eP	20 48.3	c	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
1965					
May 19 (Cont.)	PRI	eP	06 20 02.0	c	USCGS: 4:9 N, 76:2 W, 0 = 10 58 26.6. Colombia. h about 98 km. Felt: Cali and Chinchina.
May 19	JAS	iP	11 08 03.4	c	
May 19	MIN	eP	07 42.1	d	
May 19	JAS	iP	14 12 48.4	d	USCGS: 4:8 S, 152:3 E, 0 = 13 59 55.2 New Britain. h about 70 km. Felt: Rabaul.
		ePP	15 26.6	d	
	MIN	e(P)	12 48.5	c	
May 19	JAS	iP	16 10 49.1	c	USCGS: 16:1 S, 174:0 W, 0 = 15 59 29. Tonga Islands. h about 140 km.
	MIN	eP	52.8	c	
May 19	BKS	e(P)	22 15 31	d	USCGS: 51:6 N, 175:2 E, 0 = 22 07 14. Rat Islands. h about 35 km.
		e(S)NE	22 14	SW	
		e(R)EZ	29.5		
	MHC	e(P)	15 35	c	
	JAS	iP	38.6	d	
		eS	22 27.6		
May 19	PRI	eP	15 44.7	c	USCGS: 20:8 S, 178:5 W, 0 = 23 32 14 Fiji Islands. h about 552 km.
	BKS	eP	23 43 22.0	Wd	
		e(PcP)	37.5	c	
		epP	45 17.0	d	
		esPEZ	46 04	Ec	
		eSNEZ	52 36	SED	
		eSPNE	53 22		
		esSNE	56.0		
		esSPNE	56.5		
			mu sec		
		PZ	.097 0.8		
	MHC	eP	23 43 22.8	d	
	JAS	iP	28.0	d	
		ipP	45 22.3	c	
		eSN	52 53.7		
	MIN	iP	43 31.9	c	
	PRI	eP	22.3	d	
May 20	BKS	eP	00 52 44.0	d	USCGS: 14:7 S, 167:4 E, 0 = 00 40 10 New Hebrides Islands. h about 16 km.
		ePPEZ	56 11.5	Wd	
		eS	01 03 12	N	
		ePS	04 12		
		eSS	09 00		
		eG	14 24		
		eR	18.2		
			mu sec		
		PZ	4.37 3		
		PPZ	9.35 10		
	MHC	eP	00 52 43.2	c	
		eZ	56 10.2	d	
	JAS	iP	52 48.6	Wd	
		iSE	01 03 20.0		
	MIN	iP	00 52 48.9	d	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
1965					
May 20 (Cont.)	PRI	iPP	00 56 22.5	c	
		eP	52 44.4	d	
		ePP	56 09.1	c	
May 20	BKS	e(P)	01 17 21	c	
	MHC	eP	23.7	d	
	JAS	iP	29.1	d	
	PRI	eP	22.0	d	
May 20	BKS	eP	02 22 01.5	d	USCGS: 51:2 N, 173:7 E, 0 = 02 13 38.9. Aleutian Islands region. h about 41 km.
	MHC	eP	07.0	d	
	JAS	iP	10.2	Wd	
	PRI	eP	18.0	d	
May 21	JAS	eN	07 20 58.2	Sd	
May 21	JAS	e(P)NEZ	07 39 21.2	SEd	
May 21	JAS	iP	12 01 34.8	c	
May 21	JAS	i(P)NEZ	12 09 19.4	NWc	
May 21	JAS	e(P)N	23 59 37.8	S	
May 22	BKS	iP	10 42 47.0	c	USCGS: 21:1 S, 178:7 W, 0 = 10 31 39.5. Fiji region. h about 578 km.
		iPcP	54.3	d	
		ePPEZ	45 42	NEc	
		eSNEZ	52 07	SWc	
		eSPNEZ	52	NWd	
		esSPE	54 15.0		
		eEZ	56.1		
			mu sec		
		PZ	0.21 0.8		
		PPZ	1.85 11		
		SH	3.14 12		
	MHC	eP	10 42 47.2	d	
		esP	44 47.0	d	
	JAS	iP	42 52.0	d	
		iPcP	43 04.3	d	
		esP	44 40.5	d	
		e(PF)	45 42.0	c	
	MIN	iP	42 56.5	c	
		iPcP	43 11.0	c	
		esP	44 58.6	c	
	PRI	eP	42 46.9	d	
		esP	44 47.6	c	
May 22	JAS	iP	14 23 26.2	c	USCGS: 14:7 S, 167:4 E, 0 = 14 10 45.0. New Hebrides Islands. h about 17 km. Felt: Sola and Luganville.
	MIN	iZ	27.5	c	
May 22	JAS	iP	23 37 48.2	c	
May 23	BKS	iP	23 54 29.7	d	USCGS: 52:2 N, 175:0 E, 0 = 23 46 12.0. Aleutian Islands. h about 22 km.
		ipP	39.0	c	
		iPP	56 10.4	d	
		ipPP	20.7	d	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965			h m s		
May 23 (Cont.)		eS(N)E eLNZ eNE eREZ	00 00 58 04.5 05.6 07.0	(N)E Sd	Magnitude 5 - 5½ (BKS).
			mu sec		
		PZ PPZ SH MaxH	0.156 1.2 0.246 1.4 2.52 20 9.93 22		
	MHC	eP epP ePP	23 54 35.0 45.3 56 12.0	c c c	
	JAS	iP ipP iPP eSNEZ	54 35.8 42.3 56 23.0 00 01 21.3	SEc NW d	
	MIN PRI	iP eP ePP	23 54 20.1 46.3 56 07.5	c c c	
May 24	JAS	eP	03 49 21	d	USCGS: 74°3 N, 132°4 E, 0 = 03 39 2 Laptev Sea. h about 15 km.
May 24	JAS	eP	13 59 59	c	USCGS: 38°0 N, 141°6 E, 0 = 13 48 2 Near east coast of Honshu, Japa h about 29 km.
May 24	BKS	eP ePPNEZ eSNEZ eLN eRNEZ	23 45 24 47 50 52 26 00 03.5 07.0	c NWc	
			mu sec		
		PPZ MaxH	1.38 20 3.17 21		
	MHC	eZ	23 46 06.3	d	
	PRI	eZ	17.5	d	
May 25	MHC	eP	00 49 08.2	d	USCGS: 37°1 N, 117°2 W, 0 = 00 48 California - Nevada border reg Magnitude 3.8 (CGS).
	JAS	iP	48 51.2	d	
	PRI	eP	58.8	c	
May 25	BKS	iP eSNEZ e(L)NEZ e(R)EZ	13 15 48.2 22 12 25 21 27.5	c NEd	USCGS: 51°3 N, 178°7 E, 0 = 13 07 Rat Islands. h about 40 km. Magnitude 5 (BKS).
			mu sec		
		PZ SH MaxH	1.135 7 3.0 18 5.11 16		
	MHC	eP	13 15 53.5	d	
	JAS	iP	55.7	SEc	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965			h m s		
May 25 (Cont.)		eSE esSN	13 22 28.2 48.2	E N	
	MIN	eP	15 38.9	d	
	PRI	eP	16 05.1	c	
May 25	JAS	eP	16 34 21	c	USCGS: 19°3 S, 69°6 W, 0 = 16 22 52.0. Northern Chile. h about 109 km.
May 25	JAS	iP	18 46 49	d	USCGS: 17°0 S, 175°9 E, 0 = 18 34 28.4. Fiji Islands. h about 16 km.
May 25	JAS	eZ	20 26 11	d	
May 26	BKS	iP e(S)NE eGNE eREZ	05 05 47.0 11 54 16.5 18.9	c E	USCGS: 13°7 N, 90°6 E, 0 = 04 58 39.2. Near coast of Guatemala. h about 39 km.
			mu sec		
		PZ MaxH	0.047 0.8 2.14 22		Magnitude 5 (BKS).
	MHC	eP	05 05 42.1	c	
		epP	54.0	c	
	JAS	iP	37.4	Wc	
	MIN	iP	55.3	c	
	PRI	eP	31.0	d	
		epP	41.3	c	
May 26	JAS	eP	06 55 58	d	USCGS: 35°7 S, 180°0 E, 0 = 06 42 53.9. Off east coast of North Island, New Zealand. h about 63 km.
May 26	BKS	iP' epP' isP' iPKS e(SS)NE e(SSS)E	20 02 54.3 03 23.6 41.0 06 16.5 21 20 26.5	c c c d	USCGS: 56°1 S, 27°6 W, 0 = 19 44 10.9. South Sandwich Island region. h about 120 km.
			mu sec		
		P'Z	0.133 0.8		
	MHC	eP'	20 02 53.1	c	
		ePKS	06 15.2	c	
	JAS	iP'	02 52.5	Wc	
		ipP'	03 20.2	c	
		isP'	33.5	c	
		iPP	05 06.5	c	
		iPKS	06 13.7	d	
	MIN	eP	02 55.8	c	
		esP'	03 44.1	c	
	PRI	eP'	02 50.7	c	
		ePKS	06 12.8	d	
May 26	JAS	iP	20 12 50.7	d	
May 26	JAS	iZ	22 13 01.8	d	USCGS: 33°5 S, 179°8 E, 0 = 22 00 11.2. South of Kermadec Islands. h about 102 km.

Date	Sta.	Phase	Time(GCT) h m s	Ground Motion	Remarks
1965					
May 26	JAS	e(P)E	23 42 44	W	USCGS: 45°4 N, 151°3 E, 0 = 23 32 03. Kurile Islands. h about 33 km.
May 27	BKS	eP	19 40 10	SWd	USCGS: 53°7 N, 156°7 W, 0 = 19 29 25. South of Alaska. h about 33 km.
May 28	JAS	iZ	02 56 36	d	USCGS: 27°0 S, 176°2 W, 0 = 05 52 09. South of Fiji Islands. h about
May 28	JAS	iP	06 04 33.6	d	USCGS: 37°2 N, 117°3 W, 0 = 08 18 51. California - Nevada border region h about 15 km. Magnitude 3.8 (CGS).
May 28	MHC	eP	08 19 48.7	d	USCGS: 15°3 S, 173°2 W, 0 = 08 34 51. Tonga Islands. h about 31 km.
	JAS	iP	33.7	d	
	MIN	eP	20 14.8	c	
	PRI	eP	19 41.1	c	
May 28	JAS	iP	08 46 18.0	d	USCGS: 51°6 N, 174°5 E, 0 = 18 14 10. Near Islands, Aleutian Islands. h about 67 km.
May 28	JAS	e(P)NEZ	18 22 35	NWc	USCGS: 45°3 S, 95°9 E, 0 = 01 28 59. Southeast Indian Rise. h about 66 km.
May 29	BKS	eP	01 48 46.8	d	USCGS: 24°1 S, 179°7 E, 0 = 03 57 44. South of Fiji Islands. h about 529 km.
	MHC	e(P)	43.7	d	
	JAS	eP	50	d	
	PRI	e(P)	48.0	d	
May 29	JAS	i(P)	04 09 21	d	
May 29	JAS	eN	22 43 48	N	USCGS: 17°0 S, 167°8 E, 0 = 02 09 00. New Hebrides Islands. Felt: Ambrim. h about 38 km.
May 29	JAS	eZ	23 07 18	c	
May 30	JAS	iP	02 21 46	c	
May 30	JAS	eZ	12 05 44	d	USCGS: 17°8 N, 60°9 W, 0 = 11 55 29. Leeward Islands. h about 18 km.
May 31	BKS	eP	03 23 39	d	USCGS: 49°3 N, 127°8 W, 0 = 03 20 44. Vancouver Island region. h about 11 km.
	MHC	eP	45.3	c	
	JAS	eP	44	d	
	PRI	eP	24 04.5	c	
May 31	JAS	e(P)	03 34 18	d	USCGS: 23°2 S, 177°0 W, 0 = 03 21 22. South of Fiji Islands. h about 94 km.
May 31	BKS	eP	05 09 40	c	USCGS: 44°1 N, 128°8 W, 0 = 05 07 44. Off coast of Oregon. h about 33 km. Magnitude 5.5 (CGS).
		eSNE	11 17	SW	
		e(R)Z	54		
		MaxH	mu sec		
			6.55 10		
	MHC	e(P)	05 09 45	c	
	JAS	iPNEZ	54	SWc	
	MIN	iP	09 20.7	c	
	PRI	e(P)	10 07	c	
May 31	BKS	iP	08 49 35.0	c	USCGS: 35°7 N, 139°6 E, 0 = 08 38 38.

Date	Sta.	Phase	Time(GCT) h m s	Ground Motion	Remarks
1965					
May 31		eZ	08 50 03.5	d	Near south coast of Honshu, Japan. h about 124 km. Felt.
May 31	JAS	e(P)	09 47 47	c	USCGS: 20°2 S, 175°9 W, 0 = 09 36 06.9. Tonga Islands. h about 259 km.
May 31	JAS	e(P)EZ	11 35 38	Wd	USCGS: 31°4 N, 141°9 E, 0 = 11 23 45.9. South of Honshu, Japan. h about 40 km.
May 31	BKS	e(P)	11 57 31		USCGS: 7°5 S, 128°7 E, 0 = 11 38 28.0. Banda Sea. h about 37 km.
	MHC	e(P)	18.0	d	
	JAS	iZ	13	d	
	PRI	e(P)	32.5	d	
		eZ	43.0	d	
May 31	JAS	eP	20 54 37	c	USCGS: 11°1 N, 86°0 W, 0 = 20 46 54.4. Nicaragua. h about 28 km.
		eZ	55 06	c	
June 1	JAS	i(P)	12 14 15.9	c	USCGS: 18°0 S, 178°5 W, 0 = 12 03 15.0. Fiji Island region. h about 607 km.
June 1	JAS	i(P)	15 29 53	c	USCGS: 37°8 N, 26°6 W, 0 = 15 18 31.2. Azores Islands. h about 5 km.
		eZ	30 09	d	
June 2	JAS	eP	02 18 22.9	c	USCGS: 38°7 S, 73°4 W, 0 = 02 05 32.9. Near coast of central Chile. h about 28 km.
June 2	JAS	e(P)	03 29 43	c	USCGS: 14°9 S, 172°8 W, 0 = 03 18 04.4. Samoa Islands. h about 33 km.
June 2	BKS	ePNEZ	05 24 23.2	NEc	USCGS: 23°5 S, 180°0 E, 0 = 05 12 59.1. South of Fiji Islands. h about 539 km.
		PZ	mu sec		
			0.203 0.8		
	MHC	eP	05 24 23.7	c	
		epP	26 20.5	c	Magnitude 5 1/2 (BKS).
	JAS	iPNE	24 31	NEc	
	MIN	iP	31.6	c	
		iZ	26 08.0		
	PRI	eP	24 23.2	c	
		epP	26 18.5	c	
June 2	BKS	eP	09 30 25.8	c	
	MHC	eP	26.7	c	
	JAS	iP	33	SWd	
		iZ	36	d	
	MIN	iP	35.4		
	PRI	eP	26.9	c	
June 2	BKS	eP	14 06 05.7	d	USCGS: 4°6 S, 105°6 W, 0 = 13 57 51. Northern Easter Islands Cordillera. h about 33 km.
		eSNZ	12 50		
		eGNE	16.4		
		eRNZ	18.5		
		SH	mu sec		
			0.9 20		
	MHC	MaxH	2.24 20		
		eP	14 06 00.2	c	Magnitude 4.5 - 5 (BKS).

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965			h m s		
June 2	JAS	iP	14 06 03.0	NWc	
(Cont.)	PRI	eP	05 48.9	c	
June 2	BKS	e(P)	14 14 18.0	d	USCGS: 4°2 S, 105°5 W, 0 = 14 06 08.2 Northern Easter Islands Cordillera. h about 33 km.
		eGN	25.4		
		eRNZ	26.9		
			mu sec		
	MHC	MaxH	2.77 16		
	JAS	e(P)	14 14 14	c	
	PRI	eP	17	c	
June 2	BKS	eP	14 56 50.3	d	USCGS: 17°9 S, 179°5 W, 0 = 14 45 55 Fiji Islands region. h about 637 km.
	MHC	epP	59 02	d	
	JAS	eP	56 49.2	c	
	JAS	eP	56	c	
	MIN	epP	59 07	d	
	PRI	eP	56 58.8	(c)	
	PRI	eP	49.4	c	
June 2	BKS	epP	59 01.2	c	USCGS: 18°0 S, 179°4 W, 0 = 14 58 3 Fiji Islands region. h about 621 km.
		eP	15 09 25.3	c	
			mu sec		
	MHC	PZ	0.825 1.0		
	MHC	eP	15 09 26.4	c	Magnitude 4 1/2 (BKS).
		epP	11 34.8	d	
	JAS	iP	09 33	c	
		ipP	11 44	d	
	PRI	eP	09 26.4	c	
		epP	11 35.2	d	
June 2	BKS	iP	20 48 08.0	c	USCGS: 38°9 N, 118°0 W, 0 = 20 47 0 Nevada. h about 5 km. Magnitude 3.8 (BKS).
	MHC	eP	47 59.0	d	
	JAS	iP	13.5	d	
	PRI	eP	48 07.1	c	USCGS: 16°0 N, 46°8 W, 0 = 23 40 2 North Atlantic Ridge. h about 33 km.
June 2	BKS	iP	23 51 31.5	d	
		ePPP	56 56	d	
		eSNEZ	00 00 42	SEc	
		eScSE	01 34	W	
		eSSNE	08 20		Magnitude 5.7 (BKS).
		eL	09.2		
		eREZ	13.3		
			mu sec		
		PZ	0.09 1.5		
		SH	1.85 18		
		MaxH	4.95 18		
	MHC	eP	23 51 27.1	c	
	JAS	eP	21	Wc	
		eP'P'Z	00 19 43		
	PRI	eP	23 51 22.5	d	
June 3	BKS	eP	04 58 08.0	c	
	MHC	eP	02.8	c	
		eZ	10.2	c	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965			h m s		
June 3	JAS	eP	04 58 08	d	
(Cont.)	PRI	eP	05.7	c	
		eZ	13.0	c	
June 3	BKS	eP	07 51 49.2	c	USCGS: 51°9 N, 175°8 E, 0 = 07 43 39.1. Rat Islands. h about 58 km.
		ePP	53 30.7	d	
		eLNE	08 03.0		
		eREZ	04.3		Magnitude 5 (BKS).
			mu sec		
		PZ	0.091 1.0		
		MaxH	1.9 20		
	MHC	eP	07 51 55.1	d	
		eZ	57 22.5	c	
	JAS	eP	51 57	c	
		eScP	57 24	c	
	MIN	iP	51 41.8	c	
	PRI	eP	52 06.3	d	
		eZ	57 28.5	c	
June 3	JAS	eZ	10 53 23		USCGS: 16°1 N, 46°7 W, 0 = 10 42 29.1. North Atlantic Ridge. h about 33 km.
June 3	BKS	eP	11 05 55.0	c	USCGS: 18°5 N, 70°3 W, 0 = 10 57 08.8. Dominican Republic region. h about 27 km.
		e(PP)	07 27.5	c	
		eLN	18.5		
		eREZ	21.4		Magnitude 5 - 5 1/4 (BKS).
			mu sec		
		MaxH	2.17 20		
	MHC	eP	11 05 51.9	c	
	JAS	e(P)	45	Nc	
		eZ	07 23	Wc	
	PRI	eP	05 45.5	c	
		e(PP)	07 13.1	d	
June 3	JAS	ePNEZ	12 39 08	SWc	USCGS: 16°3 N, 46°9 W, 0 = 12 28 13.3. North Atlantic Ridge. h about 33 km.
		eZ	39	d	
		eZ	41 41	c	
June 3	BKS	iP	16 27 07.0	c	USCGS: 38°3 N, 119°2 W, 0 = 16 26 27.4. California - Nevada border region. h about 15 km.
	MHC	eP	03.8	c	Magnitude 4.6 (BKS).
	JAS	i	26 44.5		
	MIN	iP	27 11.7	d	
	PRI	eP	08.0	c	
June 3	BKS	iP	16 31 41.5	d	USCGS: 38°3 N, 119°3 W, 0 = 16 31 02.2. Aftershock of preceding. h about 15 km. Magnitude 4.1 (BKS).
June 4	JAS	eZ	06 16 12	d	USCGS: 16°1 N, 46°8 W, 0 = 06 05 15.3. North Atlantic Ridge. h about 33 km.
June 4	MHC	eZ	08 18 42.1	c	USCGS: 44°2 S, 75°9 W, 0 = 08 05 36.7. Off coast of southern Chile.
	JAS	ePEZ	40	Wd	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
1965					
June 4					
(Cont.)	PRI	eZ	08 18 34.0	d	h about 33 km.
June 4	BKS	eZ	13 43 36.0	c	USCGS: 18°0 N, 146°5 E, 0 = 13 31 12.
	MHC	e(P)	21.5	d	Mariana Islands.
	JAS	e(P)	26	c	h about 62 km.
	PRI	e(P)	27	c	
June 4	BKS	eP	15 10 14.7	d	USCGS: 51°1 N, 178°5 E, 0 = 15 02 18.
		eSNE	16 44	NE	Rat Islands. h about 41 km.
		e(L)NE	20.2		
		eREZ	22.7		Magnitude 4 1/2 - 4 3/4 (BKS).
			mu sec		
		SH	1.2 18		
		MaxH	1.95 18		
June 4	MHC	eZ	15 10 23.4	c	
	JAS	iP	11 27	c	
	BKS	eP'	15 39 09.6	d	USCGS: 29°9 S, 178°8 W, 0 = 15 26 54.
		epP'	40 08.0		Kermadec Islands region.
	MHC	eP'	39 09.9	d	h about 225 km.
	JAS	iZ	38 59	c	
		i(P')Z	39 15	d	
June 5	PRI	eP'	39 09.1	d	USCGS: 15°8 S, 174° W, 0 = 11 13 47.
	MHC	eP	11 29 46.5	c	Tonga Islands. h about 295 km.
	JAS	eP	24 51.0	d	
	PRI	eP	46.3	c	
June 5	JAS	eP	12 58 20.0	d	USCGS: 60°2 S, 18°4 W, 0 = 12 39 17.
					Southwestern Atlantic Ocean.
					h about 33 km.
		e(P')	02 19.8	c	
		e(PP)	04 22.3	d	
June 5	MHC	eP	13 19 27.0	c	USCGS: 59°9 S, 18°5 W, 0 = 13 00 22.
	JAS	iP	26.0	c	Southwestern Atlantic Ocean.
					h about 33 km.
	PRI	eP	19 23.7	d	USCGS: 23°5 S, 65°2 W, 0 = 06 10 28.
June 6	JAS	eP	06 22 27.1	Ed	Jujuy Province, Argentina.
					h about 111 km.
June 6	JAS	iP	21 41 19.7	d	USCGS: 25°2 S, 179°9 E, 0 = 21 29 3.
					South of Fiji Islands.
					h about 423 km.
June 7	JAS	eP	03 49 06.7	c	USCGS: 51°1 N, 176°9 E, 0 = 08 19 2.
June 7	JAS	e(P)NZ	08 27 46.2	Nd	Rat Islands. h about 20 km.
		eZ	29.3	d	
June 7	MHC	eP	13 27 14.5	c	USCGS: 16°4 S, 178°8 W, 0 = 13 15 2.
	JAS	eP	23.3	c	Fiji Islands region.
		eZ	43.6	d	h about 33 km.
June 7	JAS	ePNEZ	18 49 44.5	NWc	USCGS: 18°9 N, 108°0 W, 0 = 19 07 1.
June 7	JAS	ePNEZ	19 11 51.8	SWc	Revilla Gigedo Islands region.
					h about 33 km.
June 8	BKS	eP	12 43 00	d	USCGS: 42°1 N, 126°4 W, 0 = 12 41 1.

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
1965					
June 8	JAS	eP	12 43 08.3	c	Off coast of Oregon. h about 33 km.
(Cont.)	MIN	iP	42 40.4	c	Magnitude 4.7 (CGS).
	PRI	eP	43 24.5	c	
June 8	BKS	ePNEZ	13 44 16.4	Wc	USCGS: 23°3 N, 108°5 W, 0 = 13 39 58.2.
		ePP	44.0	c	Gulf of California. h about 33 km.
		eSNEZ	47 50.0	SWd	
		eLNE	48 34		Magnitude 4 1/4 - 4 1/2 (BKS).
		eRZ	49 26		
			mu sec		
		PZ	0.374 1.8		
		SH	5.94 15		
		MaxH	18.8 16		
	MHC	eP	13 44 07.4	c	
		eZ	34.8	d	
	JAS	iP	04.6	SEd	
		eSE	47 40.0		
	MIN	iP	44 31.5	d	
	PRI	eP	43 49.0	c	
		eZ	44 17.4	d	
June 8	JAS	iP	20 33 47.2	d	
June 9	JAS	iP	08 16 20.7	d	USCGS: 25°8 S, 70°5 W, 0 = 08 04 30.5.
					Near coast of northern Chile.
					h about 58 km.
June 9	JAS	iP	13 35 32.3	c	
		iZ	36 55.7	d	
June 9	JAS	iP	16 07 27.7	d	USCGS: 31°8 S, 179°6 W, 0 = 15 54 56.
					Kermadec Island.
					h about 200 km.
June 10	JAS	iP	04 47 12.2	d	USCGS: 18°3 S, 174°6 W, 0 = 04 35 40.3.
	MIN	eP	17.1	c	Tonga Islands. h about 131 km.
June 10	JAS	iZ	15 35 34.7	c	USCGS: 36°6 N, 26°7 E, 0 = 15 24 18.4.
					Dodecanese Islands.
					h about 154 km.
June 10	JAS	iP	20 44 41.6	c	USCGS: 46°4 N, 27°6 W, 0 = 20 33 59.3.
					North Atlantic Ridge.
					h about 33 km.
June 10	JAS	iP	23 22 20.6	d	USCGS: 51°3 N, 178°8 W, 0 = 23 14 25.7.
		iZ	32.2	d	Andreanof Islands.
					h about 36 km.
June 11	BKS	e(P)	01 45 19	c	USCGS: 35°2 S, 107°5 W, 0 = 01 34 20.
	MHC	e(P)	25	c	Easter Island Cordillera.
		eZ	51.6	c	h about 31 km.
	JAS	iP	52.6	d	
		iZ	46 02.7	d	
	PRI	e(P)	45 40.5	c	
June 11	BKS	eP	02 45 55.5	d	USCGS: 51°8 N, 174°1 E, 0 = 02 37 34.7.
		iP	46 05.5	d	Near Islands, Aleutian Islands.
		eSNE	52 37	SE	h about 35 km.
		eSSNEZ	55 55		

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
1965					Magnitude 5 - 5 1/4 (BKS).
June 11 (Cont.)		e(L)NE	02 57.0		
		eR	59.3		
			mu sec		
		PZ	0.07 1.0		
		SH	1.60 14		
		MaxH	3.14 20		
MHC		eP	02 46 01.3	d	
		eZ	11.1	d	
JAS		iPNZ	03.7	Sc	
		ipPZ	14.2	d	
		eSE	52 55.6		
MIN		eP	45 46.3	d	
		iZ	57.6	d	
PRI		eP	46 12.6	d	
		epP	22.7	c	
June 11 BKS		iP	03 44 16.2	d	USCGS: 44°7 N, 148°7 E, 0 = 03 33 44 Kurile Islands. h about 47 km.
		ipP	29.5	c	
		e(PcP)Z	45 00	c	Magnitude 6 - 6.5 (BKS).
		e(P)P	46 13		
		e(S)Z	52 34		
		eSSE	57 16		
		eG	04 00.1		
		e(R)	01.7		
			mu sec		
		PZ	10.5 1.5		
MHC		eP	03 44 21.0	d	
		epP	33.7	d	
JAS		iP	21.6	c	
		ipP	36.6	d	
		iSE	53 02.4		
MIN		iP	44 08.9	d	
		iZ	27.1	d	
June 11 JAS		i(P)	03 51 17.2	d	
		iZ	29.5	d	
June 11 JAS		iP	04 03 42.9	d	
		iP	36.1	d	
June 11 JAS		iP	04 13 07.6	c	USCGS: 44°5 N, 149°2 E, 0 = 04 44 Kurile Islands. h about 42 km
June 11 JAS		iP	04 55 29.8	c	
		eZ	15.7	d	
June 11 JAS		iP	06 07 53.1	c	
		eP	41.9	c	USCGS: 44°4 N, 149°2 E, 0 = 07 11 Kurile Islands. h about 50 km.
June 11 JAS		iP	07 21 43.0	d	
		iZ	57.2	d	
		eP	29.6	c	
MIN		iZ	42.5	d	
June 11 JAS		iP	07 38 21.6	d	USCGS: 44°1 N, 149°4 E, 0 = 07 27 Kurile Islands. h about 61 km
		iZ	29.0	d	
		eZ	06.5	d	
June 11 JAS		iP	08 51 39.0	c	USCGS: 44°3 N, 149°0 E, 0 = 08 41

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
1965					
June 11 (Cont.)	MIN	eP	08 51 24.7	d	Kurile Islands. h about 54 km.
June 11	JAS	iP	10 10 26.9	d	USCGS: 44°1 N, 148°9 E, 0 = 09 59 32.7. Kurile Islands. h about 46 km.
	MIN	eZ	11.5	d	
June 11	JAS	iP	10 27 19.7	d	USCGS: 44°4 N, 149°3 E, 0 = 10 16 37.3. Kurile Islands. h about 29 km.
	MIN	eZ	04.3	c	
June 11	JAS	iP	10 30 24.5	c	
	MIN	eP	30 11.5	d	
June 11	JAS	iP	10 52 05.6	c	USCGS: 44°1 N, 149°3 E, 0 = 10 41 10.5. Kurile Islands. h about 64 km.
	MIN	eZ	51 32.7	d	
June 11	JAS	iP	12 10 40.7	d	USCGS: 44°2 N, 149°1 E, 0 = 12 00 00.8. Kurile Islands. h about 33 km.
	MIN	eZ	10 26.4	c	
June 11	JAS	iZ	17 16 40.5	d	
June 12	JAS	iP	00 31 37.4	d	USCGS: 44°2 N, 148°9 E, 0 = 00 20 55.7. Kurile Islands. h about 30 km.
June 12	BKS	iP	02 56 49.7		USCGS: 10°7 S, 166°2 E, 0 = 02 44 39.1. Santa Cruz Islands. h about 125 km.
	MHC	eP	51.2		
	JAS	iP	56.1	Ec	
		iZ	57 14.5	d	
	MIN	eP	56 55.2	d	
	PRI	eP	53.1		
June 12	JAS	iP	03 20 37.0	d	USCGS: 43°9 N, 149°1 E, 0 = 03 09 44.6. Kurile Islands region. h about 33 km.
	MIN	eZ	14.9	c	
June 12	JAS	iP	05 39 17.4	d	USCGS: 44°3 N, 149°6 E, 0 = 05 28 24.9. Kurile Islands. h about 33 km.
	MIN	iP	02.4	d	
		iZ	15.7	d	
June 12	MHC	e(P)	05 51 52.5		USCGS: 44°0 N, 149°1 E, 0 = 05 41 00.3. Kurile Islands. h about 64 km.
	JAS	iP	36.7	d	
	MIN	eP	12.4	d	
		iZ	35.4	c	
June 12	JAS	iP	06 14 13.3	d	USCGS: 44°3 N, 149°0 E, 0 = 06 03 34.8. Kurile Islands. h about 48 km.
	MIN	eZ	25.6	c	
June 12	JAS	iP	06 30 22.9	c	USCGS: 41°9 N, 131°1 E, 0 = 06 19 19. Sea of Japan. h about 487 km.
	MIN	iP	10.1	d	
June 12	JAS	iZ	06 57 22.0	c	USCGS: 44°2 N, 149°1 E, 0 = 06 46 26.4. Kurile Islands. h about 40 km.
	MIN	eZ	08.3	c	
June 12	JAS	iP	12 33 45.8	c	
June 12	JAS	iP	18 53 19.6	c	USCGS: 44°0 N, 149°1 E, 0 = 18 42 39.1. Kurile Islands. h about 61 km.
		iZ	33.5	d	
June 12	JAS	iP	18 56 31.8	d	USCGS: 44°1 N, 149°0 E, 0 = 18 45 43.3. Kurile Islands. h about 41 km.
June 12	BKS	iP	19 01 53.2	d	USCGS: 20°3 S, 68°9 W, 0 = 18 50 11.3. Chile - Bolivia border region. h about 103 km.
		ipP	02 19.7		
		eSNE	11 34	NE	
		esSNE	12 18	SW	
		eLNE	23 22	NE	Magnitude 5.4 (BKS).

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965			h m s		
June 12 (Cont.)			mu sec		
	MHC	PZ	0.10 1.0		
	JAS	SH	6.9 17		
	MHC	eP	19 01 49.9	d	
	JAS	iPNEZ		SEd	
		ipPZ	02 14.6	d	
		iSN	11 25.7		
		isSe	12 08.7		
	PRI	eP	01 41.7	d	
		epP	02 08.7	d	
June 12	JAS	iP	22 27 24.3	Wc	USCGS: 44°2 N, 149°0 E, 0 = 22 16 46. Kurile Islands. h about 48 km.
		iZ	28.1	c	
June 13	JAS	iP	02 31 28.9	d	USCGS: 44°1 N, 149°3 E, 0 = 02 20 52. Kurile Islands. h about 50 km.
		iZ	46.0	c	
	MIN	iZ	20.6	d	
June 13	BKS	e(P)	07 17 18.3	c	USCGS: 41°9 N, 143°4 E, 0 = 07 06 13. Hokkaido, Japan region. h about 32 km.
		eSNE	26 19	NE	
		eLE	34 12		
		eRZ	38 12		
			mu sec		
		PZ	0.048 1		
	MHC	SH	2.1 12		
	JAS	e(P)	07 17 30.4	c	
		iP	23.5	d	
		iSE	26 30.2		
	MIN	eP	17 10.0	d	
		iZ	43.7	d	
	PRI	e(P)	37.2	c	
June 13	JAS	iP	14 35 42.5	SWc	USCGS: 51°1 N, 177°5 E, 0 = 16 15 17. Rat Islands. h about 15 km.
June 13	JAS	iP	16 23 32.9	d	USCGS: 32°5 S, 177°6 W, 0 = 18 47 18. South of Kermadec Islands. h about 24 km.
June 13	JAS	iP	19 00 08.1	d	USCGS: 37°8 N, 29°4 E, 0 = 20 01 48. Turkey. h about 18 km. Two killed, three injured in Denizli region.
June 13	BKS	e(G)	20 52		
		e(R)	59		
	JAS	iZ	15 15 23.2	c	
	MIN	eZ	24.5	c	
June 14	JAS	iP	07 50 53.0	d	
	MIN	eZ	50 53.7	c	
June 14	BKS	eP	09 42 12.4	d	USCGS: 44°6 N, 129°5 W, 0 = 09 40 00. Off coast of Oregon. h about 33 km.
		eS	44 00.2		
			mu sec		
		SH	4.8 22		
	MHC	eP	09 42 28.9	d	Magnitude 5.7 (BKS).
	JAS	iP	26.5	c	
		iZ	34.3	d	
	MIN	eP	41 57.3	c	
		iZ	42 11.9	d	
	PRI	eP	44.2	c	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965			h m s		
June 14	JAS	eP'	10 21 36.8	c	USCGS: 59°4 S, 23°6 W, 0 = 10 02 38.1. South Sandwich Islands. h about 33 km.
	MIN	eP'	49.6	c	
June 14	JAS	iP	12 35 52.1	c	USCGS: 3°7 S, 102°9 W, 0 = 12 27 41. Northern Easter Island Cordillera. h about 33 km.
June 14	JAS	iP	13 08 09.9	d	USCGS: 44°5 N, 129°4 W, 0 = 13 05 54.0. Off coast of Oregon. h about 33 km.
		iZ	18.1	d	
		e(R)	11 51		
	MIN	eP	07 41.1	c	Magnitude 5.0 (CGS).
June 14	JAS	iP	13 49 47.4	d	
June 14	JAS	iP	14 38 13.7	c	USCGS: 35°7 N, 139°2 E, 0 = 14 28 19. Near south coast of Honshu, Japan. h about 153 km.
June 14	MHC	e(P)	16 59 31.9	d	USCGS: 8°0 N, 37°9 W, 0 = 16 47 21.4. Central Mid-Atlantic Ridge. h about 33 km.
	JAS	iP	28.0	d	
		iZ	39.9	d	
	MIN	eP	30.6	d	
		eZ	49.2	c	
June 15	JAS	iP	00 23 32.2	c	
	MIN	eZ	40.2	c	
June 15	BKS	iP	04 54 16.2	c	USCGS: 50°1 N, 178°2 E, 0 = 04 46 13.1. Rat Islands. h about 28 km.
		iSNE	05 00 47.9		
		eS	48		
		eL	04 26		
		eR	07 48		
			mu sec		
		PZ	0.1 1		
		SH	1.1 10		
	MHC	eP	04 54 22.9	c	
	JAS	iP	35.6	c	
		iZ	43.9	d	
		i(PP)	56 08.1	d	
		eSN	05 01 06.5		
	MIN	eZ	04 54 24.6	d	
	PRI	eP	34.0	c	
June 15	BKS	i(P)	09 33 40.9	d	USCGS: 37°9 S, 177°5 E, 0 = 09 20 29.8. Off east coast of North Island, New Zealand. h about 58 km. Felt: From Bay of Plenty to Wellington.
		eR	10 03 20		
	MHC	eP	09 33 41.0	d	
	JAS	iP	33 45.5	d	
		iZ	56.7	c	
		iPP	37 38.6	c	
	MIN	eP	33 50.1	c	
	PRI		39.8	d	
June 15	JAS	iP	13 04 14.6	d	USCGS: 27°2S, 175°9 W, 0 = 12 51 52.6. Kermadec Islands. h about 53 km.
		iZ	24.8	c	
June 15	JAS	iP	15 23 22.4	d	USCGS: 52°2 N, 174°8 E, 0 = 15 14 59.9. Near Island, Aleutian Islands. h about 35 km.

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
1965					
June 15	JAS	iP	18 39 12.3	d	USCGS: 51°7 N, 174°2 W, 0 = 19 02 11.8 Andreanof Islands. h about 37 km.
June 15	JAS	iP	19 09 46.5	c	
June 15	BKS	e(P) eSNEZ e(SS)E e(SSS)NE eG eREZ	23 22 54.5 33 25 37 28 41 54 44.7 47.7	c SWc W NE	USCGS: 20°9 S, 173°7 E, 0 = 23 10 25.2 New Hebrides Islands. h about 22 km. Magnitude 6 (BKS).
			mu sec		
		SH	4.3 20		
		MaxH	24 23		
	MHC	eP	23 22 57.1	d	
		eZ	23 05.3	d	
	JAS	iP	22 52.5	d	
		iZ	23 20.7	d	
	MIN	eP	12.7	d	
	PRI	eP	05.2	c	
		eZ	15.7	d	
June 16	JAS	eZ	00 56 52.8	d	USCGS: 33°0 N, 115°6 W, 0 = 00 55 09.8 Southern California. h about 16 km. Felt: Westmoreland and Brawley.
		iE	57 50.1		
		iN	58 28.2		
June 16	BKS	e(P) eNE eR	02 44 09.8 45 45 46 30	d	USCGS: 33°0 N, 115°5 W, 0 = 02 42 04.8 Southern California h about 16 km.
	MHC	e(P)	43 42.6	c	
	JAS	iP	43.2	d	
		iZ	44 03.2	d	
		i(S)E	54.2		
			38.6	d	
	MIN	eP	46 43.2	c	
		eZ	43 25.4	d	
	PRI	eP	44 57.5		
June 16	JAS	eS	02 54 31.9	d	USCGS: 34°6 S, 112°0 W, 0 = 02 43 08.8 Easter Island Cordillera. h about 33 km.
	MIN	iP	46.0	c	
		eZ			
June 16	JAS	eP	04 06 49	d	USCGS: 34°3 S, 112°2 W, 0 = 03 55 1.8 Easter Island Cordillera. h about 33 km.
		epP	07 00	d	
		eSNEZ	16 15	NWd	
		e(SS)NZ	20 42		
		eGE	26.3		
		eRNZ	29.5		
			mu sec		
		SH	1.86 15		
		MaxH	11.0 26		
	MHC	eP	04 06 33.5	d	Magnitude 5.3 (BKS).

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
1965					
June 16	JAS	iP	04 06 42.0	c	
(Cont.)		iZ	07 07.3	c	
	MIN	eZ	04.4	c	
	PRI	eP	06 32.4	d	
June 16	JAS	iP	05 09 24.8	c	USCGS: 29°5 N, 141°9 E, 0 = 04 57 30.0. South of Honshu, Japan. h about 37 km.
		iZ	37.5	c	
	MIN	eP	14.4	d	
		iZ	28.0	c	
June 16	JAS	iZ	06 20 06.6	c	USCGS: 28°8 S, 176°7 W, 0 = 06 07 31.0. Kermadec Island. h about 10 km.
	MIN	eZ	16.5	c	
June 16	JAS	iP	15 59 28.8	d	
June 16	MHC	eP	18 31 42.8	c	
June 16	MHC	eP	19 00 21.0		
		PRI	29.1	d	
		eZ	51.5		
June 17	JAS	iZ	04 31 26.3	c	USCGS: 20°9 S, 174°0 E, 0 = 04 18 34.3. New Hebrides Island region. h about 33 km.
June 17	JAS	iP	04 54 28.1	d	USCGS: 23°6 S, 179°7 W, 0 = 04 42 54. South of Fiji Islands. h about 474 km.
	MIN	eP	32.0	d	
June 17	BKS	eP	07 32 21.1		USCGS: 33°0 N, 115°5 W, 0 = 07 30 19.6. California - Mexico border region. h about 16 km.
		eS	35 46	d	
			mu sec		
		PZ	0.6 1		
		SH	2.3 14		
	MHC	e(P)	07 32 06.2	c	
	JAS	i(P)	31 57.0	c	
		iN	33 16.5		Magnitude 4 1/2 (BKS). Felt: Westmoreland and Brawley.
		i(S)E	34 04.2		
	MIN	eZ	32 30.6	d	
		eZ	53.3	d	
		i(S)	34 56.4		
	PRI	eP	31 51.1	c	
June 17	JAS	e(P)EZ	07 41 50.2	Wc	USCGS: 32°9 N, 115°2 W, 0 = 07 40 09. California - Mexico border region. h about 16 km.
		iZ	42 12.2	c	
		i(S)N	43 30.4		
	MIN	eZ	42 44.6	c	Felt: Westmoreland and Brawley.
		e(S)	44 53.7		
		iZ	47 47.5		
June 17	PRI	eP	41 44.2	c	
June 17	BKS	e(S)	08 56 34		
	MHC	eP	48 27.6		
	PRI	eP	06.4	c	
June 17	JAS	eP	10 56 57.0	c	USCGS: 23°9 N, 123°3 E, 0 = 10 43 35.1. Southwestern Ryukyu Islands. h about 47 km.
June 17	BKS	eP	11 04 31.0		USCGS: 33°9 S, 179°5 N, 0 = 10 51 37.

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965			h m s		
June 17 (Cont.)		eS eZ eL eR	11 12 34.4 20 50 26 34		South of Kermadec Islands. h about 33 km. Magnitude 5.4 (BKS).
			mu sec		
		PZ	0.04 1.0		
	MHC	eP	11 04 30.0	d	
	JAS	iP	36.2	c	
	MIN	eP	46.7		
	PRI	eP	30.5		
June 17	JAS	iP	11 24 33.0	NWd	USCGS: 43°1 N, 126°1 W, 0 = 11 22 52.3 Off coast of Oregon. h about 20 km. Magnitude 4.5 (CGS).
	MIN	eP	00.2	d	
June 17	BKS	e(P) e(S) e(G) eR	19 13 29.5 19 50 24 40 26 36	d	USCGS: 52°0 N, 175°0 E, 0 = 19 05 09.1 Near Islands, Aleutian Islands. h about 67 km. Magnitude 4.3 (BKS).
			mu sec		
		PZ	0.04 1.0		
	MHC	e(P)	19 13 36.0	d	
	JAS	iP	35.0	c	
	PRI	eP	46.7	d	
June 17	JAS	iP	23 00 27.6	d	USCGS: 31°9 N, 113°1 W, 0 = 22 58 26.1 Gulf of California. h about 36 km.
June 18	JAS MIN	iZ eP	11 00 49.5 36.5	d c	USCGS: 23°7 S, 67°3 W, 0 = 10 48 34.1 Chile - Argentina border. h about 157 km.
June 18	JAS	iZ	20 56 10.8	d	USCGS: 10°5 N, 84°0 W, 0 = 20 48 01.1 Costa Rica. h about 24 km.
June 18	BKS	iP ipP eSNE e(L)	22 55 58.5 56 26.9 23 04 44 12 47	c	USCGS: 11°1 S, 73°6 W, 0 = 22 45 16.1 Peru. h about 111 km. Magnitude 5 - 5 1/2 (BKS).
			mu sec		
		PZ	0.04 0.6		
		SH	2.6 12		
	MHC	eP	22 55 54.0	d	
		epP	56 21.0		
	JAS	iP	55 51.9	d	
		i(pP)	56 15.3	c	
		i(PcP)	19.8	d	
	MIN	eP	04.5	c	
		ipP	33.7	d	
	PRI	eP	55 45.0	d	
June 18	JAS	iP	23 09 56.7	d	USCGS: 34°5 N, 141°2 E, 0 = 22 58 15.1 Off east coast of Honshu, Japan. h about 51 km.
	MIN	eP	43.1	d	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965			h m s		
June 18	JAS	iZ	23 24 38.9	d	USCGS: 18°9 S, 175°5 W, 0 = 23 12 20. Tonga Islands. h about 106 km.
June 19	BKS	e(L)NE e(R)	01 58 18 02 02 28		USCGS: 13°0 N, 90°3 W, 0 = 01 39 37.8. Near coast of Guatemala. h about 32 km.
	MHC	e(P)	01 46 47	c	
	JAS	iP	54.6	d	
	MIN	iP	47 04.5	d	
June 19	BKS	iP e(S)NE e(L)NE e(R)	06 46 54.1 54 44 59 01.2 07 01 35	c	USCGS: 52°3 N, 172°0 E, 0 = 06 38 12.6. Near Island, Aleutian Islands. h about 54 km.
	MHC	e(P)	06 46 46.0	d	
	JAS	iP	48.8	Sc	
		iZ	47 06.4	c	
	MIN	eP	46 30.8	c	
June 19	JAS	iP	11 18 52.1	c	
	MIN	eZ	41.8	c	
June 19	JAS	iP iZ	12 59 43.1 13 00 13.5	d c	USCGS: 53°8 N, 160°5 E, 0 = 12 50 23.0. Near east coast of Kamchatka. h about 100 km.
June 19	MHC	e(P)	18 55 11.5	c	
	PRI	e(P)	21.4	c	
June 19	MHC	eP	21 17 38.7	c	
June 20	BKS	eP eR	02 08 07.5 27 14	c	USCGS: 44°6 N, 149°2 E, 0 = 01 57 24.8. Kurile Islands. h about 40 km.
	MHC	e(P)	08 12.1	c	
	JAS	iP	02.2	c	
		iZ	12.0	d	
	MIN	eP	07 35.6	d	
	PRI	eP	24.7	c	
June 20	BKS	iP e(S) e(R)	17 25 22.9 26 42.5 56	c	USCGS: 42°8 N, 126°4 W, 0 = 17 23 55.4. Off coast of Oregon. h about 33 km. Magnitude 4.6 (CGS).
	MHC	e(P)	25 27.0	d	
	JAS	iP	36.1	NWd	
		e(S)E	27 33.8		
	MIN	eP	25 03.4	c	
		iZ	48.8	d	
	PRI	e(P)	52.5	c	
June 20	BKS	iP	18 06 01.0	d	BKS: 42°8 N, 126°6 W, 0 = 18 04 30.3. Off coast of Oregon. h about 33 km. Magnitude 4.7 (BKS).
	MHC	eP	10.8	c	
	JAS	iP	12.9	c	
	MIN	iP	05 41.7	c	
	PRI	eP	06 33.1	c	
June 20	BKS	eP eSN	19 20 12.1 50	c	USCGS: 25°4 N, 109°4 W, 0 = 19 16 21.2. Gulf of California.

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
1965					
June 20 (Cont.)		eNE	19 22 38.8	NW	h about 33 km.
		e(L)NE	24 04.2		
		eR	25 31		
	MHC	e(P)	20 04.0	c	
	JAS	iP	19 39.3	c	
		iZ	20 06.9	c	
	MIN	eP	19 08.1	d	
		eZ	20 04.5	c	
	PRI	e(P)	19 45.0	c	
June 20	JAS	eP	22 01 22.0	d	
	MIN	eP	06.8	d	
June 21	MHC	e(P)	00 39 54.8	c	
	JAS	iZ	53.7	d	
	MIN	eZ	11.6	c	
	PRI	e(P)	55.0	c	
June 21	BKS	eR	01 15 55		USCGS: 28°3 N, 56°0 E, 0 = 01 30 35.7. Southern Iran. h about 33 km.
June 21	JAS	iP	13 32 55.4	d	USCGS: 7°5 N, 34°7 W, 0 = 13 20 34. Central Mid-Atlantic Ridge. h about 33 km.
June 21	JAS	iP	22 21 05.6	d	USCGS: 50°3 N, 177°9 E, 0 = 22 12 53.9. Rat Islands. h about 35 km.
		iZ	14.6	c	
June 22	BKS	e(R)	12 37 44		
	JAS	iP	09 59.3	c	
	MIN	eZ	10 02.6	d	
June 22	BKS	e(R)	13 51 56		USCGS: 20°9 S, 173°2 E, 0 = 13 13 23.1. New Hebrides Islands region. h about 80 km.
	JAS	iP	25 00.4	c	
		iZ	17.4	d	
	MIN	eP	26 06.3	c	
June 22	MHC	eP	14 31 17.5	d	
	JAS	eP	14.3	d	
	MIN	eP	27.2	c	
	PRI	eP	09.2	d	
June 23	JAS	iP	00 06 03.4	d	
		iZ	39.4	c	
June 23	JAS	iP	00 18 06.6	d	
		iZ	21.2	d	
June 23	JAS	eP	07 45 15.8	c	USCGS: 11°5 N, 87°7 W, 0 = 07 37 46.3. Near coast of Nicaragua. h about 25 km.
	MIN	eP	32.9	d	
June 23	JAS	iP	08 58 54.0	c	USCGS: 51°0 N, 160°8 E, 0 = 08 49 21. Kurile Island region. h about 33 km.
June 23	BKS	iP	11 11 59.3	c	
	MHC	eP	59.3	c	
	JAS	iP	12 04.5	c	
	MIN	eZ	09.2	c	
	PRI	eP	11 58.4	c	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
1965					
June 23	BKS	iP	11 15 01.4	c	USCGS: 56°6 N, 152°9 W, 0 = 11 09 15.3. Kodiak Island region. h about 36 km.
		eS	19 50	c	
		eL	21 15	c	
		eR	23 00	c	
	MHC	eP	15 07.6	d	Magnitude 5.7 (BKS).
	JAS	iP	15 04.1	d	
		iZ	20 02.9	d	
	MIN	iP	14 42.8	d	
	PRI	eP	15 21.0	c	
June 23	JAS	eP	12 08 40.9	c	USCGS: 56°7 N, 152°8 W, 0 = 12 02 46.2. Kodiak Island region. h about 29 km.
	MIN	eP	18.3	c	
June 23	BKS	iP	12 29 13.2	d	USCGS: 56°6 N, 152°8 W, 0 = 12 23 22.2. Kodiak Island region. h about 25 km.
	MHC	e(P)	16.4	c	
	JAS	iP	17.5	c	
		iZ	23.0	c	
	MIN	eP	28 55.1	c	
		iZ	29 01.1	d	
	PRI	eP	29.5	c	
June 23	JAS	iZ	14 28 37.0	c	USCGS: 56°8 N, 152°3 W, 0 = 14 22 45.2. Kodiak Island region. h about 33 km.
	MIN	eP	04.7	c	
June 23	BKS	iP	16 18 17.4	d	BKS: Southern California Magnitude 3.9 (BKS).
	MHC	eP	07.4	d	
	JAS	iP	07.8	d	
	PRI	eP	17 46.9	c	
June 23	BKS	e(R)	16 56 10		
June 24	JAS	iP	03 26 16.0	c	USCGS: 51°2 N, 177°0 E, 0 = 03 17 46.3. Rat Island. h about 28 km.
	MIN	eZ	25 45.8	c	
June 24	MHC	eP	03 41 14.8	c	USCGS: 18°1 S, 69°7 W, 0 = 03 29 46.2. Northern Chile. h about 80 km. Felt: Arequipa, Peru.
	JAS	iP	11.9	d	
		iZ	23.0	d	
	MIN	eZ	24.6	d	
	PRI	eP	06.5	c	
June 24	MHC	eP	03 51 32.0	d	USCGS: 17°1 N, 99°5 W, 0 = 03 48 43.6. Guerrero, Mexico. h about 57 km. Felt: Acapulco.
	JAS	iP	28.5	c	
	MIN	eZ	49.1	c	
June 24	BKS	iP	05 00 18.9	d	USCGS: 35°5 N, 135°4 E, 0 = 04 48 59.8. Southern Honshu, Japan. h about 356 km.
	MHC	iP	22.7	d	
	JAS	iP	24.8	d	
		iPP	03 26.8	d	
	MIN	iP	00 12.6	d	
	PRI	eP	30.3	d	
June 24	BKS	eR	08 31 42.8		USCGS: 7°0 N, 126°2 E, 0 = 07 45 13.6. Mindanao, Philippine Islands. h about 50 km.
	JAS	iP	07 59 12.7	d	
		iZ	39.1	d	
June 24	BKS	iP	14 20 31.1	d	USCGS: 23°6 S, 176°7 W, 0 = 14 08 31.2.

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965					
			h m s		
June 24 (Cont.)	MHC	ipP	14 20 56.0		South Fiji Islands.
		eP	31.3	d	h about 71 km.
		eZ	56.0		
	JAS	iP	36.4	d	
		iZ	21 01.2	d	
	MIN	eP	20 41.0	c	
	PRI	eP	30.6	d	
June 25	BKS	iP	00 19 50.6	c	USCGS: 39°1 N, 118°1 W, 0 = 00 18 56.1 Nevada. h about 16 km. Magnitude 4.4 (BKS).
	MHC	eP	48.8	d	
	JAS	iP	32.5	d	
	MIN	iP	46.0	d	
	PRI	eP	59.5	d	
June 25	MIN	eP	07 52 40.0	c	USCGS: 59°5 N, 144°6 W, 0 = 07 47 25.1 Gulf of Alaska. h about 22 km.
June 25	JAS	iP	16 35 37.6	c	USCGS: 37°0 S, 96°0 W, 0 = 20 27 02.5 Southern Pacific Ocean. h about 33 km.
June 25	JAS	iP	20 38 59.4	d	
		iZ	39 12.5	c	
June 26	JAS	iP	17 00 27.6	c	USCGS: 29°8 N, 130°4 E, 0 = 16 47 50.7 Ryukyu Island. h about 34 km.
		iZ	38.1	c	
June 26	JAS	iP	21 35 08.4	c	USCGS: 51°7 N, 172°1 E, 0 = 21 26 21. Near Islands, Aleutian Islands. h about 30 km.
June 26	JAS	iP	22 22 39.6	c	USCGS: 51°4 N, 178°7 W, 0 = 22 14 36. Andreanof Island. h about 43 km.
June 26	JAS	iP	23 19 49.3	c	USCGS: 62°7 N, 148°7 W, 0 = 23 13 40. Central Alaska. h about 33 km.
	PRI	eZ	20 03.4	d	
June 27	BKS	eLN	01 30.7		USCGS: 33°7 S, 179°0 W, 0 = 00 55 10.4 South of Kermadec Islands. h about 33 km.
		eRZ	35.2		
	JAS	iP	08 05.6	c	
		iZ	30.9	c	
June 27	JAS	iP	01 23 23.0	d	
June 27	JAS	iP	10 05 12.6	d	
	MIN	eZ	12.0	c	
June 27	BKS	eP	11 14 27.5	c	USCGS: 60°3 N, 141°2 W, 0 = 11 08 55.9 Southeastern Alaska. h about 12 km.
		epP	40	d	
		eSNZ	18 53	Nd	
		esSNE	19 11	SW	
		e(L)N	23 32		
		e(R)	25 40		
			mu sec		
		SH	5.90 14		
		MaxH	6.72 12		
	MHC	eP	11 14 31.6	d	
		eZ	57.0		
	JAS	iP	30.1	d	
		iZ	39.3	d	
					Magnitude 5 (BKS).

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965					
			h m s		
June 27 (Cont.)	MIN	eZ	11 14 06.2	d	
	PRI	eP	46.4	c	
		eZ	15 15.4		
June 27	MIN	eZ	11 29 56.8	d	USCGS: 60°3 N, 140°9 W, 0 = 11 24 50. Southern Alaska. h about 39 km.
		iZ	30 16.4	c	
June 27	BKS	eP	11 49 37.5	c	USCGS: 23°8 N, 121°5 E, 0 = 11 36 08.6. Taiwan. h about 24 km.
		e(S)NE	12 00 32		
		e(L)NE	14.5		
		e(R)EZ	20.3		
	MHC	eP	49 40.5	d	
	JAS	iP	34.1	d	
		iZ	42.8	c	
		iZ	50 23.9	c	
	MIN	eP	49 23.8	d	
		iZ	32.6	c	
		eZ	50 18.9	c	
	PRI	eP	49 48.2	d	
June 27	JAS	eP	15 51 16.1	c	USCGS: 60°4 N, 140°8 W, 0 = 15 45 45. Southeastern Alaska. h about 33 km.
	MIN	eP	01.8	c	
June 27	MHC	e(P)	17 19 12.0	c	USCGS: 2°5 S, 77°0 W, 0 = 17 09 02.9. Peru - Ecuador border region. h about 108 km.
	JAS	iP	18 40.5	c	
		i(pP)	19 04.2	d	
	MIN	iZ	23.8	d	
	PRI	e(P)	01.8	c	
June 27	JAS	iP	18 54 24.1	d	USCGS: 33°1 N, 139°9 E, 0 = 18 42 59. South of Honshu, Japan. h about 145 km.
June 27	BKS	eNE	22 15.0	NE	USCGS: 30°2 N, 132°7 E, 0 = 21 59 35. South of Shikoku, Japan. h about 10 km.
	JAS	iP	12 06.4	d	
June 28	BKS	eP	03 46 20	Ec	USCGS: 5°1 S, 153°0 E, 0 = 03 33 36.5. New Ireland region. h about 50 km.
		ePP	50 10	d	
		eSNEZ	37 10		
		eSSNEZ	04 03 14		
		eN	08 04		
		eLNZ	10 04		
		eREZ	14 06		
			mu sec		
		PPZ	0.35 20		
		SH	1.3 28.0		
		MaxH	15.5 20		
	MHC	eP	03 46 55.5	c	
		eZ	47 23.4	c	
	JAS	iP	46 34.2	d	
		iZ	58.8	c	
		iZ	47 20.6	c	
		iPP	50 06.3	d	
	MIN	eZ	46 59.3	d	
	PRI	eP	58.2	c	
					Magnitude 5 1/2 - 6 (BKS). Felt: Rabaul and Sohano.

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965					
			h m s		
June 28		eZ	03 47 18.7	c	
(Cont.)		eZ	26.4	d	
June 28	BKS	iP	11 15 22.2	c	BKS: 37° 33.5 N, 121° 40.1 W,
	MHC	iP	16.0	c	0 = 11 15 11.4
	JAS	iP	30.0	d	Central California.
	MIN	eP	56.1	c	h about 7 km.
					Magnitude 3.6
	PRI	eP	39.3	c	Felt: Livermore.
June 28	JAS	eZ	15 58 16.2	c	USCGS: 23°9 N, 121°6 E, 0 = 15 44 53.8,
	MIN	eZ	15.0	d	Taiwan. h about 33 km.
June 28	JAS	iP	18 08 54.4	d	USCGS: 21°0 S, 178°9 W, 0 = 17 57 39.7,
	MIN	iP	58.2	c	Fiji Islands region.
		eZ	09 11.2	c	h about 562 km.
June 29	BKS	eLNE	02 30.5	NE	USCGS: 44°4 N, 149°4 E, 0 = 02 04 22.6,
		eRE	34.0	Ec	Kurile Islands. h about 33 km.
	JAS	iP	15 00.3	c	
	MIN	eP	45.7	c	
June 29	MIN	eZ	04 11 59.5	c	USCGS: 18°1 N, 94°5 W, 0 = 04 05 39.
					Gulf of Campeche, Mexico.
					h about 100 km.
June 29	JAS	iZ	04 40 18.4	d	USCGS: 36°5 N, 12°2 W, 0 = 04 27 57.4.
		iZ	29.5	d	North Atlantic Ocean.
	MIN	eP	23.6	c	h about 33 km.
June 29	BKS	e(R)NEZ	08 39.5	NEc	USCGS: 8°3 N, 103°3 W, 0 = 08 23 54.
	JAS	iP	30 20.4	c	Off coast of Mexico.
					h about 33 km.
June 29	JAS	iP	13 54 30.6	d	BKS: 40°25 N, 124°25 W, 0 = 13 53 30.
	MIN	iP	04.6	d	Northern California.
					h about 15 km.
					Magnitude 3.6 (BKS).
June 29	JAS	iP	15 32 05.9	c	USCGS: 18°5 S, 169°0 E, 0 = 15 19 43.9.
		iZ	17.0	c	New Hebrides Islands.
	MIN	eP	07.1	d	h about 212 km.
June 29	MIN	eP	20 09 39.7	c	USCGS: 6°7 N, 72°8 W, 0 = 20 00 15.6.
					Northern Colombia.
					h about 179 km.
June 30	BKS	eP	03 07 39	c	
		ePP	12 05		
		ePSEZ	21 20	Wd	
		eSSNEZ	26 30	NWc	
		eSSSEZ	31.0		
		eLEZ	38.3		
		eRNE	42.0		
			mu sec		
		PPZ	0.565 12.0		
		MaxH	3.9 22		
	JAS	eZ	03 11 01.4	c	
		eZ	58.8	d	
June 30	BKS	ePNEZ	08 41 40.0	NWd	USCGS: 51°7 N, 176°5 E, 0 = 08 33 31.8.

