Bulletin of the Seismographic Stations

INSTITUTE OF GEOLOGI...
HAZARDS ...
ARCHIVES SECTION
GLOBAL SEISMOL...

Vol. 48, Nos. 1 and 2, pp. 1 - 83

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, 1978 to December 31, 1978

This book was donated to the ISC
from the collection of the
British Geological Survey (BGS)

by

M. Richard McKenzie

Roy D. Miller

Robert A. Uhrhammer

International Seismological Centre

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of the University of California

Volume 48, Nos. 1 and 2

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INTRODUCTION

Each issue of the Bulletin includes determination of epicenters, origin times, magnitudes, and other information available at the time of writing, for earthquakes in Northern California and adjoining areas. Recorded arrival times of seismic waves are tabulated for the above earthquakes and for teleseisms.

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

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PERSONNEL (Feb 1980)

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HISTORY OF THE UNIVERSITY OF CALIFORNIA STATIONS

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

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

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

Since 1942, the number of seismographic stations associated with the University of California has increased from six to nineteen in 1978. 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, and the California State Division of Mines and Geology. A telemetry network of fifteen stations in Central California, recording on film and selected stations on magnetic tape, is now operated together with seismographs with broad-band frequency response at Berkeley, Jamestown, San Andreas Geophysical Observatory, and Whiskeytown Dam. Copies of records from instruments at the Berkeley laboratory are available, together with response characteristics, on request to the Director.

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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.

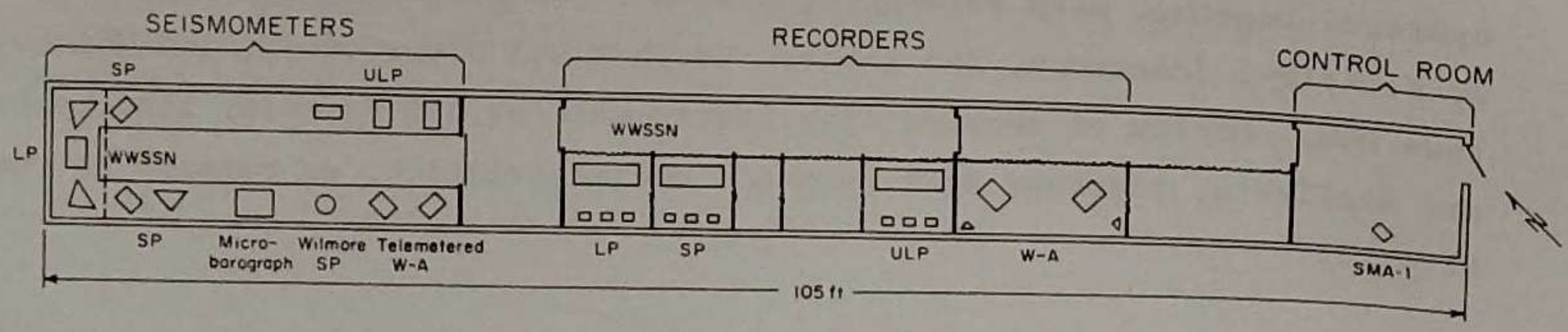
A plan of the tunnel is shown in the diagram below. Piers are constructed of reinforced concrete with no isolation from floor and walls. The temperature is stable. A ventilating and dehumidifying system is connected to all rooms.

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.



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STATIONS IN OPERATION: January 1, 1978 to December 31, 1978

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	226	Undivided cretaceous marine	WKC	Pacific Gas & Electric Company, 1976
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 Resources 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 Resources 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 overlying 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, 1978 to December 31, 1978

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		
	Displacement				- - -				x		
					- - -				x		
	Willmore MK II	1.0	0.2	Z	14,000 max		x		x		
	14000X torsion	0.8	-	N, E	700 max		x		x		
	700X torsion	0.8	-	N, E							
BRK	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	- - -				x		
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		
GCC	Benioff 14 kg	1.0	0.2	Z	50,000			x	x		
JAS	Benioff 100 kg	1.0	0.75	N, E, Z	250,000	x					
	Benioff 14 kg	1.0	0.2	Z	600,000		x	x	x		
	Sprengnether S-5100	40	-	Z							
	BB velocity								x		
	Displacement								x		
	Filtered Displacement								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 magnetic tape at SAO.*
6 *Ink recording.*

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STATION INSTRUMENTATION

January 1, 1978 to December 31, 1978

Station	Type of Instrument	T_o sec	T_g sec	Component	Mag at T_o	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 to give short-period response	filtered		Z	600,000 at 1 sec			x	x		
ORV	Benioff 100 kg	1.0	0.2	Z	220,000			x	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	- - -			x	x		
SAO	Benioff 14 kg	1.0	0.2	Z	1,500,000		x	x		x	
	Sprengnether 0.70 kg	0.2	0.05 Filter	Z						x	
	Sprengnether 0.70 kg	0.44	0.05 Filter	N, E, Z						x	
	Sprengnether S-5007 Displacement Strainmeter	30	BB	N, E, Z						x	x
SAO(E)	Sprengnether S-5007 Displacement	15	BB	N, E						x	
WDC	Sprengnether S-5100	40	-	Z	- - -				x		
	BB Velocity								x		
	Displacement								x		
	Filtered Displacement				500,000		x	x	x		
	Short Period (Filter)				- - -		x		x		
WKC	Kinemetrics SS-2 Ranger	1.0	0.2	Z	- - -		x		x		
ZSP	Teledyne 18300	1.0	0.2 Filter	Z							

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 magnetic tape at SAO.
6 Ink recording.

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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 11 and 12. 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), San Andreas Geophysical Observatory (SAO), and Whiskeytown (WDC). 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- (± 2mm) and high- (± 0.01mm) gain displacement signals from JAS and WDC and a short period high-gain channel from WDC are recorded along with BKS and SAO strain on the 0.03 ips tape recorder. Velocity signals from JAS (one level) and WDC (two levels) are recorded at Berkeley on the 0.06 ips 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. At Berkeley, broadband instrumentation has been gradually developed, starting with the installation in June 1964 of Press-Ewing seismometers operating at a free period of 30 seconds. Recently, a 3-component set of special ultra-long period seismometers has been installed in the Byerly Seismographic Vault. The seismometers are Sprengnether S-5100 operated at a free period of 100 seconds and utilize electronic recentering feedback for long term stability and temperature/barometric feedback also for the vertical component. Low- (± 2.0mm) and high- (± 0.020mm) gain displacement signals from each of the three components are telemetered to the laboratory and recorded on 0.03 ips, 0-10 Hz, magnetic tape. High-gain displacement signals from BRK, JAS, and WDC are high-pass filtered at 500 sec to reduce tidal signals. The Berkeley ultra-long period system also generates photographic paper records equivalent to a 100 second pendulum with a velocity transducer recorded by a 300 second galvanometer.

At SAO, the central vault is instrumented with Sprengnether S-5000 (WWSSN-type) 3-component long period (30 sec) seismometers with displacement transducers recording 0-10 Hz on 0.06 ips magnetic tape at SAO with 10 mm full-scale displacement; Sprengnether S-7000 3-component short period (0.44 sec) seismometers recording on SAO magnetic tape (0-20 Hz) at two gain levels separated by a factor of 100; and a single vertical component S-7000 (5 Hz) telemetered to Berkeley and recorded on Develocorders ('William' channel). The south vault, a tunnel 300 m SW of the San Andreas fault zone, houses a quartz-tube strainmeter 19 m long, operating with full-scale sensitivity of 2×10^{-7} and recorded on 0.03 ips FM tape (0-10 Hz) at Berkeley.

Response curves for these broadband instruments are shown on pages 11 and 13.

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)	V	1.79	.018	.64	4" I.D. cased borehole (163m deep)	Downhole (163m)
				L unknown	1.82	.019	.62		
			FBA-3 downhole	T unknown	1.83	.018	.66		
			FBA-3 uphole	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 (g/F.S.)	Bandwidth (Hz)			
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			
				Z,H_1,H_2	±0.010	.05-50			Midhole (15.7m)
				Z,H_1,H_2	±0.50	0-50			
				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	Wilmot Seismoscope SR-100	Duplex Horizontal	5.45×10^{-2} (m/rad)	.75	~ 10	Metal Box	Ground Level

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

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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

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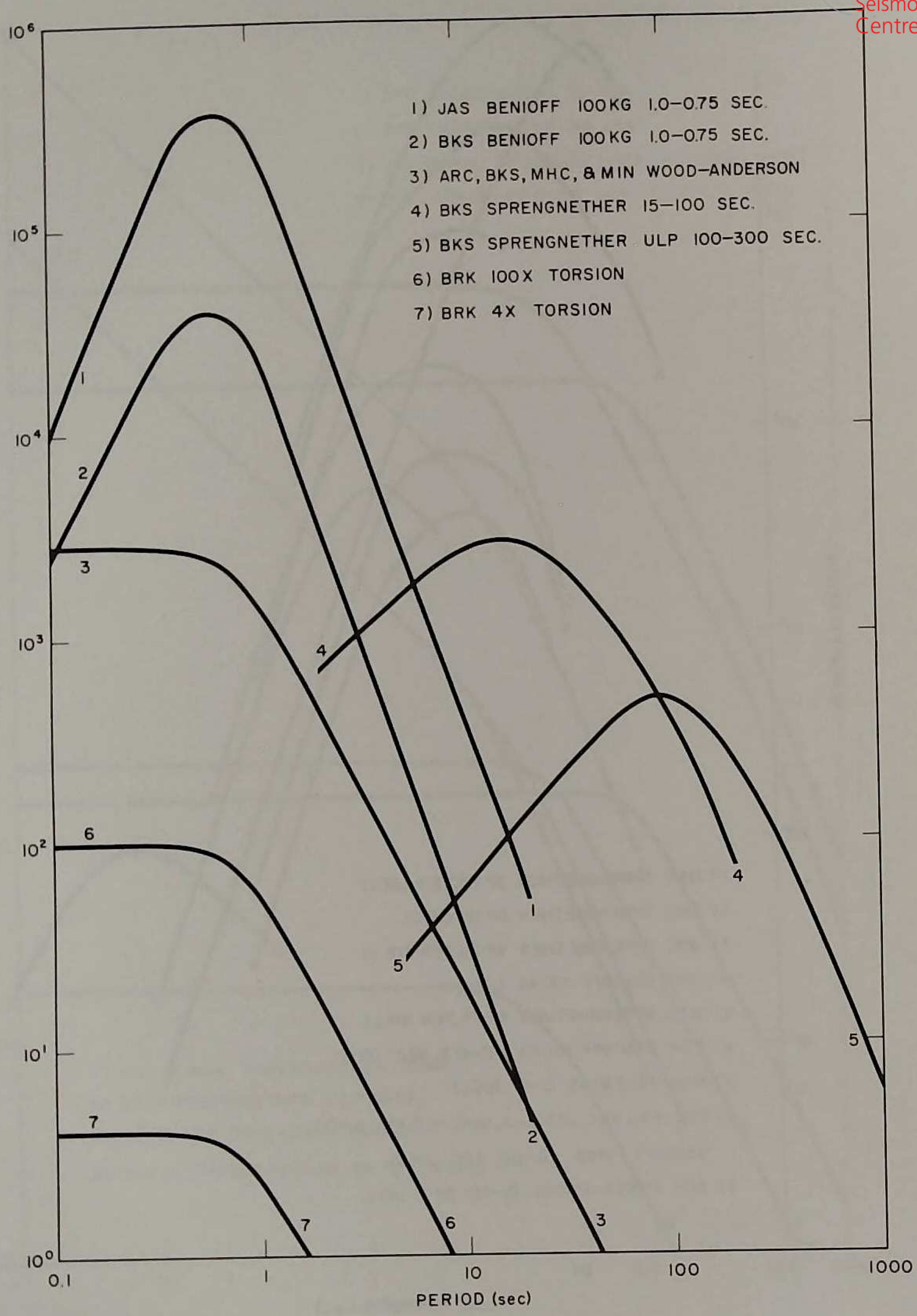

Response curves for photographically recording seismographs. The BKS Benioff and Sprengnether 15 - 100 second instruments are the WWSSN system.

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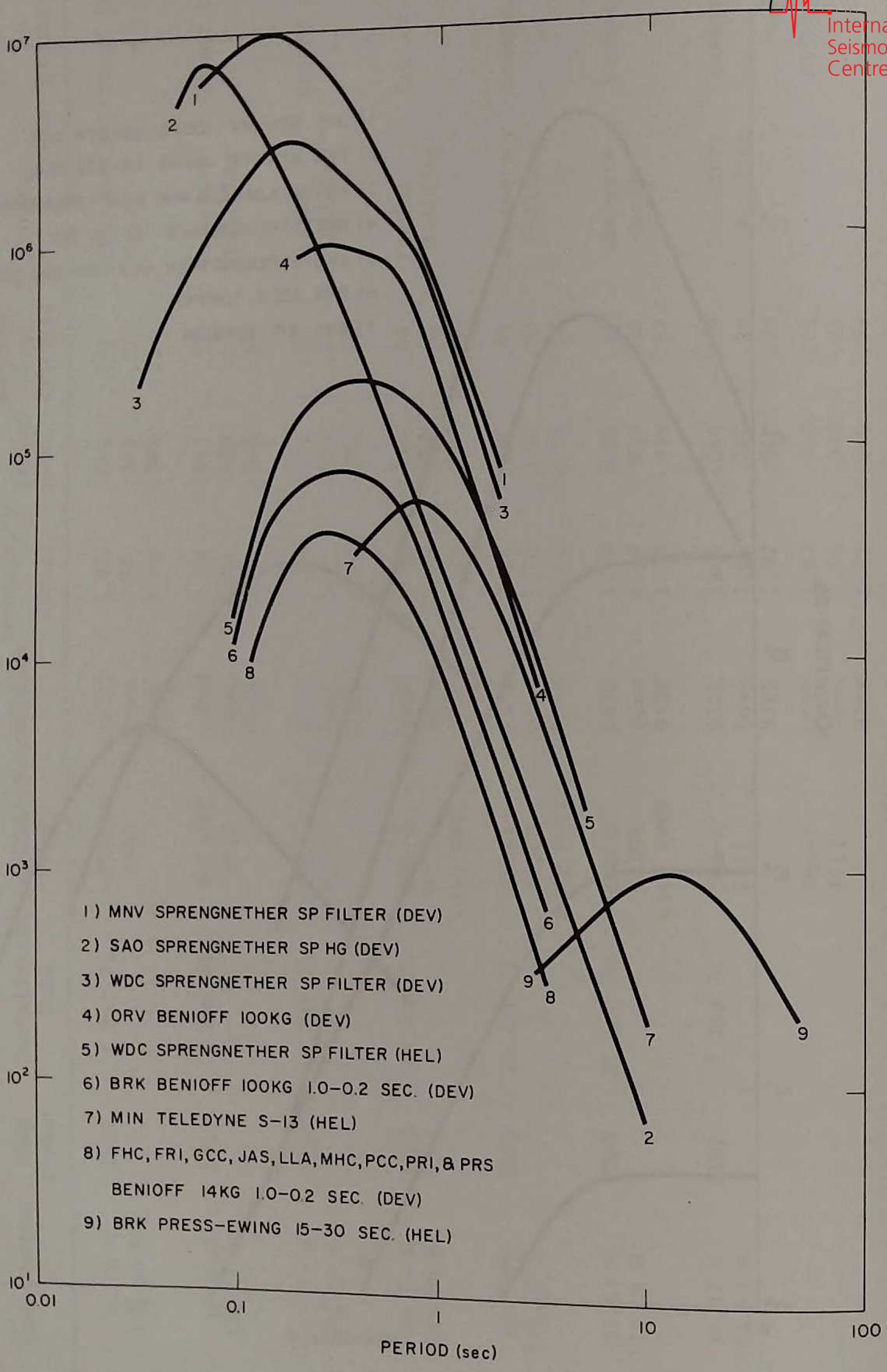

Response curves for Helicorder (HEL) and Develocorder (DEV) channels when viewed at 20X enlargement. The Benioff 14KG curve (8) represents several different stations and is normalized to 10,000 magnification at 1 second period. (See station instrumentation for actual magnification at 1 second period).

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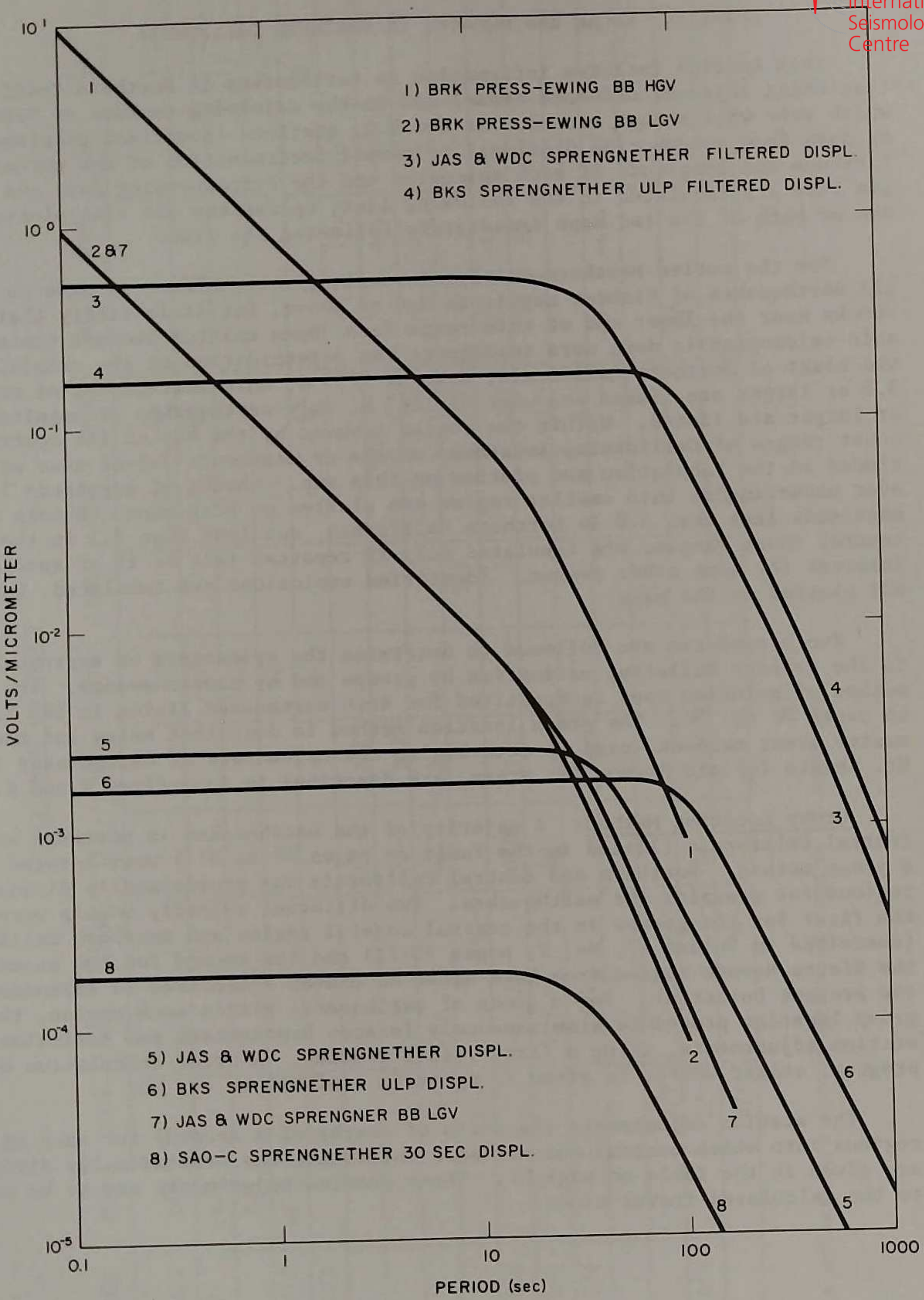

Response curves for broadband seismographs recorded on slow-speed FM magnetic tape at BRK and SAO. Displacement sensitivity (magnification) in volt/micrometer when reproduced on Honeywell LAR 7400 system (± 4 volts output).

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PART I. LOCAL EARTHQUAKES IN NORTHERN CALIFORNIA

This section includes information on earthquakes in Northern California (including adjacent offshore areas) and in the adjoining section of Nevada 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 list; epicenters are also plotted on one or both of the two maps immediately following the list.

For the entire Northern California region, every effort is made to list all earthquakes of Richter magnitude 3.0 or above, but it is likely that some shocks near the lower end of this range have been omitted because the available seismographic data were inadequate for 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 map of the central coast ranges of California, locatable shocks of magnitude 2.5 or over are included in the tabulation and plotted on this map. 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 of special interest for some other reason. Identified explosions are tabulated, but are not plotted on the maps.

Two procedures are followed to determine the epicenters of earthquakes in the present Bulletin, estimation by groups and by master events. The method of solution used is specified for each earthquake listed in the Table on pages 20 to 30. The group location method is described below and the master event methods, used in determining the epicenters of earthquakes in the Mt. Shasta (q) and Bishop (i) areas, are described in Appendices A and B.

Group Location Method: A majority of the earthquakes in northern and central California (listed in the Table on pages 20 to 30) were located by a group method. Northern and central California was provisionally divided into regions for grouping the earthquakes. Two different velocity models were used, the first for the groups in the central coastal region and northern California (described in Volume 47, No. 2, pages 70-72) and the second for the groups in the Sierra Nevada region from Lake Tahoe to Bishop (described in Appendix B of the present Bulletin). 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.

The station adjustments (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 15 . These station adjustments are to be added to the calculated travel times.

STATION ADJUSTMENTS

Region	ARC	BKS	FHC	FRI	GCC	JAS	LLA	MHC	MIN	MNV	ORV	PCC	PRI	PRS	SAO	WDC	WKC
a	-4/	-3/3	1/3						1/0		0/	-9/				4/1	9/9
b	-2/1	-8/	-1/1						-1/		-3/1	-6/				2/1	
c			3/1						3/0		-3/					2/	2/0
d		-5/2	-1/3						3/		-4/1					4/3	-2/1
e		-1/1							2/		-4/	-1/-1				8/	
f					-6/		-1/-4	2/1					1/-1	1/-4	-3/		
g					-5/		-2/-4	3/2					1/	1/0	-4/		
h				2/-3	-8/		-4/	0/					2/3	-1/	2/		
i				-2/-9		-4/-9				3/7							
j		1/0			-2/-2		0/0	3/0				-2/1	3/	-1/	-1/		
k		-1/1			-1/-3		0/	-1/-1				-3/-2		2/	1/		
m		1/1			-1/-2			1/2				1/-2			-1/		
n					-2/		0/	5/					-1/3	-4/4	-1/		
p				2/0		1/-7				-1/-3							
r		-4/1		1/		-2/-1	-3/-3	2/4					1/		2/		
s				2/0		0/-2				-2/-2	0/0						

Note: Station adjustments are in units of tenths of seconds.

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Explanation of the Table:

Map No. for each epicenter corresponds to the number plotted beside that epicenter on the maps. Epicenters without numbers lie outside the area of the map. The underlining of a map number in the table indicates that one point on a map has been used to represent more than one earthquake in the Table.

Date and Origin Time are given in 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 up to five minutes 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)".

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

Letter	No. of earthquakes	Location method	Region
a	18	group	Off coast (longitude $\geq$ 125° W)
b	27	group	Humboldt County (123° - 125° W)
c	13	group	Northern California (less Mt. Shasta)
d	9	group	Ukiah-Willits area
e	5	group	Santa Rosa - Clear Lake area
f	22	group	Stone Canyon
g	7	group	Bear Valley
h	3	group	Llanada area
i	53	master event*	Bishop
j	20	group	Hollister
k	20	group	San Jose - Mt. Hamilton area
m	5	group	Berkeley-Delta area
n	6	group	Priest-San Simeon area
p	8	group†	Mono Lake
q	49	master event+	Mt. Shasta
r	6	group	San Joaquin Valley
s	11	group†	South of Lake Tahoe

* See Appendix B
\+ See Appendix A
† Used Bishop velocity model (Appendix B)

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 19. 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 180,000 km^2 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 31, on the southwest by a line connecting 35°N-121°W and 29°N-125°W, and on the west by 125°W longitude.

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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

$$\log (N) = 4.412 - 0.912\ M_L$$

valid for $3.0 \leq M_L \leq 5.9$. The shaded zone depicts the 95 per cent confidence interval for log(N). Hence, the approximate interoccurrence time for earthquakes $\geq M_L$ in the 180,000 km^2 area is

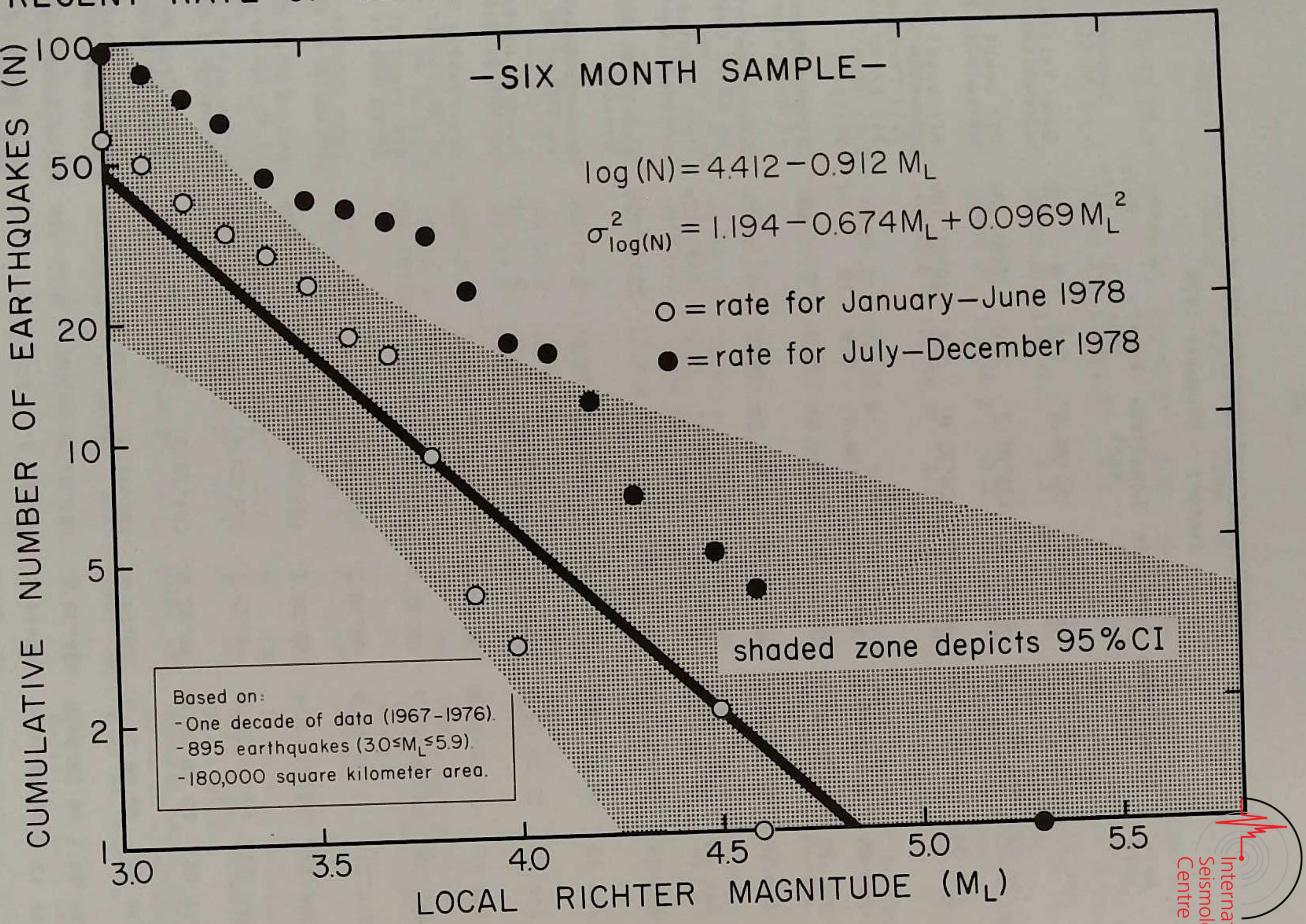
$M_L \geq$	Interoccurrence Time
3.0	4 days
3.5	11 days
4.0	1 month
4.5	3 months
5.0	8 months
5.5	2 years
6.0	5 years

The open circles give the cumulative number of earthquakes (59 earthquakes, $3.0 \leq M_L \leq 4.6$) in the first six months of 1978 and the solid circles give the cumulative number of earthquakes (96 earthquakes, $3.0 \leq M_L \leq 5.3$) in the last six months of 1978. There is thus no indication that the rate of seismicity for the first six months of 1978 is significantly different from the average rate of seismicity over the past decade. However, the rate of seismicity for the last six months of 1978 is significantly higher than the average rate of seismicity over the past decade. The high rate of seismicity for the last half of 1978 is primarily attributed to the occurrence of the earthquake sequence to the east of Mt. Shasta (q).

Acknowledgments

We should 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; National Center for Earthquake Research, United States Geological Survey; Pacific Gas and Electric Company; California Department of Water Resources: Oregon State University; and Woodward-Clyde Consultants.

RECENT RATE OF SEISMICITY FOR NORTHERN & CENTRAL CALIFORNIA



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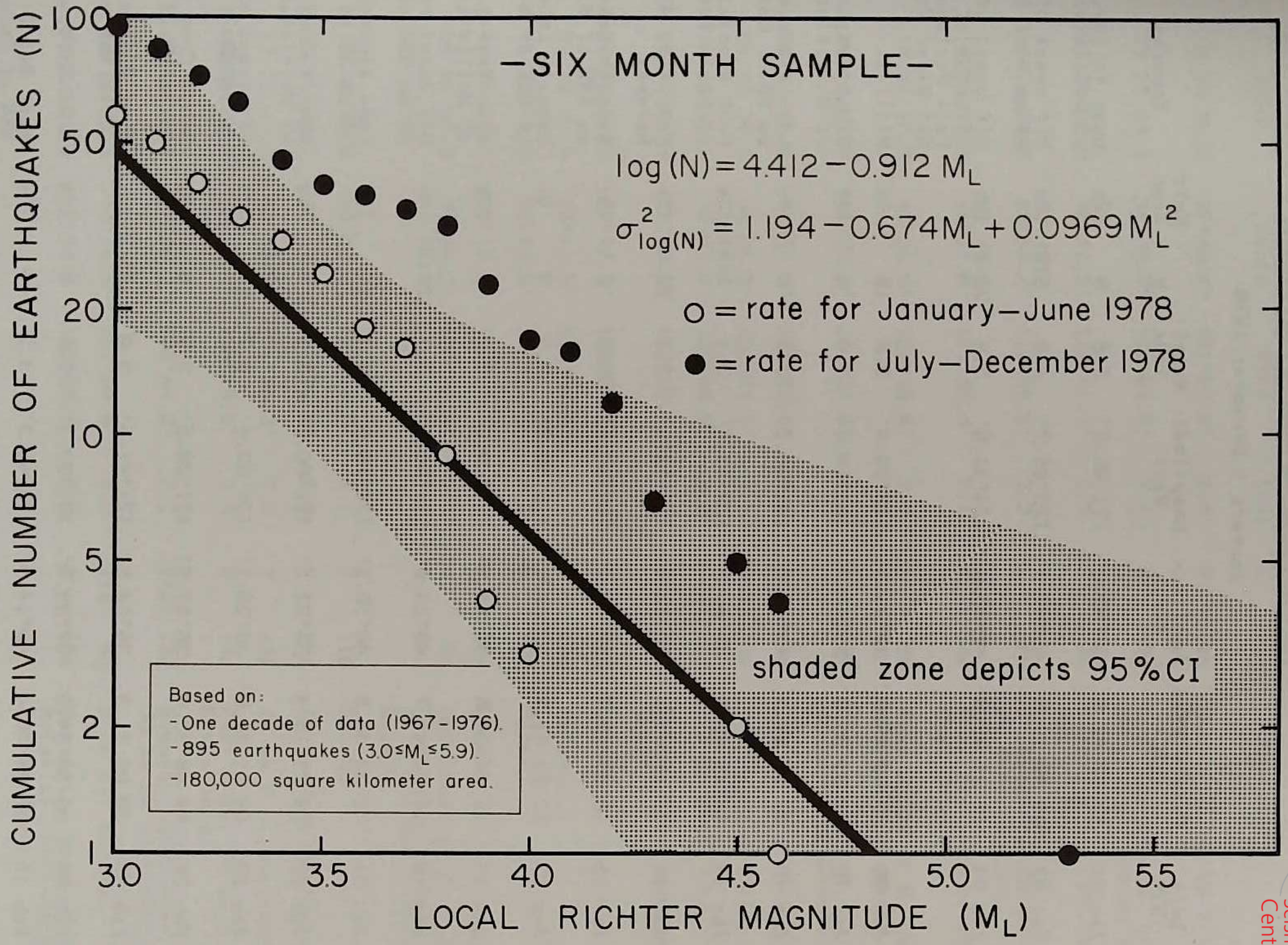
RECENT RATE OF SEISMICITY FOR NORTHERN & CENTRAL CALIFORNIA



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EARTHQUAKES IN NORTHERN CALIFORNIA

January - December 1978

Map No.	Date 1978	Origin Time (UTC)	Latitude North	Longitude West	Magnitude	h	Solution	Remarks
1	Jan 01	19 12 42.8	36°33.0'	121°06.8'	2.5	8	12h	Bear Valley, 42 km SE of Hollister.
2	Jan 02	06 39 19.8	40°47.0'	125°05.2'	4.0	5(R)	10a	Off coast of N. Calif. 80 km W of Eureka.
3	Jan 04	12 23 02.8	40°30.6'	124°31.8'	3.8	20(R)	10b	Off coast of N. Calif. 45 km SW of Eureka. Felt Fortuna, Ferndale, Eel River Valley.
4	Jan 06	10 42 45.0	39°24.3'	123°20.4'	3.0	18	9d	Willits.
5	Jan 10	08 21 35.8	36°37.9'	121°18.6'	3.0	6	13f	Stone Canyon, 27 km SE of Hollister.
6	Jan 10	22 10 31.5	40°06.1'	121°06.2'	3.4	6	8c	Lake Almanor area, 75 km NE of Chico.
7	Jan 14	15 45 45.6	38°48.3'	122°47.1'	3.1	5(R)	12e	Cobb Mountain, 42 km N of Santa Rosa.
3	Jan 14	16 13 09.0	40°22.4'	124°12.9'	3.1	22	12b	Petrolia, 45 km S of Eureka.
8	Jan 15	10 05 13.7	37°31.4'	118°59.1'	3.2	8	9i	Mammoth Lakes area, 57 km WNW of Bishop.
8	Jan 15	12 29 01.7	37°29.6'	118°58.2'	3.9	8	9i	Mammoth Lakes area, 57 km WNW of Bishop.
9	Jan 15	15 48 08.6	36°34.3'	121°13.2'	2.9	7	13g	Bear Valley, 36 km SE of Hollister.
3	Jan 18	16 08 41.7	40°25.0'	124°31.6'	3.7	20(R)	10b	Off coast of N. Calif. 50 km SSW of Eureka.
10	Jan 21	11 20 40.5	40°16.2'	121°16.8'	3.1	15	10c	Lake Almanor area, 75 km NE of Chico.
1	Jan 22	22 21 15.4	36°32.5'	121°06.8'	2.5	9	12g	Bear Valley, 43 km SE of Hollister.
11	Jan 29	06 01 22.0	40°25.1'	124°53.4'	3.7	14	11b	Off coast of N. Calif. 76 km SW of Eureka.
12	Feb 06	09 40 33.0	36°57.6'	121°38.5'	2.7	8	14j	Santa Cruz Mountains, 25 km NW of Hollister.
13	Feb 08	20 08 21.3	36°54.8'	121°41.5'	3.0	12	15j	E of Watsonville, 27 km WNW of Hollister.
14	Feb 09	05 38 54.9	37°39.9'	121°37.3'	2.6	9	11k	E of Livermore.
15	Feb 13	06 08 46.4	40°14.3'	122°06.3'	3.2	13	10c	Near Red Bluff, 60 km NNW of Chico.
16	Feb 14	16 33 47.0	38°24.3'	122°39.0'	2.7	8	9e	5 km SE of Santa Rosa.
17	Feb 14	21 03 56.4	40°16.8'	124°04.6'	3.9	20(R)	9b	Near coast of N. Calif. 60 km S of Eureka. Felt Rio Dell, Ferndale, Fortuna, Eureka.
18	Feb 17	07 35 26.6	40°06.2'	121°25.2'	3.0	11	6c	S of Mt. Lassen, 55 km NE of Chico.

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Map No.	Date 1978	Origin Time (UTC)	Latitude North	Longitude West	Magnitude	h	Solution	Remarks
19	Feb 19	19 19 59.8	37°49.4'	121°53.5'	2.5	9	13m	Danville, 30 km E of Berkeley.
20	Feb 20	23 38 54.5	35°40.7'	121°01.8'	3.1	3	6n	E of San Simeon, 55 km NW of San Luis Obispo.
21	Feb 23	03 56 00.0	36°31.5'	120°41.7'	2.5	13	9h	Ciervo Hills, 90 km WSW of Fresno.
22	Feb 23	10 14 07.2	38°18.2'	119°08.2'	3.3	22	8p	Bridgeport, 150 km SE of Reno, Nevada.
23	Feb 28	16 20 51.5	40°31.6'	121°55.4'	3.1	1	9c	W of Mt. Lassen, 90 km N of Chico.
3	Mar 21	14 05 13.2	40°26.6'	124°19.8'	3.7	11	9b	Near coast of N. Calif. 45 km SSW of Eureka.
3	Mar 21	20 17 06.7	40°28.2'	124°27.4'	3.1	8	7b	Off coast of N. Calif. 45 km SW of Eureka.
24	Mar 22	06 33 16.5	40°07.6'	122°57.6'	3.5	10(R)	9c	110 km NW of Chico.
24	Mar 22	08 40 34.1	40°06.0'	123°01.1'	3.1	10(R)	9c	115 km NW of Chico.
24	Mar 22	10 49 46.1	40°07.4'	122°56.6'	3.0	10(R)	9c	110 km NW of Chico.
25	Mar 26	00 27 04.8	39°12.2'	123°10.4'	4.5	10	10d	Ukiah. Minor damage in Ukiah.
25	Mar 26	00 34 11.9	39°12.7'	123°08.7'	3.2	5	10d	Ukiah.
25	Mar 26	01 19 10.1	39°11.7'	123°09.9'	3.7	10	10d	Ukiah.
25	Mar 26	02 29 16.9	39°12.8'	123°11.2'	3.5	6	10d	Ukiah.
25	Mar 26	04 28 19.1	39°12.1'	123°11.5'	3.7	10	10d	Ukiah.
3	Mar 27	08 44 01.5	40°25.3'	124°26.6'	3.6	14	8b	Off coast of N. Calif. 50 km SW of Eureka. Felt Rio Dell, Fortuna, Scotia.
25	Mar 27	16 15 34.2	39°09.9'	123°08.5'	3.1	7	11d	Ukiah.
26	Mar 28	09 51 02.1	36°51.8'	121°36.0'	2.9	7	12j	18 km W of Hollister.
26	Mar 28	17 22 41.2	36°50.3'	121°36.3'	2.6	7	13j	18 km W of Hollister.
27	Mar 31	01 03 27.7	38°29.1'	123°19.9'	3.3	8	14e	Fort Ross, 50 km W of Santa Rosa.
28	Apr 01	13 14 23.5	37°30.1'	118°44.2'	3.1	10(R)	12i	Mammoth Lakes area, 35 km NW of Bishop.
29	Apr 01	18 13 00.5	41°28.3'	121°50.8'	3.5	2(R)	4q	E of Mt. Shasta.
30	Apr 04	03 23 31.8	37°50.6'	122°03.5'	2.5	8	12m	Danville, 20 km E of Berkeley. Felt Walnut Creek, Alamo.
3	Apr 04	23 38 01.7	40°25.2'	124°24.7'	3.6	20(R)	9b	Near coast of N. Calif. 50 km SSW of Eureka.
31	Apr 07	11 56 50.2	36°44.8'	121°30.4'	2.7	6	12j	Fremont Peak, 15 km SW of Hollister.
25	Apr 08	09 22 18.9	39°11.2'	123°08.6'	3.2	5	13d	Ukiah. Felt Ukiah, Willits.
32	Apr 12	17 22 35.2	40°17.0'	124°11.6'	3.4	20(R)	8b	Petrolia, 55 km S of Eureka.

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Map No.	Date 1978	Origin Time (UTC)	Latitude North	Longitude West	Magnitude	h	Solution	Remarks
31	Apr 14	15 00 33.9	36°45.0'	121°30.2'	3.1	5	13j	Fremont Peak, 15 km SW of Hollister. Felt.
33	Apr 18	08 54 18.6	39°39.8'	122°44.2'	3.2	4	12c	80 km W of Chico.
33	Apr 18	17 11 39.6	39°40.6'	122°47.1'	3.2	2	10c	80 km W of Chico.
33	Apr 19	01 38 17.7	39°40.4'	122°45.4'	3.4	9	11c	80 km W of Chico.
33	Apr 19	04 19 50.8	39°40.1'	122°44.9'	3.2	8	12c	80 km W of Chico.
	Apr 19	09 42 14.6	40°22.7'	126°28.7'	4.7	5(R)	10a	Off coast of N. Calif. 200 km WSW of Eureka.
34	Apr 23	15 09 55.9	35°58.5'	121°34.5'	2.5	5	8n	Off coast of C. Calif. 50 km SW of King City.
	Apr 24	20 15 11.5	41°34.0'	125°36.3'	3.8	5(R)	10a	Off coast of N. Calif. 145 km NW of Eureka.
35	May 04	01 10 34.4	36°42.3'	121°12.7'	2.6	9	15f	Stone Canyon, 23 km SE of Hollister.
36	May 04	01 18 29.9	37°14.2'	121°37.0'	2.8	5	16k	25 km SE of San Jose.
	May 05	07 49 29.6	41°34.2'	125°47.7'	4.2	5(R)	8a	Off coast of N. Calif. 160 km NW of Eureka.
37	May 05	12 07 59.8	36°55.9'	120°59.9'	2.8	10	11r	40 km ENE of Hollister.
28	May 06	09 17 02.3	37°27.9'	118°33.8'	3.5	14	9i	20 km NW of Bishop.
28	May 06	10 14 14.9	37°28.4'	118°34.4'	3.7	8	9i	20 km NW of Bishop.
38	May 08	01 07 02.4	36°50.0'	120°02.0'	3.3	9	11r	S of Madera, 20 km W of Fresno.
39	May 08	06 56 23.3	37°22.2'	121°45.2'	3.4	3	14k	12 km E of San Jose.
39	May 10	15 55 03.8	37°22.4'	121°45.1'	2.9	2	13k	12 km E of San Jose.
39	May 10	15 55 40.5	37°22.6'	121°45.2'	3.3	2	15k	12 km E of San Jose.
40	May 10	18 30 25.0	40°22.3'	125°05.8'	4.0	5(R)	12a	Off coast of N. Calif. 100 km SW of Eureka.
39	May 11	11 56 05.6	37°22.4'	121°45.3'	3.8	3	15k	12 km E of San Jose. This and following two events strongly felt in San Jose; no damage reported.
39	May 11	11 56 56.6	37°22.3'	121°45.8'	3.8	2	14k	12 km E of San Jose.
39	May 11	12 18 11.8	37°22.7'	121°45.2'	3.7	4	15k	12 km E of San Jose.
39	May 11	12 28 03.5	37°22.6'	121°44.9'	3.4	4	15k	12 km E of San Jose.
39	May 11	19 13 24.9	37°22.6'	121°45.4'	2.8	4	15k	12 km E of San Jose.
39	May 12	00 27 47.6	37°22.8'	121°45.3'	3.0	1	13k	12 km E of San Jose.
29	May 17	00 45 16.8	41°26.7'	121°52.7'	3.1	2(R)	4q	E of Mt. Shasta.
41	May 20	05 50 57.0	40°27.1'	123°17.2'	3.0	1	8b	80 km SE of Eureka.
42	May 21	16 34 19.2	40°18.5'	124°34.4'	3.7	20(R)	11b	Off coast of N. Calif. 70 km SW of Eureka.
5	May 22	21 56 06.9	36°38.4'	121°18.4'	3.5	4	14f	Stone Canyon, 25 km SSE of Hollister. Felt Hollister; Stone Felt Ho-

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Map No.	Date 1978	Origin Time (UTC)	Latitude North	Longitude West	Magnitude	h	Solution	Remarks
5	May 22	22 01 58.2	36°38.6'	121°18.4'	2.9	5(R)	13f	Stone Canyon, 25 km SSE of Hollister. Felt Hollister, Stone Canyon.
11	May 23	21 42 02.9	40°26.3'	124°51.0'	4.6	20(R)	11b	Off coast of N. Calif. 70 km SW of Eureka. Felt Eureka, Van Duzen and Eel River Valleys.
43	May 27	18 22 41.3	38°32.1'	122°44.4'	3.8	9	11e	Santa Rosa area. Felt Sonoma County Airport.
	May 29	00 46 35.1	40°23.6'	126°11.8'	4.8	5(R)	11a	Off coast of N. Calif. 180 km WSW of Eureka.
5	May 30	05 20 54.5	36°36.8'	121°17.0'	2.8	8	13f	Stone Canyon, 27 km SSE of Hollister.
11	Jun 01	18 38 20.9	40°20.2'	124°50.5'	4.0	5(R)	10a	Off coast of N. Calif. 80 km SW of Eureka.
5	Jun 02	02 51 00.2	36°38.5'	121°18.2'	2.9	6	13f	Stone Canyon, 25 km SSE of Hollister.
39	Jun 09	22 18 17.3	37°22.6'	121°45.2'	2.8	2	12k	12 km E of San Jose.
29	Jun 11	19 08 26.0	41°26.2'	121°52.8'	3.2	2(R)	4q	E of Mt. Shasta.
29	Jun 11	20 12 03.9	41°26.4'	121°53.2'	3.5	2(R)	4q	E of Mt. Shasta.
29	Jun 12	03 03 35.2	41°27.7'	121°51.9'	3.0	2(R)	4q	E of Mt. Shasta.
29	Jun 12	09 18 44.1	41°27.9'	121°51.8'	3.8	2(R)	4q	E of Mt. Shasta.
44	Jun 18	23 04 52.7	40°18.6'	125°17.4'	4.2	5(R)	10a	Off coast of N. Calif. 110 km SW of Eureka.
3	Jun 19	12 50 54.1	40°16.8'	124°20.7'	3.5	20(R)	9b	Petrolia, 60 km S of Eureka.
45	Jun 22	06 04 29.1	36°58.2'	121°26.3'	2.7	12	15j	San Felipe, 15 km N of Hollister.
45	Jun 24	21 39 33.2	36°58.4'	121°26.3'	2.7	9	14j	San Felipe, 15 km N of Hollister.
45	Jun 27	10 12 13.9	36°57.7'	121°26.5'	2.8	9	14j	San Felipe, 15 km N of Hollister.
	Jun 29	11 28 10.4	41°32.2'	127°25.7'	4.1	5(R)	9a	Off coast of N. Calif. 290 km WNW of Eureka.
	Jun 29	11 42 25.1	41°54.7'	127°32.9'	4.0	5(R)	8a	Off coast of N. Calif. 310 km WNW of Eureka.
46	Jul 02	10 29 54.1	36°52.9'	122°10.5'	2.5	7	10j	20 km SW of Santa Cruz.
46	Jul 02	11 57 57.0	36°54.0'	122°10.8'	4.2	10	12j	20 km SW of Santa Cruz. Minor damage in Santa Cruz.
47	Jul 03	13 04 11.9	36°40.0'	121°21.4'	2.9	6	15f	Stone Canyon area, 20 km S of Hollister.
47	Jul 06	21 04 51.4	36°40.2'	121°21.5'	2.7	6	12f	Stone Canyon area, 20 km S of Hollister.
31	Jul 07	00 39 07.0	36°46.5'	121°31.6'	2.6	7	14j	Fremont Peak, 15 km SW of Hollister.
48	Jul 07	20 05 26.9	36°54.0'	121°29.1'	3.0	10	15j	10 km NW of Hollister.

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Map No.	Date 1978	Origin Time (UTC)	Latitude North	Longitude West	Magnitude	h	Solution	Remarks
11	Jul 11	06 53 05.2	40°19.6'	124°56.4'	3.8	10	8b	Off coast of N. Calif. 90 km SW of Eureka.
32	Jul 11	10 14 55.0	40°14.0'	124°10.2'	3.2	20(R)	8b	Petrolia area, 68 km S of Eureka.
3	Jul 15	07 24 42.1	40°18.9'	124°17.8'	3.1	17	7b	Petrolia, 60 km S of Eureka.
12	Jul 18	19 09 03.7	36°59.1'	121°40.2'	2.9	5	15j	Santa Cruz Mountains, 35 km NW of Hollister.
49	Jul 23	07 33 35.6	39°24.0'	121°27.6'	3.3	5	7c	Oroville area. Felt.
50	Jul 23	14 38 42.4	35°55.8'	120°30.6'	3.2	12	14n	Parkfield, 75 km N of San Luis Obispo.
51	Jul 27	07 29 31.4	37°42.3'	122°05.9'	2.5	12	12m	San Leandro, 25 km SE of Berkeley.
51	Jul 31	09 15 44.3	37°42.8'	122°08.1'	3.0	9	12m	San Leandro, 22 km SE of Berkeley. Felt Oakland, San Leandro, San Lorenzo, Lafayette.
29	Aug 01	09 02 34.5	41°27.2'	121°52.5'	4.6	2(R)	4q	E of Mt. Shasta. Felt Siskiyou County.
29	Aug 01	09 05 10.2	41°24.3'	121°54.8'	4.2	2(R)	4q	E of Mt. Shasta. Felt.
29	Aug 01	09 09 00.4	41°28.2'	121°51.5'	3.4	2(R)	4q	E of Mt. Shasta.
29	Aug 01	09 35 50.6	41°24.4'	121°54.7'	3.5	2(R)	4q	E of Mt. Shasta. Felt.
29	Aug 01	09 38 16.6	41°25.8'	121°53.5'	3.9	2(R)	4q	E of Mt. Shasta. Felt.
29	Aug 01	09 46 44.6	41°27.4'	121°52.2'	4.5	2(R)	4q	E of Mt. Shasta. Felt.
29	Aug 01	10 26 32.5	41°27.4'	121°52.1'	4.2	2(R)	4q	E of Mt. Shasta. Felt.
29	Aug 01	10 47 27.0	41°26.6'	121°52.8'	3.3	2(R)	4q	E of Mt. Shasta. Felt.
29	Aug 01	11 11 43.9	41°24.7'	121°54.8'	3.1	2(R)	4q	E of Mt. Shasta.
29	Aug 01	11 22 43.0	41°24.3'	121°55.2'	3.2	2(R)	4q	E of Mt. Shasta.
29	Aug 01	14 16 10.5	41°25.9'	121°53.1'	3.6	2(R)	4q	E of Mt. Shasta.
29	Aug 01	15 53 20.5	41°26.3'	121°53.1'	3.9	2(R)	4q	E of Mt. Shasta. Felt.
29	Aug 01	18 22 15.7	41°25.6'	121°53.5'	3.3	2(R)	4q	E of Mt. Shasta. Felt.
29	Aug 01	18 34 11.4	41°27.3'	121°51.9'	3.3	2(R)	4q	E of Mt. Shasta.
29	Aug 01	21 02 36.8	41°26.2'	121°52.8'	3.3	2(R)	4q	E of Mt. Shasta.
29	Aug 02	00 06 58.0	41°25.3'	121°53.8'	3.8	2(R)	4q	E of Mt. Shasta.
29	Aug 02	02 15 34.0	41°25.4'	121°53.5'	3.4	2(R)	4q	E of Mt. Shasta. Felt.
29	Aug 02	14 31 47.0	41°26.1'	121°53.1'	3.4	2(R)	4q	E of Mt. Shasta.
29	Aug 04	05 18 52.9	41°26.7'	121°52.9'	3.5	2(R)	4q	E of Mt. Shasta.
47	Aug 13	02 58 36.6	36°39.9'	121°21.1'	2.8	7	14f	Stone Canyon, 20 km S of Hollister.
29	Aug 13	05 55 48.0	41°25.8'	121°53.5'	4.3	2(R)	4q	E of Mt. Shasta. Felt.
29	Aug 13	05 57 05	41°25.8'	121°53.5'	4.1	2(R)	4q	E of Mt. Shasta. Felt.
29	Aug 13	05 58 22	41°25.8'	121°53.5'	4.3	2(R)	4q	E of Mt. Shasta. Felt.

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Map No.	Date 1978	Origin Time (UTC)	Latitude North	Longitude West	Magnitude	h	Solution	Remarks
29	Aug 13	06 21 32.0	41°26.2'	121°52.8'	3.3	2(R)	4q	E of Mt. Shasta.
29	Aug 13	07 03 18.1	41°28.8'	121°50.9'	3.3	2(R)	4q	E of Mt. Shasta.
29	Aug 14	21 52 41.6	41°25.3'	121°53.7'	4.2	2(R)	4q	E of Mt. Shasta. Felt.
29	Aug 15	04 16 52.4	41°27.0'	121°52.8'	3.3	2(R)	4q	E of Mt. Shasta.
29	Aug 15	04 32 52.8	41°26.1'	121°53.5'	3.4	2(R)	4q	E of Mt. Shasta.
3	Aug 16	07 45 32.4	40°19.7'	124°23.6'	3.8	21	11b	Off coast of N. Calif. 55 km SSW of Eureka. Felt Scotia, Eureka, Freshwater, Ferndale, Fortuna.
29	Aug 17	07 51 40.0	41°26.2'	121°53.2'	3.3	2(R)	4q	E of Mt. Shasta.
29	Aug 19	17 35 09.7	41°27.9'	121°51.6'	3.9	2(R)	4q	E of Mt. Shasta. Felt.
29	Aug 20	08 28 23.6	41°25.8'	121°53.4'	3.1	2(R)	4q	E of Mt. Shasta.
29	Aug 20	09 47 47.0	41°25.5'	121°53.7'	3.6	2(R)	4q	E of Mt. Shasta. Felt.
29	Aug 20	10 11 31.3	41°26.3'	121°53.1'	3.1	2(R)	4q	E of Mt. Shasta.
11	Aug 20	18 42 04.3	40°28.9'	124°51.6'	3.3	20(R)	10b	Off coast of N. Calif. 70 km SW of Eureka.
29	Aug 21	13 08 35.4	41°27.7'	121°51.9'	3.2	2(R)	4q	E of Mt. Shasta.
52	Aug 24	21 04 25.7	37°29.7'	121°32.6'	2.8	5	12R	30 km SE of Livermore.
53	Aug 25	01 35 49.8	38°03.4'	118°53.4'	3.2	8	12p	Mono Lake area.
54	Aug 28	03 32 18.4	37°32.9'	121°51.6'	2.8	11	13k	Sunol, 50 km SE of Berkeley.
9	Aug 28	19 57 24.6	36°31.8'	121°09.4'	2.8	6	15g	Bear Valley, 43 km SE of Hollister.
39	Aug 29	00 14 46.4	37°21.7'	121°43.0'	4.1	8	11k	Mt. Hamilton, 20 km E of San Jose. Minor damage in San Jose; felt Fremont.
39	Aug 29	00 18 45.3	37°20.8'	121°43.0'	3.8	7	11k	Mt. Hamilton, 20 km E of San Jose. Felt San Jose, Fremont.
53	Aug 31	00 06 55.9	38°03.1'	118°53.8'	3.1	5	9p	Mono Lake area.
39	Sep 01	09 31 25.4	37°19.2'	121°46.9'	3.3	8	14k	12 km SE of San Jose. Felt San Jose.
55	Sep 03	11 25 53.7	38°48.9'	119°48.1'	3.1	20	7s	SE of Lake Tahoe.
55	Sep 04	04 52 32.3	38°49.1'	119°48.6'	4.6	18	9s	SE of Lake Tahoe. Felt Tahoe Basin, El Dorado National Forest.
55	Sep 04	04 59 55.9	38°49.1'	119°49.5'	3.2	14	8s	SE of Lake Tahoe.
55	Sep 04	12 00 57.9	38°49.0'	119°48.8'	3.0	20	9s	SE of Lake Tahoe.
55	Sep 04	21 54 53.2	38°48.8'	119°48.9'	5.3	19	8s	SE of Lake Tahoe. Felt Lake Tahoe, Kirkwood, Placerville, Truckee, and Minden, Nevada.
55	Sep 04	22 03 35.5	38°48.8'	119°49.4'	4.1	16	8s	SE of Lake Tahoe. Felt.
55	Sep 04	22 11 53.3	38°48.9'	119°49.5'	3.0	13	9s	SE of Lake Tahoe.

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Map No.	Date 1978	Origin Time (UTC)	Latitude North	Longitude West	Magnitude	h	Solution	Remarks
55	Sep 04	22 37 26.0	38°48.4'	119°49.4'	3.1	14	8s	SE of Lake Tahoe.
39	Sep 05	21 06 00.1	37°19.1'	121°46.8'	2.5	8	14k	10 km E of San Jose.
56	Sep 08	16 59 47.8	38°38.1'	121°54.3'	4.2	17	11r	35 km W of Sacramento. Minor damage Winters; felt Vacaville, Fairfield, Davis, Sonoma, Woodlands, Napa, Sacramento.
	Sep 10	01 09 35.8	40°24.3'	125°26.1'	4.0	5(R)	10a	Off coast of N. Calif. 120 km SW of Eureka.
47	Sep 10	10 24 43.1	36°40.4'	121°21.5'	2.9	4	14f	Stone Canyon, 20 km S of Hollister.
55	Sep 11	11 00 30.3	38°48.4'	119°50.1'	3.0	16	6s	SE of Lake Tahoe.
47	Sep 15	07 30 43.2	36°40.6'	121°22.0'	2.5	7	13f	Stone Canyon, 20 km S of Hollister.
47	Sep 17	15 06 05.0	36°40.7'	121°22.0'	3.3	7	14f	Stone Canyon, 20 km S of Hollister.
47	Sep 17	15 08 02.3	36°40.4'	121°21.5'	3.0	8	14f	Stone Canyon, 20 km S of Hollister.
47	Sep 17	15 38 33.1	36°40.5'	121°21.7'	3.9	6	14f	Stone Canyon, 20 km S of Hollister.
47	Sep 17	16 00 26.2	36°40.4'	121°21.8'	3.8	6	14f	Stone Canyon, 20 km S of Hollister.
47	Sep 18	11 03 34.2	36°40.5'	121°21.8'	2.7	6	14f	Stone Canyon, 20 km S of Hollister.
57	Sep 19	15 52 41.5	37°43.8'	122°33.7'	2.9	8	11m	Off coast W of San Francisco. Felt Daly City.
58	Sep 20	09 53 24.3	37°32.1'	118°21.9'	3.7	3	8i	20 km N of Bishop.
12	Sep 21	03 18 57.1	36°59.1'	121°40.6'	2.9	8	14j	Santa Cruz Mountains, 30 km NW of Hollister. Felt Gilroy, Monterey, Santa Cruz.
59	Sep 22	03 26 19.8	40°38.0'	123°37.8'	3.7	20(R)	11b	50 km SE of Eureka.
45	Sep 22	15 36 20.3	36°56.3'	121°25.8'	2.6	8	15j	10 km N of Hollister.
47	Sep 23	18 12 37.0	36°40.6'	121°21.8'	2.6	6	14f	Stone Canyon, 20 km S of Hollister.
60	Sep 25	02 10 51.0	41°03.7'	125°22.8'	4.6	5(R)	11a	Off coast of N. Calif. 110 km WNW of Eureka.
61	Oct 02	01 21 03.2	37°00.7'	121°27.5'	2.5	8	15j	20 km N of Hollister.
29	Oct 04	03 34 26.8	41°27.6'	121°52.2'	3.3	2(R)	4q	E of Mt. Shasta.
28	Oct 04	16 42 48.6	37°31.0'	118°39.7'	5.8	10	15i	30 km NW of Bishop. Minor damage Bishop; strongly felt Yosemite, Visalia, Fresno; felt Mariposa, Bakersfield, Clovis, Modesto, San Jose, Madera, Sacramento, San Francisco.
28	Oct 04	16 48 24	37°31.0'	118°39.7'	3.2	10(R)	7i	30 km NW of Bishop.

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Map No.	Date 1978	Origin Time (UTC)	Latitude North	Longitude West	Magnitude	h	Solution	Remarks
28	Oct 04	16 59 04.2	37°31.6'	118°39.1'	4.4	13	12i	30 km NW of Bishop.
28	Oct 04	17 07 33.7	37°31.9'	118°39.1'	3.4	10(R)	11i	30 km NW of Bishop.
28	Oct 04	17 31 31.1	37°31.6'	118°39.5'	4.2	11	15i	30 km NW of Bishop.
28	Oct 04	17 33 04.0	37°30.8'	118°40.9'	3.6	5	5i	30 km NW of Bishop.
28	Oct 04	17 39 03.2	37°32.4'	118°39.6'	5.1	13	14i	30 km NW of Bishop.
28	Oct 04	17 43 46.6	37°32.2'	118°39.6'	3.6	6	14i	30 km NW of Bishop.
28	Oct 04	17 46 46.8	37°34.3'	118°37.1'	4.2	16	6i	30 km NW of Bishop.
28	Oct 04	17 49 28.4	37°32.7'	118°39.3'	3.3	13	10i	30 km NW of Bishop.
28	Oct 04	17 54 11.4	37°29.4'	118°40.1'	3.0	10(R)	6i	30 km NW of Bishop.
28	Oct 04	18 01 53.4	37°31.6'	118°40.0'	3.9	14	14i	30 km NW of Bishop.
28	Oct 04	18 03 40.9	37°33.0'	118°39.3'	3.6	8	11i	30 km NW of Bishop.
28	Oct 04	18 09 31.2	37°32.2'	118°40.1'	3.3	2	13i	30 km NW of Bishop.
28	Oct 04	18 12 41.7	37°31.4'	118°39.4'	3.3	12	11i	30 km NW of Bishop.
28	Oct 04	18 20 38	37°31.4'	118°39.4'	3.1	12(R)	6i	30 km NW of Bishop.
28	Oct 04	18 22 41.6	37°30.5'	118°39.4'	4.4	10	14i	30 km NW of Bishop.
28	Oct 04	18 44 42.7	37°31.6'	118°39.7'	3.6	5	13i	30 km NW of Bishop.
28	Oct 04	19 22 24.7	37°30.6'	118°40.6'	3.2	0	13i	30 km NW of Bishop.
28	Oct 04	19 47 41.7	37°32.5'	118°39.0'	3.1	17	10i	30 km NW of Bishop.
28	Oct 04	20 09 32.7	37°32.0'	118°38.8'	3.4	7	14i	30 km NW of Bishop.
28	Oct 04	20 11 41.7	37°31.8'	118°39.0'	3.6	10	13i	30 km NW of Bishop.
28	Oct 04	20 48 37.1	37°32.1'	118°39.1'	3.0	16	8i	30 km NW of Bishop.
5	Oct 04	21 24 09.0	36°38.7'	121°18.8'	2.9	7	14f	Stone Canyon, 25 km SSE of Hollister.
28	Oct 04	23 06 27.5	37°30.9'	118°39.1'	3.0	5	8i	30 km NW of Bishop.
28	Oct 05	01 17 47.2	37°30.7'	118°39.2'	4.6	7	15i	30 km NW of Bishop.
28	Oct 05	01 41 56.9	37°31.1'	118°40.1'	3.3	7	13i	30 km NW of Bishop.
28	Oct 05	01 45 05.6	37°30.3'	118°38.4'	3.5	6	15i	30 km NW of Bishop.
29	Oct 05	04 23 55.3	41°26.6'	121°52.4'	3.2	2(R)	4q	E of Mt. Shasta.
28	Oct 05	06 41 29.8	37°29.4'	118°39.0'	4.4	9	13i	30 km NW of Bishop.
29	Oct 05	09 56 40.4	41°27.7'	121°52.8'	4.1	2(R)	4q	E of Mt. Shasta.
28	Oct 05	10 46 17.7	37°30.9'	118°39.2'	3.3	6	11i	30 km NW of Bishop.
29	Oct 05	16 09 02.9	41°27.4'	121°52.3'	3.2	2(R)	4q	E of Mt. Shasta.
28	Oct 05	22 54 13.0	37°32.2'	118°38.4'	3.6	20	14i	30 km NW of Bishop.
28	Oct 06	01 32 21.6	37°32.1'	118°40.0'	3.5	10	17i	30 km NW of Bishop.
28	Oct 06	02 11 04.1	37°31.0'	118°39.0'	3.0	9	11i	30 km NW of Bishop.
62	Oct 06	16 37 10.4	37°13.8'	118°12.3'	3.5	6	16i	22 km SE of Bishop.
29	Oct 06	21 04 37.2	41°26.2'	121°53.0'	4.0	2(R)	4q	E of Mt. Shasta.

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Map No.	Date 1978	Origin Time (UTC)	Latitude North	Longitude West	Magnitude	h	Solution	Remarks
3	Oct 06	21 26 34.4	40°22.5'	124°16.4'	4.6	20(R)	11b	Petrolia, 50 km SSW of Eureka. Felt Arcata to Cape Mendocino.
3	Oct 06	21 43 00.9	40°22.9'	124°15.4'	3.3	23	10b	Petrolia, 50 km SSW of Eureka.
29	Oct 06	22 51 30.1	41°25.0'	121°54.1'	3.0	2(R)	4q	E of Mt. Shasta.
28	Oct 07	02 49 16.5	37°31.7'	118°40.3'	3.0	12	15i	30 km NW of Bishop.
3	Oct 07	04 47 00.8	40°25.0'	124°25.4'	3.9	20(R)	11b	Off coast of N. Calif. 50 km SW of Eureka.
62	Oct 07	12 30 40.7	37°14.1'	118°12.7'	3.1	8	12i	22 km SE of Bishop.
28	Oct 07	13 47 50.1	37°31.9'	118°40.2'	3.0	11	13i	30 km NW of Bishop.
28	Oct 08	13 29 18.5	37°31.5'	118°40.1'	3.1	11	14i	30 km NW of Bishop.
9	Oct 08	23 59 11.3	36°32.9'	121°11.2'	3.0	4	15g	Bear Valley, 40 km SE of Hollister.
47	Oct 09	20 49 45.8	36°40.9'	121°22.2'	3.3	6	13f	Stone Canyon, 20 km S of Hollister. Felt.
5	Oct 10	01 38 36.9	36°36.6'	121°16.9'	3.8	8	13f	Stone Canyon, 30 km SSE of Hollister. Felt San Benito County.
28	Oct 10	02 08 08.0	37°31.1'	118°40.4'	3.3	9	11i	30 km NW of Bishop.
55	Oct 10	04 28 51.8	38°47.9'	119°49.4'	3.1	10	8s	SE of Lake Tahoe. Felt Markleeville area.
63	Oct 11	02 51 22.3	38°30.8'	119°31.6'	3.0	12	7s	80 km SE of Lake Tahoe.
29	Oct 11	13 22 04.5	41°26.0'	121°52.8'	3.2	2(R)	4q	E of Mt. Shasta.
29	Oct 13	18 47 07.7	41°24.7'	121°54.2'	3.9	2(R)	4q	E of Mt. Shasta.
45	Oct 14	20 59 44.6	36°55.8'	121°27.3'	2.9	10	15j	10 km N of Hollister.
28	Oct 14	23 38 40.8	37°30.6'	118°39.4'	3.2	10	9i	30 km NW of Bishop.
64	Oct 15	11 43 25.4	37°07.8'	121°36.6'	2.7	6	15k	35 km SE of San Jose.
	Oct 15	15 36 31.7	40°36.9'	127°13.0'	4.1	5(R)	8a	Off coast of N. Calif. 260 km W of Eureka.
	Oct 15	19 54 50.4	40°35.4'	127°14.4'	4.3	5(R)	10a	Off coast of N. Calif. 260 km W of Eureka.
3	Oct 16	02 18 07.0	40°27.3'	124°17.9'	3.7	20(R)	12b	Near coast of N. Calif. 40 km SSW of Eureka.
	Oct 16	04 22 44.1	40°40.2'	127°12.9'	4.2	5(R)	11a	Off coast of N. Calif. 260 km W of Eureka.
29	Oct 17	02 26 18.8	41°25.5'	121°54.0'	3.0	2(R)	4q	E of Mt. Shasta.
47	Oct 18	19 45 09.7	36°40.8'	121°22.2'	2.5	7	12f	Stone Canyon, 20 km S of Hollister.
53	Oct 20	21 25 14.4	38°03.6'	118°53.8'	3.8	6	13p	Mono Lake area.
29	Oct 21	00 56 06.5	41°25.1'	121°54.4'	3.1	2(R)	4q	E of Mt. Shasta.
53	Oct 24	02 11 55.0	38°05.6'	118°53.9'	3.6	5	11p	Mono Lake area.
53	Oct 24	06 57 05.0	38°03.5'	118°54.1'	3.3	5	11p	Mono Lake area.

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Map No.	Date 1978	Origin Time (UTC)	Latitude North	Longitude West	Magnitude	h	Solution	Remarks
28	Oct 26	19 00 41.4	37°30.6'	118°39.7'	4.0	13	9i	30 km NW of Bishop. Felt Yosemite.
36	Oct 27	12 00 22.2	37°15.4'	121°38.2'	3.1	4	16k	25 km SE of San Jose. Felt.
3	Oct 29	04 33 03.2	40°21.2'	124°27.2'	3.3	20(R)	11b	Off coast of N. Calif. 60 km SW of Eureka.
65	Oct 29	06 50 49.1	40°17.7'	124°43.8'	3.8	20(R)	11b	Off coast of N. Calif. 80 km SW of Eureka.
47	Oct 30	16 05 04.6	36°40.4'	121°21.7'	3.2	6	13f	Stone Canyon, 20 km S of Hollister.
28	Nov 03	04 24 51.9	37°29.7'	118°37.4'	3.2	6	12i	30 km NW of Bishop.
66	Nov 04	02 32 11.1	36°28.2'	120°29.7'	2.5	19	11h	Ciervo Hills, 75 km SW of Fresno.
67	Nov 05	09 35 01.2	37°38.7'	118°02.8'	3.3	10(R)	8i	45 km NE of Bishop.
28	Nov 06	16 22 25.1	37°32.2'	118°40.0'	3.4	13	9i	30 km NW of Bishop.
26	Nov 07	13 00 08.1	36°49.5'	121°35.5'	2.6	5	14j	20 km W of Hollister.
26	Nov 07	13 05 00.6	36°49.0'	121°35.6'	2.6	4	13j	20 km W of Hollister.
	Nov 11	09 35 31.1	40°32.5'	126°32.6'	4.2	5(R)	12a	Off coast of N. Calif. 200 km W of Eureka.
68	Nov 12	13 07 57.3	39°29.6'	122°57.0'	3.8	16	13d	50 km NNE of Ukiah.
9	Nov 14	04 52 51.5	36°32.8'	121°11.4'	2.5	5	15g	Bear Valley, 40 km SE of Hollister.
69	Nov 14	14 51 38.8	38°06.7'	119°09.7'	3.0	21	8p	NW of Mono Lake.
70	Nov 20	09 11 05.6	36°23.5'	121°01.3'	2.7	6	12g	20 km NE of King City.
44	Nov 22	23 02 41.8	40°18.4'	125°13.4'	3.9	5(R)	12a	Off coast of N. Calif. 110 km SW of Eureka.
28	Nov 25	03 24 54.9	37°31.4'	118°40.3'	3.5	2	11i	30 km NW of Bishop.
28	Nov 25	04 06 41.2	37°31.6'	118°40.1'	3.3	3	12i	30 km NW of Bishop.
71	Nov 29	14 53 03.9	36°13.4'	120°50.0'	2.6	6	14n	40 km E of King City.
	Nov 30	16 38 39.3	40°25.5'	127°08.8'	4.0	5(R)	11a	Off coast of N. Calif. 250 km W of Eureka.
72	Dec 08	01 48 06.6	37°29.4'	121°04.2'	2.5	17	12r	SW of Modesto.
38	Dec 08	07 06 52.5	36°48.9'	119°59.4'	2.7	7	11r	20 km W of Fresno.
1	Dec 08	15 44 44.4	36°32.2'	121°04.5'	3.1	9	15g	Bear Valley, 47 km SE of Hollister.
7	Dec 09	16 02 27.7	38°47.1'	122°47.0'	3.4	4	15e	Cobb Mountain, 40 km N of Santa Rosa.
28	Dec 13	03 03 00.0	37°31.1'	118°38.7'	3.2	5	12i	30 km NW of Bishop.
71	Dec 14	07 38 12.1	36°10.7'	120°47.6'	3.1	6	14n	Peach Tree Valley, 30 km E of King City.
73	Dec 16	11 17 28.7	41°10.0'	124°04.4'	3.7	20(R)	8b	Near coast of N. Calif. 30 km N of Eureka.
39	Dec 18	07 59 29.9	37°23.9'	121°47.2'	2.8	5	13k	10 km NE of San Jose.

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Map No.	Date 1978	Origin Time (UTC)	Latitude North	Longitude West	Magni-tude	h	Solu-tion	Remarks
71	Dec 18	20 05 49.2	36°08.3'	120°43.9'	2.8	12	11n	Peach Tree Valley, 37 km E of King City.
62	Dec 29	04 26 42.6	37°15.5'	118°17.3'	3.8	4	11i	15 km SE of Bishop.
53	Dec 31	12 06 37.8	38°02.9'	118°53.4'	3.2	6	12p	Mono Lake area.

EXPLOSIONS AT NEVADA TEST SITE

Date 1978	Origin Time (UTC)	Latitude North	Longitude West	Magni-tude	
Feb 13	21 52 59.6	37.134	115.997	4.3	
Feb 23	17 00 00.2	37.125	116.064	5.4	"REBLOCHON"
Mar 16	14 59 59.6	37.100	116.057	4.4	
Mar 23	16 30 00.2	37.102	116.051	5.4	"ICEBERG"
Apr 11	15 30 00.2	37.300	116.327	5.2	"FONDUTTA"
Apr 11	17 45 00.1	37.233	116.367	5.3	"BACK BEACH"
Jul 07	13 59 59.3	37.100	116.010	4.2	
Jul 12	17 00 00.1	37.079	116.044	5.3	"LOWBALL"
Aug 31	14 00 00.2	37.275	116.357	5.6	"PANIR"
Sep 13	15 15 00.0	37.208	116.210	4.6	"DIABLO HAWK"
Sep 27	17 00 00	37.080	116.052	5.0	"DRAUGHTS"
Sep 27	17 20 00.0	37.073	116.020	5.5	"RUMMY"
Nov 02	15 25 00.2	37.288	116.297	4.2	"EMMENTHAL"
Nov 18	19 00 00.0	37.126	116.084	5.0	"QUARGEL"
Dec 16	15 30 00.2	37.273	116.410	5.6	"FARM"

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NORTHERN CALIFORNIA EARTHQUAKES

Seismographic Stations
University Of California, Berkeley

JANUARY–DECEMBER 1978

MAGNITUDE
- 3.0-3.4
- 3.5-3.9
- ≥ 4.0

U.C Seismographic Stations △

Approximate Location Of Principal Faults

KILOMETERS
50 0 50 100

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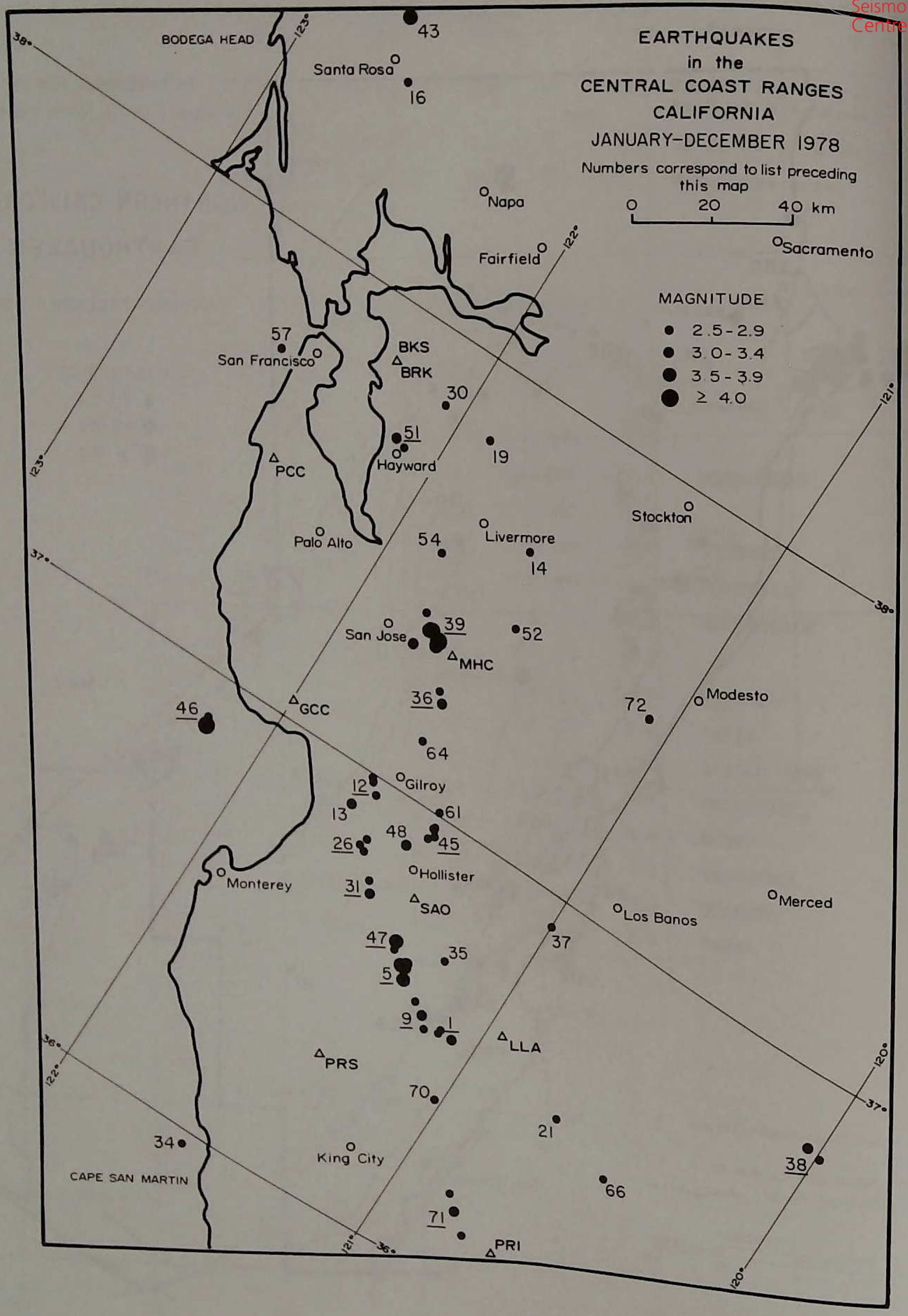

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PART II. REGISTRATION OF EARTHQUAKES

This section tabulates measured arrival times of prominent phases of earthquakes and large explosions recorded at selected stations of the seismographic network operated by the University of California (Berkeley). These stations are BKS (or BRK if the BKS reading is not clear), SAO, MNV, JAS, MHC, WDC, PRI, MIN, FRI, and FHC. Information regarding these stations and instrumentation will be found in the introductory section of this Bulletin. Berkeley source parameters from Part I are repeated for all earthquakes in Northern California and adjoining areas.

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 microns 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 source parameters are listed as a guide at the end of arrival times of the earthquakes. 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. Readings from the remaining stations in the network other than the ten listed are available on request. Requests for additional data or for copies of seismograms should be addressed to the Director.

