SAINT LOUIS

SEISMOGRAPHIC STATION, ST. LOUIS UNIVERSITY, ST. LOUIS, MO., U. S. A.

One Wiechert 80 Kg., two Wood-Anderson long-period seismographs, Wiechert clock

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
1	Jan 7	W-A	$e(P')_N$	13h38m50s	Δ_{PR_1-H} = 105°2
		W-A	ePR_{1NE}	13 39 09	H = 13h20m40s
		W-A	ePR_{2N}	13 41 19	Epicenter: 36°1 N,
		W-A	$iSKS_{NE}$	13 45 09	98°6 E.
		W-A	$iSKKS_{NE}$	13 45 37	Normal.
		W-A	iS_{NE}	13 46 27	
		W-A	eE	13 48 03	
		W-A	eSP_{NE}	13 48 07	
		W-A	$iPPS_N$	13 48 27	
		W-A	iSR_{1NE}	13 53 37	
		W-A	iSR_{2N}	13 57 45	
		W-A	iL_{NE}	14 10 40	
		W-A	iM_{NE}	14 18 56	
		W-A	F	16 00 ±	
2	Jan 8	W-A	$e(P)_N$	9h31m47s	Δ_{S-P} = 70°5
		W-A	eE	9 40 59	La Plata Reports:
		W-A	eS_{NE}	9 41 04	Felt in Temuco,
		W-A	F	9 42 ±	South Central Chile.
3	Jan 11	W-A	iP_{NE}	13h26m13s	Δ_{S-P} = 23°3
		W-A	ipP_{NE}	13 26 33	H = 13h21m16s
		W-A	iPR_{1N}	13 26 48	Epicenter: Vici-
		W-A	$ipPR_{1NE}$	13 27 06	nity of 15°6 N,
		W-A	iN	13 29 35	95°5 W.
		W-A	iP_cP_{NE}	13 29 45	Depth by the
		W-A	iS_{NE}	13 30 17	Brunner Depth Chart
		W-A	isS_N	13 30 55	120 km.
		W-A	iSR_{1NE}	13 31 12	
		W-A	$isSR_{1NE}$	13 31 35	
		W-A	F	(Lost in next earthquake)	
4	Jan 11	W-A	iP_N	13h49m19s	Aftershock of
		W-A	ipP_N	13 49 39	No. 3.
		W-A	i_N	13 50 33	
		W-A	eS_E	13 53 22	
		W-A	$e(S)_N$	13 53 35	
		W-A	e_E	13 53 58	
		W-A	F	14 00 ±	

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
5	Jan 19	W-A	eP_{NE}	22h24m51s	
		W-A	e_N	22 28 46	
		W-A	$e(S)_E$	22 29 46	
		W-A	eSR_1N	22 30 58	
		W-A	eSR_1E	22 31 00	
		W-A	F	23 00 ±	
6	Jan 23	W-A	ePR_{1E}	11h15m22s	In vicinity of Salomon Isle. ΔSP-SKS = 107°0 Strasbourg gives 1°0 S, 157°0 E.
		W-A	eNE	11 15 51	
		W-A	e_E	11 16 47	
		W-A	ePR_{2NE}	11 17 13	
		W-A	eNE	11 20 03	
		W-A	$eSKS_{NE}$	11 21 03	
		W-A	$eSPNE$	11 24 03	
		W-A	$ePPS_{NE}$	11 25 08	
		W-A	$e(SR_1)N$	11 30 03	
		W-A	e_N	11 31 00	
		W-A	e_E	11 35 13	
		W-A	eL_E	11 46 33	
		W-A	eM_E	11 51 58	
		W-A	F	12 30 ±	
7	Jan 25	W-A	e_E	6h51m46s	ΔS-H = 109°5 H = 6h34m00s Epicenter: 10°6, S, 163°3 E. Depth: Normal.
		W-A	e_E	6 52 39	
		W-A	e_E	6 52 45	
		W-A	ePR_{1E}	6 52 59	
		W-A	e_E	6 54 30	
		W-A	$eSKS_E$	6 59 07	
		W-A	e_E	6 59 11	
		W-A	e_E	6 59 17	
		W-A	$eSKKS_E$	7 00 11	
		W-A	iS_E	7 00 43	
		W-A	i_E	7 00 50	
		W-A	eSP_E	7 02 19	
		W-A	$ePPS_E$	7 03 19	
		W-A	eSR_{1E}	7 08 33	
		W-A	eL_E	7 25 17	
		W-A	eM_E	7 31 57	
		W-A	F	9 00 ±	

Minor Seismic Activity: Jan. 14, 9h48m to 9h50m; Jan. 15, 5h11m to 5h16m; Jan. 17, 1h00m to 1h04m; Jan 20, 19h51m to 19h55m; Jan 21, 19h58m to 20h03m.

J. B. Macelwane S.J.
Director

R. R. Heinrich
Graduate Fellow

SAINT LOUIS

SEISMOGRAPHIC STATION, ST. LOUIS UNIVERSITY, ST. LOUIS, MO., U. S. A.

One Wiechert 80 Kg., two Wood-Anderson long-period seismographs, Wiechert clock

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
8.	Feb 1	W-A	eM_E	21h26m21s	
		W-A	F	21 34 ±	
9.	Feb 4	W-A	eP_E	10h38m56s	Δ_{S-P} = 27°.7
		W-A	eP_N	10 38 58	H = 10h33m04s
		W-A	ePR_{2E}	10 39 56	Probable region
		W-A	eS_{NE}	10 43 45	49°.5 N, 126°.4 W.
		W-A	eL_{NE}	10 48 48	
		W-A	eM_{NE}	10 49 18	
		W-A	F	11 05 ±	
10.	Feb 15	W-A	$e(P)_N$	2h23m13s	
		W-A	$e(S)_{NE}$	2 27 57	
		W-A	e_{NE}	2 28 06	
		W-A	i_{NE}	2 31 05	
		W-A	i_{NE}	2 31 34	
		W-A	F	2 45 ±	
11.	Feb 21	W-A	$e(P)_{NE}$	7h15m00s	Δ_{meas} = 81°.0
		W-A	ipP_{NE}	7 15 04	Epicenter: 45.2 N
		W-A	ipP_cP_{NE}	7 15 12	148°.6 E.
		W-A	i_{NE}	7 15 22	H = 7h03m45s
		W-A	ePR_{1N}	7 17 57	Depth by the
		W-A	$ipPR_{1NE}$	7 18 11	Brunner Depth
		W-A	$e(PR_2)_N$	7 20 02	Chart 50 to 60 km
		W-A	e_E	7 20 15	
		W-A	eS_N	7 25 01	
		W-A	iS_{NE}	7 25 03	
		W-A	isS_{NE}	7 25 24	
		W-A	iX_{NE}	7 35 00	
		W-A	eL_E	7 40 37	
		W-A	eM_E	7 48 27	
		W-A	F	(Lost in next earthquake)	
12.	Feb 21	W-A	$e(P)_{NE}$	7h39m03s	Aftershock of
		W-A	$e(S)_E$	7 49 35	No. 11.
		W-A	F	10 00 ±	

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
13	Feb 21	W-A	$e(P)_E$	11h04m32s	Aftershock of
		W-A	iS_E	11 14 33	No. 11.
		W-A	F	12 00 ±	
14	Feb 22	W-A	e_{NE}	1h31m15s	
		W-A	i_{NE}	1 31 19	
		W-A	eL_{NE}	1 33 21	
		W-A	F	1 40 ±	
15	Feb 23	W-A	$e(P)_E$	1h00m43s	Aftershock of
		W-A	eS_E	1 10 34	No. 11.
		W-A	iS_E	1 10 37	
		W-A	eL_E	1 25 59	
		W-A	F	2 00 ±	
16	Feb 24	W-A	e_{NE}	19h04m13s	
		W-A	i_{NE}	19 04 15	
		W-A	e_E	19 05 25	
		W-A	e_E	19 05 57	
		W-A	F	19 07 ±	
17	Feb 25	W-A	e_E	6h08m34s	
		W-A	e_{NE}	6 09 26	
		W-A	e_{NE}	6 10 00	
		W-A	e_{NE}	6 13 48	
		W-A	F	6 17 ±	

Minor Seismic Activity: Feb. 10, 9h29m to 9h32m; Feb. 12, 12h27m to 12h34m; Feb. 26, 5h00m to 16h00m. Microseismic activity throughout Feb. 26 and Feb. 27.

