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JAN
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UNIVERSITY OF ADELAIDE SEISMOLOGICAL STATION

ADELAIDE (MT. BONYTHON)

61

Latitude: 34° 58' 01"

Longitude: 138° 42' 32"

Elevation above mean sea level

2150'

Stratification: Sandstone

Instruments: Benioff variable reluctance seismometers with three component long and short period paper recorders.

$T_g = 75$ sec. and $T_g = 0.2$ sec. respectively

No.	Phase	Time (G.M.Pt)	Amplitude	Δ Km.	Remarks
			A_z		
1	iP NZ	13 15 44	+	3,700	USCGS 12.9S, 167.2E h about 87Km New Hebrides Is. region.
	e Z	21 44			
1	eP NZ	19 45 48		9,500	USCGS 54.1S, 7.4E h about 91Km Bouvet Is. region.
1	iP NZ	20 26 20	+	1,950	USCGS 49.5S, 125.5E h about 59Km South of Australia.
	e EZ	30 02			
	e EZ	32 24			
	eL NZ	42 10			
	eL EZ	45.4			
2	eP NZ	04 44 07			local
	eS NZ	44 39			
2	iP NEZ	10 18 28		3,700	USCGS 12.4S, 166.4E h about 161Km Santa Cruz Is. region. Mag $6\frac{3}{4}$ (Pas.) $6\frac{1}{2}$ - $6\frac{3}{4}$ (Berk.)
	i Z	18 52			
	iS NEZ	23 44			
	eSS EZ	25 46			
2	eL EZ	32 07			
2	iP NZ	12 56 58		4,600	USCGS 5.3N, 127.4E h about 66Km Near Mindanao Philippine Is.
2	eP NZ	16 31 12			local
	eS NZ	31 31.5			
2	iP NZ	23 13 40.5	+	3,550	USCGS 10.2S, 160.7E h about 117Km Solomon Is. region.
3	eP NEZ	11 46 42.5		3,200	USCGS 6.8S, 129.3E h about 72Km Banda Sea.
	e EZ	52.00			
3	iP NEZ	19 32 58	+	3,280	USCGS 6.4S, 130.4E h about 100Km Banda Sea.
	e EZ	19 38 30			
3	iP NEZ	20 11 40.5		3,450	USCGS 7.3S, 123.0E h about 154Km Banda Sea.
3	iP NEZ	01 57 30	+	4,820	USCGS 5.5N, 122.5E h about 633Km Celebes Sea.
3	iP NEZ	11 36 16.5		3,600	USCGS 6.9S, 121.7E h about 25Km Banda Sea.

				Amplitude		A _Z	Δ km.	Remarks
15	Jan ⁴	iP e iScP i	NEZ EZ Z E	19 22 25 23 10 28 46 31 58	-	3,450	USCGS 5.5S, 128E h about 173Km Banda Sea.	
16	5	eP	NZ	03 07 29.5				
17	5	eP iS eL	NZ E EZ	14 19 50 21 00 51.3		10,550	USCGS 51.6N, 176.3W h about 37Km Andreanof Is. Aleutian Is. Felt Adak. Mag. 6 ³ / ₄ (Pas) 6 ¹ / ₄ -6 ¹ / ₂ (Berk).	
18	5	iP	NZ	15 21 54.5		9,000	USCGS 45.7N, 149.3E h about 19Km Kurile Islands.	
19	5	iP iS i eL	NEZ EZ EZ NEZ	16 00 09 05 07 11 02 13 29		3,450	USCGS 4.1S, 143.0E h about 108Km New Guinea Mag. 6 ³ / ₄ -7(Pas)	
20	5	eP i iS	NEZ EZ E	18 04 04.5 04 11 08 58		3,350	USCGS 21.2S, 169.3E h about 123Km Loyalty Is. region Mag. 6 ³ / ₄ (Pas) 6 ³ / ₄ - 7(Berk)	
21	5	eP	NEZ	18 20 47		3,350	USCGS 21.0S, 169.1E h about 123Km Loyalty Is. Mag 6 ³ / ₄ (Pas)	
22	5	eP	NZ	20 13 41.5		5,200	USCGS 11.5N, 143.5E h about 25Km Mariana Is. region.	
23	6	iP	NEZ	00 04 14.5		4,000	USCGS 32.4S, 178.6W h about 166Km Kermadec Is. region.	
24	6	e(P)	NZ	00 43 26.5				
25	7	iP i e	NEZ EZ Z	18 29 38.5 29 56 30 47		9,600	USCGS 57.2S, 25.3W h about 94Km Sandwich Is.	
26	8	iP e	NEZ EZ	01 22 49.5 28.6		4,450	USCGS 4.1N, 129.3E h about 106Km Halmahera reg.	
27	8	eP	NEZ	03 03 57		4,400	USCGS 3.5N, 129.6E h about 117Km Halmahera region.	
28	8	iP	NEZ	04 44 05.5				
29	8	eP	NZ	07 37 39.5				
30	8	iP i	NEZ Z	10 07 27 12 41		4,000	USCGS 25.9S, 179.6E h about 538Km Kermadec Is. region	
31	8	eP	NZ	15 01 32.5				
32	9	eP	NZ	04 22 55.5				
33	9	eP	NZ	08 01 42.5		4,200	USCGS 28.2S, 176.8W h about 25Km Kermadec Is. region	
34	9	eP eL	NZ EZ	10 19 24.5 10 32.6		3,300	USCGS 21.3S, 169.1E h about 82Km Loyalty Is.	
35	9	iP	NZ	12 20 52				
36	10	iP i e	NEZ NZ NEZ	09 18 58 19 30 24 00		3,350	USCGS 5.9S, 130.0E h about 84Km Banda Sea.	

No.	Date 1961.	Phase	Time (G.M.T.)	Amplitude		Δ km.	Remarks
				A _z			
37	Jan 10	iP NEZ i NEZ iS E eL EZ	14 34 58.5 35 30 45 30 15 03.7	+		9,600	USCGS 49.9N, 156.2E h about Kurile Is. region 29Km. Mag. 6 $\frac{3}{4}$ (Pas) 6 $\frac{1}{4}$ (Berk) 6 $\frac{1}{4}$ -6 $\frac{1}{2}$ (Pal).
38	11	eP) ? NZ	06 44 34.5				local?
39	11	eP NZ	16 37 14			2,900	USCGS 54.7S, 162.9E h about Macquarie Is. 27 Km.
40	11	eP NEZ eL EZ	21 42 16.5 49.3			2,600	USCGS 52.3S, 160.3E h about Near Macquarie Is. 25Km.
41	14	eP NZ iPcP Z	05 39 07 41 56			3,600	USCGS 5.4S, 152.9E h about 81K New Ireland region.
42	14	eP NZ	11 26 44				
43	15	eP NEZ e NZ eI NZ	01 07 16 14 07 24 27			2,100	USCGS 53.6S, 139.6E h about South of Australia 25Km.
44	15	eP NZ e NZ e NZ	07 58 41.5 59 51.5 08 04 57				
45	15	iP NZ	12 04 43	+		8,250	USCGS 39.5N, 143.3E h about Near east coast of 75Km. Honshu, Japan.
46	15	iP NEZ i EZ iPP EZ i(S) NE i E i Z eL EZ	16 50 48.5 51 17 51 52 55 44 57 06 57 15.5 17 02.6	-		3,400	USCGS 20.4S, 169.5E h about Loyalty Is. region. 182 Km.
47	15	iP NZ iPP NZ	20 41 02.5 41 16	-		4,450	USCGS 5.2S, 110.0E h about 56 Java Sea. Km
48	16	iP NEZ iS EZ iSS E i E eL EZ	07 31 27.5 40 37 45 07 48 39 55.5			7,900	USCGS 36.0N, 141.1E h about Near east coast of 131Km. Honshu Japan.
49	16	eP NEZ	11 30 57			7,820	USCGS 35.7N, 140.6E h about Near coast of Honshu 157Km Japan.
50	16	iP NEZ iPcP NEZ iS E i E eL EZ	12 23 43.5 23 54.5 32 52 33 49 13 41.3			7,900	USCGS 36.2N, 141.7E h about Honshu Japan. 105Km.
51	16	iP NEZ	14 15 12			7,950	USCGS 36.3N, 141.2E h about Near coast of Honshu 127Km Japan.
52	16	eP NEZ iS E	15 52 32 16 01 40			7,950	USCGS 36.4N, 140.6E h about Near coast of Honshu 147Km Japan.
53	17	eP NZ	01 42 50				

No.	Date 1961	Phase	Time (G.M.P.)	Amplitude A_z	Δ Km	Remarks.
54	17	eP NZ	05 49 57			
55	17	eP NZ	14 38 27			local
56	19	eP NZ eL NE	04 27 51.5 39.00		3,550	USCGS 14.4S, 166.7E h about 26K New Hebrides Is. region
57	19	eP NZ eL NE	06 00 31.5 10.00	+	3,400	USCGS 21.5S, 170.3E h about 100 Loyalty Is. Km.
58	19	iP NZ	17 34 58.5	-	9,500	USCGS 49.7N, 155.8E h about 31K Kurile Is. Mag 5 $\frac{1}{2}$ -6 $\frac{1}{2}$ (Pal.)
59	20	eP NZ e NZ	05 31 07.5 37 19	-		
60	20	eP Z	07 43 19.5			
61	20	eP Z	08 24 24.5			
62	20	eP NZ	14 04 21			
63	20	iP NZ	14 26 09.5	+		
64	20	eL NE	18 04.00			
65	20	eP NZ	18 49 56.5			
66	20	iP NZ	21 10 11.5	-		
67	20	eP NZ	22 46 07.5		8,100	USCGS 38.1N, 141.2E h about 52K Near east coast of Honshu, Japan regional?
68	21	eP Z	00 25 03.5			
69	22	eP NEZ i EZ i EZ i EZ i EZ iS E	03 30 46 31 09 31 16 31 26.5 33 15 04 36 20		3,700	USCGS 11.9S, 166.2E h about 25K Santa Cruz Is. region. Mag 7 (Pas), 6 $\frac{1}{2}$ -6 $\frac{1}{2}$ (Berk)
70	22	i(P) EZ	03 38 32			
71	22	i(P) EZ	04 11 03.5			
72	22	i(P) EZ	04 23 12.5			
73	22	eP Z	06 23 15		3,800	USCGS 11.8S, 166.3E h about 16K Santa Cruz Is.
74	22	eP NEZ	16 17 06		4,400	USCGS 28.5S, 174.8W h about 68K Kermadec Is. region.
75	22	iP NZ	17 10 04.5	+		
76	22	iP NEZ eL NE	19 11 34 25.00	-	3,650	USCGS 12.3S, 166.1E h about 35K Santa Cruz Is.
77	22	iP NEZ	19 31 14.5	-	5,300	USCGS 10.9N, 124.6E h about 18K Leyte, Philippine Is. Felt Km Borongan, Tacloban, Catbalogan Cebu.
78	23	iP NZ	05 00 21	-	8,650	USCGS 42.9N, 145.3E h about 4K Hokkaido, Japan.

No.	Date 1961	Phase	Time (G.M.P.)	Amplitude		Remarks
				A _Z	△ Km	
79	23	e(P)	Z	09 23 04		
80	23	e(P)	Z	10 53 04.5		
81	23	e(P)	Z	11 06 33	-	3,550 USCGS 15.6S, 167.6E h about 198Km New Hebrides Is. region.
82	24	iP	NEZ	07 31 17.5		
83	24	iP eP	NEZ NZ	08 08 18.5 35.1	-	3,100 USCGS 61.1S, 152.1E h about 25Km Antarctic Ocean, south of Australia
84	24	iP	NZ	20 34 51	+	
85	25	iP	NEZ	01 02 11	-	5,000 USCGS 4.9S, 102.7E h about 135Km Nearwest coast of Sumatra.
86	25	iP	NEZ	05 27 54.5	+	3,550 USCGS 14.1S, 165.4E h about 195Km New Hebrides Is. region.
87	25	iP	NEZ	17 28 02.5	+	4,400 USCGS 1.2N, 121.3E h about 56 Km Celebes.
88	25	iP		19 16 56	+	9,600 USCGS 49.8N, 156.0E h about 98Km Kurile Is.
89	26	iP	NZ	01 57 43	+	7,500 USCGS 15.3N, 93.7E h about 67Km Southern Burma
90	26	eP	NEZ	06 08 45.5		3,550 USCGS 13.9S, 165.7E h about 50Km New Hebrides Is.
91	26	iP	NEZ	10 33 39.5	+	3,700 USCGS 11.7S, 165.7E h about 113Km Santa Cruz Is. region.
92	26	iP	NEZ	13 18 28.5	-	3,350 USCGS 21.3S, 169.5E h about 77km. Loyalty Is. region.
93	26	iP iS eL	NEZ EZ NEZ	16 19 30 24 26 30.2	-	3,350 USCGS 21.4S, 169.5E h about 119Km Loyalty Is. Mag 6 $\frac{1}{2}$ (Pas) 6-6 $\frac{1}{4}$ (Berk).
94	26	iP iS	NEZ EZ	18 55 06 19 00 05	+	3,400 USCGS 20.7S, 169.5E h about 106Km
95	27	iP	NEZ	00 58 41	-	3,550 USCGS 6.4S, 154.7E h about 23Km Solomon Islands.
96	27	eP	NZ	14 01 33.5		3,550 USCGS 5.5S, 151.9E h about 118 Km New Ireland region. Felt: Rabaul
97	27	eP eL	Z EZ	14 53 00 15 06 00		3,350 USCGS 21.4S, 169.5E h about 64Km Loyalty Is. region
98	27	eP	NEZ	15 12 01		3,350 USCGS 21.2S, 169.4E h about 68Km Loyalty Is. region.
99	27	iP	NZ	15 18 27.5	-	
100	28	eL	NE	14 39.00		
101	28	eP (S)	NEZ E	19 49 14 54 12		3,350 USCGS 21.3S, 169.5E h about 50Km Loyalty Is. region Mag. 6 $\frac{1}{2}$ (Pas), 6(Pal.)
102	29	iP e(S)	NEZ NZ	00 24 44 30 24	+	3,300 USCGS 5.8S, 131.8E h about 47Km Aroe Islands.

No.	Date 1961	Phase		Time (G.M.T.)	Amplitude		Remarks
					Az	Δ Km	
103	29	eP	Z	05 54 54			regional
104	29	eP	NZ	20 40 56		4,950	USCGS 15.7S, 177.5W h about 446 Km. Fonga Is. region.
105	30	1P	NSZ	11 25 38	-		N long period } not functioning. E short period }

Judith Pearce

D.J. Sutton.

UNIVERSITY OF ADELAIDE SEISMOLOGICAL STATION

ADELAIDE (MT. BONYTHON)

Latitude: $34^{\circ} 58' 01''$ Longitude: $138^{\circ} 42' 32''$
 Height above mean sea level: 2150'
 Foundation: Sandstone
 Instruments: Benioff variable reluctance seismometers with three component long and short period paper recorders.
 $T_g = 75$ Sec. and $T_g = 0.2$ sec. respectively

No.	Date 1961	Phase	Time (G.M.T.)	Amplitude	Δ Km	Remarks
				Az		
	Feb.					
1	1	1P NZ	20 16 15	-	4,700	USCGS: 18.0S, 178.4W h about Fiji Is. 599Km.
2	2	1P NZ	00 50 01	-	4,900	USCGS: 7.3N, 127.3E h about 157Km. Near South coast of Mindanao, P.I.
3	2	eP NZ	05 19 38			
4	2	1P NEZ	11 22 08	-	5,450	USCGS: 13.6N, 145.3E h about Mariana Is. 131Km.
5	3	eP NZ	02 35 21.5		6,050	USCGS: 3.4N, 97.1E h about 15Km Near coast of Sumatra.
6	3	eP NZ	12 39 11		3,450	USCGS: 36.9S, 176.8E h about 300Km. Off North coast of North Is. of New Zealand.
7	4	1P NEZ ipP NEZ	09 03 01.5 03 38	+	8,000	USCGS: 24.7N, 95.3E h about Northern Burma. 162Km.
8	4	1P NEZ ipP NZ iPcP Z eS EZ	19 19 26 19 38.5 20 12 27 53	+	6,750	USCGS: 24.0N, 122.7E h about Off east coast of 14Km. Formosa. Felt.
9	5	1P NEZ	07 46 58.5	-	4,700	USCGS: 17.7S, 178.4W h about Fiji Is. 590Km.
10	5	eP NZ	11 15 37			
11	5	eP NEZ ePP EZ eS EZ eL EZ	17 59 33 18 01 22 06 36 18 13.5		5,350	USCGS: 38.4S, 78.2E h about Indian Ocean. 25Km.
12	6	1P NZ	07 32 00.5	+		
13	6	1P NEZ ipP Z e(SKS) EZ	18 27 33 27 47 37 38	-	8,950	USCGS: 44.8N, 149.1E h about Kurile Is. 25Km.
14	6	1P NEZ eS EZ	19 35 34.5 40 26	+	4,150	USCGS: 44.8S, 154.2E h about Solomon Is. region. 470Km.
15	6	1P NZ	20 18 12.5	-	3,600	USCGS: 10.6S, 161.9E h about Solomon Is. region. 124Km.

No.	Date 1961	Phase	Time (G.M.T.)	Amplitude A _Z	Δ Km.	Remarks.
16	Feb. 6	iP NEZ iPP EZ iPcP EZ iS NEZ eL NEZ	21 51 37.5 52 41 54 26 56 47 58.7		3,550	USCGS: 6.8S, 155.3E h about 59Km. Solomon Is. Felt.
17	7	iP NEZ eL EZ	01 50 24 02 03.8	+	3,750	USCGS: 11.6S, 166.0E h about 55Km. Santa Cruz Is.
18	7	eP NZ	03 04 36		3,750	USCGS: 11.7S, 166.1E h about 54Km. Santa Cruz Is.
19	7	iP NZ	03 54 14.5	-	4,300	USCGS: 23.6S, 179.7W h about South of Fiji Is. reg. 52 ¹ / ₂ Km.
20	7	eP NZ	04 06 31.5		3,700	USCGS: 11.8S, 166.2E h about 55Km. Santa Cruz Is.
21	7	iP NEZ	05 19 52	+	5,000	USCGS: 4.1S, 103.3E h about 82Km. Sumatra.
22	7	eP Z	06 24 47			
23	8	eP NEZ iPcP Z i(ScP) NZ i EZ	02 42 59 45 44 49 17 49 38		3,550	USCGS: 15.3S, 167.5E h about New Hebrides Is. region. 162Km.
24	8	iP NEZ	04 41 12	+	4,100	USCGS: 26.1S, 178.8W h about 43 ¹ / ₂ Km. Kermadec Is. region.
25	8	iP NEZ	08 22 10.5	-		
26	8	iP NEZ i NZ e E	09 51 54.5 52 07 10 01 39	-		
27	8	iP NEZ iScP Z	17 57 40.5 18 02 33		4,500	USCGS: 20.4S, 178.1W h about Tonga Islands. 54 ¹ / ₂ Km.
28	9	iP NEZ i NEZ iPP NEZ iPcP NZ iS EZ eL NEZ	02 15 29.5 15 46 17 15 17 48.5 21 28 26.3	+	4,300	USCGS: 177.4W, 28.2S h about 37Km Kermadec Is. region. Mag. 6 ³ / ₄ (Pas) 6 ¹ / ₄ (Berk)
29	9	iP NEZ ipP Z i Z i Z	09 10 46.5 11 07.5 11 22 11 35	+	3,900	USCGS: 10.0S, 165.5E h about 83Km. Santa Cruz Is.
30	9	eP NEZ eL	20 28 12.5 43.1		3,950	USCGS: 9.9S, 111.3E h about 73Km. Off south coast of Java.
31	10	iP NEZ	13 26 01.5	+	3,700	USCGS: 2.9S, 127.6E h about 78Km. Ceram Sea.
32	10	iP NZ	17 05 56.5	-	4,450	USCGS: 3.5N, 126.1E h about 25Km. East of Celebes Sea.
33	10	iP NZ	06 22 21.5	-	7,100	USCGS: 28.8N, 139.5E h about North of Bonin Is. reg. 358Km.
34	11	eP NZ i NEZ e NEZ	08 51 21 52 09.5 57 16			

