Seattle

Jany. 1965

Seismograph Station
University of Washington
Department of Geology
Seattle, Washington 98105

Preliminary Readings: World-Wide Standard Seismograph Station, Longmire, Washington

January, 1965

All locations are from U. S. Coast and Geodetic Survey

Latitude: 46° 45.0'N Elevation: 2800 ft.
Longitude: 122° 48.6'W Foundation: Volcanic Breccia

Date	Phase	Time G.C.T.	Remarks	
Jan. 4	e P Z	07 19 02	Fiji Island region 19.1 S, 177.5 W	Mag. 5.5 h about 570 km
4	e Z	17 28 26		
4	e Z	20 53 51	Northern Yukon Territory 67.4 N, 136.2 W	Mag. 4.5 h about 33 km
5	e Z	14 59 33		
5	e P Z	18 18 16	Tonga Islands 20.3 S, 174.1 W	Mag. 6.0 h about 33 km
6	i P Z	02 03 00.5R	Eastern Idaho 44.9 N, 112.7 W	Mag. 5.1 h about 7 km
6	i P N	18 17 27.6		
9	e P N e E	11 57 49 11 58 22		
9	e P N e P E e N e E	14 59 58 15 00 00 00 33 15 00 34		
10	e P NE	13 49 18	New Hebrides Islands 13.5 S, 166.6 E	Mag. 6.5 h about 32 km
11	i P Z	17 02 19.4R	Southern Alaska 61.1 N, 151.0 W	Mag. 5.4 h about 59 km
11	i P Z	20 24 58.2C	Eastern Sea of Japan 43.0 N, 139.2 E	Mag. 5.3 h about 189 km
12	i P Z	04 53 29.2		
12	i P Z	18 10 35.0		
13	e P Z	03 42 51	Local	

Date	Phase	Time G.C.T.	Remarks	
Jan. 13	i P Z	03 46 00.7	Eastern Idaho	Mag. 3.8
	i Z	03 47 49.8	44.9 N, 112.7 W	h about 33 km
13	e P Z	04 46 59	Local	
	i S ZN	47 20.6		
	i S E	04 47 21.0		
14	e Z	07 27 07		
14	i P Z	08 35 44.4		
	e Z	36 53		
	e N	44 .3		
	e E	44 18		
	e Z	08 44 .4		
	e N	09 00 33		
	e Z	09 00 34		
14	e P Z	10 28 .7	Local	
	e Z	29 25		
	i NE	10 29 27.3		
14	i Z	13 57 08.6		
15	i P Z	03 41 52.2R	Fiji Islands region	Mag. 5.3
			20.9 S, 177.8 W	h about 597 km
15	i P Z	06 12 22.3C		
15	i P Z	23 24 52.6		
	e Z	41 08		
	e E	41 10		
	e N	53 48		
	e E	23 57 12		
16	i P Z	11 51 35.2R	South Sandwich Island region	Mag. 6.1
			56.6 S, 27.4 W	h about 101 km
17	i P Z	02 18 15.6R	Kodiak Island region	Mag. 5.3
	e S NE	22 19	58.3 N, 151.8 W	h about 33 km
	e S Z	22 28		
	e Z	02 23 56		
17	i P Z	08 31 37.2	Tonga Island	Mag. 5.4
	e L Z	08 55 .0	15.1 S, 173.7 W	h about 33 km
17	i P Z	10 55 13.7	South of Fiji Islands	Mag. 5.5
			24.5 S, 178.4 E	h about 568 km
17	e P Z	14 53 41		
17	i P Z	21 16 08.0C	Java	Mag. 6.5
			6.8 S, 109.1 E	h about 242 km

Date	Phase	Time G.C.T.	Remarks	
Jan. 18	e P Z	00 01 28.3		
	e Z	00 20 .2		
20	e Z	21 12 14		
21	e P Z	08 24 49		
	i P Z	24 51.9		
23	e Z	14 08 37		
24	e P Z	00 25 29	Ceram Sea	Mag. 6.6
	i P Z	25 37	2.4 S, 126.0 E	h about 6 km
	e P Z	29 06		
	e S N	30 06		
	e S E	30 12		
	eSKKSE	36 40		
	e P SE	00 39 21		
24	e P Z	15 58 10	Local	
	i SZNE	34.4		
24	i P Z	16 56 28.3		
27	e P Z	23 28 25.5		
	i Z	23 28 42.3		
28	i P Z	20 51 41.0		
28	e Z	21 41 42		
	i NE	42 00.0		
	i Z	21 42 00.2		
28	e Z	22 29 19		
29	i P Z	00 00 50.7		
29	i P Z	00 16 45.6C		
29	e N	02 31 49		
	e N	02 35 08		
30	e P Z	05 37 20		
30	e Z	08 27 02		
30	i P Z	09 43 58.3		
30	e P Z	22 39 06		
31	i P Z	00 15 11.1		

Date	Phase	Time G.C.T.	Remarks	
Jan. 31	i P Z	01 27 59.4	Local	
	i S E	01 28 27.9		
31	i P Z	04 44 26.6C		
31	e P Z	14 38 03		
	i Z	14 38 19.9		
31	e P Z	23 43 34	Rat Island, Aleutian Islands	Mag. 5.2
	e N	52 29	51.2 N, 178.6 E	h about 33 km
	e E	23 52 31		

WASHINGTON

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Latitude: 46° 45.0'N Elevation: 2800 ft.
Longitude: 122° 48.6'W Foundation: Volcanic Breccia

Date	Phase	Time G.C.T.	Remarks	
Feb. 1	i P Z	00 58 32.6		
1	i P Z	05 52 37.7R		
2	i P Z	03 45 00.6	Guatemala 14.0N, 91.0W	Mag. 4.9 h about 33 km
2	i P Z	03 54 17.4	Guatemala 14.3N, 90.4W	h about 94 km
2	i P Z	04 37 32.5	Chiapas, Mexico 17.2N, 94.5W	Mag. 5.3 h about 140 km
2	e P Z	07 53 42		
2	i P Z	10 10 28.0	Fiji Islands region 21.4S, 176.2W	Mag. 5.1 h about 171 km
2	e P Z	13 59 08		
2	e P Z	16 10 12	Tadzhik SSR 37.5N, 73.4E	Mag. 5.8 h about 33 km
3	i P Z i S ZNE	07 56 48.7 07 56 50.1	Local	
3	i P Z i S NE	07 58 11.3 07 58 12.8	Local	
3	e P Z	16 27 02		
3	i P Z	18 36 32.5	Off coast of Chiapas, Mexico 13.9N, 92.0W	Mag. 4.7 h about 56 km
4	i P Z	05 01 19.7	Rat Islands, Aleutian Islands 51.1N, 178.4E (foreshock)	Mag. 5.8 h about 40 km
	e E	04 12		
	e Z	04 20		
	e L N	18 .5		
	e L E	18 .6		
	e E	24 .4		
	e Z	05 24 27		

Date	Phase	Time	Remarks
Feb 4	i P Z	05 08 41.0	Rat Islands, Aleutian Islands, Mag. 7.5
	i E	15 02	51.3N, 178.6E h about 40 km
	e N	15 04	
	e Z	19.7	
	e N	05 20 12	
4	i P Z	08 46 41.5	Rat Island aftershock Mag. 6.4
			51.3N, 179.5E h about 40 km
4	i P Z	12 13 54.2	Rat Island aftershock Mag. 5.8
			52.6N, 172.1E h about 25 km
4	i P Z	14 26 21.0	Rat Island aftershock Mag. 5.7
			53.0N, 171.0E h about 30 km
4	e P Z	15 59 17.5	Rat Island aftershock Mag. 5.7
			53.1N, 170.8E h about 40 km
4	e P Z	16 11 04	Rat Island aftershock Mag. 5.2
			50.6N, 177.6E h about 33 km
4	i P Z	16 40 25.6	Rat Island aftershock Mag. 5.2
			52.0N, 173.1E h about 30 km
5	i P Z	04 10 08.7	
5	e P Z	06 47 28	Rat Island aftershock Mag 5.7
	e N	56.4	51.8N, 175.1E h about 25 km
	e E	56.9	
	e L Z	06 58.1	
5	i P Z	09 39 47.6	Rat Island aftershock Mag. 5.9
	i S E	45 52	52.3N, 174.3E h about 41 km
	e L E	49 02	
	e L N	49 03	
	e L Z	41 11	
	e E	50.7	
	e L Z	09 51 34	
6	e P Z	01 46 09	
	e ? ZE	50 42	
	e N	01 50 54	
6	e P Z	04 10 26	Rat Island aftershock Mag. 5.9
	e S N	16.1	52.1N, 175.7E, h about 35 km.
	e S E	16 29	
	e S Z	16 43	
	e Z	19.5	
	e E	19 37	
	e N	19 40	
	e Z	04 22 14	

Date	Phase	Time	Remarks
Feb. 6	i P Z	16 56 04.2.R	South Alaska Mag. 6.1 53.3N, 161.8W h about 33 km
6	e P Z	22 49 42	
6	e P Z	23 56 03	Rat Island aftershock Mag. 5.2 51.9N, 173.4E h about 31 km
7	i P Z	02 24 55.5	Rat Island aftershock Mag. 6.0
	e Z	30 28	51.4N, 173.4E h about 40 km
	e S N	31 06	
	e S E	31 09	
	e E	34 18	
	e N	34 21	
	e Z	34 31	
	e N	35 11	
	e Z	02 37 07	
7	e P Z	04 19 05	Rat Island aftershock Mag. 5.5
	e S E	25 05	51.9N, 175.3E h about 25 km
	e E	28 07	
	e N	28 10	
	e L Z	29 29	
	e Z	04 30 45	
7	i P Z	09 29 52.3	Off coast of Oregon Mag. 4.2
	e S Z	09 30.7	44.1N, 128.6W h about 33 km
7	i P Z	09 33 09.5R	Rat Island aftershock Mag. 5.3
	e S E	39 00	51.4N, 179.1E h about 30 km.
	e S N	39 02	
	e Z	41 56	
	e E	41 57	
	e N	41 58	
	e L Z	09 44 08	
7	i P Z	11 31 03.8	Rat Island aftershock Mag. 5.3 52.2N, 172.4E h about 35 km
7	e P Z	11 36 19	South of Alaska Mag. 5.0 53.3N, 161.9W h about 10 km
7	i P Z	11 53 20.2	Rat Island aftershock Mag. 5.0 51.2N, 177.3E h about 33 km
7	e P Z	12 29 12	Rat Island aftershock Mag. 5.3 53.0N, 171.7E h about 25 km
7	i P Z	13 28 21.1	Rat Island aftershock Mag. 5.3 51.1N, 175.8E h about 40 km.
7	i P Z	16 11 10.0	Rat Island aftershock Mag. 5.1 51.3N, 179.0E h about 40 km

Date	Phase	Time	Remarks
Feb. 7	i P Z	17 20 53.3	Rat Island aftershock Mag. 5.4 52.2N, 173.1E h about 35 km
7	e P Z	19 37 37.5	Komandorsky Islands region Mag. 5.2 55.2N, 165.2E h about 20 km
8	i P Z	06 18 46.2	
8	e P Z	06 42 38	Mariana Islands, Mag. 5.3 18.6N, 145.6E h about 116 km
8	i P Z	15 55 00.2	Komandorsky Island region Mag. 5.6 55.1N, 165.7E h about 40 km
8	i P Z	17 45 37.0	Komandorsky Island region Mag. 5.8 55.2N, 165.3E h about 30 km
8	i P ZNE i S N i S E i S Z	20 12 19.4 12 21.3 12 21.5 20 12 21.6	Local
9	i P Z	05 54 42.3	
9	i P Z	17 45 03.9R	Rat Island aftershock Mag. 5.7 52.8N, 171.9E h about 41 km.
9	e P Z e E e N e Z	23 19 10 28 40 29 06 23 29 33	Rat Island aftershock Mag. 5.1 52.2N, 173.0E h about 33 km
10	e ZNE	03 00 42	
10	e P Z	03 59 40	
11	i P Z	02 45 42.0C	
11	i P ZNE i S ZNE	13 05 13.5 13 05 15.2	Local
11	e P Z	13 12 29	Rat Island aftershock Mag. 5.3 51.0N, 175.9E h about 35 km
11	i P Z	16 20 29.4R	
11	e P Z e N e Z	21 56 06 22 00 24 22 01 29	Gulf of California Mag. 4.6 31.6N, 113.9W h about 33 km
12	i P Z i Z e L E	01 02 55.6 03 00.0 01 12 37	Rat Island aftershock Mag. 5.5 52.2N, 172.8E h about 25 km
12	i P Z	10 00 19.7	

