

157/-5 SEPT. 1945

FLORISSANT



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

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

double

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(SR 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 3°2' S 79°2' W H = 15 ^h 12 ^m 44 ^s Focal depth may be slightly greater than normal Δ _{S-P} = 43.6 Δ _{P-H} = 43.6 Δ _{meas} = 43.6
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 Δ _{S₁-P₁} = 44 km. H = 18 ^h 05 ^m 06.3 ^s
187	Jan. 17	W-A W-A W-A G-W	eP _N iP _N eS _N 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 Δ _{P-H} = 22.8 Δ _{meas} = 22.8
188	Jan. 20	G-W G-W G-W G-W G-W G-W G-W G-W G-W	iP _Z iZ iP _{1Z} iS _N iZ iE iN 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. φ = 17°0' N λ = 105°5' W H = 06 ^h 25 ^m 38 ^s Δ _{P-H} = 24.7 Δ _{meas} = 25.5
189	Jan. 23	W-A W-A W-A W-A	iE iE iNE iE	16 ^h 00 ^m 56.9 ^s 16 00 57.9 16 00 58.3 16 00 59.9	Local disturbance

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
190	Jan. 27	G-W	iP'Z	13 ^h 48 ^m 13 ^s	Epicenter by J.S.A. Region of 0°0 N 131°0 E H = 13 ^h 29 ^m 10 ^s ± Δ _{meas} = 128°0 ⁺ Δ _{SKS-H} = 127°8
		G-W	iPR ₁ ^{EZ}	13 50 01	
		G-W	i(SKP) ^{EZ}	13 51 20	
		G-W	i(SKP) ^E	13 51 38	
		G-W	eSKS ^{NE}	13 55 16	
		G-W	i ^E	13 55 29	
		G-W	iSKKS ^E	13 57 08	
		G-W	iN	13 57 13	
		G-W	iPS ^Z	14 00 11	
		G-W	i ^E	14 03 10	
		G-W	F ^E	16 48	
191	Jan. 29	G-W	eSKKS ^E	09 ^h 49 ^m 25 ^s	Record weak, distant; Microseisms strong Provisional Epicenter by Riverview 17°5 S 167°5 E h = 100 km. Δ _{meas} = 110°5
		G-W	i(S) ^E	09 50 24	
		G-W	iPKK ^E	09 52 09	
		G-W	iPPS ^E	09 52 45	
		G-W	F ^E	10 53	
192	Jan. 29	W-A	eP ₁ ^N	22 ^h 12 ^m 23.4 ^s	Local disturbance Δ _{S₁-P₁} = 43 km. H = 22 ^h 12 ^m 15.9 ^s Felt in S.W. St. Louis
		W-A	iP ₀ ^N	22 12 24.1	
		W-A	iS ₁ ^N	22 12 28.2	
		W-A	iS ₀ ^N	22 12 29.1	
193	Jan. 31	W-A	eP ^E	05 ^h 54 ^m 50 ^s	Epicenter Ø = 50°6 N λ = 123°2 W H = 06 ^h 49 ^m 13 ^s Δ _{P-H} = 26°2 Δ _{meas} = 26°2 Felt at Victoria and Vancouver B.C.
		W-A	iPR ₁ ^E	05 55 21	
		G-W	e(S) ^E	05 59 43	
		G-W	iM ^N	06 03 04	
		G-W	F ^N	06 18	

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

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



Revised page 1

Bulletin for January, 1942

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
1	Jan. 8	W-A	iP _N	15 ^h 20 ^m 48 ^s	Epicenter near 3 ^o .2 S. 79.2 W. H = 15 ^h 12 ^m 44 ^s Focal depth may be slightly greater than normal $\Delta S - P = 43.6$ $\Delta P - H = 43.6$ $\Delta_{meas} = 43.6$
		G-W	iS _{NE}	15 27 24	
		W-A	eS _{NE}	15 27 24	
		G-W	i(SR ₁) _E	15 30 29	
		G-W	eE	15 30 57	
		G-W	eE	15 31 24	
			F	15 47	
2	Jan. 13	W-A	eE	23 09 01.1	Local disturbance Phases small and weak
		W-A	iE	23 09 01.5	
		W-A	eE	23 09 02.4	
3	Jan. 14	W-A	iP _{1N}	18 05 14.1	Local disturbance $\Delta S_1 - P_1 = 44$ km. H = 18 ^h 05 ^m 06 ^s .3
		W-A	i _N	18 05 14.8	
		W-A	i _N	18 05 15.9	
		W-A	iS _{1NE}	18 05 19.0	
		W-A	i _{NE}	18 05 20.6	
		W-A	i _N	18 05 22.7	
4	Jan. 17	W-A	eP _N	23 24 18	Epicenter near 17 ^o .7 N. 99 ^o .5 W. H = 23 ^h 19 ^m 16 ^s $\Delta P - H = 22.8$ $\Delta_{meas} = 22.8$
		W-A	iP _N	23 24 19	
		W-A	eS _N	23 28 40	
			F	23 42	
5	Jan. 20	G-W	iP _Z	06 31 00	Epicenter by J.S.A. $\phi = 17^{\circ}0$ N. $\lambda = 105^{\circ}5$ W. H = 06 ^h 25 ^m 38 ^s $\Delta P - H = 24.7$ $\Delta_{meas} = 25.5$
		G-W	i _Z	06 31 03	
		G-W	iP _{R1Z}	06 31 34	
		G-W	iS _N	06 35 22	
		G-W	i _Z	06 35 26	
		G-W	i _E	06 35 34	
		G-W	i _N	06 35 38	
		G-W	iSR _{1N}	06 36 31	
		G-W	iM _{NE}	06 38 46	
	F	07 42			
6	Jan. 23	W-A	iE	16 00 56.9	Local disturbance
		W-A	iE	16 00 57.9	
		W-A	i _{NE}	16 00 58.3	
		W-A	iE	16 00 59.9	

