

FLORISSANT

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

Three Galtzin-Wilip, two Wood-Anderson short-period seismographs, Shortt synchronome clock

1.

Bulletin for 1942

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
184	Jan. 8	W-A G-W W-A G-W G-W G-W G-W	iP _N iS _{NE} eS _{NE} i(SH ₁) _E e _E e _E F _E	15 ^h 20 ^m 48 ^s 15 27 24 15 27 24 15 30 29 15 30 57 15 31 24 15 47	Epicenter Near 30.2 S 79.2 W H = 15 ^h 12 ^m 48 ^s Focal depth may be slightly greater than normal $\Delta_{S-P} = 43.06$ $\Delta_{P-H} = 43.06$ $\Delta_{meas} = 43.06$
185	Jan. 13	W-A W-A W-A	e _E i _E e _E	23 ^h 09 ^m 01.1 ^s 23 09 01.5 23 09 02.4	Local disturbance Phases small and weak
186	Jan. 14	W-A W-A W-A W-A W-A W-A	iP _{1N} i _N i _N iS _{1NE} i _{NE} i _N	18 ^h 05 ^m 14.1 ^s 18 05 14.8 18 05 15.9 18 05 19.0 18 05 20.6 18 05 22.7	Local disturbance $\Delta_{S_1-P_1} = 44$ km. H = 18 ^h 05 ^m 06.3 ^s
187	Jan. 17	W-A W-A W-A G-W	eP _{NN} iP _{NN} eS _{NN} F _E	23 ^h 24 ^m 18 ^s 23 24 19 23 28 40 23 42	Epicenter near 17.7 N, 99.5 W H = 23 ^h 19 ^m 16 ^s $\Delta_{P-H} = 22.8$ $\Delta_{meas} = 22.8$
188	Jan. 20	G-W G-W G-W G-W G-W G-W G-W G-W G-W G-W	iP _Z i _Z iPR _{1Z} iS _N i _Z i _E i _N iSR _{1N} iM _{NE} F _N	06 ^h 31 ^m 00 ^s 06 31 03 06 31 34 06 35 22 06 35 26 06 35 34 06 35 38 06 36 31 06 38 46 07 42	Epicenter by J.S.A. $\phi = 17.0$ N $\lambda = 105.5$ W H = 06 ^h 25 ^m 38 ^s $\Delta_{P-H} = 24.7$ $\Delta_{meas} = 25.5$
189	Jan. 23	W-A W-A W-A W-A	i _E i _E i _{NE} i _E	16 ^h 00 ^m 56.9 ^s 16 00 57.9 16 00 58.3 16 00 59.9	Local disturbance

Florissant Bulletin for 1942

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No.	Date	Inst.	Phase	G.M.C.T.	Remarks
190	Jan. 27	G-W G-W G-W G-W G-W G-W G-W G-W G-W G-W	iP'Z iPR ₁ EEZ i(SKP) ₁ EEZ i(SKP) ₁ EE eSKS ₁ NE i ₁ EE iSKKS ₁ EE i ₁ NE iPSZ i ₁ EE F ₁ EE	13 ^h 48 ^m 13 ^s 13 50 01 13 51 20 13 51 38 13 55 16 13 55 29 13 57 08 13 57 13 14 00 11 14 03 10 16 48	Epicenter by J.S.A. Region of 090 N 131.00 E H = 13 ^h 29 ^m 10 ^s $\Delta_{\text{meas}} = 128.00$ $\Delta_{\text{SKS-H}} = 127.98$
191	Jan. 29	G-W G-W G-W G-W G-W	eSKKS ₁ EE i(S) ₁ EE iPKK ₁ EE iPPS ₁ EE F ₁ EE	09 ^h 49 ^m 25 ^s 09 50 24 09 52 09 09 52 45 10 53	Record weak, distant; Microseisms strong Provisional Epicenter by Riverview 170.5 S 167.05 E h = 100 km. $\Delta_{\text{meas}} = 110.95$
192	Jan. 29	W-A W-A W-A W-A	eP ₁ N iP ₁ ON iS ₁ N iS ₁ ON	22 ^h 12 ^m 23.4 ^s 22 12 24.1 22 12 28.2 22 12 29.1	Local disturbance $\Delta_{S_1-P_1} = 43$ km. H = 22 ^h 12 ^m 15.9 ^s Felt in S.W. St. Louis
193	Jan. 31	W-A W-A G-W G-W G-W	eP ₁ EE iP ₁ EE e(S) ₁ EE iM ₁ N F ₁ N	05 ^h 54 ^m 50 ^s 05 55 21 05 59 43 06 03 04 06 18	Epicenter $\phi = 50.6$ N $\lambda = 123.02$ W H = 06 ^h 49 ^m 13 ^s $\Delta_{P-H} = 26.02$ $\Delta_{\text{meas}} = 26.02$ Felt at Victoria and Vancouver B.C.

Minor Seismic Activity:

Jan. 17	12 ^h 44 ^m	to	13 ^h 19 ^m	Surface waves
Jan. 23	21 59	to	23 18	Mainly surface waves
Jan. 29	10 16	to	10 45	Surface waves
Jan. 30	13 11	to	14 01	Surface waves
Jan. 31	06 35	to	06 54	Surface waves

Strong Microseisms were recorded on the following dates:

Jan. 3, 4, 9(very strong), 11, 12, 29, 30, 31

J. B. Macelwane, S.J.
Director

Ed. J. Walter
Graduate Fellow

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Bulletin for January, 1942

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
1	Jan. 8	W-A G-W W-A G-W G-W G-W	iP _N iS _{NE} eS _{NE} i(SR ₁) _E eE eE F _E	15 ^h 20 ^m 43 ^s 15 27 24 15 27 24 15 30 29 15 30 57 15 31 24 15 47	Epicenter near 30.2 S. 79.2 W. H = 15 ^h 12 ^m 44 ^s Focal depth may be slightly greater than normal $\Delta S - P = 43.6$ $\Delta P - H = 43.6$ $\Delta_{\text{meas}} = 43.6$
2	Jan. 13	W-A W-A W-A	eE iE eE	23 09 01.1 23 09 01.5 23 09 02.4	Local disturbance Phases small and weak
3	Jan. 14	W-A W-A W-A W-A W-A W-A	iP _{1N} iN iN iS _{1NE} iNE iN	18 05 14.1 18 05 14.8 18 05 15.9 18 05 19.0 18 05 20.6 18 05 22.7	Local disturbance $\Delta S_1 - P_1 = 44$ km. H = 18 ^h 05 ^m 06 ^s .3
4	Jan. 17	W-A W-A W-A	eP _N iP _N eS _N F _N	23 24 18 23 24 19 23 28 40 23 42	Epicenter near 17.7 N. 99.5 W. H = 23 ^h 19 ^m 16 ^s $\Delta P - H = 22.8$ $\Delta_{\text{meas}} = 22.8$
5	Jan. 20	G-W G-W G-W G-W G-W G-W G-W G-W G-W	iP _Z iZ iPR _{1Z} iS _N iZ iE iN iSR _{1N} iM _{NE} F	06 31 00 06 31 03 06 31 34 06 35 22 06 35 26 06 35 34 06 35 38 06 35 31 06 38 46 07 42	Epicenter by J.S.A. $\phi = 17.0$ N. $\lambda = 105.5$ W. H = 06 ^h 25 ^m 38 ^s $\Delta P - H = 24.7$ $\Delta_{\text{meas}} = 25.5$
6	Jan. 23	W-A W-A W-A W-A	iE iE iNE iE	16 00 56.9 16 00 57.9 16 00 58.3 16 00 59.9	Local disturbance

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No.	Date	Inst.	Phase	G.M.C.T.	Remarks
7	Jan. 27	G-W G-W G-W G-W G-W G-W G-W G-W G-W	iP'Z iPR ₁ EZ i(SKP) _Z i(SKP) _E eSKS _{NE} i _E iSKKS _E i _N iPS _Z i _E F	13 ^h 43 ^m 13 ^s 13 50 01 13 51 20 13 51 38 13 55 16 13 55 29 13 57 08 13 57 13 14 00 11 14 03 10 16 48	Epicenter by J.S.A. Region of 0°0 131°0 E. H = 13 ^h 29 ^m 10 ^s ΔSKS - H = 127°8 Δmeas = 128°0
8	Jan. 29	G-W G-W G-W G-W G-W	eSKKS _E i(S) _E iPPK _E iPPS _E F	09 49 25 09 50 24 09 52 09 09 52 45 10 53	Record weak, distant; Microseisms strong Provisional epicenter by Riverview 17°5 S. 167°5 E. h = 100 km. Δmeas about 110°5
9	Jan. 29	W-A W-A W-A W-A	eP ₁ N iP ₁ ON iS ₁ N iS ₁ ON	22 ^h 12 ^m 23 ^s 4 22 12 24.1 22 12 28.2 22 12 29.1	Local disturbance ΔS ₁ - P ₁ = 43 km. H = 22 ^h 12 ^m 15 ^s 9 Felt in S.W. St. Louis
10	Jan. 31	W-A W-A G-W G-W G-W	eP ₁ E iP ₁ LE e(S) _E iM _N F	06 54 50 06 55 21 06 59 43 07 03 04 07 18	Epicenter 50°6 N. 123°2 W. H = 06 ^h 49 ^m 13 ^s ΔP - H = 26°2 Δmeas = 26°2 Felt at Victoria and Vancouver, B.C.