Date	Phase	Time	Remarks
Feb.12	e P Z	10 52 00	Near coast of northern California Mag. 5.3 40.3N, 124.9W h about 33 km
14	i P Z	21 25 15.0	Rat Island aftershock Mag. 5.3 52.4N, 173.9E h about 39 km
15	i P Z	01 32 25.4R	Rat Island aftershock Mag. 5.8
	e S Z	38 19	51.4N, 179.4E h about 42 km
	e E	41 10	
	e Z	01 41.14	
15	i P Z	05 09 14.7	Rat Island aftershock Mag. 5.3 52.2N, 172.7E h about 33 km
15	e N	10 14 17	
	e E	14 29	
	e N	10 21 11	
15	i P Z	12 46 54.6	Central Russia Mag. 5.3 53.6N, 81.3E h about 11 km
16	i P Z	08 51 03.3	Gulf of California Mag. 4.6
	e L N	08 55 25	26.4N, 109.9W h about 33 km
16	i P Z	11 04 12.6C	Gulf of California Mag. 5.2 26.4N, 110.0W h about 33 km
16	e P Z	12 35 01	Honshu, Japan Mag. 5.6 39.5N, 141.8E h about 33 km
17	e S E	04 10 36	Kodiak Island region Mag. 4.9
	E S N	04 10 39	57.1N, 153.4W h about 20 km
17	i P Z	10 26 20.2	Rat Island aftershock Mag. 5.6
	e S N	10 32 28	51.8N, 176.6E h about 44 km
18	e P Z	07 44 03	
18	e P Z	16 21 32	
18	e Z	19 34 50	Gulf of Alaska Mag. 5.3 59.2N, 147.5W h about 30 km
18	i P Z	22 42 47.5R	Peru-Brazil border Mag. 5.2 9.9S, 71.2W h about 594 km
18	i P Z	23 20 54.6R	Rat Island aftershock Mag. 5.4
	i S NE	23 26 46.0	51.4N, 179.1E, h about 28 km
19	e P Z	06 29 49.5	Rat Island aftershock Mag. 5.1 51.2N, 177.8E h about 40 km
19	e Z	14 04 31	
19	i P Z	19 00 03.6C	Rat Island aftershock Mag. 5.6 51.1N, 178,4E h about 35 km

Date	Phase	Time	Remarks
Feb 20	e Z	03 11 57	
20	i P Z	22 14 03.7	Rat Island aftershock Mag. 5.1 50.4N, 178.2E h about 32 km
21	e P Z	02 50 51	
21	i P Z	11 26 07.0	Tonga Islands Mag. 5.7 15.1S, 173.2W h about 33 km
22	i P Z	03 37 02.2C	Local
	iSZ NE	03 37 05.0	
22	i P Z	09 22 35.7	Rat Island aftershock Mag. 5.5 51.9N, 173.4E h about 35 km
23	i P Z	22 24 21.6R	Near coast of Northern Chile Mag. 6.2 25.7N, 70.5W h about 80 km
	e E	33.5	
	eSKSNE	34 53	
	e SS E	22 40 42	
24	i P Z	08 17 00.2	Near coast of Chiapas, Mexico Mag. 5.0
	e S E	08 23 08	14.0N, 92.2W, h about 56 km
24	e P Z	09 59 58	
24	i P Z	10 38 20.0	Local
	i Z	38 25.6	
	i S N	38 25.8	
	i S E	10 38 26.1	
24	i P Z	21 30 39.2	Rat Island aftershock Mag. 5.2 51.4N, 178.2E h about 33 km
25	i P Z	02 07 13.8C	Southern Alaska Mag. 4.5 61.2N, 146.7W h about 40 km
25	i P Z	05 04 30.7C	
	e E	05 15 16	
25	e P Z	05 29 58	Rat Island aftershock Mag. 5.6
	e E	05 32 30	52.1N, 173.2E h about 35 km
26	e E	05 58.6	
	e E	06 09.5	
26	e E	09 56.4	
26	i P Z	15 44 54.4	Vancouver Island region Mag. 4.5 50.2N, 130.0W h about 33 km
26	i P Z	23 45 48.0R	Northern Colombia Mag 5.7
	e S E	23 53 37	6.9N, 73.0W h about 146 km
27	i P Z	07 50 58.2C	Gulf of California Mag. 5.3
	e S E	54 51	28.5N, 112.1W h about 33 km
	e E	56 51	
	e L Z	07 57 22	

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Latitude: 46° 45.0'N Elevation: 2800 ft.
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Date	Phase	Time G.C.T.	Remarks	
March 1	i P Z	07 33 58.8		
	e E	07 44 30		
1	i P Z	10 25 23.3		
1	e P Z	13 34 02	Taiwan Region 21.2N, 121.2E	Mag. 5.5 h about 42 km
1	i P Z	19 29 42.6	Rat Island aftershock 52.2N, 173.9W	Mag. 5.5 h about 30 km
1	i P Z	21 39 36.4	Mexico-Guatemala Border 15.4N, 92.5W	 h about 93 km
1	i P Z	22 03 57.4		
2	i P Z	06 10 30.4		
2	i P Z	09 32 35.1	Kermadec Islands 27.2S, 177.9W	Mag. 5.6 h about 39 km
2	i P Z	20 03 55.5		
2	i P Z	21 47 33.5		
	i Z	21 49 20.9		
3	e P Z	01 14 40		
3	i P Z	03 29 58.7	Kermadec Islands 27.2S, 177.6W	Mag. 5.4 h about 33 km
3	i P Z	06 27 22.0C		
3	e P Z	07 54 16		
	e ZN	54 23		
	e E	07 54 24		
3	i P Z	15 27 12.8	New Britian Region	Mag. 6.0
	i Z	15 27 17.1	5.5S, 151.9E	h about 44 km
3	i P Z	16 55 17.9	Rat Island aftershock 53.1N, 171.2E	Mag. 5.6 h about 23 km

Date	Phase	G.C.T.	Remarks	
March 3	i P NE	19 15 37.2		
4	e P Z	06 37 51	Rat Island aftershock 52.0N, 175.0E	Mag. 5.5 h about 40 km
4	e P Z	06 53 33		
	i Z	06 53 36.9		
5	i P Z	00 51 17.7		
	i S N	00 51 40.4		
5	i P Z	06 22 20.5C	Rat Island aftershock 51.2N, 179.3E	Mag. 5.6 h about 25 km
	e NE	28 11		
	e E	31 05		
	e N	31 06		
	e Z	06 33 17		
5	e P Z	13 50 22	Rat Island aftershock 52.3N, 174.9E	Mag. 5.3 h about 35 km
5	i P Z	14 44 20.3R		
5	e P Z	15 29 53		
	i Z	15 29 58.5		
5	i P Z	18 06 52.8	Rat Island aftershock 52.3N, 174.2E	Mag. 5.3 h about 35 km
5	e P Z	23 37 14	Rat Island aftershock 53.0N, 171.1E	Mag. 5.4 h about 45 km
	e N	46 .4		
	e Z	23 46 .6		
6	e P Z	04 19 39	South of Fiji Islands 26.7S, 177.3W	Mag. 5.3 h about 63 km
6	e P Z	08 27 12	Rat Island aftershock 52.4N, 174.2E	Mag. 5.1 h about 25 km
	e Z	08 39 05		
6	i P Z	11 21 35.4R		
	i Z	11 21 35.7C		
6	e P Z	13 48 50	Rat Island aftershock 52.1N, 175.4E	Mag. 5.2 h about 35 km
	e Z	58 .3		
	e N	13 58 19		
8	e P Z	22 54 56		
8	i P Z	23 23 56.0R	Chile-Argentina Border region 24.6S, 67.1W	Mag. 5.4 h about 168 km
9	i P Z	01 48 18.8C		

Date	Phase	Time G.C.T.	Remarks	
March 9	i P Z	18 10 49.7		
	e Z	21 .3		
	e N	21 .4		
	e E	36 .5		
	e N	40 .1		
	e Z	40 .3		
	e Z	18 47 .4		
9	i P Z	21 59 06.0R		
10	e P Z	00 34 05		
10	i P Z	16 05 22.7R		
10	i P ZNE	19 35 09.6	Local	
	i S ZNE	19 35 14.7		
10	i P Z	20 10 18.1	Off coast of Oregon	Mag. 4.0
	i S N	11 15.0	43.4N, 125.4W	h about 33 km
10	i P Z	20 34 16.8C		
10	e P Z	21 58 01.5		
10	e P Z	22 54 55		
11	e P Z	17 26 42		
	e Z	18 16 .2		
	e Z	18 29 .1		
11	i P N	23 33 05.5	Local	
	i P Z	33 05.7		
	i S Z	33 07.2		
	i S N	23 33 07.4		
12	i P ZN	01 25 37.0	Local	
	i S NE	01 25 43.7		
12	i P Z	06 56 42.4C	South of Alaska	Mag. 4.6
			55.7N, 155.6W	h about 16 km
12	i P Z	18 20 05.1		
12	i P ZNE	22 56 11.3	Local	
	i S ZNE	22 56 15.5		
12	e P Z	23 05 25		
13	i P Z	07 38 59.3R	South of Alaska	Mag. 5.5
			53.1N, 162.2W	h about 37 km
14	i P Z	08 59 14.4C	Gulf of Campeche	Mag. 4.8
			18.8N, 94.6W	h about 97 km

Date	Phase	Time G.C.T.	Remarks	
March 14	e P Z	16 06 13	Hindu Kush region	Mag. 6.6
	i P Z	06 13.7	36.3N, 70.7E	h about 219 km
	i Z	06 14.2		
	ePP E	10 10		
	e Z	10 17		
	i N	16 29.5		
	ePPSN	19 41		
	ePPSZ	16 19 43		
15	i P Z	02 13 42.6		
15	i Z	12 43 49		
16	i P Z	16 56 54.2	Near East Coast of Honshu, Japan	Mag. 5.6
	e S ZN	17 05 28	40.8N, 142.9E	h about 34 km
	e S E	05 30		
	e L Z	10 .2		
	e G E	12 45		
	e N	13 12		
	e L Z	17 15 44		
17	i P Z	14 35 02.6		
	e E	41 .3		
	e N	44 .5		
	e Z	44 44		
	e E	44 49		
	e E	14 48 26		
18	i P Z	06 34 08.6	Fiji Island region	Mag. 5.5
	e S N	44 08	19.9S, 176.1W	h about 151 km
	e S E	06 44 09		
19	e N E	16 52 22		
	e Z	16 52 24		
	e G N	17 07 .3		
	e G Z	17 12 29		
21	i P Z	09 51 02.0		
	e E	09 58 10		
21	i P Z	09 52 48.4		
21	i P Z	11 18 21.0		
	i Z	18 25.0		
	i Z	26 40.0		
	e Z	28 46		
	e E	28 50		
	e N	29 04		
	e N	35 .2		
	e E	35 16		
	e E	38 .0		
	e Z	38 09		
	e N	38 14		
	e Z	47 .7		
	e N	53 54		
	e Z	11 56 29		

