UNIVERSITY OF WASHINGTON SEISMOGRAPH STATION
GEOLOGY DEPARTMENT - SEATTLE 5, WASH., U.S.A.

VIA AIR MAIL

International Seismological
Research Centre
6 So. Oswald Road
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PRINTED MATTER

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

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

January 1967

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

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

T = period. A = peak to peak amplitude for S.P.Z., Magnification 100 K

Date	Phase	Time G.C.T.	T.	A.	Location and origin time	Magnitude and depth	Distance
1	i P Z	07 17 41.2 C	1.6	31.6	0=07 05 48.6, Tonga Isl. 15.3S, 173.6W	6.0, 83 km	8800 km
	e S ZNE	27 30					
	e NE	39 5					
	e Z	07 40.5					
1	e Z	22 21 56					
	e NE	22.3					
	e N	29.3					
	e N	33.2					
	e Z	22 37.3					
2	e P Z	17 57 41			0=17 44 34, Santa Cruz Is. 12.2S, 165.7C	4.4, 33 km	9800 km
2	e E	20 23.3					
	e ZN	23.5					
	e N	39.4					
	e ZE	20 39.7					
	e Z	21 19.7					
3	e P Z	05 33 19	1.0	2.8	0=05 28 29.3, Kenai Peninsula, Alaska 60.9N, 151.5W	4.6, 92 km	2450 km
	e Z	48.5					
	e ZNE	05 59.0					
	e N	06 03.8					
	e E	05.1					
	e ZE	15.0					
	e N	15.7					
	e Z	06 32.9					
3	i P Z	20 14 25.2cR			0=20 13 31.8, Off coast of Oregon 45.7N, 126.5W	4.7, 33 km	400 km
	i S E	15 07.0					
	i S N	15 07.7					
	eLZNE	20 15.3					
3	e Z	22 04.4					
	e E	22 05.1					
4	e P Z	03 54 49	1.0	1.9	0=03 41 36.4, Philippine Isl. 20.3N, 120.0E	5.6, 33 km	10,300 km

Date	Phase	Time G.C.T.	T.	A.	Location and origin time	Magnitude and depth	Distance
5	i P Z	00 26 35.9 R	0.9	8.0	0=00 14 40.4, Mongolia	6.4, 33 km	8600 km
	e NE	32.6			48.1N, 102.8E		
	e Z	32.8					
	e N	35.4					
	e S E	36.5					
	e S N	00 36.7					
6	e P Z	00 14 35	1.0	1.7	0=00 04 02.7, Hokkaido, Japan	5.5, 35 km	7000 km
	e S ZNE	23.2					
	e L NE	31.4					
	e ZE	00 34.2					
6	e P Z	21 19 50					
	i E	19 12.6					
	i Z	21 19 19.4					
7	i P'_2 Z	00 46 56.1 c	1.6	7.6	0=00 27 25.2, S.E. Indian Rise	5.8, 33 km	16100 km
					48.8S, 112.7E		
7	i P Z	13 42 20.4 c	1.2	2.7			
7	i P Z	18 29 50.7 c	--	--	Local		
	i ZNE	18 29 52.4					
7	i P Z	19 31 02.5 rC	--	--	0=19 24 15, Guerrero, Mexico	4.9, 68 km	4000 km
	e Z	19 42.5			17.4N, 1 98.8 W		
8	e P Z	05 11 15	--	--	0=05 02 52.1, Near east coast	5.1, 33 km	5000 km
	e S Z	17.9			56.0N, 162.9E of Kamchatka		
8	e L Z	05 27.1					
		18 07.5					
8	i P ZNE	19 41 05.6 R	-	--	Local		
	i ZNE	19 41 19.1					
9	e P Z	06 35 52.5	--	--			
	i Z	06 35 55.3					
9	e P Z	09 52 29.2	1.0	3.6	0=09 39 39, Taiwan Region	5.4, 50 km	9800 km
					24.1N, 122.6E		
9	e P Z	11 40 59	--	--	0=11 39 41, Off coast of Ore.	4.3, 33 km	600 km
					44.0N, 128.3W		
9	e P Z	11 53 26	--	--			
9	i P Z	18 18 01.8 C	0.9	6.3	0=18 08 23.9, Near west coast of Columbia	5.2, 40 km	6300 km
	e L E	35.4					
	e L ZN	35.7			5.1N, 77.6W		
	e ZN	46.3					
	e E	18 46.5					
10	i P Z	00 29 38.8	--	--	Local		
	i S NE	00 29 42.8					
10	e P Z	11 54 41	0.8	2.7	0=11 52 53.4, Montana	3.8, 28 km	800 km
					45.0N, 111.5W		

Date	Phase	Time G.C.T.	T.	A.	Location and origin time	Magnitude and depth	Distance
10	e P Z	19 54 21					
	i Z	19 54 23.8					
11	e P Z	16 17 26	0.9	4.0	0=16 08 06.1, South of Panama 5.3N, 82.5W	5.3, 22 km	5900 km
	e S ZNE	25.1					
	e L ZE	38.3					
	e N	39.7					
	e L ZNE	16 40.7					
11	i P Z	23 35 47.6 C	--	--	Local		
	i S NE	35 54.5					
	i ZE	23 35 58.0					
12	e P Z	19 25 24	--	--	Local (MR)		
13	e P Z	02 30 13			Local (MR)		
13	e P Z	14 01 04	--	--			
	e NE	11.9					
	e Z	12.05					
	e E	18.2					
	e N	24.5					
	e Z	28.1					
	e E	14 29.4					
13	i P Z	21 04 29.0 c	--	--	Local		
	i S ZNE	21 04 30.4					
14	e P Z	04 26 13	--	--			
14	i P ZNE	13 15 30.0 R	--	--	Local		
	i S ZE	13 15 31.6					
14	i P Z	13 45 48.8 R	0.8	2.7	0=13 34 00.3, Mariana Isl. 18.4N, 146.0E	4.9, 125 km	8500 km
14	i P ZNE	15 16 55.5 c	--	--	Local		
	i S ZNE	15 16 56.8					
14	e Z	15 24.7					
	e Z	15 35.3					
16	i P Z	13.25 41.5 eR	0.8	2.3			
16	e P Z	21 16 51	--	--			
17	i P Z	00 51 29.1eR	0.8	4.1	0=00 50 08, Off coast of Oregon	4.0, 33 km	600 km
17	iPPZ	01 34 54.7 R	1.2	7.1	0=01 17 19.4, New Hebrides Isl. 14.7S, 167.2E	4.9, 90 km	10100 km
17	e P Z	12 10 21	1.0	5.3	0=11 59 31.5, Near East coast of Honshu, Japan	5.9, 44 km	7400 km
	e S ZNE	19.2					
	e L ZNE	26.9					
	e ZNE	12 30.8					

Date	Phase	Time G.C.T.	T.	A.	Location and origin time	Magnitude and depth	Distance
17	e P Z	17 49 36	0.5	0.3			
18	i P Z	05 44 34.4 R	--	--	O=05 34 32.6, Eastern Russia	6.1, 11 km	6600 km
	i PcPZ	44 35.0			56.6N, 120.8E		
	e ZE	45 12					
	e NE	53 54					
	e Z	05 53:58					
	e L NE	06 02.6					
	e Z	06 23					
	e L Z	06 08 18					
18	i P Z	06 58 34.4 R	--	--	O=06 58 20.2, Washington State	3.0, 26 km	20 km
					47.3N, 122.6W		
18	i P Z	08 24 32.0	0.6	8.2	O=08 18 22.0, Fox Isl.	5.7, 37 km	3400
	e S N	29 52			52.5N, 168.3W		
	e L E	31 09					
	e L N	31.2					
	e L Z	08 31.6					
18	e P Z	10 46 48	1.5	2.0	O=10 41 54.0, Southern Alaska	4.4, 96 km	2500 km
					60.4N, 152.5W		
19	e P Z	09 09 54	0.6	1.4			
19	e P Z	12 50 54			O=12 38 31.3, Santa Cruz Isl.	5.5, 156 km	9700 km
	epP Z	51 31			11.8S, 166.4E		
	esPZNE	12 52 24					
	e S NE	13 02 28					
	e ZNE	13 16 25					
19	e P Z	16 47 36	1.0	8.4			
20	e P Z	02 09 18.5	--	--	O=01 57 23.1, Mongolia	6.1, 33 km	8600 km
	e S NE	19 17					
	e L Z	25 17					
	e L Z	35 07					
	e L N	02 35 14					
23	i P Z	14 34 17.8 R	--	--	Local		
	N	34 26.2					
	E	14 34 27.1					
23	e P Z	20 31 31	2.0	3.9	O=20 25 38.3, Revilla Gigedo Isl.	5.3, 56 km	3200 km
	e S ZNE	36 28					
	eScP Z	38 12			19.9N, 109.3W		
	ePcS N	38 16					
	e ZN	40 20					
	eScSZN	20 42.0					
24	iPZNE	02 46 56.8 R	--	--	Local		
	i E	02 46 06.9					

Date	Phase	Time G.C.T.	T.	A.	Location and origin time	Magnitude and depth	Distance
24	i P Z	03 16 13.5 cR	1.0	3.1	0=03 05 39.0, Hokkaido, Japan 41.4N, 141.9E	5.3, 69 km	7100 km
24	i P Z	06 48 48.6 e	--	--			
24	e P Z	09 43 03	--	--	0=09 29 12.3, Central mid-Atlantic Ridge 0.6S, 21.0W	4.9, 33 km	11400 km
25	e P Z	02 03 16	1.0	5.6	0=01 50 19.4, Afghanistan USSR border 36.6N, 71.6E	5.7, 69 km	10600 km
25	e P Z	03 36 37	--	--			
25	i P Z i E i N i E	19 30 26.8 R 30 43.5 30 44.5 19 30 46.6	--	--	Local		
25	i P Z	22 29 02.3	0.7	1.6			
25	i P Z	23 51 14.5 eR	1.0	5.6	0=23 49 48, Off coast of Oregon 44.6N, 129.5W	3.8, 33 km	700 km
26	i P Z e S NE e Z e L E e L NE	06 10 19.0 e 15.1 15.4 18.7 06 19.7	1.0	3.7	0=06 04 33.9, Revilla Gigado Isl. 21.4N, 108.9W	5.3, 33 km	3100 km
26	e P Z	08 28 08.8	--	--	0=08 26 29, Off coast of Oregon 44.8N, 131.0W	4.1, 33 km	700 km
26	e P Z	08 16 41	--	--			
26	i P Z e S NE e L ZE e E e E	16 18 04.6 e 24.1 27.3 31.3 16 33.6	1.0	3.9	0=16 10 34.3, Mexico-Guatemala border	5.3, 56 km	4400 km
27	e P Z i Z	23 11 37 23 11 48.4 R	--	--	Local		
28	e P Z i Z e S Z e S NE e L N e E e L Z	13 59 13.0 13 59 15.8 14 04 15 14 04 20 06.0 14 06.3 15 07	--	--	0=13 52 58.3, Fox Isl. 52.4N, 169.5W	6.7, 47 km	3400 km
28	e P Z	16 37 37	1.3	3.6	0=16 31 21.1, Fox Isl. 52.3N, 169.3W	5.6, 32 km	3400 km

Date	Phase	Time G.C.T.	T.	A.	Location and origin time	Magnitude and depth	Distance
28	i P Z	17 48 17.1 c	1.2	7.4	0=17 42 01.5, Fox Isl. 52.4N, 169.4W	5.6, 32 km	3400 km
	e Z	48 29					
	e L NE	55 11					
	e Z	56 45					
	e L E	17 56 54					
29	e Z	08 24.5	--	--			
	e N	46.7					
	e Z	08 47.3					
	e Z	09 07.4					
29	e P Z	12 22 22					
	i Z	12 22 47.4					
30	e P Z	12 00 00	--	--	Local		
	i E	12 00 24.4					
30	i P Z	16 09 10.5 R	--	--	Local		
	i ZNE	16 09 12.8					
31	e P Z	13 47 01	--	--	0=13 37 34.3, Off coast of Central America 2.8N, 84.4W	5.3, 33 km	6100 km
	e L Z	14 01 15					
	e L E	09 46					
	e L ZN	14 09 54					

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Date	Phase	Time G.C.T.	T.	A.	Location and origin time	Magnitude and depth	Distance
Feb.1	e P Z	21 49 19.5	---	---			
2	i P Z	06 44 51.4R	1.0	11.1	O = 06 25 49.8, S. Sandwich Isl. 57.9S, 25.7 W	5.8, 81 km	14,800 km
	e PPZ	47 19					
	e N	48 28					
	ePKSE	06 48 35					
	e N	07 05					
	e N	31.1					
	e Z	31.7					
	e E	32.1					
	e Z	36.31					
	e E	07 43.0					
2	e P Z	14 40 20	---	---			
2	i P Z	16 35 09.6C	1.0	10.4	O=16 24 39.1, Hokkaido, Japan 41.6N, 139.7E	5.0, 176 km	7300 km
3	i P Z	01 58 14.0R	0.9	10.8	O=01 57 04, Off coast of Oregon 43.3N, 126.2W	4.2, 33km	600 km
3	e Z	13 16 20					
	e NE	13:16 27					
6	e P Z	02 01 16	---	---			
6	e P Z	03 31 28	---	---			
7	i P Z	08 41 05.8C	0.6	2.5	O=08 28 57.9, Mariana Isl. 13.9N, 144.8E	5.4, 138 km	8900 km
7	i P Z	14 58 23.0R	1.2	14.4			
7	i P ZNE	19 55 44.6R	---	---	Local		
	i ZNE	19 55 46.7					
8	e P Z	09 39 24	---	---	O=09 37 53.6, N. Calif. 41.2N, 123.4W	4.6, 33 km	600 km
8	e P Z	19 40 07	---	---	Local (MR)		
8	i P ZNE	23 01 35.5cR	---	---	Local		
	i ZNE	23 01 39.8					

			T.	A.	Location and Origin Time	Magnitude and depth	Distance
9	i P Z	15 34 47.0C	1.3	27.7	0=15 24 47.2, Colombia	6.3, 58 km	6600 km
	e S ZNE	43 05			2.9N, 74.9W		
	e N	51 00					
	e L Z	54 00					
	e Z	55 50					
	e L N	15 58 02					
	e Z	16 09.3					
	e ZN	16 11 02					
10	i P Z	08 45 27.9	--	--	Local		
	i NE	08 45 30					
10	i P Z	18 08 42.1eR	--	--	Local		
	e E	08 58.7					
	i N	18 08 59.8					
10	i P ZNE	18 47 18.5	--	--	Local		
	e ZNE	18 47 20.0					
11	e P Z	04 32 46	--	--			
	e E	43.7					
	e N	44 19					
	e E	45.36					
	e ZE	04 45 42					
	e NE	05 07.6					
	e ZNE	05 34.2					
12	i P Z	14 20 34.9C	1.1	3.6	0=14 08 12.5, Near coast of N. Chili 21.7S, 70.1W	5.5, 18 km	9300 km
13	i P Z	18 32 45.2e	1.0	71.0			
	i N	33 05.3					
13	e P Z	23 23 41.0	1.0	1.7	0=23 14 19.6, N. Atlantic Ocean 52.7N, 34.1W	6.3, 10 km	5900 km
	e ZN	31 26					
	e ZE	31 34					
	eSS NE	35.0					
	e G ZNE	36.0					
	e L N	36.55					
	e Z	23 39.0					
14	i P Z	05 14 07.0R	---	---	0=05 02 38.4, New Hebrides Isl. 13.3S, 171.3E	5.6, 635 km	9400 km
14	e P Z	17 49					
	i ZN	17 49 36.8					
15	i P Z	08 02 46.4C	---	---			
15	i P Z	16 21 34.0 R	---	---	0=16 11 11.8, Peru-Brazil border 9.0S, 71.3W	6.2, 597km	8100 km
	e S ZNE	30.1					
	eSSS ZN	38.18					
	e ZN	44.5					
	e E	16:44.9					

