

FLORISSANT

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

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

1.

Bulletin for 1934

No.	Date	Inst.	C/D	Phase	G.V.C.T.	H--Remarks
	Jan. 2	Seismic activity centering around 20h-30m.				
1	Jan. 3	W-G	C	iP _Z	09-53-24	Tentative epicenter 53.5° N., 157.3° E. Possibly 300 km deep. Provisional H = 09-42-42 Agreement poor. △ = 71°
		W-G		ipP _Z	09-54-29	
		W-G		isP _Z	09-55-00	
		W-G		iPR _{1Z}	09-56-15	
		W-G		iS _E	10-02-18	
		W-G		iSP _Z	10-02-59	
		W-G		ipS _E	10-03-42	
		W-G		isS _E	10-04-17	
		W-G		iScS _E	10-05-05	
		W-G		F	12-00±	
2	Jan. 11	W-A		iP _E	10-31-53	H = 10-21-54 △ = 59.4
		W-A		eS _E	10-40-07	
		W-A		iS _N	10-40-08	
		W-A		F	12-±	
	Jan. 12	Seismic activity centering around 14h-30m.				
3	Jan. 14	W-A		eP _{EN}	12-05-50	H = 12-00-53 △ = 22.2
		W-G		iS _{EN}	12-09-53	
		W-G		eL _{EN}	12-11±	
		W-G		iM _{EN}	12-12-34	
		W-G		F	13-10±	
4	Jan. 15	W-G		eP _{ENZ}	08-58-18	Indian Earthquake Tentative epicenter 25.6° N., 85.7° E. Provisional H = 08-43-16 Difficult to interpret. △ = 116°
		W-G		ip'Z	09-01-53	
		W-G		iPR _{1Z}	09-02-50	
		W-G		iScPcS _{EN}	09-08-51	
		W-G		iScPcPcS	09-09-53	
		W-G		iS	09-10-52	
		W-G		iPS	09-12-41	

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No.	Date	Inst.	C/D	Phase	G.M.C.T.	H--Remarks
4	Jan. 15 (cont.)	W-G		iSR ₁	09-19-05	
		W-G		iSR ₂	09-23-10	
		W-G		L	09-38±	
		W-G		M	09-46±	
		W-G		F	16-±	
	Jan. 19	Seismic activity centering around 2h.				
5	Jan. 19	W-A		eP _E	10-00-49	H = 09-55-50 Δ = 22 ^o .4
		W-G		iS _{EN}	10-04-54	
		W-G		eL _{EN}	10-06-39	
		W-G		iM _{EN}	10-09-12	
		W-G		F	11-30±	
	Jan. 21- 22	Seismic activity centering around 0h.				
	Jan. 22	Seismic activity centering around 10h-30m.				
	Jan. 28	Seismic activity centering around 15 h.				
6	Jan. 28	W-G	C	iPZ	19-15-12	H = 19-10-03 Tentative epi- center 16 ^o .6 N., 99 ^o .1 W. Δ = 23 ^o .4
		W-G		iPR ₁ Z	19-15-40	
		W-G		iPR ₂ Z	19-15-51	
		W-G		iPcPZ	19-19-01	
		W-G		iS _{EN}	19-19-26	
		W-G		iSR ₁ EN	19-20-02	
		W-G		eL _{EN}	19-21-30±	
		W-G		iM _{EN}	19-24±	
		W-G		F	22-30±	
				Jan. 30	W-A	
		W-A		eS _{EN}	19-32-57	
		W-A		F	20-10±	

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8	Jan. 30	W-G		iPEN	20-21-24	Provisional H = 20-16-27 Western Nevada Tentative epi- center 37. ⁰ 8 N., 118. ⁰ 2 W. (Obtained from data of Floris- sant Saint Louis Ukiah Bozeman Sitka Chicago) $\Delta = 22.01$
		W-G		iPR ₁ EZ	20-21-49	
		W-G		iSEN	20-25-26	
		W-G		iPcPz	20-25-38	
		W-G		iSR ₁ EN	20-25-54	
		W-G		iSR ₂ EN	20-25-59	
		W-G		iL	20-27-18	
		W-G		F	22-30 \pm	