Date	Phase	Time G.C.T.	Remarks	
March 21	i P Z	12 52 41.2	Near West Coast of Honshu, Japan 36.2N, 136.6E	Mag. 5.4 h about 270 km
22	i P Z	02 56 37.3	Tonga Islands 15.3N, 173.4W	Mag. 5.9 h about 51 km
	e S Z	03 06 22		
	e S N	06 28		
	e S E	06 29		
	e Z	34 34		
	e E	03 34 44		
22	e P Z	23 09 39	Near coast of central Chile 31.9S, 71.5W	Mag. 6.0 h about 46 km
25	e P Z	03 02 57		
25	i P Z	09 01 00.6	Near Islands, Aleutian Islands 52.3N, 172.6E	Mag. 5.3 h about 31 km
	e S N	07 12		
	e S E	07 18		
	e E	09 10 42		
25	i P ZNE	18 28 17.6	Local	
	i S ZNE	18 28 40.4		
25	i P ZNE	23 37 35.3	Local	
	i S N	23 37 36.7		
26	i P Z	15 36 44.7R		
	e N	39 53		
	i Z	15 39 54.3		
26	i P Z	18 59 56.7C	Off coast of Oregon 43.2N, 126.2W	Mag. 5.0 h about 33 km
26	e P Z	23 02 24	Local	
	i S E	02 47.7		
	i S N	23 02 48.0		
27	i P ZN	02 16 57.9	Local	
	i S NE	02 17 04.5		
27	i P Z	09 05 08.0	Off coast of Oregon 43.8N, 126.9W	Mag. 3.9 h about 33 km
27	i P Z	11 09 02.8C		
27	i P Z	20 26 20.2		
28	i P Z	13 31 24.6R	Near East coast of Kamchatka 55.1N, 162.1E	Mag. 5.9 h about 33 km
	e S Z	38 09		
	e S N	38 10		
	e S E	13 38 11		

Date	Phase	Time G.C.T.	Remarks	
March 28	i P Z	16 46 12.3R	Near coast of central Chile	Mag. 6.4
	i Z	46 13.0R	32.4S, 71.2W	h about 61 km
	e E	56 .3		
	i S N	57 02.8		
	i S E	57 04.3		
	e S Z	16 57 07		
29	i P Z	10 58 16.4R	Near east coast of Honshu, Japan	Mag. 6.1
	e S Z	06 53	40.8N, 142.8E	h about 33 km
	e S NE	11 06 56		
30	e P Z	02 34 31.5	Rat Island, Aleutian Islands	
	i S ZE	02 40 37	50.6N, 177.9E	h about 51 km
30	e Z	16 10 12	Near east coast of Honshu, Japan	Mag. 5.7
			41.0N, 142.7E	h about 32 km
31	e P Z	00 26 29		
31	i P Z	08 28 50.1	Rat Island, Aleutian Islands	Mag. 5.1
			51.4N, 178.3E	h about 44 km
31	i P Z	10 00 18.9C	Greece	Mag. 6.3
	e Z	10 48	38.6N, 22.4E	h about 78 km
	e Z	10 30 14		
31	e P Z	10 32 45		
	i Z	10 32 49.5		
31	i P Z	10 53 34.6	Rat Island, Aleutian Islands	Mag. 5.6
			50.3N, 178.2E	h about 30 km
31	i P Z	19 09 15.5		

Seismograph Station
University of Washington
Department of Geology
Seattle, Washington 98105

Seattle
April 1965

Preliminary Readings: World-Wide Standard Seismograph Station, Longmire, Washington

April, 1965

All locations are from U. S. Coast and Geodetic Survey
Latitude: 46° 45.0'N Elevation: 2800 ft.
Longitude: 122° 48.6'W Foundation: Volcanic Breccia

Date	Phase	Time G.C.T.
April 1	e Z	22 06 34
3	e P Z	04 38 53
	i Z	04 39 06.0
3	i P ZE	09 33 25.6
	i S NE	26.9
3	i P Z	11 27 50.9
	i Z	36 15.4
	e Z	39 57
	e Z	11 52 25
4	i P Z	01 18 15.3
4	i P Z	13 38 14.7
	i Z	13 40 16.2
	e Z	13 49 .7
4	i P Z	15 49 01.6R
	e Z	16 15 53
5	i P Z	09 28 49.0
5	i P Z	14 01 58.7
	e Z	14 09 51
6	i P Z	05 43 05.6C
6	e Z	10 10 46
	e Z	10 33 28
6	i P Z	13 26 13.7
7	i P Z	02 42 36.5
	i Z	02 42 40.3
8	i P Z	13 02 49.2C
8	e P Z	13 51 35.5
	i Z	51 46.9
	e E	57 46
	e N	13 57 52
	e NE	14 00 05
	e Z	14 03 51
8	e P Z	14 38 56
April 9	i P Z	04 23 48.1
9	e NE	11 09 19
9	i P ZE	15 52 51.7
	i S E	52 53.1
	i S N	52 53.2
	i S Z	15 52 53.3
9	i P Z	16 46 34.0
9	i P Z	17 38 01.5C
9	e E	23 39 .5
10	i P Z	00 10 13.3C
10	e P Z	17 02 52
10	i P Z	22 44 11.3
	i P Z	22 44 11.9
10	i P Z	23 04 38.1
11	e Z	05 14 12
	e N	05 14 22
11	i P Z	19 03 39.1
12	e P Z	04 04 26
	e E	08 25
	e N	04 08 31
12	e ZNE	09 35 .0
12	i P Z	19 49 18.7
12	i P Z	20 52 13.1C
	e Z	20 10 05
12	e P Z	22 36 28
	e S ZN	22 36 51.5
12	i P ZNE	23 02 54.0
	i S NE	23 02 58.6
13	e P Z	02 22 01

Date	Phase	G.C.T.
April 13	e P Z	08 00 28
	e NE	08 02 06
15	i P Z	05 22 22.0C
16	i P Z	00 28 11.4R
16	e P Z	01 04 36
16	e P Z	02 00 13
16	e P Z	04 36 46
16	i P Z	23 28 08.2C
	e Z	31 52
	e N	32 50
	e E	32 56
	e Z	35 48
	e E	35 58
	e Z	23 36 37
17	e P Z	00 08 13
17	i P Z	02 25 41.0R
18	e P Z	06 34 36
	e P Z	35 34
	i P Z	35 35.6R
	e N	37 00
	e Z	06 37 14
18	e P Z	09 58 28
18	e P Z	13 01 05
18	e P Z	14 20 51
18	e P Z	23 53 .5
19	i P Z	06 50 60.0
23	e P Z	10 39 32
23	i P Z	18 21 39.1C
	i S E	18 21 44.4
24	e P Z	01 03 .3
24	i P Z	10 25 42.8
24	e P Z	19 34 .1
	i S E	19 34 23.1
24	e P Z	22 08 08
25	i P Z	01 12 00.8

Date	Phase	G.C.T.
April 26	i P Z	02 01 14.6
	e E	04 35
	e N	04 .6
	e Z	04 40
	e Z	02 06 27
26	i P Z	03 01 08.3
26	i P Z	12 10 54.7
26	e P Z	14 22 27
26	e P Z	16 52 33
	i S N	16 52 52.7
26	e P Z	20 34 44.3
	e ZE	39 18
	e N	20 39 19
26	e P Z	20 54 14
	i S N	20 54 35.0
26	i P Z	22 28 50.2
	e E	39 22
	e N	22 39 23
26	i P Z	23 05 30.0
27	e Z	13 51 08
27	i P Z	14 22 13.1
27	e P Z	15 19 10
27	e P Z	18 42 53
28	e P Z	01 15 22
	i S E	01 15 28.6
28	i P Z	01 32 33.8
28	e P Z	16 48 53
28	i P Z	19 58 50.0
28	e P Z	21 17 42
29	i P Z	04 30 32.9
29	i P Z	15 28 58.5
30	e P Z	03 15 56
30	i P Z	14 57 46.9
	i S E	14 58 17.5
30	i P Z	23 03 31.5
	i Z	38.5
	i S ZNE	41.4

Date	Phase	Time G.C.T.
May 1	e Z	02 02 35
1	i P Z	13 15 19.2
1	i P ZNE	21 32 22.1
	e E	21 36 07
3	i P Z	10 09 35.3
	e ZNE	10 15 .6
3	i P Z	14 15 23.8
3	i P Z	16 21 35.7
3	i P Z	20 16 39.2
4	i P ZNE	18 36 11.3
	i S ZNE	18 36 24.8
5	i P Z	06 10 01.8
6	i P Z	14 53 56.7
	e E	15 06 13
6	i P Z	20 29 18.5
	i S E	20 29 41.6
6	e P Z	22 44 52
	i Z	45 38.0
	i NE	22 46 34
6	e P Z	23 20 55.4
7	i P Z	22 49 48.4
8	i P Z	00 08 33.0
8	e P Z	03 18 55.2
8	i P Z	06 04 07.4
	i S NE	06 04 23.3
8	e P Z	11 45 41
	i Z	11 45 42.4
11	e P Z	06 58 54
11	i P Z	17 42 26.9
	i Z	42 39.6
	e NE	17 46 26
11	i P Z	18 19 16.3
11	i P Z	18 53 22.6
13	e P Z	01 17 30.5
13	i P Z	19 16 09.4

Date	Phase	Time G.C.T.
May 14	i P Z	15 03 18.4
	i S NE	15 03 25.7
15	e P Z	03 45 22
17	i P Z	15 41 20.2
17	i P Z	17 32 28.8
	e E	42 55
	e N	17 42 57
18	i Z	01 24 03.6
18	e P Z	20 32 .3
	i S ZNE	20 32 40.5
18	i P Z	22 56 41.5
19	e P Z	00 12 05.5
19	e Z	03 13 51
19	i P Z	03 18 53.6
19	i P Z	04 33 56.8
19	i P Z	06 21 50.8
	e E	25 59
	e ZN	06 26 07
19	i P Z	18 54 52.9
	i S Z	54 58.2
	i S E	18 54 58.7
19	i P Z	23 43 50.1
20	e Z	00 14 19
20	i P Z	00 53 01.6
	e N	01 03 43
21	i P Z	01 44 43.6
	i S E	01 44 51.6
21	e P Z	02 06 37
21	e P Z	13 11 29
22	i P Z	10 43 16.0
	e N	52 49
	e Z	10 52 51
23	i P Z	17 13 40.6

Date	Phase	Time G.C.T.
May 23	i P Z	23 53 48.7
	i Z	53 38.0
	e N	00 02 47
	e E	03 .0
	e Z	03 03
	e Z	05 40
	e E	00 05 48
24	i P Z	23 34 45.8
	e NE	45 10
	e Z	47 09
	e E	23 47 11
25	i P Z	01 06 29.5
		06 37.1
	i E	01 06 40.2
26	i P Z	05 06 29.0C
	i Z	05 08 23.0
26	i P Z	17 29 10.8C
	i N	29 16.4
	i Z	17 29 19.2
26	i P Z	20 03 04.8C
27	i P Z	19 34 30.8
	e E	38 45
	e N	19 38 50
28	e P Z	08 46 42
28	i P Z	14 54 06.2C
	i S NE	14 54 14.0
28	e P Z	16 00 04.3
28	i P Z	23 01 16.6CSE
	i S ZNE	23 01 22.2
28	e Z	16 21 38
30	i P Z	08 46 22.4
	i S NE	08 46 29.7
31	i P Z	03 21 54.0
	e Z	22 27
	e N	22 31
	e E	03 22 45
31	i P Z	05 09 06.4R
	e Z	10 05
	e E	10 07
	e N	05 10 09

Date	Phase	Time G.C.T.
May 31	i P Z	08 31 31.1
31	e Z	12 03 53
	e E	03 55
	e Z	12 06 41

WASHINGTON.