Date	Phase	Time G.C.T.	T.	A.	Location and Origin Time	Magnitude and depth	Δ. Distance
17	i P Z	10 23 27.3R	1.8	50.0	O=10 10 51.5, Tonga Isl.	6.4, 19 km	9600 km
	e S ZNE	34.0			23.7S, 175.2W		
	e ZN	10 49.5					
17	i P Z	19 19 27.4			Local		
	i ZN	19 19 48.7					
19	e P°Z	22 33 18	1.0	3.9	O=22 14 35.3, South Java	6.2, 80 km	12,400 km
	e Z	22 44.3			9.2S, 113.1E		
	e N	23 04.4					
	e Z	10.2					
	e E	23 17.8					
21	e P Z	21 05 12	---	---			
22	i P Z	18 39 39.6R	1.2	4.3	O=18 26 46.7, New Hebrides	5.6, 87 km	10,100
	e ZE	19 08.1			19.5S, 169.0E Isl.		
22	e P Z	23 32 05	1.1	2.7			
23	e P Z	07 08 08	---	---	Local (MR)		
23	i P Z	14 38 33.8eR	1.0	10.1	O=14 25 43.9, Taiwan	5.4, 48 km	9700 km
					24.2N, 122.5E		
23	i P Z	18 52 36.5R	1.0	26.7			
	e ZN	55.7					
	e ZN	18 56 46					
23	e P Z	21 14 14	---	---			
25	e P Z	15 53 45	---	---	O=15 52 08, N. Calif.	4.3, 23 km	700 km
					40.4N, 123.2W		
26	i P Z	04 10 25.3e	0.9	28.8			
26	e P Z	18 35 27	1.0	1.2			
27	i P Z	02 16 41.7R	0.8	2.6			
27	i P Z	23 56 13.5R	0.5	3.1			
28	e P Z	02 59 25	---	---			
28	e P Z	09 48 37	---	---	O=09 37 18.8, South of	5.5, 23 km	7800 km
	e Z	57.6			32.7N, 141.7E Honshu		
	e NE	09 57 54					
	e E	10 06.0					

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Longitude:	122° 48.6'W	Foundation:	Volcanic Breccia

T = period. A = peak to peak amplitude for S.P.Z., Magnification 100K

Date	Phase	Time G.C.T.	T.	A.	Location and origin time	Magnitude and depth	Distance
Mar. 1	e P Z	01 25 13	--	--	0=01 20 04, Gulf of Calif. 25.3N, 109.7W	4.7, 33 km	2600 km
	e E	31.0					
	e L E	32.1					
	e L Z N	32.9					
	e L Z	01 35.1					
1	e P Z	09 32 39	0.8	2.6			
	i Z	09 32 41.5					
1	e ZNE	15 11.9	---	---			
1	i P Z	22 23 40.6c	0.7	7.2	0=22 16 30.4, Andreanof Isl. 51.4N, 179.3W	5.3, 33 km	4100 km
2	i P Z	01 30 39.7R	---	---			
2	i P Z	02 57 28.3R	0.8	51.3	0=02 47 31.7, Ecuador 0.3S, 78.7W	5.8, 121 km	6700 km
	e S E	03 05.5					
	e ZE	17.8					
	e ZNE	03 23					
2	e P Z	12 54 03	0.8	2.5			
2	e P Z	13 27 31	---	---	0=13 21 45, Revilla Gigedo 21.6N, 108.6W	4.6, 33km	3000 km
	e S E	32.0					
	e ZN	35.3					
	e L E	35.5					
	e L E	37 30					
	e L ZN	13 38 38					
3	e P Z	10 44 16	---	---			
3	e P Z	17 20 04					
	i P Z	17 20 07.8					
4	i P Z	02 15 03.5cR	---	---			
4	i P Z	05 22 16.0C	1.2	6.6	0=05 09 24.2, Taiwan 21.4'N, 121.8E	5.5, 134 km	10,100
	e S E	32 35					
	e S N	32 42					
	e Z N	05 34.0					
4	i P Z	06 28 12.2R	0.8	5.1	0=06 16 21.9, Tonga Isl. 18.5S, 175.4W	5.7, 225 km	9000 km
	e S N	38.0					
	e S E	38.1					
	e S Z	38.2					
	e NE	06 51 21					

Date	Phase	Time G.C.T.	T.	A.	Location and origin time	Magnitude and depth	Distance
Mar. 4	e P Z	18 11 01C	1.0	1.3	0=17 58 06.4, Aegean Sea	6.7, 33 km	10,000
	e S NE	21.6			39.2N, 24.6E		
	e S Z	22.0					
	ePSNNE	23.0					
	e Z	32					
	e L Z	35.5					
	e L N	35.8					
	e N	40.4					
	e L Z	41.2					
	e L E	18 42.5					
5	i P Z	11 12 41.5cR	---	---			
6	i P Z	04 51 09.6R	1.0	3.7	0=04 40 17.8, S. of Honshu	5.1, 490 km	8300 km
					30.5N, 137.6E		
6	e P Z	08 24 12	1.0	2.0	0=08 11 58.8, S. of Fiji Isl.	4.7, 227 km	9600 km
					22.7S, 177.5W		
7	i P Z	03 51 28.5			Local		
	i ZNE	03 51 43.4					
9	i P Z	00 24 08.8R					
9	i P Z	00 40 10.7C	0.3	2.6	Local		
9	e ZE	04 02.8					
	e ZE	04 02.8					
9	e ZE	06 30.7					
9	i P Z	07 11 15.8R	---	---	0=06 58 35.7, Santa Cruz Isl.	6.0, 30 km	9600 km
	e S ZNE	21 48			10.6S, 166.3E		
	ePS ZE	22 52					
	eSS E	27 40					
	e ZN	37.0					
	e E	37.28					
	e ZN	07 37 31					
9	e P Z	09 05 05.9	---	---			
	i ZNE	09 05 08.6					
9	i P Z	14 16 18.7c	1.0	4.8	0=14 08 44.5, Guatemala	4.6, 106 km	4500 km
					14.5N, 914W		
9	e P Z	18 15 21			0=18 02 45.7, Santa Cruz Isl.	6.4, 59 km	9600
	e S N	25 34			10.7S, 166.3E		
	e S ZE	25.9					
	e L Z	41 24					
	e L NE	18 41 32					
9	e Z	21 03 6					
	e Z	21 17.3					
10	e P Z	01 15 45.4	---	---			
10	i P Z	01 32 11.9R	---	---	Local		
	i ZNE	01 32 14.2					
11	i P Z	08 46 02.4R	1.5	9.6			
	e ZNE	08 56 36					
	e ZE	09 02 33					
	e N	02.6					
	e ZN	11.1					
	e E	09 12.1					

Date	Phase	Time C.C.T.	T.	A.	Location and origin time	Magnitude and depth	Distance
11	i P Z	14 51 50.2	1.0	9.2	0=14 44 59.2, Vera Cruz, Mex. 19.1N, 95.8W	5.5, 33 km	3900 km
	e S N	57 24					
	e S ZE	57.4					
	e L Z	14 59.8					
	e L NE	15 06					
	e L ZNN	15 07.8					
12	i P Z	01 16 49.5C	---	---	Local		
	e NE	01 17 03					
12	e P Z	03 02 25	---	---			
12	e L E	21 32.5			0=21 22 19, Gulf of Calif. 28.2N, 111.6W	4.6, 33 km	2300 km
	e L N	34.0					
	e L ZE	34.2					
13	e Z	05 36.0					
13i	i P Z	14 50 01.0C	0.8	4.4	0=14 44 07.2, Fox Isl. 53.7N, 165.4W	5.2, 33 km	3200
13	i P Z	16 20 19.1C	1.0	3.8	0=16 06 54.3, Off coast of S. Chile 40.1S, 74.5W	6.0, 33 km	10,800
	e E	53.3					
	e Z	54.0					
	e N	16 54.6					
14	i P Z	06 45 39.6R	0.9	3.2			
	e Z	35 23					
	e Z	47 34					
	e E	06 53					
15	i P Z	22 07 17.0cR	---	---			
16	e ZE	12 52.0					
17	e P Z	11 37 48					
	e N	48 46					
	e E	48.8					
	e Z	11 50					
	e N	12 02.2					
	e Z	03.2					
	e Z	06 26					
	e E	12 06.5					
18	e P Z	09 08 16					
18	e P Z	18 00 51					
18	e P Z	20 23 07			Local (MR)		
19	e P Z	01 29 08					
19	e P Z	02 45 01	1.0	5.4			
19	e P Z	04 11 22	---	---	0=04 01 36.7, Kurile Isl. 45.4N, 151.3E	6.5, 33km	6300
	e PPZ	04 13 53					
	e S E	19 19					
	e S N	19 23					
	e Z	04 20 01					
	e E	04 55 40					
	e N	55 56					
	e Z	04 58 10					

Date	Phase	Time G.C.T.	T.	A.	Location and origin time	Magnitude and depth	Distance
19	e P Z	06 27 39			Local (MR)		
20	i P Z	13 41 17.2R	---	---			
	e Z	49.0					
	e NE	49.2					
	e E	55.3					
	e Z	13 58.6					
20	e ZNE	19 49.6					
21	i P ZNE	02 31 42.5R	---	---	Local		
	i NE	31 53.1					
	i e	02 31 54.7					
21	e P Z	04 38 52	---	---			
	i NE	35.2					
	i Z	04 38.1					
21	e P Z	07 25 03			Local (MR)		
21	i P Z	18 21 18.3cR	1.0	9.1	0=18 11 42.2, N. Colombia 6.8N, 73.0W.	5.4, 151km	6400 km
21	e P Z	20 12 35					
22	i P Z	04 31 46.5C	---	---	Local		
22	i P Z	06 03 36.8c	---	---	Local		
	i S N	03 38.6					
	i S E	06 03 38.8					
22	e P Z	15 00 51.4	---	---	0=14 59 26, Near coast of 41.4N, 124.9W/ N. Calif.	4.1, 33 km	600 km
	e L ZNE	15 02 24					
24	i P°Z	09 18 02.4C	0.6	4.9	0=09 00 19.5, Java Sea	6.0, 600 km	13,100 km
	epP Z	19 23					
	epP E	19 29					
	epPPPR	23.9					
	esP Z	28 00					
	eSP NS	28.1					
	eSP ZN	35.3					
	e ZN	09 36.0					
25	e P Z	22 57 43	---	---	0=22 47 58.4, Kurile Isl. 45.5N, 151.4E	5.5, 41 km	6300 km
	e S ZNE	23 05 39					
	e L E	11.9					
	e L N	12.0					
	e L Z	23 12.3					
26	i P Z	04 29 09.9cR	0.9	2.0	0=04 24 13.5, Central Alaska 64.1N, 147.2W	4.4, 33 km	2400 km
26	i P ZNE	06 29 12.4C	---	---	Local		
	i ZNE	06 29 14.4					
26	e P Z	11 19 41	---	---			
27	i P Z	08 36 56.3rC	1.1	10.2	0=08 26 34.5 , Western Brazil 8.9S, 71.3W	5.3, 603 km	8000km

Date	Phase	G.C.T.	T.	A.	Location and origin time	Magnitude and depth	Distance
27	i P Z	09 10 31.2rC	1.0	4.4			
	e ZNE	20.7					
	e ZN	25.8					
	e Z	31.0					
	e NE	32.2					
	e Z	38 44					
	e NE	42.0					
	e ZE	09:44.7					
	e E	10 13.5					
27	e P Z	10 14 38	---	---	0=10 01 42.0, New Hebrides Isl 16.5S, 168.1E	5.5, 11 km	9900 km
	e S ZNE	25					
	e N	38.0					
	e ZE	10 42.0					
27	i P Z	19 25 11.8R	---	---	Local		
	i ZNE	19 25 14.2					
29	i P Z	21 47 30.4R	1.1	5.0			
30	i P°Z	02 26 53.2R	0.9	4.4	0=02 08 02.4, South of Bali 11.0S, 115.5E Isl.	6.0, 33 km	13,400
	e PSZNE	38.2					
	e NE	44.9					
	e G N	02 57.5					
	e E	03 03.3					
	e Z	03 03.6					
	e Z	04 02.8					
	e E	04 03.1					
30	e P Z	04 54 20			Local		
	e NE	54 42					
	i Z	04 54 44.8					
30	i P Z	09 12 35.6rC	---	---			
	i ZNE	09 12 44.0					
30	e P Z	21 11.0	---	---	Local		
	i Z	21 11 18.7					
30	e P Z	22 38.0	---	---	Local		
	i Z	22 38 22.0					
30	e P Z	22 41 54	1.2	5.2			
	e NE	23 27.0					
	e NE	37.9					
	e Z	39.0					
31	e P Z	02 18 40	---	---	0=02 12 17.8, Fox Isl. 52.1N, 169.7W	4.8, 28 km	3500
	e S E	23.7					
	e L N	25.7					
	e L Z	02 27.4					
31	e P Z	10 22 03	---	---			

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

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

April 1967

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

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

T = period, A = peak to peak amplitude for S.P.Z., Magnification 100K

Date	Phase			Time G.C.T.	T.	A.	Location and origin time	Magnitude and depth	Distance
April 1	e	P	Z NE	06 04.0			0=05 54 19.1 45.8N, 151.8E	5.7, 40 km	6500 km
	e	S	N	11 40			Kurile Isl.		
	e	S	Z	11 47					
	e	S	E	11 35					
	e	L	Z	06 21.4					
1	e	P	Z	10 50 15	1.0	3.1			
	e		Z	57 6					
	e		E	57 50					
	e		N	10 57 53					
	e		Z	11 06 50					
	e		N	06 54					
	e		E	11 07 03					
1	e	P	Z	12 33 17	--	--	0=12 23 35.5 45.7N, 151.8E	5.9, 40 km	6500 km
	e	S	Z N	41.0			Kurile Isl.		
	e	S	E	41.12					
	e	L	Z	12 50.0					
1	e	P	Z	23 26 12	--	--			
2	e		N	18 05.2					
	e		ZE	06.5					
	e		N	19.5					
	e		ZE	18 23.8					
3	e		Z	08 17.4					
	e		E	28.0					
	e		N	28.4					
	e		Z	42.0					
	e		N	08 42.3					
3	e	P	Z	13 10 55	--	--	0=12 58 40.9 20.25, 173.7W	5.3, 48 km	9000 km
	e		N	21.1			Tonga Isl.		
	e		ZE	13 35.8					
3	e	P	Z	19 24 09	--	--			
3	e	P	Z	21 47.5			Local (NRL)		
	e		Z	48 16.9					
	i		Z	48 18.6					
	i		Z	48 21.9					
	i		Z	21 48 27.8					
3	e	P	Z	23 10 5			Local (NRL)		
	e		Z	11 21.1					
	i		Z	11 32.7					
	i		Z	23 11 35.6					

