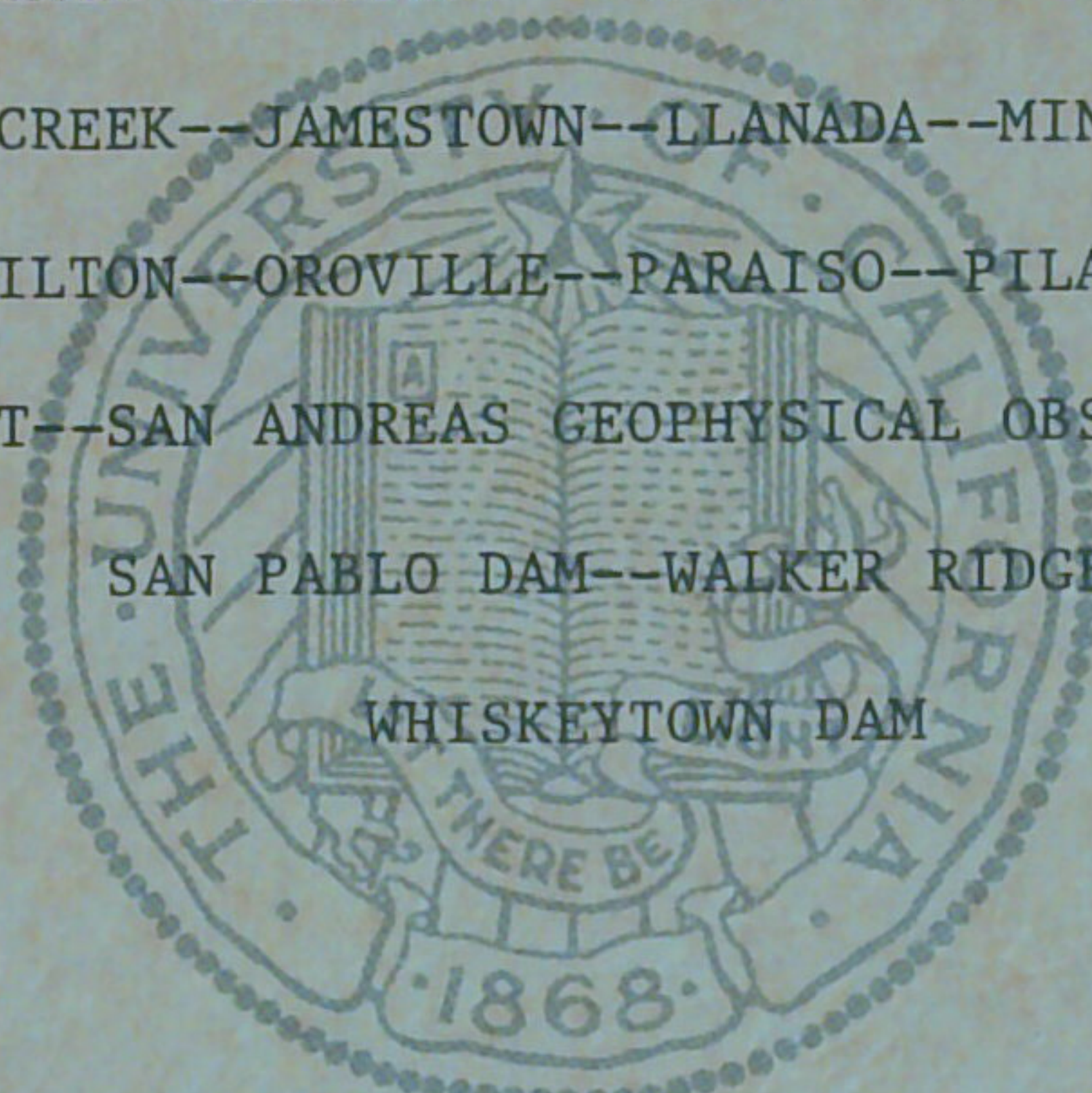


Bulletin of the Seismographic Stations



Volume 51, Nos. 1 and 2, pp. 1 - 86

ARCATA--BERKELEY--FICKLE HILL--FRIANT
GRANITE CREEK--JAMESTOWN--LLANADA--MINA--MINERAL
MOUNT HAMILTON--OROVILLE--PARAISO--PILARCITOS CREEK
PRIEST--SAN ANDREAS GEOPHYSICAL OBSERVATORY
SAN PABLO DAM--WALKER RIDGE
WHISKEYTOWN DAM



Earthquakes and the Registration of Earthquakes

From January 1, 1981 to June 30, 1981

Kin-Yip Chun
Robert A. Uhrhammer

From July 1, 1981 to December 31, 1981

M. Richard McKenzie
Roy D. Miller
Robert A. Uhrhammer

BULLETIN OF THE SEISMOGRAPHIC STATIONS
of the University of California

Volume 51, Nos. 1 and 2

January 1, 1981 to December 31, 1981

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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 for the above earthquakes and for teleseisms.

Information items regarding the seismographic stations which comprise the Berkeley network are repeated in each issue.

Note that the No. 1 and No. 2 issues of Volume 51 are published together in the current issue.

PERSONNEL (December 1982)

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

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

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

Since 1942, the number of seismographic stations associated with the University of California has increased from six to nineteen in 1979. 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 1969, the stations have entered into research and service contracts with the Air Force Office of Scientific Research, the National Science Foundation, the California Department of Water Resources, the California State Division of Mines and Geology, the U.S. Geological Survey, the U.S. Corps of Engineers, the East Bay Municipal Utility District, and others. A telemetry network of seventeen stations in Central California, recording on film and selected stations on magnetic tape, is now operated together with seismographs with broadband frequency response at Berkeley, Jamestown, Oroville, and Whiskeytown Dam. Copies of seismograms and magnetic tapes from seismographs of the Berkeley network are available, together with response characteristics, on request to the Director.

THE BYERLY SEISMOGRAPHIC STATION (BKS)

Equipment of a WWSSN station began operating in a newly constructed tunnel east of the main campus on June 8, 1962. The closest buildings, part of the Lawrence Berkeley 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.

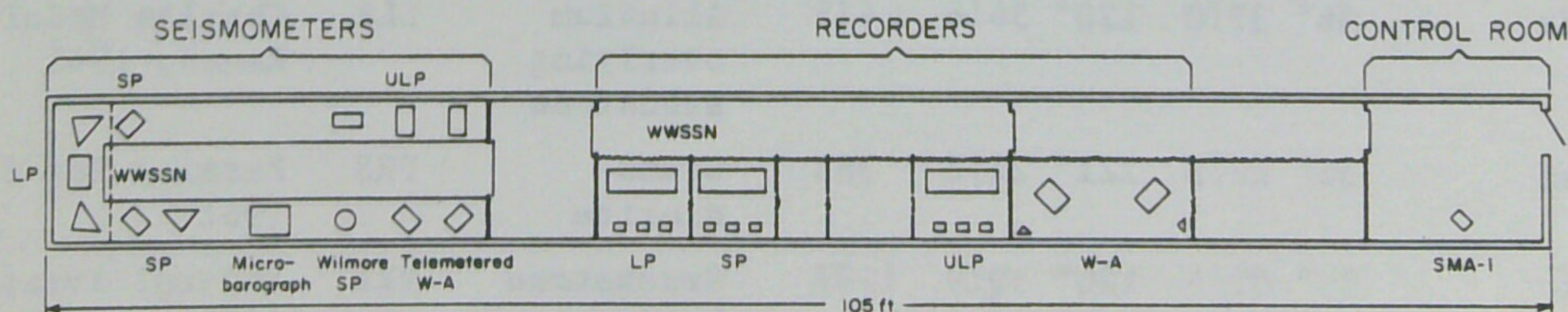
A plan of the tunnel is shown in the diagram below. Piers are constructed of reinforced concrete with no isolation from floor and walls. The temperature is stable. A ventilating and dehumidifying system is connected to all rooms.

Fourteen seismographs are currently operating in the tunnel. Their free periods range from 0.8 sec to 100 sec and the magnification of the photographic recordings ranges from approximately 500 to 25,000. Details are given in the section on instrumentation.

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.

Geology

The portal of the adit is in an old quarry which exposes near-vertical, intensely contorted, thinly-bedded, brittle chert, and softer interbedded shale of the Miocene Claremont Formation. Individual beds are one to a few inches thick; the chert beds are intensely fractured and intricately criss-crossed by fine patterns of jointing. Near-surface beds are warped by down-hill creep; soil is very thin. The area is crossed by numbers of minor faults, and is about one mile from the active trace of the Hayward fault.



STATIONS IN OPERATION:

January 1 to December 31, 1981



Station (From N to S)	North Latitude	West Longitude	Elev. Meters	Foundation Material	Symbol	Present Auspices and Date Established
Arcata	40° 52!6	124° 04!5	60	Sandstone (loose)	ARC	Humboldt State Univ. 1948
Fickle Hill	40° 48!1	123° 59!1	610	Siltstone over graywacke	FHC	Humboldt State Univ. 1968
Whiskeytown Dam	40° 34!8	122° 32!4	300	Pre-Devonian metavolcanic	WDC	National Park Service 1973
Walker Ridge	40° 23!6	124° 17!3	976	Undivided cretaceous marine	WKC	Pacific Gas & Electric Company, 1976
Walker Ridge	40° 23!3	124° 17!7	976		WKC2	After Nov. 5, 1980
Mineral	40° 20!7	121° 36!3	1495	Volcanic	MIN	National Park Service 1938
Oroville	39° 33!3	121° 30!0	360	Basalt	ORV	Dept. of Water Resource 1963
Mina (Nevada)	38° 26!0	118° 09!2	1524	Limestone	MNV	Lawrence Livermore Lab. 1969
Jamestown	37° 56!8	120° 26!3	457	Metamorphic (serpentine)	JAS	Dept. of Water Resource 1964
San Pablo Dam	37° 56!7	122° 15!4	119	Middle Miocene marine	ZSP	East Bay M.U.D. Nov. 3, 1978
Berkeley (Byerly)	37° 52!6	122° 14!1	276	Claremont shales & cherts	BKS	University of Calif. 1962
Berkeley	37° 52!4	122° 15!6	81	Franciscan sandstone	BRK	University of Calif. 1887
Pilarcitos Creek	37° 30!0	122° 22!9	91	Granodiorite (weathered)	PCC	Sare Ranch, 1965
Mt. Hamilton	37° 20!5	121° 38!5	1282	Franciscan formation (greenstone)	MHC	Lick Observatory 1887
Granite Creek	37° 01!8	121° 59!8	122	Granite	GCC	Richard E. Randolph Santa Cruz, 1965
Friant	36° 59!5	119° 42!5	119	Alluvium over- lying granite	FRI	Bureau of Reclamation 1971
San Andreas Geophysical Observatory	36° 45!9	121° 26!7	350	Granite	SAO	University of Calif. 1966
Llanada	36° 37!0	120° 56!6	475	Alluvium overlying sandstone	LLA	Charles McCullough Ranch, 1961
Paraiso	36° 19!9	121° 22!2	363	Grano- diorite	PRS	Paraiso Hot Springs 1961
Priest	36° 08!5	120° 39!9	1187	Greenstone basic metamorphic	PRI	Federal Aviation Agency 1961

STATION INSTRUMENTATION

January 1 to December 31, 1981

Station	Type of Instrument	T _o sec	T _g sec	Component	Mag at T _o	1	2	3	4	5	6
ARC	Wood-Anderson torsion	0.8	-	S, W	2,000	x					
BKS	Benioff 100 kg	1.0	0.75	N, E, Z	25,000	x					
	Sprengnether S-5007	15	100	N, E, Z	3,000	x					
	Wood-Anderson torsion	0.8	-	S, W	2,000	x					
	Sprengnether ULP S-5100	100	300 Filter	N45°W, N45°E, Z	500	x					
	Filtered Displacement				- - -				x		
BRK	Displacement Digital				- - -				x		
	Willmore MK II	1.0	0.2	Z	- - -				x		
	14000X torsion	0.8	-	N, E	14,000 max		x				
	700X torsion	0.8	-	N, E	700 max		x				
	Benioff 100 kg	1.0	0.2	Z	25,000			x			
	Benioff 100 kg	1.0	8.0	Z	Variable						x
	100X torsion	0.8	-	N, E	100 max	x					
	4X torsion	0.8	-	N, E	4 max	x					
	Press-Ewing	15	30	Z	1,000		x				
	Press-Ewing	30	BB	N45°W, N45°E, Z	- - -						
FHC	Benioff 14 kg	1.0	0.2	Z	50,000			x	x		
FRI	Benioff 14 kg	1.0	0.33 Filter	Z	150,000		x	x	x		
GCC	Benioff 14 kg	1.0	0.2	Z	50,000			x	x		
JAS	Benioff 14 kg	1.0	0.2	Z	600,000		x	x	x		
	Sprengnether S-5100	40	-	Z							
	BB velocity										
	Displacement								x	x	
	Filtered Displacement								x	x	
	Teledyne 210 & 220	15	-	N, E, Z	Digital Tape						x

- 1 Signals recorded on photographic paper.
- 2 Signals recorded on heat sensitive paper.
- 3 Signals telemetered to Berkeley. Magnifications using 20X viewer.
- 4 Signals recorded on magnetic tape, Berkeley.
- 5 Signals recorded on digital magnetic tape.
- 6 Ink recording.

STATION INSTRUMENTATION

January 1 to December 31, 1981

Station	Type of Instrument	T ₀ sec	T _g sec	Component	Mag at T ₀	1	2	3	4	5	6
LLA	Benioff 14 kg	1.0	0.2	Z	50,000			x	x		
MHC	Benioff 14 kg	1.0	0.2	Z	50,000		x	x	x		
	Wood-Anderson torsion	0.8	-	S, E	2,000	x					
MIN	Wood-Anderson torsion	0.8	-	S, E	2,000	x					
	Teledyne S-13	1.0	0.2 Filter	Z	150,000			x	x		
MNV	Broadband instrument filtered to give short-period response			Z	600,000 at 1 sec			x	x		
ORV	Benioff 100 kg	1.0	0.2	Z	220,000			x	x		
	Geotech 7505 & 8700	20	BB	N, E, Z	- - -				x		
PCC	Benioff 14 kg	1.0	0.2	Z	50,000			x	x		
PRI	Benioff 14 kg	1.0	0.2	Z	50,000		x	x	x		
PRS	Benioff 14 kg	1.0	0.2	Z	50,000			x	x		
SAO	Sprengnether 0.70 kg	0.2	0.05 Filter	Z	1,500,000		x	x			
WDC	Sprengnether S-5100 BB velocity Displacement Filtered Displacement Short Period (Filter)	40	-	Z	- - -				x	x	x
WKC2	Kinematics SS-2 Ranger	1.0	0.2	Z	500,000		x	x	x	x	
ZSP	Teledyne 18300	1.0	0.2 Filter	Z	- - -		x		x		

- 1 Signals recorded on photographic paper.
- 2 Signals recorded on heat sensitive paper.
- 3 Signals telemetered to Berkeley. Magnifications using 20X viewer.
- 4 Signals recorded on magnetic tape, Berkeley.
- 5 Signals recorded on digital magnetic tape.
- 6 Ink recording.

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 photographically and through the telemeter system are listed on pages 13 and 14. Absolute magnification may be obtained by use of calibration pulses recorded daily from each station.

A network of broadband seismographs is now operated by the University of California at seismographic stations at Berkeley (BKS), Jamestown (JAS), Oroville (ORV), and Whiskeytown (WDC).

At Berkeley, broadband instrumentation has been gradually developed, starting with the installation in 1963 of a Press-Ewing seismometer operating at a free period of 30 seconds. In 1971, the installation of a 3-component set of special ultra-long period (ULP) seismometers in the Byerly Seismographic Vault was completed. The seismometers are Sprengnether S-5100 operated at a feedback-controlled free period of 100 seconds and they utilize electronic recentering feedback for long-term stability and temperature/barometric feedback also for the vertical component. The ultra-long period system generates photographic paper records equivalent to a 100 second pendulum with a velocity transducer recorded by a 300 second galvanometer with a magnification of 500 at a period of 100 seconds.

Starting in September 1975, low- (± 2 mm) and high- (± 0.02 mm) gain displacement signals from each of the three components were telemetered to the laboratory and recorded on 0.03 ips, 0-10 Hz, FM magnetic tape. The high-gain displacement signals are high-pass filtered at 500 seconds to reduce tidal signals. In 1980, a digital telemetry system was installed where the displacement signals from the three ULP seismometers are sampled at 99 samples per second each channel, with a resolution of 16 binary digits through a Phoenix Data 6816 ADC. An RCA COSMAC 1802 microprocessor system controls the analog-to-digital conversion process and buffers the incoming data. The digital data are temporarily stored in the microprocessor RAM memory, extra synchronization words are inserted, and finally the data are sent out bit-serially to a modem. The bit-serial digital data are transmitted over a leased phone line by a modem pair. At the receiving end, the reconstructed serial data are applied to a PCM encode module which codes the data as DM-M. The coded PCM data are applied through a high-density digital encoder to the record head for one track of a Honeywell Model 96 tape transport, recording at 15/16 inches per second. With a 7200 foot reel of tape, data may be recorded continuously for 26 hours. The density at which the data are recorded on tape is equivalent to 5120 bits per inch. The least significant bit is equivalent to 0.25 micrometers of boom displacement and the system is flat to displacement response over the band of 0.01-25 Hz.

The instrumentation at Whiskeytown was installed in January 1973, and at Jamestown in November 1973. The Jamestown and Whiskeytown seismographs are closely matched and consist of a single vertical seismometer, a Sprengnether S-5100, operating with a free period of 40 seconds and a damping ratio of 0.70. Signals from these seismometers are telemetered to Berkeley via FM telemetry components and leased telephone lines where they are recorded on analog magnetic tape recorders. Low- (± 2 mm) and high- (± 0.01 mm) gain displacement signals from JAS and WDC are recorded on 0.03 ips, 0-10 Hz, FM magnetic tape. Velocity signals from JAS (one level) and WDC (two levels) are recorded at Berkeley on the 0.06 ips FM tape recorder. The seismometers at JAS and WDC are operated in sealed pressure vessels identical to those used with high-gain long-period (HGLP) instruments. An on-site digital recordings system (DRS) was installed at Jamestown in September 1980. The DRS continuously records a three-component long-period (LP) channel at one sample per second each component and records, in an event detect mode, a three-component intermediate-period (IP) channel at 10 samples per second each component, and a vertical short-period (SP) channel at 20 samples per second. The DRS records the filtered output of Teledyne 210 and 200 seismometers operating with 16 bit resolution (no gain-ranging) on 1600 bpi magnetic tape.

Equipment was installed at Oroville in June 1979 to telemeter the three-component broadband velocity signals from the Geotech 7505 and 8700 seismometers, operating at a free period of 15 seconds, to Berkeley via FM telemetry over leased telephone lines where they are recorded on 0.06 ips, 0-10 Hz, analog magnetic tape recorders. In December 1979, the free period of the seismometers was changed to 20 seconds.

Response curves for these broadband instruments are shown on pages 15 and 16.

UNIVERSITY OF CALIFORNIA ACCELEROGRAPH STATIONS

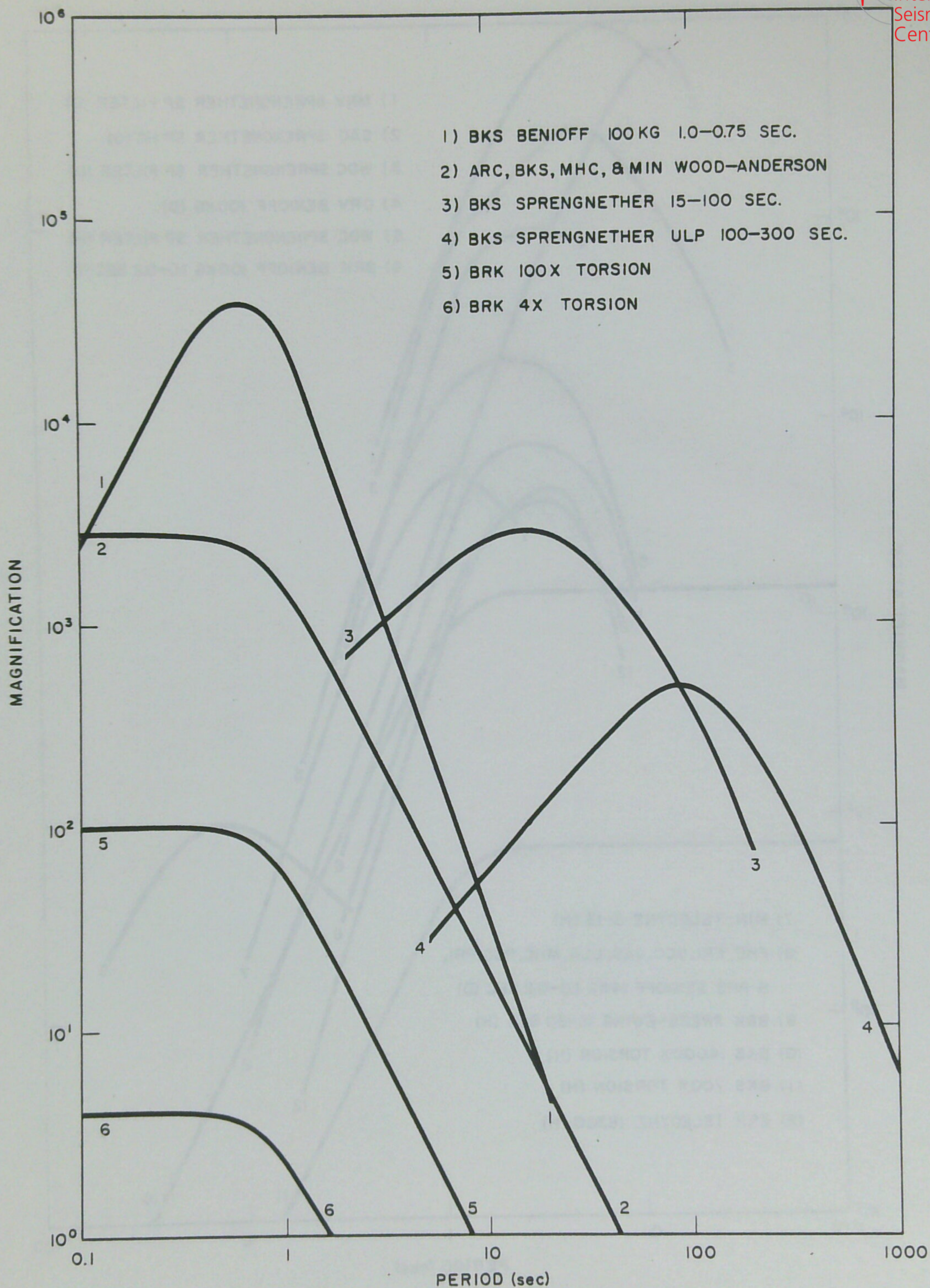
Station Name	Coordinates	Installation Date	Instrument S.N.	Component	Sensitivity (cm/g)	Period (sec)	Damping % of Critical	Structure	Location in Structure
BERKELEY MEMORIAL STADIUM	37.87 N 122.25 W	3 Aug 76	CRA-1 #148 (Recorder) FBA-3 downhole	V	1.79	.018	.64	4" I.D. cased borehole (163m deep)	Downhole (163m)
				L unknown	1.82	.019	.62		
				T unknown	1.83	.018	.66		
BERKELEY UNIVERSITY LIBRARY	37.87 N 122.26 W	3 May 76	MO-2 trace #6	V Down	1.90	.019	.63	Metal Box	Ground Level
				L North	1.83	.018	.63		
				T East	1.82	.018	.65		
BERKELEY UNIVERSITY LIBRARY	37.87 N 122.26 W	3 May 76	MO-2 trace #6	A Up	1.65	.03	.6		Ground Level
				B S45W	1.66	.03	.6		
				C S45E	2.40	.03	.6		
				Sensitivity Bandwidth					
RICHMOND FIELD STATION	37.92 N 122.33 W	12 May 76	Columbia Research Force Balance Accelerometer SA-107 (+2g units) (0-50Hz)	Z, H ₁ , H ₂ *	±0.010	.05-50		5" I.D. uncased backfilled borehole (43.8m deep)	Downhole (43.7m)
				Z, H ₁ , H ₂	±0.50	0-50			
RICHMOND FIELD STATION	37.92 N 122.33 W	12 May 76	Columbia Research Force Balance Accelerometer SA-107 (+2g units) (0-50Hz)	Z, H ₁ , H ₂	±0.010	.05-50			Midhole (15.7m)
				Z, H ₁ , H ₂	±0.50	0-50			
EARTH SCIENCES BUILDING	37.87 N 122.26 W	01 Nov 68	Wilmet Seismoscope SR-100	Z, H ₁ , H ₂	±0.010	.05-50		Metal Box	Ground Surface Level
				Z, H ₁ , H ₂	±0.50	0-50			
EARTH SCIENCES BUILDING	37.87 N 122.26 W	01 Nov 68	Wilmet Seismoscope SR-100	Duplex Horizontal	5.45x10 ⁻² (m/rad)	.75	~ 10	Metal Box	Ground Level

* accelerometer aligned S45W
 ** accelerometer aligned S45E
 + recorded on magnetic tape

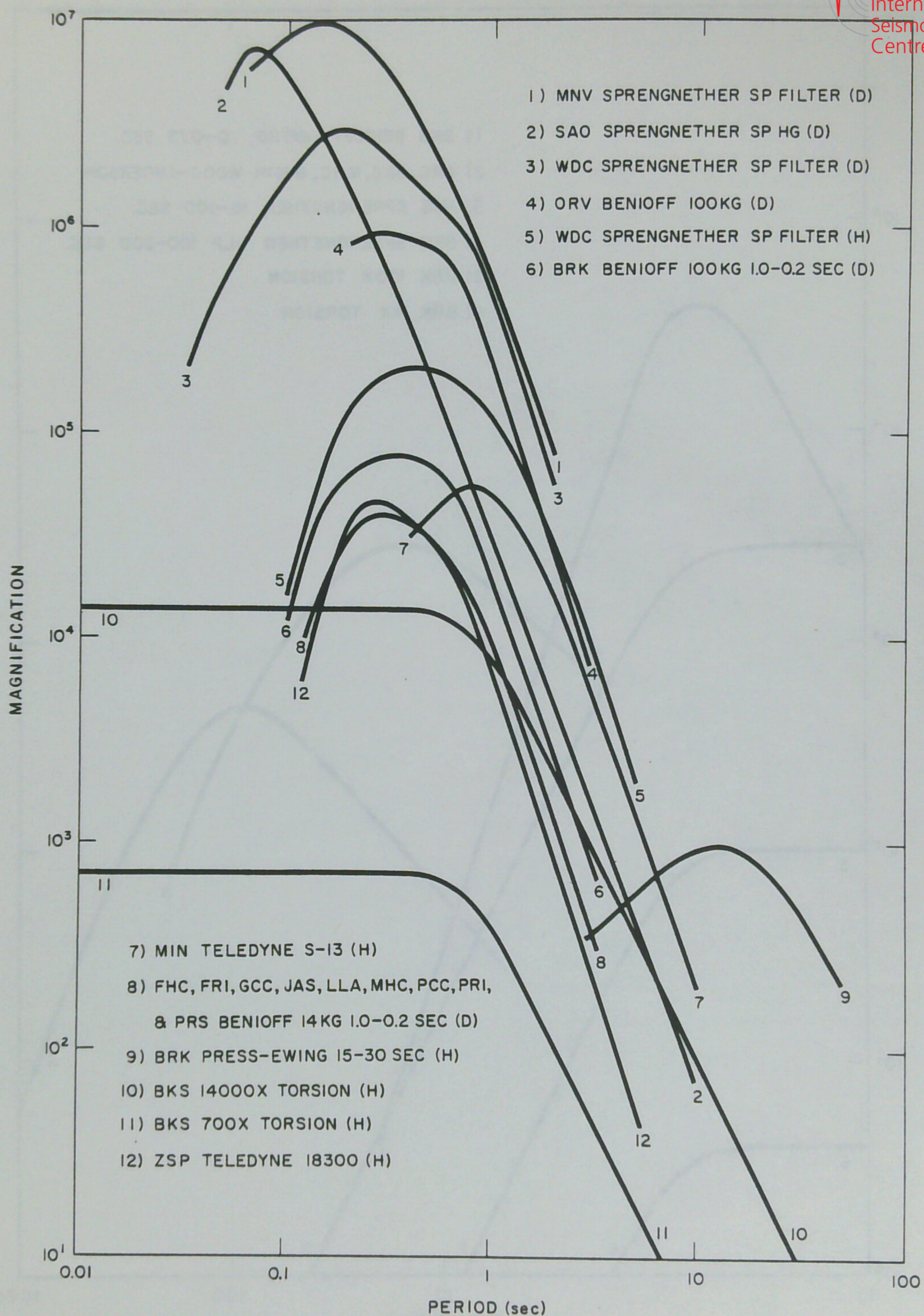
UNIVERSITY OF CALIFORNIA ACCELEROGRAPH STATIONS MAINTAINED BY USGS

Station Name	Coordinates	USGS Number	Installation Date	Instrument S.N.	Component	Sensitivity (cm/g)	Period (Sec.)	Damping % of Critical	Structure	Location in Structure
SAGO CENTRAL	36.76 N 121.45 W	1032	5 Mar 73	RFT-250 #343	North Down West	1.82 2.14 1.89	.042 .045 .045	.57 .57 .57	Concrete vault	Ground level
SAGO EAST	36.81 N 121.41 N	1033	5 Mar 73	RFT-250 #347	North Down West	1.89 2.14 1.74	.045 .045 .045	.57 .57 .57	One-story building	Ground level
BUTLER VALLEY STA. 1 (RANCH)	40.77 N 123.90 W	1110	9 Jul 71	SMA-1 #314	S66W Down S24E	4.24 3.72 4.10	.054 .057 .058	.57 .57 .55	Prefab building	Ground level
BUTLER VALLEY STA. 2 (ABUTMENT)	40.79 N 123.88 W	1112	9 Jul 71	SMA-1 #319 with WWVB	S66W Down S24E	1.96 1.76 1.86	.040 .039 .038	.60 .60 .60	Prefab building	Ground level
BERKELEY HAVILAND HALL	37.87 N 122.26 W	1006	15 Apr 76	SMA-1 #2500 with WWVB	N45W Down S45W	1.74 1.70 1.71	.038 .038 .039	.59 .58 .60	Four-story building	Basement
BERKELEY BYERLY SEISM STATION	37.87 N 122.24 W	1005	29 Apr 76	SMA-1 #2503 with WWVB	N45W Down S45W	1.79 1.79 1.73	.038 .039 .039	.60 .55 .57	Concrete vault	Ground level
BERKELEY EVANS HALL	37.87 N 123.90 W	1182	7 Jan 72	SMA-1 #411	S12E Down N78E	1.64 1.83 1.92	.040 .040 .040	.59 .59 .59	Ten-story building	Basement
				SMA-1 #412	S12E Down N78E	1.67 1.96 1.92	.040 .038 .040	.61 .61 .59		Fifth floor
				SMA-1 #413	S12E Down N78E	2.01 1.88 1.85	.038 .037 .037	.60 .53 .55		Tenth floor

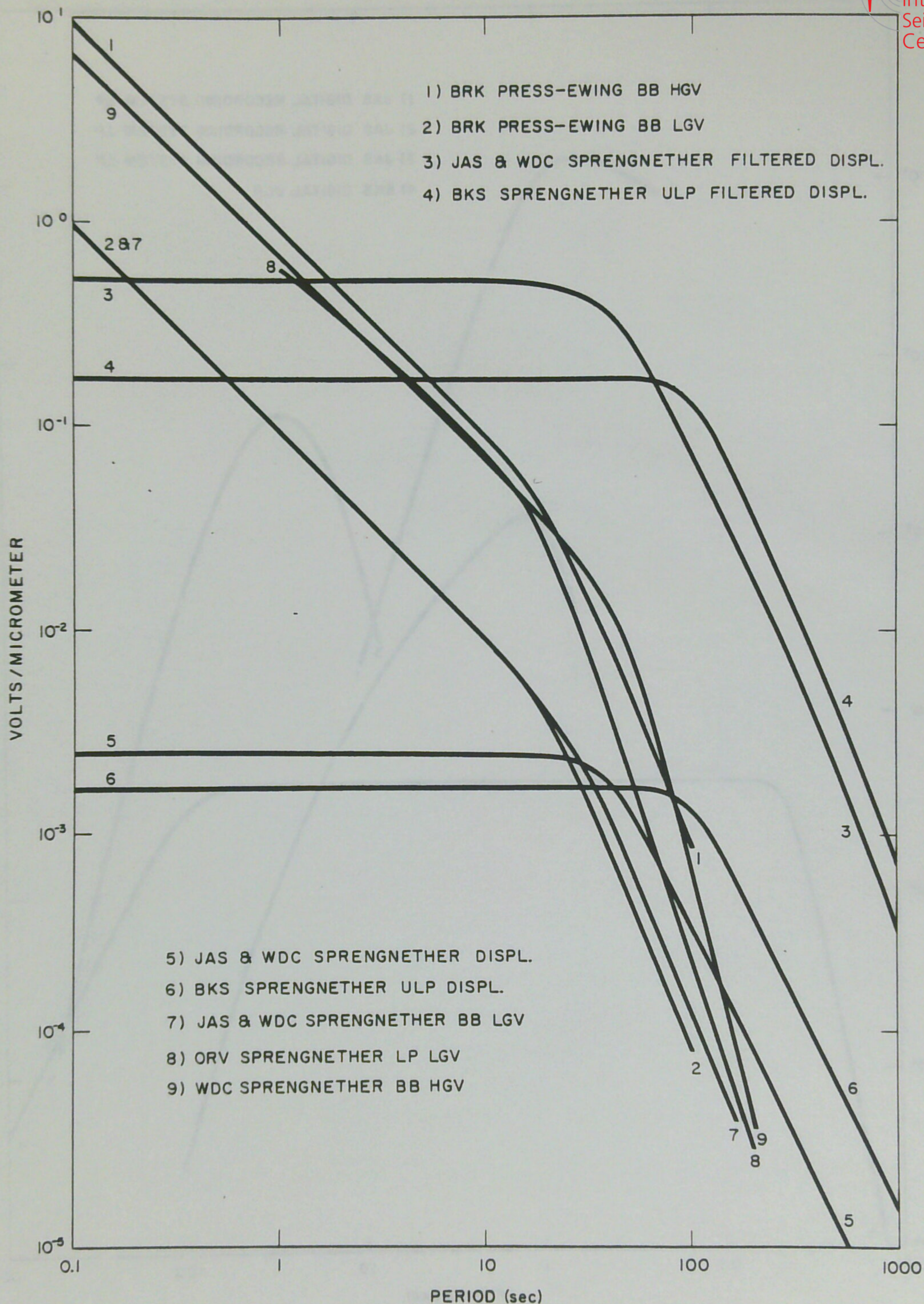




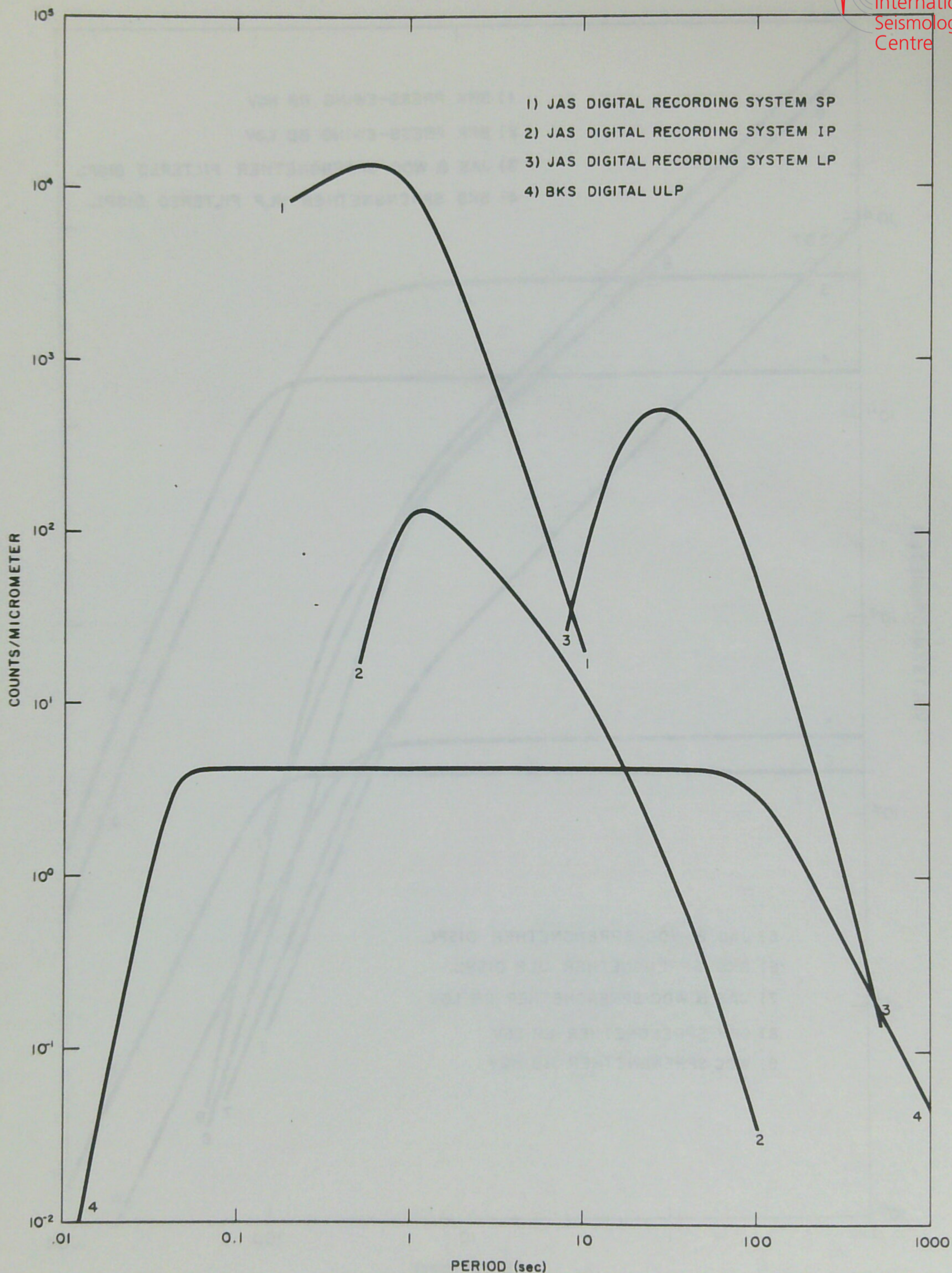
Response curves for photographically recording seismographs. The BKS Benioff and Sprengnether 15-100 second instruments are the WWSSN system.



Response curves for Helicorder (HEL) and Develocorder (DEV) channels when viewed at 20X enlargement. The Benioff 14KG curve (8) represents several different stations and is normalized to 10,000 magnification at 1 second period. (See station instrumentation for actual magnification at 1 second period.)



Response curves for broadband seismographs recorded on slow-speed FM magnetic tape at BRK. Displacement sensitivity (magnification) in volt/micrometer when reproduced on Honeywell LAR 7400 system (± 4 volts output).



Response curves for digitally recorded seismographs. The Jamestown (JAS) digital WWSSN station data is recorded on 1600 bpi magnetic tape. The Berkeley (BKS) digital ultra long period data is recorded on one track of a Honeywell 96 tape recorder recording at 15/16 ips (density is 5120 bpi).

PART I. LOCAL EARTHQUAKES IN NORTHERN CALIFORNIA

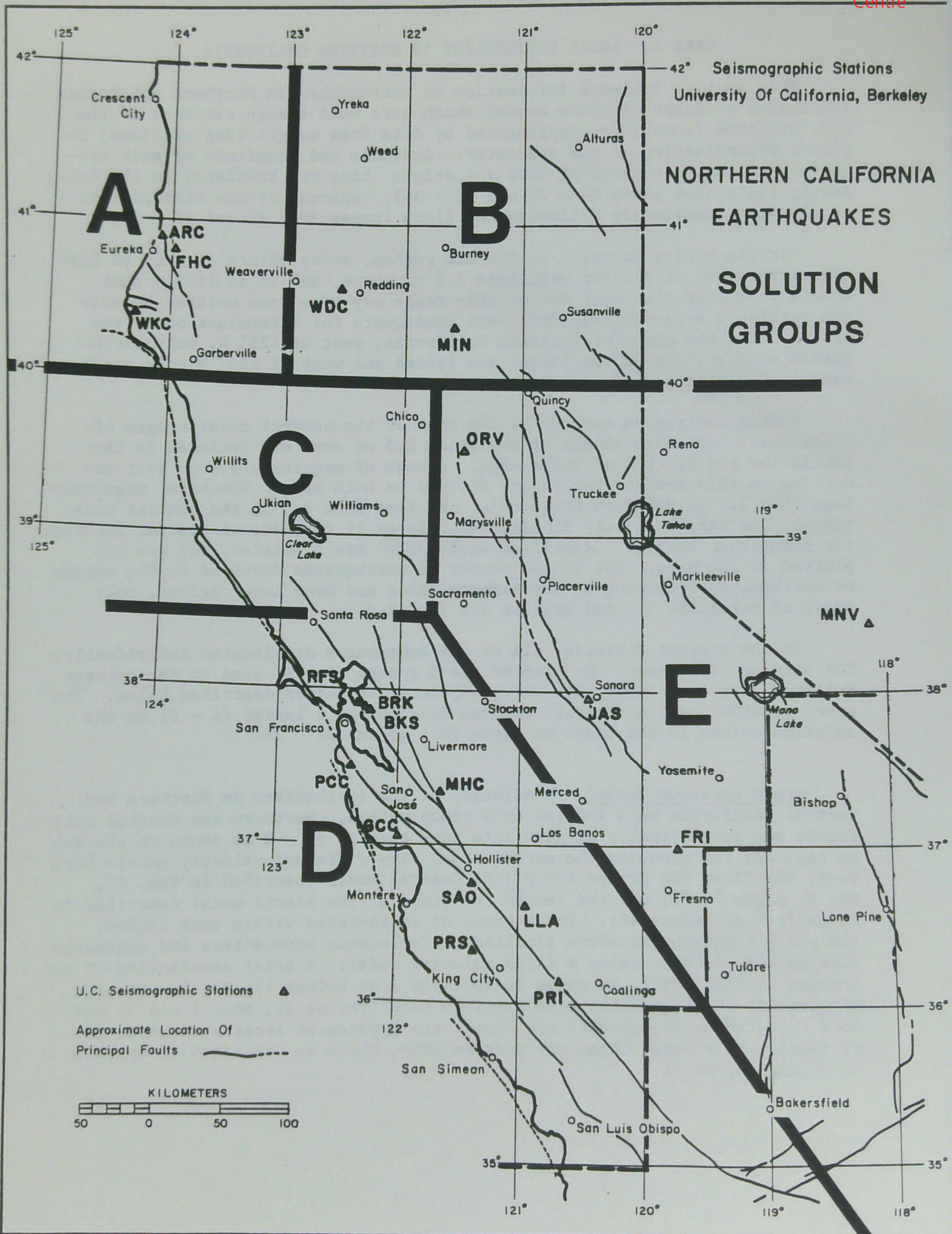
This section includes information on earthquakes in Northern California (including adjacent offshore areas) which were well enough recorded at the U.C. stations (sometimes complemented by data from neighboring stations) to permit determination of the epicenter. Latitude and longitude of each epicenter and the corresponding data and origin time are tabulated in the following lists (see pages 24 - 29 and 32 - 36); epicenters are also plotted on the maps immediately following the lists (pages 30 - 31 and 37 - 38).

For the entire Northern California region, every effort is made to list all earthquakes of Richter magnitude 3.0 or above, but it is likely that some shocks near the lower end of this range may have been omitted because the available seismographic data were inadequate for determination of the origin. Off the coast of Northern California, west of 125° W, only earthquakes of magnitude 3.5 or larger are listed and west of 126° W only earthquakes of magnitude 4.0 or larger are listed.

Within the region covered by the maps of the central coast ranges of California, locatable shocks of magnitude 2.5 or over are included in the tabulation and plotted on these maps. Shocks of magnitude 3.0 or over occurring in this smaller 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 they are of special interest for some other reason. Identified explosions are tabulated, but are not plotted on the maps. Due to the number of earthquakes involved in the series of earthquakes occurring in the Mammoth Lakes and Mono Lake regions, only those of magnitude 3.5 and greater are included.

In the present Bulletin, all of the epicenters are located individually. The station adjustments for each of the 5 groups (A - E) used in the current Bulletin were determined with the group location method described below. The group to which each earthquake belongs is given by a letter (A - E) in the solution column in the lists on pages 24 - 29 and 32 - 36.

Group Location Method. A majority of the earthquakes in Northern and Central California were located by a group method. Northern and Central California was provisionally divided into five regions (A - E as shown on the map on page 18) for grouping the earthquakes. Two different velocity models were used, the first for groups A - D (the Coastal model described in Vol. 47, No. 2, pages 70-72) and the second for group E (the Sierra model described in Appendix B of Volume 48). For a group of earthquakes within each region, the group location procedure simultaneously locates hypocenters and estimates station adjustments, using a fixed velocity model. A brief description of the program, called GHYP2, is given in Appendix A of Volume 47, No. 1. Station adjustments were estimated from the 1980 data (Volume 50, Nos. 1 and 2) and once the station adjustments are known, the hypocenter locations can be individually determined using the program RELP, which is described in Appendix D of Volume 50, No. 1.



The station adjustments (P/S), in units of tenths of a second) for each of the regions into which Central and Northern California was provisionally divided are given in the Table on page 20. These station adjustments are to be added to the calculated travel times.

Explanation of the listing of earthquakes:

Map No. for each epicenter corresponds to the number plotted beside that epicenter on the maps. Epicenters without numbers lie either outside the area of the map or off the coast of Northern California. 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 Universal Coordinated Time (UTC). To obtain local time, subtract 8 hours for Pacific Standard Time (PST) and 7 hours for Pacific Daylight Time (PDT).

In selecting input for the computer, we sought the best possible distribution of stations, both in azimuth and distance. Where possible both P and S phases were used. However, the number of P arrivals greatly out-numbered the S arrivals. Geographic coordinates are quoted to tenths of a minute for computer-located epicenters. Uncertainties of order five kilometers or more exist in determinations where the depth has been restricted, or where the epicenters lie outside the network. Those epicenters located by the arc method have their coordinates expressed to tenths of a degree. This is the accuracy to which the arc method allows.

The Magnitude of the earthquake is determined on the Richter scale from the maximum trace amplitudes recorded for the shock by standard Wood-Anderson torsion seismographs. The magnitudes of earthquakes for which no Wood-Anderson records are available are determined from Benioff seismograph trace amplitudes, and are listed in parentheses.

Depth of focus (h) for each earthquake is given to the nearest kilometer. If the depth has been restrained, it is indicated by "(R)".

STATION ADJUSTMENTS

Region

Station	a	b	c	d	e
ARC	1/-3				
BKS	-5/-12		0/4	-1/1	13/20
FHC	2/-4				
FRI				0/-5	0/-10
GCC				-3/-3	
JAS			2/3	0/-4	6/-2
LLA				-1/-3	21/
MHC			-2/	1/1	20/
MIN	-7/-8	0/-5	1/		7/-1
MNV					0/-3
ORV	-10/-18	-5/	-2/	-6/	-1/-9
PCC	13/		-2/	-4/-2	
PRI				2/2	
PRS				0/-3	
SAO				-1/0	
WDC	-2/-4	-10/-4	-6/		17/9
WKC2	4/5				
ZSP			0/1	0/7	

Note: Station adjustments are given in the form of P/S in units of tenths of seconds.

Solution indicates the number of stations and the method used in determining the epicenter. The lower case letter indicates the method of solutions as follows:

Letter	No. of earthquakes	Location method	Region
a	63	individual	Northern coast
b	10	"	Northern California
c	4	"	Ukiah-Willits
d	93	"	Central coast
e	62	"	Sierra Nevada

Under Remarks will be found a short descriptive location of the epicenter and felt information.

Recent Rate of Seismicity:

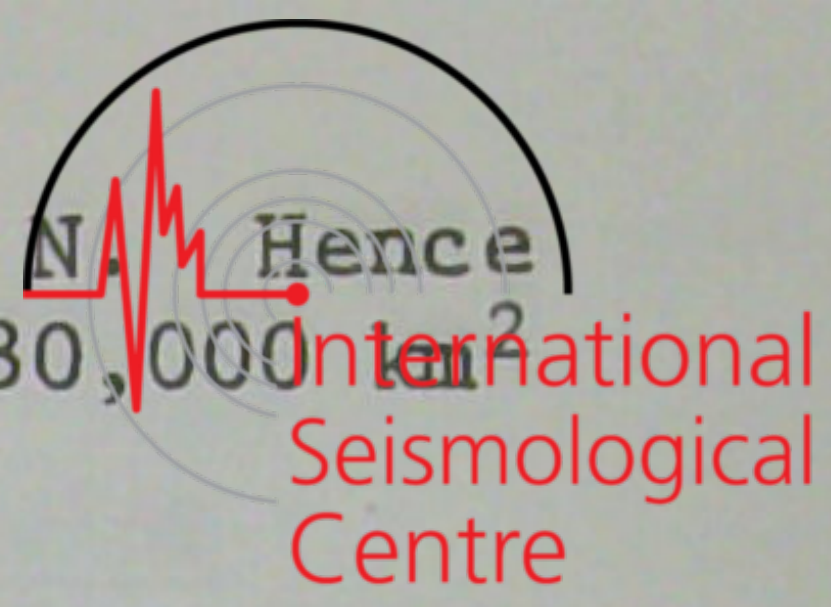
A plot of the cumulative number of earthquakes versus local Richter magnitude (M_L) is given in the figure on page 23. The data set consists of 895 earthquakes ($3.0 \leq M_L \leq 5.9$) listed in the U.C. Bulletin of the Seismographic Stations, in a 280,000 km² region in Northern and Central California during the decade of January 1, 1967, to December 31, 1976. The region is bounded on the north and east by the California border, on the southeast by the dashed line on the map on page 30, on the southwest by a line connecting 35°N-121°W and 39°N-125°W, and on the west by 125° longitude.

The earthquakes are grouped into 20 consecutive 6-month intervals for analysis and the average cumulative number of earthquakes N (total number with a magnitude $\geq M_L$) in a 6-month interval is given by

$$\text{Log } N = 4.412 - 0.912 M_L$$

valid for $3.0 \leq M_L \leq 5.9$.

The shaded zone depicts the 95 percent confidence interval for $\log N$. Hence the approximate interoccurrence time for earthquakes $\geq M_L$ in the 280,000 km² area is



M_L	Interoccurrence Time
≥ 3.0	4 days
3.5	11 days
4.0	1 month
4.5	3 months
5.0	8 months
5.5	2 years
6.0	5 years

The solid circles give the cumulative number of earthquakes (68 earthquakes, $3.0 \leq M_L \leq 4.8$) in the first six months of 1981. The open circles give the cumulative number of earthquakes (43 earthquakes, $3.0 \leq M_L \leq 4.7$) in the last six months of 1981. Thus the rate of seismicity for the first and last half of 1981 is not significantly different from the average semi-annual rate of seismicity over the past decade.

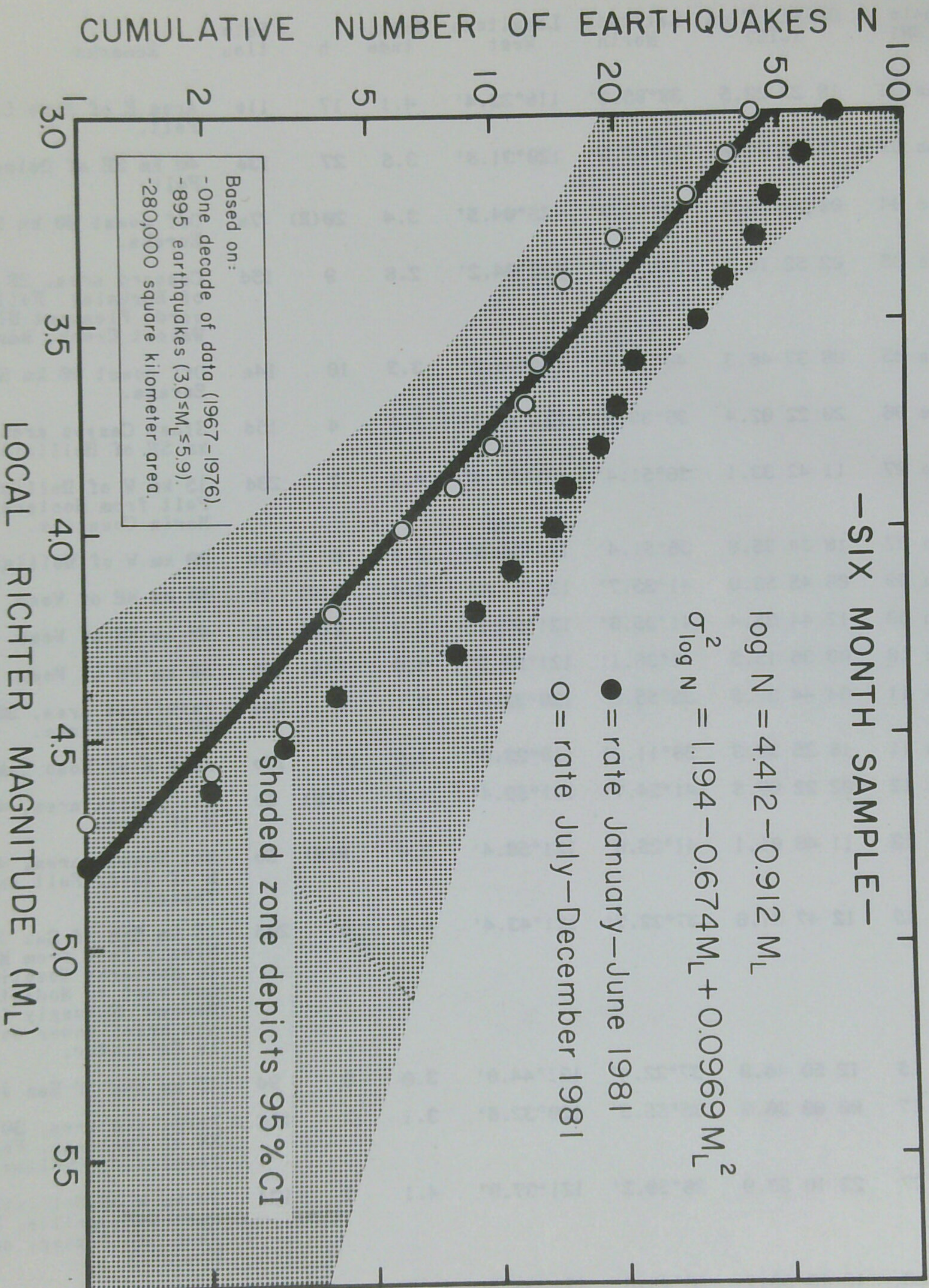
Acknowledgments

We would like to thank the following institutions for their assistance in supplying readings for the epicenter locations: Seismological Laboratory, California Institute of Technology; Seismological Laboratory, University of Nevada; Office of Earthquake Studies, U.S. Geological Survey; Pacific Gas and Electric Company; Lawrence Livermore National Laboratory; California Division of Mines and Geology; California Department of Water Resources; and Seismic Station, Oregon State University.