June 1965

Seismograph Station
University of Washington
Department of Geology
Seattle, Washington 98105

Preliminary Readings: World-Wide Standard Seismograph Station, Longmire, Washington

June, 1965

All locations are from U.S. Coast and Geodetic Survey
Latitude: 46° 45.0'N Elevation: 2800 ft.
Longitude: 122° 48.6'W Foundation: Volcanic Breccia

Date	Phase	Time G.C.T.
June 1	i P Z	12 35 06.6
1	e P Z	19 46 38.5
2	i P Z	23 06 53.6
	i S ZE	00 07 00.0
2	i P Z	23 51 23.4
	e S NE	00 00 29
3	e P Z	07 51 07
	e E	08 00 20
	e N	00 35
	e Z	02 48
	e E	08 02 55
3	i P Z	11 06 06.3
3	i P Z	16 28 41.5
4	i P Z	15 09 38.0
	e E	15 34
	e N	15 15 35
5	i P Z	10 36 59.5
	i S NE	10 37 18.2
5	e P Z	16 20 28
8	i P Z	12 43 07.8
	i ZE	43 53.3
	e E	44 14
	i Z	12 44 56
8	i P Z	13 45 26.6
	e E	50 05
	e N	13 50 09
8	i P Z	23 02 58.2
	i NE	02 06.1
	i E	23 02 08.3
9	e P Z	13 49 37
10	e P Z	06 27 45.

Date	Phase	Time G.C.T.
June 10	e P Z	09 05 20.2
10	e P Z	11 31 20
10	i P Z	23 21 33.3
11	i P Z	01 46 42.3
11	i P Z	02 45 15.6
	e N	51 30
	e NE	54 34
	e Z	02 54 41
11	i P Z	03 43 41.0C
	e NE	03 51 46
11	e P Z	07 21 05
11	e P Z	07 37 37.5
11	e P Z	08 51 04
11	e P Z	12 10 04
11	i P Z	13 30 05.5
	i Z	30 09.1
	i E	13 30 10.5
12	e P Z	05 49 57
	e E	53 14
	e Z	54 11
	e E	05 57 38
12	i P Z	19 02 21.9R
	e Z	12 28
	e NE	19 12 33
12	i P Z	21 03 55.7
	i S E	03 59.0
	i S N	21 03 59.2
12	e Z	22 26 58
12	i P Z	23 04 06.7C
	i S ZNE	23 04 14.4

Date	Phase	Time G.C.T.
June 13	i P Z	02 04 26.6
13	e Z	02 30 45.5
13	i P Z	07 16 44.2
	e Z	25 05
	e E	25 18
	e N	07 25 20
14	i P Z	09 41 35.2C
	e E	43 15
	e Z	43 22
	e N	09 43 33
14	i P Z	13 07 40.2R
15	e P Z	04 53 40
	e E	04 59 40
15	e P Z	23 23 19
	e N	23 34 08
16	e P Z	04 07 31
	e ZN	04 34.4
16	i P Z	05 09 00.6
16	e Z	16 32.7
16	i P Z	22 44 20.1
17	i P Z	10 11 46.0
17	i P Z	11 24 05.2C
	i Z	24 10.3
	i N	24 11.1
	i E	24 11.5
	e Z	11 25 23
17	i P Z	12 47 20.3
	i N	47 31.0
	i E	12 47 31.7
17	i P Z	19 12 20.3
	i N	12 27.7
	i E	12 30.9
	i Z	19 12 31.5
18	e P Z	09 47 51
18	i P Z	10 48 18.5
	i S NE	10 48 39.1
18	i P Z	12 51 06.3
i	i N	51 27.0
	i E	12 51 27.5
18	e Z	19 37 21

Date	Phase	Time G.C.T
June 18	i P Z	22 11 14.2
18	i P Z	22 56 29.3
19	i P Z	06 46 00.6
19	i P Z	10 00 44.6
	i N	01 07.3
	i E	10 01 07.7
20	e P Z	02 07 21
20	i P Z	02 19 32.7R
20	i P Z	17 25 07.6
	e E	17 26 05
20	i P Z	18 05 48.4R
	e E	06 56
	e Z	06 57
	e N	18 07 02
20	i P Z	19 19 10.6
	i Z	19 21 29.2
21	i P Z	00 39 42.7
22	i P Z	23 24 30.6
	i S N	23 24 31.9
22	e P Z	23 58 09
	e Z	00 14 07
	e E	15 16
	e Z	33 36
	e E	00 35 34
23	i P Z	11 14 02.0
	i Z	14 04.7
	e ZE	18 05.0
	e N	18 08.5
	i E	18 09.3
	i N	11 18 11.8
23	e Z	12 28 10
23	i P Z	15 58 22.0
	i ZE	15 58 28.0
24	i P Z	04 59 51.8
24	i P Z	10 56 02.0
24	i P Z	14 21 01.7
24	e P Z	17 24 58.5
24	i P Z	23 04 34.6
	i S NE	23 04 42.5

Date	Phase	Time G. C. T.
June 25	i P Z	22 46 28.0
	i SZNE	22 46 39.0
26	i P Z	22 21 42.1
26	i P Z	23 18 34.8
27	i P Z	10 05 25.6
27	e P Z	11 13 03.5
	i Z	13 05.5
	e E	16 26
	e N	11 16 36
27	i P Z	11 49 06.4c
	i Z	11 49 15.5
27	i P Z	14 03 58.3
27	i P Z	17 19 19.4
	i S Z	19 49.6
	i S NE	17 19 50.0
28	e N	03 46 12
	e E	46 14
	e Z	46 32
	e E	03 57 05
29	e P Z	11 57 45
	i P Z	11 57 47.3
29	i P Z	23 07 18.3
	i E	07 25.2
	i N	07 25.7
	i Z	23 07 26.9
30	e E	03 20 56
30	e P Z	08 41 01
	e E	46 53
	e N	47 08
	e ZNE	49 57
	e E	52 28
	e Z	08 52 31

WASHINGTON

July 1965

Seismograph Station
University of Washington
Department of Geology
Seattle, Washington 98105

Preliminary Readings: World-Wide Standard Seismograph Station, Longmire, Washington
July, 1965

All locations are from U.S. Coast and Geodetic Survey
Latitude: 46° 45.0'N Elevation: 2800 ft.
Longitude: 122° 48.6'W Foundation: Volcanic Breccia

Date	Phase	Time G.C.T.
July 1	i P Z	08 26 56.7
1	i P ZN	21 57 13.4
	i S ZE	21 57 26.5
2	i P Z	04 32 49.3
	i NE	33 07.4
	i Z	33 08.0
	i N	33 09.6
	i Z	04 33 10.3
2	e Z	20 27.2
2	i P Z	21 04 43.3R
3	i P ZNE	15 17 04.6C
	i S ZNE	15 17 12.2
4	i P Z	06 02 53.8
	i S NE	06 02 59.3
5	i P Z	08 41 17.0C
	e N	48 53
	e E	49 00
	e N	53 21
	e Z	08 53.5
5	e Z	10 00 15
5	e Z	17 23 33
6	e P Z	03 31 38
	i Z	31 39.3
	e N	42 05
	e E	42 12
	e Z	03 43 36
6	i P Z	18 48 45.7
	i E	50 39.0
	e Z E	50 39
	e N	50 40
	e E	58 37
	e N	18 58 46
6	i P Z	20 29 47.2
	i S NE	20 29 51.4
July 7	i P Z	21 49 56.5C
Local 8	e P Z	23 18 01
9	i P Z	02 08 26.5
	i S ZNE	02 08 31.0
9	i P Z	06 30 57.1
	i S NE	06 30 58.3
9	e P Z	12 20 53
9	i P ZNE	23 02 01.9C
	i S ZNE	23 02 09.7
10	i P Z	08 28 43.5C
10	i P Z	13 32 31.4C
12	i P Z	05 46 03.4
12	i P Z	08 43 32.0
	i E	43 34.3
	i N	08 43 55.0
12	i P Z	14 09 57.0R
12	e P Z	23 27 01
13	i P Z	00 43 56.0
13	i P Z	12 44 52.9
13	i P Z	14 16 24.0R
13	e Z	21 58 49
14	e P Z	02 33 43
	e N	37 12
	e E	02 37 15
14	i P Z	12 41 49.3
14	e P Z	18 02 07

Date	Phase	Time G. C. T.
July 14	i P Z	23 43 24.0C
15	i P Z	07 03 27.0
15	i P Z	14 23 12.6
17	e P Z	07 33.4
	e E	07 43 57
17	e P Z	13 10 31
	i Z	12 05.1
	e E	11 35
	e Z	13.1
	e Z	29 43
	e E	13 30 10
17	i P Z	17 41 48.4
	i ZNE	58.2
	i ZNE	17 42 03.9
17	i P Z	23 57 07.4
	i Z	57 15.8
	i NE	23 57 18.0
18	e P Z	22 24 47.8
19	i P Z	04 23 08.2R
19	i P Z	05 29 55.7
	i S NE	05 30 16.2
19	i P Z	12 14 09.9R
	i S ZNE	12 14 12.4
19	e Z	17 24 30
20	e P Z	00 56 56
	e E	01 02.3
	e N	01 02 38
	e Z	01 03.3
21	e P Z	03 03 59
	e NE	03 14 19
21	i P Z	10 27 40.4
	i Z	27 42.2
	i ZNE	10 27 49.0
21	i P Z	18 00 25.3C
	e NE	10 06
	e Z	18 10 11
22	i P Z	01 26 25.9
	i Z	01 26 26.6
22	i P Z	14 50 58.0
22	e P Z	18 25 55

Date	Phase	Time G. C. T.
July 23	i P Z	15 24 12.6
23	i P Z	15 41 25.9
23	i P Z	17 02 37.0R
	e ZN	05 42
	e Z	06 47
	e N	17 06 52
24	i P Z	15 03 19.5
	i S NE	15 03 27.3
25	e P Z	03 59 21
25	i P Z	06 52 45.8
25	i P Z	08 36 05.6R
	e Z	08 37 52
25	i P Z	08 45 53.8R
	e E	47 05
	e N	47 07
	e Z	08 47 43
25	e P Z	11 29 18.8
25	i P Z	13 43 27.0R
	e Z	51 29
	e E	13 51 34
25	e P Z	21 54 20
26	i P Z	08 39 51.5R
	i S N	08 40 12.1
26	i P Z	12 01 28.9
	i S NE	12 01 49.7
26	e P Z	15 35 41
	e E	15 45 33
28	i P Z	00 42 57.2
	i E	43 34.5
	i N	43 38.0
	i N	00 43 40.5
29	i P Z	04 04 03.9C
29	i P Z	08 35 51.7R
29	e P Z	15 15 06
	e E	15 20 28
30	e P Z	05 57 16
30	i P Z	07 29 44.0C
30	i P Z	19 11 24.4R

Seismograph Station
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Department of Geology
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Washington (Seattle) Aug. 65

Preliminary Readings: World-wide Standard Seismograph Station, Longmire, Washington