No.	Date 1961	Phase	Time (G.M.T.)	Amplitude Az	Δ Km	Remarks.
35	Feb. 11	iP NZ	12 31 30.5	-	4,650	USCGS: 5.2N, 126.3E h about Near coast of Mindanao, P.I. 200Km.
36	11	iP NZ	16 53 57	+	4,750	USCGS: 19.8S, 176.2W h about Fiji Is. 261Km.
37	11	iP NEZ ipP NEZ iPP EZ iPcP Z i(PcS) N eL EZ	21 08 21 08 32 09 51 10 36.5 14 25.5 18.6	+	4,300	USCGS: 28.2S, 177.5W h about Kermadec Islands. 41Km. Mag. 6 $\frac{3}{4}$ (Pas), 6 $\frac{3}{4}$ (Berk.)
38	12	iP NZ	02 09 17.5	+		
39	12	iP NEZ	12 17 21	-	5,100	USCGS: 15.0S, 175.2W h about Samoa Is. region. 281Km.
40	12	iP NEZ i NEZ i NEZ i NEZ	13 03 39 03 49 08 33 08 44	+	4,150	USCGS: 13.1S, 171.8E h about New Hebrides Is. reg. 598Km.
41	12	eP NZ	15 27 41.5		3,600	USCGS: 4.1S, 127.3E h about Banda Sea. 111Km.
42	12	eP NEZ iS EZ eL NEZ	22 05 47 15 41 20.6		8,750	USCGS: 43.7N, 147.6E h about Kurile Is. 45Km. Mag. 6 $\frac{3}{4}$ -7(Pas), 7(Pal)
43	12	iP NEZ iPcP Z	23 38 37.5 38 46	-	8,850	USCGS: 44.0N, 147.7E h about Kurile Is. 23Km.
44	13	eP Z	06 53 50		5,200	USCGS: 17.0S, 173.7W h about Tonga Is. region. 43Km. Mag 5 $\frac{3}{4}$ (Pas), 6(Pal.)
45	13	iP NZ	13 52 24	-	3,550	USCGS: 6.9S, 155.7E h about Solomon Is. 25Km.
46	13	iP NEZ e NEZ iPcP Z i NEZ e NEZ	16 23 36 24 19 26 27 28 24 29 09	+	3,500	USCGS: 5.1S, 128.7E h about Banda Sea. 66Km.
47	13	eP NEZ iPcP Z	16 39 20 39 37		8,750	USCGS: 43.7N, 149.6E h about Kurile Islands. 25Km. Mag 6-6 $\frac{1}{4}$ (Pas) 5 $\frac{1}{2}$ -5 $\frac{3}{4}$ (Pal)
48	14	eP Z	03 37 06		8,850	USCGS: 43.8N, 147.9E h about Kurile Is. 20Km. Mag. 6-6 $\frac{1}{4}$ (Pas.)
49	14	eP Z	15 59 16		5,050	USCGS: 15.4S, 175.1W h about Samoa Is. region. 25Km.
50	14	eP NZ iS NZ	17 21 15.5 21 30			local earthquake.
51	15	iP NZ	06 34 25	+	4,350	USCGS: 26.1S, 177.5W h about Southwest of Tonga Is. 148Km.
52	15	eP NEZ iPp Z eL EZ	10 57 16 57 34 25.1		8,750	USCGS: 43.7N, 147.4E h about Kurile Is. Mag 6-6 $\frac{1}{4}$ 69Km. (Pas) 6(Pal)

No.	1961 Date	Phase	Time (G.M.T.)	Amplitude A _Z	Δ Km.	Remarks.
53	Feb. 15	iP NZ	11 41 17	+	9,200	USCGS: 30.8N, 84.4E h about Tibet. 66Km.
54	16	eP NZ	14 06 52		8,700	USCGS: 43.2N, 148.0E h about Kurile Is. Mag 6-6½ (Pas). 71Km.
55	16	iP NZ e NZ	16 16 22.5 23.8	+	4,050	USCGS: 8.4S, 111.3E h about Java. 189Km.
56	16	iP Z	20 39 55.5	+	7,150	USCGS: 33.7S, 57.8E h about Indian Ocean, south 100Km of Mascarene Islands.
57	17	eP NZ epP NZ e NEZ	15 43 45 44 34 50 06		3,450	USCGS: 5.0S, 129.7E h about Banda Sea. 254Km.
58	18	iP NZ i Z eL EZ	12 11 47.5 17 24.5 22.5	-	3,450	USCGS: 22.6S, 171.3E h about Loyalty Is. region. 38Km.
59	18	iP NEZ	20 08 07	+	4,500	USCGS: 4.3N, 126.6E h about 74K Off coast of Mindanao, P.I.
No records from 2145 GMT 18th to 2400 GMT 19th.						
60	20	eP NEZ i Z iPcP Z	14 23 55 26 40 26 51		3,650	USCGS: 5.0S, 153.4E h about New Ireland region. 107Km. Felt. Rabaul
61	20	iP NEZ	18 56 30	-	6,200	USCGS: 5.0N, 96.0E h about Near North Coast of Sumatra. 139Km.
62	20	eP NZ	23 10 34.5			
63	21	eP NEZ	19 16 40		3,100	USCGS: 48.8S, 106.2E h about Indian Ocean about 1000 52Km. miles southwest of Australia.
64	21	iP NEZ	23 35 37	-	4,200	USCGS: 0.1S, 123.2E h about Celebes. 183Km.
65	22	eP NEZ	03 09 07			Local?
66	22	iP NEZ	15 51 51	+	5,600	USCGS: 0, 99.1E h about 36Km. Near Coast of Sumatra.
67	22	iP NEZ iPP EZ eS E eL EZ	22 00 46 02 17 06 40 12.0	+	4,200	USCGS: 28.4S, 177.2W h about Kermadec Is. region. 78Km. Mag 5½ (Berk) 5½-5½ (Pal).
68	23	eP Z e EZ	03 06 22.5 47 39			
69	23	eP Z	04 27 47		8,100	USCGS: 38.2N, 142.7E h about Off east coast of Hon-119Km. shu, Japan. Felt.
70	23	eP NEZ iS NEZ	07 08 54.5 09 28			local
71	24	e(P) NEZ	06 28 55			local
72	24	eP NEZ iS NEZ	06 48 41 48 50			local

No.	Date 1961	Phase		Time (G.M.T.)	Amplitude		Δ Km.	Remarks.
					A _Z			
73	Feb. 24	eP	NEZ	16 23 12				local
		i	NEZ	23 15				
		iS	NEZ	23 37				
74	25	iP	NEZ	05 02 02.5	-		4,400	USCGS: 21.7S, 179.6W h about Fiji Is. region. 608Km.
75	25	eP	NEZ	15 10 17			5,000	USCGS: 15.4S, 175.8W h about Samoa Is. region. 62Km.
		i	NEZ	10 21.5				
76	25	eP	NZ	18 56 13.5				
77	26	eP	Z	03 03 19			4,650	USCGS: 22.4S, 175.6W h about Tonga Is. region. 623Km.
78	26	eP	Z	06 01 29			9,550	USCGS: 32.7S, 111.2W h about Easter Is. region. 29Km. Mag 6 $\frac{1}{2}$ -6 $\frac{3}{4}$ (Pas), 6(Berk.), 5 $\frac{1}{2}$ -5 $\frac{3}{4}$ (Pal).
79	26	iP	NEZ	18 21 39	+		7,450	USCGS: 31.4N, 131.2E h about Near coast of Kyushu 54Km. Japan. Mag. 7-7 $\frac{1}{4}$ (Pas), 7(Berk) 7 $\frac{1}{4}$ (Pal). 1 killed, several injured extensive property damage at Miyazaki 3ft. tsunami observed in southwest Ithikoku.
		iBP	NEZ	21 51				
		eS	NEZ	30 30				
		eL	NEZ	37.5				
80	26	eP	NEZ	19 10 13				
81	26	iP	NEZ	21 10 25	-		5,950	USCGS: 16.0N, 121.6E h about Luzon, Philippine Is. 32Km. Felt.
		iPP	NEZ	12 19				
82	27	iP	NEZ	12 38 58	-			
83	27	iP	NEZ	16 54 37	-		3,450	USCGS: 4.2S, 135.3E h about Near coast of New 100Km. Guinea.
		iScS	NEZ	17 04 58				
84	28	eP	NZ	07 37 58				
85	28	iP	NZ	19 08 48	+			
86	28	iP	NEZ	23 05 29	-			
		i	NEZ	06 03				
		i	NZ	06 37				

N long period not functioning
and E short period not function-
ing up to 0145 GMT on 21st
Feb.

UNIVERSITY OF ADELAIDE SEISMOLOGICAL STATION
ADELAIDE (MT. BONYTHON)

Latitude: 34° 58' 01"

Longitude: 138° 42' 32"

Height above mean sea level: 2150'

Foundation: Sandstone

Instruments: Benioff variable reluctance seismometers with three component long and short period paper recorders.

 $P_g = 75$ sec. and $T_g = 0.2$ sec. respectively

No.	Date 1961	Phase	Time (G.M.P.)	Amplitude		Remarks.
				A _Z	ΔKm.	
	March					
1	1	iP NEZ i NEZ	00 32 05.5 32 11.5	-	5,350	USCGS: 13.2N, 143.2E h about 221Km. Mariana Is. region.
2	1	eP NEZ	13 21 10		4,350	USCGS: 8.0S, 107.4E h about 33Km. Near Coast of Java. Felt Djakarta.
3	1	iP NEZ i NZ i NZ i Z i Z	13 53 30 53 51 53 58 54 12 54 54	+	3,130	USCGS: 7.5S, 130.0E h about 25Km. Banda Sea.
4	1	iP NEZ i NZ epP Z e Z	14 12 39 12 49 13 05 13 16	+	4,470	USCGS: 2.8N, 126.5E h about 61Km. Molucca Passage.
5	1	iP NEZ	15 38 06	-		
6	2	eP Z	14 36 14		4,450	USCGS: 18.6S, 179.8W h about 693Km. Fiji Is. Region.
7	3	eP NEZ i EZ eL EZ	06 31 55 32 13 41.6		3,440	USCGS: 22.9S, 171.4E h about 27Km. Loyalty Is. region.
8	3	eP EZ	08 24 28		4,050	USCGS: 31.8S, 178.0W h about 63Km. Kermadec Is. region.
9	3	eP NZ	09 52 23		3,310	USCGS: 5.7S, 147.4E h about 25Km. Near Coast of New Guinea.
10	3	iP NZ	20 23 43.5	-		
No VSP from 2230 GMT 4th + 023						
11	5	eP NEZ i EZ ePcS E eL EZ	01 32 46 33 01 39 14 43.5		3,530	USCGS: 10.7S, 161.6E h about 99Km. Solomon Is region Mag 6 1/2 (Pas).
12	5	iP NEZ	10 46 46		4,570	USCGS: 17.8S, 179.0W h about 622Km. Fiji Is. region.
13	5	eP NEZ eScS NEZ	19 48 24 58 58		3,460	USCGS: 3.6S, 137.0E h about 25Km. New Guinea.
14	5	eP Z	21 33 44		4,700	USCGS: 20.6S, 176.1W h about 58Km. Tonga Is. region.

No.	Date 1961.	Phase	Time (G.M.T.)	Amplitude		Remarks.
				A _Z	ΔKm.	
	March					
15	7	iP NEZ iPP EZ iS NEZ eL NEZ	10 18 04.5 19 41 24 02 27.1	-	4,340	USCGS: 28.2S, 175.7W h about 43Km. Kermadec Is. region. Mag. 7 $\frac{1}{4}$ -7 $\frac{1}{2}$ (Pas), (Berk). 7-7 $\frac{1}{2}$ (Pal).
16	7	iP NEZ iPcP Z iS EZ eL NEZ	19 17 14 18 46 24 12 31.1	+	5,270	USCGS: 38.2S, 78.1E h about 30Km. Indian Ocean Mag. 6 (Pas.)
17	7	iP NEZ i Z eL EZ	23 18 30.5 24 56 30.3	+	3,650	USCGS: 4.7S, 153.2E h about 90Km. New Britain region. Felt.
18	8	iP NEZ i NEZ i EZ	02 04 05 04 12 04 29	-		
19	8	iP NEZ e NEZ eScS EZ	03 33 17 33 48 43 20	+	3,440	USCGS: 4.0S, 141.8E h about 217Km. New Guinea Felt: Aitapie
20	8	eP NEZ	05 35 41		3,110	USCGS: 29.8S, 177.7W h about 55Km. Kermadec Is. region.
21	8	iP NEZ i Z	08 35 34 35 38	-	5,080	USCGS: 17.7S, 178.7W h about 620Km. Fiji Is. region.
22	8	iP NEZ i NEZ	19 52 31.5 52 38	+	4,250	USCGS: 2.2N, 128.3E h about 370Km. Halmahira.
23	10	eP NEZ eS E eL EZ	03 05 57 10 14 12.8		2,660	USCGS: 51.9S, 161.6E h about 25Km. Macquarie Is. region.
24	10	eP NEZ	23 42 28			
25	11	iP NEZ iPp NEZ i E	01 44 09 44 21 54 56	+	9,380	USCGS: 48.7N, 154.6E h about 26Km. Kurile Is. Mag. 6 $\frac{1}{2}$ (Berk)
26	12	iP NEZ i NEZ iPcP Z i Z eL EZ	23 29 01 29 13 31 12 31 24 45.3	-	4,310	USCGS: 28.4S, 176.0W h about 113Km. Tonga Is. region Mag. 6 $\frac{1}{4}$ -6 $\frac{1}{2}$ (Berk).
27	13	eP NEZ e NEZ	04 43 15 53 42		3,300	USCGS: 5.2S, 135.4E h about 229Km. Aroe Is. region
28	13	iP NEZ	07 49 59.5	+	4,120	USCGS: 25.4S, 179.5W h about 449Km. Tonga Is. region.
29	13	iP NEZ iPP NEZ	20 48 05 51 35	+	9,770	USCGS: 56.2S, 27.2W h about 56Km. Sandwich Is.
30	14	iP NEZ	18 59 34	+		
31	15	iP NEZ i NEZ iPP Z iS E i E eL NEZ	10 21 33.5 21 39 22 46 26 58 30 14 33.7	+	3,710	USCGS: 3.3S, 150.7E h about 21Km. New Ireland region. Felt Rabaul Mag 6 (Pas).

No.	Date 196	Phase	Time (G.M.T.)	Amplitude		Remarks
				A_z	Δ Km.	
32	15	iP NEZ i EZ i NEZ	13 07 30 08 07.5 09 25	+	3,970	USCGS: 4.4S, 152.5E h about 90Km. New Britain. Felt: Karla and Rabaul.
33	15	iP NEZ i NEZ	20 56 41 56 57	-		
34	16	eP NEZ iS NEZ	01 26 38 26 52			local Saddleworth nor of Adelaide.
35	16	iP NEZ i NEZ i NZ i NEZ	02 55 15.5 55 20 55 39 59 25	-		
36	16	iP NEZ iPP NZ iPcP Z i Z	04 37 05.5 38 49 39 15 42 15	-	4,100	USCGS: 24.9S, 179.9E h about 536Km. Kermadec Is. region.
37	16	eP NEZ	07 21 28			local?
38	16	iB NEZ i(ScP) Z	07 23 16 28 53	-	4,530	USCGS: 6.6S, 106.5E h about 135Km. Soenda Strait.
39	16	eP NEZ eS NEZ	08 35 52 36 09			local
40	16	iP NEZ i NEZ i NEZ i NEZ i NEZ i NEZ	11 25 44 25 53 26 10 27 27 27 36 27 41	-	3,250	USCGS: 6.4S, 130.7E h about 77Km. Banda Sea.
41	16	iP NEZ iPP Z i EZ eL NEZ	13 51 46 51 59 57 53 4 05.4	+	3,410	USCGS: 8.2S, 122.0E h about 74Km. Flores Is. Some casual- ties and major property damage at Ende. Mag $6\frac{1}{4}$ (Pas) $6\frac{1}{2}$ - $6\frac{1}{2}$ (Pal).
42	16	eP NEZ	18 25 27			
43	16	iP NEZ i EZ eS E e EZ eL NEZ	18 27 26.5 27 45 32 22 32 50 40.7	-	3,420	USCGS: 8.1S, 122.0E h about 43Km. Flores Is.
44	16	eP NEZ	18 46 56			
45	17	iP NEZ i NEZ i EZ iScP EZ iSSS NZ	04 57 17.5 57 22 57 49 03 46 04 18	-	3,360	USCGS: 8.3S, 122.1E h about 93Km. Flores Sea
46	17	iP NEZ	06 15 57	-	3,430	USCGS: 8.4S, 121.3E h about 60Km. Near Flores Island.
47	17	eP NZ	06 37 36			
48	17	eP NEZ eL EZ	14 14 25 28.2		4,550	USCGS: 23.8S, 175.9W h about 120Km Tonga Is. region.

No.	March 1961.	Phase	Time (G.M.T.)	Amplitude		Remarks.
				A _Z	Δ Km.	
49	17	iP Z i Z	16 01 55 02 05	+		
50	17	eP NZ	16 24 39			
51	17	iP NEZ i EZ iPPP Z eL EZ	20 18 15 18 40 20 21 31.7	-	4,540	USCGS: 24.3S, 176.6W h about 79Km. Tonga Is. region Mag 6 (Pas).
52	17	eP NEZ iPcP EZ	22 51 20 51 34		7,640	USCGS: 34.1N, 141.0E h about 120Km. Cf South Coast of Honshu, Japan.
53	18	iP NEZ i EZ eS E i EZ eL EZ	02 14 54 15 46 19 50 21 11 28.3	+	3,430	USCGS: 8.2S, 122.0E h about 35Km. Flores Islands.
54	18	eP NEZ	04 33 26			
55	18	eP NEZ	04 39 10			
56	18	eP NEZ	07 38 03			
57	18	iP NEZ	07 54 16	-	3,670	USCGS: 4.8S, 153.8E h about 157Km. New Britain region.
58	18	eP NZ eL EZ	08 34 31 50.3		4,660	USCGS: 24.3S, 174.3W h about 25Km. Tonga Is. region.
59	18	iP NEZ	09 36 28	+	4,770	USCGS: 20.6S, 175.5W h about 667Km. Tonga Is. region.
60	18	eP NZ	10 26 38		7,120	USCGS: 29.5N, 138.6E h about 500Km. Bonin Is. region.
61	18	iP NEZ iPP NEZ i NEZ i Z i EZ eS NEZ eL NEZ eL NEZ	15 00 08 00 12 00 22 01 13 01 45 04 18 07.5 19.6	-	2,580	USCGS: 49.9S, 163.3E h about 38Km. South of New Zealand. Mag. 6 $\frac{3}{4}$ -7(Pas.) 6 $\frac{1}{2}$ -6 $\frac{3}{4}$ (Berk.) 6 $\frac{1}{2}$ (Pal.)
62	18	iP NEZ	17 47 39	+	4,860	USCGS: 7.6N, 126.9E h about 63Km. Off East Coast of Mindanao, P.I.
63	18	iP Z	20 17 15		6,880	USCGS: 25.4N, 122.6E h about 25Km. Off north coast of Formosa.
64	19	iP NEZ i NEZ i NEZ i NZ iS E eL EZ	05 07 01 07 11 07 19 08 34 13.13 22.3	-	4,670	USCGS: 6.4S, 105.5E h about 120Km. Soenda Strait. Felt: Djakarta.
65	19	eP NEZ eL EZ	07 21 20 33.3		3,600	USCGS: 16.0S, 168.2E h about 90Km. New Hebrides Islands.

No.	March 1961.	Phase	Time (G.M.T.)	Amplitude		Remarks.
				A _Z	△ Km.	
66	19	iP NEZ ipP NZ i(PP) NEZ iPcP NZ	07 58 51 59 08 08 00 21 01 07	-	4,300	USCGS: 2.3N, 127.4E h about 83Km. Molucca Passage.
67	19	iP NEZ eL EZ	12 12 12 24.9	-	3,500	USCGS: 16.4S, 167.3E h about 16Km. New Hebrides Islands.
68	19	iP NEZ e NEZ	12 53 34 59 56	+	3,420	USCGS: 8.1S, 121.9E h about 25Km. Flores Is.
69	19	iP NEZ	13 33 15	+		
70	19	eP NEZ	17 28 59			
71	19	eP NEZ	18 05 01			
72	19	eP Z	20 41 36		4,510	USCGS: 24.1S, 176.1W h about 39Km. Fonga Islands region.
73	20	eP NEZ	01 30 04			
74	20	iP Z	03 43 42	-	10,570	USCGS: 36.6N, 71.1E h about 121Km. Hindu Kush.
75	20	ePkP Z	06 35 32		14,763	USCGS: 11.5N, 86.3W h about 122Km. Off west coast of Nicaragua. Felt at Managua Mag 6-6 $\frac{1}{4}$ (Pas.)
76	20	eP Z	11 50 19		8,990	USCGS: 46.3N, 142.7E h about 354Km. Sakkalin Islands
77	20	iP NZ	14 13 28	+	10,050	USCGS: 35.5N, 77.9E h about 74Km. Northern India.
78	20	iP NEZ ipP Z i Z i Z iPP EZ eS E iS&S E i EZ eL EZ	16 01 05 01 42 01 52 02 18 02 51 07 18 10 45 12 12 15.0	-	4,870	USCGS: 18.4S, 175.2W h about 175Km. Fonga Is. Mag 6 $\frac{1}{2}$ -6 $\frac{3}{4}$ (Pas.) (Berk.)
79	20	eP NEZ i Z eS E eL NEZ	23 50 17 50 34 56 22 03.0		4,510	USCGS: 24.2S, 175.9W h about 25Km. Fonga Is. region Mag 6 $\frac{1}{4}$ (Pas.) 6 $\frac{1}{2}$ (Pal.)
80	21	iP NEZ i NEZ i NEZ	09 29 10 29 14 29 17	-	4,270	USCGS: 21.8S, 179.9W h about 595Km. South of Fiji Is.
81	21	eP Z	16 20 28			
82	21	eP NEZ i Z eL EZ	20 01 04 07 20 20.8		3,450	USCGS: 22.8S, 171.4E h about 19Km. Loyalty Islands reg.
83	22	eP NEZ ipP NEZ i EZ i EZ	04 20 20 20 29 20 39 21 16		3,460	USCGS: 9.0S, 157.9E h about 41Km. Solomon Islands.

