HARVARD UNIVERSITY

SEISMOGRAPH STATION

Oak Ridge Observatory

Bulletin Number 24

January 1, 1945 through June 30, 1945

Part A of Paper Number 98 published under the auspices of the Committee on Experimental Geology and Geophysics and of the Division of Geological Sciences at Harvard University

Date	Phase	Time (UT)	Remarks
1945			
Jan. 1	iP	01-26-59	USC&GS: 73° N, 70° W
	i	32-48	O = 01-20.8
Jan. 3	iP	17-09-50	Local; distance 105 km.
	iS	10-03	
Jan. 9	eP	12-22-43	Caribbean.
	eS	26-36	Distance = 21°.7
	e	43.7	
Jan. 9	i	21-47-55	Deep focus?
	i	48-13	
Jan. 19-20	iP	23-42-45	Caribbean
	iS	46-37	Distance = 21°.7
	e	00-05.8	
Feb. 10	iP	05-10-58	USC&GS: 41°.5 N, 142°.0 E
			O = 04-57.9
Feb. 12	iP	23-59-06	Local; distance 105 km.
	iS	59-19	
	iL	59-25	
Feb. 13	e	11-32-56	
Feb. 13	eL	13-53	
Feb. 14	e	07-17-34	
Feb. 17	iP	19-07-12	Local; distance 125 km.
	iS	07-29	
	iL	07-38	
Feb. 18	e	06-53-32	
Mar. 11	iP'	18-04-06	Netherlands East Indies?
	ipP'	04-22	Depth about 100 km.
	i	04-35	Distance about 133°
	iPP	06-31	
	iPKS	07-21	
Mar. 11	iP	21-51-12	JSA: 26° N, 141°.5 E
	i	54-47	O = 21-37-57
			Depth =100 km.
Mar. 18	iP	00-05-02	USC&GS: 6°.9 N, 78°.0 W
			O = 23-57.9

Date	Phase	Time (UT)	Remarks
1945			
Mar. 20	i	08-10-41	
Mar. 23	e	23-33-44	
	i	33-52	
	i	34-38	
Mar. 25	eP	20-17-38	Local or blast.
	iP	17-39.5	
	iS	17-50	Distance = 95 km.
	i	17-54	
Mar. 26	iP	00-52-06	Similar to preceding.
	iP	52-07.5	
	iS	52-18.5	
	i	52-20.0	
Mar. 29	i	14-17-45	Local or blast
	i	13-51	
Mar. 31	i	10-00-45	Deep focus
Mar. 31	eL	19-46	
Apr. 2	eL	00-07	
Apr. 15	iP	02-46-39	USC&GS: 56° N, 164° E
	iPP	49-29	0 = 02-35.2
	eS	55-48	
	eL	03-28	
Apr. 15	eP	19-57-52	USC&GS: 22°.5 N, 108° W
	eL	20-09	0 = 19-50.6
Apr. 21	iP	17-21-06	USC&GS: 19.7 N, 100.6 W
	ipP	21-31	Depth 50-100 km.
			0 = 17-14.5
Apr. 29	e	20-34-32	
	e	34-41	
Apr. 30	i	11-26-33	
May 1	i	06-07-51	JSA: Pacific coast of Chile
May 1	i	16-46-27	JSA: Pacific coast of Chile
May 9	e	03-49-43	JSA: 8° S, 127°.5 E
	i	52-33	Depth 550 km.
			0 = 03-31-15

Date	Phase	Time (UT)	Remarks
1945			
May 10	eP	18-03-05	JSA: 13°.5 S, 76° W; depth about 50 km. 0 = 17-53-30
May 13	eL	20-46	
May 14	i	06-06-33	
	e	10-34	
May 18	i	23-48-20	JSA: Kurile Islands
May 19	iP	15-14-45	USC&GS: 40°.2 N, 126°.8 W
	eL	15-30	0 = 15-07.0
May 23	iP	17-46-09.4	Local or blast.
	iS	46-22	Distance = 85 km.
May 25	eP	20-12-45	Caribbean.
	eS	16-39	Distance = 21°.5
	e	33-16	
May 26	iP	17-33-45	Local or blast.
	iS	33-52	Distance = 55 km.
June 1	i	15-23-57	
June 1	i	22-32-47	
June 3	eP	13-12-33	USC&GS: 8°.3 N, 82°.6 W
	eL	13-24.5	0 = 13-05.6
			Felt in Chiriqui Province, Panama
June 11	iP	19-06-17.4	Local or blast.
	iS	06-21.1	Distance = 29 km.
	iL	06-22.6	
June 12	e	07-59-47	
	e	08-00-37	
	e	00-50	
June 13	eP	22-07-05	Local or blast
	iS	07-28	Distance = 185 km.
June 13	iP	22-08-33	Local or blast
	iS	08-42	Distance = 70 km.
	iL	08-47	
June 16	eP	18-29-13	Caribbean. Distance = 21°.8
	eS	33-10	

