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Bulletin of the Seismographic Stations

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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--WHISKEYTOWN DAM

Earthquakes and the Registration of Earthquakes

From January 1, 1985 to December 31, 1985

Robert B. Darragh
M. Richard McKenzie
Robert A. Uhrhammer

International Seismological Centre

BULLETIN OF THE SEISMOGRAPHIC STATIONS
of the University of California

Volume 55, Nos. 1 and 2
January 1, 1985 to December 31, 1985

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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 that comprise the Berkeley network are repeated in each issue.

Note that the No. 1 and No. 2 issues of Volume 55 are published together in the current issue.

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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."

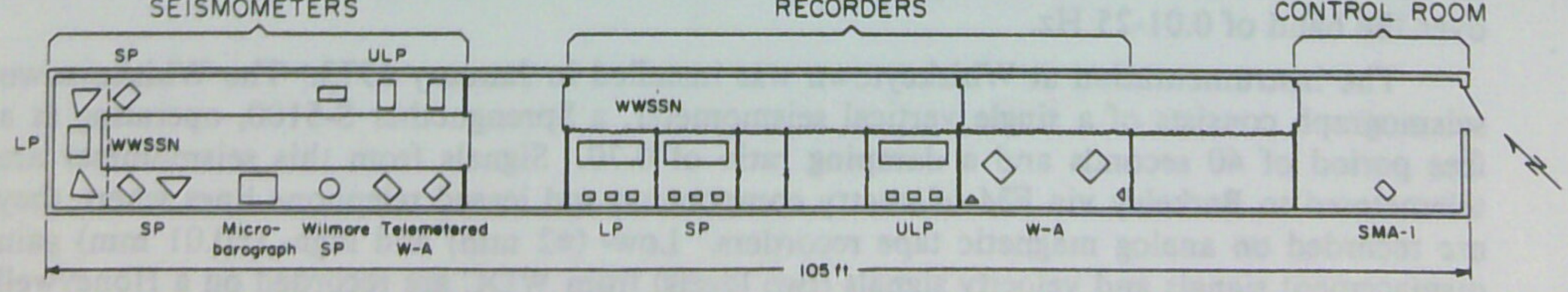
The quotation is from "History of the University of California Seismographic Stations and Related Activities" by Professor George D. Louderback, published in the Bulletin of the Seismological Society of America, Vol. 32, No. 3, pp. 205-229, 1942. In this paper may be found a detailed account of the development 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 1979. In 1950, Professor Perry Byerly was appointed Director by the Regents; he had been in charge of instruction and research since 1925. Professor Bruce A. Bolt was appointed Director in 1963. Since 1969, the stations have entered into research and service contracts with the Air Force Office of Scientific Research, the National Science Foundation, the California Department of Water Resources, the California Division of Mines and Geology, the U.S. Geological Survey, the U.S. Corps of Engineers, the East Bay Municipal Utility District, and others. A telemetry network of seventeen stations in Central California, recording on film and selected stations on magnetic tape, is now operated together with seismographs with broadband frequency response at Berkeley, Mt. Hamilton, Jamestown, Oroville, San Andreas Geophysical Observatory, and Whiskeytown Dam. Copies of seismograms and magnetic tapes from seismographs of the Berkeley network are available, together with response characteristics, on request to the director.

The Byerly Seismographic Station (BKS)

Equipment of a WWSSN station began operating in a newly constructed adit east of the main campus on June 8, 1962. The closest buildings, part of the Lawrence Berkeley Laboratory, are about 0.8 km away.

A plan of the adit 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.



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Twelve seismographs are currently operating in the adit. Their free periods range from 0.8 sec to 100 sec and the magnification of the photographic recordings ranges from approximately 500 to 25000. Details are given in the table on instrumentation.

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.

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.

Broadband Seismometers

A network of broadband seismometers is now operated by the University of California at seismographic stations at Berkeley (BKS), Mt. Hamilton (MHC), Jamestown (JAS), Oroville (ORV), San Andreas Geophysical Observatory (SAO) and Whiskeytown (WDC).

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

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

The instrumentation at Whiskeytown was installed in January 1973. The Whiskeytown seismograph consists of a single vertical seismometer, a Sprengnether S-5100, operating at a free period of 40 seconds and a damping ratio of 0.70. Signals from this seismometer are telemetered to Berkeley via FM telemetry components and leased telephone lines where they are recorded on analog magnetic tape recorders. Low- (±2 mm) and high- (±0.01 mm) gain displacement signals and velocity signals (two levels) from WDC are recorded on a Honeywell Model 96 tape transport at 15/16 inches per second. The seismometer at WDC is operated in sealed pressure vessel identical to those used with high-gain long-period (HGLP) instruments.

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An on-site digital recording system (DRS) was installed at Jamestown in September 1980. The DRS continuously records a three-component long-period (LP) channel at one sample per second each component and records, in an event detect mode, a three-component intermediate-period (IP) channel at 10 samples per second each component, and a vertical short-period (SP) channel at 20 samples per second. The DRS records the filtered output of Teledyne 210 and 200 seismometers operating with 16 bit resolution (no gain-ranging) on 1600 bpi magnetic tape for the LP and IP channels. The DRS was upgraded by the USGS, Albuquerque Seismological Laboratory to allow remote recording, calibration and control over a duplex 2400 bits per second telemetry link and the upgraded version was installed at JAS in February, 1982. At the same time, the control and recording part of the DRS was installed at Berkeley (150 km west of JAS) and a dedicated telephone line was used for the digital telemetry link. On July 26, 1984 the JAS station was moved to a temporary site (JAS1) 3 km to the south.

Equipment was installed at Oroville in June 1979 to telemeter three-component broadband velocity signals from the Geotech 7505 and 8700 seismometers, operating at a free period of 15 seconds, to Berkeley via FM telemetry over leased telephone lines. In December 1979, the free period of the seisometers was changed to 20 seconds. In February 1985, a vertical Streckeisen broadband displacement seismometer was installed, followed, in March 1985, by the installation of two horizontal Streckeisen broadband displacement seismometers. The operation of the corresponding Geotech seismometers were discontinued at these times.

In March and April 1985, three component Streckeisen broadband displacement seismometers were installed at Mt. Hamilton. The broadband signals are sent to Berkeley via FM telemetry over leased phone lines. In November 1985, a vertical Streckeisen broadband displacement seismometer was installed at San Andreas Geophysical Observatory. The broadband signals are telemetered to Berkeley via FM telemetry over leased phone lines.

Response curves for these broadband instruments are shown on pages 12-13. The displacement transfer functions for the broadband instruments in the Berkeley network are given in the Table on page 9. The transfer function is computed from the poles, zeroes and scaling constant (k) by:

$$\tau(\omega) = \frac{k \prod_{i=1}^{\#zeroes} (s_i - j\omega)}{\prod_{l=1}^{\#poles} (s_l - j\omega)}$$

where $\tau(\omega)$ is normalized to counts/meter and $j = \sqrt{-1}$.

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STATIONS IN OPERATION: January 1 to December 31, 1985

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	40°34.8'	122°32.4'	300	Pre-Devonian metavolcanic	WDC	National Park Service 1973
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 1969
Mina (Nevada)	38°26.0'	118°09.4'	1529	Limestone	MNA	Univ. of Nevada, Reno 1969
Jamestown	37°55.6'	120°25.2'	427	Metamorphic (serpentine)	JAS1	Sonora Mining July 1984
San Pablo Dam	37°56.7'	122°15.4'	119	Middle Miocene marine	ZSP	East Bay M.U.D. 1978
Berkeley (Byerly)	37°52.6'	122°14.1'	276	Claremont shales and cherts	BKS	University of Calif. 1962
Berkeley	37°52.4'	122°15.6'	81	Franciscan sandstone	BRK	University of Calif. 1887
Pilaricitos 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	Granodiorite	PRS	Paraiso Hot Springs 1961
Priest	36°08.5'	120°39.9'	1187	Greenstone basic metamorphic	PRI	Federal Aviation Agency 1961

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STATION INSTRUMENTATION: January 1 to December 31, 1985

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 100kg	1.0	0.75	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		
	Displacement Digital				---				x		
	Willmore MK II	1.0	0.2	Z	---				x		
	14000X torsion	0.8	-	N, E	14,000 max		x		x		
	700X torsion	0.8	-	N, E	700 max		x		x		
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				
FHC	Benioff 14 kg	1.0	0.2	Z	50,000			x	x		
FRI	Benioff 14 kg	1.0	0.33 Filter	Z	150,000		x	x	x		
GCC	Benioff 14 kg	1.0	0.2	Z	50,000			x	x		
JAS1	Benioff 14 kg	1.0	0.2	Z	600,000		x	x	x		
	Teledyne 210 & 200	15	-	N, E, Z	Digital tape					x	
	Teledyne S-13	1.0	-	Z	Digital tape					x	
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	0.8	-	S, E	2,000	x					
	Streckeisen	20	-	N, E, Z	—		x		x		
MIN	Wood-Anderson	0.8	-	S, E	2,000	x					
	Teledyne S-13	1.0	0.2 Filter	Z	150,000			x	x		
MNA	Geotech SL210 filtered to give short-period response	15	1.0 Filter	Z				x	x		
ORV	Benioff 100 kg	1.0	0.2	Z	220,000			x	x		
	Geotech 7505 & 8700	20	BB	N, E, Z	---				x		
	Streckeisen	20	-	N, E, Z	—				x		
PCC	Benioff 14 kg	1.0	0.2	Z	50,000			x	x		
PRI	Benioff 14 kg	1.0	0.2	Z	50,000		x	x	x		
PRS	Benioff 14 kg	1.0	0.2	Z	50,000			x	x		
SAO	Sprengnether 0.70 kg	0.2	0.05 Filter	Z	1,5000,000		x	x	x		
	Streckeisen	20	-	Z	—		x		x		
WDC	Sprengnether S-5100	40	-	Z							
	BB velocity				---				x		
	Displacement								x		
	Filtered Displacement								x		
	Short Period (Filter)				500,000		x	x	x		
ZSP	Teledyne S-13	1.0	0.2 Filter	Z	---		x		x		

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

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

** Relative magnification curves of instruments recording photographically and through the telemetry system are listed on pages 10-12. Absolute magnification may be obtained by use of calibration pulses recorded daily from each station.

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UNIVERSITY OF CALIFORNIA ACCELEROGRAPH STATIONS

Station Name	Corrdinates	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	03 Aug 76	CRA-1 #148 (Recorder) FBA-3	V Down L North T East	1.90 1.83 1.82	.019 .018 .018	.63 .63 .65	Metal Box	Ground level
EARTH SCIENCES BUILDING	37.87 N 122.26 W	01 Nov 68	Wilmore Seismoscope SR-100	Duplex Horizontal	0.0545 (m/rad)	.75	≈10	Six-story building	Ground level
SAGO CENTRAL USGS #1032	36.77 N 121.45 W	08 Apr 78	SMA-1 #832	North Down West	1.94 1.85 1.81	.040 .039 .038	.60 .60 .60	Concrete vault	Ground level
SAGO EAST USGS #1657	36.81 N 121.41 N	21 Sep 78	SMA-1 #1419	North Down West	1.85 1.80 1.81	.040 .037 .038	.66 .63 .62	One-story building	Ground level
BERKELEY HAVILAND HALL USGS #1006	37.87 N 122.26 W	15 Apr 76	SMA-1 #2500 with WWVB	N45W Down S45W	1.79 1.73 1.71	.038 .038 .039	.60 .58 .57	Concrete building	Ground level
BERKELEY BYERLY SEISM STATION USGS #1005	37.87 N 122.24 W	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
					Sensitivity (g/F.S.)	Bandwidth (Hz)			
RICHMOND FIELD STATION	37.92 N 122.33 W	12 May 76	Columbia Research Force Balance Accelerometer	$Z,H_1^{\circ},H_2^{\circ\circ}$ Z,H_1,H_2	±0.010 ±0.50	.05-50 0-50		5" I.D. uncased backfilled borehole (43.8m deep)	Downhole (43.7m)
			SA-107 (+2g units) (0-50 Hz)	Z,H_1,H_2 Z,H_1,H_2	±0.010 ±0.50	.05-50 0-50			Midhole (15.7m)
				Z,H_1,H_2 Z,H_1,H_2	±0.010 ±0.50	.05-50 0-50			Metal Box Surface Level

* accelerometer aligned S45W
** accelerometer aligned S45E

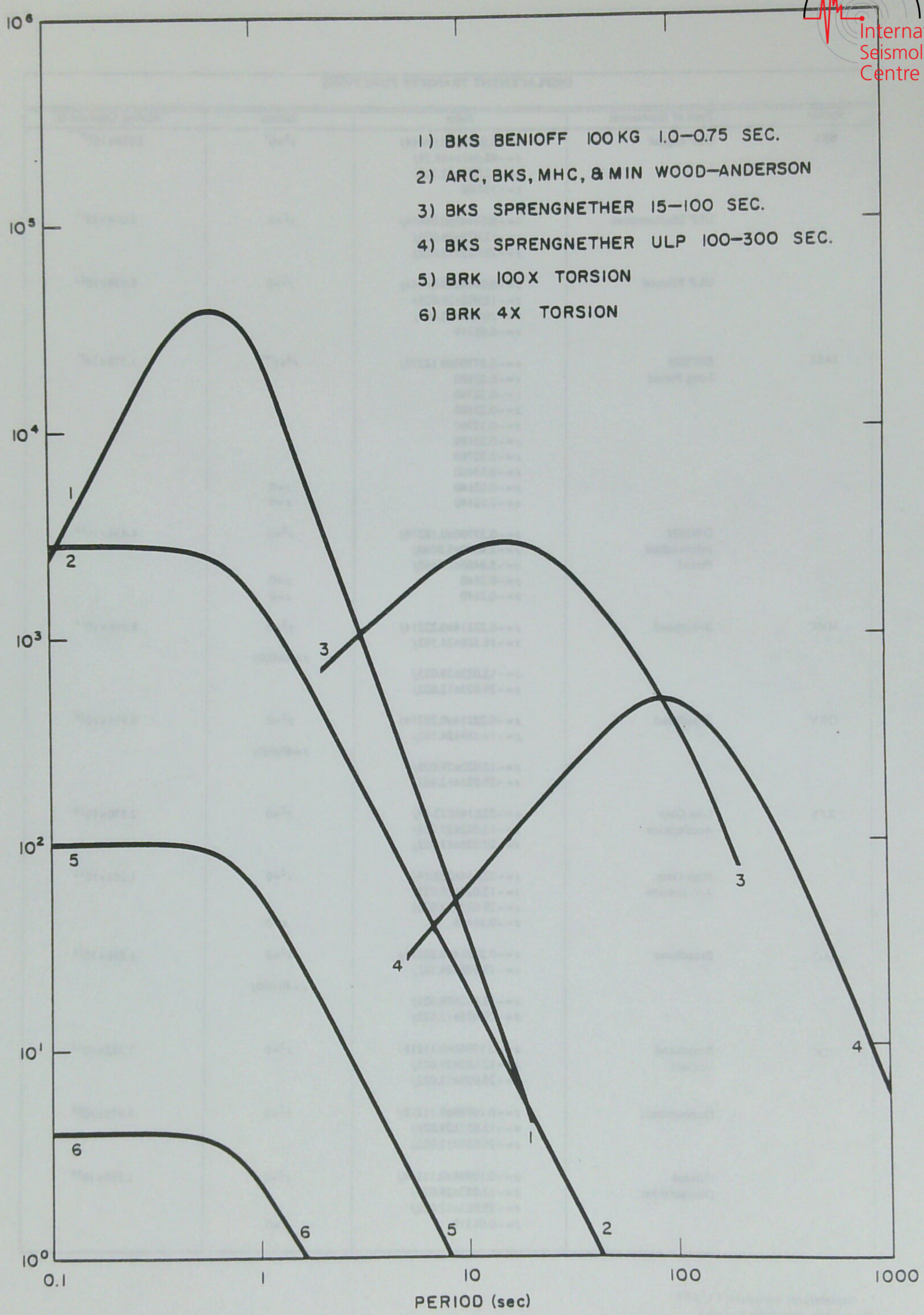
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DISPLACEMENT TRANSFER FUNCTIONS

Station	Type of Instrument	Poles	Zeroes	Scaling Constant (k)
BKS	ULP Digital	$s=-0.04442\pm0.04444j$ $s=-48.541\pm149.39j$ $s=-127.08\pm92.328j$ $s=-157.08$	$s^2=0$*	3.824×10^{17}***
	ULP Displacement	$s=-0.04442\pm0.04444j$ $s=-12.022\pm29.025j$ $s=-29.025\pm12.022j$	$s^2=0$	8.674×10^{11}
	ULP Filtered	$s=-0.04442\pm0.04444j$ $s=-12.002\pm29.025j$ $s=-29.025\pm12.022j$ $s=-0.01319$	$s^2=0$	8.674×10^{13}
JAS1	DWSSN Long Period	$s=-0.37700\pm0.18270j$ $s=-0.23180$ $s=-0.32760$ $s=-0.23180$ $s=-0.32760$ $s=-0.23180$ $s=-0.32760$ $s=-0.65400$ $s=-0.02140$ $s=-0.02140$	$s^3=0$** $s=0$ $s=0$	1.378×10^{7}
	DWSSN Intermediate Period	$s=-0.37700\pm0.18270j$ $s=-2.4070\pm5.8040j$ $s=-5.8480\pm2.3660j$ $s=-0.2140$ $s=-0.2140$	$s^3=0$ $s=0$ $s=0$	4.434×10^{10}
MHC	Broadband	$s=-0.22214\pm0.22214j$ $s=-19.588\pm24.562j$ $s=-12.022\pm29.025j$ $s=-29.025\pm12.022j$	$s^3=0$ $s=40.000j$	8.896×10^{14}
ORV	Broadband	$s=-0.22214\pm0.22214j$ $s=-19.588\pm24.562j$ $s=-12.022\pm29.025j$ $s=-29.025\pm12.022j$	$s^3=0$ $s=40.000j$	8.896×10^{14}
RFS	Low Gain Acceleration	$s=-222.14\pm222.14j$ $s=-12.022\pm29.025j$ $s=-29.025\pm12.022j$	$s^2=0$	2.570×10^{10}
	High Gain Acceleration	$s=-222.14\pm222.14j$ $s=-12.022\pm29.025j$ $s=-29.025\pm12.022j$ $s=-0.31416$	$s^2=0$ $s=0$	1.285×10^{12}
SAO	Broadband	$s=-0.22214\pm0.22214j$ $s=-19.588\pm24.562j$ $s=-12.022\pm29.025j$ $s=-29.025\pm12.022j$	$s^3=0$ $s=40.000j$	8.896×10^{14}
WDC	Broadband Velocity	$s=-0.10966\pm0.11218j$ $s=-12.022\pm29.025j$ $s=-29.025\pm12.022j$	$s^3=0$	7.382×10^{12}
	Displacement	$s=-0.10996\pm0.11218j$ $s=-12.022\pm29.025j$ $s=-29.025\pm12.022j$	$s^2=0$	9.975×10^{11}
	Filtered Displacement	$s=-0.10996\pm0.11218j$ $s=-12.022\pm29.025j$ $s=-29.025\pm12.022j$ $s=-0.01319$	$s^2=0$ $s=0$	1.995×10^{14}

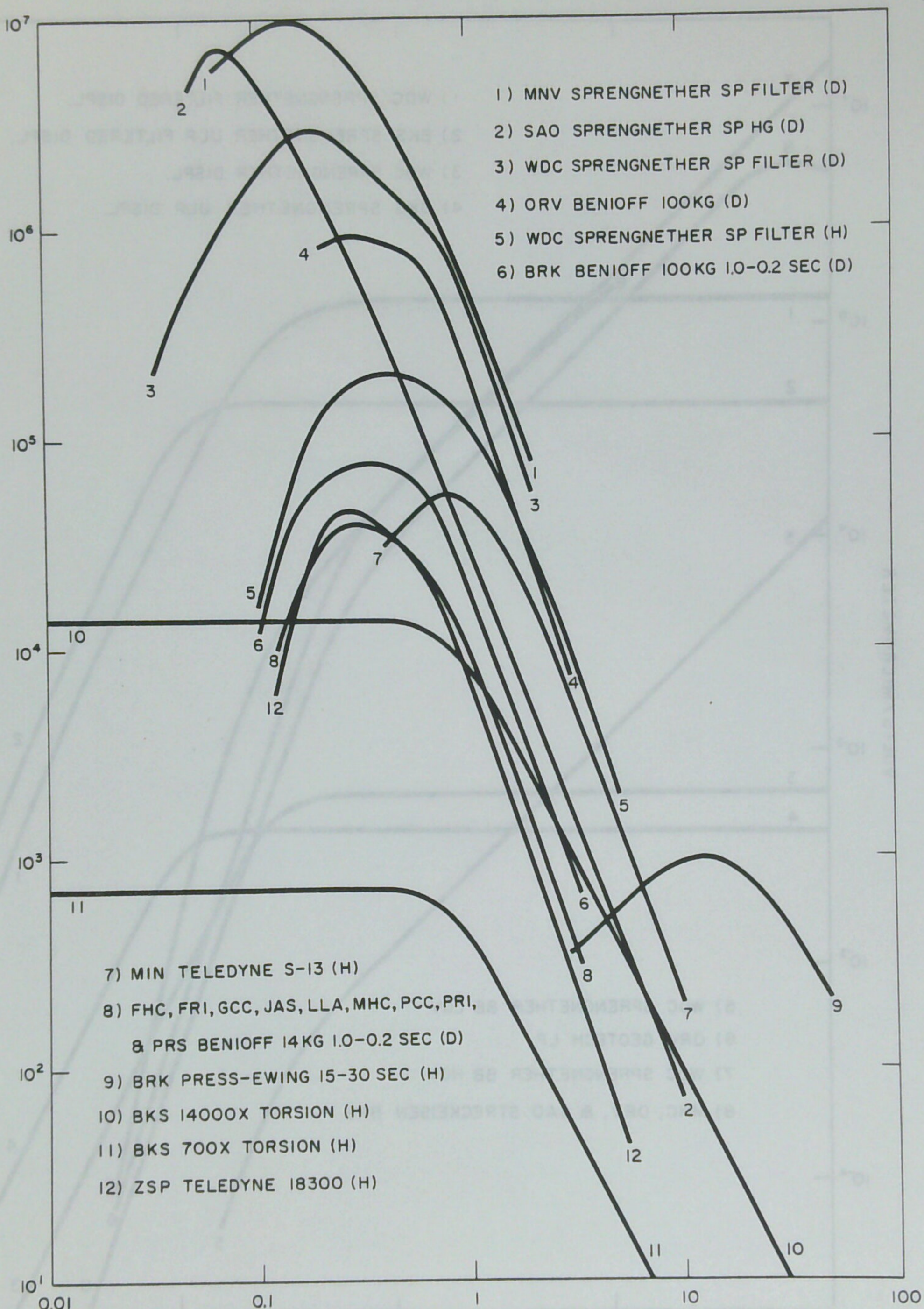
* - displacement transducer ($s^2=0$)
** - velocity transducer ($s^3=0$)
*** - normalized to counts/meter

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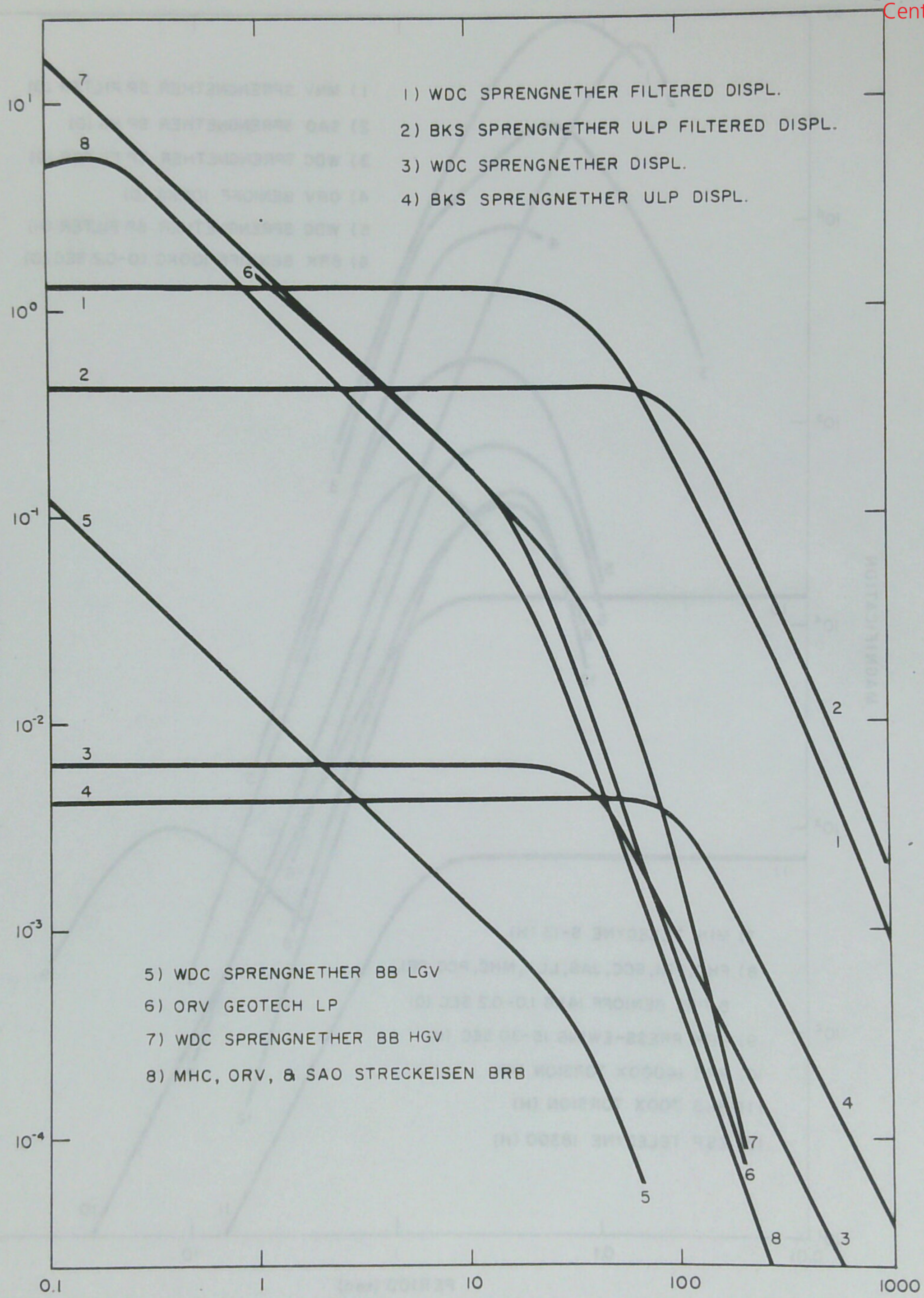
Response curves for photographically recording seismographs. The BKS Benioff and Sprengnether 15-100 second instruments are the WWSSN system.

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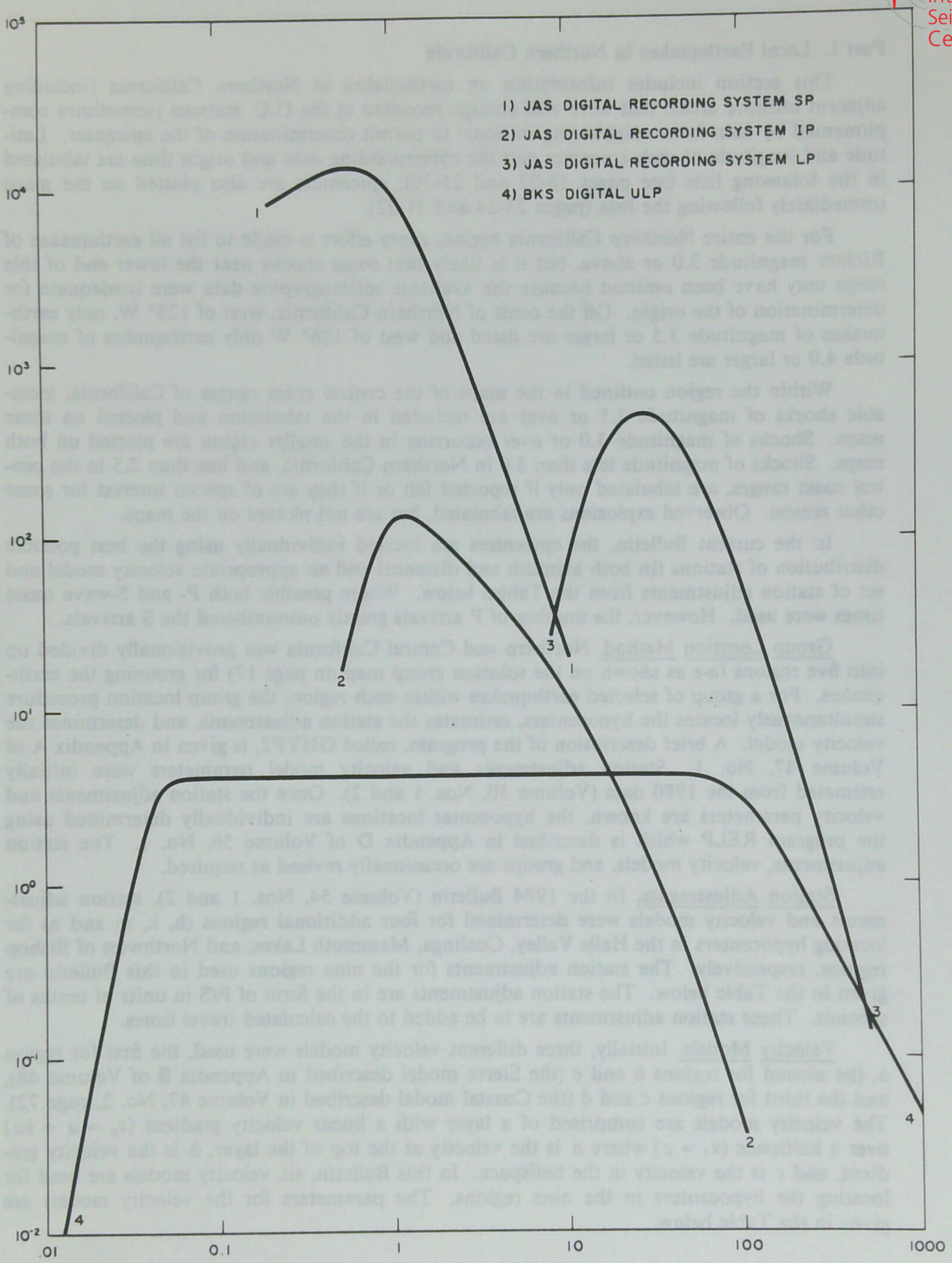
Response curves for Helicorder (HEL) and Develecorder (DEV) channels when viewed at 20X enlargement. The Benioff 14 kg curve (8) represents several different stations and is normalized to 10,000 magnification at 1 second period. (See station instrumentation table for actual magnification at 1 second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

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Response curves for broadband seismographs recorded analog on low-speed (15/16 ips) FM magnetic tape at Berkeley. Displacement sensitivity (magnification) in volts/micrometer is given for playback using a Honeywell 96 tape transport and ±10 volt FS discriminators.

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

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Part I. Local Earthquakes in Northern California

This section includes information on earthquakes in Northern California (including adjacent offshore areas) that were well enough recorded at the U.C. stations (sometimes complimented by data from neighboring stations) to permit determination of the epicenter. Latitude and longitude of each epicenter and the corresponding data and origin time are tabulated in the following lists (see pages 18-22 and 25-30); epicenters are also plotted on the maps immediately following the lists (pages 23-24 and 31-32).

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

Within the region outlined in the maps of the central coast ranges of California, locatable shocks of magnitude 2.5 or over are included in the tabulation and plotted on these maps. Shocks of magnitude 3.0 or over occurring in the smaller region are plotted on both maps. Shocks of magnitude less than 3.0 in Northern California, and less than 2.5 in the central coast ranges, are tabulated only if reported felt or if they are of special interest for some other reason. Observed explosions are tabulated, but are not plotted on the maps.

In the current Bulletin, the epicenters are located individually using the best possible distribution of stations (in both azimuth and distance) and an appropriate velocity model and set of station adjustments from the Tables below. Where possible both P- and S-wave onset times were used. However, the number of P arrivals greatly outnumbered the S arrivals.

Group Location Method. Northern and Central California was provisionally divided up into five regions (a-e as shown on the solution group map on page 17) for grouping the earthquakes. For a group of selected earthquakes within each region, the group location procedure simultaneously locates the hypocenters, estimates the station adjustments, and determines the velocity model. A brief description of the program, called GHYP2, is given in Appendix A of Volume 47, No. 1. Station adjustments and velocity model parameters were initially estimated from the 1980 data (Volume 50, Nos. 1 and 2). Once the station adjustments and velocity parameters are known, the hypocenter locations are individually determined using the program RELP which is described in Appendix D of Volume 50, No. 1. The station adjustments, velocity models, and groups are occasionally revised as required.

Station Adjustments. In the 1984 Bulletin (Volume 54, Nos. 1 and 2), station adjustments and velocity models were determined for four additional regions (h, k, m and n) for locating hypocenters in the Halls Valley, Coalinga, Mammoth Lakes, and Northwest of Bishop regions, respectively. The station adjustments for the nine regions used in this Bulletin are given in the Table below. The station adjustments are in the form of P/S in units of tenths of seconds. These station adjustments are to be added to the calculated travel times.

Velocity Models. Initially, three different velocity models were used, the first for region a, the second for regions b and e (the Sierra model described in Appendix B of Volume 48), and the third for regions c and d (the Coastal model described in Volume 47, No. 2, page 72). The velocity models are comprised of a layer with a linear velocity gradient ($v_o = a + bz$) over a halfspace ($v_1 = c$) where a is the velocity at the top of the layer, b is the velocity gradient, and c is the velocity in the halfspace. In this Bulletin, six velocity models are used for locating the hypocenters in the nine regions. The parameters for the velocity models are given in the Table below.

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STATION ADJUSTMENTS									
Station	Region								
	a	b	c	d	e	h	k	m	n
ARC	-2/-9								
BKS	1/15		0/5	-1/1					
FHC	-1/-7	3/10	11/		1/-1				
FRI				0/-6			-2/	-1/3	0/-2
GCC			-2/	-4/-5		2/			
JAS		-12/-3	4/4	2/-3	-1/-9	2/	5/	3/3	-8/-15
JAS1		-12/-3	4/4	2/-3	-1/-9	2/	5/	3/3	-8/-15
LLA				-2/0		-6/	-2/	-1/	-8/
MHC			-1/	2/1		0/	3/	-2/	-14/
MIN	-2/15	-2/0	3/3						
MNA					1/1			-1/2	3/4
ORV	-1/13	-4/-3	-5/-7	-6/					
PCC	0/		-1/6	-4/-4		-3/			
PRI				3/3			-1/		-9/
PRS				-2/-4		-2/	2/		
SAO				-2/		2/	5/		-13/
WDC	0/7	-5/0	-4/4						
ZSP	-2/		0/6	1/6					

VELOCITY MODELS							
Region	P-wave			S-wave			Layer Thickness (km)
	a (km/sec)	b (1/sec)	c (km/sec)	a (km/sec)	b (1/sec)	c (km/sec)	
a	5.24	.068	7.98	3.03	.039	4.61	25.
b & e	6.00	.024	7.85	3.46	.014	4.53	45.
c, d & h	5.28	.075	7.70	2.98	.043	4.36	25.
k	5.20	.120	7.50	2.20	.042	4.50	18.
m	5.73	.033	8.50	3.31	.019	4.80	100.
n	6.00	.024	8.50	3.47	.013	4.80	100.

Explanation of the Listing of Earthquakes:

KEY is a letter and number combination which indicates the grid location of the earthquake on the maps. The map key is set up on half-degree grid intervals and a map key index is given at the end of each list as a cross reference (including date, time and magnitude) for identifying the earthquakes plotted on the maps.

DATE and **O-TIME(UTC)** are the date and origin time of the earthquake given in Coordinated Universal Time (UTC). To obtain local time, subtract 8 hours for Pacific Standard Time (PST) and 7 hours for Pacific Daylight Time (PDT).

N LAT and **W LONG** are the north latitude and west longitude of the epicenter. Geographic coordinates are quoted to tenths of a minute for computer-located epicenters. Uncertainties of order five kilometers or more exist in determinations where the depth has been restricted, or where the epicenters lie outside the network.

DEPTH of focus for each earthquake is given to the nearest kilometer. If the depth is restrained, it is indicated by an "R".

SE is the standard error of the observations in seconds.

Region	Number of Earthquakes	Region Name
a	39	Northern coast
b	10	Northern California
c	24	Ukiah-Willits
d	75	Central coast
e	24	Sierra Nevada
h	31	Halls Valley
k	45	Coalinga
m	1	Mammoth Lakes
n	6	Northwest of Bishop
o	9	Outside

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SLN indicates the number of stations and station adjustments and velocity model used in determining the hypocenter. The number indicates the number of stations and the letter (see above Table) indicates the regional station adjustments and velocity model used in determining the location of the hypocenter. A letter "o" is used for the cases where the earthquake was either outside the above regions or no station adjustments were used in the solution.

MAG is the local magnitude (M_L) of the earthquake (on the Richter scale) determined from the maximum trace amplitudes recorded for the shock by standard Wood-Anderson torsion seismographs. The number of observations used to determine M_L is given in parenthesis immediately following the magnitude value. The magnitudes of earthquakes for which no Wood-Anderson records are available are determined from Benioff seismograph maximum trace amplitudes, and are indicated by an asterisk.

MOMENT is the seismic moment (M_o) in dyne-cm for regional earthquakes as calculated from standard Wood-Anderson torsion seismographs recorded within 300 km of the epicenter with peak-to-peak amplitudes of at least 3 mm. Seismic moment in dyne-cm is defined by (Bolt and Herraiz, BSSA, Vol. 73, 735-748, 1983):

$$\log(M_o) = 16.74 + 1.22 \log(CDE)$$

where C is the maximum peak-to-peak amplitude in mm, D is the duration in seconds from the S-wave onset to the last point where the peak-to-peak amplitude exceeds $C/3$, and E is the epicentral distance in kilometers. The number of observations used to determine M_o is given in parenthesis immediately following the moment value.

COMMENTS gives a short descriptive location of the epicenter and felt information.

Recent Rate of Seismicity

Northern and Central California. The Bulletin of the Seismographic Stations lists 3638 earthquakes ($3.0 \leq M_L \leq 6.9$), which occurred in the 280,000km^2 area of northern and central California, from 1949 through 1983. The 3638 earthquakes were declustered into 2312 earthquake sequences (of one or more earthquakes). The cumulative number of earthquake sequences (N) was fit to the Gutenburg-Richter relation by the maximum likelihood method and the result is

$$\log N = 4.23 - .815\, M_L$$

with a corresponding variance of

$$\sigma^2_{\log N} = .000781 - .000792 M_L + .000525 M_L^2$$

(normalized to earthquake sequences per year per 280,000km^2).

The annual rate of seismicity ($r = 10^{\log N}$) in earthquake sequences per year and the percent probability of one or more earthquakes of magnitude M_L or larger occurring in one day, week, month, year or decade is:

Northern and Central California						
$M_L \geq$	r (eq/yr)	Percent Probability in one				
		day	week	month	year	decade
3.0	60.	15.	69.	99.	100.	100.
3.5	24.	6.3	36.	86.	100.	100.
4.0	9.2	2.5	16.	54.	100.	100.
4.5	3.6	0.99	6.7	26.	97.	100.
5.0	1.4	0.39	2.7	11.	76.	100.
5.5	0.55	0.15	1.1	4.5	43.	100.
6.0	0.22	0.059	0.42	1.8	19.	89.
6.5	0.085	0.023	0.16	0.71	8.1	57.
7.0	0.033	0.009	0.064	0.28	3.3	28.

During 1985, 75 earthquake sequences ($M_L \geq 3.0$) occurred in Northern and Central California. Thus the observed rate of seismicity in 1985 is not significantly different than the average annual rate of seismicity during the past 35 years.

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Central Coast Ranges.

The Bulletin of the Seismographic Stations lists 4267 earthquakes $M_L \geq 2.5$, which occurred in the 40,000km^2 area of the central coast ranges, from 1949 through 1983. The 4267 earthquakes were declustered into 2386 sequences (of one or more earthquakes). The cumulative number of sequences (N) was fit to the Gutenburg-Richter relation by the maximum likelihood method and the result is

$$\log N = 3.78 - 0.793 M_L$$

with a corresponding variance of

$$\sigma^2_{\log N} = 0.000615 - 0.000598 M_L + 0.000603 M_L^2$$

(normalized to earthquake sequences per year per 40,000 km^2).

The annual rate of seismicity ($r = 10^{\log N}$) in earthquake sequences per year and the percent probability of one or more earthquakes of magnitude M_L or larger occurring in one day, week, month, year or decade is:

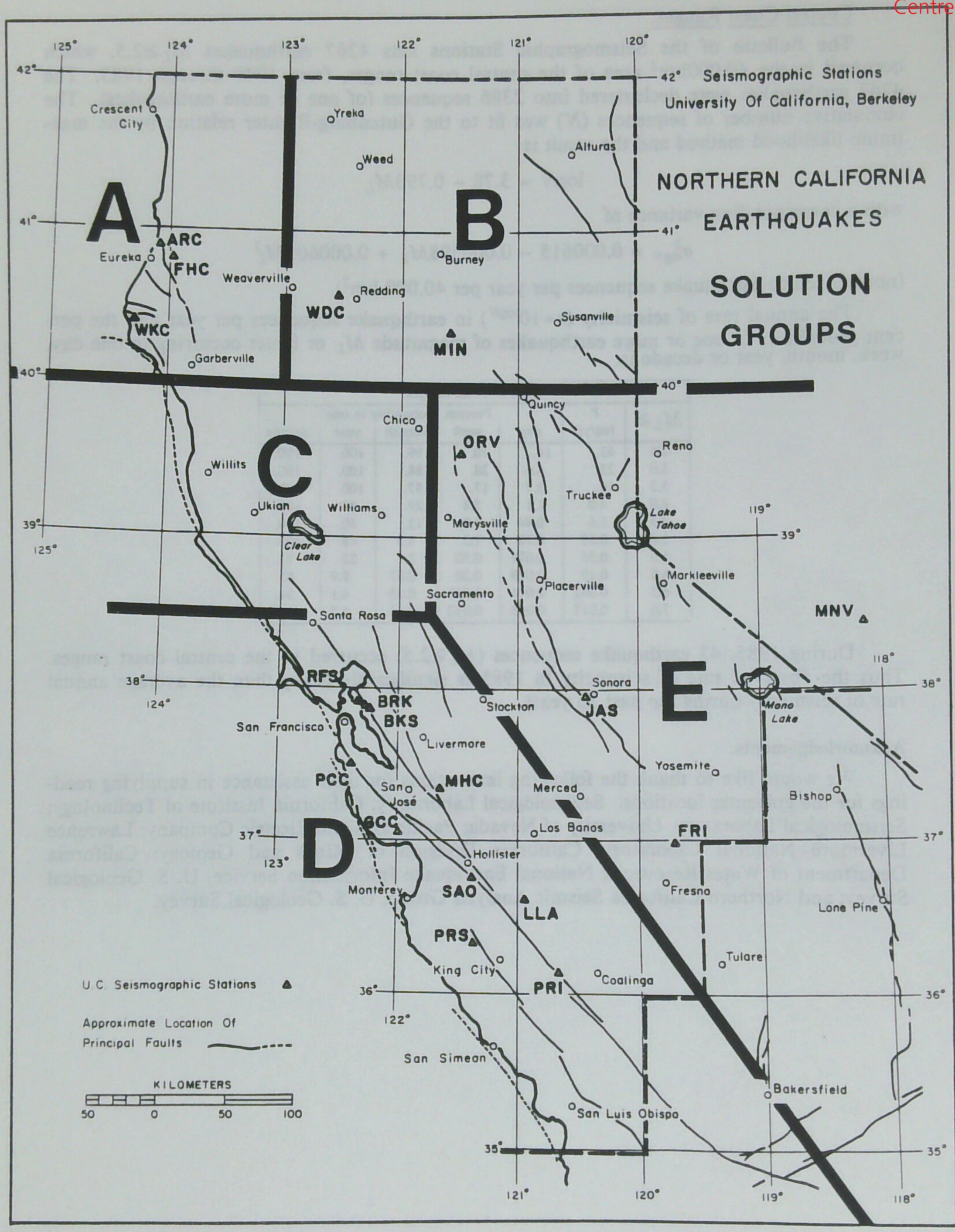
Central Coast Ranges						
$M_L \geq$	r (eq/yr)	Percent Probability in one day	week	month	year	decade
2.5	62.	16.	70.	99.	100.	100.
3.0	25.	6.6	38.	88.	100.	100.
3.5	10.	2.7	17.	57.	100.	100.
4.0	4.0	1.1	7.4	29.	98.	100.
4.5	1.6	0.44	3.0	13.	80.	100.
5.0	0.65	0.18	1.2	5.3	48.	100.
5.5	0.26	0.071	0.50	2.1	23.	93.
6.0	0.10	0.029	0.20	0.87	9.9	65.
6.5	0.042	0.011	0.080	0.35	4.1	34.
7.0	0.017	0.005	0.032	0.14	1.7	15.

During 1985, 43 earthquake sequences ($M_L \geq 2.5$) occurred in the central coast ranges. Thus the observed rate of seismicity in 1985 is significantly lower than the average annual rate of seismicity during the past 35 years.

Acknowledgements.

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KEY	DATE	O-TIME(UTC)	N LAT	W LONG	DEPTH	SE	SLN	MAG	MOMENT	COMMENTS (•=FELT)
P11	Jan 3	09h21m49.5s	37°26.9'	118°38.7'	4	0.18	8e	4.1(6)	7.4E21(2)	25 km NW of Bishop, CA
M13	Jan 3	10h45m22.8s	36°10.6'	120°18.1'	9	0.15	20k	3.3(6)		Coalinga Area, CA
M13	Jan 3	11h22m27.9s	36°10.7'	120°18.2'	10	0.16	19k	3.8(6)		•Coalinga Area, CA (NEIS) Felt in the Coalinga area. Also felt (III) at Lemoore.
M14	Jan 4	07h12m36.6s	35°52.8'	120°28.4'	5	0.44	9d	3.0(2)		Parkfield, 30 km S of Coalinga, CA
C5	Jan 6	09h25m40.2s	40°25.2'	125°17.7'	5R	0.55	7a	4.0(6)	5.7E21(4)	Off Coast, 105 km SW of Eureka, CA
K12	Jan 6	18h33m26.0s	36°35.4'	121°14.1'	8	0.20	14d	3.5(4)	3.0E21(2)	•Stone Canyon, 30 km SE of Hollister, CA (NEIS) Felt (III) at Gonzales and Paicines.
F3	Jan 7	04h22m49.8s	41°07.0'	123°41.4'	5R	0.70	3a	3.2(2)		NE of Eureka, CA
A5	Jan 7	06h17m41.9s	40°23.7'	126°31.9'	5R	0.31	8a	4.9(8)	2.2E22(2)	200 km W of Cape Mendocino, CA
I5	Jan 8	04h22m05.5s	40°19.6'	122°05.2'	3	0.76	6b	3.0(2)		20 km NE of Red Bluff, CA
Q12	Jan 8	06h59m38.7s	36°54.1'	118°04.1'	1R	0.30	10e	3.6(4)		35 km N of Lone Pine, CA
J11	Jan 10	05h47m54.9s	37°15.9'	121°38.9'	5	0.17	8h	3.2(4)	8.6E20(4)	San Felipe Valley, 23 km SE of San Jose, CA
J11	Jan 11	09h58m24.0s	37°15.9'	121°36.5'	6	0.11	8h	2.7(4)	1.6E20(2)	25 km ESE of San Jose, CA
H8	Jan 14	12h04m50.3s	38°48.4'	122°47.6'	3	0.21	8c	2.9(2)		35 km N of Santa Rosa, CA
C4	Jan 16	07h36m12.7s	40°44.0'	125°15.2'	6	0.41	6a	3.8(6)	2.6E21(2)	Off Coast, 100 km SW of Eureka, CA
N8	Jan 17	02h01m27.5s	38°43.1'	119°31.1'	4	0.11	7e	3.8(6)	7.3E21(2)	20 km E of Markleeville, CA
J11	Jan 19	11h56m37.8s	37°17.9'	121°41.2'	4	0.07	7h	2.7(4)	7.0E19(2)	15 km E of San Jose, CA
I10	Jan 22	18h16m30.5s	37°40.3'	122°28.9'	9	0.30	8d	2.6(4)	2.3E20(2)	•2 km NW of Pacifica, CA Felt Pacifica, Daly City, Colma, South San Francisco, San Francisco (Embarcadero).
H8	Jan 23	01h10m00.9s	38°48.2'	122°47.4'	4	0.26	9c	3.1(6)	2.5E21(2)	•25 km S of Clear Lake, CA Felt at the Geysers.
P9	Jan 24	11h27m21.6s	38°09.4'	118°50.1'	8	0.11	8e	5.2(8)	2.0E23(2)	•20 km NE of Mono Lake, CA Felt El Dorado, Mono and Tuolumne counties. Felt at Russ Creek (PGE), Sacramento, Minden NV. (NEIS) Felt (IV) at Bridgeport, June Lake, Lee Vining and Murphys, CA. Also felt (IV) at Hawthorne, NV.
H8	Jan 26	22h54m57.4s	38°45.8'	122°56.7'	4	0.34	7c	3.2(6)	5.2E21(2)	30 km SSW of Clear Lake, CA
K12	Jan 31	09h28m50.0s	36°52.7'	121°19.7'	5R	0.26	11d	2.9(6)		10 km NE of Hollister, CA
D5	Jan 31	20h37m44.1s	40°24.1'	124°44.9'	5R	0.33	8a	3.5(4)		50 km WSW of Ferndale, CA
J11	Feb 3	01h48m30.9s	37°16.5'	121°38.3'	7	0.12	8d	2.8(4)	9.5E19(2)	22 km SE of San Jose, CA
D5	Feb 3	08h49m19.7s	40°14.3'	124°31.4'	5R	0.39	6a	3.4(4)	9.1E20(2)	45 km SW of Ferndale, CA
P15	Feb 8	06h58m16.2s	35°29.1'	118°54.5'	15	0.57	9e	5.0(6)		•10 km NE of Bakersfield, CA Felt sharply in Bakersfield. (USGS) Slight damage (VI) in Bakersfield. Felt (V) at Arvin, Delkern, Kern City and Lamont. Felt (IV) at Pumpkin Center, Caliente, Woody, Bodfish, Lake Isabella, Posey, Tehacapi and Poplar.
M13	Feb 8	08h51m41.5s	36°08.8'	120°16.0'	7	0.23	14k	2.8(4)		10 km E of Coalinga, CA
Q14	Feb 10	09h20m00.0s	35°43.9'	118°02.8'	12	0.24	11e	3.6(2)		100 km S of Lone Pine, CA

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KEY	DATE	O-TIME(UTC)	N LAT	W LONG	DEPTH	SE	SLN	MAG	MOMENT	COMMENTS (•=FELT)
K12	Feb 11	07h26m47.2s	36°53.0'	121°24.6'	8	0.31	10d	2.8(4)		•5 km W of Hollister, CA Felt Hollsiter.
H8	Feb 15	18h20m08.1s	38°47.3'	122°47.2'	3	0.32	8c	3.4(4)		22 km S of Clear Lake, CA
J4	Feb 17	10h33m23.9s	40°43.3'	121°32.6'	10	0.19	9b	3.3(4)	4.5E21(2)	25 km SE of Burney, CA
M13	Feb 19	13h38m26.8s	36°05.0'	120°00.7'	7	0.25	8k	3.5(4)		30 km ESE of Coalinga, CA
E5	Feb 23	01h42m38.5s	40°16.8'	124°26.1'	11	0.14	8a	3.5(7)	3.3E21(1)	Off Coast, 15 km WSW of Petrolia, CA
J11	Feb 23	12h14m39.4s	37°20.5'	121°43.7'	6	0.09	8h	3.0(3)	2.7E20(2)	15 km E of San Jose, CA
J13	Feb 24	13h31m32.1s	36°23.8'	121°50.5'	1	0.39	10d	3.5(4)	1.1E21(2)	•20 km S of Monterey, CA Felt North of Big Sur and Carmel.
N14	Feb 26	23h35m50.2s	35°48.3'	119°31.8'	8	0.28	7d	3.5(4)		70 km NW of Bakersfield, CA
H8	Mar 6	01h52m25.0s	38°56.7'	122°41.0'	2R	0.23	10c	3.5(8)	1.0E22(2)	•SW of Clear Lake, CA Felt throughout the Clear Lake area. Felt (III - IV) in the region between Lower Lake and Kelseyville.
J11	Mar 6	06h44m33.7s	37°17.0'	121°40.6'	5	0.06	8h	2.7(4)	7.2E19(2)	Halls Valley, 20 km E of San Jose, CA
L13	Mar 9	19h53m07.7s	36°09.7'	120°46.9'	4	0.54	14d	2.7(2)		30 km E of King City, CA
J11	Mar 12	04h04m00.3s	37°17.7'	121°41.2'	6	0.04	8h	3.3(4)	2.9E21(2)	Halls Valley, 20 km ESE of San Jose, CA
H7	Mar 16	16h20m20.2s	39°19.8'	122°47.0'	7	0.34	9c	3.0(6)		55 km WNW of Williams, CA
P10	Mar 18	18h32m31.0s	37°34.2'	118°51.0'	8	0.14	9e	3.9(6)		10 km S of Mammoth Lakes, CA
K11	Mar 19	00h23m29.6s	37°03.6'	121°29.0'	3	0.26	8d	2.5(4)		Coyote Lake, 10 km NE of Gilroy, CA
J11	Mar 20	04h57m39.5s	37°17.3'	121°40.8'	6	0.08	8h	2.8(4)	1.3E20(2)	Halls Valley, 20 km E of San Jose, CA
D5	Mar 21	04h19m26.5s	40°20.4'	124°46.8'	13	0.20	8a	3.0(4)		Off Coast, 70 km SW of Eureka, CA
J12	Mar 21	05h07m35.9s	36°49.5'	121°30.7'	8	0.28	8d	2.7(4)		San Juan Bautista, 10 km W of Hollister, CA
J11	Mar 22	07h43m00.0s	37°15.8'	121°39.3'	7	0.02	8h	3.0(6)	1.5E21(4)	Halls Valley, 23 km SE of San Jose, CA
H8	Mar 22	13h13m37.7s	38°48.6'	122°48.7'	2	0.17	8c	3.0(2)		The Geysers, 25 km S of Clear Lake, CA
H10	Mar 24	18h56m07.5s	37°51.2'	122°38.0'	3	0.25	9d	2.8(4)		SW of Point Reyes, 25 km NW of San Francisco
K12	Mar 24	23h01m27.0s	36°46.5'	121°00.7'	4	0.46	8d	3.0(4)		40 km E of Hollister, CA
P11	Mar 25	16h05m13.6s	37°28.0'	118°39.7'	9	0.04	6e	5.1(7)	6.4E22(2)	•25 km NW of Bishop, CA Felt in Bishop, Visalia, Sugar Pine (E Tuolumne), Vallecito (Calaveras), Fresno, Jackson (Amador).
P11	Mar 25	16h20m30.3s	37°26.3'	118°37.1'	7	0.08	6e	3.8(5)		25 km NW of Bishop, CA
P11	Mar 25	16h27m01.2s	37°26.8'	118°38.9'	5	0.19	6e	3.6(5)		25 km NW of Bishop, CA
D4	Mar 29	13h44m23.6s	40°39.7'	124°57.9'	5R	0.30	7a	3.0(3)		80 km W of Eureka, CA
P10	Mar 30	15h58m47.0s	37°30.8'	118°46.3'	3	0.20	8e	3.3(5)		Mammoth Lakes Area, CA
H8	Mar 30	22h52m00.4s	38°49.2'	122°48.9'	5	0.11	11c	3.3(7)	4.2E21(2)	•The Geysers, 20 km S of Clear Lake, CA (NEIS) Felt (V) at Cobb. Felt (IV) at Geyserville and Loch Lomond.
J11	Mar 31	02h56m50.5s	37°17.3'	121°40.9'	7	0.08	8h	3.2(5)	6.0E20(4)	20 km ESE of San Jose, CA
I7	Apr 1	14h09m21.1s	39°07.1'	122°19.1'	2R	0.67	13c	3.2(6)		•15 km SW of Williams, CA (NEIS) Felt (III) at Clearlake Oaks and Williams.

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UNIVERSITY OF CALIFORNIA SEISMOGRAPHIC STATIONS

EARTHQUAKES IN NORTHERN CALIFORNIA ••• 1985

KEY	DATE	O-TIME(UTC)	N LAT	W LONG	DEPTH	SE	SLN	MAG	MOMENT	COMMENTS (•=FELT)
K12	Apr 6	13h16m19.1s	36°34.7'	121°08.0'	8	0.24	9d	3.3(6)		Bear Valley, 40 km N of King City, CA
D5	Apr 6	16h38m54.2s	40°23.9'	124°43.1'	12	0.12	7a	3.5(3)	1.2E21(1)	Off Coast, 65 km SW of Eureka, CA
D4	Apr 6	20h40m46.1s	40°33.3'	124°36.4'	5R	0.37	8a	4.0(5)	6.9E21(1)	Off Coast, 40 km SW of Eureka, CA
H8	Apr 8	08h03m25.5s	38°49.8'	122°47.2'	6	0.22	11c	3.1(8)	3.2E21(2)	•Cobb Mountain, 20 km S of Clear Lake, CA Felt strongly in the Geysers area.
M13	Apr 9	03h23m24.8s	36°12.7'	120°16.7'	9	0.18	14k	3.7(6)		•10 km NE of Coalinga, CA (NEIS) Felt (V) at Coalinga.
M13	Apr 9	03h42m28.5s	36°12.9'	120°16.3'	8	0.12	9k	3.2(6)		10 km NE of Coalinga, CA
J11	Apr 9	18h52m58.3s	37°14.7'	121°39.0'	6	0.17	8h	2.9(2)	1.5E20(2)	San Felipe Valley, 25 km ESE of San Jose, CA
L13	Apr 13	01h37m36.2s	36°13.8'	120°49.8'	9	0.16	11d	2.9(4)		Peachtree Valley, 37 km E of King City, CA
D5	Apr 13	15h05m02.1s	40°16.4'	124°38.4'	16	0.39	9a	3.8(4)	8.8E20(2)	•Off Coast, 30 km W of Petrolia, CA Felt Ferndale.
D4	Apr 14	06h55m51.1s	40°30.1'	124°43.8'	16	0.16	9a	3.4(4)	3.5E20(2)	60 km SW of Eureka, CA
D5	Apr 16	14h58m57.0s	40°21.5'	124°47.4'	5	0.23	7a	3.4(2)		90 km SW of Eureka, CA
I7	Apr 18	16h29m49.8s	39°06.7'	122°01.6'	14	0.39	11c	3.7(8)	2.0E22(4)	•15 km SE of Williams, CA (NEIS) Felt (V) at Arbuckle, (IV) at College City (III) at Grimes and (II) at Williams.
J11	Apr 21	18h50m43.2s	37°19.3'	121°42.6'	5	0.13	8h	2.8(4)	9.7E19(4)	Halls Valley, 15 km E of San Jose, CA
J11	Apr 22	17h34m56.5s	37°07.5'	121°32.8'	7	0.10	8h	2.9(4)	1.2E20(2)	10 km E of Morgan Hill, CA
K13	Apr 23	03h50m36.6s	36°29.8'	121°06.3'	5	0.28	12d	2.6(4)		Bear Valley, 35 km N of King City, CA
D5	Apr 23	14h40m19.4s	40°16.4'	124°31.6'	6	0.28	7a	3.4(4)		25 km WSW of Petrolia, CA
J11	Apr 23	14h47m02.9s	37°07.3'	121°32.8'	7	0.13	8h	2.9(4)	2.9E20(2)	10 km E of Morgan Hill, CA
P11	Apr 26	04h03m07.6s	37°26.2'	118°40.5'	5	0.18	6e	4.1(6)		•27 km WNW of Bishop, CA (NEIS) Felt (III) at Bishop, Bass Lake, Miramonte and Kings Canyon Nat'l Park, CA. Also felt at Mina, Nevada.
K13	Apr 26	19h06m49.7s	36°25.4'	121°01.8'	6	0.29	8d	3.0(4)		25 km NNW of King City, CA
J12	Apr 27	11h38m57.6s	36°57.2'	121°34.7'	8	0.21	10d	2.8(4)		•5 km S of Gilroy, CA (NEIS) Felt at Gilroy.
K12	Apr 27	13h06m38.4s	36°39.2'	121°19.9'	4	0.24	9d	3.0(4)		Stone Canyon, 22 km SSE of Hollister, CA
J11	Apr 29	18h08m26.4s	37°17.2'	121°40.7'	5	0.04	8h	3.1(6)	5.1E20(4)	•San Felipe Valley, 20 km ESE of San Jose, CA (NEIS) Felt in the Morgan Hill area.
K12	May 3	14h47m53.0s	36°38.7'	121°16.9'	6	0.27	11d	3.0(2)		Stone Canyon, 25 km SE of Hollister, CA
P11	May 4	03h22m46.1s	37°27.9'	118°37.8'	13	0.08	6e	4.7(6)		•Round Valley Area, 26 km NW of Bishop, CA (NEIS) Felt (IV) in parts of Mono, Fresno, Inyo, Mariposa and Tulare Counties.
O15	May 6	23h14m32.6s	35°19.6'	119°19.3'	7R	0.39	10d	4.4(6)		•30 km SW of Bakersfield, CA (NEIS) Felt (V) at Bakersfield, (IV) at Tupman and McKittrick.
L16	May 10	15h48m00.9s	34°27.3'	120°46.2'	5R	0.49	16d	3.8(4)		•Off Coast, 30 km W of Pt. Conception, CA (NEIS) Felt (IV) at Vandenberg AFB. Felt (III) at Santa Maria, Santa Barbara and Ventura, CA.

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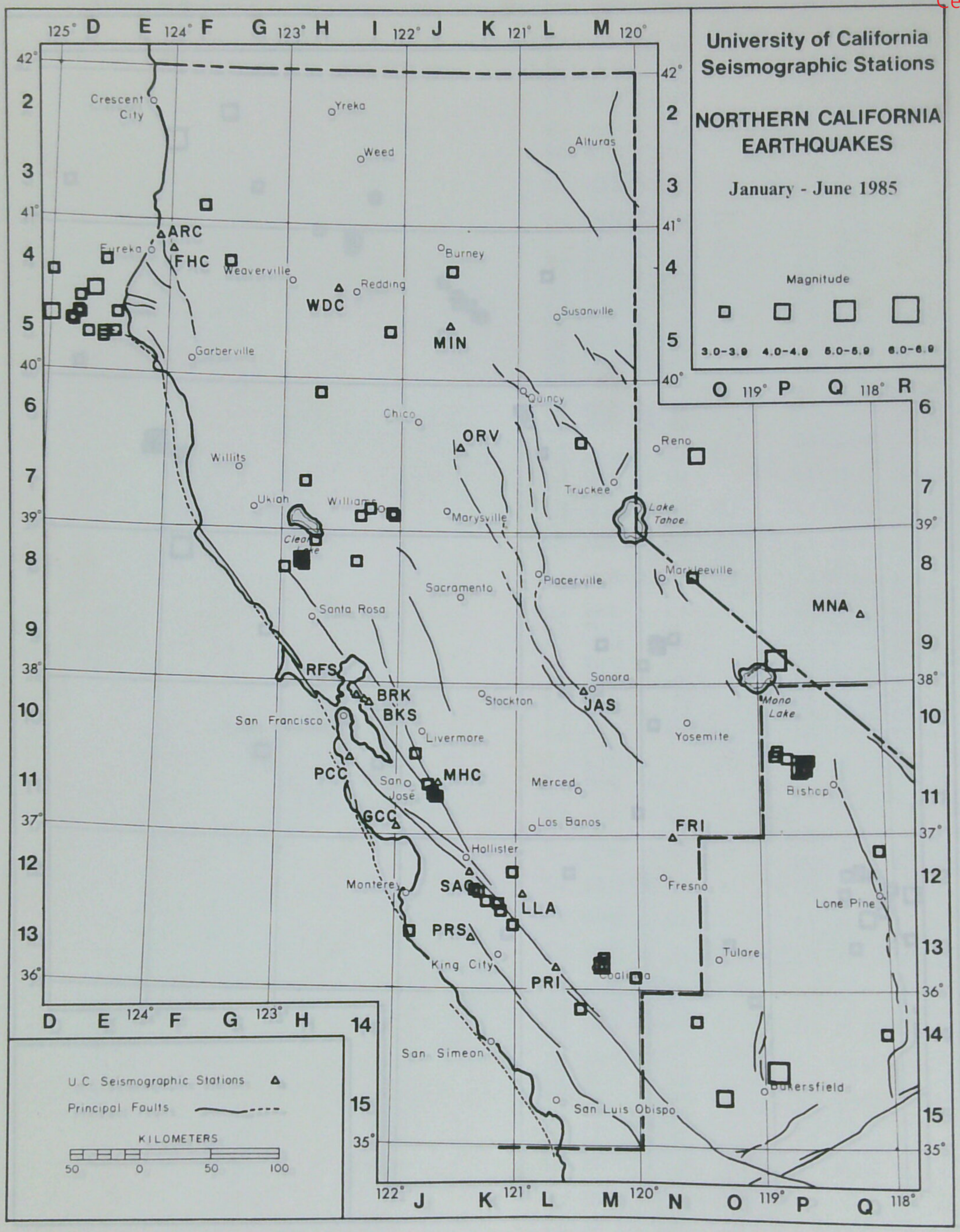
UNIVERSITY OF CALIFORNIA SEISMOGRAPHIC STATIONS
EARTHQUAKES IN NORTHERN CALIFORNIA ••• 1985

KEY	DATE	O-TIME(UTC)	N LAT	W LONG	DEPTH	SE	SLN	MAG	MOMENT	COMMENTS (•=FELT)
M13	May 11	08h59m24.0s	36°09.7'	120°16.8'	9	0.29	18k	4.3(6)	2.9E22(2)	•7 km E of Coalinga, CA (NEIS) Felt (IV) at Avenal and Huron. Also felt in the Coalinga Area.
E5	May 11	16h11m35.5s	40°23.8'	124°25.1'	5R	0.60	6a	3.1(4)		Off Coast, 50 km SW of Eureka, CA
D5	May 12	13h55m11.4s	40°23.3'	124°57.7'	5	0.67	9a	4.3(8)		Off Coast, 50 km W of Cape Mendocino, CA
P11	May 12	15h28m46.4s	37°29.2'	118°36.1'	9	0.09	6e	3.7(5)		Round Valley Area, 26 km NW of Bishop, CA
J11	May 13	14h51m05.0s	37°18.7'	121°42.1'	6	0.19	8h	2.7(4)	8.1E19(2)	Halls Valley, 17 km E of San Jose, CA
D4	May 18	12h05m44.7s	40°44.7'	124°30.7'	5R	0.73	9a	3.9(2)		Off Coast, 30 km WSW of Eureka, CA
I7	May 21	01h21m15.5s	39°09.3'	122°13.2'	2	0.25	6c	3.2(8)		5 km W of Williams, CA
I7	May 21	10h34m46.9s	39°07.4'	122°02.5'	10R	0.52	10c	3.0(6)		10 km SE of Williams, CA
M14	May 21	13h24m20.9s	35°48.4'	120°21.5'	8	0.22	10d	2.9(2)		10 km SE of Parkfield, CA
G4	May 21	16h27m03.4s	40°46.1'	123°27.2'	4R	0.40	4a	3.3(4)		60 km E of Eureka, CA
M6	May 22	03h42m13.1s	39°36.3'	120°26.5'	12	0.23	16e	3.4(6)		•35 km NW of Truckee, CA (NEIS) Felt (IV) at Calpine, (III) at Blairsden and Sierra City.
H8	May 23	11h45m39.3s	38°47.9'	122°48.8'	4	0.26	13c	3.0(4)		•The Geysers, 25 km S of Clear Lake, CA Felt at The Geysers.
L14	May 25	04h19m39.2s	35°54.8'	120°31.0'	10	0.33	12d	2.9(2)		Cholame Valley, 30 km SSW of Coalinga, CA
I8	May 26	11h57m53.6s	38°48.3'	122°19.8'	2R	0.42	10c	3.0(4)		30 km SW of Clear Lake, CA
O6	May 28	07h56m45.8s	39°30.6'	119°28.7'	5R	0.53	8e	4.3(8)		•30 km E of Reno, Nevada (NEIS) Felt (IV) at Blairsden and Sattley, CA and at Virginia City and Silver City, NV. Felt (III) at Dayton, Sparks and Wadsworth NV.
P10	May 28	18h31m47.5s	37°31.3'	118°51.9'	6	0.27	7e	3.4(6)		Mammoth Lakes Area, CA
I13	May 28	19h54m26.2s	36°18.0'	122°07.0'	7	0.35	10d	2.7(4)		Off Coast, 20 km W of Point Sur, CA
J10	Jun 10	00h57m03.3s	37°32.5'	121°49.7'	5	0.15	10d	3.0(6)	1.7E21(4)	•5 km N of Calaveras Reservoir, CA (NEIS) Felt (III) at Fremont.
H8	Jun 13	01h53m23.9s	38°48.8'	122°47.8'	1	0.25	9c	3.1(4)		The Geysers, 25 km S of Clear Lake, CA
M13	Jun 14	11h24m03.1s	36°09.7'	120°16.1'	9	0.20	17k	3.4(6)		•10 km ENE Coalinga, CA (NEIS) Felt (III) at Huron and Raisin. Also felt in Coalinga.
H6	Jun 19	13h00m25.0s	39°54.8'	122°39.8'	8	0.26	7b	3.0(4)		80 km WSW of Redding, CA
K12	Jun 27	04h38m55.4s	36°30.6'	121°07.1'	5R	0.27	9d	3.4(4)	4.4E21(2)	Bear Valley, 35 km N of King City, CA

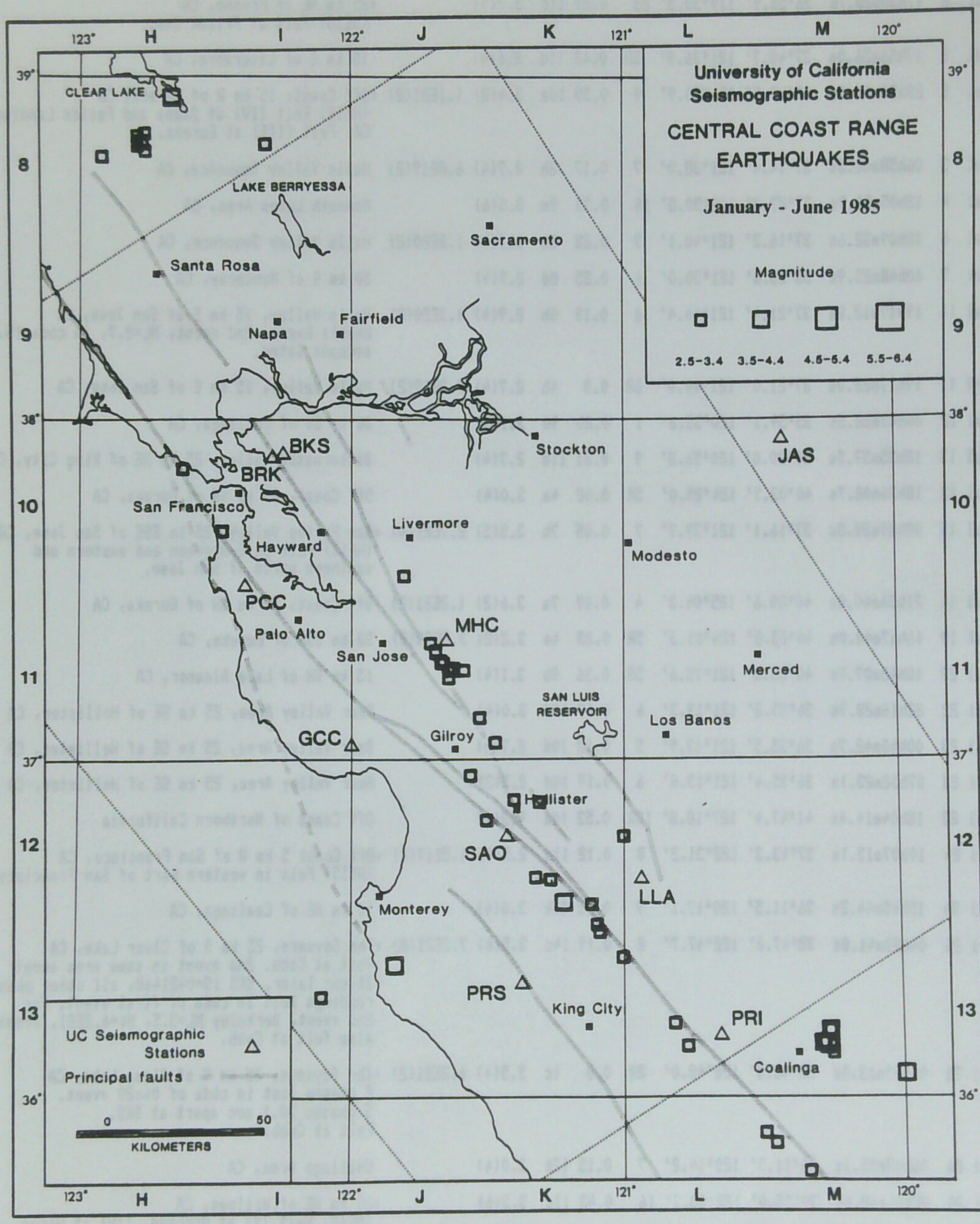
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KEY	DATE	TIME	MAG
A5	Jan 7	06:17	4.9
C4	Jan 16	07:36	3.8
C5	Jan 6	09:25	4.0
D4	Mar 29	13:44	3.0
	Apr 6	20:40	4.0
	Apr 14	06:55	3.4
	May 18	12:05	3.9
D5	Jan 31	20:37	3.5
	Feb 3	08:49	3.4
	Mar 21	04:19	3.0
	Apr 6	16:38	3.5
	Apr 13	15:05	3.8
	Apr 16	14:58	3.4
	Apr 23	14:40	3.4
	May 12	13:55	4.3
E5	Feb 23	01:42	3.5
	May 11	16:11	3.1
F3	Jan 7	04:22	3.2
G4	May 21	16:27	3.3
H6	Jun 19	13:00	3.0
H7	Mar 16	16:20	3.0
H8	Jan 14	12:04	2.9
	Jan 23	01:10	3.1
	Jan 26	22:54	3.2
	Feb 15	18:20	3.4
	Mar 6	01:52	3.5
	Mar 22	13:13	3.0
	Mar 30	22:52	3.3
	Apr 8	08:03	3.1
	May 23	11:45	3.0
	Jun 13	01:53	3.1
H10	Mar 24	18:56	2.8
I5	Jan 8	04:22	3.0
I7	Apr 1	14:09	3.2
	Apr 18	16:29	3.7
	May 21	01:21	3.2
	May 21	10:34	3.0
I8	May 26	11:57	3.0
I10	Jan 22	18:16	2.6
I13	May 28	19:54	2.7
J4	Feb 17	10:33	3.3
J10	Jun 10	00:57	3.0
J11	Jan 10	05:47	3.2
	Jan 11	09:58	2.7
	Jan 19	11:56	2.7
	Feb 3	01:48	2.8
	Feb 23	12:14	3.0
	Mar 6	06:44	2.7
	Mar 12	04:04	3.3
	Mar 20	04:57	2.8
	Mar 22	07:42	3.0
	Mar 31	02:56	3.2
	Apr 9	18:52	2.9
	Apr 21	18:50	2.8
	Apr 22	17:34	2.9
	Apr 23	14:47	2.9
	Apr 29	18:08	3.1
	May 13	14:51	2.7
J12	Mar 21	05:07	2.7
	Apr 27	11:38	2.8
J13	Feb 24	13:31	3.5
K11	Mar 19	00:23	2.5
K12	Jan 6	18:33	3.5
	Jan 31	09:28	2.9
	Feb 11	07:26	2.8
	Mar 24	23:01	3.0
	Apr 6	13:16	3.3
	Apr 27	13:06	3.0
	May 3	14:47	3.0
	Jun 27	04:38	3.4
K13	Apr 23	03:50	2.6
	Apr 26	19:06	3.0
L13	Mar 9	19:53	2.7
	Apr 13	01:37	2.9
L14	May 25	04:19	2.9
L16	May 10	15:48	3.8
M6	May 22	03:42	3.4
M13	Jan 3	10:45	3.3
	Jan 3	11:22	3.8
	Feb 8	08:51	2.8
	Feb 19	13:38	3.5
	Apr 9	03:23	3.7
	Apr 9	03:42	3.2
	May 11	08:59	4.3
	Jun 14	11:24	3.4
M14	Jan 4	07:12	3.0
	May 21	13:24	2.9
N8	Jan 17	02:01	3.8
N14	Feb 26	23:35	3.5
O6	May 28	07:56	4.3
O15	May 6	23:14	4.4
P9	Jan 24	11:27	5.2
P10	Mar 18	18:32	3.9
	Mar 30	15:58	3.3
	May 28	18:31	3.4
P11	Jan 3	09:21	4.1
	Mar 25	16:05	5.1
	Mar 25	16:20	3.8
	Mar 25	16:27	3.6
	Apr 26	04:03	4.1
	May 4	03:22	4.7
	May 12	15:28	3.7
P15	Feb 8	06:58	5.0
Q12	Jan 8	06:59	3.6
Q14	Feb 10	09:20	3.6

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KEY	DATE	O-TIME(UTC)	N LAT	W LONG	DEPTH	SE	SLN	MAG	MOMENT	COMMENTS (•=FELT)
N12	Jul 2	17h30m30.7s	36°58.9'	119°38.3'	23	0.29	11o	3.2(4)		•25 km NE of Fresno, CA (NEIS) Felt at Friant Dam.
J10	Jul 2	19h56m56.0s	37°40.7'	121°36.8'	5R	0.42	11d	2.6(4)		15 km E of Livermore, CA
E4	Jul 2	23h56m08.9s	40°49.3'	124°20.9'	9	0.30	10a	3.4(2)	1.1E21(2)	•Off Coast, 15 km W of Eureka, CA (NEIS) Felt (IV) at Samoa and Feilds Landing, CA. Felt (III) at Eureka.
J11	Jul 3	06h58m42.5s	37°14.4'	121°38.0'	7	0.17	8h	2.7(4)	6.8E19(2)	Halls Valley Sequence, CA
P11	Jul 4	13h05m56.9s	37°27.2'	118°50.5'	14	0.33	9m	3.5(6)		Mammoth Lakes Area, CA
J11	Jul 6	10h09m32.6s	37°16.2'	121°40.1'	7	0.28	8h	3.1(4)	1.8E20(2)	Halls Valley Sequence, CA
J13	Jul 7	10h48m25.9s	36°23.8'	121°50.0'	1	0.35	8d	2.7(4)		20 km S of Monterey, CA
J11	Jul 11	19h17m12.8s	37°21.4'	121°44.4'	6	0.13	8h	2.9(4)	1.3E20(2)	Halls Valley, 15 km E of San Jose, CA Double Event. 2nd event, ML=2.7, in coda 15.2 seconds later.
J11	Jul 11	19h17m28.0s	37°21.0'	121°44.0'	6R	0.0	4h	2.7(4)	8.2E19(2)	Halls Valley, 15 km E of San Jose, CA
L14	Jul 12	00h47m22.3s	35°59.1'	120°35.6'	1	0.20	9d	3.1(3)		30 km SW of Coalinga, CA
L13	Jul 13	12h35m57.5s	36°20.0'	120°56.8'	9	0.31	11d	2.7(4)		Bitterwater Valley, 25 km NE of King City, CA
E5	Jul 13	18h36m08.7s	40°03.7'	124°25.0'	5R	0.42	4a	3.0(4)		Off Coast, 85 km SW of Eureka, CA
J11	Jul 15	08h59m38.8s	37°16.1'	121°39.9'	7	0.05	7h	3.5(5)	2.7E21(4)	•San Felipe Valley, 25 km ESE of San Jose, CA (NEIS) Felt in Evergreen and eastern and southern parts of San Jose.
C5	Jul 16	21h56m40.0s	40°20.6'	125°04.3'	4	0.47	7a	3.6(2)	1.2E21(2)	Off Coast, 90 km SW of Eureka, CA
E5	Jul 18	16h47m40.0s	40°23.8'	124°01.3'	5R	0.23	4a	3.2(2)	3.8E20(2)	50 km SSE of Eureka, CA
K5	Jul 22	18h48m07.8s	40°03.0'	121°15.6'	5R	0.36	9b	3.1(4)		15 km SW of Lake Almanor, CA
K12	Jul 22	22h16m28.9s	36°35.2'	121°13.3'	6	0.19	10d	3.0(4)		Bear Valley Area, 25 km SE of Hollister, CA
K12	Jul 23	00h40m42.7s	36°35.5'	121°13.9'	5	0.13	10d	2.7(4)		Bear Valley Area, 25 km SE of Hollister, CA
K12	Jul 23	07h52m23.1s	36°35.4'	121°13.8'	6	0.19	10d	2.5(2)		Bear Valley Area, 25 km SE of Hollister, CA
A2	Jul 23	18h04m14.4s	41°47.4'	127°18.8'	10R	0.53	10a	4.3(4)		Off Coast of Northern California
H10	Jul 24	10h07m13.1s	37°43.3'	122°31.2'	8	0.12	11d	2.5(4)	4.5E19(2)	•Off Coast 5 km W of San Francisco, CA (NEIS) Felt in western part of San Francisco.
M13	Jul 24	15h45m44.2s	36°11.5'	120°17.1'	9	0.23	17k	3.0(4)		10 km NE of Coalinga, CA
H8	Jul 26	04h20m41.8s	38°47.6'	122°47.7'	2	0.19	14c	3.5(6)	7.3E21(2)	•The Geysers, 25 km S of Clear Lake, CA Felt at Cobb. 2nd event in same area about 31 sec later. BKS iS=0421468, all other phase readings lost in coda of first event. For 2nd event, Berkeley ML=3.5, Mo=6.2E21, event also felt at Cobb.
H8	Jul 26	04h21m13.0s	38°48.0'	122°48.0'	2R	0.0	1c	3.5(4)	6.2E21(2)	•The Geysers, 25 km S of Clear Lake, CA P phases lost in coda of 04:20 event. S phases 30.1 sec apart at BKS. Felt at Cobb.
M13	Jul 26	06h02m55.1s	36°11.3'	120°14.2'	7	0.13	13k	3.0(4)		Coalinga Area, CA
I6	Jul 30	02h34m42.8s	39°35.0'	122°00.7'	16	0.43	11c	3.3(6)		•20 km NE of Willows, CA (NEIS) Felt (V) at Ordbend, (IV) at Glenn and Durham. Felt (III) at Biggs and Richvale. Also felt at Chico and Oroville.

International Seismological Centre

UNIVERSITY OF CALIFORNIA SEISMOGRAPHIC STATIONS
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KEY	DATE	O-TIME(UTC)	N LAT	W LONG	DEPTH	SE	SLN	MAG	MOMENT	COMMENTS (•=FELT)
E3	Jul 30	03h52m57.9s	41°11.2'	124°14.7'	11	0.29	7a	3.4(2)	3.9E20(2)	Off Coast, 45 km NNW of Eureka, CA
C5	Jul 30	10h57m21.6s	40°22.4'	125°07.5'	3	0.29	8a	4.2(6)	5.1E22(2)	•Off Coast, 230 km W of Eureka, CA (NEIS) Felt (III) at Bayside and Fontuna, CA. Also felt in Eureka, CA.
J11	Aug 3	01h43m03.6s	37°16.6'	121°39.5'	9	0.32	8h	2.8(4)	4.8E19(2)	Halls Valley Sequence, CA
M13	Aug 3	13h57m11.9s	36°07.6'	120°08.3'	11	0.18	12k	3.8(5)	1.4E22(1)	Coalinga-Avenal Area, CA
M13	Aug 4	11h29m16.2s	36°07.3'	120°08.3'	11	0.12	12k	4.7(7)	1.1E23(4)	Coalinga-Avenal Area, CA
M13	Aug 4	12h01m57.0s	36°07.8'	120°07.6'	11	0.14	12k	5.6(7)	2.0E24(4)	•M/S Coalinga-Avenal, 22 km E of Coalinga, CA (NEIS) Slight damage (VI) at Avenal, Hanford Kettleman City and Lemoore. Felt (V) in many areas of Kern, Kings, Fresno and San Luis Obispo Counties. Six people suffered minor injuries in the Avenal area.
M13	Aug 4	12h08m42.6s	36°05.9'	120°05.2'	13	0.06	7k	4.0(5)	1.0E22(2)	Coalinga-Avenal Area, CA In coda of 12:01
M13	Aug 4	13h09m20.2s	36°07.3'	120°06.8'	9	0.18	11k	3.3(5)		Coalinga-Avenal Area, CA
M13	Aug 4	13h18m38.0s	36°06.0'	120°05.7'	3	0.33	11k	3.3(5)		Coalinga-Avenal Area, CA
M13	Aug 4	15h15m40.5s	36°01.3'	120°03.1'	12	0.23	11k	4.1(5)	3.0E22(1)	•Coalinga-Avenal Area, CA (NEIS) Felt in the Coalinga area.
M13	Aug 4	23h45m52.4s	36°01.0'	120°01.1'	15	0.18	11k	3.2(5)		Coalinga-Avenal Area, CA
M13	Aug 5	14h45m39.0s	36°06.7'	120°03.8'	8	0.13	13k	4.3(5)	5.1E22(2)	•Coalinga-Avenal Area, CA (NEIS) Felt (IV) at Avenal and (III) at Huron. Also felt in the Coalinga area.
M13	Aug 5	15h22m25.5s	36°06.5'	120°03.2'	9	0.18	12k	3.7(5)		Coalinga-Avenal Area, CA
M13	Aug 6	18h11m14.9s	36°01.1'	120°03.1'	10	0.22	11k	2.9(3)		Coalinga-Avenal Area, CA
H8	Aug 6	18h36m52.7s	38°49.5'	122°49.2'	1R	0.27	10c	2.9(4)		The Geysers, 25 km S of Clear Lake, CA
M14	Aug 7	00h16m04.5s	35°59.5'	120°06.9'	11	0.30	13k	4.3(5)	2.6E22(2)	•Coalinga-Avenal Area, CA (NEIS) Felt (V) at Avenal.
M14	Aug 7	00h28m13.7s	35°59.6'	120°08.4'	12	0.19	12k	3.2(5)		Coalinga-Avenal Area, CA
G4	Aug 7	00h45m35.5s	40°55.4'	123°11.0'	17	0.36	10a	3.7(3)	7.8E21(3)	85 km NW of Redding, CA
M13	Aug 7	10h55m23.2s	36°06.6'	120°03.4'	6	0.19	13k	3.1(3)		Coalinga-Avenal Area, CA
M13	Aug 9	08h47m10.9s	36°05.4'	120°00.7'	10	0.19	11k	3.0(4)		Coalinga-Avenal Area, CA
M13	Aug 9	09h31m22.0s	36°05.1'	120°00.2'	9	0.20	12k	3.0(2)		Coalinga-Avenal Area, CA
N13	Aug 9	09h33m09.7s	36°04.5'	119°59.8'	7	0.24	12k	3.1(2)		Coalinga-Avenal Area, CA
M13	Aug 9	09h55m08.5s	36°00.2'	120°01.4'	8	0.28	12k	2.9(1)		Coalinga-Avenal Area, CA
M13	Aug 9	11h15m34.5s	36°04.9'	120°00.2'	8	0.19	12k	3.0(4)		Coalinga-Avenal Area, CA
M13	Aug 9	12h42m20.2s	36°04.6'	120°07.1'	7	0.15	13k	3.4(4)		Coalinga-Avenal Area, CA
M13	Aug 11	06h30m26.1s	36°06.3'	120°10.6'	7	0.15	11k	3.1(3)		Coalinga-Avenal Area, CA
K5	Aug 12	06h49m38.6s	40°07.4'	121°08.1'	15	0.56	7b	3.6(5)	5.7E21(1)	Lake Almanor, 50 km SW of Susanville, CA
I10	Aug 13	16h45m15.1s	37°50.8'	122°13.2'	5	0.08	11d	3.1(4)	1.2E20(2)	•3 km SE of Berkeley, CA Sharply felt and heard in Berkeley and Oakland, felt in San Francisco. (NEIS) Felt (III) at Berkeley and Concord.

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KEY	DATE	O-TIME(UTC)	N LAT	W LONG	DEPTH	SE	SLN	MAG	MOMENT	COMMENTS (•=FELT)
M13	Aug 15	03h20m56.9s	36°07.1'	120°03.8'	9	0.21	11k	3.0(5)		Coalinga-Avenal Area, CA
J11	Aug 16	17h04m06.0s	37°13.8'	121°38.6'	4	0.10	8h	2.9(4)	2.1E20(2)	Halls Valley Sequence, CA
J11	Aug 17	16h35m44.1s	37°07.4'	121°33.0'	7	0.11	9h	3.1(5)	3.2E20(2)	Anderson Lake, 35 km SE of San Jose, CA
J11	Aug 18	03h21m26.0s	37°16.1'	121°39.7'	7	0.03	8h	2.8(4)	6.2E19(2)	Halls Valley Sequence, CA
K5	Aug 19	04h43m05.1s	40°09.7'	121°18.4'	8	0.19	4b	3.1(1)	5.9E20(1)	60 km SW of Susanville, CA
I10	Aug 19	21h43m16.5s	37°50.2'	122°13.5'	2R	0.17	10d	2.6(6)	5.2E19(2)	•Piedmont Area, 4 km S of Berkeley, CA Felt at Berkeley.
H11	Aug 21	01h01m37.0s	37°04.6'	122°32.5'	10	0.20	7d	2.8(4)		Off Coast, 50 km WNW of Santa Cruz, CA
J12	Aug 23	16h32m02.6s	36°49.6'	121°34.9'	1	0.16	9d	2.6(4)		San Juan Bautista, 15 km W of Hollister, CA
K5	Aug 25	10h28m07.5s	40°02.8'	121°17.3'	5	0.24	7b	3.2(5)		70 km SW of Susanville, CA
P11	Aug 27	03h04m06.8s	37°24.7'	118°38.0'	6	0.11	8n	4.5(5)	1.9E22(2)	•NW of Bishop, CA (NEIS) Felt (III) at Bishop, Dunlap, Badger and Bass Lake. Also felt at North Fork and Lake Sabrina, CA.
M13	Aug 27	18h30m52.8s	36°09.6'	120°02.0'	5	0.24	13k	2.8(2)		Coalinga-Avenal Area, CA
M14	Aug 27	19h02m08.6s	35°57.6'	120°05.0'	12	0.25	14k	3.2(3)		Coalinga-Avenal Area, CA
J11	Aug 30	05h26m48.2s	37°17.4'	121°41.0'	5	0.12	8h	2.7(4)	7.4E19(2)	Halls Valley Sequence, CA
N14	Aug 31	13h25m52.4s	35°59.7'	119°58.4'	5	0.26	12k	3.1(5)		Coalinga-Avenal Area, CA
F4	Sep 2	16h53m30.0s	40°34.9'	123°45.0'	24	0.08	5o	3.7(3)	2.7E21(2)	•45 km SE of Eureka, CA (NEIS) Felt (III) at Rio Dell.
R11	Sep 2	19h45m08.1s	37°09.0'	117°59.6'	5	0.15	8n	3.7(5)		35 km SE of Bishop, CA
I10	Sep 4	06h00m46.7s	37°45.1'	122°05.4'	6	0.10	8d	3.1(4)	1.3E21(4)	•Lake Chabot Area, 20 km SE of Berkeley, CA (NEIS) Felt (V) at Dublin and (III) at Moraga. Also felt at San Leandro, Oakland, San Francisco, Daly City and San Bruno.
I8	Sep 4	06h43m03.0s	38°33.9'	122°14.5'	7	0.12	10c	2.9(5)	1.2E21(2)	Lake Berryessa, 30 km N of Napa, CA
I8	Sep 5	17h33m12.5s	38°33.6'	122°14.2'	8	0.12	10c	2.7(3)		Lake Berryessa, 30 km N of Napa, CA
I8	Sep 5	19h18m38.8s	38°33.7'	122°14.5'	7	0.15	11c	2.6(3)		Lake Berryessa, 30 km N of Napa, CA
J11	Sep 7	17h27m30.5s	37°22.5'	121°45.3'	5	0.15	8h	3.0(5)	3.7E20(2)	•Halls Valley Sequence, CA (NEIS) Felt at San Jose.
J11	Sep 7	18h03m07.3s	37°21.6'	121°45.1'	5	0.23	8h	2.7(4)	7.6E19(2)	Halls Valley Sequence, CA
M14	Sep 8	12h17m18.4s	35°59.6'	120°07.5'	11	0.23	16k	3.1(4)		Avenal, 25 km SE of Coalinga, CA
K12	Sep 9	23h07m14.8s	36°56.3'	121°25.8'	3	0.20	10d	3.2(4)		10 km NW of Hollister, CA
H10	Sep 10	22h07m27.9s	37°42.9'	122°32.1'	8	0.21	8d	2.6(4)	5.3E19(1)	•Off Coast, 3 km W of San Francisco, CA (NEIS) Felt at Pacifica and San Francisco.
E5	Sep 11	22h01m45.6s	40°19.7'	124°18.2'	5	0.30	9a	3.3(2)		Petrolia, 50 km SSW of Eureka, CA
M13	Sep 14	03h02m45.8s	36°11.1'	120°17.7'	8	0.11	13k	3.1(2)		Coalinga Area, CA
M13	Sep 15	09h09m48.1s	36°03.3'	120°08.7'	13	0.11	11k	3.0(2)		Coalinga Area, CA
P11	Sep 18	05h17m45.0s	37°27.0'	118°41.1'	4	0.15	11n	3.5(4)		25 km NW of Bishop, CA
M10	Sep 18	22h37m06.4s	37°53.6'	120°28.5'	0R	0.21	5o	2.7(2)		Blast, 15 km SW of Sonora, CA
J11	Sep 21	00h30m55.3s	37°07.8'	121°31.1'	7	0.20	16d	2.5(4)		Coyote Lake, 35 km NNW of Hollister, CA

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UNIVERSITY OF CALIFORNIA SEISMOGRAPHIC STATIONS
EARTHQUAKES IN NORTHERN CALIFORNIA ••• 1985

KEY	DATE	O-TIME(UTC)	N LAT	W LONG	DEPTH	SE	SLN	MAG	MOMENT	COMMENTS (•=FELT)
P11	Sep 21	05h21m26.4s	37°27.6'	118°39.0'	10R	0.35	5n	3.6(5)		NW of Bishop, CA
D5	Sep 21	11h58m03.0s	40°22.2'	124°40.1'	4R	0.74	5a	3.6(2)	4.2E20(2)	Off Coast, 60 km SW of Eureka, CA
P11	Sep 23	09h10m27.0s	37°28.2'	118°40.8'	3	0.15	5n	3.6(5)		NW of Bishop, CA
J11	Sep 24	07h21m30.2s	37°29.1'	121°41.4'	8	0.16	17d	3.5(5)	4.7E21(4)	•E of Calaveras Res., 25 km NE of San Jose, CA (NEIS) Felt (IV) at Fremont and San Jose. Also felt at San Leandro.
L14	Sep 25	23h49m55.7s	35°35.4'	120°47.0'	2	0.35	13d	2.7(4)		35 km NNW of San Luis Obispo, CA
K12	Sep 30	09h45m39.7s	36°34.9'	121°13.5'	7	0.22	17d	3.2(6)	2.0E21(1)	Bear Valley, 35 km SE of Hollister, CA
J11	Oct 1	04h45m53.4s	37°16.3'	121°38.2'	6	0.26	8h	2.8(4)	9.3E19(2)	Halls Valley, 25 km S of San Jose, CA
J11	Oct 6	00h18m08.8s	37°00.7'	121°43.0'	9	0.15	9d	3.0(4)	4.4E20(2)	•Near Watsonville, 35 km NW of Hollister, CA (NEIS) Felt in Aptos, CA.
J11	Oct 7	15h46m54.6s	37°16.2'	121°37.8'	7	0.20	8d	3.0(4)	1.8E20(2)	•Halls Valley Sequence, CA (NEIS) Felt at Morgan Hill, CA.
K11	Oct 8	03h13m30.3s	37°03.8'	121°28.2'	7	0.18	16d	2.8(4)	1.9E20(2)	10 km NE of Gilroy, CA
M13	Oct 8	22h17m43.2s	36°10.1'	120°14.1'	11	0.16	13k	4.0(6)	1.8E22(2)	•Coalinga Area, CA (NEIS) Felt (IV) at Coalinga and Cantua Creek. Felt (III) at Avenal.
A2	Oct 10	00h12m35.7s	41°53.3'	127°11.6'	6	0.26	5a	4.2(2)		Off Coast of Northern California
D5	Oct 14	01h14m30.5s	40°24.0'	124°58.6'	6	0.17	10a	3.3(4)		80 km SW of Eureka, CA
H8	Oct 20	19h26m26.5s	38°49.2'	122°47.1'	4	0.14	13c	3.4(6)		The Geysers, 25 km S of Clear Lake, CA
M13	Oct 24	14h50m33.6s	36°08.9'	120°00.3'	7	0.26	16k	3.1(6)		30 km E of Coalinga, CA
D4	Oct 26	01h56m51.2s	40°45.0'	124°30.6'	20	0.18	9a	3.6(4)	1.2E21(2)	Off Coast, 30 km WSW of Eureka, CA
J12	Oct 26	14h30m51.2s	36°49.5'	121°35.2'	8	0.22	10d	3.4(6)	2.8E21(4)	15 km W of Hollister, CA
E5	Oct 26	23h41m15.4s	40°12.7'	124°11.8'	12	0.36	7a	3.1(2)		65 km S of Eureka, CA
M14	Oct 28	01h32m51.4s	35°55.8'	120°01.3'	4	0.25	14k	3.2(6)		40 km SE of Coalinga, CA
M14	Oct 28	01h42m30.8s	35°55.9'	120°00.8'	2	0.28	14k	2.9(4)		40 km SE of Coalinga, CA
K12	Oct 28	04h25m52.3s	36°32.8'	121°09.9'	7	0.25	9d	3.3(6)		Bear Valley, 40 km N of King City, CA
M3	Oct 29	00h23m14.6s	41°09.6'	120°05.4'	11	0.69	7b	3.1(2)		SE of Alturas, CA
N3	Oct 30	03h24m18.5s	41°08.5'	119°56.2'	7	0.68	5b	3.5(2)		SE of Alturas, CA
J12	Nov 1	10h48m57.9s	36°45.8'	121°30.3'	1	0.19	7d	2.7(4)		Fremont Peak, 15 km SW of Hollister, CA
Q14	Nov 5	22h06m37.0s	35°57.0'	118°29.9'	7R	0.87	6e	3.5(2)		•Lake Isabella Area, CA Felt along Kern River 10 miles N of Lake Isabella.
J11	Nov 5	22h39m15.8s	37°20.7'	121°43.5'	6	0.12	8h	3.0(4)	2.6E20(3)	Halls Valley Sequence, CA
C4	Nov 8	13h02m44.4s	40°48.0'	125°11.2'	13	0.23	9a	4.1(6)	7.8E21(2)	•Off Coast, 90 km W of Eureka, CA (NEIS) Felt (III) at Bayside and Honeydew, CA.
M13	Nov 12	15h29m22.1s	36°06.1'	120°08.9'	6	0.21	11k	2.9(4)		E of Coalinga, CA
K12	Nov 12	22h11m09.0s	36°38.3'	121°18.7'	3	0.34	8d	2.9(4)		Stone Canyon, 35 km SE of Hollister, CA
J10	Nov 16	06h19m06.8s	37°41.2'	121°38.9'	1R	0.29	14d	2.7(6)		E of Livermore, CA

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KEY	DATE	O-TIME(UTC)	N LAT	W LONG	DEPTH	SE	SLN	MAG	MOMENT	COMMENTS (•=FELT)
C3	Nov 16	18h31m53.5s	41°26.6'	125°20.2'	5R	0.32	8a	3.5(4)		NW of Eureka, CA
L12	Nov 19	18h32m21.3s	36°45.3'	120°41.8'	3	0.35	11d	2.5(2)		Panoche Hills, 35 km SE of Los Banos, CA Followed 40 sec later by similar shock at same location.
L12	Nov 19	18h33m01.4s	36°46.4'	120°40.5'	4R	0.33	10d	2.5(2)		Panoche Hills, 35 km SE of Los Banos, CA In coda of 18:32 event at same location. Waveforms of both events are identical.
L12	Nov 23	04h18m59.3s	36°44.1'	120°55.1'	2	0.18	14d	2.6(4)		Cerro Colorado, 12 km NNE of LLA, CA
K11	Nov 23	05h38m30.3s	37°03.3'	121°28.6'	8	0.18	15d	3.0(4)	2.6E20(2)	Coyote Lake, 10 km NW of Gilroy, CA
P10	Nov 23	07h25m07.1s	37°34.1'	118°49.2'	3	0.11	9e	3.3(2)		Mammoth Lakes Area, CA
	Nov 23	07h25m11.1s	37°34.0'	118°49.0'	3R	0.0	4e	3.3()		Mammoth Lakes Area, CA 2nd event of double shock, 4.0 sec apart. Same hypocenter and magnitude as previous event.
F5	Nov 23	07h27m25.3s	40°15.8'	123°40.4'	19R	0.67	13a	3.7(6)	8.9E21(4)	•40 km NE of Garberville, CA (NEIS) Felt (IV) at Miranda.
K12	Nov 23	12h35m56.6s	36°37.0'	121°16.2'	9	0.18	15d	3.2(2)	2.0E20(1)	Stone Canyon, 30 km SE of Hollister, CA
K12	Nov 23	20h29m46.8s	36°38.4'	121°18.2'	4	0.23	12d	2.6(4)		Stone Canyon, 25 km SE of Hollister, CA Mag=2.0 foreshock 51 sec earlier at same location.
K12	Nov 24	10h14m05.5s	36°33.1'	121°11.2'	4	0.19	16d	2.6(4)		Bear Valley, 35 km N of King City , CA
K12	Nov 24	11h06m56.7s	36°37.6'	121°16.6'	6	0.23	15d	2.8(4)		Stone Canyon, 25 km SE of Hollister, CA
M13	Nov 24	12h56m17.6s	36°16.4'	120°18.2'	9	0.15	13k	2.8(2)		Coalinga Area, CA
L13	Nov 24	19h21m39.7s	36°01.5'	120°52.7'	8	0.18	19d	4.5(6)	5.0E22(2)	•San Ardo, 30 km SE of King City, CA (NEIS) Felt (V) at San Ardo, (IV) at Bradley, King City and Lockwood. Felt (III) at Coalinga, Creston, Templeton and Pacific Grove, CA.
L13	Nov 24	23h08m15.2s	36°01.7'	120°52.4'	8	0.19	17d	3.0(4)		San Ardo, 30 km SE of King City, CA
J11	Nov 25	07h46m06.9s	37°20.7'	121°43.5'	5	0.10	8h	2.7(4)	8.1E19(2)	Halls Valley Sequence, CA
K13	Nov 27	11h13m50.6s	36°24.3'	121°00.5'	8	0.25	14d	2.8(4)		20 km NE of King City, CA
K12	Nov 28	15h13m57.2s	36°33.7'	121°03.6'	10	0.12	15d	4.6(6)	9.8E22(4)	•S of Panoche Pass, 45 km SE of Hollister, CA (NEIS) Felt (IV) at Aptos, Big Sur, Carmel, Hollister, Paicines, Salinas, Santa Cruz and Tres Pinos.
K12	Nov 30	06h14m25.8s	36°33.5'	121°03.4'	10	0.23	13d	2.6(2)		S of Panoche Pass, 45 km SE of Hollister, CA
K12	Dec 1	09h26m34.6s	36°33.0'	121°05.5'	8	0.22	13d	2.5(4)		S of Panoche Pass, 45 km SE of Hollister, CA
J10	Dec 3	22h04m10.7s	37°39.5'	121°40.1'	9	0.32	11d	2.5(4)		Near Livermore, CA
J11	Dec 4	18h55m19.0s	37°15.9'	121°39.8'	6	0.04	8h	3.3(6)	1.6E21(4)	•Halls Valley Sequence, CA (NEIS) Felt at San Jose.
D4	Dec 5	06h28m36.9s	40°34.5'	124°30.9'	5R	0.40	6a	4.2(4)	4.1E21(4)	•Off Coast, 60 km SW of Eureka, CA (NEIS) Felt (II) at Rio Dell.
M13	Dec 7	13h20m41.3s	36°08.7'	120°16.7'	11	0.29	10k	2.4(2)		Coalinga Area, CA
09	Dec 9	07h56m52.3s	38°11.8'	119°05.0'	6	0.17	9e	3.5(6)		20 km SE of Bridegport, CA
J12	Dec 13	18h37m44.0s	36°59.2'	121°43.4'	8	0.20	9d	2.9(4)		12 km W of Gilroy, CA

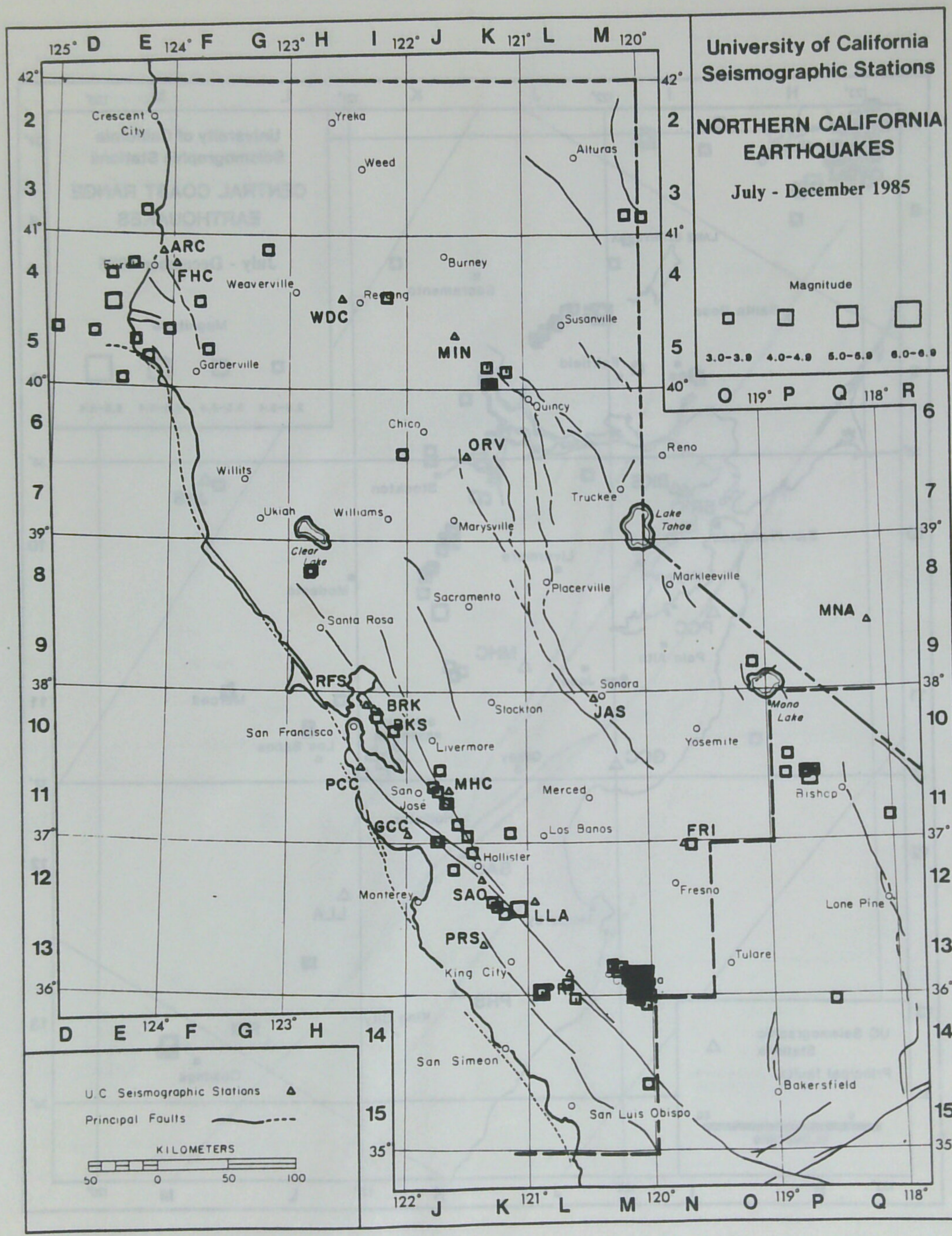
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KEY	DATE	O-TIME(UTC)	N LAT	W LONG	DEPTH	SE	SLN	MAG	MOMENT	COMMENTS (•=FELT)
J11	Dec 13	18h39m22.6s	37°00.6'	121°43.3'	11	0.40	8d	3.4(6)	2.3E21(4)	•12 km W of Gilroy, CA (NEIS) Felt in Aptos, Gilroy, Morgan Hill, San Jose and Santa Cruz.
L13	Dec 14	22h41m44.3s	36°03.9'	120°39.0'	5	0.27	13d	3.0(4)		Peachtree Valley, 30 km WSW of Coalinga, CA
E5	Dec 15	12h43m32.6s	40°20.9'	124°18.1'	12R	0.36	7a	2.8(4)		60 km WSW of Eureka, CA
A4	Dec 16	06h06m25.3s	40°41.8'	127°27.7'	5R	0.36	10a	4.1(8)		Off Coast, 300 km W of Eureka, CA
J11	Dec 16	06h39m37.7s	37°25.7'	121°46.1'	4	0.15	12d	2.5(4)	9.9E19(2)	Calaveras Reservoir, 15 km NE of San Jose, CA
K11	Dec 26	23h19m37.5s	37°03.8'	121°06.7'	6	0.26	14d	3.0(4)	4.9E20(2)	San Luis Reservoir, CA May be 2 events approx 2 sec apart.
I10	Dec 28	10h51m23.3s	37°59.2'	122°01.6'	14	0.21	14d	2.7(4)		Concord, 25 km NE of Berkeley, CA
M15	Dec 30	04h54m45.9s	35°24.8'	120°01.5'	9	0.29	16o	3.1(2)		60 km WNW of San Luis Obispo, CA
I4	Dec 31	06h19m45.6s	40°37.5'	122°09.4'	10	0.08	3b	3.2(2)	5.7E20(2)	20 km E of Redding, CA
P11	Dec 31	20h08m03.2s	37°27.2'	118°36.5'	14	0.30	9n	3.7(6)		NW of Bishop, CA

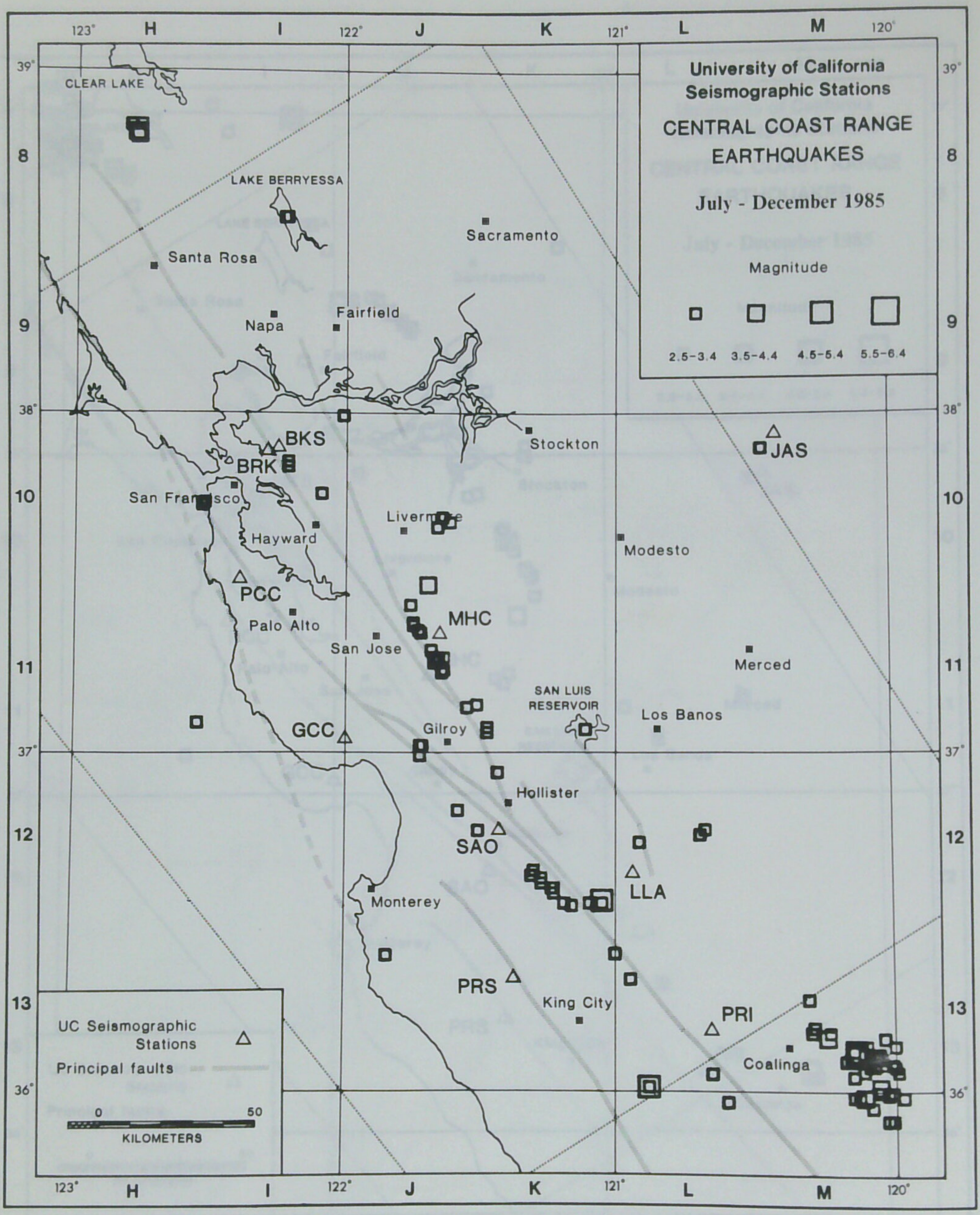
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KEY	DATE	TIME	MAG
	Nov 23	07:25	3.3
A2	Jul 23	18:04	4.3
	Oct 10	00:12	4.2
A4	Dec 16	06:06	4.1
C3	Nov 16	18:31	3.5
C4	Nov 8	13:02	4.1
C5	Jul 16	21:56	3.6
	Jul 30	10:57	4.2
D4	Oct 26	01:56	3.6
	Dec 5	06:28	4.2
D5	Sep 21	11:58	3.6
	Oct 14	01:14	3.3
E3	Jul 30	03:52	3.4
E4	Jul 2	23:56	3.4
E5	Jul 13	18:36	3.0
	Jul 18	16:47	3.2
	Sep 11	22:01	3.3
	Oct 26	23:41	3.1
	Dec 15	12:43	2.8
F4	Sep 2	16:53	3.7
F5	Nov 23	07:27	3.7
G4	Aug 7	00:45	3.7
H8	Jul 26	04:20	3.5
	Jul 26	04:21	3.5
	Aug 6	18:36	2.9
	Oct 20	19:26	3.4
H10	Jul 24	10:07	2.5
	Sep 10	22:07	2.6
H11	Aug 21	01:01	2.8
I4	Dec 31	06:19	3.2
I6	Jul 30	02:34	3.3
I8	Sep 4	06:43	2.9
	Sep 5	17:33	2.7
	Sep 5	19:18	2.6
I10	Aug 13	16:45	3.1
	Aug 19	21:43	2.6
	Sep 4	06:00	3.1
	Dec 28	10:51	2.7
J10	Jul 2	19:56	2.6
	Nov 16	06:19	2.7
	Dec 3	22:04	2.5
J11	Jul 3	06:58	2.7
	Jul 6	10:09	3.1
	Jul 11	19:17	2.9
	Jul 11	19:17	2.7
	Jul 15	08:59	3.5
	Aug 3	01:43	2.8
	Aug 16	17:04	2.9
	Aug 17	16:35	3.1
	Aug 18	03:21	2.8
	Aug 30	05:26	2.7
	Sep 7	17:27	3.0
	Sep 7	18:03	2.7
	Sep 21	00:30	2.5
	Sep 24	07:21	3.5
	Oct 1	04:45	2.8
	Oct 6	00:18	3.0
	Oct 7	15:46	3.0
	Nov 5	22:39	3.0
	Nov 25	07:46	2.7
	Dec 4	18:55	3.3
	Dec 13	18:39	3.4
	Dec 16	06:39	2.5
J12	Aug 23	16:32	2.6
	Oct 26	14:30	3.4
	Nov 1	10:48	2.7
	Dec 13	18:37	2.9
J13	Jul 7	10:48	2.7
K5	Jul 22	18:48	3.1
	Aug 12	06:49	3.6
	Aug 19	04:43	3.1
	Aug 25	10:28	3.2
K11	Oct 8	03:13	2.8
	Nov 23	05:38	3.0
	Dec 26	23:19	3.0
K12	Jul 22	22:16	3.0
	Jul 23	00:40	2.7
	Jul 23	07:52	2.5
	Sep 9	23:07	3.2
	Sep 30	09:45	3.2
	Oct 28	04:25	3.3
	Nov 12	22:11	2.9
	Nov 23	12:35	3.2
	Nov 23	20:29	2.6
	Nov 24	10:14	2.6
	Nov 24	11:06	2.8
	Nov 28	15:13	4.6
	Nov 30	06:14	2.6
	Dec 1	09:26	2.5
K13	Nov 27	11:13	2.8
L12	Nov 19	18:32	2.5
	Nov 19	18:33	2.5
	Nov 23	04:18	2.6
L13	Jul 13	12:35	2.7
	Nov 24	19:21	4.5
	Nov 24	23:08	3.0
	Dec 14	22:41	3.0
L14	Jul 12	00:47	3.1
	Sep 25	23:49	2.7
M3	Oct 29	00:23	3.1
M10	Sep 18	22:37	2.7
M13	Jul 24	15:45	3.0
	Jul 26	06:02	3.0
	Aug 3	13:57	3.8
	Aug 4	11:29	4.7
	Aug 4	12:01	5.6
	Aug 4	12:08	4.0
	Aug 4	13:09	3.3
	Aug 4	13:18	3.3
	Aug 4	15:15	4.1
	Aug 4	23:45	3.2
	Aug 5	14:45	4.3
	Aug 5	15:22	3.7
	Aug 6	18:11	2.9
	Aug 7	10:55	3.1
	Aug 9	08:47	3.0
	Aug 9	09:31	3.0
	Aug 9	09:55	2.9
	Aug 9	11:15	3.0
	Aug 9	12:42	3.4
	Aug 11	06:30	3.1
	Aug 15	03:20	3.0
	Aug 27	18:30	2.8
	Sep 14	03:02	3.1
	Sep 15	09:09	3.0
	Oct 8	22:17	4.0
	Oct 24	14:50	3.1
	Nov 12	15:29	2.9
	Nov 24	12:56	2.8
	Dec 7	13:20	2.4
M14	Aug 7	00:16	4.3
	Aug 7	00:28	3.2
	Aug 27	19:02	3.2
	Sep 8	12:17	3.1
	Oct 28	01:32	3.2
	Oct 28	01:42	2.9
M15	Dec 30	04:54	3.1
N3	Oct 30	03:24	3.5
N12	Jul 2	17:30	3.2
N13	Aug 9	09:33	3.1
N14	Aug 31	13:25	3.1
O9	Dec 9	07:56	3.5
P10	Nov 23	07:25	3.3
P11	Jul 4	13:05	3.5
	Aug 27	03:04	4.5
	Sep 18	05:17	3.5
	Sep 21	05:21	3.6
	Sep 23	09:10	3.6
	Dec 31	20:08	3.7
Q14	Nov 5	22:06	3.5
R11	Sep 2	19:45	3.7

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OBSERVED EXPLOSIONS AT THE NEVADA TEST SITE 1985

DATE	O-TIME(UTC)	N LAT	W LONG	MAG	COMMENTS
Mar 15	16h31m00.1s	37.058°	116.045°	4.6(6)	Underground Nuclear Explosion, NTS (Vaughn)
Mar 23	18h30m00.1s	37.180°	116.089°	5.1(8)	Underground Nuclear Explosion, NTS (Cottage)
Apr 2	20h00m00.0s	37.095°	116.032°	5.6(7)	Underground Nuclear Explosion, NTS (Hermosa)
Apr 6	23h15m00.1s	37.201°	116.207°	4.8(6)	Underground Nuclear Exp., NTS (Misty Rain)
May 2	15h20m00.1s	37.253°	116.325°	5.5(6)	Underground Nuclear Explosion, NTS (Towanda)
Jun 12	15h15m00.1s	37.248°	116.489°	5.4(6)	Underground Nuclear Explosion, NTS (Salut)
Jun 12	17h30m00.0s	37.088°	116.084°	4.2(4)	Underground Nuclear Explosion, NTS (Ville)
Jun 26	18h03m00.0s	37.124°	116.122°	4.1(2)	Underground Nuclear Explosion, NTS (Maribo)
Jul 25	14h00m00.0s	37.297°	116.438°	5.2(6)	Underground Nuclear Explosion, NTS (Serena)
Aug 17	16h25m00.1s	37.002°	116.043°	4.3(5)	Underground Nuclear Explosion, NTS (Chamita)
Sep 27	14h15m00.1s	37.090°	116.002°	4.6(6)	Underground Nuclear Explosion, NTS (Ponil)
Oct 9	23h20m00.0s	37.210°	116.210°	4.0(6)	Underground Nuclear Exp., NTS (Diamond Beech)
Oct 16	21h35m00.1s	37.110°	116.121°	4.7(4)	Underground Nuclear Exp., NTS (Roquefort)
Dec 5	15h00m00.1s	37.053°	116.045°	5.3(8)	Underground Nuclear Explosion, NTS (Kiniboto)
Dec 28	19h01m00.1s	37.238°	116.473°	5.2(6)	Underground Nuclear Exp., NTS (Goldstone)

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PART II. REGISTRATION OF EARTHQUAKES

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

Phase arrival times are Coordinated Universal 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.

