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SEISMOLOGICAL BULLETIN

January, 1951

MSI - 145-a

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U. S. DEPARTMENT OF COMMERCE

Sinclair Weeks, Secretary

COAST AND GEODETIC SURVEY—WASHINGTON

H. Arnold Karo, Director

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National Oceanic and Atmospheric Administration

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March 4, 2011

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

**Balboa Heights, C. Z. (BH)
The Panama Canal
*Boulder City, Nev. (BC)
Bureau of Reclamation
*Bozeman, Mont. (BOZ)
Montana State College
**Burlington, Vt. (BUR)
University of Vermont
*Butte, Mont. (BUT)
Montana School of Mines
*Chicago, Ill. (CHI)
University of Chicago and
U. S. Weather Bureau
College, Alaska (COL)
*Columbia, S. C. (COLU)
University of South Carolina
Honolulu, T. H. (HONO)
*Hungry Horse, Mont. (HH)
Bureau of Reclamation
*Lincoln, Nebr. (LIN)
Nebraska Wesleyan University
**Logan, Utah (LOG)
Utah State Agricultural College
*Montezuma, Chile (MONT)
Smithsonian Institution
**New Kensington, Pa. (NK)
Private station, Fred Keller, Sr.
*Overton, Nev. (OV)
Bureau of Reclamation and
National Park Service
**Philadelphia, Pa. (PHIL)
The Franklin Institute
*Pierce Ferry, Ariz. (PF)
Bureau of Reclamation and
National Park Service
**Rapid City, S. Dak. (RC)
South Dakota State School of Mines
*Salt Lake City, Utah (SLC)
University of Utah
San Juan, Puerto Rico (SJ)
*Shasta, Calif. (SH)
Bureau of Reclamation
Sitka, Alaska (SIT)
Tucson, Ariz. (TUC)
Ukiah, Calif. (UK)
International Latitude Observatory
Washington, D. C. (WASH)

*Indicates a station maintained by a local institution in cooperation with the Coast and Geodetic Survey.
**Indicates a station operating on an independent basis.
Other stations are observatories of the Coast and Geodetic Survey.

All seismogram interpretations are made or revised at Washington except those for Balboa Heights. All magnitude determinations are by Pasadena unless otherwise stated. Minor earthquakes are listed at the end of the bulletin.

One asterisk (*) following an origin time indicates probable error of one-tenth minute. Two asterisks (**) following an origin time indicates probable error of one-quarter minute. All origin times and locations are determined from P data only. For Pasadena epicenters the time is given in one-tenth minute.

All seismograms are on file in the Coast and Geodetic Survey, except those from Balboa Heights, Burlington, Logan, and New Kensington which may be obtained on loan by addressing the Seismograph Station Director: - Meteorological and Hydrographic Office, Panama Canal Company, Balboa Heights, Canal Zone; University of Vermont, Burlington, Vermont; Utah State Agricultural College, Logan, Utah; 508 Pershing Drive, New Kensington, Penna.

Station	Position	Instruments	Foundation and elevation	Period T_o	Period T_g	Period T_s	V	∢	Paper speed	Time Break Reference point	Ground Motion trace "up"
Balboa Heights, C. Z.	Log cos 9.99467	W-A, NS&EW	Basalt	NS 1.0			1370	14:1	60mm/min.	Beginning	N
G. E. Matthew, In Chg.	Lat. 8°57'39"N.	Mass 1.3g.	36m.	EW 1.0			1370	18:1			E
	Long. 79°33'29"W.										
Boulder City, Nev.	Log cos 9.90806	B, film, ZNE	Fractured monzonite	Z 1.4	.45		5000	Near crit.	15mm/min.	Beginning	Up
F. Werner, In Chg.	Lat. 35°58'51"N.	Mass 100 lb.	776m.	N 1.4	.45		5000	Near crit.			N
	Long. 114°50'02"W.			E 1.4	.45		5000	Near crit.			E
Bozeman, Mont.	Log cos 9.88437	McC-R, NS&EW	Alluvium, glacial	NS 10.9			270	6:1	15mm/min.	Beginning	N
A. J. M. Johnson,	Lat. 45°40'01"N.	Mass 10kg.	drift, and lake de-	EW 11.1			270	6:1			E
In Chg.	Long. 111°02'43"W.		posits 500' thick over gneiss and schist. 1490m.								
Burlington, Vt.	Log cos 9.85339	M-S, NE&NW	Glacial hardpan	NE 12			250	20:1	8mm/min.	End	SW
E. C. Jacobs, In Chg.	Lat. 44°28.8' N.	Mass 1 lb.	100m.	NW 12			250	20:1			NW
	Long. 73°11.8' W.										
Butte, Mont.	Log. cos 9.84167	W-A, NS	Rhyolite 30m. thick	NS 7.1			570	16:1	15mm/min.	Beginning	S
Stephen Nile, In Chg.	Lat. 46°00.8' N.	Mass 2g.	resting on granite								
	Long. 112°33.8' W.	B, paper, Z	1758m.	Z 1.0	.5			Near crit.	60mm/min.	Beginning	Up
		Mass 100 lb.									
Chicago, Ill.	Log cos 9.87251	McC-R, NS&EW	Limestone.	NS 10			335	15:1	15mm/min.	End	N
W. F. Schmidt, In Chg.	Lat. 41°47.3' N.	Mass 2.5kg.	180m.	EW 10			335	15:1			W
	Long. 87°36.0' W.										
College, Alaska	Log cos 9.62825	B, film, ZNE	Granitic	Z 1.5	.45		12000	Near crit.	15mm/min.	Beginning	Up
M. L. Cleven, In Chg.	Lat. 64°51.6' N.	Mass 100 lb.	schist. 159m.	N 1.5	.45			Near crit.			N
	Long. 147°50.4' W.			E 1.5	.45			Near crit.			E
		W, NS		NS 9.3	16			Near crit.			N
College Outpost	2.7 mi. NE of College.	B, paper, Z		Z 1.5	.53		60000	Near crit.	60mm/min.		Up
Columbia, S. C.	Log cos 9.91857	McC-R, NS&EW	Consolidated sand	NS 12			75	10:1	15mm/min.	Beginning	S
C. Mercer, In Chg.	Lat. 34°00' N.	Mass 10kg.	150' thick over	EW 12			75	10:1			E
	Long. 81°02' W.	Spg. Z	granite. 94m.	Z 6	6.9			Near crit.	30mm/min.		N
Honolulu, T. H.	Log cos 9.96926	M-S, NS&EW	Coral. 3m.	NS 12			124	20:1	30mm/min.	Beginning	N
R. L. White, In Chg.	Lat. 21°18'13"N.	Mass 1 lb.		EW 12			142	20:1			W
	Long. 158°05'44"W.	N-L, EW		NS 1.2			4800	8:1			E
		Spg. Z		Z 1.65	.16			crit.			Up
Hungry Horse, Mont.	Log cos 9.82255	B, film, ZNE	Argillaceous lime-	Z 1.4	.45		13000	Near crit.	15mm/min.	Beginning	N
C. H. Spencer, In Chg.	Lat. 48°20'58"N.	Mass 100 lb.	stone (Belt Series)	N 1.4	.45		5000	Near crit.			E
	Long. 114°01'39"W.		1100m.	E 1.4	.45		5000	Near crit.			Up
Lincoln, Nebr.	Log cos 9.87886	McC-R, EW	Dakota sandstone	EW 8			200	10:1	15mm/min.	Beginning	E
J. C. Jensen, In Chg.	Lat. 40°50.3' N.	Mass 2.5kg.	366m.								
	Long. 96°39.2' W.										

Station	Position	Instruments	Foundation and elevation	Period T_o	Period T_g	T_s	V	∡	Paper speed	Time Break Reference point	Ground Motion trace "up"
Logan, Utah J. Stewart Williams In Chg.	Log cos 9.87283 Lat. 41°44.5' N. Long. 111°48.8' W.	W-A, NS&EW (dbl. refl.) Mass 2g. Spg, Z	Bonneville lake beds. 1455m.	NS 6 (about) EW 6 (about) Z 1.9	 2.2		700 700 	10:1 10:1 Near crit.	15mm/min. 60mm/min.	Beginning	S E Up
Montezuma, Chile J. A. Pora, In Chg.	Log cos 9.96509 Lat. 22°40' N. Long. 68°56' W.	B-O, NS&EW Mass 25kg.	Mesozoic granite 2748m.	NS 20 EW 20			10 10	Near crit. Near crit.	15mm/min.	Middle	N E
New Kensington, Pa. F. Keller, Sr., In Chg.	Log cos 9.88066 Lat. 40°33'35"N. Long. 79°45'15"W.	W, electronic EW	Shale. 251m.	EW 10	13		1000	6:1	1"/min.	Beginning.	E
Overton, Nev. F. Werner, In Chg.	Log cos 9.90500 Lat. 36°31'52"N. Long. 114°26'33"W.	B, Paper, Z Mass 100 lb.	Terrace gravel overlying fine playa silt with gypsum cement. 395m.	Z 1.5	.45		40000	Near crit.	60mm/min.	Beginning	Up
Philadelphia, Pa. I. M. Levitt, In Chg.	Log cos 9.88452 Lat. 39°57'32"N. Long. 75°10'30"W.	W, NS&EW Mass 500g.	Cape May sand and gravel. 5m.	NS 9.0 EW 9.0	9.4 9.4	7.9 7.1	1400 1400	22:1 34:1	20mm/min.	End	S E
Pierce Ferry, Ariz. F. Werner, In Chg.	Log cos 9.90729 Lat. 36°07'15"N. Long. 114°00'17"W.	B, film, ZNE Mass 100 lb.	Terrace gravel overlying fine playa silt with gypsum cement. 417m.	Z 1.5 N 1.5 E 1.5	.45 .45 .45		13000 13000 13000	Near crit. Near crit. Near crit.	15mm/min.	Beginning	Up N E
Rapid City, S. Dak. E. L. Tullis, In Chg.	Log cos 9.85637 Lat. 44°04.6' N. Long. 103°12.0' W.	W-A, EW (dbl. refl.) Mass 2g.	Shale. 1045m.	EW 6			590	20:1	15mm/min.	End	E
Salt Lake City, Utah A. M. Anderson, In Chg.	Log cos 9.87932 Lat. 40°45'55"N. Long. 111°50'54"W.	McC-R, NS&EW Mass 2.5kg.	Bonneville lake beds 1425m.	NS 9.9 EW 10.0			335 335	Near crit. Near crit.	15mm/min.	Beginning	N W
San Juan, Puerto Rico Paul Medig, In Chg.	Log cos 9.97726 Lat. 18°22.9' N. Long. 66°07.1' W.	W, NS&EW Mass 500g. B, Z	Limestone. 80m.	NS 10.0 EW 10.0 Z 1.04	20.1 12.8 0.5	11.4 10.4	1280 1280	20:1 20:1 Near crit.	30mm/min. 60mm/min.	Beginning	N W Up
Shasta, Calif. G. D. Atkinson, In Chg.	Log cos 9.87978 Lat. 40°41'44"N. Long. 122°23'19"W.	B, film, ZNE Mass 100 lb.	Meta-andesite. 312.4m.	Z 1.5 N 1.5 E 1.5	.45 .45 .45		5000 5000 5000	Near crit. Near crit. Near crit.	15mm/min.	Beginning	Up N E
Sitka, Alaska J. Campbell, In Chg.	Log cos 9.73544 Lat. 57°03'25"N. Long. 135°19'28"W.	W, NS&EW Mass 500g.	Graywacke. 19m.	NS 7.7 EW 7.8	15.3 10.4	8.5 7.5	1000 1000	14:1 14:1	15mm/min.	Beginning	N W
*Tucson, Ariz. J. H. Nelson, In Chg.	Log cos 9.92725 Lat. 32°14.8' N. Long. 110°50.1' W.	W-A, NS&EW Mass 2.3g. B, Z	Caliche or gravels 100-300m. thick. 770m.	NS 8.0 EW 8.0 Z 1.0	 .236 77.0		466 457 	crit. crit. Near crit.	30mm/min. 60mm/min. 30mm/min.	Beginning	S E Up Up

Station	Position	Instruments	Foundation and elevation	T_o	Period T_g	T_s	V	$\measuredangle$	Paper speed	Time Break Reference point	Ground Motion trace "up"
Ukiah, Calif. L. F. Caouette, In Chg.	Log cos 9.88968 Lat. 39°08' N. Long. 123°13' W.	McC-R, NS&EW Mass 10kg.	Alluvium 180m. deep. 199m.	NS 11.9 EW 11.6			75 75	Near crit.	15mm/min.	Beginning of 3-sec. time break	N E
*Washington, D. C.	Log cos 9.89117 Lat. 38°53'33"N. Long. 77°01'59"W.	Spg, Z Visible recorder	Recent alluvium on schistose granite. 0m.	Z 2	2 Pen 0.5				30mm/min.	Beginning	Up

*These stations operate visible recording seismographs similar to one at Washington.