Minor Seismic Activity: h^h m^m to h^h m^m

Jan. 17	-- 12 ^h 44 ^m	to 13 ^h 19 ^m	surface waves
23	-- 21 59	to 23 18	mainly surface waves
29	-- 10 16	to 10 45	surface waves
30	-- 13 11	to 14 01	surface waves
31	-- 06 35	to 06 54	surface waves

Strong microseisms were recorded on the following dates:

Jan. 3, 4, 9(very strong), 11, 12, 29, 30, 31.

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Director

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Bulletin, February, 1942

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
11	Feb. 9	W-A W-A	iN iN F	17 ^h 31 ^m 07. ^s 5 17 31 08.1 17 31 31	Local shock Probably surface waves
12	Feb. 11	W-A G-W	iP _F e(M) _N F	11 25 59 11 32 25 11 43	Epicenter by J.S.A. 25°0 N., 110°5 W. H = 11 ^h 21 ^m 03 ^s $\Delta_p - H = 22.91$ $\Delta_{meas} = 21.9$
13	Feb. 21	W-A W-A G-W G-W G-W	iP _E iP _R _N iSK _S _E iSKK _S _E iS _E F	07 20 42 07 24 09 07 31 29 07 31 41 07 31 56 08 54	
14	Feb. 28	W-A W-A W-A W-A W-A	iP _O _E e _F iS _O _E i _E i _E i _E F	21 34 07.7 21 34 12.0 21 34 13.3 21 34 13.5 21 34 14.3 21 34 15.5 21 34 40	Local shock H = 21 33 57.8 $\Delta_{S_0} - P_0 = 55$ km.

Minor seismic activity:

Feb. 4 - 18^h26^m to 18^h46^m
 8 - 20 02 to 20 51
 13 - 06 47 to 07 06
 16 - 13 33 to 19 33
 17 - 07 05 to 07 44
 23 - 02 53 to 03 20

Microseisms strong - Feb. 1, 15, 25, 26, 27

J. B. Macelwane, S. J.
Director

L. S. Buckie, Jr.
Student Assistant

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Bulletin for March, 1942

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
15	Mar.1	G-W G-W G-W G-W G-W	iP _N iPR ₁ Z iS _E iX _Z iSR ₁ N F	09 ^h 57 ^m 28 ^s 09 58 00 10 01 54 10 02 26 10 02 57 10 57	Epicenter 14°0 N., 91°0 W. H = 09 ^h 52 ^m 05 ^s $\Delta S - P = 24.8$ $\Delta P - H = 24.8$ $\Delta_{meas} = 24.8$
16	Mar.1	W-A W-A W-A W-A W-A W-A W-A W-A W-A W-A	eP ₃ N eP ₂ N iP ₁ N iS ₄ N en iS ₃ N in in iS ₂ N iS ₁ N F	14 43 50.0 14 43 51.5 14 43 52.7 14 44 17.8 14 44 18.3 14 44 18.6 14 44 19.6 14 44 20.4 14 44 21.2 14 44 22.3 14 46 30	Local shock. Epi- center 41°14' N., 89°44' W. H = 14 ^h 43 ^m 08 ^s .5 $\Delta S_2 - P_2 = 268$ km. $\Delta_{meas} = 268$ km. Felt in some parts of Illinois
17	Mar.5	W-A W-A W-A G-W G-W G-W G-W G-W G-W	iP _E iP _E iPR ₁ E iS _N iSKS _E iSKKS _E iSP _E iSS _N iSS _N F	20 00 25 20 01 26 20 03 35 20 10 23 20 10 30 20 10 56 20 11 25 20 12 08 20 12 58 20 46	Epicenter by J.S.A. 48°N., 141°E. H = 19 ^h 48 ^m 31 ^s Depth = 250 km. $\Delta S - P = 82.5$ $\Delta P - H = 82.5$ $\Delta_{meas} = 82.4$
18	Mar.11	W-A W-A W-A	iE iE iE F	19 59 53.2 19 59 57.3 19 59 59.8 20 00 40	Local shock Probably surface waves
19	Mar.19	G-W G-W G-W G-W G-W	eP _Z iP _Z iPR ₁ Z iS _E iSS _N F lost	12 05 38 12 05 56 12 06 24 12 10 49 12 11 19 Record change	Epicenter by J.S.A. 53°2 N., 131°W. H = 11 ^h 59 ^m 20 ^s Depth = 80 km. $\Delta S - P = 31.5$ $\Delta_{meas} = 31.4$
20	Mar.20	G-W G-W G-W G-W	iP _E iP _E iS _E iSS _E F	01 22 20 01 22 50 01 29 49 01 30 59 03 22	Epicenter by J.S.A. 51°1 N., 167°6 W. H = 01 ^h 13 ^m 20 ^s Depth 200 km. $\Delta S - P = 54.0$ $\Delta_{meas} = 53.9$

Florissant Bulletin, March, 1942

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
21	Mar. 21	G-W G-W G-W G-W G-W	i(P)Z iPR ₁ Z iZ i(SKS) _E iN F	23 ^h 34 ^m 40 ^s 23 38 49 23 39 19 23 46 15 23 47 55 01 22	Epicenter by J.S.A. region of 27°8 N., 138°4 E. H = 23 ^h 21 ^m 06 ^s $\Delta PR_1 - H = 99.97$ $\Delta meas = 99.9$
22	Mar. 23	W-A W-A	eN iN F	21 22 31.9 21 22 32.8 21 23 00	Local shock. Probably surface waves.
23	Mar. 29	W-A W-A W-A W-A W-A W-A W-A W-A W-A W-A	eP ₄ N eN eN eN i(S ₄)N iN iN iN iN iN F	07 43 36.8 07 43 36.9 07 43 37.5 07 43 37.7 07 44 00.9 07 44 01.0 07 44 01.7 07 44 02.2 07 44 03.7 07 44 05.3 07 46 01	Local shock $\Delta S_4 - P_4 = 215$ km. Felt in Harrisburg and Eldorado, Ill.
24	Mar. 30	G-W G-W G-W	eZ eS _N eN F	09 16 53 09 23 28 09 26 45 10 10	Epicenter by J.S.A. region of 27°6 N. 40°9 W. H = 09 ^h 09 ^m 03 ^s $\Delta S - H = 42.1$ $\Delta meas = 42.8$
25	Mar. 30	W-A W-A	iN iN F	21 14 31.9 21 14 32.3 21 14 53	Local shock Probably surface waves

Minor Seismic Activity:

March 6 -- 20^h00^m to 20^h50^m
9 -- 10 25 to 11 00
26 -- 18 23 to 18 50

Microseisms strong: Mar. 1-4, 13, 14, 16, 20.