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965					
			h m s		
June 30		eSNE	08 48 09.5		Rat Islands. h about 60 km.
(Cont.)		eLNE	51 30		
		eRZ	53 54		
			mu sec		Magnitude 5.5 (BKS).
		PZ	0.06 0.8		
		SH	1.07 16.0		
		MaxH	5.4 24.0		
	MHC	eP	08 41 43.5	c	
	JAS	iP	46.9	c	
		iZ	42 07.4	d	
		iZ	44 03.1	d	
		iSE	48 28.1		
	MIN	eP	41 28.5	c	
		iZ	33.0	d	
		iPP	43 29.1	d	
		eZ	47 04.9		
	PRI	eP	41 56.9	c	
		eZ	42 15.1	d	
June 30	BKS	eP	11 24 30.0	d	USCGS: 21°3 S, 66°5 W, 0 = 11 12 46.6.
		eZ	45.0	d	Southern Bolivia.
	MHC	eP	26.7	d	h about 191 km.
		e(S)	33 09.3		
	JAS	iP	24 24.1	d	Magnitude 4 3/4 - 5 (BKS).
		iZ	47.0	d	
	MIN	eP	34.9	d	
	PRI	eP	18.6	d	
		eZ	32.5	d	
June 30	JAS	iP	12 46 07.7	d	USCGS: 53°7 N, 160°5 E, 0 = 12 36 40.8.
	MIN	eP	45 49.7	c	Near east coast of Kamchatka.
					h about 33 km.
June 30	JAS	iP	17 19 08.8	d	USCGS: 51°8 N, 176°5 E, 0 = 17 10 53.1.
		iZ	28.4	d	Rat Islands. h about 59 km.
June 30	BKS	ePNZ	22 27 30.5	Sc	
		eN	31.9	d	
		e(S)NE	33.3		

CONTAINS TWO SEISMICITY MAPS,
COAST RANGES AND CAPE MENDOCINO:
JAN 1962 THROUGH JUNE 1965.

25 OCT 1967

ISC

Bulletin of the Seismographic Stations

Vol. 35, No. 3, pp. 166 - 258

ARCATA--BERKELEY--CONCORD--FRESNO--GRANITE CREEK
JAMESTOWN--LLANADA--MANZANITA LAKE--MINERAL
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From July 1, 1965 to September 30, 1965

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INTRODUCTION

Each quarterly issue of the Bulletin includes determinations of epicenters, origin times, magnitudes, and other information available at the time of writing, for earthquakes in northern California and adjoining areas. Recorded arrival times of seismic waves are tabulated only for the major earthquakes in the local area and for teleseisms.

Information items regarding the seismographic stations which comprise the Berkeley network are repeated in every issue. Information of a general nature, such as the Modified Mercalli Intensity Scale, will be found only in the first number of each volume.

PERSONNEL (June 1967)

Station Director	Bruce A. Bolt
Director Emeritus	Perry Byerly
Associate Research Seismologist	Cinna Lomnitz
Assistant Research Seismologist	Helen Freedman
Associate	Don Tocher (Earthquake Mechanism Laboratory, ESSA, Institute for Earth Sciences, San Francisco)
Associate Engineer	Walter Marion
Full-time Technical Staff	G. Mitchell, R. Sell, M. Hilger, D. Pershing
Research Assistants	W. Bakun, K. Casaday, L. Chuaqui, J. Derr, L. Drake, A. Eisenberg, J. Filson, A. Qamar, J. Zanetti
Secretary	Loretta Martin

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THE BYERLY SEISMOGRAPHIC STATION (BKS)

Standardized equipment began operating in a newly constructed tunnel east of the main campus on June 8, 1962. The closest buildings, part of the Lawrence Radiation Laboratory, are about 0.8 km away. The tunnel was cut into the upper part of the Claremont Formation. Of Miocene age, this formation consists of thin layers of cherty material alternating with shale.

A plan of the tunnel is shown in the diagram. Piers are constructed of reinforced concrete with no isolation from floor and walls. The temperature is stable. A ventilating and dehumidifying system is connected to all rooms.

The short-period world-wide standard instruments are operated with an approximate magnification of 25,000 at 1 sec and the long-period standard instruments with 3,000 at 30 sec.

On March 20, 1964, the Regents of the University of California named this station the "Byerly Seismographic Station" in recognition of the work of Professor Perry Byerly.



HISTORY OF THE UNIVERSITY OF CALIFORNIA STATIONS

"The Seismographic Stations at Mount Hamilton and Berkeley present several items of interest in the history of earthquake science, one of which is that according to the available records they were the first seismographic stations set up in America. Furthermore, they have functioned continuously from their founding to the present day, with improvements in instrumental equipment from time to time as the development of the science and opportunity have permitted.

"Several outstanding figures in the seismology of the 1880's were impressed with the importance of these stations, and Ewing, Milne, and Gray each took a personal interest in aiding one or both stations to obtain their own best and most modern types of instruments."

The quotation is from "History of the University of California Seismographic Stations and Related Activities" by Professor George D. Louderback, published in the Bulletin of the Seismological Society of America, Vol. 32, No. 3, pp. 205-229, 1942. In this paper may be found a detailed account of the development of the Berkeley stations from the installation of the instruments (the first earthquake known recorded at Mount Hamilton was on April 24, 1887) to 1942.

Since 1942, the number of seismographic stations associated with the University of California has increased from six to seventeen in 1965. In 1950, Professor Perry Byerly was appointed Director by the Regents; he had been in charge of instruction and research since 1925. Professor Bruce A. Bolt was appointed Director in 1963. Since 1960, the stations have entered into research and service contracts with the Air Force Office of Scientific Research, the National Science Foundation, and the California Department of Water Resources. A telemetry network of nine stations in central California, recording on film and magnetic tape, is now operated together with seismographs with broad-band frequency response at Berkeley. Copies of records from instruments at the Berkeley observatory are available, together with response characteristics, on request to the Director.

STATIONS IN OPERATION: JULY - SEPTEMBER 1965

Station	North Latitude	West Longitude	Elev. Meters	Foundation Material	Symbol	Present Auspices and Date Established
Berkeley (Aviland)	37° 52!4	122° 15!6	81	Franciscan sandstone	BRK	Univ. of California, 1887
Berkeley (Strawberry)	37° 52!6	122° 14!1	276	Claremont shales	BKS	Univ. of California, 1962
Mount Hamilton	37° 20!5	121° 38!5	1282	Franciscan formation	MHC	Lick Observatory, 1887
Fresno	36° 46!0	119° 47!8	88	Alluvium	FRE	Fresno City College, 1935
General	40° 20!7	121° 36!3	1495	Volcanic flow	MIN	National Park Service, 1938
Arcata	40° 52!6	124° 04!5	59	Sandstone (loose)	ARC	Humboldt State College, 1948
Manzanita Lake	40° 32!2	121° 33!7	1800	Volcanic tuff	MLC	National Park Service, 1956
Vineyard	36° 45!0	121° 23!3	380	Dolomite	VIT	W.A. Taylor and Co., 1959
Concord	37° 58!1	122° 04!3	36	Alluvium overlying Franciscan	CNC	Diablo Valley College, 1960
Paraiso	36° 19!9	121° 22!2	363	Granodiorite	PRS	Paraiso Hot Springs, 1961
Stanada	36° 37!0	120° 56!6	475	Alluvium overlying sandstone	LLA	Charles McCullough Ranch, 1961
Priest	36° 08!5	120° 39!9	1187	Greenstone (basic metamorphic)	PRI	Federal Aviation Agency, 1961
Orville	39° 33!3	121° 30!0	1180	Granite	ORV	Department of Water Resources, 1963
Jamestown	37° 56!8	120° 26!3	457	Metamorphic (serpentine)	JAS	Department of Water Resources, 1964
Granite Creek	37° 01!8	121° 59!8	122	Granite	GCC	Kenneth McCullough, Santa Cruz, 1965
Ukiah	39° 08!2	123° 12!6	199	Alluvium	UKI	U.S. Coast and Geodetic Survey, 1965
Pilarcitos Creek	37° 30!0	122° 22!9	91	Granite	PCC	Sare Ranch, 1965

*Established by State of California Department of Water Resources, Sacramento.

STATION INSTRUMENTATION

July - September 1965

Station	Type of Instrument	T _o sec	T _g sec	Component
BRK	Benioff 100 kg	1.0	0.2	Z
	Benioff 100 kg	1.0	8.0	Z
	100X torsion	0.8	-	N, W
	4X torsion	0.8	-	N, W
	Press-Ewing	15	30	Z
	*Press-Ewing	30	Broad band	N45°W, N45°E, Z
	Press-Ewing, ULP	45	300	N45°E
BKS	Benioff 100 kg	1.0	0.75	N, E, Z
	Sprengnether	15	100	N, E, Z
	Wood-Anderson torsion	0.8	-	S, W
MHC	#*Benioff 14 kg	1.0	0.2	Z
	Wood-Anderson torsion	0.8	-	S, E
FRE	Sprengnether moving coil	2.0	2.0	N, E, Z
MIN	Benioff 100 kg	1.0	0.4	Z
	Wood-Anderson torsion	0.8	-	S, E
ARC	Benioff 14 kg	1.0	0.2	Z
	Wood-Anderson torsion	0.8	-	N, E
MLC	Loucks-Omori	3.0	-	S, E
VIT	Benioff 14 kg	1.0	0.2	Z
	#*Sprengnether 0.46 kg	2.0	Broad band	N, E, Z
CNC	# Benioff 100 kg	1.0	0.2	Z
GCC	#*Benioff 14 kg	1.0	0.2	Z
PRS	#*Benioff 14 kg	1.0	0.2	Z
LLA	# Benioff 14 kg	1.0	0.2	Z
PRI	#*Benioff 14 kg	1.0	0.2	Z
JAS	Benioff 100 kg	1.0	0.75	N, E, Z
	#*Benioff 14 kg	1.0	0.2	Z
PCC	#*Benioff 14 kg	1.0	0.2	Z
ORV	Benioff 100 kg	1.0	.75	N, E, Z
	Geotech moving coil	20	100	N, E, Z
UKI	Benioff 14 kg	1.0	0.2	Z

JAS (Z) telemetered beginning September 14, 1965.
 # Signals telemetered to Berkeley via leased telephone lines.
 * Signals recorded on magnetic tape at Berkeley.
 Several temporary changes in instrumentation were made at Vineyard during this period. Consult the Director for details.

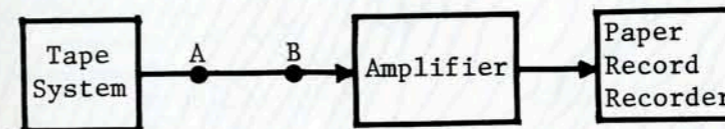
Direction of motion: In the "Component" column, each horizontal component seismograph is designated by the direction of ground motion corresponding to upward trace motion on the seismogram when it is oriented so that time increases from left to right. On all vertical component (Z) instruments, upward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

Relative magnification curves of instruments recording through the tele-meter system are listed on the following pages. Absolute magnification may be obtained by use of calibration pulses recorded daily from each tele-metered station.

Tape-recorded long-period seismometers (BRK): On pages 173 and 174 are given the frequency response curves, amplitude and phase, for the Press-Ewing long-period seismometers which record on magnetic tape at BRK.

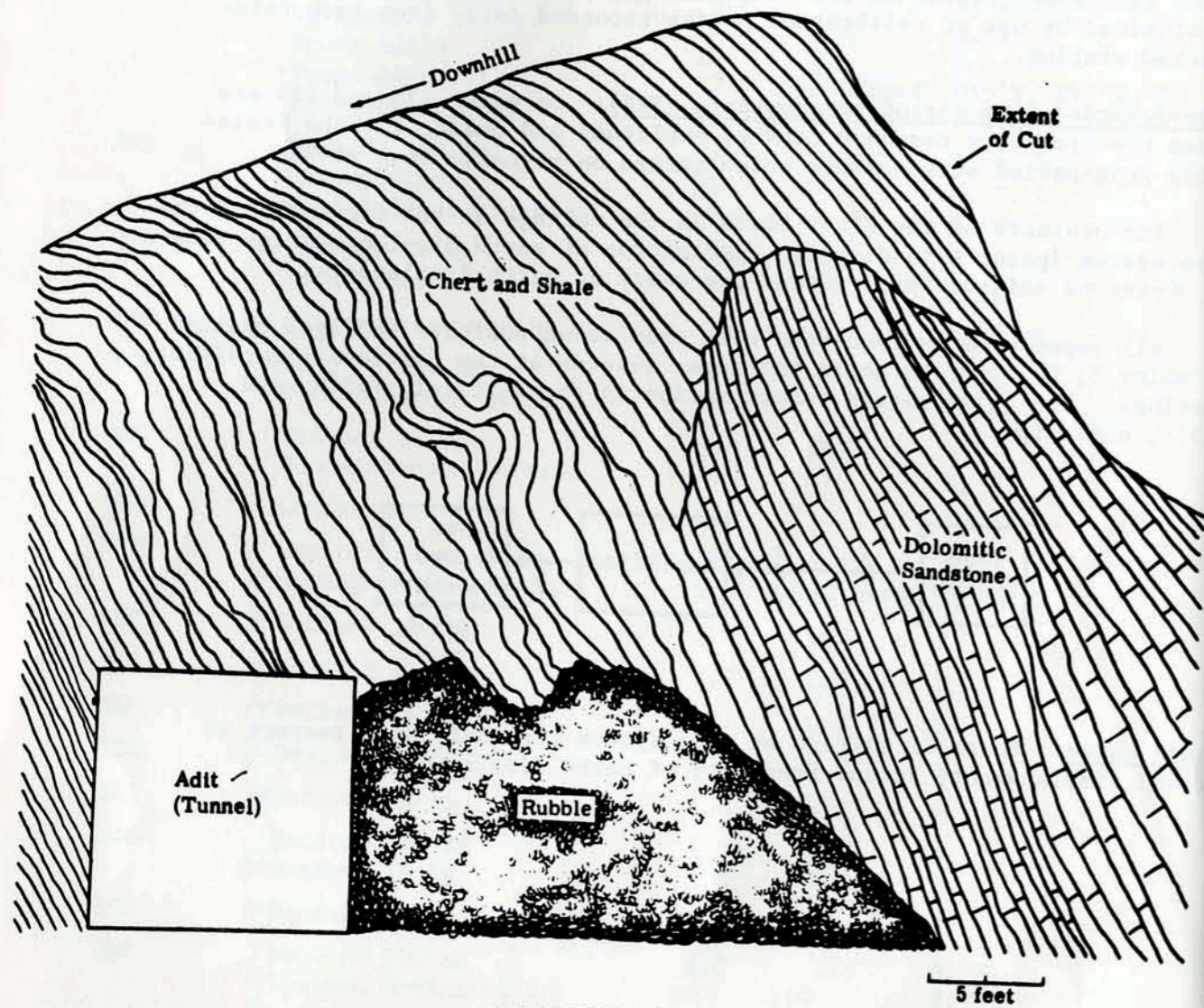
The ordinate of the first curve is the voltage at the terminals of the tape system (point A in diagram), per micron of earth displacement as sensed by 30-second seismometers; versus frequency of earth displacement.

All paper records requested will show known positive voltages applied at point B, in order to scale the paper records at the particular amplifier settings. The seismometers record motion in the vertical, N45°W, and N45°E, directions.

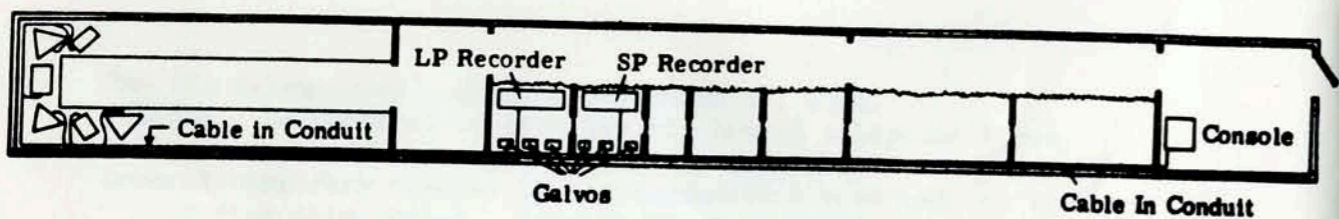


Phase curve: Phase of voltage at tape system terminals with respect to ground displacement; versus frequency of earth displacement.

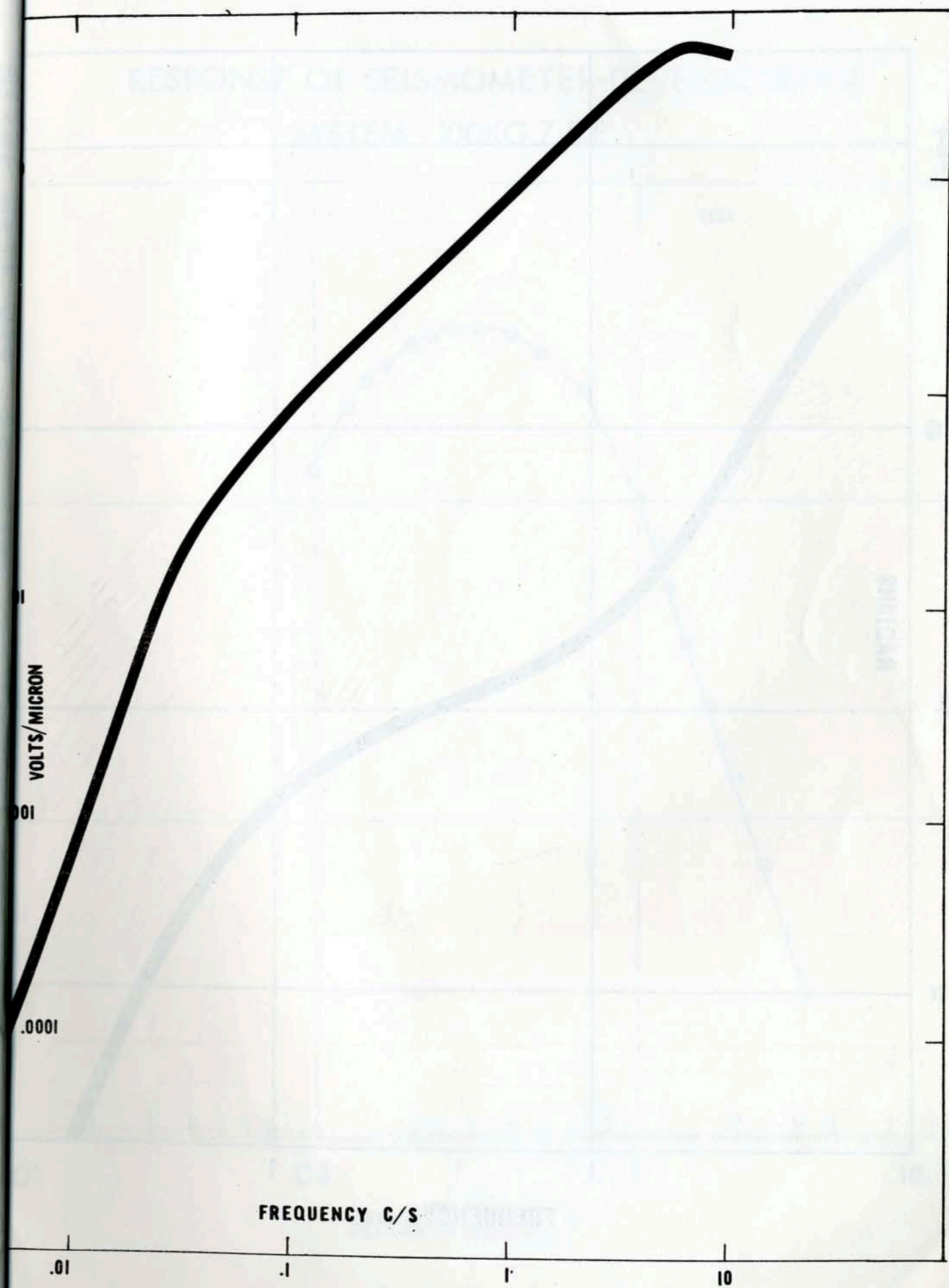
BYERLY SEISMOGRAPHIC STATION (BKS)
BERKELEY, CALIFORNIA



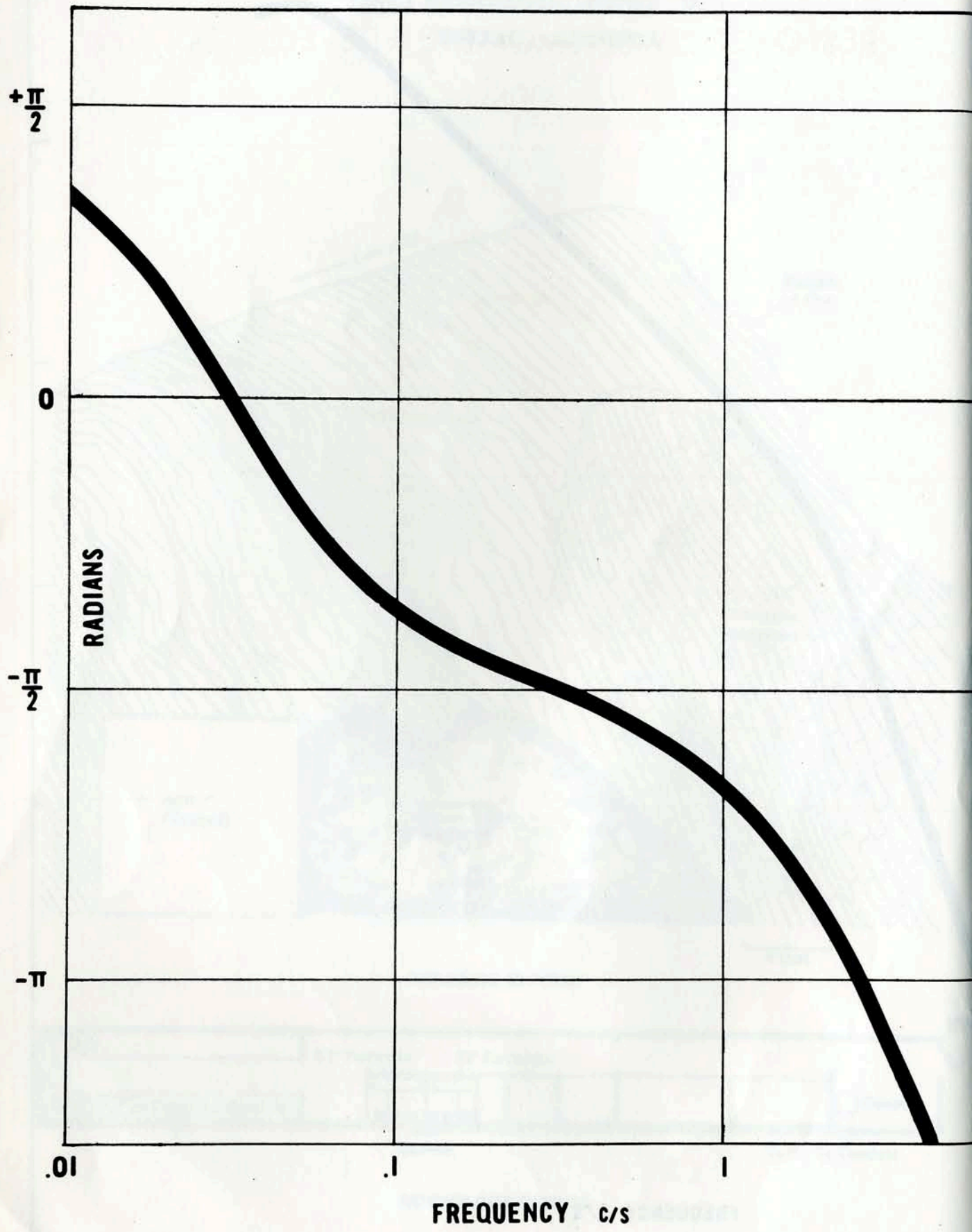
GEOLOGIC SECTION



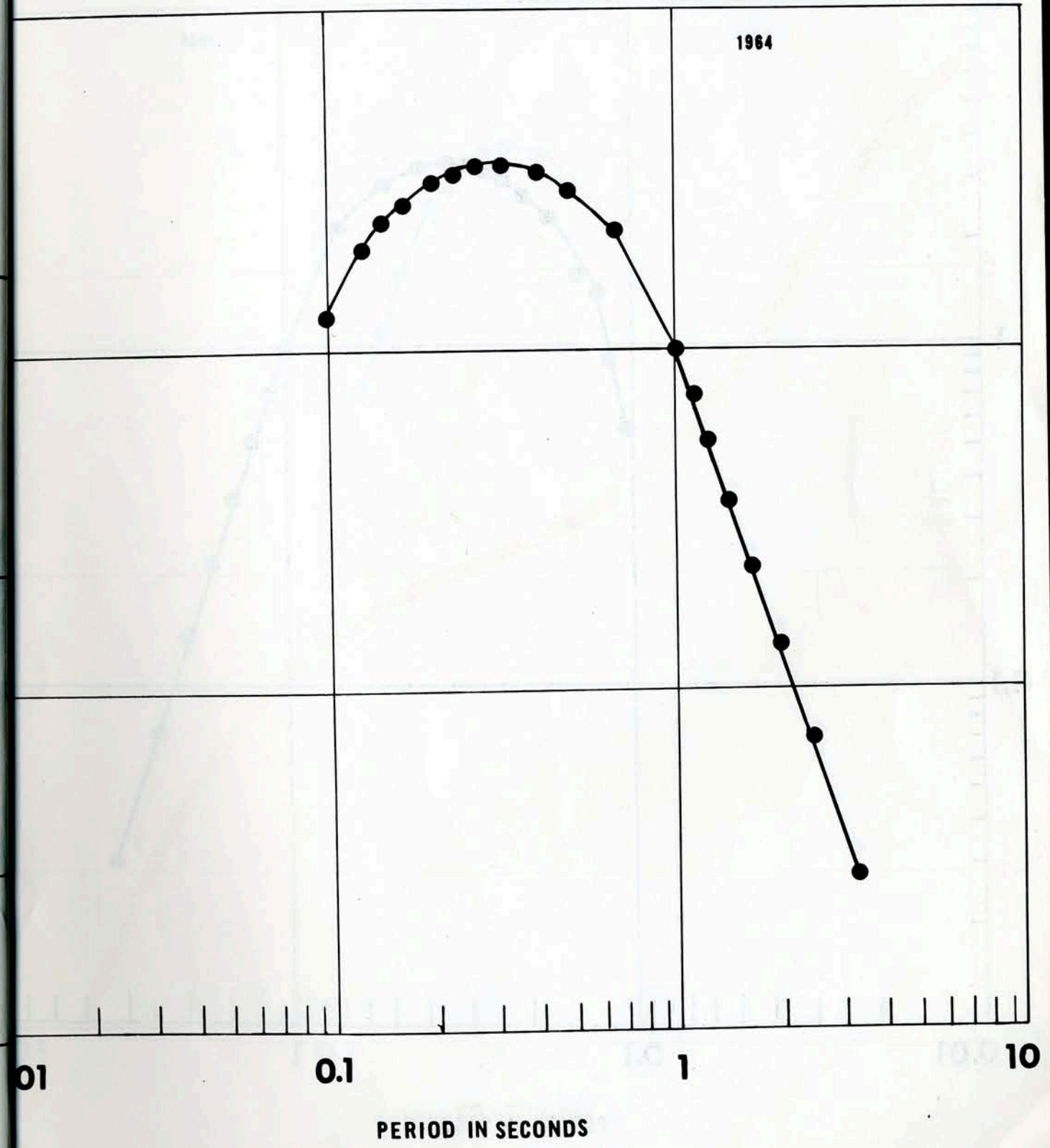
SEISMOLOGY TUNNEL



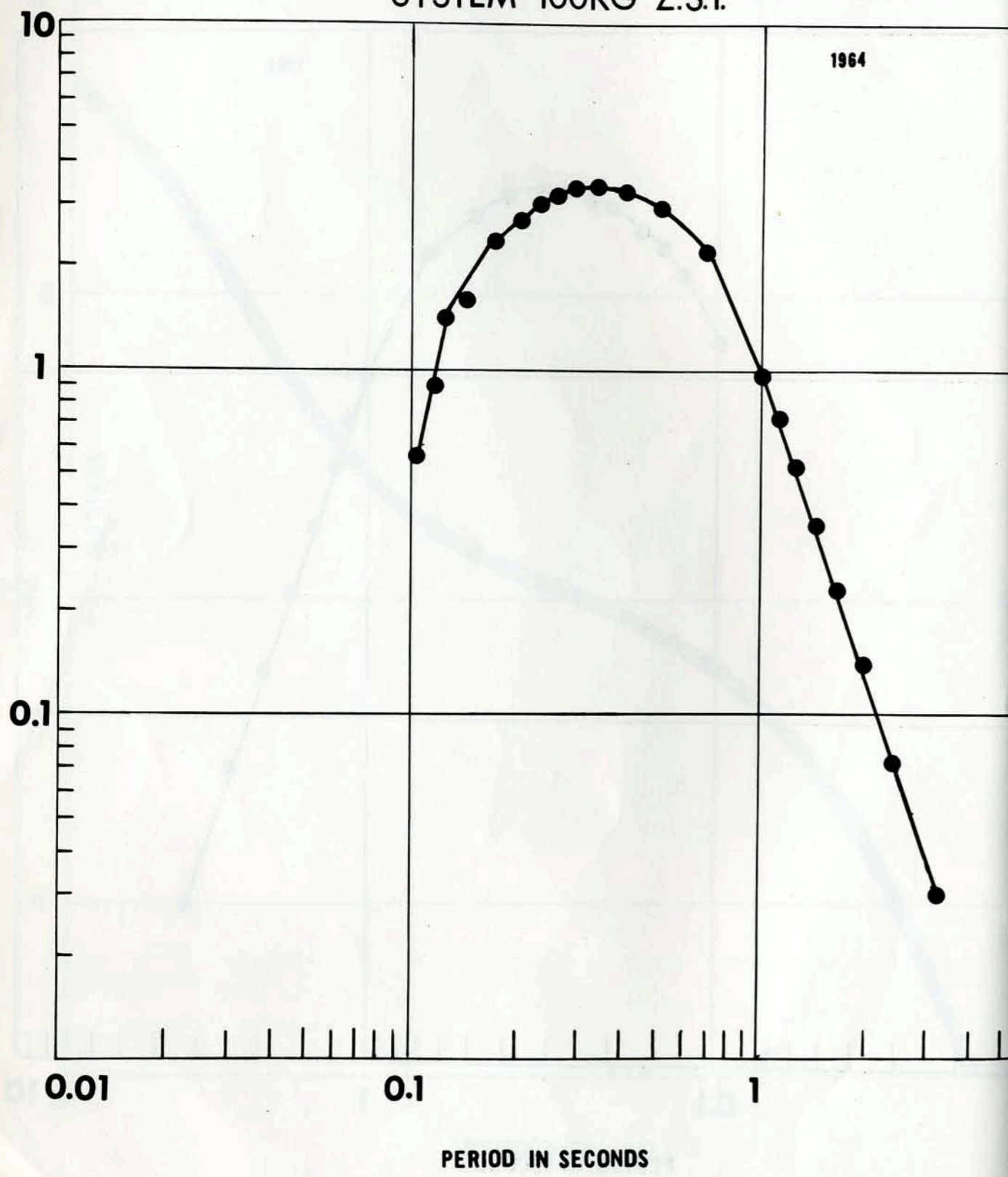
FREQUENCY C/S



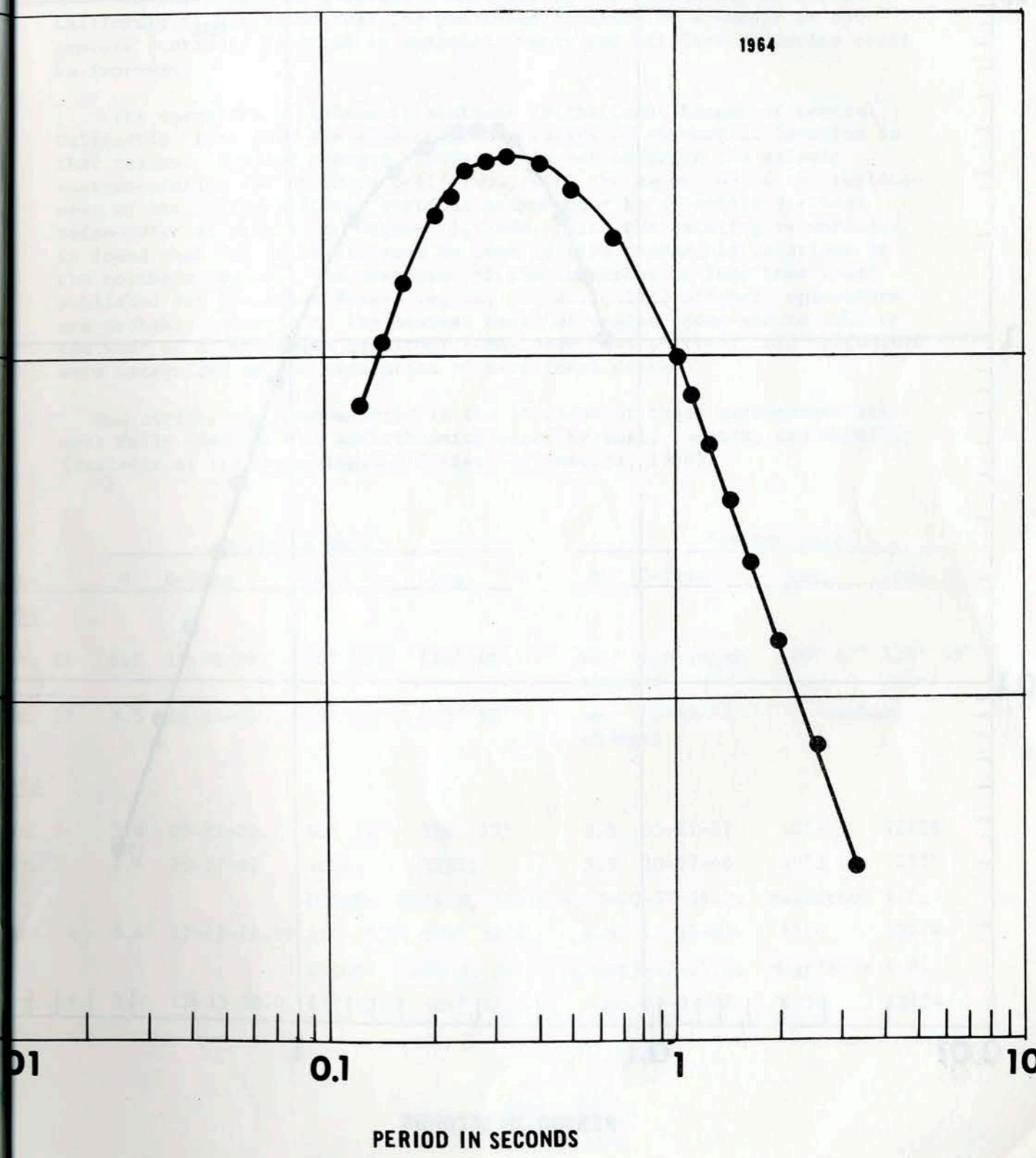
RESPONSE OF SEISMOMETER-DEVELOCORDER SYSTEM 100KG Z.S.P.



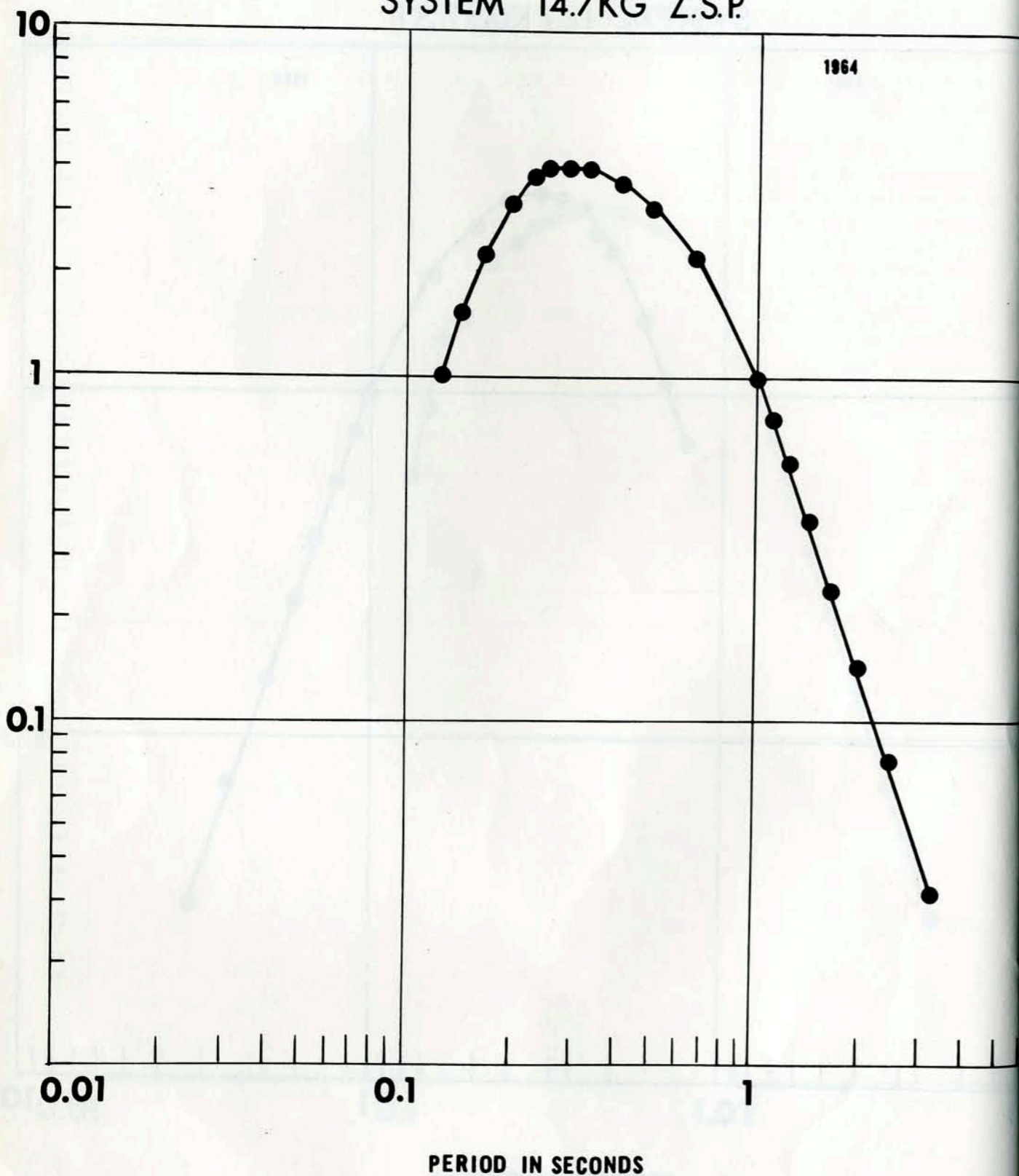
RESPONSE OF SEISMOMETER-HELICORDER SYSTEM 100KG Z.S.P.



RESPONSE OF SEISMOMETER-HELICORDER SYSTEM 14.7KG Z.S.P.



RESPONSE OF SEISMOMETER-DEVELOCORDER SYSTEM 14.7KG Z.S.P.



EARTHQUAKES IN HUMBOLDT COUNTY AND OFF THE COAST OF NORTHERN CALIFORNIA

In the course of a detailed analysis of the seismicity of northern California it was found that the published location of a number of epicenters routinely reported in Humboldt County and off Cape Mendocino could be improved.

The operation of telemetry stations in the Coast Ranges of central California since 1961 has enhanced the accuracy of epicentral location in that region. Similar changes, however, did not occur in the seismic instrumentation for northern California, with the exception of the replacement of the Marion-Slichter vertical seismometer by a Benioff vertical seismometer at Arcata, on October 1, 1964. With the existing network it is found that S-P intervals must be used to give reasonable locations in the northern region. The precision of the locations is less than those published for the Coast Ranges region; in particular, offshore epicenters are probably accurate to the nearest tenth of degree. Some shocks well to the west of Arcata below magnitude 4 may have been omitted. All epicenters were determined on the assumption of zero focal depth.

The difficulties encountered in the location of these earthquakes are more fully discussed in a forthcoming paper by Bolt, Lomnitz, and McEvelly (Bulletin of the Seismological Society of America, 1968).

	Bulletin Data				Revised Data			
	M	O-Time	Lat.	Long.	M	O-Time	Lat.	Long.
54								
c. 21	6.5	19-56-29	40° 49'	124° 05'	un- changed	unchanged	40° 47'	123° 52'
c. 22	3.5	18-33-02	40° 47'	123° 52'	un- changed	19-33-02		unchanged
62								
n. 5	3.8	05-21-21.7	40° 24'	124° 17'	3.8	05-21-17	40°4	124°4
r. 5	4.6	20-57-52	40°4	125°1	3.9	20-57-46	40°3	125°5
			USCGS: 40°4 N, 124°9 W, 0=20-57-54.0.		Magnitude 4.5.			
pt. 4	5.0	17-17-16.99	41° 21'9	124° 52'4	4.9	17-17-22	41°0	124°4
			USCGS: 41°0 N, 124°0 W, 0=17-17-27.5.		Magnitude 4.8.			
pt. 4	3.7	17-32-38.0	41° 15'5	124° 41'5	4.0	17-32-42	41°0	124°4

Bulletin Data					Corrected Data			
Date	M	O-Time	Lat.	Long.	M	O-Time	Lat.	Long.
<u>1962</u>								
Nov. 5	3.3	05-23-05.7	40° 29!2	124° 23!5	un- changed	05-23-00	unchanged	
Nov. 16	3.0	03-01-00.34	40° 46!1	124° 01!1	3.0	03-00-56	40°6	124°
Nov. 21	3.8	10-04-00.15	40° 25!0	124° 43!2	un- changed	10-03-57	unchanged	
Dec. 13	4.0	08-10-29.74	40° 09!8	124° 28!8	3.8	08-10-47	40°2	124°
			USCGS: 40°2 N, 125°2 W, 0=08-10-44.5.					
<u>1963</u>								
Jan. 5	3.5	21-26-56.5	41° 25!1	125° 54!4	3.6	21-27-12.0	40° 50'	124°
			USCGS: 41°0 N, 126°1 W, 0=21-27-03.					
Feb. 11	3.5	09-43-07.1	40° 22!1	124° 58!7	3.0	09-43-35.3	40° 12'	124°
Feb. 21	3.9	12-01-12.6	40° 16!5	125° 09!8	3.8	12-01-16	40° 21'	125°
Mar. 2	3.7	10-55-08.7	39° 58!8	125° 27!3	3.7	10-54-48.0	40°4	127°
Mar. 3	3.5	01-09-22	41° 17'	124° 21'	3.5	01-09-19.8	40°4	124°
Mar. 10	4.3	11-40-10.0	40° 30'	128° 00'	4.4	11-40-14.4	40°5	127°
			USCGS: 38°4 N, 127°2 W, 0=11-40-29.					
Mar. 17	3.5	18-06-40	41° 05'	125° 45'	Omit - magnitude less than 3.0			
Mar. 23	4.2	05-34-05.4	40° 49!7	128° 08!7	4.2	05-34-21.5	40°5	126°
Apr. 4	3.6	00-10-24	40°5	123°4	3.9	00-10-21.0	40° 10'	123°
Apr. 6	4.0	20-18-19	40°7	128°3	3.5	20-18-29.1	40°0	128°
			USCGS: 40°6 N, 128°7 W, 0=20-18-15.1.					
Apr. 17		19-40-35	40° 45'	123° 45'	3.4	19-40-35.0	40° 45'	123°
Apr. 25		01-49-15	41°	128°	3.5	01-49-16.0	41°0	127°
May 8	3.2	12-52-44	40°8	124°5	3.3	12-52-35.2	40°2	125°
June 8	3.9	08-51-54.4	40°6	124°3	4.0	08-51-41.5	40°9	125°
			USCGS: 40°6 N, 124°3 W, 0=08-51-56.5.					

Bulletin Data					Corrected Data			
Date	M	O-Time	Lat.	Long.	M	O-Time	Lat.	Long.
<u>1963</u>								
June 22	3.0	01-15-22	40°4	123°4	Omit - small earthquake near minimum magnitude 3.0.			
July 8	4.3	01-13-43.1	41° 17'	126° 17'	4.1	01-13-50.6	40°8	125°3
July 8	4.8	04-18-41.8	41° 44'	128° 04'	4.1	unchanged	unchanged	
July 20	4.0	03-24-05.4	40° 39!6	126° 15!1	3.7	03-24-13.5	40° 23'	125° 23'
Aug. 2	4.2	22-17-17.0	40° 25!5	125° 44!1	4.4	22-17-33	40°3	125°0
			USCGS: 40°5 N, 125°1 W, 0=22-17-25.6, Magnitude 5.1.					
Aug. 19	4.1	09-38-40.2	41° 38!3	127° 30!4	3.6	09-39-00	40°9	126°0
			O-Time and location are USCGS data. USCGS magnitude 4.1.					
Aug. 22	5.0	09-27-01.8	42° 15'	126° 33'	4.6	09-27-03	42°0	126°4
			USCGS: 42°0 N, 126°2 W, 0=09-27-09.3. Magnitude 5.6.					
Sept. 22	3.1	15-58-19.4	41° 00'	125° 12'	4.3	15-58-06.1	41°9	126°7
			Data from USCGS.					
Oct. 29	4.7	07-01-26.6	40° 41!9	126° 13!9	4.3	07-01-41.4	40°4	124°9
			O-Time and location from USCGS. USCGS magnitude 4.7.					
Nov. 7	3.5	16-39-49.6	40° 24!8	125° 01!1	3.7	16-39-53.0	40° 24'	124° 43'
<u>1964</u>								
Jan. 17	3.7	06-02-18.3	40° 20!9	124° 34!8	3.7	06-02-20	40°4	124°4
			USCGS: 40°3 N, 124°6 W, 0=06-02-19.8. Magnitude 4.3.					
Jan. 17	3.3	06-04-03.2	40° 21!4	124° 32!2	3.5	06-04-02	40°5	124°5
Jan. 17	3.7	07-50-21.1	40° 25.3	124° 41°0	3.4	07-50-24	40°4	124°3
Mar. 3	4.4	20-02-35.6	40° 15!0	125° 10!0	4.5	20-02-33	40°3	125°3
			USCGS: 40°3 N, 125°1 W, 0=20-02-33.1. Magnitude 4.8.					
Mar. 5	4.9	11-42-19.2	40° 28!8	127° 56!4	4.4	11-42-23	40°4	127°4
			USCGS: 40°3 N, 127°7 W, 0=11-42-21.8. Magnitude 4.3. Data scanty.					
Apr. 20		11-56 not included in Bulletin			3.3	11-56-59	40°6	124°4
		Data scanty.						
Apr. 22		00-22 not included in Bulletin			3.7	00-22-10	40°1	124°8
May 1		03-00 not included in Bulletin			3.8	03-00-15	40°7	126°7
June 3	3.9	13-50-16	40°3	126°1	3.9	13-50-17	40°5	125°6
			USCGS: 40°3 N, 126°1 W.					
June 11	5.5	22-18-10	40°3	126°5	5.5	22-18-12	40°7	127°0
June 23		16-07 not included in Bulletin			3.6	16-07-27	40°0	124°2
July 3	3.1	17-19-05	40° 10'	124° 25'	3.1	17-19-04	40°6	124°2

Bulletin Data					Corrected Data			
Date	M	O-Time	Lat.	Long.	M	O-Time	Lat.	Long.
<u>1964</u>								
July 12	3.3	04-18-50	40° 19!2	124° 39!6	3.3	04-18-52	40°2	124°
July 12	3.0	07-18-06.4	40° 18!6	124° 39!6	3.0	07-18-08	40°2	124°
July 12	3.1	11-58-54.1	40° 13!8	124° 36!0	3.2	11-58-52	40°5	124°
			USCGS: 40°2 N, 124°7 W, 0=11-58-57.0. Magnitude 4.2.					
July 12	3.7	12-18-26.9	40° 18!0	124° 38!4	3.7	12-18-28	40°3	124°
			USCGS: 40°3 N, 126°1 W, 0=12-18-19.1. Magnitude 4.7.					
July 12	3.4	13-48-05.8	40° 18!6	124° 48!6	3.4	13-48-09	40°3	124°
July 12	3.3	15-19-44.1	40° 13!2	124° 45!6	3.3	15-19-47	40°3	124°
July 12	3.1	18-23-13.6	40° 18!1	124° 42!0	3.2	18-23-16	40°3	124°
July 13	3.9	11-54-49.7	42° 06!0	126° 34!2	4.2	11-54-32	42°7	128°
			USCGS: 42°5 N, 126°7 W, 0=11-54-50.7. Magnitude 5.6.					
July 14	4.3	12-47-17.8	42° 01!2	125° 51!0	4.3	12-47-22	41°9	125°
			USCGS: 41°8 N, 125°7 W, 0=12-47-25.6. Magnitude 5.4.					
July 23	4.5	08-46-26.6	41° 09!6	130° 50!4	3.7	08-47-07	40°0	127°
July 24	3.8	10-56-42.6	40° 27!0	125° 31!8	3.7	10-56-48	40°4	125°
July 27	3.7	18-40-50	41° 36'	126° 20'	3.7	18-40-43	42°3	126°
			USCGS: 42°4 N, 125°3 W, 0=18-40-53.4. Magnitude 4.5.					
Aug. 13	3.8	06-35-41	41° 37'	125° 47'	3.9	06-35-37	42°0	126°
			USCGS: 42°2 N, 126°1 W, 0=06-35-39.0. Magnitude 4.9.					
Aug. 13	3.7	08-50-40	41° 59'	125° 55'	3.7	08-50-46	42°3	125°
			O-Time and location from USCGS. USCGS magnitude 4.9.					
Aug. 18	4.1	02-13-32.0	40° 26!4	126° 01!2	3.9	02-13-43	40°5	125°
			USCGS: 40°3 N, 125°7 W, 0=02-13-37. Magnitude 5.0.					
Aug. 22	3.5	22-27-48.6	40° 25!2	124° 34!8	3.6	22-27-53	40°4	124°
Aug. 22	3.1	23-45-43.2	39° 54!0	123° 50!4	3.2	23-45-38	40°4	124°
Aug. 27	4.4	03-33-25.2	40° 49!8	128° 40!8	Omit. Magnitude probably less than 3.0.			
Sept. 20	4.6	01-41-09.2	43° 06!6	131° 22!8	3.5	07-41-29	41°3	124°
Sept. 20	4.5	07-42-11.0	42° 05!4	131° 10!8	3.5	07-42-28	41°3	124°
			O-Time and location from USCGS. USCGS magnitude 4.3.					
Dec. 7		11-29 not included in Bulletin			3.2	11-29-43	40°5	124°
Dec. 7	3.1	14-15-12.9	40°3	124°2	3.1	14-15-06	40°3	124°
Dec. 9	4.3	07-36-17	42°	124°5	3.5	07-36-33	40°8	124°

Bulletin Data					Corrected Data			
Date	M	O-Time	Lat.	Long.	M	O-Time	Lat.	Long.
<u>1964</u>								
Dec. 12	4.5	21-17-00	40°6	126°8	3.7	21-17-25	40°2	124°3
			USCGS: 40°3 N, 125°1 W, 0=21-17-21. Magnitude 5.1.					
Dec. 16	3.6	05-24-48.1	40°5	124°0	3.6	05-24-47	40°4	124°4
Dec. 17	4.2	11-25-11.0	40° 54'	128° 50'	3.8	11-25-40	41°3	126°1
			USCGS: 40°3 N, 127°3 W, 0=11-25-32. Magnitude 4.2.					
Dec. 17		12-11 not included in Bulletin			4.6	12-11-52	41°9	126°0
			O-Time, location and magnitude from USCGS.					

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 at the U.C. stations (sometimes complemented by data from neighboring stations such as Reno) to permit determination of the epicenter. For the sake of completeness, in cases where these data are not sufficient to determine acceptable epicenters the preliminary epicentral data of the USCGS are quoted. 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 omitted because the available seismographic data were inadequate for epicenter determination. Within the limited region covered by the map of the central Coast Ranges of California, locatable shocks of magnitude 2.5 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 2.5 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.

Epicenters are located by an IBM 7090 computer program. Information on Version I of this program may be found in "Computer Location of Local Earthquakes within the Berkeley Seismographic Network" by Bolt and Turcotte, published in Computers in the Mineral Industries, Part 2 (George Parks, Editor); Stanford University Publications, Geological Sciences, Vol. 9, No. 2, pp. 561-576, 1964.

Explanation of the table:

Map No. for each epicenter corresponds to the number plotted beside that epicenter on the maps. Epicenters without numbers lie outside the area of the map. The underlining of a map number in the table 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).

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.

h is the focal depth given to the nearest kilometer or by the following ranges: a, 0-5; b, 6-10; c, 11-15; d, 16-30 km.

No. of Stas. is the number of stations used by the computer program or used for constructing S-P arcs in locating the epicenter. If the USCGS data are used for the epicenter this column then gives the number of stations in the Berkeley net recording the earthquake.

The quality of the solution is partially reflected by the listed number of stations. The highest quality locations are given to the nearest tenth of a minute in latitude and longitude and to the tenth of a second origin time. Poorer quality locations are given to the nearest minute or tenth of a degree in latitude and longitude, to the nearest second in origin time and are denoted by an asterisk.

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.

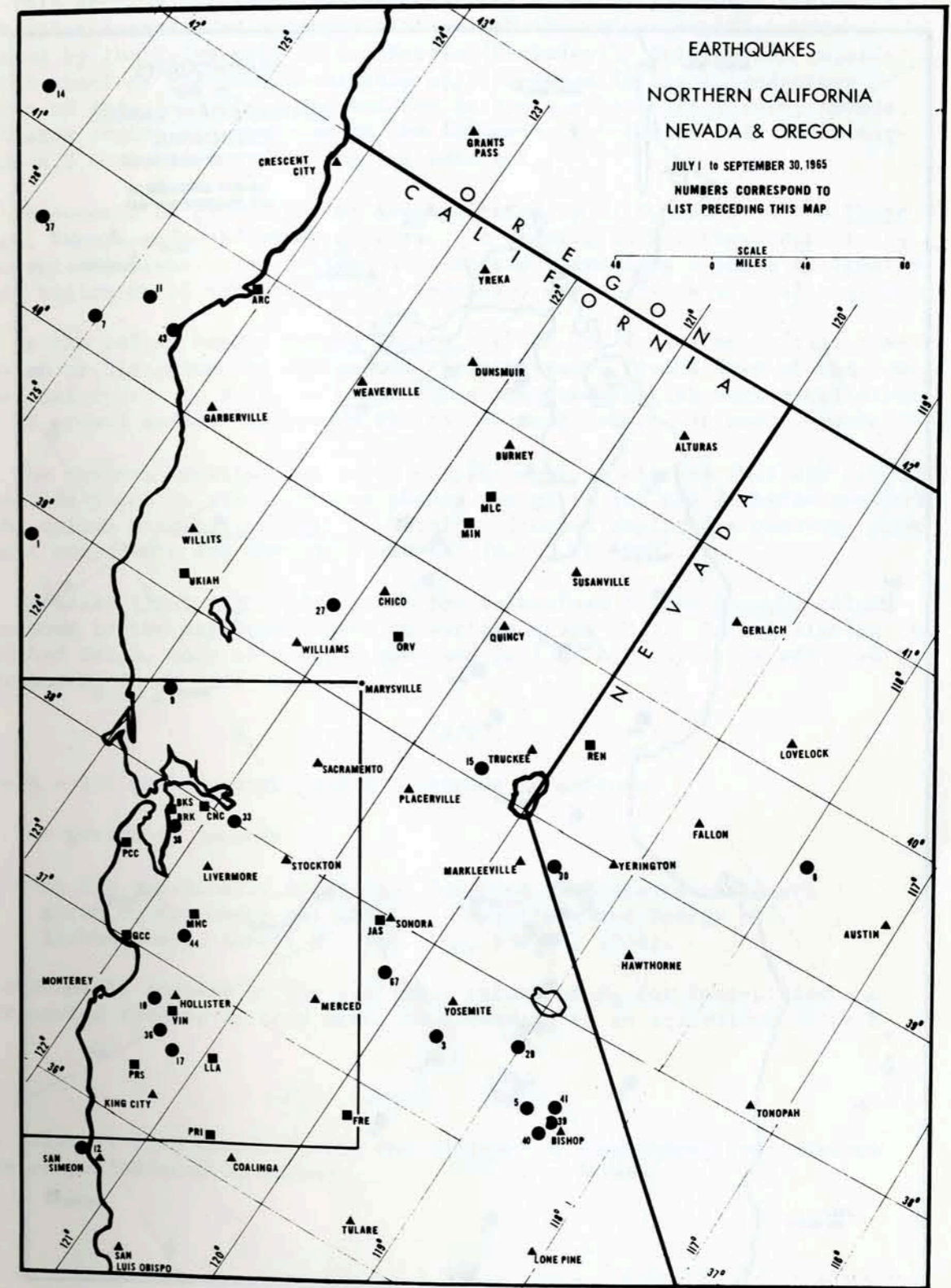
Information on maximum intensities of shocks reported felt is also included under Remarks. Reports on felt earthquakes may be obtained from the Seismological Field Survey of the U.S. Coast and Geodetic Survey, which publishes a more complete summary in "Abstracts of Earthquake Reports for the Pacific Coast and Western Mountain Region". This regular quarterly publication may be obtained from the District Officer, San Francisco District, Coast and Geodetic Survey, 121 Customhouse, San Francisco, California 94126, or from the Director, U.S. Coast and Geodetic Survey, Washington Science Center, Rockville, Maryland 20852. Intensities given in Roman numerals are assigned by the Coast and Geodetic Survey and based on the Modified Mercalli Intensity Scale of 1931.