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No.	Date	Inst.	C/D	Phase	G. M. C. T.	H--Remarks
	Feb. 1	W-G		Seismic activity at approximately 11h30m.		
9	Feb. 3	W-G		eP iPR ₁ iSKS eSKKS eS eSR ₁	14-50-39 14-52-35 14-59-42 15-02-10 15-02-31 15-08 [±]	
10	Feb. 9	W-G		eP eS eL iI	09-24-45 09-29-25 09-31-00 09-32-15	
	Feb. 9	W-G		Seismic activity around 10h.		
	Feb. 12	W-G		Seismic activity around 4h, 7h, and 12h. No phases distinguishable.		
11	Feb. 14	W-G		iP iPR ₁ iS _c P _c P iPR ₂ iSKS iSKKS eS iP _c P _c P _c P iPS SR ₁ F	04-14-38 04-19-38 04-21-11 04-22-12 04-25-11 04-26-33 04-27-21 04-29-06 04-29-24 04-35-47 07 [±]	Tentative epicenter: 18 ^o .4 N, 119 ^o .5 E. H = 03-59-45 Δ = 117 ^o
12	Feb. 14	W-G		iPZ iS _{EN} eL iL iM	22-23-38 22-28-06 22-30-30 22-31-06 22-33-00	H = 22-18-12 Δ = 25 ^o .1 Approximate epicenter: 14 ^o N, 94 ^o .7 W.
	Feb. 19	W-G		Seismic activity centering around 12h.		
13	Feb. 24	W-G		eP L	00-56-05 01-10 [±]	
	Feb. 24	W-G		Seismic activity centering around 6h.		

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No.	Date	Inst.	C/D	Phase	G.M.C.T.	H--Remarks
14	Feb. 24	W-G		iPZ	06-37-38	H = 06-23-35 Tentative epicenter: 15°3 N, 146°2 E. Δ = 103°6
				iPRZ	06-41-28	
				ePR ₂ Z	06-43-47	
				iSKS _{EN}	06-48-06	
				iSKKS _{EN}	06-48-55	
				iS _{EN}	06-49-25	
				PS _{EN}	06-50-22	
				ePPS _{EN}	06-51-10	
				eSR ₁ _{EN}	06-56-12	
				iSR ₂ _{EN}	07-00-18	
				F	10-30±	
	Feb. 28	W-G		Earthquake at 9h. Timing failed.		

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Bulletin for 1934

No.	Date	Inst.	C/D	Phase	G. M. C. T.	H--Remarks
	Mar. 1	W-G		Seismic activity at about 21h.		
15	Mar. 1	W-G		iPz	21h57m26s.	H = 21h45m34s. Tentative epicenter: 39°7 S, 72°5 W. Depth by Brunner Depth Chart = 140 km.
		W-G		ipPz	21 57 58	
		W-G		iPR ₁ Z	22 00 26	
		W-G		ePR ₂ Z	22 02 12	
		W-G		iS _{EN}	22 07 20	
		W-G		iSP _{EN}	22 07 30	
		W-G		ipS _{EN}	22 08 00	
		W-G		isS	22 08 16	
	Mar. 4	W-G		Seismic activity at about 6h30m and 12h.		
16	Mar. 5	W-G		eP _Z	12h00m58s.	H = 11h46m04s. Δ = 119°7 Tentative epicenter: 42°7 S, 173°7 E.
		W-G		eP ^T _Z	12 04 53	
		W-G		iPR ₁ Z	12 06 12	
		W-G		ePR ₂ Z	12 08 48	
		W-G		SKS _{EN}	12 11 48	
		W-G		S _c P _c P _c S	12 13 08	
		W-G		iS _{EN}	12 13 48	
		W-G		iSP _{ENZ}	12 15 54	
		W-G		F	15±	
	Mar. 6	W-G		Seismic activity centering around 15h.		
17	Mar. 7	W-G		iPz	22h47m19s.	H = 22h42m00s. Δ = 24°7. Probable depth equal to 90 km.
		W-G		ipPz	22 47 42	
		W-G		iS _E	22 51 44	
		W-G		isS _E	22 52 24	
18	Mar. 12	W-G		iPz	15h09m39s.	Δ = 16°9 Other phases lost, as they were too rapid.
		W-A		iPR ₁	15 09 56	
		W-G		iS	15 12 54	
	Mar. 12			The "second quake" at the above epicenter consisted of at least three superimposed quakes. Identification of phases is doubtful. For these reasons no solution of the epicenter was attempted.		