Florissant Bulletin, January, 1942

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
7	Jan. 27	G-W	iP ₁ Z	13 ^h 45 ^m 13 ^s	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
		G-W	iPR ₁ EZ	13 50 01	
		G-W	i(SKP) ₁ EZ	13 51 20	
		G-W	i(SKP) ₁ E	13 51 38	
		G-W	eSKS _{NE}	13 55 16	
		G-W	i _E	13 55 29	
		G-W	iSKKS _E	13 57 03	
		G-W	i _N	13 57 13	
		G-W	iPS _Z	14 00 11	
		G-W	i _E F	14 03 10 15 48	
8	Jan. 29	G-W	eSKKS _E	09 49 25	Record weak, distant; Microseisms strong Provisional epicenter by Riverview 17°5 S. 167°5 E. h = 100 km. Δmeas about 110.5
		G-W	i(S) _E	09 50 24	
		G-W	iPKK _E	09 52 09	
		G-W	iPPS _E	09 52 45	
		G-W	F	10 53	
9	Jan. 29	W-A	eP ₁ N	22 ^h 12 ^m 23.4	Local disturbance ΔS ₁ - P ₁ = 43 km. H = 22 ^h 12 ^m 15.9 Felt in S.W. St. Louis
		W-A	iP ₁ N	22 12 24.1	
		W-A	iS ₁ N	22 12 28.2	
		W-A	iS ₁ N	22 12 29.1	
10	Jan. 31	W-A	eP ₁ E	06 54 50	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.
		W-A	iPR ₁ E	06 55 21	
		G-W	e(S) _E	06 59 43	
		G-W	iM _N	07 03 04	
		G-W	F	07 18	

Minor Seismic Activity:

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.

James B. Macelwane, S.J.
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Bulletin, February, 1942

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
11	Feb. 9	W-A	i _N	17 ^h 31 ^m 07. ^s 5	Local shock Probably surface waves
		W-A	i _N	17 31 08.1	
			F	17 31 31	
12	Feb. 11	W-A	iP _E	11 25 59	Epicenter by J.S.A. 25°0 N., 110°5 W. H = 11 ^h 21 ^m 03 ^s Δ _P - H = 22.1 Δ _{meas} = 21.9
		G-W	e(M) _N	11 32 25	
			F	11 43	
13	Feb. 21	W-A	iP _E	07 20 42	
		W-A	iP _R _N	07 24 09	
		G-W	iSKS _E	07 31 29	
		G-W	iSKKS _E	07 31 41	
		G-W	iS _E	07 31 56	
			F	08 54	
14	Feb. 28	W-A	iP _O _E	21 34 07.7	Local shock H = 21 33 57.8 Δ _{S_O} - P _O = 55 km.
		W-A	e _E	21 34 12.0	
		W-A	iS _O _E	21 34 13.3	
		W-A	i _E	21 34 13.5	
		W-A	i _E	21 34 14.3	
		W-A	i _E	21 34 15.5	
			F	21 34 40	

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 - 18 33 to 19 33
 17 - 07 05 to 07 44
 23 - 02 53 to 03 20

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

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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 _{1Z} iS _E iX _Z iSR _{1N} 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 ΔS - P = 24.3 ΔP - H = 24.8 Δ _{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 W-A	eP _{3N} eP _{2N} iP _{1N} iS _{4N} eN iS _{3N} iN iN iS _{2N} iS _{1N} 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 ΔS ₂ - P ₂ = 268 km. Δ _{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 ipP _E iPR _{1E} iS _N iSKS _E iSKKS _E iSP _E iS _N iSP _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. ΔS - P = 82.5 ΔP - H = 82.5 Δ _{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 ipP _Z iPR _{1Z} iS _T iS _N F lost	12 05 38 12 05 56 12 06 24 12 10 49 12 11 19	Epicenter by J.S.A. 53° 2' N., 131° W. H = 11 ^h 59 ^m 20 ^s Depth = 80 km. ΔS - P = 31.5 Δ _{meas} = 31.4 Record change
20	Mar. 20	G-W G-W G-W G-W	iP _E ipP _E iS _E iS _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. ΔS - P = 54.0 Δ _{meas} = 53.9

Florissant Bulletin, March, 1942

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
21	Mar. 21	G-W	i(P) _Z	23 ^h 34 ^m 40 ^s	Epicenter by J.S.A. region of 27°8' N., 138°4' E. H = 23 ^h 21 ^m 06 ^s ΔPR ₁ - H = 99°7' Δ _{meas} = 99°9'
		G-W	iPR _{1Z}	23 38 49	
		G-W	i _Z	23 39 19	
		G-W	i(SKS) _E	23 46 15	
		G-W	i _N F	23 47 55 01 22	
22	Mar. 23	W-A	e _N	21 22 31.9	Local shock. Probably surface waves.
		W-A	i _N F	21 22 32.8 21 23 00	
23	Mar. 29	W-A	eP _{4N}	07 43 36.8	Local shock ΔS ₄ - P ₄ = 215 km. Felt in Harrisburg and Eldorado, Ill.
		W-A	e _N	07 43 36.9	
		W-A	e _N	07 43 37.5	
		W-A	e _N	07 43 37.7	
		W-A	i(S ₄) _N	07 44 00.9	
		W-A	i _N	07 44 01.0	
		W-A	i _N	07 44 01.7	
		W-A	i _N	07 44 02.2	
		W-A	i _N	07 44 03.7	
		W-A	i _N F	07 44 05.3 07 46 01	
24	Mar. 30	G-W	e _Z	09 16 53	Epicenter by J.S.A. region of 27°6' N. 40°9' W. H = 09 ^h 09 ^m 03 ^s ΔS - H = 42°1' Δ _{meas} = 42.8'
		G-W	eS _N	09 23 28	
		G-W	e _N F	09 26 45 10 10	
25	Mar. 30	W-A	i _N	21 14 31.9	Local shock Probably surface waves
		W-A	i _N F	21 14 32.3 21 14 53	

Minor Seismic Activity:

$$\begin{array}{r} \text{March 6} \text{ -- } 20 \text{ } 00^{\text{h}} 00^{\text{m}} \text{ to } 20 \text{ } 50^{\text{h}} 00^{\text{m}} \\ \text{9} \text{ -- } 10 \text{ } 25 \text{ to } 11 \text{ } 00 \\ \text{26} \text{ -- } 18 \text{ } 23 \text{ to } 18 \text{ } 50 \end{array}$$