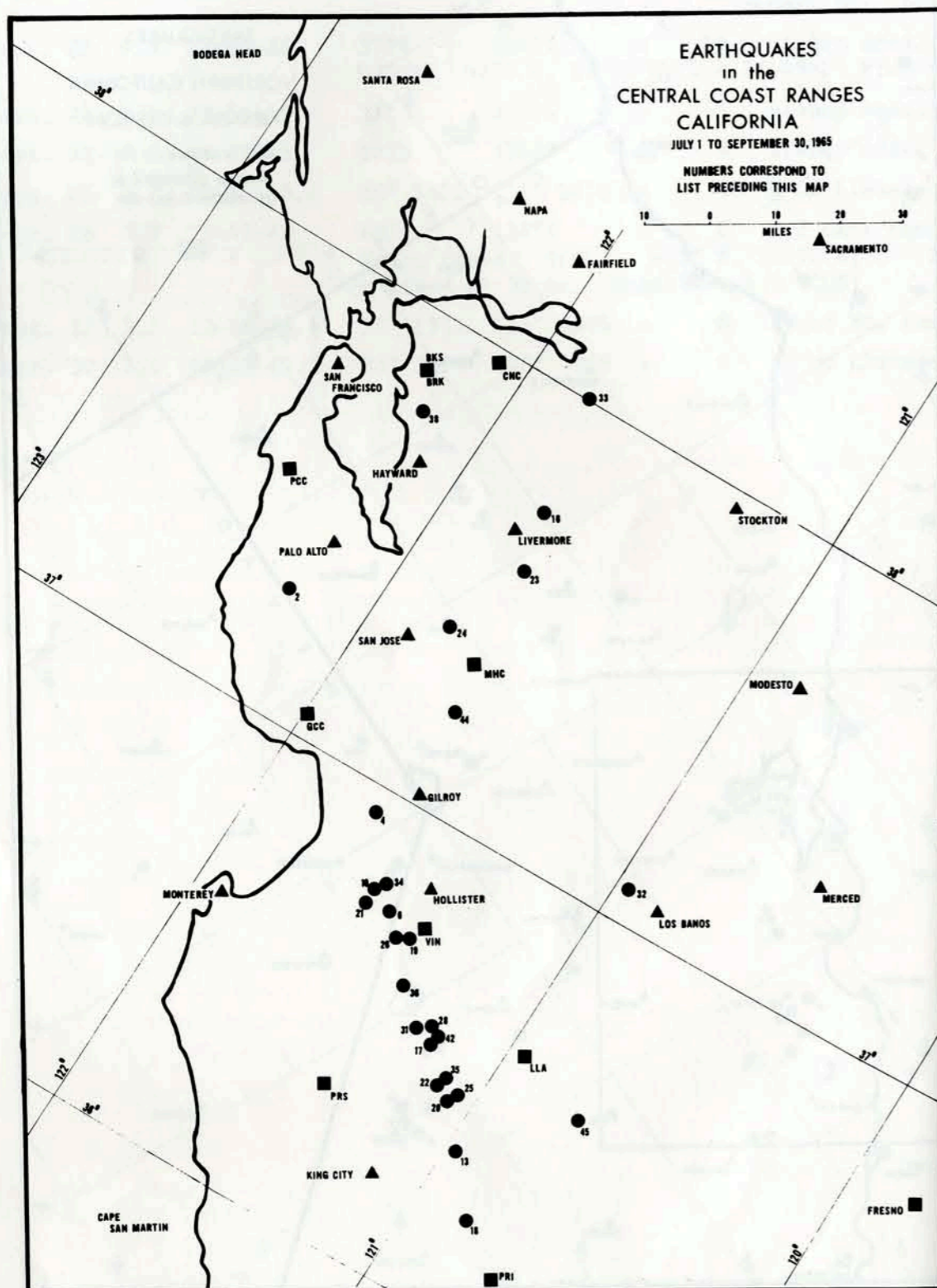
EARTHQUAKES IN NORTHERN CALIFORNIA, NEVADA, AND OREGON

Map No.	Date 1965	M	Origin Time (G.C.T.)	Latitude North	Longitude West	h	No. of Stas.	Remarks
* 1	July 5	3.3	06-37-03	38°8	124°4	0	13	Off Pt. Arena. Depth fixed at surface.
2	July 9	2.5	08-51-08.5	37° 17!6	122° 13!5	a	8	S of Palo Alto.
* 3	July 9	3.2	13-16-43	37°5	119°6	a	5	Yosemite.
4	July 11	2.9	02-41-28.6	36° 56!7	121° 40!7	a	12	W of Gilroy.
* 5	July 12	3.1	16-49-42	37°4	118°7	a	7	Bishop area.
6	July 13	2.8	15-35-31.4	36° 45!5	121° 30!0	a	7	W of Hollister; felt Hollister.
* 7	July 13	4.0	21-57-07	40°2	125°0	0	10	Off Cape Mendocino. USCGS: 40°3 N, 124°8 W; 0 = 21-57-07.9; h = 16 km. Depth fixed. Magnitude 4.8 (CGS).
* 8	July 14	4.3	08-26-43	39°6	117°8	a	14	40 miles W of Austin Nevada. USCGS: 39°1 N, 117°7 W; 0 = 08-26-45.1; h fixed at 33 km. Magnitude 3.9 (CGS).
* 9	July 15	2.8	02-57-08	38°5	122°8	0	8	SW of Rumsey. Depth fixed.
10	July 18	3.6	19-03-43.4	36° 47!4	121° 33!9	a	15	W of Hollister. Felt: Harris Ranch.
*11	July 19	3.2	21-45-10	40°5	124°7	0	11	Off Cape Mendocino. Depth fixed. USCGS: 40°4 N, 124°3 W; 0 = 21-45-10.9; h fixed at 33 km. Magnitude 4.4 (CGS).
12	July 23	3.4	05-31-52.7	35° 42!9	121° 14!2	a	13	N of San Simeon.
13	July 24	2.5	15-25-57.4	36° 21!5	120° 59!0	b	7	SW of Llanada.
*14	July 25	4.5	08-44-25	41°2	126°4	0	13	Off coast of Northern California. Depth fixed. USCGS: 41°7 N, 126°9 W; 0 = 08-44-22.5; h fixed at 33 km. Magnitude 5.3 (CGS).
*15	July 25	2.9	21-55-29	39°1	120°4	a	9	W of Truckee.
16	July 30	2.9	18-13-30.0	37° 43!8	121° 45!5	d	8	N of Livermore.
17	July 31	3.5	06-54-27.5	36° 33!1	121° 12!0	b	14	S of Vineyard.
17	July 31	3.1	18-33-45.4	36° 34!7	121° 13!0	a	7	Aftershock of 17.
18	Aug. 1	2.5	06-47-27.3	36° 13!5	120° 51!4	a	7	NW of Priest.
18	Aug. 1	2.5	13-26-32.9	36° 13!9	120° 50!7	a	6	Aftershock of preceding earthquake.
19	Aug. 8	2.5	16-29-09.4	36° 43!7	121° 25!3	a	9	W of Vineyard.
20	Aug. 13	2.6	07-36-08.4	36° 27!7	121° 04!5	a	9	SW of Llanada.
21	Aug. 13	2.8	16-19-27.5	36° 45!2	121° 34!3	b	5	S of San Juan Bautista. Felt: Hollister.
22	Aug. 13	2.4	21-28-51.8	36° 28!7	121° 07!8	a	8	W of Llanada.

Date 1965	M	Origin Time (G.C.T.)	Latitude North	Longitude West	h	No. of Stas.	Remarks
Aug. 15	3.2	23-06-53.8	36° 33!7	121° 12!6	b	12	S of Vineyard. Felt: Hollister area. USCGS: 36°6 N, 121°2 W; 0 = 23-06-52.5; h = 16 km. Magnitude 4.2 (CGS).
Aug. 16	2.6	01-13-46.2	36° 34!0	121° 12!2	a	6	Aftershock of Aug. 15 @ 23-06-53.8.
Aug. 16	2.7	15-35-12.1	36° 34!2	121° 11!8	a	8	Aftershock of Aug. 15 23-06-53.8.
Aug. 19	2.5	11-04-05	37°6	121°7	a	7	SE of Livermore.
Aug. 21	2.7	12-32-26	37°4	121°8	a	12	NW of Mt. Hamilton.
Aug. 21	2.5	20-09-35.4	36° 27!7	121° 04!2	a	8	SW of Llanada.
Aug. 23	2.6	03-50-12.8	36° 43!1	121° 26!4	a	11	W of Vineyard. Felt: Harris Ranch.
Aug. 29	3.6	18-25-17	39°5	122°1	d	13	SE of Orland. USCGS: 39°7 N, 122°0 W; 0 = 18-25-15; h = 16 km.
Aug. 29	3.2	21-28-50	39°5	122°1	d	5	Aftershock of preceding earthquake.
Aug. 30	2.8	14-01-08.1	36° 34!6	121° 13!1	a	13	S of Vineyard.
Aug. 30	3.2	20-15-38	37°8	119°0	a	8	Mono Lake area.
Aug. 31	3.0	04-39-47	38°8	119°5	a	13	W of Yerington, Nevada.
Sept. 2	2.8	08-02-37.8	36° 34!0	121° 14!8	b	14	S of Vineyard.
Sept. 2	2.9	08-16-21.0	36° 33!8	121° 13!1	b	14	W of Llanada.
Sept. 3	2.6	18-39-38.6	37° 04!7	120° 58!1	b	5	NW of Los Banos.
Sept. 6	2.6	08-38-44.7	38° 00!4	121° 49!7	c	8	Near Antioch. Foreshock of Sept. 10 @ 21-28-34.3.
Sept. 7	2.8	01-29-31.2	36° 48!6	121° 33!2	c	9	W of Hollister.
Sept. 10	4.9	21-28-34.3	38° 00!6	121° 49!4	c	16	Near Antioch. Felt: Berkeley, Walnut Creek, San Francisco, Sacramento, Fremont, Concord, San Rafael, Livermore, Pittsburg. USCGS: 37°9 N, 122°0 W; 0 = 21-28-33.5; h = 16 km. Magnitude 4.8 (CGS).
Sept. 10	2.6	21-38-11.3	38° 00!3	121° 49!9	c		Aftershock of Sept. 10 at 21-28-34.3.
Sept. 11	2.8	00-08-33.4	37° 59!8	121° 50!3	b		Aftershock of Sept. 10 at 21-28-34.3.
Sept. 12	2.5	08-50-05.5	36° 29!8	121° 07!3	a	7	W of Llanada.
Sept. 14	4.0	09-09-24.2	36° 37!7	121° 21!6	a	17	S of Vineyard. Felt: Hollister area. USCGS: 36°6 N, 121°5 W; 0 = 09-09-23. Magnitude 4.3 (CGS).
Sept. 16	5.0	04-10-08	40°5	125°8	0	7	Off Cape Mendocino. Depth fixed. USCGS: 40°4 N, 125°7 W; 0 = 04-10-22.6; h fixed at 33 km. Magnitude 5.6 (CGS).

Map No.	Date 1965	M	Origin Time (G.C.T.)	Latitude North	Longitude West	h	No. of Stas.	Remarks
38	Sept. 20	3.5	01-15-47.5	37° 47!6	122° 11!1	a	15	S of Berkeley. East Bay region.
*39	Sept. 22	4.3	21-49-26	37°4	118°5	a	15	Bishop area. USCGS: 37°4 N, 118°6 W; 0 = 21-49-25.8; h = 16
*40	Sept. 22	3.5	23-56-45	37°3	118°5	a	5	Bishop area.
*41	Sept. 23	3.0	08-57-15	37°5	118°5	a	4	Bishop area.
42	Sept. 25	2.8	09-51-13.4	36° 34!1	121° 12!0	a	6	W of Llanada.
*43	Sept. 26	3.7	15-47-41	40°4	124°4	0	8	Off Cape Mendocini. Depth fixed. USCGS: 40°5 N, 124°6 W; 0 = 15-47-41.2; h fixed at 33 km. Magnitude 4.3 (CGS).
44	Sept. 27	3.1	13-32-59.6	37° 15!1	121° 38!8	a	8	SW of Mt. Hamilton.
45	Sept. 30	2.6	19-09-41.2	36° 33!4	120° 43!9	b	9	SE of Llanada.





PART II. REGISTRATION OF EARTHQUAKES

This section tabulates measured arrival times of prominent phases of earthquakes recorded at selected 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 Ground Motion, "c" or "d" indicates initial compression or dilatation of the ground, respectively, from a wave 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 (μ) 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).

Berkeley (BKS) magnitudes given for teleseisms in the Remarks column correspond to the magnitude based on surface waves (M_s). In calculating the published value, body wave amplitudes and periods of body waves are used to determine M_B (body wave magnitude) 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).

The arithmetic average of the available values of M_B for long-period and short-period records of body waves is converted to an equivalent value M_s by

$$M_s = 1.59 M_B - 3.97.$$

This value is then compared with the value of M_s determined from surface waves of period near 20 seconds.

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

USCGS - U.S. Coast and Geodetic Survey, Washington Science Center, Rockville, Maryland

BCIS - Bureau Central International de Seismologie, Strasbourg, France

PAL - Lamont Geological Observatory, Palisades, New York

PAS - Seismological Laboratory, Pasadena, California

WMSO - Wichita Mountains Observatory, Oklahoma

BKS - Byerly Seismographic Station, Berkeley

BRK - indicates the average magnitude determined by the Berkeley network.

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. Readings from the remaining stations in the network other than the five listed (BKS, JAS, MHC, PRI, MIN) are available on request. Requests for additional data or for copies of seismograms should be addressed to the Director.

Time	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
			h m s		
065					
July 1	BKS	eP	05 06 51.3	d	USCGS: 23°3 S, 67°8 W, 0 = 04-54-51.9.
		PZ	0.056 1.2		Chile-Argentina border region.
	MHC	eP	05 06 50.7	d	h about 91 km.
	JAS	iP	45.1	d	Magnitude 4.5 (BKS).
	MIN	eP	56.6	c	
	PRI	eP	39.9	d	
		e(pP)	44.8		
July 1	BKS	eZ	07 35.0	c	USCGS: 18°2 N, 146°3 E, 0 = 07 16 49.4.
		eZ	43	c	Mariana Islands, h about 86 km.
		eREZ	53 24		
	MHC	e(P)	43 29.3	d	
	JAS	iP	28 58.7	c	
		iZ	29 05.5		
	MIN	eP	28 50.1	c	
July 1	JAS	iP	17 51 12.7	d	USCGS: 50°0 N, 150°9 E, 0 = 17 41 34.3.
		iZ	27.0	d	Kurile Islands region.
	MIN	eP	50 56.5	d	h about 66 km.
July 1	BKS	ePP	23 31 21.5	d	USCGS: 63°0 S, 163°7 W, 0 = 23 12 45.4.
		eNE	32 10	NW	South Pacific Cordillera.
		e(S)NZ	37 21	Nc	h about 33 km.
		e(PS)NEZ	40 44		Magnitude 6 3/4 (BKS).
		e(PPS)NZ	41 39		
		e(SS)NE	46 36		
		e(SSS)NE	50 30		
		e(L)NE	56 30		
		eRNEZ	00 00		
			mu sec		
		PPZ	0.675 4.0		
		MaxH	8.55 17.5		
	JAS	iPP	23 31 23.2	d	
		iZ	23 23.5	c	
		iZ	35 12.1	c	
July 2	JAS	iP	05 15 48.0	d	USCGS: 52°3 N, 173°2 E, 0 = 05 07 23.
	MIN	eZ	38.8	c	Near Islands, Aleutian Islands.
					h about 96 km.
July 2	BKS	eP	20 28 06.5	d	USCGS: 52°0 N, 175°3 E, 0 = 20 19 41.8.
		e(pP)	25.4	c	Rat Islands, h about 40 km.
		eSE	34 34.0	E	
		eLE	37 58.0	W	
		eRZ	40 25	d	
			mu sec		
		MaxH	2.32 22		
	MHC	eP	28 02.0	d	
		eZ	11.0	d	
	JAS	iP	04.1	d	
		iZ	14.8	c	
		iSE	34 50.3		
July 2	JAS	iP	20 33 29.1	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks	
			h m s			
1965						
July 2	BKS	iPNE	21 05 25.7	NWd	USCGS: 52° N, 168° W, 0 = 20 58 40 Fox Islands. h about 59 km. Magnitude 6 3/4 - 7 (BKS). Slight damage on Unimak Island	
		ipPNE	39.6	NE		
		iSNE	10 59.6	SWd		
		eScSNE	15 38	SW		
		iGNE	30 01.2	NE		
		iScSScS	30 28			
		eScSScSScS	46 02			
			mu sec			
		PZ	2 1.2			
		SH	7.4 5			
	MHC	eP	21 05 32.0			
	JAS	iPNE	35.2	NWd		
	MIN	iP	16.2	d		
July 2	BKS	iPN	21 11 37.6	Sc		
		iS	15 47.2	d		
	MIN	iP	11 44.3	d		
July 2	MIN	eZ	22 35 36.7	c		
July 2	JAS	iP	22 59 05.9	d		
	MIN	eP	58 30.2	d		
July 3	BKS	e(P)NZ	02 41 13.5	c	USCGS: 52°7 N, 32°1 W, 0 = 02 22 North Atlantic Ocean. h about 36 km.	
		e(S)NZ	47 26.5			
		e(L)Z	49 34			
	JAS	iP	31 23.9	c		
		iZ	33.9	c		
	MIN	eZ	32 16.3	c		
July 3	BKS	e(PP)NE	11 52 42	NWc		
		e(S)NE	12 00 27	SEc		
		e(R)E	16 50			
July 3	BKS	eZ	13 11 04			USCGS: 4°7 S, 133°8 E, 0 = 12 22 West New Guinea region. h about 14 km.
		eZ	19 30			
		eZ	22 40			
	JAS	eZ	36 45.6	c		
July 3	JAS	iP	15 35 47.4	d	USCGS: 35°2 N, 139°7 E, 0 = 15 2 Near south coast of Honshu, h about 125 km.	
		iZ	36 07.4	c		
July 3	BKS	eNE	21 18 46	SE		
		eZ	20 11	d		
		eZ	21 59	c		
	JAS	eP	00 06.9	c		
		iZ	17.3	d		
	MIN	eP	07.1	c		
July 4	JAS	iP	09 12 13.6	c	USCGS: 15°7 S, 176°4 W, 0 = 09 0 Fiji Islands region. h about 369 km.	
	MIN	eP	16.8	d		
July 5	JAS	iP	01 48 37.3	c		
July 5	BKS	ePNE	08 42 12	NEd	USCGS: 52°9 N, 34°2 W, 0 = 08 31 North Atlantic Ocean h about 33 km.	
		iSNE	50 20.5	SEc		
		eGNE	56 07			
			mu sec			
		SH	2.6 20			

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
			h m s		
July 5	JAS	iP	08 41 59.7	d	USCGS: 33°6 S, 70°5 W, 0 = 20 28 16.5. Chile - Argentine border region. h about 99 km. Felt: Santiago, Chile USCGS: 22°6 S, 172°9 E, 0 = 03 04 19.8. Loyalty Islands region. h about 41 km. Magnitude 6 (BKS).
		iZ	42 10.3	d	
		iZ	43 42.8	c	
	MIN	iP	41 48.7	c	
		iZ	53.7	c	
	PRI	eP	42 07.1	c	
July 5	JAS	iP	20 40 43.2	d	
July 6	BKS	iP	03 16 55	c	
		ePSNE	27 30	NEd	
		esSPNE	28 38	NWc	
		e(SSS)NE	36 14	NEd	
		eGNE	40 00	NW	
		eRE	43 51	Ed	
	MHC	eP	16 55.2	c	
		eSS	32 19.1	c	
	JAS	iP	17 01.8	Ec	
		iZ	09.4	d	
	MIN	eP	17 03.6	c	
	PRI	eP	16 57	c	
		eSS	32 21.3	c	
July 6	BKS	iP	03 32 16	d	USCGS: 38°7 N, 22°6 E, 0 = 03 18 44.6. Greece, h about 28 km. One killed, six injured. Seismic sea wave reported at Eratini. Considerable damage in Northern Peloponnesus.
		iE	42 47	W	
	JAS	iP	32 14.5	c	
		iZ	22.8	c	
		iZ	35 04.8	d	
		iSKSN	42 55.9		
		iSN	43 42.9		
		esSPE	44 46.1		
		eE	45 32.1		
	MIN	eP	03 32 05.7	c	
July 6	BKS	eSN	03 54 30	N	
		eGNE	04 00 50		
		eRNE	03 30		
			mu sec		
		MaxH	5.2 20		
	MHC	eP	03 48 56.8	c	
	JAS	iP	56.3	d	
July 6	BKS	iP	04 18 56.5	c	USCGS: 46°7 N, 152°4 E, 0 = 04 08 46.1. Kurile Islands. h about 35 km.
		iZ	19 11.6	c	
		eNEZ	30 52	SEd	
	MHC	e(P)	19 01.5		
		iZ	16.6	c	
	JAS	iP	04.3	c	
		iZ	13.9	d	
		ipP	17.4	d	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
1965 (cont.)					
July 6	MIN	eP	04 18 48.5	c	
		iZ	19 03.8	c	
July 6	JAS	iP	05 08 14.1	c	USCGS: 55°1 N, 162°1 E, 0 = 04 58
		iZ	21.2	c	Near east coast of Kamchatka.
		iZ	38.2	c	h about 33 km.
	MIN	eP	07 54.9	d	
July 6	JAS	iP	15 37 10.3	d	USCGS: 52°9 N, 171°8 E, 0 = 15 28
					Near Islands, Aleutian Islands
					h about 47 km.
July 6	BKS	iPE	18 48 39.5	Wd	USCGS: 4°5 S, 155°1 E, 0 = 18 36 4
		iZ	50 36.5	d	Solomon Islands. h about 510
		ipP	33.0	c	Magnitude 6 1/4 (BKS).
		iSKSE	58 17	Ed	
		iN	35.5	N	
		esSPN	19 02 01	S	
		eSSN	04 31	N	
		eGN	11 31	S	
			mu sec		
		SH	6.5 13		
	MHC	eP	18 48 42.1	c	
		eZ	50 45.2		
	JAS	iPE	48 46.5	E	
		iE	50 13.5	E	
		iSKSN	58 26.9		
		iN	57.6		
	MIN	eZ	48 43.5		
	PRI	eP	45.1	d	
		eZ	51.5	c	
July 6	JAS	iPN	19 14 36.0	c	
July 7	JAS	iP	07 58 19.3	d	
July 7	JAS	iP	11 02 05.2	c	
	MIN	eP	11.2	d	
July 7	JAS	iP	12 28 00.1	c	
		iZ	12.0	d	
	MIN	eP	27 58.6	c	
July 7	JAS	iP	15 48 49.0	c	USCGS: 15°0 S, 173°0 W, 0 = 15 37
					Samoa Islands region.
					h about 33 km.
July 7	JAS	iP	17 24 19.5	c	
		iZ	35.9	d	
July 7	JAS	iP	20 14 12.3	c	USCGS: 18°4 N, 106°6 W, 0 = 20 09
					Off coast of Jalisco, Mexico.
					h about 33 km.
July 7	BKS	iP	21 50 20.9	c	USCGS: 32°7 N, 138°7 E, 0 = 21 38
		iNE	22.1	SW	South of Honshu, Japan.
		iPcPNE	37.1	NW	h about 300 km.
		ePPP	54 48	c	
	MHC	eP	50 25.0	c	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
65 (cont.)					
July 7	JAS	iP	21 50 27.7	c	
		iZ	48.7	c	
		iPP	53 26.9	c	
		iZ	35.3	d	
July 7	JAS	iP	23 13 47.9	d	USCGS: 6°9 S, 105°6 E, 0 = 23 00 06.8.
		iZ	14 00.8	c	Sunda Strait. h about 109 km.
		iZ	38.8	c	Felt: Djakarta
July 7	JAS	iP	23 19 03.5	c	
July 7	JAS	iP	23 43 47.8	c	USCGS: 50°9 N, 176°8 E, 0 = 23 35 23.
		iZ	44 11.2	c	Rat Islands. h about 33 km.
July 8	JAS	iP	00 24 17.9	c	USCGS: 72°0 N, 1°6 W, 0 = 00 13 53.9.
					Jan Mayan Island region. h about 33 km.
July 8	MIN	eP	04 17 46.0	c	
July 8	JAS	iP	13 15 55.7	d	USCGS: 15°8 S, 179°2 W, 0 = 13 04 05.4.
					Fiji Islands. h about 33 km.
July 8	JAS	iP	13 25 21.2	c	
		iZ	34.3	d	
July 8	JAS	iP	14 17 17.8	d	USCGS: 18°7 N, 145°0 E, 0 = 14 05 21.
					Mariana Islands. h about 223 km.
July 8	JAS	iZ	16 17 55.6	c	USCGS: 16°3 S, 174°7 W, 0 = 16 07 20.9.
					Tonga Islands. h about 74 km.
July 8	JAS	iP	23 16 30.4	c	
		iZ	18 47.0		
July 9	JAS	iP	00 46 34.7	c	
July 9	JAS	iP	04 29 51.8	d	USCGS: 18°6 S, 168°1 E, 0 = 04 17 04.5.
					New Hebrides Islands. h about 33 km.
					Felt: Port Vila
July 10	JAS	iP	01 29 36.0	d	USCGS: 30°2 S, 178°9 W, 0 = 01 16 53.7.
					Kermadec Island region.
					h about 33 km.
July 10	JAS	iP	02 20 28.1	c	
July 10	JAS	iP	35 04.0	d	USCGS: 55°3 N, 162°6 E, 0 = 02 25 50.
					Near east coast of Kamchatka.
					h about 33 km.
July 10	JAS	iP	03 38 27.7	d	
July 10	BKS	eSE	04 43 04		USCGS: 55°3 N, 162°6 E, 0 = 04 26 41.9.
		eR	51.0		Near east coast of Kamchatka.
	JAS	iP	35 56.2	d	h about 33 km.
		iZ	36 09.8	c	
	MIN	eP	35 37.9	c	
July 10	JAS	iP	04 45 02.6	d	USCGS: 55°4 N, 162°4 E, 0 = 04 54 21.
		iZ	20.3	d	Near east coast of Kamchatka.
					h about 33 km.
July 10	JAS	iP	08 08 01.5	d	
July 10	JAS	iP	29 21.3	c	
July 10	JAS	iP	09 02 46.4	d	
July 10	JAS	iP	09 44 28.5	c	USCGS: 17°8 S, 178°6 W, 0 = 09 33 31.
	MIN	eP	31.0	d	Fiji Islands. h about 602 km.

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
1965					
July 10	JAS	iP	15 04 07.8	c	
		iZ	14.9	c	
July 10	JAS	iP	19 33 29.2	c	USCGS: 41°6 N, 140°3 E, 0 = 19 22
		iZ	34 19.4	c	Hokkaido, Japan. h about 139
	MIN	iP	33 15.1	c	
July 10	JAS	iP	21 30 21.6	d	
July 11	JAS	iP	05 33 25.9	d	USCGS: 15°3 S, 172°9 W, 0 = 05 21
	MIN	eP	15.0	d	Samoa Islands region. h about
July 11	MIN	eP	06 17 34.8	c	
July 11	JAS	iP	07 18 56.8	c	
	MIN	iP	33.2	d	
		iZ	36.1		
July 11	MIN	eP	10 02 07.8	c	
July 11	JAS	iP	15 57 53.3	d	
July 11	MIN	eZ	16 26 44.9	d	USCGS: 36°4 N, 139°7 E, 0 = 16 15
					Honshu, Japan. h about 79 km.
July 11	JAS	iP	20 24 08.1	d	USCGS: 18°9 S, 175°5 W, 0 = 20 12
		ipP	25 06.0	c	Tonga Islands. h about 229 km.
	MIN	eZ	08.2	c	
July 12	BKS	eP	05 45 30.0	c	USCGS: 16°5 S, 172°9 W, 0 = 05 34
		eSE	54 10.0		Samoa Islands region.
		eGNE	06 04.0	NE	h about 79 km.
		eRNE	10.2	NE	
	JAS	iP	05 45 37.5	d	
		iZ	56.8	d	
	MIN	eZ	30.8	c	
July 12	BKS	eP	14 09 29.4	d	USCGS: 28°4 S, 68°2 W, 0 = 13 57
	MHC	iP	25.8	d	La Rioja Province, Argentina.
		ipP	56.2		h about 118 km.
	JAS	iP	23.7	d	Magnitude 5 1/2 - 5 3/4 (BKS)
		iZ	29.3	c	
		ipP	53.8	c	
		iZ	11 00.4	c	
	MIN	eP	09 34.4	d	
		eZ	10 05.1	d	
	PRI	iP	09 18.5	d	
		ipP	48.1		
July 13	JAS	iP	00 43 03.8	d	USCGS: 15°5 N, 91°7 W, 0 = 00 36
	MIN	eP	19.5	d	Mexico - Guatemala border region
					h about 150 km.
July 13	MIN	eZ	08 32 26.3	c	
July 13	JAS	iP	14 17 11.0	c	USCGS: 51°6 N, 178°3 W, 0 = 14 09
		iZ	21.6	d	Andreanof Islands.
			16 53.1	d	h about 57 km.
July 13	JAS	iP	19 57 07.6	d	USCGS: 21°0 S, 176°4 W, 0 = 19 45
		ipP	56.2	d	Fiji Islands region.
					h about 177 km.
July 13	JAS	iP	21 55 50.5	c	USCGS: 6°0 N, 33°2 W, 0 = 21 43
					Central Mid-Atlantic Ridge.
					h about 33 km.

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
July 13	BKS	iPZ	21 57 57.7	c	USCGS: 40°3 N, 124°8 W, 0 = 21 57 07.9.
		iS	58 34.4		Near coast of N. California.
	MHC	iPZ	58 07.9	c	h about 16 km.
	JAS	iPNEZ	58 13.8	SEc	Magnitude 4.0 (BKS).
	MIN	iPZ	57 48.2	c	
July 13	JAS	eZ	22 59 08.8	d	USCGS: 2°8 S, 78°6 W, 0 = 22 49 45.
					Ecuador. h about 97 km.
July 14	JAS	iZ	00 51 31.2	c	
July 14	BKS	eP	02 34 58.0	c	USCGS: 57°0 N, 147°5 W, 0 = 02 29 23.2.
		eRNEZ	41.3	SEc	Gulf of Alaska. h about 8 km.
	MHC	eP	35 01.0	c	
	JAS	iP	34 59.8	c	
		iZ	35 06.6	d	
	MIN	eP	34 36.8	d	
		iZ	46.0	d	
	PRI	eP	35 16.0	c	
July 14	JAS	iP	04 49 38.9	d	USCGS: 13°3 N, 144°6 E, 0 = 04 37 03.0.
					Mariana Islands. h about 51 km.
July 14	BKS	iPZ	08 27 41.9	c	USCGS: 39°1 N, 117°7 W, 0 = 08 26 45.1.
		iSZ	28 25.5		Nevada. h about 33 km.
	MIN	ePZ	27 26.6	c	Magnitude 4.3 (BKS).
	JAS	iPZ	27 15.1	d	
	PRI	ePZ	27 44.0	c	
		eSZ	28 34.5		
	MHC	ePZ	27 40.3	d	
		eSZ	28 21.9		
July 14	JAS	iP	10 31 06.7	c	
July 14	JAS	iP	12 23 46.5	c	USCGS: 52°6 N, 168°6 W, 0 = 12 16 34.9.
	MIN	eP	18.9	c	Fox Islands. h about 18 km.
		eZ	30.3	d	
July 14	JAS	eZ	12 39 58.2	c	USCGS: 17°6 S, 69°5 W, 0 = 12 29 56.0.
		iNZ	31.1		Peru-Bolivia border region.
		iEZ	41 14.0	Wc	h about 143 km.
		iZ	19.6	c	
	MIN	eP	25.4	c	
July 14	BKS	eSNEZ	17 22 08	NEc	USCGS: 1°4 N, 90°7 W, 0 = 17 06 48.
		eRNEZ	30 07	WNe	Galapagos Islands region.
	MHC	eP	15 09.1	c	h about 33 km.
	JAS	iP	07.6	d	
July 14	JAS	iP	17 26 57.8	d	USCGS: 1°0 N, 91°1 W, 0 = 17 18 36.
					Galapagos Islands region.
					h about 33 km.
July 14	BKS	eP	18 03 47.4	c	USCGS: 52°6 N, 168°6 W, 0 = 17 55 51.1.
		eSE	08 12	W	Fox Islands. h about 8 km.
		eQN	10 46	N	
		eRNE	11 14	SEd	
	MHC	eP	02 55.0	c	
	JAS	iP	51.8	d	
		iZ	03 09.5	d	
	MIN	iP	02 39.4	d	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1965 (Cont.)			h m s		
July 14	PRI	eP	18 03 07.0	c	
July 14	JAS	iP	18 08 39.8	d	USCGS: 52°6 N, 168°6 W, 0 = 18 01 Fox Islands. h about 27 km.
		iZ	46.5	d	
	MIN	eP	19.6	c	
July 14	JAS	iP	18 13 55.6	d	USCGS: 2°2 N, 95°2 W, 0 = 18 06 02 Galapagos Islands. h about 33
July 15	JAS	iP	08 13 37.1	d	USCGS: 12°9 S, 166°7 E, 0 = 08 01 Santa Cruz Islands.
		iZ	14 09.5	c	h about 106 km.
	MIN	eP	13 38.4	c	
July 15	BKS	eP	14 23 27.6	c	USCGS: 37°3 N, 74°3 W, 0 = 14 16 0 Off east coast of U.S.
		eZ	47.6	c	Planned detonation of surplus explosives aboard SS Costal Mar h about 0 km.
		PZ	.022 0.8		
	MHC	eP	14 23 23.5	d	
	JAS	iP	14.2	d	
		iZ	24 37.7	c	
	MIN	eP	23 16.6	c	
		eZ	24 42.3	c	
July 15	BKS	eP	18 02 15.4	c	USCGS: 30°0 N, 138°7 E, 0 = 17 50 South of Honshu, Japan.
	MHC	eP	19.1	c	h about 407 km.
	JAS	iP	21.4	c	
	MIN	iZ	11.0	d	
July 15	JAS	iZ	18 46 40.9	d	
		iZ	50 01.0	d	
		iZ	51 01.0	d	
July 15	JAS	iP	20 44 28.8	c	USCGS: 23°5 S, 179°8 W, 0 = 20 32 South of Fiji Islands. h abo
	MIN	eZ	32.8	d	
July 16	JAS	iP	07 18 07.9	d	USCGS: 58°7 S, 24°7 W, 0 = 07 00 South Sandwich Islands region.
		iZ	13.9	d	h about 11 km.
July 16	JAS	iP	07 38 14.6	c	
		iZ	20.8	d	
	MIN	eP	18.1	c	
July 16	BKS	eP	10 45 08.0	c	USCGS: 12°1 N, 87°7 W, 0 = 10 34 Near coast of Nicaragua.
		e(PP)	46 20		h about 42 km.
		e(S)	51 52		
		e(R)	56 30		
	JAS	eP	42 04.2	c	
		eZ	43 41.2	c	
	MIN	eZ	42 17.1		
July 16	BKS	eP	12 55 44.0	c	USCGS: 1°2 N, 90°5 W, 0 = 12 47 1 Galapagos Islands region.
		eSNEZ	13 02 41.0	NEc	h about 33 km.
	MHC	eP	55 37.2	c	
	JAS	iP	33.9	d	
		iZ	56 06.7	c	
	MIN	eP	55 55.4	c	
	PRI	eP	29.0	c	
July 16	BKS	eRNEZ	13 55 45.0	NEc	USCGS: 11°8 S, 166°0 E, 0 = 13 17 Santa Cruz Islands. h about
	JAS	iZ	29 43.2	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
65			h m s		
July 16	BKS	eP	22 45 40	c	USCGS: 11°8 S, 166°1 E, 0 = 22 33 16. Santa Cruz Islands. h about 30 km.
		e(ScS)E	56 24	W	Magnitude 5 1/2 (BKS).
		e(PPS)E	57 08	Wc	
		e(SS)NE	23 01 10	SW	
		e(G)NE	07.4		
		e(R)NE	10.9		
			mu sec		
		MaxH	3.0 19		
	MHC	eP	22 45 44.5	c	
	JAS	iP	50.2	c	
		iZ	46 00.2	d	
July 17	BKS	eP	07 33 13.6	c	USCGS: 9°7 S, 159°8 E, 0 = 07 20 30.5. Solomon Islands. h about 23 km.
		e(PcP)	17.3	d	Magnitude 5 1/2 (BKS).
		eSNE	43 42	NE	Felt: Honiara.
		e(PS)N	44 48	NE	
		eNE	48 18	SW	
		eSSNE	49 36	SE	
		eGN	56.2		
		eR	59.2		
			mu sec		
		PZ	0.09 0.8		
		SH	2.06 16		
		MaxH	3.30 19		
	MHC	eP	07 33 15.4	c	
		eZ	49.0	c	
	JAS	eP	19.8	c	
		iZ	38.8	c	
		eSE	43 48.3		
	MIN	iP	33 22.9	c	
		iZ	31.6	d	
	PRI	eP	18.0	c	
		eZ	51.0	c	
July 17	BKS	eP	13 00 50.2	c	USCGS: 7°2 S, 153°6 E, 0 = 12 47 49.4. New Britain region. h about 28 km.
		eSE	11 30	W	
		ePS	12 35	d	
		eG	25.2		
		eR	28.5		
	MHC	eP	00 48.5	d	
	JAS	iP	53.7	c	
		iZ	01 14.0	c	
		iZ	26.7	d	
		eZ	04 09.3	c	
		eSE	11 35.1		
	MIN	iP	01 03.0	d	
	PRI	eP	00 52.9	c	
July 17	BKS	eP	13 11 33.3	d	USCGS: 27°2 S, 177°6 W, 0 = 12 59 10.7. Kermadec Islands. h about 27 km.
		eSNE	21 58	NW	
		e(L)NEZ	32.9		
			mu sec		
		SH	1.44 10		

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965			h m s		
(cont.)					
July 17	MHC	eP	13 11 35.5	c	
	JAS	iP	06.2	d	
		iZ	50.5	d	
		eZ	21 12.9	c	
	MIN	iP	11 45.6	c	
		iZ	49.0	c	
		iZ	12 06.5		
	PRI	eP	11 34.5	c	
July 17	JAS	iP	13 31 26.4	c	
July 17	BKS	eP	16 02 06.2	d	USCGS: 18°0 N, 61°6 W, 0 = 15 52 2
	MHC	eP	03.7	c	Leeward Islands. h about 33 km
	JAS	eP	01 50.3	c	
		iZ	02 34.7	c	
	MIN	eP	03.9	d	
July 17	JAS	iZ	13 28 03.0	d	USCGS: 54°8 N, 161°5 W, 0 = 18 21
		iZ	11.9	c	Alaska Peninsula. h about 30
	MIN	eZ	27 49.4	d	
July 17	JAS	iP	20 14 07.1	d	USCGS: 16°5 S, 167°7 E, 0 = 20 01
					New Hebrides Islands. h about 33 km.
July 17	JAS	iP	20 58 42.9	c	
July 18	JAS	eP	05 45 53.5	c	USCGS: 7°8 N, 142°2 E, 0 = 05 32
	MIN	eP	48.2	c	Caroline Islands region. h about 33 km.
July 18	JAS	iP	07 10 40.3	c	USCGS: 20°5 S, 65°7 W, 0 = 06 58
					Southern Bolivia. h about 77
July 18	JAS	iP	07 30 03.4	c	USCGS: 52°7 N, 163°7 W, 0 = 07 23
	MIN	eP	29 48.7	c	South of Alaska. h about 33
July 18	JAS	iP	08 09 26.3	c	
		iZ	44.3	c	
	MIN	eZ	17.9	c	
July 18	JAS	eP	10 10 12.6	d	USCGS: 46°7 N, 152°5 E, 0 = 09 59
		iZ	21.1	d	Kurile Islands. h about 20 km
July 18	JAS	iP	12 17 02.3	d	
	MIN	eP	01.8	d	
July 18	JAS	iP	13 44 19.5	c	USCGS: 27°2 S, 176°2 W, 0 = 13 31
	MIN	eP	15.7	c	Kermadec Islands. h about 33
July 18	BKS	eP	22 25 21.0	d	USCGS: 45°4 N, 151°3 W, 0 = 22 14
		e(pP)	36.0	c	Kurile Islands. h about 16
		e(S)NE	33 50.0	NE	
		e(L)NE	40.2		
	MHC	eP	25 27.0	d	
		eZ	40.6	c	
	JAS	iP	29.3	c	
		iZ	35.9	c	
	MIN	iP	14.0	c	
		iZ	22.0	c	
		iZ	29.2	d	
	PRI	eP	35.9	d	
		eZ	51.2	d	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
y 19	JAS	eZ	00 14 19.6	c	USCGS: 45°4 N, 151°3 E, 0 = 00 03 52.7.
					Kurile Islands. h about 33 km.
y 19	BKS	eP	04 22 53.0	d	USCGS: 9°2 N, 70°4 W, 0 = 04 13 20.4.
		ePcP	23 55.3	d	Venezuela. h about 33 km.
		eSN	30 28	N	Felt: Widely. Moderate property
		eScS	32 37	N	damage in Trujillo.
		eGNE	36.5		
		eRNEZ	41.2		
			mu sec		
		MaxH	1.58 18		
	MHC	eP	04 22 44.0	c	
		eZ	51.7	d	
	JAS	iP	22 38.4	d	
		i(pP)	56.7	d	
		i(PcP)	23 24.8	c	
	MIN	eP	22 50.3	d	
		eZ	55.5	d	
		iZ	23 19.3	d	
	PRI	eP	22 27.0	c	
		eZ	47.0		
y 19	JAS	iZ	05 53 13.4	d	
y 19	JAS	iP	06 58 44.7	c	USCGS: 28°0 N, 139°7 E, 0 = 06 47 24.3.
	MIN	eP	34.1	c	Bonin Island region. h about 494 km.
y 19	JAS	eP	07 41 52.9	c	USCGS: 54°1 N, 163°4 W, 0 = 07 35 01.1.
					Unimak Island region. h about 42 km.
y 19	JAS	eP	07 48 59.0	d	
y 19	MHC	eP	09 04 53.0	c	USCGS: 6°9 S, 147°4 E, 0 = 08 51 35.0.
	JAS	eP	56.7	d	East New Guinea region.
	MIN	eP	53.3	c	h about 62 km.
	PRI	eP	56.6	c	
y 19	JAS	iP	10 26 17.6	c	USCGS: 48°8 N, 154°2 E, 0 = 10 16 14.6.
	MIN	eP	01.5	c	Kurile Islands. h about 55 km.
y 19	MHC	eP	12 49 33.3	d	USCGS: 28°0 S, 68°8 W, 0 = 12 37 18.9.
	JAS	iP	31.3	d	La Rioja Province, Argentina.
	MIN	eP	51.4	c	h about 62 km.
	PRI	eP	25.6	d	
y 19	JAS	eZ	15 17 04.3	d	USCGS: 26°8 S, 70°9 W, 0 = 15 05 00.2.
					Near coast of northern Chile. h about 36 km.
y 19	JAS	iP	16 58 33.1	d	USCGS: 12°0 S, 165°9 E, 0 = 16 46 05.3.
		iZ	44.2	d	Santa Cruz Islands. h about 55 km.
y 19	JAS	iP	22 22 04.4	c	USCGS: 10°9 N, 85°3 W, 0 = 22 14 24.5.
		iZ	27.3	c	Costa Rica. h about 95 km.
y 20	BKS	eP	00 05 31.0	c	
	MHC	eP	31.7	c	
	JAS	iP	36.6	c	
		iZ	46.6	d	
	PRI	eP	31.1	c	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965			h m s		
July 20	BKS	eP	00 55 16	NWc	
		eNEZ	50	NWc	
		e(S)Z	57 20	c	
		e(R)NE	40		
	MHC	eP	55 09.0	c	
		eZ	43.5	c	
		eZ	56 58.3	c	
		e(S)Z	57 13.5	c	
	JAS	eP	55 08.6	d	
		iN	57 21.6		
	MIN	eZ	55 55.0	d	
	PRI	eP	54 48.5	d	
		e(S)Z	56 55.5	d	
July 20	BKS	eE	01 07 20		
		eN	08 06		
	MHC	e(P)	34 04.3	c	
	JAS	iP	02.8	d	
	PRI	e(P)	33 44.8	d	
July 20	JAS	iP	11 29 51.4	c	
		iZ	30 07.3	c	
	MIN	eZ	29 35.6	c	
		eZ	51.1	c	
July 20	JAS	eZ	13 32 39.7	c	USCGS: 7°5 N, 124°3 E, 0 = 13 18 Mindanao, Pacific Islands. h about 45 km. Felt: Cotabato and Macaybal
July 20	JAS	eP	13 36 20.9	d	
		iZ	58.3	c	
		iZ	37 19.3	c	
	MIN	eP	36 49.0	c	
July 20	JAS	iP	14 05 09.4	c	USCGS: 26°3 S, 176°4 W, 0 = 13 5 South of Fiji Islands. h about 33 km.
		iZ	39.7	c	
	MIN	eZ	14.8	d	
July 21	BKS	e(P)	03 03 29	c	USCGS: 20°8 S, 175°8 W, 0 = 02 5 Tonga Islands. h about 57 km
		eSE	13 20	E	
		eR	26 27		
		eGE	23 07		
			mu sec		
		SH	2.4 9		
		Maxih	5.7 20		
	MHC	eP	03 03 27.7	c	
	JAS	iP	33.6	c	
		iZ	41.6	c	
		iZ	04 15.6	d	
	MIN	eP	03 38.0	d	
		iZ	43.5	d	
	PRI	eP	27.4	c	
July 21	BKS	e(P)	18 01 14.1	c	USCGS: 53°3 N, 170°4 E, 0 = 17 5 Near Islands, Aleutians.
		eSE	08 03	E	
		e(G)	15 20		

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965			h m s		
July 21	BKS	e(R)	18 16 50		
	MHC	e(P)	01 13.0	c	
		eZ	27.3	c	
	JAS	iP	16.1	d	
		iZ	22.5	c	
		iZ	02 39.1	c	
	MIN	iP	01 03.4	c	
		iZ	11.4	c	
July 22	BKS	e(P)	01 27 17.0	c	USCGS: 51°0 N, 176°0 E, 0 = 01 18 50.9. Rat Islands, Aleutians. h about 33 km.
	MHC	e(P)	10.0	c	
	JAS	eP	12.2	d	
		iZ	25.9	d	
	MIN	eP	26 55.4	c	
		iZ	27 01.0	d	
	PRI	e(P)	18.4	d	
		eZ	28.0	d	
July 22	JAS	iP	16 39 43.2	c	USCGS: 16°9 S, 173°2 W, 0 = 16 28 19.4. Tonga Islands. h about 63 km.
July 23	JAS	iP	05 20 21.1	d	
	MIN	eP	25.9	c	
July 23	JAS	eP	11 32 22.5	d	
		iZ	26.5	c	
	MIN	iP	18.9	d	
July 23	JAS	iP	11 44 54.7	d	
	MIN	eP	45 19.8	c	
July 23	BKS	eP	15 23 36.3	c	USCGS: 8°8 S, 79°6 W, 0 = 15 13 19.9. Near coast of northern Peru. h about 25 km.
	MHC	eP	31.0	c	
	JAS	iP	28.4	c	
		iZ	34.8	d	
	PRI	eP	21.5	c	
July 23	JAS	iP	20 30 12.9	c	
		iZ	26.2	c	
	MIN	eP	22.0	c	
July 23	MHC	e(P)	23 33 38.0	d	USCGS: 39°1 S, 85°5 W, 0 = 23 21 26. West Chile Rise. h about 33 km.
	JAS	iP	49.1	c	
	PRI	e(P)	41.0	d	
July 24	MHC	e(P)	01 58 06.0	d	
	PRI	e(P)	57 57.0	c	
July 24	JAS	eP	07 50 31.9	c	USCGS: 5°6 S, 150°8 E, 0 = 07 37 25.5. New Britain region. h about 60 km.
July 24	JAS	iP	11 54 23.2	d	USCGS: 54°8 N, 162°8 E, 0 = 11 45 08.8. Near east coast of Kamchatka. h about 33 km.
		iZ	31.6	d	
	MIN	eP	06.1	c	
July 25	JAS	iZ	03 56 54.4	c	
July 25	JAS	eP	03 59 33.0	c	
	MIN	eP	30.2	c	
July 25	BKS	eR	04 49.0		
	JAS	eZ	12 49.0	c	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965			h m s		
July 25	JAS	eZ	07 23 38.0	c	USCGS: 9°6 S, 159°6 E, 0 = 07 10 5 Solomon Islands. h about 26 km
July 25	BKS	eP	08 40 34.1		USCGS: 23°4 S, 179°9 W, 0 = 08 29 South of Fiji Islands.
	MHC	eP	34.3	c	
	JAS	iP	39.2	c	h about 547 km.
		eZ	45.1	d	
	MIN	eP	43.9	d	
	PRI	eP	33.8		
July 25	JAS	eP	11 29 24.1	c	
	MIN	iZ	28 52.1	c	
July 25	JAS	eP	13 28 13.0	d	
July 25	BKS	eP	13 43 57.0	d	USCGS: 41°3 N, 146°6 E, 0 = 13 33 Off coast of Hokkaido, Japan. h about 33 km.
		eZ	44 07.1		
		eZ	34.0		
	MHC	eP	43 57.2	d	
	JAS	iP	44 04.3	d	
		iZ	08.9		
		iPP	46 32.7	d	
		iZ	46.1	c	
	MIN	eP	43 51.0	d	
		iZ	44 01.8	d	
	PRI	eP	10.5	d	
		eZ	17.5		
July 25	JAS	iP	15 35 43.1	d	
July 25	JAS	iP	15 54 39.2	c	
July 25	BKS	eP	21 54 57.7	d	USCGS: 51°4 N, 176°0 E, 0 = 21 46 Rat Islands, Aleutians. h about 37 km.
		ipP	55 09.2	c	
		iPP	56 51.5	Ed	Magnitude 5 1/4 - 5 1/2 (BKS)
		ePcP	27.0	d	
		eSN	22 01 30.0	Nd	
		eGN	05.5		
		e(R)N	07.6		
			mu sec		
		PZ	0.08 1.0		
	MHC	eP	21 55 03.2	d	
		e(pP)	14.8	c	
	JAS	iP	06.5	NWd	
		iZ	17.3	d	
	MIN	iSN	22 01 51.4		
		eP	21 54 48.9	d	
		iZ	55 00.2	d	
	PRI	eP	14.4	d	
			27.0	c	
July 25	BKS	i(pP)	22 00 12.5	c	
	MHC	eP	04.7	c	
		eZ	17.8	d	
	JAS	iP	08.7	d	
		iZ	21.0	d	
	MIN	iZ	21 59 59.0	d	
	PRI	eP	22 00 18.0	c	
		eZ	30.8	d	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
July 26	JAS	iP	03 44 05.5	d	USCGS: 23°2 S, 179°7 W, 0 = 03 32 37.4. South of Fiji Islands. h about 536 km.
July 26	BKS	e(P)	10 52 49.7	d	USCGS: 16°0 S, 172°7 W, 0 = 10 41 44.1. Samoa Islands region. h about 33 km.
		eZ	53 17.3	d	
		eSN	11 02 12.0	Sd	
		e(G)NE	11.5		
		eR	14.4		
	MHC	e(P)	10 53 04.5	c	
	JAS	eP	11.3	d	
		iZ	20.0	d	
		eZ	56 03.8	d	
	MIN	eP	53 14.7	c	
	PRI	e(P)	04.5	d	
July 26	JAS	iP	13 48 43.9	d	USCGS: 50°2 N, 129°5 W, 0 = 13 45 26. Vancouver Island region. h about 33 km.
		iZ	49 17.9	d	
	MIN	eP	48 09.2	c	
July 26	BKS	iP	15 35 15.2	d	USCGS: 15°8 S, 172°9 W, 0 = 15 23 46.1. Samoa Islands region. h about 25 km.
		e(PK1KP)	41 17	d	Magnitude 5 1/4 (BKS).
		eSNE	44 26	NE	
		eGNE	53.0		
		e(R)NE	56.3		
			mu sec		
		SH	1.24 18		
		MaxH	2.54 23		
	MHC	eP	15 35 08.3	c	
		eZ	26.0	d	
	JAS	iP	21.2	d	
		iZ	28.0	c	
		iZ	36 56.3	c	
	PRI	eP	35 12.1	d	
		eZ	24.7	c	
July 26	BKS	eP	16 29 11.0	d	USCGS: 29°8 N, 138°7 E, 0 = 16 17 49.9. South of Honshu, Japan. h about 402 km.
	JAS	iP	17.1	c	
		iZ	21.9	c	
		iZ	39.9	c	
		iZ	30 47.4	c	
July 26	JAS	iP	18 35 00.1	d	USCGS: 8°3 N, 39°0 W, 0 = 18 23 00.8. Central Mid-Atlantic Ridge. h about 33 km.
		iZ	03.2	d	
		iZ	15.9	d	
July 26	BKS	eP	23 33 24.7	c	
		eZ	34 12.0	c	
July 27	JAS	eP	08 39 28.3	c	USCGS: 34°2 S, 179°1 W, 0 = 08 26 26.1. South of Kermadec Islands. h about 14 km.
	MIN	eZ	43.0	d	
July 27	BKS	eP	11 28 31.7	c	USCGS: 51°2 N, 177°5 E, 0 = 11 20 27.7. Rat Islands, Aleutians. h about 34 km.
		eZ	43.6	c	
		eZ	44 10.0		
		e(R)E	48.0		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
			h m s		
1965 (cont.)					
July 27	MHC	eP	11 28 37.5	c	
		eZ	52.5	c	
	JAS	iP	39.9	c	
		iZ	45.7	c	
		eSE	34 20.0		
	MIN	eP	28 23.1	c	
		iZ	27.2	c	
		iZ	45.8	c	
July 27	JAS	iP	12 57 05.1	d	
July 27	BKS	eP	14 06 35.8	c	USCGS: 33°1 N, 115°9 W, 0 = 14 04
		eS	08 28.0	c	Southern California.
		eNE	12		h about 16 km.
		e(R)Z	08.8		
			mu sec		
		MaxH	1.75 8.0		
	MHC	eP	14 06 16.0	c	
		e(S)	07 47.3	d	
	JAS	eP	06 01.3	c	
		iZ	19.9	d	
		iSE	07 43.3		
	MIN	eZ	17.7		
	PRI	eP	06 03.8	c	
		eZ	16.0	d	
		e(S)	07 42.8		
July 27	BKS	eN	15 21 30		USCGS: 33°0 N, 115°8 W, 0 = 15 1
		eZ	56		Southern California.
	MHC	e(P)	18 51	c	h about 16 km.
	JAS	iP	19 25.4	c	
		iZ	31.9	c	
		iN	20 48.9		
	PRI	e(P)	19 14.0	c	
		eZ	20 36.3	d	
		eZ	21 27.8	d	
July 27	JAS	iP	21 27 15.4	c	USCGS: 40°2 N, 139°2 E, 0 = 21
					Near west coast of Honshu,
					h about 199 km.
July 28	JAS	eP	02 37 19.2	d	USCGS: 36°3 N, 138°7 E, 0 = 05
July 28	JAS	iP	06 10 05.2	d	Honshu, Japan. h about 150
	MIN	eP	09 52.7	d	
July 28	JAS	eP	18 59 13.1	c	USCGS: 42°2 S, 82°8 W, 0 = 18 4
					West Chile Rise. h about 3
July 28	BKS	e(P)	22 47 52.0	d	
	MHC	e(P)	58.2	d	
	JAS	iP	48 08.3	d	
		iZ	22.9	c	
			01.2	d	
July 28	PRI	e(P)	22 50 55.3	c	
	MHC	e(P)	51 06.8	d	
		eZ	20.0	d	
		eZ			

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
			h m s		
July 28	JAS	iZ	22 51 06.9	c	
		iZ	22.6	d	
	PRI	e(P)	50 57.7	d	
		eZ	51 12.0	d	
		eZ	22.5	c	
July 29	JAS	eP	05 38 10.2	d	USCGS: 15°2 S, 172°8 W, 0 = 05 26 55.0.
		iZ	35.0	c	Samoa Islands region.
			26.6	c	h about 33 km.
	MIN	eZ	07 16 30.1	c	
July 29	JAS	iP	07 16 30.1	c	
	MIN	iP	12.4	c	
July 29	BKS	eP	08 36 29.7	d	USCGS: 51°2 N, 171°3 W, 0 = 08 29 22.1.
		eSNE	42 24.0	NE	Fox Islands, Aleutians.
		e(G)	44 52.0		h about 23 km.
			mu sec		Magnitude 6 1/4 - 6 1/2 (BKS).
		PZ	0.91 1.2		
		SH	4.5 15		
	MHC	eP	08 36 36.0	d	
		iZ	43.2	d	
	JAS	iPNE	39.4	NWd	
		iSE	42 35.6		
	MIN	iP	36 20.9	d	
		iZ	27.0	d	
	PRI	eP	47.8	d	
		iZ	55.0	d	
		iZ	37 18.9	d	
July 29	MHC	eZ	09 03 52.4	d	
	MIN	iP	52.6	d	
		iZ	04 06.1	c	
July 29	BKS	eN	12 34 34	N	USCGS: 51°0 N, 171°5 W, 0 = 12 20 22.7.
		eEN	36 24		Aleutian Islands region.
	MHC	eZ	27 37.2	c	h about 33 km.
	JAS	iP	39.7	d	
		iZ	41.0	d	
		iZ	28 07.3	d	
	MIN	eP	27 22.0	c	
July 29	BKS	iP	15 15 44.0	c	USCGS: 51°1 N, 171°3 W, 0 = 15 08 37.0.
		i(PP)	17 17.5	c	Fox Islands, Aleutians.
		e(PcP)E	31.0	c	h about 33 km.
		eSN	21 30.0	Nc	Magnitude 4.8 (BKS).
		e(G)N	24.1		
		eScSE	25.4		
		eRE	25.6		
			mu sec		
		MaxH	1.88 20		
	MHC	eP	15 15 49.3	d	
	JAS	iP	53.0	d	
		iZ	17 26.9	d	
		iZ	19 06.3	d	
	PRI	eP	16 01.3	d	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965			h m s		
July 30	JAS	iP	02 22 57.9	d	USCGS: 22°8 S, 63°7 W, 0 = 02 11 11 Salta Province, Argentina. h about 526 km.
July 30	BKS	iP	05 56 44.3	d	USCGS: 24°3 S, 179°7 W, 0 = 05 45 45 South of Fiji Islands. h about 549 km.
		iZ	57 04.8	c	
	MHC	eP	56 42.3	d	
		eZ	57 00.5	c	
	JAS	iP	56 39.9	c	
		iZ	59.0	c	
	PRI	eP	34.4	c	
		eZ	52.6	d	
		eZ	57 00.0	c	
July 30	BKS	eP	07 29 20.5	d	USCGS: 6°7 N, 73°0 W, 0 = 07 20 11 Northern Colombia. h about 1100 km.
		iZ	37.2	d	
	MHC	eP	16.3	d	Felt: at Bogota, Colombia.
		eZ	30 10.0	c	
	JAS	iP	29 10.2	d	
		iZ	30 05.0	c	
		i(PP)	34 01.4	c	
	MIN	eP	29 23.0	c	
		iZ	30 04.0	c	
July 30	PRI	eP	29 07.4	c	
July 30	BKS	eE	08 23 12	Wc	USCGS: 23°7 S, 179°6 E, 0 = 08 02 02 South of Fiji Islands. h about 541 km.
		eGNE	25.6		
		eRE	26.9		
	JAS	iZ	17 06.4	c	
		iZ	36.4	c	
	MIN	eZ	06.8	c	
July 30	JAS	iP	16 41 56.0	c	USCGS: 1°5 S, 78°1 W, 0 = 16 32 32 Ecuador. h about 164 km.
July 30	BKS	iP	19 10 57.2	c	USCGS: 24°4 S, 67°7 W, 0 = 18 58 58 Chile-Argentina border region. h about 140 km.
		epP	11 31.0	c	
			mu sec		
		PZ	0.06 1.0		
	MHC	eP	19 10 53.3	d	
	JAS	iP	11 51.0	d	
		iZ	12 29.2	c	
	MIN	iP	11 02.4	c	
	PRI	eP	10 46.3	d	
July 31	JAS	iP	03 32 03.8	d	
July 31	JAS	iP	04 08 58.0	d	USCGS: 18°7 N, 107°9 W, 0 = 04 00 00 Off coast of Jalisco, Mexico. h about 33 km.
July 31	JAS	iP	07 23 39.4	c	USCGS: 18°8 N, 108°0 W, 0 = 07 13 13 Revilla Gigedo Island region. h about 22 km.
	MIN	eP	06.4	c	
July 31	JAS	iP	07 48 04.5	c	USCGS: 35°9 N, 142°2 E, 0 = 07 35 35 Off east coast of Honshu, Japan.
		iZ	14.2	c	
	MIN	eP	47 50.8	c	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965			h m s		
July 31	JAS	iP	09 10 21.0	d	USCGS: 18°8 N, 107°6 W, 0 = 09 05 23. Off coast of Jalisco, Mexico. h about 33 km.
July 31	JAS	iP	11 22 00.5	c	USCGS: 56°4 N, 153°3 W, 0 = 11 16 05.6. Kodiak Island region. h about 33 km.
		iZ	47.7	c	
	MIN	iP	21 38.8	c	
		iZ	51.7	d	
July 31	JAS	iP	11 55 05.7	c	USCGS: 19°1 N, 107°9 W, 0 = 11 50 17. Off coast of Jalisco, Mexico. h about 33 km.
July 31	JAS	iP	14 38 12.8	d	USCGS: 26°0 S, 179°7 E, 0 = 14 26 26.6. South of Fiji Islands. h about 444 km.
	MIN	eP	17.3	d	
July 31	JAS	iP	15 55 48.5	d	USCGS: 19°2 S, 177°6 W, 0 = 15 44 44.9. Fiji Islands region. h about 551 km.
July 31	JAS	eP	16 09 20.4	d	
		iZ	30.4	c	
July 31	JAS	iP	20 08 13.5	c	
July 31	BKS	eZ	21 12 10	d	
		e(R)NE	16.7		
	MHC	eP	10 24.0	c	
	JAS	iP	23.0	c	
	MIN	eP	50.8	d	
	PRI	eP	08.7	d	
g. 1	JAS	iP	05 37 07.9	c	USCGS: 56°0 N, 154°2 W, 0 = 05 31 11.4. South of Alaska. h about 33 km.
	MIN	eP	36 48.9	c	
		iZ	37 00.8	d	
g. 1	BKS	e(P)	15 14 36.8	d	USCGS: 46°9 N, 143°8 E, 0 = 15 02 56.1. Sakhalin Island. h about 400 km.
	JAS	iP'	13 09.8	c	
		iPP	35.2	c	
		iZ	14 57.8	d	
	MIN	iP	12 55.1	d	
		ePP	14 22.7	c	
g. 1	JAS	iP	16 50 28.8	c	USCGS: 52°7 N, 153°4 E, 0 = 16 41 13.7. Northwest of Kurile Islands. h about 462 km.
		iZ	51 28.2	c	
		iZ	52 00.3	d	
		iZ	40.8	c	
		iSE	58 00.8		
	MIN	eP	50 12.3	c	
g. 1	JAS	eZ	19 06 24.8	c	USCGS: 13°7 N, 145°6 E, 0 = 18 53 49.9. Mariana Island. h about 33 km.
g. 1	JAS	iP	19 40 15.2	c	
	MIN	eZ	19.0	c	
g. 1	MHC	eP	20 46 52.3	c	USCGS: 13°3 S, 165°8 E, 0 = 20 34 19.6. New Hebrides Islands. h about 28 km.
	JAS	iP	57.3	c	
		iZ	47 28.5	d	