No.	1961	Phase		(G.M.P.)	Amplitude		Remarks
					A _z	Δ Km.	
84	22	eP	NEZ	04 28 46			
85	22	1P	NEZ	14 04 01	-	4,920	USCGS: 18.0S, 178.3W h about 610Km. Fiji Is.
86	22	1P	NEZ	21 35 05	-	4,040	USCGS: 24.6S, 179.3E h about 517Km. South of Fiji Is.
		i	NEZ	35 25			
		1pP	EZ	36 39			
		1	Z	38 13			
		13	EZ	40 10			
87	23	1P	NEZ	01 54 50	+	4,207	USCGS: 1.0S, 120.2E h about 10Km. Celebes.
		1	NEZ	56 15			
88	23	1P	NEZ	21 02 50	+	3,540	USCGS: 6.5S, 154.7E h about 143Km. Solomon Islands.
89	24	1P	NEZ	07 55 06	+		
90	24	eP	NEZ	19 18 46		5,070	USCGS: 9.8N, 128.4E h about 236Km. Off northeast coast of Mindanao P.I.
		1pP	Z	19 25			
91	24	eP	NEZ	23 02 16		7,760	USCGS: 35.3N, 140.9E h about 102Km. Near east coast of Honshu, Japan.
		1	E	15 46			
		1	E	17 33			
92	24	1P	NEZ	23 43 40	+	3,590	USCGS: 2.6S, 141.9E h about 118Km. Near North Coast of New Guinea.
93	25	1P	NZ	08 09 14	+		
94	25	1P	NEZ	14 22 33	-	4,580	USCGS: 17.5S, 179.0W h about 688Km. Fiji Islands.
95	25	1P	NZ	21 09 31	-	7,490	USCGS: 37.1S, 51.6E h about 137Km. Indian Ocean about 800 miles south of Malagasy republic.
96	26	eP	NEZ	01 31 12		5,960	USCGS: 16.2N, 121.2E h about 70Km. Luzon, Philippine Is.
		1	NEZ	31 17			
		1	EZ	31 20			
97	26	1P	NEZ	14 37 09	-	4,670	USCGS: 5.7N, 126.4E h about 147Km. Mindanao, Philippine Islands.
		1PcP	Z	38 52			
98	26	1P	NEZ	20 35 34		3,610	USCGS: 3.1S, 146.3E h about 25Km. Bismark Sea.
		eS	E	40 40			
		eL	E	47 24			
99	26	1P	Z	23 24 07	+	9,220	USCGS: 30.6N, 84.4E h about 24Km. Southern Tibet.
100	26	eP	NEZ	23 33 40			
101	27	eP	NEZ	04 29 19		3,610	USCGS: 4.8S, 125.1E h about 43Km. Banda Sea.
102	27	1P	NEZ	16 35 59	+	3,800	USCGS: 30.7S, 179.3E h about 514Km. Kermadec Is.
103	28	1P	NEZ	09 43 06.5	-	4,180	USCGS: 0.2N, 123.6E h about 83Km. Northern Celebes Is. 65(Pas. 7(Pal))
		1S	NEZ	12 48			
		1S	NEZ	51 22			
		1S	NEZ	52 02			
		1S	NEZ	10 00 0			

No.	March 1961	Phase	Time (G.M.P.)	Amplitude		Remarks.
				A _Z	Δ Km.	
104	28	1P NZ	00 57 31	-		
105	28	1P NEZ	10 00 46	-		
106	28	eP NEZ	10 22 20			
107	28	eP NEZ	10 36 54			
108	28	eP NEZ	10 45 19			
109	28	1P NEZ	11 32 45	-		
110	28	1P NEZ	11 54 59	-		
111	28	1P NEZ	12 00 18	+		
112	28	eP NEZ	12 42 31		10,210	USCGS: 51.7N, 176.2W h about 60Km. Andreanof Is. Aleutian Islands. Mag 6 $\frac{1}{4}$ (Pas) 5 $\frac{1}{2}$ (Pal).
113	28	1P NEZ	13 20 09	-	4,130	USCGS: 0.63, 122.9E h about 60Km. Celebes.
114	28	1P NEZ	13 49 43	-		
115	28	1P NEZ	15 30 46.5	-	4,320	USCGS: 2.2N, 125.8E h about 280Km. Celebes Region.
116	28	eP NZ	20 32 47			
117	28	1P NEZ e EZ	21 00 48 08 00	-	3,360	USCGS: 8.7S, 121.9E h about 76Km. Flores Island.
118	29	eP? NEZ	03 40 07			
119	29	eP NEZ i E	06 54 36 07 02 06		7,560	USCGS: 33.5N, 140.9E h about 116Km. Near east coast of Honshu, Japan.
120	29	1P NEZ	09 42 11	-	4,200	USCGS: 0.2N, 123.9E h about 84Km. Northern Celebes.
121	29	1P NEZ	10 31 20	+		
122	29	1P NEZ	12 28 46	-		
123	30	1P NEZ	01 29 22	+	4,180	USCGS: .3N, 123.9E h about 159Kms. Northern Celebes.
124	30	eP NEZ eL EZ	08 52 19 14.2		5,280	USCGS: 15.2S, 172.8W h about 25Km. Samoa Is. region. Mag. 5 $\frac{3}{4}$ -6 (Pas.), 5 $\frac{3}{4}$ (Pal).
125	30	1P NEZ	14 56 29	=		
126	31	eP NZ	05 30 54		7,470	USCGS: 32.6N, 135.7E h about 300Km. South of Honshu, Japan.
127	31	1P NZ	16 30 26	+		

long period not functioning.

J/ Pearce.

D.J./Sutton.

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*APR
- JUN 61*

UNIVERSITY OF ADELAIDE SEISMOLOGICAL STATION

ADELAIDE (MT. BENYTHON)

Latitude: 34° 58' 01" Longitude: 138° 42' 32"

Height above mean sea level: 2150'

Geology: Sandstone

Equipment: Benioff variable reluctance seismometers with three component long and short period paper recorders.

$T_g = 75$ sec. and $T_g = 0.2$ sec. respectively.

No.	Phase	Time (G.M.T.)	Per	Amplitude			Δ Km.	Remarks
				A_n	A_e	A_z		
	eP Z	02 51 17					7230	USCGS: 30.5N, 139.7E h about 135km. South of Honshu, Japan.
	eP NEZ	15 31 41					10360	USCGS: 39.6N 77.7E, h about 21km. Sinkiang Province, China.
	i Z	34 20						
	iPP Z	35 24						Mag. 6(Pal).
	iSXS E	42 14						
	iS E	42 44						
1	iP N Z	12 31 01					*	
2	eP NEZ	13 09 11					5410	USCGS: 1.6S, 100.6E, h about 25km. Near coast of Sumatra.
2	iP NEZ	17 25 56					4140	USCGS: 0.5S, 123.2E, h about 139km., Celebes.
	iPP NEZ	20 24						
2	iP NEZ	18 54 07					3830	USCGS: .3S, 133E, h about 85km. Near coast of New Guinea.
2	eP NEZ	22 23 40						
	eL E	29.8						
3	eP NEZ	04 19 20						Local.
	iS NEZ	19 49.5						
3	iP Z	07 13 29					4180	USCGS: 0.1N, 124.3E, h about 25km. Northern Celebes.
4	iP NEZ	05 05 47					3600	USCGS: 2.4S, 138.2E, h about 99km. Near coast of New Guinea.
	i N Z	06 42						
	i NEZ	07 38						
4	iP NEZ	07 55 16					4660	USCGS: 19.6S, 177.1W, h about 276km. Fiji Islands region.
	iPcP Z	57 07						
4	eP NEZ	09 59 53.5					10320	USCGS: 40.1N, 77.8E, h about 16km. Sinkiang Province, China.
	iPcP Z	59 59						
4	eP NEZ	10 41 17					3390	USCGS: 5.4S, 149.4E, h about 124km. New Britain region: Felt.
	i E	44 44						
	eS E	46 07						
	i Z	46 41						
4	eP NEZ	13 50 11						Local?
5	eP NEZ	00 36 51					*	
5	eP N Z	21 35 04					2550	USCGS: 52.2S, 160.0E, h about 47km. Macquarie Island region.
	i E	39 32						
6	iP NEZ	07 18 07					*	
6	iP NEZ	14 14 24					5990	USCGS: 2.2N, 97.2E, h about 25km. Near coast of Sumatra.
	i S	14 55						
6	iP Z	15 35 42					-	
6	iP S.S.	15 39 48					3410	USCGS: 20.3S, 169.4E, h about 121km. Loyalty Islands region.
6	iP NEZ	17 47 0.5					*	
6	iP NEZ	17 50.5					-	5990 USCGS: 1.9N, 96.5E, h about 25km. Near coast of Sumatra.
	iP NEZ	30 07						



No.	Phase	Time (L.M.T.)	Dir	amplitude			Δ Km.	remarks
				A _n	A _e	A _z		
3	iP NEZ	08 43 04				+		
4	iP NEZ	10 16 00.5				+		
5	iP EZ	10 33 12				-		
6	iP NEZ	11 57 08				-	5270 USCGS: 10.0N, 122.1E, h about 62km Negros, Philippine Islands.	
7	eP NEZ	16 05 54					3390 USCGS: 18.2S, 168.6E, h about 120km. New Hebrides Islands reg.	
8	eL EZ	18 57.7						
9	iP NEZ	19 30 07				-	8010 USCGS: 37.6N, 140.3E, h about 189km. Honshu, Japan.	
10	iP NEZ	21 45 25					5540 USCGS: 14.8N, 145.1E, h about 105km. Mariana Islands region.	
	iS NEZ	52 26						
	i E	53 08					Mag. 6 $\frac{1}{2}$ (Pas.).	
11	iP NEZ	00 38 36				+	5520 USCGS: 14.6N, 145.3E, h about 118km. Mariana Islands region.	
12	iP NEZ	00 55 38.5				-		
13	iP NEZ	09 27 35				-	3710 USCGS: 26.0S, 178.4E, h about 655km. South of Fiji Islands.	
	iS NEZ	32 23						
14	iP NEZ	15 45 21				-	6760 USCGS: 24.1N, 122.2E, h about 13km. Near coast of Formosa	
	iS NEZ	53 32					Mag. 6 (Pas.).	
	eL EZ	16 08.00						
15	eP NEZ	14 11 47.5					Local. Felt Malden, Victoria.	
	eS NEZ	12 43						
16	iP NZ	17 47 26				+	4610 USCGS: 17.5S, 178.8W, h about 618km. Fiji Islands region.	
17	iP NEZ	19 47 08				-	3820 USCGS: 0.2S, 132.9E, h about 36km. Near coast of New Guinea.	
	i EZ	59 13						
	i E	20 00 45						
18	eP NEZ	00 37 07					Local	
	eS NEZ	37 57						
19	iP NEZ	18 39 03				+	3650 USCGS: 8.8S, 117.4E, h about 182km. Near south coast of Soembawa Island.	
20	eP NEZ	08 59 56					3530 USCGS: 8.2S, 119.7E, h about 242km. Near Flores Island.	
21	iP NEZ	15 45 36				-		
22	iP NEZ	17 25 02				-	4200 USCGS: 0.3N, 123.8E, h about 122km. Northern Celebes.	
	iPP NEZ	26 31						
23	ePKP NZ	22 39 36					14650 USCGS: 13.1N, 88.9W, h about 123km. EL Salvador. Minor damage at San Salvador and southern EL Salvador. Mag. 5 $\frac{3}{4}$ - 6 (Pas.).	
	i(NKP)NZ	22 43 06						
24	eP Z	15 36 16					6930 USCGS: 27.0N, 128.3E, h about 197km. Ryukyu Islands.	
25	eP Z	16 47 55					10380 USCGS: 40.1N, 77.8E, h about 19km. Sinkiang, China.	
	eL EZ	17 27.6						
26	iP NZ	12 49 23				+	5020 USCGS: 10.2N, 143.6E, h about 25km. Mariana Islands.	
27	iP NZ	19 05 53				-	4920 USCGS: 5.7S, 103.0E, h about 26km. Off south coast of Sumatra.	
28	eP Z	09 43 09					3900 USCGS: 32.2S, 178.9W, h about 131km. Kermadec Islands region.	
29	iP Z	17 33 35				-		

No.	Date 1961	Phase	Time (G.M.T.)	Per	Amplitude			Δ Km.	Remarks
					A _n	A _e	A _z		
50	April 16	eP Z	06 27 23					7160 USCGS: 29.9N, 138.8E, h about 387km. South of Honshu, Japan.	
51	16	eP Z eL E	12 12 27 24.2					3640 USCGS: 3.5S, 149.5E, h about 109km. New Ireland region.	
52	16	eP NEZ	16 55 26					Regional.	
53	16	eP? NEZ eS NEZ	23 14 49 15 12						
54	16	iP NEZ ipP Z iPP Z	23 19 12 19 24 20 17			*	3500 USCGS: 3.4S, 135.6E, h about 64km. Near south coast of New Guinea.		
55	17	iPKP Z	16 40 58			*	16370 USCGS: 3.9N, 31.5W, h about 25km. Mid Atlantic Ocean.		
56	17	iP N Z	20 55 01			*	4420 USCGS: 21.3S, 178.6W, h about 549km. Tonga Islands region.		
57	18	iP Z	08 39 07			-	8770 USCGS: 44.6N, 150.1E, h about 25km. Kurile Islands.		
58	18	iP Z	09 43 32			-			
59	18	iP NEZ isP NEZ e NEZ	13 50 08.5 50 32 55 35			+	3240 USCGS: 6.3S, 131.5E, h about 67km. Banda Sea.		
60	19	iP NEZ is NEZ e NEZ	02 58 44 59 03.5 55 20			-	Local Spalding north of Adelaide.		
61	19	iP NEZ e NEZ	03 49 15 55 20			-	3270 USCGS: 8.7S, 123.6E, h about 25km. Sawoe Sea.		
62	19	iP NEZ	13 04 12			-			
63	19	eP NEZ	16 24 25				8580 USCGS: 44.2N, 148.0E, h about 51km. Kurile Islands.		
64	19	eP N Z	20 02 16						
65	20	iP NEZ i Z iPP NEZ	00 21 04 21 53 22 14			-	3400 USCGS: 5.6S, 128.7E, h about 285km. Banda Sea.		
66	20	iP NEZ	08 23 18			-			
67	20	iP NEZ	13 25 07			-			
68	20	iP NEZ	18 25 27			-			
69	20	iP NEZ eL EZ	19 26 21 39.7			-	3920 USCGS: 32.9S, 178.8W, h about 58km. Kermadec Islands region.		
70	20	eP NEZ isP EZ eL EZ	21 47 38 47 53 22 02.5				5190 USCGS: 15.2S, 173.7W, h about 25km. South of Samoa Islands Felt : Apia. Mag 6 - 6 1/4 (Pas.).		
71	21	eP NEZ i NEZ i NEZ	02 56 38 57 10 03 02 35				3270 USCGS: 6.7S, 129.0E, h about 118km. Banda Sea.		
72	21	iP NEZ	13 55 39.5			-			
73	22	eP NEZ eL EZ	00 36 58 50.8						
74	22	iP NEZ	02 53 30			-			
75	22	eP NEZ eL EZ	19 05 55 20.0				3660 USCGS: 3.5S, 150.1E, h about 91km. New Britain region.		
76	23	iP NEZ	05 24 37			-	6820 USCGS: 26.2N, 129.8E, h about 110km. Iyukyu Islands.		
77	23	iP NEZ iPP Z	09 13 53 14 11			-	8870 USCGS: 44.6N, 150.2E, h about 44km. Kurile Islands. Mag 6.1 (Pas.) 6.1 (dark) (Pal)		

N Long Period not functioning throughout

No.	Date 1961	Phase	Time (G.M.T.)	Per	Amplitude			Δ Km.	Remarks
					A_n	A'_e	A_z		
78	April 25	eP Z	01 29 46					8860	USCGS: 44.5N, 150.0E, h about 78km. Kurile Islands.
79	25	iP NEZ iPP NEZ	02 38 45 40 10.5				+	4070	USCGS: 0.7S, 124.1E, h about 200km. Northern Celebes region.
80	25	iP NZ	10 11 29				+		
81	25	iP NEZ iPcP Z eL EZ	11 23 37 26 06 35.7				-	3930	USCGS: 32.7S, 178.5W, h about 45km. Kermadec Islands region. Mag. $5\frac{1}{2}$ - $5\frac{3}{4}$ (Pal.).
82	25	iP EZ	12 02 08				+		
83	25	iP Z	12 13 10.5				-		
84	25	iP EZ	19 43 15				-		
85	26	eP NEZ iS NEZ	00 29 18 29 48.5						Local
86	26	iP NEZ	01 52 39				+		
87	26	iP NEZ	02 88 59				+	4700	USCGS: 5.6S, 105.6E, h about 93km. Southern Sumatra.
88	26	eP NZ	06 26 45						
89	26	iP NEZ	07 29 30				-	4310	USCGS: 21.8S, 179.5W, h about 622km. Fiji Islands region.
90	26	iP NEZ	07 51 10				-	8870	USCGS: 44.6N, 149.9E, h about 20km. Kurile Islands. Mag. 6(Berk.) $5\frac{1}{4}$ - 6(Pal.).
91	26	iP NEZ	08 40 00				-		
92	26	eP EZ	13 21 47						No. Z,N,E short period from 1400gmt. - 2315gmt. on 26th.
93	26	eP EZ	17 00 32					4170	USCGS: 2N, 124.1E, h about 135km Northern Celebes.
94	27	iP NEZ	00 32 15				+	4080	USCGS: 25.3S, 180, h about 504km South of Fiji Islands.
95	28	eP NEZ	05 42 34						
96	28	iP Z	11 32 09				-		
97	28	iP Z	13 33 51				-		
98	28	iP NEZ	20 43 25				-	4610	USCGS: 17.7S, 178.7W, h about 595km. Fiji Islands.
99	28	i(P) NEZ	20 46 29				-		
100	29	iP NEZ eP NEZ	06 48 12 07 03 45				+	1940	USCGS: 49.8S, 126.8E, h about 119km. About 1100 miles south of western Australia.
101	29	e(P) Z	09 48 41						
102	29	eP NEZ	10 38 05					9160	USCGS: 41.8N, 104.5E, h about 25km. Outer Mongolia.
103	29	iP NEZ	13 24 52				-		
104	29	iP NEZ	22 46 19				-	3650	USCGS: 2.9S, 130.0E, h about 77km. Ceram Sea.
105	30	iP NEZ eT NEZ	00 15 09 00 35 17				+	2440	USCGS: 49.6S, 117.0E, h about 25km. About 950 miles south of western Australia.
106	30	iP NEZ	04 50 0.5				-		
107	30	eP NEZ	11 27 28					8860	USCGS: 44.6N, 149.7E, h about 70km. Kurile Islands.
108	30	iP NEZ e E	14 56 41 15 07 20				-	5130	USCGS: 15.3S, 174.4W, h about 25km. Samoa Islands region.

UNIVERSITY OF ADELAIDE SEISMOLOGICAL STATION

ADELAIDE (MT. BONYTHON)

 Latitude: $34^{\circ} 58' 01''$

 Longitude: $138^{\circ} 42' 32''$

Height above mean sea level: 2150'

Foundation: Sandstone

Instruments: Benioff variable reluctance seismometers with three component long and short period paper recorders.

 $T_g = 75$ sec. and $T_g = 0.2$ sec. respectively

No.	Date 1961	Phase	Time (G.M.T.)	Per	Amplitude			Δ Km.	Remarks
					A_n	A_e	A_z		
1	May 1	iP NEZ	08 58 50			*			
2	1	iP NEZ	11 13 44			-	4330	USCGS: 2.8N, 127.5E, h about 135km. Molucca Passage.	
3	1	eP NEZ e NEZ	12 41 32 43 01						
		N long period not functioning up to 0115 G.M.T. on 2nd.							
4	2	iP NEZ	01 37 42			*	4630	USCGS: 17.3S, 178.7W, h about 608km. Fiji Is. region.	
5	2	eP NEZ	19 45 36				4300	USCGS: 27.8S, 176.4W, h about 54km. Kermadec Is. region.	
6	2	iP N Z	19 46 56			-	4280	USCGS: 27.5S, 176.7W, h about 77km. Kermadec Is. region.	
7	2	iP N Z	20 56 25			-			
8	2	iP NEZ eL NEZ	22 52 06 23 03.3			-	4280	USCGS: 27.8S, 176.5W, h about 47km. Kermadec Is. region. Mag. $6\frac{3}{4}$ (Pas.), $6\frac{1}{4}$ - $6\frac{1}{2}$ (Berk.) $6\frac{1}{4}$ (Pal.).	
9	2	eP NEZ	23 31 21				4300	USCGS: 27.7S, 176.4W, h about 84km. Kermadec Is. region.	
10	3	eP NEZ	17 01 34				4330	USCGS: 27.8S, 176.1W, h about 49km. Kermadec Is. region.	
11	3	eP N Z	19 54 49						
12	4	iP NEZ	15 32 15			-	5610	USCGS: 0.6S, 98.8E, h about 41km. Near coast of Sumatra.	
13	4	iP NEZ	17 54 12				4560	USCGS: 5.0N, 127.6E, h about 25km. Off coast of Mindanao, P. I.	
14	5	iP NEZ eS E e E eL NEZ	13 50 41.5 56 36 14 00 40 05.0			-	4330	USCGS: 27.8S, 176.1W, h about 84km. Kermadec Is. region. Mag. $6\frac{1}{4}$ (Pas.).	
15	5	iP NEZ	16 13 38			-			
16	5	iP NEZ	16 20 27			-			
17	5	iP N Z	17 47 57			*	3790	USCGS: 7.9S, 161.6E, h about 25km. Solomon Is. region.	
18	5	eP Z	19 09 38				4350	USCGS: 27.5S, 176.0W, h about 76km. Kermadec Is. region.	
19	5	eP Z	20 44 33			-			
20	6	iP NEZ	04 00 31						
21	6	iP NEZ	21 24 28				4740	USCGS: 6.3N, 126.4E, h about 93km. Near coast of Mindanao, Philippine Islands.	