Date	Phase		G.C.T.	T.	A.	Location and origin time	Magnitude and depth	Distance
4	e	N	01 17.5	--	--			
	e	E	01 18.0					
	e	Z	01 21.7					
	e	NE	01 21.9					
4	i	P Z	09 16 55.6R	1.0	3.6	0=09 06 01.1 33.4N 137.5E Near S. Coast of Honshu, Japan	5.2, 353 km	8000 km
4	e	P Z	22 45.5	--	--	Local (MRL)		
	i	Z	22 46 37.0					
5	e	P Z	00 13.7			Local (MRL)		
	i	Z	40.3					
	i	Z	43.4					
	i	Z	00 45.5					
5	i	P Z	02 45 57.0C	1.3	5.7	0=02 34 11.1 20.0N, 147.1E Mariana Isl.	5.9, 50 km	8500 km
	e	S ZE	02 55 40					
5	e	P Z	02 56 00					
	i	Z	56 30.7					
	e	ZN	02 56 40					
	e	ZNE	02 59 41					
	e	N	03 05.5					
	e	N	08 05					
	e	Z	08.7					
	e	E	10 20					
	e	ZN	03 10.7					
5	e	P Z	16 20 42			Local (MR)		
5	e	P Z	16 33 15			Local (MR)		
5	i	P Z	23 36 37.2	1.0	2.9			
	i	Z	23 36 43.0					
6	e	P Z	02 06 46.9	0.8	0.5			
6	i	P Z	03 00 32.9C			Local		
	i	NE	03 00 34.2					
6	i	P Z	12 33 46.0	--	--	0=12 21 57.0 20.1N, 147.2E Mariana Isl.	5.7, 22 km	8500 km
	e	S ZNE	43.5					
	e	E	12 56.2					
	e	E	13 07.7					
6	i	P Z	14 08 22.1R			0=14 01 21.5 16.3N, 98.0W Near Coast of Guerrero, Mexico	4.9, 54 km	4000 km
	e	L NE	19.7					
	e	L Z	20.6					
	e	L E	23.9					
	e	L Z	24.0					
	e	L N	14 24.2					
7	i	P Z	01 24 00.9	--	--			
7	e	P Z	02 31.2			Local (MRL)		
			31 38.2					
			31 57.8					
			02 32 04.1					
7	e	P Z	09 04 13	--	--			

					T.	A.	Location and origin time	Magnitude and depth	Distance
7	e	P	Z	23 57 03			Local (MR)		
8	e	P	Z	00 07 19					
8	e	P	Z	05 45 41			Local (MR)		
8	i	P	Z	05 46 44.6	CR	0.9 3.8	0=05 40 32.3 39.6N, 82.5W Ohio	4.2 33 km	3100 km
8	e	P	Z	09 45 35			Local (MR)		
8	e	P	Z	19 11 00			Local (MR)		
9	e	PS	E	00 32			0=00 05 07.0 4.05, 135.8E West New Guinea Region	5.1, 15 km	11,300 km
	e		N	37.7					
	e		N	47.2					
	e		Z	48.4					
	e		E	51.0					
	e		Z	00 52.3					
9	e		ZE	09 38.0					
9	i		Z	18 50 06.4	0	-- --			
	i		ZNE	32.4					
	i		ZN	33.1					
10	e	P	Z	20 02 30		1.7 3.5			
	e	S	ZNE	20 02 47					
12	e	P	Z	00 57 44		1.2 3.1	0=00 54 42.1 56.2N, 136.0W Off Coast of S.E. Alaska	4.4, 37 km	1500 km
12	e	P	Z	11 10 23		-- --			
12	e	P	Z	22 35 17			(MR)		
13	e	P	Z	07 14 47					
	i		Z	15 09.8			(MRE)		
	i		Z	07 15 11.8					
13	i	P	Z	13 26 19.5			Local		
	i	S	NE	13 26 24.5					
13	i	P	Z	14 36 51.7		0.8 3.7	0=14 26 49.5 7.05, 151.0W Line Isl.	5.2, 33 km	6700 km
13	i	P	Z	17 25 02.6		0.8 3.8	0=17 13 43.5 18.03, 178.6W Fiji Isl.	5.0, 610 km	9200 km
13	i	P	Z	18 48 59.8		1.5 2.0			
13	i	P	Z	20 06 04.2		1.0 2.1	Local		
	i	S	NE	06 23.3					
	e		Z	20 16 50					
14	i	P	Z	05 25 17.7		1.0 5.1	0=05 18 35.8 17.5N, 100.2W Guerrero, Mexico	4.9, 62 km	3800 km
15	i	P	Z	21 02 54.6		0.7 3.2	0=20 55 46.9 51.4N, 179.1W Andreanof Isl.	4.9, 49 km	4100 km
15	i	P	Z	23 46 22.5		1.0 0.8	0=23 35 51.1 41.9N, 142.3E Hokkaido, Japan	4.9, 66 km	7100 km
16	e	P	Z	14 40 28					
16	i	P	Z	15 05 38.2		0.7 1.5	0=15 04 37 43.1N, 125.3W Off Coast of Oregon	4.0, 33 km	400 km
	i	S	N	15 06 36.6					
16	i	P	Z	16 10 42.3					

					T.	A.	Location and origin time	Magnitude and depth	Distance
16	i	P	Z	16 20 06.5	0.8	2.5	0=16 18 54 43.4N, 126.6W Off Coast of Oregon	4.2, 33 km	450 km
16	i	P	Z	16 43 36.6					
	e		N	16 44 35					
17	e	P	Z	04 39 13					
17	i	P	Z	08 51 42.6					
	i	S	ZNE	08 52 45.2					
19	e	P	Z	17 43 13			(NR)		
19	e	P	Z	18 14 29	0.7	0.7	0=18 12 25 52.7N, 131.4W Queen Charlotte Isl.	4.6, 33 km	1000 km
	i		Z	14 33.3					
	i		E	18 14 53.3					
19	e	P	Z	22 05 56	1.0	0.7	0=21 57 05.1 18.8N, 69.6W Dominican Republic	5.0, 103 km	5600 km
	i		Z	06 21.5					
	i		E	22 06 22.5					
19	i	P	ZNE	20 50 16.7			Local		
	i	S	ZNE	20 50 21.0					
19	e	P	Z	22 55 34			(NR)		
20	i	P	Z	04 20 22.8C	0.9	9.2			
20	e	P	Z	14 43 39					
	i		Z	44 09.6					
	i		NE	14 44 11.2					
21	e	P	Z	17 23 48					
	i		N	24 11.0					
	i		E	24 12.8					
	i		Z	24 13.0					
	i		Z	17 24 20.7					
22	e	P	Z	03 53 50			(NR)		
22	i	P	Z	14 38 33.0					
22	i	P	Z	14 51 19.8					
	i		Z	14 51 26.2					
23	i	P	Z	01 28 59.0					
23	i	P	Z	09 42 47.8	0.8	2.0	0=09 30 22.0 36.3N, 2.4E Algeria	4.8, 33 km	9200 km
	i		Z	09 42 51.6	0.9	3.6			
23	i	P	Z	09 50 44.0	0.8	1.3			
23	i	P	Z	17 52 58.4	1.0	2.5			
23	i	P	Z	18 05 05.0R	1.4	4.8			
23	i	P	Z	22 34 23.3	0.8	3.4	0=22 25 27.4 8.1N, 83.3W Costa Rica	4.5, 46 km	5600 km
24	e	P	Z	04 03 56					
24	i	P	Z	10 06 41.0					
25	i	P	Z	10 43 20.2R	0.9	1.7	0=10 30 37.8 43.3N, 87.0E Northern Sinkiang, China	5.2, 34 km	9600 km
	e		ZN	11 15					
	e		E	18.8					
	e		ZN	11 22.3					

Date	Phase			G.C.T.	T.	A.	Location and origin time	Magnitude and depth	Distance
25	e	P	Z	19 32.5	--	--	Local (MRL)		
	i		Z	33 25.8					
	i		Z	19 33 36.0					
26	e	P	Z	07 22 18	--	--	0=07 16 18 30.9N, 114.3W Gulf of California	4.5, 33 km	1900 km
	e	L	N	27.0					
	e	L	E	27.4					
	e	L	Z	28.1					
	e	L	ZN	07 29.1					
26	e	P	ZN	10 57 42.3	--	--	Local		
	i		ZNE	10 57 43.6					
26	e		ZN	22 24.7					
	e		E	22 25.0					
27	i	P	ZNE	00 32 30.0C	--	--	Local		
			ZNE	00 32 31.5					
27	e		ZNE	01 23.6					
	e		ZN	01 32					
27	e		N	08 51.1			0=08 09 47.9 1.85, 138.7E Near N. Coast of W. New Guinea	5.3, 33 km	10,900 km
	e	L	ZE	54.1					
	e		N	08 54.6					
28	i	P	Z	21 15 42.0C	--	--			
28	e		E	23 02.4					
	e		Z	02.5					
	e		N	23 02.7					
28	i	P	ZNE	23 12 41.0C			Local		
	i		E	23 12 44.5					
29	i	P	Z	00 06 28.4C	0.6	53.5	0=00 04 41.8 51.2N, 130.4W Queen Charlotte Isl.	5.1, 6 km	800 km
	e	L	ZNE	08.0					
	e	L	ZNE	08.5					
	e		N	00 12 47					
29	e	P	Z	03 22 30	--	--	Local (MR)		
29	i	P	Z	04 02 23.6C	0.8	26.7	0=03 55 20.8 51.4N, 178.3W Andreanof Isl.	6.0, 50 km	4000 km
	e	S	ZNE	08.6					
	e	L	ZNE	10.8					
	e	L	Z	04 12.8					
29	i	P	Z	12 32 35.2C	0.8	3.6	0=12 25 32.7 51.5N, 178.2W Andreanof Isl.	5.3, 51 km	4000 km
	e	L	E	41.0					
	e	L	E	42.8					
	e	L	Z	12 43.0					
30	e	S	NE	02 47.2			0=02 44 29 50.7N, 129.4W Vancouver, Isl.	3.8, 33 km	700 km
	e	L	E	02 48.2					
30	e	P	Z	07 35 48	--	--	Local (MR)		
30	i	P	Z	07 36 27.2C	0.9	1.0			
	e		Z	08 06.0					
30	e	P	Z	11 16 41	--	--	0=11 11 45.1 59.9N, 153.9W Southern Alaska	4.3, 146 km	2600 km
	d	PP	Z	11 17 07.2					

						T.	A.	Location and origin time	Magnitude and depth	Distance
30	e		E	13	37.9					
	e		N		38.6					
	e		Z		41.0					
	e		ZN		43.8					
	e		ZN	13	46.2					
30	e	S	E	16	42.4			0=16 28 15 14.3N, 91.3W Guatemala	4.8, 16 km	4600 km
	e	L	ZNE		51.1					
	e		Z	16	54.9					
	e		Z	17	13.5					
	e		ZE		25.3					
	e		ZE	17	43.5					

Seismograph Station
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25 SEP 1967

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

May 1967

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

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

T = period. A = peak to peak amplitude for S.P.Z., Magnification 100K

Date	Phase			Time G.C.T.	T.	A.	Location and Origin Time	Magnitude and Depth	Distance
May 1	e	P	Z	07 21 52	--	--	0=07 09 00.5 39.7N, 21.3E	5.6, 15 km	9700 km
	e	S	NE	32.3			Greece		
	e	S	Z	33.0					
	e		N	43.0					
	e		N	50.6					
	e		E	51.0					
	e		Z	07 51.3					
	e		Z	08 00.7					
	e		N	08 02.6					
1	i	P	Z	22 25 03.80	--	--	Local		
	i		E	25 08.5					
	i		N	22 25 08.8					
1	e	P	Z	23 10 28.4	--	--	Local		
	e		NE	23 10 42.5					
2	e	P	Z	20 22 50	--	--	Local (NEL)		
	e		ZN	25.0					
	i		Z	34.3					
	i		N	35.3					
	i		E	20 22 36.5					
2	e	P	Z	22 01 19.9	--	--	Local		
	i		ZNE	22 01 21.9					
3	e		E	00 01.2					
	e		Z	01.7					
	e		N	02.0					
	e		E	45.5					
	e		ZN	00 46.9					
3	e	P	Z	18 34.6			Local (NEL)		
	i		Z	35 05.6					
	i		N	35 06.2					
	i		Z	35 09.6					
	i		E	18 35 10.2					
3	e	P	Z	19 44.4	--	--	Local (NEL)		
	i		Z	45 13.6					
	i		N	45 14.0					
	i		E	45 18.3					
	i		E	45 18.6					
	i		N	45 19.0					
			Z	19 45 22.0					

Date	Phase			Time G.C.T.	T.	A.	Location and Origin Time	Magnitude and Depth	Distance
4	e	P	Z	00 11 08	--	--	Local (MR)		
4	i	P	ZNE	03 19 38.5R	--	--	Local		
	i		NE	03 19 41.7					
4	i	P	Z	08 36 35.8R	0.8	1.0	0=08 17 32.1 55.7S, 27.9W	5.8, 33 km	14,800 km
	e	SKKSNE		45.8			South Sandwich Isl.		
	e	PPS	E	08 51.0					
	e		N	09 10.5					
	e		E	11.0					
	e		Z	19.6					
	e		E	09 20.7					
4	e	P	Z	22 38 50	--	--			
	e		ZNE	43.7					
	e		N	44.5					
	e		Z	45.0					
	e		N	22 46.7					
5	e	P	Z	15 12 58	--	--	0=15 00 07.7 10.5S, 161.3E	5.4, 41 km	9800 km
	e	S	ZNE	23.5			Solomon Isl.		
	e	PPSZ		24.8					
	e	L	NE	36.5					
	e	L	Z	15 40.2					
5	i	P	Z	17 11 08.3C	1.0	2.6	0=17 06 14.9 63.7N, 148.5W	4.9, 102 km	2500 km
	i		Z	11 29.3			Central Alaska		
	e	S	E	15.0					
	e	S	N	15.3					
	e	L	Z	17 16.0					
5	i	P	ZNE	23 26 58.7C	--	--	Local		
	i		NE	23 27 02.9					
6	e	P	Z	05 17 03	--	--			
6	e	P	Z	08 29 27	--	--	Local (MR)		
6	e		N	09 36.6					
	e		Z	09 39.5					
6	i	P	Z	14 09 35.2CR	0.8	4.6	0=14 00 41.4 19.3N, 70.0W	5.3, 39 km	5600 km
	e	L	N	24.7			Dominican Republic		
	e	L	Z	25.6					
	e		E	14 26.2					
7	e	P	Z	18 04 20	--	--	0=18 01 36.1 37.0N, 115.0W	4.7, 20 km	1200 km
	e		E	06.8			Southern Nevada		
	e		N	07.0					
	e		Z	18 07.4					
8	i	P	ZNE	01 24 03.7R			Local		
	i		ZNE	01 24 14.0					
8	e	P	Z	19 32 53	--	--	Local (MR)		
9	e	P	Z	06 25 13	--	--			
	e		N	33.2					
	e		Z	33.6					
	e		N	39.7					
	e		Z	06 42.8					
9	i	P	Z	12 41 21.1R	--	--	0=12 36 36.8 56.6N 152.6W	5.0, 33 km	2500 km
	e	S	ZN	45.5			Kodiak Isl.		
	e	L	N	46.5					
	e	L	Z	12 46.8					

