CAPE GIRARDEAU

SEISMIC STATION, SOUTHEAST MISSOURI STATE TEACHERS COLLEGE, CAPE GIRARDEAU, MO., U. S. A.

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

Latitude: 37°19′ N. Longitude: 89°32′ W. Altitude: 134 m. Foundation: limestone.

Short period Wood-Anderson seismographs, N and E components. Time checked by radio signals on records.

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
1	6	W-A	iP_N	$16^h25^m01^s$	Blast
		W-A	iS_E	16 25 04	
		W-A	i_N	16 25 08	
			F	16 26 ±	
2	7	W-A	i_N	$2^h36^m05^s$	May be local disturbance.
		W-A	i_N	2 36 11	
		W-A	i_N	2 36 16	
			F	2 37 ±	
3	14	W-A	ePN	$3^h07^m29^s$	
		W-A	iP_N	3 07 30	
		W-A	e_N	3 08 43	
		W-A	e_N	3 11 23	
		W-A	eL_N	3 20.3	
			F	3 25 ±	
4	15	W-A	eP_E	$3^h37^m34^s$	ΔP-H = 57°9
		W-A	eP_N	3 37 41	
		W-A	i_N	3 38 47	H = $3^h27^m45^s$
		W-A	$iPR2_N$	3 41 11	
		W-A	eS_{NE}	3 45 31	19°3 N, 26°0 W.
		W-A	eL_E	3 52 06	
		W-A	eL_N	3 54.5	Depth normal.
			F	4 20 ±	
5	20	W-A	i_{NE}	$16^h58^m17^s.5$	Blast
		W-A	i_{NE}	16 56 18.5	
			F	16 57 36	
6	24	W-A	e_N	$3^h28^m23^s$	
		W-A	e_N	3 28 33	
		W-A	e_N	3 52 21	
		W-A	e_N	3 52 32	
			F	Lost in microseisms	
7	26	W-A	e_N	$7^h59^m21^s$	
		W-A	e_E	7 59 22	
		W-A	i_N	7 59 28	
		W-A	e_N	7 59 39	
			F	Lost in microseisms	

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Bulletin for March, 1938

No.	Date	Inst.	Phase	G.C.T.	Remarks
8	6	W-A	eP_N	$8^h18^m41^s$	$\Delta S-P = 23^\circ5$
		W-A	i_N	8 18 48	
		W-A	e_N	8 19 05	
		W-A	e_N	8 20 29	
		W-A	$e(S)_E$	8 22 56	
			F	8 30 ±	
9	9	W-A	iP_N	$3^h23^m18^s$	
		W-A	e_N	3 23 27	
		W-AA	$e(S)_N$	3 28 27	
		W-A	eM_N	3 34 23	
			F	3 47 ±	
10	16	W-A	e_N	$4^h56^m04^s$	
		W-A	(e_N)	4 58 31	
			F	Lost in microseisms	
11	17	W-A	e_N	$16^h33^m03^s$	May be local disturbance.
		W-A	e_N	16 33 43	
			F	16 35 ±	
12	22	W-A	$e(P)_N$	$15^h28^m50^s$	$\Delta PR_1-H = 34^\circ0$
		W-A	ePR_{1N}	15 29 56	
		W-A	e_{NE}	15 34 21	$H = 15^h22^m08^s$
		W-A	$e(S)_E$	15 35 25	
		W-A	eM_{NE}	15 38 49	
		W-A	eM_N	15 39.9	52°2 N, 133°1 W.
			F	17 00 ±	
13	22	W-A	e_N	$22^h34^m17^s$	
		W-A	e_E	22 34 24	
		W-A	e_{NE}	22 35 19	
		W-A	e_N	22 44 17	
		W-A	i_N	22 45 20	
		W-A	eL_{NE}	22 47 27	
			F	23 10 ±	
14	23	W-A	e_N	$6^h43^m38^s$	
		W-A	e_N	6 44 06	
		W-A	e_N	6 44 20	
			F	6 47 ±	