ERRATA

Volume 50, No. 2, page 94. The ORV Geotech 7505 and 7507 has a T_0 of 20 seconds and not 2.0 seconds.

RECENT RATE OF SEISMICITY FOR NORTHERN & CENTRAL CALIFORNIA



EARTHQUAKES IN NORTHERN CALIFORNIA

January 1 - June 30, 1981



Map No.	Date 1981	Origin Time (UTC)	Latitude North	Longitude West	Magnitude	h	Solution	Remarks
<u>1</u>	Jan 01	18 22 22.5	38°05.3'	118°33.4'	4.1	17	11e	Area E of Mono Lake. Felt.
2	Jan 02	18 12 46.0	39°43.9'	120°31.8'	3.5	27	13e	40 km SE of Quincy. Felt.
3	Jan 04	09 29 45.5	41°17.8'	125°04.5'	3.4	20(R)	7a	Off coast 90 km NW of Eureka.
4	Jan 05	02 52 18.3	37°56.9'	122°04.2'	2.8	9	15d	Concord area, 20 km E of Berkeley. Felt Concord, Pleasant Hill, Walnut Creek, Martinez.
<u>5</u>	Jan 05	08 37 46.3	40°17.5'	124°45.2'	3.3	10	14a	Off coast 80 km SW of Eureka.
6	Jan 06	20 22 02.4	36°38.3'	121°18.7'	2.5	4	15d	Stone Canyon area, 25 km SE of Hollister.
<u>7</u>	Jan 07	11 42 33.1	36°51.4'	121°37.4'	4.5	7	23d	15 km W of Hollister. Felt from Monterey to Marin Counties.
<u>7</u>	Jan 07	18 34 35.8	36°51.4'	121°36.6'	2.9	6	20d	20 km W of Hollister.
<u>8</u>	Jan 09	06 45 53.0	41°35.7'	121°51.6'	3.4	8(R)	9b	50 km NE of Weed.
<u>8</u>	Jan 09	12 44 35.4	41°35.6'	121°57.1'	3.3	8(R)	10b	40 km NE of Weed.
<u>8</u>	Jan 10	00 36 15.5	41°36.1'	121°53.9'	3.6	8(R)	10b	50 km NE of Weed.
<u>9</u>	Jan 11	04 44 32.5	35°55.0'	120°32.4'	3.1	8	24d	Parkfield area, 30 km SW of Coalinga.
<u>10</u>	Jan 11	18 25 38.3	38°11.2'	118°23.0'	3.5	17	13e	Area E of Mono Lake.
<u>11</u>	Jan 12	02 22 07.8	41°24.7'	121°59.4'	3.0	8(R)	5b	Mt. Shasta area, 40 km E of Weed.
<u>11</u>	Jan 12	11 46 01.1	41°25.0'	121°58.4'	3.0	8(R)	5b	Mt. Shasta area, 40 km E of Weed. Felt in Tennant.
<u>12</u>	Jan 15	12 47 51.6	37°22.7'	121°43.4'	4.8	9	20d	15 km ENE of San Jose. Widely felt from Marin to Monterey Counties, and east to Modesto and Merced. Strongly felt and brief power outage in Hollister.
<u>12</u>	Jan 15	12 50 46.9	37°22.4'	121°44.0'	3.0	8	9d	15 km ENE of San Jose.
<u>9</u>	Jan 17	00 09 36.9	35°55.5'	120°32.6'	3.1	12	12d	Parkfield area, 30 km SW of Coalinga. Felt in Parkfield, Cholame.
<u>7</u>	Jan 27	22 10 53.9	36°50.2'	121°37.9'	4.1	7	17d	20 km W of Hollister. Felt Watsonville, San Jose, Hollister, and Monterey.
<u>7</u>	Jan 28	19 13 38.7	36°49.3'	121°38.7'	2.7	1	14d	20 km W of Hollister.
<u>10</u>	Jan 28	20 08 50.7	38°12.1'	118°20.1'	4.6	15	16e	Area E of Mono Lake.
13	Jan 29	08 41 32.4	40°11.3'	121°26.4'	3.3	2	14b	50 km NW of Quincy.

Map No.	Date 1981	Origin Time (UTC)	Latitude North	Longitude West	Magni- tude	h	Solu- tion	Remarks
14	Jan 31	05 23 20.6	36°14.2'	120°14.4'	3.5	10	16d	20 km NE of Coalinga.
<u>15</u>	Jan 31	06 30 15.4	37°10.0'	121°32.5'	3.4	4	17d	Coyote Lake area, 15 km NE of Gilroy.
16	Feb 07	03 53 46.6	37°10.8'	122°03.8'	2.6	8	18d	25 km SW of San Jose.
17	Feb 07	07 00 35.9	40°44.8'	124°15.3'	3.0	21	12a	Off coast 10 km SW of Eureka.
<u>18</u>	Feb 11	00 07 54.4	37°53.3'	122°00.0'	2.6	8	19d	20 km E of Berkeley. Felt Walnut Creek.
19	Feb 11	04 41 05.7	35°59.9'	120°14.6'	3.5	7	19d	20 km SE of Coalinga.
20	Feb 11	08 47 28.4	37°51.5'	121°46.8'	3.0	14	22d	20 km N of Livermore.
<u>15</u>	Feb 14	11 39 51.9	37°06.4'	121°32.2'	2.8	4	15d	10 km NE of Gilroy.
21	Feb 19	05 56 35.7	40°52.3'	125°06.1'	3.6	8(R)	10a	Off coast 80 km W of Eureka.
<u>7</u>	Feb 21	04 15 53.0	36°50.6'	121°38.7'	3.0	8	16d	20 km W of Hollister.
22	Feb 21	14 04 43.3	36°54.1'	122°11.3'	3.0	8	15d	Off coast 15 km SW of Santa Cruz.
<u>15</u>	Feb 22	15 08 50.8	37°06.3'	121°31.8'	2.8	1	21d	10 km NE of Gilroy.
<u>15</u>	Feb 23	02 00 48.7	37°06.9'	121°31.1'	3.1	4	16d	10 km NE of Gilroy.
23	Feb 23	06 12 51.2	35°11.3'	120°38.5'	3.2	1	11d	10 km S of San Luis Obispo.
24	Feb 23	13 07 08.8	36°07.2'	120°24.1'	3.0	9	16d	Coalinga.
<u>7</u>	Feb 24	02 42 49.5	36°52.7'	121°37.4'	2.7	4	23d	15 km W of Hollister.
<u>7</u>	Feb 24	02 56 10.5	36°52.6'	121°36.4'	2.8	4	18d	15 km W of Hollister.
<u>7</u>	Feb 24	09 12 00.7	36°51.0'	121°37.5'	3.1	6	18d	15 km W of Hollister.
<u>25</u>	Mar 01	07 15 34.5	37°34.3'	121°41.3'	2.7	8	13d	15 km SE of Livermore.
26	Mar 01	11 40 27.1	36°08.9'	120°45.7'	2.5	6	16d	35 km E of King City.
	Mar 02	17 09 39.2	40°33.6'	125°41.4'	3.6	8(R)	11a	Off coast 130 km WSW of Eureka.
<u>27</u>	Mar 03	10 45 12.9	37°33.4'	121°56.2'	4.4	10	20d	Fremont, 20 km SW of Livermore. Felt Marin County to Monterey. Minor rock slide along Niles Canyon Road.
<u>27</u>	Mar 03	10 57 19.5	37°33.6'	121°56.4'	3.0	10	21d	Fremont.
<u>28</u>	Mar 05	05 28 54.9	37°33.8'	118°54.1'	4.2	13	12e	Mammoth Lakes area. Felt.
<u>28</u>	Mar 05	15 07 39.3	37°38.1'	118°55.2'	3.6	9	14e	Mammoth Lakes area. Felt.
<u>29</u>	Mar 08	05 35 30.1	40°25.1'	124°31.7'	3.5	8(R)	14a	Off coast 50 km SW of Eureka.
<u>7</u>	Mar 08	10 28 35.3	36°51.8'	121°38.3'	2.9	8	12d	20 km W of Hollister.
<u>12</u>	Mar 08	23 15 00.5	37°19.2'	121°41.2'	2.7	8	17d	15 km E of San Jose.
<u>29</u>	Mar 09	06 26 20.6	40°21.3'	124°36.7'	3.5	8(R)	18a	Off coast 60 km SW of Eureka.

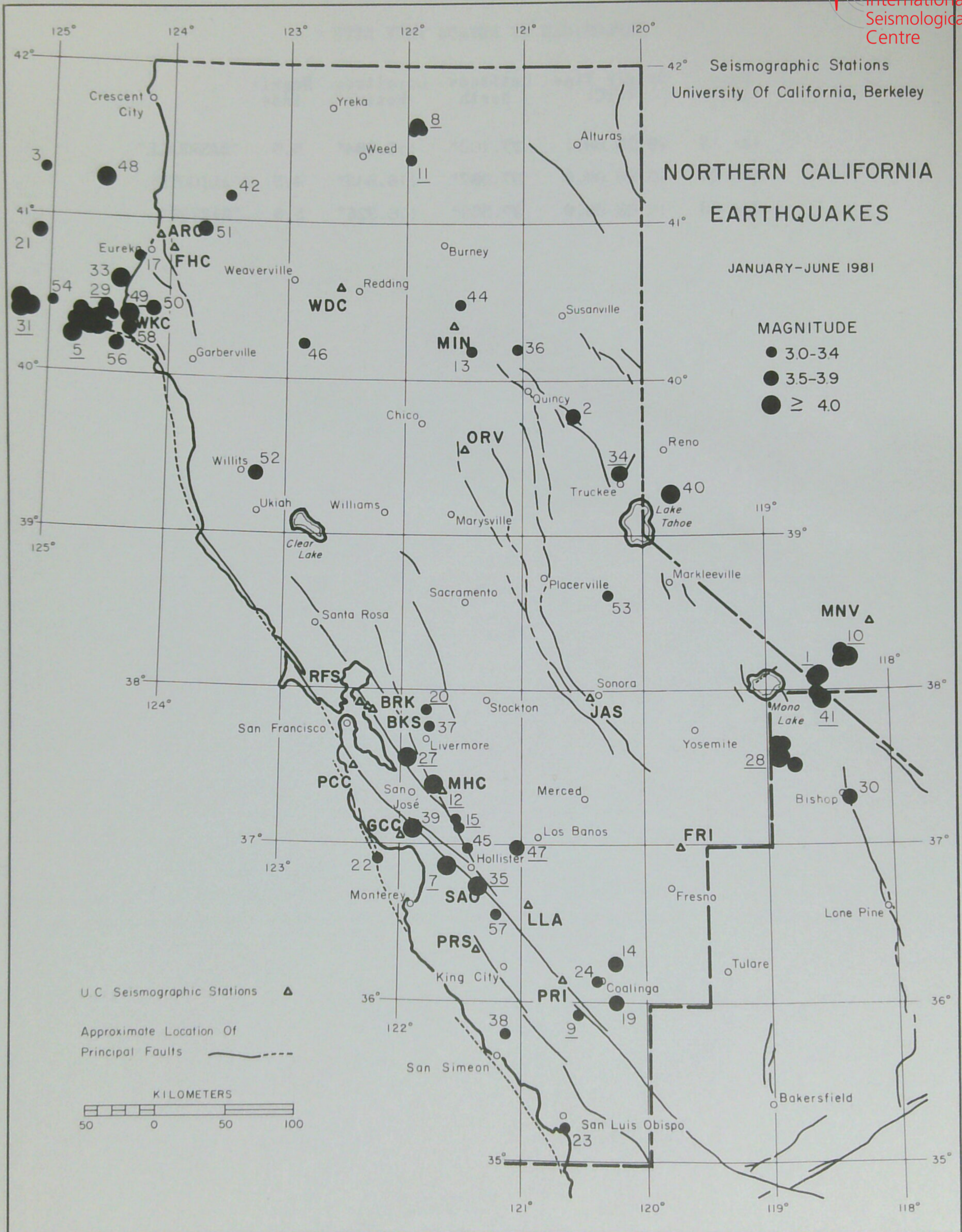
Map No.	Date 1981	Origin Time (UTC)	Latitude North	Longitude West	Magnitude	h	Solution	Remarks
<u>29</u>	Mar 09	06 39 38.2	40°20.9'	124°35.5'	3.3	8(R)	19a	Off coast 60 km SW of Eureka.
30	Mar 10	23 29 28.6	37°17.4'	118°21.0'	3.6	27	11e	10 km SE of Bishop. Felt.
<u>7</u>	Mar 10	23 56 34.3	36°52.2'	121°38.7'	3.3	7	19d	20 km W of Hollister. Felt Salinas.
<u>5</u>	Mar 13	21 22 20.6	40°18.8'	124°42.2'	3.7	23	19a	Off coast 70 km SW of Eureka.
<u>31</u>	Mar 15	06 07 45.9	40°23.6'	125°09.6'	4.7	8(R)	12a	Off coast 100 km SW of Eureka.
<u>29</u>	Mar 15	10 55 35.2	40°22.2'	124°27.4'	3.0	22	14a	Off coast 50 km SW of Eureka.
<u>20</u>	Mar 15	11 21 39.3	37°50.4'	121°46.5'	2.8	14	18d	20 km N of Livermore.
<u>28</u>	Mar 16	04 53 53.2	37°38.0'	118°51.8'	3.5	4	14e	Mammoth Lakes area. Felt.
32	Mar 20	22 54 12.6	36°58.9'	121°43.2'	2.8	10	20d	10 km SW of Gilroy.
33	Mar 21	05 38 46.6	40°35.9'	124°25.4'	4.0	24	21a	Off coast 30 km SW of Eureka. Felt.
<u>10</u>	Mar 23	08 52 30.3	38°13.7'	118°19.8'	3.5	14	14e	Area E of Mono Lake.
<u>28</u>	Mar 24	04 09 09.2	37°30.5'	118°46.1'	3.5	11	16e	Mammoth Lakes area. Felt.
<u>28</u>	Mar 25	04 01 43.8	37°32.9'	118°53.2'	3.7	10(R)	13e	Mammoth Lakes area. Felt.
25	Mar 25	16 58 16.7	37°34.2'	121°41.0'	2.9	8	17d	15 km SE of Livermore.
	Mar 27	16 16 36.7	40°28.2'	126°55.2'	4.2	8(R)	21a	Off coast 240 km WSW of Eureka.
<u>34</u>	Mar 28	04 39 59.1	39°23.8'	120°11.1'	3.5	15	18e	10 km N of Truckee.
<u>34</u>	Mar 28	05 04 36.9	39°23.7'	120°09.7'	3.8	16	11e	10 km N of Truckee.
<u>35</u>	Mar 28	20 28 36.4	36°46.7'	121°22.8'	2.8	3	19d	10 km SE of Hollister.
<u>5</u>	Mar 30	12 38 48.2	40°19.8'	124°43.5'	4.3	8(R)	23a	Off coast 70 km SW of Eureka. Felt Rio Dell, Petrolia.
<u>29</u>	Mar 30	15 00 39.5	40°21.5'	124°33.3'	3.1	19	14a	Off coast 60 km SW of Eureka.
<u>5</u>	Mar 31	02 10 35.9	40°18.9'	124°40.5'	4.0	8(R)	23a	Off coast 70 km SW of Eureka.
<u>34</u>	Apr 03	08 06 22.1	39°24.4'	120°09.9'	3.1	20	17e	10 km N of Truckee.
36	Apr 08	15 32 45.3	40°11.4'	121°02.9'	3.3	4	11b	30 km NNW of Quincy.
<u>1</u>	Apr 11	04 13 24.0	38°03.8'	118°35.4'	3.6	10	21e	Area E of Mono Lake.
37	Apr 11	23 47 10.9	37°45.9'	121°45.5'	3.4	12	23d	10 km N of Livermore. Felt Antioch, Concord, Walnut Creek, Brentwood Danville.
<u>5</u>	Apr 13	22 16 16.5	40°18.2'	124°36.3'	4.3	23	20a	Off coast 70 km SW of Eureka. Felt Petrolia, Miranda, Arcata.
<u>31</u>	Apr 17	01 31 40.0	40°23.5'	125°20.8'	4.2	8(R)	19a	Off coast 100 km SW of Eureka.

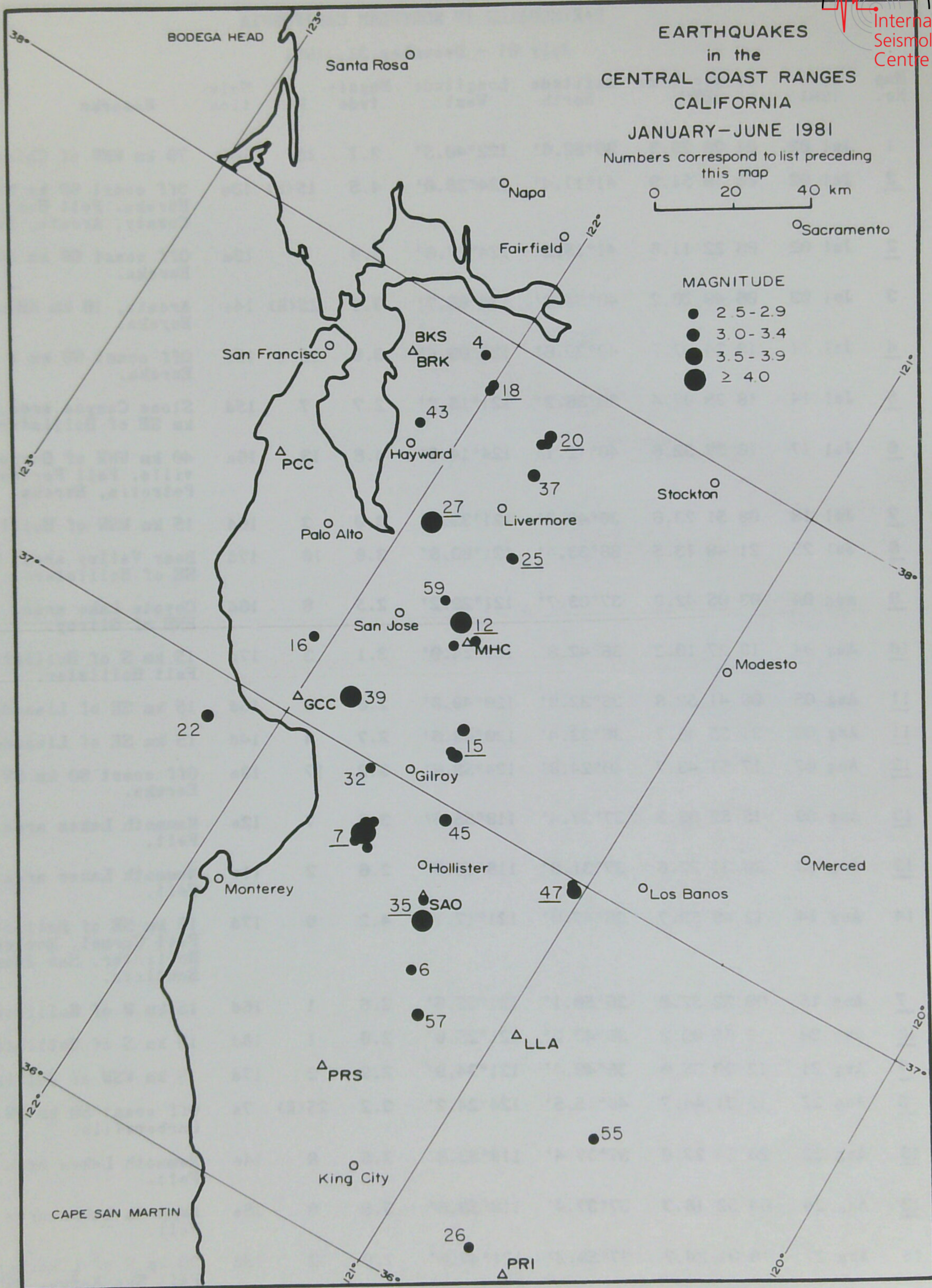
Map No.	Date 1981	Origin Time (UTC)	Latitude North	Longitude West	Magnitude	h	Solution	Remarks
<u>1</u>	Apr 18	00 35 40.5	38°05.4'	118°33.5'	3.6	25	15e	Area E of Mono Lake.
<u>5</u>	Apr 18	13 17 37.1	40°23.6'	124°43.9'	3.8	8(R)	17a	Off coast 70 km SW of Eureka.
<u>5</u>	Apr 20	23 44 54.6	40°19.7'	124°39.0'	3.5	8(R)	18a	Off coast 70 km SW of Eureka.
38	Apr 25	14 35 15.3	35°47.6'	121°07.9'	3.1	5	16d	15 km NE of San Simeon.
39	Apr 25	19 41 37.4	37°05.9'	121°52.3'	4.1	11	16d	25 km S of San Jose. Felt San Jose, Salinas, Los Gatos, Watsonville, Santa Cruz, Capitola, Carmel Valley, Boulder Creek, Ben Lomond.
<u>1</u>	Apr 28	22 54 49.9	38°03.5'	118°35.2'	4.6	10	16e	Area E of Mono Lake. Felt Mono County.
40	Apr 29	11 55 52.6	39°16.4'	119°45.4'	4.2	7	21e	30 km SSE of Reno. Felt Truckee, S. Lake Tahoe, Reno, Carson City, Grass Valley.
<u>29</u>	May 05	06 03 51.9	40°21.2'	124°33.9'	3.4	8(R)	15a	Off coast 60 km SW of Eureka.
<u>7</u>	May 06	09 16 29.2	36°49.3'	121°35.7'	2.6	4	19d	15 km W of Hollister.
<u>41</u>	May 07	01 02 37.8	37°56.5'	118°31.7'	4.5	18	20e	Area E of Mono Lake. Felt Mono County. Two aftershocks, both of estimated magnitude 3.5, lost in coda. These occur approximately 43 & 78 seconds later.
<u>41</u>	May 07	02 18 27.5	37°57.8'	118°34.7'	3.6	10(R)	10e	Area E of Mono Lake.
<u>12</u>	May 08	22 24 56.6	37°21.6'	121°38.7'	2.6	6	11d	20 km E of San Jose.
	May 09	18 11 51.2	40°30.9'	125°30.8'	3.8	8(R)	17a	Off coast 120 km SW of Eureka.
42	May 11	02 52 13.5	41°09.3'	123°30.1'	3.3	8(R)	12a	70 km NE of Eureka.
43	May 11	11 50 28.8	37°43.7'	122°07.7'	2.6	12	17d	San Leandro, 20 km SE of Berkeley. Felt San Leandro, San Lorenzo, Alameda, Emeryville.
44	May 17	17 10 26.5	40°28.1'	121°32.5'	3.1	6	14b	Mt. Lassen area, 50 km SE of Burney.
45	May 17	19 17 26.6	36°58.3'	121°27.0'	3.0	4	21d	15 km N of Hollister.
<u>18</u>	May 18	14 39 15.2	37°53.1'	121°59.9'	2.8	9	16d	20 km E of Berkeley. Felt Concord, Oakland, Lafayette, Walnut Creek
46	May 19	16 44 31.2	40°13.4'	122°52.5'	3.4	8(R)	14b	50 km SW of Redding.
<u>47</u>	May 20	17 21 31.2	36°58.9'	121°02.0'	3.9	8	20d	20 km SW of Los Banos. Felt Los Banos, San Luis Reservoir area.
<u>47</u>	May 20	18 37 52.4	36°59.2'	121°02.2'	2.9	8	20d	20 km SW of Los Banos.
48	May 22	01 18 58.3	41°14.6'	124°34.1'	4.2	16	11a	Off coast 60 km NW of Eureka.
49	May 26	11 41 10.2	40°22.8'	124°21.2'	4.6	21	17a	Off coast 50 km SW of Eureka. Felt Petrolia.

Map No.	Date 1981	Origin Time (UTC)	Latitude North	Longitude West	Magni- tude	h	Solu- tion	Remarks
50	May 26	12 12 16.2	40°25.3'	124°08.5'	3.5	8(R)	15a	40 km S of Eureka.
51	May 31	03 36 37.6	40°56.5'	123°42.6'	3.7	8(R)	6a	40 km NE of Eureka.
<u>20</u>	Jun 03	19 59 00.9	37°49.7'	121°47.7'	2.8	15	16d	20 km N of Livermore.
52	Jun 04	12 23 14.2	39°23.2'	123°14.5'	3.5	9	20c	10 km E of Willits. Felt Willits, Ukiah, Redwood Valley.
<u>35</u>	Jun 08	03 09 05.5	36°44.6'	121°21.8'	4.3	10	23d	15 km SE of Hollister. Widely felt in San Benito, Monterey, and Merced Counties, and as far away as San Fran- cisco.
53	Jun 11	14 14 10.6	38°36.1'	120°17.2'	3.2	24	16e	50 km ESE of Placer- ville.
<u>7</u>	Jun 14	07 50 06.9	36°50.9'	121°37.8'	2.6	1	17d	20 km W of Hollister.
<u>7</u>	Jun 14	07 55 14.3	36°50.5'	121°38.0'	2.8	1	17d	20 km W of Hollister.
<u>5</u>	Jun 14	23 53 57.6	40°19.7'	124°44.9'	4.3	24	18a	Off coast 70 km W of Eureka. Felt Ferndale, Rio Dell, Hydesville, Carlotta, Fortuna, Eel River Valley, Loleta.
<u>5</u>	Jun 21	06 20 35.1	40°14.6'	124°48.5'	4.0	8(R)	19a	Off coast 80 km SW of Eureka. Felt Carlotta, Miranda, Rio Dell.
<u>29</u>	Jun 21	10 10 44.6	40°16.2'	124°31.3'	3.1	22	15a	Off coast 60 km SW of Eureka.
<u>31</u>	Jun 23	21 50 20.6	40°26.7'	125°15.6'	4.0	8(R)	19a	Off coast 100 km SW of Eureka.
54	Jun 24	07 36 24.0	40°26.4'	124°58.3'	3.2	8(R)	19a	Off coast 80 km SW of Eureka.
<u>5</u>	Jun 24	14 15 24.8	40°19.5'	124°46.6'	3.5	23	17a	Off coast 80 km SW of Eureka.
55	Jun 25	00 01 21.0	36°30.3'	120°37.2'	2.8	3	17d	50 km NW of Coalinga.
56	Jun 25	11 37 07.0	40°10.8'	124°26.1'	3.6	8(R)	17a	Off coast 60 km W of Garberville. Felt Rio Dell.
57	Jun 26	01 43 27.2	36°33.3'	121°13.4'	3.1	7	18d	Bear Valley, 40 km SE of Hollister.
58	Jun 27	13 58 45.1	40°17.2'	124°20.9'	3.8	8(R)	11a	50 km NW of Garberville
59	Jun 28	16 33 57.3	37°24.7'	121°47.1'	2.5	5	19d	10 km NE of San Jose.
<u>28</u>	Jun 30	08 31 51.4	37°33.5'	118°53.6'	3.7	7	14e	Mammoth Lakes area. Felt.

EXPLOSIONS AT NEVADA TEST SITE

Date 1981	Origin Time (UTC)	Latitude North	Longitude West	Magni- tude	
Jan 15	20 25 00.1	37.102°	116.004°	5.6	"BASEBALL"
May 29	16 00 00.0	37.087°	116.045°	4.5	"ALIGOTE"
Jun 06	18 00 00.0	37.303°	116.326°	5.5	"HARZER"





EARTHQUAKES IN NORTHERN CALIFORNIA

July 01 - December 31, 1981

Map No.	Date 1981	Origin Time (UTC)	Latitude North	Longitude West	Magnitude	h	Solution	Remarks
1	Jul 02	01 28 23.3	39°52.6'	122°40.5'	3.1	15	14c	70 km WNW of Chico.
<u>2</u>	Jul 02	08 10 51.9	41°17.4'	124°26.0'	4.5	15(R)	13a	Off coast 60 km NW of Eureka. Felt Humboldt County, Arcata, Eureka
<u>2</u>	Jul 02	08 22 11.6	41°15.2'	124°27.6'	3.9	1	13a	Off coast 60 km NW of Eureka.
3	Jul 03	06 49 20.2	40°54.3'	124°06.7'	3.1	25(R)	14a	Arcata, 10 km NE of Eureka.
<u>4</u>	Jul 11	19 24 07.7	40°39.6'	125°09.6'	3.8	15	13a	Off coast 90 km W of Eureka.
<u>5</u>	Jul 14	18 28 07.4	36°36.2'	121°15.2'	2.7	7	15d	Stone Canyon area, 30 km SE of Hollister.
<u>6</u>	Jul 17	16 37 32.6	40°12.1'	124°14.9'	4.6	13	16a	40 km WNW of Garberville. Felt Ferndale, Petrolia, Eureka.
<u>7</u>	Jul 18	08 51 23.6	36°49.2'	121°33.4'	3.0	3	16d	15 km WSW of Hollister
<u>8</u>	Jul 25	21 48 13.5	36°33.4'	121°03.8'	3.0	10	17d	Bear Valley area, 45 km SE of Hollister.
<u>9</u>	Aug 04	03 05 42.0	37°03.7'	121°29.2'	2.5	8	16d	Coyote Lake area, 10 km ENE of Gilroy.
<u>10</u>	Aug 04	13 27 10.2	36°42.8'	121°24.0'	3.1	3	17d	15 km S of Hollister. Felt Hollister.
<u>11</u>	Aug 05	08 41 52.8	36°32.8'	120°49.8'	2.6	8	15d	15 km SE of Llanada.
<u>11</u>	Aug 06	21 35 46.7	36°33.4'	120°48.6'	2.7	4	14d	15 km SE of Llanada.
<u>12</u>	Aug 07	17 51 43.7	40°24.8'	124°58.4'	3.2	17	13a	Off coast 80 km SW of Eureka.
<u>13</u>	Aug 09	15 52 03.2	37°37.4'	118°55.5'	3.5	7	12e	Mammoth Lakes area. Felt.
<u>13</u>	Aug 13	20 31 22.6	37°31.8'	118°53.3'	3.6	2	11e	Mammoth Lakes area. Felt.
14	Aug 14	12 49 59.7	36°47.0'	121°17.1'	4.2	9	17d	15 km SE of Hollister. Felt Carmel, Monterey Hollister, San Juan Bautista.
<u>7</u>	Aug 15	09 22 52.0	36°50.1'	121°35.6'	2.6	1	16d	15 km W of Hollister.
<u>10</u>	Aug 20	12 55 09.2	36°43.2'	121°25.0'	2.6	1	16d	15 km S of Hollister.
<u>7</u>	Aug 21	12 00 35.0	36°49.4'	121°34.9'	2.9	2	17d	15 km WSW of Hollister
<u>6</u>	Aug 22	19 31 44.7	40°15.5'	124°24.2'	3.2	25(R)	7a	Off coast 50 km NW of Garberville.
<u>13</u>	Aug 22	20 54 23.8	37°37.4'	118°53.6'	3.5	8	14e	Mammoth Lakes area. Felt.
<u>13</u>	Aug 24	04 52 18.3	37°37.4'	118°53.6'	3.9	8	15e	Mammoth Lakes area. Felt.
15	Aug 27	10 01 24.7	37°50.2'	121°47.6'	2.9	12	15d	20 km N of Livermore. Felt San Ramon, Dublin

Map No.	Date 1981	Origin Time (UTC)	Latitude North	Longitude West	Magni- tude	h	Solu- tion	Remarks
16	Aug 29	18 57 36.7	39°53.8'	120°51.2'	3.1	10(R)	6e	10 km SE of Quincy.
17	Aug 30	03 31 25.7	40°28.3'	123°19.1'	3.2	25(R)	12a	40 km SW of Weaverville.
<u>8</u>	Sep 08	06 45 32.4	36°31.7'	121°09.8'	2.6	4	15d	Bear Valley area, 40 km SE of Hollister.
<u>18</u>	Sep 08	12 34 43.1	38°02.0'	118°46.5'	3.7	4	15e	Area E of Mono Lake.
<u>7</u>	Sep 09	06 54 04.7	36°46.4'	121°33.7'	2.9	7	16d	15 km SW of Hollister. Felt Salinas.
19	Sep 12	15 49 04.2	37°08.7'	121°32.1'	2.9	6	16d	Coyote Lake area, 15 km NE of Gilroy.
<u>18</u>	Sep 12	18 12 58.7	38°05.5'	118°37.1'	4.4	11	15e	Area E of Mono Lake. Felt.
<u>10</u>	Sep 14	08 19 39.0	36°39.4'	121°20.0'	3.3	4	17d	Stone Canyon area, 25 km SE of Hollister.
20	Sep 15	22 07 03.3	40°46.3'	123°56.6'	3.2	25(R)	13a	20 km E of Eureka.
<u>21</u>	Sep 16	12 41 14.2	40°18.4'	124°36.4'	4.7	25	14a	Off coast 70 km SW of Eureka. Felt Humboldt and Mendocino Counties, Weott, Whitehorn.
<u>21</u>	Sep 16	12 45 58.5	40°14.4'	124°31.7'	3.6	21	7a	Off coast 70 km SW of Eureka. Felt.
22	Sep 17	02 59 16.8	35°50.0'	121°16.5'	3.1	1	14d	20 km NW of San Simeon.
<u>13</u>	Sep 17	12 36 04.8	37°33.0'	118°52.3'	3.7	13	13e	Mammoth Lakes area. Felt.
<u>21</u>	Sep 18	23 34 00.4	40°20.7'	124°37.7'	3.3	25(R)	15a	Off coast 60 km SW of Eureka.
<u>21</u>	Sep 21	11 21 08.2	40°17.2'	124°35.2'	3.4	9	15a	Off coast 60 km SW of Eureka.
<u>10</u>	Sep 21	12 41 21.4	36°38.8'	121°19.2'	2.9	2	16d	Stone Canyon area, 25 km SE of Hollister.
<u>21</u>	Sep 22	06 01 31.1	40°18.4'	124°38.8'	3.3	25(R)	15a	Off coast 60 km SW of Eureka.
<u>7</u>	Sep 24	14 00 26.4	36°47.3'	121°34.0'	3.2	5	17d	15 km SW of Hollister. Felt Salinas.
<u>13</u>	Sep 25	06 48 53.2	37°32.4'	118°52.5'	3.8	10	15e	Mammoth Lakes area. Felt.
	Sep 26	20 23 37.0	40°23.4'	127°12.2'	4.0	25(R)	12a	Off coast 260 km WSW of Eureka.
<u>8</u>	Sep 28	05 02 43.1	36°34.3'	121°04.5'	2.6	9	16d	Bear Valley area, 45 km SE of Hollister.
<u>7</u>	Sep 28	07 34 39.3	36°47.7'	121°33.8'	4.0	7	18d	15 km SW of Hollister. Felt Salinas, San Juan Bautista, Watsonville, Castroville, Hollister.
<u>13</u>	Sep 30	11 53 26.8	37°34.8'	118°53.5'	5.9	30	9e	Mammoth Lakes area. Felt throughout Eastern California and Western Nevada. Rockslides in Convict Canyon; items knocked from shelves in Mammoth Lakes; power outage in Bishop.

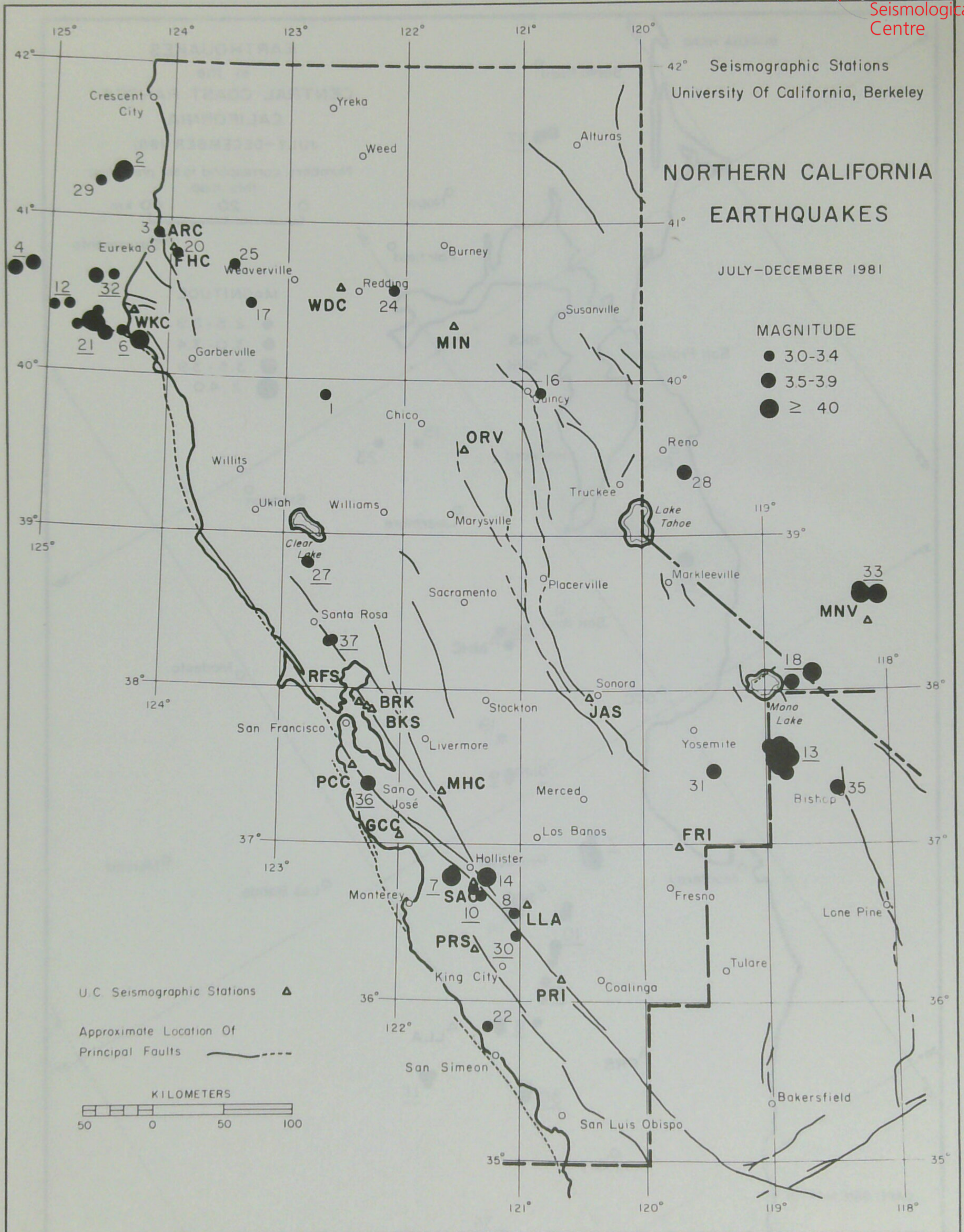
Map No.	Date 1981	Origin Time (UTC)	Latitude North	Longitude West	Magnitude	h	Solution	Remarks
<u>13</u>	Sep 30	12 22 55.6	37°36.6'	118°51.1'	3.6	10(R)	6e	Mammoth Lakes area. Felt.
<u>13</u>	Sep 30	13 05 48.3	37°37.9'	118°53.0'	4.9	10(R)	9e	Mammoth Lakes area. Felt.
<u>13</u>	Sep 30	14 33 45.9	37°38.1'	118°52.2'	3.9	10(R)	8e	Mammoth Lakes area. Felt.
<u>13</u>	Sep 30	14 40 13.2	37°37.7'	118°52.3'	3.6	10(R)	4e	Mammoth Lakes area. Felt.
<u>13</u>	Sep 30	14 50 06.9	37°33.9'	118°55.1'	4.5	10(R)	9e	Mammoth Lakes area. Felt throughout Mono County.
<u>13</u>	Sep 30	15 20 48.3	37°39.0'	118°52.7'	3.6	10(R)	9e	Mammoth Lakes area. Felt.
<u>13</u>	Sep 30	16 34 32.7	37°30.0'	118°50.2'	4.0	10(R)	8e	Mammoth Lakes area. Felt throughout Mono County.
<u>13</u>	Sep 30	19 35 12.4	37°32.2'	118°49.3'	4.2	10(R)	9e	Mammoth Lakes area. Felt throughout Mono County.
<u>13</u>	Sep 30	19 48 20.9	37°37.3'	118°53.2'	3.5	10(R)	9e	Mammoth Lakes area. Felt.
<u>13</u>	Oct 01	01 04 15.6	37°35.2'	118°47.5'	3.6	10(R)	5e	Mammoth Lakes area. Felt.
<u>13</u>	Oct 01	07 02 04.5	37°30.2'	118°51.9'	4.5	10(R)	6e	Mammoth Lakes area. Felt throughout Mono County.
<u>13</u>	Oct 01	09 13 57.4	37°27.6'	118°49.4'	3.5	10(R)	5e	Mammoth Lakes area. Felt.
<u>13</u>	Oct 01	13 22 36.1	37°34.4'	118°47.7'	3.7	10(R)	5e	Mammoth Lakes area. Felt.
<u>5</u>	Oct 01	19 22 29.7	36°34.0'	121°12.7'	2.7	5	16d	Bear Valley area, 35 km SE of Hollister.
<u>13</u>	Oct 01	22 05 08.2	37°29.5'	118°53.2'	3.5	17	6e	Mammoth Lakes area. Felt.
23	Oct 02	05 05 09.3	37°53.7'	121°41.8'	2.5	7	13d	25 km NE of Livermore.
<u>13</u>	Oct 02	07 37 22.1	37°36.5'	118°50.8'	4.1	10(R)	7e	Mammoth Lakes area. Felt throughout Mono County.
<u>13</u>	Oct 02	16 14 23.4	37°36.4'	118°50.0'	3.5	10(R)	6e	Mammoth Lakes area. Felt.
<u>13</u>	Oct 03	01 20 37.3	37°34.2'	118°48.3'	4.0	10(R)	7e	Mammoth Lakes area. Felt throughout Mono County.
<u>13</u>	Oct 03	14 40 55.0	37°33.6'	118°52.1'	3.8	10(R)	7e	Mammoth Lakes area. Felt.
<u>13</u>	Oct 09	11 01 00.1	37°38.2'	118°52.6'	3.6	7	13e	Mammoth Lakes area. Felt.
<u>13</u>	Oct 09	11 17 26.0	37°33.1'	118°48.1'	3.6	4	13e	Mammoth Lakes area. Felt.
24	Oct 10	12 13 17.6	40°33.7'	122°06.2'	3.2	5(R)	11b	30 km E of Redding.
	Oct 12	00 45 40.6	41°06.3'	125°52.5'	4.1	25(R)	14a	Off coast 150 km WNW of Eureka.

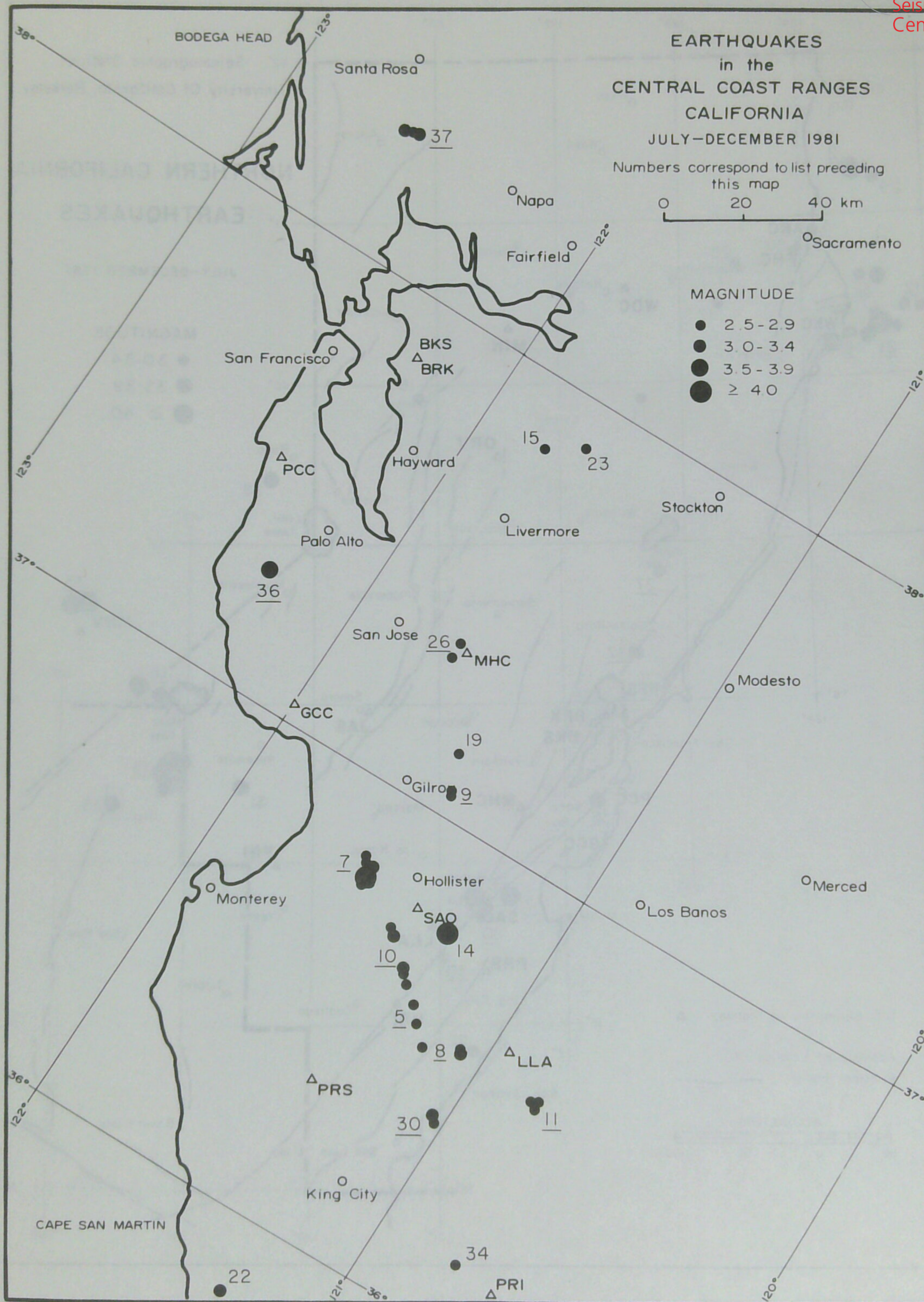
Map No.	Date 1981	Origin Time (UTC)	Latitude North	Longitude West	Magnitude	h	Solution	Remarks
25	Oct 19	23 34 37.3	40°42.7'	123°27.8'	3.0	24	13a	50 km W of Weaverville.
<u>26</u>	Oct 21	10 42 10.0	37°19.2'	121°41.4'	2.7	7	16d	15 km E of San Jose.
<u>26</u>	Oct 24	03 03 16.4	37°21.5'	121°41.5'	2.7	8	16d	15 km E of San Jose.
<u>21</u>	Oct 24	16 10 46.9	40°16.9'	124°45.8'	3.1	22	14a	Off coast 80 km SW of Eureka.
<u>21</u>	Oct 25	17 18 01.8	40°19.5'	124°38.2'	3.8	25(R)	15a	Off coast 70 km SW of Eureka.
<u>7</u>	Oct 25	23 08 58.1	36°47.6'	121°32.8'	2.7	5	17d	15 km WSW of Hollister.
	Oct 29	03 17 17.8	40°26.7'	127°16.6'	4.3	25(R)	13a	Off coast 180 km WSW of Eureka.
<u>21</u>	Oct 29	12 30 58.3	40°18.7'	124°35.0'	3.2	25(R)	14a	Off coast 70 km SW of Eureka.
<u>27</u>	Oct 31	08 59 06.6	38°48.6'	122°48.6'	3.1	2	16c	Geysers area, 20 km S of Clear Lake. Felt Cobb.
<u>12</u>	Nov 02	21 33 39.8	40°25.0'	124°50.3'	3.2	23	16a	Off coast 70 km SW of Eureka.
28	Nov 04	11 47 17.7	39°24.0'	119°39.4'	3.5	1	12e	20 km SE of Reno, Nevada. Felt Reno.
<u>13</u>	Nov 05	03 30 16.6	37°32.3'	118°49.9'	3.5	7	12e	Mammoth Lakes area. Felt.
29	Nov 05	20 21 47.9	41°13.4'	124°37.1'	3.4	25(R)	8a	Off coast 60 km NW of Eureka.
<u>21</u>	Nov 10	08 58 03.5	40°17.5'	124°41.8'	3.3	20	12a	Off coast 70 km SW of Eureka.
<u>21</u>	Nov 11	17 46 08.9	40°18.4'	124°38.6'	4.0	24	18a	Off coast 70 km SW of Eureka.
<u>13</u>	Nov 13	03 00 00.0	37°36.9'	118°57.2'	3.9	7	12e	Mammoth Lakes area. Felt.
<u>13</u>	Nov 13	03 07 47.7	37°37.6'	118°57.4'	3.7	10(R)	12e	Mammoth Lakes area. Felt.
<u>10</u>	Nov 16	02 58 02.8	36°37.8'	121°17.2'	2.7	5	18d	Stone Canyon area, 25 km SE of Hollister.
<u>30</u>	Nov 16	07 29 53.6	36°25.4'	121°02.7'	3.2	7	18d	25 km NE of King City.
<u>9</u>	Nov 16	19 47 06.1	37°02.8'	121°28.9'	2.9	6	20d	Coyote Lake area, 10 km E of Gilroy.
31	Nov 18	16 15 49.0	37°28.4'	119°24.4'	3.9	27	26e	30 km SE of Yosemite. Felt.
<u>32</u>	Nov 20	23 59 04.5	40°36.3'	124°37.4'	3.8	21	19a	Off coast 40 km SW of Eureka.
<u>21</u>	Nov 24	18 37 28.9	40°22.2'	124°36.4'	3.2	25(R)	17a	Off coast 60 km SW of Eureka.
<u>7</u>	Nov 27	19 15 27.0	36°46.8'	121°32.3'	2.5	4	19d	15 km SW of Hollister.
<u>33</u>	Dec 01	16 18 51.0	38°36.5'	118°03.9'	4.4	10(R)	12e	Luning, Nevada, 20 km N of MNV. Felt Luning, Mina.
<u>4</u>	Dec 02	18 48 30.8	40°37.8'	125°18.4'	3.7	25(R)	9a	Off coast 100 km W of Eureka.

Map No.	Date 1981	Origin Time (UTC)	Latitude North	Longitude West	Magnitude	h	Solution	Remarks
34	Dec 04	13 34 28.2	36°09.3'	120°45.5'	2.7	8	19d	35 km E of King City.
<u>33</u>	Dec 07	07 47 52.7	38°36.3'	118°13.1'	4.0	12	10e	Luning, Nevada, 20 km N of MNV. Felt Luning, Mina.
35	Dec 10	09 33 19.7	37°22.5'	118°25.8'	3.5	28	11e	Bishop. Felt.
<u>27</u>	Dec 10	11 57 37.0	38°48.2'	122°47.4'	3.3	2	14c	Geysers area, 20 km S of Clear Lake. Felt Cobb, Middletown, Clear Lake Highlands.
<u>30</u>	Dec 11	05 42 37.0	36°23.8'	121°01.4'	2.6	8	18d	25 km NE of King City.
<u>32</u>	Dec 12	01 16 35.1	40°36.4'	124°29.3'	3.0	23	15a	Off coast 30 km SW of Eureka.
<u>36</u>	Dec 12	15 11 09.3	37°23.0'	122°16.0'	3.7	9	18d	15 km SW of Palo Alto. Felt Santa Clara and San Mateo Counties.
<u>36</u>	Dec 12	15 54 39.1	37°22.9'	122°16.7'	2.5	10	14d	15 km SW of Palo Alto.
<u>33</u>	Dec 13	01 20 01.8	38°38.3'	118°12.4'	3.7	10(R)	6e	Luning, Nevada, 20 km N of MNV. Felt Luning, Mina.
<u>11</u>	Dec 16	16 23 32.7	36°32.2'	120°48.9'	2.7	8	18d	15 km SE of Llanada.
<u>37</u>	Dec 18	14 41 44.9	38°18.1'	122°36.3'	3.1	7	16d	20 km SE of Santa Rosa. Felt Petaluma, Santa Rosa.
<u>33</u>	Dec 19	20 56 53.7	38°36.9'	118°14.7'	4.3	13	6e	Luning, Nevada, 20 km N of MNV. Felt Luning, Mina.
<u>37</u>	Dec 20	07 41 49.7	38°17.6'	122°38.3'	3.0	4	11d	20 km SE of Santa Rosa. Felt Santa Rosa.
<u>37</u>	Dec 20	15 29 56.1	38°17.7'	122°36.4'	2.7	6	16d	20 km SE of Santa Rosa. Felt Santa Rosa.

EXPLOSIONS AT NEVADA TEST SITE

Date 1981	Origin Time (UTC)	Latitude North	Longitude West	Magnitude	
Jul 10	14 00 00.0	37.129°	116.034°	4.4	"NIZA"
Aug 27	14 31 00.0	37.160°	116.067°	4.2	"ISLAY"
Sep 04	15 00 00.1	37.058°	116.048°	4.0	"TREBIANO"
Oct 01	19 00 00.1	37.082°	116.009°	5.1	"PALIZA"
Nov 11	20 00 00.1	37.076°	116.068°	4.9	"TILCI"
Nov 12	15 00 00.1	37.108°	116.050°	5.3	"ROUSANNE"
Dec 03	15 00 00.1	37.148°	116.071°	4.7	"AKAVI"
Dec 16	21 05 00.0	37.115°	116.123°	4.3	"CABOC"





This section tabulates measured arrival times of prominent phases of earthquakes and large explosions recorded at stations in the seismographic network operated by the University of California (Berkeley). Information regarding these stations and instrumentation will be found in the introductory section of this Bulletin. Berkeley source parameters from Part I (indicated by BRK) are repeated for all earthquakes in Northern California and adjoining areas. For earthquakes in the list that are located outside of Northern and Central California, location information from the California Institute of Technology (CIT) for Southern California earthquakes and the National Earthquake Information Service (USGS) for teleseisms are given as a guide when appropriate.