Date	Phase			Time G.C.T.	T.	A.	Location and Origin Time	Magnitude and Depth	Distance
9	e	P	Z	20 19.6	--	--	Local (MRL)		
10	i	P	Z	06 02 29.5C	0.7	1.6			
10	e	P	Z	13 43 38	--	--			
	e		ZN	13 46.8					
10	e	P	Z	20 48 51	--	--	Local (MR)		
11	e	P	Z	05 24 01	--	--	Local		
	i		ZNE	24 04.3					
	i		ZNE	05 24 06.5					
11	i	P	Z	15 17 31.0R	1.0	24.3			
	e		Z	20.7					
	e		E	21.3					
	e		N	22.2					
	e		E	27.7					
	e		NE	28.6					
	e		E	33.2					
	e		Z	15 34					
11	e	P	Z	22 26.5	--	--	Local (MRL)		
	i		N	27 18.7					
	i		N	27 22.0					
	i		ZE	27 26.0					
	i		NE	22 27 27.0					
12	i	P	Z	22 21 47.0C	--	--	Local		
12	i	P	Z	23 01 56.1CR	--	--	Local		
	i		NE	23 02 03.5					
	i		N	23 02 04.6					
13	i	P	Z	05 23 40.6R	1.5	9.0	0=05 18 55.4 56.5N, 152.6W Kodiak Isl.	5.3, 33 km	2500 km
	e	S	ZNE	27.8					
	e	L	NE	28.8					
	e	L	Z	29.3					
	e	L	N	33.6					
	e		E	34.9					
	e		N	05 35.9					
14	e	P	Z	02 55 35	--	--	Local (MR)		
14	i	P	Z	08 50 35.4RC	--	--	0=08 38 33.1 20.6S, 68.9W Chile - Bolivia Border	5.2, 109 km	9200 km

Station Shut Down for the Rest of May

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

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

June & July 1967

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

Latitude: 46° 45.0'N Elevation: 2800 feet
Longitude: 122° 48.6'W Foundation: Volcanic Breccia
T - period. A - peak to peak amplitude for S.P.Z., Magnification 100K

Date	Phase	Time G.C.T.	T.	A.	Location and Origin Time	Magnitude and Depth	Distance
June 5	e P Z	22 09 33					
	e Z	09 50					
	i Z	22 09 55.7					
6	i P Z	03 10 50.5			(MR)		
6	i P Z	14 37 01.9					
6	i P Z	17 13 29.5	0.7	3.1	0-17 12 57 48.2N, 119.1W	3.9, 33 km	250 km
	i S Z	13 59.5			Washington		
	i S E	17 14 00.0					
6	e P Z	22 36 39					
	i S ZE	22 37 13					
7	i P Z	07 13 21.1	0.8	1.9	0-07 06 33.2 17.1N, 99.9W	4.4, 47 km	4900 km
	e L E	22.6			Guerrero, Mexico		
	e L Z	26.7					
	e L Z	07 28.5					
7	e P Z	10 43 36			(MR)		
7	e P Z	15 21 49					
	i Z	15 21 55.8					

Date	Phase	Time G.C.T.	T.	A.	Location and Origin Time	Magnitude and Depth	Distance
June 7	i P Z	17 27 21.3R	0.6	1.7			
	i N	17 27 52.3					
7	i P Z	17 33 34.7			(MR)		
8	e P Z	00 11 46			(MRE)		
	e ZE	11 53					
	e N	00 11 54					
8	i P Z	13 35 09.5	1.4	0.8	0-13 22 13.7 21.45, 170.3E	5.3, 90 km	10,200 km
	e SKS E	45.4			Loyalty Island		
	e PS Z	47.2					
	e SS N	51.8					
	e G N	13 59.2					
	e SKPPZ	14 03.3					
	e E	14 04.3					
9	i P Z	02 14 35.3	0.4	2.5			
9	e P Z	20 00 48			(MR)		
10	i P Z	05 40 15.1	1.0	1.7	0-05 26 44.4 41.35, 73.6W	5.7, 37 km	11,000 km
					Near coast of S. Chile		
10	i P Z	14 10 18.5C	0.8	2.0	0-13 58 53.3 19.35, 178.2W	5.1, 596 km	9,200 km
	i pP Z	14 12 29.6			Fiji Island		
10	e G N	18 32.3			0-18 04 39.6 16.4N, 46.6W	4.9, 33 km	7,500 km
	e Z	36.2			N. Atlantic Ridge		
	e E	18 36.3					
11	i P Z	01 13 28.8					
11	i P Z	05 55 16.4			(MR)		
12	e P Z	00 15 53	1.3	0.7	0-00 03 32 21.0S, 174.6W	5.0, 33 km	9,300 km
	e E	34.2			Tonga Island		
	e N	00 34.8					
12	i P Z	01 01 22.5	0.9	1.7	0-00 48 59.2 21.1S, 174.4W	5.1, 13 km	9,300 km
					Tonga Island		

Date	Phase		Time G.C.T.	T.	A.	Location and Origin Time	Magnitude and Depth	Distance
June 12	i	P Z	05 41 17.9	1.6	1.0	0-05 21 11 44.95, 35.7E Prince Edward Island	5.6, 36 km	13,100 km
	e	Z	42.1					
	e	E	45 55					
	e	Z	56.4					
	e	E	05 56.5					
	e	N	06 06.1					
	e	E	07.2					
	e	?	07.6					
	e	E	12.2					
	e	N	12.6					
	e	N	17.1					
	e	E	37.5					
	e	Z	06 37.8					
12	e	P Z	19 31 38			(MRE)		
	e	Z	32 18					
	i	Z	32 25.3					
12	i	P Z	23 32 08.2	1.2	1.0	-		
	e	Z	39.5					
	e	NE	39.7					
	e	N	45.7					
	e	Z	48.4					
	e	E	23 48.7					
13	e	P Z	05 52 46			(MRE)		
	i	Z	05 53 06.5					
13	e	P Z	06 03 19			(MR)		
13	i	P Z	15 21 44.8			(MRE)		
13	e	P Z	21 00 14			(MR)		
13	e	P Z	22 33 09			(MRE)		
	i	Z	22 33 34.5					
14	i	P Z	00 14 12.1			Local		
	i	S E	00 14 19.6					
14	i	P Z	03 25 51.2R	1.1	4.0	0-03 14 17.5 14.95, 73.4W Peru	5.6, 99 km	8,400 km

Date	Phase			G.C.T.	T.	A.	Location and Origin Time	Magnitude and Depth	Distance
14	i	P	Z	05 18 12.4R	1.5	10.3	0-05 06 16.3 15.25, 173.6W Tonga Island	5.9, 11 km	8,800 km
	e	S	Z	27 57					
	e		Z	31.7					
			N	39.0					
	e	L	ZE	05 41.3					
14	e	P	Z	08 15.3	1.5	1.1	0-08 05 58.6 47.5N, 154.4E Kurile Island	5.3, 55 km	6,100 km
	e	S	E	22.8					
	e		Z	23.0					
	e		Z	23.36					
	e		E	29.3					
	e		Z	31 32					
	e		E	31.6					
	e	L	E	08 39.2					
14	e	P	Z	16 49 05			(MR)		
15	i	P	Z	00 57 12.4			(Local)		
	i	S	NE	57 16.0					
	i	S	Z	00 57 16.2					
15	i	P	Z	15 56 14			(MR)		
	i		Z	15 56 19					
16	e	P	Z	02 10 58					
	i	S	E	02 11 18.7			Local		
16	i	P	Z	12 10 40.6					
	i		Z	41.0			Local		
	i	S	N	44.4					
	i	S	E	12 10 44.6					
17	e	P	Z	01 05 45	0.8	1.6	0-00 56 29.4 4.55, 104.7W Northern Easter Island	4.8, 33 km	6,000 km
	e		Z	10.2					
	e	S	NE	13.3					
	e		E	19.5					
	e		Z	22.2					
	e		N	01 22.3					
17	i	P	Z	05 19 05.2R	1.7	15.8	0-05 00 11.8 58.35, 26.6W South of Sandwich Island	6.1, 140 km	14,600 km
	i	P	Z	19 07.0					
	i		Z	05 19 54.1					

Date	Phase			Time G.C.T.	T.	A.	Location and Origin Time	Magnitude and Depth	Distance
	ePPZ		N	05 21.3					
	iPP		Z	21 20.7					
	ePP		E	21.4					
	i		Z	22 11.3					
	e		E	22.5					
	e		N	22.6					
	e		N	35.5					
	e		NE	05 38.5					
19	i	P	Z	17 13 49.3	0.6	5.7	0-17 07 45.4 52.7N, 166.9W 5.7, 33 km Fox Island		3,200 km
	e	S	N	18.7					
	e	S	E	18.8					
	e		Z	19.6					
	e		N	17 20.4					
19	e	P	Z	18 55 33			(MR)		
	i		E	55 37.3					
	i		N	18 55 38.3					
20	e	P	Z	05 29 08	1.0	2.4			
20	i	P	Z	05 48 00.5					
20	i	P	Z	06 02 45.9	0.9	1.4			
20	e	P	Z	06 26 36	0.9	0.9	0-06 20 49.5 52.7N, 166.9W 4.5, 9 km Fox Island		3,200 km
20	i	P	Z	06 26 58.7C	0.8	12.7			
	e		NE	06 28.0					
20	i	P	Z	07 44 53.3R	0.7	1.2	0-07 38 44.9 52.8N 167.1W 5.2, 11 km Fox Island		3200 km
	e	S	NE	49.8					
	e		Z	50.9					
	e		N	51.4					
	e		Z	07 54.3					
20	i	P	Z	11 48 18.1	0.4	2.9			
	i	S	E	11 48 41.6					
20	i	P	Z	23 35 03.4C			Local		
	i	S	ZE	23 35 10.9					

Date	Phase	Time G.C.T.	T.	A.	Location and Origin Time	Magnitude and Depth	Distance
June 21	i P Z	06 17 20.2					
	i E	17 34.1					
	i N	17 36.8					
	i Z	17 37.3					
	i E	17 37.8					
	i Z	06 17 40.9					
21	i P Z	07 00 16.3C	0.8	3.3	0-06 49 36.6 2.2S, 77.6W	5.3, 49 km	7,000 km
	e N	08.3			Peru - Ecuador Border		
	e S E	08.7					
	e S N	08.8					
	e Z	09.0					
	e N	11.2					
	e Z	16.4					
	e Z	20.1					
	ePPSE	07 21.0					
21	i P Z	18 09 55.6C	1.0	14.8	0-18 04 49.5 64.8N, 147.4W	5.4, 17 km	2,600 km
	e N	13.8			Central Alaska		
	e E	18 14.1					
21	i P Z	18 14 52.0	1.0	26.2			
21	i P Z	18 18 08.9C	1.0	45.6	0-18 13 02.9 64.8N, 147.4W	5.6, 17 km	2,500 km
					Central Alaska		
21	i P Z	19 22 21.2C			0-19 10 31.1 23.5S, 180.0E	5.0, 546 km	9,800 km
					South of Fiji Island		
21	e P Z	19 31.1			(MRE)		
21	i P Z	20 37 04.1C	1.2	7.9			
	e N	20 38.5					
22	e P Z	09 37 15			(MR)		
22	i P Z	15 43 34.0	0.7	4.0	0-15 36 38.9 51.7N, 176.8W	5.3, 54 km	4,000 km
					Andreanof Island		
22	e P Z	19 36.5			(MRE)		
23	e P Z	00 37.3			0-00 25 29.8 15.0S, 172.3W	5.1, 33 km	6,700 km
	e S N	00 47.0			Samoa Island		

Date	Phase	Time G.C.T.	T.	A.	Location and Origin Time	Magnitude and Depth	Distance
23	e S E	00 47.1					
	e SS Z	52 17					
	e Z	00 59.7					
23	i P Z	11 59 38.0C	1.1	5.4	0-11 54 33.5	4.6, 9 km	2,400 km
	e S NE	12 03.8			64.8N, 147.5W		
	e L N	06 29			Central Alaska		
	e L Z	12 06.7					
23	i P Z	21 43 14.7R	0.9	9.2	0-21 30 11.5 19.2S, 167.7E	5.3, 37 km	10,200 km
					New Hebrides Island		
23	i P Z	22 38 11.2C			Local		
	i S E	22 38 20.6					
24	e P Z	00 08 44			Local		
24	i P Z	21 13 01.6R	1.4	2.0	0-21 00 23.9 12.5N, 144.6E	5.5, 18 km	9,200 km
	e S NE	23.6			S.of Mariana Island		
	e L N	21 36.6					
25	i P Z	23 30 39.0	1.2	1.8	0-23 18 04.3 12.4N, 141.8E	5.6, 42 km	9,400 km
	e S E	41.0			S. of Mariana Island		
	e S N	41.1					
	e L N	23 53.2					
26	i P Z	02 28 53.9	0.9	2.1	0-02 22 34.8 18.4N, 105.2W	5.0, 45 km	3,600 km
		02 34.1			Off coast of Jalisco, Mexico		
26	i P Z	16 02 35.6	1.1	1.2			
26	e P Z	19 31.8			(MAR)		
26	e P Z	23 12 53			Local		
	i S NE	23 13 01.0					
27	i P Z	14 16 40.7					
	i S N	14 17 04.6					
27	e P Z	19 20 20			(MAR)		

Date	Phase	Time G.C.T.	T.	A.	Location and Origin Time	Magnitude and Depth	Distance
27	e P Z	20 40 13	0.8	1.2			
27	e P Z	23 19 41	1.1	1.2	0-23 06 47.0 23.6N, 121.5E Taiwan	4.8, 45 km	10,000 km
28	i P Z	01 19 46.3	1.2	1.3			
28	ePP Z	05 45.8			0-05 30 04 22.2S, 176.4E S. of Fiji Island	4.0, 131 km	8,900 km
July 1	i P Z	23 15 21.8R	1.6	64.1	0-23 10 07.2 54.4N, 158.0W South of Alaska	6.2, 33 km	2,700 km
	e S E	19 32					
	e S N	19 41					
	e S Z	23 19.8					
2	i P Z	18 18 55.7	0.8	6.2			
	i N	19 18.5					
	i Z	20.4					
	i E	18 21.4					
3	e P Z	22 00 05			(NR)		
4	i P Z	07 00 09.4			Local		
	i S ZNE	07 00 11.2					
4	e P Z	21 43 32			(NR)		
4	i P Z	23 52 27.9C	1.1	11.3	0-23 42 13.7 43.2N, 142.5E Hokkaido, Japan	5.6, 160 km	7,000 km
5	i P Z	04 08 19.1	1.1	0.8	0-04 03 06.8 54.5N, 157.9W South of Alaska	4.8, 33 km	2,700 km
6	iPPP Z	00 30 25.8C	0.3	2.2	0-00 15 01.5 62.7S, 156.4W South Pacific Cordillera	5.6, 33 km	12,300 km
	iPPP N	30 33.3					
	iPPP E	00 30 33.5					
6	i P Z	05 10 57.2R	0.8	4.7	0-05 06 13.4 62.4N, 147.4W Central Alaska	5.1, 59 km	2,300 km
	i S ZNE	05 14 56					
6	i P Z	13 48 34.5R	1.3	2.2	0-13 42 22.5 52.6N, 168.2W Fox Island	5.9, 14 km	3,300 km
	e S E	53 43					
	e S N	13 53 44					

Date	Phase			Time G.C.T.			T.	A.	Location and Origin Time	Magnitude and Depth	Distance
6	i	P	Z	18	56	48.2R	1.0	1.0			
6	i	P	Z	21	05	17.0	0.5	2.5	Local		
	i	S	E	21	05	24.7					
8	i	P	Z	01	11	32.0C	1.7	3.4	0-00 58 54.7 15.4S, 167.5E New Hebrides Island	5.2, 137 km	9,900 km
8	i	P	Z	06	53	35.5					
10	i	P	Z	06	34	31.3C	0.6	9.8			
10	i	P	Z	21	13	37.7C	0.6	1.7	Local		
	i	S	ZE	21	13	45.5					
11	e	P	Z	05	28	18			(MR)		
	i		E		28	22.1					
	i		E		28	23.2					
	i		Z	05	28	24.0					
12	i	P	Z	09	14	43.1	0.8	1.9			
12	i	P	Z	10	37	32.2	0.9	2.7	0-10 32 01.6 54.9N 161.1W Alaska Peninsula	5.0, 33 km	
12	e	P	Z	11	29	22			(MR)		
12	e	P	Z	17	27	06			Local		
	e	S	E		27	25.0					
	e	S	N	17	27	24.5					
12	e	P	Z	21	09	34.5	0.7	2.5	0-21 oc 20.9 5.6N, 82.6W South of Panama	6.5, 33 km	5,800 km
	e	S	N		17.2						
	e	S	Z		17.3						
	e	S	E		17.4						
	e		E		26.1						
	e		Z	21	26.4						
13	i	P	Z	02	22	44.1	1.3	2.1	0-02 10 20.0 35.5N, 0.1W Algeria	5.0, 13 km	9,200 km