UNIVERSITY OF CALIFORNIA
SEISMOGRAPHIC STATIONS
BERKELEY, CALIFORNIA 94720

JANUARY 01 THROUGH DECEMBER 31, 1978

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	FRI	eP	11	03	23.9							
	JAS	eP	11	03	29.4							
	MHC		11	03			e	03	30			
	BKS	eP	11	03	35.5							
	WDC	eP	11	03	42.8							
			USGS 10 S0 S8.3, 31.1S, 67.7W, h= 35 km, mb=5.1									
			SAN JUAN PROVINCE, ARGENTINA									
JAN 01	FRI	eP	13	00	07.1		pP	02	18			
	JAS	eP	13	00	07.8		pP	02	19			
	WDC	eP	13	00	10.7		pP	02	22			
	MIN	eP	13	00	11.6							
			SAMOA ISLANDS REGION									
JAN 01	BKS	eP	13	19	36.2							
	MHC	eP	13	19	37.6							
	FRI		13	19			e	19	39			
	WDC	eP	13	19	40.5							
	JAS	eP	13	19	42.6							
	FRI	eP	13	19	43.2							
			USGS 13 07 18.6, 14.6S, 167.1E, h=133 km, mb=5.1									
			NEW HEBRIDES ISLANDS									
JAN 01	SAO	iPe	19	12	49.4							
	FRI	iPe	19	12	53.3	13 02						
	MHC	eP	19	12	59.6	13 13						
	FRI	eP	19	13	03.5	13 18						
	JAS	ePd	19	13	08.2		e	13	28			
	BKS	iPd	19	13	09.5		e	13	11	e	13	38
			BRK 19 12 42.8, 36.6N, 121.1W, h= 8 km, ML=2.5									
			BEAR VALLEY, CALIFORNIA									
JAN 02	FHC	iPe	06	39	36.1	39 49						
	WDC	iPe	06	39	52.0	40 15						
	MIN	iPe	06	40	02.4							
	BKS	eP	06	40	16.0							
	MHC	eP	06	40	26.3		e	40	56	e	40	57
	JAS	ePd	06	40	30.0							
	SAO	eP	06	40	32.6							
	FRI	ePd	06	40	45.6							
			BRK 06 39 19.8, 40.8N, 125.1W, h= 5 km, ML=4.0									
			OFF COAST WEST OF EUREKA, CALIFORNIA									
JAN 02	SAO	eP	07	23	18.3							
	BKS	eP	07	23	18.5							
	MHC	eP	07	23	19.5							
	FHC	eP	07	23	19.8							
	FRI	eP	07	23	20.2							
	WDC	ePe	07	23	23.3							
	JAS	ePe	07	23	24.4		pP	24	22			
	FRI	eP	07	23	24.7		pP	24	23			
	MIN	ePe	07	23	25.5							
			USGS 07 11 06.5, 19.0S, 169.3E, h=249 km, mb=5.3									
			NEW HEBRIDES ISLANDS									
JAN 02	FRI	eP	08	40	12.9							
	FRI	eP	08	40	13.8							
	JAS	ePe	08	40	19.0							
	WDC	eP	08	40	32.2							
			USGS 08 27 40.5, 38.1S, 71.1W, h=126 km, mb=5.5									
			SOUTHERN CHILE-ARGENTINA BORDER REGION									
JAN 02	BKS		20	28								
						Lr 55 00						
						MICRON PERIOD						
		LZ				1.7 18						
	FRI	eP	20	28	25.5							
	JAS	ePe	20	28	27.0							
	WDC	ePe	20	28	30.0							
	MIN	eP	20	28	31.5							
			USGS 20 15 52.2, 29.4S, 176.6W, h= 33 km, mb=5.2, Ms=5.0									
			KERMADEC ISLANDS REGION									
JAN 02	WDC	ePe	21	05	06.1							
	MIN	ePe	21	05	12.0							
	JAS	ePe	21	05	29.6							
	FRI	eP	21	05	37.6							
			USGS 20 57 38.2, 51.1N, 178.1W, h= 33 km, mb=5.1									
			ANDREANOF ISLANDS, ALEUTIAN ISLANDS									
JAN 03	PRI	ePe	01	22	31.1							
	JAS	ePe	01	22	36.3							
	MHC	ePe	01	22	38.2							
	WDC	ePe	01	22	49.7							
			USGS 01 10 04.8, 31.6S, 67.8W, h= 40 km, mb=5.2									
			SAN JUAN PROVINCE, ARGENTINA									
JAN 03	JAS	eP	06	43	36.0							
	WDC	eP	06	43	50.2							
			USGS 06 31 05.2, 31.2S, 67.8W, h= 33 km, mb=4.9									
			SAN JUAN PROVINCE, ARGENTINA									
JAN 04	FHC	eP	01	08	06							
	WDC	iPe	01	08	11.7							
	MIN	eP	01	08	15.6							
	BKS	eP	01	08	23.0							
						MICRON PERIOD						
		PZ				0.03 0.8						
	JAS	iPe	01	08	29.8							
	FRI	ePe	01	08	35.8							
	MNV	iPe	01	08	36.6							
			USGS 00 57 25.7, 42.6N, 142.1E, h=103 km, mb=5.0									
			HOKKAIDO, JAPAN REGION									
JAN 04	WDC	eP	05	40	37.4							
	MIN	eP	05	40	40.7							
	JAS	eP	05	40	49.2							
	FRI	eP	05	40	53.2							
	MNV	iPe	05	40	57.5							
			USGS 05 28 53.4, 17.8N, 145.5E, h=253 km, mb=4.5									
			MARIANA ISLANDS									
JAN 04	FHC	iPe	12	23	12.4							
	WDC	iPe	12	23	27.1	23 45						
	MIN	ePe	12	23	37.3	24 04						
	MHC	e(P)	12	24	02							
	JAS	eP	12	24	04							
	FRI	eP	12	24	20							
	MNV	eP	12	24	22							
			BRK 12 23 02.8, 40.5N, 124.5W, h= 20 km, ML=3.8									
			OFF COAST SOUTHWEST OF EUREKA, CALIFORNIA									
JAN 04	WDC	e(P)	15	01	04							
	FHC	ePd	15	01	05.0		e	01	15			
	MIN	ePd	15	01	06.3		e	01	16			
	MNV	ePd	15	01	18.8							
	JAS	ePd	15	01	23.4							
	MHC	e(P)	15	01	29		e	01	34			
	FRI	eP	15	01	30.1							
	FRI	e(P)	15	01	38							
			USGS 14 52 09.3, 85.7N, 23.8W, h= 33 km, mb=5.0									
			LOMONOSOV RIDGE									
JAN 04	FHC	eP	16	15	52.4		e	16	42			
	WDC	eP	16	16	05.0							
	BKS	e(P)	16	16	43							
	MHC	e(P)	16	16	49							
	JAS	eP	16	16	51.4							
	MNV	e(P)	16	17	03							
	FRI	e(P)	16	17	06							
			USGS 16 15 04.7, 43.3N, 126.5W, h= 15 km, mb=4.5									
			OFF THE COAST OF OREGON									
JAN 04	FRI	ePe	21	59	01.2							
	JAS	ePd	21	59	08.0							
	MNV	ePd	21	59	13.2							
	WDC	ePd	21	59	23.9							
JAN 04	MNV	eP	23	00	03.0							
	FRI	e(P)	23	00	04							
	JAS		23	00					e	00	13	
	MHC		23	00					e	00	18	
	BKS	e(P)	23	00	29							
	WDC		23	00					e	00	33	
	FHC	eP	23	00	43							
			USGS 22 52 15.9, 9.5N, 84.1W, h= 68 km, mb=5.0									
			COSTA RICA									
JAN 05	PRI	ePe	03	33	12.0		e	33	25			
	SAO	eP	03	33	15.1							
	FRI	iPe	03	33	17.7		i	33	24			
	MHC	iPe	03	33	19.7							
	BKS	e(P)	03	33	22							
	JAS	iPe	03	33	24.0		i	33	31	i	33	36
							e	33	45			
	MNV	iPe	03	33	29.3		i	33	36	i	33	41
	MIN	e(P)	03	33	39							
	WDC	iPe	03	33	40.2		i	33	47			
	FHC	ePe	03	33	41.6							
			USGS 03 23 26.1, 20.8S, 126.9W, h= 33 km, mb=5.5									
			SOUTH PACIFIC OCEAN									
JAN 05	JAS	eP	17	19	35.8							
	FRI	eP	17	19	40.6							
	MNV		17	19			e	19	44			
			USGS 17 07 30.5, 25.6N, 143.1E, h= 33 km, mb=5.0									
			VOLCANO ISLANDS REGION									
JAN 06	WDC	e(P)	07	15	57							
	JAS	e(P)	07	16	21							
	FRI	eP	07	16	29.4							
			USGS 07 08 43.8, 51.8N, 176.0W, h= 63 km, mb=5.3									
			ANDREANOF ISLANDS, ALEUTIAN ISLANDS									
JAN 06	WDC	iPd	10	43	07.5	43 26						
	MIN	eP	10	43	12.7							
	FHC	i(Pg)	10	43	13							
	JAS	iP	10	43	30.3							
			BRK 10 42 45.0, 39.4N, 123.3W, h= 18 km, ML=3.0									
			WILLITS, CALIFORNIA									
JAN 06	WDC	eP	19	53	14.5							
	JAS	eP	19	53	32.5							
	MNV	eP	19	53	39.3							
			USGS 19 42 19.6, 41.5N, 142.0E, h= 66 km, mb=5.1									
			HOKKAIDO, JAPAN, REGION									
JAN 06	FHC	e(P)	22	04	27							
	WDC	eP	22	04	34.5							
	JAS	eP	22	05	02							
			USGS 21 59 01.1, 60.9N, 149.4W, h= 45 km, mb=4.6									
			KENAI PENINSULA, ALASKA									
JAN 08	MNV	iPKPe	06	51	26.7							
	MIN	ePKPe	06	51	28.2							
	FRI	ePKP	06	51	32.3							
	JAS	ePKPe	06	51	32.5							
	WDC	e(PKP)	06	51	33							
	PRI	ePKP	06	51	36.7							
			USGS 06 31 52.8, 12.1S, 34.3E, h= 33 km, mb=5.1									
			MALAWI									
JAN 08	WDC	eP	22	19	29							
	JAS	eP	22	19	56.3							
			USGS 22 13 57.1, 57.1N, 153.4W, h= 26 km, mb=4.8									
			KODIAK ISLAND REGION									
JAN 09	WDC	eP	20	25	04.1							
	JAS	eP	20	25	05.7							
	FRI	eP	20	25	06.2							
	MNV	eP	20	25	14.7							
			USGS 20 12 34.2, 18.0S, 168.4E, h=126 km, mb=5.0									
			NEW HEBRIDES ISLANDS									
JAN 10	FHC	ePe	01	00	06.3							
	WDC	iPe	01	00	12.6							
	MIN	iPe	01	00	17.0							
	BKS	ePe	01	00	24.9		e	00	25			
						MICRON PERIOD						
		PZ				0.08 0.8						
	MHC	eP	01	00	29.7							
	JAS	iPe	01	00	32.4							
	SAO	eP	01	00	32.4		i	00	49			
	FRI	eP	01	00	38.9							
	PRI	eP	01	00	39.1							
	MNV	iPe	01	00	39.8		e	00	46			
			USGS 00 50 17.1, 46.8N, 152.3E, h= 61 km, mb=5.6				i	00	59			
			KURIL ISLANDS									
JAN 10	SAO	iPe	08	21	39.0							
	PRI	iPd	08	21	49.6	22 03						
	MHC	iPd	08	21	50.7	22 04						
	FRI	iPe	08	21	59.3	22 16						
	BKS	eP	08	22	00.8							
	JAS	iPe	08	22	02.1	22 21	e	22	11	e	22	23
	MNV	iP	08	22	21.8							
			BRK 08 21 35.8, 36.6N, 121.3W, h= 6 km, ML=3.0									e 22 28
			STONE CANYON, CALIFORNIA									
JAN 10	MHC		10	31								
	FRI		10	31								
	JAS	eP	10	31	11.2		e	31	06			
	WDC		10	31			e	31	09			
	MNV		10	31								
			USGS 10 19 47.6, 23.7S, 179.8E, h=620 km, mb=5.1				e	31	13			
			SOUTH OF FIJI ISLANDS				e	31	22			
JAN 10	MIN	iPd	22	10	40.5	10 47						
	WDC	iPd	22	10	53.9	11 09						
	JAS	ePe	22	11	10.2							
	BKS	eP	22	11	12.0	11 39	Sg	11	38			
			BRK 22 10 31.5, 40.1N, 121.1W, h= 6 km, ML=3.4									
			NORTHEAST OF CHICO, CALIFORNIA									
JAN 11	FHC	iPe	08	21	19.1							
	WDC	iPe	08	21	24.0							
	MIN	ePe	08	21	27.5		pP	22	56			
	BKS	iPe	08	21	32.2		pP	23	04			
						MICRON PERIOD						
		PZ				0.17 0.8						
	MHC	ePe	08	21	35.9							
	SAO	eP	08	21	37.6							
	JAS	iPe	08	21	38.7							
	FRI	ePe	08	21	43.2		pP	23	12			
	FRI	ePe	08	21	43.3		pP	23	20			
	MNV	ePe	08	21	45.7		pP	23	20			
			USGS 08 10 12.4, 30.0N, 138.7E, h=410 km, mb=5.3									
			SOUTH OF HONSHU, JAPAN									

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JAN 11  MIN             11 08                   e 08 17
        MNV   eP        11 08 20.3
        WDC             11 08                   e 08 22
        JAS   eP        11 08 29.1
        FRI             11 08                   e 08 33
                USGS 10 58 12.9, 66.0N,  16.8W, h= 10 km, mb=4.8
                     ICELAND REGION

JAN 11  PRI   eP        20 10 06.9
        FRI   ePd       20 10 08.3
        MNV   ePd       20 10 15.5
        SAO             20 10                   e 10 18
        JAS   eP        20 10 20.0              e 10 31
        MHC   eP        20 10 22.8
        BKS   eP        20 10 31.0  14 58       e 14 56     Lq 16 00     Lr 16 44
                              MICRON     PERIOD
                         PZ     0.04        1.0
                         LZ     6.4         20
                         LN     5.0         20
                         LE     3.9         20
        MIN   eP        20 10 44.9
        WDC   ePd       20 10 50.7
        FHC             20 11                   e 11 00
                Ms=5.0, DISTANCE=27°
                USGS 20 05 24.2, 18.8N, 107.1W, h= 33 km, mb=5.4, Ms=4.9
                     OFF THE COAST OF JALISCO, MEXICO

JAN 11  WDC   eP        20 37 33.7
        JAS   eP        20 37 51
        FRI             20 38                   e 38 05
                USGS 20 26 56.1, 43.0N, 145.4E, h= 54 km, mb=5.4
                     HOKKAIDO, JAPAN, REGION

JAN 12  SAO   eP        18 16 27.4
        PRI   eP        18 16 30.1
        MHC   eP        18 16 30.7
        FRI   eP        18 16 35.5
        JAS   eP        18 16 36.5
        WDC   iPd       18 16 39.0
        MIN   eP        18 16 40.6
        MNV   iPd       18 16 46.7
                USGS 18 05 03.8, 17.5S, 172.1W, h= 23 km, mb=5.2, Ms=4.6
                     TONGA ISLANDS REGION

JAN 13  MNV   iPd       03 39 57.2
        JAS   iP        03 40 23.6  41 00
        FRI   eP        03 40 26.7
        MIN   eP        03 40 29.1
        MHC   eP        03 40 32.6  41 35
        WDC   eP        03 40 39.0
        PRI             03 40                   e 40 51
                ML=4.2, NEAR AUSTIN, NEVADA
                USGS 03 39 36.0, 39.4N, 117.6W, h=  5 km
                     NEVADA

JAN 13  WDC   eP        08 28 48.8
        MIN   eP        08 28 55.6
        JAS   eP        08 29 28.8
        MNV   eP        08 29 34.7
        FRI   eP        08 29 40.7
                USGS 08 25 31.6, 52.7N, 132.1W, h= 33 km, mb=5.0, Ms=4.1
                     QUEEN CHARLOTTE ISLANDS REGION

JAN 13  FHC   e(P)      20 13 11
        WDC   iPe       20 13 17.3                  pP 13 33     e 13 48     e 13 59
        BKS   ePe       20 13 28.9  21 40           pP 13 44     SS 26 00    Lq 29 15
                                                    Lr 32 20
                              MICRON     PERIOD
                         PZ     0.08        1.0
                         LZ     3.2         20
                         LN     1.8         20
                         LE     3.2         20
        MHC   eP        20 13 33.7                  pP 13 48
        JAS   ePe       20 13 36.4                  pP 13 51 PKPPKP 42 30
        SAO             20 13                       e 13 42
        FRI   ePe       20 13 42.7                  pP 13 58
        FRI   eP        20 13 43.0
        MNV   eP        20 13 43.6                  pP 13 58
                Ms=5.4, DISTANCE=65°
                USGS 20 03 03.8, 44.7N, 149.7E, h= 52 km, mb=6.0, Ms=6.0
                     KURIL ISLANDS

JAN 14  FHC   ePe       03 36 09.0                  e 36 18
        WDC   iPe       03 36 14.3                  e 36 24     PP 39 08
        MIN   eP        03 36 18.5                  e 36 28
        BKS   ePe       03 36 24.0  46 12           e 36 33     SKS 46 26    Lq 55 00
                                                    Lr 59 12
                              MICRON     PERIOD
                         PZ     0.09        1.0
                         LZ     18.7        20
                         LNE    14.9        20
                         LNW    18.7        20
        MHC   ePe       03 36 27.5                  e 36 37     e 36 57
        SAO   e(P)      03 36 30
        JAS   iPe       03 36 30.5                  e 36 40     e 37 04     PP 39 30
                                                PKPPKP 03 54
        FRI   ePe       03 36 35.5                  e 36 46
        PRI   ePe       03 36 35.8                  e 36 45     e 37 22
        MNV   iPe       03 36 37.6
                Ms=6.4, DISTANCE=76°
                USGS 03 24 39.0, 34.8N, 139.3E, h= 14 km, mb=6.2, Ms=6.6
                     NEAR THE SOUTH COAST OF HONSHU, JAPAN

JAN 14  FHC   e(P)      04 53 32
        WDC   ePe       04 53 37.6
        BRK   eP        04 53 46.7
        JAS   ePe       04 53 53.7
        FRI   eP        04 53 59.0
        PRI   eP        04 53 59.3
        MNV   ePd       04 54 00.5
                USGS 04 41 58.3, 34.8N, 138.8E, h=  5 km, mb=5.2
                     NEAR THE SOUTH COAST OF HONSHU, JAPAN

JAN 14  FHC   eP        09 13 25.0                  e 13 40
        WDC   eP        09 13 31.5                  e 13 46
        JAS   eP        09 13 50.5                  e 14 05
        FRI   eP        09 13 56.8                  e 14 11
        MNV   eP        09 13 57.8                  e 14 12
        PRI   e(P)      09 14 00                    e 14 15
                USGS 09 03 16.6, 44.5N, 149.7E, h= 51 km, mb=5.4, Ms=5.3
                     KURIL ISLANDS

JAN 14  WDC   eP        09 30 42.3                  e 30 58
        MIN             09 30                       e 30 54
        JAS   eP        09 31 01.5                  e 31 16
        MNV   eP        09 31 09.0                  e 31 24
                USGS 09 20 28.3, 44.5N, 149.8E, h= 53 km, mb=5.0
                     KURIL ISLANDS

JAN 14  SAO   e(P)      15 33 26
        PRI   eP        15 33 27.1
        MHC   eP        15 33 28.2                  pP 33 42
        BKS   ePd       15 33 28.2  43 58           pP 33 41     Lq 54 00     Lr 59 32
                              MICRON     PERIOD
                         PZ     0.09        1.0
                         LZ     34          20
                         LN     24          20
                         LE     18          20
        FRI   eP        15 33 32.0                  pP 33 45
        JAS   ePd       15 33 33.0                  pP 33 46
        FHC   e(P)      15 33 34                    pP 33 49
        WDC   ePd       15 33 36.3
        MIN   eP        15 33 37.5                  pP 33 54
        MNV   ePd       15 33 40.8
                Ms=6.5, DISTANCE=84°
                USGS 15 20 54.2, 30.1S, 177.5W, h= 44 km, mb=5.8, Ms=6.3
                     KERMADEC ISLANDS

JAN 14  BKS   iPe       15 46 05.5  46 20
        MHC   eP        15 46 15
        JAS   ePd       15 46 20.2
                BRK  15 45 45.6, 38.8N, 122.8W, h=  5 km, ML=3.1
                     NORTH OF SANTA ROSA, CALIFORNIA

JAN 14  FHC   iPd       16 13 18.1  13 25
        WDC   iPe       16 13 30.8  13 46
        MIN   iPe       16 13 40.7
        JAS   eP        16 14 07
        SAO   eP        16 14 12.7
                BRK  16 13 09.0, 40.4N, 124.2W, h= 22 km, ML=3.1
                     SOUTH OF EUREKA, CALIFORNIA

JAN 14  WDC   ePKP      19 08 39.7
        JAS   ePKP      19 08 46.9
        MNV   ePKP      19 08 48.2
                MID-INDIAN RISE REGION

JAN 14  PRI   eP        19 58 06.2
        MHC   eP        19 58 07.5
        BKS   ePd       19 58 07.9
                              MICRON     PERIOD
                         PZ     0.04        1.0
        FRI   ePe       19 58 11.2                  pP 58 25
        JAS   ePe       19 58 12.2                  pP 58 26
        WDC   eP        19 58 15.3                  pP 58 29
        MNV   ePe       19 58 20.5
                USGS 19 45 34.9, 30.3S, 177.4W, h= 47 km, mb=5.4
                     KERMADEC ISLANDS

JAN 14  MHC   eP        20 15 16.5
        FRI   ePe       20 15 20.2
        JAS   ePe       20 15 21.5
        WDC   ePe       20 15 24.5
        MNV   eP        20 15 30.3
                USGS 20 02 42.8, 30.0S, 177.5W, h= 35 km, mb=5.1
                     KERMADEC ISLANDS

JAN 14  FHC   e(P)      22 43 18
        WDC   eP        22 43 25.0
        MIN   e(P)      22 43 28
        BKS   ePe       22 43 32.5                  Lr 06 12
                              MICRON     PERIOD
                         PZ     0.06        0.7
                         LZ     2.5         20
                         LN     2.1         20
                         LE     3.6         20
        MHC   eP        22 43 37.1
        JAS   ePd       22 43 40.8
        PRI   eP        22 43 46.1
        FRI   eP        22 43 46.2
        MNV   ePd       22 43 47.7
                USGS 22 31 46.0, 34.8N, 138.8E, h= 10 km, mb=5.5, Ms=5.7
                     NEAR THE SOUTH COAST OF HONSHU, JAPAN

JAN 14  WDC   ePe       22 47 47.8
        MIN   eP        22 47 51.5
        BKS   ePd       22 47 58
        MHC   eP        22 48 01.8
        JAS   ePe       22 48 03.7
        FRI   ePe       22 48 09.2
        MNV   ePe       22 48 10.4
                USGS 22 36 09.9, 34.7N, 138.8E, h= 13 km, mb=5.3
                     NEAR THE SOUTH COAST OF HONSHU, JAPAN

JAN 15  PRI   e(P)      07 09 10
        MHC   eP        07 09 10.7
        BKS   eP        07 09 11    19 40           e 09 14     e 20 40     SS 27 00
                                                    Lq 31 08    Lr 35 16
                              MICRON     PERIOD
                         PZ     0.06        1.0
                         LZ     10.4        20
                         LN     7.1         20
                         LE     6.0         20
        FRI   eP        07 09 14.6
        JAS   eP        07 09 15.6
        WDC   eP        07 09 19.0
        MIN   eP        07 09 20.2
        MNV   eP        07 09 23.6
                Ms=6.1, DISTANCE=85°
                USGS 06 56 34.5, 30.2S, 177.6W, h= 17 km, mb=5.6, Ms=6.1
                     KERMADEC ISLANDS

JAN 15  FRI   iPe       10 05 27.7  05 38
        MNV   eP        10 05 34.5
        JAS   iPe       10 05 35.6  05 51
        PRI   eP        10 05 49.3
        SAO   eP        10 05 50.5
        MHC   eP        10 05 51.0
        BKS   iPd       10 05 58.0
                BRK  10 05 13.7, 37.5N, 119.0W, h=  8 km, ML=3.2
                     WNW OF BISHOP, CALIFORNIA

JAN 15  FRI   iPe       12 29 15.6  29 26
        MNV   iPe       12 29 22.8
        JAS   iPe       12 29 23.5  29 39
        PRI   eP        12 29 36.0
        SAO   eP        12 29 38.0
        MHC   eP        12 29 38.6
        BKS   iPd       12 29 45.8                  e 29 47
                BRK  12 29 01.7, 37.5N, 119.0W, h=  8 km, ML=3.9
                     WNW OF BISHOP, CALIFORNIA

JAN 15  MHC   eP        13 29 47.8
        FRI   eP        13 29 51.6
        JAS   eP        13 29 52.6
        WDC   eP        13 29 56.1
        MNV   eP        13 30 00.6
                USGS 13 17 12.7, 30.5S, 177.3W, h= 33 km, mb=5.6
                     KERMADEC ISLANDS

JAN 15  SAO   iPe       15 48 13.6
        PRI   iPd       15 48 20.7  48 29
        MHC   ePd       15 48 24.8  48 37
        FRI   ePe       15 48 31.0
        JAS   eP        15 48 34.4  48 54
        BKS   eP        15 48 35                    e 48 38
                BRK  15 48 08.6, 36.6N, 121.2W, h=  7 km, ML=2.9
                     BEAR VALLEY, CALIFORNIA

JAN 17  MHC             07 44                       e 44 46
        FRI   eP        07 44 50.7
        JAS   eP        07 44 51.6
                USGS 07 33 18.5, 16.9S, 173.6W, h= 44 km, mb=5.2
                     TONGA ISLANDS

JAN 17  FRI             11 45                       e 45 42     i 45 49
        PRI   eP        11 45 42.4                  i 45 50
        MNV   eP        11 45 43.3                  i 45 51
        SAO   eP        11 45 46.5                  e 45 53
        JAS   iP        11 45 47.4                  i 45 55
        MHC   eP        11 45 50.0                  i 45 57
        BKS   ePe       11 45 54                    e 45 59
                              MICRON     PERIOD
                         PZ     0.19        1.2
        WDC   iP        11 46                       i 46 01
        FHC             11 46                       e 46 08     i 46 15
                USGS 11 33 14.3, 31.3S,  67.9W, h= 24 km, mb=5.8, Ms=5.7
                     SAN JUAN PROVINCE, ARGENTINA

JAN 18  MHC   eP        02 17 45.8
        FRI   eP        02 17 50.0
        JAS   eP        02 17 51.0
        WDC   eP        02 17 53.9
        MIN   eP        02 17 55
                USGS 02 05 18.9, 27.5S, 178.2W, h= 33 km, mb=5.2
                     KERMADEC ISLANDS REGION
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JAN 18 FRI eP 05 44 03.0
MNV iPd 05 44 04.1
PRI eP 05 44 05.3
JAS eP 05 44 10.9
MHC eP 05 44 14.4
BKS eP 05 44 19.1
MICRON PERIOD
PZ 0.04 1.0
MIN eP 05 44 24.4
WDC iPd 05 44 27.9
FHC iPd 05 44 37.1
USGS 05 33 58.4, 8.7S, 74.3W, h=170 km, mb=5.0
PERU-BRAZIL BORDER REGION

JAN 18 FHC iPe 16 08 52.2 09 00
WDC iPe 16 09 06.8 09 26
MIN iPe 16 09 16.8 09 43
BKS ePe 16 09 28.9 10 05
MHC eP 16 09 38
JAS eP 16 09 42.9
SAO eP 16 09 45
FRI e(P) 16 09 58
MNV eP 16 10 01.2
BRK 16 08 41.7, 40.4N, 124.5W, h= 20 km, ML=3.7
OFF COAST SSW OF EUREKA, CALIFORNIA

JAN 18 SAO ePe 19 20 07.9
PRI eP 19 20 09.1
MHC eP 19 20 10.0
BKS ePd 19 20 10.4
MICRON PERIOD
PZ 0.04 1.0
FRI ePe 19 20 13.6
JAS iPe 19 20 14.7
MNV ePe 19 20 23.2
USGS 19 07 16.8, 33.7S, 179.4W, h= 26 km, mb=5.2
SOUTH OF KERMADEC ISLANDS

JAN 18 BKS 21 25 e 25 24 Lr 53 00
MICRON PERIOD
LZ 4.8 20
LN 3.4 20
LE 3.6 20
FRI eP 21 25 16.8
JAS eP 21 25 18.2
WDC eP 21 25 21.7
MNV eP 21 25 26.1
USGS 21 12 37.6, 30.5S, 177.3W, h= 33 km, mb=5.1, Ms=5.4
KERMADEC ISLANDS

JAN 19 SAO eP 10 55 08.7
BKS eP 10 55 08.9
MICRON PERIOD
PZ 0.05 1.1
MHC ePe 10 55 10.2
PRI eP 10 55 10.3
FRI ePe 10 55 15.3
JAS iPe 10 55 15.8
WDC eP 10 55 16.7
MIN eP 10 55 18.7
MNV eP 10 55 25.3
USGS 10 44 14.6, 17.7S, 178.8W, h=565 km, mb=5.1
FIJI ISLANDS REGION

JAN 19 FRI 21 01 e 01 02
MNV eP 21 01 01.7
JAS iPd 21 01 06.9
MIN 21 01 e 01 19
WDC iPd 21 01 21.6
USGS 20 49 28.4, 21.9S, 68.2W, h=153 km, mb=4.8
CHILE-BOLIVIA BORDER REGION

JAN 20 BKS eP 00 37 07 Lr 05 30
MICRON PERIOD
LZ 3.6 20
LN 1.1 20
LE 2.5 20
MHC eP 00 37 08.4
JAS eP 00 37 13.0
FRI eP 00 37 13.4
MNV eP 00 37 20.9
USGS 00 24 26.4, 9.8S, 159.5E, h= 73 km, mb=5.5
SOLOMON ISLANDS

JAN 20 FRI 02 19 e 19 13
MNV eP 02 19 13.8
JAS 02 19 e 19 22
USGS 02 12 41.3, 14.3N, 92.1W, h= 84 km, mb=5.0
NEAR THE COAST OF CHIAPAS, MEXICO

JAN 20 FRI eP 04 55 16.8 e 55 41
PRI eP 04 55 17.9
MNV iP 04 55 19.6 i 55 59
SAO eP 04 55 21.5
JAS iPd 04 55 23.4 i 55 54
MHC eP 04 55 24.3
BKS iPe 04 55 28.0
MICRON PERIOD
PZ 0.48 1.5
MIN eP 04 55 34.0
WDC iPd 04 55 36.8 i 55 45 i 56 04
USGS 04 42 57.9, 34.3S, 70.2W, h=132 km, mb=5.7
CHILE-ARGENTINA BORDER REGION

JAN 20 WDC iPe 05 34 27.9
MIN eP 05 34 31.0
BKS eP 05 34 33
MHC eP 05 34 35.3 e 34 35
JAS eP 05 34 38.8
PRI eP 05 34 41.0
FRI eP 05 34 42.4
MNV iPe 05 34 47.0
USGS 05 22 11.9, 13.4N, 144.3E, h=133 km, mb=5.2
MARIANA ISLANDS

JAN 20 MNV eP 13 45 44.5
JAS eP 13 45 53.5
USGS 13 33 09.7, 4.0N, 31.3W, h= 33 km, mb=4.8
CENTRAL MID-ATLANTIC RIDGE

JAN 21 BKS eP 00 53 41.7
MICRON PERIOD
PZ 0.05 0.8
MHC eP 00 53 43.0
WDC iPd 00 53 44.0
PRI eP 00 53 45.7
MIN eP 00 53 46.5
JAS ePd 00 53 47.9
FRI eP 00 53 49.5
MNV iPd 00 53 57.2
USGS 00 41 12.9, 10.2S, 161.2E, h=112 km, mb=5.4
SOLOMON ISLANDS

JAN 21 MNV eP 08 28 38.3
FRI eP 08 28 41.0
PRI eP 08 28 44.9
JAS eP 08 28 48.5
MHC eP 08 28 54.0
BKS eP 08 28 58.9
MICRON PERIOD
PZ 0.02 0.8
WDC eP 08 29 04.8
FHC eP 08 29 15.5
USGS 08 19 38.7, 6.4N, 72.4W, h= 41 km, mb=5.1, Ms=4.8
NORTHERN COLOMBIA

JAN 21 MHC eP 10 13 42.8
PRI eP 10 13 44.0
FRI e(P) 10 13 48
JAS eP 10 13 48.6
WDC eP 10 13 49.5
MNV eP 10 13 58.3
USGS 10 02 55.3, 17.5S, 178.7W, h=638 km, mb=4.4
FIJI ISLANDS REGION

JAN 21 MIN iPe 11 20 46.3 20 50
WDC iPe 11 20 58.6 21 12
JAS eP 11 21 21.5 e 21 53
BKS eP 11 21 23.8
BRK 11 20 40.5, 40.3N, 121.3W, h= 15 km, ML=3.1
NORTHEAST OF CHICO, CALIFORNIA

JAN 21 FRI eP 22 45 33.1
PRI eP 22 45 33.5
MNV ePd 22 45 37.6
JAS ePd 22 45 44.0
MHC eP 22 45 46.3
BRK e(P) 22 45 52
MIN eP 22 46 06
USGS 22 40 31.0, 18.4N, 103.2W, h= 89 km, mb=4.7
NEAR THE COAST OF MICHOACAN, MEXICO

JAN 22 SAO eP 00 45 10.3
BKS eP 00 45 11.6
MICRON PERIOD
PZ 0.02 0.7
PRI eP 00 45 12.0
MHC eP 00 45 12.2
FRI ePe 00 45 17.7
JAS ePe 00 45 18.5
WDC ePe 00 45 20.3
MIN eP 00 45 22.3
MNV ePe 00 45 29.0
USGS 00 33 51.8, 15.3S, 173.5W, h= 33 km, mb=5.1
TONGA ISLANDS

JAN 22 WDC ePe 08 17 16.7
MIN eP 08 17 22.0
BKS eP 08 17 30.6
MICRON PERIOD
PZ 0.02 0.8
MHC eP 08 17 36.6
JAS ePe 08 17 39.9
FRI eP 08 17 47.8
MNV ePe 08 17 48.7
PRI eP 08 17 50.3
USGS 08 09 28.4, 51.3N, 177.9E, h= 32 km, mb=5.2, Ms=4.7
RAT ISLANDS, ALEUTIAN ISLANDS

JAN 22 FRI eP 10 33 21.5
PRI eP 10 33 21.6
JAS ePd 10 33 26.7
MHC eP 10 33 29.2
WDC ePd 10 33 40.8
USGS 10 21 51.6, 21.5S, 66.8W, h=215 km, mb=4.6
SOUTHERN BOLIVIA

JAN 22 PRI ePe 21 30 42.0
JAS ePe 21 30 48.2
BKS e(P) 21 30 53
WDC ePe 21 31 04.4
FHC iPe 21 31 13.2
USGS 21 19 42.4, 16.1S, 73.7W, h= 49 km, mb=5.4, Ms=4.9
NEAR THE COAST OF PERU

JAN 22 SAO iPd 22 21 22.1
PRI ePe 22 21 26.1
MHC eP 22 21 32.4
FRI eP 22 21 36.7
JAS eP 22 21 41.0 22 00
BRK 22 21 15.4, 36.5N, 121.1W, h= 9 km, ML=2.5
BEAR VALLEY, CALIFORNIA

JAN 24 FHC eP 06 04 32.1
WDC eP 06 04 37.9 i 04 52
MIN eP 06 04 42.2 e 04 54
BKS e(P) 06 04 50 13 20 SS 17 30 Lq 20 50 Lr 23 20
MICRON PERIOD
LZ 3.8 20
LN 2.7 20
LE 3.9 20
JAS eP 06 04 56.0
FRI eP 06 05 00.7
PRI eP 06 05 03.0
Ms=5.7, DISTANCE=64°
USGS 05 54 23.5, 44.7N, 149.7E, h= 56 km, mb=5.7, Ms=5.9
KURIL ISLANDS

JAN 24 FRI eP 13 30 41.7
PRI eP 13 30 42.8
SAO eP 13 30 46.8
JAS iPe 13 30 48.4
MHC eP 13 30 50.0
BKS eP 13 30 53.6
MICRON PERIOD
PZ 0.05 0.7
MIN eP 13 30 59.0
WDC iPe 13 31 02.0
FHC eP 13 31 08.4
USGS 13 18 15.7, 31.7S, 68.9W, h= 19 km, mb=5.7
SAN JUAN PROVINCE, ARGENTINA

JAN 24 WDC eP 15 45 28.0
JAS eP 15 45 34.3
FRI eP 15 45 35.9
USGS 15 32 24.7, 6.0S, 148.9E, h= 98 km, mb=5.7
NEW BRITAIN REGION

JAN 25 WDC ePKP 09 55 33.6
BRK ePKP 09 55 35.3
MHC ePKP 09 55 36.7
JAS ePKP 09 55 37.8
PRI ePKP 09 55 39.2
FRI ePKP 09 55 39.6
MNV ePKP 09 55 41.7
USGS 09 37 13.5, 8.1S, 121.6E, h=182 km, mb=5.3
FLORES ISLAND REGION

JAN 25 FHC ePe 23 31 50.4
BKS eP 23 31 53.6 42 45 PS 43 50 SS 48 50 SSS 52 50
Lq 55 40 Lr 59 10
MICRON PERIOD
PZ 0.58 2.4
LZ 25 20
LN 21 20
LE 6 20
WDC iPe 23 31 54.7
SAO eP 23 31 56.6 i 32 14 e 43 00
MHC ePe 23 31 56.7
MIN ePe 23 31 57.5
PRI ePe 23 32 00.3
JAS iPe 23 32 00.9
FRI iPe 23 32 03.2 PP 35 38
MNV iPe 23 32 09.8
Ms=6.6, DISTANCE=90°
USGS 23 18 56.6, 5.3S, 151.7E, h= 44 km, mb=6.1, Ms=6.4
NEW BRITAIN

JAN 26 WDC eP 22 02 49.1
BKS eP 22 02 49.5
MICRON PERIOD
PZ 0.04 1.0
MHC 22 02 e 02 52
JAS 22 02 e 02 56
FRI eP 22 02 58.4
MNV eP 22 03 05.3
USGS 21 49 31.8, 5.0S, 145.0E, h= 68 km, mb=5.5
EAST PAPUA, NEW GUINEA, REGION

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JAN 27  WDC   eP      07 34 33.2
        MIN   eP      07 34 36.5
        BKS   eP      07 34 37.2
                              MICRON     PERIOD
                         PZ     0.03        0.8
        MHC   eP      07 34 40.3
        JAS   eP      07 34 44.1
        FRI   eP      07 34 47.5
        MNV   eP      07 34 51.8
              USGS 07 22 08.3, 13.5N, 144.8E, h= 41 km, mb=5.2, Ms=5.2
                   MARIANA ISLANDS

JAN 28  FHC   eP      13 30 24.7
        WDC   eP      13 30 30.3              pP 30 42
        BKS   eP      13 30 38.8
                              MICRON     PERIOD
                         PZ     0.01        0.7
        JAS   ePd     13 30 45.5              pP 30 58
        PRI   eP      13 30 50.1
        FRI   eP      13 30 50.8              pP 31 04
        MNV   ePd     13 30 53.3              pP 31 06
              USGS 13 18 57.3, 30.9N, 142.6E, h= 45 km, mb=5.2, Ms=4.6
                   SOUTH OF HONSHU, JAPAN

JAN 28  SAO   eP      19 48 46.4              pP 49 12
        PRI   ePo     19 48 47.7
        BKS   iPo     19 48 48.4              pP 49 10    SKS 58 58     SS 04 22
                                              SS 07 40    Lq 10 08      Lr 13 48
                              MICRON     PERIOD
                         PZ     0.11        1.0
        MHC   ePo     19 48 48.6
        FRI   iPo     19 48 52.8              pP 49 20    PKKP 07 17
        FHC   ePo     19 48 53.7              pP 49 20
        JAS   ePo     19 48 53.8              pP 49 21    sP 49 36      SKS 59 11
                                              PKKP 07 17 PKPPKP 15 27
        WDC   iPo     19 48 56.5              pP 49 22    sP 49 39      SKS 59 12
                                              PKPPKP 15 23
        MIN   ePo     19 48 58.2              pP 49 25
        MNV   iPo     19 49 02.4              PKKP 07 14
              USGS 19 36 38.6, 25.9S, 177.3W, h=102 km, mb=6.0
                   SOUTH OF FIJI ISLANDS

JAN 28  WDC   iPo     22 47 16.6                  e 47 32
        MIN   ePo     22 47 21.6
        MHC   eP      22 47 36.7
        JAS   iPo     22 47 39.1
        MNV   ePo     22 47 45.6
        FRI   eP      22 47 46.2
              USGS 22 38 04.4, 53.9N, 159.3E, h= 13 km, mb=5.0
                   NEAR THE EAST COAST OF KAMCHATKA

JAN 29  FRI   eP      00 26 07.3
        MHC   eP      00 26 12.1
        JAS   iPo     00 26 14.3
        MNV   iPo     00 26 15.9
        WDC   iPo     00 26 30.4
              USGS 00 14 55.7, 33.0S, 109.1W, h= 33 km, mb=4.6
                   EASTER ISLAND CORDILLERA

JAN 29  FHC   ePo     02 14 57.5
        WDC   iPo     02 15 03.4                  e 15 44
        MIN   ePo     02 15 07.8
        BKS   eP      02 15 15.6
                              MICRON     PERIOD
                         PZ     0.02        0.8
        MHC   ePo     02 15 20.0
        JAS   iPo     02 15 22.6
        SAO   e(P)    02 15 23
        FRI   ePo     02 15 28.9
        PRI   ePo     02 15 29.3
        MNV   iPo     02 15 29.8
              USGS 02 05 01.7, 46.0N, 149.2E, h=146 km, mb=5.5
                   KURIL ISLANDS

JAN 29  WDC   ePd     02 41 24.3
        MIN   eP      02 41 29.2
        JAS   ePd     02 41 46.5
        MNV   ePd     02 41 53.3
        FRI   eP      02 41 53.8
              USGS 02 32 15.7, 54.1N, 159.2E, h= 33 km, mb=4.9
                   NEAR THE EAST COAST OF KAMCHATKA

JAN 29  PRI   e(P)    05 13 12
        MHC   e(P)    05 13 13
        BKS   e(P)    05 13 14    23 56       Lr 39 42
                              MICRON     PERIOD
                         PZ     0.01        1.0
                         LZ     2.5         20
                         LN     2.4         20
                         LE     1.6         20
        FRI   eP      05 13 16.9
        JAS   ePo     05 13 18.1
        WDC   ePo     05 13 21.1
        MIN   ePo     05 13 23.7
        MNV   ePo     05 13 26.2
              Ms=5.7, DISTANCE=86°
              USGS 05 00 42.3, 29.8S, 177.2W, h= 45 km, mb=5.3, Ms=5.4
                   KERMADEC ISLANDS

JAN 29  FHC   iPe     06 01 36.8  01 48
        WDC   iPo     06 01 51.0
        MIN   ePo     06 02 00.8
        BKS   eP      06 02 12.3
        MHC   e(P)    06 02 22
        SAO   e(P)    06 02 29
              BRK  06 01 22.0, 40.4N, 124.9W, h= 14 km, ML=3.7
                   OFF COAST SOUTHWEST OF EUREKA, CALIFORNIA

JAN 29  FHC   eP      10 15 47.3
        WDC   ePd     10 15 53.0
        MIN   eP      10 15 57.0
        JAS   ePd     10 16 11.4
        MNV   ePd     10 16 18.5
              USGS 10 05 15.1, 42.8N, 145.6E, h= 57 km, mb=5.1
                   HOKKAIDO, JAPAN, REGION

JAN 29  FRI   eP      13 35 29.5
        PRI   e(P)    13 36 30
        MNV   eP      13 36 34.1
        JAS           13 35                   e 35 41
        MHC           13 35                   e 35 45
        WDC   eP      13 37 06.1
              USGS 13 31 28.1, 18.3N, 102.9W, h=108 km, mb=4.2
                   MICHOACAN, MEXICO

JAN 29  FRI   ePKP    17 16 28.0
        MNV   ePKP    17 16 29.1
        JAS   ePKP    17 16 31.9
        BKS   ePKP    17 16 35
        WDC   ePKP    17 16 37.7

JAN 29  MNV   ePo     18 18 55.8
        FRI   e(P)    18 18 56
        PRI   eP      18 18 59.7
        JAS   ePo     18 19 04.7
        MHC   eP      18 19 09.5
        BKS           18 19                   e 19 15
        WDC   e(P)    18 19 23
              USGS 18 10 06.3,  4.4N,  78.5W, h= 33 km, mb=5.1
                   SOUTH OF PANAMA

JAN 29  SAO   eP      21 46 06.2
        PRI   eP      21 46 07.1
        MHC   eP      21 46 08.2
        BKS   e(P)    21 46 09
                              MICRON     PERIOD
                         PZ     0.05        0.6
        FRI   eP      21 46 12.5
        FHC   eP      21 46 13.5
        JAS   eP      21 46 13.5
        WDC   eP      21 46 16.5
        MIN   eP      21 46 18.2
        MNV   eP      21 46 22.5
              USGS 21 34 01.9, 24.8S, 175.4W, h= 39 km, mb=5.6, Ms=5.5
                   SOUTH OF TONGA ISLANDS

JAN 29  FHC   eP      22 00 33
        WDC   eP      22 00 39.8
        MIN   eP      22 00 44.3
        BRK   eP      22 00 54.3
        BKS           22 00                   e 00 59     e 16 00
        MHC   eP      22 00 59.7
        JAS   eP      22 01 02.0
        MNV   eP      22 01 08.6
        FRI   eP      22 01 09.2
        PRI   e(P)    22 01 10
              USGS 21 51 28.5, 53.9N, 159.2E, h= 20 km, mb=5.3, Ms=5.2
                   NEAR THE EAST COAST OF KAMCHATKA

JAN 30  WDC   iPo     05 09 30.6
        MIN   eP      05 09 35.3
        JAS   eP      05 09 52.0
        MNV   eP      05 09 58.3
        FRI           05 10                   e 10 00
              USGS 05 00 20.6, 53.9N, 159.3E, h= 32 km, mb=5.0
                   NEAR THE EAST COAST OF KAMCHATKA

JAN 30  WDC   eP      06 13 04.6
        MIN   eP      06 13 09.3
        JAS   eP      06 13 26.6
        MNV   eP      06 13 33.3
        FRI           06 13                   e 13 34
              USGS 06 03 52.4, 53.9N, 159.1E, h= 17 km, mb=5.0, Ms=4.6
                   NEAR THE EAST COAST OF KAMCHATKA

JAN 30  PRI   eP      07 03 43.3
        MHC   e(P)    07 03 44
        BKS   e(P)    07 03 46    14 24       PPS 15 20     Lq 26 00      Lr 29 44
                              MICRON     PERIOD
                         PZ     0.04        1.0
                         LZ     3.9         20
                         LN     2.5         20
                         LE     1.4         20
        FRI   eP      07 03 48.5
        JAS   eP      07 03 49.8
        WDC   eP      07 03 53.0
        MIN   eP      07 03 54.5
        MNV   eP      07 03 57.9
              Ms=5.7, DISTANCE=85°
              USGS 06 51 13.6, 29.8S, 177.2W, h= 39 km, mb=5.6, Ms=5.7
                   KERMADEC ISLANDS

JAN 30  PRI   eP      18 43 33.0
        SAO           18 43                   e 43 36
        FRI   eP      18 43 38.9
        MHC   eP      18 43 41.3
        JAS   eP      18 43 44.9
        MNV   iPd     18 43 51.5
        WDC   iPd     18 44 02.7
              USGS 18 34 21.3, 16.2S, 126.3W, h= 33 km, mb=5.0
                   SOUTH PACIFIC OCEAN

JAN 31  MNV           02 35                   i 35 51
        FRI   ePKP    02 35 50.4
        PRI   ePKP    02 35 51.0
        SAO   ePKP    02 35 51.6
        JAS   ePKP    02 35 53.2
        MHC   ePKP    02 35 53.6
        BKS   iPKP    02 35 54.8
                              MICRON     PERIOD
                         PKPZ   0.06        0.6
        MIN   ePKP    02 35 57.2
        WDC   iPKPd   02 35 58.0
              USGS 02 17 12.7, 56.1S,  27.4W, h=132 km, mb=5.5
                   SOUTH SANDWICH ISLANDS REGION

FEB 01  FHC   eP      05 08 31.5
        WDC   eP      05 08 46.5
        JAS   eP      05 09 28
        MNV   eP      05 09 41
        FRI   eP      05 09 42
              USGS 05 07 26.6, 43.8N, 128.0W, h= 15 km, mb=4.7
                   OFF THE COAST OF OREGON

FEB 01  WDC   eP      12 06 24.5
        MHC   eP      12 06 31.5
        JAS   eP      12 06 35.3
        PRI   eP      12 06 37.0
        FRI   eP      12 06 39.0
        MNV   eP      12 06 43.5
              USGS 11 54 01.9, 12.9N, 144.5E, h= 83 km, mb=4.7
                   SOUTH OF MARIANA ISLANDS

FEB 01  BKS           14 11                       e 11 13
        JAS   eP      14 11 09.4                  pP 11 20
        FRI   eP      14 11 14.7                  pP 11 26
        MNV   eP      14 11 17.0                  pP 11 28
              BONIN ISLANDS REGION

FEB 01  WDC   ePd     15 08 20.0
        MIN   eP      15 08 24.4
        BRK   eP      15 08 32.5
        MHC   eP      15 08 37.6
        JAS   ePd     15 08 40.2
        FRI   eP      15 08 46.8
        MNV   iPd     15 08 47.5
              USGS 14 58 41.2, 49.0N, 153.6E, h=101 km, mb=5.1
                   KURIL ISLANDS

FEB 01  SAO   eP      17 20 22
        PRI   ePd     17 20 23.5
        BKS   eP      17 20 23.9                  e 33 46     e 35 00     e 35 38
                                                  e 36 08     e 40 30
                              MICRON     PERIOD
                         PZ     0.06        0.8
        MHC   ePd     17 20 23.9
        FHC   ePd     17 20 28.0
        FRI   eP      17 20 28.6
        JAS   ePd     17 20 29.2
        WDC   ePd     17 20 31.7
        MIN   eP      17 20 34
        MNV   ePd     17 20 39.8
              USGS 17 09 21.8, 16.7S, 174.9W, h=300 km, mb=4.9
                   TONGA ISLANDS

FEB 01  FHC   ePo     23 46 56.4
        WDC   iPo     23 47 02.4                  e 47 11
        MIN   eP      23 47 07
        BKS   e(P)    23 47 14
                              MICRON     PERIOD
                         PZ     0.03        0.8
        MHC   eP      23 47 18.8
        JAS   iPo     23 47 21.3                  e 47 30
        FRI   ePo     23 47 27.7
        MNV   ePo     23 47 28.8                  e 47 38
        PRI   e(P)    23 47 29
              USGS 23 36 49.1, 45.1N, 150.2E, h= 33 km, mb=5.5, Ms=5.1
                   KURIL ISLANDS
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FEB 02  FBC             08 11                           • 11 04
        WDC   eP        08 11 05.2
        BKS   eP        08 11 07.6                      • 23 00      Lq 34 56     Lr 39 24
                                    MICRON     PERIOD
                                PZ     0.03       0.8
                                LZ     8.9         20
                                LN     3.0         20
                                LE     7.0         20
        MBC   e(P)      08 11 09
        MIN             08 11                           • 11 10
        PRI   eP        08 11 11.3
        JAS   eP        08 11 12.2
        FRI   eP        08 11 14.0
        MNV   eP        08 11 20.6
                        Ms=6.1, DISTANCE=91°
                        USGS 07 58 05.6,  5.5S, 151.7E, h= 33 km, mb=5.6, Ms=5.8
                             NEW BRITAIN REGION

FEB 03  PRI   eP        13 27 08.2
        MNV   eP        13 27 09.5
        JAS   eP        13 27 13.5
        MBC   eP        13 27 15.7
        WDC   eP        13 27 28.1                      • 27 53
                        USGS 13 15 07.2, 27.9S,  70.3W, h= 71 km, mb=4.9
                             NEAR THE COAST OF NORTHERN CHILE

FEB 03  MNV   eP        15 03 01.5                      • 03 16
        JAS   eP        15 03 06.2                      • 03 23
        MIN             15 03                           • 03 30
        WDC             15 03                           • 03 32

FEB 04  BKS   e(P)      00 26 28                        • 26 39
        MBC   eP        00 26 28.2                      • 26 41
        PRI   eP        00 26 30.5                      • 26 44
        WDC   eP        00 26 30.5                      • 26 43
        JAS   eP        00 26 33.4                      • 26 46
        FRI   eP        00 26 34.5                      • 26 47
        MNV   eP        00 26 42.8                      • 26 56
                        USGS 00 14 03.8, 11.4S, 166.0E, h= 33 km, mb=5.0, Ms=5.1
                             SANTA CRUZ ISLANDS

FEB 04  PRI   eP        13 09 47.5
        FRI   eP        13 09 50.6
        MBC   eP        13 09 52.7
        JAS   eP        13 09 57.2
        MNV   eP        13 10 02.3
        WDC   eP        13 10 13.1

FEB 04  JAS   eP        21 55 36.7
        FRI   eP        21 55 37.5
                        USGS 21 43 22.5, 13.8S, 167.2E, h=200 km, mb=5.0
                             NEW HEBRIDES ISLANDS

FEB 05  MNV   ePd       02 03 34.0
        PRI   eP        02 03 34.7
        FRI   eP        02 03 35.1
        JAS   iPd       02 03 39.9
        MBC   ePd       02 03 42.8
        BRK   eP        02 03 46.5
        WDC   iPd       02 03 55.1
                        USGS 01 52 19.6, 17.7S,  69.5W, h=114 km, mb=5.3
                             PERU-BOLIVIA BORDER REGION

FEB 06  FBC   ePd       03 31 35.7
        WDC   ePd       03 31 41.3
        MIN   eP        03 31 46.2
        MBC   eP        03 32 02.5
        JAS   ePd       03 32 04.3
        MNV   ePd       03 32 10.5
        FRI   eP        03 32 11.8
        PRI   eP        03 32 13.4
                        USGS 03 22 46.3, 56.2N, 160.8E, h= 53 km, mb=5.2, Ms=5.0
                             KAMCHATKA

FEB 06  SAO   iPd       09 40 38.3
        MBC   iPd       09 40 41.0   40 46
        BKS   iPd       09 40 52.0   41 08
        PRI   ePd       09 40 54.7
        JAS   eP        09 40 56.6
        FRI   eP        09 41 00
                        BRK  09 40 33.0, 37.0N, 121.6W, h=  8 km, ML=2.7
                             NORTHWEST OF HOLLISTER, CALIFORNIA

FEB 06  WDC             09 56
        MBC             09 57                           • 56 56
        JAS   eP        09 57 39.4                      • 57 36
        FRI   eP        09 57 54.0
                        USGS 09 55 48.6, 43.5N, 126.9W, h= 15 km, mb=4.0
                             OFF THE COAST OF OREGON

FEB 06  FRI   eP        20 55 24.0
        JAS   iPd       20 55 24.4
        WDC   iPd       20 55 26.5
        MNV   iPd       20 55 33.6
                        USGS 20 43 51.2, 22.1S, 178.2W, h=385 km, mb=5.1
                             SOUTH OF FIJI ISLANDS

FEB 07  JAS   iPd       15 44 08.5
        WDC   iPd       15 44 10.1
        MNV   iPd       15 44 17.8
                        USGS 15 33 00.7, 20.1S, 178.2W, h=578 km, mb=5.4
                             FIJI ISLANDS REGION

FEB 08  SAO   iPd       20 08 26.3
        MBC   iPd       20 08 29.9   08 36
        BKS   eP        20 08 40.0   08 55
        PRI   ePe       20 08 42.0   08 59
        JAS   eP        20 08 45.8   09 06          i 08 47
        FRI   eP        20 08 47                    i 09 54
                                                    i 08 50
                        BRK  20 08 21.3, 36.9N, 121.7W, h=  12 km, ML=3.0
                             WNW OF HOLLISTER, CALIFORNIA

FEB 09  MBC   iPd       05 39 01.4   39 06
        BKS   iPe       05 39 05.0
        JAS   eP        05 39 12.7   39 26
        SAO   eP        05 39 12.8   39 26
                        BRK  05 38 54.9, 37.7N, 121.6W, h=  9 km, ML=2.6
                             EAST OF LIVERMORE, CALIFORNIA

FEB 09  WDC   eP        08 12 17
        MIN             08 12                       i 12 34      • 12 36
        MNV             08 12                       • 12 38
        JAS   eP        08 12 36.5                  • 12 35
                                                    • 12 53
                        USGS 08 02 02.0, 44.4N, 149.9E, h= 45 km, mb=5.7, Ms=5.7
                             KURIL ISLANDS

FEB 09  FRI   e(P)      21 47 47
        BKS   eP        21 47 47.5   58 24          SKS 58 32    PPS 59 36    SS 03 32
                                                    • 04 12      SSS 07 18    Lq 09 56
                                                    • 11 06      Lr 13 26
                                MICRON     PERIOD
                            PZ     0.08       1.2
                            LZ     320         20
                            LN     350         20
                            LE     42          20
        MBC   eP        21 47 48.0
        FRI   eP        21 47 51.9
        JAS   eP        21 47 52.4
        FBC             21 47
        WDC   eP        21 47 56.9                  • 48 02
        MIN             21 48
        MNV   eP        21 48 01.5                  • 48 05
                        Ms=7.7, DISTANCE=84°
                        USGS 21 35 12.7, 30.7S, 177.4W, h= 33 km, mb=5.7, Ms=7.2
                             KERMADEC ISLANDS

FEB 09  PRI   eP        22 34 20.9
        MBC             22 34                                        • 34 21
        BKS             22 34                                        • 34 22
        FRI   eP        22 34 24.5
        JAS   eP        22 34 25.6
        WDC   eP        22 34 30.0
        MIN             22 34                                        • 34 32
                        USGS 22 21 45.6, 30.6S, 177.4W, h= 33 km, mb=5.5
                             KERMADEC ISLANDS

FEB 09  FRI   eP        22 56 32.2
        JAS   eP        22 56 33.0
        WDC   eP        22 56 37.3
                        USGS 22 43 53.7, 30.7S, 177.0W, h= 33 km
                             KERMADEC ISLANDS

FEB 09  PRI   eP        23 10 52.8
        FRI   eP        23 10 55.2
        JAS   eP        23 10 59.0
        WDC   eP        23 11 02.5
                        USGS 22 58 16.6, 30.6S, 177.6W, h= 33 km, mb=5.1
                             KERMADEC ISLANDS

FEB 10  PRI   eP        01 08 57.3
        SAO   eP        01 08 57.9
        MBC   eP        01 08 58.6
        BKS   eP        01 08 58.7
        FRI   eP        01 09 02.3
        JAS   iPe       01 09 03.4
        WDC   eP        01 09 06.8
        MIN   eP        01 09 07.8
        MNV   eP        01 09 11.3
                        USGS 00 56 21.8, 30.6S, 177.5W, h= 33 km, mb=5.6, Ms=6.0
                             KERMADEC ISLANDS

FEB 10  MBC   eP        05 48 19.0
        JAS   iPd       05 48 23.8
        WDC   eP        05 48 27.1
        MNV   eP        05 48 30.4
                        USGS 05 35 42.5, 30.4S, 177.3W, h= 33 km, mb=4.9, Ms=5.4
                             KERMADEC ISLANDS

FEB 10  PRI   eP        19 45 08.8
        BKS   e(P)      19 45 10     55 43          PP 48 20     PPS 56 44    Lq 07 24
                                                    Lr 11 00
                                MICRON     PERIOD
                            LZ     14          20
                            LN     9           20
                            LE     8           20
        MBC   eP        19 45 10.1
        FRI   eP        19 45 14.0
        JAS   iPd       19 45 15.0
        WDC   iPd       19 45 18.3
        MIN   eP        19 45 19.6
        MNV   eP        19 45 23.2
                        Ms=6.3, DISTANCE=84°
                        USGS 19 32 37.1, 30.1S, 177.3W, h= 33 km, mb=5.7, Ms=6.2
                             KERMADEC ISLANDS

FEB 11  PRI   e(P)      00 17 55
        BKS   e(P)      00 17 56     28 35          SS 33 56     SSS 37 20    Lq 39 52
                                                    • 40 55      Lr 43 30
                                MICRON     PERIOD
                            LZ     31          20
                            LN     19          20
                            LE     29          20
        MBC   eP
        FRI   e(P)      00 17 56.0
        JAS   eP        00 18 00
        WDC   eP        00 18 01.1
        MIN   eP        00 18 04.4
        MNV   e(P)      00 18 05.8
                        Ms=6.7, DISTANCE=84°
                        USGS 00 05 23.0, 30.4S, 177.1W, h= 33 km, mb=5.5, Ms=6.6
                             KERMADEC ISLANDS

FEB 11  PRI   e(P)      00 28 52
        MBC   eP        00 28 53.2
        JAS   eP        00 28 58.2
        WDC   eP        00 29 01.5
        MNV   eP        00 29 06.1
                        USGS 00 16 18.5, 30.7S, 177.1W, h= 33 km, mb=5.2
                             KERMADEC ISLANDS

FEB 11  PRI   eP        04 25 07.5
        JAS   eP        04 25 13.7
        WDC   eP        04 25 16.9
        MNV   eP        04 25 21.5
                        USGS 04 12 33.6, 30.4S, 177.5W, h= 33 km, mb=5.7, Ms=5.4
                             KERMADEC ISLANDS

FEB 11  JAS   eP
        WDC   e(P)      05 16 15.2
        MNV   eP        05 16 19
                        05 16 23.2
                        USGS 05 03 35.9, 30.7S, 176.8W, h= 33 km, mb=5.2
                             KERMADEC ISLANDS REGION

FEB 11  JAS   eP        12 04 53.2
        WDC   eP        12 04 56.8
        MNV   eP        12 05 01.2
                        USGS 11 52 13.6, 30.4S, 177.3W, h= 33 km, mb=5.1
                             KERMADEC ISLANDS

FEB 11  WDC   eP        12 18 46.5
        MIN             12 18
        JAS             12 19
        MNV   e(P)      12 19 16                    • 18 52
                                                    • 19 12
                        USGS 12 10 27.6, 53.1N, 171.0E, h= 33 km, mb=5.2, Ms=4.7
                             NEAR ISLANDS, ALEUTIAN ISLANDS

FEB 11  MNV   eP        12 27 51.7
        JAS   eP        12 28 01                    PcP 30 13
        WDC   eP        12 28                       PcP 30 16    • 30 29
                                                    PcP 30 24    • 30 33
                                                                 • 30 40
                        USGS 12 20 48.8, 12.8N,  88.5W, h= 75 km, mb=4.9
                             OFF THE COAST OF CENTRAL AMERICA

FEB 11  MNV   eP        14 06 23.5
        JAS   eP        14 06 34.0
        MBC             14 06
        BKS             14 06                       • 06 37
                                                    • 06 44
                                MICRON     PERIOD
                            LZ     2.7         20                    • 19 24
                            LN     1.4         20
                            LE     2.5         20                                 • 21 22
        MIN   eP        14 06 48.8
        WDC   eP        14 06 52.2
        FBC   eP        14 07 03.5
                        USGS 13 58 11.5,  7.5N,  82.3W, h= 33 km, mb=4.8
                             SOUTH OF PANAMA

FEB 11  MNV   iPd       14 55 21.5
        PRI   eP        14 55 22.1
        JAS   iPd       14 55 27.2
        MBC   ePd       14 55 29.8
        BKS   ePd       14 55 33.0
                                MICRON     PERIOD
                            PZ     0.02       0.7
        MIN   eP        14 55 38.2
        WDC   iPd       14 55 41.4
        FBC   eP        14 55 48.6
                        USGS 14 43 50.7, 21.5S,  66.7W, h=200 km, mb=4.9
                             SOUTHERN BOLIVIA
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FEB 12  PBC   eP      09 02 06.0                pP 02 22
        WDC   ePd     09 02 13.0                pP 02 30
        MIN   eP      09 02 17.9                pP 02 34
        BRK   eP      09 02 33.7                pP 02 50
        MHC   eP      09 02 40.1
        JAS   ePd     09 02 40.4                pP 02 57
        MNV   eP      09 02 45.6                pP 03 02
        FRI   eP      09 02 49.9                pP 03 07
        PRI   eP      09 02 53.6                pP 03 10
                      USGS 08 56 38.9, 59.4N, 152.6W, h= 72 km, mb=5.4
                           SOUTHERN ALASKA

FEB 12  BKS           19 30                     • 58 35
        MHC   eP      19 30 49.0
        JAS   eP      19 30 53.7
        WDC   eP      19 30 57.0
        MNV   eP      19 31 01.7
                      USGS 19 18 18.9, 30.8S, 177.5W, h= 91 km, mb=5.3
                           KERMADEC ISLANDS

FEB 13  WDC   eP      01 22 29.3
        MIN   eP      01 22 34.3
        BRK   e(P)    01 22 50
        MHC   eP      01 22 56.5
        JAS   ePd     01 22 56.7                pP 23 26
        MNV   eP      01 23 01.8
        PRI   e(P)    01 23 04
        PRI   eP      01 23 09.7
                      USGS 01 16 54.3, 59.9N, 153.8W, h=131 km, mb=4.9
                           SOUTHERN ALASKA

FEB 13  MIN   ePd     06 08 54.8  09 00
        WDC   iPd     06 08 56.0  09 03
        JAS   eP      06 09 29
                      BRK  06 08 46.4, 40.2N, 122.1W, h= 13 km, ML=3.2
                           NNW OF CHICO, CALIFORNIA

FEB 13  WDC   ePd     13 11 35.8
        JAS   ePd     13 11 59.0
        MNV   ePd     13 12 05.5
                      USGS 13 02 46.1, 56.1N, 162.8E, h= 33 km, mb=5.3, Ms=5.1
                           NEAR THE EAST COAST OF KAMCHATKA

FEB 13  MHC   e(P)    16 27 48
        JAS   eP      16 27 53.2
        WDC   e(P)    16 27 57
        MNV   eP      16 28 01.2

FEB 13  PRI   eP      17 21 05.0
        MHC   eP      17 21 05.9
        JAS   iPd     17 21 10.4
        WDC   iPd     17 21 13.4
        MNV   iPd     17 21 18.5
                      USGS 17 08 59.3, 30.0S, 179.3W, h=331 km, mb=5.3
                           KERMADEC ISLANDS REGION

FEB 13  MNV   iPe     21 53 36.7
        FRI   eP      21 53 49.2
        JAS   iPe     21 53 57.7
        PRI   eP      21 54 02.4
                      ML=4.4, NUCLEAR EXPLOSION, NEVADA TEST SITE
                      USGS 21 52 59.6, 37.1N, 116.0W, h=  2 km
                           SOUTHERN NEVADA

FEB 14  PRI   eP      02 35 50.4
        FRI           02 35                     • 35 56
        JAS   eP      02 35 57.1
        WDC   iP      02 35 58.1
        MIN           02 36                     • 36 04
        MNV   iPe     02 36 07.6
                      USGS 02 24 32.0, 15.8S, 172.5W, h= 33 km, mb=5.2, Ms=4.7
                           SAMOA ISLANDS REGION

FEB 14  MNV   iPd     04 35 49.8
        JAS   iPd     04 36 12.3
        FRI   iPe     04 36 16.7                I 36 25
        MIN   eP      04 36 19.0
        WDC   eP      04 36 26.3
        MHC   eP      04 36 29.0
        BKS   eP      04 36 30.3
        PRI   eP      04 36 34.0
                      ML=4.8, AUSTIN, NEVADA
                      USGS 04 35 22.5, 39.6N, 117.1W, h=  5 km, mb=4.4
                           NEVADA

FEB 14  JAS   eP      11 31 35.8
        WDC   eP      11 31 39.0
        MNV   eP      11 31 43.6
                      USGS 11 18 59.7, 29.9S, 177.3W, h= 55 km, mb=4.8
                           KERMADEC ISLANDS

FEB 14  BKS   ePe     16 33 58.8  34 08
        MHC   eP      16 34 10.5
        JAS   ePe     16 34 16.6
        SAO   eP      16 34 17.5
                      BRK  16 33 47.0, 38.4N, 122.6W, h=  8 km, ML=2.7
                           SOUTHEAST OF SANTA ROSA, CALIFORNIA

FEB 14  FHC   iPd     21 04 06.6
        WDC   iPd     21 04 17.1  04 33
        MIN   eP      21 04 26.7  04 50       I 04 27
        BKS   e(P)    21 04 39
        MHC   eP      21 04 49.3
        JAS   eP      21 04 50.5
        SAO   iPd     21 04 55.8
                      BRK  21 03 56.4, 40.3N, 124.1W, h= 20 km, ML=3.9
                           NEAR COAST SOUTH OF EUREKA, CALIFORNIA

FEB 14  BKS   eP      23 29 17.2
                           MICRON    PERIOD
                      PZ     0.06       0.9
        FHC   eP      23 29 18.2
        SAO   eP      23 29 18.7
        MHC   ePe     23 29 19.0
        PRI   ePe     23 29 20.7
        WDC   iPe     23 29 22.3
        JAS   iPe     23 29 24.2
        MIN   eP      23 29 24.7
        FRI   eP      23 29 25.0
        MNV   iPe     23 29 33.5
                      USGS 23 16 48.0, 15.6S, 168.1E, h= 33 km, mb=5.4, Ms=4.7
                           NEW HEBRIDES ISLANDS

FEB 16  MNV   iPd     03 56 13.9
        FRI   eP      03 56 15.1
        PRI   eP      03 56 18.2
        JAS   ePd     03 56 23.0
        SAO   eP      03 56 23.8
        MHC   ePd     03 56 27.9
        BKS   eP      03 56 32.6
                           MICRON    PERIOD
                      PZ     0.09       1.0
        MIN   ePd     03 56 37.2
        WDC   iPd     03 56 40.9
        FHC   iPd     03 56 51.7
                      USGS 03 47 24.6,  5.5N,  77.7W, h= 24 km, mb=5.5, Ms=4.9
                           NEAR THE WEST COAST OF COLOMBIA

FEB 16  FHC   eP      12 00 59
        WDC   iPd     12 01 12.8                • 01 56
        MIN   eP      12 01 22                  • 02 09
        BKS   eP      12 01 45    02 44         Lr 03 00
                           MICRON    PERIOD
                      PZ     0.05       1.0
        MHC   eP      12 01 53
        JAS   e(P)    12 01 54                  • 02 18
        SAO   eP      12 02 03
        MNV   eP      12 02 09
        FRI   e(P)    12 02 13
        PRI   eP      12 02 16
                      ML=4.8, DISTANCE=5½°
                      USGS 12 00 21.2, 42.7N, 125.9W, h= 15 km, mb=5.0, Ms=4.5
                           OFF THE COAST OF OREGON

FEB 16  MNV   iPd     15 02 46.0
        JAS   eP      15 02 58
        MHC   e(P)    15 03 04
        MIN   eP      15 03 11.8
        WDC   eP      15 03 16
                      USGS 14 55 30.7, 17.8N,  81.8W, h= 33 km, mb=5.2
                           CARIBBEAN SEA

FEB 17  PRI   eP      01 53 07.1
        FRI           01 53                     • 53 10
        MHC   eP      01 53 12.2
        BKS   eP      01 53 13.9                • 33 00
                           MICRON    PERIOD
                      PZ     0.05       1.1
        JAS   eP      01 53 14.6
        MNV   eP      01 53 17.5
        WDC   eP      01 53 25.5
                      USGS 01 40 02.9, 55.5S, 125.2W, h= 33 km, mb=5.8, Ms=5.2
                           EASTER ISLAND CORDILLERA

FEB 17  PRI   eP      06 55 33.1                • 55 46
        MNV   eP      06 55 34.5
        JAS   eP      06 55 40.0
        MHC   eP      06 55 41.4
        BKS           06 55                     • 55 45
        MIN   eP      06 55 51.0
        WDC   eP      06 55 53.5                I 56 06
                      USGS 06 43 30.4, 28.6S,  71.0W, h= 55 km, mb=5.7
                           NEAR THE COAST OF CENTRAL CHILE

FEB 17  MIN   iPd     07 35 32.6  35 37
        WDC   iPd     07 35 44.7  35 58
        JAS   eP      07 36 05.3                I 36 06
                      BRK  07 35 26.6, 40.1N, 121.4W, h= 11 km, ML=3.0
                           NORTHEAST OF CHICO, CALIFORNIA

FEB 18  WDC   ePKP    04 02 11.9
        MIN   ePKP    04 02 13.3
        MHC   ePKP    04 02 17.0
        JAS   ePKP    04 02 18.1
        PRI   ePKP    04 02 19.9
                      USGS 03 43 14.2,  4.6S, 102.9E, h= 53 km, mb=5.5
                           SOUTHERN SUMATERA

FEB 18  WDC   eP      17 44 21.9
        JAS   eP      17 44 38.5
                      USGS 17 33 15.7, 38.2N, 142.5E, h= 45 km, mb=5.1, Ms=5.0
                           NEAR THE EAST COAST OF HONSHU, JAPAN

FEB 19  BKS   iPe     19 20 05.8  20 10
        MHC   iPe     19 20 10.3  20 18
        SAO   eP      19 20 19.5
        JAS   iPe     19 20 20.3  20 36
                      BRK  19 19 59.8, 37.8N, 121.9W, h=  9 km, ML=2.5
                           EAST OF BERKELEY, CALIFORNIA

FEB 19  MNV   eP      19 49 28.6
        PRI   eP      19 49 30.0
        SAO           19 49                     • 49 38
        JAS   eP      19 49 37.5                PcP 52 05
        MHC           19 49                     • 49 42
        BKS           19 49                     • 49 48     • 49 53     • 00 40
        MIN   eP      19 49 55.5
        WDC   eP      19 49 59.3                PcP 52 12
        FHC   eP      19 50 10.8
                      USGS 19 42 43.3, 13.7N,  90.7W, h= 74 km, mb=5.1
                           NEAR THE COAST OF GUATEMALA

FEB 19  SAO   eP      20 34 56.3
        BKS   eP      20 34 57.0
                           MICRON    PERIOD
                      PZ     0.09       0.9
        PRI   eP      20 34 57.5
        MHC   eP      20 34 57.8
        FHC   eP      20 34 59.5
        FRI           20 35                     • 35 02
        JAS   iPd     20 35 03.7                • 37 13
        WDC   iPd     20 35 04.7                • 37 13
        MIN           20 35                     • 35 07
                      USGS 20 23 53.1, 20.9S, 178.7W, h=605 km, mb=5.4
                           FIJI ISLANDS REGION

FEB 19  PRI   eP      21 29 20.3
        FRI   e(P)    21 29 22
        MHC           21 29                     • 29 29
        JAS   eP      21 29 27.9
        BKS           21 29                     • 29 31
        MIN   eP      21 29 41.5
        WDC   eP      21 29 42.6
                      USGS 21 17 08.9, 40.1S,  91.2W, h= 33 km, mb=5.6, Ms=5.1
                           WEST CHILE RISE

FEB 20  PRI   eP      00 07 45.7
        FRI           00 07                     • 07 45
        MHC   eP      00 07 53.4
        BKS   eP      00 07 56.8
        JAS   eP      00 07 57.9
        MIN           00 08                     • 08 13
        WDC   eP      00 08 13.9
                      SOUTH PACIFIC OCEAN REGION

FEB 20  WDC   iPe     03 53 30.4
        MIN   eP      03 53 35.5
        JAS   eP      03 53 53.6
        PRI           03 54                     • 54 06
                      USGS 03 45 39.4, 51.3N, 177.1E, h= 44 km, mb=4.8
                           RAT ISLANDS, ALEUTIAN ISLANDS

FEB 20  FHC   eP      04 47 57.3
        WDC   eP      04 48 02.9
        MIN   eP      04 48 06.6
        BKS   eP      04 48 13.7  57 32         • 49 24     • 02 10     Lq 05 42
                                                 Lr 09 28
                           MICRON    PERIOD
                      PZ     0.08       1.1
                      LZ    12.3       20
                      LN     2.9       20
                      LE    11.1       20
        MHC   eP      04 48 17.8
        JAS   eP      04 48 20.0                I 48 24     I 48 59
        SAO   eP      04 48 20.5
        FRI   eP      04 48 25.3                I 48 31
        PRI   e(P)    04 48 26
        MNV   e(P)    04 48 27
                      USGS 04 36 58.1, 38.8N, 141.9E, h= 60 km, mb=6.1
                           NEAR THE EAST COAST OF HONSHU, JAPAN

FEB 20  PRI   eP      07 43 19.3
        BKS   eP      07 43 19.7                • 43 52
        MHC   eP      07 43 20.0
        FRI   eP      07 43 21.3
        JAS   eP      07 43 25.2
        WDC   eP      07 43 28.2
        MIN   eP      07 43 29.5
                      USGS 07 30 42.7, 30.4S, 177.1W, h= 10 km, mb=5.1
                           KERMADEC ISLANDS
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FEB 20  FBC  eP     15 39 05.9                    e 41 09
        WDC  iPd    15 39 10.7
        MIN  eP     15 39 13.7
        BKS  e(P)   15 39 18                      e 39 22
        MBC         15 39
        JAS  eP     15 39 23.5
                    USGS 15 28 04.0, 28.0N, 139.0E, h=527 km, mb=5.0
                    BONIN ISLANDS REGION

FEB 20  PRI  e(P)   20 30 44
        MBC  eP     20 30 46.4
        BKS  e(P)   20 30 49
        JAS  eP     20 30 52.2
        WDC  eP     20 30 53.5
        MIN  eP     20 30 55.8
                    USGS 20 19 05.7, 17.7S, 176.4W, h= 33 km, mb=5.0
                    FIJI ISLANDS REGION

FEB 20  PRI  eP     20 59 59.9
        JAS  ePd    21 00 05.0
        MBC  eP     21 00 07.4
        BKS  eP     21 00 10.4
        MIN  eP     21 00 16.3
        WDC  ePd    21 00 19.1
                    USGS 20 48 12.7, 24.2S,  67.7W, h=129 km, mb=5.1
                    CHILE-ARGENTINA BORDER REGION

FEB 20  PRI  iPd    23 39 05.4  39 14
        SAO  eP     23 39 14.9
        MBC  eP     23 39 24.0
        JAS  eP     23 39 32.3
                    BRK  23 38 54.5, 35.7N, 121.0W, h=  3 km, ML=3.1
                    NORTHWEST OF SAN LUIS OBISPO, CALIFORNIA

FEB 21  PRI  eP     03 12 27.0
        MBC  eP     03 12 27.0
        BKS  e(P)   03 12 30
        JAS  eP     03 12 32.6
        WDC  eP     03 12 34.0
                    USGS 02 59 54.0, 31.0S, 178.3W, h= 58 km, mb=5.3
                    KERMADEC ISLANDS REGION

FEB 21  PRI  eP     04 04 21.4
        MNV  eP     04 04 22.9
        PRI  ePd    04 04 23.0
        SAO  eP     04 04 27.2
        JAS  iPd    04 04 28.4
        MBC  ePd    04 04 31.0
        BKS  eP     04 04 34.6
                          MICRON    PERIOD
                    PZ      0.04      0.8
        MIN  eP     04 04 40.2
        WDC  iPd    04 04 43.4
        FBC  iPd    04 04 50.9
                    USGS 03 52 49.0, 20.3S,  69.0W, h= 62 km, mb=5.3
                    NORTHERN CHILE

FEB 21  FBC  ePKP   07 31 36.5
        WDC  ePKP   07 31 37.6                PP 32 20   PKKP 42 53
        MIN  ePKP   07 31 39.0                PP 32 26   PKKP 42 40   PKKP 42 51
        BKS  e(PKP) 07 31 40                   e 37 30     SKS 38 22     SKKS 39 25
                                              PS 41 52     PPS 43 04       SS 48 14
                                               e 48 28 PKPPKP 51 20

        MBC  ePKP   07 31 41.1
        JAS  ePKP   07 31 42.1                SP 41 15   PKKP 42 36   PKKP 42 46
        PRI  ePKP   07 31 43.5              PKKP 42 42
        FRI  ePKP   07 31 43.8
        MNV  ePKP   07 31 45.9
                    USGS 07 14 05.3,  4.9S, 125.2E, h=535 km, mb=5.9
                    BANDA SEA

FEB 21  FBC  ePKP   07 32 26.4
        WDC  ePKP   07 32 27.5                PP 33 15   PPP 35 13     SP 41 50
                                            PKKP 43 44
        MIN  ePKP   07 32 29                  SP 41 52
        MBC  ePKP   07 32 30.9                PP 33 19   PKKP 43 40
        BKS  ePKP   07 32 31.2                 e 33 15    e 43 30      e 43 40
        SAO  ePKP   07 32 31.8
        JAS  ePKP   07 32 32.1                PP 33 24     SP 42 08   PKKP 43 27
                                            PKKP 43 37
        FRI  ePKP   07 32 33.3
        FRI  ePKP   07 32 33.5
        MNV  ePKP   07 32 35.7
                    USGS 07 14 54.4,  4.8S, 125.4E, h=510 km, mb=6.3
                    BANDA SEA

FEB 21  FBC  ePKP   07 35 09.6
        WDC  ePKP   07 35 10.7                PPP 38 10
        MIN  ePKP   07 35 12.1
        BKS  ePKP   07 35 13.5
        MBC  ePKP   07 35 14.2
        JAS  ePKP   07 35 15.0                PKKP 46 15
        PRI  ePKP   07 35 16.7
        FRI  ePKP   07 35 16.7
        MNV  ePKP   07 35 19.3
                    INDONESIA REGION

FEB 21  FBC  iPKP   08 04 52.9
        WDC  iPKPc  08 04 53.9                PP 05 36
        MIN  ePKP   08 04 55.4
        BKS  ePKP   08 04 56.2                 e 05 48
        SAO  ePKP   08 04 57.2
        MBC  ePKPc  08 04 57.4
        JAS  iPKPc  08 04 58.4                PKKP 16 01
        PRI  ePKPc  08 04 59.7
        FRI  ePKP   08 05 00.0
        MNV  ePKP   08 05 02.1
                    USGS 07 47 21.7,  5.0S, 125.2E, h=531 km, mb=5.6
                    BANDA SEA

FEB 21  FBC  ePKP   08 07 35.9
        WDC  ePKP   08 07 37.0
        MIN  ePKP   08 07 38.6
        BKS  ePKP   08 07 39.5
        MBC  ePKP   08 07 40.6
        JAS  ePKP   08 07 41.6
        PRI  ePKP   08 07 43.0
        FRI  ePKP   08 07 43.2
        MNV  ePKP   08 07 45.4
                    INDONESIA REGION

FEB 22  FRI  ePd    06 14 12.0                pP 14 29   PcP 16 50   pPcP 17 09
                                              ScP 20 33
        MNV  ePd    06 14 12.8                pP 14 31   PcP 16 51   pPcP 17 08
        PRI  ePd    06 14 14.4                ScP 20 33
        SAO  eP     06 14 20.2                pP 14 38    sP 14 54     PcP 16 53
        JAS  iPd    06 14 21.6               pPcP 17 12   ScP 20 35
                                              pP 14 43   PcP 16 55   pPcP 17 13
        MBC  iPd    06 14 26.0               ScP 20 38
                                              pP 14 48    sP 14 56      e 15 03
        BKS  ePd    06 14 31.5  29 13        PP 15 59   pPP 16 15     PcP 16 57
                                            pPcP 17 15     i 18 47      i 19 35
                                               e 20 28    sS 20 43   PcS 20 46
                                               e 21 08     e 21 16     Lq 22 54
                                             ScS 24 47     e 25 10   sScS 25 22
                                               e 27 10
                          MICRON   PERIOD
                    PZ      1.07      2.0
        MIN  ePd    06 14 39.5                pP 14 56   PcP 17 01   pPcP 17 17
                                              ScP 20 43
        WDC  iPd    06 14 43.4                pP 14 59   PcP 17 01   pPcP 17 19
                                              ScP 20 45    e 21 08
        FBC  iPd    06 14 54.9                pP 15 12   PcP 17 06   pPcP 17 24
                    mb=6.4, h=70 km, DISTANCE=37°
                    USGS 06 07 37.0, 14.2N,  91.4W, h=100 km, mb=5.7
                    GUATEMALA

FEB 22  FBC  ePc    18 12 51.3                pP 13 10
                                              PcP 13 03     pP 13 14     PP 16 03
        WDC  iPc    18 12 56.7
        MIN  ePc    18 12 59.3                PcP 13 14     pP 13 22      e 23 43
        BKS  ePc    18 13 04.6                 e 40 00
                          MICRON   PERIOD
                    PZ      0.25      1.3
        MBC  ePc    18 13 08.2
        SAO  eP     18 13 09.7                pP 13 27     PP 16 26
        JAS  iPc    18 13 10.5                pP 13 32
        FRI  ePc    18 13 15.2
        PRI  ePc    18 13 15.2
        MNV  ePc    18 13 16.9
                    USGS 18 00 35.8, 29.3N, 130.5E, h= 60 km, mb=5.9
                    RYUKYU ISLANDS

FEB 22  MNV  ePd    19 38 22.0                pPcP 41 14
        FRI  eP     19 38 22
        PRI  ePd    19 38 24.0                PcP 40 57   pPcP 41 15
        JAS  ePd    19 38 30.8                PcP 40 58   pPcP 41 17     ScP 44 40
                                               e 45 16
        SAO  eP     19 38 31
        MBC  ePd    19 38 35.5
        BKS  ePd    19 38 41.2                PcP 41 02   pPcP 41 20
                          MICRON   PERIOD
                    PZ      0.09      1.2
        MIN  eP     19 38 48.7
        WDC  ePd    19 38 52.5                PcP 41 06   pPcP 41 14     ScP 44 50
                                               e 45 25
        FBC  ePd    19 39 04.0
                    USGS 19 31 41.4, 14.1N,  90.6W, h=102 km, mb=5.1
                    GUATEMALA

FEB 22  SAO  eP     19 49 10.3
        PRI  ePc    19 49 11.5
        BKS  eP     19 49 11.8  59 08          e 49 33     Lq 09 30     Lr 12 58
                          MICRON   PERIOD
                    PZ      0.05      0.9
        MBC  ePc    19 49 12.3
        FRI  eP     19 49 16.9
        FBC  ePc    19 49 17.3
        JAS  iPc    19 49 17.9                e 52 16
        WDC  iPc    19 49 20.3                e 49 52      e 52 20
        MIN  eP     19 49 22.1
        MNV  eP     19 49 27.2
                    USGS 19 37 17.0, 22.7S, 176.2W, h= 85 km, mb=5.6
                    SOUTH OF FIJI ISLANDS

FEB 23  PRI  eP     03 56 07.9                e 56 15      I 56 17
        SAO  eP     03 56 12.6
        FRI  eP     03 56 16.6  56 29
        MBC  eP     03 56 20.7
        JAS  iPc    03 56 25.6  56 44
                    BRK  03 56 00.0, 36.5N, 120.7W, h= 13 km, ML=2.5
                    WSW OF FRESNO, CALIFORNIA

FEB 23  MNV  iPc    10 14 21.2                e 14 37
        JAS  iPc    10 14 27.1  14 41
        FRI  iPd    10 14 32.6  14 50
        MBC  eP     10 14 46.1                e 15 14
        SAO  eP     10 14 48.5
        PRI  e(P)   10 14 52
                    BRK  10 14 07.2, 38.3N, 119.1W, h= 22 km, ML=3.3
                    SOUTHEAST OF RENO, NEVADA

FEB 23  FBC  eP     12 46 15.0
        WDC  ePc    12 46 32.4
        MIN  eP     12 46 41.9
        MBC  eP     12 47 09
        JAS  eP     12 47 12.7
                    USGS 12 45 00.3, 44.1N, 129.2W, h= 15 km, mb=4.3, Ms=3.7
                    OFF THE COAST OF OREGON

FEB 23  SAO  eP     15 20 38.3
        PRI  ePc    15 20 39.8
        BKS  eP     15 20 40.0
        MBC  ePc    15 20 40.6
        FRI  eP     15 20 44.6
        JAS  ePc    15 20 45.5
        FBC  eP     15 20 45.7
        WDC  iPc    15 20 47.5
        MIN  eP     15 20 48.9
                    USGS 15 08 57.5, 26.1S, 179.9E, h=435 km, mb=5.2
                    SOUTH OF FIJI ISLANDS

FEB 23  MNV  iPc    17 00 36.5
        FRI  iPc    17 00 48.3
        JAS  iPc    17 00 57.2
        PRI  iPc    17 01 01.0
        SAO  iPc    17 01 07.4
        MBC  iPc    17 01 10.1
        BKS  iPnc   17 01 16.5                P* 01 27     Pg 01 36
        MIN  eP     17 01 23.0
        WDC  iPc    17 01 32.2
        FBC  eP     17 01 48.0
                    ML=5.5, NUCLEAR EXPLOSION, NEVADA TEST SITE
                    USGS 17 00 00.2, 37.1N, 116.1W, h=  0 km, mb=5.6
                    SOUTHERN NEVADA

FEB 24  FBC  eP     06 59 17.1
        WDC  eP     06 59 33.4
        MIN  eP     06 59 47.0
        MBC         07 00                      e 00 14
                    USGS 06 58 37.3, 43.0N, 126.3W, h= 15 km, mb=4.5, Ms=4.2
                    OFF THE COAST OF OREGON

FEB 24  PRI  eP     18 29 06.2
        MBC  eP     18 29 07.3
        FRI  eP     18 29 11.2
        JAS  eP     18 29 12.4
        WDC  eP     18 29 15.5
        MNV  eP     18 29 20.1
                    USGS 18 16 33.4, 30.6S, 177.4W, h= 48 km, mb=5.2
                    KERMADEC ISLANDS

FEB 25  WDC         06 29                      e 29 20
        MBC         06 29                      e 29 28
        JAS         06 29                      e 29 29
        PRI         06 29                      e 29 30
        FRI         06 29                      e 29 30
        MNV  ePKP   06 29 32.5
                    USGS 06 10 35.8,  9.7S, 117.1E, h= 33 km, mb=5.6, Ms=5.2
                    SUMBAWA ISLAND REGION

FEB 26  WDC  eP     00 15 20.3
        JAS  eP     00 15 42.3
        MNV  eP     00 15 49.5
                    USGS 00 05 46.1, 49.3N, 155.6E, h= 44 km, mb=5.3, Ms=4.5
                    KURIL ISLANDS

FEB 26  PRI  eP     09 27 16.8
        SAO  eP     09 27 20.3
        FRI  ePd    09 27 20.8
        MBC  ePd    09 27 25.4
        JAS  ePd    09 27 28.0                PKPPKP 56 18
        BKS  eP     09 27 28.2  36 16          Lq 43 56     Lr 47 18
                          MICRON   PERIOD
                    PZ      0.15      1.5
                    LZ      2.5        20
                    LN      2.3        20
                    LE      1.6        20
        MNV  iPd    09 27 30.6              PKPPKP 56 16
        MIN  ePd    09 27 43.4
        WDC  iPd    09 27 45.3              PKPPKP 56 10
        FBC  ePd    09 27 48.7
                    Ms=5 S, DISTANCE=68°
                    USGS 09 16 52.4, 26.6S, 114.5W, h= 33 km, mb=5.9, Ms=5.7
                    EASTER ISLAND REGION
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FEB 26  FRI  e(P)   09 41 32
        JAS  ePd    09 41 43.5
        MNV  ePd    09 41 46.0
        WDC  ePd    09 42 00.7
                    EASTER ISLAND REGION

FEB 27  BRK  eP     08 20 18.4
        FRI  eP     08 20 18.4
        MHC  eP     08 20 19.1
        JAS  eP     08 20 24.7
        WDC  eP     08 20 27.6
        MIN  eP     08 20 29.2
        MNV  eP     08 20 34.0
                    TONGA ISLANDS REGION

FEB 28  MIN  iPd    16 20 58.1
        WDC  iPc    16 21 01.3
        FHC  ePg    16 21 23                Sg 21 48
        JAS  e(P)   16 21 41
                    BRK  16 20 51.5, 40.5N, 121.9W, h=  1 km, ML=3.1
                         NORTH OF CHICO, CALIFORNIA

MAR 01  WDC  ePd    00 18 16.8              e 18 29
        MIN  eP     00 18 20.0
        BRK  eP     00 18 28.5
        MHC  eP     00 18 33.8
        JAS  ePd    00 18 35.4              e 18 48
        FRI  eP     00 18 43.0              e 18 55
        PRI  eP     00 18 43.3
        MNV  ePd    00 18 43.9              e 18 56
                    USGS 00 08 19.7, 46.3N, 153.1E, h= 33 km, mb=5.4, Ms=5.1
                         KURIL ISLANDS

MAR 01  FRI  eP     04 55 23.0              Pg 55 33     Sg 56 18
        PRI  eP     04 55 25.5              Pg 55 34
        MNV  eP     04 55 35                Sg 56 39
        SAO  eP     04 55 38.0
        JAS  eP     04 55 41.0              Pg 55 51     Sg 56 53
        MHC  eP     04 55 43.8
        BKS  ePg    04 55 53.4
                    ML=4.5, NORTHEAST OF SAN BERNADINO
                    PAS  04 54 31.2, 34.5N, 116.8W, h=  5 km, ML=4.4
                         SOUTHERN CALIFORNIA

MAR 01  WDC  eP     11 14 57.5              e 15 10
        JAS  eP     11 15 18.2              e 15 30
        MNV  eP     11 15 26.0              e 15 38
                    USGS 11 05 02.0, 46.3N, 153.1E, h= 33 km, mb=5.0, Ms=4.6
                         KURIL ISLANDS

MAR 01  WDC  eP     11 57 30.5              e 57 43
        JAS  eP     11 57 50.5              e 58 02
        MNV  e(P)   11 57 58                e 58 10
                    USGS 11 47 34.0, 46.3N, 153.1E, h= 33 km, mb=5.0, Ms=4.5
                         KURIL ISLANDS

MAR 01  WDC  eP     15 56 33.5
        MIN  e(P)   15 56 38
        BKS         15 56                   e 16 00      e 22 34      e 23 40
                                            e 24 44      e 26 22
        MHC         15 56                   e 56 47
        JAS  eP     15 56 49.5
        FRI  eP     15 56 56
        MNV  eP     15 56 57
                    USGS 15 45 09.6, 34.8N, 141.7E, h= 32 km, mb=5.4, Ms=5.3
                         OFF THE EAST COAST OF HONSHU, JAPAN

MAR 01  SAO  e(P)   20 44 58
        FRI  eP     20 44 59
        BKS  ePc    20 44 59.1              e 06 00      Lr 06 13
        MHC  eP     20 44 59.3
        FHC  eP     20 45 03.8
        FRI  eP     20 45 04.1
        JAS  eP     20 45 05.6
        WDC  ePd    20 45 07.4
        MIN  eP     20 45 09.4
        MNV  ePd    20 45 15.9
                    USGS 20 33 39.6, 15.4S, 173.3W, h= 33 km, mb=5.4, Ms=5.1
                         TONGA ISLANDS

MAR 02  MNV  ePd    11 42 02.0
        JAS  eP     11 42 10.8
        MIN  eP     11 42 28.6
        WDC  eP     11 42 32.3
        FHC  eP     11 42 44.8
                    USGS 11 35 10.6, 13.2N,  89.6W, h=102 km, mb=4.6
                         EL SALVADOR