Cape Girardeau Bulletin for March, 1938

No.	Date	Inst.	Phase	G.C.T.	Remarks
15	25	W-A	eP_N	8h27m26s	ΔP-H = 20ᵖ2
		W-A	i_N	8 27 41	
		W-A	$iPR1_E$	8 27 43	H = 8h22m50s
		W-A	i_N	8 28 06	
		W-A	i_N	8 28 34	17°0 N, 85°5 W.
		W-A	eS_E	8 31 12	
		W-A	eS_N	8 31 23	
		W-A	$eSR1_N$	8 32 43	
			F	8 50 ±	

Minor Seismic Activity: Mar 8, 0h0m to 1h30m; Mar. 15, 9h48m to 16h00m; Mar. 29, 16h32m to 16h45m.

* * * * * * * *

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No.	Date	Inst.	Phase	G.C.T.	Remarks
16	Apr 2	W-A	(eP)N	$6^h05^m06^s$	
		W-A	eSN	6 11 22	
			F	6 13 ±	
17	Apr 2	W-A	iPN	$7^h27^m28^s$	
		W-A	ePE	7 27 28	
		W-A	epPE	7 27 41	
		W-A	ipPN	7 27 42	
		W-A	e(S)NE	7 37 40	
			F	7 40 ±	
18	Apr 5	W-A	iN	$11^h22^m13^s$	
		W-A	eE	11 22 20	
		W-A	iN	11 22 29	
		W-A	eE	11 22 37	
		W-A	eN	11 23 21	
			F	11 30 ±	
19	Apr 10	W-A	iPN	$19^h34^m15^s$	
		W-A	eN	19 34 29	
		W-A	eN	19 37 13	
			F	19 40 ±	
20	Apr 12	W-A	eN	$11^h07^m51^s$	
		W-A	iN	11 08 21	
		W-A	iN	11 08 29	
		W-A	eN	11 12 10	
		W-A	eN	11 22 07	
			F	11 45 ±	
21	Apr 12	W-A	eN	$16^h20^m07^s$	
		W-A	iN	16 21 20	
		W-A	eN	16 22 28	
			F	16 30 ±	
22	Apr 13	W-A	ePN	$02^h57^m12^s$	$\Delta P-H = 77°.1$
		W-A	iPN	02 57 13	$H = 2^h45^m54^s$
		W-A	iN	02 57 30	Epicenter:
		W-A	iN	02 57 42	39°.4 N, 15°.0 E.
		W-A	cPR1N	02 59 55	Depth by the
		W-A	iN	03 02 00	Brunner De
		W-A	eN	03 06 33	Chart. ab
		W-A	eSN	03 06 37	300 km.
		W-A	eN	03 10 10	
			F	03 45 +	

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
23	Apr 19	W-A W-A W-A W-A W-A W-A W-A W-A	ePN ePNE eN eN eN eSNE iN eLN F	11h12m09s 11 12 10 11 12 40 11 12 50 11 23 40 11 23 50 11 23 54 11 35 30 12 30 ±	Δ P-H = 87?7 H = 10h59m23s Epicenter: 39?0 N, 33?1 E. Destructive in the central part of the district of Anatolia, Turkey with heavy loss of life.
24	Apr 24	W-A W-A W-A W-A W-A W-A W-A	ePN eN eN eN eN eLN eMN F	4h22m13s 4 22 23 4 23 24 4 24 33 4 28 57 4 32 13 4 33 43 5 00 ±	
25	Apr 25	W-A W-A W-A W-A W-A	ePN iN iN eSN eLN F	17h13m12s 17 13 15 17 13 47 17 17 41 17 19 43 18 00 ±	
26	Apr 25	W-A W-A	iNE iN F	20h57m22s 20 57 24 20 57 43	Blast!
27	Apr 25	W-A W-A	iN iSgN F	23h44m36s 23 44 38 23 45 03	ΔSg-H = 49?4 = 288 miles H = 23h42m18s Felt in the vicinity of Findley, Arkansas.

Minor Seismic Activity: Apr 23, 13h30m to 13h35m; Apr 29, 9h26m to 9h35m.