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	i _E	17 ^h 04 ^m 11. ^s 9	Local shock
		W-A	e _E	17 04 14.6	
		W-A	i _E	17 04 16.2	
		W-A	i _E	17 04 17.5	
		W-A	e _E	17 04 17.9	
		W-A	i _E	17 04 19.3	
		W-A	F	17 05 20	
27	Mar. 6	W-A	(e) _N	15 10 57.2	Local shock
		W-A	e _N	15 10 59.6	
		W-A	i _N	15 10 59.9	
		W-A	i _N	15 11 02.5	
		W-A	F	15 11 18	
28	Mar. 8	G-W	i _P	15 55 55	Epicenter by Regis 11° N. 119° E. H = 15 ^h 40 ^m Felt in the Philippine Islands
		G-W	i _P _Z	15 59 33	
		G-W	i _{PR} _{1E}	16 00 54	
		G-W	i _{SKP} _E	16 02 20	
		G-W	e _{PR} _{2E}	16 03 48	
		G-W	i _{SKS} _Z	16 06 00	
		G-W	i _{SKK} _{SE}	16 07 17	
		G-W	i _{SE}	16 08 25	
		G-W	e _{PS} _N	16 10 30	
		G-W	e _{SP} _N	16 10 40	
		G-W	NF	18 47	
29	Mar. 11	G-W	i _P _Z	01 30 17	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
		G-W	i _P _Z	01 30 43	
		G-W	e _{SE}	01 34 22	
		G-W	e _{SE}	01 35 07	
		G-W	e _{SE}		
30	Mar. 13	W-A	i _N	21 10 25.3	Local shock
		W-A	i _N	21 10 25.7	
		W-A	i _N	21 10 25.9	
		W-A	i _N	21 10 31.0	
		W-A	i _N	21 10 32.5	
		W-A	F	21 11 35	
31	Mar. 16	W-A	i _N	21 41 19.5	Local shock
		W-A	i _N	21 41 20.5	
		W-A	i _N	21 41 24.5	
		W-A	e _N	21 41 25.0	
		W-A	i _N	21 41 25.3	
		W-A	i _N	21 41 25.5	
		W-A	i _N	21 41 30.6	
		W-A	F	21 42 39	

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	
			F	09 46	
33	Mar. 23	W-A	eN F	23 02 42.3	Local shock
				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 ΔP - H = 46.0 Δ _{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	
35	Mar. 27	W-A	iN F	20 59 19.6	Local shock
				20 59 34	
36	Mar. 29	G-W	e(P)Z	11 56 17	Region of Fiji Islands?
		G-W	e(PR 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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Student Assistant

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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. $H = 20^h 42^m 03.86$
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. $H = 02^h 14^m 04^s$ $\Delta P - H = 40.0$ $\Delta_{meas} = 40.1$ 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 _E	08 46 21 08 53 26 09 25	Aftershock of #40

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No.	Date	Inst.	Phase	G.M.C.T.	Remarks
46	May 14	W-A	i ^E	21 ^h 04 ^m 44.6	Local shock $\Delta S - P = 13$ km. H = 21 ^h 04 ^m 33.4
		W-A	i ^E	21 04 45.1	
		W-A	i ^E	21 04 48.4	
			F	21 05 20	
47	May 15	G-W	eP ^Z	10 58 05	Aftershock of #40.
		G-W	iS ^E	11 04 06	
		G-W	F	11 42	
48	May 15	G-W	eP ^Z	11 58 54	Aftershock of #40.
		G-W	eS ^E	12 04 44	
			F	13 18	
49	May 16	W-A	i ^N	20 35 17.9	Local shock?
		W-A	i ^N	20 35 18.6	
		W-A	i ^N	20 35 22.3	
		W-A	i ^N	20 35 27.9	
		W-A	i ^N	20 35 28.7	
		W-A	i ^N F	20 35 29.1 20 36 06	
50	May 16	W-A	i ^N	20 36 45.4	May not be of seismic origin
		W-A	i ^N	20 37 04.4	
		W-A	i ^N	20 37 06.9	
		W-A	i ^N	20 37 13.6	
		W-A	i ^N	20 37 26.7	
		W-A	i ^N F	20 37 27.5 20 37 34	
51	May 16	W-A	e ^N	20 38 28.4	May not be of seismic origin
		W-A	i ^N	20 38 29	
		W-A	e ^N	20 38 32.8	
		W-A	i ^N	20 38 36.6	
		W-A	e ^N F	20 39 41.6 20 40 15	
52	May 16	W-A	e ^N	20 58 23.8	May not n May not be of seismic origin.
		W-A	i ^N	20 58 23.9	
		W-A	e ^N	20 58 28.0	
		W-A	i ^N	20 58 35.4	
		W-A	i ^N	20 58 54.8	
		W-A	i ^N F	20 59 05.5 20 59 28	
53	May 17	G-W	iP ^Z	15 21 51	Epicenter by J.S.A. region of 80°2' W. 01°8' S. H = 15 15 50 $\Delta S - P = 41.02$ $\Delta_{meas} = 41.03$ Depth = 300 km.
		G-W	eP ^Z	15 22 58	
		G-W	iPR ^{1Z}	15 23 52	
		G-W	iS ^Z	15 27 55	
		G-W	eSS ^Z	15 29 13	
		G-W	iSR ^{1Z} F	15 31 ^m 11 16 19	