Date	Phase	Time G.C.T.	T.	A.	Location and Origin Time	Magnitude and Depth	Distance
13	i P Z	07 48 25.4	1.7	2.2	0-07 36 07.2 16.2S, 178.1E Fiji Island	5.4, 50 km	9,200 km
13	e P Z	10 17 19	1.0	1.0	0-10 04 19.0 20.4S, 169.3E New Hebrides Island	5.0, 46 km	10,200 km
13	i P Z	14 32 11.7R	0.9	2.8	0-14 20 38.7 15.2S, 74.9W Near Coast of Peru	5.2, 74 km	8,400 km
13	i P Z	17 57 06.3R	0.4	3.5			
14	i P Z	03 00 27.6	0.6	1.1	0-02 47 53.0 11.4S, 166.2E Santa Cruz Island	5.2, 80 km	9,600 km
14	i P Z	03 31 23.9R	1.0	1.8			
14	e P Z i S E	06 15 50 06 16 09.2			Local		
16	e P Z eSKS NE e L Z e L E	13 48.4 13 59.1 14 20.5 14 20.9			0-13 34 29.9 0.8S, 132.6E West New Guinea	6.0, 33 km	11,200 km
16	e P Z i NE i NE	18 18 10 18 11.9 18 18 21.4			(MR)		
16	e P Z	18 27 11					
17	e P Z	04 42 46					
17	e P Z	11 34.5			0-11 28 13.4 51.1N, 169.3W Fox Island	5.0, 33 km	3,400 km
17	e P Z	13 12 57			(MR)		
18	i P ZNE i S ZNE	18 44 9.3 18 44 10.8			Local		

Date	Phase		Time G.C.T.	T.	A.	Location and Origin Time	Magnitude and Depth	Distance
18	e P	Z	19 44 33					
18	i P	Z	22 00 08.1	0.4	1.2	Local		
	i S	N	22 00 14.8					
19	i P	Z	23 50 09.6R					
	i S	NE	23 50 29.8					
20	e P	Z	06 57 57			(MR)		
20	i P	Z	13 24 14.3	1.0	5.7	0-13 11 35.0 28.1S, 66.9W Catamarca, Argentina	5.3, 157 km	9,900 km
20	e P	Z	14 33 35	1.0	1.0	0-14 26 14.1 51.4N, 178.3E Rat Island	5.3, 33 km	4,300 km
	e	NE	39.5					
	e	ZNE	14 42.5					
20	e P	Z	15 49 37	1.1	1.0	0-15 36 20.1 7.7N, 134.9E West Caroline Island	6.5, 8 km	10,400 km
	e PP	ZNE	53.5					
	e	E	15 59.7					
	e SKS	N	16 00.3					
	e PS	Z	02.2					
	e S	ZNE	06.7					
	e L	N	15.1					
	e L	ZE	16 19.5					
22	e	ZNE	05 22.0					
22	i P	Z	17 09 54.7	1.0	2.0	0-16 56 53.3 40.7N, 30.8E Turkey	7.2, 4 km	9,800 km
	e	NE	17 20.5					

-- Station Shut Down for Rest of Month --

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

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

August 1967

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

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

T = period. A = peak to peak amplitude for S.P.Z., Magnification 100K

Date		Phase	Time G.C.T.	T.	A.	Location and Origin Time	Magnitude and Depth	Distance
Aug	1	i P Z	21 10 27.8	-	-	(MR)		
		i E	10 42.1					
		i Z	21 10 44.0					
	1	i P Z	21 56 18.0	-	-	Local		
		i S NE	21 56 24.5					
	1	i P Z	23 54 36.5	0.7	1.2			
	2	i P Z	11 15 55.6	1.3	2.8	0=11 06 38.7 71.2N,	5.0, 33km	5900 km
		e S ZNE	11 23.5			8.0W Jan Mayen Isl.		
	2	i P Z	14 15 32.7	0.6	3.3	0=14 06 17.8 71.2N,	5.3, 33km	5900 km
		e L N	14 32.2			8.5W Jan Mayen Isl.		
	3	i P Z	23 23 10.0C	0.8	15.4	0=23 17 08.4 53.8N,	4.9, 194km	3300 km
						170.0W Fox Isl.		
	4	i P Z	05 36 54.0					
	4	i P Z	07 10 22.3C	0.8	4.8			
	5	i P Z	01 12 18.5	-	-	0=01 11 55 46.1N,	33 km	160 km
						120.0W Washington		
	6	e P Z	22 17 47	o.7	4.1			
	7	e P Z	11 19 43	1.0	2.2	0=11 14 42.7 58.7N,	5.1, 37km	2600km
						154.6W Alaska Penin.		
	7	i P Z	17 41 15.5	0.5	2.7			
	8	e P Z	22 30 35	-	-	(MR)		
	8	i P Z	22 50 33.7			local		
		i S ZNE	22 50 36.2					
	9	i P Z	01 25 50.4 K			local		
		i S ZNE	01 25 53.2					
	9	e P Z	13 28 26	1.0	1.5	0=13 25 06.2 39.9N,	5.3, 5 km	900 km
		i Z	28 36.8	0.8	6.8	104.7W Colorado		
		e L ZNE	13 32.0					
	9	i P Z	19 08 11.0			Local		
		i S ZE	19 08 12.6					

			T.	A.	Location and Origin Time	Mag. & Depth	Distance
10	e P Z	06 36 43	1.2	1.6			
10	i P Z	11 31 10.8	1.8	2.4	0=11 21 22.3 45.4N,	5.7, 37km	6400 km
	e S Z	38.9			150.3E Kurile Isl.		
	e L E	45.7					
	e L Z	48.4					
	e L Z	49.8					
	e Z	11 55.6					
	e Z	12 05.3					
	e Z	11.7					
	e E	17.3					
	e N	19.5					
	e Z	12 19.7					
11	e P Z	11 57 15			(MR)		
11	e P Z	12 34.6			0=12 26 18.3 11.8N, 85.9W, Nicaragua	4.7, 21 km	5100 km
12	i P Z	04 41 27.2R	1.0	2.0			
12	i P Z	09 52 15.0	1.2	1.2	0=09 39 44.3 24.7S,	5.8, 134km	9700 km
	i P Z	09 52 16.2	0.8	3.2	177.5W South of Fiji Isl.		
	e Z	10 02.0					
	i S E	02 28.8					
	i S N	02 29.0					
	e S NE	02.5					
	e SS N	08.5					
	e N	14.7					
	e Z	19.7					
	e E	10 19.8					
12	i P Z	22 37 06.1			Local		
	i S E	22 37 20.9					
13	e P Z	15 22 50					
	i S Z	23 17.5					
	i S E	15 23 18.0					
13	i P Z	16 45 36.4C	0.7	18.2	0=16 44 22.3	5.0, 33km	300 km
	e S N	46.6			43.5N, 126.9W off Coast of Oregon		
	e S E	16 46.7					
13	e P Z	18 00 15	0.6	1.0			
13	i P Z	20 17 43.5	0.6	16.8	0=20 06 50.6	6.0, 357km	8100 km
	i S N	26 40.5			35.3N, 135.3E		
	e SP N	27.6			Southern Honshu, Japan		
	e SP E	20 27.7					
14	e P Z	23 38 34			(MR)		
15	i P Z	15 47 03.3C	1.1	2.2			
16	e P Z	01 56 36			(MR)		
16	e P Z	08 26 38			0=08 28 21.5 48.0N, 114.3W Montana	33Km	640km

Date	Phase	Time G.C.T.	T.	A.	Location and Origin Time	Mag. & Depth	Distance
16	i P Z	10 33 59.7	0.3	13.8	Local		
	i S NE	33 02.0					
	i S Z	10 33 02.2					
16	e P Z	12 19 21			(MR)		
16	i P Z	15 29 52.6			0=15 22 04 14.4N, 93.2W Near Coast of Chiapas, Mexico	3.8, 45km	4500km
16	i P Z	16 28 38.0C	0.5	5.2	Local		
	i S N	16 28 51.5					
17	e P Z	07 21 58			(MR)		
17	i P Z	11 13 31.2			Local		
	i S NE	11 13 33.6					
17	i P Z	22 46 56.1R	1.8	3.7	0=22 42 09.3 59.6N, 151.4W Kenai Peninsula, Alaska	5.0, 55km	2400km
17	e P Z	23 51 50					
	i P Z	51 52.0	0.6	5.4	Local		
	i S NE	23 51 54.3					
18	e P Z	03 47 56R			0=03 35 40.5 27.8N,	5.4, 94km	9200km
	i P Z	03 47 56.4C	1.0	3.7	127.7E Ryukyu Isl.		
18	i P Z	05 51 05.3			Local		
	i S N	51 20.7					
	i Z	05 51 23.8					
18	e P Z	05 55 28	1.2	2.2	0=05 50 29.0 61.5N, 151.0W Southern Alaska	4.5, 19km	2500km
18	e P Z	16 06 29	0.9	1.0			
18	e P Z	20 15 08	1.0	1.0			
18	e P Z	21 33.6					
19	i P Z	06 17 11.2	0.9	2.0			
19	i P Z	15 41 36.5	1.1	1.1	0=15 28 08.5 10.4N,	5.6, 58km	10800km
	e Z	51.1			126.0E Philippine Isl.		
	e E	51.2					
	e N	52.3					
	e PS Z	54.3					
	e PPS E	15 54.6					
	e N	16 09.6					
	e E	12.3					
	e Z	16 13.3					
20	i P Z	20 08 03.4C	1.3	1.2	0=19 58 22 8.8S,	4.9, 33km	6400km
	e S E	16.1			108.3W Northern Easter Isl. Cordilleran		
	e L E	21.5					
	e L Z	22.6					
	e Z	26.1					
	e E	20 28.0					

			T.	A.	Location and Origin Time	Mag. & Depth	Distance
21	i P°Z	07 51 51.3	0.7	2.3	0=07 33 00.6 3.6N, 95.8E	5.9, 33km	13200km
	i N	52 16.5			Off W. Coast of N. Sumatra		
	e PP ZNE	07 53.2					
	e Z	08 02.2					
	e NE	02.8					
	e N	10.6					
	e E	08 10.7					
21	e P Z	11 14 22.5			(MR)		
22	i P Z	09 08 48.7R	1.0	1.6			
22	e P Z	10 10 50	1.0	0.9			
22	e P°Z	13 21 14	1.0	1.1	0=13 02 06.8 60.8S,	6.1, 33km	14400km
	i P°Z	21 18.5	1.5	5.7	24.6W South Sandwich Isl.		
	e PP N	23.7					
	e PP Z	23.8					
	e E	24.8					
	e E	25.9					
	e SS N	40.6					
	e P°P° E	13 42.5					
22	e P Z	22 04 36			(MR)		
23	e P Z	05 26.4			Local		
	i S E	26 40.0					
	i S N	05 26 42.0					
23	i P Z	09 32 18.2	1.0	1.7	0=09 21 59.4 4.3S, 81.5W	5.0, 33km	6900km
					Near Coast of N. Peru		
24	i P Z	05 57 54.9					
	i S Z	05 58 02.7			Local		
24	e P Z	11 03 08	0.7	2.3			
24	e P Z	11 11 29			(MR)		
	e S ZN	11 11 35					
26	i P Z	00 49 21.7R	1.2	9.1	0=00 36 42.1 12.2N,	6.1, 33km	9600km
	e L N	01 12.2			140.7E West Caroline Isl.		
26	e P Z	02 19 48			0=02 07 08.9 12.2N,	5.3, 30km	9600km
					140.8E West Caroline Isl.		
26	i P Z	03 31 50.6			Local		
	i S NE	03 32 03.8					
30	e P Z	02 57 04			(MR)		
30	i P Z	03 56 45.7			(MR)		
	i S ZNE	03 57 48.2					

Date	Phase	Time G.C.T.	T.	A.	Location and Origin Time	Mag. & Depth	Distance
30	e P Z	04 35 19	2.8	7.7	0=04 22 01.5 31.7N, 100.3E Szechwan, China	6.1, 3km	10,200km
	e E	46.6					
	e PPS N	47.8					
	e PSPS E	52.7					
	e PSPS Z	52.8					
	e N	53.2					
	e Z	58.1					
	e G E	04 59.9					
	e L N	05 03.7					
	e Z	05 10.4					
30	e P Z	13 43 11			0=13 33 26.4 45.4N, 151.5E Kurile Isl.	5.5, 33km	6300km
	e S NE	51.1					
	e E	13 57.5					
	e Z	14 00.0					
31	i P Z	16 32 35.9	1.0	2.0			
31	i P Z	19 05 04.5	0.7	2.2	0=18 53 25.2 17.5S, 175.2W Tonga Isl.	5.4, 277km	9000km
31	i P Z	19 07 02.0	0.6	2.3			

26 JAN 1968

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

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

SEPTEMBER ~~December~~ 1967

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

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

T = period. A = peak to peak amplitude for S.P.Z., Magnification 100K

Date	Phase	Time G.C.T.	T.	A.	Location and Origin Time	Magnitude and Depth	Distance
Dec 1	i P Z	20 51 50.6	0.6	4.1			
6	e P Z	16 24 37	--	--	(MR)		
6	e P Z	17 30 52	0.7	1.8	0=17 24 40.1 52.6N, 168.5W Fox Island	4.8, 33km	3300km
6	i P Z	20 12 40.5	--	--	local		
	i S E	20 12 55.1					
6	i P Z	21 28 48.7	--	--	local		
	i S E	21 29 12.8					
7	i P Z	02 03 54.3	1.9	2.9			
	e N	06.5					
	e E	06.5					
	e N	07.2					
	e E	07.7					
	e Z	02 08.4					
7	i P Z	09 53 43.8	--	--	local		
	i S NE	09 53 52.5					
7	e P Z	12 41 40	0.6	1.1	0 = 12 39 17.3 37.1N, 121.8W, Central Calif.	4.9, 10km	1000km
7	i P Z	13 47 36.5					
	i Z	47 37.0	1.1	4.2			
	e Z	51.2					
	e Z	51.7					
	e N	51.8					
	e N	13 51.16					
7	e P Z	14 27.5					
7	i P Z	23 01 49.1C	0.5	2.4	local		
	i S NE	23 01 58.4					

