HARVARD UNIVERSITY

SEISMOGRAPH STATION

Oak Ridge Observatory

Bulletin Number 26

January 1, 1946 through June 30, 1946

Part A of Paper Number 99 published under the auspices of the Committee on Experimental Geology and Geophysics and of the Division of Geological Sciences at Harvard University.

STATION CONSTANTS

Latitude: 42° 30' 26" North

Longitude: 71° 33' 45" West

Altitude: 180 meters

INSTRUMENTS

Three Benioff 112.7 kg. long and short period combinations, (one vertical, and two horizontal components oriented respectively north-south and east-west) with galvanometric registration and magnetic damping.

Normal Operating Constants

Instrument	To sec.	Tg sec.	c	Drum speed	Displacement for acceleration of 10^{-6} gravity
ZSP	1.0	0.2	20:1	60 mm/min	15 mm
NSP	1.0	0.2	20:1	60 mm/min	15 mm
ESP	1.0	0.2	20:1	60 mm/min	15 mm
ZLP	1.0	14.0	20:1	30 mm/min	12 mm
NLP	1.0	14.0	20:1	30 mm/min	12 mm
ELP	1.0	14.0	20:1	30 mm/min	12 mm

Upward displacements on the seismograms correspond to displacements of the ground upward, to the north, or to the east.

NOTE

Although the Oak Ridge Observatory is located in the town of Harvard, Massachusetts, all mail intended for the station or any of its personnel should preferably be addressed exactly as follows:

Harvard Seismograph Station

Geological Museum

Cambridge 38, Massachusetts

Date	Phase	Time (GMT) h m s	Remarks
1946			
Jan. 2	eP	19-08-22	Local, probably submarine explosion. Δ = 88 km.
	iP	08-25	
	iS	08-33	
	iL	08-36	
Jan. 2	iP	20-46-43	Local. Δ = 330 km.
	iS	47-18	
Jan. 2	iP	21-15-35	Local, probably blast. Δ = 160 km.
	iS	16-12	
Jan. 3	iP	19-10-09.6	Local. Δ = 350 km.
	iS	10-46.7	
Jan. 3	iP	20-19-40	Local, probably blast. Δ = 184 km.
	iS	20-01	
Jan. 4	eP	19-50-45	Region of 10° N, 84° W; depth = 50 km.; 0 = 19-43-47 (JSA)
	eL	20-02.1	
Jan. 5	iP	01-21-23.6 (comp.)	15°.5 N, 91°.0 W; 0 = 01-15.0 (USC&GS)
	e(PP)	22-07	14°.9 N, 91°.5 W; 0 = 01-15-13 (JSA)
	i(PPP)	22-45	
	iS	26-21	Δ (S-P) = 30°; 0 = 01-15-11
	eL	29.1	
Jan. 5	eP'	20-16-18	16° S, 167° E; 0 = 19-57.3 (USC&GS)
	ePP	18-07	15°.9 S, 167°.0 E; depth = 100 km.;
	ePKS	19-49	0 = 19-57-32 (JSA)
	e	20-23	Magnitude = 7-7 1/4 (Pasadena)
	e(PPP)	21-06	
	ePS	28-17	Δ (PP-P') = 124° ; 0 = 19-57-17
	ePPS	29-40	
	eSS	34-58	
	eL	56.5	
Jan. 7	eP'	06-33-30	Roughly 7° N, 127° E; 0 = 06-14-00 (Pasadena)
	ePP	36-06	
	ePKS	36-47	Δ (PP-P') = 134°.0 = 06-14-10
	eL	07-27	
Jan. 11	iP	01-45-34 (dil.)	43°.5 N, 130°E; depth = 600 km.;
	ipP	47-41	0 = 01-33-30 (JSA)
	iSKS	55-08	45° N, 129° E; depth = 550 km.;
	iS	55-39	0 = 01-33-25; magnitude 7-7 1/4 (Pasade
	isS	59-27	Δ (S-P) = 90°; depth (pP-P) = 600 km.;
			0 = 01-33-34

Date	Phase	Time (GMT) h m s	Remarks
1946			
Jan. 12	iP	20-34-20 (comp.)	59° N, 147°.5 W; 0 = 20.25.7 (USC&GS)
	i	34-37	59°.4 N, 148°.2 W; 0 = 20-25-39 (JSA)
	iPP	36-16	Magnitude = 7 (Pasadena)
	i	38-06	Reported felt at Anchorage and
	ePcS	39-40	Cordova, Alaska
	iS	41-23	
	iScS	44-11	Δ(S-P) = 49°; 0 = 20-25-30
	i	44-35	
	i	45-10	
	eSSS	45-58	
	eLQ	49	
	eLR	51	
Jan. 17	eS_3	08-08-01	49°.4 N, 68°.7 W; 0 = 08-04-52 (NESA)
	e	08-16	
	eS_2	08-27	
	eS_1	08-39	
Jan. 17	ePP	09-58-39	6° S, 145° E; depth = 100 km;
	ePKS	59-01	0 = 09-37-27; magnitude 7-7 1/4 (Pasad
	e(PPP)	10-01-50	Press reports violent shock at
	e	02-36	Lae, New Guinea.
	eL	51	Δ about 130°.
Jan. 24	eP	10-04-35	Caribbean. Δ = 22°.5
	iP	04-37	
	eS	08-35	
Jan. 29	eL	06-52	
Feb. 12	i	02-53-18	
Feb. 12	eL	14-13	
Feb. 15	eL	03-35-14	47°.3 N, 122°.7 W; 0 = 03-17.8 (USC&GS)
			Magnitude = 5 3/4 (Pasadena)
			Felt at Seattle, Washington
Feb. 16	eL	22-22	
Feb. 18	e	01-05-38	
	eL	20	
Feb. 20	eL	04-46	
Feb. 24	e	09-51-47	
	eL	10-41.5	
Feb. 25	eL	02-34.5	

Date	Phase	Time (GMT) h m s	Remarks
1946			
Feb. 27	i	06-15-59	
March 2	eL	08-15	
March 8	i	17-42-50	Deep focus ?
March 9	eP	21-56-56	Caribbean. $\Delta = 22^{\circ}5$
	eS	22-00-55	
	e	19.4	
March 12	iP	00-14-26	$36^{\circ}8$ S, $104^{\circ}0$ W; O = 00-01-58 (BCIS)
	eL	41.5	
March 12	iP	21-28-20.2	Local, probably blast.
	iS	28-37.0	Δ = 140 km.
March 13	iP	17-49-28.5	Caribbean. $\Delta = 22^{\circ}2$
	eS	53-27	
March 13	iP	18-53-02	Caribbean. $\Delta = 21^{\circ}2$
	eS	56-51	
March 15	eL	08-45	
March 15	i	13-28-08	Foreshock of California quake
	i	29-32	
	eL	40	
March 15	i	13-47-02	
	e	48-54	
March 15	iP	13-56-43	$35^{\circ}44'$ N, $118^{\circ}02.5$ W; O = 13-49-36;
	eL	14-08-32	Magnitude = 6.4 (Pasadena)
March 17	i	23-31-41.5	
March 20	eL	05-33	
March 21	iP	20-22-19.5 (dil.)	Blast. Δ = 92 km.
	iS	22-31	
	i	22-33.5	
March 24	eL	16-36.9	
March 25	i(P)	08-52-44	Caribbean? $\Delta = 22^{\circ}$
	i(S)	56-41	
	eL	59.3	