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No.	Date	Inst.	Phase	G.M.C.T.	Remarks
54	May 20	W-A	eN	11 ⁿ 02 ^m 05 ^s	Record weak
		G-W	eZ	11 03 43	
		G-W	iZ	11 04 43	
		G-W	e ^(L) Z	11 05 14	
		G-W	e ^(M) Z	11 05 46	
				F	
55	May 20	W-A	i ^(P) N	11 19 55.5	Record weak
		G-W	e ^(S) Z	11 23 06	
		G-W	e ^(L) Z	11 24 22	
		G-W	e ^(M) Z	11 25 01	
			F	11 28	
56	May 20	W-A	e(S)N	16 13 37.4	Local shock
		W-A	eN	16 13 38.5	Record weak
		W-A	iN	16 13 39.3	
			F	16 14 11	
57	May 22	G-W	eP _Z	10 37 51	Apparently aftershock of #40
		G-W	ePR ₁ Z	10 39 23	
		G-W	e _E	10 43 36	
		G-W	iS _E	10 43 51	
		G-W	eS _C P _N	10 43 58	
		G-W	eS _C S _E	10 48 02	
			F	11 04	
58	May 23	W-A	iP ₁ N	19 42 30.3	Local shock $\Delta S_1 - P_1 = 44$ km. $H = 19^h 42^m 22.6^s$
		W-A	eP ₁ N	19 42 30.4	
		W-A	iP _N	19 42 31.3	
		W-A	iS _N	19 42 35.2	
		W-A	iS _N	19 42 37.3	
		W-A	iL _N	19 42 38.6	
		W-A	iL _N	19 42 38.9	
			F	19 43 54	
59	May 24	G-W	eZ	03 45 47	May not be of seismic origin
		G-W	eZ	03 48 29	
		G-W	eZ	03 49 21	
		G-W	e ^(M) Z	04 46 04	
			F	05 07	
60	May 27	G-W	e(P) _Z	06 46 40	Wellington gives 34°S., 177°W. and $H = 06^h 31^m 3^s$ $\Delta_{meas} = 108^o$
		G-W	ePR ₁ Z	06 50 47	
		G-W	ePR ₂ Z	06 53 08	
		G-W	ePR ₃ Z	06 55 04	
		G-W	iSKS _E	06 56 50	
		G-W	e(S) _E	06 59 03	
		G-W	eSP _E	07 00 53	
			F	08 59	
61	May 28	G-W	iP _Z	01 20 53	Epicenter by J.S.A. region of 124°5' E. 0°8' S. $H = 01^h 04^m 36^s$ Depth = 180 km. $\Delta P - H = 132.2$ $\Delta_{meas} = 131.3$
		G-W	ipP _Z	01 21 47	
		G-W	ipPKP _Z	01 23 50	
		G-W	ipPKK _Z	01 24 33	
		G-W	iSKS _E	01 30 48	
		G-W	iS _E	01 34 32	
		G-W	isS _E	01 35 46	
		G-W	iSR ₁ E	01 43 51	
			F	03 55	

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No.	Date	Inst.	Phase	G.M.C.T.	Remarks
62	May 29	G-W G-W G-W	eP _Z eS _Z eL _Z F	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 iS _E F	07 24 55 07 28 51 08 03	H = 07 ^h 20 ^m 06 ^s $\Delta S - (P) = 21^0.4$ P - H = 04 ^h 49 ^m
66	May 31	G-W G-W G-W	eZ e ^z eZ FZ	03 06 03 03 13 16 03 15 26 03 34	Record weak
67	May 31	G-W G-W	eP _Z iS _N F	05 30 13 05 37 57 06 18	Epicenter region of 53°N., 169°E H = 05 ^h 20 ^m 48 ^s $\Delta S - P = 54^0.5$ $\Delta_{meas} = 54^0.3$

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-Willip, two Wood-Anderson short-period seismographs, Shortt synchronous 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	e _Z e _N e _N e _{FZ}	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	e _N e _{LE} 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 i _N i _N 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	i _N i _N i _N i _N 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	e _E i _E e _Z i _Z i _Z F _Z	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	e _E i _E 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	i _Z e _Z e _Z e _Z 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	i _Z i _Z e _Z e _Z e _Z e _Z 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	eE	02 ^h 20 ^m 43 ^s	Record weak
		G-W	eE	02 21 03	
		G-W	iE	02 21 43	
		G-W	eE	02 22 14	
		G-W	iE	02 23 08	
			F	02 40	
77	June 12	G-W	ePZ	10 29 31	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
		G-W	eS _Z	10 35 49	
			F	11 41	
78	June 14	G-W	eE	03 28 00	Phases indistinct Identifications doubtful
		G-W	e(S) _E	03 34 27	
		G-W	i(SKS) _E	03 34 32	
		G-W	i(PS) _E	03 37 46	
		G-W	eL _E	04 09 25	
		G-W	eM _E	04 19 25	
			F	04 49	
79	June 15	G-W	iPZ	16 46 54	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
		G-W	eS _N	16 51 18	
		G-W	iN	16 51 37	
		G-W	iL _N	16 55 20	
80	June 16	G-W	iZ	05 00 21	Record weak
		G-W	iZ	05 00 47	
		G-W	eL _E	05 40 00	
			F	05 43	
81	June 16	G-W	i(P)Z	07 50 24	Phases doubtful
		G-W	iN	07 51 56	
		G-W	iN	07 52 25	
		G-W	iS _N	07 56 07	
		G-W	iN	07 56 58	
82	June 16	G-W	iPZ	21 12 43	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.
		G-W	i(P) _Z	21 14 18	
		G-W	iS _N	21 18 20	
		G-W	i(SS) _N	21 21 20	

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No.	Date	Inst.	Phase	G.M.C.T.	Remarks
83	June 18	G-W	e(PR ₁) _N	09 49 09	Record weak Riverview gives H = 09 30 57 ΔS - H = 104.1
		G-W	e _N	09 51 24	
		G-W	e _N	09 55 25	
		G-W	e(S) _N	09 56 56	
		G-W	e _N	09 58 09	
		G-W	e(PPS) _N	09 58 54	
		G-W	eL _N	10 21	
		G-W	eM _N F	10 29 11 58	
84	June 19	G-W	e _E	19 59 52	Record weak
		G-W	e _E	20 00 15	
		G-W	i _E	20 00 21	
		G-W	F _E	20 50	
85	June 20	G-W	iP _Z	10 06 58	Epicenter by J.S.A. 18.2° N., 101.0° W. H = 10 02 05 Depth ≈ 80 km. ΔS - P = 22.1 Δ _{meas} = 22.2
		G-W	iP _Z	10 07 06	
		G-W	iS _N	10 10 55	
		G-W	iS _N	10 11 07	
		G-W	F	10 53	
86	June 20	W-A	e _N	20 11 47.6	Weak. Probably surface waves
		W-A	eL _N	20 11 48.8	
		W-A	F	20 12 12	
87	June 21	G-W	iZ	04 51 14	Record very weak
		G-W	i(SKS) _N	05 01 38	
		G-W	i _N	05 02 34	
		G-W	F	05 37	
88	June 22	W-A	i _N	14 16 22.3	Local shock
		W-A	F	14 16 36	
89	June 22	W-A	i _N	15 36 57.9	Local shock
		W-A	F	15 37 23	
90	June 22	G-W	eZ	20 00 18	
		G-W	eZ	20 00 46	
		G-W	i(S) _N	20 05 19	
		G-W	i _N	20 05 40	
		G-W	e _N	20 06 23	
		G-W	eL _N	20 12 10	
		G-W	F	20 25	
91	June 22	W-A	i _N	20 22 42.7	Local shock
		W-A	i _N	20 22 43.0	
		W-A	F	20 23 20	
92	June 23	G-W	iZ	09 01 34	
		G-W	iZ	09 01 53	
		G-W	e _N	09 06 06	
		G-W	e _N	09 06 38	
		G-W	F	09 18	