The maximum amplitude of earth displacement in micrometers and periods in seconds of the indicated phases are given for the Berkeley station, BKS, under the BKS phase arrival times. Unless otherwise specified, magnitudes given for the 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 20 seconds, according to the formula

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

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. The number of observations used to determine magnitude is given in parenthesis immediately following the magnitude value.

The seismic moment (M_o) is given for local and regional earthquakes as described in Part I.

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

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

DATE	STA	PHASE	TIME (UTC)
Jan 2	FHC	e	05 38 26
	WDC	iPd	05 38 34.7
	MIN	ePd	05 38 40.2
		ipP	05 38 49.3
	ORV	iPd	05 38 45.2
		ipP	05 38 54.2
	JAS1	iPd	05 39 01.8
		ipP	05 39 10.8
	BKS	epP	05 39 02
		e	05 39 06.1
		ePPP	05 40 19
		e	05 43 43
		eS	05 43 52
		e	05 44 09
		eLr	05 46 20
		AMP(pa)	PER(s)
		LZ	31 20.
		LN	11 20.
		LE	23 20.
	BRK	i	05 39 06.0
	MHC	i	05 39 08.4
	MNA	iPd	05 39 09.3
		ipP	05 39 18.4
	FRI	iPd	05 39 10.8
		ipP	05 39 19.6
	GCC	e	05 39 12.2
	PRI	e(P)	05 39 12.5
		e	05 39 21.6
	PRS	e	05 39 20.2

BRK Ms=5.9 Distance=31°
USGS 05h32m49.1s 55.4N 157.8W
h=33km mb=5.6 Ms=5.6
Alaska Peninsula

Jan 2	WDC	ePKPd	22 25 18.8
	ORV	ePKP	22 25 21.3
	BRK	e(PKP)	22 25 23.0
	MHC	e(PKP)	22 25 24.8
	JAS1	ePKPd	22 25 25.0
	PRS	ePKP	22 25 26.4
	LLA	e(PKP)	22 25 26.5
	FRI	ePKPd	22 25 27.0
	PRI	ePKPd	22 25 27.8
	MNA	iPKPd	22 25 28.0

USGS 22h06m31.6s 1.6N 98.8E
h=105km mb=5.3
Northern Sumatera

Jan 2	PRS	e(P)	22 40 47.7
	FRI	eP	22 40 50.0
	MHC	eP	22 40 50.2
	SAO	e	22 40 52.1
	BKS	eP	22 40 52.5
		eScS	22 50 48
		eLg	22 59 11
		eLr	23 02 14
		AMP(pa)	PER(s)
		PZ	0.035 1.0
	BRK	e	22 40 53.0
	FRI	eP	22 40 55.8
		e	22 40 59.7
	JAS1	iPd	22 40 56.4
		i	22 41 00.2
		e	22 41 04.0
	ORV	eP	22 40 57.1
		e	22 41 01.0
	WDC	eP	22 40 57.5
		e	22 41 01.3
		e	22 41 05.4
	MNA	ePc	22 41 06.6
		e	22 41 10.7

USGS 22h29m24.9s 14.7S 175.4W
h=33km mb=5.3 Ms=5.7

DATE	STA	PHASE	TIME (UTC)
Samoa Islands Region			
Jan 2	FHC	iPc	23 14 54.7
	WDC	iPc	23 15 02.2
		e(ScP)	23 20 50.0
	MIN	eP	23 15 08.3
	ORV	iPc	23 15 12.4
		eScP	23 20 54.7
	BRK	eP	23 15 18.2
	BKS	eP	23 15 18.4
		AMP(pa)	PER(s)
		PZ	0.053 0.8
	PCC	eP	23 15 19.3
	GCC	eP	23 15 23.9
	MHC	eP	23 15 24.4
		eScP	23 21 00.6
	JAS1	iPc	23 15 27.7
		eScP	23 21 01.4
	PRS	ePc	23 15 31.4
		eScP	23 21 03.5
	LLA	ePc	23 15 32.0
		e(ScP)	23 21 04.0
	FRI	ePc	23 15 35.6
		eScP	23 21 05.4
	MNA	iPc	23 15 35.9
		iScP	23 21 06.1
	PRI	iPc	23 15 36.4
		eScP	23 21 06.4

USGS 23h08m29.2s 53.5N 171.5W
h=235km mb=4.8
Fox Islands, Aleutian Islands

Jan 3	FRI	iPc	09 22 07.05
		iS	09 22 19.9
	MNA	iPc	09 22 09.1
		iS	09 22 22.9
	JAS1	iPd	09 22 16.05
		iS	09 22 34.1
	LLA	iPc	09 22 24.7
		eS	09 22 51.0
	PRI	iPc	09 22 25.9
		iS	09 22 55.0
	SAO	iPc	09 22 29.6
	MHC	eP	09 22 30.6
		eS	09 23 02.7
	PRS	iPc	09 22 31.1
	GCC	iPc	09 22 34.2
	BKS	ePc	09 22 37.0
		eS	09 23 15.2
	BRK	eP	09 22 37.2
		e(S)	09 23 13.8
	ZSP	eP	09 22 38
		e(S)	09 23 14.3
	PCC	iPc	09 22 38.1
	ORV	e(P)	09 22 39.1
	MIN	e	09 22 48
	WDC	eP	09 22 57.6
		e	09 24 02.6

BRK 09h21m49.5s 37.4N 118.6W
h=4km ML=4.1(6) Mo=7.4E21(2)
25 km NW of Bishop, CA

Jan 3	PRI	iPc	10 45 28.5
		iS	10 45 34.6
	LLA	eP	10 45 34.9
	FRI	iPd	10 45 38.2
	PRS	iPd	10 45 38.4
	SAO	eP	10 45 41.5
	MHC	iPc	10 45 48.4
	GCC	ePd	10 45 48.9
	JAS1	iPd	10 45 51.2
		iS	10 46 13.4
	PCC	e(P)	10 45 55.6
	BKS	eP	10 45 58.4
		e(S)	10 46 26.4
	BRK	eP	10 45 58.5
	MNA	e(P)	10 46 08.2
	ORV	eP	10 46 17.2

BRK 10h45m22.8s 36.2N 120.3W
h=9km ML=3.3(6)
Coalinga Area, CA

Jan 3	PRI	iPd	11 22 33.8
	LLA	iPd	11 22 39.7
	PRS	iPc	11 22 43.1
	FRI	iPd	11 22 43.4
	SAO	iPc	11 22 46.7
	MHC	iPd	11 22 53.3
	GCC	eP	11 22 53.4
	JAS1	iPd	11 22 56.3
	PCC	eP	11 23 00.9
	BKS	eP	11 23 03.4
	BRK	eP	11 23 03.5
	ZSP	eP	11 23 04.6
	MNA	i	11 23 13.0
		i	11 23 16.9
	ORV	e	11 23 21.5
	MIN	e	11 23 35.5
	WDC	e	11 23 48.9

BRK 11h22m27.9s 36.2N 120.3W
h=10km ML=3.8(6)
Coalinga Area, CA

Jan 4	GCC	e	00 10 20.5
	PRS	eP	00 10 20.7
	PRI	eP	00 10 22.3
	SAO	e	00 10 22.5
	LLA	e	00 10 23.0
	BRK	e	00 10 23.3
	BKS	eP	00 10 23.4
		epP	00 10 38.8
		eS	00 20 17
		esS	00 20 52
		eLg	00 30 13
		eLr	00 35 11
		AMP(pa)	PER(s)
		PZ	0.019 1.2
		LZ	2.0 20.
		LN	1.6 20.
		LE	1.5 20.
	MHC	eP	00 10 23.5
	FRI	eP	00 10 24.4
	FHC	e	00 10 29.1
	JAS1	eP	00 10 29.4
	WDC	eP	00 10 32.2
	MIN	eP	00 10 33.6
	ORV	eP	00 10 35.3
	MNA	eP	00 10 38.6

BRK Ms=5.5 Distance=80°
USGS 23h58m34.1s 21.6S 174.1W
h=33km mb=5.4 Ms=5.6
Tonga Islands

Jan 4	GCC	e	02 29 39.5
	PRS	e	02 29 39.5
	PRI	e	02 29 40.4
	MHC	eP	02 29 42.3
	BKS	e(P)	02 29 42.5
		e(S)	02 39 46
		AMP(pa)	PER(s)
		PZ	0.025 0.7
	FRI	eP	02 29 46.5
	JAS1	eP	02 29 47.4
	ORV	eP	02 29 49.2
	WDC	eP	02 29 49.9
	MIN	eP	02 29 50.4
	MNA	e	02 29 56.3

USGS 02h17m34.7s 26.1S 177.5W
h=133km mb=5.3
Tonga Islands

Jan 4	PRS	e	05 11 24.4
	BRK	e	05 11 26.0
	PRI	eP	05 11 26.5
	BKS	eP	05 11 26.7
		AMP(pa)	PER(s)
		PZ	0.013 0.9
	MHC	eP	05 11 26.8
	FRI	eP	05 11 32.2
	JAS1	eP	05 11 33.0
	ORV	eP	05 11 34.3
	WDC	eP	05 11 34.8
	MIN	eP	05 11 36.5
	MNA	eP	05 11 43.3

USGS 05h00m11.9s 16.6S 174.0W
h=143km mb=4.9
Tonga Islands

Jan 4	PRI	iPc	07 12 43.3
	PRS	iPc	07 12 51.6
	LLA	eP	07 12 52.7
	SAO	iPd	07 12 57.8
	FRI	iPd	07 12 59.0
	GCC	e	07 13 05.5
	MHC	eP	07 13 06.2
	JAS1	iPd	07 13 11.9
	PCC	e	07 13 13.7
	BKS	e	07 13 14.3

BRK 07h12m36.6s 35.9N 120.5W
h=5km ML=3.0(2)
Parkfield, 30 km S of Coalinga, CA

Jan 5	MNA	iPc	11 19 39.9
		i	11 20 01.5
		iPcP	11 21 24.0
	FRI	ePc	11 19 41.3
		ePcP	11 21 24.5
	PRI	ePc	11 19 44.8
		ePcP	11 21 26.8
	LLA	ePc	11 19 47.4
		ePcP	11 21 27.9
	JAS1	ePc	11 19 49.2
		ePcP	11 21 28.3
	PRS	ePc	11 19 49.2
		ePcP	11 21 28.5
	SAO	ePc	11 19 51.2
	MHC	ePc	11 19 54.9
		ePcP	11 21 31
	GCC	ePc	11 19 55.5
	PCC	ePc	11 19 59.5
	BKS	iP	11 20 00
		iPcP	11 21 32.9
		iPP	11 21 53.4
		eS	11 26 50
		eScS	11 29 57
		ePKP	11 30 29
		i	11 32 34
		i	11 34 18
		eLg	11 37 43
		eLr	11 40 00
		AMP(pa)	PER(s)
		PZ	0.36 1.1
		LZ	5.5 20.
		LN	4.8 20.
		LE	9.1 20.
	BRK	ePc	11 20 00.2
		ePcP	11 21 33
	ORV	ePc	11 20 01.4
	MIN	ePc	11 20 03.8
	WDC	ePc	11 20 07.8
		iPcP	11 21 36.7
	FHC	ePc	11 20 19.0
		ePcP	11 21 42.6

BRK Ms=5.6 Distance=48°
USGS 11h11m31.1s 10.2N 80.0W
h=33km mb=6.1 Ms=5.7
North of Panama

Jan 5	FHC	eP	15 57 18.2
	WDC	eP	15 57 22.8
	MIN	eP	15 57 26.2
	ORV	eP	15 57 28.8
	BRK	eP	15 57 32.5
	PCC	eP	15 57 32.7
	BKS	eP	15 57 32.9
		AMP(pa)	PER(s)
		PZ	0.094 1.2
	MHC	eP	15 57 35.7
	JAS1	eP	15 57 38.2
	PRS	eP	15 57 40.5
	LLA	eP	15 57 41.2
	FRI	eP	15 57 43.4
	PRI	e	15 57 44.1
	MNA	eP	15 57 45.7

USGS 15h45m38.0s 34.2N 135.6E
h=74km mb=5.6
Near S. Coast of Southern Honshu, Japan

Jan 5	PCC	eP	23 38 47.0
	PRS	e	23 38 47.0
	GCC	e	23 38 47.1
	PRI	eP	23 38 49.0
	MHC	eP	23 38 49.3
	JAS1	eP	23 38 53.2
	FRI	eP	23 38 54.1
	ORV	eP	23 38 54.9
	WDC	eP	23 38 55.1
	MNA	eP	23 39 04.0

USGS 23h27m46.6s 20.0S 178.2W
h=574km mb=5.1
Fiji Islands Region

Jan 6	FHC	eP	06 56 03.9
	WDC	iPc	06 56 09.5
	MIN	iPc	06 56 13.6
	ORV	iPc	06 56 17.0
	BRK	eP	06 56 21.2
	GCC	eP	06 56 25.5
	MHC	eP	06 56 25.9
	JAS1	iPc	06 56 28.2
	SAO	e	06 56 28.4
	PRS	eP	06 56 30.9
	LLA	eP	06 56 31.6
	FRI	eP	06 56 34.3
	PRI	eP	06 56 34.6
	MNA	iPc	06 56 34.8

USGS 06h46m01.3s 45.8N 143.4E
h=314km mb=5.3
Hokkaido, Japan Region

Jan 6	ARC	iP	09 25 59.0
		iS	09 26 11.6
	FHC	iPc	09 26 00.2
		iS	09 26 13.4
	WDC	iPc	09 26 14.9
		iS	09 26 40.4
	MIN	eP	09 26 24.6
	ORV	eP	09 26 27.0
	BKS	eP	09 26 32.7
		i	09 26 33.5
		e(S)	09 27 14.4
	ZSP	e	09 26 32.9
	BRK	eP	09 26 33.2
	PCC	e	09 26 36
	MHC	e	09 26 42.5
	GCC	e	09 26 43.0
	SAO	eP	09 26 49.5
	JAS1	eP	09 26 50.1
	FRI	eP	09 27 03.5

BRK 09h25m40.2s 40.4N 125.3W
h=5kmR ML=4.0(6) Mo=5.7E21(4)
Off Coast, 105 km SW of Eureka, CA

Jan 6	SAO	iPc	18 33 30.7
	LLA	iPc	18 33 30.8
	PRS	iPd	18 33 31.8
	PRI	iPd	18 33 38.4
		iS	18 33 48.4
	GCC	iPc	18 33 39.6
	MHC	iPc	18 33 41.9
		iS	18 33 53.9
	PCC	eP	18 33 47.9
	FRI	ePc	18 33 48.2
	JAS1	eP	18 33 51.4
	BKS	eP	18 33 51.5
		iSe	18 34 12.3
		iSg	18 34 15.9
	BRK	e(P)d	18 33 51.6
	ZSP	iPd	18 33 52.7
	ORV	eP	18 34 12.7
	MNA	eP	18 34 20.0
	MIN	e	18 34 26.1

BRK 18h33m26.0s 36.6N 121.2W
h=8km ML=3.5(4) Mo=3.0E21(2)
Stone Canyon, 30 km SE of Hollister, CA

Jan 7	ARC	eP	04 22 56.8
		iS	04 23 03.4
	FHC	iPd	04 22 56.9
		iS	04 23 02.5
	WDC	eP	04 23 09.2

BRK 04h22m49.8s 41.1N 123.7W
h=5kmR ML=3.2(2)
NE of Eureka, CA

Jan 7	ARC	eP	06 18 12.8
		eS	06 18 33.4
	FHC	iPc	06 18 14.1
		eS	06 18 37.2
	WDC	ePc	06 18 29.3
		eS	06 19 04.0
	MIN	iPc	06 18 39.3
	ORV	eP	06 18 41.2
	ZSP	eP	06 18 43.9
	BKS	iP	06 18 45.1
		iS	06 19 35.9
	BRK	eP	06 18 45.2
		eS	06 19 36
	PCC	eP	06 18 46.7
		eS	06 19 39
	GCC	eP	06 18 54.6
	MHC	eP	06 18 55.3
	SAO	iPd	06 19 01.6
	JAS1	iPd	06 19 03.8
	PRS	iP	06 19 06.5
	LLA	eP	06 19 07.3
	PRI	eP	06 19 14.4
	FRI	eP	06 19 15.0
	MNA	eP	06 19 22.9

BRK 06h17m41.9s 40.4N 126.3W
h=5kmR ML=4.9(8) Mo=2.2E23(2)
200 km W of Cape Mendocino, CA

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DATE	STA	PHASE	TIME (UTC)
Jan 7	PCC	eP	12 06 01.0
	PRS	eP	12 06 01.6
	SAO	eP	12 06 02.0
	BRK	eP	12 06 02.8
	BKS	ePd	12 06 03.5
		AMP(µa)	PER(s)
		PZ 0.047	0.7
	PRI	eP	12 06 03.8
	MHC	eP	12 06 03.8
	LLA	eP	12 06 04.0
	FRI	eP	12 06 09.2
	JAS1	eP	12 06 09.5
	ORV	eP	12 06 10.3
	WDC	iPc	12 06 10.4
	MIN	eP	12 06 12.3
	MNA	iPc	12 06 19.6
USGS 11h55m07.6s 16.4S 178.2W			
h=473km mb=5.1			
Fiji Islands Region			
Jan 7	MIN	e	12 13 43.9
	ORV	eP	12 13 46.2
	JAS1	eP	12 13 54.5
USGS 12h01m08.6s 26.8N 131.3E			
h=19km mb=5.2 Ms=4.5			
Ryuku Islands Region			
Jan 7	PRS	e	19 38 06.4
	WDC	eP	19 38 09.4
	ORV	e	19 38 10.1
	JAS1	eP	19 38 11.1
		e	19 41 32.7
	FRI	e	19 38 12.1
	MNA	eP	19 38 20.1
USGS 19h25m46.4s 15.6S 167.6E			
h=141km mb=5.2			
Vanuatu Islands			
Jan 8	PRS	eP	03 07 15.8
	MHC	eP	03 07 18.5
	FRI	eP	03 07 22.2
	JAS1	iPc	03 07 23.3
	ORV	eP	03 07 25.6
	WDC	eP	03 07 26.5
	MNA	e	03 07 31.0
USGS 02h54m44.7s 31.1S 178.3W			
h=92km mb=5.5			
Kermadec Islands Region			
Jan 8	MIN	iP	04 22 11.7
		iPc	04 22 11.8
		iS	04 22 18.1
	WDC	iPd	04 22 12.8
	ORV	iPc	04 22 20.9
		iS	04 22 33.3
	FHC	e	04 22 33.9
	JAS1	eP	04 22 51.6
	MHC	e	04 22 53
BRK 04h22m05.5s 40.3N 122.1W			
h=3km ML=3.0(2)			
20 km NE of Red Bluff, CA			
Jan 8	FRI	eP	07 00 02.6
		iS	07 00 19.7
	MNA	iPc	07 00 07.3
		iS	07 00 28.0
	JAS1	iPd	07 00 16.7
		iS	07 00 45.4
	PRI	eP	07 00 17.9
	LLA	eP	07 00 20.2
	SAO	iPc	07 00 24.2
	PRS	e	07 00 24.8
	MHC	eP	07 00 28.0
	GCC	e	07 00 31.5
	PCC	e	07 00 34.2
	BKS	e	07 00 36
		e	07 01 27.6
	ORV	e	07 00 41.0
BRK 06h59m38.7s 36.9N 118.1W			
h=1kmR ML=3.6(4)			
35 km N of Lone Pine, CA			
Jan 9	GCC	iPc	01 43 37.0
	PCC	iPc	01 43 37.1
	PRS	iPc	01 43 37.2
	SAO	iPc	01 43 37.8
	BRK	iPc	01 43 38.6
	BKS	iPc	01 43 38.9
		e	01 43 42.5
		AMP(µa)	PER(s)
		PZ 0.22	1.0
	PRI	iPc	01 43 39.2
	LLA	iPc	01 43 39.3
	MHC	iPc	01 43 39.5
	FHC	iPc	01 43 43.0
	FRI	iPc	01 43 44.1
	JAS1	iPc	01 43 44.8
		epP	01 46 01.2
	ORV	iPc	01 43 46.1
	WDC	iPc	01 43 46.3
		epP	01 46 03.2
	MIN	iPc	01 43 47.9
	MNA	iPc	01 43 53.9
USGS 01h32m38.9s 20.8S 179.1W			
h=662km mb=5.3			
Fiji Islands Region			
Jan 9	WDC	e(P)	03 33 19
	MHC	e	03 33 20.5
	MIN	eP	03 33 20.8
	ORV	eP	03 33 20.9
	JAS1	eP	03 33 24.4
	FRI	eP	03 33 26.5
	MNA	eP	03 33 33.0
USGS 03h20m09.8s 6.4S 150.5E			
h=33km mb=5.3 Ms=4.5			
New Britain Region			
Jan 9	FHC	ePc	15 08 48.9
	WDC	ePc	15 09 04.6
	MIN	eP	15 09 15.4
	ORV	e	15 09 22
Jan 9	WDC	eP	16 06 30.9
		e	16 06 44.2
	MIN	eP	16 06 35
		e	16 06 48.4
	ORV	eP	16 06 38.5
		e	16 06 51.8
	JAS1	eP	16 06 49.9
		e	16 07 03.4
	PRS	eP	16 06 52.2
		e	16 07 06
	LLA	e(P)	16 06 53
		e	16 07 06
	FRI	eP	16 06 56.3
		e	16 07 09.6
	MNA	eP	16 06 57.3
		e	16 07 14.8
	PRI	e	16 07 09.8
USGS 15h56m11.0s 44.3N 149.2E			
h=35km mb=5.4 Ms=4.8			
Kuril Islands			
Jan 9	FHC	ePd	19 33 18.6
	WDC	iPd	19 33 24.8
		i	19 34 22.7
		e(ScS)	19 42 50
	MIN	iPd	19 33 29.7
	ORV	ePd	19 33 36.6
	BKS	e(P)c	19 33 50.8
		eS	19 38 42.0
		i	19 40 57.0
		eLr	19 41 06.0
		i	19 43 56.0
		i	19 44 45.0
		i	19 45 33.0
		AMP(µa)	PER(s)
		PZ 0.20	1.5
	JAS1	ePd	19 33 53.7
		i	19 34 53.3
		e(PcP)	19 37 05
		e(ScS)	19 43 05
	MHC	e(P)d	19 33 55.6
	MNA	iPd	19 33 56.95
		e(PcP)	19 37 09.8
		e(ScS)	19 43 10
	FRI	ePd	19 34 03.3
		e	19 35 06.6
	PRI	e(P)	19 34 08.9
USGS 19h28m21.2s 60.3N 140.7W			
h=15km mb=5.4 Ms=5.1			
Southeastern Alaska			
Jan 10	MHC	iPd	05 47 56.8
	GCC	iPd	05 48 02.3
		iS	05 48 08.3
	SAO	iPd	05 48 05.5
	PCC	iPc	05 48 06.8
	BRK	iPc	05 48 09.9
	LLA	ePc	05 48 10.6
	BKS	iP	05 48 10.9
		i	05 48 12.9
		iS	05 48 21.8
	ZSP	iPc	05 48 11.4
		iS	05 48 25.6
	PRS	ePd	05 48 12.6
	JAS1	iPc	05 48 16.3
		iS	05 48 32.4
	PRI	e(P)	05 48 19.1
	FRI	ePc	05 48 22.0
		iS	05 48 42.4
	ORV	ePc	05 48 34.5
		i	05 48 34.5
BRK 05h47m54.9s 37.3N 121.6W			
h=5km ML=3.2(4) Mo=8.6E20(4)			
San Felipe Valley, 23 km SE of San Jose, CA			
Jan 10	FRI	e(P)	07 50 37.4
	JAS1	iPd	07 50 38.5
	ORV	e(P)	07 50 40.1
	WDC	e(P)	07 50 40.7
	MIN	e(P)	07 50 42.5
	MNA	iPd	07 50 48.4
USGS 07h38m53.3s 20.7S 173.6W			
h=74km mb=4.9			
Tonga Islands			
Jan 10	GCC	e(P)	12 47 29.3
	PRS	eP	12 47 29.3
	PCC	eP	12 47 29.9
	SAO	e(P)	12 47 30
	BRK	e(P)	12 47 31.2
	PRI	eP	12 47 31.4
	LLA	e(P)	12 47 31.5
	MHC	eP	12 47 31.9
	BKS	eP	12 47 32.6
		AMP(µa)	PER(s)
		PZ 0.014	0.8
	FRI	ePc	12 47 36.5
	JAS1	iPc	12 47 37.4
	ORV	eP	12 47 39.2
	WDC	eP	12 47 39.7
	MIN	eP	12 47 41.2
	MNA	iPc	12 47 46.5
USGS 12h35m46.3s 22.7S 176.6W			
h=182km mb=5.0			
South of Fiji Islands			
Jan 10	MNA	eP	17 59 18.8
		e	18 02 05.7
	FRI	eP	17 59 25.0
	JAS1	eP	17 59 29.7
		e	17 59 52.5
	PRI	eP	17 59 30.3
	LLA	eP	17 59 32.5
		e	17 59 45.2
	ORV	eP	17 59 34.0
		i	17 59 57.6
	MIN	eP	17 59 34.2
	PRS	eP	17 59 34.4
	MHC	eP	17 59 35.8
	WDC	eP	17 59 36.9
	BKS	e(P)c	17 59 39.7
		e	17 59 54.0
		e	18 05 45.0
		eS	18 09 20.0
		e	18 09 35.0
		e	18 09 43.0
		e	18 09 56.0
		eLq	18 19 11.0
		eLr	18 23 41.0
		e	18 27 45.0
		AMP(µa)	PER(s)
		PZ 0.072	1.1
		LZ 5.0	20.
		LN 4.8	20.
		LE 3.9	20.
	FHC	eP	17 59 47.3
BRK Ms=5.9 Distance=78°			
USGS 17h47m56.0s 10.8N 43.4W			
h=10km mb=5.8 Ms=5.8			
North Atlantic Ridge			
Jan 11	MHC	iPc	09 58 26.0
	GCC	eP	09 58 31.9
	SAO	iPc	09 58 34.3
	PCC	eP	09 58 36.7
		iS	09 58 48.3
	BRK	eP	09 58 39.3
	LLA	iPc	09 58 39.5
		iS	09 58 54.0
	BKS	iPd	09 58 39.5
		i	09 58 41.4
		i	09 58 42.9
		iS	09 58 52.0
		i	09 58 57.0
		i	09 58 58.2
	ZSP	eP	09 58 41.2
	PRS	eP	09 58 41.8
	PRI	e	09 58 42.0
	JAS1	iPd	09 58 44.8
		iS	09 59 01.0
	FRI	eP	09 58 50.4
BRK 09h58m24.0s 37.3N 121.6W			
h=6km ML=2.7(4) Mo=1.6E20(2)			
25 km ESE of San Jose, CA			
Jan 11	JAS1	ePKP1	14 50 35.0
		ePKP2	14 50 41.5
	MNA	ePKP1	14 50 35.1
		ePKP2	14 50 41.5
	FRI	ePKP1	14 50 37.5
		ePKP2	14 50 45.0
		e	14 50 55.2
	LLA	ePKP1	14 50 39.5
		ePKP2	14 50 45.9
	PRS	ePKP1	14 50 40.8
		ePKP2	14 50 46.2
	PRI	ePKP1	14 50 41.4
		ePKP2	14 50 47.8
USGS 14h30m59.5s 2.7S 68.0E			
h=10km mb=5.3 Ms=5.5			
Carlsberg Ridge			
Jan 11	WDC	ePKP	15 00 06.0
		ePP	15 00 28.5
	MIN	ePKP	15 00 07.1
	ORV	ePKP	15 00 07.9
	MHC	e	15 00 10.2
	JAS1	ePKP	15 00 10.5
		e	15 01 37.2
		ePKKP	15 11 23.1
	PRS	ePKP	15 00 10.5
	LLA	ePKP	15 00 11.1
		ePKKP	15 11 24.2
	FRI	ePKP	15 00 12.0
		ePP	15 00 50.3
	PRI	ePKP	15 00 12.1
	MNA	ePKP	15 00 14.2
		ePP	15 00 56.2
		e	15 01 36.2
USGS 14h41m58.5s 0.2N 123.6E			
h=189km mb=5.9			
Minahassa Peninsula			
Jan 12	FHC	eP	08 38 54.1
	WDC	e(P)	08 39 08.2
	MIN	e	08 39 19
	ORV	iPc	08 39 27.0
	BRK	e	08 39 38.1
	BKS	e(P)	08 39 38.1
		e	08 41 32.0
		e	08 41 55.0
		e	08 42 24.0
		eS	08 42 41.0
		e	08 43 09.0
		AMP(µa)	PER(s)
		PZ 0.052	1.3
	MHC	e	08 39 49.0
	JAS1	ePc	08 39 51.5
	LLA	e	08 40 02.3
	FRI	ePc	08 40 06.0
	MNA	e	08 40 07.5
USGS 08h38m02.1s 43.4N 126.7W			
h=10km mb=4.6			
Off Coast of Oregon			
Jan 13	FHC	eP	22 04 22.3
	WDC	eP	22 04 27.5
	MIN	eP	22 04 29.9
	ORV	eP	22 04 32.7
	BRK	e	22 04 35.2
	BKS	ePd	22 04 35.7
		AMP(µa)	PER(s)
		PZ 0.041	1.0
	GCC	eP	22 04 38.1
	MHC	eP	22 04 38.8
	JAS1	eP	22 04 40.6
		i	22 05 08.4
	PRS	eP	22 04 42.2
	LLA	eP	22 04 42.4
	FRI	eP	22 04 44.9
		i	22 04 55.1
	PRI	eP	22 04 45.2
	MNA	eP	22 04 46.3
USGS 21h51m22.1s 24.1N 122.4E			
h=43km mb=5.8 Ms=5.3			
Taiwan Region			
Jan 14	WDC	ePc	02 46 45.6
	MIN	eP	02 46 49.8
	ORV	eP	02 46 53.2
	MHC	e	02 47 02.4
	JAS1	eP	02 47 05.0
	PRS	e	02 47 07.7
	LLA	e	02 47 08.4
	FRI	eP	02 47 11.1
	MNA	eP	02 47 12.0
USGS 02h36m31.3s 46.1N 149.5E			
h=22km mb=5.3 Ms=4.7			
Kuril Islands			
Jan 14	FHC	eP	05 17 45.5
	WDC	iPc	05 17 53.0
		iPcP	05 19 51.5
	MIN	iPc	05 17 58.2
	ORV	iPc	05 18 02.4
		ePcP	05 19 55.2
	BRK	eP	05 18 07.5
	BKS	ePc	05 18 07.7
		e	05 18 08.1
		e	05 18 10.1
		e	05 18 13.4
		AMP(µa)	PER(s)
		PZ 0.11	0.7
	PCC	eP	05 18 08.5
	GCC	eP	05 18 13.0
	MHC	iPc	05 18 13.6
		ePcP	05 20 00.5
	JAS1	iP	05 18 16.8
	SAO	eP	05 18 16.9
	PRS	eP	05 18 20.0
	LLA	eP	05 18 20.8
	FRI	iPc	05 18 24.5
		ePcP	05 20 04.4
	MNA	iPc	05 18 25.0
	PRI	iPc	05 18 25.0
USGS 05h10m35.4s 52.4N 179.8W			
h=213km mb=5.0			
Andreanof Islands, Aleutian Islands			
Jan 14	ZSP	eP	12 05 08.9
		iS	12 05 23.2
	BRK	eP	12 05 09.5
		iS	12 05 24.2
	BKS	iPd	12 05 09.9
		i	12 05 10.9
		i	12 05 11.8
		i	12 05 12.6
		iS	12 05 24.6
		i	12 05 28.4
		i	12 05 29.2
	ORV	eP	12 05 12.5
		i	12 05 20.5
	PCC	eP	12 05 15.5
	MHC	eP	12 05 20.0
	JAS1	eP	12 05 24.5
		iS	12 05 51.4
	WDC	eP	12 05 26.6
	SAO	e	12 05 27.7
BRK 12h04m50.3s 38.8N 122.8W			
h=3km ML=2.9(2)			
35 km N of Santa Rosa, CA			
Jan 15	ORV	e	18 38 23.7
	JAS1	e	18 38 33.7

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DATE	STA	PHASE	TIME (UTC)
	FRI	e	10 38 35.8
	MNA	eP	10 38 42.5
USGS 10h25m38.3s 6.3S 154.6E			
h=54km mb=5.5 Ms=5.7			
Solomon Islands			
Jan 15	MNA	eP	12 06 03.3
	JAS1	e	12 06 11.0
	ORV	eP	12 06 26.5
USGS 12h00m11.3s 16.5N 98.1W			
h=30km mb=5.1			
Near Coast of Guerrero, Mexico			
Jan 15	FHC	eP	22 48 56
	GCC	eP	22 48 56.7
	BRK	eP	22 48 56.8
	PRS	eP	22 48 58.2
	MHC	eP	22 48 58.9
	WDC	eP	22 49 00.2
	LLA	eP	22 49 00.2
	PRI	ePc	22 49 01.0
	ORV	ePc	22 49 02.2
	MIN	eP	22 49 03.0
	JAS1	ePc	22 49 03.9
		e	22 52 22
	FRI	eP	22 49 05.0
		e	22 52 23.8
	MNA	ePc	22 49 13.4
USGS 22h36m33.9s 10.3S 165.0E			
h=33km mb=5.5 Ms=5.7			
Santa Cruz Islands			
Jan 16	FHC	iPc	07 36 30.45
		i	07 36 37.5
		iS	07 36 44.0
	WDC	iPc	07 36 46.2
	MIN	iPc	07 36 56.4
		iS	07 37 29.1
	ORV	ePc	07 37 00.3
		i	07 37 01.5
		iS	07 37 34.8
	BRK	e(P)	07 37 08.0
	BKS	iPd	07 37 08.7
		eS	07 37 50.0
	PCC	iPc	07 37 11.4
	MHC	e(P)	07 37 18.7
		e	07 38 08
	GCC	e(P)	07 37 18.7
	SAO	e(P)	07 37 25.2
	FRI	iPd	07 37 38.8
BRK 07h36m12.7s 40.7N 125.3W			
h=6km ML=3.8(6) Mo=2.6E21(2)			
Off Coast, 100 km SW of Eureka, CA			
Jan 17	JAS1	iPc	02 01 46.8
		iS	02 02 00.4
	MNA	iPc	02 01 48.0
		iS	02 02 05.4
	FRI	iPd	02 01 58.5
	ORV	iPd	02 01 59.0
	MHC	iPc	02 02 05.5
		i	02 02 07.9
		iS	02 02 34.6
	BRK	ePd	02 02 06.8
	BKS	eP	02 02 07.2
		eS	02 02 36.6
	LLA	ePd	02 02 07.3
		iS	02 02 40.6
	ZSP	eP	02 02 08.5
		i	02 02 09.8
		e(S)	02 02 36
	SAO	iP	02 02 08.8
	MIN	iPd	02 02 09.4

DATE	STA	PHASE	TIME (UTC)
	PCC	eP	02 02 10.2
		i	02 02 12.2
	PRS	eP	02 02 12.9
		e	02 02 49
	GCC	e(P)	02 02 13.2
	PRI	eP	02 02 14.5
		i	02 02 47.4
		i	02 02 53.8
	WDC	e	02 02 15.8
BRK 02h01m27.5s 38.7N 119.5W			
h=4km ML=3.0(6) Mo=7.3E21(2)			
20 km E of Markleeville, CA			
Jan 17	PRI	ePd	03 59 35.7
	MNA	ePd	03 59 36.0
	FRI	e(P)d	03 59 37.4
	LLA	ePd	03 59 38.5
		e	04 00 08.2
	PRS	eP	03 59 39.2
	JAS1	ePd	03 59 41.2
	GCC	e(P)	03 59 43.8
	MHC	eP	03 59 44.2
	BKS	eP	03 59 47.9
			AMP(μm) PER(s)
		PZ	0.016 0.8
	ORV	ePd	03 59 51.1
		e	04 00 21.0
	WDC	ePd	03 59 56.3
		e	04 00 26.2
	FHC	e(P)	04 00 03.9
USGS 03h48m07.3s 20.4S 68.9W			
h=117km mb=5.0			
Northern Chile Region			
Jan 17	PRI	e(P)	04 36 09.6
	FRI	iPd	04 36 13.6
	MHC	e(P)	04 36 18.0
	JAS1	iPd	04 36 20.4
	MNA	ePd	04 36 22.7
	WDC	ePd	04 36 36.3
USGS 04h24m54.4s 33.9S 111.5W			
h=10km mb=4.6			
Easter Island Cordillera			
Jan 17	WDC	e(P)	11 29 09.5
		e	11 29 21.3
	ORV	e(P)	11 29 14.7
		e	11 29 27.5
	JAS1	e(P)	11 29 24.1
	FRI	e(P)	11 29 29.4
		e	11 29 40
	MNA	e(P)	11 29 33.2
USGS 11h17m27.3s 28.8N 142.4E			
h=33km mb=5.1 Ms=4.7			
Bonin Islands Region			
Jan 17	WDC	e	19 27 52.6
		e	19 28 05.9
	MIN	eP	19 27 54.4
		e	19 28 11.7
	JAS1	iP	19 28 17.7
		e	19 28 31.2
	MNA	iP	19 28 22.4
		e	19 28 35.8
	FRI	eP	19 28 27.1
		e	19 28 40.1
USGS 19h22m16.0s 60.3N 150.8W			
h=60km mb=4.6			
Kenai Peninsula, Alaska			
Jan 17	FHC	e	21 46 34.8
	WDC	eP	21 46 38.9
	BKS	eP	21 46 39.8

DATE	STA	PHASE	TIME (UTC)
			AMP(μm) PER(s)
		PZ	0.017 0.7
	MHC	e	21 46 40.8
	MIN	eP	21 46 41.5
	ORV	eP	21 46 42.0
	PRS	e	21 46 43.3
	LLA	e	21 46 44.7
	JAS1	eP	21 46 46.0
		e	21 51 43.5
	PRI	eP	21 46 46.1
	FRI	eP	21 46 47.7
	MNA	eP	21 46 56.0
USGS 21h33m09.4s 3.8S 141.8E			
h=34km mb=5.7 Ms=5.8			
Papua New Guinea			
Jan 17	FHC	eP	21 57 36.9
	WDC	eP	21 57 40.3
		e	22 01 44.8
	BRK	e	21 57 42.0
	BKS	eP	21 57 42.6
			AMP(μm) PER(s)
		PZ	0.047 0.8
	GCC	eP	21 57 43.0
	ORV	eP	21 57 43.3
	MHC	eP	21 57 44.5
	PRS	eP	21 57 45.7
	LLA	eP	21 57 47.1
	JAS1	eP	21 57 48.2
		e	22 01 48.5
	PRI	eP	21 57 48.7
	FRI	eP	21 57 50.8
	MNA	eP	21 57 56.9
USGS 21h44m11.2s 3.7S 141.7E			
h=28km mb=5.8 Ms=5.8			
Papua New Guinea			
Jan 18	FRI	eP	15 12 12.0
	PRI	eP	15 12 13.8
	MNA	eP	15 12 14.8
	LLA	eP	15 12 15.8
		e	15 12 38.1
	PRS	eP	15 12 16.1
	SAO	eP	15 12 17.3
	JAS1	eP	15 12 19.0
		i	15 12 41.4
	GCC	eP	15 12 20.3
	MHC	eP	15 12 20.8
		e	15 12 43.3
	PCC	e	15 12 23.1
	BRK	eP	15 12 24.4
	BKS	eP	15 12 24.5
			AMP(μm) PER(s)
		PZ	0.051 0.6
	ORV	iPd	15 12 28.3
		i	15 12 50.3
	MIN	eP	15 12 30.0
	WDC	eP	15 12 33.2
		i	15 12 55.6
USGS 15h00m09.0s 29.4S 70.8W			
h=83km mb=5.7			
Central Chile			
Jan 19	MNA	e(P)	00 16 26.0
		e	00 16 30.5
		e	00 16 34.2
	FRI	e(P)	00 16 36.5
		e	00 16 41.1
	JAS1	e(P)	00 16 39
		i	00 16 43.5
		i	00 16 48.0
		e	00 16 53.1
	ORV	e(P)	00 16 39.7

DATE	STA	PHASE	TIME (UTC)
		e	00 16 44.6
	LLA	e(P)	00 16 45
		e	00 16 49.8
	MHC	e(P)	00 16 47.0
		e	00 16 51.8
USGS 00h06m07.6s 30.0N 42.8W			
h=10km mb=4.9 Ms=4.4			
North Atlantic Ridge			
Jan 19	FRI	eP	00 31 17.2
		e	00 31 27.5
		i	00 31 31.4
		e(S)	00 32 19.5
	PRI	e	00 31 21
		i	00 31 35.4
	MNA	i(P)	00 31 28.8
		iS	00 32 47.6
	JAS1	eP	00 31 34.8
		e	00 31 47
		eS	00 32 51
	MHC	e	00 31 36
BRK Mag=4.2			
PAS 00h30m15.0s 34.0 116.4			
h=3km ML=3.9			
Southern California			
Jan 19	MHC	iPd	11 56 39.1
	GCC	iP	11 56 45.3
	PCC	eP	11 56 49.2
	SAO	iPd	11 56 49.2
	BRK	eP	11 56 52.1
		e(S)	11 57 03.8
	BKS	eP	11 56 52.1
		eS	11 57 04.2
	ZSP	eP	11 56 53.7
		eS	11 57 06.2
	LLA	eP	11 56 54.6
	PRS	eP	11 56 56.2
	JAS1	iPc	11 56 59.2
		iS	11 57 15.3
	FRI	e(P)	11 57 05.3
		eS	11 57 26.0
	PRI	e	11 57 05.6
BRK 11h56m37.8s 37.3N 121.7W			
h=4km ML=2.7(4) Mo=7.0E19(2)			
15 km E of San Jose, CA			
Jan 19	MNA	iPc	12 47 32.1
	FRI	eP	12 47 42.5
	MIN	eP	12 47 44.9
	JAS1	eP	12 47 45.1
		i	12 48 16.6
	ORV	ePc	12 47 46.0
	LLA	e(P)	12 47 50.7
	MHC	eP	12 47 53.4
	PCC	e(P)	12 47 55.8
USGS 12h37m13.2s 29.9N 42.7W			
h=10km mb=5.0 Ms=4.9			
North Atlantic Ridge			
Jan 21	WDC	e(Pdif)	01 09 33
		e(PP)	01 13 44
	JAS1	e(Pdif)	01 09 47
		e(PP)	01 14 14
	MNA	e(Pdif)	01 09 56
		e(PP)	01 13 53
	ORV	e(PP)	01 13 56.5
	BKS	ePP	01 14 08
		eS	01 20 18
		ePS	01 23 16
		e(SS)	01 29 06
		eSSS	01 33 00
		e	01 36 20

DATE	STA	PHASE	TIME (UTC)
	eG		01 38 42
	eLr		01 42 42
	eG2		02 42 00
	eR2		02 53 40
			AMP(μm) PER(s)
	LZ		27 20.
	LN		5.7 20.
	LE		18 20.
BRK Ms=6.6 Distance=104°			
USGS 00h55m22.7s 1.0S 128.5E			
h=33km mb=5.8 Ms=6.7			
Halmahera			
Jan 21	BKS	eP	08 05 19.5
		e	08 05 21.3
			AMP(μm) PER(s)
		PZ	0.035 1.0
	MHC	eP	08 05 25.0
	FRI	eP	08 05 25.0
	JAS1	eP	08 05 25.7
	ORV	eP	08 05 26.9
	WDC	eP	08 05 28.5
	MIN	eP	08 05 29.3
	MNA	eP	08 05 35.1
USGS 07h54m03.9s 19.9S 177.8W			
h=401km mb=4.9			
Fiji Islands Region			
Jan 22	WDC	ePKP	08 16 35.7
	MIN	ePKP	08 16 37.0
	ORV	ePKP	08 16 38.3
	JAS1	ePKP	08 16 41.3
	PRS	e	08 16 42.3
	FRI	ePKP	08 16 42.9
	MNA	e	08 16 43.5
USGS 07h57m36.0s 5.9S 104.6E			
h=33km mb=5.6			
Southern Sumatera			
Jan 22	PCC	iPd	18 16 34.3
		iS	18 16 37.0
	BRK	iPc	18 16 36.3
		e	18 16 39.8
	BKS	iPc	18 16 36.4
		iS	18 16 41.1
	ZSP	iPc	18 16 37.6
		iS	18 16 42.0
	GCC	e(P)	18 16 44.4
	MHC	iPc	18 16 44.9
		eS	18 16 55.7
	SAO	iPc	18 16 51.6
	JAS1	ePc	18 16 58.3
	LLA	e	18 17 01.0
	PRS	e	18 17 02.9
BRK 18h16m30.5s 37.7N 122.5W			
h=9km ML=2.6(4) Mo=2.3E20(2)			
2 km NW of Pacifica, CA			
Jan 23	ZSP	iPc	01 10 19.3
		e(S)	01 10 34.2
	BRK	ePd	01 10 20.4
		eS	01 10 34.4
	BKS	ePd	01 10 20.4
		iS	01 10 34.0
	ORV	ePc	01 10 22.6
	PCC	ePc	01 10 24.1
	MHC	ePd	01 10 30.2
	WDC	e(P)	01 10 31.0
	MIN	eP	01 10 31.5
	GCC	eP	01 10 31.6
	JAS1	ePc	01 10 35.1
		eS	01 11 02.6
	SAO	ePc	01 10 38.0

DATE	STA	PHASE	TIME (UTC)
	LLA	e	01 10 43.4
	PRS	e	01 10 43.8
	FHC	e	01 10 46.5
	FRI	ePd	01 10 50.0
	PRI	e	01 10 52.0
	MNA	e	01 10 59.0
BRK 01h10m00.9s 38.8N 122.8W			
h=4km ML=3.1(6) Mo=2.5E21(2)			
25 km S of Clear Lake, CA			
Jan 23	PRS	eP	18 13 58.1
	PCC	ePd	18 13 58.5
	SAO	e(P)	18 13 59.2
	PRI	eP	18 14 00.1
	MHC	e(P)	18 14 00.2
	FRI	eP	18 14 05.9
	JAS1	ePd	18 14 06.3
		e	18 14 14.3
	ORV	e(P)	18 14 07.6
	WDC	eP	18 14 07.6
	MNA	eP	18 14 16.9
		e	18 14 24.8
USGS 18h02m36.3s 14.6S 175.3W			
h=33km mb=4.9 Ms=5.2			
Samoa Islands Region			
Jan 23	JAS1	e(P)	20 56 03.8
		e	20 56 53
	WDC	e(P)	20 56 05.7
		e	20 56 56
	ORV	e	20 56 05.7
		e	20 56 12.5
		e	20 56 56
USGS 20h44m40.3s 15.0S 173.1W			
h=33km mb=5.2 Ms=5.4			
Tonga Islands			
Jan 24	MNA	iPc	11 27 32.7
	JAS1	iPc	11 27 44.4
	FRI	iPd	11 27 46.1
	LLA	ePd	11 27 59.7
	MHC	iPc	11 28 01.5
	ORV	iPc	11 28 02.5
	PRI	ePd	11 28 02.6
	SAO	ePc	11 28 03.1
	BRK	eP	11 28 05.5
	BKS	ePn	11 28 05.6
		e(Sg)	11 28 45.9
	GCC	ePc	11 28 05.9
	PRS	ePd	11 28 05.9
	ZSP	iPc	11 28 06.0
		iS	11 28 45.5
	PCC	ePc	11 28 07.7
	MIN	ePc	11 28 11.0
	WDC	eP	11 28 19.9
	FHC	e(P)	11 28 37
BRK 11h27m21.6s 38.2N 118.8W			
h=8km ML=5.2(8) Mo=2.0E23(2)			
20 km NE of Mono Lake, CA			
Jan 25	FRI	eP	04 04 00.0
	MNA	eP	04 04 08.4
	JAS1	iPc	04 04 10.6
	ORV	e	04 04 31.7
USGS 03h59m24.8s 19.3N 109.0W			
h=10km mb=3.9			
Revilla Gigedo Islands Region			
Jan 25	PRI	eP	06 50 13.3
	FRI	eP	06 50 13.[illegible]
	PRS	eP	06 50 13.[illegible]
	LLA	eP	06 50 13.[illegible]
	SAO	e	06 50 [illegible].7

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DATE	STA	PHASE	TIME (UTC)
	MNA	eP	06 50 24.0
	JAS1	iPd	06 50 27.2
	GCC	eP	06 50 27.2
	MHC	eP	06 50 28.4
	BKS	eP	06 50 35.8
		eS	06 54 42
		e(ScS)	07 02 25
			AMP(μm) PER(s)
		PZ	0.16 1.2
		LZ	2.5 20.
		LN	3.6 20.
		LE	2.5 20.
	BRK	e	06 50 36.1
	ORV	eP	06 50 47.2
	MIN	eP	06 50 54.5
	WDC	eP	06 50 57.9

BRK Ms=4.9 Distance=23°
USGS 06h45m43.7s 19.6N 108.9W
h=10km mb=5.2 Ms=4.7
Revilla Gigedo Islands Region

Jan 25	ORV	eP	12 28 46.0
	JAS1	eP	12 29 11.0
	FRI	e	12 29 25.0

USGS 12h27m08.4s 43.8N 128.1W
h=10km
Off Coast of Oregon

Jan 25	GCC	eP	21 27 13.8
		e	21 28 03.6
	PRS	eP	21 27 13.8
		e	21 28 03.6
	PCC	eP	21 27 14.3
	SAO	eP	21 27 14.7
	BRK	eP	21 27 15.8
	PRI	ePc	21 27 15.9
	LLA	eP	21 27 16.1
	BKS	eP	21 27 16.4
			AMP(μm) PER(s)
		PZ	0.053 0.8
	MHC	eP	21 27 16.5
		e	21 28 06.3
	FHC	eP	21 27 21.0
	FRI	eP	21 27 21.2
		e	21 28 10.2
	JAS1	ePc	21 27 21.8
		e	21 28 11.0
	ORV	eP	21 27 23.6
		e	21 28 14.0
	WDC	eP	21 27 24.3
		e	21 28 14.3
	MIN	eP	21 27 26.5
	MNA	ePc	21 27 31.0
		e	21 28 18.0

USGS 21h15m28.9s 23.1S 177.3W
h=203km mb=5.5
South of Fiji Islands

Jan 26	FRI	iP	03 19 32.4
	PRI	iPc	03 19 33.3
	MNA	iPc	03 19 35.0
	LLA	iPc	03 19 35.6
	PRS	iPc	03 19 36.0
	SAO	eP	03 19 37.2
	JAS1	iPc	03 19 38.8
	GCC	iPc	03 19 40.1
	MHC	ePc	03 19 41.2
	PCC	eP	03 19 42.6
	BKS	ePc	03 19 43.6
		ePcP	03 20 02.4
		eS	03 30 20.0
		eSS	03 36 45.0
		eLg	03 44 00.0

DATE	STA	PHASE	TIME (UTC)
		eLr	03 48 30.0
			AMP(μm) PER(s)
		PZ	0.32 1.4
		LZ	3.6 20.
		LN	3.0 20.
		LE	0.89 20.
	BRK	eP	03 19 43.7
	ORV	iPc	03 19 47.5
	MIN	eP	03 19 49.2
	WDC	iPc	03 19 52.3
	FHC	eP	03 19 58.3

BRK Ms=5.8 Distance=92°
USGS 03h06m57.8s 33.1S 68.5W
h=5km mb=6.0 Ms=5.9
Mendoza Province, Argentina

Jan 26	FHC	eP	14 54 49.3
	WDC	eP	14 55 03.4
	MIN	eP	14 55 16.3
	ORV	eP	14 55 21.6
	MHC	eP	14 55 45.0
	JAS1	eP	14 55 47.7
	FRI	eP	14 56 02.2

USGS 14h54m06.1s 42.6N 126.6W
h=10km mb=4.7
Off Coast of Oregon

Jan 26	FHC	eP	17 51 21.8
	WDC	iPc	17 51 27.6
	MIN	iPc	17 51 31.8
	ORV	iPc	17 51 35.5
	BRK	eP	17 51 39.2
	BKS	eP	17 51 40.8
			AMP(μm) PER(s)
		PZ	0.018 0.9
	GCC	eP	17 51 43.5
	MHC	eP	17 51 44.0
	JAS1	iPc	17 51 46.6
	PRS	eP	17 51 49.0
	LLA	eP	17 51 49.8
	FRI	eP	17 51 52.5
	MNA	eP	17 51 53.5

USGS 17h41m14.4s 44.9N 146.6E
h=173km mb=5.3
Kuril Islands

Jan 26	FHC	eP	19 19 00.7
	WDC	eP	19 19 15.7
	ORV	eP	19 19 45.5
	JAS1	eP	19 20 00.2
	FRI	eP	19 20 15.0

USGS 19h18m20.3s 42.6N 126.4W
h=10km mb=4.6
Off Coast of Oregon

Jan 26	FHC	ePc	21 48 06.7
		ePcP	21 48 16.1
		epP	21 48 36.0
		epPcP	21 48 45.2
		esP	21 48 50.2
	WDC	iPc	21 48 11.4
		ePcP	21 48 19.3
		epP	21 48 40.9
	MIN	eP	21 48 14.8
		epP	21 48 44.8
	ORV	eP	21 48 17.5
		ePcP	21 48 24.4
		epP	21 48 46.8
		esP	21 49 00.8
	MHC	e(P)	21 48 24.5
		epP	21 48 54.2
		esP	21 49 07
	JAS1	eP	21 48 26.1

DATE	STA	PHASE	TIME (UTC)
		ePcP	21 48 32.2
		ipP	21 48 56.3
		epPcP	21 49 03.0
		isP	21 49 10.2
		ePP	21 52 06.5
	PRS	eP	21 48 28.1
		epP	21 48 57.8
		esP	21 49 11
	FRI	ePc	21 48 31.0
		ePcP	21 48 37.3
		epP	21 49 01.4
		epPcP	21 49 08.1
		isP	21 49 14.4
	PRI	eP	21 48 31.3
		epP	21 49 01.3
		epPcP	21 49 09.3
		esP	21 49 14.6
	MNA	eP	21 48 32.4
		epP	21 49 02.7
		esP	21 49 16.0
	PCC	epP	21 48 50
		esP	21 49 04
	BRK	epP	21 48 50
		esP	21 49 03
	BKS	epP	21 48 51.2
		esP	21 49 03.6
	GCC	epP	21 48 53
		esP	21 49 06
	LLA	epP	21 48 58.7
		esP	21 49 12

USGS 21h36m10.8s 32.5N 131.2E
h=121km mb=5.8
Kyushu, Japan

Jan 26	ZSP	ePc	22 55 15.1
		eS	22 55 31.0
	BRK	ePc	22 55 15.5
		i	22 55 16.6
		iS	22 55 31.6
	BKS	eP	22 55 16.4
		iS	22 55 32.7
	PCC	ePc	22 55 19.8
		i	22 55 24.0
	ORV	ePc	22 55 20.6
		i	22 55 28.2
	MHC	ePc	22 55 25.9
		i	22 55 31.9
	GCC	eP	22 55 27.6
	WDC	ePc	22 55 28.4
	MIN	ePc	22 55 28.7
	JAS1	ePc	22 55 32.4
	SAO	iPc	22 55 33.1
	LLA	eP	22 55 38.3
	PRS	eP	22 55 39.4
	FHC	e	22 55 41.8
	FRI	ePc	22 55 45.6
	MNA	e	22 56 06.0

BRK 22h54m57.4s 38.8N 122.9W
h=4km ML=3.2(6) Mo=5.2E21(2)
30 km SSW of Clear Lake, CA

Jan 27	FHC	eP	00 45 59.2
	WDC	eP	00 46 10.6
	ORV	eP	00 46 30.6
	JAS1	e	00 46 52.2

Jan 27	FHC	eP	15 51 34.6
	WDC	eP	15 51 51.2
	MIN	eP	15 52 02.6
	ORV	eP	15 52 10.3
		e	15 53 06.5
	JAS1	eP	15 52 36.8
	FRI	e	15 52 45.2

DATE	STA	PHASE	TIME (UTC)
	BKS	e	15 53 32
		eLr	15 53 56

USGS 15h50m53.7s 42.4N 126.8W
h=10km mb=4.5
Off Coast of Oregon

Jan 27	FHC	eP	16 49 17.7
	WDC	eP	16 49 32.9
	MIN	e	16 49 44.4
	ORV	eP	16 49 50.7
		eS	16 50 48.0
	MHC	e	16 50 11.5
	JAS1	eP	16 50 18.5
	FRI	e	16 50 32.2
	BKS	e	16 50 45.0
		e	16 51 02.0

Jan 27	FHC	e	21 44 55.5
	WDC	e	21 45 07.5
	ORV	eP	21 45 27.4
		e	21 46 24.1
	JAS1	e	21 45 53.8

USGS 21h43m29.9s 43.0N 126.2W
h=10km mb=4.0
Off Coast of Oregon

Jan 28	WDC	eP	22 44 26.0
	MIN	e	22 44 42.5
	ORV	eP	22 44 46.4
	MHC	e	22 45 08.8
	JAS1	eP	22 45 13.0
	FRI	e	22 45 26.7

USGS 22h43m30.5s 43.0N 126.2W
h=10km mb=4.1
Off Coast of Oregon

Jan 30	PRI	eP	02 35 39.7
		e	02 35 51.5
	MNA	ePd	02 35 40.0
		e	02 35 51.8
	LLA	eP	02 35 42.4
		e	02 35 54.2
	PRS	eP	02 35 43
	JAS1	eP	02 35 45.8
		e	02 35 57
	ORV	iPd	02 35 58.8
	WDC	eP	02 36 04.9

USGS 02h26m00.8s 5.8S 80.3W
h=44km mb=4.9
Near Coast of Northern Peru

Jan 30	FHC	e	03 33 21.5
	WDC	eP	03 33 28.2
	MIN	e(P)	03 33 33.1
	ORV	eP	03 33 37.4
	MHC	e(P)	03 33 50
	JAS1	iPc	03 33 51.6
	LLA	e(P)	03 33 57
	MNA	e(P)	03 33 58
	FRI	e(P)	03 33 59

USGS 03h24m43.0s 56.2N 163.7E
h=33km mb=5.3 Ms=4.9
Near East Coast of Kamchatka

Jan 30	GCC	ePc	16 40 44.3
	PCC	iPc	16 40 44.5
	PRS	ePc	16 40 44.6
	SAO	eP	16 40 45.0
	BRK	ePc	16 40 46.2
	LLA	eP	16 40 46.2
	PRI	ePc	16 40 46.3
	BKS	eP	16 40 46.5
			AMP(μm) PER(s)

DATE	STA	PHASE	TIME (UTC)
		PZ	0.080 0.9
	MHC	iPc	16 40 46.9
	FRI	ePc	16 40 51.5
	JAS1	iPc	16 40 52.2
	ORV	iPc	16 40 53.6
	WDC	iPc	16 40 53.8
	MIN	ePc	16 40 55.3
	MNA	iPc	16 41 01.3

USGS 16h29m43.0s 21.0S 179.0W
h=629km mb=5.1
Fiji Islands Region

Jan 31	MNA	eP	07 28 32.0
		e	07 28 42.1
	JAS1	eP	07 28 35.9
		e	07 28 45.5
	ORV	eP	07 28 45.0
		e	07 28 55.0
	WDC	eP	07 28 50.0
		e	07 28 59.8

USGS 07h16m14.8s 31.8S 71.4W
h=58km mb=5.0
Near Coast of Central Chile

Jan 31	SAO	iPd	09 28 53.4
	LLA	iPc	09 28 57.9
	MHC	iPd	09 29 00.2
		iS	09 29 09.0
	GCC	iPc	09 29 00.5
	PRS	iPd	09 29 00.6
	PRI	eP	09 29 08.4
		eS	09 29 23.8
	PCC	eP	09 29 08.9
	BKS	ePd	09 29 11.4
		iS	09 29 32.6
	JAS1	iPd	09 29 13.1
		iS	09 29 29.8
	FRI	iPc	09 29 13.2
		iS	09 29 30.8

BRK 09h28m50.0s 36.9N 121.3W
h=5kmR ML=2.9(6)
10 km NE of Hollister, CA

Jan 31	PRI	eP	10 41 47.7
	PRS	e	10 41 48.8
	MNA	eP	10 41 48.9
	LLA	eP	10 41 49.8
	JAS1	eP	10 41 52.9
	GCC	eP	10 41 54.4
	MHC	eP	10 41 55.2
	ORV	eP	10 42 02.0
	WDC	eP	10 42 06.8

USGS 10h29m34.2s 31.5S 69.1W
h=118km mb=5.2
San Juan Province, Argentina

Jan 31	WDC	iPc	16 56 52.4
	MIN	eP	16 56 57.5
	ORV	eP	16 57 02.5
	JAS1	iP	16 57 15.4
	PRS	e	16 57 18.1
	FRI	eP	16 57 22.6
	MNA	eP	16 57 23.8

USGS 16h48m42.9s 51.3N 173.7E
h=33km mb=5.0
Near Islands, Aleutian Islands

Jan 31	FHC	iPc	20 37 58.1
		iS	20 38 07.5
	WDC	iPc	20 38 11.9
	MIN	iP	20 38 22.7
	ORV	eP	20 38 24.9

BRK 20h37m44.1s 40.4N 124.7W

DATE	STA	PHASE	TIME (UTC)
		h=5kmR ML=3.5(4)	
50 km WSW of Ferndale, CA			
Feb 1	PRS	e	00 58 37.8
	GCC	e	00 58 38.4
	BKS	e	00 58 40.0
	MHC	eP	00 58 40.2
	FRI	eP	00 58 45.6
		epP	00 59 15.4
	JAS1	iPd	00 58 46.3
		ipP	00 59 16.3
	ORV	eP	00 58 47.9
	WDC	eP	00 58 48.2
		epP	00 59 16.8
	MNA	iPd	00 58 56.6
		epP	00 59 26.7

USGS 00h47m16.3s 17.7S 174.4W
h=118km mb=5.7
Tonga Islands

Feb 1	PRS	eP	05 04 28.5
	BRK	e	05 04 28.7
	BKS	e	05 04 29.1
	MHC	eP	05 04 29.8
	PRI	eP	05 04 31.4
	WDC	iPc	05 04 33.9
	ORV	iPc	05 04 34.7
	JAS1	ePc	05 04 34.7
	FRI	eP	05 04 35.7
	MIN	eP	05 04 35.8
	MNA	eP	05 04 43.7

USGS 04h52m13.3s 18.7S 169.0E
h=217km mb=5.2
Vanuatu Islands

Feb 2	WDC	ePc	11 17 14.0
	MIN	eP	11 17 18.3
		epP	11 17 31.3
	ORV	ePc	11 17 21.5
		epP	11 17 34.6
	BRK	eP	11 17 25.2
	BKS	e(P)	11 17 25.8
		e(pP)	11 17 40.0
	PCC	eP	11 17 26.4
	GCC	eP	11 17 29.2
	MHC	eP	11 17 29.8
	JAS1	ePc	11 17 32.8
	PRS	eP	11 17 34.9
	FRI	eP	11 17 39.0
	MNA	eP	11 17 40.2
		epP	11 17 53.3

USGS 11h06m47.2s 43.8N 147.7E
h=42km mb=5.6 Ms=5.1
Kuril Islands

Feb 3	MHC	iPd	01 48 32.8
	GCC	iPc	01 48 38.2
	SAO	iPd	01 48 41.3
	PCC	iPc	01 48 42.7
		i	01 48 44.1
		i	01 48 46.1
		e	01 48 53.5
	BRK	eP	01 48 45.8
		eS	01 48 57.3
	BKS	eP	01 48 46.1
		eS	01 48 57.5
	LLA	ePd	01 48 46.7
		i	01 48 48.1
		e	01 49 00.0
	ZSP	ePc	01 48 47.2
		i	01 49 01.8
	PRS	ePc	01 48 48.6
	JAS1	iPc	01 48 52.0

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DATE	STA	PHASE	TIME (UTC)
		iS	01 49 07.8
	PRI	e	01 48 56
	FRI	eP	01 48 57.8
	ORV	eP	01 49 08.5
BRK 01h48m30.9s 37.3N 121.6W			
h=7km ML=2.8(4) Mo=9.5E19(2)			
22 km SE of San Jose, CA			
Feb 3	GCC	ePc	05 02 34.5
	PRS	ePc	05 02 34.7
	SAO	eP	05 02 35
	PCC	eP	05 02 35.0
	BKS	eP	05 02 36
		eS	05 12 22
		eLg	05 21 57.6
		eLr	05 24 28
		AMP(m)	PER(s)
		PZ 0.14	1.0
		LZ 6.6	20.
		LN 4.8	20.
		LE 3.8	20.
	PRI	ePc	05 02 36.5
	BRK	ePc	05 02 36.7
	LLA	ePc	05 02 36.9
	MHC	ePc	05 02 37.5
	FRI	iPc	05 02 42.2
	FHC	ePc	05 02 42.2
	JAS1	iPc	05 02 43.1
	ORV	iPc	05 02 45.0
	WDC	iPc	05 02 45.7
	MIN	iPc	05 02 47.3
	MNA	iPc	05 02 53.2
BRK Ms=5.9 Distance=76°			
USGS 04h50m55.2s 20.5S 174.1W			
h=57km mb=5.8			
Tonga Islands			
Feb 3	FHC	iPc	08 49 33.0
		iS	08 49 41.0
	WDC	iPd	08 49 46.2
	MIN	ePd	08 49 55.9
		eS	08 50 22.8
	ORV	ePd	08 49 58.6
		iS	08 50 27.5
	BRK	eP	08 50 05.1
	BKS	e(P)	08 50 06.7
	PCC	eP	08 50 08.8
	MHC	ePd	08 50 16.0
	GCC	ePc	08 50 16.6
	JAS1	e(P)d	08 50 21.6
	SAO	eP	08 50 22.5
BRK 08h49m19.7s 40.2N 124.5W			
h=5kmR ML=3.4(4) Mo=9.1E20(2)			
45 km SW of Ferndale, CA			
Feb 3	MNA	eP	13 15 38.4
	JAS1	e	13 15 46.1
	MHC	e	13 15 54.1
	ORV	ePc	13 15 59.1
USGS 13h06m52.2s 6.9N 76.4W			
h=39km mb=4.9			
Northern Colombia			
Feb 5	WDC	eP	07 54 09.9
	MIN	e	07 54 12.2
	ORV	eP	07 54 12.7
	JAS1	eP	07 54 16.4
	FRI	eP	07 54 18.7
	MNA	eP	07 54 25.3
USGS 07h41m25.9s 5.1S 151.4E			
h=166km mb=5.1			
New Britain Region			
Feb 5	MNA	eP	11 57 07.2
	JAS1	e	11 57 15.5
	FRI	e	11 57 23.3
	ORV	eP	11 57 28.4
USGS 11h48m18.5s 4.9N 78.3W			
h=26km mb=5.1 Ms=4.3			
South of Panama			
Feb 6	WDC	e(P)	13 40 09.9
		e	13 40 38.0
	ORV	e	13 40 16
	MIN	e	13 40 22
	JAS1	e	13 40 29
		i	13 40 46.6
	MNA	e	13 40 36
		e	13 40 54.3
		e	13 41 06.4
USGS 13h29m46.0s 44.0N 149.3E			
h=13km mb=5.6 Ms=5.2			
Kuril Islands Region			
Feb 6	MNA	e(P)	19 36 06.4
		iPg	19 36 27.1
		iSg	19 37 57.5
	MIN	eP	19 36 08
		ePg	19 36 28.6
	ORV	e(P)	19 36 15.2
		ePg	19 36 27.2
	WDC	eP	19 36 15.2
		i	19 36 34.8
		eSg	19 38 19.5
	FRI	e(P)	19 36 20
	JAS1	e(P)	19 36 21
		e	19 36 39.0
		ePg	19 36 49.0
		eSg	19 38 38.0
	FHC	eP	19 36 25.2
		e	19 38 53
	MHC	e	19 36 42.0
		e	19 39 15.9
	LLA	e	19 37 06.2
	PRI	e	19 37 29
		e	19 39 29.2
	BKS	e	19 38 48
		eSg	19 39 03
		e	19 40 06
		e	19 40 17
USGS 19h34m19.4s 44.6N 114.2W			
h=10km mb=4.7			
Western Idaho			
Feb 7	PRS	ePc	00 21 30.4
	GCC	ePc	00 21 30.9
	PRI	ePc	00 21 32.3
	MHC	ePc	00 21 33.0
	FRI	iPc	00 21 36.9
	JAS1	iPc	00 21 38.0
	ORV	ePc	00 21 39.7
	WDC	iPc	00 21 40.6
	MIN	eP	00 21 42.1
	MNA	iPc	00 21 46.0
South of Fiji Islands			
Feb 7	GCC	ePc	05 39 41.1
	PCC	eP	05 39 41.4
	PRS	ePc	05 39 41.8
	BRK	eP	05 39 42.0
	SAO	ePc	05 39 42.0
	BKS	eP	05 39 42.4
		AMP(m)	PER(s)
		PZ 0.043	1.0
	MHC	ePc	05 39 43.3
	LLA	ePc	05 39 43.8
	FHC	ePc	05 39 43.8
	PRI	ePc	05 39 44.2
	WDC	ePc	05 39 47.4
	ORV	ePc	05 39 47.9
	JAS1	ePc	05 39 48.2
	FRI	ePc	05 39 48.6
	MIN	ePc	05 39 49.4
	MNA	iPc	05 39 56.9
USGS 05h26m58.7s 20.2S 169.0E			
h=33km mb=5.2			
Loyalty Islands			
Feb 7	FHC	eP	09 34 39
		epP	09 34 52
	WDC	eP	09 34 48.0
		ipP	09 35 02.0
		esP	09 35 07.5
	MIN	eP	09 34 55
		epP	09 35 07.5
		esP	09 35 13.2
	ORV	eP	09 34 57.6
		epP	09 35 11.7
	BRK	eP	09 35 03.3
		e	09 35 16.5
	BKS	eP	09 35 03.8
		epP	09 35 16.5
		e	09 35 31.2
		eS	09 40 58
		e	09 42 22
		eLg	09 43 30
		e	09 44 06
		eLr	09 45 28
		AMP(m)	PER(s)
		PZ 0.016	0.8
		LZ 1.6	20.
		LN 0.0	20.
		LE 1.6	20.
	MHC	eP	09 35 09.4
		epP	09 35 22.2
	JAS1	ePc	09 35 12.9
		ipP	09 35 26.3
	SAO	eP	09 35 13.0
	PRS	eP	09 35 16.1
		epP	09 35 29.2
	LLA	e(P)	09 35 17.2
	PRI	eP	09 35 20.8
		epP	09 35 34
	FRI	eP	09 35 20.8
		epP	09 35 34.3
	MNA	eP	09 35 22.1
		epP	09 35 35.5
BRK Ms=4.9 Distance=39°			
USGS 09h27m43.5s 51.6N 173.9W			
h=33km mb=5.3 Ms=4.8			
Andreanof Islands, Aleutian Islands			
Feb 7	WDC	eP	09 52 41.8
		e	09 52 53.7
	ORV	eP	09 52 52.2
		e	09 53 03.8
		e	09 53 13.4
	BRK	ePd	09 52 57.6
		e	09 53 09.5
	MIN	e	09 52 59.4
	MHC	eP	09 53 03.5
		e	09 53 15.8
	JAS1	ePd	09 53 07.6
		e	09 53 18.9
	BKS	e	09 53 09.6
	PRS	eP	09 53 11.3
		e	09 53 23.0
	LLA	eP	09 53 12.3
		e	09 53 23.7
	GCC	e	09 53 15
	PRI	eP	09 53 16
		e	09 53 28.5
	MNA	ePd	09 53 16.3
		e	09 53 27.9
	FRI	eP	09 53 17
		e	09 53 29
	SAO	e	09 53 19
USGS 09h46m13.0s 53.1N 166.9W			
h=10km mb=4.4 Ms=4.3			
Fox Islands, Aleutian Islands			
Feb 8	WDC	ePd	04 42 42.5
	ORV	ePd	04 42 50.5
	JAS1	iPd	04 43 02.6
	PRS	eP	04 43 05.1
	LLA	eP	04 43 05.8
	FRI	eP	04 43 08.9
	MNA	eP	04 43 09.2
	PRI	eP	04 43 10.0
USGS 04h32m46.3s 46.8N 152.9E			
h=36km mb=5.2 Ms=4.4			
Kuril Islands			
Feb 8	PRI	ePc	06 58 42.9
		i(S)	06 59 07.0
	FRI	iPd	06 58 45.25
	LLA	iPd	06 58 49.7
	PRS	iPd	06 58 51.3
	SAO	eP	06 58 55.2
	JAS1	iPd	06 59 01.3
		iS	06 59 32.8
	MHC	eP	06 59 01.5
	GCC	eP	06 59 02.6
	MNA	eP	06 59 06.4
	PCC	ePc	06 59 09.8
	BRK	eP	06 59 12.0
	BKS	eP	06 59 12.3
		eS	06 59 54
	ZSP	eP	06 59 12.7
	ORV	ePd	06 59 26.6
	MIN	e	06 59 49.8
BRK 06h58m16.2s 35.5N 118.9W			
h=15km ML=5.0(6)			
10 km NE of Bakersfield, CA			
Feb 8	PRI	iPc	08 51 47.8
	LLA	iPc	08 51 55.0
	PRS	iPc	08 51 57.6
	FRI	iPd	08 51 57.7
	SAO	iPc	08 52 00.9
	MHC	eP	08 52 07.8
	GCC	eP	08 52 08.6
	JAS1	iPd	08 52 10.5
		iS	08 52 32.7
	ORV	e	08 52 36.2
BRK 08h51m41.5s 36.1N 120.3W			
h=7km ML=2.8(4)			
10 km E of Coalinga, CA			
Feb 8	WDC	e	19 42 46.8
		ipP	19 42 59.5
	ORV	eP	19 42 48.1
		e	19 42 54.4
	MNA	ePd	19 43 07.4
		e	19 43 11.0
		epP	19 43 25.7
		isP	19 43 37.9
		iPcP	19 43 52.4
	JAS1	ipP	19 43 18.6
	FRI	epP	19 43 25.0
USGS 19h32m21.1s 43.9N 149.3E			
h=44km mb=5.4 Ms=5.2			
Kuril Islands Region			
Feb 9	PRI	e	16 04 28.5
	FRI	ePc	16 04 30.5
	JAS1	iPc	16 04 40.2
	ORV	ePc	16 04 55.2
	WDC	eP	16 05 03.3
	BKS	e	16 17 51
USGS 15h56m26.2s 3.7S 103.0W			
h=10km mb=4.6 Ms=4.3			
Northern Easter Island Cordillera			
Feb 9	JAS1	eP	20 45 33.3
	ORV	ePd	20 45 36.0
	WDC	ePd	20 45 37.2
	MNA	e	20 45 43.0
	BKS	e(Lr)	21 10 46
		AMP(m)	PER(s)
		LZ 2.3	20.
		LN 1.3	20.
		LE 1.3	20.
USGS 20h33m28.4s 23.1S 175.4W			
h=33km mb=5.3 Ms=5.4			
Tonga Islands Region			
Feb 9	PRI	eP	23 13 32.3
	MNA	eP	23 13 33.8
	LLA	e	23 13 34.4
	PRS	e	23 13 35.0
	JAS1	iPc	23 13 38.0
	MHC	e	23 13 38.8
	ORV	iPc	23 13 47.4
	WDC	eP	23 13 52.3
USGS 23h01m25.0s 29.5S 71.2W			
h=52km mb=5.4			
Near Coast of Central Chile			
Feb 10	WDC	iPc	03 40 00.8
	MIN	iPc	03 40 02.9
	ORV	iPc	03 40 06.3
	BRK	eP	03 40 14.5
	BKS	iP	03 40 14.6
		AMP(m)	PER(s)
		PZ 0.10	1.0
	MNA	iPc	03 40 15.3
	JAS1	iPc	03 40 15.5
	PCC	e	03 40 15.6
	MHC	eP	03 40 17.2
	GCC	e	03 40 18.2
	SAO	eP	03 40 19.8
	FRI	eP	03 40 19.9
	LLA	eP	03 40 21.3
	PRS	eP	03 40 22.0
	PRI	eP	03 40 24.2
USGS 03h27m07.6s 49.9N 78.8E			
h=0km mb=5.9 Ms=4.4			
Eastern Kazakh, S.S.R.			
Feb 10	FRI	ePc	09 20 31.9
		iS	09 20 55.8
	PRI	ePd	09 20 36.6
	LLA	e(P)	09 20 41.5
	PRS	ePd	09 20 45.3
	SAO	ePc	09 20 47.3
	JAS1	ePc	09 20 48.2
		i	09 21 27.0
		iSg	09 21 30.0
	MNA	e	09 20 48.8
		e	09 21 28.0
	GCC	eP	09 20 54.2
	MHC	e(P)	09 20 54.9
	ORV	e	09 21 14.3
BRK 09h20m00.0s 35.7N 118.0W			
h=12km ML=3.6(2)			
100 km S of Lone Pine, CA			
Feb 10	FRI	eP	21 42 48.5
	PRI	eP	21 42 49.7
	MNA	eP	21 42 52.8
	LLA	eP	21 42 52.8
	PRS	eP	21 42 53.9
	JAS1	eP	21 42 58.8
	GCC	e	21 43 01.6
	MHC	eP	21 43 02.0
	ORV	eP	21 43 15.9
	BKS	eS	21 48 06
		eLg	21 49 18
		eLr	21 50 36
		AMP(m)	PER(s)
		LZ 1.4	20.
		LN 1.1	20.
		LE 2.0	20.
USGS 21h37m46.6s 18.7N 102.9W			
h=89km mb=5.0			
Michoacan, Mexico			
Feb 11	MNA	eP	00 19 55.1
		i	00 20 34.5
		e	00 30 06
	PRI	e	00 19 56.4
	FRI	e	00 20 00.8
	JAS1	eP	00 20 02.6
		i	00 20 21.9
	LLA	e	00 20 06.0
	MHC	e	00 20 07.9
	ORV	eP	00 20 18.4
	MIN	eP	00 20 23.5
	BKS	i	00 20 32
		i	00 20 34.7
		e(Lg)	00 25 30
		e(Lr)	00 28 10
		AMP(m)	PER(s)
		LZ 2.1	20.
		LN 2.0	20.
		LE 2.3	20.
USGS 00h13m53.7s 16.6N 95.0W			
h=91km mb=5.2			
Oaxaca, Mexico			
Feb 11	SAO	iPd	07 26 50.2
	LLA	iPc	07 26 56.0
	GCC	iPc	07 26 56.35
	MHC	iPc	07 26 56.9
		iS	07 27 05.2
	PRS	iPd	07 26 58.0
	PCC	ePc	07 27 04.7
	PRI	ePc	07 27 05.3
		i	07 27 23.3
	BKS	eP	07 27 07.6
		iS	07 27 26.3
		i	07 27 33.2
		i	07 27 38.0
	BRK	eP	07 27 07.7
	ZSP	ePd	07 27 09.5
	JAS1	iPc	07 27 10.2
		eS	07 27 27.9
	FRI	eP	07 27 11.7
	ORV	e	07 27 30.5
	MNA	e	07 27 42.4
BRK 07h26m47.2s 36.9N 121.4W			
h=8km ML=2.8(4)			
5 km W of Hollister, CA			
Feb 11	MNA	eP	07 52 03.4
	FRI	e	07 52 09.3
	JAS1	e	07 52 13.1

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DATE	STA	PHASE	TIME (UTC)
	PRI	e	07 52 16.3
	MIN	eP	07 52 16.4
	LLA	e	07 52 16.8
	ORV	e	07 52 16.9
	WDC	e	07 52 18.5
	BKS	e(Lq)	08 21 52
			AMP(μa) PER(s)
		LZ	0.89 20.
		LN	0.0 20.
		LE	0.71 20.
USGS 07h39m32.5s 4.5N 32.6W			
h=10km mb=5.6 Ms=5.1			
Central Mid-Atlantic Ridge			
Feb 11	WDC	ePc	20 42 57.5
	MIN	eP	20 43 03.1
	ORV	iPc	20 43 07.5
	BKS	iP	20 43 13.5
			AMP(μa) PER(s)
		PZ	0.022 0.7
	JAS1	iPc	20 43 22.8
	PRS	eP	20 43 26.8
	LLA	eP	20 43 27.6
	FRI	eP	20 43 28.7
	MNA	iPc	20 43 31.0
	PRI	iPc	20 43 31.8
USGS 20h36m30.9s 53.9N 170.1W			
h=232km mb=4.7			
Fox Islands, Aleutian Islands			
Feb 13	PCC	eP	11 21 51.7
	GCC	eP	11 21 51.8
	BRK	eP	11 21 52.4
	SAO	e(P)	11 21 53
	BKS	iP	11 21 53.0
			AMP(μa) PER(s)
		PZ	0.019 0.7
	PRS	eP	11 21 53.2
	MHC	ePd	11 21 54.0
	LLA	eP	11 21 55.1
	PRI	eP	11 21 55.6
	WDC	ePd	11 21 56.9
	ORV	ePd	11 21 58.2
	JAS1	ePd	11 21 59.3
	MIN	eP	11 21 59.7
	FRI	e(P)	11 22 00.2
	MNA	e	11 22 08.5
USGS 11h10m36.2s 13.0S 168.8E			
h=635km mb=4.9			
Santa Cruz Islands Region			
Feb 13	WDC	e	18 06 03.2
	ORV	e(P)	18 06 12.3
	BKS	e(P)	18 06 19.0
		i	18 06 24.3
		i	18 06 28.2
		eLq	18 16 00
		eLr	18 17 00
			AMP(μa) PER(s)
		PZ	0.022 0.7
		LZ	1.8 20.
		LN	0.89 20.
		LE	2.5 20.
	JAS1	e(P)	18 06 26.8
	MNA	e	18 06 34.0
	PRI	e	18 06 37
	FRI	e	18 06 40
USGS 17h58m27.3s 51.2N 179.8W			
h=44km mb=5.4 Ms=5.1			
Andreanof Islands, Aleutian Islands			
Feb 14	WDC	e(P)	05 10 12.4
		i	05 10 14.8
		i	05 10 19.8
		e	05 10 39.0
	MIN	e	05 10 16.2
		i	05 10 18.9
	ORV	e	05 10 24.6
	BRK	e	05 10 36
	BKS	ePc	05 10 36.0
		e	05 10 42.0
		e	05 10 50.3
		eLr	05 20 24
		i	05 23 32
		i	05 25 24
		i	05 27 44
			AMP(μa) PER(s)
		PZ	0.071 1.5
		LZ	1.9 20.
		LN	1.6 20.
		LE	2.1 20.
	JAS1	e(P)	05 10 39.0
		i	05 10 41.5
	MNA	e(P)	05 10 42.2
		e	05 10 43.9
	MHC	e	05 10 43
	LLA	e	05 10 49.6
	FRI	i	05 10 50.9
	PRS	e	05 10 51.5
	PRI	e(P)	05 10 54.5
		e	05 10 56.3
BRK Ms=5.0 Distance=37°			
USGS 05h04m02.2s 66.2N 150.1W			
h=10km mb=5.0 Ms=5.0			
Alaska			
Feb 14	FRI	ePd	08 42 40.2
		e	08 43 07.4
	PRI	iPd	08 42 41.8
		ePcP	08 42 50.8
		e	08 43 07.5
	MNA	iPd	08 42 42.3
		ePcP	08 42 52.0
		e	08 43 05.5
		epP	08 43 20.6
		e	08 43 25.8
		i	08 43 39.2
		ePP	08 45 39.9
	LLA	iPd	08 42 44.3
		epP	08 43 19.8
	PRS	iPd	08 42 44.8
	SAO	ePd	08 42 46.1
	JAS1	iPd	08 42 47.05
		iPcP	08 42 56.7
		i	08 43 37.7
		e	08 43 46.7
		ePP	08 45 47.8
	GCC	ePd	08 42 49.2
	MHC	ePd	08 42 49.3
		epP	08 43 25.5
	PCC	iPd	08 42 51.9
	BRK	ePd	08 42 52.8
	BKS	iPd	08 42 52.9
			AMP(μa) PER(s)
		PZ	0.19 1.4
	ZSP	ePd	08 42 53.3
	ORV	iPd	08 42 56.4
		iPcP	08 43 03.4
		epP	08 43 31.3
		ePP	08 45 38.8
	MIN	iPd	08 42 58.25
	WDC	iPd	08 43 01.2
		iPcP	08 43 09.2
		epP	08 43 37.4
	FHC	ePd	08 43 08.6
USGS 08h30m56.6s 24.1S 67.9W			
h=139km mb=5.6			
Chile-Argentina Border Region			
Feb 14	MNA	ePc	09 37 44.6
	FRI	eP	09 37 46.8
	PRI	e(P)	09 37 51.4
	LLA	eP	09 37 53.2
	JAS1	iPc	09 37 54.3
	PRS	eP	09 37 55.0
	SAO	e(P)	09 37 56.3
	MHC	ePc	09 38 00.1
	GCC	e(P)	09 38 00.8
	PCC	eP	09 38 04.0
	BRK	ePc	09 38 04.5
	BKS	ePc	09 38 04.5
		e	09 38 09.2
			AMP(μa) PER(s)
		PZ	0.067 0.8
	ORV	ePc	09 38 05.2
	MIN	iPc	09 38 07.0
	WDC	iPc	09 38 10.7
	FHC	iPc	09 38 21.6
USGS 09h28m53.5s 6.8S 73.0W			
h=164km mb=5.3			
Northern Columbia			
Feb 15	MNA	eP	00 39 25.5
USGS 00h32m36.7s 13.3N 91.5W			
h=33km mb=5.0			
Near Coast of Guatemala			
Feb 15	PRS	eP	07 33 20.0
	BRK	e	07 33 21.5
	BKS	e	07 33 21.8
	PRI	eP	07 33 22.0
	MHC	eP	07 33 22.3
	FRI	eP	07 33 26.8
	JAS1	iPc	07 33 27.5
	ORV	eP	07 33 28.5
	WDC	eP	07 33 29.9
	MIN	eP	07 33 30.7
	MNA	eP	07 33 36.0
USGS 07h22m09.2s 22.1S 179.4E			
h=635km mb=4.9			
South of Fiji Islands			
Feb 15	PRS	eP	09 32 57.5
	GCC	e	09 32 57.9
	MHC	eP	09 33 00.7
	FRI	e	09 33 06.0
	JAS1	eP	09 33 06.2
	WDC	eP	09 33 07.0
	ORV	eP	09 33 08.2
	MIN	e	09 33 09.5
	MNA	e	09 33 15.4
	BKS	e	09 59 00
			AMP(μa) PER(s)
		LZ	1.8 20.
		LN	1.4 20.
		LE	1.1 20.
USGS 09h20m58.0s 23.7S 175.2W			
h=33km mb=5.2 Ms=5.3			
Tonga Islands Region			
Feb 15	ZSP	eP	18 20 26.6
		e	18 20 40.0
		i	18 20 42.0
	BKS	eP	18 20 27.3
		eS	18 20 41.4
	BRK	eP	18 20 27.8
		e(S)	18 20 42.6
	ORV	e(P)	18 20 31.1
	PCC	e(P)	18 20 32.6
		i	18 20 51.3
	MHC	e(P)	18 20 37.9
	WDC	e	18 20 41.8
		e	18 20 43.8
	JAS1	e(P)	18 20 42.5
		i(S)	18 21 09.4
	SAO	e	18 20 44.7
BRK 18h20m08.1s 38.8N 122.8W			
h=3km ML=3.4(4)			
22 km S of Clear Lake, CA			
Feb 15	FRI	eP	23 27 30.1
		e(S)	23 28 33.6
	PRI	e(P)	23 27 31.9
	LLA	e(P)	23 27 36.6
	PRS	e(P)	23 27 37.7
	MNA	eP	23 27 38.6
		e(S)	23 28 58.8
	SAO	e(P)	23 27 44.3
	JAS1	eP	23 27 45.4
		i	23 27 46.4
		e(S)	23 29 05.0
	MHC	e	23 27 48.6
	ORV	e	23 28 11
BRK Mag=4.3			
PAS 23h26m26.5s 34.0 116.4			
h=2km ML=4.0			
Southern California			
Feb 16	WDC	eP	09 40 29.0
	MIN	e(P)	09 40 35.4
	ORV	e(P)	09 40 39.8
	JAS1	e	09 40 52.5
	MNA	e	09 41 05.3
USGS 09h32m55.7s 51.2N 179.6W			
h=55km mb=5.0			
Andreanof Islands, Aleutian Islands			
Feb 16	MHC	eP	14 00 46.5
	JAS1	eP	14 00 51.7
		ipP	14 01 04.7
	WDC	eP	14 00 52.0
		i	14 01 07.5
	FRI	e	14 00 52.0
	ORV	eP	14 00 53.2
	MIN	eP	14 00 56.0
	BKS	e	14 00 59.0
	MNA	eP	14 01 01.0
USGS 13h48m46.4s 23.3S 175.0W			
h=42km mb=5.2 Ms=5.3			
Tonga Islands Region			
Feb 17	JAS1	eP	03 12 04.1
		epP	03 12 17.5
	ORV	eP	03 12 05.8
		epP	03 12 19.4
	WDC	eP	03 12 08.1
		epP	03 12 20.2
	MHC	e	03 12 11.8
	MNA	eP	03 12 13.8
		epP	03 12 26.8
	FRI	e	03 12 16.6
USGS 03h00m00.2s 23.2S 175.1W			
h=42km mb=5.0 Ms=5.5			
Tonga Islands Region			
Feb 17	MIN	iPc	10 33 30.8
		eP	10 33 30.8
		iS	10 33 36.2
	WDC	iPc	10 33 37.7
		eS	10 33 47.9
	ORV	e(P)	10 33 44.4
	FHC	e(P)	10 33 59.4
	JAS1	eP	10 34 11.2
	MNA	e(P)	10 34 19.0
BRK 10h33m23.9s 40.7N 121.5W			
h=10km ML=3.3(4) Mo=4.5E21(2)			
25 km SE of Burney, CA			
Feb 18	WDC	e(P)	19 54 12.6
		e	19 57 39.9
	ORV	eP	19 54 15.6
	MIN	e	19 54 19.5
	JAS1	e	19 54 28.7
	MNA	e	19 54 33.8
	FRI	e	19 54 38.3
USGS 19h41m03.4s 23.4N 123.2E			
h=33km mb=5.7 Ms=5.6			
Southwestern Ryukyu Islands			
Feb 19	MNA	e	02 43 48.5
	JAS1	eP	02 43 48.6
USGS 02h32m15.0s 34.5S 106.9W			
h=10km mb=4.5			
Easter Islands Cordillera			
Feb 19	PRS	eP	08 51 03.1
	PCC	e	08 51 03.2
	SAO	eP	08 51 03.8
	GCC	eP	08 51 03.8
	BRK	eP	08 51 04.7
	PRI	eP	08 51 04.8
	MHC	eP	08 51 04.8
	LLA	eP	08 51 05.5
	BKS	eP	08 51 06.1
			AMP(μa) PER(s)
		PZ	0.043 1.0
	FRI	eP	08 51 10.3
	FHC	eP	08 51 10.4
	JAS1	eP	08 51 11.1
	ORV	e	08 51 12.9
	WDC	eP	08 51 13.4
	MIN	eP	08 51 15.4
	MNA	eP	08 51 20.7
USGS 08h39m14.8s 22.9S 176.7W			
h=146km mb=5.3			
South of Fiji Islands			
Feb 19	PRI	iPc	13 38 37.0
		eS	13 38 47
	LLA	iPc	13 38 42.6
	FRI	eP	13 38 42.7
	PRS	iPc	13 38 46.0
	SAO	eP	13 38 49.0
	MHC	e	13 38 56.3
	GCC	e	13 38 57.2
	JAS1	iPc	13 38 57.5
		e	13 39 16
		iS	13 39 21
	PCC	e	13 39 03.2
	MNA	e	13 39 13.2
	ORV	e	13 39 23.8
BRK 13h38m26.8s 36.1N 120.0W			
h=7km ML=3.5(4)			
30 km ESE of Coalinga, CA			
Feb 19	PRS	eP	23 15 11.9
	PCC	eP	23 15 12.0
	GCC	eP	23 15 12.1
	SAO	eP	23 15 12.4
	BRK	ePd	23 15 13.7
	BKS	ePd	23 15 13.7
			AMP(μa) PER(s)
		PZ	0.087 1.1
	PRI	eP	23 15 13.9
	LLA	eP	23 15 13.9
	MHC	eP	23 15 14.3
	FHC	eP	23 15 16.8
	FRI	eP	23 15 18.3
	JAS1	iPd	23 15 19.1
	ORV	iPd	23 15 20.6
	WDC	ePd	23 15 21.0
	MNA	eP	23 15 27.3
USGS 23h03m43.8s 25.8S 178.2E			
h=624km mb=5.0			
South of Fiji Islands			
Feb 20	MNA	ePd	02 12 19.7
	FRI	e(P)	02 12 19.7
	PRI	eP	02 12 20.7
	LLA	ePd	02 12 21.8
	PRS	ePd	02 12 22.3
	JAS1	ePd	02 12 24.6
	GCC	eP	02 12 26.7
	MHC	ePd	02 12 27.0
	ORV	ePd	02 12 33.8
	WDC	ePd	02 12 38.5
	FHC	eP	02 12 45.7
USGS 02h00m36.1s 24.2S 66.8W			
h=190km mb=4.7			
Salta Province, Argentina			
Feb 21	PRI	eP	22 04 31.1
	MNA	eP	22 04 31.2
	LLA	eP	22 04 33.6
	PRS	eP	22 04 34.1
	JAS1	eP	22 04 35.8
	ORV	eP	22 04 46.6
	WDC	eP	22 04 51.3
USGS 21h52m57.4s 20.5S 70.3W			
h=33km mb=5.4 Ms=5.2			
Near Coast of Central Chile			
Feb 22	JAS1	ePKP	09 52 31.5
	FRI	e	09 52 31.7
	BKS	ePKP	09 52 33.9
			AMP(μa) PER(s)
		PKPZ	0.035 1.0
	MIN	e	09 52 35.8
	WDC	ePKP	09 52 36.5
	ORV	ePKP	09 52 36.8
USGS 09h33m38.3s 55.7S 26.7W			
h=33km mb=5.7 Ms=5.3			
South Sandwich Islands Region			
Feb 22	WDC	e	14 26 28.5
	JAS1	e	14 26 34.0
	MNA	eP	14 26 34.2
USGS 14h14m14.7s 18.3N 146.5E			
h=74km mb=5.0			
Mariana Islands			
Feb 22	WDC	ePc	20 44 47.5
		ipP	20 44 58.3
	MIN	ePc	20 44 53.2
		ipP	20 45 04.0
	ORV	ePc	20 44 57.5
		ipP	20 45 08.7
	BRK	eP	20 45 04.5
	MHC	eP	20 45 11
		epP	20 45 22.0
	JAS1	iPc	20 45 14.4
		ipP	20 45 24.8
		e	20 45 28.8
		e	20 46 03.8
	PRS	ePc	20 45 18.6
	LLA	eP	20 45 19.1
	MNA	ePc	20 45 21.3
		ipP	20 45 31.1

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DATE	STA	PHASE	TIME (UTC)
	FRI	eP	20 45 22.9
		epP	20 45 33.8
	BKS	eS	20 50 12
		eLr	20 53 09
		AMP(μa)	PER(s)
		LZ 3.1	20.
		LN 0.96	20.
		LE 2.3	20.

BRK Ms=4.9 Distance=33°
USGS 20h38m46.1s 54.5N 161.2W
h=33km mb=5.3 Ms=4.9
Alaska Peninsula

DATE	STA	PHASE	TIME (UTC)
Feb 23	FHC	iPc	01 42 50.8
		iS	01 42 59.0
	ARC	iP	01 42 50.9
		iS	01 42 59.9
	WDC	iPc	01 43 02.8
		i	01 43 06.0
		i	01 43 25.7
	MIN	iPc	01 43 12.5
	ORV	ePd	01 43 15.7
	BRK	ePc	01 43 23.4
	ZSP	e	01 43 23.8
	BKS	iPc	01 43 24.2
		i	01 44 09.1
	PCC	eP	01 43 26.6
	MHC	eP	01 43 34.2
	GCC	eP	01 43 34.4
	SAO	eP	01 43 40.2
	JAS1	e	01 43 41.1
	PRS	eP	01 43 47.3
	LLA	e	01 43 47.6
	PRI	e	01 43 56.4
	MNA	e	01 43 56.9

BRK 01h42m38.5s 40.3N 124.4W
h=11km ML=3.5(7) Mo=3.3E21(1)
Off Coast, 15 km WSW of Petrolia, CA

DATE	STA	PHASE	TIME (UTC)
Feb 23	WDC	eP	04 13 01.3
	MIN	eP	04 13 10
	ORV	e(P)	04 13 17.5
		i	04 14 15.6
	JAS1	e	04 13 46.5
	BKS	i	04 14 52

USGS 04h12m02.1s 42.3N 126.9W
h=10km mb=4.1
Off Coast of Oregon

DATE	STA	PHASE	TIME (UTC)
Feb 23	FHC	ePc	08 33 46.1
	WDC	iPc	08 33 51.6
	MIN	iPc	08 33 55.9
	ORV	iPc	08 33 59.2
	BRK	iPc	08 34 03.8
	BKS	ePc	08 34 04.0
		AMP(μa)	PER(s)
		PZ 0.096	1.0
	PCC	eP	08 34 04.4
	GCC	ePc	08 34 08.2
	MHC	ePc	08 34 08.5
	JAS1	iPc	08 34 10.7
	SAO	ePc	08 34 11.2
	PRS	ePc	08 34 13.6
	LLA	ePc	08 34 14.3
	FRI	ePc	08 34 16.9
	MNA	iPc	08 34 17.3
	PRI	ePc	08 34 17.7

USGS 08h24m07.8s 47.4N 145.7E
h=422km mb=5.3
Sea of Okhotsk

DATE	STA	PHASE	TIME (UTC)
Feb 23	MHC	iPc	12 14 41.2
	GCC	iPd	12 14 47.2
		eS	12 14 53.8
	PCC	ePc	12 14 49.9
	SAO	iPd	12 14 51.6
	BRK	ePc	12 14 52.5
		iS	12 15 04.4
	BKS	eP	12 14 52.5
		iSg	12 15 03.5
	ZSP	iPc	12 14 54.2
		eS	12 15 05.3
	LLA	eP	12 14 56.5
	PRS	eP	12 14 58.4
	JAS1	iPc	12 15 00.8
		iS	12 15 16.3
	PRI	e(P)	12 15 05.2
	FRI	iPc	12 15 07.5
		eS	12 15 28.2
	ORV	e(P)	12 15 18.1

BRK 12h14m39.4s 37.3N 121.7W
h=6km ML=3.0(3) Mo=2.7E20(2)
15 km E of San Jose, CA

DATE	STA	PHASE	TIME (UTC)
Feb 23	FHC	ePd	13 54 25.9
		epP	13 54 49.8
	PCC	ePd	13 54 26.2
	BRK	ePd	13 54 27.4
		epP	13 54 51.2
	GCC	ePd	13 54 27.4
		epP	13 54 51.3
	BKS	iPd	13 54 27.6
		e(pP)	13 54 49
		e	13 54 52
		i	13 54 57
		e	13 55 04
		i	13 55 13
		esP	13 55 15
		ePP	13 57 48
		isPP	13 58 36
		eS	14 04 54
		epS	14 05 29
		e	14 05 33
		esS	14 05 39
		ePS	14 05 52
		e	14 06 09
		e	14 06 17
		e	14 06 29
		esPS	14 06 32
		e	14 07 06
		e	14 09 48
		iSS	14 10 36
		e	14 11 09
		esSS	14 11 38
		e	14 17 08
		e(Lq)	14 17 12
		e	14 17 34
		e	14 17 58
		e	14 18 15
		e	14 18 31
		eLr	14 20 33
		e	14 20 46
		e	14 21 56
		i	14 22 02
		iSKPPKP	14 23 34
		AMP(μa)	PER(s)
		PZ 0.55	0.8
		LZ 1.6	20.
		LN 0.89	20.
		LE 0.54	20.
	ZSP	eP	13 54 27.9
	SAO	ePd	13 54 28.8
	PRS	ePd	13 54 29.2
		epP	13 54 52.9
	MHC	iPd	13 54 29.5
		epP	13 54 53.4

DATE	STA	PHASE	TIME (UTC)
	WDC	iPd	13 54 30.2
		ipP	13 54 54.4
		ePP	13 57 51.6
	LLA	ePd	13 54 31.0
	PRI	ePd	13 54 31.9
		ipP	13 54 56.0
		esP	13 55 10.9
		ePP	13 57 54.8
	ORV	iPd	13 54 32.1
	MIN	ePd	13 54 32.5
	JAS1	iPd	13 54 34.2
		ipP	13 54 58.3
		ePP	13 57 57.8
	FRI	iPd	13 54 35.7
		ipP	13 54 59.5
	MNA	ePd	13 54 43.6
		ipP	13 55 07.4
		iPP	13 58 13.6

BRK mb=6.6 h=90km Distance=86°
USGS 13h41m55.0s 10.3S 161.1E
h=85km mb=6.0
Solomon Islands

DATE	STA	PHASE	TIME (UTC)
Feb 23	MIN	e(P)ic	15 37 09.9
		iPg	15 37 13.9
		iS	15 37 46.4
	ORV	ePnc	15 37 14.6
		i	15 37 17.0
		i	15 37 24.1
		iSg	15 37 59.1
	WDC	ePc	15 37 17.6
		i	15 37 22.8
		iS	15 38 03.4
	MNA	e(P)	15 37 19.5
		i	15 37 24.3
		iS	15 38 02.2
	JAS1	e(P)	15 37 31.6
		i	15 37 37.0
		iSg	15 38 26.4
	FHC	e	15 37 43
	FRI	ePg	15 37 50.5
		eSg	15 38 49.0
	MHC	e	15 37 52.6

BRK ML=4.2(2)
USGS 15h36m29.3s 41.2 118.7
h=5km
Nevada

DATE	STA	PHASE	TIME (UTC)
Feb 23	GCC	eP	19 25 22.8
	PCC	eP	19 25 23.0
	PRS	eP	19 25 23.2
	SAO	eP	19 25 23.9
	BRK	e	19 25 24.5
	BKS	ePd	19 25 24.6
		AMP(μa)	PER(s)
		PZ 0.092	1.1
	PRI	eP	19 25 25.4
	LLA	eP	19 25 25.4
	MHC	eP	19 25 25.5
	FRI	eP	19 25 30.5
	JAS1	iPd	19 25 31.0
	WDC	eP	19 25 32.1
	ORV	e	19 25 32.2
	MIN	eP	19 25 34.2
	MNA	iPd	19 25 40.7

USGS 19h14m26.5s 18.5S 178.0W
h=528km mb=5.2
Fiji Islands Region

DATE	STA	PHASE	TIME (UTC)
Feb 24	PRI	e	02 18 36.8
	FRI	eP	02 18 40.4
		e	02 25 20.5
	MHC	eP	02 18 45.5

DATE	STA	PHASE	TIME (UTC)
	JAS1	eP	02 18 46.9
	BKS	iPc	02 18 49
		e	02 28 53
		e(SS)	02 32 45
		eLq	02 37 50
		eLr	02 41 08
		AMP(μa)	PER(s)
		LZ 4.4	20.
		LN 5.2	20.
		LE 1.1	20.
	MNA	eP	02 18 49.6
		e	02 25 22.2
	ORV	eP	02 18 57.6
	WDC	eP	02 19 04.2
		e	02 25 10.8

BRK Ms=5.8 Distance=75°
USGS 02h07m31.7s 32.1S 110.8W
h=10km mb=5.2 Ms=5.2
Easter Island Cordillera

DATE	STA	PHASE	TIME (UTC)
Feb 24	PRS	iPd	13 31 40.0
		eS	13 31 45.5
	SAO	iPd	13 31 42.0
	GCC	iPd	13 31 44.4
		iS	13 31 53.2
	LLA	iPd	13 31 47.3
	MHC	ePc	13 31 50.6
		iS	13 32 05.3
	PRI	ePc	13 31 50.8
		i S	13 32 06.2
	PCC	eP	13 31 52.1
		e(S)	13 32 05.6
	BRK	ePc	13 31 57.1
		iS	13 32 21.0
	BKS	iPnc	13 31 57.2
		ePg	13 32 00.6
		eSn	13 32 16.1
		iSg	13 32 21.8
	ZSP	iPd	13 31 58.6
	FRI	e(P)	13 32 02.4
		i	13 32 06.4
	JAS1	iPc	13 32 04.1
	ORV	e	13 32 21.5
		e	13 32 27.7
	MIN	e	13 32 34.0
	MNA	e	13 32 34.0

BRK 13h31m32.1s 36.4N 121.8W
h=1km ML=3.5(4) Mo=1.1E21(2)
20 km S of Monterey, CA

DATE	STA	PHASE	TIME (UTC)
Feb 25	GCC	e	11 25 44.7
	WDC	eP	11 25 45.5
	MHC	e	11 25 46.3
	FHC	e	11 25 46.3
	PRS	e	11 25 46.6
	ORV	eP	11 25 48.0
	MIN	eP	11 25 48.2
	LLA	e	11 25 48.5
	PRI	eP	11 25 49.3
	JAS1	eP	11 25 50.6
	FRI	e	11 25 52.6
	MNA	eP	11 26 00.2
	BKS	e	11 57 10
		AMP(μa)	PER(s)
		LZ 0.79	20.
		LN 0.0	20.
		LE 0.79	20.

