U. S. DEPARTMENT OF COMMERCE

Henry A. Wallace, Secretary

COAST AND GEODETIC SURVEY

Leo Otis Colbert, Director

SEISMOLOGICAL BULLETIN

MSI - 117

JANUARY, FEBRUARY, MARCH

1944

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DEPARTMENT OF COMMERCE

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Station	Position	Personnel - Instruments	Constants Checked	T_o	V	M	Damping	Time: Scales and Reference Points	Ground motion trace "up"
Balboa Heights: Panama Canal Zone	Log cos. 9.99467 Lat. 8°57'39"N. Long. 79°33'29"W. Elevation 36m.	Wood-Anderson, 2 components NS and EW. G.E. Matthew, Chief Hydrographer, In Charge.		0.8	1370	1.3g	9:1	60mm/min.	N E
Bermuda: Meteorological Station and IUGG.	Log cos. 9.92661 Lat. 32°22.8'N. Long. 64°41.0'W. Elevation 41m.	Milne-Shaw, 2 components NE and NW. M.A. Macky, In Charge.	1940	12	250	1 lb.	20:1	8mm/min. Beginning of time break.	NE NW
Bozeman: Montana State College and USC&GS.	Log cos. 9.84437 Lat. 45°40'01"N. Long. 111°02'43"W. Elevation 1490m.	McComb-Romberg, 2 components NS and EW. A.J.M. Johnson, In Charge; Paul H. Barrett, Observer.	1939	12	270	12.7kg	15:1	15mm/min. Beginning of time break.	N E
Burlington: University of Vermont.	Log cos. 9.85339 Lat. 44°28.8'N. Long. 73°11.8'W. Elevation 100m.	Milne-Shaw, 2 components NE and NW. E.C. Jacobs, In Charge.	1937	12	250	1 lb.	20:1	8mm/min. End of time break.	SW NW
Butte: Montana School of Mines and USC&GS.	Log cos. 9.84167 Lat. 46°00.8'N. Long. 112°33.8'W. Elevation 1758m.	Wood-Anderson, 1 component NS. D.Q. Posin, In Charge, succeeded by S.W. Niles.	1939	6.1	540.	2g	13:1	15mm/min. Beginning of time break.	S
Chicago: University of Chicago, U.S. Weather Bureau and USC&GS.	Log cos. 9.87251 Lat. 41°47.3'N. Long. 87°36.0'W. Elevation 180m.	McComb-Romberg, 2 components NS and EW. O.T. Lay, In Charge; William F. Schmidt, Observer.	1939	10	335	2.6kg	15:1	15mm/min. End of time break.	N W
College: University of Alaska and USC&GS.	Log cos. 9.62819 Lat. 64°51.7'N. Long. 147°49.1'W. Elevation 159m.	McComb-Romberg, 2 components NS and EW. S.L. Seaton, In Charge; Walter H. Rolfe, Observer.	1939	12	140	11kg	10:1	15mm/min. End of time break.	S W

Columbia: University of South Carolina and USC&GS.	Log cos. 9.91857 Lat. 34°00'N. Long. 81°02'W. Elevation 94m.	McComb-Romberg, 2 components NS and EW. S. Taber, In Charge; C.F. Mercer, Observer.	1939		12	75	10kg	10:1	15mm/min. Beginning of time break.	S E
Honolulu: University of Hawaii and USC&GS.	Log cos. 9.96927 Lat. 21°18.1'N. Long. 157°49.3'W. Elevation 25m.	Milne-Shaw, 2 components NS and EW. William D. Patterson, In Charge.	1938		12	150	1 lb.	20:1	30mm/min. Middle of time break.	N E
Huancayo: Carnegie Institution of Washington.	Log cos. 9.99033 Lat. 12°02.7'S. Long. 75°20.4'W. Elevation 3350m.	Wenner, 2 components NS and EW. Benioff vertical P.G. Ledig, In Charge.	1944	T_o T_g T_s	10.0 11.8 10.3 1	1550[1]	500g	20:1	16mm/min. End of time break 60mm/min.	N W
Lincoln: Nebraska Wesleyan University.	Log cos. 9.87886 Lat. 40°50.3'N. Long. 96°39.2'W. Elevation 366m.	McComb-Romberg, 1 component EW E.C. Jensen, In Charge.	1939		8	200	2.5kg	10:1	15mm/min. Beginning of time break.	E
Logan: Utah State Agricultural College.	Log cos. 9.87283 Lat. 41°44.5'N. Long. 111°48.8'W. Elevation 1455m.	Wood-Anderson, 2 components NS and EW.(double reflection) J.S. Williams, In Charge.	1943		6.0	700	2g	14:1	15mm/min. End of time break.	S E
Montezuma: Solar Observatory of the Smithsonian Institution.	Log cos. 9.96525 Lat. 22°37'S. Long. 68°50'W. Elevation 2850m.	Bosch-Omori, 2 components NS and EW. Frederick A. Greeley, In Charge.	1944		19	10	25kg	11:1	15mm/min. Middle of time break.	N E
New Kensington: Private station.	Log cos. 9.88066 Lat. 40°33'35"N. Long. 79°45'15"W. Elevation 251m.	Electronic, 1 component Fred Keller, Sr. - Owner and Operator.	1943	T_g T_s	12 10			0.6:1	1"/min. Beginning of time break.	E
Philadelphia: The Franklin Institute.	Log cos. 9.88452 Lat. 39°57'32"N. Long. 75°10'30"W. Elevation 5m.	Wenner, 2 components NS and EW. Wagner Schlesinger, In Charge.	1939	T_o T_g T_s	12.2 9.4 7.5	1400[1]	500g	20:1	20mm/min. End of time break.	S E

Station	Position	Personnel - Instruments	Constants Checked	T_o	V	M	Damping	Time: Scales and Reference Points	Ground motion trace "up"
Rapid City: South Dakota School of Mines	Log cos. 9.85637 Lat. 44°04.6'N. Long. 103°12.0'W. Elevation 1045m.	Wood-Anderson, 1 component EW. (double reflection) E.L. Tullis, In Charge.	1943	5	590	2g	20:1	15mm/min. End of time break.	E
Salt Lake City University of Utah.	Log cos. 9.87932 Lat. 40°45'55"N. Long. 111°50'54"W. Elevation 1425m.	McComb-Romberg, 2 components NS and EW. A.M. Anderson, In Charge.	1939	10	335	2.6kg	15:1	15mm/min. Beginning of time break.	N W
San Juan: U.S. Coast and Geodetic Survey.	Log cos. 9.97726 Lat. 18°22.9'N. Long. 66°07.1'W. Elevation 80m.	Wenner, 2 components NS and EW. Roger M. Wilson, In Charge.	1943	T_o 10 T_g 15 T_s 10.5	1000	500g	20:1	16mm/min. Beginning of time break.	S E
Seattle: University of Washington.	Log cos. 9.82844 Lat. 47°39' N. Long. 122°18.5'W. Elevation 34m.	Bosch-Omori, 2 components NS and EW. H.A. Coombs, In Charge.	1944	17	10	25kg	20:1	15mm/min. Middle of time break.	N W
Sitka: U.S. Coast and Geodetic Survey.	Log cos. 9.73544 Lat. 57°03'25"N. Long. 135°19'28"W. Elevation 19m.	Wenner, 2 components NS and EW. H.W. Pinckney, In Charge.	1943	T_o 8 T_g 12.8 T_s 8.7	1000[1]	500g	20:1	16mm/min. Beginning of time break.	N W
Tucson: U.S. Coast and Geodetic Survey.	Log cos. 9.92725 Lat. 32°14.8'N. Long. 110°50.1'W. Elevation 770m.	Wood-Anderson, 2 components Benioff vertical J.B. Campbell, In Charge.	1943	10 T_o .98 T_g .741 T_g .236	430	2.3g	30:1 1.0 :1 1.0 :1 .83:1	30mm/min. Beginning of time break. 60mm/min.	S E
Ukiah: International Latitude Observatory and USC&GS.	Log cos. 9.88968 Lat. 39°08' N. Long. 123°13' W. Elevation 199m.	McComb-Romberg, 2 components NW and NE. H.G. Wrocklage, In Charge.	1941	12	75	10kg	10:1	15mm/min. Beginning of time break.	NW NE

[1]Magnification based on relative electrical dynamic constants of old and new type seismograph coils.

NOTATION USED IN INSTRUMENTAL REPORTS OF THE COAST AND GEODETIC SURVEY

Wave groups or phases:

P	Normal first preliminary tremors; longitudinal waves that have passed below the continental layer.
pP	P wave reflected from the surface in epicentral region.
sP	S wave reflected as P wave at the surface in the epicentral region.
P'	Compressional-rarefactional waves which penetrate the core, with the exception of the P'2 waves.
P'2	The first compressional-rarefactional waves or rays, which traverse the core immediately after grazing. The epicentral distances of their points of emergence decrease as the rays dip lower at the earthquake focus. This reversal of the usual order of emergence stops at about 144°. Thereafter, the epicentral distances increase with increasing dip of the rays at the focus, and the waves are known as P'.
PP or PR_1	Longitudinal waves reflected once at the earth's surface.
pPP	P reflected in epicentral region with another reflection midway between the first reflection point and the station.
PPP or PR_2	Longitudinal waves reflected twice at the earth's surface. (Three reflections may occasionally be found).
PcP	Longitudinal waves reflected from the outer surface of the earth's core.
S	Normal second preliminary tremors; transverse waves that have passed below the continental layer.
sS	S wave reflected once in epicentral region.
PS	Waves transformed from longitudinal to transverse oscillation, or vice versa, through one reflection at the earth's surface, being either PS or SP in true character.
PPS	Waves which have traversed two legs of their twice reflected paths as longitudinal and one leg as transverse waves, being PPS, PSP, or SPP in true character since these all have the same travel time.
SS or SR_1	Normal transverse waves reflected once at the earth's surface.
sSS	S wave reflected once in epicentral region with another reflection midway between the first reflection point and the recording station.
SSS or SR_2	Normal transverse waves reflected twice at the earth's surface. (Three reflections may occasionally be found).
ScS	Normal transverse waves reflected from the outer surface of the earth's core.

SKP or ScPcP	Waves which start with transverse vibration but on refraction into the core are changed to longitudinal, or which start as longitudinal and are refracted out as transverse.
SKS or ScPcS	Waves which traverse the mantle at both ends with transverse vibration but are refracted through the core with longitudinal oscillation.
SKKS or ScPcPcS	Waves which traverse the mantle with transverse vibration, are refracted through the core as longitudinal waves, and are reflected internally on its farther side.
L	See Jeffreys' nomenclature on the following page.

Mohorovicic's Nomenclature

$\bar{P}$	Individual or upper first preliminary tremors whose path lies entirely in the continental or upper layer.
$\bar{S}$	Individual or upper second preliminary tremors whose path lies entirely in the continental or upper layer.
$R_i\bar{S}$	Upper second preliminary tremors reflected from the lower boundary of the continental layer.
$R_S\bar{S}$	Upper second preliminary tremors reflected from the upper surface of the continental layer.
$R_{S2}\bar{S}$	Upper second preliminary tremors reflected two times from the upper surface of the continental layer.

Jeffreys' Nomenclature

Pg	Same as $\bar{P}$ of Mohorovicic. The path is entirely in the upper or continental layer.
Sg	Same as $\bar{S}$ of Mohorovicic. The path is entirely in the upper or continental layer.
P*	Upper first preliminary tremor whose path lies along the top of the intermediate layer except for short distances in the surface layer.
S*	Upper second preliminary tremor whose path lies along the top of the intermediate layer except for short distances in the surface layer.
L	Long waves, unidentified, at the beginning of the surface phase or "main phase".
Lq	Surface shear (Love) waves in which the earth particles oscillate in the horizontal plane normal to the direction of propagation.
Lr	Surface (Rayleigh) waves in which the earth particles describe an ellipse in a vertical plane in the line of propagation.
M	Waves of maximum amplitude in the main phase.
$\dot{P}$	End of discernible movement.

Nature of the motion:

i	Impulsive and sharply defined beginning of a phase which can be accurately timed.

e	Poorly defined emergence of a phase.
A	Either (a) amplitude of earth motion measured from the position of equilibrium in microns (1 micron = 1/1000 mm), + toward the north, east, or zenith, - toward the south, west, or nadir; or (b) when so marked, the trace amplitude or half-range of movement of the pen on the record measured from the median line in millimeters.
A_E	E-W component of A.
A_N	N-S component of A.
A_Z	Vertical component of A.
T	Period of wave.

Deduced data:

H	Time of earthquake at hypocenter--a general designation.
H_{S-P}	Time of earthquake at hypocenter determined with S-P data.
H^{80}	The superscript indicates the depth curves used.
H_{P-H}	Hypocentral time assumed for best arc intersection using P-H data.

Constants of seismograph:

T_o	Free or undamped period of the seismograph pendulum or of the system in case of galvanometric recording.
V	Magnification.
$\vdash$	Ratio of successive damped amplitudes.
r	Half width of zone within which friction will completely arrest the recording pen.

Travel-time tables:

Travel-time tables by Gutenberg and Richter for depth up to 800 km. are used in all teleseismic work done by the U.S. Coast and Geodetic Survey.

The instrumental results of the following stations are tabulated in this report.

**Balboa Heights, C.Z.
(The Panama Canal)
*Bermuda.
(Meteorological Station and International Union Geodesy and Geophysics)
(*)*Boulder City, Nevada.
(Bureau of Reclamation, National Park Service)
*Bozeman, Montana.
(Montana State College)
**Burlington, Vermont.
(University of Vermont)
*Butte, Montana.
(Montana School of Mines)
*Chicago, Illinois.
(University of Chicago and U.S. Weather Bureau)
*College, Alaska.
(University of Alaska)
*Columbia, South Carolina.
(University of South Carolina)
(*)*Grand Coulee, Washington.
(Bureau of Reclamation, National Park Service)
*Honolulu, T.H.
(University of Hawaii)
*Huancayo, Peru.
(Carnegie Institution of Washington)
*Lincoln, Nebraska.
(Nebraska Wesleyan University)
**Logan, Utah.
(Utah State Agricultural College)
**Montezuma, Chile.
(Smithsonian Institution)
**New Kensington, Pennsylvania.
(Private station)
(*)*Overton, Nevada.
(Bureau of Reclamation, National Park Service)
**Philadelphia, Pennsylvania.
(The Franklin Institute)
(*)*Pierce Ferry, Nevada.
(Bureau of Reclamation, National Park Service)
*Rapid City, South Dakota.
(South Dakota State School of Mines)
*Salt Lake City, Utah.
(University of Utah)
San Juan, Puerto Rico.
**Seattle, Washington.
(University of Washington)
(*)*Shasta, California.
(Bureau of Reclamation, National Park Service)
Sitka, Alaska.
Tucson, Arizona.
Ukiah, California.
(International Latitude Observatory)

*Indicates a station maintained by a local institution in cooperation with the Coast and Geodetic Survey.