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No.	Date	Inst.	Phase	G.M.C.T.	Remarks
93	June 23	W-A	i ^E	16 34 47.7	Local shock
		W-A	i ^E	16 34 49.2	
			F ^E	16 35 12	
94	June 24	G-W	ePR _{1Z}	11 36 12	Wellington gives 40.9°S. 175.9°E. H = 11 16 29 Δ _{meas} = 117° Destructive in New Zealand
		G-W	ePR _{2Z}	11 38 50	
		G-W	eSKKS _N	11 43 19	
		G-W	eS _N	11 44 13	
		G-W	iSP _N	11 46 04	
			F	14 22	
95	June 24	G-W	eN	18 50 02	Record weak Z component Galitzin- Wilip not function- ing at time of earth- quake
		G-W	eN	18 53 08	
		G-W	iN	19 09 39	
		G-W	eN	19 19 35	
		G-W	iN	19 23 01	
		G-W	iN	19 27 03	
		G-W	iN	19 32 38	
			F	20 27	
96	June 27	G-W	iN	03 00 45	Very weak
		G-W	iN	03 06 34	
		G-W	iN	03 07 18	
		G-W	iN	03 09 45	
			F	03 15	
97	June 28	W-A	eN	00 12 25	
		W-A	iN	00 12 42	
		G-W	i ^E	00 17 39	
		G-W	i ^E	00 18 11	
		G-W	eL _N	00 22 37	
			F	00 35	
98	June 28	W-A	eP _{1N}	18 57 53.7	Local shock ΔS - P = 63 km. H = 18 57 42.9
		W-A	eN	18 57 54.6	
		W-A	iS _{1N}	18 58 00.6	
		W-A	iS _N	18 58 01.4	
		W-A	iS _N	18 58 01.6	
		W-A	iL _N	18 58 03.9	
			F	18 58 39	
99	June 29	G-W	iP _Z	06 38 03	J.S.A. gives 31.9 S. 69.3 W. H = 06 26 44 Depth = 100 km. ΔP - H = 73.3 Δ _{meas} = 73.2
		G-W	ipP _Z	06 38 28	
		G-W	iS _Z	06 47 29	
		G-W	iss _Z	06 43 07	
			F	07 09	

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

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No.	Date	Inst.	Phase	G.M.C.T.	Remarks
108	July 5	G-W	ez	14 18 41	Weak
		G-W	e _N	14 20 13	
		G-W	i _N	14 24 37	
			F	14 44	
109	July 7	G-W	ipPz	03 08 39	Weak $\Delta_{\text{calc}} = 103^\circ \text{ca.}$ Depth = 400-500 km.
		G-W	ePR ₁ Z	03 10 24	
		G-W	iSKKS _E	03 18 08	
		G-W	e _E	03 19 42	
		G-W	e _F	03 23 04	
			04 40		
110	July 7	G-W	iPz	12 45 15	Aftershock of #43
		G-W	epP _N	12 46 48	
		G-W	e(S) _N	12 50 55	
		G-W	(e)s _N	12 53 01	
			F lost in changing records		
111	July 8	G-W	eP _E	07 06 22	J.S.A. gives 24 ^o 5 S. 69 ^o 5 W. Depth = 175 km. $\Delta P = H = 66^\circ 0$ $\Delta_{\text{meas}} = 66^\circ 1$ H = 06 55 54
		G-W	iP _E	07 06 25	
		G-W	iPR ₁ E	07 08 42	
		G-W	iS _E	07 15 06	
		G-W	iSP _E	07 15 36	
		G-W	ipS _E	07 16 01	
		G-W	isS _E	07 16 16	
		G-W	isSP _E	07 16 42	
		F	10 10		
112	July 8	G-W	iPz	22 38 26	Aftershock of #43
		G-W	epPz	22 39 53	
		G-W	i(S) _E	22 44 22	
		G-W	isS _E	22 46 54	
		F	00 08		
113	July 11	W-A	i _E	21 27 12.9	Weak, probably sur- face. Local shock.
		W-A	i _F	21 27 13.2	
			F	21 27 43	
114	July 12	G-W	iP _E	05 12 53	Aftershock of #43
		G-W	epP _E	05 14 26	
		G-W	iS _E	05 18 52	
		G-W	esS _E	05 21 43	
		F	06 15		
115	July 12	W-A	eP _E	17 06 18.7	Local shock H = 17 06 10.3 $\Delta S - P = 49 \text{ km.}$
		W-A	eS _E	17 06 24.1	
		W-A	i _E	17 06 25.0	
		W-A	iL _E	17 06 25.6	
		W-A	eL _E	17 06 26.4	
		F	17 07 32		

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

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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 iPKP _N iPR _{1E} eSKS _E eSKKS _E iS _E iPP _{SE} 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

Florissant Bulletin for July, 1942

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

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 $\Delta_{meas} = 105.2$ $\Delta_{SKS-H} = 105.2$ $\Delta_{SP-H} = 105.2$
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 35 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 ipP _E eSE F	23 42 10 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. $\Delta_{meas} = 24.5$ $\Delta_{G-P} = 24.4$ $\Delta_{P-H} = 24.4$