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No.	Date	Inst.	Phase	G. M. C. T.	Remarks
28	May 11	W-A	ePE	$14^h49^m45^s$	ΔP-H = 22°5
		W-A	ePP_N	14 49 46	H = $14^h44^m45^s$
		W-A	ePR_1E	14 50 06	Epicenter:
		W-A	iP_E	14 50 38	16°8 N, 100°7 W.
		W-A	iP_E	14 50 47	Normal.
		W-A	eS_{NE}	14 53 48	
		W-A	iSR_1NE	14 54 54	
		W-A	iM_E	14 57 21	
		W-A	F	16 00 ±	
29	May 12	W-A	eP_E	$16^h00^m20^s$	Δ_{SKP} - H = 117°9
		W-A	$eSKP_N$	16 00 30	H = $15^h39^m02^s$
		W-A	eP_N	16 00 53	Epicenter: 5°0 S,
		W-A	ePR_2E	16 01 41	147°5 E.
		W-A	iP_E	16 01 43	Depth probably
		W-A	$e(PPS)_N$	16 09 44	normal.
		W-A	eP_{NE}	16 10 06	
		W-A	eP_{NE}	16 17 05	
		W-A	eSR_2E	16 19 56	
		W-A	eL_E	16 21.6	
		W-A	eL_N	16 22.2	
		W-A	eM_E	16 25.6	
		W-A	F	18 30 ±	
30	May 19	W-A	ePE	$17^h28^m00^s$	ΔPR_1-H = 133°0
		W-A	ePR_1E	17 30 23	H = $17^h08^m46^s$
		W-A	eP_E	17 32 26	Epicenter:
			F	19 30 ±	1°0 N, 118°9 E.
					Normal
31	May 23	W-A	iP_N	$7^h31^m43^s$	ΔP-H = 92°1
		W-A	eP_E	7 31 44	H = $7^h18^m43^s$
		W-A	ipP_{NE}	7 31 58	Epicenter:
		W-A	$eSKS_E$	7 42 08	36°9 N, 141°1 E.
		W-A	$eSKKS_E$	7 42 37	Depth by Brunner
		W-A	iS_{NE}	7 42 47	Depth Chart: 100 km
		W-A	$i(PPS)_N$	7 45 01	Felt throughout
		W-A	$e(SR_1)_N$	7 48 51	the main island of
			F	9 00 ±	Japan.

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
32	May 30	W-A	$(e)_E$	$14^h47^m44^s$	Δ PR_1-H = 110.8
		W-A	ePR_1NE	14 48 56	H = $14^h29^m48^s$
		W-A	$e(PS)_{NE}$	14 58 27	Epicenter:
		W-A	e_N	14 58 40	20°4 S, 169°4 E.
			F	15 45 ±	
33	May 31	W-A	$e(S)_N$	$8^h46^m49^s$	
		W-A	i_N	8 46 59	
		W-A	i_N	8 47 08	
		W-A	eL_N	8 48.5	
			F	8 53 ±	

Minor Seismic Activity: May 28, 12h00m to 13h00m

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No.	Date	Inst.	Phase	G.M.C.T.	Remarks
34	June 5	W-A	eP_E	$1^h23^m50^s$	$\Delta_{S-P} = 23.^\circ8$
		W-A	iP_{NE}	1 23 52	Region of 13.°0
		W-A	iN_E	1 23 54	N., 98.°0 W.
		W-A	ipP_{NE}	1 24 00	$H = 1^h18^m37^s$
		W-A	eS_E	1 28 01	Depth by
			F	Indistinct	Brunner Depth
					Chart about
					50 km.
35	June 5	W-A	eP_N	$2^h14^m42^s$	$\Delta_{S-P} = 24.^\circ0$
		W-A	eS_N	2 18 55	Aftershock of
			F	(Lost in next earthquake)	No. 34.
36	June 5	W-A	eP_N	$2^h19^m25^s$	No other phases distinguishable. Probably after-shock of No. 34.
37	June 6	W-A	e_N	$2^h54^m16^s$	
		W-A	e_E	2 55 03	
		W-A	eN	2 55 47	
			F	2 59 ±	
38	June 9	W-A	eP'_E	$19^h34^m27^s$	$\Delta P'-H = 133.°6$
		W-A	e_E	19 36 43	Region of 3.°1
		W-A	$eSKP_{NE}$	19 37 54	S., 125.°7 E.
		W-A	$e(PR_2)_E$	19 40 08	$H = 19^h15^m09^s$
		W-A	$e(SP)_{NE}$	19 47 21	Normal.
		W-A	eL_{NE}	20 19 00	
			F	21 00 ±	
39	June 10	W-A	eP_{NE}	$10^h08^m17^s$	Epicenter
		W-A	ePR_{1NE}	10 12 49	region of 25.°2
		W-A	$eSKS_{NE}$	10 18 54	N., 124.°6 E.
		W-A	$eSKKS_E$	10 19 49	$H = 9^h53^m42^s$
		W-A	$e(S)_E$	10 20 14	
		W-A	eL_N	10 42.0	
			F	12 00 ±	