Date	Sta	Phase	Time (GCT)	Ground Motion	Remarks
			h m s		
1965 (cont.)					
Aug. 1	MIN	eZ	20 47 56.3	c	
	PRI	eP	46 54.0	c	
Aug. 1	JAS	iP	23 03 37.0	d	USCGS: 21°5 S, 169°2 E, 0 = 22 5 Loyalty Islands region. h about 33 km.
Aug. 1	BKS	eP	23 57 13.6	c	USCGS: 32°5 S, 178°9 W, 0 = 23 4 South of Kermadec Islands. h about 44 km. Magnitude 5 - 5 1/2 (BKS).
		epP	23.7	c	
		e(S)NE	00 07 36.0	SWc	
		eGN	20.4		
		eRZ	23.7		
			mu sec		
		PZ	0.35 1.6		
		MaxH	2.01 20		
	MHC	eP	23 57 13.0	c	
		epP	26.0		
	JAS	iP	58 18.2	c	
		ipP	31.3	c	
	PRI	eP	57 12.5	c	
		epP	25.0		
Aug. 2	JAS	iP	07 32 37.7	d	USCGS: 59°5 N, 145°6 W, 0 = 07 2 Gulf of Alaska. h about 38
Aug. 2	MIN	eP	13 34 56.0	d	USCGS: 56°2 S, 158°2 E, 0 = 13 Macquarie Island region. h about 33 km. Magnitude 7 3/4 (BKS).
	BKS	eP'	38 32.5	d	
		ePP	39 40	c	
		eSKS	45 40		
		eSS	49 28	c	
		eR	55 21	c	
			mu sec		
		PPZ	9.6 10		
	JAS	iP	35 18.6	d	
		iP'	38 38.5	d	
		iPP	39 44.0	d	
		iZ	40 14.6	d	
	MIN	eP'	38 42.8	d	
		eZ	49 13.2	d	
Aug. 2	BKS	e(P)	14 43 14.5	c	USCGS: 7°4 N, 78°7 W, 0 = 14 34 Panama. h about 22 km.
	MHC	e(P)	09	c	
	JAS	iP	05.3	d	
		iZ	15.3	d	
		iZ	47.5	d	
		iZ	44 35.4	d	
	PRI	e(P)	42 57	c	
Aug. 2	BKS	eZ	14 44 35	c	USCGS: 7°4 N, 78°7 W, 0 = 16 43 Panama. h about 2 km. Magnitude 5 1/4 (BKS).
Aug. 2	BKS	iP	16 52 05.8	d	Felt: At Balboa Heights, Canal Zone
		ePE	08.0	Ed	
		ePP	54 14	c	
		eSN	59 20	Nd	
		e(L)N	17 05.2		
		eNE	06.9		
		e(R)S	07.6		
			mu sec		
		pZ	0.125 1.6		

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
			h m s		
65 (cont.)					
			mu sec		
g. 2		SH	1.95 13		
		MaxH	4.5 20		
	MHC	eP	16 52 00.8	d	
	JAS	iP	51 56.4	d	
		iZ	52 05.5	d	
	MIN	eZ	10.0	d	
	PRI	eP	51 52.3	c	
		eZ	52 11.4	d	
g. 2	JAS	iP	18 13 38.4	d	USCGS: 7°5 N, 78°5 W, 0 = 18 04 56. Panama. h about 33km.
g. 2	JAS	iZ	14 21.1	c	USCGS: 7°7 N, 78°4 W, 0 = 18 44 22.8. Panama. h about 33 km.
g. 2	JAS	iP	18 53 04.9	c	
g. 2	BKS	eP	19 10 20	d	
		ePKP	13 10	d	
		esPKPE	14 30	Ec	
		ePPE	16 14	W	
		esPP	17 18	d	
g. 2	BKS	eP	19 16 48.8	d	USCGS: 7°4 N, 78°8 W, 0 = 19 07 57.1. Panama. h about 33 km. Magnitude 4 3/4 (BKS).
		eZ	54.7	c	
		eZ	17 25.3	d	
		eSNE	24 00	NE	
		eGN	30.0		
		e(R)Z	32.5		
			mu sec		
		SH	0.91 12		
		MaxH	2.2 20		
	MHC	eP	16 43.8	d	
		eZ	55.2	d	
	JAS	iP	37.9	c	
		iZ	47.7	c	
	MIN	eP	54.7	c	
	PRI	e(P)	35.0	d	
		eZ	45.0	c	
g. 2	JAS	eZ	20 52 11.0	d	USCGS: 7°5 N, 78°4 W, 0 = 20 43 30.6. Panama. h about 33 km.
g. 3	BKS	eP	02 11 50.3	c	USCGS: 7°7 S, 81°3 W, 0 = 02 01 52.2. Off coast of northern Peru. h about 49 km. Magnitude 5 1/4 - 5 1/2 (BKS).
		ipP	12 05.0	c	
		iPcP	40.0	d	
		eSNE	20 05	SW	
		eSSNE	24 20	SE	
		eGNE	26.6		
			mu sec		
		PZ	0.104 1.0		
		SH	0.73 14		
		MaxH	1.5 15		
	MHC	eP	02 11 46.7	d	
		epP	59.8	d	
	JAS	iPE	43.7	Ed	
		iPcP	12	d	
		iZ	56.5	d	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
			h m s		
1965 (cont.)					
Aug. 3	MIN	iZ	02 13 45.4	c	
		eP	11 59.0	d	
		iZ	12 20.1	d	
	PRI	eP	11 36.5	d	
		epP	50.7	c	
Aug. 3	JAS	iP	02 36 30.7	c	
		iZ	36.9	c	
Aug. 3	JAS	iP	08 42 35.4	d	USCGS: 34°7 N, 139°1 E, 0 = 08 30 Near south coast of Honshu, J
		iZ	48.9	d	h about 69 km.
	MIN	eZ	25.2	d	
Aug. 3	JAS	iP	08 48 21.9	c	USCGS: 34°9 N, 138°0 E, 0 = 08 36 Near south coast of Honshu, J
		iZ	30.5	d	h about 109 km.
Aug. 3	JAS	iP	09 20 13.3	d	USCGS: 56°7 N, 159°8 W, 0 = 09 17 Alaska Peninsula. h about 58
		iZ	17.6	d	
	MIN	iP	19 56.8	c	
Aug. 3	JAS	iP	14 01 43.8	d	USCGS: 34°7 N, 139°0 E, 0 = 13 50 Near south coast of Honshu, J
	MIN	eP	32.0	c	h about 91 km.
Aug. 3	JAS	iP	14 53 21.9	c	USCGS: 15°9 S, 172°8 W, 0 = 14 44 Samoa Islands region. h about 33 km.
Aug. 3	JAS	iP	15 28 06.2	c	USCGS: 18°7 N, 106°1 W, 0 = 15 22 Off coast of Jalisco, Mexico h about 33 km.
		iZ	42.2	c	
Aug. 3	JAS	iP	18 13 00.0	d	USCGS: 15°5 S, 167°5 E, 0 = 18 00 New Hebrides Islands. h about 126 km.
		iZ	36.5	d	
Aug. 3	JAS	iP	20 04 50.6	d	USCGS: 7°3 N, 78°4 W, 0 = 19 56 Panama. h about 33 km.
Aug. 4	BKS	e(P)	01 12 44.5	d	USCGS: 16°3 N, 94°5 W, 0 = 01 05 Oaxaca, Mexico. h about 117 km.
		e(PP)	46.5	d	
		e(S)NE	19.3		
		e(L)NE	22.3		
		e(R)N	24.5		Magnitude 4 - 4 1/2 (BKS).
			mu sec		
		PZ	.034 1		
	MIC	e(P)	01 12 06.0	d	
	JAS	iP	01.4	d	
		iZ	36.3	d	
	MIN	eP	20.5	c	
	PRI	e(P)	11 54.3	d	
		ePP	12 29.5	d	
Aug. 4	JAS	iP	01 15 21.6	d	
		iZ	30.0	d	
Aug. 4	JAS	eP	07 01 24.2	c	
Aug. 4	BKS	eP	08 59 15.4	c	USCGS: 13°2 S, 167°0 E, 0 = 08 New Hebrides Islands.
		e(sP)	09 00 06.0	d	h about 237 km.
		e(S)NE	09 20.0	SEd	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
			h m s		
65 (cont.)					
Aug. 4		eN	09 10 42	N	
		eE	15 20	W	
		eLNE	21.0	NE	
		eR	25.4		
			mu sec		
		MaxH	1.0 16		
	MIC	e(P)	09 00 07.5	c	
	JAS	iP	08 59 21.4	d	
		iZ	28.4	d	
		i(sP)	09 00 09.3	c	
		iZ	29.3	d	
	MIN	eP	08 59 22.2	d	
		i(sP)	09 00 12.5		
	PRI	e(sP)	09.5	c	
Aug. 4	JAS	iP	12 40 59.3	c	
		iZ	41 21.4	c	
Aug. 4	JAS	iP	17 10 51.4	c	USCGS: 51°1 N, 171°7 W, 0 = 17 03 33. Fox Island, Aleutians. h about 33 km.
		iZ	11 17.5	c	
Aug. 4	JAS	iP	20 17 07.0	c	USCGS: 16°0 N, 98°9 W, 0 = 20 11 08.7. Off coast of Guerrero, Mexico. h about 33 km.
Aug. 5	BKS	eP	00 20 47.5	c	USCGS: 5°3 S, 151°7 E, 0 = 00 07 50.5. New Britain region. h about 47 km.
		ipP	21 06.5	c	
		ePPE	24 22.0	c	
		eSNE	31 26.0	NE	Magnitude 5 3/4 - 6 (BKS).
		ePPSE	32 45.0	Wd	Felt: Eastern New Britain.
		eSSNE	37 30.0	NWd	
		e(SSS)E	41 40.0	Ed	
		eGN	44 24.0		
		eRE	48.3		
			mu sec		
		PZ	0.23 3		
		PPZ	2.02 22		
		SH	4.23 15		
		MaxH	42.5 26		
	MIC	eP	00 20 50.2	c	
		eZ	21 04.4	c	
	JAS	iP	20 53.5	d	
		ipP	21 08.1	c	
		iPP	24 22.6	c	
		iSE	31 25.1		
		i(sS)E	50.0		
	MIN	iP	20 52.4	d	
	PRI	eP	54.2	c	
		eZ	21 08.2	c	
Aug. 5	JAS	iP	00 38 17.4	d	
Aug. 5	JAS	iP	00 46 20.7	d	
Aug. 5	JAS	iP	11 13 11.7	c	USCGS: 15°1 S, 176°9 W, 0 = 11 02 20.1. Fiji Islands region. h about 378 km.

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965			h m s		
Aug. 5	BKS	e(P')	20 09 30.0	d	
		e(pP)	40.0	c	
		e(PP)	10 24.0	c	
		e(G)E	34.7		
		e(R)	39.1		
	MHC	e(P')	09 39.7	d	
	JAS	iP'	34.7	d	
		iPP	10 39.2	c	
	MIN	eP'	09 27.6	c	
		iZ	32.2	d	
	PRI	eP'	42.3	d	
		eZ	56.3	d	
Aug. 6	JAS	iP	02 12 12.1	d	
		iZ	29.4	d	
Aug. 6	JAS	iP	12 28 49.9	c	USCGS: 18°4 S, 169°2 E, 0 = 12 16
		iZ	59.2	c	New Hebrides Islands. h about
Aug. 6	BKS	eP	18 26 05.5	c	USCGS: 41°4 N, 131°2 E, 0 = 18 15
	MHC	eP	09.7	c	Sea of Japan. h about 560 km
	JAS	iP	11.4	Ec	
		iZ	27 32.5	c	
	MIN	iP	25 58.5	c	
	PRI	eP	26 16.9	c	
Aug. 6	JAS	iZ	22 22 45.6	d	
Aug. 7	JAS	iP	03 34 20.8	c	
Aug. 7	JAS	iP	06 56 38.2	c	
		iZ	51.3	d	
	MIN	iP	20.4	c	
		eZ	33.3	d	
Aug. 7	JAS	iP	11 31 22.7	d	USCGS: 31°5 S, 178°0 W, 0 = 11 18
					Kermadec Islands. h about 30
Aug. 7	JAS	iP	12 38 47.2	c	
Aug. 7	JAS	iP	20 04 29.8	c	
Aug. 7	JAS	iP	21 20 50.4	d	USCGS: 61°7 N, 150°8 W, 0 = 21 14
		iZ	21 08.2	c	Southern Alaska.
	MIN	iP	20 27.3	d	h about 33 km.
Aug. 7	JAS	eP	22 38 46.2	c	
Aug. 8	JAS	iP	02 09 22.3	c	
Aug. 8	BKS	e(PP)	05 14 22	d	
		e(SKS)	21 06	d	
		e(SS)N	27 34	S	
		e(G)N	37.5		
		e(R)NE	40.6		
Aug. 8	JAS	iP	05 28 06.8	d	USCGS: 52°6 N, 173°4 E, 0 = 05 18
		iZ	29.8	c	Near Islands, Aleutians.
	MIN	eZ	27 38.9	c	h about 35 km.
		iZ	56.9	c	
Aug. 8	BKS	ipP	06 44 12.5	d	USCGS: 20°3 S, 68°4 W, 0 = 06 31
		esP	27.5	d	Chile - Bolivia border region
	MHC	epP	08.2	d	h about 89 km.
		esP	23.5	d	Felt: At Iquique.

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
Aug. 8	JAS	iP	06 43 36.4	d	
		ipP	44 06.2	d	
		iZ	13.1	c	
		isP	20.3	d	
	MIN	eP	43 46.9	c	
		ipP	44 17.9	c	
	PRI	epP	00.3	d	
		eZ	10.0	c	
Aug. 8	JAS	eZ	10 00 41.2	c	USCGS: 4°1 N, 128°6 E, 0 = 09 46 29.6.
		eZ	04 39.5	c	North of Walmahera.
					h about 51 km.
Aug. 8	JAS	iP	12 24 07.4	d	USCGS: 20°1 S, 66°5 W, 0 = 12 13 07.9.
		iZ	38.0	c	Southern Bolivia. h about 216 km.
Aug. 8	BKS	eP	12 56 49.0	c	USCGS: 51°9 N, 175°3 W, 0 = 12 49 23.1.
		e(pP)	57 03.4	c	Andreanof Islands region, Aleutians.
		iZ	10.5	d	h about 53 km.
		eSNE	13 02 48	NEd	Magnitude 4 1/2 (BKS).
		eNE	05.7		
		eRE	09.3		
			mu sec		
		PZ	0.05 1.0		
		SH	1.24 15		
		MaxH	2.5 26		
	MHC	eP	12 56 58.0	c	
		e(pP)	57 13.8	c	
	JAS	eP	56 57.4	c	
		iZ	57 11.8	c	
		iE	49.8		
		eZ	13 02 44.0	c	
		eSN	03 00.1		
	MIN	eP	12 56 38.9	c	
		iZ	45.3	d	
		iZ	57.2	d	
	PRI	eP	57 06.5	c	
		e(pP)	20.7	c	
Aug. 8	JAS	eP	15 16 32.5	d	
Aug. 8	JAS	eP	22 01 14.1	c	
Aug. 8	JAS	iP	23 05 39.8	d	USCGS: 35°6 S, 104°1 W, 0 = 22 54 02.
					Southern Pacific Ocean.
					h about 33 km.
Aug. 8	JAS	eZ	00 03 27.1	c	
	MIN	eZ	48.6	c	
Aug. 9	JAS	iP	02 52 23.1	c	
Aug. 9	BKS	eP	03 37 25.5	c	
		eZ	31.5	d	USCGS: 52°1 N, 178°4 W, 0 = 03 29 42.3.
		eZ	54.3	d	Andreanof Islands, Aleutians.
		eZ	38 38.4	d	h about 33 km.
	MHC	eP	37 31.3	c	
	JAS	iP	34.4	ESc	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
1965 (cont.)					
Aug. 9	JAS	iZ	03 37 38.8	c	
		iE	58.7		
		e(S)E	43 46.9		
	MIN	iP	37 15.8	c	
		iZ	21.4		
	PRI	eP	42.8	c	
Aug. 9	JAS	iZ	03 43 03.6	d	
	MIN	eP	42 54.1	d	
Aug. 9	JAS	iZ	05 21 13.8	d	
Aug. 9	JAS	eP	08 49 48.4	c	
		iP	50 18.5	d	
		iZ	25.8	c	
		isP	31.4	c	
Aug. 9	JAS	iP	10 29 05.5	c	
		iPP	31 28.9	c	
	MIN	eP	28 52.2	d	USCGS: 34°4 N, 139°0 E, 0 = 10 17 Near south coast of Honshu, J h about 52 km.
Aug. 9	JAS	iP	13 15 19.1	d	USCGS: 26°9 N, 142°7 E, 0 = 13 03 Bonin Island region. h about
		iZ	27.9		
	MIN	eP	08.9	c	
Aug. 9	BKS	eP	23 24 38.9	d	USCGS: 28°6 S, 71°0 W, 0 = 23 12 Central Chile. h about 15 km.
	MHC	eP	35.2	c	Felt: At Copiapo.
		eZ	45.3	d	
	JAS	iP	33.4	c	
		iPcP	45.0	d	
	PRI	eP	27.5	c	
		eZ	37.0	d	
Aug. 10	JAS	iP	00 34 10.3	c	
Aug. 10	JAS	iP	03 24 05.5	d	USCGS: 20°1 S, 170°1 E, 0 = 00 21 New Hebrides Islands. h about
					USCGS: 51°3 N, 176°4 E, 0 = 03 15 Rat Islands, Aleutians.
					h about 33 km.
Aug. 10	JAS	iP	04 14 37.4	c	USCGS: 51°3 N, 171°4 W, 0 = 04 07 Fox Islands, Aleutians. h about
Aug. 10	JAS	iP	08 01 43.3	c	USCGS: 32°2 N, 116°0 W, 0 = 07 59 California-Mexico border regio h about 16 km.
		iE	02 30.0		
		iN	03 21.2		
	MIN	eZ	04 40.9	c	
Aug. 10	JAS	eZ	08 29 16.2	d	USCGS: 61°2 N, 60°1 W, 0 = 08 21 Davis Strait. h about 33 km.
	MIN	iZ	03.0	d	
Aug. 10	JAS	eZ	08 58 44.3	c	USCGS: 15°1 S, 172°9 W, 0 = 08 47 Samoa Islands region. h about
	MIN	eP	48.0	c	Felt: at Leone and American
Aug. 10	JAS	iZ	11 23 51.8	d	USCGS: 52°1 N, 173°0 E, 0 = 11 15 Near Islands, Aleutians.
Aug. 11	MIN	eZ	03 01 39.5	c	USCGS: 15°3 N, 93°1 W, 0 = 02 54 Mexico-Guatemala border regio h about 152 km.

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
1965					
Aug. 11	MIN	eZ	03 22 56.4	c	USCGS: 15°5 S, 166°9 E, 0 = 03 10 07.1. New Hebrides Islands. h about 39 km.
					Felt: At Norsup
Aug. 11	BKS	eP	03 53 32.4	Wd	USCGS: 15°4 S, 166°9 E, 0 = 03 40 56.2. New Hebrides Islands. h about 26 km.
		i(pP)	41.5	d	
		i(PP)	57 04.0		
		eZ	45.4	c	Magnitude 7 (BKS).
		eP'P'	04 19 47.8	d	
		eSNE	03 53.0	SW	
		eSS	09 04.0	d	
		eLg	15.8		
		eR	19.8		
			mu sec		
		PZ	0.33 1.0		
		SH	22.1 18		
	MHC	eP	03 53 31.0	c	
		eZ	43.2	d	
		eZ	04 19 51.5	c	
	MIN	iP	03 53 42.7	d	
		iZ	49.1	d	
		iZ	54 10.7	d	
	PRI	eP	53 32.4	c	
		eZ	35.5	d	
		eZ	44.0	d	
Aug. 11	MHC	e(P)	06 31 08	c	
	PRI	e(P)	21.5		
Aug. 11	MIN	iZ	07 31 28.1	c	USCGS: 15°6 S, 167°2 E, 0 = 07 18 41.8. New Hebrides Islands. h about 12 km.
					Felt: At Norsup
Aug. 11	BKS	eP	18 35 16.6	c	USCGS: 59°6 N, 145°8 W, 0 = 18 29 40.1. Gulf of Alaska. h about 25 km.
	MHC	eP	22.7	d	
		iZ	53.0	d	
	MIN	eP	34 58.2	d	
		iZ	35 03.9	d	
		iZ	20.4	c	
	PRI	eP	36.0	d	
		eZ	36 07.0	c	
Aug. 11	MHC	eP	20 00 17.7	c	USCGS: 15°8 S, 167°1 E, 0 = 19 47 44.0. New Hebrides Islands. h about 36 km.
		eZ	31.0	d	
	MIN	eP	24.8	c	
	PRI	eP	19.3	c	Felt: At Norsup
		eZ	31.8	c	
Aug. 11	BKS	eP	20 05 03.8	d	USCGS: 15°7 S, 167°1 E, 0 = 19 52 29.8. New Hebrides Islands. h about 33 km.
	MHC	eP	04.6	c	
		eZ	19.4	d	
		eZ	08 27.5	c	
	MIN	iP	05 09.2	c	
		iZ	19.7	d	
		ePP	08 18.7	d	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965			h m s		
(cont.)					
Aug. 11	PRI	eP	20 05 06.0	c	
		eZ	21.1	d	
		eZ	08 24.6	c	
Aug. 11	BKS	eP	20 13 26.0	d	USCGS: 6°8 N, 72°9 W, 0 = 20 04 1
	MHC	eP	21.8	d	Northern Colombia.
	MIN	eP	28.4	d	h about 171 km.
	PRI	eP	13.5	d	Felt: At Bogota and Bucarama
Aug. 11	BKS	eP	20 26 30.0	c	
		e(pP)	41.5		
			mu sec		
		PZ	0.1 1.2		
	MHC	eP	20 26 32.0	c	
		eZ	29 50.4	d	
	MIN	eP	26 37.3	d	
		iZ	27 13.2	d	
	PRI	eP	26 33.6	c	
		eZ	29 51.5	d	
Aug. 11	MIN	eZ	21 03 13.0		USCGS: 15°8 S, 166°9 E, 0 = 20 55
					New Hebrides Islands.
					h about 25 km.
Aug. 11	BKS	eP	22 44 22.5	c	USCGS: 15°8 S, 167°2 E, 0 = 22 31
			mu sec		New Hebrides Islands.
		PZ	1.4 3		h about 33 km.
	MHC	eP	22 44 23.6	c	Magnitude 7 1/2-7 3/4 (BKS).
		eZ	38.2	d	Damage on Espiritu Santo
		eZ	47 44.1	d	
		ePKKP	23 02 35.8	d	
	JAS	iP	22 44 30.0	c	
	MIN	eP	28.0	c	
		iZ	46.2	d	
		ePKKP	23 02 36.0	c	
	PRI	eP	22 44 25.0	c	
		eZ	39.2	d	
		eZ	47 44.8	c	
		ePKKP	23 02 36.4	d	
		eZ	47.5	d	
Aug. 11	BKS	eP	23 10 42.0	c	
			mu sec		
		PZ	0.14 2		
	MIN	eP	51.7	c	
	PRI	eP	39.0		
Aug. 12	JAS	iP	01 37 09.7	d	USCGS: 22°9 S, 175°8 W, 0 = 01 25
		iZ	21.5	d	Tonga Islands.
	MIN	eP	13.9	c	h about 33 km.
Aug. 12	JAS	iP	02 20 58.1	c	
Aug. 12	JAS	eP	02 26 53.8	c	
Aug. 12	JAS	eP	02 34 15.2	d	USCGS: 16°1 S, 167°5 E, 0 = 02 21
					New Hebrides Islands. h about

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
Aug. 12	JAS	eZ	03 57 07.3	c	USCGS: 51°3 N, 171°6 W, 0 = 03 50 45.7.
					Fox Islands, Aleutians.
					h about 33 km.
Aug. 12	JAS	iP	04 09 41.4	d	USCGS: 22°8 S, 70°4 W, 0 = 03 57 52.
					Near coast of northern Chile.
					h about 33 km.
Aug. 12	JAS	iP	04 50 52.0	c	
		iZ	52 51.0	c	
Aug. 12	JAS	iP	05 03 39.7	c	
	MIN	eP	41.9	c	
Aug. 12	JAS	iZ	07 39 43.6	c	USCGS: 15°6 S, 167°1 E, 0 = 07 27 04.6.
					New Hebrides Islands. h about 33 km.
Aug. 12	BKS	eP	08 14 16.3	c	USCGS: 15°9 S, 167°5 E, 0 = 08 01 43.3.
		ePP	17 36.0		New Hebrides Islands.
		eS	24 46.0		h about 25 km.
		eSS	30 02.0		Magnitude 6 1/2 (BKS).
			mu sec		Felt: At Port Vila.
		PZ	0.15 1.5		
		PPZ	3.62 17		
	MHC	eP	08 14 19.4	c	
	JAS	iP	24.7	c	
		iZ	42.3	d	
		iZ	17 46.8	c	
		iZ	18 05.7	d	
		eSE	24 49.1		
		iE	58.4		
	MIN	eP	14 24.0	c	
		iZ	42.5	c	
		iZ	59.3	d	
		iZ	16 37.2	d	
Aug. 12	PRI	eP	14 21.0	c	
Aug. 12	JAS	iZ	08 40 32.3	d	
		iZ	40.9	d	
	MIN	eZ	27.0	c	
Aug. 12	PRI	eZ	32.0		
	BKS	e(P)	09 07 49.0		
	MHC	eP	00.0		
	JAS	iP	56.5	c	
		iZ	08 03.8	c	
	MIN	iP	07 22.2	d	
		iZ	40.6	c	
Aug. 12	PRI	eP	08 21.0		
Aug. 12	BKS	eP	13 10 05	c	USCGS: 5°3 S, 152°2 E, 0 = 12 57 09.7.
		ePP	13 43		New Britain region.
		eZ	22 05		h about 41 km.
		eR	38.0		Magnitude 6-6 1/4 (BKS).
	MHC	eP	10 14.0		Felt widely.
	JAS	iP	11.9	c	
		iZ	22.0	d	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
1965 (cont.)					
Aug. 12	JAS	iZ	13 10 24.8	d	
		iZ	11 16.1	d	
		eSE	20 53.2		
		iE	21 13.2		
	MIN	i(P)	10 11.3	d	
		iZ	21.4	d	
	PRI	eP	10.0		
Aug. 12	JAS	eP	13 35 49.5	c	
		iZ	36 00.1	c	
	PRI	e(P)	35 41.0		
Aug. 12	JAS	eP	14 14 16.2	d	USCGS: 5°2 S, 152°3 E, 0 = 14 01 New Britain region. h about
	MLI	eP	12.7	c	Felt: Rabaul.
Aug. 12	JAS	iP	16 25 21.5	d	USCGS: 29°1 S, 69°7 W, 0 = 16 13 Chile-Argentina border regio
		eZ	46.3	c	h about 95 km.
Aug. 12	BKS	e(P)	18 17 28		USCGS: 16°0 S, 167°4 E, 0 = 18 0 New Hebrides Islands.
		eSSS	37 02		h about 45 km.
		eQ	43 30		Magnitude 5.4 (BKS).
		eR	36		Felt: At Port Vila.
		MaxH	mu sec 2.8 20		
	JAS	i(P)	18 17 34.4	d	
		iZ	46.1	d	
		iZ	50.8	c	
		i(PP)	20 56.3	d	
		iZ	21 06.5	d	
	PRI	eP	17 41.0		
Aug. 12	JAS	iP	19 41 29.2	d	USCGS: 16°1 S, 167°0 E, 0 = 19 2 New Hebrides Islands. h about
Aug. 13	JAS	iP	01 04 19.6	Ed	
		iZ	29.3	d	
	MIN	eZ	44.0	d	
		iZ	59.1	c	
Aug. 13	JAS	iP	01 17 36.4		USCGS: 17°6 S, 178°4 W, 0 = 01 0 Fiji Islands region.
					h about 514 km.
Aug. 13	BKS	eP	04 53 31.0	c	USCGS: 15°9 S, 167°5 E, 0 = 04 40 New Hebrides Islands.
		eS	05 04 12.0		h about 34 km.
		eSSS	15 15.0		Magnitude 5.4 (BKS).
		eQ	18.6		
		eR	19.5		
		MaxH	mu sec 2.07 20		
	MHC	eP	04 53 45.5		
	JAS	iP	40.1	d	
		iZ	41.2	d	
		iPP	56 57.0	d	
		iZ	57 19.2	d	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
Aug. 13	MIN	eP	04 53 34.0	c	
		eZ	51.6	c	
			45.5		
Aug. 13	JAS	iP	08 19 46.8	c	USCGS: 15°4 S, 167°3 E, 0 = 08 07 08. New Hebrides Islands. h about 33 km.
Aug. 13	JAS	eP	09 56 51.8	d	
	MIN	eZ	42.1	c	
		eZ	57.9	c	
Aug. 13	JAS	iP	10 00 44.9	d	
Aug. 13	BKS	eP	11 37 26.0	c	USCGS: 16°0 S, 167°0 E, 0 = 11 24 51.8. New Hebrides Islands.
		iZ	33.5		h about 33 km.
		eS	48 37.0		Magnitude 5.8 (BKS).
		eR	12 03 16.0		
		MaxH	mu sec 4.5 20		
	PRI	iP	11 37 33.4	d	
		iZ	41.7	c	
		i(PP)	40 55.4	c	
	MIN	eP	37 33.9	d	
		iZ	38 21.6	d	
	PRI	eP	37 26.0		
Aug. 13	JAS	iP	12 01 14.9	c	USCGS: 15°8 S, 166°8 E, 0 = 11 48 34. New Hebrides Islands.
	MIN	eP	43.1	c	h about 33 km.
Aug. 13	BKS	eP	12 52 43.0	c	USCGS: 15°9 S, 166°8 E, 0 = 12 40 08.3. New Hebrides Islands.
	JAS	iP	50.3	d	h about 33 km.
	MIN	eP	51.8	d	
	PRI	eP	44.0		
Aug. 13	BKS	iP	12 53 02.2	c	Magnitude 7 - 7 1/4 (BKS).
		MaxH	mu sec 48.2 18		
	MHC	eP	12 53 03.0		
	JAS	iP	11.2	c	
		iZ	19.3	c	
		iSN	13 03 39.6		
	MIN	iP	12 53 14.9	c	
		iZ	49.7	d	
	PRI	eP	04.0		
Aug. 13	JAS	iP	14 15 55.9	c	USCGS: 15°8 S, 167°1 E, 0 = 14 03 15. New Hebrides Islands. h about 33 km.
Aug. 13	JAS	iP	15 25 21.4	d	USCGS: 61°2 N, 151°3 W, 0 = 15 19 18.0. Southern Alaska. h about 96 km.
		iZ	47.3	c	
Aug. 13	JAS	eP	15 36 08.8	d	USCGS: 16°9 S, 167°7 E, 0 = 15 23 20.8. New Hebrides Islands. h about 45 km.
Aug. 13	BKS	eP	18 09 08.4	c	
		ePP	12 14.0	c	
		eZ	15 42	d	
		eN	18 16		

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965 (cont.)			h m s		
Aug. 13	BKS	eSN	18 19 40	N	Magnitude 5 1/4-5 3/4 (BKS).
		ePPSNE	21 00	SW	
		eSSNE	25 06		
		eGNE	31.0		
		eRE	35.0		
			mu sec		
		PZ	0.095 1.5		
		SH	1.49 22		
		MaxH	4.8 18		
	MHC	e(P)	18 09 02.0	d	
		eZ	10 16.2	d	
		eZ	12 29.6	c	
	JAS	iP	09 08.3	c	
		iZ	23.3	d	
		iPP	12 29.5	d	
		iZ	40.3	c	
		iZ	17 11.0	c	
	MIN	eZ	09 35.0		
	PRI	eP	04.9	c	
		eZ	10 17.1	d	
		eZ	12 32.2	c	
Aug. 13	JAS	iP	18 20 05.3	c	USCGS: 15°7 S, 167°0 E, 0 = 18 07
		iZ	15.7	d	New Hebrides Islands.
	MIN	eP	15.4	d	h about 33 km.
Aug. 13	JAS	iZ	19 31 03.7	d	USCGS: 16°2, 167°0 E, 0 = 19 18 2
		iZ	32.8	c	New Hebrides Islands. h about
Aug. 13	BKS	eP	22 10 50.0	c	USCGS: 6°4 S, 148°5 E, 0 = 21 57
		e(PP)	13 52.0	c	New Britain region.
		eSNE	21 26	SE	h about 51 km.
		e(PPS)E	23 14	E	Magnitude 5 1/2 (BKS).
		eSSNE	28 20	SEc	
		eGN	36.0		
		eRE	40.2		
			mu sec		
		SH	1.27 24		
		MaxH	5.5 19		
	MHC	eP	22 11 00.5	d	
		eZ	14.5	d	
	JAS	iP	10 56.6	c	
		iZ	59.0	c	
	PPI	eP	11 03.3	d	
		eZ	13.6	c	
Aug. 14	JAS	eP	01 05 26.3	d	
Aug. 14	JAS	iP	09 45 54.2	d	USCGS: 17°8 S, 167°8 E, 0 = 09 35
		iZ	46 00.7	d	New Hebrides Island. h about
					Felt: At Port Vila.
Aug. 14	BKS	e(P)	11 20 26.5	c	USCGS: 15°8 S, 166°8 E, 0 = 11 07
		e(pP)	35.0	c	New Hebrides Islands.
		eZ	21 26.0	d	h about 33 km.
		eSNE	30 52.0	NE	Magnitude 5 1/2 - 5 3/4 (BKS)

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965 (cont.)			h m s		
Aug. 14	BKS	ePPSE	11 31 58.0	W	
		e(SS)NE	35 08.0	NW	
		eGNE	42.6		
		eRNE	46.1		
			mu sec		
		SH	2.42 19		
		MaxH	6.6 21		
	MHC	e(P)	20 23.3	c	
	JAS	iP	28.7	d	
		i(pP)	37.0	d	
	MIN	ipP	33.2	c	
	PRI	e(P)	25.0	d	
Aug. 14	JAS	iP	11 50 43.1	c	USCGS: 40°9 N, 14°2 E, 0 = 11 39 29.
		iZ	51 13.7	c	Near east coast of Honshu, Japan.
					h about 93 km.
Aug. 14	BKS	iP	13 30 27.8	Nd	USCGS: 11°5 S, 166°3 E, 0 = 13 18 06.0.
		eZ	39.0	c	Santa Cruz Islands.
					h about 49 km.
		eSNE	40 15.0		
		eGN	51.5		
		eRNE	55.4		
			mu sec		
		MaxH	4.2 30		
	MHC	eP	13 30 28.2	c	
		eZ	43.0	c	
		eZ	33 53.4	d	
	JAS	iP	30 33.1	c	
		ipP	48.2	c	
		iPP	34 03.1	c	
	MIN	eP	30 35.6	d	
		iZ	47.6	c	
		iZ	26.4	d	
	PRI	eP	31.0	d	
		eZ	45.0	c	
		eZ	59.4	d	
Aug. 14	MIN	eZ	14 26 01.0	c	USCGS: 23°2 S, 175°3 W, 0 = 14 13 50.1.
					Tonga Islands region.
					h about 27 km.
Aug. 14	JAS	iP	14 35 56.9	d	
Aug. 14	JAS	iP	16 17 50.9	d	USCGS: 19°6 S, 178°2 W, 0 = 16 06 45.9.
		iZ	56.7	c	Fiji Islands region.
	MIN	eP	55.0	c	h about 581 km.
Aug. 14	JAS	iP	20 12 35.9	c	USCGS: 15°6 S, 166°6 E, 0 = 20 00 14.
	MIN	e(P)	09.5	c	New Hebrides Islands.
					h about 33 km.
Aug. 15	JAS	iZ	08 30 05.7	c	
Aug. 15	JAS	eP	14 34 00.4	c	USCGS: 16°8 S, 167°2 E, 0 = 14 21 06.8.
		eZ	08.4	c	New Hebrides Islands.
					h about 13 km.

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
1965					
Aug. 15	JAS	iP	19 47 36.4	d	USCGS: 2°7 N, 60°1 W, 0 = 19 36 5 Brazil. h about 33 km.
	MIN	eP	47.0	d	
Aug. 15	BKS	eP	23 17 15.5	c	USCGS: 15°3 S, 173°5 W, 0 = 23 05 Tonga Islands. h about 6 km.
	MHC	eP	15.2	d	
	JAS	iP	22.0	d	
		iZ	31.1	c	
	MIN	iP	26.4	c	
	PRI	eP	15.6	d	
Aug. 16	JAS	iP	04 11 10.3	d	
Aug. 16	JAS	iP	04 47 22.1	c	
		iZ	32.8	d	
	MIN	eP	20.3	d	
		eZ	30.4	d	
Aug. 16	JAS	iZ	10 22 14.7	c	USCGS: 26°1 S, 69°2 W, 0 = 10 10 Northern Chile. h about 86 km.
		iZ	21.9	c	
Aug. 16	BKS	eP	12 26 01.5	d	USCGS: 5°2 N, 77°5 W, 0 = 12 16 4 Near west coast of Colombia. h about 15 km.
		e(pP)	10.0	Wc	
		ePP	28 45.7	d	
		eSNE	33 26.0	d	
		eSNE	37 18.0	NEc	
		e(L)N	38.8		
		e(R)E	42.7		
	MHC	e(P)	25 57.0	d	
		ePP	28 35.5	d	
	JAS	iP	25 52.9	c	
		i(pP)	26 00.3	d	
		iZ	27 06.6	c	
		iPP	28 35.7	d	
		iZ	29 02.2	d	
	MIN	eP	26 06.1	d	
		ipP	14.1	c	
		ePP	28 49.7	d	
	PRI	eP	25 49.2	d	
		eZ	56.2	c	
		ePP	28 32.2	d	
Aug. 16	BKS	e(P)NE	13 02 48.0	SEd	USCGS: 0°6 S, 19°9 W, 0 = 12 36 2 Central mid-Atlantic Ridge. h about 33 km.
		e(SS)NE	08 42.0		
		eLN	17 20.0		
		eRE	23 24.0		
	MHC	e(P)	12 50 11.0	c	
		e(PP)	53 06.0		
	JAS	iP	50 00.8	Nd	
		iZ	19.6	d	
		i(PP)	53 57.9	c	
		iE	54 28.8		
		eE	13 02 56.6		
	MIN	iP	12 50 04.7	d	
		iZ	12.9	c	
	PRI	e(P)	04.4	d	
Aug. 16	JAS	eP	13 06 46.3	d	
		eZ	07 11.7	c	
	MIN	eP	06 52.2	c	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
1965					
Aug. 16	JAS	iP	13 50 03.4	d	USCGS: 20°6 S, 178°8 W, 0 = 13 38 48.6. Fiji Island region. h about 553 km.
		iZ	53 45.0	d	
		iZ	54 04.8	c	
Aug. 16	JAS	iP	14 57 31.8	c	USCGS: 17°4 S, 167°7 E, 0 = 14 44 48. New Hebrides Islands. h about 20 km.
		iZ	50.0	d	
Aug. 16	JAS	iP	15 28 39.3	d	USCGS: 18°8 N, 108°2 W, 0 = 15 23 48. Revilla Gigedo Island region. h about 33 km.
Aug. 16	BKS	eZ	16 50 06.5	c	USCGS: 19°0 S, 167°6 E, 0 = 16 37 12.4. New Hebrides Islands region. h about 14 km.
	MHC	eZ	49 59.8	c	
	JAS	iP	50 04.9	c	
		ipP	24.8	d	
	MIN	eP	01.5	d	
	PRI	eP	05.7	c	
Aug. 16	BKS	eP	17 27 38	d	
		ePP	30 18	d	
		ePPP	32 52	d	
		eSNE	37 30	NE	
		eGNE	49.9		
		eRE	53.3		
			mu sec		
		MaxH	2.3 36		
Aug. 16	JAS	iP	18 04 21.4	c	
	MIN	eZ	32.0	c	
Aug. 16	JAS	iP	18 06 59.5	d	
		iZ	07 21.7	d	
	MIN	eZ	24.8	c	
Aug. 16	JAS	iP	19 55 31.2	c	
Aug. 16	BKS	eP	23 12 00.0	d	USCGS: 17.3 S, 167°8 E, 0 = 22 59 22.9. New Hebrides Islands. h about 33 km. Felt: At Port Vila.
		ePP	15 32	c	
		eZ	18 30	c	
		eSNE	22 28	SW	
		e(L)NE	34.0		
		eR	38.2		
			mu sec		
		MaxH	1.14 20		
	JAS	iP	23 12 04.8	d	
Aug. 17	JAS	iPP	15 13.2	c	
		iP	00 33 17.9	d	USCGS: 35°1 N, 35°2 W, 0 = 00 22 23.9. North Atlantic Ridge. h about 33 km.
Aug. 17	JAS	iP	07 22 26.2	d	
Aug. 17	BKS	eSKSNE	11 12 40	NE	
		eSSSN	23 12		
		eGNE	27		
		eRNE	31		
			mu sec		
		MaxH	5.7 40		
	JAS	ip	10 54 05.2	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
			h m s		
1965 (cont.)					
Aug. 17	JAS	iZ	10 54 27.2	d	
		iPP	56 04.2	d	
		iZ	11 08 15.5	c	
	MIN	eP	10 54 00.9	c	
		iZ	06.0	d	
		iZ	51.8	c	
Aug. 17	JAS	eP	13 17 49.9	c	USCGS: 6°6 S, 147°2 E, 0 = 13 04
		iZ	18 02.4	d	East New Guinea region.
	MIN	eP	17 47.6	c	h about 89 km.
Aug. 17	JAS	iP	13 23 52.9	c	USCGS: 52°0 N, 175°2 W, 0 = 13 1
		iZ	24 02.7	c	Andreanof Islands, Aleutians
	MIN	eP	23 38.3	d	h about 33 km.
Aug. 17	BKS	iZ	14 11 33.0	d	
		eSN	14 30.0	NE	
		eLNE	18.7		
		eR	20.5		
	MHC	eZ	08 55.5	d	
	JAS	iP	51.0	d	
		iPP	09 10.3	d	
		iPP	11 29.2	Ed	
		iPcP	50.4	d	
		isS	15 16.5		
	MIN	eP	09 08.5	c	
	PRI	eZ	08 59.3	d	
Aug. 17	MHC	eP	16 30 18.0	c	USCGS: 15°2 S, 116°6 E, 0 = 16 1
		eZ	32.4	d	New Hebrides Islands.
	JAS	iP	23.0	c	h about 19 km.
		iZ	49.2	c	
		iZ	32 39.4	c	
		iZ	47.4	c	
	MIN	eP	30 24.3	d	
	PRI	eP	20.7	c	
		eZ	32.8	d	
Aug. 17	JAS	iP	20 57 11.8	d	USCGS: 21°1 S, 69°1 W, 0 = 20 43
		iZ	50.3	d	Northern Chile. h about 10
Aug. 17	BKS	eP	22 31 36.0	c	USCGS: 20°4 S, 168°8 E, 0 = 22 1
		ePP	35 26	d	Loyalty Islands. h about 33
		eSE	42 18	Ec	
		e(L)E	55.0		
		e(R)E	59.7		
	MHC	eP	31 36.0	d	
	JAS	iP	41.4	c	
		iZ	49.8	d	
	PRI	eP	36.9	c	
Aug. 18	JAS	eP	02 57 31.7	d	USCGS: 2°4 N, 95°3 W, 0 = 02 49
					Galapagos Islands region.
					h about 33 km.
Aug. 18	JAS	iP	03 32 22.0	d	USCGS: 15°2 S, 166°6 E, 0 = 03
					New Hebrides Islands. h abo

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
			h m s		
Aug. 18	JAS	iP	04 55 43.8	d	USCGS: 61°2 N, 146°2 W, 0 = 04 49 52.
	MIN	iP	23.4	c	Southern Alaska. h about 33 km.
Aug. 18	JAS	iP	06 09 39.8	d	USCGS: 17°4 S, 167°6 E, 0 = 05 56 54.8.
		iZ	46.9	d	New Hebrides Islands.
		iZ	10 08.5	d	h about 24 km.
	MIN	eP	09 40.1	d	
Aug. 18	JAS	iP	10 14 31.8	c	
		iZ	43.8	d	
Aug. 18	BKS	eP	14 26 14	c	USCGS: 23°3 S, 175°3 W, 0 = 14 14 28.6.
		ePP	29 34	d	Tonga Islands region.
		eSNE	36 30	NW	h about 20 km.
		eGNE	46.9		
		eRE	51.4		
	MHC	eP	26 31.9	c	
		eZ	46.7	c	
	JAS	eP	35.8	c	
	MIN	eP	42.9	c	
	PRI	eP	32.1	c	
Aug. 18	BKS	eN	14 47 31.0		USCGS: 23°3 S, 175°3 W, 0 = 14 25 20.2.
	JAS	iP	37 29.9	c	Tonga Islands region. h about 20 km.
		eZ	39 45.2	c	
		iZ	40 58.3	d	
		iZ	41 10.5	d	
Aug. 18	JAS	iP	14 50 51.7	d	USCGS: 23°7 S, 175°3 W, 0 = 14 38 29.5.
	MIN	eP	44.8	c	Tonga Islands region. h about 20 km.
Aug. 18	BKS	eP	15 04 09	d	USCGS: 16°0 S, 167°0 E, 0 = 14 51 29.3.
		e(S)NE	14 40	SW	New Hebrides Islands.
		e(G)NE	26.5		h about 5 km.
		eRNE	29.9		Magnitude 5 3/4 - 6 (BKS).
					Felt: At Port Vila.
		SH	3.76	sec	
		MaxH	18		
			8.5	34	
	MHC	eP	15 04 03.1	d	
		eZ	15.5	c	
		eZ	07 32.7	d	
	JAS	iP	04 15.3	c	
		iZ	34.6	d	
		iZ	07 41.7	d	
	MIN	iP	04 17.5	c	
	PRI	eP	04.0	d	
		eZ	16.5	c	
		eZ	07 26.0	d	
Aug. 18	JAS	iP	16 08 16.9	c	
		iZ	29.4	c	
Aug. 18	MHC	eP	16 55 32.5	c	USCGS: 52°8 N, 176°3 W, 0 = 16 48 08.
		ePP	57 45.6	c	Andreanof Island, Aleutians.
	JAS	iPNE	55 35.9	WSc	h about 172 km.
		iZ	56 17.2	c	
	MIN	iP	55 17.0	c	
	PRI	eP	42.9	d	
		e(pP)	51.4	d	
		ePP	57 47.5	d	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965					
			h m s		
Aug. 18	JAS	iZ	19 06 05.3	c	USCGS: 50°6 N, 130°0 W, 0 = 19 02 Vancouver Island region. h about 33 km.
	MIN	eP	05 24.3	d	
		eZ	52.7	c	
Aug. 19	JAS	iP	01 00 49.0	c	USCGS: 28°1 N, 142°4 E, 0 = 00 48 Bonin Island region. h about 33 km.
	MIN	e(P)	57.4	d	
		eZ	44.7	d	
Aug. 19	JAS	iP	07 45 10.4	d	USCGS: 44°7 N, 132°0 W, 0 = 07 42 Off coast of Oregon. h about 33 km.
	MIN	eP	44 37.5	d	
		iZ	42.0	d	
Aug. 19	JAS	iP	08 04 32.4	d	USCGS: 16°3 S, 167°1 E, 0 = 09 07 New Hebrides Islands. h about 44 km.
Aug. 19	JAS	eP	08 34 23.5	d	
	MIN	eP	27.9	c	
		eZ	39.6	c	USCGS: 20°5 S, 168°9 E, 0 = 16 27 Loyalty Islands. h about 142 km.
Aug. 19	JAS	iP	09 20 11.3	d	
		eZ	23.5	c	
		eZ	27.9	c	USCGS: 52°1 N, 178°3 E, 0 = 18 11 Rat Islands, Aleutians. h about 142 km.
Aug. 19	JAS	iP	16 35 31.7	c	
		eZ	39.6	c	
Aug. 19	MHC	eP	18 23 12.3	c	USCGS: 30°3 N, 138°4 E, 0 = 19 47 South of Honshu, Japan. h about 435 km.
	JAS	iP	15.1	c	
		iZ	24 55.9	c	
	MIN	eP	22 57.1	c	USCGS: 44°6 N, 118°4 W, 0 = 21 07 Oregon. h about 33 km.
	PRI	eP	23 23.5	c	
Aug. 19	MHC	eP	19 58 43.8	c	
	JAS	iP	46.1	c	USCGS: 5°7 S, 128°6 E, 0 = 05 54 Banda Sea. h about 326 km.
		iZ	59 21.7	c	
		iZ	20 00 21.6	c	
	MIN	eP	19 58 31.1	c	USCGS: 22°9 S, 176°3 W, 0 = 21 21 50.9. South of Fiji Islands. h about 77 km. Magnitude 5 3/4 (BKS).
		iZ	35.6	d	
	PRI	eP	50.9	c	
		eZ	58.1	c	USCGS: 32°4 S, 178°1 W, 0 = 01 08 10. South of Kermadec Islands. h about 33 km.
Aug. 19	JAS	iP	20 03 42.6	d	
	MIN	eP	39.2	d	
Aug. 19	JAS	iP	21 03 57.1	c	USCGS: 5°7 S, 128°6 E, 0 = 05 54 Banda Sea. h about 326 km.
		iZ	04 19.6	c	
		iZ	05 03.9	d	
		iZ	46.7	d	USCGS: 5°7 S, 128°6 E, 0 = 05 54 Banda Sea. h about 326 km.
Aug. 20	BKS	e(P)	06 08 39.6	d	
		eP'	12 33.3	c	
		ePP	13 04.7	c	USCGS: 5°7 S, 128°6 E, 0 = 05 54 Banda Sea. h about 326 km.
		iZ	14 46	Wd	
		iSKSNE	18 48	NWd	
		e(PS)NE	22.0		USCGS: 5°7 S, 128°6 E, 0 = 05 54 Banda Sea. h about 326 km.
		eSSNE	28 10		
		e(sSS)NE	30 12		
		eSSSN	32.1		USCGS: 5°7 S, 128°6 E, 0 = 05 54 Banda Sea. h about 326 km.
		eLN	37.0		
		e(R)	40.6		
	MHC	e(P)	08 42.6	d	USCGS: 5°7 S, 128°6 E, 0 = 05 54 Banda Sea. h about 326 km.
		eZ	10 14.0	d	
		ePP	12 05.5	c	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965					
			h m s		
Aug. 20	JAS	eP	06 08 45.7	d	USCGS: 50°6 N, 130°0 W, 0 = 19 02 Vancouver Island region. h about 33 km.
		iZ	33.2	d	
		iZ	11 58.1	c	
		iZ	12 39.5	d	USCGS: 28°1 N, 142°4 E, 0 = 00 48 Bonin Island region. h about 33 km.
		iZ	13 12.6	c	
		iE	17 52.9		
		iE	18 49.9		USCGS: 44°7 N, 132°0 W, 0 = 07 42 Off coast of Oregon. h about 33 km.
		eE	34 08.3		
	MIN	eP	08 39.9	d	
		iZ	50.0	d	USCGS: 16°3 S, 167°1 E, 0 = 09 07 New Hebrides Islands. h about 44 km.
		eZ	11 52.9	c	
		eZ	12 43.0	c	
		eZ	13 13.6	d	USCGS: 20°5 S, 168°9 E, 0 = 16 27 Loyalty Islands. h about 142 km.
		eZ	15 27.5	c	
		eZ	23 53.5	c	
	PRI	e(P)	08 44.8	d	USCGS: 52°1 N, 178°3 E, 0 = 18 11 Rat Islands, Aleutians. h about 142 km.
		eZ	10 20.0	d	
		eZ	12 09.3	d	
Aug. 20	JAS	iZ	06 51 06.5	d	USCGS: 30°3 N, 138°4 E, 0 = 19 47 South of Honshu, Japan. h about 435 km.
Aug. 20	JAS	iP	10 22 47.7	c	
	MIN	eP	21 42.1	c	
Aug. 20	BKS	eP	21 33 48.2	c	USCGS: 22°9 S, 176°3 W, 0 = 21 21 50.9. South of Fiji Islands. h about 77 km. Magnitude 5 3/4 (BKS).
		epP	34 06.2	c	
		iP	33 49.0	Ec	
		ePP	36 06.0	d	USCGS: 32°4 S, 178°1 W, 0 = 01 08 10. South of Kermadec Islands. h about 33 km.
		eSNE	43 46.0	SE	
		eScSNE	44 14.0	NWc	
		eSSNE	49 02.0	NE	USCGS: 32°4 S, 178°1 W, 0 = 01 08 10. South of Kermadec Islands. h about 33 km.
		eGNE	54.0		
		eRNE	57.5		
			mu sec		USCGS: 32°4 S, 178°1 W, 0 = 01 08 10. South of Kermadec Islands. h about 33 km.
		PZ	0.327 0.9		
		SH	3.5 12		
		MaxH	4.6 28		USCGS: 32°4 S, 178°1 W, 0 = 01 08 10. South of Kermadec Islands. h about 33 km.
	MHC	eP	21 23 46.7	c	
		epP	34 07.7	d	
	JAS	iPNE	33 54.4	NEc	USCGS: 32°4 S, 178°1 W, 0 = 01 08 10. South of Kermadec Islands. h about 33 km.
		ipP	11.7	c	
		isP	24.3	d	
		iPP	36 55.8	d	USCGS: 32°4 S, 178°1 W, 0 = 01 08 10. South of Kermadec Islands. h about 33 km.
		iSE	43 56.5	E	
		eScS	44 20.3	S	
		isSNE	30.1	SE	USCGS: 32°4 S, 178°1 W, 0 = 01 08 10. South of Kermadec Islands. h about 33 km.
	MIN	eP	33 58.2	c	
		iZ	34 09.3	d	
		ipP	21.0	c	USCGS: 32°4 S, 178°1 W, 0 = 01 08 10. South of Kermadec Islands. h about 33 km.
	PRI	eP	47.9	c	
		epP	08.2	d	
Aug. 21	JAS	iP	01 21 02.1	c	USCGS: 32°4 S, 178°1 W, 0 = 01 08 10. South of Kermadec Islands. h about 33 km.