Date 1945	Phase	Time (UT)	Remarks
June 18	eP_n	15-21-17.2	Quake reported felt at
	iP_1	21-33.0	Seven Falls, P. Q.
	i	21-39.3	
	i	21-50.9	
	iS_n	22-10.7	
	i	22-29.2	
	iS_1	22-35.7	
	i	22-44.7	
June 22	iP	09-31-19	USC&GS: 43° N, 146° E
	iS	41-46	0 = 09-18.5
June 24	i	20-09-45	
June 25	e	08-13-33	
June 25	iP	21-15-19	Local or blast
	iS	15-38	Distance = 155 km.
June 27	iP	13-15-27	USC&GS: 26° N, 110° W
	eL	13-27	0 = 13-08.2
June 27	iP	18-15-10	USC&GS: 27° N, 112° W
	eL	18-26	0 = 18-08.1
June 30	iP	05-39-41	USC&GS: 17° N, 116° W
	eS	46-25	0 = 05-31.3
	eL	05-53	

Note: During the period represented by this bulletin only the short-period components were in operation.

Geological Museum
Cambridge 38 Massachusetts

Mary P. Collins

H A R V A R D U N I V E R S I T Y

S E I S M O G R A P H S T A T I O N

Oak Ridge Observatory

Bulletin Number 25

July 1, 1945 through December 31, 1945

Part B of Paper Number 98 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.	ε	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 (UT)	Remarks
1945			
July 2	e	17-17-36	
	i	17-55	
July 3	eL	04-59	
July 3	iP	22-16-36.5	Local or blast
	iS	16-40.3	Distance = 30 km.
	iL	16-41.5	
July 9	iP	16-49-40	USC&GS: 1° N, 77° W
July 11	e	00-39-43	
	eL	00-56	
July 15	ePn	10-46-13	Local
	i	46-54	
	i	47-07	
	iS_1	47-12	
July 22	e	11-02-28	
July 23	e	04-14-06	
	e	16-29	
July 26	eP	10-35-01.5	USC&GS: 34.°7 N, 81.°4 W; depth
	i	35-27	18 km.; O = 10-32-16
	i	36-31	Felt in North and South Carolina,
	iS	36-57	Georgia, and Tennessee
	i	38-24	
July 26	iP	18-21-36	Local or blast
	iS	21-53	Distance = 145 km.
August 2	eP	20-52-33	USC&GS: 54.°2 N, 133.°1 W
	e	21-05-40	O = 20-44.8
	eL	21-06	
August 10	iP	11-26-33 (dil.)	USC&GS: 15.°4 N, 88.°8 W
	eS	31-41	O = 11-20.3
August 10	e	19-00-40	Local or blast
	e	19-01-01	
August 14	i	08-14-26	
August 21	i	16-78-43	
August 21	i	21-29-06	Local or blast
	i	29-10	

Date	Phase	Time (UT)	Remarks
1945			
August 29	eP'	10-41-31	USC&GS: 14° S, 166° E
	e	42-26	0 = 10-22.6
	ePP	43-25	
	eL	11-32	
August 31	eP	17-35-08	Caribbean. Distance = 21°5
	eS	40-00	
	e	57-08	
Sept. 1	e	23-07-58	JSA: 45°.2 S, 166°.7 E
	ePP	06-34	0 = 22-44-17
	e	07-27	
	eL	23-57	
Sept. 2	iP	12-05-35	USC&GS: 74°.0 N, 70°.0 E; depth about 70 km.; 0=11-57.9
Sept. 3	i	15-09-53	
Sept. 13	eP	11-28-49	USC&GS: 34° S, 70° W; depth about 90 km. 0=11-17.0
	i	29-13	
	eS	38-21	
Sept. 22	eL	10-15	
Sept. 23	e	10-11-16	
	e	15-36	
Sept. 23	e	17-27-55	
Sept. 24	i	20-01-11.5	Local or blast.
	i	01-27.5	
	i	01-25.5	
	iS_1	01-26.5	
Sept. 25	e	09-04-47	
	i	04-51	
	e	08-18	
	e	09-36	
Sept. 26	iP	14-32-16	USC&GS: 18°9 N, 62°4 W
	i	32-32	0 = 14-26.8
	iS	36-30	
Sept. 28	eP	22-31-41	USC&GS: Near 41°40'N, 126°55' W
	e	33-17	0 = 22-24-05
	eL	22-47	
Oct. 6	eL	10-24	

