

CLEVELAND



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SEISMOLOGICAL OBSERVATORY JOHN CARROLL UNIVERSITY, CLEVELAND 18, OHIO, U. S. A.

41° 29' 27.90" North, 81° 31' 52.22" West, h = 326 m.

Seismographs: Two Sprengnether long-period horizontal, one Sprengnether vertical.
Two Sprengnether short-period horizontal.

JANUARY, 1962 BULLETIN

<u>Date</u>	<u>Phase</u>	<u>Component</u>	<u>G. M. C. T.</u>	<u>REMARKS</u>
1	ePS ePS	E N	23 ^h 59 ^m 32 ^s 23 59 32	USCGS: 52.4°N, 177.7°E H = 23 ^h 40 ^m 20.3 ^s h = 27 km
4	eSKS eS	N E	04 59 51.2 05 00 36.2	USCGS: 33.9°N, 135.2°E H = 04 ^h 35 ^m 42.6 ^s h = 56 km
8	iP iS	Z N	01 05 47.4 d 01 10 08	USCGS: 18.5°N, 70.5°W H = 01 ^h 00 ^m 24.2 ^s h = 63 km
11	iP	Z	05 16 05.3 d	USCGS: 43.5°N, 17.7°E H = 05 ^h 05 ^m 01.6 ^s h = 25 km
11	eP	Z	06 59 32.6 d	USCGS: 51.9°N, 179.3°W H = 06 ^h 49 ^m 07.6 ^s h = 60 km
26	iP	Z	08 29 32.6 c	USCGS: 35.1°N, 22.7°E H = 08 ^h 17 ^m 37 ^s h = 32 km
27	iS	n	23 19 31.3	USCGS: 31.0°N, 114.3°W H = 23 ^h 07 ^m 42.1 ^s h = 22 km
29	iP iS	n n	08 10 53.6 08 11 22.8	



FEBRUARY, 1962, BULLETIN

<u>Date</u>	<u>Phase</u>	<u>Component</u>	<u>G. M. C. T.</u>	<u>Remarks</u>
2	iP ₄ iS ₄	Z E	06 ^h 45 ^m 37.6 ^s c 06 47 11.2	USCGS: 36.3°N, 89.4°W H = 06 ^h 43 ^m 28.8 ^s h = 25 km
10	iP	N	19 37 49.9	USCGS: 17.9°N, 62.2°W H = 19 ^h 31 ^m 56.2 ^s h = 70 km
14	eP iS	Z NE	06 48 05 c 06 58 05	USCGS: 38.1°S, 73.1°W H = 06 ^h 36 ^m 01.3 ^s h = 44 km
18	eP eS	Z N	17 31 54.2 d 17 37 17.4	USCGS: 8.1°N, 74.6°W H = 17 ^h 25 ^m 17.3 ^s h = 70 km
27	iP eS	N E	12 52 51.7 c 13 02 42.9	USCGS: 37.4°S, 73.2°W H = 12 ^h 40 ^m 48.9 ^s h = 40 km

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MARCH, 1962, BULLETIN

<u>Date</u>	<u>Phase</u>	<u>Component</u>	<u>G. M. C. T.</u>		<u>Remarks</u>
12	iP	Z	09 ^h 48 ^m 11.0 ^s	d	USCGS: 9.0°N, 83.0°N H = 09 ^h 41 ^m 45.7 ^s h = 113 km
12	iP	Z	11 46 50.5	c	USCGS: 8.1°N, 83.0°W
	iPP	Z	11 46 57.0		H = 11 ^h 40 ^m 12.8 ^s
	iS	N	11 51 58		h = 58 km
17	eP	Z	20 55 53	d	
	iS	E	21 02 37		
18	iP	Z	15 41 53.2	c	USCGS: 40.6°N, 19.6°E H = 15 ^h 30 ^m 31.6 ^s
19	eP ₁ ¹	E	06 13 37.6	d	USCGS: 0.3°N, 123.5°E H = 05 ^h 54 ^m 24.4 ^s
21	iP ₁ ¹	Z	23 16 15.9	d	USCGS: 5.9°S, 113.0°E H = 22 ^h 57 ^m 51.2 ^s h = 631 km
26	iP	Z	16 45 01.5	d	USCGS: 40.6°S, 73.3°W H = 16 ^h 32 ^m 43.6 ^s H = 32 km