Phase arrival times are Universal Coordinated Time (UTC).

In the column identifying the P or PKP phase, "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 and seconds after the hour of the P or PKP arrival time. When a later phase is recorded at a station, but no P or PKP phase, the time in hours and minutes of the first P or PKP arrival at the other stations of the network is printed in the P or PKP column.

The maximum amplitudes of earth displacement in micrometers and periods in seconds of the indicated phases are given for the Berkeley station, BKS, under the BKS phase arrival times. Unless otherwise specified, magnitudes given for earthquakes outside the Northern California, Nevada, and Oregon region correspond to the magnitude based on surface waves (M_S). The published value is obtained from the amplitude of surface waves of period near 20 seconds, according to the formula:

$$M_S = \log \left(\frac{A}{T} \right) + 1.66 \log \Delta + 3.3 ,$$

where A = ground amplitude in microns (vector resultant of horizontal components),

T = period in seconds, and

Δ = distance to epicenter in degrees.

The Richter magnitude for local and regional earthquakes is designated M_L if it is determined from Wood-Anderson torsion seismographs and MAG if it is determined from vertical Benioff seismographs.

Distances are given in degrees from the Berkeley station, BRK. USGS magnitude, designated by m_b , is the body wave magnitude.

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

UNIVERSITY OF CALIFORNIA
SEISMOGRAPHIC STATIONS
BERKELEY, CALIFORNIA 94720

JANUARY 01 THROUGH JUNE 30, 1981

DATE	STA	P OR PKP (Phase h m s)	S (m s)	OTHER PHASES (Phase m s) (Phase m s) (Phase m s)
JAN 01	SAO	eP 09 24 14.3		
	BRK	eP 09 24 15.3		
	FRI	eP 09 24 15.6		
	MHC	eP 09 24 15.9		
	FRI	eP 09 24 20.2		
	JAS	iP 09 24 21.0		
	ORV	iP 09 24 22.6		
	WDC	iP 09 24 22.9		
	MIN	eP 09 24 24.6		
		USGS 09 12 44.3, 23.7S, 179.9E, h=461 km, mb=4.9		
		SOUTH OF FIJI ISLANDS		
JAN 01	MNV	iPd 18 22 31.8		
	FRI	iPd 18 22 47.7		
	JAS	iP 18 22 48.9		e 23 09
	LLA	ePd 18 23 04.0		
	MHC	eP 18 23 05.0		
	FRI	eP 18 23 05.4		
	ORV	iP 18 23 07.0		
	SAO	eP 18 23 07.0		
	BKS	eP 18 23 10.2		e 23 42 e 23 48
		BRK 18 22 22.5, 38.1N, 118.6W, h= 17 km, ML=4.1		
		EAST OF MONO LAKE, CALIFORNIA-NEVADA BORDER		
JAN 02	FRI	iPd 07 46 00.2		
	MNV	eP 07 46 00.5		
	FRI	ePd 07 46 02.8		
	SAO	eP 07 46 08.6		
	JAS	iPd 07 46 09.0		
	MHC	ePd 07 46 13.1		
	BKS	iPd 07 46 18.0	53 58	PeP 47 05 PP 48 30 PPP 49 40
				SS 57 48 Lr 03 32
		MICRON 0.77 PERIOD 1.8		
		PZ 11 20		
		LZ 11 20		
		LN 6 19		
		LE 11 20		
	ORV	iPd 07 46 20.8		SeP 51 35
	MIN	ePd 07 46 23.5		
	WDC	iPd 07 46 27.2		
	FHC	ePd 07 46 37.7		
		Ms=6.0, DISTANCE=55°		
		USGS 07 37 01.3, 2.1N, 79.2W, h= 33 km, mb=5.7, Ms=5.7		
		SOUTH OF PANAMA		
JAN 02	FRI	ePKP 08 52 09.3		
	FRI	e(PKP) 08 52 10		
	JAS	ePKP 08 52 12		
	MHC	ePKP 08 52 13.3		
	BKS	eP 08 52		e 52 24
	ORV	ePKP 08 52 16		
	WDC	ePKP 08 52 18		
		USGS 08 32 19.0, 53.0S, 21.8E, h= 10 km, mb=5.2		
		SOUTH OF AFRICA		
JAN 02	FHC	eP 15 51 50.7		pP 52 48
	WDC	iPd 15 51 55.4	01 57	PKPPKP 18 13
	MIN	ePd 15 51 58.5	02 00	
	ORV	iPd 15 52 01.1	02 02	PKPPKP 18 12
	BKS	ePd 15 52 03.9	02 12	pP 52 57 SP 03 14 SS 08 00
				SSS 11 40 Lq 15 10 PKPPKP 18 11
				Lr 20 00
		MICRON 0.10 PERIOD 1.0		
	MHC	ePd 15 52 07.3		pP 53 05
	SAO	e(P) 15 52 09		
	JAS	iPd 15 52 09.3		pP 53 09 PKPPKP 18 10
	FRI	ePd 15 52 13.9		PKPPKP 18 10
	FRI	eP 15 52 14.0	02 24	pP 53 14 PKPPKP 18 09
	MNV	e(P) 15 52 15		
		USGS 15 39 47.3, 29.2N, 128.1E, h=242 km, mb=6.1		
		EAST CHINA SEA		
JAN 02	ORV	iP 18 13 00.2		
	MIN	iP 18 13 04.9		
	WDC	iP 18 13 17.0		
	JAS	iPd 18 13 17.8		
	BKS	eP 18 13 25.2	13 53	
	MNV	e(P) 18 13 27		e 13 59
	MHC	eP 18 13 28.7		
	FRI	eP 18 13 33.3		
	LLA	eP 18 13 40		
		BRK 18 12 46.0, 39.7N, 120.5W, h= 27 km, ML=3.5		
		SOUTHEAST OF QUINCY, CALIFORNIA		
JAN 03	FRI	ePd 01 32 39.0		
	MNV	eP 01 32 39.5		
	FRI	eP 01 32 42.0		
	JAS	iPd 01 32 47.5		
	SAO	eP 01 32 47.6		
	MHC	ePd 01 32 52.0		
	BKS	ePd 01 32 56.8	40 40	PeP 33 45 PP 34 30 SS 44 30
				MICRON 0.26 PERIOD 1.5
		PZ 01 32 59.9		
	ORV	iPd 01 33 02.5		
	MIN	ePd 01 33 06.0		
	WDC	ePd 01 33 16.5		
	FHC	ePd 01 33 16.5		
		USGS 01 23 40.0, 2.2N, 79.2W, h= 33 km, mb=5.7, Ms=5.2		
		SOUTH OF PANAMA		
JAN 03	FRI	e(P) 05 57 57		
	BRK	e(P) 05 57 57		
	MHC	eP 05 57 57.5		
	FHC	eP 05 58 01.5		
	FRI	eP 05 58 01.6		
	JAS	eP 05 58 02.5		
	ORV	eP 05 58 04.7		
	WDC	iP 05 58 05.2		
	MIN	eP 05 58 06.5		
		USGS 05 46 07.1, 29.8S, 178.9E, h=522 km, mb=4.6		
		KERMADEC ISLANDS REGION		
JAN 03	FHC	eP 18 08 44.5		
	BRK	eP 18 08 48.5		
	WDC	eP 18 08 49.2		
	MHC	eP 18 08 51.0		
	MIN	eP 18 08 51.7		
	ORV	eP 18 08 51.7		
	FRI	eP 18 08 54.7		
	JAS	eP 18 08 55.3		
	FRI	eP 18 08 58.2		
		USGS 17 56 02.5, 5.3S, 150.7E, h=160 km, mb=5.4		
		NEW BRITAIN REGION		

JAN 03	FHC	eP 19 22 28.8		
	BKS	iPd 19 22 31.2		pP 22 40
			MICRON 0.15 PERIOD 0.9	
	SAO	eP 19 22 31.9		
	MHC	eP 19 22 32.4		
	WDC	iPd 19 22 33.0		
	ORV	iPd 19 22 34.9		
	FRI	eP 19 22 35.0		
	MIN	eP 19 22 35.5		
	JAS	iPd 19 22 37.0		
	FRI	eP 19 22 38.7		
	MNV	eP 19 22 46.4		
		USGS 19 09 50.8, 9.8S, 160.4E, h= 32 km, mb=5.6, Ms=5.4		
		SOLOMON ISLANDS		
JAN 04	FHC	iP 09 30 02.2		
	WDC	iP 09 30 18.0		
	MIN	iPd 09 30 28.5		
	ORV	eP 09 30 32.3		e 30 34 i 30 36
	BKS	eP 09 30 46.6		e 31 32
	SAO	e(P) 09 31 03		
		BRK 09 29 45.5, 41.3N, 125.1W, h= 20 km, ML=3.4		
		OFF COAST NORTHWEST OF EUREKA, CALIFORNIA		
JAN 05	BKS	iP 02 52 21.3		e 52 24
	PCC	iPd 02 52 28.2		
	MHC	iP 02 52 31.4		
	GCC	eP 02 52 35.3		
	JAS	iPd 02 52 40.1		
	SAO	eP 02 52 40.2		
	ORV	e(P) 02 52 45		
	PRS	ePd 02 52 46.7		
	FRI	eP 02 52 52.5		
		BRK 02 52 18.3, 37.9N, 122.1W, h= 9 km, ML=2.8		
		EAST-NORTHEAST OF BERKELEY, CALIFORNIA		
JAN 05	FHC	eP 06 06 33.5		
	WDC	iP 06 06 40.2		
	ORV	iP 06 06 49.2		
	MHC	eP 06 07 00.8		
	JAS	eP 06 07 03.0		
	FRI	eP 06 07 10.3		
	PR	eP 06 07 11.4		
		USGS 05 57 41.5, 54.4N, 161.4E, h= 33 km, mb=5.2		
		NEAR EAST COAST OF KAMCHATKA		
JAN 05	FHC	iPd 08 38 00.7	38 12	
	WDC	iPd 08 38 13.8	38 34	
	MIN	eP 08 38 23.7		
	ORV	eP 08 38 26.5	38 56	
		BRK 08 37 46.3, 40.3N, 124.8W, h= 10 km, ML=3.3		
		OFF COAST SOUTHWEST OF EUREKA, CALIFORNIA		
JAN 06	BKS	eP 08 35		e 35 50 e 47 30
	WDC	eP 08 35 39.3		
	ORV	eP 08 35 39.8		
	JAS	eP 08 35 42.0		
	FRI	eP 08 35		e 35 42
		USGS 08 22 50.0, 21.9S, 170.0E, h= 25 km, mb=5.2		
		LOYALTY ISLANDS REGION		
JAN 06	FHC	eP 15 46 37.4		
	WDC	eP 15 46 41.8		i 49 46
	MIN	eP 15 46 46.0		
	ORV	iP 15 46 48.1		e 49 54
	BKS	eP 15 46 51.2		
		MICRON 0.18 PERIOD 0.8		
	MHC	eP 15 46		e 46 55
	JAS	eP 15 46 51.9		e 49 58
	SAO	eP 15 46		e 46 57
	FRI	eP 15 47		e 47 02
	FRI	eP 15 47		e 47 02
		USGS 15 35 27.0, 32.9N, 138.3E, h=288 km, mb=5.4		
		SOUTH OF HONSHU, JAPAN		
JAN 06	FHC	eP 21 58 31.6		
	WDC	ePd 21 58 40.0		
	MIN	ePd 21 58 45.6		
	ORV	ePd 21 58 49.6		
	BKS	eP 21 58 55.4		
		MICRON 0.06 PERIOD 1.0		
	MHC	ePd 21 59 01.2		
	JAS	iPd 21 59 04.6		
	SAO	eP 21 59 04.7		
	FRI	ePd 21 59 13.0		
	PR	eP 21 59 13.2		
		USGS 21 51 51.9, 52.5N, 171.5W, h= 76 km, mb=4.7		
		FOX ISLANDS, ALEUTIAN ISLANDS		
JAN 06	SAO	iP 20 22 05.6		
	LLA	iP 20 22 08.4		
	PRS	iPd 20 22 08.9		
	GCC	eP 20 22 15.2		
	PR	eP 20 22 16.4		
	MHC	eP 20 22 17.3		
	FRI	eP 20 22 26.0		
	JAS	eP 20 22 28.6		
	BKS	eP 20 22 30.4	22 50	
		BRK 20 22 02.4, 36.6N, 121.3W, h= 4 km, ML=2.5		
		SOUTHEAST OF HOLLISTER, CALIFORNIA		
JAN 07	FRI	eP 07 10 40.5		
	PR	eP 07 10 43.0		
	JAS	ePd 07 10 49.0		
	MHC	eP 07 10 53.3		
	BKS	eP 07 10 58.4		e 28 30
		MICRON 0.10 PERIOD 1.3		
		PZ 07 11 01.1		pP 11 28
	ORV	iPd 07 11 03.7		
	MIN	ePd 07 11 07.2		
	FHC	eP 07 11 18.0		
		USGS 07 01 39.8, 2.0N, 79.3W, h= 25 km, mb=5.6, Ms=4.9		
		SOUTH OF PANAMA		
JAN 07	FRI	eP 09 14 58		
	JAS	eP 09 15 06.3		
	MHC	eP 09 15 10.5		
	BKS	eP 09 15		e 36 00
	ORV	iP 09 15 18.2		
	MIN	eP 09 15 21		
	WDC	eP 09 15 24		
		USGS 09 05 57.8, 2.0N, 79.2W, h= 33 km, mb=5.1, Ms=4.6		
		SOUTH OF PANAMA		
JAN 07	SAO	iPd 11 42 36.5		
	GCC	iPd 11 42 39.8		
	MHC	iPd 11 42 43.1		
	PRS	iPd 11 42 44.0		
	LLA	iP 11 42 44.7		
	PCC	iP 11 42 48.9		
	PR	iPd 11 42 52.7		
	BKS	iP 11 42 52.7	43 09	
	JAS	eP 11 42 57.5		
	FRI	iP 11 42 59.0		
	ORV	eP 11 43 14.7		
	MIN	eP 11 43 27		
	WDC	eP 11 43 29.5		
	FHC	eP 11 43 39.4		
		BRK 11 42 33.1, 36.9N, 121.6W, h= 7 km, ML=4.5		
		WEST OF HOLLISTER, CALIFORNIA		
JAN 07	WDC	eP 16 05 11.8		
	ORV	eP 16 05 13.1		
	JAS	eP 16 05 14.4		
	FRI	eP 16 05 15.5		
		USGS 15 53 00.9, 11.8S, 166.6E, h=172 km, mb=5.0		
		SANTA CRUZ ISLANDS		

JAN 15 MHC iPe 12 50 49.1
GCC eP 12 50 54.7
PCC iPe 12 50 56.8
BRK ePe 12 50 59.3
SAO iPd 12 50 59.7
LLA e(P) 12 51 05
PRS i(P) 12 51 06

BRK 12 50 46.9, 37.4N, 121.7W, h= 8 km, ML=3.0
EAST-NORTHEAST OF SAN JOSE, CALIFORNIA

JAN 15 MNV iPe 20 25 36.8
FRI iPe 20 25 48.4
JAS iPe 20 25 57.4
PRI iPe 20 26 01.1
LLA eP 20 26 02.1
SAO eP 20 26 07.1
PRS iPe 20 26 07.8
MHC iPe 20 26 10.3
GCC eP 20 26 13.9
BKS iPe 20 26 15.8
ORV iPe 20 26 15.9
PCC eP 20 26 17.6
WDC iPe 20 26 32.6

ML=5.6, UNDERGROUND NUCLEAR EXPLOSION (BASEBALL), N.T.S.
USGS 20 25 00.1, 37.1N, 116.0W, h= 0 km, mb=5.6
SOUTHERN NEVADA

JAN 16 FHC ePKP 21 56 21.2
WDC ePKP 21 56 23.0
MIN ePKP 21 56 24.4
ORV ePKP 21 56 25.2
MHC ePKP 21 56 28.0
JAS ePKP 21 56 28.7
FRI ePKP 21 56 30.7
PRI ePKP 21 56 31.1
USGS 21 37 20.4, 5.4S, 102.9E, h= 39 km, mb=5.5, Ms=5.5
SOUTHERN SUMATRA

JAN 17 PRI iPe 00 09 42.1
LLA eP 00 09 51.1
PRS iPe 00 09 51.4
SAO iPe 00 09 56.3
FRI iPe 00 09 57.9
GCC e(P) 00 10 04.4
MHC e(P) 00 10 05.5
JAS ePd 00 10 10.4
BKS e(P) 00 10 14.4
BRK 00 09 36.9, 35.9N, 120.5W, h= 12 km, ML=3.1
SOUTHWEST OF COALINGA, CALIFORNIA

JAN 17 WDC ePd 05 18 40.5
MIN eP 05 18 44.1
ORV iPd 05 18 46.5
BKS ePe 05 18 48.9
MHC eP 05 18 52.1
JAS ePd 05 18 55.3
PRI eP 05 18 59.5
FRI eP 05 19 00.3
USGS 05 06 58.2, 29.2N, 142.1E, h= 33 km, mb=5.2, Ms=4.9
SOUTH OF HONSHU, JAPAN

JAN 17 SAO e(P) 05 31 37
PRI eP 05 31 38.2
MHC eP 05 31 38.2
FRI eP 05 31 43.5
JAS ePd 05 31 43.8
ORV ePd 05 31 45.0
WDC ePd 05 31 45.1
MIN eP 05 31 46.9
USGS 05 20 48.0, 18.5S, 177.7W, h=610 km, mb=4.3
FIJI ISLANDS REGION

JAN 17 WDC eP 11 34 50.0
ORV eP 11 34 57.0
JAS eP 11 35 09.0
FRI eP 11 35 15.5
USGS 11 23 35.1, 56.5N, 117.6E, h= 33 km, mb=4.8, Ms=4.9
EAST OF LAKE BAIKAL

JAN 18 FRI ePKP 03 25 17.8
PRI ePKP 03 25 17.8
JAS ePKP 03 25 20.0
MHC ePKP 03 25 20.2
BKS ePKP 03 25 21.3
ORV ePKP 03 25 22.9
MIN ePKP 03 25 24.0
WDC ePKP 03 25 24.8
USGS 03 06 45.5, 61.1S, 55.4W, h= 22 km, mb=6.0, Ms=5.9
SOUTH SHETLAND ISLANDS

JAN 18 WDC ePd 03 36 01.7
MIN eP 03 36 03.5
ORV ePd 03 36 05.6
JAS ePd 03 36 12.5
FRI ePd 03 36 16.0
PRI eP 03 36 18.0
MARIANA ISLANDS REGION

JAN 18 WDC ePe 09 54 41.3
MIN eP 09 54 45.2
ORV eP 09 54 48.0
BRK e(P) 09 54 51.1
MHC e(P) 09 54 56.5
JAS eP 09 54 58.5
FRI e(P) 09 55 04.4
PRI e(P) 09 55 04.4
MNV eP 09 55 05.5
USGS 09 43 35.7, 38.5N, 143.0E, h= 33 km, mb=5.6, Ms=5.8
OFF EAST COAST OF HONSHU, JAPAN

JAN 18 WDC eP 11 57 59.6
MIN e(P) 11 58 03.3
ORV eP 11 58 06.3
BKS eP 11 58 15.5
MHC eP 11 58 18.0
JAS eP 11 58 16.6
FRI eP 11 58 22.5
PRI eP 11 58 24.4
MNV e(P) 11 58 24.4
USGS 11 46 53.7, 38.5N, 143.0E, h= 33 km, mb=5.5, Ms=5.9
OFF EAST COAST OF HONSHU, JAPAN

JAN 18 WDC e(P) 16 06 35
MIN eP 16 06 40.0
ORV eP 16 06 43.0
JAS eP 16 06 52.0
FRI eP 16 06 56.5
NORTHERN JAPAN REGION

JAN 18 WDC ePe 17 21 35.0
MIN eP 17 21 38.7
ORV ePe 17 21 42.0
BRK eP 17 21 52.3
JAS ePe 17 21 58.0
FRI eP 17 21 58.0
USGS 17 10 30.3, 38.5N, 142.9E, h= 39 km, mb=5.4, Ms=5.1
NEAR EAST COAST OF HONSHU, JAPAN

JAN 18 FHC ePe 18 22 28.1
WDC ePe 18 22 33.9
MIN eP 18 22 37.8
ORV ePe 18 22 40.5
BKS eP 18 22 43.5
MHC eP 18 22 48.3
JAS ePe 18 22 51.0
PRI eP 18 22 56.7
FRI eP 18 22 56.8
MNV eP 18 22 58.1
USGS 18 11 28.4, 38.6N, 142.8E, h= 33 km, mb=5.9, Ms=6.2
NEAR EAST COAST OF HONSHU, JAPAN

JAN 18 FHC eP 18 28 24.7
WDC ePe 18 28 30.5
MIN eP 18 28 34.3
ORV ePe 18 28 37.3
BKS e(P) 18 28 42.3
MHC eP 18 28 45.0
JAS ePe 18 28 47.7
PRI eP 18 28 53.3
FRI eP 18 28 53.7
MNV eP 18 28 54.8

Ms=6.6, DISTANCE=72°

USGS 18 17 24.4, 38.6N, 142.7E, h= 33 km, mb=6.1, Ms=6.9
NEAR EAST COAST OF HONSHU, JAPAN

JAN 18 WDC eP 20 45 29
ORV eP 20 45 35.5
JAS eP 20 45 46.5
FRI eP 20 45 52.3
USGS 20 34 23.5, 38.7N, 142.8E, h= 33 km, mb=5.0
NEAR EAST COAST OF HONSHU, JAPAN

JAN 18 WDC eP 20 46 57.7
ORV eP 20 47 04.7
JAS eP 20 47 15.0
FRI eP 20 47 21.1
USGS 20 35 51.5, 38.7N, 142.5E, h= 33 km, mb=5.1
NEAR EAST COAST OF HONSHU, JAPAN

JAN 19 WDC eP 01 25 10.7
MIN eP 01 25 14.7
ORV eP 01 25 17.6
BKS eP 01 25 24.3
MHC eP 01 25 25.5
JAS eP 01 25 28.4
FRI eP 01 25 33.8
PRI eP 01 25 33.8
MNV eP 01 25 35.5
USGS 01 14 05.4, 38.6N, 142.9E, h= 33 km, mb=5.7, Ms=6.1
NEAR EAST COAST OF HONSHU, JAPAN

JAN 19 WDC eP 02 53 07.5
MIN eP 02 53 11.5
ORV eP 02 53 14.4
JAS eP 02 53 24.7
FRI eP 02 53 30.5
PRI eP 02 53 30.6
USGS 02 42 01.7, 38.7N, 143.0E, h= 33 km, mb=5.0, Ms=5.4
OFF EAST COAST OF HONSHU, JAPAN

JAN 19 FRI eP 07 25 16.2
MNV eP 07 25 16.5
JAS ePe 07 25 25.6
ORV ePe 07 25 39.5
WDC ePe 07 25 46.8
FHC eP 07 25 58.5
USGS 07 18 26.8, 13.6N, 90.0W, h= 83 km, mb=4.7
NEAR COAST OF GUATEMALA

JAN 19 WDC eP 13 54 55.2
ORV eP 13 55 02.2
JAS eP 13 55 12.4
NEAR EAST COAST OF HONSHU, JAPAN

JAN 19 WDC eP 14 13 41.6
ORV eP 14 13 48.3
JAS eP 14 13 58.5
USGS 14 02 35.2, 38.4N, 142.8E, h= 33 km, mb=5.2
NEAR EAST COAST OF HONSHU, JAPAN

JAN 19 WDC eP 15 24 42.7
BKS eP 15 24 44.6
PP 28 58
PS 37 34
Lr 56 00
SS 43 14
Lq 51 50

MICRON PERIOD

PZ 0.16 1.4

LR 22 20

LNE 15 20

LNW 15 20

MHC e(P) 15 24 45

MIN eP 15 24 45.6

ORV eP 15 24 50.5

JAS eP 15 24 51

PRI e(P) 15 24 52.0

FRI eP 15 24 58

MNV e(P) 15 24 58

Ms=6.7, DISTANCE=99°

USGS 15 11 01.0, 4.6S, 139.2E, h= 33 km, mb=6.0, Ms=6.7
WEST IRIAN

JAN 19 WDC iPd 21 25 48.0
MIN ePd 21 25 52.5
ORV iPd 21 25 58.2
JAS eP 21 26 15.2
MHC eP 21 26 16.5
FRI ePd 21 26 24.3
PRI eP 21 26 29.6
USGS 21 20 04.2, 63.3N, 151.1W, h=124 km, mb=4.5
CENTRAL ALASKA

JAN 20 PRI eP 03 24 55.0
MHC eP 03 24 55.5
BKS eP 03 24 55.6
e 25 06

MICRON PERIOD

PZ 0.04 1.0

LR 22 20

LNE 15 20

LNW 15 20

FRI eP 03 25 00.8

JAS eP 03 25 01.5

ORV eP 03 25 03.2

WDC iPd 03 25 03.8

MIN eP 03 25 05.8

MNV eP 03 25 12.0

USGS 03 13 35.9, 16.0S, 172.5W, h= 35 km, mb=5.3, Ms=5.6
SAMOA ISLANDS REGION

JAN 20 WDC eP 06 26 40.0
MIN eP 06 26 45.0
ORV eP 06 26 50.2
JAS eP 06 27 07.1
USGS 06 20 59.3, 57.9N, 155.8W, h= 84 km, mb=4.7
ALASKA PENINSULA

JAN 20 FHC eP 10 33 32.0
WDC ePd 10 33 47
MIN eP 10 33 56.5
ORV ePd 10 34 04.0
JAS eP 10 34 27.0
FRI ePd 10 34 42.7
USGS 10 32 15.2, 44.1N, 129.2W, h= 15 km, mb=4.6, Ms=3.9
OFF COAST OF OREGON

JAN 20 PRI eP 20 47 28.7
JAS ePd 20 47 34.0
MHC eP 20 47 36.4
ORV iPd 20 47 43.5
WDC iPd 20 47 48.5
USGS 20 35 48.3, 22.8S, 68.4W, h=117 km, mb=5.1
NORTHERN CHILE

JAN 21 WDC ePe 10 26 37.9
MIN ePe 10 26 41.8
ORV iPe 10 26 44.9
JAS ePe 10 26 55.3
USGS 10 15 41.2, 40.2N, 140.1E, h=154 km, mb=5.0
HONSHU, JAPAN

International
Seismology
Centre

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JAN 30 WDC eP 09 20 18.9
MIN eP 09 20 23.5
ORV eP 09 20 26.8
BKS eP 09 20 32.5
PZ 0.05 PERIOD 0.8
JAS eP 09 20 41.8
FRI eP 09 20 49.4
USGS 09 12 19.4, 51.7N, 176.0E, h= 21 km, mb=5.4
RAT ISLANDS, ALEUTIAN ISLANDS

JAN 30 WDC iPKPd 10 47 01.8
MIN ePKP 10 47 03.3
ORV ePKP 10 47 03.7
BKS ePKP 10 47 05.3
MHC ePKP 10 47 06.4
JAS ePKP 10 47 07.2
FRI ePKP 10 47 09.0
MNV 10 47
e 49 24
USGS 10 29 09.8, 5.6S, 110.2E, h=562 km, mb=5.7
JAVA SEA

JAN 30 FHC e(P) 14 57 17
WDC eP 14 57 21.4
MIN eP 14 57 26.7
ORV eP 14 57 30.6
BRK e(P) 14 57 35
BKS 14 57
SeP 03 00
SeP 03 03
SeP 03 05
SeP 03 08
e 57 40
e 08 52
Lr 15 10
MICRON PERIOD
PZ 0.04 0.9
LZ 5 19
LN 3.2 20
LE 5 20
MHC eP 14 57 39.9
JAS eP 14 57 44.8
FRI eP 14 57 52.1
PRI e(P) 14 57 54
SeP 03 11
SeP 03 12
SeP 03 16
Ms=5.5, DISTANCE=45°
USGS 14 49 22.3, 51.6N, 176.1E, h= 19 km, mb=5.6, Ms=5.3
RAT ISLANDS, ALEUTIAN ISLANDS

JAN 31 BKS 02 42
WDC eP 02 42 01.3
ORV eP 02 42 03.0
JAS eP 02 42 04.3
pP 42 17
Lr 07 36
MICRON PERIOD
LZ 1.3 20
LN 0.9 22
LE 1.4 20
pP 42 20
pP 42 21
pP 42 23
USGS 02 29 38.3, 11.9S, 166.4E, h= 68 km, mb=5.8
SANTA CRUZ ISLANDS
PRI iPd 05 23 28.0
LLA ePe 05 23 33.5
FRI iPd 05 23 36.6
PRS iPe 05 23 37.4
SAO iPd 05 23 40.3
MHC ePd 05 23 47.0
GCC ePd 05 23 47.1
JAS iPd 05 23 50.3
BKS ePn 05 23 57.4
ORV eP 05 24 15
e 24 26
S* 24 27
e 24 41
BRK 05 23 20.6, 36.2N, 120.2W, h= 10 km, ML=3.5
NORTHEAST OF COALINGA, CALIFORNIA

JAN 31 MHC iPd 06 30 19.6
GCC iPe 06 30 23.0
SAO iPe 06 30 23.9
PCC iPe 06 30 29.2
LLA iPe 06 30 29.2
PRS ePd 06 30 31.3
BKS iPd 06 30 32.4
JAS iPd 06 30 36.9
PRI ePe 06 30 38.1
FRI iPe 06 30 41.3
30 46
30 53
BRK 06 30 15.4, 37.2N, 121.5W, h= 4 km, ML=3.4
NORTHEAST OF GILROY, CALIFORNIA

JAN 31 SAO eP 16 01 47.5
PRI eP 16 01 47.7
BRK eP 16 01 48.1
MHC eP 16 01 48.6
FRI eP 16 01 52.7
JAS ePd 16 01 53.6
ORV ePd 16 01 55.5
WDC ePd 16 01 56.4
MIN eP 16 01 58.0
MNV eP 16 02 02.0
USGS 15 49 39.9, 26.8S, 177.7W, h=151 km, mb=5.1
SOUTH OF FIJI ISLANDS
JAN 31 MIN eP 16 42 43.8
ORV eP 16 42 45.9
JAS eP 16 42 50.0
FRI eP 16 42 51.0
USGS 16 29 54.3, 36.4N, 1.6E, h= 10 km, mb=4.8, Ms=4.5
ALGERIA

JAN 31 PRI eP 22 01 45
PRI 22 01
JAS 22 02
BKS e(P) 22 02 20
ORV eP 22 02 24.5
MIN eP 22 02 33.2
WDC eP 22 02 40.0
FHC 22 02
e 01 46
e 02 08
Lq 05 08
e 07 00
e 02 52
USGS 21 58 42.3, 26.8N, 111.0W, h= 15 km, mb=4.6
GULF OF CALIFORNIA

FEB 01 WDC eP 03 29 51.7
MIN eP 03 29 55
ORV eP 03 29 56.9
BKS e(P) 03 29 57
Lr 55 16
e 02 08
MICRON PERIOD
LZ 0.7 20
LN 0 20
LE 1.6 20
MHC eP 03 30 01
JAS eP 03 30 04.4
PRI eP 03 30 07
FRI eP 03 30 09.0
USGS 03 18 02.7, 21.3N, 145.9E, h= 82 km, mb=5.2
MARIANA ISLANDS REGION

FEB 01 FHC ePKP 04 54 14.3
WDC ePKPd 04 54 15.7
MIN ePKP 04 54 16.9
BRK ePKP 04 54 17.4
ORV ePKPd 04 54 17.4
MHC ePKP 04 54 18.8
JAS ePKPd 04 54 20.0
PRI ePKP 04 54 21.3
FRI ePKP 04 54 21.6
MNV ePKP 04 54 23.7
USGS 04 35 25.8, 11.1S, 117.3E, h= 33 km, mb=5.6, Ms=4.9
SOUTH OF SUMBAWA ISLAND

FEB 01 FHC ePe 13 24 59.8
WDC iPe 13 25 06.7
MIN ePe 13 25 11.9
ORV iPe 13 25 16.0
BKS ePe 13 25 21.5
SP 30 47
SeP 32 48
SP 30 52
SeP 32 51
Lq 35 08
MICRON PERIOD
PZ 0.17 1.0
LZ 6 20
LN 3.9 20
LE 7 20

MHC eP 13 25 26.5
JAS ePe 13 25 30.0
FRI eP 13 25 37.6
PRI eP 13 25 38.5
MNV eP 13 25 39
SP 30 59
SP 31 03
SeP 32 55
SeP 32 56
Ms=5.6, DISTANCE=44°
USGS 13 17 11.3, 51.3N, 176.0E, h= 23 km, mb=5.6, Ms=5.5
RAT ISLANDS, ALEUTIAN ISLANDS

FEB 01 WDC eP 18 37 41.5
ORV eP 18 37 50
JAS eP 18 38 04.5
USGS 18 29 47.2, 51.3N, 176.7E, h= 36 km, mb=4.9
RAT ISLANDS, ALEUTIAN ISLANDS

FEB 01 FHC iPd 22 52 18.4
WDC iPd 22 52 25.1
ORV iPd 22 52 33.9
BKS iPd 22 52 39.7
e 52 45
e 06 20
e 13 12
SS 03 54
Lr 08 00
Lq 05 30
e 10 03
MICRON PERIOD
PZ 0.06 1.0
LZ 2.3 20
LN 2.3 20
LE 2.5 20

MHC ePd 22 52 45.1
JAS iPd 22 52 47.5
SAO ePd 22 52 48.3
FRI iPd 22 52 54.8
MNV iPd 22 52 54.9
PRI iPd 22 52 55.9
Ms=5.4, DISTANCE=54°
USGS 22 43 27.5, 53.0N, 162.4E, h= 33 km, mb=5.9, Ms=5.4
OFF EAST COAST OF KAMCHATKA

FEB 02 WDC eP 01 24 48
MIN eP 01 24 50
ORV eP 01 25 02
USGS 01 23 17.2, 46.3N, 120.9W, h= 5 km, mb=3.9
WASHINGTON

FEB 04 FHC ePe 05 21 06.0
MIN eP 05 21 18.9
ORV ePe 05 21 22.8
BKS ePe 05 21 27.5
Lq 31 30
e 37 30
MICRON PERIOD
PZ 0.05 0.8
LZ 1.4 20
MHC eP 05 21 33.7
JAS ePe 05 21 36.8
SAO eP 05 21 37.0
FRI ePe 05 21 44.6
PRI eP 05 21 44.9
MNV eP 05 21 45.4
Ms=4.9, DISTANCE=45°
USGS 05 13 19.0, 51.3N, 176.6E, h= 33 km, mb=5.4, Ms=5.0
RAT ISLANDS, ALEUTIAN ISLANDS

FEB 05 FHC iPd 10 59 13.3
MIN ePd 10 59 27.2
ORV iPd 10 59 31.0
BKS iPd 10 59 35.3
PcP 01 38
e 05 40
e 09 15
MICRON PERIOD
PZ 0.11 0.8
MHC ePd 10 59 41.4
SAO eP 10 59 44.6
JAS iPd 10 59 45.2
PRI ePd 10 59 52.8
FRI ePd 10 59 53.1
MNV ePd 10 59 54.4
USGS 10 52 02.3, 50.2N, 176.3W, h= 33 km, mb=5.7, Ms=5.0
ANDREANOF ISLANDS, ALEUTIAN ISLANDS

FEB 06 SAO eP 07 34 10.0
BKS iPe 07 34 11.0
PcP 34 29
SeS 43 20
sS 47 00
Lq 55 00
pP 36 25
PS 44 00
SP 44 15
e 47 30
SS 48 15
MICRON PERIOD
PZ 0.18 1.0
MHC eP 07 34 11.4
PRI eP 07 34 11.8
FHC eP 07 34 15.1
FRI eP 07 34 16.0
JAS eP 07 34 16.5
ORV eP 07 34 17.9
MIN eP 07 34 19.9
MNV eP 07 34 25.5
USGS 07 23 06.6, 21.1S, 178.9W, h=618 km, mb=5.6
FIJI ISLANDS REGION

FEB 06 FHC iPe 16 56 35.0
MIN iPe 16 56 44.8
ORV iPe 16 56 48.2
BKS iPe 16 56 53.1
pP 58 17
pP 58 28
pP 58 31
sP 00 34
i 56 56
i 57 06
i 57 13
PcP 57 24
pP 58 36
sS 07 52
SS 09 26
MICRON PERIOD
PZ 0.26 1.0
MHC ePe 16 56 57.7
JAS iPe 16 56 59.8
SAO eP 16 57 00.1
FRI iPe 16 57 06.0
MNV iPe 16 57 06.3
PRI ePe 16 57 06.9
pP 58 41
pP 58 43
sP 00 40
pP 58 50
pP 58 50
pP 58 51
mb=5.8, h=500 km, DISTANCE=64°
USGS 16 47 07.4, 48.3N, 146.4E, h=479 km, mb=5.3
SEA OF OKHOTSK

FEB 07 GCC iPe 03 53 50.1
MHC iPd 03 53 54.2
PCC iPe 03 53 54.3
SAO iPe 03 53 58.2
BRK iPd 03 54 00.3
JAS ePe 03 54 14
54 00
pP 58 41
pP 58 43
sP 00 40
pP 58 50
pP 58 50
pP 58 51
BRK 03 53 46.6, 37.2N, 122.1W, h= 8 km, ML=2.6
SOUTHWEST OF SAN JOSE, CALIFORNIA

FEB 07 PRI eP 05 41 46.1
FRI eP 05 41 46.6
MNV eP 05 41 51.8
JAS eP 05 41 58.3
MHC eP 05 42 00.3
BKS 05 42
ORV ePd 05 42 17.4
MIN eP 05 42 23.0
e 42 08
OFF COAST OF JALISCO, MEXICO

FEB 07 ARC iP 07 00 40.3
FHC iPd 07 00 41.5
MIN e(P) 07 01 07
00 44
00 45
BRK 07 00 35.9, 40.7N, 124.3W, h= 21 km, ML=3.0
OFF COAST SOUTHWEST OF EUREKA, CALIFORNIA

FEB 18				16 00		e 00 31
	FHC	eP		16 00 38.4		
	MN	iPo		16 00 41.2		
	BKS	eP		16 00 43.9		e 01 00
			PZ	MICRON	PERIOD	
				0.02	0.9	
	MHC	eP		16 00 47.4		
	JAS	eP		16 00 49.5		
	SAO			16 00		e 00 50
	FRI	eP		16 00 54.5		
	PRI	eP		16 00 54.5		
			USGS	15 48 10.6, 29.3N,	130.2E, h= 34 km,	mb=5.4, Ms=5.9
				Ryukyu Islands		
FEB 18	SAO	eP		17 44 14		
	FHC	eP		17 44 15		
	MHC	eP		17 44 15		
	BKS	eP		17 44 15.5		
			PZ	MICRON	PERIOD	
				0.08	1.1	
	PRI	eP		17 44 15.6		
	JAS	eP		17 44 19.8		e 44 45
	ORV	eP		17 44 19.8		i 44 45
	FRI	eP		17 44 20		
	MN	eP		17 44 21.1		
	MNV	eP		17 44 28		
			USGS	17 31 30.5, 21.2S,	169.3E, h= 33 km,	mb=5.2
				Loyalty Islands Region		

FEB 19 SAO e(P) 00 14 00
MHC e(P) 00 14 01
PRI eP 00 14 02.3
JAS eP 00 14 05.4
ORV eP 00 14 05.5
FRI e(P) 00 14 06
MIN eP 00 14 07.0
USGS 00 01 15.4, 21.1S, 169.1E, h= 33 km
LOYALTY ISLANDS REGION

FEB 19 SAO eP 01 55 59
BKS eP 01 55 59.6
MICRON 0.05 PERIOD 1.1
MHC ePc 01 56 00.8
PRI eP 01 56 01.3
JAS ePc 01 56 05.6
ORV iPc 01 56 05.7
FRI eP 01 56 05.8
MIN ePc 01 56 07.2
MNV ePc 01 56 14.3
USGS 01 43 14.8, 21.4S, 169.2E, h= 33 km, mb=5.2
LOYALTY ISLANDS REGION

FEB 19 FHC iPc 05 56 52.5 57 03 i 57 00
MIN ePc 05 57 18.8
ORV iPc 05 57 22.9
BKS eP 05 57 32.4
PCC eP 05 57 34.7
MHC eP 05 57 41.6
GCC ePd 05 57 42.6
SAO eP 05 57 48.2
BRK 05 56 35.7, 40.9N, 125.1W, h= 8 km, ML=3.6
OFF COAST WEST OF EUREKA, CALIFORNIA

FEB 19 SAO eP 08 35 46
FHC ePc 08 35 46.6
BKS eP 08 35 46.8
MICRON 0.2 PERIOD 1.3
MHC ePc 08 35 47.3
PRI eP 08 35 48
ORV ePc 08 35 52.1 i 36 10
JAS ePc 08 35 52.2
FRI eP 08 35 52.5 e 36 11
MIN e(P) 08 35 53
MNV eP 08 36 01
USGS 08 23 02.2, 21.5S, 169.5E, h= 33 km, mb=5.7, Ms=6.0
LOYALTY ISLANDS REGION

FEB 19 SAO e(P) 08 43
MHC e(P) 08 43 19 e 43 36
PRI e(P) 08 43 19 e 43 36
ORV eP 08 43 21.9 e 43 40
FRI eP 08 43 23 e 43 41
JAS eP 08 43 23.7 e 43 41
USGS 08 30 33.5, 21.5S, 169.5E, h= 33 km, mb=4.7
LOYALTY ISLANDS REGION

FEB 19 MIN eP 19 46 34.5
ORV iPd 19 46 37.7
BKS eP 19 46 41.8 55 22 Lq 02 45 Lr 05 15
MICRON 0.08 PERIOD 1.2
MHC eP 19 46 46.8
JAS eP 19 46 48.8
FRI eP 19 46 55.6
MNV eP 19 46 56.7
USGS 19 36 11.6, 44.6N, 149.3E, h= 33 km, mb=5.9, Ms=5.5
KURIL ISLANDS

FEB 20 MIN eP 06 25 21.9
ORV iPc 06 25 26.2 i 27 15
BKS eP 06 25 32.0
MICRON 0.07 PERIOD 1.0
MHC eP 06 25 37.3
JAS eP 06 25 40.3
PRI eP 06 25
FRI eP 06 25 48.0
USGS 06 17 41.1, 52.0N, 178.2E, h=137 km, mb=5.0
RAT ISLANDS, ALEUTIAN ISLANDS

FEB 20 BKS eP 09 53 45 04 30 Lq 17 00 Lr 22 00
MICRON 0.09 PERIOD 1.4
PZ 6 20
LZ 4.3 20
LN 3.9 20
LE 3.9 20
FRI 09 53 e 53 51
JAS 09 53 e 53 52
ORV 09 53 e 53 54
Ms=6.0, DISTANCE=89°
USGS 09 40 55.7, 33.3S, 178.9W, h= 33 km, mb=5.6, Ms=5.6
SOUTH OF KERMADEC ISLANDS

FEB 21 SAO iPd 04 15 56.7
GCC iPc 04 15 59.5
MHC iPd 04 16 02.8 16 10
PRS iPd 04 16 04.0
LLA iPc 04 16 04.7
PCC iPd 04 16 08.9
BKS ePd 04 16 12.2 16 31
PRI ePc 04 16 12.6
JAS eP 04 16 18.0
FRI ePd 04 16 20.0
BRK 04 15 53.0, 36.8N, 121.6W, h= 8 km, ML=3.0
WEST OF HOLLISTER, CALIFORNIA

FEB 21 JAS eP 09 40 30.7
FRI eP 09 40 30.8
ORV eP 09 40 31.0
MIN eP 09 40 32.3
USGS 09 27 39.0, 21.7S, 169.1E, h= 33 km, mb=4.2
LOYALTY ISLANDS REGION

FEB 21 GCC iPd 14 04 47.4
PCC eP 14 04 54.7
SAO iPc 14 04 54.9
MHC iPd 14 04 55.2
PRS eP 14 04 59.5
BKS eP 14 05 01.2 05 15
LLA eP 14 05 02.3
PRI eP 14 05 08.4
JAS eP 14 05 13.0
BRK 14 04 43.3, 36.9N, 122.2W, h= 8 km, ML=3.0
OFF COAST SOUTHWEST OF SANTA CRUZ, CALIFORNIA

FEB 21 PRI eP 23 27 58.5
BRK eP 23 28 04.3
MHC eP 23 28 04.6
FRI eP 23 28 06.0
JAS eP 23 28 09.0
ORV eP 23 28 11.0

FEB 22 MHC iPc 15 08 56.2 09 00
SAO iPd 15 08 58.4
GCC ePd 15 08 58.6
LLA ePc 15 09 03.6
PCC ePc 15 09 05.4
PRS eP 15 09 05.8
BKS iPc 15 09 09.1 09 23
JAS iPd 15 09 12.7 09 29
PRI ePc 15 09 13.5
BRK 15 08 50.8, 37.1N, 121.5W, h= 1 km, ML=2.8
NORTHEAST OF GILROY, CALIFORNIA

FEB 22 SAO eP 21 58 12.2
MHC eP 21 58 13.9
BKS eP 21 58 14.1 08 44 i 58 16 Lq 20 00 Lr 24 00
MICRON 0.03 PERIOD 1.0
PZ 21 20
LN 12 20
LE 13 20
PRI eP 21 58 14.1
FHC eP 21 58 16.1
FRI eP 21 58 19.0
JAS eP 21 58 19.1
ORV eP 21 58 19.9
MIN eP 21 58 21.5
MNV eP 21 58 27.9
Ms=6.5, DISTANCE=85°
USGS 21 45 45.1, 22.2S, 174.8E, h= 33 km, mb=5.9, Ms=6.2
LOYALTY ISLANDS REGION

FEB 23 MHC iPc 02 00 54.3
SAO iPd 02 00 56.4
GCC iPd 02 00 56.7
LLA iPc 02 01 01.7
PCC ePc 02 01 03.3
PRS ePd 02 01 03.8
BKS iPc 02 01 06.8 01 20
JAS iPd 02 01 10.8 01 27
PRI ePd 02 01 11.4
FRI ePd 02 01 14.8
ORV eP 02 01 30
BRK 02 00 48.7, 37.1N, 121.5W, h= 4 km, ML=3.1
NORTHEAST OF GILROY, CALIFORNIA

FEB 23 PRI ePd 06 13 09.7
PRS ePd 06 13 14.3
LLA eP 06 13 17.1
SAO ePd 06 13 19.7
FRI eP 06 13 24.2
GCC eP 06 13 25.7
MHC eP 06 13 28.5
JAS eP 06 13 35.9
ORV ePd 06 13 59.5
BRK 06 12 51.2, 35.2N, 120.6W, h= 1 km, ML=3.2
SOUTH OF SAN LUIS OBISPO, CALIFORNIA

FEB 23 PRI iPc 13 07 13.7
LLA iPc 13 07 21.4
PRS iPc 13 07 23.7
FRI iPd 13 07 27.0 07 41
SAO ePc 13 07 27.6
GCC eP 13 07 35.3
MHC eP 13 07 35.5
JAS ePc 13 07 39.5
ORV ePc 13 08 04.8
BRK 13 07 08.8, 36.1N, 120.4W, h= 9 km, ML=3.0
COALINGA, CALIFORNIA

FEB 24 SAO iPc 02 42 52.8
GCC iPc 02 42 56.0
MHC iPc 02 42 59.1 43 05
PRS iPd 02 43 00.4
LLA iPc 02 43 01.4
PCC eP 02 43 05.1
PRI iPc 02 43 09.4 e 43 28
BKS iPc 02 43 10.9 43 27
JAS eP 02 43 14.5 43 32
FRI eP 02 43 16.6 43 36
BRK 02 42 49.5, 36.9N, 121.6W, h= 4 km, ML=2.7
WEST OF HOLLISTER, CALIFORNIA

FEB 24 SAO iPd 02 56 13.9
GCC iPc 02 56 17.1
MHC iPd 02 56 20.3 56 26
PRS iPd 02 56 21.5
LLA iPc 02 56 22.4
PCC ePc 02 56 26.4
PRI ePc 02 56 30.5
BKS eP 02 56 30.6 56 48
JAS eP 02 56 35.6 56 53
FRI eP 02 56 37.8
BRK 02 56 10.5, 36.9N, 121.6W, h= 4 km, ML=2.8
WEST OF HOLLISTER, CALIFORNIA

FEB 24 SAO eP 06 05
MHC eP 06 05 32.9 e 05 36
PRI eP 06 05 33.3
BKS ePd 06 05 35.3
MICRON 0.07 PERIOD 1.0
PZ 7 20
LN 6 20
LE 6 20
JAS eP 06 05 37.5
FRI eP 06 05 37.6
ORV eP 06 05 37.6
MNV eP 06 05
USGS 05 52 47.6, 21.4S, 169.2E, h= 33 km, mb=5.4, Ms=5.9
LOYALTY ISLANDS REGION

FEB 24 FHC 06 57 e 57 36
MIN 06 57 e 57 38
ORV iPd 06 57 45.2 i 57 58
BRK eP 06 57 48.0
MHC eP 06 57 51.5 e 58 04
SAO 06 57 e 57 53
JAS 06 57 e 57 54
FRI eP 06 57 58.3 e 58 11
PRI eP 06 57 58.6
USGS 06 45 09.6, 28.3N, 129.4E, h= 43 km, mb=5.6, Ms=5.9
RYUKYU ISLANDS

FEB 24 SAO iPd 09 12 04.2
GCC iPc 09 12 07.4
MHC iPc 09 12 10.6 12 19
PRS iPd 09 12 11.7
LLA iPc 09 12 12.6
PCC iP 09 12 16.8
BKS eP 09 12 20.4 12 33
PRI eP 09 12 20.6 e 12 37
JAS eP 09 12 25.9 12 43
FRI iPc 09 12 26.8
BRK 09 12 00.7, 36.9N, 121.6W, h= 6 km, ML=3.1
WEST OF HOLLISTER, CALIFORNIA

FEB 24 PRI eP 10 45 09.0
SAO eP 10 45 57.7
BKS iPd 10 45 58.7
MICRON 0.15 PERIOD 0.8
PZ 10 45 59.2
MHC eP 10 46 03.0
FHC eP 10 46 04.2
FRI iPd 10 46 04.5
JAS ePd 10 46 05.7
ORV ePd 10 46 07.9
MIN eP 10 46 13.8
MNV iPd 10 46 13.8
USGS 10 34 54.3, 20.9S, 178.6W, h=600 km, mb=5.3
FIJI ISLANDS REGION

Seismo
Centre

FEB 24	BKS	ePd	16 30 08.7 42 30	Lq 30 10 Lr 34 00 e 40 00	FEB 28	FRI	eP	22 05 51.0	PKPPKP 36 29										
			MICRON PERIOD			FRI	eP	22 05 52.6											
			PZ 0.03 1.0			MNV	e(P)	22 05 53											
			LZ 25 20			JAS	eP	22 06 00.3	PKPPKP 36 27										
			LN 3.6 20			MHC	e(P)	22 06 03											
			LE 16 20			BKS	e(P)	22 06 08	14 28										
ORV	eP	16 30 11.0																	
FRI	eP	16 30 14.0																	
JAS	eP	16 30 14.7																	
FRI	eP	16 30 16.9																	
MNV	eP	16 30 23																	
USGS 16 17 01.5, 6.1S, 148.7E, h= 71 km, mb=5.9 NEW BRITAIN REGION																			
FEB 24	JAS	eP	18 59 49.5			ORV	iPd	22 06 12.0	PKPPKP 36 22										
ORV	eP	18 59 49.5				MIN	eP	22 06 15.0											
FRI	eP	18 59 49.8				FHC	e(P)	22 06 27											
MIN	eP	18 59 50.8				mb=5.8, h=100 km, DISTANCE=60° USGS 21 56 13.5, 6.4S, 81.4W, h= 33 km, mb=5.3, Ms=6.0 NEAR COAST OF NORTHERN PERU													
USGS 18 46 59.9, 21.5S, 169.2E, h= 33 km, mb=5.0 LOYALTY ISLANDS REGION					MAR 01	FRI	eP	00 25 53.5											
						FRI	eP	00 25 55.5											
						JAS	eP	00 26 05.5											
						BKS	eP	00 26											
						MICRON PERIOD													

MAR 04 JAS eP 04 42 29.6
ORV eP 04 42 41.3
USGS 04 33 23.4, 2.5N, 79.0W, h= 46 km, mb=4.9
SOUTH OF PANAMA

MAR 04 PRI eP 15 28 13.8
MHC eP 15 28 14.8
FRI eP 15 28 19.0
JAS eP 15 28 20.0 e 28 35
ORV iPe 15 28 22.0
WDC iPe 15 28 22.8 e 28 38
MIN eP 15 28 24.3
MNV eP 15 28 28.8
USGS 15 16 00.3, 25.7S, 176.7W, h= 41 km, mb=5.5
SOUTH OF FIJI ISLANDS

MAR 04 MIN eP 22 11 33.7
WDC eP 22 11 33.8
ORV eP 22 11 36.1
BKS eP 22 11
PP 15 48 e 23 52 PS 24 34
PPS 24 56 e 25 42 e 29 50
e 30 38 e 32 12 SSS 33 58
Lr 44 22
MICRON PERIOD
LZ 29 20
LN 19 20
LE 8 20
FRI eP 22 11 44.2
Ms=6.6, DISTANCE=95°
USGS 21 58 05.9, 38.2N, 23.3E, h= 29 km, mb=6.0, Ms=6.4
GREECE

MAR 05 JAS eP 02 40 49.3
FRI eP 02 40 49.9

MAR 05 FRI iPe 05 29 10.3 29 21
MNV iPe 05 29 14.2
JAS iPe 05 29 18.0 29 34 i 29 30
LLA iPe 05 29 28.1 29 54
PRI e(P) 05 29 30 e 29 58
SAO iPe 05 29 32.4
MHC ePe 05 29 33.0 i 30 03
PRS iPe 05 29 34.4
GCC eP 05 29 36.7
BKS ePe 05 29 38.9 30 13
PCC ePe 05 29 40.2
ORV e(P) 05 29 41
BRK 05 28 54.9, 37.6N, 118.9W, h= 13 km, ML=4.2
MAMMOTH LAKES AREA, CALIFORNIA

MAR 05 WDC ePd 14 16 36.8
ORV iPd 14 16 39.7
MIN ePd 14 16 41.7
JAS eP 14 16 41.9
NOTE: T-Phase at 14:51
USGS 14 09 39.8, 21.0N, 157.0W, h= 10 km, mb=5.0
HAWAII