Date	Phase	Time (GMT) h m s		Remarks
1946				
March 25	eL	22-38		
March 26	eP'	17-28-32		Possibly 2° N, 110° E; 0 = 17-09.0 (BCIS)
	ePP	31-41		
	ePPP	34-49		
	ePKKS	41-28		Δ (PP-P') = 142°; 0 = 17-08-58
	eSS	50-25		
	eL	18-26		
March 29	eP	07-25-06		2°8 N, 75°8 W; 0 = 07-17-35 (JSA)
March 29	iP	07-34-20	(comp.)	2° S, 80° W; depth = 100 km;
	ipP	34-33		0 = 07-26-12 (JSA)
	e	34-48		3°0 S, 81°6 W; 0 = 07-26-03 (BCIS)
	e	35-42		Magnitude = 6 3/4 (Pasadena)
	ePP	36-10		
	eS	40-56		Δ (S-P) = 45°; depth about 50 km.;
	iScS	44-16		0 = 07-26-06
	eSS	44-38		
	e	44-52		
	eL	47		
April 1	i	06-12-48		
April 1	iP	12-38-53	(dil.)	54° N, 164° W; 0 = 12-28-9 (USC&GS)
	i	39-03		53°1 N, 163°5 W; 0 = 12-58-53 (BCIS)
	iPcP	39-45		Magnitude = 7 1/4 (Pasadena)
	e	40-22		Tidal wave destructive in Hawaiian
	ePP	41-02		Islands, Tahiti, and Marquesas Islands.
	ePPP	42-20		
	e	43-17		Δ (S-P) = 58°; 0 = 12-28-56
	e	44-04		
	iS	46-52		
	iPS	47-08		
	e	49-38		
	eSSS	50-52		
	eG	54-42	(T=60 sec.)	
April 1	iP	12-45-37		Aftershock of preceding;
	iPcP	46-23		0 = 12-35-35 (BCIS)
	iPP	47-43		
	eS	53-27		
	e	54-33		
April 1	iP	13-02-36		Aftershock. 0 = 12-52-39 (BCIS)
April 1	iP	13-05-41		Aftershock. 0 = 12-55-40 (BCIS)

Date	Phase	Time (GMT) h m s	Remarks
1946			
April 1	iP	13-38-42	Aftershock. 0 = 13-28-47 (BCIS)
April 1	eP	13-44-27	Aftershock.
April 1	iP	13-50-27	Aftershock. 0 = 13-40.5 (BCIS)
April 1	iP	14-05-15	Aftershock. 0 = 13-55-15 (BCIS)
April 1	iP	15-30-15	Aftershock. 0. = 15-20-20 (BCIS)
April 1	eP	16-00-29	Aftershock. 0 = 15-50-20 (BCIS)
April 1	iP	16-01-56	Aftershock.
April 1	eP	17-00.1	Aftershock. 0 = 16-50.1 (BCIS)
April 1	iP iPP eL	17-09-10 11-28 32	Aftershock. 0 = 16-59-08 (BCIS)
April 1	iP iS	17-47-36 47-51	Local, probably submarine explosion. Δ = 123 km.
April 1	iP iS	17-49-09 49-23	Local, probably submarine explosion. Δ = 114 km.
April 1	iP iS i	18-06-43 06-58 07-00	Local, probably submarine explosion. Δ = 123 km.
April 1	iP	18-22-40	Aftershock.
April 1	iP	18-37-57	Aftershock.
April 1	iP ePP eS e eL	19-07-30 09-46 15-41 16-20 28	Aftershock. 0 = 18-57-27 (BCIS)
April 2	eP	01-08-22	Aftershock. 0 = 00-58.3 (BCIS)
April 2	iP eL	04-23-41 44	Aftershock. 0 = 04-13-16 (BCIS)
April 2	eP	05-48-08	Aftershock. 0 = 05-38-10 (BCIS)

Date	Phase	Time (GMT) h m s	Remarks
1946			
April 2	eP	06-07-02	Aftershock, 0 = 05-57-05 (BCIS)
April 2	eL	13-38	
April 2	eL	15-01	
April 2	iP iS	15-57-24.7 58-00.7	Local. Δ = 340 km.
April 2	eL	17-03	
April 3	eL	09-02	
April 4	eL	17-05	
April 4	eL	21-59	
April 5	i	21-05-17.7	
April 6	eL	05-25	
April 7	iP iS	16-23-19 23-33	Local, submarine explosion? Δ = 114 km.
April 7	iP iS	16-26-31 26-47	Similar to preceding Δ = 132 km.
April 7	iP iS	16-27-57 28-11	Similar to preceding Δ = 114 km.
April 7	iP iS	16-28-54 29-07	Similar to preceding Δ = 104 km.
April 7	iP iS	16-29-32 29-46	Similar to preceding Δ = 114 km.
April 7	iP iS	16-49-57 50-11	Local, probably blast. Δ = 114 km.
April 8	eP eL	17-46-24 18-06	Aftershock of April 1, 12h 0 = 17-36.5 (BCIS)
April 9	iP	10-43-46	Near 50° N, 152° E; 0 = 10-31.4 (BCIS)
April 9	e	15-13-36	Local
April 9	eL	21-02	

Date	Phase	Time (GMT) h m s	Remarks
1946			
April 11	iP	02-03-20	4°S, 13°W; 0 = 01-52.1 (BCIS)
	i	03-27	Magnitude = 7 1/4 (Pasadena)
	i	04-06	
	i	04-24	
	i	04-33	△(S-P) = 69.3; = 01-52-09
	i	04-50	
	iPP	05-45	
	i	06-27	
	i	08-26	
	eS	12-26	
	ePS	12-41	
	e	16-14	
	eSS	16-42	
	eSSS	19-52 (T = 24s)	
	eL	23-33 (T = 20s)	
April 11	iP	20-01-07	Local, probably blast.
	iS	01-27	△ = 174 km.
	iL	01-29	
April 12	eS	15-32-58	Local
	eL	32-59	
April 14	e	17-03-50	
April 15	i	01-16-38	Deep focus?
April 17	e	14-30-45	
	e	33.8	
April 17	iP	19-10-38.3	Blast at North Branford, Connecticut
	i	10-39.4	△ = 165 km.
	iS	10-57.6	
	i	10-59.0	
April 18	eL	07-57.5	
April 23	eL	01-48	
April 23	eP_1'	05-15-59	Near 51° S, 140° E (Riverview)
	eP_2'	16-15	
	e	18-19	△(PP-P') = 155°; 0 = 04-56-04
	ePP	20-04	
	e	21-59	
	e	23-29	
	e	24-00	
	eL	06-12.5	