No.	Date 1961	Phase	Time (G.M.T.)	Per	Amplitude			Δ Km.	Remarks
					A _n	A _e	A _z		
22	May 6	iP NEZ	22 40 41			*	4740	USCGS: 6.3N, 126.3E, h about 110km. Near coast of Mindanao, P.I.	
23	6	iP NEZ iPcP Z	23 19 46 22 39			-	3490	USCGS: 17.2S, 167.9E, h about 96km. New Hebrides Is. region.	
24	6	eP NEZ	23 46 08				2610	USCGS: 51.5S, 161.3E, h about 21km. Macquarie Is. region.	
25	7	iP NEZ iPcP Z eS N Z eL NEZ	00 32 01.5 34 48.5 37 9 42.5			-	3560	USCGS: 6.1S, 154.4E, h about 123km. Solomon Is. region. Mag. $6\frac{1}{2}$ - $6\frac{3}{4}$ (Pas.).	
26	7	eP NEZ	03 19 48						
27	7	iP NEZ iS NE	04 39 12 44 42			-	4020	USCGS: 8.6S, 111.4E, h about 113km. Near coast of Java.	
28	7	iP NEZ eS NE eSS NE i N	10 30 33 36 46 39 54 43 34			*	4670	USCGS: 5.8N, 126.8E, h about 89km. Off coast of Mindanao, P.I.	
29	7	iP Z	14 57 24.5			-	3520	USCGS: 5.3S, 151.2E, h about 76km. New Britain region.	
30	7	iP NEZ	16 55 28			*			
31	8	eP N Z	08 31 08				3500	USCGS: 3.4S, 135.6E, h about 41km. Near coast of New Guinea.	
32	8	iP NEZ iPP N Z	22 59 17.5 23 00 44.5			-	4200	USCGS: 0.2N, 123.5E, h about 88km. Northern Celebes.	
33	9	iP? NEZ	02 44 58						
34	9	iP NEZ	11 12 48			-	3550	USCGS: 6.2S, 154.5E, h about 110km. Solomon Is. region.	
35	9	eP NEZ	11 56 24				4470	USCGS: 7.0S, 106.8E, h about 81km. Near coast of Java.	
36	9	eP Z	12 20 23						
37	9	eP N Z	13 31 53				3410	USCGS: 4.1S, 137.7E, h about 194km. New Guinea.	
38	9	eP NEZ e NEZ	14 06 17 12 08						
39	10	eP NEZ	10 13 47				5280	USCGS: 15.8S, 172.3W, h about 52km. Samoa Is. region.	
40	11	eP NEZ	00 58 20				3960	USCGS: 8.4S, 112.5E, h about 39km. Near coast of Java.	
41	11	eP NEZ	05 33 41				4580	USCGS: 19.1S, 178.0W, h about 486km. Fiji Is. region.	
42	11	eP N Z	07 17 41				3250	USCGS: 6.4S, 146.5E, h about 122km. Near coast of New Guinea.	
43	11	eP NEZ	07 57 47						
44	11	eP N Z	08 10 46						
45	12	eP N Z	02 53 17						
46	13	iP Z	05 00 01			-			
47	13	eP NEZ	13 49 05				4230	USCGS: 27.8S, 176.2W, h about 32km. Kermadec Is. region.	
48	13	iP NEZ eS E eL NEZ	14 26 07 32 04 41.00			*	4330	USCGS: 27.9S, 176.0W, h about 25km. Kermadec Is. region.	

No.	Date 1961	Phase	Time (G.M.T.)	Per	Amplitude			△ Km.	Remarks
					A _n	A _e	A _z		
49	May 13	iP NEZ iPcP Z iPP Z iPPP Z iScP Z iS NEZ i NEZ i Z	14 59 58 15 01 41 15 01 48 03 54 04 44 05 34 06 10 07 23				-	4610	USCGS: 17.5S, 178.8W, h about 556km, Fiji Is. region.
50	13	eP NEZ	16 01 28				-	8700	USCGS: 43.4N, 147.8E, h about 31km, Off north eastern coast of Hokkaido, Japan.
51	13	iP NEZ	17 07 03				-		
52	13	iP NEZ	19 29 34				-	6870	USCGS: 25.3N, 122.6E, h about 261km, Off northeast coast of Formosa.
53	14	iP NEZ iPP Z iPcP Z	00 18 44 18 57 21 45				*	3330	USCGS: 39.6S, 176.8E, h about 40km, North Is., New Zealand, Minor damage.
54	14	eP NEZ	02 50 46				*	4300	USCGS: 27.9S, 176.3W, h about 47km, Kermadec Is. region.
55	14	iP NEZ	03 13 18				*		
56	14	eP NEZ e NEZ	05 07 42 13 37						
57	14	eP NEZ i Z	10 31 10 31 41					3260	USCGS: 7.1S, 128.0E, h about 60km, Banda Sea.
58	14	iP NEZ i Z	12 30 39.5 31 50				-	3250	USCGS: 6.3S, 146.2E, h about 79km, New Guinea.
59	14	eP N Z	13 46 06						
60	14	iP NEZ	16 09 03.5				-		
61	14	eP NEZ	19 45 45						
62	15	eP NEZ	11 19 47					3500	USCGS: 7.1S, 122.3E, h about 248km, Flores Sea.
63	15	iP NEZ	21 00 44					4610	USCGS: 20.0S, 177.2W, h about 39km, Tonga Is. region.
64	16	iP NEZ iS NEZ	06 54 52.0 56 22				-		
65	16	iP NEZ	08 05 08						Local?
66	16	iP NEZ	17 05 32				-		
67	16	eP NEZ	17 34 54					4280	USCGS: 27.9S, 176.4W, h about 53km, Kermadec Is. region.
68	16	iP NEZ	21 56 13				-	7170	USCGS: 30.0N, 132.0E, h about 25km, Ryukyu Is. Mag. $5\frac{1}{4} - 5\frac{1}{2}$ (Pal.).
69	17	eP Z	01 02 17					3900	USCGS: 14.3S, 170.4E, h about 137km, New Hebrides Is.
70	17	iP NEZ iS NEZ	01 39 17.5 39 33				-		Local.
71	17	eP N Z	19 42 32					10210	USCGS: 52.0N, 173.9E, h about 21km, Near Islands, Aleutian Islands. Mag. 6 (Pas.), $6\frac{1}{4} - 6\frac{1}{2}$ (Pal.).
72	17	iP N Z	19 56 44.5				-		

No.	Date 1961	Phase		Time (G.M.T.)	Per	Amplitude			Δ Km.	Remarks
						A _n	A _e	A _z		
73	May 18	iP	NEZ	20 45 35.5			*	4570	USCGS: 4.6N, 125.7E, h about 126km Near south coast of Mindanao, P.I.	
		i	Z	46 43						
		iS	NEZ	51 34						
74	19	iP	NEZ	00 57 57			*	4500	USCGS: 3.8N, 125.7E, h about 77km. Off south coast of Mindanao, P.I.	
		iPP	Z	58 18						
		iPcP	Z	59 59						
		eS	NE	01 03 58						
75	19	iP	NEZ	02 28 00			-	4160	USCGS: 22.5S, 179.2E, h about 600km. Fiji Is. region.	
76	19	eP	N Z	09 44 51						
77	19	eP	NEZ	16 47 37				6720	USCGS: 24.1N, 123.4E, h about 71km. Ryukyu Islands.	
78	19	iP	NEZ	20 04 47			*			
79	20	eP	NEZ	16 51 33						
80	21	iP	NEZ	12 49 11			*			
81	21	iP	NEZ	21 17 17			*	4260	USCGS: 2.0N, 127.0E, h about 103km Molucca Passage.	
82	21	iP	NEZ	21 42 22				1080	USCGS: 34.3S, 150.4E, h about 27km New South Wales, Australia. Minor damage in Sydney area.	
		iPP	Z	42 35						
		i(PPP)	Z	42 45						
		iS	NEZ	44 07						
		iL	N Z	45 10						
		i	N	52 14						
83	22	eP	NEZ	11 42 24				3950	USCGS: 2.8S, 121.9E, h about 50km. Celebes.	
84	22	iP	NEZ	13 52 31			*	4770	USCGS: 21.3S, 174.4W, h about 97km. Tonga Is. Mag. $6\frac{3}{4}$ (Pas.), $5\frac{3}{4}$ (Berz.), $6\frac{1}{4}$ (Pal.).	
		i	Z	52 44						
		eL	NEZ	08.3						
85	22	iP	NEZ	14 32 38			*			
86	22	iP	NEZ	17 40 03			*	4570	USCGS: 22.8S, 176.1W, h about 35km. Tonga Is. region. Mag. $6\frac{1}{2}$ - $6\frac{3}{4}$ (Pas.).	
		i	Z	40 37						
		i	Z	41 07						
		iScS	NE	50 09						
		i	NE	50 38						
87	23	iPKP	NEZ	03 04 15			-	13820	USCGS: 36.4N, 28.3E, h about 49km. Dodecanese Is. Moderate. Property damage in Rhodes area and in south-western Turkey. Mag. $6\frac{1}{4}$ (Pas.)(Pal.).	
		eL	NEZ	54.3						
88	23	iPKP	NEZ	17 04 05			-	14760	USCGS: 12.6N, 87.3W, h about 138km. Near coast of Nicaragua. Felt at Managua and southeastern El Salv- ador. Mag. $6\frac{1}{2}$ (Pas.).	
89	24	iP	NEZ	17 24 33			-	3420	USCGS: 8.2S, 121.8E, h about 36km. Flores Sea.	
90	25	iP	NEZ	13 49 40			-			
91	25	iP	NEZ	17 41 29.5			-	4570	USCGS: 22.7S, 176.1W. Tonga Is. h about 25km.	
92	25	eP	NEZ	19 41 11				4980	USCGS: 4.2S, 103.3E, Sumatra. h about 93km.	
93	25	iP	NEZ	21 15 02			-	4900	USCGS: 14.8S, 177.4E, h about 417km Fiji Islands region.	
94	26	iPKP	NEZ	09 00 11			*	14100	USCGS: 10.1S, 70.6W, h about 678km. Peru-Brazil border.	

No.	Date 1961	Phase		Time (G.M.T.)	Per	Amplitude			△ Km.	remarks
						A _n	A _e	A _z		
95	May 26	iP	NEZ	12 43 12				-		
96	26	iP	NEZ	22 11 41				+		
97	26	iP	NEZ	23 14 27				-		Local.
		eS	NEZ	14 47						
98	27	eP	NEZ	00 30 20						Local.
		iS	NEZ	30 55						
99	27	eP	NEZ	07 29 47					8390	USCGS: 41.0N, 142.1E, h about 156km. Near north-coast of Honshu, Japan.
100	27	eP	NEZ	17 01 25					5720	USCGS: 0.8N, 98.5E, h about 39km. Near coast of northern Sumatra.
101	27	eP	NEZ	17 35 38					5770	USCGS: 1.2N, 98.4E, h about 36km. Near north-west coast of Sumatra.
102	27	eP	N Z	18 23 50						
103	27	eP	NEZ	22 47 49					5980	USCGS: 15.8N, 119.2E, h about 92km. Near coast of Luzon, P.I.
104	28	iP	NEZ	02 36 31				-	3390	USCGS: 4.9S, 145.0E, h about 59km. Near north coast of New Guinea.
105	28	iP	NEZ	04 08 01				-	4940	USCGS: 5.4S, 102.4E, h about 74km. Off coast of southern Sumatra.
106	28	eP	NEZ	10 53 32					3350	USCGS: 5.1S, 144.8E, h about 25km. Near north coast of New Guinea.
107	28	eP	NEZ	12 48 41					4270	USCGS: 27.7S, 176.8W, h about 90km. South of Fiji Islands.
108	28	iP	NEZ	19 35 23				-		
109	29	eP	NEZ	10 39 54					6930	USCGS: 27.7N, 141.7E, h about 25km. Bonin Islands.
110	29	eP	N Z	17 00 58					5920	USCGS: 16.2N, 122.4E, h about 25km. Near coast of Luzon, P.I.
111	29	iP	Z	17 46 43.5				-		
112	29	iP	NEZ	17 55 47				+	4280	USCGS: 2.5N, 128.4E, h about 23km. Halmahera region.
113	30	eP	NEZ	16 05 35						
114	31	iP	NEZ	13 29 23				-		
115	31	iP	NEZ	14 51 47.5				-	9400	USCGS: 48.9N, 154.5E, h about 50km. Kurile Islands.
116	31	eP	NEZ	19 22 17					3530	USCGS: 5.3S, 151.6E, h about 56km. New Britain. Felt.
		eS	NE	27 24						
		eL	NEZ	24.5						Mag. $5\frac{1}{2}$ - $5\frac{3}{4}$ (Pal.).

J. PEARCE

D.J. SUTTON

UNIVERSITY OF ADELAIDE SEISMOLOGICAL STATION

ADELAIDE (MT. BOKYTHON)

Latitude: $34^{\circ} 50' 01''$ Longitude: $138^{\circ} 42' 32''$

Height above mean sea level: 2150'

Foundation: Sandstone

Instruments: Benioff variable reluctance seismometers with three component long and short period paper recorders.

$T = 75$ sec. and $T = 0.2$ sec. respectively.
 σ σ

No.	Date	Phase	Time (G.M.P.)	Per	Amplitude			@ Km.	Remarks
					A_N	A_E	A_Z		
1	Jul 17	1P	NEZ 00 36 18.5						
2		1P 1S	NEZ 02 50 40 NEZ 50 42					Local	
3		eP 1PP 1PPP 1 1S 1SS 1SSS	NEZ 09 37 01 NEZ 37 10 NEZ 37 19 NEZ 37 52 NEZ 38 15 NEZ 38 24 NEZ 38 36				670	USCGS: 38.4N, 144.2E h about 28km Bass Strait.	
4		eP eS	NEZ 09 54 35 NEZ 56 04					Regional	
5		e(PKP) 1PKP	NEZ 10 22 27 NEZ 22 42				16760	USCGS: 19.5N, 69.3W h about 53km Near coast of Dominican Republic	
6		eP	NEZ 11 25 58				3570	USCGS: 3.8S, 129.4E h about 220km Gesam Island	
7		eP 1S 1SS 1SSS 1	NEZ 13 21 16 NEZ 22 29 NEZ 22 39 NEZ 22 50 NEZ 22 56				670	USCGS: 38.3S, 144.2E h about 29km Bass Strait	
8		1P	NEZ 13 39 42.5				4180	USCGS: 0.0, 123.2E h about 312km Northern Celebes	
9		1P	NEZ 18 54 35				4920	USCGS: 6.7N, 123.1E h about 87km Celebes Sea	
10	2	eL	NEZ 00 18 8						
11	5	eP	NEZ 04 43 03				3340	USCGS: 5.5S, 146.4E h about 32km Near coast of New Guinea	
12	2	eL	NEZ 05 52 0						
13	1	eP	NEZ 06 51 47						
14		1P	NEZ 03 28 12.5						

No.	Date	Phase		Time (G.M.T.)	per	Amplitude			Remarks
						A_h	A_e	A_z	
15	3	eP	NZ	05 03 33					
16	3	eP	NEZ	06 01 42				3620	USCGS:4.3S, 151.1E h about 18km. New Britain region
17	3	eP)	Z	06 05 43					
18	3	eP	NZ	09 21 07				3610	USCGS:4.3S, 150.9E h about 25km New Britain region Felt Rangarere & Rabaul
19	3	1P 1	NEZ NEZ	17 50 33 51 13				+ 4200	USCGS:0.3N, 123.8E h about 88km Northern Celebes
20	4	1P	NEZ	03 57 06				+	
21	4	1P	NEZ	07 45 49				9660	USCGS:33.8N, 81.8E h about 46km Fibet Mag. 6½ (Pas)
22	4	1P 1PcP	NEZ NE	07 56 29 58 33				+ 9660	USCGS:34.2N, 82.2E h about 30km Fibet
23	4	1P e	NEZ E	08 51 27.5 09 09 43				- 3250	USCGS:8.7S, 124.2E h about 18km Flores Island
24	4	1P	NEZ	15 21 33				+	
25	5	1P	NEZ	15 21 45				+	
26	5	1P 1PcP	NEZ Z	17 36 25 39 10				3600	USCGS:5.5S, 153.5E h about 110km New Britain
27	5	eP	NEZ	17 39 18					
28	7	1P	NEZ	01 2					
29	7	1P	NEZ	03 2					
30	7	1P	NEZ	15 44 49				3860	USCGS:10.7S, 166.3E h about 209km Santa Cruz Islands
31	7	eP	NZ	19 25 12				3790	USCGS:1.0S, 134.1E h about 59km West New Guinea
32	8	1P	Z	09 40 51				3570	USCGS:10.0S, 161.2E h about 100km Solomon Islands
33	8	1P 1 1 1S eSS	NEZ NZ NE NE NE	15 50 18 50 52 51 12 55 20 57 06				- 3430	USCGS:8.1S, 121.7E h about 25km Floris Sea
34	8	eP	NZ	16 53 28					USCGS:8.4S, 121.6E, h about 25km Flores Island



No	Date 1961	Phase	Time (G.M.P.)	Amplitude				Remarks
				A _n	A _e	A _z	ΔKm	
35	9	1P	NEZ 15 27 31.5	+	6330		USCGS: 5.5N, 95.8E h about 100km Near coast of Sumatra	
36	9	1P	NZ 15 53 28 <i>K</i>	-	7170		USCGS: 30.10N, 140.1E h about 170km Sth of Honshu, Japan	
37	9	1P	NEZ 18 59 22	-	3830		USCGS: 10.7S, 165.4E h about 115km Santa Cruz Islands	
38	9	1P	NEZ 22 12 08	+	3450		USCGS: 7.0S, 122.3E h about 20km Flores Sea	
39	10	1P	Z 00 45 22	+	3560		USCGS: 10.7S, 149.0W h about 100km Solomon Sea	
40	10	eP	NEZ 08 54 01		3430		USCGS: 9.10N, 171.1E h about 70km Banda Sea	
41	10	1P 1 1S	NEZ 15 58 50 Z 59 14 NEZ 59 27	-			Local	
42	11	eP eS	NEZ 01 11 20.5 NEZ 12 03				Local	
43	11	eP eL	NEZ 05 24 20 NEZ 06 08.2		11270		USCGS: 28.9N, 54.6E h about 38km Sth. Iran. Major Property damage many casualties in (ar area. Mag. 6.5-6.7 (P=6) 6.5-6.7 (M=6.5)	
44	11	1P	NEZ 14 54 31	+	4040		USCGS: 18.3N, 77.2E h about 60km Karnatak Sea	
45	11	eP	Z 17 26 47		7790		USCGS: 24.3N, 98.4E h about 30km Burma-China Border region	
46	11	eP	NEZ 22 10 11	-	6330		USCGS: 22.4N, 174.0E h about 100km Volcano Is. region	
47	11	1P	Z 22 29 35	-				
48	12	oP	NZ 07 01 44		4020		USCGS: 9.2N, 110.4E h about 44km Off sth coast Java	
49	12	eP	NEZ 07 40 35		2660		USCGS: 49.6S, 163.0E h about 34km Sth west of South Island, New Zealand	
50	12	1P	NEZ 10 08 50.5	+	7160		USCGS: 21.5N, 106.0E h about 55km NTH VIET- SEA	