B - Benioff; B-O - Bosch-Omori; McC-R - McComb-Romberg; M-S - Milne-Shaw; N-L - Neumann-Labarre; Spg - Sprengnether; W - Wenner; W-A - Wood-Anderson

Date 1951	Origin Time G. C. T.	Lat.	Long.	Region, Focal Depth, and Remarks
Jan.	h m s	° '	° '	
1	03 07 51*	47-1/2 N.	109-1/2 E.	Eastern Mongolia.
1	03 21 40*	5 S.	151 E.	New Britain region.
1	20 16 25*	18-1/2 S.	169 E.	New Hebrides Islands. h about 100 km.
2	23 11 46*	10 S.	79-1/2 W.	Off coast of Peru. h about 60 km.
3	02 11 05*	33 S.	178-1/2 W.	Kermadec Islands region.
3	12 21 29*	18 N.	106 W.	Off coast of Colima, Mexico. Mag. 6-1/4.
3	13 04 19*	18 N.	106 W.	Do.
3	17 27 19**			Central Chile. Felt.
4	12 45 40**			New Hebrides Islands region.
5	00 52 40*	7 N.	81 W.	Near south coast of Panama. Felt. h about 100 km. Mag. 6-3/4.
5	08 07 58**			Samoa Islands region.
5	13 25 18*	12 S.	165 E.	Santa Cruz Islands region. h about 100 km.
5	18 45 10*			Southern Gulf of California.
6	05 17 19*	36-1/2 N.	70-1/2 E.	Hindu Kush. Felt in Delhi, Dras, Sring and Srinagar, India. h about 250 km. Mag. 6-3/4 - 7.
6	07 51 31*	7-1/2 N.	81 W.	Near south coast of Panama. Felt. h about 100 km. Mag. 6.9
6	14 58 51*	7-1/2 N.	81 W.	Panama aftershock. Felt. h about 100 km.
7	14 58 41**			Do.
8	11 55 15**			Kermadec Islands region.
8	18 32 25*	35-1/2 N.	140 E.	Near southeast coast of Honshu, Japan. Minor damage at Yokohama and Choshi. h about 60 km. Mag. 6-1/2.
8	21 39 29*	5 S.	151 E.	New Britain region. Mag. 6-3/4 - 7.
9	00 27 55*	38 N.	20 E.	Off west coast of Greece. Felt on Ithaca and Leucada.
9	16 00 24*	81 N.	122 E.	Arctic Ocean, northeast of Lenin Land. Mag. about 6.
10	08 26 52*	23 S.	176 W.	Tonga Islands region. h about 60 km.
10	10 13 31**			Tonga Islands.
10	19 03 25**			Rat Islands, Aleutian Islands. h about 60 km.
10	19 15 16*	43 S.	173 E.	Near east coast of South Island, New Zealand. Minor damage at Cheviot and Christchurch.
10	22 25 14**			Off coast of central Peru.
10	23 51 00**			Samoa Islands. h about 100 km.
13	20 31 31*	40-1/2 N.	125 W.	Off Cape Mendocino, California. Felt at Arcata, Eureka, Ferndale and Trinidad.
14	01 10 35**			Solomon Islands region.
14	10 19 24*	23 S.	176 W.	Tonga Islands region. h about 100 km.
15	01 50 36*	51 N.	178-1/2 E.	Rat Islands, Aleutian Islands.
15	02 29 46*	51 N.	178-1/2 E.	Do.
15	04 12 08*	15 S.	167 E.	New Hebrides Islands. h about 100 km. Mag. 6-1/2 - 6-3/4.

Date 1951	Origin Time G. C. T.	Lat.	Long.	Region, Focal Depth, and Remarks
Jan	h m s	° ′	° ′	
15	09 35 08**			Fox Islands, Aleutian Islands.
15	21 32 20**			Samoa Islands region. h about 100 km.
15	22 31 26*	20 S.	168 E.	Loyalty Islands.
15	22 42 36**			Off east coast of Kamchatka.
16	01 11 50*	42 N.	15 E.	Near southeast coast of Italy. Felt at Foggia, San Nicandre, San Severo and Viesta.
16	08 08 10*	36-1/2 N.	70 E.	Hindu Kush region.
16	12 36 07*	38-1/2 N.	20 E.	Near west coast of Greece.
16	13 13 57*	18-1/2 S.	172 E.	New Hebrides Islands region.
17	15 53 50**			Near coast of southern Peru.
18	21 15 50*	52 N.	177 W.	Andreanof Islands, Aleutian Islands. Felt at Finger Bay. h about 60 km. Mag. 6-1/4 - 6-1/2.
19	01 40 50*	13 N.	88 W.	Near coast of El Salvador. h about 100 km.
19	04 08 55**			Solomon Islands region.
20	13 12 08*	14-1/2 N.	90 W.	Guatemala.
21	06 28 27	39 37 N.	119 48 W.	By Berkeley. Near Reno, Nevada. Felt. Mag. 4.1.
21	07 27 28**			Fiji Islands region. h about 500 km.
21	12 44 10**			El Salvador - Honduras border region.
22	04 25 00**			About 300 miles off coast of El Salvador. h about 60 km.
22	10 30 45*	33-1/2 S.	178 W.	Kermadec Islands. Mag. 6-1/4.
22	12 16 02*	17-1/2 S.	41-1/2 E.	Mozambique Channel. Mag. 6-1/2.
22	13 46 30*	21 S.	176 W.	Tonga Islands. h about 150 km.
22	15 14 53	39 05 N.	119 57 W.	By Berkeley. Near Lake Tahoe, California. Felt at Tahoe City and Phillips, California, and Marlette Lake, Nevada. Mag. 4.8.
22	16 06 50**			Near south coast of Luzon, Philippine Islands. Felt at Legaspi and Virac.
22	23 16 49*	47 N.	153 E.	Kurile Islands.
23	06 52 42*	55 S.	136 W.	South Pacific Ocean. Mag. 6-3/4.
23	07 00 35**			Southern Alaska. Felt at Anchorage. h about 60 km.
24	00 46 12*	12-1/2 N.	167 E.	Santa Cruz Islands. h about 200 km.
24	04 49 28*	59-1/2 S.	23 W.	Sandwich Islands.
24	07 17 01	33 07 N.	115 34 W.	By Pasadena. Near Calipatria, California. Felt as far as Corona, Needles, and San Diego. Mag. 5.6.
24	07 33 07	33 07 N.	115 34 W.	By Pasadena. Calipatria aftershock. Mag. 4.0.
24	07 42 36	33 07 N.	115 34 W.	By Pasadena. Calipatria aftershock. Mag. 3.8.
24	09 55 58	33 07 N.	115 34 W.	Do.
25	12 22 50**			Northern Chile. h about 100 km.
25	14 55 33*	18 S.	179 W.	Fiji Islands. h about 600 km.
25	16 35 30*	2-1/2 S.	80-1/2 E.	Indian Ocean.

Date 1951	Origin Time G. C. T.	Lat.	Long.	Region, Focal Depth, and Remarks
Jan.	h m s	° '	° '	
26	02 51 26**			Near coast of northern Peru. Felt at Olmos, Morropon and Chiclayo. h about 100 km.
26	03 25 15**			Molucca Passage.
26	06 28 01	37 40 N.	118 45 W.	By Pasadena. Northern Owens Valley, California. Mag. 3.5.
26	12 06 05	33 03 N.	115 42 W.	By Pasadena. Near Westmorland, California. Mag. 3.1.
27	00 36 30*	28 S.	63 W.	Santiago del Estero Province, Argentina. h about 600 km.
28	13 26 25*	24-1/2 N.	123 E.	Near east coast of Formosa.
29	05 02 03**			Cape Mendocino foreshock.
29	05 43 47*	43 N.	127-1/2 W.	Off Cape Mendocino, California.
29	10 27 53*	15 N.	92-1/2 W.	Near coast of Chiapas, Mexico. h about 100 km.
30	11 16 43*	15-1/2 N.	99 W.	Guerrero foreshock.
30	19 00 30*	15-1/2 N.	99 W.	Off coast of Guerrero, Mexico. Mag. 6-1/4 - 6-1/2.
30	23 07 34*	32 N.	33-1/2 E.	Eastern Mediterranean Sea. Felt in northern Egypt, Israel and Lebanon. h about 100 km.
31	11 51 46*	21 N.	46 W.	North Atlantic Ocean.
31	16 38 35**			Off coast of Peru. Felt at Ancon, Lima, Mala, and Miraflores.

Date and Station		Phase (GCT)
		h m s
Jan. 1		
COL	eP	01 45 18
	iP	45 21
Jan. 1		
COL	e(P)	01 58 18
Jan. 1, H = 03 07 51* 47-1/2°N, 109-1/2°E. Eastern Mongolia.		
COL	iP	03 17 07
HH	iP	03 19 45
SH	iP	03 20 04
Jan. 1, H = 03 21 40* 5°S, 151°E. New Britain region.		
BC	iP	03 35 03
	e	35 43
COL	iP	03 34 03
HH	iP	03 35 13
PF	iP	03 35 13.7
	eSKS	45 44
SH	eP	03 34 44
Jan. 1		
COL	eP	07 10 45
Jan. 1		
COL	eP	07 27 25
Jan. 1		
COL	eP	16 50 41
	e	52 52
Jan. 1		
COL	eP	17 29 41
	iP	29 43
Jan. 1		
COL	eP	17 46 29
HH	iP	17 46 29
PF	eP	17 45 54
SH	iP	17 45 39
Jan. 1		
BC	eP	17 51 41
COL	iP	17 56 21
HH	eP	17 53 10
PF	eP	17 51 39
	e	59 09
TUC	iP	17 50 52
	ePP	51 06
	eL	55 17

Date and Station		Phase (GCT)
		h m s
Jan. 1		
COL	i(P)	18 17 33
Jan. 1		
COL	iP	18 48 51
	i(pP)	51 02
	i	53 57
HH	iP	18 52 35
PF	iP	18 53 39.1
Jan. 1, H = 20 16 25* 18-1/2°S, 169°E. New Hebrides Islands h = about 100 km.		
BC	iP	20 29 23
	epP	29 50
	ePP	33 20
COL	eP	20 29 16
	iP	29 18
	ipP	29 41
	ePP	33 07
	esS	40 42
	eSS	45 56
	eL	54 50
HONO	e(P)	20 25 51
	eL	39 34
HH	e(P)	20 29 47
	ipP	30 14
	ePP	33 25
	eP'P'	55 15
LOG	eP	20 29 41
	e(pP)	30 23
	ePP	33 33
	epPP	33 53
	esPP	34 06
	eSKS	40 05
	esS	41 23
	e(SS)	48 01
PF	iP	20 29 25.9
	ipP	29 50.9
	iPP	33 22.9
	ePKKP	47 16
SJ	ePP	20 37 55
	eSKS	42 33
	epPS	47 57
	e	51 36
	eSS	55 19
SH	iP	20 29 06
	epP	29 28
	ePP	32 53
TUC	iP	20 29 31
	ipP	29 54
	ePP	33 17
	epPP	33 49
	eL	59 06
Jan. 1		
PF	e(P)	23 12 09

Date and Station		Phase (GCT)
		h m s
Jan. 2		
COL	eP	01 06 25
HH	eP	01 03 25
PF	eP	01 02 10
TUC	eP	01 01 31
	e	01 54
	eL	13 55
Jan. 2		
COL	eP	01 45 04
Jan. 2		
COL	e(P)	07 33 22
	e	33 28
Jan. 2		
HH	iP	09 04 36
Jan. 2		
COL	iP	11 14 30
	i	14 39
Jan. 2		
SH	e(P)	12 09 22
Jan. 2		
HH	iP	15 37 01
LOG	e(P)	15 40 32
	e	41 02
PF	eP	15 40 40
Jan. 2		
BC	iP	20 42 26
COL	eP	20 46 46
	e(pP)	47 26
HH	iP	20 43 43
PF	iP	20 42 22.7
TUC	eP	20 41 40
	iP	41 42
Jan. 2		
COL	e(P)	21 32 55
Jan. 2, H = 23 11 46* 10°S, 79-1/2°W. Off coast of Peru. h = about 60 km.		
BC	iP	23 21 27
COL	eP	23 24 42
	ipP	24 55
	eL	00 04 30
HH	iP	23 22 28
	e	36 32
LOG	eP	23 21 24
PF	iP	23 21 24.2

Date and Station		Phase (GCT)
		h m s
TUC	eP	23 20 49
	iP	20 50
	ePcP	21 31
	eL	32 11
Jan. 2		
PF	iP	23 22 52.4
	iS	34 25.5
	iL	34 27.0
Jan. 3		
BC	eP	01 45 47
COL	eP	01 47 35
	iP	47 37
PF	eP	01 45 43
TUC	eP	01 45 23
Jan. 3, H = 02 11 05* 33°S, 178-1/2°W. Kermadec Islands region.		
BC	eP	02 24 10
COL	eP	02 24 55
PF	eP	02 24 12
TUC	eP	02 24 11
Jan. 3		
HH	eP	08 24 17
PF	iP	08 25 43.5
Jan. 3		
COL	iP	10 00 16
	e	00 50
HH	eP	10 02 01
Jan. 3		
COL	iP	10 45 19
HH	iP	10 43 05
PF	iP	10 42 37.5
TUC	eP	10 42 10
Jan. 3, H = 12 21 29* 18°N, 106°W. Off coast of Colima, Mexico. Mag. 6-1/4.		
BER	eP	12 29 05
	ePP	30 44
	eL	38 23
BC	iP	12 26 03
	e	26 24
	ePP	26 39
	eL	32 00
COL	eP	12 31 00
	eL	45 05