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
40	June 10	W-A W-A W-A W-A W-A W-A	ePN ePE ePR_{1N} eS_E iS_{NE} eM_N F	$18^h10^m52^s$ 18 10 53 18 11 17 18 14 55 18 15 02 18 22 03 18 50 ±	$\Delta P-H = 21°.7$ Epicenter: 16°.5 N., 97°.9 W. H = $18^h6^m00^s$ Normal.
41	June 15	W-A W-A W-A W-A	$ePNE$ $epPNE$ $eSNE$ $esSNE$ F	$7^h55^m02^s$ 7 55 17 8 04 10 8 04 39 8 06 ±	$\Delta P-H = 70°.1$ Epicenter: 31°.3 S., 74°.1W. H = $7^h44^m03^s$ Depth nearly 100 km. by the Brunner Depth Chart. Felt strongly at Valporaiso, Chile.
42	June 16	W-A W-A W-A W-A W-A W-A W-A	$(e)_N$ ePR_{1N} e_E e_E eS_N ePS_N eE F	$2^h32^m50^s$ 2 33 45 2 33 48 2 40 09 2 41 26 2 42 55 2 43 02 5 00 ±	$\Delta S-H = 105°.1$ Epicenter: 29°.2 N., 127°.7E. H = $2^h15^m18^s$ Normal.
43	June 21	W-A W-A W-A W-A	eN eN eN F	$00^h08^m09^s$ 00 11 25 00 14 56 00 17 20 01 15 ±	
44	June 23	W-A W-A W-A W-A	ePE eE eE eSE F	$1^h15^m23^s$ 1 16 11 1 18 42 1 24 25 Indistinct	$\Delta S-P = 67°.5$ H = $1^h04^m31^s$
45	June 23	W-A W-A W-A	ePR_{1E} eE $ePSE$ F Lost in changing records	$13^h14^m27^s$ 13 14 52 13 23 57	$\Delta PS-H = 110°.0$ Epicenter: 19°.1 S., 168°.9 E. H = $12^h55^m33^s$ Normal.

Time clock not in operation June 27 to June 30.

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46	July 22	W-A	eP_{NE}	$7^h53^m21^s$	$\Delta P-H = 23°.5$
		W-A	i_N	7 53 24	Epicenter: 18°.9 N.
		W-A	$i(pP)_{NE}$	7 53 30	106°.6 W.
		W-A	iN	7 53 38	$H = 7^h48^m11^s$
		W-A	eS_{NE}	7 57 46	Depth nearly
		W-A	$iSNE$	7 57 51	normal.
		W-A	iSR_1E	7 58 27	
		W-A	iL_N	8 01 23	
		W-A	iM_E	8 03 34	
			F	9 00 ±	
47	July 24	W-A	eP_N	$13^h21^m41^s$	$\Delta P-H = 52°.3$
		W-A	epP_N	13 21 44	Epicenter: 53°.0 N.,
		W-A	iS_{NE}	13 29 10	134°.0 W.
		W-A	eNE	13 29 20	$H = 13^h12^m28^s$
		W-A	eN	14 01 24	Depth nearly
		W-A	eNE	14 02 46	normal.
			F	Indistinct	
48	July 25	W-A	eN	$18^h46^m05^s$	
		W-A	eN	18 46 31	
			F	18 49 ±	
49	July 29	W-A	$e(P')_N$	$13^h26^m06^s$	Phases weak.
		W-A	$e(SKP)_N$	13 29 49	$\Delta SKKS-H = 146°.4$
		W-A	$eSKKS_N$	13 36 04	Epicenter: 4°.2 S.,
			F	Indistinct	100°.5 E.
					$H = 13^h06^m24^s$
					Normal.
50	Aug 3	W-A	e_E	$13^h39^m31^s$	Weak
		W-A	eL_E	13 49 14	
			F	14 00 ±	
51	Aug 4	W-A	iP_N	$9^h05^m01^s$	Epicenter by
		W-A	$e(pP)N$	9 05 11	Florissant: 22°.7 S.,
		W-A	e_E	9 05 16	36°.2 W.
		W-A	i_N	9 05 25	$H = 8^h55^m02^s$
		W-A	i_N	9 06 01	Depth about 225 km.
		W-A	$iSNE$	9 13 21	
		W-A	i_N	9 13 55	
		W-A	eSR_1NE	9 14 48	
			F	9 45 ±	