MAR 05 FRI iPe 15 07 55.7 08 07
MNV iPe 15 07 57.8
JAS iPd 15 08 01.8 08 18
LLA ePe 15 08 13.1
PRI ePd 15 08 15.3 i 08 43
MHC eP 15 08 17.4 i 08 47
SAO iPe 15 08 17.4
PRS ePe 15 08 19.7
GCC e(P) 15 08 21
BKS eP 15 08 23.0 08 56
PCC eP 15 08 24.8
BRK 15 07 39.3, 37.6N, 118.9W, h= 9 km, ML=3.6
MAMMOTH LAKES AREA, CALIFORNIA

MAR 05 FHC eP 19 10 07.7
WDC iPe 19 10 12.8
MIN eP 19 10 16.4
ORV iPe 19 10 19.0
BKS ePe 19 10 21.7
MICRON PERIOD
PZ 0.13 1.0
MHC eP 19 10 25.3
FRI eP 19 10 32.5
FRI eP 19 10 33.1
USGS 18 59 00.7, 32.1N, 137.9E, h=361 km, mb=5.1
SOUTH OF HONSHU, JAPAN

MAR 06 WDC eP 10 46 57.7
MIN eP 10 46 59.0
ORV eP 10 47 04.3
MNV eP 10 47
MHC eP 10 47 20.8 e 47 09
FRI eP 10 47 21.0
PRI eP 10 47
USGS 10 37 22.2, 79.8N, 1.4W, h= 10 km, mb=5.2
GREENLAND SEA

MAR 06 FRI eP 19 51 14.2
MNV eP 19 51 16.1
PRI eP 19 51 16.7
JAS eP 19 51 23.6
SAO eP 19 51 23.9
MHC eP 19 51 27.5
BKS eP 19 51 34
e 58 34 e 06 22
MICRON PERIOD
PZ 1.46 1.8
LZ 22 20
LNE 20 20
LNW 20 20
ORV eP 19 51 36.4
MIN eP 19 51 40.0
WDC eP 19 51 44.1
FHC eP 19 51 53.5
Ms=6.2, DISTANCE=44°
USGS 19 42 59.5, 3.9N, 85.9W, h= 33 km, mb=6.1, Ms=6.4
OFF COAST OF CENTRAL AMERICA

MAR 07 MNV eP 01 01 04.3
FRI eP 01 01
JAS eP 01 01 15.3 e 01 10
ORV eP 01 01 22.3
MHC eP 01 01
MIN eP 01 01
WDC eP 01 01 26.3 e 01 23
FHC eP 01 01 e 01 24
e 01 37
USGS 00 51 36.1, 16.8N, 60.7W, h= 33 km, mb=5.3, Ms=5.0
LEEWARD ISLANDS

MAR 07 FHC eP 20 09 36.7
WDC iPd 20 09 47.1
MIN eP 20 09 54.5
ORV eP 20 10 04.0
MHC eP 20 10
JAS eP 20 10 28.5 e 10 27
MNV eP 20 10 e 10 38
FRI eP 20 10 e 10 42
PRI eP 20 10 e 10 49
USGS 20 07 24.5, 49.1N, 129.0W, h= 13 km, mb=4.5
VANCOUVER ISLAND REGION

MAR 07 PRI eP 23 42 45.4
BKS eP 23 42 46
MICRON PERIOD
PZ 0.04 1.1
MHC eP 23 42 46.4
FRI eP 23 42 50.3
JAS eP 23 42 51.2
ORV eP 23 42
WDC eP 23 42 54.5 e 42 53
USGS 23 30 08.4, 30.6S, 178.2W, h= 33 km, mb=5.7, Ms=5.4
KERMADEC ISLANDS

MAR 08 FHC iPe 05 35 41.3 35 49
WDC iPe 05 35 54.9 36 15
MIN iPe 05 36 04.6
ORV eP 05 36 07.8 36 37
BRK 05 35 30.1, 40.4N, 124.5W, h= 8 km, ML=3.5
OFF COAST SOUTHWEST OF EUREKA, CALIFORNIA

MAR 08 SAO iP 10 28 38.6
GCC iPe 10 28 41.7
MHC iPd 10 28 44.8 28 53
PRS iPd 10 28 46.1
LLA iPe 10 28 46.9
PCC iPe 10 28 51.0
PRI iPe 10 28 55.0 29 12
BKS ePe 10 28 55.2 29 13
JAS eP 10 29 00.2 i 29 18
FRI eP 10 29 01.5
BRK 10 28 35.3, 36.9N, 121.6W, h= 8 km, ML=2.9
WEST OF HOLLISTER, CALIFORNIA

MAR 08 MHC iPd 23 15 02.1
GCC ePd 23 15 08.0
PCC iPe 23 15 11.3
SAO iPd 23 15 12.0
BKS eP 23 15 14.4 15 25
LLA ePd 23 15 17.2 15 30
PRS ePe 23 15 19.1
JAS ePe 23 15 21.5 15 37
FRI ePe 23 15 28
ORV ePe 23 15 39
BRK 23 15 00.5, 37.3N, 121.7W, h= 8 km, ML=2.7
EAST OF SAN JOSE, CALIFORNIA

MAR 09 FHC iPd 06 26 34.0 26 42
WDC iPe 06 26 47.0
MIN iPe 06 26 56.6 27 22
ORV iPe 06 26 59.7
BKS eP 06 27 07.4 27 41
PCC ePd 06 27 10.4
MHC eP 06 27 18
GCC eP 06 27 18
JAS eP 06 27 22.0
SAO eP 06 27 23.5
BRK 06 26 20.6, 40.4N, 124.6W, h= 8 km, ML=3.5
OFF COAST SOUTHWEST OF EUREKA, CALIFORNIA

MAR 09 FHC iPd 06 39 51.3 39 59
WDC iPe 06 40 04.3
MIN iPe 06 40 14.0
ORV ePd 06 40 16.5
BKS eP 06 40 24.6 40 59
PCC ePd 06 40 27.7
MHC eP 06 40 34.8
GCC eP 06 40 35.3
JAS eP 06 40 40
SAO eP 06 40 41.2
BRK 06 39 38.2, 40.3N, 124.6W, h= 8 km, ML=3.3
OFF COAST SOUTHWEST OF EUREKA, CALIFORNIA

MAR 09 FRI eP 07 58 10.5
MNV ePd 07 58 12.0
PRI ePd 07 58 12.0
SAO eP 07 58 15.8
JAS ePd 07 58 17.0
MHC eP 07 58 19.5
BKS eP 07 58 22.7
MICRON PERIOD
PZ 0.03 0.8
ORV iPd 07 58 26.2
MIN eP 07 58 28.0
WDC ePd 07 58 31.0
FHC ePd 07 58 38.0
USGS 07 46 29.6, 23.6S, 66.3W, h=185 km, mb=5.3
JUJUY PROVINCE, ARGENTINA

MAR 09 FHC eP 16 22 54.2 e 23 09
WDC eP 16 22 59.8 e 23 15
ORV eP 16 23 06.8 e 23 22
JAS eP 16 23 17.3 e 23 33
FRI eP 16 23 23.1 e 23 38
USGS 16 11 59.6, 40.2N, 142.1E, h= 52 km, mb=5.2
NEAR EAST COAST OF HONSHU, JAPAN

MAR 09 PRI iPe 22 43 51.4
FRI iPe 22 43 51.5
MNV iPe 22 43 56.0
SAO ePe 22 43 59.0
JAS iPe 22 44 02.7 PeP 47 44
MHC ePe 22 44 05.0
BKS ePe 22 44 11.2 48 58 PeP 47 46 Lq 50 00 Lr 51 28
MICRON PERIOD
PZ 0.98 1.6
LZ 16 20
LN 17 20
LE 23 20
ORV iPe 22 44 19.2 PeP 47 50
MIN ePe 22 44 24.8
WDC ePe 22 44 28.3 PeP 47 50
FHC ePe 22 44 39.0
Ms=5.9, DISTANCE=30°
USGS 22 38 51.9, 18.8N, 103.9W, h= 56 km, mb=5.7
NEAR COAST OF MICHOACAN, MEXICO

MAR 10 FRI iPd 23 29 48.8 30 03
MNV iPd 23 29 49.5
JAS iPe 23 29 59.8 30 22
PRI iPe 23 30 06.4
LLA ePd 23 30 06.6
SAO iP 23 30 11.5
MHC eP 23 30 13.1
BKS eP 23 30 29.5
BRK 23 29 28.6, 37.3N, 118.3W, h= 27 km, ML=3.6
SOUTHEAST OF BISHOP, CALIFORNIA

MAR 10 SAO iPd 23 56 38.1
GCC iPe 23 56 40.6
MHC iPd 23 56 43.8
PRS iPd 23 56 45.5
LLA ePd 23 56 46.3
PCC iPe 23 56 50.0
BKS eP 23 56 54.0 57 10
PRI ePd 23 56 54.3
JAS e(P) 23 56 59
FRI ePe 23 57 00.5
ORV e(P) 23 57 18
BRK 23 56 34.3, 36.9N, 121.6W, h= 7 km, ML=3.3
WEST OF HOLLISTER, CALIFORNIA

MAR 11 BKS 07 29 e 54 00
MICRON PERIOD
LZ 2.9 20
LN 2.2 20
LE 2.9 20
MHC eP 07 29 07.7 e 29 21
FRI eP 07 29 12.2 e 29 26
JAS eP 07 29 13.2 e 29 26
ORV eP 07 29 15.2 e 29 28
WDC eP 07 29 15.2 e 29 29
USGS 07 17 07.2, 23.4S, 175.3W, h= 33 km, mb=5.3, Ms=5.5
TONGA ISLANDS REGION

MAR 11 MHC 09 40 e 40 48
FRI 09 40 e 40 54
JAS eP 09 40 40.3 e 40 54
ORV eP 09 40 42.5 e 40 56
WDC eP 09 40 44.0 e 40 57
USGS 09 28 35.2, 23.3S, 175.4W, h= 33 km, mb=5.4
TONGA ISLANDS REGION

MAR 12 ORV ePo 01 19 16.5 e 19 35
JAS iPo 01 19 40.7 e 19 59
FRI eP 01 19 55.5

MAR 12	MNV	ePc	03 24 46.5		
	FRI	eP	03 24 46.9		
	PRI	eP	03 24 49.2		
	JAS	ePc	03 24 55.7		
	SAO	eP	03 24 56		
	MHC	ePc	03 25 00.8		
	BKS	eP	03 25 06.5		
			PZ 0.09	PERIOD 1.1	
	ORV	iPc	03 25 08.5		
	MIN	ePc	03 25 11.5		
	WDC	eP	03 25 15.3		
	FHC	ePc	03 25 26.7		
			USGS 03 17 14.5, 11.2N, 85.8W, h= 33 km, mb=4.7, Ms=4.1		
			NICARAGUA		
MAR 12	FHC	e(P)	10 55 52		
	WDC	iPc	10 55 55.5		
	BKS	eP	10 55 56.0		
			PZ 0.03	PERIOD 0.9	
	MIN	ePc	10 55 58.0		
	MHC	eP	10 55 58.2		
	ORV	iPc	10 55 58.4		
	PRI	ePc	10 56 01.6		
	JAS	ePc	10 56 01.9		
	FRI	ePc	10 56 04.4		
	MNV	eP	10 56 10		
			USGS 10 42 47.5, 7.2S, 146.1E, h=175 km, mb=5.5		
			EAST PAPUA NEW GUINEA REGION		
MAR 13	FRI		01 55	e 55 54	
	PRI	ePKP	01 55 55.7		
	JAS	ePKP	01 55 57.5		
	MHC		01 55	e 55 59	
	BKS	ePKP	01 55 59.8		
	ORV	ePKP	01 56 00.0		
	MIN	ePKP	01 56 01.7		
	WDC	ePKP	01 56 02.4		
			USGS 01 37 17.2, 56.5S, 27.0W, h=136 km, mb=5.1		
			SOUTH SANDWICH ISLANDS REGION		
MAR 13	FHC	iPd	21 22 33.5	22 42	
	WDC	iPd	21 22 46.7	23 06	
	MIN	eP	21 22 56.4		
	ORV	ePc	21 22 59.7		
	PCC	eP	21 23 10.0		
	MHC	e(P)	21 23 17		
	GCC	e(P)	21 23 17		
	SAO	eP	21 23 23.5		
			BRK 21 22 20.6, 40.3N, 124.7W, h= 23 km, ML=3.7		
			SOUTHWEST OF EUREKA, CALIFORNIA		
MAR 13	MIN	ePKP	23 41 27.4		
	WDC	ePKP	23 41 28.5		
	ORV	ePKP	23 41 30.2		
	JAS	ePKP	23 41 36.0		
	FRI	ePKP	23 41 38.0		
			USGS 23 22 35.1, 8.8S, 110.4E, h= 51 km, mb=5.6		
			JAVA		
MAR 14	BRK	e(P)	05 50 31		
	PRI	e(P)	05 50 32		
	MHC	e(P)	05 50 32		
	FRI	eP	05 50 37.8		
	JAS	eP	05 50 38.3		
	ORV	eP	05 50 39.5		
	WDC	eP	05 50 40.0		
	MIN	eP	05 50 42.0		
	MNV	eP	05 50 48.9		
			USGS 05 39 09.1, 15.0S, 174.6W, h= 33 km, mb=5.1, Ms=5.2		
			TONGA ISLANDS		
MAR 14	SAO	e(P)	08 25 18		
	BKS	iPc	08 25 19.0		
			PZ 0.03	PERIOD 1.0	
	MHC	e(P)	08 25 20		
	WDC	eP	08 25 22.0		
	ORV	eP	08 25 23.1		
	JAS	eP	08 25 24.5		
	FRI	eP	08 25 25.7		
	MNV	eP	08 25 34		
			USGS 08 12 57.8, 11.4S, 166.2E, h= 57 km, mb=5.0		
			SANTA CRUZ ISLANDS		
MAR 15	FHC	iPc	06 08 04.5		
	WDC	iPc	06 08 19.2		
	MIN	iPc	06 08 29.0	09 02	
	ORV	ePd	06 08 31.0		
	BKS	eP	06 08 35.6	09 17	
	PCC	eP	06 08 38.1		
	MHC	eP	06 08 46.1		
	GCC	eP	06 08 46.5		
	SAO	eP	06 08 52.7		
	JAS	ePd	06 08 53.2		
	LLA	e(P)	06 08 59		
	PRS	e(P)	06 09 00		
	FRI	e(P)	06 09 07		
	PRI	e(P)	06 09 07		
			BRK 06 07 45.9, 40.4N, 125.2W, h= 8 km, ML=4.7		
			OFF COAST SOUTHWEST OF EUREKA, CALIFORNIA		
MAR 15	FHC	iPd	10 55 45.7	55 54	
	WDC	iPc	10 55 59.6		
	MIN	ePc	10 56 08.4		
	ORV	iPd	10 56 11.4		
	PCC	e(P)	10 56 22		
			BRK 10 55 35.2, 40.4N, 124.5W, h= 22 km, ML=3.0		
			OFF COAST SOUTHWEST OF EUREKA, CALIFORNIA		
MAR 15	BKS	iPc	11 21 46.8	21 52	
	MHC	iPc	11 21 49.7	21 56	
	PCC	iPd	11 21 50.6		
	GCC	ePd	11 21 54.5		
	JAS	iPc	11 21 57.8		
	SAO	eP	11 21 58.3		
	ORV	iPd	11 22 09.1		
			BRK 11 21 39.3, 37.8N, 121.8W, h= 14 km, ML=2.8		
			NORTH OF LIVERMORE, CALIFORNIA		
MAR 16	FRI	iPc	04 54 10.1	54 22	
	MNV	iPd	04 54 11.4	54 24	
	JAS	iPc	04 54 16.9	54 33	
	LLA	iPc	04 54 27.7		
	PRI	iPd	04 54 30.0		
	SAO	iPc	04 54 32.0		
	MHC	eP	04 54 32.3		
	PRS	ePc	04 54 34.0		
	GCC	eP	04 54 36.3		
	BKS	iPd	04 54 38.8		
	PCC	e(P)	04 54 40		
	ORV	ePd	04 54 40.6		
			BRK 04 53 53.2, 37.6N, 118.9W, h= 4 km, ML=3.5		
			MAMMOTH LAKES AREA, CALIFORNIA		
MAR 16	FHC	eP	12 28 11.2		
	WDC	ePc	12 28 17.2		
	MIN	eP	12 28 21.8		
	ORV	ePc	12 28 25.9		
	BKS	eP	12 28 32.6		
	MHC	eP	12 28 37.2		
	JAS	ePc	12 28 39.4		
	SAO	eP	12 28 40.2		
	MNV	eP	12 28 46.4		
	FRI	eP	12 28 46.6		
	PRI	eP	12 28 47.9		
			USGS 12 19 16.8, 53.8N, 160.3E, h= 76 km, mb=5.2		
			NEAR EAST COAST OF KAMCHATKA		
MAR 16	FHC	eP	12 40 52.9		
	WDC	eP	12 40 57.4		
	MIN	eP	12 41 00.6		
	ORV	eP	12 41 02.9		
	BKS	eP	12 41 06.0		
	MHC	eP	12 41 09.4		
	JAS	eP	12 41 11.4		
	FRI	eP	12 41 16.2		
	PRI	eP	12 41 16.4		
			USGS 12 28 29.6, 29.3N, 129.4E, h= 33 km, mb=5.1, Ms=5.2		
			RYUKYU ISLANDS		
MAR 16	FRI	eP	13 53 16.2	e 53 32	
	PRI	eP	13 53 16.9		
	JAS	iPd	13 53 22.7	i 53 38	
	MHC	eP	13 53 24.1		
	BKS	eP	13 53 27.1		
	ORV	iPd	13 53 31.4	i 53 47	
	MIN	eP	13 53 33.5		
	WDC	iPd	13 53 36.0	i 53 52	
	FHC	e(P)	13 53 43		
			USGS 13 40 46.7, 35.5S, 71.8W, h= 55 km, mb=5.2		
			CENTRAL CHILE		
MAR 16	PRI	eP	14 25 29.8		
	MHC	e(P)	14 25 31		
	BKS	eP	14 25 32		
	FRI	eP	14 25 35.5		
	JAS	eP	14 25 36.2		
	ORV	eP	14 25 38.2		
	WDC	eP	14 25 39.0		
			USGS 14 13 30.7, 23.3S, 175.2W, h= 33 km, mb=4.5		
			TONGA ISLANDS REGION		
MAR 18	SAO	eP	05 33 46.3		
	BKS	eP	05 33 47		
			PZ 0.03	PERIOD 0.8	
	MHC	eP	05 33 47.6		
	PRI	eP	05 33 48.3		
	FHC	eP	05 33 48.7		
	WDC	eP	05 33 52.2	e 34 03	
	FRI	eP	05 33 52.5	e 34 04	
	JAS	eP	05 33 52.5	e 34 04	
	ORV	eP	05 33 52.7	e 34 04	
	MIN	eP	05 33 54.0		
	MNV	eP	05 34 01.0		
			USGS 05 21 01.9, 21.5S, 169.2E, h= 37 km, mb=5.1		
			LOYALTY ISLANDS REGION		
MAR 18	PRI	eP	06 08 07		
	FRI	eP	06 08 08	e 08 16	
	SAO	e(P)	06 08 19		
	JAS	eP	06 08 24.2	Sg 09 34	
	MHC	eP	06 08 26		
	BKS	eP	06 08 35.8		
			PAS 06 07 11.8, 34.1N, 117.0W, h= 12 km, ML=4.0		
			SOUTHERN CALIFORNIA		
MAR 18	PRI	eP	18 20 43.3		
	JAS	eP	18 20 48.2		
	MHC	eP	18 20 50.7		
	ORV	ePd	18 20 57.5		
	MIN	eP	18 20 59.3		
	WDC	ePd	18 21 02.0		
	FHC	eP	18 21 08.5		
			USGS 18 09 09.2, 22.7S, 66.6W, h=225 km, mb=4.9		
			JUJUY PROVINCE, ARGENTINA		
MAR 18	FHC	eP	18 33 19.5		
	WDC	eP	18 33 23.0		
	MIN	eP	18 33 28.2		
	ORV	eP	18 33 28.5		
	BKS		18 33	e 33 36	
	MHC	e(P)	18 33 34		
	JAS	eP	18 33 37.0		
	PRI	e(P)	18 33 41		
	FRI	eP	18 33 41.5		
			USGS 18 20 57.1, 29.4N, 129.4E, h= 33 km, mb=5.2, Ms=5.4		
			RYUKYU ISLANDS		
MAR 19	MHC	eP	13 32 59.5		
	FRI	eP	13 33 05.0		
	JAS	eP	13 33 05.7		
	ORV	eP	13 33 07.4		
	WDC	eP	13 33 08.0		
	MIN	eP	13 33 09.9		
			USGS 13 21 37.7, 16.2S, 172.9W, h= 33 km, mb=5.2, Ms=5.0		
			SAMOA ISLANDS REGION		
MAR 19	BKS	eP	19 53 38	e 53 46	
	SAO		19 53	e 53 38	
	MHC	eP	19 53 39.0		
	PRI	eP	19 53 40.6		
	WDC	eP	19 53 43.2		
	JAS	eP	19 53 43.8		
	ORV	eP	19 53 44.0		
	FRI	eP	19 53 44.2		
	MIN	eP	19 53 49.5		
	MNV		19 53	e 53 53	
			USGS 19 40 51.9, 21.3S, 168.8E, h= 26 km, mb=4.9, Ms=5.2		
			LOYALTY ISLANDS		
MAR 20	GCC	iPc	22 54 17.2	54 20	
	SAO	iPd	22 54 18.5		
	MHC	iPd	22 54 20.0	54 25	
	PRS	ePd	22 54 25.5		
	LLA	iPc	22 54 26.0		
	PCC	iPc	22 54 26.1		
	BKS	iPd	22 54 30.5	54 45	
	PRI	eP	22 54 35		
	JAS	eP	22 54 36.4		
	FRI	ePd	22 54 40.5		
			BRK 22 54 12.6, 37.0N, 121.7W, h= 10 km, ML=2.8		
			SOUTHWEST OF GILROY, CALIFORNIA		
MAR 21	FHC	iPc	05 38 54.8	39 00	
	WDC	iPc	05 39 09.6	39 27	
	MIN	iPc	05 39 19.8	39 44	
	ORV	iPc	05 39 23.6		
	BKS	eP	05 39 34		
	PCC	ePc	05 39 37.4		
	MHC	eP	05 39 44.5		
	GCC	ePd	05 39 44.9		
	JAS	ePd	05 39 47.4		
	SAO	ePc	05 39 50.6		
			BRK 05 38 46.6, 40.6N, 124.4W, h= 24 km, ML=4.0		
			OFF COAST SOUTHWEST OF EUREKA, CALIFORNIA		
MAR 21	WDC	ePKPc	12 47 27.6	e 48 00	

MAR 21 FHC ePd 23 05 29.8
WDC iPd 23 05 34.1
BKS iPd 23 05 35.0
e 05 53 PP 09 24
pP 06 00 sP 06 10 PP 09 22
i 15 44 PS 17 44 e 18 16
e 19 13 Lq 31 22
MICRON PERIOD
0.69 1.4
SAO ePd 23 05 36.4
MHC ePd 23 05 36.5 PP 09 27
MIN ePd 23 05 36.7
ORV iPd 23 05 37.1 PP 09 28
PRI ePd 23 05 40.2
JAS ePd 23 05 40.5 e 06 00 PP 09 34
FRI ePd 23 05 42.8 PP 09 38
MNV ePd 23 05 49.0 PP 09 46
USGS 22 52 39.3, 5.4S, 146.7E, h=227 km, mb=6.0
EAST PAPUA NEW GUINEA REGION

MAR 22 PRI eP 23 26 01.5
BKS iPe 23 26 01.6
MICRON PERIOD
0.04 1.0
MHC eP 23 26 01.8
FHC eP 23 26 05.3
FRI eP 23 26 06.4
JAS ePd 23 26 06.8
ORV ePd 23 26 08.2
WDC ePd 23 26 08.5
MIN eP 23 26 10.2
FIJI ISLANDS REGION

MAR 23 WDC eP 00 57 42.5
ORV eP 00 57 51.0
JAS eP 00 58 05.8
USGS 00 49 02.6, 54.9N, 165.6E, h= 33 km, mb=4.5
KOMANDORSKY ISLANDS REGION

MAR 23 MNV iPd 08 52 36.0
FRI iPd 08 52 59.7 S3 21
JAS iPe 08 53 00.0 S3 22
ORV eP 08 53 16.0
LLA ePe 08 53 16.4
MHC eP 08 53 16.8
PRI eP 08 53 19.0
BRK 08 52 30.3, 38.2N, 118.3W, h= 14 km, ML=3.5
EAST OF MONO LAKE, CALIFORNIA (NEVADA)

MAR 23 FRI eP 13 30 38.0
JAS ePe 13 30 42.5
ORV ePe 13 30 46.7
PRI eP 13 30 46.8
MIN eP 13 30 47.5
MHC eP 13 30 49.4
WDC ePe 13 30 49.9
FHC eP 13 30 59.2
USGS 13 19 25.2, 13.4N, 44.9W, h= 10 km, mb=5.3, Ms=5.4
NORTH ATLANTIC RIDGE

MAR 23 FRI eP 19 40 32.8
PRI eP 19 40 33.8
MNV eP 19 40 35.8
SAO eP 19 40 39.3
JAS eP 19 40 40.7
MHC eP 19 40 44
BKS eP 19 40 44
MICRON PERIOD
0.24 2.0
LZ 9 20
LN 8 20
LE 2.9 20
ORV eP 19 40 48.4
MIN eP 19 40 50.7
WDC eP 19 40 53.5
FHC eP 19 40 53.5
e 40 58
Ms=6.2, DISTANCE=88°
USGS 19 28 10.7, 33.7S, 71.9W, h= 46 km, mb=5.8, Ms=6.2
NEAR COAST OF CENTRAL CHILE

MAR 23 PRI eP 23 14
MHC eP 23 14
FRI eP 23 14
JAS eP 23 14 34.0
WDC eP 23 14 34.1
ORV eP 23 14 35.7
USGS 23 01 50.1, 22.8S, 172.7E, h= 33 km, mb=5.5, Ms=5.5
LOYALTY ISLANDS REGION

MAR 24 FRI iPe 04 09 25.6 09 38
MNV iPe 04 09 28.3
JAS iPe 04 09 34.0
LLA iPe 04 09 43.7
PRI iPd 04 09 45.4
SAO eP 04 09 48.1
MHC eP 04 09 48.8
PRS eP 04 09 50.0
PCC eP 04 09 56.3
BRK 04 09 09.2, 37.5N, 118.8W, h= 11 km, ML=3.5
MAMMOTH LAKES AREA, CALIFORNIA

MAR 24 WDC eP 08 57 25.8
ORV eP 08 57 32.9
JAS eP 08 57 43.4
USGS 08 46 27.6, 41.4N, 141.9E, h= 44 km, mb=5.0, Ms=4.0
HOKKAIDO, JAPAN REGION

MAR 24 WDC eP 11 37 01.5
ORV eP 11 37 08.2
JAS eP 11 37 17.2
PRI eP 11 37
FRI eP 11 37 22.5
USGS 11 25 27.0, 31.8N, 141.7E, h= 33 km, mb=5.2, Ms=5.4
SOUTH OF HONSHU, JAPAN

MAR 24 FRI eP 13 34
JAS eP 13 34 42.9
e 34 38

MAR 24 FHC ePe 18 27 54.4
WDC iPe 18 28 03.0
MIN ePe 18 28 08.6
ORV iPe 18 28 12.8
BKS iP 18 28 18.2
e 28 15 PoP 30 02
e 28 25
i 28 25 Lq 36 30
Lr 37 30
MICRON PERIOD
0 20
LZ 8
MHC ePe 18 28 24.5
SAO eP 18 28 28.0
JAS iPe 18 28 28.2
FRI ePe 18 28 36.5
PRI ePe 18 28 36.5
MNV ePe 18 28 36.9
USGS 18 21 27.9, 52.7N, 168.0W, h= 33 km, mb=5.5, Ms=5.3
FOX ISLANDS, ALEUTIAN ISLANDS

MAR 25 FRI iPe 04 01 59.7 02 11
MNV iPe 04 02 03.4 02 17
JAS iPe 04 02 07.0 02 23
LLA iPe 04 02 17.3
PRI ePe 04 02 19.8
SAO iPe 04 02 21.5
MHC ePe 04 02 22.0
PRS ePe 04 02 23.6
GCC eP 04 02 26.0
BKS iP 04 02 28.6 03 03
PCC ePd 04 02 29.6
ORV ePe 04 02 32.3
BRK 04 01 43.8, 37.5N, 118.9W, h= 10 km, ML=3.7
MAMMOTH LAKES AREA, CALIFORNIA

MAR 25 WDC eP 04 26 49.0
ORV eP 04 26 54.8
JAS eP 04 27 03.0
FRI eP 04 27 07.9
USGS 04 15 01.6, 26.6N, 142.7E, h= 33 km, mb=5.0
BONIN ISLANDS REGION

MAR 25 MHC iPe 16 58 21.4
BKS iP 16 58 27.3 58 35
PCC iPd 16 58 27.4
GCC iPd 16 58 28.2 58 37
SAO i(P) 16 58 31
JAS iPd 16 58 35.6 58 50
LLA iPe 16 58 37.0
PRS iPd 16 58 39.6
FRI eP 16 58 45.5
PRI eP 16 58 47.6
BRK 16 58 16.7, 37.6N, 121.7W, h= 8 km, ML=2.9
SOUTHEAST OF LIVERMORE, CALIFORNIA

MAR 26 SAO e(P) 10 27 58
PRI eP 10 27 59.8
BKS eP 10 28 00
MHC eP 10 28 00.4 e 28 13
FRI eP 10 28 05.3 e 28 14
JAS eP 10 28 06.0 e 28 18
FHC eP 10 28 06.3 e 28 19
ORV eP 10 28 08.5 e 28 21
WDC eP 10 28 09.0 e 28 22
MIN eP 10 28 10.4
MNV eP 10 28 15.7
USGS 10 16 11.9, 21.6S, 174.3W, h= 43 km, mb=5.7, Ms=5.6
TONGA ISLANDS

MAR 26 FRI eP 18 16 04.5
PRI eP 18 16 06.3
SAO eP 18 16
JAS eP 18 16 11.8
MHC eP 18 16 14.5
BKS iPe 18 16 18.1 25 55
e 16 48
i 16 10
i 16 45
e 16 48
pP 16 53 PP 19 22 sPP 20 05
sS 26 16 sS 26 42 e 27 29
SS 31 42 SSS 34 50 Lq 36 28
Lr 39 29

MAR 26 ORV iPd 18 16 21.3
MIN eP 18 16
WDC eP 18 16 26.5
FHC eP 18 16
MICRON PERIOD
0.75 1.6
USGS 18 04 44.7, 19.4S, 69.0W, h=138 km, mb=5.8
CHILE-BOLIVIA BORDER REGION

MAR 27 FHC iPe 16 17 13.0 17 40
WDC iPe 16 17 29.4
MIN ePe 16 17 39.3
BKS iPe 16 17 43.2
ORV iPe 16 17 43.2
PCC ePe 16 17 44.6
GCC ePe 16 17 52.0
MHC ePe 16 17 52.8
SAO ePe 16 17 58.7
JAS ePe 16 18 01.5
PRS ePe 16 18 03.7
LLA ePe 16 18 04.5
PRI ePd 16 18 12.3
FRI iPe 16 18 14.0
BRK 16 16 36.7, 40.5N, 126.9W, h= 8 km, ML=4.2
OFF COAST WEST-SOUTHWEST OF EUREKA, CALIFORNIA

MAR 28 FHC eP 01 20 04.1
BKS eP 01 20 07.5
MICRON PERIOD
0.04 0.6
LZ 1.1 20
LN 0 20
LE 0.7 20
WDC iPe 01 20 08.1
MHC eP 01 20 09.9
MIN eP 01 20 10.8
ORV iPe 01 20 10.9
PRI eP 01 20 13.6
JAS ePe 01 20 14.3
FRI ePe 01 20 16.6
MNV ePe 01 20 23.1
USGS 01 07 10.0, 5.8S, 151.0E, h= 74 km, mb=5.5
NEW BRITAIN REGION

MAR 28 ORV iPe 04 40 17.4
MIN iPd 04 40 25.0 40 44
JAS iPd 04 40 25.3 40 44
MNV iPd 04 40 33.3
WDC ePe 04 40 35.3
BRK eP 04 40 35.9
MHC eP 04 40 38.9
FRI eP 04 40 40.1
BRK 04 39 59.1, 39.4N, 120.2W, h= 15 km, ML=3.5
NORTH OF TRUCKEE, CALIFORNIA

MAR 28 ORV iPe 05 04 55.2
MIN iPd 05 05 03.1 05 22
JAS iPd 05 05 03.2 05 22
MNV iPe 05 05 10.4
WDC ePd 05 05 12.8
BKS eP 05 05 15.0 05 44
MHC iPe 05 05 17.0
FRI iPd 05 05 18.2
PCC eP 05 05 20.4
SAO eP 05 05 23
LLA eP 05 05 23.4
PRI eP 05 05 30.6
BRK 05 04 36.9, 39.4N, 120.2W, h= 16 km, ML=3.8
NORTH OF TRUCKEE, CALIFORNIA

MAR 28 SAO iPe 20 28 37.6
LLA iPe 20 28 44.2 28 50
PRS iPd 20 28 45.2
GCC ePd 20 28 46.9
MHC ePd 20 28 48.3 28 57
PRI ePd 20 28 53.9
PCC eP 20 28 55.7
FRI ePe 20 29 00.4
BKS ePd 20 29 01.1 29 24
JAS ePe 20 29 01.1
BRK 20 28 36.4, 36.8N, 121.4W, h= 3 km, ML=2.8
SOUTHEAST OF HOLLISTER, CALIFORNIA

MAR 29 FHC eP 04 16 41.6
WDC iPe 04 16 42.7
MIN ePe 04 16 44.7
ORV iPe 04 16 48.0
BKS eP 04 16 55.9
MICRON PERIOD
0.03 0.7
MNV ePe 04 16 57.0
JAS iPe 04 16 57.2
MHC eP 04 16 58.5
SAO eP 04 17 01.7
FRI ePe 04 17 02.0
PRI eP 04 17 06.0
USGS 04 03 50.0, 50.0N, 79.0E, h= 0 km, mb=5.6, Ms=3.7
EASTERN KAZAKH, S.S.R.

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APR 18	FHC	ePo	12	41	01.6
	WDC	iPo	12	41	07.9
	MIN	eP	12	41	12.3
	ORV	iPo	12	41	16.0
	BRK	eP	12	41	20.5
	MHC	eP	12	41	25.8
	JAS	iPo	12	41	28.3
	SAO	eP	12	41	28.6
	FRI	ePo	12	41	34.7
	MNV	ePo	12	41	35.4
	PHI	eP	12	41	35.5
USGS 12 31 33.6, 49.2N, 154.2E, h=120 km, mb=5.0					
KURIL ISLANDS					

APR 18 FHC iPe 13 17 50.8 18 00
WDC iPe 13 18 04.7 18 24
MIN iPe 13 18 14.4
ORV iPd 13 18 17.6
BRK e(P) 13 18 25
PCC eP 13 18 27.5
MHC eP 13 18 34.7
GCC eP 13 18 35.0
JAS eP 13 18 40.0
SAO ePd 13 18 41.0
BRK 13 17 37.1, 40.4N, 124.7W, h= 8 km, ML=3.8
OFF COAST SOUTHWEST OF EUREKA, CALIFORNIA

APR 19 FRI eP 08 47 22.9 47 49 i 47 24
PRI eP 08 47 29.0 i 47 30
MNV e(P) 08 47 34 i 47 38
JAS eP 08 47 38.5 i 47 42
SAO eP 08 47 41.0
ML=4.0, CHINA LAKE AREA
PAS 08 46 49.8, 35.8N, 117.8W, h= 5 km, ML=3.8
SOUTHERN CALIFORNIA

APR 19 FRI iPe 09 02 44.1 03 09
PRI ePo 09 02 49.7 i 02 51
LLA eP 09 02 54.0 i 02 57
MNV iPd 09 02 55.6 i 02 59
PRS eP 09 02 58.0 i 02 59
JAS ePd 09 02 59.8 i 03 02
SAO eP 09 03 02.0
MHC e(P) 09 03 06.0 i 03 07
BKS e(P) 09 03 14 e 04 12
ORV ePe 09 03 24.4 i 03 27
ML=4.8, CHINA LAKE AREA
PAS 09 02 11.0, 35.8N, 117.8W, h= 6 km, ML=4.2
SOUTHERN CALIFORNIA

APR 19 FRI iPe 09 20 30.2 20 55
PRI iPd 09 20 36.2 i 20 37
LLA eP 09 20 40
MNV iPe 09 20 42.3 i 20 46
JAS ePe 09 20 45.9 i 20 48
SAO eP 09 20 46.2
MHC e(P) 09 20 51
ML=4.5, CHINA LAKE AREA
PAS 09 19 57.3, 35.8N, 117.8W, h= 6 km, ML=4.1
SOUTHERN CALIFORNIA

APR 19 WDC iPd 13 30 32.3
MIN eP 13 30 36.4
ORV iPd 13 30 39.5
JAS ePd 13 30 50.7
USGS 13 19 43.1, 44.0N, 142.1E, h= 41 km, mb=4.7
HOKKAIDO, JAPAN REGION

APR 19 FHC ePd 18 33 36.7
WDC ePd 18 33 52.0
MIN eP 18 34 01.3
ORV iPd 18 34 09.6
JAS eP 18 34 33.0
USGS 18 32 28.3, 43.9N, 128.3W, h= 10 km, mb=4.5
OFF COAST OF OREGON

APR 20 FRI ePd 05 56 54.6 PoP 59 34
MNV iPd 05 56 55.9 PoP 59 35
PRI ePd 05 56 57.4 PoP 59 36
JAS ePd 05 57 04.4 PoP 59 36 SeP 03 21
MHC eP 05 57 08.7
BKS eP 05 57 15 e 57 34 e 07 15
MICRON PERIOD
LN 3.6 20
LE 2.9 20
ORV iPd 05 57 18.7 PoP 59 43 SeP 03 27
MIN ePd 05 57 22.6 PoP 59 45 SeP 03 30 SeS 07 40
WDC iPd 05 57 26.4
FHC ePd 05 57 37.9
USGS 05 50 17.4, 14.3N, 91.5W, h= 63 km, mb=5.1
GUATEMALA

APR 20 FHC e(P) 08 53 01
WDC eP 08 53 15.1
ORV eP 08 53 32.5
JAS eP 08 53 55.3
FRI eP 08 54 12.2
USGS 08 51 49.5, 44.0N, 128.5W, h= 10 km, mb=4.5
OFF COAST OF OREGON

APR 20 FHC iPd 23 45 08.3 45 18
WDC iPd 23 45 21.5 45 41
MIN iPd 23 45 31.3 45 58
ORV iPd 23 45 34.2 46 03
BKS i(P) 23 45 42
PCC eP 23 45 45.0
MHC eP 23 45 52.3
GCC eP 23 45 52.5
JAS eP 23 45 57
SAO eP 23 45 59
BRK 23 44 54.6, 40.3N, 124.7W, h= 8 km, ML=3.5
OFF COAST SOUTHWEST OF EUREKA, CALIFORNIA

APR 21 FRI eP 09 10 29.9
JAS eP 09 10 31.0
ORV eP 09 10 33.3
WDC eP 09 10 34.2
MIN eP 09 10 35.7
USGS 09 55 53.6, 1.4N, 127.2E, h=107 km, mb=5.0
HALMAHERA

APR 22 FHC ePo 01 30 03.6
WDC iPo 01 30 04.8
MIN ePo 01 30 06.7
ORV iPo 01 30 10.0
BKS iPd 01 30 18.7
JAS ePo 01 30 19.3
MHC ePo 01 30 21.2
SAO eP 01 30 23.7
FRI ePo 01 30 23.9
USGS 01 17 11.4, 49.9N, 78.9E, h= 0 km, mb=5.9, Ms=4.2
EASTERN KAZAKH, S.S.R.

APR 22 WDC 13 36 e 36 21 e 36 38
ORV 13 36 e 36 28
JAS ePKP 13 36 37.0 e 36 55
MHC 13 36 e 36 38
FRI ePKP 13 36 40.4 e 36 59
PRI 13 36 e 36 44
USGS 13 16 58.1, 3.4S, 68.2E, h= 10 km, mb=4.9, Ms=4.1
CHAGOS ARCHIPELAGO REGION

APR 22 JAS eP 23 29 10.5
ORV ePo 23 29 15.7
USGS 23 16 54.1, 7.4N, 36.3W, h= 10 km, mb=5.1, Ms=4.9
CENTRAL MID-ATLANTIC RIDGE

APR 24 WDC 04 29 e 29 50
ORV eP 04 29 58
JAS eP 04 30 11
FRI eP 04 30 19
USGS 04 20 45.4, 54.4N, 160.2E, h= 33 km, mb=4.4
NEAR EAST COAST OF KAMCHATKA

APR 24 BKS e(P) 14 57 04
MICRON PERIOD
PZ 0.17 1.0
LZ 4.6 20
LN 2.5 20
LE 3.7 20
MHC eP 14 57 05 e 57 21
FHC 14 57 e 57 07 e 57 18
PRI eP 14 57 07.5 e 57 23
WDC eP 14 57 08.3 e 57 23 e 00 35
ORV eP 14 57 09.3 e 57 24 e 00 37
MIN eP 14 57 10 e 57 25
JAS eP 14 57 11 e 57 26 e 00 39
FRI eP 14 57 12 e 57 27
Ms=5.7, DISTANCE=82°
USGS 14 44 42.6, 12.1S, 166.5E, h= 45 km, mb=5.7, Ms=5.7
SANTA CRUZ ISLANDS

APR 24 WDC ePd 21 24 05
MIN eP 21 24 18.5
ORV eP 21 24 24.5
JAS eP 21 24 49.2
USGS 21 23 08.4, 42.6N, 126.7W, h= 10 km, mb=4.3
OFF COAST OF OREGON

APR 24 FHC e(P) 22 02 33
BKS ePo 22 02 35.1 13 00 SS 17 40 SSS 19 21 Lq 24 40
MICRON PERIOD
PZ 0.13 1.0
LZ 140 20
LNE 120 20
LNW 41 20
MHC eP 22 02 36.6
PRI eP 22 02 38
WDC eP 22 02 39.2 PKPPKP 29 00
ORV eP 22 02 40.6 PKPPKP 29 00
JAS eP 22 02 41.1 PKPPKP 29 00
MIN eP 22 02 42.2
FRI eP 22 02 43.0
Ms=7.3, DISTANCE=87°
USGS 21 50 06.0, 13.4S, 166.4E, h= 33 km, mb=6.1, Ms=6.9
VANUATU ISLANDS

APR 25 PRI e(P) 02 13 23
JAS e(P) 02 13 50
PAS 02 11 54.8, 33.1N, 115.6W, h= 4 km, ML=4.1
SOUTHERN CALIFORNIA

APR 25 SAO eP 05 47 57.8
PRI eP 05 47 58.3
MHC eP 05 47 58.6
BKS ePo 05 47 59.6
MICRON PERIOD
PZ 0.44 1.2
JAS eP 05 48 03.1
FRI eP 05 48 03.3
FHC eP 05 48 03.5
ORV eP 05 48 04.5 pP 50 17
WDC eP 05 48 04.7 pP 50 17
MIN e(P) 05 48 08
USGS 05 36 41.4, 22.2S, 179.4E, h=588 km, mb=5.7
SOUTH OF FIJI ISLANDS

APR 25 PRI iPd 14 35 25.6 35 33
PRS iPd 14 35 26.5 35 35
LLA ePd 14 35 31.6
SAO iPd 14 35 33.9
GCC ePo 14 35 40.3
MHC eP 14 35 43.3
FRI ePd 14 35 43.8
JAS ePd 14 35 52.1
ORV ePo 14 36 14.8
BRK 14 35 15.3, 35.8N, 121.1W, h= 5 km, ML=3.1
NORTHEAST OF SAN SIMEON, CALIFORNIA

APR 25 FRI 14 45 e 45 22
PRI eP 14 45 24.8
JAS ePd 14 45 30.1
MHC eP 14 45 33.4
BKS ePo 14 45 38.4
MICRON PERIOD
PZ 0.04 1.0
ORV iPd 14 45 41.4 i 46 06 i 46 11 i 46 18
WDC iPd 14 45 47.2
FHC eP 14 45 57.0
USGS 14 35 47.7, 3.5S, 76.7W, h=110 km, mb=4.9
NORTHERN PERU

APR 25 FHC e(P) 17 41 31
WDC eP 17 41 47.5
ORV eP 17 42 06

APR 25 GCC iPe 19 41 40.4
MHC iPe 19 41 44.0
SAO iP 19 41 46.1
PCC iPd 19 41 47.9
BKS iPe 19 41 52.7 42 04
PRS iPd 19 41 53.4
LLA iPd 19 41 53.7
PRI ePd 19 42 01.0
JAS ePd 19 42 01.6
FRI iPd 19 42 06.5
ORV iPd 19 42 16.8
BRK 19 41 37.4, 37.1N, 121.9W, h= 11 km, ML=4.1
SOUTH OF SAN JOSE, CALIFORNIA

APR 25 WDC ePd 23 17 47.4
ORV ePd 23 17 54.9
JAS ePd 23 18 06.7
USGS 23 06 12.0, 48.9N, 122.0E, h= 33 km, mb=5.1, Ms=4.3
NORTHEASTERN CHINA

APR 26 PRI ePo 10 06 13.3
BKS eP 10 06 13.8 e 07 28
MHC eP 10 06 13.9
FRI eP 10 06 18.4
JAS ePo 10 06 19.0
ORV iPo 10 06 20.6
WDC ePo 10 06 20.8
MIN eP 10 06 22.5
USGS 09 54 46.3, 23.8S, 179.9E, h=518 km, mb=4.9
SOUTH OF FIJI ISLANDS

APR 26 FRI eP 12 10 44.9
PRI eP 12 10 47.0
SAO eP 12 10 59.0
JAS ePo 12 11 01.3
BKS eP 12 11 11.5 12 35
ML=6.3
PAS 12 09 28.4, 33.1N, 115.6W, h= 6 km, ML=5.6
SOUTHERN CALIFORNIA

APR 26 FRI e(P) 12 42 08
PRI e(P) 12 42 10
JAS e(P) 12 42 24
ML=4.0
PAS 12 40 45.0, 33.1N, 115.7W, h= 9 km, ML=4.2
SOUTHERN CALIFORNIA

APR 26 PRI ePd 15 09 36.5
FRI eP 15 09 39.5
JAS ePd 15 09 44.3
ORV ePd 15 09 51.8
WDC ePd 15 09 56.2
USGS 14 56 40.7, 52.9S, 118.8W, h= 10 km, mb=5.3, Mw=5.0
EASTER ISLAND CORDILLERA

APR 27 JAS eP 16 32 17.9
MHC eP 16 32
ORV iPe 16 32 29.8
WDC eP 16 32 35.0
FHC eP 16 32
USGS 16 22 33.7, 4.5S, 77.0W, h=127 km, mb=4.8
NORTHERN PERU

APR 27 WDC eP 20 42 19.5
MIN eP 20 42 23.1
ORV iPd 20 42 25.4
BKS ePe 20 42 28.1
MICRON PERIOD
PZ 0.19 1.2
JAS eP 20 42 33.5
FRI eP 20 42 38.0
USGS 20 29 44.5, 26.0N, 129.7E, h= 33 km, mb=5.4, Mw=5.1
RYUKYU ISLANDS

APR 28 SAO ePe 21 26 11.7
PRI ePe 21 26 12.9
BKS iPe 21 26 13.1 35 41
pP 28 08
pP 28 10 SKPPKP 55 25
pP 28 10 sP 29 01 PP 29 29
SP 36 44 sP 39 06 e 39 49
sSS 43 50 PKKP 43 58 SSS 45 00
Lq 48 44 SKPPKP 55 16
MICRON PERIOD
PZ 0.78 0.8
MHC ePe 21 26 13.4
FHC iPe 21 26 17.4
FRI iPe 21 26 17.9
JAS iPe 21 26 18.5
SKPPKP 55 21
pP 28 15 PKPPKP 52 46 SKPPKP 55 20
pP 28 15 PP 29 38 PKPPKP 52 46
SKPPKP 55 18
pP 28 18 PP 29 39 e 36 02
pP 28 17 PP 29 39 e 36 03
PKPPKP 52 46 SKPPKP 55 17
pP 28 20
pP 28 25
mb=6.3, h=500 km, DISTANCE=83°
USGS 21 14 48.2, 23.7S, 180.0E, h=540 km, mb=6.0
SOUTH OF FIJI ISLANDS

APR 28 MNV iPd 22 54 59.3
FRI iPd 22 55 15.0
JAS iPe 22 55 16.3 55 36
LLA ePd 22 55 29.4
MHC ePd 22 55 32.3
PRI ePe 22 55 32.8
SAO ePe 22 55 33.2
ORV iPe 22 55 33.3
PRS ePd 22 55 35.7
GCC eP 22 55 36.5
BKS eP 22 55 38.5 56 14
PCC eP 22 55 39.3
MIN eP 22 55 41.9
WDC ePe 22 55 51.5
BRK 22 54 49.9, 38.1N, 118.6W, h= 10 km, ML=4.6
EAST OF MONO LAKE, CALIFORNIA-NEVADA BORDER

APR 29 ORV iPe 11 56 17.4
JAS iPd 11 56 18.8 56 37
MNV ePe 11 56 20
MIN ePe 11 56 23.7 i 56 25
LLA eP 11 56 30
FRI ePd 11 56 32.5 i 56 34
BKS ePe 11 56 32.6 57 04
WDC ePd 11 56 34
MHC ePd 11 56 34.4
PCC eP 11 56 38.5
SAO ePe 11 56 39.3 i 56 41
GCC eP 11 56 42
PRI eP 11 56 44
PRS eP 11 56 46
BRK 11 55 52.6, 39.3N, 119.8W, h= 7 km, ML=4.2
SOUTH-SOUTHEAST OF RENO, NEVADA

APR 29 PRI eP 21 43 35.4
MHC ePe 21 43 35.9
BKS e(P) 21 43 36
MICRON PERIOD
PZ 0.02 0.6
FRI eP 21 43 40.1
JAS eP 21 43 40.9
ORV ePe 21 43 42.4
WDC ePe 21 43 42.5
MIN eP 21 43 44.5
USGS 21 32 11.4, 23.7S, 179.9E, h=543 km, mb=4.5
SOUTH OF FIJI ISLANDS

APR 30 FRI eP 06 59 55
MIN eP 06 59 56
JAS eP 06 59 56.8
ORV ePe 06 59 57.2
WDC eP 07 00 03.7
MHC eP 07 00 04
FHC eP 07 00 06.9
USGS 06 49 22.5, 31.9N, 40.7W, h= 10 km, mb=4.7, Mw=4.1
NORTH ATLANTIC RIDGE

APR 30 FHC eP 14 51 51.8
WDC eP 14 51 57.8
MIN eP 14 52 02.3
ORV ePd 14 52 05.4
BKS eP 14 52 09.4 00 52
i 51 56
i 52 02 PKPPKP 21 07
i 52 06
i 52 09 PKPPKP 21 08
e 52 13 e 52 34 PeP 52 41
e 52 55 PP 54 49 e 57 45
SeS 02 18 e 03 59 Lq 08 25
PKKP 11 23 Lr 12 00
MICRON PERIOD
PZ 0.7 1.5
LZ 6 20
LN 0 20
LE 7 20
MHC eP 14 52 13.9 e 52 18 e 52 58
SAO eP 14 52 16.3 i 52 20
JAS eP 14 52 16.5 i 52 21 i 52 52
FRI eP 14 52 23.1 e 52 27
PRI eP 14 52 23.1 e 52 27
MNV eP 14 52 24.4 e 52 28
Ms=5.9, DISTANCE=68°
USGS 14 41 41.2, 43.2N, 150.2E, h= 49 km, mb=6.1, Mw=6.1
KURIL ISLANDS REGION

MAY 01 MNV eP 06 25 04.2
FRI eP 06 25 05.0
PRI eP 06 25 08.0
JAS eP 06 25 13.6
SAO eP 06 25
MHC eP 06 25 18.7
BKS ePd 06 25 24.5
MICRON PERIOD
PZ 0.07 0.9
ORV eP 06 25 26.5
WDC eP 06 25 32.7
FHC eP 06 25 40.0
USGS 06 17 25.3, 10.0N, 84.9W, h= 90 km, mb=5.1
COSTA RICA

MAY 02 WDC iPe 13 29 49.4
MIN ePe 13 29 56.5
ORV iPe 13 30 06.2
JAS ePe 13 30 31.5
USGS 13 27 30.9, 49.0N, 128.4W, h= 10 km, mb=4.2
VANCOUVER ISLAND REGION

MAY 02 FHC e(P) 16 18 22
WDC iPe 16 18 26.2
MIN ePe 16 18 28.0
ORV iPe 16 18 31.1
BKS iPe 16 18 39 30 36
pP 19 21 PKKP 34 26 e 35 28
PKPPKP 42 36 e 43 41
pP 19 25 PKKP 34 23
pP 19 32 sP 19 58 e 22 58
PKP 23 08 pPP 23 54 e 24 06
sSS 39 24 e 41 32 Lq 49 00
e 25 00 e 26 07 e 27 12
e 28 21 e 29 24 e 31 46
e 32 52 e 33 24 e 34 00
e 34 28 SS 37 36 e 38 52
e 49 48

MNV eP 16 18 39.0
JAS ePe 16 18 39.5
FRI eP 16 18 44.0
PRI eP 16 18
USGS 16 04 55.6, 36.4N, 71.1E, h=229 km, mb=6.3
AFGHANISTAN-U.S.S.R. BORDER REGION

MAY 05 FHC iPd 06 04 04.7 04 12
WDC iPe 06 04 17.5 04 30
MIN iPe 06 04 27.3
ORV iPe 06 04 30.3
BKS iPe 06 04 38.2
JAS eP 06 04 52.9
BRK 06 03 51.9, 40.4N, 124.6W, h= 8 km, ML=3.4
OFF COAST SOUTHWEST OF EUREKA, CALIFORNIA

MAY 05 FRI ePe 13 59 32.6
PRI eP 13 59 45.4 00 13
JAS iPe 13 59 49.5 00 21
SAO eP 13 59 53.0
MHC eP 14 00 00.6
ML=3.8, LAKE ISABELLA AREA
PAS 13 59 05.9, 36.4N, 118.1W, h= 1 km, ML=3.1
SOUTHERN CALIFORNIA

