

LITTLE ROCK

LITTLE ROCK COLLEGE SEISMOLOGICAL OBSERVATORY, PULASKI HEIGHTS, LITTLE ROCK, ARK., U. S. A.

(In cooperation with St. Louis University, St. Louis, Mo.—Records kept in St. Louis)

Two Wood-Anderson short-period seismographs, Howard clock, time checked by radio signals.

Bulletin for 1939

1.

No.	Date	Phase	G. M. C. T.	Remarks
1	January 18	eP epP eS	1 ^h 55 ^m 04 ^s 1 55 11 2 03 50	$\Delta_{S-P} = 46^{\circ}5$
2	January 19	iP i iPR ₁ iS i i F	10 ^h 07 ^m 19 ^s 10 07 37 10 07 35 10 11 24 10 11 39 10 14 12 10 45	$\Delta_{S-P} = 22^{\circ}4$ Epicenter by J. S. A. 18 ^o 4 N, 106 ^o 0 W. H = 10 ^h 02 ^m 40 ^s
3	January 20	iP ipP iPR ₁ i iS isS L F	20 ^h 45 ^m 12 ^s 20 45 19 20 45 29 20 47 08 20 49 02 20 49 15 20 52 21 50	$\Delta_{S-P} = 21^{\circ}3$ Epicenter by J. S. A. 13 ^o 0 N, 89 ^o 5 W. H = 20 ^h 40 ^m 28 ^s Depth 80 km.
4	January 25	ePEN iPEN ipPEN iPR ₁ iS isS iSP iScS SR ₁ F	3 ^h 43 ^m 42 ^s 3 43 44 3 43 58 3 46 05 3 53 04 3 53 38 3 53 40 3 54 16 3 58 30 5 30	$\Delta_{S-P} = 73^{\circ}5$ Epicenter by J. S. A. 30 ^o 4 S, 73 ^o 1 W. H = 3 ^h 32 ^m 20 ^s Depth 100 km.
5	January 27	eP iS i F	14 ^h 15 ^m 45 ^s 14 19 40 14 21 03 14 32	Time uncertain $\Delta_{S-P} = 21^{\circ}$ Epicenter by J. S. A. 13 ^o 4 N, 91 ^o 3 W.
6	January 29	eP i iS F	18 ^h 51 ^m 30 ^s 18 51 42 18 55 20 18 59	Time uncertain $\Delta_{S-P} = 19^{\circ}4$ Epicenter by J. S. A. 13 ^o 5 N, 90 ^o 3 W.

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LITTLE ROCK COLLEGE SEISMOLOGICAL OBSERVATORY, PUTASKO HEIGHTS, LITTLE ROCK, ARK., U.S.A.
 The observatory is located on Putasko Heights, Little Rock, Arkansas, U.S.A. The observatory is situated on a hillside overlooking the city of Little Rock. The observatory is equipped with a variety of seismic instruments, including seismometers, accelerometers, and tiltmeters. The observatory is operated by the Little Rock College Seismological Observatory, which is part of the International Seismological Centre (ISC).

Summary for 1930

No.	Date	Phase	Time	Remarks
1	January 18	ep -ep es	10 07 31 10 08 30	Depth = 400 m
2	January 19	ep i ep is i i i	10 07 37 10 07 38 10 11 34 10 11 39 10 14 13 10 48	Depth = 400 m Epicenter by A.S.A. M ₀ = 10 ^{10.0} m ³ H = 10 ^{08.40} m
3	January 20	ep ep ep i is is i i	20 45 13 20 45 19 20 45 23 20 47 08 20 48 08 20 48 13 20 53 21 50	Depth = 200 m Epicenter by A.S.A. M ₀ = 20 ^{10.28} m ³ H = 20 ^{40.28} m Depth 200 m
4	January 25	ep ep ep ep is is is is ep	2 45 41 2 45 56 2 48 08 2 52 04 2 52 33 2 53 40 2 54 19 2 58 30 3 30	Depth = 700 m Epicenter by A.S.A. M ₀ = 2 45 41 H = 2 52 30 Depth 100 m
5	January 27	ep is i i	14 18 43 14 19 40 14 21 03 14 22	Time uncertain Depth = 200 m Epicenter by A.S.A. M ₀ = 14 18 43 H = 14 22 m
6	January 28	ep i is i	18 21 30 18 21 48 18 22 20 18 28	Time uncertain Depth = 100 m Epicenter by A.S.A. M ₀ = 18 21 30 H = 18 28 m