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
			Time clock stopped August 6-7		
52	Aug 8	W-A	$(eP)_N$	$18^h35^m42^s$	
		W-A	eS_N	18 37 20	
		W-A	i_N	18 37 37	
		W-A	iL_N	18 38 34	
			F	18 45 ±	
53	Aug 16	W-A	e_E	$4^h52^m27^s$	Δ SKKS-H = 118°8
		W-A	$eSKKS_E$	4 54 54	Epicenter: Region
		W-A	eS_E	4 55 47	of 24°0 N., 95°E.
		W-A	$e(PPS)_E$	4 58 17	H = $4^h27^m53^s$
		W-A	e_E	4 59 57	
		W-A	e_E	5 03 14	
		W-A	$e(SR_2)_E$	5 09 47	
		W-A	eL_E	5 15 07	
54	Aug 18	W-A	$i(P')_N$	$9^h49^m40^s$	Epicenter by
		W-A	i_N	9 49 45	Strasbourg:
		W-A	i_N	9 50 01	4°0 S., 104°0 E.
		W-A	$e(PR_1)_N$	9 52 52	H = $9^h30^m00^s$
		W-A	e_N	9 59 38	Depth 100 km.
		W-A	e_N	9 59 44	
			F	10 05 ±	
55	Aug 19	W-A	eP_N	$14^h43^m03^s$	
		W-A	e_N	14 43 36	
			F	14 45 ±	
56	Aug 25	W-A	$e(S)_E$	$4^h47^m37^s$	Weak.
		W-A	e_E	4 48 01	
			F	4 50 ±	

Minor Seismic Activity: August 30, 13h30m to 14h30m. Surface waves of distant earthquake.

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57	Sept 1	W-A	eP_N	$22^h53^m42^s$	$\Delta_{P-H} = 24°1$
		W-A	iP_N	22 53 43	Epicenter:
		W-A	iN	22 53 47	13° N, 89°4 W.
		W-A	iN	22 53 51	$H = 22^h48^m26^s$
		W-A	iPR_1N	22 54 11	Normal.
		W-A	eN	22 54 43	
		W-A	eN	22 55 11	
		W-A	iS_E	22 58 02	
		W-A	eS_N	22 58 03	
		W-A	iS_N	22 58 06	
		W-A	$e(SR_1)N$	22 59 10	
			F	23 30 ±	
58	Sept 7	W-A	eL_{NE}	$5^h00^m00^s$	By J.S.A.
			F	5 30 ±	Epicenter: 24°9 N, 122° E. North-eastern Formosa.
59	Sept 12	W-A	ePR_1N	$6^h17^m01^s$	$\Delta_{PR_1-H} = 27°3$
		W-A	ePR_2N	6 17 25	Epicenter: 40°2 N, 125° W.
		W-A	eS_N	6 21 10	$H = 6^h10^m35^s$
		W-A	eSR_1N	6 22 00	"Slight damage in Humboldt County, California."
		W-A	eM_N	6 26 01	
			F	7 00 ±	
60	Sept 17	W-A	eP*	$3^h35^m02.2^s$	$\Delta_{Pg-H} = 1°9 =$ 134 miles
		W-A	iPg	3 35 02.9	Epicenter: 90°0 20'.4 W., 35°0 27'.8 N.
		W-A	iPg	3 35 03.4	$H = 3^h34^m23.8^s$
		W-A	iP	3 35 08.9	Widely felt in the New Madrid Region.
		W-A	Sg	3 35 28.4	
61	Sept 19	W-A	eP_N	$5^h43^m35^s$	Deep focus?
		W-A	e_N	5 44 45	
		W-A	e_N	5 45 35	
		W-A	eS_N	5 47 07	
		W-A	i_N	5 47 09	
		W-A	eE	5 47 10	
		W-A	iN	5 47 14	
			F	5 52 ±	