MAY 05 FRI eP 14 35 19.4
PRI eP 14 35 31.6 35 59
JAS iPe 14 35 37.2 36 08
SAO eP 14 35 39.9
MHC eP 14 35 49.4
BKS ePe 14 35 54.5
ML=3.7, LAKE ISABELLA AREA
PAS 14 34 52.8, 36.4N, 118.0W, h= 1 km, ML=3.1
SOUTHERN CALIFORNIA

MAY 06 SAO iPd 09 16 31.7
GCC ePe 09 16 36.5
PRS iPd 09 16 39.4
MHC iPd 09 16 39.8 16 48
LLA iPd 09 16 40.2 16 49
PCC iPd 09 16 46.4
FRI eP 09 16 48.7
BKS eP 09 16 50.0 e 17 05
JAS e(P) 09 16 54
FRI ePd 09 16 56.3
BRK 09 16 29.2, 36.8N, 121.6W, h= 4 km, ML=2.6
WEST OF HOLLISTER, CALIFORNIA

MAY 06 SAO eP 17 46 41.5
PRI eP 17 46 43.1
MHC eP 17 46 43.5
FRI e(P) 17 46 48
JAS ePd 17 46 49.0
ORV ePd 17 46 50.7
WDC eP 17 46 51.2
MIN eP 17 46 53
USGS 17 35 15.3, 20.9S, 176.8W, h=283 km, mb=4.8
FIJI ISLANDS REGION

MAY 06 JAS ePe 21 44 12.7
MHC e(P) 21 44 13
WDC e(P) 21 44 32
FHC eP 21 44 41
USGS 21 34 48.8, 2.0S, 81.0W, h= 33 km, mb=5.3
NEAR COAST OF ECUADOR

MAY 06 PRI ePe 21 45 22.2
SAO ePe 21 45 28.8
JAS ePe 21 45 29.4
MHC eP 21 45 33
BKS ePd 21 45 38 53 18
e 46 06 e 46 49 e 47 06
PP 47 52 e 48 16 PPP 49 20
e 50 43 e 54 00 SeS 55 26
SS 57 20 Lq 59 26
MICRON PERIOD
LZ 19 20
LN 9 20
LE 15 20
WDC ePe 21 45 51.3
FHC eP 21 45 57
Ms=6.0, DISTANCE=56°
USGS 21 36 06.8, 1.9S, 80.9W, h= 33 km, mb=6.0, Mw=6.4
NEAR COAST OF ECUADOR

MAY 07 JAS iPe 01 03 05.1 i 03 26 i 03 54
PRI ePd 01 03 19.3 e 03 21
MHC eP 01 03 20.5 e 03 53
SAO eP 01 03 20.5 i 03 23
BKS ePe 01 03 26.2 e 03 59
Two events of approximate ML=3.5, occurring about 43
and 78 seconds later, are lost in coda of this event.
BRK 01 02 37.8, 37.9N, 118.5W, h= 18 km, ML=4.5
EAST OF MONO LAKE, CALIFORNIA-NEVADA BORDER

MAY 07 JAS iPe 02 18 55.2 19 14
PRI ePd 02 19 09.4 i 19 12
SAO e(P) 02 19 11 i 19 13
MHC eP 02 19 12.2 e 19 49
BRK 02 18 27.5, 38.0N, 118.6W, h= 10 km, ML=3.6
EAST OF MONO LAKE, CALIFORNIA-NEVADA BORDER

MAY 07 WDC ePd 04 39 51.6
JAS eP 04 40 07.3
PRI eP 04 40 12
USGS 04 28 20.2, 31.6N, 140.7E, h= 77 km, mb=4.8
SOUTH OF HONSHU, JAPAN

MAY 07 WDC eP 05 20 28.0
JAS eP 05 20 47.5
PRI eP 05 20 54
USGS 05 10 30.8, 46.8N, 152.7E, h= 33 km, mb=5.1
KURIL ISLANDS

MAY 07 PRI eP 09 13 41
JAS eP 09 13 52
WDC eP 09 14 07
USGS 09 01 56.3, 36.4S, 97.9W, h= 10 km, mb=4.8
WEST CHILE RISE

MAY 08 WDC eP 01 39 06.8 i 39 12
MIN eP 01 39 e 39 11
MHC eP 01 39 e 39 24
JAS eP 01 39 e 39 28 e 39 33
USGS 01 29 31.3, 49.1N, 156.2E, h= 33 km, mb=5.3
KURIL ISLANDS

MAY 08 WDC eP 01 45 50.2 i 45 56
JAS eP 01 46 e 46 09 e 46 17
USGS 01 36 15.3, 49.1N, 156.2E, h= 33 km, mb=5.4
KURIL ISLANDS

Seismo
Centre

Date	Station	Time	Lat	Long	Depth	Magnitude	Location
MAY 08	SAO	17 15 33.7	17 15 35	17 15 46	17 15 50	17 15 53	17 15 56
MAY 08	MHC	22 24 58.0	22 25 05.1	22 25 07.6	22 25 08.8	22 25 09.6	22 25 13.7
MAY 08	FHC	23 45 25.8	23 45 31.1	23 45 35.9	23 45 38.0	23 45 42.3	23 45 46.5
MAY 09	BKS	09 52	09 52	09 52	09 52	09 52	09 52
MAY 09	WKC2	16 19 03.7	16 19 09.4	16 19 11.7	16 19 14.0	16 19 14.8	16 19 17.0
MAY 09	BKS	17 05 48.8	17 05 49.4	17 05 49.5	17 05 54.1	17 05 54.7	17 05 55.6
MAY 10	FHC	04 14 20	04 14 24	04 14 33	04 14 48	04 15 06.9	04 15 12.3
MAY 11	FHC	02 52 23.6	02 52 30.2	02 52 30.2	02 52 40.4	02 52 49.7	02 52 58.0
MAY 11	BKS	11 50 32.7	11 50 34.9	11 50 39.6	11 50 42.2	11 50 47.9	11 50 51.9
MAY 12	WDC	02 36 15.3	02 36 22.3	02 36 30.9	02 36 36	02 37 03.5	02 37 15.5
MAY 13	FHC	01 53 28.2	01 53 32.6	01 53 35.2	01 53 36.7	01 53 38	01 53 38
MAY 14	SAO	08 33 34.8	08 33 36.3	08 33 36.8	08 33 41.2	08 33 41.9	08 33 42.6
MAY 15	JAS	04 15 52.3	04 15 56.5	04 15 57.1	04 15 57.1	04 15 57.1	04 15 57.1
MAY 16	WKC2	00 20 11	00 20 11.7	00 20 20.2	00 20 20.2	00 20 20.2	00 20 20.2
MAY 17	FHC	09 26 48.9	09 26 55.3	09 27 00.0	09 27 03.5	09 27 09	09 27 09
MAY 17	MIN	17 10 29.5	17 10 40.4	17 10 43.5	17 11 00.5	17 11 13.5	17 11 13.5
MAY 17	FRI	17 16 55.0	17 16 56.0	17 17 01.9	17 17 03.8	17 17 07.6	17 17 07.6
MAY 18	WDC	02 47 21	02 47 27	02 47 27	02 47 27	02 47 27	02 47 27
MAY 18	WDC	02 47 21	02 47 27	02 47 27	02 47 27	02 47 27	02 47 27

MAY 26		WKC2		iP _o	12	12	19.8	
		FHC	iP _o	12	12	25.0		
		WDC	iP _o	12	12	38.1	12	\$6
		MIN	eP _o	12	12	47.8		
		ORV	iP _o	12	12	50.8		
		PCC	eP	12	13	03.0		
		SAO	eP	12	13	16.3		
			BRK	12	12	16.2, 40.4N, 124.1W, h=	8 km, ML=3.5	
						SOUTH OF EUREKA, CALIFORNIA		

JUN 04	WKC2	ePo	12 23 35.5		i 23 40		
	ORV	eP	12 23 36.9				
	WDC	iPo	12 23 37.6	23 54			
	FHC	ePo	12 23 39.7		e 23 45		
	MIN	eP	12 23 40.9				
	BKS	ePd	12 23 42.4		e 23 46	i 24 16	i 24 19
	PCC	iPo	12 23 46.0				
	MHC	eP	12 23 52.6		e 24 03		
	GCC	eP	12 23 53.3				
	JAS	ePd	12 23 55.9		i 23 58		
	SAD	e(P)	12 23 59				
	FRI	eP	12 24 11.8				
		BRK	12 23 14.2, 39.4N, 123.2W, h=		9 km, ML=3.5		
			EAST OF WILLITS, CALIFORNIA				

JUN 04 WDC iPe 15 50 35.0
MIN eP 15 50 42.1
ORV eP 15 50 51.5
USGS 15 48 15.5, 49.0N, 128.7W, h= 10 km, mb=4.4
VANCOUVER ISLAND REGION

JUN 04 MHC eP 18 07 16.4
BKS ePd 18 07 16.9
PZ MICRON PERIOD
0.04 0.9
FRI eP 18 07 19.7
JAS eP 18 07 21.0
WDC eP 18 07 24.0
ORV eP 18 07 24.2
USGS 17 54 31.9, 31.9S, 178.6W, h= 33 km, mb=5.4, Ms=4.6
KERMADEC ISLANDS REGION

JUN 05 WDC iPd 07 15 38.2
MIN eP 07 15 44.0
ORV eP 07 15 48.3
BKS eP 07 15 54.3 21 29 Lq 23 27
PZ MICRON PERIOD
0.04 0.9
MHC eP 07 16 00.2
JAS eP 07 16 03.5
FRI eP 07 16 12.3
MNV eP 07 16
PRI eP 07 16
USGS 07 09 19.1, 52.3N, 165.2W, h= 33 km, mb=5.5
ALEUTIAN ISLANDS REGION

JUN 05 PRI eP 07 19
JAS eP 07 19
MHC eP 07 19 43.7
BKS eP 07 19 47.2
PZ MICRON PERIOD
0.02 0.7
ORV iPd 07 19 51.4
WDC iPd 07 19 56.9
USGS 07 09 05.2, 11.3S, 73.7W, h=108 km, mb=5.3
PERU

JUN 05 FHC eP 19 52 04.0
WDC iPe 19 52 10.4
MIN eP 19 52 14.6
ORV iPe 19 52 17.9
BKS eP 19 52 22.3
PZ MICRON PERIOD
0.06 0.8
MHC eP 19 52 26.5
SAO iPe 19 52
JAS eP 19 52 29.4
FRI eP 19 52 35.7
PRI eP 19 52 35.9
MNV iPe 19 52 36.7
USGS 19 41 50.6, 44.7N, 148.9E, h= 33 km, mb=5.9
KURIL ISLANDS

JUN 05 PRI eP 23 44
MNV eP 23 44 22.2
JAS eP 23 44 30.3
ORV iPe 23 44 41.0
MIN eP 23 44 43.8
WDC eP 23 44 47.1
FHC eP 23 44 57.2
USGS 23 34 54.5, 3.9S, 80.7W, h= 37 km, mb=5.3
PERU-ECUADOR BORDER REGION

JUN 06 ORV eP 10 59 18.9
BKS e(P) 10 59 30
JAS eP 10 59 43.0
USGS 10 57 54.2, 43.4N, 126.7W, h= 10 km, mb=4.1
OFF COAST OF OREGON

JUN 06 MNV iP 18 00 32.8
FRI iPe 18 00 45.3
JAS iPe 18 00 53.8
PRI eP 18 00 58.6
LLA eP 18 01 00.6
SAO iPe 18 01 05.0
PRS iPe 18 01 05.1
MHC iPe 18 01 07.0
ORV iPe 18 01 10.9
BKS eP 18 01 13.4 02 03
PCC eP 18 01 14.3
MIN iPe 18 01 19.2
WDC eP 18 01 28.8
WKC2 eP 18 01 45.0
FHC eP 18 01 45.3
ML=5.4, UNDERGROUND NUCLEAR EXPLOSION (HARZER), N.T.S.
USGS 18 00 00.0, 37.3N, 116.3W, h= 0 km, mb=5.5, Ms=4.2
SOUTHERN NEVADA

JUN 07 FHC eP 17 58 45.3
WDC eP 17 58 53.8
MIN eP 17 58 59.8
ORV iPe 17 59 04.3
BKS eP 17 59 10.8
PZ MICRON PERIOD
0.01 0.7
MHC eP 17 59
JAS eP 17 59 19.8
FRI eP 17 59 28.6
PRI eP 17 59
USGS 17 52 33.9, 53.8N, 165.1W, h= 33 km, mb=5.0
FOX ISLANDS, ALEUTIAN ISLANDS

JUN 07 FHC eP 21 52 12.5
WDC iPe 21 52 17.6
BKS eP 21 52 21.9 02 07 PoP 52 25 sP 53 31 SP 02 54
SS 07 48 PKKP 10 03 Lq 13 50
PZ MICRON PERIOD
0.05 0.8
ORV iPe 21 52 22.3
MHC ePe 21 52 25.4
SAO ePe 21 52 26.4
JAS ePe 21 52 28.9
PRI ePe 21 52 31.2
FRI ePe 21 52 32.7
MNV eP 21 52 47.0
USGS 21 40 35.5, 16.6N, 145.5E, h=311 km, mb=5.7
MARIANA ISLANDS

JUN 08 SAO iPe 03 09 07.8
LLA iPe 03 09 12.5
PRS iPd 03 09 13.6
GCC iPd 03 09 16.3
MHC iPd 03 09 17.8
PRI iPe 03 09 21.3
PCC iPe 03 09 24.5
BKS eP 03 09 28.0 09 46 Sg 09 49
FRI iPe 03 09 28.5
JAS iPd 03 09 29.6
ORV e(P) 03 09 48
MIN eP 03 10 01
MNV eP 03 10 08.5
WKC2 eP 03 10 12
FHC eP 03 10 14
BRK 03 09 05.5, 36.7N, 121.4W, h= 10 km, ML=4.3
SOUTHWEST OF HOLLISTER, CALIFORNIA

JUN 08 PRI 13 14
FRI 13 14
JAS ePKP 13 14 17.8
MHC ePKP 13 14 19
BKS ePKP 13 14 22.2
ORV 13 14
WDC ePKP 13 14 25.4
USGS 12 54 29.8, 52.6S, 19.4E, h= 10 km, mb=5.2, Ms=4.8
SOUTHWEST OF AFRICA

JUN 09 MHC eP 05 34
FRI eP 05 34 15.4
JAS eP 05 34 16.2
ORV eP 05 34 18.7
WDC iPe 05 34 19.5
MIN eP 05 34 20.8
USGS 05 21 51.8, 27.0S, 176.3W, h= 33 km, mb=5.1, Ms=4.8
SOUTH OF FIJI ISLANDS

JUN 09 SAO eP 19 10 32.2
BKS eP 19 10 34.2
PZ MICRON PERIOD
0.04 0.8
MHC eP 19 10 34.3
WKC2 eP 19 10 37.8
FRI eP 19 10 38.0
JAS ePd 19 10 39.2
ORV eP 19 10 41.3
WDC ePd 19 10 42.2
KERMADEC ISLANDS REGION

JUN 10 PRI eP 04 17 46.2
FRI eP 04 17 48.3
SAO eP 04 17
MHC eP 04 17 54.0
JAS eP 04 17 55.5
BKS eP 04 18
ORV eP 04 18 05.4
MIN eP 04 18 09.1
WDC ePd 04 18 11.3
FHC eP 04 18 16
USGS 04 06 10.2, 35.8S, 102.2W, h= 10 km, mb=4.8, Ms=5.0
SOUTHERN PACIFIC OCEAN

JUN 10 FHC e(P) 13 40 30
WDC e(P) 13 40 45
ORV e(P) 13 41 03
BKS e(P) 13 41
JAS e(P) 13 41 28
FRI e(P) 13 41 43
USGS 13 39 29.2, 43.7N, 127.7W, h= 10 km, mb=4.2
OFF COAST OF OREGON

JUN 10 PRI eP 17 08 32
FRI eP 17 08
MNV e(P) 17 08 46
JAS eP 17 08 52
MHC eP 17 08
BKS eP 17 09 00.5 11 00
PZ MICRON PERIOD
0.03 0.9
ORV eP 17 09 17.5
WDC eP 17 09
FHC eP 17 09
USGS 17 06 15.1, 28.4N, 114.8W, h= 10 km, mb=4.5
BAJA CALIFORNIA

JUN 11 WDC 07 39
FHC 07 39
ORV 07 39
JAS 07 39
BKS ePd 07 39 14 51 24
PP 43 21
PP 43 26
PP 39 12
PP 43 34
PP 43 41
PKP 43 26
e 47 54
PS 53 21
SS 59 12
SKPPKP 07 28
Lq 09 28
Lr 14 59
MHC 07 39
FRI 07 39
PRI 07 39
Ms=6.9, DISTANCE=110°
USGS 07 24 25.2, 29.9N, 57.7E, h= 33 km, mb=6.1, Ms=6.7
SOUTHERN IRAN

JUN 11 ORV iPe 14 14 27.5
MIN i(P) 14 14 33
JAS iPd 14 14 39.7 15 01
WDC ePd 14 14 45.3
MNV e(P) 14 14 47
BKS eP 14 14 50.1 15 18
MHC e(P) 14 14 52
FRI eP 14 14 55.5 15 30
BRK 14 14 10.6, 38.6N, 120.3W, h= 24 km, ML=3.2
EAST-SOUTHEAST OF PLACERVILLE, CALIFORNIA

JUN 11 MNV eP 18 41 19.4
FRI eP 18 41 21.8
PRI eP 18 41
JAS eP 18 41 30.3
SAO eP 18 41
MHC eP 18 41 36.3
BKS e(P) 18 41 43 47 37
PP 44 15
Lq 50 32
PZ MICRON PERIOD
2.9 20
LN 5 20
LE 7 20
ORV eP 18 41 43.2
WDC eP 18 41 49.6
FHC eP 18 42 01.6
Ms=5.4, DISTANCE=40°
USGS 18 34 20.6, 16.7N, 86.1W, h= 20 km, mb=5.2, Ms=5.3
CARIBBEAN SEA

JUN 12 JAS eP 23 42 10.5
ORV eP 23 42 12.0
WDC eP 23 42 12.8
USGS 23 29 54.5, 25.9S, 177.2W, h= 92 km, mb=5.2
SOUTH OF FIJI ISLANDS

JUN 14 SAO iPd 07 50 10.4
GCC iPe 07 50 13.6
MHC iPd 07 50 16.8 50 26
PRS iPd 07 50 17.9
LLA iPd 07 50 18.8
PCC iPe 07 50 23.4
PRI eP 07 50 27.0
JAS eP 07 50 32.1
FRI eP 07 50 33.1
BRK 07 50 06.9, 36.8N, 121.6W, h= 1 km, ML=2.6
WEST OF HOLLISTER, CALIFORNIA

JUN 14 SAO iPd 07 55 18.0
GCC iPe 07 55 21.0
MHC iPd 07 55 24.2 55 33
PRS iPe 07 55 25.5
LLA iPd 07 55 26.4
PCC eP 07 55 34.4
BKS e(P) 07 55 35
FRI eP 07 55 35.0
JAS eP 07 55 39.6
BRK 07 55 14.3, 36.8N, 121.6W, h= 1 km, ML=2.8
WEST OF HOLLISTER, CALIFORNIA

[illegible]

JUN 25 WKC2 iPe 11 37 13.2
 FBC iPd 11 37 19.1
 WDC iPe 11 37 31.0 37 49 i 38 03
 MIN eP 11 37 40.7 38 06
 ORV eP 11 37 42.4 i 37 43
 BKS iPe 11 37 51.6
 PCC ePe 11 37 54.4
 MHC eP 11 38 01.8
 GCC eP 11 38 01.9
 JAS eP 11 38 05.6
 SAO iPe 11 38 08.0
 BRK 11 37 07.0, 40.2N, 124.4W, h= 8 km, ML=3.6
 OFF COAST WEST OF GARBerville, CALIFORNIA

JUN 26 SAO eP 01 03 26.0
 PRI eP 01 03 27.1
 MHC eP 01 03 28.1
 BKS iPe 01 03 28.4 13 41 i 04 08 PP 08 30 SS 19 00
 Lr 26 00
 MICRON PERIOD
 PZ 0.10 1.1
 WKC2 eP 01 03 31.0
 PRI iPd 01 03 31.9 i 03 41
 JAS iPd 01 03 32.7
 ORV iPd 01 03 34.9
 WDC eP 01 03 35.5
 MIN eP 01 03 36.9
 MNV eP 01 03 41.1
 mb=5.6, h=200 km, DISTANCE=80°
 USGS 00 51 06.0, 30.3S, 179.0W, h=184 km, mb=5.7
 KERMADEC ISLANDS

JUN 26 LLA iPe 01 43 31.9
 SAO iPe 01 43 32.2
 PRI iPd 01 43 39.5 i 43 55
 GCC eP 01 43 41.3
 MHC iPd 01 43 43.5 43 56
 PRI iPe 01 43 49.6
 PCC eP 01 43 50.1 44 08
 BKS eP 01 43 53.6 44 15 i 43 56
 BRK 01 43 27.2, 36.6N, 121.2W, h= 7 km, ML=3.1
 SOUTHEAST OF HOLLISTER, CALIFORNIA

JUN 27 SAO eP 02 27 03.9
 PRI ePd 02 27 05.2
 BKS eP 02 27 05.6
 MICRON PERIOD
 PZ 0.06 0.9
 MHC eP 02 27 05.6
 PRI eP 02 27 09.8
 JAS iPd 02 27 10.5
 ORV iPd 02 27 11.9
 WDC iPd 02 27 12.2
 MIN eP 02 27 14.0
 MNV eP 02 27 18.8
 USGS 02 15 33.7, 25.2S, 178.4E, h=579 km, mb=5.1
 SOUTH OF FIJI ISLANDS

JUN 27 WKC2 iPe 13 58 53.3 58 58
 FBC iPd 13 58 57.2
 WDC iPe 13 59 07.6 59 26
 MIN iPe 13 59 17.2 59 39
 ORV iPe 13 59 20.0
 BKS eP 13 59 30.5 00 03
 PCC ePe 13 59 33.4
 GCC eP 13 59 40.8
 MHC eP 13 59 40.8
 SAO ePe 13 59 41.8
 JAS ePd 13 59 43.1
 BRK 13 58 45.1, 40.3N, 124.3W, h= 8 km, ML=3.8
 NORTHWEST OF GARBerville, CALIFORNIA

JUN 27 PRI eP 22 03 36.0
 PRI eP 22 03 37.6
 JAS eP 22 03 44.8
 MHC eP 22 03 47.8
 ORV eP 22 03 56.6
 WDC eP 22 04 01.8
 USGS 21 54 14.6, 3.1S, 80.3W, h= 49 km, mb=5.1
 PERU-ECUADOR BORDER REGION

JUN 28 WDC ePe 08 14 50.0
 MIN eP 08 14 52.8
 ORV ePe 08 14 55.0
 BKS eP 08 14 57.6 e 15 23
 MICRON PERIOD
 PZ 0.04 1.0
 JAS ePe 08 15 02.6
 PRI eP 08 15 07.0
 USGS 08 01 43.0, 21.3N, 121.8E, h=122 km, mb=5.3
 TAIWAN REGION

JUN 28 MHC iPe 16 34 00.0 34 02
 GCC eP 16 34 05.2
 PCC ePe 16 34 06.3
 BKS eP 16 34 08.8 34 17
 SAO iPd 16 34 11.0
 LLA eP 16 34 16.2
 JAS eP 16 34 19.1 34 35 S° 34 37
 BRK 16 33 57.3, 37.4N, 121.8W, h= 5 km, ML=2.5
 NORTHEAST OF SAN JOSE, CALIFORNIA

JUN 28 PRI eP 18 41 08.9
 JAS ePd 18 41 14.2
 MHC eP 18 41 17.3
 BKS eP 18 41 21.0
 ORV iPd 18 41 24.3
 MIN eP 18 41 26.4
 WDC iPd 18 41 29.5
 USGS 18 30 11.5, 16.3S, 70.0W, h=206 km, mb=4.9
 PERU-BOLIVIA BORDER REGION

JUN 30 PRI iPe 08 32 07.4 32 18
 MNV iPe 08 32 10.6 32 24
 JAS iPd 08 32 14.4
 LLA iPe 08 32 25.0 32 48
 PRI iPd 08 32 27.2
 PRI eP 08 32 32.5
 BKS eP 08 32 36.4 33 09
 BRK 08 31 51.4, 37.6N, 118.9W, h= 7 km, ML=3.7
 MAMMOTH LAKES AREA, CALIFORNIA

JUN 30 PRI eP 11 58 31.4
 PRI eP 11 58 35.4
 MHC eP 11 58 40.5
 JAS eP 11 58 43.0
 ORV eP 11 58 54.7
 WDC eP 11 59 01.0
 USGS 11 48 26.7, 23.1S, 114.2W, h= 10 km, mb=5.2, Mw=4.3
 EASTER ISLAND REGION

UNIVERSITY OF CALIFORNIA
SEISMOGRAPHIC STATIONS
BERKELEY, CALIFORNIA 94720

JULY 01 THROUGH DECEMBER 31, 1981

DATE	STA	P OR PKP (Phase h m s)	S (m s)	OTHER PHASES (Phase m s) Phase m s Phase m s
JUL 01	SAO	eP	16 36 03.3	
	FRI	eP	16 36 05.2	
	MHC	eP	16 36 05.7	
	BKS	e(P)	16 36 06	
	FRI	eP	16 36 11.1	
	JAS	eP	16 36 11.9	
	ORV	eP	16 36 13.7	
	WDC	eP	16 36 14.0	
	MIN	eP	16 36 15.3	
			USGS 16 24 47.1, 15.5S, 172.8W, h= 33 km, mb=4.9	
			SAMOA ISLANDS REGION	
JUL 02	WDC	iPe	01 28 36.2	28 47
	ORV	iPe	01 28 39.2	
	MIN	iPe	01 28 39.9	
	WKC2	eP	01 28 46.9	
	FHC	eP	01 28 47.3	
	JAS	eP	01 29 04.1	
			BRK 01 28 23.3, 39.9N, 122.7W, h= 15 km, ML=3.1	
			WEST-NORTHWEST OF CHICO, CALIFORNIA	
JUL 02	FHC	iPd	08 11 02.5	11 11
	WKC2	iPd	08 11 08.7	11 21
	WDC	iPe	08 11 18.5	11 40
	MIN	iPe	08 11 28.6	
	ORV	iPe	08 11 34.8	
	BKS	eP	08 11 49.8	12 22
	PCC	eP	08 11 52.5	
	MHC	eP	08 11 59.1	
	GCC	e(P)	08 12 00	
	JAS	e(P)	08 12 01	
	SAO	eP	08 12 06.3	
	PRS	eP	08 12 11.8	
	LLA	eP	08 12 12.2	
	PRI	e(P)	08 12 20	
			BRK 08 10 51.9, 41.3N, 124.4W, h= 15 km, ML=4.5	
			OFF COAST NORTHWEST OF EUREKA, CALIFORNIA	
JUL 02	FHC	iPe	08 22 23.0	22 32
	WKC2	iPd	08 22 29.5	22 42
	WDC	iPe	08 22 39.0	23 01
	PRI	e(P)	08 22 41	
	MIN	eP	08 22 49.2	
	ORV	iPe	08 22 57.0	
	BKS	ePd	08 23 11.4	
	MHC	eP	08 23 20.4	
	GCC	eP	08 23 21.3	
	JAS	e(P)	08 23 22	
	SAO	eP	08 23 27.7	
	LLA	eP	08 23 33	
			BRK 08 22 11.6, 41.3N, 124.5W, h= 1 km, ML=3.9	
			OFF COAST NORTHWEST OF EUREKA, CALIFORNIA	
JUL 03	ARC	iP	06 49 24.2	49 28
	FHC	iPd	06 49 25.1	
	WKC2	iPd	06 49 30.6	49 49
	WDC	iPe	06 49 40.3	49 56
	MIN	eP	06 49 50.5	50 14
	ORV	iPd	06 49 57.4	50 23
			BRK 06 49 20.2, 40.9N, 124.1W, h= 25 km, ML=3.1	
			ARCATA, CALIFORNIA	
JUL 04	SAO	eP	04 53 30.4	
	PRI	eP	04 53 31.6	
	BKS	ePd	04 53 32.3	
			MICRON 0.09 PERIOD 0.9	
	MHC	eP	04 53 32.4	
	FRI	eP	04 53 36.2	
	JAS	ePd	04 53 37.1	
	FHC	eP	04 53 37.7	
	ORV	ePd	04 53 39.2	
	WDC	ePd	04 53 40.1	
	MIN	eP	04 53 41.3	
	MNV	eP	04 53 45.1	
			USGS 04 41 09.2, 30.3S, 178.9W, h=172 km, mb=5.3	
			KERMADEC ISLANDS	
JUL 04	PRI	eP	18 53	e 53 49
	BKS	eP	18 53 49.7	Lq 15 10 Lr 18 14
			MICRON 0.04 PERIOD 1.0	
			PZ 0.5 20	
			LZ 0.3 20	
			LN 0.6 20	
	JAS	eP	18 53 51.8	
	ORV	eP	18 53 53.7	
	WDC	eP	18 53 54.2	
			USGS 18 42 25.0, 16.5S, 173.3W, h= 33 km, mb=5.0, Ms=4.8	
			TONGA ISLANDS	
JUL 05	SAO	eP	04 31 27.8	
	MHC	eP	04 31 30.0	
	FRI	eP	04 31 35.3	
	JAS	eP	04 31 36.0	e 31 40
	ORV	e(P)	04 31 38	
	WDC	eP	04 31 38.4	e 31 43
	MIN	eP	04 31 41.0	
			USGS 04 20 07.1, 17.0S, 172.1W, h= 33 km, mb=4.8	
			TONGA ISLANDS REGION	
JUL 05	FHC	eP	04 54 23.2	
	WDC	iP	04 54 28.5	
	MIN	iP	04 54 32.2	
	BKS	ePd	04 54 34.0	Lq 18 19
			MICRON 0.03 PERIOD 0.8	
			PZ 0.7 20	
			LZ 0.3 20	
			LN 0.6 20	
	ORV	iPd	04 54 34.0	
	MHC	eP	04 54 37.1	
	JAS	eP	04 54 40.8	
	PRI	eP	04 54 43.3	
	FRI	eP	04 54 45.0	
			USGS 04 42 28.7, 18.4N, 146.0E, h= 46 km, mb=5.3, Ms=5.0	
			MARIANA ISLANDS	
JUL 05	PRI	eP	19 04 51.9	
	MHC	eP	19 04 53.0	e 05 10
	BKS	ePo	19 04 53.4	15 22 Lq 30 42
			MICRON 0.04 PERIOD 0.9	
			PZ 1.4 20	
			LN 1.2 20	
			LE 0.9 20	
	FRI	eP	19 04 56.7	e 05 14
	JAS	ePo	19 04 57.8	e 05 15
	FHC	eP	19 04 58.3	
	ORV	ePo	19 05 00.1	e 05 17
	WDC	ePo	19 05 01.0	e 05 18
			USGS 18 52 20.4, 30.1S, 178.0W, h= 58 km, mb=5.4	
			KERMADEC ISLANDS	

JUL 06	SAO	eP	01 13 43.3	
	PRI	ePo	01 13 45.0	
	MHC	ePo	01 13 45.2	
	BKS	ePo	01 13 45.4	22 59 Lq 31 09 Lr 34 23
			MICRON 0.11 PERIOD 0.8	
			PZ 2.9 20	
			LN 1.6 20	
			LE 1.9 20	
	FHC	ePo	01 13 49.5	
	FRI	ePo	01 13 50.8	
	JAS	iPo	01 13 51.6	
	ORV	ePo	01 13 52.8	
	WDC	iPo	01 13 53.6	
	MIN	eP	01 13 55.3	
	MNV	eP	01 14	e 14 10
			Ms=5.5, DISTANCE=72°	
			USGS 01 02 25.5, 15.3S, 173.5W, h= 33 km, mb=5.6, Ms=5.4	
			TONGA ISLANDS	
JUL 06	SAO	eP	03 21 03.4	i 21 17 PKPPKP 47 17
	BKS	ePo	03 21 04.4	31 34 e 21 15 e 33 14 e 36 52 SS 37 18 SSS 41 08 Lq 43 35 PKPPKP 47 24 Lr 48 18 e 58 58
			MICRON 1.4 PERIOD 1.3	
			PZ 60 20	
			LN 36 20	
			LE 44 20	
	MHC	eP	03 21 05.0	i 21 19 PKPPKP 47 13
	PRI	eP	03 21 05.5	i 21 19 PKPPKP 47 15
	FHC	eP	03 21 06.6	
	FRI	eP	03 21 09.9	PKPPKP 47 14
	JAS	iPo	03 21 09.9	i 21 23 PKPPKP 47 14
	WDC	iPo	03 21 10.0	i 21 21 PKPPKP 47 17
	ORV	iPo	03 21 10.5	
	MIN	eP	03 21 11.9	
	MNV	eP	03 21 18.2	
			Ms=7.0, DISTANCE=87°	
			USGS 03 08 24.1, 22.3S, 171.7E, h= 33 km, mb=6.9, Ms=7.0	
			LOYALTY ISLANDS REGION	
JUL 06	PRI	eP	08 37 37.9	
	FRI	eP	08 37 39.9	
	MHC	eP	08 37 45.9	
	MNV	eP	08 37 46.8	
	JAS	eP	08 37 46.9	
	BKS	eP	08 37 51.0	Lq 58 27 Lr 02 10
			MICRON 0.01 PERIOD 1.1	
			LN 0.1 20	
			LE 2.1 20	
	ORV	iPe	08 37 57.0	
	MIN	e(P)	08 38 02	
	WDC	iPe	08 38 03.0	
	FHC	e(P)	08 38 09	
			USGS 08 25 59.2, 36.2S, 101.1W, h= 10 km, mb=5.0, Ms=5.1	
			SOUTHERN PACIFIC OCEAN	
JUL 07	JAS	eP	10 34 51.7	
	BKS	eP	10 34	Lq 52 15
			MICRON 0.5 PERIOD 2.0	
			LN 0.8 20	
			LE 0.9 20	
	ORV	iPe	10 35 02.9	
			USGS 10 25 46.7, 2.8N, 79.8W, h= 16 km, mb=5.1, Ms=4.8	
			SOUTH OF PANAMA	
JUL 07	JAS	ePdif	21 24 52	PP 29 37
	ORV	ePdif	21 24 56.5	PP 29 38
	BKS	ePdif	21 25 00	36 46 PP 29 00 SKS 35 50 PS 38 08 e 43 00 SS 43 42 e 47 41 Lq 51 19 Lr 58 14 e 14 55
			MICRON 7 PERIOD 2.0	
			LN 4.5 20	
			LE 10 20	
	WDC	ePdif	21 25 03	PP 29 40
			Ms=6.4, DISTANCE=105°	
			USGS 21 10 57.7, 0.2S, 18.8W, h= 10 km, mb=5.7, Ms=6.4	
			CENTRAL MID-ATLANTIC RIDGE	
JUL 07	SAO	eP	23 36 07.6	
	BRK	eP	23 36 08.0	
	PRI	eP	23 36 09.3	
	MHC	eP	23 36 09.5	
	FRI	eP	23 36 14.1	
	JAS	eP	23 36 14.6	pP 38 11
	ORV	ePo	23 36 16.1	pP 38 12
	WDC	ePo	23 36 16.8	pP 38 13
	MIN	eP	23 36 18.2	
	MNV	eP	23 36 23.4	
			USGS 23 24 48.8, 22.9S, 179.5W, h=535 km, mb=5.5	
			SOUTH OF FIJI ISLANDS	
JUL 08	SAO	eP	00 33 50.3	
	PRI	eP	00 33 51.0	
	MHC	ePo	00 33 51.2	
	FRI	ePo	00 33 56.6	
	JAS	iPo	00 33 57.0	
	WDC	iPo	00 33 57.8	
	ORV	iPo	00 33 58.0	
			FIJI ISLANDS	
JUL 08	PRI	ePo	06 45 06.2	
	BKS	ePo	06 45 06.8	
			MICRON 0.03 PERIOD 0.7	
			PZ 06 45 11.0	
	FRI	ePo	06 45 11.7	
	JAS	ePo	06 45 13.3	
	ORV	ePo	06 45 13.8	
	WDC	ePo	06 45 15.3	
	MIN	eP	06 45 15.3	
			USGS 06 33 35.9, 24.7S, 179.7E, h=519 km, mb=4.5	
			SOUTH OF FIJI ISLANDS	
JUL 08	JAS	eP	12 46	e 46 51
	ORV	ePo	12 46 47.5	
	WDC	ePo	12 46 48.5	
	BKS	eP	12 46	Lq 18 28
			MICRON 0.5 PERIOD 2.0	
			LN 0.4 20	
			LE 0.2 20	
			USGS 12 34 20.2, 28.3S, 176.6W, h= 75 km, mb=4.8	
			KERMADEC ISLANDS REGION	
JUL 08	PRI	eP	22 33 12.1	
	SAO	eP	22 33 13.7	
	MHC	ePo	22 33 17.8	
	FRI	eP	22 33 18.4	
	BRK	eP	22 33 19.7	
	BKS	eP	22 33	Lq 53 24
			MICRON 0.3 PERIOD 2.0	
			LN 0.3 20	
			LE 0 20	
	JAS	ePo	22 33 23.3	
	ORV	eP	22 33 31.3	
	WDC	ePo	22 33 35.8	
			USGS 22 22 57.9, 22.0S, 138.9W, h= 0 km, mb=5.3	
			TUAMOTU ARCHIPELAGO REGION	

JUL 15	BKS	eP		08 11 45.2	22 26	PFS 23 26 Lq 21 00	e 11 55 e 11 58	PP 15 14 SS 27 24
			MICRON	PZ	PERIOD			
			LZ	0.03	1.0			
			LN	60	20			
			LE	42	20			
				60	20			
	SAO	eP	09 11 45.9					
	MHC	eP	09 11 47.1			PP 15 26		
	FRI	eP	09 11 48.5			PP 15 28		
	WDC	ePd	09 11 50.7			e 12 00	PP 15 35 PKPKPK 38 15	
	ORV	ePd	09 11 51.7			e 12 01	PP 15 36	
	JAS	ePd	09 11 52.1			e 12 02	PP 15 37	
	MIN	eP	09 11 52.8					
	FRI	eP	09 11 52.9			e 12 03	PP 15 36	
	MNV	eP	09 12 01.2					
			Hg=7.1, DISTANCE=87°					
			USGS 07 59 08.4, 17.3S,					
			VANUATU ISLANDS					
JUL 15	BRK	e(P)	09 21 17					
	WDC	eP	09 21 22.0			e 21 29		
	ORV	eP	09 21 22.9			e 21 31		
	JAS	eP	09 21 23.5			e 21 31		
	FRI	eP	09 21 24.2			e 21 32		
			VANUATU ISLANDS REGION					
JUL 15	BRK	e(P)	09 28 25					
	SAO	eP	09 28 26.2					
	MHC	eP	09 28 27.3					
	FRI	eP	09 28 28.6					
	WDC	eP	09 28 30.8					
	ORV	eP	09 28 31.7					
	JAS	eP	09 28 32.2					
	MIN	eP	09 28 32.9					
	FRI	eP	09 28 33.0					
			VANUATU ISLANDS REGION					
JUL 15	WDC	eP	09 40 56.9					
	ORV	eP	09 40 57.6					
	JAS	eP	09 40 58.2					
	FRI	eP	09 40 58.8					
			VANUATU ISLANDS REGION					
JUL 15	WDC	eP	09 52 14.0					
	ORV	eP	09 52 15.0					
	JAS	eP	09 52 15.6					
			VANUATU ISLANDS REGION					
JUL 15	BRK	e(P)	09 13 20					
	SAO	eP	09 13 20.0					
	MHC	eP	09 13 21.1					
	FRI	eP	09 13 22.5					
	WDC	eP	09 13 24.4					
	ORV	eP	09 13 25.5					
	JAS	eP	09 13 26.1					
	MIN	eP	09 13 26.7					
	FRI	eP	09 13 26.9					
			USGS 09 00 43.6, 17.1S,					
			VANUATU ISLANDS					
JUL 15	WDC	eP	09 45 12.8					
	ORV	eP	09 45 13.0					
	JAS	eP	09 45 13.9					
	FRI	eP	09 45 14.4					
			USGS 09 32 31.0, 17.0S,					
			VANUATU ISLANDS					
JUL 15	WDC	eP	09 51 43.8					
	ORV	eP	09 51 44.7					
	JAS	eP	09 51 45.5					
	FRI	eP	09 51 46.0					
			USGS 09 39 02.7, 16.9S,					
			VANUATU ISLANDS					
JUL 15	WDC	eP	10 14 01.7					
	ORV	eP	10 14 02.5					
	JAS	eP	10 14 03.0					
	FRI	eP	10 14 03.9					

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JUL 17	WDC ORV JAS	eP eP eP	10 59 33.8 10 59 34.8 10 59 35.3					
VANUATU ISLANDS REGION								
JUL 17	WDC ORV JAS FRI	eP eP eP eP	14 18 00.9 14 18 01.9 14 18 02.4 14 18 03.2					
USGS 14 05 18.2, 17.2S, 167.2E, h= 33 km, mb=4.7 VANUATU ISLANDS								
JUL 17	WKC2 ARC WDC MIN ORV BKS PCC MHC GCC JAS SAO LLA PRS FRI FRI	iP iP iPo iPo iPo oP oPd oPo oP iPd oP oP oP oPe oP	16 37 37.0 16 37 45.6 16 37 54.9 16 38 04.5 16 38 06.2 16 38 15.5 16 38 18.4 16 38 25.4 16 38 25.8 16 38 28.8 16 38 32.1 16 38 37.6 16 38 38 16 38 44.5 16 38 46.5	37 41 37 55 38 31				
BRK 16 37 32.6, 40.2N, 124.2W, h= 13 km, ML=4.6 WEST-NORTHWEST OF GARDENVILLE, CALIFORNIA								
JUL 18	MHC PRI WDC ORV JAS FRI	eP eP eP eP eP eP	00 38 48.4 00 38 49.8 00 38 51.9 00 38 52.8 00 38 53.4 00 38 54.2					
USGS 00 26 09.8, 17.2S, 167.2E, h= 33 km, mb=4.8 VANUATU ISLANDS								
JUL 18	WDC ORV JAS	eP eP eP	05 00 26.2 05 00 27.2 05 00 27.8					
USGS 04 47 42.8, 17.5S, 167.3E, h= 33 km, mb=4.7 VANUATU ISLANDS								
JUL 18	SAO PRI FRI JAS ORV WDC MIN	eP eP eP eP eP eP eP	06 00 08.8 06 00 10.3 06 00 15.5 06 00 16.0 06 00 17.3 06 00 17.6 06 00 19.5					
USGS 05 48 57.1, 19.5S, 178.0W, h=409 km, mb=4.8 FIJI ISLANDS REGION								
JUL 18	WDC ORV JAS FRI	eP eP eP eP	06 03 17.9 06 03 18.8 06 03 19.4 06 03 20.2	o 03 29 o 03 30 o 03 31				
VANUATU ISLANDS REGION								
JUL 18	SAO MHC JAS ORV WDC MIN	eP eP eP eP eP eP	07 42 11.5 07 42 12.6 07 42 18.0 07 42 19.5 07 42 19.8 07 42 21.7					
USGS 07 30 49.8, 19.4S, 178.0W, h=318 km, mb=4.3 FIJI ISLANDS REGION								
JUL 18	SAO GCC PRS LLA MHC PCC PRI BRK JAS FRI	iPo oPo iPd iPd oPo oP oPd oP oPd oPd	08 51 25.7 08 51 31.4 08 51 33.5 08 51 34.3 08 51 34.6 08 51 41.0 08 51 42.8 08 51 45.3 08 51 48.9 08 51 50.5	51 42 51 43 52 02	i 51 41			
BRK 08 51 23.6, 36.0N, 121.6W, h= 3 km, ML=3.0 WEST-SOUTHWEST OF HOLLISTER, CALIFORNIA								
JUL 18	FRI MNV PRI SAO JAS MHC BKS	eP eP ePd eP iPd ePd oPo	11 26 49.6 11 26 50.9 11 26 51.3 11 26 55.1 11 26 56.4 11 26 58.7 11 27 02.5	pP 27 56				
MICRON PERIOD PZ 0.05 0.8 pP 28 05								
JUL 18	ORV MIN WDC WKC2	iPd oP iPd oP	11 27 05.4 11 27 07.2 11 27 10.1 11 27 17	pP 28 11				
USGS 11 15 18.1, 22.7S, 66.2W, h=246 km, mb=5.0 JUJUY PROVINCE, ARGENTINA								
JUL 18	WDC ORV JAS FRI	eP eP eP eP	13 10 21.9 13 10 22.8 13 10 23.4 13 10 24.2					
USGS 12 57 40.4, 17.2S, 167.6E, h= 33 km, mb=4.7 VANUATU ISLANDS								
JUL 19	WDC MIN ORV BKS	iPo oP iPo oP	01 08 22.0 01 08 26.5 01 08 29.7 01 08 34	17 00 SS 21 00 Lq 24 30 Lr 26 40				
MICRON PERIOD PZ 0.03 0.8								
JUL 19	MHC JAS SAO PRI MNV	eP iPo oP oP oP	01 08 38.8 01 08 41.2 01 08 41.3 01 08 47.8 01 08 48.7					
USGS 00 58 09.9, 45.4N, 150.1E, h= 33 km, mb=5.5, Ms=5.2 KURIL ISLANDS								
JUL 19	BKS	e(P)	04 55 35 06 02	e 58 50 Lr 21 48 e 59 40 PPS 07 12				
MICRON PERIOD PZ 0.06 1.2 LZ 3.0 20 LN 1.3 20 LE 2.0 20								
JUL 19	MHC PRI WDC ORV JAS FRI MIN MNV	eP eP oPd eP oPd eP eP eP	04 55 35.2 04 55 36.5 04 55 38.7 04 55 39.5 04 55 40.1 04 55 40.8 04 55 40.8 04 55 49.3	e 55 49 e 55 53 e 55 54 e 55 54 e 55 55 e 56 03	PP 59 07 PP 59 13			
USGS 04 42 59.3, 17.1S, 167.5E, h= 46 km, mb=5.4, Ms=5.5 VANUATU ISLANDS								
JUL 19	PRI MHC PRI JAS ORV WDC MNV	eP eP eP eP eP eP eP	05 25 19.8 05 25 20.0 05 25 24.4 05 25 25.1 05 25 27.1 05 25 27.8 05 25 34.2					
USGS 05 13 38.9, 28.6S, 179.9E, h=539 km, mb=4.6 KERMADEC ISLANDS REGION								
JUL 19	MHC PRI WDC ORV JAS FRI	eP eP eP eP eP eP	15 43 27.2 15 43 28.6 15 43 30.8 15 43 31.6 15 43 32.2 15 43 32.9					
USGS 15 30 46.7, 17.3S, 167.1E, h= 27 km, mb=5.1 VANUATU ISLANDS								
JUL 19	WDC ORV BKS	eP eP eP	17 04 28.0 17 04 36.5 17 04 39.2					
MICRON PERIOD PZ 0.02 0.8								
JUL 19	JAS FRI PRI	eP eP eP	17 04 45.5 17 04 50.5 17 04	o 04 51				
USGS 16 52 50.4, 29.7N, 142.2E, h= 31 km, mb=5.1, Ms=4.9 SOUTH OF HONSHU, JAPAN								
JUL 20	SAO PRI MHC FRI JAS ORV WDC MIN	eP eP eP eP eP eP eP eP	03 15 10.8 03 15 12.4 03 15 12.6 03 15 17.8 03 15 18.1 03 15 19.4 03 15 19.8 03 15 21.6					
USGS 03 04 11.7, 19.5S, 177.7W, h=541 km, mb=4.6 FIJI ISLANDS REGION								
JUL 20	MHC WDC ORV JAS FRI	eP eP eP eP eP	22 44 25.5 22 44 29.1 22 44 29.8 22 44 30.4 22 44 31.1	o 44 36 o 44 37 o 44 37 o 44 38				
USGS 22 31 42.8, 17.3S, 167.0E, h= 22 km, mb=4.9, Ms=4.4 VANUATU ISLANDS								
JUL 21	WDC ORV JAS FRI	eP eP eP eP	04 21 51.2 04 21 52.2 04 21 52.7 04 21 53.5					
USGS 04 09 06.9, 17.6S, 167.1E, h= 33 km, mb=4.3 VANUATU ISLANDS								
JUL 21	FRI PRI MNV JAS MHC BKS ORV WDC	eP eP eP eP eP eP eP eP	09 20 08.9 09 20 10.2 09 20 11.5 09 20 18.6 09 20 22.2 09 20 09 20 34.5 09 20 43.0	25 04 Lq 31 00				
USGS 09 14 18.6, 16.3N, 98.4W, h= 25 km, mb=5.1, Ms=4.7 NEAR COAST OF GUERRERO, MEXICO								
JUL 21	FRI PRI MNV JAS MHC BKS	eP eP eP eP eP eP	10 28 39.3 10 28 40.8 10 28 42.1 10 28 49.7 10 28 53.0 10 29 01	34 06 PP 30 03 Lr 39 30	o 34 36 Lq 37 00			
JUL 21	ORV MIN WDC	ePo eP ePo	10 29 05.3 10 29 10.2 10 29 14.0					
USGS 10 22 54.7, 16.5N, 98.4W, h= 53 km, mb=5.2, Ms=5.2 NEAR COAST OF GUERRERO, MEXICO								
JUL 21	WKC2 BKS	ePo ePo	11 59 18.0 11 59 19.4	10 32 pP 00 07 eS 10 32 eSS 16 00 Lq 22 00 Lr 25 00	PP 02 35 e 11 22 Lq 22 00 Lr 25 00	PPP 04 13 e 11 36		
MICRON PERIOD PZ 0.15 1.0								
JUL 21	SAO MHC PRI WDC ORV JAS MIN FRI MNV	eP ePo ePo iPo iPo iPo oPo oPo oPo	11 59 19.7 11 59 20.8 11 59 22.3 11 59 23.8 11 59 25.1 11 59 25.9 11 59 26.0 11 59 26.6 11 59 34.9	PP 02 38 PP 02 46 PKKP 17 29 PKKP 17 28 PKKP 17 28 PKKP 17 28 PKKP 17 28 PKKP 17 28 PKKP 17 28	PKKP 17 32 PKKP 17 29 PKKP 17 28 PKKP 17 28 PKKP 17 28 PKKP 17 28 PKKP 17 28 PKKP 17 28 PKKP 17 28	PKKP 17 32 PKKP 17 29 PKKP 17 28 PKKP 17 28 PKKP 17 28 PKKP 17 28 PKKP 17 28 PKKP 17 28 PKKP 17 28		
mb=5.7, h=200 km, DISTANCE=84° USGS 11 47 00.9, 15.4S, 167.5E, h=143 km, mb=5.8 VANUATU ISLANDS								
JUL 23	BKS PRI WDC JAS ORV FRI	eP eP ePd eP iPd eP	01 03 01 03 01 03 07.5 01 03 07.8 01 03 08.0 01 03 08.0	o 03 30 o 03 05				
USGS 00 50 17.2, 21.7S, 169.5E, h= 33 km, mb=5.6, Ms=5.5 LOYALTY ISLANDS REGION								
JUL 23	WDC ORV JAS FRI PRI MIN	eP eP ePd eP eP eP	06 33 40.8 06 33 41.2 06 33 41.3 06 33 41.5 06 33 06 33 42.6	o 34 00 o 34 01 o 34 41				
USGS 06 20 51.1, 21.6S, 169.6E, h= 33 km, mb=5.4 LOYALTY ISLANDS REGION								
JUL 23	MNV FRI PRI JAS SAO MHC BKS	eP eP eP ePo eP ePo eP	14 03 14 03 04.1 14 03 04.1 14 03 08.9 14 03 09 14 03 12.1 14 03 16.1	o 03 00				
MICRON PERIOD PZ 0.04 0.7								
JUL 23	ORV MIN WDC	ePo oP iPo	14 03 18.3 14 03 19.1 14 03 23.4					
USGS 13 51 26.5, 17.0S, 64.9W, h= 38 km, mb=5.3, Ms=4.0 BOLIVIA								
JUL 23	SAO BRK MHC PRI FRI JAS ORV WDC MIN MNV	eP eP ePo eP eP ePo iPo eP eP eP	14 50 47.9 14 50 48.7 14 50 49.6 14 50 49.8 14 50 55.1 14 50 55.4 14 50 56.2 14 50 56.2 14 50 59 14 51 05.5					
USGS 14 39 53.4, 15.7S, 177.5W, h=415 km, mb=4.6 FIJI ISLANDS REGION								
JUL 24	PRI PRI PRS LLA SAO GCC MHC JAS PCC BKS ORV	ePo ePo oP oP oPd oP oP ePo eP eP ePo	11 40 10.5 11 40 14.6 11 40 17 11 40 18 11 40 21.6 11 40 29 11 40 30 11 40 30.5 11 40 36.2 11 41 39.1 11 41 55.3	o 43 00				
USGS 11 38 48.4, 32.1N, 116.3W, h= 10 km, mb=4.3, ML=4.6 BAJA CALIFORNIA								

JUL 25 LLA iPd 21 48 16.1
PRS iPd 21 48 20.2 48 25
SAO iPd 21 48 20.7
PRI ePd 21 48 24.1
GCC ePd 21 48 29.3
MHC ePd 21 48 30.6 48 43
PRI iPd 21 48 34.0 48 49
PCC ePd 21 48 37.2
JAS ePd 21 48 38.9 48 56
BRK ePd 21 48 40.6
BRK 21 48 13.5, 36.6N, 121.1W, h= 10 km, ML=3.0
SOUTHEAST OF HOLLISTER, CALIFORNIA

JUL 26 SAO eP 05 02 56.2
MHC eP 05 02 57.9
BRK eP 05 02 58.1
PRI eP 05 02 58.1
FRI eP 05 03 03.3
JAS eP 05 03 03.5
ORV eP 05 03 04.4
WDC eP 05 03 04.5
MIN eP 05 03 06.4
MNV eP 05 03 13.0
USGS 04 52 00.9, 17.6S, 179.0W, h=547 km, mb=4.9
FIJI ISLANDS REGION

JUL 26 FRI ePd 05 19 39.8
PRI ePd 05 19 40.5
MNV ePd 05 19 43.6
SAO ePd 05 19 48.9
JAS iPd 05 19 50.3
MHC ePd 05 19 53.4
BKS ePd 05 20 00
Lq 25 46 Lr 25 46 Lr 25 01
MICRON PERIOD
PZ 0.11 1.6
LZ 5 20
LNE 7 20
LNW 8 20
ORV iPd 05 20 07.1
MIN ePd 05 20 12.0
WDC iPd 05 20 16.0
Ms=5.5, DISTANCE=30°
USGS 05 14 22.6, 18.2N, 101.9W, h= 29 km, mb=5.4, Ms=5.2
GUERRERO, MEXICO