J. B. Macelwane, S.J.
Director

R. R. Heinrich
Graduate Fellow

SAINT LOUIS

SEISMOGRAPHIC STATION, ST. LOUIS UNIVERSITY, ST. LOUIS, MO., U. S. A.

One Wiechert 80 Kg., two Wood-Anderson long-period seismographs, Wiechert clock

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
18	Mar. 2	W-A	iPn	14h48m49s	$\Delta S_n-P_n = 4°.9$
		W-A	iP*	14 48 59	Epicenter near 84°.2 W,
		W-A	iP_g	14 49 16	40°.4 N. H=14h47m33s
		W-A	iS_n	14 49 48	Considerable damage in
		W-A	iS*	14 50 05	Anna, Ohio, region.
					Intensity at Anna about
					VII on the Wood Neuman
					Scale.
19	Mar. 3	W-A	eP_E	9h28m28s	No surface
		W-A	$e(S)_{NE}$	9 34 56	S indistinct
		W-A	e_{NE}	9 36 08	
		W-A	e_{NE}	9 36 50	
		W-A	F	9 45 ±	
20	Mar. 5	W-A	e_{NE}	23h28m43s	
		W-A	e_{NE}	23 34 43	
		W-A	F	23 42 ±	
21	Mar. 9	W-A	eP_n	5h45m48s	$\Delta S_n-P_n = 4°.8$
		W-A	iP_n	5 45 49	Epicenter 84°.2 W,
		W-A	iP*	5 45 59	40°.4 N.H = 05h44m33s
		W-A	iS_n	5 46 46	Similar to No. 18.Felt
		W-A	iS*	5 47 02	over a larger area with
					a greater intensity.
22	Mar. 9	W-A	iP_N	15h46m32s	$\Delta S-P = 28°.5$
		W-A	ipP_{NE}	15 46 41	Epicenter 10°.6 N,83°.4 W.
		W-A	ePR_{1N}	15 47 24	H = 15h40m38s
		W-A	$ipPR_{1NE}$	15 47 35	Depth of focus 50+ Km.
		W-A	iPR_{2N}	15 47 42	by Brunner Depth Chart.
		W-A	iS_{NE}	15 51 19	
		W-A	isS_{NE}	15 51 36	
		W-A	iSR_{1NE}	15 53 02	
		W-A	$isSR_{1NE}$	15 53 22	
		W-A	eL_{NE}	15 55 32	
		W-A	eM_{NE}	15 59 16	
		W-A	F	17 00 ±	
23	Mar.10	W-A	eL_N	5h18m57s	
		W-A	F	5 37 ±	

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
24	Mar.14	W-A	$ePNE$	12h06m31s	$\Delta S-P = 65°1$
		W-A	$iPNE$	12 06 32	H = 11h56m01s
		W-A	iNE	12 06 35	Depth about 80 Kms.
		W-A	$ipPN$	12 06 47	by the Brunner Depth
		W-A	iN	12 06 59	Chart. Minor damage at
		W-A	$iSNE$	12 15 12	Taltal, Chile.
		W-A	$esSNE$	12 15 37	
		W-A	$esSPN$	12 16 22	
		W-A	eN	12 16 57	
		W-A	eSR_1N	12 19 33	
		W-A	F	12 45 ±	
25	Mar.17	W-A	$e(P^*)N$	14h06m35s	
		W-A	$e(S)NE$	14 11 36	
		W-A	eNE	14 12 50	
		W-A	eNE	14 13 12	
		W-A	$eLNE$	14 13 32	
		W-A	F	14 45 ±	
26	Mar.19	W-A	iPN	18h23m05s	$\Delta S-P = 70°3$
		W-A	ePE	18 23 05	Depth by Brunner Chart
		W-A	$ipPNE$	18 23 18	about 80 Kms. Region
		W-A	iNE	18 23 32	Pacific Coast of Chile.
		W-A	eSN	18 32 14	
		W-A	eSE	18 32 17	
		W-A	$esSN$	18 32 38	
		W-A	F	18 35 ±	
27	Mar.21	W-A	$e(S)NE$	19h52m46s	
		W-A	eE	19 53 18	
		W-A	F	19 56 ±	
28	Mar.23	W-A	iPN	0h56m04s	
		W-A	iN	0 56 36	
		W-A	iN	0 57 00	
		W-A	$e(S)E$	1 05 49	
		W-A	F	1 9 ±	
29	Mar.24	W-A	eE	1h32m40s	Indistinct
		W-A	eLE	1 45 00	
		W-A	F	2 30 ±	
30	Mar.25	W-A	ePE	16h53m59s	$\Delta P-H = 22°0$
		W-A	$iPNE$	16 54 01	Epicenter 33°4 N,
		W-A	iPR_1NE	16 54 22	116°7 W. H=16h49m04s
		W-A	eE	16 56 11	Felt in Southern Cali-
		W-A	$eSNE$	16 58 08	fornia. Pasadena asso-
		W-A	$e(SR_1)E$	16 58 34	ciates epicenter with
		W-A	$eLNE$	16 59 56	San Jacinto fault.
		W-A	eE	17 00 26	
		W-A	$eMNE$	17 01 53	
		W-A	F	17 25 ±	

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
31	Mar.26	W-A	e_E	21h15m03s	
		W-A	eM_{NE}	21 23 53	
		W-A	F	21 40 ±	
32	Mar.29	W-A	eP_{NE}	7h59m28s	
		W-A	ipP_{NE}	7 59 59	
		W-A	eS_N	8 07 12	
		W-A	iS_{NE}	8 07 16	
		W-A	isS_{NE}	8 08 03	
		W-A	e_E	8 09 05	
		W-A	e_N	8 09 46	
		W-A	F	8 11 ±	

Minor Seismic Activity: Mar.5, 22h9m to 22h14m; Mar.10, 18h00m to 20h00m; Mar.21, 3h56m to 4h03m; Mar.26 15h56m to 16h02m.

J.B.Macelwane, S.J.
Director

R. R. Heinrich
Graduate Fellow

SAINT LOUIS

SEISMOGRAPHIC STATION, ST. LOUIS UNIVERSITY, ST. LOUIS, MO., U. S. A.

One Wiechert 80 Kg., two Wood-Anderson long-period seismographs, Wiechert clock

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
33	Apr. 5	W-A	e_E	6h55m56s	
		W-A	e_E	6 57 22	
		W-A	e_E	6 59 32	
		W-A	F	lost in next earthquake	
34	Apr. 5	W-A	e_E	7h17m47s	Epicenter by Florissant near 19.9 S, 133.7 E. H = 06h56m27s Δ = 126.2 (longer if deep focus).
		W-A	$e(SKP)_E$	7 18 47	
		W-A	i_E	7 26 21	
		W-A	e_E	7 26 23	
		W-A	F	8 30 ±	
35	Apr.13	W-A	eP_N	5h14m50s	
		W-A	iP_N	5 14 51	
		W-A	e_N	5 15 09	
		W-A	e_N	5 16 04	
		W-A	eL_N	5 24 59	
		W-A	F	5 35 ±	
36	Apr.16	W-A	e_E	3h14m47s	Reverend A. J. Westland of St. Louis University is studying this earthquake in detail.
		W-A	i_E	3 14 53	
		W-A	i_E	3 14 56	
		W-A	i_E	3 16 18	
		W-A	i_E	3 19 05	
		W-A	e_E	3 21 05	
		W-A	i_E	3 25 00	
		W-A	i_E	3 25 38	
		W-A	i_E	3 26 10	
		W-A	i_E	3 27 38	
		W-A	i_E	3 28 38	
		W-A	i_E	3 29 08	
		W-A	i_E	3 29 50	
		W-A	i_E	3 33 17	
		W-A	i_E	3 37 50	
		W-A	F	6 00 ±	
37	Apr.19	W-A	i_E	1h07m50s	Possibly near earthquake.
		W-A	i_E	1 07 53	
		W-A	i_E	1 07 58	
		W-A	F	1 09 ±	