Date	Phase			G.C.T	T.	A.	Location and Origin Time	Magnitude and Depth	Distance
Dec. 8	e	P	Z	04 31 20			(MR)		
8	i	P	Z	09 12 26.2	1.2	2.7	0 = 08 59 59.3 23.4S, 70.7 W Near Coast of N. Chile	5.5, 33km	9500km
8	e	P	Z	10 11 20			(MR)		
8	e	P	Z	22 50 18	1.0	1.4	0 = 22 37 39.5 12.2N, 140.8E West Caroline Isl.	5.3, 27km	9500km
9	i	P	Z	08 49 29.7R	0.9	2.7			
	i		Z	08 50 27.0					
9	i	P	Z	10 18 47.5	1.0	9.8			
	e		Z	20.7					
	e		NE	20.8					
	e		NE	28.4					
	e		Z	28.9					
	e		E	38.6					
	e		N	10 39.0					
9	i	P	Z	11 50 38.6	0.7	2.1			
10	e	P	Z	05 41 08			(MR)		
11	i	P	Z	14 15 3215R	0.3	2.5			
12	e	P	Z	22 02 50	--	--	0=21 49 47.6, 5.5S, 151.7E New Britian Region	5.2, 50km	10100km
13	i	P	Z	00 32 09.1	--	--	local		
	i	S	E	00 32 15.8					
13	e	P	Z	10 10 22	0.6	1.0			
13	i	P	Z	15 29 46.7	0.4	3.0			
13	i	P	Z	16 18 55.6	0.4	3.7	Local		
	i	S	N	16 18 58.7					
13	i	P	Z	18 49 02.0	1.1	5.1			
	e		E	58.5					
	e		N	18 58.6					
13	i	P	Z	20 16 38.4C	1.0	9.6			
13	i	P	Z	23 27 11.5	--	--			
14	e	P	Z	07 35 58	--	--	(MR)		
15	e	P	Z	00 39 45	1.0	1.0	0 = 00 28 39.8, 35.6N, 140.4E, Near E. Coast of Honululu	5.2, 59km	7700km

Date	Phase			Time G.C.T.	T.	A.	Location and Origin Time	Magnitude and Depth	Distance
15	i	P	Z	14 19 28.4	--	--	local		
	i	S	E	19 37.3					
	i	S	N	14 19 37.9					
15	i	P	Z	16 34 27.0	--	--	local		
	i	S	ZNE	16 34 28.6					
15	e		Z	23 32.7					
16	i	P	Z	04 16 22.6C	1.0	3.8	0 = 04 03 58.0, 50.0N, 77.8E, Eastern Kazakh SSR	5.3, 0km	9000km
16	i	P	Z	08 38 44.0	0.8	0.8	0 = 08 31 58.4, 52.0N, 176.4 W Andreanof Isl.	5.4, 65km	3900km
	iPZP		Z	38 49.5	0.7	2.8			
	e	S	E	08 44.3					
16	e	P	Z	16 38 55			(MR)		
17	i	P	Z	08 03 33.2	1.0	4.0	0 = 07 56 22.7, 17.2N, 94.1W Chiapas, Mexico	5.2, 45km	4200km
17	e	P	Z	16 52 57	1.2	0.7	0 = 16 49 02, 31.2N, 114.4W, Gulf of California	4.4, 33km	1900km
	e		E	56.2					
	e	L	Z	16 57.7					
17	i	P	Z	17 43 53.8	--	--			
	i	S	NE	17 44 15.5					
18	i	P	Z	06 59 25.0	1.0	1.1	0 = 06 55 32, 31.3N, 114.3W Gulf of California	4.3, 33km	1900km
	e		E	07 03.5					
	e	L	Z	04.3					
	e		N	07 04.8					
19	i	P	Z	11 06 23.0	0.9	7.9	0 = 10 56 08.6, 43.0N, 145.2E, Hakkaido, Japan	5.9, 84km	6900km
	e	S	Z	14.5					
	e	[illegible]	NE	11 14.6					
19	i	P	Z	13 04 46.0	0.7	4.1			
20	i	P	Z	09 44 44.1	0.8	2.7	0 = 09 33 54.1, 8.0S, Peru-Brazil Border	5.1, 145km	7700km
20	i	P	Z	09 58 00.0	1.6	2.2	0 = 09 39 15.2, 49.8S, 163.4E, Auckland Isl.	6.1, 30km	11,300km
	e		N	08.8					
	e		E	08.9					
	e		Z	09 09.0					
21	i	P	Z	00 05 42.4	1.0	0.8	0 = 00 01 54, 31.2N, 115.9W, Baja Calif.	5.1, 33km	1800km
	e	L	E	09.2					
	e	L	N	10.0					
	e	L	Z	00 10.6					
22	i	P	Z	10 27 53.2R	1.7	3.3	0 = 10 17 59.9, 44.5N, 149.4E, Kurile Isl.	5.6, 60km	6500km

Date	Phase			G. C. T.	T.	A.	Location and Origin Time	Magnitude and Depth	Distance
Dec.22	i	P	ZNE	15 49 19.0			local		
	i	S	ZNE	15 49 21.3					
23	e	P	Z	00 31.7	0.8	0.8	0 = 00 30 17, 44.2N, 114.7W, Western Idaho	3.9, 33km	600km
23	i	P	Z	07 08 22.4C	0.6	6.9			
26	i	P	Z	05 52 36.8C	--	--	0 = 05 51 11, 42.0N, 126.2W	4.9, 33km	600km
	i	P	Z	05 52 37.7R	0.8	8.0	off coast of Oregon		
26	e	P	Z	11 24 25	--	--	0 = 11 11 23.7, 33.6S, 70.5W	5.8, 84km	10,400km
	i	P	Z	24 25.8	1.0	4.3	Chile-Argentina Border		
	e		E	54.9					
	e		Z	56.6					
	e		E	11 57.1					
26	i	P	Z	16 24 12.2	1.1	2.6	0 = 16 11 23.9, 30.0S, 71.5W	6.0, 55km	9900km
	e	S	N	34.4			Near Coast of Central Chile		
	e	S	E	34.5					
	e		E	47.8					
	e	-	Z	55.3					
	e		N	16 55.7					
27	e	P	Z	04 44 05			(ER)		
27	e	P	Z	17 02 36C	0.9	1.6			
	i	P	Z	02 36.6R	1.2	13.2			
	e		NE	05.3					
	e		ZN	17 06.7					
28	e	P	Z	03 06.7	--	--	0 = 03 00 30.5, 52.2N, 171.0W, Fox Isl.	5.1, 48km	3600km
28	e		Z	03 50.6					
28	i	P	Z	05 09 58.9	1.1	1.0			
	e		Z	20.1					
	e		E	20.5					
	e		N	20.8					
	e		E	30.7					
	e		N	38.5					
	e		E	05 38.6					
28	e	P	Z	08 18 00	--	--	(MR)		
28	i	P	Z	15 40 58.0	0.7	1.8	0 = 15 38 35.9, 37.2N,	5.0, 2km	1000km
	i		Z	41 00.0	1.0	7.2	121.6W, Central Calif.		
	i		Z	49 24.0					
	i		E	49 24.6					
	i		N	15 49 24.7					
28	i	P	ZNE	18 45 04.8	--	--	local		
	i	S	NE	18 45 06.1					

Date	Phase			Time G.C.T.	T.	A.	Location and Origin Time	Magnitude and Depth	Distance
Dec.29	e	P	Z	03 15 50	--	--	(MR)		
29	i	P	Z	05 26 47.0	0.9	11.4			
29	e	P	Z	20 38 17	--	--			
30	i	P	ZNE	16 27 30.7	--	--	local		
	i	S	NE	16 27 33.1					

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Longitude:	122° 48.6'W	Foundation:	Volcanic Breccia

T = period. A = peak to peak amplitude for S.P.Z., Magnification 100K

Date	Phase			Time G.C.T.	T.	A.	Location and Origin Time	Magnitude and Depth	Distance
Oct. 2	e	P	Z	00 18 05					
2	e	P	Z	07 15 59	--	--			
	i	P	Z	07 16 00.3	0.6	6.3			
2	i	P	Z	17 08 21.5	0.8	3.2			
3	i	P	Z	15 27 20.5R			Local		
3	e	P	Z	17 44 49					
3	i	P	Z	18 24 35.0C	0.7	15.3	0=18 16 03.2 10.9N, 85.9W	5.8, 21km	5200 km
	e	S	NE	18 31.6			Costa Rica		
8	i	P	Z	06 35 28.0					
9	i	P	Z	17 33 19.4R					
	e		Z	36.6					
	e		NE	17 42.7					
	e		N	18 32.2					
	e		E	18 32.3					
10	i	P	Z	02 59 43.3	0.7	3.8	0=02 52 56.3 52.3N, 176.1W Andreanof Isl.	5.0, 76km	3900km
11	e	P	Z	18 15.1					
11	e	P	Z	19 14 26					
11	i	P	ZNE	20 15 50.9R			Local		
	i	S	ZNE	20 15 59.5					
12	i	P	Z	06 46 38.3R	1.7	21.7	0=06 35 06.7 21.1S, 179.2W, Fiji Isl.	5.6, 636km	9500km
	e	S	N	06 56.3					
12	i	P	Z	13 02 18.2	0.3	1.2	0=12 53 46.9 52.2N, 152.5E, N.W. of Kurile Isl.	5.5, 476km	5900km
	i	P	Z	13 02 18.6	0.5	5.1			
12	e	P	Z	18 00 08			Local		
	i		NE	18 00 27.5					

Date		Phase	Comp.	G.M.T.	T.	A.	Location and Origin Time	Magnitude and Depth	Distance
Oct. 13	e	P	Z	10 14 38			(MR)		
15	i	P	Z	03 35 47.1			Local		
	i		Z	03 36 00.4					
15	i	P	Z	08 08 58.5C	0.9	49.2	0=08 00 50.3, 11.9N, 86.0W, Near Coast of Nicaragua	6.2, 162 km	5000km
	e	S	N	15.4					
	e	S	E	15.6					
	i	S	ZE	15 31					
	i	S	N	15 37					
	e		Z	08 18.0					
16	e	P	Z	01 20 00					
16	i	P	Z	13 28 57.2R	0.8	13.9	0=13 27 35.6, 49.3N, 129.1W, Vancouver Isl	5.2, 33km	600km
	e	Z	N	30 00					
	e	S	E	30 02					
	e	S	Z	30.1					
	e	S	N	13 30.2					
16	i	P	Z	20 51 47.0R	1.2	3.0			
17	i	P	Z	05 16 23.0C	0.8	10.8	0=05 03 58.0, 49.8N, 78.1E Eastern Kazakh SSR	5.7, h=0	9000km
17	e		Z	15 01 09					
17	e	P	Z	17 53 03					
18	i	P	Z	01 20 35.3R	1.2	8.5	0=01 11 45, 79.8N, 2.4E Greenland Sea	5.7, 33km	5400km
	e	S	NE	27.7					
	e	L	Z	01 31.5					
18	i	P	Z	14 32 36.0	--	--			
	i		Z	32 36.7R	1.1	12.5			
	e		ZN	14 35.7					
18	e		Z	21 59.3					
	e		Z	22 50.0					
	e		N	16.3					
	e		E	16.5					
	e		Z	22 16.8					
18	e	P	Z	23 15 08	1.0	2.7	0=23 13 45, 44.2N, 129.0W, Off Coast of Oregon	4.4, 33km	600km
18				23 45 15.4					
20	i	P	Z	01 21 56.1C	1.2	3.4	0=01 02 43.8, 58.6S, 25.0W South Sandwich Isl.	5.6, 12km	14,800km
22	e	P	Z	07 28 13					
23	e	P	Z	08 23 02	1.0	7.8			

Date	Phase			Time G.C.T.	T.	A.	Location and Origin Time	Magnitude and Depth	Distance
Oct. 24	e		Z	18 25 28					
25	i	P	Z	01 12 10.7C	0.7	40.9	0=00 59 22.6, 24.5N, 122.2E	6.0, 65km	9800km
	e	S	NE	22.4			Taiwan		
	e	L	NE	37.0					
	e		Z	01 41.6					
25	i	P	Z	02 10 11.0	1.1	9.1			
25	i	P	Z	09 07 28.3	1.0	8.8			
25	i	P	Z	19 23 45.6C	0.6	20.6	0=19 22 33.6, 43.6N	4.4, 33km	600km
	e	S	N	24.7			126.7W, Off Coast of Oregon		
	e	L	Z	19 25.3					
26	i	P	Z	00 35 09.4C	0.7	6.5	0=00 22 21.6, 24.5N 122.2E, Taiwan Region	5.6, 63km	9800km
26	i	P	Z	13 54 32.2R	1.3	2.3	0=13 44 45.1, 17.6N, 61.0W Leeward Isl.	5.3, 37km	6300km
26	i	P	Z	21 00 03.8	0.7	2.6			
27	e	P	Z	06 12 13			(MR)		
28	e	P	Z	00 28 48			MR		
30	i	P	Z	06 16 22.6	0.8	6.9	0=06 03 57.9, 49.8N, 78.1E Eastern Kazakh SSR	5.5, 0	9000km
30	i	P	Z	14 59 31.0			Local		
	i	S	NE	14 59 43.4					
30	i	P	Z	18 39 27.7R	0.6	9.9			
30	i	P	Z	22 09 45.0	--	--			
31	e	P	Z	10 58 11			(MR)		
31	e	P	Z	20 01 33	--	--			
31	e	P	Z	22 24 47			(MR)		

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

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

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

T = period. A = peak to peak amplitude for S.P.A., Magnification 100K

Date	Phase	Time G.C.T.	T.	A.	Location and Origin Time	Magnitude and Depth	Distance
Nov. 1	e P Z	00 28 50	--	--			
1	i P Z	02 26 10.0			Local		
	i S ZNE	02 26 20.3					
1	e P Z	09 44 08			MR		
	i Z	44 14.7					
	i E	44 18.5					
	i N	44 18.8					
	i Z	09 44 19.5					
1	i P Z	16 40 17.7C	0.7	1.2	0 = 16 30 57.1, 48.3N, 154.5E, Kurile Isl.	5.5, 40km	6000km
1	e P Z	16 59 45			0 = 16 55 43, 30.7N, 113.4W, Gulf of California	4.3, 33km	1700km
1	i P Z	18 21 42.2	--	--			
1	i P ZNE	23 14 09.2			Local		
	i S ZNE	23 14 12.0					
2	e P Z	01 49 55			MR		
2	i P Z	03 45 10.3R	1.0	2.4	0 = 03 32 24.7, 28.8S, 69.5W, Chile-Argentina Border	5.3, 79km	9900km
3	e P Z	03 47 34					
3	i P Z	07 45 24.7	0.7	17.0	0 = 07 32 50.1, 18.7S, 169.0E, New Hebrides Isl.	5.3, 230km	10,000km
3	e P Z	15 11 12					
3	i P Z	22 59 47.7	0.9	0.9			

Date	Phase			Time G.C.T.	T.	A.	Location and Origin Time	Magnitude and Depth	Distance
Nov. 4	i	P	Z	05 20 04.9C	1.0	6.7	0 = 05 07 18.0, 24.3N, 122.2E, Taiwan	5.0, 76km	9900km
4	i	P	Z	07 45 14.7C			Local		
	i	S	ZNE	07 45 16.5					
4	i	P	Z	10 28 38.0R	0.8	9.3	0 = 10 17 14.7, 17.8S, 179.0W, Fiji Isl.	6.2, 573km	9200km
4	e		Z	13 52 53.9					
4	i	P	Z	14 40 58.6C	1.0	3.9	0 = 14 30 37.5, 43.5N, 144.1E, Hokkaido, Japan	5.8, 30km	6900km
	e	S	N	49.6					
	e	L	NE	14 57.5					
4	i	P	Z	16 37 04.7R	1.2	33.7	0 = 16 26 48.2, 2.8S, 77.7W, Peru-Equador Border	6.0, 99km	7000km
4	i	P	Z	18 12 50.6			Local		
	i	S	N	18 13 01.7					
6	e	P	Z	03 50 50					
6	e		Z	18 21.5					
	i		ZNE	18 22 14.0					
6	i	P	Z	18 30 27.1			Local		
	i	S	N	18 30 38.3					
7	i	P	Z	04 01 04.3R	1.4	5.7	0 = 03 49 17.4, 14.9S, 173.0W, Samoa Isl.	5.6, 43km	8600km
7	i	P	Z	21 28 59.3			Local		
	i	S	E	21 29 10.2					
8	i	P	Z	02 46 18.2	1.2	2.5	0 = 02 41 34.1, 59.0N, 150.2W, Kenai Peninsula Alaska	4.4, 34km	2300km
8	i	P	Z	03 18 44.3C	0.9	15.0	0= 03 10 53.3, 16.8N, 85.9W, Caribbean Sea	5.4, 28km	4600km
8	i	P	Z	15 02 37.8	1.2	2.0			
8	i	P	Z	17 16 49.3	1.5	4.6	0 = 17 09 27.1, 51.1N, 178.5E, Rat Isl.	5.3, 29km	4100km
	e	S	E	22.7					
	e	L	E	25.5					
	e	L	N	17 25.7					
8	i	P	Z	17 29 58.0	0.9	1.3			
8	e	P	Z	19 22.2					
	i		Z	19 22 28.0					

