

ACKNOWLEDGED

THE PENNSYLVANIA STATE COLLEGE

MINERAL INDUSTRIES EXPERIMENT STATION

GEOPHYSICAL LABORATORY



Seismograph Report XI

1942, 1943 and 1944

School of Mineral Industries
State College, Penna., U.S.A.

Locality: The station is located in a vault under the central wing of the School of Mineral Industries Building. The instruments are mounted on a concrete pillar separated from the foundations and anchored to bedrock (dolomite). The geographic coordinates are:

$\phi - 40^{\circ} 48' N$ $\Lambda - 77^{\circ} 52' W$ $H - 354 m$

The geocentric coordinates are (courtesy of Gutenberg and Richter):

$A - 40^{\circ} 36' N$ $\Lambda - 77^{\circ} 52' W$ $H - + 3 km.$

Please address all communications to:

Geophysical Laboratory
School of Mineral Industries
State College, Pennsylvania

SEISMOLOGICAL OBSERVATORY.

Geophysics Division,
Dept. of Scientific & Industrial Research,
LIBRARY

NOTICE:

The geophysical laboratory recently checked the elevation of the seismograph recording pier by running a level survey to a nearby bench mark. This survey indicated that the height of the top of the seismometer pier is 353.7 m. above mean sea level, not 390 m. as has been reported in all previous bulletins. This new figure is believed to be accurate to within a tenth of a meter.

Date	Phase and component	G. M. C. T.	Remarks
20 Jan. '42	i e L(?)	06:31:46 06:31:56 06:43:40	
14 May '42	i P e - e - i S e - L (?)	02:21:10 02:21:26 02:23:10 02:27:28 02:28:59 02:30:35	Epicenter: 1°S, 7.9°W Depth - Possibly slightly below normal Dist. = 4670 Km O = 02:13:18 Courtesy U.S.C.G.S. Beginning very indefinite.
6 Aug. '42	i i e i i i i L(?)	23:43:29 23:43:38 23:44:40 23:44:59 23:45:54 23:46:40 23:46:50 23:48:00	Epicenter: 14.4°N, 90.9°W Depth = Probably deeper than normal Dist. = 3,190 Km O = 23:37:00 Courtesy U.S.C.G.S.
24 Aug. '42	i P e e i PP i e	23:00:13 23:00:57 23:01:27 23:02:16 23:02:32 23:08:24	Epicenter: 14.5°S, 75.5°W Depth - Probably 50 to 100 Km Dist. = 6100 Km O = 22:50:42 Courtesy U.S.C.G.S.
7 Sept. '42			Seismic activity recorded between 2300 and 2400
9 Nov. '42			Seismic activity recorded between 1200 and 1300
2 May '43	e S	17:30:-	Epicenter: 6.4°N, 8.1°W Depth = 50 to 100 Km Dist. = 3790 km O = 17:18:12 Courtesy U.S.C.G.S.
6 Sept. '43	L	04:03:05	Epicenter: 53.2°S, 159.4°E Dist. = 15,800 Km O = 03:41:30 Courtesy U.S.C.G.S. Pulse ± 15 sec. Over an hour of seismic activity recorded.

Date	Phase and component	G. M. C. T.	Remarks
6 Sept. '43			Seismic activity recorded between 16:27:- and 17:10:-
23 Dec. '43			Seismic activity recorded between 21:06:- and 21:28:-
24 Dec. '43			Seismic activity recorded between 08:34:- and 08:41:-
10 Jan. '44	i i i L(?)	20:15:48 20:16:09 20:16:39 20:18:28	Epicenter: 18.1°N, 100.6°W Mexico Dist. = 2100 Km O = 20:10:00
16 Jan. '44	i i i i i i	00:03:15 00:03:25 00:03:48 00:12:38 00:12:50 00:13:10	Epicenter: 31.5°S, 68°W Argentina Dist. = 8200 Km O = 23:49:24
1 Feb. '44			Seismic activity recorded between 03:43:34 and 04:44:- Epicenter: 41°N, 30°E Turkey Dist. = 9,300 Km O = 03:22:42 Courtesy U.S.C.G.S.
3 Feb. '44	L	12:35:04	Epicenter: 59.3°N, 138.0°W South east Alaska Depth - May be deeper than normal Dist. = 4700 Km O = 12:15:12 Courtesy U.S.C.G.S.
29 Feb. '44	i i i	16:49:40 16:50:38 16:50:50	
9 Nov. '44			Seismic activity recorded between 13:41:- and 13:57:-