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19	Mar. 13	W-G		eP	13h36m51s.	
		W-G		iPR ₁	13 30 52	
		W-G		eSc ^P cS	13 36 56	
		W-G		eS	13 38 06	
		W-G		iPS	13 40 13	
		W-G		iPPS	13 40 58	
		W-G		eL	14 00 00	
		W-G		iM	14 09 ⁺ ₋	
	Mar. 15	W-G		Seismic activity centering at 12h and 14h.		
	Mar. 17	W-G		Seismic activity centering around 23h.		
20	Mar. 18	W-G		iP	04h44m42s.	
		W-G		ipP	04 45 18	
		W-G		iS	04 54 08	
		W-G		i	04 54 44	
		W-G		isS	04 55 25	
			Mar. 20	W-G		
	Mar. 22	W-G		Seismic activity centering at 21h and 23h.		
21	Mar. 24	W-G		iP	12h19m05s.	H = 12h04m34s. Epicenter: 9°3 S, 161.5 E.
		W-G		iPR ₁	12 23 35	
		W-G		iSKS	12 29 49	
		W-G		iSKKS	12 30 45	
		W-G		iS	12 31 30	
		W-G		iPS	12 33 00	
		W-G		iPPS	12 53 54	
		W-G		eSR ₁	12 38 54	
		W-G		eSR ₂	12 42 54	
		W-G		eL ²	12 55 54	

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	Apr. 2	W-G		Seismic activity about 23h. Possibly in Northern Alabama.		
	Apr. 3	W-G		Seismic activity centering about 8h.		
22	Apr. 7	W-G W-G W-G W-G		eP eS eL iM	02-18-50 02-22-12 02-23-30 02-25-15	
23	Apr. 9	W-G W-G		iPZ iSEN	15-41-30 15-51-35	Probably deep. No determination.
24	Apr. 10	W-G W-G W-G		iPZ iz iSEN	05-45-26 05-46-01 05-50-05	H = 05h39m41s. Probably deep (140 km.) $\Delta = 28^\circ$.
	Apr. 10	W-G		Seismic activity at 12h.		
	Apr. 11	W-G		Seismic activity at about 22h.		
25	Apr. 12	W-A W-G W-G		eP e iS	01-41-46 01-42-41 01-42-57	H = 01h40m15s. Possible epicenter: 34° N, 96° W. $\Delta = 6^\circ$.
26	Apr. 14	W-G W-G W-G		iPZ iS iL	21-30-33 21-33-55 21-35-07	H = 21h26m28s. Possibly Utah earthquake of this date. $\Delta = 17^\circ 6'$.
27	Apr. 15	W-G W-G W-G W-G W-G W-G W-G W-G W-G W-G W-G W-G		eP(?) _E iPR ₁ Z eS _C P _C P _{EN} iSKS _{EN} iSKKS eS _{EN} iPS _{EN} ePPS _{EN} SR ₁ PR ₂ SKKS ₁ F	22-30-57 22-35-47 22-37-08 22-41-09 22-42-39 22-43-40 22-46-02 22-47-05 22-52 \pm 22-52 \pm 22-52 \pm 01-30 \pm	H = 22h15m19s. Tentative epicenter: $11^\circ 5'$ N, $121^\circ 8'$ E. $\Delta = 122^\circ 3'$.
	Apr. 17	W-G		Seismic activity at about 03h.		
28	Apr. 17	W-A W-G		eP eS	14-50-02 14-55-07	H = 14h43m50s. $\Delta = 30^\circ$.