Date	Phase	Time (GMT) h m s	Remarks
1946			
April 23	eL	11-31.5	
April 23	iP	21-30-20.4 (comp.)	Blast at Westfield, Massachusetts
	iS	30-33.7	Δ = 107 km.
	i	30-35.2	
April 24	eL	04-07.5	
April 24	iP	14-07-52.5	Local, probably submarine explosion.
	iS	08-04.5	Δ = 95 km.
April 24	iP	14-09-14	Local, probably submarine explosion.
	iS	09-26	Δ = 95 km.
April 24	iP	14-13-27	Local, probably submarine explosion
	iS	13-40	Δ = 104 km.
April 24	iP	14-15-03	Local, probably submarine explosion
	iS	15-15	Δ = 95 km.
April 25	i	08-20-42	Deep focus?
April 29	iP	01-36-37	Caribbean. $\Delta = 22^{\circ}3$
	i	36.45	
	eS	40-36	
	e	56.7	
April 30	eL	08-26	
May 2	i	15-45-11	Local
May 2	eP	22-48-06	Local. Δ = 286 km.
	iS	48-37	
May 3	iP	19-52-50.6	Blast. Δ = 36 km.
	iS	52-55.1	
May 3	e	22-23-20	
May 3	e	22-39-57	
May 3	eP'	22-42-45	9° S, 153° E; 0 = 22-23.4 (USC&GS)
	iP'	42-49	
	i	42-54	Δ(PP-P') = 125°5; 0 = 22-23-42
	ePP	44-40	
	e	45-01	
	eSKS	49-57	

Date	Phase	Time (GMT) h m s	Remarks
1946			
May 3	e(PS)	22-54-41	
	eSS	23-02-31	
	eL	23-10.5	
May 4	iP	13-32-08.0 (dil.)	Blast. Δ = 100 km.
	iS	32-20.6	
May 5	iP	19-39-51	Local. Δ = 215 km.
	i	39-57	
	iS	40-15	
May 6	iP	19-35-42.4	Local, probably blast.
	iS	35-49.0	Δ = 52 km.
May 8	iP'	05-39-47	1° S, 98° E; 0 = 05-20.3 (USC&GS)
	i	40-17	
	e	42-24	Δ (PP-P') = 140°; 0 = 05-20-16
	ePP	42-25	
	ePKS	43-26	
	ePKS	43-48	
	e	45-37	
	eSS	06-01-02	
	eSSS	06-50 (T = 40s)	
	eL	29	
May 8	eP'	10-04-25	Near 2° S, 143° E; 0 = 09-45.6 (BCSF)
	e	06-52	
	ePKS	07-55	
	e	16-55	
	e	19-52	
	eL	50	
May 8	i	16-04-14.3	Deep focus?
May 9	eP	23-41-29	22° N, 108° W; 0 = 23-34.4 (USC&GS)
	eS	47-16	
	eL	53.5	Δ (S-P) = 37°; 0 = 23-34-16
May 11	eL	16-49	
May 11	eL	18-12	
May 11	i	18-47-40	Deep focus?
	i	49-31	
	eL	19-02	
May 11	iP	20-35-20.7	Local, probably blast
	iS	35-42.6	Δ = 193 km.

Date	Phase	Time (GMT) h m s	Remarks
1946			
May 12	i	04-45-38	Deep focus?
	i	46-12	
May 12	e	13-26-41	
	e	27-50	
	eL	36	
May 13	iP	20-52-46	Local, probably blast.
	iS	53-00	Δ = 114 km.
May 13	eP	21-31-46	Caribbean. $\Delta = 22^{\circ}.5$
	eS	35-46	
	e	54-11	
May 15	eP	22-17-23	16° N, 96° W; 0 = 22-10.6 (USC&GS)
	i	17-31	
	e	23-14	Δ meas = $33^{\circ}.7$
	e	23-58	
	eL	31	
May 15	e	22-31-02	
	e	36-10	
	e	41-19	
May 16	e	05-44-19	
	eL	06-28	
May 16	e	15-45-18	Local?
	e	46-09	
May 16	e	19-33-56	Local?
	e	34-14	
May 17	iP	20-10-53.4 (comp.)	Local, probably blast.
	iS	10-57.5	Δ = 33 km.
May 19	e	00-42-38	
	eL	01-10	
May 21	iP	09-22-44.0	$14^{\circ}.2$ N, $60^{\circ}.8$ W; 0 = 09-16.6 (USC&GS)
	i	22-55	Damage reported at Martinique
	ePP	23-22	Magnitude near 7 (Pasadena)
	iS	27-32	Δ(S-P) = $28^{\circ}.5$; 0 = 19-16-44
	e	27-59	
	e	28-48	
	eL	30-40	
	e	47-03	

Date	Phase	Time (GMT) h m s	Remarks
1946			
May 21	eP	17-55-51	Caribbean. $\Delta = 21.^{\circ}7$
	eS	59-44	
	e	18-15-32	
May 22	eL	11-36	
May 22	i	14-24-27	Deep focus?
May 22	iP	17-23-18	Local, probably submarine explosion. Followed by several others within three minutes. Δ about 350 km.
	iS	23-55	
May 23	eL	02-33	
May 24	iP	18-08-45	Local. $\Delta = 194$ km.
	iS	09-07	
May 27	eP	14-22-00	Caribbean. $\Delta = 28^{\circ}$
	eS	26-41	
	e	46-08	
May 31	e	03-25-45	
	eL	55	
May 31	iP	19-54-30	Local, probably blast. $\Delta = 123$ km.
	iS	54-45	
June 2	eL	02-10	
June 3	i	13-54-37	
June 3	iP	20-02-03	Local, probably blast. $\Delta = 58$ km.
	iS	02-10.3	
	iL	02-15	
June 4	eP	22-21-27	Caribbean. $\Delta = 22^{\circ}$
	eS	25-24	
	e	44-50	
June 5	eP'	01-11-44	5° S, 153° E; O = 00-52.7 (BCIS) Δ (PP-P') = 124°
	ePP	13-32	
	eL	53	
June 5	eP	22-27-55	Caribbean. $\Delta = 22.^{\circ}5$
	eS	31-56	