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
62	Sept 23	W-A	e_N	$15^h31^m39^s$	Weak.
		W-A	eN	15 31 56	
		W-A	e_N	15 32 03	
		W-A	i_N	15 32 13	
		W-A	e_N	15 33 44	
			F	15 35 ±	
63	Sept 27	W-A	e_N	$7^h37^m48^s$	
		W-A	e_N	7 37 56	
		W-A	e_N	7 38 13	
		W-A	eN	7 41 26	
		W-A	e_N	7 42 54	
			F	7 45 ±	
64	Sept 28	W-A	e_E	$23^h31^m39^s$	Reported felt at Malden, Missouri.
		W-A	i_E	23 31 40	
		W-A	iS^*E	23 31 44	$H = 23^h31^m14^s$
			F	23 33 ±	
65	Sept 29	W-A	eP_E	$23^h40^m05^s$	$\Delta P-H = 16°3$
		W-A	i_E	23 40 14	Epicenter:
		W-A	e_E	23 40 16	23°6 N., 109°1 W.
		W-A	e_E	23 43 06	$H = 23^h36^m17^s$
		W-A	eS_E	23 43 10	Normal.
		W-A	e_E	23 43 15	
		W-A	eL_E	23 44 46	
			F	23 50 ±	

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Dept. of Geophysics
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A.C. Magill
Director of the Station

Records Read by
R. R. Heinrich

CAPE GIRARDEAU

SEISMIC STATION, SOUTHEAST MISSOURI STATE TEACHERS COLLEGE, CAPE GIRARDEAU, MO., U. S. A.
(In cooperation with Saint Louis University, St. Louis, Mo.—Records kept in Saint Louis)
Latitude: 37°19′ N. Longitude: 89°32′ W. Altitude: 134 m. Foundation: limestone.
Short period Wood-Anderson seismographs, N and E components. Time checked by radio signals on records.

BULLETIN FOR OCTOBER, 1938

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
66	Oct. 1	W-A	e_N	$22^h17^m45^s$	Near earthquake. P indefinite but distance probably less than 10°
		W-A	e_N	22 18 04	
		W-A	e_N	22 18 19	
		W-A	iS_N	22 18 39	
			F	22 20 ±	
67	Oct. 3	W-A	e_N	$22^h48^m28^s$	
		W-A	e_N	22 48 43	
			F	22 49.5 ±	
68	Oct. 9	W-A	e_N	$16^h56^m04^s$	Weak
		W-A	e_E	16 56 05	
		W-A	eS_E	16 59 26	Deep?
		W-A	eS_N	16 59 27	
		W-A	iS_N	16 59 28	
		W-A	esS_E	16 59 38	
			F	17 00 ±	
69	Oct.10	W-A	eP'_N	$21^h07^m14^s$	$\Delta_{P'-H} = 129°.5$
		W-A	ePR_{1N}	21 09 15	$H = 20^h48^m04^s$
		W-A	e_N	21 10 54	Epicenter: 1°.0 N, 125°.0E.
		W-A	ePS_N	21 19 36	
			F	21 45 ±	
70	Oct.12	W-A	eP_N	$0^h47^m33^s$	$\Delta_{S-P} = 85°.0$
		W-A	eS_N	0 58 05	Deep. Pacific Coast of Chile
		W-A	esS_N	0 58 17	
			F	1 30 ±	
71	Oct.19	W-A	e_E	$4^h37^m25^s$	
		W-A	e_E	4 41 38	
		W-A	e_N	4 51 24	
		W-A	eL_E	5 02 53	
			F	5 45 ±	
72	Oct.20	W-A	eP'_E	$2^h38^m55^s$	$\Delta_{P'-H} = 138°.5$
		W-A	ipP'_{NE}	2 38 58	$H = 2^h19^m30^s$
		W-A	$ipPR_{1NE}$	2 42 03	
		W-A	$iSKP_E$	2 42 23	Epicenter: 9°.5 S, 122°.8E.
		W-A	$esSKP_E$	2 42 32	
		W-A	$eSKKS_N$	2 48 30	Depth about 100 Km.
		W-A	esS_E	2 51 11	
		W-A	$ePPS_E$	2 54 00	
			F	4 00 ±	