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29	Apr. 17	W-G W-G W-G		iP _n iS _n i	13-53-42 13-53-51 13-53-55	H = 13h53m23. 67 miles. Felt at St. Mary's, Mo.
	Apr. 21	W-G		Seismic activity (local) at 6h44m. Location unknown.		
	Apr. 24	W-G		Seismic activity at about 18h.		
	Apr. 26	W-G		Seismic activity at 6h and at 8h30m.		
30	Apr. 26	W-G W-G W-G		iSKS eSKKS eS	21-25-25 21-26-17 21-27-02	
	Apr. 27	W-G		Local tremor at 21h15m (approx). Location unknown.		
	Apr. 27	W-G		Seismic activity centering at 21h45m.		
	Apr. 27	W-G		Seismic activity centering at 16h30m.		
31	May 1	W-A W-G W-G W-G W-G		ePEN iPZ iEZ iZ iSEZ(?)	07-24-01 07-24-05 07-26-39 07-26-47 07-27-25	
32	May 2	W-G W-G W-G		iPZ i e	09-50-48 09-50-55 09-55-24	Possibly somewhat deep. (30 km.)
	May 3	W-G		Seismic activity centering around 2h30m.		
33	May 4	W-G W-G W-G		iPZ eSEN iL	00-44-03 00-47-56 00-50-21	
34	May 4	W-G W-G W-G W-G		iPZ iPR ₁ EN iPR ₂ EN iSEN	04-43-51 04-45-21 04-45-51 04-50-07	H = 04h36m15s. $\Delta = 40^{\circ}3'$. Tentative epicenter: 61° N, 145° W. (In the region of Beaver Dam, Alaska).
35	May 5	W-G W-G W-G		eP _N Z eS _N eL	01-26-03 01-30-11 01-34±	H = 01h21m01s. $\Delta = 22^{\circ}7'$.
36	May 6	W-G W-G W-G W-G		iP iS iL iM	08-13-54 08-17-16 08-18-40 08-20-32	H = 08h09m49s. $\Delta = 17^{\circ}6'$.

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37	May 13	W-A		ePR ₁	03-21-32	
		W-G		eSKS	03-27-18	
		W-G		eSKKS	03-28-28	
		W-G		eS	03-29-08	
		W-G		iSR ₁	03-37-09	
38	May 14	W-G		iPZ	13-19-44	H = 13h14m53s. Δ = 21°6.
		W-G		iS	13-23-42	
		W-G		eL	13-25-30	
39	May 14	W-G		iPZ	22-20-53	H = 22h13m02s. Depth of focus equals 70 km. Tentative epicenter: 56°2 N, 150°7 W.
		W-G		ipPZ	22-21-09	
		W-G		eS	22-27-18	
		W-G		esS	22-27-47	
40	May 15	W-G		iPZ	15-22-55	H = 15h17m58s. Δ = 22°2.
		W-G		eS _E	15-26-58	
		W-G		iLN	15-30-15	
41	May 19	W-G		iP	10-52-48	H = 10h47m28s. Depth of focus = 100 km. Tentative epicenter: 13°3 N, 92° W.
		W-G		ipP	10-53-10	
		W-G		eS	10-56-58	
		W-G		iS	10-57-04	
		W-G		isS	10-57-53	
	May 22	W-G		Seismic activity centering around 11h30m.		
	May 28	W-G		Seismic activity centering around 23h30m.		