USGS 11h12m40.6s 9.9S 154.1E
h=33km mb=5.9 Ms=5.1
D'Entre Casteaux Islands Region

DATE	STA	PHASE	TIME (UTC)
Feb 25	FRI	e	12 32 25.4
	JAS1	eP	12 32 25.9
	ORV	eP	12 32 26.9
	WDC	eP	12 32 28.0
	MNA	eP	12 32 35.4

USGS 12h21m31.6s 17.9S 178.7W
h=659km mb=4.5
Fiji Islands Region

DATE	STA	PHASE	TIME (UTC)
Feb 25	WDC	e	17 58 48.8
	ORV	eP	17 58 57.3
	JAS1	eP	17 59 09.3
	PRS	e	17 59 10.9
	LLA	e	17 59 10.9
	MNA	e	17 59 15.2

USGS 17h47m59.2s 42.0N 142.6E
h=69km mb=5.0
Hokkaido, Japan Region

DATE	STA	PHASE	TIME (UTC)
Feb 26	PRI	iPd	23 36 08.2
		iS	23 36 22.4
	FRI	iPd	23 36 11.6
		iS	23 36 26.5
	LLA	ePd	23 36 14.1
	PRS	ePd	23 36 16.2
	SAO	iPc	23 36 20.2
		i	23 36 20.7
		i	23 36 21.1
	MHC	eP	23 36 26.8
	GCC	e(P)	23 36 27.6
	JAS1	iPd	23 36 27.7
		i	23 36 54.3
		iS	23 36 55.3
	MNA	ePd	23 36 42.5
	BKS	e	23 36 53.7
		e	23 37 24.2

BRK 23h35m50.2s 35.8N 119.5W
h=8km ML=3.5(4)
70 km NW of Bakersfield, CA

DATE	STA	PHASE	TIME (UTC)
Feb 28	GCC	ePc	11 22 53.7
	PRS	ePc	11 22 54.6
	BRK	ePc	11 22 54.7
	SAO	eP	11 22 54.8
	BKS	ePc	11 22 55
		ePcP	11 22 58.0
		epP	11 23 08.2
		e	11 23 14
		eS	11 33 40
		ePPS	11 34 52
		eSS	11 39 05
		eLq	11 45 42
		eG	11 46 13
		eLr	11 49 37
		AMP(μa)	PER(s)
		PZ 0.078	1.0
		LZ 1.5	20.
		LN 1.1	20.
		LE 1.1	20.
	MHC	ePc	11 22 56.0
	FHC	ePc	11 22 56.3
	PRI	iPc	11 22 57.0
	WDC	ePc	11 23 00.0
		e	11 23 15.5
	ORV	iPc	11 23 00.8
	JAS1	iPc	11 23 01.0
		e	11 23 06.8
		e	11 23 15.0
		e	11 26 26.4
		e	11 26 49.6
	FRI	ePc	11 23 01.4
		e	11 23 01.4
	MIN	ePc	11 23 02.1
	MNA	ePc	11 23 09.9

BRK Ms=5.4 Distance=87°

DATE	STA	PHASE	TIME (UTC)

USGS 11h10m16.8s 19.2S 168.7E
h=49km mb=5.5 Ms=5.3
Vanuatu Islands

DATE	STA	PHASE	TIME (UTC)
Feb 28	FHC	eP	21 06 17.2
		e	21 06 31.2
	WDC	iPc	21 06 21.7
		i	21 06 35.8
	MIN	eP	21 06 24.7
		e	21 06 39.0
	ORV	iPc	21 06 27.1
		e	21 06 40.5
	BKS	iP	21 06 29
		ipP	21 06 43
		eS	21 17 08
		iPS	21 17 49
		i	21 18 02
		eSS	21 23 25
		eSSS	21 26 43
		iLg	21 30 02
		iPKPPKP	21 32 49
		e	21 33 22
		e	21 33 24
		eLr	21 33 57
		AMP(μa)	PER(s)
		PZ 0.16	0.9
		LZ 1.1	20.
		LN 0.79	20.
		LE 1.1	20.
	PCC	eP	21 06 29.4
	BRK	eP	21 06 29.8
	GCC	eP	21 06 32.5
	MHC	eP	21 06 33.3
	SAO	eP	21 06 35.0
	JAS1	iPc	21 06 35.4
		i	21 06 49.0
	PRS	eP	21 06 36.6
	LLA	eP	21 06 37.1
	FRI	eP	21 06 39.7
	PRI	eP	21 06 39.8
	MNA	eP	21 06 41.4
		e	21 06 55.8

BRK Ms=5.4 Distance=88°
USGS 20h53m47.8s 27.5N 128.4E
h=60km mb=5.9
Ryukyu Islands

DATE	STA	PHASE	TIME (UTC)
Mar 1	WDC	eP	06 07 14.0
	ORV	eP	06 07 19.6
	BKS	e	06 07 27.0
		e	06 07 28.5
		e	06 07 32.4
		e	06 30 30
		e	06 35 06
	JAS1	eP	06 07 28.8
	FRI	eP	06 07 33.4
	PRI	eP	06 07 33.5
	MNA	eP	06 07 34.3

USGS 05h54m50.4s 29.2N 130.3E
h=44km mb=5.4 Ms=5.4
Ryukyu Islands

DATE	STA	PHASE	TIME (UTC)
Mar 1	MNA	eP	07 07 51.4
	PRI	eP	07 07 54.8
	LLA	eP	07 07 57.2
	JAS1	eP	07 08 00.2
	MHC	eP	07 08 04.7
	BKS	eP	07 08 09.7
		AMP(μa)	PER(s)
		PZ 0.026	1.0
	ORV	eP	07 08 11.1
	MIN	e	07 08 14.0
	WDC	e	07 08 18.0

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USGS 06h58m59.4s 4.0N 78.6W
h=33km mb=5.2 Ms=4.3
South of Panama

DATE	STA	PHASE	TIME (UTC)
Mar 1	WDC	eP	08 27 16.9
	MIN	eP	08 27 19.5
	ORV	iPd	08 27 22.6
	BKS	eP	08 27 25.3
		AMP(m)	PER(s)
		PZ 0.019	0.7
	JAS1	iPd	08 27 31.0
	PRS	eP	08 27 32.3
	LLA	eP	08 27 33.0
	PRI	eP	08 27 35.7
	FRI	e	08 27 35.9
	MNA	eP	08 27 37.7

USGS 08h14m52.1s 28.4N 130.9E
h=41km mb=5.2
Ryukyu Islands

Mar 1	MIN	e	12 48 10.8
	WDC	e	12 48 11.9
	ORV	eP	12 48 18.5
		eS	12 49 06.5
Mar 1	JAS1	ePKPd	17 29 59.4
	ORV	e	17 30 02.4
	PRS	e	17 30 02.5
	MNA	ePKP	17 30 03.2
	PRI	e	17 30 05.2
	FRI	e	17 30 05.3
	BKS	e	17 30 29.0
		e	17 30 55
		ePP	17 31 46
		e	17 32 31
		eSKS	17 37 44
		ePS	17 40 24
		e	17 42 57
		e	17 44 43
		e	17 58 34
		e	18 03 08
		e	18 05 19
		e	18 08 16
		AMP(m)	PER(s)
		LZ 5.0	20.
		LN 2.5	20.
		LE 4.3	20.

BRK Ms=6.1 Distance=113°
USGS 17h11m17.5s 2.1S 119.7E
h=17km mb=5.7 Ms=6.4
Sulawesi

Mar 2	WDC	iPd	13 04 34.6
	MIN	ePd	13 04 39.0
	ORV	iPd	13 04 42.4
	BRK	e(P)	13 04 46.6
	BKS	e	13 04 47.1
	GCC	eP	13 04 50.9
	JAS1	ePd	13 04 54.0
	PRS	eP	13 04 56.4
	LLA	ePd	13 04 57.3
	FRI	e(P)	13 05 00.3
	MNA	iPd	13 05 01.4

USGS 12h54m34.3s 45.8N 150.7E
h=111km mb=5.0
Kuril Islands

Mar 3	WDC	eP	13 44 21.7
		epP	13 44 44.9
	MIN	eP	13 44 26.7
		epP	13 44 49.3
	JAS1	eP	13 44 49.4
		epP	13 45 12.7
	MNA	eP	13 44 54.6
	LLA	eP	13 44 57.4
		epP	13 45 20.7
	PRS	eP	13 44 57.5
		epP	13 45 20.8
	FRI	eP	13 44 58.6
		epP	13 45 22.0

USGS 13h38m47.3s 59.8N 152.9W
h=108km mb=4.8
Southern Alaska

Mar 3	FRI	eP	22 59 19.7
		ePcP	22 59 22.6
	PRI	eP	22 59 20.0
	PRS	eP	22 59 22.6
	LLA	eP	22 59 22.6
	MNA	ePc	22 59 22.8
		ePcP	22 59 26.0
	JAS1	ePc	22 59 25.4
		iPcP	22 59 27.2
	SAO	eP	22 59 26.1
	GCC	eP	22 59 27.0
	MHC	eP	22 59 27.9
	PCC	eP	22 59 29.8
	BRK	eP	22 59 30.9
		ePcP	22 59 34
	BKS	e(P)	22 59 31.5
		ePcP	22 59 34.2
	ORV	eP	22 59 34.3
		iPcP	22 59 36.1
	MIN	eP	22 59 37.6
	WDC	ePc	22 59 39.3
		ePcP	22 59 41.4
	FHC	eP	22 59 46.4

USGS 22h46m56.8s 33.1S 71.7W
h=33km mb=5.5
Near Coast of Central Chile

Mar 3	FRI	iPd	22 59 28.7
		ePKKP	23 18 11
		ePKPPKP	23 26 31
	PRI	ePd	22 59 29.4
		i	22 59 55.9
		i	23 02 05.3
		eSKS	23 10 19
		e	23 18 16
		ePKPPKP	23 26 27
	LLA	ePd	22 59 30.6
	PRS	ePd	22 59 31.8
	MNA	iPd	22 59 32.1
	SAO	eP	22 59 35
	JAS1	iPd	22 59 35.2
		i	22 59 48.3
		i	22 59 52.5
		i	23 00 02.4
		i	23 00 07.8
		i	23 00 29.3
		i	23 00 33.5
		i	23 00 42.6
		i	23 00 53.1
		i	23 01 16.1
		i	23 01 27.0
		eSKS	23 10 22.2
		i	23 17 40.5
		iPKKP	23 18 06.7
		iPKPPKP	23 26 18
	GCC	eP	22 59 35.8
	MHC	ePd	22 59 36.7
		i	23 00 04
		eSKS	23 10 30
		e	23 18 12
		e	23 26 16
	BRK	eP	22 59 40
	PCC	ePd	22 59 40.5
	BKS	iPd	22 59 42
		ipP	22 59 42
		i	22 59 56
		iPP	23 02 28
		i	23 03 24
		iPPP	23 04 44
		i	23 05 46
		i	23 06 48
		i	23 07 30
		i	23 08 32
		iSKS	23 10 14
		iPS	23 10 54
		iPPS	23 11 40
		i	23 12 00
		i	23 14 55
		i	23 15 21
		iSS	23 16 18
		iSSS	23 19 43
		i	23 20 28
		iG	23 23 00
		iLg	23 24 26
		iLr	23 28 39
		AMP(m)	PER(s)
		PZ 0.42	1.9
		LZ 220	20.
		LN 160	20.
		LE 44	20.
	ORV	iPd	22 59 44.3
		ePKKP	23 18 06
		ePKPPKP	23 26 12
	MIN	ePd	22 59 46.5
	WDC	iPd	22 59 49.1
		i	22 59 58.8
		i	23 00 08.0
		i	23 00 15.7
	FHC	eP	22 59 55.4

BRK Ms=7.5 Distance=88°
USGS 22h47m07.2s 33.1S 71.9W
h=33km mb=6.7 Ms=7.8
Near Coast of Central Chile

Mar 3	JAS1	eP	23 27 16.2
		i	23 27 21.6
	ORV	eP	23 27 23.3
		e	23 27 29.1
	WDC	i	23 27 27.5
Mar 3	FRI	e	23 36 15.1
	JAS1	eP	23 36 23.0
	ORV	ePc	23 36 31.1
	WDC	e	23 36 36.0
Mar 3	PRI	eP	23 44 15.3
	FRI	eP	23 44 15.9
		epP	23 44 22.6
	PRS	eP	23 44 17.5
	LLA	ePc	23 44 17.5
	MNA	e(P)	23 44 17.8
	JAS1	iPc	23 44 20.7
		e	23 46 15.4
		i	23 46 29.7
	SAO	ePc	23 44 20.7
		epP	23 44 26.7
	GCC	eP	23 44 21.8
	MHC	ePc	23 44 22.5
		epP	23 44 29.2
	PCC	ePc	23 44 24.2
	ORV	ePc	23 44 30.0
		epP	23 44 36.5
	MIN	eP	23 44 33.3
	WDC	iPc	23 44 34.9
		ipP	23 44 42.5
		e	23 45 02.8
		e	23 46 28.2
		i	23 46 43.4
	FHC	ePc	23 44 41.1

Central Chile Region

Mar 3	PRI	ePd	23 50 52.8
		epP	23 50 59.2
		isP	23 51 03.0
	FRI	e(P)	23 50 53.2
		epP	23 51 00.6
		esP	23 51 05.2
	PRS	eP	23 50 55.3
	LLA	ePd	23 50 55.3
		ePcP	23 50 57.8
	JAS1	iPd	23 50 58.5
		iPcP	23 51 02.0
		ipP	23 51 06.0
		isP	23 51 09.7
		i	23 52 09.9
		e	23 55 23.9
	SAO	eP	23 50 59.1
	GCC	eP	23 50 59.4
	MHC	iPd	23 51 00.5
	PCC	eP	23 51 01.9
	MNA	ipP	23 51 02.6
	BKS	eP	23 51 02.9
		ePP	23 54 30.3
		ePPP	23 56 27.7
		eSKS	00 01 29.9
		eS	00 01 49.7
		ePPS	00 03 18.8
		AMP(m)	PER(s)
		PZ 0.085	1.0
	BRK	eP	23 51 03.0
	ORV	iPd	23 51 07.7
		ipP	23 51 14.4
		e	23 51 19.1
	MIN	e	23 51 11.2
	WDC	iPd	23 51 12.5
		ePcP	23 51 16.0
		ipP	23 51 20.0
		isP	23 51 23.8
		e	23 55 41.1
	FHC	eP	23 51 18.2

BRK Ms=7.0 Distance=85°
USGS 23h38m31.4s 32.7S 71.2W
h=33km mb=6.3 Ms=6.4
Near Coast of Central Chile

Mar 3	PRI	ePc	23 56 13.5
	MNA	i(P)	23 56 15.7
	LLA	ePc	23 56 15.7
	PRS	ePc	23 56 15.9
	SAO	ePc	23 56 17.3
	JAS1	iPc	23 56 19.7
	GCC	eP	23 56 20.2
	MHC	eP	23 56 20.8
	BRK	eP	23 56 23.9
	BKS	eP	23 56 24.4
		AMP(m)	PER(s)
		PZ 0.075	1.2
	ORV	iPc	23 56 28.2
	MIN	eP	23 56 30.8
	WDC	iPc	23 56 33.3
		ipP	23 56 40.2
	FHC	eP	23 56 39.6

Central Chile Region

Mar 3	PRI	eP	23 59 40.7
		epP	23 59 49.9
		esP	23 59 54.7
	FRI	e(P)	23 59 41.9
	MNA	eP	23 59 45.1
		ipP	23 59 51.6
		isP	23 59 56.0
	LLA	eP	23 59 45.1
		epP	23 59 52.4
	PRS	eP	23 59 45.2
		epP	23 59 52.4
	SAO	eP	23 59 46.5
		epP	23 59 53.7
	JAS1	iPc	23 59 48.5
		iPcP	23 59 49.9
		ipP	23 59 55.7
		isP	23 59 59.5
	GCC	eP	23 59 49.6
		epP	23 59 56.5
		esP	00 00 01.0
	MHC	ePc	23 59 50.0
		epP	23 59 57.4
	BRK	eP	23 59 53.2
		epP	00 00 00.5
	BKS	eP	23 59 53.5
		AMP(m)	PER(s)
		PZ 0.14	1.6
	ORV	ePc	23 59 57.7
		ipP	00 00 05.0
		isP	00 00 08.0
	MIN	e(P)	23 59 59.7
		epP	00 00 07.1
	WDC	eP	00 00 02.7
		ipP	00 00 09.7
	FHC	eP	00 00 08.5
		epP	00 00 16.0
		esP	00 00 19.0

Central Chile Region

Mar 4	JAS1	ePd	00 23 44.5
	ORV	iPd	00 23 53.5
	WDC	ePd	00 23 56.8
Mar 4	FRI	e(P)	00 24 07.3
	PRI	eP	00 24 07.7
	LLA	ePd	00 24 10.4
	MNA	ePd	00 24 10.5
	PRS	eP	00 24 10.6
	JAS1	iPd	00 24 14.0
		ePcP	00 24 16.5
		ipP	00 24 21.3
	MHC	eP	00 24 15.2
	BRK	e(P)	00 24 18.8
	ORV	ePd	00 24 22.5
	MIN	eP	00 24 25
	WDC	ePd	00 24 27.9
		i	00 25 55.2
	FHC	ePd	00 24 34.0

USGS 00h11m45.4s 32.9S 71.5W
h=33km mb=5.9
Near Coast of Central Chile

Mar 4	FRI	e(P)	00 40 09
		epP	00 40 17.9
	PRI	eP	00 40 09.4
		epP	00 40 18.6
	PRS	eP	00 40 11.6
	LLA	ePd	00 40 11.6
	MNA	e(P)	00 40 12.0
		epP	00 40 20.9
	JAS1	iPd	00 40 15.1
		ipP	00 40 24.3
	MHC	e(P)	00 40 16.3
		epP	00 40 25.8
	ORV	ePd	00 40 24.3
	WDC	iPd	00 40 29.3
		e	00 40 35.1
		epP	00 40 38.5
	FHC	eP	00 40 35
		epP	00 40 44.4

USGS 00h27m45.8s 33.1S 71.6W
h=29km mb=5.5
Near Coast of Central Chile

Mar 4	FRI	eP	00 44 44.4
	PRI	ePc	00 44 45.5
	PRS	eP	00 44 47.3
	LLA	eP	00 44 47.8
	JAS1	iPc	00 44 51.2
		i	00 45 02.8
	GCC	ePc	00 44 52.1
	MHC	eP	00 44 52.7
	BRK	eP	00 44 55.8
	BKS	ePc	00 44 56.0
		AMP(m)	PER(s)
		PZ 0.16	1.3
	ORV	ePc	00 44 59.8
	MIN	ePc	00 45 02.2
	WDC	iPc	00 45 05.2
	FHC	ePc	00 45 11.5

USGS 00h32m21.8s 33.2S 71.7W
h=33km mb=6.0 Ms=6.7
Near Coast of Central Chile

Mar 4	PRS	eP	00 52 38.6
	LLA	eP	00 52 38.6
	MNA	e	00 52 38.8
	JAS1	eP	00 52 41.7
	ORV	eP	00 52 50.5
	WDC	eP	00 52 55.5

USGS 00h40m12.0s 33.6S 71.9W
h=33km mb=5.3
Near Coast of Central Chile

Mar 4	LLA	e	00 58 34.4
	JAS1	ePc	00 58 36.9
	ORV	ePc	00 58 46.2
	WDC	eP	00 58 51.2

USGS 00h46m08.0s 33.4S 72.0W
h=33km mb=5.2
Off Coast of Central Chile

Mar 4	LLA	eP	01 28 40.7
	JAS1	eP	01 28 44.1
	ORV	eP	01 28 53.5
	WDC	eP	01 28 58.0

USGS 01h16m15.9s 33.2S 72.1W
h=33km mb=5.1
Off Coast of Central Chile

Mar 4	LLA	eP	02 02 12.2
	JAS1	ePc	02 02 15.8
	ORV	ePc	02 02 25.0
	WDC	eP	02 02 29.2

USGS 01h49m47.3s 33.1S 72.0W
h=33km mb=5.4
Off Coast of Central Chile

Mar 4	JAS1	eP	02 20 32.2
	LLA	e	02 20 34.1
	ORV	eP	02 20 41.4
	WDC	eP	02 20 45.8

USGS 02h08m03.9s 33.1S 72.1W
h=33km mb=5.2
Off Coast of Central Chile

Mar 4	LLA	eP	03 10 [illegible]
	JAS1	eP	03 11 [illegible]
	ORV	eP	03 [illegible]
	WDC	eP	03 [illegible]

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DATE	STA	PHASE	TIME (UTC)
USGS 02h57m41.7s 34.2S 72.1W			
h=33km mb=5.1			
Near Coast of Central Chile			
Mar 4	MNA	e	03 30 05.7
	PRI	e	03 30 20.6
	FRI	eP	03 30 22.4
	PRS	e	03 30 22.8
	LLA	e	03 30 22.8
	JAS1	eP	03 30 26.2
		i	03 30 38.5
	GCC	e	03 30 26.9
	BKS	eP	03 30 34.0
		AMP(m)	PER(s)
	PZ	0.041	1.1
	ORV	eP	03 30 35.4
	WDC	eP	03 30 39.7
	MIN	e	03 30 40.7
USGS 03h17m54.4s 34.1S 71.9W			
h=33km mb=5.8 Ms=6.2			
Near Coast of Central Chile			
Mar 4	PRI	eP	03 45 11.4
	FRI	eP	03 45 12.5
	MNA	eP	03 45 13.5
	LLA	eP	03 45 13.5
	PRS	e	03 45 13.6
	JAS1	eP	03 45 16.8
	BKS	e(P)	03 45 20.6
		e	03 45 41.2
		e	03 45 45.7
		AMP(m)	PER(s)
	PZ	0.058	1.4
	ORV	eP	03 45 26.0
	MIN	e	03 45 30.3
	WDC	eP	03 45 30.4
USGS 03h32m49.1s 32.9S 71.8W			
h=33km mb=5.7 Ms=6.6			
Near Coast of Central Chile			
Mar 4	MNA	e	03 51 42.3
	JAS1	eP	03 51 47.6
	ORV	eP	03 51 56.0
	WDC	e	03 52 00.7
Central Chile Region			
Mar 4	PRI	eP	06 19 22.0
	FRI	eP	06 19 22.5
	PRS	eP	06 19 24.3
	MNA	eP	06 19 24.4
	LLA	eP	06 19 24.5
	JAS1	ePc	06 19 28.0
	GCC	eP	06 19 29.2
	MHC	eP	06 19 29.7
	ORV	eP	06 19 37.1
	MIN	eP	06 19 39.3
	WDC	ePc	06 19 42.0
USGS 06h06m56.8s 33.8S 71.9W			
h=33km mb=5.6 Ms=6.0			
Near Coast of Central Chile			
Mar 4	MNA	eP	06 22 54.1
	JAS1	eP	06 22 58.2
	ORV	eP	06 23 07.5
	WDC	eP	06 23 12.1
USGS 06h10m29.3s 33.2S 71.9W			
h=33km mb=5.6			
Near Coast of Central Chile			
Mar 4	PRI	e	06 30 15.5
	FRI	e	06 30 16.4
	LLA	e	06 30 17.0
	JAS1	eP	06 30 20.3

DATE	STA	PHASE	TIME (UTC)
	MHC	e	06 30 27.7
	ORV	eP	06 30 28.5
	BKS	e	06 30 30.6
		e	06 30 39.5
	MIN	eP	06 30 33.0
	WDC	eP	06 30 34.4
USGS 06h17m15.4s 33.1S 72.0W			
h=33km mb=5.5 Ms=6.3			
Near Coast of Central Chile			
Mar 4	LLA	eP	12 15 00.3
	MNA	e	12 15 01.0
	JAS1	eP	12 15 03.9
		i	12 15 13.9
	PRI	e	12 15 08.3
	PRS	e	12 15 10.6
	ORV	eP	12 15 12.4
		e	12 15 22.9
	WDC	eP	12 15 18.2
	BKS	e	12 15 18.7
USGS 12h02m36.2s 32.9S 71.8W			
h=33km mb=5.1 Ms=5.0			
Near Coast of Central Chile			
Mar 4	JAS1	eP	13 13 26.6
	PRS	e	13 13 27.1
	ORV	eP	13 13 35.6
	WDC	eP	13 13 41.1
USGS 13h00m58.4s 32.2S 72.0W			
h=33km mb=5.4 Ms=5.4			
Off Coast of Central Chile			
Mar 4	FRI	eP	14 01 53.4
		epP	14 02 04.8
	PRI	eP	14 01 55.7
		epP	14 02 05.6
	JAS1	eP	14 02 00.9
		epP	14 02 10.7
	PRS	epP	14 02 07.7
	LLA	epP	14 02 07.7
	MNA	epP	14 02 08.0
	ORV	eP	14 02 10.6
		ipP	14 02 20.3
	WDC	eP	14 02 15.4
USGS 13h49m29.8s 33.9S 72.3W			
h=29km mb=5.3 Ms=5.5			
Off Coast of Central Chile			
Mar 4	FRI	eP	15 13 32.7
	PRI	eP	15 13 33.4
		epP	15 13 45.6
	LLA	eP	15 13 35.5
		epP	15 13 47.9
	PRS	eP	15 13 35.6
		epP	15 13 47.9
	MNA	eP	15 13 35.7
		ipP	15 13 47.9
	SAO	e	15 13 37.6
	JAS1	iPc	15 13 39.0
		ipP	15 13 51.1
	GCC	eP	15 13 39.9
	PCC	e	15 13 42.7
	BRK	eP	15 13 43.7
	BKS	iPc	15 13 43.8
		i	15 13 53.0
		i	15 13 56.0
		i	15 13 59.5
		i	15 14 06.3
		ePP	15 17 10
		ePPP	15 18 50
		e	15 20 34
		iS	15 24 08
		eScS	15 24 28

DATE	STA	PHASE	TIME (UTC)
		ePPS	15 25 24
		AMP(m)	PER(s)
	PZ	0.13	1.3
	LZ	2.6	20.
	LN	4.0	20.
	LE	2.3	20.
	MHC	e	15 13 45.0
	ORV	ePc	15 13 48.0
	MIN	e	15 13 49.6
	WDC	iPc	15 13 53.0
		i	15 14 05.9
	FHC	eP	15 13 59.1
BRK Ms=5.9 Distance=85°			
USGS 15h01m07.0s 33.8S 71.2W			
h=40km mb=6.0 Ms=6.0			
Near Coast of Central Chile			
Mar 4	PRI	eP	17 12 36.4
	MNA	eP	17 12 38.5
	LLA	e	17 12 38.5
	PRS	e	17 12 38.7
	JAS1	ePc	17 12 41.9
	ORV	ePc	17 12 51.0
	WDC	iPc	17 12 56.1
USGS 17h00m09.7s 34.2S 72.3W			
h=33km mb=5.4 Ms=5.3			
Near Coast of Central Chile			
Mar 4	FRI	e	19 15 21.9
	PRI	e	19 15 26.8
	MNA	eP	19 15 31.1
	LLA	e	19 15 32.0
	PRS	e	19 15 32.4
	JAS1	eP	19 15 34.2
	MHC	e	19 15 36.8
	BKS	e	19 15 43
		e	19 15 56.5
		e	19 15 59.0
		eScS	19 26 10
		eLr	19 40 48
		AMP(m)	PER(s)
	LZ	3.6	20.
	LN	4.6	20.
	LE	3.0	20.
	ORV	eP	19 15 43.7
	WDC	eP	19 15 48.4
BRK Ms=5.9 Distance=85°			
USGS 19h03m06.8s 32.9S 71.8W			
h=33km mb=5.6 Ms=6.0			
Near Coast of Central Chile			
Mar 4	FRI	eP	22 17 35.1
	MNA	iPd	22 17 36.5
	PRI	eP	22 17 37.6
	JAS1	eP	22 17 44.5
	MHC	e	22 17 49.1
	MIN	e	22 17 57.5
	ORV	e	22 17 59.1
	WDC	e	22 18 06.7
USGS 22h11m13.8s 15.3N 92.6W			
h=103km mb=5.0			
Mexico-Guatemala Border Region			
Mar 5	JAS1	eP	07 11 18.9
	ORV	eP	07 11 27.8
	WDC	eP	07 11 33.3
USGS 06h58m48.2s 33.8S 72.2W			
h=33km mb=4.9			
Off Coast of Central Chile			
Mar 5	PRI	e	09 21 17.7
	FRI	eP	09 21 23.0
		e	09 21 31.7

DATE	STA	PHASE	TIME (UTC)
	LLA	eP	09 21 24.8
	WDC	ePc	09 21 34.8
	PRS	e	09 21 25.0
		e	09 21 34.8
	MNA	e	09 21 25.2
	JAS1	eP	09 21 28.3
		i	09 21 38.2
	ORV	eP	09 21 36.7
		i	09 21 47.5
	MHC	e	09 21 39.5
	WDC	eP	09 21 41.5
	MIN	e	09 21 47.8
		e	09 21 47.8
USGS 09h08m54.5s 34.2S 71.7W			
h=33km mb=5.4 Ms=5.2			
Near Coast of Central Chile			
Mar 5	WDC	eP	14 08 55.6
	MIN	eP	14 09 00.5
	ORV	eP	14 09 04.5
	JAS1	eP	14 09 07.5
	PRS	eP	14 09 18.1
	LLA	eP	14 09 19.8
	FRI	eP	14 09 24.9
	MNA	eP	14 09 27.5
USGS 14h01m02.3s 45.7N 178.8E			
h=33km mb=5.3 Ms=5.7			
Aleutian Islands Region			
Mar 5	FRI	e	14 25 31.2
	MNA	eP	14 25 32.9
	PRS	eP	14 25 33.2
	LLA	eP	14 25 33.5
	JAS1	eP	14 25 37.0
	ORV	eP	14 25 46.2
	MIN	eP	14 25 49.2
	WDC	eP	14 25 50.9
USGS 14h13m10.7s 32.8S 71.8W			
h=43km mb=5.1			
Near Coast of Central Chile			
Mar 6	ORV	i(P)d	01 52 45.0
	ZSP	iPd	01 52 45.00
	BRK	ePd	01 52 45.7
	BKS	iP	01 52 46.0
		iS	01 53 04
	PCC	eP	01 52 50.9
	MIN	eP	01 52 52.7
	WDC	eP	01 52 53.0
	MHC	ePd	01 52 55.6
	GCC	ePc	01 52 58.0
	JAS1	iPc	01 52 59.2
	SAO	eP	01 53 03.5
	FHC	eP	01 53 07.5
	LLA	eP	01 53 08.4
	PRS	eP	01 53 10.0
	FRI	eP	01 53 14.0
	PRI	e	01 53 16.9
	MNA	eP	01 53 22.0
		i	01 53 29.9
BRK 01h52m25.0s 38.9N 122.7W			
h=2kmR ML=3.5(8) Mo=1.0E22(2)			
SW of Clear Lake, CA			
Mar 6	PRI	e	04 47 20.4
	GCC	e(P)	04 47 22.8
	BRK	e	04 47 23.3
	SAO	e	04 47 23.5
	BKS	e	04 47 23.8
		e	04 47 25.7
		e	04 47 29.1
	PRS	eP	04 47 24.3
	MHC	eP	04 47 24.5

DATE	STA	PHASE	TIME (UTC)
	LLA	e	04 47 26.3
	WDC	ePc	04 47 27.4
	ORV	eP	04 47 27.5
	JAS1	ePc	04 47 28.7
		i	04 47 30.2
	FRI	ePc	04 47 31.3
	MNA	ePc	04 47 39.9
USGS 04h35m03.2s 12.5S 166.5E			
h=82km mb=5.6			
Santa Cruz Islands			
Mar 6	MHC	iPd	06 44 35.3
	GCC	iPd	06 44 41.2
	SAO	iPd	06 44 44.7
	PCC	iPc	06 44 45.3
	BRK	eP	06 44 48.3
	BKS	ePc	06 44 48.3
		e	06 44 50.5
		eS	06 44 59.6
	ZSP	eP	06 44 49.8
		eS	06 45 02.6
	LLA	eP	06 44 50.2
	PRS	eP	06 44 51.9
	JAS1	iPc	06 44 55.1
		eS	06 45 10.7
	FRI	e	06 45 00.7
	ORV	e	06 45 13.0
BRK 06h44m33.7s 37.3N 121.7W			
h=5km ML=2.7(4) Mo=7.2E19(2)			
Halls Valley, 20 km E of San Jose, CA			
Mar 6	WDC	ePc	22 40 47.9
		e	22 40 58.1
		e	22 41 10.6
	ORV	ePc	22 40 55.0
	JAS1	ePc	22 41 09.1
	MNA	ePc	22 41 15.7
		e	22 41 28.3
	FRI	eP	22 41 16.3
	PRI	e(P)	22 41 19.6
USGS 22h31m53.2s 55.2N 162.0E			
h=47km mb=5.8 Ms=5.4			
Near East Coast of Kamchatka			
Mar 7	MNA	eP	11 49 37.7
	JAS1	e(P)	11 49 40.6
	LLA	e	11 49 44
	ORV	eP	11 49 47.7
	MIN	eP	11 49 50.7
	WDC	eP	11 49 53.4
Mar 7	FRI	eP	21 18 54.3
	MNA	iPd	21 18 56.2
		e	21 19 21.5
	PRI	ePd	21 18 56.6
	LLA	ePd	21 18 59.2
	PRS	ePd	21 19 00.0
	JAS1	iPd	21 19 02.2
		i	21 19 28.9
	GCC	eP	21 19 04.8
	MHC	ePd	21 19 05.4
		e	21 19 20.6
	PCC	eP	21 19 08.1
	BRK	ePd	21 19 09.4
	BKS	e(P)	21 19 09.5
		AMP(m)	PER(s)
	PZ	0.025	0.8
	ORV	iPd	21 19 13.0
		i	21 19 38.5
	MIN	e(P)	21 19 15.1
	WDC	ePd	21 19 18.3
		i	21 19 43.8

DATE	STA	PHASE	TIME (UTC)
	FHC	ePd	21 19 26.9
USGS 21h08m05.9s 13.9S 72.6W			
h=72km mb=5.5			
Peru			
Mar 8	FHC	iPKPd	00 42 28.5
	WDC	iPKPd	00 42 29.7
	MIN	iPKPd	00 42 31.0
	ORV	iPKPd	00 42 31.9
	PCC	ePKPd	00 42 32.7
	BRK	e(PKP)	00 42 32.8
	BKS	iPKPc	00 42 33.2
		e	00 44 05
		AMP(m)	PER(s)
	PKPZ	0.047	0.9
	GCC	ePKP	00 42 33.7
	MHC	iPKPd	00 42 34.5
	SAO	e(PKP)	00 42 34.7
	JAS1	iPKPd	00 42 35.0
	PRS	ePKP	00 42 35.6
	LLA	ePKP	00 42 36.1
	FRI	ePKPd	00 42 37.0
	PRI	ePKP	00 42 37.4
	MNA	ePKPd	00 42 38.5
USGS 00h24m41.9s 4.4S 106.9E			
h=631km mb=5.4			
Southern Sumatera			
Mar 8	FHC	ePc	10 55 55.7
	WDC	iPc	10 56 02.2
	MIN	iPc	10 56 06.8
	ORV	iPc	10 56 11.1
	BRK	e(P)	10 56 17.3
	BKS	ePc	10 56 17.5
		AMP(m)	PER(s)
	PZ	0.022	1.0
	PCC	e(P)	10 56 18.5
	MHC	ePc	10 56 23.0
	GCC	e(P)c	10 56 24.0
	JAS1	iPc	10 56 25.2
	SAO	ePc	10 56 26.4
	PRS	ePc	10 56 29.3
	LLA	ePc	10 56 29.9
	MNA	iPc	10 56 31.7
	FRI	iPc	10 56 32.3
	PRI	ePc	10 56 33.8
USGS 10h47m11.7s 55.6N 161.4E			
h=87km mb=5.2			
Near East Coast of Kamchatka			
Mar 8	GCC	eP	18 00 55
	PRS	eP	18 00 55
	PRI	ePd	18 00 56.4
	MHC	eP	18 00 57.4
	FRI	eP	18 01 01.2
	JAS1	ePd	18 01 02.6
	ORV	ePd	18 01 04.8
	WDC	ePd	18 01 06.7
	MNA	ePd	18 01 10.7
	BKS	eLr	18 28 24
		AMP(m)	PER(s)
	LZ	3.1	20.
	LN	2.0	20.
	LE	1.5	20.
USGS 17h48m24.6s 30.0S 177.1W			
h=33km mb=4.9 Ms=5.1			
Kermadec Islands			
Mar 9	PRS	ePc	01 33 59.6
	GCC	e(P)	01 34 04.4
	PCC	eP	01 34 07.8
	PRI	ePc	01 34 09.7
	MHC	eP	01 34 11.7

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DATE	STA	PHASE	TIME (UTC)
	FRI	iPc	01 34 05.3
	JAS1	iPc	01 34 06.3
	ORV	eP	01 34 08.7
	WDC	eP	01 34 09.6
	MIN	eP	01 34 10.7
	MNA	ePc	01 34 14.1
USGS 01h21m12.3s 33.0S 179.1W			
h=33km mb=5.5			
South of Kermadec Islands			
Mar 9	PRS	eP	02 06 49.4
	PRI	eP	02 06 51.3
	MHC	eP	02 06 52.2
	FRI	eP	02 06 55.5
	JAS1	ePd	02 06 56.9
	ORV	eP	02 06 58.9
	WDC	iPd	02 07 00.4
	MIN	eP	02 07 01.4
	MNA	ePd	02 07 04.6
USGS 01h54m00.7s 33.0S 179.1W			
h=18km mb=5.3 Ms=5.0			
South of Kermadec Islands			
Mar 9	FHC	ePc	14 04 06.5
	WDC	ePc	14 04 10.2
	MIN	ePc	14 04 12.9
	ORV	ePc	14 04 18.7
	JAS1	eP	14 04 35.8
	MNA	ePc	14 04 38.1
	MHC	ePc	14 04 38.9
	FRI	e(P)	14 04 44.9
	PRI	ePc	14 04 50.7
USGS 13h57m58.1s 66.3N 150.2W			
h=10km mb=4.6			
Alaska			
Mar 9	FHC	eP	14 14 10.8
	WDC	ePc	14 14 15.2
		ipP	14 14 17.9
		isP	14 14 19.2
	MIN	iPc	14 14 19.1
		ipP	14 14 21.9
		isP	14 14 22.9
	ORV	ePc	14 14 24.9
		ipP	14 14 27.8
		isP	14 14 28.8
	BRK	ePd	14 14 38.0
		e	14 23 13
	BKS	ePd	14 14 39.1
		i	14 14 41.5
		eP	14 14 42
		i	14 14 46.5
		i	14 14 52.7
		iS	14 19 39
		i	14 20 12
		eLg	14 22 18
		iLr	14 24 19
		AMP(nm)	PER(s)
	PZ	0.30	1.3
	LZ	13	20.
	LNE	51	20.
	LNW	16	20.
	PCC	eP	14 14 40
	JAS1	iPc	14 14 41.9
		ipP	14 14 44.8
		isP	14 14 45.8
		i	14 14 52.5
		i	14 15 13.2
		i	14 15 18.7
	MHC	eP	14 14 43.9
		epP	14 14 46.7
		esP	14 14 47.9
	MNA	iPc	14 14 44.3

DATE	STA	PHASE	TIME (UTC)
		ipP	14 14 47.0
		isP	14 14 48.3
	GCC	eP	14 14 45.1
	SAO	e(P)	14 14 48.2
	FRI	eP	14 14 51.1
	LLA	eP	14 14 51.5
	PRS	eP	14 14 52.3
	PRI	eP	14 14 57.0
BRK Ms=6.2 Distance=32°			
USGS 14h08m04.3s 66.2N 150.0W			
h=12km mb=5.9 Ms=6.0			
Alaska			
Mar 9	WDC	eP	14 22 38.5
	MIN	eP	14 22 40.8
	ORV	eP	14 22 46.5
	BKS	eP	14 23 02.2
		AMP(nm)	PER(s)
	PZ	0.066	1.2
	JAS1	eP	14 23 03.6
	MNA	eP	14 23 06.0
	MHC	eP	14 23 08.1
	LLA	e	14 23 13.0
	FRI	eP	14 23 13.1
	PRS	eP	14 23 14.7
	PRI	e	14 23 19.0
USGS 14h16m25.4s 66.3N 150.1W			
h=10km mb=5.3			
Alaska			
Mar 9	PRI	eP	15 24 07.8
	MNA	eP	15 24 09.5
	PRS	eP	15 24 10.3
	LLA	eP	15 24 10.3
	JAS1	eP	15 24 12.5
	ORV	eP	15 24 22.8
	WDC	iPc	15 24 27.8
USGS 15h11m43.5s 33.7S 72.3W			
h=33km mb=5.1 Ms=5.8			
Off Coast of Central Chile			
Mar 9	PRS	e	18 04 50.4
	GCC	e	18 04 51.2
	PRI	e	18 04 53.7
	BKS	eP	18 04 53.8
		AMP(nm)	PER(s)
	PZ	0.016	0.75
	MHC	eP	18 04 54.0
	FRI	eP	18 04 58.5
	JAS1	iPc	18 05 00.0
	WDC	eP	18 05 00.8
	ORV	iPc	18 05 01.6
	MNA	eP	18 05 10.0
USGS 17h53m18.0s 18.0S 174.5W			
h=33km mb=4.7			
Tonga Islands			
Mar 9	PRI	iPc	19 53 10.0
	LLA	iPd	19 53 17.3
	PRS	iPc	19 53 17.5
	SAO	iPd	19 53 21.8
	FRI	eP	19 53 28.5
		iS	19 53 43.4
	GCC	eP	19 53 30.8
	MHC	eP	19 53 32.4
	JAS1	eP	19 53 38.3
	PCC	e	19 53 40.7
	BRK	e	19 53 42.0
	BKS	ePd	19 53 42.2
		e	19 53 50.4
		eS	19 54 08.1
BRK 19h53m07.7s 36.2N 120.8W			
h=4km ML=2.7(2)			

DATE	STA	PHASE	TIME (UTC)
30 km E of King City, CA			
Mar 9	PRS	eP	22 21 05.5
	GCC	eP	22 21 05.9
	SAO	e	22 21 06.2
	PRI	eP	22 21 07.4
	LLA	e	22 21 07.8
	MHC	eP	22 21 08.3
	BKS	ePc	22 21 08.5
		AMP(nm)	PER(s)
	PZ	0.026	1.0
	FRI	eP	22 21 12.5
	JAS1	iPd	22 21 13.5
	ORV	e	22 21 15.4
	WDC	eP	22 21 16.4
	MIN	e	22 21 17.9
	MNA	eP	22 21 22.0
USGS 22h08m56.1s 26.9S 177.0W			
h=102km mb=5.0			
South of Fiji Islands			
Mar 9	WDC	eP	22 40 58.3
	JAS1	iP	22 41 25.3
	MNA	e	22 41 27.5
USGS 22h34m47.7s 66.1N 150.2W			
h=10km mb=4.8			
Alaska			
Mar 10	GCC	e	05 20 12.9
	PCC	eP	05 20 13.2
	PRS	eP	05 20 13.2
	SAO	e	05 20 13.9
	BRK	e	05 20 14.8
	BKS	iPc	05 20 15.2
		e	05 20 18.1
		AMP(nm)	PER(s)
	PZ	0.031	0.7
	PRI	eP	05 20 15.3
	MHC	eP	05 20 15.5
	FRI	eP	05 20 20.4
	JAS1	iPd	05 20 20.9
	ORV	iP	05 20 22.2
	WDC	iPd	05 20 22.4
		e	05 22 37.5
	MIN	eP	05 20 24.3
	MNA	eP	05 20 28.8
USGS 05h09m11.3s 21.1S 179.2W			
h=641km mb=5.5			
Fiji Islands Region			
Mar 10	FRI	e	09 05 58.8
	PRI	e	09 06 03.5
	MNA	e	09 06 05.5
	PRS	e	09 06 06.0
	LLA	e	09 06 06.2
	JAS1	iPc	09 06 09.2
	ORV	eP	09 06 18.2
	WDC	e	09 06 23.2
USGS 08h53m43.0s 32.7S 71.7W			
h=40km mb=5.2			
Near Coast of Central Chile			
Mar 10	PRI	eP	09 13 08.4
	FRI	eP	09 13 11.1
	MHC	e	09 13 16.4
	JAS1	eP	09 13 17.7
	MNA	eP	09 13 19.8
	BKS	e	09 13 21.7
	ORV	eP	09 13 27.8
	WDC	eP	09 13 37.8
USGS 09h01m46.0s 34.6S 108.6W			
h=10km mb=4.8			
Easter Islands Cordillera			

DATE	STA	PHASE	TIME (UTC)
Mar 10	FHC	e	13 36 36.3
	WDC	eP	13 36 40.0
	MIN	eP	13 36 44.3
	ORV	eP	13 36 50.0
	JAS1	eP	13 37 07.3
	MHC	eP	13 37 09.0
	MNA	eP	13 37 10.2
	FRI	eP	13 37 16.3
	LLA	e	13 37 17.5
	PRI	e	13 37 21.5
	BKS	eS	13 42 39
		eLr	13 46 36
		e	13 48 00
		AMP(nm)	PER(s)
	LZ	2.3	20.
	LN	1.4	20.
	LE	1.8	20.
USGS 13h30m29.5s 66.1N 150.1W			
h=10km mb=5.2 Ms=4.9			
Alaska			
Mar 10	WDC	eP	15 38 12.7
	ORV	eP	15 38 20.1
	JAS1	eP	15 38 31.2
	MNA	eP	15 38 38.5
USGS 15h27m45.4s 43.5N 146.0E			
h=110km mb=5.3			
Hokkaido, Japan Region			
Mar 10	MNA	iPc	19 40 09.2
		i	19 40 28.2
		i	19 40 40.9
		i	19 41 14.1
		i	19 43 10.2
	PRI	e	19 40 12.0
		i	19 40 48.0
		i	19 43 12.2
	JAS1	eP	19 40 19.5
		i	19 40 48.6
		i	19 42 37.8
		i	19 43 14.1
		i	19 46 21.1
	MHC	eP	19 40 23.7
		e	19 40 42.1
		i	19 40 58.6
	BKS	i	19 40 45.1
		i	19 41 02.8
		i	19 41 13.5
		e	19 42 40.7
		e	19 52 02
		AMP(nm)	PER(s)
	LZ	1.6	20.
	LN	4.4	20.
	LE	4.3	20.
	FHC	e	19 40 50.6
		i	19 41 27.1
	WDC	i	19 41 15.2
		e	19 42 45.9
		i	19 43 22.0
USGS 19h33m13.1s 13.5N 89.0W			
h=77km mb=5.2			
El Salvador			
Mar 11	WDC	eP	03 12 40.6
		ipP	03 12 54.4
	JAS1	eP	03 12 56.5
		ipP	03 13 11.2
	MNA	eP	03 13 04.4
		ipP	03 13 18.4
USGS 03h01m21.0s 36.4N 141.0E			
h=50km mb=5.2			
Near East Coast of Honshu, Japan			

DATE	STA	PHASE	TIME (UTC)
Mar 12	MHC	iPd	04 04 01.9
	GCC	iPd	04 04 07.8
	PCC	iPc	04 04 11.6
	SAO	iPd	04 04 11.6
	BKS	iPc	04 04 14.5
		iS	04 04 25.4
	BRK	ePc	04 04 14.6
	LLA	ePc	04 04 16.8
	PRS	ePd	04 04 18.4
	JAS1	iPc	04 04 21.6
BRK 04h04m00.3s 37.3N 121.7W			
h=6km ML=3.3(4) Mo=2.9E21(2)			
Halls Valley, 20 km ESE of San Jose, CA			
Mar 13	FHC	eP	19 35 56.0
	WDC	eP	19 36 09.6
	MIN	e(P)	19 36 23
	ORV	eP	19 36 28.8
		i	19 36 30.6
	ZSP	eP	19 36 39.7
		i	19 36 40.8
	BKS	eP	19 36 40
		i	19 36 41.3
		i	19 37 10
		iS	19 38 00
		iLr	19 38 16
	BRK	eP	19 36 40.5
		i	19 36 41.6
	PCC	eP	19 36 43.4
		i	19 36 44.2
	MHC	eP	19 36 50.3
	GCC	eP	19 36 51.0
	JAS1	eP	19 36 53.0
		i	19 36 56.1
	SAO	eP	19 36 58.0
	PRS	eP	19 37 02.4
	LLA	eP	19 37 03.4
	MNA	eP	19 37 07.3
	FRI	eP	19 37 09.3
		i	19 37 10.5
	PRI	eP	19 37 10.7
USGS 19h34m57.6s 43.5N 127.6W			
h=10km mb=6.1 Ms=6.3			
Off Coast of Oregon			
Mar 13	FHC	e(P)	20 20 59.4
	WDC	e(P)	20 21 15.0
	ORV	eP	20 21 42.0
		i	20 21 43.0
	JAS1	e(P)	20 21 56.3
	FRI	e	20 22 11.5
USGS 20h19m58.6s 43.7N 127.5W			
h=10km mb=4.2			
Off Coast of Oregon			
Mar 14	FHC	eP	05 54 24.1
	WDC	eP	05 55 28.5
	MIN	e(P)	05 55 35.8
	ORV	eP	05 55 46.0
	JAS1	eP	05 56 11.0
	MNA	eP	05 56 25.0
	FRI	eP	05 56 26.0
USGS 05h53m13.8s 43.8N 127.4W			
h=10km mb=4.6			
Off Coast of Oregon			
Mar 14	GCC	e(P)	06 38 22.4
	PRS	ePc	06 38 22.4
	PCC	eP	06 38 22.5
	SAO	e(P)c	06 38 23.0
	BRK	e(P)	06 38 24.2

DATE	STA	PHASE	TIME (UTC)
	BKS	ePc	06 38 24.2
		AMP(nm)	PER(s)
	PZ	0.050	0.7
	PRI	ePc	06 38 24.4
	LLA	eP	06 38 24.4
	MHC	ePc	06 38 24.7
	FRI	iPc	06 38 29.3
	JAS1	iPc	06 38 29.9
	WDC	iPc	06 38 31.3
	ORV	iPc	06 38 31.4
	MIN	eP	06 38 33.1
	MNA	iPc	06 38 38.5
USGS 06h26m58.8s 23.7S 179.9W			
h=525km mb=5.0			
South of Fiji Islands			
Mar 14	ORV	eP	20 15 41.6
	JAS1	eP	20 15 50.4
	PRS	e	20 15 51.0
	FRI	eP	20 15 55.6
	MNA	eP	20 15 58.2
USGS 20h03m58.4s 30.5N 142.7E			
h=22km mb=5.1			
South of Honshu, Japan			
Mar 15	GCC	e	00 27 07.7
	PRS	eP	00 27 07.9
	SAO	eP	00 27 08.8
	BRK	ePd	00 27 09.3
	BKS	eP	00 27 09.7
		e	00 27 15.2
		AMP(nm)	PER(s)
	PZ	0.075	0.8
	PRI	eP	00 27 09.8
	LLA	eP	00 27 10.0
	MHC	eP	00 27 10.3
	FRI	eP	00 27 14.9
	JAS1	ePd	00 27 15.4
		i	00 28 04.0
		e	00 29 13.6
		e	00 29 58.2
	ORV	iPd	00 27 17.1
	WDC	iPd	00 27 17.2
	MIN	eP	00 27 19.0
	MNA	ePd	00 27 24.8
USGS 00h16m02.7s 20.7S 178.2W			
h=545km mb=5.7			
Fiji Islands Region			
Mar 15	MNA	iPc	16 31 37.4
	FRI	iPc	16 31 48.5
	JAS1	iPc	16 31 57.2
		i	16 32 08.6
	PRI	iPc	16 32 01.1
		i	16 32 11.0
	LLA	ePc	16 32 02.9
	SAO	iP	16 32 08.0
		i	16 32 17.6
	PRS	ePc	16 32 08.0
	MHC	eP	16 32 10.2
		i	16 32 19.2
		i	16 32 27.5
		i	16 33 23.9
	GCC	e(P)	16 32 14.2
	ORV	iPc	16 32 16.5
	BKS	e(Pn)	16 32 17.1
	PCC	e	16 32 17.4
	BRK	e	16 32 17.6
	MIN	eP	16 32 23.5
	ZSP	e	16 32 28.5
	WDC	eP	16 32 33.1
	FHC	e	16 32 55
BRK ML=4.6(6)			

International Seismological Centre

DATE	STA	PHASE	TIME (UTC)
USGS 16h31m00.1s 37.1N 116.0W			
h=0km mb=4.8			
Underground Nuclear Explosion, NTS (Vaughn)			
Mar 16	FRI	ePKP	08 37 59.4
	PRI	ePKP	08 38 00.3
	MNA	ePKP	08 38 00.5
	LLA	e(PKP)	08 38 01
	JAS1	ePKP	08 38 01.8
	MHC	ePKP	08 38 02.6
	BRK	ePKP	08 38 03.8
	MIN	ePKP	08 38 05.6
	ORV	e(PKP)	08 38 06.2
	WDC	ePKP	08 38 06.7
USGS 08h19m11.0s 55.2S 28.2W			
h=33km mb=5.6			
South Sandwich Islands Region			
Mar 16	WDC	iPc	13 39 21.3
	MIN	ePc	13 39 25.3
	ORV	iPc	13 39 31.1
	JAS1	ePc	13 39 48.1
	MHC	ePc	13 39 50.1
	MNA	iPc	13 39 50.6
	FRI	eP	13 39 57.2
	PRS	ePc	13 39 58.7
	PRI	ePc	13 40 03.0
USGS 13h33m10.6s 66.2N 150.0W			
h=10km mb=4.4			
Alaska			
Mar 16	MNA	iPc	15 03 18.6
		ipP	15 03 26.1
		i	15 03 29.3
	FRI	ePc	15 03 24.8
	PRI	eP	15 03 30.7
	JAS1	iPc	15 03 30.7
		ipP	15 03 38.6
	LLA	e(P)	15 03 32.3
	PRS	ePc	15 03 34.9
	SAO	eP	15 03 35.4
	MHC	ePc	15 03 37.3
		epP	15 03 45.7
		e	15 03 59.5
	ORV	iPc	15 03 37.7
	MIN	eP	15 03 38.6
	GCC	ePc	15 03 39.3
	BRK	eP	15 03 41.4
	PCC	eP	15 03 41.5
	WDC	iPc	15 03 42.3
	BKS	eP	15 03 42.7
		eS	15 11 24.0
		eScS	15 12 48.0
		eG	15 27 25.0
		AMP(m)	PER(s)
		PZ	0.13 1.2
		LZ	30 20.
		LNE	45 20.
		LNW	60 20.
	FHC	ePc	15 03 52.7
BRK Ms=6.8 Distance=56°			
USGS 14h54m00.7s 17.0N 62.4W			
h=13km mb=6.3 Ms=6.3			
Leeward Islands			
Mar 16	MNA	iPc	15 06 31.3
	FRI	e(P)	15 06 38.9
	JAS1	ePc	15 06 43.0
	LLA	ePc	15 06 46.3
	PRS	eP	15 06 47
	PRI	eP	15 06 48.8
	SAO	e	15 06 49.5
	MHC	ePc	15 06 50.3
	ORV	eP	15 06 50.4
	MIN	eP	15 06 50.5
	GCC	eP	15 06 51.7
	PCC	eP	15 06 53.5
	BRK	eP	15 06 53.7
	WDC	eP	15 06 54.6
	BKS	eP	15 06 54.8
		e	15 07 06.5
		AMP(m)	PER(s)
	PZ	0.075	1.2
	FHC	e(P)	15 07 05
USGS 14h57m15.8s 17.0N 62.5W			
h=33km mb=5.6			
Leeward Islands			
Mar 16	ORV	iPc	16 20 37.8
		i	16 20 49.4
		iS	16 20 52.2
	WDC	ePd	16 20 42.4
		i	16 21 02.2
	MIN	eP	16 20 43.6
	BKS	eP	16 20 46.4
	BRK	e	16 20 48.9
		e	16 20 54.2
	ZSP	e	16 20 49.8
	MHC	e	16 20 54.4
	FHC	ePc	16 20 54.4
		e	16 21 27.7
	GCC	e	16 20 57.7
	PCC	e	16 20 57.9
	JAS1	iPc	16 20 57.9
		iS	16 21 27.0
	SAO	e	16 21 03.2
	FRI	e	16 21 18.0
	MNA	e	16 21 28.1
BRK 16h20m20.2s 39.3N 122.8W			
h=7km ML=3.0(6)			
55 km WNW of Williams, CA			
Mar 17	MNA	iPd	03 50 29.6
	JAS1	e(P)	03 50 41.5
	MHC	ePd	03 50 48.7
	ORV	iPd	03 50 48.8
	MIN	eP	03 50 49.3
	WDC	eP	03 50 52.9
USGS 03h41m12.0s 16.9N 62.4W			
h=25km mb=4.8 Ms=4.4			
Leeward Islands			
Mar 17	MNA	eP	06 58 01.0
		e	06 59 43.4
		e	06 59 57.9
	MIN	eP	06 58 03.5
		e	07 00 05.0
	WDC	eP	06 58 07.3
	ORV	ePc	06 58 09.4
		e	07 00 11.3
	JAS1	eP	06 58 19.8
		e	07 00 24.6
		e	07 00 37.0
	FRI	e(P)	06 58 27.0
	MHC	e(P)	06 58 34.5
USGS 06h56m17.1s 44.6N 114.2W			
h=10km mb=4.5			
Western Idaho			
Mar 17	FRI	e(P)	10 53 58.5
	PRI	eP	10 53 58.7
		e	10 54 26.1
		e	10 56 13
	MNA	ePc	10 54 01.0
		e	10 54 20.8
		ePKPPKP	11 20 39
	LLA	eP	10 54 01.2
	PRS	eP	10 54 01.4
	SAO	e(P)	10 54 04
	JAS1	iPc	10 54 04.7
		e	10 54 24.8
		i	10 54 31.9
		e	10 56 14
		e	10 59 20.5
		ePKPPKP	11 20 38
	GCC	ePc	10 54 05.7
	MHC	eP	10 54 06.0
	PCC	e(P)	10 54 08.5
	BRK	eP	10 54 09.8
	BKS	eP	10 54 09.9
		e	10 54 21.8
		e	10 54 36.0
		e	10 55 30.3
		eSKS	11 04 37.0
		eS	11 04 40.5
		eSS	11 10 07.8
		eSSS	11 14 04
		eG	11 17 2
		eLr	11 22 00
		AMP(m)	PER(s)
	PZ	0.29	1.6
	LZ	20	20.
	LN	22	20.
	LE	9.6	20.
	ORV	ePc	10 54 13.6
		ePKPPKP	11 20 32
	MIN	ePc	10 54 17.0
	WDC	iPc	10 54 18.7
	FHC	ePc	10 54 24.9
BRK Ms=6.6 Distance=85°			
USGS 10h41m38.4s 32.6S 71.6W			
h=33km mb=5.9 Ms=6.6			
Near Coast of Central Chile			
Mar 18	FRI	e(P)	01 23 55.7
	MNA	eP	01 23 57.6
		epP	01 24 26.8
	PRI	eP	01 23 57.6
		esP	01 24 39
	LLA	eP	01 24 00.0
		epP	01 24 29
	PRS	eP	01 24 00.5
	JAS1	ePd	01 24 02.9
		epP	01 24 32.0
	GCC	eP	01 24 05.3
	MHC	ePd	01 24 05.4
	BRK	eP	01 24 08.0
	ORV	iPd	01 24 12.6
		ipP	01 24 41.9
		isP	01 24 53
	MIN	eP	01 24 14.4
	WDC	ePd	01 24 17.7
	FHC	eP	01 24 25.1
USGS 01h12m24.5s 21.3S 68.7W			
h=116km mb=4.6			
Chile-Bolivia Border Region			
Mar 18	FRI	e(P)	05 59 45
	PRI	eP	05 59 46.8
	MNA	ePd	05 59 47.4
	LLA	ePd	05 59 49.2
	PRS	e(P)	05 59 49.7
	JAS1	ePd	05 59 51.9
	MHC	eP	05 59 54.1
	ORV	ePd	06 00 00.9
	MIN	eP	06 00 03.0
	WDC	ePd	06 00 05.7
	FHC	eP	06 00 12.5
USGS 05h47m46.8s 27.8S 66.5W			
h=174km mb=5.0			
Catamarca Province, Argentina			
Mar 18	FRI	iPc	18 32 47.5
	MNA	iPc	18 32 49.9
	JAS1	iPc	18 32 54.35
		e(S)	18 33 10.4
	LLA	iPc	18 33 05.2
	PRI	ePc	18 33 06.3
	SAO	iP	18 33 09.5
	MHC	eP	18 33 09.9
	PRS	ePc	18 33 11.5
	BKS	ePnc	18 33 15.8
		eSn	18 33 51.8
BRK 18h32m31.0s 37.6N 118.9W			
h=8km ML=3.9(6)			
10 km S of Mammoth Lakes, CA			
Mar 19	MHC	iPd	00 23 36.0
		iSg	00 23 42.6
	SAO	iPc	00 23 36.1
	GCC	ePc	00 23 37.6
		iS	00 23 43.8
	LLA	iPc	00 23 41.5
		eS	00 23 51.2
		e	00 23 52.6
	PRS	ePd	00 23 43.7
		i	00 23 55.9
	PCC	ePd	00 23 45.3
		i	00 23 58.8
	BRK	e(P)	00 23 47.8
	BKS	ePd	00 23 48.6
		eS	00 24 03.5
	ZSP	e(P)d	00 23 49.9
	PRI	ePc	00 23 51.3
	JAS1	ePd	00 23 51.7
		iS	00 24 07.9
	FRI	i(P)	00 23 54.8
		eS	00 24 13.7
	ORV	e	00 24 12.1
BRK 00h23m29.6s 37.1N 121.5W			
h=3km ML=2.5(4)			
Coyote Lake, 10 km NE of Gilroy, CA			
Mar 19	FRI	ePc	04 13 28.9
		e	04 13 31.5
	MNA	ePc	04 13 31.7
		i	04 13 34.8
		i	04 13 47.8
		i	04 13 59.9
		e	04 17 12.5
		e	04 23 56.3
	LLA	ePc	04 13 31.9
	PRS	ePc	04 13 32.0
	SAO	e(P)	04 13 34
	JAS1	ePc	04 13 34.4
		i	04 13 38.2
		i	04 14 03.1
		i	04 14 47.8
	GCC	eP	04 13 36.0
	MHC	e(P)	04 13 37.0
	PCC	eP	04 13 38.6
	BRK	eP	04 13 40.0
		i	04 13 43.0
	BKS	e(P)	04 13 43.0
		e	04 14 07.9
		eSKS	04 24 04.4
		eS	04 24 11.2
		esS	04 24 46.0
		e	04 25 08.4
		eLr	04 41 36
		AMP(m)	PER(s)
		PZ	0.12 1.1
		LZ	20 20.
		LN	20 20.
		LE	13 20.
	ORV	ePc	04 13 44.2
		i	04 13 46.7
	MIN	ePc	04 13 46.4
	WDC	ePc	04 13 49.2
		i	04 13 52.3
		i	04 14 17.2
	FHC	eP	04 13 56.0
BRK Ms=6.6 Distance=85°			
USGS 04h01m08.0s 33.2S 71.7W			
h=42km mb=5.9 Ms=6.6			
Near Coast of Central Chile			
Mar 19	PRI	e(P)	10 40 21.7
	FRI	e(P)	10 40 24.4
	MNA	ePc	10 40 25.2
	LLA	e	10 40 29.3
	PRS	e	10 40 30.0
	GCC	e	10 40 30.5
	JAS1	eP	10 40 31.4
	MHC	e	10 40 34.7
	BKS	e(P)	10 40 38.0
		AMP(m)	PER(s)
	PZ	0.055	0.9
	ORV	ePc	10 40 40.6
		e	10 43 25.6
	MIN	ePc	10 40 42.3
	WDC	iPc	10 40 45.5
	FHC	e(P)	10 40 53.5
USGS 10h28m36.4s 16.6S 63.7W			
h=33km mb=5.5 Ms=5.2			
Bolivia			
Mar 19	MNA	e(P)	10 55 07.0
	JAS1	e(P)	10 55 19
	PRI	e	10 55 20
	ORV	e(P)	10 55 26.2
	MHC	e(P)	10 55 26.2
	MIN	e(P)	10 55 27.3
	WDC	e(P)	10 55 30.5
	FHC	e(P)	10 55 41.5
USGS 10h45m45.5s 17.0N 62.2S			
h=15km mb=5.1 Ms=5.1			
Leeward Islands			
Mar 20	MNA	ePd	02 58 51.0
	LLA	eP	02 58 51.4
	PRS	eP	02 58 51.4
	JAS1	iPd	02 58 54.6
	GCC	e(P)	02 58 55.8
	ORV	ePd	02 59 03.6
	WDC	ePd	02 59 08.4
	FHC	eP	02 59 15.0
USGS 02h46m24.5s 33.4S 71.8W			
h=33km mb=5.2 Ms=4.9			
Near Coast of Central Chile			
Mar 20	MHC	iPd	04 57 41.1
	GCC	iPd	04 57 47.0
	SAO	iPd	04 57 50.7
	PCC	iPc	04 57 50.9
	BKS	iPd	04 57 53.9
		eS	04 58 04.7
	BRK	eP	04 57 54.1
		e(S)	04 58 03.7
	LLA	eP	04 57 56.0
	PRS	e(P)	04 57 57.5
	JAS1	ePc	04 58 00.8
		eS	04 58 16.3
	PRI	e(P)	04 58 06.9
	FRI	e(P)	04 58 07.1
		e(S)	04 58 27.5
	ORV	e(P)	04 58 18.9
BRK 04h57m39.5s 37.3N 121.7W			
h=6km ML=2.8(4) Mo=1.3E20(2)			
Halls Valley, 20 km E of San Jose, CA			
Mar 20	PRI	ePd	15 40 05.4
	LLA	ePd	15 40 08.0
	PRS	ePd	15 40 08.6
	JAS1	ePd	15 40 10.9
	MHC	ePd	15 40 13.2
	ORV	ePd	15 40 21.2
	WDC	ePd	15 40 26.4
USGS 15h28m44.6s 18.1S 70.2W			
h=57km mb=5.0			
Near Coast of Central Chile			
Mar 21	MNA	e(P)	00 04 19.0
	JAS1	ePc	00 04 30.2
	FRI	ePc	00 04 32.8
	MHC	e(P)	00 04 37
	LLA	ePc	00 04 39.9
USGS 23h54m40.2s 56.5N 34.4W			
h=10km mb=5.1 Ms=4.6			
North Atlantic Ocean			
Mar 21	FHC	iPc	04 19 40.6
		e	04 19 50.7
	WDC	ePd	04 19 54.3
	MIN	eP	04 20 04.2
	ORV	eP	04 20 07.3
	PCC	e	04 20 16.7
	MHC	e	04 20 24.4
	GCC	e	04 20 25.0
	SAO	e	04 20 30.4
BRK 04h19m26.5s 40.3N 124.8W			
h=13km ML=3.0(4)			
Off Coast, 70 km SW of Eureka, CA			
Mar 21	SAO	iPd	05 07 37.8
	GCC	iPc	05 07 43.9
	LLA	iPd	05 07 45.4
	PRS	iPd	05 07 45.7
	MHC	iPd	05 07 46.9
		iS	05 07 54.5
	PCC	iPc	05 07 53.2
	PRI	eP	05 07 54.2
		i	05 08 13.5
	BKS	e(P)	05 07 55.6
		eS	05 08 14.6
	BRK	e(P)	05 07 58.8
		eS	05 08 14.8
	JAS1	iPd	05 07 59.8
		i	05 08 20.5
	ZSP	eP	05 08 00.0
		eS	05 08 17.6
	FRI	e(P)	05 08 01.3
BRK 05h07m35.9s 36.8N 121.5W			
h=8km ML=2.7(4)			
San Juan Bautista, 10 km W of Hollister, CA			
Mar 22	MHC	iP	07 43 02.0
	GCC	iPd	07 43 07.4
	SAO	iPd	07 43 10.5

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DATE	STA	PHASE	TIME (UTC)
	PCC	iPc	07 43 11.8
	BRK	iPc	07 43 14.9
	BKS	ePc	07 43 14.9
		eS	07 43 25.6
	LLA	iPc	07 43 15.7
	ZSP	iPc	07 43 16.4
		iS	07 43 29.3
	PRS	iPd	07 43 17.5
	JAS1	iPc	07 43 21.1
		iS	07 43 37.1
	PRI	ePd	07 43 23.9
	FRI	iPc	07 43 26.9
	ORV	ePn	07 43 38.0
		iPnd	07 43 39.5
	MIN	ePn	07 43 53.3
	MNA	i	07 43 55.4

BRK 07h43m00.0s 37.3N 121.7W
h=7km ML=3.0(6) Mo=1.5E21(4)
Halls Valley, 23 km SE of San Jose, CA

Mar 22	ZSP	ePn	13 13 56.3
		iSn	13 14 11.9
	BKS	eP	13 13 57.4
		eS	13 14 12.3
	BRK	ePn	13 13 57.5
		eSn	13 14 11.5
	ORV	ePnc	13 14 00.1
	PCC	eP	13 14 02.8
	MHC	ePn	13 14 08.0
	MIN	ePn	13 14 08.2
	WDC	ePn	13 14 09.2
	JAS1	ePn	13 14 12.6

BRK 13h13m37.7s 38.8N 122.8W
h=2km ML=3.0(2)
The Geysers, 25 km S of Clear Lake, CA

Mar 22	PRI	e	14 14 31.4
	MNA	eP	14 14 35.6
	LLA	e	14 14 39.2
	GCC	e	14 14 41.5
	JAS1	e	14 14 41.7
	MHC	eP	14 14 45.0
	ORV	eP	14 14 50.9
	MIN	eP	14 14 52.5
	WDC	eP	14 14 55.8
	FHC	e	14 15 03.6

USGS 14h02m46.9s 18.6S 63.6W
h=33km mb=5.5 Ms=5.7
Bolivia

Mar 22	JAS1	iPc	14 44 57.9
	ORV	eP	14 45 06.5
	WDC	iPc	14 45 11.7

USGS 14h32m24.2s 34.4S 72.1W
h=33km mb=5.1
Near Coast of Central Chile

Mar 22	WDC	iPKPc	15 01 55.7
	ORV	ePKP	15 01 55.8
	MIN	e	15 01 55.9
	PRS	e	15 02 01.1
	FRI	e	15 02 02.1
	LLA	e	15 02 02.9
	PRI	e	15 02 03.0
	MNA	e	15 02 04.3
		e	15 05 20.2
	JAS1	e	15 02 08.6

USGS 14h42m58.6s 6.6S 105.4E
h=70km mb=5.7
Sunda Strait

DATE	STA	PHASE	TIME (UTC)
Mar 23	FHC	eP	12 00 18.2
	WDC	eP	12 00 28.1
	MIN	eP	12 00 35.2
	ORV	eP	12 00 44.9
	JAS1	eP	12 01 10.5
	MNA	eP	12 01 16.0
	PRI	e	12 01 31

USGS 11h58m06.7s 49.2N 128.4W
h=10km mb=4.4
Vancouver Island Region

Mar 23	PRI	eP	13 57 46.8
	FRI	e	13 57 47.4
	MNA	eP	13 57 48.0
	LLA	eP	13 57 49.2
	PRS	eP	13 57 49.3
	JAS1	eP	13 57 51.6
	MHC	e	13 57 54.0
	ORV	eP	13 58 00.9
	WDC	eP	13 58 05.6
		e	14 00 35.8
	MIN	e	13 58 05.8

USGS 13h45m22.5s 34.2S 72.0W
h=57km mb=5.5 Ms=5.2
Near Coast of Central Chile

Mar 23	FRI	eP	14 49 18.9
	PRI	eP	14 49 19.8
	MNA	iPc	14 49 22.2
	LLA	eP	14 49 22.2
	PRS	eP	14 49 22.3
	JAS1	iPc	14 49 25.6
	GCC	eP	14 49 26.4
	MHC	eP	14 49 26.9
	ORV	eP	14 49 34.7
	MIN	eP	14 49 36.1
	WDC	iPc	14 49 39.7

USGS 14h36m59.5s 33.2S 72.2W
h=53km mb=5.6 Ms=5.1
Off Coast of Central Chile

Mar 23	MNA	iPc	18 30 35.6
	FRI	iPc	18 30 47.8
	JAS1	iPc	18 30 56.2
	PRI	iPc	18 31 00.7
		i	18 31 09.7
	LLA	ePnc	18 31 01.5
		iPe	18 31 10.4
	SAO	iP	18 31 07.4
		i	18 31 15.6
	PRS	iPc	18 31 07.4
	MHC	iPc	18 31 09.6
		i	18 31 19.2
		iS	18 32 20.9
	GCC	e(P)	18 31 11.4
	ORV	iPc	18 31 14.8
	BRK	ePc	18 31 16.0
	BKS	eP	18 31 16.1
		e	18 31 26.9
	ZSP	eP	18 31 16.6
	PCC	ePc	18 31 16.9
	MIN	i(P)d	18 31 22.6
	WDC	ePc	18 31 31.4
	FHC	e	18 31 51.5
		e	18 32 21.3

BRK ML=5.1(8)
USGS 18h30m00.1s 37.2N 116.1W
h=0km mb=5.3
Underground Nuclear Explosion, NTS (Cottage)

Mar 23	FHC	iPc	21 42 16.1
	WDC	iPc	21 42 23.6

DATE	STA	PHASE	TIME (UTC)
		e	21 44 24.3
	MIN	eP	21 42 29.0
	ORV	iPc	21 42 33.1
	BRK	eP	21 42 37.7
	BKS	ePc	21 42 38.5
		AMP(nm)	PER(s)
		PZ 0.084	0.9
	PCC	eP	21 42 39.4
	GCC	eP	21 42 43.9
	MHC	iPc	21 42 44.3
	JAS1	iPc	21 42 47.5
		i	21 44 34.2
	SAO	iP	21 42 48.1
	PRS	eP	21 42 50.7
	LLA	eP	21 42 51.4
	FRI	iP	21 42 55.3
		e	21 44 39.6
	MNA	iPc	21 42 55.7
	PRI	eP	21 42 55.7

USGS 21h35m12.9s 52.6N 178.9W
h=233km mb=5.0
Andreanof Islands, Aleutian Islands

Mar 23	BRK	eP	23 15 14.9
	GCC	eP	23 15 15.1
	BKS	ePd	23 15 15.3
		AMP(nm)	PER(s)
		PZ 0.051	0.9
	WDC	eP	23 15 16.7
	MHC	eP	23 15 16.9
	PRS	eP	23 15 17.0
	ORV	eP	23 15 18.9
	LLA	eP	23 15 18.9
	PRI	eP	23 15 19.9
	JAS1	iPd	23 15 21.6
	FRI	eP	23 15 23.4
	MNA	iPd	23 15 30.8

USGS 23h02m45.8s 8.4S 158.3E
h=156km mb=5.3
Solomon Islands

Mar 24	PRI	e	16 29 01.0
	MNA	e	16 29 03.3
	FRI	e	16 29 04.3
	JAS1	e	16 29 06.8
	LLA	e	16 29 11.8
	ORV	eP	16 29 14.3
	WDC	e	16 29 19.6
	MIN	e	16 29 25.5

USGS 16h16m32.5s 34.3S 72.3W
h=26km mb=5.5 Ms=5.5
Near Coast of Central Chile

Mar 24	BRK	iPc	18 56 13.6
		iS	18 56 17.5
	BKS	iPc	18 56 14.0
		iS	18 56 18.80
	ZSP	iPc	18 56 14.3
		iS	18 56 19.3
	PCC	iPd	18 56 15.60
		iS	18 56 21.25
	GCC	iPd	18 56 25.45
		iS	18 56 30.30
	MHC	eP	18 56 25.50
		iS	18 56 30.90
	SAO	eP	18 56 30.6
	JAS1	eP	18 56 36.7
		eS	18 57 00.1

BRK 18h56m07.5s 37.9N 122.6W
h=3km ML=2.9(4)
SW of Point Reyes, 25 km NW of San Francisco

DATE	STA	PHASE	TIME (UTC)
Mar 24	LLA	iPd	23 01 30.1
	SAO	iPd	23 01 34.2
	PRS	iPd	23 01 36.9
	PRI	iPd	23 01 41.7
		e	23 01 55.2
	MHC	iPd	23 01 42.0
		iS	23 01 55.1
	GCC	eP	23 01 42.3
	FRI	eP	23 01 46.0
		iS	23 02 00.3
	JAS1	iPd	23 01 49.7
		iS	23 02 04.4
	BRK	e	23 01 53.7
	ZSP	e	23 01 54.6
	BKS	eP	23 01 55.5
	ORV	e	23 02 12.6
		i	23 02 19.5
	MNA	e	23 02 16.8

BRK 23h01m27.0s 36.8N 121.0W
h=4km ML=3.0(4)
40 km E of Hollister, CA

Mar 25	PRI	e	05 27 00.4
	FRI	e	05 27 01.6
	PRS	e	05 27 02.8
	LLA	e	05 27 02.8
	JAS1	iPd	05 27 06.2
	MHC	e	05 27 07.8
	BKS	ePd	05 27 10.8
		eS	05 37 43.2
		e(PPS)	05 39 50.0
		eSS	05 43 32.0
		e	05 45 14.0
		eSSS	05 47 08.0
		eLq	05 50 12.0
		eLr	05 55 30.0
		AMP(nm)	PER(s)
		PZ 0.057	1.0
		LZ 17	20.
		LN 14	20.
		LE 4.8	20.
	ORV	eP	05 27 15.3
	MIN	e	05 27 17.4
	WDC	ePd	05 27 20.4

BRK Ms=6.4 Distance=88°
USGS 05h14m35.1s 34.3S 72.2W
h=45km mb=6.0 Ms=6.4
Near Coast of Central Chile

Mar 25	GCC	eP	09 08 29.5
	BRK	eP	09 08 29.7
	FHC	eP	09 08 29.9
	SAO	eP	09 08 31
	PRS	ePc	09 08 31.3
	MHC	eP	09 08 31.7
	LLA	eP	09 08 33.2
	PRI	ePc	09 08 33.7
	WDC	ePc	09 08 34.0
	ORV	ePc	09 08 35.7
	MIN	ePc	09 08 36.2
	JAS1	ePc	09 08 37.1
	FRI	eP	09 08 38.2
	MNA	eP	09 08 46.7

USGS 08h56m06.1s 11.4S 165.7E
h=33km mb=5.4 Ms=5.0
Santa Cruz Islands

Mar 25	WDC	e(PKP)	15 29 31.2
		e	15 29 43.2
	JAS1	ePKPc	15 29 38.3
	MNA	ePKPc	15 29 39.1

USGS 15h09m46.4s 8.2S 68.1E
h=10km mb=4.9

DATE	STA	PHASE	TIME (UTC)
Chagos Archipelago Region			
Mar 25	FRI	iPc	16 05 31.15
	MNA	iPd	16 05 32.75
	JAS1	iPc	16 05 40.15
	LLA	iPc	16 05 48.70
	PRI	iPc	16 05 49.75
	SAO	iPc	16 05 53.40
	MHC	iPc	16 05 54.0
	BKS	iPc	16 06 0.4
	ZSP	iPc	16 06 01.0
	BRK	ePc	16 06 01.2
		eS	16 06 42.7
	ORV	iPc	16 06 02.75
	WDC	iPc	16 06 20.4
		i	16 06 21.4
		i	16 06 33.4
	FHC	e	16 06 42.7
		e	16 06 51.3

BRK 16h05m13.6s 37.5N 118.7W
h=9km ML=5.1(7) Mo=6.4E22(2)
25 km NW of Bishop, CA

Mar 25	FRI	iPc	16 20 48.25
	MNA	iPd	16 20 49.8
		eS	16 21 03.3
	JAS1	iPc	16 20 57.3
		eS	16 21 16.0
	LLA	iPc	16 21 05.8
	PRI	iPc	16 21 06.7
		iS	16 21 36.3
	SAO	iP	16 21 10.7
	MHC	eP	16 21 11.4
		e(S)	16 21 46.0
	PRS	eP	16 21 12.1
	GCC	e	16 21 14.9
	PCC	e	16 21 17.6
	BRK	e	16 21 17.6
	BKS	e	16 21 18.7
	ORV	e	16 21 20.8

BRK 16h20m30.3s 37.4N 118.6W
h=7km ML=3.8(5)
25 km NW of Bishop, CA

Mar 25	FRI	iPc	16 27 18.9
	MNA	iPd	16 27 20.7
		eS	16 27 35.2
	JAS1	iPc	16 27 28.0
		iS	16 27 46.9
	LLA	iPc	16 27 36.4
	PRI	iPc	16 27 37.4
		eS	16 27 52
	SAO	iPc	16 27 41.5
	MHC	eP	16 27 42.3
	PRS	iPd	16 27 43.0
	GCC	eP	16 27 45.9
	BKS	e	16 27 49.3
	BRK	e	16 27 50
	PCC	e	16 27 50.1
	ORV	e	16 27 52
	MIN	e	16 28 10

BRK 16h27m01.2s 37.4N 118.6W
h=5km ML=3.6(5)
25 km NW of Bishop, CA

Mar 27	FHC	iPc	12 58 22.8
		i	12 58 25.2
		i	12 58 42
	WDC	iPc	12 58 28.7
		i	12 58 31.1
		i	12 58 38
		i	12 59 17
	BKS	iPc	12 58 40.5

DATE	STA	PHASE	TIME (UTC)
		i	12 58 42.8
		AMP(nm)	PER(s)
		PZ 0.35	0.8
	MHC	iPc	12 58 45.1
		i	12 58 47.1
		i	12 58 55
	SAO	iPc	12 58 47.0
	JAS1	iPc	12 58 47.7
		i	12 58 50.1
		i	12 59 45
	MNA	iPc	12 58 54.1
		i	12 58 57.0
		i	12 59 45
	PRI	iPc	12 58 54.1
		i	12 58 56.1
		i	12 59 02.5
		i	12 59 11.0

USGS 12h48m12.3s 44.3N 146.7E
h=155km mb=5.9
Kuril Islands

Mar 28	MNA	iPd	09 58 53.1
		i	09 58 59.5
	FRI	eP	09 59 03.9
		i	09 59 10.5
	JAS1	iPd	09 59 06.0
	ORV	eP	09 59 06.7
		i	09 59 13.0
	WDC	eP	09 59 07.7
	LLA	eP	09 59 11.8
	MHC	eP	09 59 14.2
	FHC	e	09 59 16.3

USGS 09h48m32.2s 31.1N 41.5W
h=10km mb=5.2 Ms=4.9
North Atlantic Ridge

Mar 28	FHC	iPd	16 17 55.2
	WDC	iPd	16 18 00.9
		iPd	16 18 00.9
	MIN	ePd	16 18 05.1
	ORV	iPd	16 18 07.9
	BKS	ePd	16 18 11.5
		iPcP	16 18 15.0
		epP	16 19 08.0
		epPP	16 21 42.0
		e	16 27 27.2
		e	16 28 00.0
		eSS	16 32 10.0
		eSSS	16 35 00.0
		e	16 35 44.0
		eLq	16 37 06.0
		AMP(nm)	PER(s)
		PZ 0.17	0.7
		LZ 6.1	20.
		LN 7.5	20.
		LE 5.2	20.
	BRK	iPd	16 18 11.6
	ZSP	i	16 18 12
	PCC	ePd	16 18 12.1
	GCC	iPd	16 18 15.6
	MHC	iPd	16 18 16.0
	SAO	iPd	16 18 18.3
	JAS1	iPd	16 18 18.4
		e	16 18 21
		e	16 19 16
	PRS	iPd	16 18 [illegible]
	LLA	ePd	16 18 [illegible]
	FRI	iPd	16 18 23.9
	PRI	iPd	16 18 24.4
	MNA	iPd	16 18 24.8

BRK mb=5.9 h=240km Distance=72°
USGS 16h07m06.8s 40.3N 140.4E
h=166km mb=6.[illegible]

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DATE	STA	PHASE	TIME (UTC)
Honshu, Japan			
Mar 29	FRI	e	05 57 46.0
	PRI	eP	05 57 47.5
	MNA	iP	05 57 48.7
	LLA	eP	05 57 49.6
	JAS1	iPd	05 57 52.7
	GCC	e	05 57 53.7
	MHC	eP	05 57 54.5
	ORV	iPd	05 58 01.6
	MIN	e	05 58 03.7
	WDC	iPd	05 58 06.4
USGS 05h45m32.9s 31.3S 68.9W			
h=111km mb=5.4			
San Juan Province, Argentina			
Mar 29	ARC	iP	13 44 37.4
		iS	13 44 47.0
	FHC	iP	13 44 38.9
		iS	13 44 48.9
	WDC	iPc	13 44 54.4
	MIN	eP	13 45 04.0
	ORV	eP	13 45 07.9
BRK 13h44m23.6s 40.7N 125.0W			
h=5kmR ML=3.0(3)			
80 km W of Eureka, CA			
Mar 30	FRI	iPc	15 59 03.5
		iS	15 59 16.1
	MNA	iPd	15 59 06.1
		iS	15 59 20.0
	JAS1	iPc	15 59 11.2
		iS	15 59 29.1
	LLA	iPc	15 59 21.5
	PRI	iPc	15 59 23.2
		i	15 59 52.0
	SAO	iPc	15 59 25.9
		i	15 59 57.3
	MHC	eP	15 59 26.8
	PRS	ePc	15 59 27.8
	GCC	eP	15 59 30.2
	BRK	e(P)	15 59 33.0
	BKS	iPc	15 59 33.3
		iS	16 00 07.9
	PCC	ePc	15 59 34.0
	ZSP	e	15 59 35.4
	ORV	i	15 59 37.0
	MIN	e	15 59 49.0
BRK 15h58m47.0s 37.5N 118.8W			
h=3km ML=3.3(5)			
Mammoth Lakes Area, CA			
Mar 30	ZSP	iPed	22 52 18.8
		iSq	22 52 34.9
	BRK	ePe	22 52 19.5
	BKS	iPd	22 52 19.6
		iS	22 52 34.2
	ORV	ePec	22 52 22.3
	PCC	ePn	22 52 23.8
	MHC	ePnd	22 52 30.0
	MIN	ePnc	22 52 31.1
	GCC	ePn	22 52 31.4
	WDC	ePe	22 52 33.1
	JAS1	ePnc	22 52 35.0
	SAO	iPnc	22 52 37.5
	LLA	ePnd	22 52 42.4
	PRS	ePnd	22 52 43.7
	FHC	ePgc	22 52 44.6
	FRI	ePn	22 52 49.2
	PRI	ePn	22 52 52.8
	MNA	ePn	22 53 06.6
BRK 22h52m00.4s 38.8N 122.8W			
h=5km ML=3.3(7) Mo=4.2E21(2)			

DATE	STA	PHASE	TIME (UTC)
The Geysers, 20 km S of Clear Lake, CA			
Mar 31	MHC	iPd	02 56 52.3
	GCC	iPd	02 56 58.0
		iS	02 57 03.8
	SAO	iPd	02 57 01.5
	PCC	iPc	02 57 01.9
	BKS	iP	02 57 04.8
		iS	02 57 16.0
	BRK	iPc	02 57 04.9
	ZSP	iPc	02 57 06.4
		i	02 57 20.1
	LLA	ePc	02 57 06.7
	PRS	iPc	02 57 08.7
	JAS1	iPc	02 57 11.8
		iS	02 57 26.5
	PRI	eP	02 57 15.0
	FRI	ePc	02 57 17.6
		iS	02 57 38.2
	ORV	e(P)c	02 57 29.4
	MIN	e	02 57 42.6
	WDC	e	02 57 43.6
	MNA	e	02 57 46
BRK 02h56m50.5s 37.3N 121.7W			
h=7km ML=3.2(5) Mo=6.0E20(4)			
20 km ESE of San Jose, CA			
Apr 1	MNA	e	05 18 55.7
	JAS1	eP	05 18 56.7
	ORV	e	05 19 12.2
	BKS	e	05 32 26
USGS 05h10m40.8s 4.0S 103.1W			
h=10km mb=4.7 Ms=4.8			
Northern Easter Island Cordillera			
Apr 1	MNA	eP	10 42 51.9
	JAS1	eP	10 42 58.0
	ORV	eP	10 43 09.0
	MIN	e	10 43 13.6
	WDC	e	10 43 17.5
	BKS	e	10 51 04
USGS 10h36m10.2s 8.5N 103.2W			
h=10km mb=5.0 Ms=4.8			
Off Coast of Mexico			
Apr 1	ORV	iPc	14 09 35.8
	BKS	iP	14 09 41.6
		iS	14 09 54.3
	BRK	eP	14 09 41.7
	MIN	iPd	14 09 44.3
	WDC	iPd	14 09 45.0
	PCC	ePc	14 09 47.3
	JAS1	iPc	14 09 52.5
	FHC	eP	14 10 01.8
BRK 14h09m21.1s 39.1N 122.3W			
h=2kmR ML=3.2(6)			
15 km SW of Williams, CA			
Apr 2	PRS	e(P)	02 07 57.6
	GCC	eP	02 07 57.8
	MHC	eP	02 08 00.1
	FRI	eP	02 08 03.8
	JAS1	eP	02 08 04.6
	ORV	eP	02 08 06.7
	WDC	iPd	02 08 07.4
	MIN	eP	02 08 08.9
	MNA	eP	02 08 12.7
USGS 01h56m06.9s 30.5S 179.1E			
h=517km mb=4.9			
Kermadec Islands Region			
Apr 2	GCC	ePd	03 32 43.5

DATE	STA	PHASE	TIME (UTC)
	PCC	ePd	03 32 43.6
	PRS	eP	03 32 43.8
	SAO	e(P)	03 32 45.2
	BRK	ePd	03 32 45.4
	PRI	ePd	03 32 45.7
	MHC	ePd	03 32 46.1
	FHC	e(P)	03 32 49.7
	FRI	ePd	03 32 50.7
	JAS1	iPd	03 32 51.3
	ORV	iPd	03 32 52.8
	WDC	iPd	03 32 52.9
	MIN	ePd	03 32 54.5
	MNA	iPd	03 33 00.4
USGS 03h21m41.4s 21.2S 179.1W			
h=636km mb=5.4			
Fiji Islands Region			
Apr 2	GCC	e(P)	05 18 58.5
	PRS	e(P)	05 18 58.6
	PRI	e	05 18 59.3
	SAO	e(P)	05 19 00
	BRK	eP	05 19 00.1
	MHC	eP	05 19 00.9
	FRI	ePd	05 19 05.2
	JAS1	iPd	05 19 06.0
	ORV	ePd	05 19 07.4
	WDC	iPd	05 19 07.8
	MIN	e(P)	05 19 08.6
	MNA	e(P)	05 19 14.3
USGS 05h07m35.9s 23.8S 179.7W			
h=531km mb=4.8			
South of Fiji Islands			
Apr 2	MNA	iPc	20 00 36.9
	FRI	iPc	20 00 48.4
	JAS1	iPc	20 00 57.1
	PRI	iPc	20 01 01.1
	LLA	ePc	20 01 02.2
	SAO	eP	20 01 07.7
	PRS	ePc	20 01 07.8
	MHC	iPc	20 01 10.2
	GCC	ePc	20 01 12.8
	ORV	iPc	20 01 15.9
	BKS	iP	20 01 16.5
		iS	20 02 23.0
	BRK	eP	20 01 17.0
		i	20 01 35.7
	PCC	iPc	20 01 17.6
	MIN	iPc	20 01 23.2
	WDC	iPc	20 01 32.7
		e	20 01 54.1
	FHC	e	20 01 49
BRK ML=5.6(7)			
USGS 20h00m00.0s 37.1N 116.0W			
h=0km mb=5.7 Ms=4.7			
Underground Nuclear Explosion, NTS (Hermosa)			
Apr 3	PRI	iPc	04 05 24.7
		e	04 05 31.9
	PRS	iPc	04 05 30.8
	FRI	iPd	04 05 30.9
		e	04 05 35.8
	LLA	eP	04 05 32.3
	SAO	iP	04 05 35.8
	GCC	eP	04 05 42.2
	MHC	e(P)	04 05 43.7
		i	04 05 53.6
	JAS1	eP	04 05 46.1
		i	04 05 52.2
	PCC	ePc	04 05 50.2
	MNA	e	04 05 52.2
	BRK	eP	04 05 53.3

DATE	STA	PHASE	TIME (UTC)
	BKS	ePd	04 05 53.6
		eS	04 06 40.7
	ZSP	e	04 05 54.6
	ORV	e(P)	04 06 12.0
	MIN	e	04 06 25
BRK ML=4.0(4)			
PAS 04h04m49.8s 34.4N 119.0W			
h=28km ML=4.0			
Southern California			
Apr 3	FRI	e	06 26 14.8
	PRI	e	06 26 15.1
	JAS1	e(P)	06 26 26.2
	ORV	e	06 26 46.7
	WDC	e	06 26 56.8
USGS 06h21m32.3s 18.7N 108.4W			
h=10km mb=4.3			
Revilla Gigedo Islands Region			
Apr 3	WDC	eP	08 27 23.8
		i	08 28 44.0
	MIN	eP	08 27 28.2
	ORV	eP	08 27 31.9
	JAS1	iPc	08 27 45.2
		e	08 28 06.7
	MNA	eP	08 27 52.4
	FRI	eP	08 27 52.4
USGS 08h18m06.8s 51.9N 158.7E			
h=33km mb=5.5 Ms=5.2			
Near East Coast of Kamchatka			
Apr 3	FRI	eP	13 18 40.5
	MNA	ePc	13 18 41.0
	PRI	ePc	13 18 41.0
	LLA	e(P)	13 18 43.2
	PRS	e(P)	13 18 43.6
	JAS1	iPc	13 18 46.8
	MHC	eP	13 18 48.5
	GCC	e(P)	13 18 49.2
	BRK	e(P)	13 18 51.1
	BKS	eP	13 18 52.0
		ePcP	13 19 24
		ePP	13 22 12
		eS	13 29 18
		eSS	13 35 24
		eLg	13 46 52
		AMP(μm)	PER(s)
		PZ	0.042 0.7
		LZ	8.9 20.
		LN	11 20.
		LE	5.0 20.
	ORV	ePc	13 18 55.8
	MIN	ePc	13 18 57.8
	WDC	ePc	13 19 00.8
BRK Ms=6.3 Distance=87°			
USGS 13h06m20.2s 32.6S 71.7W			
h=33km mb=5.8 Ms=6.1			
Near Coast of Central Chile			
Apr 3	PRS	eP	18 25 13.2
	GCC	eP	18 25 14.4
	PCC	eP	18 25 14.6
	PRI	ePc	18 25 15.5
	BKS	e	18 25 16.2
	MHC	ePc	18 25 16.6
	FRI	eP	18 25 20.0
	JAS1	ePc	18 25 21.2
	ORV	ePc	18 25 23.4
	WDC	ePc	18 25 24.3
	MNA	eP	18 25 29.0
USGS 18h12m25.9s 33.3S 179.2W			
h=33km mb=5.5 Ms=5.3			
South of Kermadec Islands			

DATE	STA	PHASE	TIME (UTC)
Apr 3	FHC	ePc	20 32 41.2
		e	20 34 18.5
		e	20 34 26.0
	WDC	iPc	20 32 46.3
		i	20 34 26.1
		i	20 34 32.3
		eS	20 42 33
	MIN	iPc	20 32 50.1
		e	20 34 29.7
		e	20 34 35.6
	ORV	ePc	20 32 50.9
		e	20 34 30.2
		e	20 34 37.2
	PCC	eP	20 32 53.1
		e	20 34 34.0
		e	20 34 38.9
	BKS	eP	20 32 53.3
		ePcP	20 33 00
		eSP	20 35 16
		ePP	20 35 58
		eS	20 42 13
		eScS	20 43 12
		ePPS	20 43 34
		eSS	20 47 36
		eLq	20 52 54
		eLr	20 56 24
		AMP(μm)	PER(s)
		PZ	0.48 0.9
		LZ	6.4 20.
		LN	2.5 20.
		LE	6.4 20.
	BRK	ePc	20 32 53.9
		e	20 34 31.9
		e	20 34 38.8
		eS	20 42 15
	ZSP	iP	20 32 54.3
		e	20 34 33.3
		e	20 34 38.4
	GCC	ePc	20 32 56.5
		e	20 34 35.2
		e	20 34 42.4
	MHC	ePc	20 32 57.5
		iPcP	20 33 04.0
		e	20 34 37.1
		i	20 34 43.2
		e	20 36 05.0
	JAS1	ePc	20 32 59.0
		e	20 34 38.8
		i	20 34 46.0
		i	20 36 12.5
		eS	20 42 19
	SAO	iPc	20 33 00.2
		e	20 34 40
		e	20 34 45.9
	PRS	ePc	20 33 01.0
		e	20 34 39.0
		e	20 34 45.0
	LLA	ePc	20 33 02.0
		e	20 34 46.0
	FRI	iPc	20 33 05.4
		e	20 34 43.2
		e	20 34 49.1
		eS	20 42 37
	MNA	iPc	20 33 07.6
		iPcP	20 33 13.7
		i	20 34 48.7
		i	20 34 53.4
		e	20 36 24.4
		iS	20 42 47.5
	PRI	ePc	20 33 07.6
		e	20 34 45.4

DATE	STA	PHASE	TIME (UTC)
		i	20 34 51.2
		i	20 34 57.8
		e	20 36 23.0
		eS	20 42 36.0
BRK Ms=6.0 Distance= 78°			
USGS 20h21m36.2s 28.2N 139.5E			
h=469km mb=5.9			
Bonin Islands Region			
Apr 4	JAS1	e(PKP)	01 30 30.2
		e	01 30 36.5
		e	01 30 41.4
	FRI	e	01 30 33.2
	MNA	e(PKP)	01 30 33.4
		e	01 30 39.8
	MIN	e	01 30 34.2
	MHC	e	01 30 37.7
		e	01 30 43.4
	ORV	e	01 30 39.4
		e	01 30 46.7
USGS 01h10m41.3s 53.1S 23.2E			
h=10km mb=4.9			
South of Africa			
Apr 4	MNA	ePd	10 39 47.9
	PRI	eP	10 39 48.3
	LLA	eP	10 39 50.5
	JAS1	iPd	10 39 53.2
	GCC	eP	10 39 55.7
	MHC	eP	10 39 56.0
	ORV	ePd	10 40 02.6
	MIN	eP	10 40 04.6
	WDC	iPd	10 40 07.8
USGS 10h28m21.3s 20.8S 67.2W			
h=201km mb=4.9			
Southern Bolivia			
Apr 4	FRI	e	23 59 14.3
	MNA	iPd	23 59 15.8
	PRI	eP	23 59 16.7
	JAS1	eP	23 59 23.8
	WDC	e	23 59 26.1
	MHC	eP	23 59 28.3
	ORV	eP	23 59 38.3
USGS 23h52m22.9s 12.9N 91.2W			
h=33km mb=5.1 Ms=4.2			
Off Coast of Central America			
Apr 5	WDC	eP	00 08 42.4
	MIN	e	00 08 44.5
	ORV	eP	00 08 57.7
	JAS1	eP	00 09 22.0
	MNA	e	00 09 36.9
USGS 00h07m21.3s 44.0N 127.9W			
h=10km mb=4.2			
Off Coast of Oregon			
Apr 5	MNA	e	12 17 45.7
	JAS1	eP	12 17 58.8
USGS 12h07m27.5s 27.8N 43.7W			
h=10km mb=5.0 Ms=4.2			
North Atlantic Ridge			
Apr 5	MNA	iPc	19 46 47.3
	ORV	eP	19 47 08.3
USGS 19h38m17.2s 4.9N 82.6W			
h=10km mb=4.8 Ms=4.2			
South of Panama			
Apr 6	LLA	iPd	13 16 22.5
	PRS	iPd	13 16 25.2
	SAO	iP	13 16 25.2
	PRI	iP	13 16 30.5

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DATE	STA	PHASE	TIME (UTC)
		eS	13 16 39.5
	GCC	iPc	13 16 34.1
	MHC	eP	13 16 35.6
	FRI	eP	13 16 39.9
	PCC	ePd	13 16 42.3
	JAS1	eP	13 16 44.7
		eS	13 17 04.5
	BKS	eP	13 16 45.2
		e	13 16 51.6
	BRK	e	13 16 45.4
	MNA	e	13 17 11.8
BRK 13h16m19.1s 36.6N 121.1W			
h=8km ML=3.3(6)			
Bear Valley, 40 km N of King City, CA			
Apr 6	FHC	iPc	16 39 07.2
		iS	16 39 16.6
	WDC	iPc	16 39 21.2
	MIN	eP	16 39 31.0
	ORV	iPd	16 39 34.4
	PCC	e	16 39 45.6
	MHC	e	16 39 51.9
	GCC	e	16 39 52.4
BRK 16h38m54.2s 40.4N 124.7W			
h=12km ML=3.5(3) Mo=1.2E21(1)			
Off Coast, 65 km SW of Eureka, CA			
Apr 6	PCC	eP	19 58 33.5
	GCC	eP	19 58 33.7
	PRS	eP	19 58 34.2
	SAO	e	19 58 35.0
	BRK	e	19 58 35.3
	BKS	e(P)	19 58 35.6
	PRI	eP	19 58 36.2
	MHC	eP	19 58 36.3
	LLA	e	19 58 36.4
	FRI	iPc	19 58 41.5
	JAS1	iPc	19 58 41.9
	ORV	iPc	19 58 42.8
	WDC	iPc	19 58 42.9
	MIN	eP	19 58 44.5
	MNA	iPc	19 58 51.6
USGS 19h47m42.0s 17.8S 178.7W			
h=580km mb=5.3			
Fiji Islands Region			
Apr 6	ARC	iP	20 40 56.4
		iSe	20 41 03.3
		iSn	20 41 08.1
	FHC	iPc	20 40 57.5
		iS	20 41 03.9
	WDC	iPc	20 41 12.9
		iS	20 41 38.4
	MIN	iPc	20 41 23.1
	ORV	iP	20 41 26.4
	BKS	eP	20 41 33.5
		e	20 41 40.7
		e	20 42 15.5
	BRK	iPc	20 41 33.7
	PCC	i	20 41 37.0
	MHC	e	20 41 43.7
	GCC	e	20 41 44.2
	JAS1	eP	20 41 49.9
	SAO	iPd	20 41 50.3
	PRS	e	20 41 56.1
	LLA	e	20 41 56.2
	PRI	e	20 42 04.1
	FRI	e	20 42 04.4
	MNA	e	20 42 07.2
BRK 20h40m46.1s 40.6N 124.6W			
h=5kmR ML=4.0(5) Mo=6.9E21(1)			
Off Coast, 40 km SW of Eureka, CA			

DATE	STA	PHASE	TIME (UTC)
Apr 6	MNA	iPc	23 15 34.6
	FRI	iPc	23 15 46.6
	JAS1	iPc	23 15 55.0
	PRI	iPc	23 15 59.5
	LLA	eP	23 16 01.0
	PRS	eP	23 16 06.0
	SAO	iPc	23 16 06.4
	MHC	eP	23 16 07.7
	GCC	e	23 16 11.5
	BRK	e	23 16 13.5
	ORV	eP	23 16 13.6
	BKS	eP	23 16 14.9
		e	23 16 24.9
		e	23 16 26
		e	23 17 58
	PCC	e	23 16 15.3
	MIN	e	23 16 21.3
	WDC	eP	23 16 30.2
BRK ML=4.8(6)			
USGS 23h15m00.1s 37.2N 116.2W			
h=0km mb=4.8			
Underground Nuclear Exp., NTS (Misty Rain)			
Apr 8	ZSP	eP	08 03 43.1
		i	08 03 44.1
		i	08 03 44.8
		e(S)	08 04 01.5
	BKS	iPc	08 03 44.3
		eS	08 04 00.0
	BRK	eP	08 03 44.3
	ORV	eP	08 03 47.2
		i	08 03 54.5
	PCC	eP	08 03 48.8
		e	08 03 49.4
		i	08 03 51.6
		i	08 04 12.5
	MHC	eP	08 03 54.9
	MIN	eP	08 03 56.0
	GCC	eP	08 03 56.2
	WDC	eP*	08 03 56.8
	JAS1	eP	08 04 00
	FHC	ePg	08 04 00.2
	SAO	eP	08 04 02.0
	LLA	eP	08 04 07.5
	PRS	eP	08 04 08.8
	FRI	e(P)	08 04 13.3
	PRI	i	08 04 18.0
	MNA	i	08 04 31.2
BRK 08h03m25.5s 38.8N 122.8W			
h=6km ML=3.1(8) Mo=3.2E21(2)			
Cobb Mountain, 20 km S of Clear Lake, CA			
Apr 8	GCC	e	10 27 13.7
	MHC	e	10 27 15.6
	FRI	eP	10 27 19.8
	JAS1	eP	10 27 20.8
		ipP	10 27 51.0
	ORV	eP	10 27 22.9
	WDC	eP	10 27 23.5
	MIN	eP	10 27 24.9
	MNA	eP	10 27 29.8
USGS 10h15m02.2s 26.9S 177.5W			
h=109km mb=4.9			
South of Fiji Islands			
Apr 8	WDC	e(P)	19 29 00.5
	ORV	ePd	19 29 04.3
	JAS1	e(P)d	19 29 08.5
	MNA	e	19 29 15.0
	PRI	e	19 29 15.3

DATE	STA	PHASE	TIME (UTC)
	BKS	e	19 40 14
		e	19 42 12
		e	19 46 48
		e	20 01 26
			AMP(μm) PER(s)
		LZ	0.71 20.
		LN	3.6 20.
		LE	3.2 20.
USGS 19h15m06.3s 4.1S 136.3E			
h=14km mb=5.7 Ms=5.9			
West Irian Region			
Apr 9	FRI	eP	02 09 25.6
	PRI	iPc	02 09 26.5
	LLA	ePc	02 09 28.7
	PRS	ePc	02 09 28.8
	MNA	iPc	02 09 28.8
		e	02 19 51
	JAS1	iPc	02 09 32.2
		e	02 19 59
		i	02 20 19.1
		e	02 21 17
	GCC	eP	02 09 33.2
	MHC	iPc	02 09 33.7
	BKS	eP	02 09 36.8
		ePP	02 12 52.0
		eS	02 20 00.0
		e	02 21 59.0
		eSS	02 25 54.0
		eSSS	02 29 08.0
		eLg	02 30 32.0
		e	02 32 44.0
		eLr	02 34 46.0
		e	02 38 38
		e	03 19 14
			AMP(μm) PER(s)
		PZ	0.36 1.0
		LZ	180 20.
		LN	150 20.
		LE	160 20.
	BRK	iPc	02 09 37.0
	ZSP	eP	02 09 37.7
	ORV	iPc	02 09 41.1
		e	02 20 16
	MIN	ePc	02 09 43.0
	WDC	iPc	02 09 46.0
	FHC	eP	02 09 52.2
BRK Ms=7.5 Distance=85°			
USGS 01h56m59.4s 34.1S 71.6W			
h=38km mb=6.3 Ms=7.2			
Near Coast of Central Chile			
Apr 9	PRI	iPc	03 23 31.0
	LLA	eP	03 23 36.5
	FRI	iPd	03 23 39.8
	PRS	ePc	03 23 40.3
	GCC	eP	03 23 41.2
	MHC	eP	03 23 50.4
	JAS1	iPc	03 23 53.1
		iS	03 24 15.1
	PCC	eP	03 23 58.5
	BRK	eP	03 24 01.0
	BKS	eP	03 24 02.0
	ZSP	eP	03 24 02.1
	MNA	e	03 24 10.2
		i	03 24 13.5
	ORV	eP	03 24 18.4
	MIN	e	03 24 31
BRK 03h23m24.8s 36.2N 120.3W			
h=9km ML=3.7(6)			
10 km NE of Coalinga, CA			
Apr 9	PRI	iPc	03 42 35.0

DATE	STA	PHASE	TIME (UTC)
	LLA	eP	03 42 40.4
	FRI	iPd	03 42 43.6
	PRS	ePc	03 42 44.2
	MHC	eP	03 42 54.2
	GCC	eP	03 42 54.7
	JAS1	iPd	03 42 56.8
		iS	03 43 19.3
	PCC	i	03 43 03.7
	BKS	eP	03 43 10.5
	MNA	e	03 43 13.2
		i	03 43 17.3
BRK 03h42m28.5s 36.2N 120.3W			
h=8km ML=3.2(6)			
10 km NE of Coalinga, CA			
Apr 9	WDC	e	05 27 06
	ORV	eP	05 27 12.4
	JAS1	eP	05 27 22.2
	FRI	e	05 27 27.5
	MNA	eP	05 27 29.6
USGS 05h15m35.9s 34.1N 140.7E			
h=44km mb=5.2 Ms=5.8			
Near East Coast of Honshu, Japan			
Apr 9	MHC	iPd	18 53 00.5
	GCC	ePc	18 53 05.7
	SAO	iP	18 53 08.5
	PCC	iPc	18 53 10.5
		iS	18 53 22.0
	BRK	ePd	18 53 13.3
		iS	18 53 27.4
	LLA	ePc	18 53 13.7
	PRS	ePd	18 53 15.5
	JAS1	ePd	18 53 19.9
		iS	18 53 35.4
	PRI	eP	18 53 22.6
	FRI	eP	18 53 25.1
	ORV	e(P)	18 53 36.0
BRK 18h52m58.3s 37.2N 121.7W			
h=6km ML=2.9(2) Mo=1.5E20(2)			
San Felipe Valley, 25 km ESE of San Jose, CA			
Apr 10	JAS1	iPc	09 39 04.4
	MNA	ePc	09 39 06.0
	ORV	eP	09 39 20.3
	WDC	eP	09 39 27.1
USGS 09h30m41.0s 6.0S 106.8W			
h=10km mb=4.5 Ms=4.4			
Northern Easter Island Cordillera			
Apr 10	FHC	iPc	16 37 26.3
	WDC	iPc	16 37 31.2
		i	16 39 00.7
	MIN	iPc	16 37 34.7
		e	16 39 07.1
	ORV	iPc	16 37 37.2
		e	16 39 06.5
	BRK	iPc	16 37 39.4
	PCC	iPc	16 37 39.5
	BKS	iP	16 37 39.7
		epP	16 39 04
		e	16 39 13.2
		ePP	16 40 47
		e	16 47 01
		eS	16 47 39.2
		e	16 48 40
		esPS	16 50 20
		eSS	16 52 28
		eG	16 58 58
			AMP(μm) PER(s)
		PZ	0.30 .7
		LZ	1.8 20.