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Date and Station		Phase (GCT) h m s
COLU	eP	12 27 18
	eS	32 08
	eL	33 12
HH	iP	12 27 51
LIN	eP	12 26 44
	eS	31 12
	eL	33 45
LOG	eP	12 26 49
	i	26 59
	ePP	27 11
	e	28 47
	iS	31 15
	eL	32 31
PHIL	eP	12 28 09
	eS	33 27
	iL	40 21
PF	eP	12 25 43
	iPP	26 01.0
	eL	29 50
RC	eP	12 27 07
	eS	31 43
	eL	34 53
SIC	e(P)	12 26 42
	eL	30 57
SH	eP	12 27 11
	e	27 25
SIT	eS	12 36 38
	eL	45 30
TUC	eP	12 25 02
	iP	25 04
	i	25 21
	e	25 32
	i	27 10
	iL	28 07
UK	e(P)	12 27 32
	e(S)	31 58
	eL	32 22
WASH	eP	12 28 04
	eL	40 12
Jan. 3		
COL	eP	12 39 37
Jan. 3, H = 13 04 19* 18°N, 106°W. Off coast of Colima, Mexico. Mag. 6-1/4.		
BC	eP	13 08 55
	eL	16 30
COL	eP	13 13 50
	eL	27 08
COLU	e	13 10 10
	eS	14 48
	eL	17 54
HH	iP	13 10 42
LIN	eS	13 14 07
	eL	16 34
LOG	e(P)	13 09 42
	e	12 14
	iS	13 51
	eL	14 07
PHIL	eP	13 11 05
	iL	23 17
PF	iP	13 08 52.9
	iPP	09 13.7
	e(S)	12 45
	eL	16 00
RC	eP	13 10 07
	eS	14 34
	eL	17 47
SIC	eP	13 09 34
	e	10 38
	eS	13 46
	eL	16 20
SH	iP	13 10 02
SIT	eS	13 19 30
	eL	26 54
TUC	iP	13 07 56
	e	08 30
	e	09 04
	eS	10 38
	eL	11 02
UK	e(P)	13 10 20
	e(PP)	11 12
	e(S)	13 44
	eL	16 56
WASH	i(P)	13 11 00
	eL	18 34
Jan. 3		
COL	e(P)	13 23 13
Jan. 3		
PF	e(P)	16 05 20
TUC	e(P)	16 05 16
Jan. 3, H = 17 27 19** Central Chile. Felt.		
BC	iP	17 39 49
HH	e(P)	17 40 35
LOG	e	18 16 04
PF	eP	17 39 41
	i	39 47.4
TUC	eP	17 39 22
	iP	39 23
	i	39 40
Jan. 3		
PF	e(P)	20 25 42
Jan. 3		
COL	iP	21 25 57
PF	e(P)	21 33 30
Jan. 3		
BC	e(P)	23 29 10
COL	e(P)	23 29 05
PF	iP	23 29 12.8
Jan. 4		
COL	e	01 21 20
PF	e(P)	01 13 48
TUC	eP	01 12 54
	eL	15 15
Jan. 4		
COL	iP	03 49 54
	i	50 05
	i	50 23
HH	iP	03 51 22
	i	51 59
PF	e	03 53 22
	e	56 32
Jan. 4		
COL	e(P)	04 49 06
	e	49 11
Jan. 4		
PF	eP	06 21 19
Jan. 4		
COL	eP	07 02 59
Jan. 4		
BC	iP	09 51 47
HH	iP	09 52 33
	ipP	53 06
PF	iP	09 51 45.7
	ipP	52 19.4
SH	iP	09 52 25
	ipP	53 00
TUC	iP	09 51 19
Jan. 4		
COL	iP	10 31 20
Jan. 4		
PF	eP	10 41 37
TUC	e(P)	10 41 10
	e	41 26
Jan. 4, H = 12 45 40** New Hebrides Islands region.		
BC	eP	12 58 46
COL	eP	12 58 36
PF	eP	12 58 49
SH	iP	12 58 29
TUC	eP	12 58 53
Jan. 4		
BC	iP	14 04 56
	i	05 45
PF	eP	14 04 58
	i	05 06
	iL	05 56.3
TUC	e	14 08 13
	e	08 29
Jan. 4		
BC	eP	15 52 28
COL	eP	15 55 11
	i	56 41
HH	e(P)	15 53 39
TUC	e	15 51 47
Jan. 4		
PF	iP	21 10 40.8
Jan. 4		
COL	iP	21 30 27
HH	e(P)	21 31 27
	eL	32 00
OV	eP	21 33 25
PF	iP	21 33 27.4
TUC	eP	21 33 54
Jan. 4		
COL	e(P)	22 44 23
OV	e(P)	22 33 44
Jan. 4		
COL	iP	23 25 07
HH	e(P)	23 27 08
Jan. 5		
COL	eP	00 14 28
OV	eP	00 13 58
PF	iP	00 13 59.0

Date and Station		Phase (GCT)
		h m s
Jan. 5, H = 00 52 40* 7°N, 81°W. Near south coast of Panama. Felt. h = about 100 km. Mag. 6-3/4.		
BH	iP	00 53 13
	iS	53 42
BER	eP	00 58 40
	eS	01 03 21
	eL	04 51
BC	iP	01 00 33
	isP	01 23
	iPP	02 27
BOZ	eP	01 01 01
	ePP	03 01
	eS	07 47
	eSS	10 57
	eL	12 08
BUT	eP	01 01 14
	eS	08 02
	e(SS)	11 13
	eL	17 16
COL	iP	01 04 10
	i	04 13
	e	07 07
	iS	13 35
	isS	14 15
	eSS	18 26
	eL	22 55
COLU	eP	00 58 16
	e	01 02 32
	eL	04 36
HH	iP	01 01 28
	eS	08 34
	eScS	11 17
LIN	eS	01 05 15
	eL	07 39
LOG	eP	01 00 44
	iP	00 47
	ipP	01 09
	ePP	02 31
	i	04 11
	eS	07 09
	iS	07 24
	eL	10 42
OV	eP	01 00 31
	i	00 35.3
PHIL	i(P)	01 01 06
	iS	05 08
	eL	07 30
PF	iP	01 00 26.0
	i	00 30.3
	eScP	05 46
RC	eP	01 00 24
	epP	00 41
RC	ePP	01 02 17
	eS	06 35
	eL	09 47
SLC	eP	01 00 42
	ePP	02 16
	eS	06 59
	eSS	10 23
	eL	12 08
SJ	iP	00 56 47
	iS	01 00 16
	eL	00 50
TUC	iP	00 59 50
	iPP	01 01 18
	eS	05 26
	e	05 44
	eL	08 27
UK	e	01 07 38
	eL	19 31
WASH	iP	00 59 01
	eL	01 06 29
Jan. 5		
BC	i(P)	01 16 14
COL	iP	01 16 40
	e	23 42
HH	iP	01 16 47
OV	eP	01 16 18
PF	iP	01 16 18.4
TUC	iP	01 16 21
Jan. 5		
OV	eP	02 53 14
PF	eP	02 52 58
	i	53 21
Jan. 5, H = 08 07 58** Samoa Islands region.		
BC	iP	08 19 33
COL	iP	08 20 06
HH	iP	08 20 09
PF	iP	08 19 36.9
SH	iP	08 19 16
TUC	iP	08 19 38
Jan. 5		
COL	eP	09 38 11
	iP	38 13
	e	38 22
PF	eP	09 42 33
	i	42 42.4
SH	eP	09 41 31
TUC	eP	09 43 06
Jan. 5		
BC	eP	11 44 38
COL	e	11 47 45
HH	eP	11 45 15
PF	eP	11 44 35
TUC	eP	11 44 04
Jan. 5, H = 13 25 18* 12°S, 165°E. Santa Cruz Islands region. h = about 100 km.		
BC	eP	13 38 08
COL	iP	13 37 45
	ipP	38 15
HH	eP	13 38 25
PF	eP	13 38 09
SH	eP	13 37 47
TUC	eP	13 38 18
Jan. 5, H = 18 45 10** Southern Gulf of California.		
HH	iP	18 50 27
LOG	e	18 52 40
	eL	54 55
PF	iP	18 48 12.9
TUC	eP	18 47 11
	e	49 01
	eL	49 26
Jan. 5		
BH	iP	20 18 33
	iS	19 03
HH	eP	20 26 47
PF	eP	20 25 46
Jan. 5		
BH	iP	20 31 59
	iS	32 29
Jan. 5		
PF	iP	22 16 45
	i	17 38.8
	iL	17 39.5
Jan. 5		
PF	eP	23 13 11
Jan. 5		
COL	e(P)	23 58 21
Jan. 6		
HH	iP	01 27 41
PF	iP	01 26 31.2
TUC	eP	01 25 51
Jan. 6		
HH	eP	02 04 12
PF	eP	02 02 01
SH	eP	02 03 34
TUC	eP	02 00 53
	eL	03 09
Jan. 6, H = 05 17 19* 36-1/2°N, 70-1/2°E Hindu Kush. Felt in Delhi, Dras, Sring and Srinagar, India. h = about 250 km. Mag. 6-3/4 - 7.		
BER	ePP	05 34 54
	ePPP	36 50
	eSKS	42 40
	epS	43 42
	ePPS	44 53
	eSS	49 06
	eSSS	53 50
	eL	59 15
BOZ	epP	05 31 26
	ePP	34 34
	epPP	35 42
	esPP	36 08
	e	38 23
	e(S)	42 24
	isS	43 08
	e(PS)	43 46
	ePPS	44 16
	e	46 35
	eSS	48 26
	esSS	49 43
	eSSS	53 14
	eL	06 02 00
BUT	eP	05 30 36
	e	39 29
	epS	42 26
	eSS	50 14
	eL	55 52
CHI	ePP	05 36 59
	e	39 57
	e	40 12
	e(S)	42 29
	esS	43 17
	ePPS	44 25
	eSS	49 01
	eL	06 01 15

Date and Station		Phase	(GCT)
			h m s
COL	iP		05 28 34
	iPcP		28 48
	ipP		29 27
	isP		29 50
	i		30 22
	ePP		31 21
	isPP		32 29
	i		34 20
	iS		37 51
	iPS		38 55
	isS		39 21
	eSS		42 56
	eSSS		45 11
	e		54 24
	iP'P'		55 28
HH	iP		05 30 21
	ipP		31 15
	eP		34 08
	epPP		34 59
	epS		42 12
	eP'P'		56 19
COIU	eS		05 42 48
	epS		43 44
	ePPS		45 45
	eSS		49 44
	eL		06 03 00
LIN	eS		05 42 19
	e		46 05
	e		51 27
	eL		06 02 17
LOG	iP		05 30 52
	ipP		31 49
	ePP		35 02
	epPP		35 59
	isPP		36 13
	iPPP		37 04
	i(S)		42 47
	eL		58 21
PHIL	e(PP)		05 35 09
	eS		41 22
	epS		42 24
	esS		42 51
	iPPS		44 35
	eSS		49 52
	eL		59 36
PF	iP		05 31 16.6
	eSP		44 45
	ePKKP		46 36
RC	eP		05 30 42
	epP		31 42
	epPP		35 40
	eS		41 39
	esS		43 27
	ePPS		44 29
	eSS		48 49
	e		55 54
	eL		06 01 47
SLC	e(PP)		05 35 42
	eSKS		41 17
	eS		42 21
SLC	esS		05 43 52
	e		46 39
	e		47 27
	eSS		49 40
	esSS		50 31
	eL		59 15
SJ	ePP		05 35 40
	ePPP		37 22
	eSKKS		41 41
	e		43 24
	ePKKP		46 56
	iPKKP		46 57
	eL		06 12 00
SH	iP		05 30 50
	i(pP)		31 20
	isP		32 00
	i		33 46
	iPP		35 12
SIT	eP		05 29 28
	e(pP)		30 46
	ePP		33 57
	iS		39 36
	ePS		40 30
	esS		40 45
	eSS		45 07
	eSSS		49 34
TUC	eP		05 31 33
	eP'		35 21
	iPP		36 09
	ipPP		37 18
	iPPP		38 43
	e(pPPP)		39 34
	ePS		44 31
	eSP		45 17
	iPS		45 27
	eSPP		46 23
	iPPS		46 31
	eSS		51 39
	eSSS		56 07
	eL		06 01 23
WASH	e(P)		05 31 34
	e(P')		34 43

Jan. 6, H = 07 51 31*
7-1/2°N, 81°W. Near south coast of Panama. Felt. h = about 100 km. Mag. 6.9.