JUL 26 PRI iPd 06 13 41.4
FRI ePd 06 13 43.0
LLA ePd 06 13 47.7
PRS ePd 06 13 48.9
SAO ePd 06 13 53.7
JAS iPd 06 14 01.1
PCC ePd 06 14 07.7
BKS ePd 06 14 10.6
ML=4.0, SOUTHEAST OF BAKERSFIELD
PAS 06 13 09.4, 35.1N, 118.6W, h= 5 km, ML=3.4
SOUTHERN CALIFORNIA

JUL 26 SAO eP 07 41 21.8
PRI ePd 07 41 23.3
BKS ePd 07 41 23.5
MICRON PERIOD
PZ 0.04 0.7
MHC ePd 07 41 23.8
FRI ePd 07 41 28.2
JAS iPd 07 41 28.9
ORV iPd 07 41 30.3
WDC iPd 07 41 30.8
MIN ePd 07 41 32.2
MNV ePd 07 41 37.3
USGS 07 29 57.2, 23.9S, 180.0E, h=527 km, mb=5.2
SOUTH OF FIJI ISLANDS

JUL 26 SAO eP 15 00 37.9
BRK eP 15 00 39.3
PRI eP 15 00 39.4
MHC eP 15 00 40.0
FRI eP 15 00 45.3
JAS ePd 15 00 46.0
ORV ePd 15 00 47.7
WDC ePd 15 00 48.1
MIN eP 15 00 50.0
MNV eP 15 00 56.3
USGS 14 49 19.8, 16.8S, 173.6W, h= 93 km, mb=4.6
TONGA ISLANDS

JUL 26 WDC e(P) 17 55 56
ORV eP 17 56 06.5
MHC eP 17 56 19
JAS eP 17 56 21.4
USGS 17 47 14.6, 55.6N, 164.4E, h= 39 km, mb=4.7
KOMANDORSKY ISLANDS REGION

JUL 26 WDC iPd 21 03 26.1
MIN ePd 21 03 29.1
BKS ePd 21 03 30.6
MICRON PERIOD
PZ 0.04 1.0
ORV iPd 21 03 30.6
MHC ePd 21 03 33.3
JAS iPd 21 03 36.8
PRI ePd 21 03 39.9
FRI ePd 21 03 40.5
MNV ePd 21 03 44.5
USGS 20 50 45.8, 11.9N, 141.7E, h= 55 km, mb=5.5
WEST CAROLINE ISLANDS

JUL 26 WDC eP 22 39 34.0
MIN eP 22 39 39.5
ORV eP 22 39 45.0
JAS eP 22 40 02.0
PRI eP 22 40 11.0
USGS 22 33 58.7, 60.9N, 150.9W, h= 72 km, mb=4.6
KENAI PENINSULA, ALASKA

JUL 28 PRI eP 03 16 12.8
PRI eP 03 16 13.0
JAS eP 03 16 19.0
MHC eP 03 16 19.8
BKS eP 03 16
ORV eP 03 16 27.0
WDC eP 03 16 32.0
USGS 03 03 21.6, 41.6S, 73.2W, h= 43 km, mb=5.5, Ms=4.8
NEAR COAST OF SOUTHERN CHILE

JUL 28 SAO eP 11 31 35.0
PRI eP 11 31 36.1
MHC eP 11 31 37.0
BKS eP 11 31 37.5
MICRON PERIOD
PZ 0.03 1.0
WKC2 eP 11 31 40.2
FRI eP 11 31 40.8
JAS ePd 11 31 41.7
ORV ePd 11 31 43.8
WDC ePd 11 31 45.0
MIN ePd 11 31 46.2
USGS 11 19 01.2, 30.8S, 178.2W, h= 59 km, mb=5.4
KERMADEC ISLANDS

JUL 28 FHC eP 17 11 41.2
WDC iPd 17 11 46.8
MIN iPd 17 11 50.7
ORV iPd 17 11 53.7
BKS ePd 17 11 57.5
MICRON PERIOD
PZ 0.22 0.9
MHC ePd 17 12 02.0
JAS iPd 17 12 04.4
SAO ePd 17 12 04.5
FRI ePd 17 12 10.2
PRI iPd 17 12 10.8
MNV iPd 17 12 10.9
USGS 17 00 57.5, 41.7N, 140.0E, h=177 km, mb=5.4
HOKKAIDO, JAPAN REGION

JUL 28 WDC ePd 17 37 17
MIN ePd 17 37 17
ORV ePd 17 37 18
BKS ePd 17 37 19.6
MICRON PERIOD
LZ 43 22
LNE 70 19
LNW 50 21
JAS ePd 17 37 21.5
FRI ePd 17 37
Ms=7.3, DISTANCE=112°
USGS 17 22 24.6, 30.1N, 57.8E, h= 33 km, mb=5.7, Ms=7.1
IRAN

JUL 29 SAO eP 01 23 55.9
BKS eP 01 23 56.8 34 47
MICRON PERIOD
PZ 0.31 1.1
LZ 14 21
LNE 11 20
LNW 3.7 20
MHC eP 01 23 57.3
PRI eP 01 23 58.0
FHC eP 01 23 58.4
WDC eP 01 24 01.9
JAS eP 01 24 02.0
ORV eP 01 24 02.2
FRI eP 01 24 02.3
MIN eP 01 24 03.5
MNV eP 01 24 10.6
Ms=6.3, DISTANCE=89°
USGS 01 11 12.7, 21.6S, 169.6E, h= 40 km, mb=5.7, Ms=6.2
LOYALTY ISLANDS REGION

JUL 29 BKS eP 11 43
SAO eP 11 43 02.6
MHC eP 11 43 03.6
PRI eP 11 43 05.0
WDC ePd 11 43 06.8
ORV ePd 11 43 08.0
JAS ePd 11 43 08.6
FRI ePd 11 43 09.4
USGS 11 30 22.6, 17.6S, 167.1E, h= 33 km, mb=4.5
VANUATU ISLANDS

JUL 29 SAO eP 22 16 38
PRI eP 22 16 38.5
MHC ePd 22 16 39.1
BKS eP 22 16 39.7
MICRON PERIOD
PZ 0.29 0.9
LZ 0.6 18
LN 0.5 18
LE 0.5 18
FRI eP 22 16 44.3
JAS eP 22 16 45.0
ORV iPd 22 16 46.9
WDC iPd 22 16 47.5
MIN ePd 22 16 49.3
MNV ePd 22 16 55.1
USGS 22 05 11.5, 17.6S, 173.1W, h= 42 km, mb=5.4, Ms=4.9
TONGA ISLANDS

JUL 31 WDC eP 21 16 12.2
MIN eP 21 16 18.5
ORV eP 21 16 20.7
BKS eP 21 16 27.5 24 05
MICRON PERIOD
PZ 0.29 0.9
LZ 0.6 18
LN 0.5 18
LE 0.5 18
FRI eP 21 16 44.3
JAS eP 21 16 45.0
ORV iPd 21 16 46.9
WDC iPd 21 16 47.5
MIN ePd 21 16 49.3
MNV ePd 21 16 55.1
USGS 21 06 51.8, 51.2N, 157.7E, h= 50 km, mb=5.2, Ms=5.1
NEAR EAST COAST OF KAMCHATKA

AUG 01 WKC2 eP 01 47 48
WDC eP 01 47 52.3
MIN eP 01 47 57.0
ORV eP 01 48 02.7
BKS eP 01 48 14.0 53 15
MICRON PERIOD
PZ 0.09 0.9
MHC ePd 06 21 44.2
WKC2 eP 06 21 47
FRI ePd 06 21 49.5
JAS iPd 06 21 50.3
ORV iPd 06 21 52.1
WDC iPd 06 21 52.5
MIN ePd 06 21 54.3
MNV iPd 06 22 00.4
USGS 06 10 09.6, 18.6S, 173.6W, h= 33 km, mb=5.7, Ms=5.3
TONGA ISLANDS

AUG 01 MNV eP 11 25 41.0
FRI eP 11 25
PRI eP 11 25
JAS eP 11 25 49.0
ORV eP 11 26 05.0
WDC eP 11 26 14.0
USGS 11 20 04.8, 17.2N, 99.4W, h= 64 km, mb=4.9
GUERRERO, MEXICO

AUG 02 SAO eP 01 01 07.5
BKS ePd 01 01 08.8
MICRON PERIOD
PZ 0.05 0.8
PRI ePd 01 01 08.9
MHC ePd 01 01 09.3
FRI ePd 01 01 14.0
JAS ePd 01 01 14.5
ORV ePd 01 01 16.0
WDC ePd 01 01 16.4
MIN ePd 01 01 18.7
USGS 00 49 46.1, 23.4S, 179.9E, h=542 km, mb=5.3
SOUTH OF FIJI ISLANDS

DATE	TIME	STATION	INSTRUMENT	WAVELENGTH	AMPLITUDE	PERIOD	PHASE	REMARKS
AUG 13	FRI	iPo	20	31	38.1	31	49	
	MNV	iPo	20	31	42.3	31	56	
	JAS	iPo	20	31	45.7	32	03	
	LLA	iPo	20	31	56.0	32	22	
	PRI	eP	20	31	58.2			
	SAO	iPo	20	32	00.4			
	MHC	eP	20	32	01.0			
	PRS	eP	20	32	02.4			
	BKS	iPno	20	32	08.0	32	41	
	PCC	eP	20	32	08.8			
	BRK		20	31	22.6, 37.5N, 118.9W, h=	2	km, ML=3.6	
					MAMMOTH LAKES AREA, CALIFORNIA			

AUG 14 SAO iPe 12 50 03.0
 LLA iPe 12 50 06.0 50 11
 PRS iPd 12 50 08.5
 GCC iPe 12 50 11.2
 MHC iPd 12 50 11.9 50 21
 PRI iPe 12 50 15.4
 PCC iPe 12 50 19.3
 FRI iPe 12 50 22.2 50 39
 BKS iPd 12 50 22.5
 JAS iPd 12 50 23.3
 ORV iPe 12 50 42.8
 BRK 12 49 59.7, 36.8N, 121.3W, h= 9 km, ML=4.2
 SOUTHEAST OF HOLLISTER, CALIFORNIA

AUG 15 SAO iPd 09 22 54.7
 GCC iPe 09 22 59.2
 MHC iPd 09 23 02.4 23 10
 PRS iPd 09 23 02.4
 LLA iPe 09 23 03.3 23 12
 PCC ePe 09 23 08.6
 PRI ePe 09 23 11.5
 BKS ePd 09 23 13.6 23 31
 JAS eP 09 23 18.0 23 37
 FRI eP 09 23 19.0
 BRK 09 22 52.0, 36.8N, 121.6W, h= 1 km, ML=2.6
 WEST OF HOLLISTER, CALIFORNIA

AUG 15 WDC ePe 10 36 39.1 PoP 39 56
 MIN ePe 10 36 44.8 PoP 39 57
 ORV ePe 10 36 49.8 PoP 39 58
 BKS eP 10 37 - e 37 16 e 42 06 e 42 24
 Lr 44 26
 MICRON PERIOD
 LZ 1.1 20
 LN 0.6 20
 LE 0.4 20
 JAS eP 10 37 06.0 PoP 40 04
 FRI 10 37 PoP 40 06
 USGS 10 30 56.9, 56.4N, 156.8W, h= 53 km, mb=5.1
 ALASKA PENINSULA

AUG 16 WDC iPd 10 42 e 42 20
 MIN ePd 10 42 25.3
 ORV iPd 10 42 32.3
 BKS ePd 10 42 42.0
 Lr 45 56
 MICRON PERIOD
 PZ 0.03 1.0
 LZ 0.4 20
 LN 0.3 20
 LE 0.5 20
 JAS eP 10 43 06.0
 MHC eP 10 43 08.7
 SAO 10 43
 FRI eP 10 43 20.7
 PRI 10 43
 USGS 10 40 09.4, 48.9N, 127.9W, h= 10 km, mb=4.7
 VANCOUVER ISLAND REGION

AUG 16 WDC eP 10 56 20.0
 MIN eP 10 56 27.0
 ORV eP 10 56 37.2

AUG 16 FRI ePd 21 56 59
 PRI eP 21 57 01.2
 JAS iPd 21 57 07.0
 MHC ePd 21 57 10.3
 BKS ePd 21 57 14.5
 MICRON PERIOD
 PZ 0.05 0.9
 ORV iPd 21 57 18.4
 WDC iPd 21 57 24.1
 USGS 21 46 53.5, 8.6S, 74.6W, h=147 km, mb=4.9
 PERU-BRAZIL BORDER REGION

AUG 16 WDC eP 10 56 20.0
 MIN eP 10 56 27.0
 ORV eP 10 56 37.2

AUG 16 FRI ePd 21 56 59
 PRI eP 21 57 01.2
 JAS iPd 21 57 07.0
 MHC ePd 21 57 10.3
 BKS ePd 21 57 14.5
 MICRON PERIOD
 PZ 0.05 0.9
 ORV iPd 21 57 18.4
 WDC iPd 21 57 24.1
 USGS 21 46 53.5, 8.6S, 74.6W, h=147 km, mb=4.9
 PERU-BRAZIL BORDER REGION

AUG 17 FRI ePd 02 25 25.5 PoP 28 14
 MIN ePd 02 25 27.2 PoP 28 14
 PRI eP 02 25 27.6 PoP 28 15
 JAS iPd 02 25 35.4 PoP 28 17
 MHC eP 02 25 39.5
 BKS ePd 02 25 45 31 19 PP 27 11 PPP 27 36 PoP 28 20
 e 28 33 e 31 50 e 34 20
 Lq 35 04 Lr 36 15
 MICRON PERIOD
 LZ 3.0 20
 LN 11 20
 LE 11 20
 ORV iPd 02 25 50.3 PoP 28 23 pPoP 28 34
 MIN eP 02 25 54.3 PoP 28 24
 WDC iPd 02 25 58.1 PoP 28 25
 WKC2 eP 02 26 09.5
 Ms=5.8, DISTANCE=36°
 USGS 02 18 58.7, 14.4N, 93.8W, h= 35 km, mb=5.6, Ms=5.5
 NEAR COAST OF CHIAPAS, MEXICO

AUG 17 WDC eP 02 31 16.6 PP 35 13
 BKS eP 02 31 18.0
 MICRON PERIOD
 PZ 0.03 0.9
 MIN eP 02 31 19.6
 ORV eP 02 31 19.9 PP 35 22
 JAS eP 02 31 24.2 PP 35 24
 FRI eP 02 31 27.5
 USGS 02 17 41.5, 2.8S, 139.2E, h= 34 km, mb=5.7, Ms=5.8
 NEAR NORTH COAST OF WEST IRIAN

AUG 17 SAO eP 17 19 e 19 23
 BKS eP 17 19 24.2
 MICRON PERIOD
 PZ 0.06 0.9
 PRI eP 17 19 24.5
 MHC eP 17 19 24.8
 WKC2 eP 17 19 27.2
 FRI eP 17 19 29.0
 JAS eP 17 19 29.8 e 20 58
 ORV eP 17 19 31.7
 WDC eP 17 19 32.0 e 20 59
 MIN eP 17 19 33.7
 USGS 17 07 41.4, 25.5S, 179.1W, h=383 km, mb=5.5
 SOUTH OF FIJI ISLANDS

AUG 17 WDC eP 02 31 16.6 PP 35 13
 BKS eP 02 31 18.0
 MICRON PERIOD
 PZ 0.03 0.9
 MIN eP 02 31 19.6
 ORV eP 02 31 19.9 PP 35 22
 JAS eP 02 31 24.2 PP 35 24
 FRI eP 02 31 27.5
 USGS 02 17 41.5, 2.8S, 139.2E, h= 34 km, mb=5.7, Ms=5.8
 NEAR NORTH COAST OF WEST IRIAN

AUG 17 SAO eP 17 19 e 19 23
 BKS eP 17 19 24.2
 MICRON PERIOD
 PZ 0.06 0.9
 PRI eP 17 19 24.5
 MHC eP 17 19 24.8
 WKC2 eP 17 19 27.2
 FRI eP 17 19 29.0
 JAS eP 17 19 29.8 e 20 58
 ORV eP 17 19 31.7
 WDC eP 17 19 32.0 e 20 59
 MIN eP 17 19 33.7
 USGS 17 07 41.4, 25.5S, 179.1W, h=383 km, mb=5.5
 SOUTH OF FIJI ISLANDS

AUG 17 MHC eP 19 25 18.0
 WKC2 eP 19 25 22.0
 FRI eP 19 25 22.6
 JAS eP 19 25 22.8
 ORV eP 19 25 24.7
 WDC eP 19 25 25.8
 USGS 19 12 43.3, 30.1S, 177.5W, h= 33 km, mb=5.1
 Kermadec Islands

AUG 19 BKS eP 01 53 41.0
 MICRON PERIOD
 PZ 0.03 0.9
 PRI eP 01 53 42.0
 MHC eP 01 53 42.0
 WKC2 eP 01 53 46.3
 FRI eP 01 53 46.4
 JAS eP 01 53 47.5
 ORV eP 01 53 49.6
 WDC eP 01 53 50.7
 MIN eP 01 53 51.7
 USGS 01 41 07.0, 33.5S, 179.7E, h=185 km, mb=5.1
 SOUTH OF Kermadec Islands

AUG 19 SAO eP 03 12 35.0
 PRI eP 03 12 36.4
 BKS eP 03 12 36.5
 MICRON PERIOD
 PZ 0.04 0.8
 MHC ePe 03 12 36.8
 WKC2 ePe 03 12 39.0
 FRI ePe 03 12 41.3
 JAS iPe 03 12 42.0
 ORV iPe 03 12 43.5
 WDC iPe 03 12 44.1
 MIN eP 03 12 45.7
 USGS 03 01 07.5, 24.1S, 180.0E, h=507 km, mb=4.8
 SOUTH OF FIJI ISLANDS

AUG 19 BKS e(P) 06 19 11 e 19 26 e 43 04 Lr 46 42
 MICRON PERIOD
 PZ 0.01 0.9
 LZ 1.3 20
 LN 0.8 20
 LE 0.9 20

MHC eP 06 19 12.7
 WKC2 eP 06 19 13
 PRI eP 06 19 13.3
 FRI eP 06 19 17.7
 JAS ePd 06 19 17.8
 WDC ePd 06 19 17.8
 ORV ePd 06 19 18.2
 MIN eP 06 19 19.6
 USGS 06 06 24.9, 23.0S, 170.5E, h= 25 km, mb=5.6, Ms=4.9
 LOYALTY ISLANDS REGION

AUG 19 MNV eP 14 39 10.7
 JAS ePe 14 39 18.0
 MHC eP 14 39 20.6
 BKS ePe 14 39 25.1
 MICRON PERIOD
 PZ 0.02 0.8
 ORV iPe 14 39 29.7
 WDC ePe 14 39 36.0
 WKC2 ePe 14 39 45

AUG 19 WDC iPKPd 23 10 36.8
 WKC2 ePKPd 23 10 37
 MIN ePKPd 23 10 38.0
 ORV iPKPd 23 10 40.2
 BKS ePKPd 23 10 44.0
 USGS 14 29 43.5, 3.9S, 81.0W, h= 32 km, mb=5.2
 PERU-ECUADOR BORDER REGION

AUG 19 WDC iPKPd 23 10 36.8
 WKC2 ePKPd 23 10 37
 MIN ePKPd 23 10 38.0
 ORV iPKPd 23 10 40.2
 BKS ePKPd 23 10 44.0
 USGS 14 29 43.5, 3.9S, 81.0W, h= 32 km, mb=5.2
 PERU-ECUADOR BORDER REGION

AUG 19 WDC iPKPd 23 10 36.8
 WKC2 ePKPd 23 10 37
 MIN ePKPd 23 10 38.0
 ORV iPKPd 23 10 40.2
 BKS ePKPd 23 10 44.0
 USGS 14 29 43.5, 3.9S, 81.0W, h= 32 km, mb=5.2
 PERU-ECUADOR BORDER REGION

AUG 20 MHC eP 00 04 46.4
 FRI eP 00 04 50.5
 JAS eP 00 04 51.4
 ORV eP 00 04 53.5
 WDC eP 00 04 54.3
 USGS 23 52 16.9, 28.6S, 177.7W, h= 33 km, mb=4.7
 Kermadec Islands REGION

AUG 20 WKC2 e(P) 02 32 e 32 04 Lr 57 20
 BKS e(P) 02 32 07
 MICRON PERIOD
 PZ 0.02 0.9
 MHC eP 02 32 08.2
 WDC eP 02 32 11.3
 ORV eP 02 32 11.8
 JAS eP 02 32 13.2
 FRI 02 32
 USGS 02 19 48.2, 11.5S, 166.2E, h= 71 km, mb=5.0
 SANTA CRUZ ISLANDS

AUG 20 SAO iPe 12 55 10.2
 PRS iPd 12 55 16.9
 LLA iPd 12 55 17.1 55 23
 GCC iPe 12 55 20.4
 MHC ePd 12 55 22.3 55 32
 PRI ePd 12 55 26.3 55 39
 PCC ePd 12 55 29.2
 FRI ePd 12 55 34.4
 BKS eP 12 55 34.5 55 50
 JAS eP 12 55 34.9 55 53
 BRK 12 55 09.2, 36.7N, 121.4W, h= 1 km, ML=2.6
 SOUTH OF HOLLISTER, CALIFORNIA

AUG 20 FRI eP 14 27 05.5 PoP 29 34
 JAS eP 14 27 14.7 PoP 29 37
 MHC eP 14 27 18.8
 BKS eP 14 27
 ORV eP 14 27 28.7 PoP 27 25
 WDC eP 14 27 PoP 29 42
 WKC2 eP 14 27 47.5 PoP 29 44
 USGS 14 20 11.8, 13.3N, 89.7W, h= 65 km, mb=4.6
 EL SALVADOR

AUG 20 SAO eP 15 21 56.0
 PRI eP 15 21 57.0
 BKS eP 15 21 57.1
 MICRON PERIOD
 PZ 0.03 0.8
 MHC eP 15 21 57.9
 WKC2 eP 15 22 00.5
 FRI eP 15 22 01.9
 JAS ePd 15 22 02.7
 ORV ePd 15 22 04.6
 WDC ePd 15 22 05.3
 MIN eP 15 22 06.7
 USGS 15 10 03.9, 27.1S, 179.2W, h=347 km, mb=4.9
 Kermadec Islands REGION

AUG 21 JAS iPd 01 27 35.1
 MHC eP 01 27 36.8
 BKS eP 01 27 40.2
 MICRON PERIOD
 PZ 0.03 1.0
 ORV iPd 01 27 43.8
 WDC iP 01 27 48.6
 USGS 01 15 08.2, 34.1S, 70.1W, h=117 km, mb=4.9
 CHILE-ARGENTINA BORDER REGION

AUG 21 SAO iPd 12 00 37.2
 GCC iPe 12 00 42.7
 PRS iPd 12 00 45.0
 LLA iP 12 00 45.8 00 55
 MHC iP 12 00 45.9 00 55
 PCC iPe 12 00 52.5
 PRI iPe 12 00 54.4
 BKS ePe 12 00 56.1
 JAS eP 12 01 00.1 01 18
 FRI eP 12 01 01.1
 BRK 12 00 35.0, 36.8N, 121.6W, h= 2 km, ML=2.9
 WEST-SOUTHWEST OF HOLLISTER, CALIFORNIA

AUG 27 WDC eP 05 55 21.2
MIN eP 05 55 25.1
ORV iPe 05 55 28.5
MHC eP 05 55 37.3
JAS iPe 05 55 40.0
FRI eP 05 55 45.5

USGS 05 45 09.0, 146.1E, h=197 km, mb=4.8
KURIL ISLANDS

AUG 27 BKS IPo 10 01 31.7 01 37 i 01 34 i 01 43
 MHC IPo 10 01 34.6 01 43
 PCC IPo 10 01 35.6 01 44
 OCC eP 10 01 40.0
 JAS IPo 10 01 43.0
 SAO eP 10 01 43.2
 LLA eP 10 01 48.4
 ORV eP 10 01 53.7
 BRK 10 01 24.7, 37.8N, 121.0W, h= 12 km, ML=2.9
 NORTH OF LIVERMORE, CALIFORNIA

AUG 27 MNV IPo 14 31 36.7
 PRI eP 14 31 48.1
 JAS eP 14 31 57.1
 PRI eP 14 32 05.2
 ORV IPo 14 32 16.0
 ML=4.2, UNDERGROUND NUCLEAR EXPLOSION (ISLAY), N.T.S.
 USGS 14 31 00.0, 37.2N, 116.1W, h= 0 km
 SOUTHERN NEVADA

AUG 28 PRI eP 01 40 10.2
 JAS IPo 01 40 24.9
 MHC eP 01 40 26.3
 ORV IPo 01 40 34.0
 WDC IPo 01 40 38.8
 USGS 01 28 34.1, 24.5S, 67.3W, h=175 km, mb=4.6
 CHILE-ARGENTINA BORDER REGION

AUG 28 WDC eP 09 10 03.2
 MIN eP 09 10 07.7
 ORV eP 09 10 13.5
 BKS ePd 09 10 25.7
 JAS eP 09 10 30.8
 MHC eP 09 10 31.5
 MNV eP 09 10 34.8
 PRI eP 09 10 39.8
 PRI eP 09 10 44.5
 USGS 09 04 24.7, 61.7N, 150.5W, h= 71 km, mb=5.1
 SOUTHERN ALASKA

AUG 29 ORV IPo 18 57 48.7
 MIN IPd 18 57 50.6 58 01
 WDC IPd 18 58 03.3 58 22
 JAS IPo 18 58 12.0 58 37
 BRK 18 57 36.7, 39.9N, 120.9W, h= 10 km, ML=3.1
 SOUTHEAST OF QUINCY, CALIFORNIA

AUG 29 WDC eP 20 33 45
 ORV eP 20 33 53.5
 JAS eP 20 34 06.5

AUG 30 WDC IPo 03 31 35.8 31 45
 FBC IPo 03 31 36.4 31 46
 WKC2 IPo 03 31 38.0 31 49
 MIN eP 03 31 45.9
 ORV IPo 03 31 50.5
 BRK 03 31 25.7, 40.5N, 123.3W, h= 25 km, ML=3.2
 SOUTHWEST OF WEAVERVILLE, CALIFORNIA

AUG 30 PRI eP 06 33 33 48
 JAS eP 06 33 55
 WDC eP 06 34 11
 USGS 06 22 22.9, 35.0S, 111.5W, h= 10 km, mb=4.8
 EASTER ISLAND CORDILLERA

AUG 30 SAO IPo 11 47 11.0
 BKS eP 11 47 12.0
 PRI IPo 11 47 12.7
 MHC IPo 11 47 12.7
 FBC eP 11 47 15.6
 PRI IPo 11 47 17.9
 JAS IPo 11 47 18.2
 ORV IPo 11 47 19.2
 WDC IPo 11 47 19.2
 MIN eP 11 47 21.0
 MNV IPo 11 47 27.7
 USGS 11 36 20.6, 10.0S, 178.5W, h=609 km, mb=5.4
 FIJI ISLANDS REGION

AUG 31 WDC e(P) 06 23 00
 ORV ePd 06 23 09.0
 JAS ePd 06 23 23.0
 PRI eP 06 23 31
 USGS 06 14 30.7, 54.6N, 168.1E, h= 33 km, mb=4.7, Ms=3.8
 KOMANDORSKY ISLANDS REGION

SEP 01 SAO eP 07 34 34 19
 PRI eP 07 34 20.4
 MHC eP 07 34 20.6
 BKS eP 07 34 21 43 45 e 44 16 e 44 24 Lq 52 04
 MICRON PERIOD
 LZ 3.4 20
 LN 2.9 20
 LE 2.5 20
 PRI eP 07 34 26.2
 JAS eP 07 34 26.5
 ORV eP 07 34 28.0
 WDC eP 07 34 28.6
 MIN eP 07 34 30.5
 MNV eP 07 34 37.3
 "T" Phase recorded at 08:49.
 Ms=5.7, DISTANCE=72°
 USGS 07 23 02.1, 15.1S, 173.3W, h= 33 km, mb=5.8, Ms=5.7
 TONGA ISLANDS

SEP 01 SAO eP 09 40 47.7
 BKS ePd 09 40 49.0 50 10 i 41 03 PP 43 08 PPP 45 28
 MICRON PERIOD
 LZ 0.81 1.2
 LN 640 20
 LNE 680 20
 LNW 170 20
 PRI eP 09 40 49.2
 MHC eP 09 40 49.5
 WKC2 eP 09 40 51.3
 PRI eP 09 40 55.0
 JAS eP 09 40 55.5
 ORV eP 09 40 57.2
 WDC IPd 09 40 57.5
 MIN eP 09 40 59.5
 MNV eP 09 41 06.0
 "T" Phase recorded at 10:55.
 Ms=7.9, DISTANCE=74°
 USGS 09 29 31.5, 15.0S, 173.1W, h= 25 km, mb=7.0, Ms=7.7
 SAMOA ISLANDS REGION

SEP 01 PRI ePKP 16 14 42.0
 JAS ePKP 16 14 44.4
 MHC ePKP 16 14 45.0
 BKS ePKP 16 14 46.8
 WDC ePKP 16 14 49.4
 USGS 15 55 57.0, 58.7S, 25.4W, h=115 km, mb=4.8
 SOUTH SANDWICH ISLANDS REGION

SEP 01 PRI eP 18 50 06.5
 BKS eP 18 50 06.6 59 34 e 00 00 Lq 00 14 Lr 11 00
 MICRON PERIOD
 LZ 0.07 1.4
 LN 1.8 20
 LE 1.3 20
 LE 1.5 20
 MHC ePo 18 50 07.1
 PRI ePo 18 50 12.5
 JAS IPo 18 50 13.3
 ORV IPo 18 50 14.7
 WDC IPo 18 50 15.2
 MIN eP 18 50 17.0
 MNV eP 18 50 23.8
 Ms=5.4, DISTANCE=74°
 USGS 18 39 47.4, 15.3S, 173.3W, h= 33 km, mb=5.7, Ms=5.3
 TONGA ISLANDS

SEP 02 BKS eP 00 07 03 16 20 e 17 08 Lq 25 24 Lr 27 08
 MICRON PERIOD
 LZ 2.4 20
 LN 1.4 20
 LE 2.0 20
 PRI eP 00 07 03.5
 MHC eP 00 07 03.7
 PRI eP 00 07 09.2
 JAS ePd 00 07 09.8
 ORV IPd 00 07 11.4
 WDC IPd 00 07 11.9
 MIN eP 00 07 13.9
 MNV eP 00 07 20.5
 Ms=5.5, DISTANCE=74°
 USGS 23 55 45.1, 15.2S, 173.2W, h= 33 km, mb=5.6, Ms=5.4
 TONGA ISLANDS

SEP 02 BKS eP 08 55 40 05 00 e 55 56 e 05 30 SS 09 18
 MICRON PERIOD
 LZ 0.05 1.0
 LN 2.1 20
 LE 1.8 20
 LE 2.7 20
 PRI eP 08 55 41.0
 PRI eP 08 55 47.5
 JAS eP 08 55 47.9
 ORV ePo 08 55 49.2
 WDC ePo 08 55 50.0
 MIN eP 08 55 51.9
 Ms=5.6, DISTANCE=73°
 USGS 08 44 21.1, 15.5S, 173.0W, h= 33 km, mb=5.3, Ms=5.5
 SAMOA ISLANDS REGION

SEP 02 WKC2 eP 09 36 02
 WDC eP 09 36 07.2 e 36 18
 MIN eP 09 36 11.0
 ORV eP 09 36 13.8 e 36 24
 BKS eP 09 36 15.8
 MICRON PERIOD
 LZ 1.1 20
 LN 0 20
 LE 1.0 20
 MHC eP 09 36 21
 JAS eP 09 36 23.7 e 36 34
 PRI eP 09 36 29.2 e 36 40
 PRI eP 09 36 29.2
 MNV eP 09 36 31.4
 USGS 09 24 46.1, 35.7N, 140.9E, h= 58 km, mb=5.5
 NEAR EAST COAST OF HONSHU, JAPAN

SEP 02 BRK eP 10 42 11.2
 PRI eP 10 42 11.9
 MHC eP 10 42 12.1
 PRI eP 10 42 17.7
 JAS ePd 10 42 18.4
 ORV ePd 10 42 19.7
 WDC ePd 10 42 20.0
 MIN eP 10 42 22.0
 MNV eP 10 42 28.7
 USGS 10 30 52.8, 14.9S, 173.7W, h= 33 km, mb=5.3, Ms=5.1
 SAMOA ISLANDS REGION

SEP 02 PRI eP 14 28 31.8
 MHC eP 14 28 32
 PRI eP 14 28 37.8
 JAS ePd 14 28 38.6
 ORV ePd 14 28 40.0
 WDC ePd 14 28 40.7
 MIN eP 14 28 42.4
 SAMOA ISLANDS REGION

SEP 02 PRI eP 14 30 01.3
 PRI eP 14 30 07.2
 JAS ePo 14 30 07.9
 ORV ePo 14 30 09.3
 WDC ePo 14 30 09.8
 MIN eP 14 30 11.7
 MNV eP 14 30 18.5
 SAMOA ISLANDS REGION

SEP 03 PRI eP 02 25 02.7 e 25 09
 PRI eP 02 25 03.8
 JAS eP 02 25 10.8 e 25 17
 BKS eP 02 25 e 25 13
 ORV eP 02 25 20.4
 WDC IPo 02 25 25.5 e 25 31
 USGS 02 12 55.8, 38.8S, 92.4W, h= 10 km, mb=4.8
 WEST CHILE RISE

SEP 03 WKC2 IPo 05 46 08.1 i 46 23
 WDC IPo 05 46 14.3 PKPPKP 14 58
 MIN ePo 05 46 18.6
 ORV IPo 05 46 21.8 PKPPKP 15 00
 BKS IPo 05 46 26.2 55 10 i 46 41 e 46 46 PP 48 40
 MICRON PERIOD
 LZ 1.44 1.6
 LN 14 20
 LN 13 20
 LE 14 20
 MHC ePo 05 46 30.6
 JAS IPo 05 46 33.0 i 46 42
 SAO eP 05 46 35.3
 PRI ePo 05 46 39.1 i 46 54
 PRI ePo 05 46 39.5 i 46 48
 MNV ePo 05 46 40.2
 Ms=6.3, DISTANCE=68°
 USGS 05 35 44.8, 43.6N, 147.0E, h= 45 km, mb=6.6, Ms=6.6
 KURIL ISLANDS

SEP 03 WDC IPo 19 50 49.0 i 50 57
 ORV IP 19 50 55.9 i 51 04
 BKS eP 19 51 e 51 05
 MHC eP 19 51 02.9
 JAS eP 19 51 05.5
 PRI eP 19 51 10.8
 PRI eP 19 51 11.0
 USGS 19 39 25.1, 35.2N, 141.0E, h= 44 km, mb=5.6, Ms=5.4
 NEAR EAST COAST OF HONSHU, JAPAN

SEP 04 WDC eP 11 27 56.7 PP 32 10 i 37 36
 ORV eP 11 28 01.5 PP 32 22 e 37 47
 BKS eP 11 28 03.2 38 50 pP 30 18 eP 31 21 PP 32 22
 SP 40 25 eP 35 28 SKS 37 42
 e 43 46 PKKP 44 14 SS 45 55
 e 46 03 e 49 23 e 49 48
 SSS 50 15 e 50 51 Lq 53 18
 e 53 23 PKPKP 53 46 e 56 48

MICRON PERIOD
 PZ 0.08 1.2
 LZ 2.0 20
 LN 0.5 20
 LE 1.8 20

JAS eP 11 28 08.8 PP 32 33
 FRI eP 11 28 12.0

mb=6.1, DISTANCE=102°
 USGS 11 15 13.6, 10.0N, 124.0E, h=645 km, mb=6.0
 MINDANAO, PHILIPPINE ISLANDS

SEP 04 MNV iPo 15 00 37.6
 FRI eP 15 00 48.5
 JAS eP 15 00 57.8
 PRI eP 15 01 00.6
 LLA eP 15 01 03.5
 SAO eP 15 01 08.8

ML=4.0, UNDERGROUND NUCLEAR EXPLOSION (TREBIANO), N.T.S.
 USGS 15 00 00.1, 37.1N, 116.0W, h= 0 km
 SOUTHERN NEVADA

SEP 04 PRI iP 15 51 34.0
 PRS iPd 15 51 39.8
 LLA iPd 15 51 41.5
 FRI iPd 15 51 42.0
 SAO iPd 15 51 44.7
 GCC eP 15 51 50.9
 MHC ePd 15 51 53.2
 JAS iPd 15 51 57.3
 PCC eP 15 51 58.4
 BKS eP 15 52 02.7
 MNV eP 15 52 05.3
 ORV iPd 15 52 20.2
 MIN eP 15 52 33.7
 WDC eP 15 52 37.8
 WKC2 iPo 15 53 46.0

ML=5.5, OFF COAST SOUTHWEST OF LOS ANGELES
 PAS 15 50 50.3, 33.7N, 119.1W, h= 5 km, ML=5.2, Ms=5.9
 SOUTHERN CALIFORNIA

SEP 04 BKS eP 23 57 e 57 38
 PRI eP 23 57 34.5
 WDC eP 23 57 36.2
 MHC eP 23 57 37.8
 ORV e(P) 23 57 40
 MIN e(P) 23 57
 JAS e(P) 23 57 41 e 57 44
 FRI eP 23 57 42.0
 MNV 23 57 e 57 54

USGS 23 44 49.7, 9.8S, 159.5E, h= 38 km, mb=5.4, Ms=5.3
 SOLOMON ISLANDS

SEP 05 SAO eP 10 58 e 58 25
 PRI eP 10 58 25.7
 MHC eP 10 58 26.6
 BKS ePd 10 58 26.7

MICRON PERIOD
 PZ 0.05 0.9

FRI eP 10 58 31.0
 JAS eP 10 58 31.0
 ORV eP 10 58 33.3
 WDC eP 10 58 34.5
 MIN eP 10 58 36.5

USGS 10 46 24.0, 23.4S, 175.8W, h= 33 km, mb=5.2, Ms=4.6
 TONGA ISLANDS REGION

SEP 06 SAO eP 11 15 24.9
 WKC2 eP 11 15 25.0
 BKS ePo 11 15 25.4 25 54 e 15 36 PP 19 12 e 27 10
 SS 32 08 Lq 39 16 Lr 42 12

MICRON PERIOD
 PZ 0.31 1.5
 LZ 13 20
 LN 8 20
 LE 10 20

MHC eP 11 15 26.2
 PRI eP 11 15 26.7
 WDC iPo 11 15 30.6 i 15 54
 JAS iPo 11 15 31.0
 PRI iPo 11 15 31.2
 ORV iPo 11 15 31.3
 MIN eP 11 15 32.5
 MNV eP 11 15 39.7

Ms=6.3, DISTANCE=87°
 USGS 11 02 40.8, 21.5S, 169.6E, h= 31 km, mb=5.9, Ms=6.2
 LOYALTY ISLANDS REGION

SEP 06 ORV iPd 13 26 13.6
 JAS eP 13 26 30.3

USGS 13 20 20.1, 56.7N, 156.6W, h= 49 km, mb=4.4
 ALASKA PENINSULA

SEP 06 PRI eP 16 55 00.2 e 55 10
 FRI eP 16 55 03.1
 SAO eP 16 55 04.6
 MHC eP 16 55 07.4
 JAS eP 16 55 09.0 i 55 17
 MNV eP 16 55 10.0
 BKS ePd 16 55 13.0 05 00 SS 09 51 Lq 15 52 Lr 19 22

MICRON PERIOD
 PZ 0.07 0.8
 LZ 1.0 20
 LN 1.0 20
 LE 0.4 20

ORV eP 16 55 18.3
 WDC ePo 16 55 25.0 i 55 39
 WKC2 eP 16 55 28.5

Ms=5.2, DISTANCE=79°
 USGS 16 43 19.9, 36.2S, 100.7W, h= 10 km, mb=5.4, Ms=5.2
 SOUTHERN PACIFIC OCEAN

SEP 07 FRI eP 15 23 e 23 24
 JAS eP 15 23 22.4
 ORV eP 15 23 24.8
 WDC eP 15 23 25.1
 MIN eP 15 23 27.6

USGS 15 11 21.2, 25.6S, 178.0W, h=231 km, mb=5.2
 SOUTH OF FIJI ISLANDS

SEP 07 WKC2 eP 16 31 20.6 e 31 25
 WDC eP 16 31
 MIN eP 16 31 28.6
 ORV iPo 16 31 32.4
 BKS ePo 16 31 34.1

MICRON PERIOD
 PZ 0.07 0.7

MHC eP 16 31 37.6
 SAO eP 16 31 e 31 39
 JAS eP 16 31 e 31 40
 PRI eP 16 31 44.3
 FRI eP 16 31 44.9

USGS 16 20 16.7, 30.5N, 138.2E, h=440 km, mb=4.9
 SOUTH OF HONSHU, JAPAN

SEP 07 BKS eP 18 57 e 57 40
 MHC eP 18 57 41.5
 PRI eP 18 57 e 57 44
 WDC eP 18 57 44.9 e 58 42
 ORV iPd 18 57 46.4
 JAS eP 18 57 46.8
 FRI eP 18 57 48.0

USGS 18 45 39.7, 12.6S, 166.9E, h=235 km, mb=5.1
 SANTA CRUZ ISLANDS

SEP 07 WKC2 eP 19 17 36.5
 WDC iPd 19 17 41.7
 MIN eP 19 17 45.7
 ORV iPd 19 17 48.0
 BKS ePd 19 17 50.1 27 31 PPS 28 22 Lq 37 44 Lr 40 41

MICRON PERIOD
 PZ 0.53 1.7
 LZ 2.4 20
 LN 1.1 20
 LE 2.5 20

MHC eP 19 17 54.2
 SAO eP 19 17 55.9
 JAS iP 19 17 57.1
 PRI eP 19 18 01.7
 FRI eP 19 18 02.1
 MNV eP 19 18 04.6

Ms=5.5, DISTANCE=77°
 USGS 19 06 02.7, 30.6N, 141.6E, h= 33 km, mb=5.8, Ms=5.5
 SOUTH OF HONSHU, JAPAN

SEP 07 WDC eP 20 19 04.4
 ORV eP 20 19 10.6
 BKS eP 20 19 e 19 23
 MHC eP 20 19 e 19 17
 JAS eP 20 19 19.6
 PRI eP 20 19 e 19 24
 FRI eP 20 19 24.4

USGS 20 07 24.5, 30.6N, 141.6E, h= 29 km, mb=5.1, Ms=4.7
 SOUTH OF HONSHU, JAPAN

SEP 08 PRI eP 00 06 19.0
 MHC eP 00 06 19.8
 FRI eP 00 06 24.1
 JAS eP 00 06 24.6
 ORV eP 00 06 26.3
 WDC eP 00 06 27.2

USGS 23 54 20.1, 23.6S, 177.1W, h=108 km, mb=5.0
 SOUTH OF FIJI ISLANDS

SEP 08 WDC eP 03 01 01.0 e 01 07
 MIN eP 03 01
 ORV eP 03 01 10.3
 BKS ePd 03 01 15.5

MICRON PERIOD
 PZ 0.02 0.7

MHC eP 03 01 21.0
 JAS eP 03 01 24.4
 PRI eP 03 01
 FRI eP 03 01 32.3 e 01 32

USGS 02 53 26.7, 51.6N, 179.5E, h= 86 km, mb=4.5
 RAT ISLANDS, ALEUTIAN ISLANDS

SEP 08 LLA iPo 06 45 36.2
 PRS iPd 06 45 37.8 i 45 41
 SAO iPo 06 45 38.5
 GCC eP 06 45 47.6
 MHC eP 06 45 49.6 46 04
 FRI eP 06 45 54.2 46 11
 PCC eP 06 45 56.3
 JAS eP 06 45 59.2 46 19
 BKS eP 06 45 59.5 i 46 14

BRK 06 45 32.4, 36.5N, 121.2W, h= 4 km, ML=2.6
 SOUTHEAST OF HOLLISTER, CALIFORNIA

SEP 08 WDC ePo 07 08 43.7
 MIN eP 07 08 49.0
 ORV ePo 07 08 53.0
 BKS ePd 07 08 58.4

MICRON PERIOD
 PZ 0.01 0.6

JAS eP 07 09 07.0
 FRI eP 07 09 15.0

USGS 07 01 16.9, 51.5N, 178.4W, h= 55 km, mb=4.9
 ANDREANOF ISLANDS, ALEUTIAN ISLANDS

SEP 08 MNV iPd 12 34 55.0
 FRI iPd 12 35 06.4 35 23
 JAS iPo 12 35 07.1 35 24
 LLA eP 12 35 20.6 i 35 52
 MHC eP 12 35 24.3
 PRI eP 12 35 24.7
 SAO iPo 12 35 26.5
 ORV iP 12 35 26.9
 PRS eP 12 35 28.9
 GCC eP 12 35 29.4
 BKS iPd 12 35 31.8 36 06

BRK 12 34 43.1, 38.0N, 118.8W, h= 4 km, ML=3.7
 EAST OF MONO LAKE, CALIFORNIA-NEVADA BORDER

SEP 08 WKC2 eP 19 36 54.0
 WDC iPo 19 36 59.5
 ORV eP 19 37 06.9 i 37 19
 BKS eP 19 37 10.5 45 56 pP 37 23 e 37 40 Lq 53 47
 Lr 56 06

MICRON PERIOD
 PZ 0.08 1.3
 LZ 1.5 20
 LN 0.7 20
 LE 1.4 20

MHC eP 19 37 15.6
 JAS eP 19 37 18.1
 FRI eP 19 37 24.3
 PRI eP 19 37 24.5
 MNV eP 19 37 25.1

Ms=5.2, DISTANCE=68°
 USGS 19 26 27.0, 43.4N, 146.5E, h= 46 km, mb=5.7, Ms=5.4
 KURIL ISLANDS

SEP 09 SAO iPd 06 54 06.7
 GCC iPo 06 54 13.1 54 20
 PRS iPd 06 54 13.8
 LLA iPo 06 54 14.6
 MHC iPd 06 54 16.2 54 25
 PCC iPd 06 54 22.5 54 36
 PRI eP 06 54 22.7 54 37
 BKS ePd 06 54 25.6 54 42
 JAS eP 06 54 30.6 54 47
 FRI eP 06 54 30.7

BRK 06 54 04.7, 36.8N, 121.6W, h= 7 km, ML=2.9
 SOUTHWEST OF HOLLISTER, CALIFORNIA

SEP 10 WKC2 eP 23 33 56.0
 WDC eP 23 34 02.3
 MIN eP 23 34 03.6
 BKS ePd 23 34 06.2 e 34 16 Lr 00 28

MICRON PERIOD
 PZ 0.13 1.5

ORV eP 23 34 06.5
 MHC eP 23 34 08.9
 JAS eP 23 34 12.5
 PRI eP 23 34 13.8
 FRI eP 23 34 16.1
 MNV 23 34 e 34 21

USGS 23 21 23.7, 10.7N, 144.7E, h= 13 km, mb=5.6, Ms=5.2
 SOUTH OF MARIANA ISLANDS

SEP 11 SAO eP 08 45 06.0
 BKS eP 08 45 07.1 e 45 10

MICRON PERIOD
 PZ 0.06 0.9

PRI eP 08 45 07.5
 MHC eP 08 45 07.6
 WKC2 eP 08 45 09.4
 FRI eP 08 45 12.2
 JAS iPd 08 45 12.7
 ORV iPd 08 45 14.1
 WDC eP 08 45 14.1
 MIN eP 08 45 15.7
 MNV eP 08 45 21.1

USGS 08 33 41.7, 23.3S, 179.2E, h=544 km, mb=5.2
 SOUTH OF FIJI ISLANDS

SEP 12 WDC eP 15 02 07 e 02 35
 ORV iPo 15 02 15.0 i 02 43
 BKS eP 15 02 e 02 47
 JAS ePo 15 02 26.0 e 02 54
 USGS 14 51 27.2, 42.7N, 143.2E, h=111 km, mb=4.9
 HOKKAIDO, JAPAN REGION

SEP 12 MHC iPd 15 49 08.6 49 12
 GCC iPo 15 49 11.7
 SAO iPo 15 49 12.2
 LLA ePo 15 49 17.5
 PCC ePo 15 49 18.1
 PRS eP 15 49 19.8
 BKS iPo 15 49 21.3 49 35
 JAS ePd 15 49 25.5 49 41
 PRI e(P) 15 49 26
 FRI ePo 15 49 29.7
 ORV ePo 15 49 44.0
 BRK 15 49 04.2, 37.1N, 121.5W, h= 6 km, ML=2.9
 NORTHEAST OF GILROY, CALIFORNIA

SEP 12 MNV iPd 18 13 08.1 13 15
 FRI iPd 18 13 24.0 13 41
 JAS iPo 18 13 24.8 13 43
 LLA e(P) 18 13 38 i 13 40
 MHC ePo 18 13 40.7
 PRI ePo 18 13 41.0
 SAO ePd 18 13 41.5
 ORV iPd 18 13 42.7
 GCC ePd 18 13 44.8
 PRS e(P) 18 13 45
 BKS eP 18 13 46.7 14 28
 PCC e(P) 18 13 48
 MIN eP 18 13 54.3
 BRK 18 12 58.7, 38.1N, 118.6W, h= 11 km, ML=4.4
 EAST OF MONO LAKE, CALIFORNIA-NEVADA BORDER

SEP 13 WDC iPo 02 30 11.4
 WKC2 ePo 02 30 12.0
 MIN iPo 02 30 13.5
 ORV iPo 02 30 16.8
 BKS iPo 02 30 25
 PZ 0.97 PERIOD 0.7
 MNV iPo 02 30 25.7
 JAS iPo 02 30 26.0
 MHC ePo 02 30 27.9
 SAO ePo 02 30 30.3
 FRI iPo 02 30 30.7
 PRI iPo 02 30 34.7
 USGS 02 17 18.2, 49.9N, 79.0E, h= 0 km, mb=6.0, Ms=4.5
 UNDERGROUND NUCLEAR EXPLOSION
 EASTERN KAZAKH, S.S.R.

