

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 1937

1.

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
1	Jan 2	W-A	ePNE	22h38m15s	$\Delta_{S-P} = 19^{\circ}9$
		W-A	iPR ₂ NE	22 38 42	
		W-A	e(S)NE	22 41 58	
		W-A	eE	22 56 00	
		W-A	eLE	22 57 25	
		W-A	F	23 09 +	
2	Jan 7	W-A	eNE	6h34m55s	Indistinct. Possibly two earthquakes.
		W-A	eNE	7 11 52	
		W-A	eNE	7 12 21	
		W-A	eNE	7 13 17	
		W-A	F	7 18 +	
3	Jan 7	W-A	e(PR ₁)N	13h39m19s	$\Delta_{PR_1-H} = 109^{\circ}0$ H = 13h20m40s Epicenter: 36°.1 N, 98°.6 E. Normal.
		W-A	iNE	13 40 14	
		W-A	iPR ₂ NE	13 41 57	
		W-A	eN	13 42 37	
		W-A	eNE	13 43 39	
		W-A	eSKSE	13 45 45	
		W-A	eSKKSE	13 46 41	
		W-A	iSNE	13 47 19	
		W-A	eN	13 48 34	
		W-A	eN	13 49 44	
		W-A	ePKKPN	13 50 29	
		W-A	eLNE	14 10 29	
		W-A	F	15 00 +	
4	Jan 11	W-A	iPNE	13h25m32s	$\Delta_{S-P} = 17^{\circ}1$ Epicenter in vicinity of 15°6 N, 95°5 W. Depth by Brunner Depth Chart 120 kms.
		W-A	iNE	13 25 38	
		W-A	ipPNE	13 25 44	
		W-A	iPR ₁ NE	13 26 20	
		W-A	iNE	13 26 55	
		W-A	iNE	13 27 45	
		W-A	iNE	13 28 23	
		W-A	iSNE	13 28 49	
		W-A	iSSE	13 29 10	
		W-A	IP ₀ PE	13 29 15	
		W-A	F	13 43 +	
5	Jan 11	W-A	iPN	13h48m38s	Aftershock of No. 4.
		W-A	iN	13 49 00	
		W-A	eSN	13 51 55	
		W-A	F	14 02 +	

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LITTLE ROCK COLLEGE SEISMOLOGICAL OBSERVATORY, YULASKI HEIGHTS, LITTLE ROCK, ARK., U.S.A.
 The observatory is at Little Rock, Arkansas, U.S.A. (Latitude 34° 45' N, Longitude 90° 15' W).
 The observatory is operated by the Little Rock College Seismological Observatory.

Station for 1957

Date	Time	Phase	Amplitude	Remarks
Jan 5	13 00	P	13 00	
	13 05	P	13 05	
	13 10	P	13 10	
	13 15	P	13 15	
	13 20	P	13 20	
	13 25	P	13 25	
Jan 7	13 28	P	13 28	
	13 33	P	13 33	
	13 38	P	13 38	
	13 43	P	13 43	
	13 48	P	13 48	
	13 53	P	13 53	
Jan 7	13 58	P	13 58	
	14 03	P	14 03	
	14 08	P	14 08	
	14 13	P	14 13	
	14 18	P	14 18	
	14 23	P	14 23	
	14 28	P	14 28	
	14 33	P	14 33	
	14 38	P	14 38	
	14 43	P	14 43	
	14 48	P	14 48	
	14 53	P	14 53	
Jan 11	15 00	P	15 00	
	15 05	P	15 05	
	15 10	P	15 10	
	15 15	P	15 15	
	15 20	P	15 20	
	15 25	P	15 25	
	15 30	P	15 30	
	15 35	P	15 35	
	15 40	P	15 40	
	15 45	P	15 45	
Jan 11	15 50	P	15 50	
	15 55	P	15 55	
	16 00	P	16 00	
	16 05	P	16 05	

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No.	Date	Inst.	Phase	G.M.C.T.	Remarks
6	Jan 19	W-A W-A W-A W-A W-A W-A	ePE eN iN iN iN F	22h24m25s 22 29 37 22 29 51 22 30 39 22 31 25 23 00 +	
7	Jan 23	W-A W-A W-A W-A W-A W-A W-A	ePR ₁ NE eNE iSKSN eSPE eE iNE eLE F	11h15m17s 11 16 28 11 21 15 11 24 11 11 28 56 11 35 39 11 47 11 12 30 +	$\Delta = 106^{\circ}7$ Epicenter by Strasbourg 190 S, 157 ⁰ 0 E. in vicin- ity of Salomon Isles.
8	Jan 25	W-A W-A W-A W-A W-A W-A W-A W-A	ePR ₁ NE e(PR ₂)N eSKSNE eSNE eNE eSPE eNE eLNE F	6h53m40s 6 54 35 6 58 44 7 00 25 7 01 20 7 01 57 7 23 05 7 25 32 8 30 +	$\Delta_{S-H} = 107^{\circ}2$ H = 6h34m00s Epicenter: 10 ⁰ 6 S, 163 ⁰ 3 E. Depth: normal.
9	Jan 30	W-A W-A W-A W-A W-A W-A W-A	eP _{NE} iP _E iE iS _{NE} iE iSE iSE	8h57m51s 8 58 02.4 8 58 18.6 8 58 22.7 8 58 23.5 8 58 26.6 8 58 35.7	$\Delta = 285 \text{ km} = 178$ miles. New Madrid Region. Epicenter: $\Delta = 36.2 \text{ N}$, $\Delta = 89^{\circ}7 \text{ W}$, less than 5 miles WNW of Caruthersville, Missouri. Intensity on Wood Neuman Scale about III H = 8h57m09.5s
10	Jan 31	W-A W-A W-A W-A W-A	eNE eNE eNE eNE F	2h11m01s 2 12 00 2 12 55 2 13 33 2 20 +	Weak.

Minor Seismic Activity: Jan. 5, 4h39m to 4h43m; Jan. 5, 23h30m to 23h15m; Jan. 6, 5h25m to 5h32m; Jan. 7, 6h35m to 6h37m; Jan. 21, 1h23m to 1h25m; Jan. 25, 15h24m to 15h28m; Jan. 25, 23h24m to 23h29m

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

Bulletin for 1937

3.

No.	Date	Inst.	Phase	G. M. C. T.	Remarks
11	Feb 4	W-A W-A W-A W-A W-A	eP ^{NE} eS ^{NE} eE eL ^E F	10h39m07s 10 44 06 10 45 44 10 47 53 11 00 + —	$\Delta_{S-P} = 2990$ Probable region 4995 N., 12694 W with Victoria, Ottawa, and Saskatoon. H = 10h33m04s
12	Feb 7	W-A W-A W-A W-A W-A W-A W-A W-A	eP ^{NE} eN eP ^{R2NE} eS ^{NE} eN eL ^{NE} eM ^N F	4h47m16s 4 47 36 4 48 06 4 51 52 4 54 50 4 56 01 4 57 36 5 30 + —	$\Delta_{S-P} = 2601$ By Florissant Epicenter region 40.0 N., 124.06 W. H = 4h41m29s Depth normal.
13	Feb 15	W-A W-A W-A W-A W-A W-A	e(P) ^N eN e(S) ^{NE} i ^{NE} i ^N F	2h24m28s 2 28 57 2 29 53 2 32 22 2 33 08 2 45 + —	
14	Feb 19	W-A W-A W-A W-A	eN eNE eN F	9h20m52s 9 21 08 9 21 45 9 24 + —	According to Pasadena felt at Hawthorne, Nevada.
15	Feb 21	W-A W-A W-A W-A W-A W-A W-A W-A	eP ^E eP ^N ip ^{PNE} i ^N e(SKS) ^{NE} eS ^{NE} es ^{SNE} eSR ^{INE} F	7h15m06s 7 15 07 7 15 22 7 16 16 7 25 18 7 25 28 7 25 48 7 30 54 (Lost in next earthquake)	$\Delta_{P-H} = 8304$ H = 7h02m45s Epicenter: 45.2 N. 14896 E. Depth by the Brunner Depth Chart 50 to 60 kms.

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DATE: 1957

No.	Date	Inst.	Phase	Time	Remarks
11	Feb 4	W-A	ep	11 00	H = 1083m Saturated Oyster, and with Viscosity 4895 N. 3800 W. Probable region A-P = 3290
12	Feb 7	W-A	ep	11 00	Depth normal. H = 1083m 4895 N. 3800 W. By Florissant A-P = 3291
13	Feb 15	W-A	ep	11 00	
14	Feb 19	W-A	ep	11 00	Hathorne, Nevada Pasadena, Calif According to
15	Feb 21	W-A	ep	11 00	Chart to 60 km. From the Depth of the 1882 Kilgus, 48.8 N. H = 1083m A-P = 3290

STANDARD

Little Rock Bulletin for 1937

4.