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Florissant bulletin April, 1942

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
26	Apr. 4	W-A W-A W-A W-A W-A W-A	iE eE iE iE eE iE F	17 ^h 04 ^m 11. ^s 9 17 04 14.6 17 04 16.2 17 04 17.5 17 04 17.9 17 04 19.3 17 05 20	Local shock
27	Mar. 6	W-A W-A W-A W-A	(e)N eN iN iN F	15 10 57.2 15 10 59.6 15 10 59.9 15 11 02.5 15 11 18	Local shock
28	Mar. 8	G-W G-W G-W G-W G-W G-W G-W G-W G-W G-W	iP iP ₂ iPR ₁ iSKP ₂ ePR ₂ iSKS ₂ iSKKS ₂ iS ₂ ePSN eSPN NF	15 55 55 15 59 33 16 00 54 16 02 20 16 03 48 16 06 00 16 07 17 16 08 25 16 10 30 16 10 40 18 47	Epicenter by Regis 11° N. 119° E. H = 15 ^h 40 ^m Felt in the Philippine Islands
29	Mar. 11	G-W G-W G-W G-W	iP ₂ ip ₂ eS ₂ esS ₂	01 30 17 01 30 43 01 34 22 01 35 07	Epicenter by J.S.A. 14.7° N., 91.2° W. H = 01 ^h 25 ^m 11 ^s Depth 130 km. Δ P - H = 23.6 Δ S - P = 23.6 Δ meas = 23.6 F lost, microseisms strong
30	Mar. 13	W-A W-A W-A W-A W-A	iN iN iN iN iN F	21 10 25.3 21 10 25.7 21 10 25.9 21 10 31.0 21 10 32.5 21 11 35	Local shock
31	Mar. 16	W-A W-A W-A W-A W-A W-A W-A	iN iN iN eN iN iN iN F	21 41 19.5 21 41 20.5 21 41 24.5 21 41 25.0 21 41 25.3 21 41 25.5 21 41 30.6 21 42 39	Local shock

Florissant Bulletin for April, 1942

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
32	Mar. 20	G-W	iZ	08 53 17	Record weak Surface waves quite small
		G-W	iZ	08 57 11	
		G-W	iZ	08 59 00	
		G-W	iN	09 03 18	
		G-W	eN	09 05 47	
		G-W	iN	09 06 27	
			FN	09 46	
33	Mar. 23	W-A	eN	23 02 42.3	Local shock
			F	23 03 05	
34	Mar. 27	G-W	e(P)Z	09 25 06	Epicenter region of 42° N. 29° E. Record weak H = 09h16m43s $\Delta p - H = 46.0$ $\Delta_{meas} = 46.2$
		G-W	ePZ	09 25 14	
		G-W	eSZ	09 32 01	
		G-W	eLZ	09 39.5	
		G-W	eMZ	09 43.5	
			F	09 53	
35	Mar. 27	W-A	iN	20 59 19.6	Local shock
			F	20 59 34	
36	Mar. 29	G-W	e(P)Z	11 56 17	Region of Fiji Islands?
		G-W	e(P ₁)Z	12 00 23	
		G-W	e(S) _E	12 08 16	
		G-W	e(SP) _E	12 09 52	
			F	13 08	

Minor seismic activity:

April 8	--	20 ^h 44 ^m	to	21 ^h 03 ^m
9	--	05 56	to	06 16
13	--	08 58	to	09 30
13	--	11 55	to	12 20
19	--	02 41	to	03 04
22	--	23 30	to	23 56
25	--	14 05	to	14 30
25	--	19 50	to	20 00
27	--	17 34	to	20 25
28	--	02 20	to	03 51
30	--	02 26	to	02 57

Microseisms strong - April 10, 23.

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Bulletin for May, 1942

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
37	May 2	G-W W-A	e(S) _E i _N F _N	20 ^h 36 ^m 08 ^s 20 38 01 20 44	Very weak
38	May 2	W-A G-W	i(P) _N e(S) _N F	21 51 21 21 56 07 22 10	Very weak
39	May 6	G-W G-W G-W	e(P) _Z e _N e _Z F _Z	22 56 53 23 02 34 23 13 00 23 48	Weak
40	May 8	W-A W-A W-A W-A	eP _N i _N iS _N iL _N F	20 42 07.2 20 42 07.7 20 42 09.5 20 42 10.9 20 42 29	Local shock $\Delta S_1 - P_1 = 20$ km. $H = 20^h42^m03.86$
41	May 13	W-A W-A W-A	i _E i _E i _E F lost in	15 05 21.8 15 05 21.9 15 05 22.6 succeeding shock	Local shock weak
42	May 13	W-A	i _E F	15 05 41 15 05 55	Local shock Very weak
43	May 14	G-W G-W W-A	iP _Z i(S) _E e(G) _E	02 20 56 02 26 47 02 29 52	Epicenter by J.S.A. 0°3 S., 80°2 W. $H = 02^h14^m04.8$ $\Delta P - H = 40.0$ $\Delta_{meas} = 40.1$ S doubtful because of high amplitudes on record. F lost in second shock
44	May 14	W-A	iP _N F	03 01 50 03 26	Second quake. One of series from epi- center of #40. S lost in surface waves of preceding shock.
45	May 14	G-W G-W	eP _Z iS _E F	03 46 21 03 53 26 09 25	Aftershock of #40

Florissant Bulletin for May, 1942

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46	May 14	W-A W-A W-A	iE iE iE F	21 ^h 04 ^m 44.8 21 04 45.1 21 04 48.4 21 05 20	Local shock $\Delta S - P = 13$ km. $H = 21^h04^m33.8^s$
47	May 15	G-W G-W G-W	ePZ iSE F	10 58 05 11 04 06 11 42	Aftershock of #40.
48	May 15	G-W G-W	ePZ eSE F	11 58 54 12 04 44 13 18	Aftershock of #40.
49	May 16	W-A W-A W-A W-A W-A W-A	iN iN iN iN iN iN F	20 35 17.9 20 35 18.6 20 35 22.3 20 35 27.9 20 35 28.7 20 35 29.1 20 36 06	Local shock?
50	May 16	W-A W-A W-A W-A W-A W-A	iN iN iN iN iN iN F	20 36 45.4 20 37 04.4 20 37 06.9 20 37 18.6 20 37 26.7 20 37 27.5 20 37 34	May not be of seismic origin
51	May 16	W-A W-A W-A W-A W-A	eN iN eN iN eN F	20 38 23.4 20 38 29 20 38 32.8 20 38 36.6 20 39 41.6 20 40 15	May not be of seismic origin
52	May 16	W-A W-A W-A W-A W-A W-A	eN iN eN iN iN iN F	20 58 23.8 20 58 23.9 20 58 28.0 20 58 35.4 20 58 54.8 20 59 05.5 20 59 28	May not n May not be of s seismic origin.
53	May 17	G-W G-W G-W G-W G-W G-W	iPZ epPZ iPR1Z iSZ esSZ iSR1Z F	15 21 51 15 22 58 15 23 52 15 27 55 15 29 13 15 31 ^m 11 16 19	Epicenter by J.S.A. region of 80°2' W. 01°3' S. $H = 15$ 15 50 $\Delta S - P = 41.2$ $\Delta_{meas} = 41.3$ Depth = 300 km.

Florissant Bulletin for May, 1942

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
54	May 20	W-A G-W G-W G-W G-W	eN eZ iZ e ^(L) Z e ^(M) Z FZ	11 ⁿ 02 ^m 05 ^s 11 03 43 11 04 43 11 05 14 11 05 46 11 09	Record weak
55	May 20	W-A G-W G-W G-W	i ^(P) N e ^(S) Z e ^(L) Z e ^(M) Z FZ	11 19 55.5 11 23 06 11 24 22 11 25 01 11 28	Record weak
56	May 20	W-A W-A W-A	e(S)N eN iN F	16 13 37.4 16 13 38.5 16 13 39.3 16 14 11	Local shock Record weak
57	May 22	G-W G-W G-W G-W G-W G-W	ePZ ePR ₁ Z eE iSE eSCPN eSCSE F	10 37 51 10 39 23 10 43 36 10 43 51 10 43 58 10 48 02 11 04	Apparently aftershock of #40
58	May 23	W-A W-A W-A W-A W-A W-A W-A	iP ₁ N eP ₁ N iP ₁ N iS ₁ N iS ₁ N iL ₁ N iL ₁ N F	19 42 30.3 19 42 30.4 19 42 31.3 19 42 35.2 19 42 37.3 19 42 38.6 19 42 38.9 19 43 54	Local shock $\Delta S_1 - P_1 = 44$ km. H = 19 ^h 42 ^m 22 ^s .6
59	May 24	G-W G-W G-W G-W	eZ eZ eZ e ^(M) Z F	03 45 47 03 48 29 03 49 21 04 46 04 05 07	May not be of seismic origin
60	May 27	G-W G-W G-W G-W G-W G-W G-W	e(P)Z ePR ₁ Z ePR ₂ Z ePR ₃ Z iSKSE e(S)E eSP _E F	06 46 40 06 50 47 06 53 08 06 55 04 06 56 50 06 59 03 07 00 53 08 59	Wellington gives 34°S., 177°W. and H = 06 ^h 31 ^m .8 $\Delta_{\text{meas}} = 108^{\circ}$
61	May 28	G-W G-W G-W G-W G-W G-W G-W	iPZ iPZ iPKPZ iPKKZ iSKSE iSE iSE iSR ₁ E F	01 20 53 01 21 47 01 23 50 01 24 33 01 30 48 01 34 32 01 35 46 01 43 51 03 55	Epicenter by J.S.A. region of 124°5 E. 008°S. H = 01 ^h 04 ^m 36 ^s Depth = 180 km. $\Delta P - H = 132^{\circ}2$ $\Delta_{\text{meas}} = 131^{\circ}3$

