

Epicentre Codes

1970 Oct 2

Bulletin of the Seismographic Stations

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ARCATA--BERKELEY--CONCORD--FICKLE HILL--FRESNO--GRANITE
CREEK--JAMESTOWN--LLANADA--MANZANITA LAKE--MINERAL
MOUNT HAMILTON--OROVILLE--PARAISO--PILARCITOS CREEK
PRIEST--SAN ANDREAS GEOPHYSICAL OBSERVATORY

Earthquakes and the Registration of Earthquakes
From July 1, 1968 to December 31, 1968

by

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and

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Berkeley

1970

BULLETIN OF THE SEISMOGRAPHIC STATIONS
of the University of California
Volume 38, Number 2
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INTRODUCTION

Each issue of the Bulletin includes determination 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 each 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 (January 1970)

Director	Bruce A. Bolt
Assistant Director	Thomas V. McEvelly
Director Emeritus	Perry Byerly
Assistant Research Seismologist	Lane R. Johnson
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THE BYERLY SEISMOGRAPHIC STATION (BKS)

Equipment of a WWSS station 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 a peak magnification of 3,000 at about 15 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 1968. 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 eleven 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 1 - DECEMBER 31, 1968

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, 1935
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 (June to Sept. only)
San Andreas Geophysical Observatory	36° 45!9	121° 26!7	350	Granite	SAO	Transferred from HRC July 11, 1966
Concord	37° 58!1	122° 04!3	36	Alluvium overlying Franciscan	CNC	Diablo Valley College, 1960 (Until Oct. 27, 1968)
Paraiso	36° 19!9	121° 22!2	363	Grano-diorite	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	360	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	O.C. Tallakson, Santa Cruz, 1965
Pilarcitos Creek	37° 30!0	122° 22!9	91	Granodiorite (weathered)	PCC	Sare Ranch, 1965
Fickle Hill	40° 48!1	123° 59!1	610	Siltstone over graywacke	FHC	Univ. of California, 1968

STATION INSTRUMENTATION
July 1 - December 31, 1968

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
	*Willmore	3.0	0.2	N45°E, Nov. 8, 1967
MLC	Loucks-Omori	6.0	-	NE
FRE	Sprengnether moving coil	2.0	2.0	N, E
	Benioff	1.0	0.7	Z May 9, 1967
MIN	#Benioff 14 kg	1.0	0.2	Z Oct. 8, 1968
	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
SAO	#Benioff 14 kg	1.0	0.2	Z
	+#Sprengnether 0.70 kg (microearthquake array)	6.8 Hz	25 Hz filter	Z
	#*Willmore	3.0	0.2	N45°E
CNC	Benioff 100 kg	1.0	0.2	Z (No records after Oct. 1968)
GCC	#*Willmore	3.0	0.2	N45°E
PRS	#*Willmore	3.0	0.2	N45°E
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	0.75	N, E, Z (No records after Aug. 31, 1968)
	Geotech moving coil	20	100	N, E, Z
FHC	#Benioff 14 kg	1.0	0.2	Z Dec. 10, 1968

Signals telemetered to Berkeley via leased telephone lines.
* Signals recorded on magnetic tape at Berkeley
+ Signals recorded on magnetic tape at SAO.

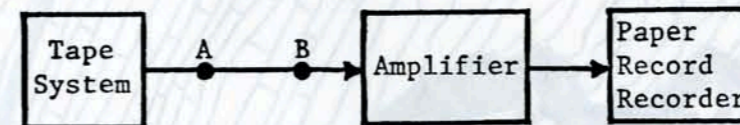
Direction of motion: In the "Component" column, each horizontal component seismograph is designated by the direction of ground motion corresponding to upward trace motion on the seismogram when it is oriented so that time increases from left to right. On all vertical component (Z) instruments, upward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

Tape-recorded long-period seismometers (BRK): On pages 169 and 170 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.

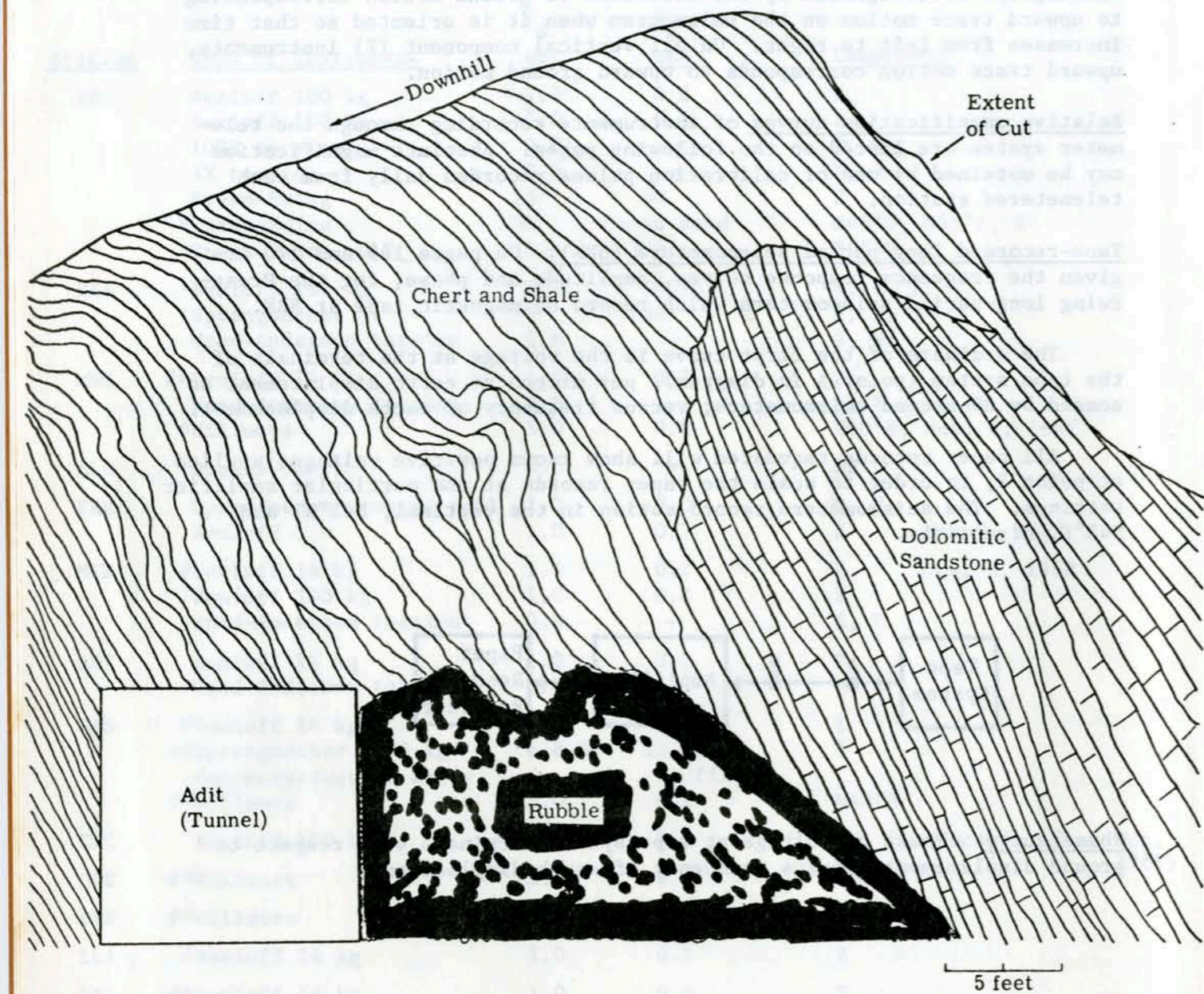
All paper records requested will show known positive voltages applied at point B, in order to scale the paper records at the particular amplifier settings. The seismometers record motion in the vertical, N45°W, and N45°E, directions.



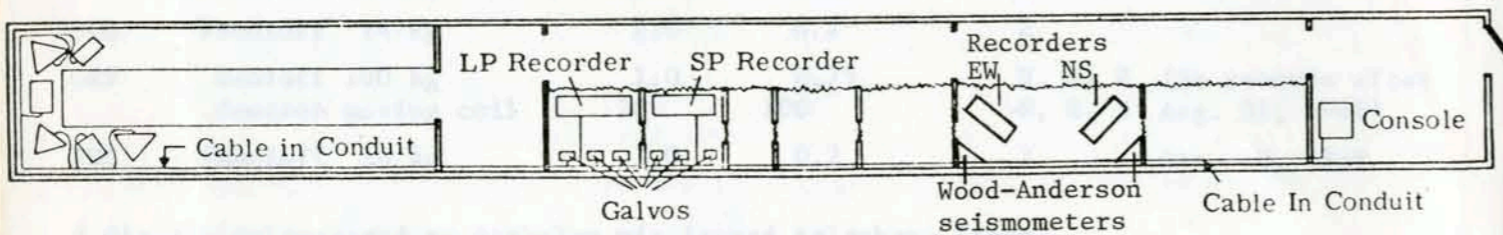
Phase curve: Phase of voltage at tape system terminals with respect to ground displacement; versus frequency of earth displacement.

BYERLY SEISMOGRAPHIC STATION (BKS)

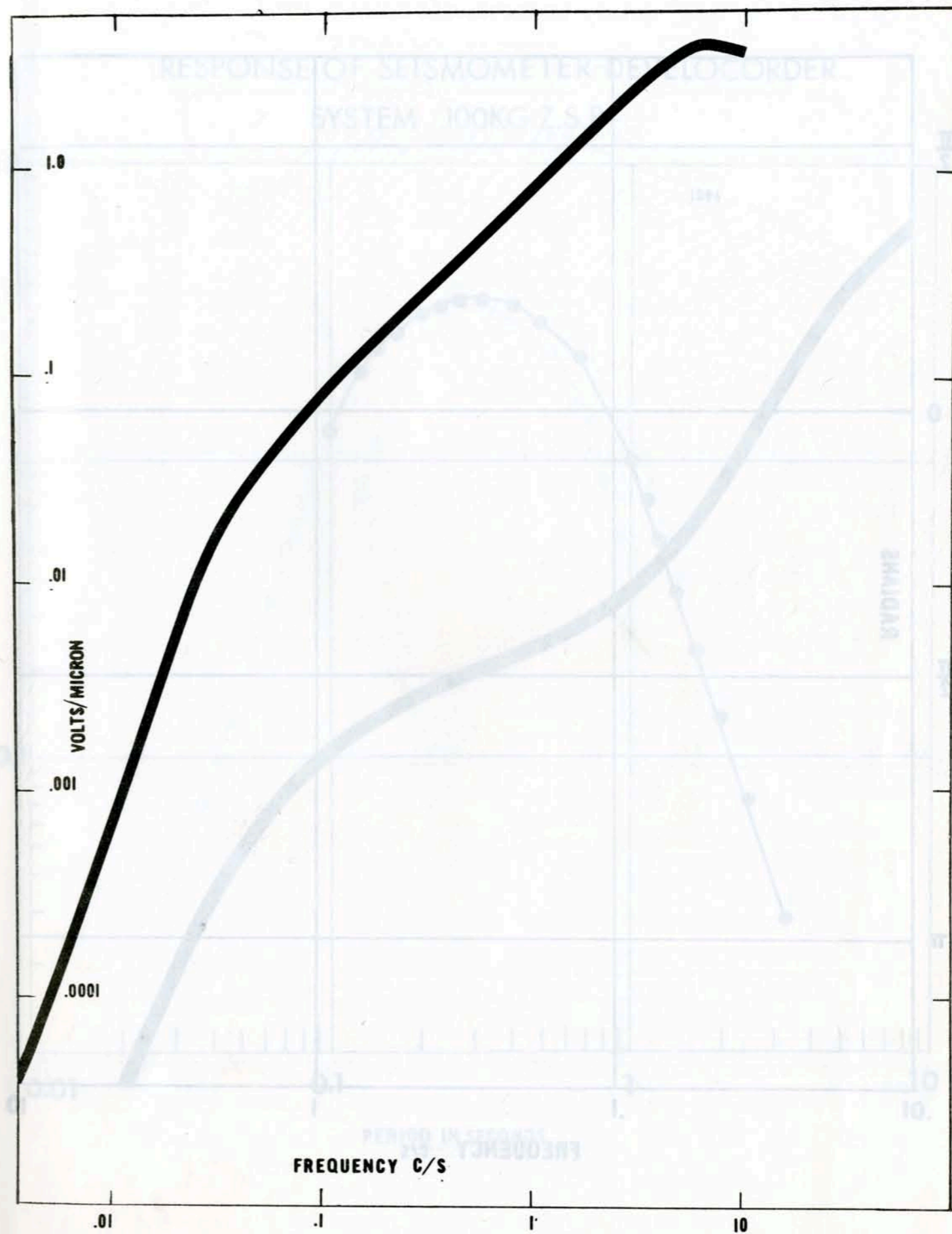
BERKELEY, CALIFORNIA

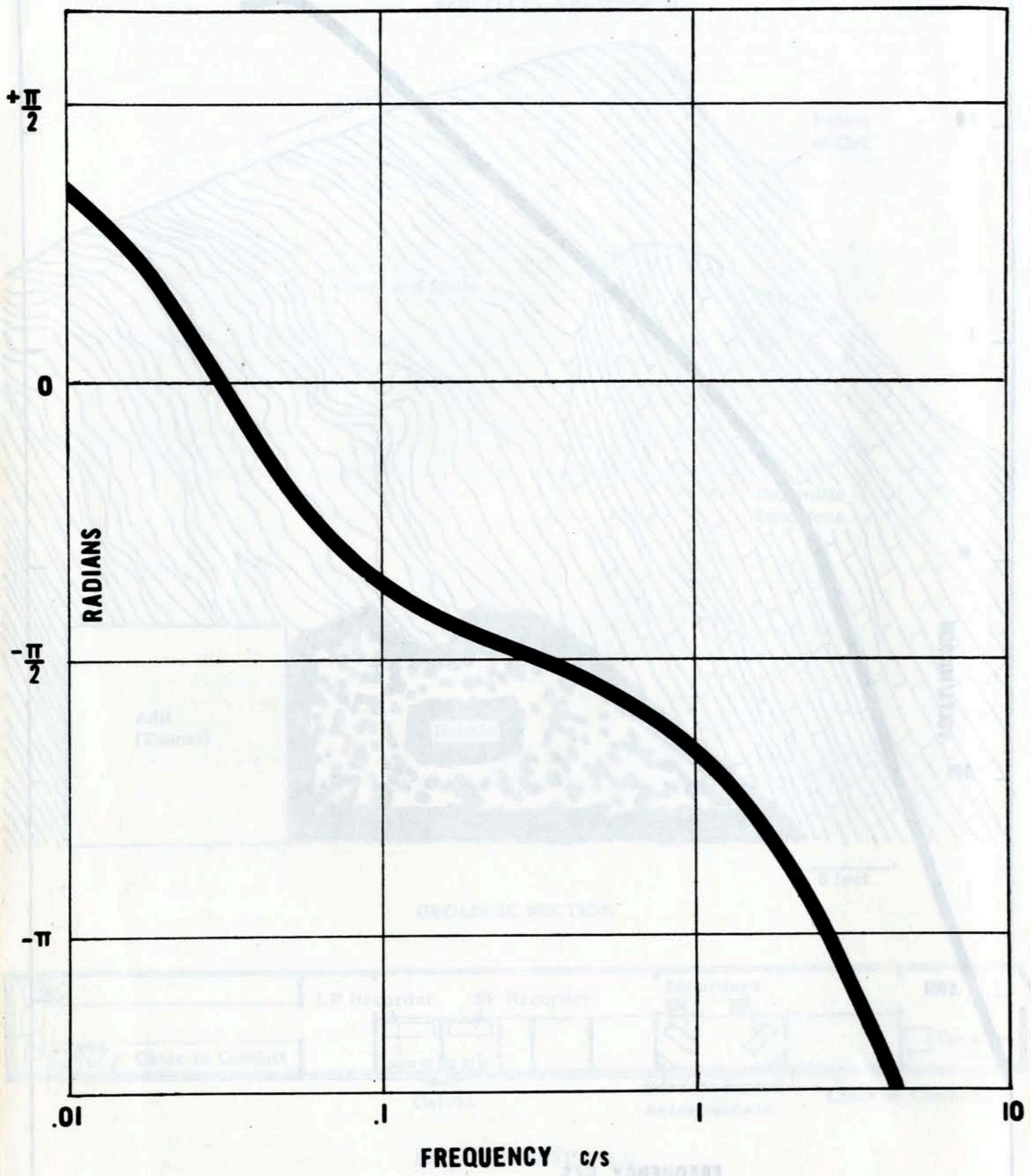


GEOLOGIC SECTION

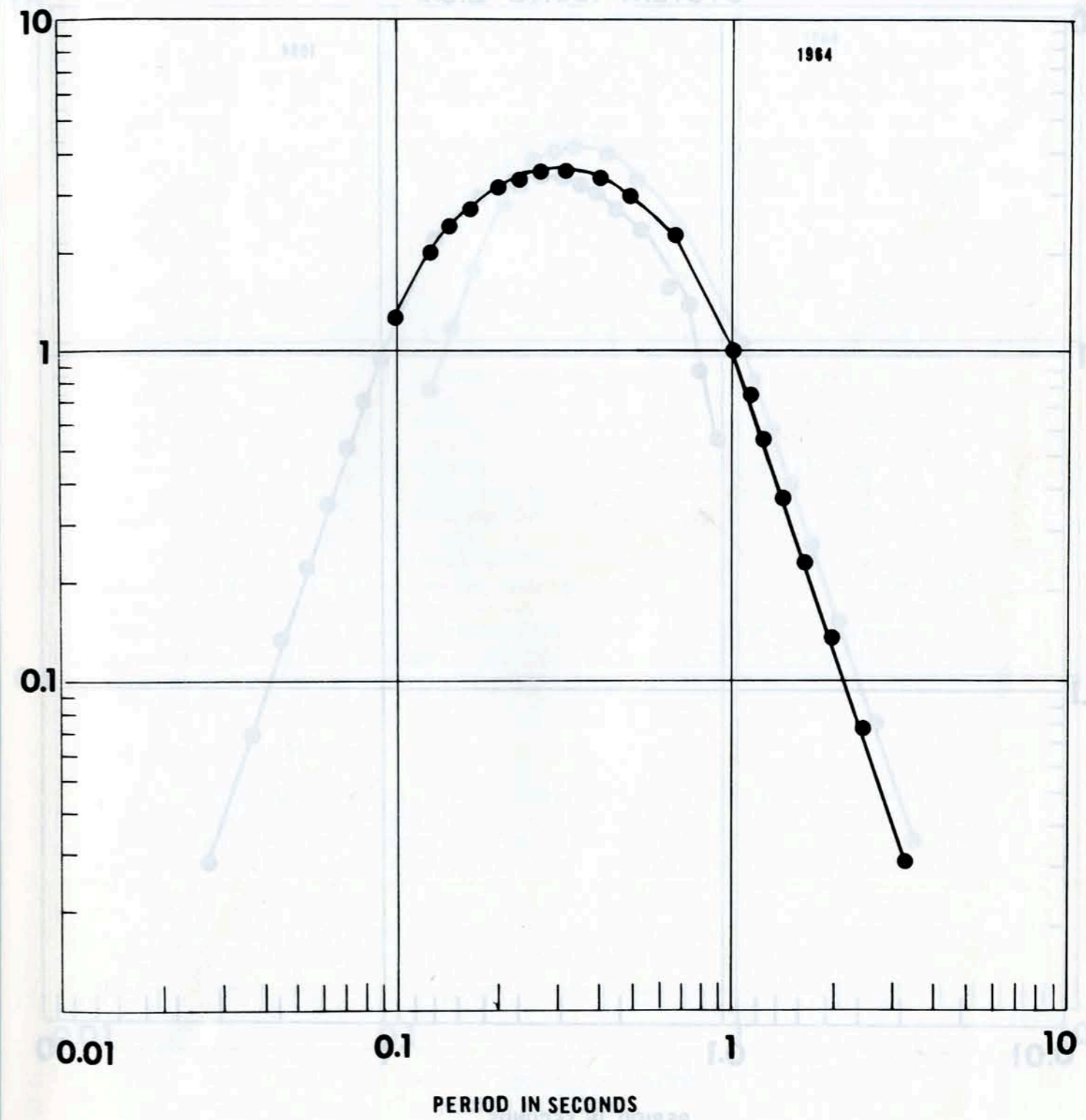


SEISMOLOGY TUNNEL

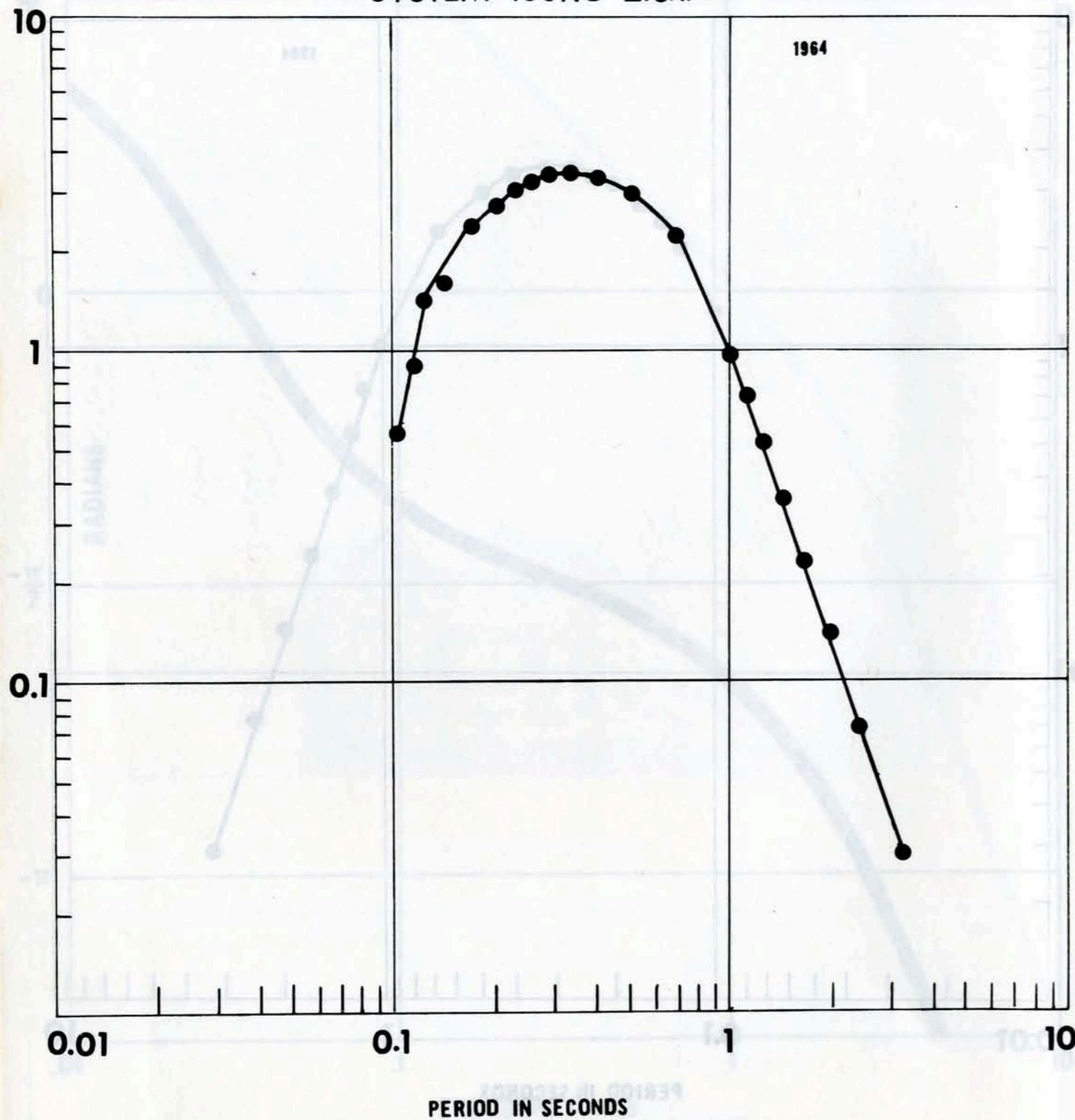




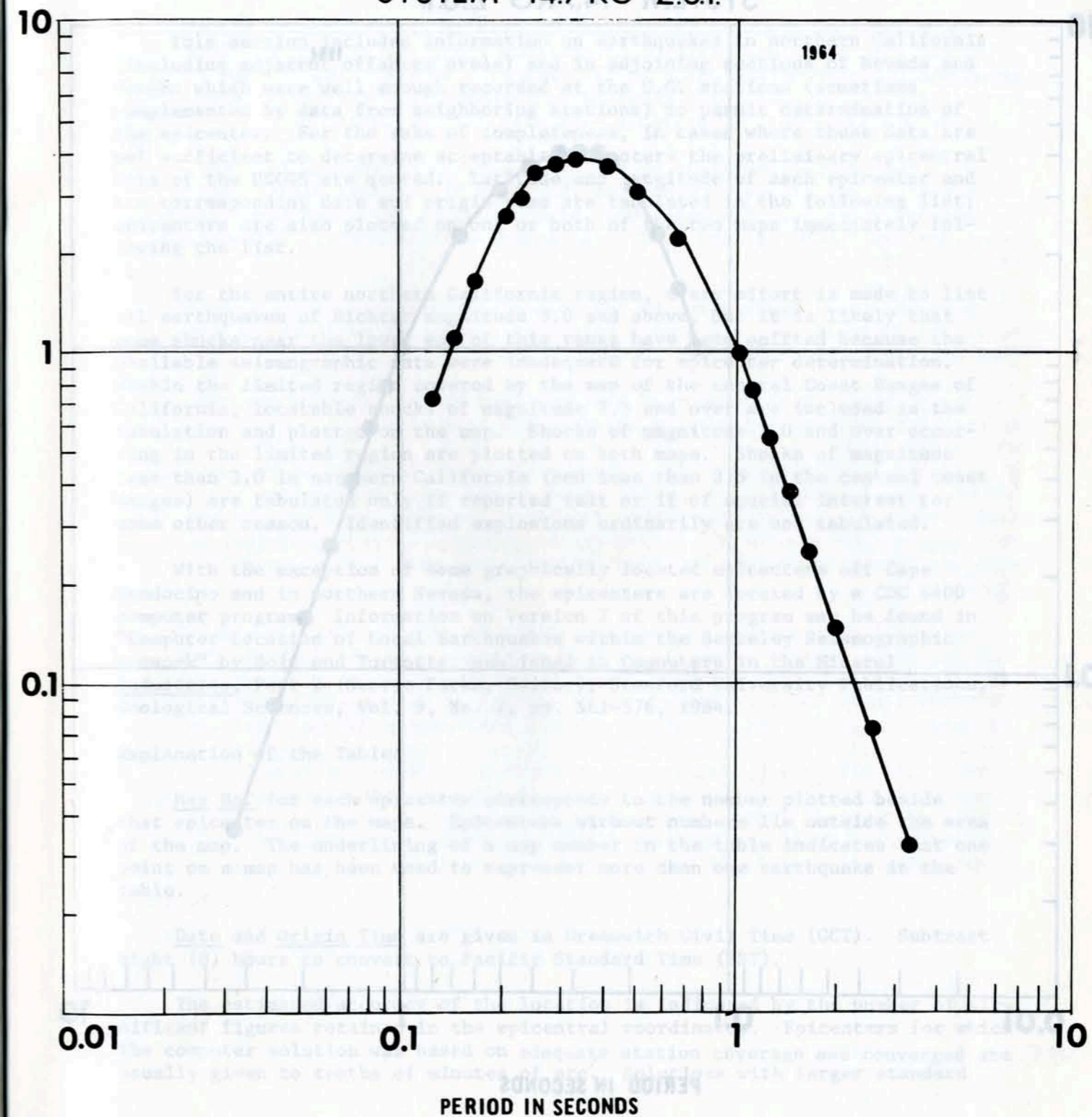
RESPONSE OF SEISMOMETER-DEVELOPORDER SYSTEM 100KG Z.S.P.



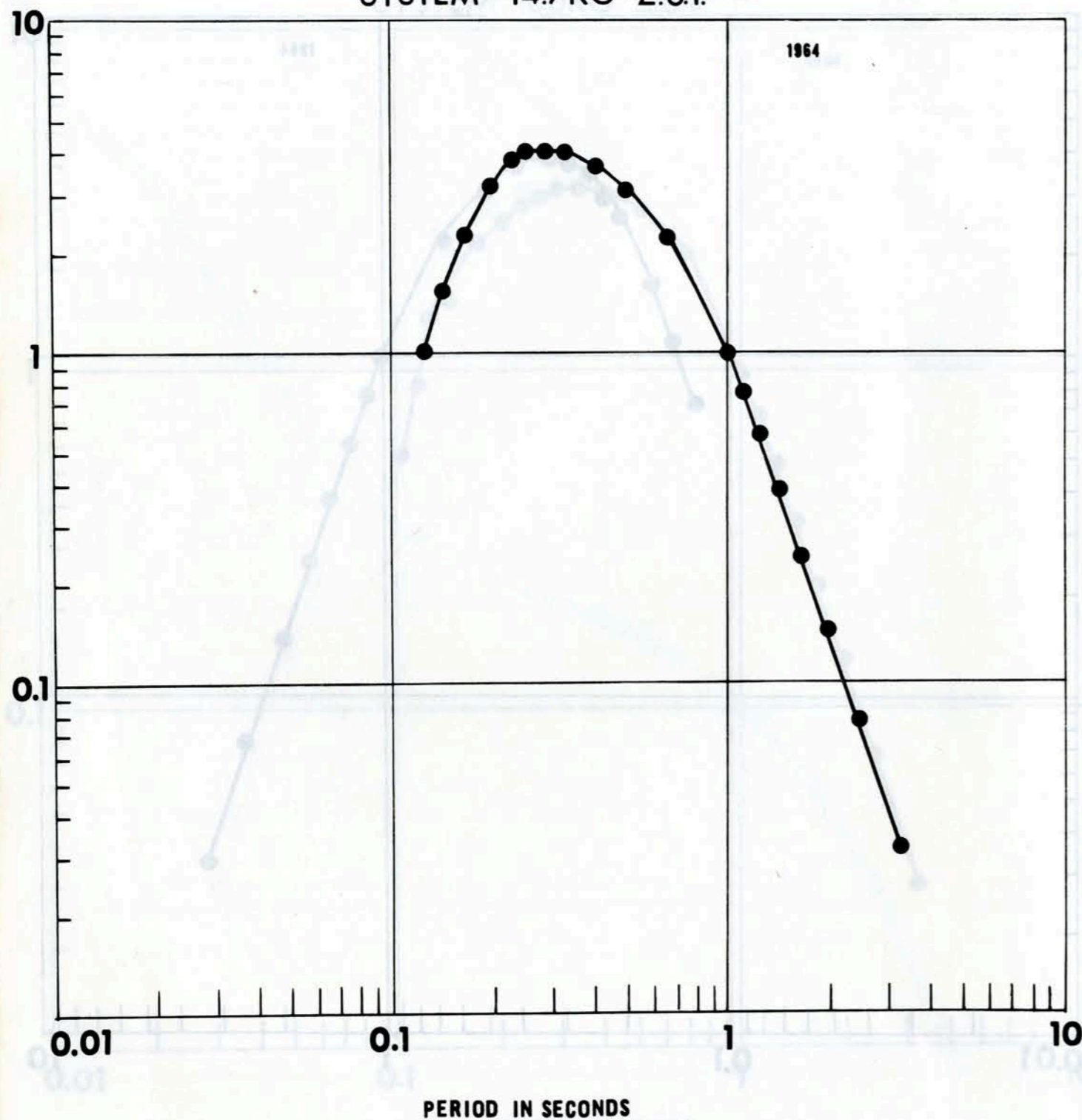
RESPONSE OF SEISMOMETER-HELICORDER
SYSTEM 100KG Z.S.P.