MAR 02  FHC  eP     14 43 36                e 43 49
        WDC  iPd    14 43 41.8              e 43 54      e 44 02      e 44 33
                                            e 47 27
        MIN  eP     14 43 46.7              e 44 00
        BKS         14 44                   e 57 08      e 58 58
        MHC  eP     14 44 03
        JAS  eP     14 44 05.0              e 44 16      e 47 54      e 48 13
        MNV  eP     14 44 11.9              e 44 25      i 48 02      e 48 21
        FRI  eP     14 44 13                e 44 26
                    USGS 14 34 58.5, 55.1N, 164.6E, h= 33 km, mb=5.4, Ms=5.5
                         KOMANDORSKY ISLANDS REGION

MAR 03  JAS  eP     02 12 17.5              e 12 30
        WDC  eP     02 12 20.6              i 12 33
        MNV  eP     02 12 25.3              i 12 38
                    USGS 02 00 11.7, 30.1S, 178.0W, h=338 km, mb=4.6
                         KERMADEC ISLANDS

MAR 03  PRI         07 47                   e 47 14
        MHC         07 47                   e 47 00      e 47 14
        FRI         07 47                   e 47 04
        JAS  eP     07 47 05.3              e 47 20
        WDC  eP     07 47 08.0              e 47 23
        MIN  eP     07 47 10.7
        MNV  eP     07 47 14.7
                    USGS 07 34 59.8, 23.3S, 175.0W, h= 33 km, mb=5.2
                         TONGA ISLANDS REGION

MAR 03  PRI  eP     07 54 08.2              e 54 23
        MHC  eP     07 54 08.5              e 54 23
        FRI  eP     07 54 13.5              e 54 28
        JAS  eP     07 54 14.2              e 54 29
        WDC  iPd    07 54 17.1              i 54 32
        MIN  eP     07 54 18.8              e 54 24
        MNV  eP     07 54 23.8              e 54 38
                    USGS 07 42 08.6, 23.3S, 175.0W, h= 33 km, mb=5.2
                         TONGA ISLANDS REGION

MAR 03  SAO  eP     10 59 29.8
        BKS  ePd    10 59 30.5
                              MICRON     PERIOD
                    PZ          0.14        1.0
        PRI  eP     10 59 31.3
        MHC  eP     10 59 31.5
        FHC  eP     10 59 35.5
        FRI  iPd    10 59 37.0
        JAS  iPd    10 59 37.6
        WDC  iP     10 59 39.3
        MIN  eP     10 59 41.4
        MNV  iPd    10 59 48.0
                    USGS 10 48 11.1, 15.3S, 173.5W, h= 33 km, mb=5.6, Ms=6.2
                         TONGA ISLANDS

MAR 03  FHC  eP     11 01 58.1
        WDC  iPd    11 02 03.6
        MIN  eP     11 02 08.5
        BKS         11 02                   09 46        e 09 36      e 14 52      Lq 15 20
                                            e 15 28      e 15 36      e 16 38
                              MICRON     PERIOD
                    LZ          11.9        18
                    LN           8.9        20
                    LE           7.5        20
        MHC  eP     11 02 23.8
        JAS  eP     11 02 26.5
        MNV  eP     11 02 32.7
        PRI  eP     11 02 34.0
        FRI  eP     11 02 34.4
                    Ms=6.1, DISTANCE=55°
                    USGS 10 53 19.8, 55.1N, 164.7E, h= 33 km, mb=5.5, Ms=6.2
                         KOMANDORSKY ISLANDS REGION

MAR 04  WDC  ePc    01 34 15.0
        MIN  ePc    01 34 18.2
        BKS  e(P)   01 34 20
        MHC  eP     01 34 22.1
        JAS  ePc    01 34 25.7
        PRI  e(P)   01 34 28
        MNV  iPc    01 34 33.9
                    USGS 01 21 39.2, 12.0N, 143.5E, h= 33 km, mb=5.4
                         SOUTH OF MARIANA ISLANDS

MAR 04  BRK  e(P)   04 03 01
        MHC  eP     04 03 01.6
        JAS  ePc    04 03 06.7
        WDC  ePc    04 03 08.5
        MIN  eP     04 03 10.1
        MNV  e(P)   04 03 15
                    USGS 03 51 33.1, 23.9S, 179.8E, h=513 km, mb=5.2
                         SOUTH OF FIJI ISLANDS

MAR 04  SAO  eP     04 58 27.0
        PRI  eP     04 58 28.4
        BKS  ePc    04 58 28.7  08 19       Lq 18 00     Lr 22 00
                              MICRON     PERIOD
                    PZ          0.15        1.5
                    LZ          8.9        20
                    LN          6.8        20
                    LE          9.3        20
        MHC  eP     04 58 29.2
        FRI  e(P)   04 58 34
        FHC  eP     04 58 34.3
        JAS  iPc    04 58 34.9
        WDC  iPc    04 58 37.4              pP 59 33
        MIN  eP     04 58 39.1
        MNV  e(P)   04 58 44                pP 59 38
                    Ms=6.2, DISTANCE=78°
                    USGS 04 46 36.1, 21.9S, 174.8W, h= 33 km, mb=5.7, Ms=6.3
                         TONGA ISLANDS

MAR 04  PRI  eP     06 51 51.3              e 52 05
        MNV  eP     06 51 59.6              e 52 13
        JAS  eP     06 52 00.3              e 52 14
        MIN  e(P)   06 52 14
        WDC  eP     06 52 15.8              e 52 29
                    USGS 06 40 04.3, 36.9S,  96.1W, h= 33 km, mb=5.3
                         WEST CHILE RISE

MAR 04  MHC  eP     12 19 42.5
        FRI  eP     12 19 47.8
        JAS  ePc    12 19 48.1
        WDC  eP     12 19 49.0
        MNV  ePc    12 19 57.7
                    USGS 12 08 49.0, 18.0S, 178.5W, h=588 km, mb=5.0
                         FIJI ISLANDS REGION

MAR 04  BKS         15 11                   e 11 08      Lq 15 34     Lr 15 38
        WDC  eP     15 11 00.1              PP 14 31
        JAS  eP     15 11 06.7              PP 14 39
        MNV  eP     15 11 14.2
                    USGS 14 58 13.0,  4.6S, 153.1E, h= 78 km, mb=6.2
                         NEW IRELAND REGION

MAR 04  MNV  eP     17 41 44.2              pP 42 02     PcP 44 22    pPcP 44 40
        PRI  eP     17 41 45.9
        JAS  eP     17 41 53.5              pP 42 11     PcP 44 25    pPcP 44 45
                                            SeP 48 08
        MHC  eP     17 41 57.3              pP 42 15
        BKS  eP     17 42 04.2              PcP 44 30    pPcP 44 46   Lr 55 09
        MIN  eP     17 42 10.7
        WDC  eP     17 42 14.6              pP 42 33     PcP 44 33    pPcP 44 51
        FHC  eP     17 42 26.4              pP 42 46
                    USGS 17 35 09.4, 14.3N,  91.3W, h=101 km, mb=5.2
                         GUATEMALA

MAR 05  PRI  eP     12 41 47.5
        MNV  eP     12 41 54.5
        BKS         12 42                   e 55 05      e 55 20
        JAS         12 42                   e 42 07
                    USGS 12 34 09.9,  2.7N,  95.4W, h= 33 km, mb=4.8, Ms=5.0
                         GALAPAGOS ISLANDS REGION

MAR 05  MNV  iPd    22 46 27.8
        JAS  eP     22 46 54.2
        FRI  eP     22 46 57.7
        MIN  eP     22 47 08
        MHC  eP     22 47 10.5
        WDC  eP     22 47 18.8
        PRI  ePg    22 47 21
        BKS  ePc    22 47 22.2
                    ML=4.5, NNE OF MINA, NEVADA
                    USGS 22 46 17.2, 38.9N, 118.0W, h=  5 km, mb=4.0
                         CALIFORNIA-NEVADA BORDER REGION

MAR 06  PRI  ePc    00 33 48.0
        MHC  e(P)   00 33 56
        JAS  ePc    00 33 57.0
        MNV  ePc    00 33 57.7
        BRK  e(P)   00 33 59
        BKS         00 33                   44 00        e 34 04      Lq 54 00     Lr 57 00
        WDC  ePc    00 34 14.0
                    USGS 00 22 19.2, 35.5S, 102.6W, h= 33 km, mb=5.4, Ms=5.7
                         SOUTHERN PACIFIC OCEAN

MAR 06  WDC  eP     01 27 53.6
        JAS  eP     01 28 06.5
        MNV  eP     01 28 13.5
                    USGS 01 18 59.6, 55.0N, 164.7E, h= 33 km, mb=5.1, Ms=4.8
                         KOMANDORSKY ISLANDS REGION

MAR 06  FHC  iPc    15 22 32.4
        WDC  iPc    15 22 37.2              e 24 10
        MIN  ePc    15 22 40.7
        BKS  ePc    15 22 47.6
        MHC  ePc    15 22 51.3
        JAS  iPc    15 22 53.4              e 24 27
        SAO  eP     15 22 53.4
        FRI  ePc    15 22 58.9
        PRI  ePc    15 22 59.2
        MNV  iPc    15 22 59.5
                    USGS 15 11 38.2, 38.2N, 134.0E, h=417 km, mb=5.1
                         SEA OF JAPAN
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MAR 07  FHC  iPe    02 59 40.7
        WDC  iPe    02 59 45.7
        MIN  iPe    02 59 49.1
        BKS  iPe    02 59 54.5
                                MICRON    PERIOD
                           PZ      0.71       0.6
        MBC  iPe    02 59 58.1
        SAO  eP     02 59 59.9
        JAS  iPe    03 00 00.5
        PRI  iPe    03 00 05.5
        FRI  ePe    03 00 05.7
        MNV  iPe    03 00 07.4
                    USGS 02 48 39.4, 32.0N, 137.6E, h=442 km, mb=6.0
                         SOUTH OF HONSHU, JAPAN

MAR 07  FHC  iPe    02 59 48.5
        WDC  iPe    02 59 53.5                pP 01 30     PP 02 55 SKPPKP 29 44
                                             RPKP 47 56
        MIN  iP     02 59 57.3
        BKS  eP     03 00 02    09 26         pP 01 36     sP 02 20     PP 02 57
                                               e 03 14   pPP 04 17      e 04 24
                                               e 04 36      e 04 44   PPP 05 06
                                             sPP 05 17      e 05 49      e 05 55
                                               e 10 13     SP 11 00     PS 11 10
                                               e 11 13      e 12 44     SS 15 21
                                             sSS 17 12     Lq 21 08
                                MICRON    PERIOD
                           PZ      2.1        0.7
        MBC  iPe    03 00 06.2                pP 01 42     PP 03 14
        SAO  eP     03 00 07.6
        JAS  iPe    03 00 08.2                pP 01 45     PP 03 14 SKPPKP 29 34
                                             RPKP 47 44
        FRI  iP     03 00 13.2                pP 01 51 SKPPKP 29 39
        FRI  iPe    03 00 13.3                pP 01 50     PP 03 25
                    mb=6.9, h=420km, DISTANCE=78°
                    USGS 02 48 47.6, 32.0N, 137.6E, h=439 km, mb=6.9
                         SOUTH OF HONSHU, JAPAN

MAR 07  FRI  ePKP   18 53 53.8
        MNV  ePKP   18 53 54.1
        JAS  ePKP   18 53 55.7
        MBC  ePKP   18 53 56.6
        BKS  ePKPe  18 53 58.0
        WDC  ePKP   18 54 00.6
                    USGS 18 35 00.7, 56.4S, 25.6W, h= 33 km, mb=5.4, Ms=5.5
                         SOUTH SANDWICH ISLANDS REGION

MAR 07  FRI  ePKP   18 58 48.5
        MNV  ePKPe  18 58 48.8
        JAS  ePKPe  18 58 50.2
        MBC  ePKP   18 58 51.1
        BKS  ePKPe  18 58 52.2
        MIN  ePKPe  18 58 54.4
        WDC  ePKPe  18 58 55.3
                    USGS 18 39 54.6, 56.4S, 25.5W, h= 33 km, mb=5.9
                         SOUTH SANDWICH ISLANDS REGION

MAR 07  FRI  ePKP   23 50 22.0
        PRI  ePKP   23 50 22.7
        MNV  ePKP   23 50 22.9
        JAS  ePKP   23 50 25.6
        MBC  ePKP   23 50 25.6
        BKS  ePKP   23 50 26.8
        MIN  ePKP   23 50 28.4
        WDC  ePKP   23 50 30.3
                    USGS 23 31 29.7, 56.5S,  25.6W, h= 33 km, mb=5.7, Ms=5.8
                         SOUTH SANDWICH ISLANDS REGION

MAR 09  BKS  e(P)   14 33 05
        JAS  ePe    14 33 10.8
        WDC  ePe    14 33 12.3                pP 35 28
        MIN  eP     14 33 13.9                pP 35 30
        MNV  iPe    14 33 19.7                pP 35 38
                    USGS 14 22 02.3, 20.9S, 179.8W, h=672 km, mb=5.2
                         FIJI ISLANDS REGION

MAR 10  MNV  ePe    23 52 10.9                PcP 52 25
        JAS  ePe    23 52 17.1
        MBC  eP     23 52 19.7
        BRK  eP     23 52 23.7
        WDC  eP     23 52 33.9                PcP 52 38
        FHC  eP     23 52 42.3                PcP 52 48
                    USGS 23 41 38.2, 13.3S,  76.4W, h= 71 km, mb=5.2
                         NEAR THE COAST OF PERU

MAR 11  PRI  eP     03 41 57.0
        MBC  ePe    03 42 04.5
        JAS  ePe    03 42 09.0
        MNV  ePe    03 42 14.3
        MIN  e(P)   03 42 24
        WDC  eP     03 42 25.0
        FHC         03 42                     e 42 27
                    USGS 03 32 11.1, 20.9S, 126.9W, h= 33 km, mb=4.9
                         SOUTH PACIFIC OCEAN

MAR 11  FHC  ePe    15 53 49.6
        WDC  eP     15 53 52.7
        MNV  eP     15 54 33.2                e 54 19      e 55 56
        JAS         15 54                     e 54 43
        MBC  e(P)   15 54 40                  e 54 40
        PRI  eP     15 54 58.0
                    USGS 15 52 11.2, 47.4N, 122.7W, h= 25 km, mb=4.3, Ms=4.2
                         WASHINGTON

MAR 12  WDC         08 42
        MIN         08 42                     i 42 44
        JAS         08 42                     e 42 44
        MNV  iPd    08 42 56.8                e 42 56
                    USGS 08 29 19.0, 41.9N,  80.0E, h= 26 km, mb=5.3, Ms=5.1
                         SOUTHERN SINKIANG PROVINCE, CHINA

MAR 12  MBC         16 26
        JAS  eP     16 25 56.4                e 26 08
        WDC  eP     16 25 59.1                i 26 13
        MIN         16 26
        MNV  eP     16 26 04.2                e 26 04
                                              i 26 21
                    USGS 16 13 13.0, 30.7S, 178.1W, h= 37 km, mb=5.5
                         KERMADEC ISLANDS

MAR 12  WDC  eP     18 10 53.8
        JAS  eP     18 11 11.0
        MNV         18 11
                    USGS 17 59 48.7, 38.8S, 141.9E, h= 64 km, mb=5.1
                         NEAR THE EAST COAST OF HONSHU, JAPAN

MAR 14  FHC  eP     02 37 40.7
        WDC  iPe    02 37 48.5
        MIN  eP     02 37 53.9                i 38 12
        BRK  eP     02 38 02.9                e 38 16
        MBC  eP     02 38 08.9                e 38 26
        JAS  iPe    02 38 12.2
        PRI  eP     02 38 20.3                i 38 36
        MNV  iPe    02 38 20.9
        FRI  eP     02 38 21.0
                    USGS 02 39 23.6, 52.0N, 179.1W, h=102 km, mb=5.1
                         ANDREANOF ISLANDS, ALEUTIAN ISLANDS

MAR 15  FHC  ePe    22 16 07.1
        WDC  iPe    22 16 12.4  25 46         PcP 16 23
                                               e 17 25
        MIN  eP     22 16 15.6  25 52
        BKS  ePe    22 16 19.7  25 55          e 16 29
                                               e 17 30
                                MICRON    PERIOD
                           PZ      1.73       0.9
        MBC  ePe    22 16 23.4  26 06         pP 16 50
        SAO  eP     22 16 25
        JAS  iPe    22 16 26.2  26 07         PcP 16 36
        PRI  ePe    22 16 30.2  26 19         PcP 16 39
        FRI  iPe    22 16 31.1
        MNV  ePe    22 16 33.4  26 28
                    USGS 22 04 40.1, 26.4N, 140.6E, h=263 km, mb=6.1
                         BONIN ISLANDS REGION

MAR 16  WDC         02 07                     e 07 31
        MIN  eP     02 07 36.4
        BRK  eP     02 07 47
        JAS  eP     02 07 55.7
        PRI         02 08                     e 08 04
        MNV         02 08                     e 08 05
                    USGS 02 00 50.4, 52.3N, 168.6W, h= 38 km, mb=5.1
                         FOX ISLANDS, ALEUTIAN ISLANDS

MAR 16  FHC  eP     02 16 06.2
        WDC  ePe    02 16 14.5
        MIN  eP     02 16 20.0
        BKS  eP     02 16 29.5                e 16 32      e 17 36      e 22 12
                                              e 25 00      e 25 48      e 26 04
                                MICRON    PERIOD
                           PZ      0.06       1.0
        MBC  e(P)   02 16 36
        JAS  ePe    02 16 39.5
        SAO         02 16                     e 16 41
        PRI         02 16                     e 16 47
        FRI         02 16                     e 16 48
        MNV  eP     02 16 48.4
                    USGS 02 09 38.4, 52.3N, 168.6W, h= 49 km, mb=5.5, Ms=5.3
                         FOX ISLANDS, ALEUTIAN ISLANDS

MAR 16  WDC  eP     08 33 21.7
        MNV  eP     08 33 27.9
                    USGS 08 21 21.8, 22.7S, 175.4W, h= 95 km, mb=4.8
                         TONGA ISLANDS REGION

MAR 16  MNV  iPe    15 00 36.8
        JAS  e(P)   15 00 57    01 56
        PRI  eP     15 01 01.7
        BKS  eP     15 01 27                  e 01 46      e 02 46
                    ML=4.4, NUCLEAR EXPLOSION, NEVADA TEST SITE
                    USGS 14 59 59.6, 37.1N, 116.1W, h=  2 km, mb=3.9
                         SOUTHERN NEVADA

MAR 17  SAO  eP     11 12 36.9
        PRI  eP     11 12 37.9
        BKS  ePd    11 12 38.6                e 31 00      e 32 12      e 35 48
                                              e 36 08
                                MICRON    PERIOD
                           PZ      0.12       1.4
        MBC  eP     11 12 38.7
        FRI  eP     11 12 43.5
        FHC  eP     11 12 43.9
        JAS  eP     11 12 44.1
        WDC  eP     11 12 47.2
        MIN  eP     11 12 48.8
        MNV  eP     11 12 53.5
                    USGS 11 00 39.5, 22.9S, 175.4W, h= 33 km, mb=5.7, Ms=5.2
                         TONGA ISLANDS REGION

MAR 18  PRI  eP     07 21 28.5
        MBC  eP     07 21 36.1
        JAS  eP     07 21 37.1
        BKS  eP     07 21 40.4
                                MICRON    PERIOD
                           PZ      0.02       0.8
        MIN  eP     07 21 49.8
        WDC  ePd    07 21 52.2
        FHC  eP     07 21 56.5
                    USGS 07 09 33.9, 37.6S,  93.5W, h= 33 km, mb=5.1, Ms=5.0
                         WEST CHILE RISE

MAR 18  PRI  ePe    09 25 11.7
        MNV  ePe    09 25 19.3
        MBC  eP     09 25 19.5
        JAS  ePe    09 25 20.0
        BKS  iPd    09 25 23.0                PP 28 33     PPP 30 51     Lr 51 00
                                MICRON    PERIOD
                           PZ      0.06       0.8
                           LZ      1.8         20
                           LN      2.5         20
                           LE      1.2         20
        MIN  eP     09 25 32.9
        WDC  ePe    09 25 35.2
        FHC  eP     09 25 40.0
                    Ms=5.7, DISTANCE=85°
                    USGS 09 13 14.6, 38.2S,  93.8W, h= 33 km, mb=5.6, Ms=5.6
                         WEST CHILE RISE

MAR 19  FRI  iPe    01 44 50.5
        PRI  iPe    01 44 51.6
        MNV  iPe    01 44 53.7
        SAO  ePe    01 44 58.4                PcP 48 12
        JAS  iPe    01 45 00.9
        MBC  iPe    01 45 04.1                e 45 34      PcP 48 16
        BKS  iPe    01 45 10.5  50 06          PcP 48 18   e 45 59      Lq 52 00      e 57 00
                                MICRON    PERIOD
                           PZ      0.12       1.4
                           LZ      60          20
                           LN      60          20
                           LE      70          20
        MIN  ePe    01 45 21.7
        WDC  iPe    01 45 25.5
        FHC  iPe    01 45 36.7                e 45 57
                    Ms=6.4, DISTANCE=30°
                    USGS 01 39 14.0, 17.0N,  99.7W, h= 36 km, mb=5.8, Ms=6.4
                         GUERRERO, MEXICO

MAR 19  FHC  e(P)   03 59 50
        WDC  ePe    03 59 51.1
        MIN  ePe    03 59 53.0
        BKS  eP     04 00 04.8
                                MICRON    PERIOD
                           PZ      0.01       0.7
        MNV  ePe    04 00 05.0
        JAS  ePe    04 00 05.7
        MBC  eP     04 00 07.8
        FRI  eP     04 00 11.2
        PRI  e(P)   04 00 15
                    USGS 03 46 57.4, 50.0N,  77.7E, h=  0 km, mb=5.2
                         NUCLEAR EXPLOSION, EASTERN KAZAKH, S.S.R.

MAR 19  MNV  ePd    06 36 23.5
        PRI  eP     06 36 30.0
        JAS  ePd    06 36 33.3
        MBC  ePd    06 36 39.1
        BKS  ePd    06 36 43.5
                                MICRON    PERIOD                e 36 48
                           PZ      0.04       0.8
        MIN  eP     06 36 45.9
        WDC  eP     06 36 49.5
        FHC  ePd    06 37 00.5
                    USGS 06 27 32.7,  6.8N,  73.0W, h=166 km, mb=4.9
                         NORTHERN COLOMBIA
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MAR 19  MBC  eP      14 50 15.5
        PRI  eP      14 50 15.7
        BKS          14 50                    e 50 16       e 50 26
        FRI  eP      14 50 21.0
        JAS  ePe     14 50 21.1
        WDC  ePe     14 50 22.1
        MIN  eP      14 50 24.0
        MNV  eP      14 50 30.5
                 USGS 14 39 18.0, 17.6S, 178.9W, h=540 km, mb=5.1
                      FIJI ISLANDS REGION

MAR 19  FHC  eP      14 59 18.5
        WDC  ePe     14 59 25.2
        MIN  eP      14 59 29.6
        BRK  eP      14 59 37.7
        MBC  eP      14 59 42.8
        JAS  ePe     14 59 45.4
        PRI  eP      14 59 52.4
        MNV  ePe     14 59 52.6
                 USGS 14 49 47.8, 48.8N, 155.2E, h= 61 km, mb=5.2
                      KURIL ISLANDS

MAR 19  JAS  eP      19 32 40
        MNV  eP      19 32 46
                 USGS 19 23 17.8, 56.0N, 160.4E, h= 33 km, mb=4.4
                      KAMCHATKA

MAR 20  FHC          04 04                  SeP 11 16
        WDC  ePd     04 04 39.0              pP 05 14     SeP 11 17
        MIN  eP      04 04 43.8              pP 05 16     SeP 11 19
        BKS          04 05                   e 05 33
        BRK          04 05                  SeP 11 25
        MBC  eP      04 05 06               SeP 11 27
        JAS  iPd     04 05 06.4              pP 05 39     SeP 11 27
        MNV  iPd     04 05 11.7              pP 05 44     SeP 11 30
        PRI  e(P)    04 05 20               SeP 11 33
                 USGS 03 59 05.0, 60.2N, 153.6W, h=153 km, mb=4.9
                      SOUTHERN ALSAKA

MAR 20  FHC  eP      07 30 10.1
        WDC  eP      07 30 15.8
        MIN  e(P)    07 30 20
        BKS  eP      07 30 27.2
                          MICRON     PERIOD
                     PZ     0.01       0.5
        MBC  eP      07 30 31.5
        JAS  eP      07 30 33.9
        MNV  eP      07 30 40.4
        PRI  eP      07 30 40.5
                 USGS 07 19 27.8, 42.3N, 142.7E, h= 75 km, mb=5.3
                      HOKKAIDO, JAPAN, REGION

MAR 20  FHC  ePe     10 35 31.4
        WDC  iPe     10 35 36.8
        MIN  ePe     10 35 40.6
        BKS  iPe     10 35 46.5                 pP 36 01
                          MICRON     PERIOD
                     PZ     0.11       0.9
        MBC  ePe     10 35 50.7
        SAO  eP      10 35 52.7
        JAS  iPe     10 35 53.3
        PRI  ePe     10 35 58.8
        FRI  eP      10 35 59.0
        MNV  iPe     10 36 00.3
                 USGS 10 24 13.6, 36.0N, 139.7E, h= 66 km, mb=5.7
                      HONSHU, JAPAN

MAR 20  MNV  eP      15 55 36.5
        FRI          15 55                    e 55 45
        JAS  eP      15 55 44.8               e 59 13
        PRI  eP      15 55 46.5
        MIN          15 55                    e 55 53
        MBC  eP      15 55 50.7
        WDC          15 55                    e 55 54
        BKS  eP      15 55 56                Lr 29 00
                          MICRON     PERIOD
                     PZ     0.07       1.5
                     LZ     1.8        20
                     LN     2.1        20
                     LE     3.2        20
                 USGS 15 42 46.7,  0.8N,  29.8W, h= 33 km, mb=5.7, Ms=5.6
                      CENTRAL MID-ATLANTIC RIDGE

MAR 20  MNV  eP      18 22 34.3
        JAS  eP      18 22 44.0               e 26 19
        PRI  eP      18 22 44.5
        MBC  eP      18 22 48.6
        BKS          18 22                   Lq 47 00     Lr 51 00
                          MICRON     PERIOD
                     LN     2.5        20
                     LE     2.8        20
        WDC          18 22                    e 22 53
                 USGS 18 09 43.6,  0.8N,  29.7W, h= 33 km, mb=5.7, Ms=5.8
                      CENTRAL MID-ATLANTIC RIDGE

MAR 21  FHC  iPd     14 05 21.9  05 29
        WDC  iPe     14 05 36.4
        MIN  iPe     14 05 46.4
        BKS  ePae    14 06 01.5              P* 06 05     Pg 06 12      e 06 18
        MBC  eP      14 06 11.0
        JAS  eP      14 06 13.3
        MNV  eP      14 06 31.2
                 BRK  14 05 13.2, 40.4N, 124.3W, h= 11 km, ML=3.7
                      NEAR COAST SSW OF EUREKA, CALIFORNIA

MAR 21  FHC  eP      15 41 50.2
        WDC  eP      15 41 56.0
        MIN  eP      15 42 00.8
        MBC  eP      15 42 16.2
        JAS  eP      15 42 18.3
        MNV  eP      15 42 25.1
        FRI  eP      15 42 25.5
        PRI  eP      15 42 26.1
                 USGS 15 32 54.6, 53.8N, 160.5E, h= 57 km, mb=5.1
                      NEAR THE EAST COAST OF KAMCHATKA

MAR 21  WDC  eP      19 26 49.0               e 27 00
        JAS  eP      19 26 50.5               e 27 02
        MNV  eP      19 27 00.0
                 USGS 19 14 05.9, 17.6S, 167.8E, h= 23 km, mb=5.4, Ms=4.8
                      NEW HEBRIDES ISLANDS

MAR 21  FHC  iPd     20 17 16.6  17 24
        WDC  iPe     20 17 31.1  17 51
        MIN  eP      20 17 41
                 BRK  20 17 06.7, 40.5N, 124.5W, h=  8 km, ML=3.1
                      OFF COAST SOUTHWEST OF EUREKA, CALIFORNIA

MAR 21  WDC  eP      23 13 24.4
        JAS  eP      23 13 44.7
        MNV  eP      23 13 51
                 USGS 23 02 42.8, 46.0N, 141.8E, h= 33 km, mb=5.2, Ms=4.8
                      SAKHALIN ISLAND

MAR 22  FHC  eP      01 00 47.2
        WDC  iPe     01 00 53.5               e 01 12 PKPPKP 29 07
        MIN  eP      01 00 57.6               e 01 16
        BKS  eP      01 01 05.0  09 45        pP 01 22     e 12 21     Lq 01 17
                                               Lr 23 00
                          MICRON     PERIOD
                     PZ     0.06       0.8
                     LN     18         20
                     LE     14         20
        MBC  eP      01 01 09.7               e 01 28
        JAS  iPe     01 01 12.4               e 01 30 PKPPKP 28 57
        FRI  eP      01 01 18.7               e 01 36
        PRI  e(P)    01 01 19                 e 01 37
        MNV  eP      01 01 19.9
                 Ms=6.4, DISTANCE=66°
                 USGS 00 50 32.2, 44.0N, 149.0E, h= 33 km, mb=6.3, Ms=6.7
                      KURIL ISLANDS

MAR 22  FHC          01 34                    pP 34 26
        WDC          01 34                    pP 34 32
        MIN          01 34                    pP 34 36
        JAS          01 34                    pP 34 51
        MNV  e(P)    01 34 39                 pP 34 58
                 USGS 01 23 53.4, 44.0N, 149.1E, h= 33 km, mb=5.4
                      KURIL ISLANDS

MAR 22  WDC  eP      02 43 00.5               pP 43 20
        MIN  eP      02 43 04.8               pP 43 24
        JAS  eP      02 43 19.5               pP 43 38
        MNV  eP      02 43 26.6               pP 43 46
                 USGS 02 32 38.9, 44.1N, 149.0E, h= 33 km, mb=5.6
                      KURIL ISLANDS

MAR 22  WDC  iPd     06 33 29.0
        MIN  iPe     06 33 35.5
        FHC  iPe     06 33 35.6  33 49
        BKS  e(P)    06 33 58                 e 35 00       e 05 10
        JAS  eP      06 34 03.7
        MNV  e(P)    06 34 19
                 BRK  06 33 16.5, 40.1N, 123.0W, h= 10 km, ML=3.5
                      NORTHWEST OF CHICO, CALIFORNIA

MAR 22  WDC  eP      08 35 38.0               pP 35 57
        JAS  eP      08 35 58.0               pP 36 16
        MNV  eP      08 36 04.5               pP 36 23
                 USGS 08 25 18.4, 44.0N, 149.0E, h= 37 km, mb=5.1, Ms=4.6
                      KURIL ISLANDS

MAR 22  WDC  iPd     08 40 45.9  40 55
        FHC  iPe     08 40 52.5  41 06
        MIN  iPe     08 40 52.7  41 06
        JAS  e(P)    08 41 22                 e 41 57
                 BRK  08 40 34.1, 40.1N, 123.0W, h= 10 km, ML=3.1
                      NORTHWEST OF CHICO, CALIFORNIA

MAR 22  WDC  iPd     10 49 58.5  50 07
        MIN  iPe     10 50 04.9  50 18
        FHC  iPe     10 50 05.4  50 20
                 BRK  10 49 46.1, 40.1N, 122.9W, h= 10 km, ML=3.0
                      NORTHWEST OF CHICO, CALIFORNIA

MAR 22  MNV  ePe     14 31 53.5              P* 32 04     Pg 32 12     Sg 33 37
        MIN          14 31                    e 32 06
        WDC          14 32                    e 32 10     Sg 33 57
        JAS          14 32                    e 32 10     Sg 34 04
                 USGS 14 30 15.7, 44.3N, 115.5W, h=  5 km, ML=4.1
                      WESTERN IDAHO

MAR 22  FHC  ePd     21 44 49.3               e 45 01
        WDC  ePd     21 44 54.2               e 45 06 PKPPKP 44 22
        MIN  ePd     21 44 58.3               e 45 17
        BKS  eP      21 45 05.7  53 47        e 85 28       e 45 36     SS 58 00
                                               SS 01 00     Lr 04 00
                          MICRON     PERIOD
                     PZ     0.06       1.2
                     LNE    22         20
                     LNW    11         20
        MBC  eP      21 45 10
        JAS  ePd     21 45 13.3
        PRI  eP      21 45 19.8
        FRI  e(P)    21 45 20
        MNV  e(P)    21 45 21
                 Ms=6.4, DISTANCE=66°
                 USGS 21 34 33.4, 44.1N, 149.0E, h= 33 km, mb=6.0, Ms=6.6
                      KURIL ISLANDS

MAR 23  FHC  eP      00 41 15.2
        WDC  ePe     00 41 21.6                i 41 29       e 42 11 PKPPKP 10 48
        MIN  ePe     00 41 25.8
        BKS  eP      00 41 33.3  50 06         e 51 08     SeS 51 25     SS 54 34
                                               Lq 52 00     Lr 55 00
                          MICRON     PERIOD
                     PZ     0.05       0.9
                     LNE    34         20
                     LNW    26         20
        MBC  eP      00 41 38                 e 41 47
        JAS  ePe     00 41 40.3               e 41 52       e 42 31 PKPPKP 10 42
        SAO  eP      00 41 41
        FRI  e(P)    00 41 46
        PRI  ePe     00 41 46.9               e 41 55
        MNV  eP      00 41 48
                 MS=6.6, DISTANCE=66°
                 USGS 00 31 02.1, 44.2N, 149.0E, h= 46 km, mb=6.1, Ms=6.8
                      KURIL ISLANDS

MAR 23  WDC  eP      00 46 57.6               e 47 05       i 47 10
        MIN          00 47                    e 47 08
        BKS          00 47                    e 47 21
        JAS          00 47                    e 47 23
        FRI          00 47                    e 47 22
                 USGS 00 36 35.4, 44.0N, 148.8E, h= 54 km, mb=5.6
                      KURIL ISLANDS

MAR 23  FHC          00 50                    e 50 12
        WDC          00 50                    e 50 00       e 50 12       e 50 19
        MIN  eP      00 50 04.5               e 50 23
        JAS  eP      00 50 18.3               e 50 32
        FRI          00 50                    i 50 35
                 USGS 00 39 41.0, 44.2N, 149.3E, h= 33 km, mb=5.6
                      KURIL ISLANDS

MAR 23  PRI  eP      00 55 05.5              PcP 55 14
        JAS  ePe     00 55 10.7              PcP 55 19
        MBC  e(P)    00 55 13                PcP 55 21
        BRK          00 55                    e 55 16
        MIN  eP      00 55 22
        WDC  iPe     00 55 24.1              PcP 55 32
        FHC  e(P)    00 55 31                PcP 55 39
                 CENTRAL CHILE-ARGENTINA BORDER REGION

MAR 23  WDC  ePe     00 56 54.7               i 57 09
        MIN          00 57                    e 57 12
        MBC          00 57                    e 57 15
        JAS  eP      00 57 13.4               e 57 28
                 USGS 00 46 35.0, 44.1N, 149.1E, h= 47 km, mb=5.3
                      KURIL ISLANDS

MAR 23  FHC          01 04                    e 04 54
        WDC  eP      01 04 45.1               i 04 59
        MIN          01 05                    e 05 03
        BKS          01 05                    e 05 18
        JAS          01 05                    e 05 04
                 USGS 00 54 26.6, 44.3N, 149.1E, h= 49 km, mb=5.2
                      KURIL ISLANDS

MAR 23  WDC  eP      01 15 04.5               e 15 26
        JAS  eP      01 15 23.5
                 USGS 01 04 44.8, 44.2N, 149.1E, h= 33 km, mb=5.3
                      KURIL ISLANDS

MAR 23  FHC  eP      01 59 48.8
        WDC  eP      01 59 56.2               e 00 12
        MIN  eP      02 00 00.5
        BKS  ePd     02 00 09.2
                          MICRON     PERIOD
                     PZ     0.01       0.7
        MBC  eP      02 00 12.5               e 00 30
        JAS  eP      02 00 15.0               e 00 33
        PRI  eP      02 00 21.5
                 USGS 01 49 33.8, 43.8N, 148.9E, h= 33 km, mb=5.8, Ms=6.4
                      KURIL ISLANDS REGION
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International Seismological Centre

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MAR 23  FHC  eP    02 47 16.6
        WDC  eP    02 47 20.7
        MIN  eP    02 47 24.9
        BKS  eP    02 47 31.0                  e 47 45
        MHC  eP    02 47 36.8
        JAS  eP    02 47 39.2
        FRI        02 47                       e 47 52
        MNV        02 47                       e 47 55
        FRI        02 47                       e 47 59
                   USGS 02 37 00.9, 44.2N, 148.7E, h= 50 km, mb=5.8
                        KURIL ISLANDS

MAR 23  FHC  eP    03 24 36.2
        WDC  eP    03 24 43.5
        MIN  eP    03 24 47.9
        BKS  eP    03 24 56.5                  e 25 01      e 25 02      e 25 11
                          MICRON     PERIOD
                   PZ       0.03        0.8
        MHC        03 25                       e 25 04
        JAS  eP    03 25 02.3
        PRI  eP    03 25 07
        FRI        03 25                       e 25 12
        MNV  eP    03 25 10.1
                   USGS 03 14 23.3, 44.3N, 149.1E, h= 33 km, mb=5.9
                        KURIL ISLANDS

MAR 23  FHC  eP    03 25 34.0
        WDC  iP    03 25 41.6
        MIN        03 25                       e 25 51
        BKS  eP    03 25 55.5  34 34           SS 39 00     SSS 42 10     Lq 44 00
                                               Lr 48 00
                          MICRON     PERIOD
                   PZ       0.11        1.0
                   LZ        110          20
                   LN        100          20
                   LE        170          20
        MHC  eP    03 25 58
        JAS  eP    03 26 00.4
        SAO        03 26
        PRI        03 26                       e 26 06
        FRI        03 26                       e 26 12
        MNV  eP    03 26 08.5                  e 26 13
                   Ms=7.3, DISTANCE=66°
                   USGS 03 15 20.3, 44.9N, 148.4E, h= 33 km, mb=6.4, Ms=7.5
                        KURIL ISLANDS

MAR 23  FHC  eP    03 59 39.6
        WDC  eP    03 59 46.3
        MIN  eP    03 59 51.6
        MHC  eP    04 00 02.5
        JAS  eP    04 00 05.3
                   USGS 03 49 27.7, 44.4N, 149.5E, h= 33 km, mb=5.3
                        KURIL ISLANDS

MAR 23  FHC  eP    04 01 03.5
        WDC  eP    04 01 08.0
        MIN  eP    04 01 13.9
        BKS  ePe   04 01 20.5                  e 01 35
                          MICRON     PERIOD
                   PZ       0.04        1.0
        MHC  eP    04 01 25.5
        JAS  eP    04 01 26.4
        SAO        04 01
        PRI  eP    04 01 35.5                  e 01 29
        FRI        04 01
        MNV  eP    04 01 36.3                  e 01 36
                   USGS 03 50 52.5, 44.4N, 149.6E, h= 50 km, mb=6.0
                        KURIL ISLANDS

MAR 23  FHC        07 29
        WDC  eP    07 29 58.4                  e 29 52
        MIN        07 30
        BKS  eP    07 30 13.0                  e 30 04      e 30 54
                          MICRON     PERIOD
                   PZ       0.03        0.8
        MHC        07 30
        JAS  eP    07 30 23.5                  e 30 19
        SAO        07 30
        PRI        07 30                       e 30 37
        FRI        07 30                       e 30 32
                                               e 30 28
                   USGS 07 23 13.4, 52.0N, 169.5W, h= 23 km, mb=5.6, Ms=5.8
                        FOX ISLANDS, ALEUTIAN ISLANDS

MAR 23  WDC  eP    07 42 36.5
        MIN        07 42
        JAS        07 43                       e 42 48
                                               e 43 08
                   USGS 07 32 15.7, 44.1N, 148.7E, h= 48 km, mb=5.1
                        KURIL ISLANDS

MAR 23  FHC  eP    08 24 45.2
        WDC  iPe   08 24 50.3
        MIN  eP    08 24 54.2
        BRK        08 25
        MHC        08 25                       e 25 03
        JAS  eP    08 25 07.6                  e 25 06
        SAO                                    i 25 22
        FRI        08 25                       e 25 11
        PRI        08 25                       e 25 15
        MNV        08 25                       e 25 16
                                               e 25 18
                   USGS 08 14 31.9, 44.3N, 149.1E, h= 48 km, mb=5.7, Ms=5.9
                        KURIL ISLANDS

MAR 23  MNV  iPe   16 30 36.7
        FRI  iPe   16 30 48.4
        JAS  iPe   16 30 57.4
        PRI  iPe   16 31 01.1
        SAO  iP    16 31 07.6
        MHC  iPe   16 31 10.3
        BKS  iPe   16 31 11.4  32 18           e 31 17      e 31 36
        MIN  iPe   16 31 23.2
        WDC  iP    16 31 32.5
        FHC  eP    16 31 49.5
                   ML=5.5, NUCLEAR EXPLOSION, NEVADA TEST SITE
                   USGS 16 30 00.2, 37.1N, 116.1W, h=  0 km, mb=5.6
                        SOUTHERN NEVADA

MAR 23  WDC  eP    17 02 52.0
        MIN  eP    17 02 56.5                  e 03 09
        BKS  ePd   17 03 03.6                  e 03 14
                          MICRON     PERIOD
                   PZ       0.02        0.8
        JAS  eP    17 03 10.8
        PRI  eP    17 03 16.6                  e 03 28
        MNV  eP    17 03 18.4                  e 03 35
                                               e 03 36
                   USGS 16 52 35.2, 44.2N, 149.6E, h= 46 km, mb=5.4, Ms=5.0
                        KURIL ISLANDS

MAR 23  FHC  eP    19 22 34
        WDC  ePe   19 22 40.5                  e 22 52
        MIN  eP    19 22 45.0                  e 22 59      SP 31 35 PKPPKP 52 03
        BKS  iPe   19 22 52.8  31 30           e 23 03      SS 35 44     SSS 38 28     e 49 00
                          MICRON     PERIOD
                   PZ       0.03        0.8
                   LN         21          20
                   LE         14          20
        MHC  e(P)  19 22 57
        JAS  ePe   19 22 59.4                  e 23 14
        FRI  e(P)  19 23 06                    e 23 17 PKPPKP 52 06
        PRI  e(P)  19 23 06                    e 23 24
        MNV  eP    19 23 08.2                  e 23 27
                   Ms=6.4, DISTANCE=66°
                   USGS 19 12 23.6, 44.3N, 149.7E, h= 33 km, mb=6.0, Ms=6.8
                        KURIL ISLANDS

MAR 23  WDC  eP    19 56 42.7
        BRK  e(P)  19 56 54                    e 56 58
        JAS  eP    19 57 01.7
        PRI  e(P)  19 57 08                    e 57 17
                   USGS 19 46 24.4, 44.4N, 149.7E, h= 33 km, mb=5.4
                        KURIL ISLANDS

MAR 23  SAO  eP    21 56 22.5
        PRI  ePe   21 56 23.7
        BKS  eP    21 56 24.2
                          MICRON     PERIOD
                   PZ       0.09        0.8
        MHC  ePe   21 56 24.2
        FHC  eP    21 56 28.4
        FRI  eP    21 56 28.7
        JAS  ePe   21 56 29.3                  pP 58 19
        WDC  ePe   21 56 31.3                  pP 58 21
        MIN  ePe   21 56 32.8
        MNV  ePe   21 56 37.5                  pP 58 28
                   USGS 21 44 50.2, 24.8S, 179.9W, h=475 km, mb=5.5
                        SOUTH OF FIJI ISLANDS

MAR 23  WDC  eP    23 43 16.8                  pP 43 34
        MIN        23 43                       pP 43 38
        BRK        23 43                       pP 43 46
        JAS  eP    23 43 36.0                  pP 43 54
        MNV  eP    23 43 43.5                  pP 44 01
                   USGS 23 33 01.7, 44.4N, 149.9E, h= 42 km, mb=5.2, Ms=5.0
                        KURIL ISLANDS

MAR 24  MNV  iPe   00 50 32.1
        FRI  iPe   00 50 42.6
        JAS  iPe   00 50 47.0
        PRI  ePe   00 50 49.6                  PcP 52 34
        MIN  ePe   00 50 50.9                  PcP 52 33
        SAO  ePe   00 50 54.4
        WDC  eP    00 50 54.5                  PcP 52 34
        MHC  ePe   00 50 56.2                  PcP 52 35
        BKS  iPe   00 50 58.4  57 44           e 51 02      PP 53 08     SS 01 33
                                               Lq 02 27     Lr 04 00
                          MICRON     PERIOD
                   PZ       0.47        1.2
                   LZ          8          20
                   LN         26          20
                   LE         11          20
        FHC  ePe   00 51 05.6
                   Ms=6.1, DISTANCE=47°
                   USGS 00 42 36.3, 29.8N,  67.4W, h= 20 km, mb=6.1, Ms=5.8
                        NORTH ATLANTIC OCEAN

MAR 24  BKS  iPd   10 59 48.0
        MHC  eP    10 59 49.5
        PRI  eP    10 59 50                    pP 00 49
        WDC  ePe   10 59 51.8                  pP 00 50
        MIN  eP    10 59 54                    pP 00 50
        JAS  eP    10 59 54.3                  pP 00 52
        MNV  ePe   11 00 03.7                  pP 00 53
                                               pP 01 02
                   USGS 10 47 49.2, 12.4S, 166.9E, h=247 km, mb=5.0
                        SANTA CRUZ ISLANDS

MAR 24  WDC        18 40
        JAS  e(P)  18 40 48                    pP 40 42
        MNV  eP    18 40 55.3                  pP 41 00
                                               pP 41 08
                   USGS 18 30 08.4, 44.1N, 148.8E, h= 48 km, mb=4.9
                        KURIL ISLANDS

MAR 24  FHC  eP    19 58 05.0
        WDC  eP    19 58 11.1
        MIN  eP    19 58 15.3                  pP 58 29     SP 08 14 PKPPKP 27 32
        BKS  eP    19 58 23      07 06         pP 58 41     pPP 01 12    e 03 20
                                               SS 11 32     Lq 14 44     Lr 17 40
                          MICRON     PERIOD
                   PZ       0.17        1.3
                   LZ        160          20
                   LNE       150          20
                   LNW        80          20
        MHC  eP    19 58 27.4
        SAO  eP    19 58 29.7                  pP 58 45 PKPPKP 27 21
        JAS  eP    19 58 30.0
        FRI  eP    19 58 36.5                  pP 58 48     SP 08 33 PKPPKP 27 17
        PRI  eP    19 58 36.6
        MNV  eP    19 58 37.2                  pP 58 55 PKPPKP 27 19
                   Ms=7.2, DISTANCE=67°
                   USGS 19 47 50.7, 44.2N, 148.9E, h= 33 km, mb=6.5, Ms=7.6
                        KURIL ISLANDS

MAR 24  WDC  eP    20 41 32.5
        MIN        20 41
        JAS  eP    20 41 51.5                  e 41 37
                   USGS 20 31 09.0, 43.8N, 148.8E, h= 33 km, mb=5.5
                        KURIL ISLANDS REGION

MAR 24  WDC  eP    20 48 44.6
        MIN        20 48
        JAS        20 49                       e 48 49
                                               e 49 02
                   USGS 20 38 20.5, 43.9N, 148.6E, h= 33 km, mb=5.0
                        KURIL ISLANDS REGION

MAR 24  WDC  iPe   22 19 18.3
        MIN  eP    22 19 22.1
        BRK        22 19
        MHC        22 19
        JAS  eP    22 19                       e 19 30
        PRI        22 19 36.7                  e 19 33
        FRI        22 19
                   22 19                       e 19 46
                   USGS 22 08 58.3, 44.1N, 148.9E, h= 45 km, mb=5.6
                        KURIL ISLANDS

MAR 24  WDC  iPe   23 26 06.0
        MIN  eP    23 26 10.0
        MHC        23 26                       i 26 19
        JAS  iPe   23 26 24.8                  e 26 23
        PRI        23 26                       e 26 22
        MNV  iPe   23 26 32.2                  i 26 38
                                               e 26 31
                                               i 26 45
                   USGS 23 15 45.6, 44.1N, 148.9E, h= 45 km, mb=5.4, Ms=4.7
                        KURIL ISLANDS

MAR 25  WDC  eP    05 35 02.2
        MIN        05 35
        MNV        05 35                       e 35 20
                                               e 35 06
                                               e 35 29      e 35 47
                   USGS 05 24 41.3, 44.0N, 149.3E, h= 33 km, mb=5.4, Ms=5.1
                        KURIL ISLANDS

MAR 25  WDC  eP    08 12 07.5
        MIN  eP    08 12 11.8
        JAS  eP    08 12 26.6
        MNV  eP    08 12 33.7                  e 12 43
                                               i 12 50
                   USGS 08 01 48.4, 44.1N, 149.0E, h= 50 km, mb=5.3, Ms=4.7
                        KURIL ISLANDS

MAR 25  WDC  eP    11 50 50.5
        MIN  eP    11 50 54.8
        MHC        11 51                       i 51 05
        MNV  eP    11 51 16.9                  e 51 08
                                               e 51 19
                                               i 51 30
                   USGS 11 40 29.6, 44.0N, 148.7E, h= 46 km, mb=5.4, Ms=4.9
                        KURIL ISLANDS

MAR 25  FHC  eP    17 05 27
        WDC  eP    17 05 33.2
        MIN  eP    17 05 37.6                  pP 05 48
        BKS  eP    17 05 44.7
        MHC  eP    17 05 49.5
        JAS  eP    17 05 52.0
        FRI  eP    17 05 58.5                  pP 06 06
        MNV  eP    17 05 59.5                  pP 06 14
                   USGS 16 55 13.3, 44.1N, 148.8E, h= 50 km, mb=5.2, Ms=4.5
                        KURIL ISLANDS

MAR 25  MNV  eP    18 50 10.0    54 18
        FRI  eP    18 50         54 30
        JAS        18 50 41.0    54 43
        PRI        18 50         54 47
        SAO        18 50         54 54
        BKS        18 50
        MIN        18 50         55 20          e 55 09
        WDC                      55 36
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MAR 25  SAO  ePd   19 37 08.0
        BKS  iPd   19 37 09.3
                        MICRON     PERIOD
                   PZ     0.47        0.9
        PRI  ePd   19 37 09.5
        MHC  ePd   19 37 09.9
        FHC  iPd   19 37 13.7
        FRI  iPd   19 37 14.7
        JAS  iPd   19 37 15.0          pP 39 20      e 40 25
        WDC  iPd   19 37 16.7          pP 39 22      e 40 27     SP 46 40
        MIN  ePd   19 37 18.3
        MNV  iPd   19 37 24.1          pP 39 30      e 40 40
                   USGS 19 26 03.2, 21.0S, 178.8W, h=595 km, mb=5.7
                        FIJI ISLANDS REGION

MAR 26  FHC  e(P)  00 02 31          pP 02 50
        WDC  eP    00 02 37.5
        MIN  eP    00 02 41.5
        BRK  eP    00 02 49
        BKS        00 02              e 11 33       e 19 00
        MHC  e(P)  00 02 54
        JAS  ePc   00 02 56.3
        PRI  eP    00 03 02.6
        FRI  e(P)  00 03 03
        MNV  ePc   00 03 03.5          pP 03 23
                   USGS 23 52 14.8, 43.8N, 148.5E, h= 47 km, mb=5.6, Ms=5.6
                        KURIL ISLANDS REGION

MAR 26  BKS  iPd   00 27 29.8  27 50
        WDC  iPc   00 27 30.2
        MIN  ePc   00 27 32.5
        FHC  iPc   00 27 33.3
        MHC  ePd   00 27 39.9
        JAS  iPc   00 27 44.7
        SAO  eP    00 27 47.8
                   BRK  00 27 04.8, 39.2N, 123.2W, h= 10 km, ML=4.5
                        UKIAH, CALIFORNIA

MAR 26  BKS  iP    00 34 37.4  34 58
        WDC  ePc   00 34 37.4
        MIN  eP    00 34 39.8
        FHC  ePc   00 34 41.0
        MHC  eP    00 34 47.7
        JAS  ePc   00 34 51.5
        SAO  eP    00 34 54.7
                   BRK  00 34 11.9, 39.2N, 123.1W, h=  5 km, ML=3.2
                        UKIAH, CALIFORNIA

MAR 26  BKS  eP    01 19 34.9  19 55
        WDC  iPc   01 19 35.5
        MIN  iPc   01 19 37.9
        FHC  iPc   01 19 38.7  19 59
        MHC  eP    01 19 45.4
        JAS  iPc   01 19 49.6
        SAO  eP    01 19 52.5
                   BRK  01 19 10.1, 39.2N, 123.2W, h= 10 km, ML=3.7
                        UKIAH, CALIFORNIA

MAR 26  WDC  iPc   02 29 42.1
        BKS  ePc   02 29 42.7  30 03
        MIN  ePc   02 29 44.9
        FHC  ePc   02 29 45.0              e 30 08
        MHC  ePc   02 29 52.5
        JAS  ePd   02 29 56.6
        SAO  eP    02 29 59.9
                   BRK  02 29 16.9, 39.2N, 123.2W, h=  6 km, ML=3.5
                        UKIAH, CALIFORNIA

MAR 26  FHC  eP    04 09 51.1
        WDC  iPc   04 09 52.1
        MIN  ePc   04 09 54.1
        BKS  eP    04 10 05.6
                        MICRON     PERIOD
                   PZ     0.07        1.0
        MNV  iPc   04 10 06.3
        JAS  ePc   04 10 06.8
        MHC  eP    04 10 08.6
        SAO  eP    04 10 11.0
        FRI  e(P)  04 10 12
        PRI  ePc   04 10 15.5
                   USGS 03 56 57.6, 49.7N,  78.1E, h=  0 km, mb=5.5
                        NUCLEAR EXPLOSION, EASTERN KAZAKH, S.S.R.

MAR 26  BKS  eP    04 28 44.1  29 06
        WDC  iPd   04 28 44.5
        MIN  eP    04 28 47.1
        FHC  ePc   04 28 47.4
        MHC  eP    04 28 54.8
        JAS  iPc   04 28 59.0
        SAO  eP    04 29 02
                   BRK  04 28 19.1, 39.2N, 123.2W, h= 10 km, ML=3.7
                        UKIAH, CALIFORNIA

MAR 26  WDC  eP    06 10 33.0          pP 10 48
        MIN  eP    06 10 37.5
        JAS  eP    06 10 52.0          pP 11 08
        MNV  eP    06 10 59.7          pP 11 14
                   USGS 06 00 16.6, 44.5N, 149.7E, h= 33 km, mb=5.4, Ms=4.8
                        KURIL ISLANDS

MAR 26  WDC  eP    07 20 14
        JAS  eP    07 20 33
        MNV  eP    07 20 40.6
                   USGS 07 09 57.7, 44.5N, 149.7E, h= 41 km, mb=4.9, Ms=4.5
                        KURIL ISLANDS

MAR 26  SAO  eP    07 57 17.0
        BKS  eP    07 57 17.6
                        MICRON     PERIOD
                   PZ     0.03        0.7
        MHC  eP    07 57 17.9
        PRI  eP    07 57 18
        FHC  eP    07 57 21.4
        JAS  ePd   07 57 23.2
        WDC  iPd   07 57 25.0
        MIN  eP    07 57 26.8
        MNV  ePd   07 57 32.2
                   USGS 07 46 08.7, 21.2S, 178.8W, h=565 km, mb=5.0
                        FIJI ISLANDS REGION

MAR 26  WDC  eP    08 20 22.5
        JAS  eP    08 20 41.0
        MNV  eP    08 20 49.0
                   KURIL ISLANDS

MAR 26  JAS  eP    10 58 26.8
        WDC  eP    10 58 29.5              e 58 48
        MNV  eP    10 58 36.2              e 58 56
                   USGS 10 46 28.6, 22.1S, 174.4W, h= 45 km, mb=5.1
                        TONGA ISLANDS REGION

MAR 26  WDC  eP    11 12 03.3
        MIN  eP    11 12 07.5
        BRK  eP    11 12 14.5
        JAS  eP    11 12 22.2
        MNV  eP    11 12 29.5
                   USGS 11 01 45.9, 44.3N, 149.4E, h= 45 km, mb=5.1, Ms=4.6
                        KURIL ISLANDS

MAR 26  MNV  eP    17 38 34.3              e 39 01
        PRI  eP    17 38 34.5
        JAS  eP    17 38 39.7
        MHC  eP    17 38 42.5              e 38 50
        BRK        17 38
        MIN  eP    17 38 51.5
        WDC  eP    17 38 54.5
        FHC  eP    17 39 02.5
                   USGS 17 27 02.5, 20.8S,  68.8W, h=106 km, mb=5.0
                        CHILE-BOLIVIA BORDER REGION

MAR 26  FHC  eP    21 13 46.2
        WDC  iPc   21 13 52.8              i 14 03
        MIN  ePc   21 13 57.7              e 14 08
        BKS        21 14                   e 14 07
        MHC  eP    21 14 13.1              e 14 22
        JAS  eP    21 14 15.5
        MNV  iPc   21 14 22.7              i 14 33     i 14 39
        FRI        21 14                   e 14 23
        PRI  eP    21 14 23.7
                   USGS 21 04 58.9, 53.5N, 163.0E, h= 34 km, mb=5.5, Ms=4.8
                        OFF THE EAST COAST OF KAMCHATKA

MAR 26  JAS  eP    21 36 41.0
        WDC  eP    21 36 45.3
        MIN  eP    21 36 47.0
        MNV  eP    21 36 52.3
                   USGS 21 24 42.6, 22.1S, 174.3W, h= 33 km, mb=5.0, Ms=5.2
                        TONGA ISLANDS REGION

MAR 27  WDC  eP    00 07 05.7              e 07 18
        JAS  eP    00 07 24.5              e 07 37
        MNV  eP    00 07 32.2              e 07 44
                   USGS 23 56 45.3, 43.9N, 149.0E, h= 42 km, mb=5.2, Ms=5.0
                        KURIL ISLANDS REGION

MAR 27  WDC  ePc   05 36 29.8
        MIN  eP    05 36 34.9
        JAS  eP    05 36 53.0
        PRI  eP    05 37 02.7
                        KOMANDORSKY ISLANDS REGION

MAR 27  SAO  eP    07 24 46.6
        BKS  eP    07 24 47.7
                        MICRON     PERIOD
                   PZ     0.06        0.8
        PRI  ePc   07 24 48.2
        MHC  ePc   07 24 48.5
        FRI  eP    07 24 53.5
        JAS  iPc   07 24 54.0
        WDC  iPc   07 24 55.7
        MIN  ePc   07 24 57.5
        MNV  iPc   07 25 03.2
                   USGS 07 13 43.6, 20.5S, 178.0W, h=550 km, mb=5.5
                        FIJI ISLANDS REGION

MAR 27  FHC  iPd   08 44 11.7
        WDC  iPc   08 44 26.1
        MIN  iPc   08 44 36.1
        JAS  eP    08 45 03
                   BRK  08 44 01.5, 40.4N, 124.4W, h= 14 km, ML=3.6
                        OFF COAST SOUTHWEST OF EUREKA, CALIFORNIA

MAR 27  JAS  ePc   10 41 41.0
        WDC  ePc   10 41 43.1
        MNV  ePc   10 41 49.5
                        FIJI ISLANDS REGION

MAR 27  BKS  eP    16 15 58.8
        WDC  iPc   16 16 00.0              e 16 20
        FHC  eP    16 16 01.9
        MIN  eP    16 16 02.7
        MHC  eP    16 16 09.0
        JAS  ePc   16 16 13.0
        SAO  eP    16 16 16
                   BRK  16 15 34.2, 39.2N, 123.1W, h=  7 km, ML=3.1
                        UKIAH, CALIFORNIA

MAR 28  SAO  iPd   09 51 05.0
        MHC  iPd   09 51 12.0  51 18
        BKS  eP    09 51 22.0
        PRI  eP    09 51 22.0
        JAS  eP    09 51 28.0  51 46
                   BRK  09 51 02.1, 36.9N, 121.6W, h=  7 km, ML=2.9
                        WEST OF HOLLISTER, CALIFORNIA

MAR 28  SAO  iPd   17 22 44.3  22 47
        MHC  iPd   17 22 51.5  22 59
        PRI  eP    17 23 01
        BKS  eP    17 23 03.0  23 19
        JAS  eP    17 23 07.5  23 26
                   BRK  17 22 41.2, 36.8N, 121.6W, h=  7 km, ML=2.6
                        WEST OF HOLLISTER, CALIFORNIA

MAR 28  MHC  e(P)  19 01 17
        PRI  eP    19 01 17.5
        WDC  eP    19 01 21.5
        JAS  eP    19 01 21.7
        MIN  e(P)  19 01 24
        MNV  eP    19 01 30.2
                   USGS 18 48 48.3, 20.6S, 169.8E, h=144 km, mb=4.9
                        NEW HEBRIDES ISLANDS

MAR 28  FHC  ePc   20 26 38.3
        WDC  iPc   20 26 44.8
        MIN  ePc   20 26 49.4
        BKS  ePc   20 26 57.3  35 03      SS 38 44     Lq 41 16     Lr 43 40
                        MICRON     PERIOD
                   PZ     0.05        1.0
                   LZ     4.5         20
                   LNE    3.7         20
                   LNW    3.0         20
        MHC  ePc   20 27 02.6
        JAS  iPc   20 27 05.3
        FRI  ePc   20 27 12.0
        PRI  ePc   20 27 12.4
        MNV  ePc   20 27 12.5
                   Ms=5.5, DISTANCE=59°
                   USGS 20 17 05.8, 48.8N, 154.9E, h= 53 km, mb=5.7, Ms=5.8
                        KURIL ISLANDS

MAR 28  WDC  eP    21 23 38.5
        MIN  eP    21 23 42.6
        JAS  eP    21 23 57
        MNV  eP    21 24 04.8
                   USGS 21 13 16.4, 44.1N, 148.5E, h= 43 km, mb=5.2, Ms=5.2
                        KURIL ISLANDS

MAR 28  WDC  eP    22 22 33.2              e 22 52
        JAS  eP    22 22 51.9              e 23 11
                   USGS 22 12 14.0, 44.1N, 149.5E, h= 33 km, mb=5.4, Ms=5.5
                        KURIL ISLANDS

MAR 28  JAS  eP    23 02 59.3
        WDC  eP    23 02 59.5
                   USGS 22 50 07.9, 23.2S, 170.1E, h= 53 km, mb=5.3
                        LOYALTY ISLANDS REGION

MAR 29  WDC  eP    04 15 29.6
        MHC        04 15                   e 15 32
        PRI        04 15                   e 15 35
        JAS        04 15                   e 15 36
        FRI        04 15                   e 15 38
        MNV  eP    04 15 44.3
                   USGS 04 02 20.4,  6.0S, 148.6E, h= 64 km, mb=5.4
                        NEW BRITAIN REGION

MAR 29  BKS  eP    10 04 20.4
                        MICRON     PERIOD
                   PZ     0.02        0.6
        MHC  eP    10 04 22.3
        WDC  iPd   10 04 22.6
        MIN  eP    10 04 25.0
        PRI  ePd   10 04 25.0
        JAS  iPd   10 04 26.8
        MNV  iPd   10 04 35.7
                   USGS 09 52 31.4,  9.6S, 159.4E, h=541 km, mb=5.1
                        SOLOMON ISLANDS
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29 PRI eP 10 12 21.5
BKS eP 10 12 22.3
MICRON PERIOD
PZ 0.01 0.7
MHC eP 10 12 22.4
JAS ePc 10 12 27.1
WDC ePc 10 12 30.4
MIN eP 10 12 31.4
MNV eP 10 12 34.7
USGS 09 59 34.3, 33.0S, 178.9W, h= 33 km, mb=5.3
SOUTH OF KERMADEC ISLANDS

29 PRI eP 12 48 55.5
MHC eP 12 48 55.7
JAS iPc 12 49 01.1
WDC ePc 12 49 02.9
MIN eP 12 49 04.5
MNV iPc 12 49 09.7
USGS 12 37 44.4, 22.0S, 179.5W, h=604 km, mb=5.3
SOUTH OF FIJI ISLANDS

R 29 BKS e(P) 14 20 11
MHC eP 14 20 12.2
JAS ePd 14 20 18.0
WDC iPd 14 20 20.8
MIN eP 14 20 22.4
MNV iPd 14 20 27.4
USGS 14 08 21.7, 21.6S, 174.3W, h= 33 km, mb=5.0
TONGA ISLANDS

AR 29 SAO eP 17 08 21
BKS eP 17 08 21.0 pP 08 47 sP 09 00
MICRON PERIOD
PZ 0.09 1.0
FHC e(P) 17 08 22
MHC ePc 17 08 22.3 pP 08 47
PRI ePc 17 08 23.2 pP 08 48
WDC iPc 17 08 26.2 pP 08 50 sP 09 04 PP 11 51
FRI eP 17 08 27
JAS iPc 17 08 27.2 pP 08 52 sP 09 05 PP 11 52
MIN ePc 17 08 28.3 pP 08 53
MNV iPc 17 08 36.0 pP 09 01 sP 09 13
USGS 16 55 48.2, 19.6S, 169.1E, h= 94 km, mb=5.9
NEW HEBRIDES ISLANDS

MAR 29 FHC e(P) 18 03 03
WDC iPd 18 03 08.6 e 03 15
MIN ePd 18 03 12.2
BKS eP 18 03 16.0
MICRON PERIOD
PZ 0.13 0.9
MHC ePd 18 03 20.0 e 03 26
SAO e(P) 18 03 22
JAS iPd 18 03 23.1
PRI eP 18 03 27.2
FRI ePd 18 03 28.2
MNV ePd 18 03 30.8 e 03 38
USGS 17 51 18.9, 27.9N, 141.8E, h= 22 km, mb=5.5, Ms=4.4
BONIN ISLANDS REGION

MAR 29 SAO e(P) 22 12 15
PRI eP 22 12 16
BKS eP 22 12 16.2 e 38 43 e 40 00
MICRON PERIOD
PZ 0.14 1.5
MHC eP 22 12 17
JAS ePd 22 12 22.4
WDC ePd 22 12 25.2 PKKP 30 43
MIN eP 22 12 27
MNV iPd 22 12 31.9
USGS 22 00 26.7, 21.6S, 174.0W, h= 33 km, mb=5.4, Ms=5.7
TONGA ISLANDS

MAR 30 WDC ePd 02 54 46.7
BKS e(P) 02 54 50 e 54 58
MICRON PERIOD
PZ 0.02 0.9
MIN eP 02 54 52.0
MHC eP 02 54 54 e 54 58
JAS e(P) 02 54 58
PRI eP 02 55 02.3
MNV ePd 02 55 05.7 i 55 14
USGS 02 42 11.7, 12.6N, 144.0E, h= 9 km, mb=5.3, Ms=4.8
SOUTH OF MARIANA ISLANDS

MAR 31 WDC eP 00 43 53.8 e 44 13
MIN 00 43 e 43 59 e 44 15
BKS eP 00 44 15.8 e 44 36 e 47 09
MICRON PERIOD
PZ 0.01 0.6
JAS eP 00 44 20.0 i 44 42
MNV eP 00 44 25.4 i 44 46
USGS 00 38 13.4, 61.8N, 151.4W, h= 90 km, mb=5.1
SOUTHERN ALASKA

MAR 31 BKS eP 01 03 46.7 04 03
MHC eP 01 03 57.1 i 04 03 e 04 26
SAO eP 01 04 03.6
WDC eP 01 04 03.9 04 35 i 04 12
MIN eP 01 04 04.9
JAS eP 01 04 05.1 04 34
BRK 01 03 27.7, 38.5N, 123.3W, h= 8 km, ML=3.3
WEST OF SANTA ROSA, CALIFORNIA

MAR 31 BKS e(P) 07 14 46 e 42 18 e 42 28
MICRON PERIOD
PZ 0.02 0.8
WDC eP 07 14 47.1
MIN 07 14 e 14 52
JAS eP 07 14 52.7
MNV eP 07 15 09.8
USGS 07 01 55.5, 6.5S, 154.9E, h= 44 km, mb=5.4, Ms=5.3
SOLOMON ISLANDS

APR 01 JAS eP 01 43 33.7
WDC eP 01 43 36.3
MNV eP 01 43 41.3
USGS 01 31 36.6, 22.0S, 174.0W, h= 33 km, mb=5.2, Ms=4.9
TONGA ISLANDS REGION

APR 01 WDC ePc 10 01 03.8
BKS eP 10 01 13
MHC eP 10 01 16.6
JAS ePc 10 01 19.4
PRI eP 10 01 24.1
MNV ePc 10 01 26.7
USGS 09 49 30.3, 32.4N, 140.8E, h= 51 km, mb=5.0
SOUTH OF HONSHU, JAPAN

APR 01 PRI eP 10 53 24.0
FRI eP 10 53 25 54 16
SAO eP 10 53 34.5
MNV eP 10 53 35.7
JAS eP 10 53 38.3 Sg 54 52
MHC eP 10 53 41
BKS eP 10 53 50.5
WDC 10 54 e 54 27
ML=4.0, SOUTHERN CALIFORNIA
PAS 10 52 27.4, 34.2N, 117.0W, h= 6 km, ML=4.2
SOUTHERN CALIFORNIA

APR 01 FRI iPc 13 14 40.2
MNV iPc 13 14 42.7 14 56
JAS iPc 13 14 48.6 15 05
PRI ePd 13 14 59.9
SAO iPd 13 15 02.7
MHC eP 13 15 03.8
BRK 13 14 23.5, 37.5N, 118.7W, h= 10 km, ML=3.1
NORTHWEST OF BISHOP, CALIFORNIA

APR 01 WDC iPc 18 13 18.8 13 31
MIN iPd 18 13 21.3 13 35
FHC eP 18 13 33.3
BRK 18 13 00.5, 41.5N, 121.8W, h= 2 km, ML=3.5
EAST OF MT. SHASTA, CALIFORNIA

APR 02 MNV iPd 09 18 31.5
PRI eP 09 18 31.9
SAO eP 09 18 36.1
JAS iPd 09 18 37.1 e 19 02
MHC eP 09 18 39.9
BKS iP 09 18 43.5
MICRON PERIOD
PZ 0.08 0.8
MIN eP 09 18 49.1
WDC iPd 09 18 52.3
FHC eP 09 19 00.3
USGS 09 07 07.1, 19.1S, 69.3W, h= 86 km, mb=5.3
NORTHERN CHILE

APR 02 FHC eP 15 01 50.3
WDC iPd 15 01 55.5
MIN ePd 15 01 58.7
MHC eP 15 02 02.9
SAO eP 15 02 03.6
JAS ePd 15 02 06.3 e 02 13
PRI eP 15 02 08.4
FRI eP 15 02 10.5
MNV iPd 15 02 14.8 e 02 21
USGS 14 49 31.7, 13.7N, 145.0E, h= 33 km, mb=4.9
MARIANA ISLANDS

APR 03 PRI eP 03 15 42.4
JAS eP 03 15 47.8
MHC eP 03 15 52.5
BKS eP 03 15 57
MICRON PERIOD
PZ 0.03 1.0
WDC eP 03 16 05.4
USGS 03 06 45.4, 3.4N, 78.9W, h= 33 km, mb=4.8, Ms=4.1
SOUTH OF PANAMA

APR 03 MNV ePd 08 50 48.0
PRI eP 08 50 48.7
JAS ePd 08 50 54.0
MHC ePd 08 50 56.8
BKS eP 08 51 00.9
MICRON PERIOD
PZ 0.03 0.9
WDC ePd 08 51 09.0
USGS 08 39 32.8, 18.3S, 69.1W, h=147 km, mb=4.6
NORTHERN CHILE

APR 03 WDC iPd 09 19 30.0 pP 20 17
MIN ePd 09 19 33.5
BKS ePd 09 19 34.4
MICRON PERIOD
PZ 0.04 1.0
MHC ePd 09 19 38.4 pP 20 25
JAS iPd 09 19 41.9 pP 20 28
PRI ePd 09 19 44.4
FRI eP 09 19 46.1
MNV iPd 09 19 50.3 pP 20 37
USGS 09 07 41.9, 18.2N, 145.5E, h=198 km, mb=5.0
MARIANA ISLANDS

APR 03 WDC eP 10 02 35.0 PP 06 40
BKS ePd 10 02 37.1 PP 06 52 PS 16 12 PPS 17 11
Lq 31 16 Lr 35 00
MICRON PERIOD
PZ 0.10 1.5
LZ 10 20
LN 1.8 20
LE 7 20
MIN eP 10 02 38
MHC eP 10 02 40.2
JAS eP 10 02 43.5
PRI eP 10 02 47.1
MNV eP 10 02 51.9
Ms=6.2, DISTANCE=107°
USGS 09 48 35.0, 4.8S, 133.9E, h= 33 km, mb=6.2, Ms=6.1
WEST IRIAN REGION

APR 03 PRI eP 11 40 02.6
SAO 11 40
MHC eP 11 40 08.5 e 40 10
MNV eP 11 40 10.4
JAS eP 11 40 10.4 i 40 16
BKS ePc 11 40 12.2 i 40 18
i 40 20
MICRON PERIOD
PZ 0.04 1.0
MIN eP 11 40 25.1
WDC eP 11 40 26.8
USGS 11 28 27.8, 35.8S, 100.8W, h= 33 km, mb=5.1
SOUTHERN PACIFIC OCEAN

APR 04 BKS iPc 03 23 34.9 23 38
MHC eP 03 23 43.5 23 54
SAO eP 03 23 52.6
BRK 03 23 31.8, 37.8N, 122.1W, h= 8 km, ML=2.5
EAST OF BERKELEY, CALIFORNIA

APR 04 FRI eP 19 46 20.2
PRI ePc 19 46 21.3
MNV eP 19 46 22.4 e 46 27
SAO eP 19 46 24.8 e 46 28
JAS iPc 19 46 26.6
MHC ePc 19 46 28.5 e 46 33
BKS e(P) 19 46 30 e 46 34
MIN eP 19 46 37.4
WDC iPc 19 46 40.1
FHC eP 19 46 46.5 e 46 46
USGS 19 33 51.4, 31.2S, 67.6W, h= 10 km, mb=5.5, Ms=4.4
SAN JUAN PROVINCE, ARGENTINA

APR 04 MNV iPd 21 20 02.1
FRI eP 21 20 03.8
PRI eP 21 20 07.3
JAS eP 21 20 12.5 e 20 17
SAO eP 21 20 16 e 20 20
MHC eP 21 20 17.5 e 20 25
BKS iPc 21 20 23.1 27 28 e 20 28
MICRON PERIOD e 20 30
PZ 0.04 0.8 e 31 00 Lq 32 00 Lr 35 00
LZ 11 20
LN 9 20
LE 13 20
MIN eP 21 20 26.0
WDC eP 21 20 29.7
FHC eP 21 20 40.7 e 20 42
Ms=6.0, DISTANCE=50° e 20 54
USGS 21 11 41.8, 10.0N, 77.9W, h= 35 km, mb=5.8, Ms=6.1
NORTH OF PANAMA

APR 04 FHC iPc 23 38 11.2 38 19
WDC iPc 23 38 25.2 38 43
MIN iPc 23 38 35.3
BKS eP 23 38 48.0 39 25
MHC ePc 23 38 58.5
SAO iPd 23 39 04.9
BRK 23 38 01.7, 40.4N, 124.4W, h= 20 km, ML=3.6
NEAR COAST SSW OF EUREKA, CALIFORNIA

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APR 05  WDC  ePd    08 02 20.9
        MIN  eP     08 02 24.8
        BKS  eP     08 02 31.5
                          MICRON     PERIOD
                     PZ     0.04        1.0
        MBC  eP     08 02 35.5
        JAS  ePd    08 02 38.2
        PRI  eP     08 02 44.1
        MNV  ePd    08 02 45.4
        FRI  eP     08 02 45.5
                    USGS 07 51 24.9, 39.6N, 144.4E, h= 30 km, mb=5.4, Ms=4.9
                         OFF THE EAST COAST OF HONSHU, JAPAN

APR 05  WDC         16 15                          e 15 05
        BKS  eP     16 15 08.5
        JAS  eP     16 15 14.3
                    USGS 16 04 33.4, 43.8N, 148.6E, h= 40 km, mb=5.2, Ms=5.1
                         KURIL ISLANDS REGION

APR 05  SAO  eP     18 42 32.4
        BRK  eP     18 42 33.1
        MBC  eP     18 42 34.2
        PRI  eP     18 42 34.5
        FBC  eP     18 42 37
        FRI  eP     18 42 39.8
        JAS  eP     18 42 39.9
        WDC  ePd    18 42 40.5
        MIN  eP     18 42 42.5
        MNV  ePd    18 42 50.1
                    USGS 18 31 35.0, 15.0S, 178.4W, h=389 km, mb=5.1
                         FIJI ISLANDS REGION

APR 06  WDC  eP     12 49 04.5
        JAS  eP     12 49 20.7
        MNV  eP     12 49 27.9
                    USGS 12 37 37.8, 35.2N, 141.0E, h= 27 km, mb=5.0, Ms=4.3
                         NEAR THE EAST COAST OF HONSHU, JAPAN

APR 06  WDC  eP     23 41 17.9
        MIN  eP     23 41 22.5
        BKS  eP     23 41 29.3  51 00       Lq 00 40
                          MICRON     PERIOD
                     PZ     0.07        1.0
                     LZ     2.3          20
                     LN     1.1          20
                     LE     2.1          20
        MBC  eP     23 41 33.0
        JAS  eP     23 41 34.2
        SAO         23 41                          e 41 35
        MNV  eP     23 41 41.4
        PRI  eP     23 41 41.4
                    Ms=5.4, DISTANCE=73°
                    USGS 23 29 52.7, 35.2N, 141.0E, h= 31 km, mb=5.6, Ms=5.9
                         NEAR THE EAST COAST OF HONSHU, JAPAN

APR 07  WDC  ePd    07 55 13.1                     i 55 27
        MIN  eP     07 55 17.3
        BKS  ePd    07 55 25.5
        MBC  eP     07 55 28.4
        JAS  eP     07 55 31.8
        MNV  eP     07 55 39
        PRI  eP     07 55 39.3
        FRI  eP     07 55 39.7
                    USGS 07 44 56.2, 44.4N, 149.3E, h= 50 km, mb=5.8, Ms=5.5
                         KURIL ISLANDS

APR 07  WDC  eP     08 40 14.5
        MIN  eP     08 40 18.8                     e 40 38
        JAS  eP     08 40 32.3                     e 40 37
                    USGS 08 29 56.0, 44.4N, 149.4E, h= 34 km, mb=5.3, Ms=5.3
                         KURIL ISLANDS

APR 07  SAO  iPd    11 56 51.4
        MBC  iPd    11 57 02.4  57 10
        PRI  eP     11 57 08.0
        BKS  eP     11 57 14.9  57 33
        JAS  eP     11 57 15.5  57 33          i 57 19
                    BRK  11 56 50.2, 36.7N, 121.5W, h=  6 km, ML=2.7
                         SOUTHWEST OF HOLLISTER, CALIFORNIA

APR 08  BKS  eP     09 22 43.4
        WDC  iPe    09 22 44.6
        MIN  iPe    09 22 47.0
        FBC  e(P)   09 22 48                       e 22 56
        MBC  e(P)   09 22 54
        JAS  iPe    09 22 58.4
        SAO  eP     09 23 01.5
                    BRK  09 22 18.9, 39.2N, 123.1W, h=  5 km, ML=3.2
                         UKIAH, CALIFORNIA

APR 10  FBC  ePKP   21 11 09.1
        WDC  ePKP   21 11 09.8          pPKP 12 35      e 23 55
        MIN  ePKP   21 11 11.2
        BKS  ePKP   21 11 12.7            PP 12 42      PS 22 30      SS 29 30
                                          Lq 42 15      Lr 47 50
                          MICRON     PERIOD
                     LZ     6           20
                     LN     3.4         20
                     LE     5           20
        MBC  ePKP   21 11 13.6          pPKP 12 45
        JAS  ePKP   21 11 14.1          pPKP 12 51      e 24 09
        FRI  ePKP   21 11 15.8
        MNV  ePKP   21 11 18.7
        PRI  ePKP   21 11 18.7
                    Ms=6.2, DISTANCE=121°
                    USGS 20 52 18.9, 11.4S, 116.7E, h= 33 km, mb=6.7, Ms=6.4
                         SOUTH OF SUMBAWA ISLAND

APR 11  BKS  eP     02 55 05.0  05 55      PS 07 36      SS 12 55      Lq 20 55
                                          Lr 24 20
                          MICRON     PERIOD
                     PZ     0.18        1.7
                     LZ     3.6         20
                     LN     1.1         20
                     LE     3.6         20
        WDC  eP     02 55 05.5
        MBC  eP     02 55 06.0
        MIN  eP     02 55 08.3
        PRI  eP     02 55 10.7
        JAS  eP     02 55 11.5
                    Ms=5.9, DISTANCE=96°
                    USGS 02 41 41.0,  9.5S, 148.9E, h= 13 km, mb=5.9, Ms=5.5
                         EAST PAPUA, NEW GUINEA REGION

APR 11  MNV  iPe    15 30 32.8
        FRI  iPe    15 30 45.3
        JAS  iPe    15 30 53.9
        PRI  iPe    15 30 58.6
        SAO  ePe    15 31 04.7
        MBC  ePe    15 31 07.0
        BKS  iPne   15 31 13.5                 P• 31 24      Lr 32 30
        MIN  ePe    15 31 19.2
        WDC  ePe    15 31 28.5
                    ML=5.2, NUCLEAR EXPLOSION, NEVADA TEST SITE
                    USGS 15 30 00.2, 37.3N, 116.3W, h=  0 km, mb=5.3
                         SOUTHERN NEVADA

APR 11  MNV  iPe    17 45 32.9
        FRI  iPe    17 45 44.7
        JAS  iPe    17 45 53.3
        PRI  iPe    17 45 57.9
        SAO  iPe    17 46 04.0
        MBC  iPe    17 46 06.5
        BKS  iPne   17 46 13.4                 P• 46 23      Lr 47 30
        MIN  iPe    17 46 19.3
        WDC  ePe    17 46 28.2
                    ML=5.2, NUCLEAR EXPLOSION, NEVADA TEST SITE
                    USGS 17 45 00.1, 37.2N, 116.4W, h=  0 km, mb=5.5
                         SOUTHERN NEVADA

APR 11  SAO  eP     23 53 44.7
        BKS  ePe    23 53 45.5  03 28      PPS 04 05      SS 08 00      Lq 12 50
                                           Lr 16 00
                          MICRON     PERIOD
                     PZ     0.08        1.2
                     LZ     3.9         17
                     LN     2.6         17
                     LE     2.7         17
        PRI  eP     23 53 46.3
        MBC  eP     23 53 46.9
        JAS  iPe    23 53 52.9
        WDC  iPe    23 53 55.2
        MIN  eP     23 53 57
        MNV  ePe    23 54 02.9
                    Ms=5.7, DISTANCE=74
                    USGS 23 42 07.6, 19.5S, 173.7W, h= 33 km, mb=5.6, Ms=5.6
                         TONGA ISLANDS

APR 12  WDC  iPe    01 32 44.7
        JAS  ePe    01 33 03.3
        MNV  iPe    01 33 10.6
                    USGS 01 22 26.7, 44.2N, 148.1E, h= 87 km, mb=5.4
                         KURIL ISLANDS

APR 12  FBC  ePd    03 47 23.2
        WDC  iPd    03 47 31.1
        MIN  ePd    03 47 36.7
        BKS  ePd    03 47 51.0  52 30          e 47 55      Lq 54 00      Lr 55 00
                          MICRON     PERIOD
                     PZ     0.50        1.6
                     LZ     110         20
                     LNW    70          20
                     LNE    100         20
        MBC  ePd    03 47 57.2
        JAS  iPd    03 47 58.8                 e 48 07       e 48 53
        SAO         03 48                      e 48 02
        FRI  ePd    03 48 08.4
        PRI  ePd    03 48 11.0
                    Ms=6.5, DISTANCE=29°
                    USGS 03 42 03.5, 56.4N, 152.7W, h= 14 km, mb=6.0, Ms=6.6
                         KODIAK ISLAND REGION

APR 12  WDC  eP     04 32 23.5
        MIN  eP     04 32 29.5
        JAS  eP     04 32 51.5
                    USGS 04 26 56.5, 56.6N, 152.6W, h= 16 km, mb=4.7
                         KODIAK ISLAND REGION

APR 12  WDC  ePd    05 27 53.5
        MIN  ePd    05 27 59.4
        BKS  e(P)   05 28 14                       e 28 19
        JAS  eP     05 28 21.3
        PRI  eP     05 28 33.7
                    USGS 05 22 28.9, 56.5N, 152.6W, h= 24 km, mb=5.1
                         KODIAK ISLAND REGION

APR 12  WDC  ePd    09 39 04.8
        MIN  eP     09 39 10.3
        BKS         09 39                          e 39 28
        JAS  ePd    09 39 32.5
        MNV  ePd    09 39 39.2
        PRI  eP     09 39 44.4
                    USGS 09 33 38.2, 56.6N, 152.8W, h= 27 km, mb=5.1, Ms=4.5
                         KODIAK ISLAND REGION

APR 12  FBC  iPd    17 22 45.3
        WDC  iPe    17 22 56.6  23 14
        MIN  eP     17 23 06
                    BRK  17 22 35.2, 40.3N, 124.2W, h= 20 km, ML=3.4
                         SOUTH OF EUREKA, CALIFORNIA

APR 12  PRI  eP     19 25 14.0
        MBC  ePe    19 25 21.4
        JAS  iPe    19 25 25.8
        MNV  iPe    19 25 31.0
        MIN  e(P)   19 25 41
        WDC  iPe    19 25 41.9
                    USGS 19 15 26.5, 21.2S, 126.1W, h= 33 km, mb=4.8
                         SOUTH PACIFIC OCEAN

APR 13  MNV  ePe    06 10 03.9
        MIN  eP     06 10 05.7
        WDC  ePe    06 10 06.4
        JAS  ePe    06 10 14.9
        FRI  eP     06 10 18
        BKS  eP     06 10 22.5                 Lq 30 20      Lr 33 00
                          MICRON     PERIOD
                     PZ     0.03        0.8
                     LZ     2.2         18
                     LN     0.9         18
                     LE     0.9         18
        MBC  ePe    06 10 23.6
        SAO  eP     06 10 25.5
        PRI  eP     06 10 27.5
                    USGS 06 00 38.3, 57.1N,  36.6W, h= 32 km, mb=5.2, Ms=4.8
                         NORTH ATLANTIC OCEAN

APR 14  MBC         05 01                          e 01 40
        JAS  eP     05 01 39.5
        WDC         05 01                          e 01 44
        MNV  eP     05 01 49.6
                    USGS 04 49 45.3, 21.0S, 174.2W, h= 33 km, mb=5.2, Ms=5.0
                         TONGA ISLANDS

APR 14  SAO  iPd    15 00 35.1
        MBC  iPd    15 00 46.2  00 55
        PRI  eP     15 00 51.2  01 07
        BKS  eP     15 00 53.9  01 07           e 01 16
        JAS  iPe    15 00 59.2  01 17
                    BRK  15 00 33.9, 36.8N, 121.5W, h=  5 km, ML=3.1
                         SOUTHWEST OF HOLLISTER, CALIFORNIA

APR 15  MNV         14 00                          e 00 34
        PRI         14 00                          e 00 35
        JAS  eP     14 00 39.5
        MBC         14 00                          e 00 43
        WDC  eP     14 00 55.6
                    USGS 13 49 32.3, 16.5S,  73.5W, h= 50 km, mb=5.3, Ms=5.5
                         NEAR THE COAST OF PERU

APR 15  FBC         15 30                          e 30 20
        WDC  ePe    15 30 20.5
        JAS  ePe    15 31 04.5
                    USGS 15 29 23.1, 42.8N, 126.7W, h= 15 km, mb=4.1
                         OFF THE COAST OF OREGON

APR 15  FRI  eP     17 25 13.2
        MNV  iPd    17 25 14.2              pP 25 29      PcP 27 51
        PRI  ePd    17 25 15.7            PcP 27 52
        SAO         17 25                  e 25 24
        JAS  iPd    17 25 22.7              pP 25 38      PcP 27 56     ScP 31 39
        MBC  eP     17 25 27.0
        BRK         17 25                  e 25 33
        MIN  iPd    17 25 41.0
        WDC  iPd    17 25 44.8            PcP 28 02
        FBC  ePd    17 25 56.2            PcP 28 07
                    USGS 17 18 39.0, 14.2N,  91.4W, h=107 km, mb=5.2
                         GUATEMALA

APR 16  FBC  ePd    09 56 11.2
        WDC  iPd    09 56 19.0
        MIN  iPd    09 56 24.5
        JAS  iPd    09 56 46.8
        MNV  eP     09 56 53.0
        PRI         09 56                          e 56 59
                    USGS 09 50 52.2, 56.7N, 152.7W, h= 24 km, mb=4.9, Ms=4.2
                         KODIAK ISLAND REGION
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APR 18  SAO  eP     07 59 06.6
        PRI  eP     07 59 08.0
        BKS  iPe    07 59 08.2                  i 59 17      e 59 21
                                 MICRON    PERIOD
                              PZ    0.22      0.8
        MBC  eP     07 59 08.5
        FHC  eP     07 59 12.5
        FRI  eP     07 59 12.6
        JAS  iPe    07 59 13.3                  e 02 40
        WDC  iPe    07 59 15.2                  e 01 19      e 02 48
        MIN  eP     07 59 16.5
        MNV  iPe    07 59 22.7                  e 01 29
                    USGS 07 47 35.8, 25.2S, 178.4E, h=566 km, mb=5.6
                         SOUTH OF FIJI ISLANDS

APR 18  WDC  iPe    08 54 36.5  54 48
        MIN  iPe    08 54 39.3
        FHC  e(P)   08 54 45
        BKS  e(P)   08 54 57
        JAS  eP     08 54 59    55 33
                    BRK  08 54 18.6, 39.7N, 122.7W, h=  4 km, ML=3.2
                         WEST OF CHICO, CALIFORNIA

APR 18  WDC  eP     11 53 58.2                  i 54 16
        MIN         11 54                       e 54 20
        JAS  eP     11 54 17                    e 54 34
        MNV  eP     11 54 24                    i 54 42
                    USGS 11 43 37.8, 44.2N, 149.2E, h= 33 km, mb=5.5, Ms=4.8
                         KURIL ISLANDS

APR 18  WDC  iPe    17 11 57.3
        MIN  iP     17 12 00.7
        JAS  iP     17 12 21.3
        MNV  iP     17 12 47.1
                    BRK  17 11 39.6, 39.7N, 122.8W, h=  2 km, ML=3.2
                         WEST OF CHICO, CALIFORNIA

APR 18  FHC  eP     17 41 06.9
        WDC  ePe    17 41 10.3                 PKP 44 43    PP 45 18    PKKP 57 18
        MIN  eP     17 41 13.2                   e 57 38   PKKP 58 17
        BKS  eP     17 41 15.8
                                               PP 45 31   PPP 47 32      e 58 32
                                              SKS 52 00  SKKS 52 28   SKKKS 52 48
                                               PS 54 10     e 54 32      e 56 00
                                            PKPPKP 57 46    SS 59 30      e 00 20
                                              SSS 02 42     e 07 26      e 08 00
                                               Lq 09 50    Lr 13 35
                                 MICRON    PERIOD
                              PZ    0.03      0.8
                              LZ    5        20
                              LN    1.8      20
                              LE    3.8      20
        MBC  eP     17 41 17.9
        JAS  ePe    17 41 20.9
                                              pP 41 36   PKP 44 40    PP 45 41
        PRI  eP     17 41 23.2                PKKP 57 10     e 57 30   PKKP 58 05
        MNV  ePe    17 41 28.2
                                              PKP 44 36   PKKP 57 06      e 57 23
                                              PKKP 58 00
                    mb=6.0, DISTANCE=103°
                    USGS 17 27 30.6, 5.1N, 127.4E, h=128 km, mb=6.0
                         PHILIPPINE ISLANDS REGION

APR 19  WDC  iPe    01 38 34.6  38 48
        MIN  iPe    01 38 37.7
        FHC  e(P)   01 38 44
        BKS  ePe    01 38 54.2
        JAS  eP     01 38 57.2
                                              Sg 39 32
                    BRK  01 38 17.7, 39.7N, 122.8W, h=  9 km, ML=3.4
                         WEST OF CHICO, CALIFORNIA

APR 19  WDC  iPe    04 20 08.2  20 21
        MIN  ePe    04 20 10.8
        FHC  e(P)   04 20 17
        JAS  ePd    04 20 30.3
                    BRK  04 19 50.8, 39.7N, 122.7W, h=  8 km, ML=3.2
                         WEST OF CHICO, CALIFORNIA

APR 19  WDC  ePe    07 44 29.1
        MIN  eP     07 44 32.3
        BKS  eP     07 44 36.9
                                 MICRON    PERIOD
                              PZ    0.02      0.6
        MBC  eP     07 44 41
        JAS  eP     07 44 44
        MNV  ePe    07 44 51.5
                    USGS 07 32 50.5, 30.9N, 141.6E, h= 33 km, mb=5.1, Ms=4.9
                         SOUTH OF HONSHU, JAPAN

APR 19  FHC  iPe    09 42 47.2  43 10
        WDC  iPe    09 43 02.5  43 36
        MIN  iPe    09 43 12.4
        BKS  iPd    09 43 17.9  44 08
        MBC  iPd    09 43 27.7
        SAO  iPe    09 43 33.9
        JAS  eP     09 43 35.6
        PRI  eP     09 43 47
                    BRK  09 42 14.6, 40.4N, 126.5W, h=  5 km, ML=4.7
                         OFF COAST WSW OF EUREKA, CALIFORNIA

APR 20  BKS         07 31
        WDC  e(P)   07 31 29                    e 31 28
        MBC  eP     07 31 30
        PRI  eP     07 31 33.0
        JAS  eP     07 31 34.4
        MNV  ePe    07 31 43.5
                    USGS 07 18 39.5, 9.0S, 157.6E, h= 27 km, mb=5.2, Ms=4.4
                         SOLOMON ISLANDS

APR 20  BKS         19 50
        MBC  eP     19 50 27.1                  e 50 32
        JAS  eP     19 50 32.1
        WDC  eP     19 50 33.9
                    USGS 19 39 08.2, 23.1S, 179.6E, h=597 km, mb=4.9
                         SOUTH OF FIJI ISLANDS

APR 20  BKS  e(P)   21 51 13
                                 MICRON    PERIOD
                              PZ    0.05      1.0
        MBC  eP     21 51 14.4
        WDC  eP     21 51 14.5
        PRI  eP     21 51 16.5
        MIN  eP     21 51 17.1
        JAS  eP     21 51 18.7
        MNV  eP     21 51 27.0
                    USGS 21 38 27.4, 9.0S, 157.6E, h= 60 km, mb=5.2
                         SOLOMON ISLANDS

APR 20  FHC  eP     22 29 15.9
        WDC  iPe    22 29 22.2
        MIN  eP     22 29 26.5
        BKS  iP     22 29 34.5
                                 MICRON    PERIOD
                              PZ    0.08      1.0
        MBC  eP     22 29 39.3
        JAS  iPe    22 29 41.8
        SAO         22 29
        PRI  eP     22 29 48.6                  e 29 42
        MNV  iPe    22 29 49.2
                    USGS 22 19 28.6, 46.8N, 151.9E, h= 96 km, mb=5.5
                         KURIL ISLANDS

APR 22  WDC  ePe    03 19 52.0
        MIN  ePe    03 19 54.0
        BRK  eP     03 20 05.6
        MNV  ePe    03 20 06.2
        JAS  ePe    03 20 06.5
        MBC  eP     03 20 08.5
        PRI  eP     03 20 15.3
                    USGS 03 06 57.6, 49.7N,  78.2E, h=  0 km, mb=5.3, Ms=3.6
                         NUCLEAR EXPLOSION, EASTERN KAZAKH, S.S.R.