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No.	Date	Phase	G.M.C.T.	Remarks
7	January 30	eP	2 ^h 33 ^m 10 ^s	Time uncertain
		eP	2 33 14	$\Delta P-H = 111^{\circ}7$
		eP'	2 36 49	Epicenter by J.S.A.
		SKS	2 43 40	6 ^o S, 155 ^o .8 E.
		SKKS	2 44 35	H = 02 ^h 18 ^m 29 ^s
		F	5 10 +	
= = = = = Minor Seismic Activity: Jan. 2, 19 ^h 20 ^m to 19 ^h 45 ^m ; Jan. 4, 13 ^h 01 ^m to 19 ^h 10 ^m ; Jan. 18, 01 ^h 55 ^m to 01 ^h 10 ^m . = = = = =				
8	February 15	iP	2 ^h 36 ^m 23 ^s	$\Delta g-P = 20^{\circ}$
		ipP	2 36 43	Epicenter by J.S.A.
		eS?	2 40 10	95 ^o W. Time uncertain
9	February 24	eP	14 ^h 24 ^m 50 ^s	Epicenter by J.S.A.
		epP	14 25 12	55 ^o N, 160 ^o W.
10	February 26	iP	23 ^h 33 ^m 06 ^s	$\Delta s-P = 20^{\circ}7$
		iS?	23 36 55	Epicenter by J.S.A. 28 ^o N 114.5 W.
= = = = = Minor Seismic Activity: February 3, 5 ^h 41 ^m to 6 ^h 30 ^m February 8, 6 ^h 50 ^m to 7 ^h 00 ^m . = = = = =				
11	March 20	iP	13 ^h 00 ^m 53 ^s	$\Delta s-P = 219^{\circ}7$
		iS	13 04 52	
12	March 21	eP'	1 ^h 30 ^m 56 ^s	Epicenter by J.S.A.
		iPR ₁	1 34 25	3 ^o S, 90 ^o .8 E. Indian
		F	3 10	Ocean.
= = = = = Minor Seismic Activity: March 20, 3 ^h 40 ^m to 4 ^h 00 ^m ; March 23, 16 ^h 39 ^m to 16 ^h 41 ^m . = = = = =				
13	April 5	ePR ₁	17 ^h 01 ^m 42 ^s	$\Delta PR_1-H = 110^{\circ}2$
		iSKS	17 07 45	Epicenter by J.S.A.
		i	17 08 45	20 ^o S, 168 ^o .8 E.
		eS	17 09 21	H = 16 ^h 42 ^m 40 ^s
		iSP	17 10 55	
		SR ₁	17 17 00	
		L	17 33	
		F	18 30	
14	April 18	iP	6 ^h 33 ^m 18 ^s	$\Delta meas = 649^{\circ}3$
		pP	6 33 41	Epicenter by J.S.A.
		iS	6 41 55	25 ^o .8 N, 75 ^o .2 W.
		iSP	6 42 13	H = 6 ^h 22 ^m 50 ^s
		isS	6 42 39	Depth = 100 km.
		sSP	6 43 09	
		SR ₁	6 45 47	
		F	7 45	