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1965			h m s		
Aug. 21	JAS	iP	03 29 11.6	c	USCGS: 22°1 S, 179°5 W, 0 = 03 17 South of Fiji Islands. h about 585 km.
	MIN	eP	16.3	d	
Aug. 21	JAS	iP	06 13 25.6	c	USCGS: 13°6 S, 166°5 E, 0 = 06 00 New Hebrides Islands. h about 79 km.
Aug. 21	JAS	iP	12 51 22.3	d	
Aug. 21	JAS	iP	15 23 25.2	d	
		iZ	34.2	d	
		iZ	24 19.6	c	
Aug. 21	MIC	eP	19 01 10.3	c	USCGS: 18°0 S, 178°5 W, 0 = 18 50 Fiji Islands region. h about 580 km.
	JAS	iP	16.1	c	
		iZ	33.5	NWc	
	MIN	eP	18.8	d	
	PRI	eP	10.2	c	
Aug. 21	JAS	iP	21 32 23.3	d	
Aug. 22	JAS	iP	03 42 23.5	c	USCGS: 19°4 S, 69°8 W, 0 = 03 30 Northern Chile. h about 33 km.
Aug. 22	BKS	e(P)	04 01 23.8	c	
		e(PP)	36.5	c	
		e(S)N	04 04.0	Nc	
		eZ	05.5	d	
		eRNEZ	10 12.0	Sc	
		MaxH	mu sec		
	JAS	iP	2.21 18.0		
		iZ	04 01 17.1	d	
	MIN	eP	30.6	d	
Aug. 22	BKS	e(P)	05 00 20.6	c	
	MIC	e(P)	22.4	c	
	JAS	iP	27.1	c	
		iZ	40.5	d	
	MIN	eP	31.8	d	
	PRI	e(P)	21.4	c	
Aug. 22	JAS	iP	10 52 16.0	d	USCGS: 28°9 S, 175°9 W, 0 = 10 39 Kermadec Islands. h about 15 km.
		iZ	30.0	d	
Aug. 22	JAS	iP	11 04 28.2	d	USCGS: 23°5 S, 175°5 W, 0 = 10 52 Tonga Islands region. h about 50 km.
		iP	40.5	d	
		iZ	48.3	c	
	MIN	eP	33.4	d	
Aug. 22	JAS	iP	12 34 33.1	d	USCGS: 7°8 S, 74°4 W, 0 = 12 24 Peru-Brazil border region. h about 140 km.
	MIN	eP	47.2	d	
Aug. 22	JAS	iP	13 29 32.9	c	USCGS: 50°6 N, 150°1 E, 0 = 13 20 Northwest of Kurile Islands. h about 487 km.
Aug. 23	MIC	eZ	13 35 45.4	c	USCGS: 49°2 N, 129°0 W, 0 = 13 32 Vancouver Island region. h about 33 km.
	JAS	iP	42.4	c	
	MIN	iP	07.4	c	
	PRI	eZ	02.5	d	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
1965			h m s		
Aug. 23	BKS	e(L)E	14 50 10		USCGS: 40°5 N, 26°1 E, 0 = 14 08 58.1. Turkey. h about 33 km.
		e(R)	15 01.3		
		MaxH	mu sec		
	JAS	eP	3.5 22		
Aug. 23	JAS	iP	14 22 34.8	c	USCGS: 10°3 S, 161°3 E, 0 = 17 13 30.1. Solomon Islands. h about 81 km.
		iP	17 26 09.6	d	
Aug. 23	BKS	e(P)NE	19 52 27.6	NW	USCGS: 16°3 N, 95°8 W, 0 = 19 46 02.9. Oaxaca, Mexico. h about 28 km. Magnitude 7 1/4 (BKS). Five killed in Mexico City and one at Oaxaca, Mexico.
		eSWE	57 41.6	NE	
		e(Lr)NE	20 01 08.0		
		e(ScS)NE	03 17.0	SE	
		e(PP)	53 17.0	NE	
		e(PcP)	55 38.0	NE	
		iS	57 44		
		i(Lg)	59.8		
		MaxH	mu sec		
	MIC	eP	624 11		
		eZ	19 52 18.5	d	
		eZ	20.8	c	
	JAS	iP	20 02 47.8	c	
		iZ	19 52 15.1	c	
	MIN	eP	17.1	NWc	
		eSE	36.9	c	
		eN	58 01.0		
	PRI	eP	20 02.5		
		eZ	19 52 06.6	c	
		eZ	09.1	c	
Aug. 23	JAS	iP	20 02 11.5	c	USCGS: 30°8 S, 178°1 W, 0 = 21 29 59. Kermadec Islands region. h about 49 km.
		iZ	21 42 40.1	c	
	MIN	iP	51.2	d	
Aug. 23	JAS	iP	22 23 07.1	d	USCGS: 3°7 S, 151°2 E, 0 = 22 09 51.4. New Ireland region. h about 33 km.
		iZ	26 32.4	d	
	MIN	eP	22 57.8	d	
Aug. 23	JAS	eP	23 18 58.9	c	USCGS: 16°2 N, 95°5 W, 0 = 23 12 27.1. Oaxaca, Mexico. h about 33 km.
Aug. 23	JAS	eP	23 23 01.7	c	
		eE	29 28		
Aug. 24	BKS	eP	01 02 31	c	USCGS: 15°9 N, 96°2 W, 0 = 00 56 21.4. Near coast of Oaxaca, Mexico. h about 12 km. Aftershock of Mexico earthquake at 19:52 on 8/23/65.
		eZ	04 04.6	c	
	MIC	eP	02 38.2	c	
		eZ	40.6	c	
	JAS	iP	37.2	c	
		iZ	44.0	c	
	MIN	eP	03 48.7	c	
		iZ	02 56.7	c	
	PRI	eP	03 11.3	c	
		eZ	02 26.0	c	
			28.7	c	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965			h m s		
Aug. 24	MHC	eP	01 07 16.3	c	USCGS: 16°2 N, 96°2 W, 0 = 01 01
	JAS	iP	12.7	c	Oaxaca, Mexico. h about 31 km
		iZ	18.3	d	Aftershock of Mexico earthquake
		iZ	53.3	c	at 19:52.
		iZ	08 11.1	d	
		iZ	10 10.4	d	
	MIN	eP	07 32.2	c	
	PRI	eP	04.3	c	
Aug. 24	BKS	eP	07 18 23.0	SWd	USCGS: 21°9 S, 177°3 W, 0 = 07 06
		eZ	29.0	d	Fiji Islands region.
		epP	19 30.8	c	h about 290 km.
		eZ	21 23.0	c	Magnitude 4 3/4 (BKS).
			mu sec		
		PZ	0.10 0.8		
	MHC	eP	07 18 23.6	d	
		epP	19 30.8	d	
	JAS	iP	18 28.6	d	
		iPcP	32.7	d	
		ipP	36.7	c	
		iPP	21 32.7	c	
		iSE	25 12.2		
		eN	36.1		
	MIN	eP	18 32.3	d	
		iZ	46.6	c	
	PRI	eP	23.0	d	
		epP	19 30.3	d	
Aug. 24	BKS	e(P)	10 02 10.3	c	USCGS: 33°7 S, 72°0 W, 0 = 09 50
	MHC	eZ	53.3	d	Near coast of central Chile.
	JAS	iP	03 00.9	c	h about 54 km.
		iZ	22.6	c	
		iZ	42.1	d	
	MIN	eP	14.6	c	
	PRI	eZ	02 51.3	d	
Aug. 24	BKS	eP	13 17 51.8	d	USCGS: 59°4 N, 145°6 W, 0 = 13 12
		eZ	18 09.6	c	Gulf of Alaska. h about 19 km
		eSNEZ	22 34.0	NEc	Magnitude 5 1/4 (BKS).
		e(Lg)(N)E	23 30.0	SW	
		e(R)NZ	24 42.0		
			mu sec		
		PZ	0.78 3.0		
		SH	2.24 12.0		
		MaxH	6.43 12.0		
	MHC	eP	13 18 01.5	d	
	JAS	iP	00.7	d	
		iZ	50.1	c	
	MIN	eP	17 36.0	c	
	PRI	eP	18 15.3	d	
Aug. 25	JAS	eP	03 11 59.7	c	USCGS: 19°9 S, 176°1 W, 0 = 03 00
					Fiji Islands region. h about

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965			h m s		
Aug. 25	JAS	iP	09 15 27.3	d	
	MIN	eP	17.6	c	
Aug. 25	JAS	iP	14 37 45.7	c	USCGS: 22°1 S, 113°9 W, 0 = 14 27 39.8.
					Easter Island region. h about 33 km.
Aug. 25	BKS	eP	15 01 57.8	d	USCGS: 17°3 S, 69°6 W, 0 = 14 50 36.3.
		ipP	02 34.5	d	Peru-Bolivia border region.
	MHC	eP	01 54.2	d	h about 147 km.
		epP	02 30.2	c	
	JAS	iP	01 51.3	d	
		iPcP	58.3	c	
		ipP	02 30.8	d	
	MIN	iP	03.6	c	
	PRI	eP	01 46.0	d	
		epP	02 22.0	c	
Aug. 25	JAS	iP	16 17 35.9	c	USCGS: 51°9 N, 168°0 W, 0 = 16 10 37.
					Fox Islands. h about 33 km.
Aug. 26	BKS	e(P)Z	12 55 42.3	c	USCGS: 33°1 N, 116°0 W, 0 = 12 53 50.
	MIN	ePZ	56 06.4	c	Southern California. h about 16 km.
	JAS	iPZ	55 21.4	c	Magnitude 4.3 (BKS).
	PRI	e(P)Z	55 09.8	d	
Aug. 26	MHC	e(P)Z	55 27.8	d	
Aug. 26	BKS	ePZ	13 39 59.3	c	USCGS: 33°1 N, 116°0 W, 0 = 13 38 12.5.
	MIN	ePZ	40 35.1	c	Southern California. h about 16 km.
	JAS	iPZ	40 28.5	c	Magnitude 5.0 (BKS).
	PRI	e(P)Z	39 29.8	c	
	MHC	e(P)Z	39 45.5	c	
Aug. 27	JAS	iP	07 22 56.8	d	USCGS: 27°8 N, 142°6 E, 0 = 07 10 57.
		iZ	23 12.1	c	Bonin Island region. h about 33 km.
Aug. 27	MHC	e(P)	18 32 35.6	c	USCGS: 44°6 N, 148°9 E, 0 = 18 22 02.8.
	JAS	iP	40.9	d	Kurile Islands. h about 38 km.
		iZ	46.3	d	
		iZ	53.2	c	
		i(PP)	34 15.4	d	
	PRI	e(P)	32 47.5	d	
Aug. 28	JAS	iP	18 43 22.7	c	USCGS: 27°7 S, 177°8 W, 0 = 18 31 08.9.
		iZ	44 06.5	c	Kermadec Islands.
	MIN	eP	43 17.1	d	h about 180 km.
Aug. 28	JAS	iP	20 44 43.2	c	
		iZ	45 40.0	c	
Aug. 29	BKS	eP	01 52 56.5	c	USCGS: 14°1 N, 90°5 W, 0 = 01 45 57.3.
		eZ	53 13.5	d	Guatemala. h about 107 km.
		eSNE	58 42.0	NE	Magnitude 4 1/4 - 5 (BKS).
		e(G)NE	02 01.5		
		e(ScS)	02.7		
		e(R)	04.7		
			mu sec		
		PZ	0.04 0.8		
		MaxH	2.8 20		
	MHC	eP	01 52 51.0	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
			h m s		
1965 (cont.)					
Aug. 29	MHC	e(PcP)	01 55 15.5	c	
	JAS	iP	52 46.5	c	
		ipP	53 03.0	d	
		isP	19.4	c	
		iPcP	55 13.9	c	
		iZ	26.8	d	
	MIN	iP	53 03.9	c	
		iZ	20.4	d	
		iZ	40.7	c	
		isP	46.3	d	
		iPcP	55 19.4	d	
	PRI	eP	52 39.5	c	
		eZ	55.7	c	
		e(PcP)	55 11.5	c	
Aug. 29	JAS	iP	01 58 54.4	d	
		iZ	59 33.6	d	
Aug. 29	JAS	i(P)	02 47 46.5	d	USCGS: 19°2 S, 167°7 E, 0 = 02 31
		iZ	48 38.6	d	New Hebrides Islands region.
	MIN	eP	47 51.8	c	h about 33 km.
Aug. 29	BKS	eP	12 59 10.4	d	USCGS: 15°7 S, 167°6 E, 0 = 12 40
		iZ	24.2	d	New Hebrides Islands.
		e(S)N	13 15 14.0	S	h about 10 km.
		eLgNE	21 16.0		
		eRFZ	25.4		
	MHC	eP	12 59 09.7	c	
	JAS	eP	10.0	c	
		iZ	16.2	c	
		ipP	13 02 34.4	c	
	MIN	eP	12 59 17.3	c	
		iZ	29.6	c	
	PRI	(e)P	11.1	c	
		eZ	24.5	c	
Aug. 29	BKS	(e)P	13 08 07.5	c	USCGS: 15°7 S, 167°5 E, 0 = 12 50
		eZ	15.3	d	New Hebrides Islands.
	MHC	eP	09.4	d	h about 33 km.
		eZ	16.9	d	
	JAS	iP	14.6	d	
		iZ	21.0	c	
	MIN	iP	15.1	c	
		iZ	23.5	d	
	PRI	eP	10.8	d	
		eZ	18.4	d	
Aug. 29	JAS	iP	14 00 29.0	d	USCGS: 15°8 S, 167°5 E, 0 = 13 40
		iZ	42.3	c	New Hebrides Islands. h about
Aug. 29	BKS	eP	14 08 14.3	c	USCGS: 17°7 S, 178°9 W, 0 = 13 50
	MHC	eP	15.2	c	Fiji Islands. h about 571 km
		eZ	10 16.1	c	
	JAS	iP	08 20.9	c	
		iZ	40.5	c	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks
			h m s		
1965 (cont.)					
Aug. 29	JAS	iPP	14 10 21.3	d	
	MIN	iP	08 24.0	d	
		ePP	10 23.3	c	
	PRI	eP	08 15.4	c	
		eZ	10 18.8	c	
Aug. 29	BKS	e(P)	14 20 37.0	c	
	MHC	e(P)	38.8	d	
	JAS	iP	44.0	d	
		iZ	50.4	d	
	PRI	e(P)	40.5	d	
Aug. 29	JAS	iP	18 44 06.4	c	USCGS: 15°7 S, 167°6 E, 0 = 18 31 25.0.
		iZ	20.8	c	New Hebrides Islands.
		eP	07.6	d	h about 18 km.
Aug. 29	JAS	iP	18 51 04.7	d	
Aug. 30	JAS	iP	01 08 52.2	c	USCGS: 16°9 S, 167°2 E, 0 = 00 56 05.3.
					New Hebrides Islands. h about 8 km.
Aug. 30	JAS	eP	02 29 26.3	c	USCGS: 17°1 S, 167°2 E, 0 = 02 16 39.9.
					New Hebrides Islands. h about 18 km.
Aug. 30	BKS	eP	03 44 36.6	c	USCGS: 16°9 S, 167°4 E, 0 = 03 32 02.2.
		eZ	50.0	d	New Hebrides Islands.
		eSNE	55 20.0	NE	h about 15 km.
		eNE	04 00.5		Magnitude 5 1/4 - 5 1/2 (BKS).
		e(G)NE	07.0		
		eREZ	10.8		
			mu sec		
		SH	1.7 18		
		MaxH	2.48 18		
	MHC	e(P)	03 44 42.0	c	
	JAS	iP	48.3	d	
		iZ	45 05.5	c	
		iPP	48 21.0	d	
		ipPP	27.6	c	
	MIN	eP	44 48.7	d	
		iZ	31.5	d	
	PRI	eP	43.6	c	
Aug. 30	JAS	iP	18 28 45.8	c	
	MIN	eP	42.4	d	
Aug. 31	JAS	iP	02 42 43.4	d	USCGS: 39°8 N, 138°5 E, 0 = 02 31 08.
	MIN	eP	30.5	c	Eastern Sea of Japan. h about 30 km.
Aug. 31	JAS	iP	07 59 58.5	c	USCGS: 43°5 N, 144°2 E, 0 = 07 48 57.3.
		iZ	08 00 08.4	d	Hokkaido, Japan.
	MIN	eP	07 59 34.6	c	h about 33 km.
		iZ	08 00 17.7	c	
Aug. 31	JAS	iP	08 15 34.9	c	USCGS: 43°4 N, 144°4 E, 0 = 08 04 34.
	MIN	eP	15.0	d	Hokkaido, Japan.
		iZ	30.3	d	h about 33 km.
Aug. 31	JAS	iP	09 25 08.6	c	USCGS: 1°0 N, 27°8 W, 0 = 09 12 00.9.
		iZ	17.2	d	Central Mid-Atlantic Ridge.
					h about 33 km.

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965			h m s		
Aug. 31	JAS	iP	10 04 09.8	c	
		iZ	58.8	c	
	MIN	eP	02.8	c	
Aug. 31	JAS	iP	11 48 01.4	c	USCGS: 52°3 N, 171°6 E, 0 = 11 39 21. Near Islands, Aleutians. h about 33 km.
	MIN	eP	47 49.6	c	
Aug. 31	JAS	iP	16 49 16.3	c	USCGS: 15°5 S, 166°6 E, 0 = 16 36 35.7 New Hebrides Islands. h about 33 km.
		iZ	32.5	c	
Aug. 31	JAS	iP	19 55 04.2	d	USCGS: 17°0 N, 145°2 E, 0 = 19 43 14.5 Mariana Islands. h about 339 km.
		iZ	19.8	d	
		ePP	58 18.5	c	
	MIN	iP	54 57.2	d	
		iZ	55 06.2	c	
Aug. 31	JAS	iP	23 24 58.9	d	USCGS: 13°5 N, 92°0 W, 0 = 23 18 07. Off coast of Chiapas, Mexico. h about 33 km.
Sept. 1	BKS	eP	04 38 37.0	d	USCGS: 51°3 N, 150°6 E, 0 = 04 29 21.8 Sea of Okhotsk. h about 537 km.
		epP	39 17.3	d	
	MHC	eP	38 42.7	d	
		eZ	40 40.0	c	
	JAS	iP	38 44.7	d	
		iZ	59.9	c	
		ipP	39 21.5	d	
		iPP	40 30.0	d	
		ipPP	41 21.3	d	
	MIN	iP	38 23.3	d	
		ipP	39 13.2	c	
		ePP	40 13.6	d	
	PRI	eP	38 52.2	d	
		epP	39 26.4	d	
		eZ	40 52.7	c	
Sept. 1	BKS	eP	05 00 23.8	Sd	USCGS: 34°6 S, 179°6 E, 0 = 04 47 34.8 South of Kermadec Islands. h about 107 km. Magnitude 6 1/4 (BKS).
		epP	50.0	d	
		ePP	04 12.0	Ec	
		eSKS	10 40.0	SMc	
		eSN	11 16.0	N	
		eGNE	24.2		
		eRNE	27.8		
			mu sec		
		PZ	0.19 1.3		
		SH	1.4 10		
	MHC	eP	05 00 23.7	d	
	JAS	iP	28.1	d	
		ipP	54.7	d	
		iZ	01 27.3	c	
		iZ	02 13.9	d	
		iPP	04 13.1	d	
		eSKSE	10 49.2		

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965			h m s		
(cont.)					
Sept. 1	JAS	eSE	05 11 23.0		
		isSE	12 07.8		
	MIN	eP	00 33.2	d	
		iZ	44.1	c	
		eZ	02 28.0	c	
		ePP	04 24.1	c	
	PRI	eP	00 22.7	d	
		eZ	35.8	d	
Sept. 1	BKS	eP	06 50 46.5	c	USCGS: 14°5 S, 167°4 E, 0 = 06 38 36.2. New Hebrides Islands. h about 189 km. Magnitude 4 3/4 - 5 (BKS). Felt at Santo.
		eZ	51 32.0	c	
		eSNE	07 00 53.0	SW	
		ePPSNE	02 22.0	SW	
		eSSNE	06 26.0	SE	
		e(Lg)NE	13.3		
		e(R)EZ	16.4		
			mu sec		
		pZ	0.043 1.0		
	MHC	eP	06 50 48.2	c	
		eZ	51 32.8	d	
	JAS	iP	50 53.4	c	
		iPcP	51 07.4	c	
		iZ	38.1	d	
		i(PP)	53 32.6	d	
		iZ	54 54.7	d	
	MIN	eP	50 54.3	c	
		iZ	51 18.6	d	
		iZ	40.0	c	
	PRI	eP	50 49.7	c	
		eZ	51 34.4	d	
Sept. 1	JAS	iP	07 14 12.1	d	USCGS: 34°2 N, 138°9 E, 0 = 07 02 20.9. Near southern coast of Honshu, Japan. h about 48 km.
	MIN	eP	01.3	d	
Sept. 1	JAS	iP	07 45 04.3	c	USCGS: 18°5 S, 172°9 W, 0 = 07 33 37. Tonga Islands region. h about 119 km.
	MIN	eP	10.6	d	
Sept. 1	JAS	iP	16 42 25.0	c	USCGS: 17°0 S, 177°4 W, 0 = 16 31 14.8. Fiji Islands. h about 394 km.
Sept. 2	JAS	eP	00 03 31.4	NE	USCGS: 18°0 S, 178°1 W, 0 = 23 52 35.7. Fiji Islands region. h about 620 km.
Sept. 2	JAS	eP	00 31 22.2	W	USCGS: 44°1 N, 149° E, 0 = 00 20 31.3. Kurile Islands. h about 33 km.
Sept. 2	BKS	eN	02 11 42	S	USCGS: 29°0 N, 112°9 W, 0 = 02 08 02.1. Gulf of California. h about 33 km.
		eNEZ	13 20		
		eRZ	14 22		
			mu sec		
		MaxH	6.55 20		
	MHC	e(P)	02 10 40.7	d	
	PRI	eP	22.5	c	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965			h m s		
Sept. 2	BKS	eP	04 34 51.5	c	USCGS: 51°9 N, 175°5 E, 0 = 04 26 37.3. Rat Islands, Aleutians. h about 31 km. Magnitude 4 1/2 - 5 (EKS).
		eZ	56.0	d	
		eZ	35 00.0	d	
		eZ	21.8	d	
		eSE	41 22.0	E	
		eLgNE	44.7		
			mu sec		
		PZ	0.05 1.2		
		SH	2.9 19		
		MaxH	2.8 22		
	MHC	eP	04 34 56.7	d	
		eZ	35 05.3	c	
		eZ	36 35.0	d	
	JAS	iP	34 50.3	c	
		iZ	35 08.2	c	
iZ		32.2	c		
MIN	iSE	41 46.4			
	iE	57.0			
	eE	42 14.4			
	eZ	34 43.4	c		
	iZ	52.4	d		
PRI	iZ	35 14.4	d		
	eP	34 59.0	d		
	eZ	35 08.6	d		
Sept. 2	BKS	eP	04 40 21.5	d	
		eZ	41.7	d	
		eP	25.2	c	
JAS	iP	26.2	c		
	iZ	29.6	d		
	iZ	41 07.0	c		
MIN	iP	40 18.1	c		
	eP	31.3	c		
Sept. 2	JAS	eP	10 53 54.6	c	
	MIN	eP	22.7	d	
Sept. 2	JAS	iP	11 40 38.4	c	USCGS: 48°3 N, 127°9 W, 0 = 11 37 52. Vancouver Island region. h about 33 km.
	MIN	eP	04.0	d	
Sept. 2	JAS	iP	13 02 20.9	c	
	MIN	eZ	22.2	c	
Sept. 2	JAS	iP	13 31 40.0	d	
	MIN	eP	05.5	c	
Sept. 2	MHC	eZ	32.9	c	
		e(P)	14 05 20.4	c	
		eZ	26.7	c	
JAS	iP	27.2	d		
	MIN	iP	04 53.7	d	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks	
1965			h m s			
Sept. 2	BKS	eP	15 45 07	Sc	USCGS: 49°1 N, 129°0 W, 0 = 15 42 15.7. Vancouver Island region. h about 33 km.	
		eNEZ	46 22	SEc		
		eE	47 18			
		e(R)Z	48			
		e(P)	45 15.7	c		
		iP	15.4	d		
	MIN	eP	46 29.5			
		eP	44 31.8	c		
		iP	18 04 09.3	d		
	JAS	iZ	17.0	d		
		iZ	24.3	c		
		eZ	05 25.0			
	Sept. 2	MIN	eP	03 34.6	c	
		JAS	iP	18 41 31.5	c	
	Sept. 2	JAS	eP	19 39 23.8	c	USCGS: 43°9 N, 149°2 E, 0 = 19 28 36.5. Kurile Islands region. h about 43 km.
iP			19 44 22.2	c		
Sept. 2	MIN	iP	43 41.5	c	USCGS: 48°3 N, 128°4 W, 0 = 19 41 25. Vancouver Island region. h about 33 km.	
		iZ	21 19 33.4	c		
Sept. 2	JAS	iZ	20 07.6	c	USCGS: 48°3 N, 128°3 W, 0 = 21 16 44. Vancouver Island region. h about 33 km.	
		eZ	18 59.4	c		
Sept. 2	JAS	iP	21 30 07.4	d	USCGS: 48°4 N, 128°2 W, 0 = 21 27 16. Vancouver Island region. h about 19 km.	
		iZ	22.4	d		
Sept. 3	MIN	iP	29 34.2	d		
		eP	00 32 48.7	c		
Sept. 3	JAS	iN	33 23.1	c		
		eP	32 46.0	c		
Sept. 3	MIN	eP	02 35 07.4	d	USCGS: 23°5 S, 179°8 W, 0 = 02 23 38. South of Fiji Islands. h about 533 km.	
		eP	11.9	d		
Sept. 3	JAS	iP	04 45 20.2	d	USCGS: 48°2 N, 128°7 W, 0 = 04 42 38. Vancouver Island region. h about 33 km.	
		iP	44 56.2	c		
Sept. 3	JAS	iZ	45 12.7	d	USCGS: 27°6 S, 63°0 W, 0 = 05 42 24.9. Santiago Del Estero Province, Argentina. h about 581 km.	
		iP	05 53 59.0	c		
Sept. 3	MIN	iZ	54 08.4	d	USCGS: 20°6 S, 69°0 W, 0 = 10 44 30.0. Northern Chile. h about 98 km.	
		eP	10.5	d		
Sept. 3	JAS	iP	10 56 05.9	d	USCGS: 51°9 N, 176°1 E, 0 = 16 18 51.3. Rat Islands, Aleutians. h about 39 km.	
		iZ	12.7	c		
Sept. 3	JAS	iP	16 27 10.9	c	USCGS: 16°0 S, 167°4 E, 0 = 20 33 37. New Hebrides Islands. h about 44 km.	
		iP	20 46 29.7	c		
Sept. 3	JAS	iP	21 52 10.0	d	Felt: At Espirito Santo USCGS: 5°2 S, 153°7 E, 0 = 21 38 53.6. New Ireland region. h about 54 km.	
		iPP	55 28.2	d		
Sept. 4	JAS	eP	03 36 39.1	c	USCGS: 18°7 N, 144°8 E, 0 = 03 25 39.9. Mariana Islands. h about 218 km.	
		eZ	37 30.2	d		

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks	
1965			h m s			
Sept. 4	BKS	e(P)	07 56 12.8		USCGS: 52°0 N, 170°4 W, 0 = 07 48 45.1. Fox Islands, Aleutians. h about 38 km.	
		eSNEZ	08 01 30			
		e(Q)NE	04 16			
		eRNEZ	05 30			
	JAS	iP	56 00.3	d		
		iZ	09.9	d		
		iZ	31.7	d		
	MIN	eP	55 41.7	c		
		eZ	56 09.7	c		
	Sept. 4	BKS	eP	10 30 05.5	d	USCGS: 46°6 N, 153°5 E, 0 = 10 19 51.3. Kurile Islands. h about 27 km.
eZ			31 10			
eZ			33 08			
JAS		iP	30 03.0	c		
		iZ	08.2	d		
		iZ	55.5	d		
MIN		iP	29 54.9	d		
		iZ	30 09.8	c		
		iZ	38.5	c		
		iZ	38.5	c		
Sept. 4	BKS	eP	10 35 19.5	c		
		eSNEZ	38 14			
		eZNE	44.5			
		e(R)Z	46 14			
	Sept. 4	BKS	MaxH	mu sec		USCGS: 58°2 N, 152°6 W, 0 = 14 32 47.9. Kodiak Island region. h about 19 km. Magnitude 6 3/4 - 7 (BKS). Felt: Aboard USC and GSS Surveyor located at 58°57'N, 151°23'W and in a wide area of south central Alaska. Also felt at Kodiak AFB.
			iP	14 38 43.0	d	
			eS	43 35.0		
			eZ	44 05.0		
			eG	45 06.0		
			PZ	mu sec		
MaxH			445 20			
MHC			eP	14 38 49.0	d	
JAS			iFNE	49.7	NWd	
			iSE	43 39.6		
MIN	i(SS)E	44 27.8				
	iP	38 28.3	d			
	iE	49.8				
	e(PP)E	40 01.0				
	eE	44.9				
	eE	44.9				
Sept. 4	BKS	eP	39 02.8	d		
		e(P)	21 49 18.2			
		eZ	50 12.3			
		eSNEZ	59 06.0			
	JAS	eGF	22 10.0		Magnitude 5 1/4 (BKS).	
		eRZ	13.2			
		MaxH	mu sec			
		iP	21 49 13.4	d		
		iZ	29.6	d		
		eP	32.3	c		

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks				
1965			h m s						
(cont.)									
Sept. 4	MIN	eZ	21 50 15.4	c					
		e(P)	49 06.5						
Sept. 5	JAS	eP	10 08 39.8	c					
		eP	08.4	d					
Sept. 6	JAS	eP	07 56 25.5	c					
Sept. 6	BKS	iP	11 52 47.0	c	USCGS: 46°6 N, 152°7 E, 0 = 11 42 36.8. Kurile Islands. h about 33 km.				
		e(P)	51.7						
	JAS	iP	54.9	SEc					
		iZ	53 10.9	d					
		eP	01.4	c					
	Sept. 6	JAS	iP	12 54 40.3		d			
	Sept. 6	JAS	iP	13 29 20.8		d			
	Sept. 6	BKS	e(P)	21 21 41		c	USCGS: 6°2 S, 151°2 E, 0 = 13 16 01.1. New Britain region. h about 41 km. USCGS: 6°6 N, 84°4 W, 0 = 21 13 30.5. Off coast of Central America. h about 21 km. Magnitude 5 1/4 (BKS).		
			eSNEZ	28 50					
			eSSNE	32.5					
eCNE			34.4						
eRNE			36.8						
MaxH			mu sec						
MHC			eP	21 21 52.4	d				
JAS			iP	48.2	d				
			iZ	22 15.2	c				
			eP	22.2	c				
Sept. 7	JAS	iP	06 28 14.9	c					
Sept. 7	BKS	eP	07 09 31.8	c	USCGS: 24°3 N, 142°6 E, 0 = 06 57 24.8. Volcano Islands region. h about 16 km. Magnitude 5 1/4 (BKS).				
		epP	38.6						
		eSE	19.4						
		eRNEZ	33.5						
		MaxH	mu sec						
		MHC	eP	07 09 34.7					
		JAS	iP	38.2		c			
			iZ	44.6		c			
			iZ	54.3		d			
		Sept. 7	JAS	eP		08 06 10.2	c		
Sept. 7	JAS	iP	08 41 31.0	d	USCGS: 15°6 S, 167°1 E, 0 = 08 28 51.2. New Hebrides Islands. h about 29 km. Felt: At Espirito Santo.				
		iZ	39.6	c					
		iZ	42 37.6	c					
		iZ	41 41.0	c					
		iZ	52.2	c					
		MIN	iP	41 41.0		c			
			eZ	52.2		c			
		Sept. 7	BKS	iP		11 25 15.1	c		
		Sept. 7	BKS	MHC		eP	15.6	c	USCGS: 18°5 S, 177°3 W, 0 = 11 14 06.4. Fiji Islands region. h about 391 km.
				JAS		iP	21.5	NEc	
	iZ			37.4	c				
	iZ			56.1	d				
	iZ			28 21.3	c				
MIN	iP			25 25.0	d				
	iZ			39.3	d				
	eP			15.4	c				

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965			h m s		
Sept. 7	JAS	iP	15 52 02.9	c	USCGS: 18°2 N, 144°2 E, 0 = 15 40 05. Mariana Islands. h about 293 km.
Sept. 8	JAS	iP	01 21 17.4	c	USCGS: 18°7 N, 108°2 W, 0 = 01 16 21. Revilla Gigedo Islands. h about 33 km.
Sept. 8	BKS	iP	03 32 09.8	d	USCGS: 57°5 N, 152°1 W, 0 = 03 26 20.7. Kodiak Island region. h about 25 km. Magnitude 5.0 (BKS). Alaska Peninsula aftershock.
		e(S)	36 36		
		eSE	57		
		eZ	37 46		
		eQN	38 26		
		eRE	40.0		
			mu sec		
		PZ	1.0 8		
		MaxH	4.2 20		
	MHC	eP	03 32 16.1	d	
	JAS	iP	16.7	d	
		iZ	23.6	d	
		i(PP)	33 08.8	d	
		eSNE	37 08.2		
	MIN	iP	31 54.7	d	
		iZ	58.6	c	
		iZ	32 12.3	c	
		iZ	33 41.3	d	
	PRI	eP	32 29.5	d	
Sept. 8	JAS	iP	03 39 07.3	d	
		iZ	18.7	c	
		e(PP)	43 04.6	c	
	MIN	eP	38 58.5	c	
Sept. 8	JAS	iP	04 44 01.6	d	USCGS: 19°3 N, 108°0 W, 0 = 04 39 15. Revilla Gigedo Island region. h about 33 km.
		eZ	30.0	d	
	MIN	eP	27.5	c	
Sept. 8	JAS	iP	05 29 02.8	c	USCGS: 19°3 N, 108°1 W, 0 = 05 24 14. Revilla Gigedo Island region. h about 33 km.
	MIN	eP	37.8	c	
Sept. 8	BKS	iP	07 13 29.6	d	USCGS: 19°2 N, 145°3 E, 0 = 07 01 31.8. Mariana Islands. h about 139 km.
	MHC	eP	32.9	d	
	JAS	iP	36.2	SWd	
		iZ	41.6	d	
		iZ	14 12.8	W	
	MIN	iP	13 27.6	d	
		iZ	32.6	c	
	PRI	eP	39.1	d	
Sept. 8	BKS	eP	11 22 28.1	(c)	USCGS: 55°7 N, 155°4 W, 0 = 11 16 34.4. South of Alaska. h about 33 km. Magnitude 4 3/4 (BKS).
		eS	27 10.5		
		eNE	28 56		
		eRNEZ	29 30		
			mu sec		
		SH	2.9 16		
	MHC	eP	11 22 35.0		

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965			h m s		
(cont.)					
Sept. 8	JAS	iP	11 22 35.3	d	
		iZ	43.4	c	
		iPcP	23 05.4	d	
		iZ	37.9	c	
	MIN	iP	22 14.9	d	
		iZ	25.4	d	
		iPcP	23 01.7	d	
	PRI	eP	22 48		
Sept. 8	JAS	iP	11 29 21.3	c	
		iZ	31.3	c	
	MIN	eP	13.9	c	
Sept. 8	BKS	iP	11 57 58.7	c	
	MHC	eP	58.5	d	
	JAS	iP	58 03.6	d	USCGS: 27°2 S, 176°7 W, 0 = 11 45 42.1. Kermadec Islands. h about 70 km.
		iZ	16.4	c	
		iZ	34.1	d	
	PRI	eP	57.6	d	
Sept. 8	JAS	iP	13 35 53.4	c	USCGS: 5°4 S, 104°5 W, 0 = 13 27 33. Northern Easter Island Cordillera. h about 33 km.
		iZ	57.9	c	
Sept. 8	JAS	iP	14 25 56.5	c	USCGS: 15°5 S, 166°6 E, 0 = 14 13 15.4. New Hebrides Islands. h about 33 km.
		iZ	26 09.1	d	
		e(PP)	29 17.3	c	
Sept. 9	MHC	eP	04 50 44.1		Felt: At Espirito Santo
	JAS	iP	56.1	c	USCGS: 43°5 N, 144°0 E, 0 = 04 39 43.5. Hokkaido, Japan region. h about 33 km.
		iZ	55.6	c	
		iZ	51 08.5	c	
	MIN	iP	50 32.3	d	
	PRI	e(P)	53.0		
Sept. 9	BKS	e(P)	10 10 50.5	d	USCGS: 6°5 N, 84°4 W, 0 = 10 02 25.4. Off coast of Central America. h about 27 km. Magnitude 6 3/4 - 7 (BKS).
		iPNE	57	c	
		ePP	12 51		
		eSE	17 43		
		eS(ULP)	18 28		
		eScSE	19 56		
		eSSNE	21 22		
		eGNE	23.1		
		eR	25 15		
			mu sec		
		PPZ	2.6 10		
		SH	28.0 21		
		MaxH	485.0 20		
	MHC	eP	10 10 46.4	d	
	JAS	iP	43.0	c	
		i(PP)	47.1	c	
		iZ	11 08.0	d	
		i(PP)	12 28.6	c	
		eSE	17		

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965 (cont.)			h m s		
Sept. 9	JAS	e(SS)E	10 20		
	MIN	eP	10 58.9	c	
		ipP	11 03.3	c	
		iZ	22.1	d	
		i(PP)	12 57.7	c	
	PRI	eP	10 36.0	(d)	
Sept. 9	JAS	iP	23 03 23.1	c	USCGS: 18°6 N, 100°6 W, 0 = 22 57 44.0. Guerrero, Mexico. h about 92 km.
Sept. 10	BKS	eP	07 32 20.0	c	USCGS: 15°9 S, 162°7 E, 0 = 07 19 27.8. New Hebrides Islands.
		eR	59.0		
	JAS	iP	32 09.4	c	h about 35 km.
		iZ	17.2	d	Felt: At Norsup.
		i(pP)	26.3	c	
	MIN	eP	28.1	c	
		eZ	33 07.0	d	
	PRI	eP	32 22.9	c	
Sept. 10	JAS	iP	08 56 29.6	c	USCGS: 18°9 S, 169°4 E, 0 = 08 44 10.1. New Hebrides Islands h about 234 km.
Sept. 10	JAS	iP	15 50 38.3	d	USCGS: 20°6 S, 178°7 W, 0 = 15 39 29.9. Fiji Islands region. h about 605 km.
	MIN	iP	42.2	c	
Sept. 10	BKS	eZ	17 59 02		USCGS: 44°0 N, 128° W, 0 = 17 57 11.7. Off coast of Oregon. h about 11 km.
		eR	18 00 48		
	JAS	iP	17 59 13.2	NEc	
		iZ	28.1	d	
Sept. 10	JAS	iP	19 37 21.4	c	USCGS: 37°4 N, 141°1 E, 0 = 19 25 52.7. Near east coast of Honshu, Japan.
		iZ	40.4	c	
	MIN	iP	09.0	d	
Sept. 10	BKS	iPZ	21 28 42.0	d	BRK: 38°0 N, 121°8 W, 0 = 21 38 11. Near Antioch, California. Magnitude 4.8 (BKS).
	MIN	iPZ	29 12.4	c	
		iSE	42.0		
	JAS	iPEZ	28 53.0	c	Felt: Antioch, Berkely, San Francisco, Sacramento.
	PRI	ePZ	29 07.7	d	Maximum intensity VI.
	MHC	iPZ	28 47.0	d	
Sept. 11	BKS	e(P)	07 05 51		USCGS: 5°3 S, 153°0 E, 0 = 06 53 01.5. New Britain region. h about 67 km. Magnitude 5.7 (BKS). Felt: At Rabaul.
		ePPE	09 20		
		eSNE	16 20		
		eGN	17 44		
		eGN	29 40		
		eRZ	33 46		
			mu sec		
		PPZ	1.0 15		
		SH	2.4 16		
		MaxH	2.75 20		
	MHC	eP	07 05 47.0		
	JAS	eP	57.3	d	
		iZ	06 08.4	d	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965 (cont.)			h m s		
Sept. 11	JAS	iPP	07 09 33.4	c	
		eSE	16 27.7		
	MIN	eP	05 55.0	c	
		iZ	06 14.9	d	
		ePP	09 27.1	d	
	PRI	eP	05 56.0	d	
Sept. 11	MIN	iP	07 18 02.4	d	USCGS: 50°0 N, 129°5 W, 0 = 07 13 23. Vancouver Island region. h about 33 km.
		eZ	24 09.7	d	
Sept. 11	JAS	iP	16 59 22.1	c	USCGS: 57°0 N, 34°2 W, 0 = 16 49 35.8. North Atlantic Ocean. h about 33 km.
Sept. 12	JAS	iP	03 23 27.8	c	USCGS: 21°7 N, 145°8 E, 0 = 03 11 21. Mariana Islands region. h about 33 km.
Sept. 12	JAS	iP	06 16 40.4	Ec	
Sept. 12	BKS	iP	07 10 45.0	c	USCGS: 11°2 S, 166°4 E, 0 = 06 53 33.8. Santa Cruz Islands. h about 124 km.
		epP	11 18		
	MHC	eP	10 46.4	c	
	JAS	iP	51.9	c	
		iZ	56.4	d	
		ipP	11 24.2	d	
		iPP	14 06.9	c	
		eZ	13.7	d	
	MIN	eP	10 51.2	c	
	PRI	eP	48.5	c	
Sept. 12	BKS	eP	08 53 14.0	c	USCGS: 6°3 S, 151°6 E, 0 = 08 40 12.8. New Britain region. h about 48 km. Magnitude 6 - 6 1/4 (BKS). Felt: At Rabaul.
		eSE	09 03 46		
		eSS	10 03		
		eGN	17.0		
		eRNE	21 16		
			mu sec		
		SH	3.4 16		
		MaxH	17 20		
	MHC	eP	08 53 15.6	c	
	JAS	iP	19.4	c	
		iPcP	29.1	d	
		iPP	57 02.9	c	
		iSKSE	09 03 53.8		
		ePSE	05 34.1		
	PRI	eP	08 53 19.2	c	
Sept. 12	BKS	eP	20 33 12.4		USCGS: 36°4 S, 97°8 W, 0 = 20 21 19.4. Southeast Central Pacific Ocean. h about 33 km.
		eGNE	54.0		
		eR	57.8		
	MHC	eP	33 03.0		
	JAS	iP	09.7	d	
		iZ	16.1	c	
		iZ	34 00.1	c	
	MIN	eP	33 29.5	c	
		iZ	34 16.5	d	
	PRI	eP	33 01.1	d	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965					
Sept. 12	JAS	iP	21 34 42.9	c	USCGS: 52°9 N, 158°5 E, 0 = 21 25 06. Near east coast of Kamchatka. h about 33 km.
Sept. 12	BKS	eP	22 06 19.1		USCGS: 21°6 N, 142°9 E, 0 = 21 54 40.7.
	MHC	eP	23.8	c	Mariana Islands region.
	JAS	iP	26.9	c	h about 319 km.
		iZ	36.9	d	
	MIN	iP	18.2	c	
	PRI	eP	30.2	c	
Sept. 12	BKS	eP'	22 22 14.0	d	USCGS: 6°4 S, 70°8 E, 0 = 22 02 34.3. Chagos Archipelago region. h about 33 km.
		eZ	24		
		eSSE	46.0		
		eSSNE	50 26		Magnitude 7 (BKS).
		eG	23 04.0		
	MHC	eP'	22 22 13.0	c	
	JAS	iP'	14.0	d	
		iN	26.4	s	
		iPP	25 38.9	c	
	MIN	eP'	22 07.5	d	
		iZ	17.4	d	
		iZ	23 56.1	d	
		iPP	25 23.9	c	
	PRI	eP'	22 17.2	c	
		e(P'2)	21.5		
Sept. 12	JAS	iP	22 39 05.5	c	
	MIN	iP	38 43.8	d	
Sept. 13	JAS	iP	00 53 11.1	d	USCGS: 51°9 N, 171°9 W, 0 = 00 45 56. Fox Islands, Aleutians. h about 79 km.
Sept. 13	BKS	eP	13 16 42.0	d	USCGS: 55°5 N, 165°7 E, 0 = 13 07 48.3. Komandorsky Island region. h about 23 km.
		eSNE	24 08		
		eSS	27 50		
		eGN	29 12		Magnitude 5 1/4 (BKS).
		eR	32.5		
			mu sec		
		MaxH	3.5 20		
	MHC	eP	13 16 49.2	c	
	JAS	iP	51.4	d	
		iZ	57.1	d	
		iZ	17 07.6	d	
		eSNE	24 09		
	PRI	eP	17 00.5	c	
Sept. 13	JAS	eP	13 35 09.1	c	
Sept. 13	JAS	iZ	15 54 00.0	d	USCGS: 55°4 N, 165°9 E, 0 = 15 44 59. Komandorsky Islands region. h about 78 km.
Sept. 13	BKS	eP	16 27 38		USCGS: 36°5 S, 97°5 W, 0 = 16 15 44.5. Southeast Central Pacific Ocean. h about 33 km.
		eSNE	37 34		
		eNE	42		

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965					
(cont.)					
Sept. 13	BKS	eGE	16 48.4		Magnitude 5 3/4 - 6 (BKS).
		eR	52.2		
			mu sec		
		MaxH	7 20		
	MHC	eP	16 27 35.8	c	
	JAS	iP	36.8	c	
		iPcP	43.5	c	
		ipP	28 20.7	c	
	PRI	eP	27 28.0	c	
Sept. 13	JAS	eP	19 36 41.0	d	USCGS: 20°9 S, 178°8 W, 0 = 19 25 30.8. Fiji Islands region. h about 598 km.
Sept. 13	JAS	eP	20 15 10.1	d	USCGS: 51°9 N, 173°0 E, 0 = 20 06 32. Near Islands, Aleutians. h about 33 km.
Sept. 13	JAS	iP	21 41 37.8	d	USCGS: 49°1 N, 155°8 E, 0 = 21 31 45. Kurile Islands. h about 78 km.
Sept. 14	BKS	eP	07 38 33.8		USCGS: 16°6 S, 173°3 W, 0 = 07 27 16.1. Tonga Islands. h about 95 km.
	MHC	eP	34.5	d	
	JAS	iP	30.4	d	
		ipP	39 03.7	d	
	MIN	eP	38 45.9	c	
		eZ	39 19.3	c	
	PRI	eP	38 34.4	d	
Sept. 14	JAS	eP	08 45 24.6	d	
Sept. 14	JAS	iP	14 26 33.7	c	USCGS: 51°4 N, 174°6 E, 0 = 14 18 03.5. Near Islands, Aleutians. h about 11 km.
		iZ	42.0	c	
		iZ	32 00.4	d	
Sept. 14	JAS	iP	23 01 16.8	d	USCGS: 25°5 N, 124°7 E, 0 = 22 48 20.6. N.E. of Taiwan. h about 132 km.
Sept. 14	JAS	iP	23 47 26.7	d	USCGS: 20°2 S, 168°7 E, 0 = 23 34 41.4. Loyalty Islands. h about 46 km.
Sept. 15	JAS	eP	10 20 20.2	d	USCGS: 6°4 S, 154°0 E, 0 = 10 07 22.6. Solomon Islands. h about 76 km.
		ePP	23 30.4	c	
Sept. 15	JAS	eP	13 29 10.4	d	USCGS: 52°1 N, 170°6 W, 0 = 13 21 57.1. Fox Islands, Aleutians. h about 43 km.
		iZ	58.0	d	
Sept. 15	MIN	eP	20 57 41.4	c	
		eZ	52.2	c	
Sept. 16	BKS	ePZ	04 11 15.5	d	BRK: 40°5 N, 125°8 W, 0 = 04 10 08. Off of Cape Mendocino. Magnitude 5.0 (BKS).
		eSN	56.8		
	MIN	iPNEZ	11 09.8	NEC	
	JAS	iPNEZ	11 33.0	NEC	
	PRI	ePZ	11 45.5	d	
	MHC	ePZ	11 26.4	c	
Sept. 16	JAS	iP	13 35 33.2	c	USCGS: 50°5 N, 150°5 E, 0 = 13 25 58.9. N.W. of Kurile Islands. h about 427 km.

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks			
1965								
			h m s					
Sept. 16	JAS	iP	14 03 54.4	d				
		iZ	04 11.9	c				
		iZ	21.7	d				
		iZ	07 14.2	c				
		iZ	08 09.1	c				
Sept. 16	JAS	iP	15 09 12.7	c	USCGS: 57°6 N, 151°9 W, 0 = 15 03 18. Kodiak Island region. h about 33 km.			
		iZ	18.5	d				
Sept. 16	JAS	iP	19 58 15.4	d	USCGS: 37°2 N, 74°3 W, 0 = 19 51 08.4. Off east coast of U.S. Planned detonation of surplus explosives aboard S.S.Santiago Iglesias. Chase IV.			
		iZ	59 40.4	c				
		PRI	e(P)	58 17				
Sept. 16	MHC	eP	20 15 10.3	c				
		iP	15.8	c				
		iZ	24.5	c				
		PRI	eP	12.1		c		
Sept. 17	BKS	iP	11 23 22.8	c	USCGS: 1°4 S, 77°6 W, 0 = 11 13 56.4. Ecuador. h about 190 km. Magnitude 5 1/2 - 6 (BKS). Felt: At Guavaquil and Quito.			
		ipP	24 07.3	d				
		eZ	25 19.3	c				
		eSNEZ	31 04	NEc				
		esSNEZ	32 18	SWc				
			mu sec					
			PZ	0.269	0.9			
			SH	18.1	20			
Sept. 17	MHC	eP	11 23 18.2	c				
		eZ	24 00.7					
		PRI	eP	23 08.2		c		
Sept. 17	MHC	epP	50.6	d				
		e(P)	13 32 29.5	c				
Sept. 17	JAS	eP	16 01 07		USCGS: 36°5 N, 141°4 E, 0 = 13 20 58.3. Near east coast of Honshu, Japan. h about 45 km.			
Sept. 17	JAS	eP	16 01 07		USCGS: 13°7 S, 167°2 E, 0 = 15 48 54.2. New Hebrides Islands. h about 200 km. Felt: At Espirito Santo.			
Sept. 17	BKS	iP	16 32 49.3	d	USCGS: 36°3 N, 141°1 E, 0 = 16 21 21.9. Near east coast of Honshu, Japan. h about 72 km. Magnitude 6 1/2 (BKS).			
		ipP	33 01.0	c				
		eSE	42 14	NE				
		eSS	47.0					
		eL	51.5					
		eR	54.3					
						mu sec		
						SH	20	20
						MaxH	34	28
		Sept. 17	MHC	eP		32 53.0	d	
epP	33 03.0			c				
eZ	34 10							
Sept. 17	MIN	iP	32 44.1	c				
		iZ	55.7	c				
Sept. 17	MIN	iZ	33 59.4	d				
		iZ	33 59.4	d				
Sept. 17	PRI	eP	32 59.5	c				

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks			
1965								
			h m s					
Sept. 18	BKS	eP	20 52 13		USCGS: 59°5 N, 145°1 W, 0 = 20 46 39.2. Gulf of Alaska. h about 22 km.			
		eS	56.0					
		eR	57.8					
		MHC	eP	52 20.1		c		
		JAS	iP	19.6		c		
Sept. 18	JAS	iP	51 56.9	c				
		iZ	52 11.5	c				
		PRI	eP	33.3		c		
		iP	23 38 54.4	c				
		iZ	20.0	d				
Sept. 18	MIN	iP	33.1	c				
		iZ	39 14.6	d				
		eR	02 04					
Sept. 19	BKS	eP	01 38 45.5	c	USCGS: 22°1 S, 174°9 W, 0 = 01 26 52.5. Tonga Island region. h about 33 km.			
		eZ	54.0					
		MIN	eP	59.2		c		
Sept. 19	JAS	iP	09 07 04.6	d				
		iZ	09 08.3	c				
		MIN	eP	06 41.9		d		
Sept. 19	BKS	eP	09 57 15.2		USCGS: 20°6 S, 169°8 E, 0 = 09 44 46.6. New Hebrides Islands. h about 126 km.			
		MHC	eP	16.8		d		
		MIN	eP	24.2		c		
		PRI	eP	17.7		d		
		ePNEZ	15 42 50.0	NWc				
Sept. 19	BKS	ePZ	43 19.3	d	USCGS: 35°9 N, 120°0 W, 0 = 15 42 10.0. Central California. h about 20 km. Magnitude 4.6 (BKS).			
		JAS	iPZ	42 42.6		c		
		PRI	iP	21.7		c		
		MHC	eP	40.3		c		
Sept. 21	BKS	eP	01 50 52.5		USCGS: 29°1 N, 129°2 E, 0 = 01 38 30.2. East China Sea. h about 197 km. Magnitude 6 - 6 1/4 (BKS).			
		epP	51 39.6					
		ePP	57 30					
		eS	02 01 17					
		eG	14.0					
						mu sec		
						PZ	0.35	1
						SH	32.2	20
						MaxH	32.5	36
		Sept. 21	MHC	eP		01 50 55.9	d	
epP	51 41.1			c				
JAS	eP			50 57.8	d			
iZ	51 10.2			c				
epP	47.0			c				
Sept. 21	PRI	eP	02.7	d				
		eZ	13.1	c				
		e(P)	45.4	c				
		eP	03 36 06.8	c				
		i(PcP)	13.7	d				
Sept. 21	BKS	e(S)	41 26	Nd	USCGS: 40°7 N, 50°0 W, 0 = 03 26 37.2. North Atlantic Ocean. h about 23 km.			
		eL	44 28					
		eLNE	52.6					
		eRNE	58.0					

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
1965 (cont.)					
Sept. 21	MHC	eP	03 36 05.2	d	
		e(PcP)	13.2	c	
	JAS	eP	35 55.3	d	
		i(PcP)	36 03.5	c	
	PRI	eP	03.9	c	
Sept. 22	BKS	eNE	05 12.0		
		eZ	18.7		
	JAS	iP	04 43 54.8	d	
Sept. 22	JAS	e(P)	07 34 58.0	c	USCGS: 50°7 N, 172°9 W, 0 = 07 27 33. Andreanof Islands, Aleutians. h about 35 km.
		eZ	35 07.8	d	
Sept. 22	BKS	e(P)	10 02 26	c	USCGS: 1°3 S, 134°0 E, 0 = 09 35 25.3. West New Guinea region. h about 14 km.
		eN	17.0		
		eE	19.6		
		eR	21.9		
	JAS	iP	09 49 29.8	c	
Sept. 22	JAS	e(P)	12 51 46	c	USCGS: 31°3 S, 176°8 W, 0 = 12 39 05.0. Kermadec Islands. h about 33 km.
Sept. 22	BKS	eZ	12 57.3		
		eN	13 23.6		
	JAS	(e)P	12 56 18	c	
Sept. 22	BKS	eP	13 02 13.5	d	
	MHC	e(P)	07.5	c	
	JAS	eP	10.7	c	
		eZ	20.3	c	
	PRI	e(P)	16.0	(c)	
Sept. 22	BKS	eP	14 41 24.5	c	USCGS: 18°7 N, 107°3 W, 0 = 14 36 10. Off coast of Jalisco, Mexico. h about 33 km.
		eGNE	45.4		
		eRZ	47.5		
	MHC	e(P)	41 07.5	d	
	JAS	eP	06.5	d	
		eZ	31.8	c	
	PRI	e(P)	40 53.0	d	
Sept. 22	MHC	eP	17 24 57.0	c	USCGS: 11°2 S, 162°1 E, 0 = 17 12 18.1. Solomon Islands. h about 33 km.
	JAS	eP	25 02.0	c	
	PRI	eP	24 56.5	c	
Sept. 22	BKS	e(PcP)E	17 34 12	Ed	
		e(PP)E	35 36	Ed	
		e(S)NE	41 22	SWc	
		ePEZ	50.7		
			mu sec		
		MaxH	2.2 18		
Sept. 22	BKS	iP	20 14 46.7	d	USCGS: 5°4 S, 151°5 E, 0 = 20 01 49.3. New Britain region. h about 57 km. Magnitude 5 - 5.5 (BKS).
		eSNE	25 30		
		ePPSE	26 48		
		eSSE	31 30		
		e(SSS)Z	35 48		
		eLE	38 46		

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
1965 (cont.)					
Sept. 22	BKS	eN	20 39.0		
		eREZ	42.1		
			mu sec		
		MaxH	7.3 26		
	MHC	eP	20 14 48.1	c	
	JAS	eP	52.7	c	
		eZ	11.1	c	
	MIN	iP	49.4	d	
		iZ	15 06.4	d	
	PRI	eP	14 52.0	c	
		eZ	15 08.7	c	
Sept. 22	BKS	iPZ	21 50 12.5	c	
		iSNZ	44.0		
	MIN	iPZ	28.3	d	BRK: 37°4 N, 118°5 S, 0 = 21 49 26. Near Bishop, California. Magnitude 4.3 (BKS).
		iE	51 06.2		
	PRI	ePZ	50 01.2	c	
	JAS	iPZ	49 53.0	c	
	MHC	eP	50 06.5	c	
Sept. 22	BKS	eP	22 19 29.5	Wd	USCGS: 36°4 N, 141°3 E, 0 = 22 08 01.1. Near east coast of Honshu, Japan. h about 44 km. Magnitude 6 3/4 (BKS). Felt: In Tokyo.
		eZ	36.0	c	
		eZ	43.5	d	
		eNZ	20 23	Nd	
		eSNEZ	28 54	NWd	
		eE	31 50	W	
		eNE	32 40	SE	
		eSSSNE	36.9		
		eGNE	38.3		
		eRNEZ	41.0		
			mu sec		
		PZ	2.5 2.3		
		SH	5.8 15		
		MaxH	8.8 28		
	MHC	eP	22 19 33.5	d	
		eZ	47.5	d	
	JAS	eP	36.3	d	
		eZ	48.3	d	
	MIN	eP	23.9	c	
		eZ	29.9	c	
	PRI	eP	36.3	d	
		eZ	48.3	d	
Sept. 24	BKS	eP	03 17 26	d	USCGS: 24°6 S, 176°0 W, 0 = 03 05 08.1. South of Fiji Islands. h about 11 km.
		eNEZ	46 40	Ec	
		eZ	49.6		
		e(R)Z	51.5		
	MHC	e(P)	17 26	d	
	JAS	e(P)	25.3	d	
	PRI	e(P)	31.7	d	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks	
1965						
			h m s			
Sept. 24	BKS	eP	17 18 52.9	d	USCGS: 20°2 N, 105°7 W, 0 = 17 13 52.2. Near coast of Jalisco, Mexico. h about 33 km.	
	MHC	eP	44.0	d		
		eZ	54.0	d		
	JAS	eP	43.0	d		
	MIN	eP	19 08.7	c		
		eZ	17.6	c		
	PRI	eP	18 31.8	d		
		eZ	43.3	d		
Sept. 24	JAS	e(P)	19 02 27.9	c		
Sept. 25	BKS	eP	00 06 10.5	c		
		eSNEZ	16 34	NWd		
		eGN	27.8			
		eREZ	31.5			
			mu sec			
		SH	14			
	MHC	eP	00 06 12.0	c		
	JAS	eP	15.7	c		
	PRI	eP	19.0	c		
Sept. 25	BKS	eP	00 23 28.3	c	USCGS: 13°3 N, 145°2 E, 0 = 00 10 59.7. Mariana Islands. h about 66 km.	
		eSEZ	33 48.0	Ec		
	MHC	eP	23 28.0	d		
		eZ	51.4	d		
	JAS	eP	30.9	c		
		eZ	52.6			
	MIN	eP	23.9	d		
		IZ	43.2	c		
		IZ	57.9	c		
	PRI	eP	34.1	c		
Sept. 25	BKS	eP	02 13 27.3	d	USCGS: 24°5 S, 175°9 W, 0 = 02 01 17.2. South of Tonga Islands. h about 22 km. Magnitude 6 1/2 (BKS).	
		IZ	14 47.5	d		
			mu sec			
		PZ	0.04 0.8			
	MHC	eP	02 13 27.2	c		
	JAS	eP	32.6	c		
		eZ	42.2	c		
	MIN	IP	37.5	d		
	PRI	eP	26.2	c		
		eZ	36.2	c		
Sept. 25	JAS	eP	10 21 18.2	d	USCGS: 54°0 N, 35°4 W, 0 = 10 11 29. North Atlantic Ocean. h about 33 km.	
	MIN	eP	10.3	e		
		IZ	15.1	c		
Sept. 25	JAS	eP	10 42 33.4	c	USCGS: 28°0 S, 177°9 W, 0 = 10 29 58.6. Kermadec Islands. h about 33 km.	
	MIN	eP	37.1	c		
		eZ	46.4	d		
Sept. 25	JAS	eP	12 41 01.6	c	USCGS: 23°9 S, 177°6 W, 0 = 12 29 08.6. South of Fiji Islands. h about 242 km.	
	MIN	eP	06.2	c		
Sept. 25	BKS	(e)PEZ	14 48 19.5	SWc	USCGS: 39°7 N, 143°2 E, 0 = 14 37 15.4. Off east coast of Honshu, Japan. h about 44 km.	
		eZ	53 36	c		
		eNE	57 32			

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks	
1965						
			h m s			
(cont.)						
Sept. 25	BKS	eNE	15 05 26			
		eZ	09.2			
	MHC	eP	14 48 29.5	d		
	JAS	eP	24.8	c		
		eZ	56.2	d		
	MIN	eP	19.1	c		
		IZ	37.3	c		
	PRI	eP	38	c		
		eZ	49 03.3	c		
Sept. 25	BKS	eZ	14 53 36	c	USCGS: 39°3 N, 143°1 E, 0 = 14 42 26.1. Off east coast of Honshu, Japan. h about 20 km.	
	JAS	eZ	45.5	c		
	MIN	eP	36.7	d		
	PRI	eZ	54	d		
Sept. 25	BKS	eP	15 04 49.5	c	USCGS: 39°6 N, 143°2 E, 0 = 14 53 34.9. Off east coast of Honshu, Japan. h about 43 km.	
		eZ	05 03.0	c		
	MHC	eP	04 48.5	c		
	JAS	eP	52.2	c		
	MIN	eP	40.0	d		
	PRI	eP	05 01.9	c		
Sept. 25	BKS	eP	16 03 11.5	c	USCGS: 9°9 S, 148°4 E, 0 = 15 49 53.3. East New Guinea region. h about 57 km.	
		eZ	33.5			
		e(Z)Z	38.5			
	MHC	eP	03 12.5	c		
	JAS	eP	15.6	d		
		eZ	38.2	c		
	MIN	eP	13.7	c		
	PRI	eP	15.7	c		
		eZ	36.5	c		
Sept. 25	BKS	eP	17 04 38.5	c		USCGS: 12°0 N, 145°3 E, 0 = 16 52 09.6. South of Mariana Islands. h about 42 km. Magnitude 5 - 5.3 (BKS).
		eZ	46.2	d		
		eSNEZ	15 00	NEd		
		eGN	26.2			
		eRLZ	32.0			
			mu sec			
		PZ	0.04 0.8			
		SH	2.0 10			
		MaxII	1.17 18			
	MHC	eP	17 04 41.4	c		
	JAS	eP	44.2	c		
	MIN	eP	37.7	c		
		IZ	42.7	c		
	PRI	eP	46.8	c		
Sept. 25	BKS	IPNEZ	17 45 06.5	NWc	USCGS: 34°7 N, 116°5 W, 0 = 17 43 42.6. Southern California. Magnitude 5.7 (BKS).	
	MIN	IPZ	29.0	d		
	JAS	IPZ	44 53.0	c		
	PRI	ePZ	39.3	c		
	MHC	ePZ	57.2	c		

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks	
1965						
			h m s			
Sept. 25	BKS	iPZ	17 49 26.0		USCGS: 34°7 N, 116°4 W, 0 = 17 48 01.0. Southern California. h about 16 km. Magnitude 5 (BKS).	
	MIN	iZ	50 09.6	d		
	PRI	iPZ	48 59.5	d		
	JAS	ePZ	49 11.9	c		
	MHC	ePZ	16.8	c		
Sept. 25	BKS	eP	20 20 13.0	c	USCGS: 54°1 N, 35°2 W, 0 = 20 10 06.6. North Atlantic Ocean. h about 33 km.	
		eZ	45.0	c		
		e(S)Z	28 20			
		e(SS)N	32.0			
		eRNEZ	39.0			
			mu sec			
	MaxH		3.4 20			
	MHC	eP	20 20 05.0	c		
		eZ	26.0	c		
		eZ	46.0	c		
	JAS	eP	19 56.4	c		
		eZ	20 17.0	d		
		eZ	37.4	c		
	MIN	eP	19 50.9	c		
		iZ	20 09.8	d		
		iZ	29.6	c		
	PRI	eP	08.0	d		
Sept. 25	MHC	eP	21 11 15.5	d	USCGS: 24°5 S, 68°6 W, 0 = 20 59 18.6. Chile-Argentina border region. h about 102 km.	
	JAS	eP	13.4	d		
	PRI	eP	07.8	d		
Sept. 26	MHC	eP	00 41 50.6	d	USCGS: 18°4 N, 101°2 W, 0 = 00 36 24. Guerrero, Mexico. h about 93 km.	
		eZ	42 07.8	c		
	JAS	eP	41 47.4	d		
		eZ	42 04.7	d		
	MIN	eP	09.8	c		
		iZ	28.6	d		
	PRI	eP	41 37.6	c		
		eZ	56.0	d		
Sept. 26	MHC	e(P)	04 11 37.5	d	USCGS: 51°0 N, 178°5 E, 0 = 04 03 32. Rat Islands, Aleutians. h about 33 km.	
		eZ	48.2	c		
	JAS	eP	40.6	c		
		eZ	51.6	c		
	MIN	eP	23.4	c		
	PRI	e(P)	47.7	c		
Sept. 26	BKS	ePEZ	07 01 24.7	Wc	USCGS: 34°7 N, 116°4 W, 0 = 07 00 00.9. Southern California. h about 16 km. Magnitude 5.2 (BKS).	
	MIN	iPZ	47.2	d		
	PRI	ePZ	00 57.8	c		
	JAS	ePZ	01 11.5	c		
	MHC	ePZ	15.8	c		
Sept. 26	BKS	eNE	10 21 24	NW	USCGS: 54°3 N, 35°2 W, 0 = 10 03 18.4. North Atlantic Ocean. h about 33 km.	
		e(R)NEZ	31.5			
			mu sec			
	MaxH		1.5 18			
	MHC	eP	10 13 16.6	c		
	JAS	eP	08.0	c		
	MIN	eP	00.2	c		
	PRI	eP	18.8	c		

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965					
			h m s		
Sept. 26	BKS	eP'	21 52 37.5		USCGS: 54°3 S, 38°2 W, 0 = 21 33 54.4. South Georgia Island region. h about 33 km.
	MHC	e(P')	35.4	c	
	JAS	e(P')	35.5	c	
	MIN	e(P')	39.3	d	
	PRI	e(P')	33.8	c	
Sept. 26	BKS	eR	22 30.7		USCGS: 51°9 N, 175°5 E, 0 = 05 09 13.3. Rat Islands, Aleutians. h about 41 km.
	JAS	eP	06 07.1	d	
	MIN	eP	49.7	d	
Sept. 27	BKS	eP	05 17 25.5	c	
		eRZ	30.5		
	MHC	eP	17 31.2	c	
	JAS	eP	34.1	c	
	MIN	eP	16.1	c	
		iZ	25.7	c	
		eZ	45.2	c	
	PRI	eP	42.5	c	
Sept. 27	BKS	iP'	05 19 07.0	c	
		e(PP)Z	29.1		
	MHC	e(P')	09.5	c	
	JAS	e(P')	10.0	c	
	MIN	iP'	02.9	c	
		eZ	22 51.0	c	
	PRI	e(P')	19 14.7		
Sept. 28	BKS	eP	05 19 04		USCGS: 28°0 S, 178°1 W, 0 = 05 06 36.S. Kermadec Islands. h about 33 km. Magnitude 6 1/4 - 6 1/2 (BKS).
		eZ	08		
		eZ	21		
		eSZ	29 10		
		ePPSZ	30.5		
		eSSZ	35.2		
		eSSSN	38.6		
		eQLZ	42.0		
		eRNEZ	44 21		
			mu sec		
		Sil	5.95 21		
		Maxii	24 20		
	MHC	eP	05 19 05.4	c	
	JAS	eP	09.8	d	
	MIN	eP	14.5	c	
		iZ	23.5	d	
		eP	04.5	c	
Sept. 28	BKS	eP	07 59 23.4	d	USCGS: 29°3 N, 142°0 E, 0 = 07 47 37.8. South of Honshu, Japan. h about 33 km.
	JAS	eP	34.2	c	
	MIN	eP	24.5	d	
		iZ	36.4	d	
Sept. 28	MIN	eP	08 14 54.4	d	USCGS: 29°3 N, 141°9 E, 0 = 08 03 07. South of Honshu, Japan. h about 33 km.
Sept. 29	BKS	eR	14 06 12		USCGS: 52°5 N, 170°7 W, 0 = 13 49 26.6. Fox Islands, Aleutians. h about 62 km.
	JAS	eP	13 56 36.7	d	

Date	Sta.	Phase	Time (GCT)	Ground Motion	Remarks	
1965			h m s			
Sept. 29	BKS	eRNZ	23 52.3		USCGS: 45°1 N, 28°2 W, 0 = 23 20 19.0. North Atlantic Ridge.	
			mu sec			
		MaxH	1.5 16			
	MHC	eP	23 31 11.1	c		
		eZ		d		
	JAS	eP	03.2	c		
		eZ	24.5	d		
	MIN	iZ	57.5	d		
		PRI	eP	03.2		c
			eZ	32.2		d
Sept. 30	BKS	eE	04 21.4		USCGS: 20°3 N, 105°7 W, 0 = 04 10 35.3. Near coast of Jalisco, Mexico. h about 33 km.	
			15 27.5	d		
	JAS	eP	25.2	d		
	MIN	eP	51.4	c		
		iZ	16 00.9	d		
	PRI	eP	15 17.2	d		
Sept. 30	MIN	eP	07 17 50.4	c	USCGS: 21°1 S, 179°3 W, 0 = 07 06 35.3. Fiji Islands region. h about 625 km.	
Sept. 30	BKS	eP	23 53 11.5	c	USCGS: 59°7 N, 143°4 W, 0 = 23 47 40.7. Gulf of Alaska. h about 19 km. Magnitude 5 1/4 - 5 1/2 (BKS).	
		eEZ	24.0	c		
		eZ	54 14.0			
		eNEZ	52.5	c		
		eSNZ	57 39	Sd		
		eLNE	59.0			
		eRZ	24 00.0			
			mu sec			
			SH	3.72 20		
			MaxH	50.0 35		
	MHC	eP	23 53 18.0	c		
		eZ	54 21.0	d		
	JAS	eP	53 16.1	d		
		eZ	26.4	d		
	MIN	eZ	54 17.5	c		
		eP	52 38.9	c		
	PRI	eZ	50.4	c		
eP		53 30.5	d			
eZ		54 21.8	c			

Bulletin of the Seismographic Stations

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ARCATA--BERKELEY--CONCORD--FRESNO--GRANITE CREEK

JAMESTOWN--LLANADA--MANZANITA LAKE--MINERAL

MOUNT HAMILTON--OROVILLE--PARAISO

PILARCITOS--PRIEST--UKIAH--VINEYARD

Earthquakes and the Registration of Earthquakes

From October 1, 1965 to December 31, 1965

by

Cinna Lomnitz,

Don Pershing

and

John Zanetti

University of California

Berkeley

1967

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INTRODUCTION

Each quarterly issue of the Bulletin includes determinations of epicenters, origin times, magnitudes, and other information available at the time of writing, for earthquakes in northern California and adjoining areas. Recorded arrival times of seismic waves are tabulated only for the major earthquakes in the local area and for teleseisms.