APR 22  WDC  eP     13 29 29.7
        MIN  eP     13 29 35.3
        JAS  eP     13 29 57.2
        MNV  eP     13 30 04.1
                    USGS 13 24 04.8, 56.5N, 152.8W, h= 33 km, mb=4.7, Ms=4.8
                         KODIAK ISLAND REGION

APR 23  PRI  eP     03 33 53.2
        MBC  eP     03 33 53.5
        JAS  eP     03 33 59.5
        WDC  eP     03 34 01.6
        MNV  eP     03 34 09.8
                    USGS 03 22 29.6, 17.1S, 172.4W, h= 33 km, mb=5.1  Ms=4.5
                         TONGA ISLANDS

APR 23  PRI  iPe    15 10 10.5  10 22
        SAO  iPd    15 10 10.8
        MBC  eP     15 10 20.5
        JAS  eP     15 10 31
                    BRK  15 09 55.9, 36.0N, 121.6W, h=  5 km, ML=2.5
                         OFF COAST SOUTHWEST OF KING CITY, CALIFORNIA

APR 23  MNV  eP     18 01 38.9                 pP 02 07     sP 02 19
        PRI  ePd    18 01 39.1                 pP 02 07     sP 02 19
        SAO  eP     18 01 43.4
        JAS  iPd    18 01 44.5
        MBC  ePd    18 01 47.1
        BKS  ePd    18 01 50.4                 pP 02 15
                                 MICRON    PERIOD
                              PZ    0.03      0.8
        MIN  eP     18 01 56.2
        WDC  iPd    18 01 59.0                 PcP 02 07    pP 02 27     sP 02 40
        FHC  eP     18 02 06.7
                    USGS 17 50 06.9, 20.8S,  68.6W, h=110 km, mb=5.2
                         CHILE-BOLIVIA BORDER REGION

APR 23  WDC  eP     20 11 21.8
        JAS  eP     20 12 00.9
                    USGS 20 10 02.4, 44.5N, 127.2W, h= 15 km, mb=3.9
                         OFF THE COAST OF OREGON

APR 23  MIN  eP     23 26 52.9
        MNV  eP     23 26 54.3  29 29
        WDC  eP     23 26 54.5  29 40
        FHC         23 27                      e 27 28
        JAS  eP     23 27 12.4  30 14         e 27 02
        BKS         23 27
        MBC         23 27                      e 30 00      e 30 49
        PRI         23 27       31 10          e 27 30      e 30 43
                    USGS 23 24 37.0, 47.0N, 113.3W, h=  5 km, mb=4.5, Ms=4.3
                         MONTANA

APR 24  MNV  ePe    01 53 08.8
        JAS  eP     01 53 14.3
        MBC  eP     01 53 17.3
        MIN  eP     01 53 40.5
        WDC  eP     01 53 48
                    USGS 01 48 30.5, 19.6N, 108.4W, h= 33 km, mb=4.0
                         REVILLA GIGEDO ISLANDS REGION

APR 24  WDC  eP     04 36 00
        MIN  eP     04 36 07                   e 38 16      e 41 59
        BKS  eP     04 36 16                   e 42 13     Lq 45 00     Lr 47 00
                                 MICRON    PERIOD
                              LZ    1.8      20
                              LN    0        20
                              LE    1.5      20
        MBC  eP     04 36 22
        JAS  eP     04 36 24
        PRI  eP     04 36 34                   e 42 10
        MNV         04 36                      e 36 42
                    USGS 04 28 47.0, 51.6N, 176.1W, h= 53 km, mb=5.2, Ms=4.8
                         ANDREANOF ISLANDS, ALEUTIAN ISLANDS

APR 24  PRI  eP     11 09 26.4
        MNV  eP     11 09 26.7
        JAS  ePe    11 09 32.7
        MBC  eP     11 09 35.2
        BRK  eP     11 09 43.4
                    USGS 10 58 41.9, 14.6S,  76.0W, h= 35 km, mb=4.9, Ms=4.3
                         NEAR THE COAST OF PERU

APR 24  SAO  eP     15 56 05.2
        PRI  eP     15 56 06.5
        BKS  ePe    15 56 06.8
                                              e 57 00      e 06 57     Lq 15 41
                                             Lr 20 00
                                 MICRON    PERIOD
                              PZ    0.06      1.0
                              LZ    3.6      20
                              LN    3.3      20
                              LE    3.2      20
        MBC  eP     15 56 07.4
        JAS  ePe    15 56 13.0
        WDC  ePe    15 56 15.7
        MIN  eP     15 56 17.5
        MNV  ePe    15 56 22.5
                    Ms=5.8, DISTANCE=77°
                    USGS 15 44 18.9, 21.3S, 174.4W, h= 33 km, mb=5.4, Ms=5.8
                         TONGA ISLANDS

APR 24  FHC  eP     20 15 36.7  15 56
        WDC  iPd    20 15 52.4  16 23
        MIN  ePe    20 16 03.3
        MBC  eP     20 16 30.4
        JAS  e(P)   20 16 33
        SAO  e(P)   20 16 37                    e 17 43
        MNV  e(P)   20 16 48
                    BRK  20 15 11.5, 41.6N, 125.6W, h=  5 km, ML=3.8
                         OFF COAST NORTHWEST OF EUREKA, CALIFORNIA

APR 25  FHC  eP     07 12 49.4
        WDC  iPe    07 12 54.4
        MIN  eP     07 12 58.9
        BKS  ePe    07 13 03.4
                                 MICRON    PERIOD
                              PZ    0.03      0.5
        MBC  eP     07 13 07.1
        JAS  iPe    07 13 09.7
        SAO  eP     07 13 11.2
        PRI  eP     07 13 14.3
        FRI  eP     07 13 14.7
        MNV  ePe    07 13 16.4
                    USGS 07 01 40.5, 31.9N, 138.0E, h=343 km, mb=4.9
                         SOUTH OF HONSHU, JAPAN

APR 26  JAS  eP     11 07 57
        WDC  eP     11 08 14.1
                    USGS 10 56 30.0, 34.2S, 107.6W, h= 33 km, mb=4.3, Ms=4.6
                         EASTER ISLAND CORDILLERA

APR 26  WDC  ePe    15 31 13.8
        MIN  eP     15 31 18.2
        BRK  eP     15 31 25.3                  e 31 26
        JAS  ePe    15 31 32.7                  e 31 30
        MNV  ePe    15 31 40.1                  e 31 38
                                                e 31 45
                    USGS 15 20 53.8, 44.3N, 148.8E, h= 43 km, mb=4.8
                         KURIL ISLANDS

APR 26  WDC  eP     18 48 57.0
        MIN         18 49
        JAS  eP     18 49 15.9                  e 49 15
        MNV  eP     18 49 23.4                  e 49 19
                                                e 49 35
                    USGS 18 38 36.9, 44.1N, 149.2E, h= 33 km, mb=5.2, Ms=5.4
                         KURIL ISLANDS

APR 27  FHC  e(P)   01 46 35
        WDC  ePd    01 46 42.5
        MIN  ePd    01 46 48.0
        JAS  eP     01 47 10.0
        PRI         01 47
                    USGS 01 41 17.3, 56.6N, 152.7W, h= 33 km, mb=4.7, Ms=4.4
                         KODIAK ISLANDS REGION
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APR 28  FRI          04 37                    e 37 21
        MNV   iP     04 37 12.8               e 37 30
        JAS   ePd    04 37 23.5               e 37 41
        SAO          04 37                    e 37 26
        MHC   eP     04 37 29.3
        BKS   eP     04 37 34.0
                              MICRON    PERIOD
                        PZ      0.08       1.0
        MIN   ePd    04 37 35.3
        WDC   ePd    04 37 39.1               e 37 57
        FHC   eP     04 37 50.3
                     USGS 04 28 34.2, 11.9N,  72.6W, h= 62 km, mb=5.2
                          NEAR THE NORTH COAST OF COLOMBIA

APR 29  WDC   ePKPe  02 45 48.0               e 46 04
        MIN   ePKP   02 45 49.1               e 46 05
        JAS   ePKP   02 45 53                  e 46 09
        PRI   ePKP   02 45 56.0               e 46 12
        MNV   ePKP   02 45 57                  e 46 13
                     USGS 02 26 48.9,  5.8S, 104.0E, h= 50 km, mb=5.8, Ms=5.1
                          SOUTHERN SUMATERA

APR 29  PRI   e(P)   04 04 45
        FRI   ePg    04 04 53.5            Sg 05 46
        SAO   e(P)   04 04 58
        JAS   eP*    04 05 00              Pg 05 14     Sg 06 17
        MHC   e(P)   04 05 03
        MNV   ePg    04 05 12              Sg 06 08
                     MAG=4.2, SOUTHERN CALIFORNIA
                     PAS  04 03 46.2, 34.2N, 116.6W, h=  6 km, ML=3.8
                          SOUTHERN CALIFORNIA

APR 29  FHC   ePe    04 33 47.6
        BKS   ePe    04 33 49.6  44 16        e 33 59      e 45 29     Lq 56 45
                                              Lr 59 50
                              MICRON    PERIOD
                        PZ      0.56       1.2
                        LZ      6.0         20
                        LN      2.3         20
                        LE      3.6         20
        SAO   ePe    04 33 50.8
        MHC   ePe    04 33 51.3
        WDC   iPe    04 33 51.8            e 35 14      e 37 22
        PRI   ePe    04 33 53.8
        MIN   iPe    04 33 54.4
        JAS   iPe    04 33 56.0            e 35 18      e 37 18
        FRI   ePe    04 33 57.6
        MNV   iPe    04 34 05.2
                     Ms=5.7, DISTANCE=86°
                     USGS 04 21 10.4,  9.8S, 160.4E, h= 46 km, mb=6.2, Ms=5.9
                          SOLOMON ISLANDS

APR 29  WDC   ePe    19 38 27.0
        MIN   eP     19 38 30.0
        BRK   eP     19 38 36
        BKS          19 38                 Lq 03 00
        JAS   ePe    19 38 40.0
        FRI   eP     19 38 44.7
        MNV   eP     19 38 45.5
                     USGS 19 25 20.9, 24.6N, 122.7E, h= 18 km, mb=5.4, Ms=5.8
                          TAIWAN REGION

MAY 01  SAO          09 17                    e 17 57
        BKS   iPe    09 17 57.5
                              MICRON    PERIOD
                        PZ      0.07       1.0
        FRI   ePe    09 17 58.0
        FRI   ePe    09 18 02.9
        JAS   iPe    09 18 03.4
        WDC   iPe    09 18 05.4
        MIN   eP     09 18 07
        MNV   iPe    09 18 11.8
                     USGS 09 06 26.8, 24.0S, 179.8E, h=479 km, mb=5.2
                          SOUTH OF FIJI ISLANDS

MAY 02  FRI   ePKPe  23 37 15.9
        PRI   ePKPe  23 37 16.7
        MNV   ePKPe  23 37 17.0
        SAO   ePKPe  23 37 17.3
        JAS   iPKPe  23 37 18.5
        MHC   ePKPe  23 37 19.3
        BKS   ePKPe  23 37 20.4
                              MICRON    PERIOD
                        PKPZ    0.18       0.9
        MIN   ePKP   23 37 22.1
        WDC   iPKPe  23 37 23.4
        FHC   ePKP   23 37 25.7
                     USGS 23 18 28.0, 58.3S,  25.8W, h= 73 km, mb=5.8
                          SOUTH SANDWICH ISLANDS REGION

MAY 03  PRI   ePe    07 53 16.6
        BKS   ePd    07 53 16.8               e 53 23
                              MICRON    PERIOD
                        PZ      0.07       1.0
        MHC   ePe    07 53 17.0              PeP 53 22
        FRI   ePe    07 53 21.8
        JAS   iPe    07 53 22.5              PeP 53 28    pP 54 37
        WDC   iPe    07 53 24.3               pP 54 38
        MIN   ePe    07 53 25.9
        MNV   ePe    07 53 31.6
                     USGS 07 41 48.0, 21.4S, 177.4W, h=319 km, mb=5.4
                          FIJI ISLANDS REGION

MAY 04  SAO   eP     00 01 26.5
        BKS   ePe    00 01 27.7
                              MICRON    PERIOD
                        PZ      0.13       1.0
        PRI   ePe    00 01 27.9
        MHC   ePe    00 01 28.2
        FRI   eP     00 01 33.3
        JAS   iPe    00 01 33.7
        WDC   iPe    00 01 35.3
        MIN   eP     00 01 37.3
        MNV   iPe    00 01 42.9
                     USGS 23 50 21.7, 20.2S, 177.9W, h=516 km, mb=5.2
                          FIJI ISLANDS REGION

MAY 04  SAO   iPe    01 10 38.7
        PRI   eP     01 10 48.4               e 11 01
        MHC   ePd    01 10 48.5  10 59
        JAS   eP     01 10 58.0               i 11 17
                     BRK  01 10 34.4, 36.7N, 121.2W, h=  9 km, ML=2.6
                          STONE CANYON, CALIFORNIA

MAY 04  MHC   iPd    01 18 32.2
        SAO   iP     01 18 40.0
        BKS   iP     01 18 45.6               i 18 58
        JAS   ePe    01 18 51.6               i 19 08
        PRI   e(P)   01 18 54
                     BRK  01 18 29.9, 37.2N, 121.6W, h=  5 km, ML=2.8
                          SOUTHEAST OF SAN JOSE, CALIFORNIA

MAY 04  FRI          11 36                    e 36 11
        MNV   iPe    11 36 12.2
        PRI   eP     11 36 13.1
        JAS   ePe    11 36 19.0
        MHC   eP     11 36 22.3
        BKS   ePe    11 36 26.9
        WDC   eP     11 36 36.2
        FHC   eP     11 36 44.7
                     USGS 11 26 11.9,  8.1S,  76.0W, h=131 km, mb=5.1
                          PERU

MAY 05  WDC   iPd    05 38 30.0                  pP 39 00
        MIN   eP     05 38 34.6                  pP 39 04
        BKS   ePe    05 38 52.0                  e 39 08      pP 39 22
                              MICRON    PERIOD
                        PZ      0.06       0.8
        JAS   iPd    05 38 57.1                  pP 39 26
        MHC   eP     05 38 58.5
        MNV   eP     05 39 00.4                  pP 39 31
        FRI          05 39                       e 39 07
        PRI   eP     05 39 11.7                  pP 39 41
                     USGS 05 32 47.4, 63.3N, 151.0W, h=134 km, mb=5.2
                          CENTRAL ALASKA

MAY 05  FHC   iPd    07 49 56.8  50 18        i 50 16
        WDC   iPe    07 50 12.2  50 44        i 50 18
        MIN   iPe    07 50 23.2  51 05
        BKS   ePe    07 50 39.9  51 33        e 53 24
        MHC   eP     07 50 49.6
        JAS   eP     07 50 53.9
        SAO   eP     07 50 55.8
        MNV   eP     07 51 08.5
                     BRK  07 49 29.6, 41.6N, 125.8W, h=  5 km, ML=4.2
                          OFF COAST NORTHWEST OF EUREKA, CALIFORNIA

MAY 05  SAO   iP     12 08 07.8
        MHC   eP     12 08 12.5  08 23        i 08 14
        PRI   iPe    12 08 16.9  08 32
        JAS   ePd    12 08 18.7  08 34
        MNV   eP     12 08 48.3
                     BRK  12 07 59.8, 36.9N, 121.0W, h= 10 km, ML=2.8
                          ENE OF HOLLISTER, CALIFORNIA

MAY 05  PRI   e(P)   21 04 44                i 04 52      e 05 01
        FRI          21 05                   e 05 04
        MNV   ePe    21 04 58.0              i 05 14
        SAO   e(P)   21 04 59                e 05 04
        JAS   eP     21 05 01.0              e 05 23     Sg 07 00
        MHC   e(P)   21 05 04               Sg 07 11
        BKS          21 05                   e 05 17
        WDC          21 05                   e 05 53
                     USGS 21 03 15.8, 32.2N, 115.3W, h=  5 km, mb=4.8, Ms=4.1
                          CALIFORNIA-MEXICO BORDER REGION

MAY 06  FRI   ePe    09 17 20.8  17 34
        MNV   iPe    09 17 21.3
        JAS   iPe    09 17 29.7  17 49
        PRI   ePd    09 17 39.7
        SAO   ePd    09 17 43.5
                     BRK  09 17 02.3, 37.5N, 118.6W, h= 14 km, ML=3.5
                          NORTHWEST OF BISHOP, CALIFORNIA

MAY 06  FRI   iPe    10 14 33.4  14 46
        MNV   iPd    10 14 33.9
        JAS   iPe    10 14 42.3  15 02
        PRI   ePe    10 14 52.1
        SAO   ePe    10 14 56.0
        MHC   eP     10 14 56.5  15 28
                     BRK  10 14 14.9, 37.5N, 118.6W, h=  8 km, ML=3.7
                          NORTHWEST OF BISHOP, CALIFORNIA

MAY 07  WDC   iPd    15 38 15.4
        MIN   eP     15 38 18.3
        BRK   eP     15 38 19.2
        JAS   ePd    15 38 27.1
        FRI   eP     15 38 31.2
        MNV   iPd    15 38 35.3
                     USGS 15 26 31.3, 17.6N, 145.5E, h=261 km, mb=4.8
                          MARIANA ISLANDS REGION

MAY 08  WDC   eP     00 16 49.7
        JAS   eP     00 17 12.5               e 17 16
        MNV   eP     00 17 18.4               e 17 22
                     USGS 00 07 41.1, 54.8N, 158.8E, h= 31 km, mb=4.7
                          KAMCHATKA

MAY 08  FRI   iPe    01 07 08.6  07 12
        PRI   iPd    01 07 18.6  07 31
        SAO   iPd    01 07 22.7
        JAS   iPd    01 07 22.8
        MHC   ePd    01 07 26.4
        MNV   e(P)   01 07 40                i 07 43
                     BRK  01 07 02.4, 36.8N, 120.0W, h=  9 km, ML=3.3
                          WEST OF FRESNO, CALIFORNIA

MAY 08  MHC   iPe    06 56 25.2
        BKS   iP     06 56 35.7               e 56 45
        SAO   iPd    06 56 36.4
        JAS   iPe    06 56 45.2
        PRI   eP     06 56 50
                     BRK  06 56 23.3, 37.4N, 121.8W, h=  3 km, ML=3.4
                          EAST OF SAN JOSE, CALIFORNIA

MAY 08  MNV   iPd    07 42 00.8               e 42 27
        PRI   eP     07 42 02.4
        JAS   ePd    07 42 08.2
        MHC   ePd    07 42 12.0
        BKS   ePe    07 42 16.5
                              MICRON    PERIOD
                        PZ      0.03       1.0
        MIN   eP     07 42 22.4
        WDC   ePd    07 42 25.8
        FHC   eP     07 42 35.5
                     USGS 07 32 29.0,  3.3S,  77.2W, h=103 km, mb=5.1
                          PERU-ECUADOR BORDER REGION

MAY 08  BKS   eP     19 18 15
        MHC   eP     19 18 16.8
        PRI   eP     19 18 18.4
        WDC   eP     19 18 19.7
        JAS   eP     19 18 21.5
        MNV   eP     19 18 31.2
                     USGS 19 05 39.4, 17.0S, 167.6E, h= 33 km, mb=5.1
                          NEW HEBRIDES ISLANDS

MAY 09  FHC   eP     07 40 08.8
        WDC   iPe    07 40 15.1
        MIN   eP     07 40 19.9
        BKS   iPe    07 40 29.5
                              MICRON    PERIOD
                        PZ      0.03       0.9
        MHC   eP     07 40 34.4
        JAS   iP     07 40 36.7
        SAO   eP     07 40 37.5
        FRI   eP     07 40 43.7
        MNV   iP     07 40 43.7
        PRI   eP     07 40 44.5
                     USGS 07 31 05.9, 52.5N, 158.1E, h=109 km, mb=5.1
                          NEAR THE EAST COAST OF KAMCHATKA

MAY 09  PRI   ePe    18 07 39.8                  Lr 32 40
        BKS   iP     18 07 40.6
                              MICRON    PERIOD
                        PZ      0.07       1.0
                        LZ      0.7         18
                        LN      0.8         18
                        LE      0.7         18
        MHC   eP     18 07 40.8
        FRI   eP     18 07 45.5
        JAS   ePe    18 07 46.3
        FHC   eP     18 07 48
        WDC   ePe    18 07 49.1
        MIN   ePe    18 07 50.7
        MNV   ePe    18 07 55.8
                     USGS 17 55 48.5, 22.0S, 174.5W, h= 33 km, mb=5.4, Ms=5.1
                          TONGA ISLANDS REGION
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MAY 10  WDC  eP    04 02 45.5                 e 04 33
        BKS  iPd   04 02 54.4
                        MICRON    PERIOD
                   PZ     0.04       0.9
        JAS  eP    04 02 59.7                 e 04 45
        PRI  e(P)  04 03 04
             USGS 03 51 38.1, 27.8N, 139.7E, h=493 km, mb=5.0
                  BONIN ISLANDS REGION

MAY 10  MBC  iPe   15 55 05.7
        BKS  eP    15 55 16.3  55 25
        SAO  iPd   15 55 16.9
        JAS  iPd   15 55 25.9  55 42
        PRI  eP    15 55 30.5
        PRI  e(P)  15 55 34
             BRK  15 55 03.8, 37.4N, 121.8W, h=  2 km, ML=2.9
                  EAST OF SAN JOSE, CALIFORNIA

MAY 10  MBC  iPe   15 55 42.5
        BKS  eP    15 55 52.8  56 03
        SAO  iPd   15 55 53.8
        JAS  iPe   15 56 02.6  56 18
        PRI  iPd   15 56 11.0
             BRK  15 55 40.5, 37.4N, 121.8W, h=  2 km, ML=3.3
                  EAST OF SAN JOSE, CALIFORNIA

MAY 10  FBC  iPe   18 30 43.3
        WDC  iPe   18 30 57.5                 e 31 24
        MIN  ePe   18 31 07.3
        BKS  iPe   18 31 17.0                 e 31 21     e 31 54
        MBC  ePe   18 31 27.0
        JAS  eP    18 31 32.8                 e 32 24
        SAO  ePe   18 31 33.2
        PRI  eP    18 31 47
        PRI  eP    18 31 47.3
             BRK  18 30 25.0, 40.4N, 125.1W, h=  5 km, ML=4.0
                  OFF COAST SOUTHWEST OF EUREKA, CALIFORNIA

MAY 11  FBC        00 30                      e 30 46
        WDC  ePe   00 30 51.4                 e 31 11     e 33 05     e 36 49
                                              e 41 08
        MIN  ePe   00 30 57.0
        BKS  eP    00 31 06.6                 e 33 06     i 33 12     e 33 32
                                              i 37 04     Lr 40 00
                        MICRON    PERIOD
                   PZ     0.07       0.9
                   LZ     14         20
                   LN     6          20
                   LE     13         20
        MBC  eP    00 31 11.8                 e 33 14
        JAS  ePe   00 31 15.3                 e 37 01
        SAO        00 31                      e 31 16
        PRI  e(P)  00 31 23                   e 33 19
        PRI  eP    00 31 24                   e 33 19
        MNV  ePe   00 31 24.2                 e 33 19     e 37 05     e 41 28
             Ms=5.8, DISTANCE=39°
             USGS 00 23 37.6, 51.7N, 176.1W, h= 59 km, mb=5.6, Ms=5.9
                  ANDREANOF ISLANDS, ALEUTIAN ISLANDS

MAY 11  MBC  iPd   11 56 07.6
        BKS  iPd   11 56 17.9  56 27
        SAO  iPd   11 56 18.7
        JAS  iPe   11 56 27.5  56 44
        PRI  e(P)  11 56 32
        PRI  eP    11 56 35.9
             BRK  11 56 05.6, 37.4N, 121.8W, h=  3 km, ML=3.8
                  EAST OF SAN JOSE, CALIFORNIA

MAY 11  MBC  iPe   11 56 58.4
        BKS  eP    11 57 09.1  57 18
        SAO  iPd   11 57 09.9
        JAS  iP    11 57 18.2
        PRI  iPe   11 57 23.8
        PRI  iPe   11 57 27.0
        MNV  iPd   11 57 45.9
             BRK  11 56 56.6, 37.4N, 121.8W, h=  2 km, ML=3.8
                  EAST OF SAN JOSE, CALIFORNIA

MAY 11  MBC  iPe   12 18 13.8
        BKS  iPe   12 18 24.0
        SAO  iPd   12 18 25.0                 e 18 34
        JAS  iPe   12 18 33.8
        PRI  eP    12 18 38.2
        PRI  iPd   12 18 41.5
        MNV  e(P)  12 19 01
             BRK  12 18 11.8, 37.4N, 121.8W, h=  4 km, ML=3.7
                  EAST OF SAN JOSE, CALIFORNIA

MAY 11  MBC  iPe   12 28 05.4
        BKS  eP    12 28 15.6
        SAO  iPd   12 28 16.6                 e 28 24
        JAS  iPe   12 28 25.4  28 42
        PRI  e(P)  12 28 30
        PRI  ePe   12 28 33.8
             BRK  12 28 03.5, 37.4N, 121.7W, h=  4 km, ML=3.4
                  EAST OF SAN JOSE, CALIFORNIA

MAY 11  MBC  iP    19 13 27.0
        BKS  eP    19 13 37.1  13 46
        SAO  iPd   19 13 38.1
        JAS  iPe   19 13 46.8  14 04
             BRK  19 13 24.9, 37.4N, 121.8W, h=  4 km, ML=2.8
                  EAST OF SAN JOSE, CALIFORNIA

MAY 11  MNV  eP    23 25 02.5
        PRI  eP    23 25 04.8
        JAS  eP    23 25 11.9
        BKS  eP    23 25 22
                        MICRON    PERIOD     e 31 06     Lq 34 00
                   LN     6          22
        WDC  eP    23 25 34.2     LE  7      22
             Ms=5.5, DISTANCE=36°
             USGS 23 18 25.4, 13.9N, 92.2W, h= 59 km, mb=4.9, Ms=5.5
                  OFF THE COAST OF CHIAPAS, MEXICO

MAY 12  MBC  iPd   00 27 49.6
        BKS  iPd   00 28 00.2  28 10
        SAO  iP    00 28 00.9
        JAS  iPe   00 28 10.1
        PRI  eP    00 28 15.0
        PRI  eP    00 28 17
             BRK  00 27 47.6, 37.4N, 121.8W, h=  1 km, ML=3.0
                  EAST OF SAN JOSE, CALIFORNIA

MAY 12  PRI
        MNV  eP    05 14
        JAS        05 14 36.1                 e 14 38
        BKS        05 14                      e 14 43
                                              e 14 46
             USGS 05 08 00.4, 14.0S, 92.0W, h= 73 km, mb=4.8
                  OFF THE COAST OF CHIAPAS, MEXICO

MAY 12  WDC  iPd   12 21 42.5
        MIN  eP    12 21 47.0                 i 22 04
        BKS
        JAS  iPd   12 22
        MNV  iPd   12 22 09.6
                   12 22 13.5                 e 22 18     e 39 20     e 39 28
             USGS 12 16 03.9, 62.2N, 149.4W, h= 67 km, mb=5.1
                  CENTRAL ALASKA

MAY 12  WDC  iPe   22 58 52.0
        MIN        22 58
        BKS  eP    22 59 02.7                 e 59 04
                                              e 58 56
                        MICRON    PERIOD      e 59 13     e 59 22
                   PZ     0.02       0.7
        MBC  e(P)  22 59 07
        JAS  eP    22 59 09.0
        PRI  e(P)  22 59 14
        MNV  eP    22 59 14.8                 e 59 20
                                              e 29 26
             USGS 22 47 32.7, 36.2N, 141.4E, h= 37 km, mb=5.3, Ms=5.1
                  NEAR THE EAST COAST OF HONSHU, JAPAN

MAY 13  MNV  ePe   03 42 45.6                 e 42 54
        PRI  eP    03 42 47.0
        JAS  eP    03 42 54.1
        WDC        03 43                      e 43 16
             USGS 03 36 09.5, 14.1N, 92.0W, h= 68 km, mb=4.8
                  NEAR THE COAST OF CHIAPAS, MEXICO

MAY 13  MBC  eP    04 20 07.2
        BKS  e(P)  04 20 08
        PRI  eP    04 20 08.5
        WDC  eP    04 20 10.3
        JAS  eP    04 20 10.6
        MIN  eP    04 20 11.9
        PRI  eP    04 20 12.5
        MNV  eP    04 20 20.0
             USGS 04 07 26.2, 17.0S, 167.5E, h= 15 km, mb=5.3, Ms=4.9
                  NEW HEBRIDES ISLANDS

MAY 13  BKS  iPe   07 21 00.5  31 06     PcP 21 05                 pP 21 42
                                         sPcP 22 06    e 21 32     ScS 31 17
                                              e 31 45  sPP 25 12   PS  32 36
                                              e 33 26  SP  32 04   SS  36 18
                                              e 36 46  e 36 12     e 37 56
                                         SSS  40 04    sSS 37 20   e 41 48
                                              e 43 30  e 40 26
                                                       e 51 12
                        MICRON    PERIOD
                   PZ     0.83       0.9
                   LZ     15         20
                   LN     11         20
                   LE     20         20
        FBC  ePe   07 21 00.6
        SAO  eP    07 21 01.4                 PP 24 20
        MBC  iPe   07 21 02.0                 pP 21 49    PP 24 20    PKKP 39 14
                                         PKPPKP 47 23
        PRI  iPe   07 21 03.6                 pP 21 51    PP 24 22    PKKP 39 16
                                         PKPPKP 47 26
        WDC  iPe   07 21 04.7                 pP 21 51    PP 24 24    PKKP 39 12
                                         PKPPKP 47 19
        JAS  iPe   07 21 07.0                 pP 21 54    PP 24 25    PKKP 39 12
                                         PKPPKP 47 17
        MIN  iPe   07 21 07.1            PKKP 39 14 PKPPKP 47 19
        FRI  iPe   07 21 08.0               PP 24 30 PKKP 39 12 PKPPKP 47 20
        MNV  iPe   07 21 16.2               PP 24 40 PKKP 39 08 PKPPKP 47 16
             mb=6.5, DISTANCE=82°
             USGS 07 08 46.2, 14.5S, 167.3E, h=160 km, mb=6.7
                  NEW HEBRIDES ISLANDS

MAY 13  WDC  ePe   08 07 15.5
        MIN  eP    08 07 18.4
        BKS  eP    08 07 20.0                 e 07 27     e 07 30
                        MICRON    PERIOD
                   PZ     0.02       1.0
        MBC  eP    08 07 22.8
        JAS  eP    08 07 26.3
        PRI  eP    08 07 28.3
        FRI  eP    08 07 30
        MNV  iPe   08 07 34.4
             USGS 07 54 38.5, 11.9N, 143.3E, h= 33 km, mb=5.2
                  SOUTH OF MARIANA ISLANDS

MAY 13  BKS  eP    16 52 30.5                 e 52 43     e 52 47     e 01 57
                                              Lr 13 00
                        MICRON    PERIOD
                   PZ     0.02       0.8
                   LZ     3.6        20
                   LN     2.1        20
                   LE     2.5        20
        PRI  eP    16 52 31.0
        MBC  eP    16 52 31.3
        JAS  ePd   16 52 37.7
        WDC  ePd   16 52 39.7
        MIN  eP    16 52 41.6
        MNV  iPd   16 52 48.2
             USGS 16 41 12.1, 15.2S, 173.4W, h= 33 km, mb=5.4, Ms=5.4
                  TONGA ISLANDS

MAY 14  MNV  iPe   08 38 39.6                 pP 39 02    PcP 41 24
        PRI  eP    08 38 41.4                 e 39 05     PcP 41 25
        JAS  eP    08 38 48.5                 pP 39 10    PcP 41 26
        MBC  eP    08 38 52.8                 pP 39 16
        BKS        08 38                      PcP 41 30
        WDC  ePe   08 39 10.2                 pP 39 33    PcP 41 34
        FBC  eP    08 39 21.8                 pP 39 45
             USGS 08 32 14.6, 15.3N,  92.1W, h=101 km, mb=4.8
                  MEXICO-GUATEMALA BORDER REGION

MAY 14  WDC  eP    22 40 02.7                 e 44 00
        MNV  ePe   22 40 28.6                 e 44 50
        JAS  e(P)  22 40 34
        BKS  eP    22 40 41.4
        MBC  e(P)  22 40 44
        FRI        22 40
        SAO        22 40                      e 40 52
        PRI  e(P)  22 41 01                   e 40 53
             USGS 22 37 04.1, 52.7N, 118.7W, h= 10 km, mb=4.8, Ms=4.4
                  BRITISH COLOMBIA

MAY 15  BKS  iPd   00 48 47.8
                        MICRON    PERIOD
                   PZ     0.08       0.8
        SAO  ePd   00 48 48.3
        MBC  ePd   00 48 48.9
        FBC  eP    00 48 49.7
        PRI  ePd   00 48 49.7
        WDC  iPd   00 48 53.3
        JAS  iPd   00 48 53.8
        FRI  ePd   00 48 54.0
        MIN  ePd   00 48 55.3
        MNV  iPd   00 49 02.5
             USGS 00 36 12.8, 20.9S, 169.7E, h= 95 km, mb=5.6
                  NEW HEBRIDES ISLANDS

MAY 15  WDC  eP    22 26 52.3
        MIN  eP    22 26 59.7
        JAS  eP    22 27 34.5
        MBC  eP    22 27 34.5
        MNV  eP    22 27 40.5
             USGS 22 24 28.6, 49.3N, 129.1W, h= 10 km, mb=4.5, Ms=4.2
                  VANCOUVER ISLAND REGION

MAY 16  FBC  eP    07 46 44.7
        WDC  iPe   07 46 50.3                                  i 46 58
        MIN  iPe   07 46 54.2
        BKS  iPe   07 47 01.2
                        MICRON    PERIOD
                   PZ     0.07       0.9
        MBC  eP    07 47 05.4
        JAS  iPe   07 47 07.6
        FRI  eP    07 47 13.7
        PRI  eP    07 47 13.9
        MNV  iPe   07 47 14.7
             USGS 07 35 47.0, 41.0N, 141.3E, h= 32 km, mb=5.7, Ms=4.3
                  HOKKAIDO, JAPAN, REGION

MAY 16  FBC  eP    08 34 57.2
        WDC  iPe   08 35 02.7
        MIN  iPe   08 35 06.7
        BKS  iPe   08 35 13.0                 e 35 57
                        MICRON    PERIOD
                   PZ     0.17       1.2
        MBC  eP    08 35 18.0
        SAO  eP    08 35 20
        JAS  iPe   08 35 20.2
        FRI  eP    08 35 26
        PRI  eP    08 35 26.4
        MNV  iPe   08 35 27.0
             USGS 08 23 58.0, 41.0N, 141.2E, h= 23 km, mb=5.8, Ms=4.6
                  HOKKAIDO, JAPAN, REGION
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MAY 17  WDC  iPe    00 45 34.5
        MIN  iPd    00 45 36.9
                    BRK  00 45 16.8, 41.4N, 121.9W, h=  2 km, ML=3.1
                         EAST OF MT. SHASTA, CALIFORNIA

MAY 17  WDC  ePe    08 53 54.0
        JAS  eP     08 54 16.0
                    USGS 08 45 33.8, 53.0N, 171.0E, h= 24 km, mb=5.0, Ms=4.0
                         NEAR ISLANDS, ALEUTIAN ISLANDS

MAY 17  WDC  ePd    09 03 50.0
        JAS  eP     09 04 06.5
        MHC         09 04                    e 04 35
                    USGS 08 52 24.3, 34.2N, 141.4E, h= 40 km, mb=5.2, Ms=5.1
                         OFF THE EAST COAST OF HONSHU, JAPAN

MAY 17  SAO  eP     10 13 36.0
        BKS  ePe    10 13 36.4                e 14 11
                         MICRON     PERIOD
                    PZ     0.05       1.0
        PRI  eP     10 13 37.5
        JAS  eP     10 13 42.5
        WDC  ePe    10 13 43.0
                    USGS 10 02 44.0, 18.0S, 178.4W, h=593 km, mb=5.1
                         FIJI ISLANDS REGION

MAY 18  BKS  iPd    05 05 59.5                e 06 16      e 08 36
                         MICRON     PERIOD
                    PZ     0.04       1.0
        MHC  e(P)   05 06 00
        PRI         05 06                    e 06 02
        FHC         05 06                    e 06 02
        WDC  ePe    05 06 04.0               e 06 27
        JAS  eP     05 06 04.7
        MIN  e(P)   05 06 06
        MNV  eP     05 06 13.5
                    USGS 04 53 22.0, 20.1S, 169.1E, h= 67 km, mb=5.3
                         NEW HEBRIDES ISLANDS

MAY 18  WDC  e(P)   12 45 41
        MIN         12 45                    e 45 48
        BRK         12 45                    e 45 56
        MHC         12 45                    e 45 56
        JAS  eP     12 45 57.3               e 46 13
        MNV  e(P)   12 46 02                 e 46 18      e 46 33
        PRI  e(P)   12 46 05
                    USGS 12 33 34.0, 40.7N, 122.5E, h= 33 km, mb=5.4, Ms=5.2
                         NORTHEASTERN CHINA

MAY 20  WDC  iPe    05 51 09.0
        FHC  iPe    05 51 09.9  51 20
        MIN  ePd    05 51 20.2
                    BRK  05 50 57.0, 40.5N, 123.3W, h=  1 km, ML=3.0
                         SOUTHEAST OF EUREKA, CALIFORNIA

MAY 20  PRI  ePe    13 20 41.2
        MNV  iPe    13 20 41.7
        SAO  ePe    13 20 46.4
        JAS  ePe    13 20 47.8
        MHC  ePe    13 20 50.7
        BKS  ePe    13 20 55.2  29 24        SS 34 08      e 36 32      Lq 40 00
                                              Lr 41 25
                         MICRON     PERIOD
                    PZ     0.11       0.8
                    LZ     2.2        20
                    LN     1.6        20
                    LE     1.8        20
        MIN  eP     13 21 02.4
        WDC  iPe    13 21 05.8          PKPPKP 49 57
        FHC  ePe    13 21 14.7
                    Ms=5.4, DISTANCE=67°
                    USGS 13 10 31.1, 10.2S,  78.5W, h= 50 km, mb=5.6, Ms=5.5
                         NEAR THE COAST OF PERU

MAY 21  PRI  eP     10 46 14.9
        BKS  eP     10 46 15.0
                         MICRON     PERIOD
                    PZ     0.04       1.0
        MHC  eP     10 46 15.4
        FRI  eP     10 46 20
        JAS  ePe    10 46 20.4
        WDC  ePe    10 46 22.5
        MIN  eP     10 46 24.2
        MNV  ePe    10 46 29.0
                    USGS 10 34 46.0, 24.2S, 180.0W, h=504 km, mb=4.9
                         SOUTH OF FIJI ISLANDS

MAY 21  MHC         11 25                    e 25 50
        PRI         11 25                    e 25 51
        JAS  eP     11 25 42.1               e 25 58
        WDC         11 25                    e 25 58
        MIN         11 25                    e 26 00
        MNV  eP     11 25 52.6               e 26 08
                    USGS 11 14 07.2, 14.5S, 176.4W, h= 33 km, mb=4.8, Ms=4.9
                         FIJI ISLANDS REGION

MAY 21  WDC  ePe    12 19 42.8               e 19 59
        MIN  eP     12 19 46.8               e 20 03
        MNV  eP     12 20 07.7               e 20 24
                    USGS 12 08 45.9, 40.8N, 142.4E, h= 55 km, mb=5.2
                         NEAR THE EAST COAST OF HONSHU, JAPAN

MAY 21  FHC  iPe    16 34 31.9
        WDC  iPe    16 34 45.0
        MIN  ePe    16 34 54.7  35 22
        BKS  iPd    16 35 04.5               e 36 06
        MHC  eP     16 35 15.0
        JAS  e(P)   16 35 20
        PRI  e(P)   16 35 35
                    BRK  16 34 19.2, 40.3N, 124.6W, h= 20 km, ML=3.7
                         OFF COAST SOUTHWEST OF EUREKA, CALIFORNIA

MAY 21  WDC  iPKPe  18 32 57.9
        MIN  ePKP   18 32 59.8
        BKS  ePKPe  18 33 02.0
        MHC  ePKPe  18 33 03.9
        JAS  ePKPe  18 33 04.8
        FRI  ePKP   18 33 07.1
        PRI  ePKP   18 33 07.3
        MNV  ePKPe  18 33 08.4
                    USGS 18 13 13.7, 21.5S,  87.6E, h= 33 km, mb=5.1, Ms=4.5
                         SOUTH INDIAN OCEAN

MAY 22  WDC  iPe    07 43 00.6               e 43 10
        MIN  ePe    07 43 04.4
        BKS  ePe    07 43 12.0
                         MICRON     PERIOD
                    PZ     0.16       1.5
        MHC  eP     07 43 16.5               e 43 28      e 46 03
        JAS  iPe    07 43 18.6
        SAO  eP     07 43 19
        FRI  eP     07 43 24.7               e 43 34
        MNV  iPe    07 43 25.1
        PRI  ePe    07 43 25.2
                    USGS 07 31 57.8, 43.4N, 139.0E, h= 31 km, mb=5.6, Ms=5.3
                         EASTERN SEA OF JAPAN

MAY 22  SAO  iPe    21 56 10.0
        PRI  iP     21 56 21.1
        MHC  eP     21 56 21.7
        FRI  iPd    21 56 30.4
        BKS  eP     21 56 30.8  56 49
        JAS  iPd    21 56 32.7
        MNV  eP     21 56 58.1
                    BRK  21 56 06.9, 36.6N, 121.3W, h=  4 km, ML=3.5
                         STONE CANYON, CALIFORNIA

MAY 22  SAO  iPe    22 02 01.3
        MHC  eP     22 02 12.8
        PRI  eP     22 02 12.9
        BKS  e(P)   22 02 23    02 46        e 02 25
        JAS  iPd    22 02 24.2
                    BRK  22 01 58.2, 36.6N, 121.3W, h=  5 km, ML=2.9
                         STONE CANYON, CALIFORNIA

MAY 23  MNV  iPd    05 48 37.2
        MIN  eP     05 48 48.6                i 48 58
        JAS  iP     05 48 55.2  49 41
        WDC  eP     05 48 57.8
        FRI  eP     05 49 10.9
        MHC  eP     05 49 11.2
                    ML=4.6, ESE OF WINNEMUCCA, NEVADA
                    USGS 05 47 55.4, 40.9N, 117.3W, h= 11 km, mb=4.1
                         NEVADA

MAY 23  FHC  eP     08 02 27.8
        WDC  ePe    08 02 31.4                i 03 13      e 12 31 PKPPKP 28 50
        MIN  eP     08 02 34.6
        BKS  ePe    08 02 40.4  12 46         pP 03 20     PP 06 36     SP 13 43
                                              SS 18 29     sSS 19 35    SSS 21 16
                                              Lq 24 30     Lr 29 00
                         MICRON     PERIOD
                    PZ     0.72       1.2
        MHC  eP     08 02 44.0                e 03 25
        JAS  eP     08 02 46.5                i 03 21      e 06 03 PKPPKP 28 54
        SAO  eP     08 02 47.4
        FRI  eP     08 02 51.7
        PRI  eP     08 02 51.7
        MNV  eP     08 02 52.2
                    mb=6.4, DISTANCE=84°
                    USGS 07 50 28.2, 31.0N, 130.1E, h=161 km, mb=6.3
                         KYUSHU, JAPAN

MAY 23  FHC  ePe    20 22 15.0
        WDC  iPe    20 22 20.9
        MIN  iPe    20 22 25.0
        BRK  ePe    20 22 31.9
        MHC  ePe    20 22 36.5
        JAS  iPe    20 22 39.4
        FRI  eP     20 22 45.2
        PRI  e(P)   20 22 46
        MNV  iPe    20 22 46.2
                    USGS 20 11 42.5, 42.7N, 144.7E, h= 78 km, mb=5.6
                         HOKKAIDO, JAPAN, REGION

MAY 23  FHC  iPd    21 42 18.9
        WDC  iPe    21 42 31.4
        MIN  iPe    21 42 41.2
        BKS  eP     21 42 51.5  43 26
        MHC  iPd    21 43 02.5  43 44
        JAS  ePd    21 43 05.6
        SAO  iPd    21 43 08.8
        FRI  ePe    21 43 22.2
        PRI  ePd    21 43 22.5
        MNV  iPd    21 43 25.0
                    BRK  21 42 02.9, 40.4N, 124.8W, h= 20 km, ML=4.6
                         OFF COAST SOUTHWEST OF EUREKA, CALIFORNIA

MAY 23  JAS  eP     22 49 35.5
        WDC  eP     22 49 36.6
        MNV  eP     22 49 45.8
                    USGS 22 37 58.9, 15.1S, 176.8W, h= 33 km, mb=4.9, Ms=5.0
                         FIJI ISLANDS REGION

MAY 24  FHC  eP     06 24 23.7
        WDC  ePe    06 24 30.3                pP 25 00     e 25 48      SP 30 22
        MIN  eP     06 24 35.7
        BKS  eP     06 24 44.0  31 03         Lq 34 00     Lr 46 00
                         MICRON     PERIOD
                    PZ     0.08       0.7
                    LZ     28         18
                    LN     21         18
                    LE     41         18
        MHC  eP     06 24 50.2
        SAO  eP     06 24 53.3                e 25 08      pP 25 23     e 26 20
        JAS  ePe    06 24 53.7                SP 30 31
        FRI  eP     06 25 01.5
        PRI  eP     06 25 01.5                pP 25 31     e 26 40
        MNV  eP     06 25 02.6                SP 30 41
                    Ms=6.4, DISTANCE=41°
                    USGS 06 16 55.4, 51.2N, 179.2W, h= 25 km, mb=6.0, Ms=6.7
                         ANDREANOF ISLANDS, ALEUTIAN ISLANDS

MAY 25  MNV  ePe    11 23 46.2
        JAS  eP     11 23 54.3
        BKS         11 24                    e 29 46      e 34 00      e 36 40
                         MICRON     PERIOD
                    LZ     2.0        20
                    LN     1.6        20
                    LE     2.1        20
        MIN         11 24                    e 24 13
        WDC  e(P)   11 24 17
                    USGS 11 17 05.7, 13.9N,  92.1W, h= 33 km
                         NEAR COAST OF CHIAPAS, MEXICO

MAY 26  MHC  eP     01 54 06.4               e 54 19
        PRI  e(P)   01 54 07                 e 54 19
        WDC  eP     01 54 09.5               i 54 24
        JAS  eP     01 54 10.8               i 54 24
        FRI         01 54                    e 54 12
        MIN  eP     01 54 12.0
        MNV  eP     01 54 19.3               i 54 32
                    USGS 01 41 19.8, 20.8S, 168.6E, h= 33 km, mb=5.5, Ms=4.6
                         LOYALTY ISLANDS

MAY 26  FHC  eP     10 30 18.0
        WDC  eP     10 30 23.5
        MIN  eP     10 30 27.7
        JAS  eP     10 30 41.6
        MNV  eP     10 30 48.2
                    USGS 10 19 34.9, 41.7N, 141.2E, h=140 km, mb=4.6
                         HOKKAIDO, JAPAN, REGION

MAY 26  JAS  eP     12 22 11.2
        WDC  eP     12 22 12.8
        MNV  eP     12 22 19.2

MAY 26  WDC  iPe    13 57 08.4               e 57 09
        FHC         13 57
        MIN  eP     13 57 09.2
        MNV  eP     13 57 16.0
        JAS  iPe    13 57 19.8
                    USGS 13 43 38.2, 42.0N,  46.5E, h= 38 km, mb=5.6, Ms=5.2
                         EASTERN CAUCASUS

MAY 26  WDC  eP     17 14 54.4               e 15 00
        JAS  eP     17 15 07                 e 15 20
        MNV         17 15
                    USGS 17 02 56.8, 24.3N, 142.8E, h= 33 km
                         VOLCANO ISLANDS REGION

MAY 26  FHC  eP     20 04 41
        WDC  iPd    20 04 50.3
        MIN  ePd    20 04 57.0
        BKS  eP     20 05 26    08 12        e 08 28
                         MICRON     PERIOD
                    PZ     0.03       1.2
        JAS  eP     20 05 31.5
        MHC  eP     20 05 32.5
        MNV  iPd    20 05 36.5
        SAO         20 05                    e 05 46
        FRI         20 05                    e 05 47
        PRI  eP     20 05 49.5
                    USGS 20 01 57.8, 51.2N, 130.4W, h= 17 km, mb=4.9, Ms=4.5
                         QUEEN CHARLOTTE ISLANDS REGION
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MAY 26  FBC             23 22                       e 22 44
        WDC   eP        23 22 51.0
        MIN   eP        23 22 53.0
        JAS   eP        23 23 09.0
        MNV   eP        23 23 12.0
        PRI             23 23                       e 23 13
                USGS 23 10 55.4, 24.4N, 142.7E, h= 33 km, mb=5.1, Ms=5.4
                     VOLCANO ISLANDS REGION

MAY 27  FBC   eP        00 10 14.5
        WDC   eP        00 10 19.7                  i 10 24
        MIN             00 10                       e 10 26
        BRK   e(P)      00 10 25                    e 10 30
        BKS             00 10       20 20           i 10 28     e 33 00     e 34 00
                                                    i 34 18
                          MICRON     PERIOD
                     PZ     0.09        1.0
                     LZ       21         20
                     LN        9         20
                     LE       22         20
        MDC   eP        00 10 30.2
        JAS   eP        00 10 32.7                  i 10 38
        PRI             00 10                       e 10 36
        FRI             00 10                       e 10 38
        MNV   eP        00 10 41.2                  i 10 46
                Ms=6.5, DISTANCE=82°
                USGS 23 58 22.0, 24.3N, 142.7E, h= 33 km, mb=5.8, Ms=6.8
                     VOLCANO ISLANDS REGION

MAY 27  MNV   eP        06 39 42.3
        PRI             06 39                       e 39 43
        MHC             06 39                       e 39 50
        WDC   eP        06 40 02.1
                USGS 06 28 10.2, 21.1S,  68.5W, h=133 km, mb=4.7
                     CHILE-BOLIVIA BORDER REGION

MAY 27  FBC             10 29                       e 29 08
        WDC   eP        10 29 16.7
        MIN   eP        10 29 17.4
        BKS   eP        10 29 23    39 10           i 29 30     e 52 00     e 53 00
                          MICRON     PERIOD
                     LZ      3.2         20
                     LN      2.5         20
                     LE      3.2         20
        MHC             10 29                       e 29 27
        JAS   eP        10 29 27.6
        PRI             10 29                       e 29 33
        FRI             10 29                       e 29 35
        MNV   eP        10 29 35.4
                USGS 10 17 16.7, 24.2N, 142.8E, h= 33 km, mb=5.4, Ms=5.9
                     VOLCANO ISLANDS REGION

MAY 27  BKS   iPe       18 22 55.8  23 07
        MHC   ePd       18 23 06.6
        JAS   eP        18 23 12.8
        SAO   eP        18 23 13.9
        WDC   ePe       18 23 14
                BRK  18 22 41.3, 38.5N, 122.7W, h=  9 km, ML=3.8
                     SANTA ROSA AREA, CALIFORNIA

MAY 28  JAS   eP        09 16 08.6
        WDC   eP        09 16 09.6
        MNV   eP        09 16 17.5
                USGS 09 03 40.1, 28.9S, 176.7W, h= 68 km, mb=4.5
                     KERMADEC ISLANDS REGION

MAY 29  FBC   iPe       00 47 04.7  47 29
        WDC   iPe       00 47 19.9
        MIN   iPe       00 47 29.7  48 03
        BKS   eP        00 47 36.0
        MHC   eP        00 47 45.7                  e 48 16     e 48 22
        SAO   eP        00 47 52.5
        JAS   iPe       00 47 54.3
        PRI   eP        00 48 07.0
        MNV   e(P)      00 48 13
                BRK  00 46 35.1, 40.4N, 126.2W, h=  5 km, ML=4.8
                     OFF COAST WSW OF EUREKA, CALIFORNIA

MAY 29  MNV   iPe       03 18 38.4
        FRI   e(P)      03 18 45
        JAS   ePe       03 18 50.9                  e 19 04
        FRI   ePe       03 18 52.0
        MIN   ePe       03 18 58.0
        MHC   ePe       03 18 58.0
        BRK   e(P)      03 19 01
        WDC   ePe       03 19 01.4
        FBC   ePe       03 19 12.0
                USGS 03 09 22.3, 17.7N,  61.6W, h= 46 km, mb=5.2, Ms=5.0
                     LEEWARD ISLANDS

MAY 30  SAO   iPe       05 20 58.2
        PRI   eP        05 21 07.8  21 20
        MHC   eP        05 21 09.4  21 21
        FRI   iPd       05 21 17.5  21 34
        BKS   eP        05 21 19.1                  e 21 42
        JAS   eP        05 21 20.0  21 38
                BRK  05 20 54.5, 36.6N, 121.3W, h=  8 km, ML=2.8
                     STONE CANYON, CALIFORNIA

MAY 30  WDC   eP        07 08 09.4
        MIN   eP        07 08 13.4
        JAS   eP        07 08 28.2
        FRI   eP        07 08 34.0
        MNV   iPe       07 08 35.2
                USGS 06 57 50.0, 44.5N, 149.2E, h= 33 km, mb=5.4, Ms=4.6
                     KURIL ISLANDS

MAY 30  FRI   eP        09 44 05.8
        MNV   iPe       09 44 12.6
        FRI             09 44                       i 44 17
        JAS   eP        09 44 19.5                  e 44 20
        BKS   e(P)      09 44 30
                          MICRON     PERIOD
                     PZ     0.03        1.0
        WDC         09 44                           e 44 58
                USGS 09 40 28.2, 24.7N, 109.0W, h= 10 km, mb=4.7
                     GULF OF CALIFORNIA

MAY 30  FRI   eP        11 19 18.3
        MNV   iPd       11 19 24.7
        JAS   eP        11 19 31.8
        MHC             11 19
        BKS   eP        11 19 43.5  11 23           e 19 34     Lr 24 30
                          MICRON     PERIOD
                     PZ     0.03        1.0
        MIN   eP        11 20 03.5
        WDC   eP        11 20 07.0
                USGS 11 15 41.0, 24.8N, 109.0W, h= 10 km, mb=5.0, Ms=4.8
                     GULF OF CALIFORNIA

MAY 30  FRI             13 39                       e 39 13
        PRI   eP        13 39 07
        MNV   eP        13 39 15.5
        JAS   eP        13 39 22.5
        BRK   e(P)      13 39 34
        BKS             13 39                       e 39 39
        MIN   eP        13 39 54.5                  e 39 39     Lq 43 40    Lr 44 08
        WDC             13 40                       e 40 06
                USGS 13 35 31.6, 24.7N, 109.1W, h= 10 km, mb=4.7
                     GULF OF CALIFORNIA

MAY 31  MNV   iPe       01 14 32.6                  ScP 20 29
        FRI   ePe       01 14 32.9                  ScP 20 30
        PRI   eP        01 14 36.0                  PcP 16 51   ScP 20 32
        JAS   iPe       01 14 42.2                    e 15 49   PcP 16 52   ScP 20 34
        SAO   eP        01 14 42.2                  ScP 20 35
        MHC   ePe       01 14 47.0                  ScP 20 37
        BKS   ePe       01 14 51.2  20 42           ScP 20 38   Lq 23 48    Lr 26 40
                          MICRON     PERIOD
                     PZ     0.09        1.0
        MIN   ePe       01 14 58.5                  ScP 20 41
        WDC   iPe       01 15 02.4                    e 16 09   ScP 20 44
        FBC   iPe       01 15 13.7                  ScP 20 50
                USGS 01 07 22.4, 12.8N,  87.1W, h= 76 km, mb=5.4
                     NEAR THE COAST OF NICARAGUA

JUN 01  WDC   eP        04 36 22.0
        JAS   eP        04 36 26.9
        MNV   eP        04 36 37.5
                USGS 04 23 36.1,  0.1S, 151.1E, h= 33 km, mb=5.7, Ms=5.1
                     NEW IRELAND REGION

JUN 01  WDC   ePKPe     04 49 01.9                  i 49 11
        MIN   ePKPe     04 49 03.5
        MNV   ePKP      04 49 08.5
        BKS   ePKP      04 49 09                    Lq 59 28    Lr 04 08
                          MICRON     PERIOD
                     PKPZ   0.04        1.0
        JAS   ePKPe     04 49 11.2
        MHC   e(PKP)    04 49 12
        SAO   e(PKP)    04 49 14
        FRI   e(PKP)    04 49 15
        PRI   e(PKP)    04 49 16
                USGS 04 29 25.8,  7.1S,  68.0E, h= 33 km, mb=5.3, Ms=5.1
                     CHAGOS ARCHIPELAGO REGION

JUN 01  PRI   eP        09 15 14.4
        BKS   eP        09 15 14.5
                          MICRON     PERIOD
                     PZ     0.02        0.7
        MHC   eP        09 15 15.0
        JAS   ePe       09 15 20.0
        WDC   ePe       09 15 21.9
        MIN             09 15                       e 15 24
        MNV   ePe       09 15 28.5
                USGS 09 03 49.9, 23.6S, 179.9W, h=524 km, mb=4.9
                     SOUTH OF FIJI ISLANDS

JUN 01  FBC   iPe       18 38 36.7  38 47
        WDC   iPd       18 38 51.4
        MIN   iPd       18 39 01.1  39 30
        BKS   iPe       18 39 10.2                  P• 39 15
        MHC   eP        18 39 20.4
        JAS   iPe       18 39 26.0  40 18
        SAO   iPd       18 39 26.7  40 20
        FRI   iPd       18 39 41.1
                BRK  18 38 20.9, 40.3N, 124.8W, h=  5 km, ML=4.0
                     OFF COAST SOUTHWEST OF EUREKA, CALIFORNIA

JUN 02  SAO   iPe       02 51 03.4
        PRI   eP        02 51 14.1                  i 51 27
        MHC   eP        02 51 14.8
        JAS   iPe       02 51 26.2  51 45
        BKS   iPe       02 51 28.6  51 47
                BRK  02 51 00.2, 36.6N, 121.3W, h=  6 km, ML=2.9
                     STONE CANYON, CALIFORNIA

JUN 02  FBC   eP        11 43 08.2
        WDC   ePe       11 43 12.9
        BKS   ePe       11 43 13.8  53 45       SS 00 36    Lq 07 45    Lr 09 44
                          MICRON     PERIOD
                     PZ     0.09        1.0
                     LZ      1.3         20
                     LN        0         20
                     LE      3.2         20
        MIN   eP        11 43 15.7
        MHC   eP        11 43 16.0
        SAO   eP        11 43 16.7
        PRI   eP        11 43 20.0
        JAS   eP        11 43 20.0
        FRI   eP        11 43 22.0
        MNV   eP        11 43 28.0
                Ms=5.7, DISTANCE=88°
                USGS 11 30 06.2,  1.0S, 146.5E, h= 22 km, mb=5.9, Ms=5.3
                     ADMIRALTY ISLANDS REGION

JUN 02  FBC   ePe       20 44 06.7
        WDC   ePe       20 44 14.5
        MIN   ePe       20 44 21.0                  e 48 23
        BKS   eP        20 44 50.5  47 15
        JAS   ePe       20 44 54.0
        MNV   eP        20 44 58
        MHC   eP        20 44 58
        SAO   eP        20 45 07
        FRI             20 45
        PRI   eP        20 45 17                    e 45 12
                USGS 20 41 43.7, 50.2N, 127.7W, h= 21 km, mb=5.1, Ms=5.2
                     VANCOUVER ISLAND REGION

JUN 03  PRI   eP        05 48 57
        MNV   eP        05 49 06.0
        JAS   eP        05 49 13
        MHC   eP        05 49 16
        BKS   eP        05 49 26
        WDC   eP        05 49 47    53 00           Lq 53 36    Lr 54 42
        MIN             05 49
        FBC   e(P)      05 49 58                    e 49 48
                USGS 05 45 06.2, 23.4N, 108.4W, h= 33 km, mb=4.7, Ms=4.9
                     GULF OF CALIFORNIA

JUN 03  FBC   eP        09 44 48.0
        WDC   iPe       09 44 54.0
        MIN   ePe       09 44 58.2
        JAS   ePe       09 45 12.7
        MNV   ePe       09 45 19.7
                USGS 09 34 37.5, 44.6N, 146.6E, h=150 km, mb=4.6
                     KURIL ISLANDS

JUN 03  WDC   ePd       11 08 37.5
                USGS 10 56 42.1, 21.1S,  68.7W, h= 88 km, mb=4.2
                     CHILE-BOLIVIA BORDER REGION

JUN 03  FBC   eP
        WDC   ePe       11 57 01.0
        MIN   ePe       11 57 08.9
        BKS   eP        11 57 14.9
        JAS   ePe       11 57 45.4
        MHC   eP        11 57 48.3
        MNV   ePe       11 57 52.7
        SAO             11 57 53.2
        PRI   eP        11 58
                        11 58 11.5                  • 58 04
                USGS 11 54 39.1, 50.3N, 127.6W, h= 30 km, mb=4.6, Ms=4.3
                     VANCOUVER ISLAND REGION

JUN 03  WDC             18 26
        JAS   ePKPe     18 26
        MHC   ePKP      18 26 48.5                  • 26 44     e 29 48
        PRI   ePKPe     18 26 50.6
        FRI   ePKP      18 26 55.2
        MNV   iPKPe     18 26 57.4
                USGS 18 07 22.0, 16.2S,  93.0E, h= 33 km, mb=5.5
                     SOUTH INDIAN OCEAN

JUN 03  MNV   eP        18 58 14.0
        JAS   eP        18 58 23.0
        WDC   e(P)      18 58 44
        FBC   eP        18 58 53.0
                USGS 18 49 54.6,  6.2N,  82.3W, h= 33 km, mb=4.9
                     SOUTH OF PANAMA
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JUN 03  FHC  e(P)  20 15 48
        WDC  eP    20 15 53.5
        MIN        20 15                 e 15 57
        BKS  e(P)  20 16 08    26 05     Lq 37 20     Lr 41 00
        JAS  eP    20 16 09.0
        MNV  eP    20 16 15.5
        PRI        20 16                 e 16 23
                   USGS 20 03 52.5, 35.1N, 132.6E, h=  4 km, mb=5.2, Ms=4.9
                        SOUTHERN HONSHU, JAPAN

JUN 03  FHC        21 32                 e 32 52
        WDC  eP    21 32 57.5            e 34 57
        JAS  eP    21 33 13.5
        MNV  eP    21 33 19.5
                   USGS 21 20 56.8, 35.1N, 132.6E, h=  5 km, mb=5.2, Ms=4.9
                        SOUTHERN HONSHU, JAPAN

JUN 03  MNV  eP    23 58 27.0
        PRI        23 58                 e 58 32
        JAS        23 58                 e 58 36
        BKS  eP    23 58 50.5  02 20     Lq 03 05     Lr 03 45
        WDC        23 59                 e 59 05
                   USGS 23 54 29.1, 23.7N, 108.1W, h= 33 km, mb=4.3
                        GULF OF CALIFORNIA

JUN 04  FHC        19 44                 e 44 02   PKKP 00 28
        WDC  eP    19 44 03.3            PP 48 07  PKKP 00 27
        MIN  eP    19 44 04.8
        MNV  eP    19 44 14.5          PKKP 00 22
        JAS  eP    19 44 16.0            PP 48 28  PKKP 00 20
        MBC        19 44                 e 44 20
                   USGS 19 30 23.4, 40.4N,  63.6E, h= 33 km, mb=6.0, Ms=5.1
                        UZBEK, S.S.R.

JUN 05  FHC  ePe   07 14 41.0
        WDC  ePe   07 14 47.2
        MIN  eP    07 14 52.0
        JAS  ePe   07 15 11.0
                   USGS 07 05 56.3, 60.1N, 160.3E, h= 33 km, mb=5.1, Ms=4.2
                        EASTERN SIBERIA

JUN 05  FRI  eP    16 04 13.7                 i 06 16
        SAO  eP    16 04 20.0
        MNV  iPd   16 04 21.8
        BKS  eP    16 04 40.2
                   ML=4.7, SOUTH OF PALM SPRINGS, CALIFORNIA
                   PAS  16 03 03.8, 33.4N, 116.7W, h= 12 km, ML=4.4
                        SOUTHERN CALIFORNIA

JUN 06  FHC  eP    04 07 45.5
        WDC  iPe   04 07 52.3                 i 08 05
        MIN  eP    04 07 56.8                 e 08 10
        BKS  eP    04 08 06.2  15 44       pP 08 20    PcP 08 53     SS 19 30
                                           Lq 22 00     Lr 24 10
        MBC  eP    04 08 11.1                 e 08 24
        JAS  iPe   04 08 13.4
        SAO        04 08                      e 08 14     e 08 34
        FRI  eP    04 08 20.4
        MNV  iPe   04 08 20.7                 i 08 34
        PRI  eP    04 08 21.1
                   USGS 03 58 33.0, 51.2N, 157.6E, h= 66 km, mb=5.4
                        NEAR THE EAST COAST OF KAMCHATKA

JUN 07  FRI  ePd   14 20 30.9
        FRI  ePd   14 20 32.5
        MNV  iPd   14 20 32.6
        JAS  iPd   14 20 37.8
        MBC  ePd   14 20 40.0
        BKS  eP    14 20 43.9
        WDC  iPd   14 20 52.0
        FHC  ePd   14 20 59.2
                   USGS 14 08 46.5, 23.6S,  67.8W, h=114 km, mb=5.3
                        CHILE-ARGENTINA BORDER REGION

JUN 07  MNV  ePe   17 35 20.7
        JAS  eP    17 35 24.2
        WDC  eP    17 35 31.1

JUN 08  WDC  iPd   16 14 26.9
        MIN  eP    16 14 30.6
        BKS  eP    16 14 34.3
                        MICRON     PERIOD
                   PZ     0.06        0.9
        MBC        16 14                      e 14 38
        JAS  eP    16 14 40.9
        FRI        16 14                      e 14 44
        PRI        16 14                      e 14 46
                   USGS 16 02 45.0, 29.6N, 141.2E, h= 66 km, mb=5.3
                        SOUTH OF HONSHU, JAPAN

JUN 09  MNV        07 45                      i 45 00     i 45 37
        PRI        07 45                      e 45 02
        JAS        07 45                      e 45 08     e 45 44
        MIN        07 45                      e 45 22
        WDC  iPd   07 45 24.7
        FHC  eP    07 45 33.6                 e 46 11
                   USGS 07 34 58.8,  7.8S,  74.5W, h=152 km, mb=4.5
                        PERU-BRAZIL BORDER REGION

JUN 09  PRI  eP    18 16 29.6
        MNV  eP    18 16 31.0
        JAS  ePe   18 16 35.2
        MBC  eP    18 16 37.0
        BKS  eP    18 16 40.6
        WDC  ePe   18 16 49.0
        FHC  eP    18 16 55.6
                   USGS 18 04 24.3, 29.4S,  69.5W, h=106 km, mb=5.2
                        CHILE-ARGENTINA BORDER REGION

JUN 09  FHC        22 14                      e 14 40
        WDC  e(P)  22 14 48
        JAS        22 15                      e 15 20
        MNV        22 15                      e 15 28
                   USGS 22 08 11.0, 52.4N, 168.7W, h= 33 km, mb=4.9, Ms=4.1
                        FOX ISLANDS, ALEUTIAN ISLANDS

JUN 09  MBC  iPe   22 18 19.2  18 21
        BKS  ePd   22 18 29.5  18 40
        SAO  iPd   22 18 30.7
        JAS  ePe   22 18 39.3  18 56
                   BRK  22 18 17.3, 37.4N, 121.8W, h=  2 km, ML=2.8
                        EAST OF SAN JOSE, CALIFORNIA

JUN 10  FHC  ePKP  17 56 10.5
        WDC  ePKP  17 56 12.0
        MIN  ePKP  17 56 13.8
        MBC  ePKP  17 56 15.0
        JAS  ePKP  17 56 17.1
        MNV  ePKP  17 56 20.5
                   USGS 17 38 19.9,  6.1S, 114.2E, h=520 km, mb=5.5
                        BALI SEA

JUN 10  FHC  eP    19 40 27
        WDC  eP    19 40 32
        MIN  eP    19 40 37
        JAS  eP    19 41 00
                   USGS 19 35 10.2, 60.3N, 146.4W, h= 20 km, mb=4.8
                        SOUTHERN ALASKA

JUN 11  FHC  eP    03 09 49.7
        WDC  iPe   03 09 50.8
        MIN  ePe   03 09 52.8
        BKS  eP    03 10 04.2
                        MICRON     PERIOD
                   PZ     0.06        0.7
        MNV  iPe   03 10 05.1
        JAS  iPe   03 10 05.4
        MBC  eP    03 10 07.4
        SAO  eP    03 10 09.8
        FRI  eP    03 10 10.2
        PRI  eP    03 10 14.2
                   USGS 02 56 57.7, 49.9N,  78.8E, h=  0 km, mb=5.9, Ms=4.4
                        NUCLEAR EXPLOSION, EASTERN KAZAKH, S.S.R.

JUN 11  SAO  eP    14 39 13.3
        BKS  eP    14 39 14.3  48 30
                        MICRON     PERIOD
                   PZ     0.20        0.9
        PRI  eP    14 39 15.0
        MBC  eP    14 39 15.3
        FHC  eP    14 39 19.5
        FRI  eP    14 39 20.9
        JAS  ePe   14 39 21.4
        WDC  ePe   14 39 23.2
        MIN  eP    14 39 25.3
        MNV  ePe   14 39 29.7
                   USGS 14 27 55.3, 15.3S, 173.5W, h= 33 km, mb=5.6, Ms=6.2
                        TONGA ISLANDS

JUN 11  FHC  eP    14 57 41.0
        WDC  iPd   14 57 51.5
        MIN  eP    14 57 59.0
        BKS  eP    14 58 24.5  00 10
        JAS  ePd   14 58 32.8
        MBC  eP    14 58 33.9
        SAO        14 58                      e 58 40
        MNV  eP    14 58 41.3
        FRI        14 58                      e 58 47
        PRI  eP    14 58 53.3
                   USGS 14 55 25.5, 49.3N, 129.5W, h= 10 km, mb=5.3, Ms=6.1
                        VANCOUVER ISLAND REGION

JUN 11  WDC  eP    19 08 43.6  08 55          i 08 44
        MIN  eP    19 08 45.2  08 58          i 08 47
        FHC  eP    19 08 57.4
                   BRK  19 08 26.0, 41.4N, 121.9W, h=  2 km, ML=3.2
                        EAST OF MT. SHASTA, CALIFORNIA

JUN 11  WDC  iPe   20 12 21.3
        MIN  eP    20 12 22.5
        FHC  ePd   20 12 34.8
                   BRK  20 12 03.9, 41.4N, 121.9W, h=  2 km, ML=3.5
                        EAST OF MT. SHASTA, CALIFORNIA

JUN 12  WDC  ePKP  00 25 19.9
        MIN        00 25                      e 25 22
        MBC        00 25                      e 25 26
        JAS  ePKP  00 25 26.7
                   USGS 00 06 18.9,  5.1S, 102.8E, h= 33 km, mb=5.7, Ms=5.3
                        SOUTHERN SUMATERA

JUN 12  WDC  iP    03 03 53.4
        MIN  eP    03 03 54.4
        FHC  eP    03 04 07.9
                   BRK  03 03 35.2, 41.5N, 121.9W, h=  2 km, ML=3.0
                        EAST OF MT. SHASTA, CALIFORNIA

JUN 12  FHC  eP    08 17 14.0               pP 17 28
        WDC  ePe   08 17 19.0               pP 17 34
        MIN  ePe   08 17 23.6               pP 17 38
        BKS  eP    08 17 29.6               pP 17 43
                        MICRON     PERIOD
                   PZ     0.02        0.8
        MBC  eP    08 17 33.2               pP 17 48
        JAS  ePe   08 17 36.2               pP 17 51
        PRI  eP    08 17 42.0               pP 17 55
        FRI  eP    08 17 42.2               pP 17 57
        MNV  ePe   08 17 43.5               pP 17 58
                   USGS 08 06 10.9, 38.2N, 142.0E, h= 45 km, mb=5.7, Ms=5.5
                        NEAR THE EAST COAST OF HONSHU, JAPAN

JUN 12  FHC  eP    08 25 29.6                    i 25 48 PKPPKP 53 46     T 40 00
        WDC  ePe   08 25 35.1                    i 25 40 PKPPKP 53 37
        MIN  eP    08 25 39.2                 PKPPKP 53 37
        BKS  eP    08 25 45.5  35 04           e 26 05     SS 39 12     SSS 42 25
                                              PKPPKP 53 34     T 44 00
                        MICRON     PERIOD
                   PZ     0.18        1.0
                   LZ     164         20
                   LN      72         20
                   LE     164         20
        MBC  eP    08 25 49.7
        JAS  iPe   08 25 52.3
        SAO  eP    08 25 52.6                 T 44 00
        FRI  eP    08 25 58.0
        PRI  eP    08 25 58.0                 T 46 00
        MNV  ePe   08 25 59.2
                   Ms=7.2, DISTANCE=70°
                   USGS 08 14 26.4, 38.2N, 142.0E, h= 44 km, mb=6.8, Ms=7.7
                        NEAR THE EAST COAST OF HONSHU, JAPAN

JUN 12  WDC  iP    09 19 02.0
        MIN  eP    09 19 03.5
        FHC  eP    09 19 15.7
        JAS        09 19 51.4
                   BRK  09 18 44.1, 41.5N, 121.9W, h=  2 km, ML=3.8
                        EAST OF MT. SHASTA, CALIFORNIA

JUN 12  FHC  eP    09 23 57.9               pP 24 10
        WDC  eP    09 24 03.8               pP 24 16
        MIN  eP    09 24 07.7
        BRK  eP    09 24 13.4
        JAS  eP    09 24 20.9
                   USGS 09 12 56.9, 38.5N, 142.2E, h= 44 km, mb=5.4
                        NEAR THE EAST COAST OF HONSHU, JAPAN

JUN 12  FHC  eP    09 51 32.7
        WDC  eP    09 51 38.4
        MIN  eP    09 51 42.3
        BRK  eP    09 51 48.2
        JAS  eP    09 51 55.5
                   USGS 09 40 30.6, 38.5N, 142.0E, h= 46 km, mb=4.9
                        NEAR THE EAST COAST OF HONSHU, JAPAN

JUN 13  BKS        03 04        11 33     SS 15 18     Lq 16 45     Lr 19 00
                        MICRON     PERIOD
                   LZ     5           20
                   LN     5           20
                   LE     1.1         20
        JAS  eP    03 03 58.0
        MNV  eP    03 03 59.5
        WDC  eP    03 04 18.5
                   Ms=5.5, DISTANCE=54°
                   USGS 02 54 51.4, 13.4S, 111.3W, h= 33 km, mb=4.8, Ms=5.8
                        NORTHERN EASTER ISLAND CORDILLERA

JUN 13  BKS        04 30                      pP 30 43
        MBC        04 30                       e 30 01     pP 30 45
        PRI        04 30                      pP 30 47
        WDC  eP    04 30 00.6                 pP 30 48
        MIN  eP    04 30 02.7                 pP 30 50
        JAS  eP    04 30 04                   pP 30 50
        FRI        04 30                      pP 30 51
        MNV  e(P)  04 30 14                   pP 31 00
                   USGS 04 17 51.2, 13.1S, 167.0E, h=193 km, mb=5.4
                        NEW HEBRIDES ISLANDS
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JUN 13 FHC iPd 18 35 47.6
WDC iPd 18 35 52.3
MIN iPd 18 35 55.9
BKS ePd 18 36 01.9
MICRON PERIOD
PZ 0.14 0.8
MHC ePd 18 36 05.8
SAO eP 18 36 07.5
JAS iPd 18 36 08.0
PRI ePd 18 36 13.2
FRI eP 18 36 13.3
MNV iPd 18 36 14.5
USGS 18 24 43.8, 35.4N, 135.6E, h=366 km, mb=4.8
SOUTHERN HONSHU, JAPAN

JUN 13 FHC eP 23 28 06 pP 28 18
WDC ePc 23 28 11.8 pP 28 24
BRK 23 28 pP 28 35
MHC 23 28 pP 28 39
JAS eP 23 28 30.1 pP 28 42
MNV ePc 23 28 37.2 pP 28 49
USGS 23 17 32.5, 42.9N, 145.4E, h= 41 km, mb=5.3, Ms=4.5
HOKKAIDO, JAPAN, REGION

JUN 13 FHC eP 23 50 26.6
WDC iPc 23 50 31.8
BKS eP 23 50 35.8
MICRON PERIOD
PZ 0.05 0.8
MHC ePc 23 50 39.0
JAS ePc 23 50 42.7
PRI ePc 23 50 44.5
FRI ePc 23 50 46.4
MNV iPc 23 50 50.7
USGS 23 38 15.8, 13.9N, 144.5E, h=108 km, mb=5.0
MARIANA ISLANDS

JUN 14 FHC eP 11 45 24.0
WDC eP 11 45 27.5 pP 45 39
MIN eP 11 45 31.2
BKS eP 11 45 37 54 56 SS 59 20 SSS 02 40 Lr 06 48
MICRON PERIOD
LZ 9 20
LN 2.9 20
LE 8 20
MHC eP 11 45 41.5
JAS eP 11 45 44.0
PRI eP 11 45 49.5
FRI eP 11 45 50.0
MNV eP 11 45 51.5 pP 46 03
Ms=5.9, DISTANCE=72°
USGS 11 34 20.0, 38.3N, 142.4E, h= 40 km, mb=6.0, Ms=6.3
NEAR THE EAST COAST OF HONSHU, JAPAN

JUN 14 WDC ePdif 12 46 29.5 PP 51 00
BKS ePdif 12 46 38 PP 50 59 SKS 57 24 PS 00 12
SS 05 12 SSS 09 36 Lq 14 50
Lr 21 00
MICRON PERIOD
LZ 29 20
LN 11 20
LE 29 20
JAS 12 46
MNV ePdif 12 46 50.7 PP 51 10
Ms=6.7, DISTANCE=104°
USGS 12 32 33.9, 8.2N, 122.4E, h= 24 km, mb=6.1, Ms=6.9
MINDANAO, PHILIPPINE ISLANDS

JUN 14 WDC ePdif 13 48 04.5
MHC 13 48 PP 52 15
JAS 13 48 PP 52 29
PP 52 33
USGS 13 34 09.6, 8.2N, 122.4E, h= 79 km, mb=5.9
MINDANAO, PHILIPPINE ISLANDS

JUN 15 MNV iPc 00 51 31.5
JAS eP 00 51 41.8
MHC 00 51
WDC ePc 00 51 50.3 • 51 49
USGS 00 40 11.2, 10.8N, 43.2W, h= 33 km, mb=5.0, Ms=4.6
NORTH ATLANTIC RIDGE

JUN 15 FHC ePc 03 29 43.7
WDC iPc 03 29 48.6
MIN ePc 03 29 52.4
BKS eP 03 30 00.6
MICRON PERIOD
PZ 0.03 0.6
JAS ePc 03 30 06.1
SAO 03 30
FRI eP 03 30 12 • 30 07
MNV iPc 03 30 12.1
PRI eP 03 30 13
USGS 03 19 09.5, 43.3N, 135.4E, h=375 km, mb=5.2
NEAR THE EAST COAST OF EASTERN U.S.S.R.