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42	June 2	W-G W-G W-G		iPz iPR ₁ Z eS _{EN}	13-51-21 13-53-14 13-58-22	H = 13h-42m-46s. Δ = 47°6.
	June 5	W-G		Seismic activity centering around 22h.		
43	June 12	W-G W-G W-G W-G		iPz ipPz eS _{EN} esS _{EN}	09-37-40 09-38-15 09-42-05 09-43-01	H = 09h-32m-20s. Depth of focus about 170 km.
44	June 13	W-G W-G W-G W-G		iPz ipPz iS _{EN} isS _{EN}	02-03-08 02-03-32 02-13-15 02-13-56	H = 01h-51m-09s. Depth of focus = 95 km. Tentative epicenter: 45° N, 149°5 E. Δ = 81°
45	June 13	W-G W-G W-G W-G W-G W-G W-G W-G		iPz iPR ₁ Z iPR ₂ Z iSKS _E iSKKS _E iS _E iPS _E iPPS _E	22-24-40 22-29-16 22-31-34 22-35-16 22-36-12 22-36-50 22-38-47 22-39-46	Δ = 108°1
	June 14	W-G		Seismic activity at about 21h30m.		
	June 15	W-G		Seismic activity at 04h.		
	June 15	W-G		Seismic activity centering around 6h40m.		
46	June 18	W-G W-G W-G W-G W-G W-G		iPz ipPz iS _{EN} isS _{EN} iSR ₁ EN eL	09-21-44 09-22-02 09-28-05 09-28-36 09-31-20 09-34 ⁺	H = 09h-13m-59s. Depth of focus approxi- mately 70 km. Tentative epicenter: 59°2 N, 149°5 W. Δ = 42°1.
47	June 22	W-G W-G W-G W-G		iPz ipPz iS _E isS _E	18-39-06 18-39-15 18-43-36 18-43-50	Tentative epicenter: 18° N, 105° W. Δ = 24°3.
	June 23	W-G		Seismic activity at about 6h30m.		
48	June 24	W-G W-G		eP _{EN} eS _{EN}	01-48-07 01-54-17	H = 01h-40m-37s. Δ = 39°2.

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49	June 24	W-G		iPz	06-10-02	H = 05h-59m-39s. Depth of focus approximately 100 km. Tentative epicenter: 22° S, 68° W. Δ = 6401.
		W-G		ipPz	06-10-27	
		W-G		iz	06-10-40	
		W-G		iPR ₁ Z	06-12-23	
		W-G		ipPR ₁ Z	06-12-59	
		W-G		eS _{EN}	06-18-30	
		W-G		isS _{EN}	06-19-10	
		W-G		iEN	06-19-51	
		W-G		iSR ₁ EN	06-22-28	
	June 24	Seismic activity at about 14h.				
	June 25	Seismic activity at about 22h.				
50	June 29	W-G		iz	08-43-23	Deep Earthquake. Depth = (?).
		W-G		iz	08-43-43	
		W-G		iz	08-45-56	
		W-G		iz	08-46-12	
		W-G		iz	08-46-57	
		W-G		eZ	08-48-45	
		W-G		FZ	09-30±	
	June 30	Seismic activity at 9h, at 13h30m, and at 21h.				

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50	July 3	W-A W-G		iP iS	03-11-18.2 03-11-43.4	H = 03h-10m-41s. This quake was felt at Hayti, Missouri, although Hayti is far south of the points to which the Florissant arc reaches. $\Delta = 155$ miles.
	July 4	Seismic activity centering around 02h30m.				
51	July 6	W-G W-G W-G W-G W-G		ePz iPz iPR ₁ Z iSEN iSR ₁ EN	22-54-35 22-54-37 22-55-07 22-59-14 23-00-10	H = 22h-48m-56s. Tentative epicenter: 41°5' N, 124°9' W. $\Delta = 26$ °4.
	July 7	W-G		F	02-30 ⁺	
52	July 10	W-G W-G W-G W-G		ePz iPR ₁ Z iSEN eLEN	01-06-58 01-08-23 01-10-57 01-13 ⁺	H = 01h-02m-06s. $\Delta = 21$ °7.
53	July 18	W-G W-G W-G W-G W-G		iP ipP iPR ₁ iS isS	17-06-05 17-06-21 17-07-09 17-11-06 17-11-34	H = 16h-59m-49s. Tentative epicenter: 8°2' N, 82°2' W. Depth of focus approximately 65 km. $\Delta = 31$ °.
54	July 18	W-G W-G W-G		eP PR ₁ iPS	19-54-44 19-59-02 20-08-32	H = 19h-40m-05s. Tentative epicenter: 16°8' S, 167° E. $\Delta = 110$ °.
	July 19	Seismic activity centering around 02h. (Two earthquakes, but the phases are too indistinct to measure).				
	July 19	Distant earthquake centering around 08h30m. Indistinct.				
	July 20	Distant earthquake centering around 19h30m. Indistinct.				
55	July 21	W-G W-G W-G W-G W-G W-G W-G W-G W-G		ePz eP ⁺ z ePR ₁ Z eSKSE eSKKSE iSEN iPS _{EN} iPP _{SEN} iSR ₁ EN iSR ₂ EN	06-32-46 06-36-34 06-37-08 06-43-20 06-44-00 06-45-16 06-47-05 06-48-16 06-53-05 06-57-10	H = 06h-17m-59s. Tentative epicenter: 18°2' S, 164° E. $\Delta = 113$ °1.