Date	Phase	Time (GMT) h m s	Remarks
1946			
June 6	e	10-48-20	7°.5 S, 10° W (URSS)
	e	48-37	
	e	57-09	
	eL	11-06	
June 7	eP	04-19-36	17° N, 94° W; depth greater than
	i	19-46	100 km.; 0 = 04-13.3 (USC&GS)
	i	20-13	Reported felt in southwestern
	i	20-57	Mexico.
	i	21-33	Magnitude = 7 (Pasadena)
	eS	24-38	Δ (S-P) = 32°; 0 = 04-13-18
	eSS	26-31	
	eL	31	
June 7	iP	13-10-34.3 (dil.)	Local, probably blast.
	iS	10-50.4	Δ = 133 km.
June 7	iP	19-15-34.6	Local, probably blast.
	iS	15-38.3	Δ = 29 km.
June 12	eL	17-10	
June 15	eP'	18-48-34	3°S, 129° E; 0 = 18-29.3 (BCIS)
	e	48-50	0°, 129° E (URSS)
	ePP	51-13	
	ePKS	52-16	Δ (PP-P') = 135°; 0 = 18-29-13
	eL	19-37	
June 16	eP	19-34-01	Local, probably blast.
	eS	34-11	Δ = 79 km.
June 17	e	19-30-05	Local
June 20	eP	20-05-16	Local, probably blast.
	eS	05-19	Δ = 24 km.
June 23	iP	17-20-29	49°.9 N, 125°.3 W; 0 = 17-13-20 (USC&GS)
	iPP	21-52	50° N, 125° W; 0 - 17-13-19 (JSA)
	iPPP	22-13	Magnitude = 7-7 1/4 (Pasadena)
	eS	26-14	Damage reported at Tacoma, Olympia,
	iS	26-23	Seattle, Portland, and Vancouver.
	eL	30	Landslides along eastern coast of
			Vancouver Island.
			Δ (S-P) = 37°; 0 = 17-13-16
June 24	eP	15-54-24	14° N, 91° W; 0 = 15-48.0 (USC&GS)
	e	55-46	
	e	16-00-57	

Date	Phase	Time (GMT) h m s	Remarks
1946			
June 24	iP	21-14-03	Local, probably blast.
	iS	14-23	Δ = 174 km.
June 24	iP	21-15-50	Local, probably blast.
	iS	16-10	Δ = 174 km.
June 25	e	00-14-59	
	e	17-28	
June 25	i	14-17-25	
	i	17-37	
June 26	iP	08-00-06	14° N, 91° W; 0 = 07-53.6 (USC&GS)
	iS	05-19	14°.3 N, 91°.3 W; depth = 200 km.;
	e	05-56	0 = 07-53-50 (JSA)
	eL	10.8	Δ (S-P) = 32°; 0 = 07-53-34
June 26	eL	13-40	43°.2 S, 171°.5 E (BCIS)
June 27	eL	22-39	Near 10° S, 170° E (BCIS)
June 28	eL	08-23	43°.2 S, 171°.5 E (BCIS)
June 28	i	15-07-32	Local, possibly submarine
	i	07-54	explosion
	i	07-56	
June 28	i	15-08-16	Similar to preceding.
	i	08-35	
June 28	i	15-11-01	Similar to preceding.
	i	11-23	
	i	11-49	
June 28	iP	15-25-15	Blast at North Branford,
	iS	25-34	Connecticut. Δ = 165 km.
June 28	i	16-07-24	
June 30	e	05-05-43	

Harvard University
Cambridge 38, Massachusetts
19 February 1947

Mary P. Collins

HARVARD UNIVERSITY

SEISMOGRAPH STATION

Oak Ridge Observatory

Bulletin Number 27

July 1, 1946 through December 31, 1946

Part B of Paper Number 99 published under the auspices of the Committee on Experimental Geology and Geophysics and of the Division of Geological Sciences at Harvard University.

STATION CONSTANTS

Latitude: 42° 30' 26" North

Longitude: 71° 33' 45" West

Altitude: 180 meters

INSTRUMENTS

Three Benioff 112.7 kg. long and short period combinations, (one vertical and two horizontal components oriented respectively north-south and east-west) with galvanometric registration and magnetic damping.

Normal Operating Constants

Instrument	To sec.	Tg sec.	e	Drum speed	Displacement for acceleration of 10^6 gravity
ZSP	1.0	0.2	20:1	60 mm/min	15 mm
NSP	1.0	0.2	20:1	60 mm/min	15 mm
ESP	1.0	0.2	20:1	60 mm/min	15 mm
ZLP	1.0	14.0	20:1	30 mm/min	12 mm
NLP	1.0	14.0	20:1	30 mm/min	12 mm
ELP	1.0	14.0	20:1	30 mm/min	12 mm

Upward displacements on the seismograms correspond to displacements of the ground upward, to the north, or to the east.

NOTE

Although the Oak Ridge Observatory is located in the town of Harvard, Massachusetts, all mail intended for the station or any of its personnel should preferably be addressed exactly as follows:

Harvard Seismograph Station

Geological Museum

Cambridge 38, Massachusetts

Date	Phase	Time (GMT) h m s	Remarks
1946			
July 1	eL	03-16	64° N, 148° W; 0 = 02-52.4 (USC&GS)
July 1	ePP	22-56-09	5°.0 S, 153°.0 E; 0 = 22-35.5 (BCIS)
	ePKS	58-00	Magnitude = 6 1/2 (Pasadena)
	eL	23-34	
July 3	i	15-08-20	Submarine explosion?
July 8	eL	18-48	13° S, 173° E; 0 = 17-48.8 (BCIS)
July 9	ePP	01-27-53	23° S, 174°.5 W; 0 = 01-08-24 (BCIS)
	ePS	37-30	Magnitude = 6 3/4 (Pasadena)
	eL	02-07	
July 9	iP'	13-32-30	20° S, 169° E; depth = 170 km. (BCIS)
	epP'	33-15	Magnitude = 7 1/4 (Pasadena)
	ePP	34-15	
	epPP	35-09	Δ (PP-P') = 124°; depth = 175 km.;
	e(SKS)	39-18	0 = 13-13-36
	ePS	44-16	
July 11	eP	04-52-57	17° N, 94° W; slight depth of
	ipP	53-28	focus; 0 = 04-46.6 (USC&GS)
	iPP	53-55	18°12' N, 95°36' W (Tacubaya)
	iPPP	54-13	Magnitude = 6 3/4 (Pasadena)
	i	55-05	Reported felt in states of Vera
	eS	57-51	Cruz, Oaxaca, and Chiapas and
	e	58-32	Federal District, Mexico.
	e	59-21	Δ (S-P) = 31°; depth = 150 km.
July 12	eL	19-51	15°.4 S, 167°.0 E; 0 = 18-48.8 (BCIS)
July 12	iP	22-06-34	55 1/2° N, 169° W; 0 = 21-56.5 (BCIS)
	iPP	08-52	50° N, 177°.5 W (URSS)
July 12	eP	23-36-27	3 1/2° S, 83° W; 0 = 23-28.3 (BCIS)
	ePP	38.0	
	e	45-22	
July 15	iP	20-05-26.5	Blast at Westfield, Massachusetts
	iS	05-38.2	
July 16	eP	03-43-15	Caribbean. Δ = 23°.1
	eS	47-21	
	e	04-07-28	
July 16	eP	05-38-00	35°.0 N, 25°.5 E; 0 = 05-26-40 (BCIS)
	eL	06-09	35° N, 23°.5 E (URSS)