JUN 15 MNV eP 08 26 48.0
FRI eP 08 26 48.9
PRI eP 08 26 51.5
JAS eP 08 26 58.5
SAO e(P) 08 27 00
MHC eP 08 27 02.4
BKS eP 08 27 09 PP 29 06 SeS 37 00 SS 38 00
34 11 • 41 54 Lr 41 00
MICRON PERIOD
PZ 0.10 1.1
LZ 7 20
LN 6 20
LE 5 20
MIN eP 08 27 13.6
WDC eP 08 27 17.3
FHC ePc 08 27 29.7
Ms=5.5, DISTANCE=49°
USGS 08 18 31.3, 6.1N, 82.7W, h= 33 km, mb=5.3, Ms=5.7
SOUTH OF PANAMA

JUN 15 FHC ePc 09 39 08.1
WDC ePc 09 39 14.0 • 39 26
MIN eP 09 39 18.4 • 39 32
BKS 09 39 • 39 36
JAS eP 09 39 33.2 • 39 44
MNV ePc 09 39 40.6 • 39 51
• 39 58
USGS 09 28 57.2, 44.0N, 149.2E, h= 63 km, mb=5.6
KURIL ISLANDS

JUN 15 FHC 15 14
WDC eP 15 14 48.9 • 14 55
MIN 15 14 • 15 00
BKS 15 15 24 18 • 15 08
• 15 11
Lr 36 26 • 24 56 Lq 33 36
MICRON PERIOD
LZ 1.2 20
LN 0.7 20
LE 1.3 20
JAS 15 15 • 15 17
MNV 15 15 • 15 24
Ms=5.3, DISTANCE=74°
USGS 15 03 38.7, 39.0N, 141.8E, h= 42 km, mb=5.4, Ms=5.4
NEAR THE EAST COAST OF HONSHU, JAPAN

JUN 16 PRI eP 04 21 59.8
FRI iPd 04 22 04.8
SAO eP 04 22 11.4
MHC eP 04 22 19.6
JAS iPd 04 22 21.1
MNV eP 04 22 27.8
ML=4.4, FORT TEJON AREA, CALIFORNIA
PAS 04 21 31.9, 35.0N, 119.1W, h= 5 km, ML=4.1
CENTRAL CALIFORNIA

JUN 16 WDC eP 05 44 39.8
BKS eP 05 44 43 54 00 • 56 06
Lq 01 00 Lr 03 25 SS 56 20
MICRON PERIOD
LZ 0.8 18
LN 2.8 18
LE 1.6 18
MIN 05 44
JAS 05 44 • 44 45
PRI 05 45 • 44 58
MNV eP 05 45 04.5 • 45 08
Ms=5.6, DISTANCE=67°
USGS 05 33 32.0, 38.2N, 143.3E, h= 34 km, mb=5.5, Ms=5.6
OFF THE EAST COAST OF HONSHU, JAPAN

JUN 16 MNV eP 11 50 34.5
JAS eP 11 50 52.5 • 54 49
• 55 03
USGS 11 46 54.2, 33.0N, 100.8W, h= 10 km, mb=4.4
WEST TEXAS

JUN 17 PRI eP 08 58 40.9
JAS eP 08 58 49.9
MNV eP 08 58 50.0
BKS 08 59 • 59 05
• 08 42 • 06 42
• 19 30 • 13 18 • 07 32
• 23 18 • 17 27
WDC eP 08 59 05.6
USGS 08 47 03.7, 36.1S, 100.6W, h= 33 km, mb=5.1, Ms=4.6
SOUTHERN PACIFIC OCEAN

JUN 17 JAS e(P) 14 32 54
WDC eP 14 32 55.9 • 33 00
MNV eP 14 33 03.8 • 33 02
• 33 10
USGS 14 21 22.3, 17.6S, 174.3W, h=105 km, mb=4.9
TONGA ISLANDS

JUN 17 SAO eP 15 22 54.5
BKS ePd 15 22 56.1 32 24 SeS 32 56 • 35 00
SSS 40 34 Lq 41 19 SS 36 33
Lr 44 10
MICRON PERIOD
PZ 1.4 1.6
LZ 110 20
LN 110 20
LE 25 20
PRI ePd 15 22 56.1
MHC ePd 15 22 56.7
FHC eP 15 23 01.8
FRI eP 15 23 02.1
JAS iPd 15 23 02.9 PKPPKP 50 45
WDC ePd 15 23 05.0 PKPPKP 50 48
MIN ePd 15 23 06.8
MNV ePd 15 23 12.9
Ms=7.2, DISTANCE=72°
USGS 15 11 33.5, 17.1S, 172.3W, h= 33 km, mb=6.6, Ms=7.0
TONGA ISLANDS REGION

JUN 17 BKS eP 15 42 35.0
MICRON PERIOD
PZ 0.02 0.8
PRI eP 15 42 37.5
MHC eP 15 42 38.3
JAS eP 15 42 44.4
WDC eP 15 42 46.5
MIN e(P) 15 42 48
USGS 15 31 15.0, 17.1S, 172.1W, h= 33 km
TONGA ISLANDS REGION

JUN 17 JAS eP 16 21 49.8
WDC eP 16 21 52.2
TONGA ISLANDS REGION

JUN 17 PRI eP 17 13 44.7
MNV eP 17 13 44.9
JAS eP 17 13 49.8
MHC eP 17 13 52.1
WDC eP 17 14 03.9
FHC eP 17 14 11.5
USGS 17 01 56.6, 24.4S, 68.2W, h=115 km, mb=5.0
CHILE-ARGENTINA BORDER REGION

JUN 17 SAO eP 23 23 31.8
BKS eP 23 23 33.0
MICRON PERIOD
PZ 0.21 1.2
PRI ePc 23 23 33.1
MHC ePc 23 23 33.5
FHC ePc 23 23 37.6
FRI ePc 23 23 38.1
JAS iPc 23 23 38.7
WDC iPc 23 23 40.7
MIN iPc 23 23 42.1 pP 25 34
MNV iPc 23 23 47.3
pP 25 43
USGS 23 12 11.0, 23.1S, 179.6W, h=523 km, mb=5.6
SOUTH OF FIJI ISLANDS

JUN 18 WDC eP 01 04 38
JAS eP 01 05 24
USGS 01 03 45.3, 42.7N, 126.3W, h= 15 km, mb=4.3
OFF THE COAST OF OREGON

JUN 18 BKS 02 00
MHC 02 00 • 00 09
JAS eP 02 00 14.5 • 00 10
WDC eP 02 00 16.5

JUN 18 MNV iPd 02 29 15.5
MHC eP 02 29 31.0
MIN e(P) 02 29 39
WDC ePd 02 29 41.7
FHC eP 02 29 52.5
USGS 02 20 24.8, 6.8N, 73.0W, h=165 km, mb=4.8
NORTHERN COLOMBIA

JUN 18 FHC iPc 23 05 13.0 05 27
WDC iPc 23 05 27.7
MIN ePc 23 05 37.5
BKS eP 23 05 45.6 06 26
MHC e(P) 23 05 56
JAS iPc 23 06 02.5
SAO ePd 23 06 02.5
FRI e(P) 23 06 16
BRK 23 04 52.7, 40.3N, 125.3W, h= 5 km, ML=4.2
OFF COAST SOUTHWEST OF EUREKA, CALIFORNIA

JUN 19 FHC iPd 12 51 05.2 51 14
WDC iPd 12 51 17.5 51 35
MIN eP 12 51 27.5 51 52
BKS eP 12 51 38.2
MHC eP 12 51 48.3
SAO iPc 12 51 54.7
BRK 12 50 54.1, 40.3N, 124.3W, h= 20 km, ML=3.5
SOUTH OF EUREKA, CALIFORNIA

JUN 20 MIN 20 16
WDC ePc 20 16 • 16 38
MNV 20 16 38.5 • 20 20
JAS ePc 20 16 • 20 22
FRI eP 20 16 47.0 • 20 36
BKS eP 20 16 49.6
20 16 50.4 27 31 PP 20 45
• 32 00 • 28 14
Lq 44 14 SSS 33 50 PS 29 10
Lr 48 40 • 35 22
MICRON PERIOD
PZ 0.05 1.2
LZ 14 20
LN 16 20
LE 13 20
MHC eP
PRI eP 20 16 51.9
20 16 55.4 • 20 41
Ms=6.6, DISTANCE=99°
USGS 20 03 21.0, 40.7N, 23.2E, h= 3 km, mb=6.1, Ms=6.4
GREECE

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International Seismological Centre

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JUN 21  FBC          11 05                    e 05 40
        WDC   eP     11 05 31.0               e 05 44
        MIN   eP     11 05 35.0               e 05 49
        BKS          11 05          15 00     e 05 55
        MHC          11 05                    e 05 59
        JAS   eP     11 05 48.3               e 06 02
        FRI   eP     11 05 54.0               e 06 08
        PRI   eP     11 05 54.0               e 06 08
        MNV   eP     11 05 55.2               e 06 09
                     USGS 10 54 22.6, 38.3N, 141.7E, h= 52 km, mb=5.7
                          NEAR THE EAST COAST OF HONSHU, JAPAN

JUN 21  FBC   ePc    11 20 05.5
        WDC   iPc    11 20 11.7          PcP 20 51     pP 21 38     sP 22 30
                                       PKPPKP 49 24
        MIN   ePc    11 20 15.3            pP 21 44
        BKS   iPc    11 20 23.8  27 14     PcP 21 00     pP 21 46     sP 22 28
                                            PP 22 46    PPP 24 23    PcS 25 00
                                           ScS 29 10     SS 32 26    SSS 35 00
                                             e 36 00      e 37 32
                          MICRON    PERIOD
                     PZ     0.16       0.8
        MHC   ePc    11 20 28.6          PcP 21 03     pP 22 00     sP 22 42
                                       PKPPKP 49 20
        JAS   iPc    11 20 30.6          PcP 21 05     pP 21 58     sP 22 43
                                       PKPPKP 49 20
        SAO   eP     11 20 31.5
        FRI   ePc    11 20 37.2            pP 22 08     sP 22 48
        MNV   iPc    11 20 37.3       PKPPKP 49 30
        PRI   ePc    11 20 38.1             e 20 47     pP 22 10
                     mb=5.5, DISTANCE=59°
                     USGS 11 10 38.2, 48.3N, 148.6E, h=377 km, mb=5.9
                          NORTHWEST OF KURIL ISLANDS

JUN 22  FBC   eP     05 48 53.5
        WDC   eP     05 49 01.5                i 49 14
        MIN   eP     05 49 07.0
        BKS   eP     05 49 15.5
                          MICRON    PERIOD
                           0.03       0.8
        MHC          05 49                    e 49 22
        JAS   eP     05 49 24.9
        MNV   eP     05 49 33.5
        PRI   e(P)   05 49 34
                     USGS 05 41 27.7, 51.6N, 179.4W, h= 33 km, mb=4.8, Ms=5.9
                          ANDREANOF ISLANDS, ALEUTIAN ISLANDS

JUN 22  SAO   iPd    06 04 33.8
        MHC   ePc    06 04 37.6  04 44
        BKS   eP     06 04 49.4  05 06
        PRI   eP     06 04 49.4
        JAS   eP     06 04 52.0  05 10
        FRI   eP     06 04 53.9
                     BRK  06 04 29.1, 37.0N, 121.4W, h= 12 km, ML=2.7
                          NORTH OF HOLLISTER, CALIFORNIA

JUN 23  PRI   eP     12 55 01.3
        MNV   e(P)   12 55 04
        JAS   eP     12 55 06.6
        MHC   eP     12 55 09
        BKS   eP     12 55 09.7
                          MICRON    PERIOD
                     PZ     0.02       1.0
        MIN   eP     12 55 18.6
        WDC   eP     12 55 21.1
                     USGS 12 43 20.9, 22.7S,  69.3W, h= 88 km, mb=5.0
                          NORTHERN CHILE

JUN 24  BKS   eP     06 33 09.1
        PRI   eP     06 33 09.3
        MHC   eP     06 33 09.5
        JAS   e(P)   06 33 15
        WDC   eP     06 33 16.8
        MIN   eP     06 33 18.5
        MNV   eP     06 33 24.0
                     USGS 06 22 05.6, 20.5S, 178.2W, h=571 km, mb=4.6
                          FIJI ISLANDS REGION

JUN 24  MNV   eP     06 48 25.0
        PRI   eP     06 48 25.8
        JAS   eP     06 48 31.3
        MHC   eP     06 48 34.3
        BKS   eP     06 48 38.2                e 01 00      e 05 30      e 14 00
                          MICRON    PERIOD
                     PZ     0.02       0.7
        MIN   eP     06 48 44.4
        WDC   iPd    06 48 46.9
                     USGS 06 37 35.0, 14.9S,  70.7W, h=177 km, mb=4.8
                          PERU

JUN 24  FBC   ePKP   09 50 44
        WDC   ePKPc  09 50 44.8            PP 52 38
        MIN   ePKPc  09 50 46.2
        BKS   ePKPc  09 50 48.5          Pdif 47 30     PP 52 40    SKS 58 00
                                           SP 02 30      e 04 15     SS 10 30
                                          SSS 15 15
                          MICRON    PERIOD
                     LZ     5          20
                     LN     2.1        20
                     LE     4.3        20
        MHC   ePKP   09 50 50.0
        JAS   ePKPc  09 50 50.5
        PRI   ePKP   09 50 53.0
        MNV   ePKPc  09 50 53.6
                     Ms=6.2, DISTANCE=129°
                     USGS 09 31 42.7,  5.1S, 102.3E, h= 33 km, mb=6.0, Ms=6.4
                          SOUTHERN SUMATERA

JUN 24  FBC   ePKP   09 54 18.9
        WDC   ePKP   09 54 19.9
        MIN   ePKP   09 54 21
        BKS   ePKP   09 54 20                SP 06 00      e 07 30
        MHC   ePKP   09 54 25.2
        JAS   ePKP   09 54 25.7
        PRI   ePKP   09 54 28.0
        MNV   ePKP   09 54 28.5
                     USGS 09 35 17.9,  5.0S, 102.4E, h= 33 km, mb=5.8
                          SOUTHERN SUMATERA

JUN 24  WDC   ePKP   11 20 39.5
        MIN   ePKP   11 20 41.0
        BRK   ePKP   11 20 43
        MHC   ePKP   11 20 44.8
        JAS   ePKP   11 20 45.3
        PRI   ePKP   11 20 48
        MNV   ePKP   11 20 48.5
                     USGS 11 01 37.2,  5.1S, 102.3E, h= 33 km, mb=5.6, Ms=5.2
                          SOUTHERN SUMATERA

JUN 24  SAO   iPd    21 39 37.7
        MHC   iPc    21 39 41.5  39 48
        PRI   ePd    21 39 53.0
        BKS   iPd    21 39 53.3  40 08       Sg 40 10
        JAS   iPd    21 39 56.1  40 11
                     BRK  21 39 33.2, 37.0N, 121.4W, h=  9 km, ML=2.7
                          NORTH OF HOLLISTER, CALIFORNIA

JUN 25  SAO   eP     10 32 59.8
        PRI   eP     10 33 01.4
        BKS   ePd    10 33 01.8  42 20       pP 33 41    SKS 42 52      e 43 52
                          MICRON    PERIOD
                     PZ     0.10       1.0
        MHC   eP     10 33 01.8          pP 33 42
        FBC   eP     10 33 06.0
        JAS   iPd    10 33 07.7          pP 33 49
        WDC   ePd    10 33 09.8          pP 33 50
        MIN   eP     10 33 11.6
        MNV   iPd    10 33 17.9
                     USGS 10 21 45.0, 17.1S, 174.4W, h=159 km, mb=5.5
                          TONGA ISLANDS

JUN 27  SAO   iPd    10 12 18.3
        MHC   iPc    10 12 22.3  12 29
        PRI   eP     10 12 33.5
        BKS   iPc    10 12 34.0  12 49       Sg 12 52
        JAS   iPd    10 12 36.8  12 54
                     BRK  10 12 13.9, 37.0N, 121.4W, h=  9 km, ML=2.8
                          NORTH OF HOLLISTER, CALIFORNIA

JUN 27  PRI   eP     14 56 10.4
        SAO          14 56
        MHC   eP     14 56 10.9                e 56 10
        BKS   ePc    14 56 11.8  05 30         e 56 50      SS 10 00     Lq 14 30
                                               Lr 17 15      e 20 45
                          MICRON    PERIOD
                     PZ     0.04       0.9
                     LZ     3.0        20
                     LN     2.3        20
                     LE     2.1        20
        FRI          14 56                    e 56 16
        JAS   eP     14 56 16.4
        WDC   eP     14 56 19.5
        MIN          14 56                    e 56 24
        MNV   iP     14 56 27.5
                     Ms=5.6, DISTANCE=73°
                     USGS 14 44 45.9, 17.1S, 172.5W, h= 33 km, mb=5.2, Ms=5.4
                          TONGA ISLANDS REGION

JUN 27  WDC   eP     19 21 45.4                pP 21 54
        BKS   eP     19 21 54.3  31 10         e 22 04     Lq 40 00     Lr 44 10
                          MICRON    PERIOD
                     LZ     0.5        20
                     LN     2.5        20
                     LE     1.4        20
        MHC   eP     19 21 59
        JAS   eP     19 22 01.4              pP 22 11
        PRI   eP     19 22 07.0
        MNV   eP     19 22 09.5              pP 22 18
                     Ms=5.5, DISTANCE=75°
                     USGS 19 10 33.3, 37.1N, 142.8E, h= 35 km, mb=5.7, Ms=5.6
                          OFF THE EAST COAST OF HONSHU, JAPAN

JUN 28  PRI   eP     02 13 14.5
        MNV   eP     02 13 24
        JAS   eP     02 13 25
        BKS          02 13       23 00         e 24 00     SS 28 00     Lq 33 30
                                               Lr 37 00
                          MICRON    PERIOD
                     LZ     1.4        20
                     LN     1.3        20
                     LE     0.5        20
        WDC          02 13                    e 13 44
                     Ms=5.3, DISTANCE=78°
                     USGS 02 01 48.2, 35.5S, 104.8W, h= 33 km, mb=4.8, Ms=4.7
                          SOUTHERN PACIFIC OCEAN

JUN 28  FRI   eP     07 39 50.5
        PRI   eP     07 39 51.5
        MNV   eP     07 39 52.5
        JAS   iPd    07 39 57.0
        MHC   eP     07 39 59.0
        BKS   ePd    07 40 02.0
                          MICRON    PERIOD
                     PZ     0.02       0.8
        MIN   eP     07 40 08.4
        WDC   iPd    07 40 11.7
        FBC   eP     07 40 18.0
                     USGS 07 27 52.4, 27.5S,  70.1W, h= 82 km, mb=5.3
                          NEAR THE COAST OF NORTHERN CHILE

JUN 28  SAO   eP     09 55 33.5
        BKS   ePd    09 55 34.0
                          MICRON    PERIOD
                     PZ     0.04       0.8
        MHC   eP     09 55 35.0
        PRI   eP     09 55 35.4
        FBC   eP     09 55 38.0
        FRI   eP     09 55 40.7
        JAS   iPd    09 55 40.9
        WDC   iPd    09 55 41.5
        MIN   eP     09 55 43.7
        MNV   ePd    09 55 50.9
                     USGS 09 44 41.1, 15.4S, 177.9W, h=444 km, mb=4.8
                          FIJI ISLANDS REGION

JUN 28  PRI   eP     11 54 00.5
        BKS          11 54                  pP 54 13
        MHC   eP     11 54 01.0             pP 54 14
        JAS   eP     11 54 06.7             pP 54 20
        WDC   eP     11 54 09.6             pP 54 22
        MIN   eP     11 54 11.2
        MNV   ePc    11 54 16.2             pP 54 29
                     USGS 11 42 08.5, 22.4S, 174.9W, h= 60 km, mb=4.7, Ms=4.6
                          TONGA ISLANDS REGION

JUN 29  FBC   ePc    09 17 41.2
        WDC   iPc    09 17 49.3
        MIN   ePc    09 17 54.6
        BKS   iPc    09 18 04.2
                          MICRON    PERIOD
                     PZ     0.06       0.8
        MHC   ePc    09 18 10.4
        JAS   iPc    09 18 13.8
        SAO   eP     09 18 14.2
        FRI   ePc    09 18 22.0
        MNV   iPc    09 18 22.3                e 18 28
        PRI   ePc    09 18 22.3
                     USGS 09 10 57.6, 52.7N, 173.3W, h=147 km, mb=5.0
                          ANDREANOF ISLANDS, ALEUTIAN ISLANDS

JUN 29  FBC   ePc    11 28 53.2
        WDC   iPc    11 29 09.4
        MIN   eP     11 29 20.4
        BKS   eP     11 29 34.0  30 35
        JAS   e(P)   11 29 52
                     BRK  11 28 10.4, 41.5N, 127.4W, h=  5 km, ML=4.1
                          OFF COAST WNW OF EUREKA, CALIFORNIA

JUN 29  FBC   ePc    11 43 11.7
        WDC   eP     11 43 27.3
        MIN   eP     11 43 38.3
        BKS   eP     11 43 52.5
                     BRK  11 42 25.1, 41.9N, 127.5W, h=  5 km, ML=4.0
                          OFF COAST WNW OF EUREKA, CALIFORNIA

JUN 29  PRI   eP     12 48 45.6                e 49 17
        JAS   ePc    12 48 50.7              pP 49 22
        MHC   eP     12 48 53.0              pP 49 25
        BKS   ePd    12 48 56.0              pP 49 28
        MIN   eP     12 49 02                pP 49 34
        WDC   eP     12 49 05.2              pP 49 37     sP 49 51
        FBC   eP     12 49 12.5
                     USGS 12 37 13.0, 21.1S,  68.5W, h=127 km, mb=4.9
                          CHILE-BOLIVIA BORDER REGION

JUN 29  BKS   ePd    14 07 48.7                e 08 00
                          MICRON    PERIOD
                     PZ     0.09       1.0
        SAO   eP     14 07 49
        MHC   ePd    14 07 49.8
        FBC   ePd    14 07 50.3
        PRI   ePd    14 07 50.7                e 08 02
        WDC   iPd    14 07 53.9                e 08 05
        JAS   iPd    14 07 54.7                e 08 06
        FRI   ePd    14 07 55.1                e 08 06
        MIN   ePd    14 07 55.7                e 08 07
        MNV   iPd    14 08 03.3
                     USGS 13 55 03.6, 20.2S, 168.2E, h= 33 km, mb=5.6, Ms=4.8
                          LOYALTY ISLANDS
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JUN 30  FHC  eP     12 48 23.0
        WDC  iPd    12 48 33.5
        BKS         12 49                    e 49 12
        MHC         12 49                    e 49 15
        JAS  eP     12 49 15.9
        MNV         12 49                    e 49 22
        FRI  eP     12 49 34.9
                USGS 12 46 11.1, 49.1N, 129.0W, h= 10 km, mb=4.1
                     VANCOUVER ISLAND REGION

JUL 01  MNV  eP     09 02 13.3               PcP 03 50    e 04 30    e 08 09
        FRI  eP     09 02 15.8
        PRI  eP     09 02 18.9               PcP 03 53
        JAS  eP     09 02 23.0               PcP 03 55    e 04 33    e 08 12
        SAO  eP     09 02 25.4
        MHC  eP     09 02 29.3
        BKS  eP     09 02 33.8  09 33        pP 02 58    PcP 03 59    PP 04 46
                                             SS 13 08    Lr 17 24
                      MICRON    PERIOD
                PZ      0.08       0.8
                LZ      0.9         20
                LN      0.9         20
                LE      1.8         20
        MIN  eP     09 02 37.8
        WDC  eP     09 02 41.4               PcP 04 03
        FHC  eP     09 02 52.7
                USGS 08 53 57.6,  9.3N,  78.5W, h= 92 km, mb=5.3
                     PANAMA

JUL 02  MNV  iPe    02 58 09.0
        FRI         02 58                    e 58 12
        JAS  iP     02 58 18.7               e 59 26
        MHC  eP     02 58 24.6
        BRK         02 58                    e 58 29
        MIN  eP     02 58 31.4
        WDC  iPe    02 58 35.2
        FHC  eP     02 58 46.1
                USGS 02 49 17.9,  6.7N,  73.0W, h=163 km, mb=5.1
                     NORTHERN COLOMBIA

JUL 02  SAO  eP     04 12 59
        BKS  eP     04 13 00.8  22 30        PP 15 53    e 16 34    e 21 40
                                             e 23 08    Lq 30 04    Lr 34 25
                      MICRON    PERIOD
                PZ      0.10       1.5
                LZ      15          20
                LN      12          20
                LE       9          20
        PRI  eP     04 13 00.8
        MHC  eP     04 13 01.1
        FHC  eP     04 13 04.6
        FRI  eP     04 13 06.7
        JAS  ePd    04 13 07.2
        WDC  eP     04 13 08.4
        MIN  eP     04 13 10.5
        MNV  ePd    04 13 17.4
                Ms=6.2, DISTANCE=72°
                USGS 04 01 33.3, 15.3S, 175.5W, h= 25 km, mb=5.9, Ms=6.4
                     TONGA ISLANDS

JUL 02  SAO  iPe    10 30 05.5
        MHC  eP     10 30 06.7
        BKS  eP     10 30 12.5  30 26
                BRK  10 29 54.1, 36.9N, 122.2W, h=  7 km, ML=2.5
                     SOUTHWEST OF SANTA CRUZ, CALIFORNIA

JUL 02  SAO  iPe    11 58 08.3
        MHC  iPd    11 58 09.5
        BKS  ePd    11 58 14.6
        PRI  ePd    11 58 21.3
        JAS  ePd    11 58 26.2               i 58 24    i 58 43
        FRI  ePd    11 58 29.4               i 58 44
        MNV  ePd    11 58 52.4
                BRK  11 57 57.0, 36.9N, 122.2W, h= 10 km, ML=4.2
                     SOUTHWEST OF SANTA CRUZ, CALIFORNIA

JUL 03  JAS  eP     00 25 59.1
        WDC  eP     00 25 59.6
        MNV  eP     00 26 09.1
                USGS 00 14 26.8, 17.4S, 172.5W, h= 33 km, mb=5.1, Ms=4.7
                     TONGA ISLANDS REGION

JUL 03  WDC  eP     01 50 35.7
        BKS         01 50                    i 50 42
                                             Lr 25 00
                      MICRON    PERIOD
                LZ      1.8         20
                LN      1.4         20
                LE      1.1         20
        JAS  eP     01 50 48.5
        FRI         01 50
        MNV  eP     01 50 56.7               e 50 53
                USGS 01 38 32.3, 20.8N, 144.6E, h= 25 km, mb=5.2, Ms=5.0
                     MARIANA ISLANDS

JUL 03  WDC  eP     03 14 22.0
        MIN         03 14                    e 14 26
        BKS         03 14                    e 14 30
                                             Lr 44 00
                      MICRON    PERIOD
                LZ      0.8         20
                LN      0.9         20
                LE      0.7         20
        JAS  eP     03 14 34.5
        FRI  eP     03 14 39.2               e 14 39
                USGS 03 02 19.2, 20.8N, 144.4E, h= 33 km, mb=5.0, Ms=5.0
                     MARIANA ISLANDS

JUL 03  MHC  eP     03 18 12.5
        FRI  eP     03 18 13.0
        WDC  eP     03 18 15.8               e 18 26
        JAS  eP     03 18 17.0               e 18 28
        FRI  eP     03 18 17.6               e 18 29
        MIN  eP     03 18 17.9                           e 19 28
        MNV  eP     03 18 26.0
                USGS 03 05 33.1, 18.2S, 168.1E, h= 33 km, mb=5.3, Ms=5.0
                     NEW HEBRIDES ISLANDS

JUL 03  MNV  eP     04 25 32.4
        FRI  eP     04 25 34.0               i 25 34    PcP 27 37    i 27 46
        PRI  eP     04 25 37.1               PcP 27 40
        JAS  eP     04 25 41.4               e 27 49
        SAO  eP     04 25 42.8               PcP 27 42
        MHC  eP     04 25 47.5                           e 27 50
        BKS  ePd    04 25 53.0               e 32 26    Lq 38 04    Lr 42 10
                      MICRON    PERIOD
                PZ      0.07       0.8
                LZ      0.8         20
                LN      0.8         20
                LE      1.0         20
        MIN  eP     04 25 57.5
        WDC  eP     04 26 01.1
        FHC  eP     04 26 13.5               PcP 27 51
                USGS 04 18 02.8, 10.8N,  85.9W, h= 67 km, mb=5.0
                     COSTA RICA

JUL 03  SAO  iPe    13 04 14.3
        MHC  ePd    13 04 25.9
        PRI  ePd    13 04 26.7               i 04 37
        FRI  eP     13 04 36.1
        BKS  eP     13 04 36.3
        JAS  eP     13 04 37.3
                BRK  13 04 11.9, 36.7N, 121.4W, h=  6 km, ML=2.9
                     STONE CANYON AREA, CALIFORNIA

JUL 03  WDC  eP     14 32 17.3
        MHC         14 32
        JAS  eP     14 32 29.9               e 32 27
        FRI  eP     14 32 34.2
        MNV  ePd    14 32 38.2
                USGS 14 20 16.8, 20.7N, 144.6E, h= 50 km, mb=4.9
                     MARIANA ISLANDS

JUL 03  SAO  iPe    21 03 19.4
        BKS  e(P)   21 03 20
        PRI  eP     21 03 21.0
        MHC  ePe    21 03 21.0
        FRI  eP     21 03 26.3
        JAS  ePe    21 03 26.5
        WDC  eP     21 03 27.5
        MIN  eP     21 03 29.7
        MNV  iPe    21 03 36.1
                USGS 20 52 26.2, 17.9S, 178.5W, h=573 km, mb=5.2
                     FIJI ISLANDS REGION

JUL 03  FHC  eP     21 12 23.1
        WDC  iPe    21 12 27.9
        MIN  eP     21 12 31.0
        BKS  e(P)   21 12 40
        MHC  eP     21 12 43.0
        JAS  iPe    21 12 44.7
        SAO         21 12                    e 12 46
        FRI  eP     21 12 49.4
        MNV  iPe    21 12 50.0
        PRI  eP     21 12 51.6
                USGS 21 01 47.2, 43.2N, 130.8E, h=519 km, mb=4.6
                     EAST U.S.S.R.-NORTHEAST CHINA BORDER REGION

JUL 04  FHC  ePe    02 52 49.6                           e 53 15    pP 53 21
        WDC  iPe    02 52 54.2                           e 53 20    pP 53 25
        MIN  ePe    02 52 57.6                           e 53 23    pP 53 29
        BKS  ePe    02 53 03.4  03 08                    e 53 29    pP 53 34    sS 03 46
                                                         e 31 00
                      MICRON    PERIOD
                PZ      0.05       1.0
        MHC  ePe    02 53 06.9
        SAO  eP     02 53 09                 e 53 33    pP 53 38
        JAS  iPe    02 53 09.2               pP 53 40
        FRI  ePe    02 53 14.4               e 53 34    pP 53 40
        PRI  ePe    02 53 14.5               e 53 40    pP 53 46
        MNV  iPe    02 53 15.5               e 53 40    pP 53 46
                                             e 53 41    pP 53 47
                USGS 02 40 54.0, 32.6N, 131.1E, h=118 km, mb=5.7
                     KYUSHU, JAPAN

JUL 04  MHC  e(P)   12 55 00
        JAS  eP     12 55 05.4
        FRI  e(P)   12 55 06
        WDC  eP     12 55 07.7
        MIN  e(P)   12 55 10
        MNV  ePe    12 55 15.7
                USGS 12 43 35.3, 16.9S, 172.5W, h= 29 km, mb=5.0
                     SOMOA ISLANDS REGION

JUL 05  FHC  eP     02 59 49.9
        WDC  iPe    02 59 50.8
        MIN  iPe    02 59 52.8
        BKS  eP     03 00 04.4
                      MICRON    PERIOD
                PZ      0.05       0.8
        MNV  iPe    03 00 05.0
        JAS  iPe    03 00 05.3
        MHC  ePe    03 00 07.3
        SAO  eP     03 00 10
        FRI  ePe    03 00 10.1
        PRI  ePe    03 00 14.2
                USGS 02 46 57.3, 49.8N,  78.9E, h=  0 km, mb=5.8, Ms=3.7
                     NUCLEAR EXPLOSION, EASTERN KAZAKH, S.S.R.

JUL 05  FRI  eP     20 20 38.1
        PRI  ePd    20 20 39.8               PcP 24 10
        MNV  iPd    20 20 40.8
        SAO  eP     20 20 46.3               PcP 24 11    SeP 27 56
        JAS  ePd    20 20 48.3
        MHC  ePd    20 20 51.9               PcP 24 13
        BKS  eP     20 20 58.3  25 40        PP 22 00                 e 26 07    Lq 26 29
                                             e 28 00
                      MICRON    PERIOD
                PZ      0.05       0.8
                LZ      2.1         20
                LN      1.5         20
                LE      1.5         20
        MIN         20 21
        WDC  ePd    20 21 13.1               e 21 12
        FHC  ePd    20 21 24.2               PcP 24 19    SeP 28 05
                USGS 20 15 16.3, 18.5N, 100.0W, h= 62 km, mb=5.6
                     GUERRERO, MEXICO

JUL 06  SAO  iPe    21 04 53.7
        MHC  eP     21 05 05.4  05 16
        PRI  eP     21 05 06.2
        BKS  e(P)   21 05 18
                BRK  21 04 51.4, 36.7N, 121.4W, h=  6 km, ML=2.7
                     STONE CANYON AREA, CALIFORNIA

JUL 06  MNV  iPd    22 21 51.5
        JAS  iP     22 22 17.2
        FRI  i(P)   22 22 26                     i 22 26    i 23 09
        MIN  iPe    22 22 29.6                   i 23 10
        MHC         22 22                        i 22 44
        PRI         22 22                        e 22 34
        WDC         22 22                        e 22 36    e 22 47
        SAO         22 22                        e 22 40
        BKS         22 22                        e 22 46
                                                 e 22 52
                MAG=4, CENTRAL NEVADA
                USGS 22 21 22.0, 39.1N, 116.2W, h= 10 km
                     NEVADA

JUL 07  SAO  iPd    00 39 08.5
        MHC  iPd    00 39 18.8  39 27
        PRI  eP     00 39 25.0
        BKS  eP     00 39 31.3
        FRI  eP     00 39 33.0                   e 39 46
        JAS  ePd    00 39 33.4  39 50
                BRK  00 39 07.0, 36.8N, 121.5W, h=  7 km, ML=2.6
                     SOUTHWEST OF HOLLISTER, CALIFORNIA

JUL 07  MNV  iPe    14 00 36.5
        FRI  ePe    14 00 48.0  01 33
        JAS  iPe    14 00 57.1  01 45
        PRI  ePe    14 01 01.7               i 01 08
        SAO  eP     14 01 07.8
        MHC  e(P)   14 01 10
        BRK  e(P)   14 01 17                 e 01 18
        WDC         14 01                    e 01 32
                ML=4.3, NUCLEAR EXPLOSION, NEVADA TEST SITE
                USGS 13 59 59.3, 37.1N, 116.0W, h=  2 km
                     SOUTHERN NEVADA

JUL 07  SAO  iPd    20 05 30.3
        MHC  iPd    20 05 36.3  05 43
        PRI  ePd    20 05 45.8
        BKS  eP     20 05 47.5
        JAS  iPd    20 05 51.2               e 06 04
        FRI  ePe    20 05 52    06 09        i 06 09
                BRK  20 05 26.9, 36.9N, 121.5W, h= 10 km, ML=3.0
                     NORTHWEST OF HOLLISTER, CALIFORNIA

JUL 08  PRI  eP     08 22 43.1
        MHC  eP     08 22 43.7
        BKS         08 22                    e 22 48    e 32 04    e 32 52
                                             e 40 56    e 42 12    e 46 00
                                             e 46 36    e 47 00    e 47 44
                                             e 05 40    e 08 00    e 12 32
                                             e 20 00
        FRI  e(P)   08 22 49
        JAS  eP     08 22 49.8
        WDC  ePd    08 22 52.3
        MIN  ePd    08 22 53.9
        MNV  iPd    08 23 00.0
                USGS 08 11 19.4, 16.7S, 172.7W, h= 33 km, mb=5.1, Ms=5.4
                     SOMOA ISLANDS REGION
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JUL 09  BKS  eP      02 25 19.0                PPS 36 06      Lq 44 48      Lr 48 32
                                                e 48 44
                          MICRON     PERIOD
                     LZ      4.3        20
                     LN      3.0        20
                     LE      3.2        20
        SAO  e(P)    02 25 21
        MHC  eP      02 25 23.0
        PRI  eP      02 25 23.4
        FRI  e(P)    02 25 29
        JAS  ePc     02 25 29.0
        WDC  ePc     02 25 29.2
        MIN  eP      02 25 31.2
        MNV  ePc     02 25 38.9
                     Ms=5.8, DISTANCE=78°
                     USGS 02 13 31.4, 15.8S, 178.7E, h= 33 km, mb=5.4, Ms=5.4
                          FIJI ISLANDS

JUL 09  SAO  eP      16 26 52.6
        BKS  e(P)    16 26 54
        PRI  ePc     16 26 54.5
        MHC  eP      16 26 54.5
        FRI  eP      16 26 59.7
        JAS  ePc     16 27 00.0
        WDC  ePc     16 27 01.0
        MIN  eP      16 27 03.0
        MNV  ePc     16 27 09.5
                     USGS 16 15 57.9, 17.8S, 178.7W, h=551 km, mb=4.7
                          FIJI ISLANDS REGION

JUL 09  FHC          23 50                     e 50 44
        WDC  ePc     23 51 00.6
        JAS  eP      23 51 45.0
                     USGS 23 50 05.5, 42.5N, 126.6W, h= 15 km, mb=4.0
                          OFF THE COAST OF OREGON

JUL 11  FHC          02 58                     e 58 12
        WDC  eP      02 58 21.6
        MIN  eP      02 58 26.4
        BKS          02 58                     e 58 54      e 58 57      e 59 00
                                               e 59 06      e 02 00      e 02 16
        JAS  eP      02 59 00.0
        MHC  eP      02 59 03.0
        MNV  e(P)    02 59 06
        FRI  eP      02 59 14.0
        PRI          02 59                     e 59 21
                     USGS 02 55 01.6, 52.8N, 132.1W, h= 10 km, mb=5.4, Ms=5.1
                          QUEEN CHARLOTTE ISLANDS REGION

JUL 11  FHC  iP      06 53 21.0  53 34
        WDC  iPc     06 53 35.5  53 58
        MIN  iPc     06 53 45.5
        BKS  eP      06 53 54.5  54 33        e 55 18      e 55 24
        MHC  eP      06 54 04.5
        JAS  ePc     06 54 10.5
        SAO  eP      06 54 11.1
        FRI  ePd     06 54 25.5
                     BRK  06 53 05.2, 40.3N, 124.9W, h= 10 km, ML=3.8
                          OFF COAST SOUTHWEST OF EUREKA, CALIFORNIA

JUL 11  FHC  iPc     10 15 02.8  15 16
        WDC  iPc     10 15 17.4  15 30
        MIN  eP      10 15 27.3
        BKS  eP      10 15 36.6                e 16 14
        MHC  eP      10 15 46.5
        JAS  eP      10 15 52.5
        SAO  eP      10 15 52.8
                     BRK  10 14 55.0, 40.2N, 124.2W, h= 20 km, ML=3.2
                          SOUTH OF EUREKA, CALIFORNIA

JUL 11  FRI  iPd     12 26 38.3                pP 28 01
        MNV  iPd     12 26 38.5                pP 28 00     sP 28 44     PP 29 08
        FRI  ePd     12 26 40.6
        JAS  iPd     12 26 45.6                PcP 27 11    i 27 29      sP 28 58
                                               i 29 30
        SAO  iPd     12 26 45.9
        MHC  iPd     12 26 49.5
        BKS  iPd     12 26 53.0  34 53         PcP 27 18    SS 39 32
                          MICRON     PERIOD
                     PZ      0.56       1.0
        MIN  ePd     12 26 57.9
        WDC  iPd     12 27 01.3                PcP 27 23    pP 28 20
        FHC  iPd     12 27 10.3                i 27 33
                     USGS 12 17 07.8,  7.9S,  71.4W, h=645 km, mb=5.8
                          WESTERN BRAZIL

JUL 11  WDC  eP      22 59 16.4                e 59 27      e 59 40
        JAS  eP      22 59 34.3                e 59 46      e 59 59
        MNV  e(P)    22 59 42                  e 59 53      e 00 06
                     USGS 22 48 42.4, 43.4N, 146.5E, h= 42 km, mb=4.9, Ms=4.3
                          KURIL ISLANDS

JUL 12  MNV  iPc     17 00 36.9
        FRI  iPc     17 00 48.4
        JAS  iPc     17 00 57.5
        PRI  ePc     17 01 01.1                i 01 35      i 02 31
        SAO  iPc     17 01 07.7                i 02 11
        MHC  iPnc    17 01 10.2                i 01 18      i 02 12
        BKS  iP*c    17 01 16.7                e 01 36      Sg 02 40
        MIN  ePc     17 01 23.2
        WDC  iPc     17 01 32.8
        FHC  eP      17 01 48.8
                     ML=5.4, NUCLEAR EXPLOSION, NEVADA TEST SITE
                     USGS 17 00 00.1, 37.1N, 116.0W, h=  0 km, mb=5.5, Ms=4.1
                          SOUTHERN NEVADA

JUL 13  MHC  eP      03 54 16.5
        JAS  ePc     03 54 21.2
        WDC  ePc     03 54 23.5
        MIN  eP      03 54 25
        MNV  eP      03 54 29.4
                     USGS 03 42 46.4, 26.0S, 178.4E, h=637 km, mb=5.0
                          SOUTH OF FIJI ISLANDS

JUL 13  MHC          05 59                     e 59 01
        JAS          05 59                     e 59 03
        MNV  eP      05 59 03.7
        WDC          05 59                     e 59 19
                     USGS 05 48 35.2, 24.7S, 112.2W, h= 33 km, mb=4.7, Ms=4.4
                          EASTER ISLAND REGION

JUL 13  FHC  eP      13 31 49.3                e 32 11      e 32 20      e 38 16
        WDC  ePd     13 31 57.9
        MIN  eP      13 32 03.7
        BKS  ePd     13 32 12    37 44         Lq 39 52     Lr 41 39
                          MICRON     PERIOD
                     LZ      5          20
                     LN      6          20
                     LE      4.4        20
        MHC  eP      13 32 20
        JAS  ePd     13 32 22.5
        FRI  eP      13 32 31.6
        MNV  eP      13 32 31.7
        PRI  eP      13 32 32.0
                     Ms=5.4, DISTANCE=36°
                     USGS 13 25 19.7, 52.2N, 168.8W, h= 33 km, mb=5.8, Ms=5.6
                          FOX ISLANDS, ALEUTIAN ISLANDS

JUL 13  FRI  eP      18 14 04.6
        FRI          18 14                     e 14 10
        MHC  eP      18 14 12.3
        BKS  eP      18 14 15
                          MICRON     PERIOD
                     PZ      0.02       0.8
        JAS  eP      18 14 16.8
        MNV  eP      18 14 22.0
        MIN          18 14                     e 14 32
        WDC  eP      18 14 32.6
                     USGS 18 04 19.6, 20.7S, 127.0W, h= 33 km, mb=5.1
                          SOUTHERN PACIFIC OCEAN

JUL 14  WDC  eP      05 42 19.4
        MNV  eP      05 42 26.0
                     USGS 05 30 48.4, 22.3S, 179.1W, h=469 km, mb=5.2
                          SOUTH OF FIJI ISLANDS

JUL 14  PRI  eP      20 32 05.5
        BRK  eP      20 32 06.0
        BKS          20 32                                    Lr 20 59
        MHC  eP      20 32 06.4
        FRI  eP      20 32 10.0
        JAS  ePc     20 32 11.1
        WDC  iPc     20 32 14.3
        MNV  ePc     20 32 18.7
                     USGS 20 19 21.1, 32.7S, 178.9W, h= 53 km, mb=5.2
                          SOUTH OF KERMADEC ISLANDS

JUL 15  FHC  iPc     07 24 52.4  25 00
        WDC  ePc     07 25 05.0
        MIN  eP      07 25 14.3
                     BRK  07 24 42.1, 40.3N, 124.3W, h= 17 km, ML=3.1
                          SOUTH OF EUREKA, CALIFORNIA

JUL 15  FHC  eP      10 30 06.6
        WDC  ePc     10 30 12.2
        MIN  eP      10 30 15.9
        BKS  ePd     10 30 21.5
                          MICRON     PERIOD
                     PZ      0.03       0.8
        JAS  ePc     10 30 28.1
        FRI  eP      10 30 33.2
        MNV  ePc     10 30 35.3
                     USGS 10 18 39.9, 33.3N, 141.7E, h= 14 km, mb=5.3, Ms=4.8
                          OFF THE EAST COAST OF HONSHU, JAPAN

JUL 15  FHC  eP      17 55 41.6                e 55 57
        WDC  ePc     17 55 47.3                e 56 02
        BRK  e(P)    17 55 58
        BKS          17 55                     e 56 14      Lq 12 00      Lr 15 00
        MHC  eP      17 56 03                  e 56 18
        JAS  ePc     17 56 05.4                e 56 20
        FRI  e(P)    17 56 11                  e 56 27
        MNV  ePc     17 56 12.2                e 56 27
                     USGS 17 44 55.4, 41.9N, 142.5E, h= 62 km, mb=5.4
                          HOKKAIDO, JAPAN, REGION

JUL 16  FHC  eP      22 26 51.0
        WDC  ePc     22 26 55.7
        BKS          22 27                                    Lr 57 00
                          MICRON     PERIOD
                     LZ      1.1        22
        MHC  e(P)    22 27 00
        JAS  eP      22 27 02.0
        PRI  e(P)    22 27 03
        FRI  e(P)    22 27 06
        MNV  eP      22 27 11.5
                     USGS 22 13 25.8,  6.6S, 143.8E, h= 33 km, mb=5.5, Ms=5.1
                          PAPUA, NEW GUINEA

JUL 17  SAO  eP      00 21 01.7
        PRI  ePc     00 21 03.1
        BKS  iPc     00 21 03.4
                          MICRON     PERIOD
                     PZ      0.17       0.9
        MHC  ePc     00 21 03.4
        FHC  ePc     00 21 07.6
        FRI  ePc     00 21 07.9
        JAS  iPc     00 21 08.8                e 24 29
        WDC  iPc     00 21 10.6                pP 23 09     e 24 30
        MIN  ePc     00 21 12.1                pP 23 18     e 24 40
        MNV  iPd     00 21 17.3
                     USGS 00 09 39.4, 23.6S, 180.0E, h=546 km, mb=5.4
                          SOUTH OF FIJI ISLANDS

JUL 17  MNV  ePc     05 18 39.0
        PRI  ePd     05 18 39.6
        JAS  ePd     05 18 44.5
        BRK  e(P)    05 18 51
        WDC  iPd     05 18 59.0
                     USGS 05 07 14.6, 20.5S,  66.6W, h=236 km, mb=4.8
                          SOUTHERN BOLIVIA

JUL 17  SAO  ePc     13 37 12.1
        BKS  iPc     13 37 13.5  46 17         pP 38 19     sP 38 50     SP 46 52
                                               sS 48 16     SS 50 55     sSS 52 39
                                               Lq 56 20
                          MICRON     PERIOD
                     PZ      0.43       0.8
        PRI  ePc     13 37 13.9
        MHC  ePc     13 37 13.9
        FHC  ePc     13 37 17.3
        FRI  ePc     13 37 19.3
        JAS  iPc     13 37 19.8                PcP 37 32    pP 38 27
        WDC  ePc     13 37 21.0                pP 38 28
        MIN  ePc     13 37 23.1
        MNV  iPc     13 37 29.9                PKPPKP 04 53 PKPPKS 08 02
                     mb=6.2, DISTANCE=74°
                     USGS 13 26 14.9, 14.9S, 175.8W, h=292 km, mb=6.0
                          SOMOA ISLANDS REGION

JUL 17  FRI  ePd     14 47 03.2
        MNV  iPc     14 47 05.0
        PRI  eP      14 47 10.5
        JAS  eP      14 47 17.0                Sg 48 22
        SAO          14 47                     e 47 20
                     MAG=4.5, SOUTHERN CALIFORNIA
                     PAS  14 46 13.5, 35.5N, 116.3W, h=  5 km, ML=4.0
                          SOUTHERN CALIFORNIA

JUL 18  MNV  eP      01 49 30.8
        JAS          01 49                     e 49 36
        BKS          01 49                     e 56 09      e 56 18      Lr 58 00
        WDC  eP      01 49 58.4
                     USGS 01 41 51.6,  2.2N,  97.9W, h= 33 km, mb=5.1, Ms=5.1
                          WEST OF GALAPAGOS ISLANDS

JUL 18  MNV  iPc     14 35 02.0                i 35 25
        PRI          14 35                     e 35 04
        JAS  eP      14 35 10.4
        WDC  iPc     14 35 28.4                e 35 50
                     USGS 14 26 03.0,  1.9N,  78.2W, h= 91 km, mb=4.8
                          COLOMBIA-ECUADOR BORDER REGION

JUL 18  SAO  iPd     19 09 09.5
        MHC  iPd     19 09 11.2  09 16
        BKS  ePd     19 09 22.4  09 37         e 10 20
        PRI  ePc     19 09 25.7
        JAS  iPd     19 09 28.1  09 46
                     BRK  19 09 03.7, 37.0N, 121.7W, h=  5 km, ML=2.9
                          NORTHWEST OF HOLLISTER, CALIFORNIA

JUL 19  FHC  ePd     09 37 22.5
        WDC  iPd     09 37 29.8                ScP 44 42
        MIN  ePd     09 37 35.8                ScP 44 44
        BKS  ePc     09 37 50.4  42 34         e 38 38      Lr 44 48
                          MICRON     PERIOD
                     PZ      0.31       1.6
                     LZ      0.6        20
        MHC  ePd     09 37 56.7
        JAS  iPd     09 37 58.0                ScP 44 52
        MNV  iPd     09 38 04.5                ScP 44 54
        FRI  ePd     09 38 07.5                ScP 44 55
        PRI  ePd     09 38 10.3                ScP 44 56
                     USGS 09 32 08.6, 56.8N, 151.6W, h= 33 km, mb=5.7, Ms=5.5
                          KODIAK ISLAND REGION
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JUL 20  MNV  e(P)  09 41 59                    PcP 44 11   ScP 47 53
        FRI  ePc   09 41 59.9                  PcP 44 11   ScP 47 53
        PRI  eP    09 42 02.8                  PcP 44 13   ScP 47 55
        SAO  e(P)  09 42 09                    PcP 44 15
        JAS  iPc   09 42 09.0                  PcP 44 15   ScP 47 57
        MHC  ePc   09 42 13.6                  PcP 44 17
        BKS  iPc   09 42 19.0                  PcP 44 19   ScP 48 03      e 48 24
                                               e 48 48     Lr 55 00
                          MICRON    PERIOD
                     PZ     0.12       1.0
                     LN     2.7        20
                     LE     2.8        20
        MIN  ePc   09 42 25.2                  PcP 44 21
        WDC  iPc   09 42 28.8                  PcP 44 23   ScP 48 07
        FHC  ePc   09 42 40.2                  PcP 44 28
                   mb=5.6, DISTANCE=40°
                   USGS 09 34 47.2, 12.1N,  86.6W, h=121 km, mb=5.3
                        NICARAGUA

JUL 20  WDC  eP    18 23 11.0
        MIN  eP    18 23 16.5
        BKS  eP    18 23 25.7
                          MICRON    PERIOD
                     PZ     0.02       0.7
        MHC  eP    18 23 30.9
        JAS  eP    18 23 34.5
        MNV  eP    18 23 42.0
        PRI  eP    18 23 42.4
                   USGS 18 15 08.7, 51.1N, 175.1E, h= 33 km, mb=5.2, Ms=4.6
                        RAT ISLANDS, ALEUTIAN ISLANDS

JUL 21  PRI  eP    10 20 55.2
        MNV  eP    10 21 08.2                  e 24 37
        JAS  eP    10 21 14.0
        MHC  eP    10 21 15.3
        BKS        10 21                       Lq 24 00
                          MICRON    PERIOD
                     LZ     2.5        20
                     LN     3.8        20
                     LE     3.4        20
        MIN  eP    10 21 49.8
        WDC  eP    10 21 57.5
                   USGS 10 18 17.3, 27.6N, 112.4W, h= 33 km, mb=4.7
                        BAJA CALIFORNIA

JUL 21  WDC  eP    11 09 25.4
        BKS        11 09                       e 09 26
        MIN        11 09                       e 09 28
                   USGS 10 56 08.4,  5.7S, 146.1E, h= 59 km, mb=5.5
                        EAST PAPUA, NEW GUINEA, REGION

JUL 21  WDC  ePd   17 45 56.8
        BKS        17 45                       e 45 58
        MNV        17 46                       e 46 13
                   USGS 17 32 40.6,  6.0S, 146.6E, h= 55 km, mb=5.1
                        EAST PAPUA, NEW GUINEA, REGION

JUL 21  WDC  eP    20 57 56.6                  e 58 12
        JAS        20 58                       e 58 28
        MNV  e(P)  20 58 29
                   USGS 20 50 30.8, 51.4N, 178.3W, h= 54 km, mb=4.9
                        ANDREANOF ISLANDS, ALEUTIAN ISLANDS

JUL 22  BKS  eP    12 04 24    15 08           e 05 13     SS 21 25     Lq 28 15
                                               Lr 32 00
                          MICRON    PERIOD
                     LZ     11         20
                     LN     2.2        20
                     LE     9          20
        WDC  eP    12 04 39
        JAS  e(P)  12 04 43
        MNV  eP    12 04 52                    e 05 24
                   Ms=6.1, DISTANCE=88°
                   USGS 11 51 47.0,  4.2S, 152.8E, h= 43 km, mb=5.9, Ms=6.0
                        NEW BRITAIN REGION

JUL 23  MIN  iPc   07 33 53.5
        WDC  ePd   07 34 00.0
        BKS  eP    07 34 04.2                  e 34 24
        JAS  ePd   07 34 04.6
        MHC  eP    07 34 11.0
        FHC  e(P)  07 34 14
        SAO  eP    07 34 19.0
        MNV  eP    07 34 20
                   BRK  07 33 35.6, 39.4N, 121.5W, h=  5 km, ML=3.3
                        OROVILLE AREA, CALIFORNIA

JUL 23  PRI  iPc   14 38 47.4
        SAO  iPd   14 39 02.0
        MHC  eP    14 39 10.5
        JAS  iPc   14 39 15.9  39 41
        BKS  eP    14 39 20
                   BRK  14 38 42.4, 35.9N, 120.5W, h= 12 km, ML=3.2
                        NORTH OF SAN LUIS OBISPO, CALIFORNIA

JUL 23  FHC  ePc   14 55 49.7
        WDC  ePc   14 55 53.8
        MIN  ePc   14 55 56.5                  PP 59 48    PKKP 13 34  PKPPKP 21 08
        BKS  ePc   14 56 02.6  07 28           e 59 05     e 59 26     e 00 40
                                               SKS 06 32   SS 12 46    eSS 13 44
                                               SSS 17 30   Lq 20 54     Lr 27 36
                          MICRON    PERIOD
                     PZ     0.2        1.2
                     LZ     28         20
                     LN     30         20
                     LE     37         20
        MHC  eP    14 56 04.6
        JAS  ePc   14 56 06.6
                                               e 59 11     PP 00 08    PPP 02 10
        PRI  eP    14 56 11.3                  e 12 48     PKKP 13 22  PKPPKP 21 10
        MNV  ePc   14 56 12.2                  e 59 28     PKKP 13 18
                   Ms=6.8, DISTANCE=93°
                   USGS 14 42 36.9, 22.3N, 121.5E, h= 17 km, mb=6.5, Ms=7.4
                        TAIWAN REGION

JUL 24  FHC  e(P)  06 33 53
        WDC  ePc   06 33 59.5
        MIN  ePc   06 34 03.6                  pP 34 14
        BKS        06 34                       pP 34 18
        JAS  eP    06 34 17.5                  e 34 27
        PRI  eP    06 34 25.3                  pP 34 33
        MNV  eP    06 34 26.0
                                               pP 34 41
                   USGS 06 23 49.0, 44.9N, 150.3E, h= 56 km, mb=5.1
                        KURIL ISLANDS REGION

JUL 24  MNV        08 12
        JAS        08 12                       PcP 15 20   pPcP 15 31
        MHC  eP    08 12 23.3                  PcP 15 24   pPcP 15 35
        MIN  eP    08 12 28.3                  pP 12 34
        WDC  e(P)  08 12 32                    pP 12 38    PcP 15 27   pPcP 15 38
                                               pP 12 43    PcP 15 29   pPcP 15 40
                   USGS 08 06 17.6, 26.7N,  88.7W, h= 33 km, mb=4.9, Ms=4.1
                        GULF OF MEXICO

JUL 24  BKS  eP    11 18 40
                          MICRON    PERIOD     e 31 12     e 32 55     Lr 49 00
                     LZ     7          20
                     LN     1.8        20
                     LE     5          20
        WDC  eP    11 18 40.8
        MHC  eP    11 18 42.3                  pP 18 52
        MIN  eP    11 18 43
        JAS  eP    11 18 46.7                  pP 18 56
        MNV  eP    11 18 55.2
                                               pP 19 08
                   USGS 11 05 36.6,  6.1S, 151.0E, h= 33 km, mb=5.2, Ms=5.6
                        NEW BRITAIN REGION

JUL 24  BKS  eP    19 58 05.9  08 37           e 58 52     e 00 18     PP 01 27
                                               PS 09 29    e 12 45     LR 20 28
                                               Lr 23 40
                          MICRON    PERIOD
                     PZ     0.19       1.2
                     LZ     14         20
                     LN     8          20
                     LE     8          20
        SAO  eP    19 58 06.0
        MHC  eP    19 58 07.4
        PRI  eP    19 58 08.0
        FHC        19 58                       e 58 10
        WDC  eP    19 58 12.0
        FRI  eP    19 58 12.5
        JAS  eP    19 58 12.5
        MIN  eP    19 58 14.5
        MNV  eP    19 58 21.0
                   Ms=6.2, DISTANCE=85°
                   USGS 19 45 35.3, 20.7S, 172.5E, h= 37 km, mb=5.7, Ms=6.1
                        NEW HEBRIDES ISLANDS REGION

JUL 25  PRI  eP    08 03 54.1
        SAO  eP    08 03 57.2
        FRI  eP    08 03 59.8
        MHC  eP    08 04 02.0
        BKS  eP    08 04 04.7
                          MICRON    PERIOD
                     PZ     0.04       1.0
        JAS  iPc   08 04 06.3
        MNV  iPc   08 04 11.5
        MIN  eP    08 04 20.4
        WDC  iPc   08 04 21.2
                   USGS 07 54 09.0, 20.7S, 126.9W, h= 33 km, mb=5.2
                        SOUTHERN PACIFIC OCEAN

JUL 25  BKS        15 35                       e 35 19     e 46 32     Lr 01 00
                          MICRON    PERIOD
                     LZ     0.9        20
                     LN     0.6        20
                     LE     0.7        20
        MHC        15 35                       e 35 12
        PRI  eP    15 35 12.5
        JAS  ePc   15 35 16.5
        WDC  ePc   15 35 17.1
        MNV  eP    15 35 25.9
                   USGS 15 22 37.2, 20.8S, 172.7E, h= 19 km, mb=5.1, Ms=5.0
                        NEW HEBRIDES ISLANDS REGION

JUL 25  FHC  ePc   23 33 15.0
        WDC  iPc   23 33 22.9                  e 33 47
        MIN  ePc   23 33 29.5
        BKS  eP    23 33 57    36 16          Lq 36 22    e 36 25     Lr 36 30
                          MICRON    PERIOD
                     PZ     0.09       1.0
                     LZ     1.7        20
                     LN     1.8        20
                     LE     4.5        20
        JAS  ePc   23 34 02.3
        MHC  ePc   23 34 06.4
        MNV  iPc   23 34 07.5
        SAO  eP    23 34 13.5
        FRI  e(P)  23 34 17
        PRI  ePc   23 34 25.3
                   USGS 23 30 50.9, 50.3N, 127.6W, h= 11 km, mb=5.3, Ms=5.1
                        VANCOUVER ISLAND REGION

JUL 26  FRI  eP    00 39 45.5                  e 40 40
        PRI  eP    00 39 50                    e 40 48
        MNV  eP    00 40 01
        SAO        00 40                       e 40 02
        JAS  eP    00 40 04                    Sg 41 16
        BKS        00 40                       e 40 42
                   MAG=4.6, SOUTHERN CALIFORNIA
                   PAS  00 38 53.6, 34.4N, 116.9W, h=  6 km, ML=3.8
                        SOUTHERN CALIFORNIA

JUL 26  FRI  e(P)  02 16 36
        MNV  ePd   02 16 37.9
        PRI  eP    02 16 38.0
        SAO  eP    02 16 42.0
        JAS  ePd   02 16 43.2
        MHC  eP    02 16 45.9
        BKS  eP    02 16 49.7
                          MICRON    PERIOD
                     PZ     0.05       1.1
        MIN  eP    02 16 54.8
        WDC  iPd   02 16 58.0
        FHC  ePd   02 17 05.2
                   USGS 02 04 58.1, 21.7S,  68.2W, h= 86 km, mb=5.2
                        CHILE-BOLIVIA BORDER REGION

JUL 26  JAS  eP    12 05 43.4                  e 05 54
        WDC  eP    12 05 47.4
        MNV  eP    12 05 53.0                  e 06 04

JUL 26  SAO  eP    12 31 25.7
        BKS  eP    12 31 27.0
                          MICRON    PERIOD
                     PZ     0.04       1.0
        PRI  eP    12 31 27.3
        MHC  eP    12 31 27.5
        JAS  iPd   12 31 33.0
        WDC  iPd   12 31 34.4
        MIN  eP    12 31 36.3
        MNV  iPd   12 31 42.7
                   USGS 12 20 21.9, 18.9S, 178.0W, h=473 km, mb=5.0
                        FIJI ISLANDS REGION

JUL 27  JAS  eP    03 59 28.7
        MIN  eP    03 59 33.9
        WDC  eP    03 59 44.7
                   USGS 03 49 29.9, 21.0S, 126.5W, h= 33 km, mb=4.7
                        SOUTHERN PACIFIC OCEAN

JUL 27  BKS  iP    07 29 36.0  29 39
        MHC  iPc   07 29 41.7  29 49
        SAO  iPc   07 29 50.3
        JAS  iPd   07 29 54.9
                   BRK  07 29 31.4, 37.7N, 122.1W, h= 12 km, ML=2.5
                        SOUTHEAST OF BERKELEY, CALIFORNIA

JUL 27  BKS        13 52                       e 52 28     e 01 40     Lq 10 20
                          MICRON    PERIOD
                     LZ     1.1        20
                     LN     0.9        20
                     LE     0.9        20
        JAS  eP    13 52 29.5
        WDC  eP    13 52 32
        MNV  eP    13 52 40
                   USGS 13 41 04.3, 15.5S, 173.1W, h= 33 km, mb=4.9, Ms=5.4
                        TONGA ISLANDS

JUL 27  WDC  eP    15 56 11.9                  e 56 15     e 56 20
        JAS  eP    15 56 22.8                  e 56 29
        FRI  eP    15 56 26.4                  e 56 35
        MNV  iPc   15 56 31.1
                   USGS 15 43 37.8, 12.6N, 143.7E, h= 25 km, mb=4.9
                        SOUTH OF MARIANA ISLANDS
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JUL 27  BKS  ePc   18 36 27    45 46        e 46 30     Lq 54 30     Lr 57 44
                       MICRON     PERIOD
                  LZ     4.3        20
                  LN     3.3        20
                  LE     3.9        20
        SAO       18 36                   e 36 36
        MHC       18 36                   e 36 28
        PRI       18 36                   e 36 30
        JAS  eP   18 36 35.5
        WDC  eP   18 36 36.0
        MIN       18 36                   e 36 43
        MNV  eP   18 36 44.5
                  Ms=5.7, DISTANCE=72°
                  USGS 18 25 08.5, 15.6S, 173.0W, h= 33 km, mb=5.7, Ms=5.8
                       TONGA ISLANDS

JUL 28  FHC  eP   02 59 51.0
        WDC  iPc  02 59 52.1
        MIN  ePc  02 59 54.1
        BKS  ePd  03 00 05.9
                       MICRON     PERIOD
                  PZ     0.04       0.8
        MNV  iPc  03 00 06.1
        JAS  ePc  03 00 06.4
        MHC  eP   03 00 08.7
        PRI       03 00 10.2
        SAO       03 00                   e 00 11
        PRI       03 00                   e 00 15
                  USGS 02 46 57.6, 49.7N,  78.2E, h=  0 km, mb=5.7
                       NUCLEAR EXPLOSION, EASTERN KAZAKH, S.S.R.

JUL 28  BKS  eP   10 58 31.3              e 08 48      e 21 00
                       MICRON     PERIOD
                  PZ     0.03       1.0
        SAO       10 58                   e 58 32
        MHC  eP   10 58 32.5
        FHC  eP   10 58 32.6
        PRI  eP   10 58 33.5
        WDC  iPc  10 58 36.3
        JAS  iPc  10 58 37.4
        FRI  eP   10 58 38.2
        MIN  eP   10 58 38.4
        MNV  iPc  10 58 46.0
                  USGS 10 46 13.7, 18.8S, 169.0E, h=205 km, mb=5.3
                       NEW HEBRIDES ISLANDS

JUL 28  FRI  eP   14 11 13.6
        MNV  iPd  14 11 14.9
        PRI  eP   14 11 16.7
        SAO  eP   14 11 21.2
        JAS  iPd  14 11 21.8
        MHC  eP   14 11 25.0
        BKS  iPd  14 11 28.8
                       MICRON     PERIOD
                  PZ     0.11       1.0
        MIN  eP   14 11 34.0
        WDC  iPd  14 11 37.2
        FHC  eP   14 11 45.9
                  USGS 14 01 28.8, 10.2S,  71.0W, h=608 km, mb=4.9
                       PERU-BRAZIL BORDER REGION

JUL 29  MNV  eP   13 03 43.5              pP 04 13
        PRI  eP   13 03 43.9              pP 04 14     e 04 27
        JAS  eP   13 03 49.4              pP 04 19
        MHC  ePd  13 03 51.7              pP 04 22
        BKS  eP   13 03 55.6               e 04 25     e 04 38     e 04 50
                       MICRON     PERIOD
                  PZ     0.01       0.6
        WDC  eP   13 04 03.8              pP 04 34
        FHC  eP   13 04 11.5              pP 04 42
                  USGS 12 52 11.5, 20.1S,  68.5W, h= 81 km, mb=5.0
                       CHILE-BOLIVIA BORDER REGION

JUL 29  WDC  eP   16 38 42.5
        BKS       16 39                   e 39 08
        JAS  eP   16 39 05.9
        MNV  eP   16 39 15.2
                  USGS 16 31 15.4, 50.1N, 177.8W, h= 33 km, mb=4.5
                       ANDREANOF ISLANDS, ALEUTIAN ISLANDS

JUL 29  MNV  iPc  22 32 45.6              i 32 49
        PRI       22 33                   e 33 12     Pg 33 19
        JAS  e(P) 22 33 15                Pg 22 23     Sg 34 16
        MIN       22 33                   e 33 24
        PRI       22 33                   e 33 39
        MHC  eP   22 33 43
        SAO       22 33                   e 33 45
        WDC  eP   22 33 40                e 33 58
                  MAG=4.0, EAST OF MINA, NEVADA
                  USGS 22 32 07.1, 38.4N, 115.2W, h=  5 km, mb=3.9
                       NEVADA

JUL 30  PRI  eP   14 32 48
        MNV  eP   14 32 50
        JAS  eP   14 32 53.8
        BKS       14 32                   e 32 47
        WDC  ePd  14 33 07.0
        FHC  ePc  14 33 14.0
                  USGS 14 20 43.0, 28.7S,  67.5W, h=138 km, mb=5.0
                       LA RIOJA PROVINCE, ARGENTINA

JUL 31  WDC  eP   00 33 50.7
        MIN  eP   00 33 53.5
        JAS  eP   00 34 03.5
        MNV  eP   00 34 09.5
                  USGS 00 20 42.4, 24.4N, 121.9E, h= 27 km, mb=4.9, Ms=4.9
                       TAIWAN

JUL 31  BKS  iPd  09 15 48.3              e 15 56
        BRK  iPd  09 15 48.4  15 51
        MHC  iPd  09 15 54.9  16 03
        SAO  iPd  09 16 03.8
        JAS  iPc  09 16 07.4
                  BRK  09 15 44.3, 37.7N, 122.1W, h=  9 km, ML=3.0
                       SOUTHEAST OF BERKELEY, CALIFORNIA

JUL 31  MNV  iPd  11 46 16.8
        PRI  eP   11 46 16.8
        JAS  iPd  11 46 22.2
        MHC  eP   11 46 24.6
        BRK  eP   11 46 28.0
        MIN  eP   11 46 33.6
        WDC  iPd  11 46 36.8
                  USGS 11 34 34.5, 21.9S,  68.3W, h= 69 km, mb=5.3
                       CHILE-BOLIVIA BORDER REGION

JUL 31  MNV  eP   17 15 08.3              e 15 32
        JAS       17 15                   e 15 12     e 15 35
        WDC  eP   17 15 25.5              e 16 00
                  USGS 17 02 45.8, 34.1S,  69.7W, h=134 km, mb=4.6
                       CHILE-ARGENTINA BORDER

AUG 01  WDC  iPc  09 02 52.2
        MIN  iPd  09 02 54.7
        FHC  iPd  09 03 05.8
        BKS  ePd  09 03 33                e 03 58     e 04 30     e 06 40
        JAS  eP   09 03 33.3
        MNV  iP   09 03 40.0
                  BRK  09 02 34.5, 41.5N, 121.9W, h=  2 km, ML=4.6
                       EAST OF MT. SHASTA, CALIFORNIA

AUG 01  WDC  eP   09 05 28.1
        MIN  eP   09 05 30.4
        FHC  iPc  09 05 41.6
                  BRK  09 05 10.2, 41.4N, 121.9W, h=  2 km, ML=4.2
                       EAST OF MT. SHASTA, CALIFORNIA

AUG 01  WDC  iPd  09 09 16.3
        MIN  eP   09 09 19.0
        FHC  e(P) 09 09 30
                  BRK  09 09 00.4, 41.5N, 121.9W, h=  2 km, ML=3.4
                       EAST OF MT. SHASTA, CALIFORNIA

AUG 01  WDC  ePc  09 36 07.3
        MIN  iP   09 36 10.2
        FHC  eP   09 36 20.9
                  BRK  09 35 50.6, 41.4N, 121.9W, h=  2 km, ML=3.5
                       EAST OF MT. SHASTA, CALIFORNIA

AUG 01  WDC  iPc  09 38 34.0
        MIN  iP   09 38 36.8  38 52
        FHC  e(P) 09 38 48
                  BRK  09 38 16.6, 41.4N, 121.9W, h=  2 km, ML=3.9
                       EAST OF MT. SHASTA, CALIFORNIA

AUG 01  WDC  iPc  09 47 02.6
        MIN  ePd  09 47 05.0
        FHC  iPc  09 47 16.3
        BKS  ePc  09 47 43.5  48 24
        JAS  iPd  09 47 44.3
        MNV  eP   09 47 50.6
                  BRK  09 46 44.6, 41.5N, 121.9W, h=  2 km, ML=4.5
                       EAST OF MT. SHASTA, CALIFORNIA

AUG 01  WDC  iPc  10 26 50.3
        MIN  iPd  10 26 52.7
        FHC  ePc  10 27 04.0
        BKS  iPgc 10 27 29.5                    P• 27 38
        JAS  eP   10 27 31.5
        MNV  iPd  10 27 38.0
                  BRK  10 26 32.5, 41.5N, 121.9W, h=  2 km, ML=4.2
                       EAST OF MT. SHASTA, CALIFORNIA

AUG 01  WDC  iPc  10 47 44.7
        MIN  iPd  10 47 47.3
        FHC  ePc  10 47 59.0
        JAS  e(P) 10 48 26
        MNV  e(P) 10 48 32
                  BRK  10 47 27.0, 41.4N, 121.9W, h=  2 km, ML=3.3
                       EAST OF MT. SHASTA, CALIFORNIA

AUG 01  WDC  iPc  11 12 00.5
        MIN  iPd  11 12 02.7
        FHC  e(P) 11 12 15
        MNV  e(P) 11 12 48
                  BRK  11 11 43.9, 41.4N, 121.9W, h=  2 km, ML=3.1
                       EAST OF MT. SHASTA, CALIFORNIA

AUG 01  WDC  iPc  11 22 59.6
        MIN  iPd  11 23 01.7
        FHC  e(P) 11 23 13
                  BRK  11 22 43.0, 41.4N, 121.9W, h=  2 km, ML=3.2
                       EAST OF MT. SHASTA, CALIFORNIA

AUG 01  WDC  iPc  14 16 27.7
        MIN  eP   14 16 30.0
        FHC  eP   14 16 41.1
                  BRK  14 16 10.5, 41.4N, 121.9W, h=  2 km, ML=3.6
                       EAST OF MT. SHASTA, CALIFORNIA

AUG 01  WDC  iPc  15 53 38.0
        MIN  iPc  15 53 40.2
        FHC  iPd  15 53 51.1
        JAS  eP   15 54 19
                  BRK  15 53 20.5, 41.4N, 121.9W, h=  2 km, ML=3.9
                       EAST OF MT. SHASTA, CALIFORNIA

AUG 01  WDC  ePc  18 22 32.3
        MIN  ePd  18 22 34.3
        FHC  eP   18 22 46.1
                  BRK  18 22 15.7, 41.4N, 121.9W, h=  2 km, ML=3.3
                       EAST OF MT. SHASTA, CALIFORNIA

AUG 01  WDC  iPc  18 34 29.3
        MIN  iPd  18 34 31.8
        FHC  eP   18 34 43.0
        JAS  eP   18 35 10
        MNV  eP   18 35 15
                  BRK  18 34 11.4, 41.5N, 121.9W, h=  2 km, ML=3.3
                       EAST OF MT. SHASTA, CALIFORNIA

AUG 01  BKS       20 41       50 12        e 41 10     Lq 59 00     Lr 01 50
                       MICRON     PERIOD
                  LZ     1.8        20
                  LN     1.0        20
                  LE     1.1        20
        JAS  eP   20 41 07.4
        WDC  eP   20 41 09.2
        MNV  eP   20 41 17.5
                  Ms=5.2, DISTANCE=70°
                  USGS 20 29 42.9, 15.3S, 173.3W, h= 33 km, mb=5.3, Ms=5.5
                       TONGA ISLANDS

AUG 01  WDC  iPc  21 02 54.1
        MIN  ePd  21 02 56.4
        FHC  eP   21 03 08.0
        JAS  eP   21 03 34.5
                  BRK  21 02 36.8, 41.4N, 121.9W, h=  2 km, ML=3.3
                       EAST OF MT. SHASTA, CALIFORNIA

AUG 02  WDC  iPd  00 07 15.2
        MIN  iPd  00 07 17.5
        FHC  iPd  00 07 29.0
        JAS  eP   00 07 55.5
        MNV  iPc  00 08 03.0
                  BRK  00 06 58.0, 41.4N, 121.9W, h=  2 km, ML=3.8
                       EAST OF MT. SHASTA, CALIFORNIA

AUG 02  WDC  iPc  02 15 51.0
        MIN  iPc  02 15 53.5
        FHC  e(P) 02 16 04
        JAS  e(P) 02 16 32
        MNV  e(P) 02 16 38
                  BRK  02 15 34.0, 41.4N, 121.9W, h=  2 km, ML=3.4
                       EAST OF MT. SHASTA, CALIFORNIA

AUG 02  BRK  eP   09 09 06.7
        PRI  eP   09 09 07.9
        MHC  eP   09 09 08.0
        JAS  eP   09 09 13.6
        WDC  eP   09 09 15.2
        MIN  eP   09 09 17.5
        MNV  eP   09 09 22.9
                  USGS 08 58 15.4, 18.8S, 177.6W, h=609 km, mb=5.3
                       FIJI ISLANDS REGION

AUG 02  WDC  ePd  14 32 04.4
        MIN  eP   14 32 06.6
        FHC  eP   14 32 17.9
        MNV  e(P) 14 32 52
                  BRK  14 31 47.0, 41.4N, 121.9W, h=  2 km, ML=3.4
                       EAST OF MT. SHASTA, CALIFORNIA

AUG 02  SAO  eP   16 36 11.7
        BKS  iPc  16 36 12
                       MICRON     PERIOD
                  PZ     0.02       0.7
        MHC  eP   16 36 12.8
        FHC  eP   16 36 13.1
        PRI  eP   16 36 13.8
        WDC  ePc  16 36 16.8
        JAS  ePc  16 36 17.9
        FRI  eP   16 36 18.3
        MIN  ePc  16 36 19.0
        MNV  ePc  16 36 26.5
                  USGS 16 23 55.5, 18.9S, 169.2E, h=208 km, mb=5.1
                       NEW HEBRIDES ISLANDS
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AUG 03  WDC  ePKP   01 29 40.5
        MIN  e(PKP)  01 29 42
        JAS  ePKP   01 29 46
        MNV  ePKP   01 29 49.2
                    USGS 01 10 26.3,  0.9S,  84.3E, h= 33 km, mb=5.5, Ms=5.6
                         SOUTH INDIAN OCEAN

AUG 03  WDC  ePc    06 04 10.8                  e 04 17
        MIN  eP     06 04 17.4                  e 04 23
        JAS  eP     06 04 46.5                  e 04 54
        MNV  ePc    06 04 47.7

AUG 03  WDC  ePc    06 19 51.4
        MIN  eP     06 19 53.8
        BKS  iPc    06 20 05      30 30         Lq 43 00      Lr 46 00
                                MICRON    PERIOD
                            PZ    0.03       1.0
                            LZ    0.9        20
                            LN    1.1        20
                            LE    1.6        20
        JAS  ePc    06 20 07.7
        MNV  ePc    06 20 08.6
        MHC  eP     06 20 08.8
        FRI  eP     06 20 13.2
        PRI  eP     06 20 16.5
                    Ms=5.5, DISTANCE=85°
                    USGS 06 07 35.9, 52.1N,  96.9E, h= 33 km, mb=5.3, Ms=5.5
                         CENTRAL U.S.S.R.