Date	Phase	Time (UT)	Remarks
1945			
Oct. 7	iP	13-30-04	USC&GS: 12°.3 N, 89°.0 W
	i	31-19	0 = 13-23.4
	eL	13-42	
Oct. 9	iP_n	13-20-05	NEISA: 47°.9 N, 70°.1 W
	i	20-29	
	i	20-52	
	eS_n	21-09	
	i	21-12	
	iS_1	21-33	
Oct. 9	eP	14-49-13	USC&GS: 43° N, 150° E
	ePS	15-00-43	0 = 14-36.6
	eL	15-20	
Oct. 11	eP	16-59-26	USC&GS: 17° N, 97° W
	eS	17-04-45	0 = 16-52.7
Oct. 14	eL	05-03	
Oct. 15	eL	08-03	
Oct. 15	eP	15-29-33	Local or blast.
	iS	29-52	Distance = 155 km.
	i	29-55	
Oct. 16	eP'	16-22-15	USC&GS: 0°.5 N, 126°.0 E
	e	23-30	0 = 16-03.1
	ePP	24-40	Distance (PP-P') = 132°
	i	24-54	
	iPKS	25-43	
	eSSP	42-45	
	eL	17-15	
Oct. 20	eL	00-55	
Oct. 24	iP	07-10-29	Local. Distance = 110 km.
	iS	10-43	
Oct. 25	eP	15-10-00	USC&GS: 56°.1 N, 162° E
	ePS	20-04	0 = 14-58.5
	eL	15-35	
Oct. 26	eL	14-38	
Oct. 27	iP	11-30-49	USC&GS: 15° N, 91° W
	ipP	31-08	0 = 11-24.5
	isP	31-24	JSA: 15°.9 N, 91°.4 W; depth 200
	iPP	31-55	km.; 0 = 11-24-43
	ipPP	32-15	

Date	Phase	Time (UT)	Remarks
1945			
Oct. 27 (cont.)	iS	11-35-48	Harvard records suggest depth about 100 km. Distance = 31°
	e	38-00	
	i	38-29	
	e	39-14	
	i	39-56	
	e	41-58	
Oct. 29	eP	11-02-00	USC&GS: 52° N, 131° W
	eL	11-13	O = 10-54.3
	i	15-46	
Oct. 30	eP	19-36-01	Local, probably blast
	eS	36-17	Distance = 125 km.
	eL	36-18	
Nov. 8	iP	09-13-29	USC&GS: 81° N, 7° W
	eL	09-30	O = 09-05.5
			JSA: 80°9 N, 23°8 W
Nov. 8	eP	10-10-43	Similar to preceding
	e	12-31	
	eL	10-27	
Nov. 8/9	eP	23-57-29	Caribbean. Distance = 22°
	eS	00-01-25	
	e	19-17	
Nov. 16	eL	18-24	
Nov. 17	eL	22-41	
Nov. 18	e	18-09-04	
	i	10-05	
Nov. 19	i	18-47-52.5	
	i	48-08	
Nov. 20	eP	03-59-43	Caribbean. Distance = 23°
	eS	04-03-47	
	e	21-03	
Nov. 22	iP	15-24-38	Caribbean. Distance = 22°
	iS	28-35	
	eL	15-33.5	
Nov. 22	eP_1	15-44-13	Local. Distance = 670 km?
	i	44-52	
	e	45-30	
	iS_1	45-59	

Date	Phase	Time (UT)	Remarks
1945			
Nov. 25	i	03-29-50	
Nov. 26	e	12-13-39	
Nov. 27	eP	22-10-44	USC&GS: Near 22° N, 62° E
	e	14-02	0 = 21-56.8
	i	14-33	According to press reports,
	iPP	15-12	4,000 killed by tidal wave at
	iPPP	17-01	Karachi, India
	i	17-38	
	iSKS	21-21	JSA: 24°.9 N, 61° E
	iS	21-51	0 = 21-57-00
	e	22-57	
	iPS	23-52	
	i	24-16	
	i	25-33	
	e	29-07	
	eG	30-19	
Dec. 4	eP	05-18-15	Caribbean. Distance = 22°.5
	eS	22-15	
Dec. 4	eP	06-13-24	Caribbean. Distance = 22°.5
	eS	17-24	
Dec. 8	eL	01-57	
Dec. 9	eL	21-05	
Dec. 14	i	17-34-58	Deep focus.
	i	35-27	
Dec. 23	i	08-10-34	
Dec. 23	eL	08-25	USC&GS: 10°.2 N, 61°.7 W
Dec. 25	i	01-36-58	
	eL	02-05	
Dec. 27	eL	05-45	
Dec. 28	iP'	18-08-01	USC&GS: 6° S, 151° E
	iPP	10-00	0 = 17-48.8
	i	11-18	
	iPKS	11-31	JSA: 6° S, 151° E
	ePPP	12-34	0 = 17-48-52
	e	13-43	
	eSKKS	16-43	
	ePKKP	17-44	
	iPKKP	18-03	

Date	Phase	Time (UT)	Remarks
1945			
Dec. 28	eScSP	18-19-15	Distance (PP-P') = 126°.3
(cont.)	e	20-19	
	ePPS	21-29	
	iPPS	21-35	
	i	21-54	
	e	22-57	
	i	23-00	
	i	23-33	
	e	24-51	
	iSKKS	25-11	
	i	25-34	
	e	26-05	
	eSSP	27-33	
	e	28-21	
	e	29-54	
	e	31-09	
	eSSS	31-35	
	e(SSSS)	35-05	
	e(SSSSS)	38-32	
	eG	42	
Dec. 30	eL	02-01	
Dec. 31	eL	18-37	

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