No	Date YY.	Phase	Time (G.M.T.)	Amplitude A_z	Δ Km.	Remarks
51	12	eP	NEZ 35 25			
52	12	1P	Z 14 42 27	+		
53	12	eP 1PcP	NEZ 17 59 47 Z 02 35.5		3520	USCGS: 6.9S, 155.0E h about 110km Solomon Is.
54	13	1P	NZ 12 03 07	-	4250	USCGS: 0.0, 121.5E h about 20km Celebes.
55	13	1P	NEZ 13 23 03	-		
56	13	1P 1(P) 1PcP 1 1ScP eS	NEZ 21 45 31.5 Z 47 16 Z 47 28 Z 48 11 NEZ 51 05 H 51 32	-	4570	USCGS: 21.4S, 176.4W h about 146km Tonga Islands region
57	14	1P	NEZ 00 52 13.5	-	7990	USCGS: 24.5N, 95.0E h about 52km Northern Burma
58	15	1P	NEZ 02 39 16	+		
59	15	eP	NEZ 06 45 28			
60	16	ePKP	NZ 10 51 12		15650	USCGS: 8.8N, 73.4W h about 120km Northern Columbia Petai, Barrancabermeja, Maracaito, Penasuola, Maq 6 (Pas)
61	16	eP	NZ 16 13 40		5290	USCGS: 11.1N, 125.0E, h about 63km Near north east of Mindanao, P.I.
62	17	eP	NZ 03 40 53		4050	USCGS: 29.0S, 178.6W, h about 253km Kermadec Is.
63	17	1P	NEZ 14 41 00	-	5130	USCGS: 9.9N, 126.0E, h about 25km, Mindanao, Philippine Is.
64	17	1P e	NEZ 15 30 27 NEZ 16 30	-	3450	USCGS: 3.7S, 138.2E, h about 139km, Central New Guinea
65	18	1P 1 1S	NEZ 03 19 00 NEZ 23 53 NEZ 24 04	+	4150	USCGS: 5.9S, 113.0E, h about 64km, Java Sea
66	18	1P	NEZ 13 29 05.5	-	4170	USCGS: 0.2N, 123.7E h about 91km, Celebes
67	18	1P	NEZ 14 01 30	-	3820	USCGS: 31.3S, 179.8E h about 434km, Kermadec Is. region
68	18	1P	NEZ 14 06 52	-		
69	18	1P eS	NEZ 16 18 59.5 NEZ 22 50	-	2440	USCGS: 20.0S, 119.3E, h about 13km, Near coast of Western Australia
70	19	1P	NZ 00 54 18	+	4320	USCGS: 22.5S, 178.9W, h about 477km, Tonga Islands region
71	19	1P	NEZ 01 42 07	-		

No.	Date 1961	Phase	Time (G.M.P.)	Amplitude A_z	Δ Km.	Remarks
72	19	1P	NEZ 01 54 15	-	5540	USCGS: 12.6N, 121.9E, h about 120km Luzon, Philippine Is
73	19	eP	NZ 02 31 45	-	5540	USCGS: 12.5N, 122.2E, h about 20km, Near Sth coast of Luzon, P.I.
74	19	eP	NZ 10 26 42	-		
75	19	1P	NZ 17 17 38	-	10550	USCGS: 36.6N, 71.0E, h about 151km, Hindu Kush
76	20	eP	Z 06 36 10	-		
77	20	eP	NZ 14 33 10	-	3320	USCGS: 21.8S, 169.3E, h about 64km, Loyalty Islands REG.
78	20	eP	NZ 16 38 58	-	3760	USCGS: 10.5S, 164.9E, h about 50km, Santa Cruz Islands
79	21	eP	NZ 06 58 13	-		
80	21	eP eL	NZ 07 39 37 NEZ 50 8	-	3120	USCGS: 7.7S, 146.7E, h about 25km, Easter New Guinea Felt: Wau
81	21	1P	NZ 09 11 47	-	5030	USCGS: 8.4N, 124.4E, h about 615km, Near North coast of Mindanao, P.I.
82	21	eP	NEZ 15 02 07	-		
83	21	1P	NEZ 16 43 16.5	-	3370	USCGS: 5.9S, 128.5E, h about 389km, Banda Sea.
84	21	1P	NEZ 16 44 24	-		
85	21	1P e	NEZ 20 32 05 NEZ 39 56	+	4200	USCGS: 7.6S, 110.0E, h about 163km, Near North coast of Java.
86	23	eL	EZ 09 53 7	-		
87	23	1P	NEZ 10 14 36	-	5940	USCGS: 18.5N, 145.2E, h about 256km, Mariana Is.
88	23	1P	NEZ 19	-		
89	24	eP	NEZ 01 56 25	-		
90	24	eP	NZ 07 15 13	-		
91	24	1P eL	NEZ 09 45 21 E 10 04 1	-	6110	USCGS: 4.1N, 97.5E, h about 188km, Sumatra
92	24	1P	NEZ 16 08 34	+	4270	USCGS: 2.1N, 126.9E, h about 60km, Molucca Passage
93	24	eP i 1ScS i	NEZ 16 25 24 NEZ 26 18 E 35 14 E 36 32	-	3410	USCGS: 4.6S, 144.9E, h about 212km, Near north coast of New Guinea
94	24	eP	NZ 17 03 41	-	3610	USCGS: 10.5S, 162.5E h about 32km, Solomon Is.

No.	Date 196*	Phase	Time (G.M.T.)	Amplitude A Km. A ₀	Remarks
96	24	SP SB	NRZ RZ 08 31 38 06 24	3040	USCGS:2.98,130.4E, h about 19km, Casar Sea
97	27	SP L	NRZ RZ 06 35 35 27 17		
98	27	SP	NRZ 09 17 08.5	4570	USCGS:19.4S,177.9W, h about 489km, Fiji Islands
99	27	SP	NRZ 10 32 17		
100	28	SP	RZ 16 31 21	6170	USCGS:19.9N,121.3E h about 143km Near north east of Ison. p.i.
101	29	SP SB	NRZ RZ 16 35 19 17 04 16	6070	USCGS:21.7N,143.1E h about 13km, North of Mariana Is Mag 5 $\frac{1}{2}$ (Berk)
102	29	SP	NRZ 18 07 27		
103	31	SP L SP L	RZ RZ 07 17 13 1 05 12 43.5 21 2	3170	USCGS:21.3S,170.1E, h about 29km, Loyalty Islands
104	31	SP	RZ 15 00 41	10270	USCGS:52.9N,174.5E, h about 60km, Near Islands, Aleutian Islands. Mag. 5 $\frac{1}{2}$ -5 $\frac{3}{4}$ (Pal)
105	07	SP SP SB SB	NRZ RZ RZ NRZ 07 13 45 17 32 21 10 22 0	8050	USCGS:27.8N,99.4E, h about 33km, Yunnan Province, China. Mag. 6(Pas), 6 $\frac{1}{2}$ (Berk) 5 $\frac{1}{2}$ -6(Pal)
106	07	SP	RZ 10 07 21		
107	07	SP	RZ 11 05 18		
108	07	SP	RZ 12 05 50		
109	07	SP	NRZ 11 21 12		
110	23	SP	NRZ 13 32 36	1970	USCGS:4.7S,102.7E, h about 142km Near South coast of Sumatra
111	27	SP	RZ 11 07 45		
112	28	SP	RZ 14 05 37.5		
113	28	SP	NRZ 03 22 28	1700	USCGS:6.5S,125.7E, h about 3229km, Mindanao, Philippine Islands
114	29	SP	RZ 08 33 39.5		
115	29	SP L L L	NRZ RZ RZ RZ 09 25 25 K 27 09 24 24 22 2 21 5	3740	USCGS: 19.0S,166.0E, h about 37km, New Hebrides I Mag. 6 $\frac{1}{2}$ -6 $\frac{3}{4}$ (Berk) 5 $\frac{1}{2}$ -5 $\frac{3}{4}$ (Pal)
116	29	SP	NRZ 10 30 27		
117	29	SP	NRZ 10 30 27		

No.	Date 1961	Phase	Time (G.M.T.)	per	Amplitude ΔZ	Km	Remarks
116	29	1P	NEZ 20 44 22		-		
117	30	1P	NEZ 02 47 21		-		
118	30	1P i e	NEZ 18 57 05.5 Z 57 38 E 19 02 52		+ 3260		USCGS: 6.75, 129.4E, h about 179km, Banda Sea
119	30	eP	NEZ 19 50 40				

(J. PEARCE.)

(D. J. SUTTON)

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UNIVERSITY OF ADELAIDE SEISMOLOGICAL STATION

ADELAIDE (Mt. BONYTHON)

Latitude: 34° 58' 01" Longitude: 138 42' 32"
 Height above mean sea level: 2150'
 Foundation: Sandstone
 Instruments: Benioff variable reluctance seismometers with three component long and short period paper recorders.
 $T_g = 75$ sec. and $T_g = 0.2$ sec. respectively

No.	Date 1961	Phase	Time (G.M.T.)	Amplitude A_z	Δ Km.	Remarks
1	July 1	eP NEZ	08. 10 39		7150	USCGS: 29.8N, 140.5E, h about 137km Bonin Islands region.
2	1	eP NEZ	11 45 43		3160	USCGS: 7.7S, 148.3E, h about 64km Near ^e coast of New Guinea
3	1	iP NEZ	13 40 10		4610	USCGS: 17.6S, 178.7W, h about 600km, Fiji Is. region.
4	1	iP NEZ	18 57 57.5		4620	USCGS: 17.9S, 178.4W, h about 601km. Fiji Islands
5	1	eP NEZ e(s) NEZ	22 52 19 54 05			Local?
6	2	eP NZ	05 18 41			
7	2	iP NZ	17 08 52	+		
8	4	iP NEZ	06 19 54	+	5910	USCGS: 17.9N, 146.4E, h about 145km. Mariana Islands
9	4	iP NEZ	18 14 34	+		
10	4	eP NEZ iS E eL NEZ	19 22 40 26 45 29.2		2440	USCGS: 55.8S, 147.4E, h about 39km, Macquarie Island Region
11	4	eP NZ	20 03 17		2440	USCGS: 55.4S, 147.8E, h about 122km., Macquarie Is. region.
12	6	eP NEZ iS NEZ	13 01 10 01 17			Local
13	6	iP NZ	18 40 22	-	3610	USCGS: 7.0S, 120.4E, h about 598km., Floris Sea.
14	6	iP NEZ i Z iPP NEZ eS NEZ eL NEZ	22 15 44.5 16 25 16 44 20 41 24.6	-	3390	USCGS: 20.0S, 169.0E, h about 47km., New Hebrides Islands Mag6 $\frac{1}{2}$ (Pas). 6 $\frac{1}{2}$ -6 $\frac{3}{4}$ (Pal)
15	7	iP NEZ	03 27 38.5	+	3663	USCGS: 14.1S, 167.2E, h about 201km., New Hebrides Islands, Felt Santo.
16	7	eP NEZ eS NEZ	10 04 55 05 11			Local

No.	Date 1961	Phase		Time (G.M.T.)		Amplitude		Remarks
						A _z	ΔKm	
17	July 7	eP	NEZ	13	17 00		3420	USCGS: 5.7S, 149.7E, h about 57km., New Britain, Felt Mag. 6-6½ (Pas.)
		i	Z		18 54			
		iS	NEZ		22 02			
		eL	NEZ		27.7			
18	7	eP	NEZ	22	25 48		3390	USCGS: 20.1S, 169.2E, h about 89km. Loyalty Islands region. Mag. 5-5½ (Pa1)
19	8	eP	NEZ	02	41 33		3390	USCGS: 20.0S, 168.8E, h about 52km. Loyalty Islands
		eL	NEZ		50.6			
20	8	iP	Z	12	35 41	-		
21	8	eP	NEZ	15	40 51		3440	USCGS: 20.1S, 169.8E, h about 44km., Loyalty Islands.
		iS	EZ		45 46			
22	8	eP	NEZ	15	46 25			
23	8	eP	NEZ	21	20 14		3370	USCGS: 20.2S, 169.0E, h about 56km. Loyalty Islands
24	8	eP	NEZ	21	54 56		3370	USCGS: 20.2S, 169.0E, h about 68km., Loyalty Islands region
25	9	iP	NEZ	03	40 54.5	-		
26	10	eP	NEZ	00	28 59			Local
		iS	NEZ		29 04			
27	10	eP	NEZ	21	12 55			
28	11	iP	NEZ	08	08 24.5	-		
		a	NEZ		13 56			
29	11	iP	NEZ	09	41 55	-	6720	USCGS: 8.3N, 93.3E, h about 163km, Nicolau Isl. region.
		eL	EZ	10	07.7			
30	11	eP	NEZ	16	34 31		4660	USCGS: 21.5S, 175.7W, h about 90km. Tonga Islands
31	11	iP	NEZ	18	41 25	-	3390	USCGS: 6.7S, 125.8E, h about 579km., Banda Sea.
		iS	NEZ		45 49			
32	12	iP	NEZ	04	54 54.5	+	4370	USCGS: 3.3N, 127.9E, h about 92km., Molucca Passage
33	12	eP	Z	13	39 09			
34	13	eP?	NEZ	05	48 12			
35	13	eP?	NEZ	07	02 37			
36	13	eP	NEZ	10	38 21		3470	USCGS: 5.5S, 150.8E, h about 25km., New Britain
37	13	iP	NEZ	13	52 56	+	4670	USCGS: 21.3S, 175.7W, h about 29KM., Tonga Islands
38	13	iP	NEZ	21	54 37	-	6600	USCGS: 22.8N, 122.7E, h about 100 km, Off east coast of Formosa.
							4660	USCGS: 25.2S, 179.7E, h about

No.	Date 1961	Phase		Time		Amplitude		Remarks	
				(G.M.T.)		A _e	Δ Km		
40	July 14	iP	NEZ	03	43	36	-	4930	USCGS: 14.7S, 177.2W, h about 100km., Fiji Islands region.
41	15	iP	NEZ	00	26	50	+	5650	USCGS: 13.1N, 120.4E, h about 52km, Luzon, Philippine Is.
42	15	iP iS	NEZ NEZ	01	01	19 24.5			Local?
43	15	eP	NEZ	08	02	36		2660	USCGS: 57.8S, 148.5E, h about 60km., South west of Macquari Island.
44	15	iP	NEZ	12	00	34.5	-	3520	USCGS: 3.8S, 131.4E, h about 100km., Ceram
45	15	iP IPP iS	NEZ NEZ NEZ	14	01	31.5 08 06 06 19	+	3830	USCGS: 6.8S, 116.5E, h about 565km., Java Sea
46	15	iP	NEZ	20	40	18	+	4480	USCGS: 20.3S, 178.2W, h about 511km., Fiji Islands region
47	16	iP	NEZ	01	57	28	-	3460	USCGS: 4.3S, 131.5E, h about 138km., Banda Sea
48	16	iP	NEZ	02	53	44	+	3590	USCGS: 10.8S, 162.4E, h about 98km., Solomon Islands
49	16	iP	NEZ	05	30	22.5	+	4820	USCGS: 19.0S, 175.4W, h about 200km., Tonga Islands
50	16	iP	NEZ	06	55	09.5	-	4820	USCGS: 18.6S, 175.7W, h about 172km., Tonga Islands
51	16	iP	NEZ	13	06	19	+		
52	16	eP eL	NEZ NEZ	14	07	53 17.6		3430	USCGS: 22.7S, 171.2E, h about 56km, Loyalty Islands region Mag. 5 ¹ / ₂ (Berke)
53	16	eP	NEZ	20	06	57		3890	USCGS: 34.3S, 178.5W, h about 191km, Kermadec Is. region
54	17	eP i	NEZ EZ	15	11	13 22 32		3590	USCGS: 2.6S, 141.9E, h about 60KM. Near coast of New Guin.
55	17	eP	NEZ	15	39	17		3610	USCGS: 2.4S, 141.5E, h about 9km, Near coast of New Guin.
56	17	eP	NEZ	16	20	43			
57	17	eP	NEZ	16	31	30			
58	17	eP	Z	17	14	38		3550	USCGS: 5.4S, 152.4E, h about 64km, New Britain.
59	18	iP	NEZ	02	47	23.5	+		
60	18	iP	NEZ	05	20	43	-		
61	18	iP	NEZ	10	19	51	-		
62	18	eP i	NEZ Z	12	26	09 26 15.5			

No.	Date 1961	Phase	Time (G.M.T.)	Amplitude		Remarks
				A _e	Δ Km	
63	18	iP NEZ s Z iS NE e NEZ	13 09 39.5 10 11 14 37 15 15	-	3370	USCGS: 5.9S, 128.5E, h about 25km, Banda Sea.
64	18	iP NEZ eS EZ ePS EZ eL NE eL Z i NEZ	14 14 16 22 38 23 12 34.1 38.1 43 13	-	7150	USCGS: 29.4N, 131.6E, h about 21km. Northern Ryukyu Isl. felt: Kyushu, Japan. Mag. 6 ¹ / ₂ -6 ³ / ₄ (Pas), 6 ³ / ₄ -7(Berk) 6 ² / ₂ (Pal)
65	18	iP NEZ iS NEZ	14 16 10 16 28	-		Local Local
66	18	iP NEZ	14 44 40	K -	7220	USCGS: 29.9N, 131.2E, h about 72km, Northern Ryukyu Islands
67	18	iP NEZ	15 28 51	-	7160	USCGS: 29.5N, 131.3E, h about 35km. Northern Ryukyu Islands
68	18	eP Z iP Z	15 47 28 47 38	-	7170	USCGS: 29.5N, 131.7E, h about 25km, Northern Ryukyu Islands
69	18	iP NEZ i pP Z	16 30 45 30 55	+	7160	USCGS: 29.5N, 131.2E, h about 62km, Norther Ryukyu Islands
70	18	iP Z i pP Z	16 59 15 59 26	+	7160	USCGS: 29.5N, 131.8E, h about 60km, Norther Ryukyu Islands
71	18	iP Z i Z	18 44 14.5 44 25	+		USCGS: 29.7N, 131.4E, h about 84km, Northern Ryukyu Islands
72	18	eP NEZ i pP Z	19 39 40 39 53	-	7140	USCGS: 29.3N, 131.6E, h about 60km, Northern Ryukyu Islands
73	18	eP NEZ	23 53 15.5	-	7180	USCGS: 29.7N, 131.4E, h about 39km, Northern Ryukyu Islands
74	19	eP NEZ eS NEZ	03 40 36 41 16	-		Local
75	19	eP NEZ	04 03 19	+	9490	USCGS: 58.8S, 25.3W, h about 39km, Sandwich Islands
76	19	eP Z i pP Z	05 40 34 40 45	-	7130	USCGS: 29.2N, 131.3E, h about 60km, Norther Ryukyu Islands
77	19	eP NZ	06 43 59	-	7170	USCGS: 29.6N, 131.7E, h about 27km, Northern Ryukyu Islands
78	19	eP NEZ	10 46 17	-	7190	USCGS: 29.8N, 131.5E, h about 20km, Northern Ryukyu Is.
79	19	iP NEZ	12 09 22	-	7180	USCGS: 29.6N, 131.5E, h about 31km, Northern Ryukyu Is.
80	19	eP Z i pP Z	19 56 10 56 21	-	7240	USCGS: 30.3N, 131.4E, h about 41km, Northern Ryukyu Is.
81	20	iP NEZ	02 12 12	+		
82	20	iP NEZ	02 24 16	+		

No.	Date Time	Phase	Time (G.M.T.)	Amplitude Δ Km		Remarks
				A_e		
101	21	aP	NEZ	23 28 20		3390 USCGS: 18.6S, 168.0E, h about 53km. New Hebrides Islands
102	23	aP	NEZ	23 52 35		3400 USCGS: 18.4S, 167.8E, h about 25km. New Hebrides Islands
107	24	LP	NEZ	01 37 / 37 K		4350 USCGS: 21.1S, 179.3W, h about 642km. Fiji Islands region
108	24	LP	NEZ	02 05 11		3460 USCGS: 18.2S, 168.4E, h about 23km/ New Hebrides Islands
107	24	LP	NEZ	08 55 13		4150 USCGS: 0, 124.1E, h about 159km. Norther Celebes region
103	24	aP	NEZ	09 23 42		
106	24	LP	NEZ	09 58 47	-	
110	24	LP	NEZ	14 57 47	-	
111	24	LP	NEZ	16 17 40	-	
112	24	LP	NEZ	18 16 15	-	3510 USCGS: 3.9S, 130.8E, h about 118km. Ceram Island region
113	24	LP	Z	19 41 57	-	
114	24	LP	NEZ	20 12 29	-	
115	25	LP	KEZ	01 36 46		3440 USCGS: 18.3S, 168.3E, h about 99km. New Hebrides Islands
116	25	No LP	NEZ	08 56 52		3390 USCGS: 18.4S, 167.7E, h about 25 km. New Hebrides Islands
117	25	LP	NEZ	12 10 43	+	6390 USCGS: 21.0N, 123.6E, h about 61km. Off east coast of Formosa
			NEZ	16 07		
118	25	LP	NE	13 19 58		
119	25	LP	NEZ	10 09 43	-	4830 USCGS: 18.3S, 175.7W, h about 238km. Tonga Islands
120	25	LP	NEZ	18 03 37	-	4060 USCGS: 8.7S, 110.5E, h about 245km. Near South coast Java
121	25	LP	NEZ	18 46 35	+	4130 USCGS: 0.0, 124.7E, h about 43km. Northern Celebes
		1FP	Z	47 57		
		1FP	Z	48 52		
		LP	NEZ	52 16		
122	25	LP	KEZ	03 01 52	-	3220 USCGS: 7.5S, 128.0E, h about 96km. Banda Sea.
		c	KEZ	07 28		
123	26	LP	NEZ	09 25 10	-	3460 USCGS: 37.1S, 177.3E, h about 100km. North Is. New Zealand.
		c	NEZ	31 24		
		c	NE	33 15		Felt.
124	26	LP	NEZ	11 35 33	-	
125	29	LP	NEZ	00 51 30	-	

No.	Date (Y.S.)	Phase	Time (G.M.T.)	Amplitude A_e	Δ Km	Remarks
127	27	LP	NEZ 02 43 44			
128	27	LP	NEZ 11 39 55	+	3460	USCGS: 19.13, 169.3E, h about 158 km. New Hebrides Islands
129	27	SP	NEZ 15 40 26			
130	27	SP	NEZ 00 08 53	+	4570	USCGS: 4.5N, 125.6E, h about 89km. North of Celebes.
130	28	LP	NEZ 00 44 32-5K	-	6960	USCGS: 27.0N, 126.6E, h about 136km. Ryukyu Islands.
131	27	1-PP	NEZ 01 27 25 K	-	14430	USCGS: 2.2S, 77.1W, h about 136km. Ecuador. Mag. 6 $\frac{1}{2}$ (Pas)
		1-PP	NEZ 27 35			5 $\frac{1}{2}$ -6 (Berk)
		1-PP	NEZ 27 59			
132	28	SP	NEZ 06 17 50		3300	USCGS: 18.6S, 167.7E, h about 41km. New Hebrides Islands
		SP	SE 22 36			Mag. 5 $\frac{1}{2}$ (Berk)
		SP	SE 27.8			
		SP	2 30.7			
133	28	1-PP	NEZ 13 27 48	+	4150	USCGS: 0.6S, 122.4E, h about 35km. Celebes.
		1-PP	NEZ 29 15			
134	27	SP	NEZ 15 31 41 K	-	8690	USCGS: 43.4N, 146.1E, h about 34km. Kurile Islands
135	27	SP	NEZ 17 23 12	+	3430	USCGS: 20.5S, 169.9E, h about 147km. Loyalty Islands
136	27	SP	Z 12 08 26			
137	28	LP	NEZ 16 34 57	-	4510	USCGS: 23.9S, 176.1W, h about 23km. Tonga Islands region
						Mag. 5 $\frac{1}{2}$ (Berk)
138	27	SP	NEZ 17 31 36	+		
139	27	SP	NEZ 22 49 50			
140	27	SP	NEZ 23 33 33			
141	28	LP	NEZ 02 39 13	-	5010	USCGS: 3.8S, 103.4E, h about 146km. Sumatra
142	28	LP	NEZ 10 03 34.5	-		
		Z	04 55			
143	28	LP	NEZ 11 10 41	-	5310	USCGS: 11.1N, 124.7E, h about 49km. Leyte, Philippine Isl.
144	28	SP	NEZ 11 38 12			
145	28	SP	NEZ 14 12 35		3490	USCGS: 18.13, 168.7E, h about 48km. New Hebrides Islands
146	28	SP	NEZ 17 48 36		3530	USCGS: 3.8S, 130.9E, h about 29km. Ceram Island region

Date	Phase	Time (G.M.T.)	Amplitude A	Δ Km	Remarks
1956 18 Sep	1P NEZ Z NE	00 23 20 29	21.5 45 13	-	4610 USCGS: 107.2E, 5.3S, h about 244km. Off north coast Java
1956 3	1P 1S NEZ	01 47	02.5 07.5	-	Local
1956 3	1P S	19 34	44	+	

Yours sincerely,

(J. Pearce.)