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) 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 shocks near the lower end of this range 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 explosions ordinarily are not tabulated.

With the exception of some graphically located epicenters off Cape Mendocino and in northern Nevada, the epicenters are located by a CDC 6400 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).

The estimated accuracy of the location is indicated by the number of significant figures retained in the epicentral coordinates. Epicenters for which the computer solution was based on adequate station coverage and converged are usually given to tenths of minutes of arc. Solutions with larger standard

error or those which required depth restraint are given to minutes of arc. Graphically located epicenters and poorly controlled computer solutions are given to the nearest tenth of a degree, and to the nearest second in origin time.

The quality of the solution depends largely on the uniformity of the azimuthal and radial distribution of stations about the epicenter. This principle was used consistently in the selection of stations for each epicentral determination. For a group of earthquakes in a particular area, the same station group, if possible, was used for all locations.

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. The magnitudes of earthquakes for which these maximum trace amplitudes are too small are determined from Benioff seismograph trace amplitudes.

h is the focal depth given by the following ranges: a, 0-5; b, 6-10; c, 11-15; d, 16-30 km. A letter R following the estimated depth implies that depth has been restrained to that value.

No. of Stas. is the number of stations used by the computer program or used for constructing arcs in locating the epicenter.

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 United States". 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 1968	Origin Time (G.C.T.)	Latitude North	Longitude West	Magnitude	h	No. of Stas.	Remarks
1	July 01	03-13-09.9	39° 47:1	123° 18:8	3.2	a	9	Near Covelo.
2	July 01	22-07-17	40:2	124:8	3.4	a	10	Off Cape Mendocino.
3	July 03	10-00-05	42-1/4°	120°	3.3	a(R)	8	Near Plush, Ore.
4	July 03	17-52-52	35:8	121:5	2.5	a	7	NW of San Simeon.
5	July 03	21-32-35.7	36° 38:1	121° 19:7	2.9	b	10	S of Hollister.
	July 06	14-02-40	41:1	117:4	5.5	a(R)	11	S of Winnemucca. Felt over approx. 9,000 sq. miles. Max. Intensity V at Golconda, Rye Patch Dam, Winnemucca.
	July 08	09-47-05	40:3	127:3	4.0	a(R)	11	Mendocino escarpment.
6	July 13	08-41-12.0	36° 32:4	121° 10:6	2.7	b	8	Bear Valley area.
7	July 14	15-23-20.3	37° 25:6	121° 50:9	2.6	a	10	NE of San Jose.
8	July 15	07-43-39	40:3	124:8	3.7	b	10	Cape Mendocino.
9	July 22	01-05-02.5	39° 49:9	121° 53:3	3.3	a	10	NW of Chico. Felt over approx. 900 sq. miles. Max. Intensity V at Artois, Chico, Hamilton City.
9	July 22	01-07-12	39° 50'	121° 53'	3.3	a	8	NW of Chico.
10	July 22	15-10-52	36:9	118:2	3.4	a	7	Owens Valley.
10	July 22	15-17-35	36:9	118:2	3.5	a	6	Owens Valley.
10	July 22	18-43-48.4	36° 55:8	118° 11:7	3.8	a	15	Owens Valley.
11	July 26	18-52-25.7	37° 58:6	122° 00:1	2.9	b	11	E of Concord.
12	July 27	23-57-17.2	40° 12:8	122° 02:4	3.3	a	11	SE of Red Bluff.
13	July 29	04-27-51.9	36° 22:7	120° 41:6	2.7	a	9	N of PRI.
13	July 29	05-29-19.9	36° 22:3	120° 41:7	2.8	a	9	N of PRI.
13	July 31	00-49-25.4	36° 22:4	120° 42:0	2.9	a	9	N of PRI.
14	Aug. 08	05-31-09.2	40° 28:5	124° 29:6	4.0	a	14	Off Cape Mendocino. Felt over approx. 800 sq. miles. Max. Intensity V at Ferndale, Fields Landing.

Map No.	Date 1968	Origin Time (G.C.T.)	Latitude North	Longitude West	Magnitude	h	No. of Stas.	Remarks
✓ 15	Aug. 08	19-41-31.6	37° 24!1	121° 45!4	3.2	a	12	NE of San Jose. Felt (Intensity II) at San Jose.
16	Aug. 10	16-06-16	40°	123°	3.4	a(R)	5	W of Paskenta.
17	Aug. 18	22-15-09	40° 14'	123° 54'	3.2	c(R)	8	Near Miranda.
18	Aug. 19	16-30-18.2	36° 24!2	121° 54!3	3.3	a	9	S of Carmel.
19	Aug. 20	07-37-34	37° 50'	121° 56'	2.5	c(R)	5	E of Danville.
20	Aug. 20	18-18-41.0	36° 59!8	121° 44!9	2.6	a	10	N of Watsonville.
21	Aug. 29	11-26-43	39:7	118:1	3.3	a	7	Near Dixie Valley, Nev.
22	Aug. 31	11-10-40	40:4	124:4	3.7	a(R)	6	NW of Petrolia.
23	Sep. 01	21-56-24.4	36° 27!0	121° 01!4	2.7	a	8	E of Pinnacles National Monument.
6	Sep. 03	01-31-07.1	36° 33!5	121° 11!3	3.1	a	10	Near Bear Valley.
24	Sep. 03	08-34-00	37-1/2°	116-1/2°	4.0	a(R)	5	N of Beatty, Nev.
25	Sep. 03	17-37-54	39:5	118:1	3.6	a	5	Near Dixie Valley, Nev.
25	Sep. 03	18-32-10	39:5	118:1	3.9	b	6	Near Dixie Valley, Nev.
26	Sep. 05	05-11-31.7	37° 57!0	122° 21!0	2.1	a	5	Richmond. Felt in El Cerrito. ✓
27	Sep. 12	08-44-47	37-3/4°	118-1/4°	3.3	a(R)	4	NE of Bishop. Felt in Benton and Bishop. Max. Intensity IV. ✓
28	Sep. 20	20-50-43	39°	118°	3.3	a(R)	3	N of Mina, Nev.
29	Sep. 21	03-18-13.4	37° 25!7	122° 13!6	2.8	a	13	SW of Palo Alto. Felt in Menlo Park, Redwood City, Palo Alto. Max. Intensity IV. ✓
30	Sep. 26	20-01-14.4	36° 59!5	121° 42!7	2.9	a	10	NE of Watsonville.
31	Oct. 03	15-56-06	40:6	124:6	3.5	a	12	Off Cape Mendocino.
32	Oct. 06	07-57-05.5	36° 57!1	121° 25!0	2.7	a	8	SE of Gilroy.
33	Oct. 07	06-24-38.0	41:5	126:3	4.1	a(R)	6	200 km NW of Arcata.
8	Oct. 11	10-56-35	40:3	124:8	3.4	c(R)	6	Off Cape Mendocino.
8	Oct. 11	11-07-14	40:3	124:8	3.5	c(R)	11	Off Cape Mendocino. Felt in Ferndale (III) ✓
34	Oct. 13	07-28-23.0	36° 53!6	121° 36!3	2.8	b	9	NW of San Juan Bautista.
35	Oct. 16	17-37-55	40:4	125:8	4.1	a	14	Mendocino Escarpment.

Map No.	Date 1968	Origin Time (G.C.T.)	Latitude North	Longitude West	Magnitude	h	No. of Stas.	Remarks
36	Oct. 17	09-12-05.3	36° 49!5	121° 37!2	2.7	a	10	W of San Juan Bautista.
37	Oct. 20	10-26-08	40:3	125:0	3.7	a	12	Off Cape Mendocino.
38	Oct. 21	09-46-30	40-1/2°	117-3/4°	3.4	a(R)	4	S of Winnemucca.
39	Oct. 21	14-30-25.5	37° 56!9	122° 18!4	3.4	a	9	E of Richmond. Felt. Max. Intensity V at Albany, Berkeley, El Cerrito. ✓
40	Oct. 29	16-35-55.0	37-1/4°	116-1/4°	3.5	a(R)	3	Near Nevada Test Site.
	Oct. 31	11-36-47	36-1/4°	117-1/2°	3.5	a(R)	3	Near Darwin.
14	Oct. 31	13-47-29	40-1/2°	124-1/2°	3.3	a(R)	3	Cape Mendocino. Felt at Ferndale and Petrolia. Max. Intensity IV. ✓
41	Nov. 02	04-12-08	41:3	126:3	3.5	a(R)	5	NW of Arcata.
42	Nov. 05	07-52-26.6	37° 57!0	121° 47!3	2.8	b	13	Near Mt. Diablo.
43	Nov. 05	11-00-41.0	36° 40!5	121° 16!2	3.1	b	10	SE of Hollister.
43	Nov. 05	11-08-26.2	36° 39!0	121° 16!8	3.2	a	9	SE of Hollister.
44	Nov. 06	08-58-22.2	35° 52!6	120° 26!9	2.8	b	10	Near Parkfield. Felt near San Miguel.
45	Nov. 09	12-53-31.1	38° 05!0	121° 50!7	2.5	b	7	Near Antioch.
46	Nov. 10	04-03-03.9	35° 41!9	121° 10!5	3.2	a	9	Near San Simeon.
47	Nov. 17	01-03-57.0	36° 17!1	120° 56!5	3.0	b	6	Near King City.
48	Nov. 21	06-26-40.7	37° 02'	121° 44'	2.6	a(R)	8	Near Watsonville.
44	Dec. 11	12-19-52.4	35° 48!5	120° 28!6	3.0	a	10	Near Parkfield.
49	Dec. 11	12-51-07	40:9	124:1	3.7	d	10	Near Arcata. Felt. Max. Intensity V at Arcata, Eureka, Korb. ✓
50	Dec. 11	21-37-37.4	37° 09!7	121° 33!6	3.9	b	7	Near Morgan Hill. Felt over approx. 1200 sq. miles. Max. Intensity IV at Milpitas, Morgan Hill, New Almaden. Felt in San Jose, Oakland, San Francisco. ✓
50	Dec. 11	21-45-38.6	37° 09!3	121° 32!3	3.0	a	7	Near Morgan Hill. Felt in San Jose. ✓
51	Dec. 16	01-14-10.9	36° 10!1	120° 50!7	2.7	c	7	W of Priest.
14	Dec. 16	08-31-23.0	40:5	124:5	3.6	a(R)	7	Near Cape Mendocino. Felt in Ferndale and Eel River valley. Max. Intensity IV. ✓

Map No.	Date 1968	Origin Time (G.C.T.)	Latitude North	Longitude West	Magnitude	No. of Stas.	Remarks
52	Dec. 19	16-30-00.0	37° 13'9"	116° 28'4"	6.2 a		Nuclear explosion "Benham". This explosion and its larger aftershocks are listed in a separate tabulation following this list.
53	Dec. 23	14-12-23	38°6'	119°9'	3.0 a(R)	9	Near Markleeville.

USAEC

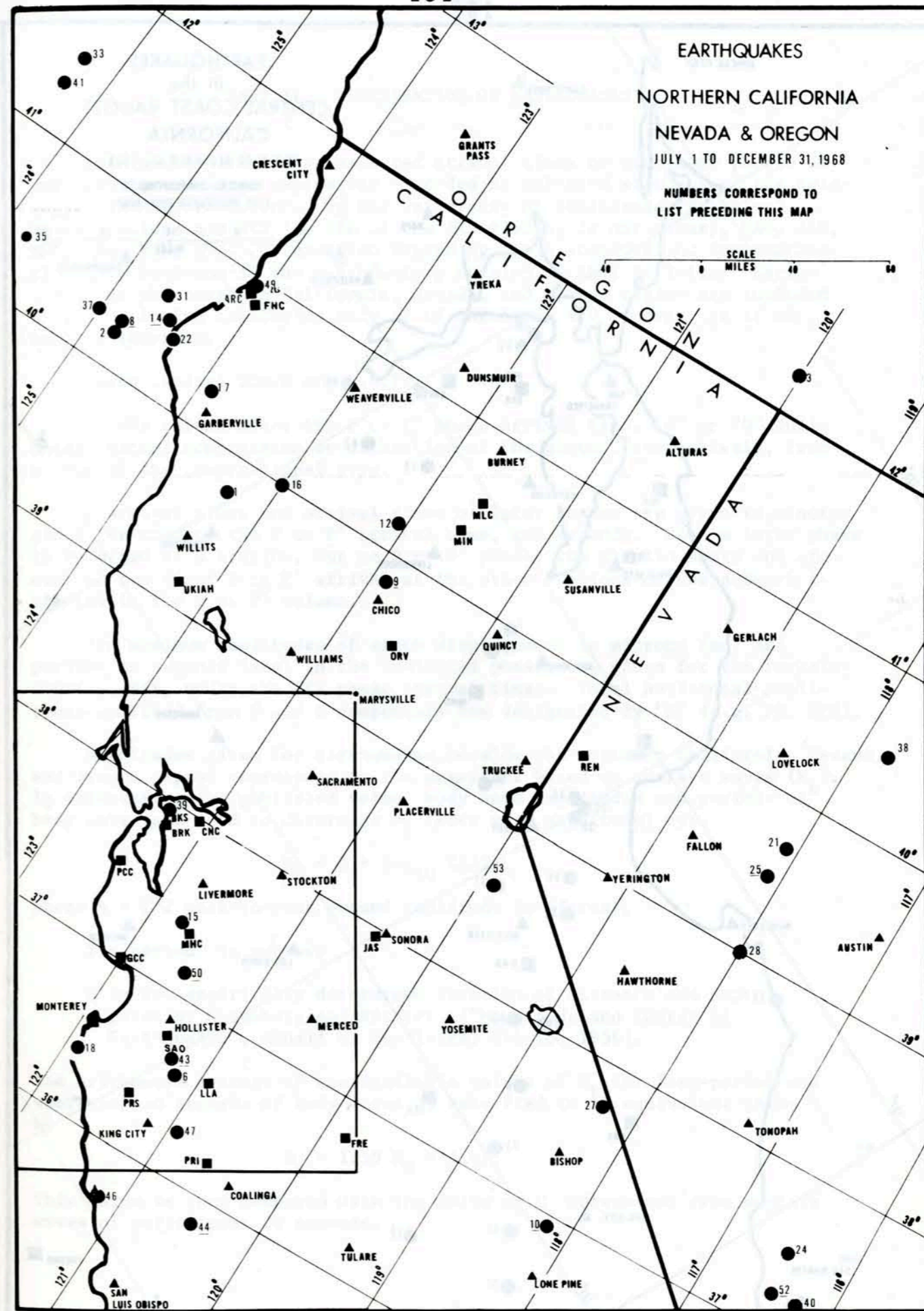
Nuclear Explosion "Benham" and Aftershocks

Date 1968	Magnitude	Time (GMT) h m s	Latitude (N) Deg Min Sec	Longitude (W) Deg Min Sec	Elevation meters
Dec. 19	6.2*	16-30-00	37 13 53.3	116 28 24.9	512.1**
19	4.0	19-18-18			
19	4.5	22-23-19.2			
Dec. 20	4.4	20-08-19.1			
Dec. 21	5.0	00-14-25.0			
21	4.2	17-32-56.4			
Dec. 22	4.4	18-10-52.3			
22	4.0	22-45-09.6			
22	4.4	22-45-50			

66 aftershocks of magnitude 3.0-3.9

* From BKS Wood-Anderson instruments.

** Epicentral data from U.S. Atomic Energy Commission.

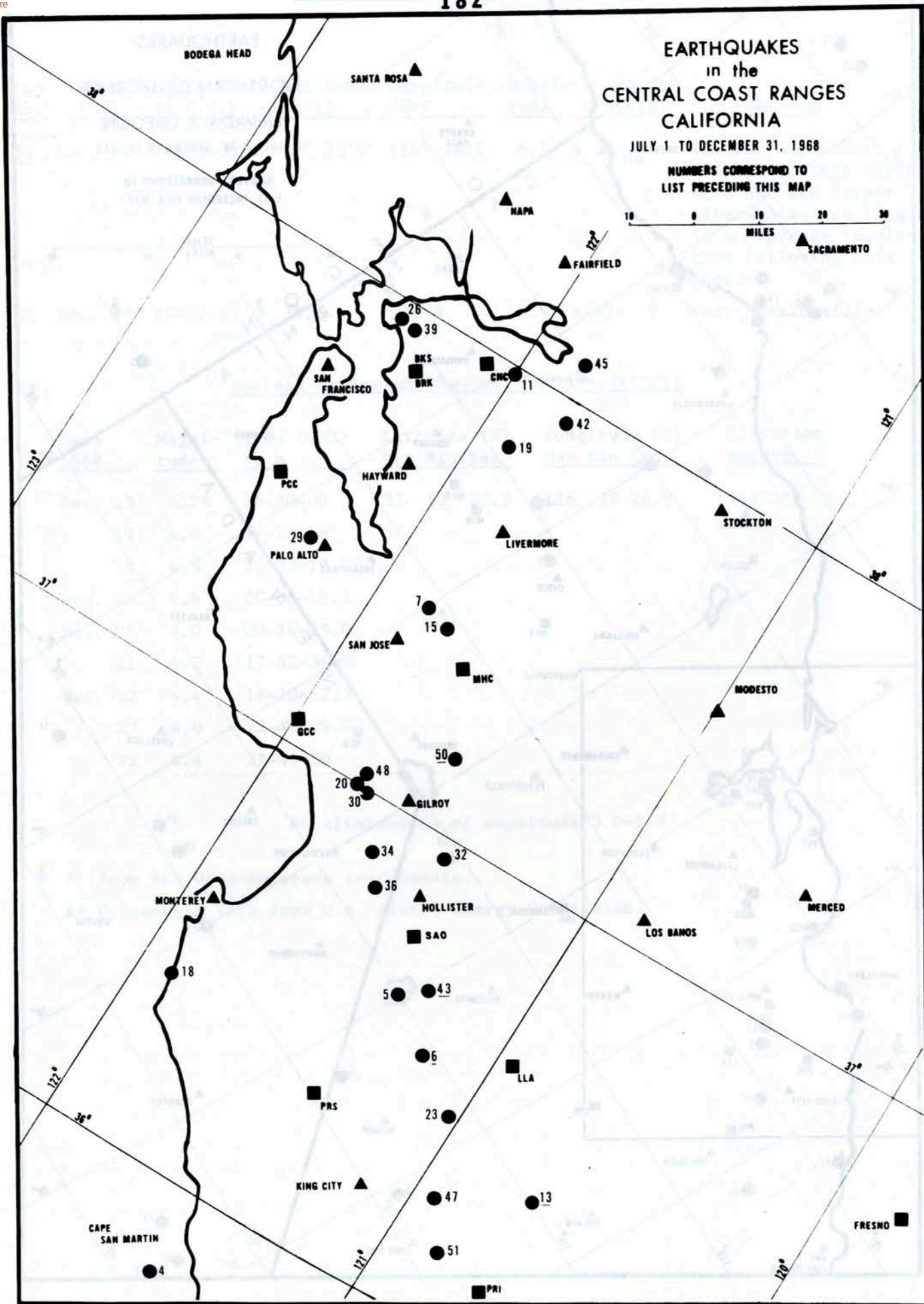


**EARTHQUAKES
in the
CENTRAL COAST RANGES
CALIFORNIA**

JULY 1 TO DECEMBER 31, 1968

NUMBERS CORRESPOND TO
LIST PRECEDING THIS MAP

0 10 20 30
MILES



PART II. REGISTRATION OF EARTHQUAKES

This section tabulates measured arrival times of prominent phases of earthquakes and large explosions recorded at selected stations of the seismographic network operated by the University of California (Berkeley). These stations are BKS (or BRK if the BKS reading is not clear), SAO, JAS, MHC, PRI, MIN, ARC. Information regarding these 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.

Phase arrival times are G.C.T.

In the column after the P or P' phase arrival time, "C" or "D" indicates initial compression or dilatation of the ground, respectively, from a wave of the compressional type.

S arrival times and arrival times of later phases are given in minutes after the hour of the P or P' arrival time, and seconds. When a later phase is recorded at a station, but no P or P' phase, the time in hours and minutes of the first P or P' arrival at the other stations of the network is printed in the P or P' column.

The maximum amplitudes of earth displacement in microns (μ) and periods in seconds (sec) in the indicated phases are given for the Berkeley station, BKS, under the BKS phase arrival times. Total horizontal amplitudes combined from N and E components are designated by "H" (e.g. PH, PPH).

Magnitudes given for earthquakes outside the northern California, Nevada, and Oregon region correspond to the magnitude based on surface waves (M_s). In calculating the published value, body wave amplitudes and periods of 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.

Distances are given in degrees from the Berkeley station, BRK. USCGS data are listed as a guide at the end of arrival times of the earthquakes which have body wave magnitude 5 and over or those for which some core phases have been recorded.

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 seven listed are available on request. Requests for additional data or for copies of seismograms should be addressed to the Director.

UNIVERSITY OF CALIFORNIA
SEISMOGRAPHIC STATIONS
BERKELEY, CALIFORNIA 94720
JUL 01 THROUGH DEC 31 1968

* PRECEDING ALPHABET INDICATES LOWER CASE
P* IS TO BE READ AS PKP

			P OR PKP	S	OTHER PHASES
SAO	JUL	01	02 27 28.8		
PRI			02 27 17.0	C	
JAS			02 27 41.6		
MHC			02 27 37.4		
MAG 4 SANTA BARBARA CHANNEL					
RKS	JUL	01	04 15 19.4	D	
					MICRON PERIOD
			PZ		0.03 0.8
SAO			04 15 23.2		
PRI			04 15 27.1	C	
JAS			04 15 17.9	C	
MHC			04 15 20.7	C	
MIN			04 15 07.1	C	
USCGS 04 02 01.7, 47.9N, 48.0E, H= 33 KM, M=5.5 WESTERN KAZAKH SSR.					
RKS	JUL	01	10 56 47.3	C	66 39 L 75 48 *E 76 46 *E 77 06
					LR 79 24
					MICRON PERIOD
			PZ		0.28 1.2
			PH		0.09 0.8
			MAXH		2.6 16
SAO			10 56 53.5	C	
PRI			10 56 59.0	C	
MHC			10 56 51.2	C	
MIN			10 56 40.7	C	
MAG 5.7-6.0, DIST(DEG) 76 USCGS 10 45 11.9, 36.0N, 139.3E, H= 67 KM, M=5.9 HONSHU, JAPAN. 1 KILLED, 9 INJURED, MINOR DAMAGE IN TOKYO AREA.					
SAO	JUL	02	03 20 46.6		
PRI			03 20 36.8	D	
JAS			03 21 03.1	C	
MHC			03 20 45.0		
MIN			03 21 37.0	D	
RKS	JUL	02	03 50 39	D	55 27 *E 57 36 *E 58 54 LR 58 58
					MICRON PERIOD
			PZ		0.30 1
			PH		0.25 1
			SH		12.9 13
SAO			03 50 26.1	C	
PRI			03 50 18.9	C	
JAS			03 50 26.5	C	*E 53 52

MHC 03 50 30.6 C
 MIN 03 50 48.3 D
 ARC 03 51 06.4 D
 MAG 6.0, DIST(DEG) 30
 USCGS 03 44 48.9, 17.6N, 100.3W, H= 41 KM, M=5.9
 GUERRERO, MEXICO. 1 KILLED, MINOR DAMAGE AT
 CUAJIMALPA. FELT MEXICO CITY, ACAPULCO.

RKS JUL 02 04 43 24.6 C
 MICRON 0.08 PERIOD 0.9
 PZ
 SAO 04 43 22.9 C
 PRI 04 43 23.8 C *E 43 41
 JAS 04 43 29.4 C *E 43 46
 MHC 04 43 24.6 C *E 43 41
 MIN 04 43 33.5 C *E 43 51
 USCGS 04 30 52.7, 29.7S, 177.9W, H= 53 KM, M=5.6
 KERMADEC ISLANDS REGION.

JAS JUL 02 16 55 15.1 C

JAS JUL 02 18 49 30.1 C
 MHC 18 49 24.5 C

BKS JUL 02 18 53 44.2
 MICRON 0.03 PERIOD 0.8
 PZ

JAS 18 53 49.5 D
 MHC 18 53 45.7 D

JAS JUL 02 20 39 31.7 C
 MHC 20 39 34.0 C

JAS JUL 03 01 23 14.8 C *E 23 27 *E 23 38
 MHC 01 23 10.8 C

BKS JUL 04 00 45 46.2 C
 MICRON 0.07 PERIOD 0.9
 PZ

PRI 00 45 52.6 C *E 46 19 *E 46 46
 JAS 00 45 52.7 C *E 46 14
 MHC 00 45 50.2 C
 MIN 00 45 40.6 C

USCGS 00 34 13.2, 34.8N, 139.7E, H=104 KM, M=5.0
 NEAR S. COAST OF HONSHU, JAPAN.

PRI JUL 04 07 23 23.0 C *E 23 23
 JAS 07 23 06.8 C

MHC 07 23 04.2 C
 MIN 07 22 52.6 D
 USCGS 07 12 24.2, 43.9N, 147.2E, H= 80 KM, M=5.0
 KURILE ISLANDS.

BKS JUL 04 13 00 06 40 *E 00 20 *E 12 18 LR 18 06

JAS JUL 04 22 01 26.0 C

USCGS 21 47 55.6, 37.8N, 23.2E, H= 33 KM, M=5.3
 SOUTHERN GREECE. FELT ATHENS, CORINTH. 100
 HOUSES DAMAGED.

BKS JUL 05 00 37 09.4 D
 SAO 00 36 51.0 D
 PRI 00 36 40.3 C
 JAS 00 37 04.4 C
 MHC 00 37 00.1 C
 MIN 00 37 40.6 C
 MAG 4.5 SANTA BARBARA CHANNEL

RKS JUL 05 00 46 20.1 C *E 46 40
 SAO 00 46 02.4 C
 PRI 00 45 52.0 C
 JAS 00 46 16.3 C
 MHC 00 46 11.0 C
 MIN 00 46 51.3 C *I 48 16
 APC 00 47 04.0 C

USCGS 00 45 17.2, 34.1N, 119.7W, H= 6 KM, M=5.7
 SOUTHERN CALIFORNIA.

SAO JUL 05 02 09 54.5
 PRI 02 09 45.0 C *E 10 20
 JAS 02 10 11.9 D *E 10 49
 MHC 02 10 17.4 C
 MAG 4.0 SANTA BARBARA CHANNEL

PRI JUL 05 02 21 04.4 C
 JAS 02 21 03.2 C
 MHC 02 21 09.5 D

BKS JUL 05 02 37 21.9 C
 SAO 02 37 01.2 C
 PRI 02 36 49.4 C *E 36 54
 JAS 02 37 13.8 C
 MHC 02 37 08.9 D
 MIN 02 37 50.5 D
 MAG 4.8 SANTA BARBARA CHANNEL

SAO JUL 05 09 33 30.5 D
 PRI 09 33 19.7 C *I 33 51
 JAS 09 33 44.2 C
 MHC 09 33 38.5 D
 MIN 09 34 20.8 *E 36 05
 MAG 4.5 SANTA BARBARA CHANNEL

RKS JUL 05 11 39 31.2 C 48 45 *E 56 48 *E 61 54
 MICRON 0.38 PERIOD 2.0
 PZ 0.07 1.0
 PH 10.0 20
 SH 16.5 2.5
 MAXH

SAO 11 39 41.6 C
 PRI 11 39 44.0 C *E 39 54
 JAS 11 39 37.8 C *E 39 49 *E 40 13 *E 42 34

MHC 11 39 35.7 C *E 39 46
 MIN 11 39 24.7 C
 MAG 6, DIST(DEG) 68
 USCGS 11 28 12.6, 38.5N, 142.0E, H= 43 KM, M=5.9
 NEAR E. COAST OF HONSHU, JAPAN. FELT TOKYO AREA.

BKS JUL 05 13 50 30.3 D
 SAO 13 50 28.0 C
 PRI 13 50 28.7 C
 JAS 13 50 34.5 C *E 50 45
 MHC 13 50 29.9 C *E 50 41
 MIN 13 50 32.7 D
 USCGS 13 37 55.7, 30.2S, 178.1W, H= 53 KM, M=5.2
 KERMADEC ISLANDS REGION.

SAO JUL 05 15 03 53.8 C
 PRI 15 03 42.3 C 04 13
 JAS 15 04 07.0 C
 MHC 15 04 02.9 C
 MIN 15 04 43.0 D
 MAG 4.7 SANTA BARBARA CHANNEL

JAS JUL 05 18 40 03.8 C *E 40 20
 MIN 18 40 08.4 D
 USCGS 18 20 30.0, 48.3S, 106.7E, H= 33 KM, M=5.2
 SE INDIAN RISE.

JAS JUL 05 19 39 04 D
 BKS JUL 06 14 03 52.3 05 10
 PRI 14 04 03.9 D 05 29
 JAS 14 03 39.5 D
 MHC 14 03 54.7 D
 MIN 14 03 30.3 D 04 23 *I 03 39
 ARC 14 03 59 D
 MAGNITUDE 5.5
 USCGS 14 02 42.0, 41.0N, 117.4W, H= 33 KM, M=5.1
 NEVADA. FELT WINNEMUCCA.

BKS JUL 06 14 36 43.6
 PRI 14 36 39.5 C
 JAS 14 36 41.4 C
 MHC 14 36 42.2 C

BKS JUL 06 17 40 57.5 LR 70 00
 SAO 17 40 57.5 C
 PRI 17 40 59.3 C
 JAS 17 41 02.1 C *E 41 50
 MHC 17 40 58.1 D
 MIN 17 41 03.4 C
 USCGS 17 23 55.8, 9.8N, 126.4E, H= 24 KM, M=5.1
 MINDANAO, PHILIPPINE ISLANDS.

BRK JUL 07 01 16 LQ 24 12
 PRI 01 16 43.3 C

JAS 01 16 28.8 C
 MHC 01 16 30.6 C
 MIN 01 16 05.9 D

SAO JUL 07 05 28 08.1 D
 PRI 05 27 57.0 D *E 28 26
 JAS 05 28 21.4 D *E 29 10
 MHC 05 28 16.4 C
 MIN 05 28 *I 28 56
 MAG 4.0 SANTA BARBARA CHANNEL

JAS JUL 07 05 58 57.5 C *E 59 11 *E 59 26
 SAO JUL 07 13 37 35.9 C
 PRI 13 37 41.3 C
 JAS 13 37 35.7 C *E 37 43
 MHC 13 37 33.3 C

BKS JUL 07 14 34 32.8 D
 SAO 14 34 15.2 C
 PRI 14 34 04.0 C
 JAS 14 34 29
 MHC 14 34 23.8
 MIN 14 35 04.9 C *I 36 43
 MAG 5.5 SANTA BARBARA CHANNEL

PRI JUL 07 14 56 03.7 C
 JAS 14 56 05.6 C
 MHC 14 56 02.6 C

BKS JUL 07 18 27 10.0 C
 PRI 18 27 12.0 C
 JAS 18 27 15.2 C
 MHC 18 27 10.2 C

BKS JUL 07 23 12 00 17 33 L 19 52 LR 21 24
 MICRON PERIOD
 MAXR(Z) 7.4 19
 MAXH(E) 3.5 19
 MAXH(N) 11.9 19

PRI 23 11 42.8 C
 JAS 23 11 53.6 D *I 12 03 *E 14 35
 MHC 23 11 55.4 C
 MIN 23 12 17.0 C

USCGS 23 05 18.2, 8.5N, 103.3W, H= 33 KM, M=5.0
 OFF COAST OF MEXICO.

BKS JUL 07 23 58 17.2 LR 78 30
 PRI 23 58 02.9 C
 JAS 23 58 09.0 C
 MHC 23 58 12.8 C
 MIN 23 58 23.6 C

USCGS 23 48 08.2, 5.8S, 77.1W, H= 27 KM, M=5.5
 NORTHERN PERU. FELT MOYABAMBA.

