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APR 29 1954

THE PENNSYLVANIA STATE UNIVERSITY
MINERAL INDUSTRIES EXPERIMENT STATION
GEOPHYSICAL LABORATORY

Seismograph Report XIX

1946 and 1947

College 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:

$\phi - 40^{\circ} 48' N$ $\lambda - 77^{\circ} 52' W$ $H - 352 m$

The geocentric coordinates are (according to Gutenberg and Richter):

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

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Geophysical Laboratory
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State College, Pennsylvania

During the period covered by this report two instruments were in intermittent operation. Both were of the galitzin type, being sensitive to the north-south and east-west components of horizontal motions. They recorded photographically.

The time was controlled by a Stromberg clock which was compared daily with signals from radio station WWV. The time accuracy of the north-south instrument was about ± 2 secs. Because of mechanical difficulties, the drum speed of the east-west recorder was not constant, and times obtained solely from the records of this instrument may have an error of as much as $\frac{1}{4}$ secs.

Both of the instruments record at the rate of $1\frac{1}{2}$ cms/min. The free period of each horizontal instrument is 10 seconds. Damping and sensitivity were changed several times during the interval under consideration, and no record was kept of their values.

Date	Phase and component		G.M.C.T.	Remarks
15 March '46		N		Seismic activity recognizable at 13:37:-
15 March '46	eL	N	14:06:12	Epicenter: 35.7°N, 118.0°W O=13:49:36 Δ=3530 km California Courtesy U.S.C.G.S.
29 March '46		N		Seismic activity recog- nizable at 07:40:-
1 April '46		N		Seismic activity be- tween 1400 and 1500.
1 April '46		N		Seismic activity recog- nizable at 19:24:1 -
2 April '46		N		Seismic activity between 0400 and 0700.
2 April '46		N		Seismic activity between 16:35:- and 17:03:-
8 May '46	ePP	N	05:42:47	Epicenter: 1°S, 98°E
	e	N	05:43:37	O=05:20:18
	e	N	05:49:47	West of Sumatra
	ePFS	N	05:55:33	Courtesy U.S.C.G.S.
	e(SS?)	N	06:01:12	Δ=15,700 km
9 May '46	eL		23:51:31	Epicenter: 22°N, 180°W O=23h 34.4m Δ=3360 km Gulf of California Courtesy U.S.C.G.S. (No time correction available)
15 May '46	iP	N	22:16:41*	Epicenter: 16°N, 96°W
	e	N	22:17:10*	O=22:10:36
	eS	N	22:21:46*	Δ=3300 km Off coast of Southern Mexico Courtesy U.S.C.G.S.

* Time correction unknown.

21 May '46	iP	N,E	09:22:52	Epicenter: 14.2°N, 10.8°W
	i(PT?)	E	09:23:54	O=09:16:36
	iS	N,E	09:27:48	West Indies
	e	N,E	09:28:10e	Courtesy U.S.C.G.S.
				Δ=3340 km
7 June '46	epP	N	04:19:20	Epicenter: 17°N, 94°W
	isP	N	04:19:35	O=04:13:18
	iPP	N,E	04:19:43	Δ=2950 km
	ePcP	N	04:22:12	Depth=Slightly greater
	eS	N,E	04:23:32	than 100 km
				Courtesy U.S.C.G.S.
15 June '46	e	E	18:50:14	(Seismic?)
	e	E	18:52:14	
	e	E	18:52:52	
23 June '46	eF	N	17:20:09	Epicenter: 49.9°N,
	e	N	17:22:06	125.3°W; O=17:13:20
	iS	N	17:25:11	Δ=3620 km
	M	N	17:31:-	Georgia Strait
				Courtesy U.S.C.G.S.
26 June '46	iP	N	07:59:27*	Epicenter: 14°N, 91°W
	i	N	07:59:54*	O=07:53:36
	e	N	08:00:09*	Δ=3120 km
	eS	N	08:04:06*	Near coast of Guatemala
	e	N	08:04:42*	Courtesy U.S.C.G.S.
1 July '46		N		Seismic activity
				recognizable at 03:13:-
11 July '46	iP	E,N	04:52:18	Epicenter: 17°N, 94°W
	iPP	E,N	04:52:48	O=04:46:36
	i	E,N	04:52:58	Δ=2950 km
	iS	E,N	04:56:54	Isthmus of Tehuantepec
				Courtesy U.S.C.G.S.
18 July '46	eF(?)	E	06:14:10	Epicenter: 50°N, 129°W
	i	N,E	06:15:40	O=06:07:06
	e	N,E	06:20:05	Depth=Slightly less
	M	E	06:29:2-	than 100 km
	M	N	06:29:3-	Δ=3920 km
				Courtesy U.S.C.G.S.
18 July '46	epP	E	07:23:45	Epicenter: 50°N, 129°W
	esP	E	07:24:03	O=06:07:06
	esPP	N,E	07:25:06	Depth=slightly less
	eS	N,E	07:28:47	than 100 km
	esS(?)	E	07:29:39	Δ=3920 km
	M	N	07:37:30	Courtesy U.S.C.G.S.
	M	E	07:39:30	