Date	Phase	Time (GMT) h m s	Remarks
1946			
July 18	eP	06-14-38	50° N, 129° W; depth slightly
	ePP	16-04	less than 100 km.; 0 = 06-07.1 (USC&GS)
	eS	20-52	50°N, 130° W; 0 = 06-07-02 (BCIS)
	eL	28-12	Magnitude = 6 1/2 (Pasadena)
	i	31-04	Δ (S-P) = 42°; 0 = 06-06-50
July 18	eP	07-24-11	Aftershock of preceding.
	eS	30-22	0 = 07-16.5 (USC&GS)
	e	31-42	Magnitude = 6 1/2 (Pasadena)
	eL	37	Δ (S-P) = 41°; 0 = 07-16-29
	i	40-34	
July 18	eL	14-44	Reported felt in Los Angeles.
July 19	eL	22-10	
July 19	iP	18-00-23	Local, probably blast.
	iS	00-44.2	Δ = 180 km.
July 22	iP	19-51-15	Local, probably blast.
	iS	51-24.5	Δ = 75 km.
July 23	eL	18-13	Near 10° S, 160° E (BCIS)
July 24	eL	12-00	
July 25	iP	16-53-05 (comp.)	51° N, 179° W; 0 = 16-42.1 (USC&GS)
	eS	17-02-00	50°6 N, 177°3 W; 0 = 16-42-24 (JSA)
	eL	10	Magnitude = 6 1/2 (Pasadena)
			Δ (S-P) = 67°
July 26	iP	06-55-05 (comp.)	21°6 S, 70°0 W; depth = 100 km.;
	e	55-44	0 = 06-44.7 (USC&GS)
	ePP	57-27	19°8 S, 70°9 W; depth = 80 km.
	e	57-49	Magnitude = 7-7 1/4 (Pasadena)
	eS	07-03-31	
	ePS	03-55	Δ (S-P) = 63°; 0 = 06-44-39
	eScS	04-55	
	e	05-23	
July 28	e	08-08-58	
	e	24-11	
	e	27-12	
August 1	iP	01-44-37	Local. Δ = 87 km.
	iS	44-38	

Date	Phase	Time (GMT) h m s	Remarks
1946			
August 1	iP	21-01-10	Caribbean. Δ = 21°3
	iS	05-00	
	i	22-45	
August 2	iP	19-29-51 (dil.)	27° S, 70° W; depth slight;
	eS	38-48	0 = 19-18.7 (USC&GS)
	e	39-27	25°5 S, 71°1 W; depth = 80 - km.;
	eL	53	0 = 19-19-01 (JSA)
			Δ (S-P) = 68.3; 0 = 19-18-51
August 4	iP	17-55-17 (dil.)	19°3 N, 69°0 W; 0 = 17-51-07 (USC&GS)
			Magnitude = 8-8 1/4 (Pasadena)
			Destructive in Santo Domingo.
August 5	iP	22-19-43	Aftershock.
	iS	23-31	
August 5	iP	23-08-00	Aftershock.
	iS	11-45	
	e	29.2	
August 6	eP	03-02.4	Aftershock.
	eS	06.4	
August 6	eP	03-29-15	Aftershock.
	eS	33-07	
	e	39	
August 6	eP	04-01-19	Aftershock.
	eS	05-10	
August 6	eP	06-01-29	Aftershock.
	eS	05-39	
	eL	10	
	e	22.2	
August 6	eP	06-50-48	Aftershock.
	eS	54-50	
August 6	eP	07-06-13	Aftershock.
	eS	10-04	
August 6	eP	08-35-33	Aftershock.
	eS	39-35	
August 6	eP	09-10.0	
	eS	14.0	

Date	Phase	Time (GMT) h m s	Remarks
1946			
August 6	eP	15-19-17	Aftershock
	i	19-27	
	eS	23-15	
August 6	eP	16-19-55	Aftershock
	eS	24-00	
August 6	eP	17-07-51	Aftershock
	eS	12-00	
August 6	eP	21-30-40	Aftershock
	eS	34.6	
August 7	eP	05-37-15	Aftershock
	eS	41-21	
	e	57.7	
August 7	eP	06-21.7	Aftershock
	eS	25.7	
August 7	eP	08-01.8	Aftershock
	i	01-54	
	eS	05-36	
August 7	eP	08-37.0	Aftershock
	eS	41.0	
August 7	eP	11-00.5	Aftershock
	eS	04.5	
August 7	eP	11-15-20	Aftershock
	eS	21.4	
August 7	iP	18-30-35	Aftershock
	eS	34-40	
	eL	39	
	e	51.3	
August 7	eP	19-25-38	Aftershock
	i	25-46	
	eS	29-46	
	eL	33.5	
	e	46.0	
August 7	eP	19-41-10	Aftershock
	eS	45.5	

Date	Phase	Time (GMT) h m s	Remarks
1946			
August 7	eP	19-52-34	Aftershock
	i	52-46	
	eS	56-31	
	i	56-44	
	eL	20-01	
August 8	eP	01-51-32	Aftershock
	eS	55-40	
	e	02-12-35	
August 8	e	03-30-55	Aftershock?
August 8	e	05-53-18	Aftershock?
August 8	e	09-44.8	Aftershock?
August 8	iP	13-33-33	Aftershock. O = 13-28-24 (USC&GS)
	i	33-50	Magnitude = 7 1/2-7 3/4 (Pasadena)
	iS	37-54	
	eL	40	
	e	54.2	
August 8	eP	14-33-49	Aftershock
	i	34-03	
	eS	37-55	
	i	37-59	
	e	54.5	
August 8	eP	15-17-19	Aftershock
	eS	21.3	
August 8	eP	15-24.2	Aftershock
	eS	28.2	
August 8	eP	15-46.0	Aftershock
	eS	50.0	
August 8	eP	17-29-12	Aftershock
	eS	33-16	
	eL	37	
	e	49-56	
August 8	eP	18-24-12	Aftershock
	eS	28-25	
August 8	eP	20-26-58	Aftershock
	eS	31-10	