Little Rock Bulletin for 1933

No.	Date	Phase	G.L.O.T.	Remarks
7	January 29	T S SRS SRS	5 10 + 3 44 35 3 43 40 3 36 48 3 33 14 2 33 10	Time uncertain Epicenter by J.S.A. 30° S, 155° W H = 03.48 sec
Minor Seismic Activity: Jan. 2, 1933 to 1933; Jan. 18, 1933 to 1933				
8	February 13	S SRS	3 40 10 3 38 44 2 38 30	Time uncertain Epicenter by J.S.A. 30° W, 150° W
9	February 24	S SRS	14 33 14 14 32 14	Epicenter by J.S.A. 30° N, 150° W
10	February 26	S SRS	33 33 33 33 33 33	Epicenter by J.S.A. 30° N 118° W
Minor Seismic Activity: February 3, 1933 to 1933; February 8, 1933 to 1933				
11	March 20	S SRS	13 04 33 13 00 33	48° N - 212° W
12	March 21	T S SRS	3 10 1 34 35 1 30 35	Epicenter by J.S.A. 30° S, 208° E Indian Ocean
Minor Seismic Activity: March 20, 1933 to 1933; March 21, 1933 to 1933				
13	April 5	T S SRS SRS SRS SRS SRS SRS	15 30 17 33 17 17 40 17 10 35 17 08 31 17 08 45 17 07 45 17 01 42	Epicenter by J.S.A. 30° S, 150° W H = 13.48 sec
14	April 13	T S SRS SRS SRS SRS SRS	7 45 8 43 33 8 45 17 8 43 08 8 42 38 8 43 13 8 41 35 8 33 41	Depth = 100 km H = 8.33 sec Epicenter by J.S.A. 30° N, 78° W

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No.	Date	Phase	G.M.C.T.	Remarks
15	April 21	iP ipP iSKS iS isS	4 ^h 40 ^m 47 ^s 4 42 46 4 50 23 4 50 35 4 54 05	$\Delta S-P = 86^{\circ}3$ Epicenter by J.S.A. 48 ^o 6N. 138 ^o 0 E. H = 4 ^h 29 ^m 11 ^s Depth 530 km.
16	April 23	iP eS	16h35m07s 16 45 00	$\Delta S-P = 77^{\circ}$ H = 16h23m09s Epicenter by J.S.A. 091 N, 1890 W.
17	April 23	eP eS?	17 ^h 34 ^m 33 ^s 17 43 12	
18	April 25	eP eS	13 ^h 02 ^m 20 ^s 13 09 55	$\Delta S-P = 56^{\circ}$. Depth 150 km. Epicenter by J.S.A. 12 ^o 2 S, 75 ^o 3 W.
19	April 30	e i i i iSP? F	3 ^h 14 ^m 07 ^s 3 22 25 3 22 47 3 23 19 3 24 36 6 +	Epicenter by U.S.C. and G.S. 11 ^o 0 S, 158 ^o 0 E
===== Minor Seismic Activity: April 15, 17h30m to 18h34m; 18h16m to 18h20m =====				
20	May 1	eP eS F	6h11m39s 6 22 35 7 30	$\Delta S-P = 90^{\circ}6$. H = 5 ^h 58 ^m 30 ^s Epicenter by J.S.A. 39 ^o 4 N, 139 ^o 0 E.
21	May 1	eP eS F	6h13m20s 6 24 24 7 30 +	$\Delta S-P = 90^{\circ}5$ Epicenter same as above.
22	May 2	iP iPR ₁ iPR ₂ iX? iS iPcP SR ₁ SR ₂ L M F	13 ^h 19 ^m 08 ^s 13 19 53 13 19 57 13 22 21 13 23 03 13 23 13 13 23 55 13 24 05 13 24 43 13 26 55 15 +	$\Delta S-P = 21^{\circ}5$ Epicenter by J.S.A. 29 ^o 4 E, 113 ^o 5 W. H = 13 ^h 14 ^m 59 ^s Destructive in lower California
23	May 4	e i i	0 ^h 09 ^m 41 ^s 0 10 07 0 11 09	

Little Rock, Arkansas for 1953

No.	Date	Phase	Time (Local)	Remarks
16	April 21	LP LPP LKS L LSS	4:40:47 4:48:48 4:50:23 4:50:25 4:54:05	Ms - 3.0 Epicenter by U.S.A. 33° 0' N, 92° 11' W Depth 580 km
17	April 23	LP LSS	10:25:07 10:45:00	Ms - 2.7 Epicenter by U.S.A. 33° 0' N, 92° 11' W
18	April 25	LP LSS	13:02:50 13:08:55	Ms - 2.9 Epicenter by U.S.A. 33° 0' N, 92° 11' W
19	April 30	L L L L LSS?	3:27:07 3:28:25 3:28:47 3:29:19 3:30:36 3 +	Epicenter by U.S.A. 33° 0' N, 92° 11' W
Minor Seismic Activity April 18, 1953				
20	May 1	L L L	7:30 8:22:55 9:22:55	Ms - 2.0 Epicenter by U.S.A. 33° 0' N, 92° 11' W
21	May 1	L L L	7:30 8:22:55 9:22:55	Ms - 2.0 Epicenter same as above
22	May 2	L LPS LPS L L LPS LPS L L L L L	13:10:08 13:19:23 13:19:27 13:23:21 13:23:03 13:23:13 13:23:25 13:24:05 13:24:43 13:25:25 13:25:25 13 +	Ms - 2.9 Epicenter by U.S.A. 33° 0' N, 92° 11' W Destructive in Little Rock, Arkansas
23	May 4	L L L	0:13:03 0:19:07 0:28:11	