*Time correction unknown

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18 July '46		N,E		Seismic activity recognizable at 14:43:-
25 July '46	iP eS eSS	E E,N E	16:52:57 17:01:35 17:05:55	Epicenter: 51°N 179°W O=16:42:06 Aleutian Islands Courtesy U.S.C.G.S. Δ=7300 km
26 July '46	iP e i i iS e e i	N,E N,E N,E N,E N,E E E E	06:55:00 06:57:09 07:03:16 07:03:37 07:04:46 07:05:09 07:08:45 07:10:12	Epicenter: 21.6°S 70° O=6:44:42 Northern Chile Depth = 100 km Δ=6920 km Courtesy U.S.C.G.S.
28 July '46		N,E		Seismic activity observed at 23:30:3-
2 August '46	iP iS	N N	19:29:41 19:38:38	Epicenter: 27°S 70°W O=19:18:42 Near Copiapo, N. Chile Depth = slight Δ=7500 km Courtesy U.S.C.G.S.
4 August '46	iP i i i iS M M	E E E E N E E	17:56:17 17:56:19 17:57:09 17:58:21 18:00:21 18:00:51 18:00:5-	Epicenter: 19.3°N, 69.0°W O=17:51:07 9 miles east of Samana Peninsula, Dominican Republic Courtesy U.S.C.G.S. Δ=2600 km
5 Aug. '46		N,E		Seismic activity ob- served at 12:42:-
7 Aug. '46		N,E		Seismic activity recor- ed between 1800 and 200
8 Aug. '46	iP iS M M	N,E N,E E N	13:33:23 13:37:28 13:38:2- 13:40:1-	Epicenter: 19.3°N, 69.0°W O=13:28:24 Aftershock of Dominican Republic quake of August 4 off Samana Peninsula. Courtesy U.S.C.G.S. Δ=2600 km
9 Aug. '46	e	E	20:12:01	Pulse initiates beginning of seismic activity. Identifi- cation unknown.

10 Aug '46		E F	09:05:27 11:50:50	Pulses initiate beginning of seismic activity. Identifi- cation unknown.
11 Aug '46	eL		02:50-	Epicenter: 8°S , 155°E O=01:54:15 Solomon Islands $\Delta=13650$ km Courtesy U.S.C.G.S.
16 Aug '46		E		Seismic activity observed at 17:35:-
19 Aug '46		N,E		Seismic (?) activity recognizable at 05:50:-
21 Aug '46		N		Very weak pulse initiates seismic activity.
21 Aug '46	iF iS	N,E N,E	19:22:43 19:26:53	Epicenter: 19.3°N , 69.0°W ; O=19:17:36 Aftershock of Dominican Republic quake of August 4 off Sarana Peninsula. Courtesy U.S.C.G.S. $\Delta=2600$ km
28 Aug '46	iS	N	22:46:41	Epicenter: 21°S , 70°W O=22:28:12 Northern Chile Courtesy U.S.C.G.S. $\Delta=6800$ km
12 Sept '46	eS(?) eSS e	N N "	15:44:06 15:53:00 15:56:22	Epicenter: 25.5°N , 89°E ; O=15:16:54 $\Delta=12,900$ km Northwest Bengal Courtesy U.S.C.G.S.
12 Sept '46	e(P?) i i i i e(S?) i	N N N N N N N	17:44:28 17:44:37 17:44:59 17:45:16 17:48:32 17:49:22	($\Delta=2600$ km ?)

23 Sept '46	eFP (?)	E	23:50:53*	Epicenter: 3°S, 174°W
		E	23:51:21*	O=23:29:48
		E	23:56:47*	Δ=14,300 km
	e	E	23:57:34*	North of New Guinea
				Courtesy U.S.C.G.S.
25 Sept '46	eP	E	10:10:38	Epicenter: 19.3°N,
	e	E	10:10:25	69.0°W, O=10:05:30
	eS	N,E	10:14:35	Aftershock of Domini-
				can Republic quake.
				Courtesy U.S.C.G.S.
				Δ=2600 km
4 Oct '46	iP	N,E	14:50:34	Epicenter: 19.3°N,
	i	E	14:50:16	O=14:45:26 69.0°W
	i	E	14:55:51	Aftershock of Domini-
	iS	N,E	14:54:50	can Republic quake of
				August 4 off Sarana
				Peninsula.
				Courtesy U.S.C.G.S.
				Δ=2600 km
12 Oct '46		N		Seismic activity
				observed between
				1900 and 2000.
30 Oct '46	iP	E	07:57:15	Epicenter: 54°N, 164°W
	ePI	E	07:59:20	O=07:47:36
	eS	E	08:04:56	South of Unimak
				Island, Aleutian
				Islands
				Courtesy U.S.C.G.S.
				Δ=6200 km
1 Nov '46	iP	E	11:24:54	Epicenter: 52°N,
	i	E	11:25:07	174°W
	eS	E	11:33:16	O=11:14:24; Δ=6980 km
	i	E	11:33:23	South of Atka
	e	E	11:34:39	Island, Aleutian
				Islands.
				Courtesy U.S.C.G.S.
2 Nov '46	eP	N	18:41:42	Epicenter: 41°N, 76°E
	eFP	E	18:45:26	O=18:23:24
	eS	E	18:52:51	Kireiz, U.S.S.R.
	iPS	N,E	18:54:07	Courtesy U.S.C.G.S.
	E	E	19:30:50	Δ=10,500 km
4 Nov '46	iP (1st)	N,E	22:00:13	Epicenter: 41°N, 54°E
	eFP	N	22:04:05	O=21:47:36
	e(PFP?)	N	22:06:05	Near west coast of
	eS	E	22:11:05	Turkmen, U.S.S.R.
	eScS	N,E	22:11:27	Courtesy U.S.C.G.S.
	i	N,E	22:11:47	Δ=5300 km
	eFP	N,E	22:22:08	

*Time correction unknown

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12 Nov '46	e	E	17:47:22*	Epicenter: 21°S, 173°W
	eS	E	17:55:06*	O=17:28:42
	e	E	17:57:20*	Δ=12,000 km
				Courtesy U.S.C.G.S.
21 Dec '46	eS	N	10:41:54*	Epicenter: 44°N, 142°W
	eL	N	10:53:34*	O=10:18:48
				Δ=9600 km
				Off east coast of
				Hokkaido, Japan
				Courtesy U.S.C.G.S.