**Indicates a station operating on an independent basis.

(*)Lake Mead Seismological Survey. Results for Boulder City, Overton, Pierce Ferry, Shasta, and Grand Coulee are not published but the data are used in locating epicenters.

All seismogram interpretations are made or revised at Washington except those for Balboa Heights.

Minor quakes are listed at the end of the report.

Greenland Stations: Greenland station records are being transferred directly to Copenhagen and the Geodetic Institute of Copenhagen will resume publication of the seismological bulletin.

PROVISIONAL EPICENTERS

Date 1944	(GCT)	Latitude		Longitude		Region, Focal Depth and Remarks
Jan.	h m s	° '		° '		
3	10 19.3	13	N	71	W	North of Gulf of Venezuela.
4	0 57.9	13	N	71	W	do
5	10 59.1	13	N	71	W	do
5	21 12.7	3	S	102	E	Probable epicenter. Near southwest coast of Sumatra.
6	16 44.0	15	S	76	W	West coast of Peru.
7	2 49.3	4½	S	143	E	Eastern New Guinea. Slightly deeper than 100 km.
10	20 09 56	17.4	N	100.9	W	Near southwest coast of Mexico. Damage in state of Guerrero. Slight depth.
10	20 33.6	17½	N	100½	W	do
12	15 02 37	40.6	N	125.1	W	Off coast of Cape Mendocino, California.
15	5 46.1	18	N	47	W	Mid Atlantic.
15	23 49 28	31½	S	68½	W	Near San Juan, Argentina. Approximately 8000 killed and $100,000,000 property and industrial damage. Slight depth.
16	2 25 32	40.6	N	124.8	W	Off coast of Cape Mendocino, California.
16	14 27.7	11	N	89	W	Off west coast of Nicaragua.
20	2 59.2	15	S	174½	W	Region of Samoan Islands. Depth possibly 100 km.
29	2 25.0	63	N	156½	W	Southwest Alaska. Felt at McGrath.
Feb.						
1	3 22 31	41.0	N	33.0	E	Near Gerede, Turkey. Destructive in Turkey. 1000 killed.
1	5 16.2	41½	N	143	E	Near Hokkaido, Japan.
3	11 25.3	6	N	72	W	Probable epicenter. Felt at Panplona and Santa Rosa, Colombia.
3	12 15 09	59.6	N	135.9		Northwest Canada. Felt at Whitehorse, Canada.
3	14 10.2	6½	N	72	W	Probable epicenter. Felt at Panplona and Santa Rosa, Colombia.

Date 1944	(GCT)	Latitude	Longitude	Region, Focal Depth and Remarks
Feb.	h m s	° '	° '	
4	15 41 26	32 58 N	116 00 W	By Pasadena. Near Borego Valley. Focal depth normal.
5	6 13 40	32 58 N	116 00 W	do
5	17 20.0	23 N	121 E	Probable epicenter. Near southern Formosa.
5	20 02.3	20½ S	168½ E	Loyalty Islands region.
6	3 50.5	10 N	62 W	Gulf of Paria. Near coast of Venezuela.
6	18 40.8	6 N	59 W	British Guiana.
15	5 39.5	51 N	32 W	North Atlantic.
15	15 56.0	17 N	67 W	Probable epicenter. South of Puerto Rico.
18	15 32.0	30.5 N	114.2 W	By Pasadena. Gulf of California. Focal depth normal.
19	11 35.9	63 N	25 W	West of Iceland.
21	11 28 45	18.3 N	105.3 W	Off coast of Colima, Mexico.
23	12 25.1	52½ N	179 W	Lower Aleutian Islands region.
25	6 51 02	35 05 N	116 37 W	By Pasadena. Mojave Desert. Focal depth normal.
25	7 32.6	67 N	165 W	Probable epicenter. Katzebue Sound. Felt at Katzebue, Alaska.
26	22 23.6	61 N	147 W	Prince William Sound. Felt at Anchorage, Alaska.
27	20 14.5	29.2 N	114.1 W	By Pasadena. Lower California. Focal depth normal.
28	17 44.1	63 N	147 W	Probable epicenter. Near Fairbanks, Alaska.
29	3 41 56	14.8 S	70.7 W	Southeast Peru. Depth approximately 200 km.
29	16 28.1	1½ N	77 E	Indian Ocean. South of India.
Mar. 5	17 16.1	8 N	127 E	Off east coast of Mindanao. Depth approximately 200 km.
6	14 03.4	45 N	129 W	Pacific Ocean. Off west coast of Oregon.
6	20 09 08	44.7 N	129.0 W	do

Date 1944	(GCT)	Latitude	Longitude	Region, Focal Depth and Remarks
Mar.	h m s	° '	° '	
6	21 05 56	44.7 N	129.0 W	Pacific Ocean. Off west coast of Oregon.
6	22 51.2	45 N	129 W	do
6	23 16.5	45 N	129 W	do
7	6 09 15	44.7 N	129.0 W	do
7	6 45.1	45 N	129 W	do
7	8 21.5	45 N	129 W	do
8	7 54 51	37 36 N	114 09 W	By Pasadena. Vicinity of Crestline, Nevada. Focal depth normal.
9	8 41 52	33 57 N	115 45 W	By Pasadena. Northwest of Desert Center. Focal depth normal.
9	16 21.3	45 N	129 W	Pacific Ocean. Off west coast of Oregon.
9	22 03.7	44 N	83 E	Eastern Turkistan.
9	22 13.0	44 N	83 E	do
10	1 33.8	16½ S	76 W	Off southwest coast of Peru.
10	6 40.0	42½ N	143½ E	Near southern coast of Hokkaido, Japan.
20	9 31 02	37.2 N	114.0 W	Southwestern Utah.
21	22 09.9	42 N	143 E	Near southern coast of Hokkaido, Japan.
22	0 43.2	8 S	124 E	Floris Sea. Depth approximately 200 km.
22	8 09 41	34 00 N	116 28 W	By Pasadena. Near Morongo Valley, California. Focal depth normal.
24	17 01.9	9 N	83½ W	Near coast of Costa Rica.
31	22 51.9	5½ S	136½ E	Probable epicenter. West of New Guinea.

Date and Station	Phase	(GCT) h m s
January 1		
Huancayo	eP	10 19 15
	iP	19 17
	i	20 08
	i(L)	20 23
	F	11.6
January 3, H_{P-H} = 10h 19.3m. Epicenter in the region 13°N. and 71°W. North of Gulf of Venezuela.		
Huancayo	eL	10 32 00
	F	10.8
San Juan	e	10 21 36
	e	22 15
	eL	22 45
	F	10.8
Tucson	iP	10 27 01
	ePcP	28 48
	F	10.5
January 3		
Tucson	iP	13 18 25
	e	19 50
	F	13.6
January 4, H_{P-H} = 0h 57.9m. Epicenter in the region 13°N. and 71°W. North of Gulf of Venezuela.		
Bozeman	eL	1 23 38
	F	2.0
Chicago	eL	1 14 32
	F	1.5
Huancayo	eP	1 03 29
	e	04 46
	eS	08 00
	eL	09 32
	F	1.8
San Juan	eP	0 59 45
	e	1 00 54
	eL	01 39
	F	2.2
Tucson	iP	1 05 39
	iPP	06 35
	ePcP	07 20
	eL	25 11
	F	1.9
January 4		
San Juan	e	7 13 31
	eL	16 12
	F	7.7

Date and Station	Phase	(GCT) h m s
January 4		
Tucson	eL	22 56 06
	F	23.4
January 5. Peru.		
Balboa Heights	eP	4 13 50
	F	4 22
Huancayo	iP	4 09 15
	i	09 22
	i	09 41
	F	5.2
Tucson	iP	4 18 22
	i	18 53
	iPcP	19 15
	F	4.4
January 5, H_{P-H} = 10h 59.1m. Epicenter in the region 13°N. and 71°W. North of Gulf of Venezuela.		
Balboa Heights	eP	11 01 28
	eS	03 04
	F	11 22
Bozeman	eL	11 21 54
	F	12.1
Chicago	eS	11 10 51
	eL	16 38
	F	11.8
Columbia	eP	11 04 19
	eS	08 27
	eL	12 05
	F	11.6
Huancayo	eP	11 04 42
	ePP	05 20
	i	05 26
	iS	09 02
	iL	11 22
	F	12.1
New Kensington	e(S)	11 10 28
	eL	16 30
	F	11.6
Rapid City	eP	11 07 00
	ePP	08 10
	e	14 37
	eL	18 32
	F	11.8
Salt Lake City	eP	11 07 31
	eS	14 14
	eL	24 25
	F	11.6

Date and Station	Phase	(GCT) h m s
January 5, continued		
San Juan	eP	11 00 49
	e	01 25
	e	01 45
	iS	02 10
	iL	02 38
	F	13.0
Tucson	iP	11 06 57
	iPP	08 33
	e	10 28
	eL	23 24
	F	11.8
January 5		
Tucson	eP	12 03 47
	i	03 53
	e	05 23
	F	12.2
January 5, H_{P-H} = 21h 12.7m. Epicenter in the region 3°S. and 102°E. Probable epicenter. Near southwest coast of Sumatra.		
Bermuda	e(P')	21 32 32
	eL	22 34 23
	F	23.5
Bozeman	ePP	21 33 57
	e	35 15
	ePS	44 11
	e	45 41
	e	51 43
	eSSS	57 46
	eL	22 09 30
	F	23.6
Chicago	ePP	21 35 05
	e	35 48
	e	45 13
	eSSS	58 49
	eL	22 23 51
	F	23.7
College	ePP	21 30 50
	e	36 14
	e	39 53
	e	46 28
	eL	54 12
	F	23.2
Columbia	eP	21 32 32
	e	42 50
	eL	22 24 26
	F	23.6
Honolulu	e	21 40 05
	eL	22 01 27
	F	22.3

Date and Station	Phase	(GCT) h m s
January 5, continued		
Huancayo	eP'	21 32 47
	e	37 30
	e	43 37
	i	48 34
	i	57 56
	e	22 06 32
	eL	11 30
	F	0.3
Lincoln	ePP	21 34 56
	e	41 42
	eL	22 20 21
	F	23.5
Logan	eP'	21 31 58
	e	32 25
	i	35 18
	e	51 59
	eL	22 16 04
	F	23.8
New Kensington	e	21 35 18
	eL	22 33 07
	F	22.9
Philadelphia	e(PP)	21 35 24
	e	42 10
	e	45 38
	eSS	53 55
	e	22 00 12
	eL	13 35
	F	23.7
Rapid City	eP'	21 31 55
	ePP	34 48
	e	41 17
	e	44 37
	eSS	52 40
	eL	22 11 47
	F	23.7
Salt Lake City	e	21 32 21
	e	35 21
	e	50 56
	eL	22 17 39
	F	23.6
San Juan	e	21 32 45
	ePP	36 06
	e	48 13
	e	57 06
	eL	22 18 17
	F	23.9
Sitka	e	22 48 09
	eL	23 07 48
	F	23.8

Date and Station	Phase	(GCT) h m s
January 5, continued		
Tucson	iP'	21 31 58
	i	32 08
	ePP	34 48
	i	35 03
	e(SKS)	39 27
	i	35 52
	e	42 52
	e	47 15
	e	50 48
	eSS	53 47
	eSSS	56 15
	eL	22 18 06
	F	23.8
Ukiah	e	21 51 40
	eL	22 12 27
	F	23.3
January 6		
Huancayo	e	6 52 21
	e	54 08
	e	54 30
	eL	54 45
	F	7.1
January 6		
Huancayo	eP	11 38 11
	e	39 22
	e(S)	43 10
	eL	44 00
	F	12.2
San Juan	e	11 34 19
	e	34 30
	eL	36 03
	F	12.0
January 6		
Tucson	iP	13 46 52
	i	47 06
	i	48 17
	F	13.9
January 6		
Tucson	eP	16 20 39
	eL	17 01 15
	F	17.3
January 6, H_{P-H} = 16h 44.0m. Epicenter in the region 15°S. and 76°W. West coast of Peru.		
Balboa Heights	eP	16 49 21
	F	17 03
Huancayo	iP	16 44 54
	i	45 30
	F	18.2

Date and Station	Phase	(GCT) h m s
January 6, continued		
Tucson	iP	16 53 56
	i	54 05
	eS	17 02 20
	eL	13 06
	F	17.5
January 7, H_{P-H} = 2h 49.3m. Epicenter in the region 4½°S. and 143°E. Eastern New Guinea. Slightly deeper than 100 km.		
Bermuda	e	3 12 47
	eSSS	25 34
	eL	41 28
	F	5.2
Bozeman	iSS	3 13 49
	eSSS	17 11
	e	26 31
	eL	36 55
	F	4.5
Chicago	eSSS	3 19 29
	eL	52 07
	F	4.4
Huancayo	eP'	3 08 40
	e	12 17
	eSS	29 47
	e	31 15
	eL	48 23
	F	5.3
Tucson	eP	3 03 23
	iPP	07 43
	e	11 30
	eSS	21 53
	eL	31 13
	F	4.6
Ukiah	e	3 19 18
	eL	32 20
	F	4.3
January 7		
Balboa Heights	iP	3 10 49
	iS	11 02
	F	3 14
January 7		
Tucson	iP	12 07 52
	F	12.2
January 8		
Huancayo	eL	8 02 10
	F	8.4
January 8		
Huancayo	eL	15 34 25
	F	16.2

Date and Station	Phase	(GCT) h m s
January 8		
Huancayo	e	19 41 16
	e	46 52
	eL	20 02 25
	F	20.7
January 9		
Balboa Heights	iP	0 57 40
	iS	58 04
	F	1 02
January 10		
Balboa Heights	e	1 07 13
	i	07 36
	F	1 09
January 10. Possibly northern Chile.		
Huancayo	eP	4 27 02
	e	27 47
	eS	30 12
	eL	31 00
	F	5.2
Tucson	iP	4 34 17
	F	4.7
January 10, H_{P-H} = 20h 09m 56s. Epicenter approximately 17.4°N. and 100.9°W. Near southwest coast of Mexico. Damage in state of Guerrero. Slight depth.		
Balboa Heights	eP	20 14 54
	eS	19 01
	F	21 15
Bermuda	iP	20 16 56
	T	5 sec.
	A	1.8 mm.
	iS	20 22 44
	T	5 sec.
	A	1.1 mm.
	iL	20 27 08
	L 20	20 sec.
	A	3.8 mm.
	L max.	19 sec.
	A	5.7 mm.
	F	21.2
Bozeman	eP	20 15 58
	ePP	17 12
	eS	21 00
	iL	23 02
	F	Lost.