Florissant Bulletin for May, 1942

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
62	May 29	G-W G-W G-W	ePZ eSZ eLZ FZ	05 ^h 41 ^m 34 ^s 05 49 14 05 58 45 06 14	Record weak $\Delta s - P = 54^0$
63	May 29	W-A W-A	eN iN F	20 00 13.3 20 00 14.2 20 01 03	Local shock Very weak, probably surface waves
64	May 30	G-W G-W	eE eE	07 17 30 07 21 08	Distant. F lost in following quake.
65	May 30	G-W G-W	i(P)Z iSE F	07 24 55 07 28 51 08 03	H = 07 ^h 20 ^m 06 ^s $\Delta s - (P) = 21.04$ P - H = 04 ^h 49 ^m
66	May 31	G-W G-W G-W	eZ eZ eZ FZ	03 06 03 03 13 16 03 15 26 03 34	Record weak
67	May 31	G-W G-W	ePZ iSN F	05 30 13 05 37 57 06 18	Epicenter region of 53°N., 169°E. H = 05 ^h 20 ^m 43 ^s $\Delta s - P = 54.95$ $\Delta_{\text{meas}} = 54.93$

Minor Seismic Activity:

May 3 -- 01^h52^m to 03^h37^m
 3 -- 04 55 to 05 59
 6 -- 04 17 to 05 35
 10 -- 12 40 to 12 53
 12 -- 14 28 to 14 39
 14 -- 10 44 to 10 52
 14 -- 15 54 to 16 20
 15 -- 03 13 to 03 36
 19 -- 12 09 to 12 19
 20 -- 18 03 to 18 27
 22 -- 18 32 to 19 53
 23 -- 03 17 to 03 55
 23 -- 15 05 to 15 17
 23 -- 15 58 to 16 08
 31 -- lost to 14 16
 31 -- 10 53 to 11 13

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Three Galtzin-Wilip, two Wood-Anderson short-period seismographs, Shortt synchronome clock

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Bulletin, June, 1942

No.	Date	Inst.	Phase	G.M.C.T	Remarks
68	June 6	G-W W-A W-A G-W	eZ eN eN eF ₂	11 ^h 44 ^m 22 ^s 11 49 21 11 50 16 12 19 33 12 39	Record weak
69	June 6	G-W G-W	eN eL _E F	15 30 23 15 55 21 16 10	Record weak. Part lost in changing records
70	June 6	W-A W-A W-A W-A W-A	(e) ^N (e) ^N iN iN F ^N	19 21 55.0 19 21 56.0 19 22 00.5 19 22 02.5 19 23 40	Local shock Probably only surface waves
71	June 9	W-A W-A G-W G-W	iN iN iN iN F	09 41 20 09 42 17 09 43 55 09 46 21 09 49	Record weak
72	June 9	W-A W-A G-W G-W G-W	eE iE eZ iZ iZ F	11 12 50 11 13 36 11 22 35 11 24 55 11 26 32 11 55	Record weak
73	June 9	W-A W-A	eE iE F	22 03 32.3 22 03 32.6 22 03 56	Local shock
74	June 10	G-W G-W G-W G-W	iZ eZ eZ eZ F	01 18 54 01 19 25 01 42 17 01 48 54 02 05	Record weak.
75	June 10	G-W G-W G-W G-W G-W G-W	iZ iZ eZ eZ eZ F	10 41 52 10 43 16 10 44 53 10 49 20 11 36 18 11 46 58 12 29	Record weak.

Florissant Bulletin for June, 1942

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
76	June 11	G-W G-W G-W G-W G-W	eE eE iE eE iE F	02 ^h 20 ^m 43 ^s 02 21 03 02 21 43 02 22 14 02 23 08 02 40	Record weak
77	June 12	G-W G-W	ePZ eSZ FZ	10 29 31 10 35 49 11 41	Epicenter by J.S.A. 0.0°N., 77.0°W. H = 10 ^h 21 ^m 50 ^s ΔS - P = 40.6 Δmeas = 40.3
78	June 14	G-W G-W G-W G-W G-W G-W	eE e(S) _E i(SKS) _E i(PS) _E eL _E eM _E F _E	03 28 00 03 34 27 03 34 32 03 37 46 04 09 25 04 19 25 04 49	Phases indistinct Identifications doubtful
79	June 15	G-W G-W G-W G-W	iPZ eSZ iN iL FN	16 46 54 16 51 18 16 51 37 16 55 20 17 10	Epicenter by J.S.A. 19.0°N., 106.5°W. H = 16 ^h 41 ^m 33 ^s ΔS - P = 24.6 Δmeas = 24.4
80	June 16	G-W G-W G-W	iZ iZ eL _E F	05 00 21 05 00 47 05 40 00 05 43	Record weak
81	June 16	G-W G-W G-W G-W G-W	i(P)Z iN iN iSN iN F	07 50 24 07 51 56 07 52 25 07 56 07 07 56 58 08 27	Phases doubtful
82	June 16	G-W G-W G-W G-W	iPZ i(P) _P ?Z iSN i(SS)?N F	21 12 43 21 14 18 21 18 20 21 21 20 21 49	Epicenter by J.S.A. 0.3°S., 80.2°W. H = 21 05 57 ΔS - P = 40.0 Δmeas = 40.0 Aftershock of series beginning May 14.

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No.	Date	Inst.	Phase	G.M.C.T.	Remarks
83	June 18	G-W G-W G-W G-W G-W G-W G-W G-W	e(PR ₁)N eN eN e(S)N eN e(PPS)N eLN eMN F	09 49 09 09 51 24 09 55 25 09 56 56 09 58 09 09 58 54 10 21 10 29 11 58	Record weak Riverview gives H = 09 30 57 $\Delta S - H = 104.1$
84	June 19	G-W G-W G-W	eE eE iE F	19 59 52 20 00 15 20 00 21 20 50	Record weak
85	June 20	G-W G-W G-W G-W	iPZ ipPZ iSN isSN F	10 06 58 10 07 06 10 10 55 10 11 07 10 53	Epicenter by J.S.A. 18.2 N., 101.0 W. H = 10 02 05 Depth $\approx$ 80 km. $\Delta S - P = 22.1$ $\Delta_{\text{meas}} = 22.2$
86	June 20	W-A W-A	eN eLN F	20 11 47.6 20 11 48.8 20 12 12	Weak. Probably surface waves
87	June 21	G-W G-W G-W	iz i(SKS)N iN F	04 51 14 05 01 38 05 02 34 05 37	Record very weak
88	June 22	W-A	iN F	14 16 22.3 14 16 36	Local shock
89	June 22	W-A	iN F	15 36 57.9 15 37 23	Local shock
90	June 22	G-W G-W G-W G-W G-W G-W	eZ eZ i(S)N iN eN eLN F	20 00 13 20 00 46 20 05 19 20 05 40 20 06 23 20 12 10 20 25	
91	June 22	W-A W-A	iN iN F	20 22 42.7 20 22 43.0 20 23 20	Local shock
92	June 23	G-W G-W G-W G-W	iz iz eN eN F	09 01 34 09 01 53 09 06 06 09 06 38 09 18	