DATE	STA	PHASE	TIME (UTC)
	LN		0.0 20.
	LE		2.0 20.
	GCC	iPc	16 37 42.4
	MHC	iPc	16 37 43.3
		e	16 39 16
	SAO	eP	16 37 44.6
	JAS1	iPc	16 37 45.9
		e	16 39 14
		i	16 40 51.7
		e	16 47 13
	PRS	iPc	16 37 46.8
	LLA	iPc	16 37 47.6
	PRI	iPc	16 37 50.4
		e	16 47 23
	FRI	iPc	16 37 50.8
		e	16 39 21
		e	16 47 24
	MNA	iPc	16 37 53.1
		e	16 39 23
		e	16 47 28
USGS 16h26m20.5s 30.0N 138.9E			
h=420km mb=5.8			
South of Honshu, Japan			
Apr 10	FHC	ePc	20 46 46.9
	WDC	iPc	20 46 53.5
	MIN	iPc	20 46 58.2
	ORV	iPc	20 47 02.0
	BKS	eP	20 47 06.5
			AMP(μm) PER(s)
		PZ	0.19 1.4
	BRK	ePc	20 47 06.9
	PCC	ePc	20 47 07.4
	GCC	iPc	20 47 11.5
	MHC	iPc	20 47 12.0
	JAS1	iPc	20 47 14.8
		i	20 47 19.4
	SAO	ePc	20 47 15.0
	PRS	iPc	20 47 17.7
	LLA	iPc	20 47 18.4
	FRI	iPc	20 47 21.6
	PRI	iPc	20 47 22.1
		e	20 47 28.3
	MNA	iPc	20 47 22.2
		i	20 47 29.9
USGS 20h37m33.7s 50.0N 159.4E			
h=28km mb=5.5 Ms=4.9			
Kuril Islands Region			
Apr 11	BKS	e(P)	12 08 06.5
		e	12 19 08
		e	12 32 50
		e	12 35 52
	GCC	eP	12 08 06.6
	PRS	eP	12 08 06.9
	PCC	eP	12 08 07.9
	LLA	e	12 08 08.0
	PRI	eP	12 08 08.7
	SAO	eP	12 08 09.0
	MHC	eP	12 08 09.5
	BRK	eP	12 08 10.2
	FRI	eP	12 08 13.0
	JAS1	eP	12 08 14.1
	ORV	eP	12 08 16.3
	FHC	e	12 08 17.0
	WDC	eP	12 08 17.2
	MIN	eP	12 08 17.9
	MNA	eP	12 08 21.5
USGS 11h55m15.1s 35.6S 179.0E			
h=108km mb=5.7			
Off East Coast of North Island, New Zealand			

DATE	STA	PHASE	TIME (UTC)
Apr 11	FHC	eP	18 32 55.3
	WDC	eP	18 33 10.3
	ORV	eP	18 33 28.5
	JAS1	eP	18 33 53.2
	FRI	eP	18 34 07.1
USGS 18h31m56.3s 43.7N 127.3W			
h=10km mb=4.4			
Off Coast of Oregon			
Apr 12	BKS	eP	06 25 08
		e	06 36 16.8
		e	06 39 40
		e	06 41 18
		e	06 46 44
		eLr	06 50 36
			AMP(μm) PER(s)
		PZ	0.12 1.4
		LZ	5.2 20.
		LN	3.0 20.
		LE	4.1 20.
	BRK	e	06 25 09.8
	MHC	e	06 25 10.3
	GCC	e	06 25 11.0
	FHC	e	06 25 11.0
	WDC	eP	06 25 12.0
	PRS	e	06 25 12.5
	PRI	e	06 25 13.8
	ORV	eP	06 25 14.1
	MIN	e	06 25 14.6
	JAS1	eP	06 25 14.9
		e	06 28 50.0
	FRI	e	06 25 16.7
	MNA	e	06 25 25.2
USGS 06h12m45.0s 11.3S 165.7E			
h=33km mb=5.7 Ms=5.9			
Santa Cruz Islands			
Apr 12	ORV	eP	14 47
		eP	14 47 30.3
	FRI	e	14 47 16.4
	MNA	eP	14 47 17.1
	PRI	eP	14 47 18.0
	LLA	eP	14 47 20.3
	PRS	eP	14 47 21.0
	JAS1	eP	14 47 22.4
		eP	14 47 22.45
	GCC	eP	14 47 24.7
	MHC	eP	14 47 25.0
	MIN	eP	14 47 32.7
	WDC	eP	14 47 35.1
		i	14 47 43.1
	FHC	eP	14 47 42.7
USGS 14h34m55.7s 23.9S 60.6W			
h=25km mb=5.3			
Paraguay			
Apr 13	FHC	ePKP	01 24 42.3
	WDC	iPKPc	01 24 43.4
		i	01 25 16.8
	MIN	ePKP	01 24 44.5
	ORV	iPKPc	01 24 45.2
		e	01 26 15.9
	PCC	ePKP	01 24 45.3
	BRK	ePKP	01 24 45.5
	BKS	ePKPc	01 24 45.5
			AMP(μm) PER(s)
		PZ	0.13 1.4
	GCC	ePKP	01 24 46.4
	MHC	ePKP	01 24 47.2
	PRS	ePKP	01 24 47.9
		e	01 25 25.4
	JAS1	iPKPc	01 24 48.1
		i	01 24 17.9

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DATE	STA	PHASE	TIME (UTC)
	LLA	ePKP	01 24 48.5
	PRI	ePKP	01 24 49.5
	FRI	ePKP	01 24 49.8
		e	01 26 31.5
	MNA	ePKP	01 24 51.9
USGS 01h06m00.1s 9.2S 114.2E			
h=99km mb=6.2			
South of Bali Island			
Apr 13	PRI	iPd	01 37 39.9
	LLA	iPd	01 37 44.1
	PRS	iPc	01 37 44.7
	SAO	iP	01 37 49.5
	FRI	iPc	01 37 57.0
	MHC	e	01 38 00.1
	JAS1	eP	01 38 05.2
	PCC	e	01 38 07.5
	GCC	e	01 38 08.3
	BKS	e(Pe)	01 38 12.1
		iSn	01 38 35
BRK 01h37m36.2s 36.2N 120.8W			
h=9km ML=2.9(4)			
Peachtree Valley, 37 km E of King City, CA			
Apr 13	WDC	eP	03 14 09.9
		i	03 18 28.6
		e	03 30 10.6
	BKS	eP	03 14 12
		e	03 14 55.5
		e	03 18 08.7
		ePP	03 18 30
		eSKS	03 24 45.1
		eS	03 26 04
		ePS	03 27 41.1
		e	03 28 40
		e	03 29 47
		eSS	03 32 30
		e(SSS)	03 36 47
		e	03 37 10
		e(ScS)	03 38 43
		eLg	03 43 00
		eLr	03 47 07
		AMP(μm)	PER(s)
		PZ 0.11	1.1
		LZ 27	20.
		LN 10	20.
		LE 21	20.
	MIN	eP	03 14 12.6
	ORV	eP	03 14 14.0
		i	03 18 36.1
	MHC	eP	03 14 17.0
	PRS	eP	03 14 19.5
	JAS1	eP	03 14 20.0
		i	03 18 44.9
		i	03 30 02.7
	LLA	eP	03 14 20.9
	FRI	eP	03 14 24.0
	PRI	e	03 14 24.3
		e	03 30 03.5
	MNA	eP	03 14 27.5
		i	03 18 58.0
		e	03 29 54.9
BRK Ms=6.7 Distance=104°			
USGS 03h00m06.7s 1.6N 126.4E			
h=51km mb=6.4 Ms=6.7			
Molucca Passage			
Apr 13	FHC	iPc	15 05 15.4
		iS	15 05 24.7
	WDC	iPc	15 05 27.9
	MIN	ePc	15 05 37.7
		iS	15 06 04.1
	ORV	eP	15 05 41.3
		iS	15 06 09.0
	BRK	eP	15 05 47.2
	PCC	eP	15 05 51.0
	MHC	eP	15 05 58.4
	GCC	eP	15 05 58.8
	SAO	eP	15 06 06.0
BRK 15h05m02.1s 40.3N 124.6W			
h=16km ML=3.8(4) Mo=8.8E20(2)			
Off Coast, 30 km W of Petrolia, CA			
Apr 14	FHC	iP	06 56 03.3
		iS	06 56 11.7
	WDC	iPc	06 56 17.9
	MIN	iPc	06 56 28.0
	ORV	eP	06 56 31.4
BRK 06h55m51.1s 40.5N 124.7W			
h=16km ML=3.4(4) Mo=3.5E20(2)			
60 km SW of Eureka, CA			
Apr 14	WDC	eP	07 09 53.4
	MIN	eP	07 09 57.0
	ORV	ePc	07 09 58.7
		ipP	07 10 52.0
	MHC	e	07 10 01.1
	PRS	e	07 10 04.5
	JAS1	ePc	07 10 05.7
		i	07 11 04.7
	PRI	e	07 10 08.0
	FRI	eP	07 10 09.8
	MNA	ePc	07 10 14.0
		ipP	07 11 07.7
USGS 06h58m07.9s 18.7S 145.6E			
h=212km mb=5.0			
Mariana Islands Region			
Apr 15	MIN	e	04 13 32.0
	ORV	e	04 13 36.9
	JAS1	eP	04 13 53.7
USGS 04h07m47.5s 55.3N 156.5W			
h=33km mb=5.0 Ms=4.0			
South of Alaska			
Apr 15	FRI	e	04 54 13.5
	PRI	e	04 54 15.0
	MNA	e	04 54 16.5
	JAS1	eP	04 54 20.4
	LLA	e	04 54 23.1
	PRS	e	04 54 23.2
	ORV	eP	04 54 29.1
	WDC	e	04 54 34.5
USGS 04h41m50.9s 33.5S 72.0W			
h=33km mb=5.1 Ms=5.2			
Near Coast of Central Chile			
Apr 15	MNA	ePd	20 11 24.9
	JAS1	e	20 11 24.9
		e	20 11 39.6
Apr 16	PRI	ePc	03 44 16.0
		e	03 44 27.0
	LLA	eP	03 44 18.2
	MNA	ePc	03 44 18.3
	PRS	ePc	03 44 18.5
	JAS1	ePc	03 44 21.7
		e	03 44 31.4
	MHC	ePc	03 44 23.2
	ORV	ePc	03 44 31.1
		e	03 44 41.9
	WDC	ePc	03 44 35.8
		e	03 44 45.6
USGS 03h31m54.3s 34.0S 72.2W			
h=33km mb=4.8			

DATE	STA	PHASE	TIME (UTC)
Off Coast of Central Chile			
Apr 16	FRI	e	12 42 26.1
	JAS1	e(P)	12 42 30.9
	ORV	e(P)	12 42 32.7
	WDC	e(P)	12 42 33.0
USGS 12h30m55.4s 24.4S 179.8E			
h=503km mb=4.7			
South of Fiji Islands			
Apr 16	FHC	iPd	14 59 11.9
	WDC	iPc	14 59 25.7
		eS	14 59 45.5
	MIN	eP	14 59 35.5
	ORV	eP	14 59 38.5
		i	14 59 39.2
	PCC	eP	14 59 49.0
	MHC	eP	14 59 56.3
	GCC	eP	14 59 56.9
	JAS1	eP	15 00 01.8
	SAO	iP	15 00 02.6
BRK 14h58m57.0s 40.4N 124.8W			
h=5km ML=3.4(2)			
90 km SW of Eureka, CA			
Apr 16	PRS	eP	22 17 48.8
	PRI	eP	22 17 50.5
	MHC	eP	22 17 51.3
	FRI	eP	22 17 55.2
	JAS1	eP	22 17 56.0
	ORV	e(P)	22 17 57.5
	WDC	eP	22 17 58.6
	MNA	eP	22 18 03.7
USGS 22h05m48.9s 31.4S 179.5E			
h=440km mb=5.1			
Kermadec Islands Region			
Apr 17	JAS1	iPKPc	04 35 57.4
	ORV	ePKPc	04 36 03.2
	WDC	ePKP	04 36 04.0
USGS 04h16m16.6s 52.1S 14.4E			
h=10km mb=5.1 Ms=4.9			
Southwest of Africa			
Apr 18	WDC	eP	00 15 44.6
	JAS1	eP	00 15 44.6
	MIN	eP	00 15 49.6
	ORV	eP	00 15 53.3
	BKS	iP	00 16 00
		ePP	00 18 12
		ePPP	00 19 49
		eS	00 23 40
		eSS	00 27 38
		eLr	00 32 20
		AMP(μm)	PER(s)
		LZ 2.3	20.
		LN 1.4	20.
		LE 2.1	20.
	MNA	e	00 16 13.0
	FRI	e	00 16 15.0
BRK Ms=5.4 Distance= 54°			
USGS 00h06m32.8s 52.1N 159.6E			
h=33km mb=5.7 Ms=5.4			
Off East Coast of Kamchatka			
Apr 18	JAS1	iPc	16 19 14.9
	ORV	eP	16 19 30.9
	WDC	eP	16 19 32.4
Apr 18	ORV	iPd	16 30 01.15
	ZSP	iPd	16 30 10.2
	BKS	iPd	16 30 10.6
		iS	16 30 28.0
	MIN	iPc	16 30 11.2
	WDC	iPc	16 30 13.1
	PCC	eP	16 30 16.1
	MHC	eP	16 30 18.8
	JAS1	iPc	16 30 19.0
		iS	16 30 43.6
	MNA	eP	16 30 40.2
BRK 16h29m49.8s 39.1N 122.0W			
h=14km ML=3.7(8) Mo=2.0E22(4)			
15 km SE of Williams, CA			
Apr 19	MNA	ePc	17 50 29.7
		iPcP	17 52 41.0
	FRI	eP	17 50 32.5
		ePcP	17 52 41.2
	PRI	e	17 50 34.9
	LLA	e	17 50 35.8
	JAS1	iP	17 50 38.7
		ePcP	17 52 44.5
	PRS	eP	17 50 40.0
		ePcP	17 52 44.8
	MHC	eP	17 50 43.4
	GCC	e	17 50 44.1
	BKS	e(P)	17 50 49.3
		ePcP	17 52 49.4
		eS	17 57 09.0
		AMP(μm)	PER(s)
		PZ 0.19	1.5
		LZ 15	20.
		LN 8.9	20.
		LE 15	20.
	BRK	e	17 50 49.4
	ORV	eP	17 50 51.9
	MIN	eP	17 50 55.3
	WDC	eP	17 50 57.8
	FHC	e	17 51 09.0
USGS 17h43m10.8s 11.8N 86.7W			
h=72km mb=5.3			
Near Coast of Nicaragua			
Apr 19	MNA	eP	18 02 54.0
		ePcP	18 05 06.5
	FRI	e	18 02 56.8
	JAS1	eP	18 03 03.6
		iPcP	18 05 09.9
	PRI	e	18 03 09.9
	MHC	e	18 03 10.0
	ORV	eP	18 03 16.6
	BKS	e(P)	18 03 19.8
		ePcP	18 05 13.3
		AMP(μm)	PER(s)
		PZ 0.024	0.85
	MIN	e	18 03 22.5
	WDC	ePcP	18 05 18.0
USGS 17h55m34.6s 11.8N 86.9W			
h=60km mb=5.3			
Near Coast of Nicaragua			
Apr 20	MNA	eP	18 32 16.2
	FRI	eP	18 32 17.5
	JAS1	eP	18 32 25.8
	LLA	e	18 32 26.3
	PRI	e	18 32 29.6
	MHC	eP	18 32 31.2
	ORV	eP	18 32 37.4
	BRK	e	18 32 39.5
	BKS	eP	18 32 39.6
		e	18 32 56.2
		e	18 33 21.4
		e	18 34 11.4
		eS	18 39 45.6
		e	18 41 14
		eScS	18 42 27.5
		e	18 43 54
		eG	18 45 38
		eLr	18 51 44
		AMP(μm)	PER(s)
		PZ 0.087	1.0
		LZ 11	20.
		LN 12	20.
		LE 23	20.
	MIN	e	18 32 41.9
	WDC	e	18 32 46.8
	FHC	e	18 32 57.9
BRK Ms=6.2 Distance=49°			
USGS 18h23m48.0s 9.0N 77.5W			
h=38km mb=5.6 Ms=5.9			
Near North Coast of Colombia			
Apr 21	FHC	e(P)	13 39 26.6
	WDC	eP	13 39 31.3
	MIN	eP	13 39 33.7
	ORV	eP	13 39 36.2
	BRK	eP	13 39 38.4
	BKS	eP	13 39 38.5
		AMP(μm)	PER(s)
		PZ 0.10	0.8
	PCC	eP	13 39 39.2
	MHC	eP	13 39 42.4
	JAS1	eP	13 39 44.4
	PRS	e(P)	13 39 45.9
	LLA	e(P)	13 39 47
	FRI	eP	13 39 50.0
	MNA	eP	13 39 52.0
USGS 13h28m23.3s 29.7N 137.8E			
h=511km mb=5.1			
South of Honshu, Japan			
Apr 21	JAS1	ePdiff	14 07 13.8
		e	14 11 44.8
	FRI	e	14 11 48
USGS 13h53m00.7s 5.2S 130.4E			
h=79km mb=5.9			
Banda Sea			
Apr 21	WDC	e(P)	15 10 24.4
	MIN	e(P)	15 10 28.1
	ORV	e(P)	15 10 32.5
	JAS1	e(P)	15 10 49
USGS 15h04m51.3s 55.8N 154.4W			
h=33km mb=4.8 Ms=4.8			
South of Alaska			
Apr 21	FHC	e(P)	15 30 37.5
	WDC	ePd	15 30 45.3
		e	15 30 48.5
	MIN	eP	15 30 51.0
		e	15 30 54.7
	ORV	iPd	15 30 56.0
		e	15 31 00.2
	BRK	e(P)	15 31 08
	BKS	eP	15 31 09.0
		e	15 31 14.1
		e	15 31 29.7
		eLr	15 38 36
		AMP(μm)	PER(s)
		PZ 0.087	1.1
		LZ 1.1	20.
		LN 1.1	20.
		LE 1.8	20.
	JAS1	iPd	15 31 13.0
	MNA	eP	15 31 20.0
	FRI	eP	15 31 22.2
	PRI	e	15 31 24.2
	LLA	e	15 31 25.4
USGS 15h25m15.1s 55.6N 154.5W			
h=33km mb=5.2 Ms=4.8			
South of Alaska			
Apr 21	PCC	e	18 06 23
	MHC	e(P)	18 06 24.3
	FRI	e(P)	18 06 29.5
	JAS1	e(P)	18 06 30
	ORV	e(P)	18 06 31.8
	WDC	iPd	18 06 32.8
	MIN	e(P)	18 06 34.4
	MNA	eP	18 06 39.3
USGS 17h54m27.3s 22.8S 174.8W			
h=33km mb=5.3			
Tonga Islands Region			
Apr 21	MHC	iPc	18 50 44.8
	GCC	iPd	18 50 50.9
	PCC	iPc	18 50 54.1
		eS	18 51 04.7
	SAO	iPd	18 50 54.9
	BKS	eP	18 50 56.6
		eS	18 51 06.9
	BRK	eP	18 50 57.0
		eS	18 51 08.8
	ZSP	iPc	18 50 58.2
		iS	18 51 10.2
	LLA	eP	18 51 00.2
		eS	18 51 16.0
	PRS	iPc	18 51 02.2
	JAS1	iPc	18 51 04.6
		iS	18 51 20.0
	PRI	e	18 51 09
	ORV	e(P)	18 51 20.2
BRK 18h50m43.2s 37.3N 121.7W			
h=5km ML=2.8(4) Mo=9.7E19(4)			
Halls Valley, 15 km E of San Jose, CA			
Apr 22	MHC	iPd	17 35 01.3
	GCC	iPc	17 35 04.15
		iS	17 35 10.2
	SAO	iPd	17 35 04.2
	LLA	iPc	17 35 09.4
		eS	17 35 20.5
	PCC	eP	17 35 10.7
	PRS	ePc	17 35 11.8
	BKS	ePd	17 35 13.8
		eS	17 35 27.5
	BRK	ePd	17 35 14.2
	JAS1	ePd	17 35 17.9
		iS	17 35 32.8
	PRI	ePc	17 35 18.8
		iSg	17 35 40.3
	FRI	ePd	17 35 22.0
	ORV	eP	17 35 37.8
	MIN	e	17 35 49
BRK 17h34m56.5s 37.1N 121.5W			
h=7km ML=2.9(4) Mo=1.2E20(2)			
10 km E of Morgan Hill, CA			
Apr 23	LLA	iPd	03 50 40.2
	PRS	iPd	03 50 42.0
	SAO	iPc	03 50 43.5
	PRI	ePc	03 50 46.6
	GCC	ePc	03 50 53.2
		iSn	03 51 01.8
	MHC	eP	03 50 57.8
	FRI	e(P)	03 50 57.8
		iS	03 51 [illegible]
	PCC	ePc	03 51 [illegible]
	JAS1	ePc	03 51 03.6
BRK 03h50m36.6s 36.9N [illegible]			
h=5km ML=2.6(4) [illegible]			

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DATE	STA	PHASE	TIME (UTC)
Bear Valley, 35 km N of King City, CA			
Apr 23	FHC	iPc	14 40 32.7
		iS	14 40 42.0
	WDC	iPc	14 40 44.9
		i	14 41 09.9
	MIN	eP	14 40 54.8
	ORV	eP	14 40 57.9
BRK 14h40m19.4s 40.3N 124.5W			
h=6km ML=3.4(4)			
25 km WSW of Petrolia, CA			
Apr 23	MHC	iPd	14 47 07.7
	GCC	iPc	14 47 10.6
	SAO	iPc	14 47 10.6
	LLA	iPc	14 47 15.8
	PCC	eP	14 47 17.1
	PRS	eP	14 47 18.0
	BKS	ePd	14 47 20.5
		eS	14 47 34.0
	BRK	iPd	14 47 20.7
	JAS1	iPd	14 47 24.4
BRK 14h47m02.9s 37.1N 121.5W			
h=7km ML=2.9(4) Mo=2.9E20(2)			
10 km E of Morgan Hill, CA			
Apr 23	WDC	ePc	16 28 35.2
	ORV	ePc	16 28 40.1
	BRK	e	16 28 42.0
	BKS	ePc	16 28 42.3
		e	16 29 34.8
		e	16 33 00
		e	16 34 04
		e	16 36 03
		eSKS	16 39 02.9
		eSKKS	16 39 13
		e	16 39 32
		e	16 40 02
		e	16 40 35.5
		e	16 41 20
		e	16 42 55
		e	16 47 04
		e	16 48 17
		ePKPPKP	17 02 06
		AMP(μm)	PER(s)
		PZ 0.17	1.4
		LZ 6.8	20.
		LN 2.5	20.
		LE 5.0	20.
	GCC	eP	16 28 44.7
	MHC	eP	16 28 45.0
	JAS1	e	16 28 47.7
	PRS	eP	16 28 48.6
	LLA	e	16 28 49.2
	PRI	eP	16 28 51.7
	FRI	eP	16 28 51.9
	MNA	eP	16 28 53.8
USGS 16h15m12.0s 15.3N 120.6E			
h=188km mb=6.3			
Luzon, Philippine Islands			
Apr 25	FHC	eP	01 09 58.8
	WDC	iPc	01 09 59.7
	MIN	eP	01 10 01.6
	ORV	iPc	01 10 05.0
	BKS	eP	01 10 13.0
		AMP(μm)	PER(s)
		PZ 0.053	0.8
	BRK	e	01 10 13.0
	MNA	iPc	01 10 13.8
	JAS1	iPc	01 10 14.1
	MHC	e	01 10 16.5

DATE	STA	PHASE	TIME (UTC)
	GCC	eP	01 10 16.8
	FRI	eP	01 10 18.6
	LLA	eP	01 10 19.8
	PRS	eP	01 10 20.7
	PRI	eP	01 10 22.8
USGS 00h57m06.5s 49.9N 79.0E			
h=0km mb=5.9 Ms=5.0			
Eastern Kazakh, S.S.R.			
Apr 25	MIN	eP	13 57 57.4
	ORV	iPc	13 58 01.6
	JAS1	eP	13 58 15.8
	MNA	eP	13 58 22.5
	PRI	e	13 58 22.5
USGS 13h48m59.8s 56.1N 167.7E			
h=33km mb=4.9 Ms=4.3			
Komandorsky Islands Region			
Apr 25	FRI	e	23 39 29.8
	ORV	eP	23 39 33.2
	WDC	eP	23 39 33.6
		i	23 40 03.9
	MHC	e	23 39 36.5
	MNA	eP	23 39 40.5
	BKS	eLr	24 04 00
		AMP(μm)	PER(s)
		LZ 2.0	20.
		LN 2.0	20.
		LE 2.1	20.
USGS 23h27m08.4s 25.5S 177.6W			
h=33km mb=5.4 Ms=5.1			
South of Fiji Islands			
Apr 26	FRI	iPc	04 03 24.9
	MNA	iPd	04 03 27.4
		iS	04 03 42.0
	JAS1	iPc	04 03 34.15
		iS	04 03 52.6
	LLA	ePc	04 03 42.4
	PRI	ePc	04 03 43.6
	SAO	iPc	04 03 47.4
	MHC	ePc	04 03 48.5
	PRS	ePc	04 03 48.9
	GCC	ePc	04 03 51.9
	BKS	ePn	04 03 54.7
		eSn	04 04 32.3
	BRK	ePc	04 03 54.8
	PCC	ePc	04 03 55.4
	ZSP	iPc	04 03 55.7
	ORV	ePd	04 03 57.5
		i	04 04 01.9
	MIN	ePc	04 04 06.9
	WDC	ePd	04 04 15.6
BRK 04h03m07.6s 37.4N 118.7W			
h=5km ML=4.1(6)			
27 km WNW of Bishop, CA			
Apr 26	WDC	iPd	04 43 44.0
	MIN	eP	04 43 50.6
	ORV	eP	04 43 59.5
	JAS1	iPc	04 44 28.5
	MNA	eP	04 44 30.0
USGS 04h40m47.5s 51.5N 130.3W			
h=10km mb=4.3 Ms=4.1			
Queen Charlotte Islands Region			
Apr 26	PRS	eP	12 13 15.0
	MHC	eP	12 13 15.4
	GCC	eP	12 13 16.5
	SAO	eP	12 13 17.7
	BKS	eP	12 13 18.5
		AMP(μm)	PER(s)
		PZ 0.078	1.0

DATE	STA	PHASE	TIME (UTC)
	PRI	eP	12 13 18.8
	LLA	eP	12 13 19.1
	FRI	eP	12 13 23.8
	JAS1	eP	12 13 24.2
	WDC	eP	12 13 24.6
	ORV	eP	12 13 25.5
	MIN	eP	12 13 27.7
	MNA	eP	12 13 34.5
USGS 12h02m21.6s 15.7S 178.4W			
h=446km mb=5.0			
Fiji Islands Region			
Apr 26	LLA	iPd	19 06 54.0
	PRS	iPc	19 06 55.5
	PRI	iPd	19 06 58.1
		iSn	19 07 08.7
	SAO	iP	19 06 58.4
	GCC	iPd	19 07 07.6
	MHC	ePc	19 07 09.2
	FRI	ePc	19 07 10.8
	PCC	ePc	19 07 15.8
	JAS1	eP	19 07 16.8
		iSn	19 07 37.8
		i(Sn)	19 07 40.3
	BRK	ePc	19 07 19.0
	BKS	eP	19 07 19.3
	ZSP	eP	19 07 21.0
	ORV	eP	19 07 40.4
	MNA	ePc	19 07 44.3
BRK 19h06m49.7s 36.4N 121.0W			
h=6km ML=3.0(4)			
25 km NNW of King City, CA			
Apr 27	GCC	eP	00 44 27.1
	PRS	ePd	00 44 27.4
	BRK	eP	00 44 29
	PRI	ePd	00 44 29.5
	BKS	eP	00 44 30
		AMP(μm)	PER(s)
		PZ 0.052	1.0
	MHC	eP	00 44 30.0
	FRI	ePd	00 44 35.5
	JAS1	iPd	00 44 36.1
		e	00 45 02.8
	ORV	iPd	00 44 37.6
	WDC	iPd	00 44 38.0
		i	00 45 02.5
	MIN	eP	00 44 40.0
	MNA	iPd	00 44 46.6
		i	00 45 16.3
USGS 00h33m13.0s 15.8S 173.5W			
h=81km mb=5.7			
Tonga Islands			
Apr 27	PCC	ePc	10 23 11.4
	GCC	ePc	10 23 11.5
	PRS	ePc	10 23 11.6
	SAO	iPc	10 23 12.5
	BRK	ePc	10 23 13.4
	PRI	iPc	10 23 13.5
	BKS	ePc	10 23 13.7
		ePP	10 26 11.6
		epPP	10 26 29.5
		eS	10 32 48.4
		eLg	10 44 14
		AMP(μm)	PER(s)
		PZ 0.50	1.0
	ZSP	eP	10 23 13.8
	MHC	ePc	10 23 13.9
	LLA	ePc	10 23 13.9
	FHC	ePc	10 23 18.5
	FRI	iPc	10 23 19.0
	JAS1	iPc	10 23 19.7

DATE	STA	PHASE	TIME (UTC)
		i	10 23 25.0
		i	10 23 45.8
		ePP	10 26 18.0
	ORV	iPc	10 23 21.3
	WDC	iPc	10 23 21.6
		i	10 23 28.0
		e	10 23 48.2
		e(S)	10 33 18
	MIN	iPc	10 23 23.4
	MNA	iPc	10 23 29.2
		e	10 23 49.1
		ePP	10 26 31
		e(S)	10 33 23
USGS 10h11m42.6s 21.0S 176.8W			
h=260km mb=5.8			
Fiji Islands Region			
Apr 27	SAO	iPd	11 39 02.2
	GCC	ePd	11 39 04.2
		iS	11 39 09.3
	MHC	iPd	11 39 05.8
		iS	11 39 11.4
	LLA	iPc	11 39 09.0
	PRS	iPd	11 39 09.7
	PCC	iPc	11 39 13.2
	BRK	eP	11 39 17.1
	BKS	eP	11 39 17.1
		eS	11 39 34.0
	PRI	eP	11 39 17.8
		iS	11 39 37.4
	ZSP	eP	11 39 17.9
		iP	11 39 19.2
		i	11 39 36.2
	JAS1	iPc	11 39 21.1
		iS	11 39 38.0
	FRI	eP	11 39 23.0
		e	11 39 43.2
		i	11 39 44.1
	ORV	e	11 39 42.2
	MNA	e	11 39 54.4
BRK 11h38m57.6s 37.0N 121.6W			
h=8km ML=2.8(4)			
5 km S of Gilroy, CA			
Apr 27	MNA	ePnc	13 06 33.5
	SAO	iPc	13 06 41.25
	LLA	iPc	13 06 44.75
	PRS	iPd	13 06 45.1
	GCC	eP	13 06 50.6
	PRI	iPd	13 06 52.7
	MHC	iPd	13 06 52.8
		i(Sn)	13 07 05.0
	PCC	iPd	13 06 59.6
	FRI	eP	13 07 02.2
		iS	13 07 20.2
	BRK	e(P)	13 07 02.5
		e	13 07 05.2
	ZSP	e(P)	13 07 03.9
	JAS1	iPc	13 07 04.2
		iS?	13 07 24.8
	BKS	e(P)	13 07 05.3
		eS	13 07 26.3
	ORV	eP	13 07 25.0
BRK 13h06m38.4s 36.7N 121.3W			
h=4km ML=3.0(4)			
Stone Canyon, 22 km SSE of Hollister, CA			
Apr 28	JAS1	eP	03 06 09.0
	PRI	e	03 06 14.0
	MNA	e	03 06 16.1
	ORV	e	03 06 19.8
	BKS	e	03 06 23.5

DATE	STA	PHASE	TIME (UTC)
USGS 02h53m41.5s 33.0S 71.8W			
h=33km mb=5.3 Ms=5.2			
Near Coast of Central Chile			
Apr 28	PRI	eP	08 43 13.0
	PRS	eP	08 43 15.3
	LLA	eP	08 43 15.3
	MNA	eP	08 43 16.8
	GCC	eP	08 43 19.4
	MHC	eP	08 43 19.7
	BRK	eP	08 43 23.0
	BKS	eP	08 43 23.6
		eS	08 54 16
		eSS	09 00 02
		eLr	09 13 00
		AMP(μm)	PER(s)
		PZ 0.14	1.4
		LZ 3.3	20.
		LN 2.9	20.
		LE 1.3	20.
	ORV	iPd	08 43 28.0
	MIN	eP	08 43 30.2
	WDC	iPd	08 43 32.8
	FHC	eP	08 43 38.2
BRK Ms=5.7 Distance=89°			
USGS 08h30m29.0s 39.7S 75.7W			
h=10km mb=6.1 Ms=5.5			
Off Coast of Central Chile			
Apr 28	FRI	ePKP	23 15 42.8
	PRI	ePKP	23 15 43.0
	MNA	ePKP	23 15 43.4
	PRS	e	23 15 43.9
	LLA	e	23 15 44.3
	JAS1	ePKP	23 15 44.6
	MHC	ePKP	23 15 45.8
	BRK	ePKP	23 15 47.2
	BKS	ePKP	23 15 47.5
		AMP(μm)	PER(s)
		PKPZ 0.074	1.0
	ORV	ePKP	23 15 47.8
	WDC	ePKP	23 15 49.9
USGS 22h56m51.3s 55.5S 26.1W			
h=33km mb=5.7 Ms=5.6			
South Sandwich Islands Region			
Apr 29	BKS	e	02 30 12
	WDC	eP	02 30 53.3
		i	02 31 11.5
	MIN	eP	02 30 57.5
	ORV	eP	02 31 01.7
		e	02 31 18.6
	FHC	e	02 31 05.9
	MHC	e	02 31 08.4
	JAS1	iPc	02 31 11.4
		e	02 31 29.2
	PRS	e	02 31 13.6
	FRI	e	02 31 17.0
	MNA	eP	02 31 18.4
	PRI	e	02 31 24.0
USGS 02h19m59.6s 41.5N 142.0E			
h=71km mb=5.7			
Hokkaido, Japan Region			
Apr 29	FHC	eP	10 29 24.3
	WDC	iPd	10 29 30.2
	MIN	eP	10 29 33.4
	PCC	eP	10 29 33.7
	BRK	eP	10 29 34.1
	BKS	eP	10 29 34.6
		AMP(μm)	PER(s)
		PZ 0.10	1.0
	ORV	iPd	10 29 34.9

DATE	STA	PHASE	TIME (UTC)
	GCC	eP	10 29 36.1
	MHC	eP	10 29 37.5
	SAO	eP	10 29 38.4
	PRS	eP	10 29 39.4
	LLA	e	10 29 40.7
	JAS1	iPd	10 29 41.1
	PRI	eP	10 29 42.9
	FRI	eP	10 29 44.3
	MNA	eP	10 29 49.5
USGS 10h17m10.0s 13.4N 145.5E			
h=62km mb=5.5			
Mariana Islands			
Apr 29	MNA	e	16 24 06.0
	MIN	e	16 24 16.1
	ORV	e	16 24 17.7
	JAS1	eP	16 24 18.0
	WDC	e	16 24 19.8
	PRI	e	16 24 27.5
USGS 16h13m33.3s 35.3N 36.0W			
h=10km mb=5.0 Ms=4.7			
North Atlantic Ridge			
Apr 29	MHC	iPd	18 08 27.9
	GCC	iPd	18 08 33.9
	SAO	iPd	18 08 37.5
	PCC	iPc	18 08 37.9
	BKS	iPc	18 08 40.8
		e(S)	18 08 53.5
	BRK	iPc	18 08 41.0
	ZSP	iP	18 08 42.4
		iS	18 08 55.4
	LLA	eP	18 08 42.9
	PRS	iPd	18 08 44.6
	JAS1	eP	18 08 47.8
	PRI	eP	18 08 51.4
	FRI	ePc	18 08 53.9
		iS	18 09 04.5
	ORV	eP	18 09 03.2
		i	18 09 06.2
BRK 18h08m26.4s 37.3N 121.7W			
h=5km ML=3.1(6) Mo=5.1E20(4)			
San Felipe Valley, 20 km ESE of San Jose, CA			
Apr 30	WDC	iPd	15 43 02.4
	MNA	iPd	15 43 11.0
USGS 15h31m31.7s 15.1S 173.2W			
h=33km mb=4.6			
Tonga Islands			
May 1	FHC	e(P)	01 04 59.0
	WDC	eP	01 05 07.1
	MIN	e(P)	01 05 13.2
	ORV	e(P)	01 05 18.2
	JAS1	eP	01 05 33.8
	MNA	eP	01 05 42.1
	BKS	e	01 14 02
USGS 00h59m05.3s 54.5N 161.4W			
h=33km mb=5.2 Ms=4.5			
Alaska Peninsula			
May 1	FHC	eP	05 41 33.3
	WDC	ePc	05 41 39.8
	MIN	ePc	05 41 41.5
	ORV	iPc	05 41 44.1
	BRK	eP	05 41 53.1
	BKS	eP	05 41 56.8
		AMP(μm)	PER(s)
		PZ 0.23	1.0
	PCC	ePc	05 41 54.8
	MHC	eP	05 41 59.3
	JAS1	iPc	05 42 01.6

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DATE	STA	PHASE	TIME (UTC)
	SAO	eP	05 42 02.5
	PRS	ePc	05 42 05.2
	LLA	e(P)	05 42 05.9
	MNA	ePc	05 42 08.4
	PRI	e(P)	05 42 09.6
USGS 05h32m34.9s 53.0N 157.9E			
h=148km mb=4.9			
Kamchatka			
May 1	MNA	iPd	13 37 36.8
		epP	13 39 36.0
		eSKPPKP	14 08 34
	PRI	ePd	13 37 38.7
		epP	13 39 37.8
	LLA	iPd	13 37 41.4
		epP	13 39 40.9
	PRS	iPd	13 37 42.5
		epP	13 39 42,1
		ePKPPKP	14 06 06.3
	JAS1	iPd	13 37 43.7
		epP	13 39 43.3
		eS	13 45 44.6
		ePKPPKP	14 06 04.9
		eSKPPKP	14 08 33
	SAO	eP	13 37 43.8
		epP	13 39 46
	GCC	ePd	13 37 47.3
		epP	13 39 46.5
	MHC	ePd	13 37 47.4
		epP	13 39 47.9
	PCC	ePd	13 37 50.3
	BKS	eP	13 37 51.4
		e	13 39 10.8
		epP	13 39 52.0
		esP	13 40 56
		e	13 41 40
		eS	13 45 59
		esS	13 49 52
		e(SS)	13 50 40
		e	13 54 10
		ePKPPKP	14 06 16
		AMP(µm)	PER(s)
		PZ 0.56	0.9
	BRK	ePd	13 37 51.5
		epP	13 39 51.4
		ePKPPKP	14 06 03
	ORV	iPd	13 37 54.0
		epP	13 39 54.3
		e	13 40 57.6
		eS	13 46 03
		ePKPPKP	14 06 02.7
		eSKPPKP	14 08 29.1
	MIN	iPd	13 37 56.0
	WDC	iPd	13 37 59.4
		epP	13 39 59.8
		eS	13 46 12.5
		ePKPPKP	14 05 56
		eSKPPKP	14 08 27.5
	FHC	iPd	13 38 08.3
		epP	13 40 10
BRK mb=6.1 h=587km Distance=68°			
USGS 13h27m56.1s 9.2S 71.2W			
h=600km mb=6.0			
Peru-Brazil Border Region			
May 1	MNA	ePc	14 20 54.3
	PRI	eP	14 20 56.5
	LLA	ePc	14 20 58.6
	PRS	eP	14 20 59.2
	JAS1	eP	14 21 01.5
	MHC	ePc	14 21 04.5
	GCC	eP	14 21 04.5
	BRK	eP	14 21 08.7

DATE	STA	PHASE	TIME (UTC)
	BKS	eP	14 21 09
		AMP(µm)	PER(s)
		PZ 0.074	1.0
	ORV	iPc	14 21 11.3
	MIN	e(P)	14 21 13
	WDC	ePc	14 21 16.5
	FHC	eP	14 21 25.4
USGS 14h11m15.3s 9.0S 71.2W			
h=616km mb=4.5			
Peru-Brazil Border Region			
May 2	WDC	iPd	09 04 50.5
		i	09 05 08.0
	MIN	eP	09 04 55.0
		i	09 05 12.1
	ORV	eP	09 04 58.6
		i	09 05 16.0
	PCC	e(P)	09 05 03.7
	BKS	eP	09 05 10.0
		eS	09 13 08
		eLq	09 19 27
		eLr	09 21 58
		AMP(µm)	PER(s)
		LZ 12	18.
		LN 8.9	18.
		LE 15	18.
	JAS1	eP	09 05 10.5
		i	09 05 28.7
	PRS	eP	09 05 14.4
		e	09 05 30.7
	LLA	e(P)	09 05 14.7
		e	09 05 31.6
	FRI	e(P)	09 05 17.7
	MNA	eP	09 05 18.5
BRK Ms=6.2 Distance=59°			
USGS 08h55m16.3s 48.9N 156.3E			
h=43km mb=5.9 Ms=6.4			
Kuril Islands Region			
May 2	WDC	eP	13 01 17.0
	JAS1	eP	13 01 40.0
	MNA	e(P)	13 01 42
	PRI	e	13 01 55
USGS 12h52m29.3s 56.1N 163.4E			
h=33km mb=5.2 Ms=4.6			
Near East Coast of Kamchatka			
May 2	MNA	iPc	15 20 33.3
	FRI	iPc	15 20 45.2
	JAS1	iPc	15 20 53.6
	PRI	iP*c	15 20 58.5
		ePn	15 21 05.7
	LLA	eP*c	15 21 00.8
	SAO	iPd	15 21 04.8
	PRS	iP*c	15 21 05.0
	MHC	iPc	15 21 06.9
		ePn	15 21 17.1
		eSn	15 22 11.8
	GCC	e(P*)	15 21 10.3
		iPn	15 21 19.5
	ORV	iPc	15 21 12.1
	BKS	ePnc	15 21 13.3
		eP*	15 21 23.5
	BRK	iP*c	15 21 13.5
		ePn	15 21 23.5
	PCC	eP*	15 21 14.0
		ePn	15 21 24.8
	ZSP	iPd	15 21 14.6
		iPn	15 21 23.7
	MIN	eP	15 21 19.6
	WDC	iPc	15 21 28.9
BRK ML=5.5(6)			
USGS 15h20m00.1s 37.3N 116.3W			

DATE	STA	PHASE	TIME (UTC)
h=0km mb=5.7			
Underground Nuclear Explosion, NTS (Tonanda)			
May 2	FHC	eP	20 09 03.7
	WDC	eP	20 09 09.2
	MIN	eP	20 09 12.5
	PCC	eP	20 09 13.8
	ORV	eP	20 09 14.3
	BRK	e	20 09 14.5
	BKS	eP	20 09 14.5
	GCC	e	20 09 16.0
	MHC	eP	20 09 17.7
	PRS	eP	20 09 20.2
	JAS1	iPd	20 09 21.4
	LLA	eP	20 09 21.5
	PRI	eP	20 09 24.0
	FRI	eP	20 09 25.7
	MNA	eP	20 09 30.2
USGS 19h57m15.5s 19.2N 145.8E			
h=116km mb=5.2			
Mariana Islands			
May 3	FRI	eP	04 11 29.5
		e	04 12 32.0
	MNA	eP	04 11 35.7
		e	04 12 38.3
	ORV	eP	04 12 02.5
		e	04 13 04.0
May 3	MNA	eP	07 10 09.2
		e	07 11 17.5
		e	07 12 21.6
		e	07 16 32.9
	FRI	eP	07 10 09.5
		e	07 12 23.3
	PRI	eP	07 10 11.8
		e	07 12 23.5
	JAS1	eP	07 10 17.9
		i	07 12 25.4
		e	07 16 14.0
	PRS	e	07 10 20.5
	SAO	e	07 10 23.0
	MHC	e	07 10 23.2
	PCC	e(P)	07 10 26
	BKS	eP	07 10 29.0
		eS	07 16 52
		eLq	07 20 40
		eLr	07 23 30
		AMP(µm)	PER(s)
		LZ 9.0	20.
		LN 4.6	20.
		LE 14	20.
	ORV	eP	07 10 31.5
	MIN	eP	07 10 34.6
	WDC	e(P)	07 10 37.5
		e	07 10 43.5
	FHC	e	07 10 53.8
BRK Ms=5.9 Distance=45°			
USGS 07h02m53.4s 11.9N 86.9W			
h=88km mb=5.1			
Near Coast of Nicaragua			
May 3	JAS1	eP	13 24 58.1
	WDC	eP	13 24 58.5
	ORV	eP	13 24 59.0
	MNA	eP	13 25 08.1
USGS 13h12m41.0s 18.2S 177.0E			
h=10km mb=4.7 Ms=4.6			
Fiji Islands Region			
May 3	SAO	iPc	14 47 56.4
	LLA	iPc	14 47 58.8

DATE	STA	PHASE	TIME (UTC)
		iS	14 48 03.3
	PRS	iPd	14 47 59.4
		iS	14 48 05.7
	GCC	eP	14 48 05.9
	PRI	eP	14 48 06.9
		iS	14 48 20.2
	MHC	eP	14 48 08.0
		iS	14 48 18.3
	PCC	eP	14 48 14.5
	FRI	eP	14 48 16.2
	JAS1	iPc	14 48 19.2
		iS	14 48 36.9
BRK 14h47m53.0s 36.6N 121.3W			
h=6km ML=3.0(2)			
Stone Canyon, 25 km SE of Hollister, CA			
May 3	FRI	eP	15 38 14.7
	MNA	eP	15 38 14.9
	PRI	eP	15 38 16.4
	LLA	eP	15 38 19.4
	PRS	eP	15 38 20.5
	JAS1	eP	15 38 21.6
		e	15 40 31.8
	GCC	eP	15 38 24.9
	MHC	eP	15 38 25.0
	PCC	eP	15 38 28.5
	BRK	eP	15 38 29.5
	BKS	eP	15 38 29.5
		epP	15 40 35.9
		AMP(µm)	PER(s)
		PZ 0.043	1.0
	ORV	iPd	15 38 32.0
	WDC	iPd	15 38 37.3
		e	15 40 37.1
	FHC	eP	15 38 46.2
USGS 15h28m33.9s 9.3S 71.3W			
h=603km mb=5.1			
Peru-Brazil Border Region			
May 4	FRI	iPc	03 23 03.9
	MNA	iPc	03 23 05.0
	JAS1	iPc	03 23 12.6
	LLA	iPc	03 23 21.2
	PRI	iPc	03 23 22.2
	SAO	iPc	03 23 25.6
	MHC	eP	03 23 26.5
		iSg	03 24 01.7
	PRS	eP	03 23 27.4
	GCC	eP	03 23 30.3
	BRK	eP	03 23 32.8
	BKS	eP	03 23 32.8
	ZSP	eP	03 23 32.9
	PCC	eP	03 23 33.3
	ORV	iPd	03 23 35.5
	MIN	eP	03 23 44.9
	WDC	eP	03 23 53.8
BRK 03h22m46.1s 37.5N 118.6W			
h=13km ML=4.7(6)			
Round Valley Area, 26 km NW of Bishop, CA			
May 4	PRI	ePd	12 51 53.0
	FRI	eP	12 51 55.7
	PRS	ePd	12 51 57.0
	LLA	ePd	12 51 58.9
	SAO	eP	12 51 59
	MHC	eP	12 52 05
	GCC	e	12 52 06
	JAS1	ePd	12 52 06.8
	MNA	ePd	12 52 08.0
	PCC	eP	12 52 11
	BRK	eP	12 52 13.5

DATE	STA	PHASE	TIME (UTC)
	BKS	eP	12 52 15
		AMP(µm)	PER(s)
		PZ 0.051	1.1
	ORV	eP	12 52 25.7
	MIN	eP	12 52 34
	WDC	eP	12 52 36.2
	FHC	eP	12 52 45
USGS 12h47m09.9s 16.7N 113.5W			
h=10km mb=4.7 Ms=4.5			
Off Coast of Mexico			
May 6	PRI	eP	07 45 42.1
	PRS	e	07 45 43.3
	MHC	e	07 45 46.6
	SAO	e	07 45 46.6
	JAS1	eP	07 45 50.7
	MNA	eP	07 45 50.8
	BRK	e	07 45 54.1
	BKS	eP	07 45 54.1
		AMP(µm)	PER(s)
		PZ 0.033	0.9
	ORV	e	07 46 00.9
	MIN	e	07 46 06.0
	WDC	eP	07 46 06.6
USGS 07h33m58.4s 36.4S 98.9W			
h=10km mb=5.2 Ms=5.1			
Southern Pacific Ocean			
May 6	FHC	e	13 54 03.3
	MNA	e	13 54 14.0
	WDC	e	13 54 16.5
	MIN	eP	13 54 27.7
	ORV	e	13 54 34.6
	MHC	e	13 54 56.1
	JAS1	iPc	13 55 05.5
		i	13 56 34.2
	FRI	e	13 55 15.0
	PRI	e	13 55 17.1
USGS 13h53m06.4s 43.7N 127.1W			
h=10km mb=5.0 Ms=4.5			
Off Coast of Oregon			
May 6	PRS	e	17 23 09.5
	GCC	e	17 23 10.2
	PCC	e	17 23 11.0
	PRI	eP	17 23 11.6
	LLA	e	17 23 11.8
	BRK	e	17 23 12.0
	MHC	eP	17 23 12.3
	BKS	eP	17 23 12.3
		ePP	17 27 22
		e	17 34 20.4
		eS	17 36 08
		Lr	17 51 00
		AMP(µm)	PER(s)
		PZ 0.067	1.5
		LZ 9.6	20.
		LN 6.4	20.
		LE 4.5	20.
	FRI	eP	17 23 15.5
	JAS1	eP	17 23 16.5
		e	17 27 17.0
	ORV	eP	17 23 19.0
	FHC	e	17 23 19.8
	WDC	eP	17 23 20.2
	MNA	eP	17 23 24.0
BRK Ms=6.2 Distance= 88°			
USGS 17h10m02.9s 37.5S 179.5E			
h=30km mb=5.8 Ms=6.1			
Off E. Coast of N. Island, New Zealand			
May 6	PRI	iPd	23 14 55.7

DATE	STA	PHASE	TIME (UTC)
	FRI	iPd	23 15 01.1
	LLA	ePc	23 15 02.4
	PRS	ePc	23 15 03.2
	SAO	iPd	23 15 08.0
		iPd	23 15 08.0
	GCC	eP	23 15 14.0
	MHC	eP	23 15 15.4
	JAS1	iPc	23 15 16.7
	PCC	iPc	23 15 22.0
	BRK	eP	23 15 24.4
	MNA	eP	23 15 25.4
	ZSP	ePnc	23 15 26.1
		eP*	23 15 31.1
		ePg	23 15 34.2
	MIN	e	23 16 00.7
	ORV	e	23 16 42.5
BRK 23h14m32.6s 35.3N 119.3W			
h=7kmR ML=4.4(6)			
30 km SW of Bakersfield, CA			
May 7	JAS1	eP	06 26 02.5
	WDC	eP	06 26 04.0
	ORV	eP	06 26 04.1
	MIN	e	06 26 06.0
	MNA	eP	06 26 12.9
USGS 06h14m34.4s 16.5S 173.9W			
h=76km mb=4.8			
Tonga Islands			
May 8	FRI	ePKP	08 31 45.7
	PRS	e	08 31 45.7
	MNA	e	08 31 46.0
	PRI	e	08 31 46.0
	LLA	e	08 31 47.7
	JAS1	ePKP	08 31 47.8
	GCC	e	08 31 48.0
	MHC	ePKP	08 31 48.9
	BRK	e	08 31 49.2
	BKS	ePKP	08 31 50.5
		AMP(µm)	PER(s)
		PZ 0.073	0.9
	MIN	ePKP	08 31 51.5
	WDC	ePKP	08 31 52.0
	ORV	e(PKP)	08 31 52.2
USGS 08h12m52.0s 57.7S 25.1W			
h=33km mb=5.3 Ms=4.6			
South Sandwich Islands Region			
May 8	MNA	e	11 55 33.0
	FRI	e	11 55 35.5
	JAS1	iPKPc	11 55 37.3
	MIN	e	11 55 37.6
	PRI	e	11 55 37.9
	ORV	ePKP	11 55 38.8
	WDC	e	11 55 38.8
USGS 11h35m41.4s 29.3S 25.0E			
h=5km mb=4.8			
Republic of South Africa			
May 8	PRS	eP	20 38 11.7
	PRI	eP	20 38 12.0
	LLA	eP	20 38 14.3
	GCC	eP	20 38 14.9
	PCC	eP	20 38 17.2
	MHC	eP	20 38 18.0
	FRI	eP	20 38 18.6
	BRK	e	20 38 19.8
	BKS	eP	20 38 20.1
		AMP(µm)	PER(s)
		PZ 0.065	1.1
	JAS1	iPc	20 38 23.4
	MNA	eP	20 38 31.0
	ORV	eP	20 38 31.9

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DATE	STA	PHASE	TIME (UTC)
	MIN	eP	20 38 32.2
	WDC	iPc	20 38 36.0
USGS 20h27m58.8s 21.8S 139.0W			
h=0km mb=5.7			
Tuamotu Archipelago Region			
May 8	WDC	eP	23 20 19.5
	ORV	eP	23 20 29.5
	JAS1	eP	23 20 45.7
	MNA	eP	23 20 54.0
USGS 23h14m01.6s 53.9N 165.0W			
h=42km mb=4.6			
Fox Islands, Aleutian Islands			
May 8	PRI	ePc	23 41 49.0
	FRI	ePc	23 41 50.6
	PRS	ePd	23 41 55.2
	LLA	ePc	23 41 57.4
	MNA	ePc	23 42 03.6
	JAS1	iPc	23 42 06.8
		i	23 43 07.6
		i	23 43 27.2
	GCC	ePd	23 42 06.8
	MHC	e(P)c	23 42 09.4
	PCC	eP	23 42 14.3
BRK ML=4.7(4)			
PAS 23h40m18.2s 31.7N 115.8W			
h=6km ML=5.0			
Baja California			
May 9	PRS	e	12 04 50.5
	MHC	e	12 04 51.5
	FRI	e	12 04 57.9
	JAS1	eP	12 04 58.4
	ORV	eP	12 05 00.5
	WDC	eP	12 05 01.1
	MIN	eP	12 05 01.6
	MNA	eP	12 05 07.5
USGS 11h52m57.2s 25.5S 177.4W			
h=163km mb=4.9			
South of Fiji Islands			
May 9	FHC	eP	19 13 01.0
	WDC	eP	19 13 08.6
	MIN	eP	19 13 14.1
	ORV	eP	19 13 17.8
	PCC	e	19 13 23.0
	BRK	e	19 13 23.5
	BKS	eP	19 13 24
		e	19 16 42
		e	19 18 54.5
		eS	19 19 52
		eLq	19 23 14
		eLr	19 25 04
		AMP(m)	PER(s)
		PZ 0.11	0.8
		LZ 20	20.
		LN 8.9	20.
		LE 22	20.
	MHC	eP	19 13 28.8
	GCC	eP	19 13 29.7
	JAS1	eP	19 13 31.7
	SAO	e	19 13 32.6
	PRS	e	19 13 35.5
	LLA	e	19 13 35.7
	FRI	eP	19 13 39.7
	PRI	eP	19 13 40.0
	MNA	eP	19 13 40.2
BRK Ms=6.2 Distance=47°			
USGS 19h05m21.5s 51.5N 177.9E			
h=33km mb=5.7 Ms=6.0			
Rat Islands, Aleutian Islands			

DATE	STA	PHASE	TIME (UTC)
May 9	FHC	eP	19 21 47.6
	WDC	iPc	19 21 55.0
	MIN	e	19 22 00.8
	ORV	iPc	19 22 04.8
	BRK	e	19 22 09.5
	BKS	eP	19 22 10.1
		AMP(m)	PER(s)
		PZ 0.11	0.9
		LZ 19	20.
		LN 8.0	20.
		LE 11	20.
	PCC	e	19 22 10.2
	GCC	eP	19 22 13.8
	MHC	eP	19 22 15.3
	JAS1	ePc	19 22 18.4
	SAO	e	19 22 19.2
	PRS	eP	19 22 21.4
	LLA	e	19 22 21.8
	FRI	eP	19 22 26.3
	PRI	eP	19 22 26.5
	MNA	iPc	19 22 27.4
BRK Ms=5.9 Distance=45°			
USGS 19h14m07.7s 51.3N 178.0E			
h=33km mb=5.4 Ms=6.0			
Rat Islands, Aleutian Islands			
May 9	WDC	eP	19 35 45.1
	ORV	eP	19 35 54.5
	JAS1	eP	19 36 08.0
	MNA	eP	19 36 17.2
USGS 19h27m57.0s 51.3N 178.0E			
h=33km mb=4.8			
Rat Islands, Aleutian Islands			
May 10	PRI	eP	05 41 08.0
	FRI	eP	05 41 11.7
	PRS	eP	05 41 14.0
	SAO	iPc	05 41 19.2
	MNA	eP	05 41 21.9
	GCC	e	05 41 25.3
	JAS1	iPd	05 41 25.6
BRK ML=4.4(4)			
PAS 05h39m36.3s 31.7N 115.8W			
h=6km ML=4.8			
Baja California			
May 10	PCC	ePc	15 48 51.7
	WDC	iPc	15 48 53.4
		ipP	15 49 02.1
	BRK	eP	15 48 54
	BKS	iP	15 48 55
		iPP	15 52 32.7
		i	15 52 53.6
		i	15 53 11.0
		ePPP	15 54 38
		i	15 58 33
		iS	15 59 39.6
		e	16 00 38.0
		ePS	16 01 00
		iPPS	16 01 22.3
		i(SS)	16 05 09
		iG	16 13 30
		iLr	16 17 06
		AMP(m)	PER(s)
		PZ 0.13	1.2
		LZ 120	20.
		LNE 56	20.
		LNW 110	20.
	GCC	e(P)	15 48 55
	MIN	iPc	15 48 55.8
	ORV	iPc	15 48 56.2
	MHC	eP	15 48 56.7
	JAS1	i(P)	15 49 00.3

DATE	STA	PHASE	TIME (UTC)
		ipP	15 49 07.0
		iPP	15 52 53.3
		eS	15 59 43.3
		ePKPPKP	16 14 43
	MNA	iPc	15 49 08.6
		ipP	15 49 16.8
BRK Ms=7.3 Distance=91°			
USGS 15h35m50.5s 5.6S 151.0E			
h=27km mb=6.3 Ms=7.1			
New Britain Region			
May 10	PRI	iPc	15 48 29.3
		i	15 48 33.7
		iS	15 48 49.0
	PRS	iPc	15 48 32.6
	LLA	iPc	15 48 36.1
	SAO	iPd	15 48 38.5
	FRI	iPc	15 48 43.0
	GCC	e	15 48 43.0
	MHC	ePc	15 48 47.0
	BKS	e(Pn)	15 48 50.0
		iPn	15 49 01.6
		iPg	15 49 10.2
		iSn	15 49 28.5
		iSg	15 50 00.4
	PCC	e	15 48 52.0
	JAS1	iPc	15 48 54.9
		iS	15 49 33.0
BRK 15h48m00.9s 34.5N 120.8W			
h=5kmR ML=3.8(4)			
Off Coast, 30 km W of Pt. Conception, CA			
May 11	PRI	iPc	08 59 30.0
	LLA	iPd	08 59 36.1
	PRS	iPc	08 59 39.4
	FRI	iPd	08 59 39.6
	SAO	iPc	08 59 42.8
	GCC	iPc	08 59 49.7
	MHC	iPc	08 59 49.8
	JAS1	iPd	08 59 52.4
	PCC	e	08 59 57.4
	BRK	ePc	09 00 00.2
	BKS	iPc	09 00 00.2
		iS	09 00 34
	ZSP	iPc	09 00 01.3
	MNA	iPd	09 00 08.9
	ORV	iPc	09 00 18.0
BRK 08h59m24.0s 36.2N 120.3W			
h=9km ML=4.3(6) Mo=2.9E22(2)			
7 km E of Coalinga, CA			
May 11	WDC	eP	10 51 53.7
	MIN	e	10 51 57.0
	ORV	eP	10 52 01.0
	BKS	eP	10 52 04.5
	JAS1	eP	10 52 11.4
	FRI	eP	10 52 17.2
USGS 10h40m39.6s 37.1N 141.4E			
h=56km mb=5.5			
Near East Coast of Honshu, Japan			
May 11	JAS1	eP	12 52 37.7
	ORV	e	12 52 52.2
USGS 12h44m00.3s 2.0N 101.1W			
h=10km mb=4.7 Ms=4.7			
East Central Pacific Ocean			
May 11	FHC	iP	16 11 46.6
		eS	16 11 53.7
	WDC	iP	16 12 00.2
		iS	16 12 18.2
	MIN	iPd	16 12 10.2

DATE	STA	PHASE	TIME (UTC)
	ORV	iPc	16 12 13.7
BRK 16h11m35.5s 40.4N 124.4W			
h=5kmR ML=3.1(4)			
Off Coast, 50 km SW of Eureka, CA			
May 12	FHC	iPc	13 55 28.5
		iS	13 55 39.3
	WDC	iPc	13 55 43.2
		i	13 55 52.9
		iS	13 56 04.7
	MIN	iPc	13 55 53.0
	ORV	iPc	13 55 55.9
	BRK	ePc	13 56 01.1
	ZSP	iPc	13 56 01.4
	BKS	iPnc	13 56 01.9
		iPgc	13 56 07.4
		iSn	13 56 15.5
		iSg	13 56 40.3
		iSg	13 56 47.6
		iSg	13 57 07
	PCC	eP	13 56 03.7
	MHC	e	13 56 11.3
	GCC	e	13 56 11.5
	SAO	eP	13 56 17.6
	JAS1	e	13 56 17.7
	LLA	e	13 56 23.8
	PRS	e	13 56 24.7
	PRI	e	13 56 32.3
	FRI	e	13 56 32.4
	MNA	e	13 56 37.2
BRK 13h55m11.4s 40.4N 125.0W			
h=5km ML=4.3(8)			
Off Coast, 50 km W of Cape Mendocino, CA			
May 12	FRI	iPc	15 29 04.8
	MNA	iPd	15 29 04.9
	JAS1	iPc	15 29 13.4
	LLA	eP	15 29 22.0
		i	15 29 48.2
	PRI	eP	15 29 23.4
		iS	15 29 39.7
	SAO	ePd	15 29 26.7
	MHC	e(P)	15 29 27.4
	PRS	eP	15 29 28.5
	GCC	e	15 29 31.5
	BRK	eP	15 29 34.5
	BKS	iPnc	15 29 34.9
		iPg	15 29 43.5
		iSn	15 30 12.6
		i(S)	15 30 18.3
	ORV	eP	15 29 35.7
	ZSP	e	15 29 36.6
	PCC	e	15 29 45.5
BRK 15h28m46.4s 37.5N 118.6W			
h=9km ML=3.7(5)			
Round Valley Area, 26 km NW of Bishop, CA			
May 13	FHC	e	08 56 56.2
	WDC	eP	08 57 02.3
	BKS	iPc	08 57 17.2
	JAS1	iPc	08 57 25.6
	PRI	eP	08 57 33.4
	MNA	ePc	08 57 34.0
USGS 08h49m03.2s 51.5N 175.8E			
h=33km mb=5.4 Ms=4.8			
Rat Islands, Aleutian Islands			
May 13	FHC	eP	10 52 58.9
	WDC	iPd	10 53 03.7
		i	10 53 14.4
	BKS	ePd	10 53 12.8

DATE	STA	PHASE	TIME (UTC)
		e	10 53 23.0
	JAS1	ePd	10 53 18.6
		i	10 53 29.3
	PRI	eP	10 53 23.4
	MNA	iPd	10 53 25.4
		i	10 53 35.1
USGS 10h40m59.9s 34.0N 132.5E			
h=44km mb=5.7 Ms=5.2			
Shikoku, Japan			
May 13	MHC	iPc	14 51 06.6
	GCC	iPd	14 51 12.4
	PCC	iPc	14 51 15.8
		eS	14 51 26.4
	SAO	iPd	14 51 16.6
	BKS	iP	14 51 18.9
		iS	14 51 29.0
	BRK	iPc	14 51 19.2
		eS	14 51 30.3
	ZSP	iPc	14 51 19.8
	LLA	eP	14 51 21.8
	PRS	ePc	14 51 23.7
	JAS1	eP	14 51 26.0
		iS	14 51 41.4
	PRI	e	14 51 30.2
	FRI	eP	14 51 32.5
	ORV	e	14 51 43.0
BRK 14h51m05.0s 37.3N 121.7W			
h=6km ML=2.7(4) Mo=8.1E19(2)			
Halls Valley, 17 km E of San Jose, CA			
May 14	MIN	iPKPd	13 44 40.3
	ORV	iPKPd	13 44 41.5
	WDC	iPKPd	13 44 41.9
	MNA	iPKPd	13 44 42.2
	FHC	e(PKP)	13 44 42.3
	JAS1	iPKPd	13 44 43.7
	FRI	ePKP	13 44 44.5
	BKS	iPKPd	13 44 46
		i	13 48 37
	PCC	e(PKP)	13 44 48.0
	MHC	iPKPd	13 44 48.7
	BRK	e(PKP)	13 44 48.8
	GCC	ePKPd	13 44 50.2
	LLA	ePKP	13 44 50.2
	SAO	e(PKP)	13 44 51.2
	PRS	iPKPd	13 44 51.2
	PRI	iPKPd	13 44 51.6
USGS 13h24m57.8s 10.6S 41.4E			
h=10km mb=6.0 Ms=5.5			
Northwest of Madagascar			
May 14	FHC	e(PKP)	18 30 50
	WDC	ePKPd	18 30 51.5
		ePP	18 34 28.8
	MIN	ePKPd	18 30 51.6
	ORV	ePKPd	18 30 52.5
	MNA	ePKPd	18 30 52.7
	JAS1	ePKPd	18 30 54.9
	FRI	ePKPd	18 30 55.5
		ePP	18 34 29.0
	PCC	e	18 30 57
	BRK	e	18 30 57
	BKS	iPKPc	18 30 57.2
		i	18 31 01.8
		iPKPc	18 31 03
		i	18 31 12.0
		i	18 31 18.9
		e	18 31 51.8
		iPP	18 34 39
		iSKS	18 38 06
		iPPS	18 47 49

DATE	STA	PHASE	TIME (UTC)
		eLq	19 12 30
		e	19 22 50
		AMP(m)	PER(s)
		LZ 4.5	20.
		LN 5.0	20.
		LE 2.2	20.
	MHC	ePKPd	18 30 57.3
	LLA	ePKP	18 30 57.5
	GCC	ePKPd	18 30 57.7
	PRS	ePKPd	18 30 58.0
	PRI	ePKPd	18 30 58.5
		ePP	18 34 37.3
	SAO	e	18 31 02
BRK Ms=6.3 Distance=149°			
USGS 18h11m08.9s 10.6S 41.4E			
h=10km mb=6.4 Ms=6.0			
Northwest of Madagascar			
May 14	MIN	e(PKP)	20 14 25.9
	MNA	e(PKP)	20 14 26.5
		i	20 14 39.5
	ORV	e(PKP)	20 14 27.5
USGS 19h54m42.2s 10.7S 41.3E			
h=10km mb=5.4 Ms=5.1			
Northwest of Madagascar			
May 15	FRI	ePKPc	20 31 38.7
	PRI	ePKP	20 31 39.3
	MNA	ePKP	20 31 39.7
	LLA	ePKP	20 31 40.3
	JAS1	iPKPc	20 31 41.3
		e	20 33 18.7
		e	20 35 20.9
	GCC	ePKP	20 31 41.7
	MHC	ePKPc	20 31 42.2
	BRK	ePKP	20 31 43.0
	BKS	iPKPd	20 31 43.6
		i	20 31 55.0
		i	20 33 12
		i	20 33 28
		iPP	20 33 50
		iPKS	20 35 40
		i	20 47 22
		i	20 51 12
		iPSPS	20 51 50
		eSSS	20 55 14
		iSSSS	20 59 14
		e	21 06 06
		AMP(m)	PER(s)
		LZ 5.1	20.
		LN 8.4	20.
		LE 3.3	20.
	ORV	ePKP	20 31 43.9
		e	20 33 39.7
	WDC	iPKPc	20 31 45.8
BRK Ms=6.5 Distance=128°			
USGS 20h12m45.8s 56.6S 25.3W			
h=33km mb=5.8 Ms=6.3			
South Sandwich Islands Region			
May 15	MHC	eP	23 58 36.0
	PRI	e(P)	23 58 37.2
	WDC	iPd	23 58 39.7
	ORV	iPd	23 58 40.7
	JAS1	ePd	23 58 40.8
	FRI	iPd	23 58 41.6
	MNA	e(P)	23 58 [illegible]
USGS 23h46m19.6s 17.8S 168.6E			
h=204km mb=4.8			
New Hebrides Islands Region			
May 16	GCC	ePc	00 17 10.4
	PRS	ePc	00 17 10.9

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DATE	STA	PHASE	TIME (UTC)
	SAO	eP	01 17 11.5
	MHC	eP	01 17 13.0
	PRI	ePc	01 17 13.1
	FRI	eP	01 17 18.2
	JAS1	iPc	01 17 18.5
	WDC	ePc	01 17 19.4
	ORV	ePc	01 17 19.5
	MIN	e(P)	01 17 21.5
	MNA	iPc	01 17 28.4
USGS 01h06m18.6s 17.8S 178.6W			
h=577km mb=5.2			
Fiji Islands Region			
May 16	WDC	ePKPd	14 40 25.2
		e	14 41 04.7
		e	14 44 45.2
	MIN	ePKPd	14 40 26.0
	ORV	ePKPd	14 40 26.7
		e	14 41 09.0
	BKS	i	14 40 28
		i	14 41 11.4
		i	14 41 15
	GCC	ePKP	14 40 28.4
	JAS1	iPKPd	14 40 28.8
		e	14 41 16.8
	MHC	ePKPd	14 40 29.0
	LLA	ePKP	14 40 29.2
	PRS	ePKP	14 40 29.3
	FRI	ePKPd	14 40 29.5
		e	14 41 20.3
	MNA	ePKP	14 40 30.0
		e	14 41 22.5
	PRI	iPKPd	14 40 30.6
USGS 14h20m25.1s 29.1S 77.7E			
h=10km mb=5.9 Ms=6.0			
Mid-Indian Rise			
May 17	MHC	eP	00 49 58.3
		e	00 50 15.0
	FRI	eP	00 50 01.8
		e	00 50 19.0
	JAS1	eP	00 50 02.4
		i	00 50 20.3
	MNA	eP	00 50 11.3
		e	00 50 28.3
USGS 00h37m21.9s 30.2S 177.9W			
h=33km mb=5.3			
Kermadec Islands			
May 17	JAS1	eP	02 56 41.7
	ORV	eP	02 56 48.2
	WDC	eP	02 56 53.0
USGS 02h44m07.0s 34.3S 72.5W			
h=33km mb=5.1 Ms=5.1			
Near Coast of Central Chile			
May 17	WDC	eP	13 12 55.3
	ORV	eP	13 12 58.3
	JAS1	eP	13 13 01.0
	FRI	e	13 13 03.8
	MNA	eP	13 13 10.6
	BKS	e(r	13 41 27
USGS 13h00m00.4s 5.3S 151.9E			
h=63km mb=5.3			
New Britain Region			
May 18	MNA	ePc	03 21 02.7
	FRI	eP	03 21 03.1
	PRI	eP	03 21 06.3
	LLA	eP	03 21 09.0
	JAS1	eP	03 21 11.7
		e	03 21 19.9
	MHC	eP	03 21 16.4
	GCC	eP	03 21 16.9
	BRK	eP	03 21 21.6
	BKS	iPd	03 21 22.5
		AMP(m)	PER(s)
		PZ 0.036	0.9
	ORV	ePc	03 21 24.5
		e	03 21 32.4
	MIN	eP	03 21 27.0
	WDC	ePc	03 21 30.8
	FHC	ePc	03 21 42.0
USGS 03h12m57.6s 8.4N 82.7W			
h=33km mb=5.1 Ms=3.9			
Panama-Costa Rica Border Region			
May 18	PRI	e(P)	10 09 09.2
	FRI	eP	10 09 10.8
		e	10 09 17.0
	PRS	ePc	10 09 10.8
	MHC	ePc	10 09 17.1
		e	10 09 22.8
	JAS1	ePc	10 09 18.0
		e	10 09 24.1
	MNA	eP	10 09 18.6
	BKS	e(P)	10 09 26.9
		AMP(m)	PER(s)
		PZ 0.033	0.9
	ORV	ePc	10 09 27.8
		e	10 09 34.0
	WDC	ePc	10 09 33.8
		e	10 09 40.0
	FHC	eP	10 09 38.2
USGS 09h57m28.5s 36.3S 100.7W			
h=10km mb=4.6			
Southern Pacific Ocean			
May 18	FHC	iPc	12 05 53.6
		iS	12 05 58.3
	WDC	ePc	12 06 09.1
		i	12 06 10.0
		i	12 06 16.6
	MIN	ePd	12 06 19.8
		i	12 06 28.8
	ORV	e(P)	12 06 22.9
BRK 12h05m44.7s 40.7N 124.5W			
h=5kmR ML=3.9(2)			
Off Coast, 30 km WSW of Eureka, CA			
May 18	FRI	ePd	17 10 34.5
		esP	17 11 14.0
	MNA	iPd	17 10 36.2
		ePcP	17 10 50.2
		ipP	17 11 03.8
		isP	17 11 16.7
	PRI	ePd	17 10 36.4
		ePcP	17 10 50.7
	LLA	ePd	17 10 38.8
		ePcP	17 10 53
		epP	17 11 06.1
		esP	17 11 19.5
	PRS	ePd	17 10 39.5
		epP	17 11 07.1
		esP	17 11 20.2
	JAS1	iPd	17 10 41.7
		epP	17 11 09.3
		isP	17 11 31.0
	GCC	ePd	17 10 44.1
		epP	17 11 10.8
		esP	17 11 24.9
	MHC	ePd	17 10 44.5
		epP	17 11 12.0
		esP	17 11 25.0
	PCC	eP	17 10 46.9
		esP	17 11 27
	BKS	eP	17 10 48
		epP	17 11 16.0
		esP	17 11 27.7
		iS	17 20 24
		esS	17 21 10
		ePS	17 21 30
		eSS	17 25 36
		AMP(m)	PER(s)
		PZ 0.22	1.7
	BRK	eP	17 10 48.0
		ePcP	17 11 03
		epP	17 11 15.8
		esP	17 11 28
	ORV	iPd	17 10 51.7
		iPcP	17 11 06.5
		ipP	17 11 19.3
		isP	17 11 32.3
	MIN	ePd	17 10 53.8
		esP	17 11 34.3
	WDC	iPd	17 10 56.6
		epP	17 11 24.5
		esP	17 11 36.9
	FHC	ePd	17 11 04.5
		epP	17 11 32
BRK mb=5.7 h=104km Distance=78°			
USGS 16h59m13.8s 19.0S 69.1W			
h=110km mb=5.5			
Northern Chile			
May 18	MNA	iPc	22 15 19.2
	JAS1	ePc	22 15 27.5
	ORV	eP	22 15 42.1
	FHC	ePc	22 16 01.5
USGS 22h08m36.1s 13.9N 91.6W			
h=33km mb=4.6 Ms=3.6			
Near Coast of Guatemala			
May 19	FRI	e	00 39 41.7
	JAS1	eP	00 39 42.0
	ORV	eP	00 39 43.7
	WDC	eP	00 39 43.8
	MNA	eP	00 39 51.2
USGS 00h28m24.4s 22.0S 179.6W			
h=590km mb=4.8			
South of Fiji Islands			
May 19	PRI	e	07 20 09.3
	MNA	eP	07 20 12.2
	JAS1	eP	07 20 16.4
	ORV	eP	07 20 25.3
	BKS	e	07 20 30
		i	07 30 55
		e	07 30 56
		e	07 31 08
	WDC	eP	07 20 30.5
USGS 07h07m46.1s 33.9S 72.3W			
h=33km mb=5.2 Ms=5.3			
Off Coast of Central Chile			
May 19	FHC	eP	08 16 43.2
	WDC	ePc	08 16 48.3
	MIN	e	08 16 55.7
	ORV	ePc	08 16 57.5
	BRK	e	08 17 04.4
	BKS	ePd	08 17 05.7
		ePcP	08 18 10.8
		eS	08 24 35
		e	08 25 16
		e	08 25 18
		eSS	08 28 22
		e(Lg)	08 30 34
		e(Lr)	08 31 21
		AMP(m)	PER(s)
		PZ 0.054	1.0
		LZ 2.6	20.
		LN 1.6	20.
		LE 2.2	20.
	MHC	e	08 17 10.5
	JAS1	ePc	08 17 10.8
		ipP	08 17 27.5
	SAO	e	08 17 14.0
	PRS	e	08 17 16.3
	LLA	e	08 17 16.8
	MNA	iPc	08 17 18.0
		ipP	08 17 34.0
	FRI	e	08 17 18.0
	PRI	e	08 17 19.1
BRK Ms=5.3 Distance=55°			
USGS 08h07m48.2s 53.6N 160.5E			
h=63km mb=6.1			
Near East Coast of Kamchatka			
May 19	FRI	ePc	18 21 25.9
	PRI	ePc	18 21 26.9
		i	18 21 38.3
	LLA	eP	18 21 28.6
	MNA	ePc	18 21 28.8
		ipP	18 21 40.0
	PRS	eP	18 21 29.3
	SAO	eP	18 21 30.8
	JAS1	iPc	18 21 32.7
		ipP	18 21 44.2
	GCC	eP	18 21 33.4
	MHC	eP	18 21 34.5
	BKS	iP	18 21 37
		i	18 21 49
		i	18 21 51
		e	18 22 06.6
		ePP	18 24 53
		eS	18 31 57
		e(PSP)	18 33 03
		ePPS	18 33 12
		e	18 37 12
		e	18 37 15
		iSS	18 37 35
		eSSS	18 41 11
		eLg	18 43 33
		e(Lr)	18 49 07
		AMP(m)	PER(s)
		PZ 0.088	0.8
		LZ 5.7	20.
		LN 5.2	20.
		LE 2.7	20.
	BRK	eP	18 21 37.7
	PCC	eP	18 21 37.8
	ORV	ePc	18 21 41.9
	MIN	eP	18 21 44.1
	WDC	ePc	18 21 46.9
		ipP	18 21 58.3
	FHC	eP	18 21 53.4
BRK Ms=6.0 Distance=85°			
USGS 18h09m15.6s 31.3S 71.3W			
h=39km mb=5.9 Ms=6.0			
Near Coast of Central Chile			
May 20	FRI	ePKP	06 03 19.6
	PRI	ePKP	06 03 20.7
	PRS	ePKP	06 03 20.7
	MNA	ePKPc	06 03 21.0
	LLA	ePKP	06 03 21.9
	JAS1	ePKPc	06 03 22.2
	MHC	ePKP	06 03 23.1
	BRK	ePKP	06 03 24.1
	BKS	iPKPd	06 03 24.7
		AMP(m)	PER(s)
		PKPZ 0.11	0.8
	ORV	ePKP	06 03 25.1
	MIN	ePKP	06 03 26.6
	WDC	ePKPc	06 03 26.9
USGS 05h44m42.4s 57.0S 26.6W			
h=145km mb=5.6			
South Sandwich Islands Region			
May 20	JAS1	e	10 35 23.9
	ORV	eP	10 35 24.4
	WDC	e	10 35 26.9
	MIN	eP	10 35 27.0
USGS 10h22m46.0s 33.5S 72.2W			
h=33km mb=4.9 Ms=4.5			
Off Coast of Central Chile			
May 21	ORV	iPd	01 21 28.9
	ZSP	e	01 21 37.7
	MIN	iPc	01 21 39.0
	BKS	eP	01 21 39.4
		i(Pg)	01 21 42.0
		e	01 21 49.0
		eS	01 21 55.5
		e(Sg)	01 21 59.7
	WDC	iPc	01 21 40.3
	BRK	e(P)	01 21 41.7
	PCC	eP	01 21 43.9
	MHC	e	01 21 46.5
	JAS1	eP	01 21 46.6
		eS	01 22 11.0
	SAO	e	01 21 54.4
	LLA	e	01 22 06
	MNA	e	01 22 09.0
BRK 01h21m15.5s 39.2N 122.2W			
h=2km ML=3.2(8)			
5 km W of Williams, CA			
May 21	MNA	e	02 08 33.0
	JAS1	e	02 08 37.8
	ORV	eP	02 08 52.8
USGS 02h00m16.6s 1.3N 90.8W			
h=10km mb=4.6			
Galapagos Islands Region			
May 21	ORV	eP	10 11 09.2
		i	10 12 17.8
	MNA	e	10 11 52.0
	JAS1	eP	10 11 58.0
USGS 10h01m01.7s 15.1S 75.3W			
h=33km mb=4.7 Ms=4.3			
Near Coast of Peru			
May 21	ORV	iPd	10 34 57.8
		iS	10 35 07.2
	BKS	iPc	10 35 08.2
		e(Pg)	10 35 10.9
		eS	10 35 24.8
	MIN	ePc	10 35 08.4
		iS	10 35 25.0
	WDC	ePd	10 35 10.0
		i	10 35 16.7
		iS	10 35 28.6
	ZSP	eP	10 35 10.8
	BRK	eP	10 35 10.9
	PCC	eP	10 35 13.0
	JAS1	iPd	10 35 15.9
	MHC	e(P)	10 35 16.1
	GCC	e	10 35 22.5
	SAO	eP	10 35 24.4
	PRS	e	10 35 30
	FRI	e	10 35 35.0
	MNA	e	10 35 37.0
BRK 10h34m46.9s 39.1N 122.0W			
h=10kmR ML=3.0(6)			
10 km SE of Williams, CA			
May 21	PRI	iPc	13 24 29.4
		iS	13 24 35.8
	PRS	iPc	13 24 38.5
		iS	13 24 51.9
	LLA	ePc	13 24 38.5
	FRI	eP	13 24 43.0
	SAO	iPc	13 24 43.3
	GCC	iPc	13 24 50.2
	MHC	e(P)	13 24 52.0
	JAS1	eP	13 24 55.4
		iS	13 25 21.8
	PCC	iPc	13 24 57.8
	BKS	e(P)	13 25 04.1
BRK 13h24m20.9s 35.8N 120.4W			
h=8km ML=2.9(2)			
10 km SE of Parkfield, CA			
May 21	WDC	iPc	16 27 17.5
		iS	16 27 28.7
	MIN	iPc	16 27 27.7
		eS	16 27 48.8
	ORV	iPd	16 27 35.3
		eS	16 27 59.8
	JAS1	e	16 28 05.3
BRK 16h27m03.4s 40.8N 123.5W			
h=4kmR ML=3.3(4)			
60 km E of Eureka, CA			
May 21	WDC	e(P)	22 27 14.0
		e	22 27 30.2
	JAS1	e(P)	22 27 39.3
		e	22 27 58
	PRS	e(P)	22 27 43.3
		e	22 28 01.7
	LLA	e(P)	22 27 44.1
		e	22 28 02.5
	PRI	e(P)	22 27 48.5
		e	22 28 07.1
USGS 22h20m48.2s 53.8N 166.9W			
h=71km mb=5.1			
Fox Islands, Aleutian Islands			
May 21	JAS1	e(P)	23 05 23.1
	ORV	e(P)	23 05 25.5
	WDC	iPd	23 05 26.3
USGS 22h52m57.0s 27.4S 176.4W			
h=33km mb=4.9 Ms=4.4			
Kermadec Islands Region			
May 22	ORV	iPc	03 42 28.0
	MIN	eP	03 42 34.2
	JAS1	iPd	03 42 42.1
		iS	03 43 03.1
	WDC	ePc	03 42 45.5
		e(S)	03 43 11.3
	BRK	eP	03 42 50.2
	MNA	eP	03 42 51.0
		e	03 43 20.3
	BKS	ePd	03 42 52.0
		eS	03 43 18.1
		i(Sg)	03 43 20.2
	MHC	iPd	03 42 53.9
	PCC	eP	03 42 56.3
	FRI	e(P)	03 42 57.2
	LLA	e(P)	03 43 04.5
	PRS	e	03 43 10.2
	PRI	e	03 43 13.5
BRK 03h42m13.1s 39.6N 120.4W			
h=12km ML=3.4(6)			
35 km NW of Truckee, CA			

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DATE	STA	PHASE	TIME (UTC)
May 23	ZSP	eP	11 45 57.2
	BRK	eP	11 45 58.0
		eS	11 46 13.7
	BKS	eP	11 45 58.4
		i(Pg)	11 46 04.0
		iS	11 46 12.3
		i(Sg)	11 46 18.7
	ORV	eP	11 46 01.6
	PCC	eP	11 46 02.6
		e	11 46 04.6
	MHC	eP	11 46 08.8
	MIN	eP	11 46 10.0
	WDC	eP	11 46 10.8
	GCC	e(P)	11 46 12.2
	JASI	eP	11 46 13.4
		eS	11 46 39.2
	FHC	e	11 46 24.9
	FRI	eP	11 46 28.8

BRK 11h45m39.3s 38.8N 122.8W
h=4km ML=3.0(4)
The Geysers, 25 km S of Clear Lake, CA

May 23	MHC	e	19 03 21.6
	BRK	e	19 03 22.4
	BKS	eP	19 03 23.0
		AMP(μm)	PER(s)
		PZ 0.033	0.6
	PRS	e	19 03 23.6
	GCC	e	19 03 24.2
	WDC	eP	19 03 25.4
	LLA	e	19 03 25.7
	PRI	e	19 03 26.8
	ORV	eP	19 03 27.4
	JASI	eP	19 03 28.6
	MIN	eP	19 03 28.9
	FRI	eP	19 03 30.4
	MNA	eP	19 03 38.9

USGS 18h51m00.5s 10.2S 165.3E
h=36km mb=5.3 Ms=4.5
Santa Cruz Islands

May 24	PRS	e	05 28 19.2
	ORV	eP	05 28 19.9
	MIN	eP	05 28 21.2
	JASI	eP	05 28 23.0
	FRI	e	05 28 25.0
	MNA	eP	05 28 32.4

USGS 05h15m29.8s 6.3S 154.8E
h=63km mb=5.3
Solomon Islands

May 24	FHC	e(P)	22 12 03.8
	WDC	iPc	22 12 12.0
		ipP	22 12 21.3
	MIN	e(P)	22 12 17.5
		epP	22 12 26.6
	ORV	eP	22 12 21.2
		ipP	22 12 30.7
	PCC	e	22 12 27
	BRK	e(P)	22 12 27
	BKS	e(P)	22 12 27.7
		i	22 12 28.7
		i	22 12 35.6
		e	22 13 21.2
		ePP	22 14 18
		eS	22 18 39.6
		eLq	22 21 54.0
		eLr	22 23 47.6
		AMP(μm)	PER(s)
		PZ 0.13	1.0
		LZ 7.9	20.

DATE	STA	PHASE	TIME (UTC)
		LN	2.5 20.
		LE	7.1 20.
	MHC	e(P)	22 12 31.5
		ipP	22 12 41.4
	GCC	e	22 12 31.5
		i	22 12 40.7
	JASI	ePc	22 12 35.9
		ipP	22 12 45.1
	PRS	e(P)	22 12 39.7
		e	22 12 47.6
	LLA	e(P)	22 12 40.2
		e	22 12 49.0
	FRI	e(P)	22 12 43.5
		ipP	22 12 52.7
	PRI	e(P)	22 12 43.6
	SAO	e	22 12 44
	MNA	ePc	22 12 44.5

BRK Ms=5.6 Distance=43°
USGS 22h04m43.4s 51.4N 178.4W
h=34km mb=5.8 Ms=5.8
Andreanof Islands, Aleutian Islands

May 25	PRI	iPc	04 19 44.6
	PRS	iPc	04 19 54.0
		eS	04 20 05.9
	LLA	eP	04 19 54.2
	SAO	eP	04 19 58.7
	FRI	eP	04 20 00.7
		eS	04 20 16.8
	MHC	e(P)	04 20 07.5
	JASI	eP	04 20 12.0
		eS	04 20 39.2
	PCC	e(P)	04 20 13.3
	BRK	e	04 20 17
	MNA	e	04 20 33.0

BRK 04h19m39.2s 35.9N 120.5W
h=10km ML=2.9(2)
Cholame Valley, 30 km SSW of Coalinga, CA

May 25	FHC	e(P)	12 56 18.8
	WDC	iPd	12 56 24.0
	MIN	iPd	12 56 27.2
	BRK	ePd	12 56 28.5
	BKS	ePd	12 56 28.9
		e	12 56 30.7
		e	12 56 42.0
		AMP(μm)	PER(s)
		PZ 0.073	0.9
	ORV	iPd	12 56 29.1
	GCC	eP	12 56 30.7
	MHC	iPd	12 56 32.2
	SAO	e	12 56 33.5
	PRS	iPd	12 56 34.7
	JASI	iPd	12 56 35.8
	PRI	ePd	12 56 38.2
	FRI	iPd	12 56 39.9
	MNA	iPd	12 56 44.3

USGS 12h44m33.2s 17.6N 145.6E
h=195km mb=5.2
Mariana Islands

May 25	GCC	eP	14 35 42.2
	PRS	eP	14 35 42.5
	PCC	eP	14 35 42.6
	SAO	eP	14 35 43.8
	BRK	eP	14 35 44.3
	PRI	e	14 35 44.5
	BKS	eP	14 35 44.6
		AMP(μm)	PER(s)
		PZ 0.034	0.8
	MHC	eP	14 35 45.0
	FRI	eP	14 35 50.0

DATE	STA	PHASE	TIME (UTC)
	JASI	iPd	14 35 50.4
	ORV	iPd	14 35 51.8
	WDC	iPd	14 35 52.0
	MIN	eP	14 35 53.7
	MNA	ePd	14 35 59.3

USGS 14h24m35.5s 20.9S 178.8W
h=549km mb=4.9
Fiji Islands Region

May 25	FHC	ePd	23 38 15.0
	WDC	ePd	23 38 21.6
	MIN	eP	23 38 26.4
	ORV	iPd	23 38 30.5
	BRK	e(P)	23 38 36.6
	BKS	e(P)	23 38 36.9
		e	23 39 44.3
		eS	23 46 12.0
		eSS	23 49 54.0
		eLq	23 52 30.0
		eLr	23 54 38.0
		AMP(μm)	PER(s)
		PZ 0.17	1.2
		LZ 3.8	20.
		LN 1.3	20.
		LE 4.3	20.
	MHC	ePd	23 38 41.8
	GCC	ePd	23 38 41.8
	JASI	iPd	23 38 44.3
		i	23 38 49.2
	SAO	e(P)	23 38 45.0
	PRS	ePd	23 38 48.2
	LLA	eP	23 38 49.0
	MNA	ePd	23 38 51.2
		i	23 38 59.7
	FRI	ePd	23 38 51.6
	PRI	ePd	23 38 52.8

BRK Ms=5.5 Distance=55°
USGS 23h29m21.7s 54.1N 161.0E
h=46km mb=5.9 Ms=5.4
Near East Coast of Kamchatka

May 26	ZSP	eP	11 58 10.0
		eS	11 58 24.5
	BRK	e	11 58 10.7
	BKS	eP	11 58 10.9
		eS	11 58 23.4
	ORV	iPd	11 58 12.2
	MHC	eP	11 58 20.2
	MIN	eP	11 58 21.8
	WDC	ePd	11 58 22.4
	GCC	eP	11 58 23.0
	JASI	eP	11 58 23.6
	SAO	eP	11 58 28.5
	FRI	e	11 58 38.5

BRK 11h57m53.6s 38.8N 122.3W
h=2km ML=3.0(4)
30 km SW of Clear Lake, CA

May 28	MNA	iPc	07 57 13.3
	ORV	iPc	07 57 14.7
	JASI	iPd	07 57 17.0
		eS	07 57 39.3
	MIN	iPc	07 57 18.75
	WDC	eP	07 57 28.7
		iS	07 58 08.3
	FRI	ePd	07 57 28.8
	ZSP	e(P)	07 57 31
	BRK	eP	07 57 31.5
		eS	07 58 09.5
	MHC	ePd	07 57 31.8
	BKS	eP	07 57 33.6
		e	07 57 35.5
		eS	07 58 09.5

DATE	STA	PHASE	TIME (UTC)
	PCC	eP	07 57 35.0
	LLA	e	07 57 36.4
	SAO	iPd	07 57 36.6
	GCC	e	07 57 36.8
	PRS	e(P)	07 57 41.8
	PRI	eP	07 57 44.1
	FHC	e	07 57 46

BRK 07h56m45.8s 39.5N 119.5W
h=5kmR ML=4.3(8)
30 km E of Reno, Nevada

May 28	FRI	iPc	18 32 03.1
		iS	18 32 14.5
	MNA	iPc	18 32 06.8
		iS	18 32 21.4
	JASI	ePd	18 32 10.3
		i	18 32 25.1
		iS	18 32 27.6
	LLA	iPc	18 32 20.6
		eS*	18 32 45.4
	PRI	ePc	18 32 22.0
	SAO	iPd	18 32 25.1
	MHC	ePc	18 32 25.5
		iS*	18 32 54.9
	PRS	ePc	18 32 26.8
	GCC	e(P)	18 32 29.4
	PCC	ePc	18 32 33.4
	ORV	eP	18 32 36.2

BRK 18h31m47.5s 37.5N 118.9W
h=6km ML=3.4(6)
Mammoth Lakes Area, CA

May 28	FRI	iPc	19 32 56.8
	PRI	ePc	19 32 57.5
	MNA	iPc	19 33 00.4
		e	19 33 08.7
		e	19 33 16.7
	LLA	ePc	19 33 01.3
	PRS	ePc	19 33 02.3
	SAO	eP	19 33 06.8
	JASI	iPc	19 33 07.0
	GCC	eP	19 33 09.9
	MHC	ePc	19 33 10.4
	PCC	ePc	19 33 14.7
	BRK	e(P)	19 33 16
	BKS	e(P)	19 33 16.7
		AMP(μm)	PER(s)
		PZ 0.022	1.0
	ORV	ePc	19 33 23.3
	WDC	ePc	19 33 32.3
	FHC	eP	19 33 43.4

USGS 19h27m52.2s 18.9N 101.9W
h=10km mb=5.2
Guerrero, Mexico

May 28	PRS	iPd	19 54 37.2
		iS	19 54 47.0
	SAO	iPd	19 54 39.2
	GCC	iPc	19 54 40.3
		iS	19 54 50.6
	LLA	iPd	19 54 44.7
	MHC	ePc	19 54 46.6
	PCC	e(P)	19 54 47.3
	PRI	eP	19 54 47.4
		i	19 55 04.3
		iS	19 55 05.5
	BKS	e(P)	19 54 56.1
		eS	19 55 17.3

BRK 19h54m26.2s 36.3N 122.1W
h=7km ML=2.7(4)
Off Coast, 20 km W of Point Sur, CA

May 29	FRI	e(P)	15 27 56.5

DATE	STA	PHASE	TIME (UTC)
		e	15 28 03.5
	JASI	e(P)	15 27 57.0
		e	15 28 04.0
	GCC	e	15 27 57.2
	PRI	e	15 27 58.8
	ORV	e	15 28 00
		e	15 28 06.5
	MHC	e	15 28 00.0
	BKS	e(P)	15 28 00.3
		e	15 30 22.8
		e	15 34 43.6
		e	15 36 33.6
		eS	15 38 38.0
		e(PPS)	15 39 32.8
		eSS	15 44 20.0
		e	15 46 36.0
		eLq	15 50 46.8
		eLr	15 54 24.0
		AMP(μm)	PER(s)
		PZ 0.047	0.8
		LZ 2.9	20.
		LN 2.3	20.
		LE 2.0	20.
	MNA	e(P)	15 28 06.1
		e	15 28 12.6
	WDC	e	15 28 07.4
		e	15 28 29.5

BRK Ms=5.7 Distance=85°
USGS 15h15m16.2s 29.9S 178.6W
h=33km mb=5.3 Ms=5.6
Kermadec Islands

May 30	WDC	e(PKP)	08 52 00.5
	MIN	e(PKP)	08 52 00.9
	ORV	e(PKP)	08 52 02.0
	JASI	e(PKP)	08 52 02.7
		e	08 52 04.0
	FRI	e(PKP)	08 52 43.5
	PRI	e	08 52 04.5
			08 52 12.0

USGS 08h32m17.5s 10.7S 41.4E
h=10km mb=5.4 Ms=4.8
Northwest of Madagascar

May 30	FRI	e	12 27 12.8
		e	12 27 19.5
	JASI	e(P)	12 27 14.2
		epP	12 27 31.1
	ORV	eP	12 27 16.4
	WDC	e(P)	12 27 17.4
		epP	12 27 33.8
	MNA	e	12 27 22

USGS 12h14m38.1s 30.1S 177.5W
h=56km mb=5.0
Kermadec Islands

May 30	PRI	ePd	12 56 45.9
	MNA	eP	12 56 46.3
	LLA	eP	12 56 48.6
	PRS	eP	12 56 48.8
	JASI	ePd	12 56 51.1
	GCC	eP	12 56 53.1
	MHC	eP	12 56 53.5
	ORV	iPd	12 57 00.3
	MIN	e(P)	12 57 02.5
	WDC	ePd	12 57 05.3

USGS 12h45m02.1s 24.3S 67.0W
h=181km mb=5.0
Chile-Argentina Border Region

May 30	WDC	e(P)	13 15 53.1
		epP	13 16 26
	ORV	eP	13 16 01.3

DATE	STA	PHASE	TIME (UTC)
		epP	13 16 35.6
	PRS	e(P)	13 16 16.7
	LLA	e(P)	13 16 17.5
	MNA	eP	13 16 21.1
		e	13 16 57.2

USGS 13h06m21.7s 49.1N 154.1E
h=150km mb=5.5
Kuril Islands

May 30	WDC	eP	13 33 28.6
	MIN	eP	13 33 32.3
	ORV	eP	13 33 34.7
	BRK	eP	13 33 36.4
	GCC	eP	13 33 40.1
	MHC	eP	13 33 40.2
	JASI	eP	13 33 43.4
	PRS	eP	13 33 43.9
	LLA	e(P)	13 33 44.9
	PRI	eP	13 33 47.6
	FRI	eP	13 33 48.3
	MNA	eP	13 33 50.9

USGS 13h21m39.0s 28.7N 140.5E
h=45km mb=4.8
Bonin Islands Region

May 30	FRI	e(PKP)	14 07 17.7
	JASI	ePKPd	14 07 19.3
	MHC	ePKP	14 07 20.2
	BRK	e(PKP)	14 07 21.2
	MIN	e(PKP)	14 07 24.1
	WDC	ePKP	14 07 24.3
	ORV	e(PKP)	14 07 24.6

USGS 13h48m23.9s 56.8S 25.5W
h=33km mb=5.2 Ms=5.4
South Sandwich Islands Region

May 30	PCC	eP	17 08 39.8
	GCC	eP	17 08 40.2
	BRK	e(P)	17 08 40.9
	PRS	e(P)	17 08 41.2
	MHC	eP	17 08 42.6
	FHC	e(P)	17 08 42.9
	PRI	eP	17 08 43.4
	WDC	iPc	17 08 46.6
	JASI	ePc	17 08 47.4
	FRI	eP	17 08 47.8
	ORV	ePc	17 08 47.9
	MIN	eP	17 08 48.5
	MNA	eP	17 08 56.3

USGS 16h56m19.6s 19.2S 169.0E
h=177km mb=4.9
Vanuatu Islands

May 30	WDC	e(P)	18 59 13.6
	ORV	eP	18 59 19.9
	BRK	e(P)	18 59 22.2
	BKS	eP	18 59 22.5
		eS	19 09 22.8
		eSS	19 14 28.0
		eLr	19 22 05.0
		e	19 23 00.0
		AMP(μm)	PER(s)
		PZ 0.028	0.8
		LZ 1.3	20.
		LN 0.71	20.
		LE 1.1	20.
	MHC	e	18 59 [illegible]
	JASI	e(P)	18 59 [illegible]
		e	18 59 36.2
	PRS	e	18 59 29.4
	LLA	e	18 59 30.3
	PRI	e	18 59 33
	FRI	e(P)	18 59 33.4

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DATE	STA	PHASE	TIME (UTC)
	MNA	e(P)	18 59 35.3
BRK Ms=5.2 Distance=74°			
USGS 18h47m23.6s 28.8N 140.3E			
h=40km mb=5.3 Ms=5.2			
Bonin Islands Region			
May 30	FHC	e(P)	19 06 15.7
	WDC	eP	19 06 20.6
	ORV	iPc	19 06 27.0
		e	19 06 33.7
	MHC	e(P)	19 06 32.5
	JAS1	e(P)	19 06 35.5
	PRS	e(P)	19 06 36.2
	LLA	e(P)	19 06 37.0
	FRI	eP	19 06 40.7
	MNA	e(P)	19 06 43.0
USGS 18h54m30.4s 28.8N 140.5E			
h=33km mb=4.9			
Bonin Islands Region			
May 30	MIN	e	20 10 40
	WDC	e(P)	20 10 42.0
	ORV	eP	20 10 48.3
	JAS1	eP	20 10 56.9
	FRI	e	20 10 59
USGS 19h58m50.6s 28.6N 140.3E			
h=33km mb=4.7			
Bonin Islands Region			
May 30	WDC	e(P)	20 12 23.2
	ORV	eP	20 12 29.3
	JAS1	e	20 12 37.8
	FRI	e(P)	20 12 43.3
USGS 20h00m34.6s 28.6N 140.5E			
h=52km mb=4.9 Ms=4.7			
Bonin Islands Region			
May 30	ORV	iP	23 32 07.2
	MNA	e	23 32 23.5
USGS 23h20m10.8s 28.8N 140.4E			
h=37km mb=4.6 Ms=3.8			
Bonin Islands Region			
May 31	WDC	e(P)	01 46 16.2
	ORV	eP	01 46 22.6
	JAS1	eP	01 46 31.0
	FRI	e(P)	01 46 35.2
	MNA	eP	01 46 38.6
USGS 01h34m25.2s 28.9N 140.4E			
h=33km mb=4.7 Ms=4.1			
Bonin Islands Region			
May 31	WDC	eP	07 37 06.2
	MIN	eP	07 37 10.2
	ORV	eP	07 37 10.7
	BRK	e(P)	07 37 11.0
	BKS	eP	07 37 11.1
		e	07 37 25.1
		eS	07 47 42.0
		eSS	07 53 22.8
		e(SSS)	07 56 38.8
		eLg	07 59 20.5
		eLr	08 03 38.4
		AMP(m)	PER(s)
		PZ 0.033	0.9
		LZ 4.1	20.
		LN 2.6	20.
		LE 3.4	20.
	PCC	e(P)	07 37 13.1
	MHC	e	07 37 14.0
	PRS	e(P)	07 37 16
	JAS1	eP	07 37 16.8
	PRI	e(P)	07 37 18.7

DATE	STA	PHASE	TIME (UTC)
	FRI	e(P)	07 37 20.4
	MNA	eP	07 37 25.2
BRK Ms=5.9 Distance=86°			
USGS 07h24m34.1s 12.2N 144.3E			
h=32km mb=5.5 Ms=6.0			
South of Mariana Islands			
May 31	WDC	e(P)	10 27 21.3
		e	10 27 32.5
	ORV	e(P)	10 27 28.8
		e	10 27 39.6
	JAS1	e(P)	10 27 36.8
		e	10 27 48.6
	FRI	e(P)	10 27 42.6
		e	10 27 53.7
USGS 10h15m53.4s 32.7N 142.3E			
h=41km mb=4.7			
South of Honshu, Japan			
May 31	MNA	eP	16 06 19.1
		e	16 06 42.5
	JAS1	e	16 06 28
		e	16 06 51.6
	PRI	e	16 06 44.5
	WDC	e	16 06 49.8
		e	16 07 13.7
	MHC	e	16 06 56.7
Jun 1	WDC	ePd	02 15 46.0
	MIN	eP	02 15 48.7
	BRK	e	02 15 49.2
	BKS	eP	02 15 49.9
		e	02 16 02.0
		e	02 16 12.5
		e	02 38 00
		eLr	02 41 40
		AMP(m)	PER(s)
		PZ 0.026	1.0
		LZ 1.5	20.
		LN 0.0	20.
		LE 1.4	20.
	ORV	eP	02 15 50.4
	MHC	eP	02 15 52.3
	PRS	e	02 15 54.8
	JAS1	eP	02 15 56.5
	PRI	eP	02 15 58.3
	FRI	eP	02 16 00.1
	MNA	eP	02 16 04.7
USGS 02h03m12.5s 12.2N 144.4E			
h=23km mb=5.7 Ms=5.4			
South of Mariana Islands			
Jun 1	WDC	eP	09 57 02.2
	MIN	eP	09 57 05.8
		epP	09 57 25.2
	ORV	eP	09 57 08.9
		ipP	09 57 28.2
	JAS1	eP	09 57 19.7
		ipP	09 57 39.2
USGS 09h46m08.1s 41.6N 142.9E			
h=72km mb=5.2			
Hokkaido, Japan Region			
Jun 2	PRI	e	16 39 34.6
	LLA	e	16 39 37.0
	PRS	e	16 39 37.1
	MNA	eP	16 39 37.9
	FRI	e	16 39 38.5
	JAS1	eP	16 39 41.7
	BKS	e(P)	16 39 48.0
		e	16 50 20
		e	16 56 06
		e	17 00 06.0

DATE	STA	PHASE	TIME (UTC)
		eLr	17 08 48
		AMP(m)	PER(s)
		LZ 1.8	20.
		LN 1.4	20.
		LE 1.4	20.
	ORV	e	16 39 49.3
	WDC	e	16 39 49.5
BRK Ms=5.5 Distance=88°			
USGS 16h26m58.4s 37.7S 73.7W			
h=33km mb=5.5 Ms=5.5			
Near Coast of Central Chile			
Jun 3	FRI	ePc	02 52 24.3
	MNA	iPc	02 52 25.0
	PRI	ePc	02 52 26.0
	LLA	eP	02 52 29.8
	PRS	eP	02 52 31.4
	JAS1	iPc	02 52 33.4
	MHC	ePc	02 52 38.1
	GCC	eP	02 52 38.4
	BKS	eP	02 52 44.0
		e	02 53 03.8
		e	02 53 09.8
		ePcP	02 54 17.1
		ePP	02 54 37.6
		ePPP	02 55 17.4
		e	02 58 42
		eS	02 59 22
		e	03 01 42.4
		eLg	03 02 48
		ePKP	03 04 04
		eLr	03 04 42
		AMP(m)	PER(s)
		PZ 0.056	1.2
		LZ 14	20.
		LN 11	20.
		LE 36	20.
	ORV	eP	02 52 47.4
	MIN	eP	02 52 51.9
	WDC	e	02 52 55.3
	FHC	eP	02 53 06.4
BRK Ms=6.3 Distance=45°			
USGS 02h45m32.0s 13.2N 90.1W			
h=66km mb=5.2			
Near Coast of Guatemala			
Jun 3	WDC	eP	08 23 48.7
		epP	08 24 00.0
		e	08 24 34.0
	MIN	e	08 23 54.1
	ORV	eP	08 23 58.0
	JAS1	eP	08 24 11.0
		ipP	08 24 21.6
	MNA	eP	08 24 18.0
	FRI	eP	08 24 19.0
USGS 08h14m41.1s 52.5N 160.4E			
h=37km mb=5.1 Ms=5.0			
Off East Coast of Kamchatka			
Jun 3	GCC	ePc	12 17 38.4
	PCC	eP	12 17 38.5
	SAO	eP	12 17 39.4
	PRS	ePc	12 17 39.5
	BRK	eP	12 17 40.0
	BKS	ePc	12 17 40.6
		e(PcP)	12 18 16.4
		eS	12 27 00
		eSS	12 30 58
		eLg	12 34 36
		eLr	12 38 16
		AMP(m)	PER(s)
		PZ 0.30	1.0
		LZ 97	20.

DATE	STA	PHASE	TIME (UTC)
		LNE	91 20.
		LNW	18 20.
	PRI	ePc	12 17 40.9
	MHC	ePc	12 17 41.2
	LLA	ePc	12 17 41.2
	FHC	eP	12 17 45.6
	FRI	iPc	12 17 46.7
	JAS1	iPc	12 17 47.5
		i	12 18 07.5
		e	12 45 41
	ORV	iPc	12 17 48.9
	WDC	iPc	12 17 49.2
		i	12 18 08.3
	MIN	ePc	12 17 51.2
	MNA	iPc	12 17 58.0
BRK Ms=7.0 Distance=71°			
USGS 12h06m21.1s 15.3S 173.5W			
h=33km mb=6.2 Ms=6.8			
Tonga Islands			
Jun 3	FHC	ePc	18 42 22.1
	WDC	ePc	18 42 24.6
	MIN	ePc	18 42 27.7
	ORV	ePc	18 42 32.7
	BRK	eP	18 42 43.3
	BKS	eP	18 42 45
		AMP(m)	PER(s)
		PZ 0.035	1.0
	MNA	ePc	18 42 45.8
	JAS1	iPc	18 42 46.6
	MHC	eP	18 42 48.9
	PRI	ePc	18 42 59.1
USGS 18h32m53.3s 78.2N 126.4E			
h=10km mb=5.1 Ms=4.7			
East of Severnaya Zemlya			
Jun 3	WDC	ePc	22 10 53.5
		e	22 11 04.2
	ORV	ePc	22 10 56.5
		e	22 11 06.9
	JAS1	eP	22 10 59.8
		i	22 11 10.4
	FRI	e(P)	22 11 02
		e	22 11 11.4
	MNA	eP	22 11 07.9
		e	22 11 18.2
USGS 21h57m52.3s 5.9S 151.4E			
h=41km mb=5.4 Ms=5.0			
New Britain Region			
Jun 3	FRI	e	23 35 03
	PRS	e	23 35 04
	MNA	eP	23 35 07.6
	JAS1	e(P)	23 35 11
	MHC	e	23 35 15
	ORV	eP	23 35 31.3
USGS 23h30m02.3s 17.7N 107.0W			
h=10km mb=4.5			
Off Coast of Jalisco, Mexico			
Jun 4	FHC	ePc	04 10 07.2
	WDC	eP	04 10 10.2
		ePP	04 13 20
		ePKKP1	04 26 16.8
		ePKKP2	04 26 37.5
	MIN	ePc	04 10 14.3
		ePKKP	04 26 26.1
	BRK	ePc	04 10 15.0
	PCC	eP	04 10 15.8
	ORV	ePc	04 10 15.9
		ePKKP1	04 26 15
		ePKKP2	04 26 35.2
	BKS	e(P)	04 10 16.8

DATE	STA	PHASE	TIME (UTC)
		e	04 14 32
		e	04 29 30
		e	04 33 28
		e	04 38 44
		eLr	04 43 20
		AMP(m)	PER(s)
		PZ 0.035	1.0
	MHC	ePc	04 10 19.2
	SAO	e	04 10 21
	PRS	ePc	04 10 21.5
	JAS1	ePc	04 10 22.1
		ePP	04 13 35
		ePKKP1	04 26 15
		ePKKP2	04 26 29.8
	PRI	ePc	04 10 24.6
	FRI	ePc	04 10 25.9
	MNA	ePc	04 10 29.6
		ePP	04 13 42
		ePKKP1	04 26 05.8
		ePKKP2	04 26 23.3
	LLA	ePKKP1	04 26 11.5
		ePKKP2	04 26 29.9
USGS 03h56m27.0s 4.9N 127.5E			
h=94km mb=6.0			
Talaud Islands			
Jun 4	MNA	ePc	11 11 12.9
		ePcP	11 13 42
	FRI	ePc	11 11 13.3
	PRI	eP	11 11 14.7
		ePcP	11 13 13.44
	LLA	eP	11 11 19
	PRS	eP	11 11 19.9
	JAS1	eP	11 11 22.2
		ePcP	11 13 45
	SAO	e(P)	11 11 24
	MHC	ePc	11 11 26.8
	GCC	eP	11 11 27.1
	BKS	eP	11 11 33.5
		e(PcP)	11 13 50.5
		eS	11 17 30.0
		e	11 18 26
		eLg	11 22 38
		eLr	11 27 00
		AMP(m)	PER(s)
		PZ 0.048	1.0
		LZ 4.8	18.0
		LN 4.7	18.0
		LE 4.8	18.0
	ORV	ePc	11 11 36.7
		ePcP	11 13 41
	MIN	ePc	11 11 40.3
	WDC	eP	11 11 44.0
		ePcP	11 13 53
	FHC	ePc	11 11 55.4
BRK Ms=5.4 Distance=37°			
USGS 11h40m18.6s 13.4N 89.9W			
h=42km mb=5.0 Ms=5.0			
El Salvador			
Jun 4	MNA	e	21 48 31
	WDC	e	21 48 33
	FRI	eP	21 48 40
		e	21 48 45.2
	JAS1	e	21 48 47
		e	21 48 52.4
USGS 21h38m46.4s 57.1N 33.7W			
h=10km mb=5.1 Ms=4.8			
North Atlantic Ocean			
Jun 5	WDC	ePc	01 15 50.2
	MIN	e	01 15 53.5
	ORV	ePc	01 15 56.2

DATE	STA	PHASE	TIME (UTC)
	PCC	eP	01 15 57.8
	BRK	e(P)	01 15 57.8
	BKS	e(P)	01 15 58.3
		AMP(m)	PER(s)
		PZ 0.048	1.0
	JAS1	ePc	01 16 04.8
	PRS	eP	01 16 05.3
	LLA	eP	01 16 06.2
	PRI	e(P)	01 16 09.0
	FRI	ePc	01 16 09.2
	MNA	e(P)	01 16 12.2
USGS 01h04m07.6s 28.6N 141.0E			
h=87km mb=5.1			
Bonin Islands Region			
Jun 5	MIN	e(P)	01 51 24.7
	WDC	e	01 51 25
	ORV	e(P)	01 51 27
	JAS1	e	01 51 36.8
USGS 01h41m42.4s 56.9N 33.7W			
h=10km mb=5.1 Ms=5.1			
North Atlantic Ocean			
Jun 5	MNA	ePc	04 28 19.3
	PRI	eP	04 28 20.3
	JAS1	eP	04 28 27.2
	ORV	eP	04 28 41.8
	MIN	eP	04 28 45.8
	WDC	eP	04 28 50.0
USGS 04h21m42.2s 14.1N 92.0W			
h=69km mb=4.9			
Guatemala			
Jun 5	PRI	ePd	15 09 09.2
	FRI	e(P)	15 09 16
	JAS1	eP	15 09 16.2
	ORV	eP	15 09 17.2
	WDC	eP	15 09 17.3
	MIN	eP	15 09 20.5
	MNA	eP	15 09 26.6
USGS 14h58m12.9s 15.1S 177.4W			
h=376km mb=4.8			
Fiji Islands Region			
Jun 5	BKS	e(P)	23 17 48
		eS	23 28 08
		eSS	23 34 30
		eLg	23 41 30
		eLr	23 45 16
		AMP(m)	PER(s)
		LZ 15	20.
		LN 4.1	20.
		LE 11	20.
	MNA	e	23 17 59.0
	WDC	e	23 18 09.5
	ORV	e	23 18 10
	JAS1	e	23 18 22.8
		e	23 18 49.3
		e	23 21 32.1
	MIN	e	23 18 23
BRK Ms=6.3 Distance=89°			
USGS 23h04m55.5s 4.6S 153.2E			
h=68km mb=5.6			
New Ireland Region			
Jun 6	MNA	eP	02 53 12.3
	FRI	e	02 53 18.5
	JAS1	eP	02 53 20.4
	ORV	e	02 53 23
	PRI	e	02 53 23.0
	LLA	e	02 53 24
	WDC	e	02 53 25
	BKS	eP	02 53 31

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DATE	STA	PHASE	TIME (UTC)
		ePP	02 57 08
		eS	03 03 46
		ePPS	03 05 44
		eSS	03 10 53.6
		e	03 11 00
		eLq	03 21 06
		eLr	03 23 42
		AMP(μa)	PER(s)
		LZ 20	20.
		LN 9.9	20.
		LE 17	20.