Date and Station	Phase	(GCT) h m s
January 10, continued		
Burlington	iP	20 16 54
	iPP	18 16
	iS	22 21
	e	22 53
	eL	24 13
	F	21.7
1.5 mm. ground NE		
0.0 mm. ground		
Chicago	iP	20 15 36
	e	16 14
	i	16 58
	eS	20 19
	iS	20 29
	iL	21 21
	F	Lost.
2.5 mm. ground N		
1.0 mm. ground E		
College	eP	20 19 42
	ePP	21 51
	eS	27 39
	eL	35 23
	F	21.7
Columbia	eP	20 15 11
	iP	15 13
	eS	19 34
	eL	22 52
	F	Lost.
Honolulu	eS	20 26 57
	T	8 sec.
	A	.8 mm.
	eL	20 35 26
	L max.	13 sec.
	A	2.4 mm.
	F	Lost.
Huancayo	eP	20 17 22
	iP	17 23
	ePP	18 51
	eS	23 00
	iS	23 19
	iL	26 10
	F	Lost.
Logan	iP	20 15 30
	iS	20 11
	i	20 35
	iL	24 02
	F	Lost.
New Kensington	e	20 15 47
	eL	22 20
	F	21.5
Philadelphia	iP	20 16 20
	e	17 09
	i	19 48
	eS	21 53
	eL	29 49
	F	Lost.

Date and Station	Phase	(GCT) h m s
January 10, continued		
Rapid City	iP	20 15 37
	i	16 13
	e	19 38
	eL	23 48
	F	Lost.
Salt Lake City	iP	20 15 24
	iS	20 04
	iL	21 30
	F	Lost.
San Juan	iP	20 16 30
	ePP	17 36
	iS	21 21 50
	i	22 58
	eL	23 52
	F	Lost.
Sitka	iP	20 18 32
	iPP	20 24
	iS	25 32
	eL	29 32
	F	22.7
Seattle	e	20 17 32
	e(S)	22 59
	eL	26 04
	F	20.9
Tucson	iP	20 14 02
	iS	17 29
	iL	18 14
	F	Lost.
Ukiah	eP	20 16 04
	eS	20 52
	eL	23 30
	F	0.7
January 10, H_{P-H} = 20h 33.6m. Epicenter in the region 17½°N. and 100½°W. Near southwest coast of Mexico. Slight depth.		
Bozeman	i	20 48 53
	F	22.4
Burlington	eL	20 49 43
	F	21.7
Chicago	e	20 39 10
	iL	44 03
	F	22.3
Columbia	e	20 38 43
	eS	43 08
	eL	46 21
	F	22.4
Huancayo	e	20 41 17
	i	43 58
	iS	46 50
	iL	48 11
	F	23.6

Date and Station	Phase	(GCT) h m s
January 10, continued		
Logan	iP	20 39 08
	iS	44 05
	L	47 12
	F	21.7
Philadelphia	iL	20 52 29
	F	Lost.
Rapid City	i	20 39 18
	eS	44 05
	iL	47 34
	F	21.9
Salt Lake City	iP	20 38 46
	iS	43 30
	eL	46 34
	F	22.0
San Juan	eP	20 40 05
	e	45 05
	eL	46 06
	F	23.0
Seattle	eL	20 49 08
	F	21.6
Tucson	iP	20 37 32
	iL	42 10
	F	23.0
January 11		
Huancayo	eL	2 00 22
	F	2.5
January 11		
Huancayo	eL	4 55 25
	F	5.2
January 11		
Huancayo	eL	17 36 25
	F	17.9
San Juan	e	17 25 31
	eL	26 30
	F	17.7
January 12, H_{P-H} = 15h 02m 37s. Epicenter approximately 40.6°N. and 125.1°W. Off coast of Cape Mendocino, California.		
Bermuda	e	15 14 22
	eS	18 34
	eL	26 24
	F	16.6
Bozeman	e(S)	15 07 41
	eL	08 47
	F	15.8

Date and Station	Phase	(GCT) h m s
January 12, continued		
Chicago	eP	15 08 28
	eL	16 43
	F	15.7
College	eL	15 15 19
	F	15.8
Honolulu	eS	15 15 08
	eL	16 49
	F	15.7
Logan	eP	15 05 07
	eS	07 10
	iL	07 58
	F	15.6
Philadelphia	eL	15 21 50
	F	15.6
Rapid City	iP	15 06 29
	eL	10 31
	F	15.6
Salt Lake City	eP	15 05 03
	eS	07 21
	eL	08 01
	F	16.1
San Juan	eS	15 19 49
	eL	31 05
	F	16.3
Seattle	e	15 04 52
	eP	05 28
	eL	06 55
	F	15.5
Tucson	iP	15 06 02
	i	08 55
	iS	09 05
	eL	09 41
	F	15.8
Ukiah	iP	15 03 09
	i	03 22
	i	03 57
	F	15.6
January 14		
Huancayo	e	4 57 24
	eS	5 01 00
	eL	02 12
	F	5.9
January 14		
Balboa Heights	iP	19 45 53
	iS	46 05
	F	19 48

Date and Station	Phase	(GCT) h m s
January 14		
San Juan	e	21 06 11
	e	08 45
	e	10 18
	e	11 21
	eL	12 37
	F	22.0
January 15, H_{P-H} = 5h 46.1m. Epicenter in the region 18°N. and 47°W. Mid Atlantic.		
Bermuda	eP	5 50 51
	eL	55 08
	F	7.0
Bozeman	eL	6 10 40
	F	6.9
Chicago	e	5 54 25
	e	55 05
	eL	6 03 07
	F	6.7
Huancayo	eP	5 53 44
	e	54 35
	e	59 23
	eS	59 51
	eL	6 03 27
	F	7.1
Logan	eP	5 56 03
	e	6 06 00
	eL	13 17
	F	6.7
Rapid City	eP	5 54 21
	e	6 03 53
	eL	11 48
	F	6.6
San Juan	eP	5 50 10
	eS	53 57
	eL	55 10
	F	7.8
Tucson	eP	5 55 57
	e	56 37
	e	57 09
	eL	6 18 35
	F	6.7
January 15		
Sitka	eL	7 21 12
	F	7.9
January 15		
Columbia	eL	15 21 12
	F	15.8

Date and Station	Phase	(GCT) h m s
January 15, H_{P-H} = 23h 49m 28s. Epicenter in the region 31½°S. and 68½°W. Near San Juan, Argentina. Approximately 8000 killed and $100,000,000 property and industrial damage. Slight depth.		
Balboa Heights	eP	23 57 19
	iPcP	59 11
	eS	0 03 17
	eL	07 10
	F	1 0
Bermuda	iP	0 00 02
	T	2.5 sec.
	A	.9 mm.
	iS	0 08 40
	T	6 sec.
	A	2.3 mm.
	e	0 09 42
	eL	0 15 51
	L 20	20 sec.
	A	5.4 mm.
	L max.	16 sec.
	A	6.4 mm.
	F	3.6
Bozeman	eP	0 02 05
	i	02 34
	ePP	05 34
	e	05 37
	eS	12 01
	eSS	17 58
	e	24 21
	eL	25 50
	F	2.6
Burlington	iP	0 01 14
	i	01 23
	iS	10 55
	i	11 14
	e	15 33
	e	19 10
	iL	20 01
	F	3.1
0.8 mm. ground NE		
0.8 mm. ground NW		
Chicago	eP	0 01 07
	iP	01 09
	e	03 22
	ePPP	05 36
	eS	10 36
	iS	10 39
	e	16 13
	L	20 30
	F	2.7

Date and Station	Phase	(GCT) h m s
January 15, continued		
College	ePP	0 08 56
	eSKS	14 51
	ePS	18 42
	eSS	24 51
	e	25 00
	eL	40 32
	F	2.9
Columbia	eP	0 00 15
	e	00 27
	eS	09 01
	e	14 34
	eL	18 25
	F	2.5
Honolulu	e	0 09 29
	eS	0 15 07
	T	8 sec.
	A	.8 mm.
	i	0 16 05
	eSS	0 21 34
	T	6 sec.
	A	.8 mm.
	eL	0 35 52
	L max.	17 sec.
	A	2.7 mm.
	F	1.3
Huancayo	iP	23 54 06
	i	54 11
	i	54 55
	iS	57 43
	i	57 51
	F	4.1
Lincoln	eP	0 01 17
	eS	10 41
	eL	20 55
	F	2.0
Logan	iP	0 01 55
	i	03 05
	e	03 29
	i	04 51
	iS	12 14
	iPP	17 55
	e	21 30
	eL	26 44
	F	2.4
1.1 mm. ground N		
0.8 mm. ground W		
Montezuma	eP	23 51 40
	e	52 01
	iL	54 02
	F	0.9
New Kensington	eP	0 00 57
	eS	10 18
	e	16 40
	eL	32 08
	F	1.2

Date and Station	Phase	(GCT) h m s
January 15, continued		
Philadelphia	iP	0 00 48
	e	02 15
	e	04 40
	iS	09 59
	e	16 53
	eL	17 50
	F	Lost.
4.0 mm. ground NE 11°		
1.6 mm. ground NW 281°		
Rapid City	iP	0 01 20
	e	06 28
	iS	11 29
	i	11 34
	eSS	16 30
	eSSS	20 09
	eL	25 30
	F	2.5
Salt Lake City	S-P	10 11
San Juan	iP	23 58 17
	i	59 20
	i	59 54
	iS	0 05 05
	eL	08 36
	F	3.9
Seattle	e	0 03 25
	e	03 40
	eS	13 43
	e	15 57
	eSS	20 45
	eL	32 05
	F	2.1
Sitka	e	0 04 24
	eP	05 35
	ePP	07 48
	iSKS	14 13
	e	16 52
	iPS	17 07
	eSS	22 52
	eL	33 39
	F	3.2
Tucson	iP	0 01 10
	e	01 31
	ePP	03 40
	ePPP	05 48
	e	06 14
	eS	10 45
	iS	10 48
	e	10 52
	i	11 22
	eSS	15 05
	e	19 25
	eL	21 27
	F	2.5

Date and Station	Phase	(GCT) h m s
January 15, continued		
Ukiah	eP	0 02 14
	eSKS	12 33
	i	13 06
	e	14 22
	e	19 25
	e	29 12
	F	2.7
January 16, H_{P-H} = 2h 25m 32s. Epicenter approximately 40.6°N. and 124.8°W. Off coast of Cape Mendocino, California.		
Bozeman	e	2 28 36
	e	31 12
	eL	31 31
	F	3.2
Chicago	eL	2 40 30
	F	3.2
Lincoln	e	2 34 19
	eL	38 31
	F	2.9
Logan	iP	2 27 59
	eS	29 36
	i	30 45
	iL	31 06
	F	2.8
Philadelphia	eL	2 44 48
	F	3.4
Rapid City	iP	2 28 56
	eL	36 35
	F	2.9
Salt Lake City (S-P)		02 46
Seattle	eL	2 30 55
	F	2.9
Tucson	iP	2 28 52
	e	33 27
	eL	33 58
	F	3.2
Ukiah	eP	2 26 03
	iP	26 07
	i	26 22
	iL	26 41
	F	2.7
January 16		
Balboa Heights	iP	11 40 24
	iS	40 34
	F	11 42

Date and Station	Phase	(GCT) h m s
January 16		
Huancayo	e	13 35 47
	e	39 52
	eL	40 37
	F	14.1
San Juan	eL	13 47 18
	F	14.0
January 16, H_{P-H} = 14h 27.7m. Epicenter in the region 11°N. and 89°W. Off west coast of Nicaragua.		
Balboa Heights	eP	14 30 00
	F	14 39
Huancayo	e	14 33 29
	e	34 27
	eL	38 11
	F	15.1
San Juan	eP	14 32 56
	eL	36 40
	F	15.0
Tucson	eP	14 33 47
	e	33 59
	eS	36 54
	i	37 10
	eL	45 53
	F	15.1
January 18		
Tucson	iP	1 04 52
	e	06 51
	e	08 13
	F	1.2
January 19		
Tucson	iP	5 42 27
	epP	44 10
	F	5.8
January 20, H_{P-H} = 2h 59.2m. Epicenter in the region 15°S. and 174½°W. Region of Samoan Islands. Depth probably 100 km.		
Huancayo	eSKS	3 23 02
	iS	23 53
	eSS	30 09
	eL	43 47
	F	4.5
Rapid City	eP	3 11 56
	e	13 02
	e	14 21
	eS	22 12
	eL	44 06
	F	3.5

Date and Station	Phase	(GCT) h m s
January 20, continued		
San Juan	eSKS	3 24 14
	ePS	27 49
	eSS	34 30
	eL	51 48
	F	4.4
Tucson	iP	3 10 59
	ipP	11 30
	e	13 41
	e	13 50
	e	18 17
	eS	20 40
	eSS	21 10
	eL	34 08
	eP'P'	38 17
	F	4.0
January 21		
Balboa Heights	eP	12 00 12
	iS	00 41
	F	12 04
January 23		
Balboa Heights	eP	2 22 10
	iS	22 38
	F	2 24
January 23, Southwest of Alaska.		
Chicago	eL	7 45 16
	F	8.2
College	e	7 20 56
	e	23 54
	e(S)	24 15
	e	25 02
	e	25 29
	F	7.8
Philadelphia	eL	7 47.7
	F	8.2
Tucson	iP	7 26 17
	i	26 22
	i	28 11
	e	30 28
	e	32 04
	F	7.6
January 24		
Tucson	iP	0 14 58
	e	15 53
	e	18 10
	e	19 16
	e	20 04
	eL	23 03
	F	0.6
January 24		
Honolulu	e	1 10 27
	e	10 43
	e	10 46
	eL	11 12
	F	1.4

Date and Station	Phase	(GCT) h m s
January 24		
Tucson	eP	4 25 07
	i	25 13
	i	26 00
	iL	26 30
	F	4.6
January 24, Off Vancouver, British Colombia.		
Chicago	eL	6 16 55
	F	6.5
Logan	e	6 03 55
	eL	09 57
	F	6.3
Philadelphia	eL	6 20 43
	F	6.6
Seattle	e	6 02 58
	e	06 23
	eL	07 27
	F	6.4
Tucson	iP	6 05 19
	e	07 21
	eL	15 17
	F	6.6
January 24		
San Juan	eP	17 56 25
	iS	56 36
	F	18.1
January 25		
Tucson	iP'	7 52 17
	ipP	52 44
	iSKP	55 27
	i	55 36
	e	58 08
	i	8 05 17
	F	8.2
January 27		
Balboa Heights	e	14 32 00
	e	32 53
	F	14 36
January 28		
Tucson	e	11 13 12
	eL	16 13
	F	12.4
January 29, H_{P-H} = 2h 25.0m. Epicenter in the region 63°N. and 156½°W. Southwest Alaska. Felt at McGrath.		