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
38	Apr. 22	W-A	e_E	22h50m21s	Similar to No. 37.
		W-A	i_E	22 50 23	
		W-A	i_F	22 50 58	
		W-A	F	22 52 ±	
39	Apr. 25	W-A	e_E	10h36m50s	
		W-A	e_E	10 36 56	
		W-A	e_E	10 43 09	
		W-A	e_E	10 43 15	
		W-A	i_E	10 45 33	
		W-A	F	11 00 ±	
40	Apr. 29	W-A	eP_E	18h19m20s	ΔS-P = 40°2
		W-A	ePR_{1NE}	18 20 56	Epicenter region of
		W-A	iS_{NE}	18 25 36	34°0 W, 53°4 N.
		W-A	iSR_{1E}	18 26 43	H = 18h11m42s
		W-A	eL_E	18 32 25	Normal.
		W-A	eM_E	18 34 49	
		W-A	F	Lost in changing records.	
41	Apr. 29	W-A	iP_{NE}	20h30m53s	
		W-A	ipP_E	20 31 03	
		W-A	e_E	20 37 52	
		W-A	F	lost in following earthquake.	
42	Apr. 29	W-A	iP_{NE}	20h50m40s	
		W-A	ipP_{NE}	20 50 50	
		W-A	F	20 52 ±	

Minor Seismic Activity: April 3, 4h25m to 5h30m; April 6, 7h55m to 8h00m.

J. B. Macelwane, S. J.
Director

R. R. Heinrich
Graduate Fellow

SAINT LOUIS

SEISMOGRAPHIC STATION, ST. LOUIS UNIVERSITY, ST. LOUIS, MO., U. S. A.

One Wiechert 80 Kg., two Wood-Anderson long-period seismographs, Wiechert clock

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
43	May 1	W-A	$e(P)_E$	15h29m37s	Weak
		W-A	e_E	15 37 09	
		W-A	e_E	15 38 19	
		W-A	eM_E	15 39.6	
		W-A	F	15 53 ±	
44	May 2	W-A	eM_N	00h05.6m	Trace
				00 13 ±	
45	May 4	W-A	eP_{NE}	05h16m55s	$\Delta_{S-P} = 43^{\circ}5$
		W-A	e_N	05 18 42	$\Delta_{meas} = 43^{\circ}9$
		W-A	e_E	05 18 43	H = 05h08m53s
		W-A	eS_{NE}	05 23 30	
		W-A	e_N	05 26 44	$\phi = 59^{\circ}4$ N.
		W-A	e_E	05 26 58	$\lambda = 152^{\circ}9$ W.
		W-A	eL_N	05 30.3	
		W-A	eL_E	05 31.0	
		W-A	eM_{NE}	05 32.7	
		W-A	F	06 14 ±	
46	May 7	W-A	eP_E	14h19m43s	$\Delta_{S-P} = 48^{\circ}5$
		W-A	e_E	14 19 44	$\Delta_{meas} = 48^{\circ}4$
		W-A	iS_E	14 26 45	H = 14h11mi5s
		W-A	esS_E	14 27 05	h = 80 -90 km by Brunner Depth Chart
		W-A	F	14 50 ±	$\phi = 57^{\circ}7$ N.
					$\lambda = 160^{\circ}9$ W.
					Epicenter on the basis of data of Weston, Victoria, Manila, Chiufeng, Ksara.
47	May 8	W-A	e_E	20h04m50s	Weak
		W-A	e_E	20 09 34	
		W-A	e_F	20 14 47	
		W-A		(Lost in microseisms)	

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
48	May 9	W-A	$e(P_cP)_E$	14h59m07s	Beginning poor
		W-A	e_N	14 59 09	
		W-A	e_E	15 09 01	$\Delta_{meas} = 80°.7$
		W-A	$e(S)_{NE}$	15 09 05	
		W-A	e_E	15 09 12	According to
		W-A	$e(L)_N$	15 24.5	Florissant
		W-A	$e(L)_E$	15 24.6	$\phi = 45°.7$ N.
		W-A	eM_E	15 33.9	$\lambda = 149°.0$ E.
		W-A	F	16 09 ±	
49	May 10	W-A	e_E	15h48m26s	Weak
		W-A	i_E	15 49 22	
		W-A	e_E	15 51 54	
		W-A	e_E	15 54 09	
		W-A	F	(Lost in changing records)	
50	May 12	W-A	$e(P)_E$	00h15m30s	Weak
		W-A	e_E	00 23 18	
		W-A	$e(S)_E$	00 23 59	
		W-A	F	00 31 ±	
51	May 12	W-A	ePE	03h04m56s	Possibly somewhat deep
		W-A	e_E	03 04 57	
		W-A	e_E	03 14 48	
		W-A	F	(Lost in microseisms)	
					According to Chiu-feng $\phi = 3°.0$ S. $\lambda = 142°.5$ E.
52	May 12	W-A	iPE	22h57m19.5s	Near earthquake or blast
		W-A	i_E	22 57 20.5	
		W-A	i_E	22 57 24.5	
		W-A	$e(S)_E$	22 57 26.5	
		W-A	F	22 59 ±	
53	May 13	W-A	ePE	09h23m42s	
		W-A	e_E	09 24 12	
		W-A	e_E	09 24 20	
		W-A	$e(S)_E$	09 28 09	
		W-A	e_E	09 28 11	
		W-A	e_E	09 30 02	
		W-A	eL_E	09 31.5	
		W-A	F	10 00 ±	

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
54	May 13	W-A	iP_N	21h03m39s	No surface waves
		W-A	i_N	21 03 43	
		W-A	iS_N	21 07 58	Only a trace on E.W.
		W-A	e_E	21 08 46	
		W-A	F	(Lost in microseisms)	
55	May 16	W-A	e_N	12h05m42s	Weak
		W-A	$e(M)_{NE}$	12 32.6	Time doubtful
		W-A	F	13 03 ±	
56	May 17	W-A	ePn_N	00h50m30.9s	ΔSn-Pn = 2°.73 =298 km. = 186 mi.
		W-A	i_N	00 50 31.9	
		W-A	e_E	00 50 34.9	Δ_{meas} = 186 mi
		W-A	i_{NE}	00 51 01.9	H = 00h49m46.4s
		W-A	i_E	00 51 02.9	ϕ = 35°.9 N.
		W-A	iS_{NE}	00 51 04.9	λ = 90°.4 W.
		W-A	i_E	00 51 06.4	Northeastern Arkansas
		W-A	F	01 01 ±	
57	May 19	W-A	iP_N	20h22m46s	Near earthquake or blast
		W-A	e_E	20 22 49	
		W-A	e_{NE}	20 22 50	
		W-A	i_N	20 22 51	
		W-A	F	20 24 ±	
58	May 21	W-A	eP_E	13h19m33s	ΔP-H = 37°.6
		W-A	iP_N	13 19 35	Δ_{meas} = 37°.7
		W-A	i_N	13 19 36	near normal depth
		W-A	i_N	13 19 51	
		W-A	$e(PR_2)_E$	13 21 08	
		W-A	$e(S_cP)_E$	13 25 18	ϕ = 2°.3 N.
		W-A	$e(S_cP)_N$	13 25 19	λ = 78°.5 W.
		W-A	e_E	13 25 54	H = 13h12m17s
		W-A	e_N	13 25 55	Epicenter based on data of San Juan, Philadelphia, Little Rock, Florissant, Huancayo, and Weston.
		W-A	eSR_{2E}	13 28 21	
		W-A	e_N	13 28 46	
		W-A	e_{NE}	13 29 42	
		W-A	F	13 38 ±	

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
59	May 23	W-A	eP_N	18h43m38s	ΔS-P = 23°0
		W-A	iP_{NE}	18 43 39	Probably a fore-
		W-A	epP_{NE}	18 43 54	shock of No. 61.
		W-A	iPR_{1N}	18 44 05	h = 100 km. by
		W-A	isP_N	18 44 13	Brunner Depth
		W-A	eS_{NE}	18 47 48	Chart
		W-A	e_E	18 47 50	
		W-A	esS_N	18 48 17	
		W-A	eSR_{1NE}	18 48 33	
		W-A	F	19 02 ±	
60	May 24	W-A	iP_N	00h47m33s	Foreshock of No.
		W-A	e_E	00 47 38	61.
		W-A	i_N	00 47 49	Deep focus
		W-A	$e(S)_N$	00 52 12	
		W-A	e_N	00 53 20	
		W-A	F	01 22 ±	
61.	May 28	W-A	eP_N	15h40m36s	ΔS-P = 23°0
		W-A	i_{NE}	15 40 37	h = 120 km. by
		W-A	ipP_N	15 40 55	Brunner Depth
		W-A	iPR_{1NE}	15 41 10	Chart
		W-A	esP_{NE}	15 41 16	
		W-A	i_E	15 41 39	H = 15h35m43s
		W-A	e_N	15 44 14	Region Acapulco
		W-A	i_N	15 44 20	Deep
		W-A	iS_{NE}	15 44 26	
		W-A	i_N	15 44 32	
		W-A	eSR_{1N}	15 45 05	
		W-A	i_N	15 45 34	
		W-A	F	16 09 ±	
	Clock not in operation May 29 - 30.				