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No.	Date	Inst.	Phase	G.M.C.T.	Remarks
93	June 23	W-A W-A	iE iE FE	16 34 47.7 16 34 49.2 16 35 12	Local shock
94	June 24	G-W G-W G-W G-W G-W	ePR ₁ Z ePR ₂ Z eSKKSN eSN iSPN F	11 36 12 11 38 50 11 43 19 11 44 13 11 46 04 14 22	Wellington gives 40.9°S. 175.9°E. H = 11 16 29 Δ _{meas} = 117° Destructive in New Zealand
95	June 24	G-W G-W G-W G-W G-W G-W	eN eN iN eN iN iN F	18 50 02 18 58 08 19 09 39 19 19 35 19 23 01 19 27 03 19 32 38 20 27	Record weak Z component Galitzin- Wilip not function- ing at time of earth- quake
96	June 27	G-W G-W G-W G-W	iN iN iN iN F	03 00 45 03 06 34 03 07 18 03 09 45 03 15	Very weak
97	June 28	W-A W-A G-W G-W G-W	eN iN iE iE eLN F	00 12 25 00 12 42 00 17 39 00 18 11 00 22 37 00 36	
98	June 28	W-A W-A W-A W-A W-A W-A	eP ₁ N eN iS ₁ N iS ₂ N iS ₃ N iL ₁ N F	18 57 53.7 18 57 54.6 18 58 00.6 18 58 01.4 18 58 01.6 18 58 03.9 18 58 39	Local shock Δ _S - P = 63 km. H = 18 57 42.9
99	June 29	G-W G-W G-W G-W	iP ₁ Z iP ₂ Z iS ₁ Z iS ₂ Z F	06 38 03 06 38 28 06 47 29 06 43 07 07 09	J.S.A. gives 31.9° S. 69.3° W. H = 06 26 44 Depth = 100 km. Δ _P - H = 73.3 Δ _{meas} = 73.2

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Minor Seismic Activity

June 1	-	13 ^h 06 ^m	to	13 ^h 47 ^m
2	-	17 46	to	18 06
9	-	17 25	to	17 45
13	-	17 05	to	17 26
13	-	20 04	to	20 55
15	-	06 19	to	06 34
16	-	06 28	to	06 45
21	-	15 54	to	17 42
21	-	20 12	to	22 35
23	-	07 19	to	07 26
24	-	18 34	to	18 41
25	-	21 02	to	22 40
26	-	05 29	to	05 38
26	-	07 09	to	07 51
26	-	08 21	to	09 15
26	-	09 52	to	10 33
26	-	12 31	to	14 49
28	-	02 02	to	02 06
29	-	17 46	to	18 12
30	-	05 56	to	06 14
20	-	08 28	to	08 45

Microseisms strong - June 1 and 2

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Three Galitzin-Wilip, two Wood-Anderson short-period seismographs, Shortt synchronome clock

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Florissant Bulletin for July, 1942

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
100	July 1	G-W G-W G-W	iN iN eN F	21 ^h 41 ^m 10 ^s 21 42 43 21 47 13 22 07	Weak
101	July 2	G-W G-W G-W G-W	eN iN eN iN F	07 59 27 08 01 03 08 05 05 08 05 58 08 40	Weak
102	July 2	W-A W-A W-A W-A W-A	(e)PN (e)SN eSN iLN iLN F	21 20 27.3 21 20 30.9 21 20 31.2 21 20 32.5 21 20 33.3 21 20 52	Local shock H = 21 20 21.6 S - P = 33 km.
103	July 3	G-W G-W G-W G-W G-W	eEE eEE eEE iEE eEE F	03 09 02 03 13 41 03 40 07 03 48 58 04 04 49 04 42	Weak
104	July 4	G-W G-W G-W G-W	iPZ iPZ iSE essE F	02 00 35 02 02 07 02 06 33 02 09 01 03 13	Aftershock of #43
105	July 4	G-W G-W G-W G-W	iPZ e(P)Z iSE i(SS)E F	06 16 02 06 17 36 06 22 02 06 24 43 07 54	Aftershock of #43
106	July 4	G-W G-W G-W G-W G-W	ePZ iE iSE eE eE F	18 59 57 19 03 31 19 07 46 19 17 10 19 26 44 20 08	Epicenter region of 52° N., 174° W. Slightly deep? H = 18 50.3
107	July 5	G-W G-W	iPZ i(P)Z F	10 37 19 10 38 51 11 35	Aftershock of #43

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No.	Date	Inst.	Phase	G.M.C.T.	Remarks
108	July 5	G-W G-W G-W	ez en in F	14 18 41 14 20 13 14 24 37 14 44	Weak
109	July 7	G-W G-W G-W G-W G-W	ipPz ePR1Z iSKKS _E eE eE F	03 08 39 03 10 24 03 18 08 03 19 42 03 23 04 04 40	Weak $\Delta_{calc} = 103^{\circ}$ ca. Depth = 400-500 km.
110	July 7	G-W G-W G-W G-W	ipZ epN e(S) _N (e)s _{SN} F lost in	12 45 15 12 46 48 12 50 55 12 53 01	Aftershock of #43 changing records
111	July 8	G-W G-W G-W G-W G-W G-W G-W G-W	epE iPEE iPR1 E iSE iSP _{EE} ipS _{EE} iss _{EE} issP _{EE} F	07 06 22 07 06 25 07 08 42 07 15 06 07 15 36 07 16 01 07 16 16 07 16 42 10 10	J.S.A. gives 24 ⁰⁵ S. 69 ⁵⁵ W. Depth = 175 km. $\Delta_{F-H} = 66^{\circ}0$ $\Delta_{meas} = 66^{\circ}1$ H = 06 55 54
112	July 8	G-W G-W G-W G-W	ipZ epZ i(S) _E iss _E F	22 38 26 22 39 53 22 44 22 22 46 54 00 08	Aftershock of #43
113	July 11	W-A W-A	iE iE F	21 27 12.9 21 27 15.2 21 27 45	Weak, probably sur- face. Local shock.
114	July 12	G-W G-W G-W G-W	ipE epE iS _{EE} esS _{EE} F	05 12 53 05 14 26 05 18 52 05 21 43 06 15	Aftershock of #43
115	July 12	W-A W-A W-A W-A W-A	epE esE iE iL eL F	17 06 18.7 17 06 24.1 17 06 25.0 17 06 25.6 17 06 26.4 17 07 32	Local shock H = 17 06 10.3 $\Delta_{S-P} = 49$ km.

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No.	Date	Inst.	Phase	G.M.C.T.	Remarks
116	July 13	G-W G-W G-W G-W	eE eE eL(E) e(L)E F	01 ^h 44 ^m 27 ^s 01 45 28 01 08 33 01 44 45 02 03	Weak
117	July 13	W-A W-A W-A W-A W-A W-A	iN iN eN eN iN iN F	14 03 39.4 14 03 40.9 14 03 41.8 14 03 44.2 14 03 45.4 14 03 46.8 14 05 10	Very weak
118	July 14	W-A W-A W-A	eN iN eN F	01 09 16.9 01 09 17.6 01 09 17.8 01 09 38	Local shock Very weak
119	July 15	W-A W-A W-A W-A	iN iN iN iN F	21 45 30.9 21 45 33.1 21 45 37.5 21 45 56.4 21 46 14	Local shock Weak
120	July 20	G-W G-W G-W G-W G-W G-W G-W	eN eN iE eE iE iE F	01 28 26 01 29 09 01 31 03 01 31 57 01 33 46 01 36 32 01 54	Weak
121	July 21	G-W G-W G-W G-W G-W	eN iE iE iE e(L)E F	08 53 23 09 00 42 09 01 12 09 03 02 09 20 08 09 40	Weak
122	July 25	G-W G-W G-W G-W G-W G-W G-W	ePR ₁ E ePR ₂ E iSKS ₁ E iSKK ₂ E eS ₁ E iSP ₁ E eL(E) e(M)E F	06 42 08 06 45 19 06 48 11 06 49 36 06 50 55 06 52 01 07 18 41 07 23 53 08 43	Epicenter region of 11° N. and 126° E. H = 06 22 +