BRK Ms=6.6 Distance=93°
USGS 02h40m12.9s 0.9N 28.4W
h=10km mb=6.3 Ms=6.5
Central Mid-Atlantic Ridge

DATE	STA	PHASE	TIME (UTC)
Jun 6	FHC	e(P)	04 56 26.6
	WDC	iPd	04 56 32.0
	ORV	iPd	04 56 37.8
	BRK	eP	04 56 39.8
	MHC	eP	04 56 43.5
	SAO	e(P)	04 56 46
	JAS1	ePd	04 56 46.7
	PRS	eP	04 56 47.2
	LLA	eP	04 56 48.2
	PRI	e(P)	04 56 50.8
	FRI	iP	04 56 51.6
	MNA	ePd	04 56 53.9

USGS 04h44m41.7s 28.7N 140.4E
h=39km mb=5.2
Bonin Islands Region

DATE	STA	PHASE	TIME (UTC)
Jun 6	WDC	iPd	06 27 24.5
	ORV	ePd	06 27 30.3
	JAS1	e(P)	06 27 39.3
	FRI	eP	06 27 44.0
	MNA	eP	06 27 46.6

USGS 06h15m36.0s 29.0N 140.6E
h=42km mb=4.9 Ms=5.2
South of Honshu, Japan

DATE	STA	PHASE	TIME (UTC)
Jun 6	PRS	eP	14 40 31.5
	GCC	eP	14 40 31.7
	PRI	e(P)	14 40 33
		e	14 40 45.5
	MHC	eP	14 40 34.2
	BKS	eP	14 40 34.6
		e	14 40 40.8
		e	14 40 46.1
		eLr	15 07 26
		AMP(μa)	PER(s)
		PZ 0.039	1.0
		LZ 2.3	20.
		LN 1.4	20.
		LE 1.1	20.
	FRI	eP	14 40 37.6
		e	14 40 50.7
	JAS1	eP	14 40 38.5
		e	14 40 51.2
	ORV	eP	14 40 41.2
	WDC	eP	14 40 42.1
	MNA	eP	14 40 47.0
		e	14 40 59.0

BRK Ms=5.5 Distance=86°
USGS 14h27m54.3s 31.3S 177.8W
h=33km mb=5.3 Ms=5.2
Kermadec Islands Region

DATE	STA	PHASE	TIME (UTC)
Jun 6	MNA	eP	19 08 53.2

DATE	STA	PHASE	TIME (UTC)
Jun 6	MNA	ePc	21 40 04.5
	JAS1	e(P)	21 40 13.6
	ORV	ePc	21 40 25.0

USGS 21h31m08.8s 3.3N 78.6W
h=34km mb=5.0 Ms=4.2
South of Panama

DATE	STA	PHASE	TIME (UTC)
Jun 7	WDC	eP	01 05 08.6
	ORV	eP	01 05 14.5
	BKS	e	01 05 16.3
		e	01 05 18.8
	MHC	eP	01 05 20.2
	JAS1	eP	01 05 23.4
	PRS	eP	01 05 23.8
	LLA	eP	01 05 24.9
	PRI	e(P)	01 05 27.5
	FRI	eP	01 05 28.2
	MNA	eP	01 05 30.8

USGS 00h53m15.5s 28.8N 140.5E
h=15km mb=5.0
Bonin Islands Region

DATE	STA	PHASE	TIME (UTC)
Jun 7	WDC	ePc	05 44 30.8
	MIN	eP	05 44 34
	ORV	ePc	05 44 36.2
	BKS	eP	05 44 39.2
		e	05 44 46.7
		AMP(μa)	PER(s)
		PZ 0.044	1.2
	MHC	eP	05 44 43.6
	JAS1	eP	05 44 45.0
	FRI	eP	05 44 49.1
	MNA	eP	05 44 52.7

USGS 05h32m41.3s 28.5N 140.4E
h=48km mb=4.8
Bonin Islands Region

DATE	STA	PHASE	TIME (UTC)
Jun 7	WDC	ePc	06 13 26.4
	MIN	ePc	06 13 31.0
	ORV	ePc	06 13 32.5
	BRK	e(P)c	06 13 33.0
	MHC	e(P)	06 13 37.4
	JAS1	ePc	06 13 41.3
	FRI	e	06 13 46.0
	MNA	eP	06 13 48.5

USGS 06h01m34.9s 28.6N 140.4E
h=33km mb=4.9
Bonin Islands Region

DATE	STA	PHASE	TIME (UTC)
Jun 7	FHC	e	09 48 00
	WDC	eP	09 48 01.7
		e	09 48 08
	MIN	eP	09 48 03.9
	ORV	eP	09 48 07.0
		i	09 48 13.6
	BRK	eP	09 48 08.9
		e	09 48 15.4
	BKS	eP	09 48 10.3
		e	09 48 15.6
		eLr	10 11 44
		AMP(μa)	PER(s)
		PZ 0.044	0.9
		LZ 1.9	20.
		LN 0.0	20.
		LE 1.7	20.
	MHC	eP	09 48 13.4
		e	09 48 19.0
	JAS1	eP	09 48 15.7
		i	09 48 22.3
	SAO	e	09 48 16
	PRI	eP	09 48 20.0
	FRI	eP	09 48 21.0
		e	09 48 27.2
	MNA	eP	09 48 23.8
		i	09 48 29.6

BRK Ms=5.4 Distance=78°

USGS 09h36m12.1s 28.7N 140.3E
h=48km mb=5.1 Ms=5.4
Bonin Islands Region

DATE	STA	PHASE	TIME (UTC)
Jun 8	WDC	eP	14 27 30.6
	MIN	eP	14 27 34.3
	ORV	eP	14 27 36.2
	JAS1	eP	14 27 43.8
	FRI	eP	14 27 48.1
	MNA	eP	14 27 51.8

USGS 14h15m41.6s 22.2N 143.6E
h=141km mb=4.9
Volcano Islands Region

DATE	STA	PHASE	TIME (UTC)
Jun 9	PRI	eP	08 15 13.6
	MHC	eP	08 15 14.2
	BKS	e	08 15 14.2
	FRI	e	08 15 18.7
	JAS1	iPc	08 15 19.4
	ORV	ePc	08 15 20.8
	WDC	iPc	08 15 21.1
	MIN	eP	08 15 23.5
	MNA	eP	08 15 27.5

USGS 08h03m44.4s 24.4S 179.9E
h=519km mb=4.8
South of Fiji Islands

DATE	STA	PHASE	TIME (UTC)
Jun 9	JAS1	eP	16 52 09.3
		epP	16 52 42.8
	ORV	ePd	16 52 09.4
		epP	16 52 42.8
	WDC	e	16 52 12.5
		epP	16 52 42.5
	MIN	e	16 52 14
		epP	16 52 44.0
	MNA	ePd	16 52 17.9
		epP	16 52 51.4
	BRK	epP	16 52 37.5
	FRI	epP	16 52 44.0

USGS 16h39m34.8s 21.6S 170.4E
h=149km mb=5.3
Loyalty Islands Region

DATE	STA	PHASE	TIME (UTC)
Jun 10	MHC	iPc	00 57 08.4
	PCC	iPd	00 57 11.9
	BRK	iPc	00 57 12.8
	BKS	iPc	00 57 12.85
		iSe	00 57 20.0
	GCC	iPd	00 57 13.6
	ZSP	iPc	00 57 14.2
		iS	00 57 22.2
	LLA	eP	00 57 23.9
	JAS1	iPd	00 57 24.5
	FRI	e	00 57 31.8
	PRI	e	00 57 32.5
	ORV	e	00 57 37.1
	MNA	iPc	00 57 44.7

BRK 00h57m03.3s 37.5N 121.8W
h=5km ML=3.0(6) Mo=1.7E21(4)
5 km N of Calaveras Reservoir, CA

DATE	STA	PHASE	TIME (UTC)
Jun 10	MNA	e	03 32 29.2
	JAS1	e	03 32 39.5
	BKS	e(P)	03 32 47
		eS	03 40 18
		e	03 44 00
		eLr	03 50 57
		AMP(μa)	PER(s)
		LZ 0.89	20.
		LN 1.1	20.
		LE 1.4	20.
	ORV	e	03 32 49.8

USGS 03h23m31.7s 3.0N 78.6W
h=18km mb=5.6 Ms=4.7
South of Panama

DATE	STA	PHASE	TIME (UTC)
Jun 10	PCC	ePd	07 44 53.3
	GCC	eP	07 44 53.3
	SAO	eP	07 44 54.5
	BRK	eP	07 44 55.0
	BKS	ePd	07 44 55.2
		AMP(μa)	PER(s)
		PZ 0.10	0.8
	MHC	eP	07 44 56.0
	LLA	eP	07 44 56.2
	PRI	ePd	07 44 56.4
	FHC	eP	07 44 58.4
	FRI	eP	07 45 01.8
	JAS1	iPd	07 45 01.9
	WDC	iPd	07 45 02.5
	ORV	iPd	07 45 02.6
	MIN	eP	07 45 04.5
	MNA	iPd	07 45 12.0

USGS 07h33m56.4s 14.8S 178.0W
h=366km mb=5.0
Fiji Islands Region

DATE	STA	PHASE	TIME (UTC)
Jun 10	WDC	eP	14 07 56.1
	ORV	eP	14 08 15.0
	JAS1	eP	14 08 42.0

USGS 14h07m01.9s 42.6N 126.4W
h=10km mb=4.5 Ms=3.7
Off Coast of Oregon

DATE	STA	PHASE	TIME (UTC)
Jun 10	FRI	eP	15 49 01
		e	16 18 51
	PRI	eP	15 49 02.7
	MNA	ePc	15 49 03.1
		epP	15 49 47.8
		e	16 15 43.2
		e	16 18 51.1
	LLA	eP	15 49 04.5
		epP	15 49 49
	PRS	eP	15 49 04.8
		epP	15 49 50
	JAS1	eP	15 49 07.3
		ipP	15 49 52.2
		e	16 19 47.1
	GCC	eP	15 49 09.1
		epP	15 49 53.5
	MHC	ePc	15 49 09.4
		epP	15 49 54.0
	PCC	eP	15 49 11.4
	BRK	eP	15 49 12.5
		epP	15 49 57
	BKS	iPd	15 49 14
		e	15 49 36
		i(SKS)	15 59 25
		e(SKKS)	16 00 36
		e(SS)	16 05 18
		e(Lr)	16 12 06
		AMP(μa)	PER(s)
		PZ 0.13	1.5
		LZ 0.75	20.
		LN 1.1	20.
		LE 1.1	20.
	ORV	eP	15 49 16.3
		epP	15 50 00
	WDC	eP	15 49 20.9
		epP	15 50 05.6
	FHC	eP	15 49 27.7

BRK ab=5.1 h=180km Distance=83°
USGS 15h37m00.9s 28.0S 67.0W
h=151km mb=5.8
Catamarca Province, Argentina

DATE	STA	PHASE	TIME (UTC)
Jun 10	FRI	e	23 20 10
		ePcP	23 21 55
	MNA	ePc	23 20 11.1
		epP	23 20 17.0
	PRI	e	23 20 13
		ePcP	23 21 50.7
	JAS1	ePc	23 20 19.7
		epP	23 20 25.9
		ePcP	23 21 55.8
	MHC	e	23 20 23
	ORV	eP	23 20 32.5
		ePcP	23 22 05.7
	WDC	ePd	23 20 41.0
		ePcP	23 22 11.0
	FHC	eP	23 20 52.9
	LLA	ePcP	23 21 52.9
	BKS	e(Lr)	23 36 00

USGS 23h13m13.0s 13.2N 90.0W
h=33km mb=4.6 Ms=3.8
El Salvador

DATE	STA	PHASE	TIME (UTC)
Jun 11	GCC	e(P)	17 14 03.7
	JAS1	e(P)	17 14 11.8
	FRI	e(P)	17 14 12.4
	ORV	e(P)	17 14 13.3
	WDC	e(P)	17 14 13.5
	MNA	e(P)	17 14 20.7

USGS 17h02m59.4s 21.3S 179.4W
h=626km mb=4.8
Fiji Islands Region

DATE	STA	PHASE	TIME (UTC)
Jun 12	MNA	e(P)	07 12 47.8
	JAS1	eP	07 12 57.7
	ORV	e(P)	07 13 11.0
	MIN	e(P)	07 13 14.5
	WDC	e	07 13 19.3
	FHC	e	07 13 29

USGS 07h05m51.8s 13.1N 90.1W
h=33km mb=4.5
Near Coast of Guatemala

DATE	STA	PHASE	TIME (UTC)
Jun 12	MNA	eP	11 09 20.8
	JAS1	eP	11 09 29.5
	ORV	e(P)	11 09 43.1

USGS 11h03m04.9s 15.8N 94.0W
h=63km mb=5.5
Near Coast of Chiapas, Mexico

DATE	STA	PHASE	TIME (UTC)
Jun 12	MNA	iPc	15 15 31.5
	FRI	iPc	15 15 43.6
	JAS1	iPc	15 15 51.6
		iPg	15 16 00.0
		eS	15 16 50.0
	PRI	iPc	15 15 57.2
	LLA	iPc	15 15 57.6
	SAO	eP	15 16 02.8
	PRS	ePc	15 16 03.2
		e	15 16 10.3
	MHC	iPgc	15 16 05.0
		iPg	15 16 14.2
		eS	15 17 10.2
	GCC	e(P)	15 16 07.6
		e	15 16 15.0
	ORV	iPc	15 16 10.6
	BRK	eP	15 16 11.4
	BKS	iPc	15 16 11.5
		i	15 16 22
		i	15 18 04
	ZSP	eP	15 16 12.3
	PCC	eP	15 16 12.6
	MIN	iPc	15 16 18.1
	WDC	iPc	15 16 26.6
		e	15 16 48.5

DATE	STA	PHASE	TIME (UTC)
	FHC	e	15 16 42.5

BRK ML=5.4(6)
USGS 15h15m00.1s 37.2N 116.5W
h=0km mb=5.5 Ms=4.5
Underground Nuclear Explosion, NTS
(Salut)

DATE	STA	PHASE	TIME (UTC)
Jun 12	MNA	iPc	17 30 36.8
	FRI	ePc	17 30 47.8
		i	17 30 53.4
	JAS1	iPc	17 30 57.0
		i	17 31 05.7
		i	17 31 07.4
	PRI	e(P)	17 31 00.4
		e	17 31 09.7
	LLA	e	17 31 02.6
		e	17 31 13.7
	MHC	e	17 31 08.0
	SAO	e(P)	17 31 16
	ORV	eP	17 31 16.0
	MIN	e	17 31 23.3
	BKS	e	17 31 29.3
	WDC	eP	17 31 31.0

BRK ML=4.2(4)
USGS 17h30m00.0s 37.1N 116.1W
h=0km mb=4.4
Underground Nuclear Explosion, NTS
(Ville)

DATE	STA	PHASE	TIME (UTC)
Jun 12	FHC	eP	17 35 55.4
	WDC	ePc	17 35 59.5
	MIN	e(P)	17 36 02
	ORV	ePc	17 36 04.5
	BRK	e(P)	17 36 10
	BKS	e(P)	17 36 10
		eS	17 46 40
		e(ScS)	17 47 20
		e	17 48 24
		eLr	18 02 00
		AMP(μa)	PER(s)
		LZ 1.4	20.
		LN 1.1	20.
		LE 1.1	20.
	MHC	eP	17 36 10.8
	JAS1	ePc	17 36 12.5
	PRS	eP	17 36 14.0
	LLA	ePc	17 36 14.7
	FRI	ePc	17 36 16.9
	PRI	eP	17 36 17.0
	MNA	e(P)	17 36 18

USGS 17h22m51.6s 24.6N 122.1E
h=20km mb=5.2 Ms=5.8
Taiwan Region

DATE	STA	PHASE	TIME (UTC)
Jun 13	ZSP	eP	01 53 43.5
		eS	01 53 57.1
	BRK	eP	01 53 43.7
		iS	01 53 58.3
	BKS	eP	01 53 44.0
		eS	01 53 59.2
	ORV	eP	01 53 45.9
	PCC	eP	01 53 47.5
	MHC	e(P)	01 53 53.7
	MIN	e(P)	01 53 54.7
	GCC	e(P)	01 53 56.1
	JAS1	iPd	01 53 58.9
	WDC	eP	01 53 59.6
	SAO	eP	01 54 01.7
	FHC	e	01 54 11
	MNA	e	01 54 [illegible]

BRK 01h53m23.9s 38.8N 122.[illegible]W
h=1km ML=3.1(4)
The Geysers, 25 km S of C[illegible]

International Seismological Centre

DATE	STA	PHASE	TIME (UTC)
CA			
Jun 13	WDC	eP	04 25 14.2
	MIN	ePc	04 25 18.4
	ORV	eP	04 25 24.0
	JAS1	eP	04 25 41.2
	MHC	ePc	04 25 42.8
	MNA	eP	04 25 44.7
	LLA	e(P)	04 25 50.7
	PRI	ePc	04 25 55.9
USGS 04h19m25.4s 63.6N 149.0W			
h=33km mb=4.9			
Central Alaska			
Jun 13	FRI	eP	11 48 57.9
	MNA	iPc	11 48 58.0
		epP	11 49 43.7
		ePP	11 50 09.0
		eScP	11 54 52.5
	PRI	eP	11 49 01.6
		epP	11 49 46.2
		eScP	11 54 54.6
	LLA	e(P)	11 49 03.2
		eScP	11 55 55.8
	PRS	e(P)	11 49 05.3
		eScP	11 54 56.0
	JAS1	eP	11 49 06.7
		epP	11 49 53.0
		ePP	11 50 19.3
		eScP	11 54 56.6
	MHC	eP	11 49 12.0
	GCC	eP	11 49 12.1
	ORV	eP	11 49 20.9
		epP	11 50 06
		ePP	11 50 32.4
		eScP	11 55 02.5
	MIN	eP	11 49 24.4
	WDC	e	11 49 28.6
		eScP	11 55 06.0
	FHC	e	11 50 04.2
USGS 11h42m32.3s 14.7N 90.5W			
h=223km mb=5.0			
Guatemala			
Jun 13	FHC	ePc	19 47 41.2
	WDC	iPc	19 47 46.2
		ePP	19 50 38
	ORV	iPc	19 47 52.5
	BRK	eP	19 47 54.8
	PCC	ePc	19 47 55.1
	BKS	ePc	19 47 55.4
		AMP(μm)	PER(s)
	PZ	0.088	0.8
	GCC	ePc	19 47 58.2
	MHC	ePc	19 47 58.8
	SAO	eP	19 48 01
	JAS1	iPc	19 48 01.4
		e	19 48 33.8
		ePP	19 51 03
	PRS	ePc	19 48 02.8
	LLA	ePc	19 48 03.5
	PRI	ePc	19 48 06.2
		ePcP	19 48 13.5
	FRI	ePc	19 48 06.5
		ePP	19 51 12
	MNA	iPc	19 48 08.4
USGS 19h36m35.4s 33.1N 137.7E			
h=350km mb=4.9			
Near S. Coast of Honshu Japan			
Jun 14	FRI	ePd	07 49 47.7
	MNA	iPd	07 49 48.5
	PRI	eP	07 49 50.6
	LLA	ePd	07 49 52.9
	PRS	eP	07 49 55.2
	JAS1	ePd	07 49 57.0
	MHC	ePd	07 50 02.2
	GCC	eP	07 50 02.5
	ORV	eP	07 50 11.8
	MIN	ePd	07 50 15.9
	WDC	ePd	07 50 19.9
	FHC	ePd	07 50 31.9
USGS 07h43m57.9s 17.7N 94.6W			
h=154km mb=4.8			
Chiapas Mexico			
Jun 14	PRI	iPd	11 24 09.2
	LLA	iPd	11 24 16.0
	FRI	iPd	11 24 18.6
	PRS	eP	11 24 18.7
	SAO	iPd	11 24 22.2
	GCC	eP	11 24 28.8
	MHC	eP	11 24 29.0
	JAS1	iPd	11 24 31.8
		iS	11 24 53.9
	PCC	eP	11 24 36.5
	BRK	ePc	11 24 39.1
	BKS	eP	11 24 39.5
		eS	11 25 07.3
	ZSP	eP	11 24 40
	MNA	eP	11 24 48.2
	ORV	eP	11 24 57.5
	MIN	e	11 25 09.7
BRK 11h24m03.1s 36.2N 120.3W			
h=9km ML=3.4(6)			
10 km ENE Coalinga, CA			
Jun 14	FRI	eP	13 27 00.8
	PRI	eP	13 27 01.0
	LLA	eP	13 27 02.8
	MNA	iPd	13 27 04.0
		e	13 27 11.7
	GCC	eP	13 27 06.4
	JAS1	ePd	13 27 06.5
		i	13 27 15.8
	MHC	eP	13 27 07.3
		e	13 27 17
	BRK	eP	13 27 10.0
	ORV	ePd	13 27 15.1
		i	13 27 24.3
	MIN	eP	13 27 17.2
	WDC	eP	13 27 19.8
		e	13 27 29.1
	BKS	e(Lr)	13 56 04
USGS 13h14m14.8s 40.8S 75.0W			
h=33km mb=5.5 Ms=4.6			
Off Coast of Southern Chile			
Jun 15	FHC	ePc	01 09 52.9
	WDC	iPc	01 09 54.0
	MIN	iPc	01 09 55.9
	ORV	iPc	01 09 59.4
	BRK	eP	01 10 06.9
	BKS	eP	01 10 07.5
		AMP(μm)	PER(s)
	PZ	0.11	0.9
	MNA	iPc	01 10 08.3
	JAS1	iPc	01 10 08.5
	MHC	ePc	01 10 10.4
	GCC	eP	01 10 11.3
	SAO	eP	01 10 12.9
	FRI	iPc	01 10 13.3
	LLA	eP	01 10 14.4
	PRS	ePc	01 10 15.0
	PRI	eP	01 10 16.8
USGS 00h57m00.7s 49.9N 78.9E			
h=0km mb=6.0 Ms=4.4			
Eastern Kazakh, S.S.R.			
Jun 15	JAS1	eP	14 34 26.0
	ORV	iPc	14 34 52.2
Jun 16	WDC	e	00 47 11.5
	ORV	e	00 47 14.0
	JAS1	eP	00 47 23.0
	FRI	e	00 47 29.5
USGS 00h37m13.5s 71.4N 11.1W			
h=10km mb=5.1 Ms=4.6			
Jay Mayen Island Region			
Jun 16	WDC	e	21 09 51.6
	ORV	eP	21 09 52.6
	JAS1	eP	21 09 55.7
	MNA	e	21 10 09.5
USGS 20h56m22.9s 9.4S 148.5E			
h=5km mb=5.2			
East Papua New Guinea Region			
Jun 17	ORV	eP	06 45 25.6
	JAS1	eP	06 45 29.0
	MNA	e	06 45 37.8
USGS 06h31m59.7s 9.4S 148.6E			
h=30km mb=5.5			
East Papua New Guinea Region			
Jun 17	FHC	ePd	19 24 48.3
	WDC	iPd	19 24 52.9
		ePP	19 27 51
	ORV	ePd	19 24 58.7
	PCC	eP	19 25 01
	BRK	eP	19 25 01
	BKS	eP	19 25 01.8
		AMP(μm)	PER(s)
	PZ	0.087	1.0
	GCC	eP	19 25 04.5
	MHC	ePd	19 25 05.0
	SAO	eP	19 25 07
	JAS1	ePd	19 25 07.4
		ePP	19 28 20.4
	PRS	ePd	19 25 08.8
	LLA	eP	19 25 09.5
	FRI	ePd	19 25 12.0
	PRI	ePd	19 25 12.1
	MNA	iPd	19 25 14.1
USGS 19h12m38.8s 30.3N 132.7E			
h=26km mb=5.8 Ms=5.3			
Southeast of Shikoku Japan			
Jun 18	PRI	ePd	03 23 37.1
	FRI	e	03 23 42.0
	PRS	ePd	03 23 43.2
	GCC	eP	03 23 54.6
	JAS1	eP	03 23 57.2
	MNA	eP	03 23 57.6
	MHC	eP	03 23 57.7
BRK Mag=4.0			
PAS 03h22m28.6s 32.7 117.2			
h=6km ML=4.0			
Southern California			
Jun 19	PRS	e(P)	12 55 30.7
	PCC	e(P)	12 55 31.5
	PRI	e(P)	12 55 32.0
	BRK	e(P)	12 55 32.7
	JAS1	eP	12 55 39.6
	ORV	eP	12 55 40.9
	WDC	eP	12 55 41.6
	MIN	eP	12 55 44.5
	MNA	eP	12 55 50.0
USGS 12h44m10.6s 16.1S 173.2W			
h=33km mb=4.8 Ms=4.6			
Tonga Islands			
Jun 19	WDC	iPd	13 00 36.7
		iS	13 00 46.5
	MIN	eP	13 00 41.4
		eS	13 00 53.6
	ORV	eP	13 00 41.8
		eS	13 00 55.2
	JAS1	iPd	13 01 07.7
		eS	13 01 44.4
	MHC	e	13 01 11
BRK 13h00m25.0s 39.9N 122.7W			
h=8km ML=3.0(4)			
80 km WSW of Redding, CA			
Jun 19	PRS	ePc	20 11 32.1
	BRK	eP	20 11 33.5
	BKS	eP	20 11 34.0
		AMP(μm)	PER(s)
	PZ	0.055	0.9
	LLA	ePc	20 11 34.4
	PRI	iPc	20 11 34.5
	FHC	ePc	20 11 37.2
	FRI	eP	20 11 39.7
	JAS1	iPc	20 11 40.0
	WDC	iPc	20 11 40.8
	ORV	ePc	20 11 41.0
	MNA	ePc	20 11 50.2
USGS 20h00m39.5s 16.0S 178.0W			
h=465km mb=5.0			
Fiji Islands Region			
Jun 21	PRS	e(P)	04 43 31.8
	BRK	e	04 43 32.6
	PRI	eP	04 43 33.4
	MHC	e(P)	04 43 34.5
	BKS	iPd	04 43 35.2
		e	04 43 36.2
		e(PcP)	04 44 10.4
		e	04 45 11.6
		eS	04 54 00.0
		e	04 54 18.0
		e(PPS)	04 55 24.0
		eSS	04 58 56.0
		eLq	05 04 53.2
		eLr	05 09 07.2
		AMP(μm)	PER(s)
	PZ	0.054	1.0
	LZ	11	20.
	LN	7.7	20.
	LE	7.5	20.
	FRI	e	04 43 39
	JAS1	ePd	04 43 40.0
	ORV	ePd	04 43 42.2
	WDC	eP	04 43 42.2
	MIN	eP	04 43 44.4
	MNA	eP	04 43 48.1
BRK Ms=6.3 Distance=85°			
USGS 04h31m13.4s 28.4S 176.0W			
h=47km mb=5.4 Ms=5.9			
South of Tonga Islands			
Jun 22	MNA	eP	03 56 18.5
	JAS1	e	03 56 29.5
	MHC	e	03 56 30.9
	ORV	e	03 56 40.5
	MIN	e	03 56 44.0
USGS 03h49m23.3s 13.4N 90.0W			
h=33km mb=4.8			
El Salvador			
Jun 23	FRI	eP	07 07 05.5
	PRI	ePd	07 07 07.1
	MNA	ePd	07 07 07.3
	LLA	eP	07 07 09.8
	PRS	eP	07 07 10.2
	SAO	eP	07 07 11.3
	JAS1	iPd	07 07 12.3
	GCC	eP	07 07 14.5
	MHC	eP	07 07 14.8
	PCC	eP	07 07 17.0
	BRK	eP	07 07 17.9
	BKS	eP	07 07 18.5
		AMP(μm)	PER(s)
	PZ	0.076	1.3
	ORV	iPd	07 07 21.4
		e	07 08 09.0
	MIN	eP	07 07 23.2
	WDC	iPd	07 07 26.3
USGS 06h55m24.2s 24.0S 67.1W			
h=181km mb=5.6			
Chile-Argentina Border Region			
Jun 23	BRK	e	09 38 56.6
	GCC	eP	09 38 56.7
	PRS	eP	09 38 58.3
	WDC	eP	09 38 58.7
	MHC	eP	09 38 58.7
	PRI	eP	09 39 01.0
	ORV	eP	09 39 02.2
	MIN	eP	09 39 02.3
	JAS1	iPc	09 39 03.8
	FRI	eP	09 39 05.0
	MNA	eP	09 39 14.1
USGS 09h26m26.4s 11.0S 163.5E			
h=41km mb=5.1			
Solomon Islands			
Jun 23	PCC	e	13 14 06.0
	BRK	e	13 14 07.4
	GCC	eP	13 14 07.6
	BKS	iPd	13 14 08.3
		iPP	13 17 58
		ePPP	13 18 56
		iS	13 24 24
		eSS	13 30 16
		eLq	13 36 10
		eLr	13 39 46
		AMP(μm)	PER(s)
	PZ	0.022	0.8
	LZ	16	20.
	LN	8.2	20.
	LE	19	20.
	PRS	eP	13 14 09.0
	MHC	eP	13 14 09.8
	WDC	eP	13 14 10.3
	LLA	e	13 14 11.0
	PRI	e	13 14 11.8
	ORV	eP	13 14 12.6
	MIN	eP	13 14 13.8
	JAS1	ePc	13 14 14.5
	FRI	eP	13 14 15.3
	MNA	eP	13 14 24.0
BRK Ms=6.5 Distance=85°			
USGS 13h01m37.1s 11.0S 163.6E			
h=36km mb=5.7 Ms=6.5			
Solomon Islands			
Jun 23	GCC	e	13 58 57.8
	PRS	e	13 58 59.1
	MHC	e	13 58 59.8
	WDC	e	13 59 01.0
	PRI	e	13 59 02.0
	ORV	eP	13 59 02.4
	MIN	eP	13 59 03.3
	JAS1	eP	13 59 04.0
	FRI	e	13 59 05.8
	MNA	e	13 59 13.4
USGS 13h46m27.6s 10.9S 163.7E			
h=39km mb=5.6			
Solomon Islands			
Jun 23	GCC	eP	14 10 15.1
	BRK	eP	14 10 16.9
	PRS	eP	14 10 17.0
	MHC	eP	14 10 17.4
	WDC	eP	14 10 18.7
	PRI	eP	14 10 19.3
	ORV	eP	14 10 20.5
	JAS1	eP	14 10 22.0
	MIN	eP	14 10 22.6
	FRI	eP	14 10 23.4
	MNA	eP	14 10 31.9
USGS 13h57m45.3s 11.0S 163.7E			
h=33km mb=5.4 Ms=6.0			
Solomon Islands			
Jun 23	FHC	e	20 02 22.0
	PCC	eP	20 02 23.3
	GCC	eP	20 02 24.5
	BRK	eP	20 02 24.6
	BKS	iPc	20 02 24.8
		iS	20 12 54
		ePPS	20 14 12
		eSS	20 18 32
		eLq	20 24 24
		eLr	20 28 20
		AMP(μm)	PER(s)
	PZ	0.048	1.0
	LZ	8.9	20.
	LN	3.6	20.
	LE	6.4	20.
	PRS	eP	20 02 26.0
	MHC	eP	20 02 26.6
	WDC	eP	20 02 28.1
	LLA	eP	20 02 28.1
	PRI	eP	20 02 28.9
	MIN	e	20 02 29.5
	ORV	ePc	20 02 29.8
	JAS1	iPc	20 02 31.8
		e	20 05 57.3
		e	20 08 32.6
	FRI	eP	20 02 32.8
	MNA	eP	20 02 40.9
BRK Ms=6.1 Distance=88°			
USGS 19h49m54.5s 10.9S 163.8E			
h=32km mb=5.7 Ms=6.0			
Solomon Islands			
Jun 24	MNA	eP	03 06 47.7
	JAS1	eP	03 06 57.4
	ORV	e	03 07 11.5
USGS 02h59m54.5s 13.3N 89.8W			
h=71km mb=4.4			
El Salvador			
Jun 24	PRS	eP	05 55 20.2
	GCC	eP	05 55 20.5
	SAO	eP	05 55 21.1
	PRI	eP	05 55 22.0
	MHC	eP	05 55 23.0
	JAS1	eP	05 55 27.[illegible]
		e	05 57 [illegible]
	FRI	eP	05 55 [illegible]
	ORV	eP	05 55 [illegible]
	WDC	eP	05 55 [illegible]
	MNA	eP	05 55 [illegible]

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DATE	STA	PHASE	TIME (UTC)
USGS 05h44m29.0s 17.9S 178.7W			
h=591km mb=4.8			
Fiji Islands Region			
Jun 24	MNA	eP	16 29 37.3
	PRI	eP	16 29 38.6
	JAS1	eP	16 29 45.0
	GCC	eP	16 29 48
	MHC	eP	16 29 48.0
	ORV	eP	16 29 56.3
	WDC	eP	16 30 02.5
USGS 16h20m09.6s 1.9S 78.1W			
h=33km mb=5.2			
Ecuador			
Jun 24	PRI	eP	22 31 37.4
	MNA	eP	22 31 37.9
		epP	22 31 54.3
	LLA	eP	22 31 40.0
	PRS	ePd	22 31 41.0
	JAS1	eP	22 31 44.0
	GCC	eP	22 31 46.3
	MHC	ePd	22 31 46.7
	ORV	ePd	22 31 56.1
		ipP	22 32 12.4
		esP	22 32 21.8
	WDC	ePd	22 32 02.3
		epP	22 32 17.3
USGS 22h21m38.4s 8.8S 79.1W			
h=61km mb=5.3			
Near Coast of Northern Peru			
Jun 25	PRI	ePc	07 33 18.8
	MNA	eP	07 33 20
	LLA	ePc	07 33 21.3
	PRS	ePc	07 33 21.4
	JAS1	ePc	07 33 24.7
	GCC	ePc	07 33 25.5
	MHC	eP	07 33 26.2
	ORV	ePc	07 33 33.6
	WDC	ePc	07 33 38.7
USGS 07h20m55.2s 33.4S 71.9W			
h=33km mb=5.1			
Near Coast of Central Chile			
Jun 25	GCC	e	14 30 33
	PRS	eP	14 30 34.0
	MHC	eP	14 30 34.6
	BRK	e(P)	14 30 35
	SAO	e(P)	14 30 35
	PRI	eP	14 30 35.7
	LLA	eP	14 30 36.5
	WDC	eP	14 30 37.0
	ORV	eP	14 30 39.7
	JAS1	eP	14 30 39.8
	MIN	eP	14 30 42.0
	MNA	eP	14 30 49.7
USGS 14h17m57.8s 19.5S 168.8E			
h=62km mb=5.0			
Vanuatu Islands			
Jun 26	MNA	iPc	17 18 54.9
		e	17 19 12.8
		e	17 24 07.0
	PRI	e(P)	17 19 07.0
	JAS1	iPc	17 19 07.4
		e	17 19 23.8
		e	17 19 34.2
		e	17 24 13.8
	LLA	eP	17 19 09.2
	PRS	eP	17 19 11.7
	SAO	e	17 19 13
	ORV	iPc	17 19 14.2
	MIN	ePc	17 19 14.7
	MHC	eP	17 19 14.8
	GCC	eP	17 19 16.4
	BRK	ePc	17 19 17.8
	BKS	ePc	17 19 18.4
		ePcP	17 20 18
		ePPP	17 22 42
		eS	17 26 50
		eLg	17 39 22
		eLr	17 43 22
		AMP(μm)	PER(s)
		PZ 0.048	1.3
		LZ 5.0	20.
		LN 2.0	20.
		LE 4.3	20.
	PCC	ePc	17 19 18.7
	WDC	iPc	17 19 18.8
	FHC	eP	17 19 30.0
BRK Ms=5.6 Distance=55°			
USGS 17h10m00.9s 18.9N 64.6W			
h=46km mb=5.6 Ms=5.5			
Virgin Islands			
Jun 26	MNA	iPc	18 03 36.2
	JAS1	iPc	18 03 56.4
	PRI	e(P)	18 04 01.2
	LLA	e(P)	18 04 03.0
	PRS	e(P)	18 04 07.2
	MHC	e(P)	18 04 10.3
	SAO	e(P)	18 04 12
	GCC	e	18 04 13
	ORV	eP	18 04 15.8
	MIN	e(P)	18 04 22.8
	PCC	e	18 04 25.6
	BKS	e	18 04 27.1
	WDC	e(P)	18 04 32.4
BRK ML=4.1(2)			
USGS 18h03m00.0s 37.1N 116.1W			
h=0km mb=4.3			
Underground Nuclear Explosion, NTS (Maribo)			
Jun 26	MNA	e	20 36 49
	JAS1	eP	20 36 57
	ORV	e	20 37 10
USGS 20h28m24.4s 6.1N 82.3W			
h=10km mb=5.1 Ms=4.9			
South of Panama			
Jun 26	MNA	iPd	23 53 45.4
		e	23 58 40.2
	PRI	e(P)	23 53 51.6
	LLA	eP	23 53 53.9
	JAS1	iPd	23 53 54.9
		e	23 58 46.0
	PRS	eP	23 53 55.5
	MHC	ePd	23 54 00.9
	GCC	eP	23 54 01.5
	PCC	eP	23 54 04.8
	BRK	eP	23 54 05.2
	ORV	ePd	23 54 05.8
	MIN	eP	23 54 07.7
	WDC	iPd	23 54 11.5
	FHC	eP	23 54 22.3
USGS 23h44m53.3s 6.9N 73.0W			
h=154km mb=5.2			
Northern Colombia			
Jun 27	WDC	eP	00 30 54.7
		e	00 31 26
	ORV	e(P)	00 31 04.5
	JAS1	eP	00 31 21.5
		e	00 31 51
	MHC	eP	00 31 23.0
	MNA	eP	00 31 25.0
	LLA	eP	00 31 31.0
	PRS	e(P)	00 31 31.8
USGS 00h25m12.7s 63.7N 150.2W			
h=143km mb=4.8			
Central Alaska			
Jun 27	LLA	iPd	04 38 58.8
	PRS	iPd	04 39 00.9
	SAO	iPc	04 39 02.2
	PRI	iPd	04 39 05.8
	GCC	ePc	04 39 11.3
	MHC	ePc	04 39 13.3
	PCC	eP	04 39 19.8
		eS	04 39 42.5
	JAS1	iPd	04 39 22.1
		eS	04 39 42.5
	BRK	ePd	04 39 23.2
	ZSP	eP	04 39 24.1
	BKS	iPd	04 39 25.4
		iS	04 39 44.6
	ORV	e(P)	04 39 43.9
	MNA	e(P)	04 39 50.0
	MIN	e(P)	04 39 59.0
BRK 04h38m55.4s 36.5N 121.1W			
h=5kmR ML=3.4(4) Mo=4.4E21(2)			
Bear Valley, 35 km N of King City, CA			
Jun 27	WDC	e	12 58 50
	BKS	e	12 58 50.8
	PRS	eP	12 58 51.1
	ORV	eP	12 58 51.6
	LLA	eP	12 58 53.0
	JAS1	eP	12 58 54.5
	PRI	eP	12 58 54.6
	MNA	eP	12 59 04.0
USGS 12h45m59.4s 6.6S 154.9E			
h=49km mb=5.3			
Solomon Islands			
Jun 28	WDC	ePKP	07 52 02.5
	MIN	ePKP	07 52 03.4
	MNA	ePKP	07 52 04.4
	ORV	ePKP	07 52 05.0
	JAS1	ePKP	07 52 05.2
	FRI	ePKP	07 52 06.3
	BKS	ePKP	07 52 10.4
		e	07 52 13
		ePP	07 55 43
		e	08 00 22
		e	08 01 11
		eLg	08 44 51
		eLr	08 51 17
		AMP(μm)	PER(s)
		PKPZ 0.036	0.9
		LZ 0.86	20.
	BRK	ePKP	07 52 10.5
	SAO	e(PKP)	07 52 11
	PCC	ePKP	07 52 11.0
	MHC	ePKP	07 52 11.0
	LLA	ePKP	07 52 11.9
	GCC	ePKP	07 52 12
	PRS	ePKP	07 52 12.6
	PRI	ePKP	07 52 12.9
USGS 07h32m20.0s 10.6S 41.2E			
h=10km mb=5.4 Ms=5.4			
Northwest of Madagascar			
Jun 28	GCC	e	19 07 20.8
	PRI	eP	19 07 21.8
	MHC	e	19 07 21.9
	FRI	e	19 07 26.2
	JAS1	eP	19 07 27.1
	BKS	e	19 07 28
		e	19 19 28
		e	19 36 24
	ORV	eP	19 07 29.8
	WDC	eP	19 07 30.8
	MNA	eP	19 07 34.8
USGS 18h54m16.0s 37.6S 179.4E			
h=50km mb=5.6 Ms=5.2			
Off E. Coast of N. Island, New Zealand			
Jun 29	FRI	eP	04 19 57.0
	JAS1	eP	04 19 58.2
	ORV	e	04 20 00.5
	BKS	e	04 20 03
	MNA	e	04 20 06.1
USGS 04h07m15.0s 30.8S 178.0W			
h=33km mb=5.3			
Kermadec Islands			
Jun 29	WDC	ePKP	08 53 25.1
	MIN	ePKP	08 53 26.4
	ORV	ePKP	08 53 27.3
	JAS1	ePKP	08 53 31.2
	PRS	ePKP	08 53 32.4
	FRI	e	08 53 33.4
	MNA	ePKP	08 53 33.9
	SAO	e	08 53 37.5
USGS 08h34m33.2s 1.4N 98.4E			
h=76km mb=5.4			
Northern Sumatera			
Jun 29	PRS	eP	18 04 49.1
	GCC	eP	18 04 49.5
	BRK	e	18 04 50.6
	PRI	e	18 04 50.8
	MHC	eP	18 04 52.0
	BKS	i	18 04 52.3
		e	18 04 55.7
		AMP(μm)	PER(s)
		PZ 0.020	.7
	FRI	eP	18 04 56.3
	JAS1	eP	18 04 57.3
	ORV	eP	18 04 59.4
	MIN	e	18 04 59.8
	WDC	eP	18 05 00.1
	MNA	eP	18 05 06.3
USGS 17h52m48.2s 24.5S 176.6W			
h=84km mb=5.1			
South of Fiji Islands			
Jun 30	FHC	ePc	02 51 55.1
	WDC	ePc	02 51 56.2
	MIN	iPc	02 51 58.2
	ORV	iPc	02 52 01.6
	BRK	eP	02 52 09.5
	BKS	iPc	02 52 09.8
		AMP(μm)	PER(s)
		PZ 0.11	0.8
	MNA	iPc	02 52 10.4
	JAS1	iPc	02 52 10.8
	PCC	ePc	02 52 10.9
	MHC	ePc	02 52 12.6
	FRI	iPc	02 52 15.5
	LLA	ePc	02 52 16.6
	PRS	eP	02 52 17.4
	PRI	ePc	02 52 19.2
USGS 02h39m08.7s 49.9N 78.7E			
h=0km mb=6.0 Ms=4.2			
Eastern Kazakh, S.S.R.			

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DATE	STA	PHASE	TIME (UTC)
Jul 2	WDC	ePKP	13 32 42.1
		e	13 32 50
		e	13 38 03
	MIN	ePKP	13 32 43.9
		e	13 38 04
	ORV	ePKP	13 32 44.5
		e	13 38 06
	JAS1	ePKP	13 32 45.3
		e	13 32 53.8
		e	13 38 13
	MNA	ePKP	13 32 45.5
		e	13 32 53.9
		e	13 38 06.8
	PRI	ePKP	13 32 46
		e	13 32 55
	FRI	ePKP	13 32 46.0
	PRS	ePKP	13 32 46.4
		e	13 32 54.9

USGS 13h12m32.9s 33.8S 56.3E
h=10km mb=5.5 Ms=5.4
Atlantic-Indian Rise

Jul 2	WDC	ePKP	14 08 29.2
		e	14 08 37.0
		e	14 09 57.8
		e	14 13 46
		e	14 13 54.5
		e	14 14 07.5
	MIN	ePKP	14 08 29.6
		e	14 08 37.5
		e	14 09 58.9
		e	14 13 50
	ORV	ePKP	14 08 29.9
		e	14 08 37.7
		e	14 10 01.5
		e	14 13 51
	FHC	ePKP	14 08 30.5
	FRI	ePKP	14 08 31.2
		e	14 08 39.3
		e	14 08 44.4
		e	14 10 09
	PCC	ePKP	14 08 31.3
	BRK	ePKP	14 08 31.5
	JAS1	ePKP	14 08 31.7
		e	14 08 39.1
		e	14 10 07.5
		e	14 13 57
	GCC	ePKP	14 08 31.8
	MNA	ePKP	14 08 31.9
		e	14 08 39.0
		e	14 10 08.3
		e	14 13 06.0
	BKS	e(PKP)d	14 08 32.0
		e	14 08 39.2
		e	14 09 56.0
		i(PP)	14 13 58
		e(SKSP)	14 24 22
		e(SS)	14 35 35
		e(Lr)	15 20 44
			AMP(m) PER(s)
		LZ	3.0 20.
		LN	3.6 20.
		LE	1.8 20.
	MHC	ePKP	14 08 32.2
		e	14 10 12
	PRS	ePKP	14 08 32.2
	LLA	ePKP	14 08 32.3
		e	14 08 40
		e	14 10 13
	PRI	ePKP	14 08 32.4
		e	14 08 40.4
		e	14 08 45
		e	14 10 14.3

BRK Ms=6.3 Distance=168°
USGS 13h48m19.1s 33.7S 56.4E
h=10km mb=5.6 Ms=5.7
Atlantic-Indian Rise

Jul 2	FRI	iPc	17 30 34.7
	JAS1	iPd	17 30 49.3
		iS	17 31 05.0
	LLA	iPc	17 30 49.3
		eS	17 31 03.8
	PRI	ePc	17 30 50.5
		eS	17 31 04.8
	SAO	iP	17 30 54.8
	PCC	e	17 30 56
	MHC	e(P)	17 30 57.4
	GCC	e	17 31 00.5
	MNA	e(P)	17 31 04.5
	ORV	e(P)	17 31 15.7

BRK 17h30m30.7s 37.0N 119.6W
h=23km ML=3.2(4)
25 km NE of Fresno, CA

Jul 2	MHC	iPd	19 57 02.6
		iS	19 57 07.9
	BRK	ePc	19 57 06.2
	BKS	iPc	19 57 06.3
		i	19 57 09.2
		eS	19 57 15.4
	ZSP	eP	19 57 06.9
		iS	19 57 16.5
	PCC	iPc	19 57 07.9
	GCC	iPc	19 57 10.3
		iS	19 57 21.0
	SAO	eP	19 57 13.6
	JAS1	i(P)c	19 57 14.8
		iS	19 57 27.5
	LLA	e(P)	19 57 18.0

BRK 19h56m56.0s 37.7N 121.6W
h=5kmR ML=2.6(4)
15 km E of Livermore, CA

Jul 2	FHC	iPc	23 56 14.6
		iS	23 56 18.4
	WDC	eP	23 56 32.0
	MIN	e(P)	23 56 45.6
	ORV	e(P)	23 56 49.3

BRK 23h56m08.9s 40.8N 124.3W
h=9km ML=3.4(2) Mo=1.1E21(2)
Off Coast, 15 km W of Eureka, CA

Jul 3	ORV	e	03 30 21.8
	JAS1	e	03 30 25.7
		e	03 32 00.4
		e	03 33 27
	MNA	e	03 30 28
	WDC	e(P)	03 30 28.8
		e	03 32 08.8
	FRI	e	03 30 33
	BKS	e	03 31 53
		e	03 41 54
		e	03 48 36

USGS 03h11m31.5s 54.8S 146.4E
h=10km mb=5.8 Ms=6.2
West of MacQuarie Island

Jul 3	FHC	eP	04 49 40.0
	PCC	eP	04 49 43.0
	WDC	ePd	04 49 43.4
		e	04 50 11.2
		ePKPPKP	05 15 38
	BRK	eP	04 49 43.6
	BKS	iPc	04 49 44
		i	04 50 00.3

		i	04 53 22.9
		iS	05 00 19
		e	05 00 33.8
		i	05 00 34
		i	05 02 52
		i	05 03 26
		iSS	05 05 58
		iG	05 13 22
		iLr	05 17 26
			AMP(m) PER(s)
		PZ	0.24 1.2
		LZ	150 20.
		LNE	130 20.
		LNW	75 20.
	SAO	e(P)	04 49 46
	MHC	e(P)	04 49 46
	PRS	e(P)	04 49 46.1
	ORV	iPd	04 49 46.3
	MIN	eP	04 49 46.7
		ePKPPKP	05 15 26
	GCC	e	04 49 47.2
	PRI	eP	04 49 49.0
		e	04 50 17.5
		ePKPPKP	05 15 42
	JAS1	ePd	04 49 50.9
		e	04 50 06.2
		e	04 50 34.5
		e	04 50 46.2
		ePP	04 53 25.5
		ePKPPKP	05 15 21
	FRI	eP	04 49 53.0
		ePP	04 53 30
		ePKPPKP	05 15 31
	MNA	iPd	04 49 58.9
		ePKPPKP	05 15 27

BRK Ms=7.4 Distance=89°
USGS 04h36m51.7s 4.4S 152.8E
h=33km mb=6.3 Ms=7.2
New Britain Region

Jul 3	MHC	iPc	06 58 44.95
		iS	06 58 47.4
	GCC	eP	06 58 50.1
	SAO	iPc	06 58 52.2
	PCC	iPc	06 58 54.7
	BRK	eP	06 58 58.0
	LLA	eP	06 58 58.0
	BKS	iP	06 58 58.0
		i	06 59 10.7
	ZSP	eP	06 58 59.5
		eS	06 59 13.0
	PRS	ePc	06 58 59.6
	JAS1	iPc	06 59 03.6
		iS	06 59 19.2
	PRI	e	06 59 07.0
	FRI	e(P)	06 59 08.8
		eS	06 59 29.0
	ORV	eP	06 59 22

BRK 06h58m42.5s 37.2N 121.6W
h=7km ML=2.7(4) Mo=6.8E19(2)
Halls Valley Sequence, CA

Jul 3	FHC	ePc	10 31 17.5
	WDC	iPc	10 31 22.4
	MIN	iPc	10 31 25.8
	ORV	iPc	10 31 28.1
		e	10 33 20
	PCC	eP	10 31 29.6
	BRK	ePc	10 31 29.7
	BKS	ePc	10 31 29.8
		i	10 41 00
			AMP(m) PER(s)
		PZ	0.13 0.9

	GCC	ePc	10 31 32.1
	MHC	ePc	10 31 33.4
	JAS1	iPc	10 31 36.2
		e	10 33 26.9
		e	10 34 53
	PRS	ePc	10 31 36.8
		e	10 33 30
	LLA	eP	10 31 37.8
	PRI	ePc	10 31 40.2
	FRI	ePc	10 31 40.8
		e	10 33 33.5
	MNA	iPc	10 31 43.4
		e	10 33 34

USGS 10h20m13.8s 27.2N 140.0E
h=499km mb=5.3
Bonin Islands Region

Jul 3	FHC	ePc	10 31 24.1
	WDC	ePc	10 31 29.2
	MIN	ePc	10 31 32.6
	ORV	ePc	10 31 34.8
	PCC	ePc	10 31 36.2
	BRK	ePc	10 31 36.3
	BKS	eP	10 31 36.5
	GCC	ePc	10 31 39.3
	MHC	eP	10 31 40.8
	JAS1	ePc	10 31 43.0
	PRS	ePc	10 31 43.6
	LLA	ePc	10 31 44.8
	PRI	ePc	10 31 47.0
	FRI	ePc	10 31 47.7
	MNA	ePc	10 31 50.4

USGS 10h20m20.2s 27.2N 139.9E
h=489km mb=5.3
Bonin Islands Region

Jul 3	PRI	e	16 08 26
	BRK	e	16 08 26
	MHC	e	16 08 26
	BKS	iPc	16 08 26
		e	16 08 28.7
		e	16 08 36.7
		iPP	16 11 47
		eS	16 18 58
		ePPS	16 20 08
		eSS	16 24 12
		iSSS	16 28 18
		eLg	16 30 58
		eLr	16 34 40
			AMP(m) PER(s)
		PZ	0.11 1.2
		LZ	19 20.
		LNE	31 20.
		LNW	6.0 20.
	WDC	e(P)	16 08 29.5
	JAS1	e(P)	16 08 30.8
		e	16 11 54
	ORV	e(P)	16 08 30.9
		e	16 12 06.5
	MIN	e(P)	16 08 31
	FRI	e	16 08 32
		e	16 12 08
	MNA	e(P)	16 08 40.9

BRK Ms=6.7 Distance=86°
USGS 15h55m48.7s 17.2S 167.8E
h=29km mb=5.8 Ms=6.4
Vanuatu Islands

Jul 4	MNA	ePd	08 57 21.8
		epP	08 57 38.0
		esP	08 57 46.6
		ePcP	09 00 35.0
		e	09 00 55.3

	PRI	eP	08 57 22.2
		ePcP	09 00 35.7
		e	09 00 56.0
	JAS1	ePd	08 57 29.8
		epP	08 57 45.8
		esP	08 57 54.4
		ePcP	09 00 37.3
		i	09 00 57.7
	SAO	eP	08 57 30.2
	MHC	eP	08 57 34.0
		ePcP	09 00 39
		e	09 00 59
	ORV	ePd	08 57 45.3
		epP	08 58 02
		esP	08 58 10
		ePcP	09 00 42.6
		e	09 01 02.9
	MIN	eP	08 57 49.9
		epP	08 58 06
		ePcP	09 00 43
		e	09 01 03
	WDC	ePd	08 57 53.7
		ePcP	09 01 44.0
	FHC	eP	08 58 05.2
	FRI	ePcP	09 00 34.3
	PRS	ePcP	09 00 37

USGS 08h51m35.6s 17.5N 97.0W
h=70km mb=5.0
Oaxaca, Mexico

Jul 4	WDC	eP	09 58 10.9
	MIN	eP	09 58 14.6
	ORV	eP	09 58 17.0
	JAS1	eP	09 58 25.7
	MHC	e	09 58 28.2
	FRI	e	09 58 30.9
	MNA	eP	09 58 33.8

USGS 09h46m33.3s 29.1N 143.5E
h=33km mb=5.0
South of Honshu, Japan

Jul 4	FRI	iPc	13 06 12.85
		iS	13 06 23.8
	MNA	iPc	13 06 17.7
		eS	13 06 32.5
	JAS1	iPc	13 06 21.25
		eS	13 06 38.5
	LLA	eP	13 06 30.1
	PRI	iPd	13 06 32.6
		eS	13 06 55.5
	SAO	iPc	13 06 35.3
	MHC	eP	13 06 36.4
	PRS	eP	13 06 36.9
	GCC	e(P)	13 06 40.1
	BRK	e	13 06 42.9
	PCC	eP	13 06 43.4
	BKS	e	13 06 44.3
		i	13 07 18.4
		i	13 07 37.5
	ORV	e(P)	13 06 48.9
	MIN	eP	13 07 01.4
	WDC	e	13 07 11

BRK 13h05m56.9s 37.5N 118.8W
h=14km ML=3.5(6)
Mammoth Lakes Area, CA

Jul 5	FHC	ePc	02 48 06.0
	WDC	ePc	02 48 11.5
	MIN	ePc	02 48 15.4
	ORV	ePc	02 48 19.0
	GCC	ePc	02 48 27.7
	JAS1	ePc	02 48 30.4
	PRS	eP	02 48 33.2

	FRI	eP	02 48 36.3
	MNA	ePc	02 48 37.0

USGS 02h38m19.6s 46.7N 144.7E
h=400km mb=5.0
Sea Of Okhotsk

Jul 5	MNA	ePc	06 26 20.9
	FRI	ePc	06 26 27.3
	JAS1	ePc	06 26 33.0
		e	06 26 43.4
	LLA	eP	06 26 35.2
	PRS	ePc	06 26 37.5
	SAO	ePc	06 26 39
	ORV	eP	06 26 39.8
	MIN	ePc	06 26 40.4
	MHC	ePc	06 26 40.5
	BKS	eP	06 26 43.6
	BRK	eP	06 26 43.9
	WDC	iPc	06 26 44.5
	PCC	eP	06 26 44.6
	FHC	eP	06 26 55.4

USGS 06h17m17.1s 18.5N 63.1W
h=55km mb=5.2 Ms=4.4
Leeward Islands

Jul 6	PRS	e	03 49 47.1
		i	03 50 05.7
	PRI	eP	03 49 49.1
		e	03 50 07.7
	BRK	eP	03 49 49.8
	LLA	e	03 49 49.8
	BKS	eP	03 49 49.8
		e	03 50 08.5
		eS	04 00 03.4
		e	04 01 12
		e	04 01 25.6
		e	04 06 10
		e	04 09 28
		e	04 12 08
		e	04 12 46
		eLr	04 15 34
			AMP(m) PER(s)
		PZ	0.057 1.0
		LZ	10 20.
		LN	7.1 20.
		LE	7.9 20.
	MHC	eP	03 49 49.9
	FRI	eP	03 49 53.8
	JAS1	ePc	03 49 54.7
		i	03 50 11.7
	ORV	eP	03 49 56.7
	WDC	eP	03 49 57.5
		i	03 50 13.5
	MIN	e	03 50 00.5
	MNA	eP	03 50 03.0
		i	03 50 20.6
	GCC	e	03 50 06.0

BRK Ms=6.2 Distance=83°
USGS 03h37m18.2s 29.7S 177.8W
h=50km mb=5.7 Ms=5.9
Kermadec Islands

Jul 6	FHC	e	06 31 12.1
	WDC	iPc	06 31 17.3
	MIN	ePc	06 31 20.4
	ORV	ePc	06 31 22.8
	BRK	eP	06 31 24.1
	BKS	eP	06 31 24.5
			AMP(m) PER(s)
		PZ	0.022 0.7
	MHC	eP	06 31 28.1
	JAS1	eP	06 31 30.4
	PRS	eP	06 31 33.2

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DATE	STA	PHASE	TIME (UTC)
	SAO	eP	06 31 32.1
	LLA	eP	06 31 32.3
	PRI	eP	06 31 34.8
	FRI	eP	06 31 35.8
	MNA	ePc	06 31 38.3
USGS 06h20m07.8s 27.1N 140.0E			
h=490km mb=4.9			
Bonin Islands Region			
Jul 6	JAS1	eP	08 45 33.3
	ORV	eP	08 45 43.7
	MIN	eP	08 45 46.5
	WDC	eP	08 45 49.2
USGS 08h33m06.8s 33.4S 72.2W			
h=40km mb=5.3 Ms=5.1			
Off Coast of Central Chile			
Jul 6	MHC	iPd	10 09 34.6
	GCC	iP	10 09 40.1
	SAO	iPd	10 09 43.1
	PCC	iPc	10 09 44.3
	BRK	iPc	10 09 47.4
		iS	10 09 59.3
	BKS	iPc	10 09 47.5
		iS	10 09 59.8
	ZSP	iPc	10 09 48.1
		eS	10 10 01.4
	LLA	ePc	10 09 49.2
	PRS	eP	10 09 50.0
	JAS1	iPc	10 09 53.7
		eS	10 10 08.4
	PRI	e	10 09 57.0
	FRI	iPc	10 09 59.4
	ORV	e	10 10 09.0
BRK 10h09m32.6s 37.3N 121.7W			
h=7km ML=3.1(4) Mo=1.8E20(2)			
Halls Valley Sequence, CA			
Jul 7	FHC	eP	06 13 13.1
	WDC	iPd	06 13 18.2
	ZSP	e	06 13 24.6
	BKS	ePd	06 13 24.6
		AMP(μm)	PER(s)
	PZ	0.11	0.9
	JAS1	iPd	06 13 31.1
		e	06 13 58.4
	PRI	iPd	06 13 34.4
	MNA	iPd	06 13 38.8
		e	06 14 08.3
USGS 06h01m37.3s 22.6N 142.0E			
h=260km mb=5.4			
Volcano Islands Region			
Jul 7	PRS	iPc	10 48 33.75
		eS	10 48 39.1
	GCC	iPd	10 48 38.15
		i	10 48 49.3
	LLA	iPc	10 48 41.05
	MHC	eP	10 48 44.8
		eS	10 48 59.1
	PRI	iPd	10 48 44.9
		iS	10 48 59.2
	PCC	e(P)	10 48 46.5
		ePn	10 48 47.4
		ePg	10 48 48.3
		eSg	10 49 05.8
	BKS	iPc	10 48 51.0
		ePg	10 48 54.2
		eS	10 49 15.7
		eSg	10 49 16.6
	ZSP	iPg	10 48 56.9
		eSg	10 49 18.4
	JAS1	eP	10 48 57.7

DATE	STA	PHASE	TIME (UTC)
BRK 10h48m25.9s 36.4N 121.8W			
h=1km ML=2.7(4)			
20 km S of Monterey, CA			
Jul 7	PRI	eP	11 37 34.0
	MNA	eP	11 37 36.0
	JAS1	eP	11 37 39.4
		i	11 38 16.6
	BKS	eP	11 37 50
		eS	11 48 13.6
		eSS	11 54 12
		AMP(μm)	PER(s)
		LZ	2.7 20.
		LN	2.5 20.
		LE	1.3 20.
	MHC	e	11 37 53
	WDC	eP	11 37 53.3
BRK Ms=5.6 Distance=86°			
USGS 11h25m11.7s 33.0S 72.1W			
h=031km mb=5.5 Ms=5.8			
Off Coast of Central Chile			
Jul 8	MNA	eP	02 00 48.8
	FRI	e(P)	02 00 49.6
	PRI	eP	02 00 49.8
	JAS1	eP	02 00 56.5
	ORV	eP	02 01 11.8
	MIN	eP	02 01 15.5
USGS 01h54m16.4s 14.4N 93.1W			
h=33km mb=4.8			
Near Coast of Chiapas, Mexico			
Jul 8	FRI	eP	10 24 08.1
	PRI	eP	10 24 08.4
	PRS	e	10 24 11.2
	MNA	eP	10 24 16.5
	JAS1	eP	10 24 19.0
	GCC	e	10 24 19.4
	MHC	e	10 24 20.8
	ORV	eP	10 24 39.4
	MIN	e	10 24 47.5
	WDC	eP	10 24 49.5
USGS 10h19m27.4s 19.0N 108.3W			
h=10km mb=4.7			
Revilla Gigedo Islands Region			
Jul 8	PRI	ePd	10 37 53.2
	FRI	ePd	10 37 55.3
	PRS	eP	10 37 58.3
	LLA	ePd	10 37 59.4
	MNA	iPd	10 38 03.6
	GCC	eP	10 38 06.1
	JAS1	ePd	10 38 06.9
	MHC	ePd	10 38 08.1
	BRK	eP	10 38 15.7
	BKS	eP	10 38 17.1
		eS	10 42 22.4
		eLr	10 43 44
		AMP(μm)	PER(s)
	PZ	0.19	1.5
	LZ	16	20.
	LN	25	20.
	LE	18	20.
	ORV	iPd	10 38 26.9
	MIN	ePd	10 38 33.8
	WDC	ePd	10 38 37.5
	FHC	ePd	10 38 46.7
BRK Ms=5.6 Distance=23°			
USGS 10h33m20.6s 19.6N 108.5W			
h=10km mb=5.4 Ms=5.6			
Revilla Gigedo Islands Region			
Jul 8	FRI	e	11 21 20.5

DATE	STA	PHASE	TIME (UTC)
	MNA	e	11 21 29.0
	JAS1	eP	11 21 32.2
	ORV	e	11 21 54.3
USGS 11h16m47.0s 19.5N 108.7W			
h=10km mb=4.2			
Revilla Gigedo Islands Region			
Jul 8	WDC	eP	13 51 08.3
	ORV	eP	13 51 10.7
	JAS1	eP	13 51 11.3
	MNA	e	13 51 22.0
USGS 13h38m32.7s 11.1S 163.4E			
h=33km mb=4.9			
Solomon Islands			
Jul 8	WDC	eP	14 01 38.1
	ORV	eP	14 01 40.7
	JAS1	eP	14 01 42.3
	FRI	e	14 01 43.7
USGS 13h49m05.3s 11.1S 163.4E			
h=51km mb=5.0			
Solomon Islands			
Jul 8	PRI	e	15 04 42.8
	FRI	e	15 04 43.9
	JAS1	eP	15 04 56.0
	MNA	e	15 04 58.0
	ORV	e(P)	15 05 17.1
USGS 15h00m03.1s 18.9N 108.4W			
h=10km mb=4.6			
Revilla Gigedo Islands Region			
Jul 9	FHC	ePKP	13 45 49.6
	WDC	ePKPc	13 45 50.8
		e	13 46 06.5
	ORV	ePKPc	13 45 52.8
	PCC	ePKPc	13 45 53.9
	BKS	ePKP	13 45 53.9
		e	13 46 10
		AMP(μm)	PER(s)
	PKPZ	0.019	0.7
	MHC	ePKP	13 45 55.2
		e	13 46 10.5
	JAS1	ePKP	13 45 56.0
	LLA	ePKP	13 45 56.6
	PRI	ePKP	13 45 57.8
		e	13 46 13.3
	FRI	ePKP	13 45 57.8
		e	13 46 13.3
	MNA	e	13 46 15.9
USGS 13h26m57.9s 8.5S 110.3E			
h=59km mb=5.5			
Java			
Jul 10	PRI	e	05 18 42.5
	MNA	e	05 18 48.4
		e	05 19 12.7
	JAS1	e(P)	05 18 48.5
		e	05 19 14.2
	WDC	e	05 19 03.5
		e	05 19 09.3
USGS 05h06m33.3s 38.6S 91.6W			
h=10km mb=5.3 Ms=5.7			
West Chile Rise			
Jul 10	GCC	eP	16 44 52.9
	PCC	eP	16 44 53.0
	PRS	eP	16 44 53.1
	SAO	e(P)	16 44 53.7
	BRK	eP	16 44 54.6
	PRI	eP	16 44 55.0
	BKS	eP	16 44 55.0
		AMP(μm)	PER(s)

DATE	STA	PHASE	TIME (UTC)
	PZ	0.047	0.9
	MHC	ePd	16 44 55.5
	FRI	eP	16 44 59.8
	JAS1	iPd	16 45 00.4
		epP	16 47 01.2
	ORV	ePd	16 45 01.8
	WDC	iPd	16 45 02.2
	MIN	eP	16 45 03.0
	MNA	eP	16 45 09.0
USGS 16h33m28.8s 23.6S 178.8S			
h=559km mb=5.1			
South of Fiji Islands			
Jul 11	WDC	e(P)	14 00 03.0
	ORV	e(P)	14 00 12.7
	MHC	e(P)	14 00 24.2
	JAS1	e	14 00 27.5
	FRI	e(P)	14 00 35.8
	MNA	e(P)	14 00 36.7
USGS 13h53m11.5s 51.8N 171.3W			
h=33km mb=4.6			
Fox Islands, Aleutian Islands			
Jul 11	FRI	ePKP	18 08 33.4
	PRI	ePKP	18 08 34.4
	PRS	ePKP	18 08 34.6
	LLA	ePKP	18 08 34.8
	JAS1	ePKP	18 08 35.8
	MHC	ePKP	18 08 36.8
	ORV	ePKP	18 08 40.4
	WDC	ePKP	18 08 40.8
USGS 17h49m41.2s 56.6S 25.3W			
h=33km mb=5.1 Ms=4.7			
South Sandwich Islands Region			
Jul 11	MHC	iPc	19 17 14.8
	GCC	ePd	19 17 20.8
	PCC	iPc	19 17 23.2
	SAO	iPd	19 17 25.25
	BRK	ePc	19 17 25.6
	BKS	ePc	19 17 25.7
		eS	19 17 35.8
	LLA	iPd	19 17 30.3
	PRS	ePc	19 17 32.2
	JAS1	iPc	19 17 34.3
	PRI	ePc	19 17 36.9
	FRI	ePc	19 17 41.0
	ORV	ePc	19 17 51.4
BRK 19h17m12.8s 37.4N 121.7W			
h=6km ML=2.9(4) Mo=1.3E20(2)			
Halls Valley, 15 km E of San Jose, CA			
Jul 11	MHC	iPc	19 17 29.7
	GCC	iPc	19 17 36.0
	FRI	e(P)	19 17 55
	JAS1	iS	19 18 05.1
BRK 19h17m28.0s 37.4N 121.7W			
h=6kmR ML=2.7(4) Mo=8.2E19(2)			
Halls Valley, 15 km E of San Jose, CA			
Jul 11	PRI	eP	20 43 35.7
	LLA	ePc	20 43 37.9
		epP	20 43 46.7
	PRS	ePc	20 43 38.1
	JAS1	ePc	20 43 41.2
		epP	20 43 50.0
	MHC	eP	20 43 43.7
	ORV	ePc	20 43 50.4
		epP	20 44 00.2
	MIN	e	20 43 53.9
	WDC	ePc	20 43 55.3

DATE	STA	PHASE	TIME (UTC)
		epP	20 44 04.1
USGS 20h31m13.0s 33.0S 72.1W			
h=29km mb=5.2 Ms=4.9			
Off Coast of Central Chile			
Jul 11	PRI	eP	23 21 55.0
		e	23 22 01.7
	LLA	eP	23 21 56.1
		e	23 22 03
	PRS	eP	23 21 57.1
		e	23 22 03.9
	FRI	eP	23 21 57.5
		e	23 22 04.0
	JAS1	eP	23 22 07.3
		e	23 22 14.0
	MNA	eP	23 22 07.5
		e	23 22 13.7
	ORV	eP	23 22 22.0
		e	23 22 28.9
	WDC	eP	23 22 30.5
		e	23 22 37.0
USGS 23h13m54.0s 3.9S 103.8W			
h=10km mb=4.5			
Northern Easter Islands Cordillera			
Jul 12	PRI	iPc	00 47 26.3
	LLA	eP	00 47 36.0
	PRS	iPc	00 47 36.1
	SAO	eP	00 47 41.6
	FRI	iPd	00 47 44.2
	GCC	eP	00 47 48.9
	MHC	e(P)	00 47 51.4
	PCC	e	00 47 56
	JAS1	iPd	00 47 56.4
		eS	00 48 20.0
BRK 00h47m22.3s 36.0N 120.6W			
h=1km ML=3.1(3)			
30 km SW of Coalinga, CA			
Jul 12	JAS1	ePd	12 17 07.6
		e	12 17 11.4
		e	12 17 19.8
	MNA	e	12 17 17
USGS 12h04m23.1s 18.2S 168.2E			
h=37km mb=4.8 Ms=4.4			
Vanuatu Islands			
Jul 12	JAS1	ePc	12 59 35.3
USGS 12h46m52.3s 18.2S 168.0E			
h=38km mb=4.7 Ms=4.7			
Vanuatu Islands			
Jul 13	LLA	iPd	12 36 03.2
	PRI	iPd	12 36 03.8
	PRS	iPd	12 36 04.2
		iS	12 36 09.1
	SAO	iP	12 36 08.0
	GCC	iPd	12 36 17.1
		ePg	12 36 21.0
	FRI	iPd	12 36 18.15
	MHC	eP	12 36 18.2
	JAS1	iPd	12 36 25.2
	PCC	e(P)	12 36 25.8
	BRK	ePc	12 36 28.8
	BKS	iPd	12 36 31.1
		eS	12 36 53.5
	ZSP	e	12 36 39.0
	ORV	ePc	12 36 49.7
	MNA	ePc	12 36 50.7
	MIN	e	12 37 08.3
BRK 12h35m57.5s 36.3N 120.9W			
h=9km ML=2.7(4)			
Bitterwater Valley, 25 km NE of King City, CA			
Jul 13	FHC	iPc	18 36 24.6
		iS	18 36 35.6
	WDC	ePd	18 36 33.9
	MIN	iPd	18 36 44.1
		eSg	18 37 20.6
	ORV	ePd	18 36 45.4
	JAS1	ePd	18 37 09.7
BRK 18h36m08.7s 40.1N 124.4W			
h=5kmR ML=3.0(4)			
Off Coast, 85 km SW of Eureka, CA			
Jul 13	MNA	e	19 04 35
	MIN	e	19 04 47.1
	JAS1	e(P)	19 04 47.6
	ORV	e(P)	19 04 49.0
	MHC	e	19 04 54
	BKS	eP	19 05 06
		eS	19 13 45
		eLg	19 20 55
		eLr	19 25 00
		AMP(μm)	PER(s)
		LZ	3.6 20.
		LN	1.1 20.
		LE	3.8 20.
BRK Ms=5.6 Distance=63°			
USGS 18h54m11.9s 25.9N 45.0W			
h=10km mb=5.1 Ms=5.0			
North Atlantic Ridge			
Jul 13	JAS1	eP	19 19 50
	MIN	e(P)	19 19 51.8
	ORV	e(P)	19 19 52.3
	MHC	e(P)	19 19 58.0
USGS 19h09m17.0s 25.9N 45.1W			
h=10km mb=5.0 Ms=5.1			
North Atlantic Ridge			
Jul 14	ORV	e(P)	11 59 17.1
	MNA	e(P)	11 59 56.3
	BKS	e(S)	12 07 31
		eLr	12 15 51
USGS 11h51m26.2s 4.9N 82.6W			
h=10km mb=4.9 Ms=4.3			
South of Panama			
Jul 15	MHC	iPd	08 59 40.85
	GCC	iPd	08 59 46.2
	PCC	iPc	08 59 50.6
	BRK	eP	08 59 53.5
	BKS	iPd	08 59 53.6
		i(S)	09 00 05.0
		i(Sg)	09 00 06.1
	LLA	iPc	08 59 54.6
	ZSP	eP	08 59 55.0
	PRS	iPd	08 59 56.4
	JAS1	eP	09 00 00.05
		iS	09 00 16.6
	PRI	eP	09 00 03.1
	FRI	eP	09 00 05.0
	ORV	e(P)	09 00 16.2
	WDC	e(P)	09 00 21.2
	MIN	e(P)	09 00 30.2
	MNA	e	09 00 31.6
BRK 08h59m38.8s 37.3N 121.7W			
h=7km ML=3.5(5) Mo=2.7E21(4)			
San Felipe Valley, 25 km ESE of San Jose, CA			
Jul 16	FHC	iPc	57.3
		eS	10.7
	WDC	iPc	11.9

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DATE	STA	PHASE	TIME (UTC)
		e(S)	21 57 34.3
	MIN	eP	21 57 21.8
		e(S)	21 57 54.5
	ORV	e(P)	21 57 25.0
		e(S)	21 57 57.8
	BKS	e(P)	21 57 31.2
		e(S)	21 58 08.1
	PCC	eP	21 57 33.9
	MHC	e	21 57 40.9
	GCC	e	21 57 40.9
	JAS1	eP	21 57 47.2

BRK 21h56m40.0s 40.3N 125.1W
h=4km mb=3.6(2) Mo=1.2E21(2)
Off Coast, 90 km SW of Eureka, CA

Jul 17	WDC	e	08 22 23.3
		e	08 26 05.6
	ORV	e(P)	08 22 23.4
		e	08 26 14.8
	BKS	eP	08 22 27
		i(S)	08 32 51
		e	08 33 07
		e	08 33 10
		e	08 34 13
		e	08 39 02
		eLg	08 45 45
		eLr	08 49 31
		AMP(nm)	PER(s)
		LZ	6.0 20.
		LN	1.1 20.
		LE	4.4 20.
	MNA	e	08 22 35.5
	JAS1	e	08 22 57.8
		e	08 26 13.9

USGS 08h09m30.1s 4.3S 152.9E
h=41km mb=5.6 Ms=5.6
New Britain Region

Jul 17	PRI	e(P)	14 05 22.8
	PRS	e(P)	14 05 23
	LLA	e(P)	14 05 23
	MNA	e(P)	14 05 24.3
	JAS1	eP	14 05 27.5
	BKS	eP	14 05 33
		eS	14 14 59
	ORV	e(P)	14 05 37.0
	WDC	e(P)	14 05 40.7

USGS 13h53m00.1s 32.8S 71.7W
h=33km mb=5.4 Ms=4.8
Near Coast of Central Chile

Jul 17	WDC	ePc	19 38 30.8
		eS	19 44 13
	MIN	e(P)	19 38 36.4
	ORV	ePc	19 38 40.5
	BRK	eP	19 38 45.3
	BKS	eP	19 38 46.2
		e	19 39 10
		i	19 39 13
		e	19 39 42
		iS	19 44 38
		iLg	19 47 32
		eLr	19 48 26
		AMP(nm)	PER(s)
		PZ	0.056 0.8
		LZ	4.7 20.
		LN	9.3 20.
		LE	9.1 20.
	MHC	e(P)	19 38 51.5
	JAS1	ePc	19 38 55.2
		e	19 39 17.8
		eS	19 44 49
	PRS	e(P)	19 38 57.8

DATE	STA	PHASE	TIME (UTC)
	LLA	e	19 38 58.9
	FRI	e(P)	19 39 03.2
	MNA	e(P)	19 39 04.3
		eS	19 45 05
	PRI	e	19 39 07

BRK Ms=5.7 Distance=38°
USGS 19h31m30.1s 51.6N 172.9W
h=33km mb=5.5 Ms=5.9
Andreanof Islands Region, Aleutian Islands

Jul 17	WDC	eP	20 40 29
		e	20 40 40.9
	ORV	e(P)	20 40 38.9
		e	20 40 50.2
		e	20 40 55.3
	JAS1	eP	20 40 51.8
		e	20 41 04.3
		e	20 41 07.8
	PRS	e	20 41 11.7
	LLA	e	20 41 12.7
	FRI	e	20 41 15.7
	MNA	e	20 41 16.0

USGS 20h31m15.1s 52.2N 159.1E
h=33km mb=5.4 Ms=5.2
Off East Coast of Kamchatka

Jul 18	WDC	eP	01 32 39.2
	MIN	eP	01 32 46.4
	ORV	eP	01 32 55.8
	BRK	eP	01 33 12
	BKS	eP	01 33 17
		e	01 35 20
		eS	01 35 36
		e	01 35 38
		e	01 36 38
		e(Lg)	01 37 29
		eLr	01 41 17
	MHC	e(P)	01 33 21
	JAS1	eP	01 33 22.1
	MNA	eP	01 33 28.0
	PRI	eP	01 33 40.9

USGS 01h30m17.8s 49.0N 128.7W
h=10km mb=4.4 Ms=4.3
Vancouver Island Region

Jul 18	FRI	iPn	14 06 22.1
		ePn	14 06 31.3
		eS	14 07 17.0
	PRI	ePn	14 06 24.3
		ePn	14 06 33.2
	LLA	ePn	14 06 30.7
		ePn	14 06 38.1
	PRS	ePn	14 06 32.0
		ePn	14 06 39.3
	MNA	e(Pn)	14 06 32.8
		ePn	14 06 43.9
		eSn	14 07 43.2
	JAS1	ePn	14 06 38.2
		ePn	14 06 49.1
		eSn	14 07 49
	MHC	e	14 06 41.7

BRK Mag=4.5
PAS 14h05m25.7s 34.4N 116.5W
h=6km ML=4.2
Southern California

Jul 18	FHC	iPd	16 47 48.1
		i	16 47 49.9
		eS	16 47 53.9
	WDC	ePc	16 48 00.7
		e	16 48 02.5
	ORV	e(P)	16 48 14.3

DATE	STA	PHASE	TIME (UTC)

BRK 16h47m40.0s 40.4N 124.0W
h=5kmR ML=3.2(2) Mo=3.8E20(2)
50 km SSE of Eureka, CA

Jul 18	FHC	eP	21 26 29.9
	WDC	eP	21 26 31.5
	MIN	e	21 26 32
	ORV	eP	21 26 35.5
	JAS1	iPd	21 26 45.4
	MHC	eP	21 26 49.5
	FRI	eP	21 26 50.3
	LLA	ePd	21 26 53.5
	PRI	ePd	21 26 56.5

USGS 21h14m57.4s 66.0N 40.9E
h=0km mb=5.0
European USSR

Jul 19	PRI	eP	05 33 15.0
	BKS	e(P)	05 33 17
		eS	05 40 22
		e(SS)	05 43 56
		e(Lr)	05 45 08
	FRI	e(P)	05 33 17.7
	PRS	eP	05 33 17.8
	MHC	eP	05 33 26.1
	JAS1	ePd	05 33 27.6
		e	05 33 44.8
	ORV	ePd	05 33 42.1
	WDC	eP	05 33 50

USGS 05h25m13.5s 4.5S 105.2W
h=10km mb=4.7 Ms=4.8
Northern Easter Island Cordillera

Jul 19	MNA	ePc	11 44 07.0
	PRI	eP	11 44 08.3
	JAS1	ePc	11 44 15.2
	MHC	eP	11 44 19.8
	ORV	eP	11 44 30.2
	MIN	eP	11 44 33.9
	WDC	eP	11 44 37.7

USGS 11h37m28.8s 14.3N 92.1W
h=33km mb=4.8 Ms=4.1
Near Coast of Chiapas, Mexico

Jul 19	WDC	ePc	12 54 49.6
		e	12 55 16.5
	MIN	ePc	12 54 55.3
	ORV	ePc	12 54 59.2
		e	12 55 26
	BRK	eP	12 55 04.7
	BKS	iPd	12 55 05.4
		AMP(nm)	PER(s)
		PZ	0.033 0.8
	PCC	eP	12 55 06
	GCC	eP	12 55 10.2
	MHC	ePc	12 55 11.0
	JAS1	iPc	12 55 14.4
	SAO	e	12 55 17
	PRS	ePc	12 55 17.7
	LLA	ePc	12 55 18.8
	FRI	ePc	12 55 22.5
		e	12 55 50
	PRI	ePc	12 55 22.9

USGS 12h47m57.4s 52.6N 173.2W
h=121km mb=4.5
Andreanof Islands , Aleutian Islands

Jul 19	PRS	e	14 47 15
	GCC	e	14 47 16
	PRI	eP	14 47 16.2
	MHC	eP	14 47 16.6
	BKS	eP	14 47 19.1
		eLg	15 12 39

DATE	STA	PHASE	TIME (UTC)
		eLr	15 17 02
		AMP(nm)	PER(s)
		PZ	0.019 0.7
		LZ	4.8 22.
		LN	2.9 22.
		LE	2.7 22.
	JAS1	eP	14 47 21.4
		ePP	14 51 06
	WDC	eP	14 47 22.5
		e	14 51 25
	ORV	eP	14 47 23.7
	MNA	e(P)	14 47 31

USGS 14h34m01.2s 38.8S 177.0E
h=52km mb=5.7 Ms=5.8
North Island, New Zealand

Jul 19	WDC	eP	19 16 14.3
		e	19 16 26.8
	ORV	eP	19 16 24.1
		e	19 16 36
	JAS1	eP	19 16 38.7
		e	19 16 51.5
	MNA	eP	19 16 48
		e	19 17 01.5
	FRI	e	19 17 08.2

USGS 19h09m15.2s 51.5N 172.7W
h=33km mb=4.9
Andreanof Islands, Aleutian Islands

Jul 20	FHC	ePc	01 06 06.6
	WDC	iPc	01 06 07.6
	MIN	e(P)	01 06 10
	ORV	iPc	01 06 13.0
	BRK	ePc	01 06 21.1
	BKS	iPc	01 06 21.5
		AMP(nm)	PER(s)
		PZ	0.063 0.9
	MNA	iPc	01 06 21.9
	JAS1	iPc	01 06 22.2
	PCC	ePc	01 06 22.3
	MHC	ePc	01 06 24.1
	GCC	ePc	01 06 25.4
	FRI	ePc	01 06 26.9
	SAO	ePc	01 06 27.2
	LLA	ePc	01 06 28.2
	PRS	ePc	01 06 28.8
	PRI	ePc	01 06 30.9

USGS 00h53m14.5s 50.0N 78.8E
h=0km mb=5.9 Ms=4.3
Eastern Kazakh, SSR

Jul 21	PRS	eP	06 07 11.2
	MHC	eP	06 07 11.8
	WDC	ePc	06 07 13.7
	PRI	eP	06 07 14.4
	ORV	ePc	06 07 15.4
	MIN	eP	06 07 16.0
	JAS1	ePc	06 07 17.0
	FRI	eP	06 07 18.3
	MNA	eP	06 07 26.6
	BKS	eLr	06 33 32

USGS 05h54m46.5s 10.3S 164.9E
h=33km mb=5.0
Santa Cruz Islands Region

Jul 21	MNA	iPc	13 19 09.4
		ipP	13 19 21.9
		eScP	13 24 31.6
	FRI	ePc	13 19 15.7
		epP	13 19 28.9
		esP	13 19 43.5
		i	13 19 59.0
	PRI	eP	13 19 21.5

DATE	STA	PHASE	TIME (UTC)
	JAS1	iPc	13 19 21.6
		epP	13 19 34.2
		isP	13 19 50.8
		eScP	13 24 39.8
	LLA	ePc	13 19 23.5
		epP	13 19 35.0
	PRS	eP	13 19 26.0
	SAO	e(P)	13 19 27.9
	ORV	eP	13 19 29.2
	MHC	ePc	13 19 29.3
		epP	13 19 42
	MIN	eP	13 19 30.0
		epP	13 19 42
		esP	13 19 57
	GCC	eP	13 19 30.7
		epP	13 19 43
	BKS	iP	13 19 32
		i	13 19 33.5
		i	13 20 26.1
		eLq	13 32 32
		AMP(nm)	PER(s)
		LZ	1.6 20.
		LN	4.5 20.
		LE	1.4 20.
	BRK	eP	13 19 32.9
	PCC	eP	13 19 33.5
		epP	13 19 46.4
	WDC	ePc	13 19 34.0
		epP	13 19 46
	FHC	eP	13 19 45.1

USGS 13h10m35.0s 19.0N 68.0W
h=35km mb=5.7 Ms=5.3
Mona Passage

Jul 21	MNA	eP	14 39 44.6
	WDC	e	14 39 51.0
	ORV	eP	14 39 52.2
	JAS1	eP	14 39 56.2
	FRI	e	14 40 00.3
	MHC	e	14 40 04

USGS 14h30m02.0s 53.8N 35.3W
h=10km mb=4.9 Ms=4.7
North Atlantic Ocean

Jul 21	PRI	eP	20 56 57.7
		e	20 57 10.5
	FRI	eP	20 57 00
		e	20 57 11.0
	PRS	eP	20 57 02
	MNA	eP	20 57 07.9
		e	20 57 16.6
	GCC	eP	20 57 08
	JAS1	eP	20 57 10.9
		i	20 57 15.4
		i	20 57 22.8
	MHC	eP	20 57 12
		e	20 57 23.1
	PCC	eP	20 57 17
		e	20 57 28.6
	ORV	eP	20 57 29.0
	MIN	eP	20 57 37
	WDC	eP	20 57 39.9
	FHC	eP	20 57 49
	BKS	e	21 01 32
		AMP(nm)	PER(s)
		LZ	2.6 20.
		LN	2.3 20.
		LE	1.9 20.

USGS 20h52m23.1s 19.4N 108.7W
h=10km mb=5.0
Revilla Gigedo Islands Region

Jul 22	WDC	e	08 19 35.4

DATE	STA	PHASE	TIME (UTC)
	MIN	ePd	08 19 39.9
	ORV	e	08 19 50.6
	JAS1	e	08 20 18.6

USGS 08h16m49.7s 50.6N 129.6W
h=10km mb=4.2
Vancouver Island Region

Jul 22	BKS	iPc	09 40 02
		i	09 51 28
		i	09 57 52
		eLg	10 05 32
		eLr	10 09 16
		AMP(nm)	PER(s)
		LZ	4.4 20.
		LN	0.96 20.
		LE	3.8 20.
	PCC	eP	09 40 02.3
	BRK	eP	09 40 03.5
	WDC	eP	09 40 04.0
		e	09 40 49.6
		e	09 42 08.6
		ePKPPKP	10 05 40
	GCC	eP	09 40 05.3
	MHC	eP	09 40 06
	PRS	eP	09 40 06.7
	ORV	eP	09 40 07.3
		ePKPPKP	10 05 37
	MIN	eP	09 40 09.2
	PRI	eP	09 40 10.2
	JAS1	ePc	09 40 10.4
		e	09 40 56.2
		e	09 41 45.2
		e	09 42 15.4
		ePKPPKP	10 05 37
	FRI	eP	09 40 12.8
	MNA	eP	09 40 19.2
		e	09 41 53.2
		ePP	09 44 46
		ePKPPKP	10 05 30

BRK Ms=6.9 Distance=95°
USGS 09h26m53.8s 6.3S 148.8E
h=49km mb=5.8 Ms=6.9
New Britain Region

Jul 22	MIN	iPd	18 48 14.6
	ORV	iPc	18 48 17.1
	WDC	ePd	18 48 27.0
		iS	18 48 43.7
	JAS1	eP	18 48 45.9
		iS	18 49 14.3
	MHC	e	18 48 52.6
	PCC	e	18 48 53.2
	MNA	e	18 48 59
	FRI	e	18 49 03
	LLA	e	18 49 08
	BKS	i	18 49 13.7
		i	18 49 18.5
	FHC	e	18 49 47.6

BRK 18h48m07.8s 40.0N 121.3W
h=5kmR ML=3.1(4)
15 km SW of Lake Almanor, CA

Jul 22	LLA	iPc	22 16 33.5
	SAO	iP	22 16 [illegible]
	PRS	iPd	22 16 [illegible]
		iS	22 16 [illegible]
	PRI	iPd	22 16 43.3
	GCC	iPd	22 16 43.1
	MHC	iPc	22 16 45.2
	PCC	ePc	22 16 51.5
	FRI	iPc	22 16 51.6
	JAS1	ePc	22 16 55.0
		iS	22 17 13.3

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REGISTRATION OF EARTHQUAKES 1985

DATE	STA	PHASE	TIME (UTC)
	BRK	ePd	22 16 57.1
	BKS	eP	22 16 57.2
		i	22 17 25.7
		i	22 17 34.7
	MNA	e	22 17 16
	ORV	ePc	22 17 16.8
BRK 22h16m28.9s 36.6N 121.2W			
h=6km ML=3.0(4)			
Bear Valley Area, 25 km SE of Hollister, CA			
Jul 23	SAO	iP	00 40 47.3
	LLA	iPc	00 40 47.3
	PRS	iPd	00 40 48.4
		eS	00 40 52.2
	PRI	iPc	00 40 55.4
	GCC	iPd	00 40 56.8
		eS	00 41 09.9
	MHC	iPd	00 40 58.8
	PCC	eP	00 41 05.3
	FRI	iPc	00 41 05.3
		iS	00 41 22.3
	JAS1	eP	00 41 09.5
		e	00 41 27.7
		i	00 41 30.2
	BKS	i	00 41 32.6
		i	00 41 39.5
BRK 00h40m42.7s 36.6N 121.2W			
h=5km ML=2.7(4)			
Bear Valley Area, 25 km SE of Hollister, CA			
Jul 23	MHC	ePc	03 29 11.2
	LLA	ePc	03 29 11.6
	FRI	ePc	03 29 16.1
	JAS1	ePc	03 29 16.7
	ORV	iPc	03 29 18.3
	WDC	ePc	03 29 18.4
	MIN	ePc	03 29 20.2
	MNA	ePc	03 29 25.9
USGS 03h18m13.1s 19.8S 179.3W			
h=652km mb=4.2			
Fiji Islands Region			
Jul 23	WDC	ePKPc	03 42 05.2
		e	03 42 18.1
		e	03 42 23.6
	MIN	ePKP	03 42 06.7
	ORV	ePKP	03 42 07.2
		e	03 42 26.6
	BRK	ePKP	03 42 09.2
	MHC	ePKP	03 42 09.5
		e	03 42 28.5
	JAS1	ePKP	03 42 10.0
	PRS	ePKP	03 42 10.6
		e	03 42 29.8
	FRI	ePKP	03 42 12.2
		e	03 42 31.4
	MNA	ePKP	03 42 14.1
		e	03 42 32.3
USGS 03h23m17.0s 8.6S 110.6E			
h=88km mb=5.4			
Java			
Jul 23	SAO	iPc	07 52 27.8
	LLA	iPc	07 52 27.8
	PRS	iPd	07 52 28.9
		iS	07 52 32.7
	PRI	iPd	07 52 35.6
		eS	07 52 50.7
	GCC	iPd	07 52 37.1
		iS	07 52 50.3
	MHC	iPd	07 52 39.3

DATE	STA	PHASE	TIME (UTC)
	FRI	iPc	07 52 45.7
		e	07 52 59.7
		i	07 53 02.9
	PCC	ePc	07 52 45.9
	JAS1	ePc	07 52 49.3
		iS	07 53 06.7
	BRK	ePc	07 52 51.3
	ORV	e	07 53 18
BRK 07h52m23.1s 36.6N 121.2W			
h=6km ML=2.5(2)			
Bear Valley Area, 25 km SE of Hollister, CA			
Jul 23	ARC	e(P)	18 04 55.0
		eS	18 05 23.4
	FHC	eP	18 04 55.4
	WDC	eP	18 05 11.3
		e	18 09 24.8
	MIN	eP	18 05 21.9
	ORV	eP	18 05 26.8
	BKS	iPc	18 05 35.0
		iS	18 06 44.0
	PCC	e(P)	18 05 40
	MHC	e	18 05 46.4
	JAS1	eP	18 05 51.7
	GCC	e	18 05 57.8
	PRI	e	18 06 03
	FRI	eP	18 06 06.8
	MNA	e	18 06 17
BRK 18h04m14.4s 41.8N 127.3W			
h=10kmR ML=4.3(4)			
Off Coast of Northern California			
Jul 24	PCC	iPc	10 07 17.9
		iS	10 07 21.6
	BRK	iPc	10 07 18.4
		iS	10 07 22.4
	BKS	iPc	10 07 19.0
		iS	10 07 23.4
	ZSP	eP	10 07 19.7
	GCC	eP	10 07 28.0
		eS	10 07 39.5
	MHC	iPc	10 07 28.3
		iS	10 07 40.2
	SAO	iPc	10 07 35.0
	PRS	e	10 07 42.9
	JAS1	e(P)	10 07 43.1
		eS	10 08 00.5
	LLA	eP	10 07 43.9
BRK 10h07m13.1s 37.7N 122.5W			
h=8km ML=2.5(4) Mo=4.5E19(2)			
Off Coast 5 km W of San Francisco, CA			
Jul 24	PRI	iPd	15 45 50.1
	LLA	ePc	15 45 56.3
	FRI	iPd	15 45 59.8
	PRS	iPc	15 46 00.0
	SAO	iP	15 46 03.1
	MHC	ePc	15 46 09.7
		i	15 46 13.1
	GCC	ePd	15 46 09.8
	JAS1	iPc	15 46 12.7
		iS	15 46 34.6
	PCC	e	15 46 18.3
	BRK	ePd	15 46 20.1
	ZSP	eP	15 46 20.9
	MNA	ePc	15 46 35.1
	ORV	eP	15 46 38
BRK 15h45m44.2s 36.2N 120.3W			
h=9km ML=3.0(4)			
10 km NE of Coalinga, CA			

DATE	STA	PHASE	TIME (UTC)
Jul 25	GCC	eP	07 57 55.3
	PRS	ePd	07 57 55.8
	SAO	eP	07 57 57.1
	PRI	ePd	07 57 58.2
	MHC	eP	07 57 58.5
	FRI	eP	07 58 03.9
	JAS1	ePd	07 58 04.5
	ORV	eP	07 58 06.0
	WDC	eP	07 58 06.4
	MIN	ePd	07 58 07.9
	MNA	ePd	07 58 15.2
	BKS	eLr	08 18 30
			AMP(μm) PER(s)
		LZ	1.3 20.
		LN	0.89 20.
		LE	1.1 20.
USGS 07h46m38.3s 15.2S 173.7W			
h=33km mb=5.3 Ms=5.1			
Tonga Islands			
Jul 25	MNA	iPnc	14 00 31.9
		iSn	14 00 57.4
	FRI	iPnc	14 00 44.0
	JAS1	iPnc	14 00 52.2
	PRI	iPnc	14 00 57.4
	LLA	iPnc	14 00 59.3
	SAO	iPnc	14 01 03.7
		iPn	14 01 10.3
	PRS	iPnc	14 01 03.8
	MHC	iPnc	14 01 05.6
		iPn	14 01 15.5
		i	14 02 13.7
	GCC	ePnc	14 01 10.2
	ORV	iPnc	14 01 10.8
	BRK	ePnc	14 01 12.2
	BKS	ePc	14 01 12.2
	PCC	ePnc	14 01 13.0
	ZSP	ePn	14 01 13.8
		iPn	14 01 22.7
	MIN	ePnc	14 01 18.3
	WDC	iPnc	14 01 27.6
		iPg	14 01 47.2
	FHC	e	14 01 44.2
BRK ML=5.2(6)			
USGS 14h00m00.0s 37.3N 116.4W			
h=0km mb=5.2			
Underground Nuclear Explosion, NTS (Serena)			
Jul 26	ZSP	eP	04 20 59.8
	BRK	iPd	04 21 01.1
	BKS	iPc	04 21 01.4
		eS	04 21 16.0
	ORV	eP	04 21 04.5
	PCC	eP	04 21 05.0
	MHC	eP	04 21 10.8
	GCC	e(P)	04 21 12.2
	MIN	eP	04 21 12.8
	WDC	iPd	04 21 13.3
	PRS	e(P)	04 21 14.0
	JAS1	iPc	04 21 16.2
	SAO	iP	04 21 18.8
	LLA	iPc	04 21 24.5
	FHC	eP	04 21 27.2
	FRI	e	04 21 31.0
	MNA	e	04 21 46.8
BRK 04h20m41.8s 38.8N 122.8W			
h=2km ML=3.5(6) Mo=7.3E21(2)			
The Geysers, 25 km S of Clear Lake, CA			
Jul 26	BKS	iS	04 21 46.8
BRK 04h21m13.0s 38.8N 122.8W			

DATE	STA	PHASE	TIME (UTC)
h=2kmR ML=3.5(4) Mo=6.2E21(2)			
The Geysers, 25 km S of Clear Lake, CA			
Jul 26	PRI	iPc	06 03 01.9
	LLA	eP	06 03 07.7
		eS	06 03 19.8
	FRI	iPd	06 03 10.3
	PRS	iPd	06 03 11.5
	SAO	iP	06 03 14.8
	MHC	eP	06 03 21.1
		e	06 03 47.0
	GCC	eP	06 03 21.2
	JAS1	iPd	06 03 24.0
		eS	06 03 46.3
	PCC	e(P)	06 03 31.1
	MNA	e	06 03 43.1
	ORV	e	06 03 52
BRK 06h02m55.1s 36.2N 120.2W			
h=7km ML=3.0(4)			
Coalinga Area, CA			
Jul 26	GCC	eP	12 30 27.9
	BRK	e(P)	12 30 28.0
	PRS	eP	12 30 29.3
	MHC	eP	12 30 30.1
	PRI	ePc	12 30 32.0
	WDC	ePc	12 30 32.0
		i	12 30 45.2
	LLA	e	12 30 32.1
	ORV	ePc	12 30 33.7
		e	12 30 47.0
	MIN	eP	12 30 34.0
	JAS1	ePc	12 30 35.1
		e	12 33 57.7
	FRI	eP	12 30 36.2
		e	12 34 05.0
	MNA	ePc	12 30 44.8
		e	12 30 57.6
		e	12 34 16.5
			AMP(μm) PER(s)
		LZ	2.0 20.
		LN	0.89 20.
		LE	2.0 20.
USGS 12h18m05.5s 11.4S 166.3E			
h=33km mb=5.8 Ms=5.2			
Santa Cruz Islands			
Jul 26	FRI	ePc	18 06 43.7
	MNA	iPc	18 06 45.4
		e	18 06 49.8
	PRI	ePc	18 06 45.6
	LLA	ePc	18 06 48.5
		e	18 06 53.5
	PRS	ePc	18 06 49.7
		e	18 06 54.4
	JAS1	ePc	18 06 51.9
		i	18 06 57.1
	GCC	ePc	18 06 55.1
	MHC	iPc	18 06 55.5
		e	18 07 05.8
	PCC	ePc	18 06 58.8
	BRK	ePc	18 07 00.2
	BKS	eP	18 07 00.4
			AMP(μm) PER(s)
		PZ	0.13 0.8
	ORV	iPc	18 07 04.3
		i	18 07 09.0
	WDC	iPc	18 07 10.3
		e	18 07 15.1
	FHC	ePc	18 07 19.9
USGS 17h56m58.4s 5.4S 78.7W			
h=18km mb=5.3 Ms=4.5			

DATE	STA	PHASE	TIME (UTC)
Northern Peru			
Jul 27	PRI	eP	16 37 16.3
	PRS	e(P)	16 37 17.5
	LLA	e	16 37 18.7
	FRI	eP	16 37 19.9
	GCC	e	16 37 22.5
	MHC	eP	16 37 24.6
	JAS1	ePd	16 37 27.3
		i	16 38 10.4
		ePKPPKP	17 06 11
	BKS	e(P)	16 37 28.9
		ePcP	16 38 10.0
		ePP	16 40 24
		eS	16 46 22
		eLg	16 54 00
		eLr	16 57 22
			AMP(μm) PER(s)
		LZ	9.5 20.
		LN	11 20.
		LE	1.6 20.
	MNA	ePd	16 37 29.7
		i	16 38 13.2
		ePKPPKP	17 06 16.0
	ORV	eP	16 37 38.1
	MIN	e(P)	16 37 42
	WDC	iPd	16 37 44.6
		e	16 38 36.8
		ePKPPKP	17 06 28
BRK Ms=6.1 Distance=70°			
USGS 16h26m45.2s 27.0S 113.4W			
h=10km mb=5.4 Ms=5.6			
Easter Island Region			
Jul 28	WDC	eP	14 54 56.7
		ePP	14 57 50.0
	ORV	eP	14 54 59.3
	MIN	e	14 55 00.3
		ePP	14 57 51.0
	MHC	e(P)	14 55 01.7
		ePP	14 57 41.3
	PRI	e(P)	14 55 03
		ePP	14 57 41.5
	JAS1	ePd	14 55 04.0
		ePP	14 57 49.9
	FRI	e(P)	14 55 06.2
		ePP	14 57 45.9
	MNA	eP	14 55 11.8
		e(PP)	14 57 54
	GCC	ePP	14 57 40.4
	LLA	ePP	14 57 42.0
USGS 14h42m09.0s 5.0S 152.0E			
h=110km mb=5.2			
New Britain Region			
Jul 28	FHC	e(P)	19 44 29
		e	19 44 58.5
	WDC	eP	19 44 34.1
		e	19 45 03.9
	MIN	e(P)	19 44 37.0
		e	19 45 07.4
	ORV	eP	19 44 41.0
		e	19 45 10.0
	BRK	e(P)	19 44 44.9
		e	19 45 14.0
	PCC	e	19 44 45.0
	BKS	e(P)	19 44 45.3
		e	19 45 16.3
	GCC	e(P)	19 44 47.5
		e	19 45 17.9
	MHC	e(P)	19 44 48.2
		e	19 45 18.3
	JAS1	eP	19 44 50.8

DATE	STA	PHASE	TIME (UTC)
		e	19 45 21.0
	PRS	e(P)	19 44 52.6
		e	19 45 22.5
	LLA	e(P)	19 44 53.3
		e	19 45 23.5
	FRI	eP	19 44 56.1
		e	19 45 26.2
	PRI	eP	19 44 56.5
		e	19 45 25.7
	MNA	eP	19 44 58.0
		e	19 45 27.4
USGS 19h33m22.1s 37.4N 140.5E			
h=97km mb=5.3			
Honshu, Japan			
Jul 28	FRI	ePKP	23 18 48.3
	PRI	ePKP	23 18 48.7
	MNA	ePKP	23 18 49.5
	JAS1	ePKP	23 18 50
	MHC	ePKP	23 18 51.3
	BRK	ePKP	23 18 52.2
	ORV	e	23 18 55.1
	WDC	ePKP	23 18 55.7
	BKS	e	23 18 58
		e	23 21 00
		e	23 21 30
		e	23 22 00
		e	23 36 22
		e	23 38 34
		e	23 53 38
		e	24 00 06
			AMP(μm) PER(s)
		LZ	4.6 20.
		LN	5.0 20.
		LE	2.5 20.
USGS 22h59m54.5s 60.2S 26.9W			
h=33km mb=5.9 Ms=6.4			
South Sandwich Islands Region			
Jul 29	WDC	eP	06 40 59.3
		i	06 41 09.7
	ORV	eP	06 41 09.6
		e	06 41 19.3
	JAS1	e(P)	06 41 22.3
		e	06 41 43.3
	MHC	e	06 41 27.2
		e	06 41 36.4
	MNA	eP	06 41 30.5
		e	06 41 40.5
	FRI	e(P)	06 41 31.3
		e	06 41 41.7
	PRI	e	06 41 32.0
	LLA	e	06 41 33.5
USGS 06h32m18.3s 56.2N 164.6E			
h=36km mb=5.2 Ms=5.0			
Koeandorsky Islands Region			
Jul 29	FHC	eP	08 08 30.2
		ePKKP	08 24 39
	WDC	ePc	08 08 31.0
		i	08 09 25.5
		eP400P	08 11 53
		e	08 12 34
		ePP	08 12 52
		eSP	08 21 50
		ePKKP	08 [illegible]
		eSKKP	08 [illegible]
	ORV	ePc	08 [illegible]
		ePKPPKP	[illegible]
	BKS	[illegible]	08 44
		[illegible]	13 10
		[illegible]	15 12
		[illegible]	19 22

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DATE	STA	PHASE	TIME (UTC)
		ePS	08 22 12
		eSS	08 27 20
		ePSPS	08 28 54
		eSSS	08 31 38
		eLg	08 38 0
		eLr	08 44 28
		AMP(μa)	PER(s)
		PKPZ	0.043 1.0
		LZ	41 20.
		LNE	75 20.
		LNW	22 20.
	MNA	ePc	08 08 44.0
		ePKKP	08 12 05
		e	08 12 25
		e	08 12 46
		ePP	08 13 06.6
		eSP	08 22 16
		ePKKP	08 24 27
		eSKKP	08 27 59
	JASI	ePc	08 08 44.0
		e	08 08 59.1
		i	08 09 36.8
		ePKKP	08 12 04.1
		e	08 12 25.4
		ePP	08 13 09.0
		eSP	08 22 18
		ePKKP	08 24 25
		eSKKP	08 27 57
		ePKPPKP	08 32 21
	PCC	eP	08 08 45
	MHC	eP	08 08 46.8
		ePKKP	08 24 23
	FRI	e(P)	08 08 50
		ePKKP	08 24 21
		eSKKP	08 27 59
		ePKPPKP	08 32 17
	LLA	eP	08 08 55
	PRS	eP	08 08 55.6
	PRI	eP	08 08 57.4
		ePP	08 13 20
		ePKKP	08 24 20
		eP400P	08 24 20
	GCC	ePKKP	08 24 23

BRK Ms=7.3 Distance=106°
USGS 07h54m44.0s 36.2N 70.9E
h=99km mb=6.6
Hindu Kush Region

Jul 29	MNA	ePc	11 41 53.9
		epP	11 42 05.3
	FRI	eP	11 41 54.5
		epP	11 42 06.5
	PRI	e(P)	11 41 56
		epP	11 42 07
	PRS	ePc	11 42 00.5
	JASI	eP	11 42 02.8
		epP	11 42 14.4
	MHC	eP	11 42 06.9
		epP	11 42 18.3
	GCC	e(P)	11 42 07
	ORV	ePc	11 42 17.8
		epP	11 42 29.5
	WDC	ePc	11 42 26.8
		epP	11 42 37.5
	FHC	eP	11 42 37.5
		epP	11 42 49

USGS 11h35m53.5s 17.7N 94.6W
h=47km mb=5.3
Chiapas, Mexico

Jul 30	ORV	iPd	02 34 50.3
	MIN	iPd	02 34 58.1
	WDC	iPc	02 35 00.1
		e(S)	02 35 21.5
	BKS	e	02 35 11.2
		e	02 35 35.8
	ZSP	e(P)	02 35 14.6
		i	02 35 24.5
	FHC	ePc	02 35 14.8
	BRK	e(P)	02 35 15.0
	JASI	iPd	02 35 16.3
		eS	02 35 44.0
	MHC	ePc	02 35 17.2
	PCC	iPc	02 35 17.5
	GCC	e	02 35 24.7
	SAO	eP	02 35 25.2
	LLA	e	02 35 29.2
	FRI	eP	02 35 32.0
		i	02 35 36.8
	PRS	e	02 35 32.0
	MNA	ePc	02 35 33.8
	PRI	e	02 35 41

BRK 02h34m42.8s 39.6N 122.0W
h=16km ML=3.3(6)
20 km NE of Willows, CA

Jul 30	FHC	iPed	03 53 06.2
		iSe	03 53 12.8
	WDC	ePed	03 53 21.5
		e	03 53 26.7
		iSg	03 53 43.4
	ORV	e	03 53 43.6

BRK 03h52m57.9s 41.2N 124.2W
h=11km ML=3.4(2) Mo=3.9E20(2)
Off Coast, 45 km NNW of Eureka, CA

Jul 30	FHC	iPc	10 57 39.9
		iS	10 57 52.7
	WDC	iPc	10 57 54.3
	MIN	ePc	10 58 04.1
	ORV	ePd	10 58 06.2
	BRK	ePd	10 58 12.9
	ZSP	iPc	10 58 12.9
		i	10 58 45.2
	BKS	iP	10 58 13.6
		i	10 59 6.3
	PCC	iPd	10 58 16.3
	MHC	ePd	10 58 23.4
	GCC	eP	10 58 23.7
	JASI	iPd	10 58 29.3
		eS	10 59 23.0
	SAO	iPd	10 58 29.9
	PRS	eP	10 58 35.4
	LLA	ePd	10 58 35.7
	PRI	eP	10 58 43.3
	FRI	eP	10 58 44.0
	MNA	e(P)	10 58 47.7

BRK 10h57m21.6s 40.4N 125.1W
h=3km ML=4.2(6) Mo=5.1E22(2)
Off Coast, 230 km W of Eureka, CA

Jul 30	FRI	ePd	21 58 32.0
	MNA	iPd	21 58 32.4
		esP	21 59 07.6
	PRI	ePd	21 58 34.7
		esP	21 59 10
	LLA	ePd	21 58 37.9
		esP	21 59 12.7
	PRS	ePd	21 58 39.3
	JASI	iPd	21 58 41.2
	MHC	ePd	21 58 45.9
		esP	21 59 20.0
	GCC	ePd	21 58 46.1
	PCC	e(P)	21 58 46.5
	ORV	eP	21 58 55.0
	FHC	eP	21 59 14.0

USGS 21h51m35.9s 13.3N 89.2W
h=80km mb=5.0
El Salvador

Jul 31	FHC	e(P)	07 45 59.9
	WDC	ePc	07 46 01.1
		eScP	07 51 33.8
	MIN	eP	07 46 06.4
		ePP	07 47 46.6
		ePcP	07 47 56.2
		eScP	07 51 36.1
		epPcP	07 51 51.3
	ORV	eP	07 46 10.4
		ePP	07 47 48.5
		ePcP	07 47 58.0
		eScP	07 51 38.2
	BRK	e	07 46 15.2
	BKS	e	07 46 18.7
		e	07 53 06
		e	07 56 10
		e	07 59 48
		AMP(μa)	PER(s)
		LZ	2.9 20.
		LN	1.4 20.
		LE	2.5 20.
	PCC	eP	07 46 18.8
	MHC	e(P)	07 46 22.5
		ePP	07 47 58
		ePcP	07 48 08.6
		eScP	07 51 44.6
	GCC	e(P)	07 46 23.6
	JASI	eP	07 46 24.5
		i	07 46 31.5
		iScP	07 51 46.0
		epScP	07 52 01.5
	PRS	e(P)	07 46 27.6
		ePcP	07 48 06.2
	LLA	e(P)	07 46 28.5
		ePP	07 47 57.0
		ePcP	07 48 07.1
	PRI	eP	07 46 31.8
		ePcP	07 48 08.7
		eScP	07 51 50.8
	FRI	ePc	07 46 31.8
		ePP	07 47 58.0
		ePcP	07 48 08.0
		ePPP	07 48 34
		eScP	07 51 50.1
		epScP	07 52 06.5
	MNA	e(P)	07 46 32.3
		eScP	07 51 50.8

USGS 07h37m54.6s 52.4N 173.5E
h=46km mb=5.7 Ms=5.0
Near Islands, Aleutian Islands

Aug 1	FRI	ePKPc	23 34 08.9
	PRI	ePKPc	23 34 09.5
	LLA	ePKPc	23 34 09.7
	MNA	ePKP	23 34 09.8
	PRS	ePKPc	23 34 09.9
	GCC	ePKP	23 34 10.4
	MHC	ePKPc	23 34 10.9
	JASI	iPKPc	23 34 11.2
	PCC	ePKP	23 34 12.2
	BRK	ePKP	23 34 12.7
	BKS	ePKPc	23 34 13.0
		AMP(μa)	PER(s)
		PKPZ	0.30 0.8
	ORV	ePKPc	23 34 13.8
	MIN	ePKP	23 34 15.0
	WDC	ePKPc	23 34 15.8
	FHC	ePKP	23 34 19.1

USGS 23h15m14.9s 57.7S 25.3W
h=31km mb=5.6 Ms=4.9
South Sandwich Islands Region

Aug 2	WDC	e	08 00 37.0
		e	08 04 41.5
		e	08 04 53.0
		e	08 05 29
		e	08 06 02.6
		e	08 11 16
		e	08 16 35
	MIN	e	08 00 41.9
		e	08 04 44.2
	ORV	e	08 00 42.2
		e	08 04 48.4
		e	08 05 00
		e	08 11 22
		e	08 16 35
	BKS	ePdiff	08 00 49
		iPP	08 05 14
		epPP	08 05 40
		e	08 06 06
		e	08 07 18
		e	08 08 04
		eSKS	08 11 24
		e	08 12 12
		eS	08 12 46
		e	08 15 08
		ePPS	08 15 22
		e	08 15 58
		ePKKP	08 16 27
		e	08 24 26
		e	08 28 00
		eLg	08 32 14
		eLr	08 36 45
		AMP(μa)	PER(s)
		LZ	4.5 29.
		LN	5.5 29.
		LE	3.2 29.
	JASI	e	08 00 49.6
		e	08 00 49.6
		e	08 05 05.5
		i	08 05 16.9
		e	08 06 04
		e	08 11 28
		e	08 11 28
		e	08 16 27
		e	08 16 27
	MNA	e	08 00 50
		e	08 04 10.8
		e	08 05 21.5
		e	08 11 29
		e	08 11 29
	FRI	e	08 00 55.3
		e	08 05 28
	LLA	e	08 05 25
	PRI	e	08 05 34

USGS 07h46m53.3s 36.2N 70.8E
h=120km mb=6.1
Hindu Kush Region

Aug 3	MHC	iPd	01 43 05.6
	GCC	iPd	01 43 11.1
		iS	01 43 15.8
	SAO	iPd	01 43 14.5
	PCC	iPc	01 43 15.0
		iS	01 43 25.4
	BRK	iPc	01 43 18.2
		iS	01 43 30.5
	BKS	ePc	01 43 18.2
		eS	01 43 29.5
	LLA	eP	01 43 18.5
	ZSP	eP	01 43 18.8
	PRS	eP	01 43 21.4
	JASI	iP	01 43 24.6
		iS	01 43 39.5
	PRI	e	01 43 27.7
	FRI	ePc	01 43 30.5
	ORV	e	01 43 42.4

BRK 01h43m03.6s 37.3N 121.7W
h=9km ML=2.8(4) Mo=4.8E19(2)
Halls Valley Sequence, CA

Aug 3	PRI	iPc	13 57 19.9
	LLA	iPc	13 57 25.9
	FRI	iPd	13 57 27.2
	PRS	iP	13 57 29.1
	SAO	iP	13 57 32.4
	MHC	eP	13 57 38.8
	GCC	eP	13 57 39.1
	JASI	iP	13 57 41.4
		iS	13 58 01.6
	PCC	eP	13 57 47.8
	BRK	eP	13 57 49.2
	BKS	eP	13 57 49.3
	ZSP	eP	13 57 50.4
	MNA	e	13 57 56.5
	ORV	e	13 58 06.8

BRK 13h57m11.9s 36.1N 120.1W
h=11km ML=3.8(5) Mo=1.4E22(1)
Coalinga-Avenal Area, CA

Aug 4	PRI	iPc	11 29 24.1
	LLA	ePd	11 29 30.3
	FRI	iPd	11 29 31.6
	PRS	iPc	11 29 33.6
	SAO	iPc	11 29 36.9
	MHC	iPc	11 29 43.7
		iS	11 30 09.0
	GCC	ePd	11 29 43.8
	JASI	iPd	11 29 45.6
	PCC	eP	11 29 51.3
	BRK	eP	11 29 53.5
	BKS	eP	11 29 53.6
	ZSP	eP	11 29 54.4
	MNA	iPd	11 30 01.0
	ORV	iPc	11 30 11.3
	MIN	iPd	11 30 23.8
	WDC	e	11 30 28.7

BRK 11h29m16.2s 36.1N 120.1W
h=11km ML=4.7(7) Mo=1.1E23(4)
Coalinga-Avenal Area, CA