Minor Seismic Activity

May 13	19h09m	to	19h13m
May 15	21 08	to	21 10
May 23	08 23	to	08 25
May 25	01 19	to	06 54

J. B. Macelwane, S.J.,
Director

F. Robertson
Graduate Fellow

SAINT LOUIS

SEISMOGRAPHIC STATION, ST. LOUIS UNIVERSITY, ST. LOUIS, MO., U. S. A.

One Wiechert 80 Kg., two Wood-Anderson long-period seismographs, Wiechert clock

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
62	June 2	W-A	eP_N	$21^h09^m25^s$	Weak
		W-A	eP_E	21 09 25	
		W-A	e_N	21 09 45	
		W-A	e_N	21 10 25	
		W-A	e_N	21 14 20	
		W-A	e_N	21 15 03	
		W-A	eM_{NE}	21 17 17	
		W-A	F	21 40 ±	
63	June 3	W-A	iP_N	$10^h58^m35^s$	
		W-A	iPR_{1N}	10 59 57	
		W-A	iPR_{2N}	11 00 08	
		W-A	iSR_{1N}	11 04 16	
		W-A	F	11 07 ±	
64	June 5	W-A	e_N	$14^h54^m13^s$	Time uncertain
		W-A	e_N	15 00 35	
		W-A	eL_N	15 01 59	
		W-A	F	15 08 ±	
65	June 7	W-A	iP_N	$23^h47^m50^s$	
		W-A	iE	23 47 52	
		W-A	i_N	23 47 54	
66	June 8	W-A	iS_{NE}	$0^h24^m40^s$	Near earthquake New Madrid Region
67	June 8	W-A	iP_{NE}	$22^h34^m28^s$	$\Delta S-P = 22.4$
		W-A	ipP_N	22 35 04	Epicenter: 92°7 W, 16°3N.
		W-A	$i(pPR_1)_{NE}$	22 35 22	$H = 22^h29^m45^s$
		W-A	i_N	22 36 16	Depth 200 km. by the
		W-A	eP_cP_N	22 38 16	Brunner Depth Chart.
		W-A	iS_{NE}	22 38 25	This epicenter and ori-
		W-A	esS_{NE}	22 39 29	gin time replaces epicen-
		W-A	iSR_{1N}	22 39 33	ter: 92°6 W, 14°7 N.
		W-A	F	23 15 ±	$H = 22^h39^m35^s$ of Prelimi-
					nary Bulletin No. 12.
68	June 13	W-A	eP_E	$23^h29^m05^s$	$\Delta S-P = 23°7$
		W-A	eP_E	23 29 06	$H = 23^h23^m53^s$
		W-A	$e(pP)_E$	23 29 11	Epicenter Region of
		W-A	eS_E	23 33 22	15°0 N, 98°0 W. Depth
		W-A	eSR_{1E}	23 34 20	nearly normal
		W-A	eM_E	23 40 21	
		W-A	F	23 55 ±	

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
69	June 18	W-A	eP_E	9h12m29s	
		W-A	$e(S)_E$	9 16 47	
		W-A	e_E	9 19 33	
		W-A	e_E	9 21 43	
		W-A	F	9 28 ±	
70	June 21	W	iP_N	15h21m38s	$\Delta P-H = 46.6$
		W	i_N	15 21 51	Epicenter: 6°8 S,
		W	$iP_c P_N$	15 22 23	79°9 W.
		W	ePR_{1N}	15 23 32	H = 15h13m17s
		W	e_N	15 26 28	Depth by Brunner
		W	iS_N	15 28 31	Depth Chart about
		W	eSR_{1N}	15 31 43	50 Km. Reported
		W.	$isSR_{1N}$	15 32 20	felt along the
		W	eM_N	15 40 06	western coast of
		W.	F	16 00 ±	Peru.
71	June 23	W-A	e_E	15h44m15s	Reported felt in
		W-A	i_E	15 44 17	Tiptonville,
		W-A	F	15 44 34	Tennessee
72	June 24	W-A	e_E	3h36m33s	
		W-A	e_E	3 39 43	
			F	4 00 ±	
73	June 24	W-A	ePR_{1E}	13 18 51	$\Delta PR_1-H = 31°2$
		W-A	e_E	13 23 29	Epicenter: 8°1 N,
		W-A	i_E	13 25 53	84°2 W.
		W-A	eL_E	13 26 58	H = 13h11m36s
		W-A	e_E	13 28 03	Normal
			F	Lost in following earthquake	
74	June 24	W-A	eP_E	13h19m47s	Epicenter same
		W-A	eS_E	13 24 55	as No. 73
			F	14 00 ±	H = 13h13m29s
75	June 24	W-A	iP_E	20 05 01	$\Delta S-P = 42°4$
		W-A	ePR_{1E}	20 09 41	Epicenter Region
		W-A	$iP_c P_E$	20 09 51	of 36°0 N, 36°0 W.
		W-A	$eSNE$	20 14 30	H = 20h00m06s
		W-A	eSR_{1E}	20 17 39	
		W-A	eL_E	20 20 44	
		W-A	e_E	20 20 54	
		W-A	F	20 45 ±	
76	June 29	W-A	e_E	10h08m25s	Weak
		W-A	i_E	10 09 23	
		W-A	i_E	10 09 32	
			F	10 10 ±	

Minor Seismic Activity: June 17, 20h43m to 20h45m.

J. B. Macelwane, S.J.
Director

R. R. Heinrich
Graduate Fellow

SAINT LOUIS

SEISMOGRAPHIC STATION, ST. LOUIS UNIVERSITY, ST. LOUIS, MO., U.S.A.

Bulletin for July, 1937

One Wiechert 80 Kg., two Wood-Anderson long-period seismographs, Wiechert clock

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
77	July 2	W-A	e_E	$0^h15^m49^s$	Local Disturbance
78	July 2	W-A	e_E	$2^h53^m47^s$	$\Delta_{PS-H}=107°.8$, $H = 2^h37^m16^s$ Region of the New Hebrides. Epicenter by Christ Church, Riverview Honolulu and Victoria 14°.5 S, 168°.1 E. Depth nearly normal.
		W-A	ePS_E	3 05 18	
		W-A	$e(PPS)_E$	3 05 50	
		W-A	i_E	3 10 17	
		W-A	eL_E	3 10.7	
		W-A	F	4 30 ±	
79	July 4	W-A	$ePR1_E$	$6^h14^m25^s$	$\Delta_{PS-H} = 110.1$ Epicenter: Region of 11°.0 S, 163°.0 E. $H = 5^h55^m20^s$
		W-A	e_E	6 14 33	
		W-A	$e(SKKS)_E$	6 21 15	
		W-A	ePS_E	6 23 45	
		W-A	$eSR1_E$	6 29 45	
		W-A	$eSR2_E$	6 34 13	
		W-A	e_E	6 44 57	
		W-A	eL_E	6 46 17	
		W-A	eM_E	6 54 37	
		W-A	F	Lost in next earthquake	
80	July 4	W-A	e_E	$7^h04^m51^s$	Aftershock of No. 79
		W-A	F	9 00 ±	
81	July 5	W-A	e_E	$1^h54^m11^s$	
		W-A	e_E	1 56 57	
		W-A	i_E	2 01 42	
		W-A	i_E	2 03 08	
		W-A	F	2 15 ±	
82	July 8	W-A	iP_N	$12^h58^m11^s$	$\Delta_{S-P} = 35°.8$ $h = 50$ Km ±
		W-A	ipP_N	12 58 18	
		W-A	i_N	12 58 37	
		W-A	e_N	12 00 02	
		W-A	eS_E	13 03 51	
		W-A	F	13 15 ±	
83	July 11	W-A	eP_N	$17^h24^m42^s$	$\Delta_{P-H} = 23.6$ Epicenter: 20°.7 N, 108°.3 W. $H = 17^h19^m31^s$ Depth nearly normal.
		W-A	iP_{NE}	17 24 43	
		W-A	i	17 24 59	
		W-A	$iPR1_N$	17 25 11	
		W-A	$iPR2_{NE}$	17 25 24	
		W-A	eS_{NE}	17 28 58	
		W-A	$eSR1_E$	17 30 09	
		W-A	eL_{NE}	17 31 50	
		W-A	eM_{NE}	17 34 30	
		W-A	F	18 00 ±	