August, 1965

All locations are from U. S. Coast and Geodetic Survey
Latitude: 46° 45.0'N Elevation: 2800 ft.
Longitude: 122° 48.6'W Foundation: Volcanic Breccia

period = T, amplitude = A } SP2 Mag 100K

Date Aug.	Phase	Time G.C.T.		
3	i P Z	02 12 29.5R	T1.0 A11.4	
	e E	02 33 12		
3	i P ZNE	04 01 02.3RNE	Local	
	i S ZNE	04 01 05.5		
3	i P Z	06 54 13.8	Local	
	i S ZE	06 54 21.4		
4	i P Z	01 12 56.8R	T0.8 A4.3	
	i ZN	01 13 19.5		
4	i P Z	09 00 20.1	T2.3 A2.5	
4	i P ZNE	17 40 09.7CSW	Local	
	i S ZNE	17 40 13.4		
5	e P Z	00 20 52	T1.5 A5.8	
	e Z	24 25		
	e N	31 27		
	e N	47.8		
	e Z	49.4		
	e E	00 49.8		
5	i P Z	19 17 44.4C	T0.7 A2.8	
	i N	19 18 09.0		
6	e P Z	04 02 33	Local	
	i NE	04 02 49.2		
6	e Z	17 26 10		
6	i P Z	18 25 33.7C	T0.8 A9.4	
7	i P Z	20 21 01.2	Local	
7	i P Z	21 19 37.4	T1.2 A2.7	
8	e P Z	05 27 09		
8	i P Z	06 44 41.8C	T1.6 A3.7	
8	i P Z	12 56 08.5	T0.7 A4.0	
	e E	01 01 37		
9	e P Z	03 36 45	T0.6 A1.5	
10	i P Z	19 12 21.3C	T0.4 A1.5	
	i S NE	19 12 28.7	Local	
11	i P Z	03 53 50.6R	T1.2 A11.2	
	e E	04 04 16		
	e N	04 18		
	e Z	04 05 14		
11	i P Z	20 00 24.5	T1.4 A1.4	
11	i P Z	20 05 19.0	T1.2 A2.0	
	e NE	16 .0		
	e Z	20 17 21		
11	i P Z	20 26 49.2	T1.4 A40.0	
11	i P Z	22 44 40.9C	T1.7 A10.3	
	e N	53 32		
	e E	22 53 59		
12	i P Z	08 14 31.5C	T1.6 A4.0	
	e Z	18 19		
	e Z	26 11		
	e E	26 48		
	e N	08 26 50		
13	i P Z	11 37 47.6	T1.3 A1.9	
	e E	48 20		
	e N	11 48 36		
13	i P Z	12 53 01.5	T1.8 A2.0	
	e E	03 56		
	e ZN	12 03 57		
14	e P Z	07 24 28	T0.9 A1.9	
14	i P ZE	09 58 20.0C	Local	
	i S ZE	09 58 27.7		
14	i P Z	11 20 40.6	T2.0 A1.4	
	e E	11 31 07		
14	e P Z	13 31 48		
14	i P ZE	16 50 28.7	Local	
	i S E	16 50 36.2		
15	i P ZN	08 08 04.2R	Local	
	i S ZNE	08 08 10.7		
16	i P Z	12 26 31.3	T0.9 A4.7	

Date Aug.	Phase	Time G.C.T.	
16	i P Z	12 29 15.3	T1.0 A4.7
16	i P Z	12 50 00.8R	T1.0 A4.0
16	i P Z	16 50 18.0C	T1.0 A2.0
17	e P Z	02 37 37	
17	e P Z	08 21 52	
17	e P Z	10 53 52	
	e Z	11 34 .8	
17	e P Z	13 22 01	T0.7 A1.9
17	i P Z	14 24 43.8C	T0.8 A10.4
17	e P Z	14 53 01	Local
17	e P Z	16 30 37	T1.8 A1.9
	e E	16 41 06	
17	i P Z	17 20 05.5	T0.7 A1.2
17	i P Z	22 31 55.9	T1.3 A0.9
18	e Z	14 26 .1	
18	e P Z	15 04 29	T1.5 A1.5
	e E	14 54	
	e N	15 03	
	e Z	15 31 52	
18	i P Z	16 54 45.2C	T0.7 A6.2
18	i P Z	22 59 14.7	Local
	i S E	22 59 22.3	
19	i P Z	07 44 23.7R	T0.8 A2.3
19	i P Z	21 03 05.2C	T0.8 A2.2
20	e P Z	06 08 34	T1.3 A1.8
	i Z	13 04.7	
	e E	18 42	
	e N	18 43	
	e Z	06 21 .4	
20	i P Z	09 54 50.0R	T1.5 A19.7
	e N	10 04 51	
	e E	10 04 52	
20	i P Z	13 42 58.4	T0.8 A2.7
20	e P Z	21 34 19C	T0.7 A13.5
	i P Z	34 19.6C	
	e N	44 18	
	e E	44 22	
	e E	21 44 37	
	e Z	22 01 05	
22	e P Z	10 52 34	T0.8 A0.8
23	i P Z	13 33 59.4	
23	e Z	14 57 20	
23	i P Z	19 53 12.7C	T2.2 A32.7
	i P Z	53 14.7C	
	e N	19 58 52	
23	e Z	23 19 39	
24	i P Z	01 03 35.8C	T0.9 A5.9
	e Z	09 21	
	e E	09 28	
	e E	01 12 19	
24	i P Z	02 42 15.6C	Local
	i S ZE	02 42 26.2	
24	i P Z	07 18 52.5R	T0.7 A8.3
24	i P Z	13 16 41.8R	T1.5 A12.8
	e E	13 20 13	
25	i P Z	16 32 23.3	Local
	i S ZNE	16 32 34.7	
26	i P Z	00 27 21.9C	T0.6 A8.1
27	e P Z	07 02 00	Local
	i Z	07 02 05.0	
27	i P Z	12 58 41.5	Local
	i E	12 58 44.7	
28	i P Z	01 53 37.7	T1.0 A12.8
28	e P Z	12 59 26	
	e N	13 10 07	
	e E	13 10 15	
29	e Z	01 29 51	Local
29	i P Z	08 25 00.0	T0.8 A1.1
31	i P Z	03 35 37.9	Local
	i S E	35 49.0	
	i S Z	03 35 49.2	
31	i P Z	11 27 32.5R	T0.8 A5.7
31	i P Z	19 54 47.1R	T0.6 A2.3

Seismograph Station
University of Washington
Department of Geology
Seattle, Washington 98105

Preliminary Readings: World-wide Standard Seismograph Station, Longmire, Washington

September, 1965

Latitude: 46° 45.0'N Elevation: 2800
Longitude: 122° 48.6'W Foundation: Volcanic Breccia

period = T sec.
Amplitude= Amm SPZ Mag 100k

Date	Phase	Time G.C.T.	Remarks
Sept.			
1	i P Z	04 37 58.8	T 0.6 A 1.7
1	i P Z	05 00 53.1	T 0.8 A 1.8
1	i P Z	06 51 04.5	T 1.1 A 1.5
1	e Z	20 10.8	
1	e Z	20 23.1	
	i Z	20 24 15.6	
2	i P Z	02 12 25.7	T 1.0 A 1.2
	e E	02 16 15	
2	e Z	04 34 12	
	e Z	04 46 00	
	e Z		
2	e Z	10 53 32	
	e E	10 53 40	
2	e P Z	11 38 57.7	T 0.7 A 1.1
2	e P Z	14 03 46	T 0.8 A 1.9
	e Z E	05 12	
	e N	14 05 13	
2	e P Z	15 43 35	T 0.8 A 1.0
	e E	44 56	
	e Z N	15 45 00	
2	e P Z	18 02 30.2	T 1.0 A 1.6
	e E	03 50	
	e N	18 03 57	
2	e P Z	19 42 35.8	T 0.7 A 1.7
	e E	43 51	
	e Z	43 55	
	e N	19 44 10	
2	i P Z	21 28 26.7 21 30 49	T 0.7 A 2.0
3	e P Z	04 43 47.4	T 0.6 A 0.9
3	i P Z	21 24 55.0	Local
	i S E	21 25 00.7	
3	i P Z	21 47 17.8	T 0.3 A 0.9
	e Z	22 19.3	
3	i P Z	23 03 52.6	T 0.5 A 1.0
4	e P Z	07 55 10.0	T 1.6 A 1.3
	e E	07 59 55	
	e Z	08 00 47	
4	e P Z	10 18.8	
	e E	10 37 11	
4	i P Z	14 37 40.7 R	
	i N	14 41 49	
4	e Z	21 50.0	
7	i P Z	07 09 15.6	T 1.2 A 1.0
7	i P Z	11 25 44.0 C	T 0.8 A 3.2
8	i P Z	02 02 47.4	Local
	i S E	02 02 49.1	
8	i P Z	03 31 08.0 R	T 1.8 A 20.9
	e E	35 08	
	e Z	35 15	
	e Z	03 36 43	
8	i P Z	07 13 17.5 R	T 0.7 A 3.5
8	i P Z	11 21 34.3 R	T 1.3 A 8.7
	i E	11 25 44	
8	e P Z	11 58 29	T 1.5 A 1.3
9	i P Z	10 11 30.2 R	T 2.2 A15.0
	e E	10 18 43	
10	i P Z	17 10 25.6	T 0.4 A5.0
	i S E	17 10 44.0	
10	e P Z	17 14 38	T 1.0 A1.2

Date	Phase	Time	Remark
Sept.			
10	i P Z	17 58 32.6 C	T 0.7 A 38.8
	e E	18 00 07	
	e Z	18 00 10	
10	i P Z	21 30 44.7	T 0.8 A 2.6
	e E	32 37	
	e Z	33 29	
	e Z	21 34 10	
11	e P Z	07 05 57	T1.5 A 1.0
	i P Z	07 14 52.0	
11	i P Z	07 14 52.0	T 1.1 A 9.1
	e E	14 52.2	
	e E	16 28	
	e Z	07 29 22	
12	e Z	22 21 43	
13	i P Z	13 15 59.2R	T 0.6 A 1.2
	e E	22 32	
	e Z 1	13 22 35	
13	e Z	16 28 22	
	e Z	39 05	
	e E	39 07	
	e E	44 42	
	e E	16 51 16	
14	e Z	00 40 28	
14	i P Z	11 14 47.2	Local
	i S E	11 14 56.9	
14	i P ZE	14 57 44.4C	Local
	i S Z	57 47.6	
	i S E	14 57 48.0	
16	i P Z	04 12 03.2 R	T 0.7 A 11.6
	e Z	13 28	
	e E	13 32	
	e N	04 13 37	
22	i P Z	03 52 33.6	Local
	i S N	03 52 41.1	
22	e E	20 25 48	
22	i P Z	20 29 52.0	T 1.5 A 2.2
22	i P Z	22 19 02.0	T 0.9 A 2.5
	e ZNE	22 28 06	
23	i P Z	16 40 31.4	Local
	i S E	16 40 33.9	
23	i P Z	18 30 43.6	Quarry blast in Oregon
	i S E	18 31 15.5	T 0.4 A 1.1
24	i P Z	06 50 34.7	T 0.4 A 5.2 Local
24	i P Z	18 04 50.4	T 0.7 A 0.9
25	e P Z	00 06 02	T 1.2 A 0.8
	e Z	00 31.6	
25	e P Z	14 47 56	T 1.0 A 1.0
25	i P Z	17 46 48.7	T 0.7 A 3.1
	e NE	49.4	
	e N	17 50 37.3	
26	i P Z	21 52: 48.2	T 1.0 A 3.4
	e E	22 11:21	
	e Z	22 35.1	
27	e P Z	05 16 46	T 0.6 A 0.8
	e E	26 03	
	e N	26 08	
	e Z	05 27 09	
28	e P Z	01 14 18	Local
28	e P Z	05 19 34	T 0.7 A 0.5
	e E	30 06	
	e Z	05 30 32	
28	i P Z C	10 25 47.1	T 0.4 A 1.2
	i S NE	10 25 59.2	
29	i P Z R	02 10 58.4	T 0.7 A 1.5
	e Z	02 12 23	
29	i P Z C	15 01 31.6	Local
29	i P Z R	23 30 31.5	
	e E	23 51 18	
30	i P Z	18 19 34.9	Local
30	e P Z	20 08 58	Local
30	e P Z C	23 51 53	T 1.1 A 1.8
	e E	55 19	
	e Z	56 48	
	e N	23 57 02	