JAS JUL 08 00 27 17.0 C *E 30 07

JAS	JUL	08	04 20	56.7	C			
MHC			04 20	51.6	C			
MTN			04 21	05.0	D			
BKS	JUL	08	06 04			LR	14 30	
JAS			06 04	10.5	C			
MHC			06 04	11.1	C			
MTN			06 04			*E	04 32	
SAO	JUL	08	09 06	57.1	C			
PRI			09 06	45.9	C			
JAS			09 07	10.2	C			
MHC			09 07	05.4	D			
MIN			09 07	46.5	D			
BKS	JUL	08	09 19	41				
SAO			09 19	20.9	C			
PRI			09 19	10.3	C			
JAS			09 19	34.7	C			
MHC			09 19	29.8	D			
MTN			09 20	10.9	D			
MAG 4.2 SANTA BARBARA CHANNEL								
BKS	JUL	08	09 48	15.1		*E	49 07	
SAO			09 48	30.7	C	49 36		
PRI			09 48	44.0	C	50 03		
JAS			09 48	33.5		49 40		
MHC			09 48	24.9	C	*E	49 24	
MIN			09 48	10.8	D	*I	48 58	
MAGNITUDE 4.0 MENDOCINO ESCARPMENT								
BKS	JUL	08	12 20	39.0	C			
SAO			12 20	38.3	C			
PRI			12 20	39.4	C			
JAS			12 20	44.9	C			
MHC			12 20	39.7	C			
MIN			12 20	48.0	C			
SAO	JUL	08	15 19	15.3				
PRI			15 19	03.2				
JAS			15 19	19.5	D	*E	20 40	
MHC			15 19	21.9				
MAG 4, S OF JAMESTOWN								
BKS	JUL	08	21 36			46 28	SS	51 25 LR 59 42
PRI			21 36	47.6	C			
JAS			21 36	42.8	C	*E	37 00	*E 37 07
MHC			21 36	41.7	D	*E	36 53	
USCGS 21 24 48.3, 28.8N, 142.5E, H= 33 KM, M=5.3 RONIN ISLANDS REGION.								
BKS	JUL	09	03 45	12.3				
PRI			03 45	20.7	C			
JAS			03 45	17.5	C			

MHC			03 45	14.1	C			
MIN			03 45	09.4	C			
BKS	JUL	09	03 52	46.9	C			
PRI			03 52	44.1	C			
JAS			03 52	38.3	C			
MHC			03 52	38.8	C			
MIN			03 52	38.6	C			
PRI	JUL	09	08 17	33.1	C			
JAS			08 17	26.4	C	*E	17 36	
MHC			08 17	25.3	C			
MIN			08 17	15.7	C			
JAS	JUL	09	08 39	36.0	D			
MIN			08 39	22.6	D			
JAS	JUL	09	11 50	07.2	D			
BKS	JUL	10	00 53	54				
SAO			00 53	50.4	C			
JAS			00 53	54.7	C	*E	54 27	*E 54 46
MHC			00 53	51.6	C			
USCGS 00 40 45.9, 10.5N, 138.6E, H= 33 KM, M=5.1 WEST CAROLINE ISLANDS.								
JAS	JUL	10	06 48	30.5	C	*E	48 44	
BRK			06 48	28.7	C			
MHC			06 48	31.8	C	*E	48 45	
MIN			06 48	45.9	D			
BKS	JUL	10	11 36			*E	43 38	*E 62 56 *E 68 22
JAS			11 36	49.4	C	L	85 00	LR 91 00
MHC			11 36	51.2	C	*E	37 01	*E 36 26
MIN			11 36	49.0	C	*E	37 03	
USCGS 11 16 44.6, 36.8S, 78.5E, H= 33 KM, M=5.7 MID-INDIAN RISE.								
JAS	JUL	10	13 32	41.1	C			
BKS	JUL	10	20 51			*F	60 52	L 70 09 LR 73 00
MICRON PERIOD								
SH 1.1 12								
JAS			20 51	47.2	C	*E	52 28	
MHC			20 51	46.1	C	*E	52 27	
ARC			20 51	27.4	D			
MAGNITUDE 5.5								
USCGS 20 40 31.2, 40.2N, 143.2E, H= 33 KM, M=5.3 OFF E. COAST OF HONSHU, JAPAN.								
JAS	JUL	10	22 32	29.3	C			
MHC			22 32	27.2	C			
JAS	JUL	11	06 40	55.9	D			
MIN			06 40	59.9	D			

BKS	JUL	11	10 18 33.4	D							
SAO			10 18 34.4	D							
JAS			10 18 40.2	D		*E	18 47	*PP	19 56		
MHC			10 18 34.6	D							
MIN			10 18 40.4	C		*E	20 01				
SAO	JUL	11	15 10 13.3	C							
JAS			15 10 20.7	C							
MHC			15 10 15.3	D							
BKS	JUL	12	00 55 49.4	D	65 02	SCS	65 29	LQ	74 00	LR	76 00
					MICRON	PERIOD					
					PZ	0.77					
SAO			00 55 56.0	D		*E	56 06				
JAS			00 55 55.7	D		*E	56 06	*E	56 24	*E	58 25
						P**P*	83 45				
MHC			00 55 53.7	D		*E	56 03	*E	56 23	*E	58 19
						P**P*	83 45				
MIN			00 55 41.6	D							
ARC			00 55 32.8	D							
					MAG	6.3-6.5	DIST(DEG)	68			
					USCGS	00 44 36.5	39.5N	143.2E	H= 28 KM	M=6.0	
									OFF EAST COAST OF HONSHU		JAPAN.
BKS	JUL	12	04 07 41.0	D	16 55	*E	10 38	SCS	17 25		
SAO			04 07 47.6	C							
JAS			04 07 46.9	C		*E	07 55	*E	10 29	P**P*	35 04
						*E	35 24				
MIN			04 07 33.2	C		*I	07 46				
ARC			04 07 19.6	C							
					USCGS	03 56 27.5	39.5N	143.2E	H= 26 KM	M=5.5	
									OFF EAST COAST OF HONSHU		JAPAN.
BKS	JUL	12	11 40 17.8	D							
SAO			11 40 15.8	D							
JAS			11 40 22.0	D		*E	42 16	*E	43 59		
MHC			11 40 17.3	D							
MIN			11 40 26.5	C							
ARC			11 40 22.2	D							
BKS	JUL	12	12 21 05.7	D							
SAO			12 21 11.3	C							
JAS			12 21 06.5	C							
MHC			12 21 08.4	C							
MIN			12 20 54.3	C							
					USCGS	12 07 57.2	49.7N	78.1E	H= 0 KM	M=5.4	
									EASTERN KAZAKH SSR.		
JAS	JUL	12	16 54 12.4	D							
JAS	JUL	12	22 11 03.5	C							
MHC			22 11 20.8	C							
					USCGS	22 01 08.6	48.1N	154.6E	H= 33 KM	M=5.0	
									KURILE ISLANDS.		

PRI	JUL	13	06 31 43.2	C							
JAS			06 31 22.3	D							
MHC			06 31 14.4	C							
MIN			06 30 52.4	D							
PRI	JUL	13	06 35 24.8	C							
JAS			06 34 06.3	C		*E	35 50				
MHC			06 35 10.7	C		*E	35 43				
MIN			06 34 44.8	C							
PRI	JUL	13	06 43 14.8	C							
JAS			06 42 52.3	C		*F	40 08				
MHC			06 42 43	C							
MIN			06 42 21.8	C							
RRK	JUL	13	06 51 35.3	C							
PRI			06 51 40.2	C		*E	51 46				
JAS			06 51 40.8	C							
MHC			06 51 36.7	C							
MIN			06 51 37.5	D							
					USCGS	06 38 26.2	6.4S	149.7E	H= 36 KM	M=5.1	
									NEW BRITAIN REGION.		
JAS	JUL	13	07 06 35.8	C							
JAS	JUL	13	07 14 24.0	C							
MIN			07 14 55.0	C							
PRI	JUL	13	10 35 45.0	C							
JAS			10 35 47.0	C							
JAS	JUL	13	13 26 12.3	D							
MIN			13 26 05.2	C							
					USCGS	13 13 25.0	12.2N	143.6E	H= 20 KM	M=5.0	
									SOUTH OF MARIANA ISLANDS.		
BKS	JUL	13	20 53			*E	53 48	*E	55 05	*E	56 10
JAS			20 53 32.6	D							
BKS	JUL	13	23 15 05.6	C							
PRI			23 15 05.2	C							
JAS			23 15 11.9	C		*E	15 23				
MHC			23 15 06.0	C							
MIN			23 15 15.9	C							
BKS	JUL	13	23 28			*E	56 08				
SAO			23 28 24.2	C							
PRI			23 28 25.2	C							
JAS			23 28 31.5	C		*E	28 43				
MHC			23 28 26.3	D							
MIN			23 28 36.3	D							
BKS	JUL	14	03 22 33.1	C		*E	25 31				
SAO			03 22 32.7	C							
PRI			03 22 33.7	C							
JAS			03 22 39.5	C							

MHC 03 22 31.9 C
 BKS JUL 14 04 02 *E 15 28 *E 17 49
 JAS 04 02 31.0 C
 MHC 04 02 32.2 C
 MIN 04 02 48.5 D
 PRI 04 04 52.7 C
 JAS 04 04 53.9 C
 BKS JUL 14 08 08 32.8 C *E 30 10
 SAO 08 08 31.4 C
 PRI 08 08 32.3 D
 JAS 08 08 39.0 D *E 09 01
 MHC 08 08 33.0 D
 MIN 08 08 43.3 D
 USCGS 07 57 01.1, 19.5S, 173.6W, H= 86 KM, M=5.1
 TONGA ISLANDS.
 JAS JUL 14 10 11 09.2 C *E 11 23
 PRI JUL 14 13 21 54.4 C
 JAS 13 21 43.0 C *E 21 57
 BKS JUL 14 18 35 24.1
 JAS 18 35 20.3 C *E 35 28
 BKS JUL 14 21 31 14.9 D PCP 31 32 *PP 31 42
 MICRON PERIOD
 PZ 0.03 0.6
 PH 0.08 0.7
 PRI 21 31 08.1 D *E 31 36
 JAS 21 31 13.7 D *E 37 26 *E 37 41
 MHC 21 31 16.3 D
 MIN 21 31 21.9 C
 MAG 5.0-5.2, DIST(DEG) 76
 BOLIVIA
 BKS JUL 15 04 23 19.6 C
 MICRON PERIOD
 PZ 0.16 1.0
 SAO 04 23 19.0 C
 PRI 04 23 20.5 C
 JAS 04 23 26.0 C PCP 23 42 *E 25 29
 MHC 04 23 20.4 C
 MAG 5.5-5.7, DIST(DEG) 76
 USCGS 04 12 26.3, 18.0S, 178.6W, H=585 KM, M=5.3
 FIJI ISLANDS.
 PRI JUL 16 01 51 07.8 D
 JAS 01 50 49.4 D
 MHC 01 50 57.9 D
 MIN 01 50 08.0 C
 BKS JUL 16 13 11 45 C *E 17 17 *E 18 23
 JAS 13 11 53.0 C

PRI JUL 16 13 28 40.3 D
 JAS 13 28 43.7 C
 MHC 13 28 47.2 C
 USCGS 13 18 43.2, 5.7S, 77.2W, H= 27 KM, M=5.0
 NORTHERN PERU.
 BKS JUL 16 18 02 LQ 08 06 LR 09 18
 PRI 18 02 50.0 C
 JAS 18 02 50.7 C
 MHC 18 02 54.7 D
 JAS JUL 16 21 37 54.0 D *E 38 40
 BKS JUL 17 05 43 53 19 *E 59 13 LQ 70 24 LR 76 06
 MICRON PERIOD
 SH 7.5 5.4
 JAS 05 43 54.9 C
 MIN 05 43 45.7 D
 MAG 5.4-5.7, DIST(DEG) 70
 JAS JUL 17 06 31 13.1 C
 MIN 06 31 26.3 C
 USCGS 06 23 11.1, 10.4N, 83.4W, H= 19 KM, M=5.1
 COSTA RICA.
 BKS 06 33 06.2 D
 PRI 06 33 00.0 D
 JAS 06 33 01.9 D
 BKS JUL 17 22 30 43.5 C LQ 39 00
 JAS 22 30 49.3 C
 JAS JUL 18 01 09 59.7 C *E 10 12 *E 19 50
 BKS 01 09 *E 13 50 *E 19 40
 MIN 01 09 56.2 D
 PRI JUL 18 05 15 27.2 C
 JAS 05 15 30.9 C
 BKS 05 16 24.4 C *PP 17 20 *SP 17 56
 SAO 05 16 22.9 D
 PRI 05 16 24.2 D
 JAS 05 16 30.1 D *F 16 54 *PP 17 26
 MHC 05 16 24.5 D
 MIN 05 16 34.0 D *E 17 35
 USCGS 05 04 59.8, 19.5S, 175.9W, H=235 KM, M=5.0
 TONGA ISLANDS.
 BKS JUL 18 17 10 36.4 C 11 19
 PRI 17 10 15.9 C
 JAS 17 10 34.6 C
 MHC 17 10 21.7 C
 SANTA BARBARA CHANNEL
 BKS JUL 19 09 33 31 C PPS 45 00 L 55 30 LR 58 50

PRI 09 33 40.9 C
 JAS 09 33 38.4 C
 MHC 09 33 33.4 C
 MIN 09 33 38.1 C
 USCGS 09 21 04.8, 13.0S, 166.5E, H= 29 KM, M=5.1
 NEW HEBRIDES.

JAS JUL 20 08 35 33.9 C
 MIN 08 35 38.2 C

BKS JUL 21 00 30 LQ 60 41 LR 60 44

PRI 00 30 16.9
 JAS 00 30 21.6 *E 33 00
 MHC 00 30 18.3

USCGS 00 23 40.4, 14.4N, 93.1W, H= 37 KM, M=5.0
 NEAR COAST OF CHIAPAS, MEXICO.

PRI JUL 21 01 41 25.0
 JAS 01 41 31.6 C
 MHC 01 41 25.3 C

PRI JUL 21 01 53 11.2
 JAS 01 53 07.7 C
 MHC 01 53 08.5

USCGS 01 41 19.5, 55.2N, 113.3E, H= 33 KM, M=5.1
 E OF LAKE BAIKAL.

JAS JUL 21 05 11 52.7

JAS JUL 21 06 05 20.9 D
 MIN 06 05 14.0 D

PRI JUL 21 06 22 51.5 C
 BKS 06 22 *E 28 54 *E 32 48
 JAS 06 22 47.6 C *E 26 26
 MHC 06 22 48.4
 MIN 06 22 42.8

USCGS 06 09 41.8, 3.2S, 150.5E, H= 33 KM, M=5.4
 NEW IRELAND REGION.

PRI JUL 21 06 44 22.8 D
 JAS 06 44 28.2 D
 BRK 06 44 22.3
 MHC 06 44 21.4 D *E 44 34
 MIN 06 44 32.7 D

JAS JUL 21 13 25 21.8 C
 MHC 13 25 17.3

JAS JUL 21 18 39 31.9 C
 MIN 18 39 22.3 D

PRI JUL 21 21 12 13.6 C
 JAS 21 12 06.1 C *F 12 36
 BRK 21 12 59.2 C
 MHC 21 12 03.9 C *E 12 24

MIN 21 11 50.7 C

JAS JUL 22 00 25 05.9 D
 MHC 00 25 04.1 D

JAS JUL 22 05 28 47.2 C
 MIN 05 28 41.2 D

PRI JUL 22 06 32 19.6
 JAS 06 32 25.5 C
 BRK 06 32 16.4
 MHC 06 32 20.3 C
 MIN 06 33 29.5 D

MIN JUL 22 07 00 28.6 D

BKS JUL 22 18 11 12.0 C *E 11 23 *E 23 06 LQ 34 25
 LR 38 06

MICRON PERIOD

PZ 0.09 1.2
 MAXR(Z) 2.5 20
 MAXH(N) 1.3 20
 MAXH(E) 2.3 20

SAD 18 11 12.4 C *F 11 23
 PRI 18 11 14.0 C *F 11 25
 JAS 18 11 17.9 C *I 11 29 PP 14 52
 MHC 18 11 13.0 C *E 11 24
 MIN 18 11 19.3 C

MAG 5.6-5.9, DIST(DEG) RR
 USCGS 17 58 30.3, 20.1S, 169.0E, H= 34 KM, M=5.4
 NEW HEBRIDES.

PRI JUL 22 22 05 35.1 C
 JAS 22 05 38.4 C
 MHC 22 05 33.2 C

BKS JUL 22 22 45 00.7 C
 PRI 22 45 11.8 C
 JAS 22 45 07.0 C
 MHC 22 45 04.6 C

USCGS 22 33 43.2, 30.3N, 138.4E, H=438 KM, M=5.0
 SOUTH OF HONSHU, JAPAN.

JAS JUL 23 18 20 35.2 D *I 20 44

BKS JUL 23 18 33 07.8 D 37 30 LR 38 42

MICRON PERIOD

PZ 0.8 2.3
 SH 4.0 16
 MAXR(Z) 15.1 20
 MAXH(N) 19.0 20
 MAXH(E) 8.5 22

PRI 18 32 45.9 D
 JAS 18 32 59.1 D
 MHC 18 33 00.3 D
 MIN 18 32 23.2 D

MAG 5.5-5.7, DIST(DEG) 27
USCGS 18 28 01.2, 18.7N, 107.0W, H= 33 KM, M=5.4
OFF COAST OF JALISCO, MEXICO.

BKS JUL 23 23 13 *E 22 54 *E 32 00
PRI 23 14 13.3 D
JAS 23 13 53.6 C

USCGS 23 02 35.5, 40.3N, 143.3E, H= 14 KM, M=5.2
OFF EAST COAST OF HONSHU, JAPAN.

BKS JUL 24 04 11 57.8 C 16 10 *E 12 38 LR 17 45
MICRON PERIOD
PZ 0.08 1.2
SH 4.2 16
MAXR(Z) 5 20
MAXH(N) 5.7 18
MAXH(E) 6.6 18

SAO 04 11 42.4 C
PRI 04 11 35.0 C
JAS 04 11 47.8 C
MHC 04 11 49.6 C
MIN 04 12 12.3 C

MAG 4.8-5.4, DIST(DEG) 25
USCGS 04 06 41.2, 18.1N, 106.0W, H= 46 KM, M=5.2
OFF COAST OF JALISCO, MEXICO.

JAS JUL 24 08 31 01.9 C
PRI JUL 24 09 02 29.0 D
JAS 09 02 34.2 C
MHC 09 02 29.5 D
MIN 09 02 38.1 D

BKS JUL 24 11 18 *E 28 30 *E 31 18
JAS 11 18 43.5 C

BKS JUL 24 20 32 08.3 D LR 53 06
SAO 20 32 07.7 D
PRI 20 32 08.8 D
JAS 20 32 15.2 D *E 32 31 *E 32 40
MHC 20 32 09.2 D
MIN 20 33 18.9 D

USCGS 20 20 55.3, 15.4S, 173.2W, H= 84 KM, M=5.3
TONGA ISLANDS.

PRI JUL 24 22 41 09.7 C
JAS 22 41 16.0 C *E 41 23 *E 41 39
MHC 22 41 19.4 C
MIN 22 41 26.8 C

BKS JUL 25 06 53 18 LR 86 54
SAO 06 53 14.3 C
PRI 06 53 15.3
JAS 06 53 22.0 C
MHC 06 53 16.4 C
MIN 06 53 26.7 D

USCGS 06 41 27.0, 21.3S, 174.5W, H= 33 KM, M=5.1
TONGA ISLANDS.

BKS JUL 25 07 35 42.0 C 46 08 *E 36 02 PP 39 07 *E 47 12
PPS 47 20 SS 50 54 SSS 55 16

MICRON PERIOD
PZ 0.45 1.0
MAXR(Z) 30 20
MAXH(N) 19 19
MAXH(F) 17 20

SAO 07 35 41.6 C
PRI 07 35 42.4 C *PP 35 50
JAS 07 35 48.4 C 46 11 *E 35 55 PP 39 05 PPP 41 22
PPS 47 31
MHC 07 35 43.6 C *E 60 24 P** 61 43
MIN 07 35 52.3 C *E 61 45
ARC 07 35 50.1 C

MAG 6.5-6.9, DIST(DEG) 84
USCGS 07 23 07.8, 30.8S, 178.4W, H= 60 KM, M=6.4
KERMADEC ISLANDS REGION. FELT RADUL.

BKS JUL 25 11 01 07.3 C *E 20 06
MICRON PERIOD
PZ 0.19 1.3

SAO 11 01 18.0 C
PRI 11 01 24.3 C
JAS 11 01 17.5 C 10 17 *E 01 27 PP 03 49
MHC 11 01 15.3 C *E 01 24
MIN 11 01 02.3 C *I 01 12
ARC 11 00 51.9 C

DISTANCE(DEG) 65
USCGS 10 50 31.5, 45.7N, 146.7E, H= 16 KM, M=5.9
KURILE ISLANDS.

PRI JUL 25 11 29 58.8 C
JAS 11 29 57.4 C

BKS JUL 26 06 40 53 D 46 30 LR 49 19 LR 53 30
MICRON PERIOD
SH 3.5 11
MAXH(N) 10 20
MAXH(E) 10 20

PRI 06 40 35.7 C
JAS 06 40 43.0 C *E 41 10
MHC 06 40 47.5 C
MIN 06 41 11.5 C

MAG 5.6-5.8, DIST(DEG) 43

BKS JUL 26 14 10 25.9 D
PRI 14 10 12.2 D
JAS 14 10 17.8 D
MHC 14 10 21.5 D

USCGS 14 00 03.6, 8.6S, 74.2W, H=151 KM, M=5.2
PERU-BRAZIL BORDER REGION.

JAS JUL 26 21 58 50.7 C *E 60 04

BKS JUL 27 11 03 48.5 D *E 30 00
 MICRON PERIOD
 PZ 0.08 1.2
 SAO 11 03 48.5 D
 PRI 11 03 50.4 D
 JAS 11 03 55.1 D
 MHC 11 03 49.8 D
 MIN 11 03 56.9 D
 USCGS 10 51 40.1, 19.2S, 175.7E, H= 88 KM, M=5.4
 SOUTH OF FIJI ISLANDS.

BKS JUL 28 03 31 *E 31 28 *E 39 18 *E 41 30
 PRI 03 31 43.0 D
 JAS 03 31 30.1 D
 MHC 03 31 32.5 D
 MIN 03 31 11.2 C

BKS JUL 28 11 10 30 *E 20 18 *E 30 00 *E 34 30
 PRI 11 10 25.2
 JAS 11 10 26.1 C *E 10 39
 MHC 11 10 20.3
 MIN 11 10 31.3 D
 USCGS 10 58 25.7, 22.5S, 174.7W, H= 33 KM, M=5.0
 TONGA ISLANDS.

JAS JUL 28 14 15 07.8
 MIN 14 14 55.1 C

PRI JUL 28 15 55 03.6
 JAS 15 55 06.7 C

PRI JUL 28 18 46 02.6 C
 JAS 18 46 08.9 C
 MHC 18 46 12.2 C
 MIN 18 46 23.3 C
 USCGS 18 36 10.3, 5.6S, 76.9W, H= 46 KM, M=5.0
 NORTHERN PERU.

BKS JUL 28 21 21 28.6 C 28 40 LQ 34 00 LR 36 00
 MICRON PERIOD
 PZ 0.04 1.0
 MAXH 3.6 20
 SAO 21 21 38.4 D
 PRI 21 21 45.3 C
 JAS 21 21 36.3 C
 MHC 21 21 34.1 C
 MIN 21 21 17.1 C
 MAG 5.6, DIST(DEG) 50
 USCGS 21 12 38.1, 55.4N, 166.6E, H= 27 KM, M=5.4
 KOMANDORSKY ISLANDS.

PRI JUL 28 21 30 41.6 D
 JAS 21 30 47.2 D *E 32 05 *E 32 12
 MHC 21 30 49.5 D
 MIN 21 30 *E 31 51

USCGS 21 18 59.5, 22.7S, 69.4W, H= 70 KM, M=5.1
 NORTHERN CHILE.

BKS JUL 29 02 54 49.8 D
 MICRON PERIOD
 PZ 0.02 0.8
 SAO 02 54 45.5 C
 PRI 02 54 44.9 C
 JAS 02 54 56.3 C
 MHC 02 54 49.0 C

BKS JUL 29 06 08 43.0 D
 MICRON PERIOD
 PZ 0.04 0.7
 SAO 06 08 36.2 D
 PRI 06 08 31.3 D
 JAS 06 08 36.7 D *E 08 48
 MHC 06 08 39.6 D
 MIN 06 08 48.3 D
 MAGNITUDE 4.9-5.2
 USCGS 05 57 05.9, 19.2S, 69.8W, H= 71 KM, M=5.2
 NORTHERN CHILE.

PRI JUL 29 06 31 55.4 C
 JAS 06 31 43.4 C
 MHC 06 31 39.9 C
 MIN 06 31 30.0 D

PRI JUL 29 07 43 33.5 C
 JAS 07 43 22.3 C
 MHC 07 43 19.2 C

JAS JUL 29 09 00 12.7
 MIN 08 59 58.8 C

BKS JUL 29 10 00 44.6 C *E 06 00 *E 10 12 *E 12 48
 MICRON PERIOD
 MAXR(Z) 2.8 18
 MAXH(E) 2.1 20
 MAXH(N) 2.5 20
 SAO 10 00 34.2 C
 PRI 10 00 27.2 C
 JAS 10 00 34.7 C *E 03 20
 MHC 10 00 39.0 C
 MIN 10 00 53.5 C
 MAGNITUDE 5.5
 USCGS 09 54 04.9, 15.1N, 94.0W, H= 42 KM, M=5.0
 NEAR COAST OF OAXACA, MEXICO.

BKS JUL 29 11 23 56.9 C 33 50 LQ 43 44 LR 48 00
 MICRON PERIOD
 PZ 0.12 1.5
 SAO 11 23 55.5 C
 PRI 11 23 55.1
 JAS 11 24 00.3 C
 MHC 11 23 56.2 C

MIN 11 24 06.9 C
MAG 5.3-5.5, DIST(DEG) 80
USCGS 11 11 59.5, 22.5S, 175.0W, H= 33 KM, M=5.6
TONGA ISLANDS.

PRI JUL 29 11 41 05.8
JAS 11 41 08.9
MIN 11 41 34.9 C

BKS JUL 29 12 31 40.0 C
SAO 12 31 39.1
PRI 12 31 39.7
JAS 12 31 46.8 C
MHC 12 31 40.9
MIN 12 31 52.2 C
USCGS 12 19 46.6, 22.4S, 174.9W, H= 33 KM, M=5.3
TONGA ISLANDS.

JAS JUL 29 13 27 41.0 D

BKS JUL 29 13 43 32.5 C L 67 00 LR 75 00
MICRON PERIOD
PZ 0.06 1.2

SAO 13 43 37.4
PRI 13 43 36.8
JAS 13 43 35.2 C
MHC 13 43 31.5
MIN 13 43 34.2 C
MAG 5.3-5.5, DIST(DEG) 88
USCGS 13 30 31.9, 3.2S, 150.6E, H= 28 KM, M=5.4
NEW IRELAND REGION.

BKS JUL 29 15 31 47.2 C *E 41 36 *E 51 00 *E 60 00
MICRON PERIOD
PZ 0.02 1.0
MAXR(Z) 1.2 18
MAXH(N) 0.86 18
MAXH(E) 1.0 18

PRI 15 31 46.1 D
JAS 15 31 52.9 D
MHC 15 31 47.1 D
MIN 15 31 56.4
DISTANCE(DEG) 91
USCGS 15 19 57.6, 21.5S, 174.4W, H= 33 KM, M=5.0
TONGA ISLANDS.

JAS JUL 29 16 08 10.6
MHC 16 08 13.7

BKS JUL 29 16 50 56.3 D
JAS 16 51 03.8
MHC 16 51 00.5

BKS JUL 30 00 06 07.3 C 17 54 PP 10 06 *E 19 24 SS 24 00
*E 25 00 *E 28 30 LQ 33 36
LR 38 00 *E 45 00

MICRON PERIOD
PZ 0.05 1.1
PPZ 1.9 10

SAO 00 06 10.6 C
JAS 00 06 13.2 C *E 10 40 *E 22 09 *E 26 29
PRI 00 06 14.3 C
MHC 00 06 09.8 C
MIN 00 06 08.7 C
MAG 6, DIST(DEG) 100
USCGS 23 52 15.0, 0.2S, 133.4E, H= 12 KM, M=6.1
WEST NEW GUINEA REGION.

BKS JUL 30 03 01 45.4 D *E 02 30
MICRON PERIOD
PZ 0.05 0.8

SAO 03 01 44.6 D
PRI 03 01 45.8 D
JAS 03 01 51.4 D
MHC 03 01 46.0 D
MIN 03 01 54.1 D *E 02 08
MAGNITUDE 5.6-5.8

BKS JUL 30 04 22 06 D 32 00 LQ 42 00 LR 46 42
MICRON PERIOD
MAXR(Z) 4.7 20
MAXH(N) 3.2 20
MAXH(E) 2.2 20

SAO 04 22 06.8 C
PRI 04 22 07.6 C
JAS 04 22 13.9 D
MHC 04 22 08.3 C
MIN 04 22 18.8 C
MAG 5.5-5.7, DIST(DEG) 81
USCGS 04 10 12.1, 22.4S, 175.0W, H= 33 KM, M=5.3
TONGA ISLANDS.

SAO JUL 30 06 04 00.1 C *I 04 46
PRI 06 03 48.6 C 04 23 *I 03 56
JAS 06 04 12.9 C 04 56
MHC 06 04 11.7 C
MIN 06 04 49.6 D *I 06 16
MAG 4, SANTA BARBARA AREA

BKS JUL 30 20 48 43.0 C 56 51 L 63 42 LR 87 30
MICRON PERIOD
MAXR(Z) 11 20
MAXH(N) 8.3 20
MAXH(E) 8.6 20

SAO 20 48 35.9 C
PRI 20 48 26.7 C
JAS 20 48 33.5 C
MHC 20 48 36.9 C
MIN 20 48 50.5 D
MAG 6.0-6.3, DIST(DEG) 60
USCGS 20 38 42.0, 6.9S, 80.5W, H= 37 KM, M=5.8
NEAR COAST OF NORTHERN PERU. FELT IN

NORTHERN PERU.

JAS JUL 31 07 14 26.1 C
MHC 07 14 25.1 C
MIN 07 13 54.3

PRI JUL 31 13 58 48.0 C
JAS 13 58 47.4 C

BKS JUL 31 20 00 *F 12 36 LR 14 08
MICRON PERIOD
MAXR(Z) 1.1 20
MAXH(N) 1.6 20
MAXH(E) 0.4 20

PRI 20 00 06.8 C
JAS 20 00 08.1 C
MHC 20 00 04.2 C

BKS AUG 01 00 26 26.2 C 36 38 *E 26 56 SS 41 54 L 48 00
P OR PKP S OTHER PHASES
MICRON PERIOD
PZ 0.1 1.2
MAXH(N) 0.7 20
MAXH(E) 0.7 20

SAD 00 26 24.7 C *PP 26 57
PRI 00 26 25.9 C *PP 26 58
JAS 00 26 31.7 C *PP 27 04
MHC 00 26 26.7 C *PP 26 59
MIN 00 26 35.4 C *E 27 06

MAG 5.0-5.2, DIST(DEG) 82
USCGS 00 14 16.0, 26.6S, 177.5W, H=123 KM, M=5.6
S OF FIJI ISLANDS.