Date	Phase	Time (GMT) h m s	Remarks
1946			
August 8	eP	22-49-46	Aftershock
	i	49-56	
	eS	53-55	
August 9	eP	00-47-44	Aftershock
	eS	51.9	
August 9	eP	08-30-48	Aftershock
	eS	35-00	
	eL	37	
	e	50.6	
August 9	eP	10-14.5	Aftershock
	eS	18.5	
August 9	eP	13-08.5	Aftershock
	eS	12.5	
August 9	eP	16-39.0	
	eS	43.0	
August 9	eP	20-11-49	Aftershock
	eS	15-54	
	eL	19	
	e	32-54	
August 9	eP	20-58-25	Aftershock
	eS	21-02-38	
August 10	eP	02-15-35	Aftershock
	eS	19-44	
	eL	24	
	e	36.7	
August 10	eP	07-03-47	Aftershock
	eS	07-57	
	e	24.5	
August 10	eP	09-05-25	Aftershock
	eS	09-33	
	e	09-40	
	e	25-35	
August 10	eP	11-50-55	Aftershock
	eS	55-01	
	i	55-11	
	e	12-11.5	

Date	Phase	Time (GMT) h m s	Remarks
1946			
August 10	eP	14-14-42	Aftershock
	eS	18-56	
August 10	eP	14-23-39	Aftershock
	eS	27-48	
	eL	31	
	e	44.8	
August 11	eP'	02-13-30	8° S, 155° E; O = 01-54.3 (USC&GS)
	ePP	15-20	8°.4 S, 155°.9 E; O = 01-54-26 (JSA)
	ePKS	16-45	Magnitude = 6 3/4 (Pasadena)
	eL	53	Δ(PP-P') = 124°.5; O = 01-54-29
August 11	eP	03-46-09	Aftershock of Caribbean quake
	i	46-28	
	eS	50-15	
	e	04-06-37	
August 11	eP	10-02-49	Aftershock
	eS	06-45	
	e	23-39	
August 11	eP	13-17-48	Aftershock
	eS	22-00	
August 11	eP	16-52-24	Aftershock
	eS	56-24	
	e	17-13.5	
August 11	eP	18-35.5	Aftershock
	eS	39.5	
August 12	eP	02-44-38	Aftershock
	eS	48-40	
August 12	eP	09-36-58	Aftershock
	eS	41-05	
	e	57.0	
August 12	e	15-31-02	Aftershock?
August 12	e	21-39.5	Aftershock?
August 13	e	08-54.5	Aftershock?
August 14	eP	01-01-11	Aftershock
	eS	05-16	
	e	21.9	

Date	Phase	Time (GMT) h m s	Remarks
1946			
August 14	e	19-24.0	Aftershock?
August 14	e	19-56.0	Aftershock?
August 15	i	01-09-07	Deep focus.
August 15	e	15-44-54	22° S, 170° E; 0 = 15-23.9 (USC&GS)
	eL	16-24	
August 16	eP	02-27-25	Aftershock of Caribbean quake
	eS	31-24	
	e	48-00	
August 16	e	17-21-58	
	e	23-12	
	e	26-26	
	eL	17-32	
August 16	iP	17-21-17.7	Blast at Newington, Connecticut
	iS	21-34.5	Δ = 140 km.
August 17	eS	04-53	Aftershock of Caribbean quake
	e	05-10.5	
August 17	e	05-49-47	
August 17	eP	17-10.0	Aftershock
	eS	14.0	
	e	30.5	
August 17	eP	11-24-48	Aftershock
	eS	29-08	
	e	44-45	
August 18	eP	02-20.8	
	eS	24-42	
	e	41.1	
August 18	eP	17-14-28	Aftershock
	eS	18-42	
	eL	23	
	e	35-10	
August 19	eP	04-08-13	Aftershock
	eS	12-24	
	eL	17	
	e	29.0	

Date	Phase	Time (GMT) h m s	Remarks
1946			
August 19	iP	05-45-57	Aftershock
	eS	49-59	
	eL	52	
	e	06-06.5	
August 19	eP	18-08-59	Δ (S-P) = 34°
	eS	14-13	
	e	29.5	
August 20	iP	12-54-28.7	Aftershock of Caribbean quake
	iS	58-38	
	e	13-15-00	
August 20	iP	20-43-51.7 (comp.)	Blast. Δ = 29 km.
	iS	43-55.3	
	iL	43-56.8	
August 21	eP	05-55-19	Aftershock of Caribbean quake
	eS	59-14	
	e	06-16.0	
August 21	eP	14-34-52	Aftershock
	i	35-05	
	eS	39-03	
August 21	eP	19-04-33	Aftershock
	eS	08-41	
August 21	iP	19-22-48 (comp.)	Aftershock
	i	22-52	
	iS	27-03	
	i	27-40	
	eL	28.8	
	e	42.6	
August 21	eP	21-57-29	Aftershock
	eS	22-01-33	
	e	18.0	
August 21	eP	23-05-35	Aftershock
	eS	09.7	
	e	26.5	
August 22	eP	01-22-48	Aftershock
	eS	27.0	

Date	Phase	Time (GMT) h m s	Remarks
1946			
August 22	eP	01-50-12	Aftershock
	eS	54-20	
	e	02-10.7	
August 22	e	21-58.0	Aftershock?
August 24	e	02-48-50	
	eL	02-59	
August 24	eP	13-02-02	Aftershock
	eS	06-05	
	e	22.0	
August 24	eP	14-23-24	Aftershock
	eS	27-35	
	eL	28	
	e	43	
August 24	eP	15-28-21	Aftershock
	eS	32-14	
	e	49	
August 28	eL	21-05	
August 28	eP	22-31-29	Aftershock
	eS	35-28	
August 28	iP	22-38-31	21° S, 70° W; 0 = 22-28.2 (USC&GS)
	ipP	40-27	Magnitude = 7-7 1/4 (Pasadena)
	iS	46-51	Depth = 560 km. (Pasadena)
August 30	iP	19-51-21.3	Blast at Plainville, Connecticut
	iS	51-38.5	Δ = 143 km.
Sept. 6	e	17-44-37	Local
	i	44-40	
Sept. 6	iP	20-02-17.2 (comp.)	Blast. Δ = 29 km.
	iS	02-20.9	
	iL	02-23.2	
Sept. 6	eP	22-04-25	Caribbean. Aftershock
	i	04-37	
	eS	08-37	
	eL	10.5	
	e	24.4	
	i	25-12	