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
16	Feb 21	W-A W-A W-A	ePNE eSNE F	7h39m05s 7 49 07 (Lost in next earthquake)	Aftershock of No. 15.
17	Feb 21	W-A W-A	ePNE F	8h11m51s 9 45 ±	Aftershock of No. 15.
18	Feb 21	W-A W-A W-A	ePNE eSNE F	11h04m47s 11 14 48 11 30 ±	Aftershock of No. 15.
19	Feb 22	W-A W-A W-A W-A	eNE eNE eNE F	1h23m07s 1 29 25 1 30 43 1 40 ±	
20	Feb 23	W-A W-A W-A	eNE eLNE F	0h58m23s 1 31 17 2 00 ±	
21	Feb 25	W-A W-A W-A W-A	eE eE eLE F	6h10m58s 6 11 31 6 12 13 6 18 ±	

Minor Seismic Activity: Feb. 2, 13h37m to 13h39m; Feb. 9, 3h21m to 3h31m; Feb. 20, 16h36m to 16h45m; Feb. 24, 18h04m to 18h06m.

J. B. Macelwane, S.J.
 Director of the
 Department of Geophysics
 Saint Louis University

R. R. Heinrich
 Graduate Fellow

Reverend Joseph A. Murray
 Director of the Station

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Bulletin for April 1938

5.

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
22	Apr 1	W-A W-A	e(S) _E e(ss) _E F	22 ^h 59 ^m 35 ^s 22 59 53 23 00 ±	May not be an earthquake.
23	Apr 4	W-A W-A W-A W-A W-A W-A W-A	ePN iPN ePE eSE iSN iN iN F	21 ^h 27 ^m 34 ^s 21 27 36 21 27 37 21 30 26 21 30 26 21 30 50 21 31 04 21 37 ±	
24	Apr 5	W-A W-A W-A W-A W-A W-A W-A	(eP) _E ePN iSE iSN isSE eE eE F	11 ^h 15 ^m 22 ^s 11 15 34 11 21 13 11 21 14 11 21 36 11 21 56 11 22 43 11 30 ±	
25	Apr 10	W-A W-A W-A W-A W-A W-A	ePE eE eE eE eSE eE F	19 ^h 34 ^m 53 ^s 19 35 25 19 35 53 19 36 09 19 38 47 19 39 32 19 47 ±	
26	Apr 12	W-A W-A W-A W-A W-A W-A W-A	ePN iPN eE iN eE eSNE eE F	11 ^h 07 ^m 25 ^s 11 07 31 11 07 32 11 07 56 11 08 01 11 11 17 11 11 45 11 30 ±	Δ _{S-P} = 21°0

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(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 1937

5.

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
22	Mar. 2	W-A	eP [*] N	14h49m58s	$\Delta S^* - P^* = 8^{\circ}5$ Epicenter near 84°2'W 40°4' N. H=14h47m33s Considerable damage in vicinity of Anna, Ohio Intensity at Anna about VII on the Wood Neu- man Scale.
		W-A	iPg ^{NE}	14 50 21	
		W-A	iSn ^{NE}	14 51 10	
		W-A	iS [*] N	14 51 43	
23	Mar. 3	W-A	eP ^{NE}	9h27m52s	S phases not clear
		W-A	eNE	9 28 16	
		W-A	e(S) ^E	9 33 12	
		W-A	eNE	9 33 34	
		W-A	iNE	9 34 02	
		W-A	eLN	9 34 49	
		W-A	F	9 43 +	
24	Mar. 8	W-A	ePN	22h25m03s	
		W-A	eNE	22 25 12	
		W-A	e(S) ^{NE}	22 28 51	
		W-A	F	22 35 +	
25	Mar. 9	W-A	e(Pn)	5h46m44s	$\Delta S^* - P^* = 8^{\circ}6$ Epicenter 84°2' W, 40°4' N. H=5h44m33s Similar to No.22 but apparently more intense
		W-A	iP [*]	5 46 58	
		W-A	i(Pg) [†]	5 47 07	
		W-A	iSn	5 48 14	
		W-A	iS [*]	5 48 45	
W-A	i(Sg)	5 49 03			
26	Mar. 9	W-A	ePN	15h46m03s	$\Delta P - H = 25^{\circ}4$ H = 15h40m38s Epicenter 10°6' N, 83.4 W. Depth by Brun- ner Depth Chart at least 50 Kms.
		W-A	iPN	15 46 05	
		W-A	ipP ^{NE}	15 46 11	
		W-A	iPR ^{1E}	15 46 43	
		W-A	iPcP ^E	15 48 33	
		W-A	eSR ^{1NE}	15 51 35	
27	Mar. 10	W-A	eLE	4h22m28s	
		W-A	F	4 35 +	

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LITTLE ROCK COLLEGE SEISMOLOGICAL OBSERVATORY, POLASKI HEIGHTS, LITTLE ROCK, ARK., U. S. A.
 (In cooperation with U.S. Coast and Geodetic Survey, U.S. Navy - Records kept in U.S. Coast and Geodetic Survey files)
 Two Wood-Anderson torsion seismographs, Wood-Anderson torsion seismograph, Wood-Anderson torsion seismograph

Continued from page 1017

No.	Date	Time	Phase	Amplitude	Remarks
22	Mar 8	10:00	A	1.0	Station near 2000
		10:05	A	1.0	Station near 2000
		10:10	A	1.0	Station near 2000
		10:15	A	1.0	Station near 2000
		10:20	A	1.0	Station near 2000
		10:25	A	1.0	Station near 2000
		10:30	A	1.0	Station near 2000
		10:35	A	1.0	Station near 2000
		10:40	A	1.0	Station near 2000
		10:45	A	1.0	Station near 2000
		10:50	A	1.0	Station near 2000
		10:55	A	1.0	Station near 2000
		11:00	A	1.0	Station near 2000
		11:05	A	1.0	Station near 2000
		11:10	A	1.0	Station near 2000
		11:15	A	1.0	Station near 2000
		11:20	A	1.0	Station near 2000
		11:25	A	1.0	Station near 2000
		11:30	A	1.0	Station near 2000
		11:35	A	1.0	Station near 2000
		11:40	A	1.0	Station near 2000
		11:45	A	1.0	Station near 2000
		11:50	A	1.0	Station near 2000
		11:55	A	1.0	Station near 2000
		12:00	A	1.0	Station near 2000
		12:05	A	1.0	Station near 2000
		12:10	A	1.0	Station near 2000
		12:15	A	1.0	Station near 2000
		12:20	A	1.0	Station near 2000
		12:25	A	1.0	Station near 2000
		12:30	A	1.0	Station near 2000
		12:35	A	1.0	Station near 2000
		12:40	A	1.0	Station near 2000
		12:45	A	1.0	Station near 2000
		12:50	A	1.0	Station near 2000
		12:55	A	1.0	Station near 2000
		13:00	A	1.0	Station near 2000
		13:05	A	1.0	Station near 2000
		13:10	A	1.0	Station near 2000
		13:15	A	1.0	Station near 2000
		13:20	A	1.0	Station near 2000
		13:25	A	1.0	Station near 2000
		13:30	A	1.0	Station near 2000
		13:35	A	1.0	Station near 2000
		13:40	A	1.0	Station near 2000
		13:45	A	1.0	Station near 2000
		13:50	A	1.0	Station near 2000
		13:55	A	1.0	Station near 2000
		14:00	A	1.0	Station near 2000
		14:05	A	1.0	Station near 2000
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		14:20	A	1.0	Station near 2000
		14:25	A	1.0	Station near 2000
		14:30	A	1.0	Station near 2000
		14:35	A	1.0	Station near 2000
		14:40	A	1.0	Station near 2000
		14:45	A	1.0	Station near 2000
		14:50	A	1.0	Station near 2000
		14:55	A	1.0	Station near 2000
		15:00	A	1.0	Station near 2000
		15:05	A	1.0	Station near 2000
		15:10	A	1.0	Station near 2000
		15:15	A	1.0	Station near 2000
		15:20	A	1.0	Station near 2000
		15:25	A	1.0	Station near 2000
		15:30	A	1.0	Station near 2000
		15:35	A	1.0	Station near 2000
		15:40	A	1.0	Station near 2000
		15:45	A	1.0	Station near 2000
		15:50	A	1.0	Station near 2000
		15:55	A	1.0	Station near 2000
		16:00	A	1.0	Station near 2000
		16:05	A	1.0	Station near 2000
		16:10	A	1.0	Station near 2000
		16:15	A	1.0	Station near 2000
		16:20	A	1.0	Station near 2000
		16:25	A	1.0	Station near 2000
		16:30	A	1.0	Station near 2000
		16:35	A	1.0	Station near 2000
		16:40	A	1.0	Station near 2000
		16:45	A	1.0	Station near 2000
		16:50	A	1.0	Station near 2000
		16:55	A	1.0	Station near 2000
		17:00	A	1.0	Station near 2000
		17:05	A	1.0	Station near 2000
		17:10	A	1.0	Station near 2000
		17:15	A	1.0	Station near 2000
		17:20	A	1.0	Station near 2000
		17:25	A	1.0	Station near 2000
		17:30	A	1.0	Station near 2000
		17:35	A	1.0	Station near 2000
		17:40	A	1.0	Station near 2000
		17:45	A	1.0	Station near 2000
		17:50	A	1.0	Station near 2000
		17:55	A	1.0	Station near 2000
		18:00	A	1.0	Station near 2000
		18:05	A	1.0	Station near 2000
		18:10	A	1.0	Station near 2000
		18:15	A	1.0	Station near 2000
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		18:35	A	1.0	Station near 2000
		18:40	A	1.0	Station near 2000
		18:45	A	1.0	Station near 2000
		18:50	A	1.0	Station near 2000
		18:55	A	1.0	Station near 2000
		19:00	A	1.0	Station near 2000
		19:05	A	1.0	Station near 2000
		19:10	A	1.0	Station near 2000
		19:15	A	1.0	Station near 2000
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		19:25	A	1.0	Station near 2000
		19:30	A	1.0	Station near 2000
		19:35	A	1.0	Station near 2000
		19:40	A	1.0	Station near 2000
		19:45	A	1.0	Station near 2000
		19:50	A	1.0	Station near 2000
		19:55	A	1.0	Station near 2000
		20:00	A	1.0	Station near 2000
		20:05	A	1.0	Station near 2000
		20:10	A	1.0	Station near 2000
		20:15	A	1.0	Station near 2000
		20:20	A	1.0	Station near 2000
		20:25	A	1.0	Station near 2000
		20:30	A	1.0	Station near 2000
		20:35	A	1.0	Station near 2000
		20:40	A	1.0	Station near 2000
		20:45	A	1.0	Station near 2000
		20:50	A	1.0	Station near 2000
		20:55	A	1.0	Station near 2000
		21:00	A	1.0	Station near 2000
		21:05	A	1.0	Station near 2000
		21:10	A	1.0	Station near 2000
		21:15	A	1.0	Station near 2000
		21:20	A	1.0	Station near 2000
		21:25	A	1.0	Station near 2000
		21:30	A	1.0	Station near 2000
		21:35	A	1.0	Station near 2000
		21:40	A	1.0	Station near 2000
		21:45	A	1.0	Station near 2000
		21:50	A	1.0	Station near 2000
		21:55	A	1.0	Station near 2000
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		22:35	A	1.0	Station near 2000
		22:40	A	1.0	Station near 2000
		22:45	A	1.0	Station near 2000
		22:50	A	1.0	Station near 2000
		22:55	A	1.0	Station near 2000
		23:00	A	1.0	Station near 2000
		23:05	A	1.0	Station near 2000
		23:10	A	1.0	Station near 2000
		23:15	A	1.0	Station near 2000
		23:20	A	1.0	Station near 2000
		23:25	A	1.0	Station near 2000
		23:30	A	1.0	Station near 2000
		23:35	A	1.0	Station near 2000
		23:40	A	1.0	Station near 2000
		23:45	A	1.0	Station near 2000
		23:50	A	1.0	Station near 2000
		23:55	A	1.0	Station near 2000
		00:00	A	1.0	Station near 2000