PRI AUG 01 05 55 39.3 C *E 56 48
JAS 05 55 48.1 C *E 57 02
MHC 05 55 48.5 C *E 57 04

MAG 4.5, BAJA CALIFORNIA

PRI AUG 01 14 34 09.2 D
JAS 14 34 00.1 D
MHC 14 34 07.8 D
MIN 14 33 56.4 C

BKS AUG 01 20 33 05.2 D 43 40 *E 36 19 PP 37 04 *E 44 34
*E 51 24 *E 55 12 L 58 20
MICRON PERIOD
PZ 0.19 1.5

PRI 20 33 13.6 D
JAS 20 33 09.0 D
MHC 20 33 07.0
MIN 20 33 01.4 C

MAG 6.5-7.0, DIST(DEG) 96
USCGS 20 19 21.9, 16.5N, 122.2E, H= 36 KM, M=5.9
LUZON, PHILIPPINE ISLANDS. AT LEAST 207
KILLED, MANY INJURED, EXTENSIVE PROPERTY
DAMAGE.

BKS AUG 02 14 12 52.7 C 17 54 *E 21 48 *E 23 00
MICRON PERIOD
PZ 3.9 3

SAD 14 12 42.0 C
PRI 14 12 34.5 C
JAS 14 12 43.2 C
MHC 14 12 46.7 C
MIN 14 12 03.2 C *E 22 49 *I 23 42

MAG 6.7-6.9, DIST(DEG) 31
USCGS 14 06 43.9, 16.6N, 97.7W, H= 40 KM, M=6.3
OAXACA, MEXICO. 4 KILLED, MANY INJURED,
EXTENSIVE PROPERTY DAMAGE IN OAXACA AREA,
MODERATE DAMAGE IN MEXICO CITY.

BKS AUG 02 17 21 16.5 C
PRI 17 21 24.6 C *F 21 34
JAS 17 21 20.2 D *F 21 33
MHC 17 21 12.9 C *E 21 23
MIN 17 20 57.8 D

BKS AUG 02 18 44 04 C 49 08 *F 49 54 *E 51 36 LQ 52 00
LR 54 06
MICRON PERIOD
PZ 0.6 8
MAXH 6.7 22
SH 1.5 16
MAXH(N) 3.1 24
MAXH(E) 5.7 20

SAD 18 43 56.6 C
PRI 18 43 48.7 D
JAS 18 43 56.1 C *E 44 07 *F 45 47
MHC 18 43 58.6 C

MAGNITUDE 4.8-5.2
USCGS 18 37 52.0, 16.1N, 97.7W, H= 33 KM, M=5.0
OAXACA, MEXICO.

BKS AUG 03 05 07 26.0 D 17 32 *E 07 34 *E 08 28 *E 10 44
*E 10 54 *E 19 12 SS 23 06
L 31 00 LR 35 18
MICRON PERIOD
PZ 3.2 1.8
PH 3.56 10
SH 6.2 14
MAXR(Z) 56 19
MAXH(E) 53 18
MAXH(N) 26 20

SAD 05 07 31.0 D
PRI 05 07 35.7 D *E 07 44
JAS 05 07 31.4 D *E 07 40 *E 10 59 *E 25 07
MHC 05 07 29.5 D *E 07 38 *F 11 05
MIN 05 07 21.1 D *I 07 36

MAG 6.7-6.9, DIST(DEG) 83
USCGS 04 54 32.7, 25.6N, 129.5E, H= 19 KM, M=6.4
RYUKYU ISLANDS. FELT OKINAWA.

PRI AUG 03 06 38 42.5 C *E 38 55 *E 42 10
 JAS 06 38 49.6 C *E 39 09 *E 41 57 *E 42 16
 MHC 06 38 41.5 C *E 42 11
 MIN 06 38 39.6 C

USCGS 06 25 05.8, 16.5N, 122.3E, H= 37 KM, M=5.9
 LUZON, PHILIPPINE ISLANDS. FELT MANILA
 AREA.

JAS AUG 03 07 57 41.2 C *E 51 57

BKS AUG 03 17 13 LQ 22 00 LR 25 00
 SAO 17 13 46.0 C
 PRI 17 13 43.7 C
 JAS 17 13 47.6 C
 MHC 17 13 43.5 C
 MIN 17 14 13.4 D

PRI AUG 04 03 03 18.3 C
 JAS 03 03 20.0 C
 MHC 03 03 15.9 D
 MIN 03 03 18.8 D

JAS AUG 04 06 15 50.0 C
 MIN 06 15 16.4 D

BKS AUG 04 11 55 09.8 *E 58 56 *E 59 16 *E 65 44

MICRON PERIOD

PZ 1.0 14
 SH 5.5 15
 MAXR(Z) 8.3 20
 MAXH(N) 2.5 20
 MAXH(E) 7.9 20

PRI 11 55 20.8 C *E 56 07
 JAS 11 55 17.0 C *E 56 03
 MHC 11 55 16.8 C *E 56 03
 MIN 11 55 09.8 C

MAG 6.3-6.5, DIST(DEG) 101
 USCGS 11 41 24.8, 6.6N, 126.8E, H=107 KM, M=5.7
 MINDANAO, PHILIPPINE ISLANDS.

JAS AUG 05 02 57 59.0 C

JAS AUG 05 06 05 53.5 C
 MHC 06 05 48.2 C
 MIN 06 05 56.6 C

BKS AUG 05 16 29 12.0 C 39 26 *I 29 31 PP 32 22 *E 32 15

SS 44 48 SSS 48 20 LQ 51 00
 LR 54 32

MICRON PERIOD

PZ 0.43 1.3
 SH 5.1 11
 MAXR(Z) 6.8 20
 MAXH(N) 3.4 20
 MAXH(E) 6.8 20

SAO 16 29 23.6 D
 PRI 16 29 28.6 D
 JAS 16 29 23.2 D *E 29 35 PP 32 33 *E 47 49
 MHC 16 29 21.1 D
 MIN 16 29 11.1 D

MAG 6.4-6.6, DIST(DEG) 81
 USCGS 16 17 04.8, 33.3N, 132.2E, H= 41 KM, M=6.3
 SHIKOKU, JAPAN. 14 INJURED, MINOR DAMAGE ON
 HYUSHU AND SHIKOKU.

BKS AUG 05 18 39 27.4 C
 PRI 18 39 05.5
 JAS 18 39 18.4 C
 MHC 18 39 21.5 C
 MIN 18 39 45.2 C

JAS AUG 06 00 22 59.8 D
 MIN 00 23 01.0 D

PRI AUG 06 04 33 23.5
 JAS 04 33 21
 MIN 04 33 08.8 D

USCGS 04 21 03.2, 33.4N, 132.2E, H= 43 KM, M=5.1
 SHIKOKU, JAPAN.

JAS AUG 06 13 36 55.6 C
 MIN 13 36 38.8 C

BKS AUG 07 08 11 05.2 C *E 11 18 *E 19 55 *E 31 20
 MICRON PERIOD
 PZ 0.03 1.0

SAO 08 11 12.5 C
 PRI 08 11 18.5 C
 JAS 08 11 12.0 C *E 11 27
 MHC 08 11 09.5 C
 MIN 08 10 57.7 C

DISTANCE (DEG) 69
 USCGS 08 00 13.4, 43.1N, 144.6E, H= 54 KM, M=5.6
 HOKKAIDO, JAPAN.

BKS AUG 08 05 06 38.4 D *PP 06 50 *E 16 06 *E 24 18
 *E 28 24

PRI 05 06 50.8 D
 JAS 05 06 44.8 C *PP 06 57
 MHC 05 06 42.2 C *E 06 54
 MIN 05 06 32.3 C *I 06 44

USCGS 04 55 10.0, 36.4N, 141.4E, H= 41 KM, M=5.4
 NEAR E COAST OF HONSHU, JAPAN.

BKS AUG 08 05 32 00.0 D *F 32 22 *E 32 39
 SAO 05 32 15.2 C *E 33 15 *E 33 05
 PRI 05 32 29.7 C
 JAS 05 32 11.5 C *E 32 53 *E 32 58
 MHC 05 32 08.3 C 32 52 *F 32 45
 MIN 05 31 44.9 C 32 10

ARC 05 31 19.3 D 31 26
OFF CAPE MENDOCINO, CALIF.
MAGNITUDE 4.0

BKS AUG 08 13 50 23.5 D
SAO 13 50 12.7 C
PRI 13 50 13.6 C
JAS 13 50 19.1 C
MHC 13 50 14.3 C
MIN 13 50 32.6 C

BKS AUG 09 03 18 15.7 D 26 32 *E 19 49 *E 27 12 SS 30 28
L 33 30 LR 36 36

MICRON PERIOD
PZ 1.9 12.0
SH 6.7 23
MAXR(Z) 9.5 20
MAXH(N) 10.0 20
MAXH(E) 3.2 20

SAO 03 18 05.1 D
PRI 03 18 01.0 D *E 18 53
JAS 03 18 12.8 D *E 19 04
MHC 03 18 10.0 D
MIN 03 18 29.6 D

MAG 5.8-6.0, DIST(DEG) 63
USCGS 03 08 04.2, 22.4S, 113.0W, H= 33 KM, M=5.4
EASTER ISLAND REGION.

PRI AUG 09 05 43 03.3 C
JAS 05 43 04.2 D
MHC 05 42 55.6 C
BKS 05 42 *E 61 42

PRI AUG 09 07 03 10.5 D *E 03 26
JAS 07 03 16.0 C *E 03 18
MHC 07 03 07.5 C

BKS AUG 09 07 25 *E 32 27 *E 38 12 *E 53 42
PRI 07 25 44 C *E 26 04
JAS 07 25 48.2 C
MHC 07 25 48.0 C

PRI AUG 09 08 19 36.5 C
JAS 08 19 44.5 D
MHC 08 19 42.2 C

JAS AUG 09 10 48 53.2 C *E 49 03
BKS 10 48 *E 71 08
MHC 10 48 50.5 C *E 49 03
MIN 10 48 38.8 C

USCGS 10 38 04.0, 43.4N, 147.1E, H= 40 KM, M=5.1
KURILE ISLANDS.

PRI AUG 09 18 11 08.8 C *E 11 12 *E 11 30
JAS 18 11 02.5 C
MHC 18 10 57.0 C

BKS AUG 10 01 52 46.2 D
SAO 01 52 45.0 C
PRI 01 52 46.7 C
JAS 01 52 52.4 C *E 53 05
MHC 01 52 46.6 C
MIN 01 52 55.7 D

BKS AUG 10 02 21 15.6 C *E 21 46 *E 22 14 *E 24 20
PP 25 41 SKS 32 07 *E 34 07
*E 37 13 L 50 24 *E 63 24

MICRON PERIOD
PPZ 4.9 4.0
PZ 31 20

SAO 02 21 19.3 C
PRI 02 21 23.8 C *E 25 53
JAS 02 21 21.3 C *E 21 38 PP 25 47 *E 36 56
MHC 02 21 18.2 C *E 21 35 *E 25 41
MIN 02 21 19.9 C *E 25 41 *E 37 11
ARC 02 21 07

MAG 7.6-7.9, DIST(DEG) 104
USCGS 02 07 04.3, 1.4N, 126.2E, H= 33 KM, M=6.3
MOLUCCA PASSAGE.

BKS AUG 10 03 34 35.2 D
PRI 03 34 35 C
JAS 03 34 34.1 C
MHC 03 34 31.8 C
MIN 03 34 35.5 C

BKS AUG 10 04 20 *E 24 30
PRI 04 20 *E 24 22
JAS 04 20 07.0 C *E 20 19 *E 21 20 *E 24 12
*E 24 31
MHC 04 20 02.6 C *E 24 17
MIN 04 20 12.4 D

USCGS 04 05 50.6, 1.3N, 126.5E, H= 33 KM, M=5.7
MOLUCCA PASSAGE.

PRI AUG 10 04 35 42.5 C
JAS 04 35 33.0 C
MHC 04 35 53 C
MIN 04 35 42.5 C

BKS AUG 10 06 06 04.5 D
PRI 06 06 10.7 C
JAS 06 06 06.0 D
MHC 06 06 03.3 D
MIN 06 05 58.6 C

BKS AUG 10 06 10 07.8 C *E 10 22 *E 10 34
PRI 06 09 22 C
JAS 06 09 14.5 C *E 09 43 *E 10 05 *E 10 31
MHC 06 09 21.2 C *E 09 44 *E 10 09

BKS AUG 10 06 21 55.5

MIN 12 05 58.3 C

BKS AUG 13 19 47 41.7 D *E 48 27 L 73 48 LR 19 00
 PRI 19 47 44.9 D
 JAS 19 47 47.4 C *E 48 20 PP 51 10
 MHC 19 47 43.3 D
 USCGS 19 35 20.9, 15.5S, 167.5E, H=125 KM, M=5.2
 NEW HEBRIDES.

JAS AUG 14 01 22 51.6 D
 MHC 01 22 55.6 D
 USCGS 01 13 45.2, 55.6N, 162.1E, H= 70 KM, M=5.3
 NEAR E COAST OF KAMCHATKA.

RKS AUG 14 08 44 13.7 C 48 45 *E 47 43 LR 51 54
 MICRON PERIOD
 PZ 2.9 13.5
 MAXR(Z) 19 20
 MAXH(N) 15 20
 MAXH(E) 14 20

SAD 08 44 02.2 D
 PRI 08 43 54.5 C
 JAS 08 44 04.4 C *E 44 46
 MHC 08 44 07.1 C
 MIN 08 44 25.8 C
 ARC 08 44 40.5 D
 MAG 5.5-5.7, DIST(DEG) 30
 USCGS 08 38 48.4, 18.5N, 102.8W, H= 72 KM, M=5.4
 MICHUACAN, MEXICO. FELT IN MEXICO CITY.

JAS AUG 14 08 47 40.5 D
 MHC 08 47 41.6 D

JAS AUG 14 12 16 06.7 D
 MIN 12 15 45.0 C *I 16 08

PRI AUG 14 17 34 44.5
 JAS 17 34 45.4 D

PRI AUG 14 18 23 36.7 C
 JAS 18 23 33.9 C *E 23 38

JAS AUG 14 19 01 33.3 C *E 02 48
 MHC 19 01 53.2 D *E 02 47

BKS AUG 14 22 29 41 30 *E 32 30 PP 33 38 SKS 39 40
 PS 43 18 SS 48 12 *E 60 36
 LR 63 00
 MICRON PERIOD
 PPZ 0.2 1.6
 PZ 5 18

PRI 22 29 13.3 D PP 33 53 PPP 35 49
 JAS 22 29 10.6 D *E 29 36 *E 29 59 *E 32 34
 P 33 07 PP 33 50
 MHC 22 29 08.3 D PP 33 48 *E 35 44
 MIN 22 28 59.3 C *E 32 58

ARC 22 28 58.5 D
 MAG 6.8-7.2, DIST(DEG) 108
 USCGS 22 14 19.4, 0.2N, 119.8E, H= 23 KM, M=6.0
 NORTHERN CELEBES. TSUNAMI SWEEP COASTAL
 AREA OF DONGGAL DISTRICT. 200 KILLED AT
 TAMBU. TUGUAM ISLAND SUBMERGED. 500 LOST.

BKS AUG 14 22 44 04.1 C
 PRI 22 43 55.2 C
 JAS 22 43 56.8 C *E 44 18
 MHC 22 43 57.4 C

BKS AUG 15 07 02 29.8 D 12 24 *PP 03 15 PP 05 48 SS 17 00
 L 23 36
 MICRON PERIOD
 PZ 0.17 1.4
 SH 5 14

SAD 07 02 28.7 D *E 03 14
 PRI 07 02 29.4 D *E 03 15
 JAS 07 02 35.5 D *E 02 54 *E 03 21 *E 03 47
 *E 05 44
 MHC 07 02 30.2 D *E 03 16
 MIN 07 02 39.5 D *E 03 26
 ARC 07 02 35.2 D
 MAG 5.5-5.7, DIST(DEG) 80
 USCGS 06 50 38.7, 23.8S, 177.4W, H=188 KM, M=5.5
 SOUTH OF FIJI ISLANDS.

JAS AUG 15 10 51 40.5 C
 MIN 10 51 23.0 C

BKS AUG 15 17 01 27.8 D 02 47 *E 01 36
 SAD 17 01 04
 PRI 17 01 01.8 *E 01 48
 JAS 17 00 57.9 D 01 55
 MHC 17 01 10.3 *E 02 24
 MAGNITUDE 4.2
 WESTERN UTAH

BKS AUG 15 17 54 09 C 65 44 PP 57 02 L 76 00 LR 79 18
 MICRON PERIOD
 MAXR(Z) 2.7 20
 MAXH(N) 0.9 20
 MAXH(E) 2.0 20

PRI 17 54 12.2 C
 JAS 17 54 07.7 C
 MAG 5.4-5.8, DIST(DEG) 99
 USCGS 17 41 28.1, 12.7S, 166.2E, H= 4 KM, M=5.4
 SANTA CRUZ ISLANDS.

BKS AUG 15 21 59 01.5 C *E 75 18 *E 77 24
 SAD 21 59 05 D
 PRI 21 59 07.8 D
 JAS 21 59 10.3 D
 MHC 21 59 05.5 D
 USCGS 21 46 34.8, 10.9S, 163.3E, H= 57 KM, M=5.1

SOLOMON ISLANDS.

JAS AUG 16 03 43 19.3 D
 MIN 03 43 22.5 D

JAS AUG 16 10 32 20.3 C
 MHC 10 32 21.2 C

BKS AUG 16 10 50 33.8 D 59 28 SS 64 20 L 67 42 LR 70 00
 MICRON PERIOD
 SH 1.5 12

PRI 10 50 44.6 C
 JAS 10 50 39.6 C *E 50 54
 MHC 10 50 37.6 C
 MIN 10 50 26.2 C
 ARC 10 50 16.0 D

MAG 5.5-5.9, DIST(DEG) 72
 USCGS 10 39 16.8, 38.5N, 143.3E, H= 22 KM, M=5.6
 OFF EAST COAST OF HONSHU, JAPAN.

BKS AUG 16 11 45 20.6 C
 PRI 11 45 32.9 C *E 47 42
 JAS 11 45 26.0 D *E 47 40
 MHC 11 45 20.7 D *E 47 35
 MIN 11 45 29.3 D
 ARC 11 45 24.0 D

BKS AUG 16 18 31 31.5 C 37 16 *E 32 14 *E 39 36 LR 41 00
 MICRON PERIOD
 MAXR(Z) 1.8 20
 MAXH(N) 2.5 20
 MAXH(E) 3.4 20

PRI 18 31 45.3 C *E 31 56
 JAS 18 31 52.7 C *E 32 04 *E 35 00
 MHC 18 31 57.2 C *E 32 08
 MIN 18 32 13.5 C

MAG 4.9-5.3, DIST(DEG) 36
 USCGS 18 25 55.1, 16.7N, 97.7W, H= 46 KM, M=5.4
 OAXACA, MEXICO.

BKS AUG 16 21 30 20 C 34 40 *E 31 00 L 36 42 LR 38 12
 MICRON PERIOD
 MAXR(Z) 1.8 20
 MAXH(N) 1.4 20
 MAXH(E) 1.6 20

PRI 21 29 50.8 C *E 30 08
 JAS 21 29 59.4 D *E 30 18
 MHC 21 30 01.6 C *E 30 16
 MIN 21 30 23.2 D

MAG 4.2-4.6, DIST(DEG) 26
 MEXICO

BKS AUG 17 04 14 28 C PP 19 11 PPP 21 28 SKS 25 32
 PPS 29 28 L 44 12 LR 48 30
 MICRON PERIOD
 MAXR(Z) 3.6 20

PRI 04 14 19 21 *E 19 21
 JAS 04 14 45.0 D *E 15 25 PP 19 17 PKKP 30 32
 MHC 04 14 45.2 D
 MIN 04 14 57.7 D *E 19 05

MAG 5.5-5.9, DIST(DEG) 108
 USCGS 04 00 36.3, 1.4N, 126.3E, H= 33 KM, M=5.7
 MOLUCCA PASSAGE.

BKS AUG 17 04 49 48.5 D *PP 50 08
 MICRON PERIOD
 PZ 0.6 1.0

SAD 04 49 54.0 C
 PRI 04 49 59.9 C
 JAS 04 49 54.5 C *E 50 11 *E 50 24
 MHC 04 49 51.7 C
 MIN 04 49 43.4 C

MAG 6.0-6.4, DIST(DEG) 70
 USCGS 04 38 06.4, 31.6N, 140.8E, H= 82 KM, M=5.3
 SOUTH OF HONSHU, JAPAN.

BKS AUG 18 05 51 12.2 C
 JAS 05 51 15.0 D
 MHC 05 51 10.1 C

USCGS 05 43 58. , 1.4N, 126.4E, H= 33 KM, M=5.4
 MOLUCCA PASSAGE.

JAS AUG 18 07 24 21.3 C *E 24 34
 USCGS 07 12 19.3, 35.3N, 135.3E, H= 33 KM, M=5.0
 SOUTHERN HONSHU, JAPAN. FELT IN SW JAPAN.

JAS AUG 18 12 05 54.0 D *E 06 20
 USCGS 11 54 59.4, 48.2N, 157.3E, H= 27 KM, M=5.2
 KURILE ISLANDS REGION.

PRI AUG 18 15 32 07.2 C
 JAS 15 32 06.5

BKS AUG 18 18 21 01.8 C 30 40 *E 21 57 PP 24 05 PS 32 24
 SS 36 20 *E 42 24 *E 46 00
 MICRON PERIOD
 PZ 1.4 18

PRI 18 21 08.0 C
 JAS 18 21 08.7 D
 MHC 18 21 03.8 D
 MIN 18 21 *E 21 48

MAG 6.5-6.9, DIST(DEG) 81
 USCGS 18 08 35.3, 12.7S, 166.2E, H= 34 KM, M=5.2
 SANTA CRUZ ISLANDS.

BKS AUG 18 18 50 19.0 C 59 57 P*P* 76 16
 MICRON PERIOD
 MAXH 2.7 2.0

SAD 18 50 20.7 C
 PRI 18 50 23.4 D PP 50 42

JAS 18 50 25.1 D 60 04 PP 53 41 PPS 61 30
 MHC 18 50 20.7 D PP 50 37
 MIN 18 50 23.6 D *E 60 19 P** 76 12 *E 19 03
 *E 96 58

ARC 18 50 18.6 D
 MAG 5.6-6.0, DIST(DEG) 85
 USCGS 18 38 30.6, 10.1S, 159.9E, H=538 KM, M=6.2
 SOLOMON ISLANDS. FELT AT HONIARA.

BKS AUG 18 22 16 17.5 C
 JAS 22 16 03.9 C *E 16 13 *E 16 16 *E 17 02
 MHC 22 16 02.5 C *E 16 29

BKS AUG 19 15 53 41.0 C *E 54 44
 SAO 15 53 39.1 C
 PRI 15 53 40.3 C
 JAS 15 53 46.5 C *E 54 31
 MHC 15 53 40.6 C
 MIN 15 53 51.4 C

USCGS 15 42 29.7, 15.9S, 174.0W, H=151 KM, M=5.3
 TONGA ISLANDS.

BKS AUG 20 03 27 54.5 C
 PRI 03 27 53.5 C
 SAO 03 27 52.9 C
 JAS 03 27 58.4 C
 MHC 03 27 54.1 C
 MIN 03 28 05.3 C

JAS AUG 20 08 15 06.5 C
 MHC 08 15 01.7 D
 MIN 08 15 09.6 C

BKS AUG 20 11 29 45.5 C *E 41 24 LR 56 00
 SAO 11 29 48.5 C
 PRI 11 29 52.2 C
 JAS 11 29 51.6 C
 MHC 11 29 47.8 C
 MIN 11 29 46.4 C

USCGS 11 16 59.3, 5.6N, 146.9E, H= 33 KM, M=5.6
 CAROLINE ISLANDS REGION.

JAS AUG 20 12 01 10.2 D *I 01 23
 MHC 12 01 07.7 D

PRI AUG 20 15 38 11.0 C
 JAS 15 38 17.1 C *E 39 00
 MHC 15 38 12.4 C
 MIN 15 38 21.2 C

USCGS 15 25 31.5, 31.2S, 178.4W, H= 33 KM, M=5.1
 KERMADEC ISLANDS.

JAS AUG 20 20 17 56.0 C
 MHC 20 17 51.0 C
 MIN 20 17 24.1 C

PRI AUG 21 17 54 05.2 C
 JAS 17 53 59.1 D
 MHC 17 54 06.3 C

BKS AUG 21 18 09 30.5 C 19 56 *E 14 05 SS 25 45 LR 35 30
 MICRON PERIOD
 MAXR(Z) 2.5 20
 MAXH(N) 2.6 20
 MAXH(E) 1.9 20

SAO 18 09 26.0 C
 PRI 18 09 26.6 C
 JAS 18 09 32.2 C *PP 10 00 PP 13 00
 MHC 18 09 27.4 C PP 12 54
 MIN 18 09 39.2 C *I 09 45
 ARC 18 09 *F 10 07

MAG 6.4-6.6, DIST(DEG) 87
 USCGS 17 56 48.0, 30.9S, 179.1W, H= 33 KM, M=5.3
 KERMADEC ISLANDS.

BKS AUG 21 18 26 17.8 C
 PRI 18 26 35.4 C
 JAS 18 26 26.6 C *E 26 54
 MHC 18 26 23.5 C
 MIN 18 26 07.7 C

BKS AUG 22 02 20 50.8 C *E 50 00
 PRI 02 20 49.5 C
 JAS 02 20 54.8 C
 MHC 02 20 50.7 C
 MIN 02 20 01.0 C

BKS AUG 22 13 41 04.5 C
 PRI 13 41 03.4 C
 JAS 13 41 06.4 C *E 41 36
 MHC 13 41 04.2 C

BKS AUG 22 14 08 43.5 D 15 33 PP 10 08 *E 12 26 SS 18 20
 LQ 18 30 LR 20 00

MICRON PERIOD
 MAXR(Z) 6 20
 MAXH(N) 4 20
 MAXH(E) 6 20

SAO 14 08 49.5 C
 PRI 14 08 57.0 C
 JAS 14 08 48.7 D *E 09 02 *E 10 12 *E 10 33
 MHC 14 08 46.8 C
 MIN 14 08 31.0 D
 ARC 14 08 17.6 D

MAG 5.3-5.5, DIST(DEG) 45
 USCGS 14 00 06.8, 53.0N, 171.0E, H= 33 KM, M=5.4
 NEAR ISLANDS, ALEUTIAN ISLANDS.

BKS AUG 22 16 32 02.0 C 42 16 *PP 32 46 SKS 42 08 L 55 00
 MICRON PERIOD
 PZ 0.04 1.0
 SAO 16 32 02.3 C

PRI 16 32 03.8 C
 JAS 16 32 07.9 C *E 32 47 *E 33 06
 MHC 16 32 03.2 C
 MIN 16 32 09.5 C
 USCGS 16 19 39.5, 19.1S, 169.1E, H=166 KM, M=5.1
 NEW HEBRIDES. FELT AT PORT VILA.

JAS AUG 22 20 48 51.7 C
 MHC 20 48 49.5 C
 USCGS 20 39 51.3, 55.0N, 165.8E, H= 47 KM, M=5.0
 KOMANDORSKY ISLANDS REGION.

BKS AUG 23 01 01 *E 06 28 *E 09 42 LR 11 42
 PRI 01 01 00
 JAS 01 01 22
 MHC 01 01 24

JAS AUG 23 08 44 14
 MIN 08 43 50.0 C

PRI AUG 23 12 59 24 C
 JAS 12 59 29 C

BKS AUG 23 22 48 12.0 D 57 45 *PP 50 10 *SS 61 06 SS 63 30
 SSS 66 30 *E 70 15
 MICRON PERIOD
 PZ 0.35 1
 SH 3.3 10

SAO 22 48 06.0 D
 PRI 22 48 01.8 D *PP 49 58
 JAS 22 48 06.4 D *PP 50 04
 MHC 22 48 08.9 D *PP 50 06
 MIN 22 48 18.8 C *PP 50 14
 MAG 5.2-5.5, DIST(DEG) 82
 USCGS 22 36 51.3, 22.0S, 63.5W, H=537 KM, M=5.8
 SALTA PROVINCE, ARGENTINA.

BKS AUG 23 23 26 12.5 C
 MICRON PERIOD
 PZ 0.09 1

SAO 23 26 06.5 C
 PRI 23 26 02.3 C
 JAS 23 26 06.7 C *PP 28 04
 MHC 23 26 09.3 C
 MIN 23 26 16.7 C
 MAG 5.2, DIST(DEG) 82
 USCGS 23 14 52.7, 21.8S, 63.5W, H=541 KM, M=5.2
 SOUTHERN BOLIVIA.

JAS AUG 24 13 47 47.3 D *E 48 18 *E 54 22

BKS AUG 24 15 19 47 D
 MICRON PERIOD
 PZ 0.05 1.5

PRI 15 19 45.5 C
 JAS 15 19 51.1 C *E 20 01

MHC 15 19 46.4 C
 MIN 15 19 55.6 D
 MAGNITUDE 5.2
 USCGS 15 06 58.9, 32.9S, 178.9W, H= 37 KM, M=5.3
 SOUTH OF KERMADEC ISLANDS.

BKS AUG 24 18 40 LR 58 20
 SAO 18 40 16.5 C
 PRI 18 40 14.5 C *E 40 23
 JAS 18 40 25.7 C *E 40 34 *E 40 45
 MHC 18 40 20.2 C
 USCGS 18 29 58.9, 22.2S, 138.8W, H= 0 KM, M=5.0
 TUAMOTU ARCHIPELAGO REGION. FRENCH HYDROGEN
 BOMB.

PRI AUG 24 19 40 45.2 C
 JAS 19 40 49.6 C *E 41 29
 MHC 19 40 44.0 C

JAS AUG 25 02 01 47.0 C

BKS AUG 25 09 18 41.8 D 27 48 *E 37 06
 MICRON PERIOD
 PZ 0.12 1.5

PRI 09 18 54.9 C
 JAS 09 18 48.4 D *E 19 15
 MHC 09 18 44.5 D
 MIN 09 18 34.6 D
 MAG 5.2-5.6,
 USCGS 09 07 31.9, 40.1N, 143.2E, H= 33 KM, M=5.4
 OFF EAST COAST OF HONSHU, JAPAN.

BKS AUG 25 09 25 03.0 C
 MICRON PERIOD
 PZ 1 1.5

PRI 09 25 10.5 C
 JAS 09 25 04.4 C
 MHC 09 25 02.2 C
 MIN 09 24 51.5 D
 MAGNITUDE 4.8-5.2
 KURILE ISLANDS REGION

BKS AUG 25 11 27 25.6 C *E 27 37 *PP 27 51
 MICRON PERIOD
 PZ 0.17 1

SAO 11 27 24.4 C
 PRI 11 27 25.4 C *PP 27 50
 JAS 11 27 31.7 C *PP 27 57
 MHC 11 27 25.9 C *PP 27 51
 MIN 11 27 35.2 C
 MAG 5.6-5.8, DIST(DEG) 77
 USCGS 11 15 46.3, 20.0S, 175.3W, H= 96 KM, M=5.5
 TONGA ISLANDS.

BKS AUG 26 09 31 37.9 D
 MICRON PERIOD

PZ 0.04 1

PRI 09 31 42.3 D
 JAS 09 31 44.5 D
 MHC 09 31 39.7 D
 MIN 09 31 43.6 C

MAG 4.6-4.9, DIST(DEG) 85
 NEW HEBRIDES

BKS AUG 26 09 37 55.0 D LR 61 44

MICRON PERIOD
 PZ 0.12 1.4
 MAXR(Z) 0.8 20
 MAXH(N) 0.54 20
 MAXH(E) 0.8 20

SAO 09 37 55.7 D
 PRI 09 37 57.5 D
 JAS 09 38 02.6 D *E 38 22
 MHC 09 37 56.8 D
 MIN 09 38 04.3 D

MAG 4.8-5.4, DIST(DEG) 80
 USCGS 09 25 58.7, 16.3S, 178.0E, H= 25 KM, M=5.7
 FIJI ISLANDS.