(D.J. SUTTON)

UNIVERSITY OF ADELAIDE SEISMOLOGICAL STATION
ADELAIDE (MCUNT BON (THON))

Latitude: 34° 58' 01"

Longitude: 138° 42' 32"

Height above mean sea level:

2150'

Foundation: Sandstone

Instruments: Benioff variable reluctance seismometers with three component long and short period paper recorders.

 $T_g = 75$ sec. and $T_g = 0.2$ sec. respectively

1.

No.	Date 1961	Phase	Time (G.M.T.)	Amplitude			Δ Km	Remarks
				A_n	A_e	A_z		
1	Aug. 1	eP NEZ	01 01 31					
2	1	eP NEZ	01 24 17				3620	USCGS: 14.2S, 166.7E H about 26km New Heb. Islands region.
3	• 1	iP NEZ iS EZ eL NEZ	05 46 3.5 51 28 55.3			+	3550	USCGS: 9.8S, 160.5E h about 50km Solomon Is. region. Felt Mag 6 $\frac{1}{2}$ - 6 $\frac{3}{4}$ (pas) 6 $\frac{3}{4}$ (Berk)
4	• 1	eP NEZ iS EZ eL NEZ	07 33 59 44 38 08 09.0				9660	USCGS: 56.8S, 25.1W h about 44km. Sandwich Islands region.
5	• 1	iP NEZ epP NEZ	09 37 09 37 21			-	9770	56.6S, 24.0W, h about 61km. Sandwich Is. reg
6	• 1	iP NEZ iS E eL NEZ	09 47 25 58 04 10 22.8			-	9710	USCGS: 57.1S, 26.1W h about 31km. Sandwich Islands.
7	1	eP NZ	14 55 11					
8	1	iP NEZ	16 25 15			+	4060	USCGS: 25.0S, 179.6E h about 530km South of Fiji Islands
9	1	iP NEZ	19 33 12			+	3550	USCGS: 101.1S, 160.8E h about 59km, Solomon Islands region.
10	• 2	eP NZ iPP Z	02 44 08 47 54				9890	USCGS: 56.7S, 24.8W h about 25km Sandwich Is
11	2	eP NEZ	04 12 07				9660	USCGS: 57.6S, 26.6W h about 67km, Sandwich I
12	2	iP NEZ	19 52 11.5			-		
13	2	eP NZ	20 00 44				3530	USCGS: 9.7S, 160.0E h about 62km Solomon Islands region
14	• 3	iPkP NEZ i Z i Z	03 27 42 27 49 29 49			-	16480	USCGS: 18.2N, 66.2N, h about 141km Puerto Rico. Felt.

No.	Date 1961	Phase	Time (G.M.T.)	Amplitude			Δ Km	Remarks
				A _n	A _e	A _z		
15	Aug 3	iP NEZ	06 30 09			-	USCGS:	
16	3	iP NEZ eS E eL NEZ	06 58 12 07 04 15 12.3			-	3560 22km 3.5S, 130.8E, h about Geram	
17	3	eP NEZ	07 38 25				3450 USCGS: 4.4S, 131.6E, h about 30km. Banda Sea	
18	3	eP NEZ eS NEZ	12 02 19 03 03				Regional	
19	3	eP NZ	15 25 50			4180	USCGS: 28.9S, 177.2W, h about 46km Kermadic Islands region	
20	3	eP NEZ	16 40 56			4560	USCGS: 21.1S, 177.0W, h about 346km, Fonga Islands region	
21	3	iP NEZ	23 42 11			+	5230 USCGS: 12.1N, 143.8E h about 20km, Mariana Islands region	
22	4	eP NEZ	17 57 02					
23	4	iP NEZ	18 25 34.5			-	3500 USCGS: 19.9S, 169.7E, h about 119km, Loyalty Islands region.	
24	4	iP NEZ i _p P Z	23 05 06 05 18			+	8950 USCGS: 45.3N, 151.1E, h about 20km. Kurile Islands	
25	4	iP NEZ	23 38 53			-	4110 USCGS: 25.4S, 179.7W, h about 495km. South of Fiji Islands.	
26	5	iP NEZ	01 14 20			+	3600 USCGS : 13.7S, 166.0E h about 40km New Hebrides Is. region	
27	5	iP NEZ	06 50 24			+	4250 USCGS: 28.2S, 176.7W, h about 66km Kermadic Islands region	
28	6	iP Z	02 17 37			-		
29	6	iP NEZ	03 30 58			+	6820 USCGS: 26.7N, 141.8E, h about 36km Benin Is. Region	
30	6	eP NEZ e NE	08 19 59 30 11					
31	6	eP NEZ	10 41 27				3960 USCGS: 2.7S, 122.0E, h about 69km Celebes.	
32	6	eP NEZ e NEZ	17 13 25 14 13				3510 USCGS: 3.2S, 139.6E, h about 79km Near cost of New Guinea.	
33	7	iP NEZ eL NEZ	04 29 19 15.2			+	3970 USCGS: 2.7S, 121.6E, h about 18km Celebes.	
34	7	iP NEZ iPP NEZ	10 50 34 51 56			-	4180 USCGS: 0.3N, 124.0E, h about 76km Celebes	

No.	1961	Phase	Time (G.M.T.)	Amplitude			ΔKm	Remarks
				A _n	A _e	A _z		
35	Aug 7	iP NEZ eL NEZ	12 29 44 ✓ 43.7			-	4270	USCGS: 28.1S, 176.5W, h about 39km Kermadic Islands region.
36	7	eP NEZ	14 34 12				3450	USCGS: 5.8S, 130.1E, h about 25km. Banda Sea
37	7	iP NEZ eL NEZ	16 17 50 01.2			-	3330	USCGS: 61.1S, 160.4E, h about 49km North of Balleny Islands
38	7	iP NEZ	17 05 05			-	4250	USCGS: 27.5S, 177.1W, h about 60km Kermadic Islands region
39	8	iP NZ	09 13 30			-	3360	USCGS: 6.8S, 125.9E, h about 437km. Banda Sea
40	8	eP Z i Z eL NZ	12 31 23 31 53 ✓ 13 11.2				10100	USCGS: 50.9N, 170.7W, h about 24km Fox Islands Aleutian Islands Nag 6-6 ¹ / ₄ (Pas), 5-5 ³ / ₄ (Berk) 5 ³ / ₄ -6(Pai)
41	9	iP NEZ	01 30 48			-		
42	9	iP NEZ	03 58 17			+		
43	9	iP NEZ iPP Z eL EZ	16 08 50 09 48 ✓ 19.1			-	3420	USCGS: 19.1S, 168.7E, h about 69km. New Hebridi Islands region Mag 5 ³ / ₄ (Berk)
44	10	iP EZ	06 44 11			-	4480	USCGS: 20.8S, 178.0W, h about 377km Fiji Is. region
45	10	eP EZ	17 28 54				3520	USCGS: 9.6S, 159.7E, h about 44km. Solomon Islands region
46	11	iP NEZ ipP NEZ	06 19 08 ✓ 19 18				7490	USCGS: 32.6N, 131.4E, h about 25km Eastern Kyushy, Japan
47	11	iP NEZ	10 31 14			-	3420	USCGS: 18.5S, 168.2E h about 25km. New Hebrides Islands
48	11	iP NEZ ipP EZ iPP NEZ iS NEZ	11 11 41 ✓ 12 12 13 06 17 18			-	4170	USCGS: 0.2N, 124.0E, h about 143km Northern Celebes
49	11	iP NEZ iS NEZ eL NEZ	16 03 29 ✓ 13 16 25.8			+	8620	USCGS: 42.9N, 145.1E, h about 71km. Eastern Hokkaido, Japan Slight tsunami. Mag 7 (Pas) (Berk)
50	11	iP NEZ iS NE eL NEZ	22 44 20 ✓ 49 54 59.9			-	3940	USCGS: 2.8S, 122.1E, h about 20km Eastern Celebes.
51	11	iP NEZ	23 45 46			-	8610	USCGS: 42.8N, 145.1E, h about 72km Eastern Hokkaido, Japan

No	Date (Yr)	Phase	Time (G.M.T.)	Amplitude			ΔKm	Remarks
				A _n	A _e	A _z		
52	12	(eP) Z	17 16 47					
53	13	iP NEZ i NEZ iPP NEZ e NEZ	02 39 07 39 40 40 10 44 55	-	3350		USCGS: 5.6S, 130.3E, h about 39km Banda Sea	
54	13	eP NEZ iPas Z i Z	06 11 14 12 02 13 22	-	6900		USCGS: 25.3N, 121.5E, h about 25km Near north coast of Formosa	
55	13	eP NEZ e NEZ	12 51 41 57 20		3220		USCGS: 7.7S, 127.5E, h about 160km Banda Sea	
56	14	eP NEZ	13 41 47					
57	14	iP NEZ eL EZ	18 58 30 11.3	+	4530		USCGS: 24.2S, 175.7W, h about 21km Tonga Is. region Mag 5 ² (Berk)	
58	14	iP NEZ i NEZ eL NEZ	23 34 57 39 56 44.3	+	3400		USCGS: 20.3S, 167.4E, h about 97km New Hebride Islands region Selt Port Vila. Mag 6-6 ¹ (Pas) 6(Berk)	
59	15	iP NZ	05 32 56	-				
60	15	iP NEZ	19 14 53	+	7490		USCGS: 32.8N, 142.4E, h about 39km South of Honshu, Japan.	
61	16	eP NEZ	03 40 51		4020		USCGS: 31.8S, 177.9W, h about 70km Kermadec Islands	
62	16	iP NEZ	13 11 21.5	+				
63	16	eP NEZ	19 25 58		4010		USCGS: 31.7S, 178.0W, h about 51km Kermadec Islands	
64	16	iP NEZ	20 57 15	-				
65	16	iP NEZ i NEZ i NE	22 30 43 30 57 38 36	+	5290		USCGS: 11.0N, 124.8E, h about 305km Philippine Islands	
66	17	iP NEZ i NE i NE e E	21 28 32 38 30 38 50 39 38	-	9040		USCGS: 46.3N, 149.3E, h about 186km Kurile Is. Mag 6 ¹ (Pas) 6 ² -6 ³ (Berk)	
67	18	iP NEZ	03 39 08	+				
68	18	iP NEZ i NE	11 07 58 13 07	+	4160		USCGS : 24.0S, 179.9W h about 519km Kermadec Islands region Regional	
69	18	eP NEZ e NEZ	21 38 14 39 12					
70	18	iP NEZ i NEZ	01 18 22 18 40				Local	

No.	Date 1961	Phase	Time (G.M.T.)	Amplitude			MSW	Remarks
				A _n	A _e	A _z		
71	Aug 19	eP NEZ	05 27 26					
72	19	iPKP NEZ iPP Z iPKS NE iPPP NZ iSKS NE i NEZ iSKKS NE e NEZ e NEZ	05 27 46 05 30 04 31 03 32 40 33 44 35 24 35 42 37 21 41 11			14100	USCGS: 10.78, 71.00, h about 640m Peru-Brazil border. Mag. 7.1 (P&S)	
73	19	iP NZ iS W	05 44 49 54 06			7840	USCGS: 36.00, 136.74, h about 17km off west coast of Honshu, Jpn. 5 killed many injured moderate property loss at Fukui, Gifu, Kanagawa. Mag 7.1 (P&S)	
74	19	iPKP NEZ	15 12 11			17430	USCGS: 18.00, 60.87, h about 146km Mona Rocks	
75	19	iPKP NZ	16 19 22			13900	USCGS: 11.70, 70.00, h about 640m Peru-Brazil border	
76	19	eP NEZ	20 35 43			5000	USCGS: 2.00, 94.50, h about 25km, off west coast of Jamaica	
77	19	eP NEZ	21 30 01			4700	USCGS: 6.00, 126.10, h about 22km, west coast of Mindanao, P.I.	
78	20	iP NEZ iPP NZ iS NZ	05 11 18 13 06 16 40			4580	USCGS: 17.83, 170.87, h about 592km Fiji Islands	
79	20	iP NEZ	10 26 22			3600	USCGS: 6.33, 155.40, h about 72km Solomon Is.	
80	20	eP NEZ	10 56 06					
81	21	iP NEZ	03 10 22			4300	USCGS: 22.78, 179.00, h about 59km, Fiji Islands region	
82	21	iP NEZ	15 11 57					
83	21	iP NEZ iPcP Z	16 15 06 16 48			4960	USCGS: 17.82, 174.40, h about 74km Fonga Is. Mag 5.1-6 (Berk)	
84	21	eP NEZ	16 44 48					
85	21	iP NEZ	17 12 21.5			8380	USCGS: 40.90, 136.94, h about 49km off coast of northern Honshu, Jpn	
86	22	eP NEZ	09 06 02			3600	USCGS: 13.80, 158.00, h about 63km Hereward Islands	

No.	Date 1961	Phase	Time (G.M.T.)	Amplitude		Δ Km	Remarks
				A_n	A_z		
87	Aug 23	eP NEZ	14 45 42			4660	USCGS: 5.6N, 126.3E, h about 25km, Off south coast of Mindanao. P.I.
88	23	eP NEZ	18 11 12				
89	24	eP NEZ	17 31 50			3400	USCGS: 6.0S, 149.9E, h about 96km. New Britain
90	24	eP NEZ	21 04 52			3660	USCGS: 21.3S, 173.1E, h about 258km Loyalty Islands re
91	25	eP NEZ	12 03 47				
92	25	iP e NEZ NEZ	21 32 27 38 56	-		3370	USCGS: 2.1S, 122.2E, h about 191km Floris Sea
93	26	eP Z	05 03 38				
94	26	eP NEZ	06 45 25				
95	26	eP NEZ	18 09 04			3610	USCGS: 13.9S, 166.2E, h about 66km. New Hebrides Islands
96	26	iP NEZ	18 59 04	+		5920	USCGS: 18.0N, 146.4E, h about 53km. Mariana Islands
97	27	iP i NZ i NZ iS NEZ	16 57 04 59 56 00 52 04 31	+		5950	USCGS: 18.3N, 146.6E, h about 27km Mariana Is. Mag. 6 $\frac{1}{2}$ -6 $\frac{3}{4}$ (Pas), 5 $\frac{1}{2}$ (Port)
98	27	iP iS NEZ NEZ	17 09 26 15 07	+		4240	USCGS: 2.2N, 128.6E, h about 233km. Halmahera
99	27	iP NEZ	17 32 31	-		5890	USCGS: 18.0N, 144.7E, h about 109km Mariana Islands
100	27	eP NZ	18 07 14			5910	USCGS: 19.9N, 146.4E, h about 74km. Mariana Islands
101	28	iP e NEZ E	07 47 35 53 22	-		3950	USCGS: 12.7S, 169.6E, h about 662km Santa Cruz Islands
102	28	iP iS NEZ E	09 51 15 56 52	-		4640	USCGS: 18.6S, 178.0W, h about 574km, Fiji Islands
103	29	iP i NZ iPP Z e NEZ	10 50 34 51 23.5 51 39 56 14	-		3240	USCGS: 7.2S, 128.3E, h about 166km, Banda Sea
104	29	iP iPP NEZ i NEZ Z	17 36 35 37 59 40 13	+		3370	USCGS: 7.0S, 125.2E, h about 551km Banda Sea
105	29	iP i NEZ Z	21 40 16 40 40	-		3630	USCGS: 15.4S, 168.1E, h about 25km New Hebrides Is.
106	30	iP ipP NEZ i Z Z	22 22 29 22 47 24 12	+		3510	USCGS: 3.3S, 135.9E, h about 87km, Western New Guinea

No.	Date	Phase	Time (G.M.T.)	Amplitude			Km	Remarks
				A _N	A _e	A _Z		
107	Aug 31	iP NEZ ipP EZ eL EZ	00 30 05 30 16 43.8			4260	USCGS: 28.18, 176.70, 1000 46km Kermadec Island	

Long period not functioning from 2315GMT on 29 to 0100GMT on 30th.

Record from 0100GMT to 0245 GMT on 31st August.

108	31	eP NEZ	22 32 27				
109	31	eP NEZ	23 30 58			3510	USCGS: 3.2S, 139.4E, h about 108km Western New Guinea

Yours sincerely,

J. Pearce,

D.J. SUTTON.

UNIVERSITY OF ADELAIDE SEISMOLOGICAL STATION

ADELAIDE (MOUNT BONYTHON)

Latitude: $34^{\circ} 58' 01''$ Longitude: $138^{\circ} 42' 32''$

Height above mean sea level: 2150'

Foundation: Sandstone

Instruments: Benioff variable reluctance seismometers with three component long and short period paper recorders.

$T_g = 75$ sec. and $T_g = 0.2$ sec. respectively

No.	Date 1961	Phase	Time (G.M.T.)	Amplitude A_z	Δ Km	Remarks
	Sept. 1	1P NEZ	00 22 01.5	+	9440	USCGS: 59.3S, 27.3W, h about 131km. Sandwich Is. region Mag. 7 $\frac{1}{2}$ (Pas) 7 (Berk)
		1pP Z	22 32			
		1FP Z	25 22			
		1 Z	25 50			
		1SKS NEZ	32 13			
		1E NEZ	32 18			
		1Scd E	32 25			
		1Fs EZ	33 22			
		1SS EZ	37 58			
		Power failure at 00 39			20 On	1st and power off for 10mins approx
	2	1P NEZ	16 32 10	+	4610	USCGS: 17.1S, 179.1W, h about 568km Fiji Is. region
		1 Z	34 16			
	3	1P NEZ	16 44 18	+	4870	USCGS: 16.4S, 176.6W, h about 437km Fiji Is. region
	4	1P NEZ	18 48 32.5	-	4620	USCGS: 18.0S, 178.3W, h about 619km Fiji Is. region
	5	1FP NZ	19 09 42	+	4260	USCGS: 13.5N, 92.5W, h about 37km Off coast of Guatemala Mag 6 $\frac{1}{2}$ (Pas) 6 (Berk)
	6	1P NEZ	20 08 22	-	2280	USCGS: 50.0S, 120.4E, h about 55km South of Australia
	7	1P NEZ	03 51 38	-	2500	USCGS: 56.6S, 147.1E, h about 41km West of Macquarie Is.
		1E EZ	57 26			
	8	1P NEZ	18 00 23	-	4640	USCGS: 6.0S, 105.9E, h about 127km Soenda Strait
	9	1P NEZ	14 10 20	-		
	10	1P NZ	16 16 23.5	+	4160	USCGS: 1.3N, 127.7E, h about 156km. Halmahera
	11	1P NZ	18 49 27	-	4830	USCGS: 18.4S, 175.7W, h about 1.450 km, Fiji Is. region
		No N long period from 2330 GMT on 31st Aug. to 0515 GMT 6th Sept.				