Florissant Bulletin for August, 1942

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
139	Aug. 7	G-W	iZ	07 10 08	Weak
		G-W	eZ	07 14 47	
		G-W	eZ	07 16 15	
		G-W	eLZZ	07 19 47	
		G-W	eMZ	07 22 42	
		G-W	F	07 44	
140	Aug. 8	W-A	eP ^N	07 24 47	Epicenter region of 14°3' N., 89°5' W. H = 23 ^h 19 ^m 32 ^s ΔS - P = 24°3' ΔP - H = 24°0' Δmeas = 24°1'
		W-A	iP ^N	07 24 48	
		G-W	eS ^{SE}	07 29 10	
		G-W	eS ^{SE} LN	07 30 11	
		G-W	F	08 21	
141	Aug. 8	G-W	iPZ	22 41 54	Epicenter by J.S.A. 13°4' N., 91°2' W. After shock of #136 H = 22 ^h 36 ^m 32 ^s (?)
		G-W	e ^{SE}	22 46 23	
		G-W	iS ^{SE}	22 46 53	
		G-W	iL ^{SE}	22 52 05	
		G-W	iM ^{SE} F	22 56 35 00 44	
142	Aug. 10	W-A	iN	14 59 46	Weak
		W-A	iN	14 59 58	
		G-W	e ^N F	15 05 27 15 20	
143	Aug. 11	G-W	iZ	04 53 40	
		G-W	iZ	04 54 09	
		G-W	iE	04 59 14	
		G-W	iE	04 59 54	
		G-W	iE	05 02 55	
		G-W	iM ^Z F	05 08 23 05 41	
144	Aug. 11	G-W	iZ	07 16 55	
		G-W	eZ	07 17 28	
		G-W	iE	07 21 05	
		G-W	iE	07 27 46	
		G-W	iE F	07 32 44 08 07	
145	Aug. 11	W-A	eE	21 24 21.8	Local shock
		W-A	iE	21 24 22.6	
		W-A	eE	21 24 23.0	
		W-A	iE	21 24 23.6	
		W-A	iE	21 24 24.1	
		W-A	iE	21 24 25.0	
		W-A	iE	21 24 25.6	
		W-A	iE	21 24 25.8	
		W-A	iE	21 24 26.8	
		W-A	iE	21 24 27.6	
		W-A	F	21 25 00	

Florissant Bulletin for August, 1942

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
146	Aug. 13	G-W	ez	16 02 38	Epicenter region of 09° 5' S. 143° 0' E. Riverview gives H = 15h44m4s May be deeper than normal $\Delta_{\text{meas}} = 129.5$
		G-W	ez	16 04 05	
		G-W	iE	16 11 11	
		G-W	iE	16 11 25	
		G-W	iE	16 13 41	
		G-W	eL	16 38 30	
		G-W	eM	16 42 55	
147	Aug. 13	G-W	iE	19 43 10	Weak
		G-W	iE	19 43 38	
		G-W	iE	19 45 44	
		G-W	eE	19 46 15	
			F	20 10	
148	Aug. 14	G-W	ez	20 55 54	Very poor record Epicenter by J.S.A. 18° N. and 105° W.
		G-W	eN	21 00 30	
		G-W	iE	21 03 22	
		G-W	iE	21 07 26	
			F	22 08	
149	Aug. 15	G-W	iz	06 40 25	Weak
		G-W	eE	06 46 13	
		G-W	e(L)E	06 52 08	
			F	07 16	
150	Aug. 15	G-W	ez	15 20 48	Weak
		G-W	ez	15 22 45	
		G-W	eL	15 52 42	
		G-W	eM	16 19 22	
			F	17 38	
151	Aug. 16	G-W	iz	11 40 44	Very weak
		G-W	iz	11 43 04	
		G-W	iE	11 43 50	
			F	12 18	
152	Aug. 16	G-W	iP	20 13 12	Depth \approx 220 km. $\Delta_{\text{calc}} \approx 300$ Epicenter by J.S.A. 12° 5' N. and 90° 0' W. h \approx 80 km.
		G-W	ip	20 13 57	
		G-W	is	20 17 59	
		G-W	is	20 19 24	
			F	20 43	
153	Aug. 18	G-W	ez	20 07 07	Very weak
		G-W	ez	20 08 50	
		G-W	ez	20 09 47	
			F	20 18	
154	Aug. 20	W-A	eN	16 48 30	Very weak
		W-A	iN	16 48 32	
		G-W	ez	16 53 20	
		G-W	eL	16 57 28	
			F	17 06	

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No.	Date	Inst.	Phase	G.M.C.T.	Remarks
155	Aug. 20	G-W	iPZ	22 42 24	Epicenter region of 15°N., 92°W. H = 22 ^h 37 ^m 21 ^s ΔS - P = 22 ^o 8
		G-W	iPR ₁ Z	22 42 54	
		G-W	eS _E	22 46 33	
		G-W	eSR ₁ E	22 47 36	
			F	23 19	
156	Aug. 22	G-W	iE	08 57 35	Very Weak May be two separate shocks.
		G-W	iE	09 25 08	
		G-W	e(L) _E	09 51 12	
			F	10 49	
157	Aug. 22	W-A	iE	19 58 08	Long period Records very weak. May be below normal depth.
		W-A	iN	19 58 37	
		W-A	iN	19 58 47	
		W-A	iN	19 59 01	
		G-W	iEE	20 02 04	
		G-W	iEE	20 02 47	
		G-W	eEE	20 03 08	
			F	20 20	
158	Aug. 23	G-W	iPZ	06 46 21	Epicenter by U.S.C. and G. S. 51.5 N. 163.0 E. H ≈ 06 35 24 h about 100 to 150 km. Δ _{meas} = 67.2
		G-W	ipPZ	06 46 48	
		G-W	iS _E	06 55 20	
		G-W	i(SS) _E	06 56 09	
			F	09 38	
159	Aug. 24	W-A	ePN	22 59 59	Epicenter about 15.0 S., 76.0 W. H = 22 50 38 Depth ≈ 150 km. ΔS - P = 56.2 ΔP - H = 56.2 Δ _{meas} = 56.2
		W-A	iPN	23 00 00	
		G-W	ipPN	23 00 32	
		G-W	iPR ₁ N	23 02 05	
		G-W	ipPR ₁ N	23 02 37	
		G-W	iSN	23 07 42	
		G-W	iSN	23 08 28	
		G-W	iSN	23 08 43	
		G-W	iSS _N	23 09 18	
		G-W	iSR ₁ N	23 11 51	
	F	03 30			
160	Aug. 25	G-W	iPZ	20 25 26	Aftershock of #138
		G-W	ipPZ	20 26 02	
		G-W	i(S) _E	20 33 0	
		G-W	eLZ	20 48 03	
			F	22 41	
161	Aug. 26	G-W	iPZ	12 18 09	Aftershock of #138
		G-W	ipPZ	12 18 45	
		G-W	i(S) _E	12 25 52	
			F	13 19	
162	Aug. 27	W-A	iN	19 59 04.7	Local shock
		W-A	eN	19 59 10.6	
		W-A	iN	19 59 11.4	
		W-A	iL _N	19 59 12.3	
			F	19 59 43	