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No.	Date	Inst.	Phase	G.M.C.T.	Remarks
123	July 23	G-W G-W	i ^E e ^E F ^E	15 ^H 33 42 15 37 06 16 28	Very weak
124	July 25	W-A W-A W-A W-A	e ^N i ^N e ^N i ^N F ^N	16 59 11.6 16 59 13.1 16 59 13.2 16 59 14.3 16 59 47	Local shock
125	July 25	W-A W-A	i ^N i ^N F ^N	21 39 45.7 21 39 46.5 21 40 16	Local shock. "F" doubtful because of non-seismic vi- brations.
126	July 26	W-A W-A W-A	i ^N i ^N e ^N F ^N	18 19 36.5 18 19 37.7 18 19 38.6 18 20 27	Local shock
127	July 29	W-A W-A	e ^N i ^N F ^N	17 15 00.5 17 15 02.4 17 15 29	Local shock Weak
128	July 29	W-A W-A W-A W-A	i ^P ^N i ^P ^N i ^S ^N i ^S ^N F ^N	18 25 28.2 18 25 29.2 18 25 33.4 18 25 34.9 18 27 11	Local shock $\Delta S - P = 47$ km. H = 18 25 20.1
129	July 29	W-A W-A	e ^N i ^N F ^N	19 15 22.8 19 15 25.1 19 15 44	Local shock
130	July 29	G-W G-W G-W G-W G-W G-W G-W G-W G-W	e(P) ^N iPK ^N iPR ^E eSK ^E eSK ^E iS ^E iPP ^E eL ^E eM ^E F ^E	23 08 35 23 11 50 23 13 34 23 18 40 23 20 36 23 22 17 23 25 20 00 03 00 35 01 40	Region of Ceram, Is., (Moluccas)
131	July 31	W-A W-A W-A	i ^N i ^N i ^N F ^N	21 24 35.0 21 24 37.1 21 24 37.4 21 27 24	Local shock

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Minor Seismic Activity

July 5 - 23^h26^m to 23^h48^m
8 - 22 08 to lost in Quake #112
13 - 06 27 to 07 41
20 - 16 27 to 17 03
24 - 06 18 to 07 03
24 - 12 23 to 12 43
25 - 01 31 to 01 56
29 - 05 24 to 05 58

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FLORISSANT BULLETIN for August, 1942

22.

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
132	Aug. 1	W-A W-A	ee ee F lost in 133	12 53 22 12 54 23	Wellington gives 41°S 175.8°E Destructive in and near Wellington
133	Aug. 1	G-W G-W G-W G-W G-W	ePZ iSKSZ eSKKSZ iSPE eLE F	14 50 19 15 00 55 15 01 49 15 04 45 15 26.3 17 09	Epicenter Region of 07°5' N 156°0' E H = 14 36 11 $\Delta_{\text{meas}} = 105.2$ $\Delta_{\text{SKS-H}} = 105.2$ $\Delta_{\text{SP-H}} = 105.2$
134	Aug. 3	G-W G-W G-W G-W G-W G-W	ee ee ie ee ie ee F	03 21 20 03 26 53 03 32 49 03 33 28 03 34 57 03 36 44 03 40	Very Weak
135	Aug. 3	G-W G-W G-W	ie ie ee F	20 33 15 20 34 13 20 34 52 21 12	Weak
136	Aug. 3	W-A W-A W-A W-A	ee ee ie ile F	20 51 40.4 20 51 41.5 20 51 42.9 20 51 44.3 20 51 57	Local Shock
137	Aug. 5	G-W G-W G-W	ee ee ee F	14 27 45 14 29 14 14 32 36 14 38	Weak
138	Aug. 6	G-W G-W W-A	iPZ ipPE eSE F	23 42 19 23 43 00 23 46 42 05 07	U.S.C. and G.S. gives 14.4°N 90.9°W H = 23 36 57 Depth uncertain but greater than normal. $\Delta_{\text{meas}} = 24.5$ $\Delta_{\text{S-P}} = 24.4$ $\Delta_{\text{P-H}} = 24.4$

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No.	Date	Inst.	Phase	G.M.C.T.	Remarks
139	Aug. 7	G-W G-W G-W G-W G-W G-W	iZ eZ eZ eLZ eMZ FZ	07 10 08 07 14 47 07 16 15 07 19 47 07 22 42 07 44	Weak
140	Aug. 8	W-A W-A G-W G-W G-W	eP iP eS eS F	07 24 47 07 24 48 07 29 10 07 30 11 08 21	Epicenter region of 14.3 N., 89.5 W. H = 23.19m32s ΔS - P = 24.3 ΔP - H = 24.0 Δmeas = 24.1
141	Aug. 8	G-W G-W G-W G-W G-W	iP eE iS iL iM F	22 41 54 22 46 23 22 46 53 22 52 05 22 56 35 00 44	Epicenter by J.S.A. 13.4 N., 91.2 W. After shock of #136 H = 22h36m32s(?)
142	Aug. 10	W-A W-A G-W	iN iN eF	14 59 46 14 59 58 15 05 27 15 20	Weak
143	Aug. 11	G-W G-W G-W G-W G-W G-W	iZ iZ iE iE iE iM F	04 53 40 04 54 09 04 59 14 04 59 54 05 02 55 05 08 23 05 41	
144	Aug. 11	G-W G-W G-W G-W G-W	iZ eZ iE iE iE F	07 16 55 07 17 28 07 21 05 07 27 46 07 32 44 08 07	
145	Aug. 11	W-A W-A W-A W-A W-A W-A W-A W-A W-A W-A	eE iE eE iE iE iE iE iE iE F	21 24 21.8 21 24 22.6 21 24 23.0 21 24 23.6 21 24 24.1 21 24 25.0 21 24 25.6 21 24 25.8 21 24 26.8 21 24 27.6 21 25 00	Local shock

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No.	Date	Inst.	Phase	G.M.C.T.	Remarks
146	Aug. 13	G-W G-W G-W G-W G-W G-W G-W	ez ez iE iE iE elE emE F	16 02 38 16 04 05 16 11 11 16 11 25 16 13 41 16 38 30 16 42 55 17 23	Epicenter region of 09° 5' S. 143° 0' E. Riverview gives H = 15 ^h 44 ^m 44 ^s May be deeper than normal $\Delta_{\text{meas}} = 129.5$
147	Aug. 13	G-W G-W G-W G-W	iE iE iE eE F	19 43 10 19 43 38 19 45 44 19 46 15 20 10	Weak
148	Aug. 14	G-W G-W G-W G-W	ez en iE iE F	20 55 54 21 00 30 21 03 22 21 07 26 22 08	Very poor record Epicenter by J.S.A. 18° N. and 105° W.
149	Aug. 15	G-W G-W G-W	iz ee e(L)E F	06 40 25 06 46 13 06 52 08 07 16	Weak
150	Aug. 15	G-W G-W G-W G-W	ez ez elE emE F	15 20 48 15 22 45 15 52 42 16 19 22 17 38	Weak
151	Aug. 16	G-W G-W G-W	iz iz iE F	11 40 44 11 43 04 11 43 50 12 18	Very weak
152	Aug. 16	G-W G-W G-W G-W	1PZ 1pPZ isE isE F	20 13 12 20 13 57 20 17 59 20 19 24 20 43	Depth ≈ 220 km. $\Delta_{\text{calc}} \approx 300$ Epicenter by J.S.A. 12° 5' N. and 90° 0' W. h ≈ 80 km.
153	Aug. 18	G-W G-W G-W	ez ez ez FZ	20 07 07 20 08 50 20 09 47 20 18	Very weak
154	Aug. 20	W-A W-A G-W G-W	en in ez elZ F	16 48 30 16 48 32 16 53 20 16 57 28 17 06	Very weak

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No.	Date	Inst.	Phase	G.M.C.T.	Remarks
155	Aug. 20	G-W G-W G-W G-W	iPz iPR ₁ z eS _E eSR ₁ E F	22 42 24 22 42 54 22 46 33 22 47 36 23 19	Epicenter region of 15°N., 92°W. H = 22 ^h 37 ^m 21 ^s ΔS - P = 22.98
156	Aug. 22	G-W G-W G-W	iE iE e(L) _E F	08 57 35 09 25 08 09 51 12 10 49	Very Weak May be two separate shocks.
157	Aug. 22	W-A W-A W-A W-A G-W G-W G-W	iE iN iN iN iE iE eE F	19 58 08 19 58 37 19 58 47 19 59 01 20 02 04 20 02 47 20 03 08 20 20	Long period Records very weak. May be below normal depth.
158	Aug. 23	G-W G-W G-W G-W	iPz ipPz iS _E i(ss) _E F	06 46 21 06 46 48 06 55 20 06 56 09 09 38	Epicenter by U.S.C. and G. S. 51.5 N. 163° E. H ≅ 06 35 24 h about 100 to 150 km. Δmeas = 67.2
159	Aug. 24	W-A W-A G-W G-W G-W G-W G-W G-W G-W G-W	ePN iPN ipPN iPR ₁ N ipPR ₁ N iS _N iSPN isS _N isSPN iSR ₁ N F	22 59 59 23 00 00 23 00 32 23 02 05 23 02 37 23 07 42 23 08 28 23 08 43 23 09 18 23 11 51 03 30	Epicenter about 15.0 S., 76.0 W. H = 22 50 38 Depth ≅ 150 km. ΔS - P = 56.92 ΔP - H = 56.92 Δmeas = 56.2
160	Aug. 25	G-W G-W G-W G-W	iPz ipPz i(s) _E eLz F	20 25 26 20 26 02 20 33 0 20 48 03 22 41	Aftershock of #138
161	Aug. 26	G-W G-W G-W	iPz ipPz i(s) _E F	12 18 09 12 18 45 12 25 52 13 19	Aftershock of #138
162	Aug. 27	W-A W-A W-A W-A	iN eN iN iL FN	19 59 04.7 19 59 10.6 19 59 11.4 19 59 12.3 19 59 43	Local shock