SEP 13 MNV e(P) 09 29 47 e 29 57
 FRI eP 09 29 58.6
 JAS eP 09 30 00.5 e 30 10
 MIN eP 09 30 02.6 e 30 12
 ORV iPo 09 30 03.2 i 30 13
 PRI e(P) 09 30 05 e 30 15
 WDC eP 09 30 05.3 e 30 15
 SAO eP 09 30 e 30 17
 BKS ePo 09 30 06 38 56 e 30 20 e 30 26 e 31 44
 e 33 08 e 35 23 i 39 08
 e 40 09 e 41 46 e 42 26
 e 43 00 e 43 06 e 46 20
 MHC eP 09 30 08.3 e 30 18
 WKC2 eP 09 30 16.5 e 30 27
 USGS 09 19 30.9, 24.9N, 46.3W, h= 10 km, mb=5.8, Ms=5.5
 NORTH ATLANTIC RIDGE

SEP 13 WDC ePo 20 35 27.5
 ORV ePo 20 35 34.3
 BRK eP 20 35 37.0
 MHC eP 20 35 41.2
 JAS ePo 20 35 44.0
 FRI eP 20 35 49.5
 USGS 20 24 07.6, 36.1N, 140.0E, h= 87 km, mb=4.9
 HONSHU, JAPAN

SEP 14 WKC2 eP 07 47 10.0
 WDC ePo 07 47 15.0
 MIN ePo 07 47 20.4
 ORV iPo 07 47 24.4
 BKS eP 07 47 29.8
 MHC eP 07 47 35.4
 JAS ePo 07 47 38.7
 FRI eP 07 47 46.4
 PRI eP 07 47 46.6
 USGS 07 39 37.8, 51.0N, 178.5E, h=107 km, mb=4.7
 RAT ISLANDS, ALEUTIAN ISLANDS

SEP 14 SAO iPo 08 19 41.8
 LLA iPo 08 19 45.3 19 50
 PRS iPd 08 19 45.7 19 50
 GCC ePo 08 19 51.0
 PRI iPd 08 19 53.3
 MHC iPd 08 19 53.4
 PCC ePd 08 20 00.2
 FRI iPd 08 20 03.0 20 21 i 20 27
 BKS ePd 08 20 03.2
 JAS iPo 08 20 05.0
 ORV eP 08 20 25.5
 BRK 08 19 39.0, 36.7N, 121.3W, h= 4 km, ML=3.3
 SOUTHEAST OF HOLLISTER, CALIFORNIA

SEP 14 MNV eP 12 52 47.3
 FRI eP 12 52 53.5
 JAS eP 12 52 59.5 i 53 39 PoP 54 23 SeP 58 01
 SP 59 55
 PRI eP 12 53 00.3
 SAO eP 12 53 04.3
 MHC eP 12 53 07.1
 ORV eP 12 53 07.4
 MIN eP 12 53 08.2
 BKS eP 12 53 10.2 00 14 e 53 46
 e 53 17 i 53 20 i 53 53
 PZ 0.39 PERIOD 1.0
 WDC eP 12 53 12.3 i 53 52 i 54 01
 WKC2 eP 12 53 25.3
 USGS 12 44 29.8, 18.3N, 68.9W, h=170 km, mb=5.9
 MONA PASSAGE

SEP 14 WKC2 eP 15 20 11.3
 WDC eP 15 20 17.0
 ORV eP 15 20 21.6
 BKS eP 15 20 23.5 e 20 32 e 20 39 Lr 15 46
 PZ 0.94 PERIOD 1.2
 LZ 1.9 20
 LN 0 20
 LE 1.9 20
 MHC eP 15 20 27.2
 JAS eP 15 20 30.1 e 20 31
 SAO eP 15 20
 PRI eP 15 20 34.1
 FRI eP 15 20 35.4
 MNV eP 15 20 40.2
 USGS 15 08 33.0, 29.1N, 142.2E, h= 33 km, mb=5.4, Ms=5.0
 SOUTH OF HONSHU, JAPAN

SEP 15 FHC eP 22 07 07.4 07 11
 WKC2 iPd 22 07 12.8 07 20
 WDC iPo 22 07 20.8 07 35
 MIN ePd 22 07 31.5
 ORV eP 22 07 38.0
 BRK 22 07 03.3, 40.0N, 123.9W, h= 25 km, ML=3.2
 EAST OF EUREKA, CALIFORNIA

SEP 16 WDC eP 05 16 15.0
 ORV eP 05 16 16.5
 JAS eP 05 16 18.0
 FRI eP 05 16 19.5
 USGS 05 04 03.9, 10.5S, 165.7E, h=154 km, mb=4.5
 SANTA CRUZ ISLANDS

SEP 16 WKC2 iPo 12 41 20.5
 WDC iPo 12 41 39.3
 MIN iPo 12 41 49.0
 ORV iPo 12 41 51.5
 BKS iPd 12 41 59.0 42 33
 PCC ePd 12 42 02.2
 MHC ePd 12 42 09.6
 GCC ePd 12 42 09.7
 JAS ePd 12 42 13.4 P* 42 15
 SAO iPd 12 42 16.3
 PRS ePo 12 42 21.6
 LLA ePd 12 42 21.6
 FRI ePd 12 42 29.6
 PRI ePo 12 42 30
 BRK 12 41 14.2, 40.3N, 124.6W, h= 25 km, ML=4.7
 OFF COAST SOUTHWEST OF EUREKA, CALIFORNIA

SEP 16 WKC2 iP 12 46 04.0 46 09
 WDC iPo 12 46 23.0 46 42
 MIN iPo 12 46 32.7
 ORV iPo 12 46 35.7
 BKS iPo 12 46 43.6 47 17
 PCC ePd 12 46 45.5
 MHC eP 12 46 53.5
 GCC eP 12 46 54
 JAS eP 12 46 57.7
 SAO eP 12 47 00
 FRI e(P) 12 47 13
 BRK 12 45 58.5, 40.2N, 124.5W, h= 21 km, ML=3.6
 OFF COAST SOUTHWEST OF EUREKA, CALIFORNIA

SEP 17 PRS iPd 02 59 27.4 59 34
 PRI iPd 02 59 29.0 59 37
 LLA iPd 02 59 33.7
 SAO iPd 02 59 35.1
 GCC eP 02 59 41.2
 MHC eP 02 59 44.4
 FRI ePd 02 59 46.6
 PCC eP 02 59 49.2
 JAS ePd 02 59 54.0
 BKS eP 02 59 54.5 00 30
 BRK 02 59 16.8, 35.8N, 121.3W, h= 1 km, ML=3.1
 NORTHWEST OF SAN SIMEON, CALIFORNIA

SEP 17 BKS ePo 08 36 10 46 44 i 36 20 i 36 32 i 37 49
 i 48 10 e 52 00 i 53 10
 i 59 14 Lq 00 06 Lr 04 30
 PZ 0.04 PERIOD 1.0
 LZ 21 20
 LN 10 20
 LE 12 20
 SAO eP 08 36 10.8
 WKC2 eP 08 36 10.8
 MHC eP 08 36 10.8
 PRI eP 08 36 11.0
 JAS ePo 08 36 15.3
 WDC ePo 08 36 15.3
 FRI eP 08 36 15.4
 ORV ePo 08 36 15.6
 MIN eP 08 36 17.0
 MNV ePo 08 36 24.0
 Ms=6.4, DISTANCE=87°
 USGS 08 23 24.6, 22.5S, 170.5E, h= 30 km, mb=5.7, Ms=6.6
 LOYALTY ISLANDS REGION

SEP 17 FRI eP 09 56 14.0
 PRI eP 09 56 15.3
 MNV ePd 09 56 17.0
 SAO eP 09 56 22.2
 JAS eP 09 56 24.4 PoP 59 44
 MHC eP 09 56 27.7
 BKS eP 09 56 34.5 e 56 39 e 59 48
 ORV ePd 09 56 40.1 PoP 59 47
 MIN eP 09 56 45.0
 WDC ePd 09 56 48.8 PoP 59 51
 WKC2 eP 09 57 00
 USGS 09 50 32.4, 16.8N, 99.4W, h= 22 km, mb=5.4
 NEAR COAST OF GUERRERO, MEXICO

SEP 17 BKS eP 10 12 53.5
 JAS eP 10 12 57.0
 WDC eP 10 12 57.0
 FRI eP 10 12 57.1
 ORV eP 10 12 57.2
 USGS 10 00 07.7, 22.3S, 170.5E, h= 33 km, mb=5.4, Ms=5.6
 LOYALTY ISLANDS REGION

SEP 17 WDC eP 11 39 28.3
 JAS eP 11 39 28.4
 FRI eP 11 39 28.5
 ORV eP 11 39 28.6
 MIN eP 11 39 30.0
 USGS 11 26 38.8, 22.4S, 170.6E, h= 33 km, mb=5.1
 LOYALTY ISLANDS REGION

SEP 17 FRI iPo 12 36 20.7 36 32
 MNV iPo 12 36 23.9 36 38
 JAS iP 12 36 28.1 36 45
 LLA iPo 12 36 38.3
 PRI iPd 12 36 40.0
 SAO iPo 12 36 42.7
 MHC ePd 12 36 43.2
 PRS ePo 12 36 44.5
 BKS eP 12 36 49.5 37 24
 PCC eP 12 36 50.7
 ORV ePo 12 36 51.6
 BRK 12 36 04.8, 37.6N, 118.9W, h= 13 km, ML=3.7
 MAMMOTH LAKES AREA, CALIFORNIA

SEP 17 SAO eP 12 53 35.0
 PRI eP 12 53 36.5
 MHC eP 12 53 36.7
 BKS iPd 12 53 37.7 i 53 47
 WKC2 eP 12 53 38.0
 FRI eP 12 53 42.0
 JAS eP 12 53 42.3 pP 55 04
 ORV eP 12 53 43.7 pP 55 05
 WDC eP 12 53 43.8 pP 55 05
 MIN eP 12 53 45.9
 MNV eP 12 53 52.4
 USGS 12 42 25.9, 10.1S, 177.3W, h=356 km, mb=5.2
 FIJI ISLANDS REGION

SEP 18 JAS eP 14 29 07.2
 ORV eP 14 29 16.3
 WDC eP 14 29 21.4
 USGS 14 17 32.1, 35.2S, 110.3W, h= 10 km, mb=5.0
 EASTER ISLAND CORDILLERA

SEP 18 WKC2 iPo 23 34 06.8 34 12
 FHC iPo 23 34 12.7 34 22
 WDC iPo 23 34 25.6 34 40
 MIN iPo 23 34 35.4
 ORV iPo 23 34 38.3
 BKS e(P) 23 34 45
 PCC eP 23 34 49.0
 BRK 23 34 00.4, 40.3N, 124.6W, h= 25 km, ML=3.3
 OFF COAST SOUTHWEST OF EUREKA, CALIFORNIA

SEP 24 PRI oP 08 38 56.6
 FRI oP 08 38 57.5
 MHC oP 08 39 03.8
 JAS oP 08 39 04.0
 ORV oP 08 39 13.0
 WDC oP 08 39 18.0
 USGS 08 26 30.7, 41.5S, 88.5W, h= 10 km, mb=5.0
 WEST CHILE RISE

SEP 24 WDC oP 12 48 24.0
 ORV oP 12 48 34.0
 JAS oP 12 48 50.0
 FRI oP 12 48 59.0
 FRI o(P) 12 49 00
 USGS 12 41 32.6, 67.1N, 164.0W, h= 33 km, mb=4.3
 ALASKA

SEP 24 SAO iPo 14 00 28.6
 GCC iPo 14 00 34.5
 PRS iPd 14 00 36.1 00 43
 LLA iPo 14 00 37.0 00 45
 MHC iPd 14 00 37.8 00 46
 PCC oPo 14 00 43.8
 PRI oPd 14 00 44.9
 BKS oPno 14 00 47.4 01 06
 JAS oPd 14 00 51.3
 FRI oPd 14 00 52.0
 BRK 14 00 26.4, 36.0N, 121.6W, h= 5 km, ML=3.2
 SOUTHWEST OF HOLLISTER, CALIFORNIA

SEP 24 FHC oP 17 32 27.0
 WDC oPd 17 32 32.4 i 32 44
 MIN oP 17 32 36.2
 ORV oPd 17 32 38.5 i 32 50
 BKS oPd 17 32 40.2 e 32 54 e 43 08 Lr 55 30
 MICRON 0.09 PERIOD 0.8
 PZ 0.09
 LZ 2.9
 LN 1.8
 LE 2.1
 MHC oP 17 32 44.1 e 32 46
 SAO oP 17 32 47.2
 JAS oP 17 32 51.5
 PRI oP 17 32 52.4
 FRI oP 17 32 55.2
 USGS 17 20 49.8, 29.0N, 142.2E, h= 33 km, mb=5.7, Ms=5.3
 BONIN ISLANDS REGION

SEP 24 BKS 21 29
 MHC oPKP 21 29 44.0 e 30 30
 FHC oPKP 21 29 44.0
 WDC iPKPo 21 29 44.1 e 30 31 e 34 00
 MIN oPKP 21 29 44.6 e 30 36
 PRI oPKP 21 29 44.6
 ORV oPKP 21 29 44.6 e 30 30
 FRI oPKP 21 29 44.8
 JAS oPKP 21 29 45.0 e 30 32
 USGS 21 09 42.6, 45.7S, 79.9E, h= 33 km, mb=5.4, Ms=5.5
 MID-INDIAN RISE

SEP 25 FRI iPo 06 49 08.7 49 20
 MNV iPo 06 49 12.5
 JAS iPo 06 49 16.2 49 33
 LLA oP 06 49 26.3 49 50
 PRI oP 06 49 27.8
 SAO iPo 06 49 30.6
 MHC oP 06 49 31.2
 PRS oP 06 49 32.5
 GCC oP 06 49 34.8
 BKS oPo 06 49 37.2 50 10
 PCC oP 06 49 38.4
 ORV iP 06 49 41.5
 MIN oP 06 49 53.3
 BRK 06 48 53.2, 37.5N, 118.9W, h= 10 km, ML=3.8
 MAMMOTH LAKES AREA, CALIFORNIA

SEP 25 SAO 14 43
 PRI oP 14 43 27.0 e 43 26
 BKS oP 14 43 27.8 54 08 i 43 45
 Lr 09 10 SS 59 45 SSS 03 00
 MICRON 0.10 PERIOD 1.0
 PZ 0.10
 MHC oP 14 43 28.1
 FRI oP 14 43 31.7
 WKC2 iPo 14 43 31.9 i 43 50
 JAS oP 14 43 32.8 i 43 51 e 47 11
 ORV oP 14 43 34.9 i 43 50 e 47 15
 WDC iPo 14 43 35.9 i 43 48
 MIN oP 14 43 37.1
 MNV oP 14 43 41.2 e 43 59
 USGS 14 30 53.4, 30.0S, 178.0W, h= 45 km, mb=5.9, Ms=5.9
 KERMADEC ISLANDS

SEP 25 FHC oP 15 12 22.0
 WDC oPo 15 12 28.0
 MIN oP 15 12 31.6
 ORV oP 15 12 34.5
 JAS oP 15 12 44.9
 FRI oP 15 12 50.7
 USGS 15 01 22.0, 38.5N, 143.2E, h= 25 km, mb=5.5, Ms=6.1
 OFF EAST COAST OF HONSHU, JAPAN

SEP 25 FHC oP 16 55 01.8
 FRI oP 16 55 01.9
 JAS oP 16 55 02.6
 ORV oPd 16 55 04.3
 WDC iPd 16 55 04.7
 MIN oP 16 55 06.3
 USGS 16 43 20.4, 23.3S, 178.9W, h=359 km, mb=5.2
 SOUTH OF FIJI ISLANDS

SEP 25 FHC oP 23 11 33.5
 WDC oPd 23 11 49.3
 ORV oP 23 12 06.7
 BKS oP 23 12 16.8 13 45
 MICRON 0.07 PERIOD 1.0
 PZ 0.07
 MHC oP 23 12 27.7
 JAS iPo 23 12 31.2
 FRI oP 23 12 45.8
 USGS 23 10 34.5, 43.6N, 127.4W, h= 10 km, mb=4.4
 OFF COAST OF OREGON

SEP 26 WDC oP 17 48 47.7
 MIN oP 17 48 52.2
 ORV oP 17 48 57.8
 JAS oP 17 49 15.0
 FRI oP 17 49 24.3
 USGS 17 43 09.6, 62.0N, 149.2W, h= 58 km, mb=4.7
 CENTRAL ALASKA

SEP 26 WKC2 oP 20 24 12.0
 FHC oP 20 24 14.5 24 44
 WDC iPo 20 24 30.7 25 11
 MIN oP 20 24 41.5
 ORV oP 20 24 43.0
 BKS iPo 20 24 44.2 25 37
 PCC oPo 20 24 45.7
 GCC oP 20 24 53.4
 MHC oP 20 24 53.5
 SAO oP 20 25 00.0
 JAS oP 20 25 03.3 26 00
 PRS oP 20 25 05
 LLA oP 20 25 06
 PRI oP 20 25 13.5
 FRI oP 20 25 15
 BRK 20 23 37.0, 40.4N, 127.2W, h= 25 km, ML=4.0
 OFF COAST WEST-SOUTHWEST OF EUREKA, CALIFORNIA

SEP 30 FRI iPo 14 40 30.1 40 42
MNV iPo 14 40 31.2 40 44
JAS iP 14 40 36.2 40 53
LLA iP 14 40 47.8 41 11
MHC eP 14 40 53.1
SAO iP 14 40 53.3
PCC e(P) 14 41 01
BRK 14 40 13.2, 37.6N, 118.9W, h= 10 km, ML=3.6
MAMMOTH LAKES AREA, CALIFORNIA

SEP 30 FRI iPo 14 50 22.6 50 33
MNV iPo 14 50 26.3
JAS iPo 14 50 29.8 50 46
LLA iPo 14 50 40.5
PRI iPo 14 50 42.3
SAO iPo 14 50 44.8
MHC ePo 14 50 45.2
PRS ePo 14 50 46.8
GCC ePo 14 50 49.2
BKS ePo 14 50 51.6 51 25
PCC iPd 14 50 53.0
ORV iP 14 50 53.7
MIN e(P) 14 51 05 1 51 09
WDC ePo 14 51 12.5
BRK 14 50 06.9, 37.6N, 118.9W, h= 10 km, ML=4.5
MAMMOTH LAKES AREA, CALIFORNIA

SEP 30 FRI iPo 15 21 05.1 21 17
MNV iPo 15 21 05.9 21 19
JAS iPd 15 21 11.2 21 28
LLA iPo 15 21 22.7 21 45 S° 21 49
PRI eP 15 21 24.7
SAO iPd 15 21 27.0
MHC ePd 15 21 27.4 S° 21 56
PRS eP 15 21 29.1
GCC eP 15 21 30
BKS eP 15 21 32.9 22 07
BRK 15 20 48.3, 37.7N, 118.9W, h= 10 km, ML=3.6
MAMMOTH LAKES AREA, CALIFORNIA

SEP 30 FRI iPo 16 34 47.8 35 00
MNV iPo 16 34 52.3
JAS iPd 16 34 55.8
LLA iPo 16 35 05.8
PRI iPd 16 35 08.0
SAO ePd 16 35 10.3
MHC eP 16 35 11.0
PRS eP 16 35 12.2
GCC e(P) 16 35 15
PCC eP 16 35 16.3
BKS eP 16 35 17.8 35 51
ORV e(P) 16 35 20
BRK 16 34 32.7, 37.5N, 118.8W, h= 10 km, ML=4.0
MAMMOTH LAKES AREA, CALIFORNIA

SEP 30 FRI iPo 19 35 28.5 35 40
MNV iPo 19 35 31.4
JAS iPo 19 35 36.3
LLA iPo 19 35 46.3
PRI ePd 19 35 48.3 36 16
SAO iPo 19 35 50.8
MHC ePo 19 35 51.4
PRS eP 19 35 52.1
GCC eP 19 35 54.8
BKS eP 19 35 58.0 36 31
PCC ePd 19 35 58.8
ORV ePd 19 35 59.0
WDC e(P) 19 36 18
BRK 19 35 12.4, 37.5N, 118.8W, h= 10 km, ML=4.2
MAMMOTH LAKES AREA, CALIFORNIA

SEP 30 FRI iPo 19 48 37.4 48 49
MNV iPo 19 48 38.7 48 53
JAS iPo 19 48 43.6 49 00
LLA iPo 19 48 54.9 49 18 S° 49 21
PRI ePo 19 48 56.7
SAO iPo 19 48 59.2
MHC ePo 19 48 59.3 e 49 29
PRS eP 19 49 01.1
GCC ePo 19 49 03.3
BKS ePo 19 49 05.5 49 39
PCC eP 19 49 06.4
ORV e(P) 19 49 08
BRK 19 48 20.9, 37.6N, 118.9W, h= 10 km, ML=3.5
MAMMOTH LAKES AREA, CALIFORNIA

SEP 30 PRI ePo 23 11 38.1 PoP 13 35
FRI iPo 23 11 42.5 PoP 13 36
SAO ePo 23 11 43.3 PoP 13 36
MHC ePo 23 11 49.2 PoP 13 40
MNV ePo 23 11 53.5 PoP 13 40
BKS ePo 23 11 53.8 18 30 PoP 13 41 Lq 22 00 Lr 24 00
PZ 0.12 PERIOD 1.0
ORV iPo 23 12 06.1 PoP 13 46
MIN eP 23 12 11.5 PoP 13 48
WDC iPo 23 12 14.2 PoP 13 49
FHC iPo 23 12 19.5
USGS 23 03 47.5, 4.8S, 112.0W, h= 10 km, mb=5.9, Ms=5.2
EAST CENTRAL PACIFIC OCEAN

OCT 01 FRI iPo 01 04 32.4 04 45
LLA iPo 01 04 50.0 05 16
PRI ePo 01 04 52.0
SAO iPo 01 04 54.2
MHC ePo 01 04 54.7
PRS iPo 01 04 56.6
BKS eP 01 05 00.7 05 33
PCC eP 01 05 01.7
ORV e(P) 01 05 05
BRK 01 04 15.6, 37.6N, 118.8W, h= 10 km, ML=3.6
MAMMOTH LAKES AREA, CALIFORNIA

OCT 01 FRI iPo 07 02 22.4
LLA iPo 07 02 38.2
PRI ePd 07 02 40.4
SAO iPd 07 02 43.0
MHC ePd 07 02 43.5
PRS iPd 07 02 45.0
GCC ePd 07 02 47.3
BKS eP 07 02 50.0 03 23
PCC ePd 07 02 50.9
ORV iPo 07 02 53.0
BRK 07 02 04.5, 37.5N, 118.9W, h= 10 km, ML=4.5
MAMMOTH LAKES AREA, CALIFORNIA

OCT 01 FRI iPo 09 14 12.7 14 24
LLA iPo 09 14 30.7 14 56
PRI ePd 09 14 32.7 14 59
SAO iPo 09 14 35.3
MHC ePo 09 14 35.7
PRS ePo 09 14 37.0
GCC ePd 09 14 39.7
BKS eP 09 14 42.5
PCC ePd 09 14 43.3
ORV e(P) 09 14 46
BRK 09 13 57.4, 37.5N, 118.8W, h= 10 km, ML=3.5
MAMMOTH LAKES AREA, CALIFORNIA

OCT 01 FBC e(P) 12 25 47
WDC iPo 12 25 48.5
MIN ePo 12 25 50.5
ORV iPo 12 25 54.9
BKS ePo 12 26 06.9
MICRON 0.10 PERIOD 1.0
MHC ePo 12 26 10.0
FRI ePo 12 26 11.5
SAO ePo 12 26 13.0
PRI ePo 12 26 17.8
USGS 12 14 56.7, 73.3N, 54.8E, h= 0 km, mb=5.9, Ms=3.8
NOVAYA ZEMLYA

OCT 01 FRI iPo 13 22 53.0 23 05
LLA iPo 13 23 10.5 23 35
PRI iPo 13 23 12.3
SAO iPo 13 23 14.6
MHC ePo 13 23 14.7
PRS ePo 13 23 17.0
GCC ePo 13 23 18.6
BKS ePo 13 23 20.8
ORV e(P) 13 23 22
PCC ePd 13 23 22.2
BRK 13 22 36.1, 37.6N, 118.8W, h= 10 km, ML=3.7
MAMMOTH LAKES AREA, CALIFORNIA

OCT 01 FRI eP 16 15 44.7
BKS eP 16 15 46.0 26 10 Lq 39 10 Lr 43 00
MICRON 0.06 PERIOD 0.8
MHC eP 16 15 46.2
FRI eP 16 15 48.0
WKC2 eP 16 15 49.2
JAS iP 16 15 50.6
ORV eP 16 15 51.0
WDC iPd 16 15 52.4
MIN 16 15
e 16 04
e 15 54
USGS 16 02 51.6, 33.9S, 179.6W, h= 33 km, mb=5.6, Ms=5.7
SOUTH OF KERMADEC ISLANDS

OCT 01 FBC eP 17 13 49.3
WDC iPd 17 13 56.9
MIN eP 17 14 01.8
ORV iPd 17 14 05.7
BKS ePd 17 14 10.7 21 50 Lq 27 20 Lr 30 00
MICRON 0.24 PERIOD 0.9
MHC eP 17 14 15.6
JAS iPd 17 14 18.6
SAO eP 17 14 19.1
FRI ePd 17 14 25.5
MIN 17 14
e 14 26
PRI eP 17 14 26.3
USGS 17 04 44.9, 50.7N, 160.4E, h= 33 km, mb=5.9, Ms=5.7
KURIL ISLANDS REGION

OCT 01 MNV iPo 19 00 37.2
FRI iPo 19 00 48.9
JAS iPo 19 00 57.9
PRI ePo 19 01 01.5
LLA eP 19 01 02.4
SAO eP 19 01 07.9
MHC eP 19 01 10.5
ORV eP 19 01 16.4
BKS ePo 19 01 18.4
WDC eP 19 01 32.8
e 01 30
ML=5.1, UNDERGROUND NUCLEAR EXPLOSION (PALIZA), N.T.S.
USGS 19 00 00.1, 37.1N, 116.0W, h= 0 km, mb=4.9
SOUTHERN NEVADA

OCT 01 LLA iPo 19 22 34.1
SAO iPo 19 22 34.6
PRS iPd 19 22 35.3 22 39
PRI iPd 19 22 41.8
GCC iP 19 22 44.5 22 57
MHC eP 19 22 46.0
FRI iP 19 22 52.1
JAS iPo 19 22 56.2 23 15
BKS eP 19 22 59.5
BRK 19 22 29.7, 36.6N, 121.2W, h= 5 km, ML=2.7
SOUTHEAST OF HOLLISTER, CALIFORNIA

OCT 01 FRI iPd 22 05 23.0 05 34
MNV eP 22 05 28.2
JAS iPd 22 05 31.2 05 48
LLA ePd 22 05 41.0 06 05
PRI eP 22 05 42.9
SAO eP 22 05 45.4
MHC eP 22 05 46.5
PRS eP 22 05 47.5
BKS eP 22 05 53.4
PCC eP 22 05 53.7
BRK 22 05 08.2, 37.5N, 118.9W, h= 17 km, ML=3.5
MAMMOTH LAKES AREA, CALIFORNIA

OCT 02 BKS iPo 05 05 17.6 05 24
MHC eP 05 05 20.3 05 29
PCC eP 05 05 21.9
JAS iPo 05 05 26.7
ORV iPo 05 05 36.1
BRK 05 05 09.3, 37.9N, 121.7W, h= 7 km, ML=2.5
NORTHEAST OF LIVERMORE, CALIFORNIA

OCT 02 FRI iPo 07 37 39.5 37 51
MNV iPo 07 37 40.3
JAS iPo 07 37 45.7
LLA iPo 07 37 57.0
PRI eP 07 37 58.8
SAO iPo 07 38 01.1
MHC iPo 07 38 01.3
PRS iPo 07 38 03.4
GCC iPo 07 38 05.4
BKS iPo 07 38 07.6 38 43
PCC eP 07 38 08.6
BRK 07 37 22.1, 37.6N, 118.8W, h= 10 km, ML=4.1
MAMMOTH LAKES AREA, CALIFORNIA

OCT 02 FHC eP 15 25 11.2
WDC iPd 15 25 16.6
MIN eP 15 25 20.0
ORV iPd 15 25 22.0
BKS eP 15 25 22.8
MICRON 0.05 PERIOD 1.0
MHC ePd 15 25 25.9
SAO eP 15 25 28.0
JAS iPd 15 25 29.5
PRI ePd 15 25 32.3
FRI ePd 15 25 34.0
MNV eP 15 25 37.6
USGS 15 13 26.8, 21.8N, 144.4E, h=113 km, mb=5.0
MARIANA ISLANDS REGION

OCT 02 FRI iPo 16 14 40.6 14 53
JAS iPo 16 14 46.8 15 04
LLA iPo 16 14 58.2
PRI ePd 16 15 00.2
MHC eP 16 15 02.5
SAO iPd 16 15 02.5
PRS iPd 16 15 04.8
BKS eP 16 15 08.8
ORV iPd 16 15 13.3
BRK 16 14 23.4, 37.6N, 118.8W, h= 10 km, ML=3.5
MAMMOTH LAKES AREA, CALIFORNIA

OCT 02 PRI ePd 23 05 46.5
FRI ePd 23 05 47.2
MNV eP 23 05 52.5
JAS iPd 23 05 58.2
MHC eP 23 06 00.0
BKS eP 23 06 08.5
e 12 58 Lr 13 16
MICRON 0.10 PERIOD 1.4
LZ 1.4 20
LN 1.4 20
LE 1.1 20

ORV iPd 23 06 14.8
MIN eP 23 06 20.4
WDC iPd 23 06 24.2
USGS 23 00 44.7, 18.0N, 104.5W, h= 58 km, mb=5.2
NEAR COAST OF JALISCO, MEXICO

OCT 03 FRI iPo 01 20 54.4 21 06
MNV iPd 01 20 55.8 21 09
JAS iPo 01 21 01.4 21 18
LLA iPo 01 21 12.2
PRI iPo 01 21 13.8
SAO iPd 01 21 16.7
MHC ePo 01 21 16.8
PRS iPo 01 21 18.6
GCC ePo 01 21 20.8
BKS iPd 01 21 23.5
PCC eP 01 21 24.3
BRK 01 20 37.3, 37.6N, 118.8W, h= 10 km, ML=4.0
MAMMOTH LAKES AREA, CALIFORNIA

OCT 03 WDC iPd 07 32 15.8
ORV iPd 07 32 32.2
JAS iPd 07 32 34.3
FRI 07 32
e 32 39
e 32 40
USGS 07 21 48.1, 43.8N, 146.6E, h= 75 km, mb=5.1
KURIL ISLANDS

OCT 03 FRI iPo 14 41 11.3 41 23
MNV iPd 14 41 14.3 41 27
JAS iPd 14 41 18.6 41 35
LLA iPo 14 41 29.0
PRI iPo 14 41 30.6
SAO iPd 14 41 33.3
MHC ePd 14 41 33.8
PRS ePo 14 41 35.5
GCC eP 14 41 37.5
BKS eP 14 41 40.4 42 15
PCC ePd 14 41 41.8
ORV e(P) 14 41 52
BRK 14 40 55.0, 37.6N, 118.9W, h= 10 km, ML=3.8
MAMMOTH LAKES AREA, CALIFORNIA

OCT 04 FHC eP 00 14 46.7
WDC iPd 00 14 49.7
BKS eP 00 14 51.0 26 03 Lq 39 36 Lr 44 00
MICRON 0.08 PERIOD 0.9
PZ 15 20
LZ 9 20
LE 7 20
MIN eP 00 14 51.9
MHC eP 00 14 52.0
SAO eP 00 14 52.0
ORV iPd 00 14 52.3
JAS iPd 00 14 56.0
PRI eP 00 14 56.0
FRI ePd 00 14 58.4
Ms=6.4, DISTANCE=94°
USGS 00 01 32.7, 4.6S, 146.1E, h= 33 km, mb=5.9, Ms=6.3
EAST PAPUA NEW GUINEA REGION

OCT 04 WDC ePo 04 22 27.4
MIN eP 04 22 31.5
ORV ePo 04 22 34.0
BKS eP 04 22 37.4
MICRON 0.03 PERIOD 1.0
PZ 04 22 41.5
LZ 04 22 43.3
LN 04 22 43.8
LE 04 22 49.7
FRI eP 04 22 49.8
USGS 04 11 03.2, 35.2N, 141.0E, h= 38 km, mb=5.2, Ms=5.0
NEAR EAST COAST OF HONSHU, JAPAN

OCT 04 FHC iPo 10 40 24.5
BKS ePo 10 40 26.6 Lq 06 50
MICRON 0.22 PERIOD 0.9
PZ 15 20
LZ 11 20
LN 11 20
LE 11 20
SAO eP 10 40 27.8
MHC ePo 10 40 28.4
WDC iPo 10 40 28.9 PP 43 51
ORV iPo 10 40 30.9 PP 43 52
MIN iPo 10 40 31.2
PRI ePo 10 40 31.2
JAS iPo 10 40 33.2 PP 43 57
FRI iPo 10 40 34.9
MNV iPo 10 40 42.5
USGS 10 27 42.0, 9.4S, 159.3E, h= 24 km, mb=5.7, Ms=5.4
SOLOMON ISLANDS

OCT 04 PRI ePo 17 18 12.2
FRI eP 17 18 16.1
SAO eP 17 18 17.5
MHC eP 17 18 23.3
JAS ePo 17 18 25.6
ORV ePo 17 18 39.9
WDC eP 17 18 48.1
FHC eP 17 18 56.2
e 20 20
e 20 23
USGS 17 10 22.8, 4.7S, 111.9W, h= 10 km, mb=5.1
EAST CENTRAL PACIFIC OCEAN

OCT 04 FRI eP 20 13 03.1
MNV eP 20 13 03.4
PRI ePo 20 13 06.0
SAO eP 20 13 10.6
JAS ePd 20 13 11.5
MHC eP 20 13 15.2
BKS eP 20 13 19.7
MICRON 0.07 PERIOD 0.8
PZ 20 13 23.5
LZ 20 13 28.9
LN 20 13 38.7
LE 20 13 38.7
USGS 20 03 53.0, 1.5S, 77.4W, h=204 km, mb=5.2
ECUADOR

OCT 05 FHC iPo 04 38 48.9
WDC iPo 04 38 53.5
MIN ePo 04 38 56.8
ORV iPo 04 39 00.2
BKS eP 04 39 05.2
MICRON 0.02 PERIOD 0.8
PZ 04 39 08.9
JAS iPo 04 39 10.3
SAO eP 04 39 11.2
FRI ePo 04 39 15.9
MNV ePo 04 39 15.9
PRI ePo 04 39 17.0
USGS 04 28 13.2, 42.8N, 131.3E, h=534 km, mb=4.7
EASTERN U.S.S.R.-NORTHEASTERN CHINA BORDER REGION

OCT 17 WDC eP 12 21 53.5 PP 25 48
BKS 12 21 32 30 e 22 01 SeS 34 36 S 38 56
SSS 43 42 Lq 48 42 Lr 52 07

MICRON PERIOD
LZ 4.4 20
LN 0.3 20
LE 3.8 20

ORV eP 12 21 56.5 PP 25 50
JAS e(P) 12 21 59 PP 25 52
FRI e(P) 12 22 03

M_s=5.9, DISTANCE=97°
USGS 12 08 26.3, 3.2S, 142.3E, h= 26 km, mb=5.9, Ms=5.8
NEAR NORTH COAST OF PAPUA NEW GUINEA

[illegible]

ORV iPKP 14 54 46.6
 MIN oPKP 14 54 47.4
 WDC iPKP 14 54 48.7
 FHC oPKP 14 54 52.0
 Ms=5.8, DISTANCE=122°
 USGS 14 35 40.8, 45.5S, 15.2W, h= 10 km, mb=5.6, Ms=6.0
 SOUTH ATLANTIC RIDGE

OCT 17 FRI eP 20 49 50.8
JAS eP 20 49 55.5
MIN eP 20 49 59.7
ORV eP 20 49 59.7
MHC eP 20 50 02.4
WDC eP 20 50 02.5
FHC eP 20 50 12.0
USGS 20 38 56.2, 16.1N, 46.7W, h= 10 km, mb=5.0, Ms=4.7
NORTH ATLANTIC RIDGE

OCT 17 WDC eP 21 10 22.5
ORV eP 21 10 27.5
JAS eP 21 10 35.3
FRI eP 21 10 39.8

USGS 20 57 27.6, 24.7N, 122.6E, h=107 km, mb=4.5
TAIWAN REGION

0CT 18	FHC	ePo	04 09 54.8		
	WDC	iPo	04 09 55.8		
	MIN	iPo	04 09 57.7		
	ORV	iPo	04 10 01.2		
	BKS	ePo	04 10 09.4		
				MICRON	PERIOD
				0.08	0.6
	MNV	iPo	04 10 10.1		
	JAS	iPo	04 10 10.2		
	MHC	ePo	04 10 12.5		
	SAO	ePo	04 10 14.9		
	FRI	ePo	04 10 15.1		
	PRI	ePo	04 10 19.2		
			USGS 03 57 02.6, 49.9N, 78.9E, h=	0 km, mb=6.0, Ms=4.3	
			UNDERGROUND NUCLEAR EXPLOSION		
			EASTERN KAZAKH. S.S.R.		

OCT	18	FRI	eP	04	40	03.5							
		PRI	eP	04	40	07.5							
		JAS	ePo	04	40	11.0				SeP	45	17	
		SAO	eP	04	40	13.5							
		MHC	eP	04	40	16.7							
		ORV	iPo	04	40	21.3							
		BKS	eP	04	40	22.1	48	06	Lq	52	02	Lr	S8 23
						MICRON			PERIOD				
						PZ	0.08		0.9				
						LZ	1.8		20				
						LN	7		20				
						LE	2.6		20				
		MIN	eP	04	40	23.3							
		WDC	ePo	04	40	27.0							
		FHC	ePo	04	40	37.8							
						USGS	04	31	02.7,	8.1N,	72.5W,	h=	S4 km, mb=S.4
						VENEZUELA							

OCT 18	SAO	eP	25 28 45.6			
	BKS	ePd	15 28 46.2			
				MICRON	PERIOD	29 06
			PZ			
			0.04		0.9	
	PRI	eP	15 28 47.0		e	29 06
	MHC	eP	15 28 47.5		e	29 06
	WKC2	eP	15 28 50		e	29 07
	FRI	eP	15 28 51.9		e	29 10
	JAS	ePc	15 28 52.6		e	29 11
	ORV	ePc	15 28 54.1		e	29 12
	WDC	ePc	15 28 54.6		e	29 12
	MIN	eP	15 28 56.1			
			USGS 15 17 17.6, 24.7S, 179.6E, h=530 km, mb=5.0			
			SOUTH OF FIJI ISLANDS			

OCT 19 WDC oP 14 35 26.5
MIN oP 14 35 30.5
ORV oP 14 35 36.0
JAS oP 14 35 52.5
FRI oP 14 36 01.5
PRI oP 14 36 06.7
USGS 14 28 37.0, 67.8N, 161.5W, h= 15 km, mb=4.8, Ms=4.6
ALASKA

OCT 19	FHC		22 17	e 17 24	
	WDC	eP	22 17 28.2	i 17 34	
	MIN		22 17	e 17 31	e 17 46
	ORV	eP	22 17 32.4		
	MHC	eP	22 17 35.3	e 17 52	
	JAS	eP	22 17 38.3		
	FRI	eP	22 17 42.3	e 17 58	
	USGS		22 04 39.4	10.7N, 140.5E,	h= 55 km, mb=5.3
				WEST CAROLINE ISLANDS	

OCT 19 FHC iP 23 34 45.5 i 34 53
WKC2 eP 23 34 49.5 i 35 00
WDC iPo 23 34 49.5 35 00
MIN iPo 23 35 00.7 35 22
ORV iPc 23 35 07.0 i 35 30
BRK 23 34 37.3, 40.7N, 123.5W, h= 24 km, ML=3.0
WEST OF WEAVERVILLE, CALIFORNIA

OCT 20 JAS 0P 06 55 02.4
ORV 0P 06 55 18.0
WDC 0P 06 55 26.6
USGS 06 49 09.1, 16.8N, 98.5W, h= 46 km, mb=4.9
NEAR COAST OF GUERRERO, MEXICO

OCT 20 JAS oP 07 21 32.7
MHC 07 21
ORV oP 07 21 44.1 e 21 36
MIN 07 21
WDC oP 07 21 50.5 e 21 47
USGS 07 12 30.2, 2.7N, 79.8W, h= 33 km, mb=5.0, Ms=3.7
SOUTH OF PANAMA

OCT 15 BKS 10 31 01.0, 21.5S, 175.4W, h= 58 km, mb=4.7
 MHC eP 10 31 51.3
 JAS eP 10 31 56.7
 FRI eP 10 31 56.1
 ORV eP 10 31 59.1
 WDC eP 10 31 59.3
 USGS 10 20 01.0, 21.5S, 175.4W, h= 58 km, mb=4.7
 TONGA ISLANDS

OCT 15	FRI	18 56	e 56 21	
	PRI	18 56	e 56 23	e 56 53
	JAS	18 56 28.0	e 56 59	
	BKS	18 56 35.8	e 57 06	
	ORV	18 56 38.7		
	WDC	18 56 44.0	i 57 15	
	FHC	18 56 52.3	e 57 20	
		USGS 18 45 29.7, 14.9S,	71.6W, h=126 km, mb=4.9	
		PERU		

OCT 16

SAO	eP	01	18	43.3	
PRI	eP	01	18	44.6	
BRK		01	18		e 18 45
MHC	eP	01	18	45.3	
FRI	eP	01	18	50.4	
JAS	eP	01	18	51.3	
ORV	eP	01	18	52.7	
WDC	eP	01	18	53.5	
MIN	eP	01	18	55.0	

USGS 01 07 17.5, 17.8S, 174.0W, h= 76 km, mb=5.0
TONGA ISLANDS

0CT 16	FRI	oP	03 38	00.9		PPP 43 26	PKKP 56 30	PKPPKP 04 44
	PRI	oPo	03 38	01.7		PKKP 56 32		
	MNV	oP	03 38	04.2				
	SAO	oP	03 38	05.3				
	JAS	iPo	03 38	07.8				
	MHC	oP	03 38	09.0				
	BKS	oPo	03 38	12.3	48 37	PP 41 36	PS 49 38	e 50 08
						SS 54 22	e 56 48	SSS 57 48
						SsS 00 04	e 01 10	Lq 01 52
				MICRON	PERIOD			
				3.45	2.0			
		PZ			20			
		LZ		130	20			
		LN		170	20			
		LE		110	20			
	ORV	iPo	03 38	16.7	PKKP 56 24	PKPPKP 04 38		
	MIN	oP	03 38	18.7				
	WDC	iPo	03 38	21.8	PPP 43 30	PKPPKP 04 37		
	FHC	oP	03 38	27.6				

"T" Phase recorded at 04:08.
 $M_s=7.5$, DISTANCE=86°
 USGS 03 25 42.2, 33.1S, 73.1W, h= 33 km, mb=6.2, $M_s=7.2$
 OFF COAST OF CENTRAL CHILE

OCT 16	FRI	oPKP	21 20 23.0	
	FRI	oPKP	21 20 23.8	
	SAO	oPKP	21 20 24.5	
	JAS	oPKP	21 20 25.8	
	MHC	oPKP	21 20 26.5	
	BKS	oPKP	21 20 27.6	
				Lr 01 46
			MICRON	PERIOD
			0.11	0.8
	ORV	oPKP	21 20 28.9	
	MIN	oPKP	21 20 29.5	
	WDC	oPKP	21 20 30.5	
	FHC	oPKP	21 20 33.3	o 21 19
		USGS	21 01 44.0, 56.4S, 27.3W,	h=122 km, mb=5.7
			SOUTH SANDWICH ISLANDS REGION	

OCT 17	FHC	ePdIf	06 58 59.5		PKP	03 05		
	WDC	ePdIf	06 59 03.5		pP	59 53		
	BKS	(PdIf)	06 59 05	12 04	PKP	03 06	PKP	03 06 e 03 35
					SS	19 48	PP	04 28 e 09 25
					Lq	29 36	e	25 29 e 27 05
							Lr	36 00
		MICRON		PERIOD				
		PZ	0.06	1.2				
		LZ	3.6	20				
		LN	1.2	20				
		LE	3.3	20				
MIN	ePdIf	06 59 05.3			PKP	03 07		
ORV	ePdIf	06 59 05.7			pP	59 54	PKP	03 07 e 03 37
MHC	ePdIf	06 59 06.5			PKP	03 09		
JAS	ePdIf	06 59 08.5			PKP	03 10	PKKP	14 10
PRI	ePdIf	06 59 11.0			PKP	03 11		
FRI	ePdIf	06 59 14.0			PKP	03 11		
MNV	06 59				PKP	03 13		
	USGS	06 44 55.1,						
	BANDA	SEA						
					7.1S, 129.0E,			
					h=179 km, mb=6.1			

OCT 20 SAO iPo 14 02 37.9
BKS iPo 14 02 38.8
PZ 0.30 PERIOD 0.9
MHC iPo 14 02 39.4
PRI iPo 14 02 39.6
FHC iPo 14 02 42.3
JAS iPo 14 02 44.8
PRI iPo 14 02 45.5
WDC iPo 14 02 45.6
ORV iPo 14 02 45.8
MIN eP 14 02 47.7
MNV iPo 14 02 54.5
USGS 13 51 45.4, 18.2S, 179.3W, h=636 km, mb=5.6
FIJI ISLANDS REGION

OCT 20 FHC eP 18 36 33
WDC eP 18 36 46
ORV iPo 18 37 04.6
BKS eP 18 37 16.5 37 45
PZ 0.02 PERIOD 0.8
MHC iPo 18 37 32.0
JAS iPo 18 37 32.0
PRI ePo 18 37 46.4
PRI ePo 18 37 37 50
USGS 18 35 46.7, 43.1N, 126.3W, h= 10 km, mb=4.1
OFF COAST OF OREGON

OCT 21 JAS eP 03 11 04
ORV eP 03 11 04.8
WDC eP 03 11 05

OCT 21 MHC iPo 10 42 11.4
GCC iPo 10 42 17.5
PCC iPo 10 42 20.7
SAO iPo 10 42 21.5
BKS iPo 10 42 23.5 42 34
LLA eP 10 42 26.8
PRS ePo 10 42 28.7
JAS ePo 10 42 31.1 42 47
PRI ePo 10 42 37.5
BRK 10 42 10.0, 37.3N, 121.7W, h= 7 km, ML=2.7
EAST OF SAN JOSE, CALIFORNIA

OCT 22 PRI ePo 11 52 08.3
PRI eP 11 52 09.7
MNV eP 11 52 09.9
SAO eP 11 52 12
JAS iPo 11 52 14.3
MHC eP 11 52 15
BKS ePo 11 52 18.8
PZ 0.01 PERIOD 0.8
ORV iPo 11 52 23.2
WDC iPo 11 52 28.4
FHC eP 11 52 34.3
USGS 11 39 47.6, 33.3S, 73.1W, h= 26 km, mb=5.1, Ms=4.7
OFF COAST OF CENTRAL CHILE

OCT 22 FHC eP 14 11 17.4
WDC eP 14 11 19.3
MIN eP 14 11 22.5
ORV eP 14 11 26.5
BKS ePo 14 11 36.6
PZ 0.03 PERIOD 0.8
JAS eP 14 11 38.8
MHC eP 14 11 39.9
SAO eP 14 11 42.9
PRI eP 14 11 44.3
PRI eP 14 11 48.7
USGS 13 59 57.3, 63.8N, 97.5E, h= 0 km, mb=4.9
CENTRAL SIBERIA

OCT 23 WDC eP 02 05 39.7
MIN eP 02 05 45.0
ORV eP 02 05 45.0
BKS eP 02 05 53.0
JAS eP 02 05 53.0
PRI eP 02 05 58.7
USGS 01 53 44.1, 24.6N, 141.7E, h= 79 km, mb=4.5
VOLCANO ISLANDS REGION

OCT 23 PRI iPo 17 29 01.7
PRS iPo 17 29 07.2
LLA iPo 17 29 09.0
PRI iPo 17 29 09.2
SAO iPo 17 29 12.2
GCC ePo 17 29 18.3
MHC ePo 17 29 20.5
JAS ePo 17 29 24.5
PCC e(P) 17 29 26
BKS iPo 17 29 30.5
ORV iPo 17 29 49.8
MIN eP 17 30 02
WDC eP 17 30 06
ML=4.3
PAS 17 28 16.9, 33.6N, 119.0W, h= 12 km, ML=4.6
SOUTHERN CALIFORNIA

OCT 23 PRI iPo 19 16 37.1
PRS iPo 19 16 42.7
LLA iPo 19 16 44.4
PRI iPo 19 16 44.6
SAO iPo 19 16 47.6
GCC ePo 19 16 53.8
MHC ePo 19 16 56.1
JAS iPo 19 17 00.3
PCC eP 19 17 01.3
BKS ePo 19 17 05.8
MNV eP 19 17 17
ORV iPo 19 17 25.1
MIN eP 19 17 37.5
WDC eP 19 17 40
ML=4.3
PAS 19 15 52.5, 33.6N, 119.0W, h= 6 km, ML=4.6
SOUTHERN CALIFORNIA

OCT 24 MHC iPo 03 03 18.1
GCC iPo 03 03 24.1
PCC iPo 03 03 26.7
SAO iPo 03 03 28.7
BKS eP 03 03 29.5 03 39
LLA eP 03 03 33.7
PRS ePo 03 03 35.5
JAS iPo 03 03 37.8 03 51
PRI ePo 03 03 44.4
ORV eP 03 03 55
BRK 03 03 16.4, 37.4N, 121.7W, h= 8 km, ML=2.7
EAST OF SAN JOSE, CALIFORNIA

OCT 24 SAO eP 05 09 31.5
BRK eP 05 09 32.9
PRI eP 05 09 33.0
MHC ePo 05 09 33.5
PRI ePo 05 09 37.8
JAS ePo 05 09 38.6
ORV ePo 05 09 40.4
WDC ePo 05 09 41.0
MIN eP 05 09 42.5
USGS 04 57 53.2, 24.9S, 179.0W, h=386 km, mb=5.2
SOUTH OF FIJI ISLANDS

OCT 24 FHC eP 05 51 11.0
WDC ePo 05 51 16.1
BKS eP 05 51 21.0
ORV ePo 05 51 21.0
MHC eP 05 51 24.3
JAS ePo 05 51 27.8
PRI eP 05 51 30.3
PRI eP 05 51 32.0
USGS 05 39 28.4, 17.7N, 145.7E, h=215 km, mb=4.8
MARIANA ISLANDS

OCT 24 WDC eP 08 18 18.9
ORV eP 08 18 28.5
JAS eP 08 18 42
PRI eP 08 18 50
USGS 08 11 17.9, 51.8N, 173.2W, h= 41 km, mb=4.7
ANDREANOF ISLANDS, ALEUTIAN ISLANDS

OCT 24 MHC ePo 09 39 31.0
PRI ePo 09 39 36.3
JAS iPo 09 39 36.9
ORV iPo 09 39 38.4
WDC iPo 09 39 38.6
MIN eP 09 39 40.7
USGS 09 28 12.5, 16.4S, 173.8W, h=106 km, mb=5.0
TONGA ISLANDS

OCT 24 WKC2 iP 16 10 55.0 11 01
FHC iP 16 11 00.7 11 11
WDC iPo 16 11 13.7 11 34
MIN ePo 16 11 23.3
ORV ePo 16 11 26.2
BKS eP 16 11 34.5
PCC eP 16 11 37.0
MHC eP 16 11 44.1
GCC eP 16 11 44.6
SAO ePd 16 11 50.5
BRK 16 10 46.9, 40.3N, 124.8W, h= 22 km, ML=3.1
OFF COAST SOUTHWEST OF EUREKA, CALIFORNIA

OCT 25 PRI iPo 03 27 32.7
PRI iPo 03 27 33.6
MNV ePo 03 27 36.8
SAO eP 03 27 40.8
JAS iPo 03 27 43.2
MHC ePo 03 27 46.3
BKS ePo 03 27 52.7 32 35
PZ 0.30 PERIOD 1.4
LN 510 20
LE 930 20
ORV iPo 03 27 59.8
MIN eP 03 28 05.0
WDC iPo 03 28 08.5
FHC ePo 03 28 20.0
Ms=7.4, DISTANCE=29°
USGS 03 22 15.5, 18.0N, 102.1W, h= 33 km, mb=6.2, Ms=7.3
MICOACAN, MEXICO

OCT 25 PRI eP 07 45 09.5
PRI eP 07 45 10.5
JAS eP 07 45 20.2
MHC eP 07 45 23.0
ORV eP 07 45 35.8
WDC eP 07 45 44
USGS 07 39 52.2, 18.0N, 102.0W, h= 33 km, mb=4.5
MICOACAN, MEXICO

OCT 25 WKC2 iPo 17 18 08.6 18 14
FHC iPo 17 18 14.2 18 23
WDC iPo 17 18 27.1 18 46
MIN iPo 17 18 36.9
ORV iPo 17 18 39.4
BKS ePd 17 18 47.4 19 21
PCC ePo 17 18 50.2
MHC ePd 17 18 57.3
GCC ePo 17 18 57.7
JAS ePd 17 19 02.2
SAO iPo 17 19 04.0
LLA eP 17 19 09.5
PRS eP 17 19 09.7
PRI eP 17 19 17
PRI ePd 17 19 17.5
BRK 17 18 01.8, 40.3N, 124.6W, h= 25 km, ML=3.8
OFF COAST SOUTHWEST OF EUREKA, CALIFORNIA

OCT 25 SAO iPo 23 08 59.8
GCC iPo 23 09 06.4
PRS iPo 23 09 07.5
LLA iPo 23 09 08.3
MHC iPo 23 09 09.4 09 17
PCC iPo 23 09 15.6 09 29
PRI ePo 23 09 16.4
BKS ePo 23 09 21.1
JAS ePo 23 09 22.8 09 42
PRI ePd 23 09 23.5 09 43
BRK 23 08 58.1, 36.8N, 121.5W, h= 5 km, ML=2.7
WEST-SOUTHWEST OF HOLLISTER, CALIFORNIA

OCT 28 PRI ePo 04 45 17.5
SAO eP 04 45 20.4
PRI iPo 04 45 20.9
MHC eP 04 45 25.9
JAS ePo 04 45 28.0
BKS e(P) 04 45 30 54 50
e 45 37
e 59 21
Lr 07 37
e 45 40
e 03 08
Lq 04 20

MICRON PERIOD
LZ 37 20
LN 34 20
LE 7 20
MNV ePo 04 45 30.0
ORV iPo 04 45 38.2
MIN eP 04 45 42.3
WDC iPo 04 45 44.7
Ms=6.6, DISTANCE=75°
USGS 04 34 17.7, 31.3S, 110.6W, h= 10 km, mb=6.2, Ms=6.2
EASTER ISLAND REGION

OCT 29 WKC2 eP 03 17 53.9
FHC iPo 03 17 56.0
WDC iPo 03 18 12.8 18 54
MIN eP 03 18 23.1
ORV eP 03 18 24.4
BKS ePd 03 18 26.4 19 19
PCC ePd 03 18 27.8
GCC eP 03 18 35.2
MHC ePo 03 18 35.9
SAO eP 03 18 41.9
PRS eP 03 18 43.3
JAS ePo 03 18 44.5
PRI eP 03 18 57.1
BRK 03 17 17.8, 40.4N, 127.3W, h= 25 km, ML=4.3
OFF COAST WEST-SOUTHWEST OF EUREKA, CALIFORNIA

OCT 29 MHC ePo 12 19 43.9
JAS iPo 12 19 48.7
PRI ePo 12 19 48.8
WDC ePo 12 19 48.9
ORV iPo 12 19 49.1
USGS 12 06 47.6, 23.6S, 169.1E, h= 20 km, mb=5.1
LOYALTY ISLANDS REGION

Seismology
Centre

OCT 29	WKC2	iPo	12 31 04.5																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
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NOV 06 FHC eP 17 01 06.0
BRK eP 17 01 11.0
BKS 17 01 12 04 e 01 15 PP 05 04 PPS 14 30
MICRON PERIOD
LZ 60
LN 20
LE 20
20
WDC ePo 17 01 11.1
MIN eP 17 01 13.5
MHC eP 17 01 13.8
ORV ePo 17 01 13.8
BKS eP 17 01 15.5 12 04 Lr 30 48
PRI eP 17 01 17.9
JAS eP 17 01 18.1
FRI eP 17 01 20.3
PKKP 18 36
Ms=6.9, DISTANCE=100°
USGS 16 47 49.1, 3.6S, 143.8E, h= 33 km, mb=6.2, Ms=6.9
NEAR NORTH COAST OF PAPUA, NEW GUINEA

NOV 07 FRI eP 03 42 06.1
PRI eP 03 42 07.0
SAO eP 03 42 10.7
JAS iPo 03 42 12.8
MHC eP 03 42 14.3
BKS iPd 03 42 18.8 52 36 PP 45 55 e 52 46 SeS 53 12
MICRON PERIOD
LZ 1.60
LN 15
LE 11
16
20
ORV iPo 03 42 21.2
MIN eP 03 42 24.0
WDC iPo 03 42 26.8
FHC eP 03 42 33.0
PKKP 59 52 PKPPKP 09 05
PKKP 59 50 PKPPKP 09 03
Ms=6.5, DISTANCE=86°
USGS 03 29 51.0, 32.2S, 71.3W, h= 65 km, mb=6.2, Ms=6.8
NEAR COAST OF CENTRAL CHILE

NOV 07 FHC ePKP 10 03 22.3
WDC ePKP 10 03 22.5
MIN ePKP 10 03 24.3
ORV ePKP 10 03 24.5
BKS ePKP 10 03 27
PKP 02 51 PKP 03 03 e 05 35
PP 06 58
PKP 02 52 PKP 03 06 PP 07 04
e 05 06 SS 27 38 e 28 28
SSS 33 30 e 36 50 e 38 05
Lq 50 28 Lr 59 48
MICRON PERIOD
LZ 7
LN 20
LE 2.6
7
20
MHC ePKP 10 03 29.2 e 03 36
JAS ePKP 10 03 30.6 PP 07 07
PRI ePKP 10 03 30.6 e 03 38
Ms=6.5, DISTANCE=155°
USGS 09 42 55.4, 17.1S, 66.7E, h= 10 km, mb=6.0, Ms=6.0
MASCARENE ISLANDS REGION

NOV 07 FRI ePo 22 09 17.8 pP 09 57 SeP 15 16
PRI eP 22 09 20.5 SeP 15 18
SAO ePo 22 09 27.0
JAS iPo 22 09 27.2 pP 10 06 SeP 15 20
MHC ePo 22 09 32.0 pP 10 11 SeP 15 23
BKS iPo 22 09 37.7 15 07 SeP 15 25
MICRON PERIOD
PZ 0.08
LZ 0.9
LN 20
LE 2.6
7
20
ORV iPo 22 09 41.0 pP 10 21 PoP 12 36 SeP 15 26
MIN ePo 22 09 44.6 pP 10 25 SeP 15 28
WDC iPo 22 09 48.5 pP 10 28 SeP 15 29 SeS 19 40
FHC eP 22 10 00.5 pP 10 40 SeP 15 34
USGS 22 02 49.0, 14.6N, 90.4W, h=200 km, mb=5.3
GUATEMALA