Aug 4	PRI	iPc	12 02 05.1
	LLA	iPc	12 02 11.2
	FRI	iPd	12 02 12.3
	PRS	iPc	12 02 14.5
	SAO	iPc	12 02 17.4
	MHC	iPc	12 02 24.1
	GCC	iPc	12 02 24.1
	JASI	iPd	12 02 26.5
	PCC	ePc	12 02 31.5
	BKS	iPc	12 02 34.0
	BRK	ePc	12 02 34.1
	ZSP	iPc	12 02 35.6
	MNA	e	12 02 41.5
	ORV	e	12 02 51.8
	MIN	e	12 03 04.0
	WDC	e	12 03 08.8
	FHC	e	12 03 22.8

BRK 12h01m57.0s 36.1N 120.1W
h=11km ML=5.6(7) Mo=2.0E24(4)
M/S Coalinga-Avenal, 22 km E of Coalinga, CA

Aug 4	PRI	iP	12 08 51.2
	SAO	iPc	12 09 04.0
	JASI	iP	12 09 12.4
	BKS	eP	12 09 21.0
	ZSP	eP	12 09 22.0
	MNA	iPc	12 09 44.3

BRK 12h08m42.6s 36.1N 120.1W
h=13km ML=4.0(5) Mo=1.0E22(2)
Coalinga-Avenal Area, CA

Aug 4	PRI	iPc	13 09 28.4
	LLA	iPc	13 09 34.8
	FRI	iPd	13 09 35.4
	PRS	iPc	13 09 37.8
	SAO	iPc	13 09 41.3
	MHC	eP	13 09 48.0
	JASI	iPd	13 09 49.7
	PCC	e	13 09 56.1
	BRK	e	13 09 58.0
	MNA	e	13 10 05.2

BRK 13h09m20.2s 36.1N 120.1W
h=9km ML=3.3(5)
Coalinga-Avenal Area, CA

Aug 4	PRI	iPd	13 18 47.6
	LLA	eP	13 18 53.1
		i	13 18 54.4
	FRI	iPd	13 18 54.4
	PRS	eP	13 18 56.0
		i	13 18 57.4
	SAO	eP	13 19 00.0
	MHC	eP	13 19 07.0
	JASI	iPd	13 19 08.2
	GCC	eP	13 19 08.6
	PCC	e	13 19 15.8
	MNA	e	13 19 23.4
	ORV	e	13 19 34.8

BRK 13h18m38.0s 36.1N 120.1W
h=3km ML=3.3(5)
Coalinga-Avenal Area, CA

Aug 4	PRI	iPc	15 15 49.9
	LLA	iPc	15 15 56.3
	FRI	iPd	15 15 56.7
	PRS	iPc	15 15 58.8
	SAO	iPc	15 16 02.5
	GCC	ePc	15 16 08.9
	MHC	ePc	15 16 09.0
	JASI	iPd	15 16 11.3
	PCC	eP	15 16 16.5
	BKS	eP	15 16 19.2
	BRK	eP	15 16 19.3
	ZSP	eP	15 16 20.4
	MNA	iPd	15 16 25.4
	ORV	e	15 16 37.0
	MIN	e	15 16 50.6
	WDC	e	15 16 53.0

BRK 15h15m40.5s 36.0N 120.1W
h=12km ML=4.1(5) Mo=3.0E22(1)
Coalinga-Avenal Area, CA

Aug 4	PRI	iPc	23 46 02.0
	LLA	iPc	23 46 08.5
	FRI	iPd	23 46 08.6
	PRS	ePc	23 46 10.8
	SAO	eP	23 46 [illegible]
	JASI	eP	23 46 [illegible]
	MHC	e	23 46 [illegible]
	GCC	e	23 46 [illegible]
	MNA	e	23 46 [illegible]

BRK 23h45m52.4s 36.0N [illegible]
h=15km ML=3.2(5)
Coalinga-Avenal Area, CA

Aug 5	FHC	ePc	[illegible]

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DATE	STA	PHASE	TIME (UTC)
	WDC	ePc	01 36 01.9
	MIN	e(P)c	01 36 05.3
	ORV	iPc	01 36 07.2
	PCC	ePc	01 36 07.6
	BRK	eP	01 36 07.7
	BKS	eP	01 36 07.9
			AMP(μa) PER(s)
		PZ	0.034 0.8
	GCC	ePc	01 36 09.9
	MHC	ePc	01 36 11.4
	SAO	eP	01 36 12.5
	PRS	ePc	01 36 14.2
	JAS1	iPc	01 36 14.8
	LLA	eP	01 36 15.2
	PRI	ePc	01 36 17.6
	FRI	eP	01 36 19.1
	MNA	ePc	01 36 22.4
USGS 01h24m27.7s 21.7N 142.9E			
h=314km mb=4.9			
Mariana Islands Region			
Aug 5	FHC	e	05 52 38.6
	WDC	e	05 52 51
	MIN	e	05 53 05
	ORV	eP	05 53 12.4
	JAS1	eP	05 53 36.6
USGS 05h51m48.4s 43.4N 126.6W			
h=10km mb=4.6			
Off Coast of Oregon			
Aug 5	PRI	iPc	14 45 48.1
	LLA	iPc	14 45 54.0
	FRI	iPd	14 45 54.4
	PRS	iPc	14 45 57.5
	SAO	iP	14 46 00.7
	MHC	iPc	14 46 07.0
	GCC	iPc	14 46 07.1
	JAS1	iPc	14 46 09.2
	PCC	eP	14 46 14.0
		i	14 46 16.0
	BKS	eP	14 46 17.0
	BRK	eP	14 46 17.1
	ZSP	ePd	14 46 18.0
	MNA	ePd	14 46 23.5
	ORV	eP	14 46 34.7
	MIN	e	14 46 49
	WDC	e	14 46 50
	FHC	e	14 47 04
BRK 14h45m39.0s 36.1N 120.1W			
h=8km ML=4.3(5) Mo=5.1E22(2)			
Coalinga-Avenal Area, CA			
Aug 5	PRI	iPc	15 22 34.7
	LLA	iPd	15 22 40.7
	FRI	eP	15 22 40.8
	PRS	iPc	15 22 43.9
	SAO	eP	15 22 47.0
	GCC	e(P)	15 22 53.5
	MHC	eP	15 22 53.6
	JAS1	iPc	15 22 55.6
	BRK	eP	15 23 04.0
	PCC	e	15 23 08.9
	MNA	e	15 23 15.0
	ORV	eP	15 23 21.6
BRK 15h22m25.5s 36.1N 120.1W			
h=9km ML=3.7(5)			
Coalinga-Avenal Area, CA			
Aug 6	FHC	eP	06 10 07.5
	WDC	iPc	06 10 13.0
	ORV	iPc	06 10 19.7
	BRK	eP	06 10 22.6
	BKS	eP	06 10 23.2

DATE	STA	PHASE	TIME (UTC)
			AMP(μa) PER(s)
		PZ	0.028 0.7
	MHC	eP	06 10 26.7
	JAS1	ePc	06 10 29.3
	PRS	eP	06 10 31.2
	LLA	eP	06 10 31.9
	PRI	eP	06 10 34.7
	FRI	eP	06 10 35.0
	MNA	eP	06 10 36.7
USGS 05h58m54.2s 36.4N 141.0E			
h=52km mb=5.3 Ms=4.6			
Near East Coast of Honshu Japan			
Aug 6	PRI	iPc	18 11 24.2
		iS	18 11 32.7
	LLA	iPd	18 11 30.9
	FRI	iPd	18 11 31.2
	PRS	iPd	18 11 33.4
	SAO	iP	18 11 37.8
	MHC	eP	18 11 43.6
	GCC	e(P)	18 11 44
	JAS1	iPd	18 11 45.8
		iS	18 12 10.2
BRK 18h11m14.9s 36.0N 120.1W			
h=10km ML=2.9(3)			
Coalinga-Avenal Area, CA			
Aug 6	ZSP	eP	18 37 11.8
		i	18 37 12.2
	BRK	ePc	18 37 12.2
		i	18 37 28.0
	BKS	eP	18 37 12.6
		eS	18 37 27.3
	ORV	ePd	18 37 15.5
		i	18 37 21.4
	PCC	eP	18 37 17.3
	WDC	e	18 37 21.2
		e	18 37 28.6
	GCC	e(P)	18 37 22.5
	MHC	ePc	18 37 23.2
	JAS1	eP	18 37 27.8
	LLA	ePc	18 37 34.2
	PRS	ePd	18 37 36.7
	FHC	e	18 37 39.2
	FRI	e	18 37 42.5
BRK 18h36m52.7s 38.8N 122.8W			
h=1kmR ML=2.9(4)			
The Geysers, 25 km S of Clear Lake, CA			
Aug 7	PRI	iPc	00 16 13.8
	LLA	iPc	00 16 19.7
	FRI	iPd	00 16 21.6
	PRS	iPc	00 16 21.9
	SAO	iPc	00 16 25.9
	GCC	ePc	00 16 32.4
	MHC	iPc	00 16 32.6
	JAS1	iPc	00 16 35.5
	PCC	iPd	00 16 40.5
	BRK	ePd	00 16 42.6
		i	00 16 47.7
	BKS	eP	00 16 42.8
	ZSP	iPc	00 16 44.0
	MNA	eP	00 16 50.4
		i	00 16 54.1
	ORV	ePd	00 17 00.9
	MIN	ePd	00 17 16.9
	WDC	e(P)	00 17 19
	FHC	e(P)	00 17 29.3
BRK 00h16m04.5s 36.0N 120.1W			
h=11km ML=4.3(5) Mo=2.6E22(2)			
Coalinga-Avenal Area, CA			

DATE	STA	PHASE	TIME (UTC)
Aug 7	PRI	iPc	00 28 22.0
	LLA	ePc	00 28 28.8
	FRI	iPd	00 28 30.8
	PRS	eP	00 28 31.0
	SAO	iP	00 28 35.3
	GCC	e(P)	00 28 41.3
	MHC	e(P)	00 28 41.8
	JAS1	iPc	00 28 44.5
		i	00 28 50.1
		iS	00 29 08.4
	PCC	e	00 28 53.6
	MNA	e	00 29 05.2
	MIN	e	00 29 07.4
	ORV	e	00 29 14
BRK 00h28m13.7s 36.0N 120.1W			
h=12km ML=3.2(5)			
Coalinga-Avenal Area, CA			
Aug 7	WDC	iPc	00 45 46.8
	FHC	iPc	00 45 46.8
		i	00 45 51.9
		iS	00 45 57.0
	MIN	iPc	00 45 56.9
	ORV	iPc	00 46 05.7
	JAS1	e	00 46 32
	PCC	e	00 46 35.7
	MHC	e	00 46 41.8
	MNA	e	00 46 56
	FRI	e	00 47 00
BRK 00h45m35.5s 40.9N 123.2W			
h=17km ML=3.7(3) Mo=7.8E21(3)			
85 km NW of Redding, CA			
Aug 7	GCC	eP	09 12 35.4
	PCC	e	09 12 35.6
	PRS	eP	09 12 36.4
	SAO	eP	09 12 36.4
	BRK	eP	09 12 36.5
	BKS	eP	09 12 36.8
			AMP(μa) PER(s)
		PZ	0.070 1.0
	MHC	ePc	09 12 37.7
	LLA	eP	09 12 38.2
	FHC	ePc	09 12 38.2
	PRI	ePc	09 12 38.7
	WDC	ePc	09 12 41.8
	ORV	ePc	09 12 42.4
	JAS1	iPc	09 12 42.7
	FRI	iPc	09 12 43.0
	MIN	eP	09 12 43.7
	MNA	ePc	09 12 51.5
USGS 09h00m25.4s 19.2S 169.3E			
h=262km mb=5.1			
Vanuatu Islands			
Aug 7	PRI	ePc	10 55 32.4
	LLA	eP	10 55 38.4
	FRI	eP	10 55 38.6
	PRS	eP	10 55 41.8
	SAO	eP	10 55 45.2
	GCC	eP	10 55 51.4
	MHC	eP	10 55 51.5
	JAS1	iPc	10 55 53.4
	MNA	e	10 56 12
	ORV	e	10 56 18
	MIN	e	10 56 39
BRK 10h55m23.2s 36.1N 120.1W			
h=6km ML=3.1(3)			
Coalinga-Avenal Area, CA			
Aug 8	WDC	eP	16 35 47.3
	FHC	e	16 35 47.5
	MIN	e	16 35 48.4

DATE	STA	PHASE	TIME (UTC)
	ORV	eP	16 35 49.4
		e	16 38 05.2
	GCC	e	16 35 50.8
	BRK	e	16 35 51.3
	MHC	eP	16 35 51.5
		e	16 38 07.2
	BKS	e	16 35 51.5
	JAS1	eP	16 35 52.2
	PRS	eP	16 35 52.4
	LLA	eP	16 35 53.0
	FRI	e	16 35 53.5
	PRI	eP	16 35 54.2
		e	16 38 10.2
	MNA	eP	16 35 56.1
USGS 16h18m02.6s 6.1S 113.5E			
h=592km mb=5.7			
Java			
Aug 8	WDC	iPd	16 47 42.5
	MIN	e	16 47 43.7
	ORV	ePd	16 47 44.6
	PCC	e	16 47 45.1
	BRK	e	16 47 45.1
	BKS	eP	16 47 45.6
			AMP(μa) PER(s)
		PZ	0.047 0.8
	GCC	e	16 47 45.9
	MHC	ePd	16 47 46.8
	JAS1	eP	16 47 47.5
		e	16 49 13.7
	PRS	ePd	16 47 47.8
	LLA	eP	16 47 48.7
	PRI	ePd	16 47 49.4
	FRI	eP	16 47 49.5
	MNA	ePd	16 47 51.3
		e	16 49 27.4
USGS 16h29m58.0s 6.1S 113.4E			
h=596km mb=5.6			
Java			
Aug 9	PCC	e	06 20 18.3
	GCC	e	06 20 18.3
	PRS	e	06 20 18.3
	SAO	e	06 20 19.0
	MHC	e	06 20 20.3
	PRI	eP	06 20 20.4
	BRK	e	06 20 20.4
	LLA	e	06 20 20.4
	BKS	eP	06 20 20.4
		eS	06 29 27.2
		eLg	06 39 08
			AMP(μa) PER(s)
		PZ	0.044 0.7
	FRI	eP	06 20 25.7
	JAS1	eP	06 20 26.4
		epP	06 21 14.2
		e	06 48 10.5
	ORV	eP	06 20 27.6
	WDC	eP	06 20 27.9
	MIN	e	06 20 30.0
	MNA	eP	06 20 36.6
		e	06 21 22.2
		e	06 30 00.5
		e	06 48 07.7
BRK mb=5.7 h=33km Distance=86°			
USGS 06h09m15.4s 15.3S 174.6W			
h=208km mb=5.4			
Tonga Islands			
Aug 9	PRI	iPc	08 47 20.7
	FRI	iPd	08 47 26.3
	LLA	ePd	08 47 26.6
	PRS	ePc	08 47 29.7

DATE	STA	PHASE	TIME (UTC)
	SAO	eP	08 47 32.8
	MHC	eP	08 47 40.0
	JAS1	iPc	08 47 41.3
	GCC	e	08 47 45.6
	MNA	e	08 47 59.5
	ORV	e	08 48 07.0
BRK 08h47m10.9s 36.1N 120.0W			
h=10km ML=3.0(4)			
Coalinga-Avenal Area, CA			
Aug 9	PRI	iPc	09 31 31.8
	FRI	eP	09 31 37.4
	LLA	ePc	09 31 38.0
	PRS	ePc	09 31 41.0
	SAO	eP	09 31 44.5
	MHC	e	09 31 51.0
	JAS1	iPc	09 31 52.5
	MNA	eP	09 32 11.5
BRK 09h31m22.0s 36.1N 120.0W			
h=9km ML=3.0(2)			
Coalinga-Avenal Area, CA			
Aug 9	PRI	iPd	09 33 20.2
	FRI	e(P)	09 33 25.7
	LLA	ePc	09 33 25.7
	PRS	ePc	09 33 28.7
	SAO	e	09 33 32.9
	MHC	e	09 33 39.8
	JAS1	iPd	09 33 40.4
	GCC	e	09 33 40.5
	MNA	e	09 33 59.3
BRK 09h33m09.7s 36.1N 120.0W			
h=7km ML=3.1(2)			
Coalinga-Avenal Area, CA			
Aug 9	PRI	iPd	09 55 18.7
	FRI	iPd	09 55 24.9
	LLA	eP	09 55 25.1
	PRS	e(P)	09 55 27.6
	SAO	iPc	09 55 31.9
	JAS1	iPc	09 55 39.8
	MHC	e	09 55 40.4
	GCC	e	09 55 41.0
	MNA	eP	09 55 57.2
BRK 09h55m08.5s 36.0N 120.0W			
h=8km ML=2.9(1)			
Coalinga-Avenal Area, CA			
Aug 9	PRI	iPc	11 15 44.5
	FRI	eP	11 15 50.1
	LLA	iPc	11 15 50.6
	PRS	ePc	11 15 53.4
	SAO	eP	11 15 57.4
	MHC	e	11 16 05.0
	JAS1	iPd	11 16 05.3
	GCC	e	11 16 06.3
	MNA	e	11 16 23.6
BRK 11h15m34.5s 36.1N 120.0W			
h=8km ML=3.0(4)			
Coalinga-Avenal Area, CA			
Aug 9	PRI	iPd	12 42 28.6
	LLA	iPc	12 42 35.2
	FRI	iPd	12 42 36.3
	PRS	iPc	12 42 38.2
	SAO	iP	12 42 41.8
	MHC	e	12 42 48.2
	GCC	e	12 42 48.3
	JAS1	iPc	12 42 50.7
	PCC	e	12 42 55.6
	BRK	e	12 42 58.4
	BKS	e	12 42 58.4
	ZSP	e	12 42 59.4

DATE	STA	PHASE	TIME (UTC)
	MNA	e	12 43 04.8
	ORV	e	12 43 15.7
BRK 12h42m20.2s 36.1N 120.1W			
h=7km ML=3.4(4)			
Coalinga-Avenal Area, CA			
Aug 10	WDC	ePd	02 37 49.6
	MIN	eP	02 37 56.7
	ORV	eP	02 38 06.3
	JAS1	e	02 38 32.0
	MNA	eP	02 38 37.1
USGS 02h35m31.7s 49.2N 127.8W			
h=10km mb=4.4			
Vancouver Island Region			
Aug 10	WDC	eP	16 48 59.5
	ORV	eP	16 49 02.4
		e	16 52 33.0
	MHC	e	16 49 03.7
	PRI	e	16 49 04.7
	JAS1	eP	16 49 05.3
		e	16 52 36.4
	FRI	e	16 49 07.7
		e	16 52 32.8
	MNA	eP	16 49 14.8
	BKS	eLg	17 13 12
		eLr	17 16 36
			AMP(μa) PER(s)
		LZ	5.1 20.
		LN	1.1 20.
		LE	3.3 20.
USGS 16h36m08.3s 4.2S 152.9E			
h=32km mb=5.7 Ms=5.5			
New Britain Region			
Aug 11	WDC	eP	00 31 52.7
	BKS	iPc	00 31 56
		iS	00 42 28
		i	00 42 40
		e(Lg)	00 55 29
		e	00 56 33
		i	00 59 38
			AMP(μa) PER(s)
		PZ	0.57 2.0
		LZ	4.9 20.
		LN	1.1 20.
		LE	3.9 20.
	MIN	eP	00 31 56.0
	BRK	eP	00 31 57.0
	ORV	eP	00 31 57.4
	MHC	e	00 31 59.4
	PRS	e	00 32 02.0
	LLA	e	00 32 03.3
	JAS1	eP	00 32 03.5
	PRI	eP	00 32 05.4
	FRI	eP	00 32 07.0
	MNA	eP	00 32 11.5
BRK Ms=5.8 Distance=87°			
USGS 00h19m01.5s 11.2N 140.2E			
h=24km mb=5.8 Ms=6.0			
West Caroline Islands			
Aug 11	PRI	iPd	06 30 33.7
	LLA	iPc	06 30 40.4
	FRI	iPd	06 30 42.1
	PRS	eP	06 30 42.3
	SAO	eP	06 30 [illegible]
	MHC	eP	06 30 [illegible]
	GCC	e	06 30 [illegible]
	JAS1	iPc	06 30 [illegible]
BRK 06h30m26.1s 36.1N [illegible]			
h=7km ML=3.1(3) [illegible]			
Coalinga-Avenal Area, CA			

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DATE	STA	PHASE	TIME (UTC)
Aug 11	FHC	ePc	10 08 02.8
	WDC	iPc	10 08 09.7
	MIN	iPc	10 08 14.7
	ORV	iPc	10 08 18.8
	BKS	iP	10 08 24
		e	10 08 40.9
		iPP	10 10 16
		iS	10 15 26
		eLg	10 19 36
		eLr	10 21 32
			AMP(pa) PER(s)
		P2	1.3 1.8
		LZ	15 20.
		LN	6.6 20.
		LE	14 20.
	BRK	eP	10 08 24.4
	PCC	eP	10 08 25.3
	GCC	eP	10 08 29.6
	MHC	ePc	10 08 30.3
		e	10 10 24.3
	JAS1	iPc	10 08 33.0
		i	10 10 26.7
	SAO	eP	10 08 33.6
	PRS	ePc	10 08 36.7
	LLA	eP	10 08 37.2
	MNA	eP	10 08 40.3
		e	10 10 32.6
	FRI	iPc	10 08 40.4
		e	10 10 24.3
	PRI	ePc	10 08 42.4

BRK Ms=6.0 Distance=52°
USGS 09h59m44.2s 54.1N 168.7E
h=50km mb=5.9
Kamandorsky Islands Region

Aug 12	PRI	e	00 17 31.5
	MNA	e	00 17 34.8
	JAS1	eP	00 17 37.7
	FRI	e	00 17 39.8
	BKS	iPd	00 17 46
		eS	00 28 30
		iSS	00 34 36
		iSSS	00 38 06
		e(Lq)	00 42 20
		eLr	00 47 08
			AMP(pa) PER(s)
		LZ	3.9 20.
		LN	2.5 20.
		LE	2.2 20.
	ORV	e	00 17 47.1
	WDC	e	00 17 51.7

BRK Ms=5.8 Distance=93°
USGS 00h04m51.5s 38.4S 73.5W
h=33km mb=5.6 Ms=6.0
Near Coast of Central Chile

Aug 12	FHC	e	04 00 26.5
	WDC	ePc	04 00 28.8
	MIN	e	04 00 32.9
	ORV	ePc	04 00 35.7
	BKS	ePc	04 00 38
		i	04 00 46.5
		eP	04 00 48
		i	04 00 51
		iS	04 10 00
		eSS	04 14 40
		eLg	04 18 04
		eLr	04 21 57
			AMP(pa) PER(s)
		PZ	0.40 1.7
		LZ	13 20.
		LN	8.2 20.

DATE	STA	PHASE	TIME (UTC)
		LE	16 20.
	BRK	e	04 00 39.0
	MHC	e	04 00 43.2
	JAS1	ePc	04 00 46.0
	PRS	e	04 00 47.6
	LLA	e	04 00 48.9
	FRI	e	04 00 51.3
	PRI	eP	04 00 51.5
	MNA	ePc	04 00 55.3

BRK Ms=6.2 Distance=72°
USGS 03h49m18.1s 37.8N 141.8E
h=52km mb=6.0 Ms=6.3
Near East Coast of Honshu, Japan

Aug 12	WDC	ePKP	04 36 38.7
	MIN	ePKP	04 36 39.9
	ORV	ePKPc	04 36 40.6
	PCC	ePKP	04 36 40.7
	BRK	ePKP	04 36 41.2
	BKS	iPKP	04 36 41.5
			AMP(pa) PER(s)
		P2	0.038 0.7
	GCC	ePKP	04 36 41.8
	MHC	ePKP	04 36 42.5
	SAO	ePKP	04 36 43.0
	JAS1	ePKPc	04 36 43.4
	PRS	ePKP	04 36 43.4
	LLA	ePKP	04 36 43.6
	FRI	ePKP	04 36 45.0
	PRI	ePKP	04 36 45.5
	MNA	ePKP	04 36 47.2

USGS 04h18m59.0s 7.0S 117.2E
h=599km mb=5.7
Bali Sea

Aug 12	MIN	iPc	06 49 46.5
	ORV	iPc	06 49 49.9
	WDC	iP	06 49 59.0
		iS	06 50 15.1
	JAS1	eP	06 50 16.8
		iS	06 50 44.9
	ZSP	e	06 50 17.6
	BRK	eP	06 50 18.0
	BKS	iP	06 50 18.4
		iSe	06 50 52.2
		iSg	06 50 57.2
		i	06 51 22.5
	FHC	e	06 50 21.8
	PCC	e	06 50 23.9
	MNA	eP	06 50 24.8
	MHC	eP	06 50 25.4
	FRI	e	06 50 32.6
	SAO	e	06 50 33.8
	LLA	e	06 50 36.1

BRK 06h49m38.6s 40.1N 121.1W
h=15km ML=3.6(5) Mo=5.7E21(1)
Lake Alsanor, 50 ka SW of
Susanville, CA

Aug 12	WDC	eP	14 41 52.8
	ORV	eP	14 41 57.0
	PRI	e	14 42 05.0
	JAS1	e	14 42 06.6
	FRI	e	14 42 06.7
	MNA	e	14 42 11.4

USGS 14h29m02.4s 11.1N 140.4E
h=33km mb=5.4 Ms=5.0
West Caroline Islands

Aug 12	MNA	eP	17 21 05.0
	FRI	eP	17 21 10.6
	ORV	eP	17 21 24.8

USGS 17h12m36.0s 18.0N 68.6W
h=95km mb=4.8
Mona Passage

Aug 13	FRI	eP	05 40 08.4
	PRI	eP	05 40 08.7
	MNA	eP	05 40 09.5
	PRS	e	05 40 12.3
	JAS1	eP	05 40 15.1
	GCC	e	05 40 17.2
	MHC	e	05 40 17.5
	BRK	e	05 40 21.8
	BKS	e	05 40 22.7
		e	05 40 28.5
		e	05 40 32.1
		e	06 08 10
	ORV	eP	05 40 26.4
	MIN	e	05 40 27.6
	WDC	eP	05 40 31.8

USGS 05h29m19.0s 15.0S 75.5W
h=26km mb=5.4 Ms=4.8
Near Coast of Peru

Aug 13	MNA	eP	13 03 55.7
	PRI	eP	13 03 57.3
	LLA	eP	13 04 00.2
	JAS1	eP	13 04 02.8
	GCC	eP	13 04 07.0
	MHC	eP	13 04 07.1
	ORV	eP	13 04 14.7
		epP	13 04 50.6
	WDC	eP	13 04 20.8

USGS 12h54m36.8s 2.0S 77.2W
h=159km mb=4.8
Peru-Equador Border Region

Aug 13	BRK	iPc	16 45 16.0
		eS	16 45 17.0
	BKS	iPd	16 45 16.0
		iS	16 45 17.1
	ZSP	iPd	16 45 17.5
	PCC	iPd	16 45 22.2
	MHC	iPc	16 45 28.5
		eS	16 45 39.8
	GCC	iPc	16 45 30.5
		eS	16 45 42.3
	JAS1	eP	16 45 40.2
		eS	16 45 59.4

BRK 16h45m15.1s 37.8N 122.2W
h=5km ML=3.1(4) Mo=1.2E20(2)
3 km SE of Berkeley, CA

Aug 14	PRS	eP	04 23 23.2
	MHC	ePd	04 23 25.8
	FRI	iPd	04 23 29.5
		e	04 23 41.8
	JAS1	iPd	04 23 30.6
		e	04 23 42.8
	ORV	eP	04 23 32.8
	WDC	ePd	04 23 33.2
		e	04 23 45.8
	MNA	eP	04 23 38.2
	BKS	e	04 51 00

USGS 04h10m40.6s 32.0S 178.7W
h=33km mb=5.5 Ms=4.9
Kermadec Islands Region

Aug 14	PRI	eP	05 35 19.0
	MNA	eP	05 35 20.2
	JAS1	e(P)	05 35 25.9
	ORV	iPd	05 35 36.1
	WDC	eP	05 35 41.7
	BKS	e	05 58 45
		e	06 00 38

DATE	STA	PHASE	TIME (UTC)
		e	06 03 29

USGS 05h24m29.7s 15.2S 73.6W
h=33km mb=5.1 Ms=4.9
Near Coast of Peru

Aug 14	FHC	e(P)	06 20 48.6
	WDC	ePc	06 20 53.0
	MIN	eP	06 20 56.4
	ORV	eP	06 20 58.5
	MHC	eP	06 21 04.2
	JAS1	eP	06 21 06.5
	PRS	eP	06 21 07.7
	PRI	eP	06 21 10.7
	FRI	eP	06 21 11.0
	MNA	eP	06 21 13.0

USGS 06h08m15.1s 26.0N 129.1E
h=45km mb=5.2 Ms=5.0
Ryukyu Islands Region

Aug 15	MNA	e(P)	01 41 52.4
	JAS1	e(P)	01 42 05.7
	ORV	e(P)	01 42 13.3
	WDC	e	01 42 17.0

USGS 01h33m02.9s 18.9N 65.1W
h=54km mb=4.5
Puerto Rico Region

Aug 15	PRI	iPc	03 21 05.9
		iS	03 21 15.1
	LLA	eP	03 21 11.7
	FRI	eP	03 21 12.2
	PRS	iPc	03 21 15.3
	SAO	eP	03 21 18.7
	MHC	e(P)	03 21 24.8
	GCC	e	03 21 25.6
	JAS1	iPc	03 21 27.0
		iS	03 21 50.6
	MNA	e	03 21 41.5

BRK 03h20m56.9s 36.1N 120.1W
h=9km ML=3.0(5)
Coalinga-Avenal Area, CA

Aug 15	PRI	eP	09 11 53.3
	FRI	e	09 11 54
	JAS1	eP	09 12 01.0
	MNA	eP	09 12 01.4
	ORV	eP	09 12 10.7
		e	09 12 24.0
	WDC	eP	09 12 14.0
		e	09 12 29.2
	BKS	e	09 12 22.7

USGS 08h59m50.0s 38.4S 93.3W
h=10km mb=5.1 Ms=4.8
West Chile Rise

Aug 16	FRI	iPc	01 51 50.55
	MNA	iPd	01 51 58.4
		i	01 52 02.0
		iS	01 52 32.6
	PRI	iPc	01 52 00.05
		eS	01 52 29.8
	LLA	eP	01 52 03.3
		i	01 52 04.7
	JAS1	iPc	01 52 05.3
		i	01 52 07.3
		iS	01 52 40.8
	PRS	ePc	01 52 07.8
	SAO	eP	01 52 09.7
	ORV	e(P)	01 52 12.3
	MHC	e	01 52 14.1
	GCC	eP	01 52 15.7
	PCC	e(P)	01 52 21.6
	BRK	e	01 52 22

DATE	STA	PHASE	TIME (UTC)
	BKS	ePn	01 52 23.5
		eSn	01 53 04.7
		eSe	01 53 18.7
		eSg	01 53 37.7
		e	01 53 42.7
		e	01 54 07.4
	MIN	e	01 52 44.9
	WDC	e	01 52 55

BRK ML=4.3(2)
PAS 01h51m21.4s 36.2N 117.9W
h=5km ML=4.3
East Central California

Aug 16	WDC	eP	09 53 23.4
	MIN	e(P)	09 53 28.0
	ORV	eP	09 53 29.2
	MNA	e	09 53 57.9

USGS 09h41m31.2s 28.0N 140.7E
h=33km mb=4.9
Bonin Islands Region

Aug 16	MHC	iPd	17 04 08.4
	GCC	eP	17 04 13.3
	SAO	iPd	17 04 16.1
	PCC	iPc	17 04 18.4
		iS	17 04 29.8
	LLA	eP	17 04 21.3
	BRK	eP	17 04 21.7
	BKS	ePc	17 04 21.9
		iS	17 04 34.3
	ZSP	iPc	17 04 22.8
	PRS	eP	17 04 23.3
	JAS1	eP	17 04 27.8
	PRI	eP	17 04 30.3
	FRI	eP	17 04 32.4
	ORV	e	17 04 44.5

BRK 17h04m06.0s 37.2N 121.6W
h=4km ML=2.9(4) Mo=2.1E20(2)
Halls Valley Sequence, CA

Aug 17	FRI	e	01 11 23.4
	MNA	ePKP	01 11 23.9
	PRI	ePKP	01 11 24.4
	JAS1	ePKP	01 11 27.0
		i	01 11 33.5
	ORV	ePKP	01 11 33.7
	WDC	ePKP	01 11 34.0

USGS 00h51m42.5s 52.2S 17.0E
h=10km mb=4.9
Southwest of Africa

Aug 17	WDC	eP	07 58 46.8
	MIN	eP	07 58 51.6
	ORV	eP	07 58 53.1
	JAS1	eP	07 59 01.8
	FRI	eP	07 59 08.5
	MNA	eP	07 59 09.2

USGS 07h46m55.9s 28.2N 140.7E
h=33km mb=4.9
Bonin Islands Region

Aug 17	WDC	eP	13 50 33.0
		e	13 50 46.7
	ORV	eP	13 50 40.3
		e	13 50 50.7
	JAS1	eP	13 50 49.0
		e	13 51 01.3
	FRI	eP	13 50 53.8
		e	13 51 06.1
	MNA	e	13 51 08.5

USGS 13h38m42.3s 28.1N 140.8E
h=33km mb=4.9
Bonin Islands Region

DATE	STA	PHASE	TIME (UTC)
Aug 17	MNA	iPc	16 25 38.1
	FRI	ePc	16 25 48.5
	JAS1	iP	16 25 58.2
	PRI	e	16 26 01.6
	LLA	eP	16 26 03.5
	SAO	e	16 26 07.1
	PRS	eP	16 26 07.7
	MHC	e	16 26 12.0
	ORV	eP	16 26 17.0
	MIN	e	16 26 24.2
	BKS	e	16 26 28.6
	WDC	e	16 26 33.4

BRK ML=4.3(5)
USGS 16h25m00.1s 37.0N 116.0W
h=0km mb=4.6
Underground Nuclear Explosion, NTS
(Chanita)

Aug 17	MHC	iPd	16 35 48.9
		iS	16 35 52.7
	SAO	iPc	16 35 51.8
	GCC	iPc	16 35 51.8
	LLA	iPc	16 35 57.0
	PCC	iP	16 35 58.3
		iS	16 36 10.8
	PRS	iPc	16 35 59.2
	BRK	iPc	16 36 01.5
	BKS	eP	16 36 01.6
		iS	16 36 15.5
	ZSP	iPc	16 36 02.6
		iS	16 36 19.1
	JAS1	iPd	16 36 05.6
	PRI	eP	16 36 06.0
	FRI	iPc	16 36 09.4
	ORV	e	16 36 24.4

BRK 16h35m44.1s 37.1N 121.5W
h=7km ML=3.1(5) Mo=3.2E20(2)
Anderson Lake, 35 ka SE of San Jose, CA

Aug 17	WDC	eP	18 42 20.4
	ORV	eP	18 42 26.5
	BKS	eP	18 42 28.6
			AMP(pa) PER(s)
	PZ	0.047	0.9
	MHC	e	18 42 31.9
	JAS1	eP	18 42 34.8
	PRS	e	18 42 35.1
	LLA	e	18 42 36.7
	FRI	eP	18 42 39.9
	MNA	eP	18 42 42.0

USGS 18h30m28.6s 28.2N 140.7E
h=33km mb=5.2 Ms=4.6
Bonin Islands Region

Aug 18	MHC	iPd	03 21 28.0
	GCC	eP	03 21 33.5
	SAO	iP	03 21 36.7
	PCC	iPc	03 21 37.8
		iS	03 21 49.0
	BRK	iPc	03 21 40.9
	BKS	eP	03 21 41.1
		eS	03 21 52.6
	LLA	eP	03 21 [illegible]
	ZSP	iPc	03 21 [illegible]
	PRS	eP	03 21 [illegible]
	JAS1	iPc	03 21 57.3
	PRI	e	03 21 50.2
	ORV	e	03 21 50.2
	FRI	e	03 21 52.5

BRK 03h21m26.0s 37.3N 121.7W
h=7km ML=2.9(4) Mo=1.2E19(2)

International Seismological Centre

DATE	STA	PHASE	TIME (UTC)
Halls Valley Sequence, CA			
Aug 18	WDC	ePc	04 36 14.4
	JAS1	ePc	04 36 29.2
	FRI	ePc	04 36 34.2
	PRI	eP	04 36 35.6
	MNA	ePc	04 36 36.8
USGS 04h24m22.4s 28.1N 140.8E			
h=33km mb=4.8 Ms=5.4			
Bonin Islands Region			
Aug 18	WDC	eP	04 40 24.6
	MHC	eP	04 40 36.1
	JAS1	eP	04 40 39.0
	PRS	eP	04 40 39.5
	PRI	e	04 40 43.0
	FRI	eP	04 40 44.0
	MNA	eP	04 40 46.5
USGS 04h28m32.4s 28.2N 140.8E			
h=33km mb=5.0 Ms=4.6			
Bonin Islands Region			
Aug 19	MIN	iPc	04 43 10.6
	ORV	iP	04 43 15.8
		iS	04 43 24.7
	WDC	eP	04 43 23.2
		iS	04 43 37.5
	JAS1	eP	04 43 43.6
BRK 04h43m05.1s 40.2N 121.3W			
h=8km ML=3.1(1) Mo=5.9E20(1)			
60 km SW of Susanville, CA			
Aug 19	PRI	e	08 04 32.3
	FRI	e	08 04 35.0
	MNA	eP	08 04 36.9
	LLA	e	08 04 39.7
	JAS1	eP	08 04 41.6
	MHC	e	08 04 45.9
	BKS	eP	08 04 50.3
		eS	08 13 56.4
		eSS	08 18 32.0
		eLg	08 23 50.0
		eLr	08 27 34.0
		AMP(μm)	PER(s)
		PZ 0.022	1.0
		LZ 1.6	20.
		LN 1.4	20.
		LE 1.4	20.
	ORV	ePc	08 04 54.4
	WDC	e	08 04 59.7
BRK Ms=5.4 Distance=71°			
USGS 07h53m48.2s 15.0S 75.6W			
h=33km mb=5.2 Ms=5.3			
Near Coast of Peru			
Aug 19	JAS1	eP	12 15 06.8
		epP	12 15 22.5
	ORV	eP	12 15 07.5
		epP	12 15 21.8
	FRI	eP	12 15 10.8
		epP	12 15 24.3
	BKS	e	12 15 16.5
	MNA	e	12 15 18.8
		e	12 15 32.8
	WDC	e	12 15 20.0
	MIN	e	12 15 22.6
USGS 12h02m39.5s 11.6S 166.5E			
h=49km mb=5.4 Ms=4.9			
Santa Cruz Islands			
Aug 19	BRK	iPc	21 43 17.3
	BKS	iPd	21 43 17.4
		iS	21 43 18.3
	ZSP	iPd	21 43 18.9
	PCC	iPd	21 43 23.6
	MHC	eP	21 43 29.9
	GCC	ePc	21 43 32.3
		eS	21 43 44.1
	JAS1	eP	21 43 42.3
BRK 21h43m16.5s 37.8N 122.2W			
h=2kmR ML=2.6(6) Mo=5.2E19(2)			
Piedmont Area, 4 km S of Berkeley, CA			
Aug 20	WDC	eP	20 44 33.8
	ORV	eP	20 44 41.5
	MHC	e(P)	20 44 47.0
	JAS1	eP	20 44 50
	FRI	eP	20 44 53.2
	MNA	e(P)	20 44 57.5
USGS 20h32m43.0s 28.1N 140.6E			
h=33km mb=4.9 Ms=4.7			
Bonin Islands Region			
Aug 20	GCC	ePc	22 20 25.4
	PRS	ePc	22 20 25.9
	BRK	e(P)	22 20 27
	PRI	eP	22 20 27.8
	MHC	ePc	22 20 27.9
	FRI	ePc	22 20 33.1
	JAS1	ePc	22 20 33.5
	ORV	iPc	22 20 34.2
	WDC	ePc	22 20 34.4
	MNA	eP	22 20 43.2
USGS 22h09m37.7s 18.0S 178.6W			
h=633km mb=4.7			
Fiji Islands Region			
Aug 21	GCC	iPd	01 01 45.3
	PCC	iPc	01 01 45.45
	MHC	ePd	01 01 51.4
		iS	01 02 02.8
	BRK	ePd	01 01 52.4
	BKS	iPd	01 01 52.5
		eS	01 02 04.3
	SAO	iP	01 01 53.7
	ZSP	iPd	01 01 53.8
	PRS	e	01 02 00
	LLA	e	01 02 02
	PRI	e	01 02 09
	JAS1	eP	01 02 10.5
	FRI	e	01 02 13.8
BRK 01h01m37.0s 37.1N 122.5W			
h=10km ML=2.8(4)			
Off Coast, 50 km WNW of Santa Cruz, CA			
Aug 21	PRS	eP	10 55 05.6
	BRK	e(P)	10 55 06.7
	SAO	e(P)	10 55 07.1
	BKS	e(P)	10 55 07.3
		e	10 55 13.0
		eS	11 04 52.4
		ePPS	11 05 29.6
		eSS	11 09 50.0
		eLr	11 17 52.0
		AMP(μm)	PER(s)
		PZ 0.033	0.8
		LZ 4.6	20.
		LN 2.9	20.
		LE 3.2	20.
	MHC	e(P)	10 55 07.6
	GCC	e	10 55 07.8
	LLA	eP	10 55 07.9
	PRI	e(P)	10 55 08.2
	FRI	e(P)	10 55 13.4
		i	10 55 25.3
	JAS1	ePc	10 55 13.5
		i	10 55 40.9
		e	10 56 38.5
	WDC	ePc	10 55 14.0
	ORV	ePc	10 55 14.3
	MIN	ePc	10 55 16.3
	MNA	ePc	10 55 23.9
BRK Ms=5.8 Distance=76°			
USGS 10h43m23.0s 16.1S 179.0W			
h=33km mb=5.7 Ms=5.5			
Fiji Islands			
Aug 21	FRI	e(P)	11 36 28.2
		ePKPPKP	12 06 00
	PRI	eP	11 36 29.4
		e	11 36 41.0
		i	11 36 50.4
		ePKPPKP	12 06 02
	MNA	eP	11 36 30.4
		e	11 36 41.2
		i	11 36 51.0
		i	11 37 08.8
		ePKPPKP	12 05 53
	LLA	e(P)	11 36 32.5
		e	11 36 53.3
	PRS	e(P)	11 36 33.8
	JAS1	eP	11 36 36.6
		ipP	11 36 52.2
		e	11 36 56.2
		ePKPPKP	12 06 00.9
	GCC	e(P)	11 36 38.8
		e	11 36 59.0
	MHC	e(P)	11 36 39.2
		e	11 37 00.1
	BRK	e(P)	11 36 43.5
	BKS	eP	11 36 45.8
		epP	11 37 03.9
		e(sP)	11 37 15.1
		e	11 37 26.4
		e	11 37 36.1
		e(sPP)	11 40 05.2
		ePPP	11 41 12.0
		eS	11 45 07.6
		e(sS)	11 45 48.8
		e(ScS)	11 46 27.2
		eSS	11 49 08.0
		eLg	11 52 20.0
		eLr	11 56 44.0
		AMP(μm)	PER(s)
		PZ 0.21	1.3
	ORV	eP	11 36 48.6
		ePKPPKP	12 05 55.7
	MIN	eP	11 36 51.4
		ePKPPKP	12 05 46
	WDC	eP	11 36 55.5
		e	11 37 15.1
		ePKPPKP	12 05 52
	FHC	e(P)	11 37 03.8
		e	11 37 23.8
BRK mb=6.1 h=81km Distance=61°			
USGS 11h26m28.7s 9.2S 78.9W			
h=57km mb=6.1			
Near Coast of Northern Peru			
Aug 21	MNA	e(P)	18 07 30.8
		i	18 07 58.5
		e	18 09 15
		e	18 09 35.3
		i	18 09 42.9
	ORV	e	18 07 50
	JAS1	e	18 07 50
	MHC	e	18 08 00
		e	18 11 05.5
	WDC	e	18 08 11
		e	18 08 21.2
	BKS	e	18 11 04.0
		e	18 11 41.2
USGS 18h05m38.3s 43.2N 110.8W			
h=5km mb=4.8			
Wyoming			
Aug 22	FRI	iPc	00 20 37.0
	PRI	iPc	00 20 44.5
	LLA	e(P)	00 20 48.4
	MNA	eP	00 20 49.5
	PRS	e(P)	00 20 51.9
	JAS1	eP	00 20 54.2
		eS	00 21 34.2
	SAO	e(P)	00 20 57.2
	MHC	e	00 21 00
	BKS	e	00 21 15.2
		e	00 22 9.1
		e	00 22 12.1
	ORV	e(P)	00 21 23.9
BRK ML=4.1(3)			
PAS 00h20m02.5s 35.9N 117.7W			
h=6km ML=3.9			
Southern California			
Aug 22	FRI	iPc	00 22 18.4
	PRI	iPc	00 22 25.0
	LLA	iPd	00 22 28.3
	MNA	iP	00 22 31.4
	PRS	ePc	00 22 33.3
	SAO	iPd	00 22 35.8
	JAS1	iPd	00 22 36.0
		iS	00 23 14.3
	MHC	iPc	00 22 40.8
	GCC	ePc	00 22 41.5
	PCC	e	00 22 48.4
	BRK	ePe	00 22 50
	BKS	e(Pe)	00 22 50.0
		e	00 22 53.8
		e	00 23 06.0
		e(S)	00 23 44.8
		e	00 24 01.6
	ZSP	ePe	00 22 51.8
	ORV	i	00 23 09.6
	WDC	e	00 23 10.9
		i	00 24 51.0
BRK ML=4.7(2)			
PAS 00h21m44.0s 35.9N 117.7W			
h=6km ML=4.6			
Southern California			
Aug 22	MHC	e(P)	02 13 49
	WDC	eP	02 13 53.8
		e	02 14 06.1
	FRI	eP	02 13 54.0
		e	02 14 07.4
	ORV	eP	02 13 54.1
		e	02 14 07.5
	MNA	eP	02 14 02.4
		e	02 14 16.1
USGS 02h01m01.7s 22.1S 169.5E			
h=33km mb=5.2 Ms=4.7			
Loyalty Islands Region			
Aug 22	GCC	eP	19 41 49.9
	PRS	eP	19 41 49.9
	PCC	eP	19 41 50.5
	PRI	eP	19 41 51.8
	BRK	eP	19 41 52.1
	BKS	eP	19 41 52.1
		e(PcP)	19 42 22.0
		eS	19 51 50.8
		e(PPS)	19 52 38.4
		eLg	20 01 40.0
		eLr	20 05 20.5
		AMP(μm)	PER(s)
		PZ 0.022	0.9
		LZ 2.0	20.
		LN 1.8	20.
		LE 1.4	20.
	MHC	eP	19 41 52.7
	LLA	eP	19 41 53.5
	FRI	eP	19 41 57.4
	JAS1	eP	19 41 58.7
	ORV	eP	19 42 00.5
	WDC	eP	19 42 01.7
	MIN	eP	19 42 02.7
	MNA	eP	19 42 08.3
BRK Ms=5.5 Distance=79°			
USGS 19h29m58.0s 22.4S 174.7W			
h=33km mb=5.5 Ms=5.5			
Tonga Islands Region			
Aug 23	WDC	e	10 18 20
	ORV	e	10 18 29
	JAS1	eP	10 18 33
	FRI	e	10 18 41
	MNA	e	10 18 43
USGS 10h10m58.0s 51.4N 174.9W			
h=33km mb=4.7			
Andreanof Islands, Aleutian Islands			
Aug 23	FHC	eP	12 55 36.8
	WDC	eP	12 55 38.0
		ePP	12 59 39
		ePKKP	13 12 07
	MIN	e(P)	12 55 42
	ORV	eP	12 55 42.6
		ePKKP	13 12 04
	BKS	e(P)	12 55 50.7
		epP	12 56 04.8
		e(sP)	12 56 43.6
		ePP	13 00 08.0
		epPP	13 00 18.4
		ePPP	13 02 26.0
		eSKKS	13 06 52.0
		eS	13 07 26.0
		ePS	13 09 24.0
		e(PKKP)	13 11 32.0
		eSS	13 14 45.0
		eSSS	13 18 45.0
		e	13 23 08.0
		e6	13 24 18.0
		eLr	13 30 12.0
		AMP(μm)	PER(s)
		PZ 0.017	0.8
		LZ 75	20.
		LNE 71	20.
		LNW 41	20.
	BRK	e(P)	12 55 51
	MNA	eP	12 55 51.5
		ePP	12 59 55
		ePKKP	13 12 00
	JAS1	ePd	12 55 51.8
		ePP	12 59 53
		ePKKP	13 11 59
	MHC	e(P)	12 55 54
		ePKKP	13 11 59
	FRI	ePd	12 55 56.4
		ePKKP	13 11 57
	LLA	e(P)	12 55 57
	PRS	e(P)	12 55 59
	PRI	eP	12 56 00.3
		ePP	13 00 12
		ePKKP	13 11 55
BRK Ms=7.2 Distance=104°			
USGS 12h41m56.2s 39.4N 75.2E			
h=7km mb=6.4 Ms=7.3			
Southern Xinjiang, China			
Aug 23	SAO	iPc	16 32 04.8
	GCC	iPd	16 32 10.1
	PRS	iPd	16 32 12.9
		iS	16 32 22.3
	MHC	iPd	16 32 13.1
		iS	16 32 21.4
	LLA	iPd	16 32 13.7
	PCC	iPc	16 32 20.1
	PRI	eP	16 32 22.2
	BKS	e(P)	16 32 23.6
		iSg	16 32 42.7
	ZSP	e	16 32 24.4
		i	16 32 26.7
	BRK	e	16 32 24.8
	JAS1	iPc	16 32 25.4
BRK 16h32m02.6s 36.8N 121.6W			
h=1km ML=2.6(4)			
San Juan Bautista, 15 km W of Hollister, CA			
Aug 23	FRI	ePd	16 46 50.5
	PRI	iPd	16 46 52.1
	MNA	ePd	16 46 52.4
	LLA	iPd	16 46 54.4
	PRS	iPd	16 46 55.0
	JAS1	iPd	16 46 57.2
		i	16 48 44.1
	GCC	ePd	16 46 59.3
	MHC	iPd	16 46 59.7
	PCC	ePd	16 47 02.1
	BKS	iPd	16 47 03
		AMP(μm)	PER(s)
		PZ 0.12	0.8
	BRK	eP	16 47 03.1
	ORV	iPd	16 47 06.6
	MIN	eP	16 47 08.2
	WDC	iPd	16 47 11.2
	FHC	ePd	16 47 18.3
USGS 16h35m10.2s 24.1S 66.8W			
h=195km mb=5.5			
Salta Province, Argentina			
Aug 24	PRS	eP	07 04 41.4
	GCC	eP	07 04 42.3
	SAO	eP	07 04 42.5
	PCC	ePd	07 04 42.5
	BRK	eP	07 04 44.2
	LLA	e	07 04 44.3
	BKS	iPd	07 04 44.4
		epP	07 06 03
		eS	07 14 20
		eSP	07 15 10
		esPS	07 17 16
		AMP(μm)	PER(s)
		PZ 0.19	1.1
	MHC	ePd	07 04 44.7
	PRI	ePd	07 04 49.4
	FRI	ePd	07 04 49.5
		epP	07 06 08.7
	JAS1	iPd	07 06 30.1
		epP	07 06 [illegible]
	ORV	iPd	07 04 51.7
	WDC	iPd	07 04 52.2
	MIN	eP	07 04 53.8
		ePP	07 06 14.8
	MNA	eP	07 04 54.3
BRK mb=5.8 h=342km Distance=80°			

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DATE	STA	PHASE	TIME (UTC)
USGS 06h53m14.9s 22.0S 177.8W			
h=348km mb=5.5			
South of Fiji Islands			
Aug 24	WDC	ePc	07 09 38.4
	MIN	ePc	07 09 42.7
	ORV	ePc	07 09 46.3
	GCC	eP	07 09 55.0
	JAS1	eP	07 09 58.0
	PRS	eP	07 10 01.0
	FRI	eP	07 10 04.0
	MNA	eP	07 10 04.5
USGS 07h00m05.1s 48.3E 148.1E			
h=399km mb=4.7			
Northwest of Kuril Islands			
Aug 24	PRI	eP	20 31 25.7
	FRI	eP	20 31 28.3
	PRS	e	20 31 31.5
	LLA	e	20 31 32.1
	MNA	eP	20 31 32.6
	JAS1	eP	20 31 38.4
	GCC	e	20 31 40.8
	MHC	e	20 31 41.0
	BKS	iPc	20 31 50.0
		iS	20 35 44
		eLq	20 36 16
		iLr	20 37 05
		AMP(μm)	PER(s)
		PZ 0.31	1.5
		LZ 18	20.
		LN 18	20.
		LE 17	20.
	BRK	e	20 31 54.5
	ORV	e	20 31 58.3
	WDC	e	20 32 02.8
BRK Ms=5.6 Distance=23°			
USGS 20h27m14.0s 21.8N 108.5W			
h=10km mb=5.1 Ms=5.2			
Revilla Gigedo Islands Region			
Aug 25	WDC	iPc	10 16 59.6
	MIN	ePc	10 17 04.3
	ORV	iPc	10 17 08.3
	BRK	eP	10 17 14.0
	BKS	ePc	10 17 14.3
		AMP(μm)	PER(s)
		PZ 0.11	0.9
	PCC	eP	10 17 15.3
	GCC	eP	10 17 19.2
	MHC	eP	10 17 19.5
	JAS1	iPc	10 17 21.7
		e	10 19 13.5
	SAO	eP	10 17 22.8
	PRS	eP	10 17 25.4
	LLA	eP	10 17 25.8
	MNA	iPc	10 17 28.4
	FRI	eP	10 17 28.6
	PRI	eP	10 17 29.5
USGS 10h07m59.5s 53.8N 158.9E			
h=132km mb=5.3			
Near East Coast of Kamchatka			
Aug 25	MIN	iPd	10 28 14.5
	ORV	iPc	10 28 16.8
	WDC	eP	10 28 26.6
		eS	10 28 42.2
	JAS1	eP	10 28 44.5
		eS	10 29 13.7
	BKS	e(P)	10 28 45.9
		eS	10 29 13.3
	MHC	eP	10 28 52.5
	MNA	e	10 28 53.4
	SAO	e	10 29 00.2
BRK 10h28m07.5s 40.0N 121.3W			
h=5km ML=3.2(5)			
70 km SW of Susanville, CA			
Aug 26	WDC	eP	14 21 37.3
	BKS	eP	14 21 38
		eSKS	14 32 16
		ePS	14 34 12
		eSS	14 39 04
		eLr	14 51 32
		AMP(μm)	PER(s)
		LZ 5.4	20.
		LN 2.3	20.
		LE 4.5	20.
	ORV	eP	14 21 39.4
	JAS1	eP	14 21 42.8
	FRI	eP	14 21 45.7
	MNA	eP	14 21 52.1
BRK Ms=6.0 Distance=96°			
USGS 14h08m23.2s 6.9S 148.9E			
h=33km mb=5.2 Ms=6.1			
New Britain Region			
Aug 26	WDC	ePc	15 54 53.6
	ORV	eP	15 55 00.2
	BRK	e(P)	15 55 03
	BKS	eP	15 55 04.8
	MHC	eP	15 55 07.4
	JAS1	eP	15 55 10.2
	PRS	e(P)	15 55 12.3
	LLA	e(P)	15 55 13.4
	FRI	ePc	15 55 15.8
	MNA	eP	15 55 17.7
USGS 15h43m37.2s 36.2N 142.2E			
h=32km mb=5.1			
Off East Coast of Honshu, Japan			
Aug 27	JAS1	e(P)	00 34 55
	WDC	e(P)	00 34 56
	ORV	e(P)	00 34 56.6
	FHC	e	00 35 07
	BKS	e	00 44 10
		AMP(μm)	PER(s)
		LZ 1.1	20.
		LN 0.57	20.
		LE 1.0	20.
BRK Ms=5.1 Distance=°			
USGS 00h24m21.7s 26.5N 44.6W			
h=10km mb=5.1 Ms=4.8			
North Atlantic Ridge			
Aug 27	FRI	iPc	03 04 24.1
	MNA	iPc	03 04 27.0
	JAS1	iPc	03 04 33.6
		iS	03 04 52.0
	LLA	iPc	03 04 41.5
	PRI	iPc	03 04 42.5
	SAO	iPc	03 04 46.6
	PRS	ePc	03 04 46.8
	MHC	ePc	03 04 47.5
		eS	03 05 20.2
		i	03 05 23.5
	GCC	ePc	03 04 51.2
	BKS	ePd	03 04 54.0
		iPg	03 05 01.5
		i	03 05 32.9
	BRK	eP	03 04 54.1
	PCC	ePd	03 04 55.0
	ZSP	eP	03 04 55.0
	ORV	eP	03 04 57.0
		i	03 05 01.5
	MIN	e	03 05 07.0
		i	03 05 15.1
	WDC	e	03 05 25.5
		e	03 06 19.5
BRK 03h04m06.8s 37.4N 118.6W			
h=6km ML=4.5(5) Mo=1.9E22(2)			
NW of Bishop, CA			
Aug 27	GCC	eP	06 40 34.0
	PCC	eP	06 40 34.2
	PRS	eP	06 40 34.6
	SAO	eP	06 40 35.4
	BRK	eP	06 40 36.1
	BKS	iPc	06 40 36.4
		AMP(μm)	PER(s)
		PZ 0.10	0.8
	PRI	eP	06 40 36.7
	MHC	eP	06 40 36.9
	LLA	e(P)	06 40 37.2
	FHC	eP	06 40 40.5
	JAS1	eP	06 40 41.8
	FRI	eP	06 40 41.8
	ORV	eP	06 40 43.2
	WDC	eP	06 40 43.4
	MIN	eP	06 40 45.5
	MNA	eP	06 40 51.1
USGS 06h29m32.9s 20.9S 179.0W			
h=626km mb=5.2			
Fiji Islands Region			
Aug 27	PCC	ePc	07 50 40.2
	GCC	ePc	07 50 40.2
	PRS	eP	07 50 40.2
	SAO	ePc	07 50 41.2
	BRK	ePc	07 50 42.4
	PRI	iPc	07 50 42.5
	BKS	iPc	07 50 42.6
		ipP	07 50 57.6
		eS	08 00 11
		iScS	08 01 06
		eLq	08 09 29
		eLr	08 12 17
		AMP(μm)	PER(s)
		PZ 0.23	0.8
		LZ 2.3	20.
		LN 1.6	20.
		LE 1.4	20.
	LLA	ePc	07 50 42.9
	MHC	ePc	07 50 43.0
	FHC	ePc	07 50 47.9
	FRI	iPc	07 50 48.3
	JAS1	iPc	07 50 49.0
		e	07 51 15.2
	ORV	iPc	07 50 50.8
	WDC	iPc	07 50 51.3
		e	07 51 07.9
	MIN	ePc	07 50 52.9
	MNA	iPc	07 50 59.4
BRK mb=6.2 h=54km Distance=73°			
USGS 07h39m14.4s 17.5S 173.3W			
h=36km mb=5.9 Ms=5.3			
Tonga Islands			
Aug 27	FRI	ePd	10 56 01.9
		epP	10 56 50.5
	MNA	iPd	10 56 03.8
		ipP	10 56 51.5
	PRI	iPd	10 56 03.9
	LLA	ePd	10 56 06.3
	PRS	eP	10 56 06.9
	JAS1	iP	10 56 09.0
		ipP	10 56 57.0
	GCC	ePd	10 56 11.4
	MHC	iPd	10 56 11.6
	PCC	ePd	10 56 13.6
	BRK	eP	10 56 15.0
	BKS	ePd	10 56 15.1
		epP	10 57 03
		eS	11 05 56
		esS	11 07 03
		eSS	11 11 14
		eG	11 17 22
		e	11 18 38
		AMP(μm)	PER(s)
		PZ 0.078	1.0
	ORV	ePd	10 56 18.3
		ipP	10 57 07.3
	MIN	ePd	10 56 20.2
	WDC	iPd	10 56 23.5
		ipP	10 57 11.0
	FHC	ePd	10 56 30.9
		e	10 56 54.1
BRK mb=5.4 h=196km Distance=80°			
USGS 10h44m34.5s 21.5S 67.5W			
h=197km mb=5.4			
Chile-Bolivia Border Region			
Aug 27	PRI	iPc	18 31 02.3
	FRI	ePd	18 31 07.8
		iS	18 31 19.8
	LLA	ePd	18 31 08.0
	PRS	ePc	18 31 11.5
	SAO	i(P)	18 31 15.0
	MHC	eP	18 31 20.9
	GCC	eP	18 31 21.4
	JAS1	iPc	18 31 23.0
		iS	18 31 46.0
	MNA	e	18 31 44
BRK 18h30m52.8s 36.2N 120.0W			
h=5km ML=2.8(2)			
Coalinga-Avenal Area, CA			
Aug 27	PRI	iPd	19 02 17.7
		eS	19 02 25.7
	LLA	eP	19 02 24.8
	FRI	iPd	19 02 25.85
	PRS	eP	19 02 26.5
	SAO	eP	19 02 30.6
	MHC	e(P)	19 02 37.6
	GCC	e	19 02 38
	JAS1	eP	19 02 39.9
		iS	19 03 04.3
	MNA	e	19 03 01
	ORV	e	19 03 09
BRK 19h02m08.6s 36.0N 120.1W			
h=12km ML=3.2(3)			
Coalinga-Avenal Area, CA			
Aug 28	MHC	e(P)	03 22 36.5
	WDC	eP	03 22 41.0
		epP	03 23 06.1
	FRI	eP	03 22 41.0
		epP	03 23 06.3
	JAS1	eP	03 22 41.1
		epP	03 23 06.0
	MNA	eP	03 22 49.9
		epP	03 23 14.5
USGS 03h10m05.5s 22.2S 171.1E			
h=124km mb=5.3			
Loyalty Islands Region			
Aug 28	MNA	eP	06 17 50.4
		e	06 18 06.8
	JAS1	eP	06 17 50.4
		e	06 18 07.8
		e	06 23 35.0
		e	06 33 42.0
	BKS	e	06 17 53.7
		e	06 45 16
	WDC	e(P)	06 18 04.4
USGS 06h05m26.5s 41.1S 91.0W			
h=33km mb=4.8			
Southern Pacific Ocean			
Aug 28	GCC	iPd	21 01 50.5
	PCC	iPd	21 01 50.6
	PRS	ePd	21 01 50.6
	SAO	eP	21 01 51.0
	BRK	iPd	21 01 52.5
	BKS	iPd	21 01 52.5
		iPcP	21 01 57.0
		ipP	21 04 00
		isP	21 05 05
		esPP	21 07 57
		iS	21 11 05
		iSKS	21 11 25
		iSP	21 11 56
		e	21 12 03
		i	21 12 45
		i	21 13 16
		isS	21 14 56
		isPS	21 15 35
		esSS	21 19 44
		eG	21 23 19
		ePKPPKP	21 28 40
		AMP(μm)	PER(s)
		PZ 0.96	1.0
	LLA	ePd	21 01 52.6
	ZSP	ePd	21 01 52.7
	PRI	iPd	21 01 52.8
		epP	21 04 02.3
	MHC	iPd	21 01 53.0
		epP	21 04 02.7
		esP	21 05 12.3
	FHC	ePd	21 01 56.7
		epP	21 04 07.0
		e(sP)	21 05 05
	FRI	iPd	21 01 57.9
		epP	21 04 08.1
		esP	21 05 13.3
		eS	21 11 16.9
		ePKPPKP	21 28 42
	JAS1	iPd	21 01 58.3
		ipP	21 04 08.4
		esP	21 05 13.0
		eS	21 11 19.4
		ePKPPKP	21 28 40
		e	21 31 05
	WDC	iPd	21 02 00.0
		ipP	21 04 09.2
		esP	21 05 17.3
		eS	21 11 19.5
		ePKPPKP	21 28 38
		e	21 31 03
	MIN	iPd	21 02 01.8
	MNA	iPd	21 02 07.5
		epP	21 04 18.5
		esP	21 05 26.6
		eS	21 11 22
		ePKPPKP	21 28 36
BRK mb=6.2 h=606km Distance=79°			
USGS 20h50m48.3s 21.0S 179.0W			
h=625km mb=6.1			
Fiji Islands Region			
Aug 28	GCC	iPc	21 49 06.9
	PCC	iPc	21 49 07.1
	PRS	iPc	21 49 07.2
	BKS	eP	21 49 08.9
		AMP(μm)	PER(s)
		PZ 0.021	0.7
	BRK	e(P)	21 49 09
	PRI	eP	21 49 09.3
	MHC	ePd	21 49 09.5
	FHC	eP	21 49 11.5
	FRI	eP	21 49 14.4
	JAS1	iPc	21 49 14.8
	WDC	iPc	21 49 16.4
	MNA	iPc	21 49 23.8
USGS 21h38m04.7s 21.0S 179.0W			
h=619km mb=5.1			
Fiji Islands Region			
Aug 29	FHC	e(P)	03 56 02
	WDC	eP	03 56 07.2
	MIN	eP	03 56 11.0
	ORV	eP	03 56 13.8
	JAS1	eP	03 56 25.0
		e	03 56 37.8
	FRI	eP	03 56 30.8
		e	03 56 43.5
	MNA	e	03 56 45.1
USGS 03h45m07.5s 40.2N 142.6E			
h=44km mb=5.3 Ms=4.8			
Near East Coast of Honshu, Japan			
Aug 29	PRI	ePKP	06 32 01.6
	MNA	ePKP	06 32 02.5
	PRS	e(PKP)	06 32 03.0
	FRI	ePKP	06 32 03.1
	JAS1	ePKP	06 32 03.2
	LLA	e(PKP)	06 32 03.5
	MHC	ePKP	06 32 04.8
	BRK	e(PKP)	06 32 05.3
	BKS	ePKP	06 32 06.6
		e	06 51 46
	MIN	ePKP	06 32 07.5
	WDC	ePKP	06 32 08.0
	ORV	ePKP	06 32 08.3
USGS 06h13m10.8s 57.2S 25.3W			
h=50km mb=5.6 Ms=5.0			
South Sandwich Islands Region			
Aug 29	MNA	e(PKP)	06 44 30
	FRI	e(PKP)	06 44 30.5
	PRS	e(PKP)	06 44 31.8
	JAS1	ePKP	06 44 33.1
	MHC	e(PKP)	06 44 34.0
	BKS	ePKP	06 44 35.1
	ORV	ePKP	06 44 36.8
	MIN	ePKP	06 44 37.0
	WDC	ePKP	06 44 37.8
USGS 06h25m38.8s 57.3S 25.4W			
h=45km mb=5.2			
South Sandwich Islands Region			
Aug 29	FRI	eP	08 00 03.6
		e	08 00 11.0
		e	08 00 59.2
	PRI	eP	08 00 07.2
		e	08 00 14.0
		e	08 00 25.2
	LLA	e	08 00 10.5
	MNA	eP	08 00 14.4
		e	08 00 27
	PRS	e	08 00 16.9
	SAO	eP	08 00 17.8
	JAS1	iPd	08 00 18.8
		e	08 00 38
		i	08 01 32.1
	MHC	e	08 00 22.9
	ORV	e	08 01 05
		e	08 02 30

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DATE	STA	PHASE	TIME (UTC)
	MIN	e	08 01 12
		e	08 02 50
BRK ML=4.4(4)			
PAS 07h59m08.6s 34.3N 116.8W			
h=5km ML=4.3			
Southern California			
Aug 29	WDC	eP	14 22 26.9
	MIN	e(P)	14 22 31
	ORV	eP	14 22 33.1
	MHC	eP	14 22 39.0
	JAS1	eP	14 22 41.7
	PRS	e(P)	14 22 42.2
	LLA	e(P)	14 22 42.7
	FRI	eP	14 22 47.1
	MNA	e(P)	14 22 49
USGS 14h10m32.5s 28.2N 140.5E			
h=12km mb=5.0			
Bonin Islands Region			
Aug 29	FHC	ePc	23 29 53.0
	WDC	ePc	23 29 58.3
	MIN	e	23 30 03.2
	ORV	eP	23 30 04.0
	JAS1	eP	23 30 13.0
	FRI	ePc	23 30 17.6
	MNA	ePc	23 30 20.6
	BKS	eLr	23 54 02
USGS 23h18m04.3s 28.1N 140.8E			
h=21km mb=5.2			
Bonin Islands Region			
Aug 30	BKS	eP	05 26 02.6
		eS	05 26 13.5
	MHC	iPd	05 26 49.9
	GCC	iPd	05 26 55.7
	SAO	iPd	05 26 59.4
	PCC	iPc	05 26 59.6
	BRK	iPc	05 27 02.7
	ZSP	eP	05 27 03.8
	LLA	ePc	05 27 04.5
	PRS	iPc	05 27 06.7
	JAS1	iPd	05 27 09.6
		iS	05 27 25.3
	FRI	ePc	05 27 15.6
	PRI	eP	05 27 26.3
BRK 05h26m48.2s 37.3N 121.7W			
h=5km ML=2.7(4) Mo=7.4E19(2)			
Halls Valley Sequence, CA			
Aug 30	FHC	ePd	07 07 09.4
	WDC	ePd	07 07 14.6
	MIN	eP	07 07 18.0
	ORV	ePd	07 07 20.6
	MHC	e	07 07 26.1
	JAS1	eP	07 07 29.5
	FRI	eP	07 07 33.9
	MNA	eP	07 07 37.0
	BKS	eLr	07 31 31
			AMP(μm) PER(s)
		LZ	0.64 20.
		LN	0.46 20.
		LE	0.64 20.
USGS 06h55m21.8s 28.0N 140.8E			
h=27km mb=4.7			
Bonin Islands Region			
Aug 30	MNA	eP	07 07 01.6
	FHC	ePd	07 07 34.0
	WDC	ePd	07 07 39.3
	MIN	eP	07 07 42.7
	ORV	ePd	07 07 45.1
	MHC	eP	07 07 49.7
	JAS1	ePd	07 07 53.8
	FRI	iP	07 07 58.8
USGS 06h55m47.2s 28.1N 140.8E			
h=33km mb=5.1			
Bonin Islands Region			
Aug 30	PRS	eP	10 34 15.6
	SAO	eP	10 34 16.5
	PRI	e	10 34 17.2
	BKS	eP	10 34 17.9
			AMP(μm) PER(s)
		PZ	0.027 0.9
	MHC	eP	10 34 18.3
	FRI	eP	10 34 23.5
	JAS1	ePd	10 34 24.1
	ORV	eP	10 34 25.8
	WDC	ePd	10 34 26.3
	MIN	eP	10 34 28.1
	MNA	ePd	10 34 34.5
USGS 10h22m57.2s 16.9S 173.6W			
h=93km mb=4.9			
Tonga Islands			
Aug 30	FHC	eP	17 39 16.1
	WDC	iPc	17 39 23.5
	MIN	e	17 39 28.2
	ORV	eP	17 39 32.4
	GCC	eP	17 39 35.6
	JAS1	eP	17 39 46.5
	FRI	eP	17 39 54.0
	MNA	eP	17 39 54.3
	BKS	eLr	17 52 56
			AMP(μm) PER(s)
		LZ	1.9 20.
		LN	0.79 20.
		LE	1.9 20.
USGS 17h31m12.0s 53.1N 172.6E			
h=33km mb=5.1 Ms=5.0			
Near Islands, Aleutian Islands			
Aug 31	FHC	e	06 42 28.7
	WDC	ePd	06 42 34.0
	MIN	eP	06 42 37.6
	ORV	ePd	06 42 40.0
	MHC	e	06 42 45.5
	JAS1	ePd	06 42 48.5
	FRI	eP	06 42 53.4
	MNA	eP	06 42 56.0
USGS 06h30m42.1s 28.1N 140.8E			
h=33km mb=5.2			
Bonin Islands Region			
Aug 31	PRI	iPc	13 26 03.3
	FRI	iPd	13 26 09.4
	LLA	eP	13 26 09.4
	SAO	iPc	13 26 16.2
	MHC	e	13 26 23.3
	GCC	e	13 26 24.1
	JAS1	iPc	13 26 24.3
	MNA	e	13 26 40.6
	ORV	e	13 26 55.6
BRK 13h25m52.4s 36.0N 120.0W			
h=5km ML=3.1(5)			
Coalinga-Avenal Area, CA			
Sep 1	MNA	eP	01 08 44.7
	JAS1	eP	01 08 57.0
	ORV	e	01 09 07.3
USGS 01h00m55.5s 19.8N 75.3W			
h=10km mb=5.1 Ms=4.5			
Cuba Region			
Sep 2	WDC	eP	08 48 52.5
	ORV	eP	08 48 57.5
	JAS1	e	08 49 06.2
	FRI	eP	08 49 11.9
	MNA	eP	08 49 14.0
	BKS	eLr	09 12 55
USGS 08h37m00.2s 28.2N 140.7E			
h=33km mb=5.1 Ms=4.7			
Bonin Islands Region			
Sep 2	WDC	eP	08 50 22.1
	ORV	eP	08 50 27.8
	BKS	eP	08 50 31.2
		e	09 14 54
			AMP(μm) PER(s)
		LZ	1.4 20.
		LN	0.89 20.
		LE	0.82 20.
	BRK	eP	08 50 32.1
	PRS	eP	08 50 35.8
	SAO	e(P)	08 50 36.1
	JAS1	eP	08 50 36.5
	FRI	eP	08 50 41.2
	MHC	eP	08 50 43.6
	MNA	eP	08 50 44.1
USGS 08h38m29.9s 28.1N 140.7E			
h=33km mb=5.3			
Bonin Islands Region			
Sep 2	FHC	iPc	16 53 36.5
		iS	16 53 41.3
	WDC	iPc	16 53 44.8
		iS	16 54 00.2
	ORV	eP	16 53 59.5
		iS	16 54 19.1
	JAS1	e	16 54 28.1
	MHC	e	16 54 29
BRK 16h53m30.0s 40.6N 123.8W			
h=24km ML=3.7(3) Mo=2.7E21(2)			
45 km SE of Eureka, CA			
Sep 2	MNA	iPd	19 45 32.0
		iS	19 45 48.6
	FRI	iPc	19 45 33.0
	JAS1	iPc	19 45 44.6
		iS	19 46 11.4
	PRI	eP	19 45 48.9
	LLA	eP	19 45 50.4
	PRS	e	19 45 54.7
	SAO	iPc	19 45 55.2
	MHC	e	19 45 57.2
	ORV	e	19 46 05.0
BRK 19h45m08.1s 37.2N 118.0W			
h=5km ML=3.7(5)			
35 km SE of Bishop, CA			
Sep 3	MNA	ePc	00 36 23.7
		epP	00 36 33.5
		esP	00 36 37.0
		ePcP	00 38 25.9
	FRI	eP	00 36 24.8
		esP	00 36 38.0
	PRI	e(P)	00 36 26.3
	LLA	eP	00 36 30
	PRS	eP	00 36 31
	JAS1	eP	00 36 33.3
		ePcP	00 38 29.7
	SAO	e(P)	00 36 35.1
	MHC	ePc	00 36 37.8
	GCC	eP	00 36 38.3
	BRK	e(P)	00 36 44.0
	ORV	ePc	00 36 46.2
		epP	00 36 56.0
		ePcP	00 38 36.0
	WDC	eP	00 36 52.5
		epP	00 37 02.5
	FHC	ePc	00 37 04.8
USGS 00h28m44.2s 10.4N 85.5W			
h=23km mb=4.7 Ms=4.4			
Costa Rica			
Sep 3	ORV	e	03 45 12.4
	JAS1	ePc	03 45 23.6
	MNA	eP	03 45 25.6
	FRI	eP	03 45 29.1
USGS 03h33m11.8s 52.9N 106.9E			
h=33km mb=4.8			
Lake Baikal Region			
Sep 3	WDC	ePc	14 11 42.4
	JAS1	ePc	14 11 57.3
	MNA	eP	14 12 04.8
USGS 13h59m50.1s 28.2N 140.7E			
h=33km mb=5.2			
Bonin Islands Region			
Sep 4	BKS	iPc	06 00 50.3
		iS	06 00 53.1
	BRK	iPc	06 00 50.4
		iS	06 00 52.8
	ZSP	iPc	06 00 51.8
		iS	06 00 55.5
	PCC	iP	06 00 53.3
	MHC	ePc	06 00 57.6
	GCC	ePd	06 01 00.4
	SAO	iP	06 01 06.4
	PRS	e	06 01 08.2
	LLA	e	06 01 10
	JAS1	iPc	06 01 10.0
		eS	06 01 27.2
	ORV	iPd	06 01 16.1
	MIN	eP	06 01 18.4
	PRI	eP	06 01 21.2
	FRI	eP	06 01 21.2
	WDC	eP	06 01 30.3
	MNA	e	06 01 42
BRK 06h00m46.7s 37.8N 122.1W			
h=6km ML=3.1(4) Mo=1.3E21(4)			
Lake Chabot Area, 20 km SE of Berkeley, CA			
Sep 4	ZSP	iPd	06 43 15.3
		iS	06 43 25.8
	BKS	eP	06 43 16.0
		iS	06 43 26.2
	BRK	iPd	06 43 16.2
		iS	06 43 26.8
	PCC	ePd	06 43 22.2
	ORV	eP	06 43 22.9
	MHC	ePd	06 43 25.9
	GCC	eP	06 43 28.8
	JAS1	iPc	06 43 30.3
		iS	06 43 50.4
	MIN	eP	06 43 33.3
		eS	06 43 57.7
	SAO	ePd	06 43 33.9
	WDC	e	06 43 37
	PRS	e	06 43 40
	FRI	e	06 43 44.5
	PRI	e	06 43 47.3
	MNA	e	06 44 02.7
BRK 06h43m03.0s 38.6N 122.2W			
h=7km ML=2.9(5) Mo=1.2E21(2)			
Lake Berryessa, 30 km N of Napa, CA			
Sep 5	FRI	e(PKP)	08 56 38.6
	JAS1	ePKP	08 56 40.5
	ORV	e(PKP)	08 56 45.2
	WDC	e(PKP)	08 56 46.0
USGS 08h37m45.2s 56.8S 24.6W			
h=33km mb=5.1 Ms=5.2			
South Sandwich Islands Region			
Sep 5	WDC	iPc	15 44 45.7
		i	15 44 49.3
	MIN	eP	15 44 49.3
	ORV	iPc	15 44 52.1
		i	15 44 56.0
	BRK	ePc	15 44 54.6
	PCC	ePc	15 44 55.0
	BKS	iP	15 44 55.2
	GCC	ePc	15 44 58.0
	MHC	ePc	15 44 58.6
	JAS1	iPc	15 45 01.3
	PRS	ePc	15 45 02.8
	LLA	ePc	15 45 03.3
	PRI	ePc	15 45 06.3
	FRI	ePc	15 45 06.5
	MNA	ePc	15 45 08.4
USGS 15h33m33.3s 33.6N 137.8E			
h=312km mb=4.9			
Near South Coast of Honshu, Japan			
Sep 5	WDC	eP	16 42 03.9
		epP	16 43 57.9
	MIN	eP	16 42 06.9
		epP	16 44 02
	ORV	eP	16 42 09.0
		epP	16 44 03.3
	BRK	eP	16 42 11.2
	GCC	eP	16 42 14.1
		epP	16 44 09.5
	MHC	eP	16 42 14.7
		epP	16 44 09.1
	JAS1	eP	16 42 17.5
		epP	16 44 11.3
	PRS	eP	16 42 18.2
		epP	16 44 12.7
	LLA	eP	16 42 19.3
		epP	16 44 13
	PRI	eP	16 42 22.1
	FRI	eP	16 42 22.6
		epP	16 44 17.3
	MNA	eP	16 42 24.8
		epP	16 44 20.0
USGS 16h30m55.8s 28.0N 139.4E			
h=500km mb=4.9			
Bonin Islands Region			
Sep 5	ZSP	iPd	17 33 24.2
		iS	17 33 36.1
	BRK	eP	17 33 25.8
		eS	17 33 36.0
	BKS	iPd	17 33 25.8
		iS	17 33 35.9
	PCC	eP	17 33 31.7
		e	17 33 45.0
	ORV	eP	17 33 32.4
	SAO	e	17 33 35.8
	MHC	eP	17 33 35.8
	GCC	e	17 33 39
	JAS1	eP	17 33 40.4
		iS	17 34 00.2
	MIN	ePc	17 33 45.0
	WDC	e(P)	17 33 47.4
	LLA	ePc	17 33 47.9
	PRS	ePc	17 33 50.2
BRK 17h33m12.5s 38.6N 122.2W			
h=8km ML=2.7(3)			
Lake Berryessa, 30 km N of Napa, CA			
Sep 5	ZSP	iPd	19 18 51.1
		iS	19 19 02.0
	BRK	iPc	19 18 52.1
		eS	19 19 02.2
	BKS	iPd	19 18 52.1
		iSs	19 19 02.1
	PCC	ePc	19 18 57.9
	ORV	e(P)	19 18 58.8
	MHC	ePd	19 19 03.8
	JAS1	eP	19 19 06.5
		iS	19 19 26.4
	GCC	e	19 19 07.5
	WDC	e	19 19 17.5
BRK 19h18m38.8s 38.6N 122.2W			
h=7km ML=2.6(3)			
Lake Berryessa, 30 km N of Napa, CA			
Sep 6	WDC	ePc	00 33 41.5
	ORV	ePc	00 33 48.6
	GCC	eP	00 33 55.1
	JAS1	ePc	00 33 58.7
	PRS	ePc	00 34 00.3
	LLA	ePc	00 34 01.0
	PRI	eP	00 34 03.9
	FRI	eP	00 34 04.4
	MNA	ePc	00 34 05.8
USGS 00h22m30.1s 37.6N 142.6E			
h=26km mb=5.1			
Off East Coast of Honshu, Japan			
Sep 7	MHC	iPc	17 27 32.7
	GCC	iPd	17 27 38.7
	PCC	iPc	17 27 40.6
	BRK	iPc	17 27 43.0
	BKS	iPc	17 27 43.1
		e	17 27 44.0
		iS	17 27 52.3
	SAO	iPd	17 27 43.5
	ZSP	iPd	17 27 44.8
		iS	17 27 55.4
	LLA	ePc	17 27 48.3
	PRS	iPc	17 27 50.4
	JAS1	iPd	17 27 52.2
	PRI	eP	17 27 56.5
	FRI	iPc	17 27 59.3
	ORV	e	17 28 04.0
BRK 17h27m30.5s 37.4N 121.8W			
h=5km ML=3.0(5) Mo=3.7E20(2)			
Halls Valley Sequence, CA			
Sep 7	MHC	iPc	18 03 09.4
	GCC	iPd	18 03 15.2
	PCC	iPc	18 03 17.3
	BKS	eP	18 03 19.8
		i(Pn)	18 03 21.3
		eS	18 03 29.0
	SAO	iPc	18 03 19.9
	BRK	iP	18 03 20.3
		iS	18 03 30.5
	ZSP	iPd	18 03 21.3
		iS	18 03 31.9
	LLA	eP	18 03 24.9
	PRS	eP	18 03 27.3
	JAS1	iPd	18 03 28.8
		iS	18 03 44.4
	PRI	e	18 03 44.3
	ORV	e	18 03 44.0
BRK 18h03m07.3s 37.4N 121.8W			
h=5km ML=2.7(4) Mo=1.8E19(2)			
Halls Valley Sequence, CA			
Sep 8	PRI	e	18 17 27.0

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DATE	STA	PHASE	TIME (UTC)
	LLA	ePc	12 17 33.7
	FRI	iPd	12 17 35.6
	PRS	ePc	12 17 35.8
	SAO	iPc	12 17 40.0
	MHC	eP	12 17 46.8
	GCC	eP	12 17 46.9
	JAS1	iPd	12 17 49.3
	BKS	eP	12 18 01.4
	MNA	e	12 18 04.5
	ORV	e	12 18 16.7
BRK 12h17m18.4s 36.0N 120.1W			
h=11km ML=3.1(4)			
Avenal, 25 km SE of Coalinga, CA			
Sep 8	MNA	eP	15 36 33.5
		e	15 37 06.9
	MIN	e	15 36 37.2
	JAS1	eP	15 36 43.5
		e	15 37 18.1
USGS 15h29m51.8s 14.3N 91.3W			
h=33km mb=4.6 Ms=3.9			
Guatemala			
Sep 8	LLA	eP	22 57 05.6
	GCC	eP	22 57 07.3
	PCC	eP	22 57 07.4
	PRS	eP	22 57 07.4
	SAO	eP	22 57 08.0
	BRK	eP	22 57 08.8
	BKS	ePd	22 57 09.4
		AMP(µm)	PER(s)
	PZ	0.86	0.7
	MHC	eP	22 57 09.8
	PRI	eP	22 57 12.0
	FHC	eP	22 57 13.2
	FRI	eP	22 57 14.3
	JAS1	iPd	22 57 15.0
	ORV	iPd	22 57 16.5
	WDC	iPd	22 57 16.6
	MNA	iPd	22 57 24.3
USGS 22h46m05.5s 21.0S 178.9W			
h=621km mb=5.1			
Fiji Islands Region			
Sep 9	FHC	eP	00 50 01.8
	WDC	eP	00 50 17.2
	ORV	eP	00 50 34.2
	JAS1	eP	00 51 01.1
USGS 00h49m20.5s 42.4N 126.7W			
h=10km mb=4.7			
Off Coast of Oregon			
Sep 9	SAO	iPd	23 07 18.6
	GCC	iPc	23 07 23.6
	MHC	iPd	23 07 23.7
	LLA	iPc	23 07 24.5
	PRS	iPd	23 07 26.6
	PRI	ePc	23 07 34.1
		i	23 07 35.1
	BKS	iPd	23 07 35.5
		i(Sn)	23 07 53.1
	BRK	iPd	23 07 36.3
	ZSP	ePd	23 07 36.5
	JAS1	iPd	23 07 37.9
		iS	23 07 54.9
	FRI	iPc	23 07 39.2
	ORV	eP	23 07 58.3
	MNA	e	23 08 08.0
	MIN	e	23 08 13
	WDC	e	23 08 27
BRK 23h07m14.8s 36.9N 121.4W			
h=3km ML=3.2(4)			
10 km NW of Hollister, CA			

DATE	STA	PHASE	TIME (UTC)
Sep 10	GCC	ePc	00 50 02.9
	PRS	ePc	00 50 03.1
	SAO	eP	00 50 04.0
	PRI	ePc	00 50 05.1
	BKS	eP	00 50 05.4
		AMP(µm)	PER(s)
	PZ	0.031	0.7
	MHC	ePc	00 50 05.6
	FRI	eP	00 50 10.5
	JAS1	iPc	00 50 11.0
	ORV	ePc	00 50 12.4
	WDC	iPc	00 50 12.7
	MIN	eP	00 50 14.5
	MNA	eP	00 50 20.2
USGS 00h38m53.3s 21.0S 178.0W			
h=493km mb=5.0			
Fiji Islands Region			
Sep 10	FHC	eP	01 34 19.0
	WDC	iPc	01 34 25.2
	MIN	ePc	01 34 30.2
	ORV	eP	01 34 34.4
	MHC	ePc	01 34 48.5
	JAS1	iPc	01 34 49.6
	SAO	ePc	01 34 52.2
	MNA	ePc	01 34 55.3
	PRS	ePc	01 34 55.6
	LLA	ePc	01 34 55.8
	FRI	ePc	01 34 57.5
	PRI	ePc	01 35 00.0
	BKS	e(Lr)	01 49 49
USGS 01h26m04.4s 60.4N 168.8E			
h=17km mb=5.7 Ms=4.4			
Eastern Siberia			
Sep 10	BKS	ePd	04 20 58
		epP	04 21 07
		e	04 22 34
		ePPP	04 23 55
		eS	04 27 58
		eSS	04 31 35
		eLq	04 32 08
		eLr	04 33 11
		eSKSP	04 43 28
		AMP(µm)	PER(s)
		LZ	5.9 20.
		LN	3.9 20.
		LE	5.6 20.
	ORV	eP	04 21 02.6
	MIN	e	04 21 02.7
	GCC	e	04 21 03
	WDC	e	04 21 03.2
	MHC	e	04 21 03.2
	PRS	e	04 21 04
	JAS1	eP	04 21 04.4
	PRI	eP	04 21 05.5
	FRI	eP	04 21 07.8
	MNA	eP	04 21 14.6
BRK Ms=5.7 Distance=50°			
USGS 04h07m47.4s 6.4S 149.7E			
h=10km mb=5.8 Ms=6.3			
New Britain Region			
Sep 10	FRI	eP	05 03 15
	MNA	ePd	05 03 16.0
	PRI	eP	05 03 17.1
	LLA	eP	05 03 19.8
	PRS	eP	05 03 20.9
	JAS1	eP	05 03 22.8
	MHC	eP	05 03 26.3
	GCC	eP	05 03 26.6
	ORV	iPd	05 03 34.7

DATE	STA	PHASE	TIME (UTC)
		e	05 03 59.3
		e	05 04 04.2
	MIN	eP	05 03 37.1
	WDC	eP	05 03 40.7
	FHC	eP	05 03 50.2
USGS 04h53m36.5s 4.8S 76.8W			
h=128km mb=5.0			
Northern Peru			
Sep 10	FHC	ePc	06 50 04.9
	WDC	iPc	06 50 09.9
		esP	06 51 58
		ePP	06 52 16.3
		eSKPPKP	07 19 47
	MIN	iPc	06 50 13.4
	ORV	iPc	06 50 15.8
	BRK	ePc	06 50 17.3
		ePcP	06 50 23.8
		esP	06 52 06.0
	PCC	ePc	06 50 17.4
		esP	06 52 08.0
	BKS	ePc	06 50 17.7
		i	06 50 19.8
		iP	06 50 20
		iPcP	06 50 36
		esP	06 52 06
		ePP	06 53 24
		epPP	06 54 12
		ePPP	06 55 25
		iS	06 59 37
		eScS	06 59 59
		eSP	07 00 18
		ePS	07 00 19
		esPS	07 02 45
		esSP	07 02 48
		e	07 03 38
		e	07 03 40
		e6	07 11 19
		ePKPPKP	07 17 55
		AMP(µm)	PER(s)
	PZ	0.094	0.8
GCC	eP	06 50 20.5	
	esP	06 52 11	
MHC	ePc	06 50 21.1	
	esP	06 52 12.0	
	ePP	06 53 32	
SAO	eP	06 50 23	
JAS1	iPc	06 50 23.8	
	iPcP	06 50 31.9	
	e	06 50 42.1	
	esP	06 52 12.3	
	ePP	06 53 36.3	
	e	06 59 54	
	ePKPPKP	07 17 01	
	eSKPPKP	07 19 41	
PRS	ePc	06 50 24.4	
	e	06 50 42.5	
	esP	06 52 13.5	
LLA	ePc	06 50 25.4	
	esP	06 52 14.4	
PRI	ePc	06 50 27.9	
	esP	06 52 19.5	
	ePP	06 53 53	
	eSKPPKP	07 19 40	
FRI	iPc	06 50 28.7	
	e	06 50 46.6	
	esP	06 52 16.8	
	ePP	06 52 43	
	eSKPPKP	07 19 38	
MNA	ePc	06 50 31.2	
	ePP	06 53 49	
	e	07 00 06	
	ePKPPKP	07 16 58	

DATE	STA	PHASE	TIME (UTC)
		eSKPPKP	07 19 38
BRK mb=5.6 h=300km Distance=78°			
USGS 06h39m01.7s 27.2N 139.8E			
h=501km mb=5.8			
Bonin Islands Region			
Sep 10	FHC	eP	08 32 08.2
	WDC	iPd	08 32 23.4
	MIN	iPd	08 32 30.9
	ORV	iPd	08 32 40.5
	JAS1	ePd	08 33 06.3
	MHC	eP	08 33 07.8
	MNA	ePd	08 33 13.4
	FRI	ePd	08 33 19.4
USGS 08h30m15.8s 48.0N 128.5W			
h=10km mb=4.5			
Vancouver Islands Region			
Sep 10	FHC	ePc	09 09 02.0
	WDC	ePc	09 09 07.0
	MIN	ePc	09 09 10.4
	ORV	iPc	09 09 12.6
	BRK	ePc	09 09 14.1
	PCC	ePc	09 09 14.2
	BKS	iPd	09 09 14.8
		AMP(µm)	PER(s)
	PZ	0.035	0.75
	GCC	eP	09 09 16.9
	MHC	ePc	09 09 17.9
	JAS1	iPc	09 09 20.7
	PRS	ePc	09 09 21.4
	LLA	ePc	09 09 22.0
	SAO	e	09 09 22.6
	PRI	ePc	09 09 24.7
	FRI	ePc	09 09 25.4
	MNA	ePc	09 09 28.1
USGS 08h57m59.9s 27.3N 139.9E			
h=514km mb=5.0			
Bonin Islands Region			
Sep 10	FHC	eP	14 31 06.7
	WDC	ePc	14 31 11.2
	MIN	eP	14 31 15.5
	ORV	ePc	14 31 17.2
	GCC	e	14 31 21.6
	MHC	eP	14 31 23.9
	JAS1	eP	14 31 26.7
	PRS	ePc	14 31 27.5
	LLA	ePc	14 31 28.3
	PRI	ePc	14 31 30.9
	FRI	ePc	14 31 31.7
	MNA	eP	14 31 33.4
USGS 14h19m19.1s 28.4N 140.3E			
h=33km mb=5.0			
Bonin Islands Region			
Sep 10	PCC	iPc	22 07 32.8
		iS	22 07 36.2
	BRK	iPc	22 07 33.3
		eS	22 07 36.5
	BKS	iP	22 07 33.8
		i	22 07 36.8
		eS	22 07 38.1
	ZSP	iPc	22 07 34.5
	GCC	e	22 07 42.6
	MHC	iPc	22 07 43.2
		iS	22 07 55.0
	SAO	eP	22 07 49.4
	JAS1	eP	22 07 56.4
BRK 22h07m27.9s 37.7N 122.5W			
h=8km ML=2.6(4) Mo=5.3E19(1)			
Off Coast, 3 km W of San Francisco, CA			

DATE	STA	PHASE	TIME (UTC)
Sep 11	FHC	eP	03 16 16.7
	WDC	iPc	03 16 22.5
		e	03 16 24.6
	MIN	iPc	03 16 26.8
	ORV	iPc	03 16 30.5
		e	03 16 33.8
	BKS	eP	03 16 36.4
		AMP(µm)	PER(s)
	PZ	0.044	0.7
	PCC	ePc	03 16 36.9
	GCC	ePc	03 16 40.9
	MHC	iPc	03 16 41.1
	JAS1	iPc	03 16 43.2
		e	03 16 48.0
	PRS	iPc	03 16 46.8
	LLA	ePc	03 16 47.2
	MNA	iPc	03 16 49.3
	FRI	iPc	03 16 49.7
	PRI	eP	03 16 51.8
USGS 03h07m31.3s 52.8N 152.6E			
h=539km mb=4.9			
Northwest of Kuril Islands Region			
Sep 11	PCC	iPc	17 58 49.7
	GCC	ePc	17 58 49.7
		e	17 59 15.7
	PRS	ePc	17 58 50.0
		e	17 59 16.2
	SAO	e(P)	17 58 50.8
	BRK	e(P)	17 58 51.5
	BKS	eP	17 58 52
		epP	17 59 10
		eS	18 08 10
		esS	18 08 42
		eSS	18 12 56
		AMP(µm)	PER(s)
	PZ	0.21	1.3
	PRI	iPc	17 58 52.2
		epP	17 59 09.8
	MHC	ePc	17 58 52.4
		e	17 59 18.2
	LLA	e(P)	17 58 52.4
	FHC	eP	17 58 57.0
	FRI	ePc	17 58 58.1
		e	17 59 24.5
	JAS1	iPc	17 58 58.8
		i	17 59 20.8
	ORV	iPc	17 59 00.2
	WDC	iPc	17 59 00.6
		e	17 59 11.3
		e	17 59 22.4
	MIN	iPc	17 59 02.5
	MNA	iPc	17 59 09.4
		epP	17 59 26.5
BRK mb=5.9 h=67km Distance=75°			
USGS 17h47m35.9s 15.4S 173.5W			
h=68km mb=5.8			
Tonga Islands			
Sep 11	PRI	e(P)	18 36 09.0
	PRS	e	18 36 09.0
	FRI	eP	18 36 12.2
	JAS1	e(P)	18 36 16.3
		e	18 36 36.2
	ORV	e	18 36 25
	BKS	e	18 47 20
		e	18 53 27
		AMP(µm)	PER(s)
		LZ	3.4 20.
		LN	3.2 20.
		LE	1.8 20.
USGS 18h23m01.6s 54.3S 132.0W			

DATE	STA	PHASE	TIME (UTC)
h=10km mb=5.3 Ms=5.5			
South Pacific Cordillera			
Sep 11	PRI	eP	19 33 35.9
	FRI	eP	19 33 39.3
	JAS1	eP	19 33 42.8
	MNA	e	19 33 45
	BKS	e(S)	19 44 46
		e	19 48 46
		e	19 48 48
		e	19 51 07
		eLq	19 57 20
		eLr	20 02 56
		AMP(µm)	PER(s)
		LZ	4.4 20.
		LN	5.0 20.
		LE	1.9 20.
USGS 19h20m30.6s 54.4S 132.4W			
h=10km mb=5.4 Ms=5.5			
South Pacific Cordillera			
Sep 11	WDC	e	21 02 39
	JAS1	e	21 03 10
	MNA	e	21 04 00
	PRI	e	21 04 03
	BKS	ePPP	21 06 06
		e	21 06 10
		eSKS	21 10 31
		ePS	21 13 06
		e	21 13 31
		e	21 13 32
		ePPS	21 13 52
		e	21 14 26
		e	21 15 21
		e	21 15 22
		e	21 18 45
		e	21 18 46
		ePSPS	21 19 15
		e	21 20 36
		e	21 26 56
		e	21 35 05
		AMP(µm)	PER(s)
		LZ	6.4 20.
		LN	9.2 20.
		LE	5.4 20.
USGS 20h45m49.5s 39.4N 75.4E			
h=15km mb=5.8 Ms=6.5			
Southern Xinjiang, China			
Sep 11	FHC	iPc	22 01 55.9
		i	22 01 58.7
		eS	22 02 03.6
	WDC	iPc	22 02 09.2
		eS	22 02 27.1
	MIN	iPc	22 02 19.0
		e(S)	22 02 47.3
	ORV	eP	22 02 22.5
		eS	22 02 50.4
	PCC	e(P)	22 02 33.1
	MHC	e	22 02 40.5
	GCC	e	22 02 41
BRK 22h01m45.6s 40.3N 124.3W			
h=5km ML=3.3(2)			
Petrolia, 50 km SSW of Eureka, CA			
Sep 12	FRI	eP	23 55 37.2
		epP	23 56 14
		ePcP	23 58 18.4
	MNA	ePc	23 58 23.8
		epP	23 58 34.3
		ePcP	23 58 46.5
	PRI	eP	23 59 01.0
		epP	23 59 17

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DATE	STA	PHASE	TIME (UTC)
		ePcP	23 58 19.9
	LLA	eP	23 55 43.0
		epP	23 56 19.5
		ePcP	23 58 21
	JAS1	eP	23 55 46.4
		epP	23 56 23
		esP	23 56 43.8
		ePcP	23 58 21.6
	MHC	eP	23 55 51.5
		epP	23 56 28.0
	GCC	eP	23 55 51.6
	ORV	e(P)	23 56 03.0
		epP	23 56 38.0
		esP	23 56 59
		ePcP	23 58 26
	WDC	eP	23 56 08.6
		epP	23 56 45.6
		ePcP	23 58 29.0
	FHC	e	23 56 20.5
	BRK	ePcP	23 58 24.8
	BKS	e(PcP)	23 58 26.0

USGS 23h49m19.0s 15.5N 91.7W
h=174km mb=4.6
Mexico-Guatemala Border Region

Sep 14	PRI	iPd	03 02 51.7
	LLA	iPc	03 02 57.9
	FRI	iPd	03 03 01.4
	PRS	iPc	03 03 01.6
	SAO	iPc	03 03 04.7
	MHC	eP	03 03 11.3
	GCC	e	03 03 11.5
	JAS1	iPd	03 03 14.3
	PCC	e	03 03 20.3
	BRK	e	03 03 21.3
	BKS	eP	03 03 21.7
	MNA	e	03 03 30.7
	ORV	e	03 03 39.5

BRK 03h02m45.8s 36.2N 120.3W
h=8km ML=3.1(2)
Coalinga Area, CA

Sep 15	FHC	eP	01 32 53.9
	WDC	iPc	01 32 59.5
	MIN	iPc	01 33 04.4
	BKS	e(P)	01 33 27
		e	01 33 32.5
	JAS1	iPc	01 33 30.5
	PRI	eP	01 33 47.1

USGS 01h28m16.7s 59.1N 136.4W
h=2km mb=5.4 Ms=5.9
Southeastern Alaska

Sep 15	WDC	e	01 43 19.5
	BKS	eP	01 43 20.8
		e	01 43 22
		iS	01 54 02
		e(PS)	01 56 40
		eLr	02 15 28

	AMP(µm)	PER(s)
PZ	0.065	1.0
LZ	7.1	20.
LN	1.3	20.
LE	3.6	20.

	BRK	e	01 43 21.2
	MIN	e	01 43 23.5
	JAS1	eP	01 43 25.8

BRK Ms=5.9 Distance=102°
USGS 01h29m23.3s 4.1S 136.2E
h=10km mb=5.7 Ms=6.3
West Irian Region

Sep 15	WDC	eP	02 56 49.5
		e	03 00 57.3
	BKS	iPd	02 56 51.6
		e	02 56 52
		e(S)	03 07 36
		e(PS)	03 10 04
		i(SS)	03 15 24
		e	03 26 44
		eLr	03 29 06

	AMP(µm)	PER(s)
PZ	0.12	1.0
LZ	11	22.
LN	2.9	22.
LE	8.6	22.

	BRK	e	02 56 51.7
	MIN	eP	02 56 52.3
	JAS1	eP	02 56 57.7
		e	03 01 11.0
	PRI	eP	02 56 58.5

BRK Ms=6.3 Distance=102°
USGS 02h42m54.8s 4.1S 136.0E
h=10km mb=5.9 Ms=6.3
West Irian Region

Sep 15	MNA	ePd	08 03 36.0
		i	08 04 04.2
		iPcP	08 06 53.8
		i	08 07 13.5
	PRI	ePd	08 03 36.3
	FRI	e	08 03 41.7
		e	08 06 55.3
	JAS1	ePd	08 03 44.2
		i	08 04 12.7
		iPcP	08 06 55.9
		i	08 07 15.9
	BKS	iPd	08 03 55
		i(pP)	08 04 18
		i	08 05 24
		iS	08 09 00
		eLq	08 12 18
		eLr	08 12 54

	AMP(µm)	PER(s)
PZ	0.21	1.5
LZ	4.1	20.
LN	3.6	20.
LE	6.8	20.

	MIN	ePd	08 04 04.2
	WDC	eP	08 04 07.8
		i	08 04 34.6
		iPcP	08 07 02.3
		i	08 07 22.5
	FHC	eP	08 04 20.1
		i	08 04 46.0

BRK mb=5.7 h=100km Distance=33°
USGS 07h57m53.5s 18.0N 97.2W
h=65km mb=5.9
Oaxaca, Mexico

Sep 15	PRI	iPc	09 09 56.0
		i	09 10 03.1
	PRS	ePc	09 10 05.3
	SAO	iP	09 10 09.4
	JAS1	iPd	09 10 18.2
		iS	09 10 42.2
	BKS	e	09 10 36.0
	MNA	e	09 10 37.0

BRK 09h09m48.1s 36.1N 120.1W
h=13km ML=3.0(2)
Coalinga Area, CA

Sep 15	BKS	iPd	11 36 24.6
		i	11 37 20.2

	AMP(µm)	PER(s)
PZ	0.070	1.0

	PRI	eP	11 36 25.1
		e	11 37 21.1
	JAS1	iPd	11 36 31.1
		i	11 36 56.6
		i	11 37 27.6
	WDC	iPd	11 36 33.1
		i	11 36 42.9
		i	11 37 30.6
	MNA	iPd	11 36 41.0
		i	11 37 37.9

USGS 11h25m04.3s 19.2S 175.6W
h=247km mb=5.7
Tonga Islands

Sep 15	WDC	eP	12 32 11.5
	JAS1	eP	12 32 28.6
	MNA	eP	12 32 35.6

USGS 12h20m56.7s 40.4N 139.2E
h=23km mb=5.2
Near West Coast of Honshu, Japan

Sep 15	PRS	ePc	17 42 20.8
	SAO	eP	17 42 21.7
	BRK	eP	17 42 21.8
	BKS	iPc	17 42 22
		i(pP)	17 42 44
		iS	17 51 46
		eLq	18 01 09
		eLr	18 03 49

	AMP(µm)	PER(s)
PZ	0.33	1.4
LZ	1.8	20.
LN	1.6	20.
LE	2.0	20.

	LLA	ePc	17 42 23.0
	PRI	ePc	17 42 23.1
	FRI	ePc	17 42 28.0
	FHC	e	17 42 28.4
	JAS1	ePc	17 42 28.8
	ORV	ePc	17 42 30.4
	WDC	ePc	17 42 30.8
	MIN	ePc	17 42 32.8
	MNA	ePc	17 42 39.0

BRK mb=6.1 h=85km Distance=73°
USGS 17h31m00.8s 16.8S 173.9W
h=81km mb=5.8
Tonga Islands

Sep 16	PRI	eP	03 05 12.0
	FRI	eP	03 05 17.9
	JAS1	eP	03 05 18.3
	ORV	e	03 05 19.5
	WDC	eP	03 05 20.0
	MIN	eP	03 05 21.4
	MNA	eP	03 05 29.0

USGS 02h54m02.0s 15.3S 174.2W
h=139km mb=4.9
Tonga Islands

Sep 16	FRI	eP	07 20 13.5
	JAS1	eP	07 20 14.5
	WDC	eP	07 20 17.3
	MIN	eP	07 20 18.5
	MNA	eP	07 20 24.0

USGS 07h08m24.3s 20.8S 173.5W
h=33km mb=5.1
Tonga Islands

Sep 17	FRI	ePc	04 45 55.5
	MNA	ePc	04 46 02.0
	JAS1	ePc	04 46 06.6
		e	04 46 32.2
	MHC	eP	04 46 08
	ORV	ePc	04 46 26.0

USGS 04h40m49.7s 17.5N 105.7W
h=10km mb=4.2
Off Coast of Jalisco, Mexico

Sep 17	WDC	e	10 08 30.6
	MIN	eP	10 08 34.0
	ORV	eP	10 08 36.6
	MHC	e	10 08 42
	PRS	e	10 08 45
	JAS1	eP	10 08 45.0
	FRI	e	10 08 50
	MNA	e	10 08 52

USGS 09h56m38.1s 28.1N 140.7E
h=33km mb=5.1
Bonin Islands Region

Sep 17	FRI	eP	10 46 17.8
	MNA	ePd	10 46 18.7
	PRI	e(P)	10 46 18.7
	JAS1	eP	10 46 27.2
	MHC	eP	10 46 31.8
	ORV	eP	10 46 41.6
	MIN	eP	10 46 45.2
	WDC	e	10 46 49.0
	FHC	eP	10 47 00.5

USGS 10h39m29.7s 13.7N 90.8W
h=33km mb=4.6 Ms=3.6
Near Coast of Guatemala

Sep 17	PRI	eP	13 38 29.8
	JAS1	eP	13 38 38.8
	MNA	eP	13 38 39.3
	WDC	eP	13 38 54.6

USGS 13h26m50.9s 36.2S 101.6W
h=10km mb=4.3
Southern Pacific Ocean

Sep 18	FHC	eP	01 36 43.7
	WDC	iPc	01 36 49.9
		epP	01 37 05.6
	MIN	ePc	01 36 54.7
	ORV	iPc	01 36 58.3
		epP	01 37 14.6
	BRK	eP	01 37 03.2
	BKS	ePc	01 37 03.6
		eS	01 45 32
		eLr	01 53 58

	AMP(µm)	PER(s)
PZ	0.092	1.4
LZ	1.1	20.
LN	0.61	20.
LE	1.0	20.

	GCC	eP	01 37 07.6
	MHC	eP	01 37 08.2
	JAS1	ePc	01 37 10.8
		epP	01 37 26.3
	PRS	eP	01 37 13.8
	LLA	eP	01 37 14.7
	FRI	ePc	01 37 17.6
		epP	01 37 33.0
	MNA	ePc	01 37 18.0
		epP	01 37 33.7
	PRI	ePc	01 37 18.4

BRK Ms=5.1 Distance=64°
USGS 01h27m17.6s 49.6E 155.8E
h=56km mb=5.5
Kuril Islands

Sep 18	FRI	iPc	05 18 02.1
		iS	05 18 14.2
	MNA	iPc	05 18 04.9
		iS	05 18 18.9
	JAS1	iPd	05 18 11.0
		iS	05 18 30.0
	LLA	iPd	05 18 20.3
	PRI	ePc	05 18 20.9
	SAO	iPc	05 18 24.7
	PRS	e(P)	05 18 25.6
	MHC	ePd	05 18 26.0
	GCC	ePc	05 18 29.1
	BKS	eP	05 18 31.8
	BRK	e(P)	05 18 32.3
	PCC	e(P)	05 18 33.1
	ORV	e	05 18 35

BRK 05h17m45.0s 37.4N 118.7W
h=4km ML=3.5(4)
25 km NW of Bishop, CA

Sep 18	PRS	eP	19 31 34.7
	MHC	eP	19 31 36.8
	PRI	eP	19 31 37.1
	FRI	eP	19 31 42.5
	ORV	eP	19 31 43.6
	WDC	eP	19 31 43.8
	MNA	eP	19 31 52.5

USGS 19h20m41.4s 18.1S 178.4W
h=564km mb=5.0
Fiji Islands

Sep 18	JAS1	iPc	22 37 07.7
	FRI	eP	22 37 26.2
		e(S)	22 37 40.6
		i	22 37 44.5
	MHC	eP	22 37 26.4
		eS	22 37 42.3
	LLA	eP	22 37 30.6
		e	22 37 46.0
		e	22 37 48.3
	ORV	eP	22 37 39.3
		e(S)	22 38 01.5
	PRI	e	22 37 48.5

BRK 22h37m06.4s 37.9N 120.5W
h=0kmR ML=2.7(2)
Blast, 15 km SW of Sonora, CA

Sep 19	WDC	ePd	00 03 07.2
	ORV	ePd	00 03 15.2
	JAS1	iPd	00 03 27.4
	PRS	eP	00 03 30.0
	LLA	e(P)	00 03 30.8
	MNA	ePd	00 03 34.7
	FRI	e(P)	00 03 35.7
	PRI	eP	00 03 36.0

USGS 23h53m18.5s 47.8N 154.0E
h=33km mb=4.8 Ms=4.6
Kuril Islands

Sep 19	PRI	eP	11 06 51.5
		epP	11 07 06.6
	MNA	e(P)	11 06 52.8
		epP	11 07 08.0
	PRS	e(P)	11 06 54
		epP	11 07 09.3
	LLA	e(P)	11 06 54
		epP	11 07 09.0
	JAS1	e(P)	11 06 57
		ipP	11 07 12.1
	MHC	e(P)	11 06 59
		epP	11 07 14.1
	BRK	e(P)	11 07 01
		epP	11 07 17.7
	FRI	epP	11 07 05.2
	ORV	eP	11 07 06.4
		epP	11 07 21.4
	MIN	e(P)	11 07 08.1
		epP	11 07 23.5
	SAO	epP	11 07 10.6
	WDC	eP	11 07 11.3
		epP	11 07 26.6
	GCC	epP	11 07 13.8
	BKS	epP	11 07 18.0

USGS 10h54m48.2s 28.1S 70.7W
h=54km mb=5.1
Central Chile

Sep 19	FRI	eP	13 23 01.6
		i	13 23 07.8
	PRI	iPc	13 23 02.0
		i	13 23 08.3
	LLA	ePc	13 23 06.0
	MNA	iPc	13 23 06.3
	PRS	ePc	13 23 06.8
	SAO	e(P)	13 23 10.3
	JAS1	iPc	13 23 11.8
	GCC	ePc	13 23 14.6
	MHC	iPc	13 23 15.1
	PCC	eP	13 23 19.3
	BKS	ePc	13 23 23.0
		iPP	13 24 03
		i	13 25 03
		i	13 25 56
		iS	13 27 54
		eLq	13 29 54
		eLr	13 31 04

	AMP(µm)	PER(s)
PZ	0.96	1.0
LN	780	20.
LE	3100	20.