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No	Date	Inst.	Phase	G.M.C.T.	Remarks
163	Aug. 29	G-W G-W G-W	iPN iE i(S)E F	12h30m01s 12 34 52 12 35 57 13 10	Weak. Apparently deeper than normal
164	Aug. 29	G-W G-W G-W G-W G-W	eN eN iN iE eLN F	21 45 42 21 46 56 21 50 21 21 51 57 21 53 15 22 15	Weak.
165	Aug. 31	W-A W-A W-A W-A W-A W-A W-A W-A	iN iN iN iN iN iN i(L)N iN F	10 27 44.1 10 27 49.2 10 27 53.5 10 27 57.3 10 27 59.7 10 28 04.1 10 28 10.1 10 28 11.8 10 30 29	Local Shock

Minor Seismic Activity

Aug.	1	05 36	lost	(record off Paper)
	3	19 42	19 50	
	3	23 22	23 49	
	18	19 25	19 38	
	27	20 42	23 36	

No Strong Microseisms

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Records read by:
L. S. Buckie, Jr.

Florissant Bulletin for September, 1942

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
166	Sept. 1	G-W G-W G-W G-W G-W	ez iE iE iE eLZ FZ	09 54 55 10 05 28 10 05 42 10 06 49 10 29 00 10 58	Weak
167	Sept. 2	G-W G-W G-W G-W	iPZ iS e(L) eME F	03 26 42 03 34 06 03 42 20 03 49 45 04 58	J.S.A. gives region of 52° N., 165° 5' W. H = 03 17 32 f $\Delta P - H = 52.3$ $\Delta S - P = 51.2$ $\Delta_{meas} = 52.3$
168	Sept. 3	W-A W-A W-A W-A	iW iN iLN iMN F	20 59 45.4 20 59 48.0 20 59 49.6 20 59 56.4 21 00 21	Local shock
169	Sept. 4	G-W G-W G-W G-W G-W	iPZ iPZ i(S) eLN eMN F	02 59 17 02 59 45 03 03 48 03 07 57 03 11 47 03 38	J.S.A. gives 12° 3' N. 88° 0' W. H = 02 ^h 53 ^m 49 ^s h = about 100 km. $\Delta S - P = 26.6$ $\Delta P - H = 26.1$ $\Delta_{meas} = 26.5$
170	Sept. 4	G-W G-W G-W G-W	iPZ iS eLZ eMZ F	17 55 38 18 03 04 18 07 37 18 15 27 19 04	J.S.A. gives 52° 0' N. 165.5° W. H = 17 ^h 46 ^m 30 ^s $\Delta S - P = 51.6$ $\Delta P - H = 52.1$ $\Delta_{meas} = 52.3$
171	Sept. 6	G-W G-W G-W G-W	iPZ iPZ iSE iSE F	16 04 29 16 04 46 16 13 30 16 13 55 16 47	Weak H = 15 ^h 52 ^m 21 ^s (?) h = 75 km. (?) $\Delta S - P = 79.6$
172	Sept. 9	G-W G-W G-W G-W G-W	iPZ iPZ iPR1Z iSE iSE F	01 34 27 01 34 45 01 36 28 01 41 46 01 42 12 03 14	J.S.A. gives 52° N. 164° W. H = 01 ^h 25 ^m 27 ^s h = 100 km. $\Delta S - P = 51.8$ $\Delta P - H = 52.2$ $\Delta_{meas} = 51.2$

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No.	Date	Inst.	Phase	G.M.C.T.	Remarks
173	Sept.11	W-A W-A W-A	iN iN iLN F	15 00 07.1 15 00 12.8 15 00 15.6 15 00 50	Local shock
174	Sept.11	G-W G-W G-W	iN eN eLN F	05 50 12 05 58 08 06 02 57 06 39	Weak
175	Sept.14	G-W G-W G-W G-W G-W	eZ i(S)N i(SS)N eLE eME F	11 49 53 11 57 33 11 58 36 12 22 36 12 33 54 12 59	Weak. Possibly below normal depth.
176	Sept.16	W-A W-A W-A	iN iLN iMN F	09 01 13.8 09 01 16.1 09 01 22.8 09 01 30	Local shock Weak
177	Sept.22	G-W G-W G-W G-W	eZ e(S)EE i(S)EE eMN F	00 58 35 01 07 35 01 07 42 01 26 15 02 47	Weak. P masked by microseisms
178	Sept.25	G-W G-W	iN e(L)N F	08 30 59 08 39 32 09 41	Very weak Masked by microseisms.
179	Sept.26	G-W G-W G-W G-W G-W	iPZ ipPZ iSN isSN e(M)N F	04 05 50 04 06 09 04 10 16 04 11 48 04 13 50 05 10	J.S.A. gives 12°3 N. 88°0 W. H = 04 ^h 00 ^m 21 ^s h = 100 km. $\Delta s - P = 26^{\circ}0$ $\Delta p - H = 26^{\circ}2$ $\Delta_{meas} = 26^{\circ}2$
180	Sept.27	G-W G-W G-W G-W	iPZ i(pP)Z iSE i(SS)E	17 07 26 17 07 42 17 11 09 17 11 34	Weak H = 17 02 48 (?) h = 80 km. (?) $\Delta s - P = 21^{\circ}8$

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No.	Date	Inst.	Phase	G.M.C.T.	Remarks
181	30	W-A	eN	22 46 32.1	Local Shock Very Weak
		W-A	eN	22 46 34.1	
		W-A	i(L) _N	22 46 36.2	
		W-A	i(M) _N	22 46 38.6	
			F	22 46 46	

Minor Seismic Activity

Sept. 1	19 ^h 44 ^m	to	20 ^h 07 ^m
5	11 25		11 51
7	05 02		05 43
10	05 24		05 05
10	23 45		00 11
16	00 36		00 57
17	20 52		21 15
20	00 01		00 51
23	04 04		05 31

Microseisms Strong

Sept. 7
14
15
17
20
21
24
28
29
30

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Three Galitzin-Willip, two Wood-Anderson short-period seismographs, Shortt synchronome clock

29

Bulletin for October , 1942

No.	Date	Inst.	Phase	C.M.C.T.	Remarks
132	Oct. 4	W-A W-A W-A W-A W-A	iN iE iE i(L)E i(M)E F	19 05 50.2 19 05 55.2 19 05 57.0 19 05 58.3 19 06 04.9 19 07 19	Local shock
133	Oct. 5	W-A G-W G-W G-W	iPE e(S)E i(S)E iM FN	03 04 15 03 08 58 03 09 17 03 13 59 03 31	Weak
134	Oct. 6	G-W G-W G-W	iE eLE eME F	12 19 27 12 44 13 12 48 48 01 16	Weak
135	Oct. 9	G-W G-W	eLN eME F	16 38 55 16 50 45 17 41	Very weak Surface waves only
136	Oct. 12	G-W G-W G-W G-W	iz ez iz e(L)Z F	01 33 47 01 35 42 01 35 54 01 42 49 01 59	Weak
137	Oct. 12	G-W G-W G-W	iz ez e(L)N F	05 31 33 05 33 42 05 45 48 06 00	Weak
138	Oct. 14	G-W G-W G-W	iN iN cN FN	00 25 56 00 26 36 00 28 46 00 39	Weak
139	Oct. 15	G-W G-W G-W	iN eN iN F	07 45 19 07 45 47 07 47 06 07 49	Very weak
190	Oct. 15	G-W G-W G-W	iN iN cN F	08 25 37 08 26 01 08 27 19 08 29	Very weak
191	Oct. 15	G-W G-W	iN iN	08 44 03 08 44 31 08 47	Very weak