Little Rock Bulletin for 1937

6.

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
28	Mar. 14	W-A	ePNE	12h06m13s	$\Delta S-P = 62^{\circ}3$ Epicenter $23^{\circ}8$ S, $71^{\circ}0$ W. H=11h56m01s Depth about 80 Km by the Brunner Depth Chart. Minor damage at Taltal, Chile.
		W-A	iPNE	12 06 15	
		W-A	ipPNE	12 06 25	
		W-A	iSNE	12 14 38	
		W-A	iNE	12 14 42	
		W-A	esSNE	12 14 58	
		W-A	eSPNE	12 15 04	
		W-A	eNE	12 16 03	
		W-A	eNE	12 16 33	
		W-A	eLE	12 19 15	
		W-A	F	12 35 +	
29	Mar. 17	W-A	e(P) _N	14h05m44s	Weak.
		W-A	eNE	14 08 54	
		W-A	eLN	14 12 04	
		W-A	F	14 20 +	
30	Mar. 19	W-A	ePNE	18h23m45s	
		W-A	eE	18 23 34	
		W-A	eSNE	18 31 27	
		W-A	F	18 35 +	
31	Mar. 25	W-A	eP	16h53m36s	$\Delta P-H = 20^{\circ}1$ Epicenter: $33^{\circ}4$ N, $116^{\circ}7$ W. H = 16h49m04s
		W-A	e(S)	16 57 29	
		W-A	eL	16 57 41	
		W-A	eM	16 59 41	
32	Mar. 26	W-A	eNE	21h15m04s	
		W-A	eLN	21 24 32	
		W-A	F	21 40 +	
33	Mar. 29	W-A	ePNE	7h59m02s	
		W-A	epPN	7 59 07	
		W-A	eE	7 59 39	
		W-A	iN	8 02 32	
		W-A	eSNE	8 06 32	
		W-A	isSNE	8 06 42	
		W-A	iNE	8 07 22	
		W-A	F	8 13 +	

Minor Seismic Activity: Mar. 5, 23h20m to 24h00m; Strong microseisms Mar. 7 and 8; Mar. 15, 1h30m to 1h35m; Mar. 15, 10h15m to 10h17m.

J. B. Macelwane, S.J.
 Director
 Department of Geophysics
 Saint Louis University

R. R. Heinrich
 Graduate Fellow

Rev. Joseph A. Murray
 Director of the Station

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
27	Apr 12	W-A W-A W-A W-A W-A	eNE iN eN oLN F	16 ^h 34 ^m 51 ^s 16 35 24 16 35 48 16 38.1 16 41 ±	
28	Apr 13	W-A W-A W-A W-A W-A W-A W-A	ePNE iPNE iPCPNE iNE iSE eE eE F	2 ^h 57 ^m 31 ^s 2 57 32 2 57 41 2 58 37 3 07 13 3 09 00 3 10 08 3 45 ±	$\Delta P-H = 80^{\circ}6$ $H = 2^{\text{h}}45^{\text{m}}54^{\text{s}}$ Epicenter: 39 ^o .4 N, 15 ^o .0 E. Depth by the Brunner Depth Chart about 300 km.
29	Apr 13	W-A W-A W-A W-A	eN eN iN iN F	12 ^h 38 ^m 56 ^s 12 39 12 12 39 42 12 39 53 12 45 ±	
30	Apr 13	W-A W-A W-A	eN eN eN F	14 ^h 00 ^m 37 ^s 14 01 13 14 01 56 14 08 ±	
31	Apr 14	W-A W-A W-A	iPN eN e(S)E F	1 ^h 35 ^m 19 ^s 1 36 50 1 40 36 2 00 ±	
32	Apr 16	W-A W-A W-A W-A	ePE eE iSE iE F	20 ^h 21 ^m 47 ^s 20 22 08 20 25 30 20 26 17 20 45 ±	
33	Apr 17	W-A W-A W-A W-A W-A W-A W-A	ePE eE eE eE iSE iE iE F	14 ^h 49 ^m 29 ^s 14 49 42 14 50 05 14 52 08 14 57 27 14 57 43 14 57 53 15 08 ±	$\Delta P-H = 58^{\circ}3$ $H = 14^{\text{h}}39^{\text{m}}42^{\text{s}}$ Epicenter: 18 ^o .5 S, 69 ^o .0 W. Depth by the Brunner Depth Chart: 50+ km.
34	Apr 17	W-A W-A	eN eE F	21 ^h 39 ^m 54 ^s 21 40 38 21 45 ±	

LITTLE ROCK

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(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 1937

7.

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
34	April 3	W-A	ePN	22h20m40s	$\Delta S-P = 2194$
		W-A	ePE	22 20 44	
		W-A	iN	22 20 47	
		W-A	i(PR ₁)NE	22 20 58	
		W-A	eSNE	22 24 36	
		W-A	eN	22 24 51	
		W-A	F	22 45 +	
35	April 5	W-A	eE	6h40m02s	
		W-A	iE	6 40 07	
		W-A	eE	6 41 02	
		W-A	F	7 00 +	
36	April 5	W-A	eE	7 17 24	Epicenter by Florissant near 199 S, 133 ^o .7 E H = 6h56m27s
		W-A	eLE	7 32 54	
		W-A	F	9 00 +	
37	April 5	W-A	i(P)E	19h22m16s	
		W-A	iE	19 22 44	
		W-A	eE	19 23 18	
		W-A	eE	19 35 06	
		W-A	F	20 10 +	
38	April 16	W-A	eN	3h 14m35s	Reverend A. J. West- land, S.J. of Saint Louis University is studying this earth- quake in detail.
		W-A	iNE	3 14 44	
		W-A	iNE	3 16 07	
		W-A	iNE	3 16 13	
		W-A	iNE	3 24 44	
		W-A	iNE	3 25 44	
		W-A	iNE	3 26 14	
		W-A	iNE	3 27 14	
		W-A	F	6 30 +	
39	April 19	W-A	eN	1h07m44s	Possibly a near earthquake
		W-A	eNE	1 07 47	
		W-A	iNE	1 08 00	
		W-A	F	1 09 +	
40	April 22	W-A	eNE	22h49m37s	Indistinct. Presence of large microseisms obscure identifica- tion.
		W-A	eN	22 50 02	
		W-A	eNE	22 52 54	
		W-A	F	23 00 +	
41	April 24	W-A	eNE	8h04m17s	
		W-A	eNE	8 05 20	
		W-A	e(L)N	8 08 18	
		W-A	F	8 12 +	

LITTLE ROCK

LITTLE ROCK COLLEGE SEISMOLOGICAL OBSERVATORY, LITTLE ROCK HEIGHTS, LITTLE ROCK, ARK., U.S.A.
 The observatory is situated on the east side of Little Rock, Arkansas, at an elevation of 225 feet above sea level.
 The station is a permanent one and is equipped with a complete set of instruments.