AUG 03  BKS  ePd    12 53 56.5                  e 54 04
                                MICRON    PERIOD
                            PZ    0.03       0.8
        MHC  eP     12 53 57.5
        FHC  eP     12 53 58.4
        PRI  eP     12 53 59.2
        WDC  iPc    12 54 00.8
        JAS  eP     12 54 02.5                  e 57 23
        MIN  eP     12 54 02.8
        FRI  eP     12 54 03.4
        MNV  eP     12 54 11.8
                    USGS 12 41 36.7, 15.4S, 167.5E, h=131 km, mb=5.7
                         NEW HEBRIDES ISLANDS

AUG 03  FRI  ePd    18 23 11.8
        PRI  iPd    18 23 13.0
        MNV  iPd    18 23 14.1                  e 42 13
        SAO  ePd    18 23 17.0
        JAS  iPd    18 23 18.8                PKPPKP 50 15
        MHC  ePd    18 23 20.6
        BKS  iPd    18 23 23.9  33 28     pP 23 52     PP 26 32     PPP 28 44
                                          SP 34 06     e 34 40      SS 38 50
                                        SSS 42 30     e 45 54      Lq 46 00
                                          Lr 50 00
                                MICRON    PERIOD
                            PZ    1.29       1.5
                            LZ    20         20
                            LN    18         20
                            LE    16         20
        MIN  ePd    18 23 30.2
        WDC  iPd    18 23 33.2                  e 42 23 PKPPKP 50 03
        FHC  iPd    18 23 40.0
                    mb=6.6, DISTANCE=82°
                    USGS 18 11 17.1, 26.5S,  70.5W, h= 58 km, mb=6.3
                         NEAR THE COAST OF NORTHERN CHILE

AUG 04  PRI  eP     01 28 20.3
        MHC  eP     01 28 20.5
        JAS  eP     01 28 26.4
        FRI  eP     01 28 29.1
        WDC  eP     01 28 30.6
        MIN         01 28                       e 28 36
        MNV  eP     01 28 36.5
                    USGS 01 17 02.0, 15.7S, 173.0W, h= 33 km, mb=5.3, Ms=5.1
                         TONGA ISLANDS

AUG 04  WDC  iPd    05 19 10.5
        MIN  eP     05 19 12.6
        FHC  eP     05 19 24.0                  e 19 52
        MNV  eP     05 19 58.1
                    BRK  05 18 52.9, 41.4N, 121.9W, h=  2 km, ML=3.5
                         EAST OF MT. SHASTA, CALIFORNIA

AUG 04  FHC  eP     09 08 23.4
        WDC  eP     09 08 27.1
        MIN  eP     09 08 30.0
        MHC  eP     09 08 38.0
        JAS  eP     09 08 40.0
        PRI         09 08
        FRI  eP     09 08 44.4                  e 08 44
        MNV  eP     09 08 45.8
                    USGS 08 55 00.9, 19.9N, 120.4E, h= 33 km, mb=5.4, Ms=4.9
                         PHILLIPPINE ISLANDS REGION

AUG 04  FRI         10 44
        MNV  eP     10 44 34.6                  e 44 34
        FRI         10 44
        MHC  eP     10 44 39.2                  e 44 36
        JAS  eP     10 44 43.6
        WDC  eP     10 45 03.5
                    USGS 10 37 40.5, 13.0N,  89.8W, h= 80 km, mb=4.7
                         EL SALVADOR

AUG 04  WDC         14 28
        MIN  ePKP   14 28 42.4                  e 28 38
        BKS  iPKPd  14 28 44.5
                                MICRON    PERIOD
                            FKPZ  0.03       0.8
        JAS  ePKP   14 28 44.6
        MNV  ePKP   14 28 45
        MHC  ePKP   14 28 46.2
        SAO         14 28
        FRI  ePKP   14 28 48.5                  e 28 48
        PRI  ePKP   14 28 51.2
                    USGS 14 09 09.5,  3.5S,  68.7E, h= 33 km, mb=5.4, Ms=5.0
                         CHAGOS ARCHIPELAGO REGION

AUG 04  FHC  eP     17 50 39.5
        WDC  ePc    17 50 41.0
        MHC  eP     17 51 07.5
        JAS  eP     17 51 11.0
        PRI  eP     17 51 19.3
        MNV  ePc    17 51 19.9
                    ANDREANOF ISLANDS REGION, ALEUTIAN ISLANDS

AUG 05  FHC  e(P)   04 25 37
        BKS  e(P)   04 25 40      36 36        SS 42 26      Lq 49 04      Lr 53 36
                                MICRON    PERIOD
                            LZ    4.1        20
                            LN    2.3        20
                            LE    4.3        20
        WDC  ePc    04 25 40.5
        MHC  e(P)   04 25 43                  PP 29 13
        MIN  eP     04 25 43.0
        PRI  eP     04 25 46.0
        JAS  ePc    04 25 46.5                PP 29 25
        FRI  e(P)   04 25 50                  PP 29 26
        MNV  ePc    04 25 55.5
                    Ms=5.9, DISTANCE=90°
                    USGS 04 12 43.9,  3.6S, 151.0E, h= 33 km, mb=5.8, Ms=6.1
                         NEW IRELAND REGION

AUG 05  WDC  eP     07 12 38
        JAS  eP     07 12 45

AUG 05  FHC  eP     15 58 59                    pP 00 01
        WDC  ePd    15 59 02.1
        MIN  eP     15 59 05.0                  e 59 08      pP 00 16
        PRI         15 59                       pP 00 10     PP 02 44      SKS 09 20
        JAS  ePd    15 59 08.5
        FRI  eP     15 59 11.0
        MNV  ePd    15 59 17.3                  pP 00 16
                    USGS 15 46 36.0,  3.6S, 152.3E, h=255 km, mb=5.7
                         NEW IRELAND REGION

AUG 05  FHC  ePKP   19 11 06.2
        WDC  ePKPc  19 11 07.4
        MIN  ePKP   19 11 08.6
        BKS  ePKP   19 11 10.0
        MHC  ePKP   19 11 12.5
        JAS  ePKP   19 11 12.7
        SAO  ePKP   19 11 12.8
        FRI  ePKP   19 11 15.3
        PRI  ePKP   19 11 15.3
        MNV  ePKPc  19 11 15.8
                    USGS 18 52 09.1,  4.0S, 102.4E, h= 52 km, mb=5.9, Ms=5.3
                         SOUTHERN SUMATERA

AUG 05  WDC  eP     23 23 39.0
        JAS  eP     23 23 58.0
        MNV  eP     23 24 05.2
                    USGS 23 13 39.7, 46.0N, 149.3E, h=161 km, mb=4.4
                         KURIL ISLANDS

AUG 06  JAS  ePd    04 30 48.7
        MNV  ePd    04 30 57.3
                    USGS 04 18 01.2, 20.8S, 169.4E, h= 40 km, mb=4.8
                         NEW HEBRIDES ISLANDS

AUG 07  JAS  eP     05 58 53.7
        MNV  eP     05 59 02.0
                    USGS 05 46 04.2, 19.0S, 167.6E, h= 30 km
                         NEW HEBRIDES ISLANDS REGION

AUG 07  JAS  ePc    23 01 55.7
        WDC  ePc    23 01 56.4
        MNV  iPc    23 02 05.8
                    USGS 22 50 48.4, 15.8S, 177.1W, h=340 km, mb=4.4
                         FIJI ISLANDS REGION

AUG 08  MNV  e(P)   03 07 46
        FRI  eP     03 07 46
        PRI  eP     03 07 50.5
        JAS  eP     03 07 54.3
        MHC  eP     03 07 59.5
        BKS         03 08                       e 08 04
        MIN  eP     03 08 06.8
        WDC  ePc    03 08 09.5
        FHC  ePc    03 08 20.5
                    USGS 02 58 36.6,  7.0N,  72.1W, h= 45 km, mb=5.1, Ms=4.1
                         NORTHERN COLOMBIA

AUG 08  FHC  eP     04 41 49.4
        WDC  ePd    04 41 57.5
        MIN  eP     04 42 03.1
        BKS  eP     04 42 12.5
        MHC  eP     04 42 18.6
        JAS  ePd    04 42 22.0
        SAO  eP     04 42 22.5
        FRI  eP     04 42 30.4
        PRI  eP     04 42 30.5
        MNV  ePd    04 42 31.2
                    USGS 04 35 06.5, 52.3N, 171.4W, h= 43 km, mb=4.8, Ms=3.8
                         FOX ISLANDS, ALEUTIAN ISLANDS

AUG 08  FHC  eP     07 58 40.7
        BKS  ePc    07 58 41      09 00        PS 09 53     PPS 10 18     e 17 33
                                                Lq 20 06     e 21 10       Lr 23 56
                                MICRON    PERIOD
                            LZ    10         20
                            LN    5          20
                            LE    8          20
        SAO  eP     07 58 42.3
        MHC  eP     07 58 42.5
        PRI  eP     07 58 44.3
        WDC  eP     07 58 44.7
        MIN  e(P)   07 58 48
        JAS  eP     07 58 48.2
        FRI  eP     07 58 48.6
        MNV  e(P)   07 58 58
                    USGS 07 46 23.0, 12.4S, 166.4E, h= 88 km, mb=5.7
                         SANTA CRUZ ISLANDS

AUG 08  WDC  eP     09 35 30.5
        MIN  eP     09 35 35.0
        BRK  eP     09 35 53
        JAS  eP     09 35 57.9
        MNV  eP     09 36 01.7
        PRI  eP     09 36 12.6
                    USGS 09 30 03.3, 61.4N, 146.9W, h= 53 km, mb=4.3
                         SOUTHERN ALASKA

AUG 08  FHC  e(P)   11 43 23
        WDC  iPd    11 43 28.3
        MIN  eP     11 43 31.9
        BKS  eP     11 43 33.3
        MHC  eP     11 43 36.8
        JAS  ePd    11 43 40.7
        FRI  eP     11 43 44.7
        MNV  iPd    11 43 49.0
                    USGS 11 31 34.0, 18.7N, 145.9E, h=115 km, mb=4.7
                         MARIANA ISLANDS

AUG 08  PRI  e(P)   16 03 40
        MNV  ePc    16 03 41.8
        JAS  eP     16 03 47.2
        MHC  eP     16 03 49.4
        WDC  eP     16 04 08.9
        FHC  eP     16 04 18
                    USGS 15 55 24.0,  0.0N,  91.5W, h= 33 km, mb=4.5
                         GALAPAGOS ISLANDS

AUG 09  SAO  ePc    00 59 34.0
        BKS  ePc    00 59 34.5
        PRI  ePc    00 59 35.4
        MHC  ePc    00 59 35.6
        FHC  ePc    00 59 38.7                  pP 00 45
        FRI  ePc    00 59 41.3
        JAS  iPc    00 59 41.5                  pP 00 51
        WDC  iPc    00 59 42.6                  pP 00 50
        MIN  ePc    00 59 44.5                  pP 00 51
        MNV  iPc    00 59 51.9                  pP 01 02
                    USGS 00 48 36.7, 14.9S, 176.1W, h=301 km, mb=5.2
                         FIJI ISLANDS REGION

AUG 09  FHC  e(P)   14 43 24
        WDC  eP     14 43 29.0
        MIN  eP     14 43 32.5
        BKS         14 43
        MHC  eP     14 43                       e 43 35
        JAS  eP     14 43 36
        PRI  eP     14 43 40.3
        FRI  eP     14 43 42.2
        MNV  eP     14 43 44
                    14 43 49.0
                    USGS 14 31 17.1, 15.8N, 146.6E, h= 33 km, mb=5.4, Ms=5.2
                         MARIANA ISLANDS
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AUG 09  BKS  eP      15 48 05.0                    e 13 56
                                MICRON     PERIOD
                          PZ      0.05        1.0
        SAO  e(P)    15 48 06
        MBC  eP      15 48 06.2
        FHC  e(P)    15 48 07
        PRI  eP      15 48 07.8
        WDC  eP      15 48 09.0
        JAS  eP      15 48 11.2
        MIN  eP      15 48 11.3
        FRI  eP      15 48 12.1
        MNV  eP      15 48 20.3
                     USGS 15 35 29.9, 15.4S, 166.7E, h= 23 km, mb=5.6, Ms=5.6
                          NEW HEBRIDES ISLANDS

AUG 09  MBC  eP      15 53 53
        PRI  eP      15 53 55
        WDC  eP      15 53 55.5
        MIN  eP      15 53 57
        JAS  eP      15 53 57.9
                     USGS 15 41 16.4, 15.4S, 166.7E, h= 21 km, mb=5.3
                          NEW HEBRIDES ISLANDS

AUG 09  PRI          16 16                         e 16 06
        MBC          16 16                         e 16 16
        MNV  eP      16 16 17
        JAS  eP      16 16 20
        WDC          16 16                         e 16 48

AUG 09  FHC  ePc     18 10 25.9
        WDC  iPo     18 10 29.7
        MIN  eP      18 10 33.0
        BKS  eP      18 10 41.0
                                MICRON     PERIOD
                          PZ      0.05        1.0
        JAS  ePc     18 10 50.6
        MBC  eP      18 10 51.1
        MNV  iPc     18 10 52.6
        SAO  eP      18 10 54.3
        FRI  eP      18 10 57.0
        PRI  eP      18 11 00.7
                     USGS 17 59 58.2, 63.7N, 125.3E, h=  0 km, mb=5.6, Ms=3.8
                          NUCLEAR EXPLOSION, CENTRAL SIBERIA

AUG 09  BKS          20 51                         e 52 06
        MBC  eP      20 51 59.5
        PRI  eP      20 52 01.2
        WDC  ePc     20 52 02.6
        JAS  eP      20 52 04.6
        FRI  eP      20 52 05.4
        MNV  ePc     20 52 13.8
                     USGS 20 39 24.3, 15.5S, 166.7E, h= 33 km, mb=5.5, Ms=4.9
                          NEW HEBRIDES ISLANDS

AUG 10  WDC  iPc     08 10 49.4                    e 13 16 PKPPKP 38 25
        FHC  ePc     08 10 49.5
        MIN  ePc     08 10 51.4
        MNV  iPc     08 11 03.3
        JAS  iPc     08 11 06.8          PKPPKP 38 16
        BKS  ePc     08 11 07.7
                                MICRON     PERIOD
                          PZ      0.12        0.8
        MBC  ePc     08 11 10.8
        FRI  eP      08 11 12.4
        SAO  eP      08 11 13.9
        PRI  ePc     08 11 18.7          PKPPKP 38 12
                     USGS 07 59 57.7, 73.3N,  54.8E, h=  0 km, mb=5.9, Ms=4.3
                          NUCLEAR EXPLOSION, NOVAYA ZEMLYA

AUG 10  JAS  ePKP    11 14 08.3
        WDC  ePKP    11 14 12.0
                     USGS 10 55 13.1, 55.5S,  26.1W, h= 33 km, mb=5.4, Ms=4.9
                          SOUTH SANDWICH ISLANDS REGION

AUG 10  BRK  eP      20 19 25.8
        BKS  eP      20 19                         e 43 40
                                MICRON     PERIOD
                          LZ      4.5         20
                          LN      2.6         20
                          LE      3.0         20
        MBC  eP      20 19 27.1
        FRI  eP      20 19 27.7
        FHC  e(P)    20 19 30
        WDC  ePc     20 19 32.2
        JAS  eP      20 19 32.6
        FRI  eP      20 19 32.8
        MNV  eP      20 19 42.2
                     USGS 20 07 20.2, 16.7S, 175.7E, h= 33 km, mb=5.5, Ms=5.3
                          FIJI ISLANDS REGION

AUG 10  JAS  ePKP    22 08 48.5
        WDC  ePKP    22 08 49.5
                     USGS 21 48 48.7, 44.6S,  37.9E, h= 33 km, mb=4.9, Ms=4.9
                          PRINCE EDWARD ISLANDS REGION

AUG 11  PRI  ePd     00 48 22.6
        FRI  e(P)    00 48 24
        SAO  eP      00 48 33.6
        MNV  iP      00 48 37.3
        JAS  ePd     00 48 40.2
        MBC          00 48                         e 48 41
                     MAG=4.0, EAST OF LOS ANGELES, CALIFORNIA
                     PAS  00 47 30.1, 34.2N, 117.4W, h=  4 km, ML=4.0
                          SOUTHERN CALIFORNIA

AUG 12  JAS  eP      12 38 23.1                    e 38 26
        WDC  eP      12 38 24.5                    e 38 28
        MNV  eP      12 38 31.6                    e 38 35
                     USGS 12 27 07.7, 21.8S, 179.4W, h=600 km, mb=4.3
                          FIJI ISLANDS REGION

AUG 12  PRI  eP      16 51 30.7
        BKS          16 51                         e 51 38
        MBC  eP      16 51 30.9
        JAS  ePc     16 51 36.4
        WDC  ePc     16 51 37.7
        MNV  ePc     16 51 45.9
                     USGS 16 40 30.7, 18.8S, 178.1W, h=531 km, mb=4.9
                          FIJI ISLANDS REGION

AUG 12  WDC  ePc     21 48 13.0
        MIN  eP      21 48 17
        JAS  ePc     21 48 31.0
        MNV  eP      21 48 37.5
                     USGS 21 37 53.1, 45.0N, 141.9E, h=284 km, mb=4.6
                          HOKKAIDO, JAPAN, REGION

AUG 13  WDC  eP      00 55 20.3                    e 55 39      e 56 00
        JAS  ePc     00 55 47.5                    e 56 10
        MNV  ePc     00 55 51.5                    e 56 14
                     USGS 00 49 41.0, 62.3N, 149.7W, h= 65 km, mb=4.1
                          CENTRAL ALASKA

AUG 13  SAO  iPc     02 58 39.0
        MBC  ePd     02 58 50.7  59 01
        FRI  ePd     02 58 51.3
        JAS  ePd     02 59 02.3
        BKS  eP      02 59 04    59 23
                     BRK  02 58 36.6, 36.7N, 121.4W, h=  7 km, ML=2.8
                          STONE CANYON, CALIFORNIA

AUG 13  BKS  eP      05 05 29
        MBC  eP      05 05 29.9
        JAS  ePc     05 05 35.3
        WDC  ePc     05 05 36.8
        MNV  ePc     05 05 44.5
                          FIJI ISLANDS REGION

AUG 13  WDC  iPc     05 56 05.4
        MIN  iPd     05 56 07.9  56 24
        FHC  ePc     05 56 19.1
        JAS  eP      05 56 47.5
        BKS  ePc     05 56 47.8
        MNV  eP      05 56 53.3
                     BRK  05 55 48.0, 41.4N, 121.9W, h=  2 km, ML=4.3
                          EAST OF MT. SHASTA, CALIFORNIA

AUG 13  MIN  iP      05 57 29.8  57 44
        JAS  e(P)    05 58 05
                     BRK  05 57 05  , 41.4N, 121.9W, h=  2 km, ML=4.1
                          EAST OF MT. SHASTA, CALIFORNIA

AUG 13  MIN  eP      05 58 45.4  58 59
        BKS  iP      05 59 22.3  00 07
        JAS  e(P)    05 59 24
                     BRK  05 58 22  , 41.4N, 121.9W, h=  2 km, ML=4.3
                          EAST OF MT. SHASTA, CALIFORNIA

AUG 13  WDC  iPc     06 21 49.7
        MIN  ePd     06 21 51.8  22 07
        FHC  eP      06 22 04.0
                     BRK  06 21 32.0, 41.4N, 121.9W, h=  2 km, ML=3.3
                          EAST OF MT. SHASTA, CALIFORNIA

AUG 13  WDC  iPc     07 03 36.6
        MIN  ePd     07 03 38.9  03 55
        FHC  eP      07 03 50.7
        JAS  eP      07 04 19
        MNV  eP      07 04 24.5
                     BRK  07 03 18.1, 41.5N, 121.8W, h=  2 km, ML=3.3
                          EAST OF MT. SHASTA, CALIFORNIA

AUG 13  MNV  ePc     10 59 56.5                    PcP 02 04      e 02 14
        JAS  eP      11 00 06.2                    PcP 02 08      e 02 18
        MBC  eP      11 00 11.0
        BKS  ePc     11 00 16.8
                                MICRON     PERIOD
                          PZ      0.02        0.8
        WDC          11 00                         PcP 02 14
        FHC  eP      11 00 38.5
                     USGS 10 52 30.5, 11.2N,  86.1W, h= 71 km, mb=4.7
                          NEAR THE COAST OF NICARAGUA

AUG 13  SAO  ePd     21 04 44.3
        BKS  iPd     21 04 44.7
                                MICRON     PERIOD
                          PZ      0.16        1.2
        PRI  ePd     21 04 46.0
        MBC  ePd     21 04 46.0
        FHC  eP      21 04 49.1
        FRI  ePd     21 04 51.2
        JAS  iPd     21 04 51.5                    pP 06 58
        WDC  iPd     21 04 52.4                    pP 07 01
        MIN  eP      21 04 54.4
        MNV  iPd     21 05 01.2                    pP 07 06
                     USGS 20 53 53.8, 17.8S, 178.4W, h=599 km, mb=5.5
                          FIJI ISLANDS REGION

AUG 13  PRI  ePc     22 55 24.6
        FRI  iPc     22 55 34.4
        SAO  iPc     22 55 35.1
        MBC  iPc     22 55 43.7
        JAS  iPc     22 55 48.7
        BKS  iPc     22 55 52.2
        MNV  ePc     22 55 58.3
        MIN  ePc     22 56 24.8
        WDC  eP      22 56 29.0
        FHC  eP      22 56 40
                     ML=5.9, SANTA BARBARA AREA, CALIFORNIA
                     USGS  mb=5.5, Ms=5.6
                     PAS  22 54 53.5, 34.4N, 119.7W, h=  7 km, ML=5.2
                          SOUTHERN CALIFORNIA

AUG 14  JAS  eP      00 11 30.0
        WDC  eP      00 11 31.8
        MNV  eP      00 11 40.0
                     USGS 00 00 00.4, 18.5S, 175.7W, h=196 km, mb=4.8
                          TONGA ISLANDS

AUG 14  FHC  ePKP    03 43 44.0
        WDC  ePKP    03 43 44.0
        JAS  ePKP    03 44 06.0
                     USGS 03 23 47.8, 13.6S,  65.9E, h= 33 km, mb=4.9, Ms=4.8
                          MID-INDIAN RISE

AUG 14  MNV  ePKP    07 12 42.0
        JAS  ePKP    07 12 43.7                    e 16 16
        MBC  ePKP    07 12 44.5
        BKS  ePKP    07 12 46.2
                                MICRON     PERIOD
                          PKPZ    0.03        0.8
        WDC  ePKP    07 12 48.8
                     USGS 06 53 55.9, 59.8S,  26.4W, h= 98 km, mb=5.6
                          SOUTH SANDWICH ISLANDS REGION

AUG 14  FHC  iP      18 55 44.2
        WDC  iPo     18 55 50.5                    e 55 58      e 56 13
        MIN  eP      18 55 55.0
        BKS  ePd     18 56 03.1  03 56      pP 56 18      sP 56 27     PcP 56 57
                                            sS 04 32    ScS 05 48      Lq 10 30
                                            Lr 13 48
                                MICRON     PERIOD
                          PZ      0.14        1.4
        MBC  eP      18 56 08.4
        JAS  ePc     18 56 10.1                    e 56 35
        SAO  eP      18 56 12
        FRI  eP      18 56 17.9
        MNV  iPc     18 56 18.3                    e 56 41
        PRI  eP      18 56 18.5
                     USGS 18 46 24.1, 49.9N, 156.3E, h= 86 km, mb=5.8
                          KURIL ISLANDS

AUG 14  WDC  iPc     21 52 58.8
        MIN  eP      21 53 01.1  53 18
        FHC  eP      21 53 12.1
        BKS  ePc     21 53 40.4  54 23
        JAS  eP      21 53 41
        MNV  eP      21 53 45
        MBC  e(P)    21 53 46
                     BRK  21 52 41.6, 41.4N, 121.9W, h=  2 km, ML=4.2
                          EAST OF MT. SHASTA, CALIFORNIA

AUG 14  FHC  ePd     23 58 07.3
        WDC  iPd     23 58 11.7
        BKS  iPc     23 58 12.2  08 34      e 58 22      i 58 27      e 10 38
                                            Lr 28 30
                                MICRON     PERIOD
                          PZ      0.06        1.0
        MBC  eP      23 58 13.9
        MIN  eP      23 58 14.3
        PRI  eP      23 58 17.4
        JAS  ePd     23 58 18.0
        FRI  eP      23 58 20.2
        MNV  eP      23 58 26.7
                     USGS 23 45 01.5,  7.9S, 146.9E, h=145 km, mb=5.8
                          EAST PAPUA, NEW GUINEA, REGION

AUG 15  WDC  e(P)    04 17 17
                     BRK  04 16 52.4, 41.4N, 121.9W, h=  2 km, ML=3.3
                          EAST OF MT. SHASTA, CALIFORNIA

AUG 15  WDC  iPc     04 33 10.2
        MIN  iPd     04 33 12.4  33 27      i 33 28
        FHC  e(P)    04 33 25
                     BRK  04 32 52.8, 41.4N, 121.9W, h=  2 km, ML=3.4
                          EAST OF MT. SHASTA, CALIFORNIA
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AUG 15  SAO  eP     12 49 48.5
        FRI  ePe    12 49 49.6          PKPPKP 16 00
        MHC  ePe    12 49 50.5          PKPPKP 16 00
        BKS  iPe    12 49 50.8  00 12      pP 49 55      e 51 15     PP 53 16
                                           SP 01 20      e 05 20     SS 06 16
                                          SSS 09 28     Lq 12 10     Lr 15 30
                                        PKPPKP 16 32
                          MICRON     PERIOD
                      PZ     0.14      0.8
                      LZ     12        20
                      LN     15        20
                      LE     10        20
        FRI  ePe    12 49 54.4
        JAS  iPe    12 49 55.3                e 50 09      e 53 26 PKPPKP 15 57
        PHC  ePe    12 49 56.0
        WDC  iPe    12 49 58.5          PKPPKP 15 55
        MIN  eP     12 49 59.6
        MNV  iPe    12 50 03.4          PKPPKP 15 53
                    Ms=6.4, DISTANCE=85°
                    USGS 12 37 12.8, 30.5S, 178.2W, h= 33 km, mb=6.1, Ms=6.4
                         KERMADEC ISLANDS

AUG 15  WDC  ePd    13 06 42.0                e 06 56
        MIN  ePd    13 06 46.0                e 07 00
        BKS  iPd    13 06 52.4                i 07 05
                          MICRON     PERIOD
                      PZ     0.12      1.0
        MHC  eP     13 06 55.3
        SAO  eP     13 06 57.1
        JAS  ePd    13 06 58.1
        PRI  eP     13 07 03.2                e 07 12
        FRI  eP     13 07 03.6
        MNV  eP     13 07 05.4                e 07 17
                    USGS 12 55 19.2, 34.0N, 142.3E, h= 47 km, mb=5.5
                         OFF THE EAST COAST OF HONSHU, JAPAN

AUG 15  PHC  ePd    21 58 27.5
        WDC  iPd    21 58 32.5
        MIN  iPd    21 58 35.7          pP 00 24
        BKS  iPe    21 58 38.3                e 08 04
                          MICRON     PERIOD
                      PZ     0.06      1.0
        MHC  ePd    21 58 41.2
        SAO  eP     21 58 42
        JAS  iPd    21 58 44.6
        PRI  ePd    21 58 47.2          pP 00 35
        FRI  ePd    21 58 48.9
        MNV  iPd    21 58 52.5          pP 00 42
                    USGS 21 47 15.6, 19.7N, 144.4E, h=500 km, mb=5.4
                         MARIANA ISLANDS

AUG 16  PHC  iPe    07 45 43.0  45 52
        WDC  iPe    07 45 56.0
        MIN  iPe    07 46 05.8
        BKS  eP     07 46 18.5  46 54
        JAS  e(P)   07 46 32
                    BRK  07 45 32.4, 40.3N, 124.4W, h= 21 km, ML=3.8
                         OFF COAST SSW OF EUREKA, CALIFORNIA

AUG 16  PRI  eP     12 52 13.2
        MHC  eP     12 52 13.7
        JAS  eP     12 52 19.1
        WDC  eP     12 52 21.5
        MIN  eP     12 52 23.2
        MNV  eP     12 52 28.6
                    USGS 12 40 35.2, 21.8S, 176.4W, h=210 km, mb=5.2
                         FIJI ISLANDS REGION

AUG 16  WDC  eP     20 48 47.6
        JAS  eP     20 49 07.6          pP 49 11
        PRI         20 49               pP 49 32
        MNV  eP     20 49 14.8          e 49 14      pP 49 39
                    USGS 20 39 06.9, 48.5N, 153.7E, h=100 km, mb=5.0
                         KURIL ISLANDS

AUG 17  WDC  iPe    07 51 57.7
        MIN  iPd    07 52 00.0
        PHC  ePe    07 52 11.7
        JAS  e(P)   07 52 40
        MNV  eP     07 52 45.1
                    BRK  07 51 40.0, 41.4N, 121.9W, h=  2 km, ML=3.3
                         EAST OF MT. SHASTA, CALIFORNIA

AUG 17  SAO  eP     08 43 39.6
        BKS  ePd    08 43 32.0                e 45 31
                          MICRON     PERIOD
                      PZ     0.15      1.0
        PRI  ePd    08 43 32.2
        MHC  ePd    08 43 32.7
        PHC  ePd    08 43 36.5          pP 45 39
        FRI  ePd    08 43 37.2
        JAS  iPd    08 43 37.7
        WDC  iPd    08 43 39.4          pP 45 43
        MIN  ePd    08 43 40.8          pP 45 46
        MNV  iPd    08 43 46.4
                    USGS 08 32 19.2, 22.2S, 179.6W, h=593 km, mb=5.6
                         SOUTH OF FIJI ISLANDS

AUG 17  MHC  ePe    08 47 41.3
        BKS         08 47
        FRI  eP     08 47 46.0                e 47 44      e 57 50
        JAS  ePe    08 47 46.6
        WDC  iPe    08 47 48.3
        MIN  ePe    08 47 50.0
        MNV  iPe    08 47 55.1
                    FIJI ISLANDS REGION

AUG 17  SAO  eP     09 03 40
        PRI  ePe    09 03 41.2          pP 03 46
        BKS  ePe    09 03 41.8  13 48   pP 03 47
                                        pP 03 48
                                        SP 14 46      e 14 12     SeS 14 18
                                        Lr 26 40     SS 18 50      Lq 23 10
                          MICRON     PERIOD
                      PZ     0.02      1.0
                      LZ     2.7       20
                      LN     2.5       20
                      LE     2.1       20
        MHC  ePe    09 03 41.9
        FRI  eP     09 03 47            pP 03 48
        PHC  eP     09 03 47            pP 03 53
        JAS  iPe    09 03 47.7          pP 03 53
        WDC  ePe    09 03 50.1          pP 03 54
        MIN  ePe    09 03 51.8          pP 03 56
        MNV  iPe    09 03 57.4          pP 03 58
                    Ms=5.6, DISTANCE=76°                pP 04 03
                    USGS 08 51 51.3, 21.1S, 174.3W, h= 20 km, mb=5.7, Ms=5.6
                         TONGA ISLANDS

AUG 18  PHC  eP     09 11 18
        WDC  iPe    09 11 21.5
        MIN  eP     09 11 25.3                e 11 43
        BKS  iPd    09 11 31.2                e 11 51
                          MICRON     PERIOD
                      PZ     0.06      1.0
        MHC  ePe    09 11 34.8
        SAO  eP     09 11 36.9
        JAS  iPe    09 11 37.6
        PRI  eP     09 11 42.2                e 12 00
        FRI  eP     09 11 43.2
        MNV  iPe    09 11 44.8                e 12 06
                    USGS 08 59 55.5, 34.3N, 140.2E, h= 82 km, mb=5.0
                         NEAR THE EAST COAST OF HONSHU, JAPAN

AUG 18  MNV  eP     15 41 52.8          PcP 44 32     pPcP 44 50     ScP 48 12
                                          e 48 50
        FRI  eP     15 41 53.0          PcP 44 32
        PRI  eP     15 41 55.0          pP 42 13     pPcP 44 50
        JAS  eP     15 42 02.5          pP 42 20      PcP 44 33     ScP 48 12
                                        SeP 48 16      PcP 44 35     pPcP 44 52
        SAO  eP     15 42 03.2                         e 48 54     pPcP 44 53
        MHC  eP     15 42 06.3          pP 42 25      PcP 44 37
        BKS  eP     15 42 12.0  47 52   pP 42 29      PcP 44 39     pPcP 44 56
                                        SS 50 40       Lq 52 30     pPcP 44 57
                          MICRON     PERIOD                         Lr 54 44
                      PZ     0.11      1.0
        MIN  eP     15 42 20.0
        WDC  eP     15 42 23.8          pP 42 39
                                        pP 42 43      PcP 44 42
        PHC  eP     15 42 35.3          SeP 48 26      e 49 04     pPcP 45 02
                                        pP 42 54      PcP 44 48     pPcP 45 06
                    USGS 15 35 17.8, 14.4N,  91.5W, h= 96 km, mb=5.5
                         GUATEMALA

AUG 18  PHC  eP     18 57 57.5
        WDC  iPe    18 58 04.3          pP 58 24
        MIN  eP     18 58 09.2          pP 58 30
        BKS  eP     18 58 26.6  03 14   pP 58 36
                                        pP 58 52      SeP 04 57      eS 03 58
                                        Lr 06 30
                          MICRON     PERIOD
                      PZ     0.22      1.0
        MHC  eP     18 58 31.2
        JAS  ePe    18 58 31.5          pP 58 58
        SAO  eP     18 58 36            pP 58 58
        MNV  ePe    18 58 37.0
        FRI  eP     18 58 41.0          pP 59 04
        PRI  eP     18 58 45            pP 59 08
                                        pP 59 12
                    USGS 18 52 28.4, 59.9N, 153.5W, h=123 km, mb=5.4
                         SOUTHERN ALASKA

AUG 19  JAS  eP     17 31 46.1
        WDC  eP     17 31 47.2
        MNV  eP     17 31 56.1
                    USGS 17 20 01.2, 20.6S, 174.3W, h= 95 km, mb=4.9
                         TONGA ISLANDS

AUG 19  WDC  iPd    17 35 27.8
        MIN  iPd    17 35 30.2
        PHC  ePd    17 35 41.7
        JAS  eP     17 36 09
                    BRK  17 35 09.7, 41.5N, 121.9W, h=  2 km, ML=3.9
                         EAST OF MT. SHASTA, CALIFORNIA

AUG 20  WDC  eP     08 28 40.5
        MIN  eP     08 28 42.7
        PHC  eP     08 28 54.6
        JAS  e(P)   08 29 22
                    BRK  08 28 23.6, 41.4N, 121.9W, h=  2 km, ML=3.1
                         EAST OF MT. SHASTA, CALIFORNIA

AUG 20  WDC  eP     09 48 03.7
        MIN  ePe    09 48 06.5
        PHC  eP     09 48 17.7
        JAS  e(P)   09 48 46
        MNV  e(P)   09 48 54
                    BRK  09 47 47.0, 41.4N, 121.9W, h=  2 km, ML=3.6
                         EAST OF MT. SHASTA, CALIFORNIA

AUG 20  WDC  iPd    10 11 49.0
        MIN  iPd    10 11 51.6
        PHC  eP     10 12 02.0
        JAS  e(P)   10 12 32
                    BRK  10 11 31.3, 41.4N, 121.9W, h=  2 km, ML=3.1
                         EAST OF MT. SHASTA, CALIFORNIA

AUG 20  PHC  ePe    16 47 47.0
        WDC  iPd    16 47 57.2
        MIN  iPe    16 48 05.0
        JAS  eP     16 48 38.5
        MNV  iPe    16 48 45.7
        PRI  e(P)   16 48 59
                    USGS 16 45 36.6, 49.1N, 128.9W, h= 27 km, mb=4.1
                         VANCOUVER ISLAND REGION

AUG 20  PHC  iPe    18 42 19.4  42 28
        WDC  iPe    18 42 32.9
        MIN  ePd    18 42 42.5
        MHC  eP     18 43 05
        JAS  eP     18 43 09
        SAO  eP     18 43 11
                    BRK  18 42 04.3, 40.5N, 124.9W, h= 20 km, ML=3.3
                         OFF COAST SOUTHWEST OF EUREKA, CALIFORNIA

AUG 21  FRI  eP     00 40 51.3
        PRI  eP     00 40 52.7
        MNV  iPe    00 40 53.7
        SAO  eP     00 40 56.3
        JAS  iPe    00 40 58.0
        MHC  ePe    00 40 59.9
        BKS  eP     00 41 02.7
                          MICRON     PERIOD
                      PZ     0.06      1.0
        MIN  eP     00 41 07.6
        WDC  iPe    00 41 11.5
        PHC  ePe    00 41 17.9
                    USGS 00 28 22.7, 31.3S,  67.8W, h= 10 km, mb=5.6, Ms=4.7
                         SAN JUAN PROVINCE, ARGENTINA

AUG 21  WDC  iPd    13 08 53.4
        MIN  iPd    13 08 56.0
        PHC  eP     13 09 07.7
        JAS  eP     13 09 35.5
                    BRK  13 08 35.4, 41.5N, 121.9W, h=  2 km, ML=3.2
                         EAST OF MT. SHASTA, CALIFORNIA

AUG 21  MNV  ePKP   22 24 59.5
        PRI  ePKP   22 24 59.7
        FRI  ePKP   22 24 59.7                e 25 04
        JAS  ePKP   22 25 01.3
        BKS  ePKP   22 25 00
                                        PKS 29 25
                          MICRON     PERIOD    Lq 12 00     PPS 39 45
                      LZ     9         20                    Lr 21 25     SSS 49 25
                      LN     6         20
                      LE     5         20
        WDC  ePKP   22 25 02.2
                    Ms=6.5, DISTANCE=159°
                    USGS 22 05 02.5, 47.7S,  32.5E, h= 10 km, mb=5.8, Ms=6.2
                         PRINCE EDWARD ISLANDS REGION

AUG 22  WDC  eP     14 41 29.0
        JAS  eP     14 41 49.0                e 41 37
        MNV  eP     14 41 55.3                i 41 58
                                              e 42 06
                    USGS 14 31 09.2, 44.1N, 148.9E, h= 50 km, mb=5.0, Ms=4.6
                         KURIL ISLANDS

AUG 23  MNV  iPe    00 46 10.7
        FRI  ePe    00 46 11.3
        PRI  ePe    00 46 14.0
        SAO         00 46
        JAS  iPe    00 46 20.2                e 46 20
        MHC  iPe    00 46 25.2
        BKS  ePe    00 46 30.5  52 58      PP 48 21
                                           Lr 59 20     SeS 56 25      Lq 57 50
                          MICRON     PERIOD
                      PZ     5.9       2.4
                      LZ     80        20
                      LNE    280       21
                      LNW    170       20
        MIN  ePe    00 46 35.1
        WDC  ePe    00 46 39.5
        PHC  ePe    00 46 50.9
                    Ms=7.2, DISTANCE=44°
                    USGS 00 38 32.2, 10.2N,  85.2W, h= 56 km, mb=5.7, Ms=7.0
                         COSTA RICA
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AUG 23  MNV  iPc   00 58 05.7
        FRI  eP    00 58 06.2                  i 58 17
        PRI  eP    00 58 09.1
        JAS  eP    00 58 15.0                  i 58 25
        SAO  eP    00 58 15.4
        MHC  eP    00 58 20.0
        BKS  ePc   00 58 24.8
                        MICRON     PERIOD
                   PZ     0.24        0.9
        MIN  eP    00 58 30.4
        WDC  eP    00 58 34.7
        FHC  eP    00 58 45 9
                   USGS 00 58 29.1, 10.3N,  85.1W, h= 71 km, mb=5.4
                        COSTA RICA

AUG 23  MNV  iPc   02 31 52.1                  i 32 01
        FRI  eP    02 31 52.6
        PRI  eP    02 31 57.4
        JAS  eP    02 32 01.4
        SAO  eP    02 32 03.0
        MHC  eP    02 32 06.3                  e 32 15
        BKS  ePc   02 32 11.1
                        MICRON     PERIOD
                   PZ     0.05        0.9
        MIN  eP    02 32 17.3                  e 32 26
        WDC  eP    02 32 21.0
        FHC  eP    02 32 32.4
                   USGS 02 24 16.3, 10.3N,  85.3W, h= 72 km, mb=4.7
                        COSTA RICA

AUG 23  MNV  iP    02 33 50.0                  i 33 59
        FRI  eP    02 33 50.2
        PRI  eP    02 33 54.8
        JAS  eP    02 33 57.3
        SAO  eP    02 34 00.5
        MHC  eP    02 34 04.0
        BKS  eP    02 34 08.8
        MIN        02 34                       e 34 16
        WDC  e(P)  02 34 18
        FHC  eP    02 34 30.3
                   USGS 02 26 13.5, 10.2N,  85.3W, h= 66 km, mb=4.7
                        COSTA RICA

AUG 23  FHC  eP    21 06 51.7
        WDC  eP    21 06 57.6                  pP 07 18
        MIN  eP    21 07 03.0                  pP 07 23
        BKS  eP    21 07 13.4                  pP 07 33
                        MICRON     PERIOD
                   PZ     0.04        0.9
        MHC  e(P)  21 07 19                    pP 07 38
        JAS  eP    21 07 20.6                  pP 07 41
        SAO        21 07                       pP 07 41
        FRI  eP    21 07 28.8                  pP 07 49
        PRI  e(P)  21 07 29
        MNV  eP    21 07 29.7                  pP 07 50
                   USGS 20 59 05.7, 51.7N, 176.4E, h= 54 km, mb=5.4, Ms=4.8
                        RAT ISLANDS, ALEUTIAN ISLANDS

AUG 24  WDC  eP    15 19 20                    pP 19 54
        JAS  eP    15 19 22                    pP 19 55
        MNV        15 20                       pP 20 04
                   USGS 15 06 55.7, 15.6S, 167.7E, h=139 km, mb=5.3
                        NEW HEBRIDES ISLANDS

AUG 24  PRI        15 40                       e 40 24
        FRI  eP    15 40 27.0
        MNV  eP    15 40 32.2
        JAS  eP    15 40 42.0
        MHC  eP    15 40 51.0
        BKS  eP    15 40 55.8
        MIN  eP    15 41 12.6
        WDC  eP    15 41 19.5
                   USGS 15 37 18.5, 26.4N, 110.4W, h= 33 km, mb=4.9
                        GULF OF CALIFORNIA

AUG 24  FHC  eP    18 10 42.3
        WDC  iPd   18 10 45.0
        MIN  eP    18 10 48.0
        JAS  eP    18 11 04.3
        MNV  eP    18 11 05.8
        PRI  eP    18 11 15.6
                   USGS 17 59 57.0, 65.9N, 112.5E, h=  0 km, mb=5.1, Ms=3.7
                        NUCLEAR EXPLOSION, CENTRAL SIBERIA

AUG 24  MHC  iPd   21 04 29.5
        BKS  ePc   21 04 38.3  04 49
        SAO  iPd   21 04 40.2
        JAS  iPd   21 04 43.8                  i 04 56
        FRI  eP    21 04 52.4
        PRI  eP    21 04 53.3
        MNV  eP    21 05 15.5
                   BRK  21 04 25.7, 37.5N, 121.5W, h=  5 km, ML=2.8
                        SOUTHEAST OF LIVERMORE, CALIFORNIA

AUG 25  WDC  eP    00 26 42.2
        MHC  eP    00 26 50.0
        JAS  eP    00 26 52.7
        FRI  eP    00 26 54.4
        PRI  eP    00 26 55.0
                   USGS 00 14 03.5, 12.0N, 142.1E, h= 45 km, mb=5.1, Ms=4.5
                        SOUTH OF MARIANA ISLANDS

AUG 25  MNV  iPd   01 36 02.6                  i 36 11
        JAS  iPc   01 36 12.1  36 27
        FRI  iPd   01 36 12.6
        MHC  eP    01 36 29.5                  i 37 00
        FRI  eP    01 36 31.8
        SAO  iPc   01 36 31.9
        BKS  e(P)  01 36 38    37 11
        MIN  eP    01 36 46.0
                   BRK  01 35 49.8, 38.1N, 118.9W, h=  8 km, ML=3.2
                        MONO LAKE AREA, CALIFORNIA

AUG 25  WDC  eP    02 26 58.7
        MIN  eP    02 27 01.8
        MHC  eP    02 27 05.2
        JAS  eP    02 27 08.4
        PRI  eP    02 27 11.4
        FRI  eP    02 27 13.5
        MNV  eP    02 27 16.4
                   USGS 02 14 18.0, 11.7N, 142.2E, H= 33 KM, mb=5.2
                        SOUTH OF MARIANA ISLANDS

AUG 25  WDC  iPc   02 59 53.7                  e 00 03
        BKS        03 00                       e 00 20
                        MICRON     PERIOD
                   PZ     0.05        0.8
        MHC  eP    03 00 16.0                  e 00 26
        JAS  eP    03 00 18.5                  i 00 29
        SAO        03 00                       e 00 29
        FRI        03 00                       e 00 37
        PRI  eP    03 00 28.4                  e 00 38
                   USGS 02 53 25.9, 53.6N, 167.0W, h= 49 km, mb=4.9
                        FOX ISLANDS, ALEUTIAN ISLANDS

AUG 25  FHC
        WDC  iPc   06 02                       e 02 58
        MIN  eP    06 03 06.4                  i 03 23
        BKS  eP    06 03 12.0                  e 03 28
                   06 03 23.3
                        MICRON     PERIOD
                   PZ     0.02        0.6
        MHC        06 03                       e 03 29
        JAS        06 03                       i 03 32
        MNV  eP    06 03 39.6                  i 03 57
        PRI  eP    06 03 42.0
                   USGS 05 56 50.5, 54.1N, 164.8W, h= 64 km, mb=4.8
                        UNIMAK ISLANDS REGION

AUG 26  WDC  eP    04 02 20.7
        BKS        04 02                                    Lq 31 00
                        MICRON     PERIOD
                   LZ     0.7         20
        JAS  eP    04 02 27.7
        MNV  eP    04 02 34.5
                   USGS 03 49 11.1, 3.2S, 147.5E, h= 33 km, mb=4.7
                        BISMARCK SEA

AUG 26  WDC  eP    05 32 04
        BKS        05 32                                    Lq 00 00
                        MICRON     PERIOD
                   LZ     0.6         20
        JAS        05 32                       e 32 10
        MNV        05 32                       e 32 20

AUG 27  PRI  eP    01 15 24.5
        FRI  eP    01 15 29.3
        MHC  eP    01 15 39
        JAS  ePc   01 15 41.0
        MNV  ePc   01 15 42.0
        BKS        01 15
        WDC  ePc   01 16 07.5                  e 20 00
                   USGS 01 10 28.4, 14.9N, 113.1W, h= 33 km, mb=5.0, Ms=5.2
                        OFF THE COAST OF MEXICO

AUG 28  MHC  iPc   03 32 24.0  32 28
        BKS  iPc   03 32 27.2  32 34
        SAO  iPc   03 32 34.3
        JAS  ePc   03 32 39.2
                   BRK  03 32 18.4, 37.5N, 121.9W, h= 11 km, ML=2.8
                        SOUTHEAST OF BERKELEY, CALIFORNIA

AUG 28  SAO  iPc   19 57 30.7
        PRI  iPd   19 57 35.5  57 46
        MHC  eP    19 57 42.7
        FRI  eP    19 57 46.8
        BKS  e(P)  19 57 50
        JAS  iP    19 57 51.2
                   BRK  19 57 24.6, 36.5N, 121.2W, h=  6 km, ML=2.8
                        BEAR VALLEY, CALIFORNIA

AUG 29  MHC  iPc   00 14 48.3
        SAO  iPd   00 14 58.9
        BKS  iPc   00 14 59.1  15 09
        JAS  iPc   00 15 07.7
        PRI  eP    00 15 11.7
        FRI  eP    00 15 13.7
        WDC  eP    00 15 35.8
        FHC  eP    00 15 47.0
                   BRK  00 14 46.4, 37.4N, 121.7W, h=  8 km, ML=4.1
                        EAST OF SAN JOSE, CALIFORNIA

AUG 29  MHC  iPc   00 18 47.1
        SAO  iP    00 18 57.6
        BKS  iPc   00 18 58.0  19 09
        JAS  iPd   00 19 06.3
        PRI  eP    00 19 10.2
        FRI  iPc   00 19 13.3
        MNV  iPc   00 19 34.0
        MIN  eP    00 19 35.0
        WDC  eP    00 19 35.6
                   BRK  00 18 45.3, 37.3N, 121.7W, h=  7 km, ML=3.8
                        EAST OF SAN JOSE, CALIFORNIA

AUG 29  FHC  eP    02 49 57.6
        WDC  iPc   02 49 59.0
        MIN  iPc   02 50 01.1
        BKS  eP    02 50 12.2
                        MICRON     PERIOD
                   PZ     0.06        0.9
        MNV  iPc   02 50 13.2
        JAS  iPc   02 50 13.6
        MHC  eP    02 50 15.4
        SAO  eP    02 50 18.0
        FRI  eP    02 50 18.1
        PRI  eP    02 50 22.3
                   USGS 02 37 06.5, 50.0N,  79.0E, h=  0 km, mb=5.9, Ms=4.0
                        NUCLEAR EXPLOSION, EASTERN KAZAKH, S.S.R.

AUG 30  FHC  ePc   16 03 20.1
        WDC  ePc   16 03 24.8                  e 03 47
        MIN  ePc   16 03 29.3
        BKS        16 03                       e 13 15
        MHC        16 03                       e 03 34
        JAS  ePc   16 03 37.8                  e 03 51
        PRI        16 03                       e 03 40
        FRI  ePc   16 03 42.0
        MNV  ePc   16 03 46.4                  e 03 59
                   USGS 15 51 24.3, 17.8N, 147.8E, h= 22 km, mb=5.3, Ms=4.3
                        MARIANA ISLANDS REGION

AUG 30  WDC  eP    17 14 54.9
        MIN  e(P)  17 14 59
        JAS  eP    17 15 07.0
        FRI  eP    17 15 11.3
        MNV  ePd   17 15 15.6
                   USGS 17 02 54.9, 17.7N, 147.8E, h= 33 km, mb=5.4, Ms=5.0
                        MARIANA ISLANDS REGION

AUG 31  MNV  iPd   00 07 08.7  07 18
        JAS  iPc   00 07 18.2  07 34
        FRI  ePd   00 07 18.6                  e 07 35
        PRI  e(P)  00 07 38                    e 08 12
        SAO  e(P)  00 07 38
                   BRK  00 06 55.9, 38.1N, 118.9W, h=  5 km, ML=3.1
                        MONO LAKE AREA, CALIFORNIA

AUG 31  BRK  eP    04 32 55
        FHC  eP    04 32 56
        MHC  eP    04 32 56.0
        WDC  ePc   04 32 58.8
        JAS  ePc   04 33 01.0
        MIN  eP    04 33 02
                   USGS 04 20 43.9, 19.0S, 169.3E, h=259 km, mb=5.2
                        NEW HEBRIDES ISLAND

AUG 31  FHC  ePd   10 13 58.8
        BRK  eP    10 14 03
        BKS        10 14                       e 14 05      Lr 54 00
        WDC  ePd   10 14 03.2
        MHC  eP    10 14 05
        MIN  ePd   10 14 05.8
        JAS  ePd   10 14 09.6
        FRI  ePd   10 14 12.0
        MNV  ePd   10 14 18.4
                   USGS 10 01 14.5,  5.0S, 151.8E, h=114 km, mb=5.4
                        NEW BRITAIN REGION

AUG 31  MNV  iPc   14 00 32 8
        FRI  iPc   14 00 45 1
        JAS  iPc   14 00 53.5
        PRI  iPc   14 00 58.4
        SAO  ePc   14 01 04.3                                Pg 01 16
        MHC  ePc   14 01 06.6                                Pg 01 22      Lq 02 24
        BKS  ePc   14 01 13.0  02 05
        MIN  iPc   14 01 19.1
        WDC  iPc   14 01 28.6
        FHC  ePc   14 01 43.6
                   ML=5.6, NUCLEAR EXPLOSION, NEVADA TEST SITE
                   USGS 14 00 00.2, 37.3N, 116.4W, h=  0 km, mb=5.6
                        SOUTHERN NEVADA
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AUG 31  FHC  eP    16 32 51.0
        WDC  iPe   16 32 56.0
        MIN  eP    16 32 59.2
        BKS  eP    16 33 05.6
                          MICRON     PERIOD
                     PZ     0.03       0.8
        MHC  eP    16 33 09.2
        SAO  eP    16 33 11.0
        JAS  iPe   16 33 11.6
        PRI  eP    16 33 16.0
        FRI  eP    16 33 16.7
        MNV  eP    16 33 18
                   USGS 16 21 45.9, 34.9N, 135.6E, h=368 km, mb=4.8
                        NEAR THE SOUTH COAST OF SOUTHERN HONSHU, JAPAN

SEP 01  BKS  eP    04 29 18    40 00      PP 32 35     e 33 07    PPS 41 00
                                          e 43 26     SS 45 56     e 49 06
                                          e 52 54     Lq 51 40     Lr 55 12
                          MICRON     PERIOD
                     LZ     11         20
                     LN      5         20
                     LE      9         20
        WDC  eP    04 29 23.0
        JAS  eP    04 29 25.0          PP 33 00
        MIN  eP    04 29 25.4
        FRI  eP    04 29 25.5
                   Ms=6.2, DISTANCE=85°
                   USGS 04 16 42.1, 17.4S, 168.0E, h= 32 km, mb=5.6, Ms=5.9
                        NEW HEBRIDES ISLANDS

SEP 01  SAO  eP    07 27 27.5
        PRI        07 27                  e 27 28
        BKS  ePe   07 27 29.1  37 56      e 27 46     Lr 53 00
                          MICRON     PERIOD
                     PZ     0.07       1.0
                     LZ     0.8        20
                     LN     0.5        20
                     LE     0.6        20
        MHC  eP    07 27 29.5
        FRI  eP    07 27 33.2
        JAS  eP    07 27 33.5
        FHC        07 27                  e 27 35
        WDC  eP    07 27 36.2
        MIN  eP    07 27 38.8
                   Ms=5.1, DISTANCE=84°
                   USGS 07 14 48.6, 30.7S, 178.0W, h= 17 km, mb=5.6, Ms=5.1
                        KERMADEC ISLANDS

SEP 01  MHC  iPd   09 31 28.0
        BKS  iPe   09 31 38.0  31 50      e 31 47
        JAS  iP    09 31 47.7
        FRI  eP    09 31 51.0
        PRI  iPe   09 31 53.2
                   BRK  09 31 25.4, 37.3N, 121.8W, h=  8 km, ML=3.3
                        SOUTHEAST OF SAN JOSE, CALIFORNIA

SEP 01  FHC        10 08                  e 08 48
        WDC  eP    10 08 49.6
        BKS  eP    10 08 50    19 25      e 08 57     PP 12 20    SeS 19 48
                                         PPS 20 44     SS 25 22    SSS 29 00
                                          Lq 32 00     Lr 36 00
                          MICRON     PERIOD
                     LZ     7          20
                     LN     2.9        20
                     LE     7          20
        MIN  eP    10 08 52.8
        MHC        10 08                  e 08 53
        JAS  eP    10 08 54.3
        PRI  eP    10 08 56.0
        FRI        10 09                  e 09 05
        MNV  eP    10 09 04.5
                   Ms=6.1, DISTANCE=87°
                   USGS 09 56 00.6,  7.5S, 156.6E, h= 33 km, mb=6.0,Ms=6.2
                        SOLOMON ISLANDS

SEP 01  PRI  eP    18 06 38.9
        JAS  eP    18 06 43.8
        MIN  eP    18 06 59.1
                   USGS 17 55 36.4, 16.5S,  73.8W, h= 41 km, mb=4.9
                        NEAR THE COAST OF PERU

SEP 01  WDC  eP    22 52 29.1                 e 52 38

SEP 01  MNV  ePKP  22 52 57.5
        FRI  ePKP  22 53 02.5
        PRI  ePKP  22 53 03.0
        JAS  ePKP  22 53 00.5
        BKS  ePKP  22 53 02
                          MICRON     PERIOD
                     PKPZ   0.04       1.0
        MIN  ePKP  22 53 06.2
        WDC  ePKP  22 53 08.1
        FHC  ePKP  22 53 12.5
                   USGS 22 33 31.5, 52.9S,  10.6E, h= 33 km, mb=5.3
                        SOUTHWEST OF AFRICA

SEP 02  FHC  eP    02 10 26.0
        WDC  iPe   02 10 29.8
        MIN  eP    02 10 32.7
        BKS  eP    02 10 37.6  21 37      e 11 05
                                         pP 11 15     PP 14 19    SKS 21 00
                                         PS 22 11     e 23 09     SS 26 45
                                        eSS 28 20     Lq 35 00     Lr 41 20
                          MICRON     PERIOD
                     PZ     0.10       0.7
        MHC  eP    02 10 41.2
        SAO  eP    02 10 42.7          e 11 14
        JAS  eP    02 10 42.9
        FRI  eP    02 10 47.4
        PRI  eP    02 10 47.6
        MNV  iPe   02 10 48.6          e 11 20
                   USGS 01 57 33.4, 24.9N, 122.0E, h=109 km, mb=6.1
                        TAIWAN REGION

SEP 02  FHC        03 36
        WDC  eP    03 37 56                   e 36 58
        BKS        03 37                      e 37 04
                                              e 37 05     Lq 00 00    Lr 04 00
                          MICRON     PERIOD
                     LZ     0.6        20
                     LN     0.5        20
                     LE     0.5        20
        MHC        03 37
        PRI        03 37                      e 37 05
        MIN        03 37                      e 37 06
        JAS  e(P)  03 37 02                   e 37 09
        FRI        03 37                      e 37 09
        MNV  eP    03 37 16                   e 37 12
                   USGS 03 24 08.4,  7.3S, 156.6E, h= 33 km, mb=5.5, Ms=5.3
                        SOLOMON ISLANDS

SEP 02  MNV  eP    06 09 47
        JAS  eP    06 09 55.1                 e 10 28
        FHC        06 10
                                              e 10 29

SEP 03  WDC  eP    00 34 28.7
        MNV  eP    00 34 36.0
        JAS  eP    00 34 40.7
        MHC  eP    00 34 44.5
        FRI  eP    00 34 44.7
        PRI  eP    00 34 50.0
                   USGS 00 21 15.6, 44.4N,  38.1E, h= 33 km, mb=5.7, Ms=5.4
                        WESTERN CAUCASUS

SEP 03  MNV  eP    01 10 16.3
        PRI  eP    01 10 19.8
        JAS  eP    01 10 25.9
        MHC  eP    01 10 31.3
        BKS        01 10                      e 11 00     Lr 16 00
                          MICRON     PERIOD
                     LZ     2.8        18
                     LN     2.7        18
                     LE     1.2        18
        WDC  eP    01 10 49.0
        FHC  iP    01 11 00.5
                   USGS 01 03 22.7, 13.4N,  89.7W, h= 58 km, mb=4.8
                        EL SALVADOR

SEP 03  MNV  eP    05 20 55.5                 e 26 28
        JAS  eP    05 21 01.5                 e 26 33
                   USGS 05 08 30.2, 48.3N,   9.0E, h=  8 km, mb=4.9, Ms=5.3
                        GERMANY

SEP 03  FHC  eP    07 40 51.0          pP 41 18
        WDC  iPe   07 40 57.3          pP 41 24
        MIN  eP    07 41 01.8          pP 41 29
        BRK  eP    07 41 10
        MHC  eP    07 41 15.3
        JAS  iPe   07 41 17.7          pP 41 45
        MNV  iPe   07 41 25.1          pP 41 52
        PRI  eP    07 41 25.3
                   USGS 07 31 23.8, 49.5N, 154.4E, h=109 km, mb=5.5
                        KURIL ISLANDS

SEP 03  JAS  iPd   11 26 11.7  26 25
        MNV  iPe   11 26 17.7
        FRI  ePd   11 26 26.0  26 49
        BKS  eP    11 26 29.8  26 57
        MHC  eP    11 26 30.0
        MIN  eP    11 26 30.4
        SAO  iPd   11 26 34.5
                   BRK  11 25 53.7, 38.8N, 119.8W, h= 20 km, ML=3.1
                        SOUTHEAST OF LAKE TAHOE, CALIFORNIA

SEP 04  JAS  iPd   04 52 [illegible].2  53 03
        MNV  iPe   04 52 56.2
        FRI  iPd   04 53 04.6
        MIN  ePe   04 53 08.1
        BKS  iPe   04 53 08.4  53 34
        MHC  ePe   04 53 08.6  53 35
        SAO  ePe   04 53 12.8
        WDC  ePe   04 53 16.9
        PRI  ePd   04 53 18.4
        FHC  eP    04 53 33
                   BRK  04 52 32.3, 38.8N, 119.8W, h= 18 km, ML=4.6
                        SOUTHEAST OF LAKE TAHOE, CALIFORNIA

SEP 04  JAS  iPd   05 00 13.8  00 27
        MNV  iPe   05 00 20.1
        FRI  ePd   05 00 28.3  00 52
        BKS  eP    05 00 32.2                 e 01 02
        MIN  eP    05 00 32.5
        MHC  eP    05 00 32.7  00 59
        SAO  ePe   05 00 36.7
                   BRK  04 59 55.9, 38.8N, 119.8W, h= 14 km, ML=3.2
                        SOUTHEAST OF LAKE TAHOE, CALIFORNIA

SEP 04  JAS  iPd   12 01 15.8  01 29
        MNV  iPe   12 01 21.8
        FRI  ePd   12 01 30.0  01 54
        BKS  eP    12 01 34.1                 e 02 03
        MHC  eP    12 01 34.3
        MIN  eP    12 01 34.5
        SAO  ePd   12 01 38.8
        WDC  e(P)  12 01 43
                   BRK  12 00 57.9, 38.8N, 119.8W, h= 20 km, ML=3.0
                        SOUTHEAST OF LAKE TAHOE, CALIFORNIA

SEP 04  PRI  eP    13 16 30.3
        WDC  ePe   13 16 33.9
        JAS  ePe   13 16 34.4
        FRI  eP    13 16 34.7
        MNV  ePe   13 16 43.0
                   USGS 13 03 46.3, 20.7S, 169.4E, h= 33 km, mb=5.3
                        NEW HEBRIDES ISLANDS

SEP 04  JAS  iPd   21 55 11.1  55 24
        MNV  iPe   21 55 17.0  55 35
        FRI  iPd   21 55 25.4  55 48
        MIN  iPd   21 55 29.0
        BKS  iPe   21 55 29.4  56 57
        MHC  iPe   21 55 29.8
        SAO  iPd   21 55 33.8
        WDC  ePe   21 55 38.0
        PRI  eP    21 55 39.0
        FHC  ePe   21 55 53.5
                   BRK  21 54 53.2, 38.8N, 119.8W, h= 19 km, ML=5.3
                        SOUTHEAST OF LAKE TAHOE, CALIFORNIA

SEP 04  JAS  iPd   22 03 53.3  04 06
        MNV  iPe   22 03 59.7
        FRI  iPd   22 04 07.6
        BKS  eP    22 04 11.4  04 38
        MHC  iPe   22 04 11.6
        MIN  ePe   22 04 11.7
        SAO  iPd   22 04 16.0
        WDC  ePe   22 04 20.5
        PRI  ePd   22 04 21.5
                   BRK  22 03 35.5, 38.8N, 119.8W, h= 16 km, ML=4.1
                        SOUTHEAST OF LAKE TAHOE, CALIFORNIA

SEP 04  JAS  iPd   22 12 11.2  12 24
        MNV  iPe   22 12 17.5
        FRI  ePd   22 12 25.5
        BKS  e(P)  22 12 30
        MHC  eP    22 12 30
        SAO  eP    22 12 34.3
                   BRK  22 11 53.3, 38.8N, 119.8W, h= 13 km, ML=3.0
                        SOUTHEAST OF LAKE TAHOE, CALIFORNIA

SEP 04  JAS  iPd   22 37 43.7  37 57
        MNV  iPd   22 37 50.2
        FRI  ePd   22 37 58.0  38 22
        MHC  ePe   22 38 02.3
        SAO  ePe   22 38 06.5
                   BRK  22 37 26.0, 38.8N, 119.8W, h= 14 km, ML=3.1
                        SOUTHEAST OF LAKE TAHOE, CALIFORNIA

SEP 05  PRI  eP    01 59 37.3
        MHC  eP    01 59 38.5
        BKS        01 59                      e 28 00
                          MICRON     PERIOD
                     LZ     2.3        20
                     LN     1.3        20
                     LE     1.4        20
        FRI  eP    01 59 42.5
        JAS  ePd   01 59 43.7
        FHC  eP    01 59 44.3
        WDC  ePd   01 59 47.0
        MNV  ePd   01 59 51.7
                   USGS 01 47 09.3, 29.3S, 176.8W, h= 33 km, mb=5.2, Ms=5.1
                        KERMADEC ISLANDS REGION

SEP 05  JAS
        WDC  eP    03 32
                   03 32 58.4                 e 32 55
                   USGS 03 20 26.3, 29.1S, 176.9W, h= 72 km, mb=4.9
                        KERMADEC ISLANDS REGION

SEP 05  WDC  eP    03 55 45.5
        MIN        03 55
        JAS  eP    03 55 58.5                 e 55 57
                   USGS 03 42 32.2, 24.0N, 121.7E, h= 17 km, mb=5.2, Ms=5.3
                        IOKON
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International Seismological Centre

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SEP 05  WDC  ePc    08 05 16.5
        MIN  eP     08 05 21
        JAS  ePc    08 05 37.0
        MNV  ePc    08 05 44.2
                    USGS 07 55 47.2, 49.8N, 155.1E, h=111 km, mb=4.6
                         KURIL ISLANDS

SEP 05  WDC  eP     09 11 06.2
        JAS  eP     09 11 06.7
        MIN  eP     09 11 08.1
        MNV  eP     09 11 15.5
                    USGS 08 58 18.4, 20.3S, 168.8E, h= 33 km, mb=4.2
                         LOYALTY ISLANDS

SEP 05  MHC  iPd    21 06 02.7
        SAO  iPc    21 06 12.1
        BKS  e(P)   21 06 13
        JAS  iPd    21 06 22.5  06 40
                    BRK  21 06 00.1, 37.3N, 121.8W, h=  8 km, ML=2.5
                         EAST OF SAN JOSE, CALIFORNIA

SEP 06  MNV  ePc    01 07 40.8              e 07 50
        PRI  eP     01 07 42.0              e 07 51
        JAS  ePc    01 07 49.1              e 08 01
        MHC  eP     01 07 53.3              e 08 03
        BKS         01 08                   e 08 09     Lr 18 00
                                MICRON    PERIOD
                            LZ      6        20
                            LN      5        20
                            LE      7        20
        MIN  eP     01 08 08.0              e 08 18
        WDC  eP     01 08 11.7              e 08 21
        FHC  eP     01 08 23.3              e 08 33
                    USGS 01 01 09.1, 14.4N,  93.0W, h= 33 km, mb=5.0, Ms=5.2
                         NEAR THE COAST OF CHIAPAS, MEXICO

SEP 06  MNV  ePc    02 09 17.1          PcP 11 19
        FRI  eP     02 09 17.9
        PRI  eP     02 09 22.0
        JAS  ePc    02 09 26.7          PcP 11 23
        MHC  eP     02 09 31.6
        BKS  eP     02 09 37.3
                                MICRON    PERIOD
                            PZ      0.04      0.9
        MIN  eP     02 09 42.7
        WDC  eP     02 09 46.7
        FHC  eP     02 09 58.2
                    USGS 02 01 33.5, 10.4N,  85.2W, h=  8 km, mb=4.7
                         COSTA RICA

SEP 06  MNV  eP     02 25 16.0          PcP 27 50
        PRI  eP     02 25 18.0
        JAS  eP     02 25 25.0
        MHC  eP     02 25 29.2
        BKS         02 25                   e 25 42
        MIN  eP     02 25 42.8
        WDC  ePc    02 25 46.6          PcP 28 06
        FHC  ePc    02 25 58.0
                    USGS 02 18 28.8, 13.5N,  90.7W, h= 71 km, mb=4.7
                         NEAR THE COAST OF GUATEMALA

SEP 06  BKS  e(P)   04 14 35   25 00     PP 18 00   PPS 26 54    SS 31 10
                                         Lq 37 20    Lr 41 00
                                MICRON    PERIOD
                            PZ      0.06      1.1
                            LZ      10        20
                            LN      6         20
                            LE      9         20
        MHC  eP     04 14 35.7
        FHC  eP     04 14 36.5
        PRI  eP     04 14 36.5
        WDC  ePc    04 14 39.8              e 14 52
        JAS  ePc    04 14 40.7
        FRI  eP     04 14 41
        MIN  eP     04 14 41.8
        MNV  ePc    04 14 49.5
                    Ms=6.3, DISTANCE=87°
                    USGS 04 01 53.5, 20.1S, 168.7E, h= 36 km, mb=5.5, Ms=6.0
                         LOYALTY ISLANDS

SEP 06  BKS         04 18                   e 18 45
        MHC  eP     04 18 42.5
        FHC  eP     04 18 43.2
        WDC  eP     04 18 46.6
        JAS  eP     04 18 47.3
        FRI  eP     04 18 47.8
        MIN  eP     04 18 48.6
        MNV  eP     04 18 56.1
                    NEW HEBRIDES ISLANDS REGION

SEP 06  BKS         08 34                   e 34 35     e 09 01
                                MICRON    PERIOD
                            LZ      4.5       18
                            LN      4.0       18
                            LE      2.7       18
        PRI         08 34                   e 34 36
        MHC         08 34                   e 34 36
        FRI         08 34                   e 34 40
        JAS  eP     08 34 41.2
        WDC  eP     08 34 44.4
        MIN  eP     08 34 45.8
        MNV  eP     08 34 49.2
                    USGS 08 22 08.5, 29.4S, 176.7W, h= 47 km, mb=5.4, Ms=5.5
                         KERMADEC ISLANDS REGION

SEP 06  BKS  ePc    11 19 49.0  29 53    pP 20 36    PP 23 03     e 30 40
                                         e 31 18     e 32 08     SS 35 20
                                        SSS 38 52    Lq 42 20     Lr 45 00
                                MICRON    PERIOD
                            PZ      0.22      1.0
                            LZ      22        20
                            LN      11        20
                            LE      18        20
        FHC  ePc    11 19 49.3          pP 20 38    PKKP 38 09
        SAO  eP     11 19 49.5          pP 20 39
        MHC  ePc    11 19 50.7          pP 20 39  PKPPKP 46 15
        PRI  ePc    11 19 52.4          pP 20 40    PKKP 38 09  PKPPKP 46 11
        WDC  ePc    11 19 53.4          pP 20 40       e 24 59    PKKP 38 07
                                      PKPPKP 46 08  SKPPKP 49 20
        MIN  ePc    11 19 55.9          pP 20 45    PKKP 38 06
        JAS  ePc    11 19 55.9          pP 20 45       e 23 58    PKKP 38 07
                                      PKPPKP 46 08  SKPPKP 49 18
        FRI  ePc    11 19 56.8          pP 20 45    PKKP 38 06  PKPPKP 46 08
        MNV  ePc    11 20 05.2          pP 20 54  PKPPKP 46 06  SKPPKP 49 12
                    mb=6.4, DISTANCE=85°
                    USGS 11 07 43.1, 13.3S, 167.1E, h=198 km, mb=6.0
                         NEW HEBRIDES ISLANDS

SEP 06  JAS  eP     23 37 49.5
        WDC  eP     23 37 51.5
        MNV  eP     23 37 59.8
                    USGS 23 26 23.6, 15.4S, 173.3W, h= 33 km, mb=5.4, Ms=4.9
                         TONGA ISLANDS

SEP 08  BKS  iPc    17 00 01.8  00 13
        MHC  ePc    17 00 09.8
        JAS  iPd    17 00 10.7
        MIN  e(P)   17 00 16
        SAO  ePc    17 00 18.0
        WDC  iPc    17 00 18.9
        FRI  eP     17 00 26.5
                    BRK  16 59 47.8, 38.6N, 121.9W, h= 17 km, ML=4.2
                         WEST OF SACRAMENTO, CALIFORNIA

SEP 08  MHC  eP     21 09 19.8
        JAS  eP     21 09 24.2
        WDC  eP     21 09 27.2
        MNV  eP     21 09 32.2
                    USGS 20 56 35.6, 30.9S, 179.6W, h= 33 km, mb=4.8, Ms=5.4
                         KERMADEC ISLANDS REGION

SEP 08  SAO  eP     23 09 32.2
        PRI  eP     23 09 33.0
        BKS  iPc    23 09 33.8  19 48       pP 09 51
                                            Lr 40 00
                                            pP 09 52    e 09 55    pPP 13 38
                                PPP 15 09   e 21 50      Lq 36 00
                                MICRON    PERIOD
                            PZ      0.06      1.4
                            LZ      1.4       20
                            LN      1.1       20
                            LE      0.9       20
        MHC  eP     23 09 34.0
        FRI  eP     23 09 37.9              pP 09 52
        JAS  ePc    23 09 38.8              pP 09 46
        WDC  iPc    23 09 42.0              pP 09 57
        MIN  eP     23 09 43.2              pP 10 00
        MNV  ePc    23 09 46.7              pP 10 05
                    USGS 22 56 56.6, 30.4S, 178.2W, h= 33 km, mb=5.9, Ms=5.3
                         KERMADEC ISLANDS

SEP 09  FHC         05 53
        WDC  ePc    05 53 21.2              pP 54 02
        MIN  ePc    05 53 25.1              pP 54 07  PKPPKP 20 04
        BKS  eP     05 53 26.6              pP 54 11
                                            pP 54 13
                                MICRON    PERIOD
                            PZ      0.01      0.6
        MHC  e(P)   05 53 30
        JAS  ePc    05 53 33.0              pP 54 16
        PRI  eP     05 53 37.2              pP 54 21  PKPPKP 20 01
        FRI  eP     05 53 37.9
        MNV  iPc    05 53 42.0              pP 54 24
                                            pP 54 28  PKPPKP 19 59
                    USGS 05 41 32.8, 18.6N, 145.5E, h=188 km, mb=5.2
                         MARIANA ISLANDS

SEP 09  WDC  ePKPc  13 07 52.0
        MIN  ePKPc  13 07 54.5
        JAS  ePKPc  13 08 06.0
        MNV  ePKP   13 08 08.0                  e 11 55
                    USGS 12 46 59.0, 26.5S,  67.8E, h= 33 km, mb=5.4, Ms=5.2
                         SOUTH INDIAN OCEAN

SEP 10  FHC  iPc    01 09 57.1  10 13
        WDC  iPd    01 10 12.5
        MIN  ePc    01 10 22.3  10 58
        SAO  eP     01 10 47.0
        JAS  ePc    01 10 47.4
                    BRK  01 09 35.8, 40.4N, 125.4W, h=  5 km, ML=4.0
                         OFF COAST SOUTHWEST OF EUREKA, CALIFORNIA

SEP 10  SAO  iPc    10 24 45.3
        MHC  ePd    10 24 57.0  25 09
        PRI  iPd    10 24 58.0
        FRI  ePc    10 25 07.2
        BKS  eP     10 25 07.7  25 28
        JAS  ePd    10 25 08.5
                    BRK  10 24 43.1, 36.7N, 121.4W, h=  4 km, ML=2.9
                         STONE CANYON, CALIFORNIA

SEP 10  WDC  eP     16 03 45.6
        MIN  eP     16 03 47.5
        JAS  eP     16 03 57.6
        PRI         16 04                   e 04 02
        MNV  eP     16 04 02.0
                    USGS 15 50 34.7, 24.2N, 121.8E, h= 21 km, mb=5.1, Ms=4.2
                         TAIWAN

SEP 10  WDC  ePd    16 47 13.6
        MIN  ePd    16 47 16.7
        BRK  eP     16 47 21.5
        MHC  eP     16 47 25.0
        JAS  ePd    16 47 26.7
        FRI  eP     16 47 31.2
        PRI  eP     16 47 31.5
        MNV  ePd    16 47 32.4
                    USGS 16 34 02.2, 24.1N, 121.8E, h= 15 km, mb=5.4, Ms=5.1
                         TAIWAN

SEP 10  FRI  eP     23 30 50.3          PcP 33 27
        MNV  iPd    23 30 51.0          PcP 33 28     i 33 46    ScP 37 10
                                          i 37 48
        PRI  eP     23 30 52.8          PcP 33 30   ScP 37 13
        JAS  eP     23 30 59.8          pP 31 16    PcP 33 32   ScP 37 15
        SAO  eP     23 31 00.6          PcP 33 32
        MHC  eP     23 31 03.3          pP 31 21    PcP 33 34
        BKS  eP     23 31 10.2  36 50   pP 31 22    PcP 33 36     eS 37 24
                                        Lq 39 00     Lr 42 00
                                MICRON    PERIOD
                            PZ      0.09      1.2
                            LZ      21        20
                            LN      16        20
                            LE      20        20
        MIN  eP     23 31 18.1          PcP 33 37
        WDC  iPd    23 31 21.8          pP 31 38    PcP 33 39     i 33 57
                                        ScP 37 25      e 37 58
        FHC  iPd    23 31 33.4          PcP 33 48
                    mb=6.1, DISTANCE=38°
                    USGS 23 24 15.6, 14.3N,  91.5W, h= 94 km, mb=5.6
                         GUATEMALA

SEP 11  FHC  eP     07 53 47.4              i 54 24
        WDC  ePd    07 53 51.0              e 57 17
        MIN  eP     07 53 53.9
        BKS  eP     07 53 59.8              e 54 06     e 55 49     e 05 14
                                            Lq 18 00    Lr 23 00
                                MICRON    PERIOD
                            PZ      0.15      1.4
        MHC  eP     07 54 02.8
        JAS  eP     07 54 03.6              e 57 41
        FRI  eP     07 54 09.2              e 57 51
        PRI  eP     07 54 09.5
        MNV  eP     07 54 10.5              e 57 48
                    USGS 07 40 52.5, 24.9N, 124.9E, h= 21 km, mb=5.7, Ms=5.3
                         SOUTHWESTERN RYUKYU ISLANDS

SEP 11  WDC  eP     08 51 06.1              e 51 18
        MIN         08 51                   e 51 22
        JAS  eP     08 51 25.5              e 51 38
        MNV         08 51                   e 51 46
                    USGS 08 41 11.3, 46.4N, 153.6E, h= 33 km, mb=5.2
                         KURIL ISLANDS

SEP 11  JAS  iPd    11 00 48.0
        MNV  iPc    11 00 54.5
        FRI  eP     11 01 02.4  01 26
        MHC  eP     11 01 06.5
        MIN  iPc    11 01 07.2
        BKS  eP     11 01 08
        SAO  eP     11 01 10.8
        WDC  eP     11 01 16.9
                    BRK  11 00 30.3, 38.8N, 119.8W, h= 16 km, ML=3.0
                         SOUTHEAST OF LAKE TAHOE, CALIFORNIA

SEP 12  WDC  eP     00 54 04.4
        MIN  eP     00 54 07.5
        JAS  eP     00 54 17.8
        MNV  eP     00 54 25.0
                    USGS 00 41 52.0, 29.9N, 129.5E, h=144 km, mb=5.3
                         RYUKYU ISLANDS

SEP 12  PRI  eP     06 08 33.5
        FRI         06 08                   e 08 38
        MHC         06 08                   e 08 42
        JAS  eP     06 08 46.1
        MNV  eP     06 08 47.0
        BKS  eP     06 08 52    15 38       Lq 18 00    Lr 20 00
                                MICRON    PERIOD
                            LZ      13        20
                            LN      15        20
                            LE      11        20
        MIN         06 09                   e 09 09
        WDC  eP     06 09 11
                    USGS 06 00 38.1,  4.6S, 106.2W, h= 33 km, mb=5.2, Ms=5.9
                         NORTHERN EASTER ISLAND CORDILLERA
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SEP 12  WDC  eP     09 00 04.2
        MIN  eP     09 00 09.5
        BKS  eP     09 00 19
                              MICRON     PERIOD
                        PZ      0.03        0.9
        MHC  eP     09 00 24.8
        JAS  eP     09 00 27.7
        FRI  eP     09 00 35.5
        PRI  eP     09 00 35.8
        MNV  iP     09 00 36.0
                    USGS 08 52 29.3, 51.9N, 178.1E, h=143 km, mb=4.8
                         RAT ISLANDS, ALEUTIAN ISLANDS

SEP 13  FHC  eP     04 39 46
        WDC  ePe    04 39 51.3
        MIN  eP     04 39 55.0
        BKS  iPd    04 39 59.4                  SS 55 08      Lr 04 00
                              MICRON     PERIOD
                        PZ      0.05        0.7
        MHC  eP     04 40 02.5
        SAO  eP     04 40 05
        JAS  ePe    04 40 05.8
        PRI  eP     04 40 09.6
        FRI  eP     04 40 10.4
        MNV  eP     04 40 13.2
                    USGS 04 27 57.4, 26.4N, 142.0E, h= 22 km, mb=5.2, Ms=5.0
                         BONIN ISLANDS REGION

SEP 13  MNV  iPe    15 15 34.4
        FRI  iPe    15 15 46.6
        JAS  iPe    15 15 55.4                  i 16 03
        PRI  ePe    15 15 59.8                  i 16 08
        SAO  eP     15 16 06
        MHC  ePe    15 16 08.2                  e 16 16
        BKS  eP     15 16 15.7                  e 16 25
        MIN  ePe    15 16 21.5
        WDC  ePe    15 16 30.3
                    ML=4.7, NUCLEAR EXPLOSION, NEVADA TEST SITE
                    USGS 15 15 00.2, 37.2N, 116.2W, h=  0 km, mb=4.6
                         SOUTHERN NEVADA

SEP 13  PRI  e(P)   18 10 42
        MHC  ePe    18 10 43.3
        BKS         18 10                       e 21 07      Lr 38 00
                              MICRON     PERIOD
                        LZ        7          20
                        LN        5          20
                        LE      3.2          20
        FRI  ePe    18 10 47.3
        JAS  ePe    18 10 48.6
        WDC  ePe    18 10 51.8
        MIN  eP     18 10 53
        MNV         18 10                       e 10 57
                    USGS 17 58 19.7, 28.0S, 176.4W, h= 32 km, mb=5.3, Ms=5.5
                         KERMADEC ISLANDS REGION

SEP 14  PRI         00 38                       e 38 03
        MHC  e(P)   00 38 02
        BKS         00 38                       Lr 05 00
                              MICRON     PERIOD
                        LZ      2.9          20
                        LN      2.5          20
                        LE      1.4          20
        FRI         00 38
        JAS  ePd    00 38 06.0                  e 38 09
        WDC  ePd    00 38 09.4                  e 38 10
        MIN  e(P)   00 38 12                    e 38 13
        MNV  ePd    00 38 14.3                  e 38 18
                    USGS 00 25 34.7, 28.0S, 176.4W, h= 12 km, mb=5.2, Ms=5.2
                         KERMADEC ISLANDS REGION

SEP 15  FRI         02 14
        JAS  eP     02 14 21.1                  e 14 20
        WDC  eP     02 14 24.0
        MIN  eP     02 14 25.8
        MNV         02 14                       e 14 29
                    USGS 02 01 51.8, 27.8S, 117.0W, h= 36 km, mb=5.1
                         KERMADEC ISLANDS REGION

SEP 15  FHC  eP     02 49 49.1
        WDC  ePe    02 49 50.1
        MIN  iPe    02 49 52.7                  e 53 13
        BKS  iPd    02 50 04.3
                              MICRON     PERIOD
                        PZ      0.05        0.8
        JAS  iPe    02 50 04.8
        MNV  iP     02 50 04.9
        MHC  eP     02 50 07.0                  i 50 13
        FRI  eP     02 50 09.7
        SAO  eP     02 50 10.1
        PRI  eP     02 50 13.9
                    USGS 02 36 57.3, 49.9N,  78.9E, h=  0 km, mb=6.0
                         NUCLEAR EXPLOSION, EASTERN KAZAKH, S.S.R.

SEP 15  SAO  iPe    07 30 45.4
        MHC  eP     07 30 56.9
        PRI  ePd    07 30 58.2  31 11
        FRI  eP     07 31 07.3
        JAS  iP     07 31 08.9  31 27
        BKS  iPe    07 31 09.5
        MNV  eP     07 31 37.7                  e 31 31
                    BRK  07 30 43.2, 36.7N, 121.4W, h=  7 km, ML=2.5
                         STONE CANYON, CALIFORNIA

SEP 15  FHC  iPe    11 49 03.6
        WDC  iPe    11 49 09.4                  i 49 16
        MIN  eP     11 49 13.8                  i 49 22
        BKS  iPd    11 49 23.0  57 29           i 49 26
                                                pP 49 34      PcP 50 00      SS 01 21
                                                Lq 04 00      Lr 06 00
                              MICRON     PERIOD
                        PZ      0.10        1.0
                        LZ      2.1          20
                        LN      1.8          20
                        LE      1.4          20
        MHC  eP     11 49 27.0
        JAS  iPe    11 49 29.5                  e 49 40
        SAO  eP     11 49 30.5                  i 49 42
        FRI  eP     11 49 36.3
        PRI  eP     11 49 36.7                  e 49 49
        MNV  iPe    11 49 37.0
                    Ms=5.3, DISTANCE=61°
                    USGS 11 39 25.1, 48.3N, 154.3E, h= 44 km, mb=6.0, Ms=5.7
                         KURIL ISLANDS

SEP 16  WDC  ePdif  15 50 09.0
        MIN  ePdif  15 50 10.0                  PP 54 35      PKKP 06 09 PKPPKP 13 35
        MNV  ePdif  15 50 19.0                  PP 54 37
        JAS  ePdif  15 50 21.0
        BKS  ePdif  15 50 23.6  02 32           PKiKP 54 27   PP 54 50      PKKP 05 50
                                                PKPPKP 13 27
                                                PKiKP 54 27
                                                SKKS 01 08    PP 54 48      PKS 57 22
                              MICRON     PERIOD SS 09 58      PS 04 26      PKKP 05 46
                        LZ      170          20               Lq 20 22      e 26 54
                        LNE     160          20
                        LNW     200          20
        FRI         15 50                   PP 55 01
        MHC         15 50                   PP 55 02      PKKP 05 35
        PRI         15 50                   PP 55 06      PKKP 05 34
                    Ms=7.8, DISTANCE=109°
                    USGS 15 35 56.6, 33.4N,  57.4E, h= 33 km, mb=6.5, Ms=7.4
                         IRAN

SEP 16  SAO  ePe    23 50 05.3
        PRI  ePe    23 50 06.5
        BKS  eP     23 50 07.0
                              MICRON     PERIOD
                        PZ      0.25        1.4
        MHC  ePe    23 50 07.2
        FRI  ePe    23 50 11.5
        FHC  ePe    23 50 12.3
        JAS  iPe    23 50 12.4
        WDC  iPe    23 50 14.9
        MIN  ePe    23 50 16.5
        MNV  iPe    23 50 20.9
                    USGS 23 38 08.9, 25.7S, 178.0W, h=221 km, mb=5.7
                         SOUTH OF FIJI ISLANDS

SEP 16  FRI  eP     23 52 07.7
        PRI  eP     23 52 08.8
        MNV  iPe    23 52 10.5
        SAO  eP     23 52 12.7
        JAS  iPe    23 52 14.5
        MHC  eP     23 52 16.3
        BKS  eP     23 52 20.0
        MIN  eP     23 52 25.8
        WDC  iPe    23 52 28.8
        FHC  eP     23 52 35.5
                    USGS 23 39 59.2, 30.1S,  71.7W, h= 49 km, mb=4.5
                         NEAR THE COAST OF CENTRAL CHILE

SEP 17  SAO  iPe    15 06 07.1
        MHC  ePd    15 06 18.8  06 29
        PRI  iPd    15 06 20.0  06 31
        BKS  ePn    15 06 28.5  06 52       Pg 06 31
        FRI  ePe    15 06 29.0
        JAS  iPd    15 06 30.4
                    BRK  15 06 05.0, 36.7N, 121.4W, h=  7 km, ML=3.3
                         STONE CANYON, CALIFORNIA

SEP 17  SAO  iPe    15 08 04.5
        MHC  ePd    15 08 16.2  08 26
        PRI  eP     15 08 17.0  08 28
        BKS         15 08       08 50       Pg 08 29
        FRI  eP     15 08 26.4
        JAS  eP     15 08 28.0
                    BRK  15 08 02.3, 36.7N, 121.4W, h=  8 km, ML=3.0
                         STONE CANYON, CALIFORNIA

SEP 17  SAO  iPe    15 38 35.4
        MHC  iPd    15 38 47.0
        PRI  iPd    15 38 48.1
        BKS  iPnd   15 38 57.0                  Pg 38 59      e 39 22
        FRI  ePe    15 38 57.1
        JAS  iPd    15 38 58.6
                    BRK  15 38 33.1, 36.7N, 121.4W, h=  6 km, ML=3.9
                         STONE CANYON, CALIFORNIA

SEP 17  SAO  iPe    16 00 28.4
        MHC  iPd    16 00 40.0
        PRI  iPd    16 00 41.1
        BKS  ePn    16 00 50.0  01 14       Pg 00 52
        FRI  ePe    16 00 50.2
        JAS  iPd    16 00 51.7
                    BRK  16 00 26.2, 36.7N, 121.4W, h=  6 km, ML=3.8
                         STONE CANYON, CALIFORNIA

SEP 17  PRI  eP     21 27 43.4
        MHC  eP     21 27 43.8
        FRI  eP     21 27 48.8
        JAS  ePd    21 27 49.5
        WDC  ePd    21 27 51.5
        MNV  ePd    21 27 59.3
                    USGS 21 16 21.3, 19.7S, 176.0W, h=258 km, mb=5.2
                         FIJI ISLANDS REGION

SEP 18  WDC  eP     01 52 34.3
        FRI  eP     01 52 35.7
        MNV  eP     01 52 39.2
                    USGS 01 40 10.6, 27.9S, 176.5W, h= 96 km, mb=4.8
                         KERMADEC ISLANDS REGION

SEP 18  SAO  iPe    11 03 36.4
        MHC  ePd    11 03 48.0
        PRI  ePe    11 03 49.1
        BKS         11 03                   04 22         e 03 59
        JAS  eP     11 03 59.5
                    BRK  11 03 34.2, 36.7N, 121.4W, h=  6 km, ML=2.7
                         STONE CANYON, CALIFORNIA

SEP 19  MNV  ePKP   02 07 03.1
        JAS  ePKP   02 07 04.8
        WDC  iPKPe  02 07 12.6
                    USGS 01 47 19.2, 52.8S,  18.9E, h= 10 km, mb=5.2, Ms=5.2
                         SOUTHWEST OF AFRICA

SEP 19  BKS  eP     12 57 29.0
        SAO  eP     12 57 29.8
        FHC  eP     12 57 29.9
        MHC  eP     12 57 29.9
        PRI  eP     12 57 31.1
        WDC  eP     12 57 34.0
        FRI  eP     12 57 34.0
        JAS  eP     12 57 35.0
        MIN  eP     12 57 36.3
        MNV  eP     12 57 43.8
                    USGS 12 45 00.2, 19.3S, 169.0E, h=119 km, mb=5.3
                         NEW HEBRIDES ISLANDS

SEP 19  BKS  iPe    15 52 47.7  52 52
        MHC  ePe    15 52 57.3  53 10
                    BRK  15 52 41.5, 37.7N, 122.6W, h=  8 km, ML=2.9
                         OFF COAST WEST OF SAN FRANCISCO, CALIFORNIA

SEP 20  MNV  iPd    09 53 41.4
        FRI  iPd    09 53 45.9  54 01
        JAS  iPe    09 53 54.4  54 16
        PRI  ePe    09 54 04.5
        SAO  eP     09 54 08    54 43
        MHC  eP     09 54 09.2  54 47
        BKS  eP     09 54 15.9              Sg 54 56
                    BRK  09 53 24.3, 37.5N, 118.4W, h=  3 km, ML=3.7
                         NORTH OF BISHOP, CALIFORNIA

SEP 21  SAO  iPd    03 19 02.9
        MHC  iPd    03 19 04.7
        BKS  iP     03 19 15.8  19 30
        PRI  iPe    03 19 19.2
        JAS  ePd    03 19 21.6
        FRI  ePe    03 19 26.1                  e 19 41
                    BRK  03 18 57.1, 37.0N, 121.7W, h=  8 km, ML=2.9
                         NORTHWEST OF HOLLISTER, CALIFORNIA

SEP 21  WDC  eP     14 50 58.9
        JAS  eP     14 51 26.0
        MNV  iPd    14 51 30.9
                    USGS 14 45 19.6, 61.1N, 151.8W, h= 81 km, mb=4.5
                         SOUTHERN ALASKA

SEP 21  FHC  eP     15 11 16.6
        WDC  eP     15 11 17.9
        MIN  eP     15 11 20.4
        MNV  eP     15 11 34.3
        BKS  eP     15 11 35.4
        JAS  eP     15 11 35.5
        SAO  eP     15 11 41.7
        FRI  eP     15 11 41.8
        PRI  eP     15 11 47.0
                    USGS 14 59 57.5, 66.5N,  86.3E, h=  0 km, mb=5.2
                         NUCLEAR EXPLOSION, CENTRAL SIBERIA
                    NUCLEAR EXPLOSION, CENTRAL SIBERIA
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SEP 22  FHC  iPe    03 26 26.1
        WDC  iPe    03 26 34.4   26 46
        MIN  iPe    03 26 44.8
        BKS  eP     03 27 07.0
        JAS  eP     03 27 16.4
        SAO  eP     03 27 22.9
        MNV  eP     03 27 30.3
                    BRK  03 26 19.8, 40.6N, 123.6W, h= 20 km, ML=3.7
                         SOUTHEAST OF EUREKA, CALIFORNIA

SEP 22  PRI         07 11                    e 12 11
        BKS  ePd    07 11 53.9               e 12 12
                         MICRON     PERIOD
                    PZ     0.03       0.8
        MHC  eP     07 11 54.1               e 12 12
        FRI  eP     07 11 58.0
        JAS  iPd    07 11 59.0               i 12 17
        WDC  iPd    07 12 02.1               i 12 20
        MIN         07 12                    e 12 04
        MNV  iPd    07 12 07.0               i 12 25
                    USGS 06 59 20.2, 30.6S, 178.0W, h= 63 km, mb=5.3
                         KERMADEC ISLANDS

SEP 22  FHC         08 07                    e 07 41
        WDC  iPe    08 07 49.4
        MIN  eP     08 07 54.8
        BKS  eP     08 08 04.1
        JAS  eP     08 08 12.9
        FRI  eP     08 08 20.8
        MNV  iPe    08 08 21.5
                    USGS 08 00 21.9, 51.9N, 179.4W, h= 90 km, mb=4.5
                         ANDREANOF ISLANDS, ALEUTIAN ISLANDS

SEP 22  SAO  iPd    15 36 24.3
        MHC  ePe    15 36 29.2   36 36
        FRI  e(P)   15 36 40
        BKS  e(P)   15 36 41
        JAS  e(P)   15 36 43     37 00
                    BRK  15 36 20.3, 36.9N, 121.4W, h=  8 km, ML=2.6
                         NORTH OF HOLLISTER, CALIFORNIA

SEP 23  WDC  ePe    05 21 57.5
        MIN  eP     05 22 02.1
        MHC  eP     05 22 18.0
        JAS  ePe    05 22 20.2
        MNV  ePe    05 22 26.9
        FRI  eP     05 22 30.4
                    USGS 05 13 02.3, 54.6N, 161.5E, h= 59 km, mb=5.1
                         NEAR THE EAST COAST OF KAMCHATKA

SEP 23  FHC  ePe    16 44 18.2                pP 45 07 PKPPKP 10 38
        BKS  eP     16 44 18.4   54 23        pP 45 05     sP 45 32      e 47 29
                                              e 55 20      e 56 48      SS 00 00
                                             SSS 03 18      e 04 58      Lq 06 32
                                              e 10 40
                         MICRON     PERIOD
                    PZ     0.33       1.0
        SAO  eP     16 44 18.7               pP 45 08     PP 47 35
        MHC  ePe    16 44 19.6               pP 45 09     PP 47 36    PKKP 02 38
                                            PKPPKP 10 35
        FRI  eP     16 44 21.5               pP 45 11     PP 47 36    PKKP 02 37
                                            PKPPKP 10 38
        WDC  iPe    16 44 22.7               pP 45 11     sP 46 00     PP 47 45
                                           PKKP 02 35 PKPPKP 10 35
        MIN  ePe    16 44 24.8               pP 45 14 PKPPKP 10 36
        JAS  iPe    16 44 25.0                e 44 38     pP 45 14     PP 47 47
                                           PKKP 02 36 PKPPKP 10 34
        FRI  ePe    16 44 25.8               pP 45 15    PKKP 02 34 PKPPKP 10 33
        MNV  iPe    16 44 34.4           PKKP 02 32 PKPPKP 10 31
                    mb=6.0, DISTANCE=85°
                    USGS 16 32 11.1, 13.9S, 167.2E, h=201 km, mb=6.3
                         NEW HEBRIDES ISLANDS