Florissant Bulletin for October, 1942

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
192	Oct. 18	W-A G-W G-W	eE i(S) _N i(L) _N F	05 29 59 05 33 57 05 36 38 05 04	Weak
193	Oct. 22	G-W	iN F	18 24 59 18 33	Very weak
194	Oct. 26	G-W G-W G-W G-W G-W	iPZ ipPZ eS esS eM F	21 21 13 21 21 23 21 31 04 21 31 21 21 50 55 23 10	J.S.A. gives region of 47°7' N., 151°2' E. H = 21h09m21s h ≈ 50 km. ΔS - P = 77.9 ΔP - H = 78.0 Δmeas = 78.2
195	Oct. 28		iPZ eS e(M) _N F	10 49 56 10 54 13 10 57 40 11 48	J.S.A. gives region of 15°4' N., 96°8' W. H = 10 44 45 ΔS - P = 23.7 ΔP - H = 23.8 Δmeas = 23.8
196	Oct. 31	G-W G-W	eZ eLZ F	15 34 14 15 37 40 15 52	Weak

Minor Seismic Activity

October 3 - 10^h27^m to 10^h33^m
 8 - 20 58 to 21 20
 9 - 01 14 to 01 23
 18 - 11 51 to 12 07
 25 - 07 46 to 08 08

Microseisms strong - October 4, 12, 14, 18, 19, 28, 29.

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Three Galitzin-Wilip, two Wood-Anderson short-period seismographs, Shortt synchronome clock

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Bulletin for November, 1942

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
197	Nov. 1	W-A G-W G-W	eE iZ i(L)Z F	15 44 56 15 49 36 15 51 21 15 56	Very Weak
198	Nov. 2	W-A W-A W-A W-A W-A W-A W-A	iN iN iN iN iN i(L)N i(M)N F	20 03 30.3 20 03 32.2 20 03 33.2 20 03 35.5 20 03 36.5 20 03 38.4 20 03 48.5 20 04 58	Local shock. Felt by occasional persons in and near St. Louis
199	Nov. 7	G-W	iZ F	07 54 52 08 47	Very weak
200	Nov. 7	W-A W-A W-A W-A W-A W-A	eN iN iN eN eN iN	16 25 15.3 16 25 59.4 19 28 51.7 19 29 50.2 19 57 06.9 19 59 31.4	Local disturbance Readings are begin- nings of disturbances which lasted between 30 sec. and 90sec. each.
201	Nov. 10	G-W G-W	iP'Z iPR ₁ Z F	12 00 46 12 03 37 17 00	J.S.A. gives region of 46°S., 35° E. H = 11 41 18 $\Delta P' - H = 140^\circ$ $\Delta_{\text{meas}} = 140^\circ$ Amplitudes very large Records difficult to read.
202	Nov. 12	G-W G-W G-W G-W G-W	iPZ iPZ iS _E Z iS _E E eL _E F	05 00 24 05 00 42 05 04 28 05 04 52 05 06 24 06 08	J.S.A. gives 16.8 N. 93.8 W. H = 04h55m31s h = 100 km. $\Delta P - H = 22.5$ $\Delta_{\text{meas}} = 22.6$
203	Nov. 12	G-W G-W G-W	iPZ iZ iSN F	15 33 50 15 35 31 15 40 00 16 43	U.S.C. and G.S. gives 091 S., 81.0 W. H = 15 26 18 $\Delta S - P = 39.3$ $\Delta P - H = 39.6$ $\Delta_{\text{meas}} = 39.7$

Florissant Bulletin for November, 1944

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No.	Date	Inst.	Phase	G.M.C.T.	Remarks
204	Nov. 15	G-W G-W G-W G-W	iZ iN eLN eLN F	17 29 28 17 35 36 17 42 01 17 58 41 18 58	Weak
205	Nov. 15	W-A W-A W-A W-A	iE iE iE iE F	18 30 38.3 18 30 39.3 18 30 41.0 18 30 43.8 18 32 01	Local shock
206	Nov. 19	G-W G-W G-W G-W G-W	iPZ iZ iPZ iS iS F	08 59 29 08 59 44 09 01 11 09 05 39 09 08 26 10 30	Epicenter region of 00°3 S., 80°2 W. H = 08 51 14 h = about 500 km. $\Delta p - H = 40.2$ $\Delta_{meas} = 40.1$
207	Nov. 20	G-W G-W G-W	iZ iZ iN F	04 08 34 04 08 54 04 13 10 04 27	Very weak
208	Nov. 25	G-W G-W G-W G-W G-W G-W	iPZ iPZ iS iS eLN eLN F	01 23 06 01 23 29 01 27 25 01 28 02 01 30 45 01 32 25 02 28	J.S.A. gives 16°6 N. 97°4 W. H = 01 17 57 Depth probably below normal. $\Delta s - P = 23.9$ $\Delta p - H = 23.4$ $\Delta_{meas} = 22.9$
209	Nov. 26	G-W G-W G-W G-W G-W	iPZ iPZ iS iS iS F	14 39 32 14 40 04 14 49 28 14 49 43 14 50 47 15 41	Region of 42° N. 148°5 E. H = 14 27 13 h = 140 km. $\Delta s - P = 84.3$ $\Delta p - H = 85.1$ $\Delta_{meas} = 85.1$
210	Nov. 28	G-W G-W G-W	iPZ iS iS F	10 48 41 10 56 40 11 06 36 12 15	J.S.A. gives 7°7 N. 36°6 W. H = 10 38 50 $\Delta p - H = 57.5$ $\Delta s - P = 56.9$ $\Delta_{meas} = 57.3$

Minor Seismic Activity - Nov. 2 - 23^h45^m to 02^h41^m, 7 - 01^h23^m to 01^h28^m, 14 - 05^h57^m to 07^h33^m, 17 - 10^h57^m to 11^h17^m, 17-23^h46^m to 00^h07^m, 21 - 14^h22^m to 14^h27^m, 22 - 17^h09^m to 17^h55^m, 26-10^h47^m to 11^h05^m.

Microseisms strong - Nov. 2, 3, 14, 15, 17, 20, 22, 26, 27, 28.

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Three Galitzin-Wilip, two Wood-Anderson short-period seismographs, Shortt synchrotime clock

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Florissant Bulletin for December, 1942

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
211	Dec. 22	W-A W-A W-A W-A W-A W-A	i _E e _E i _E i(L) _E i _E i(M) _E F	18 ^h 22 ^m 03. ^s 0 18 22 05.2 18 22 07.1 18 22 08.3 18 22 13.0 18 22 15.5 18 23 27	Local shock
212	Dec. 26	W-A G-W G-W	i _P _N e _S _E e _M _N F lost in changing the records	12 38 18 12 43 29 12 50 00	J.S.A. gives region of 09°5' N., 75°0' W. H = 12 31 47 $\Delta_P - H = 32.1$ $\Delta_{meas} = 32.0$
213	Dec. 31	W-A G-W G-W	i _P _E i _S _N e _L _N F lost in changing records	12 11 42 12 18 07 12 21 30	J.S.A. gives region of 18°1' N., 48°0' W. H = 12 ^h 03 ^m 50 ^s $\Delta_S - P = 41.8$ $\Delta_P - H = 42.1$ $\Delta_{meas} = 41.9$
214	Dec. 31	G-W G-W	i _N i _N F	19 28 31 19 31 49 20 03	Very weak

Minor Seismic Activity

Dec. 11 - 03 05 to 04 07
 15 - 09 22 to 09 54
 20 - 14 26 to 15 57
 22 - 04 58 to 05 15
 22 - 06 39 to 07 02
 23 - 01 24 to 01 50
 23 - 14 58 to 15 27
 23 - 16 06 to 16 12
 27 - 17 24 to 18 04
 29 - 04 17 to 04 39
 29 - 23 43 to 23 52

Microseisms strong - Dec. 1-5 incl., 14-20 incl.

Note: Shocks were recorded on the long period instruments Dec. 5, about 15^h G.M.T. and Dec. 9 about 22^h30^m G.M.T. but due to the failure of the timing relays from Dec. 1-9, readings were not possible.

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