Date and Station		Phase	(GCT)
			h m s
BH	iP		07 52 03
	iS		52 33
BER	eP		07 57 30
	esP		58 02
	i(PcP)		08 00 01
	i		01 39
	iS		02 25
	iL		03 12
BOZ	eP		07 59 56
	ePcP		08 01 38
	ePP		01 54
	esPP		02 22
	e		03 33
	eS		06 18
BOZ	eScS		08 09 24
	eL		09 53
BUT	eP		08 00 12
	esPP		02 36
	eS		06 50
	eScS		09 43
	eL		10 53
BC	eP		07 59 20
CHI	eP		07 58 38
	i(PP)		59 32
	iS		08 03 41
	i(sS)		04 18
	iL		06 01
COL	eP		08 02 57
	iP		02 59
	ipP		03 19
	ePP		05 42
	iS		12 30
	eL		21 12
COLU	eP		07 57 09
	epP		57 25
	eS		08 01 38
	e(sS)		02 16
	eL		02 44
HONO	eP		08 03 16
	epP		03 38
	e		13 07
	e(S)		13 36
	eSS		17 46
	eL		24 12
HH	eP		08 00 17
	eS		07 26
LIN	epP		07 58 54
	e		59 35
	ePP		59 52
	esPP		08 00 28
	eS		04 03
	eL		06 22
LOG	eP		07 59 32
	iP		59 34
	ipP		59 56
	epPP		08 01 49
	ePPP		02 07
	e		02 47
	eS		05 53
	iS		06 02
	isS		06 56
	i		08 59
	eL		09 06
PHIL	e(P)		07 58 15
	ePP		59 11
	iS		08 03 22
	iL		05 54
PF	iP		07 59 14.9
	i		59 17.6
	isP		08 00 00
	iPcP		01 15
	eS		05 39
RC	iP		07 59 14
	ipP		59 39
	ePP		08 00 50
	ipPP		01 14
	iS		05 29
	esS		05 55
	e		07 20
	eL		08 31
SLC	eP		07 59 27
	eS		08 05 53
	iS		05 55
	i		06 53
	eSS		08 55
	i(ScS)		09 31
	iL		10 50
SJ	iP		07 55 38
	i		56 01
	iPP		56 22
	iS		59 07
	iPcP		08 00 11
	iL		00 47
SH	eP		08 00 16
	epP		00 38
SIT	e(S)		08 10 46
	eScS		11 52
	e(SS)		15 36
	eL		19 22
TUC	iP		07 58 39
	isP		59 20
	iPP		59 58
	iS		08 04 24
	isS		05 04
	iL		07 08
UK	eP		08 00 25
	epP		00 47
	e(PP)		02 30
	eS		07 15
	eL		11 15
WASH	iP		07 57 52
	iPcP		08 00 21
	eL		04 32
Jan. 6			
COL	eP		13 22 55

Jan. 6, H = 14 58 51*
7-1/2°N, 81°W. Panama aftershock. Felt. h = about 100 km.

Date and Station		Phase	(GCT)
			h m s
BH	iP		14 59 04
	iS		59 32
COL	eP		15 10 22
HH	eP		15 07 36
PF	eP		15 06 37
SH	eP		15 07 32

Date and Station		Phase (GCT)
		h m s
TUC	eP	15 06 03
Jan. 6		
HH	iP	15 33 16
Jan. 6		
COL	e(P)	17 01 48
Jan. 6		
COL	eP	17 54 19
	iP	54 22
HH	eP	17 53 30
	i	53 33
SH	eP	17 53 31
Jan. 6		
COL	e(P)	18 08 35
Jan. 6		
HH	e(P)	18 27 29
Jan. 6		
COL	eP	20 12 51
HH	iP	20 12 02
SH	eP	20 11 55
	i	11 59
Jan. 6		
COL	iP	21 57 10
	e(pP)	57 23
Jan. 6		
COL	e(P)	22 25 27
Jan. 7		
COL	eP	00 45 33
	iP	45 35
HH	e(P)	00 48 28
Jan. 7		
COL	eP	03 47 23
	iP	47 25
HH	e(P)	03 46 36
Jan. 7		
PF	eP	05 34 46
TUC	e(P)	05 33 50
Jan. 7		
COL	eP	13 38 55
HH	eP	13 39 17
	e	39 25
Jan. 7, H = 14 58 41** Panama aftershock. Felt. h=about 100 km.		
BH	iP	14 59 21
	iS	59 50
COL	e(P)	15 10 20
HH	eP	15 07 37
	i	07 41
TUC	eP	15 06 04
Jan. 7		
BH	iP	17 06 00
	iS	06 30
COL	eP	17 16 45
Jan. 7		
HH	iP	18 26 29
Jan. 7		
COL	iP	18 37 07
	i(pP)	37 49
HH	iP	18 38 19
	i	40 29
OV	e(P)	18 41 27
PF	e(P)	18 39 13
	i	41 27.1
SH	iP	18 38 25
TUC	e(P)	18 41 53
	e	42 05
Jan. 8		
HH	iP	01 07 47
Jan. 8		
HH	e(P)	02 21 24
Jan. 8		
COL	eP	08 51 36
Jan. 8		
COL	iP	09 13 00
	i	13 07
	i	13 13
	e(S)	13 48
	iS	13 49
	i	14 04
	eL	14 18
HH	eP	09 17 01
Jan. 8, H = 11 55 15** Kermadec Islands region.		
BC	iP	12 08 15
OV	eP	12 08 19
PF	iP	12 08 18.4
	i	08 38.6
SH	eP	12 08 04
	i	08 09
TUC	eP	12 08 17
Jan. 8		
PF	iP	15 09 17.0
	i	09 25.2
TUC	e(P)	15 09 15
Jan. 8		
HH	iP	18 11 18
Jan. 8, H = 18 32 25* 35-1/2°N, 140°E. Near southeast coast of Honshu, Japan. Minor damage at Yokohama and Chosi. h = about 60 km. Mag. 6-1/2.		
BC	iP	18 44 35
COL	iP	18 41 25
	epP	41 42
	eL	51 52
HH	iP	18 43 57
	ipP	44 10
	eS	54 37
LOG	eP	18 44 25
	epP	44 43
TUC	iP	18 45 00
	ipP	45 17
	e	48 45
Jan. 8, H = 21 39 29* 5°S, 151°E. New Britain region. Mag. 6-3/4 - 7.		
COL	iP	21 51 54
HH	iP	21 53 03
	e	09 41
PF	iP	21 53 01.7
SJ	iP'	21 58 56
	i	59 02
TUC	iP	21 53 00
WASH	iP'	21 58 30
Jan. 8		
HH	e(P)	22 15 12
Jan. 9		
HH	e(P)	00 01 10
Jan. 9, H = 00 27 55* 38°N, 20°E. Off west coast of Greece. Felt on Ithaca and Leucada.		
COL	eP	00 39 49
HH	eP	00 40 30
PF	e(P)	00 41 28
Jan. 9		
PF	eP	00 45 20
Jan. 9		
PF	eP	01 20 05
TUC	eP	01 20 04
Jan. 9		
HH	e(P)	03 22 08
Jan. 9		
TUC	e(P)	04 52 33
Jan. 9		
COL	e(P)	08 25 22
Jan. 9		
COL	eP	09 06 02
	e	06 12
PF	eP	09 13 16
SJ	e(P)	09 13 52
Jan. 9		
PF	e(P)	10 20 05
TUC	e(P)	10 18 07
Jan. 9, H = 16 00 24* 81°N, 122°E. Arctic Ocean, northeast of Lenin Land. Mag. about 6.		
BC	e(P)	16 10 30
COL	eP	16 06 06
	iP	06 07
	e	10 49
	eL	14 49
HH	iP	16 09 00
	i	09 09
LOG	e(P)	16 09 56
PF	iP	16 10 28.4
	ePP	12 49
	eP'P'	40 04
SJ	eP	16 12 40
TUC	eP	16 10 56
	e	11 05
	ePP	13 24
WASH	iP	16 10 33
	ePcP	11 25
	i	16 02
	e	17 47
Jan. 9		
COL	e(P)	16 43 29

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Date and Station		Phase	(GCT) h m s
Jan. 9			
COL		eP	18 28 27
		e	28 40
Jan. 9			
BC		eP	20 15 47
COL		eP	20 15 12
		i	16 27
HH		eP	20 16 26
PF		iP	20 15 51.0
TUC		e(P)	20 15 53
		e	16 02
Jan. 9			
PF		e(P)	22 05 15
Jan. 9			
COL		e(P)	22 22 55
Jan. 9			
PF		eP	23 32 55
Jan. 10			
COL		eP	00 59 54
Jan. 10			
COL		eP	06 49 34
HH		iP	06 50 14
PF		eP	06 50 35
TUC		eP	06 50 38
Jan. 10, H = 08 26 52* 23°S, 178°W. Tonga Islands region. h = about 60 km.			
BC		eP	08 39 14
COL		eP	08 39 51
		ipP	40 05
		iS	50 43
		eL	09 07 12
HH		eP	08 39 50
PF		eP	08 39 16
		iP	39 18.0
TUC		eP	08 39 17
		iP	39 18
Jan. 10			
COL		e(P)	09 30 26
PF		eP	09 29 50
TUC		e(P)	09 29 57
Jan. 10			
TUC		e(P)	09 45 36
Jan. 10, H = 10 13 31** Tonga Islands.			
BC		e(P)	10 25 31
COL		eP	10 26 10
		e(pP)	26 22
		eS	37 00
		eL	56 23
HH		eP	10 26 07
OV		eP	10 25 34
PF		iP	10 25 34.0
TUC		eP	10 25 34
		eL	55 21
Jan. 10			
COL		eP	11 51 40
		iP	51 41
		i(pP)	51 51
HH		iP	11 50 51
Jan. 10			
BH		iP	12 28 26
		iS	28 55
COL		eP	12 27 04
PF		e(P)	12 26 28
TUC		e(P)	12 26 29
Jan. 10			
COL		iP	14 14 48
		ipP	15 05
HH		iP	14 17 33
OV		eP	14 18 19
		i	18 35.9
PF		e(P)	14 18 22
		e	18 39
Jan. 10			
PF		e(P)	18 52 25
Jan. 10, H = 19 03 25** Rat Islands, Aleutian Islands. h = about 60 km.			
BC		eP	19 12 27
COL		eP	19 08 33
		iP	08 34
		i	08 44
		iS	12 42
		eL	12 55
HH		iP	19 11 31
		ePP	13 17
PF		eP	19 12 29
		iP	12 31.5
SJ		iP	19 16 35
SH		iP	19 11 27
TUC		iP	19 13 03
		ePcP	14 30
		eL	20 07 47
Jan. 10, H = 19 15 16* 43°S, 173°E. Near east coast of South Island, New Zealand. Minor damage at Cheviot and Christchurch.			
COL		eP	19 33 52
HH		e(P)	19 33 47
		i	34 29
PF		e(P)	19 29 15
Jan. 10			
HH		eP	19 45 48
PF		e(P)	19 41 50
Jan. 10			
COL		eP	21 51 01
Jan. 10, H = 22 25 14** Off coast of Central Peru.			
HH		iP	22 36 04
PF		iP	22 35 01.4
TUC		e(P)	22 34 28
Jan. 10, H = 23 51 00** Samoa Islands. h = about 100 km.			
BC		iP	00 02 32
COL		eP	00 03 09
		iP	03 10
		ipP	03 33
HH		iP	00 03 09
PF		iP	00 02 35.2
TUC		iP	00 02 37
Jan. 11			
COL		iP	04 42 17
HH		iP	04 44 32
SH		iP	04 44 25
TUC		iP	04 45 26
Jan. 11			
COL		e(P)	06 29 09
		i	29 15
HH		eP	06 28 24
Jan. 11			
COL		e(P)	08 15 34
Jan. 11			
COL		eP	09 23 48
Jan. 11			
COL		e(P)	10 24 52
TUC		e(P)	10 26 57
Jan. 11			
SJ		e(P)	10 44 46
Jan. 11			
COL		e(P)	12 14 05
Jan. 11			
HH		iP	12 37 33
Jan. 11			
BC		iP	20 20 58
COL		iP	20 22 04
		i	22 14
PF		iP	20 20 57.7
SH		iP	20 21 12
TUC		eP	20 20 49
Jan. 12			
COL		e(P)	01 28 27
Jan. 12			
HH		iP	06 46 26
OV		eP	06 45 27
PF		iP	06 45 23.2
TUC		eP	06 44 47
Jan. 12			
COL		eP	07 17 13
OV		e(P)	07 07 04
Jan. 12			
COL		e(P)	09 07 34
Jan. 12			
OV		e(P)	09 55 21
PF		e(P)	09 54 40
TUC		iP	09 51 40
		i	51 53
		i	51 59
		e(S)	52 24
		i	52 49
		eL	53 11
Jan. 12			
COL		e(P)	10 01 48

Date and Station		Phase (GCT)
		h m s
COL	i	10 01 53
Jan. 12		
BH	iP	17 34 12
	iS	34 38
Jan. 12		
TUC	iP	20 07 07
	ipP	08 48
Jan. 12		
HH	e(P)	22 34 15
Jan. 13		
HH	iP	02 07 39
Jan. 13		
COL	eP	04 40 14
HH	iP	04 43 06
TUC	e(P)	04 44 42
Jan. 13		
COL	e(P)	05 11 28
Jan. 13		
HH	e(P)	06 03 20
OV	e(P)	06 01 55
PF	iP	06 01 48.4
TUC	eP	06 01 01
	eL	06 54
Jan. 13		
HH	e(P)	07 01 00
Jan. 13		
HH	i(P)	07 11 19
Jan. 13, H = 20 31 31* 40-1/2°N, 125°W. Off Cape Mendocino, California. Felt at Arcata, Eureka, Ferndale and Trinidad.		
BC	e(P)	20 33 57
COL	e(P)	20 37 28
HH	e(P)	20 34 13
LOG	e(P)	20 33 56
	e	37 15
OV	iP	20 33 49
PF	iP	20 33 54.5
TUC	eP	20 34 54
	e	35 25
	e	39 04
	e	39 20
	eL	40 04
UK	e(P)	20 32 04