Cape Girardeau Bulletin for October, 1938

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
73	Oct. 23	W-A	eS$_E$	$5^h15^m51^s$	
		W-A	esS$_E$	5 15 59	
		W-A	eL$_E$	5 17 22	
		W-A	e$_F$F	5 21 54	
				5 24 ±	
74	Oct. 29	W-A	iN	$8^h38^m06^s$	Character indistinct.
		W-A	iN	8 38 12	
		W-A	e$_F$N	8 38 57	
				8 41 ±	

Minor Seismic Activity: October 7, 16^h45^m to 16^h49^m;
October 20, 11^h00^m to 12^h00^m.

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A. C. Magill
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Records read by

R. R. Heinrich
Instructor

CAPE GIRARDEAU

SEISMIC STATION, SOUTHEAST MISSOURI STATE TEACHERS COLLEGE, CAPE GIRARDEAU, MO., U. S. A.
(In cooperation with Saint Louis University, St. Louis, Mo.—Records kept in Saint Louis)
Latitude: 37°19′ N. Longitude: 89°32′ W. Altitude: 134 m. Foundation: limestone.
Short period Wood-Anderson seismographs, N and E components. Time checked by radio signals on records.

No.	Date	Inst.	Phase	G.C.T.	Remarks
75	Nov. 2	W-A	eP_N	$5^h46^m38^s$	
		W-A	ipP_N	5 46 50	
		W-A	i_N	5 47 17	
		W-A	eS_N	5 50 29	
			F	6 00 ±	
76	Nov. 2	W-A	$(e)_N$	$9^h07^m51^s$	
			eN	9 08 13	
			i_N	9 08 23	
			F	9 15 ±	
77	Nov. 5	W-A	eNE	$8^h56^m36^s$	$\Delta P-H = 94°2$
		W-A	eNE	8 57 06	36°8 N, 139°6 E.
		W-A	e_E	9 01 23	$H = 8^h43^m18^s$
		W-A	$iSKKS_E$	9 07 31	
		W-A	iS_E	9 07 38	
		W-A	$ePPS_E$	9 09 31	
		W-A	$e(SR_1)E$	9 13 45	
		W-A	eL_E	9 21 00	
			F	11 00 ±	
78	Nov. 5	W-A	$ePNE$	$11^h03^m26^s$	$\Delta P-H = 93°0$
		W-A	$eSKKS_{NE}$	11 14 21	36°7 N, 141°0 E
		W-A	ePS_N	11 15 35	$H = 10^h50^m13^s$
		W-A	$e(SR_1)E$	11 20 33	
			F	13 00 ±	
79	Nov. 6	W-A	$iPNE$	$9^h06^m59^s$	$\Delta P-H = 90°7$
		W-A	$i(PcP)_{NE}$	9 07 07	$H = 8^h53^m58^s$
		W-A	eS_{NE}	9 17 58	37°4 N, 143°7 E.
		W-A	$iPPS_N$	9 19 20	
		W-A	e_E	9 20 45	
		W-A	eSR_{1E}	9 34 22	
			F	12 00 ±	
80	Nov. 6	W-A	eNE	21 50 56	Weak
		W-A	eNE	22 02 53	
			F	23 00 ±	