No.	Date 1961	Phase	Time (G.M.T.)	Amplitude A_z	Δ Km	Remarks
		No record from 2400 GMT on 4th to 0515 GMT on 6th.				
12	Sept 6	iP NEZ iPcP Z i Z is NEZ	08 21 48 23 53 24 53 27 41	-	4380	USCGS: 2.8N, 125.8E, h about 58km Molucca Passage
13	6	eP NEZ	10 13 06		3290	USCGS: 6.1S, 130.4E, h about 208km. Banda Sea
14	6	eP NEZ eS NEZ	17 33 14 33 35	local		
15	7	iP NEZ	16 52 36.5	-	3260	USCGS: 5.7S, 134.2E, h about 22km Aroe Islands
16	7	iP NEZ	18 12 13.5	+		
		no records from 0226 GMT to 0311 on 8th				
17	8	iP NEZ	06 37 55	-		
18	8	iP EZ i Z	08 56 25.5 56 52	+		
19	8	iP NEZ iPP NEZ eSKS NE iS NE eScS NE i E iPS N iSS NE eL NEZ	11 39 12.5 42 38 49 28 49 46 49 50 50 26 51 08 55 48 12 08.4	+	9820	USCGS: 56.1S, 27.3W, h about 125km Sandwich Is. reg. Mag 7 $\frac{1}{2}$ -7 $\frac{3}{4}$ (Pas) 8 (Berk)
20	8	eP NEZ	14 58 20		3330	USCGS: 5.9S, 129.9E, h about 143km Banda Sea
21	8	eP NEZ iPP Z iPP Z	17 37 38 38 09.5 39 04		4140	USCGS: 0.4S, 123.3E, h about 169km Celebes
22	9	iP NEZ	15 30 35.5	+	3840	USCGS: 10.6S, 164.4E, h about 79km. Santa Cruz Is. reg.
23	10	iP Z	03 11 22	-		
24	10	iP NEZ	04 18 49	+		
25	10	iP NEZ	11 47 35	+	3420	USCGS: 8.2S, 121.7E, h about 21km Flores
26	10	eP Z epP EZ	18 16 13 18 16 49		4180	USCGS: 27.6S, 177.8W, h about 152km Kermadec Is. reg.
27	10	iP NEZ	18 23 08	+	4650	USCGS: 17.8S, 178.5W, h ab. 619km Fiji Is. region.
		Z long period galvo, stuck from 2315 GMT on 7th to 2300 GMT on 10th.				
28	11	iP NEZ	11 44 20	+	4430	USCGS: 1.1N, 120.3E, h ab. 81km Northern Celebes

No.	Date		Phase	Time			Amplitude		Remarks
	1961			(G.M.T.)			A _Z	Δ Km	
29	Sep	11	eP NEZ	12	29	03			
30		11	eP NEZ e NEZ	20	04 14 14 24		+	3400	USCGS:4.1S,134.3E, h ab. 19km Aroe Islands
31		11	1PKP NEZ	22	34 40.5		+	16540	USCGS:10.8N,62.4W, h ab. 134km. Off North coast of Venezuela(Felt:Trinidad)
32		12	eP NEZ	08	32	28			
33		12	eP NEZ	12	05	42		4550	USCGS:23.0S,176.2W, h abo 39km Tonga Is. region
34		12	1P NEZ 1pP EZ eL NZ	19	41 44 41 56		-	9510	USCGS:59.4S,29.2W, h ab. 25km. Sandwich Islands
35		13	eP NEZ	03	11	38		3300	USCGS:5.6S,144.8E, h ab. 100km New Guinea. (Felt Kundiawa and Madang)
36		13	eP Z	09	39	03			
37		13	eP NZ	13	24	19			
38		13	eP NEZ	14	11	24		3790	USCGS:10.0S,113.1E, h ab 104km South of Java
								3860	USCGS:9.3S, 112.9E h ab. 93km South of Java
39		13	1P NEZ	15	09	55		-	
40		13	eP NEZ 1S NEZ	21	53 22 53 35			local	
41		14	1P NEZ	18	51 18		+	4180	USCGS:28.6S,179.9W, h ab. 521km South of Fiji Is.
42		15	eP NZ	17	09	59			
43		15	1P NEZ e NEZ	21	30 44 37 20		+	3740	USCGS:10.7S,112.7E, h ab. 100km. South of Java
44		16	1P NEZ	12	19	38		6970	USCGS:2.3N,138.6E, h ab. 388KM South of Hanshu Jap
45		17	1P NEZ	01	18	08		3530	USCGS:4.1S,129.7E,h ab. 46km Banda Sea.
46		17	eP NEZ	03	15	12		4570	USCGS:22.8S,175.8W, h ab. 67km Tonga Islands.
47		17	eP NEZ	06	14	42		3470	USCGS:19.3S,169.5E, h ab. 263km New Hebrides Is.
48		17	1P NEZ 1pP NEZ eS NEZ	08	52 06.5 52 16		+	6740	USCGS:23.9N,122.2E, h ab. 35km Off coast of Formosa
49		17	1P NZ	13	37	54		+	

No.	Date 1961	Phase	Time (G.M.T.)	Amplitude		Remarks
				A _Z	Δ Km	
50	Sept. 17	eP NEZ	15 49 54		3590	USCGS:2.5S,139.2E, h ab. 23km Near north coast of New Guinea
51	17	iP NEZ	17 20 19	-	3500	USCGS:3.6S,143.4E, h ab. 44km Near north coast of New Guinea
52	17	iP NEZ	18 58 43	+		
53	✓ 17	iP NEZ iS NE iScP Z	23 28 12 33 07 34 52	+	3330	USCGS:5.9S,147.4E, h ab. 45km. Near east coast of New Guinea
54	18	iP EZ	00 15 00	-		
55	18	iP NEZ	09 28 49	+		
56	18	iP NEZ	09 31 18	-		
57	✓ 18	iP EZ	11 22 44	-		
58	18	iP NEZ	11 37 17	-		
59	✓ 18	iP NEZ i Z e NEZ eL NEZ	15 44 13 44 19 49 01 55.3	-	3720	USCGS:21.0S,173.6E, h ab. 28km Loyalty Is. region
60	18	eP Z	19 04 09			
61	19	iP NEZ	06 18 49	-	5570	USCGS:14.8N,146.8E, h ab. 61km. Mariana Islands
62	19	iP NEZ iS NEZ e? EZ	09 26 18 32 11 41 11	+	4330	USCGS:2.4N,126.3E, h ab. 84km Molucca Passage
63	19	iP NEZ iS NEZ	13 51 46 57 30.5	-	4230	USCGS:12N,125.5E, h ab. 54km. Molucca Passage
64	✓ 19	iP NEZ i(ScP) NZ	18 32 07 36 56	-	4330	USCGS:21.6S,179.4W, h ab 639km Fiji Is. region
65	✓ 19	iP NEZ iPcP Z ePP EZ	21 47 12 47 16 50 23	-	9346	USCGS:60.1S,22.9W, h ab. 56km Sandwich Is. region
66	20	eP NEZ iS NEZ	11 02 13 02 43		local	
67	20	eP NEZ	11 34 39			
68	✓ 20	iP NEZ iS NEZ eL NEZ	19 10 11.5 15 28 22.9	+	3690	USCGS:3.6S,150.9E, h ab. 30km New Britain Nag 6½ (Berk)
69	20	iP NEZ	22 34 15.5	+		
70	22	eP NEZ	07 35 18			

No.	Date 1961	Phase	Time (G.M.T.)	Amplitude		Remarks
				A _z	Δ Km	
71	Sep 22	1P NEZ	16 11 30.5	+	4570	USCGS:20.0S,177.6W, h ab. 585km Fiji Is. region
72	22	eP NEZ	18 44 30			
73	22	1P NEZ	20 13 22	-	2350	USCGS:55.2S,146.0E, h ab. 78km. West of Macquarie Is
74	23	1P NEZ	03 09 44	-		
75	23	eP NEZ	06 59 49			
76	23	1P NEZ i NEZ	08 23 36 24 24	-	4200	USCGS:28.5S,177.2W, h ab. 20km. Kermadec Islands
77	24	eP NZ	17 05 31		9750	USCGS: 56.5S,26.2W, h ab. 25 km. Sandwich Islands
78	✓ 24	1P NEZ	21 51 55	-	7550	USCGS:33.3N,141.3E, h ab. 93km. South of Honshu, Jap.
79	25	1P NEZ	14 54 13	+	4660	USCGS:4.4N,122.7E, h about 598km. Celebes Sea
80	26	eP NEZ	11 24 43			
81	26	eP Z	14 15 42			
82	✓ 27	1P NEZ 1PP EZ 1ScP Z 1S NEZ i(ScS) NE	06 41 07 42 56 45 48 46 43 50 10	-	4610	USCGS:17.4S,178.7W, h about 576km Fiji Islands
83	27	eP NEZ	10 54 17		4080	USCGS:0.8S,123.8E, h about 226km. Celebes region
84	✓ 27	1P NEZ 1PcP Z eS NE eL NEZ	12 20 06 20 10 30 30 52.3	+	9440	USCGS:59.4S,24.2W, h about 110km Sandwich Islands
85	✓ 28	1P NEZ i NEZ eS EZ	01 32 16 32 26 38 54	+	5090	USCGS:3.9S,102.0E, h about 78km Sumatra
86	✓ 28	1P NEZ	03 35 19	+	7240	USCGS:30.5N,141.3E, h ab. 125km South of Honshu Jap.
87	28	eP NEZ	16 48 06			
88	29	1P NEZ	05 34 21	+		
89	29	1P NEZ	05 41 57	+	4080	USCGS:30.2S,177.7W, h ab. 58km Kermadec Islands
90	29	1P NEZ	09 25 54.5	+		

No.	Date 1961	Phase	Time (G.M.T.)	Amplitude		Remarks
				A _z	Km	
91	29	iP NEZ	11 30 35	-	4210	USCGS:23.6S,179.6W, habout 589km Fiji Islands. reg.
92	29	eP Z epP NEZ	17 02 19 02 31		8640	USCGS:145.4E, h about 37 km Near east cost of Hokkaido, Japan
93	29	iP NEZ iS NEZ isS NE iSS NEZ iSSS NE iScS NE eL NEZ	19 13 26 19 18 19 56 21 56 22 33 23 26 29.2	-	4270	USCGS:0.5N,122.4E, h about 110km Northern Celebes
94	30	iP NEZ iS NEZ	09 00 11.5 00 35		local	

Yours sincerely,
 THANK YOU
 (J. Pearce)
 (D.J. SUTTON)

All Copied

OCT

- DEC

61

UNIVERSITY OF ADELAIDE SEISMOLOGICAL STATION

ADELAIDE = MOUNT BONYTHON

Latitude: 34° 58' 01" Longitude: 138° 42' 32"

Height above mean sea level: 2150'

Foundation: Sandstone

Instruments: Benioff variable reluctance seismometers with three component long and short period paper recorders.

$T_g = 75$ sec. and $T_g = 0.2$ sec. respectively

No.	Time	Phase	Time (G.M.T)	Amplitude A_z	Δ Km	Remarks
1	10.10	NEZ	06 00 17	-	3730	USCGS: 33.9S, 179.6E, h about 30km. Off coast North Is., New Zealand
	10.10	NEZ	00 27			
	10.10	NEZ	06 00			
	10.10	N	10 41			
2	10.10	NEZ	06 14 19	-	3730	USCGS: 33.8S, 179.6E, h about 50km. Off coast North Is., New Zealand
	10.10	NZ	14 27			
	10.10	NEZ	14 32			
3	10.10	NEZ	06 29 02	-	4420	USCGS: 7.6S, 107.0E, h about 85km. Near coast of Java.
4	10.10	NEZ	07 09 17	+	3720	USCGS: 33.8S, 179.5E, h about 57km. Off coast of North Is., New Zealand
	10.10	N	14 33			
	10.10	NE	14 47			
	10.10	NEZ	18.7			
5	10.10	NEZ	08 09 41	+		
6	10.10	NE	09 44 54	+		
7	10.10	NE	11 08 07	+		
8	10.10	NEZ	11 59 09		3690	USCGS: 1.5S, 138.3E, h about 41 kn. Near coast of New Guinea.
9	10.10	N	12 40 01	+		
10	10.10	N	12 56 33	+		
11	10.10	N	13 09 39		3750	USCGS: 13.4S, 167.7E, h about 62kn. New Hebrides Is. region.
12	10.10	N	11 19 55.5	-	3630	USCGS: 5.2S, 155.7E, h about 20kn. Near Britain region.
			11 25 08			
			11 27			

Date No. 1961	Phase		Time (G.M.T.)	Amplitude		Remarks
				A _Z	Δ Km	
14 4	iP eL eL	NEZ N EZ	02 29 59 39.4 42.3	+	3690	USCGS: 13.04, 160.58, h about 60km. Hebrides Is. region Felt: Vanikoro
15 5	iP	NZ	15 47 56	-	3960	USCGS: 1.28, 121.65, h about 186km. Bougainville
16 5	eP	NZ	19 37 05		5980	USCGS: 18.64, 144.98, h about 47km. Bougainville Is. region.
17 5	eP iP i	Z NZ Z	22 45 06 45 22 15 35		6750	USCGS: 24.04, 121.98, h about 56km. New Hebrides of Fornosa
18 6	iP	EZ	00 51 26	-		
19 6	iP?	Z	03 05 40	-		
20 6	eP	NZ	06 53 25		3690	USCGS: 10.19, 143.05, h about 50km. Bougainville Islands region
21 6	iP	NZ	19 45 30	-	3610	USCGS: 15.44, 127.31, h about 161km. Hebrides Hebrides Islands region
22 6	iP	NZ	23 24 00	-		
23 7	iP	NEZ	08 28 04	+	9970	USCGS: 56.38, 146.97, h about 99km. Bougainville Is.
24 7	eP <i>k</i> P	NEZ	08 33 30		13210	USCGS: 21.34, 147.53, h Southern Bougainville h about 149km.
25 7	iP iP <i>c</i> P	NEZ Z	19 37 22 37 24	-	9820	USCGS: 56.28, 146.97, h about 76km. Bougainville Islands region.
26 8	eP iPP	NEZ Z	00 59 36 00 45		3600	USCGS: 3.88, 125.52, h about 178km. Bougainville
27 8	eP	Z	05 27 45			
28 8	eP	NEZ	05 56 54			
29 8	iP	NEZ	22 57 49	+		
30 8	iP iPP i	NEZ NEZ NE	23 48 41.5 50 10 58 40	+	4210	USCGS: 1.68, 127.35, h about 152km. Bougainville
31 9	iP	NEZ	10 33 45.5	+	3340	USCGS: 5.98, 147.93, h about 71km. Bougainville region.
32 9	iP i	NEZ NEZ	10 48 13 53 47	-	3270	USCGS: 6.78, 147.93, h about 21km. Bougainville
33 9	iP	NZ	22 21 35	-		
34 9	(eP) eS	EZ NEZ	23 45 41 46 53			Regional

No.	Date 1967	Phase	Time (G.M.T.)	Amplitude		Remarks
				Λ_z	Δ Km	
35	10	1P NEZ	03 51 10	+	4210	USCGS: 22.9S, 180.0 h about 576km South of Fiji Islands
36	10	1P NEZ	04 06 13	+		
37	10	eP NZ	08 32 14		3630	USCGS: 5.4S, 154.3E, h about 154km. Solomon Is. region
38	10	eP Z	11 30 41		3370	USCGS: 7.8S, 123.5E, h about 100km. Flores Sea
39	10	eP NEZ	13 39 55			
40	10	1P NEZ e NEZ 1L NEZ	17 31 07 37 06 40 58	-	3340	USCGS: 4.7S, 138.2E, h about 36km. New Guinea.
41	10	1P NZ	18 52 05	+	4910	USCGS: 16.1S, 176.3W, h about 361km. Fiji Is. region
42	11	eP Z	00 37 57		4340	USCGS: 28.8S, 175.9W, h about 88km. Kermadec Is.
		No records from 0400 GMT to 0600 GMT on the 11th.				
43	11	1P NEZ	09 35 00	+	3790	USCGS: 11.6S, 166.3E, h about 52km Santa Cruz Is.
44	11	1P NEZ	16 10 41	+	4110	USCGS: 24.5S, 179.8E, h about 560km. South of Fiji Islands
		No time pips on the 12th.				
45	13	1P NEZ	02 29 41	+	4930	USCGS: 6.3N, 126.8E, h about 60km. Off south east coast Mindanao, P.I.
46	13	1P NEZ 1 NZ	05 11 53 15 22	+	9820	USCGS: 15.9S, 27.2W, h about 67km Sandwich Is. Mag 5-4-5 $\frac{1}{2}$ (Pal)
47	13	1P NEZ 1PcP Z 1pP Z	10 59 18 59 23 59 27	-	9380	USCGS: 60.3S, 34.3W, h about 44km. Sandwich Is. Mag 5 $\frac{1}{2}$ -5 $\frac{3}{4}$ (Pal)
48	13	1P NEZ	14 24 36	-		
49	13	1P NEZ 1PcP EZ 1ScP Z	17 35 47 37 47 41 19	-	4530	USCGS: 22.0S, 176.9W, h about 155km. Tonga Is. region
50	14	1P NEZ	16 20 03	-	3400	USCGS: 19.1S, 168.4E, h about 28km. New Hebrides Felt: Port Vila.
51	13	1P NEZ 1 NEZ 1PcP Z	17 16 12 16 22 17 50	-	5050	USCGS: 4.1S, 102.3E, h about 66km. Near south west coast of Sumatra

No.	Date 1961	Phase	Time (G.M.T.)	Amp. A_z	1 Km	Remarks
52	15	1P Z 1PP NEZ	21 24 26 25 55	-	3370	USCGS: 6.9S, 125.4E, h about 558km, Banda Sea
53	16	eP NEZ e NEZ	18 01 04 01 12		3360	USCGS: 5.6S, 147.2E, h about 190km, Bismark Sea
54	17	eP NEZ	04 39 58		9210	USCGS: 55.8S, 12.5E, h about 25km, Bouvet Is. region
55	17	eP NEZ	11 11 08		5230	USCGS: 12.1N, 143.4E, h about 25km. South of Guam
56	18	1P NEZ 1PcP NEZ	02 57 04 59 26	+	4110	USCGS: 29.9S, 177.6W, h about 65km. Kermadec Islands
57	18	1P NEZ	07 38 43	-	4620	USCGS: 19.4S, 178.6W, h about 576km. Fiji Islands region
58	18	1P NZ	15 42 33	-	7880	USCGS: 23.2N, 94.7E, h about 105km. Burma
59	18	eP Z eS NE ePS N i Z eSS E eL NEZ	17 05 56 17 35 19 19 22 16 24 45 41.2		11430	USCGS: 36.7S, 72.6W, h about 67km. Near coast of southern Chile. Minor damage in area between Curico and Valdivia Mag 6 $\frac{1}{2}$ (Pas)
60	19	1P NEZ eP NEZ	09 17 08 36 44	+	2330	USCGS: 55.2S, 146.0E h about 86km. West Macquarie Island.
61	19	1P NEZ 1S NE eL NEZ eT NEZ	19 31 15 35 13 38.8 50 48	-	2330	USCGS: 55.3S, 146.4E, h about 50km. South of Australia
62	19	1P NEZ	20 32 41.5	+	5030	(USCGS: 17.6S, 174.0W, h about 25km. Tonga Islands)
		No vertical long period record for 19th.				
63	20	1P NEZ	08 08 04	+		
64	20	eP Z	08 12 47		3660	USCGS: 7.9S, 117.9E, h about 25km. Flores Sea
65	20	1P NEZ	17 59 09	-	9160	USCGS: 38.4N, 97.3E h about 25KM Western China
66	20	1P NEZ	18 36 46	-		
67	21	eP NEZ	11 16 55			
68	21	1P NEZ 1S NEZ	11 50 41.5 56 15	-	4600	USCGS: 18.0S, 178.5W h about 618km. Fiji Islands
69	21	1P NEZ 1pP EZ i Z	17 41 10 41 45 43 40	-	3830	USCGS: 10.8S, 166.0E, h about 192km Santa Cruz Islands