Information items regarding the seismographic stations which comprise the Berkeley network are repeated in every issue. Information of a general nature, such as the Modified Mercalli Intensity Scale, will be found only in the first number of each volume.

PERSONNEL (August 1967)

Station Director	Bruce A. Bolt
Director Emeritus	Perry Byerly
Associate Research Seismologist	Cinna Lomnitz
Associate	Don Tocher (Earthquake Mechanism Laboratory, ESSA, San Francisco)
Associate Engineer	Walter Marion
Full-time Technical Staff	G. Mitchell, R. Sell, M. Hilger
Research Assistants	W. Bakun, L. Chuaqui, J. Derr, L. Drake, A. Eisenberg, J. Filson, A. Qamar, J. Zanetti, J. Dewey
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THE BYERLY SEISMOGRAPHIC STATION (BKS)

Standardized equipment began operating in a newly constructed tunnel east of the main campus on June 8, 1962. The closest buildings, part of the Lawrence Radiation Laboratory, are about 0.8 km away. The tunnel was cut into the upper part of the Claremont Formation. Of Miocene age, this formation consists of thin layers of cherty material alternating with shale.

A plan of the tunnel is shown in the diagram. Piers are constructed of reinforced concrete with no isolation from floor and walls. The temperature is stable. A ventilating and dehumidifying system is connected to all rooms.

The short-period world-wide standard instruments are operated with an approximate magnification of 25,000 at 1 sec and the long-period standard instruments with 3,000 at 30 sec.

On March 20, 1964, the Regents of the University of California named this station the "Byerly Seismographic Station" in recognition of the work of Professor Perry Byerly.

HISTORY OF THE UNIVERSITY OF CALIFORNIA STATIONS

"The Seismographic Stations at Mount Hamilton and Berkeley present several items of interest in the history of earthquake science, one of which is that according to the available records they were the first seismographic stations set up in America. Furthermore, they have functioned continuously from their founding to the present day, with improvements in instrumental equipment from time to time as the development of the science and opportunity have permitted.

"Several outstanding figures in the seismology of the 1880's were impressed with the importance of these stations, and Ewing, Milne, and Gray each took a personal interest in aiding one or both stations to obtain their own best and most modern types of instruments."

The quotation is from "History of the University of California Seismographic Stations and Related Activities" by Professor George D. Louderback, published in the Bulletin of the Seismological Society of America, Vol. 32, No. 3, pp. 205-229, 1942. In this paper may be found a detailed account of the development of the Berkeley stations from the installation of the instruments (the first earthquake known recorded at Mount Hamilton was on April 24, 1887) to 1942.

Since 1942, the number of seismographic stations associated with the University of California has increased from six to seventeen in 1965. In 1950, Professor Perry Byerly was appointed Director by the Regents; he had been in charge of instruction and research since 1925. Professor Bruce A. Bolt was appointed Director in 1963. Since 1960, the stations have entered into research and service contracts with the Air Force Office of Scientific Research, the National Science Foundation, and the California Department of Water Resources. A telemetry network of nine stations in central California, recording on film and magnetic tape, is now operated together with seismographs with broad-band frequency response at Berkeley. Copies of records from instruments at the Berkeley observatory are available, together with response characteristics, on request to the Director.

STATIONS IN OPERATION: October - December 1965

Station	North Latitude	West Longitude	Elev. Meters	Foundation Material	Symbol	Present Auspices and Date Established
Berkeley (Haviland)	37° 52!4	122° 15!6	81	Franciscan sandstone	BRK	Univ. of California, 1887
Berkeley (Strawberry)	37° 52!6	122° 14!1	276	Claremont shales	BKS	Univ. of California, 1962
Mt. Hamilton	37° 20!5	121° 38!5	1282	Franciscan formation	MHC	Lick Observatory, 1887
Fresno	36° 46!0	119° 47!8	88	Alluvium	FRE	Fresno City College, 1962
Mineral	40° 20!7	121° 36!3	1495	Volcanic flow	MIN	National Park Service, 1938
Arcata	40° 52.6	124° 04!5	59	Sandstone (loose)	ARC	Humboldt State College, 1948
Manzanita Lake	40° 32!2	121° 33!7	1800	Volcanic tuff	MLC	National Park Service, 1956
Vineyard	36° 45!0	121° 23!1	330	Alluvium	VIN	W.A. Taylor and Co., 1959
Concord	37° 58!1	122° 04!3	36	Alluvium overlying Franciscan	CNC	Diablo Valley College, 1960
Paraiso	36° 19!9	121° 22!2	363	Granodiorite	PRS	Paraiso Hot Springs, 1961
Llanada	36° 37!0	120° 56!6	475	Alluvium overlying sandstone	LLA	Charles McCullough Ranch, 1961
Priest	36° 08!5	120° 39!9	1187	Greenstone (basic metamorphic)	PRI	Federal Aviation Agency, 1961
*Oroville	39° 33!3	121° 30!0	1080	Granite	ORV	Department of Water Resources, 1963
Jamestown	37° 56!8	120° 26!3	457	Metamorphic (serpentine)	JAS	Department of Water Resources, 1964
Granite Creek	37° 01!8	121° 59!8	122	Granite	GCC	Kenneth McCullough, Santa Cruz, 1965
Ukiah	39° 08!2	123° 12!6	199	Alluvium	UKI	U.S. Coast and Geodetic Survey, 1965
Pilarcitos Creek	37° 30!0	122° 22!9	91	Granite	PCC	Sare Ranch, 1965

*Established by State of California Department of Water Resources, Sacramento.

STATION INSTRUMENTATION

October-December 1965

Station	Type of Instrument	T _o sec	T _g sec	Component
BRK	Benioff 100 kg	1.0	0.2	Z
	Benioff 100 kg	1.0	8.0	Z
	100X torsion	0.8	-	N, W
	4X torsion	0.8	-	N, W
	Press-Ewing	15	30	Z
	*Press-Ewing	30	Broad band	N45°W, N45°E, Z
BKS	Press-Ewing, ULP	45	300	N45°E
	Benioff 100 kg	1.0	0.75	N, E, Z
	Sprengnether	15	100	N, E, Z
MHC	Wood-Anderson torsion	0.8	-	S, W
	*Benioff 14 kg	1.0	0.2	Z
FRE	Wood-Anderson torsion	0.8	-	S, E
	Sprengnether moving coil	2.0	2.0	N, E, Z
MIN	Benioff 100 kg	1.0	0.4	Z
	Wood-Anderson torsion	0.8	-	S, E
ARC	Benioff 14 kg	1.0	0.2	Z
	Wood-Anderson torsion	0.8	-	N, E
MLC	Loucks-Omori	3.0	-	S, E
	Benioff 14 kg	1.0	0.2	Z
VIT	*Sprengnether 0.46 kg	2.0	Broad band	N, E, Z
	# Benioff 100 kg	1.0	0.2	Z
GCC	*Benioff 14 kg	1.0	0.2	Z
	*Benioff 14 kg	1.0	0.2	Z
LLA	# Benioff 14 kg	1.0	0.2	Z
	*Benioff 14 kg	1.0	0.2	Z
PRI	*Benioff 14 kg	1.0	0.2	Z
	Benioff 100 kg	1.0	0.75	N, E, Z
JAS	*Benioff 14 kg	1.0	0.2	Z
	*Benioff 14 kg	1.0	0.2	Z
PCC	*Benioff 14 kg	1.0	0.2	Z
	*Benioff 14 kg	1.0	0.2	Z
ORV	Benioff 100 kg	1.0	.75	N, E, Z
	Geotech moving coil	20	100	N, E, Z
UKI	Benioff 14 kg	1.0	0.2	Z

JAS (Z) telemetered beginning September 14, 1965.
 # Signals telemetered to Berkeley via leased telephone lines.
 * Signals recorded on magnetic tape at Berkeley.

Several temporary changes in instrumentation were made at Vineyard during this period. Consult the Director for details.

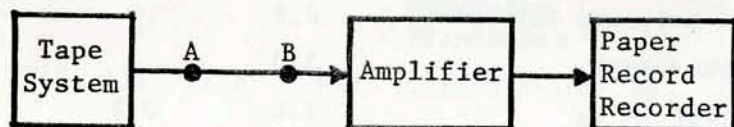
Direction of motion: In the "Component" column, each horizontal component seismograph is designated by the direction of ground motion corresponding to upward trace motion on the seismogram when it is oriented so that time increases from left to right. On all vertical component (Z) instruments, upward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

Relative magnification curves of instruments recording through the tele-meter system are listed on the following pages. Absolute magnification may be obtained by use of calibration pulses recorded daily from each tele-metered station.

Tape-recorded long-period seismometers (BRK): On pages 266 and 267 are given the frequency response curves, amplitude and phase, for the Press-Ewing long-period seismometers which record on magnetic tape at BRK.

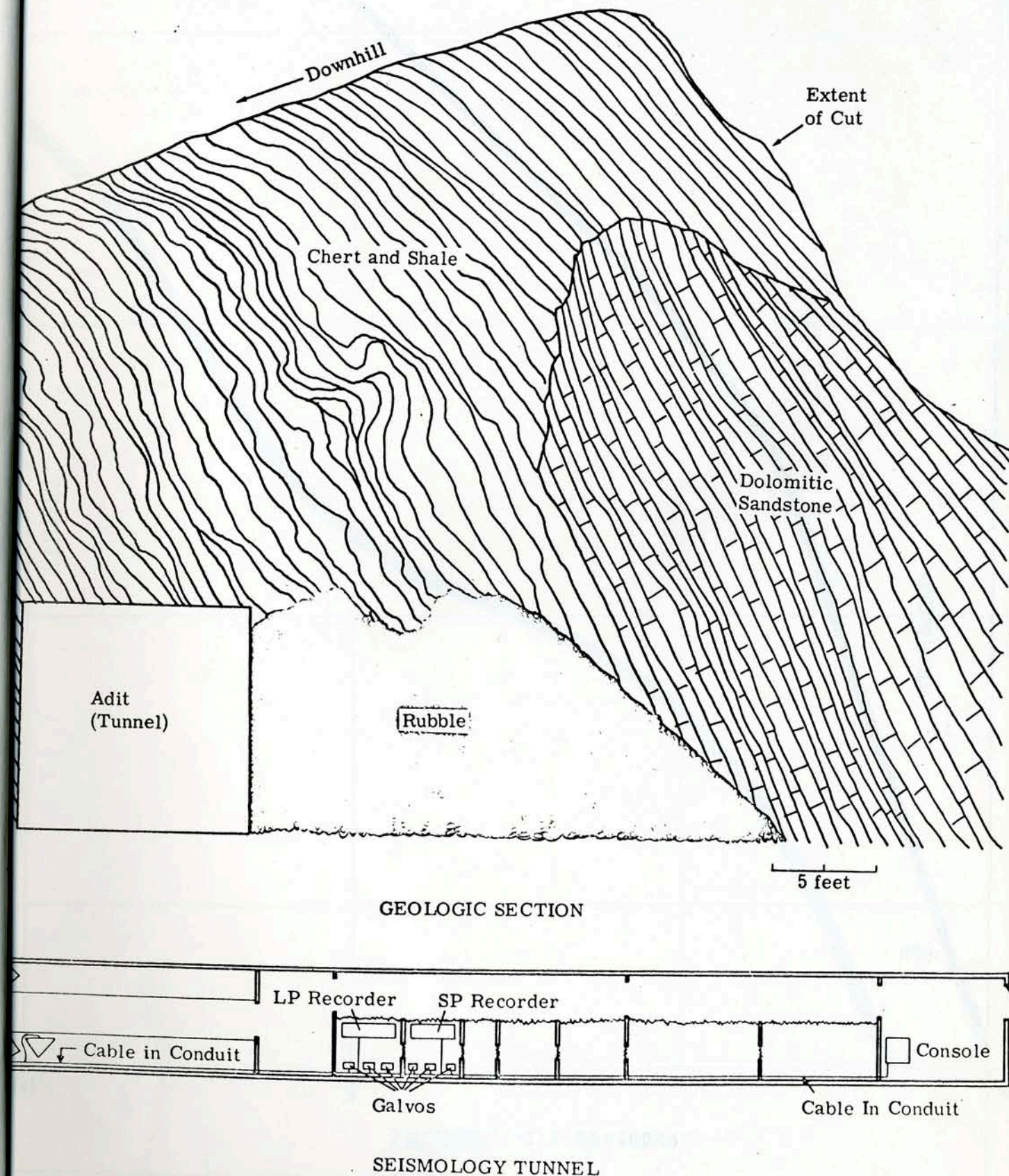
The ordinate of the first curve is the voltage at the terminals of the tape system (point A in diagram), per micron of earth displacement as sensed by 30-second seismometers; versus frequency of earth displacement.

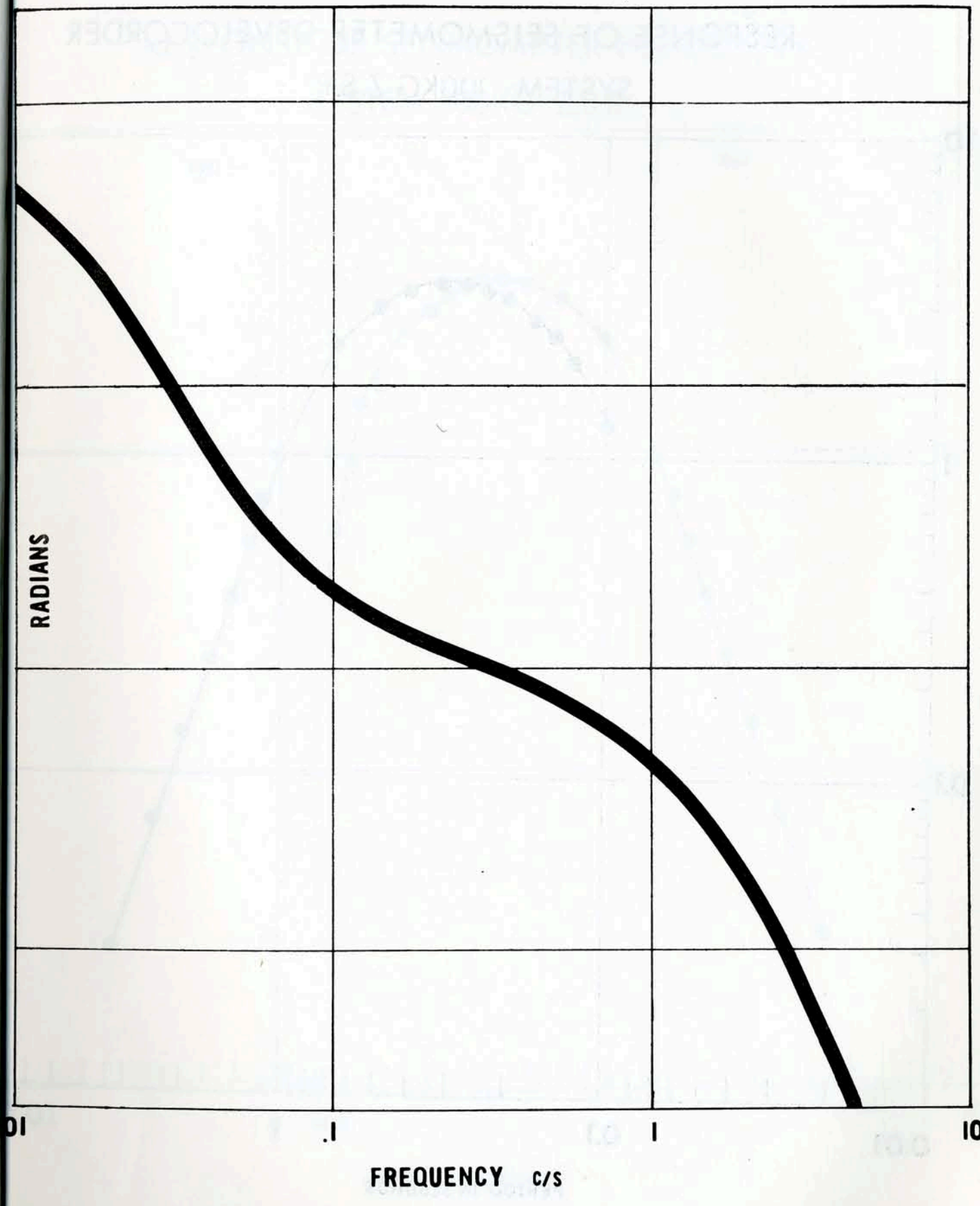
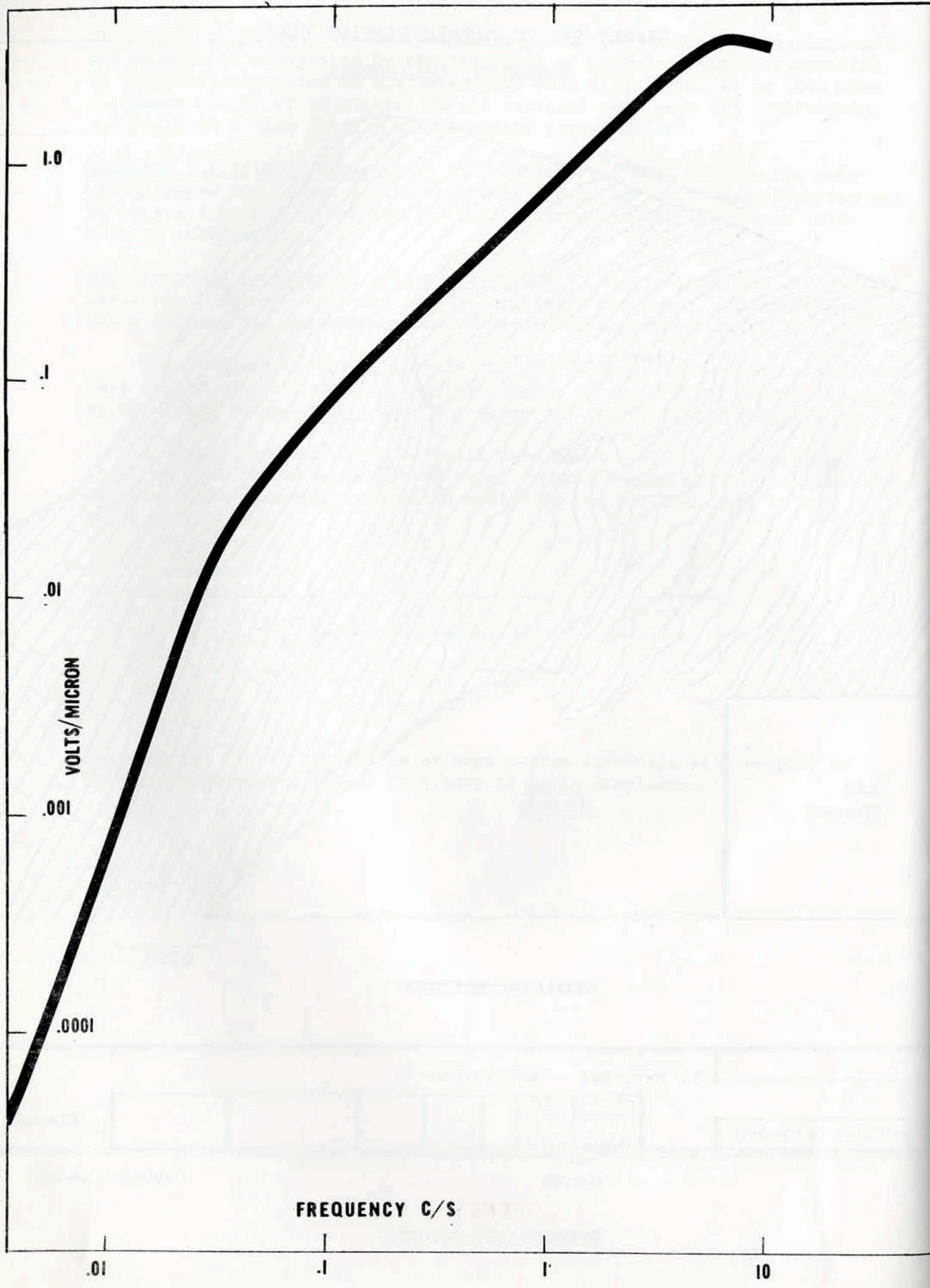
All paper records requested will show known positive voltages applied at point B, in order to scale the paper records at the particular amplifier settings. The seismometers record motion in the vertical, N45°W, and N45°E, directions.



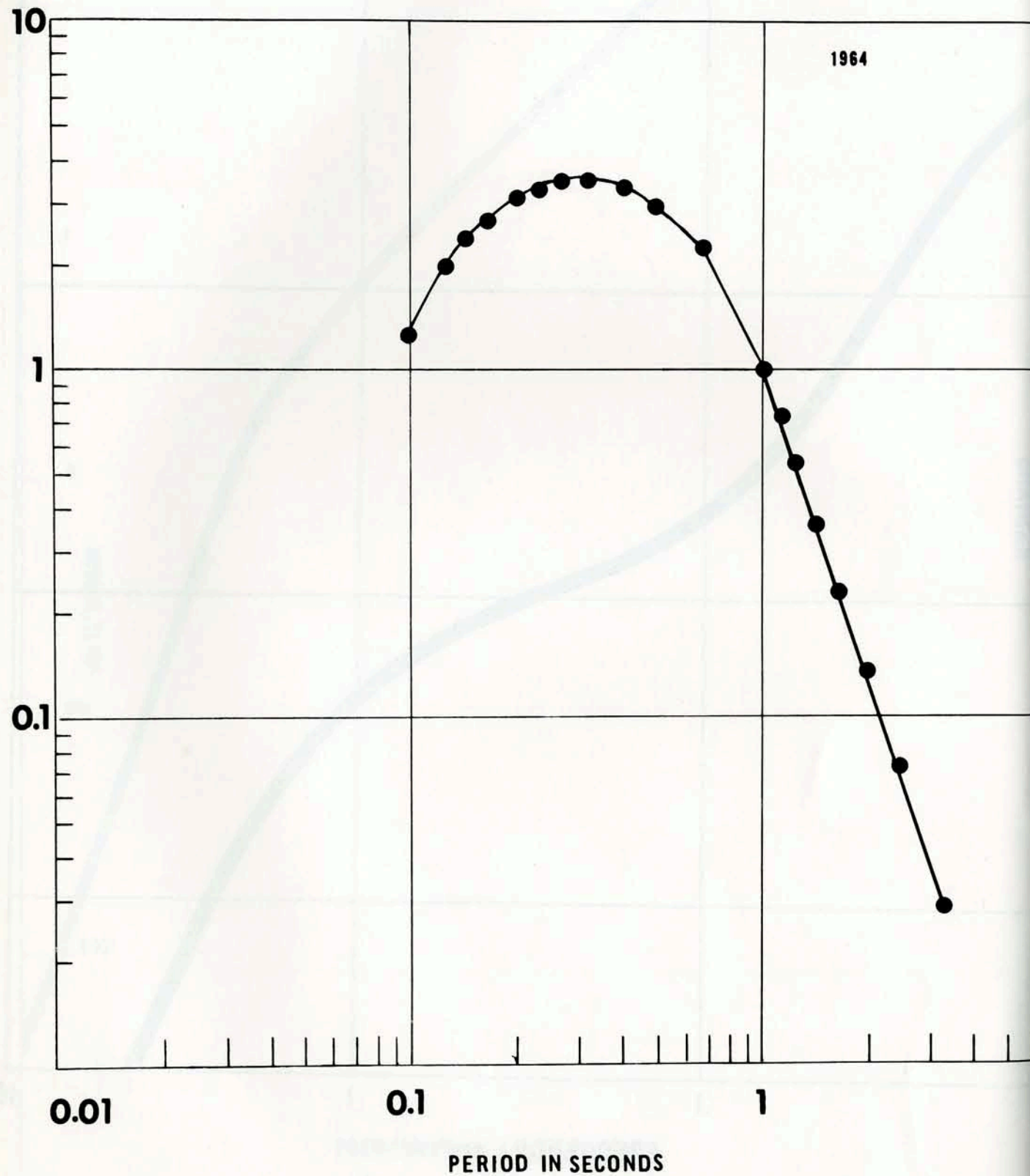
Phase curve: Phase of voltage at tape system terminals with respect to ground displacement; versus frequency of earth displacement.

BYERLY SEISMOGRAPHIC STATION (BKS)
BERKELEY, CALIFORNIA

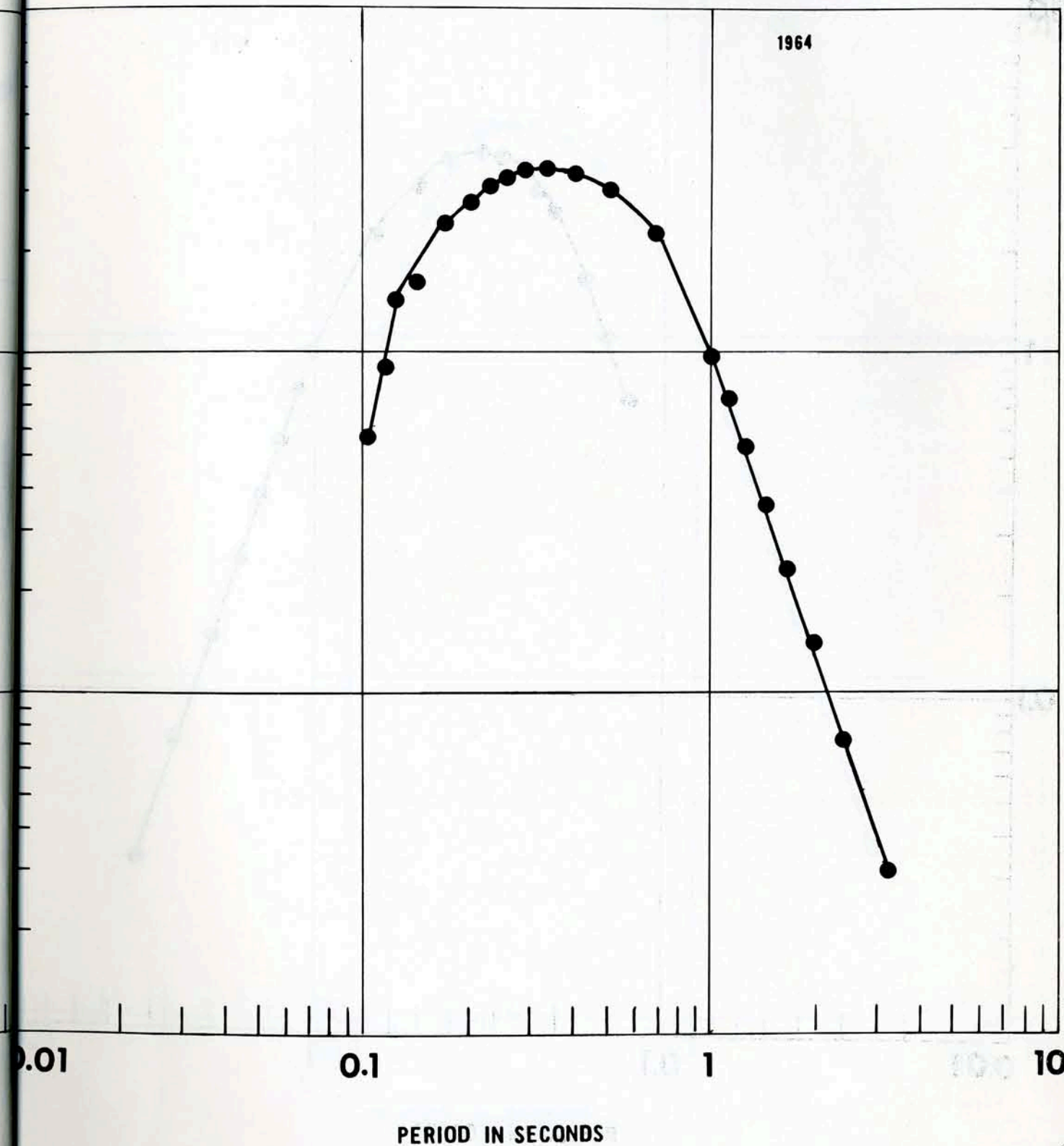




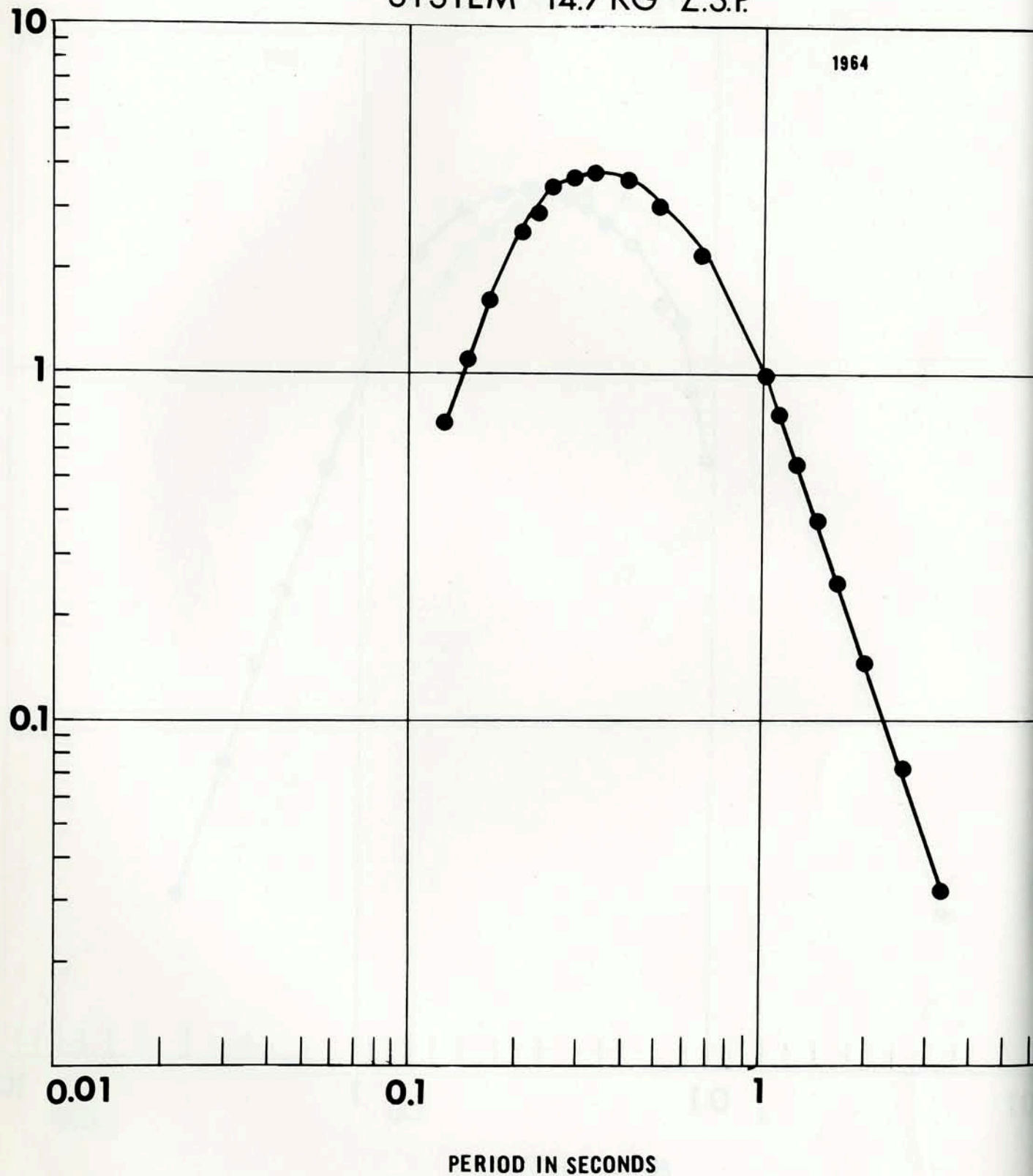
RESPONSE OF SEISMOMETER-DEVELOCORDER SYSTEM 100KG Z.S.P.



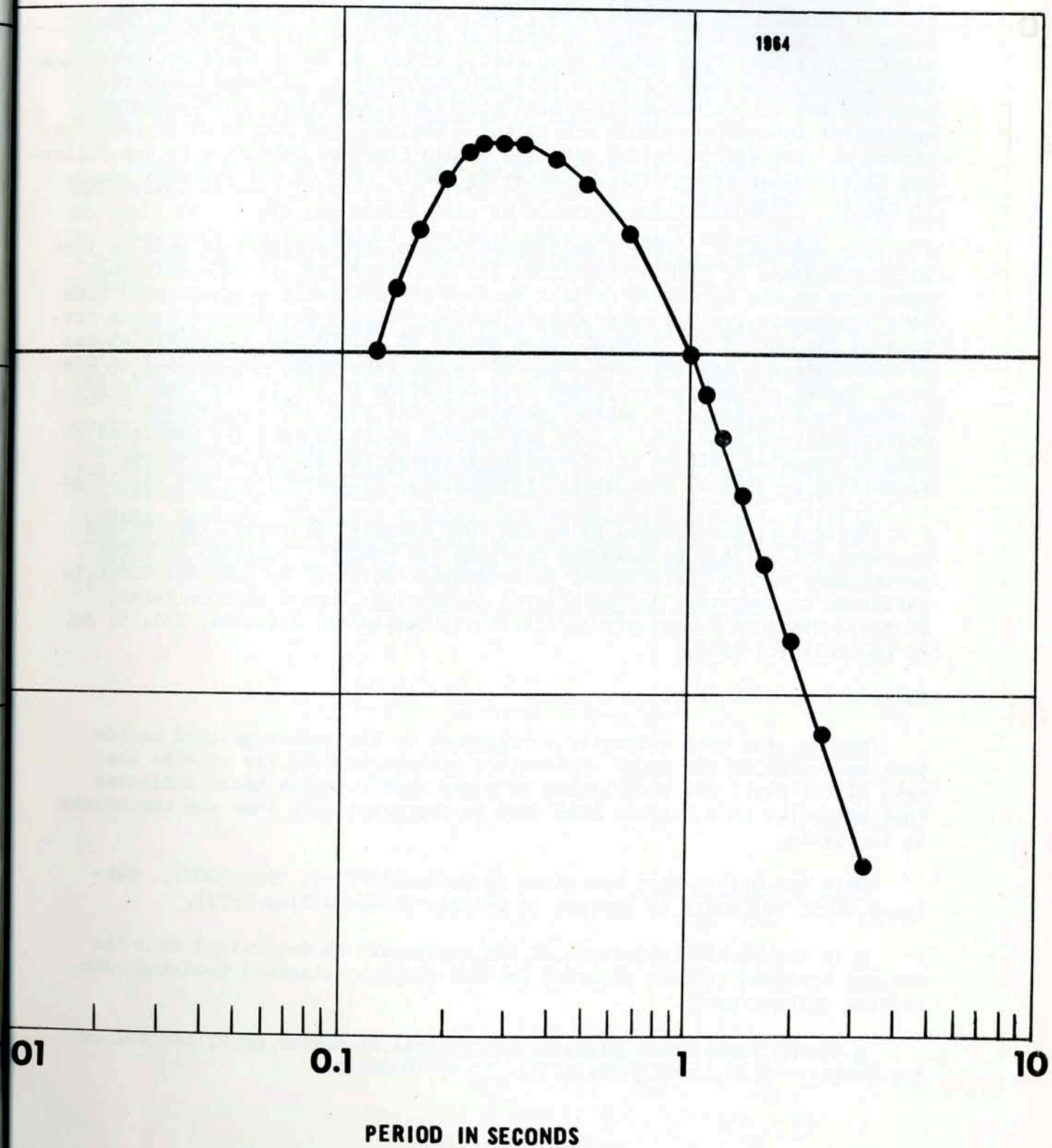
RESPONSE OF SEISMOMETER-HELICORDER SYSTEM 100KG Z.S.P.



RESPONSE OF SEISMOMETER-HELICORDER SYSTEM 14.7KG Z.S.P.



RESPONSE OF SEISMOMETER-DEVELOCORDER SYSTEM 14.7KG Z.S.P.



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 at the U.C. stations (sometimes complemented by data from neighboring stations such as Reno) to permit determination of the epicenter. For the sake of completeness, in cases where these data are not sufficient to determine acceptable epicenters the preliminary epicentral data of the USCGS are quoted. 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 omitted because the available seismographic data were inadequate for epicenter determination. Within the limited region covered by the map of the central Coast Ranges of California, locatable shocks of magnitude 2.5 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 2.5 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.

Epicenters are located by an IBM 7090 computer program. Information on Version I of this program may be found in "Computer Location of Local Earthquakes within the Berkeley Seismographic Network" by Bolt and Turcotte, published in Computers in the Mineral Industries, Part 2 (George Parks, Editor); Stanford University Publications, Geological Sciences, Vol. 9, No. 2, pp. 561-576, 1964.

Explanation of the table:

Map No. for each epicenter corresponds to the number plotted beside that epicenter on the maps. Epicenters without numbers lie outside the area of the map. The underlining of a map number in the table 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).

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.

h is the focal depth given to the nearest kilometer or by the following ranges: a, 0-5; b, 6-10; c, 11-15; d, 16-30 km.

No. of Stas. is the number of stations used by the computer program or used for constructing S-P arcs in locating the epicenter. If the USCGS data are used for the epicenter this column then gives the number of stations in the Berkeley net recording the earthquake.

The quality of the solution is partially reflected by the listed number of stations. The highest quality locations are given to the nearest tenth of a minute in latitude and longitude and to the tenth of a second origin time. Poorer quality locations are given to the nearest minute or tenth of a degree in latitude and longitude, to the nearest second in origin time and are denoted by an asterisk.

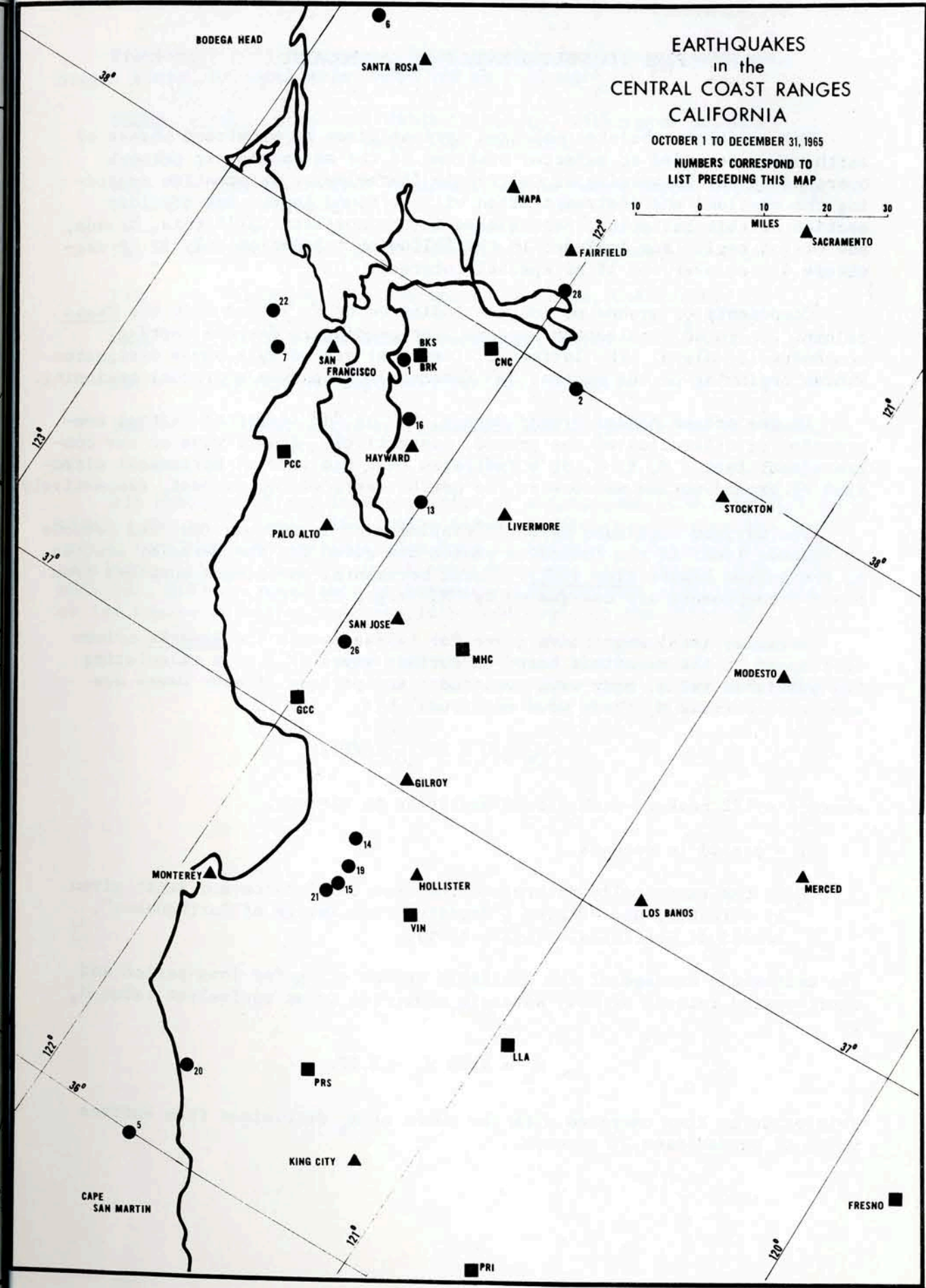
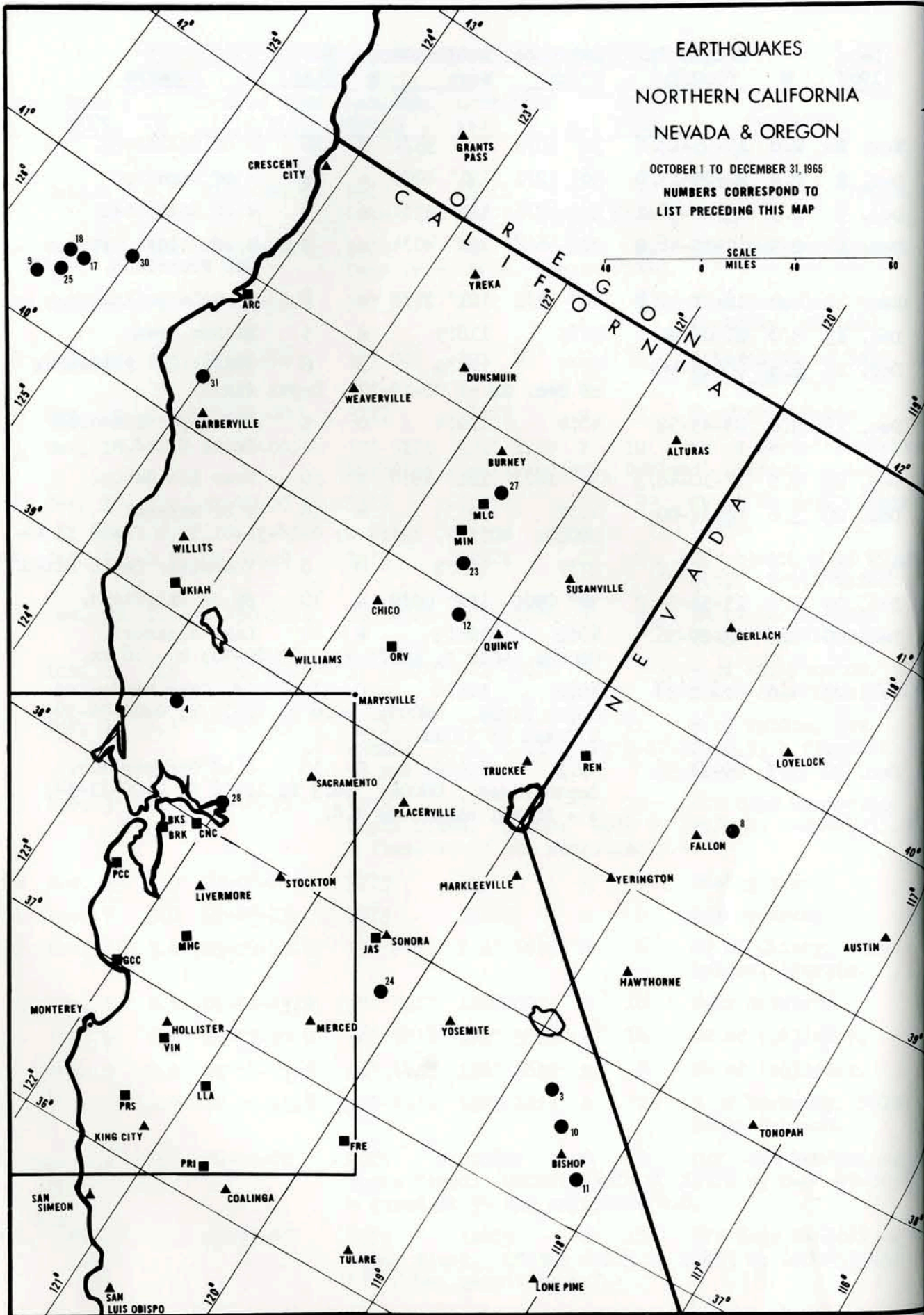
Under Remarks will be found a short descriptive location of the epicenter, usually relative to a point named on the map. Information on small foreshocks and aftershocks is sometimes included under Remarks but when numerous foreshocks or aftershocks accompany a large earthquake, a separate tabulation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

Information on maximum intensities of shocks reported felt is also included under Remarks. Reports on felt earthquakes may be obtained from 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 Customhouse, San Francisco, California 94126, or from the Director, U.S. Coast and Geodetic Survey, Washington Science Center, Rockville, Maryland 20852. Intensities given in Roman numerals are assigned by the Coast and Geodetic Survey and based on the Modified Mercalli Intensity Scale of 1931.

EARTHQUAKES IN NORTHERN CALIFORNIA, NEVADA, AND OREGON

Map No.	Date 1965	M	Origin Time (G.C.T.)	Latitude North	Longitude West	h	No. of Stas.	Remarks
-	Oct. 4	4.8	01-44-41.8	44:2	128:1	33	7	Off coast of Oregon. Data from USCGS. Depth fixed.
-	Oct. 4	5.1	04-12-49.1	44:0	128:3	33	9	Off coast of Oregon. Data from USCGS. Depth fixed.
1	Oct. 8	2.4	07-08-49.4	37° 51:5	122° 17:0	b	7	W of Berkeley. Felt: Berkeley, Oakland.
2	Oct. 12	2.6	23-51-56	38° 00'	121° 49'	b	10	Aftershock of Sept. 10 at 21-28-34.3.
* 3	Oct. 13	3.2	00-43-00	37:7	118:7	a	5	S of Mono Lake.
<u>1</u>	Oct. 18	2.9	12-20-00.4	37° 51:5	122° 17:0	b	12	SW of Berkeley. Felt: Berkeley, San Francisco, Oakland, Alameda, Orinda.
* 4	Oct. 18	3.0	23-19-00	38:6	122:7	0	9	SW of Rumsey. Depth fixed.
* 5	Oct. 22	2.7	02-29-22	36:0	121:7	0	6	Off coast, W of King City. Depth fixed.
6	Oct. 25	2.6	04-50-30.1	38° 29:3	122° 52:6	a	9	NW of Santa Rosa. Felt: Healdsburg.
7	Oct. 25	2.9	16-50-07.6	37° 42:9	122° 36:0	a	7	W of Ft. Funston. Felt: San Francisco.
* 8	Nov. 1	4.3	17-10-15	39:6	118:5	a	11	E of Fallon, Nev. USCGS: 39:3 N, 118:5 W; 0=17-10-16.3; h fixed at 33 km; magnitude 4.4.
* 9	Nov. 3	4.0	00-46-35	40:3	125:5	0	15	Off Cape Mendocino. Depth fixed. USCGS: 40:4 N, 125:9 W; 0=00-46-33.9; h fixed at 33 km; magnitude 5.4.
*10	Nov. 3	3.5	23-06-24	37:5	118:5	a	5	Bishop area.
*11	Nov. 7	3.0	23-28-13	37:3	118:2	a	6	Bishop area.
12	Nov. 8	3.4	03-29-59.1	39° 57:6	121° 15:7	a	6	NW of Quincy. Felt: Beldon, Storrie.
13	Nov. 9	2.5	07-21-43.9	37° 35:7	122° 00:2	b	10	Near Hayward.
14	Nov. 9	2.5	12-57-20.0	36° 50:8	121° 37:9	a	14	NW of Hollister.
15	Nov. 9	2.5	22-58-55.5	36° 44:2	121° 36:2	a	8	NW of Hollister.
16	Nov. 15	2.3	02-02-13.8	37° 44:0	122° 10:4	a	7	S of Berkeley. Felt: South Oakland.
*17	Nov. 15	4.3	06-50-02	40:5	125:3	0	12	Off Cape Mendocino. Depth fixed. USCGS: 40:4 N, 125:8 W; 0=06-49-59; h fixed at 33 km; magnitude 4.8.
*18	Nov. 26	4.2	00-58-42	40:5	124:5	0	12	Off Cape Mendocino. Depth fixed. USCGS: 40:3 N, 124:3 W; 0=00-58-43; h = 7 km; magnitude 4.7.

Date 1967	M	Origin Time (G.C.T.)	Latitude North	Longitude West	h	No. of Stas.	Remarks
9 Nov. 28	2.8	15-05-13.0	36° 46:5	121° 35:4	a	12	W of Hollister.
20 Dec. 2	2.8	22-29-13.0	36° 12:1	121° 40:9	a	9	W of Paradise.
21 Dec. 3	2.5	23-28-58.1	36° 43:6	121° 37:4	a	8	W of Hollister.
22 Dec. 12	2.5	02-15-46.0	37° 46:8	122° 40:4	a	4	W of Golden Gate, San Francisco.
23 Dec. 12	4.0	12-57-49.8	40° 12:1	121° 27:9	a	8	Near Lake Almanor.
<u>10</u> Dec. 13	3.0	21-01-02	37:5	118:5	a	5	Bishop area.
24 Dec. 15	2.5	00-26-46	37:7	120:2	0	6	Yosemite. Foreshock of Dec. 22 at 00-19-17. Depth fixed.
25 Dec. 15	3.0	03-43-52	40:4	124:4	0	5	Off Cape Mendocino. Depth fixed.
26 Dec. 20	2.5	17-10-48.3	37° 14:2	121° 59:0	a	10	Near Los Gatos.
27 Dec. 20	3.6	18-31-00	40:7	121:5	a	18	N of Mineral. USCGS: 40:7 N, 121:4 W; 0=18-31-01.5; h fixed 33 km.
<u>24</u> Dec. 22	3.1	00-19-17	37:7	120:2	0	8	Yosemite. Depth fixed.
28 Dec. 25	3.1	13-54-34.8	38° 09:0	122° 00:9	a	10	SW of Fairfield.
29 Dec. 26	2.5	03-29-36	40:2	121:3	a	7	Lake Almanor. USCGS: 40:2 N, 121:5 W; 0=03-29-36; h = 16 km.
30 Dec. 29	4.0	02-02-38	40:7	125:0	0	12	Off Cape Mendocino. Depth fixed. USCGS: 40:6 N, 125:2 W; 0=02-02-39; h fixed at 33 km.
31 Dec. 30	3.3	09-11-51	40:3	124:0	0	15	N of Garberville. Depth fixed. USCGS: 40:3 N, 123:8 W; 0=09-11-54; h = 16 km; magnitude 4.8.



PART II. REGISTRATION OF EARTHQUAKES

This section tabulates measured arrival times of prominent phases of earthquakes recorded at selected 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 Ground Motion, "c" or "d" indicates initial compression or dilatation of the ground, respectively, from a wave 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 (μ) 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).

Berkeley (BKS) magnitudes given for teleseisms in the Remarks column correspond to the magnitude based on surface waves (M_s). In calculating the published value, body wave amplitudes and periods of body waves are used to determine M_B (body wave magnitude) 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).

The arithmetic average of the available values of M_B for long-period and short-period records of body waves is converted to an equivalent value M_s by

$$M_s = 1.59 M_B - 3.97.$$

This value is then compared with the value of M_s determined from surface waves of period near 20 seconds.

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

- USCGS - U.S. Coast and Geodetic Survey, Washington Science Center, Rockville, Maryland
- BCIS - Bureau Central International de Seismologie, Strasbourg, France
- PAL - Lamont Geological Observatory, Palisades, New York
- PAS - Seismological Laboratory, Pasadena, California
- WMSO - Wichita Mountains Observatory, Oklahoma
- BKS - Byerly Seismographic Station, Berkeley
- BRK - indicates the average magnitude determined by the Berkeley network.

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. Readings from the remaining stations in the network other than the five listed (BKS, JAS, MHC, PRI, MIN) are available on request. Requests for additional data or for copies of seismograms should be addressed to the Director.