Date and Station	Phase	(GCT) h m s
January 29, continued		
Bermuda	e	2 37 35
	eL	55 23
	F	3.5
Bozeman	eL	2 36 37
	F	3.0
Chicago	eL	2 47 19
	F	3.2
College	eP	2 26 04
	e	26 48
	i	26 55
	F	2.9
Columbia	eL	2 52 34
	F	3.3
Logan	eP	2 31 43
	ePP	33 06
	eL	41 24
	F	3.0
New Kensington	eL	2 49 32
	F	3.1
Philadelphia	eL	2 45 25
	F	3.1
Rapid City	e	2 32 03
	eL	43 08
	F	2.9
Salt Lake City	eL	2 42 19
	F	3.0
Tucson	iP	2 32 56
	i	33 01
	e	38 19
	eS	39 20
	eL	46 49
	F	3.3
January 31, Region of Gulf of California.		
Tucson	e	2 55 33
	i	55 45
	e	55 52
	i	56 29
	iL	56 51
	F	3.2
January 31		
Tucson	e	4 26 25
	e	26 30
	e	27 25
	F	4.6
January 31		
Huancayo	e	12 47 53
	e	49 12
	eL	49 43
	F	13.1

Date and Station	Phase	(GCT) h m s
January 31		
Tucson	eP'	21 32 24
	e	32 32
	ePP	35 24
	iSKP	36 03
	i	36 29
	F	21.7
February 1, H_{P-H} = 3h 22m 31s. Epicenter approximately 41.0°N. and 33.0°E. Near Gerede, Turkey. Destructive in Turkey. 1000 killed.		
Bermuda	iP	3 34 08
	ePP	3 36 25
	e	3 37 06
	iS	3 43 42
	i	3 44 30
	i	3 48 02
	i	3 51 50
	iL	3 52 26
	L 20	20 sec.
	A	23.0 mm.
	L max.	19 sec.
	A	21.5 mm.
	F	7.7
Bozeman	eP	3 35 32
	e	35 53
	ePP	38 50
	e	44 05
	iS	46 13
	i	50 22
	eSS	51 47
	iL	58 30
	F	8.0
Burlington	iP	3 34 08
	i	34 26
	ePP	36 56
	iS	43 37
	iSS	47 48
	L	55 21
	F	7.0
Butte	eP	3 36(57)
	ePP	40(07)
	eSKS	47(27)
	eS	48(35)
	e	51(25)
	eL	59(37)
	F	6.7
Chicago	e	3 35 12
	ePP	37 53
	e	39 21
	e	44 47
	eS	44 48
	iS	45 10
	eSS	50 06
	eSSS	53 36
	eL	56 38
	F	7.9

Date and Station	Phase	(GCT) h m s
February 1, continued		
Columbia	eP	3 35 11
	ePP	38 32
	eS	45 33
	iS	45 38
	e	46 36
	iSS	51 32
	eL	58 41
	F	7.3
Honolulu	ePP	3 42 52
	T	6 sec.
	A	0.8 mm.
	ePS	3 52 23
	e	3 54 17
	eSS	3 58 47
	T	7 sec.
	A	0.9 mm.
	e	4 09 05
	eL	4 18 54
	L 20	20 sec.
	A	4.6 mm.
	L max.	25 sec.
	A	6.4 mm.
	F	6.6
Huancayo	e	3 38 31
	e	40 40
	ePP	41 42
	e	44 04
	iSKS	47 42
	i	50 01
	iPS	51 23
	eSS	57 00
	eSSS	4 01 41
	iL	06 59
	F	8.4
Lincoln	eP	3 35 24
	eS	45 51
	eL	55 29
	F	6.9
Logan	eP	3 35 52
	e	40 55
	iS	46 56
	eSS	52 40
	iL	4 00 03
	F	7.2
Montezuma	e	4 02 37
	eL	09 29
	F	5.0
New Kensington	eP	3 34 28
	ePP	37 39
	eS	44 30
	e	49 13
	eL	52 52
	F	5.7

Date and Station	Phase	(GCT) h m s
February 1, continued		
Rapid City	eP	3 35 21
	i	35 46
	i	38 10
	iPP	38 50
	eS	45 38
	i	46 19
	eSS	50 44
	eL	57 16
	F	7.4
Salt Lake City	e	3 36 09
	ePP	39 42
	e	41 17
	eSKS	46 32
	e	47 14
	e	48 11
	eSS	52 51
	e	55 26
	eL	59 14
	F	8.0
San Juan	iP	3 35 16
	e	38 20
	i	39 11
	iS	45 39
	i	50 44
	i	52 28
	eL	57 00
	F	8.0
Seattle	ePP	3 38 48
	e	44 00
	e	48 59
	eL	4 05 35
	F	5.6
Sitka	eP	3 34 52
	e	35 10
	ePP	38 19
	eS	45 14
	iS	45 21
	iSS	50 00
	eSSS	54 07
	eL	56 25
	F	7.8
Tucson	e	3 36 19
	i	36 49
	i	37 23
	ePP	40 30
	i	40 45
	e	43 25
	e	47 15
	e	48 05
	i	50 30
	iSS	54 20
	iSSS	58 33
	e	4 01 29
	eL	02 33
	F	8.3

Date and Station	Phase	(GCT) h m s
February 1, continued		
Ukiah	e	3 36 35
	ePP	40 20
	eS	47 42
	e	53 40
	e	4 01 08
	eL	06 25
	F	7.3
February 1, H_{P-H} = 5h 16.2m. Epicenter in the region 41½°N. and 143°E. Near Hokkaido, Japan.		
Logan	eP	5 27 44
	e	36 17
	e	37 06
	eL	44 45
	F	Lost.
Tucson	eP	5 28 21
	i	28 47
	eS	38 24
	eP'P'	55 13
	F	6.4
February 1		
College	e	17 34(07)
	e	36(31)
	eS	43(51)
	e	48(03)
	eL	52(07)
	F	7.4
February 2, Probably Gulf of California.		
Tucson	eP	1 59 26
	i	59 51
	iS	2 00 53
	iL	01 18
	F	2.1
February 2		
Huancayo	eS	21 05 39
	eL	10 53
	F	22.0
February 2		
Tucson	eP	22 54 49
	e	56 18
	eS	23 00 44
	eL	00 53
	F	23.2
February 3, H_{P-H} = 11h 25.3m. Epicenter in the region 6°N. and 72°W. Felt at Panplona and Santa Rosa, Colombia.		

Date and Station	Phase	(GCT) h m s
February 3, continued		
Balboa Heights	eP	11 27 33
	eS	29 10
	F	11 35
Huancayo	eP	11 29 38
	e	30 35
	eS	32 42
	e	33 01
	eL	33 38
	F	12.0
San Juan	e	11 29 18
	e	30 13
	eS	31 23
	eL	33 10
	F	Lost.
Tucson	iP	11 33 42
	i	33 51
	i	34 25
	eL	12 10 56
	F	12.3
February 3, H_{P-H} = 12h 15m 09s. Epicenter approximately 59.6°N. and 135.9°W. Northwest Canada. Felt at Whitehorse, Canada.		
Bermuda	eS	12 31 48
	eL	38 45
	F	14.0
Bozeman	eP	12 19 47
	e	20 51
	eS	23 47
	iL	26 25
	F	13.8
Burlington	e	12 23 46
	iS	28 55
	i	31 54
	eL	32 56
	F	13.4
Chicago	iP	12 21 57
	ePP	23 06
	eS	27 20
	e	29 09
	eL	31 14
	F	13.5
College	eP	12 17 03
	e	17 55
	iS	18 21
	eL	18 32
	F	13.6
Columbia	eP	12 23 15
	eS	29 50
	eL	33 15
	F	13.7
Honolulu	eL	12 32 20
	F	13.0

Date and Station	Phase	(GCT) h m s
February 3, continued		
Huancayo	eP	12 27 52
	ePP	31 15
	eS	38 22
	e	39 42
	e	43 24
	eSS	44 23
	e	50 00
	eL	53 14
	F	14.0
Logan	iP	12 20 20
	eS	24 52
	iL	27 48
	F	13.7
New Kensington	i	12 25 24
	eS	28 49
	e	30 58
	eL	35 08
	F	13.4
Philadelphia	eP	12 23 01
	ePP	24 38
	eS	29 26
	e	32 37
	eL	34 58
	F	13.6
Salt Lake City	eP	12 20 27
	iP	20 30
	e	21 17
	eS	25 11
	eL	28 29
	F	13.9
San Juan	eP	12 25 28
	e	30 37
	eS	34 10
	e	35 38
	e	37 06
	eL	46 30
	F	14.1
Seattle	e	12 20 56
	eL	24 37
	F	13.0
Sitka	iP	12 15 49
	iS	16 20
	i	16 26
	iL	16 40
	F	13.9
Tucson	iP	12 21 38
	i	22 06
	iPP	22 48
	i	24 57
	eS	27 05
	eL	29 07
	F	13.8
Ukiah	e(P)	12 20 06
	eS	24 23
	eL	27 42
	F	13.5

Date and Station	Phase	(GCT) h m s
February 3, H_{P-H} = 14h 10.2m. Probable epicenter in the region 6½°N. and 72°W. Felt at Panplona and Santa Rosa, Colombia.		
Huancayo	eP	14 14 30
	e	17 19
	eS	18 36
	eL	19 00
	F	14.7
Tucson	iP	14 18 26
	F	14.4
February 3		
Tucson	iP	20 40 16
	i	40 30
	eL	21 07 24
	F	21.3
February 4		
Balboa Heights	iP	2 55 19
	iS	55 50
	F	2 59
February 4		
Huancayo	e	9 11 37
	e	15 12
	eL	17 20
	F	9.7
February 4, H_{P-H} = 15h 41m 26s. Epicenter by Pasadena, 32°58'N. and 116°00'W. Near Borego Valley. Focal depth normal.		
Tucson	eP	15 42 42
	i	43 51
	iL	44 12
	F	15.8
February 4, Probably Japan.		
Tucson	eP	21 17 29
	e	18 03
	F	21.3
February 5		
Bozeman	eL	0 13 22
	F	0.4
Chicago	eL	0 07 51
	F	0.5
Philadelphia	e	0 00 34
	e	03 24
	e	04 14
	e	06 06
	eL	09 37
	F	0.5

Date and Station	Phase	(GCT) h m s
February 4, continued		
Tucson	eP	23 55 57
	eL	0 20 44
	F	0.8
February 5		
Tucson	e	2 03 19
	e	09 23
	eL	10 13
	F	2.3
February 5, H_{P-H} = 6h 13m 40s. Epicenter by Pasadena, 32°58'N. and 116°00'W. Near Borego Valley. Focal depth normal.		
Tucson	e	6 15 15
	eL	16 10
	F	6.3
February 5, H_{P-H} = 17h 20.0m. Probable epicenter in the region 23°N. and 121°E. Near southern Formosa.		
Bermuda	eL	18 17 36
	F	18.9
Bozeman	eSKS	17 44 23
	eL	18 08 29
	F	19.3
College	eP	17 31 07
	eS	40 17
	e	43 30
	e	45 42
	eL	54 06
	F	18.8
Columbia	eL	18 11 40
	F	19.2
Huancayo	eP'	17 40 11
	ePP	44 26
	e	48 19
	e	50 26
	e	59 26
	eSS	18 04 39
	e	09 09
	e	12 02
	e	25 42
	eL	30 27
	F	20.0
Philadelphia	ePP	17 39 44
	e	42 00
	eSKS	45 34
	eL	18 06 17
	F	19.3

Date and Station	Phase	(GCT) h m s
February 5, continued		
Rapid City	e	17 43 33
	ePS	46 17
	eL	18 10 18
	F	19.0
San Juan	eP'	17 39 32
	ePP	42 17
	e	44 36
	e	49 06
	eSS	18 00 41
	eSSS	06 01
	eL	23 27
	F	19.6
Sitka	eS	17 41 32
	e	48 13
	eL	54 32
	F	18.8
Tucson	eP	17 34 24
	e	38 26
	ePS	47 40
	eL	18 09 44
	F	18.8
February 5, H_{P-H} = 20h 02.3m. Epicenter in the region 20½°S. and 168½°E. Loyalty Islands region.		
Tucson	iP	20 15 38
	eL	48 51
	F	21.4
February 6		
Tucson	iP	2 38 05
	F	2.7
February 6, H_{P-H} = 3h 50.5m. Epicenter in the region 10°N. and 62°W. Gulf of Paria. Near coast of Venezuela.		
Huancayo	eP	3 56 05
	ePP	56 41
	eS	4 00 35
	eL	01 36
	F	4.4
San Juan	e	3 53 39
	eS	54 28
	eL	54 45
	F	4.2
Tucson	eP	3 59 28
	F	4.1
February 6, H_{P-H} = 18h 40.8m. Epicenter in the region 6°N. and 59°W. British Guiana.		