Bulletin for 1937

No. of Earthquake	Date	Time	Phase	Remarks
24	April 3	10:44 10:47 10:50 10:53 10:56 10:59 11:02	W-A W-A W-A W-A W-A W-A W-A	08-P - 2194
25	April 5	8:40 8:41 8:42 7:00	W-A W-A W-A W-A	
26	April 5	7:17 7:28 8:00	W-A W-A W-A	Epiphany by Christian near 1st S. 13th E H - Chicago?
27	April 5	10:30 10:31 10:32 10:33 10:34 10:35	W-A W-A W-A W-A W-A W-A	
28	April 10	8:30 8:31 8:32 8:33 8:34 8:35 8:36 8:37 8:38 8:39 8:40	W-A W-A W-A W-A W-A W-A W-A W-A W-A W-A W-A	Reverend A. J. West land, S. W. of Saint Louis University is studying this earth- quake in detail.
29	April 18	1:01 1:02 1:03 1:04	W-A W-A W-A W-A	Possibly a very earthquake
30	April 22	8:00 8:01 8:02 8:03	W-A W-A W-A W-A	Presence of gas microseisms observed in this station
31	April 22	8:00 8:01 8:02 8:03	W-A W-A W-A W-A	

Little Rock Bulletin for April 1938

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
35	Apr 19	W-A	ePN	11 ^h 12 ^m 25 ^s	$\Delta p-H = 9099$ $H = 10^h59^m23^s$ Epicenter: 3290 N, 3391 E. Destructive in the central part of the district of Anatolia, Turkey, with heavy loss of life.
		W-A	ePR ₁ N	11 16 04	
		W-A	eSKSNE	11 22 50	
		W-A	iN	11 23 00	
		W-A	cSKKS ₁ N	11 23 20	
		W-A	eN	11 23 22	
		W-A	eN	11 25 17	
		W-A	eLN F	11 44 25 12 15 ±	
36	Apr 19	W-A	cSNE	23 ^h 43 ^m 11 ^s	
		W-A	eNE	23 44 26	
		W-A	F	23 50 ±	
37	Apr 20	W-A	ce	12 ^h 45 ^m 14 ^s	Weak.
		W-A	ce	13 06 54	
		W-A	F	13 45 ±	
38	Apr 22	W-A	ePNE	4 ^h 22 ^m 14 ^s	
		W-A	eN	4 22 40	
		W-A	eN	4 25 33	
		W-A	iE	4 27 22	
		W-A	eN	4 28 51	
		W-A	eLN F	4 32.5 5 10 ±	
39	Apr 25	W-A	ePN	17 ^h 12 ^m 53 ^s	
		W-A	ePE	17 12 54	
		W-A	ePR ₁ N	17 13 14	
		W-A	iPR ₂ NE	17 13 24	
		W-A	cSE	17 17 07	
		W-A	ce	17 17 36	
		W-A	eLE	17 20 42	
		W-A	F	17 45 ±	
40	Apr 25	W-A	eP ₁ NE	23 ^h 42 ^m 38 ^s	$\Delta S_n-P_n = 1906$ $= 73$ miles $H = 23^h42^m18^s$ Felt in the vicinity of Findley, Arkansas
		W-A	iP ₂ NE	23 42 40	
		W-A	iSNE	23 42 51	
		W-A	iS ₁ NE	23 42 53	
		W-A	eN	23 42 55	
		W-A	F	23 47 ±	

Minor Seismic Activity: April 7, 17h00m to 24h00m; April 18, 5h00m to 5h15m; April 30, 22h15m to 23h45m.

J. B. Macelwane, S. J.
 Director, Dept. of Geophysics
 Saint Louis University

Rev. Joseph A. Murray
 Director of the station
 R. R. Heinrich
 Instructor

Little Rock Bulletin for 1937

No.	Date	Inst.	Phase	G. M. C. T.	Remarks
42	April 25	W-A	e(P) _N	10h36m52s	
		W-A	e(S) _N	10 41 54	
		W-A	i _N	10 43 45	
		W-A	F	11 00 ±	
43	April 25	W-A	e _N	21h47m32s	(May be microseism)
		W-A	e _N	21 47 45	
		W-A	e _N	21 51 32	
		W-A	F	21 53 ±	
44	April 29	W-A	eP _{NE}	18h19m52s	$\Delta S-P = 44.97$ Epicenter region of 34°0 W, 53°4 N. H = 18h11m42s Normal.
		W-A	e _{NE}	18 20 10	
		W-A	ePR _{2NE}	18 22 04	
		W-A	i _N	18 22 31	
		W-A	eS _N	18 26 35	
		W-A	eL _{NE}	18 33 14	
		W-A	F	19 00 ±	
45	April 29	W-A	eP _N	19h01m34s	Lost in next earthquake.
		W-A	ipP _{NE}	19 01 44	
		W-A	ePR _{2NE}	19 04 11	
		W-A	e _N	19 08 39	
		W-A	eS _{NE}	19 08 49	
		W-A	es _{SN}	19 09 06	
		W-A	iX _{NE}	19 11 22	
		W-A	e _N	19 13 48	
		W-A	eL _{NE}	19 16 24	
		W-A	eM _{NE}	19 21 09	
		W-A	F		
46	April 29	W-A	eP _{NE}	20h31m08s	Lost in next earthquake
		W-A	e _E	20 31 18	
		W-A	e _{NE}	20 31 21	
		W-A	e _N	20 33 27	
		W-A	e _N	20 35 35	
		W-A	F		
47	April 29	W-A	i _{NE}	20h41m59s	
		W-A	F	20 45 ±	

Minor Seismic Activity: April 11, 4h50m to 4h55m

J. B. Macelwane, S. J.
 Director, Department of
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R. R. Heinrich
 Graduate Fellow

Reverend Joseph A. Murray
 Director of the Station

LITTLE ROCK

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

Bulletin for 1937

9

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
48	May 1	W-A	e(P) _E e _N i _E i _E e(S) _N e _E e _N e _E e _N e _E e _N e _E e _N F	15h28m54s 15 28 55 15 29 00 15 29 01 15 32 18 15 32 48 15 35 25 15 35 40 15 36 07 15 36 29 15 37 29 15 37.4 15 51 ±	
49	May 4	W-A	eP _E eP _N e _E e _N e _E e _N e _N e _N eL _N eM _E eM _N F	05h17m14s 05 17 15 05 27 28 05 27 40 05 30 28 05 30 34 05 32 06 05 33.1 05 33.6 05 33.8 06 06 ±	$\Delta_{P-H} = 45^{\circ}7$ $\Delta_{meas} = 46^{\circ}0$ H = 05h08m53s $\phi = 59^{\circ}4$ N. $\lambda = 152^{\circ}9$ W.
50	May 8	W-A	e _{NE} e _N e _E e _{NE} e _N e _N e _E e _E e _E e(L) _N F	20h04m14s 20 04 20 20 04 23 20 04 46 20 06 51 20 06 59 20 07 08 20 08 29 20 11.9 (Lost in microseisms)	
51	May 9	W-A	eP _{NE} e _E e _E i _E eS _{EN} eL _N eL _E eM _N F	14h59m06s 14 59 14 14 59 24 14 59 26 15 09 25 15 32.5 15 32.6 15 40.5 16 15 ±	Weak $\Delta_{S-P} = 83^{\circ}0$ $\Delta_{meas} = 82^{\circ}6$ According to Florissant $\phi = 45^{\circ}7$ N. $\lambda = 149^{\circ}0$ E. H = 14h46m50s

LITTLE ROCK

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

Bulletin for 1937

9

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
48	May 1	W-A	e(P) _E e _N i _E i _E e(S) _N e _E e _N e _E e _N e _E e _N e _E e _N F	15h28m54s 15 28 55 15 29 00 15 29 01 15 32 18 15 32 48 15 35 25 15 35 40 15 36 07 15 36 39 15 37 29 15 37.4 15 51 ±	
49	May 4	W-A	eP _E eP _N e _E e _N e _E e _N e _N eL _N eM _E eM _N F	05h17m14s 05 17 15 05 27 28 05 27 40 05 30 28 05 30 34 05 32 06 05 33.1 05 33.6 05 33.8 06 06 ±	$\Delta_{P-H} = 45^{\circ}7$ $\Delta_{meas} = 46^{\circ}0$ H = 05h08m53s $\phi = 59^{\circ}4$ N. $\lambda = 152^{\circ}9$ W.
50	May 8	W-A	e _{NE} e _N e _E e _{NE} e _N e _N e _E e _E e _E e(L) _N F	20h04m14s 20 04 20 20 04 23 20 04 46 20 06 51 20 06 59 20 07 08 20 08 29 20 11.9 (Lost in microseisms)	
51	May 9	W-A	eP _{NE} e _E e _E i _E eS _{EN} eL _N eL _E eM _N F	14h59m06s 14 59 14 14 59 24 14 59 26 15 09 25 15 32.5 15 32.6 15 40.5 16 15 ±	Weak $\Delta_{S-P} = 83^{\circ}0$ $\Delta_{meas} = 82^{\circ}6$ According to Florissant $\phi = 45^{\circ}7$ N. $\lambda = 149^{\circ}0$ E. H = 14h46m50s

LITTLE ROCK

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

The cooperation with the U.S. Geological Survey, Washington, D.C., is gratefully acknowledged.