	BRK	e(P)	13 23 24.3
	ZSP	e	13 23 27.5
	ORV	ePc	13 23 28.8
		i	13 23 34.6
	MIN	ePc	13 23 33.8
		i	13 23 40.4
	WDC	eP	13 23 37.7
	FHC	e(P)	13 23 49.5

BRK Ms=7.9 Distance=27°
USGS 13h17m47.3s 18.2N 102.5W
h=28km mb=6.8 Ms=8.1
Michoacan, Mexico

Sep 19	FRI	eP	15 55 56.0
	PRI	eP	15 55 57.3
	MNA	eP	15 56 00.7
	LLA	e(P)	15 56 01
	JAS1	ePc	15 56 06.5
	MHC	eP	15 56 09.5
	ORV	eP	15 56 22.4

USGS 15h50m40.8s 18.0N 102.4W
h=33km mb=4.8
Near Coast of Michoacan, Mexico

Sep 19	FRI	eP	18 34 52.3
	PRI	eP	18 34 52.8
	MNA	eP	18 34 56.4
	LLA	eP	18 34 56.5
	PRS	eP	18 34 57.1
	JAS1	eP	18 35 02.5
	GCC	e	18 35 05.2
	MHC	eP	18 35 05.8
	ORV	eP	18 35 [illegible]

USGS 18h29m30.6s 17.8N 101.5W
h=33km mb=5.0
Near Coast of Guerrero, Mexico

Sep 19	PRI	e	20 50 16.3
	MNA	e	20 50 17.0
		e	20 50 43.4

International Seismological Centre

DATE	STA	PHASE	TIME (UTC)
	LLA	e	20 50 19.7
		e	20 50 45.6
	JAS1	eP	20 50 22.3
	GCC	e	20 50 24.8
		e	20 50 50.7
	MHC	e	20 50 25.1
		e	20 50 50.9
	ORV	eP	20 50 32.1
		epP	20 50 58.3
		i	20 51 09.4

USGS 20h38m38.6s 22.3S 69.0W
h=100km mb=4.9
Northern Chile

Sep 20	MNA	eP	03 40 20.5
	FRI	eP	03 40 20.5
	PRI	eP	03 40 21.5
	LLA	e	03 40 25.7
	PRS	e	03 40 26.5
	JAS1	eP	03 40 31.0
	MHC	e	03 40 34.0
	ORV	eP	03 40 47.6

USGS 03h34m58.1s 17.6N 101.6W
h=33km mb=4.7 Ms=4.2
Near Coast of Guerrero, Mexico

Sep 20	FRI	eP	03 48 04.0
	PRI	eP	03 48 05.0
	LLA	e	03 48 06.8
	MNA	eP	03 48 07.1
	PRS	e	03 48 11.2
	JAS1	e	03 48 12.8
	MHC	e	03 48 16.2
	ORV	eP	03 48 29.8

USGS 03h42m40.0s 17.5N 101.6W
h=33km mb=4.5 Ms=4.0
Near Coast of Guerrero, Mexico

Sep 20	MNA	eP	09 08 38.7
		e	09 08 45.7
	PRI	e	09 08 47.0
	JAS1	e	09 08 52.4
	ORV	e	09 09 02.0

USGS 09h02m47.2s 16.3N 98.6W
h=23km mb=4.9
Near Coast of Guerrero, Mexico

Sep 20	PRI	e	13 03 16.0
	MNA	ePc	13 03 19.1

USGS 12h57m52.3s 17.6N 101.8W
h=33km mb=4.0
Near Coast of Guerrero, Mexico

Sep 20	FRI	eP	19 27 33.4
	PRI	eP	19 27 34.0
	MNA	eP	19 27 35.5

USGS 19h22m11.4s 17.8N 101.6W
h=33km mb=4.2
Near Coast of Guerrero, Mexico

Sep 20	FRI	eP	19 35 10.5
	PRI	eP	19 35 11.0
	LLA	eP	19 35 15.0
	MNA	ePc	19 35 15.1
	PRS	e	19 35 16.9
	JAS1	eP	19 35 20.5
	MHC	eP	19 35 23.6
	GCC	eP	19 35 24.5
	ORV	ePc	19 35 37.5

USGS 19h29m57.1s 18.1N 102.7W
h=33km mb=4.9 Ms=4.1
Michoacan, Mexico

Sep 21	MHC	iPd	00 31 00.2
		iS	00 31 04.2
	SAO	iPc	00 31 02.9
	GCC	iPc	00 31 03.0
	LLA	ePc	00 31 08.2
		iS	00 31 19.5
	PCC	eP	00 31 09.4
		iS	00 31 22.2
	BRK	iPd	00 31 13.2
	BKS	eP	00 31 13.2
		eS	00 31 26.5
	JAS1	iP	00 31 16.7
		iS	00 31 30.6
	PRI	e	00 31 18.2
	FRI	iPd	00 31 20.9

BRK 00h30m55.3s 37.1N 121.5W
h=7km ML=2.5(4)
Coyote Lake, 35 km NNW of Hollister, CA

Sep 21	FRI	eP	01 42 34.4
		i	01 51 32.5
	PRI	ePc	01 42 35.3
	MNA	iPc	01 42 36.9
	LLA	eP	01 42 39.0
	PRS	eP	01 42 40.0
	JAS1	ePc	01 42 44.5
		e	01 51 30.0
	SAO	e(P)	01 42 45.0
	GCC	eP	01 42 47.5
	MHC	eP	01 42 47.9
	PCC	eP	01 42 50.2
	BKS	eP	01 42 55.2
		iPP	01 43 23
		i	01 44 28
		i	01 46 40
		iS	01 47 40.0
		eLr	01 49 50
			AMP(μa) PER(s)
		LN	440 20.
		LE	560 20.
	BRK	eP	01 42 55.4
	ORV	ePc	01 43 01.3
	MIN	eP	01 43 06.6
	WDC	eP	01 43 10.3
	FHC	e	01 43 21.6
		i	01 43 35.8

BRK Ms=7.2 Distance=27°
USGS 01h37m13.4s 17.8N 101.6W
h=31km mb=6.3 Ms=7.6
Near Coast of Guerrero, Mexico

Sep 21	FRI	iPc	05 21 43.8
	MNA	iPd	05 21 45.5
		iS	05 21 59.5
	JAS1	iPc	05 21 53.2
		iS	05 22 11.0
	LLA	eP	05 22 01.2
	PRI	iPc	05 22 02.0
	SAO	iP	05 22 06.0
	PRS	e	05 22 07.6
	MHC	iPd	05 22 08.0
	GCC	e	05 22 10.9
	PCC	e	05 22 14.5
	ORV	e	05 22 16.3
	MIN	e	05 22 33.5

BRK 05h21m26.4s 37.5N 118.7W
h=10kmR ML=3.6(5)
NW of Bishop, CA

Sep 21	WDC	eP	07 43 37.6
	MIN	e	07 43 41.7
	ORV	eP	07 43 43.4
	JAS1	eP	07 43 52.1
	FRI	ePc	07 43 57.7
	MNA	eP	07 43 59.9

USGS 07h31m42.1s 28.1N 140.7E
h=10km mb=5.1
Bonin Islands Region

Sep 21	FHC	iPd	11 58 16.4
		iS	11 58 24.9
	WDC	iPc	11 58 30.9
	MIN	eP	11 58 40.7
	ORV	eP	11 58 44.2
	PCC	eP	11 58 53.5
	MHC	e	11 59 00.8
	GCC	e	11 59 01.0
	SAO	iPc	11 59 17.0

BRK 11h58m03.0s 40.4N 124.7W
h=4kmR ML=3.6(2) Mo=4.2E20(2)
Off Coast, 60 km SW of Eureka, CA

Sep 21	PRI	ePc	14 47 39.2
	FRI	eP	14 47 41.4
	PRS	e	14 47 44.0
	LLA	e	14 47 44.0
	MNA	e	14 47 50.5
	MHC	eP	14 47 50.9
	JAS1	eP	14 47 51.2
	BRK	e	14 47 57.0
	ORV	e	14 48 05.3
	MIN	e	14 48 12.0
	WDC	e	14 48 14.8

USGS 14h39m36.2s 3.7S 102.5W
h=10km mb=5.3 Ms=5.1
Northern Easter Island Cordillera

Sep 22	MNA	ePc	18 34 24.8
	FRI	eP	18 34 31.3
	JAS1	iPc	18 34 35.8
	PRI	ePc	18 34 37.0
	LLA	ePc	18 34 38.8
	ORV	iPc	18 34 40.3
	PRS	ePc	18 34 41.5
	MIN	e	18 34 42.0
	MHC	eP	18 34 42.3
	WDC	ePc	18 34 43.0
	BKS	eP	18 34 44.6
		eS	18 44 36
		eLr	18 58 00
			AMP(μa) PER(s)
		LZ	5.0 20.
		LN	4.3 20.
		LE	2.1 20.
	BRK	e	18 34 45.5
	FHC	ePc	18 34 52.3

BRK Ms=5.8 Distance=79°
USGS 18h23m12.2s 12.5N 44.3W
h=10km mb=5.7 Ms=5.5
North Atlantic Ridge

Sep 23	WDC	eP	05 22 02.3
	MIN	e	05 22 04.0
	BRK	e	05 22 05.0
	ORV	eP	05 22 07.1
	GCC	e	05 22 07.2
	MHC	eP	05 22 07.7
	LLA	e	05 22 10
	JAS1	eP	05 22 11.4
	PRI	e	05 22 11.9
	FRI	eP	05 22 14.6
	MNA	e	05 22 21.4

USGS 05h08m10.6s 4.1S 136.3E
h=10km mb=5.5 Ms=5.2
West Irian Region

Sep 23	FRI	iPc	09 10 44.3
	MNA	iPc	09 10 46.4
		iS	09 11 00.5
	JAS1	ePd	09 10 53.2
		iS	09 11 11.6
	LLA	ePc	09 11 02.0
	PRI	ePc	09 11 03.0
		iS	09 11 32.8
	SAO	ePc	09 11 06.9
	PRS	e(P)	09 11 07.3
	MHC	ePc	09 11 08.3
	GCC	ePd	09 11 11.6
	BRK	eP	09 11 14.7
	PCC	ePc	09 11 15.3
	ORV	eP	09 11 16.7
	MIN	e	09 11 26

BRK 09h10m27.0s 37.5N 118.7W
h=3km ML=3.6(5)
NW of Bishop, CA

Sep 23	PRS	eP	14 38 53.8
	MHC	eP	14 38 54.0
	WDC	ePc	14 38 54.4
	LLA	eP	14 38 55.7
	ORV	ePc	14 38 56.4
	PRI	eP	14 38 56.7
	JAS1	ePc	14 38 58.6
	FRI	ePc	14 39 00.3
	MNA	ePc	14 39 08.0

USGS 14h26m10.1s 9.7S 159.8E
h=32km mb=4.9
Solomon Islands

Sep 24	WDC	ePc	02 05 05.1
	MIN	ePc	02 05 08.1
	ORV	ePc	02 05 09.5
	MHC	ePc	02 05 12.2
	PRS	e	02 05 14.4
	JAS1	ePc	02 05 15.6
	PRI	ePc	02 05 17.6
	FRI	ePc	02 05 19.3
	MNA	eP	02 05 23.7

USGS 01h52m15.9s 11.1N 140.5E
h=33km mb=5.0
West Caroline Islands

Sep 24	JAS1	ePKPc	05 53 23.6
		e	05 53 31.4
	MNA	ePKPc	05 53 23.7
	MHC	e	05 53 25.5
	FRI	ePKPc	05 53 26.7
		e	05 53 34.0
	PRI	e	05 53 28.9

USGS 05h33m45.1s 3.5S 68.4E
h=10km mb=4.9
Chagos Archipelago Region

Sep 24	JAS1	eP	06 16 26.8
		e	06 16 33.8
	MNA	eP	06 16 27.4
	FRI	eP	06 16 30.4
		e	06 16 37.1

Sep 24	MHC	iPc	07 21 33.4
	GCC	iPd	07 21 40.1
	PCC	iPc	07 21 40.4
	BRK	iPc	07 21 41.4
	BKS	iPc	07 21 41.45
	ZSP	iPc	07 21 42.2
	SAO	iPc	07 21 44.5
	LLA	iPc	07 21 48.9
	JAS1	iPd	07 21 49.8
		eS	07 22 05.0
	PRS	iPd	07 21 51.2
	PRI	iPc	07 21 56.8
	FRI	iPc	07 21 58.0
	ORV	eP	07 22 03.5
	MIN	e	07 22 16.5
	WDC	eP	07 22 17.5
	MNA	e	07 22 18.8

BRK 07h21m30.2s 37.5N 121.7W
h=8km ML=3.5(5) Mo=4.7E21(4)
E of Calaveras Res., 25 km NE of San Jose, CA

Sep 25	FRI	iPc	07 49 09.9
	PRI	iPc	07 49 10.4
		e	07 51 31
	LLA	eP	07 49 14.1
	MNA	iPc	07 49 14.2
		e	07 50 23.5
		e	07 51 38
		e	07 57 16
	PRS	ePc	07 49 15.0
	SAO	e(P)	07 49 17.6
	JAS1	iPc	07 49 20.2
		e	07 56 33
	GCC	e(P)	07 49 22.5
	MHC	ePc	07 49 23.2
	PCC	e	07 49 27.5
	BKS	ePc	07 49 29.6
		ePP	07 50 22
		e	07 50 40
		e	07 52 00
		eS	07 54 04.8
		eLq	07 56 00
		eLr	07 57 12
			AMP(μa) PER(s)
		PZ	0.062 1.3
		LZ	5.5 20.
		LN	4.5 20.
		LE	7.3 20.
	BRK	e(P)	07 49 29.7
	ORV	iPc	07 49 36.9
	MIN	ePc	07 49 42.2
	WDC	iPc	07 49 46.2
	FHC	e	07 49 56.6

BRK Ms=5.2 Distance=27°
USGS 07h43m57.0s 18.2N 102.7W
h=30km mb=5.3 Ms=5.2
Michoacan, Mexico

Sep 25	MNA	eP	12 17 48.6
		e	12 19 40.0
	FRI	e(P)	12 17 49.2
	PRI	e(P)	12 17 52.5
	PRS	e(P)	12 17 57.2
	JAS1	e(P)	12 17 58.1
		e	12 19 48.2
	MHC	e(P)	12 18 03.5
	GCC	e(P)	12 18 03.7
	ORV	e(P)	12 18 10.5

USGS 12h09m57.0s 9.3N 84.0W
h=39km mb=5.2 Ms=5.0
Costa Rica

Sep 25	FHC	e(P)	14 00 16.7
	WDC	eP	14 00 21.5
	MIN	eP	14 00 24.9
	BRK	e(P)	14 00 25.3
	ORV	eP	14 00 26.0
	MHC	eP	14 00 28.7
	PRS	e(P)	14 00 30.8
	JAS1	eP	14 00 32.5
	PRI	e(P)	14 00 33.6
	FRI	eP	14 00 36.0
	MNA	eP	14 00 40.5

USGS 13h47m45.7s 12.0N 143.5E
h=29km mb=5.1 Ms=4.6
Mariana Islands Region

Sep 25	PRI	iPd	23 50 06.7
		eS	23 50 16.2
	PRS	eP	23 50 11.6
		i	23 50 12.6
	LLA	iPd	23 50 15.2
		eS	23 50 31.6
	SAO	iP	23 50 18.1
	GCC	eP	23 50 23.9
	FRI	eP	23 50 23.9
		eS	23 50 44.1
	MHC	e	23 50 26.3
	JAS1	iPc	23 50 34.3

BRK 23h49m55.7s 35.6N 120.8W
h=2km ML=2.7(4)
35 km NNW of San Luis Obispo, CA

Sep 26	JAS1	eP	04 27 49.3
		e	04 28 02.3
	ORV	e(P)	04 27 50.4
		e	04 28 02.7
	WDC	e(P)	04 27 52.3
		e	04 28 04.2
	MIN	e(P)	04 27 54.3
	MNA	e(P)	04 28 00.8
		e	04 28 12.6

USGS 04h16m21.1s 16.0S 173.2W
h=33km mb=4.8
Tonga Islands

Sep 26	PRS	ePc	07 40 40.2
	GCC	ePc	07 40 40.7
	SAO	ePc	07 40 40.9
		e	07 40 50.5
	PCC	iPc	07 40 41.1
	PRI	iPc	07 40 41.9
		e	07 41 07.0
		e	07 42 28.5
		ePKKP	07 58 23.5
	BKS	ePc	07 40 42
		ePP	07 44 19
		eS	07 51 34
		ePS	07 52 36
		eSS	07 56 54
		ePKKP	07 58 22.0
		eSSS	08 02 04
		eG	08 04 22
		eLr	08 08 00
			AMP(μa) PER(s)
		PZ	0.57 1.0
		LZ	63 20.
		LNE	60 20.
		LNW	7.5 20.
	LLA	ePc	07 40 42.2
	BRK	iPc	07 40 42.7
		ePKKP	07 58 20.5
	MHC	ePc	07 40 43.0
		i	07 40 58.0
		ePKKP	07 58 21
	ZSP	eP	07 40 43.5
	FRI	iPc	07 40 44.1
		e(PP)	07 44 35.1
		ePKKP	07 58 17.7
		ePKPPKP	08 06 3[illegible]
		eRPKP	08 21 13
	JAS1	iPc	07 40 47.5
		i	07 40 51.5
		e	07 40 57.5

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DATE	STA	PHASE	TIME (UTC)
		ePP	07 44 41.5
		eS	07 51 57
		ePKKP	07 58 18.1
		ePKPPKP	08 06 27
		eRPKP	08 27 20
	FHC	ePc	07 40 49.0
		e	07 41 21.9
	ORV	iPc	07 40 49.8
		eS	07 52 04
		ePKKP	07 58 15.8
		ePKPPKP	08 06 16
		eRPKP	08 27 13
	WDC	iPc	07 40 51.0
		e	07 41 25.0
		eS	07 52 04
		ePKKP	07 58 15.0
		ePKPPKP	08 06 38
		eRPKP	08 27 15
	MIN	ePc	07 40 51.8
		ePKKP	07 58 10.5
		ePKPPKP	08 06 16
	MNA	iPc	07 40 55.0
		e	07 41 15.0
		ePP	07 44 56.0
		eS	07 52 19
		e(PKKP)	07 58 04
		ePKPPKP	08 06 10
BRK Ms=7.0 Distance=90°			
USGS 07h27m51.1s 34.7S 178.7W			
h=52km mb=6.3 Ms=7.0			
South of Kermadec Islands			
Sep 26	FRI	eP	08 45 50.3
		epP	08 46 02.7
	PRI	eP	08 45 50.5
		epP	08 46 04.7
	MNA	eP	08 45 52.3
		epP	08 46 06.4
	LLA	eP	08 45 52.6
		epP	08 46 07.0
	PRS	eP	08 45 52.9
		epP	08 46 07.2
	JAS1	eP	08 45 56.1
		epP	08 46 10.2
	GCC	eP	08 45 57.0
		epP	08 46 11.2
	MHC	eP	08 45 57.5
		epP	08 46 11.5
	PCC	eP	08 46 00.0
	BRK	eP	08 46 01.8
		epP	08 46 14.9
	BKS	eP	08 46 01.8
		epP	08 46 15.0
			AMP(μm) PER(s)
		PZ	0.022 0.8
	ORV	eP	08 46 05.5
		epP	08 46 19.5
	MIN	eP	08 46 07.4
		epP	08 46 20.0
	WDC	eP	08 46 09.9
		epP	08 46 24.2
	FHC	e(P)	08 46 16
		epP	08 46 31
USGS 08h33m27.1s 33.6S 71.6W			
h=47km mb=5.6 Ms=5.7			
Near Coast of Central Chile			
Sep 27	FHC	eP	03 51 48.4
	PCC	eP	03 51 48.9
	BRK	eP	03 51 50.1
	GCC	eP	03 51 50.4
	BKS	ePc	03 51 50.6
		eS	04 02 30
		ePPS	04 03 50
		eG	04 15 00
			AMP(μm) PER(s)
		PZ	0.028 0.7
		LZ	34 20.
		LNE	37 20.
		LNW	15 20.
	SAO	e(P)	03 51 51.6
	MHC	eP	03 51 52.2
		e	03 55 16.7
	PRS	eP	03 51 52.2
	WDC	iPc	03 51 52.8
		e	03 55 21
		ePKPPKP	04 17 51
	LLA	eP	03 51 54.0
	ORV	ePc	03 51 54.8
		ePKPPKP	04 17 57.6
	PRI	ePc	03 51 54.9
		e	03 55 13
		eS	04 02 26
		ePKPPKP	04 02 26
	MIN	ePc	03 51 55.3
	JAS1	iPc	03 51 57.1
		ePKKP	04 09 50
		ePKPPKP	04 17 52.5
		e	04 55 22
	FRI	eP	03 51 58.5
		e	03 55 20
		ePKPPKP	04 18 52.5
	MNA	ePc	03 52 06.3
		e	03 55 39
BRK Ms=6.8 Distance=87°			
USGS 03h39m08.5s 9.8S 159.9E			
h=32km mb=6.2 Ms=6.9			
Solomon Islands			
Sep 27	PRI	e	06 48 32.0
	FRI	eP	06 48 34.8
	PRS	e	06 48 36.8
	JAS1	eP	06 48 44.0
	MHC	e	06 48 45.3
	ORV	eP	06 49 00.3
	WDC	e	06 49 08.4
USGS 06h41m06.3s 2.2N 100.3W			
h=10km mb=4.7 Ms=4.5			
East Central Pacific Ocean			
Sep 27	WDC	eP	07 58 58.0
	ORV	eP	07 59 04.5
	JAS1	eP	07 59 12.0
USGS 07h47m05.2s 28.1N 140.7E			
h=27km mb=4.8			
Bonin Islands Region			
Sep 27	PCC	e	10 22 09.4
	PRS	eP	10 22 09.7
	GCC	e	10 22 10.4
	PRI	eP	10 22 10.8
	SAO	eP	10 22 11.1
	MHC	eP	10 22 12.0
	BKS	ePc	10 22 12.6
		eS	10 32 06.4
		eLq	10 42 14
		eLr	10 47 00
			AMP(μm) PER(s)
		PZ	0.022 1.0
		LZ	18 20.
		LN	14 20.
		LE	10 20.
	BRK	eP	10 22 12.7
	LLA	e	10 22 13.5
	FRI	eP	10 22 17.0
	JAS1	eP	10 22 17.7
	FHC	e	10 22 19.3
	WDC	eP	10 22 19.5
	ORV	eP	10 22 19.7
	MIN	eP	10 22 22.1
	MNA	eP	10 22 27.2
BRK Ms=6.4 Distance=79°			
USGS 10h10m18.9s 22.2S 174.6W			
h=33km mb=5.8 Ms=6.2			
Tonga Islands Region			
Sep 27	FRI	eP	11 21 44.9
	PRI	eP	11 21 46.4
	MNA	eP	11 21 48.5
	ORV	eP	11 22 10.5
USGS 11h16m26.9s 18.0N 102.0W			
h=33km mb=4.7			
Near Coast of Guerrero, Mexico			
Sep 27	MNA	iPc	14 15 37.8
	FRI	iPc	14 15 48.9
	JAS1	iP	14 15 57.6
	PRI	eP	14 16 01.4
	LLA	eP	14 16 04.0
	PRS	eP	14 16 08.3
	MHC	eP	14 16 12.4
	GCC	e	14 16 15.5
	ORV	eP	14 16 16.2
	SAO	e	14 16 17.8
	WDC	e	14 16 32.5
BRK ML=4.6(6)			
USGS 14h15m00.1s 37.1N 116.0W			
h=0km mb=4.6			
Underground Nuclear Explosion, NTS (Ponil)			
Sep 28	FRI	eP	03 58 14.4
	PRI	eP	03 58 14.6
	MNA	eP	03 58 17.8
		e	04 06 38.5
	PRS	e	03 58 20.5
	JAS1	eP	03 58 23.9
	GCC	e	03 58 33.8
	MHC	e	03 58 37.1
	ORV	eP	03 58 41.0
	BKS	eP	03 58 54.0
		eS	04 03 25.2
		eLq	04 05 26.8
		eLr	04 07 14.0
			AMP(μm) PER(s)
		LZ	2.9 20.
		LN	2.8 20.
		LE	1.5 20.
BRK Ms=4.9 Distance=30°			
USGS 03h52m46.6s 17.3N 101.2W			
h=33km mb=5.1 Ms=5.0			
Near Coast of Guerrero, Mexico			
Sep 28	PRS	e	06 02 24.0
	PRI	eP	06 02 25.5
	FRI	eP	06 02 32.8
	JAS1	eP	06 02 33.7
	ORV	eP	06 02 35.6
	WDC	eP	06 02 36.2
	MIN	e	06 02 37.7
	MNA	eP	06 02 43.2
USGS 05h50m41.0s 20.9S 174.1W			
h=33km mb=5.2 Ms=5.0			
Tonga Islands			
Sep 28	WDC	eP	12 22 54.4
	MIN	e	12 22 58.0
	ORV	eP	12 23 00.5
	JAS1	eP	12 23 08.8
	FRI	eP	12 23 13.8
USGS 12h11m03.1s 28.1N 140.8E			
h=40km mb=5.0			
Bonin Islands			
Sep 29	BKS	eP	05 39 43.7
			AMP(μm) PER(s)
		PZ	0.029 0.9
	MHC	eP	05 39 45.0
	FRI	eP	05 39 49.0
	JAS1	ePd	05 39 49.5
	ORV	eP	05 39 51.0
		e	05 41 50.2
	WDC	ePd	05 39 51.2
		e	05 41 50.5
	MIN	eP	05 39 52.7
	MNA	e	05 39 58.2
USGS 05h28m18.9s 23.3S 179.2E			
h=541km mb=4.9			
South of Fiji Islands			
Sep 29	PRI	ePc	19 38 46.6
	BKS	e	19 38 46.6
	FRI	e	19 38 49.8
	JAS1	ePc	19 38 50.2
	WDC	eP	19 38 51.1
	ORV	eP	19 38 51.7
	MNA	e	19 38 59.7
USGS 19h27m17.1s 15.7S 174.6W			
h=33km mb=4.6 Ms=4.3			
Tonga Islands			
Sep 30	PRI	eP	00 48 58.8
	JAS1	ePc	00 49 04.1
	BKS	e	00 49 10
	ORV	ePc	00 49 13.3
	WDC	ePc	00 49 18.1
USGS 00h37m08.2s 25.0S 67.9W			
h=127km mb=5.0			
Chile-Argentina Border Region			
Sep 30	WDC	eP	02 10 35.6
	ORV	eP	02 10 42.5
	JAS1	eP	02 10 49.9
	FRI	eP	02 10 55.0
USGS 01h58m44.7s 28.1N 140.8E			
h=46km mb=4.8			
Bonin Islands Region			
Sep 30	FRI	eP	04 03 03.0
	PRI	eP	04 03 03.7
	MNA	eP	04 03 07.7
	JAS1	eP	04 03 14.5
	ORV	eP	04 03 31.3
USGS 03h58m11.6s 19.4N 105.0W			
h=33km mb=4.2			
Near Coast of Jalisco, Mexico			
Sep 30	SAO	iP	09 45 44.4
	PRS	iP	09 45 45.3
	PRI	iPd	09 45 51.9
	GCC	iP	09 45 53.5
	MHC	iPd	09 45 55.9
		eS	09 46 08.5
	PCC	iPc	09 46 02.3
	FRI	ePc	09 46 02.5
	JAS1	ePc	09 46 05.3
		e(S)	09 46 24.0
		i	09 46 27.1
	BRK	eP	09 46 05.7
	BKS	iPnc	09 46 05.7
		ePn	09 46 07.7
		ePg	09 46 11.3
		eSn	09 46 23.4
		eSg	09 46 29
	ORV	e	09 46 26.1
	MNA	e	09 46 33.2
BRK 09h45m39.7s 36.6N 121.2W			
h=7km ML=3.2(6) Mo=2.0E21(1)			
Bear Valley, 35 km SE of Hollister, CA			
Sep 30	WDC	eP	23 11 11.3
	JAS1	eP	23 11 58.8
	FRI	e	23 12 10.5
	PRI	eP	23 12 16.9
USGS 23h08m22.6s 50.8N 130.1W			
h=10km mb=4.2			
Vancouver Island Region			
Oct 1	WDC	eP	02 41 04.0
	MIN	eP	02 41 11.0
	ORV	eP	02 41 20.0
	JAS1	eP	02 41 45.3
	MNA	e	02 41 51.5
	FRI	e	02 42 03.0
	LLA	e	02 42 03.4
	PRI	e	02 42 06.7
USGS 02h38m16.0s 50.9N 130.1W			
h=10km mb=4.3			
Vancouver Island Region			
Oct 1	MHC	iPd	04 45 55.2
	GCC	iPc	04 46 01.6
	SAO	iPd	04 46 03.6
	PCC	iPc	04 46 05.2
	BRK	iPc	04 46 08.4
		iS	04 46 21.2
	BKS	ePn	04 46 08.5
		ePg	04 46 10.5
		eSn	04 46 20.2
	LLA	eP	04 46 09.2
	ZSP	eP	04 46 09.6
		iS	04 46 23.7
	PRS	eP	04 46 11.0
	JAS1	iPc	04 46 14.6
		iS	04 46 31.5
	PRI	eP	04 46 17.9
	FRI	iPd	04 46 20.5
	ORV	e	04 46 33.0
BRK 04h45m53.4s 37.3N 121.6W			
h=6km ML=2.8(4) Mo=9.3E19(2)			
Halls Valley, 25 km S of San Jose, CA			
Oct 1	FHC	e(P)	16 01 22.4
		e	16 01 27.5
	WDC	eP	16 01 29.6
		e	16 01 36.0
		e	16 02 23.4
	MIN	eP	16 01 36.6
	ORV	eP	16 01 39.1
		e	16 01 46
	BKS	eP	16 01 43.5
		e	16 01 51.6
		iS	16 07 24.0
		eLq	16 09 44.0
		eLr	16 11 28.0
			AMP(μm) PER(s)
		PZ	0.017 0.7
		LZ	3.9 20.
		LN	6.3 20.
		LE	1.3 20.
	MHC	e(P)	16 01 50.8
	GCC	e(P)	16 01 51.4
	JAS1	ePc	16 01 54.4
		e	16 02 01.2
	PRS	e(P)	16 01 57.7
	LLA	e(P)	16 01 58.5
	FRI	eP	16 02 02.8
	MNA	e(P)	16 02 03.3
		e	16 02 10.0
BRK Ms=5.4 Distance=38°			
USGS 15h54m51.1s 52.3N 168.9W			
h=33km			
Fox Islands, Aleutian Islands			
Oct 2	MNA	e(P)	02 25 47.8
	PRI	e(P)	02 25 49
	JAS1	e(P)	02 25 55.7
	ORV	e(P)	02 26 20.6
USGS 02h21m06.7s 14.1N 91.7W			
h=33km mb=4.8 Ms=4.5			
Guatemala			
Oct 2	FHC	e(P)	03 26 32.2
	WDC	iPd	03 26 38.5
		epP	03 26 49.4
	MIN	iPd	03 26 42.8
	ORV	ePd	03 26 46.0
		epP	03 26 58.4
	BKS	iPc	03 26 53.0
			AMP(μm) PER(s)
		PZ	0.028 0.8
	GCC	eP	03 26 54.0
	MHC	eP	03 26 54.6
	JAS1	iPd	03 26 57.5
		epP	03 27 10.2
	LLA	e(P)	03 27 00.4
	FRI	iPd	03 27 03.7
		epP	03 27 16.2
	PRI	e(P)	03 27 03.8
	MNA	iPd	03 27 05.2
USGS 03h16m27.8s 43.9N 151.4E			
h=42km mb=5.4 Ms=4.4			
Kuril Islands Region			
Oct 2	FHC	e(P)	09 57 11.6
	FRI	e(P)	09 57 13.6
	JAS1	e(P)	09 57 13.8
	ORV	e(P)	09 57 15.2
	WDC	eP	09 57 15.2
	MIN	e(P)	09 57 18.0
	MNA	e(P)	09 57 24.8
	BKS	e	10 06 34
USGS 09h45m27.3s 17.0S 177.1W			
h=33km mb=4.9 Ms=4.8			
Fiji Islands Region			
Oct 2	PRS	eP	20 52 38.7
	MHC	eP	20 52 40.0
	PRI	e(P)	20 52 41
	WDC	eP	20 52 44.2
	JAS1	eP	20 52 44.9
	ORV	eP	20 52 45.0
	FRI	eP	20 52 45.5
	MNA	eP	20 52 54.3
	BKS	e	21 19 14.0
USGS 20h40m02.8s 19.5S 169.8E			
h=38km mb=5.6 Ms=5.4			
Vanuatu Islands			
Oct 2	PRI	iPc	23 35 05.8
	FRI	iPc	23 35 07.3
	LLA	ePn	23 35 11.8
		ePg	23 35 20.0
	PRS	iPn	23 35 12.4
		ePg	23 35 21.0

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DATE	STA	PHASE	TIME (UTC)
	SAO	eP	23 45 17.3
	MNA	iPnd	23 45 21.2
		ePg	23 45 35.0
		e	23 46 20.0
		eSg	23 46 34.7
	JAS1	iPc	23 45 22.8
	GCC	e(P)	23 45 23.5
	MHC	iPnc	23 45 24.6
		iPg	23 45 41.5
		e	23 46 34.7
		eSg	23 46 53.0
	PCC	iPc	23 45 32.2
	BRK	iPc	23 45 34.3
	BKS	ePn	23 45 34.3
		ePe	23 45 40.7
		ePg	23 45 57.2
		eSn	23 46 38.4
		e	23 47 08.0
	ZSP	iPd	23 45 35.3
		e	23 46 39.5
	ORV	e(P)	23 45 47.9
	WDC	e	23 46 07.0
		e	23 46 47
		e	23 48 09.5

BRK ML=4.7(6)
USGS 23h44m12.4s 34.0N 117.3W
h=14km mb=4.8
Southern California

DATE	STA	PHASE	TIME (UTC)
Oct 3	MNA	e(P)	06 35 22.6
	JAS1	e	06 35 37.2

USGS 06h29m56.6s 17.6N 100.7W
h=81km mb=4.3
Guerrero, Mexico

DATE	STA	PHASE	TIME (UTC)
Oct 3	WDC	ePd	21 39 25.0
		e	21 39 45.9
	ORV	eP	21 39 31.6
		e	21 39 52.0
	MHC	eP	21 39 38.5
	JAS1	ePd	21 39 41.4
		e	21 40 02.3
		ePP	21 42 28.7
	PRS	eP	21 39 42.6
	LLA	eP	21 39 43.4
	PRI	eP	21 39 46.4
		e	21 40 07.5
	FRI	eP	21 39 46.6
	MNA	eP	21 39 48.5
		e	21 40 09.6

USGS 21h28m02.0s 34.8N 140.8E
h=74km mb=5.2
Near the East Coast of Honshu, Japan

DATE	STA	PHASE	TIME (UTC)
Oct 4	WDC	eP	05 43 54.8
	ORV	e(P)	05 44 03.8
	JAS1	eP	05 44 18.0

USGS 05h35m03.2s 55.5N 162.5E
h=36km mb=4.7
Near East Coast of Kamchatka

DATE	STA	PHASE	TIME (UTC)
Oct 4	FHC	e	08 52 42.6
	WDC	ePc	08 52 46.8
		ipP	08 54 32.5
		eS	09 02 24
	MIN	eP	08 52 50.3
		epP	08 54 36.3
	ORV	iPc	08 52 52.1
		ipP	08 54 38.5
	BRK	eP	08 52 53.8
	BKS	iPd	08 52 54.4
		epP	08 54 39.7
		i5e	09 02 15

DATE	STA	PHASE	TIME (UTC)	AMP(μm)	PER(s)
		PZ		0.17	1.0
	PCC	eP	08 52 54.5		
	GCC	eP	08 52 57.0		
	MHC	eP	08 52 57.7		
	SAO	eP	08 52 59.5		
	JAS1	eP	08 53 00.4		
	PRS	eP	08 53 01.3		
	LLA	eP	08 53 02.3		
	PRI	eP	08 53 03.8		
	FRI	eP	08 53 05.0		
		ipP	08 54 52.0		
	MNA	eP	08 53 08.7		
		ipP	08 54 51.4		

BRK mb=5.4 h=480km Distance=80°
USGS 08h41m37.9s 27.6N 140.0E
h=478km mb=5.6
Bonin Islands Region

DATE	STA	PHASE	TIME (UTC)
Oct 4	FHC	eP	12 37 08.0
	WDC	eP	12 37 12.0
	MIN	eP	12 37 16.0
	ORV	eP	12 37 18.5
	BRK	eP	12 37 21.1
	PCC	eP	12 37 22.3
	BKS	iPd	12 37 22.9
		eS	12 46 52
		e	12 59 45

		AMP(μm)	PER(s)
	PZ	0.033	6.3
MHC	eP	12 37 26.0	
GCC	eP	12 37 26.1	
JAS1	eP	12 37 28.6	
SAO	eP	12 37 28.8	
LLA	eP	12 37 30.5	
PRS	eP	12 37 30.8	
MNA	eP	12 37 34.2	
FRI	eP	12 37 34.2	
PRI	eP	12 37 35.8	

USGS 12h25m51.0s 35.8N 140.1E
h=85km mb=5.9
Near East Coast of Honshu, Japan

DATE	STA	PHASE	TIME (UTC)
Oct 4	PRS	e	22 24 43.6
	GCC	e	22 24 43.9
	PRI	eP	22 24 45.4
	MHC	e	22 24 46.3
	FRI	eP	22 24 50.0
	JAS1	iPd	22 24 51.1
	ORV	eP	22 24 53.0
	WDC	iPd	22 24 53.9

USGS 22h12m36.6s 29.5S 178.7W
h=258km mb=3.7
Kermadec Islands

DATE	STA	PHASE	TIME (UTC)
Oct 5	WDC	ePc	08 25 05.9
	MIN	eP	08 25 09.5
	ORV	ePc	08 25 11.6
	JAS1	ePc	08 25 19.7
	PRI	eP	08 25 22.8
	FRI	ePc	08 25 24.0
	MNA	eP	08 25 27.6

USGS 08h13m09.1s 22.9N 144.0E
h=33km mb=5.2 Ms=4.9
Volcano Islands Region

DATE	STA	PHASE	TIME (UTC)
Oct 5	WDC	eP	14 11 22.8
	MIN	eP	14 11 26.8
	ORV	eP	14 11 28.5
	MHC	e	14 11 32.7
	PRS	e	14 11 35.5
	JAS1	iPc	14 11 36.2
	LLA	e	14 11 36.7

DATE	STA	PHASE	TIME (UTC)
	PRI	eP	14 11 39.1
	FRI	eP	14 11 40.6
		i	14 12 10.5
	MNA	ePc	14 11 44.2

USGS 13h59m33.9s 21.9N 144.0E
h=132km mb=5.1
Mariana Islands Region

DATE	STA	PHASE	TIME (UTC)
Oct 5	WDC	iPc	15 28 54.7
	MIN	iPc	15 28 58.1
	ORV	iPc	15 29 05.5
	MNA	iPc	15 29 20.2
	JAS1	iPc	15 29 22.7
	BRK	ePc	15 29 22.7
	BKS	iPc	15 29 23.1
		iPP	15 30 02
		e	15 31 02
		e	15 33 19
		i	15 33 40
		iS	15 33 54
		i	15 34 54
		i	15 35 31
		i	15 36 17

		AMP(μm)	PER(s)
	PZ	1.3	0.8
	LZ	92	18.0
	LNE	240	18.0
	LNW	210	18.0
MHC	iPc	15 29 28.2	
GCC	iPc	15 29 30.2	
FRI	iPc	15 29 31.8	
LLA	iPc	15 29 35.2	
PRS	eP	15 29 37.3	
PRI	iPc	15 29 40.3	

BRK Ms=6.8 Distance=26°
USGS 15h24m02.2s 62.2N 124.3W
h=10km mb=6.5 Ms=6.6
Northwest Territories, Canada

DATE	STA	PHASE	TIME (UTC)
Oct 6	GCC	iPc	00 18 13.2
	SAO	iPd	00 18 15.0
	MHC	iPd	00 18 15.8
	PCC	iPc	00 18 22.0
		iS	00 18 31.7
	LLA	iP	00 18 22.8
	BRK	ePc	00 18 26.0
		iS	00 18 39.2
	BKS	iPc	00 18 26.3
		iS	00 18 40.1
	ZSP	e	00 18 27.6
		i	00 18 28.5
		i	00 18 42.0
	PRI	iPc	00 18 31.0
	JAS1	e	00 18 33.0
	FRI	eP	00 18 35.9

BRK 00h18m08.8s 37.0N 121.7W
h=9km ML=3.0(4) Mo=4.4E20(2)
Near Watsonville, 35 km NW of Hollister, CA

DATE	STA	PHASE	TIME (UTC)
Oct 6	PRI	e	00 36 31.0
	MHC	e	00 36 31.5
	FRI	e	00 36 36.1
	JAS1	eP	00 36 37.0
	ORV	eP	00 36 39.0
	WDC	eP	00 36 39.7
	MNA	eP	00 36 46.7

USGS 00h24m32.3s 23.2S 175.1W
h=33km mb=4.9
Tonga Islands Region

DATE	STA	PHASE	TIME (UTC)
Oct 6	WDC	ePc	01 20 21.2
	MIN	ePc	01 20 24.8

DATE	STA	PHASE	TIME (UTC)
	ORV	ePc	01 20 33.0
	MNA	e	01 20 48.0
	JAS1	ePc	01 20 50.2
	PCC	eP	01 20 53.5
	MHC	e	01 20 54.6
	LLA	e	01 21 01.5
	PRI	e	01 21 08.9

USGS 01h15m30.3s 62.1N 124.2W
h=10km mb=5.0
Northwest Territories, Canada

DATE	STA	PHASE	TIME (UTC)
Oct 6	PCC	ePc	12 12 57.1
	GCC	iPc	12 12 57.5
	PRS	ePc	12 12 58.4
	BRK	ePc	12 12 58.4
	BKS	iPc	12 12 58.6
		e	12 13 10
		isP	12 14 32
		epPP	12 17 40
		eS	12 22 58
		eG	12 36 00

		AMP(μm)	PER(s)
	PZ	1.3	1.2
MHC	iPc	12 12 59.8	
LLA	ePc	12 13 00.4	
PRI	iPc	12 13 00.8	
WDC	iPc	12 13 03.8	
	ePP	12 16 26.8	
	eS	12 23 05.2	
ORV	iPc	12 13 04.6	
	e	12 16 27.6	
JAS1	iPc	12 13 04.8	
	iPP	12 16 32.0	
FRI	iPc	12 13 05.1	
MIN	ePc	12 13 05.6	
MNA	ePc	12 13 13.6	

USGS 12h00m49.2s 19.0S 169.4E
h=273km mb=5.7
Vanuatu Islands

DATE	STA	PHASE	TIME (UTC)
Oct 7	WDC	iPc	13 16 28.5
	MIN	ePc	13 16 32.2
	ORV	ePc	13 16 35.2
	BRK	ePc	13 16 38.7
	BKS	eP	13 16 39.0

		AMP(μm)	PER(s)
	PZ	0.047	0.8
PCC	eP	13 16 39.1	
MHC	ePc	13 16 42.9	
JAS1	ePc	13 16 45.5	
PRS	e	13 16 47.4	
LLA	e	13 16 48.1	
PRI	ePc	13 16 51.2	
FRI	ePc	13 16 51.2	
MNA	iPc	13 16 52.6	

USGS 03h05m22.1s 38.4N 140.3E
h=120km mb=5.0
Honshu, Japan

DATE	STA	PHASE	TIME (UTC)
Oct 7	MHC	iPd	15 46 56.6
	BKS	iPc	15 47 9.4
		eS	15 47 21.3
	GCC	ePd	15 47 01.9
	SAO	iP	15 47 05.0
	PCC	iPc	15 47 06.5
	BRK	ePc	15 47 09.5
	LLA	ePc	15 47 10.2
	ZSP	iPc	15 47 11.0
	PRS	iPd	15 47 12.1
	JAS1	iPc	15 47 15.7
		iS	15 47 32.2
	PRI	eP	15 47 18.5
	FRI	i	15 47 21.5

DATE	STA	PHASE	TIME (UTC)
	ORV	ePc	15 47 34.0
	MIN	e	15 47 46.3
	MNA	e	15 47 46.3

BRK 15h46m54.6s 37.3N 121.6W
h=7km ML=3.0(4) Mo=1.8E20(2)
Halls Valley Sequence, CA

DATE	STA	PHASE	TIME (UTC)
Oct 8	SAO	iPd	03 13 36.5
	MHC	iPd	03 13 36.6
		iS	03 13 42.2
	GCC	iPc	03 13 38.3
	LLA	iPc	03 13 41.8
		eS	03 13 51.6
	PRS	eP	03 13 44.2
	PCC	eP	03 13 45.7
	BKS	iPd	03 13 49.1
		iS	03 14 03.8
	BRK	iPd	03 13 49.6
		eS	03 14 05.1
	ZSP	ePd	03 13 51.0
		eS	03 14 07.3
	PRI	eP	03 13 51.9
	JAS1	iPd	03 13 52.0
		iS	03 14 08.0
	FRI	eP	03 13 54.8
		eS	03 14 13.2
	ORV	e(P)	03 14 12.0

BRK 03h13m30.3s 37.1N 121.5W
h=7km ML=2.8(4) Mo=1.9E20(2)
10 km NE of Gilroy, CA

DATE	STA	PHASE	TIME (UTC)
Oct 8	FRI	ePd	09 58 56.6
		epP	09 59 54.5
	PRI	ePd	09 58 58.2
		epP	09 59 56.0
	MNA	ePd	09 58 58.3
		epP	09 59 55.8
	BKS	ePd	09 59 9.4

		AMP(μm)	PER(s)
	PZ	0.083	1.0
	LLA	ePd	09 59 00.6
	PRS	ePd	09 59 01.3
	SAO	ePd	09 59 02.3
	JAS1	iPd	09 59 03.4
		epP	10 00 01.1
	GCC	ePd	09 59 05.4
	MHC	ePd	09 59 05.8
	PCC	e(P)	09 59 08.3
	BRK	ePd	09 59 09.3
	ORV	iPd	09 59 12.4
		epP	10 00 10.3
	MIN	ePd	09 59 14.3
	WDC	iPd	09 59 17.3
		e	10 09 11.5
	FHC	ePd	09 59 24.5

USGS 09h47m24.8s 22.8S 66.3W
h=242km mb=5.5
Jujuy Province, Argentina

DATE	STA	PHASE	TIME (UTC)
Oct 8	PRI	iPd	22 17 49.8
	LLA	iPd	22 17 55.9
	FRI	iPd	22 17 58.4
	PRS	iPc	22 17 59.3
	SAO	iPd	22 18 02.3
	JAS1	iPd	22 18 11.6
	BKS	eP	22 18 18.7
		e	22 18 38.8
	BRK	eP	22 18 19.3
	ZSP	iPd	22 18 20.0
		i	22 18 23.5
	MNA	eP	22 18 28.0
		i	22 18 31.6
	ORV	iPd	22 18 37.4

DATE	STA	PHASE	TIME (UTC)
	MIN	e	22 18 55.8
	WDC	e(P)	22 19 05.2

BRK 22h17m43.2s 36.2N 120.2W
h=11km ML=4.0(6) Mo=1.8E22(2)
Coalinga Area, CA

DATE	STA	PHASE	TIME (UTC)
Oct 9	FHC	e(PKP)	01 33 47.7
	WDC	iPKPc	01 33 48.6
		e	01 34 32.5
		e	01 36 55.2
	MIN	ePKP	01 33 49.8
	ORV	ePKP	01 33 50.8
		e	01 34 31.7
		e	01 35 47
	BRK	ePKP	01 33 51.3
	BKS	ePKP	01 33 51.4
	GCC	ePKP	01 33 52.5
	MHC	ePKP	01 33 53.0
	JAS1	iPKPc	01 33 54.0
		i	01 34 31.7
		e	01 35 46.1
	PRS	ePKP	01 33 54.5
	LLA	ePKP	01 33 54.9
	FRI	iPKPc	01 33 55.8
		e	01 34 34.0
		e	01 37 01.2
	PRI	iPKP	01 33 56.3
		e	01 34 34.1
		e	01 35 59.5
	MNA	iPKPc	01 33 57.6
		e	01 34 55.0
		e	01 37 03.9

USGS 01h15m04.6s 6.8S 107.1E
h=154km mb=5.9
Java

DATE	STA	PHASE	TIME (UTC)
Oct 9	FRI	e(P)	03 58 43.5
	JAS1	e	03 58 44
	MNA	iPd	03 58 54.4

USGS 03h46m55.1s 21.1S 174.2W
h=66km mb=5.1
Tonga Islands

DATE	STA	PHASE	TIME (UTC)
Oct 9	FHC	ePd	09 39 18.3
	WDC	iPd	09 39 26.2
		e	09 39 34.0
	MIN	iPd	09 39 32.0
	ORV	iPd	09 39 36.6
	BRK	iPd	09 39 43.9
	BKS	iPd	09 39 44.0
		iS	09 44 46
		eLg	09 46 14
		eLr	09 47 48
		e	09 51 20

		AMP(μm)	PER(s)
	PZ	0.10	1.0
	LZ	160	20.
	LNE	71	20.
	LNW	140	20.
MHC	iPd	09 39 50.5	
JAS1	iPd	09 39 53.0	
	ipP	09 40 00.5	
	e	09 40 21.0	
	e	09 41 23.5	
	e	09 41 52.5	
	e	09 42 19.5	
SAO	e(P)	09 39 54.5	
PRS	e(P)	09 39 57.0	
LLA	ePd	09 39 58.7	
MNA	iPd	09 40 01.2	
FRI	iPd	09 40 02.0	
PRI	ePd	09 40 03.4	

BRK Ms=6.6 Distance=27°

International Seismological Centre

DATE	STA	PHASE	TIME (UTC)
USGS 09h33m32.4s 54.8N 159.6W			
h=30km mb=6.2 Ms=6.6			
South of Alaska			
Oct 9	FRI	e(P)	17 35 26.6
		e	17 35 48.9
	JAS1	e(P)	17 35 28.6
		e	17 35 49.2
	MNA	ePc	17 35 38.1
		e	17 35 59.5
USGS 17h23m38.3s 21.1S 174.2W			
h=66km mb=5.2			
Tonga Islands			
Oct 9	MNA	iPc	23 20 34.5
		i	23 21 04.5
	FRI	iPc	23 20 46.5
		i	23 20 51.3
	JAS1	iPc	23 20 55.0
		e	23 21 03.5
	PRI	iPc	23 21 00.6
		e	23 21 08.0
	LLA	e	23 21 02
		e	23 21 09.3
	SAO	e(P)	23 21 06.0
		e	23 21 13.0
	PRS	e(P)	23 21 06.1
		e	23 21 15.4
	MHC	e	23 21 08.3
	ORV	eP	23 21 14.0
	GCC	e	23 21 19
	MIN	e	23 21 20
	BKS	eP*	23 21 25.1
	PCC	e	23 21 26.8
	WDC	e	23 21 31.5
BRK ML=4.0(6)			
USGS 23h20m00.0s 37.2N 116.2W			
h=0km mb=4.2			
Underground Nuclear Exp., NTS (Diamond Beech)			
Oct 10	ARC	eP	00 13 16.0
		eS	00 13 44.4
	FHC	iPc	00 13 16.5
		i	00 13 25.3
		e	00 15 07.5
	WDC	iPc	00 13 32.5
		i	00 13 40.7
		e	00 14 17.5
		e	00 15 44.0
	MIN	eP	00 13 41.4
	ORV	e(P)	00 13 47.6
	BKS	eP	00 13 58
		e	00 14 06.1
		i	00 14 07
		iS	00 15 09
		i	00 15 23
	MHC	e	00 14 08.2
	JAS1	i	00 14 14.3
	FRI	e(P)	00 14 28.4
	PRI	e	00 14 31
	MNA	e	00 14 32
		e	00 16 14.0
BRK 00h12m35.7s 41.9N 127.2W			
h=6km ML=4.2(2)			
Off Coast of Northern California			
Oct 10	WDC	e(P)	13 34 47.0
		e	13 35 04.7
	ORV	eP	13 34 53.9
		e	13 35 13.2
	JAS1	eP	13 35 05.0
		e	13 35 23.1

DATE	STA	PHASE	TIME (UTC)
USGS 13h23m52.8s 41.5N 142.0E			
h=72km mb=5.1			
Hokkaido, Japan Region			
Oct 10	PRS	e(P)	14 16 10.9
	PCC	e(P)	14 16 11.5
	PRI	eP	14 16 13.6
	MHC	e(P)	14 16 13.9
	FRI	e(P)	14 16 19.0
	JAS1	iPd	14 16 19.4
		e	14 16 37.1
	WDC	eP	14 16 20.4
		e	14 16 38.2
	ORV	eP	14 16 20.6
	MIN	e(P)	14 16 22.4
	MNA	eP	14 16 29.0
USGS 14h05m11.0s 18.7S 177.9W			
h=492km mb=5.2			
Fiji Islands Region			
Oct 10	PRS	eP	15 23 07.7
	GCC	eP	15 23 07.8
	PRI	eP	15 23 09.6
	BKS	e(P)	15 23 09.9
			AMP(μm) PER(s)
		PZ	0.050 1.2
	BRK	eP	15 23 10.0
	MHC	eP	15 23 10.7
	FRI	ePc	15 23 15.3
	JAS1	ePc	15 23 16.3
	ORV	eP	15 23 18.2
	WDC	eP	15 23 19.0
	MNA	eP	15 23 25.7
USGS 15h11m16.8s 22.4S 174.4W			
h=33km mb=5.2			
Tonga Islands Region			
Oct 10	FHC	e	22 58 46.7
	WDC	ePc	22 58 54.1
		i	22 59 06.5
	MIN	e(P)	22 59 01.4
	ORV	ePc	22 59 04.6
	JAS1	eP	22 59 20.8
		i	22 59 33.1
	MNA	e	22 59 29.2
	FRI	eP	22 59 31.1
USGS 22h52m59.7s 54.9N 159.7W			
h=33km mb=4.9			
South of Alaska			
Oct 11	FRI	eP	03 45 53.3
	MNA	ePd	03 45 53.5
	PRI	e	03 45 54.8
	LLA	eP	03 45 59.1
	PRS	e	03 46 02
	JAS1	ePd	03 46 02.8
	MHC	eP	03 46 07.6
	ORV	e(P)	03 46 16.0
	MIN	eP	03 46 20.5
	WDC	eP	03 46 24.1
	FHC	eP	03 46 35.8
USGS 03h39m10.9s 15.3N 90.9W			
h=5km mb=4.5			
Guatemala			
Oct 11	PRS	e	19 42 22.8
	PRI	eP	19 42 24.5
	MHC	eP	19 42 24.5
	BKS	iPd	19 42 26.2
			AMP(μm) PER(s)
		PZ	0.031 0.8
	FRI	eP	19 42 29.1
	JAS1	iPc	19 42 30.4

DATE	STA	PHASE	TIME (UTC)
	ORV	ePc	19 42 32.7
	FHC	e	19 42 32.8
	WDC	eP	19 42 33.6
	MNA	eP	19 42 38.4
USGS 19h29m44.7s 30.8S 178.1W			
h=20km mb=5.5			
Kermadec Islands			
Oct 12	PRS	eP	02 24 39.1
		epP	02 25 18.6
	PCC	eP	02 24 39.4
	GCC	eP	02 24 39.5
	SAO	eP	02 24 39.9
	PRI	eP	02 24 40.9
		ipP	02 25 20.2
	BKS	ePd	02 24 41
		ipP	02 25 18
		isP	02 25 40
		iS	02 34 26
		eSP	02 35 12
		eLr	02 47 44
			AMP(μm) PER(s)
		PZ	0.89 1.1
	BRK	ePc	02 24 41.1
	LLA	eP	02 24 41.4
	MHC	eP	02 24 41.8
	FHC	e	02 24 46.1
	FRI	ePc	02 24 46.4
	JAS1	iPc	02 24 47.4
		ipP	02 25 25.3
	ORV	iPc	02 24 48.2
	WDC	ePc	02 24 49.7
		ipP	02 25 29.0
	MIN	ePc	02 24 51.0
	MNA	iPc	02 24 56.9
		ipP	02 25 35.0
		eS	02 34 56.4
BRK mb=6.4 h=156km Distance=80°			
USGS 02h12m57.9s 21.7S 176.4W			
h=155km mb=5.9			
Fiji Islands Region			
Oct 12	FHC	eP	03 30 24.7
	WDC	eP	03 30 36.1
	MIN	eP	03 30 49.0
	ORV	eP	03 30 56.0
	BKS	ePd	03 31 06
		eS	03 32 24
		e	03 32 40
		e	03 32 50
	BRK	eP	03 31 07.5
	MHC	eP	03 31 17.8
	JAS1	iPd	03 31 22.2
	PRS	e	03 31 30.2
	LLA	e	03 31 31.6
	MNA	eP	03 31 33.5
	PRI	e	03 31 37.9
	FRI	eP	03 31 38.4
USGS 03h29m28.0s 43.5N 127.1W			
h=10km mb=4.9 Ms=3.9			
Off Coast of Oregon			
Oct 12	WDC	iPKPc	09 35 43.8
	MIN	ePKP	09 35 45.3
	ORV	ePKP	09 35 47.0
	JAS1	ePKP	09 35 52.9
	MNA	ePKP	09 35 53.3
	FRI	ePKP	09 35 55.0
USGS 09h16m03.7s 7.2S 68.0E			
h=10km mb=4.6			
Mid-Indian Rise			
Oct 12	WDC	iPKPc	09 41 16.7

DATE	STA	PHASE	TIME (UTC)
		i	09 41 23.3
	MIN	ePKP	09 41 18.0
	ORV	ePKP	09 41 20.2
	JAS1	e(PKP)	09 41 22.6
	MNA	e(PKP)	09 41 23.3
	FRI	e(PKP)	09 41 26.7
USGS 09h21m37.1s 7.3S 68.0E			
h=10km mb=4.6			
Chagos Archipelago Region			
Oct 12	WDC	iPKP	09 47 48.3
	MIN	ePKP	09 47 49.8
	ORV	iPKPc	09 47 52.0
	JAS1	ePKP	09 47 54.1
	MNA	ePKP	09 47 58.1
	FRI	ePKP	09 48 00.2
USGS 09h28m07.5s 7.3S 67.9E			
h=10km mb=4.8			
Mid-Indian Rise			
Oct 12	WDC	eP	12 29 34.8
	MIN	eP	12 29 38.7
	ORV	iPc	12 29 42.0
	JAS1	eP	12 29 53.0
	FRI	eP	12 29 59.0
	MNA	eP	12 29 59.9
USGS 12h18m46.7s 42.3N 143.0E			
h=66km mb=5.3			
Hokkaido, Japan			
Oct 12	FRI	eP	20 36 18.2
		ePP	20 38 46.7
		e	20 42 46.8
	MNA	iPc	20 36 19.0
		ePP	20 38 47.2
		e	20 42 34.8
	PRI	ePc	20 36 20.7
	LLA	eP	20 36 24.1
	PRS	eP	20 36 26.1
	JAS1	iPc	20 36 27.6
		iPP	20 38 49.2
		e	20 42 35.8
	SAO	eP	20 36 30.6
	GCC	eP	20 36 32.4
	MHC	eP	20 36 32.5
	PCC	eP	20 36 37.0
	BRK	eP	20 36 37.9
	BKS	iPd	20 36 38.9
		iPPP	20 38 54.8
		eS	20 42 12
		eLq	20 46 30
		eLr	20 48 56
			AMP(μm) PER(s)
		PZ	0.22 0.9
		LZ	10 20.
		LN	5.7 20.
		LE	11 20.
	ORV	ePc	20 36 41.8
		e	20 42 43.4
	MIN	eP	20 36 45.3
	WDC	ePc	20 36 49.1
		ePP	20 38 57.0
	FHC	eP	20 37 00.5
BRK Ms=5.8 Distance=44°			
USGS 20h29m20.8s 13.2N 89.7W			
h=42km mb=5.4 Ms=5.5			
El Salvador			
Oct 12	WDC	e	21 19 30.9
	MIN	eP	21 19 32.2
	ORV	eP	21 19 41.5
	MNA	e	21 19 56.7
	JAS1	e	21 19 58.4

DATE	STA	PHASE	TIME (UTC)
	MHC	e	21 20 03.7
	FRI	e	21 20 07.2
	LLA	e	21 20 12.2
USGS 21h14m37.3s 62.2N 124.5W			
h=10km mb=4.7			
Northwest Territories, Canada			
Oct 12	ORV	e	22 33 04.0
	MNA	eP	22 33 30.1
		i	22 33 52.6
		e	22 36 16.5
	JAS1	eP	22 33 40.7
		i	22 34 01.1
	FRI	e	22 33 57.4
	PRI	e	22 34 01.5
	BKS	e	22 44 52
		e	22 51 12
		e	22 51 32
		e	22 58 24
		e	23 00 24
		eLr	23 04 44
USGS 22h20m38.0s 0.9N 29.9W			
h=10km mb=5.4 Ms=5.6			
Central Mid-Atlantic Ridge			
Oct 13	WDC	iPKPc	07 48 04.9
		e	07 48 11.0
	MIN	ePKPc	07 48 06.5
	ORV	iPKPc	07 48 08.7
	MNA	ePKP	07 48 14.8
	FRI	ePKP	07 48 16.8
USGS 07h28m24.6s 7.1S 67.9E			
h=10km mb=4.7			
Mid-Indian Rise			
Oct 13	WDC	ePc	16 13 31.9
		e	16 17 19.6
	ORV	ePc	16 13 37.0
	MNA	eP	16 13 45.1
	JAS1	ePc	16 13 45.8
		e	16 17 35.7
		e	16 18 49.4
	FRI	eP	16 13 49.9
	PRI	e	16 13 59.7
	BKS	e	16 43 03
		e	16 46 46
			AMP(μm) PER(s)
		LZ	2.5 20.
		LN	1.2 20.
		LE	2.3 20.
USGS 15h59m51.2s 40.3N 69.8E			
h=16km mb=5.8 Ms=5.9			
Tajik S.S.R.			
Oct 14	FHC	iP	01 14 47.0
		iS	01 14 58.3
	WDC	iPc	01 15 01.8
		i(S)	01 15 20.5
	MIN	iPc	01 15 11.4
	ORV	eP	01 15 13.8
	BRK	e	01 15 14.1
	BKS	e	01 15 20.7
	PCC	eP	01 15 23.5
	MHC	e	01 15 30.8
	GCC	e	01 15 31.3
	SAO	iPc	01 15 37.0
	JAS1	e	01 15 37.1
	FRI	eP	01 15 51.2
BRK 01h14m30.5s 40.4N 125.0W			
h=6km ML=3.3(4)			
80 km SW of Eureka, CA			
Oct 14	FRI	e(P)	20 36 38.0

DATE	STA	PHASE	TIME (UTC)
		e	20 37 09.6
	JAS1	ePd	20 36 38.5
		e	20 37 10.4
	ORV	ePd	20 36 39.2
	WDC	ePd	20 36 39.7
		e	20 37 12.7
	MNA	ePd	20 36 48.3
		e	20 37 22
USGS 20h25m12.7s 15.7S 173.5W			
h=53km mb=4.4			
Tonga Islands			
Oct 15	FRI	ePc	06 04 42.3
	PRI	eP	06 04 42.6
	LLA	ePc	06 04 46.5
	MNA	eP	06 04 46.8
	JAS1	ePc	06 04 52.6
	MHC	ePc	06 04 55.6
	ORV	eP	06 05 09.3
	WDC	e	06 05 18.6
	FHC	e(P)	06 05 30.6
USGS 05h59m32.2s 18.3N 103.0W			
h=33km mb=4.8			
Near Coast of Michoacan, Mexico			
Oct 15	WDC	e(P)	20 01 23.2
	ORV	e(P)	20 01 31.7
	MNA	e(P)	20 01 39.9
	JAS1	e(P)	20 01 43.6
		e	20 01 58.7
	LLA	e	20 01 51.7
	PRI	e(P)	20 01 57.0
USGS 19h52m01.3s 85.7N 85.2E			
h=10km mb=4.9 Ms=5.1			
North of Severnaja Zemlya			
Oct 16	WDC	eP	12 57 38.2
	MIN	e(P)	12 57 44.9
	JAS1	iPd	12 58 25.5
	MNA	e(P)	12 58 30.1
	FRI	eP	12 58 37.2
	PRI	e	12 58 43.2
USGS 12h54m49.4s 51.0N 130.1W			
h=10km mb=4.2			
Vancouver Island Region			
Oct 16	MNA	iPc	21 35 36.4
	FRI	ePc	21 35 47.5
		i	21 35 53.1
	JAS1	iPc	21 35 56.4
		i	21 36 05.2
		iS	21 36 52.5
	PRI	e(P)c	21 36 01.5
		i	21 36 05.7
		i	21 36 07.6
		e	21 36 10.5
		i	21 36 14.0
	LLA	e(P)	21 36 02.7
		i	21 36 12.1
	SAO	e(P)	21 36 07
	PRS	e(P)	21 36 08.6
	MHC	eP	21 36 09.3
		e	21 36 18.0
		i	21 36 22.3
		eS	21 37 23.0
	ORV	iPc	21 36 15.2
		e	21 36 [illegible]
	BKS	eP	21 36 [illegible]
	PCC	e	21 36 18
		e	21 36 28.8
	BRK	eP	21 36 18.0
	GCC	e	21 36 20.5
	WDC	eP	21 36 32.2

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DATE	STA	PHASE	TIME (UTC)
		e	21 36 57.6
BRK Ms=4.7(4)			
USGS 21h35m00.1s 37.1N 116.1W			
h=0km mb=4.6			
Underground Nuclear Exp., NTS			
(Roquefort)			
Oct 17	PRI	e(P)	09 07 23.3
	FRI	eP	09 07 28.0
	JAS1	eP	09 07 29.2
	ORV	e(P)	09 07 31.6
	WDC	eP	09 07 32.7
USGS 08h54m29.8s 35.0S 178.9W			
h=33km mb=5.4 Ms=4.6			
South of Kermadec Islands			
Oct 18	MNA	ePc	01 54 07.8
	MIN	eP	01 54 09.7
	ORV	ePc	01 54 13.2
	WDC	e(P)	01 54 14.1
	JAS1	ePc	01 54 18.9
	FRI	eP	01 54 21.7
	LLA	eP	01 54 28.7
	BKS	eP	01 54 29
		eS	02 02 32
		eLg	02 12 40
		ePS	02 15 43
		eLr	02 17 20
		AMP(μa)	PER(s)
		LZ	3.4 20.
		LN	2.3 20.
		LE	1.6 20.
	PRI	e(P)	01 54 31
BRK Ms=5.4 Distance=60°			
USGS 01h44m28.9s 56.8N 34.1W			
h=10km mb=5.2 Ms=5.3			
North Atlantic Ocean			
Oct 18	FHC	eP	03 33 49.7
	WDC	ePc	03 33 55.0
	MIN	eP	03 33 58.8
	ORV	iPc	03 34 01.7
	BRK	eP	03 34 05.0
	BKS	eP	03 34 05.3
		AMP(μa)	PER(s)
		PZ	0.18 1.3
	GCC	eP	03 34 08.6
	MHC	eP	03 34 09.3
	SAO	eP	03 34 11.3
	JAS1	iPc	03 34 11.7
	PRS	eP	03 34 13.6
	LLA	eP	03 34 14.3
	FRI	ePc	03 34 17.2
	PRI	eP	03 34 17.4
		e	03 34 28.5
	MNA	ePc	03 34 18.2
		e	03 34 27.2
USGS 03h22m23.6s 37.6N 136.9E			
h=35km mb=5.9 Ms=4.9			
Near West Coast of Honshu, Japan			
Oct 18	FHC	iPc	04 29 00.2
	WDC	iPc	04 29 06.2
		i	04 30 11.7
		e	04 33 16
		eS	04 38 30
	MIN	iPc	04 29 10.0
		e	04 33 18
	ORV	iPc	04 29 13.7
		e	04 33 20
	BRK	ePc	04 29 17.9
	BKS	iPc	04 29 18.3
		e	04 37 40

DATE	STA	PHASE	TIME (UTC)
		e	04 38 46
		AMP(μa)	PER(s)
		PZ	0.22 1.1
	GCC	iPc	04 29 22.6
	MHC	ePc	04 29 22.9
	JAS1	iPc	04 29 25.2
		e	04 30 31
		ePP	04 31 42
		e	04 33 27
		eS	04 37 52
	SAO	ePc	04 29 25.3
	PRS	ePc	04 29 27.9
	LLA	iPc	04 29 28.6
	FRI	iPc	04 29 31.0
		e	04 33 34
		eS	04 38 03
	PRI	iPc	04 29 31.5
	MNA	iPc	04 29 31.6
		e	04 30 38
		e	04 33 34
		eS	04 38 04
USGS 04h19m06.4s 46.3N 146.3E			
h=271km mb=5.9			
Northwest of Kuril Islands			
Oct 18	FRI	eP	10 20 33.7
	JAS1	eP	10 20 33.8
	MNA	eP	10 20 43.8
	BKS	e	10 45 00
USGS 10h08m20.4s 17.5S 176.3E			
h=33km mb=5.0			
Fiji Islands Region			
Oct 18	MNA	eP	17 58 07.7
	FRI	e	17 58 19.9
	ORV	eP	17 58 28.7
	WDC	e	17 58 34.5
USGS 17h49m40.6s 4.8N 82.6W			
h=33km mb=4.9 Ms=4.5			
South of Panama			
Oct 20	ZSP	iPd	19 26 44.9
		iS	19 26 59.9
	BRK	ePd	19 26 45.6
		iS	19 27 00.7
	BKS	ePd	19 26 45.9
		iS	19 27 01.4
	ORV	ePd	19 26 48.2
	PCC	ePd	19 26 50.5
		e	19 27 10.3
	MHC	ePd	19 26 55.7
	MIN	eP	19 26 56.7
	GCC	ePd	19 26 57.2
	WDC	ePed	19 26 58.2
	JAS1	iPc	19 27 00.8
	SAO	eP	19 27 03.4
	LLA	e(P)	19 27 08.1
	PRS	e(P)	19 27 09.5
	FHC	e	19 27 13.0
	FRI	ePd	19 27 14.7
	PRI	eP	19 27 15.8
	MNA	eP	19 27 24.6
BRK 19h26m26.5s 38.8N 122.8W			
h=4km ML=3.4(6)			
The Geysers, 25 km S of Clear Lake, CA			
Oct 20	PRS	ePd	21 48 46.2
	GCC	ePd	21 48 46.3
	PCC	eP	21 48 46.8
	SAO	e	21 48 46.9
	PRI	ePd	21 48 47.9
	BRK	iPd	21 48 48.5

DATE	STA	PHASE	TIME (UTC)
	LLA	eP	21 48 48.5
	BKS	ePd	21 48 48.7
		e	21 48 51.9
		e	21 48 53.5
		AMP(μa)	PER(s)
		PZ	0.18 1.1
	MHC	ePd	21 48 48.8
	FHC	e	21 48 52.3
	FRI	iPd	21 48 52.5
	JAS1	iPd	21 48 53.5
		e	21 50 05.0
	ORV	iPd	21 48 55.5
	WDC	iPd	21 48 56.4
	MIN	eP	21 48 57.2
	MNA	iP	21 49 02.0
USGS 21h36m40.1s 29.0S 178.8W			
h=256km mb=5.4			
Kermadec Islands			
Oct 21	WDC	eP	12 47 45.7
	ORV	eP	12 47 58.4
	MNA	eP	12 48 13.9
	JAS1	eP	12 48 14.3
	MHC	eP	12 48 21.5
	FRI	eP	12 48 24.4
	PRI	e	12 48 35.6
USGS 12h42m55.5s 62.2N 124.2W			
h=10km mb=4.8			
Northwest Territories, Canada			
Oct 21	FRI	e	13 04 05.0
	JAS1	eP	13 04 15.1
	ORV	eP	13 04 30.0
USGS 12h56m03.0s 4.5S 106.0W			
h=10km mb=4.8 Ms=5.2			
Northern Easter Island Cordillera			
Oct 22	PCC	eP	03 05 06.1
	GCC	eP	03 05 06.2
	PRS	eP	03 05 06.5
	SAO	eP	03 05 07.2
	BRK	eP	03 05 08
	PRI	ePd	03 05 08.2
	LLA	eP	03 05 08.6
	MHC	ePd	03 05 08.7
	FRI	eP	03 05 13.9
	JAS1	ePd	03 05 14.3
	WDC	ePd	03 05 15.4
	ORV	ePd	03 05 15.5
USGS 02h54m15.9s 18.2S 178.2W			
h=595km mb=5.0			
Fiji Islands Region			
Oct 22	FRI	ePc	08 38 31.6
		e	08 38 41.7
	JAS1	ePc	08 38 36.0
		e	08 38 46.0
		e	08 38 52.4
	LLA	eP	08 38 38.8
		e	08 38 49.8
	ORV	ePc	08 38 40.2
		e	08 38 50.2
	PRI	e	08 38 49.3
		e	08 38 59.2
USGS 08h26m55.2s 10.7N 42.0W			
h=10km mb=4.8 Ms=4.6			
North Atlantic Ridge			
Oct 22	WDC	eP	11 01 55.9
	ORV	ePc	11 02 03.3
	MHC	e(P)	11 02 11.9
	JAS1	ePc	11 02 14.9
	PRS	eP	11 02 17.1

DATE	STA	PHASE	TIME (UTC)
	LLA	eP	11 02 17.7
	FRI	e(P)	11 02 20.8
	PRI	eP	11 02 21.2
USGS 10h50m32.6s 44.0N 148.1E			
h=50km mb=5.3 Ms=4.3			
Kuril Islands Region			
Oct 22	FRI	e	17 32 43.7
	JAS1	eP	17 32 44.4
	ORV	e	17 32 51.5
USGS 17h21m11.3s 15.9S 174.5W			
h=33km mb=4.6 Ms=5.1			
Tonga Islands			
Oct 22	GCC	ePc	19 24 03.6
	PCC	ePc	19 24 03.7
	PRS	ePc	19 24 03.9
	SAO	eP	19 24 04.4
	BKS	eP	19 24 05.4
		AMP(μa)	PER(s)
		PZ	0.065 1.0
	BRK	eP	19 24 05.8
	LLA	eP	19 24 05.9
	PRI	ePc	19 24 06.0
	MHC	ePc	19 24 06.1
	FRI	ePc	19 24 10.9
	JAS1	iPc	19 24 11.5
	ORV	iPc	19 24 12.7
	WDC	iPc	19 24 12.8
	MNA	ePc	19 24 20.7
USGS 19h13m09.4s 20.2S 179.2W			
h=686km mb=5.0			
Fiji Islands Region			
Oct 23	WDC	ePKP	01 07 51.9
	ORV	ePKPd	01 07 53.6
	MHC	ePKPd	01 07 54.8
	PRS	ePKP	01 07 55.4
	LLA	ePKP	01 07 56.1
	JAS1	iPKPd	01 07 56.2
		e	01 08 58
	PRI	ePKPd	01 07 57.2
	FRI	ePKPd	01 07 57.6
		e	01 08 10.9
	MNA	ePKP	01 07 59.6
		e	01 09 59.6
USGS 00h49m11.1s 11.1S 125.2E			
h=14km mb=6.0 Ms=5.4			
Timor Sea			
Oct 23	FRI	eP	15 34 33.4
	MNA	iPd	15 34 34.4
		ipP	15 34 48.1
	PRI	eP	15 34 36.0
	LLA	e	15 34 38.7
	PRS	e	15 34 40.7
	JAS1	iPd	15 34 43.0
	MHC	e	15 34 47.5
	ORV	ePd	15 34 57.6
		ipP	15 35 11.2
	MIN	eP	15 35 01.5
		epP	15 35 15.0
	WDC	eP	15 35 05.3
		ipP	15 35 18.9
	FHC	e	15 35 16.7
		e	15 35 30.3
USGS 15h27m56.7s 14.2N 91.8W			
h=61km mb=4.9			
Guatemala			
Oct 24	FRI	eP	02 01 10.7
		epP	02 01 40.2
	PRI	eP	02 01 12.2

DATE	STA	PHASE	TIME (UTC)
	MNA	eP	02 01 13.4
	LLA	eP	02 01 13.8
	PRS	eP	02 01 14.0
	SAO	eP	02 01 15.2
	JAS1	ePd	02 01 16.8
		i	02 01 30.8
	GCC	eP	02 01 18.1
	MHC	eP	02 01 18.7
	PCC	eP	02 01 20.8
	BRK	e	02 01 21.8
	BKS	eP	02 01 22.5
		e	02 01 25.4
		e	02 01 35.7
		e	02 01 50.8
		e	02 02 07.5
		AMP(μa)	PER(s)
		PZ	0.10 1.0
	ORV	ePd	02 01 25.6
		ipP	02 01 54.7
	MIN	eP	02 01 27.8
	WDC	eP	02 01 30.4
		e	02 04 05.7
	FHC	e	02 01 37.0
USGS 01h48m55.9s 31.4S 68.6W			
h=110km mb=5.7			
San Juan Province, Argentina			
Oct 24	WDC	ePc	02 19 26.0
	MIN	eP	02 19 31.8
	ORV	eP	02 19 36.4
	JAS1	ePc	02 19 52.2
		ipP	02 20 08.1
	LLA	e	02 19 57.0
	MNA	eP	02 20 00.6
	FRI	eP	02 20 00.8
USGS 02h13m12.5s 54.3N 164.4W			
h=64km mb=4.8			
Unimak Island Region			
Oct 24	PRI	iPc	14 50 43.4
	FRI	ePd	14 50 48.4
	LLA	ePd	14 50 49.0
	PRS	ePc	14 50 52.4
	SAO	iP	14 50 55.5
	GCC	eP	14 51 02.1
	MHC	ePc	14 51 02.2
	JAS1	iPc	14 51 03.5
		iS	14 51 26.4
	MNA	ePc	14 51 22.0
	BKS	e	14 51 22.1
BRK 14h50m33.6s 36.1N 120.0W			
h=7km ML=3.1(6)			
30 km E of Coalinga, CA			
Oct 25	FRI	eP	01 34 30.0
	PRI	eP	01 34 31.4
	MNA	eP	01 34 32.3
	LLA	eP	01 34 33.4
	PRS	eP	01 34 34.0
	JAS1	iPd	01 34 36.5
		e	01 35 16.5
	MHC	e	01 34 37.6
	GCC	e(P)	01 34 38.3
	BRK	eP	01 34 41.5
	BKS	e(P)	01 34 42.8
		AMP(μa)	PER(s)
		PZ	0.033 0.9
	ORV	eP	01 34 45.7
		e	01 35 25.0
	MIN	eP	01 34 47.4
	WDC	eP	01 34 50.2
	FHC	eP	01 34 57.2
USGS 01h22m27.9s 27.5S 67.2W			

DATE	STA	PHASE	TIME (UTC)
h=112km mb=5.1			
Catamarca Province, Argentina			
Oct 25	FHC	ePd	02 15 49.3
	WDC	ePd	02 15 55.3
		i	02 16 08.6
	MIN	eP	02 16 01.0
	ORV	eP	02 16 04.8
	BRK	eP	02 16 10.4
	BKS	eP	02 16 11.9
		e	02 16 17.8
		e	02 16 20.0
		e	02 16 22.9
		e	02 16 29.2
		e	02 16 34.7
		ePP	02 17 16.4
		ePPP	02 17 49.6
		eS	02 21 47.2
		eLg	02 24 52.0
		AMP(μa)	PER(s)
		PZ	0.047 0.9
		LZ	13 20.
		LN	5.7 20.
		LE	8.4 20.
	PCC	e	02 16 13
	MHC	eP	02 16 16.7
	JAS1	ePd	02 16 20.5
	SAO	e	02 16 22
	PRS	eP	02 16 23.6
	LLA	eP	02 16 24.5
		e	02 16 38
	PRI	eP	02 16 28.5
	FRI	ePd	02 16 28.7
		i	02 16 41.8
	MNA	eP	02 16 29.7
BRK Ms=5.6 Distance=37°			
USGS 02h09m04.3s 52.1N 171.4W			
h=33km mb=5.6 Ms=5.5			
Fox Islands, Aleutian Islands			
Oct 25	WDC	ePKPc	07 06 11.1
	MIN	ePKP	07 06 12.9
	ORV	ePKPc	07 06 13.6
	JAS1	ePKPc	07 06 16.7
	FRI	ePKP	07 06 18.8
	MNA	ePKP	07 06 20.3
USGS 06h47m04.7s 9.2S 105.6E			
h=10km mb=5.4			
South of Java			
Oct 26	FHC	iPc	01 56 59.6
		iS	01 57 04.5
	WDC	iPc	01 57 15.4
		iS	01 57 33.9
	MIN	iPc	01 57 25.7
	ORV	iPd	01 57 30.4
	PCC	e	01 57 44.8
	MHC	e	01 57 51.7
	JAS1	e	01 57 54
BRK 01h56m51.2s 40.8N 124.5W			
h=20km ML=3.6(4) Mo=1.2E21(2)			
Off Coast, 30 km WSW of Eureka, CA			
Oct 26	WDC	eP	03 47 40.4
	MIN	eP	03 47 44.0
	ORV	eP	03 47 58.5
	JAS1	eP	03 48 05.7
		i	03 48 10.2
	FRI	eP	03 48 12.8
		AMP(μa)	PER(s)
		LZ	1.5 20.
		LN	1.7 20.
		LE	1.1 20.

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DATE	STA	PHASE	TIME (UTC)
USGS 03h41m22.0s 53.5N 164.5W			
h=33km mb=4.8 Ms=4.3			
Unimak Island Region			
Oct 26	PRS	e	05 30 18.7
	GCC	e	05 30 19.0
	SAO	e	05 30 19.9
	BRK	e	05 30 20.4
	PRI	eP	05 30 21.0
	MHC	e	05 30 21.5
	FRI	eP	05 30 26.3
	JAS1	eP	05 30 26.9
		e	05 31 52.5
	ORV	e	05 30 28.5
	WDC	ePd	05 30 28.8
	MIN	eP	05 30 30.5
	MNA	eP	05 30 36.0
USGS 05h18m56.3s 21.9S 178.2W			
h=399km mb=5.0			
Fiji Islands Region			
Oct 26	FRI	e	09 26 04.8
	MNA	iPc	09 26 05.4
	PRI	ePc	09 26 08.0
	LLA	e	09 26 10.8
	JAS1	e	09 26 13.9
	MHC	e	09 26 19.0
	ORV	e	09 26 28.0
	MIN	eP	09 26 31.5
	WDC	e	09 26 35.4
USGS 09h19m09.3s 13.3N 89.7W			
h=57km mb=4.4			
El Salvador			
Oct 26	SAO	iPd	14 30 53.8
	MHC	iPd	14 31 02.0
		eS	14 31 09.0
	PRI	iPd	14 31 09.9
	BKS	eP	14 31 11.6
		iS	14 31 29.9
	ZSP	iPd	14 31 12.9
	JAS1	iPd	14 31 15.7
		iS	14 31 33.7
	MNA	e	14 31 49
		e	14 32 29.8
BRK 14h30m51.2s 36.8N 121.6W			
h=8km ML=3.4(6) Mo=2.8E21(4)			
15 km W of Hollister, CA			
Oct 26	FHC	eP	16 05 21.3
	WDC	eP	16 05 29
		i	16 05 37.5
	MIN	eP	16 05 34.0
	ORV	eP	16 05 39.0
		i	16 05 48.2
		e	16 08 42.4
	JAS1	eP	16 05 55.5
		i	16 06 04.4
	PRS	eP	16 06 01.0
		e	16 06 09.4
	LLA	eP	16 06 01.2
		e	16 06 10.0
	MNA	eP	16 06 04.6
		i	16 06 12.8
		e	16 08 51.0
	FRI	eP	16 06 05.2
		e	16 06 13.2
		e	16 08 50.4
	PRI	e	16 06 08.4
	BKS	iLr	16 13 46
			AMP(μa) PER(s)
		LZ	2.9 20.
		LZ	2.0 20.

DATE	STA	PHASE	TIME (UTC)
		LN	1.1 20.
USGS 15h59m36.0s 54.8N 159.5W			
h=33km mb=5.6 Ms=4.6			
South of Alaska			
Oct 26	PRI	eP	16 45 10.5
	PRS	e	16 45 11.2
	GCC	eP	16 45 14.5
	MHC	eP	16 45 17.5
	FRI	eP	16 45 18.0
	BRK	e	16 45 20.0
	JAS1	ePc	16 45 22.8
	MNA	eP	16 45 30.9
	ORV	eP	16 45 30.9
	WDC	eP	16 45 35.5
USGS 16h34m58.3s 21.9S 139.0W			
h=0km mb=5.4			
Tuamotu Archipelago Region			
Oct 26	FHC	iPd	23 41 27.1
		iS	23 41 36.0
	WDC	iPc	23 41 37.1
		i	23 41 39.6
	MIN	e	23 41 46.1
BRK 23h41m15.4s 40.2N 124.2W			
h=12km ML=3.1(2)			
65 km S of Eureka, CA			
Oct 27	FHC	eP	01 41 48.5
	WDC	eP	01 41 57.5
	MIN	eP	01 42 04.3
		i	01 42 10.3
	ORV	eP	01 42 14.0
	BRK	e	01 42 33
	BKS	ePd	01 42 34.6
			AMP(μa) PER(s)
		PZ	0.025 0.6
	JAS1	eP	01 42 38.0
		i	01 42 50.3
	MHC	e	01 42 41.4
	MNA	eP	01 42 44.7
	SAO	e	01 42 48.8
	FRI	e	01 42 52.8
	LLA	e	01 42 52.8
	PRS	e	01 42 54.4
	PRI	eP	01 43 00.3
USGS 01h39m38.0s 49.4N 127.6W			
h=10km mb=4.7 Ms=3.6			
Vancouver Island Region			
Oct 27	FHC	eP	19 09 09
		epP	19 09 28
	WDC	ePd	19 09 16.5
		epP	19 09 35.5
	MIN	ePd	19 09 21.7
		epP	19 09 40.6
	ORV	eP	19 09 26.7
		epP	19 09 45.9
	BRK	eP	19 09 36.6
		epP	19 09 56
	JAS1	ePd	19 09 44.1
		epP	19 10 03.2
		eScP	19 17 17.5
	MNA	eP	19 09 50.0
		epP	19 10 09
	LLA	eP	19 09 51.3
		epP	19 10 10.7
	PRS	eP	19 09 51.5
		epP	19 10 10.9
	FRI	ePd	19 09 53.0
		epP	19 10 12.3
		eScP	19 16 20.9
	PRI	eP	19 09 55.5

DATE	STA	PHASE	TIME (UTC)
		epP	19 10 14.7
USGS 19h03m40.4s 58.5N 154.3W			
h=83km mb=5.4			
Alaska Peninsula			
Oct 27	MIN	e	19 47 52
	MNA	e	19 48 01
	ORV	ePd	19 48 01.2
	JAS1	iPd	19 48 05.6
	FRI	ePd	19 48 07.0
	LLA	e	19 48 12
	PRI	eP	19 48 13.4
	BKS	e	19 48 08
			AMP(μa) PER(s)
		LZ	3.4 20.
		LN	2.9 20.
		LE	2.0 20.
USGS 19h34m57.1s 36.5N 6.8E			
h=10km mb=5.5 Ms=5.9			
Algeria			
Oct 27	GCC	eP	22 46 11.1
	PCC	ePc	22 46 11.2
	PRS	ePc	22 46 11.6
	SAO	eP	22 46 12.1
	BRK	eP	22 46 12.8
	BKS	eP	22 46 13.4
			AMP(μa) PER(s)
		PZ	0.047 0.8
	PRI	ePc	22 46 13.8
	MHC	ePc	22 46 13.8
	LLA	ePc	22 46 13.8
	FHC	eP	22 46 16.6
	FRI	iPc	22 46 19.1
		e	22 48 18.8
	JAS1	iPc	22 46 19.4
		e	22 48 19.1
	WDC	iPc	22 46 20.2
	ORV	ePc	22 46 20.3
	MIN	eP	22 46 22
	MNA	iPc	22 46 29.1
		e	22 48 29.7
USGS 22h35m18.0s 17.7S 178.8W			
h=565km mb=5.4			
Fiji Islands Region			
Oct 28	PRI	iPc	01 33 02.0
	LLA	ePc	01 33 08.7
	FRI	iPd	01 33 09.4
	PRS	eP	01 33 11.3
	SAO	iPc	01 33 15.7
	GCC	e	01 33 23.5
	JAS1	iPd	01 33 24.1
		iS	01 33 50.0
	MHC	e	01 33 25.1
	ORV	e	01 33 50.3
BRK 01h32m51.4s 35.9N 120.0W			
h=4km ML=3.2(6)			
40 km SE of Coalinga, CA			
Oct 28	PRI	iPc	01 42 41.9
		i	01 42 45.2
	FRI	iPd	01 42 48.8
		i	01 42 52.9
	PRS	eP	01 42 50.7
		e	01 42 54.3
	SAO	iPc	01 42 55.9
	JAS1	iPd	01 43 03.7
	MHC	e	01 43 04.3
		i	01 43 09.6
	GCC	e	01 43 05.2
	PCC	e	01 43 13.9
BRK 01h42m30.8s 35.9N 120.0W			

DATE	STA	PHASE	TIME (UTC)
h=2km ML=2.9(4)			
40 km SE of Coalinga, CA			
Oct 28	PRS	iP	04 25 57.7
	SAO	iPc	04 25 58.0
	PRI	iPd	04 26 03.5
	GCC	iPd	04 26 07.3
	MHC	iPd	04 26 09.3
	FRI	iPd	04 26 14.5
	PCC	iPc	04 26 15.7
	JAS1	ePc	04 26 18.0
		iS	04 26 37.4
	BRK	eP	04 26 19.0
	BKS	ePc	04 26 19.2
	ZSP	eP	04 26 19.8
		i	04 26 24.0
	ORV	e	04 26 40.5
	MNA	e	04 26 45.9
BRK 04h25m52.3s 36.5N 121.2W			
h=7km ML=3.3(6)			
Bear Valley, 40 km N of King City, CA			
Oct 28	PRS	ePc	04 30 36.3
	SAO	eP	04 30 37.2
	PCC	e	04 30 37.3
	BRK	eP	04 30 38.5
	PRI	ePc	04 30 38.7
	MHC	ePc	04 30 38.9
	FHC	e	04 30 43.7
	FRI	eP	04 30 43.8
	JAS1	ePc	04 30 44.2
	ORV	ePc	04 30 45.9
	WDC	ePc	04 30 46.3
	MIN	eP	04 30 48.2
	MNA	eP	04 30 53.7
USGS 04h19m17.5s 21.5S 178.1W			
h=422km mb=4.9			
Fiji Islands Region			
Oct 28	PRI	e(P)	10 26 08
	FRI	e	10 26 14
	JAS1	e(P)	10 26 14.1
	WDC	e	10 26 15
	ORV	e	10 26 16
	MIN	eP	10 26 18
	MNA	e(P)	10 26 25
USGS 10h14m38.5s 15.2S 176.1W			
h=33km mb=4.8			
Fiji Islands Region			
Oct 28	PCC	eP	13 03 58.0
	GCC	e(P)	13 03 58.4
	PRS	eP	13 03 59.0
	BRK	eP	13 04 00
	MHC	eP	13 04 01.0
	BKS	e(P)	13 04 01.1
		iS	13 13 42
		i	13 14 11
		iLq	13 22 39
		e	13 25 35
			AMP(μa) PER(s)
		PZ	0.081 1.2
		LZ	1.3 20.
		LN	4.3 20.
		LE	2.9 20.
	PRI	eP	13 04 01.4
		e	13 05 20.6
	SAO	eP	13 04 01.7
	LLA	e	13 04 04.8
	FRI	ePd	13 04 06.9
	JAS1	eP	13 04 07.3
	ORV	eP	13 04 08.3

DATE	STA	PHASE	TIME (UTC)
	WDC	ePd	13 04 08.3
	MIN	eP	13 04 10.6
	MNA	ePd	13 04 17.8
BRK Ms=5.6 Distance=75°			
USGS 12h52m31.2s 15.4S 176.0W			
h=33km mb=5.5 Ms=5.7			
Fiji Islands Region			
Oct 28	WDC	e(P)	18 19 31.8
	MIN	e(P)	18 19 36
	ORV	eP	18 19 39.3
	JAS1	eP	18 19 46.5
	PRI	eP	18 19 51.0
	FRI	e(P)	18 19 52.0
	MNA	e(P)	18 19 55.8
USGS 18h07m34.5s 27.7N 140.6E			
h=28km mb=5.1			
Bonin Islands Region			
Oct 29	MIN	iPc	00 23 39.4
		iS	00 23 58.3
	WDC	iPd	00 23 46.7
		iS*	00 24 14.1
	ORV	eP	00 23 48.3
		iS	00 24 13.3
	JAS1	e	00 24 53.0
BRK 00h23m14.6s 41.2N 120.1W			
h=11km ML=3.1(2)			
SE of Alturas, CA			
Oct 29	WDC	ePKiKP	13 31 55
		ePKKP	13 43 35.5
	FRI	ePKKP	13 43 25.1
	JAS1	ePKKP	13 43 27.3
	ORV	ePKKP	13 43 30.8
USGS 13h13m44.6s 36.7N 54.8E			
h=53km mb=6.0 Ms=5.9			
Iran			
Oct 29	FHC	e	14 23 51
	BRK	eP	14 23 56.0
	WDC	eP	14 23 56.4
	GCC	eP	14 23 56.6
	BKS	eP	14 23 56.9
		e	14 30 56.1
		iScS	14 35 22
		iPS	14 36 14
		iLq	14 49 24
		iLr	14 52 56
			AMP(μa) PER(s)
		PZ	0.33 1.1
		LZ	24 20.
		LN	2.3 20.
		LE	20 20.
	SAO	e(P)	14 23 58
	MHC	eP	14 23 58.5
	PRS	eP	14 23 58.7
	ORV	ePd	14 23 59.7
	LLA	eP	14 24 00.3
	MIN	eP	14 24 01.2
	PRI	eP	14 24 01.7
	JAS1	ePd	14 24 02.7
		e	14 24 47.2
	FRI	ePd	14 24 04.5
	MNA	eP	14 24 11.4
BRK Ms=6.6 Distance=93°			
USGS 14h10m39.4s 9.6S 151.0E			
h=10km mb=6.1 Ms=6.7			
East Papua New Guinea			
Oct 29	GCC	eP	14 30 55.7
	BRK	e	14 30 56
	MHC	e	14 30 57

DATE	STA	PHASE	TIME (UTC)
	PRS	e	14 30 57
	WDC	e(P)	14 30 57.4
	LLA	e	14 30 59
	ORV	eP	14 30 59.0
		e	14 33 55.0
	PRI	eP	14 31 01.0
	JAS1	eP	14 31 01.4
		e	14 33 57.5
	FRI	eP	14 31 02.8
	MNA	e(P)	14 31 11
USGS 14h17m38.9s 9.6S 151.1E			
h=10km mb=5.4			
D'Entre Casteaux Islands Region			
Oct 29	FRI	eP	15 07 42.2
	PRI	ePc	15 07 42.6
	LLA	eP	15 07 43.9
	MNA	eP	15 07 44.5
	PRS	eP	15 07 46.6
	SAO	e	15 07 50
	JAS1	iPc	15 07 52.6
		e	15 12 24.8
	GCC	eP	15 07 55.0
	MHC	eP	15 07 55.7
	BKS	ePd	15 08 02.5
			AMP(μa) PER(s)
		PZ	0.39 2.1
	BRK	e	15 08 03
	ORV	eP	15 08 06.7
		e	15 12 30.7
	MIN	eP	15 08 14.3
	WDC	eP	15 08 18.5
USGS 15h02m27.8s 18.2N 102.5W			
h=39km mb=5.6 Ms=5.4			
Michoacan, Mexico			
Oct 29	GCC	eP	15 34 34.6
	PRS	e(P)	15 34 35.8
	MHC	eP	15 34 36.2
	ORV	eP	15 34 37.6
	PRI	eP	15 34 39.5
	JAS1	iPc	15 34 40.5
	FRI	eP	15 34 42.5
	MNA	eP	15 34 49.4
USGS 15h21m16.4s 9.5S 151.0E			
h=10km mb=5.3			
D'Entre Casteaux Islands Region			
Oct 29	ORV	e	21 51 27.0
	JAS1	e(P)	21 51 28.5
	FRI	e	21 51 31.6
	MNA	e(P)	21 51 38.7
USGS 21h38m04.8s 9.5S 151.0E			
h=10km mb=5.2 Ms=4.8			
D'Entre Casteaux Islands Region			
Oct 29	WDC	eP	23 11 56.1
	ORV	eP	23 11 58.5
	JAS1	eP	23 12 01.5
	FRI	eP	23 12 03.6
	MNA	eP	23 12 10.0
USGS 22h58m28.1s 9.6S 151.4E			
h=10km mb=4.8 Ms=4.6			
D'Entre Casteaux Islands Region			
Oct 30	WDC	e(P)	00 01 26.5
		e	00 01 32.1
	ORV	e(P)	00 01 30.5
		e	00 01 34.6
	JAS1	e(P)	00 01 32.4
		e	00 01 37.6
	PRI	e	00 01 35.6
	FRI	e	00 01 39.7

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DATE	STA	PHASE	TIME (UTC)
	MNA	e	00 01 46.5
USGS 23h48m09.4s 9.5S 150.9E			
h=10km mb=5.2 Ms=5.0			
East Papua New Guinea Region			
Oct 30	FRI	e(P)	02 36 16.8
	MNA	e(P)	02 36 20.5
	JAS1	e(P)	02 36 27.0
	ORV	e(P)	02 36 43.2
USGS 02h30m41.1s 16.8N 100.3W			
h=33km mb=4.5			
Near Coast of Guerrero, Mexico			
Oct 30	MIN	iPc	03 24 45.5
		eS	03 25 04.5
	WDC	iPc	03 24 52.6
		iS	03 25 20.7
	ORV	eP	03 24 52.7
		eS	03 25 19.5
	JAS1	eP	03 25 12.7
		eS	03 25 58.8
	FRI	e	03 25 47.1
		e	03 26 26.7
	MNA	e	03 25 56.2
BRK 03h24m18.5s 41.1N 119.9W			
h=7km ML=3.5(2)			
SE of Alturas, CA			
Oct 30	GCC	eP	08 23 46.0
	PRS	eP	08 23 46.1
	PCC	ePc	08 23 46.2
	SAO	eP	08 23 46.8
	BRK	eP	08 23 47.7
	PRI	iPc	08 23 47.9
	LLA	eP	08 23 48.0
	BKS	iPc	08 23 48.0
		AMP(µm)	PER(s)
		PZ 0.094	0.8
	MHC	ePc	08 23 48.5
	FRI	iPc	08 23 52.8
	JAS1	iPc	08 23 53.6
		i	08 24 15.9
	ORV	iPc	08 23 55.2
		i	08 24 19.1
	WDC	iPc	08 23 55.5
	MIN	ePc	08 23 56.6
	MNA	eP	08 24 02.0
USGS 08h12m19.3s 24.3S 179.9E			
h=517km mb=5.1			
South of Fiji Islands Region			
Oct 30	JAS1	eP	12 35 34.0
	WDC	eP	12 35 40.0
	MNA	eP	12 35 49.3
USGS 12h24m39.4s 15.9S 177.5W			
h=451km mb=4.5			
Fiji Islands Region			
Oct 30	FHC	e(P)	19 13 32
		e(ScP)	19 19 18.7
	WDC	eP	19 13 36.8
		eScP	19 19 13.6
	MIN	eP	19 13 42.4
	ORV	eP	19 13 45.9
		eScP	19 19 18.0
	BRK	e(P)	19 13 51.7
	BKS	e(P)	19 13 52.0
		eLr	19 26 54
		AMP(µm)	PER(s)
		LZ 6.4	20.
		LN 2.3	20.
		LE 6.4	20.
	GCC	e	19 13 53.5

DATE	STA	PHASE	TIME (UTC)
	MHC	e(P)	19 13 57.3
	JAS1	eP	19 14 00.2
		eScP	19 19 25.6
	PRS	e(P)	19 14 03.0
	LLA	e(P)	19 14 03.9
		e(ScP)	19 19 28.2
	FRI	eP	19 14 07.8
		eScP	19 19 30.0
	PRI	eP	19 14 07.9
		eScP	19 19 30.8
	MNA	eP	19 14 08.4
		eScP	19 19 30.9
USGS 19h05m37.5s 51.8N 175.5E			
h=33km mb=5.6 Ms=5.4			
Rat Islands, Aleutian Islands			
Oct 31	MNA	eP	00 16 33.2
	LLA	e(P)	00 16 35.0
	PRS	e(P)	00 16 36
	JAS1	e(P)	00 16 39.1
	ORV	eP	00 16 55
	WDC	e(P)	00 16 57.1
USGS 00h06m20.4s 10.4S 78.4W			
h=48km mb=5.0			
Near Coast of Peru			
Oct 31	FHC	eP	19 39 27.6
	WDC	ePd	19 39 36.1
	MIN	ePd	19 39 41.4
	ORV	eP	19 39 45.8
	BRK	eP	19 39 51.7
	PCC	eP	19 39 52.8
	BKS	eP	19 39 53.7
		iS	19 45 16
		eLg	19 47 28
		eLr	19 48 44
		AMP(µm)	PER(s)
		PZ 0.15	1.0
		LZ 20	20.
		LN 9.6	20.
		LE 17	20.
	GCC	e	19 39 57.5
	MHC	eP	19 39 58.3
	JAS1	iPd	19 40 01.5
	PRS	eP	19 40 05.3
	LLA	eP	19 40 05.9
	FRI	ePd	19 40 10.0
	MNA	ePd	19 40 10.4
	PRI	e	19 40 12.5
		i	19 40 24.2
BRK Ms=5.9 Distance=35°			
USGS 19h33m06.5s 53.2N 166.9W			
h=30km mb=5.8 Ms=5.7			
Fox Islands, Aleutian Islands			
Oct 31	FRI	ePd	22 00 50.0
		eSKPPKP	22 29 32.5
	PRI	iPd	22 00 51.6
		epP	22 02 58.4
		eSKPPKP	22 29 33.2
	MNA	ePd	22 00 51.9
		ipP	22 02 58.5
		ePP	22 04 19.2
		eS	22 10 32
		eSKPPKP	22 29 33.0
	LLA	iPd	22 00 53.8
		epP	22 03 00.6
	PRS	iPd	22 00 54.2
	SAO	e(P)	22 00 55.4
	JAS1	iPd	22 00 56.2
		epP	22 03 03.4
		ePP	22 04 24.5
		eS	22 10 39.6

DATE	STA	PHASE	TIME (UTC)
	GCC	ePd	22 00 57.9
		epP	22 03 05.2
	MHC	iPd	22 00 58.4
		epP	22 03 05.6
	PCC	ePd	22 01 00.4
	BKS	ePd	22 01 01.4
		epP	22 03 09.0
		isP	22 04 09
		iS	22 10 50
		isS	22 14 34
		iSS	22 16 35
		eSSS	22 20 56
		AMP(µm)	PER(s)
		PZ 0.21	0.8
	BRK	ePd	22 01 01.4
	ORV	iPd	22 01 04.4
		epP	22 03 12.0
		eS	22 10 56
	MIN	ePd	22 01 06.4
	WDC	iPd	22 01 09.0
		epP	22 03 16.7
		eS	22 11 03.4
	FHC	ePd	22 01 15.5
BRK mb=5.8 h=590km Distance=86°			
USGS 21h49m20.2s 28.7S 63.2W			
h=596km mb=5.8			
Santiago Del Estero Province, Argentina			
Nov 1	PRS	ePc	08 15 39.0
	GCC	eP	08 15 39.5
	SAO	eP	08 15 39.8
	PRI	ePc	08 15 41.1
	BRK	eP	08 15 41.6
	MHC	ePc	08 15 41.8
	BKS	e	08 15 45.1
		e	08 41 24
		AMP(µm)	PER(s)
		LZ 1.8	20.
		LN 0.89	20.
		LE 1.8	20.
	FRI	ePc	08 15 46.0
	JAS1	iPc	08 15 47.4
		e	08 16 04.8
		e	08 16 17.3
	FHC	eP	08 15 47.5
	ORV	ePc	08 15 49.5
		epP	08 16 01.7
		e	08 16 06.1
	WDC	iPc	08 15 50.4
		epP	08 16 01.8
		e	08 16 08.1
	MIN	ePc	08 15 51.6
	MNA	eP	08 15 55.7
		epP	08 16 07.2
		e	08 16 13.3
		e	08 16 26.0
USGS 08h03m21.2s 27.6S 176.4W			
h=35km mb=5.1 Ms=4.9			
Kermadec Islands Region			
Nov 1	SAO	iPd	10 48 58.8
	PRS	iPd	10 49 06.8
	GCC	ePc	10 49 07.0
	LLA	iPd	10 49 07.4
		iS	10 49 14.9
	MHC	iPd	10 49 10.2
		iS	10 49 19.7
	PRI	iPd	10 49 16.4
		i	10 49 25.7
	PCC	iPd	10 49 16.8
	BRK	eP	10 49 20.4
	BKS	eP	10 49 20.7

DATE	STA	PHASE	TIME (UTC)
		iPg	10 49 22.7
		iSg	10 49 40.8
	ZSP	eP	10 49 21.4
	FRI	eP	10 49 23.6
	JAS1	iPd	10 49 24.4
BRK 10h48m57.9s 36.8N 121.5W			
h=1km ML=2.7(4)			
Fremont Peak, 15 km SW of Hollister, CA			
Nov 1	JAS1	eP	11 48 16.4
	FRI	eP	11 48 17.7
	ORV	e	11 48 19.4
	WDC	e	11 48 21.0
	MNA	e	11 48 27.1
USGS 11h35m41.0s 29.5S 176.5W			
h=33km mb=4.9			
Kermadec Islands Region			
Nov 1	MNA	eP	22 14 14.5
	WDC	ePc	22 14 25.0
	MIN	eP	22 14 29.5
		e	22 14 42.9
	ORV	eP	22 14 29.5
		i	22 14 43.9
	BKS	eP	22 14 30.2
		AMP(µm)	PER(s)
		PZ 0.030	1.0
	JAS1	eP	22 14 36.5
	PRI	e	22 14 38.8
	FRI	eP	22 14 40.5
		e	22 14 54.9
	MHC	e	22 14 42.4
	GCC	e	22 14 45.0
	LLA	e	22 14 50.2
	PRS	e	22 14 50.4
USGS 22h02m26.1s 18.2N 146.4E			
h=78km mb=5.5			
Mariana Islands			
Nov 2	FRI	eP	00 03 36.5
	MNA	eP	00 03 37.7
	PRI	eP	00 03 39.8
	JAS1	eP	00 03 45.4
	ORV	eP	00 04 00.2
USGS 23h56m38.9s 12.9N 90.0W			
h=33km mb=4.5 Ms=3.7			
Off Coast of Central America			
Nov 2	WDC	eP	02 49 17.4
	MIN	eP	02 49 22.2
	ORV	eP	02 49 26.5
	BRK	e(P)	02 49 32.6
	JAS1	eP	02 49 39.7
	FRI	eP	02 49 48.2
	MNA	eP	02 49 49.3
	PRI	e	02 49 50.4
USGS 02h41m35.3s 51.3N 179.3E			
h=33km mb=5.1			
Rat Islands, Aleutian Islands			
Nov 2	PRS	eP	20 01 37.6
	BKS	eP	20 01 38.8
		eS	20 11 51.6
		ePPS	20 12 34.8
		eLg	20 26 07
		AMP(µm)	PER(s)
		LZ 23	20.
		LN 14	20.
		LE 16	20.
	BRK	e	20 01 39.0
	MHC	eP	20 01 40.0
	LLA	e	20 01 40.5

DATE	STA	PHASE	TIME (UTC)
	PRI	iPc	20 01 40.7
	FHC	e	20 01 40.9
	FRI	eP	20 01 45.7
	JAS1	iPc	20 01 45.8
	WDC	iPc	20 01 45.8
	ORV	iPc	20 01 46.1
	MIN	ePc	20 01 47.8
	MNA	iPc	20 01 55.4
BRK Ms=6.5 Distance=82°			
USGS 19h49m24.4s 18.1S 175.9E			
h=10km mb=5.5 Ms=5.9			
Fiji Islands Region			
Nov 2	PRS	e	21 25 09.2
	MHC	e	21 25 10.4
	BRK	e	21 25 10.6
	PRI	ePc	21 25 11.1
	GCC	e	21 25 11.3
	LLA	e	21 25 14.4
	JAS1	ePc	21 25 15.5
		i	21 25 20.0
	FRI	eP	21 25 16.0
	WDC	eP	21 25 16.2
		i	21 25 20.0
	ORV	eP	21 25 17.6
	MIN	e	21 25 19.5
	MNA	eP	21 25 25.3
USGS 21h12m54.8s 18.2S 175.9E			
h=10km mb=5.4 Ms=5.5			
Fiji Islands Region			
Nov 4	JAS1	iPd	11 43 48.0
	ORV	ePd	11 43 56.9
USGS 11h31m11.0s 35.6S 72.9W			
h=33km mb=4.7			
Near Coast of Central Chile			
Nov 4	FRI	e	19 25 09.8
	PRI	ePc	19 25 10.2
	LLA	eP	19 25 12.3
	PRS	e	19 25 12.5
	JAS1	ePc	19 25 15.7
	MHC	eP	19 25 17.3
USGS 19h12m34.2s 35.2S 70.7W			
h=18km mb=5.1			
Chile-Argentina Border Region			
Nov 4	GCC	eP	22 54 41.5
	PCC	eP	22 54 41.7
	PRS	eP	22 54 42.8
	BRK	eP	22 54 43.4
	PRI	eP	22 54 44.0
	MHC	eP	22 54 44.2
	FHC	eP	22 54 48.5
	FRI	eP	22 54 49.6
	JAS1	eP	22 54 50.4
	WDC	eP	22 54 52.1
	MIN	eP	22 54 54.0
	MNA	eP	22 55 00.7
USGS 22h43m24.6s 17.0S 174.6W			
h=140km mb=4.9			
Tonga Islands			
Nov 5	FHC	ePd	01 33 39.0
	WDC	iPd	01 33 45.0
		ipP	01 34 07.1
		eScP	01 40 29.1
	MIN	ePd	01 33 49.5
		ipP	01 34 11.6
		eScP	01 40 30.5
	ORV	ePd	01 33 55.2
		eScP	01 40 32.5
	BRK	ePd	01 34 07.0

DATE	STA	PHASE	TIME (UTC)
	BKS	ePd	01 34 07.1
		epP	01 34 29.8
		eScP	01 40 38.5
		AMP(µm)	PER(s)
		PZ 0.053	0.8
	JAS1	iPd	01 34 12.3
		ipP	01 34 34.4
		iScP	01 40 40.3
	MHC	ePd	01 34 13.0
	GCC	eP	01 34 13.7
	MNA	ePd	01 34 16.2
		epP	01 34 37.9
		eScP	01 40 41.4
	LLA	ePd	01 34 21.1
	FRI	ePd	01 34 21.5
		epP	01 34 43.7
		eScP	01 40 42.6
	PRS	ePd	01 34 21.8
	PRI	iPd	01 34 26.1
		epP	01 34 48.0
		eScP	01 40 45.1
BRK mb=5.3 h=96km Distance=30°			
USGS 01h27m59.7s 62.5N 151.4W			
h=81km mb=5.1			
Central Alaska			
Nov 5	FRI	iPd	22 07 02.0
		iS	22 07 20.8
	PRI	iPc	22 07 08.5
		eS	22 07 33.0
	LLA	ePc	22 07 12.3
		e	22 07 41.6
	PRS	eP	22 07 16.4
	JAS1	iPd	22 07 20.1
		eS	22 07 53.2
	MNA	e(P)c	22 07 20.5
	MHC	e	22 07 24
BRK 22h06m37.0s 36.0N 118.5W			
h=7kmR ML=3.5(2)			
Lake Isabella Area, CA			
Nov 5	MHC	iPc	22 39 17.6
	GCC	iPd	22 39 23.6
	PCC	iPc	22 39 26.3
	SAO	iPd	22 39 28.0
	BRK	iPc	22 39 28.9
		eS	22 39 40.8
	BKS	ePc	22 39 28.9
		eS	22 39 40.7
	ZSP	eP	22 39 30.3
		eS	22 39 42.4
	LLA	ePc	22 39 32.8
	PRS	ePc	22 39 34.9
	JAS1	iPc	22 39 37.1
		iS	22 39 52.6
	PRI	eP	22 39 41.0
	FRI	eP	22 39 43.8
		e	22 40 04.7
	ORV	eP	22 39 54.4
BRK 22h39m15.8s 37.3N 121.7W			
h=6km ML=3.0(4) Mo=2.6E20(3)			
Halls Valley Sequence, CA			
Nov 6	FRI	ePKP	08 34 21.0
	PRS	e	08 34 21.3
	JAS1	ePKP	08 34 22.2
		e	08 35 [illegible].1
		e	08 36 05
		e	08 36 44
		e	08 37 40
		e	08 24 11
	MHC	ePKP	08 34 23.4
	BRK	ePKP	08 34 24.2

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DATE	STA	PHASE	TIME (UTC)
	BKS	ePKP	08 34 24.2
		AMP(m) PER(s)	
		PKPZ 0.017	0.7
	ORV	ePKP	08 34 26.1
		e	08 36 17
		e	09 36 57
	MIN	eP	08 34 27.3
	WDC	e(PKP)	08 34 28
	MNA	e	08 34 59
		e	08 36 40

USGS 08h15m39.6s 58.7S 26.2W
h=132km mb=5.7
South Sandwich Islands Region

Nov 6	FRI	e(P)	16 21 40.0
	MNA	e(P)	16 21 42.0
	JAS1	e(P)	16 21 44.7
	ORV	e(P)	16 21 53.3

USGS 16h08m54.4s 40.5S 74.9W
h=33km mb=5.1 Ms=5.1
Off Coast of Southern Chile

Nov 6	PRS	eP	22 27 36.0
	BRK	e(P)	22 27 37.9
	PRI	eP	22 27 38.3
	BKS	e(P)	22 27 38.9
		AMP(m)	PER(s)
		PZ 0.029	0.9
	FRI	eP	22 27 44.0
	JAS1	ePd	22 27 44.9
	ORV	ePd	22 27 46.6
	WDC	eP	22 27 46.8
	MNA	iPd	22 27 55.4

USGS 22h16m15.4s 16.2S 173.3W
h=33km mb=5.1 Ms=5.0
Tonga Islands

Nov 7	PRI	ePd	00 43 01.2
	FHC	e(P)	00 43 06.0
	FRI	eP	00 43 07.0
	JAS1	ePd	00 43 07.4
	ORV	eP	00 43 09.1
	WDC	eP	00 43 10.0
	MIN	eP	00 43 11.6
	MNA	eP	00 43 17.9

USGS 00h31m41.2s 16.1S 173.1W
h=50km mb=4.6
Tonga Islands

Nov 7	WDC	e(P)	05 38 14.0
	MIN	eP	05 38 16.8
	ORV	eP	05 38 19.1
	JAS1	eP	05 38 27.0
	FRI	eP	05 38 31.3
	MNA	e(P)	05 38 32.5