Date	Phase	Time (GMT) h m s	Remarks
1946			
Sept. 7	iP	18-31-56	Blast? Δ = 95 km.
	iS	32-08	
Sept. 8	eP	00-56-11	Caribbean. $\Delta = 22^{\circ}9$
	eS	01-00-14	
	e	17-01	
Sept. 9	iP	19-37-59.0 (comp.)	Local, possibly blast.
	iS	38-05.1	Δ = 48 km.
Sept. 9	eP	20-43-48	Caribbean
	eS	47.8	
Sept. 10	e	02-37-30	
	e	30-47	
Sept. 10	eL	10-48	
Sept. 11	eL	14-08	
Sept. 12	e	14-33-31	
	eL	15-00	
Sept. 12	ePP	15-36-46	$25^{\circ}5$ N, 89° E; O = 15-16.9 (USC&GS)
	e	38-15	Magnitude = 7.5 (Pasadena)
	ePKS	39-09	
	e	41-04	Δ meas = 114°
	ePS	46-20	
	ePPS	47-31	
	eL	16-03	
Sept. 12	iP	17-44-39.5	Caribbean. $\Delta = 23^{\circ}3$
	iS	48-37.9	
	i	18-03-58	
	i	05-00	
	i	05-41	
Sept. 13	eL	05-06	
Sept. 13	eL	16-24	
Sept. 13	eL	16-53	
Sept. 13	i	19-10-58	
	i	11-11	
	eL	42	

Date	Phase	Time (GMT) h m s	Remarks
1946			
Sept. 13	eL	20-05	
Sept. 14	eL	06-04.5	
Sept. 15	iP	16-15-24	Caribbean. $\Delta = 25^{\circ}8$
	i	15-49	
	iS	19-49	
	i	20-00	
	e	35	
Sept. 16	eP	07-37-33	Caribbean. $\Delta = 23^{\circ}3$
	eS	41-40	
	e	58-55	
Sept. 18	iP	02-16-20	16° N, 101° W; O = 02-09.2 (USC&GS)
	eL	02-23	
Sept. 18	eP	05-39.5	Caribbean
	eS	43.5	
	e	06-00.5	
Sept. 18	eP	08-38-52	Caribbean. $\Delta = 23^{\circ}8$
	i	39-05	
	eS	43-03	
	i	43-11	
	e	09-00.0	
Sept. 19	eP	02-06-58	Caribbean
	i	07-17.	
	eS	11.0	
Sept. 19	eP	07-02-05	Caribbean
	i	02-18	
	iS	06-05	
	eL	11.5	
	e	21.9	
Sept. 20	eP	02-36-16	Caribbean
	eS	40-10	
	e	57.0	
Sept. 20	eP	14-29-21	Caribbean
	eS	33-26	
Sept. 20	iP	17-41-08	Caribbean
	iS	45-20	
	eL	48	
	i	18-01-44	

Date	Phase	Time (GMT) h m s	Remarks
1946			
Sept. 20	iP	20-35-01.5	Blast at Berkeley, Rhode Island
	iS	35-10.7	Δ = 73 km.
	iL	35-13.5	
Sept. 20	iP	21-37-56.5	Local or blast. Δ = 174 km.
	iS	38-17	
Sept. 21	eL	22-27	
Sept. 21	eP	23-01-15	Caribbean
	eS	05-18	
Sept. 23	eL	22-55	
Sept. 23	eP'	23-49-01	3° S, 144° E; 0 = 23-29.8 (USC&GS)
	ePP	51-15	Δ (PP-P') = 129°.5; 0 = 23-29-50
	e	52-05	
	ePKS	52-27	
	e	01-02-05	
	e	03-55	
	e	05-12	
	eSS	08-59	
	eL	25	
Sept. 24	iP	18-17-51	Caribbean
	i	18-13	
	iS	21-45	
	i	22-02	
	e	38-40	
	i	39-12	
	i	40-13	
Sept. 25	iP	10-10-43.5	Caribbean
	iS	14-41.4	
	eL	16.5	
	e	30-30	
	e	32-25	
Sept. 25	iP	15-03-03	Caribbean
	iS	07-13	
	eL	10	
	e	23-20	
Sept. 28	eP	03-16-04	Caribbean
	eS	20-00	
	e	36.3	

Date	Phase	Time (GMT) h m s		Remarks
1946				
Sept. 29	eP'	03-20-57		5° S, 154° E; 0 - 03-02.0 (USC&GS)
	i	21-12		Magnitude = 7 3/4 (Pasadena)
	ePP	22-53		
	i	23-07		△ (PP-P') = 125°.5; 0 = 03-01-54
	ePKS	24-27		
	i	28-27		
	eSS	39-57		
	eG	54	(T = 66s)	
Sept. 30	eP	01-09-11		12°.5 S, 76° W; depth slightly less
	eS	16-54		than 100 km.; 0 = 00-59.7 (USC&GS)
	e	17-46		△ (S-P) = 55°.3; 0 = 00-59-34
	eSeS	18-52		
	eL	23		
Oct. 2	iP	04-57-56		51° N, 157° E; slightly deeper than
	eL	05-28.5		normal; 0 = 04-45.9 (USC&GS)
Oct. 2	iP	06-55-05		Same epicenter as preceding;
	eL	07-26		0 = 06-43-03 (USC&GS)
Oct. 3	eL	16-38		
Oct. 4	iP	14-50-38		Aftershock of Caribbean quake of
	i	50-46		August 4.
	i	51-04		0 = 14-45-26 (USC&GS)
	i	51-28		
	iS	54-51		
	i	54-58		
	eL	57.1		
Oct. 6	i	15-56-38		Local?
Oct. 6	i	16-11-02		Local?
Oct. 6	i	16-22-29		Local?
Oct. 7	i	07-05-56		Local?
Oct. 7	eP	18-03-53		Caribbean
	eS	07-57		
	e	24-49		
Oct. 7	iP	20-09-14.8	(comp.)	Blast at Dracut, Massachusetts
	iS	09-18.8		△ = 32 km.
	iL	09-20.0		

Date	Phase	Time (GMT) h m s	Remarks
1946			
Oct. 10	eL	05-30	
Oct. 11	iP	14-12-23.3	Local, possibly blast.
	iS	12-29.7	Δ = 51 km.
	iL	12-31.6	
Oct. 12	iP	18-32-37.0	Local. Δ = 21 km.
	iS	32-39.7	
Oct. 13	i	23-23-29.4	Deep focus.
Oct. 14	eL	05-48	
Oct. 21	iP	21-04-31.5 (comp.)	Blast at Westfield, Massachusetts
	iS	04-45	
Oct. 24	eP	02-38-52	Caribbean
	i	39-01	
	eS	43-04	
Oct. 25	i	22-01-10	Deep focus.
	i	02-14	
Oct. 26	e	00-39-45	
	eL	01-11.5	
Oct. 30	iP	07-57-30	54° N, 164° W; O = 07-47.6 (USC&GS)
	ePP	59-44	Magnitude = 7 (Pasadena)
	iS	08-05-34	Δ (S-P) = 59°3; O = 07-47-29
	eSS	09-36	
	e	10-28	
	eL	17.8	
Nov. 1	iP	11-25-05	52° N, 174° W; O = 11-14.4 (USC&GS)
	iS	33-44	Magnitude = 7 1/4 (Pasadena)
	eL	11-43	Δ (S-P) = 65°; O = 11-14-21
Nov. 2	e	14-23-20	
	i	26-28	
	eL	15-12	
Nov. 2	iP	18-41-31 (comp.)	41° N, 76° E; O = 18-28.4 (USC&GS)
	i	41-41	Δ (S-P) = 92°; O = 18-28-24
	i	42-08	Magnitude about 7 3/4 (Pasadena)
	i	42-31	
	ePP	45-14	
	iPPP	47-10	