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APRIL, 1962, BULLETIN

<u>Date</u>	<u>Phase</u>	<u>Component</u>	<u>G. M. C. T.</u>	<u>Remarks</u>
10	iP	n	14 ^h 32 ^m 46.2 ^s	USCGS: 44.1°N, 73.1°W H = 14 ^h 30 ^m 46.4 ^s . h = 25 km
	i	e	14 33 58.7	
12	eP	Z	01 05 44.9 c	USCGS: 38.2°N, 142.3°E H = 00 ^h 52 ^m 47.0 ^s . h = 68 km
	iSKs	n	01 16 20.7	
18	iP	Z	19 23 39.8 d	USCGS: 10.0°S, 79.0°W H = 19 ^h 14 ^m 37.2 ^s h = 39 km
	ipP	Z	19 23 52.4 c	
19	iP	Z	23 26 48.0 c	USCGS: 69.8°N, 138.6°E H = 23 ^h 16 ^m 04.1 ^s
	eS	N	23 35 28	
20	iP	Z	05 52 55.8 d	USCGS: 20.6°N, 72.2°W H = 05 ^h 47 ^m 55.3 ^s h = 25 km
	iS	N	05 56 51	
22	eP	Z	04 51 02.2 c	USCGS: 15.5°N, 93.1°W H = 04 ^h 45 ^m 20.3 ^s h = 69 km
	iS	n	04 55 17.4	
23	iP	Z	06 10 47 c	USCGS: 42.9°N, 143.4°E H = 05 ^h 58 ^m 04.9 ^s h = 25 km
	iSKS	E	06 21 10	
25	eP	Z	16 00 44.4 d	USCGS: 38.4°N, 142.5°E H = 15 ^h 47 ^m 29.4 ^s h = 56 km
	ePS	E	16 11 18	

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MAY, 1962, BULLETIN

<u>Date</u>	<u>Phase</u>	<u>Component</u>	<u>G. M. C. T.</u>		<u>Remarks</u>
10	iP	Z	00 ^h 11 ^m 47.7 ^s	d	USCGS: 62.0°N, 150.1°W H = 00 ^h 03 ^m 40.2 ^s h = 72 km
11	iP	N	14 17 52.5	c	USCGS: 17.0°N, 99.7°W H = 14 ^h 11 ^m 51.9 ^s h = 25 km
15	eP ₁ ¹	e	05 43 10.1		USCGS: 7.3°S, 128.3°E H = 05 ^h 23 ^m 45.9 ^s h = 34 km
19	iP	Z	15 04 11.3	c	USCGS: 17.2°N, 99.5°W H = 14 ^h 58 ^m 13.3 ^s h = 20.0 km
21	eP	E	21 29 49		USCGS: 20.0°S, 177.5°W
	ipP	Z	21 30 54.1	d	H = 21 ^h 15 ^m 31.0 ^s
	iS	E	21 39 18		h = 379 km
22	iP	Z	08 25 04.3	d	USCGS: 12.3°S, 166.6°E H = 08 ^h 06 ^m 38.7 ^s h = 151 km

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JUNE, 1962, BULLETIN

<u>Date</u>	<u>Phase</u>	<u>Component</u>	<u>G. M. C. T.</u>		<u>Remarks</u>
14	iP iS	Z N	08 ^h 02 ^m 49.7 ^s 08 11 40	c	USCGS: 54.3°N, 169.1°E H = 07 ^h 51 ^m 51.0 ^s h = 34 km
28	iP eS	Z N	04 38 01.9 04 46 44	d	USCGS: 20.0°N, 155.6°W H = 04 ^h 27 ^m 18.4 ^s h = 25 km
29	iP iS	n E	16 36 25.8 16 43 04.4		USCGS: 62.3°N, 152.4°W H = 16 ^h 28 ^m 04.4 ^s h = 39 km