Publication for 1957

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Station	Time	Phase	Time	Phase	Time	Phase
10 32	10 32		10 32		10 32	
10 33	10 33		10 33		10 33	
10 34	10 34		10 34		10 34	
10 35	10 35		10 35		10 35	
10 36	10 36		10 36		10 36	
10 37	10 37		10 37		10 37	
10 38	10 38		10 38		10 38	
10 39	10 39		10 39		10 39	
10 40	10 40		10 40		10 40	
10 41	10 41		10 41		10 41	
10 42	10 42		10 42		10 42	
10 43	10 43		10 43		10 43	
10 44	10 44		10 44		10 44	
10 45	10 45		10 45		10 45	
10 46	10 46		10 46		10 46	
10 47	10 47		10 47		10 47	
10 48	10 48		10 48		10 48	
10 49	10 49		10 49		10 49	
10 50	10 50		10 50		10 50	
10 51	10 51		10 51		10 51	
10 52	10 52		10 52		10 52	
10 53	10 53		10 53		10 53	
10 54	10 54		10 54		10 54	
10 55	10 55		10 55		10 55	
10 56	10 56		10 56		10 56	
10 57	10 57		10 57		10 57	
10 58	10 58		10 58		10 58	
10 59	10 59		10 59		10 59	
11 00	11 00		11 00		11 00	
11 01	11 01		11 01		11 01	
11 02	11 02		11 02		11 02	
11 03	11 03		11 03		11 03	
11 04	11 04		11 04		11 04	
11 05	11 05		11 05		11 05	
11 06	11 06		11 06		11 06	
11 07	11 07		11 07		11 07	
11 08	11 08		11 08		11 08	
11 09	11 09		11 09		11 09	
11 10	11 10		11 10		11 10	
11 11	11 11		11 11		11 11	
11 12	11 12		11 12		11 12	
11 13	11 13		11 13		11 13	
11 14	11 14		11 14		11 14	
11 15	11 15		11 15		11 15	
11 16	11 16		11 16		11 16	
11 17	11 17		11 17		11 17	
11 18	11 18		11 18		11 18	
11 19	11 19		11 19		11 19	
11 20	11 20		11 20		11 20	
11 21	11 21		11 21		11 21	
11 22	11 22		11 22		11 22	
11 23	11 23		11 23		11 23	
11 24	11 24		11 24		11 24	
11 25	11 25		11 25		11 25	
11 26	11 26		11 26		11 26	
11 27	11 27		11 27		11 27	
11 28	11 28		11 28		11 28	
11 29	11 29		11 29		11 29	
11 30	11 30		11 30		11 30	
11 31	11 31		11 31		11 31	
11 32	11 32		11 32		11 32	
11 33	11 33		11 33		11 33	
11 34	11 34		11 34		11 34	
11 35	11 35		11 35		11 35	
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11 39	11 39		11 39		11 39	
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11 43	11 43		11 43		11 43	
11 44	11 44		11 44		11 44	
11 45	11 45		11 45		11 45	
11 46	11 46		11 46		11 46	
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11 54	11 54		11 54		11 54	
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11 57	11 57		11 57		11 57	
11 58	11 58		11 58		11 58	
11 59	11 59		11 59		11 59	
12 00	12 00		12 00		12 00	
12 01	12 01		12 01		12 01	
12 02	12 02		12 02		12 02	
12 03	12 03		12 03		12 03	
12 04	12 04		12 04		12 04	
12 05	12 05		12 05		12 05	
12 06	12 06		12 06		12 06	
12 07	12 07		12 07		12 07	
12 08	12 08		12 08		12 08	
12 09	12 09		12 09		12 09	
12 10	12 10		12 10		12 10	
12 11	12 11		12 11		12 11	
12 12	12 12		12 12		12 12	
12 13	12 13		12 13		12 13	
12 14	12 14		12 14		12 14	
12 15	12 15		12 15		12 15	
12 16	12 16		12 16		12 16	
12 17	12 17		12 17		12 17	
12 18	12 18		12 18		12 18	
12 19	12 19		12 19		12 19	
12 20	12 20		12 20		12 20	
12 21	12 21		12 21		12 21	
12 22	12 22		12 22		12 22	
12 23	12 23		12 23		12 23	
12 24	12 24		12 24		12 24	
12 25	12 25		12 25		12 25	
12 26	12 26		12 26		12 26	
12 27	12 27		12 27		12 27	
12 28	12 28		12 28		12 28	
12 29	12 29		12 29		12 29	
12 30	12 30		12 30		12 30	
12 31	12 31		12 31		12 31	

1 - 1234
 2 - 5678
 3 - 9012
 4 - 3456
 5 - 7890
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 88 - 9012
 89 - 3456
 90 - 7890
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 92 - 5678
 93 - 9012
 94 - 3456
 95 - 7890
 96 - 1234
 97 - 5678
 98 - 9012
 99 - 3456
 100 - 7890

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
52	May 12	W-A	e _N e _E e _N e _E e _N F _N	03h03m36s 03 03 37 03 04 16 03 04 58 03 07 33 03 30 ±	Weak According to Chiufeng $\phi = 3^{\circ}0$ S. $\lambda = 142^{\circ}5$ E. Possibly somewhat deep.
53	May 13	W-A	e _{NE} e _N e _N e _N e _N e _E e _E e _N e _E e _L e _M F _N	09h23m01s 09 23 04 09 23 15 09 24 36 09 24 42 09 24 58 09 27 01 09 27 05 09 28 36 09 30 11 09 32.4 10 00 ±	
54	May 13	W-A	e _{NE} i _E e _N e _E e _E e _F	19h09m58s 19 10 11 19 11 30 19 11 32 19 24 35 19 25 04 19 35 ±	Weak
55	May 13	W-A	e _N e _E e _N e _E e _N e _E e _N F _N	21h02m53s 21 03 00 21 03 01 21 05 48 21 21 05 21 21 06 21 22 02 21 22 05 21 45 ±	Weak
56	May 17	W-A	e _{PnE} i(P*) _{NE}	00h50m22s 00 50 24	$\Delta P_n - H = 2^{\circ}2$ $\Delta_{meas} = 2^{\circ}2$ H = 00h49s46m $\phi = 35^{\circ}9$ N. $\lambda = 90^{\circ}4$ W. Reported felt in northeastern Arkan- sas, southeastern Missouri, north- western Tennessee, and southwestern Kentucky.

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
52	May 12	W-A	e _N e _E e _N e _E e _N F	03h03m36s 03 03 37 03 04 16 03 04 58 03 07 33 03 30 ±	Weak According to Chiufeng $\phi = 3^{\circ}0' S.$ $\lambda = 142^{\circ}5' E.$ Possibly somewhat deep.
53	May 13	W-A	e _{NE} e _N e _N e _N e _N e _E e _E e _N e _E e _L _{NE} e _M F _N	09h23m01s 09 23 04 09 23 15 09 24 36 09 24 42 09 24 58 09 27 01 09 27 05 09 28 36 09 30 11 09 32.4 10 00 ±	
54	May 13	W-A	e _{NE} i _E e _N e _E e _E e _E F	19h09m58s 19 10 11 19 11 30 19 11 32 19 24 35 19 25 04 19 35 ±	Weak
55	May 13	W-A	e _N e _E e _N e _E e _E e _N e _E e _N F	21h02m53s 21 03 00 21 03 01 21 05 48 21 21 05 21 21 06 21 22 02 21 22 05 21 45 ±	Weak
56	May 17	W-A	e _P _{NE} i(P*) _{NE}	00h50m22s 00 50 24	$\Delta p_n - H = 2^{\circ}3'$ $\Delta_{meas} = 2^{\circ}2'$ $H = 00h49s46m$ $\phi = 35^{\circ}9' N.$ $\lambda = 90^{\circ}4' W.$ Reported felt in northeastern Arkan- sas, southeastern Missouri, north- western Tennessee, and southwestern Kentucky.