Date	Phase	G.C.T.	T.	A.	Location and Origin Time	Magnitude and Depth	Distance
Nov. 11	i P Z	10 49 08.8C	0.7	18.3	0 = 10 47 51, 43.8N, 127.6W, off Coast of Oregon	4.3, 33km	600km
12	i P Z	10 48 48.2C	0.9	5.1	0 = 10 36 52.0, 17.2S, 172.0W, Tonga Isl.	5.6, 34km	8700km
	e S NE	10 58.6					
	e L ZE	11 12.6					
13	i P Z	02 59 46.7			Local		
	i S E	02 59 53.9					
13	i P Z	17 45 27.7	0.6	2.0	0 = 17 44 13, 43.4N, 126.8W, Off Coast of Oregon	4.2, 33km	550km
	i Z	17 45 33.6	0.8	5.3			
13	e Z	18 09.9					
13	e Z	20 00 11	0.5	1.0			
	i Z	20 00 15.6	0.8	5.8			
14	i P Z	05 41 37.0	1.3	3.1	0 = 05 28 36.9, 5.4S, 147.1E, East New Guenea region	5.8, 20.km	10500km
	e pPS Z	54.8					
	e sPS E	05 55.4					
15	e P Z	18 49 6			Local		
	i S N	18 49 46.6					
15	i P Z	21 44 41.3	1.7	14.2	0 = 21 31 51.5, 28.7S, 71.2W, Near Coast of Central Chile	6.2, 15km	9900km
	e S NE	55.1					
	e S Z	55.4					
	e PS Z	21 56.5					
	e L N	22 01.5					
	e L E	22 01.6					
16	e Z	17 50 07					
16	i P Z	18 42 29.5			Local		
	i S ZNE	18 42 43.7					
16	e Z	18 47.5					
17	i P Z	03 13 13.0	0.3	1.7			
	i S ZNE	03 13 23.3					
17	e N	05 17.7					
	e E	17.8					
	e Z	17.9					
	e N	24.5					
	e E	05 27.7					
17	i P Z	09 47 30.8C	1.4	2.1			
	e Z	10 00.8					
17	i P Z	14 11 28.3	1.0	2.3			
17	i P Z	17 45 27.2	0.6	4.1			

Date		Phase		Time G.C.T.	T.	A.	Location and Origin Time	Magnitude and Depth	Distance
19	e	P	Z	12 18 03	0.9	1.6	0 = 12 06 59.5, 36.4N, 141.1E, Near East Coast of Honshu, Japan	5.5, 41km	7600km
19	e	P	Z	17 42 27	1.0	0.7			
	e		NE	53.1					
	e		Z	54.6					
	e		N	17 54.8					
	e		N	18 06.6					
	e		E	11.9					
	e		Z	18 12.0					
22	i	P	Z	04 43 52.3R	0.9	4.2	0 = 04 37 30.2, 53.1N, 172.4W, Andreanof Isl.	4.9, 130km	3600km
22	e	P	Z	10 14 23					
23	i	P	Z	05 52 04.3	0.7	1.7			
23	i	P	Z	08 54 44.8	0.8	1.1			
	e		Z	55.9					
	e		N	08 56.1					
	e		E	09 01.7					
	e		ZN	05.8					
	e		E	09 12.0					
23	i	P	Z	09 19 34.6			Local		
23	i	P	Z	13 50 50.3R	1.2	17.7	0 = 13 42 01.6, 80.2N, 1.0W, North of Svalbard	5.8, 10km	5400km
	e		NE	57.8					
	e		Z	13 58.0					
	e		E	14 01.6					
	e		N	14 01.7					
24	i	P	Z	05 53 41.4R	0.9	4.8	0 = 05 42 14.0, 16.4S, 177.9W, Fiji Isl.	5.4, 428km	9000km
24	e	P	Z	13 58 55	0.8	1.1	0 = 13 57 00.4, 40.4N, 125.1W, Off Coast of N. Calif.	4.6, 17km	900km
26	e	P	Z	00 20 23	1.0	4.9	0 = 00 08 09.8, 28.6N, 130.0E, Ryukyu Isl.	5.7, 33km	9100km
26	e	P	Z	08 15 50	0.8	2.5	0 = 08 11 06.3, 56.6N, 152.2W, Kodiak Isl.	4.9, 28km	2200km
	e	S	N	19.8					
	e	S	E	20.0					
	e	L	Z	08 21.3					
27	i	P	Z	04 31 08.8	1.7	3.4	0 = 04 27 02.4, 60.3N, 140.8W, Southeastern Alaska	4.6, 16km	1900km
	e	S	Z	34.6					
	e	S	N	34.7					
	e	S	E	04 34.8					
27	i	P	Z	05 12 54.4	0.8	2.7			

Date	Phase	G.C.T.	T.	A.	Location and Origin Time	Magnitude and Depth	Distance
Nov. 27	i P Z	05 26 05.0	0.8	3.7	0 = 05 13 12.6, 30.8S,	5.4, 62km	10,200km
	e N	57.0			71.0W, Near Coast of Central		
	e Z	57.3			Chile		
	e E	58.2					
	e E	05 59.4					
27	i P Z	08 31 03.7C			0 = 08 18 42.4, 21.3S,	5.4, 33km	9300km
	i Z	08 31 04.2R	1.0	4.8	174.3W, Tonga Isl.		
27	i P Z	21 31 24.3	0.5	0.7			
28	i P Z	02 48 40.0C	1.2	3.4	0 = 02 36 54.1, 32.1N,	5.6, 125km	8500km
	i Z	02 49 12.1			130.8E, Kyushu, Japan		
28	i P Z	07 50 17.3R	0.6	1.2			
30	i P Z	07 36 30.4C	1.2	4.8	0 = 07 23 51.5, 41.5N,	6.0, 29km	9500km
	e S NE	07 47.0			20.5E, Albania		
30	i P Z	16 30 17.6R	0.6	20.9	Local		

24 JAN 1968

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

T = period. A = peak to peak amplitude for S.P.Z., Magnification 100K

Date	Phase	Time G.C.T.	T.	A.	Location and Origin Time	Magnitude and Depth	Distance
Dec 1	i P Z	20 51 50.6	0.6	4.1			
6	e P Z	16 24 37	--	--	(MR)		
6	e P Z	17 30 52	0.7	1.8	0=17 24 40.1 52.6N, 168.5W Fox Island	4.8, 33km	3300km
6	i P Z	20 12 40.5	--	--	local		
	i S E	20 12 55.1					
6	i P Z	21 28 48.7	--	--	local		
	i S E	21 29 12.8					
7	i P Z	02 03 54.3	1.9	2.9			
	e N	06.5					
	e E	06.5					
	e N	07.2					
	e E	07.7					
	e Z	02 08.4					
7	i P Z	09 53 43.8	--	--	local		
	i S NE	09 53 52.5					
7	e P Z	12 41 40	0.6	1.1	0 = 12 39 17.3 37.1N, 121.8W, Central Calif.	4.9, 10km	1000km
7	i P Z	13 47 36.5					
	i Z	47 37.0	1.1	4.2			
	e Z	51.2					
	e Z	51.7					
	e N	51.8					
	e N	13 51.16					
7	e P Z	14 27.5					
7	i P Z	23 01 49.1C	0.5	2.4	local		
	i S NE	23 01 58.4					

Date	Phase			G.C.T	T.	A.	Location and Origin Time	Magnitude and Depth	Distance
Dec. 8	e	P	Z	04 31 20			(MR)		
8	i	P	Z	09 12 26.2	1.2	2.7	0 = 08 59 59.3 23.4S, 70.7 W Near Coast of N. Chile	5.5, 33km	9500km
8	e	P	Z	10 11 20			(MR)		
8	e	P	Z	22 50 18	1.0	1.4	0 = 22 37 39.5 12.2N, 140.8E West Caroline Isl.	5.3, 27km	9500km
9	i	P	Z	08 49 29.7R	0.9	2.7			
	i		Z	08 50 27.0					
9	i	P	Z	10 18 47.5	1.0	9.8			
	e		Z	20.7					
	e		NE	20.8					
	e		NE	28.4					
	e		Z	28.9					
	e		E	38.6					
	e		N	10 39.0					
9	i	P	Z	11 50 38.6	0.7	2.1			
10	e	P	Z	05 41 08			(MR)		
11	i	P	Z	14 15 3215R	0.3	2.5			
12	e	P	Z	22 02 50	--	--	0=21 49 47.6, 5.5S, 151.7E New Britian Region	5.2, 50km	10100km
13	i	P	Z	00 32 09.1	--	--	local		
	i	S	E	00 32 15.8					
13	e	P	Z	10 10 22	0.6	1.0			
13	i	P	Z	15 29 46.7	0.4	3.0			
13	i	P	Z	16 18 55.6	0.4	3.7	Local		
	i	S	N	16 18 58.7					
13	i	P	Z	18 49 02.0	1.1	5.1			
	e		E	58.5					
	e		N	18 58.6					
13	i	P	Z	20 16 38.4C	1.0	9.6			
13	i	P	Z	23 27 11.5	--	--			
14	e	P	Z	07 35 58	--	--	(MR)		
15	e	P	Z	00 39 45	1.0	1.0	0 = 00 28 39.8, 35.6N, 140.4E, Near E. Coast of Honululu	5.2, 59km	7700km

Date	Phase			Time G.C.T.	T.	A.	Location and Origin Time	Magnitude and Depth	Distance
15	i	P	Z	14 19 28.4	--	--	local		
	i	S	E	19 37.3					
	i	S	N	14 19 37.9					
15	i	P	Z	16 34 27.0	--	--	local		
	i	S	ZNE	16 34 28.6					
15	e		Z	23 32.7					
16	i	P	Z	04 16 22.6C	1.0	3.8	0 = 04 03 58.0, 50.0N, 77.8E, Eastern Kazakh SSR	5.3, 0km	9000km
16	i	P	Z	08 38 44.0	0.8	0.8	0 = 08 31 58.4, 52.0N, 176.4 W Andreanof Isl.	5.4, 65km	3900km
	iPZP		Z	38 49.5	0.7	2.8			
	e	S	E	08 44.3					
16	e	P	Z	16 38 55			(MR)		
17	i	P	Z	08 03 33.2	1.0	4.0	0 = 07 56 22.7, 17.2N, 94.1W Chiapas, Mexico	5.2, 45km	4200km
17	e	P	Z	16 52 57	1.2	0.7	0 = 16 49 02, 31.2N, 114.4W, Gulf of California	4.4, 33km	1900km
	e		E	56.2					
	e	L	Z	16 57.7					
17	i	P	Z	17 43 53.8	--	--			
	i	S	NE	17 44 15.5					
18	i	P	Z	06 59 25.0	1.0	1.1	0 = 06 55 32, 31.3N, 114.3W Gulf of California	4.3, 33km	1900km
	e		E	07 03.5					
	e	L	Z	04.3					
	e		N	07 04.8					
19	i	P	Z	11 06 23.0	0.9	7.9	0 = 10 56 08.6, 43.0N, 145.2E, Hakkaido, Japan	5.9, 84km	6900km
	e	S	Z	14.5					
	e		NE	11 14.6					
19	i	P	Z	13 04 46.0	0.7	4.1			
20	i	P	Z	09 44 44.1	0.8	2.7	0 = 09 33 54.1, 8.0S, Peru-Brazil Border	5.1, 145km	7700km
20	i	P	Z	09 58 00.0	1.6	2.2	0 = 09 39 15.2, 49.8S, 163.4E, Auckland Isl.	6.1, 30km	11,300km
	e		N	08.8					
	e		E	08.9					
	e		Z	09 09.0					
21	i	P	Z	00 05 42.4	1.0	0.8	0 = 00 01 54, 31.2N, 115.9W, Baja Calif.	5.1, 33km	1800km
	e	L	E	09.2					
	e	L	N	10.0					
	e	L	Z	00 10.6					
22	i	P	Z	10 27 53.2R	1.7	3.3	0 = 10 17 59.9, 44.5N, 149.4E, Kurile Isl.	5.6, 60km	6500km

Date	Phase			G. C. T.	T.	A.	Location and Origin Time	Magnitude and Depth	Distance
Dec.22	i	P	ZNE	15 49 19.0			local		
	i	S	ZNE	15 49 21.3					
23	e	P	Z	00 31.7	0.8	0.8	0 = 00 30 17, 44.2N, 114.7W, Western Idaho	3.9, 33km	600km
23	i	P	Z	07 08 22.4C	0.6	6.9			
26	i	P	Z	05 52 36.8C	--	--	0 = 05 51 11, 42.0N, 126.2W	4.9, 33km	600km
	i	P	Z	05 52 37.7R	0.8	8.0	off coast of Oregon		
26	e	P	Z	11 24 25	--	--	0 = 11 11 23.7, 33.6S, 70.5W	5.8, 84km	10,400km
	i	P	Z	24 25.8	1.0	4.3	Chile-Argentina Border		
	e		E	54.9					
	e		Z	56.6					
	e		E	11 57.1					
26	i	P	Z	16 24 12.2	1.1	2.6	0 = 16 11 23.9, 30.0S, 71.5W	6.0, 55km	9900km
	e	S	N	34.4			Near Coast of Central Chile		
	e	S	E	34.5					
	e		E	47.8					
	e	-	Z	55.3					
	e		N	16 55.7					
27	e	P	Z	04 44 05			(IR)		
27	e	P	Z	17 02 36C	0.9	1.6			
	i	P	Z	02 36.6R	1.2	13.2			
	e		NE	05.3					
	e		ZN	17 06.7					
28	e	P	Z	03 06.7	--	--	0 = 03 00 30.5, 52.2N, 171.0W, Fox Isl.	5.1, 48km	3600km
28	e		Z	03 50.6					
28	i	P	Z	05 09 58.9	1.1	1.0			
	e		Z	20.1					
	e		E	20.5					
	e		N	20.8					
	e		E	30.7					
	e		N	38.5					
	e		E	05 38.6					
28	e	P	Z	08 18 00	--	--	(MR)		
28	i	P	Z	15 40 58.0	0.7	1.8	0 = 15 38 35.9, 37.2N,	5.0, 2km	1000km
	i		Z	41 00.0	1.0	7.2	121.6W, Central Calif.		
	i		Z	49 24.0					
	i		E	49 24.6					
	i		N	15 49 24.7					
28	i	P	ZNE	18 45 04.8	--	--	local		
	i	S	NE	18 45 06.1					