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965			h m s		
Oct. 1	BKS	eP	09 00 07.8	NWd	USCGS: 50°1 N, 178°3 E, 0 = 08 52 05.8
		ipP	18.8	c	Rat Islands, Aleutians.
		ePPP	02 43.5	c	h about 32 km.
		eSNE	06 34.0	NE	Magnitude 6 1/2 (BKS).
		eL	09 26.0	NE	
		eScS	10 16.0	NE	
		eRNE	12		
			mu sec		
		PZ	0.3 1.0		
		SH	29.0 15.6		
		MaxH	51.5 32		
	MHC	eP	09 00 13.5	d	
		eZ	01 57.9	d	
	JAS	eP	00 17.0	d	
		eZ	01 52.2	d	
	MIN	eP	08 59 59.0	d	
		iZ	09 00 11.0	d	
		iPP	01 51.5	c	
	PRI	eP	00 24.6	d	
		eZ	02 02.6	d	
Oct. 1	BKS	eP	09 17 47.5	c	USCGS: 50°2 N, 178°3 E, 0 = 09 09 43.
	MHC	eP	50.0	d	Rat Islands, Aleutians.
		eZ	18 06.4	d	h about 33 km.
	JAS	eP	17 53.5	d	
		eZ	18 09.8	d	
	MIN	eP	17 36.7	c	
	PRI	eP	18 01.2	d	
Oct. 1	JAS	e(P)	09 31 26.2	c	
	MIN	eP	43.1	c	
	PRI	e(P)	24.7	c	
Oct. 1	BKS	eP	12 11 06.5	d	USCGS: 50°2 N, 178°3 E, 0 = 12 03 05.
	MHC	e(P)	12.7	c	Rat Islands, Aleutians.
	JAS	e(P)	15.8	d	h about 33 km.
	MIN	eP	10 48.5	c	
	PRI		11 23.0	c	
Oct. 1	BKS	e(P)	13 22 27	c	USCGS: 50°9 N, 178°8 E, 0 = 13 14 27.
	MHC	e(P)	32.5	c	Rat Islands, Aleutians.
	JAS	eP	35.1	d	h about 39 km.
	MIN	eP	18.0	c	
		iZ	32.8	d	
	PRI	e(P)	43.0	d	
Oct. 1	BKS	ePNEZ	13 33 56.0	SWd	USCGS: 20°0 S, 174°4 E, 0 = 13 22 28.
		e(SP)Z	34 33.5	c	Hew Hebrides Island region.
		ePPZ	36 52.3	c	h about 553 km.
		eSNE	43 25	NW	Magnitude 5.9 (BKS).
		eNE	47 11	SE	
			mu sec		
		PZ	1.11 1.2		
		SH	2.94 20		

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965			h m s		
(cont.)					
Oct. 1	MHC	eP	13 33 57.3	d	
		eZ	37 15.5	c	
	JAS	iP	34 02.3	d	
		eZ	37 25.0	c	
	MIN	eP	34 03.7	d	
		iZ	12.2	c	
		iZ	32.6	c	
	PRI	eP	33 57.6	d	
		eZ	37 19.0	d	
Oct. 1	BKS	iP'	22 53 25.1	c	USCGS: 60°7 S, 24°9 W, 0 = 22 34 25.5.
		eZ	33.0	d	South Sandwich Islands region.
		ePP	23.0		h about 33 km.
		eGE	23 28.6		
		eR	34.8		
			mu sec		
		PPZ	0.34 14		
		MaxH	1.2 34		
	MHC	eP'	22 53 22.7	c	
		eZ	41.6	d	
	JAS	eP'	22.0	c	
		eZ	39.7	d	
		eZ	23 06 58.0	d	
	MIN	eP'	22 53 27.3	c	
		iZ	44.6	d	
	PRI	eP'	20.3	c	
Oct. 2	BKS	e(P')	08 51 03.5	d	USCGS: 5°9 S, 104°0 E, 0 = 08 31 54.
	MHC	eP'	10.0	d	Southern Sumatra. h about 33 km.
	MIN	eP	06.3	d	
		iZ	14.5	d	
	JAS	eP'	10.8	d	
Oct. 2	JAS	eP	12 19 28.4	d	USCGS: 31°4 N, 141°5 E, 0 = 12 07 38.9.
	MIN	eP	17.8	d	South of Honshu, Japan.
					h about 44 km.
Oct. 3	BKS	e(P)	05 32 34.0	d	
	JAS	e(P)	28.9	c	
	MIN	eP	34.2	c	
	PRI	e(P)	35.7	c	
Oct. 3	BKS	e(G)N	06 30.0		
		e(R)EZ	35.0		
Oct. 3	BKS	eP	10 53 21.5	c	USCGS: 52°6 N, 170°6 W, 0 = 10 46 16.7.
		eSE	58 48.0	W	Fox Islands, Aleutians.
		eGNE	11 01.5		h about 22 km.
		eREZ	02.9		
	MHC	eP	10 53 27.7	d	
	JAS	eP	30.7	c	
		iPP	55 12.2	c	
		iPsSNE	59 18.8		
		iScPZ	29.4	c	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
1965 (cont.)					
Oct. 3	MIN	eP	10 53 10.9	d	
		iZ	18.6	d	
		iZ	44.2	d	
		ePcP	55 40.0	c	
		eScP	59 21.1	c	
Oct. 3	PRI	eP	53 39.3	c	
	BKS	eP	14 55 12.3	c	USCGS: 49°5 N, 156°5 E, 0 = 14 45 26. Kurile Islands. h about 33 km. Magnitude 5.6 (BKS).
		epP	31.0	c	
		eZ	56 19.0	d	
		ePP	57 04	d	
		eSNEZ	03 07	NEd	
		eSSNE	06 42	SE	
		eGE	09 24		
		eRZ	11.8		
			mu sec		
		PZ	.38 2		
		PPZ	.68 8		
		SH	4.22 12		
		MaxH	6.3 22		
	MHC	eP	14 55 17.6	c	
		epP	36.5	c	
	JAS	eP	19.9	c	
		epP	39.0	c	
	MIN	iP	03.9	c	
		ipP	23.5	d	
		i(PcP)	38.5	c	
Oct. 3	PRI	eP	27.4	c	
	BKS	eP	16 28 00.0	d	USCGS: 42°9 S, 75°4 W, 0 = 16 14 54. Off coast of southern Chile. h about 28 km. Magnitude 6 - 6 1/2 (BKS).
		epP	10.0	d	
		ePP	31 41	d	
		eSKSNE	38 28	SW	
		eSNE	39 08	SW	
		ePSNEZ	40 18	SWd	
		eSSNE	44 34	SE	
		eSSSNEZ	48 48	SEc	
		eLNE	51.9		
		eRNZ	57.0		
			mu sec		
		PPZ	1.65 14		
		SH	4.2 20		
		MaxH	6.5 18		
	MHC	eP	16 27 57.2	d	
		epP	28 06.9	d	
	JAS	eP	27 56.3	d	
		epP	28 06.2	d	
		eZ	31 31.0	d	
	MIN	eP	28 06.8	d	
		eZ	52.0	d	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
65 (cont.)					
t. 3	PRI	eP	16 27 50.7	d	
		epP	58.8	d	
t. 4	BKS	eGN	00 51.0		USCGS: 6°4 S, 147°4 E, 0 = 00 13 25.8. East New Guinea region.
		eR	56.2		
	JAS	eP	26 45.1	d	h about 75 km.
	MIN	eP	31.4	c	Felt: At Lae and Saidor.
t. 4	BKS	eP	01 46 29.0	c	USCGS: 44°2 N, 128°1 W, 0 = 01 44 41.8. Off coast of Oregon.
	MHC	eP	39.6	d	h about 33 km.
	MIN	eP	12.1	d	
		iZ	19.3	d	
	JAS	eP	42.7	d	
	MIN	eP	12.1	d	
		iZ	19.3	d	
t. 4	PRI	eP	54.0	c	
	BKS	eP	04 14 37.5	d	USCGS: 44°0 N, 128°3 W, 0 = 04 12 49.1. Off coast of Oregon.
		epP	46.7	d	h about 33 km.
		e(S)NE	15 48	SE	Magnitude 5.5 (BKS).
		eZ	16 06		
		e(R)Z	30		
			mu sec		
		MaxH	15.3 11		
	MHC	eP	04 14 48.2	d	
	JAS	eP	50.7	c	
		iZ	58.9	d	
	MIN	iP	10.3	d	
		iZ	33.7	c	
	PRI	eP	15 10.8	d	
		eZ	17.7	d	
t. 4	BKS	eP	06 31 30.0	d	USCGS: 8°9 N, 82°7 W, 0 = 06 23 04.5. Panama-Costa Rica border region.
		eZ	48.0	c	h about 4.6 km.
		ePcP	33 14.5	d	
		e(S)EZ	37.7		
		eGNE	44.0		
		eREZ	49.0		
	MHC	eP	31 20.8	d	
	JAS	eP	17.1	c	
	MIN	eP	33.4	c	
		iZ	51.4	d	
t. 4	PRI	eP	10 10.0	d	
	JAS	eP	10 42 18.7	d	USCGS: 44°2 N, 128°1 W, 0 = 10 40 15.7. Off coast of Oregon.
	MIN	iP	41 46.2	c	h about 22 km.
		iZ	58.1	c	
t. 5	MHC	eP	00 23 14.5	d	USCGS: 65°4 N, 134°0 W, 0 = 00 17 10.5. Northern Yukon Territory, Canada.
		eZ	25.5	d	h about 8 km.
	JAS	eP	08.5	d	
		eZ	21.3	d	
	PRI	eP	28.0	d	
		eZ	43.0	c	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965			h m s		
Oct. 5	MHC JAS PRI	eP eP eP	03 51 45.7 48.5 42.5	c c c	USCGS: 36°0 S, 72°5 W, 0 = 03 39 02.2. Near coast of central Chile. h about 33 km. Felt: At Talca, Concepcion and Chillan.
Oct. 5	BKS MHC JAS PRI	e(P) e(P) e(P) e(P)	10 04 20.5 21.2 21.4 04.7	c d d c	
Oct. 7	MHC JAS	eP eP	01 20 54.5 21 03.3	c c	USCGS: 21°7 S, 174°3 W, 0 = 01 09 07. Tonga Islands. h about 48 km.
Oct. 7	PRI MHC	eP e(P)	20 46.4 07 09 50.6	c c	USCGS: 24°5 S, 179°1 W, 0 = 06 58 11. South of Fiji Islands. h about 378 km.
Oct. 7	JAS MIN PRI	eP iP e(P)	09 56.4 10 01.3 09 52.4	d d c	
Oct. 7	JAS	eP	08 53 24.4	c	USCGS: 17°5 S, 167°6 E, 0 = 08 40 32. New Hebrides Islands. h about 25 km.
Oct. 7	JAS MIN PRI	eP eZ eP	09 32 05.6 15.6 13.5	c d d	USCGS: 17°5 S, 167°9 E, 0 = 09 19 21. New Hebrides Islands. h about 24 km. Felt; At Port Villa.
Oct. 7	PRI	e(P)	31 55.5	c	
Oct. 7	JAS	eP	32 06.4	c	USCGS: 31°4 S, 177°5 W, 0 = 17 04 34. Kermadec Islands. h about 33 km.
Oct. 7	JAS	e(P)	17 17 18.6	c	USCGS: 51°7 N, 176°1 W, 0 = 19 51 57. Andreanof Islands, Aleutians. h about 63 km.
Oct. 7	JAS	e(P)	19 59 38.4	d	USCGS: 07°1 N, 126°6 E, 0 = 01 11 54. Mindanao, Philippine Islands. h about 97 km.
Oct. 8	JAS	eP	01 28 27.7	c	
Oct. 8	JAS	iP	02 03 57.7	d	
Oct. 8	MIN	eP	34.2	c	
Oct. 8	BKS MHC JAS PRI	e(P) e(P) eP eP	06 13 06.3 08.7 06.3 14.9	c c c c	
Oct. 8	MHC MIN JAS	eP eP eP	16 10 13.0 01.8 17.3	c c d	
Oct. 8	PRI	e	34.0	d	
Oct. 8	BKS	eP	31.3	d	
Oct. 8	BKS	eP	16 39 33.3	c	USCGS: 51°4 N, 173°9 W, 0 = 16 32 31. Andreanof Island, Aleutians. h about 43 km.
Oct. 8		iZ	40 05.5	d	
Oct. 8		eNE	48 44	SWc	
Oct. 8		e(R)NE	50.2		

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
65			h m s		
Oct. 8	MHC JAS	eP eP	16 39 59.2 40 01.7	c c	
Oct. 8	MIN PRI MHC	iP eP e(P)	39 57.9 40 11.4 19 40 38.6	d c c	
Oct. 8	JAS	e(P)	51.7	d	
Oct. 8	JAS	e(P)	02.7	c	
Oct. 8	PRI	eZ	11.9	d	
Oct. 8	PRI	eZ	41 05	d	
Oct. 8	MHC JAS	eP eP	22 12 11.1 06.2	d d	
Oct. 8	JAS	eZ	15.5	d	
Oct. 8	JAS	eZ	32.1	c	
Oct. 8	MIN	eP	11.3	c	
Oct. 8	PRI	eP	00.3	c	
Oct. 8	BKS	e(P)	22 39 02.7	c	USCGS: 8°3 S, 76°0 W, 0 = 22 28 48.7. Peru. h about 141 km.
Oct. 8	MHC	eP	38 58.8	d	
Oct. 8	MIN	eP	39 09.3	d	
Oct. 8	JAS	eP	38 55.4	d	
Oct. 8	PRI	eP	49.1	d	
Oct. 8	MHC	eP	04 57 02.2	c	USCGS: 33°0 S, 180°0 W, 0 = 04 44 27.8. Kermadec Islands. h about 172 km.
Oct. 8	JAS	eP	06.4	d	
Oct. 8	PRI	eP	01.0	d	
Oct. 8	MHC	eP	07 45 02.3	c	USCGS: 170°5 W, 52°6 N, 0 = 07 37 54.7. Fox Islands, Aleutians. h about 41 km.
Oct. 8	JAS	eP	05.8	c	
Oct. 8	PRI	eP	14.5	c	
Oct. 8	MHC	eP	07 53 26.7	d	USCGS: 16°6 N, 97°0 W, 0 = 07 47 19.3 Oaxaca, Mexico. h about 33 km.
Oct. 8	JAS	eP	22.9	d	
Oct. 8	JAS	eZ	37.8	d	
Oct. 8	JAS	eZ	08 07 18	c	
Oct. 8	MIN	eP	07 53 42.8	c	
Oct. 8	MIN	iZ	54 01.1	d	
Oct. 8	MIN	iZ	11.6	c	
Oct. 8	MIN	e(PP)	55 04.1	c	
Oct. 8	PRI	eP	53 15.2	c	
Oct. 8	MHC	eP	13 35 23.0	d	USCGS: 34°4 N, 140°9 E, 0 = 13 23 44.4. Near east coast of Honshu, Japan. Felt: At Mabashiro and Tokyo.
Oct. 8	MIN	iP	14.2	c	
Oct. 8	JAS	eP	25.8	d	
Oct. 8	PRI	eP	31.7	c	
Oct. 8	BKS	eP'NE	17 44 35.5	c	USCGS: 59°1 S, 24°8 W, 0 = 17 25 44.0. South of Sandwich Islands region, 55 km.
Oct. 8	BKS	eZ	41.0	d	
Oct. 8	BKS	epP'	45 00.0	d	
Oct. 8	BKS	ePP	46 29.5	c	
Oct. 8	BKS	ePPSNE	58 15	SE	
Oct. 8	BKS	e(SS)NE	18 04.5		
Oct. 8	BKS	e(Lg)E	17.5		
Oct. 8	BKS	e(R)NEZ	26.0		
Oct. 8	BKS	MaxH	mu sec 1.95 34		

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965			h m s		
(cont.)					
Oct. 10	MHC	eP	18 44 40.1	c	
		eZ	58.7	c	
		eZ	46 24.9	d	
	JAS	eP	44 39.4	c	
		eZ	57.8	c	
		eZ	46 23.1	d	
	MIN	iP	44 44.5	d	
		iZ	45 07.5	c	
	PRI	eP	44 37.5	c	
		eZ	56.0	c	
		eZ	46 14.5	d	
Oct. 11	MHC	e(P)	02 46 46.5	c	USCGS: 32°6 S, 69°2 W, 0 = 02 34 22. Mendoza Province, Argentina. h about 122 km.
	JAS	eP	44.3	d	
	PRI	eP	42.2	d	
Oct. 11	BKS	eEZ	15 53.6		USCGS: 50°6 N, 129°4 W, 0 = 15 47 55. Vancouver Island region. h about 33 km.
	MHC	eP	51 21.7	c	
	JAS	eP	21.7	c	
	MIN	iP	50 41.8	d	
		iZ	06.3	d	
	PRI	eP	51 36.6	c	
Oct. 11	BKS	eP	17 58 14	d	USCGS: 50°7N, 129°3 W, 0 = 17 54 55.0 Vancouver Island region. h about 52 km.
	JAS	eP	20.8	c	
		eZ	40	c	
	MIN	iP	00.7	d	
		iZ	01.8	d	
	PRI	eP	38.5	c	
Oct. 12	BKS	(e)P	06 34 43.5	d	USCGS: 52°2 N, 174°8 W, 0 = 06 27 16 Andreanof Islands, Aleutians. h about 17 km.
		eZ	50.5	c	
		e(L)NE	43.7		
		e(R)EZ	45.1		
	MHC	eP	34 49.8	d	
	JAS	eP	53.0	d	
		eZ	35 09.6	c	
	PRI	eP	34 58.4	d	
		eZ	35 10.3	c	
Oct. 12	BKS	e(P)	07 40 14.7	c	
		eGN	08 03.5		
		eREZ	08.0		
	MHC	eP	40 18.0	d	
	JAS	eP	29.5	d	
	MIN	eP	33.3	c	
	PRI	eP	18.4	d	
Oct. 12	BKS	e(P)	08 22 01.0	c	
	MHC	eP	04.2	d	
	JAS	eP	03.5	d	
		eZ	13.0	d	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965			h m s		
(cont.)					
Oct. 12	MIN	iP	08 21 41.1	c	
		iZ	42.6	d	
	PRI	eP	22 14.5	d	
		eZ	23.9	d	
Oct. 12	BKS	e(R)EZ	11 15.0		
	JAS	eP'	34 17.8	c	
	PRI	eP'	22.6	c	
Oct. 12	BKS	eP	13 46 48.8	c	USCGS: 56°3 N, 153°7 W, 0 = 13 40 55.9. Kodiak Islands region. h about 11 km. Magnitude 5 1/4 (BKS).
		ePPNEZ	47 38	NWd	
		eNE	48 14	NW	
		eSNE	51 36	SEc	
		e(L)NE	53.1		
		eREZ	53.8		
			mu sec		
		SH	2.6 10		
		MaxH	1.8 14		
	MHC	eP	13 46 56.5	c	
	JAS	eP	46 54.7	d	
		eZ	47 04.2	d	
		eZ	46.7	c	
		e(ScP)	53 44		
	MIN	iP	46 33.6	c	
		iZ	45.9	d	
		e(ScP)	53 28.4	c	
		eZ	54 28.0	c	
	PRI	eP	47 08.1	d	
		eZ	16.5	c	
		e(ScP)Z	53 50.6	c	
Oct. 12	JAS	e(P)	15 04 12	d	
		iZ	33.3	c	
	MIN	iP	03 50.6	c	
		iZ	04 00.3	c	
Oct. 12	JAS	iZ	16 41 14.5	d	
Oct. 12	JAS	i(P)	18 38 11.0	d	
		iZ	34.2	c	
Oct. 13	MHC	e(P)	04 03 11.6	d	
	JAS	eP	07.0	d	
	PRI	(e)P	23.3	d	
Oct. 13	BKS	eP	14 59 10.0	c	USCGS: 22°6 S, 171°0 E, 0 = 14 46 25.0. Loyalty Islands region. h about 24 km. Magnitude 5 1/2 - 5 3/4 (BKS).
		eZ	15 02 22	d	
		eSE	09 50	E	
		ePPSNEZ	10 58	SWd	
		eGNE	22.3		
		e(R)NEZ	26.3		
			mu sec		
		PZ	0.29 2.0		
		MaxH	2.7 17		
	MHC	eP	14 59 08.7	c	
	JAS	eP	14.5	c	
	PRI	eP	09.3	c	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965			h m s		
Oct. 14	BKS	eP	08 14 56.5	c	USCGS: 34°5 N, 138°9 E, 0 = 08 02 13.8 Near coast of Honshu, Japan. h about 57 km.
	MHC	eP	13 55.5	d	
	JAS	eP	14 02.2	d	
	PRI	e(P)	04.2	d	
Oct. 14	JAS	e(P)	16 34 31.5	c	
Oct. 14	JAS	e(P)	17 43 08.1	c	
		eZ	17.0	c	
		eZ	34.0	c	
Oct. 14	JAS	e(P)	19 26 45.3	c	
		eZ	49.5	c	
	PRI	e(P)	47.8	c	
		eZ	52.0	c	
Oct. 15	BKS	eP	00 40 53	d	USCGS: 8°5 N, 103°0 W, 0 = 00 34 09.3 Off coast of Mexico. h about 33 km. Magnitude 4.8 - 5 (BKS).
		e(sP)	41 33	c	
		eZ	44 35	d	
		eNE	46 10	SE	
		eSNE	46 26	NE	
		eE	48 28	W	
		eLgE	50		
		eNE	49.9		
		eRNZ	50.5		
		SH	mu sec 2.16 16		
		MaxH	1.07 18		
	MHC	e(P)	00 40 42	c	
	JAS	eP	46.4	d	
		eZ	58.7	d	
		eZ	41 21.3	d	
	PRI	eP	40 35.2	c	
Oct. 15	MHC	e(P)	07 18 59.0	E	
		eZ	19 02.7	d	
	JAS	e(P)	18 53.0	c	
		i(S)	54.1	d	
Oct. 15	BKS	eP	07 46 48.2	c	USCGS: 18°0 S, 169°0 E, 0 = 07 34 36 New Hebrides Islands. h about 232 km.
	MHC	eP	48.5	c	
	JAS	eP	53.6	c	
	PRI	e(P)	47.6	d	
Oct. 15	JAS	e(P)	22 39 41.1	d	
Oct. 16	JAS	e(P)	00 24 08.3	d	
		eZ	29 15.0	d	
Oct. 16	JAS	e(P)	01 51 17.6	d	USCGS: 65°2 N, 164°2 W, 0 = 01 44 06 Alaska. h about 33 km.
	MIN	iP	46.6	c	
Oct. 16	BKS	iP	14 31 11.5	d	USCGS: 9°0 N, 83°5 W, 0 = 14 22 55.5 Costa Rica. h about 50 km.
		e(S)N	38 04	d	
		e(L)E	44.2		
		e(R)EZ	47.6		
	MHC	eP	31 11.5	d	
		eZ	17.1	d	
	JAS	eP	01.3	d	
		iZ	11.3	d	
	PRI	eP	30 55.7	d	
		eZ	31 05.6	d	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965			h m s		
Oct. 16	MHC	eP	20 10 56.4	d	USCGS: 56°2 N, 164°7 E, 0 = 20 01 52.5. Komandorsky Island region. h about 33 km.
		iZ	11 05.6	c	
	JAS	eP	10 57.5	d	
		ipPZ	11 07.6	c	
	MIN	iPZ	44.0	d	
		iZ	50.7	d	
	PRI	eP	14.0	c	
		epP	22.5	c	
Oct. 16	BKS	iP	22 25 33.5	c	USCGS: 51°1 S, 173°5 W, 0 = 22 14 15.3. Tonga Islands. h about 45 km. Felt: At Apia.
		eZ	44.5	c	
	MHC	eP	33.6	d	
	JAS	eP	39.6	d	
		eZ	51.5	c	
		eZ	26 14.5	c	
	MIN	iP	39.9	c	
	PRI	eP	25 33.2	d	
Oct. 16	JAS	e(P)	22 55 59.3	d	USCGS: 52°1 N, 160°5 E, 0 = 22 46 34.2. Off east coast of Kamchatka. h about 84 km.
	PRI	e(P)	56 02.5	d	
Oct. 17	BKS	iPE	02 06 28.5	c	USCGS: 8°0 S, 155°9 E, 0 = 01 53 42.7. Solomon Islands. h about 93 km.
	MHC	eP	26.3	d	
	JAS	eP	32.7	d	
		eZ	07 03.0	c	
	MIN	i(P)	29.0	d	
	PRI	e(P)	06 31.9	d	
		eZ	07 03.6	c	
Oct. 17	MHC	e(P)	04 06 36.2	d	USCGS: 15°7 S, 173°8 W, 0 = 03 55 15.4. Tonga Islands. h about 51 km. Felt: At Apia.
	JAS	eP	42.3	d	
		eZ	07 05.6	d	
	PRI	(e)P	06 32.0	d	
		eZ	59.0	d	
Oct. 17	BKS	iPNWZ	09 46 44.6	NWc	USCGS: 33°9 N, 116°9 W, 0 = 09 45 17.2. Southern California. h about 16 km. Magnitude 5.0 (BKS).
	PRI	ePZ	16.6	c	
	JAS	ePZ	33.0	c	
	MHC	ePZ	35.1	c	
Oct. 17	JAS	eP	13 45 11.0	c	
Oct. 17	PRI	ePZ	15 37 50.9	d	USCGS: 33°9 N, 116°9 W, 0 = 15 36 52.9. Southern California. h about 33 km. Magnitude 4.2 (BKS).
	JAS	ePZ	38 06.8	d	
	MHC	e(P)Z	08.2	c	
Oct. 18	BKS	eP	22 08 46	d	
		eSNE	15 06	SW	
		eNE	17.0	SW	
		eGE	18.0		
		e(SS)Z	10	d	
		eRZ	20.3		
			mu sec		
		SH	2.78 15		
	MHC	e(P)	22 08 51	c	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
1965 (cont.)					
Oct. 18	JAS	eP	22 08 42.3	c	
	PRI	e(P)	42	c	
Oct. 18	MHC	eP	22 57 04.8	d	USCGS: 15°7 N, 95°4 W, 0 = 22 50 41.9 Near coast of Oaxaca, Mexico.
	JAS	eP	01.0	d	h about 36 km.
	PRI	eP	56 53.2	d	
Oct. 19	MHC	e(P)	05 17 56.9	d	USCGS: 18°9 N, 101°3 W, 0 = 05 12 38. Guerrero, Mexico.
	JAS	e(P)	53.4	d	h about 140 km.
Oct. 19	JAS	eP	13 01 56.7	d	USCGS: 51°6 N, 174°5 E, 0 = 12 53 26. Near Islands, Aleutians.
		eZ	02 25.3	c	h about 8 km.
Oct. 19	BKS	eP	20 57 09.3	d	USCGS: 52°3 N, 174°3 E, 0 = 20 48 47. Near Islands, Aleutians.
		epPZ	19.8	c	h about 48 km.
		esPZ	28.7	c	
		eS(N)EZ	21 03 45	NEd	Magnitude 5 - 5.3 (BKS).
		eGN	06.5		
		eScSEZ	07 17	Wc	
		e(R)Z	09.8		
			mu sec		
		SH	2.9 18		
		MaxH	19.2 24		
	MHC	eP	20 57 13.8	c	
		eZ	25.7	c	
		eZ	34.4	c	
	JAS	eP	13.0	c	
		eZ	26.0	c	
		eZ	37.8	c	
	PRI	eP	22.0	c	
Oct. 19	BKS	e(S)	23 49 24	d	USCGS: 13°4 S, 112°3 W, 0 = 23 32 44. Northern Easter Islands Cordillera
		e(R)EZ	23 56.7		h about 33 km.
	MHC	eP	41 47.7	c	
	JAS	eP	48.7	d	
	PRI	eP	36.3	d	
Oct. 20	JAS	e(P)	01 48 54.2	c	
Oct. 20	BKS	eZ	09 54.7		USCGS: 20°0 S, 113°2 W, 0 = 09 29 59. Easter Islands Cordillera.
	MHC	eP	39 48.5	d	h about 23 km.
	JAS	eP	52.8	d	
		eZ	40 15.5	c	
	PRI	eP	39 37.9	c	
		eZ	58.5	c	
Oct. 20	BKS	eP	11 15 38.2	c	USCGS: 51°6 N, 173°8 W, 0 = 11 08 11. Andreanof Islands, Aleutians.
		e(S)EZ	21 30	Ed	h about 32 km.
		eNEZ	24.3		
		e(G)NE	27.4		
		e(R)EZ	30.2		
	MHC	eP	15 44.7	c	
	PRI	eP	56.0	d	
		eZ	16 12.5	c	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
65					
Oct. 21	BKS	eP	00 02 01.5	c	USCGS: 12°5 N, 87°4 W, 0 = 23 54 29.9. Near coast of Nicaragua.
		ipP	20.7	d	Magnitude 5 - 5.5 (BKS).
		eZ	03 06.5	c	Felt: At San Salvador.
		ePcP	04 03.5	c	
		eScP	07 47.0	d	
		eSNEZ	08 06	NEd	
		eGNEZ	11 22	SWd	
		e(R)NE	13.3		
		eZ	16.3		
			mu sec		
		SH	2.37 20		
		MaxH	2.7 22		
	MHC	eP	00 01 56.2	c	
		eZ	02 15.2	d	
		eZ	07 45.5	c	
	JAS	eP	01 51.4	c	
		eZ	02 10.9	d	
		eZ	04 01.4	c	
		eZ	07 43.0	c	
	PRI	eP	01 45.7	d	
		eZ	02 13.0	c	
		eZ	04 00.4	c	
		eZ	07 40.7	c	
Oct. 21	BKS	ipZ	02 10 03.5	c	USCGS: 37°5 N, 91°0 W, 0 = 02 04 38.3. Eastern Missouri. h about 22 km.
	MHC	eP	09 58.5	d	
	JAS	eP	47.3	d	
	PRI	(e)P	52.0	d	
Oct. 21	MHC	eP	17 03 41.5	d	USCGS: 18°4 N, 108°2 W, 0 = 16 58 49. Revilla Gigedo Islands region.
	JAS	eP	43.5	c	h about 33 km.
	PRI	eP	40.0	c	
Oct. 22	JAS	e(P)	02 14 30.8	c	USCGS: 28°9 N, 141°8 E, 0 = 02 02 40.1. Bonin Islands region.
	PRI	e(P)	34.6	d	h about 112 km.
Oct. 22	JAS	e(P)	07 54 49.6	d	
Oct. 22	MHC	eP	16 34 06.0	c	
	JAS	eP	03.5	d	
		eZ	41.4	d	
	PRI	e(P)	13.8	d	
		eZ	54.0	c	
Oct. 22	MHC	e(P)	18 47 59.0	c	USCGS: 25°0 S, 71°3 W, 0 = 18 35 54.5. Off coast of northern Chile.
	MIN	eZ	49 51.0	d	h about 13 km.
	JAS	(e)P	47 52.5	d	
		eZ	48 08.0	c	
	PRI	e(P)	47 48.0	d	
		eZ	48 03.0	d	
Oct. 23	BKS	ip	06 07 29.6	c	USCGS: 53°8 N, 165°5 W, 0 = 06 00 48.5. Fox Islands, Aleutians.
		iZ	43.2	c	h about 16 km.
		e(G)N	14.7		
		eRNEZ	16.0		
	MHC	eP	07 35.4	d	
	JAS	eP	07 38.4	d	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
1965 (cont.)					
Oct. 23	JAS	eZ	06 07 57.2	d	
	PRI	eP	47.8	d	
		eZ	08 06.0	d	
Oct. 23	BKS	eP	07 05 52.1	c	USCGS: 29°4 S, 71°6 W, 0 = 06 53 32.8
		eZ	06 03.7	c	Near coast of central Chile.
	MHC	eP	05 48.8	c	h about 33 km.
	JAS	eP	46.8	c	
		eZ	58.7	c	
	PRI	eP	41.1	c	
		eZ	53.0	c	
Oct. 23	BKS	eE	09 10.5		
		eZ	11.5		
		eZ	26.0		
Oct. 23	BKS	e(P)	15 47 05.5	c	USCGS: 32°4 S, 71°3 W, 0 = 15 34 47.2
		eZ	14.5	c	Near coast of central Chile.
	MHC	eP	11.5	c	Felt: At Santiago, Aconcagua,
	JAS	eP	10.0	c	Vajparaiso and Coquimbo Province.
	PRI	eP	04.5	d	
Oct. 23	MHC	eP	20 53 53.6	c	USCGS: 18°6 N, 108°2 W, 0 = 20 49 00.
	JAS	eP	52.4	d	Revilla Gigedo Islands region.
		eZ	54 07.5	c	h about 33 km.
	PRI	e(P)	53 38.6	d	
Oct. 24	BKS	eP	18 24 52.0	c	USCGS: 49°7 N, 156°1 E, 0 = 18 15 04
		ipP	25 09.4	c	Kurile Islands. h about 30 km.
		eZ	45.5	c	Magnitude 4.5 (BKS).
		eSE(Z)	32 43	E	
		eE	36.8		
		eE	39.3		
		eREZ	41.7		
			mu sec		
		PZ	.044 1.0		
	MHC	eP	18 24 57.2	c	
		epP	25 14.3	c	
	JAS	eP	24 59.8	c	
		epP	25 17.0	c	
	PRI	eP	07.1	c	
		epP	21.9	c	
Oct. 24	BKS	e(P)	18 56 05.3	d	USCGS: 45°0 N, 149°3 E, 0 = 18 45 38
		eZ	20.5	c	Kurile Islands. h about 48 km.
		iZ	35.3	c	
	MHC	eP	10.0	d	
		eZ	25.7	c	
	JAS	eP	12.8	d	
		eZ	27.6	d	
	PRI	e(P)	20.8	d	
		eZ	33.5	c	
Oct. 24	BKS	eP	21 20 42.3	c	USCGS: 17°7 S, 178°5 W, 0 = 21 09 44
	MHC	eP	43.2	d	Fiji Islands region.
	JAS	eP	48.5	d	h about 515 km.

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
1965 (cont.)					
Oct. 24	JAS	eZ	21 20 25.1	d	
	PRI	eP	43.1	d	
		eZ	23.8	d	
Oct. 25	BKS	e(P)	08 51 16	(d)	USCGS: 22°2 S, 170°3 E, 0 = 08 38 30.6.
		e(SKSE)	09 01 47	d	Loyalty Islands region.
		ePS(N)E	03 00	SWd	h about 33 km.
		eGN	14 52		
		eREZ	18 26		
			mu sec		
		MaxH	1.36 18		
	MHC	e(P)	08 51 16	c	
	JAS	e(P)	19.2	d	
		eZ	39.5	d	
	PRI	e(P)	15.0	d	
Oct. 25	BKS	e(G)N	15 35.1		USCGS: 53°6 N, 164°6 W, 0 = 15 20 50.1.
	MHC	e(P)	27 31.5	d	Unimak Island region.
	JAS	eP	25.1	c	h about 13 km.
		eZ	46.5	c	
		eZ	57.0	c	
	PRI	e(P)	43.0	d	
Oct. 25	BKS	e(P)N	18 18 40	S	
		e(PS)NE	30 32		
		eSSNE	35.0		
		eLgNE	42.4		
		eRNEZ	48.0		
Oct. 25	MHC	e(P)	18 49 50.8	c	USCGS: 53°2 N, 164°7 W, 0 = 18 43 02.9.
	JAS	e(P)	49	c	Unimak Island region.
	PRI	e(P)	41	c	h about 61 km.
Oct. 25	BKS	eP	22 44 55.5	c	USCGS: 44°2 N, 145°3 E, 0 = 22 34 24.3.
		epPZ	45 35	d	Hokkaido, Japan.
		isP(E)Z	44.8	NEc	h about 180 km.
		eSZ	53 28	c	Magnitude 6 - 6 1/2 (BKS).
		eSNE	34	NE	
		iScSNEZ	54 37	NEc	
		eGNE	23 01 10		
		eP'P'	13 20	c	
			mu sec		
		PZ	0.62 15		
		SH	25.7 18		
	MHC	eP	22 45 00.0	c	
		eZ	09.6	c	
		eZ	49.0	d	
	JAS	eP	23 13 20.6	d	
		eP	22 45 01.8	c	
		iZ	12.0	c	
		eP'P'	23 13 17.7	c	
	PRI	eP	22 45 09.3	c	
		eZ	18.5	c	
		eZ	57.8	d	
		eP'P'	23 13 13.5	c	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
1965					
Oct. 26	BKS	eP	08 27 31.8	c	USCGS: 22°0 S, 175°1 W, 0 = 08 15 36. Tonga Islands region. h about 33 km.
		eZ	51.5	c	
	MHC	eP	32.4	c	
	JAS	eP	36.8	d	
	MIN	eP	41.3	c	
		iZ	59.8	d	
	PRI	eP	32.2	d	
Oct. 26	BKS	e(P')	10 34 27.5	c	USCGS: 20°1 S, 168°8 E, 0 = 10 21 46. Loyalty Islands. h about 37 km.
		eZ	37.5	c	
		e(PPS)NE	47 20.0	NW	
		eRNEZ	11 03.2		
	MHC	e(P')	34 28.6	c	
	JAS	e(P')	33.3	c	
		eZ	43.3	d	
	MIN	iP	35 35.0	d	
Oct. 26	BKS	iP	12 27 09.0	d	USCGS: 24°4 S, 70°2 W, 0 = 12 15 08. Near coast of northern Chile. h about 55 km.
		epP	23.2	d	
	MHC	eP	04.9	c	
		epP	19.6	d	
	JAS	eP	02.7	c	
		epP	17.5	d	
	MIN	eP	26 14.6	d	
		ipP	29.4	c	
	PRI	eP	57.6	d	
		epP	27 11.7	d	
Oct. 26	BKS	ipZ	20 33 25.8	c	USCGS: 10°5 S, 161°2 E, 0 = 20 20 51. Solomon Islands. h about 72 km. Felt: At Honiara.
		iZ	39.5	d	
	MHC	eP	27.3	d	
		eZ	46.5	d	
	JAS	eP	32.1	d	
		e(pP)	48.0	d	
	MIN	iP	31.2	c	
Oct. 27	JAS	iP	12 53 24.0	c	USCGS: 61°1 N, 147°4 W, 0 = 12 47 34. Southern Alaska. h about 94 km
	MIN	eP	00.4	d	
		iZ	01.4	c	
Oct. 27	JAS	eZ	15 20 43.7	d	USCGS: 64°7 N, 162°5 W, 0 = 15 13 44. Alaska. h about 76 km.
Oct. 27	BKS	iZ	22 50 47.3	c	USCGS: 46°0 N, 142°9 E, 0 = 22 40 11. Sakhalin Islands. h about 230 Magnitude 4.7 - 5 (BKS).
	MHC	eP	51.0	c	
		eZ	52 04.6	d	
	JAS	iP	50 53.3	c	
		eZ	52 07.0	d	
	PRI	eP	51 00.1	c	
		eZ	07.5	d	
Oct. 28	BKS	iP	01 54 49.5	d	USCGS: 51°8 N, 176°5 E, 0 = 01 46 44. Rat Islands, Aleutians. h about 65 km.
		iZ	55 01.0	c	
		eRNEZ	02 07 22		
	MHC	e(P)	54 57.5	c	
		eZ	55 17.5	c	
	MIN	iP	01 55 03.0	c	
		iZ	09.2	d	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
65					
ont.)					
t. 28	PRI	eP	01 55 09.4	d	
		eZ	25.5	c	
t. 28	JAS	eP	05 20 47.8	d	USCGS: 44°6 N, 129°9 W, 0 = 05 18 28. Off coast of Oregon. h about 33 km.
		eZ	21 05.3	d	
t. 28	JAS	eZ	20 27 26.8	c	
t. 28	BKS	eNEZ	21 23.8	c	USCGS: 44°5 N, 130°1 W, 0 = 21 19 50. Off coast of Oregon. h about 33 km.
	MHC	eP	22 06.5	c	
	JAS	eP	11.3	c	
		eZ	28.6	c	
	MIN	iP	21 46.2	d	
	PRI	eP	22 15.4	c	
t. 29	MHC	e(pP)Z	04 20 26.5	c	USCGS: 33°3 S, 178°7 W, 0 = 04 08 49. South of Kermadec Islands. h about 33 km.
		e(P')Z	21 39.7	d	
	JAS	e(pP)Z	20 23.0	c	
		e(P')Z	21 43.5	d	
t. 29	PRI	e(P')Z	21 38.0	c	USCGS: 18°8 N, 107°4 W, 0 = 10 27 31. Off coast of Jalisco, Mexico. h about 33 km.
	MHC	eP	10 32 26.5	c	
	JAS	eP	25.4	c	
		eZ	42.4	c	
	PRI	eP	30 08.1	d	
		eZ	17.0	d	
t. 29	BKS	iP	21 07 57.8	c	USCGS: 51°26'20" N, 179°11'00" E, 0 = 21 00 00.1. Amchitka Island, Aleutians. h about 660 m (2300 ft). Magnitude 5 - 5.4 (BKS). Operation Longshot nuclear explosion.
		iZ	09 49.5	d	
		PZ	mu sec 0.322 1.0		
	MHC	eP	21 08 03.6	c	
		eZ	52.0	d	
	JAS	iPNEZ	07.5	SEc	
		iSE	14 41.6		
	MIN	eP	07 35.3	c	
		eZ	47.3	c	
	PRI	eP	08 15.0	c	
		eZ	09 57.3	d	
t. 30	BKS	eP	07 09 06.0	d	USCGS: 16°5 S, 173°3 W, 0 = 06 57 39.7. Tonga Islands. h about 33 km.
		iZ	16.0	d	
		e(S)NEZ	18 30		
		eGNE	27.4		
		eRNEZ	30.5		
		PZ	mu sec 0.214 2.0		
		SH	2.6 24		
		MaxH	4.02 20		
	MHC	eP	07 09 04.5	c	
	JAS	eP	10.5	c	
		eZ	23.5		
t. 30	PRI	eP	05.0	c	
	BKS	eP	19 48 04.5	d	
		eZ	30.0	d	
	MHC	eP	14.5	c	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965			h m s		
(cont.)					
Oct. 30	MHC	eZ	19 48 34.0	c	
	JAS	eP	17.3	c	
		eZ	32.6	d	
	PRI	eP	15.8	c	
		eZ	32.0	c	
Oct. 31	MHC	e(P)	06 54 29.8	c	USCGS: 11°6 S, 165°8 E, 0 = 06 42 07.
	JAS	e(P)	35.0	c	Santa Cruz Islands.
	PRI	e(P)	38.2	d	h about 68 km.
Oct. 31	BKS	eP	13 59 57.6	d	USCGS: 24°9 S, 69°0 W, 0 = 13 47 56.8
		epP	14 00 24.5	c	Chile-Argentina border region.
		esP	00 35.8	c	h about 107 km.
			mu sec		Magnitude 4.3 (BKS).
		PZ	0.047 1.0		
	MHC	eP	13 59 53.8	d	
		epP	14 00 21.8	d	
		esP	34.1	d	
	JAS	eP	13 59 46.2	d	
		epP	14 00 14.0	d	
		esP	27.0	c	
	PRI	eP	13 59 46.2	d	
		epP	14 00 14.0	d	
		esP	27.0	c	
Oct. 31	BKS	eP	15 14 27.0	d	USCGS: 19°5 S, 176°3 W, 0 = 15 02 51
		eZ	41.2	c	Fiji Islands region.
	MHC	eP	39.0	d	h about 34 km.
	JAS	eP	46.2	c	
		eZ	15 05.1	d	
	PRI	eP	14 40.5	d	
Oct. 31	BKS	e(P)	17 43 32.3	c	
		eZ	46 24.0	c	
	MHC	eP	43 27.4	d	
		eZ	46 28.0	c	
	JAS	eP	43 28.2	c	
		eZ	46 31.5	c	
	PRI	eP	43 30.2	d	
		eZ	46 35.0	d	
Nov. 1	BKS	e(P)Z	17 11 09.5	d	BRK: 39°6 N, 118°5 W, 0 = 17 10 15.
	MIN	iPZ	10 56.8	d	Near Bishop, California.
		iN	11 32.7	c	Magnitude 4.4 (BKS).
	PRI	ePZ	11 16.0	c	
		eS	12 07.0	c	
	JAS	ePZ	10 47.4	d	
		iSN	11 13.1	c	
	MHC	ePZ	11 06.3	c	
		eS	52.4	c	
Nov. 1	BKS	eP	18 14 38.0	c	USCGS: 24°1 S, 178°9 E, 0 = 18 03 00
		eZ	16 26.0	d	South of Fiji Islands.
		eZ	39.0	c	h about 546 km.
	MHC	eP	14 38.7	c	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965			h m s		
(cont.)					
Nov. 1	JAS	eP	18 14 43.4	c	
		eZ	16 44.0	d	
	MIN	iP	14 47.0	d	
		iZ	16 54.0	c	
	PRI	eP	14 38.0	c	
		eZ	16 39.0	c	
Nov. 2	BKS	eP	01 00 38.6	c	USCGS: 23°7 S, 179°8 W, 0 = 00 49 13.4.
		iZ	41.3	c	South of Fiji Islands.
		epP	02 02.8	d	h about 522 km.
		eZ	29.5	c	
	MHC	eP	00 38.9	c	
	JAS	eP	44.0	c	
	MIN	iP	57.9	d	
	PRI	eP	38.5	c	
Nov. 2	JAS	e(P)	06 56 09.0	d	
Nov. 2	JAS	eP	09 16 36.1	d	USCGS: 57°1 N, 152°8 W, 0 = 09 10 41.
	MIN	iP	13.8	d	Kodiak Island region.
		eZ	23.8	d	h about 33 km.
	PRI	eP	48.4	d	
Nov. 2	MIN	ePZ	12 42 26.9	c	USCGS: 33°4 N, 116°1 W, 0 = 12 41 01.5.
	PRI	ePZ	13.4	c	Southern California.
	JAS	ePZ	29.3	c	h about 16 km.
	MHC	ePZ	30.5	d	Magnitude 4.2 (BKS).
Nov. 2	JAS	e(P)	16 37 04.0	d	USCGS: 61°5 N, 142°9 E, 0 = 16 26 55.
	MIN	eP	36 46.0	c	Eastern Siberia. h about 33 km.
	PRI	e(P)	37 13.0	d	
Nov. 3	BKS	ePZ	00 47 30.5	d	BRK: 40°3 N, 125°5 W, 0 = 00 46 35.
		iSNE	48 12.5	d	Off Cape Mendocino.
	MIN	iPZ	47 22.8	c	Magnitude 4.0 (BKS).
		iN	56.6	c	
	PRI	ePZ	48 01.4	d	
	JAS	ePZ	47 47.0	d	
		eS	48 44.0	c	
	MHC	ePZ	47 41.4	d	
		eS	48 28.2	c	
Nov. 3	BKS	iPNEZ	01 48 58.2	SEd	USCGS: 9°1 S, 71°4 W, 0 = 01 39 02.5.
		iPcP	49 07.0	d	Peru - Brazil border region.
		ipP	50 58.8	d	h about 583 km.
		epPP	53 00.0	d	Magnitude 6.8 - 7.3 (BKS).
		eZ	28.0	c	
		iSNE	56 58.0	NEd	
		esSNE	02 00 16.0	SEc	
		eSSN	01.7	SEc	
		eSSSNE	04.8	c	
		eP'P'	17 10.3	d	
			mu sec		
		PZ	0.93 1.0		
		SH	61.6 8		

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965			h m s		
(cont.)					
Nov. 3	MHC	eP	01 48 54.2	d	
		epP	50 54.8	c	
	JAS	eS	56 55.5		
		eP	48 50.6	d	
		epP	50 47.0	c	
		eS	56 46.0		
	MIN	iP	49 03.1	d	
		ipP	15.0	d	
		ipPP	51 03.3	d	
		isZ	15.0	c	
		isSZ	57 14.7		
			31.5		
	PRI	eP	48 45.5	d	
		epP	50 45.2	c	
		eS	56 36.2		
Nov. 3	MHC	e(P)	02 16 38.0		
		eZ	17 07.0	(d)	
	JAS	e(P)	16 34.3	c	
		eZ	17 12.9	d	
		eZ	33.4	c	
	MIN	iZ	16 31.3	d	
		iZ	17 11.1	c	
		iZ	18.5	d	
		eZ	19 25.3	d	
Nov. 3	BKS	e(L)NE	08 21.3		USCGS: 58°4 N, 32°2 W, 0 = 07 57 34.
		e(R)EZ	27.2		North Atlantic Ocean.
	MHC	eZ	03 12.0	(c)	h about 33 km.
	JAS	eZ	03.8	(c)	
	MIN	eP	02 54.0	c	
	PRI	eZ	03 14.7	(d)	
Nov. 3	BKS	iP	18 31 16.5	d	USCGS: 22°3 S, 114°1 W, 0 = 18 21 0.
		e(PcP)	32 12.0	c	Easter Islands region.
		e(S)NEZ	39 36	NWd	h about 12 km.
		eSSEZ	43	Wd	Magnitude 5.9 (BKS).
		eGNE	46.6		
		eRNZ	49.7		
			mu sec		
		PZ	0.33 2.0		
		SH	3.87 16		
		MaxH	24.1 32		
	MHC	eP	18 31 12.9	d	
		ep'p'	19 00 48	c	
	JAS	eP	18 31 15.7	d	
		eZ	59.5	d	
		ep'p'	19 00 47.7	d	
	PRI	eP	18 31 03.7	d	
		eZ	51.3	d	
		ep'p'	00 52.1	d	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
v. 3	MHC	e(P)	20 21 42	c	USCGS: 22°2 S, 113°9 W, 0 = 20 11 38.
	JAS	e(P)	45.0	c	Easter Islands region.
		eZ	22 11.0	d	h about 33 km.
	PRI	e(P)	21 37.2	c	
v. 4	JAS	e(P)	01 21 52.5	c	USCGS: 17°0 S, 167°5 E, 0 = 01 09 08.4.
	PRI	e(P)	49.3	c	New Hebrides Islands. h about 23 km.
					Felt: At Port Villa.
v. 4	BKS	eP	04 12 03.0	c	USCGS: 17°1 S, 167°9 E, 0 = 03 59 28.1.
	MHC	eP	02.5	d	New Hebrides Islands.
	JAS	eP	08.2	c	h about 42 km.
	MIN	iP	09.1	d	
	PRI	eP	04.7	c	
v. 4	BKS	e(P)	07 12 08.5	c	
		eZ	16.7	d	
	MHC	e(P)	06.5	c	
	JAS	eP	05.0	c	
		eZ	11.8	c	
	MIN	iP	19.5	c	
	PRI	e(P)	03.7	c	
v. 4	JAS	eP	10 27 00.2	c	USCGS: 51°8 N, 175°0 E, 0 = 10 18 35.
	PRI	e(P)	26 55.8	c	Rat Islands, Aleutians.
					h about 33 km.
v. 4	JAS	eP	10 44 12.2	c	USCGS: 57°4 N, 151°1 W, 0 = 10 38 22.
	PRI	eP	25.2	c	Kodiak Island region. h about 33 km.
v. 4	MHC	eP	13 54 15.6	d	USCGS: 17°9 N, 103°1 W, 0 = 13 48 49.6.
	JAS	e(P)	08.2	c	Near coast of Michoacan, Mexico.
	PRI	e(P)	02.7	d	h about 33 km.
v. 4	JAS	e(P)	14 21 52.7	c	USCGS: 47°2 S, 10°6 W, 0 = 14 02 51.
	PRI	e(P)	51.7	c	South Atlantic Ridge. h about 33 km.
v. 5	BKS	eN	10 21.3		USCGS: 22°3 S, 113°9 W, 0 = 10 03 27.
		eNZ	30.6		Easter Islands region.
	MHC	eP	13 32.1	c	h about 33 km.
	JAS	eP	34.9	c	
	PRI	eP	21.7	c	
v. 5	BKS	e(P)	19 14 27	(c)	USCGS: 3°1 S, 143°8 E, 0 = 19 91 04.3.
		eZ	32 28	d	Near north coast of New Guinea.
		e(R)Z	44.0		h about 31 km.
	MHC		14 29.0	d	
	JAS	e(P)	34.9	(c)	
	MIN	iP	34.9	(c)	
	PRI	e(P)	33.1	c	
v. 5	MHC	e(P)	22 14 34.7	(c)	USCGS: 34°1 N, 138°9 E, 0 = 22 02 47.8.
	JAS	eP	39.7	c	Near south coast of Honshu, Japan.
					h about 31 km.
v. 6	BKS	e(P)	04 14 32.0	c	USCGS: 16°9 S, 167°5 E, 0 = 04 02 08.2.
	MHC	e(P)	46.0	c	New Hebrides Islands.
	JAS	e(P)	50.7	c	h about 33 km.
	PRI	e(P)	47.3	c	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965			h m s		
Nov. 6	BKS	eP	06 44 27	(d)	USCGS: 60°6 N, 147°3 W, 0 = 06 38 41. South Alaska. h about 37 km.
		iZ	47.0	c	Felt: At Anchorage.
		eNZ	49 32	Sd	
		e(R)NZ	51 48		
	MHC	eP	44 31.5	c	
	JAS	eP	32.5	c	
	MIN	iP	10.2	d	
		iZ	18.7	c	
Nov. 6	PRI	e(P)	48.0		
	BKS	eR	07 49.7		
	MHC	e(P)	31 25.6	d	
		eZ	35.5	d	
	JAS	eP	26.6	d	
		eZ	38.0	d	
	MIN	eP	44.8	d	
	PRI	eP	26.3	d	
Nov. 6	BKS	eZ	35.2	c	
		eP	09 09 05.5	(c)	USCGS: 34°0 N, 138°9 E, 0 = 08 57 12. Near south coast of Honshu, Japan. h about 15 km.
		eZ	11.0	d	
		e(S)NZ	19 36.0		
		e(G)N	28.3		
		e(R)Z	31.6		
	MHC	eP	09 06.0	(c)	
		eZ	18.2	c	
	MIN	iP	08 56.4	c	
	JAS	eP	09 08.8	c	
		eZ	20.4	c	
	PRI	eP	13.9	c	
		eZ	25.7	c	
Nov. 6	BKS	eP	09 31 56.0	c	USCGS: 22°1 S, 113°8 W, 0 = 09 21 40. Easter Island region. h about 33 km.
		eZ	32 12.3	d	
		eSN	40 26		
		eSSNZ	44 12		
		eRNZ	49.5		
			mu sec		
		PZ	0.27 1.8		
	MHC	eP	09 31 52.4	c	
	JAS	eP	55.1	c	
		eZ	34 10.0	c	
		eP'P'	10 01 26.7	(c)	
	MIN	iP	32 11.5	d	
		iZ	32.3	d	
	PRI	eP	31 43.4	c	
Nov. 6	MHC	e(P)	12 39 56.0	c	
	JAS	e(P)	54.0	c	
	MIN	eP	40 20.8	d	
	PRI	eZ	39 53.0		
Nov. 6	BKS	eP	22 38 39	c	USCGS: 51°4 N, 176°7 E, 0 = 22 30 20. Rat Islands, Aleutian Islands.
		e(R)	51.5		

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
			65		
			ont.)		
Nov. 6	MHC	(e)P	22 38 36.4	(c)	
	JAS	eP	37.0	c	
	MIN	eP	18.1	c	
Nov. 7	JAS	eP	14 22 38.7	c	USCGS: 48°9 N, 154°9 E, 0 = 14 12 38. Kurile Islands. h about 33 km.
Nov. 7	BKS	e(P)	21 40 25.5	d	USCGS: 22°4 S, 171°5 E, 0 = 21 27 45.1. Loyalty Islands region. h about 117 km.
	MHC	e(P)	16.6	c	
		eZ	42.5	d	
	JAS	e(P)	21.4	c	
		eZ	45.8	c	
	MIN	eP	53.4	d	
	PRI	e(P)	17.2	c	
		eZ	43.6	d	
Nov. 8	MHC	e(P)	18 32 41.5		USCGS: 31°7 S, 69°7 W, 0 = 18 20 19.6. San Juan Province, Argentina. h about 101 km. Felt: At San Juan.
	JAS	e(P)	40.0	d	
	PRI	e(P)	34.9	c	
Nov. 9	JAS	iP	02 50 06.4	c	USCGS: 28°4 N, 43°6 W, 0 = 02 39 38. North Atlantic Ridge. h about 33 km.
		iZ	29.9	c	
	MIN	iP	07.1	c	
Nov. 9	MHC	e(P)	07 20 33.0		USCGS: 17°8 S, 167°7 E, 0 = 07 07 52.4. New Hebrides Islands. h about 33 km. Felt: At Port Villa.
	JAS	eP	36.5		
	PRI	eP	33.6		
Nov. 9	BKS	eP	10 28 09.0	c	USCGS: 34°0 S, 178°1 W, 0 = 10 15 21. South of Kermadec Island. h about 50 km.
		eZ	22.0	c	
	MHC	eP	09.0	c	
		eZ	21.9	c	
	JAS	eP	13.2	c	
		eZ	26.5	c	
	MIN	eP	14.6	d	
	PRI	eP	07.7	c	
		eZ	16.0	c	
Nov. 9	BKS	eP	11 46 25.6	d	USCGS: 51°8 N, 174°4 E, 0 = 11 38 14.8. Near Islands, Aleutians. h about 33 km.
		eZ	50 25	c	
		e(S)EZ	53 16	Ed	
		e(SS)E	56.0		
		e(R)EZ	59.9		
	MHC	eZ	46 44.0	c	
	JAS	eP	42.7	c	
		eZ	54.2	d	
	MIN	iP	26.3	c	
		iZ	42.4	d	
	PRI	eP	42.3	(c)	
		eZ	52.0	d	
Nov. 9	MHC	eP	22 09 09.3	d	USCGS: 22°3 S, 113°7 W, 0 = 22 59 04.3. Easter Islands region. h about 33 km.
	JAS	eP	12.2	d	
		eZ	31.1	d	
	MIN	eP	28.0	d	
	PRI	eP	00.2	d	
		eZ	20.6	d	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965					
Nov. 10	BKS	eP	12 59 21.5	d	USCGS: 21°0 S, 69°0 W, 0 = 12 47 37.5
	JAS	eP	15.3	d	Northern Chile. h about 110 km.
	MIN	iP	27.0	c	
	PRI	eP	09.5	(d)	
Nov. 10	BKS	eP	13 12 15.6	(c)	USCGS: 24°6 S, 179°3 E, 0 = 13 00 48
	MHC	eP	16.2	(c)	South of Fiji Islands.
	JAS	e(P)	21.1	c	h about 560 km.
	MIN	iP	25.6	c	
	PRI	e(P)	15.8	(c)	
Nov. 10	BKS	e(S)N	21 10 42	(d)	USCGS: 18°1 N, 105°7 W, 0 = 21 01 19
		eGE	12.8		Off coast of Jalisco, Mexico.
		eRNZ	13.5		h about 21 km.
	JAS	e(P)	06 29	(d)	
Nov. 11	BKS	eP	01 45 34.7	d	USCGS: 22°8 S, 172°6 E, 0 = 01 32 59
		e(PcP)	39.5	c	Loyalty Islands region.
		e(s)NE	56 18.0	SE	h about 62 km.
		eGNE	08.5		
		e(R)EZ	10		
	MHC	eP	45 35.7	d	
		eZ	46.3	d	
	JAS	eP	40.2	d	
		eZ	51.2	d	
		eZ	49 06.2	c	
	MIN	eP	44 39.3	c	
	PRI	eP	45 35.8	(d)	
		eZ	46.5	d	
		eZ	49 00.2	d	
Nov. 11	BKS	eP	02 29 38.5	d	USCGS: 51°7 N, 176°2 E, 0 = 02 21 2
		e(R)E	41.7		Rat Islands, Aleutians.
	MHC	e(P)	29 35.0	d	h about 104 km.
	JAS	eP	36.8	d	
		eZ	51.9	d	
	PRI	eP	52.2	c	
		eZ	30 10.0	d	
Nov. 11	BKS	e(P)	03 08 44	(d)	USCGS: 60°7 S, 154°0 E, 0 = 02 51 2
		e(SKS)NE	19 56	(SE)	West of Macquarie Islands.
		e(S)Z	20 40	(d)	h about 33 km.
		e(SS)NE	27 56	(NW)	
		eNEZ	31.5		
		eNE	35.0		
		e(G)NE	39.2		
		e(R)Z	43.5		
Nov. 11	BKS	eZ	03 10 28.6	(d)	
	JAS	eZ	31.5	d	
		eZ	39.8	d	
Nov. 11	BKS	eP	08 57 59.2	c	USCGS: 18°4 S, 177°7 W, 0 = 08 46
	MHC	eP	50.3	d	Fiji Islands region.
	JAS	eP	55.3	d	h about 350 km.
		eZ	58 15.3	c	
	MIN	iP	57 58.7	c	
	JAS	eP	55.3	d	
		eZ	58 15.3	c	

Sta.	Phase	Time(GCT)	Ground Motion	Remarks
		h m s		
Nov. 11	BKS	08 59 15.0	c	
	MHC	15.5	c	
	MIN	25.9	c	
	JAS	21.2	c	
		32.3	c	
	PRI	15.3	c	
		27.6	d	
Nov. 11	MHC	20 08 56.7	(d)	USCGS: 19°6 N, 146°4 E, 0 = 19 56 49.
	JAS	09 00.0	d	Mariana Islands region.
	PRI	03.2	(c)	h about 33 km.
Nov. 11	BKS	23 02 28	d	USCGS: 28°4 S, 176°5 W, 0 = 22 49 57.8.
		12 44	(NW)	Kermadec Islands. h about 47 km.
		23.7		
		27.7		
		mu sec		
		2,5 18		
	MHC	23 02 21.0	d	
	JAS	26.2	d	
		45.0	c	
	MIN	33.1	c	
	PRI	19.6	d	
		41.7	c	
Nov. 12	MHC	01 09 51.7	c	USCGS: 51°3 N, 171°3 E, 0 = 01 01 12.
	JAS	54.1	d	Near Islands, Aleutians.
	PRI	10 03.0	(d)	h about 33 km.
Nov. 12	BKS	02 28 50	W	USCGS: 56°0 S, 121°5 W, 0 = 02 04 19.5.
		35 16	NEc	Easter Island Cordillera.
		42.0		h about 33 km.
		47.9		
	JAS	17 31.4	d	
	PRI	28.0	d	
Nov. 12	BKS	09 17 55		USCGS: 10°6 N, 84°4 W, 0 = 08 59 53.3.
		19.5		Costa Rica. h about 25 km.
		21.0		
		23.9		
	JAS	07 41		
Nov. 12	JAS	15 14 48.1	c	USCGS: 17°9 S, 167°7 E, 0 = 15 01 04.
				New Hebrides Islands. h about 33 km.
Nov. 12	MHC	17 00 15.4	(c)	
	JAS	33.1	c	
	PRI	29.0	(c)	
Nov. 12	BKS	17 15 10.5	c	USCGS: 22°2 S, 113°9 W, 0 = 17 04 57.
	MHC	02.5	(d)	Easter Island region.
	JAS	04.7	(d)	h about 33 km.
		23.4	(d)	
	PRI	14 53.1	(d)	
Nov. 12	BKS	17 27 27	d	USCGS: 30°7 N, 139°9 E, 0 = 17 13 59.
		33 35	SE	South of Honshu, Japan.
	MHC	25 47.4	(c)	h about 100 km.
	JAS	51.6	c	
	PRI	56.2	c	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965			h m s		
Nov. 12	BKS	eP	17 26 09.0	c	USCGS: 30°4 N, 139°8 E, 0 = 17 14 27 South of Honshu, Japan. h about 150 km. Magnitude 5 1/4 - 5 1/2 (BKS).
		e(S)E	35 54	W	
		eN	36 30	N	
		e(G)N	46 38		
		eREZ	49.4		
			mu sec		
	MHC	PZ	0.06 1.0		
		eP	17 26 12.8	c	
	JAS	eP	15.6	c	
	MIN	iP	04.0	c	
	PRI	eP	20.3	c	
Nov. 12	BKS	iP	18 04 18.0	d	USCGS: 30°5 N, 140°2 E, 0 = 17 52 24 South of Honshu, Japan. Magnitude 6 1/2 (BKS).
		iZ	23.8	d	
		iZ	32.5	d	
		eS	14 08		
		eSSZ	19 12	c	
		eGNE	24.1		
		eRZ	27.3		
			mu sec		
	MHC	PZ	0.20 1.0		
		SH	4.8 16		
	JAS	eP	18 04 21.5	c	
		eP	24.5	c	
		eZ	21.7	(d)	
	MIN	iP	13.4	d	
		iZ	20.2	d	
	PRI	eP	28.7	c	
		eZ	28.4	c	
Nov. 12	JAS	e(P)	18 26 57.5	c	USCGS: 31°6 N, 140°2 E, 0 = 18 15 South of Honshu, Japan. h about 177 km.
		eZ	27 03.2	d	
	MIN	eP	26 51.0	c	
	PRI	e(P)	27 06.5	(c)	
Nov. 12	MHC	eP	19 02 43.5	(d)	USCGS: 53°3 N, 153°6 E, 0 = 18 53 Sea of Okhotsk. h about 469 km.
	JAS	iP	45.5	d	
	MIN	iP	30.3	d	
	PRI	eP	53.4	d	
Nov. 12	MHC	e(P)	19 16 31.6	(d)	USCGS: 31°3 N, 140°6 E, 0 = 19 04 South of Honshu, Japan. h about 33 km.
	JAS	e(P)	36.0	(d)	
	PRI	e(P)	43.0	(d)	
Nov. 12	BKS	eEZ	22 44.3		USCGS: 19°0 N, 108°4 W, 0 = 22 34 Revilla Gigedo Islands region. h about 33 km.
		e(R)E	46.8	(d)	
	MHC	e(P)	39 01	d	
	JAS	e(P)	38 57.3	c	
	MIN	eP	39 24.4	c	
		eZ	33.3	c	
	PRI	e(P)	38 48.2	d	
Nov. 13	BKS	eP	04 47 09.2	c	USCGS: 43°8 N, 87°8 E, 0 = 04 33 Northern Sinkiang Province, C
		iZ	25.0	c	
		eZ	58.5	d	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965			h m s		
Nov. 13	BKS	ePP	04 50 59	c	Magnitude 7.0 (BKS).
		eSKSN(E)	57 36	SWc	
		eSSNE	05 05.0		
		e(SSS)	09.1		
		eL	12.8		
		e(SKP'P')	16 33	d	
		eR	20.7		
			mu sec		
	MHC	PZ	2.5 3		
		PPZ	1.8 12		
		SH	4.3 12		
		MaxH	24 24		
	MHC	eP	04 47 11.7	c	
		eZ	28.3	c	
	JAS	eP	10.3	c	
		eZ	27.0	c	
	MIN	eP	46 57.6	c	
		iZ	47 13.8	d	
		iPP	50 47.4	d	
		iZ	59.0	d	
		eSKS	57 29.5		
	PRI	eP	47 18.5	c	
		eZ	35.0	c	
Nov. 13	JAS	e(P)	05 04 42.5	c	
	PRI	e(P)	36.0	(c)	
Nov. 13	BKS	e(P)	10 49 33	c	USCGS: 56°7 N, 152°7 W, 0 = 10 43 51.7. Kodiak Islands region. h about 33 km.
		eZ	56.4		
	JAS	e(P)	49 44.5	d	
	MIN	eP	17.3	c	
		iZ	33.2	d	
	PRI	e(P)	50 05.5	(d)	
Nov. 13	BKS	eP	18 12 08.5	c	USCGS: 29°4 S, 68°1 W, 0 = 17 59 41.7. San Juan Province, Argentina. h about 48 km. Magnitude 5 (BKS). Damage at Villa Union.
		iZ	25.0	c	
		e(R)Z	36.0		
			mu sec		
	MHC	PZ	0.1 1.0		
		eP	18 12 05.1	c	
		eZ	15.7	c	
		eZ	16 37.0	c	
	JAS	eP	12 03.3	c	
		eZ	13.8	c	
		eZ	25.0	d	
	MIN	iP	14.2	c	
		eZ	13 36.6	c	
	PRI	eP	11 58.0	c	
		eZ	12 08.5	c	
Nov. 14	JAS	e(P)	03 19 40.3	c	USCGS: 1°9 N, 90°5 W, 0 = 03 10 07. Galapagos Islands region. h about 33 km.