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JULY, 1962, BULLETIN

<u>Date</u>	<u>Phase</u>	<u>Component</u>	<u>G. M. C. T.</u>		<u>Remarks</u>
6	iP	Z	23 ^h 18 ^m 46 ^s	d	USCGS: 36.6°N, 70.4°E H = 23 ^h 05 ^m 32.7 ^s h = 203 km
23	iPR ₁ i	n e	22 18 05.9 22 22 39.9		USCGS: 19.0°N, 65.1°W, H = 22 ^h 11 ^m 54.6 ^s h = 25 km
24	iP	N	21 14 23.4		USCGS: 15.5°N, 92.5°W H = 21 ^h 08 ^m 22.6 ^s h = 129 km
25	iP iS	Z N	04 42 47.4 04 46 58.7	c	USCGS: 18.9°N, 81.1°W H = 04 ^h 37 ^m 50.7 ^s h = 64 km
26	iP	Z	08 21 27.2	d	USCGS: 7.5°N, 82.7°W H = 08 ^h 14 ^m 41.8 ^s h = 21 km
30	iP ¹ ePR ₁	Z E	17 35 47 17 37 29	c	USCGS: 3.3°S, 143.9°E H = 17 ^h 16 ^m 44.4 ^s h = 25 km
30	eP iS	Z N	20 25 55.6 20 31 28	d	USCGS: 5.0°N, 76.3°W H = 20 ^h 18 ^m 49.3 ^s h = 45 km

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AUGUST, 1962, BULLETIN

<u>Date</u>	<u>Phase</u>	<u>Component</u>	<u>G. M. C. T.</u>		<u>Remarks</u>
3	iP	Z	09 ^h 06 ^m 51.3 ^s	d	USCGS: 23.2°S, 67.5°W H = 08 ^h 56 ^m 12.1 ^s h = 71 km
	iS	E	09 15 23.7		
6	eP	Z	01 42 10.7	d	USCGS: 32.0°N, 40.8°W H = 01 ^h 35 ^m 30.5 ^s h = 48 km
	ePR ₂	Z	01 43 32.6		
10	iP	Z	21 11 14.5	c	USCGS: 49.4°N, 27.9°W H = 21 ^h 03 ^m 59.2 ^s h = 33 km
	iPR ₂	E	21 12 40		
13	iP	Z	06 43 21.2	c	USCGS: 2.1°N, 83.5°W H = 06 ^h 35 ^m 56.0 ^s h = 33 km
	iS	E	06 49 19.2		
28	iP	Z	11 11 30.8	c	USCGS: 38.0°N, 23.1°E H = 10 ^h 59 ^m 58.5 ^s h = 120 km
	iS	Z	11 21 00.3		
30	iP	Z	13 40 27.3	c	USCGS: 41.8°N, 111.8°W H = 13 ^h 35 ^m 28.7 ^s h = 37 km
	ipP	Z	13 40 33.5	c	
	iS	E	13 44 31		
31	iP	Z	17 13 14.0	d	USCGS: 51.3°N, 177.2°W H = 17 ^h 02 ^m 43.4 ^s h = 26 km
	iS	e	17 23 03.2		

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SEPTEMBER, 1962, BULLETIN

<u>Date</u>	<u>Phase</u>	<u>Component</u>	<u>G. M. C. T.</u>		<u>Remarks</u>
1	eP iS	Z E	03 ^h 56 ^m 35 ^s 04 05 11	c	USCGS: 51.3°N, 179.7°W H = 03 ^h 46 ^m 05.0 ^s h = 25 km
1	iP eS	Z E	08 01 57.9 08 10 21.4		USCGS: 51.3°N, 179.9°W H = 07 ^h 51 ^m 08.2 ^s h = 42 km
4	iP	Z	15 23 13.5	c	USCGS: 15.0°N, 91.7°W H = 15 ^h 17 ^m 42.4 ^s h = 217 km
12	iSKS iPS	N, E N	21 21 03 21 23 18		USCGS: 36.5°N, 69.2°E H = 20 ^h 37 ^m 50.4 ^s h = 50 km
15	iP iS	Z e	23 02 34.8 23 12 19.7	d	USCGS: 48.5°N, 156.8°E H = 22 ^h 50 ^m 46.3 ^s h = 33 km
16	iP ipP	Z Z	03 11 22.2 03 11 42.2	d d	USCGS: 19.3°N, 103.1°W H = 03 ^h 05 ^m 33.0 ^s h = 100 km
18	iP iS	Z E	00 35 48.9 00 41 08	d	USCGS: 7.5°N, 82.3°W H = 00 ^h 29 ^m 05.2 ^s h = 33 km
29	iP iS	Z N	15 28 04.3 15 36 31.3	d	USCGS: 27.0°S, 63.6°W H = 15 ^h 17 ^m 47.7 ^s h = 575 km