Date and Station	Phase	(GCT) h m s
February 6, continued		
Bermuda	eL	18 49 27
	F	19.5
Huancayo	eP	18 46 00
	e	46 23
	eS	50 23
	eL	51 28
	F	19.8
San Juan	eL	18 43 12
	F	19.9
Tucson	eP	18 49 17
	e	50 45
	eL	53 25
	F	19.0
February 7		
Philadelphia	eL	6 30 51
	F	6.7
February 7		
Philadelphia	eL	7 07.2
	F	7.4
February 7		
Philadelphia	eL	8 43 07
	F	9.0
February 7		
Philadelphia	i	18 02 06
	e	02 40
	e	05 22
	F	18.2
Sitka	iP	17 40 49
	i	41 20
	iS	41 32
	iL	41 44
	F	17.8
Tucson	iP	17 46 30
	F	17.8
February 10		
Tucson	eP	11 22 13
	e	22 28
	F	11.4
February 11		
Tucson	iP	9 42 29
	i	44 40
	F	9.8
February 12		
Huancayo	e	5 24 07
	e	25 48
	eL	26 08
	F	5.7

Date and Station	Phase	(GCT) h m s
February 12		
Tucson	iP	11 26 25
	i	27 28
	eL	27 43
	F	11.5
February 14		
Tucson	iP	3 04 32
	i	04 49
	e	07 16
	F	3.3
February 14		
Tucson	eP	9 41 24
	e	47 04
	eL	48 53
	F	10.0
February 14		
Huancayo	eL	13 53 01
	F	14.2
February 14		
Huancayo	e	16 37 32
	eL	40 37
	F	17.0
February 15, H_{P-H} = 5h 39.5m. Epicenter in the region 51½°N. and 32°W. North Atlantic.		
Chicago	eS	5 52 52
	eL	59 05
	F	6.5
College	eSS	6 00 29
	eL	08 54
	F	6.6
Philadelphia	eL	5 53.0
	F	6.1
Salt Lake City	eL	6 05 29
	F	6.6
Sitka	eL	6 09 11
	F	6.5
Tucson	eP	5 49 31
	eL	6 10 28
	F	6.6
February 15, H_{P-H} = 15h 56.0m. Probable epicenter in the region 17°N. and 67°W. South of Puerto Rico.		
February 15, continued		
San Juan	iP	15 56 27
	i	56 38
	iL	57 22
	F	16.4
Tucson	iP	16 04 01
	F	16.2
February 16		
Balboa Heights	e	0 35 49
	e	36 41
	F	0 41
February 16		
San Juan	eL	5 21 00
	F	5.5
February 16		
Bozeman	eL	11 29 18
	F	12.0
Chicago	eL	11 39 40
	F	12.0
College	e	11 14 35
	e	15 05
	e	16 04
	eL	18 27
	F	11.7
Tucson	eP	11 19 10
	i	21 06
	e	24 27
	eL	29 31
	F	11.8
February 16		
Balboa Heights	iP	15 17 41
	iS	18 11
	F	15 21
February 17		
Tucson	iP	0 05 11
	i	05 14
	i	05 23
	e	05 32
	F	0.1
February 17		
Huancayo	eL	7 32 39
	F	7.9
Tucson	eP	7 55 47
	e	56 43
	i	57 03
	iL	57 34
	F	8.2

Date and Station	Phase	(GCT) h m s
February 18		
Tucson	iP	9 23 53
	i	25 59
	F	9.5
February 18, H_{P-H} = 15h 32.0m. Epicenter by Pasadena, 30.5°N. and 114.2°W. Gulf of California.		
Tucson	eP	15 32 58
	e	33 04
	iL	53 47
	i	33 48
	F	15.7
February 18, Probably Chile.		
Huancayo	e	19 04 06
	eS	07 05
	eL	08 00
	F	19.5
Tucson	iP	19 11 24
	F	19.2
February 18		
Tucson	e	19 27 56
	i	29 25
	eL	29 53
	F	19.6
February 18		
Huancayo	e	20 56 53
	eS	21 01 00
	eL	03 50
	F	21.4
Tucson	eP	20 59 19
	F	21.1
February 19		
Tucson	eP	11 23 39
	i	23 49
	F	11.4
February 19, H_{P-H} = 11h 35.9m. Epicenter in the region 63°N. and 25°W. Southwest of Iceland.		
Bozeman	eL	12 01 40
	F	12.7
Chicago	eS	11 49 38
	eL	12 00 35
	F	12.4
Logan	eL	12 04 43
	F	12.3

Date and Station	Phase	(GCT) h m s
February 19, continued		
Philadelphia	eS	11 48 28
	eL	57.0
	F	12.1
Salt Lake City	eL	12 04 25
	F	12.5
Sitka	eL	12 01 23
	F	12.4
Tucson	eP	11 46 03
	ePP	48 42
	eL	12 09 28
	F	12.5
February 19		
Tucson	iP	13 00 55
	i	01 11
	F	13.2
February 19		
Bozeman	eL	14 14 16
	F	14.6
Tucson	eP	13 57 30
	F	14.0
February 19		
Tucson	iP	16 11 48
	F	16.3
February 19		
Huancayo	e	19 46 30
	e	48 06
	eS	54 20
	eL	20 03 12
	F	21.0
February 20		
Tucson	eP	4 15 48
	F	4.3
February 20		
Huancayo	e	10 01 27
	e	02 08
	e	04 22
	e(S)	12 28
	e	13 30
	e	17 20
	eL	24 30
	F	11.5
Sitka	eL	10 48 13
	F	11.7
February 20		
Bozeman	e	12 39 37
	eL	51 44
	F	13.2

Date and Station	Phase	(GCT) h m s
February 20		
Huancayo	eL	17 13 13
	F	17.4
February 20		
Tucson	iP	19 33 50
	i	42 13
	eL	20 06 32
	F	20.4
February 21, H_{P-H} = 11h 28m 45s. Epicenter approximately 18.3°N. and 105.3°W. Off coast of Colima, Mexico.		
Bermuda	eP	11 36 12
	eL	51 22
	F	12.3
Bozeman	eS	11 39 22
	eL	43 32
	F	12.9
Chicago	e	11 35 26
	e	39 14
	eS	39 23
	eL	42 26
	F	12.8
Columbia	e	11 34 24
	eS	39 10
	eL	44 38
	F	12.7
Huancayo	e	11 37 18
	ePP	38 16
	eS	43 16
	eL	46 39
	F	12.8
Lincoln	e	11 35 24
	eL	40 53
	F	12.8
New Kensington	ePP	11 36 09
	e	41 02
	eL	47 53
	F	12.3
Philadelphia	e	11 37 03
	eS	41 26
	eL	43 41
	F	12.5
Rapid City	eP	11 34 22
	ePP	35 07
	eS	37 39
	iL	42 11
	F	12.7

Date and Station	Phase	(GCT) h m s
February 21, continued		
Salt Lake City	eP	11 33 50
	ePP	34 28
	eS	38 01
	eL	40 42
	F	12.4
San Juan	e	11 36 06
	e	41 04
	eS	41 39
	e	43 43
	eL	46 28
	F	12.4
Seattle	eL	11 44 26
	F	12.3
Sitka	eS	11 43 40
	eSS	47 02
	eL	51 55
	F	12.8
Tucson	iP	11 32 13
	i	32 25
	e	34 52
	eS	35 13
	iS	35 16
	eL	36 08
	F	12.2
Ukiah	eP	11 34 34
	eS	38 55
	eL	41 37
	F	12.3
February 21		
Tucson	e	12 20 48
	e	25 11
	eL	26 11
	F	12.8
February 21		
Tucson	eP	15 36 45
	e	56 32
	eL	16 00 57
	F	16.3
Sitka	eL	15 53 04
	F	16.0
February 21		
Tucson	eP	17 43 5[illegible]
	i	43 5[illegible]
	eL	18 08 2[illegible]
	F	18.2
February 21		
Balboa Heights	e	20 12 34
	iS	12 5[illegible]
	F	20 16

Date and Station	Phase	(GCT) h m s
February 22		
San Juan	eP	4 40 12
	iS	40 23
	iL	40 42
	F	4.8
February 22		
Balboa-Heights	iP	7 24 47
	iS	25 31
	F	7 35
Huancayo	e	7 39 41
	eL	42 37
	F	8.0
Tucson	iP	7 30 58
	F	7.6
February 22		
College	e	12 29 53
	eS	33 41
	eL	35 00
	F	13.5
February 22		
Tucson	iP	23 30 08
	F	23.5
February 23		
Tucson	e	1 39 21
	e	49 33
	eL	2 04 08
	F	2.4
February 23		
Huancayo	eP	5 48 06
	e	49 48
	eS	56 14
	e	6 00 02
	eL	02 28
	F	7.3
Tucson	e	5 56 53
	e	57 47
	eL	6 43 25
	F	7.1
February 23, H_{P-H} = 12h 25.0m. Epicenter in the region 52½°N. and 179°W. Lower Aleutian Islands region.		
Sitka	e	12 45 40
	eL	48 15
	F	13.1

Date and Station	Phase	(GCT) h m s
February 23, continued		
Tucson	iP	12 34 18
	i	34 42
	i	35 31
	e	39 46
	eL	50 00
	F	13.4
February 23		
Sitka	eP	21 22 25
	iS	23 04
	i	23 17
	i	23 22
	F	21.4
February 24		
Tucson	iP	12 24 15
	i	24 27
	eL	48 40
	F	12.9
February 24		
Huancayo	eL	20 28 04
	F	20.7
February 25		
Tucson	eP	6 43 52
	e	47 12
	eL	52 15
	F	7.1
February 25, H_{P-H} = 6h 51m 02s. Epicenter by Pasadena, 35°05'N. and 116°37'W. Mojave Desert. Focal depth normal.		
Tucson	i	6 52 23
	iL	53 59
	F	6.9
February 25, H_{P-H} = 7h 32.6m. Probable epicenter in the region 67°N. and 165°W. Katzebue Sound. Felt at Katzebue, Alaska.		
Bermuda	eL	8 05 14
	F	8.7
Bozeman	eL	7 50 43
	F	8.3
Chicago	eL	7 57 00
	F	8.4
College	eP	7 34 25
	e	34 36
	eS	35 42
	eL	36 07
	F	8.3

Date and Station	Phase	(GCT) h m s
February 25, continued		
Columbia	eL	8 02 45
	F	8.7
Logan	eL	7 53 08
	F	8.2
Philadelphia	eL	7 56 05
	F	8.3
Rapid City	e	7 41 37
	eS	47 34
	eL	53 33
	F	8.2
Salt Lake City	eL	7 53 39
	F	8.4
Seattle	eL	7 46 47
	F	8.0
Sitka	e	7 39 40
	eL	40 06
	F	8.1
Tucson	eP	7 41 08
	i	41 31
	eL	57 48
	F	8.4
February 26		
Bermuda	eL	22 55 21
	F	23.4
Bozeman	eL	22 38 24
	F	23.0
Chicago	eL	22 46 04
	F	23.0
College	eP	22 24 32
	e(S)	25 12
	e	25 22
	iL	25 32
	F	22.9
Columbia	eL	22 48 29
	F	23.1
Logan	eL	22 40 20
	F	22.8
Philadelphia	eL	22 48 58
	F	23.1
Rapid City	e	22 30 06
	eS	36 34
	eL	41 10
	F	23.0
Salt Lake City	e	22 35 23
	eL	41 24
	F	22.9
San Juan	eL	23 00 17
	F	23.5

Date and Station	Phase	(GCT) h m s
February 26, continued		
Tucson	iP	22 30 53
	i	31 13
	i	33 30
	eL	48 14
	F	23.0
February 27, H_{P-H} = 20h 14.5m. Epicenter by Pasadena, 29.2°N. and 114.1°W. Focal depth normal.		
Tucson	eP	20 15 38
	i	15 54
	i	16 33
	iL	16 47
	F	20.9
February 28		
Huancayo	eL	3 12 51
	F	3.7
February 28, H_{P-H} = 17h 44.1m. Probable epicenter in the region 63°N. and 147°W. Near Fairbanks, Alaska.		
College	iP	17 44 32
	i	44 50
	iL	45 08
	F	18.1
Tucson	eP	17 51 35
	F	18.1
February 29, H_{P-H} = 3h 41m 56s. Epicenter approximately 14.8°S. and 70.7°W. Southeast Peru. Depth approximately 200km.		
Balboa Heights	iP	3 47 08
	iS	51 24
	iL	57 48
	F	4 06
Bermuda	eP	3 50 10
	ePP	3 50 49
	T	10 sec.
	A	0.4 mm.
	i	3 51 07
	ePcP	3 51 37
	epPP	3 52 42
	iS	3 56 44
	iL	4 00 29
	L 20	20 sec.
	A	4.2 mm.
	L max.	16 sec.
	A	6.5 mm.
	F	5.8

Date and Station	Phase	(GCT) h m s
February 29, continued		
Bozeman	eP	3 52 54
	e	55 11
	eS	4 01 52
	i	02 36
	e	05 58
	eL	10 17
	F	5.3
Burlington	eP	3 51 41
	e	52 39
	e	54 49
	i	55 11
	iS	59 22
	isS	4 00 52
	iSS	03 29
	e	05 31
	eL	09 53
	F	4.8
Butte	iP	3 54 07
	i	54 39
	e	55 43
	eS	4 03 10
	iS	03 13
	eSS	07 46
	eL	11 15
	F	4.7
Chicago	iP	3 51 30
	e	52 35
	ePPP	55 08
	iS	59 10
	isS	4 00 31
	i	01 02
	e	03 00
	eL	07 43
	F	5.1
College	e	3 58 23
	eSKS	4 05 27
	e	06 13
	e	08 28
	eSS	13 02
	e	15 46
	eL	27 06
	F	5.2
Columbia	eP	3 50 26
	eS	57 12
	iS	57 16
	iScS	4 00 00
	e	01 33
	eL	03 12
	F	5.2
Huancayo	iP	3 43 14
	i	43 55
	F	6.6
Logan	iP	3 52 35
	i	52 47
	iS	4 01 17
	e	09 10
	eL	10 21
	F	5.4

Date and Station	Phase	(GCT) h m s
February 29, continued		
Montezuma	e	3 44 04
	e	45 19
	eL	47 10
	F	4.3
New Kensington	eP	3 51 16
	e	57 26
	iS	58 44
	iScS	4 00 45
	eL	06 10
	F	4.6
Philadelphia	iP	3 51 06
	e	51 28
	epP	51 58
	i	54 04
	iScP	55 51
	iS	58 29
	iScS	4 00 36
	e	01 58
	eL	03 32
	F	5.4
Rapid City	iP	3 52 22
	i	54 33
	epPP	55 35
	iS	4 00 51
	i	04 51
	eL	08 38
	F	5.0
Salt Lake City	iP	3 52 32
	e	54 27
	iS	4 01 10
	e	04 13
	eSS	05 50
	eL	09 22
	F	5.2
San Juan	iP	3 48 15
	epP	48 46
	isP	49 19
	ePP	49 37
	iS	53 11
	isS	54 39
	i	55 23
	iL	4 00 00
	F	6.0
Seattle	e	3 55 48
	ePPP	58 31
	eS	4 05 12
	eSS	08 12
	e	10 35
	eSSS	12 02
	eL	14 35
	F	4.7
Sitka	iP	3 54 31
	ePP	58 11
	eSKS	4 04 12
	iS	05 05
	isS	06 07
	e	09 49
	iSS	11 08
	eSSS	14 37
	i	15 20
	eL	16 48
	F	5.3