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No	Date	Inst.	Phase	G.M.C.T.	Remarks
163	Aug. 29	G-W	iPN	12 ^h 30 ^m 01 ^s	Weak. Apparently deeper than normal
		G-W	iE	12 34 52	
		G-W	i(S)E	12 35 57	
			F	13 10	
164	Aug. 29	G-W	eN	21 45 42	Weak.
		G-W	eN	21 49 56	
		G-W	iN	21 50 21	
		G-W	iE	21 51 57	
		G-W	eLN	21 53 15	
			F	22 15	
165	Aug. 31	W-A	iN	10 27 44.1	Local Shock
		W-A	iN	10 27 49.2	
		W-A	iN	10 27 53.5	
		W-A	iN	10 27 57.3	
		W-A	iN	10 27 59.7	
		W-A	iN	10 28 04.1	
		W-A	i(L)N	10 28 10.1	
		W-A	iN	10 28 11.8	
			F	10 30 29	

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	eZ	09 54 55	Weak
		G-W	iE	10 05 28	
		G-W	iE	10 05 42	
		G-W	iE	10 06 49	
		G-W	eLZ F	10 29 00 10 58	
167	Sept. 2	G-W	iPZ	03 26 42	J.S.A. gives region of 52° N., 165° 5' W. H = 03 17 32 $\Delta P - H = 52.3$ $\Delta S - P = 51.2$ $\Delta_{meas} = 52.3$
		G-W	iS _(E)	03 34 06	
		G-W	e(L) _E	03 42 20	
		G-W	eM _E F	03 49 45 04 58	
168	Sept. 3	W-A	iN	20 59 45.4	Local shock
		W-A	iN	20 59 48.0	
		W-A	iLN	20 59 49.6	
		W-A	iM _N F	20 59 56.4 21 00 21	
169	Sept. 4	G-W	iPZ	02 59 17	J.S.A. gives 12° 3' N. 88° 0' W. H = 02 ^h 53 ^m 49 ^s h = about 100 km. $\Delta S - P = 26.6$ $\Delta P - H = 26.1$ $\Delta_{meas} = 26.5$
		G-W	ipPZ	02 59 45	
		G-W	i(S) _N	03 03 48	
		G-W	eLN	03 07 57	
		G-W	eM _N F	03 11 47 03 38	
170	Sept. 4	G-W	iPZ	17 55 38	J.S.A. gives 52° 0' N. 165° 5' W. H = 17 ^h 46 ^m 30 ^s $\Delta S - P = 51.6$ $\Delta P - H = 52.1$ $\Delta_{meas} = 52.3$
		G-W	iSZ	18 03 04	
		G-W	eLZ	18 07 37	
		G-W	eMZ F	18 15 27 19 04	
171	Sept. 5	G-W	iPZ	16 04 29	Weak H = 15 ^h 52 ^m 21 ^s (?) h = 75 km. (?) $\Delta S - P = 79.6$
		G-W	ipPZ	16 04 46	
		G-W	iS _E	16 13 30	
		G-W	isS _E F	16 13 55 16 47	
172	Sept. 9	G-W	iPZ	01 34 27	J.S.A. gives 52° N. 164° W. H = 01 ^h 25 ^m 27 ^s h = 100 km. $\Delta S - P = 51.8$ $\Delta P - H = 52.2$ $\Delta_{meas} = 51.2$
		G-W	ipPZ	01 34 45	
		G-W	iPR ₁ Z	01 36 28	
		G-W	iS _E	01 41 46	
		G-W	isS _E F	01 42 12 03 14	

Florissant Bulletin for September, 1942

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
173	Sept. 11	W-A	i _N	15 00 07.1	Local shock
		W-A	i _N	15 00 12.8	
		W-A	i _{LN}	15 00 15.6	
			F	15 00 50	
174	Sept. 11	G-W	i _N	05 50 12	Weak
		G-W	e _N	05 58 08	
		G-W	e _{LN}	06 02 57	
			F	06 39	
175	Sept. 14	G-W	e _Z	11 45 53	Weak. Possibly below normal depth.
		G-W	i(S) _N	11 57 33	
		G-W	i(S) _N	11 58 36	
		G-W	e _{LE}	12 22 36	
		G-W	e _{ME}	12 33 54	
			F	12 59	
176	Sept. 16	W-A	i _N	09 01 13.8	Local shock Weak
		W-A	i _{LN}	09 01 16.1	
		W-A	i _{MN}	09 01 22.8	
			F	09 01 30	
177	Sept. 22	G-W	e _Z	00 58 35	Weak. P masked by microseisms
		G-W	e(S) _E	01 07 35	
		G-W	i(S) _E	01 07 42	
		G-W	e _{MN}	01 26 15	
			F	02 47	
178	Sept. 25	G-W	i _N	08 30 59	Very weak Masked by microseisms.
		G-W	e(L) _N	08 39 32	
			F	09 41	
179	Sept. 26	G-W	i _{PZ}	04 05 50	J.S.A. gives 12°3 N, 88°0 W, H = 04 ^h 00 ^m 21 ^s h = 100 km. ΔS - P = 26°0 ΔP - H = 26°2 Δ _{meas} = 26°2
		G-W	i _{PPZ}	04 06 09	
		G-W	i _{SN}	04 10 16	
		G-W	i _{SSN}	04 11 43	
		G-W	e(M) _N	04 13 50	
			F	05 10	
180	Sept. 27	G-W	i _{PZ}	17 07 26	Weak H = 17 02 48 (?) h = 80 km. (?) ΔS - P = 21°8
		G-W	i(PP) _Z	17 07 42	
		G-W	i _{SE}	17 11 09	
		G-W	i(ES) _E	17 11 34	