NOV 08 FHC eP 08 32 25.0
WDC ePo 08 32 40.5
ORV ePo 08 32 58.2
JAS ePo 08 33 22.5
FRI eP 08 33 37.2
USGS 08 31 23.9, 43.7N, 127.7W, h= 10 km
OFF COAST OF OREGON

NOV 08 FHC ePKPd 13 59 02.0 PKKP 09 19
WDC iPKPd 13 59 03.3 pPKP 00 54 PKKP 09 11
MIN ePKPd 13 59 04.3
ORV iPKPd 13 59 05.1 PKKP 09 08
BKS ePKPd 13 59 05.8
MHC ePKPd 13 59 07.2
SAO ePKPd 13 59 07.2
JAS iPKPd 13 59 08.1 PKKP 09 03
PRI ePKPd 13 59 10.0
FRI ePKPd 13 59 10.0 PKKP 08 58
MNV e(PKP) 13 59 11 PKKP 08 58
USGS 13 41 20.0, 6.2S, 112.2E, h=633 km, mb=5.8
JAVA

NOV 08 FHC eP 18 13 43.0
WDC eP 18 13 47.0
ORV eP 18 13 52.5
JAS eP 18 14 02.2
FRI eP 18 14 07.0
PRI eP 18 14 08.7
USGS 18 01 03.8, 37.3N, 115.0E, h= 14 km, mb=5.3, Ms=5.5
NORTHEASTERN CHINA

NOV 08 FHC eP 22 05 17.2
WDC eP 22 05 23.0
MIN ePd 22 05 27.0
ORV ePd 22 05 31.6
BKS 22 05 e 05 30
MHC eP 22 05 45.6
JAS ePd 22 05 45.8
FRI eP 22 05 53.4
PRI eP 22 05 56.5
USGS 21 56 10.0, 61.8N, 153.7E, h= 33 km, mb=5.6, Ms=5.0
EASTERN SIBERIA

NOV 09 FHC iPo 16 51 20.9 PoP 54 17
WDC iPo 16 51 29.2 PoP 54 18 SeP 57 59
MIN eP 16 51 34.7
ORV ePo 16 51 39.1 PoP 54 22
BKS iPo 16 51 45.7 57 13 PoP 54 25 Lq 59 14 Lr 00 28
MICRON PERIOD
PZ 0.47
LZ 2.0
LN 9
LE 2.3
6
20
MHC eP 16 51 51.5
JAS iPo 16 51 54.8 i 52 11 SeP 58 09
SAO eP 16 51 54.9
FRI iPo 16 52 03.6 i 52 19
PRI eP 16 52 04.2
Ms=5.4, DISTANCE=36°
USGS 16 45 05.9, 53.2N, 165.7W, h= 33 km, mb=5.5, Ms=5.3
FOX ISLANDS, ALEUTIAN ISLANDS

NOV 10 WDC eP 06 38 e 38 24
ORV eP 06 38 24.3
JAS eP 06 38 26.5
USGS 06 27 27.6, 39.3N, 30.0W, h= 10 km, mb=4.6, Ms=4.6
AZORES ISLANDS

NOV 10 WKC2 iP 08 58 10.8
FHC iP 08 58 16.7 58 25
WDC iP 08 58 29.7
MIN iPo 08 58 39.7
ORV iPo 08 58 42.0
BKS eP 08 58 50.5 59 24
SAO iPo 08 59 06.3
BRK 08 58 03.5, 40.3N, 124.7W, h= 20 km, ML=3.3
OFF COAST SOUTHWEST OF EUREKA, CALIFORNIA

NOV 10 WDC iPo 10 29 e 29 04
ORV iPo 10 29 21.5
JAS iPo 10 29 e 29 46

NOV 10 BKS 13 09 e 09 43
SAO 13 09 e 09 44
MHC 13 09 e 09 45
PRI 13 09 e 09 48
WDC eP 13 09 51.1
ORV eP 13 09 53.4
JAS eP 13 09 54.4
MIN 13 09 e 09 55
FRI 13 09 e 09 56
USGS 13 02 56.5, 19.3N, 155.2W, h= 10 km, mb=5.3
HAWAII

NOV 10 PRI iPd 22 35 03.0 35 25
FRI iPo 22 35 08.2
LLA ePo 22 35 09.1
PRS ePo 22 35 10.0
SAO iPd 22 35 15.0
GCC ePo 22 35 21.0
MHC ePd 22 35 22.5
JAS iPo 22 35 24.0 35 59
PCC ePd 22 35 28.8
BKS iPd 22 35 33.2
ORV iPd 22 35 49.1
MIN ePd 22 36 02.0
ML=4.9, SOUTH OF BAKERSFIELD
PAS 22 34 35.5, 35.0N, 119.1W, h= 3 km, ML=4.6, mb=4.8
SOUTHERN CALIFORNIA

NOV 11 MHC eP 08 15 52.0
PRI eP 08 15 52.6
WDC iPd 08 15 56.5
FRI iPd 08 15 57.0 pP 16 13
JAS iPd 08 15 57.0 pP 16 13
ORV iPd 08 15 57.1 pP 16 14
USGS 08 03 19.4, 21.7S, 170.4E, h=120 km, mb=5.3
LOYALTY ISLANDS REGION

NOV 11 WKC2 iP 17 46 15.8
FHC iPo 17 46 21.4
WDC iPo 17 46 34.3
MIN iPo 17 46 44.0
ORV iPo 17 46 47.0
BKS iPo 17 46 54.8 47 29
PCC eP 17 46 57.3
MHC eP 17 47 04.7 e 47 47
GCC eP 17 47 05.0
JAS eP 17 47 08.8
SAO iPo 17 47 11.3
LLA ePo 17 47 17.1
PRS eP 17 47 17.3 e 48 08
FRI eP 17 47 25.0 e 48 23
PRI eP 17 47 26.2 e 48 25
BRK 17 46 08.9, 40.3N, 124.6W, h= 24 km, ML=4.0
OFF COAST SOUTHWEST OF EUREKA, CALIFORNIA

NOV 11 FRI iPo 20 00 48.1
JAS iPno 20 00 57.3 P* 01 05
PRI ePo 20 01 00.9 i 01 10
LLA eP 20 01 01.9
PRS ePo 20 01 07.6
SAO eP 20 01 07.7
MHC ePno 20 01 08.8 i 01 18 e 02 20
ORV iPo 20 01 16.2
BKS eP 20 01 18.1 02 11
MIN ePo 20 01 23.5
WDC eP 20 01 32.8
ML=4.9, UNDERGROUND NUCLEAR EXPLOSION (TILCI), N.T.S.
USGS 20 00 00.0, 37.1N, 116.1W, h= 0 km, mb=4.7
SOUTHERN NEVADA

NOV 12 JAS iPno 15 00 57.3 P* 01 03
PRI iPno 15 01 01.1 P* 01 07
SAO ePn 15 01 07.5 P* 01 16
MHC eP 15 01 10.2 i 01 19 i 01 27 i 02 24
BKS eP 15 01 17.0
WDC iPno 15 01 32.5 Pg 01 54 i 02 09
ML=5.3, UNDERGROUND NUCLEAR EXPLOSION (ROUSANNE), N.T.S.
USGS 15 00 00.1, 37.1N, 116.0W, h= 0 km, mb=5.3
SOUTHERN NEVADA

NOV 12 PRI eP 17 42 e 42 18
MHC eP 17 42 18.9
FRI eP 17 42 23.4
JAS iPd 17 42 24.3
ORV iPd 17 42 26.5
WDC iP 17 42 27.1
USGS 17 30 13.9, 23.9S, 175.6W, h= 33 km, mb=5.6
TONGA ISLANDS REGION

NOV 13 FRI iPo 03 00 16.4 00 26
JAS iPo 03 00 22.3
LLA iPo 03 00 33.8
PRI iPo 03 00 35.8
SAO iPo 03 00 37.8
MHC iPo 03 00 37.9
PRS eP 03 00 40.1 i 01 12
GCC eP 03 00 41.8
BKS iPd 03 00 42.3
PCC eP 03 00 45.1
BRK 03 00 00.0, 37.6N, 119.0W, h= 7 km, ML=3.9
MAMMOTH LAKES AREA, CALIFORNIA

NOV 13 FRI iPo 03 08 04.0 08 14
JAS iPo 03 08 09.0
LLA iPo 03 08 21.4
PRI iPo 03 08 23.5
SAO iPo 03 08 25.4
MHC eP 03 08 25.6
PRS iPo 03 08 27.7
GCC eP 03 08 29.7
BKS iPd 03 08 31.5
PCC eP 03 08 32.9
BRK 03 07 47.7, 37.6N, 119.0W, h= 10 km, ML=3.7
MAMMOTH LAKES AREA, CALIFORNIA

NOV 13 SAO iPo 06 18 e 18 13
BKS iPo 06 18 14.1
PRI eP 06 18 14.3
MHC eP 06 18 14.7
WKC2 iPd 06 18 15.7
FRI eP 06 18 19.4
JAS iPd 06 18 20.2
ORV iPd 06 18 21.4
WDC iPd 06 18 21.6
USGS 06 07 05.3, 20.7S, 177.7W, h=504 km, mb=5.3
FIJI ISLANDS REGION

NOV 14 WDC ePo 00 49 17.6
ORV ePo 00 49 28.0
JAS ePo 00 49 43.5
FRI ePo 00 49 52.5
USGS 00 43 03.3, 54.1N, 164.5W, h= 66 km, mb=5.1
UNIMAK ISLAND REGION

[illegible]

NOV 23 WKC2 ePd 10 27 53.3
WDC ePd 10 27 58.7
BKS eP 10 28 10.2 37 00 e 37 24 Lq 44 30 Lr 47 14
MICRON PERIOD
PZ 0.11 0.8
LZ 2.3 20
10 28 17.0 e 28 15
10 28 e 28 17
10 28 e 28 24
USGS 10 17 22.9, 43.0N, 146.2E, h= 39 km, mb=5.9, Ms=5.8
KURIL ISLANDS

NOV 24 JAS eP 04 19 44.0
WDC eP 04 19 57.7
USGS 04 08 00.0, 22.2S, 65.7W, h=269 km, mb=4.7
JUJUY PROVINCE, ARGENTINA

NOV 24 FRI eP 04 37 02.4
JAS eP 04 37 02.9
WDC eP 04 37 04.8
USGS 04 25 42.9, 22.2S, 179.6W, h=574 km, mb=4.7
SOUTH OF FIJI ISLANDS

NOV 24 WDC eP 12 17 46.4
MIN 12 17
JAS eP 12 18 04.0 e 17 49
FRI eP 12 18 09.5
12 18 e 18 12
USGS 12 06 47.8, 40.0N, 141.6E, h= 90 km, mb=4.9
NEAR EAST COAST OF HONSHU, JAPAN

NOV 24 WKC2 iP 18 37 35.1 37 40
FHC iPe 18 37 40.5
WDC iPe 18 37 53.7 38 13
MIN iP 18 38 03.6 e 38 30
PCC eP 18 38 17.6
MHC eP 18 38 24.9
GCC eP 18 38 25.2
SAO iPe 18 38 31.5
BRK 18 37 28.9, 40.4N, 124.6W, h= 25 km, ML=3.2
OFF COAST SOUTHWEST OF EUREKA, CALIFORNIA

NOV 24 BKS eP 23 43 16 53 39 PP 46 41 PPS 55 05 SS 58 30
e 01 42 e 02 52 e 03 30
Lq 06 24 Lr 09 34
MICRON PERIOD
PZ 0.08 0.9
LZ 50 20
LN 30 20
LE 37 20
SAO e(P) 23 43 17
MHC eP 23 43 17.7
PRI e(P) 23 43 18
WKC2 e(P) 23 43 21
JAS iPe 23 43 22.7 PKPPKP 24 17
WDC ePe 23 43 22.8
FRI ePe 23 43 22.8
MIN e(P) 23 43 24
MNV e(P) 23 43 31
Ms=6.9, DISTANCE=85°
USGS 23 30 32.6, 22.5S, 170.6E, h= 30 km, mb=5.6, Ms=6.7
LOYALTY ISLANDS REGION

NOV 25 PRI 00 02 e 02 38
MHC 00 02 e 02 39
WKC2 00 02 e 02 40
WDC eP 00 02 43.4
FRI eP 00 02 43.5
JAS eP 00 02 43.6
USGS 23 49 54.5, 22.4S, 170.6E, h= 33 km, mb=5.4, Ms=6.2
LOYALTY ISLANDS REGION

NOV 25 MIN eP 02 50 48
MHC eP 02 51 03
JAS eP 02 51 07.0
FRI eP 02 51 15.2
USGS 02 43 41.2, 52.5N, 173.2W, h= 33 km, mb=4.7
ANDREANOF ISLANDS, ALEUTIAN ISLANDS

NOV 25 FHC ePd 14 53 48.5
WDC iPd 14 53 54.4
MIN ePd 14 53 58.6
BKS eP 14 54 06.0
MICRON PERIOD
PZ 0.04 0.8
14 54 10.0
14 54 12.6
14 54 19.0
14 54 19.1
14 54 20
USGS 14 43 17.9, 43.0N, 146.2E, h= 34 km, mb=5.1, Ms=4.4
OFF COAST OF HOKKAIDO, JAPAN

NOV 25 SAO eP 19 13 04.7
BKS eP 19 13 06.5 22 22 e 23 16 SSS 30 22 Lq 31 18
Lr 33 40
MICRON PERIOD
PZ 0.06 1.0
LZ 7 20
LN 3.4 20
LE 6 20
PRI eP 19 13 06.5
MHC ePd 19 13 06.7
FHC eP 19 13 11.0
FRI ePd 19 13 12.2
JAS iPd 19 13 13.3
MIN eP 19 13 16.8
MNV eP 19 13 23.4
Ms=5.9, DISTANCE=72°
USGS 19 01 47.9, 15.2S, 173.3W, h= 33 km, mb=5.6, Ms=5.8
TONGA ISLANDS

NOV 26 SAO eP 00 02 19.5
BKS ePd 00 02 20.8 11 30 pP 04 30 e 04 43 sP 05 29
e 11 56 e 15 54
MICRON PERIOD
PZ 0.40 0.7
00 02 21.1 pP 04 31
00 02 21.5
00 02 25.2
00 02 26.3
00 02 26.9 pP 04 36
00 02 27.9
00 02 28.5
00 02 30.0
00 02 35.8
mb=6.0, h=620 km, DISTANCE=78°
USGS 23 51 16.5, 20.9S, 178.9W, h=614 km, mb=5.9
FIJI ISLANDS REGION

NOV 26 FHC eP 06 55 26.5
MIN ePe 06 55 35.2
BKS eP 06 55 43.6
MICRON PERIOD
PZ 0.02 1.0
06 55 48.5
06 55 51.3
06 55 51.7
06 55 57.5
06 55 58.0
06 55 58.5
USGS 06 45 51.0, 48.8N, 154.9E, h= 48 km, mb=5.5, Ms=4.7
KURIL ISLANDS

NOV 27 FHC iPe 17 32 20.7 pP 34 15
WDC iPe 17 32 25.5
MIN iPe 17 32 29.2 pP 34 24
ORV iPe 17 32 32.0
BKS iPe 17 32 36.9 pP 34 32
MICRON PERIOD
PZ 0.50 1.0
17 32 40.8 pP 34 37 sP 35 48
17 32 42.3 pP 34 38 sP 35 50 PKPPKP 02 10
17 32 43.2 pP 34 39
17 32 47.6 pP 34 43
17 32 47.9 pP 34 44 sP 35 59
17 32 49.1 pP 34 45 sP 36 00
USGS 17 21 45.8, 42.9N, 131.1E, h=543 km, mb=5.8
EASTERN U.S.S.R.-NORTHEASTERN CHINA BORDER REGION

NOV 27 SAO iPd 19 15 28.7
GCC iPd 19 15 35.5
PRS iPd 19 15 36.2
LLA iPe 19 15 37.0 15 44
MHC iPd 19 15 38.6 15 47
PCC iPd 19 15 44.7
PRI iPe 19 15 45.5
BKS eP 19 15 50.3
FRI ePd 19 15 53.2 16 12
JAS iPe 19 15 53.7 16 11
BRK 19 15 27.0, 36.8N, 121.5W, h= 4 km, ML=2.5
SOUTHWEST OF HOLLISTER, CALIFORNIA

NOV 28 MNV eP 19 34 34.8 e 34 43
FRI eP 19 34 40.3 e 34 48
MIN eP 19 34 41.0 e 34 49
JAS iPd 19 34 44.1 e 34 52
ORV e(P) 19 34 47 e 34 55
PRI e(P) 19 34 49
MHC eP 19 34 51.6 e 35 00
FHC iPd 19 34 58.3 e 35 06
USGS 19 24 05.6, 23.8N, 45.4W, h= 10 km, mb=5.1, Ms=5.2
NORTH ATLANTIC RIDGE

NOV 29 FHC ePe 03 48 00.6
WDC iPe 03 48 02.0
MIN ePe 03 48 03.7
ORV iPe 03 48 07.1
BKS iPe 03 48 15.7
MICRON PERIOD
PZ 0.04 0.7
03 48 16.2
03 48 16.4
03 48 18.3
03 48 20.0
03 48 21.2
03 48 25.0
USGS 03 35 00.6, 49.9N, 78.9E, h= 0 km, mb=5.6, Ms=4.0
UNDERGROUND NUCLEAR EXPLOSION
EASTERN KAZAKH, S.S.R.

NOV 30 MNV eP 15 53 36.3 pP 54 09
PRI eP 15 53 36.4 pP 54 09
FRI eP 15 53 e 53 38
JAS iPd 15 53 42.2 pP 54 15
MHC eP 15 53 45.2 pP 54 18
BKS e(P) 15 53 49 e 54 23
MICRON PERIOD
PZ 0.05 0.9
15 53 52.3 pP 54 25
15 53 54.3 pP 54 28
15 54 05.2 pP 54 38
USGS 15 42 28.2, 17.0S, 69.8W, h=133 km, mb=5.4
PERU-BOLIVIA BORDER REGION

DEC 01 MNV iPe 16 18 53.4
JAS iPe 16 19 23.7
FRI iPd 16 19 25.8
ORV iPe 16 19 36.1
MHC eP 16 19 40.2 i 19 47 i 20 25
MIN ePe 16 19 42 i 19 54
SAO eP 16 19 42 i 19 48
FRI eP 16 19 42.9 i 19 51
BKS iPe 16 19 52.2 20 36 e 19 45 e 19 51
WDC iPe 16 19 52.2 i 20 02 i 20 51
BRK 16 18 51.0, 38.6N, 118.1W, h= 10 km, ML=4.4
LUNING, NEVADA

DEC 01 PRI ePd 17 59 48.7 e 00 00
MHC ePd 17 59 49.7 e 00 01
BKS e(P) 17 59 50
FRI eP 17 59 52.9 e 00 04
WKC2 eP 17 59 54.1 e 00 05
JAS ePd 17 59 54.3 i 00 06
ORV eP 17 59 56.3 i 00 08
WDC ePd 17 59 57.8 e 00 03 i 00 09
MIN eP 17 59 58.7
USGS 17 46 43.7, 37.1S, 179.7E, h= 35 km, mb=5.7, Ms=5.2
OFF EAST COAST OF NORTH ISLAND, NEW ZEALAND

DEC 02 FHC iPd 06 35 32.5 e 35 56
WDC iPd 06 35 38.0 PKPPKP 04 11
MIN iPd 06 35 42.2
ORV iPd 06 35 45.3 e 04 07
BKS ePd 06 35 49.1 e 36 13 e 45 30 e 45 52
Lr 56 46
MICRON PERIOD
PZ 0.15 0.8
06 35 53.4 e 36 17
06 35 55.7 e 36 16 i 36 20 PKPPKP 04 07
06 35 55.7
06 36 01.7
06 36 02.0
06 36 02.9
USGS 06 24 42.8, 40.9N, 142.5E, h= 59 km, mb=5.9
NEAR EAST COAST OF HONSHU, JAPAN

DEC 02 MHC eP 15 26 49
BKS eP 15 26 49.4
MICRON PERIOD
PZ 0.02 0.7
15 26 53.9
15 26 54.7 e 29 03
15 26 56.0 e 29 03
15 26 56.2 e 29 08
15 26 58.0
USGS 15 15 36.5, 21.8S, 179.5W, h=580 km, mb=5.6
FIJI ISLANDS REGION

DEC 02 WKC2 iPe 18 48 45.2 48 56
FHC iPe 18 48 48.0
WDC eP 18 49 03.5
MIN eP 18 49 13.4 e 49 46
ORV ePd 18 49 16.8
BRK 18 48 30.8, 40.6N, 125.3W, h= 25 km, ML=3.7
OFF COAST WEST OF EUREKA, CALIFORNIA

DEC 02 WDC ePKPo 19 21 26.5 i 21 38
MIN 19 21 e 21 38
ORV iPKPo 19 21 30.5 i 21 42
BKS ePKPo 19 21 33.5 i 21 44
MHC ePKPo 19 21 35.4 e 21 46
SAO ePKPo 19 21 36 e 21 47
JAS iPKPo 19 21 36.6 i 21 38
FRI iPKPo 19 21 39.7 i 21 37 i 21 50
PRI ePKPo 19 21 39.8 i 21 51
USGS 19 01 53.9, 15.8S, 88.4E, h= 10 km, mb=5.7, Ms=5.5
SOUTH INDIAN OCEAN

DEC 02 PRI eP 23 44 49.3
MHC eP 23 44 51.2
FRI eP 23 44 56.2
JAS eP 23 44 57.0
ORV eP 23 44 58.8
MNV e(P) 23 45 08
USGS 23 33 04.3, 20.8S, 174.2W, h= 33 km, mb=5.1, Ms=5.2
TONGA ISLANDS

DEC 03 MNV iPe 15 00 35.7
FRI iPe 15 00 48.2
JAS iPe 15 00 57.0
PRI ePe 15 01 00.9
LLA eP 15 01 03.3
SAO e(Pa) 15 01 07
PRS eP 15 01 07.8
MHC e(Pa) 15 01 09
ORV eP 15 01 15.2
BKS e(P) 15 01 18
PCC iPe 15 01 18.1
GCC eP 15 01 18.3
MIN eP 15 01 22.6
WDC eP 15 01 32.1
P* 00 53
i 01 07
i 01 14
i 01 12
P* 01 16 i 02 22
P* 01 19 i 02 24
e 01 28 e 02 45
ML=4.7, UNDERGROUND NUCLEAR EXPLOSION (AKAVI), N.T.S.
USGS 15 00 00.1, 37.1N, 116.1W, h= 0 km, mb=4.7
SOUTHERN NEVADA

DEC 04 WDC eP 06 20 31.0
MIN eP 06 20 35.7
ORV eP 06 20 38.8
JAS eP 06 20 50.5
FRI eP 06 20 57.0
USGS 06 10 25.7, 45.8N, 151.5E, h= 35 km, mb=5.2, Ms=4.6
KURIL ISLANDS

DEC 04 PRI iPe 13 34 30.3
LLA iPd 13 34 37.7 34 46
PRS iPe 13 34 37.9 34 46
SAO iPe 13 34 42.8
FRI eP 13 34 48.4 35 04 i 34 52
GCC eP 13 34 52.2
MHC eP 13 34 52.5
JAS iP 13 34 58.3
BRK 13 34 28.2, 36.2N, 120.8W, h= 8 km, ML=2.7
EAST OF KING CITY, CALIFORNIA

DEC 05 WDC iPKPe 19 05 53.8
ORV iPKPe 19 05 56.1
MNV ePKPe 19 05 59.0
JAS iPKPe 19 05 59.8
BKS ePKPe 19 06 00.4
MHC ePKPe 19 06 01.4
FRI iPKPe 19 06 01.5
PRI ePKPe 19 06 04.2
USGS 18 46 50.9, 14.6N, 58.1E, h= 10 km, mb=5.6, Ms=5.4
ARABIAN SEA

DEC 06 FHC e(P) 13 03 47
BKS eP 13 03 49.6
MICRON PERIOD
PZ 0.03 0.9
LZ 11 20
LN 7 20
LE 5 20
WDC iPe 13 03 49.9
MIN eP 13 03 51.1
MHC ePe 13 03 51.6
ORV iPe 13 03 52.6
PRI eP 13 03 53.0
JAS iPe 13 03 55.6
FRI ePe 13 03 58.2
MNV eP 13 04 04.5
USGS 12 50 48.9, 6.2S, 152.0E, h= 33 km, mb=6.0, Ms=6.1
NEW BRITAIN REGION

DEC 06 FRI eP 15 06 33.4
JAS eP 15 06 35.0
ORV eP 15 06 38.8
MIN eP 15 06 39.0
PRI eP 15 06 39.2
MHC eP 15 06 41.0
WDC eP 15 06 41.2
USGS 14 54 29.4, 8.0N, 38.4W, h= 10 km, mb=5.5, Ms=5.5
CENTRAL MID-ATLANTIC RIDGE

DEC 07 MNV iPe 07 47 56.3
JAS iPd 07 48 25.7
FRI iPd 07 48 27.7
ORV iPe 07 48 38.0
MIN ePd 07 48 44.8
MHC e(P) 07 48 46
LLA ePe 07 48 46.0
BKS eP 07 48 49.4 49 35
PRI eP 07 48 49.5
SAO iPd 07 48 50.3
WDC eP 07 48 54.0
PCC ePd 07 48 55.3
BRK 07 47 52.7, 38.6N, 118.2W, h= 12 km, ML=4.0
LUNING, NEVADA

DEC 07 MHC eP 17 49 12.1
FRI eP 17 49 16.8
JAS iPe 17 49 17.5
ORV iPe 17 49 19.0
WDC iP 17 49 19.5
USGS 17 37 41.2, 23.5S, 179.1W, h=428 km, mb=4.5
SOUTH OF FIJI ISLANDS

DEC 07 WKC2 eP 22 58 42.6
WDC eP 22 58 47.6
ORV eP 22 58 50.0
MHC eP 22 58
JAS eP 22 58 58.0
PRI eP 22 59
FRI eP 22 59
USGS 22 46 44.7, 18.2N, 147.1E, h= 34 km, mb=5.1, Ms=4.9
MARIANA ISLANDS REGION

DEC 08 PRI eP 16 57 12.0
SAO eP 16 57 14.0
MHC ePe 16 57 17.7
FRI ePe 16 57 18.0
BKS eP 16 57 19.9
MICRON PERIOD
PZ 0.02 0.9
JAS iPe 16 57 23.2
ORV eP 16 57 31.2
WDC iPe 16 57 35.8
USGS 16 46 58.3, 21.9S, 138.9W, h= 0 km, mb=5.2
TUAMOTU ARCHIPELAGO REGION

DEC 08 FHC ePd 20 06 09.2
WDC iPd 20 06 25.3
ORV iPd 20 06 43.5 07 40
JAS eP 20 07 08
USGS 20 05 25.9, 42.5N, 126.8W, h= 10 km
OFF COAST OF OREGON

DEC 09 FHC e(P) 07 53 09
BKS eP 07 53 09.0
MICRON PERIOD
PZ 0.01 0.8
MHC eP 07 53 10.5
PRI eP 07 53 12.2
WDC ePd 07 53 13.7
ORV eP 07 53 14.5
JAS eP 07 53 15.5
FRI eP 07 53 16.5
USGS 07 40 43.1, 14.1S, 167.8E, h= 33 km, mb=4.9
VANUATU ISLANDS

DEC 10 FRI iPe 09 33 39.4 33 53
JAS iPe 09 33 49.6 34 11
PRI ePe 09 33 57.5 i 34 26
SAO iPd 09 34 02.0
PRS eP 09 34 02.8
MHC iP 09 34 03.6 e 34 37 i 34 40
GCC eP 09 34 06.2
BKS eP 09 34 10.0 34 47
PCC eP 09 34 10.6
ORV iPe 09 34 17.2
BRK 09 33 19.7, 37.4N, 118.4W, h= 28 km, ML=3.5
BISHOP, CALIFORNIA

DEC 10 BKS ePe 11 57 56.5 58 12
ORV iP 11 57 57.9
PCC eP 11 58 00.3
MHC ePe 11 58 06.7 e 58 13
GCC eP 11 58 08.3
JAS ePe 11 58 10.8 i 58 38
SAO eP 11 58 13.9
BRK 11 57 37.0, 38.8N, 122.8W, h= 2 km, ML=3.3
SOUTH OF CLEAR LAKE, CALIFORNIA

DEC 11 LLA iPd 05 42 41.6
PRS iPe 05 42 43.0 42 47
PRI iPd 05 42 44.9 i 42 55
SAO iPe 05 42 46.1
GCC eP 05 42 55.2 i 43 10
MHC eP 05 42 56.8 i 43 13
FRI iPe 05 42 57.9 i 43 13
JAS eP 05 43 04.5 i 43 24
BKS eP 05 43 06.9
BRK 05 42 37.0, 36.4N, 121.0W, h= 8 km, ML=2.6
NORTHEAST OF KING CITY, CALIFORNIA

DEC 11 WDC eP 09 59 06.5 e 02 11
BKS eP 09 59 08.2 e 11 40 e 12 14 e 17 06
Lq 24 16 Lr 28 12
MICRON PERIOD
PZ 0.03 1.0
LZ 2.5 20
LN 0.4 20
LE 2.3 20
MHC 09 59
MIN 09 59
ORV eP 09 59 09.0 e 59 08
PRI 09 59 e 59 09
JAS eP 09 59 13.3 e 59 13
FRI eP 09 59 15.5 e 03 03
USGS 09 45 57.5, 6.1S, 148.2E, h= 70 km, mb=5.7
NEW BRITAIN REGION

DEC 12 WKC2 iPe 01 16 41.3 16 48
FHC iPd 01 16 43.8
WDC iPe 01 16 58.8 17 18
MIN ePe 01 17 08.8 17 35
ORV iPd 01 17 12.9
BRK 01 16 35.1, 40.6N, 124.5W, h= 23 km, ML=3.0
OFF COAST SOUTHWEST OF EUREKA, CALIFORNIA

DEC 12 FRI eP 05 03 25.2
PRI eP 05 03 26.2
MNV eP 05 03 28.3
JAS ePd 05 03 35.9
MHC eP 05 03 37.8
ORV ePd 05 03 52.1
USGS 04 58 19.8, 18.6N, 102.1W, h=104 km, mb=4.7
MICHOCAN, MEXICO

DEC 12 FHC ePe 05 05 33.0
WDC ePe 05 05 37.1 PP 09 17
MIN eP 05 05 40.0
ORV ePe 05 05 42.2 PP 09 24
BKS iPe 05 05 45.0 16 15 PS 17 44 PPS 18 00 SS 22 00
Lr 34 20 SSS 26 10 Lq 29 44
MICRON PERIOD
PZ 0.09 1.2
LZ 3.9 20
LN 2.5 20
LE 6 20
MHC eP 05 05 48.0 e 09 33
SAO eP 05 05 49.2
JAS eP 05 05 49.9
FRI eP 05 05 54.4
PRI eP 05 05 54.5
MNV eP 05 05 55.3
Ms=6.1, DISTANCE=93°
USGS 04 52 37.1, 23.9N, 125.9E, h= 10 km, mb=6.1, Ms=6.3
SOUTHWESTERN RYUKYU ISLANDS

DEC 12 SAO eP 11 04 49.6
BKS iPe 11 04 51.1 14 00 SoS 15 00 Lq 23 36 Lr 26 54
MICRON PERIOD
PZ 0.03 0.6
LZ 0.2 20
LN 0.1 18
LE 0.2 18
PRI ePe 11 04 51.1
MHC eP 11 04 51.8
FRI ePe 11 04 57.0
JAS iPe 11 04 57.2
FHC eP 11 04 57.8
ORV iPe 11 04 59.4
WDC iPe 11 05 00.1
MIN ePe 11 05 02.0
MNV iPe 11 05 07.0
USGS 10 53 22.1, 17.5S, 173.4W, h= 33 km, mb=5.2, Ms=4.9
TONGA ISLANDS

DEC 12 SAO eP 12 09 29.2
PRI eP 12 09 29.5
MHC eP 12 09 30.5
FRI eP 12 09 35.0
JAS ePe 12 09 35.8
ORV ePe 12 09 38.0
WDC ePe 12 09 38.6
MIN eP 12 09 41.3
USGS 11 57 26.1, 23.8S, 175.8W, h= 33 km, mb=5.3
TONGA ISLANDS REGION

DEC 12 PCC iPe 15 11 12.6 11 15
GCC iPe 15 11 17.1
BKS iPd 15 11 19.3 11 26
MHC iPd 15 11 19.3
SAO iPe 15 11 25.5
PRS eP 15 11 31.2
LLA ePd 15 11 32.0
JAS iPd 15 11 36.2
PRI ePe 15 11 39.5
FRI ePe 15 11 43.1
ORV iPd 15 11 45.1
MIN e(P) 15 11 57
WDC ePe 15 11 58.0
BRK 15 11 09.3, 37.4N, 122.3W, h= 9 km, ML=3.7
SOUTHWEST OF PALO ALTO, CALIFORNIA

DEC 12 PCC iPe 15 54 42.4 54 45
GCC ePe 15 54 46.9
BKS iPd 15 54 49.1 54 56
MHC ePe 15 54 49.2
SAO iPd 15 54 55.5
BRK 15 54 39.1, 37.4N, 122.3W, h= 10 km, ML=2.5
SOUTHWEST OF PALO ALTO, CALIFORNIA

DEC 12	FBC	ePKP	23 50 27.5						
	WDC	ePKP	23 50 28.0						
	ORV	ePKP	23 50 28.8						
	JAS	ePKP	23 50 33.2						
	MNV	ePKP	23 50 35.1						
	FRI	ePKP	23 50 36.1						
	PRI	ePKP	23 50 37.4						
	USGS 23 31 10.9, 4.9N, 70.1E, h= 20 km, mb=5.5, Ms=5.1 MALDIVES ISLANDS REGION								
DEC 13	MNV	iPo	01 20 05.4						
	JAS	eP	01 20 34.6						
	FRI	eP	01 20 36.6	21 05					
	ORV	eP	01 20 48.2						
	BKS	ePd	01 21 03.6	21 45					
	BRK 01 20 01.8, 38.6N, 118.2W, h= 10 km, ML=3.7 LUNING, NEVADA								
DEC 13	BKS	iPd	01 52 03.9						
	Lr 19 37								
	MICRON PERIOD								
	PZ	0.10	0.5						
	LZ	0.4	16						
	LN	0	18						
	LE	0.3	18						
	WDC	iPo	01 52 04.1						
	SAO	eP	01 52 05.0						
	MHC	eP	01 52 05.3						
	ORV	eP	01 52 06.6						
	MNV	eP	01 52 06.9						
	PRI	eP	01 52 08.8						
	JAS	iPo	01 52 09.7						
	FRI	eP	01 52 11.8						
	MNV	eP	01 52 18.0						
	USGS 01 39 14.3, 6.4S, 154.9E, h= 50 km, mb=5.9, Ms=5.5 SOLOMON ISLANDS								
DEC 13	BRK	eP	16 15 59						
	BKS	eP	16 15						
	SAO	eP	16 16 00						
	MHC	eP	16 16 01.0						
	PRI	eP	16 16 03.0						
	WDC	ePd	16 16 04.2						
	ORV	ePd	16 16 05.7						
	MNV	eP	16 16 07.0						
	JAS	ePd	16 16 07.0						
	FRI	ePd	16 16 08.3						
	MNV	eP	16 16 19.0						
	USGS 16 04 53.4, 3.5S, 177.6E, h= 33 km, mb=5.1 GILBERT ISLANDS REGION								
DEC 13	FBC	ePKP	20 54 46.4						
	WDC	ePKP	20 54 46.7						
	MNV	ePKP	20 54 48.1						
	ORV	ePKP	20 54 48.7						
	BRK	ePKP	20 54 49.3						
	MHC	ePKP	20 54 50.6						
	JAS	ePKP	20 54 51.6						
	PRI	ePKP	20 54 53.4						
	FRI	ePKP	20 54 53.5						
	MNV	ePKP	20 54 55.5						
	USGS 20 35 56.6, 9.3S, 111.8E, h= 83 km, mb=5.7 SOUTH OF JAVA								
DEC 13	MNV	iPd	21 49 28.0						
	FRI	ePd	21 49 30.4						
	PRI	eP	21 49 34.2						
	JAS	iPd	21 49 37.8						
	SAO	eP	21 49 39.6						
	MHC	iPd	21 49 43.5						
	BKS	iPd	21 49 47.8						
	MICRON PERIOD								
	PZ	0.17	0.4						
	ORV	iPd	21 49 48.5						
	MNV	iPd	21 49 50.5						
	WDC	iPd	21 49 54.1						
	FBC	iPd	21 50 04.9						
	USGS 21 40 36.1, 6.7N, 73.0W, h=159 km, mb=5.3 NORTHERN COLOMBIA								
DEC 14	FRI	eP	04 06 47.3						
	PRI	eP	04 06 48.2						
	JAS	eP	04 06 54.0						
	ORV	eP	04 07 02.6						
	WDC	iPo	04 07 07.4						
	USGS 03 54 17.5, 33.7S, 70.4W, h= 19 km, mb=5.1 CHILE-ARGENTINA BORDER REGION								
DEC 14	WDC	iPo	09 28 30.9						
	MNV	eP	09 28 35.7						
	ORV	iPo	09 28 39.8						
	JAS	iPo	09 28 53.5						
	USGS 09 19 29.5, 53.8N, 160.6E, h= 55 km, mb=5.4 NEAR EAST COAST OF KAMCHATKA								
DEC 14	FRI	ePKP	12 24 36.7						
	PRI	ePKP	12 24 37.4						
	SAO	ePKP	12 24 38.2						
	JAS	ePKP	12 24 39.2						
	MHC	ePKP	12 24 39.9						
	BKS	iPKP	12 24 41.2						
	ORV	iPKP	12 24 42.4						
	MNV	ePKP	12 24 43.0						
	WDC	iPKP	12 24 44.0						
	FBC	ePKP	12 24 47.0						
	USGS 12 05 54.2, 56.4S, 26.5W, h=104 km, mb=5.8 SOUTH SANDWICH ISLANDS REGION								
DEC 14	FBC	iPo	16 14 53.2						
	WDC	iPo	16 15 09.3						
	ORV	iPo	16 15 29.5						
	JAS		16 15						
	USGS 16 14 11.7, 42.0N, 127.0W, h= 10 km, mb=4.5 OFF COAST OF OREGON								
DEC 15	FRI	iPo	08 06 05.4	06 28					
	MNV	iP	08 06 12.9						
	JAS	eP	08 06 20.6						
	PRS	eP	08 06 21.8						
	MHC	eP	08 06 27.1						
	ML=4.0, CHINA LAKE AREA PAS 08 05 33.9, 36.1N, 117.8W, h= 4 km, ML=3.8 SOUTHERN CALIFORNIA								
DEC 15	JAS	eP	12 44 33.6						
	USGS 12 31 59.3, 36.3S, 71.4W, h= 95 km, mb=5.2 CENTRAL CHILE								
DEC 15	JAS	eP	20 15 07.0						
	ORV	eP	20 15 16.5						
	USGS 20 02 44.1, 31.6S, 71.9W, h= 33 km, mb=5.1 NEAR COAST OF CENTRAL CHILE								
DEC 15	ORV	eP	21 31 04.0						
	JAS	eP	21 31 16.7						
DEC 16	LLA	iPo	16 23 35.4	23 38					
	PRI	iPo	16 23 41.3						
	PRS	ePd	16 23 41.9						
	SAO	iPd	16 23 43.5						
	FRI	eP	16 23 49.7						
	GCC	eP	16 23 51.9						
	MHC	e(P)	16 23 53						
	JAS	eP	16 23 57.2						
	BKS	iPd	16 24 08.4						
	BRK 16 23 32.7, 36.5N, 120.8W, h= 8 km, ML=2.7 SOUTHEAST OF LLANADA, CALIFORNIA								

Seismology Centre

DEC 16	MNV	iPo	21 05 35.2						
	FRI	iPo	21 05 47.6			i 05 53			
	JAS	iPo	21 05 56.7			Pg 06 07	Sg 06 54		
	PRI	ePo	21 06 01.5						
	SAO	eP	21 06 07.4			i 06 19			
	PRS	e(P)	21 06 09						
	MHC	eP	21 06 09.6			i 07 24			
	ORV	iP	21 06 15.7						
	BKS	ePd	21 06 19.0			i 06 26	i 06 35	i 06 52	
						e 07 20	i 07 43		
	MIN	e(P)	21 06 23						
	WDC	ePo	21 06 31.9						
			ML=4.3, UNDERGROUND NUCLEAR EXPLOSION (CABOC), N.T.S. USGS 21 05 00.0, 37.1N, 116.1W, h= 0 km, mb=4.5 SOUTHERN NEVADA						
DEC 18	BKS	iPd	14 41 55.0	42 02		i 42 04		e 42 29	
	PCC	iPo	14 42 00.6	42 12		i 42 02			
	ORV	iPo	14 42 09.9						
	JAS	iPo	14 42 14.5						
			BRK 14 41 44.9, 38.3N, 122.6W, h= 7 km, ML=3.1 SOUTHEAST OF SANTA ROSA, CALIFORNIA						
DEC 19	WDC	iPo	13 54 09.5						
	MIN	ePo	13 54 16.5						
	ORV	iPo	13 54 26.5						
	JAS	ePo	13 54 51.8						
			USGS 13 51 53.3, 49.0N, 128.1W, h= 10 km, mb=4.3 VANCOUVER ISLANDS REGION						
DEC 19	WDC	eP	14 24 18.5						
	MIN	eP	14 24 18.7						
	FHC	e(P)	14 24 20						
	MNV	eP	14 24 21.2						
	ORV	iPo	14 24 21.4						
	JAS	eP	14 24 27.2			PKKP 41 33			
	FRI	ePo	14 24 29.6						
	BKS	eP	14 24 31			e 24 34	PP 28 27	SKS 34 44	
						e 35 56	PKKP 41 34	Lq 51 50	
						Lr 55 10			
			MICRON PERIOD						
			LZ	120	20				
			LN	120	20				
			LE	70	20				
	MHC	eP	14 24 32.0						
	SAO	e(P)	14 24 33						
	PRI	eP	14 24 35.7						
			Ms=7.5, DISTANCE=97° USGS 14 10 50.7, 39.2N, 25.2E, h= 10 km, mb=6.2, Ms=7.2 AEGEAN SEA						
DEC 19	MNV	iPd	20 56 57.7	57 00					
	JAS	iPd	20 57 26.4	57 50					
	FRI	iPd	20 57 28.5	57 54					
	ORV	iPd	20 57 39.1						
	MHC	eP	20 57 43.0						
	LLA	iP	20 57 47.0						
	MIN	e(P)	20 57 50						
	BKS	ePd	20 57 50.0	58 36					
	WDC	e(P)	20 57 59						
			BRK 20 56 53.7, 38.6N, 118.2W, h= 13 km, ML=4.3 LUNING, NEVADA						
DEC 20	BKS	iPd	07 42 00.1	42 09					
	PCC	iPo	07 42 05.6	42 17					
	MHC	eP	07 42 11.8						
	GCC	e(P)	07 42 13						
	JAS	iPd	07 42 19.7						
			BRK 07 41 49.7, 38.3N, 122.6W, h= 4 km, ML=3.0 SOUTHEAST OF SANTA ROSA, CALIFORNIA						
DEC 20	PRI	eP	09 15 34.0						
	FRI	eP	09 15 36.7						
	JAS	eP	09 15 46.7						
	BKS		09 15			e 22 36	e 25 56	e 26 18	
						e 27 20	Lr 27 35	e 28 30	
						e 28 48			
			MICRON PERIOD						
			LZ	8	20				
			LN	8	20				
			LE	1.8	20				
	WDC	eP	09 16 08.0						
			USGS 09 07 32.3, 4.4S, 105.3W, h= 10 km, mb=4.9, Ms=5.0 NORTHERN EASTER ISLAND CORDILLERA						
DEC 20	BKS	ePd	15 30 06.4	30 14		i 30 08	i 30 15		
	PCC	iPd	15 30 11.9	30 23					
	MHC	e(P)	15 30 17						
	SAO	eP	15 30 25.5						
	JAS	e(P)	15 30 26						
			BRK 15 29 56.1, 38.3N, 122.6W, h= 6 km, ML=2.7 SOUTHEAST OF SANTA ROSA, CALIFORNIA						
DEC 20	FHC	ePo	20 31 09.9						
	WDC	ePo	20 31 24.2						
	BKS		20 32			e 33 38	e 35 00	e 35 10	
	JAS	ePo	20 32 06.5						
	FRI	ePo	20 32 21.0						
			USGS 20 30 06.7, 43.8N, 127.7W, h= 10 km, mb=4.5 OFF COAST OF OREGON						
DEC 21	FRI	ePd	10 38 40.8			pP 38 59	PeP 41 24	pPeP 41 44	
	MNV	iPd	10 38 41.3			pP 38 59			
	PRI	eP	10 38 43.5			pP 39 02			
	JAS	ePd	10 38 50.6			pP 39 09	sP 39 26	PeP 41 28	
						pPeP 41 47	sPeP 42 04	SeP 45 07	
	SAO	eP	10 38 51.0						
	MHC	ePd	10 38 55.0			pP 39 13			
	BKS	e(P)	10 39 00	44 52		e 39 06	pP 39 18	PeP 41 31	
						SeP 44 34	e 45 08	sS 45 30	
						e 46 24	Lq 47 00	e 47 38	
						e 48 28	e 48 46	e 49 38	
	MIN	ePd	10 39 08.9			pP 39 27			
	WDC	iPd	10 39 12.8			pP 39 31	PeP 41 35	pPeP 41 54	
						SeP 45 17			
	FHC	ePd	10 39 22.8			pP 39 42			
			USGS 10 32 11.8, 14.8N, 92.3W, h= 73 km, mb=5.3 NEAR COAST OF CHIAPAS, MEXICO						
DEC 21	WDC	iPd	10 59 05.3						
	MIN	eP	10 59 14.3						
	BKS	ePd	10 59 32.0			e 59 41			
			MICRON PERIOD						
			PZ	0.04	0.8				
	MHC	eP	10 59 44.1						
	JAS	iPd	10 59 46.5						
	FRI	ePd	11 00 01.3						
	PRI	eP	11 00 03.5						
			USGS 10 57 49.9, 43.7N, 127.4W, h= 10 km, mb=4.6 OFF COAST OF OREGON						
DEC 21	WDC	iPd	11 58 42.2						
	MHC	eP	11 58 44.5						
	JAS	ePd	11 58 48.0						
	PRI	eP	11 58 50.5						
	FRI	ePd	11 58 52.3						
	MNV	eP	11 58 55.6						
			USGS 11 46 47.3, 18.5N, 145.7E, h=182 km, mb=4.8 MARIANA ISLANDS						
DEC 22	BKS	eP	05 15 22.0						
	WDC		05 15			e 15 23			
	MHC	eP	05 15 24.0						
	PRI		05 15			e 15 26			
	JAS	eP	05 15 27.3						
			MICRON PERIOD						
			PZ	0.33	2.0				
	FRI		05 15			e 15 29			
	MNV		05 15			e 15 36			
			USGS 05 02 17.3, 9.8S, 154.7E, h= 20 km, mb=5.5, Ms=5.4 D'ENTRE CATEAUX ISLANDS REGION						

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DEC 28 WDC ePc 17 35 56.3 e 36 03
 MIN eP 17 35 59.9
 ORV iPc 17 36 01.7 i 36 09
 MHC eP 17 36 05.9
 JAS iPc 17 36 09.3 e 36 16
 FRI ePc 17 36 13.7 e 36 21
 USGS 17 23 52.3, 21.5N, 143.8E, h= 27 km, mb=4.8
 MARIANA ISLANDS REGION

DEC 28 WDC ePc 17 52 52.8
 MIN eP 17 52 56.2
 ORV ePc 17 52 58.2
 BRK eP 17 52 59
 MHC eP 17 53 02.4
 SAO 17 53
 JAS ePc 17 53 05.7 e 53 05
 PRI e(P) 17 53 09
 FRI ePc 17 53 10.2
 USGS 17 40 49.7, 21.5N, 143.6E, h= 33 km, mb=5.2
 MARIANA ISLANDS REGION

DEC 28 WDC eP 18 25 29.2 e 25 37
 MIN eP 18 25 32.6 e 25 40
 ORV eP 18 25 34.5 e 25 42
 BKS eP 18 25 37.1 e 25 42
 MICRON PERIOD
 PZ 0.03 1.0
 MHC eP 18 25 38.6 e 25 46
 JAS eP 18 25 41.8 e 25 49
 PRI eP 18 25 44.9 e 25 52
 FRI ePd 18 25 46.3 e 25 54
 USGS 18 13 25.4, 21.5N, 143.6E, h= 33 km, mb=5.0
 MARIANA ISLANDS REGION

DEC 28 ORV eP 18 32 38.3
 JAS eP 18 32 45.6
 FRI eP 18 32 50.3
 MARIANA ISLANDS REGION

DEC 28 MIN eP 19 06 43.0
 ORV iPc 19 06 44.9
 MHC eP 19 06 49.0
 JAS ePc 19 06 52.3
 FRI ePc 19 06 56.8
 USGS 18 54 35.4, 21.4N, 143.6E, h= 33 km, mb=4.8
 MARIANA ISLANDS REGION

DEC 28 WDC eP 21 08 05.0
 MIN eP 21 08 08.6
 ORV ePc 21 08 10.5
 BRK e(P) 21 08 11
 MHC eP 21 08 14.5
 SAO 21 08
 JAS ePc 21 08 17.8 e 08 17
 PRI eP 21 08 21
 FRI ePc 21 08 22.3
 USGS 20 56 00.7, 21.5N, 143.4E, h= 33 km, mb=5.0
 MARIANA ISLANDS REGION

DEC 28 MIN eP 22 44 58.4
 ORV ePc 22 45 00.2
 JAS ePc 22 45 07.7
 FRI ePc 22 45 12.3
 MARIANA ISLANDS REGION

DEC 29 MIN eP 01 53 54.3
 ORV eP 01 53 56.2
 MHC eP 01 54 00.3
 JAS eP 01 54 03.6
 FRI eP 01 54 08.0
 USGS 01 41 46.3, 21.4N, 143.5E, h= 33 km, mb=4.9
 MARIANA ISLANDS REGION

DEC 29 WDC eP 02 35 05.1
 MIN eP 02 35 08.6
 ORV eP 02 35 10.3
 BRK eP 02 35 11
 MHC eP 02 35 14.5
 JAS ePd 02 35 17.9
 FRI ePd 02 35 22.4
 USGS 02 23 01.8, 21.6N, 143.4E, h= 36 km, mb=4.8
 MARIANA ISLANDS REGION

DEC 29 MIN eP 05 19 29.8
 ORV eP 05 19 31.6
 MHC eP 05 19 35.6
 JAS eP 05 19 39.1
 FRI ePc 05 19 43.6
 USGS 05 07 22.5, 21.6N, 143.5E, h= 33 km, mb=4.6
 MARIANA ISLANDS REGION

DEC 29 WDC eP 15 49 06
 ORV iPc 15 49 11.6
 JAS ePc 15 49 19.2
 FRI ePc 15 49 23.8
 USGS 15 37 02.6, 21.7N, 143.4E, h= 33 km, mb=4.7
 MARIANA ISLANDS REGION

DEC 29 ORV eP 16 23 25.0
 JAS eP 16 23 33.7
 FRI eP 16 23 38.0
 USGS 16 11 16.8, 21.4N, 143.6E, h= 33 km, mb=4.6
 MARIANA ISLANDS REGION

DEC 29 SAO eP 19 19 02
 PRI ePc 19 19 03.1 pP 19 20
 MHC eP 19 19 04.1
 FRI ePc 19 19 08.1 pP 19 25
 JAS ePc 19 19 09.1 e 19 21 pP 19 26
 ORV ePc 19 19 11.4
 WDC ePc 19 19 12.2 pP 19 29
 MIN e(P) 19 19 13
 USGS 19 06 31.6, 30.2S, 177.9W, h= 61 km, mb=5.5
 KERMADEC ISLANDS

DEC 29 WDC ePc 23 01 05.0 i 01 07
 MIN eP 23 01 08.2
 ORV ePc 23 01 10.0 i 01 13
 BRK e(P) 23 01 11
 BKS 23 01 Lr 25 30
 MHC eP 23 01 14
 JAS iPc 23 01 17.8 e 01 20
 PRI eP 23 01 20.8
 FRI ePc 23 01 22.2 e 01 25
 USGS 22 49 00.6, 21.5N, 143.6E, h= 33 km, mb=5.2, Ms=4.8
 MARIANA ISLANDS REGION

DEC 30 FRI ePc 12 53 56.2 PoP 56 38
 PRI e(P) 12 53 59
 JAS eP 12 54 06.5 PoP 56 41
 MHC ePc 12 54 10.3
 ORV e(P) 12 54 20
 MIN ePc 12 54 24.3
 USGS 12 47 20.3, 14.7N, 91.8W, h= 33 km, mb=4.9, Ms=3.6
 GUATEMALA

DEC 30 WDC eP 14 06 26.5
 MIN eP 14 06 30.8
 ORV eP 14 06 36.7 e 07 44
 JAS eP 14 06 53.5
 MHC e(P) 14 06 56
 FRI eP 14 07 02.8
 PRI e(P) 14 07 09
 USGS 14 00 33.5, 64.6N, 148.1W, h= 24 km, mb=4.9, Ms=4.6
 CENTRAL ALASKA

DEC 30 PRI eP 14 39 46.8
 FRI ePc 14 39 49.8
 JAS eP 14 40 01.1
 MHC eP 14 40 01.6
 BRK e(P) 14 40 09
 BKS 14 40
 ORV eP 14 40 21.0
 USGS 14 35 12.3, 19.0N, 109.0W, h= 10 km, mb=4.4
 REVILLA GIGEDO ISLANDS REGION

DEC 31 PRI eP 07 07 43.3
 BRK eP 07 07 44.0
 MHC eP 07 07 44.2
 FRI ePc 07 07 47.7
 JAS ePc 07 07 48.9
 WDC ePc 07 07 52.2
 USGS 06 54 51.1, 33.7S, 179.4W, h= 33 km, mb=4.9
 SOUTH OF KERMADEC ISLANDS