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No.	Date	Inst.	Phase	G.M.C.T.	Remarks
57	May 21	W-A	eP _E eP _N eN _E eP _R _{2N} eS _{NE} eN _E eE _E eF _F	13h19m09s 13 19 10 13 19 13 13 20 34 13 24 33 13 25 11 13 25 13 13 45 ±	$\Delta_{P-H} = 34^{\circ}6$ $\Delta_{meas} = 34^{\circ}6$ H = 13h12m17s $\phi = 2^{\circ}3$ N. $\lambda = 78^{\circ}5$ W. Near normal depth
58	May 23	W-A	e(P) _E eN _E eN _E eE _E eF _F	08h23m37s 08 23 39 08 24 02 08 24 04 (Lost in microseisms)	Weak
59	May 23	W-A	eP _{NE} eN _E eN _E eN _E e(S) _E eN _E eE _E eN _E eN _E eF _F	18h43m02s 18 43 06 18 43 23 18 43 43 18 46 33 18 46 52 18 46 53 18 47 07 18 47 21 19 00 ±	Foreshock of No. 62. According to St. Louis, h = 100 km.
60	May 24	W-A	eN _E eN _E eE _E eN _E eE _E eE _E eN _E eF _F	00h46m58s 00 47 03 00 48 21 00 51 48 00 52 18 00 52 24 00 52 26 (Lost in microseisms)	Foreshock of No. 62. Possibly somewhat deep. Weak
61	May 27	W-A	eN _E eE _E eE _E eN _E eF _F	15h04m37s 15 04 50 15 04 58 15 07.0 (Lost in Microseisms)	Trace

Little Rock Bulletin for 1937

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
57	May 21	W-A	eP _E eP _N e _{NE} ePR _{2N} eS _{NE} e _N e _E e _F	13h19m09s 13 19 10 13 19 13 13 20 34 13 24 33 13 25 11 13 25 13 13 45 ±	$\Delta_{P-H} = 34^{\circ}6$ $\Delta_{meas} = 34^{\circ}6$ H = 13h12m17s $\phi = 2^{\circ}3$ N. $\lambda = 78^{\circ}5$ W. Near normal depth
58	May 23	W-A	e(P) _E e _{NE} e _N e _E e _F	08h23m37s 08 23 39 08 24 02 08 24 04 (Lost in microseisms)	Weak
59	May 23	W-A	eP _{NE} e _N e _N e _N e(S) _E e _N e _E e _N e _N e _F	18h43m02s 18 43 06 18 43 23 18 43 43 18 46 33 18 46 52 18 46 53 18 47 07 18 47 21 19 00 ±	Foreshock of No. 62. According to St. Louis, h = 100 km.
60	May 24	W-A	e _N e _{NE} e _E e _N e _E e _E e _N e _F	00h46m58s 00 47 03 00 48 21 00 51 48 00 52 18 00 52 24 00 52 26 (Lost in microseisms)	Foreshock of No. 62. Possibly somewhat deep. Weak
61	May 27	W-A	e _N e _E e _E e _N e _F	15h04m37s 15 04 50 15 04 58 15 07.0 (Lost in Microseisms)	Trace

May 12 15 27 to 15 30
 May 25 02 50 to 03 28
 May 29 05 40 to 06 00
 May 29 15 45 to 15 48

Little Rock Bulletin for 1937.

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No.	Date	Inst.	Phase	G.M.C.T.	Remarks
62	May 28	W-A	iPNE	15h39m55s	$\Delta P-H = 19^{\circ}0$ According to St. Louis, h = 100 km. by Brunner Depth Chart. H = 15h35m43s Region Acapulco Deep.
			iN	15 39 58	
			eE	15 40 00	
			iN	15 40 05	
			iN	15 40 09	
			iN	15 40 20	
			iN	15 40 33	
			iN	15 40 36	
			iN	15 41 10	
			iN	15 41 18	
			e	15 43 04	
			e(S)E	15 43 07	
			iE	15 43 08	
			iNE	15 43 18	
			eN	15 43 53	
		iF	15 43 56		
			16 14 ±		
63	May 28	W-A	(e)E	20h13m09s	Possibly somewhat deep.
			(e)N	20 13 18	
			eN	20 13 33	
			eE	20 13 36	
			e(S)N	20 17 48	
			e	20 18 02	
			eNE	20 18 49	
			eN	20 18 57	
			e	20 20 55	
			e	(Lost in following quake)	
64	May 28	W-A	eE	20h37m45s	Aftershock of No. 63.
			eN	20 37 51	
			eE	20 41 35	
			eE	20 41 42	
			eN	20 44 47	
			eN	20 44 53	
			eE	20 45 42	
			F	21 00 ±	

Minor Seismic Activity:

May 1	12h32m	to	12h47m
May 6	08 00	to	08 05
May 7	14 26	to	15 00
May 9	01 15	to	01 20
May 12	13 27	to	13 30
May 25	02 50	to	03 28
	05 40	to	06 00
May 29	15 45	to	15 48

LITTLE ROCK

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Bulletin for June, 1937

13.

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
65	June 2	W-A W-A	eNE eNE F	1 ^h 30 ^m 25 ^s 1 32 19 1 35 ±	
66	June 3	W-A W-A W-A W-A	ePN iNE e(S)NE iNE F	10 ^h 28 ^m 55 ^s 10 29 29 10 32 14 10 32 29 10 40 ±	
67	June 3	W-A W-A	iPN iSN F	24 ^h 17 ^m 40 ^s .5 24 17 44 24 18 31	Blast?
68	June 5	W-A W-A W-A W-A W-A	e(P)NE eN eNE iN eLN F	15 ^h 09 ^m 32 ^s 15 13 39 15 14 18 15 15 02 15 15 26 15 30 ±	
69	June 8	W-A W-A W-A	iPnNE iSnE iSnN F	0 ^h 24 ^m 33 ^s .7 0 25 15 0 25 18 0 27 00	New Madrid region. Δ = 3°35 Epicenter near 36°8 N, 89°0 W. H = 0 ^h 23 ^m 40 ^s
70	June 8	W-A W-A W-A W-A W-A W-A W-A W-A W-A W-A W-A	ePNE iPNE ipPN iN iN iE iSE iSN iN isSE iN F	22 ^h 33 ^m 51 ^s 22 33 52 22 34 24 22 34 29 22 34 39 22 35 51 22 37 12 22 37 16 22 37 36 22 38 10 22 38 54 23 00 ±	ΔP-H = 1900 Epicenter: 16°3 N, 92°7 W. H = 22 ^h 29 ^m 45 ^s Depth by the Brunner Depth Chart 200 Km ±

Station not in operation from June 10 to October 7 inclusive.

LITTLE ROCK



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Bulletin for June, 1937

13.

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
65	June 2	W-A W-A	eNE eNE F	1 ^h 30 ^m 25 ^s 1 32 19 1 35 ±	
66	June 3	W-A W-A W-A W-A	ePN iNE e(S)NE iNE F	10 ^h 28 ^m 55 ^s 10 29 29 10 32 14 10 32 29 10 40 ±	
67	June 3	W-A W-A	iPN iSN F	24 ^h 17 ^m 40 ^s .5 24 17 44 24 18 31	Blast?
68	June 5	W-A W-A W-A W-A W-A	e(P)NE eN eNE iN eLN F	15 ^h 09 ^m 32 ^s 15 13 39 15 14 18 15 15 02 15 15 26 15 30 ±	
69	June 8	W-A W-A W-A	iPnNE iSnE iSnN F	0 ^h 24 ^m 33 ^s .7 0 25 15 0 25 18 0 27 00	New Madrid region. Δ = 3°35 Epicenter near 36°8 N, 89°0 W. H = 0 ^h 23 ^m 40 ^s
70	June 8	W-A W-A W-A W-A W-A W-A W-A W-A W-A W-A W-A	ePNE iPNE ipPN iN iN iE iSE iSN iN isSE iN F	22 ^h 33 ^m 51 ^s 22 33 52 22 34 24 22 34 29 22 34 39 22 35 51 22 37 12 22 37 16 22 37 36 22 38 10 22 38 54 23 00 ±	ΔP-H = 1990 Epicenter: 16°3 N, 92°7 W. H = 22 ^h 29 ^m 45 ^s Depth by the Brunner Depth Chart 200 Km ±

Station not in operation from June 10 to October 7 inclusive.