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
84	July 14	W-A	iP_N	$4^h 21^m 08^s$	$\Delta S-P = 23.5$
		W-A	ipP_{NE}	4 21 11	
		W-A	iPR_{1N}	4 21 31	Very similar to No. 83.
		W-A	eS_E	4 25 23	
		W-A	F	4 45 ±	
85	July 18	W-A	iP_N	$1^h 10^m 22^s$	$\Delta S-P = 53.9$
		W-A	ipP_N	1 10 37	
		W-A	iS_N	1 17 48	h = 75 ± Km.
		W-A	isS_N	1 18 06	
86	July 19	W-A	ePN	$19^h 43^m 00^s$	$\Delta S-P = 40°0$
		W-A	iP_{NE}	19 43 03	
		W-A	ipP_{NE}	19 43 41	Epicenter: 0°8 N,
		W-A	isP_E	19 44 08	76°5 W.
		W-A	iPR_{1NE}	19 44 31	$H = 19^h 35^m 47^s$
		W-A	iN	19 44 50	Depth by the Brunner
		W-A	iPR_{2N}	19 45 21	Depth Chart about
		W-A	$ipPR_{2N}$	19 45 46	200 Km. This inter-
		W-A	eS_{NE}	19 48 58	pretation replaces
		W-A	esS_E	19 50 16	Preliminary Bulletin
		W-A	$isSR_{1NE}$	19 52 44	# 16 of the J.S.A.
		W-A	F	20 30 ±	for 1937.
87	July 22	W-A	eP	$17h17m18s$	Felt in Central Alaska
		W-A	iP	17 17 21	
		W-A	iPR_1	17 18 40	A special study of this
		W-A	i	17 18 59	earthquake is being
		W-A	iPR_2	17 19 10	made at the University
		W-A	iPcP	17 19 19	of California,
		W-A	i	17 23 29	Berkeley, California.
		W-A	iS	17 23 37	
		W-A	iSR_1	17 26 13	
		W-A	F	19 30 ±	
88	July 23	W-A	$e(P)_N$	$1^h 00^m 24^s$	
		W-A	e_{NE}	1 12 29	
		W-A	i_{NE}	1 14 57	
		W-A	F	1 45 ±	
89	July 23	W-A	e_N	$23^h 14^m 08^s$	
		W-A	i_{NE}	23 16 27	
		W-A	F	23 30 ±	
90	July 24	W-A	iP_N	$9^h 09^m 33^s$	
		W-A	$e(S)_{NE}$	9 15 47	
		W-A	i_{NE}	9 23 32	
		W-A	i_E	9 24 06	
		W-A	F	10 00 ±	

No.	Date	Inst.	Phase	G.I.C.T.	Remarks
91	July 24	W-A	eP_{NE}	$16^h15^m13^s$	
		W-A	i_{NE}	16 15 19	
		W-A	$e(S)_E$	16 19 18	
		W-A	eL_E	16 21 32	
		W-A	F	16 30 ±	
92	July 25	W-A	e_E	$11^h20^m39^s$	
		W-A	e_E	11 21 48	
		W-A	i_E	11 22 23	
		W-A	i_E	11 24 11	
		W-A	F	11 30 ±	
93	July 25	W-A	eP_E	13h20m54s	ΔS-P = 49.8
		W-A	epP_E	13 20 58	
		W-A	iS_E	13 28 09	Slightly deep.
		W-A	isS_E	13 28 17	
		W-A	$e(SR_1)_E$	13 31 13	
		W-A	eL_E	13 35 21	
		W-A	eM_E	13 38 29	
		W-A	F	14 00 ±	
94	July 26	W	iP	$3^h51^m47^s$	ΔP-H = 20.7
		W	ipP	3 51 58	Epicenter:
		W	$ipPR_2$	3 52 28	18°6 N, 95°8 W.
		W	iS	3 55 27	H = $3^h47^m11^s$
					Depth by the Brunner Depth Chart 75 kms.
					Felt along the Gulf Coast of Mexico.
95	July 26	W-A	eP_N	20h09m28s	ΔP-H = 91.0
		W-A	i_N	20 09 31	
		W-A	i_N	20 09 42	H = $19^h56^m34^s$
		W-A	i_N	20 09 58	
		W-A	ePR_{1E}	20 13 07	Epicenter by Strasbourg.
		W-A	i_E	20 13 22	
		W-A	$iSKS_{NE}$	20 19 58	Region of 37°0 N, 141°0E
		W-A	iS_{NE}	20 20 19	
		W-A	F	20 30 ±	h = 100 Km.
96	July 31	W-A	i_E	$20^h59^m22^s$	
		W-A	i_E	21 04 59	
		W-A	eL_E	21 27 02	
		W-A	F	22 00 ±	

Minor Seismic Activity

July 14, 23^h03^m to 23^h40^m; July 30, 18^h08^m to 18^h23^m

J. B. Macelwane, S.J.
Director

R. R. Heinrich
Graduate Fellow

SAINT LOUIS

SEISMOGRAPHIC STATION, ST. LOUIS UNIVERSITY, ST. LOUIS, MO., U. S. A.

One Wiechert 80 Kg., two Wood-Anderson long-period seismographs, Wiechert clock

Bulletin for August, 1937

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
97	Aug. 1	W-A	e_E	$10^h18^m29^s$	
		W-A	i_E	10 18 44	
		W-A	i_E	10 19 15	
		W-A	i_E	10 19 25	
		W-A	e_E	10 21 04	
		W-A	F	10 24 ±	
98	Aug. 1	W-A	e_E	$11^h05^m40^s$	Felt in the Province of Kiang-si, China
		W-A	i_E	11 05 41	
		W-A	$eSKS_E$	11 06 07	
		W-A	eL_E	11 33.0	
		W-A	F	12 00 ±	
99	Aug. 2	W-A	iP_E	$3^h34^m35^s$	
		W-A	epP_E	3 34 40	
		W-A	iS_E	3 40 40	
		W-A	e_E	3 43 20	
		W-A	F	3 45 ±	
100	Aug. 3	W-A	eP_E	$21^h59^m56^s$	
		W-A	i_E	22 00 04	
		W-A	i_E	22 01 00	
		W-A	i_E	22 01 08	
		W-A	iS_E	22 04 06	
		W-A	i_E	22 04 31	
		W-A	F	22 11 ±	
101	Aug. 5	W-A	eP^*_E	$21^h31^m48^s$	ΔS^*-P^* = 11.3 miles Reported felt in south Saint Louis.
		W-A	iS^*_E	21 31 50.5	
		W-A	i_E	21 32 02	
		W-A	F	21 32 33	
102	Aug. 5	W-A	iP^*_E	$23^h12^m46.5^s$	ΔS^*-P^* = 28 miles Felt in Illinois near Granite City.
		W-A	iS^*_E	23 12 52	
		W-A	F	23 14 ±	
103	Aug 6	W-A	e_E	$22^h03^m35^s$	Possibly blast.
		W-A	e_E	22 03 37	
		W-A	F	22 03 50	