Seismograph Station
University of Washington
Department of Geology
Seattle, Washington 98105

Preliminary Readings: World-Wide Standard Seismograph Station, Longmire, Washington

October, 1965

All locations and magnitude determinations are from U.S. Coast and Geodetic Survey
Latitude: 46° 45.0'N Elevation: 2800 ft.
Longitude: 122° 48.6'W Foundation: Volcanic Breccia
T = period and A = peak to peak amplitude for S.P.Z,
Magnification 100K, except Magnification was 200K from
Oct. 27 through 29 for S.P. instruments

Oct.	Phase	Time G.C.T.	T.	A.	Location and origin time	Magnitude and depth	Distance
1	e P Z	08 59 31	1.4	3.1	08 52 05.8 Rat Is., Aleutian Is.	6.3, 32 km	4300 km
	e E	09 05 32			50.1 N, 178.3 E		
	e N	09 05 34					
1	e P Z	13 21 48	0.7	1.6	13 14 27.8 Rat Is.	4.7, 39 km	4300 km
					50.9 N, 178.8E		
1	i P Z	13 34 19.9	0.6	5.7	13 22 28.5 New Hebrides Is.	6.2,553 km	9800 km
	eSKSE	13 43 56			20.0 S, 174.4 E		
1	e S Z	22 53 36	1.4	2.6	22 34 25.5 S.Sandwich Is.	6.0, 33 km	14,800 km
	e ZNE	22 57 .1			60.7 S, 24.9 W		
3	i P Z	01 31 39.2	0.8	1.5			
3	i P Z	10 52 41.2	1.0	1.4	10 46 16.7 Fox Is., Aleution Is.	5.3,22 km	3600 km
					52.6 N, 170.6 W		
3	i P Z	14 54 34.6	0.8	2.6	14 45 26.8 Kurile Is.	5.9,33 km	5800 km
	e S Z	15 01 56			49.5 N, 156.5 E		
	e S E	15 01 57					
	e S N	15 02 00					
	e Z	15 10 2					
4	e P Z	01 45 59.5	0.8	1.0	01 44 41.8 Off Oregon Coast	4.8,33 km	650 km
					44.2 N, 128.1 W		
4	i P Z	04 14 07.7	0.9	5.3	04 12 49.1 Off Oregon Coast	5.1,33 km	650 km
	e S N	04 15 13			44.0 N, 128.3 W		
	e L Z	04 15 45					
	e L E	04 15 47					
4	e Z	10 41 20			10 40 15.7 Off Oregon Coast	4.8,22 km	650 km
	e P ZNE	10 41 35			44.2 N, 128.1 W		
5	e P Z	00 21 43	0.7	1.1			
5	e P Z	08 53 05					
	e E	08 53 12			Local		
5	i P Z	11 10 00.6					
	i S Z	11 10 27.1					
	I S NE	11 10 28.1					

Oct.	Phase	G.C.T.	T.	A.	Location and origin time	Magnitude and depth	Distance
6	e P Z	14 14 05	1.3	3.5			
7	e P Z	11 04 57	0.7	1.1			
8	i P Z	06 12 22.9	0.9	5.8			
8	e P Z	13 27 02	0.6	0.5			
8	i P Z e L Z e L E e L Z	19 36 54.3 19 39 06 19 39 50 19 39 53	0.9	4.0	19 35 02.0 Montana 44.8 N, 11.0 W	5.0, 33 km	850 km
9	e P Z e E	07 54 22.4 08 04 43	0.9	3.9	07 47 19.3 Oaxaca, Mexico 16.6 N, 97.0 W	4.9, 33 km	4000 km
9	e P Z	10 12 02	0.5	0.7			
10	e P Z	00 42 46	0.7	1.9			
10	e P Z	17 44 52	0.7	1.0			
10	e P Z e Z	18 03 12 18 29 24	1.1	3.0			
10	i P Z	20 28 58.5	0.5	1.0			
10	e P Z	22 40 55	0.9	1.0	22 39 10 Montana 44.9 N, 111.7 W	4.0,33 km	850 km
11	i P Z	15 49 28.4	0.7	2.6	15 47 55 Vancouver Is. 50.6 N, 129.4 W	4.8,33 km	750 km
11	e P Z	17 56 27	0.7	2.0	17 54 55.0 Vancouver Is. 50.7 N, 129.3 W	4.2,52 km	750 km
12	e Z	00 37 17			Local		
12	i P Z	06 34 04.0	1.0	2.5	06 27 16.7 Andreanof Is. 52.2 N, 174.8 W	5.1,17 km	3800 km
12	e P Z e S E	08 20 43 08 24 23	1.7	2.3	08 16 23.8 Gulf of Alaska 59.5 N, 144.8 W	4.8, 14 km	2100 km
12	e P Z e E e N e Z	13 45 49.5 13 19 54 13 49 51 13 51 36	1.3	2.0			
12	e P Z	15 03 07	1.0	1.0	14 58 13.6 Kodiak Is. 56.3 N, 154.0 W	4.2,24 km	2500 km
13	e P Z	00 29 .1					
13	e P Z	06 13 .8					
13	e E e Z	15 28 23.4 15 28 .5					

Oct.	Phase	G.C.T.	T.	A.	Location and origin time	Magnitude and depth	Distance
14	e P Z	06 01 15.3	1.0	2.9	06 00 05 Off Coast of Oregon 43.5 N, 126.2 W	4.1, 33 km	300 km
15	i P Z	00 40 55.0	1.1	3.3	00 34 09.3 Off Coast of Mexico 8.5 N, 103.0 W	5.2,33 km	4700 km
	e L E	00 48 15					
	e L Z	00 48 16					
	e E	00 51 36					
	e Z	00 52 03					
	e L E	00 53 .1					
	e N	00 58 48					
	e Z	00 56 51					
15	i P Z	13 06 30.7	0.8	1.8			
	i S Z	13 06 33.8					
15	e P Z	14 31 16	0.6	1.0			
15	i P Z	23 02 27.2	0.6	1.0			
16	i P Z	11 49 32.1	0.7	10.0			
16	e P Z	20 10 03			20 01 52.5 Komandorsky Is. 56.2 N, 164.7 E	5.3,33 km	4900 km
17	e P Z	09 48 39	1.1	1.9	09 45 17.2 S. Calif. 33.9 N, 116.9 W	5.0,16 km	1400 km
17	e P Z	11 03 00	0.4	1.1			
18	e P Z	13 51 50	0.4	0.5			
18	eSKKSNE	22 15 .1			21 50 04.5 Halmahera 1.1 S, 127.9 E	5.9,33 km	11600 km
	ePPSZ	22 18 .4					
	e G N	22 33 39					
	e L Z	22 38 .1					
19	i P Z	10 05 27.0	0.7	0.6			
19	e P Z	11 16 .1					
19	e P Z	17 02 31					
19	i P Z	20 56 25.0	0.8	1.8	20 48 47.4 Near Is.,Aleutian Is. 52.3 N, 174.3 E	5.6,48 km	4600 km
	e S E	21 02 30					
	e ZE	21 06 00					
	e P*Z	21 08 11					
19	i P Z	23 10 01.6	0.6	0.8	Local		
20	i P Z	11 14 58.5	0.9	1.2	11 08 11.1 Andreanof Is., Aleutian Is. 51.6 N, 173.8 W	5.4,32 km	3800 km
	e S N	11 20 .2					
	e L Z	11 21 18					
20	i P Z	21 01 59.1	0.5	2.0			
	i E	21 02 23.2					

Oct.	Phase	G.C.T.	T.	A.	Location and origin time	Magnitude and depth	Distance
21	i P Z	00 02 38.7	0.9	4.6			
	e N	00 12 28					
	e E	00 12 30					
	e Z	00 12 41					
21	i P Z	02 09 58.1	0.9	1.6	02 04 38.3 Eastern Missouri	5.2,22 km	2700 km
	e E	02 17 16			37.5 N, 91.0 W		
	e Z	02 17 .6					
	e N	02 17 50					
21	e P Z	05 22 01.0	1.5	1.5			
21	i P Z	09 36 46.0	1.0	0.8			
22	i P Z	18 46 45.2			Local		
23	i P Z	07 06 22.2	1.3	2.6	06 53 32.8 Coast of Chile	5.5,33 km	9900 km
	e Z	07 37 .1			29.4 S, 71.6 W		
	e E	07 38 .4					
23	e P Z	07 51 53			Local		
23	i P Z	16 28 16.2			Local (N. Seattle)	4.8, 23 km	
	e Z	16 28 18			47.5 N, 122.4 W		
24	i P Z	18 24 14.0	0.8	1.0	18 15 04.9 Kurile Is.	5.7,30 km	5800 km
	e Z	18 40 .0			49.7 N, 156.1 E		
	e E	18 40 .1					
	e N	18 44 .4					
24	i P Z	22 04 49.3			Local		
25	i P Z	00 25 58.5	0.4	4.0			
25	e ZE	09 21 .0					
25	e Z	18 51 .4			18 43 02.9 Unimak Is.	4.8,61 km	
					53.2 N, 164.7 W		
25	i P Z	20 29 43.1	0.6	4.3			
25	i P Z	22 44 21.9	1.3	2.5	22 34 24.3 Hokkaido, Japan	6.2,180 km	6700 km
	e S Z	22 52 13			44.2 N, 145.3 E		
	i S N	22 52 31.4					
	i S E	22 52 31.8					
26	i P Z	10 34 47.8	0.7	1.8	10 21 46.1 Loyalty Is.	5.2,37 km	10100 km
					20.1 S, 168.8 E		
26	e P Z	11 29 31			11 28 04.3 Montana	4.0,33 km	600 km
	i S Z	11 30 35.2			47.4 N, 113,2 W		
	i L Z	11 31 06.8					
26	i P Z	17 30 56.5			Local		
27	i P Z	19 51 31.3	0.6	6.7			200 km

Oct.	Phase	Time G.C.T.	T.	A.	Location and origin time	Magnitude and depth	Distance
27	ipP Z	22 50 12.1	1.0	6.4	22 40 17.1 Sakhalin Is. 46.0 N, 142.9 E	5.1,230 km	6600 km
27	i P Z	23 04 33.8	0.6	1.3			
28	e Z e E	02 05 43 02 05 47					
28	e P Z	04 50 56	1.2	1.1			
28	e P Z e L E e L Z	05 19 57 05 21 .6 05 21 41	0.8	2.2	05 18 28 Off Coast of Oregon 44.6 N, 129.9 W	4.5,33 km	700 km
28	e P Z	06 58 48	0.8	0.6			
28	i P Z e L E e L Z e L N	21 21 19.6 21 22 48 21 23 05 21 23 16	0.8	5.2	21 19 50 Off Oregon Coast 44.5 N, 130.1 W	4.4,33 km	700 km
28	e P Z	21 40 56	1.0	3.2			
28	i P Z	22 53 46.3			Local		
28	i P Z	23 48 13.2			Local		
29	e P Z	17 00 56	1.1	2.0			
29	i P Z	17 43 12.4			Local		
29	i P Z	21 07 18.4	1.0	30.0			
30	i P Z	23 11 26.6	0.4	4.0			
30	e P Z	23 29 44					
30	i P Z	23 38 37.0	0.7	1.8			
31	i P Z	14 00 25.5	1.0	1.0	13 47 56.8 Chile-Argentina border 24.9 S, 69.0 W	5.4,107 km	9600 km

Seismograph Station
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Department of Geology
Seattle, Washington 98105

Preliminary Readings: World-Wide Standard Seismograph Station, Longmire, Washington