SEP 23  SAO  iPe    18 12 39.2
        MHC  ePd    18 12 50.8
        FRI  eP     18 12 52.0
        FRI  eP     18 13 01.5
        JAS  eP     18 13 02.5
                    BRK  18 12 37.0, 36.7N, 121.4W, h=  6 km, ML=2.6
                         STONE CANYON, CALIFORNIA

SEP 23  FHC  e(P)   22 54 11
        WDC  eP     22 54 17.0
        MIN  eP     22 54 21.0
        JAS  eP     22 54 34.0
        MNV  eP     22 54 41.0
                    USGS 22 43 10.6, 38.4N, 143.1E, h= 31 km, mb=5.4, Ms=5.3
                         OFF THE EAST COAST OF HONSHU, JAPAN

SEP 24  BKS         07 56                    e 07 00      e 16 16      e 23 27
        JAS  eP     07 56 14.5
        WDC  eP     07 56 16.0
        MNV  eP     07 56 23.0
                    USGS 07 43 26.4, 22.0S, 170.0E, h= 43 km, mb=5.0, Ms=5.4
                         LOYALTY ISLANDS REGION

SEP 24  WDC  eP     18 32 59.0
        JAS  eP     18 32 59.3
        MIN  eP     18 33 00.7
        MNV  eP     18 33 07.5
                    USGS 18 20 10.7, 21.9S, 170.0E, h= 42 km, mb=5.0
                         LOYALTY ISLANDS REGION

SEP 25  FHC  iPe    02 11 11.5   11 26
        WDC  iPe    02 11 27.5   11 54
        MIN  ePe    02 11 37.8
        BKS  ePg    02 11 51.7   12 40        e 11 58      e 12 06
        MHC  ePd    02 12 02.0
        JAS  ePd    02 12 06.0
        SAO  ePd    02 12 08.5
        FRI  ePe    02 12 22.0
                    BRK  02 10 51.0, 41.1N, 125.4W, h=  5 km, ML=4.6
                         OFF COAST WNW OF EUREKA, CALIFORNIA

SEP 25  WDC  eP     05 07 22.2
        BKS         05 07                    e 32 40
                         MICRON     PERIOD
                    LZ     0.9        20
                    LN     0.5        20
                    LE     0.7        20
        JAS  eP     05 07 25.4
        MNV  eP     05 07 34.5
                    USGS 04 54 46.0, 15.0S, 166.9E, h= 25 km, mb=5.3, Ms=5.0
                         NEW HEBRIDES ISLANDS

SEP 25  MNV  ePe    09 08 11.3               pP 08 42
        PRI  eP     09 08 11.7
        JAS  ePe    09 08 17.3
        MHC  eP     09 08 19.8               pP 08 50
        WDC  ePe    09 08 31.8
        FBC  eP     09 08 39.7
                    USGS 08 56 42.4, 19.5S,  68.5W, h=4.9 km, mb=4.9
                         CHILE-BOLIVIA BORDER REGION

SEP 25  FHC  ePe    09 32 31.5
        WDC  iPe    09 32 39.3
        MIN  ePe    09 32 44.5
        BKS  eP     09 32 53.8
                         MICRON     PERIOD
                    PZ     0.02       0.8
        MHC  eP     09 32 59.5
        JAS  iPe    09 33 02.8
        FRI  eP     09 33 10.7
        PRI  eP     09 33 11.0
        MNV  iPe    09 33 11.3
                    USGS 09 25 08.4, 52.1N, 179.2E, h=130 km, mb=4.9
                         RAT ISLANDS, ALEUTIAN ISLANDS

SEP 25  FHC  eP     21 48 26.2
        WDC  iPe    21 48 32.6
        MIN  eP     21 48 36.9
        JAS  eP     21 48 53.6
        MNV  iP     21 49 00.8
                    USGS 21 39 05.8, 50.6N, 156.5E, h= 58 km, mb=4.7
                         KURIL ISLANDS

SEP 26  MHC  eP     10 49 17.8
        JAS  eP     10 49 22.5
        WDC  eP     10 49 25.2
        MNV  eP     10 49 30.3
                    USGS 10 36 59.7, 31.3S, 179.7W, h=261 km, mb=4.8
                         KERMADEC ISLANDS REGION

SEP 26  BKS  ePKP   14 22 54.5
                         MICRON     PERIOD
                    PKPZ   0.06       1.2
        FHC         14 22                    e 22 55
        MHC  ePKP   14 22 55.6
        PRI  ePKP   14 22 56.5
        WDC  iPKPd  14 22 56.7
        JAS  ePKP   14 22 57.9
        MIN  ePKP   14 22 58.1
        FRI  ePKP   14 22 58.4
        MNV  iPKPd  14 23 02.9
                    USGS 14 03 06.0, 44.8S,  96.8E, h= 33 km, mb=5.1
                         SOUTHEAST INDIAN RISE

SEP 26  FHC  eP     14 37 07.4
        WDC  iPe    14 37 12.2                PP 40 26
        MIN  eP     14 37 15.3
        BKS  eP     14 37 15.8               e 40 35      e 47 30
                         MICRON     PERIOD
                    PZ     0.19       1.2
        MHC  eP     14 37 19.2
        SAO  eP     14 37 21.3
        JAS  iPe    14 37 22.8
        PRI  eP     14 37 24.7
        FRI  eP     14 37 26.5            PP 40 41
        MNV  iPe    14 37 31.0            PP 40 57
                    USGS 14 24 44.3, 12.6N, 143.3E, h= 91 km, mb=5.8
                         SOUTH OF MARIANA ISLANDS

SEP 27  FHC  eP     02 15 50.0
        WDC  ePe    02 15 50.2          PKPPKP 44 25
        MIN  ePe    02 15 51.6
        MNV  ePe    02 16 03.6          PKPPKP 44 18
        JAS  iPe    02 16 07.0          PKPPKP 44 17
        BKS  eP     02 16 07.5
                         MICRON     PERIOD
                    PZ     0.02       0.7
        MHC  eP     02 16 11.0
        FRI  ePe    02 16 12.7
        SAO  eP     02 16 14.1
        PRI  ePe    02 16 19.0          PKPPKP 44 16
                    USGS 02 04 58.2, 73.4N,  54.7E, h=  0 km, mb=5.6, Ms=4.5
                         NUCLEAR EXPLOSION, NOVAYA ZEMLYA

SEP 27  PRI         12 24                    pP 24 52     sP 24 59
        MNV  eP     12 24 37.3               pP 24 53     sP 25 00
        JAS  eP     12 24 41.7               pP 24 58     sP 25 04
        MHC         12 24                    pP 25 00     sP 25 07
        WDC  eP     12 24 56.4               pP 25 12     sP 25 20
        FBC  eP     12 25 03.4               pP 25 19     sP 25 26
                    USGS 12 12 42.1, 25.7S,  70.1W, h= 57 km, mb=5.1
                         OFF THE COAST OF NORTHERN CHILE

SEP 27  MNV  iPe    17 00 37.2
        FRI  iPe    17 00 48.7
        JAS  iPe    17 00 57.8               i 01 06
        PRI  iPe    17 01 01.3               i 01 11
        SAO  eP     17 01 08.2               e 01 18      i 01 23
        MHC  ePe    17 01 10.5               e 01 19      i 01 28
        BKS  e(P)   17 01 17                 e 01 30
        MIN  eP     17 01 23.5
        WDC  ePe    17 01 32.7
        FHC  e(P)   17 01 52
                    ML=5.1, NUCLEAR EXPLOSION, NEVADA TEST SITE
                    USGS 17 00 00.0, 37.1N, 116.1W, h=  0 km, mb=5.0
                         SOUTHERN NEVADA

SEP 27  FHC  iPe    17 11 26.2
        WDC  iPe    17 11 31.3
        MIN  eP     17 11 34.9
        BKS  eP     17 11 40.3
                         MICRON     PERIOD
                    PZ     0.07       0.7
        MHC  ePe    17 11 44.1
        SAO  eP     17 11 46.0
        JAS  iPe    17 11 46.8
        PRI  ePe    17 11 51.8
        FRI  ePe    17 11 51.9
        MNV  eP     17 11 53
                    USGS 17 00 17.5, 33.5N, 138.1E, h=293 km, mb=5.1
                         SOUTH OF HONSHU, JAPAN

SEP 27  MNV  iPe    17 20 37.0
        FRI  iPe    17 20 48.3
        JAS  iPe    17 20 57.4
        PRI  iPe    17 21 01.0
        SAO  iPe    17 21 07.6               e 21 17
        MHC  eP     17 21 10.0               i 21 19
        BKS  eP     17 21 16.5               e 21 30
        MIN  iPe    17 21 23.5
        WDC  iPe    17 21 32.8               e 21 39
        FHC  e(P)   17 21 48
                    ML=5.5, NUCLEAR EXPLOSION, NEVADA TEST SITE
                    USGS 17 20 00.0, 37.1N, 116.0W, h=  0 km, mb=5.7, Ms=4.1
                         SOUTHERN NEVADA

SEP 28  WDC  e(P)   09 47 46
        MIN         09 47                    e 47 52
        JAS  eP     09 48 09
                    USGS 09 38 33.2, 51.3N, 159.8E, h= 33 km, mb=4.8, Ms=5.5
                         OFF THE EAST COAST OF KAMCHATKA

SEP 28  WDC  e(P)   10 04 56
        JAS  e(P)   10 05 13
                    USGS 09 55 38.2, 51.4N, 159.8E, h= 33 km, mb=4.7
                         OFF THE EAST COAST OF KAMCHATKA

SEP 28  SAO  ePe    10 43 54.4
        BKS  ePe    10 43 54.5
                         MICRON     PERIOD
                    PZ     0.06       0.8
        MHC  ePe    10 43 55.6
        FHC  iPe    10 43 56.1
        PRI  ePe    10 43 56.7
        WDC  iPe    10 43 59.6
        JAS  iPe    10 44 00.6
        FRI  iPe    10 44 01.1
        MIN  ePe    10 44 01.6
        MNV  iPe    10 44 09.4
                    USGS 10 31 28.9, 19.1S, 169.0E, h=145 km, mb=5.6
                         NEW HEBRIDES ISLANDS
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SEP 29  FRI  ePd   16 26 46.6                  pP 27 10
        PRI  ePd   16 26 47.5                  PcP 30 29
        MNV  ePd   16 26 50.3                                PP 27 49    PcP 30 31
        SAO  eP    16 26 54.3                  pP 27 16
        JAS  iPd   16 26 57.2                  pP 27 23      PcP 30 32
        MHC  ePd   16 27 00.1                  pP 27 28      PcP 30 34     e 31 57
        BKS  ePd   16 27 06.8  31 28          e 33 30       e 34 20       e 34 44
                                  MICRON    PERIOD
                             PZ     0.07       1.1
                             LZ     3.2        20
                             LN     3.0        20
                             LE     3.4        20
        MIN  ePd   16 27 18.2                  pP 27 45      PP 28 33    PcP 30 37
        WDC  ePd   16 27 22.5                  pP 27 56
        FHC  iPd   16 27 33.3
                   USGS 16 21 41.0, 18.6N, 102 3W, h= 96 km, mb=5.5
                        MICHOACAN, MEXICO

SEP 30  WDC        09 23                       e 23 03
        BKS        09 23                       e 24 49       e 08 49       e 10 45
                                  MICRON    PERIOD
                             LZ     1.2        20
                             LN     1.8        20
                             LE     1.4        20
        JAS        09 23                       e 23 11
        MNV  ePKP  09 23 20.0
                   USGS 09 04 31.2, 16.6N,  95.9E, h= 10 km, mb=5.5, Ms=5.7
                        SOUTH BURMA

SEP 30  JAS  eP    17 02 47.6
        WDC  eP    17 02 49.5                  e 04 30
        MIN  eP    17 02 51
        MNV  eP    17 02 56.4                  e 04 40
                   USGS 16 51 13.5, 23.0S, 178.9W, h=435 km, mb=5.4
                        SOUTH OF FIJI ISLANDS

SEP 30  WDC  eP    23 46 39.5
        JAS  eP    23 46 53.7
        FRI  eP    23 46 58.5
                   USGS 23 34 48.6, 25.0N, 143.6E, h= 33 km, mb=5.0
                        VOLCANO ISLANDS REGION

OCT 02  SAO  iPd   01 21 08.5
        MHC  iPd   01 21 10.9
        BKS  eP    01 21 23.2  21 39
        PRI  eP    01 21 24.3
        JAS  ePd   01 21 25.7  21 43
                   BRK  01 21 03.2, 37.0N, 121.5W, h=  8 km, ML=2.5
                        NORTH OF HOLLISTER, CALIFORNIA

OCT 02  BKS  eP    15 59 21.4
                                  MICRON    PERIOD
                             PZ     0.03       0.9
        MHC  eP    15 59 23.3
        WDC  iPe   15 59 24.2
        PRI  eP    15 59 25.8
        JAS  iPe   15 59 28.2
        FRI  eP    15 59 29.1
        MNV  iPe   15 59 37.3
                   USGS 15 46 47.2, 10.8S, 161.7E, h= 66 km, mb=5.0
                        SOLOMON ISLANDS

OCT 04  WDC  iPd   03 34 44.8
        MIN  ePd   03 34 47.3
        FHC  eP    03 34 59.2
        BKS  e(P)  03 35 26
                   BRK  03 34 26.8, 41.5N, 121.9W, h=  2 km, ML=3.3
                        EAST OF MT. SHASTA, CALIFORNIA

OCT 04  FHC  eP    04 04 05.8
        WDC  eP    04 04 12.1
        MIN  eP    04 04 16.5
        BKS  eP    04 04 24.7
                                  MICRON    PERIOD
                             PZ     0.06       0.9
        MHC  eP    04 04 29.0
        JAS  eP    04 04 31.6
        SAO  eP    04 04 31.7
        PRI  eP    04 04 37.5
        FRI  eP    04 04 38.3
                   USGS 03 54 18.4, 46.3N, 151.7E, h=115 km, mb=5.7
                        KURIL ISLANDS

OCT 04  FRI  iPe   16 43 06.2
        MNV  eP    16 43 07.0
        JAS  iPe   16 43 14.4  43 34
        PRI  iPe   16 43 24.7
        SAO  iPe   16 43 27.8
        MHC  ePe   16 43 28.3
        BKS  iPe   16 43 35.3  44 16
        MIN  ePd   16 43 46.1
        WDC  iPe   16 43 54.8
                   BRK  16 42 48.6, 37.5N, 118.7W, h= 10 km, ML=5.8
                        NORTHWEST OF BISHOP, CALIFORNIA

OCT 04  FRI  iPe   16 48 43.4  48 57
        PRI  iPd   16 49 02.6
        SAO  eP    16 49 05.8
        MHC  eP    16 49 06
                   BRK  16 48 24  , 37.5N, 118.7W, h= 10 km, ML=3.2
                        NORTHWEST OF BISHOP, CALIFORNIA

OCT 04  FRI  iPe   16 59 22.1
        MNV  iPe   16 59 22.3
        JAS  iPd   16 59 30.4
        PRI  iPe   16 59 40.5
        SAO  iPe   16 59 43.9
        MHC  eP    16 59 44.1
        BKS  eP    16 59 51.0
        MIN  eP    17 00 04.9
        WDC  eP    17 00 14.9
                   BRK  16 59 04.2, 37.5N, 118.7W, h= 13 km, ML=4.4
                        NORTHWEST OF BISHOP, CALIFORNIA

OCT 04  FRI  iPe   17 07 51.3  08 04       i 07 53
        JAS  iPe   17 07 59.5
        PRI  iPd   17 08 10.2
        SAO  iPd   17 08 13.4
        MHC  eP    17 08 13.5
        BKS  eP    17 08 20.7
                   BRK  17 07 33.7, 37.5N, 118.7W, h= 10 km, ML=3.4
                        NORTHWEST OF BISHOP, CALIFORNIA

OCT 04  FRI  iPe   17 31 49.0
        MNV  iPd   17 31 49.5
        JAS  iPe   17 31 57.2
        PRI  iPe   17 32 07.6
        SAO  iPe   17 32 11.0
        MHC  eP    17 32 11.2
        BKS  eP    17 32 18.0
        MIN  eP    17 32 31.7
        WDC  eP    17 32 38.0
                   BRK  17 31 31.1, 37.5N, 118.7W, h= 11 km, ML=4.2
                        NORTHWEST OF BISHOP, CALIFORNIA

OCT 04  PRI  eP    17 33 41
        SAO  eP    17 33 44
        MHC  eP    17 33 45
        BKS  e(P)  17 33 51
                   BRK  17 33 04.0, 37.5N, 118.7W, h=  5 km, ML=3.6
                        NORTHWEST OF BISHOP, CALIFORNIA

OCT 04  FRI  iPe   17 39 21.2
        MNV  iPd   17 39 21.4
        JAS  iPe   17 39 29.1
        PRI  ePe   17 39 39.5
        SAO  iPe   17 39 42.4
        MHC  iPe   17 39 43.0
        BKS  ePe   17 39 48.9  40 34       e 40 28
        MIN  iPe   17 40 01.0
        WDC  iP    17 40 09.8
                   BRK  17 39 03.2, 37.5N, 118.7W, h= 13 km, ML=5.1
                        NORTHWEST OF BISHOP, CALIFORNIA

OCT 04  FRI  iPe   17 44 04.7
        JAS  iPe   17 44 12.8
        PRI  eP    17 44 23.4
        SAO  iPd   17 44 26.7
        MHC  iPd   17 44 27.8
        BKS  e(P)  17 44 34
                   BRK  17 43 46.6, 37.5N, 118.7W, h=  6 km, ML=3.6
                        NORTHWEST OF BISHOP, CALIFORNIA

OCT 04  FRI  iPe   17 47 05.0
        JAS  iPe   17 47 13.0
        PRI  iP    17 47 24.5
        SAO  iPe   17 47 27.0
        MHC  iPd   17 47 27.5
        BKS  eP    17 47 34.0
        MIN  eP    17 47 47.0
                   BRK  17 46 46.8, 37.6N, 118.6W, h= 16 km, ML=4.2
                        NORTHWEST OF BISHOP, CALIFORNIA

OCT 04  FRI  iPe   17 49 46.3  49 59       i 49 48
        JAS  iPe   17 49 54.1
        PRI  iPd   17 50 05.5
        SAO  iPd   17 50 08.2
        MHC  iPe   17 50 09.6              i 50 15
                   BRK  17 49 28.4, 37.5N, 118.7W, h= 13 km, ML=3.3
                        NORTHWEST OF BISHOP, CALIFORNIA

OCT 04  FRI  iP    17 54 28.7
        JAS  iPe   17 54 36.8
        PRI  eP    17 54 47.9
        SAO  eP    17 54 51
        MHC  eP    17 54 51.7
                   BRK  17 54 11.4, 37.5N, 118.7W, h= 10 km, ML=3.0
                        NORTHWEST OF BISHOP, CALIFORNIA

OCT 04  FRI  iPe   18 01 01.0
        JAS  iP    18 02 19.5
        PRI  iPe   18 02 29.8
        SAO  eP    18 02 32.8
        MHC  eP    18 02 33.5
        MIN  eP    18 02 54.1
                   BRK  18 01 53.4, 37.5N, 118.7W, h= 14 km, ML=3.9
                        NORTHWEST OF BISHOP, CALIFORNIA

OCT 04  FRI  iPe   18 03 59.1  04 12       i 04 01
        JAS  iPe   18 04 06.8
        PRI  iPd   18 04 18.3
        SAO  iPd   18 04 21.0
        MHC  eP    18 04 22.6
                   BRK  18 03 40.9, 37.6N, 118.7W, h=  8 km, ML=3.6
                        NORTHWEST OF BISHOP, CALIFORNIA

OCT 04  FRI  iPe   18 09 49.2  10 02
        JAS  iPe   18 09 57.2
        PRI  eP    18 10 08.2
        SAO  iPd   18 10 11.2
        MHC  eP    18 10 11.9
                   BRK  18 09 31.2, 37.5N, 118.7W, h=  2 km, ML=3.3
                        NORTHWEST OF BISHOP, CALIFORNIA

OCT 04  FRI  iPe   18 12 59.4  13 12
        JAS  iPd   18 13 07.8
        PRI  ePe   18 13 18.8
        SAO  eP    18 13 21.5
        MHC  eP    18 13 22.3
                   BRK  18 12 41.7, 37.5N, 118.7W, h= 12 km, ML=3.3
                        NORTHWEST OF BISHOP, CALIFORNIA

OCT 04  FRI  iPe   18 21 04.2  21 17
        JAS  ePe   18 21 12.3
        PRI  e(P)  18 21 22
        SAO  eP    18 21 26.5
        MHC  eP    18 21 27.0
                   BRK  18 20 38  , 37.5N, 118.7W, h= 12 km, ML=3.1
                        NORTHWEST OF BISHOP, CALIFORNIA

OCT 04  FRI  iPe   18 22 59.4
        JAS  iPe   18 23 07.7
        PRI  ePe   18 23 17.8
        SAO  iPd   18 23 21.0
        MHC  ePd   18 23 22.0
        BKS  eP    18 23 28.7
                   BRK  18 22 41.6, 37.5N, 118.7W, h= 10 km, ML=4.4
                        NORTHWEST OF BISHOP, CALIFORNIA

OCT 04  FRI  iPe   18 45 00.7  45 14
        MNV  iPe   18 45 01.0
        JAS  iPe   18 45 08.7
        PRI  eP    18 45 19.4
        SAO  eP    18 45 22.5
        MHC  eP    18 45 23.2
        BKS  e(P)  18 45 30
                   BRK  18 44 42.7, 37.5N, 118.7W, h=  5 km, ML=3.6
                        NORTHWEST OF BISHOP, CALIFORNIA

OCT 04  MNV  iP    19 22 42.2
        FRI  iPe   19 22 43.0  22 56
        JAS  iPe   19 22 52.0
        PRI  eP    19 23 02.0
        SAO  eP    19 23 05
        MHC  ePd   19 23 06.0
                   BRK  19 22 24.7, 37.5N, 118.7W, h=  0 km, ML=3.2
                        NORTHWEST OF BISHOP, CALIFORNIA

OCT 04  MNV  iPd   19 47 59.5
        FRI  iP    19 47 59.6  48 12
        JAS  ePe   19 48 07.3
        PRI  eP    19 48 18.3
        SAO  eP    19 48 21.8
        MHC  eP    19 48 22.7
                   BRK  19 47 41.7, 37.5N, 118.6W, h= 17 km, ML=3.1
                        NORTHWEST OF BISHOP, CALIFORNIA

OCT 04  WDC  eP    20 03 27.8
        MIN  eP    20 03 32.8
        MHC        20 03
        JAS  ePd   20 03                   e 03 47
        PRI        20 03 50.3
                   20 03                   e 03 58
                   USGS 19 55 17.5, 50.9N, 173.5E, h= 33 km, mb=5.3, Ms=5.0
                        NEAR ISLANDS, ALEUTIAN ISLANDS

OCT 04  FRI  iPe   20 09 50.7  10 04
        MNV  iPe   20 09 50.8
        JAS  iPe   20 09 58.8
        PRI  ePd   20 10 09.5
        SAO  eP    20 10 12.5
        MHC  eP    20 10 13.0
                   BRK  20 09 32.7, 37.5N, 118.6W, h=  7 km, ML=3.4
                        NORTHWEST OF BISHOP, CALIFORNIA

OCT 04  FRI  iPe   20 11 59.6  12 12
        SAO  e(P)  20 12 22
        MHC  e(P)  20 12 23
        BKS  eP    20 12 28.8
                   BRK  20 11 41.7, 37.5N, 118.6W, h= 10 km, ML=3.6
                        NORTHWEST OF BISHOP, CALIFORNIA
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OCT 04  MNV  eP    20 48 52.7
        FRI  iPe   20 48 54.9  49 08
        JAS  iPe   20 49 03.0
        FRI  eP    20 49 13.8
        SAO  eP    20 49 16.8
        MHC  eP    20 49 17.5
                   BRK  20 48 37.1, 37.5N, 118.7W, h= 16 km, ML=3.0
                        NORTHWEST OF BISHOP, CALIFORNIA

OCT 04  SAO  iPe   21 24 12.1
        FRI  eP    21 24 23.1
        MHC  eP    21 24 23.5
        FRI  eP    21 24 32.8
        JAS  iP    21 24 34.9
        BKS  eP    21 24 36.1
                   BRK  21 24 09.0, 36.6N, 121.3W, h=  7 km, ML=2.9
                        STONE CANYON, CALIFORNIA

OCT 04  FRI  iPe   23 06 45.4  06 58
        MNV  iPd   23 06 46.2
        JAS  iPe   23 06 53.7
        PRI  eP    23 07 04.8
        SAO  eP    23 07 07.3
        MHC  eP    23 07 07.6
                   BRK  23 06 27.5, 37.5N, 118.7W, h=  5 km, ML=3.0
                        NORTHWEST OF BISHOP, CALIFORNIA

OCT 05  FRI  iPe   01 18 05.0
        MNV  iPd   01 18 05.7
        JAS  iPe   01 18 13.5
        PRI  ePe   01 18 23.8
        SAO  ePe   01 18 27.0
        MHC  ePe   01 18 27.7
        BKS  eP    01 18 33.5  19 14
        MIN  eP    01 18 45.5
                   BRK  01 17 47.2, 37.5N, 118.7W, h=  7 km, ML=4.6
                        NORTHWEST OF BISHOP, CALIFORNIA

OCT 05  FRI  iPe   01 42 14.6  42 27
        MNV  iPd   01 42 15.4
        JAS  iPd   01 42 22.8
        PRI  eP    01 42 33.0
        SAO  eP    01 42 36.3
        MHC  ePd   01 42 37.6
                   BRK  01 41 56.9, 37.5N, 118.7W, h=  7 km, ML=3.3
                        NORTHWEST OF BISHOP, CALIFORNIA

OCT 05  MNV  eP    01 45 23.5
        FRI  iPe   01 45 23.6  45 36
        JAS  iPe   01 45 32.0
        PRI  ePe   01 45 42.2
        SAO  ePe   01 45 45.7
        MHC  ePd   01 45 46.4
        BKS  eP    01 45 53.2
                   BRK  01 45 05.6, 37.5N, 118.6W, h=  6 km, ML=3.5
                        NORTHWEST OF BISHOP, CALIFORNIA

OCT 05  WDC  ePe   04 24 13.0
        MIN  ePd   04 24 15.6
        FHC  eP    04 24 26.3
                   BRK  04 23 55.3, 41.4N, 121.9W, h=  2 km, ML=3.2
                        EAST OF MT. SHASTA, CALIFORNIA

OCT 05  FRI  iPe   06 41 47.6
        MNV  iPe   06 41 48.7
        JAS  iPe   06 41 56.2
        PRI  iPe   06 42 06.1
        SAO  iPe   06 42 09.5
        MHC  ePe   06 42 10.3
        BKS  eP    06 42 16.3
        MIN  e(P)  06 42 28
                   BRK  06 41 29.8, 37.5N, 118.6W, h=  9 km, ML=4.4
                        NORTHWEST OF BISHOP, CALIFORNIA

OCT 05  WDC  iPd   09 56 58.3
        MIN  iPd   09 57 00.7
        FHC  ePe   09 57 12.4
                   BRK  09 56 40.4, 41.5N, 121.9W, h=  2 km, ML=4.1
                        EAST OF MT. SHASTA, CALIFORNIA

OCT 05  MNV  iPe   10 46 34.5
        FRI  iP    10 46 35.5  46 48
        JAS  iPe   10 46 43.8
        PRI  ePd   10 46 54.3
        SAO  iPd   10 46 57.7
        MHC  eP    10 46 58.3
                   BRK  10 46 17.7, 37.5N, 118.7W, h=  6 km, ML=3.3
                        NORTHWEST OF BISHOP, CALIFORNIA

OCT 05  FHC  ePe   13 25 32.5
        WDC  ePe   13 25 40.6          e 25 58
        JAS  ePe   13 26 03.4          e 26 20
                   USGS 13 16 51.1, 54.9N, 163.3E, h= 42 km, mb=4.8
                        OFF EAST COAST OF KAMCHATKA

OCT 05  WDC  iPd   16 09 20.8  09 34
        MIN  iPd   16 09 23.2
        FHC  ePe   16 09 34.8
        JAS  e(P)  16 09 59
                   BRK  16 09 02.9, 41.5N, 121.9W, h=  2 km, ML=3.2
                        EAST OF MT. SHASTA, CALIFORNIA

OCT 05  FRI  iPe   22 54 30.8  54 44
        MNV  iPe   22 54 30.9
        JAS  iPe   22 54 38.9  54 58
        PRI  iPe   22 54 49.4          i 55 19
        SAO  eP    22 54 52.4
        MHC  eP    22 54 53.0          i 55 29
        BKS  eP    22 55 00.0
        WDC  eP    22 55 20            e 56 22
                   BRK  22 54 13.0, 37.5N, 118.6W, h= 20 km, ML=3.6
                        NORTHWEST OF BISHOP, CALIFORNIA

OCT 06  FRI  iPe   01 32 39.5
        MNV  iPe   01 32 39.8
        JAS  iPe   01 32 47.6  33 06
        PRI  eP    01 32 58.2          i 33 27
        SAO  eP    01 33 00.7
        MHC  eP    01 33 01.5
        BKS  eP    01 33 08.7
                   BRK  01 32 21.6, 37.5N, 118.7W, h= 10 km, ML=3.5
                        NORTHWEST OF BISHOP, CALIFORNIA

OCT 06  FRI  iPe   02 11 21.9  11 34
        MNV  iPe   02 11 22.6
        JAS  iPe   02 11 30.3  11 49
        PRI  eP    02 11 40.7          i 12 10
        SAO  eP    02 11 43.5
        MHC  e(P)  02 11 44
                   BRK  02 11 04.1, 37.5N, 118.6W, h=  9 km, ML=3.0
                        NORTHWEST OF BISHOP, CALIFORNIA

OCT 06  WDC  eP    09 47 28.3
        MIN  ePe   09 47 32.8
        BRK  e(P)  09 47 44
        MHC  eP    09 47 49
        JAS  ePe   09 47 51.1
        MNV  ePe   09 47 57.4
        PRI  eP    09 47 59
                   USGS 09 38 30.4, 55.9N, 160.2E, h= 57 km, mb=5.0
                        KAMCHATKA

OCT 06  FRI  iPd   16 37 32.3  37 48
        MNV  iPd   16 37 32.7
        JAS  iPe   16 37 44.1  38 09
        PRI  eP    16 37 49
        SAO  eP    16 37 57
                   BRK  16 37 10.4, 37.2N, 118.2W, h=  6 km, ML=3.5
                        SOUTHEAST OF BISHOP, CALIFORNIA

OCT 06  WDC  eP    20 56 22.2
        JAS  eP    20 56 36.7
        MNV  eP    20 56 45.0
                   USGS 20 44 44.3, 35.8N, 137.5E, h= 27 km, mb=5.2, Ms=4.6
                        HONSHU, JAPAN

OCT 06  WDC  iPd   21 04 54.7
        FHC  eP    21 05 08.2
        BKS  eP    21 05 34.5          e 06 22
        JAS  eP    21 05 37
        MNV  eP    21 05 42.5
                   BRK  21 04 37.2, 41.4N, 121.9W, h=  2 km, ML=4.0
                        EAST OF MT. SHASTA, CALIFORNIA

OCT 06  FHC  iPd   21 26 42.9
        WDC  iPe   21 26 56.7
        BKS  ePd   21 27 18.9  27 54
        MHC  eP    21 27 29.2
        JAS  eP    21 27 32.8
        SAO  eP    21 27 36.0
        FRI  eP    21 27 48.5
        MNV  ePe   21 27 50
        PRI  ePe   21 27 50
                   BRK  21 26 34.4, 40.4N, 124.3W, h= 20 km, ML=4.6
                        SSW OF EUREKA, CALIFORNIA

OCT 06  FHC  iPd   21 43 09.8
        WDC  iPe   21 43 22.8
        SAO  eP    21 44 05.0
                   BRK  21 43 00.9, 40.4N, 124.3W, h= 23 km, ML=3.3
                        SSW OF EUREKA, CALIFORNIA

OCT 06  WDC  iPd   22 51 47.2
        FHC  ePd   22 52 00.8
                   BRK  22 51 30.1, 41.4N, 121.9W, h=  2 km, ML=3.0
                        EAST OF MT. SHASTA, CALIFORNIA

OCT 07  SAO  eP    01 19 48.4
        PRI  eP    01 19 50.1
        MHC  ePe   01 19 50.2
        FHC  eP    01 19 53.3
        FRI  eP    01 19 55.4
        JAS  ePe   01 19 56.0
        WDC  ePe   01 19 56.8
        MNV  eP    01 20 05.2
                   USGS 01 08 59.5, 17.9S, 178.6W, h=619 km, mb=4.6
                        FIJI ISLANDS REGION

OCT 07  FRI  iPe   02 49 34.0  49 46
        MNV  iPd   02 49 34.8  49 48
        JAS  iPe   02 49 42.1  50 01
        PRI  eP    02 49 53.0
        SAO  ePd   02 49 56.0
        MHC  ePd   02 49 57.1
                   BRK  02 49 16.5, 37.5N, 118.7W, h= 12 km, ML=3.0
                        NORTHWEST OF BISHOP, CALIFORNIA

OCT 07  FHC  iPe   04 47 10.6
        WDC  iPe   04 47 24.5
        MHC  eP    04 47 58
        SAO  eP    04 48 04
                   BRK  04 47 00.8, 40.4N, 124.4W, h= 20 km, ML=3.9
                        OFF COAST SOUTHWEST OF EUREKA, CALIFORNIA

OCT 07  SAO  eP    08 28 27.6
        BKS  ePd   08 28 29.0
                        MICRON     PERIOD
                   PZ     0.06       1.0
        PRI  ePd   08 28 29.3          pP 30 19
        MHC  eP    08 28 29.5          pP 30 20
        FHC  ePd   08 28 33.5          pP 30 24
        FRI  eP    08 28 34.5
        JAS  iPd   08 28 35.0          pP 30 26
        WDC  iPd   08 28 36.8          pP 30 28
        MNV  iPd   08 28 44.4          pP 30 36
                   USGS 08 17 22.3, 20.2S, 177.7W, h=501 km, mb=5.1
                        FIJI ISLANDS REGION

OCT 07  FRI  ePd   12 31 02.7  31 18
        MNV  iPd   12 31 03.2  31 18
        JAS  iPe   12 31 14.3  31 38
        PRI        12 31       31 50   e 31 20
                   BRK  12 30 40.7, 37.2N, 118.2W, h=  8 km, ML=3.1
                        SOUTHEAST OF BISHOP, CALIFORNIA

OCT 07  FRI  iPe   13 48 07.8  48 20
        MNV  iPd   13 48 08.7  48 22
        JAS  iPe   13 48 16.0
        PRI  eP    13 48 27.0
        SAO  iPe   13 48 29.8
        MHC  eP    13 48 30.8
                   BRK  13 47 50.1, 37.5N, 118.7W, h= 11 km, ML=3.0
                        NORTHWEST OF BISHOP, CALIFORNIA

OCT 08  FHC  eP    00 11 01.8
        WDC  eP    00 11 04.7
        JAS  iPd   00 11 24.4
        MNV  eP    00 11 26.0
        PRI  eP    00 11 34.0
                   USGS 23 59 56.8, 61.5N, 112.9E, h=  0 km, mb=5.2
                        NUCLEAR EXPLOSION, CENTRAL SIBERIA

OCT 08  FRI  iPe   13 29 36.0  29 49
        MNV  iPe   13 29 36.8
        JAS  iPe   13 29 44.2  30 03
        PRI  ePd   13 29 54.7
        SAO  ePd   13 29 57.9
        MHC  ePd   13 29 59.0
                   BRK  13 29 18.5, 37.5N, 118.7W, h= 11 km, ML=3.1
                        NORTHWEST OF BISHOP, CALIFORNIA

OCT 08  FHC  iP    19 20 29.2          e 21 27
        WDC  iPd   19 20 34.2
        BKS  ePd   19 20 43.5
                        MICRON     PERIOD
                   PZ     0.14       0.8
        MHC  eP    19 20 47.9
        SAO  eP    19 20 49.9
        JAS  iPd   19 20 50.2          e 23 46
        FRI  eP    19 20 55.6
        PRI  eP    19 20 55.6
        MNV  iP    19 20 56.9
                   USGS 19 09 21.8, 36.0N, 137.1E, h=250 km, mb=5.3
                        HONSHU, JAPAN

OCT 08  SAO  iPe   23 59 16.9
        PRI  eP    23 59 22.8
        MHC  iPe   23 59 28.2  59 42
        FRI  eP    23 59 33.5
        JAS  eP    23 59 37.6  59 58
        BKS  e(P)  23 59 38            e 59 46
                   BRK  23 59 11.3, 36.5N, 121.2W, h=  4 km, ML=3.0
                        BEAR VALLEY, CALIFORNIA

OCT 09  SAO  iPe   20 49 47.9
        MHC  iPd   20 49 59.5  50 11
        PRI  iPd   20 50 00.8  50 13
        BKS  eP    20 50 09.5  50 27
        FRI  eP    20 50 10
        JAS  iPe   20 50 11.4
                   BRK  20 49 45.8, 36.7N, 121.4W, h=  6 km, ML=3.3
                        STONE CANYON, CALIFORNIA

OCT 10  SAO  iPe   01 38 40.8
        PRI  iPd   01 38 50.2  39 02
        MHC  ePd   01 38 52.1  39 04
        FRI  eP    01 38 59.5
        BKS  eP    01 39 01.6          e 39 22
        JAS  iPd   01 39 02.5
                   BRK  01 38 36.9, 36.6N, 121.3W, h=  8 km, ML=3.8
                        STONE CANYON, CALIFORNIA
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OCT 10  FRI  iPe    02 08 25.5  08 38
        MNV  iPe    02 08 26.7  08 40
        JAS  iPe    02 08 34.0  08 53
        PRI  eP     02 08 44.5
        SAO  eP     02 08 47.5
        MHC  eP     02 08 48.3
                    BRK  02 08 08.0, 37.5N, 118.7W, h= 9 km, ML=3.3
                         NORTHWEST OF BISHOP, CALIFORNIA

OCT 10  JAS  iPe    04 29 09.7  29 22
        MNV  iPe    04 29 15.9
        PRI  iPe    04 29 24.2  29 48
        MHC  eP     04 29 28.1  29 55
        BKS  e(P)   04 29 28
        SAO  eP     04 29 32.3
        WDC  eP     04 29 37.8
                    BRK  04 28 51.8, 38.8N, 119.8W, h= 10 km, ML=3.1
                         SOUTHEAST OF LAKE TAHOE, CALIFORNIA

OCT 11  WDC  eP     00 01 08.0
        MNV  eP     00 01 24.0
                    USGS 23 47 58.5,  6.5S, 147.5E, h= 98 km, mb=5.5
                         EAST PAPUA,NEW GUINEA REGION

OCT 11  MNV  eP     01 34 37.4
        JAS  e(P)   01 34 42
        WDC  e(P)   01 34 53
                    USGS 01 21 59.7, 34.3S,  70.2W, h= 10 km, mb=5.1
                         CHILE-ARGENTINA BORDER REGION

OCT 11  FHC  ePe    02 00 25.4
        WDC  iPe    02 00 30.7
        MIN  ePe    02 00 34.5
        BKS  ePe    02 00 39.6          Lr 23 16
                                 MICRON    PERIOD
                            PZ     0.24       1.0
                            LZ     1.2        20
        MHC  ePe    02 00 43.7
        SAO  eP     02 00 45.5
        JAS  iPe    02 00 46.4
        PRI  ePe    02 00 51.5
        FRI  ePe    02 00 51.8
        MNV  iPe    02 00 53.9
                    USGS 01 49 01.1, 33.4N, 140.8E, h= 57 km, mb=5.9
                         SOUTH OF HONSHU, JAPAN

OCT 11  JAS  iPe    02 51 39.0  51 50
        MNV  iPe    02 51 41.5
        PRI  eP     02 51 50    52 10
        MHC  ePe    02 51 59.3
        BKS  eP     02 52 02.0  52 30
        SAO  eP     02 52 02.4
        MIN  eP     02 52 05
                    BRK  02 51 22.3, 38.5N, 119.5W, h= 12 km, ML=3.0
                         SOUTHEAST OF LAKE TAHOE, CALIFORNIA

OCT 11  WDC  eP     13 22 22.0
        MIN  eP     13 22 24.0
        FHC  eP     13 22 36.4
                    BRK  13 22 04.5, 41.4N, 121.9W, h= 2 km, ML=3.2
                         EAST OF MT. SHASTA, CALIFORNIA

OCT 12  MDC  eP     12 38 23
        PRI  eP     12 38 24
        WDC  ePd    12 38 27.8
        JAS  ePd    12 38 28.5
        FRI  eP     12 38 29
        MNV  ePd    12 38 37.0
                    USGS 12 25 37.3, 21.3S, 169.0E, h= 33 km, mb=4.2
                         LOYALTY ISLANDS

OCT 13  BKS  eP     01 10 15.6
                                 MICRON    PERIOD
                            PZ     0.04       1.0
        FRI  eP     01 10 15.8
        MHC  eP     01 10 16.1
        JAS  iPd    01 10 21.3
        FRI  eP     01 10 21.6
        WDC  iPd    01 10 23.0
        MIN  eP     01 10 24.5
        MNV  eP     01 10 30.0
                    USGS 00 59 02.2, 22.3S, 179.5W, h=582 km, mb=5.0
                         SOUTH OF FIJI ISLANDS

OCT 13  WDC  iPd    18 47 24.7
        MIN  iPd    18 47 27.4
        FHC  ePd    18 47 38.7
        BKS  eP     18 48 05.0  48 51
        JAS  ePe    18 48 06.3
        MNV  ePe    18 48 13
                    BRK  18 47 07.7, 41.4N, 121.9W, h= 2 km, ML=3.9
                         EAST OF MT. SHASTA, CALIFORNIA

OCT 14  SAO  eP     13 56 54.6
        PRI  iPe    13 56 55.5
        MHC  ePe    13 56 56.5
        BKS  iP     13 56 56.6
                                 MICRON    PERIOD
                            PZ     0.06       1.0
        FRI  ePe    13 57 00.3
        JAS  iPe    13 57 01.2
        FHC  eP     13 57 01.9
        WDC  iPe    13 57 04.5
        MNV  ePe    13 57 09.1
                    USGS 13 44 17.7, 31.2S, 178.5W, h= 53 km, mb=5.3, Ms=4.6
                         KERMADEC ISLANDS REGION

OCT 14  FHC  ePKPd  18 59 46.0
        WDC  iPKPd  18 59 47.1
        BKS  ePKP   18 59 49.8                    e 01 28
        MHC  ePKPd  18 59 51.1
        JAS  ePKP   18 59 52.1
        FRI  ePKP   18 59 53.8
        PRI  ePKPd  18 59 53.9
        MNV  ePKPd  18 59 55.6
                    USGS 18 41 13.7,  7.5S, 112.2E, h=184 km, mb=5.6
                         JAVA

OCT 14  SAO  iPd    20 59 48.4
        MHC  iPd    20 59 53.7  60 00
        PRI  eP     21 00 04.2
        BKS  eP     21 00 05.0  00 20
        FRI  eP     21 00 09
        JAS  ePe    21 00 17.2  00 34
                    BRK  20 59 44.6, 36.9N, 121.5W, h= 10 km, ML=2.9
                         NORTH OF HOLLISTER, CALIFORNIA

OCT 14  FRI  iPe    23 38 58.4  39 11
        MNV  iPe    23 38 59.3
        JAS  iPe    23 39 06.6  39 26
        PRI  eP     23 39 16.5
        SAO  eP     23 39 20.5
        MHC  ePd    23 39 21.8
        BKS  eP     23 39 28.0
                    BRK  23 38 40.8, 37.5N, 118.7W, h= 10 km, ML=3.2
                         NORTHWEST OF BISHOP, CALIFORNIA

OCT 15  FHC  ePe    05 49 06.9
        WDC  iPe    05 49 11.2
        BKS  eP     05 49 11.3                    pP 49 52
                                 MICRON    PERIOD  e 01 28
                            PZ     0.09       1.2          e 07 24
        MHC  ePe    05 49 13.5
        SAO  eP     05 49 14
        PRI  ePe    05 49 17.1
        JAS  iPe    05 49 17.6
        FRI  ePe    05 49 19.9
        MNV  ePe    05 49 26.2                    pP 49 57
                    USGS 05 36 13.1,  5.6S, 149.1E, h=154 km, mb=5.8
                                                  pP 50 06
                         NEW BRITAIN REGION

OCT 15  PRI  eP     07 56 24.3
        MNV  ePe    07 56 29.8
        JAS  ePe    07 56 31.5
        WDC  ePe    07 56 45.5
                    USGS 07 43 52.1, 41.8S,  83.6W, h= 33 km, mb=5.1, Ms=4.9
                         WEST CHILE RISE

OCT 15  MHC  iPe    11 43 30.0  43 32
        SAO  iPe    11 43 33.5
        BKS  eP     11 43 42.3  43 55
        JAS  ePd    11 43 47.8  44 05
        PRI  eP     11 43 49.2
                    BRK  11 43 25.4, 37.2N, 121.6W, h= 6 km, ML=2.7
                         SOUTHEAST OF SAN JOSE, CALIFORNIA

OCT 15  FHC  eP     15 37 11.5  37 42
        WDC  eP     15 37 27.6
        BKS  eP     15 37 43.8                    e 38 48      T 41 44
        MHC  eP     15 37 53.5
        SAO  eP     15 37 59.8
        JAS  eP     15 38 02.5
                    BRK  15 36 31.7, 40.6N, 127.2W, h= 5 km, ML=4.1
                         OFF COAST WEST OF EUREKA, CALIFORNIA

OCT 15  FHC  eP     19 55 30.9  56 01
        WDC  eP     19 55 46.8
        BKS  eP     19 56 02.6                    e 57 10      T 00 10
        MHC  eP     19 56 12.0
        SAO  eP     19 56 18.5
        JAS  eP     19 56 21
                    BRK  19 54 50.4, 40.6N, 127.2W, h= 5 km, ML=4.3
                         OFF COAST WEST OF EUREKA, CALIFORNIA

OCT 16  FHC  iPe    02 18 16.2
        WDC  iPe    02 18 30.1
        BKS  eP     02 18 53
        MHC  eP     02 19 03
        JAS  ePd    02 19 06.5
        SAO  iPd    02 19 09.6
        MNV  ePd    02 19 24
                    BRK  02 18 07.0, 40.5N, 124.3W, h= 20 km, ML=3.7
                         NEAR COAST SSW OF EUREKA, CALIFORNIA

OCT 16  FHC  ePe    04 23 23.7  23 54
        WDC  ePe    04 23 40.2
        BKS  eP     04 23 56.6                    e 24 58      T 27 50
        MHC  eP     04 24 06
        SAO  eP     04 24 12
        JAS  ePe    04 24 15.0
                    BRK  04 22 44.1, 40.7N, 127.2W, h= 5 km, ML=4.2
                         OFF COAST WEST OF EUREKA, CALIFORNIA

OCT 17  SAO  eP     00 06 10.5
        BKS  eP     00 06 12
                                 MICRON    PERIOD
                            PZ     0.15       1.4
        MHC  eP     00 06 12.0
        PRI  eP     00 06 12.1
        FHC  eP     00 06 15.0
        JAS  eP     00 06 17.4
        FRI  eP     00 06 17.4
        WDC  eP     00 06 18.4
        MIN  eP     00 06 20.5
        MNV  eP     00 06 27.1
                    USGS 23 55 15.9, 17.8S, 178.8W, h=565 km, mb=5.4
                         FIJI ISLANDS REGION

OCT 17  WDC  eP     02 26 36.1
        MIN  iPe    02 26 38.6  26 53
        FHC  eP     02 26 50.8
                    BRK  02 26 18.8, 41.4N, 121.9W, h= 2 km, ML=3.0
                         EAST OF MT. SHASTA, CALIFORNIA

OCT 17  WDC  eP     03 23 26.0
        MIN  eP     03 23 33.1
        MNV         03 24                         e 24 04
                    USGS 03 21 06.0, 48.9N, 129.0W, h= 18 km, mb=4.6
                         VANCOUVER ISLAND REGION

OCT 17  WDC  iPe    05 13 06.1
        FHC  ePe    05 13 06.7
        MIN  ePe    05 13 07.3
        MNV  iPe    05 13 15.0
        JAS  iPe    05 13 18.4
        BKS  eP     05 13 19.5
        MHC  eP     05 13 21.6
        FRI  ePe    05 13 21.9
        SAO  eP     05 13 24.0
        PRI  eP     05 13 27.2
                    USGS 04 59 56.0, 47.8N,  48.1E, h=  0 km, mb=5.8, Ms=4.6
                         NUCLEAR EXPLOSION, WESTERN KAZAKH, S.S.R.

OCT 17  FHC  eP     14 11 50.0
        WDC  iPe    14 11 50.3                    e 12 14
        MIN  ePe    14 11 52.2
        MNV  iPe    14 12 03.6
        JAS  iPe    14 12 06.2
        BKS  eP     14 12 06.6
                                 MICRON    PERIOD
                            PZ     0.08       1.2
        MHC  eP     14 12 09.4
        FRI  eP     14 12 11.3
        SAO  eP     14 12 12.8
        PRI  ePe    14 12 16.5
                    USGS 13 59 57.8, 63.1N,  63.4E, h=  0 km, mb=5.5
                         NUCLEAR EXPLOSION, URAL MOUNTAINS REGION

OCT 17  FRI  eP     20 23 35.8                    PoP 26 04
        MNV  ePd    20 23 36.0                    PoP 26 04
        PRI  eP     20 23 38.5                    PoP 26 06
        JAS  ePd    20 23 45.2                    PoP 26 08
        MHC  eP     20 23 49.8
        BRK  eP     20 23 54.2
        WDC  ePd    20 24 06.2                    PoP 26 15
        FHC  ePd    20 24 18.0                    PoP 26 20
                    USGS 20 16 49.5, 13.8N,  89.7W, h=116 km, mb=5.1
                         EL SALVADOR

OCT 17  SAO  ePe    23 07 37.0
        BKS  eP     23 07 38.4
                                 MICRON    PERIOD
                            PZ     0.07       0.8
        PRI  ePe    23 07 38.5
        MHC  ePe    23 07 38.7
        FHC  iPe    23 07 42.5
        FRI  ePe    23 07 43.6
        JAS  iPe    23 07 44.2
        WDC  iPe    23 07 45.9
        MNV  ePe    23 07 53.5
                    USGS 22 56 32.1, 20.6S, 178.2W, h=550 km, mb=5.4
                         FIJI ISLANDS REGION

OCT 18  PRI  ePe    02 13 43.7
        SAO  eP     02 13 46.8
        FRI  ePe    02 13 49.3
        MHC  ePe    02 13 51.5
        BKS  eP     02 13 54.5
                                 MICRON    PERIOD
                            PZ     0.04       1.0
        JAS  ePe    02 13 55.7
        MNV  ePe    02 14 01.2
        MIN  eP     02 14 10.6
        WDC  ePe    02 14 11.9
        FHC  eP     02 14 13.5
                    USGS 02 03 58.9, 20.8S, 127.9W, H= 33 KM, mb=5.1
                         SOUTH PACIFIC OCEAN
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OCT 18  SAO  iPe     19 45 11.9
        MHC  eP      19 45 22.5
        PRI  ePd     19 45 24.8
        BKS  eP      19 45 34.0                  e 45 56
        FRI  ePe     19 45 34.7
                BRK  19 45 09.7, 36.7N, 121.4W, h=  7 km, ML=2.5
                     STONE CANYON, CALIFORNIA

OCT 18  FHC  eP      23 41 05.9                  e 41 20
        WDC  eP      23 41 11.8
        MIN          23 41                       e 41 30
        BKS  eP      23 41 23.5
                          MICRON     PERIOD
                     PZ     0.04       1.2
        MHC  eP      23 41 27
        JAS  eP      23 41 29.5                  e 41 43
        PRI  eP      23 41 35.8
        PRI  eP      23 41 36
        MNV  eP      23 41 36.7                  e 41 50
                USGS 23 30 20.2, 41.2N, 143.9E, h= 33 km, mb=5.5, Ms=5.1
                     HOKKAIDO, JAPAN, REGION

OCT 19  MHC          01 52                       e 52 09
        PRI  eP      01 51 22.0                  e 52 11
        WDC  eP      01 51 23.2                  e 52 12
        JAS  eP      01 51 25.1                  e 52 14
        MIN          01 52                       e 52 14
        MNV  eP      01 51 34.4                  e 52 24
                USGS 01 39 13.2, 13.5S, 167.1E, h=210 km, mb=5.2
                     NEW HEBRIDES ISLANDS

OCT 19  SAO  eP      13 19 58
        PRI  ePd     13 19 59.4
        BKS  eP      13 19 59.5
                          MICRON     PERIOD
                     PZ     0.09       1.0
        MHC  ePd     13 19 59.6
        FHC  eP      13 20 03.8
        PRI  eP      13 20 05
        JAS  ePd     13 20 05.2
        WDC  iPd     13 20 07.0                  e 20 36      e 21 36
        MIN  e(P)    13 20 09
        MNV  eP      13 20 14.5
                USGS 13 08 37.7, 21.2S, 177.8W, h=395 km, mb=5.3
                     FIJI ISLANDS REGION

OCT 19  FHC  eP      18 26 04.2
        WDC  eP      18 26 09.4
        MIN  eP      18 26 12.3
        BKS  eP      18 26 14.3                 pP 26 42     sP 26 52
                          MICRON     PERIOD
                     PZ     0.13       1.2
        MHC  eP      18 26 17.5
        SAO  eP      18 26 19.3
        JAS  eP      18 26 21.3
        PRI  eP      18 26 23.5
        PRI  eP      18 26 25.3
        MNV  eP      18 26 29.7                  e 26 58
                USGS 18 14 09.0, 17.0N, 146.0E, h=107 km, mb=5.3
                     MARIANA ISLANDS

OCT 20  WDC  ePd     18 16 59.2
        MIN  ePd     18 17 01.6
        PRI  eP      18 17 05
        JAS  eP      18 17 05.5
        PRI  eP      18 17 08
        MNV  ePd     18 17 14.4
                USGS 18 04 02.0,  3.3S, 150.8E, h= 33 km, mb=5.6, Ms=5.1
                     NEW IRELAND REGION

OCT 20  MNV  iPd     21 25 27.1
        JAS  iPd     21 25 36.6
        PRI  iPd     21 25 37.0  25 55
        MHC  eP      21 25 53.8
        PRI  ePd     21 25 55.7
        SAO  eP      21 25 56.3
        BKS  e(P)    21 26 00    26 34
                BRK  21 25 14.4, 38.1N, 118.9W, h=  6 km, ML=3.8
                     MONO LAKE AREA, CALIFORNIA

OCT 20  PRI  e(P)    21 44 08
        MNV  ePe     21 44 15.0
        JAS          21 44                       e 44 18
        WDC  eP      21 44 36.5
                USGS 21 32 25.7, 36.5S,  97.8W, h= 33 km
                     WEST CHILE RISE

OCT 20  FHC  eP      23 21 29.7
        WDC  iPd     23 21 34.2
        JAS  eP      23 21 41.0
        PRI  eP      23 21 43.0
        MNV  ePd     23 21 49.2
                USGS 23 08 53.3,  4.4S, 152.0E, h=153 km, mb=5.3
                     NEW BRITAIN REGION

OCT 21  WDC  iPe     00 56 23.6
        MIN  iPd     00 56 25.8
        FHC  eP      00 56 37.7
                BRK  00 56 06.5, 41.4N, 121.9W, h=  2 km, ML=3.1
                     EAST OF MT. SHASTA, CALIFORNIA

OCT 21  FHC  ePe     02 46 52.6
        WDC  iPe     02 46 57.5                 pP 48 24
        MIN  ePe     02 47 01.3
        BKS  eP      02 47 08.6
                          MICRON     PERIOD
                     PZ     0.05       0.6
        MHC  ePe     02 47 12.7
        JAS  iPe     02 47 14.7                 pP 48 42
        SAO  eP      02 47 15
        FRI  ePe     02 47 20.2
        MNV  iPe     02 47 20.7
        PRI  ePe     02 47 21.0
                USGS 02 36 09.6, 41.2N, 135.5E, h=360 km, mb=5.1
                     SEA OF JAPAN

OCT 21  SAO  eP      17 48 47.2
        BKS  eP      17 48 48.4
                          MICRON     PERIOD
                     PZ     0.04       0.8
        PRI  eP      17 48 48.5
        MHC  eP      17 48 49.0
        FRI  eP      17 48 53.2
        JAS  eP      17 48 54.0
        WDC  eP      17 48 55.9
        MIN  eP      17 48 57.6
        MNV  eP      17 49 02.5
                USGS 17 37 13.0, 23.5S, 179.9W, h=404 km, mb=5.1
                     SOUTH OF FIJI ISLANDS

OCT 22  JAS  eP      11 11 56.7
        WDC  eP      11 11 59.0
        MNV  eP      11 12 06.7
                USGS 11 00 22.3, 18.5S, 173.7W, h= 87 km, mb=5.0
                     TONGA ISLANDS

OCT 22  PRI  eP      14 12 26.8
        FRI  eP      14 12 27.5
        MNV  ePe     14 12 33.9
        JAS  ePe     14 12 38.4
        MHC  eP      14 12 39.7
        BKS  eP      14 12 47    17 36       Lr 20 10
                          MICRON     PERIOD
                     LZ     4.2        20
                     LN     5          20
                     LE     5          20
        MIN  eP      14 13 01.0
        WDC  ePe     14 13 04.5
        FHC  eP      14 13 14.0
                Ms=5.1, DISTANCE=28°
                USGS 14 07 00.2, 15.2N, 104.5W, h= 33 km, mb=5.2, Ms=5.0
                     OFF THE COAST OF MICHOACAN, MEXICO

OCT 22  PRI  ePe     14 22 40.0
        FRI  eP      14 22 40.7
        MNV  ePe     14 22 47.0
        JAS  ePe     14 22 51.5
        MHC  eP      14 22 52.7
        MIN  ePe     14 23 14.3
        WDC  ePe     14 23 17.7
        FHC  eP      14 23 27.3
                USGS 14 17 14.4, 15.3N, 104.5W, h= 33 km, mb=5.2
                     OFF THE COAST OF MICHOACAN, MEXICO

OCT 22  JAS  eP      19 55 05.1
        WDC  eP      19 55 08.3
        MNV  eP      19 55 13.2
                USGS 19 42 48.7, 27.8S, 176.4W, h=125 km, mb=5.0
                     KERMADEC ISLANDS REGION

OCT 23  PRI  eP      11 36 01.7
        BKS          11 36                       e 36 03
        MHC  eP      11 36 03
        JAS  ePe     11 36 08.0
        WDC  ePe     11 36 11.0
        MNV  ePe     11 36 16.3
                USGS 11 23 47.5, 27.4S, 176.8W, h= 87 km, mb=5.1
                     KERMADEC ISLANDS

OCT 23  WDC  eP      14 00 13
        BKS          14 00                       e 00 20
        JAS  eP      14 00 27
        MNV  eP      14 00 34.5
                USGS 13 48 14.6, 25.6N, 141.3E, h= 37 km, mb=5.1, Ms=5.4
                     VOLCANO ISLANDS REGION

OCT 24  MNV  iPd     02 12 07.8
        JAS  iPe     02 12 17.3  12 33
        FRI  iP      02 12 17.8  12 34
        MHC  eP      02 12 34.5
        PRI  eP      02 12 35.9
        SAO  iPe     02 12 37.1
        BKS  e(P)    02 12 40    13 15
        MIN  eP      02 12 51.1
                BRK  02 11 55.0, 38.1N, 118.9W, h=  5 km, ML=3.6
                     MONO LAKE AREA, CALIFORNIA

OCT 24  MNV  iPe     06 57 17.7
        JAS  iPe     06 57 27.3
        FRI  iPd     06 57 27.8  57 44
        MHC  eP      06 57 44.6
        PRI  eP      06 57 46.8
        SAO  eP      06 57 47.0
        MIN  eP      06 58 01.2
                BRK  06 57 05.0, 38.1N, 118.9W, h=  5 km, ML=3.3
                     MONO LAKE AREA, CALIFORNIA

OCT 24  WDC  iPe     10 46 59.6
        MIN  eP      10 47 03.0
        BKS  eP      10 47 04.7
                          MICRON     PERIOD
                     PZ     0.04       1.0
        MHC  eP      10 47 07.6
        JAS  eP      10 47 11.6
        PRI  eP      10 47 14.1
        FRI  eP      10 47 15.9
        MNV          10 47                       e 47 20
                USGS 10 34 59.7, 17.9N, 146.5E, h= 70 km, mb=5.4
                     MARIANA ISLANDS

OCT 24  MNV  eP      20 32 36                Pg 32 57
        MIN          20 33                    e 33 15
        JAS  eP      20 33 03                Pg 33 33     Sg 35 12
        WDC  eP      20 33 06                Pg 33 35     Sg 35 24
                USGS 20 30 59.3, 42.6N, 111.8W, h=  7 km, mb=4.2
                     EASTERN IDAHO

OCT 25  PRI  ePe     01 49 08.1
        MNV  ePe     01 49 09.1
        SAO  eP      01 49 11.8
        JAS  iPe     01 49 13.5
        MHC  eP      01 49 15.2
        BRK  eP      01 49 18.5
        WDC  iPe     01 49 27.0
                USGS 01 36 41.9, 31.5S,  67.7W, h= 46 km, mb=5.3, Ms=4.3
                     SAN JUAN PROVINCE, ARGENTINA

OCT 25  FHC  eP      22 07 31.5
        WDC  iPe     22 07 38.2
        MIN  iPe     22 07 43.2
        BKS  eP      22 08 00
        JAS  iPe     22 08 05.9
        MHC  iPe     22 08 06.3
        MNV  iPe     22 08 10.7
        FRI  iPe     22 08 15.8
        PRI  iPe     22 08 19.9
                USGS 22 02 18.1, 59.2N, 147.8W, h= 19 km, mb=4.9, Ms=4.4
                     GULF OF ALASKA

OCT 26  MNV  ePe     06 05 20.5
                USGS 06 00 23.3, 18.6N, 106.3W, h= 33 km, mb=4.8
                     OFF THE COAST OF JALISCO, MEXICO

OCT 26  MNV  ePe     09 04 04.0
                USGS 08 59 09.6, 18.7N, 106.2W, h= 33 km, mb=4.9
                     OFF THE COAST OF JALISCO, MEXICO

OCT 26  PRI  eP      11 40 12.2
        FRI  eP      11 40 13.6
        MNV  ePd     11 40 20.5                  e 40 24
        JAS  ePd     11 40 25.4                  i 40 28
        MHC  eP      11 40 27.9
        BKS  ePd     11 40 34.0  45 00       Lr 46 50
                          MICRON     PERIOD
                     LZ     8          20
                     LN     9          20
                     LE     5          20
        WDC  eP      11 40 53
                Ms=5.2, DISTANCE=26°
                USGS 11 35 27.1, 19.0N, 106.3W, h= 33 km, mb=5.2, Ms=5.2
                     OFF THE COAST OF JALISCO, MEXICO

OCT 26  FRI  iPe     19 00 58.7  01 11       i 01 10
        MNV  iPd     19 01 00.0
        JAS  iPe     19 01 07.3
        PRI  eP      19 01 17.3
        SAO  eP      19 01 20.4
        MHC  eP      19 01 21.3
        BKS  eP      19 01 27.0
        MIN  eP      19 01 39.3
                BRK  19 00 41.4, 37.5N, 118.7W, h= 13 km, ML=4.0
                     NORTHWEST OF BISHOP, CALIFORNIA

OCT 27  PRI  e(P)    01 53 29                pP 53 58
        MNV  eP      01 53 29.2              pP 53 57
        JAS  eP      01 53                   pP 54 03
        MHC  e(P)    01 53 37                pP 54 06
        WDC          01 53 48.9              pP 54 18
                USGS 01 41 59.8, 20.5S,  69.1W, h=117 km, mb=4.5
                     NORTHERN CHILE

OCT 27  PRI  eP      06 02 56.6
        MHC  eP      06 02 56.7
        FRI  eP      06 03 01.4
        JAS  eP      06 03 01.8
        WDC  iPd     06 03 03.4
        MIN  eP      06 03 05.3
        MNV  eP      06 03 09.7
                USGS 05 51 38.9, 22.1S, 179.6E, h=570 km, mb=5.0
                     SOUTH OF FIJI ISLANDS
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OCT 27  SAO  eP   06 36 00.7
        BKS  eP   06 36 02.0
        PRI  eP   06 36 02.0
        MHC  eP   06 36 02.3                    e 36 05
        FHC       06 36
        FRI  eP   06 36 07.0
        JAS  eP   06 36 07.4
        WDC  eP   06 36 08.9
        MIN  eP   06 36 10.9
        MNV  iPd  06 36 16.5
                  USGS 06 24 57.4, 20.9S, 178.7W, h=600 km, mb=5.3
                       FIJI ISLANDS

OCT 27  FRI  eP   10 18 12.6
        MNV  iPd  10 18 13.4
        PRI  eP   10 18 13.8
        SAO  eP   10 18 18.0
        JAS  iPd  10 18 18.9
        MHC  eP   10 18 21.4
        BKS  iPd  10 18 24.5
                        MICRON    PERIOD
                  PZ      0.10       0.5
        MIN  eP   10 18 29.0
        WDC  iP   10 18 32.8
        FHC  iPd  10 18 40.0
                  USGS 10 06 46.1, 21.9S,  65.8W, h=280 km, mb=5.6
                       SOUTHERN BOLIVIA

OCT 27  MHC  iPd  12 00 24.2
        SAO  iPd  12 00 32.9
        BKS  iPe  12 00 37.0  00 49
        JAS  iPd  12 00 43.8  00 59
        PRI  eP   12 00 46.8
        FRI  eP   12 00 49.2
                  BRK  12 00 22.2, 37.3N, 121.6W, h=  4 km, ML=3.1
                       SOUTHEAST OF SAN JOSE, CALIFORNIA

OCT 28  PRI       10 20                     e 20 14
        FRI       10 20                     e 20 18
        MNV  eP   10 20 25.7
        JAS       10 20                     e 20 32
        BKS       10 20                    Lr 24 00
        MIN  eP   10 21 09.5
        WDC  ePe  10 21 14.5
                  USGS 10 17 41.7, 28.4N, 112.1W, h= 15 km, mb=4.4
                       GULF OF CALIFORNIA

OCT 28  FHC  eP   16 39 35.3               pP 40 07
        WDC  ePe  16 39 41.8               pP 40 13
        MIN  eP   16 39 46.1               pP 40 18
        BKS       16 39                    pP 40 27
        MHC       16 39                    pP 40 32
        JAS  ePe  16 40 02.3               pP 40 34
        SAO       16 40                    pP 40 35
        FRI       16 40                    pP 40 42
        PRI       16 40                    pP 40 42
        MNV  eP   16 40 09.5               pP 40 42
                  USGS 16 30 18.3, 50.3N, 155.7E, h=135 km, mb=5.5
                       KURIL ISLANDS

OCT 28  FHC  eP   22 57 09.0               pP 57 28
        WDC  ePe  22 57 14.9               pP 57 34     sP 57 51
        MIN  ePe  22 57 18.9               pP 57 38
        BKS  iPd  22 57 26.4               pP 57 45
                        MICRON    PERIOD
                  PZ      0.04       1.0
        MHC  eP   22 57 30.6
        JAS  ePe  22 57 32.9               pP 57 52     sP 58 08
        FRI  eP   22 57 39.2
        PRI  eP   22 57 39.3
        MNV  ePe  22 57 39.9               pP 57 59     sP 58 17
                  USGS 22 46 35.0, 42.7N, 144.2E, h= 80 km, mb=5.1
                       HOKKAIDO, JAPAN, REGION

OCT 29  FHC  iPd  04 33 14.6
        WDC  iPe  04 33 27.4
        MIN  ePe  04 33 37.0
        JAS  eP   04 34 03.5
                  BRK  04 33 03.2, 40.4N, 124.5W, h= 20 km, ML=3.3
                       OFF COAST SOUTHWEST OF EUREKA, CALIFORNIA

OCT 29  FHC  iPe  06 51 03.1
        WDC  iPe  06 51 15.9
        MIN  iPe  06 51 25.7
        BKS  ePd  06 51 36.0  52 11
        MHC  eP   06 51 46.3
        JAS  eP   06 51 50.2
        SAO  iPe  06 51 52.7
        FRI  eP   06 52 06.0
                  BRK  06 50 49.1, 40.3N, 124.7W, h= 20 km, ML=3.8
                       OFF COAST SOUTHWEST OF EUREKA, CALIFORNIA

OCT 29  MNV  ePe  13 48 33
        WDC  ePe  13 48 40.0
        JAS  ePd  13 48 51.0
        FRI  eP   13 48 59.0
        BKS       13 48
                                    Lq 51 30
                  USGS 13 46 44.5, 45.0N, 114.3W, h=  5 km, mb=4.2
                       WESTERN IDAHO

OCT 30  SAO  iPe  16 05 06.8
        MHC  ePd  16 05 18.4  05 29
        PRI  iPd  16 05 19.5  05 34
        FRI  eP   16 05 28.7
        JAS  iPd  16 05 30.0  05 47
        BKS  eP   16 05 30.5  05 48
                  BRK  16 05 04.6, 36.7N, 121.4W, h=  6 km, ML=3.2
                       STONE CANYON, CALIFORNIA

OCT 30  FRI  eP   18 30 17.4
        MNV  iPe  18 30 18.3
        PRI  eP   18 30 19.5               PcP 32 55    ScP 36 41
        SAO       18 30
        JAS  eP   18 30 26.3                  e 30 32
        MHC  eP   18 30 31.0               PcP 32 56    ScP 36 48
        BKS  eP   18 30 36.5  36 24          Lq 39 20    Lr 40 32
                        MICRON    PERIOD
                  PZ      0.06       1.2
                  LZ        28         18
                  LN        19         18
                  LE        33         18
        FHC  eP   18 31 01.0
                  mb=5.2, DISTANCE=37°
                  USGS 18 23 36.0, 13.9N,  91.1W, h= 73 km, mb=5.3
                       NEAR COAST OF GUATEMALA

OCT 30  FRI       19 16
        MNV  eP   19 16
        JAS  eP   19 16 24.6                  e 16 24
        MHC       19 16 32.8                  e 19 00
        BKS       19 16                       e 19 03
                                              e 16 38
                                            Lq 27 26    Lr 29 50
                        MICRON    PERIOD
                  LZ      2.0         20
                  LN      2.1         20
                  LE      3.8         20
        WDC  eP   19 16 55.2
                  USGS 19 09 40.1, 13.8N,  91.2W, h= 58 km, mb=5.0
                       NEAR COAST OF GUATEMALA

OCT 30  JAS  eP   19 33 57.9
        WDC  eP   19 34 01.5
                  USGS 19 23 24.3, 25.2N,  45.5W, h= 10 km, mb=4.8
                       NORTH ATLANTIC RIDGE

OCT 31  WDC  eP   04 29 52.0
        MIN       04 29
        JAS  eP   04 30 06.2                  e 29 54
        MNV  eP   04 30 06.3
                  USGS 04 16 57.5, 49.8N,  78.2E, h=  0 km, mb=5.2
                       NUCLEAR EXPLOSION, EASTERN KAZAKH, S.S.R.

OCT 31  MNV  eP   06 37 18.4
        JAS  eP   06 37 27.0                  e 40 05
        BKS  eP   06 37 32    43 24          Lq 47 00    Lr 50 00
                        MICRON    PERIOD
                  LZ        5         20
                  LN        5         20
                  LE        5         20
        WDC  eP   06 37 49.1                  e 40 13
        FHC  eP   06 38 00.6
                  USGS 06 30 33.6, 13.8N,  91.1W, h= 60 km, mb=5.0
                       NEAR COAST OF GUATEMALA

OCT 31  PRI  eP   17 07 03.8
        BRK  e(P) 17 07 04
        BKS       17 07                   e 07 08       e 17 28
                        MICRON    PERIOD                            e 34 09
                  LZ        5         20
                  LN      3.9         20
                  LE      3.2         20
        MHC  eP   17 07 04.8
        FRI  e(P) 17 07 09
        FHC  e(P) 17 07 09
        JAS  eP   17 07 10.0
        WDC  eP   17 07 13.0
                  USGS 16 54 44.7, 27.5S, 176.5W, h= 33 km, mb=5.3, Ms=5.6
                       KERMADEC ISLANDS REGION

OCT 31  WDC  ePe  21 54 24.1
        JAS  ePe  21 54 43.0
                  USGS 21 44 02.5, 44.1N, 148.2E, h= 57 km, mb=5.0
                       KURIL ISLANDS

NOV 01  WDC  eP   20 02 07.4                  e 02 18    PPP 06 29 PKPPKP 18 42
        MIN       20 02                     e 02 14
        BKS       20 02                     e 13 14
                                            e 25 12       e 15 50
                                                          e 30 46    e 21 44
                        MICRON    PERIOD
                  LZ      2.3         20
                  LN      1.9         20
                  LE      1.3         20
        JAS  eP   20 02 20.6                  e 02 31    PPP 06 43 PKPPKP 18 35
        FRI       20 02                     e 02 39
        PRI       20 02                     e 02 43
                  USGS 19 48 28.0, 39.4N,  72.6E, h= 40 km, mb=6.2, Ms=6.8
                       KIRGIZ, S.S.R.

NOV 02  WDC  eP   05 28 35.5
        JAS  eP   05 29 02.7
                  USGS 05 22 18.6, 53.9N, 164.5W, h= 27 km, mb=4.6
                       UNIMAK ISLAND REGION

NOV 02  MNV  iPe  15 25 33.2
        FRI  iPe  15 25 45.7
        JAS  iPe  15 25 54.3                  i 26 02
        PRI  eP   15 26 00.0                  i 26 10
        SAO  eP   15 26 05                    i 26 15       e 27 13
        MHC  eP   15 26 07.3                  e 26 18       e 27 18
        BKS  eP   15 26 14.2                  e 26 24
        MIN       15 26                       e 26 24
        WDC       15 26                       e 26 30
                  ML=4.3, NUCLEAR EXPLOSION, NEVADA TEST SITE
                  USGS 15 25 00.2, 37.3N, 116.3W, h=  0 km, mb=4.2
                       SOUTHERN NEVADA

NOV 03  FRI  ePKP 03 40 13.2
        PRI  ePKP 03 40 13.5
        JAS  ePKP 03 40 15.5
        MHC  ePKP 03 40 16.4
        BKS  ePKP 03 40 17.4
                        MICRON    PERIOD
                  PKPZ    0.01       0.9
        MIN  ePKP 03 40 19.5
        WDC  ePKP 03 40 20.4                  i 40 34
                  USGS 03 21 26.0, 57.9S,  25.5W, h= 90 km, mb=5.6
                       SOUTH SANDWICH ISLANDS REGION

NOV 03  FRI  iPe  04 25 09.9  25 23
        MNV  iPe  04 25 10.6
        JAS  iPe  04 25 18.5
        PRI  eP   04 25 28.5
        SAO  eP   04 25 31.9
        MHC  eP   04 25 32.2
                  BRK  04 24 51.9, 37.5N, 118.6W, h=  6 km, ML=3.2
                       NORTHWEST OF BISHOP, CALIFORNIA

NOV 03  WDC  eP   12 25 25.1
        MIN  eP   12 25 27.8
        MHC  eP   12 25 35.0
        JAS  eP   12 25 38.0
        FRI  eP   12 25 44.1
                  USGS 12 13 30.8, 25.8N, 142.3E, h= 33 km, mb=5.3, Ms=4.8
                       VOLCANO ISLANDS REGION

NOV 03  FHC
        WDC  ePd  13 17
        MIN  eP   13 17 50.4                  e 17 45
        BKS  eP   13 17 54.3
                  13 17 55.8
                        MICRON    PERIOD
                  PZ      0.06       0.9
        MHC  eP   13 18 00.0
        JAS  iPd  13 18 03.3
        PRI  eP   13 18 06.3
        FRI  eP   13 18 07.9
        MNV  iPd  13 18 11.8
                  USGS 13 05 56.7, 20.6N, 146.3E, h= 51 km, mb=5.3
                       MARIANA ISLANDS REGION

NOV 03  WDC  eP   17 44 25
        MIN  eP   17 44 25.5                  e 44 45
        BKS       17 44                       e 44 46
        JAS  eP   17 44 48                    e 44 51
        MNV       17 44                       e 45 08
                                              e 44 54
                  USGS 17 36 14.4, 51.9N, 175.0E, h= 33 km, mb=4.9, Ms=5.1
                       RAT ISLANDS, ALEUTIAN ISLANDS

NOV 04  PRI  iPd  02 32 18.7  32 27
        FRI  iPd  02 32 25.9  32 36
        SAO  iPd  02 32 26.0
        MHC  e(P) 02 32 33
        JAS  iPd  02 32 36.7  32 56
                  BRK  02 32 11.1, 36.5N, 120.5W, h= 19 km, ML=2.5
                       SOUTHWEST OF FRESNO, CALIFORNIA

NOV 04  FHC  ePe  05 18 48.7
        WDC  iPe  05 18 49.9
        MIN  ePe  05 18 51.8
        BKS  eP   05 19 04
                        MICRON    PERIOD
                  PZ      0.05       1.0
        MNV  ePe  05 19 04.1
        JAS  iPe  05 19 04.5
        MHC  ePe  05 19 06.5
        FRI  ePe  05 19 09.3
        PRI  ePe  05 19 13.2
                  USGS 05 05 57.5, 50.0N,  79.0E, h=  0 km, mb=5.6, Ms=4.2
                       NUCLEAR EXPLOSION, EASTERN KAZAKH, S.S.R.