BKS AUG 27 05 28 28.8 D
 PRI 05 28 03.0 C
 JAS 05 28 08.6 C
 MHC 05 28 12.3 C

JAS AUG 27 11 29 15.2 C
 MHC 11 29 18.8 C
 MIN 11 29 29.5 C

BKS AUG 27 13 58 26.5 D *E 68 52 *E 90 00

MICRON PERIOD
 PZ 0.08 1.1
 SH 0.72 14
 MAXR(Z) 0.6 20

SAO 13 58 30.2 D
 PRI 13 58 35.0 D
 JAS 13 58 33.1 D *E 59 35
 MHC 13 58 29.5 C
 MIN 13 58 23.3 D
 ARC 13 58 17.0 C

MAG 4.9-5.3, DIST(DEG) 82
 USCGS 13 45 47.8, 12.3N, 144.3E, H= 16 KM, M=5.6
 SOUTH OF MARIANA ISLANDS.

BKS AUG 27 16 31 23
 SAO 16 31 09.5 C
 PRI 16 31 02.8 C
 JAS 16 30 59.5 C *I 31 08
 MHC 16 31 12.0 C *I 31 21
 MIN 16 31 *I 31 46

MAGNITUDE 4.5
 NEVADA TEST SITE

PRI AUG 27 17 48 03.0 C
 JAS 17 47 47.8 C
 MHC 17 47 49.8 C

BKS AUG 28 10 59 41.5 C

MICRON PERIOD
 PZ 0.02 1

PRI 10 59 42.0 C
 JAS 10 59 47.5 C
 MHC 10 59 42.0 C

MAG 4.2-4.6, DIST(DEG) 86
 KERMADEC ISLANDS AREA

BKS AUG 28 12 02 48.5 D 13 05 L 23 52 LR 27 05

MICRON PERIOD
 PZ 0.36 2
 SH 1.96 14
 MAXR(Z) 3.7 20

SAO 12 02 46.6 C
 PRI 12 02 47.8 D
 JAS 12 02 51.0 C
 MHC 12 02 47.2 D
 MIN 12 02 55.0 C
 ARC 12 02 52 D

MAG 5.7-6.0, DIST(DEG) 82
 USCGS 11 50 30.4, 20.0S, 176.3E, H= 36 KM, M=5.7
 SOUTH OF FIJI ISLANDS.

BKS AUG 28 20 56 06.0 D *E 66 40 *E 69 40 *E 74 00

MICRON PERIOD
 PZ 0.16 1.5
 MAXR(Z) 3.2 20
 MAXH(E) 2.3 20

PRI 20 56 09.5 C
 JAS 20 56 05.5 C PP 60 18
 MHC 20 56 03.5 C

MAG 5.6-5.8, DIST(DEG) 98
 USCGS 20 42 16.7, 15.6N, 122.0E, H= 15 KM, M=5.7
 PHILIPPINE ISLANDS. FELT IN MANILA.

JAS AUG 29 09 59 27.9 C *E 59 49
 MIN 09 59 03.2 D

JAS AUG 29 10 02 40.7 C *E 03 13
 MIN 10 02 14.8 D

JAS AUG 29 10 45 58.4 C

BKS AUG 29 22 46 13.0 C
 SAO 22 46 04.2 C
 PRI 22 45 58.0 C
 JAS 22 45 53.5 C
 MHC 22 46 06.5
 MIN 22 46 01.0 C

MAGNITUDE 5.7

NEVADA TEST SITE

PRI AUG 30 02 56 26.6 D
 JAS 02 56 10.6 D
 MHC 02 56 18.7 C

BKS AUG 30 05 34 20.0 C
 PRI 05 34 35.4 C
 JAS 05 34 27.2 C
 MHC 05 34 24.9 C
 MIN 05 34 10.6 C

USCGS 05 24 41.6, 51.3N, 157.7E, H= 21 KM, M=5.1
 NEAR EAST COAST OF KAMCHATKA.

JAS AUG 30 12 44 35.4 C
 MHC 12 44 30.6 D
 MIN 12 44 39.1 D

JAS AUG 30 22 21 25.0 C
 MHC 22 21 23.8 C

PRI AUG 31 09 01 24.4 C
 JAS 09 01 29.0 C
 MHC 09 01 25.2 C
 MIN 09 01 33.6 C

BKS AUG 31 11 02 13 C 12 58 PP 06 41 *E 11 46 *E 13 20
 PS 15 05 *E 22 00 *E 26 00
 *E 29 12 *E 30 22 LR 43 20

MICRON PERIOD

PZ 1.56 5

PPZ 3.0 12

MAXR(Z) 23 20

MAXH(N) 44 20

MAXH(E) 38 20

JAS 11 02 11.4 C *E 05 43 PP 06 45 PPS 17 24

MAG 7.7, DIST(DEG) 104

USCGS 10 47 37.4, 34.0N, 59.0E, H= 13 KM, M=6.0

IRAN. MORE THAN 11,000 KILLED AND 6000 INJURED. KAKHAK DESTROYED HIGH DESTRUCTION IN SURROUNDING AREA. FELT THROUGHOUT KHORASSAN PROVINCE. PRELIMINARY REPORT BY THREE MAN TEAM COMPOSED OF MR KENNETH C. BAYER, ESSA/C+GS, DR L.E. HEUCKROTH AND PROF. R.A. KARIM (KABUL, AFGHABUSTAN) FINDS SURFACE RUPTURE AS A RESULT OF THESE EARTHQUAKES EXTENDS FOR 27 KM, IS A LEFT LATERAL STRIKE-SLIP MOVEMENT, WITH MAXIMUM DISPLACEMENT OF 12 FT, FAULT BIFURCATES WEST OF DASHT-I-BIAZ AT AN ANGLE OF 30 DEG. TOWARD KAKHAK + FERDOWS. MAXIMUM INTENSITY X MM.

JAS AUG 31 16 56 53.7 C

JAS AUG 31 17 53 14.2 C

JAS AUG 31 18 18 09.7 C

RKS AUG 31 20 05 45.6 D

MICRON PERIOD

PZ 0.02 0.6

SAD 20 05 44.6 D

PRI 20 05 46.2 D

JAS 20 05 51.7 D *E 05 58 *E 07 17

MHC 20 05 45.9 D *E 05 53

USCGS 19 54 35.0, 18.3S, 177.7W, H=379 KM, M=5.0
 FIJI ISLANDS REGION.

RKS SEP 01 00 36 46.7 D

MICRON PERIOD

PZ 0.05 0.9

SAD 00 36 44.6 C

PRI 00 36 45.4 C

JAS 00 36 51.1 C *E 37 08 *E 38 41

MHC 00 36 46.3 C *E 37 03

MAG 5.4, DIST(DEG) 88

USCGS 00 24 06.7, 30.7S, 178.3W, H= 25 KM, M=5.2
 KERMADEC ISLANDS REGION.

BKS SEP 01 05 02 LR 35 00

JAS 05 02 14.2 C

USCGS 04 48 52.2, 1.0S, 24.5W, H= 33 KM, M=5.2
 CENTRAL MID-ATLANTIC RIDGE.

BKS SEP 01 07 41 59 D

PP 46 17 *E 56 53 SSS 74 00
 L 81 00

MICRON PERIOD

PPZ 0.36 9

MAXR(Z) 6 20

MAXH(N) 11 20

MAXH(E) 10 20

JAS 07 41 58.0 C

PP 46 22 PPS 57 11 P*P* 65 36

MAG 7.0, DIST(DEG) 104

USCGS 07 27 30.2, 34.0N, 58.2E, H= 15 KM, M=5.9
 IRAN. MORE THAN 2000 KILLED AND EXTENSIVE PROPERTY DAMAGE AT FERDOWS.

JAS SEP 01 19 15 37.3 C

BKS SEP 01 20 50 37.2 D

JAS 20 50 42.5 C

MHC 20 50 37.6 C

BKS SEP 03 05 34 33.0 C

JAS 05 34 27.7 C *E 34 40

USCGS 05 23 30.0, 42.9N, 145.2E, H= 43 KM, M=5.2
 HOKKAIDO, JAPAN, REGION.

BKS SEP 03 07 12 54.0 D

MICRON PERIOD

PZ 0.07 1.0

PRI 07 13 06.6 D
 JAS 07 13 00.6 D
 MHC 07 12 58.1

MAGNITUDE 5.3

USCGS 07 01 36.5, 37.9N, 141.7E, H= 79 KM, M=5.4
 NEAR EAST COAST OF HONSHU, JAPAN.

BKS SEP 03 08 33 41 C 44 18 PS 46 13 *E 50 48 SS 51 45
 P*P* 58 00 L 61 00 *E 64 00
 LR 65 30

MICRON PERIOD

PPZ 1.7 6
 MAXR(Z) 22 19
 MAXH(N) 15 19
 MAXH(E) 23 19

PRI 08 33 38.1
 JAS 08 33 29.1 D *E 50 12
 MHC 08 33 33.5

MAG 6.7, DIST(DEG) 101

USCGS 08 19 52.2, 41.8N, 32.3E, H= 5 KM, M=5.7
 TURKEY. 25 KILLED, 200 INJURED,
 CONSIDERABLE DAMAGE IN BARTIN AREA.

BKS SEP 03 08 35 18.6 C
 SAO 08 35 07.5
 PRI 08 34 58.0 D
 JAS 08 34 48.8 D
 MHC 08 35 06 D

MAGNITUDE 4.0, CENTRAL NEVADA

BKS SEP 03 15 46 25.5 D 54 00 SS 58 12 L 60 20 LR 64 20

MICRON PERIOD

PZ 0.04 0.8
 MAXR(Z) 3.4 20
 MAXH(N) 3.0 20
 MAXH(E) 4.6 20

SAO 15 46 20.3 C
 PRI 15 46 19.6 C
 JAS 15 46 14.2 C *E 46 32 *E 47 21
 MHC 15 46 21.9 C

MAG 5.0-5.4, DIST(DEG) 56

USCGS 15 37 00.2, 20.6N, 62.2W, H= 33 KM, M=5.5
 NORTH ATLANTIC OCEAN. FELT AT SAN JUAN,
 PUERTO RICO.

BKS SEP 03 22 33 26.6 D
 MICRON PERIOD
 PZ 0.04 0.8

PRI 22 33 37.4 D
 JAS 22 33 32.8 C
 MHC 22 33 30.0 C

MAG 4.8, DIST(DEG) 75

HONSHU, JAPAN

JAS SEP 04 07 54 08.7 D

JAS SEP 04 08 09 53.6 C
 MIN 08 09 03.3 C

PRI SEP 04 10 44 13.0 D
 JAS 10 43 59.5 C
 MHC 10 44 04.0 D
 MIN 10 43 43.4 D

PRI SEP 05 02 20 02.2 C
 JAS 02 20 03.4 C
 MHC 02 19 58.1 C

PRI SEP 05 04 19 14.4 C
 JAS 04 19 06.2 C *E 19 18 *E 19 43
 MHC 04 19 08.2 C
 MIN 04 18 53.9 C

USCGS 04 05 57.4, 49.8N, 78.1E, H= 0 KM, M=5.5
 EASTERN KAZAKH SSR.

JAS SEP 05 08 32 03.4 C

JAS SEP 05 09 19 36.1 C *E 21 29

JAS SEP 05 10 24 17.0 D

JAS SEP 05 10 50 06.1 C
 MIN 10 50 29.6 C

BKS SEP 05 17 20 LR 47 40

MICRON PERIOD

MAXR(Z) 2.8 20
 MAXH(E) 2.8 20
 MAXH(N) 2.8 20

PRI 17 20 30.5 C
 JAS 17 20 30.6 C
 MHC 17 20 23.6 C

BKS SEP 05 22 13 14.2 D

MICRON PERIOD

PZ 0.02 0.6

PRI 22 13 17.6 C
 JAS 22 13 20.6 C
 MHC 22 13 15.4 C

MAG 5.0, DIST(DEG) 83

PRI SEP 06 02 15 33.2 C
 JAS 02 15 23.7 C PP 17 13
 MHC 02 15 20.4 C
 MIN 02 15 06.3 C

AMCHITKA EXPLOSION

PRI SEP 06 03 34 50.3 D
 JAS 03 34 42.0 D

USCGS 03 21 56.1, 17.8S, 167.8E, H= 24 KM, M=5.1
 NEW HEBRIDES. FELT AT PORT VILA.

BKS SEP 06 07 48 46 C 60 26 LR 75 00
 MICRON PERIOD
 PZ 0.43 8
 MAXR(Z) 0.9 20
 MAXH(E) 0.7 20
 MAXH(N) 0.5 20
 JAS 07 48 50.9 C
 MIN 07 48 51.7 C
 USCGS 07 36 06.4, 17.8S, 167.8E, H= 28 KM, M=5.3
 NEW HEBRIDES. FELT AT PORT VILA.

BKS SEP 06 07 59 33.9 D SS 71 54 *E 78 48 L 82 00
 MICRON PERIOD
 PZ 0.02 0.6
 MAXR(Z) 0.8 20
 MAXH(N) 0.7 20
 MAXH(E) 0.6 20
 PRI 07 59 18.3 C
 JAS 07 59 25.1 C
 MHC 07 59 28.5 C
 MIN 07 59 40.2 C
 *I 59 59
 MAG 4.6, DIST(DEG) 59
 USCGS 07 49 42.0, 5.8S, 80.3W, H= 66 KM, M=5.3
 NEAR COAST OF NORTHERN PERU.

BKS SEP 06 11 28 42.1 C
 JAS 11 29 03.7 D
 MHC 11 28 51.6 D
 MIN 11 28 34.6 C

BKS SEP 06 12 18 56.2
 PRI 12 19 23.7
 JAS 12 18 57.9
 MHC 12 19 04.2
 MAGNITUDE 4.4-4.8
 FELT IN SEATTLE, WASHINGTON

BKS SEP 06 14 01 16.6
 SAO 14 01 07.7 C
 PRI 14 01 01.1 C
 JAS 14 00 57.1 C
 MHC 14 01 10.1 C
 MIN 14 01 22.5 C
 ARC 14 01 50.0
 *E 02 55
 MAGNITUDE 5.5
 NEVADA TEST SITE

BKS SEP 06 19 35 09.8 D 45 50 *E 35 23 *E 46 30 LR 60 30
 MICRON PERIOD
 PZ 0.09 1.4
 SAO 19 35 15.7 D
 PRI 19 35 20.9 D
 JAS 19 35 15.8 D
 MHC 19 35 13.8 D
 MIN 19 35 04.7 D
 ARC 19 34 56.5
 *E 35 28
 *E 35 27

USCGS 19 22 47.8, 31.0N, 131.9E, H= 39 KM, M=5.7
 KYUSHU, JAPAN.

JAS SEP 07 07 01 25.3 C PP C5 17
 USCGS 06 47 59.0, 5.0S, 145.6E, H= 48 KM, M=5.3
 EAST NEW GUINEA REGION. FELT IN MADANG
 AREA.

PRI SEP 07 07 34 33.6 D
 JAS 07 34 38.8 D
 MHC 07 34 41.2 D
 MIN 07 34 59.5 D

JAS SEP 07 08 33 03.1 C
 MIN 08 32 39.6 C *E 33 25

BKS SEP 07 16 11 09.7 D
 SAO 16 11 07.0 C
 PRI 16 11 05.8 C
 JAS 16 11 07.7 C *E 11 19 *E 14 33 *E 17 24
 MHC 16 11 08.5 C
 MIN 16 11 11.0 C
 USCGS 15 52 13.6, 58.4S, 25.6W, H= 45 KM, M=5.5
 SOUTH SANDWICH ISLANDS REGION.

JAS SEP 07 17 51 52.4 C
 MHC 17 51 57.0 C
 USCGS 17 41 56.8, 5.5S, 76.9W, H= 63 KM, M=5.0
 NORTHERN PERU.

BKS SEP 08 00 29 *E 41 05 LR 55 50
 MICRON PERIOD
 MAXR(Z) 1 17
 MAXH(N) 1 18
 PRI 00 29 00.3 C
 JAS 00 29 24.0 C *E 29 35 *E 29 43
 MHC 00 29 19.0 C
 USCGS 00 16 38.0, 17.6S, 167.7E, H= 20 KM, M=5.0
 NEW HEBRIDES. FELT AT PORT VILA.

JAS SEP 08 02 12 53.4 C *E 14 08
 MIN 02 12 39.2 D

JAS SEP 08 08 56 14.6 C

PRI SEP 08 13 42 46.3 C
 JAS 13 42 49.9 C *E 43 13 *E 43 24 *E 46 12
 MHC 13 42 49.5 C

JAS SEP 08 14 40 18.8 C *E 40 29 *E 40 52

BKS SEP 08 15 25 50.3 C 36 25 PPS 38 26 SS 43 48 LR 55 50
 MICRON PERIOD
 PZ 0.09 1.3
 MAXR(Z) 9.5 19
 MAXH(N) 8 19

MAXH(E) 1.9 18
 PRI 15 25 56.5 C
 JAS 15 25 56.7 C *E 26 01 *E 26 11 *E 26 31
 *E 28 43 *E 29 15
 MHC 15 25 52.8 C
 MIN 15 25 51.2 D *E 29 46
 ARC 15 25 55.2 D
 USCGS 15 12 23.8, 3.7S, 143.0E, H= 29 KM, M=6.0
 NEAR NORTH COAST OF NEW GUINEA. FELT IN
 WEWAK AREA.
 JAS SEP 08 16 29 20.2 C
 MIN 16 28 57.4 C
 JAS SEP 08 19 10 23.9 C *E 10 34
 FRENCH HYDROGEN BOMB
 JAS SEP 08 20 20 15.7 C *E 20 21
 USCGS 20 09 51.2, 46.0N, 151.4E, H= 31 KM, M=5.0
 KURILE ISLANDS.
 BKS SEP 09 00 45 34.3 D 54 11 PP 48 09 SCS 55 17 *E 56 37
 *E 57 42 L 62 16 *E 64 16
 MICRON PERIOD
 PZ 0.04 0.9
 PRI 00 45 26.5 D PP 47 54
 JAS 00 45 32.4 D *E 45 46 *E 46 14 PP 48 01
 MHC 00 45 35.9 D PP 48 05
 MIN 00 45 45.4 D *I 48 15
 ARC 00 45 59.2 D
 USCGS 00 35 18.4, 8.7S, 74.5W, H=144 KM, M=5.3
 PERU-BRAZIL BORDER REGION.
 BKS SEP 09 00 48 09
 PRI 00 47 53.8 C
 JAS 00 48 00.5 D
 MHC 00 48 04.7 C
 MIN 00 48 15.4 C
 USCGS 00 37 43.2, 8.7S, 74.5W, H=120 KM, M=6.0
 PERU-BRAZIL BORDER REGION.
 BKS SEP 09 02 30 56
 PRI 02 31 06.9 C
 JAS 02 30 55.8 C *F 31 00 *E 31 16
 MHC 02 30 56.4 C
 MIN 02 30 36.2 C
 JAS SEP 09 02 47 17.5 D *E 47 26 *E 47 38
 BKS SEP 09 05 00 32.2 *E 05 25
 PRI 05 00 51.3 C
 JAS 05 00 37.8 C *E 00 49 *E 01 14 *E 07 32
 MHC 05 00 37.9 C
 MIN 05 00 14.9 C
 ARC 05 00 02.0 C
 USCGS 04 54 46.0, 59.0N, 149.2W, H= 17 KM, M=5.2

KENAI PENINSULA, ALASKA.
 JAS SEP 09 08 33 40.7 C
 JAS SEP 09 18 34 43.2 C
 BKS SEP 10 21 35 47.1 D
 SAO 21 35 51.6 D
 PRI 21 35 56.6 D
 JAS 21 35 53.8 D
 MHC 21 35 50.5 D
 MIN 21 35 45.5 D
 ARC 21 35 35.8 D
 USCGS 21 23 48.0, 18.6N, 145.8E, H=126 KM, M=5.3
 MARIANA ISLANDS.
 BKS SEP 10 23 20 *E 20 35 PP 22 10
 PRI 23 20 17.5 C
 JAS 23 20 24.6
 MHC 23 20 29.3
 USCGS 23 13 47.0, 14.3N, 92.9W, H= 72 KM, M=5.0
 NEAR COAST OF CHIAPAS, MEXICO.
 PRI SEP 11 04 42 40.7 D
 JAS 04 42 31.9 D
 MHC 04 42 28.1 D
 MIN 04 42 13.3 D
 PRI SEP 11 06 11 35.5
 JAS 06 11 42.0 C
 MIN 06 11 53.3 C
 BKS SEP 11 08 45 11.4
 JAS 08 45 07.3 D
 USCGS 08 32 05.6, 43.0S, 75.4W, H= 20 KM, M=5.0
 OFF COAST OF SOUTHERN CHILE.
 BKS SEP 11 18 39 41.7 C 50 18 *SS 50 50 *E 51 56 *E 52 20
 SS 57 00 SSS 57 28 SSS 60 30
 SAO 18 39 34.9 C
 PRI 18 39 31.7 C
 JAS 18 39 37.4 C *E 39 48 *E 39 55 *E 40 46
 PS 43 11 LR 52 00
 MHC 18 39 37.9 C
 USCGS 18 26 36.8, 43.0S, 75.2W, H= 31 KM, M=5.7
 OFF COAST OF SOUTHERN CHILE.
 JAS SEP 12 11 53 25.5 D
 MIN 11 53 09.6 C
 JAS SEP 12 13 47 47.5 C *E 47 57 *E 48 14
 USCGS 13 36 27.5, 39.7N, 143.6E, H= 12 KM, M=5.2
 OFF EAST COAST OF HONSHU.
 PRI SEP 12 14 01 02.6 D *E 01 11 *E 02 13
 JAS 14 00 56.2 D *E 01 08 *E 02 00

MHC 14 01 12.0 *E 01 23 *E 01 27
MAG 4.0-4.4, E OF ELY, NEV.

JAS SEP 12 19 36 32.9 D
MIN 19 36 08.6 D

BKS SEP 12 22 55 12.6 D 64 31 *PP 57 21 PP 58 30 *E 64 53
*E 65 36 SS 69 14 *E 70 07
SSS 73 35 *E 76 04

MICRON PERIOD
PZ 0.9 1.1

SAO 22 55 11.8 D
PRI 22 55 12.6 C
JAS 22 55 18.2 C *I 55 52
MHC 22 55 13.1 D
MIN 22 55 21.0 D
ARC 22 55 17.3 D *E 55 28
USCGS 22 44 06.5, 21.6S, 179.4W, H=635 KM, M=5.9
FIJI ISLANDS REGION.

PRI SEP 12 23 22 02.7 D
JAS 23 21 43.7 C *E 24 16
MHC 23 22 04.0 C

BKS SEP 13 05 14 37 D 25 26 *E 26 29 SS 31 23 *E 37 00
LR 40 42

MICRON PERIOD
MAXR(Z) 2.8 21
MAXH(E) 1.7 22
MAXH(N) 2.6 21

PRI 05 14 36.0 D
JAS 05 14 41.6 D *E 18 05
MHC 05 14 36.7 D
MIN 05 14 45.2 C
USCGS 05 18 50.3, 30.8S, 179.1W, H= 38 KM, M=5.0
KERMADEC ISLANDS.

BKS SEP 13 07 37 LQ 47 00 LR 49 00
PRI 07 37 07.4 D
JAS 07 37 15.3 D
MHC 07 37 19.0 D
MIN 07 37 33.8 C
USCGS 07 30 43.6, 15.1N, 93.9W, H= 34 KM, M=5.1
NEAR COAST OF CHIAPAS, MEXICO.

BKS SEP 13 13 02 18.9 D
SAO 13 02 20.0 D
PRI 13 02 23.0 D
JAS 13 02 25.8 D
MHC 13 02 20.7 D
MIN 13 02 24.7 D
USCGS 12 49 54.8, 11.1S, 164.6E, H= 59 KM, M=5.4
SANTA CRUZ ISLANDS REGION.

PRI SEP 14 01 45 49.1 C
BKS 01 45 LR 73 00

JAS 01 45 45.2 C *E 45 55 *E 48 29
MHC 01 45 43.6 C

BKS SEP 14 14 07 17 40 L 40 00 LR 46 00
JAS 14 07 10.9 C 17 52
DISTANCE(DEG) 89

PRI SEP 15 01 48 10.8 C
JAS 01 48 12.6 C
MHC 01 48 13.5 C
MIN 01 48 17.2 C
USCGS 01 29 33.8, 56.0S, 27.4W, H=139 KM, M=5.1
SOUTH SANDWICH ISLANDS REGION.

JAS SEP 15 05 15 03.7 C
BKS 05 15 LR 53 00
MIN 05 14 52.8 C

BKS SEP 15 11 01 22.0 C 10 20 L 18 00
PRI 11 01 23.3 C
JAS 11 01 28.1 C PCP 01 39 *PP 02 12 *SP 02 33
P** 29 09

MHC 11 01 23.9 C
MIN 11 01 13.8 C
USCGS 10 50 11.8, 40.9N, 143.2E, H= 15 KM, M=5.4
OFF EAST COAST OF HONSHU, JAPAN.

PRI SEP 15 15 01 17.2 C
JAS 15 01 11.3 C
MHC 15 01 10.3

JAS SEP 15 16 05 42.2 D
MIN 16 05 12.3 D

PRI SEP 16 01 03 58.0 C
JAS 01 04 06.7 C *E 04 17
MHC 01 03 55.1 C

BKS SEP 16 14 08 52 C 19 52 PP 12 28 LR 38 00
MICRON PERIOD
SH 13.6 26

PRI 14 08 47.8 C
JAS 14 08 52.2 C *E 08 59 *E 09 03 *E 09 21
*E 09 49 *E 21 35

MHC 14 08 46.9 C
MIN 14 09 47.9 D
MAG 6.3-6.7, DIST(DEG) 93
USCGS 13 55 36.1, 6.1S, 148.7E, H= 59 KM, M=5.8
NEW BRITAIN REGION. FELT ON EASTERN NEW
GUINEA AND WESTERN NEW BRITAIN.

BKS SEP 16 14 22 22 C
MICRON PERIOD
PZ 0.07 1.0

SAO 14 22 21.2 C
PRI 14 22 22.6 C

JAS 14 22 28.1 C *E 22 32 *E 22 38 *E 25 53
MHC 14 22 20.8 C
MIN 14 22 31.1 D
USCGS 14 11 29.4, 17.4S, 178.8W, H=583 KM, M=5.1
FIJI ISLANDS.

JAS SEP 16 16 14 03.2 C
USCGS 16 00 53.1, 6.0S, 148.8E, H= 71 KM, M=5.3
NEW BRITAIN REGION.

JAS SFP 16 18 31 50.0 C

JAS SEP 17 08 39 00.3 C *PP 39 21
MIN 08 38 28.6 C

BKS SEP 17 14 01 16.5 02 32 *E 01 33
SAO 14 01 07.2 C
PRI 14 01 01.5 C
JAS 14 00 56.3 C
MHC 14 00 09.5 C
MIN 14 00 22.7
MAGNITUDE 4.6-4.9
NEVADA TEST SITE

BKS SEP 17 15 01 LR 19 12
PRI 15 01 03.9 C
JAS 15 01 15.0 C *E 01 28
MHC 15 01 12.9 C

BKS SEP 17 18 01 16.8 C 11 12 L 20 00 LR 22 40
MICRON PERIOD
PZ 0.03 0.5
SH 5.1 26
MAXR(Z) 3.6 20
MAXH(N) 3.6 20
MAXH(E) 3.5 20

SAO 18 01 17.2 C
PRI 18 01 16.7 C
JAS 18 01 23.0 D
MHC 18 01 19.0 C
MAG 5.4-5.6, DIST(DEG) 74
USCGS 17 49 47.6, 15.0S, 175.7W, H= 17 KM, M=5.2
TONGA ISLANDS.

BKS SEP 18 11 56 27 D *E 56 35 LR 83 00
MICRON PERIOD
PZ 0.44 1.5

SAO 11 56 28.3 D
PRI 11 56 30.3 D
JAS 11 56 34.0 D
MHC 11 56 29.1 D
MIN 11 56 34.5 D *I 56 48
MAG 6.4-6.6, DIST(DEG) 87
USCGS 11 43 45.6, 18.2S, 167.1E, H= 33 KM, M=5.7
NEW HEBRIDES.

JAS SEP 18 17 36 39.5 C

MHC 17 36 34.4 C

PRI SEP 19 05 08 50.7 C
JAS 05 08 35.7 C *E 08 46
MIN 05 08 20.5 C

BKS SEP 19 11 23 LR 45 00
MICRON PERIOD
MAXR(Z) 2.8 20
MAXH(N) 2.8 20
MAXH(E) 1.8 20

JAS 11 23 33.4 C
MIN 11 23 34.0 C *I 24 02
R FROM NORTHWEST

JAS SEP 19 12 06 12.7 C
MIN 12 05 58.4 D

BKS SEP 20 06 09 57.5 C 18 04 PCP 10 56 PP 12 12 L 22 40
LR 25 16
MICRON PERIOD
PZ 0.3 1.0
SH 25 19
MAXR(Z) 14 20
MAXH(N) 14 20
MAXH(E) 14 20

SAO 06 09 51.7 C
PRI 06 09 48.6 C *I 14 31 *E 19 26
JAS 06 09 47.6 C *I 10 14 *I 14 30
MHC 06 09 54.4 C *I 10 23
MIN 06 09 56.3 C *I 10 23 *I 12 10 *E 13 41
ARC 06 10 09.0
MAG 6.1-6.3, DIST(DEG) 58
USCGS 06 00 03.5, 10.7N, 62.7W, H=107 KM, M=6.2
NEAR COAST OF VENEZUELA. 2 KILLED, 37
INJURED. DAMAGE IN STATE OF SUCRE,
VENEZUELA, AND ON TRINIDAD. ALSO FELT IN
NORTHERN GUYANA. POSSIBLE TSUNAMI NORTH
COAST OF TRINIDAD.

JAS SEP 20 14 04 54.8 C *E 05 14

BKS SEP 20 18 41 30.8 C 51 48 LR 67 30
MICRON PERIOD
PZ 0.04 0.9
MAXR(Z) 3.0 20
MAXH(N) 3.0 20
MAXH(E) 3.0 20

PRI 18 41 32.7 C
JAS 18 41 33.9 C *E 41 46 *E 42 04
MHC 18 41 30.2 C
MIN 18 41 37.0 C
MAG 5.0-5.5, DIST(DEG) 85
USCGS 18 29 09.8, 28.1S, 176.7W, H= 70 KM, M=5.3
KERMADEC ISLANDS.

PRI SEP 20 22 37 27.3 C
 JAS 22 37 19.8 C
 MHC 22 37 27.4 C

JAS SEP 20 23 23 01.9 C
 MIN 23 23 41.3 D

BKS SEP 21 13 17 05.0 26 00 SS 30 36 LQ 33 42 LR 37 48
 MICRON PERIOD
 PZ 0.16 1.2
 MAXR(Z) 18 20
 MAXH(N) 18 20
 MAXH(E) 18 20

SAO 13 17 10.8 C
 PRI 13 17 17.5 C
 JAS 13 17 10.0 C *E 17 19 *E 17 21 *E 17 30
 P*P* 45 03

MHC 13 17 08.3 C
 MIN 13 16 55.8 C P*P* 45 13
 ARC 13 16 37.0

MAG 5.7-6.2, DIST(DEG) 68
 USCGS 13 05 58.2, 42.2N, 142.6E, H= 33 KM, M=5.9
 HOKKAIDO, JAPAN, REGION.

PRI SEP 21 14 55 03.3 C
 JAS 14 55 07.9 C
 MHC 14 55 03.5 C
 MIN 14 55 24.2 C
 USCGS 14 44 24.6, 11.8S, 75.1W, H= 7 KM, M=5.0
 PERU.