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
104	Aug. 11	W-A	eP'_E	$1^h14^m12^s$	Δ = 140°0 ca
		W-A	i_E	1 14 15	
		W-A	i_E	1 14 24	
		W-A	i_E	1 14 31	
		W-A	$iSKS_E$	1 20 17	
		W-A	i_E	1 23 15	
		W-A	i_E	1 31 47	
105	Aug. 18	W-A	eP^*_E	$21^h22^m44^s$	Possibly blast.
		W-A	i_E	21 22 46	
		W-A	iS^*_E	21 22 48	
		W-A	F	21 23 56	
106	Aug. 20	W-A	ePR_{1E}	$12^h19^m38^s$	Epicenter by Manila
		W-A	e_E	12 20 36	14.2 N, 122.1 E.
		W-A	ePR_{2E}	12 22 16	$H = 11^h59^m32^s$
		W-A	$e(SKS)_E$	12 24 53	
		W-A	$e(SKKS)_E$	12 26 35	$\Delta_{PR_1} - H$ = 119°3
		W-A	e_E	12 27 20	
		W-A	$e(SP)_E$	12 29 18	Felt throughout southern
		W-A	$e(SR_1)_E$	12 34 52	Luzon and neighboring
		W-A	e_E	12 38 28	islands.
		W-A	ePR'_{3E}	12 40 18	
		W-A	eSR_{3E}	12 44 10	
		W-A	$e(G)_E$	12 49 36	
		W-A	eM_E	12 07 08	
107	Aug. 22	W-A	e_E	$11^h56^m29^s$	Indistinct.
		W-A	i_E	12 07 00	
		W-A	F	12 09 ±	
108	Aug. 24	W-A	iP_E	18 41 20	
		W-A	ipP_E	18 41 30	
		W-A	eS_E	18 52 09	
		W-A	eL_E	19 10 ±	
		W-A	F	Lost in microseisms	
109	Aug. 24	W-A	iP_E	20 20 04	
		W-A	iPR_{1E}	20 21 14	
		W-A	iPR_{2E}	20 21 44	
		W-A	i_E	20 24 27	
		W-A	eL_E	20 28 14	
110	Aug. 31	W-A	i_E	21 32 24	Blast?
		W-A	i_E	21 32 26	
		W-A	i_E	21 32 28	
		W-A	i_E	21 32 32	
		W-A	F	21 33 ±	

J. B. Macelwane, S.J.
Director

R. R. Heinrich
Graduate Fellow

SAINT LOUIS

SEISMOGRAPHIC STATION, ST. LOUIS UNIVERSITY, ST. LOUIS, MO., U. S. A.

One Wiechert 80 Kg., two Wood-Anderson long-period seismographs, Wiechert clock

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
111	Sept 1	W-A	ePR1E	$8^h57^m37^s$	$\Delta_{PR1-H} = 107°.6$
		W-A	eE	8 57 57	U.S.C. and G.S. gives
		W-A	iE	9 04 38	31°.5 S, 179°.0 W.
		W-A	eE	9 05 00	
		W-A	eLE	9 31 55	$H = 8^h38^m56^s$
			F	10 00 ±	
112	Sept 1	W-A	ePE	$17^h29^m27^s$	
		W-A	eE	17 29 46	
		W-A	iSE	17 33 12	
		W-A	iE	17 34 10	
		W-A	eE	17 34 30	
			F	17 40 ±	
113	Sept 3	W-A	ePE	$18^h58^m06^s$	$\Delta_{P-H} = 58°.9$
		W-A	iE	18 58 08	
		W-A	iE	18 58 16	$H = 18^h48^m29^s$
		W-A	iE	18 58 21	
		W-A	iE	18 58 28	Epicenter: 52°.5 N.
		W-A	iPcPE	18 59 08	177°.5 W
		W-A	iE	19 00 37	
		W-A	eE	19 05 57	Depth by Brunner Depth
		W-A	iE	19 06 09	Chart 160-180 Km.
		W-A	iE	19 06 25	
		W-A	iE	19 07 00	
		W-A	iScSE	19 08 02	
		W-A	iE	19 08 38	
		W-A	eLE	19 09 58	
			F	21 00 ±	
114	Sept 8	W-A	(e)E	$0^h58^m37^s$	Δ about 96°.0
		W-A	iE	0 59 07	South Atlantic Ocean off
		W-A	ePR2E	0 59 48	South African Coast.
		W-A	iSKKSE	1 04 38	
		W-A	eSE	1 05 30	
		W-A	ePSE	1 06 08	
		W-A	eLE	1 07 42	
			F	Lost in microseisms	
115	Sept 15	W-A	eE	12 45 21	$\Delta_{S-H} = 109.1$
		W-A	ePR1E	12 46 35	
		W-A	iE	12 46 50	Epicenter near 8°.3 S,
		W-A	iE	12 47 13	162°.0 E. $H = 12^h27^m37^s$
		W-A	eE	12 47 39	
		W-A	eSKKSE	12 53 34	Depth probably normal.

No	Date	Inst.	Phase	G.M.C.T.	Remarks
115	Sept 15 (con't)	W-A	eS_E	$12^h54^m17^s$	
		W-A	$e(PPS)_E$	12 56 21	
		W-A	eL_E	13 20.0	
		W-A	eM_E	13 21.5	
			F	14 00 ±	
116	Sept 15	W-A	eP_E	$23^h54^m07^s$.	$\Delta_{P-H} = 24°4$
		W-A	ipP_E	23 54 28	Epicenter: 91°6 W.
		W-A	isP_E	23 54 43	14°2 N.
		W-A	$ipPR_{1E}$	23 55 00	Depth by Brunner
		W-A	i_E	23 55 22	Depth Chart 100 Km.
		W-A	eS_E	23 58 27	
		W-A	iSR_{2E}	23 59 15	$H = 23^h48^m55^s$
		W-A	eL_E	24 01 51	
			F	24 30 ±	
117	Sept 16	W-A	e_E	$18^h50^m32^s$	
		W-A	i_E	18 50 32.5	Blast?
		W-A	F	18 50 43	
118	Sept 20	W-A	iP_N	$7^h09^m02^s$	$\Delta_{S-P} = 24°7$
		W-A	i_N	7 09 08	
		W-A	eS_N	7 13 27	Epicenter: 18°9 N,
		W-A	eSR_{1N}	7 14 17	107°3 W.
		W-A	eL_N	7 16 35	
		W-A	i_N	7 17 13	$H = 7^h03^m40^s$
		W-A	iM_N	7 17 38	Normal.
119	Sept 22	W-A	eP_E	$18^h29^m59^s.5$	Blast?
		W-A	iS_E	18 30 01.5	
120	Sept 23	W-A	ePR_{1E}	$13^h25^m33^s$	$\Delta_{PR_1-H} = 114°7$
		W-A	ePR_{2E}	13 27 54	
		W-A	$eSKS_E$	13 31 28	Epicenter: 6°5 S,
		W-A	$eSKKS_E$	13 32 44	153°8 E.
		W-A	i_E	13 32 52	
		W-A	ePS_E	13 35 15	$H = 13^h03^m00^s$
		W-A	$e(PPS)_E$	13 38 36	
		W-A	eL_E	13 59.0	Normal.
			F	14 30 ±	
121	Sept 27	W-A	iP'_E	$9^h14^m50^s$	$\Delta_{P-H} = 145°1$
		W-A	i_E	9 15 00	$H = 8^h55^m19^s$
		W-A	i_E	9 15 04	h = about 60 Km. by the
		W-A	i_E	9 15 17	Brunner Depth Chart.
		W-A	i_E	9 16 06	Epicenter: 8°5 S, 110°4 E.
		W-A	$iSKP_E$	9 18 18	Felt on Java, Bali and
		W-A	$iSKKS_E$	9 24 53	Lombok.
		W-A	e_E	9 25 18	
		W-A	e_E	9 26 29	
		W-A	$ePPS_E$	9 30 41	