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No.	Date	Inst.	C/D	Phase	G.M.C.T.	H--Remarks
56	July 21	W-G		iPz	10-45-30	H = 10h-39m-13s. Tentative epicenter: 89.2 N, 82.5 W. Depth of focus approxi- mates 65 km. $\Delta = 31.3$.
		W-G		ipPz	10-45-45	
		W-G		iPR ₁ Z	10-46-33	
		W-G		iS _{EN}	10-50-36	
		W-G		isS _{EN}	10-51-03	
		W-G		iSR ₁ EN	10-53-10	
	July 22	Seismic activity centering around 21h.				
	July 23	Seismic activity centering around 19h.				
	July 24	Seismic activity centering around 03h.				
57	July 27	W-G		iPz	02-30-53	H = 02h-25m-47(?)s. Depth of focus approxi- mates 100 km. $\Delta = 24.2$.
		W-G		ipPz	02-31-14	
		W-G		iS _N	02-35-04	
		W-G		isS _N	02-35-44	
58	July 28	W-G		ePz	21-45-25	H = 01h-37m-12s. Tentative epicenter: 55.1 N, 154.8 W. Depth of focus approxi- mates 30 km. $\Delta = 45.0$.
		W-G		ipPz	21-45-34	
		W-G		iS _{EN}	21-52-08	
		W-G		isS _{EN}	21-52-25	

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

18.

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No.	Date	Inst.	C/D	Phase	G.M.C.T.	H--Remarks
75	Oct. 10	G-W G-W G-W		e(P)E iSEN F	15-56-52 16-05-34 17-30±	H = 15h-42m-09s. Tentative epicenter 179°2 E, 24°8 S. Depth = 570 km.
76	Oct. 18	G-W G-W G-W G-W G-W G-W G-W		eEN eEN e(SR1)EN e(SR2)EN eL M F	07-47-53 08-07-15 08-16-23 08-26± 08-38-30 08-43± 11-00	
77	Oct. 29	W-A G-W G-W		ePEN eSEN iLENZ	02-39-30 02-43-33 02-45-00	H = 02h-34m-33s. Δ = 22.2
78	Oct. 30	G-W G-W		iPEN iSEN	08-26-26.8 08-26-52.3	H = 02h-25m-47s. Tentative epicenter: 37° 31' N, 88° 30' W. Δ = 132 miles. Pope County, Ill.

Minor Seismic Movements: Oct. 21, 18h; Oct. 24, 03h10m;
Oct. 30, 23h15m.

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No.	Date	Inst.	C/D	Phase	G.M.C.T.	H--Remarks
79	Nov. 5	W-G W-G W-G W-G W-G W-G W-G		ePENZ ipPZ iPR ₁ Z iSEN isSEN eSR ₁ EN F	23-12-12 23-12-26 23-14-42 23-23-11 23-23-31 23-24-20 24-30±	H = 23h-02m-28s. Tentative epicenter: 53°2 N, 176°7 W.
80	Nov. 7	W-G W-G W-G W-G		iPE iSEN esS(?) F	09-37-39 09-41-31 09-41-35 09-47±	Probably deep. Δ = 21°0
81	Nov. 18	W-G W-G W-G		iPEN iSEN F	09-29-41 09-38-44 09-53±	
82	Nov. 18	W-G W-G		iPE SEN	15-08-25 15-12-22	Δ = 21°3
83	Nov. 27	W-G W-G W-G W-G W-G W-G W-G		eP'ENZ ePR ₁ Z iSKSEN iSKKS PPSEN iSR ₁ E F	06-33-15 06-35-07 06-40-09 06-41-56 06-46-40 06-52-15 08-00±	H = 06h-14m-16s. Tentative epicenter: 2°7 N, 128°0 E. Δ = 125°8
84	Nov. 30	W-G W-G W-G W-G W-G W-G W-G		ePEN iPR ₁ Z iSEN iSR ₁ EN eLEN MEN F	02-10-26 02-10-50 02-14-44 02-15-19 02-16-30± 02-17-55± 05-00±	H = 02h-05m-12s. Tentative epicenter: 18°0 N, 105° W. Δ = 23°9

Minor Seismic Movements: Nov. 2, 1h; Nov. 4, 2h-3h30m;
Nov. 12, 8h-8h30m; Nov. 18, 23h-24h; Nov. 29,
05h20m-06h.