USGS 05h25m15.0s 24.7N 122.0E
h=90km mb=4.8
Taiwan Region

Nov 7	PRS	ePc	19 25 24.1
	GCC	eP	19 25 24.6
	SAO	eP	19 25 25
	PCC	eP	19 25 25.2
	PRI	ePc	19 25 26.0
		ipP	19 25 50.6
		i	19 25 59.3
		ePKP	19 43 03.3
		e	19 43 46
	LLA	eP	19 25 26.3
		e	19 43 45
	BKS	eP	19 25 26.7
		epP	19 25 51.9
		e	19 26 10.4
		eS	19 35 57.6
		e	19 36 24.4
		eSS	19 42 24
		eSSS	19 46 02
		e	19 46 42
		eLq	19 49 34
		eLr	19 52 52
		AMP(m)	PER(s)
		PZ 0.23	1.5
		LZ 14	20.
		LN 12	20.
		LE 9.8	20.
	BRK	eP	19 25 26.8
	MHC	ePc	19 25 27.0
		ePKKP	19 43 02
	FRI	ePc	19 25 30.2
		ePKKP	19 42 59.6
		e	19 43 40
		ePKPPKP	19 51 07.2
	JAS1	iPc	19 25 31.5
		ipP	19 25 56.1
		i	19 26 04.8
		ePP	19 29 09.7
		epPP	19 29 31.2
		ePKKP	19 42 59.0
		ePKPPKP	19 51 07.2
	FHC	eP	19 25 32.8
	ORV	ePc	19 25 33.9
		ePKKP	19 42 56.5
		ePKPPKP	19 51 06.3
	WDC	eP	19 25 35.1
		ipP	19 26 00.0
		i	19 26 08.0
		ePKKP	19 42 55.6
	MIN	eP	19 25 36.1
		ePKPPKP	19 51 05.7
	MNA	eP	19 25 39.1
		ipP	19 26 03.8
		i	19 26 12.5
		ePP	19 29 21.8
		epPP	19 29 46.2
		ePKKP	19 42 54.3
		ePKPPKP	19 51 05.7

BRK mb=6.2 h=96km Distance=90°
USGS 19h12m31.0s 35.3S 173.3W
h=44km mb=6.2 Ms=6.3
East of North Island, New Zealand

Nov 7	FHC	eP	23 47 41.5
	WDC	ePc	23 47 45.8
	MIN	ePc	23 47 48.9
	BRK	eP	23 47 49.4
	BKS	e(P)	23 47 49.4
		AMP(m)	PER(s)
		PZ 0.022	1.0
	ORV	ePc	23 47 50.0
	MHC	eP	23 47 52.4
	PRS	eP	23 47 54.6
	SAO	e(P)	23 47 55.2
	LLA	eP	23 47 55.7
	JAS1	eP	23 47 55.8
		ePP	23 51 44.7
	PRI	eP	23 47 57.4
	FRI	eP	23 47 59.2
	MNA	ePc	23 48 03.5

USGS 23h34m34.3s 7.7N 137.0E
h=34km mb=5.8 Ms=5.7
West Caroline Islands

Nov 8	FHC	iPc	13 03 00.7
		iS	13 03 12.1
	WDC	iPc	13 03 16.5
	MIN	iPc	13 03 26.7
		eS	13 04 00.3
	ORV	iPc	13 03 30.6
	BRK	ePc	13 03 39.7
		e	13 04 22.0
	BKS	eP	13 03 39.9
	ZSP	e	13 03 40.1
		e	13 04 21.2
	PCC	ePc	13 03 42.6
		e	13 04 25.0
	MHC	eP	13 03 50.2
	GCC	eP	13 03 50.5
	JAS1	iPd	13 03 54.5
	SAO	eP	13 03 56.2
	PRS	e	13 04 03.3
	LLA	e	13 04 03.6
	FRI	iPd	13 04 09.5
	MNA	ePc	13 04 12.2

BRK 13h02m44.4s 40.8N 125.2W
h=13km ML=4.1(6) Mo=7.8E21(2)
Off Coast, 90 km W of Eureka, CA

Nov 8	PRS	eP	14 07 21.5
	PRI	ePc	14 07 23.5
	MHC	e(P)	14 07 24.5
	FRI	eP	14 07 27.9
	JAS1	ePc	14 07 29.0
	ORV	e(P)	14 07 32.3
	WDC	ePc	14 07 33.8
	MIN	e(P)	14 07 34.7
	MNA	eP	14 07 37.6

USGS 13h54m32.7s 34.1S 178.3W
h=33km mb=5.2
South of Kermadec Islands

Nov 8	FHC	eP	18 52 10.7
	WDC	ePc	18 52 16.0
	MIN	eP	18 52 19.8
	ORV	iPc	18 52 22.8
	BRK	eP	18 52 23.8
	PCC	eP	18 52 24.2
	BKS	ePc	18 52 24.6
		epP	18 52 38
		e	18 55 14
		eS	19 02 20
		eLq	19 12 36
		eLr	19 16 03
		AMP(m)	PER(s)
		PZ 0.073	0.9
		LZ 10	20.
		LN 3.9	20.
		LE 7.9	20.
	MHC	eP	18 52 27.8
	GCC	e	18 52 28.2
	JAS1	iPc	18 52 31.4
	PRS	eP	18 52 31.8
	LLA	eP	18 52 32.7
	PRI	e	18 52 35.5
	FRI	ePc	18 52 36.1
	MNA	ePc	18 52 38.8

BRK Ms=6.1 Distance=79°
USGS 18h40m24.8s 28.0N 140.6E
h=42km mb=5.8 Ms=6.1
Bonin Islands Region

Nov 8	WDC	eP	20 13 56.6
	ORV	eP	20 14 03.8
	PRS	e	20 14 12.3
	JAS1	eP	20 14 12.7
	PRI	e	20 14 16.5
	FRI	eP	20 14 17.2
	MNA	eP	20 14 19.0

USGS 20h02m04.8s 27.8N 140.6E
h=41km mb=5.2
Bonin Islands Region

Nov 9	WDC	iPc	04 51 37.5
	MIN	ePc	04 51 40.7
	ORV	eP	04 51 49.0
	MNA	ePc	04 52 05.2
	JAS1	eP	04 52 05.2
	MHC	eP	04 52 11.6
	FRI	eP	04 52 14.6

USGS 04h46m44.3s 62.4N 124.2W
h=10km mb=4.8
Northwest Territories, Canada

Nov 9	ORV	eP	23 43 59.4
	MNA	iPc	23 43 59.7
	JAS1	iPc	23 44 05.6
	FRI	iPc	23 44 08.1
	LLA	eP	23 44 12.2
	PRI	iPc	23 44 14.1

USGS 23h30m42.9s 41.3N 24.0E
h=22km mb=5.4 Ms=5.3
Greece-Bulgaria Border Region

Nov 11	WDC	iPc	09 55 16.9
		i	09 55 36.2
	ORV	iPc	09 55 23.4
		i	09 55 42.7
	BRK	eP	09 55 25.8
	BKS	iPd	09 55 26.2
		e	09 55 45.3
		AMP(m)	PER(s)
		PZ 0.075	0.8
	PRS	eP	09 55 33.8
	PRI	eP	09 55 37.5
	FRI	eP	09 55 37.8
		e	09 55 57.3

USGS 09h43m46.6s 33.0N 140.4E
h=75km mb=5.2
South of Honshu, Japan

Nov 12	PRI	iPd	15 29 30.2
	LLA	ePc	15 29 36.4
		iS	15 29 48.5
	FRI	iPc	15 29 38.6
		iS	15 29 50.9
	PRS	iPd	15 29 40.1
	SAO	ePc	15 29 43.1
	MHC	eP	15 29 49.9
	GCC	e	15 29 52.2
	BKS	ePd	15 30 00.5
	PCC	e	15 30 02.5
	MNA	e	15 30 12.0

BRK 15h29m22.1s 36.1N 120.1W
h=6km ML=2.9(4)
E of Coalinga, CA

Nov 12	SAO	iP	22 11 12.3
	LLA	iPc	22 11 15.0
	PRS	iPd	22 11 15.5
	GCC	ePd	22 11 21.4
	PRI	iPd	22 11 23.0
		eS	22 11 37.0
	MHC	iPd	22 11 24.0
	PCC	iPc	22 11 30.8
	FRI	ePc	22 11 32.6
	BRK	e(P)	22 11 34.3
	BKS	ePd	22 11 34.4
		e	22 11 36.4
		e	22 11 59.9
	JAS1	iPc	22 11 35.1
		eS	22 11 54.3
		i	22 11 59.0
	ORV	iPc	22 11 56.2
	MNA	e	22 12 06

BRK 22h11m09.0s 36.6N 121.3W
h=3km ML=2.9(4)
Stone Canyon, 35 km SE of Hollister, CA

Nov 13	FHC	e(P)	13 07 08
	WDC	eP	13 07 13.8
		epP	13 07 44.1
	MIN	eP	13 07 18.8
	ORV	iPc	13 07 23.1
		epP	13 07 54.0
	MHC	e(P)	13 07 34.5
	JAS1	iPc	13 07 37.5
		epP	13 08 07.4
	PRS	e(P)	13 07 40.6
	LLA	e(P)	13 07 41.4
	FRI	eP	13 07 44.9
		epP	13 08 15.0
	PRI	eP	13 07 45.4
		epP	13 08 17.4
	MNA	eP	13 07 45.6
		epP	13 08 16.2

USGS 12h59m38.7s 52.0N 178.2E
h=137km mb=4.9
Rat Islands, Aleutian Islands

Nov 14	FHC	eP	22 23 20.5
		e	22 23 37.2
		e	22 23 48.1
	WDC	ePd	22 23 38.2
		i	22 23 46.6
		i	22 23 56.3
	MIN	eP	22 23 43.7
		i	22 23 52.4
		i	22 24 01.4
	ORV	ePc	22 23 48.8
		i	22 23 56.9
		i	22 24 05.9
	BKS	eP	22 23 56.2
		e	22 24 04.4
		e	22 24 08.8
		e	22 24 14.2
		e	22 24 18
		e	22 25 18
		e	22 25 45
		eS	22 29 10
		eLr	22 31 48
		AMP(m)	PER(s)
		PZ 0.062	1.1
		LZ 20	20.
		LN 8.6	20.
		LE 22	20.
	MHC	e(P)	22 24 02.5
		e	22 24 10.7
		e	22 24 20.3
	BRK	e	22 24 04.1
		e	22 24 12.8
	JAS1	iPc	22 24 05.5
		i	22 24 13.1
		i	22 24 22.7
	PCC	e	22 24 05.6
		e	22 24 14.3
	GCC	e	22 24 10.3
		e	22 24 19.6
	PRS	eP	22 24 10.5
		e	22 24 17.4
		e	22 24 27.8
	MNA	eP	22 24 13.4
		e	22 24 21.3
		i	22 24 31.5
	FRI	eP	22 24 14.0
		e	22 24 22.2
		e	22 24 31.4
	PRI	eP	22 24 15.7
		e	22 24 23.9
	LLA	e	22 24 18.9

BRK Ms=5.9 Distance=32°
USGS 22h17m44.5s 54.8N 159.8W
h=33km mb=5.5 Ms=5.7
South of Alaska

Nov 14	FRI	e(P)	22 45 07.6
	PRI	eP	22 45 08.4
		epP	22 45 38.5
	MNA	eP	22 45 10.1
		epP	22 45 40.4
	LLA	eP	22 45 10.5
		epP	22 45 40.9
	PRS	eP	22 45 10.9
		epP	22 45 41.4
	JAS1	ePd	22 45 13.9
		epP	22 45 44.2
	GCC	eP	22 45 15.0
	MHC	eP	22 45 15.6
	ORV	ePd	22 45 22.7
		ipP	22 45 53.2
	WDC	ePd	22 45 27.4
		epP	22 45 58.0
	FHC	eP	22 45 33.8

USGS 22h32m53.1s 32.4S 69.6W
h=120km mb=5.2
Mendoza Province, Argentina

Nov 15	MNA	eP	05 46 11.6
		ePcP	05 48 33.0
		epPcP	05 48 52.5
		eScP	05 52 15.0
	FRI	eP	05 46 12.2
		ePcP	05 48 33.2
		epPcP	05 48 52.2
		eScP	05 52 14.0
	PRI	eP	05 46 14.9
		e(PcP)	05 48 19.3
	LLA	eP	05 46 16.8
	PRS	eP	05 46 18.8
	JAS1	eP	05 46 20.8
		epP	05 46 37.7
		ePcP	05 48 37.0
		epPcP	05 48 56.1
		eScP	05 52 18.5
	MHC	eP	05 46 25.2
	ORV	eP	05 46 34.9
		eScP	05 52 26.0
	BKS	eScP	05 52 23.3

USGS 05h39m12.5s 13.1N 88.7W
h=89km mb=5.0
El Salvador

Nov 16	FHC	eP	00 31 36.3
	WDC	iPc	00 31 42.0
	MIN	eP	00 31 47.1
	ORV	iPc	00 31 51.3
	BRK	eP	00 31 56.8
	BKS	ePd	00 31 56.8
		eS	00 38 27
		eLr	00 44 47
		AMP(m)	PER(s)
		PZ 0.047	0.7
		LZ 1.2	20.
		LN 2.6	20.
		LE 1.1	21.
	PCC	e	00 51 57.2
	GCC	e	00 52 01.8
	MHC	eP	00 52 02.7
	JAS1	iPc	00 52 05.6

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DATE	STA	PHASE	TIME (UTC)
		i	00 32 29.8
	LLA	eP	00 32 07.5
	PRS	eP	00 32 08.6
	FRI	eP	00 32 12.8
	PRI	eP	00 32 13.4
	MNA	eP	00 32 13.5

BRK Ms=4.9 Distance=44°
USGS 00h23m50.9s 51.6N 177.3E
h=33km mb=5.4 Ms=4.3
Rat Islands, Aleutian Islands

Nov 16	MNA	e	04 32 29.1
	WDC	ePKP	04 32 29.1
		e	04 33 17.7
		e	04 37 06.4
	ORV	ePKP	04 32 29.8
		e	04 33 20.4
	PRI	e	04 32 31.4
	JAS1	ePKP	04 32 31.8
		e	04 33 21.8
		e	04 37 09.3
	FRI	e	04 32 32.0
		e	04 33 24.6
	BKS	e	04 33 17
		ePKP	04 33 17.2
		ePP	04 37 03
		eSKKS	04 43 54
		eSKKKS	04 44 50
		eSKSP	04 47 24
		ePPS	04 50 18
		ePPPS	04 52 24
		ePKPPKP	04 56 20
		eSS	04 57 34
		e	04 59 38
		eSSS	05 03 19
		e	05 08 07
		e	05 11 32
		eLq	05 15 38
		e	05 28 23
		e	05 31 04
		AMP(μa)	PER(s)
		LZ 5.7	20.
		LN 2.7	17.2
		LE 6.2	23.2

BRK Ms=6.5 Distance=153°
USGS 04h12m18.8s 38.6S 78.4E
h=10km mb=5.8 Ms=6.4
Mid-Indian Rise

Nov 16	MHC	iPd	06 19 13.8
		iS	06 19 19.6
	BKS	iPc	06 19 17.4
		iS	06 19 25.8
	BRK	iPc	06 19 17.6
	ZSP	eP	06 19 17.8
		iS	06 19 29.4
	PCC	iPc	06 19 19.0
	GCC	e	06 19 20.6
	SAO	eP	06 19 24.8
	JAS1	iPd	06 19 25.0
		iS	06 19 40.0
	LLA	e(P)	06 19 29.2
	FRI	e	06 19 37.8
	ORV	e	06 19 40.5
	PRI	e	06 19 42.0

BRK 06h19m06.8s 37.7N 121.6W
h=1kmR ML=2.7(6)
E of Livermore, CA

Nov 16	FHC	iPc	18 32 15.0
		e	18 32 21.5
		iS	18 32 30.0
		i	18 32 40.9
		i	18 32 45.2
		i	18 33 18.6
	WDC	ePc	18 32 30.7
		e	18 32 43.3
		iS	18 32 57.0
	ORV	eP	18 32 46.7
		e	18 32 48.2
		eS	18 33 27.4
	BRK	e(P)	18 32 58.2
	BKS	iPc	18 32 58.3
		iS	18 33 47.3
	PCC	eP	18 33 01.3
	MHC	eP	18 33 08.4
	GCC	eP	18 33 08.5
	SAO	eP	18 33 14.5
	FRI	e	18 33 26

BRK 18h31m53.5s 41.4N 125.3W
h=5kmR ML=3.5(4)
NW of Eureka, CA

Nov 17	ORV	eP	07 53 54.7
	JAS1	eP	07 53 56.5
	FRI	eP	07 53 57.9
	MNA	eP	07 54 06.1

USGS 07h41m25.6s 11.0S 165.4E
h=33km mb=4.9
Santa Cruz Islands

Nov 17	WDC	eP	09 54 11.4
	ORV	eP	09 54 15.6
	BKS	iPc	09 54 18.8
		eP400P	09 57 40
		ePP	09 58 28.4
		e	09 59 22
		eS	10 05 05.6
		ePPS	10 07 32.8
		eG	10 22 20
		eLr	10 26 01.5
		AMP(μa)	PER(s)
		LZ 30	20.
		LN 5.4	20.
		LE 28	23.
	JAS1	e	09 54 22.9
	PRI	e	09 54 28
	FRI	e	09 54 28.2
	GCC	e	09 54 30.6
	MNA	e	09 54 35.6
		e	09 59 13.1

BRK Ms=6.8 Distance=102°
USGS 09h40m21.2s 1.6S 134.9E
h=10km mb=6.0 Ms=7.1
West Irian Region

Nov 17	FRI	e	21 01 14.4
	MHC	e	21 01 20.4
	JAS1	eP	21 01 22.2
	MNA	e	21 01 23.0
	ORV	e	21 01 33.8
	WDC	e	21 01 39.8
	BKS	e	21 20 37

USGS 20h50m51.8s 25.1S 112.2W
h=10km mb=5.1 Ms=5.3
Easter Island Region

Nov 18	PRS	e	21 11 12.5
	MHC	ePd	21 11 14.8
	FRI	ePd	21 11 19.2
	JAS1	ePd	21 11 20.2
	ORV	ePd	21 11 21.7
	WDC	ePd	21 11 21.9
	MNA	e	21 11 28.4

USGS 20h59m22.0s 25.9S 179.9W
h=326km mb=5.2

DATE	STA	PHASE	TIME (UTC)
South of Fiji Islands			
Nov 19	GCC	e	08 33 05
	MHC	e	08 33 06
	PRS	e	08 33 07.4
	ORV	eP	08 33 09.5
	JAS1	eP	08 33 11.7
	WDC	e(P)	08 33 11.8
	MIN	e(P)	08 33 13.10
	FRI	eP	08 33 13.6
	MNA	ePc	08 33 21.2

USGS 08h20m15.3s 9.0S 157.9E
h=10km mb=5.2 Ms=5.0
Solomon Islands

Nov 19	FHC	iPc	14 15 49.8
	WDC	iPc	14 15 54.3
		i	14 16 02.3
	ZSP	eP	14 16 02.5
	MHC	eP	14 16 05.5
	SAO	eP	14 16 08.0
	JAS1	iPc	14 16 08.3
		epP	14 16 43.3
	BKS	iPc	14 16 10.4
		e	14 16 36.2
		AMP(μa)	PER(s)
		PZ 0.17	0.8
	PRI	ePc	14 16 13.2
		e	14 16 20.5
	MNA	iPc	14 16 14.3

USGS 14h03m34.6s 28.7N 128.9E
h=135km mb=5.5
Ryukyu Islands

Nov 19	FHC	eP	15 54 24.9
	WDC	ePc	15 54 29.8
	ORV	iPc	15 54 35.4
	BRK	eP	15 54 38.4
	BKS	eP	15 54 38.6
		AMP(μa)	PER(s)
		PZ 0.036	0.7
	MHC	eP	15 54 42.1
	JAS1	iPc	15 54 44.7
	PRS	eP	15 54 45.8
	LLA	eP	15 54 46.4
	PRI	e	15 54 49.0
	FRI	ePc	15 54 49.7
	MNA	eP	15 54 51.7

USGS 15h43m19.1s 31.2N 138.1E
h=397km mb=4.7
South of Honshu, Japan

Nov 19	LLA	iPd	18 32 26.3
		eS	18 32 29.9
	SAO	eP	18 32 33.5
	PRS	e(P)	18 32 33.8
	PRI	eP	18 32 34.3
		e	18 32 46.7
	FRI	eP	18 32 36.9
		eS	18 32 47.3
	MHC	iPc	18 32 39.9
		iS	18 32 53.4
	GCC	e(P)	18 32 41.7
	JAS1	iPd	18 32 42.8
	ORV	e	18 33 12.7

BRK 18h32m21.3s 36.8N 120.7W
h=3km ML=2.5(2)
Panoche Hills, 35 km SE of Los Banos, CA

Nov 19	LLA	iPd	18 33 06.4
		eS	18 33 09.8
	SAO	eP	18 33 13.5
	PRS	e(P)	18 33 13.9
	PRI	e(P)	18 33 14.6
		e	18 33 26.7
	FRI	eP	18 33 16.7
		eS	18 33 27.2
	MHC	eP	18 33 20.1
		eS	18 33 33.3
	GCC	e(P)	18 33 20.5
	JAS1	iP	18 33 22.8

BRK 18h33m01.4s 36.8N 120.7W
h=4kmR ML=2.5(2)
Panoche Hills, 35 km SE of Los Banos, CA

Nov 20	WDC	e(P)	05 24 51.9
	ORV	e(P)	05 24 58
	JAS1	e(P)	05 25 09.6
	MNA	e	05 25 17

USGS 05h14m26.8s 43.7N 148.6E
h=35km mb=5.1 Ms=4.8
Kuril Islands Region

Nov 20	WDC	e(P)	22 10 19
		e	22 10 30
	JAS1	e(P)	22 10 43.5
		epP	22 10 56.5
	BKS	e	22 10 46.8
	FRI	e	22 11 03.6
	PRI	e	22 11 05

USGS 22h03m11.8s 51.4N 174.6W
h=53km mb=5.1
Andreanof Islands, Aleutian Islands

Nov 21	JAS1	eP	12 51 27.9
		e	12 51 57.7
	WDC	e(P)	12 51 28.0
		e	12 51 54.4
	ORV	eP	12 51 28.5
		e	12 51 57.4
	FRI	e	12 51 57.6

USGS 12h38m54.0s 18.5S 168.6E
h=111km mb=5.2
Vanuatu Islands

Nov 21	MNA	eP	20 26 54.3
	JAS1	e(P)	20 27 03.0
	MHC	e	20 27 07
	ORV	eP	20 27 17.1

USGS 20h19m42.8s 12.1N 88.8W
h=33km
Off Coast of Central America

Nov 21	WDC	eP	22 10 19.7
	MIN	ePd	22 10 19.9
	MNA	ePd	22 10 21.7
	ORV	ePd	22 10 22.6
	JAS1	ePd	22 10 28.1
	FRI	eP	22 10 30.5
	MHC	e(P)	22 10 33.0
	LLA	e(P)	22 10 33.3
	PRI	eP	22 10 36.4
	BKS	e	22 42 27
		e	22 48 48
		e	22 55

USGS 21h57m14.9s 41.7N 19.4E
h=25km mb=5.5 Ms=5.3
Albania

Nov 22	BKS	iPc	08 58 30.0
		e(S)	09 09 24
		ePS	09 10 59
		e	09 15 40
		eSS	09 16
		e(SSS)	09 19 37
		eLg	09 23 12
		eSKPPKP	09 27 25
		AMP(μa)	PER(s)
		LZ 5.8	20.
		LN 0.67	20.
		LE 4.9	20.
	WDC	e	08 58 32.0
	ORV	e	08 58 33.8
	PRS	e	08 58 35
	JAS1	eP	08 58 38.1
	FRI	eP	08 58 39.6
	MNA	eP	08 58 47.1

BRK Ms=6.0 Distance=98°
USGS 08h45m25.1s 5.9S 149.4E
h=50km mb=5.6 Ms=6.0
New Britain Region

Nov 23	LLA	iPd	04 19 01.5
	SAO	iPc	04 19 08.1
	PRS	e(P)	04 19 10.0
	PRI	iPc	04 19 12.35
	MHC	eP	04 19 15.8
		eS	04 19 29.5
	GCC	iPc	04 19 16.2
	FRI	eP	04 19 18.4
		eS	04 19 31.1
	JAS1	iPc	04 19 21.9
		iS	04 19 38.8
	PCC	eP	04 19 24.5
	BKS	e	04 19 29.3

BRK 04h18m59.3s 36.7N 120.9W
h=2km ML=2.6(4)
Cerro Colorado, 12 km NNE of LLA, CA

Nov 23	SAO	iPd	05 38 36.4
	MHC	iPd	05 38 36.7
		e(S)	05 38 42.6
	GCC	iPc	05 38 38.2
	LLA	iPc	05 38 41.7
	PRS	iPc	05 38 44.1
	PCC	iPc	05 38 45.7
	BRK	eP	05 38 48.8
		i	05 38 49.7
		eS	05 39 04.7
		i	05 39 10.0
	BKS	iP	05 38 48.8
		iS	05 39 04.7
	ZSP	eP	05 38 50.6
		e(S)	05 39 07.6
	PRI	eP	05 38 51.4
	JAS1	iPd	05 38 51.8
		i	05 39 06.2
		iS	05 39 08.0
	FRI	ePc	05 38 54.7
		iS	05 39 13.2
	ORV	eP	05 39 12.7

BRK 05h38m30.3s 37.1N 121.5W
h=8km ML=3.0(4) Mo=2.6E20(2)
Coyote Lake, 10 km NW of Gilroy, CA

Nov 23	FRI	iPc	07 25 24.0
		iS	07 25 39.7
	MNA	iPc	07 25 25.85
		i	07 25 30.3
		iS	07 25 43.9
	JAS1	iPc	07 25 30.75
		iS	07 25 47.8
	LLA	iPc	07 25 41.7
	FRI	eP	07 25 43.7
		e(S)	07 26 12.3
	SAO	iPd	07 25 46.2
	MHC	eP	07 25 46.4
		e(S)	07 26 16.4
	PRS	eP	07 25 48.0
	GCC	eP	07 25 50.3
	PCC	e	07 25 54.1
	ORV	e(P)	07 26 01.6
		e(S)	07 26 36
	MIN	e(P)	07 26 11.0
	WDC	e	07 26 25.5

BRK 07h25m07.1s 37.6N 118.8W
h=3km ML=3.3(2)
Mammoth Lakes Area, CA

Nov 23	FRI	iPc	07 25 28.0
	JAS1	iPc	07 25 34.8
	LLA	ePc	07 25 45.7
	PRI	iPc	07 25 47.7

BRK 07h25m11.1s 37.6N 118.8W
h=3kmR ML=3.3()
Mammoth Lakes Area, CA

Nov 23	FHC	iPd	07 27 36.2
		e(S)	07 27 45.0
	WDC	iPc	07 27 40.4
		e(S)	07 27 52.5
	MIN	iPc	07 27 49.7
	ORV	iPc	07 27 52.2
	ZSP	eP	07 28 04.6
		eS	07 28 35.5
	BRK	eP	07 29 05.0
	BKS	iPd	07 28 05.4
		iS	07 28 36.5
	PCC	eP	07 28 08.0
		eS	07 28 40.6
	MHC	eP	07 28 15.0
	GCC	eP	07 28 15.4
	JAS1	eP	07 28 16.0
		i	07 28 27.7
	SAO	iP	07 28 21.9
	PRS	e(P)	07 28 27.1
	LLA	e(P)	07 28 27.2
	FRI	iPd	07 28 31.2
	MNA	e(P)	07 28 33.7
	PRI	e(P)	07 28 35.5

BRK 07h27m25.3s 40.3N 123.7W
h=19kmR ML=3.7(6) Mo=8.9E21(4)
40 km NE of Garberville, CA

Nov 23	SAO	iPc	12 36 00.5
	LLA	iPc	12 36 01.9
	PRS	iPd	12 36 02.6
	PRI	eP	12 36 09.6
		eS	12 36 21.5
	GCC	iPd	12 36 09.7
	MHC	iPd	12 36 11.7
	PCC	eP	12 36 18.0
	FRI	iPc	12 36 19.4
		iS	12 36 36.2
	JAS1	eP	12 36 21.7
		i	12 36 23.4
		eS	12 36 42.0
	BKS	e(P)	12 36 22.3
		e	12 36 45.4
	BRK	e(P)	12 36 22.5
	ORV	eP	12 36 43.6

BRK 12h35m56.6s 36.6N 121.3W
h=9km ML=3.2(2) Mo=2.0E20(1)
Stone Canyon, 30 km SE of Hollister, CA

Nov 23	SAO	iPc	20 29 49.9
	LLA	iPc	20 29 52.2
	PRS	iPd	20 29 52.8
	GCC	iPc	20 29 59.5

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DATE	STA	PHASE	TIME (UTC)
	PRI	iPd	20 30 01.3
		e	20 30 17.3
	MHC	iPc	20 30 01.9
	PCC	eP	20 30 08.0
	BKS	e(P)	20 30 09.4
	FRI	eP	20 30 09.9
		eS	20 30 27.0
	JAS1	iPc	20 30 13.2
		eS	20 30 31.3

BRK 20h29m46.8s 36.6N 121.3W
h=4km ML=2.6(4)
Stone Canyon, 25 km SE of Hollister, CA

Nov 24	LLA	iPc	10 14 09.5
	PRS	iPd	10 14 10.8
		i	10 14 14.7
	SAO	iPc	10 14 11.0
	PRI	eP	10 14 17.1
	GCC	eP	10 14 20.6
		e	10 14 32.4
	MHC	eP	10 14 22.4
	FRI	iPc	10 14 27.7
	PCC	iPc	10 14 29.4
	JAS1	iPd	10 14 31.8
		eS	10 14 51.0
	BRK	e	10 14 32.5

BRK 10h14m05.5s 36.6N 121.2W
h=4km ML=2.6(4)
Bear Valley, 35 km N of King City, CA

Nov 24	SAO	iPc	11 07 00.2
	LLA	iPc	11 07 02.1
	PRS	iPd	11 07 02.7
	GCC	iPd	11 07 09.6
	PRI	eP	11 07 10.2
	MHC	iPc	11 07 12.2
	PCC	iPc	11 07 18.2
	FRI	ePc	11 07 19.6
		i	11 07 23.8
		iS	11 07 26.8
	JAS1	iPd	11 07 22.6
		eS	11 07 40.5
	BKS	e(P)	11 07 23.4
	BRK	e(P)	11 07 23.5
	ORV	ePc	11 07 43.6
	MNA	e(P)	11 07 52.0

BRK 11h06m56.7s 36.6N 121.3W
h=6km ML=2.8(4)
Stone Canyon, 25 km SE of Hollister, CA

Nov 24	PRI	iPd	12 56 23.7
	LLA	iPc	12 56 28.7
	FRI	iPd	12 56 32.0
	PRS	eP	12 56 32.8
		eS	12 56 46.1
	SAO	iP	12 56 35.9
	BKS	e	12 56 37.3
	MHC	eP	12 56 43.0
		e	12 56 45.6
	GCC	eP	12 56 43.5
	JAS1	iPc	12 56 45.3
		iS	12 57 06.2
	PCC	e(P)	12 56 51.0
	MNA	e	12 57 05
	ORV	e	12 57 10

BRK 12h56m17.6s 36.3N 120.3W
h=9km ML=2.8(2)
Coalinga Area, CA

Nov 24	PRI	iPd	19 21 44.3
	PRS	iPc	19 21 49.15
	LLA	iPc	19 21 51.4
	SAO	iPc	19 21 55.4
	GCC	iPc	19 22 02.1
	FRI	iPd	19 22 03.2
	MHC	iPc	19 22 04.6
	PCC	eP	19 22 09.9
	JAS1	iPc	19 22 12.0
	BRK	eP	19 22 13.4
		e	19 22 17.1
		e	19 22 20.1
	BKS	iPd	19 22 13.9
	ZSP	iPc	19 22 14.7
		i	19 22 20.0
	MNA	iPd	19 22 32.1
		i	19 22 36.1
	ORV	iPc	19 22 34.5
	MIN	eP	19 22 46.9
	WDC	eP	19 22 50.3
	FHC	e(P)	19 23 00.5

BRK 19h21m39.7s 36.0N 120.9W
h=8km ML=4.5(6) Mo=5.0E22(2)
San Ardo, 30 km SE of King City, CA

Nov 24	PRI	iPd	23 08 19.7
	PRS	iPc	23 08 24.7
	LLA	iPc	23 08 26.8
	SAO	iPc	23 08 30.9
	GCC	eP	23 08 37.6
	FRI	iPd	23 08 38.6
		iS	23 08 56.0
	MHC	eP	23 08 40.1
	PCC	eP	23 08 45.5
	JAS1	eP	23 08 47.7
		iS	23 09 11.5
	BKS	e(P)	23 08 52.3
		e(S)	23 09 18.0
	BRK	e(P)	23 08 52.5
	ORV	eP	23 09 10.7
	MNA	e	23 09 14

BRK 23h08m15.2s 36.0N 120.9W
h=8km ML=3.0(4)
San Ardo, 30 km SE of King City, CA

Nov 25	MHC	iPc	07 46 08.7
	GCC	iPd	07 46 14.8
	PCC	iPc	07 46 17.5
	SAO	iPd	07 46 19.15
	BRK	eP	07 46 20.2
		eS	07 46 31.4
	BKS	iPd	07 46 20.2
		eS	07 46 31.5
	ZSP	iPd	07 46 21.7
		eS	07 46 33.5
	LLA	iPd	07 46 24.3
	PRS	iPc	07 46 26.2
		eS	07 46 40.0
	JAS1	iPc	07 46 28.3
		iS	07 46 43.9
	FRI	iPc	07 46 35.0
		iS	07 46 55.9
	ORV	e(P)	07 46 42.4

BRK 07h46m06.9s 37.3N 121.7W
h=5km ML=2.7(4) Mo=8.1E19(2)
Halls Valley Sequence, CA

Nov 26	PRS	e(P)	06 30 49.7
	GCC	eP	06 30 49.9
	PRI	eP	06 30 51.3
	BRK	eP	06 30 51.7
	MHC	e(P)	06 30 52.6
		epP	06 31 05.5
	BKS	eP	06 30 52.8

			AMP(μm)	PER(s)
		PZ	0.016	0.8
	FRI	ePc	06 30 57.0	
		epP	06 31 10.0	
	FHC	e(P)	06 30 57.2	
	JAS1	ePc	06 30 58.0	
		ipP	06 31 11.0	
	ORV	ePc	06 31 00.1	
		ipP	06 31 12.9	
	WDC	ePc	06 31 00.8	
		epP	06 31 13.5	
	MIN	eP	06 31 02.2	
	MNA	ePc	06 31 07.8	
		ipP	06 31 20.6	

USGS 06h18m59.3s 22.0S 175.0W
h=44km mb=5.4
Tonga Islands

Nov 26	WDC	e(P)	10 18 03.5
	ORV	e(P)	10 18 08.8
	GCC	e(P)	10 18 13.4
	MHC	e(P)	10 18 14.6
	JAS1	e(P)	10 18 16.7
	PRS	e	10 18 18.3
	FRI	e(P)	10 18 21.0
	MNA	e(P)	10 18 22

USGS 10h05m03.5s 24.1N 125.2E
h=21km mb=5.5 Ms=5.9
Southwestern Ryukyu Islands

Nov 26	MNA	e	10 34 39
	JAS1	e	10 34 53.3
	ORV	eP	10 35 07.2
		e	10 35 14.3
		e	10 35 21.5

USGS 10h24m32.0s 3.5S 75.7W
h=52km mb=5.2
Peru

Nov 26	PRS	ePc	17 52 11.5
	PRI	eP	17 52 12.0
	SAO	eP	17 52 13.6
	LLA	ePc	17 52 14.2
	GCC	ePc	17 52 14.8
	PCC	iPc	17 52 16.9
	MHC	iPc	17 52 17.9
	FRI	ePc	17 52 18.3
	BRK	eP	17 52 19.7
	BKS	iPc	17 52 20.0

	AMP(μm)	PER(s)
PZ	0.062	0.9

	JAS1	iPc	17 52 23.2
	MNA	eP	17 52 31.0
	WDC	iPc	17 52 36.0

USGS 17h41m58.4s 21.9S 138.3W
h=0km mb=5.8
Tuamotu Archipelago Region

Nov 27	WDC	eP	00 13 42.7
	ORV	e(P)	00 13 49.5
	JAS1	eP	00 13 58.7
	MNA	e	00 14 05

USGS 00h01m59.1s 35.6N 135.7E
h=26km mb=4.8
Southern Honshu, Japan

Nov 27	PRI	eP	00 58 34.8
	MNA	eP	00 58 38.8
	LLA	eP	00 58 39.0
	JAS1	eP	00 58 45.0
	GCC	eP	00 58 47.3
	MHC	eP	00 58 48.0
	ORV	eP	00 59 01.8

USGS 00h53m35.2s 18.8N 103.2W
h=37km mb=3.9
Near Coast of Michoacan, Mexico

Nov 27	FRI	e	02 14 44.0
	JAS1	ePc	02 14 45.4
	WDC	eP	02 14 48.7

USGS 02h01m32.6s 36.8S 178.6E
h=33km mb=5.1
Off E. Coast of N. Island, New Zealand

Nov 27	BKS	ePd	04 29 9.3

	AMP(μm)	PER(s)
PZ	0.069	0.8

	PCC	eP	04 29 07.1
	GCC	eP	04 29 07.5
	PRS	eP	04 29 07.6
	SAO	e	04 29 08.1
	BRK	e	04 29 09.1
	PRI	eP	04 29 09.6
	MHC	eP	04 29 09.8
	FHC	e	04 29 13.8
	FRI	eP	04 29 14.8
	JAS1	iPd	04 29 15.3
	ORV	ePd	04 29 16.5
	WDC	iPd	04 29 16.8
		i	04 29 24.8
	MIN	eP	04 29 18.7
	MNA	eP	04 29 24.4

USGS 04h18m04.0s 21.1S 179.0W
h=608km mb=5.3
Fiji Islands Region

Nov 27	LLA	iPd	11 13 55.1
		iS	11 14 03.3
	PRS	iPc	11 13 56.4
		eS	11 14 04.4
	PRI	iPd	11 13 58.3
		eS	11 14 08.8
	SAO	iP	11 13 59.6
	GCC	iPd	11 14 08.7
	MHC	eP	11 14 10.2
	FRI	iPc	11 14 11.3
	PCC	e	11 14 16.8
	JAS1	iP	11 14 17.8
	BRK	e	11 14 20.2
	BKS	eP	11 14 20.2

BRK 11h13m50.6s 36.4N 121.0W
h=8km ML=2.8(4)
20 km NE of King City, CA

Nov 27	FRI	ePd	15 15 39.9
		ePcP	15 18 14.8
		e	15 18 33.9
	MNA	ePd	15 15 40.8
		i	15 15 56.0
		iPcP	15 18 15.5
		e	15 18 32.0
	PRI	eP	15 15 42.5
	LLA	eP	15 15 45.8
	PRS	e(P)	15 15 47.5
	JAS1	iPd	15 15 49.6
		e	15 16 06.5
		iPcP	15 18 18.5
		e	15 18 34.0
	GCC	eP	15 15 54.3
	MHC	iPd	15 15 54.4
	ORV	iPd	15 16 04.0
		ePcP	15 18 25.5
		e	15 18 41.5
	MIN	iPd	15 16 09.1
	WDC	e(P)	15 16 11.5

		iPcP	15 18 26.1
		e	15 18 43.0
	FHC	iPd	15 16 22.9
		ePcP	15 18 30.2
		e	15 18 48.3

USGS 15h08m57.7s 13.9N 90.9W
h=74km mb=5.1
Near Coast of Guatemala

Nov 27	JAS1	ePKP	19 07 19.5
	FRI	ePKP	19 07 19.7
	MNA	e	19 07 20.5

USGS 18h47m33.8s 4.9S 68.6E
h=10km mb=4.6
Chagos Archipelago Region

Nov 28	MNA	e	00 23 39.0
	FRI	e	00 23 44.2
	JAS1	eP	00 23 50.5
	LLA	e	00 23 50.5
	MHC	e	00 23 56.4
	ORV	eP	00 23 57.8
	FHC	e	00 24 13.4

USGS 00h13m59.6s 11.8N 61.4W
h=72km mb=5.3
Windward Islands

Nov 28	PCC	e	02 38 13.0
	GCC	eP	02 38 13.0
	FHC	e	02 38 13.7
	BRK	ePc	02 38 14.3
	PRS	eP	02 38 14.4
	BKS	ePd	02 38 14.7
		ePP	02 41 26
		ePPP	02 43 08
		eS	02 48 40
		ePPS	02 49 36
		eSS	02 53 46
		eSSS	02 57 40
		eLg	03 00 12
		eLr	03 04 12

	AMP(μm)	PER(s)
PZ	0.14	1.2

	LZ	120	20.
	LNE	120	20.
	LNW	4.4	20.
	SAO	eP	02 38 15.2
	MHC	eP	02 38 15.3
	LLA	e	02 38 17.1
	PRI	ePc	02 38 17.8
	WDC	ePc	02 38 17.9
	ORV	ePc	02 38 19.4
	JAS1	iPc	02 38 20.5
		ePKPPKP	03 04 27.6
	FRI	eP	02 38 21.3
		ePKPPKP	03 04 29.1
	MNA	ePc	02 38 29.4
		ePKPPKP	03 04 32.7

BRK Ms=7.2 Distance=82°
USGS 02h25m42.3s 14.0S 166.2E
h=33km mb=6.0 Ms=7.0
Vanuatu Islands

Nov 28	PCC	e(P)	04 02 24
	GCC	eP	04 02 24.7
	BRK	e(P)	04 02 25.3
	BKS	eP	04 02 25.8
		eS	04 12 44
		eScS	04 13 08
		ePPS	04 14 10
		eSS	04 18 20
		eLg	04 24 22
		eLr	04 27 22

				AMP(μm)	PER(s)
			PZ	0.13	0.8
			LZ	270	20.
			LNE	260	20.
			LNW	60	20.
	PRS	eP	04 02 26.0		
	SAO	e(P)	04 02 26.1		
	MHC	eP	04 02 27.0		
	LLA	eP	04 02 28.1		
	PRI	eP	04 02 28.7		
	WDC	eP	04 02 30.3		
	ORV	iP	04 02 30.9		
		ePKPPKP	04 28 46		
	MIN	e(P)	04 02 32.0		
	JAS1	iPc	04 02 32.1		
		ePKPPKP	04 28 46		
	FRI	eP	04 02 32.9		
		ePKPPKP	04 28 46		
	MNA	eP	04 02 41.4		
		ePKPPKP	04 28 41.5		

BRK Ms=7.6 Distance=84°
USGS 03h49m54.1s 14.0S 166.2E
h=33km mb=6.3 Ms=7.1
Vanuatu Islands

Nov 28	PRS	e	06 50 18.8
	MHC	eP	06 50 21.2
	LLA	e	06 50 22.3
	WDC	e	06 50 22.4
	PRI	e	06 50 23.0
	JAS1	ePd	06 50 24.7
		i	06 50 38.0
	ORV	e	06 50 25.1
	FRI	eP	06 50 25.3
	MNA	e	06 50 45.0

USGS 06h37m47.2s 13.9S 166.3E
h=33km mb=5.6 Ms=5.8
Vanuatu Islands

Nov 28	LLA	iPd	15 13 59.8
	PRS	iPd	15 14 04.0
	SAO	iPc	15 14 04.4
	PRI	iPc	15 14 07.8
	GCC	iPc	15 14 12.9
	MHC	iPc	15 14 14.1
	FRI	iPc	15 14 17.6
	PCC	iPc	15 14 20.6
	JAS1	iPd	15 14 22.0
	BRK	iPc	15 14 23.8
	BKS	iPc	15 14 23.9
	ZSP	iPc	15 14 24.8
	ORV	eP	15 14 44.0
	MNA	e	15 14 45.3
	MIN	e	15 14 56.5
	WDC	e	15 15 00.3
	FHC	e	15 15 10.3

BRK 15h13m57.2s 36.6N 121.1W
h=10km ML=4.6(6) Mo=9.8E22(4)
S of Panoche Pass, 45 km SE of Hollister, CA

Nov 28	MHC	eP	22 38 46.0
	JAS1	eP	22 38 50.5
	FRI	eP	22 38 50.5
	ORV	eP	22 38 52.1
	WDC	eP	22 38 53.0
	MNA	eP	22 38 59.8

USGS 22h27m25.2s 23.0S 179.4W
h=533km mb=5.8
South of Fiji Islands

Nov 29	FRI	eP	04 13 24.0
	MNA	ePc	04 13 25.1

International Seismological Centre

DATE	STA	PHASE	TIME (UTC)
	PRI	eP	04 13 25.8
	LLA	ePc	04 13 28.1
	PRS	ePc	04 13 28.7
	JAS1	iPc	04 13 30.2
	GCC	eP	04 13 32.8
	MHC	eP	04 13 33.1
	ORV	eP	04 13 38.5
	WDC	e	04 13 43.7
USGS 04h02m12.2s 22.8S 63.7W			
h=532km mb=5.2			
Salta Province, Argentina			
Nov 30	JAS1	e	02 48 23.0
	MNA	ePKPc	02 48 23.3
	FRI	e	02 48 23.5
USGS 02h28m11.5s 29.2S 61.3E			
h=10km mb=5.6 Ms=5.3			
Atlantic-Indian Rise			
Nov 30	GCC	eP	03 15 28.4
	PCC	e	03 15 28.6
	PRS	eP	03 15 28.7
		epP	03 16 09.0
	SAO	e	03 15 29.3
	LLA	e	03 15 30.6
	BKS	ePd	03 15 30.7
		epP	03 16 10.6
		eS	03 25 16
		eSSS	03 34 08
		e	03 37 40
	MHC	eP	03 15 31.1
		ipP	03 16 11.7
	FRI	ePd	03 15 36.5
		ipP	03 16 17.2
	JAS1	iPc	03 15 37.1
		ipP	03 16 17.8
	ORV	eP	03 15 39.0
	WDC	iP	03 15 39.1
		ipP	03 16 18.8
	MIN	eP	03 15 41.0
		ipP	03 16 23.7
	MNA	iPd	03 15 47.5
		ipP	03 16 28.3
	PRI	e	03 16 11.5
USGS 03h04m18.8s 16.4S 174.2W			
h=165km mb=5.7			
Tonga Islands			
Nov 30	GCC	eP	04 33 33.0
	PCC	eP	04 33 33.2
	PRS	eP	04 33 33.4
	SAO	e	04 33 33.7
	BRK	e	04 33 34.9
	BKS	ePc	04 33 35.3
		AMP(μm)	PER(s)
	PZ	0.044	0.8
	MHC	eP	04 33 35.7
	FRI	iP	04 33 40.4
	JAS1	iPc	04 33 41.0
	ORV	iPc	04 33 42.3
	WDC	iP	04 33 42.6
	MIN	ePc	04 33 44.3
	MNA	iPc	04 33 50.2
USGS 04h22m30.8s 21.1S 179.0W			
h=627km mb=5.1			
Fiji Islands Region			
Nov 30	LLA	iPd	06 14 28.3
	PRS	iPd	06 14 32.4
	SAO	iPc	06 14 33.0
	PRI	eP	06 14 36.3
	GCC	iPc	06 14 41.4
	MHC	eP	06 14 42.7
	FRI	iPd	06 14 46.1
		eS	06 15 01.0
	PCC	eP	06 14 50.1
	JAS1	iPd	06 14 50.9
		eS	06 15 09.8
	BKS	ePd	06 14 52.7
	BRK	eP	06 14 52.9
	ORV	eP	06 15 14
BRK 06h14m25.8s 36.6N 121.1W			
h=10km ML=2.6(2)			
S of Panoche Pass, 45 km SE of Hollister, CA			
Nov 30	FHC	ePc	15 32 58.9
	WDC	iPc	15 33 03.8
	MIN	ePc	15 33 07.4
	ORV	iPc	15 33 10.2
	BRK	eP	15 33 13.1
	BKS	eP	15 33 13.4
		AMP(μm)	PER(s)
	PZ	0.050	0.8
	MHC	e(P)	15 33 17.1
	JAS1	iPc	15 33 19.6
	PRS	eP	15 33 21.1
	LLA	e(P)	15 33 21.7
	FRI	iPc	15 33 24.6
	MNA	iPc	15 33 26.2
USGS 15h21m53.8s 34.6N 136.8E			
h=333km mb=4.8			
Southern Honshu, Japan			
Dec 1	WDC	ePc	06 36 46.2
		e	06 37 03.3
		e	06 37 10.4
	MIN	e(P)	06 36 46.2
		e	06 36 59.0
		e	06 37 05.7
	ORV	eP	06 36 46.2
		e	06 37 08.7
		e	06 37 16.2
	JAS1	e	06 37 10.8
		i	06 37 17.4
	MNA	e	06 37 10.9
		e	06 37 17.5
	FRI	e	06 37 15.1
		e	06 37 22.0
Mid-Indian Rise			
Dec 1	LLA	iPd	09 26 37.5
	PRS	iPd	09 26 40.65
	SAO	iPc	09 26 41.4
	PRI	iPc	09 26 45.3
	GCC	eP	09 26 50.2
		iS	09 27 04.7
	MHC	eP	09 26 51.7
		eS	09 27 06.8
	FRI	eP	09 26 55.4
		eS	09 27 10.9
	PCC	eP	09 26 58.3
	JAS1	iPd	09 27 01.1
		eS	09 27 19.6
	BKS	ePc	09 27 02.0
		i	09 27 36.3
	MNA	e	09 27 30.2
BRK 09h26m34.6s 36.5N 121.1W			
h=8km ML=2.5(4)			
S of Panoche Pass, 45 km SE of Hollister, CA			
Dec 2	WDC	iPc	07 25 46.1
		i	07 25 54.8
	ORV	iPc	07 25 53.0
		i	07 26 01.8
	JAS1	iPc	07 26 03.8
		e	07 26 11.2
	FRI	eP	07 26 09.4
	MNA	eP	07 26 10.7
USGS 07h14m36.9s 41.2N 139.8E			
h=22km mb=5.4 Ms=5.6			
Hokkaido, Japan Region			
Dec 3	FHC	iPd	00 23 23.6
		epP	00 24 55.3
	WDC	iPd	00 23 28.3
	MIN	ePd	00 23 31.2
	ORV	iPd	00 23 33.9
	BRK	ePd	00 23 35.0
	BKS	iPd	00 23 35.6
		AMP(μm)	PER(s)
	PZ	0.65	0.7
	PCC	iPd	00 23 35.9
	ZSP	iPd	00 23 35.9
	GCC	eP	00 23 38.2
		epP	00 25 13.6
	MHC	ePd	00 23 39.0
	SAO	e(P)	00 23 41.0
	JAS1	iPd	00 23 42.1
		e	00 25 40.4
		e	00 26 51.6
	PRS	ePd	00 23 42.5
	LLA	ePd	00 23 43.6
	PRI	iPd	00 23 46.2
	FRI	iPd	00 23 46.8
		epP	00 25 23.2
	MNA	iPd	00 23 49.4
USGS 00h12m13.9s 26.9N 140.4E			
h=428km mb=5.9			
Bonin Islands Region			
Dec 3	MNA	iPc	18 01 15.6
	FRI	eP	18 01 17.6
	LLA	eP	18 01 24.1
	PRS	eP	18 01 24.4
	JAS1	iPc	18 01 24.9
	MHC	ePc	18 01 30.8
	GCC	eP	18 01 31.4
	BRK	e(P)	18 01 35.3
	BKS	eP	18 01 35.4
		e	18 01 48.9
		e	18 02 12.3
		ePcP	18 02 48.8
		AMP(μm)	PER(s)
	PZ	0.065	1.0
	ORV	iPc	18 01 35.9
	MIN	ePc	18 01 37.8
	WDC	iPc	18 01 41.5
	FHC	eP	18 01 52.1
USGS 17h52m23.9s 6.8N 72.9W			
h=164km mb=5.1			
Northern Columbia			
Dec 3	MHC	iPd	22 04 16.8
		iS	22 04 21.9
	BRK	e	22 04 20.5
	BKS	ePc	22 04 20.5
		i	22 04 24.0
		eS	22 04 28.2
	ZSP	eP	22 04 21.5
		eS	22 04 29.5
	PCC	iPc	22 04 21.8
	GCC	eP	22 04 24.0
	SAO	eP	22 04 27.2
	JAS1	eP	22 04 28.9
	LLA	e	22 04 32.5
		i	22 04 33.5
	PRS	e(P)	22 04 34.0
	FRI	e(P)	22 04 40.0
BRK 22h04m10.7s 37.7N 121.7W			
h=9km ML=2.5(4)			
Near Livermore, CA			
Dec 4	GCC	eP	17 18 05.4
	PCC	eP	17 18 05.7
	PRS	eP	17 18 05.9
	SAO	eP	17 18 06.5
	BRK	eP	17 18 07.5
	BKS	ePd	17 18 07.7
		AMP(μm)	PER(s)
	PZ	0.034	0.8
	PRI	ePd	17 18 08.0
	LLA	eP	17 18 08.1
	MHC	ePd	17 18 08.2
	FRI	ePd	17 18 13.2
	JAS1	iPd	17 18 13.8
	ORV	iPd	17 18 15.3
	WDC	iPd	17 18 15.7
	MIN	eP	17 18 17.5
	MNA	iPd	17 18 23.6
USGS 17h06m48.7s 19.9S 177.2W			
h=340km mb=4.9			
Fiji Islands Region			
Dec 4	MHC	iPd	18 55 20.9
	GCC	iPd	18 55 26.4
		iS	18 55 30.9
	SAO	iPd	18 55 29.6
	PCC	iPc	18 55 30.8
	BRK	iPc	18 55 33.9
		iS	18 55 46.6
	BKS	iPc	18 55 34.0
		eS	18 55 45.6
	LLA	ePc	18 55 34.9
	ZSP	iPc	18 55 35.3
		eS	18 55 49.0
	PRS	iPd	18 55 36.8
	JAS1	iPd	18 55 40.4
	PRI	ePd	18 55 43.6
	FRI	iPc	18 55 46.1
	ORV	eP	18 55 55.6
	WDC	e	18 56 08.6
	MIN	e	18 56 10.3
	MNA	e	18 56 12
BRK 18h55m19.0s 37.3N 121.7W			
h=6km ML=3.3(6) Mo=1.6E21(4)			
Halls Valley Sequence, CA			
Dec 5	FHC	iPc	06 28 46.6
		i	06 28 53.4
	WDC	iPc	06 29 02.0
		e	06 29 09.3
	MIN	iPc	06 29 12.3
		e	06 29 35.6
		iS	06 29 40.5
	ORV	iPc	06 29 16.0
	BKS	e	06 29 26.5
	BRK	e	06 29 28.1
	PCC	eP	06 29 30.6
	MHC	e	06 29 36.0
	GCC	eP	06 29 37.6
	JAS1	iP	06 29 40.3
	SAO	eP	06 29 44.4
	FRI	iPd	06 29 55.0
BRK 06h28m36.9s 40.6N 124.5W			
h=5kmR ML=4.2(4) Mo=4.1E21(4)			
Off Coast, 60 km SW of Eureka, CA			
Dec 5	MNA	eP	08 18 16.1
	JAS1	ePd	08 18 18.6
	ORV	eP	08 18 23.8
	WDC	eP	08 18 25.1
Dec 5	PRI	eP	08 37 08.1
	PRS	e(P)	08 37 09.3
	FRI	ePc	08 37 11.2
		e	08 37 17.5
	MHC	eP	08 37 16.1
	JAS1	ePc	08 37 17.9
	BKS	eP	08 37 19.8
		e	08 37 31.4
		AMP(μm)	PER(s)
	PZ	0.043	1.0
	MNA	ePc	08 37 19.9
		e	08 37 26.2
	ORV	ePc	08 37 28.1
	WDC	ePc	08 37 34.0
		e	08 37 40.5
USGS 08h25m42.8s 35.2S 109.4W			
h=10km mb=5.2			
Easter Island Cordillera			
Dec 5	PRI	e(P)	10 55 32.9
	FRI	e	10 55 34.8
	JAS1	e(P)	10 55 38.2
	MNA	e(P)	10 55 38.5
	BKS	e	10 55 45.4
USGS 10h43m44.7s 36.5S 100.0W			
h=10km mb=4.9			
Southern Pacific Ocean			
Dec 5	MNA	iPc	15 00 37.4
	FRI	iPc	15 00 48.4
	JAS1	iPc	15 00 57.2
	PRI	iPc	15 01 00.9
	LLA	ePc	15 01 02.0
	SAO	ePc	15 01 07.7
	PRS	iPc	15 01 07.8
	MHC	iPc	15 01 10.2
		iPg	15 01 18.8
		iS	15 02 24.8
	GCC	e(P)	15 01 13.0
	ORV	iPc	15 01 16.2
	BRK	ePc	15 01 16.9
	BKS	iPc	15 01 17.0
		iPg	15 01 37.0
	ZSP	eP	15 01 17.5
		e	15 01 26.7
		e	15 01 32.7
	PCC	e(P)c	15 01 17.6
	MIN	iPc	15 01 23.7
	WDC	iPc	15 01 33.2
	FHC	e	15 01 48.2
BRK ML=5.3(8)			
USGS 15h00m00.1s 37.1N 116.0W			
h=0km mb=5.7			
Underground Nuclear Explosion, NTS (Kiniboto)			
Dec 5	GCC	eP	18 38 41.0
	PCC	eP	18 38 41.2
	PRS	ePd	18 38 41.4
	SAO	eP	18 38 42.0
	BRK	eP	18 38 42.9
	PRI	ePd	18 38 43.3
	BKS	eP	18 38 43.4
		AMP(μm)	PER(s)
	PZ	0.11	1.0
	LLA	eP	18 38 43.6
	MHC	ePd	18 38 43.8
	FRI	ePd	18 38 48.5
	JAS1	iPd	18 38 49.2
	ORV	iPd	18 38 50.6
	WDC	ePd	18 38 50.7
	MIN	eP	18 38 52.6
	MNA	ePd	18 38 58.5
USGS 18h27m38.3s 20.6S 178.3W			
h=565km mb=5.0			
Fiji Islands Region			
Dec 6	WDC	eP	12 42 50.2
	MIN	eP	12 42 54.6
	ORV	eP	12 42 58.5
	JAS1	eP	12 43 11.1
USGS 12h33m21.9s 49.6N 157.3E			
h=42km mb=5.0 Ms=4.5			
Kuril Islands Region			
Dec 6	WDC	eP	20 50 07.1
	MIN	eP	20 50 10.9
	ORV	ePc	20 50 14.2
	BRK	eP	20 50 18.3
	BKS	ePd	20 50 18.8
	PCC	eP	20 50 18.9
	GCC	eP	20 50 22.4
	MHC	eP	20 50 23.0
	JAS1	iPc	20 50 25.4
		i	20 50 30.9
	PRS	eP	20 50 27.6
	LLA	eP	20 50 28.1
	PRI	eP	20 50 31.0
	FRI	eP	20 50 31.0
	MNA	ePc	20 50 31.7
USGS 20h39m25.0s 43.1N 141.1E			
h=162km mb=5.1			
Hokkaido, Japan Region			
Dec 7	PRI	iPd	13 20 47.1
	LLA	eP	13 20 53.5
	PRS	eP	13 20 56.8
		i	13 21 08.8
	FRI	iPd	13 20 57.6
		iS	13 21 10.1
	SAO	iPc	13 21 00.5
	MHC	e	13 21 08.7
	GCC	e	13 21 09.3
	JAS1	iPd	13 21 10.2
		iS	13 21 30.5
BRK 13h20m41.3s 36.1N 120.3W			
h=11km ML=2.4(2)			
Coalinga Area, CA			
Dec 9	MNA	iPc	07 57 06.4
		iS	07 57 16.7
	JAS1	iPc	07 57 11.9
		iS	07 57 26.0
	FRI	iPd	07 57 15.85
		iS	07 57 32.6
	ORV	e	07 57 25.1
		i	07 57 33.5
	LLA	iPc	07 57 30.4
	MHC	ePc	07 57 30.5
	SAO	iPc	07 57 33.1
	PRI	iPc	07 57 34.55
	GCC	e	07 57 34.9
	BRK	e	07 57 35.0
	PRS	eP	07 57 36.2
	ZSP	e	07 57 36.6
	PCC	e	07 57 37.9
	MIN	e	07 57 [illegible]
	WDC	e	07 57 [illegible]
BRK 07h56m52.3s 38.2N 119.1W			
h=6km ML=3.5(6)			
20 km SE of Bridgeport, CA			
Dec 10	WDC	eP	13.8
	MIN	ePd	17.8

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DATE	STA	PHASE	TIME (UTC)
	ORV	ePd	11 31 21.0
	BRK	eP	11 31 25.0
	JAS1	ePd	11 31 32.5
	PRS	eP	11 31 34.7
	LLA	eP	11 31 35.5
	FRI	eP	11 31 38.3
	PRI	ePd	11 31 39.7
	MNA	e	11 31 45.8

USGS 11h20m53.2s 44.2N 146.9E
h=117km mb=5.3
Kuril Islands

Dec 11	ORV	ePc	12 28 42.6
	PRI	e(P)	12 28 45.5
	JAS1	iPc	12 28 45.9
	FRI	ePc	12 28 48.3
		e	12 29 01.5
	MNA	ePc	12 28 54.8
		e	12 29 08.0

USGS 12h15m26.4s 7.0S 150.0E
h=13km mb=5.4
New Britain Region

Dec 12	GCC	e(P)	11 34 01.9
	PRS	e(P)	11 34 01.9
	PRI	eP	11 34 03.9
	BKS	ePc	11 34 04.2
		AMP(µm)	PER(s)
	PZ	0.022	0.7
	MHC	e(P)	11 34 04.3
	JAS1	eP	11 34 09.6
	ORV	eP	11 34 11.5
	WDC	eP	11 34 12.0
	MIN	eP	11 34 13.5
	MNA	eP	11 34 21.8

USGS 11h22m32.1s 22.4S 177.8W
h=328km mb=4.5
South of Fiji Islands

Dec 13	FRI	ePc	07 16 40.5
		ePcP	07 19 22
	MNA	ePc	07 16 41.8
		ePcP	07 19 21.7
	PRI	ePc	07 16 43.5
	JAS1	ePc	07 16 50.0
		e	07 17 00.1
		ePcP	07 19 25.1
	GCC	e	07 16 50.5
	MHC	ePc	07 16 54.6
	ORV	ePc	07 17 04.8
		ePcP	07 19 28
	MIN	ePc	07 17 08.7
	WDC	eP	07 17 12.2
		ePcP	07 19 32
	FHC	ePc	07 17 23.6

USGS 07h10m07.0s 14.1N 91.6W
h=105km mb=4.8
Guatemala

Dec 13	GCC	iPc	18 37 48.4
	SAO	iPc	18 37 50.2
	MHC	iPd	18 37 51.1
		i	18 37 56.2
		e(S)	18 37 57.0
	PCC	iPc	18 37 57.2
	PRS	ePc	18 37 57.4
		i	18 37 58.3
	LLA	iPc	18 37 57.8
	ZSP	eP	18 38 02.0
	BKS	iPd	18 38 02.0
		iS	18 38 16.6
	BRK	iP	18 38 02.1
		e	18 38 14.6
		i	18 38 15.4
	PRI	e(P)c	18 38 05.4
	FRI	e(P)	18 38 12.4

BRK 18h37m44.0s 37.0N 121.7W
h=8km ML=2.9(4)
12 km W of Gilroy, CA

Dec 13	GCC	iPc	18 39 27.1
	SAO	iPd	18 39 28.8
	MHC	iPd	18 39 29.9
		eS	18 39 34.6
	PCC	iPc	18 39 35.9
	PRS	iPd	18 39 35.9
	LLA	iPc	18 39 36.3
	BRK	ePc	18 39 39.1
		e(S)	18 39 53.4
	BKS	eP	18 39 39.4
		iS	18 39 55.2
	ZSP	iPc	18 39 40.7
		iS	18 39 55.5
	PRI	ePd	18 39 44.6
	FRI	eP	18 39 49.2
	ORV	eP	18 40 03.4

BRK 18h39m22.6s 37.0N 121.7W
h=11km ML=3.4(6) Mo=2.3E21(4)
12 km W of Gilroy, CA

Dec 14	PRI	eP	03 04 00.2
	MNA	eP	03 04 00.3
	LLA	e	03 04 01.2
	PRS	e	03 04 03.0
	JAS1	eP	03 04 03.6
	GCC	e	03 04 07.3
	MHC	eP	03 04 07.5
	BKS	e(P)	03 04 11.1
		AMP(µm)	PER(s)
	PZ	0.038	1.5
	ORV	eP	03 04 12.7
	WDC	e	03 04 18.7

USGS 02h51m45.7s 25.0S 64.8W
h=13km mb=5.6 Ms=4.9
Salta Province, Argentina

Dec 14	MHC	eP	04 14 48.3
	FRI	eP	04 14 52.2
	JAS1	ePc	04 14 53.0
	WDC	eP	04 14 56.1

USGS 04h01m58.6s 33.2S 179.1W
h=33km mb=4.8 Ms=5.3
South of Kermadec Islands

Dec 14	JAS1	eP	07 00 25.7
		ePKiKP	07 04 24.2
		ePKKP	07 16 02.2
	FRI	eP	07 00 34.4
		ePKKP	07 16 59.6
	WDC	e	07 04 24.5
		ePKKP	07 16 26.1
	BKS	eSKS	07 11 06
		ePKKS	07 19 40
		eLq	07 28 50
		eLr	07 33 10
		AMP(µm)	PER(s)
		LZ	3.2 20.
		LN	1.1 20.
		LE	2.9 20.
	MNA	ePKKP	07 15 58.8
	ORV	ePKKP	07 16 23.5

USGS 06h46m11.7s 3.7N 126.6E
h=22km mb=5.8 Ms=6.1
Taluad Islands

Dec 14	WDC	eP	12 07 51.9
	ORV	eP	12 07 56.5
	JAS1	eP	12 08 02.0
	FRI	eP	12 08 02.0
	MNA	eP	12 08 08.5
	BKS	e	12 35 40
		eLq	13 01 50

USGS 11h54m50.5s 3.6S 151.0E
h=5km mb=5.2
New Ireland Region

Dec 14	WDC	ePKP	18 32 33.3
	ORV	ePKP	18 32 36.8
	MNA	ePKP	18 32 40.0
	FRI	ePKP	18 32 40.2
	JAS1	ePKP	18 32 40.5

USGS 18h13m31.5s 14.7N 58.0E
h=10km mb=5.5 Ms=5.3
Arabian Sea

Dec 14	MNA	eP	21 13 00.3
	FRI	e	21 13 06.0
	JAS1	eP	21 13 13.0
	ORV	e	21 13 20.5
	WDC	e	21 13 26.2

USGS 21h04m45.9s 20.1N 70.5W
h=33km mb=4.6 Ms=4.1
Dominican Republic Region

Dec 14	PRI	iPd	22 41 46.3
	LLA	iPd	22 41 56.4
		iS	22 42 04.5
	PRS	iPc	22 41 56.5
	SAO	ePc	22 42 01.4
	FRI	ePd	22 42 05.6
		iS	22 42 19.4
	GCC	eP	22 42 09.3
	MHC	eP	22 42 11.3
	JAS1	eP	22 42 16.0
		i	22 42 37.5
	PCC	e	22 42 17.8
	BKS	iPc	22 42 23.1
		e	22 42 59.9
	MNA	e	22 42 39.0
	ORV	e	22 42 41.5

BRK 22h41m44.3s 36.1N 120.6W
h=5km ML=3.0(4)
Peachtree Valley, 30 km WSW of Coalinga, CA

Dec 15	FHC	iPd	12 43 42.5
		i	12 43 49.8
		i	12 43 51.0
		i	12 43 52.7
	WDC	ePc	12 43 54.7
		i	12 44 09.3
		e	12 44 12.4
	MIN	eP	12 44 04.1
		i	12 44 05.8
	ORV	eP	12 44 07.8
		i	12 44 08.9

BRK 12h43m32.6s 40.3N 124.3W
h=12kmR ML=2.8(4)
60 km WSW of Eureka, CA

Dec 15	FHC	eP	12 46 32.0
	PRI	eP	12 46 41.2
	WDC	ePc	12 46 42.7
	MIN	eP	12 46 49.8
	ORV	eP	12 46 59.6
	JAS1	e	12 47 25.9
	FRI	e	12 47 36.0

USGS 12h43m31.3s 50.9N 134.5W
h=10km mb=4.7

West of Vancouver Island

Dec 16	MNA	ePd	02 52 05.0
		e	02 52 15.2
		i	02 52 38.1
	FRI	ePd	02 52 05.2
	PRI	eP	02 52 07.9
	LLA	eP	02 52 10.9
	JAS1	eP	02 52 13.8
		e	02 53 08.0
		ePcP	02 54 15
	MHC	eP	02 52 18.6
		i	02 52 55.8
	GCC	eP	02 52 19.8
	PCC	eP	02 52 21.6
	BKS	eP	02 52 24.5
		i	02 52 34.5
		i	02 53 06
		e	02 53 28
		eS	02 58 48
		eScS	03 02 04
		eLq	03 02 14
		eLr	03 05 08
		AMP(µm)	PER(s)
	PZ	0.028	1.1
	LZ	21	20.
	LN	7.1	20.
	LE	18	20.
	BRK	e(P)	02 52 25
	ORV	ePd	02 52 26.9
	MIN	ePd	02 52 30.1
	WDC	eP	02 52 33.7
		e	02 53 06.0
	FHC	eP	02 52 45.3
		e	02 52 55.5
		e	02 53 17.4

BRK Ms=6.1 Distance=47°
USGS 02h44m36.0s 11.7N 85.8W
h=22km mb=5.9 Ms=6.0
Nicaragua

Dec 16	FHC	iPc	06 07 06.3
		eS	06 07 36.5
	WDC	iPd	06 07 22.7
		iS	06 08 06.0
	MIN	ePc	06 07 32.1
		i	06 07 34.1
		eS	06 08 22.8
	ORV	eP	06 07 35.7
	ZSP	ePc	06 07 37.9
	BRK	ePd	06 07 38.2
	BKS	iPd	06 07 38.7
		e	06 08 36.8
	PCC	iPd	06 07 40.2
		e	06 08 34.1
		iS	06 08 36.5
	GCC	eP	06 07 47.5
	MHC	eP	06 07 47.9
	SAO	eP	06 07 54.2
	JAS1	eP	06 07 57.8
	PRS	eP	06 07 59.0
	LLA	ePd	06 08 00.2
	PRI	eP	06 08 07.5
	FRI	ePc	06 08 09.1

BRK 06h06m25.3s 40.7N 127.5W
h=5kmR ML=4.1(8)
Off Coast, 300 km W of Eureka, CA

Dec 16	MHC	iPc	06 39 40.4
	GCC	iPd	06 39 46.1
	PCC	ePd	06 39 47.1
	BRK	ePc	06 39 49.2
	BKS	iPc	06 39 49.2
		e	06 39 56.9
	ZSP	iPd	06 39 50.75
	SAO	ePc	06 39 51.5
	LLA	iPc	06 39 56.5
	PRS	iPd	06 39 58.5
	JAS1	iPd	06 39 59.2
		iS	06 40 15.5
	PRI	e(P)c	06 40 04.9
	FRI	ePc	06 40 07.0
	ORV	e	06 40 19

BRK 06h39m37.7s 37.4N 121.8W
h=4km ML=2.5(4) Mo=9.9E19(2)
Calaveras Reservoir, 15 km NE of San Jose, CA

Dec 16	MHC	e	08 15 43.8
	PRI	e	08 15 44.5
	WDC	e	08 15 46
	ORV	eP	08 15 47.6
	MIN	ePc	08 15 48.2
	JAS1	e	08 15 50
	FRI	e	08 15 51.9
	MNA	ePc	08 15 58.1

USGS 08h03m09.9s 14.2S 166.2E
h=33km mb=5.6
Vanuatu Islands

Dec 16	BKS	iPd	08 16 36
		ePcP	08 16 42.3
		e	08 16 49.7
		i	08 16 54
		i	08 17 03.4
		iPP	08 19 58
		i	08 22 32
		i	08 26 38
		i	08 27 04
		eS	08 27 06
		ePS	08 27 32
		iPPS	08 28 06
		e	08 31 44
		eSS	08 32 28
		i	08 33 04
		eSSS	08 36 04
		e	08 37 50
		eLq	08 38 06
		e	08 39 20
		e	08 40 10
		eLr	08 42 04
		AMP(µm)	PER(s)
	PZ	0.062	0.9
	LZ	67	20.
	LNE	52	20.
	LNW	15	20.
	GCC	ePc	08 16 36.6
	PCC	ePc	08 16 36.8
		e	08 16 50.8
	BRK	ePc	08 16 38.3
		ePcP	08 16 42.2
	FHC	e(P)	08 16 38.5
	SAO	ePc	08 16 39.0
	PRS	ePc	08 16 39.0
		iPcP	08 16 43.0
	MHC	ePc	08 16 39.8
		ePcP	08 16 43.9
		e	08 16 53.7
		e	08 17 04.2
	LLA	eP	08 16 41.0
	PRI	ePc	08 16 41.5
		ePcP	08 16 45.7
		e	08 16 55.7
		e	08 17 06.4
	WDC	ePc	08 16 42.2
		i	08 16 56.4
		ePcP	08 16 43.8
		i	08 16 47.6
		i	08 16 57.8
		i	08 17 08.4
		ePKPPKP	08 42 57
	MIN	iPc	08 16 44.8
	JAS1	iPc	08 16 44.8
		iPcP	08 16 48.7
		i	08 17 09.5
		e	08 18 54.0
		ePKPPKP	08 42 54.7
	FRI	ePc	08 16 45.9
		iPcP	08 16 49.9
		i	08 16 59.9
		i	08 17 10.4
	MNA	ePc	08 16 54.2
		ePcP	08 17 06.8
		e	08 19 00.8
		ePKPPKP	08 42 52.2

BRK Ms=6.8 Distance=84°
USGS 08h04m07.0s 14.1S 166.3E
h=37km mb=6.0 Ms=6.7
Vanuatu Islands

Dec 16	FRI	e(P)	14 54 14
	MNA	iP	14 54 15.2
	PRI	ePd	14 54 15.3
	LLA	eP	14 54 17.6
	PRS	eP	14 54 18.2
	JAS1	eP	14 54 20.4
	GCC	eP	14 54 22.9
	MHC	eP	14 54 23.0
	PCC	eP	14 54 25.5
	ORV	ePd	14 54 30.0
	MIN	ePd	14 54 31.9
	WDC	iPd	14 54 35.1
	FHC	eP	14 54 42.4

USGS 14h42m44.4s 21.4S 67.7W
h=171km mb=5.2
Chile-Bolivia Border Region

Dec 17	MNA	ePKP	01 09 58.9
		e	01 10 08.7
	FRI	ePKP	01 09 58.9
		e	01 10 08.7
	JAS1	ePKP	01 09 59
		i	01 10 08.7
		e	01 10 21.9

USGS 00h49m44.9s 36.0S 53.5E
h=10km mb=5.4 Ms=5.3
South Indian Ocean

Dec 17	GCC	eP	21 53 18.5
	PRS	ePd	21 53 18.6
	SAO	eP	21 53 19.1
	PRI	ePd	21 53 20.7
	LLA	e	21 53 21
	MHC	eP	21 53 21.1
	FRI	eP	21 53 26.0
	JAS1	iPd	21 53 26.7
	ORV	iPd	21 53 28.3
	WDC	iPd	21 53 28.9
	MNA	ePd	21 53 36.1

USGS 21h41m39.7s 21.8S 176.6W
h=195km mb=5.2
Fiji Islands Region

Dec 18	MNA	eP	22 45 33.6
	FRI	iPcP	22 45 35.3
	PRI	ePcP	22 45 39
	LLA	e	22 45 41.3
	JAS1	eP	22 45 42.7
	PRS	eP	22 45 43.1

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DATE	STA	PHASE	TIME (UTC)
	MIN	eP	07 46 38.7
	ORV	eP	07 46 46.8
	MNA	eP	07 47 01.4
	JAS1	eP	07 47 01.6
	MHC	eP	07 47 04.4
	GCC	eP	07 47 08.4
	FRI	eP	07 47 12.2
	LLA	eP	07 47 13.3
	PAS	e	07 47 15
	PRI	eP	07 47 29.4
USGS 07hr1m45.0s 62.0N 123.0W			
h=10km mb=4.7			
Northwest Territories, Canada			
Dec 25	GCC	eP	02 48 07.4
	PAS	eP	02 48 08.7
	SAO	ePg	02 48 08.8
	BRK	eP	02 48 09.3
	MHC	eP	02 48 10.6
	LLA	eP	02 48 10.8
	PRI	eP	02 48 11.3
	WOC	ePg	02 48 13.3
	ORV	eP	02 48 14.4
	JAS1	iPg	02 48 15.3
	FRI	ePg	02 48 15.9
	MNA	ePg	02 48 25.0
	BKS	eS/	03 13 00.0
		AMP(ns)	PER(s)
	LZ	2.1	20.
	LR	1.3	20.
	LE	2.0	20.
USGS 06h35m51.0s 14.1S 173.0E			
h=33km mb=5.4 Ms=5.6			
Vanuatu Islands Region			
Dec 25	PAS	eP	03 13 17.2
	GCC	eP	03 13 17.3
	PCC	ePg	03 13 17.4
	SAO	ePg	03 13 17.9
	BRK	eP	03 13 18.4
	FRI	eP	03 13 18.4
	SAO	ePg	03 13 18.8
	JAS1	iPg	03 13 19.1
	LLA	ePg	03 13 19.5
	MHC	ePg	03 13 19.9
	PCC	ePg	03 13 20.4
	BRK	eS	03 13 33.5
		AMP(ns)	PER(s)
		PZ 0.322	0.9
	ORV	iPg	03 13 33.3
	MIN	ePg	03 13 34.1
	WOC	ePg	03 13 34.2
	FRI	eS	03 13 34.5
	PAS	eS	03 13 34.6
	MNA	eS	03 13 34.8
	JAS1	eS	03 13 35.1
	LLA	eS	03 13 35.2
	MHC	eS	03 13 35.3
	SAO	eS	03 13 35.4
	ORV	eS	03 13 35.5
	MIN	eS	03 13 35.6
	WOC	eS	03 13 35.7
	PCC	eS	03 13 35.8
	PAS	eS	03 13 36.0
	BRK	eS	03 13 36.1
	FRI	eS	03 13 36.2
	SAO	eS	03 13 36.3
	JAS1	eS	03 13 36.4
	LLA	eS	03 13 36.5
	MHC	eS	03 13 36.6
	PCC	eS	03 13 36.7
	BRK	eS	03 13 36.8
	FRI	eS	03 13 36.9
	SAO	eS	03 13 37.0
	JAS1	eS	03 13 37.1
	LLA	eS	03 13 37.2
	MHC	eS	03 13 37.3
	PCC	eS	03 13 37.4
	BRK	eS	03 13 37.5
	FRI	eS	03 13 37.6
	SAO	eS	03 13 37.7
	JAS1	eS	03 13 37.8
	LLA	eS	03 13 37.9
	MHC	eS	03 13 38.0
	PCC	eS	03 13 38.1
	BRK	eS	03 13 38.2
	FRI	eS	03 13 38.3
	SAO	eS	03 13 38.4
	JAS1	eS	03 13 38.5
	LLA	eS	03 13 38.6
	MHC	eS	03 13 38.7
	PCC	eS	03 13 38.8
	BRK	eS	03 13 38.9
	FRI	eS	03 13 39.0
	SAO	eS	03 13 39.1
	JAS1	eS	03 13 39.2
	LLA	eS	03 13 39.3
	MHC	eS	03 13 39.4
	PCC	eS	03 13 39.5
	BRK	eS	03 13 39.6
	FRI	eS	03 13 39.7
	SAO	eS	03 13 39.8
	JAS1	eS	03 13 39.9
	LLA	eS	03 13 40.0
	MHC	eS	03 13 40.1
	PCC	eS	03 13 40.2
	BRK	eS	03 13 40.3
	FRI	eS	03 13 40.4
	SAO	eS	03 13 40.5
	JAS1	eS	03 13 40.6
	LLA	eS	03 13 40.7
	MHC	eS	03 13 40.8
	PCC	eS	03 13 40.9
	BRK	eS	03 13 41.0
	FRI	eS	03 13 41.1
	SAO	eS	03 13 41.2
	JAS1	eS	03 13 41.3
	LLA	eS	03 13 41.4
	MHC	eS	03 13 41.5
	PCC	eS	03 13 41.6
	BRK	eS	03 13 41.7
	FRI	eS	03 13 41.8
	SAO	eS	03 13 41.9
	JAS1	eS	03 13 42.0
	LLA	eS	03 13 42.1
	MHC	eS	03 13 42.2
	PCC	eS	03 13 42.3
	BRK	eS	03 13 42.4
	FRI	eS	03 13 42.5
	SAO	eS	03 13 42.6
	JAS1	eS	03 13 42.7
	LLA	eS	03 13 42.8
	MHC	eS	03 13 42.9
	PCC	eS	03 13 43.0
	BRK	eS	03 13 43.1
	FRI	eS	03 13 43.2
	SAO	eS	03 13 43.3
	JAS1	eS	03 13 43.4
	LLA	eS	03 13 43.5
	MHC	eS	03 13 43.6
	PCC	eS	03 13 43.7
	BRK	eS	03 13 43.8
	FRI	eS	03 13 43.9
	SAO	eS	03 13 44.0
	JAS1	eS	03 13 44.1
	LLA	eS	03 13 44.2
	MHC	eS	03 13 44.3
	PCC	eS	03 13 44.4
	BRK	eS	03 13 44.5
	FRI	eS	03 13 44.6
	SAO	eS	03 13 44.7
	JAS1	eS	03 13 44.8
	LLA	eS	03 13 44.9
	MHC	eS	03 13 45.0
	PCC	eS	03 13 45.1
	BRK	eS	03 13 45.2
	FRI	eS	03 13 45.3
	SAO	eS	03 13 45.4
	JAS1	eS	03 13 45.5
	LLA	eS	03 13 45.6
	MHC	eS	03 13 45.7
	PCC	eS	03 13 45.8
	BRK	eS	03 13 45.9
	FRI	eS	03 13 46.0
	SAO	eS	03 13 46.1
	JAS1	eS	03 13 46.2
	LLA	eS	03 13 46.3
	MHC	eS	03 13 46.4
	PCC	eS	03 13 46.5
	BRK	eS	03 13 46.6
	FRI	eS	03 13 46.7
	SAO	eS	03 13 46.8
	JAS1	eS	03 13 46.9
	LLA	eS	03 13 47.0
	MHC	eS	03 13 47.1
	PCC	eS	03 13 47.2
	BRK	eS	03 13 47.3
	FRI	eS	03 13 47.4
	SAO	eS	03 13 47.5
	JAS1	eS	03 13 47.6
	LLA	eS	03 13 47.7
	MHC	eS	03 13 47.8
	PCC	eS	03 13 47.9
	BRK	eS	03 13 48.0
	FRI	eS	03 13 48.1
	SAO	eS	03 13 48.2
	JAS1	eS	03 13 48.3
	LLA	eS	03 13 48.4
	MHC	eS	03 13 48.5
	PCC	eS	03 13 48.6
	BRK	eS	03 13 48.7
	FRI	eS	03 13 48.8
	SAO	eS	03 13 48.9
	JAS1	eS	03 13 49.0
	LLA	eS	03 13 49.1
	MHC	eS	03 13 49.2
	PCC	eS	03 13 49.3
	BRK	eS	03 13 49.4
	FRI	eS	03 13 49.5
	SAO	eS	03 13 49.6
	JAS1	eS	03 13 49.7
	LLA	eS	03 13 49.8
	MHC	eS	03 13 49.9
	PCC	eS	03 13 50.0
	BRK	eS	03 13 50.1
	FRI	eS	03 13 50.2
	SAO	eS	03 13 50.3
	JAS1	eS	03 13 50.4
	LLA	eS	03 13 50.5
	MHC	eS	03 13 50.6
	PCC	eS	03 13 50.7
	BRK	eS	03 13 50.8
	FRI	eS	03 13 50.9
	SAO	eS	03 13 51.0
	JAS1	eS	03 13 51.1
	LLA	eS	03 13 51.2
	MHC	eS	03 13 51.3
	PCC	eS	03 13 51.4
	BRK	eS	03 13 51.5
	FRI	eS	03 13 51.6
	SAO	eS	03 13 51.7
	JAS1	eS	03 13 51.8
	LLA	eS	03 13 51.9
	MHC	eS	03 13 52.0
	PCC	eS	03 13 52.1
	BRK	eS	03 13 52.2
	FRI	eS	03 13 52.3
	SAO	eS	03 13 52.4
	JAS1	eS	03 13 52.5
	LLA	eS	03 13 52.6
	MHC	eS	03 13 52.7
	PCC	eS	03 13 52.8
	BRK	eS	03 13 52.9
	FRI	eS	03 13 53.0
	SAO	eS	03 13 53.1
	JAS1	eS	03 13 53.2
	LLA	eS	03 13 53.3
	MHC	eS	03 13 53.4
	PCC	eS	03 13 53.5
	BRK	eS	03 13 53.6
	FRI	eS	03 13 53.7
	SAO	eS	03 13 53.8
	JAS1	eS	03 13 53.9
	LLA	eS	03 13 54.0
	MHC	eS	03 13 54.1
	PCC	eS	03 13 54.2
	BRK	eS	03 13 54.3
	FRI	eS	03 13 54.4
	SAO	eS	03 13 54.5
	JAS1	eS	03 13 54.6
	LLA	eS	03 13 54.7
	MHC	eS	03 13 54.8
	PCC	eS	03 13 54.9
	BRK	eS	03 13 55.0
	FRI	eS	03 13 55.1
	SAO	eS	03 13 55.2
	JAS1	eS	03 13 55.3
	LLA	eS	03 13 55.4
	MHC	eS	03 13 55.5
	PCC	eS	03 13 55.6
	BRK	eS	03 13 55.7
	FRI	eS	03 13 55.8
	SAO	eS	03 13 55.9
	JAS1	eS	03 13 56.0
	LLA	eS	03 13 56.1
	MHC	eS	03 13 56.2
	PCC	eS	03 13 56.3
	BRK	eS	03 13 56.4
	FRI	eS	03 13 56.5
	SAO	eS	03 13 56.6
	JAS1	eS	03 13 56.7
	LLA	eS	03 13 56.8
	MHC	eS	03 13 56.9
	PCC	eS	03 13 57.0
	BRK	eS	03 13 57.1
	FRI	eS	03 13 57.2
	SAO	eS	03 13 57.3
	JAS1	eS	03 13 57.4
	LLA	eS	03 13 57.5
	MHC	eS	03 13 57.6
	PCC	eS	03 13 57.7
	BRK	eS	03 13 57.8
	FRI	eS	03 13 57.9
	SAO	eS	03 13 58.0
	JAS1	eS	03 13 58.1
	LLA	eS	03 13 58.2
	MHC	eS	03 13 58.3
	PCC	eS	03 13 58.4
	BRK	eS	03 13 58.5
	FRI	eS	03 13 58.6
	SAO	eS	03 13 58.7
	JAS1	eS	03 13 58.8
	LLA	eS	03 13 58.9
	MHC	eS	03 13 59.0
	PCC	eS	03 13 59.1
	BRK	eS	03 13 59.2
	FRI	eS	03 13 59.3
	SAO	eS	03 13 59.4
	JAS1	eS	03 13 59.5
	LLA	eS	03 13 59.6
	MHC	eS	03 13 59.7
	PCC	eS	03 13 59.8
	BRK	eS	03 13 59.9
	FRI	eS	03 13 60.0
	SAO	eS	03 14 00.1
	JAS1	eS	03 14 00.2
	LLA	eS	03 14 00.3
	MHC	eS	03 14 00.4
	PCC	eS	03 14 00.5
	BRK	eS	03 14 00.6
	FRI	eS	03 14 00.7
	SAO	eS	03 14 00.8
	JAS1	eS	03 14 00.9
	LLA	eS	03 14 01.0
	MHC	eS	03 14 01.1
	PCC	eS	03 14 01.2
	BRK	eS	03 14 01.3
	FRI	eS	03 14 01.4
	SAO	eS	03 14 01.5
	JAS1	eS	03 14 01.6
	LLA	eS	03 14 01.7
	MHC	eS	03 14 01.8
	PCC	eS	03 14 01.9
	BRK	eS	03 14 02.0
	FRI	eS	03 14 02.1
	SAO	eS	03 14 02.2
	JAS1	eS	03 14 02.3
	LLA	eS	03 14 02.4
	MHC	eS	03 14 02.5
	PCC	eS	03 14 02.6
	BRK	eS	03 14 02.7
	FRI	eS	03 14 02.8
	SAO	eS	03 14 02.9
	JAS1	eS	03 14 03.0
	LLA	eS	03 14 03.1
	MHC	eS	03 14 03.2
	PCC	eS	03 14 03.3
	BRK	eS	03 14 03.4
	FRI	eS	03 14 03.5
	SAO	eS	03 14 03.6
	JAS1	eS	03 14 03.7
	LLA	eS	03 14 03.8
	MHC	eS	03 14 03.9
	PCC	eS	03 14 04.0
	BRK	eS	03 14 04.1
	FRI	eS	03 14 04.2
	SAO	eS	03 14 04.3
	JAS1	eS	03 14 04.4
	LLA	eS	03 14 04.5
	MHC	eS	03 14 04.6
	PCC	eS	03 14 04.7
	BRK	eS	03 14 04.8
	FRI	eS	03 14 04.9
	SAO	eS	03 14 05.0
	JAS1	eS	03 14 05.1
	LLA	eS	03 14 05.2
	MHC	eS	03 14 05.3
	PCC	eS	03 14 05.4
	BRK	eS	03 14 05.5
	FRI	eS	03 14 05.6
	SAO	eS	03 14 05.7
	JAS1	eS	03 14 05.8
	LLA	eS	03 14 05.9
	MHC	eS	03 14 06.0
	PCC	eS	03 14 06.1
	BRK	eS	03 14 06.2
	FRI	eS	03 14 06.3
	SAO	eS	03 14 06.4
	JAS1	eS	03 14 06.5
	LLA	eS	03 14 06.6
	MHC	eS	03 14 06.7
	PCC	eS	03 14 06.8
	BRK	eS	03 14 06.9
	FRI	eS	03 14 07.0
	SAO	eS	03 14 07.1
	JAS1	eS	03 14 07.2
	LLA	eS	03 14 07.3
	MHC	eS	03 14 07.4
	PCC	eS	03 14 07.5
	BRK	eS	03 14 07.6
	FRI	eS	03 14 07.7
	SAO	eS	03 14 07.8
	JAS1	eS	03 14 07.9
	LLA	eS	03 14 08.0
	MHC	eS	03 14 08.1
	PCC	eS	03 14 08.2
	BRK	eS	03 14 08.3
	FRI	eS	03 14 08.4
	SAO	eS	03 14 08.5
	JAS1	eS	03 14 08.6
	LLA	eS	03 14 08.7
	MHC	eS	03 14 08.8
	PCC	eS	03 14 08.9
	BRK	eS	03 14 09.0
	FRI	eS	03 14 09.1
	SAO	eS	03 14 09.2
	JAS1	eS	03 14 09.3
	LLA	eS	03 14 09.4
	MHC	eS	03 14 09.5
	PCC	eS	03 14 09.6
	BRK	eS	03 14 09.7
	FRI	eS	03 14 09.8
	SAO	eS	03 14 09.9
	JAS1	eS	03 14 10.0
	LLA	eS	03 14 10.1
	MHC	eS	03 14 10.2
	PCC	eS	03 14 10.3
	BRK	eS	03 14 10.4
	FRI	eS	03 14 10.5
	SAO	eS	03 14 10.6
	JAS1	eS	03 14 10.7
	LLA	eS	03 14 10.8
	MHC	eS	03 14 10.9
	PCC	eS	03 14 11.0
	BRK	eS	03 14 11.1
	FRI	eS	03 14 11.2
	SAO	eS	03 14 11.3
	JAS1	eS	03 14 11.4
	LLA	eS	03 14 11.5
	MHC	eS	03 14 11.6
	PCC	eS	03 14 11.7
	BRK	eS	03 14 11.8
	FRI	eS	03 14 11.9
	SAO	eS	03 14 12.0
	JAS1	eS	03 14 12.1
	LLA	eS	03 14 12.2
	MHC	eS	03 14 12.3
	PCC	eS	03 14 12.4
	BRK	eS	03 14 12.5
	FRI	eS	03 14 12.6
	SAO	eS	03 14 12.7
	JAS1	eS	03 14 12.8
	LLA	eS	03 14 12.9
	MHC	eS	03 14 13.0
	PCC	eS	03 14 13.1
	BRK	eS	03 14 13.2
	FRI	eS	03 14 13.3
	SAO	eS	03 14 13.4
	JAS1	eS	03 14 13.5
	LLA	eS	03 14 13.6
	MHC	eS	03 14 13.7
	PCC	eS	03 14 13.8
	BRK	eS	03 14 13.9
	FRI	eS	03 14 14.0
	SAO	eS	03 14 14.1
	JAS1	eS	03 14 14.2
	LLA	eS	03 14 14.3
	MHC	eS	03 14 14.4
	PCC	eS	03 14 14.5
	BRK	eS	03 14 14.6
	FRI	eS	03 14 14.7
	SAO	eS	03 14 14.8
	JAS1	eS	03 14 14.9
	LLA	eS	03 14 15.0
	MHC	eS	03 14 15.1
	PCC	eS	03 14 15.2
	BRK	eS	03 14 15.3
	FRI	eS	03 14 15.4
	SAO	eS	03 14 15.5
	JAS1	eS	03 14 15.6
	LLA	eS	03 14 15.7
	MHC	eS	03 14 15.8
	PCC	eS	03 14 15.9
	BRK	eS	03 14 16.0
	FRI	eS	03 14 16.1
	SAO	eS	03 14 16.2
	JAS1	eS	03 14 16.3
	LLA	eS	03 14 16.4
	MHC	eS	03 14 16.5
	PCC	eS	03 14 16.6
	BRK	eS	03 14 16.7
	FRI	eS	03 14 16.8
	SAO	eS	03 14 16.9
	JAS1	eS	03 14 17.0
	LLA	eS	03 14 17.1
	MHC	eS	03 14 17.2
	PCC	eS	03 14 17.3
	BRK	eS	03 14 17.4
	FRI	eS	03 14 17.5
	SAO	eS	03 14 17.6
	JAS1	eS	03 14 17.7
	LLA	eS	03 14 17.8
	MHC	eS	03 14 17.9
	PCC	eS	03 14 18.0
	BRK	eS	03 14 18.1
	FRI	eS	03 14 18.2
	SAO	eS	03 14 18.3
	JAS1	eS	03 14 18.4
	LLA	eS	03 14 18.5
	MHC	eS	03 14 18.6
	PCC	eS	03 14 18.7
	BRK	eS	03 14 18.8
	FRI	eS	03 14 18.9
	SAO	eS	03 14 19.0
	JAS1	eS	03 14 19.1
	LLA	eS	03 14 19.2
	MHC	eS	03 14 19.3
	PCC	eS	03 14 19.4
	BRK	eS	03 14 19.5
	FRI	eS	03 14 19.6
	SAO	eS	03 14 19.7
	JAS1	eS	03 14 19.8
	LLA	eS	03 14 19.9
	MHC	eS	03 14 20.0
	PCC	eS	03 14 20.1
	BRK	eS	03 14 20.2
	FRI	eS	03 14 20.3
	SAO	eS	03 14 20.4
	JAS1	eS	03 14 20.5
	LLA	eS	03 14 20.6
	MHC	eS	03 14 20.7
	PCC	eS	03 14 20.8
	BRK	eS	03 14 20.9
	FRI	eS	03 14 21.0
	SAO	eS	03 14 21.1
	JAS1	eS	03 14 21.2
	LLA	eS	03 14 21.3
	MHC	eS	03 14 21.4
	PCC	eS	03 14 21.5
	BRK	eS	03 14 21.6
	FRI	eS	03 14 21.7
	SAO	eS	03 14 21.8
	JAS1	eS	03 14 21.9
	LLA	eS	03 14 22.0
	MHC	eS	03 14 22.1
	PCC	eS	03 14 22.2
	BRK	eS	03 14 22.3
	FRI	eS	03 14 22.4
	SAO	eS	03 14 22.5
	JAS1	eS	03 14 22.6
	LLA	eS	03 14 22.7
	MHC	eS	03 14 22.8
	PCC	eS	03 14 22.9
	BRK	eS	03 14 23.0
	FRI	eS	03 14 23.1
	SAO	eS	03 14 23.2
	JAS1	eS	03 14 23.3
	LLA	eS	03 14 23.4
	MHC	eS	03 14 23.5
	PCC	eS	03 14 23.6
	BRK	eS	03 14 23.7
	FRI	eS	03 14 23.8
	SAO	eS	03 14 23.9
	JAS1	eS	03 14 24.0
	LLA	eS	03 14 24.1
	MHC	eS	03 14 24.2
	PCC	eS	03 14 24.3
	BRK	eS	03 14 24.4
	FRI	eS	03 14 24.5
	SAO	eS	03 14 24.6
	JAS1	eS	03 14 24.7
	LLA	eS	03 14 24.8
	MHC	eS	03 14 24.9
	PCC	eS	03 14 25.0
	BRK	eS	03 14 25.1
	FRI	eS	03 14 25.2
	SAO	eS	03 14 25.3
	JAS1	eS	03 14 25.4
	LLA	eS	03 14 25.5
	MHC	eS	03 14 25.6
	PCC	eS	03 14 25.7
	BRK	eS	03 14 25.8
	FRI	eS	03 14 25.9
	SAO	eS	03 14 26.0
	JAS1	eS	03 14 26.1
	LLA	eS	03 14 26.2
	MHC	eS	03 14 26.3
	PCC	eS	03 14 26.4
	BRK	eS	03 14 26.5
	FRI	eS	03 14 26.6
	SAO	eS	03 14 26.7
	JAS1	eS	03 14 26.8
	LLA	eS	03 14 26.9
	MHC	eS	03 14 27.0
	PCC	eS	03 14 27.1
	BRK	eS	03 14 27.2
	FRI	eS	03 14 27.3
	SAO	eS	03 14 27.4
	JAS1	eS	03 14 27.5
	LLA	eS	03 14 27.6
	MHC	eS	03 14 27.7
	PCC	eS	03 14 27.8
	BRK	eS	03 14 27.9
	FRI	eS	03 14 28.0
	SAO	eS	03 14 28.1
	JAS1	eS	03 14 28.2
	LLA	eS	03 14 28.3
	MHC	eS	03 14 28.4
	PCC	eS	03 14 28.5
	BRK	eS	03 14 28.6
	FRI	eS	03 14 28.7
	SAO	eS	03 14 28.8
	JAS1	eS	03 14 28.9
	LLA	eS	03 14 29.0
	MHC	eS	03 14 29.1
	PCC	eS	03 14 29.2
	BRK	eS	03 14 29.3
	FRI	eS	03 14 29.4
	SAO	eS	03 14 29.5
	JAS1	eS	03 14 29.6
	LLA	eS	03 14 29.7
	MHC	eS	03 14 29.8
	PCC	eS	03 14 29.9
	BRK	eS	03 14 30.0
	FRI	eS	03 14 30.1
	SAO	eS	03 14 30.2
	JAS1	eS	03 14 30.3
	LLA	eS	03 14 30.4
	MHC	eS	03 14 30.5
	PCC	eS	03 14 30.6
	BRK	eS	03 14 30.7
	FRI	eS	03 14 30.8
	SAO	eS	03 14 30.9
	JAS1	eS	03 14 31.0
	LLA	eS	03 14 31.1
	MHC	eS	03 14 31.2
	PCC	eS	03 14 31.3
	BRK	eS	03 14 31.4
	FRI	eS	03 14 31.5
	SAO	eS	03 14 31.6
	JAS1	eS	03 14 31.7
	LLA	eS	03 14 31.8
	MHC	eS	03 14 31.9
	PCC	eS	03 14 32.0
	BRK	eS	03 14 32.1
	FRI	eS	03 14 32.2
	SAO	eS	03 14 32.3
	JAS1	eS	03 14 32.4
	LLA	eS	03 14 32.5
	MHC	eS	03 14 32.6
	PCC	eS	03 14 32.7
	BRK	eS	03 14 32.8
	FRI	eS	03 14 32.9
	SAO	eS	03 14 33.0
	JAS1	eS	03 14 33.1
	LLA	eS	03 14 33.2
	MHC	eS	03 14 33.3
	PCC	eS	03 14 33.4
	BRK	eS	03 14 33.5
	FRI	eS	03 14 33.6
	SAO	eS	03 14 33.7
	JAS1	eS	03 14 33.8
	LLA	eS	03 14 33.9
	MHC	eS	03 14 34.0
	PCC	eS	03 14 34.1
	BRK	eS	03 14 34.2
	FRI	eS	03 14 34.3
	SAO	eS	03 14 34.4
	JAS1	eS	03 14 34.5
	LLA	eS	03 14 34.6
	MHC	eS	03 14 34.7
	PCC	eS	03 14 34.8
	BRK	eS	03 14 34.9
	FRI	eS	03 14 35.0
	SAO	eS	03 14 35.1
	JAS1	eS	03 14 35.2
	LLA	eS	03 14 35.3
	MHC	eS	03 14 35.4
	PCC	eS	03 14 35.5
	BRK	eS	03 14 35.6
	FRI	eS	03 14 35.7
	SAO	eS	03 14 35.8
	JAS1	eS	03 14 35.9
	LLA	eS	03 14 36.0
	MHC	eS	03 14 36.1
	PCC	eS	03 14 36.2
	BRK	eS	03 14 36.3
	FRI	eS	03 14 36.4
	SAO	eS	03 14 36.5
	JAS1	eS	03 14 36.6
	LLA	eS	03 14 36.7
	MHC	eS	03 14 36.8
	PCC	eS	03 14 36.9
	BRK	eS	03 14 37.0
	FRI	eS	03 14 37.1
	SAO	eS	03 14 37.2
	JAS1	eS	03 14 37.3
	LLA	eS	03 14 37.4
	MHC	eS	03 14 37.5
	PCC	eS	03 14 37.6
	BRK	eS	03 14 37.7
	FRI	eS	03 14 37.8
	SAO	eS	03 14 37.9
	JAS1	eS	03 14 38.0
	LLA	eS	03 14 38.1
	MHC	eS	03 14 38.2
	PCC	eS	03 14 38.3
	BRK	eS	03 14 38.4
	FRI	eS	03 14 38.5
	SAO	eS	03 14 38.6
	JAS1	eS	03 14 38.7
	LLA	eS	03 14 38.8
	MHC	eS	03 14 38.9
	PCC	eS	03 14 39.0
	BRK	eS	03 14 39.1
	FRI	eS	03 14 39.2
	SAO	eS	03 14 39.3
	JAS1	eS	03 14 39.4
	LLA	eS	03 14 39.5
	MHC	eS	03 14 39.6
	PCC	eS	03 14 39.7
	BRK	eS	03 14 39.8
	FRI	eS	03 14 39.9
	SAO	eS	03 14 40.0
	JAS1	eS	03 14 40.1
	LLA	eS	03 14 40.2
	MHC	eS	03 14 40.3
	PCC	eS	03 14 40.4
	BRK	eS	03 14 40.5
	FRI	eS	03 14 40.6
	SAO	eS	03 14 40.7
	JAS1	eS	03 14 40.8
	LLA	eS	03 14 40.9
	MHC	eS	03 14 41.0
	PCC	eS	03 14 41.1
	BRK	eS	03 14 41.2
	FRI	eS	03 14 41.3
	SAO	eS	03 14 41.4
	JAS1	eS	03 14 41.5
	LLA	eS	03 14 41.6
	MHC	eS	03 14 41.7
	PCC	eS	03 14 41.8
	BRK	eS	03 14 41.9
	FRI	eS	03 14 42.0
	SAO	eS	03 14 42.1
	JAS1	eS	03 14 42.2
	LLA	eS	03 14 42.3
	MHC	eS	03 14 42.4
	PCC	eS	03 14 42.5
	BRK	eS	03 14 42.6
	FRI	eS	03 14 42.7
	SAO	eS	03 14 42.8
	JAS1	eS	03 14 42.9
	LLA	eS	03 14 43.0
	MHC	eS	03 14 43.1
	PCC	eS	03 14 43.2
	BRK	eS	03 14 43.3
	FRI	eS	03 14 43.4
	SAO	eS	03 14 43.5
	JAS1	eS	03 14 43.6
	LLA	eS	03 14 43.7
	MHC	eS	03 14 43.8
	PCC	eS	03 14 43.9
	BRK	eS	03 14 44.0
	FRI	eS	03 14 44.1
	SAO	eS	03 14 44.2
	JAS1	eS	03 14 44.3
	LLA	eS	03 14 44.4
	MHC	eS	03 14 44.5
	PCC	eS	03 14 44.6
	BRK	eS	03 14 44.7
	FRI	eS	03 14 44.8
	SAO	eS	03 14 44.9
	JAS1	eS	03 14 45.0
	LLA	eS	03 14 45.1
	MHC	eS	03 14 45.2
	PCC	eS	03 14 45.3
	BRK	eS	03 14 45.4
	FRI	eS	03 14 45.5
	SAO	eS	03 14 45.6
	JAS1	eS	03 14 45.7
	LLA	eS	03 14 45.8
	MHC	eS	03 14 45.9
	PCC	eS	03 14 46.0
	BRK	eS	03 14 46.1
	FRI	eS	03 14 46.2
	SAO	eS	03 14 46.3
	JAS1	eS	03 14 46.4
	LLA	eS	03 14 46.5
	MHC	eS	03 14 46.6
	PCC	eS	03 14 46.7
	BRK	eS	03 14 46.8
	FRI	eS	03 14 46.9
	SAO	eS	03 14 47.0
	JAS1	eS	03 14 47.1
	LLA	eS	03 14 47.2
	MHC	eS	03 14 47.3
	PCC

DATE	STA	PHASE	TIME (UTC)
	MHC	e	06 58 21.7
	LLA	e	06 58 22.8
	PRS	e	06 58 22.9
	FRI	ePKP	06 58 23.5
	PRI	ePKP	06 58 23.9
	MNA	ePKP	06 59 28.4

USGS 06h39m14.5s 5.9S 104.2E
h=33km mb=5.3 Ms=5.2
Southern Sumatera

Dec 30	PRI	iPc	04 55 02.5
		iS	04 55 18.4
	PRS	iPc	04 55 09.5
		iS	04 55 29.0
	LLA	ePc	04 55 10.4
	FRI	iPc	04 55 11.5
		iS	04 55 29.1
	SAO	iPd	04 55 14.4
	GCC	ePd	04 55 20.9
	MHC	e	04 55 24.5
	JAS1	iPc	04 55 25.6
		iS	04 55 55.2

BRK 04h54m45.9s 35.4N 120.0W
h=9km ML=3.1(2)
60 km WNW of San Luis Obispo, CA

Dec 30	BKS	eP	11 26 9.8	
		eLg	11 50 16	
		eLr	11 55 06	
			AMP(nm)	PER(s)
		PZ	0.038	0.8
	FHC	e	11 26 05.6	
	WDC	ePc	11 26 08.5	
	MHC	e	11 26 10.6	
	MIN	eP	11 26 11.0	
	PRS	e	11 26 11.2	
	ORV	ePc	11 26 11.3	
	LLA	e	11 26 12.8	
	JAS1	ePc	11 26 14.9	
	FRI	eP	11 26 17.2	
	MNA	eP	11 26 23.5	

USGS 11h13m14.8s 5.5S 150.7E
h=113km mb=5.9
New Britain Region

Dec 30	FHC	eP	12 46 34.9
	WDC	iPd	12 46 41.0
	MIN	iPd	12 46 45.7
	ORV	iPd	12 46 51.4
	BRK	eP	12 47 03.1
	BKS	iP	12 47 03.3
			AMP(nm) PER(s)
		PZ	0.29 1.2
	JAS1	iPd	12 47 08.6
	MHC	eP	12 47 09.3
	GCC	e	12 47 09.8
	MNA	iPd	12 47 12.8
	SAO	eP	12 47 13.8
	LLA	eP	12 47 17.7
	PRS	eP	12 47 17.9
	FRI	iPd	12 47 18.0
	PRI	iPd	12 47 22.5

USGS 12h41m02.7s 61.5N 150.3W
h=62km mb=5.5
Southern Alaska

Dec 30	WDC	eP	19 00 00.1
	MIN	ePd	19 00 03.5
	ORV	eP	19 00 12.4
	MNA	ePd	19 00 28.1
	JAS1	eP	19 00 28.4

USGS 18h55m08.7s 62.1N 124.1W
h=10km mb=4.8

DATE	STA	PHASE	TIME (UTC)

Northwest Territories, Canada

Dec 31	WDC	iPd	06 19 50.8
		iS	06 19 55.2
	MIN	iPd	06 19 54.6
		iS	06 20 01.8
	ORV	eP	06 20 06.5

BRK 06h19m45.6s 40.6N 122.2W
h=10km ML=3.2(2) Mo=5.7E20(2)
20 km E of Redding, CA

Dec 31	JAS1	e	07 07 49.9
	FRI	e(P)	07 07 54.2
	LLA	e	07 07 57
	BKS	eLr	07 34 08

USGS 06h57m17.6s 73.4N 6.8E
h=10km mb=4.8 Ms=5.0
Greenland Sea

Dec 31	GCC	iPd	14 16 10.8
	PCC	iPd	14 16 10.9
	PRS	ePd	14 16 10.9
	SAO	eP	14 16 11.8
	BRK	iPd	14 16 13.0
	PRI	ePd	14 16 13.2
		epP	14 16 18.9
	LLA	iPd	14 16 13.4
	BKS	iP	14 16 13.4
		eLr	14 37 56
			AMP(nm) PER(s)
		PZ	0.22 1.1
	MHC	iPd	14 16 13.7
		epP	14 16 17.7
		e	14 16 36.5
	FHC	iPd	14 16 18.5
	FRI	iPd	14 16 19.0
		epP	14 16 24.4
		e	14 16 41.3
		e	14 16 45.6
	JAS1	iPd	14 16 19.6
		e	14 16 42.1
	ORV	iPd	14 16 21.3
	WDC	iPd	14 16 21.8
	MIN	ePd	14 16 23.6
		epP	14 16 29.5
	MNA	iPd	14 16 30.0
		epP	14 16 34.6
		e	14 16 52.9

USGS 14h04m43.6s 17.0S 173.5W
h=16km mb=5.8 Ms=5.0
Tonga Islands

Dec 31	FRI	iPc	20 08 20.9
	MNA	iPd	20 08 22.8
		iS	20 08 35.5
	JAS1	iPc	20 08 29.6
		iS	20 08 48.5
	PRI	eP	20 08 39.4
	LLA	eP	20 08 38.7
	SAO	eP	20 08 43.1
	MHC	eP	20 08 43.4
	PRS	eP	20 08 44.3
	PCC	e(P)	20 08 50.5
	BKS	ePn	20 08 51.3
		eP*	20 08 58.0
		ePg	20 09 05.4
		eS	20 09 32.2
	ORV	ePd	20 08 52.4
	MIN	e	20 09 02
	WDC	e	20 09 10.8

BRK 20h08m03.2s 37.5N 118.6W
h=14km ML=3.7(6)
NW of Bishop, CA

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APPENDIX A - MODIFIED MERCALLI INTENSITY SCALE (1956 VERSION)*

I. Not felt. Marginal and long-period effects of large earthquakes.

II. Felt by persons at rest, on upper floors, or favorably located.

III. Felt indoors. Hanging objects swing. Vibration like passing of light trucks. Duration estimated. May not be recognized as an earthquake.

IV. Hanging objects swing. Vibration like passing of heavy trucks; or sensation of a jolt like a heavy ball striking the walls. Standing cars rock. Windows, dishes, doors rattle. Glasses clink. Crockery clashes. In the upper range of IV, wooden walls and frames creak.

V. Felt outdoors; direction estimated. Sleepers wakened. Liquids disturbed, some spilled. Small unstable objects displaced or upset. Doors swing, close, open. Shutters, pictures move. Pendulum clocks stop, start, change rate.

VI. Felt by all. Many frightened and run outdoors. Persons walk unsteadily. Windows, dishes, glassware broken. Knicknacks, books, etc. off shelves. Pictures off walls. Furniture moved or overturned. Weak plaster and masonry D† cracked. Small bells ring (church, school). Trees, bushes shaken visibly, or heard to rustle.

VII. Difficult to stand. Noticed by drivers. Hanging objects quiver. Furniture broken. Damage to masonry D, including cracks. Weak chimneys broken at roof line. Fall of plaster, loose bricks, stone, tiles, cornices also unbraced parapets and architectural ornaments. Some cracks in masonry C. Waves on ponds, water turbid with mud. Small slides and caving in along sand or gravel banks. Large bells ring. Concrete irrigation ditches damaged.

VIII. Steering of cars affected Damage to masonry C; partial collapse. Some damage to masonry B; none to masonry A. Fall of stucco and some masonry walls. Twisting, fall of chimneys, factory stacks, monuments, towers, elevated tanks. Frame houses moved on foundations if not bolted down; loose panel walls thrown out. Decayed piling broken off. Branches broken from trees. Changes in flow or temperature of springs and wells. Cracks in wet ground ad on steep slopes.

IX. General panic. Masonry D destroyed; masonry C heavily damaged, sometimes with complete collapse; masonry B seriously damaged. General damage to foundations. Frame structures, if not bolted, shifted off foundations. Frames racked. Serious damage to reservoirs. Underground pipes broken. Conspicuous cracks in ground. In alluviated areas sand and mud ejected, earthquake fountains, sand craters.

X. Most masonry and frame structures destroyed with their foundations. Some well-built wooden structures and bridges destroyed. Serious damage to dams, dikes, embankments. Large landslides. Water thrown on banks of canals, rivers, lakes, etc. Sand and mud shifted horizontally on beaches and flat land. Rails bent slightly.

XI. Rails bent greatly. Underground pipelines completely out of service.

XII. Damage nearly total. Large rock masses displaced. Lines of sight and level distorted. Objects thrown into the air.

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* 1956 version prepared by Charles F. Richter, in *Elementary Seismology* , 1958, pp. 137-138. W. H. Freeman and Company.

† Masonry A, B, C, D. To avoid ambiguity of language, the quality of masonry, brick or otherwise, is specified by the following lettering.

Masonry A. Good workmanship, mortar, and design; reinforced, especially laterally, and bound together by using steel, concrete, etc.; designed to resist lateral forces.

Masonry B. Good workmanship and mortar; reinforced, but not designed in detail to resist lateral forces.

Masonry C. Ordinary workmanship and mortar; no extreme weaknesses like failing to tie in at corners, but neither reinforced nor designed against horizontal forces.

Masonry D. Weak materials, such as adobe; poor mortar; low standards of workmanship; weak horizontally.