2

No.	Date	Inst.	Phase	G.C.T.	Remarks
122	Sept 28	W-A	eP_E	$6^h26^m13^s$	$\Delta P-H = 24°8$
		W-A	iPR_{1E}	6 26 33	
		W-A	iPR_{2E}	6 26 59	Epicenter: 91°7 W.
		W-A	eS_E	6 30 39	14°0 N.
		W-A	eX_E	6 30 48	
		W-A	eSR_{1E}	6 31 46	$H = 6^h20^m50^s$
		W-A	eL_E	6 33 04	
		W-A	F	7 00 ±	Felt in Guatemala.
123	Sept 28	W-A	iP_E	$13^h39^m35^s$	
		W-A	e_E	13 39 45	
		W-A	eE	13 40 13	
		W-A	iS_E	13 45 21	
			F	13 46 ±	
124	Sept 28	W-A	eP_N	$18^h24^m37^s$	
		W-A	i_N	18 25 02	
		W-A	iPR_{1N}	18 25 14	
		W-A	iPR_{2N}	18 25 24	
		W-A	eS_N	18 29 00	
		W-A	eX_N	18 29 12	
		W-A	eL_N	18 34.3	
125	Sept 29	W-A	eE	$11^h36^m37^s$	
		W-A	e_E	11 36 52	
		W-A	eE	11 37 02	
		W-A	eL_E	11 46.3	
			F	12 00 ±	

Minor Seismic Activity

Sept. 30, 8h8m to 8h15m

* * * * * * * * * *

J. B. Macelwane, S.J.
Director

R. R. Heinrich
Graduate Fellow

SAINT LOUIS

SEISMOGRAPHIC STATION, ST. LOUIS UNIVERSITY, ST. LOUIS, MO., U. S. A.

One Wiechert 80 Kg., two Wood-Anderson long-period seismographs, Wiechert clock

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
126	Oct 5	W-A	eP_E	$6^h26^m16^s$	$\Delta_{P-H} = 22°.4$
		W-A	i_{NE}	6 26 30	Epicenter: 22°.5 N,
		W-A	ePR_{2E}	6 26 52	108°.5 W.
		W-A	i_E	6 27 46	
		W-A	i_E	6 28 08	$H = 6^h21^m17^s$
		W-A	iS_{NE}	6 30 22	
		W-A	eSR_{1E}	6 31 19	Normal.
		W-A	eL_{NE}	6 32 14	
		W-A	i_{NE}	6 33 14	
			F	7 00 ±	
127	Oct 5	W-A	$ePnNE$	$22^h58^m51^s$	$\Delta_{Sn-Pn} = 144$ miles
		W-A	$iPnN$	22 58 52	
		W-A	iS_{nNE}	22 59 17.5	Felt at New Madrid, Mo.
		W-A	F	22 59 33	
128	Oct 6	W-A	eP_N	$9^h52^m06^s$	$\Delta_{P-H} = 22°.4$
		W-A	iP_N	9 52 07	Epicenter: 17°.7 N,
		W-A	ipP_{NE}	9 52 21	99°.0 W.
		W-A	i_{NE}	9 52 26	
		W-A	iPR_{1N}	9 52 36	$H = 9^h47^m16^s$
		W-A	isP_N	9 52 45	
		W-A	i_{NE}	9 54 12	Depth by Brunner Depth
		W-A	eS_{NE}	9 56 03	Chart about 100 Km.
		W-A	iS_{NE}	9 56 06	
		W-A	isS_{NE}	9 56 30	
		W-A	i_E	9 57 01	
		W-A	$isSR_{1E}$		
		W-A	eL_E		
			F		
129	Oct 12	W-A	eP_E	$21^h01^m29^s$	
		W-A	e_E	21 02 12	
		W-A	e_E	21 07 00	
		W-A	i_E	21 11 02	
		W-A	e_E	21 12 13	
			F	21 15 ±	
130	Oct 17	W-A	i_N	$7^h11^m13^s$	
		W-A	eE	7 11 13	
		W-A	eL_E	7 25 13	
		W-A	eL_N	7 28 33	

No.	Date	Inst	Phase	G.M.C.T.	Remarks
131	Oct 19	W-A	eP_N	$17^h46^m14^s$	Blast
		W-A	iP_N	17 46 15	
		W-A	eS_{NE}	17 46 18	
		W-A	iS_{NE}	17 46 19	
132	Oct 21	W-A	eP_E	$7^h16^m45^s$	Near earthquake or blast
		W-A	iP_E	7 16 48	
		W-A	iS_{NE}	7 16 55.5	
		W-A	iS_E	7 17 08.5	
133	Oct 24	W-A	eP_E	$11^h43^m58^s$	$\Delta_{P-H} = 42.^\circ0$ Epicenter $59.^\circ7$ N, $148.^\circ8$ W. $H = 11^h36^m07^s$ Normal. Felt at Seward, Alaska
		W-A	e_E	11 44 53	
		W-A	e_E	11 45 49	
		W-A	iPR_{2E}	11 45 54	
		W-A	eS_E	11 50 27	
		W-A	eSR_{1E}	11 53 36	
		W-A	eL_E	11 56 47	
		W-A	i_E	11 58 54	
			F	13 00 ±	

Minor Seismic Activity:

Oct, 1, 20h05m to 20h30m; Oct 25, 23h40m to 23h43m.

* * * * * * * * * *

P L E A S E Insert on page 24 of Saint Louis Bulletin, Earthquake No. 128 in the h m s column after 9 57 01

9 57 23
9 57.8
10 20 ±

J. B. Macelwane, S.J.
Director

R. R. Heinrich
Graduate Fellow

SAINT LOUIS

SEISMOGRAPHIC STATION, ST. LOUIS UNIVERSITY, ST. LOUIS, MO., U. S. A.

One Wiechert 80 Kg., two Wood-Anderson long-period seismographs, Wiechert clock

Bulletin for November, 1937

No.	Date	Inst.	Phase	G.C.T.	Remarks
134	7	W-A	iP_N	$9^h17^m38^s$	
		W-A	iP_E	9 17 39	
		W-A	ipP_N	9 17 47	
		W-A	e_E	9 26 25	
			F	9 27 ±	
135	10	W-A	iP_N	$20^h09^m07^s.4$	ΔS-P = 8 miles
		W-A	iS_N	20 09 11.4	
		W-A	iL_N	20 09 15.0	Blast?
		W-A	i_N	20 09 16.2	
			F	20 09 40	
136	14	W-A	eP_N	$11^h11^m50^s$	Epicenter by Rev. J. J. Lynch, S.J. of Fordham
		W-A	e_{NE}	11 11 52	
		W-A	e_E	11 15 05	35°.6 N, 70°.8 E.
		W-A	i_E	11 15 42	
		W-A	$eSKS_E$	11 22 02	$H = 10^h58^m14^s$
		W-A	i_E	11 22 10	
		W-A	eS_{NE}	11 23 12	h = 250 Km.
		W-A	i_E	11 23 51	
		W-A	i_E	11 24 58	$\Delta P-H = 103.8^c$
		W-A	i_E	11 26 26	
		W-A	e_E	11 31 10	
137	17	W-A	iP*	$17^h05^m05^s$	ΔP^*-H = 64 miles
		W-A	iPg	17 05 07.1	$H = 17^h04^m47^s.7$
		W-A	iSn	17 05 17.8	Epicenter: 89°05' W.
		W-A	iSg	17 05 19.6	38°34' N
					Felt over an area of 8000 sq. miles in south central Illinois
138	25	W-A	e_N	$5^h29^m33^s$	
		W-A	eL_N	5 39 45	
			F	6 00 ±	
139	30	W-A	eL_N	$1^h53^m06^s$	
		W-A	F	2 30 ±	
140	30	W-A	eL_N	$13^h47^m46^s$	
			F	14 30 ±	

J. B. Macelwane, S.J.
Director

R. R. Heinrich
Instructor

SAINT LOUIS

SEISMOGRAPHIC STATION, ST. LOUIS UNIVERSITY, ST. LOUIS, MO., U. S. A.