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
81	Nov. 10	W-A	eP_{NE}	$20^h27^m28^s$	$\Delta P-H = 48°0$
		W-A	i_N	20 27 41	$H = 20^h18^m48^s$
		W-A	iS_{NE}	20 34 32	55°6 N, 157°7 W.
		W-A	iS_N	20 34 37	
			F	24 00 ±	
82	Nov. 11	W-A	eP_N	$1^h06^m29^s$	$\Delta S-P = 47°5$
		W-A	ipP_{NE}	1 06 36	$H = 1^h57^m57^s$
		W-A	e_E	1 08 45	54°9 N, 156°0 W.
		W-A	iS_E	1 13 29	
		W-A	iS_N	1 13 31	
		W-A	isS_N	1 13 52	
		W-A	i_N	1 16 20	
		W-A	i_{NE}	1 16 34	
		W-A	e_E	1 19 08	
		W-A	eL_E	1 19 56	
			F	2 00 ±	
83	Nov. 13	W-A	iP_N	$13^h25^m59^s$	$\Delta P-H = 81°9$
		W-A	eP_E	13 25 59	$H = 13^h13^m50^s$
		W-A	i_N	13 26 14	46°0 N, 149°4 E.
		W-A	iPR_{1N}	13 29 14	Depth by the Brunner Depth Chart about 80 km.
		W-A	eS_N	13 36 11	
		W-A	e_N	13 36 52	
			F	13 40 ±	
84	Nov. 13	W-A	iP^*_{NE}	$15^h48^m32^s$	Blast?
85	Nov. 15	W-A	iP_N	$21^h20^m00.5^s$	
			i_N	21 20 13	
			e_E	21 20 31	
			F	21 25 ±	
86	Nov. 17	W-A	(eP)	$4^h03^m15^s$	$\Delta P-H = 48°4$
			iP_E	4 03 19	$H = 3^h54^m37^s$
			ipP_N	4 03 24.5	55°3 N, 157°5 W.
			ipP_E	4 03 25	Depth by Brunner Depth Chart about 50 km.
			iS_N	4 10 13.5	
			iS_E	4 10 14	
			isS_N	4 10 29.5	
			isS_E	4 10 30	
			i_N	4 13 05	
			i_E	4 13 10	
			F	5 15 ±	

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
87	Nov 22	W-A	ePE eS_E F	$1^h27^m12^s$ 1 38 12 2 00 ±	H = $1^h14^m06^s$ Epicenter: 36°.3 N., 141°.6 E. Depth by the Brunner Depth Chart 80+ km.
Minor Seismic Activity: Nov 2, 9h00m to 14h00m.					
88	Dec 7	W-A W-A	eL_E eM_E F	$13^h18^m22^s$ 13 26 22 14 00 ±	Very weak.
89	Dec 9	W-A W-A W-A W-A W-A W-A W-A W-A	ePN ePE i_N e_N eS_{NE} e_E eE eL_E F	$4^h03^m46^s$ 4 03 48 4 04 30 4 10 18 4 10 26 4 13 36 4 18 08 4 20 08 5 00 ±	$\Delta S-P = 44°.3$ Epicenter: Region of 56°.5 N, 150°.0 W. H = $4^h55^m.6$
90	Dec.12	W-A W-A W-A W-A	eN iNE iNE eL_{NE} F	$3^h24^m34^s$ 3 24 52 3 25 03 3 26 33 3 30 ±	
91	Dec.13	W-A W-A W-A W-A	eE $e(S)_{NE}$ iE eN F	$9^h27^m01^s$ 9 30 26 9 30 41 9 34 06 9 45 ±	Weak
92	Dec.19	W-A	ePN F	$18^h13^m38^s$ Lost in microseisms	
93	Dec.19	W-A W-A	ePN eS_E F	$18^h37^m10^s$ 18 46 30 18 50 ±	$\Delta S-P = 71°.0$
94	Dec.22	W-A W-A	iP_{NE} iS_N F	$18^h57^m57.9^s$ 18 57 58.5 18 58 45 ±	Blast?

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