Date and Station		Phase (GCT)
		h m s
UK	iS	20 32 25
	iL	32 40
Jan. 13		
COL	e(P)	22 37 26
Jan. 14, H = 01 10 35** Solomon Islands region.		
BC	eP	01 23 56
	e(pP)	24 12
COL	eP	01 22 58
	e	23 12
	e	23 25
HH	e(P)	01 23 59
OV	e(P)	01 23 58
PF	iP	01 23 58.7
	i	24 14.7
SH	e(P)	01 23 29
Jan. 14		
COL	e(P)	02 58 18
Jan. 14		
HH	iP	04 26 49
Jan. 14		
OV	e(P)	06 56 43
PF	e(P)	06 56 56
TUC	e(P)	06 56 13
Jan. 14		
PF	e(P)	08 00 27
Jan. 14, H = 10 19 24* 23°S, 176°W. Tonga Islands region. h = about 100 km.		
BC	eP	10 31 45
COL	eP	10 32 19
	ePP	36 02
	iSKS	43 19
	eSSS	11 03 30
HH	eP	10 32 18
LOG	eP	10 32 10
	ePP	35 58
	eL	11 09 13
OV	iP	10 31 46
PF	iP	10 31 45.8
SH	eP	10 31 34
TUC	eP	10 31 46
	iP	31 47

Date and Station		Phase (GCT)
		h m s
TUC	epP	10 32 09
	e	32 37
	e	33 26
	e(S)	42 11
	esS	42 31
	e	44 10
	e(SS)	48 33
	e	49 26
	eL	59 11
Jan. 14		
BC	e(P)	11 27 20
COL	e(P)	11 26 00
	e	27 11
OV	e(P)	11 27 23
TUC	e(P)	11 27 28
Jan. 14		
COL	iP	15 50 35
	iL	52 33
HH	iP	15 55 28
Jan. 14		
BC	eP	18 41 52
HH	iP	18 42 37
PF	iP	18 41 50.1
TUC	iP	18 41 27
Jan. 15		
COL	e(P)	00 26 48
HH	iP	00 26 54
PF	iP	00 26 26.0
TUC	eP	00 26 29
Jan. 15, H = 01 50 36* 51°N, 178-1/2°E. Rat Islands, Aleutian Islands.		
BC	eP	01 59 26
COL	eP	01 55 36
HH	iP	01 58 37
OV	eP	01 59 26
PF	iP	01 59 33.5
SH	eP	01 58 29
TUC	(e)	02 00 03
	e	00 11
Jan. 15, H = 02 29 46* 51°N, 178-1/2°E. Rat Islands, Aleutian Islands.		

Date and Station		Phase (GCT)
		h m s
BC	eP	02 38 35
COL	eP	02 34 45
HH	iP	02 37 41
OV	iP	02 38 34.0
PF	eP	02 38 38
SJ	iP	02 42 53
SH	i(P)	02 37 38
TUC	iP	02 39 12
Jan. 15		
COL	eP	02 42 08
HH	iP	02 45 03
OV	eP	02 46 11
PF	eP	02 46 00
TUC	eP	02 46 35
	e	46 50
Jan. 15		
COL	eP	03 03 24
Jan. 15, H = 04 12 08* 15°S, 167°E. New Hebrides Islands. h = about 100 km. Mag. 6-1/2 - 6-3/4.		
BER	esPP	04 34 11
	ePKS	34 35
	e	41 08
	e	44 45
	eSPP	45 06
	e	46 31
	eSS	49 27
	e(SSS)	53 10
	eL	05 04 16
BC	iP	04 25 00
	eSKS	35 24
BOZ	eSKS	04 35 52
	iSKS	35 53
	eS	36 32
	ePS	37 22
	e	41 26
	e(SS)	44 18
	eL	50 34
BUT	eSKS	04 35 47
	epS	37 05
	eSSS	47 03
	eL	50 39
CHI	ePP	04 32 02
	eSKS	37 08
	e	37 09
	eSKKS	37 46

Date and Station		Phase	(GCT)
			h m s
CHI	ePS		04 40 38
	eSS		46 32
	eSSS		50 28
	eL		58 04
COL	eP		04 24 43
	iP		24 44
	ipP		25 09
	isP		25 30
	e		27 38
	iS		35 00
	e		35 02
	isS		35 45
	e(SS)		39 53
	ePKKP		42 41
	e		43 43
	eL		47 32
	eP'P'		50 35
COLU	eSKS		04 37 25
	ePS		41 30
	eL		05 09 30
HONO	e(P)		04 21 06
	epP		21 21
	esP		21 32
	ePPP		24 19
	eS		27 59
	isS		28 45
	eL		32 26
HH	iP		04 25 18
	ePP		28 55
	iSKS		35 45
	ePKKP		42 02
	iP'P'		51 35
LIN	eSKS		04 36 35
	e		37 23
	ePS		39 39
	eSS		45 50
	eL		05 00 41
LOG	e		04 25 45
	ePP		29 03
	ePPP		31 06
	iSKS		35 43
	ipPS		38 03
	eSS		40 51
	e		42 14
	eSSS		46 11
	e		51 03
	eL		54 42
OV	iP		04 25 02.1
PHIL	ePP		04 32 45
	iSKS		37 33
	eSKKS		38 22
	ePS		41 57
	ipPS		42 45
	e		44 30
	eSS		48 44
	eL		05 03 11
PF	iP		04 25 02.3
	ipP		25 35.4
	i		26 46.1
	iSKS		35 26.3
RC	ePP		04 29 56
	iSKS		36 17
	eS		37 09
	ePS		38 49
	eSS		43 33
	eSSS		48 24
	eL		54 33
SLC	epP		04 25 50
	ePP		28 58
	iSKS		35 40
	eSKKS		35 47
	isS		36 37
	eSS		42 18
	eSSS		46 34
	eL		51 02
SJ	iP'		04 31 11
	ipP'		31 43
	eSPP		34 00
	iPKS		34 24
	e		34 34
	ePPP		36 04
	e		40 36
	e		42 09
	eSKSP		43 25
	eSS		49 44
	eL		05 02 34
SH	iP		04 24 41
SIT	e		04 32 38
	iSKS		35 02
	epS		35 58
	esS		36 12
	eL		47 16
TUC	iP		04 25 09
	ipP		25 34
	isP		25 49
	e		27 13
	i		27 20
	epPP		29 14
	e(PPP)		31 21
	eSKS		35 32
	eS		35 52
	esS		36 50
	eSS		42 29
	ePKKP		42 32
	eL		49 51
	eP'P'		51 19
UK	e		04 25 19
	ePP		27 52
	ePPP		29 55
	eS		34 33
	eSS		39 35
	eL		46 39
Jan. 15			
OV	e(P)		04 42 37
PF	e(P)		04 42 36
Jan. 15			
OV	e(P)		04 50 46
PF	e(P)		04 50 32
Jan. 15			
HH	iP		05 35 17
Jan. 15			
COL	e(P)		06 15 41
PF	e(P)		06 19 33
Jan. 15			
COL	e(P)		06 33 41
Jan. 15			
COL	eP		07 32 32
Jan. 15, H = 09 35 08** Fox Islands, Aleutian Islands.			
COL	(e)		09 39 25
	e		39 32
HH	iP		09 42 19
OV	e(P)		09 43 13
PF	iP		09 43 17.9
TUC	iP		09 43 52
Jan. 15			
COL	eP		10 45 03
PF	eP		10 51 12
Jan. 15			
OV	e(P)		14 59 14
Jan. 15			
COL	eP		17 37 51
HH	iP		17 37 12
PF	e(P)		17 37 54
Jan. 15			
COL	eP		21 12 41
Jan. 15, H = 21 32 20** Samoa Islands region. h = about 100 km.			
BC	eP		21 43 59
COL	eP		21 44 36
	e(pP)		45 09
HH	iP		21 44 36
PF	iP		21 44 02.5
SH	iP		21 43 47
TUC	e(P)		21 44 06
	e		44 38
Jan. 15, H = 22 31 26* 20°S, 168°E. Loyalty Islands.			
BC	eP		22 44 38
COL	eP		22 44 34
	e		44 48
PF	iP		22 44 40.8
SH	iP		22 44 22
TUC	e(P)		22 44 45
Jan. 15, H = 22 42 36** Off east coast of Kamchatka.			
BC	eP		22 52 34
COL	iP		22 48 19
HH	eP		22 51 32
PF	iP		22 52 36.3
SH	iP		22 51 38
TUC	eP		22 53 08
Jan. 16, H = 01 11 50* 42°N, 15°E. Near southeast coast of Italy. Felt at Foggia, San Nicandre, San Severo, and Viesta.			
BC	eP		01 24 52
HH	iP		01 23 59
	i		24 08
OV	e(P)		01 24 04
PF	e(P)		01 24 01
	i		24 50.0
TUC	eP		01 24 57
	i		25 07
Jan. 16			
COL	e(P)		05 48 36
Jan. 16			
COL	e(P)		06 19 26
OV	e(P)		06 18 52
PF	iP		06 18 51.5
Jan. 16			
COL	e(P)		06 30 56
OV	e(P)		06 30 20
PF	iP		06 30 18.9

Date and Station		Phase (GCT)
		h m s
Jan. 16, H = 08 08 10* 36-1/2°N, 70°E. Hindu Kush region.		
COL	eP	08 19 57
	iP	19 58
HH	iP	08 21 42
OV	iP'	08 27 10.3
PF	eP'	08 26 28
TUC	eP'	08 27 24
	e	27 33
Jan. 16		
COL	e(P)	11 19 25
OV	iP	11 18 50.2
PF	iP	11 18 49.6
Jan. 16, H = 12 36 07* 38-1/2°N, 20°E. Near west coast of Greece.		
COL	e(P)	12 47 58
	e	48 18
HH	iP	12 48 40
	e(pP)	48 52
Jan. 16, H = 13 13 57* 18-1/2°S, 172°E. New Hebrides Islands region.		
BC	eP	13 26 52
OV	iP	13 26 54.9
PF	iP	13 26 55.0
SH	iP	13 26 35
TUC	eP	13 27 00
Jan. 16		
OV	eP	16 03 04
PF	e(P)	16 02 53
Jan. 16		
COL	eP	18 05 33
	e(pP)	05 49
Jan. 16		
COL	eP	19 16 33
OV	i(P)	19 16 00.2
PF	i(P)	19 16 00.1
TUC	eP	19 16 02
Jan. 16		
COL	e(P)	20 32 33
HH	e(P)	20 34 49
	i	34 59
Jan. 16		
COL	e(P)	21 05 40
HH	iP	21 08 51
OV	e(P)	21 05 21
Jan. 16		
COL	eP	22 33 46
	iP	33 47
	i(S)	34 24
	eL	35 00
HH	iP	22 38 04
Jan. 16		
COL	e(P)	22 50 34
Jan. 16		
OV	e(P)	23 50 30
Jan. 17		
COL	e(P)	01 26 16
Jan. 17		
OV	iP	02 16 50.0
Jan. 17		
COL	eP	03 55 34
Jan. 17		
TUC	e(P)	04 46 05
Jan. 17		
COL	eP	08 33 45
PF	eP	08 33 58
Jan. 17		
COL	e(P)	10 21 48
Jan. 17		
COL	eP	11 20 03
Jan. 17		
COL	eP	12 14 55
SH	i(P)	12 16 27
Jan. 17		
COL	e(P)	13 05 40
Jan. 17		
BC	eP	13 24 07
	iP	24 08
	i	24 18
	i	24 27
HH	iP	13 23 19
SH	i(P)	13 23 17
Jan. 17, H = 15 53 50** Near coast of southern Peru.		
COL	eP	16 07 30
HH	iP	16 05 25
OV	iP	16 04 32.7
PF	iP	16 04 28.7
SJ	iP	16 00 40
TUC	iP	16 03 51
Jan. 17		
BH	iP	16 05 39
	iS	05 58
Jan. 17		
BC	eP	16 11 58
OV	iP	16 12 01.0
PF	iP	16 12 00.7
TUC	iP	16 11 59
	i	12 19
Jan. 17		
OV	eP	16 21 31
PF	iP	16 21 29.7
Jan. 17		
COL	eP	16 56 55
Jan. 17		
COL	eP	17 25 08
Jan. 17		
BC	e(P)	19 22 42
COL	e(P)	19 22 39
	iP	22 41
HH	iP	19 22 25
PF	iP	19 22 43.1
SH	e(P)	19 22 06
Jan. 17		
COL	e(P)	19 39 04
Jan. 17		
TUC	iP	20 55 43
Jan. 17		
HH	i(P)	23 31 34
Jan. 18		
BC	iP	01 56 55
COL	eP	01 52 57
	iP	53 00
	e(S)	57 18
	eL	59 10
HH	iP	01 55 58
	i	57 46
OV	eP	01 56 54
PF	iP	01 56 57.3
SH	iP	01 55 49
TUC	iP	01 56 31
	i	56 44
Jan. 18		
BH	iP	02 01 07
	iS	01 35
Jan. 18		
COL	eP	04 28 43
Jan. 18		
COL	eP	05 17 33
	iP	17 36
OV	iP	05 21 27.7
PF	eP	05 21 31
TUC	eP	05 22 04
Jan. 18		
COL	eP	06 03 42
	i	04 59
HH	e(P)	06 06 55
TUC	e(P)	06 08 17
Jan. 18		
COL	iP	10 56 31
	e	57 21
	eL	11 05 44
HH	eP	10 59 40
OV	eP	11 00 47
PF	eP	11 00 28
TUC	eP	11 01 20
Jan. 18		
COL	iP	11 50 25
Jan. 18		
COL	eP	12 01 32
OV	e(P)	12 00 57
Jan. 18		
PF	e(P)	13 32 09
Jan. 18		
COL	eP	14 12 31
TUC	eP	14 13 40
Jan. 18		
BH	iP	14 49 42
	iS	50 12