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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-Willp, two Wood-Anderson short-period seismographs, Shortt synchronome clock



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Bulletin for October, 1942

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
182	Oct. 4	W-A	iN	19 05 50.2	Local shock
		W-A	iE	19 05 55.2	
		W-A	iE	19 05 57.0	
		W-A	i(L)E	19 05 58.3	
		W-A	i(M)E	19 06 04.9	
			F	19 07 19	
183	Oct. 5	W-A	iP _E	03 04 15	Weak
		G-W	e(S)E	03 08 58	
		G-W	i(S)E	03 09 17	
		G-W	iM _F	03 13 59	
			F	03 31	
184	Oct. 6	G-W	iE	12 19 27	Weak
		G-W	eL _E	12 44 13	
		G-W	eM _E	12 48 48	
			F	01 16	
185	Oct. 9	G-W	eLN	16 38 55	Very weak Surface waves only
		G-W	eM _E	16 50 45	
			F	17 41	
186	Oct. 12	G-W	iz	01 33 47	Weak
		G-W	eZ	01 35 42	
		G-W	iz	01 35 54	
		G-W	e(L)Z	01 42 49	
				F	
187	Oct. 12	G-W	iz	05 31 33	Weak
		G-W	eZ	05 33 42	
		G-W	e(L)N	05 45 48	
				F	
188	Oct. 14	G-W	iN	00 25 56	Weak
		G-W	iN	00 26 36	
		G-W	cN	00 28 46	
				F	
189	Oct. 15	G-W	iN	07 45 19	Very weak
		G-W	eN	07 45 47	
		G-W	iM	07 47 06	
				F	
190	Oct. 15	G-W	iN	08 25 37	Very weak
		G-W	iN	08 26 01	
		G-W	cN	08 27 19	
				F	
191	Oct. 15	G-W	iN	08 44 03	Very weak
		G-W	iN	08 44 31	
				F	

Florissant Bulletin for October, 1942

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
192	Oct. 18	W-A	e _E	05 29 59	Weak .
		G-W	i(S) _N	05 33 57	
		G-W	i(L) _N	05 36 38	
			F	06 04	
193	Oct. 22	G-W	i _N F	18 24 59 18 33	Very weak
194	Oct. 26	G-W	iP _Z	21 21 13	J.S.A. gives region of 47°7' N., 151°02' E. H = 21 ^h 09 ^m 21 ^s h ≈ 50 km. ΔS - P = 77.9 ΔP - H = 78.0 Δ _{meas} = 78.2
		G-W	ipP _Z	21 21 23	
		G-W	eS	21 31 04	
		G-W	esS	21 31 21	
		G-W	eM F	21 50 55 23 10	
195	Oct. 28		iP _Z	10 49 56	J.S.A. gives region of 15°41' N., 96°08' W. H = 10 44 45 ΔS - P = 23.7 ΔP - H = 23.8 Δ _{meas} = 23.8
			eS	10 54 13	
			e(M) _N	10 57 40	
			F	11 48	
196	Oct. 31	G-W	e _Z	15 34 14	Weak
		G-W	eL _Z F	15 37 40 15 52	

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 03

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

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



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Florissant Bulletin for December, 1942

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
211	Dec. 22	W-A	i _E	18 ^h 22 ^m 03 ^s .0	Local shock
		W-A	e _E	18 22 05.2	
		W-A	i _E	18 22 07.1	
		W-A	i(L) _E	18 22 08.3	
		W-A	i _E	18 22 13.0	
		W-A	i(M) _E	18 22 15.5	
				F	
212	Dec. 26	W-A	iP _N	12 38 18	J.S.A. gives region of 09°5' N., 75°0' W. H = 12 31 47 ΔP - H = 32°1 Δmeas = 32°0
		G-W	eS _E	12 43 29	
		G-W	eM _N	12 50 00	
			F lost in changing the records		
213	Dec. 31	W-A	iP _E	12 11 42	J.S.A. gives region of 18°1' N., 48°0' W. H = 12 ^h 03 ^m 50 ^s ΔS - P = 41.8 ΔP - H = 42.1 Δmeas = 41.9
		G-W	iS _N	12 18 07	
		G-W	eL _N	12 21 30	
			F lost in changing records		
214	Dec. 31	G-W	i _N	19 28 31	Very weak
		G-W	i _N	19 31 49	
			F	20 03	

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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FLORISSANT

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

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



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Florissant Bulletin for December, 1942

No.	Date	Inst.	Phase	G.M.C.T.	Remarks
211	Dec. 22	W-A	i _E	18 ^h 22 ^m 03 ^s .0	Local shock
		W-A	e _E	18 22 05.2	
		W-A	i _E	18 22 07.1	
		W-A	i(L) _E	18 22 08.3	
		W-A	i _E	18 22 13.0	
		W-A	i(M) _E	18 22 15.5	
				F	
212	Dec. 26	W-A	i _P	12 38 18	J.S.A. gives region of 09°5' N., 75°0' W. H = 12 31 47 Δ _P - H = 32°1' Δ _{meas} = 32°0'
		G-W	e _S	12 43 29	
		G-W	e _M	12 50 00	
			F lost in changing the records		
213	Dec. 31	W-A	i _P	12 11 42	J.S.A. gives region of 18°1' N., 48°0' W. H = 12 ^h 03 ^m 50 ^s Δ _S - P = 41.8 Δ _P - H = 42.1 Δ _{meas} = 41.9
		G-W	i _S	12 18 07	
		G-W	e _L	12 21 30	
			F lost in changing records		
214	Dec. 31	G-W	i _N	19 28 31	Very weak
		G-W	i _N	19 31 49	
			F	20 03	

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^h 30^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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