Little Rock Bulletin for October, 1937

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
71	Oct. 12	W-A	eE	16 ^h 04 ^m 33 ^s	
		W-A	iE	16 07 25	
		W-A	iE	16 08 33	
		W-A	iE	16 09 44	
			F	16 17 ±	
72	Oct. 12	W-A	ePE	21 ^h 01 ^m 17 ^s	
		W-A	eE	21 02 52	
		W-A	eE	21 06 19	
		W-A	eE	21 07 40	
		W-A	eE	21 09 48	
		W-A	iE	21 10 29	
	F	21 20 ±			
73	Oct. 20	W-A	ePE	5 ^h 52 ^m 28 ^s	
		W-A	ePR ₂ E	5 52 58	
		W-A	eE	5 53 18	
		W-A	iSE	5 56 18	
		W-A	eE	5 58 05	
	F	6 05 ±			
74	Oct. 22	W-A	eE	4 ^h 30 ^m 08 ^s 5	Local disturbance.
		W-A	eE	4 30 29	
		W-A	F	4 41 32	
75	Oct. 24	W-A	ePNE	11 ^h 44 ^m 15 ^s	$\Delta_{P-H} = 44^{\circ}1$ $H = 11^h36^m07^s$ Epicenter $59^{\circ}7$ N, $148^{\circ}8$ W. Normal. Felt at Seward, Alaska.
		W-A	ePR ₁ E	11 45 51	
		W-A	iPR ₂ N	11 46 20	
		W-A	eNE	11 48 58	
		W-A	eLN	11 52 03	
	F	12 35 ±			

Minor Seismic Activity

Oct. 25, 23h27m to 23h30m: Oct. 29, 7h45m to 7h49m: Oct. 31,
 Very large microseisms throughout the day

* * * * *

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 Director
 Department of Geophysics
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Reverend J. A. Murray
 Director of the Station

R. R. Heinrich
 Graduate Fellow

Little Rock Bulletin for October, 1937

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
71	Oct. 12	W-A	eE	16 ^h 04 ^m 33 ^s	
		W-A	iE	16 07 25	
		W-A	iE	16 08 33	
		W-A	iE	16 09 44	
			F	16 17 ±	
72	Oct. 12	W-A	ePE	21 ^h 01 ^m 17 ^s	
		W-A	eE	21 02 52	
		W-A	eE	21 06 19	
		W-A	eE	21 07 40	
		W-A	eE	21 09 48	
		W-A	iE	21 10 29	
		F	21 20 ±		
73	Oct. 20	W-A	ePE	5 ^h 52 ^m 28 ^s	
		W-A	ePR ₂ E	5 52 58	
		W-A	eE	5 53 18	
		W-A	iSE	5 56 18	
		W-A	eE	5 58 05	
		F	6 05 ±		
74	Oct. 22	W-A	eE	4 ^h 30 ^m 08 ^s 95	Local disturbance.
		W-A	eE	4 30 29	
		W-A	F	4 41 32	
75	Oct. 24	W-A	ePNE	11 ^h 44 ^m 15 ^s	$\Delta P-H = 44^{\circ}1$ $H = 11^h36^m07^s$ Epicenter 59 ^o 7 N, 148 ^o 8 W. Normal. Felt at Seward, Alaska
		W-A	ePR ₁ E	11 45 51	
		W-A	iPR ₂ N	11 46 20	
		W-A	eNE	11 48 58	
		W-A	eLN	11 52 03	
		F	12 35 ±		

Minor Seismic Activity

Oct. 25, 23h27m to 23h30m: Oct. 29, 7h45m to 7h49m: Oct. 31,
 Very large microseisms throughout the day

* * * * *

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Bulletin for November, 1937

15.

No.	Date	Inst.	Phase	G. I. C. T.	Remarks
76	7	W-A W-A W-A W-A	ePNE ipPN eSE esSE F	9 ^h 17 ^m 18 ^s 9 17 25 9 24 12 9 24 26 9 26 +	ΔS-P = 47°4 H = 9 ^h 08 ^m 48 ^s Depth by the Brunner Depth Chart about 50 km Region Pacific Coast of Peru.
77	10	W-A W-A W-A	ePE iE eLN F	7 ^h 25 ^m 47 ^s 7 25 55 7 34 33 7 50 +	
78	14	W-A W-A W-A W-A W-A W-A W-A W-A W-A W-A W-A W-A W-A W-A	e(P)N eN i(P')E eE eN eNE eNE e(pPR ₁)NE eN iE iSKSN iE iE F	11 ^h 12 ^m 51 ^s 11 13 26 11 16 19 11 16 28 11 16 36 11 16 40 11 16 50 11 17 17 11 18 16 11 18 49 11 22 11 11 22 26 11 23 47 13 00 +	Epicenter by Rev. J. J. Lynch, S. J. of Fordham 35°6 N, 70°8 E. H = 10 ^h 58 ^m 14 ^s h = 250 Km.
79	17	W-A W-A	iS* iSg	17 ^h 07 ^m 09.3 ^s 17 07 19.3	ΔSg-H = 313 Miles. H = 17 ^h 04 ^m 47.7 ^s Epicenter. 89°05'W. 38°34'N. Felt over an area of 8000 square miles in south central Illinois.
80	24	W-A W-A W-A W-A	eNE eNE eNE eNE F	4 ^h 19 ^m 57 ^s 4 20 09 4 20 33 4 21 07 4 22 +	

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15.

No.	Date	Inst.	Phase	G. I. C. T.	Remarks
76	7	W-A W-A W-A W-A	ePNE ipPN eSE esSE F	9h17m18s 9 17 25 9 24 12 9 24 26 9 26 +	$\Delta S-P = 47^{\circ}4$ H = 9h08m48s Depth by the Brunner Depth Chart about 50 km Region Pacific Coast of Peru.
77	10	W-A W-A W-A	ePE iE eLN F	7h25m47s 7 25 55 7 34 33 7 50 +	
78	14	W-A W-A W-A W-A W-A W-A W-A W-A W-A W-A W-A W-A W-A	e(P)N en i(P')E eE eN ene ene e(ppr1)NE eN iE iSKSN iE iE F	11h12m51s 11 13 26 11 16 19 11 16 28 11 16 36 11 16 40 11 16 50 11 17 17 11 18 16 11 18 49 11 22 11 11 22 26 11 23 47 13 00 +	Epicenter by Rev. J. J. Lynch, S. J. of Fordham 35°6 N, 70°8 E. H = 10h58m14s h = 250 Km.
79	17	W-A W-A	iS* iSg	17h07m09.3s 17 07 19.3	$\Delta Sg-H = 313$ Miles. H = 17h04m47.7s Epicenter: 89°05'W. 38°34'N. Felt over an area of 8000 square miles in south central Illinois.
80	24	W-A W-A W-A W-A	ene ene ene ene F	4h19m57s 4 20 09 4 20 33 4 21 07 4 22 +	

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No	Date	Inst.	Phase	G.M.C.T.	Remarks
81	28	W-A	eNE	5 ^h 43 ^m 35 ^s	
		W-A	iNE	5 43 44	
		W-A	iN	5 43 56	
		W-A	eF	5 46 57	
			F	5 52 +	
82	30	W-A	eF	13 ^h 51 ^m 20 ^s	
		W-A	eLE	14 01 28	
			F	14 48 +	

Minor Seismic Activity:

November 8, very large microseisms.
 November 11, 17h55m to 18h03m; Nov. 20,
 13h00m to 24h00m; Nov. 27, 6h58m to 7h04m.

* * * * *

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Rev. Jos. A. Murray
 Director of the station

R. R. Heinrich
 Instructor

Little Rock Bulletin for November, 1937

No	Date	Inst.	Phase	G.L.C.T.	Remarks
81	28	W-A	eNE	5 ^h 43 ^m 35 ^s	
		W-A	iNE	5 43 44	
		W-A	iN	5 43 56	
		W-A	eE	5 46 57	
			F	5 52 +	
82	30	W-A	eE	13 ^h 51 ^m 20 ^s	
		W-A	eLE	14 01 28	
			F	14 48 +	

Minor Seismic Activity:

November 8, very large microseisms.
 November 11, 17h55m to 18h03m; Nov. 20,
 12h00m to 24h00m; Nov. 27, 6h58m to 7h04m.

* * * * *

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Bulletin for December, 1937

17.

No.	Date	Inst.	Phase	G. M. C. T.	Remarks
83	5	W-A	iPN	5 ^h 46 ^m 56 ^s	$\Delta S-P = 21^{\circ}2$ $H = 5^{\text{h}}42^{\text{m}}09^{\text{s}}$
		W-A	ePE	5 46 58	
		W-A	iN	5 47 12	
		W-A	iN	5 47 31	
		W-A	eSE	5 50 52	
		W-A	eSN	5 50 56	
		W-A	iE F	5 51 39 6 05 ±	
84	6	W-A	ePE	21 ^h 46 ^m 16 ^s	$\Delta S-P = 22^{\circ}.6$
		W-A	iPNE	21 46 19	
		W-A	iN	21 46 29	
		W-A	iE	21 48 45	
		W-A	eSNE	21 52 23	
		W-A	iN	21 53 38	
		W-A	eMN F	21 58 10 22 08 ±	
85	7	W-A	ePE	17 ^h 05 ^m 47 ^s	
		W-A	iE	17 05 56	
		W-A	e(S)E	17 09 52	
		W-A	eE	17 10 36	
		W-A	eLE F	17 11 07 17 18 ±	
86	8	W-A	ePN	2 ^h 30 ^m 22 ^s	$\Delta S-P = 23^{\circ}9$
		W-A	iPN	2 30 24	
		W-A	ePE	2 30 24	
		W-A	iN	2 30 41	
		W-A	eSE	2 34 41	
		W-A	eSN	2 34 46	
		W-A	eE	2 35 21	
		W-A	eE F	2 35 48 3 00 ±	
87	11	W-A	ePE	19 09 11	
		W-A	(ePN)	19 09 11	
		W-A	iNE	19 09 19	
		W-A	iE F	19 09 30 19 15 ±	

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17.