Date	Phase			Time G.C.T.	T.	A.	Location and Origin Time	Magnitude and Depth	Distance
Dec. 29	e	P	Z	03 15 50	--	--	(MR)		
29	i	P	Z	05 26 47.0	0.9	11.4			
29	e	P	Z	20 38 17	--	--			
30	i	P	ZNE	16 27 30.7	--	--	local		
	i	S	NE	16 27 33.1					

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Longitude: 122° 48.6'W Foundation: Volcanic Greccia

T = period. A = peak to peak amplitude for S.P.Z., Magnification 100K

Date	Phase	Time G.C.T.	T.	A.	Location and Origin Time	Magnitude and Depth	Distance
Dec. 1	i P Z	14 06 08.6C	1.2	6.0	0=13 57 02.9, 49.5N, 154.4E, Kurile Isl.	5.9, 136km	5900km
	e S E	13.4					
	e S N	14 13.5					
2	i P Z	00 21 46.6R	1.9	19.8			
2	i P Z	17 38 07.7	0.7	6.9			
4	i P Z	08 50 00.0C	0.8	35.8			
	e N	51.0					
	e Z	51.4					
	e E	08 51.6					
4	i P Z	12 46 13.0			Local		
	i S E	46 15.3					
	i S N	12 46 15.4					
4	i P Z	16 15 22.3R	0.7	7.8			
4	e P Z	19 30 .6					
4	i P Z	22 25 18.9R	0.6	3.1	0=22 1841.0, 51.6N, 173.5W, Andreanof Isl.	4.7, 50km	3900km
5	i P Z	11 13 41.4C	1.8	12.6			
	e N	18.2					
	e Z	18.5					
	e E	11 19.0					
8	e Z	19 00 09					
	i Z	00 27.3	0.7	1.8			
	i E	00 29.0					
	i Z	00 31.2					
	i N	19 00 31.6					
8	i P Z	23 06 58.4	0.6	10.2	Local		
	i S NE	23 07 00.6					

Date	Phase	G.C.T.	T.	A.	Location and Origin Time	Magnitude and Depth	Distance
8	i P Z	23 09 08.7C	0.6	4.8	Local		
	i S E	23 09 10.8					
8	i P Z	23 48 48.0	0.4	8.0	Local		
	i S N	23 48 50.3					
9	i P Z	04 28 23.7	0.3	7.8	Local		
	i S N	04 28 26.8					
9	i P Z	16 14 08.7C	0.4	3.0	Local		
	i S N	14 10.5					
	i S E	16 14 10.8					
9	i P Z	18 33 01.0	0.8	1.0	0=18 31 49.7, 49.2N, 127.7W, Vancouver Isl.	4.0, 33km	600km
	i NE	18 33 50.4					
9	i P Z	21 26 34.4	0.7	1.8			
	i Z	21 26 37.5	1.2	3.5			
10	i P Z	02 48 33.6	0.7	2.8			
10	i P Z	05 54 36.3	1.0	3.5			
10	i P Z	08 19 50.7R	1.0	3.8			
10	i P Z	09 42 27.2R	0.7	9.8			
10	e P Z	12 08 28	1.2	2.4	0=12 06 50.3, 40.5N, 124.6W, Near Coast of N. Calif.	5.8, 5km	700km
	i P Z	08 28.8	0.7	**19.2**			
	e S E	10.1					
	e L Z	10.4					
	e L E	10.5					
	e L N	12 10.7					
10	i P Z	19 33 36.7R	1.2	1.3	0=19 30 00.1, 36.7N, 107.2W, New Mexico (Gasbuggy)	5.1, 0km	1600km
10	e P Z	23 10 04	0.7	2.2	0=22 51 24.3, 17.7N, 73.9E, India	6.0, 33km	
	e L E	38.0					
	e L E	40.5					
	e L Z	41.7					
	e E	49.3					
	e N	23 54.2					
11	i P E	10 32 56.0	0.8	2.7			
11	e P Z	22 33 24	1.0	0.9			
	i NE	33 34.5					
	i Z	22 33 36.3					
11	i P Z	23 57 21.2	0.6	2.1			
12	e E	05 07.7					
	e Z	05 08.0					

			T.	A.	Location and Origin time	Magnitude and Depth	Distance
12	e Z E	08 48.5					
12	i P Z	22 03 32.3					
	i Z	22 03 50.8					
13	i P Z	10 13 58.7R	0.5	10.7	0=10 12 49, 43.2N, 125.9W Off Coast of Oregon	4.3, 33km	600km
13	i P Z	10 47 47.0			0=10 38 23.4, 47.6N, 152.6E, Kurile, Isl.	5.1, 138km	6000km
13	i P Z	11 07 27.0			0=10 58 21.6, 49.4N, 154.5E, Kurile Isl.	5.1, 138km	5900km
13	i P Z	19 20 12.2C	1.2	5.3	0=1907 14.4, 19.1S, New Hebrides Isl.	5.7, 51km	101,000km
13	i P Z	22 22 11.3	0.6	1.2	0=22 20 39, 50.1N, 129.6W Vancouver Isl.	4.1, 33km	650km
14	i P Z	09 22 15.4	0.4	2.8			
14	i P Z	18 33 49.3C	2.0	3.2	0=18 25 16.6, 54.6N, 160.4E, Near E. Coast of Kamchatka	5.5, 33km	5200km
15	e P Z	10 26 29	1.0	4.9			
15	i P Z	20 00 10.6	1.3	1.3	0=19 47 13.5, 29.1S. 177,6W, Kermodec Isl.	5.3, 61km	102,000km
15	i P Z	23 10 28.0C	0.9	2.4			
16	i P Z	03 29 30.7R	0.9	3.8	0=03 19 13.4, 2.9S, 77.0W Peru-Ecuador border	5.0, 121km	7000km
16	i P Z	21 02 56.6	1.3	3.1	0=20 53 58.3, 51.2N, 157.7E, Near E. Coast of Kamchatka	5.5, 24km	5500km
16	i P Z	23 01 17.4	--	--			
18	i P Z	03 03 33.5	0.7	5.0			
18	i P Z	13 24 32.9	1.2	3.2	0=13 23 17, 42.6N, 127.0W Off Coast of Oregon	4.4, 33km	500km
18	i P Z	17 26 57.6	1.0	21.4	0=17 24 31.9, 37.0N, 121.8W, Central Calif.	5.0, 11km	1100km
18	e P Z	21 41 02			Local		
	i S E	21 41 12.9					
18	e P Z	23 40 11			Local		
	i E	40 18.7					
	i E	40 25.0					
	i Z	40 25.6					
	i N	23 40 26.4					

DEC.	PHASE	G.M.T.	T.	A.	Location and Origin time	Magnitude and Depth	Distance
19	i P Z	21 43 28.7			Local		
	i S Z	43 29.8					
	i S NE	21 43 29.9					
20	i P Z	19 16 34.8R	0.4	3.2			
21	i P Z	02 37 43.2C	0.9	4.0	0=02 25 21.6,21.8,70.0W	6.3, 33km	9300km
	i Z	37 46.6	1.0	13.3	Near Coast of N. Chile		
	e S ZE	47.7					
	e S N	02 48.1					
23	e N	12 01.2					
	e Z	05.0					
	e E	13 05.2					
24	i P Z	20 13 00.0	1.1	6.8	0=20 03 10.9,17.4N,	6.4, 24km	6400km
	e S E	20.8			61.1W, Leeward Island		
24	i P Z	21 43 19.7R	1.1	7.2	0=21 32 03 10.9,17.4N,	5.9, 20km	6400km
					61.3W, Leeward Island		
25	i P Z	01 36 30.4R	0.8	2.3	0=01 23 33.6,5.3S	7.0, 64km	10,000km
	e Z	46.0			153.7E, New Ireland		
	e S N	01 47.2			Region		
	e L N	02 00.5					
	e L NE	02 04.8					
25	i P Z	10 53 48.7R	0.9	13.7	0=10 41 31.6,21.5S,70.4W	5.8, 53km	9300km
	e S E	11 04.1			Near Coast of N. Chile		
	e S Z	11 04.3					
26	e P Z	09 31 07C	0.6	1.5	0=09 29 38.5,44.5N,	5.1, 33km	650km
	i P Z	31 07.7C	0.6	41.6	129.7W, Off Coast of		
	e S N	32.2			Oregon		
	e L ZE	09 32.5					
26	i P Z	09 51 21.5R	0.6	1115	0=09 48 39,44.9N,129.7W	3.7, 33km	650km
	e L E	52.8			Off Coast of Oregon		
	e L Z	53.0					
	e L N	09 53.3					
26	e P Z	10 29 27	0.6	5.8	0=10 27 58,44.7N,129.7W	4.4, 33km	650km
	e L N	31.2			Off Coast of Oregon		
	e L E	10 31.3					
26	e P Z	10 42 08C	0.6	1.4	0=10 40 40.6,44.5N,	5.0, 33km	650km
	i P Z	42 09.7R	0.5	7.9	129.7W, Off Coast of		
	e L E	44.0			Oregon		
	e L N	44.5					
	e L Z	10 45.9					
26	i P Z	10 50 50.9C	0.5	8.6	0=10 49 22,44.6N,129.6W	4.9, 33km	6500km
	e L Z	10 52.6			Off Coast of Oregon		
26	e P Z	14 40 25			Local		
	i S Z	40 34.9					
	i S E	14 40 35.1					

			T.	A.	Location and Origin time	Magnitude and Depth	Distance
19	i P Z	21 43 28.7			Local		
	i S Z	43 29.8					
	i S NE	21 43 29.9					
20	i P Z	19 16 34.8R	0.4	3.2			
21	i P Z	02 37 43.2C	0.9	4.0	0=02 25 21.6,21.8,70.0W	6.3, 33km	9300km
	i Z	37 46.6	1.0	13.3	Near Coast of N. Chile		
	e S ZE	47.7					
	e S N	02 48.1					
23	e N	12 01.2					
	e Z	05.0					
	e E	13 05.2					
24	i P Z	20 13 00.0	1.1	6.8	0=20 03 10.9,17.4N,	6.4, 24km	6400km
	e S E	20.8			61.1W, Leeward Island		
24	i P Z	21 43 19.7R	1.1	7.2	0=21 32 03 10.9,17.4N,	5.9, 20km	6400km
					61.3W, Leeward Island		
25	i P Z	01 36 30.4R	0.8	2.3	0=01 23 33.6,5.3S	7.0, 64km	10,000km
	e Z	46.0			153.7E, New Ireland		
	e S N	01 47.2			Region		
	e L N	02 00.5					
	e L NE	02 04.8					
25	i P Z	10 53 48.7R	0.9	13.7	0=10 41 31.6,21.5S,70.4W	5.8, 53km	9300km
	e S E	11 04.1			Near Coast of N. Chile		
	e S Z	11 04.3					
26	e P Z	09 31 07C	0.6	1.5	0=09 29 38.5,44.5N,	5.1, 33km	650km
	i P Z	31 07.7C	0.6	41.6	129.7W, Off Coast of		
	e S N	32.2			Oregon		
	e L ZE	09 32.5					
26	i P Z	09 51 21.5R	0.6	1115	0=09 48 39,44.9N,129.7W	3.7, 33km	650km
	e L E	52.8			Off Coast of Oregon		
	e L Z	53.0					
	e L N	09 53.3					
26	e P Z	10 29 27	0.6	5.8	0=10 27 58,44.7N,129.7W	4.4, 33km	650km
	e L N	31.2			Off Coast of Oregon		
	e L E	10 31.3					
26	e P Z	10 42 08C	0.6	1.4	0=10 40 40.6,44.5N,	5.0, 33km	650km
	i P Z	42 09.7R	0.5	7.9	129.7W, Off Coast of		
	e L E	44.0			Oregon		
	e L N	44.5					
	e L Z	10 45.9					
26	i P Z	10 50 50.9C	0.5	8.6	0=10 49 22,44.6N,129.6W	4.9, 33km	6500km
	e L Z	10 52.6			Off Coast of Oregon		
26	e P Z	14 40 25			Local		
	i S Z	40 34.9					
	i S E	14 40 35.1					

			T.	A.	Location and Origin time	Magnitude and Depth	Distance
27	e P Z	04 41 33	1.3	1.0	0=04 28 21,5.0S, 153.7E New Ireland Region	4.9, 130km	10,000km
	e E	51.4					
	e Z	52.9					
	e SS E	04 57.8					
	e Z	05 09.1					
27	i P Z	09 30 07.5R	1.5	39.8	0=09 17 55.7, 21.2S, 68.3W, Chile, Bolivia border	6.4, 135km	9300km
	e SZ NE	40.3					
	e SS E	46.1					
	e sSS N	09 46.2					
27	i P Z	16 35 14.5R	1.1	1.6	0=16 22 48.5, 22.3S, 174.8W, Tonga Island	6.1, 33km	9400km
	i Z	35 16.3R	1.2	20.8			
	e S NE	45.6					
	e N	50.1					
	e E	16 58.2					
	e Z	17 00.5					
28	i P Z	06 27 38.4C	0.7	39.0			
	e Z	28.6					
	e N	06 28.7					
	e N	07 02.9					
	e Z	03.1					
	e E	07 04.7					
28	e P Z	07 32 44	0.9	2.2			
28	e P Z	08 49 13	0.6	0.4	0=08 47 52, 44.3N, 128.9W Off Coast of Oregon	4.0, 33km	600km
	i P Z	08 49 14.8	0.7	2.9			
28	i P Z	09 05 36.9R	0.6	2.2			
28	i P Z	17 05 46.0			Local		
	i S ZNE	17 05 53.3					
28	i P Z	17 30 08.7	0.9	13.0	0=17 28 45, 44.4N, 129.0W Off Coast of Oregon	4.4, 33km	600km
28	i P Z	17 43 11.2R	0.8	5.0	0=17 33 39.8, 6.9N, 72.8W Northern Columbia	5.2, 196km	6300km
28	e Z	22 12 32	0.7	0.8	0=22 11 33.9, 44.2N, 128.9W, Off Coast of Oregon	5.0, 33km	600km
	i P Z	12 57.9	1.0	14.2			
	e ZNE	22 14 40					
29	i P Z	20 42 02.9	1.2	1.7	0=20 29 32.2, 22.8S, 175.3W, Tonga Island	5.3, 30km	9500km
	e S E	52.4					
	e S N	52.5					
	e N	20 57.9					
	e Z	21 08.2					
29	i P Z	22 35 39.6R	1.0	1.6	0=22 23 06.0, 22.7S, 175.2W, Tonga Island	5.1, 33km	9500km
30	i P Z	04 14 44.1			Local		
	i S ZNE	04 14 55.8					
30	e P Z	04 31 31	2.0	1.8	0=04 19 21.2, 44.7N, 12.2E, Northern Italy	5.3, 33km	8800km

Date	Phase	Time G.C.T.	T.	A.	Location and Origin time	Magnitude and Depth	Distance
30	i P ZNE	04 48 10.3			Local		
	i S N	48 21.4					
	i S Z	48 21.5					
	i S E	04 48 21.7					
30	i P Z	08 06 18.7	0.7	0.9	0=08 04 43, 40.5N, 124,3W Near Coast of N. Calif.	4.6, 33km	600km
	e Z	08.1					
	e NE	08 08.2					
30	e P Z	12 29 45	0.7	1.3			
31	i P Z	02 36 10.2	0.9	4.2	0=02 29 41.2, 51.9N, 171.8W, Fox Island	4.9, 40km	3500km
31	i P Z	07 03 20.7					
31	e P Z	23 50 57	0.7	1.1	0=23 48 13, 35.7N, 120.7W Central California	4.6, 16km	1000km