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20.

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No.	Date	Inst.	C/D	Phase	G.M.C.T.	H--Remarks
85	Dec. 2	W-G W-G W-G W-G		ePZ eS _{EN} eL _{EN} F	15-01-08 15-05-30 15-08-30 15-30±	$\Delta = 23^{\circ}3$ H = 14h-53m-01s (Foreshock)
86	Dec. 3	W-G W-G W-G W-G		iPZ ipPZ iS _{EN} isS _{EN}	01-40-59 01-41-05 01-45-11 01-45-21	$\Delta = 23^{\circ}2$ H = 01h-45m-53s Felt in Honduras (Foreshock)
87	Dec. 3	W-G W-A W-G W-G W-G W-G W-G W-G W-G		iPZ ipP _{EN} iPR ₁ Z eS _{EN} i _{EN} iSR ₁ EN iSR ₂ EN F	02-43-42 02-43-42 02-44-11 02-48-03 02-48-12 02-49-00 02-49-22 04-40±	Probable depth of focus 17 km. $\Delta = 24^{\circ}2$ H = 02h-38m-35s Tentative epicenter: 14 ^o .3 N., 88 ^o .8 W. Destructive in W. Hon- duras
88	Dec. 4	W-G W-G W-G W-G W-G W-G W-G		iPZ ipPZ iPR ₁ Z iS _{EN} isP _{EZ} ipS _{EN} isS _{EN}	17-34-43 17-35-34 17-36-59 17-42-53 17-43-23 17-44-23 17-45-05	Epicenter: 19 ^o .7 S., 69 ^o .5 W. Depth of focus: 200 km. H = 17h-24m-53s Destructive at Zapiga, northern Chile.
89	Dec. 8	W-A W-A W-A W-A		eP _{EN} iS _N iL _N F	09-40-32 09-45-06 09-50-10 10-10±	$\Delta = 25^{\circ}8$ H = 09h-44m-59s
90	Dec. 15	W-G W-G W-G W-G W-G		eZ _N eP _N Z PR ₁ Z SKS _{EN} SR ₁	02-16-27 02-19-34 02-20-15 02-20-36 02-36-12	No Solution

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No.	Date	Inst.	C.D	Phase	G.M.C.T.	H--Remarks
91	Dec. 22	W-G W-G W-G W-G		eP _Z eS _{EN} eSR ₁ EN eM _{EN}	14-35-19 14-40-29 14-41-52 14-43-20	Epicenter: 9°0 N., 87°0 W. Δ = 29°8 H = 14h-23m-10s
92	Dec. 23	W-A W-A W-A W-A W-A		eP _{EN} iS _{EN} isP _{EN} ipS _{EN} isS _{EN}	10-02-50 10-11-11 10-11-59 10-12-43 10-13-32	No determination
93	Dec. 24	W-G W-G		eP _{EN} eS _{EN}	14-40-53 14-45-23	
94	Dec. 30	W-G W-G W-G W-G W-G		eP _{EN} Z iPR ₁ Z iS _{EN} iSR ₁ F	13-57-00 13-57-25 14-00-56 14-01-42 17-00±	Epicenter: 32°0 N., 115°5 W. H = 13h-52m-11s Δ = 21°3 Destructive in Southern California and north- western Mexico.
95	Dec. 31	W-G W-G W-G		iP _Z iS _{EN} F	18-50-29 18-54-27 21-00±	Epicenter: 31°8 N., 115°0 W. H = 18h-45m-38s Δ = 21°6

Minor Seismic Movements: Dec. 10, 10h40m; Dec. 24, 16h40m; Dec. 25, 7h30m; Dec. 28, 12h30m.

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