PRI SEP 22 03 55 50.6 C
 JAS 03 55 32.3 C *E 55 43 *E 55 46
 MHC 03 55 37.5 C
 MIN 03 54 57.7 C *I 55 05

BKS SEP 22 08 11 24.2 C
 SAO 08 11 22.8 C
 PRI 08 11 24.1 C
 JAS 08 11 29.7 C *E 11 32 *E 11 34
 MHC 08 11 24.2 C
 MIN 08 11 32.5 D

PRI SEP 22 17 04 20.0 C
 JAS 17 04 26.0 C *E 04 45
 MHC 17 04 21.6 C

BKS SEP 22 20 33 43 12 LQ 52 00 LR 54 24
 JAS 20 33 35.1 C *E 33 57
 MHC 20 33 30.9 C

JAS SEP 22 20 42 08.4 C *E 42 27
 MHC 20 42 02.5 C
 MIN 20 42 12.2 C
 USCGS 20 30 34.3, 15.1S, 175.9W, H= 33 KM, M=5.0
 TONGA ISLANDS.

BKS SEP 22 22 04 51.7 D
 JAS 22 04 46.4 D *E 04 50 *E 04 58 *E 05 22
 MHC 22 04 48.7 D
 MIN 22 04 57.3 D
 USCGS 21 52 59.2, 24.1S, 66.9W, H=194 KM, M=5.5
 SALTA PROVINCE, ARGENTINA.

BKS SEP 23 05 15 *E 24 00 *E 28 00 *E 31 36
 JAS 05 15 04.5 C *E 15 15 *E 15 24
 MHC 05 15 02.5 C

PRI SEP 24 01 55 02.3 D
 JAS 01 55 07.6 D
 MHC 01 55 10.0 D

BKS SEP 24 03 45 *E 55 06 *E 64 06 *E 85 30
 JAS 03 46 04.3 C *E 46 48 *E 48 29
 MIN 03 45 50.8 C
 USCGS 03 34 48.5, 40.2N, 143.7E, H= 22 KM, M=5.1
 OFF EAST COAST OF HONSHU, JAPAN.

JAS SEP 24 04 57 18.9 C *E 57 27 *E 57 42
 MIN 04 57 04.7 C
 USCGS 04 46 03.6, 40.3N, 143.6E, H= 26 KM, M=5.0
 OFF EAST COAST OF HONSHU, JAPAN.

BKS SEP 24 08 58 *E 86 12
 PRI 08 58 33.3 D
 JAS 08 58 36.2 D *E 58 40 *E 58 48 *E 58 56
 MHC 08 58 31.2
 MIN 08 58 35.5 C
 USCGS 08 46 02.1, 11.0S, 164.4E, H= 40 KM, M=5.1
 SANTA CRUZ ISLANDS REGION.

BKS SEP 24 17 06 15.5 C *E 06 26 *E 07 21
 SAO 17 06 05.9 C *I 06 15
 JAS 17 05 54.4 C
 MHC 17 06 08.3 C *I 06 16
 MIN 17 06 20.6 C *E 07 49
 MAGNITUDE 4.6
 NEVADA TEST SITE

BKS SEP 25 00 26 33.6 D
 SAO 00 26 32.2 C
 PRI 00 26 33.6 C
 JAS 00 26 39.2 C
 MHC 00 26 33.8 C

BKS SEP 25 07 21 *E 21 22 *E 30 42 *E 36 06
 JAS 07 21 L 46 12 LR 50 36
 *E 21 34
 USCGS 07 02 51.8, 46.4S, 166.8E, H= 33 KM, M=5.5
 OFF WEST COAST OF SOUTH ISLAND, NEW ZEALAND.
 FELT EXTENSIVELY IN SOUTH NEW ZEALAND.

BKS SEP 25 09 35 32.0 C
 SAO 09 35 29.5 C
 PRI 09 35 28.2 C
 JAS 09 35 30.2 C *E 35 46
 MHC 09 35 31.0 C
 MIN 09 35 34.0 C

USCGS 09 16 35.0, 57.9S, 25.5W, H= 35 KM, M=5.0
 SOUTH SANDWICH ISLANDS REGION.

BKS SEP 25 10 45 15.0 50 36 *E 49 49 *E 51 29 LQ 53 30
 LR 55 30 *E 69 54 *E 88 48

MICRON PERIOD

PZ 0.33 1.4
 SH 34 25
 MAXR(Z) 15.2 19
 MAXH(N) 14.2 19
 MAXH(E) 27.0 19

PRI 10 44 55.8 C
 SAO 10 45 04.1 C
 JAS 10 45 03.0 C 50 32 PCP 47 46 SCS 55 15
 MHC 10 45 07.5 C
 MIN 10 45 20.7 C *I 45 52 *I 48 24
 ARC 10 45 37.3

MAG 5.8-6.2, DIST(DEG) 34

USCGS 10 38 38.4, 15.6N, 92.6W, H=138 KM, M=5.7
 MEXICO-GUATEMALA BORDER REGION. AT LEAST 15
 DEAD, 500 INJURED AND HEAVY PROPERTY DAMAGE
 IN SOUTHERN CHIAPAS. POSSIBLE 7 FOOT
 TSUNAMI AT SALINA CRUZ.

BKS SEP 25 14 45 46.6 C
 SAO 14 45 45.3 C
 PRI 14 45 46.2 C
 JAS 14 45 52.3 C *E 46 05 *E 46 16 *PP 46 47
 MHC 14 45 46.7 C

USCGS 14 34 22.6, 19.3S, 175.9W, H=230 KM, M=5.0
 TONGA ISLANDS.

JAS SEP 25 18 06 53.2 C

BKS SEP 26 02 50 53.9
 SAO 02 50 52.6 C
 PRI 02 50 54.0 C
 JAS 02 50 59.8 C *F 51 17 *E 52 59
 MHC 02 50 54.2 C
 MIN 02 51 02.9 D

USCGS 02 39 56.5, 19.3S, 177.6W, H=560 KM, M=5.2
 FIJI ISLANDS REGION.

JAS SEP 26 08 34 10.1 C *E 34 19 *E 34 31
 MIN 08 33 51.1 C *I 34 05

BKS SEP 26 08 52 14.7 C
 SAO 08 52 14.3 C
 PRI 08 52 15.7 C
 JAS 08 52 21.1 C *E 52 30 *E 52 40 *E 54 22

MHC 08 52 15.6
 MIN 08 52 23.9 C *E 54 31
 USCGS 08 41 22.0, 17.7S, 178.5W, H=578 KM, M=5.1
 FIJI ISLANDS REGION.

JAS SEP 26 11 32 46.7 C
 MIN 11 32 20.6

BKS SEP 26 14 49 18.3 D 58 54 *PP 50 19 *E 61 12 L 70 00
 MICRON PERIOD
 PZ 0.36 C.9
 SH 4.1 12

SAO 14 49 17.3 D
 PRI 14 49 18.5 D *I 49 28
 JAS 14 49 24.5 D *I 49 45 *PP 50 25
 MHC 14 49 18.8 D *E 50 20
 MIN 14 49 *I 50 29

MAG 6.0-6.4, DIST(DEG) 79
 USCGS 14 37 46.2, 20.9S, 177.0W, H=251 KM, M=5.8
 FIJI ISLANDS REGION.

PRI SEP 26 15 16 26.5 C
 JAS 15 16 23.2 C

BKS SEP 26 18 15 28.0 C 25 50 SS 30 48 LQ 37 54 LR 41 30
 MICRON PERIOD
 PZ 0.1 1.3
 SH 35 19
 MAXR(Z) 61 20
 MAXH(N) 59 20
 MAXH(E) 45 20

SAO 18 15 25.8 C
 PRI 18 15 26.8 C
 JAS 18 15 32.1
 MHC 18 15 27.6 C
 ARC 18 14 33.5 C

MAG 6.5-7.0, DIST(DEG) 85
 USCGS 18 02 50.1, 30.5S, 178.2W, H= 33 KM, M=5.8
 KERMADEC ISLANDS REGION. FELT ON RAOUL.

PRI SEP 26 18 33 32.3 C
 JAS 18 33 21.1 C *I 33 32
 MHC 18 33 33.3 C
 MIN 18 32 24.2 C

JAS SEP 26 18 41 35.3 D
 MHC 18 41 34.8 C

BKS SEP 27 04 13 10.9 C 25 00 PP 17 37 PS 26 42 PPS 27 36
 SS 32 56 PPS 33 30 L 43 24
 LR 50 00
 PRI 04 13 16.7 C PP 17 09
 JAS 04 13 14.5 C *E 13 33 *E 14 08 *E 16 22
 MHC 04 13 12.0 C PP 17 07 *E 17 26 *E 17 48
 MIN 04 12 12.3 C *F 17 40

USCGS 03 58 55.1, 6.8S, 129.1E, H=127 KM, M=6.1
BANDA SEA.

BKS SEP 27 16 53 46.7 C 64 18 SS 69 48 L 75 48 LR 78 30

MICRON PERIOD

PZ 0.13 1.3

PH 0.04 1

SH 3.4 12

SAD 16 53 45.0 C
PRI 16 53 45.8 C
JAS 16 53 51.5 C *E 54 18
MHC 16 53 46.8 C
MIN 16 53 55.8 C

MAG 5 3/4, DIST(DEG) 86

USCGS 16 41 07.8, 30.7S, 178.2W, H= 33 KM, M=5.4
KERMADEC ISLANDS REGION.

BKS SEP 27 19 20 09.8 C *E 20 18 PPS 32 42 *E 38 09
L 45 42 LR 49 24

MICRON PERIOD

PZ 0.08 1.4

SH 1.75 8

MAXH 29 20

PRI 19 20 18.7 C
JAS 19 20 17.2 C PP 24 12
MHC 19 20 13.4 C
MIN 19 20 13.1 C

MAG 6.0-6 3/4, DIST(DEG) 95

USCGS 19 06 42.2, 3.7S, 143.3E, H= 7 KM, M=5.9
NEAR NORTH COAST OF NEW GUINEA. FELT IN
SEPIK DISTRICT.

BKS SEP 27 23 00 *E 10 44 *E 26 30
PRI 23 00 15.7
JAS 23 00 19.2 C
MHC 23 00 14.1 C

BKS SEP 28 14 04 20.0 C 13 09 SS 17 36 LQ 20 54 LR 26 30

MICRON PERIOD

PZ 0.41 1.0

PH 0.18 1.0

SH 7.7 15

SAD 14 04 12.8 D
PRI 14 04 07.0 D PCP 04 28
JAS 14 04 11.9 D PCP 04 31
MHC 14 04 15.9 C
MIN 14 04 27.2 D *I 04 49 *I 05 24 P P 32 50

MAG 6.4-6.6, DIST(DEG) 67

USCGS 13 53 35.3, 13.2S, 76.4W, H= 70 KM, M=6.0
NEAR COAST OF PERU. SLIGHT DAMAGE AT LIMA.

JAS SEP 28 18 31 39.7 C

BKS SEP 29 03 56 05.0 C

MICRON PERIOD

PZ 0.04 0.8

SAD 03 56 10.9 C
PRI 03 56 14.9 C
JAS 03 56 06.2 C PCP 56 14 *E 56 46 PP 59 12
MHC 03 56 08.2 C

DISTANCE(DEG) 85

USCGS 03 42 57.5, 49.8N, 78.2E, H= 0 KM, M=5.8
EASTERN KAZAKH SSR.

PRI SEP 29 08 03 34.8 04 33
JAS 08 03 48.9 04 56
MAG 4.0, IMPERIAL VALLEY

JAS SEP 29 21 56 00.8 C *E 56 17 *E 56 33
RKS 21 56 LR 27 48

PRI SEP 29 22 26 33.3 D
JAS 22 26 38.4 D
MHC 22 26 40.8 D

PRI SEP 30 10 54 43.7 C
JAS 10 54 50.2 C
MHC 10 54 40.0 C
MIN 10 54 54.0 C *E 55 14

PRI SEP 30 11 33 07.7 C
JAS 11 33 14.0 C PPP 35 36
MHC 11 33 18.7 C
MIN 11 33 31.3 C

PRI SEP 30 11 49 51.2 C
JAS 11 49 53.9 C *E 50 14 *E 50 44
MHC 11 49 52.5 C
MIN 11 49 59.6 C

BRK OCT 01 01 05 LR 01 22
JAS 01 05 05.8 C

BKS OCT 01 01 11 *E 20 30
PRI 01 11 16.1 C
JAS 01 11 20.0 C
MHC 01 11 15.3 C

JAS OCT 02 02 52 44.5 D *E 55 15
MHC 02 52 52.8 C

JAS OCT 02 07 38 11.0 C
USCGS 07 19 12.2, 60.7S, 25.2W, H= 33 KM, M=5.1
SOUTH SANDWICH ISLANDS REGION.

SAD OCT 02 09 21 11.5 D
PRI 09 21 22.2 C
JAS 09 21 18.1 D *E 21 28
MHC 09 21 15.7 D
MIN 09 21 07.6 D

PRI OCT 02 20 02 51.5 C

JAS MHC	20 02 49.0 C	*E 03 07		
	20 02 45.4 C			
	MARIANA ISLANDS REGION			
JAS OCT 03	06 14 29.0 C			
MIN	06 13 49.6			
JAS OCT 03	06 22 19.0 C	*E 22 32		
MIN	06 21 44.6 C			
PRI OCT 03	08 34 24.9			
JAS	08 34 24.5 D	*E 34 37		
MIN	08 34 26.7 D	*E 34 42		
JAS OCT 03	10 22 37.2 D			
MIN	10 22 12.5 D	*I 22 27		
BKS OCT 03	11 15 58.2 C			
	MICRON PERIOD			
	PZ 0.03	0.8		
SAO	11 16 08.1 C			
PRI	11 16 16.1 C			
JAS	11 16 07.9 C	*E 16 20	*E 16 35	
MHC	11 16 04.3 C			
MIN	11 15 49.1 C	*I 16 04		
	MAG 4.0-4.4, DIST(DEG) 36			
	USCGS 11 08 38.9, 51.6N, 174.1W, H= 46 KM, M=5.0			
	ANDREANOF ISLANDS, ALEUTIAN ISLANDS.			
BKS OCT 03	12 30 55.1			
SAO	12 30 54.6 C			
PRI	12 30 55.3 C			
JAS	12 31 00.9 C	*E 31 15	*E 31 32	
MHC	12 30 56.3 C			
MIN	12 31 05.6 D	*E 31 16	*E 31 19	
	USCGS 12 18 05.0, 33.6S, 179.2W, H= 33 KM, M=5.3			
	SOUTH OF KERMADEC ISLANDS.			
PRI OCT 03	14 30 02.1 D	*I 31 01	*I 31 15	
JAS	14 29 58.6 D	*I 30 09	*I 30 55	
MHC	14 30 12.0 D	*I 30 20	*I 31 19	
	MAG 4-4 1/4, UTAH			
PRI OCT 04	00 51 28.5 C			
JAS	00 51 13.2 C	*E 51 23		
MHC	00 51 14.7 C			
MIN	00 50 59.3 C	*I 51 10		
	USCGS 00 40 02.2, 41.7N, 142.8E, H= 54 KM, M=5.0			
	HOKKAIDO, JAPAN, REGION.			
JAS OCT 04	04 35 28.1 C			
MIN	04 35 12.9 D			
BKS OCT 04	06 23 21.4 C	PP 25 28	PKS 26 46	PS 35 30
		SS 41 24	*E 64 18	
	MICRON PERIOD			

		PZ 0.07	0.9	
SAO	06 23 19.5 C			
PRI	06 23 18.2 C			
JAS	06 23 20.0 C	*E 23 28	*E 23 40	*E 23 53
		*E 24 21	*E 26 45	*E 33 18
MHC	06 23 20.8 C			
MIN	06 23 23.7 C	*E 23 25	*I 23 58	*E 26 50
	USCGS 06 04 31.9, 56.2S, 27.0W, H= 63 KM, M=5.9			
	SOUTH SANDWICH ISLANDS REGION.			
SAO OCT 04	07 39 51.9 C			
PRI	07 39 53.2 C			
JAS	07 39 59.7 C	*E 40 08		
MHC	07 39 53.7 C			
MIN	07 40 04.1 C	*E 40 35		
	USCGS 07 28 27.1, 17.4S, 172.7W, H= 33 KM, M=5.0			
	TONGA ISLANDS REGION.			
BKS OCT 04	16 33	*E 41 00		
PRI	16 33 33.3 D			
JAS	16 33 19.5 D	*E 33 32		
MHC	16 33 17.8 D			
MIN	16 32 56.8 C	*I 33 05		
BKS OCT 04	19 23 19.5 C	*E 47 16		
PRI	19 23 29.2 C			
JAS	19 23 26.7 C	*E 23 39		
MHC	19 23 22.8 C			
	USCGS 19 11 18.6, 19.5N, 147.1E, H= 41 KM, M=5.0			
	MARIANA ISLANDS REGION.			
BKS OCT 05	04 21	*E 47 30		
PRI	04 21 02.3 C			
JAS	04 21 10.4 C	*E 21 28		
MIN	04 21 29.4 C			
JAS OCT 05	06 18 37.7 C			
BKS OCT 06	03 02 57.7 D			
	MICRON PERIOD			
	PZ 0.1	1.1		
PRI	03 02 57.6 D			
JAS	03 03 04.4 D	*E 03 20		
MHC	03 02 58.2 D			
MIN	03 03 08.5 C			
	MAGNITUDE 5.3			
	USCGS 02 51 46.1, 15.6S, 173.2W, H=106 KM, M=5.0			
	TONGA ISLANDS.			
BKS OCT 06	05 26 42.9 C	36 11	*E 36 29	L 45 52 *E 48 13
	MICRON PERIOD			
	PZ 0.09	1.5		
SAO	05 26 40.0			
PRI	05 26 37.5 D			
JAS	05 26 43.9 D			
MHC	05 26 37.7 D			

MIN 05 26 48.6 C *E 26 58
MAG 4.9-5.3, DIST(DEG) 73
USCGS 05 15 11.5, 15.0S, 175.5W, H= 33 KM, M=5.3
TONGA ISLANDS.

BKS OCT 06 08 58 27.2 C 67 58 *I 58 47 *I 68 27 LQ 76 30
LR 79 20
MICRON PERIOD
PZ 0.2 1.5
SH 7.4 22.0
MAXH 8.2 20
MAXR(Z) 2.7 20

SAD 08 58 26.2 D
PRI 08 58 27.7 D
JAS 08 58 33.6 D *E 58 48 PP 61 20 *E 76 51
MHC 08 58 27.7
MIN 08 58 36.4 D *I 59 11
MAG 5.8-6.2, DIST(DEG) 72
USCGS 08 47 02.0, 14.7S, 175.6W, H= 35 KM, M=5.4
SAMOA ISLANDS REGION.

PRI OCT 06 09 26 24.8 D
JAS 09 26 31.7 D *E 26 44
MHC 09 26 24.7
MIN 09 26 34.4 D *I 26 59
DISTANCE(DEG) 72
USCGS 09 15 01.1, 14.8S, 175.1W, H= 33 KM, M=5.0
SAMOA ISLANDS REGION.

BKS OCT 06 19 52 06.8 C
PRI 19 52 18.1 C
JAS 19 52 13.5 C *E 52 23
MHC 19 52 10.6 C
MIN 19 52 01.9 C
USCGS 19 40 26.2, 31.7N, 140.2E, H=109 KM, M=5.2
SOUTH OF HONSHU, JAPAN.

JAS OCT 06 23 38 11.1 C
JAS OCT 07 00 10 25.6 C
JAS OCT 07 00 37 44.4 C
BKS 00 37 *E 66 30
USCGS 00 24 13.0, 3.2S, 146.1E, H= 19 KM, M=5.0
BISMARCK SEA.

ARC OCT 07 06 25 10.9 25 32
SAD 06 26 11.2 D
JAS 06 26 10.7 D 27 16
MHC 06 26 04.5
MAGNITUDE 4.1, 200 KM NW OF ARC.

JAS OCT 07 09 11 05.7 C *E 12 54
MIN 09 10 48.4 C *I 12 38

PRI OCT 07 14 16 35.1 *E 17 54

JAS 14 16 48.0 D 18 16
MAG 4.3, NEAR IMPERIAL VALLEY

JAS OCT 07 19 00 58.8 C

BKS OCT 07 19 31 34.9 D 40 56 *PP 33 27 *I 44 00 *E 52 22
MICRON PERIOD
PZ 0.07 0.6
SH 4.2 2.1

SAD 19 31 40.1 D
PRI 19 31 45.3 D
JAS 19 31 41.2 D *PP 33 33 SCS 41 08
MHC 19 31 38.4 D
ARC 19 31 21.9 D
MAG 6.5, DIST(DEG) 78
USCGS 19 20 20.3, 26.3N, 140.6E, H=516 KM, M=6.1
BONIN ISLANDS REGION. FELT STRONGLY IN
BONIN ISLANDS.

PRI OCT 07 19 50 14.4 C
JAS 19 50 12.0 C *E 50 22
MHC 19 50 08.1

JAS OCT 07 19 57 03.6 C

BKS OCT 07 21 00 09.1 D *I 00 24
PRI 21 00 21.0 C
JAS 21 00 14.7 C *E 00 28 *E 00 39
MHC 21 00 14.9 C
USCGS 20 49 01.3, 42.0N, 142.4E, H= 32 KM, M=5.7
HOKKAIDO, JAPAN, REGION.

PRI OCT 08 00 00 13.1 C
JAS 00 00 11.0 C
MHC 00 00 07.5 C
USCGS 23 47 49.6, 15.5N, 146.8E, H= 33 KM, M=5.0
MARIANA ISLANDS.

BKS OCT 08 01 02 14.2 D *I 02 32
PRI 01 02 26.3 D
JAS 01 02 21.2 D *E 02 39
MHC 01 02 18.7 D
USCGS 00 50 41.8, 35.6N, 139.9E, H= 76 KM, M=5.3
NEAR SOUTH COAST OF HONSHU, JAPAN. FELT IN
TOKYO AREA.

BKS OCT 08 08 03 17.6 C *I 03 47 *E 28 08 *E 47 32
*E 56 00
MICRON PERIOD
MAXH 2.6 22
MAXR(Z) 2.3 20

PRI 08 03 19.3 C
JAS 08 03 19.1 C *E 03 52
MHC 08 03 18.2 C *E 03 47
MIN 08 03 17.5 D *E 03 50
USCGS 07 43 23.1, 39.9S, 87.7E, H= 33 KM, M=6.0

SOUTHEAST INDIAN RISE.

BKS OCT 08 15 05 26.6 D
 SAO 15 05 20.5 D
 PRI 15 05 16.4 C *E 06 12
 JAS 15 05 20.8 D *I 06 15 *E 08 23
 MHC 15 05 24.0 C

USCGS 14 53 38.5, 23.3S, 66.5W, H=221 KM, M=5.6
 JUJUY PROVINCE, ARGENTINA.

BKS OCT 09 03 50 13.1 D *E 50 49 *E 51 09 *I 59 40
 LQ 68 20 LR 71 00

MICRON PERIOD

SH 2.4 16
 MAXR(Z) 1.5 20
 MAXH(N) 3.1 20
 MAXH(E) 3.1 20

SAO 03 50 14.0 C
 PRI 03 50 15.7 C
 JAS 03 50 15.0 D *E 50 32 *I 51 16
 MHC 03 50 08.1 C *E 50 16 *E 51 10

MAG 5.4-5.8, DIST(DEG) 78
 USCGS 03 38 39.9, 14.7S, 175.5W, H= 11 KM, M=5.2
 SAMOA ISLANDS REGION.

BKS OCT 09 11 52 *E 64 54 *E 66 52
 PRI 11 52 05.3 C
 JAS 11 52 12.8 D PP 55 09
 MHC 11 52 16.9 D
 MIN 11 52 33.3 C
 USCGS 11 45 51.6, 14.8N, 96.7W, H= 9 KM, M=5.1
 OFF COAST OF OAXACA, MEXICO.

BKS OCT 09 17 22 04.6 D LR 40 17 L 43 26

MICRON PERIOD

PZ 0.03 0.8

PRI 17 22 02.6 D
 JAS 17 22 08.9 D PCP 22 26 PP 24 51
 MHC 17 22 02.6 D

MAG 4.6-4.8, DIST(DEG) 73
 USCGS 17 10 37.2, 15.0S, 175.5W, H= 33 KM, M=5.0
 TONGA ISLANDS.

JAS OCT 10 01 13 42.3 C

BKS OCT 10 01 29 51.1 C
 PRI 01 29 48.1 C
 JAS 01 29 55.5 C *E 30 10
 MHC 01 29 48.5 C

JAS OCT 10 14 14 05.2 C

BKS OCT 10 14 31 26.4
 SAO 14 31 17.2 C *E 32 27
 PRI 14 31 02.4 C *I 31 15
 JAS 14 30 57.6 C *I 31 08 *I 31 56

MHC 14 31 11.4 C 32 17 *E 31 23
 MIN 14 31 27.9
 ARC 14 30 49.3 C

MAGNITUDE 4.0-4.5
 NEVADA TEST SITE

BKS OCT 10 15 19 *E 31 00 LQ 44 00 LR 42 57
 PRI 15 19 04.8 D
 JAS 15 19 05.5 D
 MHC 15 19 01.0 D

USCGS 15 05 37.1, 6.0S, 148.6E, H= 72 KM, M=5.0
 NEW BRITAIN REGION. FELT.

PRI OCT 11 08 02 11.2 C *E 02 25
 JAS 08 02 16.7 C *E 02 31
 MHC 08 02 19.9 C *E 02 34
 MIN 08 02 29.0 D

JAS OCT 11 14 29 58.1 C

BKS OCT 11 15 25 48.5 C *E 28 35 *E 55 03
 PRI 15 25 48.0 C
 JAS 15 25 53.9 C *E 26 06
 MHC 15 25 51.9 C

BKS OCT 11 17 24 13.0 C *I 25 17 *E 25 27 LR 51 20
 PRI 17 24 11.9 C
 JAS 17 24 17.8 C *E 24 32
 MHC 17 24 12.3 C

KERMADEC ISLANDS

JAS OCT 12 06 56 33.8 C

BKS OCT 12 08 04 06.2 C
 JAS 08 03 57.4 C
 MHC 08 04 00.1 C

BKS OCT 12 12 27 11.7 D
 PRI 12 27 22.4 C
 JAS 12 27 17.7 C

USCGS 12 14 34.0, 29.6N, 129.2E, H= 27 KM, M=5.0
 RYUKYU ISLANDS.

BKS OCT 12 19 28 44.0 D PP 37 50 SCS 37 55 SS 41 39
 MICRON PERIOD
 PZ 0.32 0.9
 PH 0.15 0.9
 PPZ 0.68 14

SAO 19 28 42.9 D
 PRI 19 28 44.1 D
 JAS 19 28 49.6 D *E 31 09 *E 32 02
 MHC 19 28 44.4 D
 MIN 19 28 53.4 D *I 29 27 *E 31 15

MAG 5.9, DIST(DEG) 78
 USCGS 19 17 39.9, 20.9S, 178.8W, H=607 KM, M=5.7
 FIJI ISLANDS REGION.

PRI OCT 13 08 17 42.4
 JAS 08 17 48.8 C *E 18 06
 MHC 08 17 43.9 C

PRI OCT 13 12 16 53.2
 JAS 12 16 58.8 D *E 17 29
 MHC 12 17 00.3

BKS OCT 13 20 02 12.9 D
 JAS 20 02 19.2 C
 MHC 20 02 13.8 C

BKS OCT 13 21 45 04.9 D *E 45 17 *E 46 22
 PRI 21 44 51.8 C
 JAS 21 44 56.7 C *E 45 08 *E 46 16
 MHC 21 45 00.1 C

BKS OCT 14 03 18 06.4 C PP 20 36 PKS 21 36 PPP 23 06
 PKKP 27 44 PPS 32 29 SS 37 37
 SSS 42 47 LQ 53 09 LR 59 51

MICRON PERIOD
 PPZ 0.34 2.2
 PPH 2 8
 MAXH 36.5 20
 MAXR(Z) 41.0 20
 MAXH(E) 33.0 20
 MAXH(N) 17.5 20

PRI 03 18 08.1 C PP 20 30 PKS 21 38
 JAS 03 18 01.5 C P* 18 08 PP 20 30 PKS 21 38
 MHC 03 18 06.6 C PP 20 29 PKS 21 36
 MIN 03 18 02.7 *E 18 10 PP 20 24 *E 21 36

MAG 6.7, DIST(DEG) 132
 USCGS 02 58 47.8, 31.5S, 117.0E, H= 0 KM, M=6.0
 WESTERN AUSTRALIA. 28 INJURED AND ALL
 BUILDINGS DAMAGED OR DESTROYED AT
 MECKERING. SLIGHT DAMAGE AT KALGOORLIE,
 PERTH AND YORK. FELT OVER A WIDE AREA OF
 SOUTHWEST AUSTRALIA.

BKS OCT 14 06 04 17.9 C *E 04 29 *E 04 43
 PRI 06 04 19.6 C
 JAS 06 04 22.1 C *E 04 40
 MHC 06 04 17.2 C
 MIN 06 04 22.7 C

USCGS 05 51 42.3, 11.1S, 163.1E, H= 33 KM, M=5.2
 SOLOMON ISLANDS.

BKS OCT 14 07 39 LR 63 30
 JAS 07 39 43.1 C
 MIN 07 39 33.6 C

DISTANCE(DEG) 80

BKS OCT 14 09 22 56.1 D *E 23 10 *E 23 45 *E 46 09
 JAS 09 22 50.6 C *E 23 03
 MIN 09 22 35.6 *E 22 47

DISTANCE(DEG) 77
 USCGS 09 11 27.5, 38.2N, 142.1E, H= 69 KM, M=5.0
 NEAR EAST COAST OF HONSHU, JAPAN.

BKS OCT 14 17 04 22.8 C
 PRI 17 04 39.8 C
 JAS 17 04 32.0 C
 MHC 17 04 28.8 C
 MIN 17 04 12.8 C

DISTANCE(DEG) 40
 ALEUTIAN ISLANDS

BKS OCT 15 02 29 27.5 C LR 50 14
 PRI 02 29 31.0 C
 JAS 02 29 28.3 C *E 29 45
 MIN 02 29 23.6 C
 MHC 02 29 27.9 C
 MIN 02 29 24.5 D

DISTANCE(DEG) 71

BKS OCT 15 20 23 LR 55 17
 JAS 20 23 16.5 D
 USCGS 20 09 08.7, 9.0N, 126.3E, H= 63 KM, M=5.2
 MINDANAO, PHILIPPINE ISLANDS.

BKS OCT 16 02 04 L 21 00 LR 24 20
 PRI 02 04 07.7 D
 JAS 02 04 07.7 C *F 04 25
 MHC 02 04 15.0 C
 MIN 02 04 16.3 C

DISTANCE(DEG) 50
 USCGS 01 55 32.7, 19.2N, 69.8W, H= 36 KM, M=5.2
 DOMINICAN REPUBLIC REGION.

BKS OCT 16 07 58 26.5 C LR 91 00
 PRI 07 58 36.6 D
 JAS 07 58 31.7 D *F 58 56
 MHC 07 58 34.9 D
 MIN 07 58 20.3 D

USCGS 07 45 46.8, 29.3N, 129.4E, H= 13 KM, M=5.6
 RYUKYU ISLANDS.

BKS OCT 16 17 38 52.5 C 38 30
 SMO 17 39 09.1 C 40 03
 PRI 17 39 24.7 C 40 21
 JAS 17 39 08.1 C 40 00
 MIN 17 38 43.6 C 39 21
 MHC 17 39 02.8 C 39 51
 ARC 17 38 17.4 C 38 33

MAG 4.1, MENDOCINO ESCARPMENT

BKS OCT 17 05 25 L 46 02 LR 50 24

MICRON PERIOD
 MAXR(Z) 2.3 20

JAS 05 25 11.0 C
 MAG 5 1/2, DIST(DEG) 83

USCGS 05 09 06.3, 3.8S, 152.2E, H= 22 KM, M=5.3
NEW IRELAND REGION. FELT AT RABAU, NEW
BRITAIN.