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OCTOBER, 1962 BULLETIN

<u>Date</u>	<u>Phase</u>	<u>Component</u>	<u>G. M. C. T.</u>	<u>Remarks</u>
25	iP	Z	15 ^h 59 ^m 06.6 ^s	d USCGS: 8.4°N, 82.6°W H = 15 ^h 52 ^m 29.2 ^s h = 51 km
	eS	N	16 04 18.6	
30	iP	Z	08 37 48.4	c USCGS: 12.5°N, 88.0°W H = 08 ^h 31 ^m 51.8 ^s h = 80 km
31	iP	Z	11 39 25.5	d USCGS: 5.6°N, 82.6°W H = 11 ^h 32 ^m 29.0 ^s h = 33 km
	eS	E	11 45 03.5	

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NOVEMBER, 1962 BULLETIN

<u>Date</u>	<u>Phase</u>	<u>Component</u>	<u>G. M. C. T.</u>	<u>Remarks</u>
4	iP	Z	23 ^h 06 ^m 04.5 ^s d	USCGS: 43.2° S, 75.6° W H = 22 ^h 53 ^m 34.2 ^s h = 33 km
		N		
	eS	N	23 16 27.5	
10	iP	Z	01 45 46.5 c	USCGS: 27.9° N, 55.6° E H = 01 ^h 32 ^m 03.7 ^s h = 33 km
	ipP	N	01 46 53.0	
	eSKS	N	01 56 07.0	
11	iP	Z	10 26 49.8 c	
	eS	E	10 34 31	
15	iP	Z	23 34 06.4 c	USCGS: 8.7° S, 79.8° N H = 23 ^h 25 ^m 15.7 ^s h = 45 km
16	iP	Z	07 30 35.0 c	USCGS: 32.3° S, 111.1° W H = 07 ^h 18 ^m 37.3 ^s h = 43 km
	eS	E	07 40 36	
17	iP	Z	11 13 15.3 c	USCGS: 16.3° N, 98.2° W H = 11 ^h 07 ^m 15.4 ^s h = 12 km
	eS	E	11 18 18.7	
30	iP	Z	21 57 16.2 c	USCGS: 17.4° N, 99.6° W H = 21 ^h 51 ^m 22.9 ^s h = 51 km
	ipP	Z	21 57 25.5	
	iSR ₁	n	22 03 16.7	

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DECEMBER, 1962, BULLETIN

<u>Date</u>	<u>Phase</u>	<u>Component</u>	<u>G. M. C. T.</u>		<u>Remarks</u>	
8	iP	Z	21 ^h	37 ^m 29.8 ^s	c	USCGS: 25.8°S, 63.4°W H = 21 ^h 27 ^m 22.2 ^s h = 620 km
	ipP	Z	21	39 28.9	d	
	iS	e	21	45 47.2		
21	iP	Z	08	52 31.6	d	USCGS: 52.4°N, 168.5°W H = 08 ^h 42 ^m 48.3 ^s h = 33 km
	eS	N	09	00 16		
21	iP	Z	09	19 47.7	d	USCGS: 52.5°N, 168.5°W H = 09 ^h 10 ^m 01.6 ^s h = 33 km
21	iP	Z	09	46 02.5	d	USCGS: 42.4°N, 142.3°E H = 09 ^h 33 ^m 15.5 ^s h = 27 km
22	iP	Z	02	19 25.2		
26	iP	Z	22	36 09.5	d	USCGS: 53.9°N, 168.7°E H = 22 ^h 25 ^m 15.5 ^s h = 33 km
	eS	E	22	45 02.6		
29	iP	Z	10	51 21.2	c	USCGS: 20°S, 69.9°W H = 10 ^h 41 ^m 04.1 ^s h = 46 km
	eS	E	10	59 41.0		

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