Date and Station		Phase (GCT)
		h m s
Jan. 18		
COL	eP	15 33 52
Jan. 18		
HH	iP	15 50 57
Jan. 18		
COL	eP	17 29 16
HH	iP	17 31 31
Jan. 18		
HH	iP	18 15 58
Jan. 18, H = 21 15 50* 52°N, 177°W. Andreanof Islands, Aleutian Islands. Felt at Finger Bay. h = about 60 km. Mag. 6-1/4 - 6-1/2.		
BER	eS	21 37 30
	eSSS	55 31
	eL	56 15
BC	iP	21 24 15
	ipP	24 50
BOZ	eP	21 23 47
	iS	30 07
	esS	30 25
	eL	33 34
BUT	eP	21 23 39
	eS	30 03
	eL	36 29
CHI	eS	21 33 37
	esS	34 00
	eL	40 10
COL	eP	21 20 23
	iP	20 26
	iS	23 25
	ePcP	24 32
	eL	26 00
	eScP	28 06
	eScS	31 50
COLU	e(P)	21 26 46
	e(S)	35 40
	eSS	40 12
	eL	48 16
HH	iP	21 23 21
	iPcP	25 26
	iS	29 10
	iScS	33 25
LOG	eP	21 24 00
	iP	24 02
	e	25 07
	ePP	25 25
	iS	30 38
	iL	33 56
OV	iP	21 24 13.9
PHIL	e(S)	21 35 46
	eL	47 16
PF	iP	21 24 18.1
	eS	31 06
RC	iP	21 24 31
	esP	25 12
	ePP	26 08
	epPP	26 49
	iS	31 28
	esS	31 42
	eScS	34 17
	eL	35 31
SLC	eP	21 24 04
	iS	30 43
	eL	34 15
SJ	iP	21 28 38
	e	38 24
	eS	38 56
	epS	39 24
	esS	39 38
	e	43 34
	eL	22 02 00
SH	iP	21 23 13
TUC	iP	21 24 52
	epP	25 05
	esPP	27 20
	eS	32 11
	e	33 20
	eL	39 32
UK	e	21 23 29
	ePP	24 43
	eS	29 13
	eL	32 15
WASH	eP	21 26 38
Jan. 18		
COL	eP	22 04 05
Jan. 19, H = 01 40 50* 13°N, 88°W. Near coast of El Salvador. h = about 100 km.		
BH	eP	01 43 05
BC	iP	01 47 25
COLU	eP	01 45 43
	eS	49 46
	eL	49 50
HH	iP	01 48 32
	iPcP	50 28
LOG	eP	01 47 42
	epP	48 01
	e	49 41
PF	iP	01 47 20.7
SJ	iP	01 45 39
SJ	ipP	01 46 04
	eL	49 44
TUC	eP	01 46 41
	i	46 44
	ipP	47 10
	ePcP	49 51
WASH	e(P)	01 46 37
	e	47 14
Jan. 19		
COL	iP	01 51 29
TUC	eP	01 55 27
Jan. 19		
COL	i(P)	02 32 55
TUC	eP	02 32 35
Jan. 19		
COL	e(P)	03 43 39
Jan. 19, H = 04 08 55** Solomon Islands region.		
COL	iP	04 21 25
HH	eP	04 22 38
SH	iP	04 22 09
Jan. 19		
COL	e(P)	05 04 35
Jan. 19		
COL	eP	07 30 30
HH	iP	07 31 54
	i	33 48
LOG	e(P)	07 34 30
TUC	eP	07 32 12
	iP'	35 10
Jan. 19		
BH	iP	09 53 42
	iS	54 11
Jan. 19		
COL	e(P)	10 32 25
TUC	eP	16 07 22
	e	09 57
Jan. 19		
COL	e	17 15 17
HH	iP	17 12 15
TUC	e(P)	17 10 20
Jan. 19		
COL	e(P)	18 45 17
Jan. 20		
COL	i(P)	05 03 45
Jan. 20		
BH	iP	08 08 58
	eS	10 06
Jan. 20		
COL	e(P)	10 46 38
HH	e(P)	10 43 38
TUC	eP	10 41 43
Jan. 20, H = 13 12 08* 14-1/2°N, 90°W. Guatemala.		
BH	eP	13 14 56
BER	eS	13 23 15
	eL	26 10
BC	iP	13 18 29
HH	iP	13 19 38
LOG	eP	13 18 38
OV	eP	13 18 29
PF	eP	13 18 23
	i	18 55.9
	iPP	19 38.7
TUC	eP	13 17 43
	iP	17 45
	i	18 05
	e(S)	22 41
	eL	25 56
WASH	e(P)	13 17 53
	eL	25 14
Jan. 20		
COL	e(P)	21 06 08
Jan. 20		
COL	e(P)	21 44 36
Jan. 20		
COL	e(P)	23 27 41
Jan. 21		
COL	e(P)	00 00 03
Jan. 21		
OV	eP	00 59 31
PF	iP	00 59 29
Jan. 21, H = 06 28 27 By BERK, 39°37'N, 119°48'W. Near Reno, Nevada. Felt. Mag. 4.1		
BC	eP	06 30 02

Date and Station		Phase (GCT)
		h m s
HH	eP	06 30 49
	iL	33 16
OV	iP	06 30 07.5
	i(S)	31 16.3
PF	iP	06 29 54.1
	eS	31 25
Jan. 21		
COL	eP	06 43 47
Jan. 21		
SH	iP	06 52 00
	iS	52 20
	eL	52 28
Jan. 21, H = 07 27 28** Fiji Islands region. h = about 500 km.		
COL	iP	07 39 08
HH	iP	07 39 17
OV	iP	07 38 48.1
PF	iP	07 38 48.9
SH	iP	07 38 31
TUC	iP	07 38 52
Jan. 21		
BH	iP	07 52 10
	iS	52 40
Jan. 21		
OV	iP	09 23 53.9
PF	iP	09 23 54.0
TUC	iP	09 23 55
Jan. 21		
COL	eP	10 13 52
Jan. 21		
COL	e(P)	11 05 26
HH	eP	11 02 23
OV	e(P)	11 01 18
PF	iP	11 01 04.5
	i	01 12.8
TUC	e(P)	11 00 23
Jan. 21		
COL	eP	11 25 18
Jan. 21		
COL	eP	11 55 06
Jan. 21, H = 12 44 10** El Salvador-Honduras border region.		
COL	iP	12 54 54
	i	55 08
HH	iP	12 51 59
	iPP	54 08
LOG	e(P)	12 51 09
OV	eP	12 50 52
	iPcP	53 56.9
	eS	56 24
PF	iP	12 50 46.8
	e	53 29
	iPcP	53 44.5
SH	i	12 53 42
	i	54 07
TUC	eP	12 50 08
	iP	50 12
	iPcP	53 33
Jan. 21		
COL	i(P)	14 45 01
Jan. 21		
BH	iP	15 22 28
	iS	22 58
Jan. 21		
COL	e(P)	15 53 41
	i	54 04
Jan. 21		
COL	eP	16 26 47
	e	28 17
OV	iP	16 27 44.4
PF	iP	16 27 44.2
TUC	iP	16 27 46
Jan. 21		
COL	e(P)	17 40 30
Jan. 21		
COL	e(P)	19 03 02
HH	iP	19 03 52
Jan. 21		
COL	eP	19 52 04
OV	eP	19 56 26
PF	iP	19 56 29.5
Jan. 21		
HH	iP	21 55 47
SH	iP	21 54 04
	e(S)	54 25
Jan. 21		
COL	eP	22 49 03
OV	e(P)	22 48 37
PF	e(P)	22 48 27
	i	48 40.2
Jan. 21		
BH	iP	23 55 35
	iS	56 05
Jan. 22		
BC	eP	02 31 32
	e	31 45
Jan. 22, H = 04 25 00** About 300 miles off coast of El Salvador. h = about 60 km.		
HH	e(P)	04 32 57
OV	eP	04 31 33
PF	eP	04 31 29
TUC	eP	04 30 48
	e	31 28
Jan. 22		
COL	iP	04 50 33
HH	iP	04 53 29
	i	54 11
OV	iP	04 54 19.5
PF	iP	04 54 22.6
TUC	eP	04 54 50
Jan. 22, H = 10 30 45* 33-1/2°S, 178°W. Kermadec Islands. Mag. 6-1/4.		
BC	eP	10 43 51
COL	eP	10 44 35
	e	47 45
OV	eP	10 43 55
PF	iP	10 43 53.9
	i	44 08.9
	i	44 19.4
SH	eP	10 43 46
TUC	eP	10 43 52
	ePKKP	11 01 20
	eL	17 47
Jan. 22, H = 12 16 02* 17-1/2°S, 41-1/2°E. Mozambique Channel Mag. 6-1/2.		
BER	ePS	12 45 10
	eSS	51 15
	eL	13 07 29
BC	iP'	12 35 58
	iP'	36 52.5
	e	37 38
CHI	e(PP)	12 38 14
	eL	13 25 11
COL	eP'	12 35 19
	iP'	35 20
	e	47 09
HH	iP'	12 35 37
	ePP	38 48
LOG	eP'	12 35 48
	iP'	35 50
	ePP	38 22
OV	iP'	12 35 56.8
	iP'	36 02.6
	e	46 07
PF	iP	12 35 56.9
	i	36 02.4
	i	36 13.1
RC	eP'	12 35 40
	ePKS	39 20
	e	47 13
	eL	13 33 56
SLC	eP'	12 35 50
SJ	iP'	12 34 39
	eL	13 44 13
SH	iP'	12 35 57
TUC	eP'	12 35 55
	iP'	35 56
	i	36 01
	ePP	39 11
	eL	13 40 02
Jan. 22		
BH	eP	12 46 37
	iS	47 17
Jan. 22		
COL	iP	13 16 03
HH	eP	13 13 05
PF	iP	13 11 54.3
TUC	eP	13 11 16
	e(PP)	14 27
Jan. 22, H = 13 46 30* 21°S, 176°W. Tonga Islands. h = about 150 km.		
BC	iP	13 58 38
	epP	59 00
COL	iP	13 59 13
	ipP	59 48

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		h m s
HH	iP	13 59 14
LOG	e(P)	13 59 27
OV	iP	13 58 41.9
	ipP	59 13.2
PF	iP	13 58 41.7
SH	iP	13 58 27
TUC	iP	13 58 42
	epP	59 14
Jan. 22, H = 15 14 53 By BERK, 39°05'N, 119°57'W. Near Lake Tahoe, California. Felt at Tahoe City and Phillips, California, and Marlette Lake, Nevada. Mag. 4.8		
BC	eP	15 16 18
	iP	16 36
	i(S)	17 53
HH	eP	15 17 34
LOG	e(P)	15 16 59
	eL	18 29
OV	iP	15 16 10.7
	i	16 30.9
	eL	17 37
PF	iP	15 16 17.3
	iS	17 42.5
	iL	17 48.7
SH	iP	15 15 34
	iS	16 06
TUC	eL	15 20 36
Jan. 22, H = 16 06 50** Near south coast of Luzon, Philippine Islands. Felt at Legaspi and Virac.		
COL	iP	16 18 49
HH	eP	16 20 38
SH	iP	16 20 33
Jan. 22		
COL	iP	21 13 00
	i	13 09
Jan. 22, H = 23 16 49* 47°N, 153°E. Kurile Islands.		
BC	iP	23 27 37
COL	iP	23 23 48
	ePP	25 17
HH	iP	23 26 46
OV	iP	23 27 36.5
PF	iP	23 27 39.4
SH	iP	23 26 46
TUC	eP	23 28 07
Jan. 22		
OV	e(P)	23 41 15
PF	e(P)	23 40 26.0
	i	41 16.2
TUC	iP	23 40 36
Jan. 22		
PF	e(P)	23 56 08
Jan. 23		
BC	e(P)	00 01 19
TUC	eP	00 00 32
	iP	00 33
Jan. 23		
BC	eP	05 01 35
COL	iP	05 01 23
	i	01 24
OV	eP	05 01 47
PF	iP	05 01 37.5
TUC	eP	05 01 53
Jan. 23, H = 06 52 42* 55°S, 136°W. South Pacific Ocean. Mag. 6-3/4.		
BER	eSS	07 26 41
	eL	37 32
BC	eP	07 05 58
BOZ	e	07 15 24
	eSS	25 31
	eL	36 23
COL	e(PS)	07 22 33
	eSS	29 36
	eL	48 37
LOG	e(P)	07 06 37
	e	06 47
	ePP	10 33
	eSKS	16 57
	eS	17 32
	ePS	19 19
	eL	37 57
OV	iP	07 05 48.4
PF	eP	07 05 54.3
	i	05 56.3
RC	e	07 16 26
	eSKS	17 12
	ePPS	20 46
	eL	35 22
SJ	epP	07 10 23
	eSKS	16 42
	eSS	23 33
	eL	33 44
SH	iP	07 06 09
SIT	eSS	07 28 10
	eL	44 04
TUC	eP	07 05 41
	ePP	09 48
	eSKS	16 29
	eS	16 41
	e	17 12
	eL	34 05
UK	eL	07 34 24
WASH	e(SS)	07 25 (40)
	eL	47 (09)
Jan. 23, H = 07 00 35** Southern Alaska. Felt at Anchorage. h = about 60 km.		
COL	iP	07 01 13
	i	01 41
	iL	02 48
HH	iP	07 05 43
	eS	09 35
OV	iP	07 07 22.1
PF	iP	07 07 15.1
SH	iP	07 06 19
SIT	eS	07 04 45
	iL	05 30
TUC	iP	07 07 55
	epP	08 08
	esP	08 18
Jan. 24, H = 00 46 12* 12-1/2°S, 167°E. Santa Cruz Islands. h = about 200 km.		
BC	eP	00 58 45
	epP	59 38
COL	iP	00 58 25
	epP	59 17
HH	iP	00 59 04
	epP	59 56
LOG	eP	00 59 03
	epP	59 56
OV	iP	00 58 48.0
	ipP	59 40.6
PF	iP	00 58 47.8
	ipP	59 41.6
SH	iP	00 58 25
	epP	59 17
TUC	eP	00 58 55
	iP	58 56
	epP	59 48
	ipP	59 54
Jan. 24		
OV	e(P)	02 09 16
Jan. 24, H = 04 49 28* 59-1/2°S, 23°W. Sandwich Islands.		
BC	iP'	05 08 22
COL	iP'	05 09 27
	iP'	09 43
	ePP	13 16
	e	21 48
	eSSS	40 04
	eL	06 00 39
HH	e	05 08 20
	iP'	08 37
	ePKS	12 00
LOG	eP'	05 08 26
	ePP	10 14
	ePPS	21 41
OV	iP'	05 08 21.9
PF	iP'	05 08 20.6
SJ	eP	05 02 04
	ePP	05 08
	eS	12 31
	eSS	21 44
	eL	23 55
SH	eP'	05 08 34
	i	08 56
	ePP	10 42
	ePKS	11 29
TUC	iP	05 08 12
Jan. 24		
OV	eP	05 18 29
PF	eP	05 18 18
TUC	e(P)	05 18 44