Date and Station	Phase	(GCT) h m s
February 29, continued		
Tucson	iP	3 51 48
	ipP	52 31
	i	53 35
	i	54 13
	i	55 35
	iS	58 51
	eS	59 45
	isS	4 01 20
	e	03 15
	eL	06 45
	F	5.5
Ukiah	eP	3 53 06
	ePP	55 33
	eS	4 02 09
	e	02 54
	eSS	06 56
	eL	12 00
	F	4.7
February 29		
Balboa Heights	iP	5 44 37
	iS	45 01
	F	5 48
February 29, H_{P-H} = 16h 28.1m. Epicenter in the region 1½°N. and 77°E. Indian Ocean. South of India.		
Bermuda	ePP	16 49 27
	T	15 sec.
	A	1.6 mm.
	i	16 50 36
	ePS	17 00 10
	e	17 01 11
	eSS	17 07 14
	T	12 sec.
	A	1.2 mm.
	eL	17 22 36
	L 20	20 sec.
	A	1.4 mm.
	L max.	18 sec.
	A	2.6 mm.
	F	20.5
Bozeman	ePP	16 49 56
	i	51 00
	e	17 07 38
	e	08 20
	eL	22 26
	F	19.9
Burlington	e	16 49 04
	iPP	49 25
	i	52 10
	e	56 14
	ePS	59 16
	i	17 01 01
	iSS	06 11
	eL	19 00
	F	19.8

Date and Station	Phase	(GCT) h m s
February 29, continued		
Butte	e	16 51 09
	e	57 40
	eSS	17 08 40
	eSSS	13 32
	eL	34 08
	F	18.2
Chicago	e	16 47 01
	ePP	50 04
	i	50 55
	e	17 00 04
	e	02 13
	eSS	08 11
	e	13 13
	eL	29 16
	F	19.7
College	e(PP)	16 47 03
	eSKS	53 02
	e	56 25
	e	17 00 42
	e	02 24
	eSS	06 01
	eL	09 45
	F	20.0
Columbia	e	16 48 07
	ePP	50 30
	e	57 23
	e	17 00 16
	eSS	08 41
	eL	24 31
	F	20.2
Honolulu	ePP	16 48 53
	e	52 33
	e	55 40
	eSS	17 05 34
	e	08 32
	eL	18 19
	F	19.5
Huancayo	eP'	16 47 52
	e	50 45
	iPP	51 22
	eSKS	54 52
	e	57 31
	e	17 01 42
	eP'P'	09 03
	e	09 58
	e	11 40
	e	19 40
	eL	29 32
	F	21.0
Logan	eP'	16 47 25
	i	47 42
	iPP	50 27
	e	53 16
	e	56 09
	eSS	17 08 11
	eSSS	13 41
	eL	26 09
	F	19.9

Date and Station	Phase	(GCT) h m s
February 29, continued		
New Kensington	e	16 49 51
	e(PP)	50 57
	e	17 03 09
	eL	26 13
	F	Lost.
Philadelphia	ePP	16 49 31
	i	50 46
	e	53 21
	i	56 46
	i	17 01 31
	eSS	07 01
	e	12 28
	eL	23 09
	F	19.9
Rapid City	iP'	16 47 28
	ePP	50 09
	e	52 42
	e	17 03 20
	eSS	07 17
	eL	26 27
	F	19.5
Salt Lake City	eP'	16 47 30
	iPP	50 34
	e	53 21
	e	17 00 40
	e	02 40
	eSS	08 25
	eSSS	14 35
	eL	30 10
	F	20.0
San Juan	eP'	16 47 33
	e	50 03
	e(PP)	50 07
	e	59 55
	e	17 03 13
	e	05 42
	eSS	08 43
	eL	17 24 07
	F	19.9
Seattle	e	16 52 10
	eL	17 24 34
	F	19.0
Sitka	eP	16 43 00
	ePP	48 05
	e	50 46
	eSKS	53 55
	e	54 00
	eS	55 00
	e	56 04
	ePS	57 31
	eSS	17 04 12
	e	04 30
	eSSS	07 57
	e	16 00
	F	19.9

Date and Station	Phase	(GCT) h m s
February 29, continued		
Tucson	iP'	16 47 48
	i	50 00
	iPP	51 15
	i	52 36
	iSKS	54 40
	i	57 02
	e	17 01 13
	i	05 27
	ePP	10 10
	e	11 11
	eSSS	15 22
	e	21 34
	eL	34 23
	F	20.4
Ukiah	ePP	16 50 16
	e	52 23
	e	53 27
	e	56 48
	e	17 02 08
	eSS	08 32
	eSSS	13 52
	eL	24 16
	F	19.7
March 1		
Tucson	iP	7 51 04
	i	51 10
	F	7.9
March 1		
Tucson	iP	21 04 27
	e	05 38
	F	21.6
March 2		
Tucson	iP	11 36 06
	e	36 13
	i	36 20
	eL	36 53
	F	11.6
March 2		
Tucson	iP	16 59 39
	e	17 01 38
	e	05 07
	F	17.5
March 4, Off coast of Ecuador.		
Balboa Heights	eP	9 04 20
	i	04 57
	F	9 11
Huancayo	eS	9 07 41
	eL	10 52
	F	9.5
March 5		
Philadelphia	eL	5 54 12
	F	6.3

Date and Station	Phase	(GCT) h m s
March 5		
Sitka	e	14 06 34
	e	08 13
	eL	09 49
	F	14.5
March 5, H_{P-H} = 17h 16.1m. Epicenter in the region 8°N. and 127°E. Off east coast of Mindanao. Depth approximately 200 km.		
College	eP	17 28 03
	eS	38 04
	e	38 14
	eSS	42 59
	eL	54 17
	F	18.2
Huancayo	e	17 36 16
	ePP	40 06
	e	40 23
	e	46 38
	eSS	18 00 41
	eL	30 16
	F	19.6
Sitka	eSKS	16 38 57
	iS	39 17
	eL	57 50
	F	18.5
Tucson	e	17 32 24
	eP'	33 45
	e	34 07
	e	35 05
	e	41 08
	ePS	44 34
	e	45 17
	eL	18 19 03
	F	18.7
March 6		
Butte	e	6 49(12)
	e	52(42)
	eL	53(19)
	F	7.1
March 6		
Butte	e	8 28 36
	eL	29 30
	F	9.0
March 6, H_{P-H} = 14h 03.4m. Epicenter in the region 45°N. and 129°W. Pacific Ocean. Off west coast of Oregon.		
Bozeman	eP	14 06 33
	eL	10 13
	F	14.5

Date and Station	Phase	(GCT) h m s
March 6, continued		
Logan	eP	14 06 23
	e	06 33
	eL	10 16
	F	14.5
Philadelphia	eL	14 24 57
	F	14.6
Rapid City	eP	14 07 42
	e	11 46
	eL	13 39
	F	14.6
Salt Lake City	e	14 09 21
	eL	10 37
	F	14.5
San Juan	iP	14 54 05
	i	54 18
	i	54 21
	iL	54 50
	F	15.1
Seattle	eL	14 10 11
	F	14.4
Tucson	eP	14 07 37
	e	08 28
	F	14.3
Ukiah	eL	14 06 22
	F	14.4
March 6, H_{P-H} = 20h 09m 08s. Epicenter approximately 44.7°N. and 129.0°W. Pacific Ocean. Off west coast of Oregon.		
Bermuda	eS	20 25 34
	eL	35 13
	F	21.5
Bozeman	eP	20 12 18
	eS	14 50
	eL	15 35
	F	Lost.
Butte	eP	20 13(05)
	eS	15(48)
	eL	16(27)
	F	21.0
Chicago	eP	20 15 21
	eS	19 46
	e	20 51
	eL	25 31
	F	21.0
College	eL	20 18 26
	F	21.0
Columbia	eL	20 30 27
	F	21.0

Date and Station	Phase	(GCT) h m s
March 6, continued		
Honolulu	e	20 15 46
	e	19 28
	e	20 17
	e(S)	21 37
	eL	22 52
	F	21.5
Logan	eP	20 12 18
	eS	15 05
	eL	16 00
	F	21.1
New Kensington	eS	20 22 04
	eL	28 12
	F	20.9
Philadelphia	e	20 18 07
	ePP	18 19
	e	20 22
	eS	22 47
	eL	26 13
	F	21.3
Rapid City	iP	20 13 24
	i	13 58
	eS	17 13
	eL	19 40
	F	21.2
Salt Lake City	eP	20 12 20
	eS	14 48
	eL	15 11
	F	21.2
San Juan	e	20 23 48
	e	25 23
	eS	27 11
	eL	40 41
	F	21.8
Seattle	eL	20 12 46
	F	20.7
Sitka	iP	20 12 18
	e	12 20
	eS	14 58
	eL	15 32
	F	Lost.
Tucson	e	20 13 31
	i	13 42
	e	15 07
	e	16 33
	eS	17 05
	eL	17 22
	F	21.1
Ukiah	e	20 10 52
	e	11 03
	eL	12 13
	F	21.1

Date and Station	Phase	(GCT) h m s
March 6, H_{P-H} = 21h 05m 56s. Epicenter approximately 44.7°N. and 129.0°W. Pacific Ocean. Off west coast of Oregon.		
Bermuda	eL	21 33 35
	F	21.8
Bozeman	eP	21 09 07
	e	09 23
	e	12 21
	eL	12 55
	F	21.7
Butte	e	21 09(50)
	eL	12(32)
	F	21.8
College	eP	21 11 05
	eS	15 19
	eL	17 11
	F	21.9
Columbia	eL	21 26 38
	F	21.8
Honolulu	eL	21 20 01
	F	21.8
Logan	iP	21 09 06
	eL	12 19
	F	22.0
New Kensington	eL	21 28 20
	F	21.8
Philadelphia	e	21 17 02
	eS	19 40
	eL	23 14
	F	21.9
Rapid City	iP	21 10 14
	i	10 52
	i	11 17
	e(S)	13 45
	iL	15 26
	F	21.5
Salt Lake City	eP	21 09 08
	eS	11 48
	eL	12 47
	F	21.9
San Juan	e	21 17 39
	eL	35 08
	F	22.0
Seattle	eL	21 10 20
	F	21.7
Sitka	eP	21 09 09
	e	09 50
	e(S)	12 08
	eL	12 19
	F	22.0

Date and Station	Phase	(GCT) h m s
March 6, continued		
Tucson	iP	21 10 19
	i	10 25
	e	13 07
	eS	13 35
	eL	13 50
	F	22.0
Ukiah	e	21 08 10
	eL	09 09
	F	21.9
March 6		
Rapid City	eP	21 30 30
	e	32 03
	eL	37 02
	F	21.6
March 6		
Tucson	eP	22 07 49
	e	08 04
	eL	11 38
	F	22.3
March 6, H_{P-H} = 22h 51.2m. Epicenter in the region 45°N. and 129°W. Pacific Ocean. Off west coast of Oregon.		
Bozeman	eP	22 54 19
	eL	58 10
	F	23.4
Butte	e	22 55(19)
	eL	58(36)
	F	23.3
College	eS	23 00 47
	eL	03 14
	F	23.3
Logan	iP	22 54 24
	eS	56 26
	eL	57 35
	F	23.3
Philadelphia	eL	23 11 51
	F	23.4
Rapid City	iP	22 55 30
	eL	59 47
	F	23.3
Salt Lake City	e	22 54 48
	e(S)	57 01
	eL	58 26
	F	23.3
Seattle	eL	22 55 37
	F	23.3
Sitka	e	22 54 24
	eL	57 42
	F	23.3

Date and Station	Phase	(GCT) h m s
March 6, continued		
Tucson	eP	22 55 34
	eS	59 17
	eL	23 00 47
	F	0.6
Ukiah	e	22 53 25
	e	54 21
	eL	54 37
	F	23.3
March 6, H_{P-H} = 23h 16.5m. Epicenter in the region 45°N. and 129°W. Pacific Ocean. Off west coast of Oregon.		
Bermuda	e	23 35 18
	e	37 08
	eL	43 15
	F	0.3
Bozeman	eP	23 19 35
	e	20 22
	eS	22 50
	eL	23 24
	F	0.5
Butte	e	23 20(36)
	eL	23(40)
	F	0.1
College	eP	23 21 36
	e	22 25
	eS	25 47
	eL	27 26
	F	0.3
Columbia	eL	23 35 08
	F	0.4
Honolulu	eL	23 30 09
	F	0.0
Logan	iP	23 19 40
	eS	22 22
	eL	23 06
	F	0.2
New Kensington	eL	23 37 12
	F	0.0
Philadelphia	ePP	23 25 44
	eS	30 13
	e	33 00
	eL	35 44
	F	0.3
Rapid City	iP	23 20 47
	e	21 22
	eS	24 11
	eL	24 43
	F	0.2

Date and Station	Phase	(GCT) h m s
March 6, continued		
Salt Lake City	eP	23 19 46
	eS	22 25
	eL	23 57
	F	0.2
San Juan	e	23 27 14
	eS	34 24
	eL	46 18
	F	0.7
Seattle	eL	23 20 07
	F	0.0
Sitka	e	23 19 40
	e	22 03
	e	20 22
	eS	22 20
	eL	22 55
	F	0.6
Tucson	eP	23 20 52
	e	21 02
	e	22 44
	eS	23 55
	eL	24 48
	F	0.7
Ukiah	e	23 18 17
	eL	19 37
	F	0.3
March 7		
Tucson	eP	1 05 11
	eL	12 20
	F	1.3
March 7		
Tucson	eP	3 51 33
	i	51 49
	i	52 53
	F	3.9
March 7		
Tucson	iP	4 54 14
	i	54 31
	i	56 23
	F	5.0
March 7, H_{P-H} = 6h 09m 15s. Epicenter approximately 44.7°N. and 129.0°W. Pacific Ocean. Off west coast of Oregon.		
Bozeman	eP	6 12 24
	eL	15 25
	F	6.7
Butte	e	6(13 20)
	eS	(16 32)
	eL	(17 37)
	F	6.8