November, ~~1965~~ 1965

All locations and magnitude determinations are from U.S. Coast and Geodetic Survey
Latitude: 46° 45.0'N Elevation: 2800 ft.
Longitude: 122° 48.6'W Foundation: Volcanic Breccia
T = period and A = peak to peak amplitude for S.P.Z,
Magnification 100K

Nov.	Phase	Time G.C.T.	T.	A.	Location and origin time		Magnitude and depth	Distance
1	i P Z	18 15 04.9	0.6	2.2				
2	i P Z	01 01 06.1	0.9	2.0	00 49 13.4	South of Fiji Is. 23.7 S, 179.8 W	5.4, 522 km	9700 km
2	e P Z	20 56 01	1.1	3.0				
3	i P Z	00 48 17.6	1.0	0.5	00 46 33.9	Off coast of N.Calif. 40.4 N, 125.9 W	5.4, 33 km	800 km
	e S Z	49 .6						
	e S N	49 .7						
	e S E	00 49 48						
3	i P Z	01 49 26.1	0.6	11.0	01 39 02.5	Peru Brazil border 9.1 S, 71.4 W	6.2, 583 km	7900 km
	ipP Z	51 27.0						
	ipP Z	51 30.6						
	i S ZNE	58 00.0						
	i S N	58 00.8						
	i S Z	58 01.2						
	i S E	01 58 01.8						
3	e Z	02 18 08						
3	e P Z	18 32 13	1.2	4.2	18 21 05.0	Easter Is. 22.3 S, 114.1 W	5.8, 12 km	7800 km
	e E	18 41 22						
	e N	18 41 24						
	e NE	18 45 .6						
	e E	18 49 .0						
	e ZNE	18 51 .0						
3	i P Z	22 00 03.9				Local		
5	e Z	10 36 .8						
5	e P Z	18 07 .1						
5	i P Z	22 32 40.5				Local		
	i S NE	22 32 42.5						
6	e P Z	01 05 09	0.8	1.0				
6	i P Z	06 43 16.7	1.3	6.2	06 38 41.5	S. Alaska 60.6 N, 147.3 W	5.2, 37 km	2300 km
	e S E	46 44						
	e L N	47 15						
	e L Z	06 47 17						
6	i P Z	09 08 36.2	1.0	1.3	08 57 12.3	S.coast of Honshu 34.0 N, 138.9 E	5.0, 15 km	7900 km

				A.	Location and origin time	Magnitude and depth	Distance
6	i P Z	09 32 51.9	2.0	7.2	09 21 48.6 Easter Is.	6.2, 33 km	7900 km
	e S Z	41 .8			22.1 S, 113.8 W		
	e E	51 .5					
	e Z	54 47					
	e N	09 54 52					
6	i P Z	23 01 51.9	0.6	1.2			
6	i P Z	23 24 02.0			Local		
8	i P Z	22 52 57.0			Local		
9	i P Z	03 45 19.0	0.4	3.5			
	i S ZNE	03 45 34.3					
10	e Z	00 37 .5					
10	i P Z	22 01 06.8			Local		
10	e Z	22 31 .6					
11	e Z	03 43 .9					
12	e P Z	02 30 21					
	e ZE	02 52 .0					
12	e P Z	07 31 02					
12	i P Z	15 17 13.0			Local		
12	i P Z	18 03 53.9	1.0	4.4	17 52 24.1 S. Honshu, Japan	6.6, 40 km	8200 km
	e S Z	13 09			30.5 N, 140.2 E		
	e S N	13 .4					
	e Z	22 14					
	e G N	22 53					
	i G Z	18 23 00.0					
13	i P Z	04 46 29.3	0.8	37.4			
	e Z	56 .0					
	e ZN	56 52					
	e E	57 03					
	e Z	04 57 07					
	e Z	05 09 23					
	e N	15 .0					
	e Z	15 .5					
	e E	17 04					
	e N	18 31					
	e Z	22 .5					
	e N	05 23 .4					
13	e P Z	05 13 45					
13	i P Z	18 12 31.1	0.9	15.1	17 59 41.7 Argentina	5.9, 48 km	10,000 km
	e Z	18 45 .2			29.4 S, 68.1 W		
13	i PZNE	19 10 26.8	0.7	15.0			
	i ZNE	19 10 37.9					

Nov.	Phase	Arrival		A.	Location and origin time	Magnitude and depth	3. Distance
14	e P Z	06 05 18					
15	e P Z	06 51 39	0.6	3.0	06 49 59 Off coast of N.Calif.	4.8, 33 km	800 km
	e Z	06 51 43			40.4 N, 125.8 W		
15	i P Z	11 32 30.6	0.9	2.1	11 18 49.9 Central Mid-Atlantic	5.6, 24 km	11,100 km
	e PSZ	45 28			0.3 S, 18.7 W Ridge		
	e SSN	50 .5					
	e L N	11 57 56					
	e N	12 03 55					
	e E	12 05 41					
15	i P Z	19 29 17.6			Local		
	i SZNE	19 29 19.0					
15	i P Z	19 47 15.7			Local		
16	i P Z	03 13 36.4	0.7	2.9			
16	i P Z	15 35 02.6	0.8	6.7	15 24 42.9 North Atlantic Ridge	6.0, 17 km	6800 km
	e S E	15 43 22			31.0 N, 41.5 W		
	e S N	15 43 36					
	e S Z	15 43 40					
	e L N	15 50 .2					
	e L Z	15 53 45					
16	i P Z	17 18 12.1	1.0	5.6	17 05 37.9 S.W. Ryukyu Is.	4.7, 77 km	9600 km
					25.4 N, 125.2 E		
16	e P Z	20 35 41	0.7	2.2			
17	e P Z	14 57 10	0.8	0.7			
	e E	56 59					
	e N	14 57 00					
18	e P Z	09 43 53	0.6	1.7			
18	e P Z	13 22 53	0.9	2.6			
	e Z	13 22 57					
18	i P Z	20 11 56.9	0.9	16.7	20 00 19.0 Fiji Is.	5.6, 421 km	9300 km
	e S N	20 21 37			18.8 S, 177.9 W		
	eSPSN	20 24 29					
18	i P Z	22 06 51.2	1.1	3.6	21 58 12.4 E.Coast of Kamchatka	6.0, 12 km	5200 km
	e Z	22 21 30			53.9 N, 160.7 E		
18	i P Z	23 30 01.6	0.3	4.8	Local		
	i S N	23 30 07.1					
19	e L N	07 50 .2			07 14 13.2 Kurile Is.	5.6, 13 km	6500 km
	e L E	07 50 .3			45.3 N, 150.9 E		
19	e P Z	21 56 08	0.6	2.0	Local		
20	e Z	10 38 .6					

				A.	Location and origin time	Magnitude and depth	4. Distance
20	eSSSE	15 39 34			15 05 39.0 Banda Sea	6.1, 132 km	12,200 km
	e Z	15 49 .1			7.3 S, 129.2 E		
	e Z	15 55 34					
21	i P Z	05 10 22.4	1.8	9.0	04 57 57.9 E. Kazakh	5.8, 0 km	8600 km
	i P Z	05 10 22.7			49.8 N, 78.1 E		
21	ePP Z	10 50 48			10 31 49.7 Banda Sea	6.3, 93 km	11,900 km
	eSKSNE	10 56 24			6.1 S, 130.4 E		
	e S N	10 57 46					
	ePS Z	10 59 27					
	eSS E	11 05 14					
	eSS N	11 05 18					
	eSSSN	11 09 25					
	e Z	11 15 02					
	e E	11 21 24					
21	i P Z	15 35 27.9	0.6	1.8			
22	i P Z	12 21 36.6	1.0	5.7			
22	i P Z	14 07 18.8	0.7	4.2	14 00 27.0 Andreanoff Is.	5.5, 49 km	4,000 km
					52.0 N, 176.1 W		
22	iPZ R	20 32 42.6	1.2	12.8	20 25 30.4 Andreanoff Is.	5.9, 40 km	4200 km
	e S Z	20 38 27			51.3 N, 179.8 W		
	e S E	20 38 29					
	e S N	20 38 31					
	e Z	20 41 20					
	e NE	20 41 22					
	e Z	20 43 19					
	e E	20 43 27					
22	i P Z	20 47 03.9	0.6	1.3	20 39 48.0 Andreanoff Is.	5.4, 16 km	4200 km
					51.4 N, 179.9 W		
23	e NE	02 00 .5					
	e NE	02 05 19					
	e Z	02 05 33					
	e Z	02 11 44					
23	i P Z	02 25 00.7	1.0	4.0	02 17 49.4 Andreanoff Is.	5.6, 48 km	4200 km
	e N	02 30 05			51.4 N, 179.7 W		
	e N	02 33 40					
	e Z	02 33 41					
	e Z	02 35 41					
	e Z	02 40 45					
23	epPPZ	23 36 59	0.6	1.0	23 21 30 Ryukyu Is.	4.5, 103 km	8900 km
					28.7 N, 129.2 E		
24	i P Z	05 16 20.4	0.8	6.1	05 15 19 Off Coast of Oregon	3.9, 36 km	400 km
					43.3 N, 125.2 W		
24	i P Z	08 27 30.3	1.1	3.8	08 22 38.7 Central Alaska	5.1, 129 km	2700 km
					63.2 N, 151.0 W		
24	i P Z	14 35 32.8	0.6	2.4			
	i Z	14 35 51.9					

				A.	Location and origin time	Magnitude and depth	Distance
24	i P Z	17 29 49.9					
24	i P Z	19 11 57.5					
24	e P Z	21 28 19	0.5	4.7			
	i Z	21 28 39.9					
25	e P Z	06 02 34					
25	e P Z	08 00 48					
25	i P Z	11 01 26.6	1.1	10.0			
26	i P Z	00 28 36.9	0.8	1.9	00 17 18.2 South of Honshu, Japan 32.1 N, 140.8 E	5.4, 64 km	8000 km
26	e P Z	13 35 31					
26	e P Z	20 02 05	1.1	10.6			
27	i P Z	08 53 39.6	1.0	4.8	08 42 24.2 South of Honshu, Japan 32.9 N, 140.6 E	5.4, 74 km	8000 km
27	e P Z	11 54 44					
27	e N	12 38 38			12 01 51.9 Solomon Is. 9.7 S, 159.7 E	6.3, 51 km	9900 km
	e Z	12 39 04					
27	i P Z	18 14 03.8					
28	ePPPZ	04 12 53	0.7	1.6	03 56 45.9 Near Coast of S. Chile 45.6 S, 72.4 W	5.8, 33 km	11,500 km
	e E	04 29 22					
	e Z	04 29 37					
	ePSPSN	04 29 48					
	e E	04 33 13					
	e N	04 33 31					
	e L E	04 39 .5					
	e Z	04 46 01					
28	i P Z	05 39 11.2	0.8	3.7			
29	i P Z	04 14 24.2	0.9	1.5			
	i Z	04 14 26.2					
29	e P Z	05 28 36					
29	e P Z	07 41 36	0.6	2.4			
	i Z	07 41 36.7					
29	i P Z	09 10 01.6	1.2	2.2	09 00 08.3 Kurile Is. 45.1 N, 146.5 E	5.3, 153 km	6500 km
29	e P Z	14 32 54	0.7	3.8			
	i P Z	14 33 16.2					

Nov.	Phase	Time G.C.T.	T.	A.	Location and origin time	Magnitude and depth	Distance
29	i P Z	17 17 39.8	1.0	2.2	17 07 01.6 N. Peru 6.0 S, 78.6 W	5.4, 33 km	7200 km
30	i P Z	12 39 55.7	1.0	2.0	12 34 55 26.0 N, 109.8 W	4.7, 33 km	2400 km
	e E	12 46 43					
	e L N	12 47 26					
	e L Z	12 47 36					
30	e P Z	16 29 23.7	0.7	3.5			
	i ZNE	16 29 45.6					
30	e P Z	20 42 13	0.7	2.0			
	i Z	20 42 19.0					
30	e P Z	22 46 59.7					