One Wiechert 80 Kg., two Wood-Anderson long-period seismographs, Wiechert clock

Bulletin for November, 1937

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
134	7	W-A	iP_N	$9^h17^m38^s$	
		W-A	iP_E	9 17 39	
		W-A	ipP_N	9 17 47	
		W-A	e_E	9 26 25	
			F	9 27 ±	
135	10	W-A	iP_N	$20^h09^m07^s.4$	ΔS-P = 8 miles
		W-A	iS_N	20 09 11.4	
		W-A	iL_N	20 09 15.0	Blast?
		W-A	i_N	20 09 16.2	
			F	20 09 40	
136	14	W-A	eP_N	$11^h11^m50^s$	Epicenter by Rev. J. J. Lynch, S.J. of Fordham
		W-A	e_{NE}	11 11 52	
		W-A	e_E	11 15 05	35°.6 N, 70°.8 E.
		W-A	i_E	11 15 42	
		W-A	$eSKS_E$	11 22 02	H = $10^h58^m14^s$
		W-A	i_E	11 22 10	
		W-A	eS_{NE}	11 23 12	h = 250 Km.
		W-A	i_E	11 23 51	
		W-A	iE	11 24 58	ΔP-H = 103°.8
		W-A	i_E	11 26 26	
		W-A	e_E	11 31 10	
137	17	W-A	iP*	$17^h05^m05^s$	ΔP*-H = 64 miles
		W-A	iPg	17 05 07.1	H = $17^h04^m47^s.7$
		W-A	iSn	17 05 17.8	Epicenter: 89°05' W.
		W-A	iSg	17 05 19.6	38°34' N
					Felt over an area of 8000 sq. miles in south central Illinois
138	25	W-A	e_N	$5^h29^m33^s$	
		W-A	eL_N	5 39 45	
			F	6 00 ±	
139	30	W-A	eL_N	$1^h53^m06^s$	
		W-A	F	2 30 ±	
140	30	W-A	eL_N	$13^h47^m46^s$	
			F	14 30 ±	

J. B. Macelwane, S.J.
Director

R. R. Heinrich
Instructor

SAINT LOUIS

SEISMOGRAPHIC STATION, ST. LOUIS UNIVERSITY, ST. LOUIS, MO., U. S. A.

One Wiechert 80 Kg., two Wood-Anderson long-period seismographs, Wiechert clock

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
141	5	W-A W-A W-A W-A W-A W-A	eP_N iNE eNE eS_N eS_E eL_N F	$5^h47^m19^s$ 5 47 35 5 48 16 5 51 34 5 51 38 5 55 48 12 00 ±	$\Delta S-P = 33°5$ $H = 5^h42^m03^s$
142	6	W-A W-A	eP_N $e(S)_{NE}$ F	$21^h13^m00^s$ 21 17 34 Indistinct	$\Delta S-P = 25°8$
143	6	W-A W-A W-A W-A W-A W-A W-A W-A	iP_N cP_E $e(pP)_N$ cPR_1N $e(pPR_1)_N$ eS_N e_E eL_{NE} F	$21^h48^m44^s$ 21 48 44 21 48 49 21 49 13 21 49 21 21 53 29 21 54 15 21 57 09 21 30 ±	$\Delta S-P = 27°2$
144	8	W-A W-A W-A W-A W-A W-A	iP_N cP_E i_{NE} iN_E eS_N eL_N F	$2^h30^m50^s$ 2 30 51 2 30 58 2 31 29 2 35 19 2 36 21 3 15 ±	$\Delta S-P = 25°2$
145	8	W-A W-A W-A	e_N eL_N F	$9^h07^m21^s$ 9 12.5 10 30 ±	Distant. Weak.
146	18	W-A W-A W-A	eL_N eM_N F	$14^h14^m29^s$ 14 18.5 14 40 ±	
147	18	W-A W-A W-A W-A	iP_N e_N eS_N eL_N F	20 55 30 20 56 29 21 00 41 21 03 21 21 30 ±	

No.	Date	Inst	Phase	G...C.T.	Remarks
148	22	W-A	eP_N	$3^h42^m40^s$	$\Delta S-P = 25°0$
		W-A	eP_E	3 42 41	
		W-A	iP_{NE}	3 42 44	Epicenter: 17°2 N,
		W-A	iPR_{1NE}	3 43 15	105°7 W.
		W-A	iPR_{2NE}	3 43 29	
		W-A	i_E	3 43 50	$H = 3^h37^m15^s$
		W-A	eS_{NE}	3 47 07	
		W-A	iS_{NE}	3 47 17	Depth normal.
		W-A	eSR_{1E}	3 47 58	
		W-A	eL_N	3 48 31	
		W-A	iL_N	3 50 31	
			F	5 00 ±	
149	22	W-A	iP_{NE}	$5^h48^m33^s$	Aftershock of No. 148
		W-A	eL_E	5 56 21	
150	22	W-A	iP_{NE}	$7^h40^m30^s$	$\Delta S-P = 25°3$
		W-A	ePR_{1E}	7 41 05	Aftershock of No. 148.
		W-A	eS_{NE}	7 45 00	
		W-A	eL_E	7 48 17	
			F	8 05 ±	
151	23	W-A	eP_N	$13^h22^m59^s$	$\Delta P-H = 22°7$
		W-A	eP_E	13 23 00	
		W-A	iPR_{1NE}	13 23 28	Epicenter: 16°6 N,
		W-A	iPR_{2NE}	13 23 39	98°0 W.
		W-A	i_E	13 25 42	
		W-A	iS_{NE}	13 27 20	$H = 13^h17^m56^s$
		W-A	i_E	13 27 34	
		W-A	i_E	13 27 44	Normal
		W-A	i_E	13 28 03	
		W-A	i_E	13 28 13	
		W-A	iL_{NE}	13 29.5	
			F	Lost in changing records	
152	23	W-A	eP_N	23 26 24	$\Delta S-P = 23°1$
		W-A	iP_{NE}	23 26 35	Epicenter: 16°6 N, 98°0 W.
		W-A	iPR_{1NE}	23 26 48	
		W-A	i_N	23 28 00	$H = 23^h21^m18^s$
		W-A	eS_N	23 30 42	
		W-A	iS_E	23 30 44	Aftershock of No. 151.
		W-A	i_N	23 31 56	
			F	24 00 ±	
153	24	W-A	iP_{NE}	4 28 41	
		W-A	i_N	4 28 48	
		W-A	$e(S)_{NE}$	4 37 00	
		W-A	eL_N	4 41 20	
			F	5 15 ±	

No.	Date	Inst.	Phase	G.I.C.T.	Remarks
154	26	W-A	eP_N	$23^h 48^m 53^s$	Δ_{S-P} = 25°.4
		W-A	e_E	23 50 25	
		W-A	eS_N	23 53 24	
		W-A	eS_E	23 53 26	
		W-A	iS_N	23 53 27	
		W-A	eL_E	23 55.5	
			F	00 30 ± (Dec. 27)	
155	30	W-A	eP_E	$11^h 01^m 38^s$	
		W-A	eL_E	11 08 06	
		W-A	F	11 20 ±	
156	30	W-A	eP_{NE}	$11^h 43^m 08^s$	Δ_{S-P} = 22°.7
		W-A	iP_E	11 46 09	
		W-A	iP_N	11 46 11	
		W-A	i_N	11 46 18	
		W-A	i_N	11 46 38	
		W-A	eS_{NE}	11 50 16	
		W-A	i_E	11 50 36	
		W-A	i_E	11 51 20	
		W-A	eL_E	11 54.0	
		W-A	F	12 20 ±	
157	31	W-A	iP_N	$17^h 16^m 32^s$	Δ_{S-P} = 23°.6
		W-A	iP_E	17 16 34	
		W-A	iPR_{1NE}	17 17 00	Epicenter: 16°.2 N,
		W-A	ePR_{2N}	17 17 13	98°.7 W.
		W-A	i_N	17 18 03	
		W-A	i_N	17 18 27	H = $17^h 11^m 21^s$
		W-A	iS_N	17 50 48	
		W-A	eS_E	17 50 48	Normal?
		W-A	iSR_{2N}	17 51 31	
			F	18 00 ±	

Minor Seismic Activity:

Dec. 11, 19h7m to 19h30m; Dec. 12, 8h00m to 9h30m; Dec. 13, 19h00m to 21h00m; Dec. 26, 6h8m to 6h15m; Dec. 28, 6h00m to 7h30m.

* * * * * * * * * * * * *

J. B. Macelwane, S. J.
Director

R. R. Heinrich
Instructor