Date	Phase and component	G. M. C. T.	Remarks
15 Nov. '44	e P'	21:06:16	Epicenter: 4°N, 128°E Southeast of Philippine Islands Dist. = 14,450 Km. O = 20:47:00 Courtesy U.S.C.G.S.
	c	21:11:09	
	i PPS(?)	21:20:05	
	i	21:23:22	
	i	21:25:27	
	i SS	21:26:00	
	L	21:55:30	
16 Nov. '44	e PS(?)	12:40:11	Epicenter: 12°S, 166°E Between Solomon and Queen Charlotte Islands Dist. = 13,000 Km. O = 12:10:54 Courtesy U.S.C.G.S.
	e PPS(?)	12:41:39	
	e SS	12:47:02	
	L	13:11:36	
	M	13:17:00	
24 Nov. '44	i	05:14:16	Epicenter: 20°S, 171°E New Hebrides region Dist. = 13,100 Km. O = 04:48:54 Courtesy U.S.C.G.S.
	i	05:17:58	
	i	05:19:45	
	c	05:21:22	
	i	05:26:27	
	e	05:31:28	
	e	05:43:38	
	M	05:54:-	
5 Dec. '44			Seismic activity recorded. 1400-1500 1700-1800
7 Dec. '44	e	04:55:33	Epicenter: 33°N, 137°E Off Japan Dist. = 11,100 Km. O = 04:35:42 Courtesy U.S.C.G.S.
	i	04:59:22	
	i	05:05:45	
	e	05:06:15	
	e	05:06:42	
	e	05:12:53	
	e	05:17:07	
	e	05:24:30	
	M	05:43:00	
10 Dec. '44	e SKKS(?)	16:52:01	Epicenter: 18°S, 167°E New Hebrides region Dist. = 13,200 Km. O = 16:24:54 Courtesy U.S.C.G.S.
	e PS	16:55:05	
	L(?)	17:12:45	
	M	17:32:00	
12 Dec. '44	i S	04:36:40	Epicenter: 51.5°N, 179°E Aleutian Islands Dist. = 7,300 Km. O = 04:17:00 Courtesy U.S.C.G.S.
	i ScS	04:37:43	
	i	04:38:07	
	L	04:27:28	
	M	04:56:48	

During the period covered by this report, there was one horizontal seismograph operating intermittently. It was of the Bosch-Omori type, and was sensitive to the NE-SW components of horizontal motion. The instrument recorded photographically, the distance from mirror to recording drum being 1 meter and the recording speed 1.5 cm/min. The instrument constants were:

$$T_0 = 6 \text{ sec.}$$

$$E:l = 4:1$$

$$V = 120$$

The time was controlled by a Spindler and Hoyer clock, which was compared twice daily with the NAA-Time signals from the U. S. Naval Observatory, Arlington, Va. The clock movement was satisfactory enough to presume a time accuracy of ± 1 sec.

The instruments were rebuilt in 1944 to provide for recording by use of a galvanometer. This greatly increased the magnification, but no records were kept of the instrumental constants from this time until 1949.

We acknowledge with thanks receipt of the following bulletins and other publications between March 7 and May 22, 1950:

Bulletin Du Bureau Central Seismologique Francais -----	Jan., 1950
Bulletin of Geological Soc. of America	
Seismic Evidence for the Fault Origin of Ocean Deepes - H. Benioff	
Bulletin Seismique - Observatoire De Tananarive -----	Year, 1949
California Institute of Technology - Contribution No. 504 and 505	
Structure of the Earth's Crust in the Continents	
Isostasy and its Meaning	
Cleveland Seismological Observatory	Nov., Dec., 1949
John Carroll University - Seismological Bulletin -----	Jan., Feb., Mar., 1950
Dominion Observatory - Ottawa -----	Sept. and Oct., 1949
Geodaetisk Institut - Proviantgaarden, Copenhagen	
Bulletin of the Seismological Station -----	Years, 1941 and 1943
Institut De Physique Du Globe De Strasbourg	
Bulletin Seismique -----	Feb., Mar., 1950
International Seismological Summary -----	April, May, June, 1938
Institut Geophysique National -----	Year, 1948
Praha, Checkoslovakia - Seismological Bulletin	
Istituto Nazionale Di Geofisica of Rome -----	Dec., 1949
	Jan.-Feb., 1950
Jesuit Seismological Association - Preliminary Bulletin	July-Dec., 1949
Kandilli Rasathanesi - Observatoire de Kandilli	
Bulletin Seismique Preliminaire -----	July, 1949
Bulletin Meteorologique, Seismique et Magnetique -----	Year, 1944
Istanbul No. 73 -----	Year, 1949

Koninklijk Nederlands Meteorologisch Institut No. 108
 Seismic Records at De Bilt ----- Year, 1945
 Observatorio Fabra - Barcelona ----- Year, 1947
 Osservatorio Geofisico - Trieste - Seismological Bull. Jan., Feb., 1950
 Publications #'s 74, 119, 144, 149, 221, 234, 244, 246-249, 251, 253, 254
 Pasadena Preliminary Bulletin No. 67
 Perth Observatory - Seismologic Station Bulletin -----Year, 1949
 Rathfarnham Castle - Ireland
 Seismological Observatory -----Jan., Feb., Mar., 1950
 Royal Observatory - Helwan Seismological Bulletin ----- Jan., Feb., 1950
 Schweizerisches Erdbebenbulletin No. 236 ----- Jan., Feb., 1950
 Seismological Observatory, Wellington
 Provisional Bulletin ----- Nov., Dec., 1949
 Seismological Report for Suva, Fiji ----- Year, 1947
 The Geophysical Magazine
 Report of Solar Eclipse Observation ----- May 9, 1948
 The Seismological Report of the Central Meteorological
 Observatory of Japan ----- Dec., 1949 Jan., 1950
 The Geocentric Direction Cosines of Seismological Observatories
 International Seismological Summary
 Union Geodesique Et Geophysique Internationale
 Bureau Central Seismologique de Strasbourg ----- Nov., Dec., 1949
 Bulletin Mensuel ----- Jan., Feb., Mar., 1950
 U.S. Coast and Geodetic Survey
 Preliminary determination of epicenter ----- #'s 20-50 to 45-50
 S9-50 to S19-50

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