No.	Date	Inst.	Phase	G. M. C. T.	Remarks
83	5	W-A	iPN	5 ^h 46 ^m 56 ^s	$\Delta S-P = 21^{\circ}2$ $H = 5^{\text{h}}42^{\text{m}}09^{\text{s}}$
		W-A	ePE	5 46 58	
		W-A	iN	5 47 12	
		W-A	iN	5 47 31	
		W-A	eSE	5 50 52	
		W-A	eSN	5 50 56	
		W-A	iE F	5 51 39 6 05 ±	
84	6	W-A	ePE	21 ^h 48 ^m 16 ^s	$\Delta S-P = 22^{\circ}.6$
		W-A	iPNE	21 48 19	
		W-A	iN	21 48 29	
		W-A	iE	21 48 45	
		W-A	eSNE	21 52 23	
		W-A	iN	21 53 38	
		W-A	eMN F	21 58 10 22 08 ±	
85	7	W-A	ePE	17 ^h 05 ^m 47 ^s	
		W-A	iE	17 05 56	
		W-A	e(S) _E	17 09 52	
		W-A	eE	17 10 36	
		W-A	eLE F	17 11 07 17 18 ±	
86	8	W-A	ePN	2 ^h 30 ^m 22 ^s	$\Delta S-P = 23^{\circ}9$
		W-A	iPN	2 30 24	
		W-A	ePE	2 30 24	
		W-A	iN	2 30 41	
		W-A	eSE	2 34 41	
		W-A	eSN	2 34 46	
		W-A	eE	2 35 21	
		W-A	eE F	2 35 48 3 00 ±	
87	11	W-A	ePE	19 09 11	
		W-A	(ePN)	19 09 11	
		W-A	iNE	19 09 19	
		W-A	iE F	19 09 30 19 15 ±	

No.	Date	Inst.	Phase	G. I. C. T.	Remarks
88	22	W-A	ePNE	3 ^h 41 ^m 58 ^s	$\Delta S-P = 21^{\circ}7$ Epicenter: 17 ^o 2 N, 105 ^o 7 W. Normal! H = 3 ^h 37 ^m 15 ^s
		W-A	iPNE	3 42 01	
		W-A	iN	3 42 52	
		W-A	iE	3 44 22	
		W-A	eSE	3 45 57	
		W-A	iSN	3 45 57	
		W-A	iSE	3 46 02	
		W-A	iLN F	3 48.5 4 50 +	
89	22	W-A	ePNE	7 ^h 39 ^m 50 ^s	$\Delta S-P = 21^{\circ}7$ Aftershock of No. 88.
		W-A	iNE	7 40 00	
		W-A	eSNE	7 43 41	
		W-A	iSE	7 43 53	
		W-A	iLE	7 45 36	
		W-A	eMN F	7 47 31 8 02 +	
		90	23	W-A	
W-A	ePE			13 22 14	
W-A	iPNE F			13 22 16 16 00 +	
91	23	W-A	ePN	23 ^h 25 ^m 37 ^s	$\Delta P-H = 18^{\circ}8$ H = 23 ^h 21 ^m 18 ^s Aftershock of No. 90.
		W-A	iPNE	23 25 39	
		W-A	eSN	23 29 28	
		W-A	iSE	23 29 42	
		W-A	iN F	23 31 07 00 17 (Dec, 24)	
92	24	W-A	ePN	1 ^h 34 ^m 17 ^s	Aftershock of No. 90?
		W-A	F	1 37 +	
93	24	W-A	ePNE	3 ^h 51 ^m 36 ^s	Aftershock of No. 90?
		W-A	F	3 53 +	
94	24	W-A	eN	4 ^h 39 ^m 48 ^s	
		W-A	iNE	4 39 53	
		W-A	eE F	4 48 21 4 56 +	
95	24	W-A	ePNE	6 ^h 29 ^m 19 ^s	Aftershock of No. 90?
		W-A	iNE	6 29 26	
		W-A	eNE	6 31 52	
		W-A	e(S)N F	6 33 24 7 02 +	

No.	Date	Inst.	Phase	G. L. C. T.	Remarks
88	22	W-A	ePNE	3 ^h 41 ^m 58 ^s	$\Delta S-P = 21^{\circ}7$ Epicenter: 17 ^o 2 N, 105 ^o 7 W. Normal! H = 3 ^h 37 ^m 15 ^s
		W-A	iPNE	3 42 01	
		W-A	iN	3 42 52	
		W-A	iE	3 44 22	
		W-A	eSE	3 45 57	
		W-A	iSN	3 45 57	
		W-A	iSE	3 46 02	
		W-A	iLN F	3 48.5 4 50 +	
89	22	W-A	ePNE	7 ^h 39 ^m 50 ^s	$\Delta S-P = 21^{\circ}7$ Aftershock of No. 88.
		W-A	iNE	7 40 00	
		W-A	eSNE	7 43 41	
		W-A	iSE	7 43 53	
		W-A	iLE	7 45 36	
		W-A	eMN F	7 47 31 8 02 +	
		90	23	W-A	
W-A	ePE			13 22 14	
W-A	iPNE F			13 22 16 16 00 +	
91	23			W-A	ePN
		W-A	iPNE	23 25 39	
		W-A	eSN	23 29 28	
		W-A	iSE	23 29 42	
		W-A	iN F	23 31 07 00 17 (Dec.	
92	24	W-A	ePN	1 ^h 34 ^m 17 ^s	Aftershock of No. 90?
		W-A	F	1 37 +	
93	24	W-A	ePNE	3 ^h 51 ^m 36 ^s	Aftershock of No. 90?
		W-A	F	3 53 +	
94	24	W-A	eN	4 ^h 39 ^m 48 ^s	
		W-A	iNE	4 39 53	
		W-A	eE F	4 48 21 4 56 +	
95	24	W-A	ePNE	6 ^h 29 ^m 19 ^s	Aftershock of No. 90?
		W-A	iNE	6 29 26	
		W-A	eNE	6 31 52	
		W-A	e(S)N F	6 33 24 7 02 +	

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No.	Date	Inst.	Phase	G. M. C. T.	Remarks
96	26	W-A	oPN	23 ^h 48 ^m 21 ^s	$\Delta S-P = 20^{\circ}4$
		W-A	iPE	23 48 21	
		W-A	iE	23 48 30	
		W-A	iPR ₁ E	23 48 46	
		W-A	oE	23 49 24	
		W-A	oSNE	23 52 11	
		W-A	oN	23 53 03	
		W-A	oN F	23 53 57 23 59 +	
97	30	W-A	iPE	11 ^h 45 ^m 27 ^s	$\Delta S-P = 17^{\circ}5$
		W-A	oPN	11 45 28	
		W-A	iNE	11 45 35	
		W-A	iPR ₁ NE	11 45 49	
		W-A	iNE	11 46 14	
		W-A	o(S)E	11 48 48	
		W-A	o(S)NE	11 49 06	
		W-A	oN	11 52 43	
		W-A	oLN	11 53 58	
		W-A	F	12 05 +	
98	31	W-A	iPNE	17 ^h 45 ^m 50 ^s	Time uncertain $\Delta S-P = 18^{\circ}0$ Epicenter: 16 ^o .2 N, 98 ^o .7 W. H = 17 ^h 41 ^m 21 ^s
		W-A	iNE	17 47 02	
		W-A	iNE	17 47 17	
		W-A	oSNE	17 48 15	
		W-A	iNE	17 49 54	
		W-A	oLN	17 52.4	
		W-A	F	18 00 +	

Minor Seismic Activity:

Dec. 8, 9h33m to 10h00m; Dec. 13, 23h7m to 23h16m; Dec. 26, 19h02m to 19h16m; Dec. 27, 16h20m to 16h35m.

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No.	Date	Inst.	Phase	G.A.C.T.	Remarks
96	26	W-A	cPN	23 ^h 48 ^m 21 ^s	$\Delta S-P = 20^{\circ}4$
		W-A	iPE	23 48 31	
		W-A	iE	23 48 30	
		W-A	iPR ₁ E	23 48 46	
		W-A	cE	23 49 24	
		W-A	cSNE	23 52 11	
		W-A	cN	23 53 03	
		W-A	cN F	23 53 57 23 59 ±	
97	30	W-A	iPE	11 ^h 45 ^m 27 ^s	$\Delta S-P = 17^{\circ}5$
		W-A	cPN	11 45 28	
		W-A	iNE	11 45 35	
		W-A	iPR ₁ NE	11 45 49	
		W-A	iNE	11 46 14	
		W-A	c(S) _E	11 48 48	
		W-A	c(S) _{NE}	11 49 06	
		W-A	cN	11 52 43	
		W-A	cLN F	11 53 58 12 00 ±	
		98	31	W-A	
W-A	iNE			17 47 02	
W-A	iNE			17 47 17	
W-A	cSNE			17 48 15	
W-A	iNE			17 49 54	
W-A	cLN F			17 52.4 18 00 ±	

Minor Seismic Activity:

Dec. 8, 9h33m to 10h00m; Dec. 13, 23h7m to 23h13m; Dec. 26, 19h02m to 19h16m; Dec. 27, 16h20m to 16h35m.

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