Date and Station		Phase (GCT)
		h m s
Jan. 24		
BC	iP	06 18 31
COL	iP	06 15 01
	i	15 09
	ipP	15 23
HH	iP	06 17 45
OV	iP	06 18 30.7
PF	iP	06 18 33.2
SH	iP	06 17 45
TUC	eP	06 18 58
Jan. 24, H = 07 17 01 By PAS, 33°07'N, 115°34'W. Near Calipatria, California. Felt as far as Corona, Needles, and San Diego. Mag. 5.6.		
BC	eP	07 17 51
	iP	17 53
BOZ	e	07 20 22
	e	21 15
	eS	22 40
	eL	23 14
BUT	eP	07 20 17
	eS	23 01
	eL	23 49
CHI	iP	07 22 18
	ePP	22 54
	e(S)	26 40
	eL	29 15
COL	eP	07 24 20
	eL	35 19
COLU	eS	07 28 05
	eL	32 06
HH	iP	07 20 44
	i	20 49
	e(S)	23 46
	eL	25 11
LIN	eP	07 21 09
	e	22 23
	eS	23 39
	eL	24 47
LOG	eP	07 19 21
	i	20 18
	iL	21 50
OV	iP	07 17 59.8
PF	iP	07 17 56.2
RC	eP	07 20 42
	e	22 40
	iS	23 18
	iL	23 58
SLC	e	07 19 40
	eS	20 34
	eL	21 22
SJ	iP	07 25 37
	eS	32 23
	eL	42 31
SH	iP	07 19 26
	i	19 47
	iL	21 49
SIT	eS	07 27 52
	eL	30 38
TUC	iP	07 18 06
	i	18 14
	i	18 28
	iS	18 47
	iL	18 53
UK	e	07 20 07
	e(S)	21 25
	eL	21 51
Jan. 24, H = 07 33 07 By PAS, 33°07'N, 115°34'W. Calipatria aftershock. Mag. 4.0		
BC	iP	07 33 59
	i	34 07
	i(S)	34 47
OV	eP	07 34 11
	i	34 21.3
	eS	35 03
PF	iP	07 34 03.1
	iS	34 50.7
	iL	34 57.7
TUC	e(P)	07 34 14
	e(S)	34 27
	iS	34 31
	eL	35 00
	iL	35 28
Jan. 24, H = 07 42 36 By PAS, 33°07'N, 115°34'W. Calipatria aftershock. Mag. 3.8		
OV	eP	07 43 49
TUC	iP	07 43 42
	iS	43 58
	eL	44 30
Jan. 24		
BC	iP	07 55 03
	e(S)	55 41
Jan. 24		
PF	e(P)	08 03 48
Jan. 24, H = 09 55 58 By PAS, 33°07'N, 115°34'W. Calipatria aftershock. Mag. 3.8		
BC	eP	09 56 58
	eS	57 39
OV	eP	09 56 58
	i	57 11.0
	iL	58 05.8
PF	iP	09 56 54.1
	i	57 35.6
	iS	57 41.8
	iL	57 50.8
Jan. 24		
COL	eP	13 03 21
	e(pP)	03 56
OV	eP	13 02 48
PF	eP	13 02 49
SH	iP	13 02 32
Jan. 24		
PF	e(P)	13 16 26
Jan. 24		
OV	e(P)	14 20 39
Jan. 24		
OV	iP	14 46 38.4
	i	46 51.1
	i	47 35.2
PF	iP	14 46 34.5
	i	47 31
	i	47 32
Jan. 24		
OV	e(P)	15 25 58
Jan. 24		
OV	iP	16 11 47.2
Jan. 24		
HH	e(P)	17 34 32
Jan. 24		
COL	e(P)	18 35 28
HH	i(P)	18 36 16
	iP	36 19
	iS	36 38
OV	e(P)	18 40 17
PF	e(P)	18 40 07
Jan. 24		
PF	i(P)	18 56 33
Jan. 24		
HH	iP	19 14 13
	iL	14 45
Jan. 24		
BC	eP	19 54 14
HH	eP	19 56 16
OV	iP	19 54 18.8
	i	55 34
PF	eP	19 54 12
TUC	eP	19 53 16
	e	54 14
	e	57 40
Jan. 24		
OV	eP	20 06 58
	i	07 46.3
	i	07 52.3
PF	iP	20 06 42.6
Jan. 24		
COL	iP	23 47 13
Jan. 25		
COL	e(P)	04 01 16
HH	eP	04 02 18
Jan. 25		
PF	e(P)	04 13 02
Jan. 25		
TUC	e(P)	05 19 37
Jan. 25		
COL	e	09 39 13
HH	eP	09 28 40
TUC	e(P)	09 26 52
	i	26 53
Jan. 25		
OV	iP	11 20 32.0
Jan. 25, H = 12 22 50** Northern Chile. h = about 100 km.		
BC	e(P)	12 34 18
	epP	34 52
HH	iP	12 35 06
	ipP	35 39
OV	iP	12 34 20.7
	ipP	34 52.9
PF	eP	12 34 18
	ipP	34 49.6
SH	iP	12 34 59
	ipP	35 32
TUC	eP	12 33 49
	epP	34 20
Jan. 25		
OV	iP	13 50 33.7
	i	58 36.8
	i	58 40.9

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Date and Station	Phase	Phase (GCT) h m s
PF	e(P)	13 50 41
	i	14 01 05.9
	i	01 10.7
Jan. 25		
BH	iP	14 39 27
	iS	39 57
Jan. 25, H = 14 55 33* 18°S, 179°W. Fiji Islands. h = about 600 km.		
COL	eP	15 07 17
	iP	07 18
	ipP	09 35
HH	iP	15 07 26
OV	iP	15 06 57.8
	ipP	09 13.3
PF	iP	15 06 56.8
	ipP	09 12.1
SH	iP	15 06 41
TUC	iP	15 07 01
	epP	09 15
Jan. 25		
HH	iP	16 00 05
Jan. 25, H = 16 36 30* 2-1/2°S, 80-1/2°E. Indian Ocean.		
BC	eP'	16 55 05
COL	eP'	16 54 13
	e	54 25
	ePS	17 03 54
	ePKKP	05 26
	eSS	10 11
	eL	20 08
HH	eP'	16 54 46
OV	eP'	16 55 05
PF	eP'	16 55 05
	iP'	55 06.6
SJ	eP	16 53 02
	i(P')	55 08
SH	eP'	16 54 43
TUC	eP'	16 55 18
	iP'	55 20
	i	55 36
	ePKS	17 00 13
Jan. 25		
BC	e(P)	17 43 11
COL	eP	17 42 47
	iP	42 48
OV	e(P)	17 43 19
PF	eP	17 43 11
	i	43 19.4
SH	e(P)	17 42 57
Jan. 25		
COL	e(P)	17 49 37
Jan. 25		
OV	e(P)	20 10 23
PF	e(P)	20 10 23
Jan. 25		
SH	e(P)	21 01 32
Jan. 26		
TUC	e(P)	02 44 42
Jan. 26, H = 02 51 26** Near coast of northern Peru. Felt at Olmos, Morropon and Chiclayo. h = about 100 km.		
BC	eP	03 00 36
HH	iP	03 01 36
OV	eP	03 00 38
PF	iP	03 00 32.8
SH	iP	03 01 26
	e(pP)	02 11
TUC	iP	02 59 58
	epP	03 00 24
Jan. 26, H = 03 25 15** Molucca Passage.		
BC	eP'	03 43 54
COL	eP	03 38 02
	ePP	41 35
	eS	48 09
	eSS	55 23
	ePKKP	56 49
	eL	04 02 09
HH	eP	03 39 39
	ePKKP	54 48
OV	eP'	03 43 55
	ePKKP	54 49
PF	e(P)	03 40 04
	iP'	43 54.6
	iPKKP	54 46.6
SJ	iP'	03 45 44
SH	eP	03 39 26
	eP'	43 05
TUC	eP'	03 44 01
	ePP	45 08
	e	47 24
	ePKKP	54 29
Jan. 26		
COL	e(P)	04 21 33
HH	eP	04 23 07
SH	eP	04 22 47
Jan. 26		
COL	eP	04 34 27
HH	iP	04 36 13
PF	eP	04 36 31
SH	eP	04 35 46
Jan. 26		
PF	iP	04 56 57.6
TUC	eP	04 56 18
	iP	56 19
Jan. 26, H = 06 28 01 By PAS, 37°40'N, 118°45'W. Northern Owens Valley, California. Mag. 3.5		
BC	eP	06 29 05
OV	eP	06 29 07
	i	29 57.7
SH	eP	06 29 08
	i	29 25
	i	30 21
Jan. 26		
COL	eP	08 51 45
HH	eP	08 53 53
SH	eP	08 53 52
Jan. 26		
PF	e(P)	11 59 37
Jan. 26, H = 12 06 05 By PAS, 33°03'N, 115°42'W. Near Westmorland, California Mag. 3.1		
BC	e(P)	12 06 53
	e	07 08
Jan. 26		
COL	eP	12 40 02
HH	iP	12 42 58
OV	iP	12 43 51.5
PF	iP	12 43 55.4
TUC	eP	12 44 30
	e	44 42
Jan. 26		
BC	eP	15 21 03
COL	eP	15 21 03
HH	e(P)	15 19 28
	iP	19 32
OV	e(P)	15 19 40
	e	21 04
PF	i(P)	15 19 41.9
	i	21 10.1
SH	iP	15 19 35
	i	19 49
Jan. 26		
COL	i(P)	15 48 45
Jan. 26		
COL	iP	16 00 47
TUC	e(P)	16 00 27
Jan. 26		
COL	eP	16 35 29
	iP	35 30
	e(S)	36 32
	i(S)	36 39
	eL	36 59
HH	eP	16 39 33
Jan. 26		
COL	e(P)	17 08 56
PF	e(P)	17 09 29
Jan. 26		
PF	e(P)	17 23 43
Jan. 26		
COL	iP	21 39 00
PF	iP	21 43 03.7
Jan. 26		
TUC	e(P)	22 45 51
Jan. 27		
COL	eP	00 17 00
Jan. 27, H = 00 36 30* 28°S, 63°W. Santiago del Estero Province, Argentina. h = about 600 km.		
BC	eP	00 47 45
COL	eP	00 50 13

Date and Station		Phase (GCT)
		h m s
COL	e(P')	00 54 03
	ePP	54 45
	i	55 06
HH	iP	00 48 25
OV	iP	00 47 45.6
	iPP	49 41.2
	e(SP)	57 59.7
PF	iP	00 47 42.5
	i	57 03.4
SJ	iP	00 44 05
	iPP	45 30
	iS	50 14
SH	iP	00 48 20
	e	48 30
TUC	iP	00 47 17
Jan. 27		
COL	e(P)	02 02 05
	e	02 23
Jan. 27		
COL	eP	02 42 37
	e(pP)	42 56
PF	iP	02 43 12.8
TUC	eP	02 42 44
	e	42 48
Jan. 27		
OV	eP	06 29 27
PF	eP	06 29 28
	i	29 32.2
	iS	30 07.7
Jan. 27		
BC	e(P)	10 50 34
TUC	e(P)	10 50 39
Jan. 27		
COL	iP	11 28 23
	i	29 11
	eL	48 40
HH	eP	11 30 11
OV	eP	11 30 26
PF	iP	11 30 28.6
SH	iP	11 29 50
	e	37 07
Jan. 27		
BC	e(P)	13 37 22
COL	eP	13 35 24
	i	35 32
HH	iP	13 37 25
	e	37 31