BKS OCT 17 07 05 LR 30 00
JAS 07 05 27.1 C
MIN 07 05 18.1 D

BKS OCT 17 11 47 27.2 C *E 48 27
PRI 11 47 04.7 C
JAS 11 47 17.2 C *E 47 29 *E 47 52
MHC 11 47 19.5 C
MIN 11 47 45.4 C

BKS OCT 17 23 25 LR 56 00
JAS 23 25 57.9 D

BKS OCT 18 02 56 26.0 D
PRI 02 56 16.2 C
JAS 02 56 21.8 D *I 56 54
MHC 02 56 23.0 D

USCGS 02 43 49.4, 35.3S, 71.0W, H= 93 KM, M=5.0
CENTRAL CHILE.

JAS OCT 18 10 08 14.3 C
MIN 10 08 00.2 C

JAS OCT 19 11 08 12.9 C *E 08 29 *E 08 48
MIN 11 07 49.6 C

JAS OCT 19 16 36 43.2 C
MIN 16 36 10.5 C

PRI OCT 19 17 40 02.3 C
JAS 17 40 08.3 C *E 40 25
MHC 17 40 03.3 C

USCGS 17 28 43.6, 15.2S, 173.3W, H= 33 KM, M=5.2
TONGA ISLANDS. FELT AT APIA, SAMOA.

JAS OCT 19 21 50 40.4 D *E 50 52
MHC 21 50 41.0 D

PRI OCT 20 07 21 48.4 C
JAS 07 21 36.7 C *E 21 50
MHC 07 21 41.0
MIN 07 21 25.1 D

USCGS 07 08 17.1, 25.0N, 122.5E, H= 15 KM, M=5.4
TAIWAN REGION.

PRI OCT 22 06 51 27.8 D
JAS 06 51 29.6 D *E 51 47

BKS OCT 22 07 54 61 00 LR 65 52
MICRON PERIOD
MAXR(Z) 10.7 20
MAXH(E) 3.2 20

MAXH(N) 9.0 20

PRI 07 53 58.2
JAS 07 54 07.7 C *E 54 19 *PP 55 52
MHC 07 54 07.6
MIN 07 54 29.7 C

MAG 5.4-5.8, DIST(DEG) 45-50
EASTER ISLANDS REGION

BKS OCT 23 21 18 13.0 C 28 48 PP 22 04 *E 29 20 *E 30 54
SS 35 16 L 43 48 LR 48 05

MICRON PERIOD

PZ 0.71 2.2
PPZ 0.06 1.5

SAO 21 18 11.5 C
PRI 21 18 14.8 C
JAS 21 18 15.0 C PP 22 15
MIN 21 18 10.6 C
MHC 21 18 10.8 C

MAG 6.6-6.9, DIST(DEG) 93
USCGS 21 04 41.3, 3.3S, 143.3E, H= 12 KM, M=6.1
NEAR NORTH COAST OF NEW GUINEA. HEAVY
PROPERTY DAMAGE AT DAGUA. FELT EXTENSIVELY
IN SEPIK DISTRICT.

BKS OCT 23 21 25 48.0 C *PP 26 05
MICRON PERIOD

PZ 0.05 1

SAO 21 25 46.2 C
PRI 21 25 47.1 C
JAS 21 25 53.0 C *PP 26 10
MHC 21 25 48.0 C

MAG 4.8-5.2, DIST(DEG) 80
FIJI ISLANDS REGION

BKS OCT 24 01 00 *E 39 00
JAS 01 00 29.0 C

BKS OCT 24 01 41 20.5 D *PP 41 47
MICRON PERIOD

PZ 0.05 0.8

SAO 01 41 13.5 D
PRI 01 41 08.7 D *PP 41 36
JAS 01 41 14.1 D *PP 41 41
MHC 01 41 16.7 D *PP 41 43
MIN 01 41 25.4 D

USCGS 01 29 42.6, 19.6S, 68.9W, H=107 KM, M=5.3
CHILE-BOLIVIA BORDER REGION.

BKS OCT 24 16 05 *E 09 24 *E 19 10 *E 24 28
LR 37 30

MICRON PERIOD

MAXR(Z) 13.2 20
MAXH(E) 8.9 20
MAXH(N) 3.6 20

JAS 16 05 *E 05 27 *E 08 31
USCGS 15 51 18.5, 5.9N, 127.0E, H= 70 KM, M=5.4

PHILIPPINE ISLANDS REGION.

PRI OCT 24 17 46 52.0 C *E 47 06
 JAS 17 46 57.5 C *I 47 11
 MHC 17 46 59.2 C *E 47 12
 USCGS 17 34 31.3, 30.3S, 68.2W, H= 35 KM, M=5.0
 SAN JUAN PROVINCE, ARGENTINA.

BKS OCT 24 22 45 38.5 D
 MICRON PERIOD
 PZ 0.01 1
 PRI 22 45 54.0 C *E 46 08
 JAS 22 45 46.7 C *I 46 01
 MHC 22 45 44.1 C
 MAGNITUDE 4
 USCGS 22 35 50.9, 49.7N, 155.8E, H= 35 KM, M=5.5
 KURILE ISLANDS.

JAS OCT 25 02 41 21.2 C
 MHC 02 41 22.0 C
 PRI OCT 25 10 48 29.3 C
 JAS 10 48 28.5 C *E 50 23
 MHC 10 48 32.0 C
 MIN 10 48 21.2 C

BKS OCT 25 11 46 22.0 D
 MICRON PERIOD
 PZ 0.02 1
 SAO 11 46 39.0 D
 PRI 11 46 37.3 C
 JAS 11 46 30.4 D *I 46 45
 MIN 11 46 15.8 C
 MHC 11 46 27.3 C
 USCGS 11 38 14.7, 50.6N, 177.4E, H= 23 KM, M=5.1
 RAT ISLANDS, ALEUTIAN ISLANDS.

JAS OCT 25 14 04 39.4 C
 BKS OCT 26 14 21 47.9 D
 PRI 14 21 45.0 D
 JAS 14 21 52.7 D
 MHC 14 21 47.9 D
 MIN 14 21 55.7 C

BKS OCT 26 16 07 30.1 C
 MICRON PERIOD
 PZ 0.04 1.0
 PRI 16 07 36.8
 JAS 16 07 25.1 C *E 07 37
 MHC 16 07 26.7 C
 MIN 16 07 11.4
 USCGS 15 56 27.1, 42.9N, 145.2E, H= 41 KM, M=5.1
 HOKKAIDO, JAPAN, REGION.

BKS OCT 27 11 29 37.6 D

PRI 11 29 55.4 C
 JAS 11 29 46.4 C
 MHC 11 29 43.0 C
 MIN 11 29 36.8 C

JAS OCT 28 02 30 11.7 C
 MIN 02 30 56.0 C

BKS OCT 28 03 05 24.2 D
 MICRON PERIOD
 PZ 0.04 1.0

SAO 03 05 17.8 D
 PRI 03 05 13.6 D
 JAS 03 05 18.6 D
 MHC 03 05 20.9 D
 MIN 03 05 29.0 D

DISTANCE(DEG) 81
 USCGS 02 53 26.8, 24.4S, 66.9W, H=163 KM, M=5.1
 SALTA PROVINCE, ARGENTINA.

JAS OCT 28 11 17 58.8 D
 MIN 11 17 38.3 D

BKS OCT 28 14 52 19.8 C
 PRI 14 52 31.7 C
 JAS 14 52 26.5 C *E 52 43
 MHC 14 52 23.9 C
 MIN 14 52 14.5 C
 USCGS 14 40 41.4, 33.4N, 140.8E, H= 61 KM, M=5.5
 SOUTH OF HONSHU, JAPAN.

BKS OCT 28 23 44 50.5 C 55 10 *PP 45 18 PP 48 02 SS 60 30
 L 66 40 LR 70 10
 MICRON PERIOD
 PZ 0.14 1.0
 SH 25.4 30
 MAXH 39.3 20

SAO 23 44 51.6 C
 PRI 23 44 54.2 C
 JAS 23 44 57.2 C *E 45 20 PP 48 24
 MIN 23 44 59.2
 MHC 23 44 52.2 C

MAG 6.4-6.6, DIST(DEG) 85
 USCGS 23 32 28.7, 12.5S, 166.5E, H= 60 KM, M=5.9
 SANTA CRUZ ISLANDS.

PRI OCT 29 03 14 21.1 C
 JAS 03 14 26.9 C
 MHC 03 14 21.3 C

BKS OCT 29 04 17 51.5 D
 SAO 04 17 58.0 D
 PRI 04 18 03.6 D
 JAS 04 17 59.0 D PP 20 52
 MHC 04 17 56.0 D
 MIN 04 17 47.1 D

USCGS 04 06 04.1, 31.2N, 141.6E, H= 17 KM, M=5.7
SOUTH OF HONSHU, JAPAN.

JAS OCT 29 06 38 44.1 C
MHC 06 38 41.1 C

USCGS 06 26 52.2, 31.2N, 141.7E, H= 40 KM, M=5.1
SOUTH OF HONSHU, JAPAN.

PRI OCT 29 06 57 12.4 C
JAS 06 57 07.9 C
MHC 06 57 04.9 C

USCGS 06 45 15.4, 31.2N, 141.7E, H= 33 KM, M=5.1
SOUTH OF HONSHU, JAPAN.

BKS OCT 29 07 32 11.5 C
SAO 07 32 10.9 C
PRI 07 32 12.3 C
JAS 07 32 17.8 C
MHC 07 32 12.3 C
MIN 07 32 20.7 C

*E 32 36 *PP 34 18

USCGS 07 21 16.7, 17.8S, 178.8W, H=567 KM, M=5.5
FIJI ISLANDS REGION.

BKS OCT 29 11 38 48.7 C
PRI 11 38 48.3 C
JAS 11 38 53.8 C
MHC 11 38 49.2 C

USCGS 11 26 51.8, 22.5S, 175.2W, H= 33 KM, M=5.1
TONGA ISLANDS REGION.

PRI OCT 29 11 51 16.0 C
JAS 11 51 21.0 C
MHC 11 51 16.9 C

USCGS 11 39 20.2, 22.6S, 174.9W, H= 33 KM, M=5.2
TONGA ISLANDS REGION.

SAO OCT 29 16 37
PRI 16 37 02.4 C
JAS 16 36 57.8 D
MHC 16 36

*E 37 17

*I 37 22

*I 37 06 *I 37 54 *I 37 57

*E 37 21

MAGNITUDE 4.0, UTAH

BKS OCT 29 22 22 46.1 D 28 00 *PP 22 59 *E 23 38 L 30 15
LR 32 04

MICRON PERIOD

PZ 0.94 1.5

SH 42.8 32

SAO 22 22 57.3 C
PRI 22 23 05.4 C
JAS 22 22 49.0 D
MHC 22 22 51.4 C
MIN 22 22 27.3 D

*I 23 10

MAG 6.3-6.5, DIST(DEG) 34

USCGS 22 16 15.6, 65.4N, 150.1W, H= 7 KM, M=6.0
ALASKA. FELT STRONGLY IN CENTRAL ALASKA.

JAS OCT 30 05 45 06.6 C
MHC 05 45 08.3 C

PRI OCT 30 06 22 21.0 D
JAS 06 22 06.4 D
MIN 06 21 43.7 D

BKS OCT 30 09 54 22.4 C
SAO 09 54 21.0 C
PRI 09 54 21.5 D
JAS 09 54 26.9 D
MHC 09 54 21.9 C
MIN 09 54 31.0 C

BKS OCT 31 00 32 16.4 C
PRI 00 32 31.6
JAS 00 32 17.9 C
MHC 00 32 19.8 C

*E 32 36

PRI OCT 31 09 15 44.6 C
JAS 09 15 41.3 C
MHC 09 15 56.5 D

BKS OCT 31 09 20 47.6 C
PRI 09 20 56.1 C
JAS 09 20 53.7 C
MHC 09 20 50.7 C
MIN 09 20 44.9 C

PP 25 13

*E 24 08 PP 25 10

PP 25 04

PP 25 06

BKS OCT 31 09 27 00.0 C
SAO 09 26 59.3 C
PRI 09 26 46.2 C
JAS 09 26 52.3 C
MHC 09 26 54.9 C
MIN 09 27 06.3 C

*E 34 38 *E 45 05 *E 50 45

*E 27 56 SS 36 18

USCGS 09 15 46.9, 16.3S, 73.3W, H= 67 KM, M=5.7
NEAR COAST OF PERU. FELT AT AREQUIPA.

BKS OCT 31 14 39 54.7 D
JAS 14 39 51.9 D
MHC 14 39 59.1 D

*E 41 11

BKS OCT 31 18 31 29.6
SAO 18 31 08.8 C
PRI 18 31 02.4 D
JAS 18 30 58.4 D 31 47
MHC 18 31 14.4 D

*I 32 06 *I 31 07

*E 31 09 *I 31 57

*E 32 26

MAGNITUDE 4.1
NEVADA TEST SITE

PRI OCT 31 23 30 02.8 C
JAS 23 30 05.8 C

BKS NOV 01 04 01 07 D 05 38
MICRON PERIOD
PZ 1.95 8

PP 01 49 LQ 06 20 LR 07 54

			PPZ	2.6	8		
			SH	1.5	8		
			MAXH	10.7	20		
PRI	04 00	46.7	C				
JAS	04 00	58.2	C				
MHC	04 00	59.8					
MIN	04 01	21.5	C				
		MAG 4.9-5.1, DIST(DEG) 27					
		OFF W COAST OF MEXICO					
BKS NOV 01	10 28	07.4	C		*I 28 13		
SAO	10 28	22.4	C				
PRI	10 28	32.4	C				
JAS	10 28	18.9	C				
MIN	10 27	34.0			*I 27 42		
ARC	10 27	24.5	C				
BKS NOV 02	03 30				LR 55 00		
PRI	03 30	53.6	C				
JAS	03 30	58.5	C				
MHC	03 30	52.7	C				
PRI NOV 02	08 40	37.2	C				
JAS	08 40	28.5	C				
MHC	08 40	37.2	C				
BKS NOV 03	05 02				LQ 35 00 LR 41 00		
PRI	05 02	58					
JAS	05 02	49	D				
MIN	05 02	40.0	D		*E 03 25		
		USCGS 04 49 31.8, 42.1N, 19.4E, H= 17 KM, M=5.0					
		YUGOSLAVIA. 1 KILLED, SEVERAL INJURED AND					
		CONSIDERABLE DAMAGE IN SOUTHERN MONTENEGRO.					
BKS NOV 04	09 18 52	D	28 10	PP	22 00 *I 31 58 SS 32 38		
				L	37 14 LR 40 28 *E 42 54		
		MICRON PERIOD					
		PZ	1.74	1			
		PPZ	2.4	16			
		SH	7.35	20			
SAO	09 18	52.3	D				
PRI	09 18	54.5	D				
JAS	09 18	58.4	D	28 22	*PP 19 22 PKKP 37 25 P P 45 30		
MIN	09 18	59.2					
ARC	09 18	52.9	D				
		MAG 6 1/4, DIST(DEG) 75					
		USCGS 09 07 38.5, 14.2S, 172.0E, H=585 KM, M=5.8					
		NEW HEBRIDES REGION.					
BKS NOV 04	09 48				*E 48 08		
PRI	09 48	03.7	C				
JAS	09 47	59.4	D				
MHC	09 48	03.4	D				
BKS NOV 04	10 47	33.8	D				
SAO	10 47	34.0	D				

PRI	10 47	36.1	D	58 25			
JAS	10 47	40.0	D	58 29			
MHC	10 47	34.8	D	58 24			
MIN	10 47	40.8	D				
BKS NOV 04	15 16	16			*E 16 33 *E 16 58		
SAO	15 16	07.5	D	16 56			
PRI	15 16	00.6	C	16 44			
JAS	15 15	56.8	C	16 37			
MHC	15 16	09.7	C	16 55			
MIN	15 16	23.1	D	17 25			
		MAGNITUDE 4.5-4.7					
		NEVADA TEST SITE					
PRI NOV 05	05 54	51.0	C				
JAS	05 54	42.5	C				
BRK	05 54	32.5	C				
MIN	05 54	24.1	C				
MHC	05 54	40.2	C				
		RAT ISLANDS, ALEUTIAN ISLANDS					
PRI NOV 05	07 24	00.2	C				
JAS	07 24	05.3	C				
MHC	07 24	04.2	C				
PRI NOV 05	18 42	04.1	D				
JAS	18 42	53.7	D				
JAS NOV 05	22 05	15.6	D				
JAS NOV 06	10 41	48.6					
BKS NOV 06	20 24				*E 31 16 *E 35 00 *E 37 00		
PRI	20 24	12.2					
JAS	20 24	25.0					
MHC	20 24	23.3					
BKS NOV 07	00 55	07	D		LQ 62 40 LR 63 40		
PRI	00 55	26.9	D				
JAS	00 55	16.9	D		*E 55 54		
MIN	00 54	56.9	D				
MHC	00 55	14.1	D				
		USCGS 00 48 33.6, 54.3N, 164.6W, H= 37 KM, M=5.1					
		UNIMAK ISLAND REGION. FELT AT CAPE					
		SARICHEF.					
BKS NOV 07	03 44	13.5	D	53 42	*E 62 28 *E 65 32 LR 67 44		
		MICRON PERIOD					
		PZ	0.04	1.0			
		MAXH	4	20			
SAO	03 44	13.2					
PRI	03 44	13.5	D				
JAS	03 44	19.9	D		*E 44 51		
MIN	03 44	24.1					
MHC	03 44	14.1	D				
		MAG 5, DIST(DEG) 75					

USCGS 03 32 50.8, 16.6S, 172.7W, H= 33 KM, M=5.1
SAMOA ISLANDS REGION.

BKS NOV 07 06 24 36.5
SAD 06 24 35.7 C
PRI 06 24 36.9 C
JAS 06 24 42.8 C
MIN 06 24 45.6 C
MHC 06 24 36.9 C

BKS NOV 07 09 30 30
PRI 09 30 37.5 C
JAS 09 30 22.6 C

BKS NOV 07 10 13 14.3 C
MICRON PERIOD
PZ 0.08 0.8
SAD 10 13 21.1 C
PRI 10 13 25.6 C
JAS 10 13 13.5 C
MIN 10 12 58.3 C
MHC 10 13 17.7 C
ARC 10 13 56.0 C

USCGS 10 02 05.3, 73.4N, 54.9E, H= 0 KM, M=6.0
NOVAYA ZEMLYA.

BKS NOV 07 10 24 54
PRI 10 24 41.6 C
JAS 10 24 47.5 C
MHC 10 24 50.2 C

USCGS 10 13 39.8, 16.4S, 73.5W, H= 50 KM, M=5.0
NEAR COAST OF PERU.

JAS NOV 07 14 47 08.4 D
USCGS 14 36 38.8, 45.0N, 150.0E, H= 59 KM, M=5.0
KURILE ISLANDS.

JAS NOV 07 17 08 17.0 D
BKS NOV 08 07 55 05.2 D
JAS 07 55 11.3 C
PRI 07 55
MHC 07 55
*E 56 00
*E 56 57
*E 55 55

USCGS 07 42 57.3, 13.3S, 167.2E, H=192 KM, M=5.1
NEW HEBRIDES.

BKS NOV 08 12 08 12.7 C
SAD 12 08 12.1 C
PRI 12 08 13.2 C
JAS 12 08 18.7 C
MIN 12 08 24.4 C
MHC 12 08 13.4 C

BKS NOV 08 18 38 21.8 D
MICRON PERIOD
PZ 0.2 1.1

SAD 18 38 21.3 C
PRI 18 38 22.6 C
JAS 18 38 27.9 D
MHC 18 38 22.6 C
*E 38 39 *E 39 07

USCGS 18 27 26.7, 19.5S, 179.2W, H=670 KM, M=5.2
FIJI ISLANDS REGION.

BKS NOV 09 13 24 31.6 D
MICRON PERIOD
PZ 0.04 1.0
PRI 13 24 31.7
JAS 13 24 37.2 D
MHC 13 24 31.7

BKS NOV 09 17 07 19.2 D
MICRON PERIOD
PZ 0.04 1
SAD 17 07 14.0
PRI 17 07 09.0 C
JAS 17 07 04.2 C
MHC 17 07 14.7 C
MIN 17 07 07.8
*E 07 12 *E 17 07

USCGS 17 01 41.1, 38.0N, 88.5W, H= 19 KM, M=5.3
SOUTHERN ILLINOIS. SEVERAL INJURED AND
MINOR DAMAGE IN WIDELY SCATTERED AREAS.
FELT IN 23 STATES AND ONTARIO, CANADA.
MAXIMUM INTENSITY VII.

BKS NOV 09 21 00 LR 18 00
JAS 21 00 25.1 C
PRI NOV 09 23 32 44.9
JAS 23 32 50.9
MHC 23 32 54.1

JAS NOV 10 08 40 40
BKS NOV 11 02 08 41.7 C
MICRON PERIOD
PZ 0.02 0.6
SAD 02 08 51.7
PRI 02 08 59.7
JAS 02 08 50.8 C
MIN 02 08 32.3
MHC 02 08 47.8

SOUTHWEST ALASKA REGION

BKS NOV 11 03 17 LR 28 00
PRI 03 17 32.8 D
JAS 03 17 39.9 D
MIN 03 17 58.6
MHC 03 17 44.5 D
*E 17 57

USCGS 03 11 06.8, 15.0N, 92.8W, H= 80 KM, M=5.1
MEXICO-GUATEMALA BORDER REGION.

BKS NOV 11 07 01 18.1

			MICRON	PERIOD	
		PZ	0.04	1.0	
PRI	07 01	28.4	D		
JAS	07 01	24.8	D		
MIN	07 01	14.9			
MHC	07 01	21.6	D		
		USCGS	06 49 13.9, 24.6N, 142.7E, H= 22 KM, M=5.2 VOLCANO ISLANDS REGION.		
BKS NOV 11	08 59	49		LR 67 30	
PRI	09 00	16			
JAS	08 59	56.8	D	*E 60 14	
MIN	08 59	42.8	D	*E 59 52	
		USCGS	08 53 52.0, 57.3N, 155.3W, H= 59 KM, M=5.3 ALASKA PENINSULA.		
BKS NOV 11	14 52	26.5	C	61 35 LR 73 00	
PRI	14 52	38.0			
JAS	14 52	31.3	C	*E 53 29	
MIN	14 52	14.5	C		
MHC	14 52	28.8			
		USCGS	14 41 15.9, 40.1N, 143.0E, H= 35 KM, M=5.5 OFF EAST COAST OF HONSHU, JAPAN.		
BKS NOV 11	17 16	28.6	C		
		MICRON	0.07	PERIOD 0.9	
PRI	17 16	39.1	C		
JAS	17 16	35.3	C	*F 16 44 *E 17 15	
MHC	17 16	32.3	C		
MIN	17 16	25.8	C		
		USCGS	17 04 35.8, 25.3N, 140.9E, H=159 KM, M=5.2 VOLCANO ISLANDS REGION.		
BKS NOV 12	00 56	56.4	C	*E 57 10 *E 67 38 *E 68 30	
				LQ 80 29 LR 84 00	
		MICRON	0.12	PERIOD 0.9	
PRI	00 57	06.7	C		
JAS	00 57	02.0	C	*E 57 16 *E 57 26 *E 60 30	
MHC	00 56	59.9	C		
MIN	00 56	51.5	C		
		USCGS	00 44 12.8, 27.5N, 128.4E, H= 48 KM, M=5.8 RYUKYU ISLANDS.		
RKS NOV 12	09 08	44.8	C		
PRI	09 08	45.0	C		
JAS	09 08	38.8	D		
MHC	09 08	36.1			
MIN	09 08	33.5			
		USCGS	08 57 27.1, 41.2N, 143.9E, H= 17 KM, M=5.3 HOKKAIDO, JAPAN, REGION.		
PRI NOV 12	10 06	30.8	C		
JAS	10 06	25.6	C		
MHC	10 06	23.6	D		

		USCGS	09 53 42.2, 29.2N, 129.4E, H= 22 KM, M=5.4 RYUKYU ISLANDS.		
PRI NOV 12	14 15	39.7	C		
JAS	14 15	52.0	C		
		USCGS	14 04 34.7, 40.0N, 142.6E, H= 53 KM, M=5.0 NEAR EAST COAST OF HONSHU, JAPAN.		
JAS NOV 12	19 08	04.4	D		
RKS NOV 12	22 11	56.0	C	LR 24 36	
SAD	22 11	56.2	C		
PRI	22 11	57.6	C		
JAS	22 12	04.1	C		
MHC	22 11	56.4	C		
		USCGS	22 00 39.1, 15.6S, 172.8W, H= 47 KM, M=5.2 SAMOA ISLANDS REGION.		
RKS NOV 12	23 21	45.7			
PRI	23 21	30.4	C		
JAS	23 21	43.2	C		
MHC	23 21	41.4	C		
		USCGS	23 13 04.8, 9.2S, 110.1W, H= 33 KM, M=5.0 NORTHERN EASTER ISLAND CORDILLERA.		
JAS NOV 13	02 08	19.2	D		
		USCGS	01 56 45.1, 15.7S, 172.8W, H= 35 KM, M=5.0 SAMOA ISLANDS REGION.		
RKS NOV 13	12 13	04.9	C		
JAS	12 13	07.7	C		
RKS NOV 13	16 00	32.4	C		
		MICRON	0.4	PERIOD 1.2	
SAD	16 00	31.1	D		
PRI	16 00	32.5	D		
JAS	16 00	37.9	D	*E 00 49	
MIN	16 00	41.2	D		
MHC	16 00	32.7	D		
		USCGS	15 49 26.4, 20.8S, 178.8W, H=590 KM, M=5.2 FIJI ISLANDS REGION.		
RKS NOV 13	18 53			62 08 LR 73 42	
PRI	18 53	11.2	C		
JAS	18 53	04.8	C		
MHC	18 53	12.4	C		
		USCGS	18 41 19.2, 40.2N, 142.5E, H= 49 KM, M=5.5 EAST COAST OF HONSHU.		
BKS NOV 14	11 46	40.5	D		
		MICRON	0.04	PERIOD 1	
SAD	11 46	39.3	C		
PRI	11 46	40.1	C		
JAS	11 46	46.3	C		

MIN 11 46 51.3 C
MHC 11 46 40.7 C
USCGS 11 35 12.0, 20.0S, 176.0W, H=220 KM, M=5.1
FIJI ISLANDS REGION.

PRI NOV 14 12 24 21.4 D
JAS 12 24 21.5 D
USCGS 12 11 50.1, 31.6N, 131.5E, H= 6 KM, M=5.0
KYUSHU, JAPAN. FELT IN SOUTHERN AREA.

BKS NOV 14 23 21 LR 48 00
PRI 23 21 31.9 D
JAS 23 21 34.7 C
MHC 23 21 38.4 C
USCGS 23 08 54.4, 21.5S, 170.1E, H=103 KM, M=5.4
LOYALTY ISLANDS REGION.

BKS NOV 15 00 13 LR 20 00
PRI 00 13 15.8 C
JAS 00 13 02.1 D
MIN 00 12 39.5 D
MHC 00 13 03.5 D
USCGS 00 07 09.7, 58.3N, 150.4W, H= 26 KM, M=5.1
GULF OF ALASKA.

JAS NOV 15 01 58 28.2 C

JAS NOV 15 05 35 01.0 C

JAS NOV 15 13 51 35.5 C

BKS NOV 15 15 31 32.0
PRI 15 31 02.4 D 32 08
JAS 15 30 58.3 D 31 57 *E 31 08
MHC 15 31 12.9 D 32 20 *E 31 20
MAGNITUDE 4.1-4.3
NEVADA TEST SITE

PRI NOV 15 15 46 01.9 47 07
JAS 15 45 58.0 46 57
MHC 15 46 12.8 47 19
MAGNITUDE 4.2-4.4
NEVADA TEST SITE

BKS NOV 16 00 36 01.5 C
MICRON PERIOD
PZ 0.23 1.4
SAO 00 36 01.9 C
PRI 00 36 03.3 C
JAS 00 36 06.3 C *E 36 45
MIN 00 36 07.8 C
MHC 00 36 02.3 C
USCGS 00 23 40.7, 18.0S, 168.5E, H=173 KM, M=5.3
NEW HEBRIDES.

BKS NOV 16 03 39 24.5

PRI 03 39 12.5
JAS 03 39 21.7
MHC 03 39 20.6 C

BKS NOV 16 07 57 53.0 C 68 00 *E 58 04 *E 68 46 SS 72 32
*E 80 18 LR 81 28

MICRON PERIOD
PZ 0.29 2
MAXR(Z) 22.8 20
MAXH(N) 13.2 20
MAXH(E) 16.8 20

PRI 07 57 54.5 C
JAS 07 57 59.3 C
MIN 07 58 01.5 C
MHC 07 57 53.7 C
MAG 6.3-6.5, DIST(DEG) 78
USCGS 07 45 51.7, 16.6S, 175.9E, H= 66 KM, M=5.6
FIJI ISLANDS REGION.

BKS NOV 16 10 39 48.0
PRI 10 39 50.5 D
JAS 10 39 54.7 D
MHC 10 39 49.9 D
NEW HEBRIDES

JAS NOV 16 14 08 16.8 C

BKS NOV 17 00 25 07.2 C 32 24 *E 25 21 *E 25 43 *E 26 58
*E 27 08 SCP 29 56 SSS 38 34

MICRON PERIOD
PZ 1.28 1.2

SAO 00 24 59.3 C
PRI 00 24 52.9 C *E 29 48
JAS 00 24 56.1 C PCP 26 10 *E 26 53 SCP 29 51
MIN 00 25 08.9 C
MHC 00 25 02.3 C *PP 25 41 SCP 29 55
MAG 6 1/2, DIST(DEG) 52
USCGS 00 16 08.6, 9.6N, 72.6W, H=172 KM, M=5.7
VENEZUELA. SLIGHT DAMAGE AT MARACAIBO.
FELT AT CARACAS AND SAN CRISTOBAL.

BKS NOV 17 07 59 PP 59 46 SKS 66 14 PS 69 00
PPS 70 06 PKKP 71 42 SS 74 48
*E 82 08 L 84 00 LR 90 24

MICRON PERIOD
PPZ 6.2 2

MHC 07 59 *E 59 41
JAS 07 59 *E 59 14

DISTANCE(DEG) 104
USCGS 07 41 16.1, 1.3S, 13.6W, H= 33 KM, M=5.3
NORTH OF ASCENSION ISLAND.