Seismograph Station
University of Washington
Department of Geology
Seattle, Washington 98105

Preliminary Readings: World-Wide Standard Seismograph Station, Longmire, Washington

December, 1965

All locations and magnitude determinations are from U.S. Coast and Geodetic Survey
Latitude: 46° 45.0'N Elevation: 2800 ft.
Longitude: 122° 48.6'W Foundation: Volcanic Breccia
T = period and A = peak to peak amplitude for S.P.Z, Magnification 100K

Dec.	Phase	Time G.C.T.	T.	A.	Location and origin time	Magnitude and depth	Distance
1	e P Z	02 41 44			Local		
	i Z	02 41 48.8	0.5	3.6			
2	i P Z	00 25 40.0	0.3	2.0			
	i Z	00 25 42.7					
2	e P Z	17 52 56			Local		
	i Z	17 53 00.7	0.8	7.6			
2	e P Z	19 35 46			Local		
2	i P Z	20 26 16.2			Local		
2	i P Z	23 50 06.2	1.4	5.9			
3	i P Z	15 15 37.4	1.0	15.3			
	e N	18 25					
	e Z	18 28					
	e E	18 .8					
	e Z	18 59					
	e ZN	15 19 47					
4	e P Z	02 18 .3	1.2	3.0	02 11 49.9 Fox Is. 51.3 N, 170.6 W	5.5, 18 km	3600 km
4	e P Z	12 12 51			Local		
4	i P Z	16 04 15.4					
5	e P Z	05 11 51					
5	e P Z	07 28 37					
	e Z	07 29 40					
5	e P Z	15 16 17	1.4	2.3			
	e Z	15 17 14					
5	e P Z	16 58 53	1.1	2.0			
5	i P Z	18 22 33.2	0.9	3.1			
6	i P Z	01 30 04.3	0.7	1.5	01 22 36.0 Rat Is. Aleutian Is. 50.6 N, 177.4 E	5.1, 37 km	4100 km
6	i P Z	11 41 02.4	1.1	7.6	11 34 53.7 Off coast of Jalisco, Mex. 18.9 N, 107.1 W	5.9, 37 km	3400 km
	ePPZNE	42 05					
	ePPZN	45 07					
	e S N	46 11					
	e S E	11 46 18					

						Magnitude and depth	2. Distance
6	e P Z	16 50 22					
6	e P Z	18 48 43	1.2	2.3	18 42 33.2 Off coast of Jalisco, Mex. 18.8 N, 107.0 W	5.1, 40 km	3400 km
	e S ZN	53 58					
	e S E	54 04					
	e E	56 00					
	e Z	57 23					
	e L N	57 30					
	e L Z	59 05					
	e N	18 59 08					
6	e P Z	21 01 11			Local		
	i Z	21 01 14.3	0.9	2.9			
6	e P Z	22 17 01	1.0	2.0			
7	i P Z	00 46 12.0	1.0	3.8	Local		
7	e P Z	13 51 23			Local		
8	e P Z	01 47 33					
8	e P Z	04 35 59					
8	i P Z	16 19 44.4					
8	i P Z	19 36 39.9			Local		
	i S NE	19 36 41.0					
9	i P Z	06 14 32.3	1.1	1.6	06 07 48.6 Guerrero, Mexico 17.3 N, 100.0 W	6.0, 57 km	3800 km
	e S ZNE	20 06					
	e N	22 23					
	e E	22 35					
	e Z	23 45					
	e E	06 24 00					
9	i P Z	10 54 46.2	0.7	3.8			
	i Z	10 55 09.2					
9	i P Z	13 24 10.9	1.2	1.2			
9	i P Z	13 36 55.3	0.9	3.6	13 25 40.7 Fiji Is. 17.7 S, 178.3 W	5.1,650 km	9200 km
9	i P Z	21 55 37.0	0.6	1.7			
9	i P Z	22 13 32.9	0.5	2.6			
10	i P Z	22 05 55.0					
10	e Z	22 32 .0					
12	i P Z	00 55 09.1	0.7	3.8	00 48 01.7 Andreanof Is. 51.5 N, 178.9 W	5.0, 50 km	4100 km
12	i P Z	17 18 53.9	1.1	1.5	Local		
12	i P Z	21 35 40.2			Local		
	iSZNE	21 35 42.6					

			A.	Location and origin time	Magnitude and depth	Distance
12	e P Z	23 52 15				
13	e P Z	00 58 07				
13	e P Z	10 37 43		Local		
13	e P Z	11 02 01	2.1	2.0		
	e E	14 .0				
	e Z	15 .0				
	e E	16 37				
	e Z	17 10				
	e	11 21 04				
13	e P Z	12 02 03	2.4	2.1	Local	
13	e P Z	14 56 10				
13	i P Z	15 27 16.8	0.7	4.8		
	e Z	15 27 48				
14	i P Z	00 58 02.0		Local		
	i SNE	00 58 08.8				
14	i P Z	17 32 05.0	1.3	10.3		
	e E	36 24				
	e ZN	37 .2				
	e E	38 32				
	e N	39 34				
	e Z	17 39 48				
15	e P Z	00 53 34		Local		
15	e P Z	13 27 22				
15	e P Z	18 58 15				
15	i P Z	23 14 29.3	1.2	16.6		
	e E	21 58				
	e E	27 02				
	e N	27 09				
	e N	27 57				
	e Z	28 47				
	e N	29 19				
	e Z	23 29 43				
16	e P Z	08 09 29				
16	e P Z	10 29 19		10 09 23.3 S.E. Indian Rise 47.4 S, 99.7 E	5.6, 33 km	
16	i P Z	11 58 48.0	0.4	2.2		
	i Z	11 58 59.5				
16	i P Z	17 19 39.2	0.6	3.8		
16	i P Z	19 17 37.5	1.2	2.8		
16	i P Z	23 18 05.1	0.9	4.0		
16	e P Z	23 57 54				

Dec.	Phase	G.C.T.	T.	A.	Location and origin time	Magnitude and depth	Distance
17	e P Z	05 28 25					
17	e ZE	06 52 .7					
17	e P Z	16 17 03					
	i Z	16 17 27.1	0.7	7.8			
18	e P Z	01 07 50			01 06 31 Off coast of Oregon 44.2 N, 128.2 W	4.6,33 km	550 km
18	e P Z	02 06 26			Local		
18	e P Z	03 00 44					
18	e P Z	03 27 02			Local		
18	e P Z	08 40 39			08 30 45.8 Kurile Is. 44.7 N, 149.9 E	5.5,33 km	6400 km
19	i P Z	15 16 07.0	1.2	3.4			
19	e P Z	19 28 16			19 15 43.4 S. of Mariana Is. 11.8 N, 143.5 E	5.1,33 km	9300 km
19	e P Z	20 21 56	0.9	2.6			
19	e P Z	22 26 29	1.4	2.0			
	i Z	22 27 04.2	1.1	3.4			
19	e Z	23 22 .3					
20	e P Z	00 13 10					
20	e P Z	00 21 07					
	e E	48 .0					
	e Z	54 .5					
	e NE	00 54 .9					
20	e P Z	04 31 53					
20	i P Z	18 32 32.8	0.9	8.9			
21	i P Z	08 47 56.8	0.6	4.9	08 41 00.4 Near coast of Guerrero,Mex. 16.8 N, 98.1 W	5.0,53 km	3900 km
	e ZNE	09 03 22					
21	i P Z	09 35 52.6	0.9	2.6			
	i Z	09 36 12.4	1.0	3.0			
21	i P Z	10 45 24.4			Local		
21	e P Z	17 57 01					
21	i P Z	18 01 53.9	0.5	2.7			
21	i P Z	18 36 47.0					
21	e P Z	21 37 11					
21	i P Z	22 27 14.6	0.4	1.0			

Date	Phase	Observed	T.	A.	Location and origin time	Magnitude and depth	Distance
22	e P Z	00 37 .6			00 28 46.2 Off coast of Kamchata	5.1, 5 km	5300 km
	e Z	00 52 .5			52.4 N, 160.5 E		
22	i P Z	03 32 10.4	0.6	0.9			
	i Z	03 32 21.0	0.7	4.7			
22	e P Z	05 00 03					
22	e P Z	06 23 33					
22	e P Z	08 58 43					
22	e P Z	09 13 29					
22	i P Z	19 46 15.7	2.0	19.0	19 41 23.0 Kodiak Is.	6.5, 50 km	2400 km
	e ZNE	19 50 09			58.4 N, 153.0 W		
23	e P Z	00 32 11					
23	e P Z	09 43 51					
	i Z	09 44 12.9	0.7	4.8			
23	i P Z	20 51 43.8	1.2	19.0	20 47 37.5 S. E. Alaska	5.4,33 km	2000 km
	e S ZNE	55 04			60.5 N, 141.0 W		
	e S ZN	55 08					
	e L ZE	20 57 14					
24	i P Z	00 41 54.4	0.3	4.2			
24	e P Z	11 12 36					
	i Z	11 12 57.3	0.8	3.0			
25	i P Z	03 09 18.1	0.8	14.9			
25	i P Z	07 27 55.8	1.0	7.5			
25	i P Z	19 32 05.9	0.8	5.0	19 20 45.1 Fiji Islands Region	4.9,550 km	9200 km
					18.1 S, 179.2 W		
26	e P Z	04 06 10			03 53 16.6 New Britain Region	6.0,133 km	10,300 km
					5.5 S, 151.4 E		
26	e P Z	04 19 59					
	e Z	04 20 06.0	0.6	3.8			
26	e P Z	04 27 34					
26	i P Z	13 23 35.2	1.2	11.2			
26	i P Z	20 04 34.6	1.0	3.6	20 03 13 Off coast of Oregon	4.8,33 km	600 km
	e L ZNE	20 06 .0			44.3 N, 128.7 W		
26	e P Z	21 43 03					
27	i P Z	03 52 12.0	1.0	6.7			
27	e P Z	04 54 20					

Dec.	Phase	G.C.T.	T.	A.	Location and origin time	Magnitude and depth	Distance
27	i P Z	05 09 25.9	0.7	3.0			
	e N	10 28					
	e E	10 55					
	e Z	10 58					
	e N	05 11 11					
27	e P Z	06 25 20					
28	e P Z	20 44 01			20 32 24.7 Bonin Island	5.9,36 km	8300 km
	e L ZN	21 06 .5			27.8 N, 141.8 E		
28	e P Z	22 15 23			22 04 52.0 Peru-Ecuador border	5.5,14 km	7050 km
					3.2 S, 77.2 W		
29	e P Z	00 10 54	0.7	1.8			
29	e P Z	17 58 55					
29	e P Z	21 55 41			Local		
30	i P Z	02 12 20.2	0.8	5.3	02 06 31.1 Unimak Is.	5.6, 28 km	3100 km
	e S N	17 11			54.1 N, 164.3 W		
	e S E	17 19					
	e S Z	02 17 37					
30	i P Z	06 27 51.4			06 16 03.9 S. Peru	5.7,118 km	8600 km
	i Z	06 27 52.1	0.7	7.9	16.8 S, 71.2 W		
30	e P Z	15 19 05					
30	i P Z	16 38 32.4	1.5	6.3	16 33 43.4 Kodiak Is.	5.0, 33 km	2500 km
	e E	42 22			58.1 N, 152.4 W		
	e E	43 .9					
	e ZN	16 44 .1					
30	e P Z	18 09 46					
31	e P Z	22 37 42					
	i Z	22 38 08.4	0.6	2.1			
31	e P Z	23 16 09			Local		