NOV 04  PRI  eP   09 19 21.7                  e 19 54
        JAS  e(P) 09 19 27
        MHC  eP   09 19 30
        WDC  eP   09 19 47.3
                  USGS 09 09 19.0,  8.4S,  76.0W, h=131 km, mb=5.0
                       PERU
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NOV 04 WDC eP 15 36 10 e 40 20
MIN e(P) 15 36 11
BKS e(P) 15 36 17 48 10 SS 55 40 SSS 00 20 e 02 30

	MICRON	PERIOD
LZ	4.1	20
LN	3.6	20
LE	2.3	20

JAS eP 15 36 21.5
Ms=6.0, DISTANCE=107°
USGS 15 22 19.3, 37.7N, 48.9E, h= 34 km, mb=6.1, Ms=6.0
NORTHWESTERN IRAN

NOV 04 FHC e(P) 22 41 57
MHC eP 22 42 00.7
WDC ePe 22 42 02.0
MIN eP 22 42 04.2
JAS ePe 22 42 05.3
FRI eP 22 42 06.8
MNV ePe 22 42 14.5
USGS 22 29 22.1, 11.2S, 162.2E, h= 33 km
SOLOMON ISLANDS

NOV 04 FHC eP 22 42 08.3
BKS eP 22 42 09 pP 42 18 PP 45 38 PPP 47 40
SKS 52 46 PPS 53 52 SS 57 56
e 58 41 SSS 01 54 Lq 04 00
e 04 36 Lr 08 00

	MICRON	PERIOD
PZ	0.08	1.0
LZ	37	20
LNE	30	20
LNW	22	20

MHC eP 22 42 11.4
SAO eP 22 42 11.7
WDC eP 22 42 12.5
PRI eP 22 42 13.5
MIN eP 22 42 14.7
JAS eP 22 42 16.2
FRI eP 22 42 17.5
MNV eP 22 42 25.0
Ms=6.8, DISTANCE=85°
USGS 22 29 32 , 11.2S, 162.2E, h= 33 km, mb=5.8, Ms=6.9
SOLOMON ISLANDS

NOV 04 WDC eP 22 58 58.5
JAS eP 22 59 02.3
USGS 22 46 19.9, 11.2S, 161.8E, h= 33 km
SOLOMON ISLANDS

NOV 04 FHC eP 23 04 30.9
BKS iPe 23 04 31.6

	MICRON	PERIOD
PZ	0.11	0.8

SAO eP 23 04 33.2
MHC ePe 23 04 34.0
WDC ePe 23 04 34.7
PRI eP 23 04 36.3
MIN ePe 23 04 37.5
JAS ePe 23 04 38.8
FRI ePe 23 04 40.1
MNV ePe 23 04 48.0
USGS 22 51 54.6, 11.2S, 162.1E, h= 33 km, mb=5.9, Ms=6.0
SOLOMON ISLANDS

NOV 04 FHC e(P) 23 14 06
BKS eP 23 14 07

	MICRON	PERIOD
PZ	0.04	1.0

MHC eP 23 14 08.7
WDC eP 23 14 09.7
PRI eP 23 14 11.1
MIN eP 23 14 12.2
JAS eP 23 14 13.3
FRI eP 23 14 15.0
MNV eP 23 14 22.5
USGS 23 01 31.0, 11.0S, 162.2E, h= 33 km, mb=5.6
SOLOMON ISLANDS

NOV 04 WDC ePe 23 29 42.0
JAS ePe 23 29 45.9
USGS 23 17 02.7, 11.1S, 162.3E, h= 33 km
SOLOMON ISLANDS

NOV 04 WDC eP 23 54 44.0
JAS eP 23 54 47.5
MNV eP 23 54 56.5
USGS 23 42 04.0, 11.2S, 162.4E, h= 33 km, mb=4.8
SOLOMON ISLANDS

NOV 05 WDC ePe 02 38 30.2
JAS ePe 02 38 33.8
USGS 02 25 49.4, 11.3S, 162.3E, h= 33 km, mb=5.1
SOLOMON ISLANDS

NOV 05 BKS eP 04 09 41 PP 12 50 SKS 20 04 PPS 21 10
Lq 32 30 Lr 35 30

	MICRON	PERIOD
PZ	0.04	1.0
LZ	3.6	20
LN	1.8	20
LE	3.6	20

SAO e(P) 04 09 42
MHC eP 04 09 43.0
WDC eP 04 09 44.0
PRI eP 04 09 45.1
MIN eP 04 09 46.7
JAS eP 04 09 47.5
FRI eP 04 09 49.2
MNV eP 04 09 57.1
Ms=5.8, DISTANCE=85°
USGS 03 57 04.0, 11.2S, 162.3E, h= 33 km, mb=5.5, Ms=5.7
SOLOMON ISLANDS

NOV 05 JAS eP 05 09 17.3
WDC eP 05 09 19.4
USGS 04 57 34.1, 17.7S, 177.0W, h= 89 km, mb=5.1
FIJI ISLANDS REGION

NOV 05 WDC ePe 05 34 38.7
MIN eP 05 34 43.0
JAS ePe 05 34 59.2
MNV ePe 05 35 06.4
USGS 05 25 04.9, 48.9N, 153.9E, h=138 km, mb=5.1
KURIL ISLANDS

NOV 05 FRI 06 51 e 51 38
JAS eP 06 51 40.0 e 51 49
PRI 06 51 e 51 44
MIN eP 06 51 44.1
MHC 06 51 e 51 48
WDC eP 06 51 48.7
USGS 06 39 35.7, 8.1N, 38.6W, h= 10 km, mb=5.2, Ms=5.1
CENTRAL MID-ATLANTIC RIDGE

NOV 05 MNV iPe 09 35 16.1
FRI iPe 09 35 27.2 35 46
JAS eP 09 35 34.0 35 59
PRI eP 09 35 44.0
SAO ePe 09 35 49.4
MHC ePd 09 35 50.9
BRK 09 35 01.2, 37.6N, 118.0W, h= 10 km, ML=3.3
NORTHEAST OF BISHOP, CALIFORNIA

NOV 05 FHC eP 16 28 37.2 pP 28 52
WDC e(P) 16 28 45 pP 28 57
BKS 16 28 pP 29 07
JAS eP 16 29 01 pP 29 14
FRI e(P) 16 29 07 pP 29 20
MNV e(P) 16 29 09 pP 29 21
USGS 16 17 27.0, 36.6N, 141.0E, h= 55 km, mb=5.1
NEAR THE EAST COAST OF HONSHU, JAPAN

NOV 05 FHC eP 22 14 42.3
SAO eP 22 14 44.8
BKS eP 22 14 45 25 21 pP 14 50 e 15 48 PP 18 00
PPS 26 22 SS 31 02 SSS 34 28
Lq 36 40 e 37 14 Lr 40 30

	MICRON	PERIOD
PZ	0.07	1.0
LZ	160	20
LNE	140	20
LNW	80	20

MHC eP 22 14 45.5
WDC eP 22 14 46.7 e 16 04
PRI eP 22 14 47.9
MIN eP 22 14 49.2
JAS eP 22 14 50.3 e 16 07
FRI eP 22 14 51.8
MNV eP 22 14 59.6 e 16 16
Ms=7.4, DISTANCE=85°
USGS 22 02 07.1, 11.1S, 162.1E, h= 33 km, mb=6.3, Ms=7.1
SOLOMON ISLANDS

NOV 06 WDC eP 15 19 46.3 21 44
JAS eP 15 20 03.7
USGS 15 08 57.3, 42.2N, 143.0E, h= 63 km, mb=5.3
HOKKAIDO, JAPAN, REGION

NOV 06 FRI iPe 16 22 42.7 22 55
MNV iPe 16 22 43.3
JAS iPe 16 22 51.2
PRI eP 16 23 01.0
SAO iPe 16 23 04.5
MHC eP 16 23 05.7
BKS ePg 16 23 17.6 23 54
BRK 16 22 25.1, 37.5N, 118.7W, h= 13 km, ML=3.4
NORTHWEST OF BISHOP, CALIFORNIA

NOV 07 JAS eP 09 44 11.3
WDC eP 09 44 14.5
USGS 09 31 45.6, 27.2S, 176.7W, h= 33 km, mb=4.4
KERMADEC ISLANDS REGION

NOV 07 SAO iPd 13 00 10.8
MHC iPd 13 00 18.8 00 27
PRI iPe 13 00 27.8 00 46
BKS iPge 13 00 30.6 00 48
JAS eP 13 00 33.4
FRI eP 13 00 35.4
BRK 13 00 08.1, 36.8N, 121.6W, h= 5 km, ML=2.6
WEST OF HOLLISTER, CALIFORNIA

NOV 07 SAO iPd 13 05 03.3
MHC iPd 13 05 11.3 05 20
PRI iPe 13 05 20.2
BKS ePge 13 05 23 05 40
JAS eP 13 05 25.8
FRI eP 13 05 27.9
BRK 13 05 00.6, 36.8N, 121.6W, h= 4 km, ML=2.6
WEST OF HOLLISTER, CALIFORNIA

NOV 07 FHC eP 17 46 34.2
BKS iPd 17 46 35.6 PP 49 42 SKS 57 20 SS 03 12
SSS 06 14 Lq 09 00 Lr 12 30

	MICRON	PERIOD
PZ	0.06	0.8
LZ	5	20
LN	1.8	20
LE	6	20

SAO eP 17 46 36.7
MHC eP 17 46 37.4
WDC ePe 17 46 38.5
PRI eP 17 46 39.9
MIN eP 17 46 41.0
JAS ePe 17 46 42.2
FRI eP 17 46 43.6
MNV eP 17 46 51.2
Ms=6.0, DISTANCE=84°
USGS 17 33 59.5, 11.0S, 162.2E, h= 33 km, mb=5.7, Ms=6.1
SOLOMON ISLANDS

NOV 08 MNV eP 07 29 39.6
PRI eP 07 29 39.9
FRI 07 29 e 29 40
SAO eP 07 29 43.9
JAS eP 07 29 45.1
MHC eP 07 29 47.7
BKS ePe 07 29 51.6

	MICRON	PERIOD
PZ	0.02	0.8

MIN eP 07 29 56.8
WDC eP 07 29 59.8
FHC eP 07 30 07.2
USGS 07 18 02.6, 21.0S, 68.4W, h= 80 km, mb=5.2
CHILE-BOLIVIA BORDER REGION

NOV 08 BKS eP 18 39 16.6

	MICRON	PERIOD
PZ	0.03	1.0

MHC 18 39 e 39 18
WDC eP 18 39 19.5
PRI eP 18 39 21
JAS eP 18 39 23.1
FRI eP 18 39 24.6
MNV eP 18 39 32.3
USGS 18 26 36.8, 10.9S, 161.3E, h= 33 km, mb=5.1
SOLOMON ISLANDS

NOV 08 BRK eP 23 38 47.0
MHC eP 23 38 48.3
PRI ePe 23 38 48.9
FRI eP 23 38 54
WDC ePe 23 38 54.0
JAS ePe 23 38 54.2
MNV eP 23 39 04.3
USGS 23 27 00.9, 15.0S, 179.1E, h= 33 km, mb=5.1
FIJI ISLANDS

NOV 09 MNV iPd 00 46 06.2
PRI eP 00 46 07.8
JAS eP 00 46 13.8
MHC ePd 00 46 17.8
BKS eP 00 46 22.6

	MICRON	PERIOD
PZ	0.02	0.8

MIN eP 00 46 28
WDC ePd 00 46 31.7
FHC eP 00 46 41.7
USGS 00 36 56.3, 1.4S, 77.9W, h=182 km, mb=4.8
ECUADOR

NOV 09 WDC ePe 01 04 09.9
MHC e(P) 01 04 10
BKS eP 01 04 10.0 SKS 14 44 PPS 15 52 SS 20 00
e 20 26

	MICRON	PERIOD
PZ	0.05	0.9
LZ	3.4	20
LN	3.0	20
LE	1.8	20

PRI e(P) 01 04 12
MIN e(P) 01 04 13
JAS ePe 01 04 13.5
FRI e(P) 01 04 15
MNV ePe 01 04 22.9
Ms=5.7, DISTANCE=85°
USGS 00 51 28.3, 10.8S, 161.4E, h= 29 km, mb=5.3, Ms=5.8
SOLOMON ISLANDS

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NOV 09  MHC  eP     03 58 00
        WDC          03 58                    e 58 01
        PRI  eP      03 58 02.5
        MIN  eP      03 58 03
        JAS  ePc     03 58 04.6
        FRI  eP      03 58 06.2
        MNV  ePc     03 58 14 0
                USGS 03 45 18.7, 10.8S, 161.4E, h= 33 km, mb=5.0, Ms=4.9
                SOLOMON ISLANDS

NOV 10  PRI  eP      12 30 14.8
        MNV  eP      12 30 15.2                e 30 46
        JAS  eP      12 30 20.7
        MHC  eP      12 30 24.1
        WDC  eP      12 30 35.7
                USGS 12 18 55.7, 17.9S,  69.2W, h= 88 km, mb=5.2
                PERU-BOLIVIA BORDER REGION

NOV 10  BKS  iPd     12 36 14.6
                        MICRON     PERIOD
                PZ        0.03        0.7
        WDC  eP      12 36 16.5
        JAS  eP      12 36 20.4
                USGS 12 23 34.6, 10.7S, 161.4E, h= 33 km, mb=5.3, Ms=5.1
                SOLOMON ISLANDS

NOV 10  BKS  eP      13 37 39
                        MICRON     PERIOD
                PZ        0.05        0.9
        WDC  eP      13 37 40.8                i 37 45
        PRI  eP      13 37 41.7
        JAS  eP      13 37 44.3
        FRI          13 37                    e 37 50
        MNV  eP      13 37 53.5
                USGS 13 25 00.2, 11.2S, 162.1E, h= 33 km, mb=5.6, Ms=5.4
                SOLOMON ISLANDS

NOV 11  PRI  eP      05 16 44.0
        MNV  eP      05 16 45.0
        JAS  ePd     05 16 49.6
        MHC  eP      05 16 51.5
        WDC  ePd     05 17 04.0
        FHC  eP      05 17 10.8
                USGS 05 04 41.6, 27.5S,  71.1W, h= 33 km, mb=5.2
                NEAR THE COAST OF NORTHERN CHILE

NOV 11  FHC  ePd     09 36 03.7  36 28
        WDC  iPd     09 36 19.7  36 54
        MIN  eP      09 36 29.1
        BKS  iPc     09 36 36.2  37 27
        MHC  ePc     09 36 46.4
        SAO  iPd     09 36 52.4
        JAS  ePc     09 36 54.2
        PRI  eP      09 37 06.0
        FRI  eP      09 37 07.5
                BRK  09 35 31.1, 40.5N, 126.5W, h=  5 km, ML=4.2
                OFF COAST WEST OF EUREKA, CALIFORNIA

NOV 12  BKS  eP      08 23 49.7
                        MICRON     PERIOD
                PZ        0.10        1.4
        MHC  eP      08 23 51.0
        WDC  iPd     08 23 52.0
        PRI  ePd     08 23 53.6
        MIN  eP      08 23 54.5
        JAS  iPd     08 23 55.9
        FRI  eP      08 23 57.4
        MNV  ePd     08 24 05.0
                USGS 08 11 14.3, 10.5S, 161.4E, h= 61 km, mb=5.2
                SOLOMON ISLANDS

NOV 12  WDC  iPd     13 08 17.6
        MIN  iPd     13 08 19.8
        FHC  eP      13 08 22.5
        BKS  eP      13 08 24.5
        MHC  eP      13 08 35.3                e 08 33
        JAS  ePc     13 08 37.0
        SAO  eP      13 08 42.3
        PRI  eP      13 08 52.0
        MNV  eP      13 08 57
        PRI          13 08
                                               e 08 58
                BRK  13 07 57.3, 39.5N, 123.0W, h= 16 km, ML=3.8
                NNE OF UKIAH, CALIFORNIA

NOV 13  WDC  eP      03 12 47.6
        JAS  eP      03 13 04.7                e 13 00
        MNV  eP      03 13 12.0                e 13 17
                                               e 13 24
                USGS 03 01 40.7, 38.8N, 142.1E, h= 43 km, mb=5.2, Ms=5.1
                NEAR THE EAST COAST OF HONSHU, JAPAN

NOV 13  MNV  iPc     07 50 58.9
        PRI  eP      07 51 04.7                PcP 52 59
        PRI  ePc     07 51 10.7
        JAS  ePc     07 51 11.4
        MHC  eP      07 51 18.8                PcP 53 04
        MIN  eP      07 51 21.9
        BKS  eP      07 51 23.5
                        MICRON     PERIOD
                PZ        0.04        0.9
        WDC  ePc     07 51 26.0
        FHC  eP      07 51 37.6                PcP 53 10
                USGS 07 43 18.0, 19.8N,  76.1W, h= 33 km, mb=5.1, Ms=4.7
                CUBA REGION

NOV 13  WDC  eP      08 32 41.0
        MIN  eP      08 32 45.5
        JAS  eP      08 33 00.0
        MNV  eP      08 33 07.2
                USGS 08 22 21.2, 44.6N, 148.1E, h= 64 km, mb=5.3
                KURIL ISLANDS

NOV 14  SAO  iPc     04 52 57.1
        PRI  eP      04 53 03.1
        MHC  eP      04 53 08.5
        FRI  eP      04 53 13.8
        JAS  eP      04 53 18.2  53 39         e 53 27
        BKS  eP      04 53 18.5
                BRK  04 52 51.5, 36.5N, 121.2W, h=  5 km, ML=2.5
                BEAR VALLEY, CALIFORNIA

NOV 14  BKS  eP      05 23 44.5
        MHC  eP      05 23 45.2
        FRI  eP      05 23 50.8
        JAS  iPd     05 23 52.5
        WDC  iPd     05 23 53.3
        MIN  eP      05 23 55.5
        MNV  iP      05 24 05.8
                USGS 05 12 24.0, 15.6S, 173.2W, h= 33 km, mb=5.4, Ms=5.0
                TONGA ISLANDS

NOV 14  JAS  iPc     14 51 57.2  52 10
        FRI  iPd     14 52 00.4  52 16
        MHC  eP      14 52 15.8  52 44
        SAO  iP      14 52 17.5
        PRI  eP      14 52 19.1  52 51
        BKS  eP      14 52 22.5
                BRK  14 51 38.8, 38.1N, 119.2W, h= 21 km, ML=3.0
                NORTHWEST OF MONO LAKE, CALIFORNIA

NOV 14  JAS  eP      19 53 51.5
        WDC  eP      19 53 53.0
        MNV  eP      19 53 59
                USGS 19 41 23.7, 27.5S, 176.3W, h= 33 km, mb=4.8
                KERMADEC ISLANDS REGION

NOV 15  WDC  eP      05 01 00.3
        JAS  eP      05 01 15.5                e 01 12
        FRI  eP      05 01 20.6
        MNV  eP      05 01 22.7
                USGS 04 49 24.1, 31.0N, 141.8E, h= 42 km, mb=5.1
                SOUTH OF HONSHU, JAPAN

NOV 15  BKS  eP      07 01 38.3
                        MICRON     PERIOD
                PZ        0.01        0.7
        MHC  eP      07 01 39.0
        PRI  eP      07 01 39.4
        FRI  eP      07 01 44.8
        JAS  ePd     07 01 44.9
        WDC  ePd     07 01 45.3
        MNV  eP      07 01 54.9
                USGS 06 50 39.8, 14.8S, 178.7W, h=395 km, mb=4.7
                FIJI ISLANDS REGION

NOV 15  FHC  ePc     07 57 35.1
        WDC  iPc     07 57 41.0                e 26 54
        MIN  iPc     07 57 45.4
        BKS  iPc     07 57 53.4
                        MICRON     PERIOD
                PZ        0.11        1.0
        MHC  ePc     07 57 58.3
        JAS  iPc     07 58 00.7                e 26 52
        SAO  eP      07 58 00.8
        FRI  ePc     07 58 07.0
        MNV  iPc     07 58 07.3                e 26 45
        PRI  ePc     07 58 07.8                e 58 38
                USGS 07 47 22.0, 47.9N, 146.6E, h= 29 km, mb=5.9, Ms=4.9
                NORTHWEST OF KURIL ISLANDS

NOV 16  PRI  ePc     12 34 00.8                pP 34 31
        JAS  ePc     12 34 06.3                pP 34 37
        MHC  eP      12 34 08.6
        MIN  eP      12 34 17.8                pP 34 48
        WDC  ePc     12 34 20.7                pP 34 52
                USGS 12 22 12.7, 24.3S,  69.4W, h= 83 km, mb=4.6
                NORTHERN CHILE

NOV 16  JAS  eP      13 00 36.4
        MHC          13 00                    e 00 37
        BKS          13 00                    e 00 38
        WDC          13 00                    e 00 41

NOV 16  MIN          22 13                    e 13 26
        JAS  eP      22 13 29.7
        MHC          22 13                    e 13 38
        PRI          22 13                    e 13 40
                USGS 22 02 32.6, 39.9N,  29.8W, h= 10 km, mb=5.0, Ms=5.2
                AZORES ISLANDS

NOV 17  WDC  eP      05 41 54.7                i 41 59
        MIN          05 42                    e 42 00
        MHC          05 42                    e 42 15
        JAS  eP      05 42 17.8               i 42 24
        FRI          05 42                    e 42 25
        PRI          05 42                    e 42 26
                USGS 05 33 26.2, 54.1N, 169.3E, h= 10 km, mb=5.2, Ms=4.1
                KOMANDORSKY ISLANDS REGION

NOV 18  PRI  eP      08 03 35.8
        MHC  eP      08 03 36.5
        BKS  eP      08 03 36.8
        FRI  eP      08 03 41.2
        JAS  eP      08 03 42.2
        WDC  iPd     08 03 44.8
        MIN  eP      08 03 46.4
                USGS 07 51 49.0, 22.2S, 175.5W, h=111 km, mb=4.5
                TONGA ISLANDS REGION

NOV 18  WDC  ePd     15 18 05.2                e 18 14
        MIN  eP      15 18 08.6                e 18 18
        BKS  eP      15 18 11                  e 18 20
        JAS  ePd     15 18 17.7                e 18 26
        FRI  eP      15 18 22.1                e 18 31
                USGS 15 06 02.6, 20.0N, 143.9E, h= 77 km, mb=5.1
                MARIANA ISLANDS REGION

NOV 18  SAO  eP      15 43 54.2
        BKS  iPc     15 43 55.8                e 44 09     pP 45 26
                        MICRON     PERIOD
                PZ        0.15        0.8
        PRI  iPc     15 43 56.0
        MHC  eP      15 43 56.0                pP 45 26
        FHC  eP      15 43 59.2                pP 45 26
        FRI  eP      15 44 01.3
        JAS  iPc     15 44 01.7                pP 45 32
        WDC  iPc     15 44 02.9                pP 45 32
        MIN  eP      15 44 05.0                pP 45 34
                                               pP 45 36
                USGS 15 32 56.4, 16.8S, 176.9W, h=402 km, mb=5.3
                FIJI ISLANDS REGION

NOV 18  MNV  iPc     19 00 36.4
        FRI  iPc     19 00 48.0
        JAS  iPc     19 00 56.9
        PRI  ePc     19 01 00.8
        SAO  eP      19 01 07.5
        MHC  ePc     19 01 09.8
        BKS  iPc     19 01 16.5                P• 01 27
        MIN  ePc     19 01 22.8
        WDC  iPc     19 01 32.2
                ML=5.2, NUCLEAR EXPLOSION, NEVADA TEST SITE
                USGS 19 00 00.0, 37.1N, 116.1W, h=  0 km, mb=5.1
                SOUTHERN NEVADA

NOV 19  PRI  eP      00 36 45.8
        MHC  eP      00 36 46.8
        BKS  iPc     00 36 47.5                e 37 08
                        MICRON     PERIOD
                PZ        0.06        1.0
        FRI  eP      00 36 50.7
        JAS  iPc     00 36 51.7
        WDC  eP      00 36 54.9                pP 37 11
        MNV  ePc     00 36 59.7                pP 37 14
                                               pP 37 19
                USGS 00 24 14.2, 30.3S, 177.9W, h= 62 km, mb=5.4
                KERMADEC ISLANDS

NOV 19  WDC  ePc     16 41 31.0
        BKS          16 41                    e 41 32
        MHC  eP      16 41 34.0
        PRI  eP      16 41 37.5
        JAS  ePc     16 41 38.5
        FRI  eP      16 41 39.3
        MNV  iPc     16 41 47.4
                USGS 16 28 39.1,  7.2S, 154.8E, h= 33 km, mb=5.6, Ms=4.9
                SOLOMON ISLANDS

NOV 20  FRI  eP      06 56 05.0
        PRI  eP      06 56 05.2
        MNV  iPd     06 56 16.5
        SAO  eP      06 56 17
        JAS  iPc     06 56 20.7
        MHC  eP      06 56 23.3
        BKS  iPc     06 56 32.6                e 57 37
                MAG=3.9, SOUTHERN CALIFORNIA
                PAS  06 55 09.4, 34.2N, 117.0W, h=  5 km, ML=4.2
                SOUTHERN CALIFORNIA

NOV 20  PRI  iPd     09 11 13.3  11 23
        SAO  iPc     09 11 14.6
        MHC  eP      09 11 25.5  11 42
        JAS  eP      09 11 33    11 53
                BRK  09 11 05.6, 36.4N, 121.0W, h=  6 km, ML=2.7
                NORTHEAST OF KING CITY, CALIFORNIA

NOV 21  WDC  eP
        JAS  eP      19 49 07.8
        MNV  e(P)    19 49 23.0
                USGS 19 36 49.2, 30.1N, 131.1E, h= 33 km, mb=5.3, Ms=5.3
                KYUSHU, JAPAN
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NOV 22 FBC iPe 23 03 01.4 e 03 14
WDC iPe 23 03 16.1 e 03 44
MIN ePe 23 03 25.8 e 03 58
BKS iPe 23 03 35.1 04 15
MBC eP 23 03 43.7
SAO ePe 23 03 50.5
JAS ePe 23 03 50.6
BRK 23 02 41.8, 40.3N, 125.2W, h= 5 km, ML=3.9
OFF COAST SOUTHWEST OF EUREKA, CALIFORNIA

NOV 23 WDC e(P) 01 55 28
BKS eP 01 55 39
JAS ePe 01 55 43.4
MNV ePe 01 55 50.2
USGS 01 43 49.7, 34.7N, 139.1E, h= 7 km, mb=5.0, Ms=4.5
NEAR THE SOUTH COAST OF HONSHU, JAPAN

NOV 23 SAO eP 04 53 41.4
PRI ePd 04 53 42.6
MBC eP 04 53 43.4
BKS iPd 04 53 43.5 e 53 48
MICRON PERIOD
PZ 0.11 1.0
FRI eP 04 53 47.7
FBC eP 04 53 48.4
JAS iPd 04 53 48.7
WDC iPd 04 53 51.2 e 57 07
MIN ePd 04 53 52.7
MNV iPd 04 53 57.0
USGS 04 41 39.3, 26.2S, 177.7W, h=172 km, mb=5.5
SOUTH OF FIJI ISLANDS

NOV 23 PRI ePe 15 40 05.4
MBC ePe 15 40 06.4
BKS ePe 15 40 07.4 Lr 08 32
MICRON PERIOD
LZ 1.4 20
LN 1.1 20
LE 0.9 20
FRI ePe 15 40 10.1
JAS iPe 15 40 11.2
WDC iPe 15 40 14.6
MIN eP 15 40 15.6
USGS 15 27 27.1, 31.3S, 177.7W, h= 33 km, mb=5.3, Ms=5.3
KERMADEC ISLANDS REGION

NOV 23 PRI eP 17 04 26.1
MBC eP 17 04 27.2
FRI eP 17 04 31.2
JAS iPe 17 04 32.3
WDC iPe 17 04 35.2
MIN eP 17 04 36.5
MNV iPe 17 04 40.4
USGS 16 52 00.4, 29.3S, 177.6W, h= 71 km, mb=5.0
KERMADEC ISLANDS

NOV 23 JAS ePKP 19 50 24.8
WDC ePKP 19 50 31.2
USGS 19 30 45.6, 52.2S, 13.7E, h= 10 km, mb=4.7
SOUTHWEST OF AFRICA

NOV 24 WDC ePKP 05 57 26.8
MIN ePKP 05 57 28.2
MBC ePKP 05 57 31.4
JAS ePKP 05 57 32.2
FRI ePKP 05 57 34.2
PRI ePKP 05 57 34.5
MNV ePKP 05 57 35.3
USGS 05 38 32.4, 7.3S, 106.7E, h= 76 km, mb=5.2
JAVA

NOV 24 WDC eP 10 58 19.5 e 02 26
MIN eP 10 58 27 e 02 33
BKS 10 58 e 01 30 e 02 32 e 05 00
JAS eP 10 59 03
MNV eP 10 59 10
USGS 10 55 51.4, 49.6N, 129.5W, h= 10 km, mb=4.5, Ms=4.1
VANCOUVER ISLANDS REGION

NOV 24 SAO eP 22 34 57.3
PRI eP 22 34 58.2
MBC eP 22 34 59.4
BKS eP 22 34 59.8 45 27 Lq 56 32 Lr 59 45
MICRON PERIOD
PZ 0.03 1.0
LZ 2.6 20
LN 2.5 20
LE 2.7 20
FRI eP 22 35 03.4
JAS iPd 22 35 04.5
WDC iPd 22 35 07.6
MIN ePd 22 35 09.9
MNV iPd 22 35 12.7
Ms=5.7, DISTANCE=83°
USGS 22 22 36.4, 28.0S, 176.5W, h= 32 km, mb=5.2, Ms=5.4
KERMADEC ISLANDS REGION

NOV 25 PRI iPe 03 25 12.6 25 25
MNV iPe 03 25 13.5
JAS iPe 03 25 20.9 25 40
PRI eP 03 25 31.3
SAO eP 03 25 34.9
MBC ePd 03 25 36.1
BKS ePe 03 25 41.9 26 21
BRK 03 24 54.9, 37.5N, 118.7W, h= 2 km, ML=3.5
NORTHWEST OF BISHOP, CALIFORNIA

NOV 25 PRI iPe 04 06 59.0 07 12
MNV iPd 04 06 59.7
JAS iPe 04 07 07.2 07 26
PRI ePd 04 07 17.9
SAO ePe 04 07 21.1
MBC ePe 04 07 22.1
BKS ePe 04 07 29.0
BRK 04 06 41.2, 37.5N, 118.7W, h= 3 km, ML=3.3
NORTHWEST OF BISHOP, CALIFORNIA

NOV 25 PRI 07 58 e 58 20
MNV ePe 07 58 27.0
JAS ePe 07 58 32.0
USGS 07 53 32.7, 18.7N, 106.4W, h= 33 km, mb=4.4
OFF THE COAST OF JALISCO, MEXICO

NOV 25 SAO eP 11 43 41.9
BKS eP 11 43 43.5
MICRON PERIOD
PZ 0.04 0.9
PRI eP 11 43 43.5
MBC ePd 11 43 43.6
FRI ePd 11 43 48.5
JAS ePd 11 43 49.1
WDC iPd 11 43 50.7
MIN eP 11 43 52.5
MNV iPd 11 43 58.3
USGS 11 32 41.3, 20.2S, 178.4W, h=582 km, mb=5.1
FIJI ISLANDS REGION

NOV 26 PRI eP 07 46 45
FRI eP 07 46 46.0
MNV eP 07 46 53.3
JAS eP 07 47 03.0
MBC 07 47 e 47 18
BKS 07 47 e 47 16 e 47 20 Lq 49 20
Lr 50 20
MIN eP 07 47 36.0
WDC eP 07 47 42.5
FBC 07 48 e 48 00
USGS 07 44 02.3, 28.0N, 111.5W, h= 15 km, mb=5.1, Ms=5.4
GULF OF CALIFORNIA

NOV 26 PRI eP 08 16 12.5
FRI eP 08 16 18.1
MBC eP 08 16 20.1
JAS ePe 08 16 24.5
MNV ePe 08 16 30.0
WDC ePe 08 16 41.0
SOUTH CENTRAL PACIFIC OCEAN REGION

NOV 26 PRI eP 08 19 32.6
FRI ePe 08 19 38.0
MBC eP 08 19 40.2
BKS eP 08 19 43.4
MICRON PERIOD
PZ 0.02 0.9
JAS ePe 08 19 44.7
MNV ePe 08 19 49.9
WDC ePe 08 20 00.7
SOUTH CENTRAL PACIFIC OCEAN REGION

NOV 27 BKS 07 58 e 58 06 e 19 50
MICRON PERIOD
LZ 1.4 20
LN 0.7 20
LE 1.1 20
MBC eP 07 57 57.0
JAS ePe 07 58 02.9
FRI eP 07 58 03.2
WDC ePe 07 58 03.8
MIN eP 07 58 05.7
MNV eP 07 58 13.2
USGS 07 46 23.2, 14.8S, 177.7W, h= 33 km, mb=5.1
FIJI ISLANDS REGION

NOV 27 FRI ePKP 10 02 16.8
PRI ePKPe 10 02 17.5
MNV ePKPe 10 02 17.7
SAO ePKP 10 02 18.0
JAS ePKPe 10 02 19.4
MBC ePKP 10 02 20.0
BKS ePKPd 10 02 21.5
MICRON PERIOD
PKPZ 0.14 0.9
MIN ePKP 10 02 23.1
WDC ePKPe 10 02 24.2
USGS 09 43 25.6, 57.9S, 25.2W, h= 52 km, mb=5.6, Ms=5.2
SOUTH SANDWICH ISLANDS REGION

NOV 28 FBC 00 02 e 02 57
BKS eP 00 02 58.1 e 03 09
MICRON PERIOD
PZ 0.23 1.3
MBC eP 00 03 00.0 pP 03 11
WDC iPe 00 03 01.2 pP 03 12
PRI eP 00 03 02.4
MIN eP 00 03 03.7
JAS iPe 00 03 04.8
FRI eP 00 03 06.1 pP 03 18
MNV iPe 00 03 13.9
USGS 23 50 21.4, 10.9S, 162.1E, h= 33 km, mb=5.9, Ms=5.9
SOLOMON ISLANDS

NOV 29 FRI eP 01 49 13.8
PRI eP 01 49 14.8 pP 49 45
MNV eP 01 49 16.0 pP 49 46
JAS eP 01 49 20.3 pP 49 51
MBC eP 01 49 22.2 pP 49 52
BKS e(P) 01 49 26 e 49 56
MIN eP 01 49 31.3
WDC eP 01 49 34.2 pP 50 04
FBC eP 01 49 40.9
USGS 01 37 09.8, 29.7S, 69.6W, h=117 km, mb=5.4
CHILE-ARGENTINA BORDER REGION

NOV 29 WDC eP 04 45 52.1
MIN ePe 04 45 53.9
BKS e(P) 04 46 06
MNV ePe 04 46 06.2
JAS ePe 04 46 06.4
FRI ePe 04 46 11.1
USGS 04 32 58.0, 49.9N, 78.1E, h= 0 km, mb=5.3
NUCLEAR EXPLOSION, EASTERN KAZAKH, S.S.R.

NOV 29 FBC ePe 04 45 54.3
WDC iPe 04 45 55.6
MIN ePe 04 45 57.6
BKS ePe 04 46 09.2
MICRON PERIOD
PZ 0.08 0.8
MNV iPe 04 46 10.0
JAS iPe 04 46 10.1
MBC ePe 04 46 12.1
SAO eP 04 46 14.5
FRI ePe 04 46 14.9
PRI ePe 04 46 18.7
USGS 04 33 02.9, 50.0N, 78.8E, h= 0 km, mb=6.0, Ms=4.3
NUCLEAR EXPLOSION, EASTERN KAZAKH, S.S.R.

NOV 29 MNV iPe 08 34 38.1 i 34 40
FRI 08 34 e 34 52 e 34 54
JAS eP 08 34 59 e 35 05
PRI 08 35 e 35 08
MAG=3.5, NEVADA TEST SITE AREA
USGS 08 34 06.9, 37.3N, 116.5W, h= 5 km, ML=3.3
SOUTHERN NEVADA

NOV 29 PRI eP 10 19 59.3
MBC eP 10 19 59.8
BKS eP 10 20 00.1
MICRON PERIOD
PZ 0.05 1.0
FRI eP 10 20 04.3
JAS eP 10 20 04.8
WDC eP 10 20 07.1
MIN eP 10 20 08.6
MNV eP 10 20 13.3
USGS 10 08 31.2, 24.4S, 180.0E, h=515 km, mb=5.0
SOUTH OF FIJI ISLANDS

NOV 29 BKS 11 23 e 23 20
MBC e(P) 11 23 21
PRI eP 11 23 22.7
WDC ePe 11 23 24.4
JAS ePe 11 23 26.3
FRI eP 11 23 27.0
MNV eP 11 23 35.6
USGS 11 10 50.8, 15.5S, 168.1E, h= 33 km, mb=5.5
NEW HEBRIDES ISLANDS

NOV 29 PRI 14 39 e 39 41
FRI ePe 14 39 43.5 e 39 53
SAO 14 39
MNV ePe 14 39 53.8 e 42 47
JAS ePe 14 39 59.0 e 40 01
MBC 14 40 e 40 40 e 42 30 Lq 42 48
BKS eP 14 40 10.5 42 46 Lr 43 00
MICRON PERIOD
PZ 0.04 1.0
MIN 14 40 e 40 40
WDC eP 14 40 42.0
USGS 14 37 40.3, 30.2N, 114.0W, h= 15 km, mb=5.4, Ms=5.2
GULF OF CALIFORNIA

NOV 29 PRI iPd 14 53 07.4
SAO iPe 14 53 17.2
FRI iPe 14 53 24.6 53 40
MBC eP 14 53 27.0
JAS eP 14 53 33.2
BRK 14 53 03.9, 36.2N, 120.8W, h= 6 km, ML=2.6
EAST OF KING CITY, CALIFORNIA

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NOV 29  FRI  ePd   19 58 50.2
        PRI  eP    19 58 51.7
        MNV  iP    19 58 52.1
        SAO  ePd   19 59 00.5
        JAS  ePd   19 59 00.6
        MHC  ePd   19 59 03.9
        BKS  eP    19 59 10.3  04 26        e 59 40     e 59 58     e 00 30
                                            e 00 58     e 01 22   PcP 01 42
                                            e 02 05     e 02 23    Lq 06 31
                                          Lr 08 38
                          MICRON    PERIOD
                     PZ       11       3.8
                     LN     2100        20
                     LE     2400        20
        MIN  ePd   19 59 20.0
        WDC  ePd   19 59 23.8
        FHC  eP    19 59 35.1
                   Ms=7.9, DISTANCE=33°
                   USGS 19 52 47.6, 16.0N,  96.6W, h= 18 km, mb=6.4, Ms=7.7
                        OAXACA, MEXICO

NOV 29  FRI  eP    20 55 49.7
        PRI  eP    20 55 51.6
        MNV  eP    20 55 52.0
        JAS  eP    20 55 59.7
        SAO        20 56                  e 56 00
        MHC  eP    20 56 03.3
        BKS  eP    20 56 10.0
                          MICRON    PERIOD
                     PZ     0.24       1.7
        MIN  eP    20 56 19.5
        WDC  eP    20 56 23.5
        FHC  eP    20 56 34.5
                   USGS 20 49 48.8, 16.2N,  96.6W, h= 22 km, mb=5.7
                        OAXACA, MEXICO

NOV 29  FRI  eP    23 12 27.0
        MNV  eP    23 12 28.5
        PRI  eP    23 12 29.0
        JAS  eP    23 12 37.2
        MHC        23 12                  e 12 41
        WDC        23 13                  e 13 00
                   USGS 23 06 26.1, 15.9N,  96.4W, h= 33 km, mb=5.0
                        NEAR THE COAST OF OAXACA, MEXICO

NOV 30  WDC  eP    01 32 38.0
        JAS  eP    01 32 56.7
                   USGS 01 22 16.8, 44.3N, 148.5E, h= 45 km, mb=4.8
                        KURIL ISLANDS

NOV 30  MNV  eP    06 55 07.5             Pg 55 27    Sg 56 40
        MIN  eP    06 55                   e 55 29    Pg 55 49
        JAS  eP    06 55 30.0             Pg 55 56    Sg 57 33
        PRI  e(P)  06 55 33               Pg 56 00    Sg 57 44
        WDC  eP    06 55 40.0
        BKS        06 55                  e 57 30
                   USGS 06 53 40.1, 42.1N, 112.5W, h=  4 km, mb=4.6
                        EASTERN IDAHO

NOV 30  FRI  eP    10 28 40.0
        PRI  eP    10 28 41.7
        MNV  eP    10 28 42.3
        JAS  eP    10 28 50.0
        BKS        10 29                  e 34 20     Lq 37 00    Lr 40 00
                          MICRON    PERIOD
                     LZ     1.8        20
        MIN  eP    10 29 10
        WDC  e(P)  10 29 14
                   USGS 10 22 43.5, 16.0N,  97.0W, h= 40 km, mb=5.1, Ms=4.9
                        OAXACA, MEXICO

NOV 30  FHC  eP    16 39 18.5
        WDC  iPd   16 39 34.8  40 16
        MIN  iPc   16 39 44.8  40 33
        BKS  e(P)  16 39 48
        MHC  eP    16 39 58.6  40 58       e 40 41
        SAO  eP    16 40 04.9
        JAS  eP    16 40 06.7
                   BRK  16 38 39.3, 40.4N, 127.1W, h=  5 km, ML=4.0
                        OFF COAST WEST OF EUREKA, CALIFORNIA

NOV 30  PRI  eP    17 42 12.1
        SAO  eP    17 42 13.8
        MHC  eP    17 42 18.0
        FRI  eP    17 42 18.3
        BKS  eP    17 42 20.1
                          MICRON    PERIOD
                     PZ     0.10       1.0
        JAS  iPc   17 42 23.3
        MNV  eP    17 42 30.8
        MIN  eP    17 42 34.5
        WDC  iPc   17 42 36.1
                   USGS 17 31 58.4, 21.9S, 139.0W, h=  0 km, mb=5.9, Ms=4.0
                        TUAMOTU ARCHIPELAGO REGION

DEC 01  WDC  eP    11 52 45.7
        BKS        11 53
        JAS  eP    11 53 06.8             e 09 00
        FRI  eP    11 53 16.2
                   USGS 11 43 28.3, 50.9N, 158.9E, h= 42 km, mb=5.5, Ms=5.3
                        KURIL ISLANDS

DEC 01  BKS  eP    15 47 51.1                 Lq 10 30    Lr 13 40
                          MICRON    PERIOD
                     PZ     0.20       0.9
                     LZ      1.6        20
                     LN      1.1        20
                     LE      1.8        20
        SAO  eP    15 47 52.7
        MHC  eP    15 47 52.8
        WDC  iPc   15 47 53.5
        PRI  eP    15 47 55.4
        MIN  eP    15 47 56.0
        JAS  iP    15 47 57.5
        FRI  eP    15 47 58.7                 i 48 13
        MNV  eP    15 48 06.8                 e 48 13
                   USGS 15 35 20.9, 10.2S, 161.4E, h= 93 km, mb=6.0
                        SOLOMON ISLANDS

DEC 01  MNV  ePc   17 08 07.9
        FRI  eP    17 08 19.0
        JAS  eP    17 08 28.0
        PRI  eP    17 08 31.8
                   MAG=3.8, NUCLEAR EXPLOSION, NEVADA TEST SITE
                   USGS 17 07 29.8, 37.0N, 116.0W, h=  2 km
                        SOUTHERN NEVADA

DEC 01  FRI  eP    17 42 41.7                 PcP 44 54
        PRI  eP    17 42 42                   PcP 44 55
        MNV  eP    17 42 43                   PcP 44 53
        JAS  eP    17 42 50.3                 PcP 44 57
        BKS        17 42                      e 59 20
                          MICRON    PERIOD
                     LZ      1.8        20
                     LN      1.8        20
                     LE      2.9        20
        MIN  eP    17 43 08.3
                   USGS 17 35 19.2, 11.8N,  86.8W, h= 33 km, mb=5.0
                        NEAR THE COAST OF NICARAGUA

DEC 02  MNV  eP    03 30 24
        JAS  eP    03 30 32
        BKS        03 30                  e 42 45
                   USGS 03 24 21.4, 15.8N,  96.5W, h= 50 km, mb=4.7
                        NEAR THE COAST OF OAXACA, MEXICO

DEC 02  BRK        08 35                                  e 35 40
        JAS  ePc   08 35 49.3                             e 35 52
        FRI        08 35
        MNV  iPc   08 35 58.5
                   USGS 08 22 50.7,  6.8S, 154.6E, h= 38 km, mb=5.3, Ms=5.3
                        SOLOMON ISLANDS

DEC 03  WDC  iPc   13 27 31.6
        MIN        13 27                  e 27 36
        BKS  ePc   13 27 40.2             e 27 57     Lr 50 15
                          MICRON    PERIOD
                     PZ     0.04       1.0
        JAS  ePc   13 27 47.5
        PRI  eP    13 27 52.5
        FRI  ePc   13 27 53.0
        MNV  iPc   13 27 54.5
                   USGS 13 15 55.3, 34.8N, 139.1E, h= 17 km, mb=5.3, Ms=5.0
                        NEAR THE SOUTH COAST OF HONSHU, JAPAN

DEC 03  WDC        19 44                  e 44 55
        JAS  eP    19 45 38.8
        MNV  eP    19 45 42.6
                   USGS 19 39 31.2, 62.3N, 149.8W, h= 74 km, mb=4.7
                        CENTRAL ALASKA

DEC 04  PRI  e(P)  15 05 44
        FRI  e(P)  15 05 47
        MNV  e(P)  15 05 55
        JAS  eP    15 05 55
        BKS        15 05                  e 12 45     e 19 00
        WDC  eP    15 06 20
                   USGS 14 57 41.3,  4.6S, 105.0W, h= 10 km, mb=4.9
                        NORTHERN EASTER ISLAND CORDILLERA

DEC 05  FRI  eP    18 44 11
        MNV  iPd   18 44 12.4
        PRI  ePd   18 44 12.9
        SAO  eP    18 44 17
        JAS  iPd   18 44 18.1
        MHC  ePd   18 44 20.6
        BKS  iPd   18 44 23.9
                          MICRON    PERIOD
                     PZ     0.06       0.7
        MIN  eP    18 44 29.5
        WDC  iPd   18 44 32.3
        FHC  eP    18 44 39.5
                   USGS 18 32 43.6, 20.8S,  66.5W, h=198 km, mb=5.3
                        SOUTHERN BOLIVIA

DEC 05  WDC  ePd   19 07 13.1
        JAS  eP    19 07 21.2

DEC 06  PRI        02 10                                  e 10 16
        WDC  ePd   02 10 18.3
        MIN        02 10                                  e 10 20
        JAS  ePd   02 10 20.5
        FRI  ePd   02 10 21.5
                   USGS 01 58 08.9, 13.6S, 167.1E, h=220 km, mb=5.2
                        NEW HEBRIDES ISLANDS

DEC 06  BKS  e(P)  10 05 19                               pP 05 30
        FHC        10 05                                  pP 05 33
        MHC  eP    10 05 20.7                             pP 05 33
        WDC  eP    10 05 24.4                             pP 05 37
        JAS  ePc   10 05 25.6                             pP 05 38
        FRI        10 05                                  pP 05 38
        MIN  eP    10 05 26.6                             pP 05 39
        MNV  eP    10 05 34.3                             pP 05 46
                   USGS 09 52 34.7, 19.3S, 167.8E, h= 22 km, mb=5.3
                        NEW HEBRIDES ISLANDS REGION

DEC 06  FRI  iPc   12 00 32.9                 PcP 03 02   ScP 06 46
        MNV  iPc   12 00 33.2                 PcP 03 02   ScP 06 43
        PRI  ePc   12 00 35.8                 PcP 03 04   ScP 06 51
        JAS  iPc   12 00 42.0                 PcP 03 04   ScP 06 51
        SAO  ePc   12 00 42.3
        MHC  ePc   12 00 46.9
        BKS  iPc   12 00 52.0  07 12          PcP 03 08   ScP 06 53
                                               e 01 09     PP 02 24   PcP 03 09
                                               e 06 46   ScP 06 55     Lq 10 00
                                             Lr 12 00
                          MICRON    PERIOD
                     PZ     0.45       0.8
                     LZ       19        20
                     LN       19        20
                     LE       26        20
        MIN  iPc   12 00 59.8                 PcP 03 11   ScP 06 58
        WDC  iPc   12 01 03.8                 PcP 03 12   ScP 07 00
        FHC  ePc   12 01 15.1                 PcP 03 17   ScP 07 06
                   Ms=6.2, DISTANCE=41°
                   USGS 11 53 34.0, 13.1N,  89.6W, h= 33 km, mb=5.8, Ms=5.9
                        EL SALVADOR

DEC 06  MNV  eP    13 38 35.8                             e 38 41
        FRI  ePd   13 38 43.0                             e 38 48
        JAS  iPd   13 38 48.1                             e 38 53
        PRI  eP    13 38 50.4                             e 38 56
        MIN  ePd   13 38 53.6                             e 38 59
        MHC  ePd   13 38 55.4                             e 39 00
        WDC  iPd   13 38 57.0                             e 39 02
        BKS  eP    13 38 59.5                           Lq 54 00    Lr 58 30
                          MICRON    PERIOD
                     LZ       7        20
                     LN     2.7        20
                     LE       6        20
        FHC  ePd   13 39 07.2                  e 39 12
                   Ms=5.8, DISTANCE=64°
                   USGS 13 28 35.5, 17.5N,  54.8W, h= 10 km, mb=5.5, Ms=5.8
                        NORTH ATLANTIC OCEAN

DEC 06  FHC  iPc   14 12 17.7
        WDC  iPc   14 12 23.6                     PP 14 52    SP 20 51 PKPPKP 41 15
        MIN  ePc   14 12 27.9                 SKPPKP 44 46     e 03 40
        BKS  iPc   14 12 34.8  21 15           i 12 42     e 14 08     PP 15 10
                                               e 15 24   pPP 15 30     e 15 38
                                             sPP 15 52     e 17 07     e 22 28
                                               e 26 42     e 28 10    Lq 28 48
                                             Lr 32 46
                          MICRON    PERIOD
        MHC  ePc   14 12 40.0     PZ   1.96      1.0
                                               i 12 48   PcP 13 11     pP 13 22
                                              sP 13 30     e 15 18     e 17 14
        JAS  iPc   14 12 42.4                 SP 21 33     e 22 10 PKPPKP 41 25
                                          SKPPKP 44 38   RPKP 03 50
                                               e 15 17     e 16 14     e 17 11
                                              SP 21 30     e 22 37     e 41 12
                                          PKPPKP 41 26     e 44 31 SKPPKP 44 58
        SAO  ePc
        FRI  ePc   14 12 42.5               RPKP 03 43
        PRI  ePc   14 12 48.6                  i 12 50     e 13 06
        MNV  ePc   14 12 49.0
                                               i 12 56     SP 21 47     e 22 12
                   14 12 49.5             PKPPKP 41 20 SKPPKP 44 35
                   USGS 14 02 01.0, 44.6N, 146.6E, h= 90 km, mb=6.7
                        KURIL ISLANDS

DEC 06  PRI  iPd
        SAO  eP    14 33 34.5
        JAS  iPd   14 33 41                       PcP 36 12
        MHC  iPd   14 33 42
        BKS  iPd   14 33 46.5                     PcP 36 15
                   14 33 52.0                     PcP 36 16
                                                  PcP 36 18
                          MICRON    PERIOD
        WDC  iPd   14 34 04.5     PZ   0.15      1.0
                                                  PcP 36 22
                   USGS 14 26 52.6, 13.7N,  92.3W, h= 32 km, mb=5.7
                        OFF THE COAST OF CHIAPAS, MEXICO
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DEC 07  FHC  eP      02 38 36.6
        WDC  ePc     02 38 42.5
        MIN  ePc     02 38 46.7
        BKS  ePc     02 38 53.0
        MHC          02 38                  e 38 59
        JAS  iPc     02 39 01.3
        FRI  ePc     02 39 07.3
        MNV  eP      02 39 08.3
        PRI          02 39                  e 39 09
                  USGS 02 28 22.4, 44.6N, 146.5E, h=123 km, mb=4.9
                       KURIL ISLANDS

DEC 07  BKS  eP      10 07 16
        MHC  eP      10 07 16.3
        FRI  ePc     10 07 21.0
        JAS  ePc     10 07 21.7
        WDC  ePc     10 07 23.5
        MIN  eP      10 07 25.2
        MNV  e(P)    10 07 31
                  USGS 09 56 02.9, 22.4S, 179.5W, h=595 km, mb=5.1
                       SOUTH OF FIJI ISLANDS

DEC 07  FRI  eP      10 23 06.8
        PRI  e(P)    10 23 08
        JAS  eP      10 23 16.7
        BKS          10 23        30 00      Lr 36 15
                                MICRON    PERIOD
                          LZ      2.9       20
                          LN      3.6       20
                          LE      0.7       20
        WDC          10 23                  e 23 44
                  USGS 10 15 05.6,  4.4S, 104.9W, h= 33 km, mb=4.8, Ms=4.5
                       NORTHERN EASTER ISLAND CORDILLERA

DEC 08  MHC  iPd     01 48 16.2  48 23
        JAS  iPd     01 48 19.0  48 28
        SAO  iPc     01 48 21.1
        FRI  iPd     01 48 27.0  48 42
        BKS  eP      01 48 27.8             e 48 44
                  BRK  01 48 06.6, 37.5N, 121.1W, h= 17 km, ML=2.5
                       SOUTHWEST OF MODESTO, CALIFORNIA

DEC 08  WDC  eP      04 40 43.7
        MIN  eP      04 40 47.0
        JAS  eP      04 41 02.5
        MNV  eP      04 41 09.2
                  USGS 04 30 25.2, 45.7N, 146.2E, h=108 km, mb=4.6
                       KURIL ISLANDS

DEC 08  FRI  iPc     07 06 59.0  07 02
        PRI  iPd     07 07 09.1
        JAS  iPd     07 07 13.3  07 30
        SAO  iP      07 07 13.3
        MNV  iPc     07 07 33.1
                  BRK  07 06 52.5, 36.8N, 120.0W, h=  7 km, ML=2.7
                       WEST OF FRESNO, CALIFORNIA

DEC 08  SAO  iPc     15 44 51.6
        PRI  iPc     15 44 54.7  45 04
        MHC  eP      15 45 01.4  45 15
        FRI  eP      15 45 04.9
        BKS  iPd     15 45 11.4  45 31
        JAS  iPd     15 45 10.2  45 29
        MNV  eP      15 45 36.7
                  BRK  15 44 44.4, 36.5N, 121.1W, h=  9 km, ML=3.1
                       BEAR VALLEY, CALIFORNIA

DEC 08  MHC  ePc     19 12 22.6
        FRI  ePc     19 12 22.9
        BKS  eP      19 12 24.6             e 12 27
                                MICRON    PERIOD
                          PZ      0.03      0.5
        FRI  iPc     19 12 27.5
        JAS  iPc     19 12 27.5
        WDC  iPc     19 12 27.5
        MNV  iPc     19 12 36.0
                  USGS 18 59 51.1, 22.3S, 171.5E, h=115 km, mb=5.3
                       LOYALTY ISLANDS REGION

DEC 09  FRI  eP      00 48 32.8
        JAS  ePc     00 48 33.2
        WDC  ePc     00 48 33.9
        MNV  ePc     00 48 43.4
                  USGS 00 37 13.4, 15.4S, 176.7W, h=202 km, mb=4.4
                       FIJI ISLANDS REGION

DEC 09  FHC  eP      04 27 09.7
        WDC  ePc     04 27 15.6
        MIN  eP      04 27 20.1
        BKS  eP      04 27 28.5  35 55      e 27 37     SS 39 40      e 39 54
                                            Lq 43 12    Lr 45 30
                                MICRON    PERIOD
                          PZ      0.06      1.0
                          LZ      1.8       19
                          LN      1.1       19
                          LE      1.9       19
        MHC  eP      04 27 32.4
        SAO  eP      04 27 34.8
        JAS  ePc     04 27 35.0
        FRI  eP      04 27 41.5
        PRI  eP      04 27 41.6
        MNV  ePc     04 27 42.3
                  Ms=5.4, DISTANCE=62°
                  USGS 04 17 05.8, 45.3N, 150.1E, h= 54 km, mb=5.6
                       KURIL ISLANDS

DEC 09  BKS  eP      16 02 46.4  03 01
        MHC  eP      16 02 57.0
        MIN  ePd     16 02 58.8
        WDC  ePc     16 02 58.9
        JAS  ePc     16 03 02.0  03 25
        SAO  eP      16 03 04.7
        FHC  e(Pg)   16 03 13
        FRI  eP      16 03 16.2
                  BRK  16 02 27.7, 38.8N, 122.8W, h=  4 km, ML=3.4
                       NORTH OF SANTA ROSA, CALIFORNIA

DEC 09  FHC  ePc     21 11 11.7
        WDC  iPc     21 11 17.8
        MIN  ePc     21 11 21.8
        BKS  ePc     21 11 29.4
                                MICRON    PERIOD
                          PZ      0.06      0.8
        MHC  ePc     21 11 33.9
        JAS  iPc     21 11 36.5          PKKP 28 17
        SAO  eP      21 11 36.5
        FRI  ePc     21 11 42.6
        PRI  ePc     21 11 43.0
        MNV  iPc     21 11 43.4
                  USGS 21 00 59.2, 44.7N, 146.5E, h=130 km, mb=5.2
                       KURIL ISLANDS

DEC 10  PRI  eP      02 16 22.0
        MNV  eP      02 16 23.5
        JAS  eP      02 16 27.2
        WDC  eP      02 16 40.9
                  USGS 02 04 06.3, 32.2S,  69.2W, h=120 km, mb=4.7
                       MENDOZA PROVINCE, ARGENTINA

DEC 10  FHC  eP      05 46 55.7
        WDC  ePc     05 47 01.3
        MIN  eP      05 47 05.9
        JAS  ePc     05 47 22.5
        FRI  eP      05 47 29.3
        MNV  ePc     05 47 29.7
                  USGS 05 37 43.3, 51.3N, 156.5E, h=120 km, mb=4.9
                       KAMCHATKA

DEC 10  PRI  ePc     06 43 17.0
        FRI  ePc     06 43 18.3
        MNV  ePc     06 43 26.2
        JAS  ePc     06 43 32.9
        SAO  eP      06 43 33.7
        MHC  eP      06 43 34.0
        BKS  ePc     06 43 44.0             e 43 48     e 43 56     e 47 04
                                            Lr 47 48
                                MICRON    PERIOD
                          PZ      0.03      1.0
        MIN  ePc     06 44 05.1
        WDC  ePc     06 44 11.5
        FHC  eP      06 44 22.8
                  USGS 06 39 55.3, 25.6N, 109.6W, h= 15 km, mb=5.3, Ms=5.0
                       GULF OF CALIFORNIA

DEC 10  FRI  eP      07 09 58.5
        MNV  ePc     07 09 58.5
        PRI  eP      07 10 01.3
        JAS  eP      07 10 06.5
        MHC  eP      07 10 12.2
        MIN  eP      07 10 25
        WDC  eP      07 10 32.5
        FHC  e(P)    07 10 40
                  USGS 07 03 05.8, 13.3N,  89.5W, h= 88 km, mb=4.7
                       EL SALVADOR

DEC 11  FRI  ePd     02 13 40.0
        PRI  ePd     02 13 41.0
        MNV  iPd     02 13 43.3
        JAS  ePd     02 13 50.3
        MHC  eP      02 13 45.3
        BKS  eP      02 14 00    19 00      e 17 16     e 19 38     Lq 21 16
                                            Lr 22 36
                                MICRON    PERIOD
                          LZ      5         20
                          LN      8         20
                          LE      6         20
        MIN  eP      02 14 11.0
        WDC  eP      02 14 15.0
        FHC  eP      02 14 26.2
                  Ms=5.2, DISTANCE=33°
                  USGS 02 08 01.8, 16.5N, 100.0W, h= 42 km, mb=5.3, Ms=5.0
                       NEAR THE COAST OF GUERRERO, MEXICO

DEC 11  FHC  ePKP    03 51 43.5          PKKP 02 18
        WDC  ePKP    03 51 44.8          e 02 10   PKKP 02 18
        MIN  ePKP    03 51 46.1          e 02 10   PKKP 02 15
        BKS  ePKP    03 51 47.8
                                MICRON    PERIOD
                          PKPZ    0.06      0.7
        SAO  ePKP    03 51 48.4
        MHC  ePKP    03 51 48.5          PKKP 02 13
        JAS  ePKPd   03 51 49.5          e 53 45   e 54 54   e 02 02
                                         PKKP 02 09
        PRI  ePKP    03 51 51.1          e 02 04   PKKP 02 08
        FRI  ePKP    03 51 51.2          e 02 00   PKKP 02 05
        MNV  iPKPd   03 51 53.1          e 02 00   PKKP 02 02
                  USGS 03 33 52.8,  7.1S, 118.0E, h=463 km, mb=5.9
                       FLORES SEA

DEC 11  WDC  ePKP    13 48 53.7          e 54 10
        MIN  ePKP    13 48 55.1          e 54 12
        MNV  iPKPd   13 49 01.7          e 54 25
        JAS          13 49               e 49 14   e 54 32
        FRI  ePKP    13 49 19.8          e 54 37
                  USGS 13 28 58.5, 12.8S,  66.4E, h= 10 km, mb=4.9
                       MID-INDIAN RISE

DEC 11  MNV  eP      23 35 39.2
        FRI  eP      23 35 39.7
        JAS  eP      23 35 50.3
        MHC  eP      23 35 53

DEC 12  FRI  eP      05 20 04.9
        PRI  eP      05 20 06.2
        MNV  eP      05 20 07.6
        JAS  eP      05 20 15.7
        MHC  eP      05 20 18.4
        BKS          05 20                  e 28 48   e 30 52
                  USGS 05 14 29.4, 17.0N,  99.8W, h= 33 km, mb=4.8
                       GUERRERO, MEXICO

DEC 12  WDC  eP      11 58 14.4          PP 02 32  PKKP 14 05
        BKS  eP      11 58 20    09 49   PP 02 39  e 02 41   SKS 09 00
                                         PS 11 40  PPS 12 30   SS 16 44
                                         e 17 52   e 20 14    SSS 21 22
                                         Lq 27 08  Lr 31 44
                                MICRON    PERIOD
                          LZ     60        20
                          LNE    50        20
                          LNW    30        20
        MHC  eP      11 58 26.2
        JAS  eP      11 58 26.8          PP 02 50  e 14 05   PKKP 14 11
        FRI  eP      11 58 33.0
        MNV  eP      11 58 37.5          PKKP 14 14
                  Ms=7.1, DISTANCE=105°
                  USGS 11 44 16.0,  7.3N, 123.5E, h= 33 km, mb=6.2, Ms=6.9
                       MINDANAO, PHILIPPINE ISLANDS

DEC 12  WDC  eP      14 00 30.9
        JAS  eP      14 00 45.2
        FRI  eP      14 00 47.8
        MNV  eP      14 00 49.0
                  USGS 13 47 19.7, 22.0N, 123.8E, h= 33 km, mb=5.6, Ms=5.5
                       SOUTHEAST OF TAIWAN

DEC 12  BKS  ePc     17 27 01.0
                                MICRON    PERIOD
                          PZ      0.08      0.9
        SAO  eP      17 27 02.0
        FHC  eP      17 27 03.2
        MHC  eP      17 27 03.2
        PRI  eP      17 27 04.5
        WDC  iPd     17 27 06.8
        JAS  iPd     17 27 08.3
        FRI  iPd     17 27 08.8
        MIN  eP      17 27 09.0
        MNV  iPd     17 27 17.2
                  USGS 17 14 48.2, 17.7S, 168.7E, h=217 km, mb=5.2
                       NEW HEBRIDES ISLANDS

DEC 12  BKS  ePc     21 13 49.5
                                MICRON    PERIOD
                          PZ      0.04      1.0
        PRI  ePc     21 13 51.0
        MHC  ePc     21 13 51.0
        FRI  ePc     21 13 56.3
        JAS  iPc     21 13 56.7
        WDC  iPc     21 13 57.5
        MNV  iPc     21 14 06.2
                  USGS 21 02 56.7, 18.0S, 178.5W, h=582 km, mb=5.0
                       FIJI ISLANDS REGION

DEC 12  SAO  eP      22 44 23.9                pP 44 38
        PRI  ePd     22 44 24.9                pP 44 40
        MHC  eP      22 44 25.9                pP 44 40
        BKS  eP      22 44 26.2
                                MICRON    PERIOD
                          PZ      0.04      0.7
                                                pP 44 44
        FRI  ePd     22 44 29.5                pP 44 45   PKKP 02 47
        JAS  iPd     22 44 30.5                pP 44 48
        WDC  ePd     22 44 33.7                pP 44 50
        MIN  ePd     22 44 36.2                pP 44 53
        MNV  ePd     22 44 38.2
                  USGS 22 31 40.4, 32.7S, 178.9W, h= 50 km, mb=5.1
                       SOUTH OF KERMADEC ISLANDS
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DEC 13  FRI  iPe     03 03 17.9  03 31
        MNV  iPe     03 03 18.4
        JAS  iPd     03 03 26.4  03 45
        PRI  ePd     03 03 36.8  04 05
        SAO  eP      03 03 40.2
        MHC  eP      03 03 41.2
                BRK  03 03 00.0, 37.5N, 118.6W, h=  5 km, ML=3.2
                     NORTHWEST OF BISHOP, CALIFORNIA

DEC 13  WDC  ePe     06 12 57.5
        JAS  ePe     06 13 16.1
        MNV  eP      06 13 23.2
                USGS 06 02 42.6, 44.7N, 146.2E, h=177 km, mb=4.6
                     KURIL ISLANDS

DEC 13  PRI  ePe     22 08 51.7
        FRI  ePe     22 08 51.8
        MNV  ePe     22 08 56.0
        JAS  eP      22 09 04                e 12 46     Lq 13 18     Lr 14 30
        BKS          22 08
                          MICRON    PERIOD
                     LZ     1.8       20
                     LN     3.7       20
                     LE     6         20
        MIN  eP      22 09 32
        WDC  ePe     22 09 36.2
                USGS 22 04 47.8, 22.9N, 108.5W, h= 33 km, mb=4.0
                     OFF THE COAST OF CENTRAL MEXICO

DEC 14  SAO  eP      01 41 11.3
        BKS  eP      01 41 12.5
                          MICRON    PERIOD
                     PZ     0.03      0.7
        MHC  ePe     01 41 13.2
        PRI  ePe     01 41 13.4
        FRI  ePe     01 41 18.8
        JAS  ePe     01 41 19.2                e 42 26
        WDC  ePe     01 41 20.2
        MIN  ePe     01 41 22.4                e 42 36
        MNV  iPe     01 41 29.5
                USGS 01 30 14.0, 14.8S, 175.9W, h=290 km, mb=4.9
                     SAMOA ISLANDS REGION

DEC 14  SAO  eP      04 16 47.0
        BKS  e(P)    04 16 48
                          MICRON    PERIOD
                     PZ     0.02      0.8
        PRI  eP      04 16 48.5
        MHC  ePd     04 16 48.8
        FRI  ePd     04 16 53.7
        JAS  ePd     04 16 54.3
        WDC  ePd     04 16 55.9
        MIN  eP      04 16 58
        MNV  ePd     04 17 03.8
                USGS 04 05 27.1, 20.0S, 177.8W, h=349 km, mb=4.9
                     FIJI ISLANDS REGION

DEC 14  PRI  iPe     07 38 14.4
        SAO  ePe     07 38 26.3
        FRI  eP      07 38 32.7
        MHC  eP      07 38 36.0
        JAS  ePd     07 38 42.0  39 04
        BKS  ePe     07 38 45.8                e 39 13     e 39 22
                BRK  07 38 12.1, 36.2N, 120.8W, h=  6 km, ML=3.1
                     EAST OF KING CITY, CALIFORNIA

DEC 15  SAO          01 48                     e 48 16
        FRI  eP      01 48 22.7
        JAS  eP      01 48 23.8
        WDC  eP      01 48 27.0
        MNV  eP      01 48 31.7
                USGS 01 35 42.8, 30.4S, 177.8W, h= 33 km, mb=5.4
                     KERMADEC ISLANDS

DEC 15  WDC  eP      08 38 33.2                ScP 44 16
        MIN  eP      08 38 38.5
        BKS  eP      08 38 47.6                PcP 40 28     e 45 32     Lq 49 42
                                               Lr 51 50
                          MICRON    PERIOD
                     PZ     0.01      0.8
                     LZ     6        20
                     LN     2.7      20
                     LE     5        20
        MHC          08 38                     e 38 54
        JAS  eP      08 38 56.0                ScP 44 42
        FRI  eP      08 39 04.5                ScP 44 26
        PRI          08 39                     e 39 05
        MNV          08 39                     i 39 06
                USGS 08 30 34.7, 52.1N, 175.2E, h= 47 km, mb=5.6, Ms=5.6
                     RAT ISLANDS, ALEUTIAN ISLANDS

DEC 16  FHC  iPd     11 17 36.4
        WDC  iPe     11 17 50.0  18 07
        MIN  ePe     11 18 00.1
                BRK  11 17 28.7, 41.2N, 124.1W, h= 20 km, ML=3.7
                     NEAR COAST NORTH OF EUREKA, CALIFORNIA

DEC 16  MNV  iPe     15 30 32.3
        FRI  iPe     15 30 44.3
        JAS  iPe     15 30 52.8
        PRI  iPe     15 30 57.6
        SAO  iPe     15 31 03.5
        MHC  iPe     15 31 06.0
        BKS  eP      15 31 12.4
        MIN  iPe     15 31 18.8
        WDC  iPe     15 31 28.0
        FHC          15 31                     e 31 44
                ML=5.5, NUCLEAR EXPLOSION, NEVADA TEST SITE
                USGS 15 30 00.2, 37.3N, 116.4W, h=  0 km, mb=5.5
                     SOUTHERN NEVADA

DEC 17  PRI          08 07
        FRI          08 07                     e 07 57
        MNV  ePe     08 08 05.0                e 07 58
        JAS  ePe     08 08 08.6
        MHC          08 08
        BKS          08 08                     e 08 09
        WDC  ePe     08 08 34.0                e 17 22     e 17 45
        FHC          08 08                     e 08 44
                USGS 08 01 32.0,  8.7N, 102.9W, h= 33 km, mb=5.2, Ms=5.1
                     OFF COAST OF MEXICO

DEC 17  WDC  e(P)    13 21 13
        JAS  eP      13 21 41.5
                USGS 13 15 26.0, 64.0N, 147.4W, h= 22 km, mb=4.8
                     CENTRAL ALASKA

DEC 17  FRI  eP      21 30 32.9
        PRI  eP      21 30 33.4
        MNV  eP      21 30 41.3
        JAS  eP      21 30 44.9
                USGS 21 26 05.2, 19.7N, 108.9W, h= 33 km, mb=4.5
                     REVILLA GIGEDO ISLANDS REGION

DEC 17  MHC  e(P)    23 25 38
        WDC  eP      23 25 41.2
        MIN  eP      23 25 42.5
        JAS  ePe     23 25 42.7
        FRI  eP      23 25 43.4
        MNV  e(P)    23 25 52
                USGS 23 12 56.4, 18.1S, 167.4E, h= 33 km, mb=4.6
                     NEW HEBRIDES ISLANDS
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                                               PcP 40 50     pPcP 41 05
DEC 18  FRI  eP      02 38 28.4                  pP 38 42      PcP 40 56
        MNV  ePd     02 38 28.5                  ScP 44 33
                                                 PcP 40 52
        PRI  eP      02 38 31.3                  pP 38 52      PcP 40 54     pPcP 41 10
        JAS  ePd     02 38 37.6                  ScP 44 38
                                                 PcP 40 56
        MHC  eP      02 38 42.4                  PcP 40 58     pPcP 41 12
        BKS  eP      02 38 48
                          MICRON    PERIOD
                     PZ     0.04      1.0
        MIN  eP      02 38 54.6                  PcP 41 02     pPcP 41 16
        WDC  ePd     02 38 58.2                  PcP 41 07
        FHC  eP      02 39 11
                USGS 02 31 27.1, 13.0N,  88.3W, h= 85 km, mb=5.3
                     EL SALVADOR

DEC 18  MHC  iPe     07 59 32.4
        BKS  iPe     07 59 41.6  59 51
        SAO  iPd     07 59 43.5
        JAS  iPe     07 59 51.9
        FRI  ePd     07 59 59.7
                BRK  07 59 29.9, 37.4N, 121.8W, h=  5 km, ML=2.8
                     NORTHEAST OF SAN JOSE, CALIFORNIA

DEC 18  FRI  ePe     08 03 47.5
        PRI  iPe     08 03 47.8
        MNV  iPe     08 03 56.5
        JAS  iPe     08 04 00.1
        MHC          08 04                     e 04 01
        BKS  e(P)    08 04 09                  e 08 16     e 10 04
        MIN  eP      08 04 29
        WDC  ePe     08 04 31.5
                USGS 07 59 19.6, 19.6N, 109.0W, h= 33 km, mb=5.2, Ms=5.0
                     REVILLA GIGEDO ISLANDS REGION

DEC 18  WDC  iPe     08 13 06.1
        FHC  eP      08 13 06.6
        MIN  ePe     08 13 07.2
        MNV  iPe     08 13 14.9
        JAS  ePe     08 13 18.1
        BKS  eP      08 13 19.3
                          MICRON    PERIOD
                     PZ     0.07      0.9
        MHC  ePe     08 13 21.7
        FRI  ePe     08 13 22.0
        PRI  ePe     08 13 27.3
                USGS 07 59 56.3, 47.8N,  48.2E, h=  0 km, mb=6.0
                     NUCLEAR EXPLOSION, WESTERN KAZAKH, S.S.R.

DEC 18  WDC  ePd     08 59 48.0                pP 00 39
        MIN  ePd     08 59 51.5                pP 00 42
        BKS  eP      08 59 53                  pP 00 44
                          MICRON    PERIOD
                     PZ     0.05      0.8
        MHC  eP      08 59 56.5                pP 00 48
        JAS  ePd     09 00 00.1                pP 00 51
        PRI  e(P)    09 00 04                  pP 00 54
        FRI  ePd     09 00 04.4                pP 00 56
        MNV          09 00                     pP 01 00
                USGS 08 48 01.9, 18.6N, 145.5E, h=210 km, mb=5.2
                     MARIANA ISLANDS

DEC 18  WDC          12 12                     e 12 14
        JAS  eP      12 12 54
        FRI          12 13                     e 13 10
        MNV          12 13                     e 13 10
                USGS 12 10 35.5, 44.6N, 129.6W, h= 15 km, mb=4.4
                     OFF THE COAST OF OREGON

DEC 18  PRI  iPe     20 05 51.0
        SAO  iPe     20 06 04.3
        FRI  eP      20 06 09.0  06 25
        MHC  eP      20 06 14.1  06 34
        JAS  iPd     20 06 19.8  06 42
        MNV  iPd     20 06 43.0
                BRK  20 05 49.2, 36.1N, 120.7W, h= 12 km, ML=2.8
                     EAST OF KING CITY, CALIFORNIA

DEC 19  FRI  eP      07 40 32.0
        PRI          07 40                     e 40 32
        JAS  eP      07 40 39.4
        WDC  eP      07 40 54.6
                USGS 07 29 00.2, 35.4S, 106.6W, h= 10 km, mb=5.2, Ms=5.4
                     EASTER ISLAND CORDILLERA

DEC 19  WDC  iPe     16 43 50.5                e 07 33
        BKS  eP      16 43 59.3
                          MICRON    PERIOD
                     PZ     0.03      0.7
        MHC  eP      16 44 03.5
        JAS  iPe     16 44 06.3                e 07 24
        PRI  eP      16 44 11.2
        FRI  ePe     16 44 11.6                e 07 20
        MNV  iPe     16 44 13.5
                USGS 16 32 20.2, 33.2N, 140.7E, h= 63 km, mb=5.0
                     SOUTH OF HONSHU, JAPAN

DEC 21  SAO  eP      00 47 00.1
        PRI  ePe     00 47 01.5
        BKS  ePe     00 47 01.7
                          MICRON    PERIOD
                     PZ     0.08      0.7
        MHC  ePe     00 47 02.2
        FHC  iPe     00 47 06.0
        FRI  ePe     00 47 06.8
        JAS  iPe     00 47 07.4
        WDC  iPe     00 47 09.0                e 49 19
        MIN  ePe     00 47 10.6
        MNV  iPe     00 47 16.3
                USGS 00 35 50.3, 21.8S, 179.5W, h=593 km, mb=5.6
                     FIJI ISLANDS REGION

DEC 21  FRI  ePe     01 26 26.0                pP 26 40
        PRI  ePe     01 26 26.8                pP 26 41
        MNV  eP      01 26 29.3                pP 26 43
        SAO  e(P)    01 26 31
        JAS  eP      01 26 32.8                pP 26 47
        MHC  eP      01 26 34.0                pP 26 47
        BKS  eP      01 26 38                  pP 26 50     Lq 50 45     Lr 55 00
                          MICRON    PERIOD
                     PZ     0.06      0.9
        MIN  eP      01 26 44                  pP 26 57
        WDC  eP      01 26 46.3                pP 27 01
        FHC  eP      01 26 52.3                pP 27 07
                USGS 01 13 55.0, 36.3S,  72.5W, h= 47 km, mb=5.7, Ms=5.6
                     NEAR THE COAST OF CENTRAL CHILE

DEC 21  FRI  eP      11 03 50.3
        MHC  eP      11 03 52.2
        JAS  eP      11 03 56.5
        WDC  eP      11 04 12.8
                SOUTHERN PACIFIC OCEAN REGION

DEC 21  FHC          14 49                     e 49 29
        MHC  ePd     14 49 29.7                                              SS 05 04
        BKS  eP      14 49 30    00 02         e 49 39     SP 01 04          e 12 45
                                               SSS 09 00   Lq 11 32
                                               Lr 15 06
                          MICRON    PERIOD
                     PZ     0.07      1.3
                     LZ     15       20
                     LN     5        20
                     LE     12       20
        PRI  ePd     14 49 33
        WDC  ePd     14 49 33.8
        MIN  eP      14 49 34.4
        JAS  ePd     14 49 35.8
        FRI  ePd     14 49 37.0
        MNV  ePd     14 49 44.4
                Ms=6.3, DISTANCE=83°
                USGS 14 36 53.3, 11.2S, 162.6E, h= 30 km, mb=5.6, Ms=6.3
                     SOLOMON ISLANDS
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International Seismological Centre

International Seismological Centre

DEC 23 FHC ePc 10 35 47.9
WDC ePc 10 35 51.7
MIN eP 10 35 55.3
BKS eP 10 36 00.6 e 36 10 e 45 40 e 46 32
e 55 42 e 58 36
MHC ePc 10 36 04.5
JAS ePc 10 36 07.2
PRI eP 10 36 12.2
FRI ePc 10 36 12.6
MNV ePc 10 36 14.4
USGS 10 24 16.2, 32.5N, 141.4E, h= 21 km, mb=5.5, Ms=5.5
SOUTH OF HONSHU, JAPAN

DEC 23 FHC ePc 11 36 18.5 e 36 34
WDC iPc 11 36 22.1 e 36 38 PP 40 12 PKKP 53 36
PKPPKP 01 46
MIN eP 11 36 25.3
BKS eP 11 36 30.2 e 36 49 e 37 04 PP 40 27
SKS 47 06 SKKS 47 45 SS 53 58
SSS 57 32 Lq 00 56 PKPPKP 01 39
Lr 06 32

	MICRON	PERIOD
PZ	0.16	1.0
LZ	20	20
LN	13	20
LE	31	20

MHC eP 11 36 33.6 PKPPKP 01 42
SAO eP 11 36 34.5
JAS ePc 11 36 35.3 e 36 50 PP 40 28 PKKP 53 29
PKPPKP 01 40
FRI eP 11 36 39.8 e 36 54 PKPPKP 01 38
PRI eP 11 36 39.8 PP 40 37 PKPPKP 01 40
MNV ePc 11 36 41.0 PKKP 53 24 PKPPKP 01 39
Ms=6.8, DISTANCE=96°
USGS 11 23 12.0, 23.2N, 122.1E, h= 33 km, mb=6.6, Ms=7.0
TAIWAN REGION

DEC 23 MNV iPc 12 59 20.3
MIN ePc 12 59 24.1
WDC ePc 12 59 29.8
FHC eP 12 59 31.5
JAS iPc 12 59 32.0
FRI ePc 12 59 33.8
BKS 12 59 e 59 44
PRI ePc 12 59 42.8
USGS 12 49 36.4, 53.1N, 35.2W, h= 10 km, mb=5.2
NORTH ATLANTIC OCEAN

DEC 23 FRI eP 14 40 34.0
MNV ePd 14 40 35.3 PcP 40 59 pP 41 10
PRI eP 14 40 36.1
JAS ePd 14 40 41.5 PcP 41 03 pP 41 16
MHC ePd 14 40 44.6
BKS eP 14 40 48.6 pP 41 23
MIN eP 14 40 54.1
WDC iPd 14 40 57.5
FHC ePd 14 41 05.7 pP 41 41
USGS 14 29 44.3, 14.8S, 71.5W, h=140 km, mb=5.1
PERU

DEC 23 PRI eP 23 06 50.3
JAS ePc 23 07 05.4
WDC ePc 23 07 28.2
FHC e(P) 23 07 33
USGS 22 58 52.5, 4.1S, 105.4W, h= 10 km, mb=4.8
NORTHERN EASTER ISLAND CORDILLERA

DEC 24 FRI eP 00 13 31.9
MNV ePc 00 13 33.4
PRI ePc 00 13 33.4
JAS ePc 00 13 39.0
MHC ePc 00 13 41.7
BKS eP 00 13 45.2
MIN eP 00 13 51.1
WDC ePc 00 13 54.0
FHC eP 00 14 02.0
USGS 00 02 01.7, 20.0S, 69.8W, h= 48 km, mb=5.4, Ms=4.6
NORTHERN CHILE

DEC 24 JAS ePc 07 42 32.0

DEC 24 WDC iPd 13 19 24.5
MIN ePd 13 19 29.1
JAS ePd 13 19 51.4
MHC eP 13 19 52
MNV ePd 13 19 55.6
FRI eP 13 20 00.5
FRI eP 13 20 04.8
USGS 13 13 08.1, 63.6N, 157.6W, h= 33 km, mb=5.0, Ms=4.4
CENTRAL ALASKA

DEC 25 FRI e(P) 15 02 56
FRI ePc 15 02 57.3
MNV eP 15 02 58.8
JAS ePc 15 03 03.1 pP 03 17
MHC eP 15 03 04.9
BKS e(P) 15 03 11
MIN e(P) 15 03 14
WDC ePc 15 03 17.3 pP 03 31
USGS 14 50 49.3, 29.8S, 71.3W, h= 49 km, mb=4.6
NEAR THE COAST OF CENTRAL CHILE

DEC 25 WDC 21 14 e 14 40
JAS eP 21 14 53.5
FRI eP 21 14 58.8
MNV iPd 21 15 01.1
USGS 21 03 00.3, 30.8N, 141.7E, h= 33 km, mb=4.9, Ms=4.2
SOUTH OF HONSHU, JAPAN

DEC 26 PRI ePd 00 04 05.1 e 04 16 e 07 15
FRI ePd 00 04 06.2 e 04 17
SAO eP 00 04 11.8
MNV eP 00 04 13.4 e 04 24
JAS iPd 00 04 17.0 e 04 28 e 06 15 e 07 13
MHC ePd 00 04 17.6 e 04 29
BKS eP 00 04 24 09 26 e 04 33 PP 05 36 Lq 11 00
Lr 12 44

	MICRON	PERIOD
LZ	60	20
LN	90	20
LE	50	20

MIN ePd 00 04 39.3
WDC iPd 00 04 42.7 e 04 54
FHC eP 00 04 51.9 e 05 03
Ms=6.5, DISTANCE=32°
USGS 23 57 55.0, 10.4N, 103.9W, h= 10 km, mb=5.8, Ms=6.5
OFF THE COAST OF MEXICO

DEC 26 FHC 06 02 e 02 17
WDC iPc 06 02 21.2
MIN eP 06 02 24.2
BKS eP 06 02 25 e 02 56
MHC eP 06 02 28.4
JAS eP 06 02 31.7
PRI eP 06 02 33.9
FRI eP 06 02 35.4
MNV eP 06 02 39.4
USGS 05 49 42.0, 12.0N, 141.2E, h= 76 km, mb=5.2
SOUTH OF MARIANA ISLANDS

DEC 26 SAO 09 07 e 07 13
BKS eP 09 07 14.0
MHC eP 09 07 14.8
PRI eP 09 07 14.9
FRI eP 09 07 19.9
JAS eP 09 07 20.0
WDC iP 09 07 21.2
MIN eP 09 07 23.0
USGS 08 56 22.8, 17.8S, 179.8W, h=655 km, mb=4.8
FIJI ISLANDS REGION

DEC 27 FHC e(P) 13 00 33
WDC eP 13 00 37.3
MIN eP 13 00 42.8
BKS eP 13 00 43.0
MHC eP 13 00 48.0
JAS eP 13 00 51.8
PRI eP 13 00 54.2
FRI eP 13 00 56.0
MNV e(P) 13 01 00
USGS 12 48 40.0, 17.7N, 147.0E, h= 54 km, mb=5.1, Ms=4.3
MARIANA ISLANDS REGION

DEC 27 MIN eP 17 58 24.5 e 59 56
MNV eP 17 58 25 e 59 57 e 02 02
WDC eP 17 58 26.5
FHC 17 58 e 58 28 e 02 06
JAS eP 17 58 32.0 e 00 04
FRI eP 17 58 34 e 00 05
PRI eP 17 58 40 e 00 11
USGS 17 46 10.4, 41.1N, 13.6E, h=390 km, mb=5.6
SOUTHERN ITALY

DEC 27 MIN 19 56 e 56 45
BKS 19 56 e 56 50
JAS ePc 19 57 06.2 e 57 23
SAO 19 57 e 57 08
MNV ePc 19 57 14.6 e 57 28
FRI ePc 19 57 15.1
USGS 19 50 33.1, 54.2N, 162.6W, h= 37 km, mb=4.7, Ms=4.1
ALASKA PENINSULA

DEC 28 FRI eP 19 54 04.8
PRI ePc 19 54 06.8
MNV iPc 19 54 07.3 e 04 46
JAS eP 19 54 15.1
MHC eP 19 54 18.6
BKS 19 54 e 54 31 e 59 44 Lq 03 08
Lr 06 10
MIN 19 54 e 54 34
WDC eP 19 54 39.0
USGS 19 48 04.5, 16.0N, 96.5W, h= 33 km, mb=5.4
OAXACA, MEXICO

DEC 29 FRI iPd 04 27 03.6 27 18 i 27 22
MNV iPc 04 27 04.4
JAS eP 04 27 15.0 27 39
PRI iPc 04 27 21.0 27 51
SAO eP 04 27 26.0
BRK 04 26 42.6, 37.3N, 118.3W, h= 4 km, ML=3.8
SOUTHEAST OF BISHOP, CALIFORNIA

DEC 29 BKS eP 06 01 02.5 e 01 15

	MICRON	PERIOD
LZ	1.6	20
LN	1.4	20
LE	1.1	20

MHC 06 01 e 01 02 e 01 15
PRI 06 01 e 01 05
FRI 06 01 e 01 07 e 01 20
JAS eP 06 01 08.0 i 01 21
WDC eP 06 01 10.6 i 01 24
MNV eP 06 01 17.5 i 01 31
USGS 05 49 14.4, 21.4S, 174.5W, h= 45 km, mb=5.3, Ms=5.3
TONGA ISLANDS

DEC 29 PRI ePc 19 30 11.5
FRI eP 19 30 13.6
JAS eP 19 30 20.7
MNV ePc 19 30 20.8
WDC eP 19 30 36.6
USGS 19 18 38.7, 35.7S, 101.4W, h= 33 km, mb=4.9
SOUTHERN PACIFIC OCEAN

DEC 31 FHC eP 11 02 45 pP 02 56
WDC iPd 11 02 50.6 pP 03 02
MIN eP 11 02 54.6 pP 03 06
BKS ePc 11 03 00.6 pP 03 12

	MICRON	PERIOD
PZ	0.03	0.8

MHC eP 11 03 04.4 pP 03 16
JAS iPd 11 03 07.3 pP 03 19
PRI eP 11 03 12.5
FRI ePd 11 03 13.0 pP 03 25
MNV iPd 11 03 14.8 pP 03 26
USGS 10 51 44.0, 36.4N, 144.4E, h= 40 km, mb=5.3, Ms=4.6
OFF THE EAST COAST OF HONSHU, JAPAN

DEC 31 MNV iPd 12 06 50.6
JAS iPd 12 07 00.0
FRI iPd 12 07 00.4 07 17
SAO ePc 12 07 19.7
PRI e(P) 12 07 20
BKS 12 07 07 59 e 07 26
BRK 12 06 37.8, 38.0N, 118.9W, h= 6 km, ML=3.2
MONO LAKE AREA, CALIFORNIA

DEC 31 PRI e(P) 14 10 51
BRK eP 14 10 53 pP 11 07
MHC e(P) 14 10 53 pP 11 08
FRI eP 14 10 56.7 pP 11 11
JAS ePc 14 10 57.8 pP 11 12
WDC ePc 14 11 01.2 pP 11 15
MIN eP 14 11 02.1 pP 11 20
MNV ePc 14 11 05.3
USGS 13 58 07.9, 32.8S, 178.9W, h= 46 km, mb=5.4
SOUTH OF KERMADEC ISLANDS

DEC 31 BKS ePc 16 34 15

	MICRON	PERIOD
PZ	0.02	0.9

MHC eP 16 34 16.4
PRI eP 16 34 17.2
WDC ePc 16 34 20.2
JAS ePc 16 34 21.2
FRI ePc 16 34 21.5
MIN eP 16 34 22.4
MNV ePc 16 34 30.0
USGS 16 22 08.1, 19.0S, 169.6E, h=284 km, mb=4.7
NEW HEBRIDES ISLANDS

DEC 31 BKS ePd 23 13 26.6 e 13 45

	MICRON	PERIOD
PZ	0.03	0.8

MHC eP 23 13 28.4 pP 13 47
WDC ePd 23 13 29.1 pP 13 48
PRI eP 23 13 30.7
JAS iPd 23 13 33.2 pP 13 52
FRI ePd 23 13 34.5 pP 13 53
MNV iPd 23 13 42.4 pP 14 01
USGS 23 00 51.8, 10.3S, 161.3E, h= 66 km, mb=5.3
SOLOMON ISLANDS

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APPENDIX A - THE 1978 MT. SHASTA EARTHQUAKE SEQUENCE

During 1978 a sequence of 49 earthquakes ($3.0 \leq M_L \leq 4.6$) occurred in Siskiyou County centered approximately 30km east of Mt. Shasta and about 110km northeast of the nearest permanent Berkeley network station at Whiskeytown Dam (WDC). The largest earthquake in the sequence ($M_L = 4.6$) occurred on August 1, 1978 at 0902 UTC. The California Division of Mines and Geology (CDMG) installed a temporary network of 6 stations within a radius of 25km of the epicentral region of the August 1, 1978 earthquake (Chris Cramer, personal communication). On August 19 and 20, 1978 five earthquakes occurred which were well-recorded by both the temporary and the permanent station networks.

Calibration Earthquakes

Date Aug	Time UTC	M_L	MIN-WDC sec	ORV-WDC sec	FHC-WDC sec
19	1735	3.9	3.3	16.7	15.5
20	0828	3.1	3.6	16.8	15.7
20	0947	3.6	3.6	16.8	15.8
20	1011	3.1	3.5	16.7	15.8
20	1308	3.2	3.4	16.6	15.6

These earthquakes were used as master events which were located, using P and S wave onset times from the temporary (CDMG) station network, with a group location procedure that simultaneously estimated the hypocentral locations and the average seismic wave velocities (half-space model). the resulting half-space velocities are $\alpha = 5.0$ km/sec and $\beta = 2.9$ km/sec.

The observed differential P wave times at four permanent Berkeley network stations ($110\text{km} \leq \Delta \leq 210\text{km}$, $170° \leq Az \leq 250°$) FHC-WDC, MIN-WDC, and ORV-WDC (WDC was arbitrarily chosen as the reference station) were used to locate the earthquakes in the sequence, relative to the calibration earthquakes, in a least-squares sense. Easily identifiable prominent pulses within the first 2.5 seconds of the onset of the P wave train, that are consistant from earthquake to earthquake, were used to determine the differential times as the first onsets were rather emergent for the smaller earthquakes in the sequence. The "prominent pulse" minus P wave onset times are WDC = 0.7 sec, MIN = 1.8 sec, FHC = 2.5 sec, and ORV = 1.2 sec. The earthquakes were all constrained to a depth of 2km, based on the average depth of the 5 calibration earthquakes.

The local Richter magnitudes were determined from the maximum trace amplitudes on the Wood-Anderson torsion seismograms recorded at Mineral ($\Delta \simeq 120$km) and Arcata ($\Delta \simeq 200$km).

The magnitude and hypocentral data for the earthquakes are tabulated in Part 1 of this Bulletin.

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APPENDIX B - THE 1978 BISHOP EARTHQUAKE SEQUENCE

A sequence of 47 earthquakes ($3.0 \leq M_L \leq 5.8$) occurred during 1978 which was centered to the east of the Sierra Nevada in the northern part of Owens Valley about 30 km northwest of Bishop. The largest earthquake in the sequence ($M_L = 5.8$) occurred at 1642 UTC on October 4, 1978, and it was followed by a sequence of 24 smaller earthquakes ($3.0 \leq M_L \leq 5.1$) within eight hours. The region is bounded by permanent station networks operated by three groups: University of California, Berkeley (UCB); California Institute of Technology (CIT); and University of Nevada, Reno (UNR). The nearest permanent stations (BON, MON, and TIN) are approximately 60 km away from the epicentral region and 14 permanent stations are operating within a radius of 230 km. Following the strong ($M_L = 5.8$) earthquake on October 4, 1978, small temporary station networks were installed within a radius of 30 km in the epicentral region by Woodward-Clyde Consultants (WCC) (Lawrence Hutchings, personal communication) and University of Nevada, Reno (William Peppin, personal communication). From August 6 to August 8, 1978, five earthquakes occurred which were well-recorded by both the temporary and the permanent station networks.

Calibration Earthquakes

Date Oct	Time UTC	M_L
6	0132	3.5
7	0249	3.0
7	0859	2.7
7	1347	3.0
8	1329	3.1

All observed data from stations within 70 km of the calibration earthquakes were used with a group location procedure that simultaneously estimated their hypocentral locations and the average seismic wave velocities for the region. These locations were adopted and then used along with all available P and S wave onset time data from stations within 230 km to determine the velocity model parameters,

$$\alpha = (6.00 + 0.024z) \text{ km/sec}$$

and $$\beta = (3.47 + 0.013z) \text{ km/sec},$$

(where z is the depth in km) and the P and S station adjustments (which are to be added to the calculated times).

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Station Adjustments

Station Code	Operated by	Padj. (sec)	S adj. (sec)
BON	UNR	.24	
CLC	CIT	.21	1.08
CWC	CIT	.06	.04
FRI	UCB	-.16	-1.09
GSC	CIT	-.10	
ISA	CIT	.16	-.08
JAS	UCB	-.37	-.98
KVN	UNR	.42	
MNA	UNR	.30	.73
MNV	UCB	.30	.73
MON	UNR	.22	
TIN	CIT	.41	.88
TNP	UNR	.61	
WCN	UNR	-.75	

The earthquakes ($M_L \geq 3.0$) in the Bishop sequence were then individually located, using the available P and S wave onset time data with the velocity model and station adjustments given above.

Local Richter magnitudes were determined from the maximum trace amplitudes on the Wood-Anderson seismograms recorded at Berkeley ($\Delta \simeq 260$ km).

The magnitude and hypocentral data for the earthquakes are tabulated in Part 1 of this Bulletin.

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APPENDIX C - MODIFIED MERCALLI INTENSITY SCALE OF 1931

(Abridged)

I. Not felt except by a very few under especially favorable circumstances.

II. Felt only by a few persons at rest, especially on upper floors of buildings. Delicately suspended objects may swing.

II. Felt quite noticeably indoors, especially on upper floors of buildings, but many people do not recognize it as an earthquake. Standing motor cars may rock slightly. Vibration like passing of truck. Duration estimated.

IV. During the day felt indoors by many, outdoors by few. At night some awakened. Dishes, windows, doors disturbed; walls made cracking sound. Sensation like heavy truck striking building. Standing motor cars rocked noticeably.

V. Felt by nearly everyone; many awakened. Some dishes, windows, etc., broken; a few instances of cracked plaster; unstable objects overturned. Disturbance of trees, poles, and other tall objects sometimes noticed. Pendulum clocks may stop.

VI. Felt by all; many frightened and run outdoors. Some heavy furniture moved; a few instances of fallen plaster or damaged chimneys. Damage slight.

VII. Everybody runs outdoors. Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable in poorly built or badly designed structures; some chimneys broken. Noticed by persons driving motor cars.

VIII. Damage slight in specially designed structures; considerable in ordinary substantial buildings with partial collapse; great in poorly built structures. Panel walls thrown out of frame structures. Fall of chimneys, factory stacks, columns, monuments, walls. Heavy furniture overturned. Sand and mud ejected in small amounts. Changes in well water. Persons driving motor cars are disturbed

IX. Damage considerable in specially designed structures; well designed frame structures thrown out of plumb; great in substantial buildings, with partial collapse. Buildings shifted off foundations. Ground cracked conspicuously. Underground pipes broken.

X. Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations; ground badly cracked. Rails bent. Landslides considerable from river banks and steep slopes. Shifted sand and mud. Water splashed (slopped) over banks.

XI. Few, if any (masonry), structures remain standing. Bridges destroyed. Broad fissures in ground. Underground pipe lines completely out of service. Earth slumps and land slips in soft ground. Rails bent greatly.

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