PRI NOV 17 10 45 37.9 C
JAS 10 45 28.5 C

BKS NOV 17 13 10 12.4 *E 10 30

PRI		13 10 33.5			
JAS		13 10 27.1	C	*E 10 37	
MIN		13 10 24.0			
MHC		13 10 24.5			
PRI NOV	17	14 35 43.6			
JAS		14 35 31.3			
MHC		14 35 48.7	C		
BKS NOV	17	21 14 29.2			
PRI		21 14 57.1	D		
JAS		21 14 37.5	D	*E 15 11	
MIN		21 14 02.1	D		
MHC		21 14 37.3	D		
JAS NOV	18	04 31 12.1	D		
RKS NOV	19	00 19 13.5	D		
JAS		00 19 08.0	D		
PRI NOV	19	04 01 59.1	D		
JAS		04 01 58.3	D		
MHC		04 01 55.1	D		
JAS NOV	19	09 55 14.3	C		
MHC		09 55 10.8	C		
JAS NOV	19	13 50 31.4	C		
MHC		13 50 29.6	C		
JAS NOV	20	04 28 26.2	C		
JAS NOV	20	07 17 07.2	C		
PRI NOV	20	08 28 34.2	D		
JAS		08 28 15.9	D		
RKS NOV	20	18 01 24.9		02 40	
SAO		18 01 07.0			
PRI		18 00 59.1	C	02 05	*E 01 08
JAS		18 00 56.0	C		*E 01 04
MIN		18 01 24.4	C		
MHC		18 01 08.3	C	02 23	
				MAGNITUDE 4.5-5.0	
				NEVADA TEST SITE	
PRI NOV	21	02 48 07.8	C		
JAS		02 48 12.6	C		
MHC		02 48 07.2	C		
				USCGS 02 36 21.8, 20.9S, 174.1W, H= 33 KM, M=5.0	
				TONGA ISLANDS.	
BKS NOV	21	14 43 55.5	D		
				MICRON PERIOD	
				PZ 0.07	0.8
PRI NOV	14	14 44 05.0	D		

JAS		14 44 02.2	D		*E 44 12
MTN		14 43 53.7	D		
MHC		14 43 58.7	D		
				USCGS 14 32 13.0, 18.8N, 145.0E, H=299 KM, M=5.2	
				MARIANA ISLANDS.	
JAS NOV	22	01 12 03.2	C		
MIN		01 12 00.2	D		
JAS NOV	22	09 13 14.3	D		
				USCGS 08 59 23.1, 16.3N, 122.3E, H= 26 KM, M=5.3	
				LUZON, PHILIPPINE ISLANDS. FELT THROUGHOUT LUZON.	
JAS NOV	22	10 50 17.4	C		
MHC		10 50 24.2	C		
JAS NOV	22	11 01 30.3	C		*E 01 43U *E 02 08
MHC		11 01 13.2	D		
PRI NOV	22	12 02 46.0	C		
JAS		12 02 28.1	C		
MIN		12 01 51.5	C		
MHC		12 01 30.5	C		
BKS NOV	22	15 55 31.2	C		*PP 55 34
				MICRON PERIOD	
				PZ 0.28	0.9
SAO NOV		15 55 30	C		
PRI		15 55 31.2	C		
JAS NOV		15 55 36.7	C		*E 55 46 *E 56 28 *E 59 00
MIN		15 55 40.8	D		
MHC		15 55 31.6	C		
				USCGS 15 44 05.0, 23.6S, 180.0, H=516 KM, M=5.3	
				SOUTH OF FIJI ISLANDS.	
BKS NOV	22	16 20 28.8	C	21 40	
SAO		16 20 08.2	C	20 22	*E 20 17
PRI		16 20 01.5	C	21 07	*E 20 13
JAS		16 19 57.1	C		*E 20 08
MHC		16 19 11.2	C	21 26	*E 20 23
				MAGNITUDE 4.3-4.5	
				NEVADA TEST SITE	
PRI NOV	22	17 56 07.9	C		
JAS		17 56 06.5	C		*E 56 16U *E 57 00 *E 57 25
MHC		17 56 24.2	C		
JAS NOV	23	00 22 46.5	C		
BKS NOV	24	21 21			LUYR 39 50
PRI		21 21 18.9	C		
JAS		21 21 25.0	C		*E 21 36 *E 21 44 *E 22 14
MHC		21 21 18.2	C		
				USCGS 21 09 47.9, 15.6S, 176.0W, H= 33 KM, M=5.3	
				FIJI ISLANDS REGION.	

PRI NOV 24 21 32 23.2 C *PP 32 37 PCP 33 04
 JAS 21 32 17.0 C *PP 32 31 PCP 32 57
 MHC 21 32 14.6 C *PP 32 29 PCP 32 54
 USCGS 21 20 59.9, 40.3N, 142.3E, H= 51 KM, M=5.9
 NEAR EAST COAST OF HONSHU, JAPAN.

RKS NOV 25 00 57 43.0 D 61 43
 MICRON PERIOD
 PZ 0.34 1.4
 SH 7.6 15
 SAO 00 57 28.3 D
 PRI 00 57 20.0 D
 JAS 00 57 34.1 D *E 57 43 *E 57 54
 MIN 00 58 02.0 D
 MHC 00 57 34.9 D
 MAGNITUDE 4.8-5.0
 USCGS 00 53 01.3, 20.3N, 109.3W, H= 33 KM, M=5.0
 REVILLA GIGEDO ISLANDS REGION.

PRI NOV 26 00 22 12.6 D
 JAS 00 22 28.2 D
 MHC 00 22 28.9 D

RKS NOV 26 01 23 14.3 LR 51 13
 MICRON PERIOD
 MAXR(Z) 2.2 20
 MAXH(F) 2.5 20
 PRI 01 23 12.6 C PP 23 26
 JAS 01 23 13.6 C PP 23 27 *E 27 03
 MHC 01 23 12.6 C PP 23 23
 USCGS 01 10 12.9, 5.3S, 152.0E, H= 68 KM, M=5.5
 NEW BRITAIN REGION. FELT IN RABAUL.

PRI NOV 26 02 00 58.4 C
 JAS 02 01 03.9 C *E 01 16
 BRK 02 00 57.9 C
 MIN 02 01 07.6 C
 MHC 02 00 58.4 C
 USCGS 01 49 56.3, 21.3S, 179.5W, H=672 KM, M=5.0
 FIJI ISLANDS REGION.

PRI NOV 26 18 43 55.0 D *I 43 54 *I 44 26 *E 45 37
 JAS 18 43 46.5 D
 MIN 18 43 31.1 D
 USCGS 18 31 51.8, 55.9N, 111.4E, H= 4 KM, M=5.1
 LAKE BAIKAL REGION.

JAS NOV 27 01 18 37.1 C
 USCGS 01 05 55.2, 28.9N, 129.9E, H= 33 KM, M=5.0
 RYUKYU ISLANDS.

JAS NOV 27 05 57 30.5 C

JAS NOV 27 12 28 05.4 D

JAS NOV 27 13 02 08.7 D *I 02 59
 MIN 13 01 46.8 D
 USCGS 12 55 56.1, 56.6N, 157.6W, H= 61 KM, M=5.3
 ALASKA PENINSULA.

PRI NOV 27 22 11 12.4 C
 JAS 22 11 21.0 C

JAS NOV 28 02 33 01.0 C

JAS NOV 28 07 11 26.0 C
 MIN 07 11 23.3 D

RKS NOV 28 10 42 42.5 C 48 09 *I 43 12 *I 43 32 L 50 29
 *E 50 32 LR 54 13
 MICRON PERIOD
 PZ 1.92 4.2
 PH 7 16
 SH 30 18
 MAXR(Z) 30 20

PRI 10 42 25.6
 JAS 10 42 33.5 C *E 43 12 *E 45 23
 MHC 10 42 37.6
 MIN 10 42 52.1 C
 MAG 6 1/4, DIST(DEG) 35
 USCGS 10 36 07.7, 15.4N, 94.6W, H= 33 KM, M=5.2
 NEAR COAST OF OAXACA, MEXICO.

JAS NOV 28 13 54 06.6 C

RKS NOV 28 16 43 04.0 C *E 43 46 PP 46 29
 MICRON PERIOD
 PZ 0.5 1.8
 PRI 16 43 08.5 D
 JAS 16 43 09.7 D PCP 43 20 *PP 43 53 PP 46 07
 MIN 16 43 07.0
 MHC 16 43 05.3 D
 MAG 5.7, DIST(DEG) 86
 USCGS 16 30 32.1, 6.8S, 156.2E, H=169 KM, M=5.7
 SOLOMON ISLANDS. FELT AT MOLI.

JAS NOV 28 22 12 43.5 C

JAS NOV 29 12 56 08.3 C
 MIN 12 55 46.4 C

RKS NOV 30 01 10 34.5 D
 PRI 01 10 34.1 C
 JAS 01 10 39.6 C
 MHC 01 10 34.4 C

RKS NOV 30 04 35 47.5 C LR 67 00
 PRI 04 35 47.3 C
 JAS 04 35 52.5 C
 MHC 04 35 47.5 C
 MIN 04 35 57.2 C

USCGS 04 13 32.9, 61.6S, 160.8E, H= 33 KM, M=5.1
BALLIENY ISLANDS REGION.

JAS NOV 30 09 57 35.8 C *E 58 07
 JAS NOV 30 12 12 11.3 C
 JAS NOV 30 14 42 24.0
 MIN 14 41 49.8
 BKS DEC 01 13 25 37.0 *E 42 00 L 44 28 LR 48 30
 MICRON PERIOD
 PZ 3.8 22
 PRI 13 25 22.9 D
 JAS 13 25 29.3 D *E 25 45 *E 27 45 *E 29 50
 MIN 13 26 05.6 D
 MHC 13 25 33.6 D

USCGS 13 14 50.6, 10.6S, 74.9W, H= 5 KM, M=5.4
PERU.

BKS DEC 01 15 25 49.8 D
 PRI 15 25 30.6 C
 JAS 15 25 39.4 C
 MIN 15 25 52.6 C
 MHC 15 25 45.1 C

BKS DEC 01 19 21 *E 22 20
 JAS 19 21 06.4 C

BKS DEC 01 20 46 44.0
 MICRON PERIOD
 PZ 0.08 1.2
 SACI 20 46 42.8 C
 PRI 20 46 44.2
 JAS 20 46 49.8
 MIN 20 46 42.5 C
 MHC 20 46 44.1 C

TONGA ISLANDS

BKS DEC 01 23 07 19.5 D *E 08 14
 PRI 23 07 18.7 C
 JAS 23 07 24.5 C
 MHC 23 07 19.5 C

KERMADEC ISLANDS REGION

PRI DEC 02 02 53 05.3 C
 JAS 02 53 05.4 C *E 53 27
 MIN 02 53 05.0 C
 MHC 02 53 04.2 C

BKS DEC 02 13 31 *E 59 00
 JAS 13 31 31.7 C
 JAS DEC 02 21 00 52.1 C
 JAS DEC 03 10 59 48.5 C

JAS DEC 03 12 18 15.4 C
 JAS DEC 03 18 50 32.9 C
 JAS DEC 03 19 45 48.5 C
 JAS DEC 04 20 57 05.8 C
 BKS DEC 05 09 54 31 62 56 *E 66 36 *E 69 36 L 71 00
 LR 73 40

MICRON PERIOD

MAXR(Z) 14 20
 MAXH(E) 13 19
 MAXH(N) 13 18
 PRI 09 54 34.8 *E 54 47 *E 55 03
 JAS 09 54 21.3 C *E 54 33 *E 54 42 *E 55 08
 MHC 09 54 30.4 C *E 54 42

MAG 6 1/4, DIST(DEG) 62

USCGS 09 44 11.0, 63.9N, 21.7W, H= 5 KM, M=5.5
ICELAND REGION. FELT AT HAFNARFJORDUR AND REYKJAVIK.

JAS DEC 05 13 10 07.0 C
 JAS DEC 06 00 24 42.5 C
 JAS DEC 06 10 53 43.3 D

BKS DEC 07 05 11 07.4 C 21 45 PP 15 30 PS 23 30 *E 33 12
 LR 40 10
 MICRON PERIOD
 MAXR(Z) 38 20
 MAXH(E) 32 20
 MAXH(N) 9 20
 PRI 05 11 11.7 C *PP 11 32
 JAS 05 11 11.9 C *PP 11 31 *SP 11 57 PP 15 03
 *E 19 37
 MIN 05 11 *PP 11 28
 MHC 05 11 08.0 *PP 11 28

MAG 6 3/4, DIST(DEG) 92

USCGS 04 57 49.0, 3.4S, 145.9E, H= 15 KM, M=5.3
NEAR NORTH COAST OF NEW GUINEA.

JAS DEC 07 06 21 57.9 C *E 23 03
 PRI DEC 07 11 49 24.9 C
 JAS 11 49 20.5 C
 BKS DEC 07 15 49 11.2 C 55 45
 MICRON PERIOD
 PZ 0.13 1.4
 PRI 15 49 28.1 C *E 50 04
 JAS 15 49 19.7 C *E 49 56 PCP 51 08
 MIN 15 49 02.3 C
 MHC 15 49 16.9 C

MAG 4 3/4, DIST(DEG) 44
USCGS 15 40 57.9, 51.6N, 175.7E, H= 33 KM, M=5.3
RAT ISLANDS, ALEUTIAN ISLANDS.

BKS DEC 07 15 55 54.9 C
PRI 15 55 07.0 C *F 55 18 *E 55 28
JAS 15 55 04.0 C *E 55 13 *E 55 22
MHC 15 55 01.1 C

USCGS 15 46 45.2, 51.6N, 175.8E, H= 59 KM, M=5.0
RAT ISLANDS, ALEUTIAN ISLANDS.

BKS DEC 07 16 01 21.0 C *E 05 45
PRI 16 01 37.2 C
JAS 16 01 28.2 C *E 01 42
MHC 16 01 25.0 C

BKS DEC 07 16 04 25.7 C
PRI 16 04 44.3 C
JAS 16 04 36.5 C *E 04 47 *E 04 58
MHC 16 04 33.1 C

BKS DEC 07 16 08 39.0 C
JAS 16 08 47.8 C

BKS DEC 07 17 18 24 C 29 36 PP 21 54 LQ 44 00 LR 48 00

MICRON PERIOD
MAXR(Z) 3.6 20
MAXH(E) 3.2 20
MAXH(N) 1.8 20

PRI 17 18 *E 22 28
JAS 17 18 *E 22 28

USCGS 17 09 52.5, 14.0S, 166.8E, H= 56 KM, M=5.1
NEW HEBRIDES.

BKS DEC 07 20 48 23.0 D 59 24 LR 79 00
PRI 20 48 13.4 D
JAS 20 48 19.8 D *E 48 29 *E 48 39
MIN 20 48 30.7 C
MHC 20 48 20.0 D

USCGS 20 35 21.2, 45.0S, 80.3W, H= 33 KM, M=5.6
OFF COAST OF SOUTHERN CHILE.

BKS DEC 07 21 48 24.0 C 59 15 *PP 48 45 *SP 48 49 PP 52 00

MICRON PERIOD
PZ 0.4 1.6
MAXR(Z) 3.6 20
MAXH(E) 2.9 20
MAXH(N) 2.1 20

SAO 21 48 23.5 C
PRI 21 48 25.3 C
JAS 21 48 29.3 C *PP 48 47 *SP 49 05 PP 51 39
MIN 21 48 30.6 C
MHC 21 48 24.5 C

MAG 6.0, DIST(DEG) 86
USCGS 21 35 44.8, 20.7S, 169.4E, H= 61 KM, M=5.6

NEW HEBRIDES.

BKS DEC 08 16 01 13.8 02 37 *E 01 26
SAO 16 01 09.8 02 08
PRI 16 00 57.0 02 04 *E 01 06
JAS 16 00 51.3
MIN 16 01 25.0
MHC 16 01 14.8

MAGNITUDE 5.1
NEVADA TEST SITE

BKS DEC 08 20 10 LR 20 34
PRI 20 10 15.1 C
JAS 20 10 00.5 C

JAS DEC 09 11 25 32.6 C
MIN 11 25 25.1

JAS DEC 11 00 50 26.3 D

BKS DEC 11 03 03 *E 31 00
JAS 03 03 30.1 D
MHC 03 03 28.6 C

JAS DEC 11 03 52 45.0 C
USCGS 03 40 48.0, 25.2S, 70.4W, H=500 KM, M=5.0
NEAR COAST OF NORTHERN CHILE.

BKS DEC 11 11 57 37.1 C
PRI 11 57 47.5 C
JAS 11 57 43.4 C PCP 57 53 PP 60 43
MIN 11 57 31.2 C
MHC 11 57 39.3 C

USCGS 11 45 30.8, 33.6N, 134.0E, H= 32 KM, M=5.4
SHIKOKU, JAPAN.

PRI DEC 11 20 18 53.5
JAS 20 18 54.8
MHC 20 18 53.1

PRI DEC 11 20 38 52.2
JAS 20 38 47.6 C
MIN 20 38 50
MHC 20 38 55.2

BKS DEC 12 00 36 LR 58 30
SAO 00 36 17
PRI 00 36 18.9
JAS 00 36 25.5
MIN 00 36 35
MHC 00 36 14.3

USCGS 00 24 39.0, 15.8S, 177.8W, H= 20 KM, M=5.1
FIJI ISLANDS REGION.

BKS DEC 12 07 30 40.9 D 39 48 PP 33 08 PPP 35 08 LR 50 40
SAO 07 30 40.6 C

PRI 07 30 42.1 C
 JAS 07 30 47.6 C
 MIN 07 30 50.5
 MHC 07 30 41.5

USCGS 07 19 44.8, 16.0S, 177.8W, H=431 KM, M=5.5
 FIJI ISLANDS REGION.

BKS DEC 12 15 11 18 12 40 *E 11 28

SAD 15 11 08

PRI 15 11 00.9

JAS 15 10 57.1 C *E 11 08

MIN 15 11 23.1

MHC 15 11 10.0 12 24 *E 11 22

MAGNITUDE 4.5
 NEVADA TEST SITE

BKS DEC 12 15 21 26.8 22 39

SAD 15 21 08.1 *E 21 16

PRI 15 21 01.6

JAS 15 20 57.9 C 22 01 *E 21 09

MHC 15 21 10.1 21 25 *E 21 20

MAGNITUDE 4.0
 NEVADA TEST SITE

PRI DEC 12 23 52 25.7 D

JAS 23 52 32.6 D

MHC 23 52 33.0 C

USCGS 23 41 36.5, 15.0S, 73.6W, H=103 KM, M=5.0
 SOUTHERN PERU.

BKS DEC 13 13 10 49.5 C

PRI 13 10 38.5 C *E 10 46 *E 10 55

JAS 13 10 47.6 C

JAS DEC 13 15 14 37.0 C *E 14 45

BKS DEC 14 10 07 16.8 C *E 13 48 *E 18 12

PRI 10 07 32.4 C *E 07 43 *E 07 56

MIN 10 07 06.1

MHC 10 07 21.2 *E 07 32 *E 07 46

USCGS 09 59 02.3, 51.5N, 175.7E, H= 33 KM, M=5.2
 RAT ISLANDS, ALEUTIAN ISLANDS.

JAS DEC 14 19 55 26.9

BKS DEC 15 02 22 31.0 29 10 LQ 32 26 *E 33 18

MICRON PERIOD
 PZ 0.16 0.9

SAD 02 22 40.0

PRI 02 22 47.4

JAS 02 22 38.6 29 24

MIN 02 22 21.3

MHC 02 22 36.2 29 24

MAG 5.6-5.8, DIST(DEG) 45
 USCGS 02 14 17.5, 51.6N, 175.8E, H= 33 KM, M=5.7
 RAT ISLANDS, ALEUTIAN ISLANDS.

BKS DEC 15 02 36 45.5

PRI 02 37 03.4

JAS 02 36 52.9 D *E 43 39

MIN 02 36 45 D

MHC 02 36 49.8 D

USCGS 02 28 32.4, 51.7N, 175.8E, H= 33 KM, M=5.4
 RAT ISLANDS, ALEUTIAN ISLANDS.

BKS DEC 15 09 13 43.4 C *PP 14 11

SAD 09 13 42.2

PRI 09 13 43.3

JAS 09 13 49.2 D PCP 13 55 *PP 14 20 *E 14 41

MIN 09 13 44.7

MHC 09 13 43.9 *PP 14 20

PRI DEC 15 14 11 40.0 C

JAS 14 11 38.2 C *E 11 48

USCGS 14 01 43.5, 49.6N, 155.7E, H= 50 KM, M=5.4
 KURILE ISLANDS.

PRI DEC 16 03 15 48.4 D

JAS 03 15 51.3 D *E 16 04

MHC 03 15 55.6 D

USCGS 03 07 24.1, 7.1N, 82.2W, H= 16 KM, M=5.3
 SOUTH OF PANAMA.

BKS DEC 16 07 14 40.0 D

PRI 07 14 33.7 C

JAS 07 14 35.9 C *E 15 02

MHC 07 14 38.1 C

USCGS 06 54 57.0, 52.1S, 16.0E, H= 33 KM, M=5.2
 SOUTHWEST OF AFRICA.

BKS DEC 16 10 59 26.7

SAD 10 59 23.6 D

PRI 10 59 25.0

JAS 10 59 28.8 D *E 59 34 *E 59 38

MHC 10 59 23.7 D

USCGS 10 46 46.6, 18.0S, 168.1E, H= 49 KM, M=5.1
 NEW HEBRIDES.

JAS DEC 16 20 20 03.9 C

JAS DEC 16 21 34 14.7 C *E 34 32

JAS DEC 17 02 40 03.9 D

BKS DEC 17 12 08 13.8 C 13 06 *E 09 07 LQ 14 12 SCP 14 48

MICRON PERIOD

PZ 0.7 1.0

SH 24 17

SAD 12 08 25.8 C

PRI 12 08 32.6

JAS 12 08 19.3 D 13 20 *I 14 09 SCP 14 51

MIN 12 07 57.1 C

SCP 14 43

MHC 12 08 20.0 D SCP 14 51
MAG 6.4, DIST(DEG) 31
USCGS 12 02 15.0, 60.2N, 152.8W, H= 86 KM, M=5.9
SOUTHERN ALASKA. FELT IN SOUTH CENTRAL AREA.

JAS DEC 17 12 40 13.0 C
JAS DEC 17 12 51 05.2 C
JAS DEC 17 17 00 50.8 C

BKS DEC 17 22 55 34 57 35 *E 55 50
SAO 22 55 21.9 57 18 *E 55 44
PRI 22 55 07.7 *E 55 32 *E 56 44
JAS 22 55 22.6 *E 55 32 *E 57 03
MHC 22 55 25.8 57 19 *E 55 44
MAGNITUDE 4.8
SOUTH OF IMPERIAL VALLEY

JAS DEC 18 04 50 40.5
JAS DEC 18 05 15 06.3 C
USCGS 05 01 57.0, 49.7N, 78.1E, H= 0 KM, M=5.2
EASTERN KAZAKH SSR.

PRI DEC 18 13 12 28.3 C
JAS 13 12 08.8 C
MIN 13 11 32.5 C
MHC 13 12 09

BKS DEC 18 20 15 02.3 D 24 25 *E 15 27 *E 35 47
MICRON PERIOD
PZ 0.43 1.0
SAO 20 15 01.5 D
PRI 20 15 02.8 D *E 15 19
JAS 20 15 08.4 D *E 15 25 *E 16 32 *E 18 08
MHC 20 15 03.0 D
USCGS 20 03 43.9, 19.9S, 177.6W, H=367 KM, M=5.5
FIJI ISLANDS.

JAS DEC 19 05 34 21.2 C
USCGS 05 17 51.6, 36.1N, 70.1E, H=151 KM, M=5.4
HINDU KUSH REGION.

BKS DEC 19 15 25 32.8 D 33 38 PCP 27 27 SS 36 31 LQ 38 39
LR 41 25
MICRON PERIOD
PZ 0.3 1.9
MAXR(Z) 4.2 20
MAXH(N) 2.1 20
MAXH(E) 3.2 20
SAO 15 25 45.4 C
PRI 15 25 33.0 C *E 26 14
JAS 15 25 25.1 C *I 25 40 *E 26 10
MIN 15 25 25.4 C

MHC 15 25 22.4 D
USCGS 15 15 55.7, 53.3N, 160.1E, H= 33 KM, M=5.4
NEAR EAST COAST OF KAMCHATKA.

BKS DEC 19 16 31 11.4 C *E 31 23
SAO 16 31 02.7
PRI 16 30 56.6 C
JAS 16 30 52.0 C
MIN 16 31 18.4 C
MHC 16 31 05.1 C
MAGNITUDE 6.2
USCGS 16 30 00.0, 37.2N, 116.5W, H= 0 KM, M=6.3
SOUTHERN NEVADA. BENHAM EXPLOSION.

BKS DEC 19 22 24 38.8 D
SAO 22 24 29.1 C
PRI 22 24 26.8
JAS 22 24 05.9
MHC 22 24 31.8
MAGNITUDE 4.5
USCGS 22 23 26.3, 37.2N, 116.5W, H= 0 KM, M=5.0
SOUTHERN NEVADA. BENHAM AFTERSHOCK.

BKS DEC 20 16 53 LR 22 45
JAS 16 53 48.3 C

BKS DEC 20 20 09 41.6 C *E 09 52
SAO 20 09 29.1 C
PRI 20 09 22.6 C
JAS 20 09 17.8 C
MHC 20 09 30.7 C
MAGNITUDE 4.4
BENHAM AFTERSHOCK

BKS DEC 21 00 15 39.5 D *E 15 51
SAO 00 15 28.6 C *E 15 38
PRI 00 15 22.3 C
JAS 00 15 16.5 C
MHC 00 15 41.1 C
MAGNITUDE 5.0
BENHAM AFTERSHOCK

BKS DEC 21 13 09 25.1 D *E 39 10
PRI 13 09 20.8 D
JAS 13 09 27.3 D
MHC 13 09 24.2 D

PRI DEC 21 15 39 55.0 D
JAS 15 39 54.9 D

JAS DEC 21 22 03 08.0 D

PRI DEC 22 01 59 16.9 D
JAS 01 59 23.0 D
MHC 01 59 18.2 D

BKS DEC 22 06 23 LR 40 00
 JAS 06 23 30.8 C

JAS DEC 22 09 20 05.3 D
 USCGS 09 06 36.3, 36.2N, 101.9E, H= 33 KM, M=5.5
 TSINGHAI PROVINCE, CHINA.

PRI DEC 22 15 18 08.8 C
 JAS 15 18 07.7 C *E 18 27
 MHC 15 18 04.8 C

BKS DEC 22 15 40 25.3 D P**P* 57 24 LQ 64 18 LR 68 43
 PRI 15 40 32.2 C
 JAS 15 40 24.9 C *E 41 08 *E 40 47
 MHC 15 40 27.2 C
 USCGS 15 27 18.9, 3.4S, 148.8E, H= 33 KM, M=5.1
 BISMARCK SEA.

BKS DEC 22 16 50 38.8 D *E 51 04 *PP 51 32 *E 57 39
 *E 54 34 LQ 57 00 LR 58 52
 PRI 16 50 51.5 D *E 51 03 *PP 51 41
 JAS 16 50 41.3 D *E 50 48 *E 50 59 *PP 51 35
 *E 51 51 *E 54 10
 MIN 16 50 19.7 D *E 50 28 *E 50 37
 MHC 16 50 39.6 D *E 50 53 *PP 51 32
 USCGS 16 44 44.2, 56.3N, 153.8W, H= 33 KM, M=5.3
 KODIAK ISLAND REGION.

BKS DEC 22 18 12 16.9 D 13 10 *E 12 30
 SAO 18 11 54.5 *E 12 06
 PRI 18 11 49.1 *I 12 00
 JAS 18 11 43.6 D
 MIN 18 12 12.8
 MHC 18 11 56.9
 MAGNITUDE 4.4
 BENHAM AFTERSHOCK

BKS DEC 22 22 46 32.1 C 47 25
 SAO 22 46 21.1
 PRI 22 46 10.9
 JAS 22 46 03.3 D 46 51
 MHC 22 46 25.4 D
 MAGNITUDES 4.0 AND 4.4
 BENHAM AFTERSHOCKS

JAS DEC 23 20 51 55.9

BKS DEC 24 12 47 LR 61 38
 PRI 12 47 25.7 D
 JAS 12 47 36.6 D *E 48 25

BKS DEC 24 16 27 LR 42 00
 PRI 16 27 52.9 C
 JAS 16 28 01.7 C
 MHC 16 27 46.9 C
 USCGS 16 19 21.1, 9.2S, 108.6W, H= 33 KM, M=5.4

NORTHERN EASTER ISLAND CORDILLERA.

BKS DEC 25 04 07 45.0 C
 PRI 04 07 43.8 C *E 07 59
 JAS 04 07 52.0 C *I 07 58 *I 08 07
 MHC 04 07 49.7 C
 USCGS 03 56 39.2, 41.7N, 142.8E, H= 36 KM, M=5.3
 HOKKAIDO, JAPAN, REGION. FELT ON HOKKAIDO.

BKS DEC 25 08 38 12.1 C
 PRI 08 38 14.6 C
 JAS 08 38 16.9 C
 MHC 08 38 12.3 C

JAS DEC 25 09 44 34.3 D

PRI DEC 25 19 09 19.5 D
 JAS 19 09 29.0 D
 MHC 19 09 24.1 D

PRI DEC 27 02 16 00.3 D
 JAS 02 16 04.4 D
 MHC 02 16 07.4 D

JAS DEC 27 07 08 27.5
 MIN 07 08 32.7

PRI DEC 27 11 53 30.5
 JAS 11 53 35.3 C
 MHC 11 53 39.8

JAS DEC 28 03 09 26.7 C

JAS DEC 28 09 01 41.9 C

JAS DEC 28 20 32 15.9 D

BKS DEC 29 02 08 04.0 *PP 08 23 LR 34 30
 SAO 02 08 03.5 C *PP 08 22
 PRI 02 08 03.8 C *PP 08 22
 JAS 02 08 09.9 C *PP 08 28
 MHC 02 08 05.3 C *PP 08 23
 USCGS 01 55 33.5, 29.9S, 178.2W, H= 66 KM, M=5.1
 KERMADEC ISLANDS REGION.

JAS DEC 29 02 51 22.1 C *E 51 51

JAS DEC 29 05 24 45.5 D

JAS DEC 29 07 34 05.6 C

BKS DEC 29 08 01 LR 13 20
 JAS 08 01 53.5 C

BKS DEC 29 08 51 LR 69 20
 JAS 08 51 42.1 D

USCGS 08 38 41.3, 5.2S, 151.8E, H= 65 KM, M=5.2
NEW BRITAIN REGION. FELT AT POMIO AND
RABAU.

JAS DEC 29 16 14 31.4 D

BKS DEC 29 16 41 22.9 D

SAO 16 41 16.3 D

PRI 16 41 12.2 D

JAS 16 41 17.3 D

MIN 16 41 28.3 D

MHC 16 41 19.6 D

*PP 41 40 *E 42 06 *E 42 11

USCGS 16 29 31.1, 24.0S, 66.7W, H=205 KM, M=5.2
SALTA PROVINCE, ARGENTINA.

BKS DEC 29 17 43 20.8 C 49 00 LR 56 00

MICRON PERIOD

MAXR(Z) 6.8 20

MAXH(N) 2.9 20

MAXH(E) 6.8 20

PRI 17 43 03.8 C

JAS 17 43 10.8

MHC 17 43 15.2

*PP 43 33 *E 45 48

USCGS 17 36 29.9, 14.5N, 92.4W, H= 60 KM, M=5.4
NEAR COAST OF CHIAPAS, MEXICO.

SAO DEC 29 20 14 21.7 D

PRI 20 14 22.7

JAS 20 14 28.4 D

MHC 20 14 22.9 D

BKS DEC 30 05 00 01.7 LR 21 00

SAO 05 00 00.1 D

PRI 05 00 01.3 D

JAS 05 00 08.0 D

MHC 05 00 01.8 D

USCGS 04 48 40.9, 16.3S, 172.6W, H= 33 KM, M=5.2
SAMOA ISLANDS REGION.

BKS DEC 30 07 08 56.4 C LR 16 00

SAO 07 09 07.7 C

PRI 07 09 16.8 C

JAS 07 09 03.7 C

MIN 07 08 41.3 C

MHC 07 09 02.9 C

USCGS 07 03 11.7, 57.6N, 151.4W, H= 34 KM, M=5.4
KODIAK ISLAND REGION. FELT IN THE
PALMER-ANCHORAGE AREA.

BKS DEC 30 10 37 LR 55 00

JAS 10 37 32.9 C *E 37 52

USCGS 10 27 09.7, 76.2N, 7.5E, H= 23 KM, M=5.0
SVALBARD REGION.

BKS DEC 30 14 50 41.4 C

PRI 14 50 29.9 D

JAS 14 50 35.4 D

MHC 14 50 38.4 D

USCGS 14 39 22.0, 15.8S, 70.8W, H= 63 KM, M=5.2
SOUTHERN PERU. FELT AT AREQUIPA.

BKS DEC 31 05 00 LR 06 00

PRI 05 00 34

JAS 05 00 50.8 C

BKS DEC 31 13 52 LR 74 18

JAS 13 52 10.8 C

USCGS 13 39 26.3, 11.4S, 162.8E, H= 22 KM, M=5.0
SOLOMON ISLANDS.