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
1965					
Nov. 14	BKS	i(P)	06 05 51.6	d	USCGS: 36°8 N, 140°8 E, 0 = 05 54 16.
	JAS	e(P)	48.0	(c)	Near east coast of Honshu, Japan.
	MIN	iP	06 47.9	c	Felt: In Tokyo area.
	PRI	e(P)	01.2	(c)	
Nov. 15	JAS	eP	00 28 29	(c)	USCGS: 10°6 S, 163°4 E, 0 = 00 15 52.
					Solomon Islands. h about 33 km.
Nov. 15	BKS	iPNEZ	06 50 55.5	SWc	BRK: 40°5 N, 125°3 W, 0 = 06 50 02.
		iS	51 33.5		Off Cape Mendocino.
	MIN	iPZ	50 47.6	c	Magnitude 4.3 (BKS).
		iSE	51 16.8		
	PRI	e(P)	28.2		
	JAS	ePZ	12.2	c	
	MHC	ePZ	04.5	c	
		eS	47.1		
Nov. 15	BKS	e(SKS)	11 43 20	c	USCGS: 0°3 S, 18°7 W, 0 = 11 18 49.9.
		e(PS)	45 40	d	Central Mid-Atlantic Ridge.
		e(SS)	51 24	d	h about 24 km.
		eZ	53 26	d	
		e(Lg)	12 00 50	c	
		e(R)	06 10	c	
	JAS	eP	11 32 33.1	(c)	
		ePP	36 32.7	(c)	
	MIN	eP	32 35.6	c	
Nov. 16	BKS	eP	00 01 27.6	d	
	MHC	eP	27.8	(c)	
	JAS	eP	32.8	c	
	PRI	eP	27.6	(d)	
Nov. 16	JAS	e(P)	05 01 45.3	(c)	USCGS: 11°4 S, 163°0 E, 0 = 04 49 03.
		eZ	56.6	(d)	Solomon Islands. h about 33 km.
	PRI	e(P)	33.8	(d)	
		eZ	43.1	c	
Nov. 16	BKS	eP	15 35 24.3	d	USCGS: 31°0 N, 41°5 W, 0 = 15 24 42.
		eZ	41.0	c	North Atlantic Ridge.
		ePP	37 52.0	(c)	h about 17 km.
		eSNEZ	44 15	NEc	Magnitude 6.4 (BKS).
		e(G)E	53.6		
		eRNEZ	55.1		
			mu sec		
		PZ	0.77 2.0		
		SH	4.1 11		
		MaxH	27.5 19		
	MHC	e(P)	15 35 24.0	d	
		eP'P'	16 04 18.0	d	
	JAS	eP	15 35 15.2	d	
		eZ	36 14.5	c	
		eP'P'	16 04 17.7	(d)	
	MIN	eP	15 35 15.4	d	
		iZ	21.6	c	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
1965					
(cont.)					
Nov. 16	MIN	iZ	15 36 15.6	c	
	PRI	eP	35 20.8	d	
		eZ	36 17.0	c	
		eP'P'	16 04 15.8	d	
Nov. 16	BKS	eP	17 18 36.2	c	USCGS: 25°4 N, 125°2 E, 0 = 17 05 37.9.
		eZ	19 45.0	(c)	Southwestern Ryukyu Islands.
	MHC	e(P)	18 37.7	d	h about 77 km.
	JAS	eP	39.3	c	
	MIN	eP	30.2	c	
		eZ	40.1	c	
		eZ	22 04.8	d	
	PRI	eP	18 45.0	c	
Nov. 16	JAS	eP	23 45 11.2	d	USCGS: 48°1 N, 153°2 E, 0 = 23 35 08.0.
	MIN	iP	44 55.9	c	Kurile Islands. h about 102 km.
Nov. 18	BKS	(i)P	20 11 28.7	c	USCGS: 18°8 S, 177°9 W, 0 = 20 00 19.0.
	MHC	eP	28.6	c	Fiji Islands region.
		eZ	52.5	d	h about 421 km.
		eZ	13 09.2	d	
	JAS	iP	34.4	d	
		eZ	55.0	d	
		epPZ	13 08.0	d	
	MIN	iP	11 36.8	d	
		iZ	42.0	c	
		iZ	50.0	d	
		ipP	13 11.0	c	
		iZ	21.0	c	
	PRI	eP	11 28.7	d	
		eZ	13 02.5	d	
Nov. 18	MHC	eP	22 07 41.5	c	USCGS: 53°9 N, 160°7 E, 0 = 21 58 12.4.
		eZ	50.6	c	Near east coast of Kamchatka.
	JAS	eP	41.6	c	h about 12 km.
		eZ	49.2	d	
	MIN	iP	24.3	c	
		iZ	35.6	d	
		iZ	08 34.8	c	
	PRI	eP	07 50.0	c	
		eZ	59.0	c	
Nov. 19	MHC	e(P)	15 19 55.5	(d)	USCGS: 50°2 N, 177°7 E, 0 = 15 11 44.5.
	JAS	e(P)	58.5	d	Rat Islands, Aleutians.
	MIN	iP	40.7	c	h about 33 km.
Nov. 19	JAS	e(P)	22 44 46.7	c	USCGS: 23°6 N, 121°8 E, 0 = 22 31 19.8.
	MIN	eP	38.8	c	Taiwan. h about 10 km.
	PRI	e(P)	51.2	(c)	Felt: On Taiwan.
Nov. 19	JAS	iP	22 51 59.3	d	
	MIN		41.9	c	
Nov. 20	JAS	e(P)	03 49 45.0	d	USCGS: 21°9 N, 143°8 E, 0 = 03 37 31.
	MIN	iZ	34.8	c	Mariana Islands. h about 33 km.

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965			h m s		
Nov. 20	BKS	iP	03 59 19.7	d	USCGS: 15°4 S, 174°5 W, 0 = 03 47 52. Tonga Islands. h about 12 km. Magnitude 5 - 5.4 (BKS).
		PZ	0.09 1.2		
	MHC	eP	03 59 20.2	(d)	
	JAS	eP	26.3	d	
		eZ	38.3	d	
	MIN	eP	30.1	c	
		eZ	52.8	c	
	PRI	eP	20.3	d	
		eZ	31.1	c	
Nov. 20	BKS	e(PS)EZ	15 33 36	SW	
		e(PPS)	34 44	c	
		e(Lg)	49.5		
		e(R)	55.6		
	MHC	e(P')	24 00.7	c	
	JAS	e(P')	23 58.8	c	
	MIN	e(P')	55.7	c	
	PRI	e(P')	24 02.5	c	
Nov. 20	JAS	iP	15 34 59.2	c	
		i(pP)	35 09.2	d	
	MIN	eP	02.5	d	
	PRI	e(P)	10.8		
Nov. 20	MHC	e(P)	18 48 03.4	d	USCGS: 10°1 N, 126°1 E, 0 = 18 34 21 Philippine region. h about 65 km.
	MIN	eP	27.7	c	
	JAS	e(P)	02.5	d	
Nov. 21	MHC	e(P)	03 15 39.7	c	USCGS: 50°5 N, 111°9 E, 0 = 03 03 26 Lake Baikal, Russian region. h about 33 km.
	MIN	iP	23.4	c	
	JAS	e(P)	38.0	c	
		eZ	59.3	c	
	PRI	e(P)	47.7	c	
Nov. 21	BKS	eP	05 11 05.0	(c)	USCGS: 49°8 N, 78°1 E, 0 = 04 57 57. Eastern Kazakh, Palatinsk regio h about 0 km. Russian nuclear A test. Magnitude 4.4 (BKS).
		PZ	0.03 0.8		
	MHC	eP	08.3	c	
	JAS	eP	06.2	c	
	MIN	eP	10 53.5	c	
		iZ	11 02.6	c	
	PRI	eP	05 11 15.0	(c)	
Nov. 21	BKS	eP	10 46 02.9	d	
		e(PP)E	50 28.0	SW	
		e(SK)E	56 28.0	Wc	
		e(SKKS)NE	54.0	N	
		e(SS)	11 05 36.0	c	
		e(Lg)	16.2		
		e(R)	20.0		
	MHC	(e)P	46 05.1		
	MIN	eP	07.1		
	PRI	eP	46 10.8		
		eZ	48 23.0		

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965			h m s		
Nov. 21	BKS	eP	10 50 08.0	c	
		eZ	16.5	d	
		eZ	42.8	d	
		e(PcP)	51 06.0	c	
		e(s)NE	57 52		
		e(Lg)	11 09.1		
		e(R)	12.9		
	MHC	e(P)	50 08.0	(c)	
		eZ	32.0	d	
		eZ	51 10.3	c	
	JAS	eP	50 07.7	c	
		eZ	34.4	c	
		eZ	13.5	c	
	MIN	eZ	18.1	c	
		iZ	29.4	d	
	PRI	eP	12.7	c	
		eZ	37.3	c	
		eZ	51 17.3	d	
Nov. 21	MHC	e(P)	11 01 19.3	(c)	
	JAS	eP	19.4	c	
		eZ	32.0	c	
	MIN	iP	32.9	c	
		eZ	37.1	c	
		eZ	05 22.6	c	
	PRI	eP	01 19.5	c	
		eZ	32	(c)	
Nov. 21	BKS	e(L)NE	21 54.0		USCGS: 16°4 N, 98°8 W, 0 = 21 39 27. Near coast of Guerrero, Mexico. h about 18 km.
		e(R)Z	56.7		
	MHC	e(P)	45 27.9	d	
	JAS	eP	28.5	d	
	MIN	eP	52.9	d	
	PRI	e(P)	16.9	(c)	
Nov. 22	BKS	i(P')	12 21 26.3	d	
		eZ	38.2	(c)	
		PZ	0.14 0.9		
	MHC	e(P')	12 21 24.4	d	
		eZ	32.7	c	
	PRI	e(P')	19.7	d	
		eZ	28.6	c	
Nov. 22	BKS	e(P)	14 07 58.5	c	USCGS: 52°0 N, 176°1 W, 0 = 14 00 27.0. Andreanof Islands, Aleutians. h about 49 km. Felt: On Adak.
		eZ	08 09.5	d	
		e(R)E	18.9		
	MHC	e(P)	08 03.0	d	
		eZ	16.5	c	
	MIN	eP	07 57.1	c	
		iZ	08 02.1	c	
		iZ	07.2	c	
	PRI	e(P)	15.8	d	
		eZ	30.0	c	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
1965 (cont.)					
Nov. 22	BKS	iP	19 20 56.8	c	USCGS: 12°0 S, 167°4 E, 0 = 19 09 09 Santa Cruz Islands. h about 326 km
			mu sec		
			0.06 0.7		
	MHC	PZ	19 20 57.9	d	
		eP	03.1	c	
	MIN	iP	59.8	d	
	PRI	eP	20 33 21.0	c	USCGS: 51°3 N, 179°8 W, 0 = 20 25 30 Andreanof Islands. h about 40 km.
Nov. 22	BKS	iP	44.3	c	
		iZ			
	MHC	e(R)	43.0		
		eP	32.5	c	
		eZ	38.8		
		eZ	39 42	c	
		e(R)	43.0	c	
	PRI	e(P)	33 37.7	d	
		eZ	49.8	d	
		e(ScP)	39 15.0	c	
Nov. 22	MIN	iP	20 37 34.2	c	USCGS: 51°4 N, 179°9 W, 0 = 20 39 40 Andreanof Islands, Aleutians. h about 60 km.
		iZ	39.1	d	
Nov. 23	JAS	e(P)	01 36 02.7		USCGS: 3°0 N, 124°8 E, 0 = 01 17 31 Celebes Sea. h about 45 km.
	PRI	e(P)	01 05 12.5		
Nov. 23	BKS	iP	02 25		USCGS: 51°4 N, 179°6 W, 0 = 02 17 40 Andreanof Islands region. h about 48 km.
	MHC	(e)Z	31 17.8		
		eP	25 44.3	c	
	JAS	eP	46.3	(d)	
		e	26 12.6	d	
		e	31 30.2	c	
	PRI	eP	26 01.3	(d)	
		eZ	13.5	c	
Nov. 24	MHC	eZ	31		USCGS: 30°3 S, 114°7 W, 0 = 03 12 40 Easter Island region. h about 33 km.
		eP	03 22 36.6	c	
	JAS	eP	23 39.2	d	
		eZ	55.4	c	
		eZ	28.7	d	
Nov. 24	PRI	e(P)	08 28 44.5	c	USCGS: 63°2 N, 151°0 W, 0 = 08 22 30 Central Alaska. h about 159 km
	BKS	eP	mu sec		
			0.074 0.6		
	MHC	PZ	08 28 49.2	d	
		eP	29 17.8	(c)	
		epP	28 48.1	d	
	JAS	eP	29 16.1	d	
		epP	35 10.4	c	
		e	29 25.6	d	
	MIN	iP	53.8	d	
		ipP	02.5	d	
	PRI	eP	30.5	c	
		epP			

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
1965					
Nov. 25	JAS	i(P) iZ	03 44 24.8 38.4	c c	USCGS: 55°2 N, 163°0 E, 0 = 03 35 11.7. Near east coast of Kamchatka. h about 33 km.
Nov. 25	BKS	eP	11 00 34.0	(c)	Magnitude 4.9 - 5.3 (BKS).
			mu sec		
			0.043 0.9		
	MHC	PZ	11 00 29.7	c	
		eP	30.3	c	
	JAS	eP	51.7	c	
		eZ	36.8	c	
	MIN	eP	01 07.5	c	
		eZ	00 19.6	c	
	PRI	eP	42.0	c	
		eZ	16 48 43.7	d	USCGS: 28°1 S, 176°9 W, 0 = 16 36 13. Kermadec Islands. h about 32 km.
Nov. 25	JAS	eP	55.3	c	
		eZ	50.3	c	
Nov. 25	MIN	iP	22 47 52.1	c	USCGS: 3°9 S, 150°3 E, 0 = 22 35 37.2. New Ireland region. h about 457 km.
	MHC	eP	56.3	c	
	JAS	eP	48 14.9	d	
		eZ	51 40.7	d	
		e(PP)	47 53.3	d	
	MIN	iP	55.9	c	
	PRI	eP	00 29 00.5	(c)	USCGS: 32°1 N, 140°8 E, 0 = 00 17 18.2. South of Honshu, Japan. h about 64 km.
Nov. 26	BKS	iP	17.4	(c)	
		iZ	mu sec		
			0.08 0.8		
	MHC	PZ	00 29 04.0	c	
		eP	22.3	c	
	JAS	eP	06.7	c	
		eZ	25.3	c	
	PRI	eP	12.1	c	
		eZ	30.9	c	
Nov. 26	BKS	(e)E	01 34 08.5	(c)	USCGS: 51°8 N, 174°2 W, 0 = 01 26 32.8. Andreanof Islands, Aleutians. h about 27 km.
	MHC	eP	01.0	(c)	
		eZ	14.6	c	
	JAS	eP	04.6	(c)	
		eZ	18.2	c	
	MIN	eP	33 49.0	c	
		eZ	59.8	c	
	PRI	(e)P	34 14.2	(c)	
		eZ	25.5	(c)	
Nov. 27	BKS	e(PPS)	01 55 26	(c)	USCGS: 6°1 S, 148°5 E, 0 = 01 29 49.5. New Britain region. h about 56 km.
		e(SS)E	02 00 42	(d)	
		e(L)EZ	12.5		
		e(R)E	18.9		
	JAS	e(P')	01 43 05.7	c	
	PRI	e(P')	05.3	c	
Nov. 27	BKS	eP	03 16 11.0	c	USCGS: 30°6 N, 140°2 E, 0 = 03 04 20.6. South of Honshu, Japan. h about 60 km.
		e(PcP)	39.4	d	
		e(S)NE	26.0		
		eSS	31 02	c	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965			h m s		
(cont.)					
Nov. 27	BKS	e(G)N e(R)Z	03 36.5 39.5		
			mu sec		
		MaxH	5.7 23		
	MHC	eP	03 16 15.1	c	
	JAS	eP	18.3	c	
		eZ	25.5	d	
	MIN	eP	06.2	d	
		eZ	11.6	c	
	PRI	eP	23.0	(c)	
Nov. 27	MHC	eP	03 55 57.5	d	USCGS: 30°5 N, 140°2 E, 0 = 03 44 04 South of Honshu, Japan. h about 41 km.
		eZ	56 05.5	d	
	JAS	eP	56 02.5	d	
		eZ	10.2	d	
	MIN	eP	55 58.6	c	
	PRI	eP	56 08.5	d	
Nov. 27	BKS	eZ iP	08 54 03.5 19.9	d c	USCGS: 32°9 N, 140°6 E, 0 = 08 42 2 South of Honshu, Japan. h about 74 km. Magnitude 4.2 - 4.6 (BKS).
		eZ	15.0	d	
			mu sec		
		PZ	.084 0.9		
	MHC	eP	08 54 07.5	c	
	JAS	eP	10.3	c	
		eZ	25.8	d	
	MIN	iP	53 58.3	c	
		iZ	54 06.0	c	
	PRI	eP	15.2	c	
		eZ	30.5	d	
Nov. 27	BKS	eP(N)EZ ipPZ e(S)NEZ e(PPS)E eSSNEZ eSSSZ eGN(E) e(R)Z	12 14 33.0 53.7 25 08 26 20 30 20 34 22 36.7 40.5	(N)Ec c SWc W NEc d	USCGS: 9°7 S, 159°7 E, 0 = 12 01 5 Solomon Islands. h about 51 km Magnitude 5.6 - 5.8. Felt: At Honiara.
			mu sec		
		PZ	0.17 1.0		
		SH	2.48 16		
		MaxH	4.1 18		
	MHC	eP	12 14 34.7	c	
	JAS	eP	39.2	c	
		epP	53.9	d	
	MIN	iP	37.6	c	
		iPcP	43.4	d	
		ipP	56.8	d	
Nov. 27	BKS	ePZ	14 56 55.8	(c)	USCGS: 10°7 S, 163°4 E, 0 = 14 44 Solomon Islands. h about 33 km
	MHC	eP	57.0	d	
	JAS	eP	01.4	d	
		eZ	25.0	d	
	MIN	eP	57 01.3	c	
	PRI	eP	56 59.4	d	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965			h m s		
Nov. 28	BKS	eP ePPZ eSKSNEZ ePSNEZ eSSNEZ eSSSNEZ eGE eRNZ	04 10 16 13 52 20 36 22 40 27.5 31 20 36 40 40.3	(d) d (NWd) NWd	USCGS: 45°6 S, 72°4 W, 0 = 03 56 45.9. Near coast of southern Chile. h about 33 km. Felt: At Aysen.
			mu sec		
		MaxH	10.1 36		
	MHC	eP	04 10 04	(d)	
	JAS	eP	02.5	d	
		eZ	40.2	d	
	PRI	eP	09 57.2	d	
Nov. 28	JAS	e(P)	05 39 46.1	c	USCGS: 36°1 N, 27°7 E, 0 = 05 26 05.6. Dodecanese Islands. h about 89 km. Moderate damage at Rhodes. Felt: In western Turkey.
	MIN	iP	37.6	c	
	PRI	e(P)	54.6	c	
Nov. 28	BKS	iP	13 03 51.0	c	USCGS: 30°2 S, 176°4 W, 0 = 12 51 20.5. Kermadec Islands. h about 41 km.
	MHC	eP	51.0	c	
	JAS	eP	55.8	c	
	MIN	iP	04 00.5	d	
	PRI	eP	03 48.1	(c)	
Nov. 28	BKS	e(P)	21 50 44.5	(d)	
	MHC	e(P)	45.8	c	
		eZ	51 02.9	c	
	JAS	e(P)	50 46.2	c	
		eZ	51 04.2	c	
	PRI	e(P)	50 48.8	(c)	
		eZ	51 06.9	c	
Nov. 29	JAS	e(P)	01 32 33.8	(d)	USCGS: 51°7 N, 175°6 W, 0 = 01 24 46. Andreanof Islands, Aleutians. h about 60 km.
		eZ	51.5	c	
	MIN	eP	33.8	d	
	PRI	e(P)	47.8	(d)	
		eZ	33 05.5	c	
Nov. 29	JAS	eP	03 08 13.2	d	USCGS: 52°9 N, 168°9 W, 0 = 03 01 15. Fox Islands, Aleutians. h about 82 km.
	PRI	eP	22.2	d	
Nov. 29	MHC	e(P)	04 07 21.4	(d)	
	PRI	eP	26.7	c	
Nov. 29	JAS	e(P)	04 34 28.2	d	USCGS: 11°6 S, 167°2 E, 0 = 04 22 07. Santa Cruz Islands. h about 169 km.
Nov. 29	BKS	ePZ	04 59 34.4	d	USCGS: 20°6 S, 178°7 W, 0 = 04 48 31.7. Fiji Islands region. h about 605 km.
	MHC	eP	34.8	d	
	JAS	eP	40.0	d	
	MIN	eP	43.9	c	
		eZ	56.8	c	
	PRI	eP	34.5	d	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
1965					
Nov. 29	BKS	iPZ	09 10 35.3	c	USCGS: 45°1 N, 146°5 E, 0 = 09 00 08 Kurile Islands. h about 153 km. Magnitude 4.4 - 4.8 (BKS).
	MHC	PZ	0.047 0.8		
		e(P)	09 10 39.5	(d)	
		eZ	50.6	d	
	JAS	eP	42.0	d	
		eZ	54.1	c	
	MIN	iP	27.5	d	
		iZ	40.5	c	
	PRI	eP	49.4	(d)	
Nov. 29	BKS	e(P)	15 17 26.7	d	USCGS: 16°3 S, 174°8 W, 0 = 15 05 51 Tonga Islands. h about 68 km.
	MHC	e(P)	17.3	d	
	JAS	eP	23.6	d	
		eZ	41.5	c	
	MIN	eP	33.9	(d)	
	PRI	e(P)	17.2	(d)	
		eZ	34.7	c	
Nov. 29	BKS	iP	17 17 05.4	d	USCGS: 6°0 S, 78°6 W, 0 = 17 07 01.6 Northern Peru. h about 33 km.
		iZ	14.5	c	
	MHC	eP	00.3	c	
	JAS	eP	16 57.0	c	
		eZ	17 04.7	c	
	MIN	iP	12.7	d	
		iZ	24.3	d	
	PRI	eP	16 50.7	c	
		eZ	57.0	d	
Nov. 29	JAS	e(P)	19 01 47.0	c	USCGS: 32°5 S, 109°0 W, 0 = 18 50 3 Easter Islands Cordillera. h about 33 km.
	PRI	eZ	36.5	c	
Nov. 30	MHC	e(P)	11 35 27.3	d	USCGS: 31°8 N, 139°5 E, 0 = 11 23 4 South of Honshu, Japan. h about 174 km.
	JAS	e(P)	30.7	d	
	PRI	e(P)	28.4	d	
Nov. 30	BKS	ePZ	12 38 40.7	c	USCGS: 26°0 N, 109°8 W, 0 = 12 34 5 Gulf of California. h about 33 km.
	MHC	e(P)	26.3	d	
	JAS	eP	25.6	c	
	MIN	iP	58.7	c	
	PRI	eP	10.7	d	
Nov. 30	MHC	e(P)	19 59 34.3	(d)	USCGS: 17°0 S, 175°5 E, 0 = 19 47 Fiji Islands. h about 33 km.
	JAS	eP	39.8	d	
		eP	35.6	(c)	
Nov. 30	BKS	eP	22 41 49.2	d	USCGS: 22°7 S, 176°2 W, 0 = 22 29 South of Fiji Islands. h about 77 km.
		epP	42 10.2	d	
	MHC	eP	41 49.3	c	
		epP	42 09.9	c	
	JAS	eP	41 54.8	c	
		epP	42 15.0	d	
	MIN	iP	41 59.1	d	
	PRI	eP	48.2	c	
Nov. 30	JAS	e(P)	23 47 09.2	d	
		e	24.8	d	
	PRI	e(P)	02.9	d	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
1965					
Dec. 1	JAS	e(P)Z	02 43 03.8	d	
		eZ	14.8	c	
	MIN	ePZ	42 45.2	c	
Dec. 2	BKS	ePZ	00 47 42.3	d	USCGS: 16°4 S, 69°6 W, 0 = 00 36 30.1. Peru-Bolivia border region. h about 196 km.
	MHC	ePZ	38.8	d	
		epPZ	48 26.3	d	
	JAS	ePZ	47 35.9	d	Felt: At Arica, Chile.
		ePcPZ	51.0	d	
		epPZ	48 24.0	d	
	PRI	ePZ	47 30.3	d	
		epPZ	48 21.5	c	
Dec. 2	BKS	eP	06 07 06.5	c	USCGS: 51°3 N, 176°3 E, 0 = 05 58 41.5. Rat Islands, Aleutians. h about 17 km.
		eZ	15.5	c	
		eZ	36.2	c	
	MHC	eP	12.4	c	
	JAS	eP	03.6	d	
		eZ	15.3	d	
	MIN	eP	45.7	d	
		iZ	52.1	c	
		iZ	58.0	c	
	PRI	eP	23.2	d	
Dec. 2	MHC	e(P)	06 57 21.1	(c)	USCGS: 15°1 S, 168°3 E, 0 = 06 44 52.7. New Hebrides Islands. h about 33 km.
	JAS	e(P)	26.1	(c)	
Dec. 2	MHC	eZ	07 59 38.3	d	USCGS: 37°7 N, 29°4 E, 0 = 06 45 55. Turkey. h about 41 km.
	JAS	eZ	35.5	d	Felt: At Usak, Isparta and Denizli.
		eZ	47.5	c	
	MIN	e(P)	23.5	(c)	
	PRI	eZ	00 07.0	(c)	
Dec. 2	BKS	e(P)	23 49 32.0	d	USCGS: 15°3 S, 173°1 W, 0 = 23 38 13.3. Tonga Islands. h about 20 km.
	MHC	eP	34.0	d	
	JAS	eP	40.2	d	Felt: At Apia.
	MIN	eP	44.3	d	
		iZ	56.1	d	
	PRI	eP	33.7	d	
Dec. 3	MHC	e(P)	03 14 31.7	(c)	USCGS: 50°3 N, 176°6 W, 0 = 03 06 50. Andreanof Islands, Aleutians. h about 33 km.
	JAS	e(P)	35.2	d	
	PRI	e(P)	45.2	d	
Dec. 3	MHC	e(P)	06 56 48.0	(c)	USCGS: 20°4 S, 174°2 W, 0 = 06 45 02.5. Tonga Islands. h about 33 km.
	JAS	eP	53.6	c	
		eZ	57 03.6	c	
	MIN	eP	56 59.2	c	
		eZ	57 11.0	c	
	PRI	eP	56 46.4	(c)	
Dec. 3	BKS	e(P)	15 41 12.0	d	USCGS: 47°4 S, 100°0 E, 0 = 15 21 23.5. Southeast Indian Rise (SW of Australia). h about 33 km.
	MHC	e(P)	08.4	(c)	
	JAS	e(P)	09.8	c	
		eZ	30.4	d	
	MIN	eP	13.1	c	
	PRI	e(P)	09.0	(c)	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
1965					
Dec. 3	PRI	ePZ	22 50 46.9	d	USCGS: 32°2 N, 117°1 W, 0 = 22 49 50 Southern California. h about 7
	JAS	ePZ	51 02.6		
	MHC	ePZ	04.6	c	
Dec. 4	BKS	iP	02 18 54.7	d	USCGS: 51°3 N, 170°6 W, 0 = 02 11 49 Fox Islands, Aleutians. h about 18 km.
		eZ	19 08.7	c	
		i(PcP)Z	21 18.0	c	
			mu sec		Magnitude 4.5 - 4.8 (BKS).
		PZ	.056 0.8		
	MHC	eP	02 19 00.7	d	
		e(PcP)	21 20.2	d	
	JAS	iP	19 04.4	d	
		eZ	16.8	d	
		e(PcP)Z	21 20.4	d	
	MIN	iPZ	18 46.2	c	
		ipPZ	52.8	c	
		iPcPZ	21 14.3	c	
	PRI	eP	19 11.8	d	
		eZ	24.6	d	
		e(PcP)Z	21 24.7	d	
Dec. 4	BKS	eZ	03 12 53.7	c	USCGS: 36°1 S, 103°1 W, 0 = 03 00 46 Southern Pacific Ocean. h about 33 km.
	MHC	e(P)	16.6	(d)	
	JAS	eP	27.1	d	
		eZ	34.5	d	
		eZ	47.5	d	
	PRI	e(P)	17.4	d	
		eZ	25.0	d	
		eZ	42.4	d	
Dec. 5	JAS	e(P)	14 45 12.3	c	
		eZ	21.8	d	
		eZ	46 03.7	d	
	PRI	e(P)	45 18.8	d	
Dec. 6	MHC	e(P)	01 30 43.4	(d)	USCGS: 50°6 N, 177°4 E, 0 = 01 22 36 Rat Islands, Aleutians. h about 37 km.
	JAS	eP	50.4	d	
	PRI	e(P)	54.3	(d)	
Dec. 6	JAS	eP	08 06 05.0	c	USCGS: 43°7 N, 134°0 E, 0 = 07 55 03 Near east coast of eastern Russia. h about 349 km.
	PRI	e(P)	12.0	(c)	
Dec. 6	BKS	ePZ	11 39 57.8	d	USCGS: 18°9 N, 107°1 W, 0 = 11 34 53 Off coast of Jalisco, Mexico. h about 37 km.
		eSN	44 25.0	N	
		eLgE	46 12.0		
		eRZ	47.7		Magnitude 7 - 7 1/2 (BKS).
			mu sec		
		PZ	22.4 3.5		
		MaxH	360. 14.5		
	MHC	eP	11 39 48.7	d	
	JAS	eP	47.3	d	
	MIN	ePNE	40 16.0		
	PRI	eP	39 34.3	d	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
1965					
Dec. 6	BKS	eP	11 42 05.2	c	
	MHC	eP	57.0	c	
	JAS	eP	55.8	c	
		PRI	42.1	(d)	
Dec. 6	BKS	e(P)	18 47 31.5	d	USCGS: 18°8 N, 107°0 W, 0 = 18 42 33.2. Off coast of Jalisco, Mexico. h about 40 km.
		eZ	45.0	d	
		iZ	48.0	d	
		eSNE	51 52.0	SW	
			mu sec		
		MaxH	25.7 24		
	MHC	eP	18 47 31.0	c	
		eZ	50.3	c	
	JAS	eP	29.2	d	
		eZ	49.3	c	
	MIN	iP	54.5	c	
		iZ	48 19.8	d	
	PRI	eZ	47 16.1	d	
		eZ	37.0	c	
Dec. 7	JAS	eP	11 26 32.8	d	USCGS: 18°9 S, 69°6 W, 0 = 11 15 07. Northern Chile. h about 116 km. Felt: At Arica.
	PRI	e(P)	27.5	(c)	
Dec. 7	BKS	iP	22 32 27.2	d	USCGS: 6°4 S, 146°3 E, 0 = 22 19 14.8. East New Guinea region. h about 109 km.
	MHC	eP	29.2	d	
		ePP	36 20.1	d	
	JAS	eP	32 33.5	d	
		epP	52.1	d	
		ePP	36 27.5	d	
	MIN	iP	32 49.8	c	
		ePP	36 23.5	d	
	PRI	eP	32 33.2	d	
		epP	51.8	d	
		ePP	36 25.3	d	
Dec. 8	BKS	eP	18 18 21.3	c	USCGS: 37°1 S, 177°5 E, 0 = 18 05 26.1. Off east coast of N. Island, New Zealand. h about 165 km.
		eZ	58.8	d	
	MHC	eP	21.8	c	
		eZ	57.3	c	
	JAS	eP	26.2	c	
		eZ	19 04.0	c	
	MIN	eP	18 30.6	c	
		eZ	19 08.4	c	
	PRI	eP	18 20.3	c	
		eZ	57.5	c	
Dec. 8	MHC	eT	21 59 41.4	c	
		eZ	44.1	c	
	PRI	eT	55.7	c	
Dec. 9	BKS	ePEZ	06 13 38.5	Wc	USCGS: 17°3 N, 100°0 W, 0 = 06 07 48.6. Guerrero, Mexico. h about 57 km. Magnitude 6 (BKS). Felt: In southern Mexico.
		epPZ	51.0	d	
		ePcPZ	16 51.5	d	
		eSNEZ	18 27.0	NEd	
		eLg	20.5		

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965 (cont.)			h m s		
Dec. 9	BKS	eRZ	06 21.9		
			mu sec		
		PZ	.083 1.0		
		SH	15.8 20		
	MHC	eP	06 13 32.8	c	
		epPZ	46.1	c	
		ePcPZ	16 49.0	d	
	JAS	eP	13 28.8	c	
		epPZ	43.0	c	
		ePcPZ	16 48.5	d	
	MIN	ePZ	13 50.4	c	
		iZ	57.0	c	
		iZ	14 25.0	d	
	PRI	eP	13 20.5	c	
		epPZ	31.8	c	
		ePcPZ	16 45.6	d	
Dec. 9	BKS	ePNEZ	13 23 42.8	NWd	USCGS: 18°0 S, 178°2 W, 0 = 13 12 50
		ipPEZ	50.8	Ec	Fiji Islands region.
		eZ	26 57.5	c	h about 650 km.
		e(PK ₁ KP)Z	29 56.0	c	Magnitude 6 - 6.4 (BKS).
		eSNEZ	32 40.0	NWc	
		eSSNEZ	37.0	SEd	
		eRNEZ	44.3		
			mu sec		
		PZ	.3 1.2		
	MHC	eP	13 23 43.5	d	
		epP	51.2	c	
		eZ	26 55.7	d	
	JAS	eP	23 49.0	d	
		epP	55.5	c	
		eZ	26 00.6	c	
	MIN	iP	23 52.1	d	
		iZ	24 07.9	d	
	PRI	eP	23 43.6	d	
		epP	51.7	c	
Dec. 9	BKS	iPZ	13 36 27.7	c	USCGS: 17°7 S, 178°3 W, 0 = 13 25
		ipPZ	35.7	d	Fiji Islands region.
			mu sec		h about 650 km.
		PZ	.118 1.2		
	MHC	eP	13 36 28.0	d	
		epP	36.2	d	
	JAS	eP	13 36 33.6	d	
		epP	40.4	d	
	MIN	eP	36.9	d	
		iZ	41.7	d	
	PRI	eP	28.1	d	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965			h m s		
Dec. 10	BKS	iPZ	22 05 37.3	c	USCGS: 11°4 S, 166°2 E, 0 = 21 53 17.4.
		ipP	50.3		Santa Cruz Islands.
		eSNE	16 03.0	SW	h about 55 km.
		eSSSZ	24 44.0	d	Magnitude 5.1 - 5.3 (BKS).
		eGN	27.0		
		eRNEZ	30.5		
			mu sec		
		PZ	.09 1.1		
		MaxH	7.7 30		
	MHC	e(P)	22 05 40.4	d	
		epP	55.3	d	
	JAS	eP	43.9	c	
		epP	06 00.0	c	
		eZ	09 00.6	d	
	MIN	eP	05 44.0	c	
		iZ	06 13.5	d	
	PRI	eP	05 41.5	d	
		epP	55.8	c	
Dec. 11	BKS	iP	00 13 20.3	(d)	USCGS: 4°4 S, 155°0 E, 0 = 00 01 28.4.
	MHC	eP	23.2	c	Solomon Islands. h about 510 km.
	JAS	eP	27.3	d	
	MIN	eP	24.1	c	
	PRI	eP	26.0	(d)	
Dec. 11	MHC	e(P)	12 26 44.5	c	USCGS: 50°5 N, 155°3 E, 0 = 12 16 59.9.
	JAS	eP	47.3	c	Kurile Islands. h about 110 km.
	MIN	eP	30.9	c	
	PRI	e(P)	55.6	c	
Dec. 11	MHC	eP	13 52 42.4	c	USCGS: 29°7 S, 67°0 W 0 = 13 40 13.
	JAS	eP	40.5	(c)	La Rioja Province, Argentina.
		eZ	48.6	c	h about 29 km.
	PRI	eP	35.3	(c)	
Dec. 11	BKS	eP	22 52 38.6	(c)	USCGS: 33°1 S, 178°8 W, 0 = 22 39 50.
		eRZ	23 21		South of Kermadec Islands.
			mu sec		h about 33 km.
		PZ	1.4 20		Magnitude 5 1/4 (BKS).
	MHC	eP	22 52 38.1	(d)	
	JAS	eP	42.7		
	MIN	eP	47.7	d	
	PRI	eP	36.9	d	
Dec. 12	BKS	e(P)	07 33 27		USCGS: 27°9 S, 177°9 W, 0 = 07 20 53.7.
	JAS	eP	29.6	d	Kermadec Islands. h about 10 km.
	MIN	eP	34.5	c	
		iZ	38.0	c	
Dec. 12	BKS	ePZ	12 58 31.0	c	BRK: 40°2 N, 121°5 W, 0 = 12 57 50.
		iS	59.2		Near Lake Almanor, California
	MIN	iPNEZ	57 54.7	NEd	Magnitude 4.0 (BKS).
		iSN	57.1		
	JAS	iPNZ	58 31.6	Nd	
		iSE	59 01.0		
	MHC	ePZ	59 39		

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
1965					
Dec. 13	JAS	eP	05 55 43		USCGS: 44°1 N, 150°2 E, 0 = 05 45 12 Kurile Islands region. h about 3
		e	56 03.8		
Dec. 13	BKS	eP	11 02 36.0	(d)	USCGS: 44°7 N, 150°1 E, 0 = 10 52 08 Kurile Islands region. h about 3
	JAS	eP	42.2	c	
	MIN	eP	27.2		
	PRI	e(P)	50.0		
Dec. 13	BKS	e(P)	14 56 52.3	d	USCGS: 44°7 N, 150°2 E, 0 = 14 46 10 Kurile Islands region. h about 3
	JAS	eP	43.5	(d)	
	MIN	eZ	29.3	d	
		iZ	53.8	d	
		iZ	57 48.7	c	
		iZ	58 02.4	c	
Dec. 13	BKS	eP'Z	15 27 06.6	d	USCGS: 56°1 S, 27°6 W, 0 = 15 08 27 South Sandwich Islands region. h about 157 km.
	MHC	eP'	05.1	(c)	
	JAS	eP'	04.2	c	
		e(pP')	36.2		
	PRI	eP'	02.9	(d)	
Dec. 14	JAS	eZ	00 15 30.1	d	USCGS: 33°9 N, 136°7 E, 0 = 00 04 0 Near south coast of southern Hon Japan. h about 358 km.
Dec. 14	BKS	e(P)	06 18 12.7	(d)	USCGS: 35°0 S, 111°4 W, 0 = 06 06 4 Easter Island Cordillera. h about 33 km.
	MHC	e(P)	13.5	d	
	JAS	e(P)	15.8	d	
	PRI	e(P)	09.5	(d)	
Dec. 14	BKS	ePZ	17 30 44.1	c	USCGS: 25°9 N, 109°7 W, 0 = 17 27 0 Gulf of California. h about 33
		eZ	53.0		Felt: At Sonora, Mexico.
		e(S)EN	33 54		
		eRZ	35.0		
		mu	sec		
		11	20		
	MHC	MaxH	17 30 38.6	c	
	JAS	e(P)	33.8	(c)	
		iZ	44.4		
	MIN	eP	06.5	d	
		iZ	30.2	d	
		iZ	17.0		
Dec. 15	BKS	eP	12 40 40		USCGS: 57°0 S, 141°5 W, 0 = 12 09 3 South Pacific Cordillera. h about 33 km.
		eE	48.0		
		eE	50.0		
		eRNEZ	53 38		
Dec. 15	BKS	eP	23 13 55.7	c	USCGS: 7°5 N, 82°2 W, 0 = 23 05 20 South of Panama. h about 15 km. Magnitude 6.3 - 6.5 (BKS).
		eE	15 50		
		eSEN	20 54		
		eN	26 11		
		eEN	52		
		eRZ	28.5		
		mu	sec		
		SH	15.3	19	
		MaxH	71	28	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
1965					
(cont.)					
Dec. 15	MHC	eP	23 13 50.4	c	
	JAS	eP	45.0	c	
	MIN	eP	14 00.7	c	
		iP	02.3	d	
		iZ	24.3	d	
		iZ	13 39.5	c	
	PRI	eP	05 32 28		
Dec. 16	JAS	eP	06 35 54.4		USCGS: 8°2 N, 81°9 W, 0 = 06 27 42.3. Panama. h about 47 km.
Dec. 16	JAS	e(P)			USCGS: 47°4 S, 99°7 E, 0 = 10 09 23.3. Southeast Indian Rise. h about 33 km.
Dec. 16	BKS	eP	10 29 09	c	
	JAS	e(P)	00		
	MIN	iP	18.0	d	
Dec. 16	JAS	eP	13 49 57.4		USCGS: 35°3 S, 105°0 W, 0 = 13 38 22. Southern Pacific Ocean. h about 33 km.
Dec. 16	BKS	ePZ	23 17 38.3	d	USCGS: 17°5 S, 179°1 W, 0 = 23 06 42.4. Fiji Islands region. h about 573 km.
		i(pP)Z	19 11.5	c	
	MHC	eP	17 38.0	(c)	
	JAS	eP	43.5	c	
		e(pP)Z	19 45.2	d	
	MIN	iP	17 47.6	d	
	PRI	eP	38.2	c	
		e(pP)Z	19 38.7	d	
Dec. 17	BKS	e(L)N	06 49.7		USCGS: 8°6 N, 39°4 W, 0 = 06 17 24.7. Central Mid-Atlantic Ridge. h about 33 km.
		e(R)Z	52.3		
	MHC	eP	29 27.5	c	
	JAS	eP	21.3	c	
		eZ	27.3	c	
	MIN	eP	25.1	c	
	PRI	e(P)	03.5	(d)	
Dec. 17	BKS	iPZ	22 58 21.0	(c)	USCGS: 22°4 S, 68°5 W, 0 = 22 46 30. Northern Chile. h about 116 km.
	MHC	ePZ	17.2	d	
	JAS	ePZ	14.8	d	
		e(pP)Z	31.5	d	
	PRI	ePZ	09.5	d	
		e(pP)Z	25.6	d	
Dec. 18	BKS	e(P)	01 08 26.3	(d)	USCGS: 44°2 N, 128°2 W, 0 = 01 06 31. Off coast of Oregon. h about 33 km.
		e(S)EZ	10 12.0		
	JAS	eP	08 34.0	(d)	
	MIN	eP	03.6	d	
Dec. 18	BKS	eP	08 41 13.0	d	USCGS: 44°7 N, 149°9 E, 0 = 08 30 45.8. Kurile Islands. h about 33 km.
	JAS	eP	20.0	c	
	MIN	iP	05.2	c	
	PRI	eP	26.5		
Dec. 18	JAS	iP	13 30 58.2	c	USCGS: 44°3 N, 150°2 E, 0 = 13 20 23.4. Kurile Islands. h about 36 km.
		iZ	31 10.6	c	
	MIN	eP	30 44.6	c	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965			h m s		
Dec. 18	JAS	e(P)	18 16 16		(c) USCGS: 51°3 N, 177°7 E, 0 = 18 07 50 Rat Islands, Aleutians. h about 33 km.
Dec. 19	JAS	eP	02 32 26.9	c	USCGS: 18°0 S, 179°3 W, 0 = 02 21 27 Fiji Islands. h about 620 km.
	MIN	iP	30.3	d	
	PRI	eP	21.5	c	
Dec. 19	JAS	eP	03 08 50.0	c	USCGS: 18°1 S, 179°3 W, 0 = 02 57 50 Fiji Islands. h about 620 km.
	MIN	eP	53.3	d	
	PRI	eP	44.7	c	
Dec. 19	BKS	e(P)	19 28 26.0	d	USCGS: 11°8 N, 143°5 W, 0 = 19 15 43 South of Mariana Islands. h about 33 km.
	MHC	e(P)	30.7	c	
	JAS	e(P)	32.5	d	
		eZ	41.7	d	
	MIN	iP	25.6	c	
	PRI	e(P)	33.2	d	
Dec. 19	BKS	eP	20 21 24.9	d	USCGS: 14°8 S, 73°6 W, 0 = 20 10 23 Peru. h about 94 km.
	MHC	eP	20.8	d	
		eZ	37.7	c	
	JAS	eP	17.7	d	
		eZ	34.3	c	
	MIN	eP	31.4	c	
			58.0	d	
	PRI	eP	17.7	d	
Dec. 19	BKS	e(P)	22 26 38.0	c	USCGS: 32°2 S, 78°8 E, 0 = 22 06 32 Mid-Indian Rise. h about 33 km.
		eZ	27 18.0	d	
		eZ	31 31.0	c	
		eZ	23 23.7	c	
	MHC	e(P)	22 26 35.2	c	
		eZ	27 20.4	c	
	JAS	e(P)	26 33.2	c	
		eZ	27 23.2	c	
	MIN	eP	26 33.2	c	
		eZ	27 14.5	c	
	PRI	e(P)	26 36.8	c	
		eZ	27 25.8	c	
Dec. 20	BKS	eP	07 22 16.8	c	USCGS: 50°4 N, 156°6 E, 0 = 07 12 33 Kurile Islands. h about 33 km.
	MHC	eP	21.5	d	
		eZ	33.0	d	
	JAS	eP	24.1	d	
		eZ	36.7	c	
		eZ	56.0	d	
	MIN	iP	07.0	d	
		iZ	22.4	c	
	PRI	eP	31.2	d	
Dec. 21	MHC	eP	00 41 30.7	c	USCGS: 52°6 N, 158°8 E, 0 = 00 32 00 Near east coast of Kamchatka.
		eZ	42.8	c	
	JAS	eP	33.1	c	
		eZ	47.3	c	
	MIN	eP	16.0	c	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965			h m s		
Dec. 21	BKS	e(L)NE	08 55.0		USCGS: 16°8 N, 98°1 W, 0 = 08 41 00.4. Near coast of Guerrero, Mexico. h about 53 km.
		e(R)Z	56.4		
	MHC	eP	46 59.2	c	
		eZ	47 45.5	c	
	JAS	eP	46 55.5	c	
		eZ	47 44.1	(c)	
		eZ	50 04.1	c	
	MIN	eP	47 15.9	c	
	PRI	eP	46 47.4	d	
Dec. 21	BKS	eP	10 50 33.2	d	USCGS: 30°0 S, 179°3 W, 0 = 10 38 23.7. Kermadec Islands. h about 288 km.
	MHC	eP	43.5	d	
	JAS	eP	37.8	d	
	PRI	eP	32.6	d	
Dec. 21	BKS	eP	12 34 53.3	d	USCGS: 6°9 N, 73°0 W, 0 = 12 25 43. Northern Colombia. h about 172 km.
	MHC	eP	48.5	d	
	JAS	eP	43.2	d	
		eZ	35 50.9	c	
	MIN	iP	34 56.2	c	
	PRI	e(P)	39.0	d	
Dec. 21	BKS	eP	18 01 24.5	d	USCGS: 19°1 S, 177°6 W, 0 = 17 50 10.2. Fiji Islands region. h about 366 km.
	MHC	eP	25.5	d	
	JAS	eP	31.2	d	
	MIN	eP	39.9	c	
	PRI	eP	25.3	d	
Dec. 22	BKS	e(P)	00 38 12		USCGS: 52°4 N, 160°5 E, 0 = 00 28 46.2. Off east coast of Kamchatka. h about 5 km.
		eSE	45 53		
		eREZ	54.0		
			mu sec		
		SH	2.3 22		
		MaxH	2.0 20		
	JAS	eP	00 38 20.1	d	
	MIN	eP	02.8	d	
Dec. 22	JAS	eP	03 31 38.5	c	USCGS: 52°4 N, 160°3 E, 0 = 03 22 06.8. Off east coast of Kamchatka. h about 33 km.
		iP	33.0	c	
Dec. 22	JAS	e(P)	07 36 32.0		USCGS: 52°5 N, 160°2 E, 0 = 07 27 20.8. Off east coast of Kamchatka. h about 33 km.
	MIN	eP	41.0	c	
Dec. 22	BKS	iPNEZ	19 47 17.1	NWd	USCGS: 58°4 N, 153°0 W, 0 = 19 41 23.0. Kodiak Islands region. h about 50 km. Magnitude 6 3/4 - 7 (BKS). Minor damage at Kodiak.
		iZ	22.0	d	
		iZ	29.5	d	
		iZ	50 24.5	c	
		eSZ	52 03	c	
		e(G)	53.3		
			mu sec		
		PZ	2.16 1.5		
		MaxH	26 28		
	MHC	eP	47 23.6	d	
		epP	36.7	d	
	JAS	eP	24.1	d	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
1965 (cont.)					
Dec. 22	JAS	i(pP)	26 47 34.0	d	
		ePcP	50 27.4	d	
	MIN	iP	47 01.7	d	
		ipP	14.8	d	
	PRI	eP	37.0	d	
		epP	49.5	d	
		ePcP	50 32.3	d	
Dec. 22	JAS	e(P)	23 36 04.5	d	USCGS: 52°4 N, 160°5 E, 0 = 23 25 24. Off east coast of Kamchatka. h about 33 km.
Dec. 23	JAS	eP	02 20 55.0	c	USCGS: 58°6 N, 155°9 W, 0 = 02 14 49. Alaska Peninsula. h about 121 km.
	MIN	i(P)	45.3	c	
	PRI	e(P)	55.0	c	
Dec. 23	JAS	e(P)	13 26 04.0	d	
	MIN	eP	25 53.9	d	
Dec. 23	BKS	iP	20 53 05.8	d	USCGS: 60°5 N, 141°0 W, 0 = 20 47 37.5 Southern Alaska. h about 33 km. Magnitude 5.2 (BKS).
		eZ	19.0	c	
		iZ	26.0	d	
		eSNE	57 26		
		e(G)NE	59 23		
		eRNEZ	21 00.0		
			mu sec		
		PZ	.165 1.3		
		SH	7.2 15		
		MaxH	9.1 16		
	MHC	eP	20 53 11.8	d	
		eZ	23.0	c	
	JAS	eP	09.8	d	
		iZ	22.3	c	
	MIN	iP	52 46.1	d	
		iZ	54.3	c	
	PRI	eP	53 25.2	d	
		eZ	35.5	c	
Dec. 24	MHC	e(P)	04 26 44.5	d	USCGS: 51°7 N, 159°6 E, 0 = 04 17 00.9 Off east coast of Kamchatka. h about 33 km.
	JAS	e(P)	37.2	d	
	MIN	eP	45.2	c	
	PRI	e(P)	43.5	c	
Dec. 25	BKS	iP	03 08 51.7	c	USCGS: 18°0 S, 179°2 W, 0 = 02 57 57.9 Fiji Islands region. h about 625 km. Magnitude 5 3/4 - 6 (BKS).
			mu sec		
		PZ	.64 1.5		
	MHC	eP	03 08 52.0	d	
		epP	10 59.0	d	
	JAS	iP	08 57.4	d	
		epP	11 07.9	d	
	MIN	eP	09 00.0	d	
		iZ	07.3	c	
		iZ	11 09.0		
	PRI	eP	08 52.2	d	
		epP	11 02.2	d	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
			h m s		
1965					
Dec. 25	MHC	eP	11 55 26.3	c	USCGS: 23°4 S, 180°0 W, 0 = 11 44 03.8. South of Fiji Islands. h about 550 km.
	JAS	eP	31.2	c	
	PRI	eP	24.9	c	
Dec. 25	JAS	e(P)	18 28 45.8	c	USCGS: 18°1 S, 179°2 W, 0 = 18 17 47. Fiji Islands region. h about 625 km.
Dec. 25	BKS	iP	19 31 38.2	c	USCGS: 18°1 S, 179°2 W, 0 = 19 20 45.1. Fiji Islands region. h about 620 km.
	MHC	eP	39.2	c	
	JAS	eP	44.8	c	
	MIN	iP	48.1	d	
		iZ	32 00.6	d	
	PRI	eP	31 39.3	c	
Dec. 25	MHC	eP	20 57 37.0	c	USCGS: 18°1 S, 179°1 W, 0 = 20 46 43.6. Fiji Islands region. h about 620 km.
	JAS	eP	42.9	c	
	PRI	eP	37.4	c	
Dec. 26	BKS	eP	04 06 06.0	(d)	USCGS: 05°5 S, 151°4 E, 0 = 03 53 16.6. New Britain region. h about 133 km.
	MHC	eP	06.6	c	
	JAS	eP	11.2	c	
		epP	31.0		
	MIN	eP	08.6	d	
	PRI	eP	10.4	c	
Dec. 26	BKS	eP	06 55 43.5	(c)	USCGS: 16°4 S, 174°7 W, 0 = 06 44 44. Tonga Islands. h about 300 km.
	MHC	eP	43.5	(c)	
	JAS	eP	49.4	c	
	MIN	eP	53.7	c	
	PRI	eP	43.4	(c)	
Dec. 26	JAS	eP	18 17 10.9	d	USCGS: 23°8 S, 180°0 W, 0 = 18 05 38.9. South of Fiji Islands. h about 520 km.
	MIN	eP	15.2	c	
Dec. 26	JAS	eP	20 05 20.8	c	USCGS: 44°3 N, 128°7 W, 0 = 20 03 13. Off coast of Oregon. h about 33 km.
	PRI	eP	21.3		
Dec. 27	BKS	eN	05 12.8		USCGS: 44°4 N, 128°7 W, 0 = 05 08 04. Off coast of Oregon. h about 33 km.
		eZ	13.0		
	JAS	eP	10 11.1	d	
Dec. 27	JAS	eP	09 51 02.8		
Dec. 28	PRI	ePZ	15 38 05.5	d	USCGS: 35°8 N, 116°8 W, 0 = 15 37 11. Central California. h about 16 km. Magnitude 4.2 (BKS).
	JAS	ePZ	10.1	d	
	MHC	e(P)Z	21.4	d	
Dec. 28	JAS	eP	20 02 39.0	d	
	PRI	e(P)	39.3	d	
Dec. 28	MHC	eP	20 44 24.1	c	USCGS: 27°8 N, 141°8 E, 0 = 20 32 24.7. Bonin Islands region. h about 36 km.
		epP	34.6	c	
	JAS	eP	27.1	c	
		epP	38.0	c	
	MIN	iZ	37.8	c	
		iZ	56.4	d	
	PRI	e(P)	32.2	(c)	
Dec. 28	MHC	eP	22 14 45.3	c	USCGS: 3°2 S, 77°2 W, 0 = 22 04 52.0. Peru-Ecuador border region. h about 14 km.
	JAS	eP	41.7	d	

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks
1965					
			h m s		
Dec. 29	BKS	iPZ	02 03 33.1	c	BRK: 40°7 N, 125°0 W, 0 = 02 02 38. Off Cape Mendocino. Magnitude 4.0 (BKS).
		i(S)NE	04 14.2		
	MIN	iPZ	03 20.9	c	
		iSE	51.6		
		JAS	ePZ	48.0	
Dec. 29	MHC	ePZ	43.3	c	USCGS: 10°6 S, 166°0 E, 0 = 23 41 00.5. Santa Cruz Islands. h about 198 km.
		eS	04 33.3		
	BKS	eP	23 53 02.3	c	
	MHC	eP	03.9	c	
	JAS	eP	09.0	c	
Dec. 30	MIN	iP	13.8	d	USCGS: 54°1 N, 164°3 W, 0 = 02 06 31.1. Unimak Island region. h about 28 km. Magnitude 5.5 - 5.7 (BKS).
		PRI	eP	06.1	
	BKS	eP	02 13 05.3	c	
		iZ	14.2	d	
		eZ	56.0	c	
			mu sec		
			PZ	.34	0.8
			MaxH	9.4	14
Dec. 30	MHC	eP	02 13 14.0	d	USCGS: 16°8 S, 71°2 W, 0 = 06 16 03.9. Southern Peru. h about 118 km. Magnitude 5.8-6 (BKS).
		eZ	15 52.8	d	
	JAS	eP	13 14.1	d	
		eZ	15 52.3	d	
		eZ	19 36.0	c	
Dec. 30	MIN	iP	12 54.7	c	USCGS: 9°6 S, 123°5 E, 0 = 19 43 45.8. Timor. h about 33 km.
		ipP	13 01.2	d	
		iZ	15 46.2	c	
	PRI	e(P)	13 21.8	d	
	BKS	eP	06 27 21.3	c	
			mu sec		
			PZ	.23	1.0
			SH	3.8	10
Dec. 30	MHC	eP	06 27 16.9	c	USCGS: 9°6 S, 123°5 E, 0 = 19 43 45.8. Timor. h about 33 km.
		eZ	29.0	c	
		epP	44.7	d	
	JAS	eP	14.3	d	
		eZ	26.3	c	
Dec. 30	MIN	epP	40.0	c	USCGS: 9°6 S, 123°5 E, 0 = 19 43 45.8. Timor. h about 33 km.
		eP	26.7	d	
		iZ	37.1	c	
	PRI	eP	09.3	d	
		eZ	20.4	c	
			mu sec		
			PZ	.23	1.0
			SH	3.8	10
Dec. 30	MHC	eP	06 27 16.9	c	USCGS: 9°6 S, 123°5 E, 0 = 19 43 45.8. Timor. h about 33 km.
		eZ	29.0	c	
		epP	44.7	d	
	JAS	eP	14.3	d	
		eZ	26.3	c	
Dec. 30	MIN	epP	40.0	c	USCGS: 9°6 S, 123°5 E, 0 = 19 43 45.8. Timor. h about 33 km.
		eP	26.7	d	
		iZ	37.1	c	
	PRI	eP	09.3	d	
		eZ	20.4	c	
			mu sec		
			PZ	.23	1.0
			SH	3.8	10
Dec. 30	MHC	eP	06 27 16.9	c	USCGS: 9°6 S, 123°5 E, 0 = 19 43 45.8. Timor. h about 33 km.
		eZ	29.0	c	
		epP	44.7	d	
	JAS	eP	14.3	d	
		eZ	26.3	c	
Dec. 30	MIN	epP	40.0	c	USCGS: 9°6 S, 123°5 E, 0 = 19 43 45.8. Timor. h about 33 km.
		eP	26.7	d	
		iZ	37.1	c	
	PRI	eP	09.3	d	
		eZ	20.4	c	
			mu sec		
			PZ	.23	1.0
			SH	3.8	10

Date	Sta.	Phase	Time(GCT)	Ground Motion	Remarks		
1965							
			h m s				
Dec. 30	MHC	eP	16 39 47.2	c	USCGS: 58°1 N, 152°4 W, 0 = 16 33 43.4. Kodiak Island region. h about 33 km.		
		JAS	eP	42.1		d	
		eZ	53.7	d			
		MIN	eP	20.7		d	
			iZ	33.1		d	
Dec. 30	PRI	eP	55.5	(c)	USCGS: 44°2 N, 148°5 E, 0 = 16 56 56.2. Kurile Islands. h about 70 km.		
		JAS	eP	17 07 34.3		c	
		eZ	51.1				
		MIN	iP	19.9		d	
			iZ	37.3		c	
Dec. 31	MHC	e(P)	01 12 47.8	d	USCGS: 24°6 S, 116°4 W, 0 = 01 02 24. Easter Island Cordillera. h about 33 km.		
		JAS	e(P)	51.0		d	
		MIN	iP	33.4		c	
	Dec. 31	BKS	e(P)	20 02 28.5		(d)	USCGS: 9°6 S, 123°5 E, 0 = 19 43 45.8. Timor. h about 33 km.
			MHC	e(P)		27.7	
	JAS	eP	29.5	(d)			
	PRI	eP	32.3	(d)			