Date and Station	Phase	(GCT) h m s
March 7, continued		
Logan	eP	6 12 24
	iP	12 26
	e	15 27
	F	6.6
Rapid City	iP	6 13 31
	i	13 59
	eL	18 35
	F	6.6
Salt Lake City	eP	6 12 27
	eS	15 07
	eL	16 16
	F	6.7
Seattle	e	6 13 33
	F	6.9
Sitka	eL	6 15 51
	F	6.8
Tucson	iP	6 13 35
	e	14 22
	e	16 37
	eS	17 14
	eL	19 13
	F	6.7
Ukiah	e	6 11 22
	eL	12 11
	F	6.6
March 7, H_{P-H} = 6h 45.1m. Epicenter in the region 45°N. and 129°W. Pacific Ocean. Off west coast of Oregon.		
Bozeman	eP	6 48 15
	eL	51 48
	F	7.2
Logan	iP	6 48 18
	eS	51 05
	eL	52 19
	F	7.2
Rapid City	iP	6 49 23
	i	49 58
	eS	53 31
	eL	56 26
	F	7.3
Salt Lake City	e	6 51 04
	eL	51 59
	F	7.1
Seattle	eL	6 48 42
	F	7.2
Sitka	e	6 48 37
	eL	51 39
	F	7.3

Date and Station	Phase	(GCT) h m s
March 7, continued		
Tucson	eP	6 49 30
	i	49 32
	e	51 09
	eS	53 13
	eL	54 47
	F	7.3
Ukiah	e	6 47 12
	eL	48 27
	F	7.4
March 7, H_{P-H} = 8h 21.5m. Epicenter in the region 45°N. and 129°W. Pacific Ocean. Off west coast of Oregon.		
Bozeman	e	8 24 39
	e	25 56
	eL	28 28
	F	9.0
College	eP	8 26 36
	eS	31 01
	eL	32 42
	F	8.9
Honolulu	eL	8 36 06
	F	8.9
Logan	i	8 24 40
	e	27 18
	eL	28 04
	F	9.0
Rapid City	iP	8 25 46
	eS	29 36
	eL	31 44
	F	8.9
Salt Lake City	eP	8 24 42
	e	27 24
	eL	28 20
	F	8.9
Seattle	eL	8 25 33
	F	8.9
Sitka	eP	8 24 43
	e	27 35
	eL	28 20
	F	9.1
Tucson	iP	8 25 51
	i	26 08
	e	28 53
	eS	29 33
	eL	30 45
	F	9.0
Ukiah	eP	8 23 07
	e	23 38
	eL	24 12
	F	9.1

Date and Station	Phase	(GCT) h m s
March 7		
Tucson	e	20 49 46
	i	50 53
	eL	21 00 05
	F	21.1
March 8, H_{P-H} = 7h 54m 51s. Epicenter by Pasadena, 37°36'N. and 114° 09'W. Vicinity of Crestline, Nevada. Focal depth normal.		
Tucson	e	7 56 22
	eL	57 48
	F	8.1
March 8		
Huancayo	eL	23 45 37
	F	0.3
Tucson	e	23 13 02
	e	17 33
	eL	39 51
	F	0.3
March 9		
Balboa Heights	eP	4 06 58
	iS	07 58
	F	4 12
March 9		
Philadelphia	e	7 03.7
	e	08 56
	eL	22 24
	F	8.2
March 9, H_{P-H} = 8h 41m 52s. Epicenter by Pasadena, 33°57'N. and 115° 45'W. Focal depth normal.		
Tucson	eP	8 43 18
	iL	44 20
	F	8.8
March 9		
Tucson	iP	9 30 41
	i	32 30
	F	9.6
March 9, H_{P-H} = 16h 21.3m. Epicenter in the region 45°N. and 129°W. Pacific Ocean. Off west coast of Oregon.		
Butte	e	16(29 48)
	eL	(30 50)
	F	17.0

Date and Station	Phase	(GCT) h m s
March 9, continued		
Logan	eP	16 25 26
	eL	29 20
	F	17.0
Tucson	e	16 26 40
	e	30 27
	eL	32 40
	F	16.8
March 9		
Balboa Heights	e	20 07 40
	e	08 35
	F	20 10
March 9, H_{P-H} = 22h 03.7m. Epicenter in the region 44°N. and 83°E. Eastern Turkistan.		
Tucson	eP	22 17 39
	e	20 42
	ePP	22 04
	e	25 53
	F	Lost.
March 9, H_{P-H} = 22h 13.0m. Epicenter in the region 44°N. and 83°E. Eastern Turkistan.		
Bermuda	e	22 27 56
	ePPP	32 36
	eSKS	37 14
	ePS	39 45
	e	45 38
	eSSS	48 09
	eL	57 56
	F	1.3
Bozeman	eP	22 26 22
	eSKS	37 11
	e	38 01
	e	42 31
	e	47 01
	eL	53 46
	F	1.5
Burlington	e	22 27 15
	iSKS	36 23
	eSS	43 21
	eL	51 39
	F	0.7
Butte	e	22 26(45)
	ePP	29(27)
	eS	37(12)
	e	38(54)
	eL	49(32)
	F	0.1

Date and Station	Phase	(GCT) h m s
March 9, continued		
Chicago	e	22 27 01
	iSKS	36 48
	e	38 52
	eSS	44 22
	e	48 38
	eL	56 40
	F	0.4
College	eP	22 23 36
	e	27 24
	eS	32 14
	e	37 19
	eL	40 53
	F	0.2
Columbia	ePP	22 31 04
	eSKS	37 24
	eL	45 20
	F	0.3
Honolulu	eSKS	22 36 51
	eSSS	47 21
	e	56 31
	eL	56 51
	F	23.5
Huancayo	e	22 32 24
	eP'	32 32
	e(PP)	36 32
	e	42 40
	eSS	54 05
	e	23 04 27
	eL	12 19
	F	1.3
Logan	iP	22 26 16
	e	29 53
	iS	36 50
	e	38 20
	eL	50 20
	F	0.8
New Kensington	eSKS	22 36 51
	e	49 05
	eL	58 18
	F	23.9
Philadelphia	e	22 27 34
	e	29 51
	iSKS	36 49
	iPS	38 44
	e	39 34
	e	42 37
	eL	54 29
	F	0.9
Rapid City	eP	22 26 11
	ePP	29 56
	eSKS	36 55
	i	37 11
	e	38 19
	eL	54 44
	F	0.0

Date and Station	Phase	(GCT) h m s
March 9, continued		
Salt Lake City	eP	22 26 24
	eSKS	36 52
	e	38 45
	eSS	44 05
	eL	46 45
	F	0.8
San Juan	e	22 30 03
	e	39 07
	e	39 18
	eS	40 04
	ePS	42 09
	eL	23 01 15
	F	1.0
Seattle	ePP	22 28 57
	ePS	38 23
	e	50 38
	eL	53 04
	F	0.0
Sitka	eL	22 46 25
	F	23.5
Tucson	eP	22 26 59
	i	27 03
	e	30 33
	ePP	31 12
	eSKS	37 39
	ePS	40 37
	e	42 37
	eL	53 56
	F	1.4
Ukiah	eSKS	22 36 53
	eSSS	47 38
	eL	54 14
	F	0.3
March 10, H_{P-H} = 1h 33.8m. Epicenter in the region 16½°S. and 76°W. Off southwest coast of Peru.		
Huancayo	iP	1 34 59
	iS	35 48
	F	3.0
San Juan	e	1 45 18
	eS	46 28
	eL	48 41
	F	2.7
Tucson	eP	1 43 53
	e	44 48
	e	48 50
	eL	2 06 22
	F	1.9
March 10		
Balboa Heights	e	2 24 44
	e	25 11
	F	2 27

Date and Station	Phase	(GCT) h m s
March 10, H_{P-H} = 6h 40.0m. Epicenter in the region 42½°N. and 143½°E. Near southern coast of Hokkaido, Japan.		
Bermuda	eL	7 30 33
	F	8.6
Bozeman	eS	7 00 39
	eL	08 52
	F	9.3
Burlington	e	7 03 41
	eL	25.4
	F	8.3
Chicago	eS	7 03 03
	eL	25 28
	F	8.0
College	e	6 48 23
	eS	54 56
	eSS	58 20
	eL	7 02 19
	F	7.7
Huancayo	e	7 08 49
	eL	43 50
	eSS	19 44
	F	9.1
Rapid City	eP	6 51 49
	iS	7 01 33
	F	8.2
San Juan	eS	7 15 29
	eL	27 19
	F	8.6
Tucson	eP	6 52 08
	e	52 14
	i	52 22
	ePP	55 23
	e(S)	7 01 45
	eL	17 41
	F	8.2
March 10		
Balboa Heights	e	16 34 20
	F	16 39
Huancayo	e	16 36 42
	e	37 30
	e	40 50
	eL	45 00
	F	17.2
Tucson	iP	16 40 38
	i	40 47
	i	41 38
	F	16.7

Date and Station	Phase	(GCT) h m s
March 10		
Tucson	iP	18 42 12
	i	43 17
	F	18.8
March 11		
Tucson	e	11 39 51
	eL	45 33
	F	12.0
March 11		
Tucson	iP	17 41 38
	e	43 50
	F	17.8
March 14		
College	e	7 26 35
	e	27 29
	eL	32 12
	F	7.9
Tucson	iP	7 31 50
	i	31 55
	i	32 01
	i	32 14
	F	7.6
March 14		
Tucson	eP	11 37 13
	eL	12 19 38
	F	12.7
March 15		
Tucson	eL	6 05 22
	F	6.5
March 15		
Tucson	eP	8 17 16
	e	20 20
	F	9.3
March 16		
Tucson	iP	12 39 53
	i	39 56
	i	39 58
	F	12.8
March 18		
Tucson	e	10 07 09
	e	09 00
	e	10 37
	eL	14 56
	F	10.8
March 19		
Tucson	iP	8 46 38
	i	46 50
	F	8.8

Date and Station	Phase	(GCT) h m s
March 20, H_{P-H} = 9h 31m 02s. Epicenter approximately 37.2°N. and 114.0°W. Southwestern Utah.		
Tucson	eP	9 32 27
	e	32 40
	i	32 47
	e	34 08
	iL	34 20
	F	9.6
March 21		
Tucson	iP	8 00 49
	F	8.1
March 21		
Bozeman	e	15 38 27
	eL	41 09
	F	16.0
College	eL	15 25 27
	F	15.8
Tucson	eP	15 27 08
	e	28 50
	F	15.5
March 21		
Huancayo	eL	21 09 35
	F	21.7
March 21, H_{P-H} = 22h 09.9. Epicenter in the region 42°N. and 143°E. Near southern coast of Hokkaido, Japan.		
College	eP	22 18 27
	eS	24 50
	eL	28 20
	F	23.1
Tucson	iP	22 22 04
	i	22 19
	e	24 41
	eL	47 46
	F	23.4
March 22, H_{P-H} = 0h 43.2m. Epicenter in the region 8°S. and 124°E. Floris Sea. Depth approximately 200 km.		
Bermuda	eP	1 03 02
	e	03 16
	ePP	06 50
	e	13 56
	eSS	27 22
	e	31 54
	e	35 53
	eL	54 46
	F	3.5

Date and Station	Phase	(GCT) h m s
March 22, continued		
Bozeman	e	1 02 25
	ePP	03 12
	eSKS	08 22
	e	12 40
	e	13 54
	eSS	19 15
	e	21 23
	eL	39 30
	F	3.1
Burlington	e	1 05 25
	epPP	06 54
	e	11 53
	e	15 42
	eSS	23 52
	eSSS	28 23
	e	34 09
	eL	47 15
	F	3.1
Chicago	ePP	1 05 02
	e	11 32
	e	14 52
	eSSS	22 44
	eL	43 08
	F	3.0
College	e	1 00 19
	eS	06 40
	e	09 56
	eSS	14 09
	eL	25 08
	F	2.5
Columbia	eP'	1 02 34
	e	12 28
	e	16 10
	eSS	24 24
	eL	37 11
	F	2.6
Honolulu	eP	0 55 17
	eS	1 05 11
	eSS	06 24
	eSS	10 47
	eL	17 28
	F	1.9
Huancayo	iP'	1 02 50
	i	03 25
	i	05 00
	i	13 11
	e	16 45
	eL	26 07
	F	3.3
Logan	eP'	1 01 52
	ePP	03 18
	e	04 27
	e	09 41
	eS	14 08
	e	15 45
	e	19 33
	e	20 35
	eL	32 48
	F	2.5

Date and Station	Phase	(GCT) h m s
March 22, continued		
Philadelphia	iP'	1 02 28
	ePP	05 56
	eS	12 20
	epPP	16 48
	e	18 39
	eSS	24 09
	eSSS	30 10
	eL	47.1
	F	2.8
Rapid City	eP'	1 02 01
	ePP	03 53
	e(S)	10 28
	eSS	20 38
	eL	42 27
	F	2.3
San Juan	eP'	1 03 05
	e	04 03
	ePP	07 46
	e	16 18
	eSS	28 04
	eL	2 02 15
	F	3.3
Sitka	eS	1 07 19
	e	10 21
	e	13 35
	F	2.4
Tucson	e	1 01 42
	iP'	01 55
	ePP	03 38
	e	07 14
	eSKS	08 34
	e	11 40
	esS	12 43
	e	15 19
	eSS	20 10
	eL	34 36
	F	3.3
Ukiah	e	1 02 32
	eS	09 07
	ePS	11 54
	eSS	17 58
	eL	36 11
	F	2.5
March 22, H_{P-H} = 8h 09m 41s. Epicenter by Pasadena, 34°00'N. and 116°28'W. Focal depth normal.		
Tucson	e	8 10 23
	iL	11 40
	F	8.2
March 22		
Tucson	iP	17 44 22
	i	44 33
	F	17.8

Date and Station	Phase	(GCT) h m s
March 22		
Tucson	iP	17 55 54
	i	56 08
	F	18.0
March 22		
Tucson	e	19 19 58
	eL	47 13
	F	20.3
March 22		
Huancayo	eL	19 52 56
	F	20.4
March 23		
Tucson	iP	12 11 10
	i	12 02
	i	14 44
	F	12.3
March 24, H_{P-H} = 17h 0.19m. Epicenter in the region 9°N. and 83½°W. Near coast of Costa Rica.		
Balboa Heights	iP	17 02 57
	iS	03 41
	i	03 51
	F	17 10
San Juan	eP	17 06 25
	i	06 32
	eS	10 09
	eL	12 20
	F	17.7
Tucson	iP	17 08 46
	e	12 35
	eL	19 07
	F	17.8
March 24		
Tucson	iP	19 07 18
	i	07 32
	iL	08 14
	F	19.3
March 24		
Tucson	iP	22 10 08
	i	10 36
	i	11 15
	F	22.2
March 25		
Tucson	iP	12 38 14
	i	39 58
	F	12.7

Date and Station	Phase	(GCT) h m s
March 25		
Tucson	iP	20 24 38
	i	24 54
	i	26 26
	F	20.5
March 26		
San Juan	eP	13 33 01
	i	33 12
	iL	33 37
	F	13.7
March 27		
Huancayo	e	14 34 30
	eS	38 52
	eL	40 47
	F	15.8
March 28		
Tucson	iP	10 48 37
	i	48 49
	i	48 56
	F	10.8
March 28		
Huancayo	e	11 16 16
	eL	19 52
	F	11.8
March 28		
Huancayo	eL	23 28 00
	F	0.0
Tucson	iP	22 55 11
	eL	23 27 28
	F	0.2
March 30		
Huancayo	eP	10 50 15
	e	51 26
	eS	54 03
	eL	56 03
	F	11.3
March 30		
Huancayo	e	18 57 47
	e	19 01 51
	eL	04 00
	F	19.3
March 31, H_{P-H} = 2h 51.9m. Probable epicenter in the region 5½°S. and 136½°E. West of New Guinea.		