No.	Date	Phase	G.M.C.T.	Remarks
24	May 6	eP iP iS iX SR ₁ F	6h06m20s 6 06 23 6 11 22 6 12 00 6 12 50 6 56	ΔS-P = 2995 Epicenter by J. S. A. 795 N, 8495 W. H = 3h00m30s h = 50 km
25	May 8	iP ipP iPcP i S iSP ScS SR ₁ X L M F	1h56m13s 1 56 25 1 57 16 2 01 20 2 03 45 2 04 13 2 06 17 2 07 27 2 08 10 2 11 00 2 16 20 3 30	ΔS-P = 5308 Epicenter by J. S. A. 3604 N, 2493 W. H = 1h43m58s Island of Azores
26	May 10	iP iS	7h54m31s 8 02 51	ΔS-P = 6091. H = 7h44m25s Epicenter by J. S. A. 51°N, 177°2 W.
27	May 11	eP iP F	17h50m31s 18.15.43. 18 30	Remarks
28	May 17	eP iS eX MR ₁ F	18h48m33s 18 48 49 18 55 15 19 20 50 20 00	ΔS-P = 6091 Epicenter by J. S. A. 795 N, 8495 W. H = 3h00m30s h = 50 km

Minor Seismic Activity: May 9, 6h45m to 7h10m; May 16, 15h56m to 16h5m; May 26, 4h30m to 5h

The operation of the station was interrupted until October

J. B. Macelwane, S.J.
Director

G. J. Brunner, S.J.
Professor of Geophysics

No.	Date	Time	Location	Magnitude	Intensity	Remarks
26	May 10	10:00	...	...	...	Director J. B. Macdonald, S. J. ...
27	May 11	11:00	...	...	...	Director J. B. Macdonald, S. J. ...
28	May 12	12:00	...	...	...	Director J. B. Macdonald, S. J. ...
29	May 13	13:00	...	...	...	Director J. B. Macdonald, S. J. ...
30	May 14	14:00	...	...	...	Director J. B. Macdonald, S. J. ...
31	May 15	15:00	...	...	...	Director J. B. Macdonald, S. J. ...
32	May 16	16:00	...	...	...	Director J. B. Macdonald, S. J. ...
33	May 17	17:00	...	...	...	Director J. B. Macdonald, S. J. ...
34	May 18	18:00	...	...	...	Director J. B. Macdonald, S. J. ...
35	May 19	19:00	...	...	...	Director J. B. Macdonald, S. J. ...
36	May 20	20:00	...	...	...	Director J. B. Macdonald, S. J. ...
37	May 21	21:00	...	...	...	Director J. B. Macdonald, S. J. ...
38	May 22	22:00	...	...	...	Director J. B. Macdonald, S. J. ...
39	May 23	23:00	...	...	...	Director J. B. Macdonald, S. J. ...
40	May 24	24:00	...	...	...	Director J. B. Macdonald, S. J. ...
41	May 25	25:00	...	...	...	Director J. B. Macdonald, S. J. ...
42	May 26	26:00	...	...	...	Director J. B. Macdonald, S. J. ...
43	May 27	27:00	...	...	...	Director J. B. Macdonald, S. J. ...
44	May 28	28:00	...	...	...	Director J. B. Macdonald, S. J. ...
45	May 29	29:00	...	...	...	Director J. B. Macdonald, S. J. ...
46	May 30	30:00	...	...	...	Director J. B. Macdonald, S. J. ...
47	May 31	31:00	...	...	...	Director J. B. Macdonald, S. J. ...

The operation of the station was interrupted until October

Director J. B. Macdonald, S. J. ...
 Professor of Geophysics