Date	Phase	Time (GMT) h m s	Remarks
1946			
Nov. 2 (cont.)	eSKS	18-51-54	
	eS	52-27	
	i	53-10	
	i	54-12	
	eSS	58-56	
	eL	19-10	
Nov. 3	iP	19-43-15 (dil.)	0°, 16° W; 0 = 19-32.5 (USC&GS)
	eS	51-55	Δ (S-P) = 65°; 0 = 19-32.5
	eL	20-00	
Nov. 4	iP	20-00-16.0	Blast at Dracut, Massachusetts
	iS	00-20.0	Δ = 31.6 km.
	iL	00-22.1	
Nov. 4	eL	20-12	
Nov. 4	iP	22-00-20 (comp.)	40° N, 53° E; 0 = 21-47.6 (USC&GS)
	e(PP)	03-38	Magnitude about 7 1/2 (Pasadena)
	e(PPP)	05-17	
	iSKS	10-48	Δ (S-P) = 88°; 0 = 21-47-27
	iS	11-04	
	ePPS	12-36	
	e(SS)	16-30	
	e(SKKS)	24-40	
	e	25-36	
	e	26-15	
	e	30-02	
	eL	31	
Nov. 7	iP	18-11-10	Caribbean. Δ = 23°5
	i	11-28	
	iS	15-18	
	i	31-27	
	i	31-53	
Nov. 9	eP	17-56-16	Caribbean. Δ = 21°5
	eS	18-00-07	
	e	17-21	
Nov. 10	iP	17-51-57 (dil.)	9° S, 77°5 W; 0 = 17-42.8 (USC&GS)
	i	52-01	Magnitude about 7 1/2 (Pasadena)
	ePcP	53-20	
	ePP	53-52	Δ (S-P) = 51°3; 0 = 17-42-49
	eS	59-16	
	ePS	59-22	
	e	18-01-18	

Date	Phase	Time (GMT) h m s	Remarks
1946			
Nov. 10 (cont.)	eScS	18-01-41	
	e(SS)	03-21	
	e(SSS)	04-11	
	eL	05-40	
Nov. 12	eL	04-57	
Nov. 12	eP	06-06-13	Near 53 1/2° N, 164° W; 0 = 05-56.3 (BCSF)
	ePP	08-25	
	eS	14-21	Δ (S-P) = 60°; 0 = 05-56-07
	e	25-00	
	eL	27	
Nov. 12	eL	14-58	
Nov. 12	eP	17-43-18	21° S, 173° W; 0 = 17-28.7 (USC&GS)
	eP'	46-57	Magnitude = 7 1/4-7 1/2 (Pasadena)
	ePP	48-01	
	i	48-13	Δ = 115°; 0 = 17-28-14
	e	55-46	
	ePS	57-29	
	e	18-03-17	
	eSS	03-56	
	eL	17	
Nov. 13	iP	11-39-52	Caribbean. Δ = 23°7
	iS	44-02	
	eL	47	
	i	12-00-06	
	i	00-35	
	i	00-56	
Nov. 18	eL	14-41	
Nov. 20	iP	20-01-02	Local, probably blast.
	iS	01-22	Δ = 174 km.
	i	01-24	
Nov. 21	e	03-35-25	
	eL	04-35	
Nov. 22	eP	09-34-21	Caribbean. Δ = 23°3
	iP	34-33	
	iS	38-28	
	i	38-25	
	i	54-25	

Date	Phase	Time (GMT) h m s	Remarks
1946			
Nov. 22	iP	21-05-05.7	Local, probably blast.
	iS	05-16.8	Δ = 88 km.
Nov. 29	iP	04-58-33	Caribbean. $\Delta = 21.^{\circ}5$
	eS	05-02-25	
	e	20-53	
Nov. 30	i	00-55-22	Deep focus.
Dec. 4	eL	23-18.5	
Dec. 9	iP	11-06-24	Caribbean. $\Delta = 24.^{\circ}5$
	i	06-46	
	iS	10-39	
	i	10-43	
	i	27-53	
	i	28-17	
Dec. 14	iP	19-23-38.8	Blast. Δ = 27 km.
	iS	23-42.2	
	iL	23-44	
Dec. 19	e	01-03-27	
	e	04-39	
Dec. 19	e	03-16-35	
	eL	03-26	
Dec. 20	iP	19-32-55 (comp.)	$33.^{\circ}3$ N, $134.^{\circ}0$ E; 0 = 19-19.0 (USC&GS)
	i	34-31	Magnitude = 8 1/4
	i	35-36	
	i	36-19	
	i	37-00	Δ (S-P) = $104.^{\circ}5$; 0 = 19-18-46
	iPP	37-16	
	i	38-47	
	i(PPP)	39-49	
	i(SKP)	41-03	
	i	42-45	
	iSKS	43-43	
	iS	44-45	
	i(PS)	46-05	
	iPPS	47-23	
	i	48-09	
	eSS	51-40	
	ePKKS	52-36	
	e	53-21	
	eL	20-13	

Date	Phase	Time (GMT) h m s	Remarks
1946			
Dec. 21	eL	04-32	
Dec. 21	eP	10-31-32	44° N, 143° E; 0 = 10-18.8 (USC&GS)
	eSKS	42-10	
	eS	42-15	Δ = 88°; 0 = 10-18-39
	ePS	43-05	
	eL	10-58	
Dec. 21	eL	14-32	
Dec. 21	eP	20-01-38	Δ = 91°
	eSKS	12-09	
	eS	12-33	
	eL	20-36	
Dec. 24	eL	05-05	
Dec. 25	i	11-24-03	
	eL	11-50	
Dec. 28	iP	01-03-18	Caribbean. Δ = 23°0
	iS	07-22	
	eL	11.5	
	i	23-25	
Dec. 31	eP	06-38-10	Caribbean. Δ = 21°1
	eS	41-58	
	i	42-13	

Harvard University
Cambridge 38, Massachusetts
24 February 1947

Mary P. Collins