Date and Station	Phase	(GCT) h m s
March 31, continued		
Bermuda	e	3 12 55
	e	14 10
	e	20 48
	eSS	34 27
	e	45 32
	eL	4 04 33
	F	5.3
Bozeman	e	3 18 01
	eS	18 36
	ePS	20 36
	eSS	26 52
	eL	41 49
	F	4.9
Chicago	eL	3 52 02
	F	5.0
College	e	3 06 29
	eS	15 29
	e	16 51
	eSS	21 37
	eL	28 57
	F	4.2
Honolulu	e(P)	3 03 38
	e	09 18
	e	13 23
	eL	23 07
	F	3.8
Huancayo	eP'	3 11 27
	e	15 34
	e	19 30
	e	35 13
	eL	54 25
	F	5.5
Logan	e	3 11 30
	ePS	20 16
	e	21 08
	e	27 25
	eL	38 06
	F	3.4
Philadelphia	e	3 13 54
	e	21 09
	e	24 20
	e(SS)	27 20
	eSSS	31 58
	eL	46 27
	F	4.8
Rapid City	ePP	3 11 54
	e	18 27
	eL	51 31
	F	4.5
Salt Lake City	e	3 18 02
	ePS	20 51
	e	31 13
	eL	38 18
	F	4.6

Date and Station	Phase	(GCT) h m s
March 31, continued		
San Juan	eP'	3 11 40
	e	17 44
	e	20 25
	e	23 19
	eSS	36 23
	eL	4 06 23
	F	5.3
Tucson	eP'	3 10 24
	e	10 47
	e	14 21
	e	18 13
	ePS	20 57
	e	28 28
	e	35 35
	eL	45 47
	F	5.5
Ukiah	eSKS	3 16 28
	e	20 35
	eL	35 55
	F	4.5

March 31, H_{P-H} = 20h 35m 05s. Epicenter approximately 0.5°S. and 80.0°W. Near coast of Ecuador. Felt at Guayaquil and Quito.

Balboa Heights	i	20 37 24
	e	39 08
	eL	39 44
	F	21 00
Bermuda	eS	20 47 53
	e	49 00
	eL	52 25
	F	21.6
Bozeman	e	20 49 31
	eS	52 14
	eL	21 02 15
	F	21.6
Butte	eL	21 07 27
	F	21.4
Chicago	ePP	20 44 33
	e	52 37
	eL	56 14
	F	21.9
College	eS	20 57 41
	e	21 06 41
	eL	18 29
	F	21.8
Columbia	ePP	20 43 12
	eS	46 40
	eL	49 28
	F	21.8

Date and Station	Phase	(GCT) h m s
March 31, continued		
Huançayo	iP	20 38 07
	iS	40 13
	e	41 22
	eL	41 53
	F	22.4
Logan	e	20 44 24
	eS	51 21
	eL	21 02 06
	F	21.4
Philadelphia	eP	20 42 44
	ePP	44 14
	eS	48 47
	eL	52 00
	F	21.4
Rapid City	iP	20 43 54
	iS	51 00
	eL	55 07
	F	21.3

Date and Station	Phase	(GCT) h m s
March 31, continued		
Salt Lake City	eP	20 44 04
	eS	51 16
	eL	21 03 53
	F	21.8
San Juan	iP	20 40 14
	iPP	40 52
	iL	45 14
	F	21.7
Tucson	eP	20 43 12
	iP	43 13
	ePP	44 44
	ePPP	45 33
	eS	49 47
	eL	53 18
	F	21.6

Local and Minor Quakes

day	hour
Bozeman	
Feb.	
7	17.9
20	20.0
Mar.	
9	16.5
	16.7
	17.3
24	16.7
College	
Jan.	
11	5.6
12	6.4
17	11.0
24	6.2
Feb.	
7	17.7
Columbia	
Jan.	
16	2.8
Honolulu	
Jan.	
7	21.2
	22.1
	22.7
	23.5
8	0.2
	0.6
18	1.0
	20.8
	22.3

day	hour
Honolulu	
Jan.	
19	20.6
22	22.1
24	18.2
	18.6
	19.2
	20.5
	23.1
25	20.2
	22.0
	23.0
	23.9
29	23.5
Feb.	
22	22.6
24	23.1
Mar.	
14	23.2
	23.7
15	0.2
	0.5
	1.0
	20.4
	22.5
16	0.3
17	20.0
18	18.0
	18.5
	19.1
	19.7
	22.7
	23.5
19	0.2
	21.9

day	hour
Honolulu	
Mar.	
19	22.4
	22.8
20	22.2
	22.9
23	20.3
	22.9
24	18.3
	19.1
	19.7
25	19.9
	20.6
	22.5
	22.7
27	22.0
	22.8
	23.7
28	1.1
Huancayo	
Jan.	
3	5.4
4	22.7
	23.3
5	7.3
	12.2
	21.1
6	16.4
8	8.4
	19.6
	23.4
9	10.5
10	16.4
12	15.5
13	18.1
15	8.5

Local and Minor Quakes (continued)

day	hour
Huancayo	
Jan.	
18	5.9
	16.3
19	23.7
20	6.2
21	16.3
25	12.3
Feb.	
3	2.4
11	6.7
	16.7
15	14.2
	15.2
16	2.1
17	7.8
18	9.8
	11.0
19	17.6
28	15.3
Mar.	
5	9.4
10	4.5
	9.4
	12.2
12	7.9
13	6.1
14	10.8
21	12.2
24	17.2
	21.8
26	17.3
29	20.2
30	6.0
31	21.7
Montezuma	
Jan.	
1	10.4
2	11.3
6	15.7
	16.8
8	22.0
10	4.4
	16.4
11	2.0
14	14.8
15	3.6
16	13.7
23	9.1
28	23.2
31	15.9
Feb.	
9	23.4
13	13.9
18	19.0
28	17.1

day	hour
Montezuma	
Mar.	
10	1.6
15	7.1
16	16.6
18	10.1
27	19.0
30	10.8
Rapid City	
Jan.	
20	3.2
Feb.	
7	11.9
Salt Lake City	
Mar.	
9	16.5
	16.7
	17.2
San Juan	
Jan.	
3	10.4
4	7.2
5	12.0
11	17.4
14	21.6
15	4.6
16	13.8
17	1.8
26	3.0
28	20.7
Feb.	
10	23.1
14	7.4
15	1.4
	7.6
16	5.4
Mar.	
9	4.9
10	16.6
15	0.4
24	3.1
25	13.5
Sitka	
Feb.	
3	13.1
7	17.7
23	20.4
Tucson	
Jan.	
1	6.4
	10.5
	19.8
	21.7

day	hour
Tucson	
Jan.	
2	7.6
	15.3
	19.3
	22.7
3	10.4
	13.8
	14.8
4	7.3
	16.3
	17.3
	22.2
	22.4
	23.4
5	3.1
	7.2
	13.0
	20.8
6	7.0
	11.7
	16.3
	19.0
7	3.1
	6.8
	9.3
8	4.7
	10.3
	12.6
	14.6
	19.5
9	8.4
	18.4
	22.1
10	1.1
	3.7
	4.6
	16.6
11	1.8
	4.9
	17.5
	20.3
	20.6
12	6.5
13	3.8
	6.0
	6.3
	6.4
	18.0
14	5.1
	7.0
	12.1
	20.2
	21.2
15	23.3
	23.7
16	1.9
	2.0
	11.2
	11.7
	12.2
	13.7

Local and Minor Quakes (continued)

day	hour
Tucson	
Jan.	
17	5.0
	13.5
18	1.5
	4.8
	5.3
	15.2
	16.9
	23.3
	23.4
19	10.2
	18.5
20	5.6
	12.8
	18.8
	19.3
	21.7
21	18.0
	20.4
22	6.3
	23.0
23	20.8
	22.9
24	1.7
	19.3
25	12.8
	20.4
27	17.3
	20.6
28	9.1
	9.2
	14.2
	14.4
29	1.0
	14.8
30	0.9
31	0.1
	9.7
	22.2
Feb.	
1	6.6
	7.0
	7.8
	8.4
	9.0
	11.5
	13.1
	14.0
	15.6
	17.6
	20.6
	21.0
	21.3
	22.4
	22.4
	23.2
2	3.8
	4.0
	5.3
	8.1
	11.8

day	hour
Tucson	
Feb.	
2	18.1
	20.0
	21.3
	22.7
3	14.1
	17.8
	19.2
	19.9
	20.5
4	7.9
	9.1
	16.0
	18.5
	21.1
5	6.0
	17.5
	21.0
6	8.5
	9.9
	12.5
	17.5
	19.4
	21.8
	21.9
7	16.9
	18.5
	19.0
	22.4
8	17.5
	21.9
9	17.4
	18.3
	20.7
	22.4
10	18.3
11	5.7
	16.8
	21.3
	21.4
12	18.3
	22.8
13	15.4
14	13.8
	16.6
	18.2
	18.3
	22.4
	22.9
15	15.5
	16.1
	17.6
	22.4
	22.7
16	5.6
	16.4
	19.0
	19.3
	20.5
	22.5
17	0.4
	4.3

day	hour
Tucson	
Feb.	
17	8.2
	16.7
	17.3
	19.6
	20.2
	22.8
18	0.4
	3.2
	16.0
	16.3
	17.2
	18.1
	20.2
	20.8
	21.0
	22.3
19	7.3
	12.3
	16.8
	19.8
	22.4
20	6.5
	8.7
	9.6
	17.9
	18.0
	21.9
21	11.4
	16.5
	17.1
	18.0
	20.1
22	2.6
	11.7
	17.9
	23.1
23	4.4
	6.4
	6.6
	7.2
	15.8
	18.3
	20.5
	21.7
	22.5
	23.8
24	17.0
	19.2
	20.1
	22.3
	22.7
25	0.4
	6.9
	19.0
26	18.5
	22.4
27	19.8
	21.0
	21.4
	22.0

Local and Minor Quakes (continued)

day	hour
Tucson	
Feb.	
27	19.8
	21.0
	21.4
	22.0
28	1.3
	1.3
	1.5
	2.0
	2.3
	2.4
	3.1
	3.2
	3.3
	8.1
	10.8
	12.7
	16.9
	17.9
	18.7
	21.7
	22.4
29	4.8
	5.7
	20.2
	20.7
	21.9
	23.3
	23.9
Mar.	
1	3.3
	3.8
	9.5
	13.3
	16.2
	16.6
	17.3
	20.2
	22.5
2	0.7
	3.6
	16.5
	22.5
3	0.9
	16.9
	17.3
	18.1
	21.0
	21.2
4	3.9
	5.9
	9.2
	14.3
	17.7
5	9.8
	18.6
	20.8
6	9.0
	17.2
	20.9
	21.2

day	hour
Tucson	
Mar.	
6	21.5
	22.4
	22.7
7	3.4
	5.9
	11.4
	14.0
	18.5
	22.5
	23.3
8	7.0
	14.5
	18.0
	18.4
	18.7
	21.9
	22.4
9	0.1
	4.2
	9.0
	14.0
	16.6
	17.2
	18.1
	21.0
	22.0
10	0.3
	9.0
	12.3
	19.6
	19.7
	20.7
	22.6
11	7.3
	13.8
	15.2
	15.2
	15.3
	19.3
	20.8
	21.3
	22.3
	22.4
12	8.4
	18.4
	23.5
13	15.6
	16.1
	20.8
	22.0
14	0.1
	11.6
	20.3
15	9.2
	15.4
	17.1
	18.1
	19.1
	20.9
	22.0
	22.4

day	hour
Tucson	
Mar.	
15	23.2
16	7.0
	7.2
	7.4
	16.8
	18.2
	20.3
	22.2
17	1.8
	2.1
	3.2
	16.8
	17.7
	20.0
	21.1
	21.8
	22.1
	22.4
18	9.8
	10.2
	10.4
	17.8
	18.1
	20.3
19	1.1
	1.2
	1.2
	1.2
	1.2
	1.3
	9.5
	13.1
	17.5
	20.3
	22.0
20	2.3
	15.7
	15.8
	18.4
21	4.8
	5.4
	8.7
	12.3
	15.1
	20.2
	20.8
	21.1
	22.3
	23.2
22	17.5
	19.0
	19.2
	20.0
	22.3
	22.4
	22.6
23	1.4
	15.3
	15.5
	18.6
	21.1

Local and Minor Quakes (continued)

day	hour
Tucson	
Mar.	
23	23.2
24	10.4
	16.4
	18.9
	19.1
	20.2
	23.3
25	0.8
	0.9
	3.2
	3.3
	4.5
	5.6
	9.0
	11.6
	15.3
	17.0
	18.9
	21.7
	22.4
26	4.7
	9.0
	23.9
27	12.4
	13.5
	14.7

day	hour
Tucson	
Mar.	
27	17.2
	17.5
	18.7
	22.4
28	12.1
	13.9
	16.8
	17.5
	18.1
	18.2
	19.7
	20.8
	22.4
	23.5
29	3.3
	8.2
	11.5
	14.9
	16.2
	22.1
	22.5
30	3.9
	4.6
	7.0

day	hour
Tucson	
Mar.	
30	9.3
	10.9
	16.4
	18.1
	18.2
	18.6
	19.0
	19.2
	23.1
31	17.3
	18.3
	19.1
	22.8
Ukiah	
Feb.	
19	12.2
	14.4
Mar.	
15	8.3
29	8.3