Date and Station		Phase (GCT)
		h m s
OV	eP	13 37 56
PF	eP	13 37 48
TUC	eP	13 38 13
	e	46 17
Jan. 27		
PF	iP	14 50 34.2
Jan. 27		
COL	iP	15 58 13
Jan. 27		
COL	eP	16 18 47
Jan. 27		
COL	e(P)	17 18 47
Jan. 27		
PF	iP	17 33 15.5
Jan. 27		
COL	eP	17 53 06
PF	eP	17 57 06
Jan. 27		
OV	iP	20 27 45.8
PF	iP	20 27 45.1
TUC	e(P)	20 27 43
Jan. 27		
PF	e(P)	22 20 54
Jan. 27		
COL	e(P)	22 32 56
Jan. 28		
TUC	i(P)	01 08 52
Jan. 28		
COL	iP	02 35 38
HH	iP	02 38 16
SH	iP	02 38 22
TUC	i(P)	02 33 42
Jan. 28		
COL	eP	03 47 11
HH	eP	03 49 00
SH	eP	03 48 39
Jan. 28		
OV	e(P)	08 10 55
PF	iP	08 10 54.1
Jan. 28		
COL	eP	10 31 31
Jan. 28		
TUC	e(P)	11 52 10

Date and Station		Phase (GCT)
		h m s
TUC	e	11 52 16
Jan. 28, H = 13 26 25* 24-1/2°N, 123°E. Near east coast of Formosa.		
COL	eP	13 37 28
	eScS	48 06
	eL	54 06
HH	eP	13 39 37
	e	41 23
PF	eP	13 40 28
SH	eP	13 39 35
Jan. 28		
COL	eP	20 29 03
	e	29 26
Jan. 28		
COL	e(P)	21 17 57
Jan. 28		
COL	e(P)	23 09 14
	e	09 27
Jan. 28		
BC	e(P)	23 36 23
OV	iP	23 35 58.8
	i(S)	37 37
	i	36 36.6
PF	iP	23 35 53.2
	i	37 26.4
	i	37 52.3
TUC	eP	23 35 24
	iP	35 31
	i	35 59
	eS	36 06
	iL	36 25
Jan. 29		
PF	e(P)	01 21 59
Jan. 29		
OV	e(P)	03 24 55
PF	i(P)	03 23 51.8
TUC	i(P)	03 23 54
Jan. 29		
BC	e(P)	03 54 56
COL	eP	03 53 57
	iP	53 58
	ipP	54 39
HH	eP	03 54 58
OV	iP	03 54 54.3
PF	iP	03 54 54.8

Date and Station		Phase (GCT)
		h m s
Jan. 29		
COL	eP	04 35 41
	iP	35 42
HH	iP	04 41 04
OV	iP	04 41 11.1
	e	42 11
PF	iP	04 41 10.7
SJ	iP	04 43 14
	eL	05 12 36
TUC	iP	04 41 17
	e	44 37
Jan. 29, H = 05 02 03** Cape Mendocino foreshock.		
HH	iP	05 04 47
OV	eP	05 05 14
PF	iP	05 05 20.9
SH	eP	05 03 31
TUC	e	05 06 21
Jan. 29		
COL	i(P)	05 23 14
TUC	iP	05 22 51
	e	23 03
Jan. 29, H = 05 43 47* 43°N, 127-1/2°W. Off Cape Mendocino, California.		
BC	eP	05 46 44
BUT	e	05 46 51
	eL	49 47
BOZ	e	05 46 53
	eL	49 42
COL	eP	05 49 03
	i	49 08
	i	49 10
	e(PcP)	52 39
	iS	53 31
	iL	56 13
HONO	e	05 54 36
	eL	58 09
HH	eP	05 46 14
LOG	eP	05 46 44
	eS	49 04
	eL	50 03
OV	eP	05 46 41

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Date and Station		Phase (GCT) h m s
PF	eP	05 46 46
	iP	46 49.0
RC	eP	05 47 53
	i	48 03
	e(S)	51 19
	eL	53 29
SH	eP	05 44 58
SIT	eP	05 47 10
	eS	50 03
	eL	50 39
TUC	eP	05 47 49
	i	48 01
	e	49 09
	e	50 25
	eL	51 17
Jan. 29		
COL	e(P)	06 02 11
TUC	e(P)	06 06 37
Jan. 29		
PF	eP	09 47 12
	i	47 53.1
Jan. 29		
COL	eP	09 57 03
Jan. 29, H = 10 27 53* 15°N, 92-1/2°W. Near coast of Chiapas, Mexico. h = about 100 km.		
BC	iP	10 33 51
	ipP	34 12
	e(ScS)	43 52
COL	iP	10 38 08
	ipP	38 32
	isP	38 48
	i	39 15
	eScP	42 43
HH	eP	10 35 03
	iPcP	37 20
LOG	eP	10 33 55
	esP	34 36
	e	37 40
OV	iP	10 33 51.1
PF	iP	10 33 45.6
	ipP	34 08.6
SJ	iP	10 33 18
TUC	iP	10 33 05
	ipP	33 26
	e(PP)	34 02
	e	34 58
	iPcP	36 47
	eL	38 05

Date and Station		Phase (GCT) h m s
WASH	e	10 33 58
Jan. 29		
TUC	eP	11 19 51
	i	20 06
	e	20 42
	iL	21 08
Jan. 29		
TUC	iP	12 42 07
	e	42 28
	i	42 57
	eL	44 05
Jan. 29		
HH	iP	20 31 59
Jan. 29		
COL	eP	21 42 12
TUC	e(P)	21 43 08
Jan. 30		
COL	e(P)	00 02 38
Jan. 30		
HH	i(P)	05 30 11
Jan. 30		
TUC	eP	06 11 01
	e	11 16
	e	12 04
Jan. 30		
HH	i(P)	06 41 15
Jan. 30		
COL	e(P)	07 08 49
Jan. 30		
COL	eP	08 15 31
Jan. 30		
COL	e(P)	08 39 34
	i	39 48
HH	e(P)	08 38 39
Jan. 30, H = 11 16 43* 15-1/2°N, 99°W. Guerrero foreshock.		
BC	e(P)	11 22 09
	eScP	29 05
COL	iP	11 26 47
	iPcP	27 43
	e(PcS)	31 35
	eS	34 56
	iS	35 07
	eL	49 14
HH	eP	11 23 36
	ipP	23 43
	ePcP	26 15
LOG	e(P)	11 22 49
	eL	31 50

Date and Station		Phase (GCT) h m s
OV	iP	11 22 10.2
	i	30 02.7
PHIL	eS	11 28 35
	eL	36 31
PF	iP	11 22 04.7
	e(ScP)	29 30
RC	eP	11 22 44
	ePP	23 33
	e	30 47
	eL	31 18
TUC	eP	11 21 16
	iP	21 17
	iPP	21 51
	eS	25 10
	eL	26 14
Jan. 30		
OV	iP	12 45 44.4
TUC	iP	12 45 55
Jan. 30		
COL	eP	13 31 35
HH	eP	13 29 16
OV	eP	13 29 01
SJ	iP	13 21 04
	iS	21 43
	iL	22 00
TUC	eP	13 28 32
	e	28 50
Jan. 30		
COL	eP	13 39 43
HH	eP	13 40 51
Jan. 30		
COL	eP	15 40 35
OV	eP	15 34 36
	i	35 04.5
PF	iP	15 34 40.4
	iS	35 08.3
Jan. 30		
TUC	e(P)	16 35 30
Jan. 30		
COL	iP	16 56 37
Jan. 30, H = 19 00 30* 15-1/2°N, 99°W. Off coast of Guerrero, Mexico. Mag. 6-1/4 - 6-1/2.		
BER	eP	19 07 31
	eS	13 05
	eL	15 10

Date and Station		Phase (GCT) h m s
BC	eP	19 05 56.5
	eL	11 20.5
BOZ	eS	19 12 08
	eL	17 09
CHI	eP	19 06 22
	eS	11 02
	eL	16 44
COL	eP	19 10 34
	eS	18 26
	eL	30 36
HH	eP	19 07 24
	eS	12 43
	eL	19 00
LIN	eS	19 10 27
	eL	13 24
LOG	eP	19 06 27
	e(S)	11 17
	eL	15 24
OV	eP	19 05 59
	iL	11 20.7
	eScP	13 28
PHIL	eP	19 07 01
	eS	12 06
	eL	13 59
PF	iP	19 05 51.0
	iL	11 15.7
	iScP	13 20.7
	iPcS	13 29.7
RC	eP	19 06 30
	eS	11 14
	iL	15 47
SH	eP	19 07 01
	e(S)	12 33
	eL	17 40
TUC	iP	19 05 03
	eL	10 03
UK	eS	19 12 00
	eL	15 55
Jan. 30, H = 23 07 34* 32°N. 33-1/2°E. Eastern Mediterranean Sea. Felt in northern Egypt, Israel and Lebanon. h = about 100 km.		
BER	eS	23 29 35
	eSS	34 35
	eL	43 10
BOZ	e(S)	23 30 32
	eL	50 04
CHI	e(S)	23 31 01

Date and Station		Phase (GCT)
		h m s
COL	iP	23 19 52
	ipP	20 29
	e	22 44
	e	24 16
	e(S)	30 24
	e	37 57
	eL	52 00
HH	eP	23 20 46
	i	20 55
	i	22 46
OV	eP'	23 25 42
	ePP	26 01
PHIL	eS	23 29 48
	epS	30 14
	isS	30 28
	e(PS)	31 14
	e	33 11
	eSS	35 02
	eL	46 13
PF	e	23 24 52
SJ	iP	23 20 19
TUC	ePP	23 26 25
	eL	57 14
WASH	eP	23 20 02
	ipP	20 38
Jan. 31		
COL	iP	07 05 58
Jan. 31		
COL	iP	09 04 49
	e	05 17
HH	iP	09 07 21
TUC	eP	09 08 25
Jan. 31		
COL	eP	10 19 32
Jan. 31		
COL	iP	11 03 22
HH	iP	11 04 02
PF	iP	11 03 48.3
Jan. 31, H = 11 51 46* 21°N, 46°W. North Atlantic Ocean.		
BER	eP	11 56 25
	eS	12 00 08
	eL	00 37
BC	e	12 02 06
COL	eP	12 03 36
	e	03 51
HH	eP	12 01 56

Date and Station		Phase (GCT)
		h m s
OV	iP	12 02 04.6
PF	eP	12 02 01
SJ	eP	11 56 14
	iP	56 15
	eL	12 00 10
TUC	iP	12 01 42
Jan. 31		
COL	eP	12 19 03
Jan. 31		
HH	e(P)	13 27 59
Jan. 31		
COL	eP	13 43 23
	i	43 31
HH	e(P)	13 42 42
Jan. 31		
COL	e(P)	15 41 25
	e	41 43
HH	iP	15 38 44
Jan. 31		
COL	e(P)	15 58 38
Jan. 31, H = 16 38 35** Off coast of Peru. Felt at Ancon, Lima, Mala and Miraflores.		
COL	e(P)	16 51 51
	e	52 10
HH	e(P)	16 49 41
PF	e(P)	16 48 58
TUC	e(P)	16 48 31

Date and Station		Phase (GCT)
		h m s

Date and Station		Phase (GCT)
		h m s

Local and Minor Earthquakes

day	hour
COL	
Jan.	
2	03.2
	19.3
3	08.3
	08.6
	16.0
	17.8
	19.6
5	12.5
7	09.9
8	09.2
10	07.0
	14.5
14	15.9
16	00.1
17	21.4
18	14.8
19	06.3
	19.8
20	06.3
21	09.5
	10.6
23	20.0
26	16.6
27	12.3
29	00.6
HONO	
Jan.	
6	15.0
15	05.2
16	01.5
18	22.0
20	01.3
27	01.1
29	06.2
LOG	
Jan.	
2	23.6
3	08.8
10	07.8
11	21.3
21	06.5
25	19.1
SLC	
Jan.	
13	20.4
	21.9
SJ	
Jan.	
8	05.3
	20.2
	20.7
9	14.0
	19.2
10	10.4
11	18.7
12	02.7
	06.7
16	19.2
17	09.7
18	00.9
	13.3

Local and Minor Earthquakes

day	hour
SJ	
Jan.	
18	17.3
19	18.3
20	12.8
	13.4
	17.7
21	12.8
22	15.4
24	00.1
25	05.5
26	03.0
	13.5
27	11.6
31	11.8
TUC	
Jan.	
1	11.1
	15.2
2	03.9
	04.5
	05.0
	06.9
	07.4
	10.8
	13.8
4	06.3
	10.2
	13.2
	13.5
	13.8
	20.4
5	01.4
	09.7
	12.7
6	02.0
	04.2
	15.1
8	21.4
10	22.6
12	11.8
	11.9
16	06.5
	12.2
17	02.3
22	23.0
24	07.9
	10.0
	15.0
	16.2
	20.1
25	03.3
26	12.1
30	15.9
	22.6
31	17.7
	20.4
	22.4

51 Balboa Heights aftershocks from Jan. 6, 07h thru Jan. 16, 12h.

Local and Minor Earthquakes

day	hour

Local and Minor Earthquakes

day	hour

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