No.	Date 1961	Phase	Time (G.M.T.)	Amp. A_z	Δ Km	Remarks
70	21	iP EZ	21 36 50	+		
71	22	iP NEZ	00 21 54	+		
72	22	iP NEZ	07 36 31	-	3240	USCGS: 7.3S, 128.0E, h about 172km. Banda Sea.
73	22	eP NEZ eL NEZ	09 57 06 10 06.8		3700	USCGS: 19.9S, 172.4E h about 181km, New Hebrides Is. Mag $5\frac{1}{2}$ (Berk)
74	22	iP NEZ	14 48 03.5	-	4530	USCGS: 17.6S, 179.6W h about 549km. Fiji Islands
75	22	iP NEZ	17 27 45	+		
76	22	eP EZ	18 46 47		3440	USCGS: 17.7S, 168.2E h about 41km New Hebrides Islands Felt Port Vila
77	23	iP NEZ iPeP NZ ipP EZ eS NE eL NEZ	00 21 10 21 13 00 21 18 31 40 53.2	+	9440	USCGS: 60.4S, 33.4W h about 25km Sandwich Is. region
78	23	iP NEZ	06 09 14	+	3290	USCGS: 6.2S, 130.3E h about 60km. Banda Sea
79	23	iP NEZ eS NE	14 47 10 53 18	+	4440	USCGS: 3.5N, 126.4E h about 25km Molucca Passages Mag $6\frac{1}{2}$ (Pas) $6\frac{1}{4}$ (Berk)
80	23	iP NEZ	15 00 04.5	-		
81	23	iP NEZ	17 20 19	-	5120	USCGS: 16.8S, 173.6W h about 49km. Tonga Islands
82	23	eP NZ	17 52 52		4430	USCGS: 3.3N, 125.9E h about 102km Molucca Passage
83	23	eP NEZ	19 27 50		4530	USCGS: 20.1S, 177.9W h about 553km. Fiji Islands
84	23	iP NZ	20 46 04	-	4430	USCGS: 3.4N, 126.5E h about 23km Molucca Passage
85	24	iP NZ	15 37 20	-	4180	USCGS: 0.3N, 123.9E h about 130km Northern Celebes
86	25	iP NEZ eL NEZ	14 28 25 46.2	+	4860	USCGS: 20.3S, 174.1W h about 25km Tonga Islands
87	26	iP NEZ iS NE eL NE eL' Z	00 44 55 50 20 54.9 57.2	+	3620	USCGS: 3.1S, 147.4E h about 14km Bismark Sea Mag $6\frac{1}{4}$ (Pas) (Berk)
88	26	e(P) NEZ	08 19 46			
89	26	e(P) NEZ	11 47 24			

No.	Date 1961	Phase	Time (G.M.T.)	Amp A _z	ΔKm	Remarks
90	26	1P 1pP 1S eScS eL	NEZ NEZ NEZ NE NEZ	15 36 05 38 14 43 22 45 50 53.9	+	5660 USCGS: 0.38, 104.0° E about 18km off west coast of Sumatra Nag 6 (1961)
91	26	eP	NEZ	16 14 44	-	5660 USCGS: 0.19, 104.0° E about 37km off west coast of Sumatra
92	26	1P	NEZ	19 37 35	+	5660 USCGS: 0.38, 104.0° E about 50km off west coast of Sumatra
93	27	1P	NEZ	10 38 32.5	-	4330 USCGS: 4.75, 104.0° E about 20km Sumatra
94	27	eP	NEZ	12 09 56	-	Regional?
95	27	1P	NZ	20 48 42	-	
96	28	1P	NEZ	01 41 58	+	4580 USCGS: 17.98, 178.0° E about 505km Fiji Islands
97	28	1P	NEZ	06 07 19	+	3800 USCGS: 11.58, 178.0° E about 34km Santa Cruz Islands
98	28	1P	NEZ	06 55 06	+	4580 USCGS: 18.98, 178.0° E about 631 km. FIJI Islands
99	28	1P	NEZ	12 25 18	+	
100	28	1P	Z	12 45 51	-	
101	28	1P	NEZ	14 50 04	-	
102	28	1P	EZ	14 54 13	-	
103	28	1P	NEZ	15 15 26	-	
104	28	eP eS	NEZ NEZ	15 23 30.5 23 54	-	Local
105	28	eP	Z	17 25 54	-	
106	28	1P	NEZ	18 26 12	-	
107	28	1P eS eL	NEZ NE NEZ	22 50 59 56 12 23 00.2	+	3590 USCGS: 13.98, 178.0° E about 89km New Hebrides Islands
108	29	1P	NEZ	08 01 41	-	
109	30	1P	NZ	17 41 52	+	4120 USCGS: 28.5S, 141.0° E about 219km. Kermadec Islands
110	30	1P	NZ	21 26 10	+	7060 USCGS: 28.9N, 141.0° E about 31km. Sth of Honshu, Japan
111	31	1P	NEZ	03 27 33	-	4850 USCGS: 5.0S, 104.0° E about 27km. Near coast of Sumatra

Yours sincerely

(J. Pearce)

(D. J. SULLIVAN)

UNIVERSITY OF ADELAIDE SEISMOLOGICAL STATION
ADELAIDE (MT. BONYTHON)

Latitude: $34^{\circ} 58' 01''$ Longitude: $138^{\circ} 42' 32''$
 Height above mean sea level: 2150'
 Foundation: Sandstone
 Instruments: Benioff variable reluctance seismometers with three component long and short period paper recorders.
 $T_g = 75$ sec. and $T_g = 0.2$ sec. respectively

No.	Date 1961 Nov.	Phase	Time (G.M.T.)	$\frac{\text{Amp}}{A_z}$	Δ Km.	Remarks
1	1	iP NEZ	10 49 20	-	4330	(U.S.C.G.S: 178.5E, h about 631km. Fiji Is. region)
2	1	iP NEZ	20 17 41	-	4620	USCGS: 179S, 178.4W, h about 629km. Fiji Islands.
3	2	iP NEZ	05 29 42.5	-	4610	USCGS: 17.9S, 178.5W, h about 598 km. Fiji Islands.
4	2	iP Z	08 27 04	-		
5	2	eP? Z	15 46 08			
6	3	iP NEZ	04 10 43	-	3760	USCGS: 13.4S, 167.8E, h about 75km. Santa Cruz Islands.
7	3	eP NEZ	05 20 57			
8	3	iP NEZ iS NEZ	13 36 35 36 40.5			local.
9	3	eP NEZ	15 27 33		3840	USCGS: 10.5S, 165.8E, h about 66km. Santa Cruz Islands.
10	3	eP Z e NEZ e NEZ	16 47 48 48 20 53 26			
11	3	eP NEZ	22 30 55		3390	USCGS: 5.1S, 131.2E, h about 63km. Banda Sea.
12	4	iP Z	02 19 23	+	7200	USCGS: 29.9N, 131.8E, h about 98km. Ryukyu Islands.
13	4	iP NEZ e(PcS) NEZ	03 10 44 17 23	-	3540	USCGS: 2.9S, 137.2E, h about 51km. Near north coast of New Guinea.
14	4	eP N Z ipP Z	03 51 09 51 24		9530	USCGS: 50.0N, 155.5E, h about 32km. Kurile Islands.
15	4	iP NEZ	09 50 40	+		
16	4	eP EZ	13 17 14		8880	USCGS: 32.1N, 92.2E, h about 25km. Eastern Tibet.
17	4	eP NEZ iS NEZ	20 31 45 31 52.5			local.
18	4	eP NEZ iS NEZ	22 29 49 29 56			local.
19	5	iP NEZ	01 26 46.5	-		

No.	Date 1961 Nov.	Phase	Time (G.M.T.)	Amp A _Z	Δ Km.	Remarks
20	5	eP e	Z 10 45 39 Z 45 46		8960	USCGS: 45.7N, 147.9E, h about 142km. Kurile Islands.
21	6	iP	NEZ 00 01 35	-	2610	USCGS: 49.4S, 163.3E, h about 35km. About 300km. north west of Auckland Is. New Zealand.
22	6	eP eS eL	NEZ 05 34 55 NE 39 58 NEZ 46.9		3630	USCGS: 13.3S, 166.0E, h about 210km. Santa Cruz Is. region.
23	6	eP e e	Z 10 16 27 NEZ 16 46 NEZ 22 27		3290	USCGS: 6.5S, 129.2E, h about 125km. Banda Sea.
24	6	eP	N Z 13 15 55		3310	USCGS: 6.0S, 146.9E, h about 25km. New Britain.
25	6	iP	NEZ 13 43 47	-	5850	USCGS: 17.5N, 145.3E, h about 251km. Mariana Islands.
26	6	eP	NEZ 21 29 27			
27	7	iP eS	NEZ 01 21 28 NE 28 24	-	5320	USCGS: 11.6N, 126.1E, h about 47km. Samar, Philippine Is.
28	7	eP eS	NEZ 06 24 42 NEZ 24 50			local.
29	7	iP	NEZ 12 22 28	+	4380	USCGS: 26.9S, 176.3W, h about 54km. South of Tonga Islands.
30	7	eP e	NEZ 12 36 21 NEZ 41 18			
31	7	e(P)	NEZ 18 42 23			
32	7	iP	NEZ 21 16 33.5	-	3830	USCGS: 34.3S, 179.2W, h about 39km. South of Kermadec Is.
33	8	eP e	NEZ 15 18 41 NEZ 24 35			
34	8	eP e e(ScS)	NEZ 19 34 49 NEZ 44 44 E 45 20		3440	USCGS: 3.9S, 136.2E, h about 54km. New Guinea.
		No vertical short period record on 9th.				
35	9	eP	NE 01 15 28		3370	USCGS: 22.0S, 170.1E, h about 33km. Loyalty Islands.
36	9	iP iPP e	NE 18 43 18 N 44 12 NEZ 49 44		3340	USCGS: 5.9S, 129.8E, h about 87km. Banda Sea.
		No vertical short period record up to 1100GMT on 10th				
37	10	eP e	NE 07 36 28 NE 46 24		3590	USCGS: 2.5S, 138.3E, h about 52km. Near north coast of New Guinea.
38	10	iP eS	NEZ 18 07 52 NE 13 16		4610	USCGS: 17.5S, 178.8W, h about 586km. Fiji Islands.
39	10	iP	NEZ 18 32 34	+		
40	11	iP	NEZ 00 01 43	-		
41	11	iP i	NEZ 04 36 02 NEZ 36 13	-		

No.	Date 1961 Nov.	Phase	Time (G.M.T.)	$\frac{\text{Amp}}{A_z}$	Δ Km.	Remarks
42	11	iP NEZ	15 25 06	+		
43	11	iP NEZ	16 31 41	-		
44	12	iP NEZ	08 31 52	+	7330	USCGS: 16.9S, 66.9E, h about 34km. Mascarine Is. region.
45	12	iP NEZ	09 07 03.5	+		
46	12	eP NEZ	10 20 28		2720	USCGS: 45.5S, 167.3E, h about 19km. Near coast of South Is. New Zealand.
47	12	iP NEZ	18 18 54.5	+	4180	USCGS: 23.2S, 180.0, h about 556km. Sth. of Fiji Is. region.
48	12	eP NEZ	18 45 31		4080	USCGS: 0.1N, 126.1E, h about 165km. Molucca Passage.
49	13	eP i iScS e	NEZ 07 46 10 NEZ 56 12 NEZ 56 39 N Z 59 04		3440	USCGS: 3.8S, 136.3E, h about 34km. Near nth. coast of New Guinea.
50	14	eP e	N Z 01 03 08 NEZ 13 10			
51	14	iP NEZ	09 57 29	-		
52	14	eP NEZ	12 45 37		3800	USCGS: 33.9S, 179.6W, h about 51km. Off coast of North Is. New Zealand.
53	14	iP NEZ	15 27 11	-	4340	USCGS: 21.9S, 179.0W, h about 590km. Fiji Islands region.
54	14	iP iPcP	NEZ 17 22 04 NEZ 23 53	+	4770	USCGS: 5.7S, 104.3E, h about 16km. Near coast of Sumatra.
55	14	iP iS	NEZ 23 34 25 NEZ 34 47			local.
56	15	eP ipP	NEZ 04 30 48 Z 31 03		4850	USCGS: 4.1S, 105.0E, h about 126km. Sumatra.
57	15	eP iPcP iS eL	NEZ 07 29 05 N Z 29 22 N 38 54 N Z 54.8		8650	USCGS: 43.1N, 145.1E, h about 43km. Near coast of Hokkaido, Japan. Felt.
58	15	iP N Z	14 33 41	+	4830	USCGS: 7.2N, 126.8E, h about 187km. Near coast of Mindanao, P.I.
59	16	ePKP Z	08 39 29		16980	USCGS: 18.6N, 68.9W, h about 147km. Near coast of Dominican Republic.
60	16	eP N Z	13 37 42			
61	16	eL N Z	16 21.4			
62	17	iP NEZ	08 20 51	-	4620	USCGS: 17.7S, 178.6W, h about 598km. Fiji Islands.
63	17	iP i	Z 09 28 52 Z 29 05	-		

No.	Date 1961 Nov.	Phase	Time (G.M.T.)	Amp A _Z	ΔKm.	Remarks
64	17	iP	NEZ 19 11 37	+	4770	USCGS: 19.6S, 175.5W, h about 220km. Tonga Islands region.
65	18	iP	NEZ 06 09 30	-	3950	USCGS: 0.9S, 126.9E, h about 38km. Halmahera region.
E long period galvanometer stuck from 0030GMT on 17th.						
66	18	iP ipP eL	NEZ 11 24 20 Z 24 34 Z 39.1	-	4340	USCGS: 27.0S, 176.3W, h about 61km. Kermadec Is. region.
67	18	iP	NEZ 11 55 41	+	4650	USCGS: 21.4S, 175.8W, h about 114km. Tonga Islands region.
68	18	eP	NEZ 18 40 41			
69	18	eP	NEZ 18 59 54			
70	18	iP	NEZ 22 20 01	+	6730	USCGS: 23.7N, 121.8E, h about 60km. Near coast of Formosa. Felt.
71	19	eP	Z 08 52 54			
72	19	iP iS e	NEZ 23 29 00 NEZ 34 35 N Z 37 14		4220	USCGS: 0.8N, 124.3E, h about 157km. Northern Celebes.
73	20	eP ipP eS i eL	NEZ 11 50 31 EZ 50 38 N 55 41 N 58 38 N Z 59.5		3370	USCGS: 21.8S, 169.9E, h about 33km. Loyalty Islands region.
74	20	iP	NEZ 19 14 14	-	3350	USCGS: 5.0S, 144.4E, h about 65km. New Guinea.
75	20	iP	NEZ 23 17 22	+	6980	USCGS: 28.3N, 138.9E, h about 525km. Sth. of Honshu, Japan.
76	20	ePKP	Z 18 18 21		19590	USCGS: 31.3N, 40.9W, h about 44km. Nth. Atlantic Ocean.
77	21	eP	NEZ 02 13 56			
78	21	iP	NEZ 04 12 26	+		
79	21	iP ipP iPP iS	NEZ 11 13 54 NEZ 14 15 NEZ 15 24 NEZ 19 44	+	4310	USCGS: 0.9N, 122.5E, h about 85km. Northern Celebes.
80	21	eP	Z 17 43 07			
81	22	eP eL	NEZ 11 12 50 N Z 53.8		3370	USCGS: 21.5S, 169.8E, h about 41km. Loyalty Islands.
82	22	eP eL	NEZ 20 22 26 N Z 32.1		3360	USCGS: 4.6S, 136.1E, h about 148km. Near south-east coast of New Guinea.
83	22	eP	NEZ 20 46 39		4330	USCGS: 26.8S, 176.6W, h about 77km. Kermadec Islands region.
84	22	eP	NEZ 21 58 19			

No.	Date 1961 Nov.	Phase	Time (G.M.T.)	Amp. A _Z	Δ Km.	Remarks
85	22	iP NEZ	22 37 42	+	4060	USCGS: 8.8S, 110.5E, h about 188km. Near south coast of Java.
86	23	iP NEZ eS NEZ	03 08 01 08 09			local.
87	23	eP NEZ	16 42 03			E long period galvanometer stuck up to 2400GMT on 23rd.
88	24	eP NEZ	09 55 01			No time pips for the 25th and the 26th.
89	27	iP NEZ iPcP Z	02 06 56 06 27	-	9770	USCGS: 56.4S, 28.2W, h about 163km. Sandwich Islands.
90	27	eP NEZ ipP Z iPcP NEZ iPP NEZ e NEZ	06 07 57 08 09 08 18 10 20 15 14		7390	USCGS: 31.6N, 131.1E, h about 25km. Near south coast of Kyushu, Japan. Felt Kyushu. Mag. 6 $\frac{1}{4}$ -6 $\frac{1}{2}$ (Pas.)
91	27	eP NEZ	10 58 08		2220	USCGS: 49.8S, 121.7E, h about 25km. South of Australia.
92	27	eP Z	16 56 42		3940	USCGS: 1.0S, 126.9E, h about 44km. South of Halmahera.
93	27	iP NEZ i(pP) N Z i(PcP) Z i(S) NE e NE eL NEZ	17 17 37 17 54 19 48 23 20 26 39 31.4	+	3980	USCGS: 0.6S, 127.1E, h about 25km. Halmahera region. Mag. 6 $\frac{1}{4}$ -6 $\frac{1}{2}$ (Pas.)
94	27	iP N Z	17 54 55.5	+	3840	USCGS: 1.9S, 127.0E, h about 25km. South of Halmahera.
95	27	eP N Z	19 20 57			
96	28	iP NEZ	02 47 19	-	4000	USCGS: 0.2S, 128.0E, h about 62km. Halmahera.
97	28	eP N Z	05 08 48		3970	USCGS: 0.6S, 127.4E, h about 68km. South of Halmahera.
98	28	iP NEZ	08 53 40	+	3330	USCGS: 5.9S, 130.1E, h about 117km. Ceram.
99	28	iP NEZ eL NEZ	18 39 44 45 27	-	2500	USCGS: 56.9S, 143.5E, h about 51km. South of Tasmania.
100	29	eP Z	05 25 34			
101	29	eP N Z	11 00 51		3150	USCGS: 7.1S, 130.8E, h about 52km. Banda Sea.
102	29	iP NEZ eL N Z	22 01 59 11.7	-	3400	USCGS: 23.1S, 170.9E, h about 29km. South east of Loyalty Is.
103	30	eP N Z	13 19 43			
104	30	eP NEZ	16 53 24		3690	USCGS: 3.3S, 127.2E, h about 75km. Ceram Sea.
105	30	eP EZ	18 33 41		3430	USCGS: 18.2S, 168.0E, h about 68km. New Hebrides Is. Felt: Port Vila.

No.	Date 1961 Nov.	Phase	Time (G.M.T.)	$\frac{\text{Amp}}{A_z}$	Δ Km.	Remarks
106	30	iP NEZ	20 10 37	-	4520	USCGS: 18.6S, 179.0W, h about 431km. Fiji Islands.
107	30	eP NEZ	21 50 39		4310	USCGS: 2.3N, 126.8E, h about 55km. Molucca Passage.

J. Pearce.

D.J. Sutton.

UNIVERSITY OF ADELAIDE SEISMOLOGICAL STATION

ADELAIDE (MT. BONYTHON)

Latitude: 34° 58' 01" Longitude: 138° 42' 32"

Height above mean sea level: 2150'

Foundation: Sandstone

Instruments: Benioff variable reluctance seismometers with three component long and short period paper recorders.

$T_g = 75$ sec. and $T_g = 0.2$ sec. respectively

No.	Date 1961 Dec.	Phase	Time (G.M.T.)	Amp A _Z	ΔKm.	Remarks
1	1	iP NEZ iPP N Z	07 01 22 02 54	+	3740	USCGS: 3.6S, 152.5E, h about 342km. New Ireland region.
2	1	iP EZ	07 47 31.5	+	10430	USCGS: 56.6N, 158.8E, h about 18km. Kamchatka.
3	1	iP NEZ ipP Z	08 07 13 07 26	+	5130	USCGS: 8.7N, 122.0E, h about 36km. Off coast of Negros, Philippine Islands.
4	1	iP NEZ e NEZ	09 22 08 28 15	-	3300	USCGS: 6.0S, 130.8E, h about 85km. Banda Sea.
5	1	iP NEZ	14 03 43.5	-		
6	1	iP NEZ	15 10 55	-		
7	1	iP NEZ eS E	21 23 07 31 18	+	6950	USCGS: 26.5N, 124.9E, h about 206km. East China Sea.
8	2	eP EZ	04 17 29			
9	2	eP Z	07 28 15			
10	2	eP EZ	14 12 15		3640	USCGS: 16.9S, 168.2E, h about 219km. New Hebrides Islands.
11	2	eP NEZ	18 53 36		4660	USCGS: 22.7S, 175.1W, h about 89km. Tonga Is.
12	2	iP NEZ	19 39 37	+	3500	USCGS: 3.3S, 138.8E, h about 145km. New Guinea.
13	3	iP NEZ	08 50 32.5	-	6840	USCGS: 25.0N, 122.9E, h about 91km. Off Coast of Formosa.
14	3	eP NEZ	11 45 29.5			
15	3	eP NEZ	12 15 35		4110	USCGS: 5.7S, 113.8E, h about 633km. Java Sea.
16	3	iP NEZ eL E eL Z	16 21 09 30.7 33.3	-	3790	USCGS: 11.6S, 166.1E, h about 122km. Santa Cruz Islands.
17	4	eP Z	05 39 44		3540	USCGS: 5.2S, 151.6E, h about 59km. New Britain. Felt.
18	4	eP NEZ	12 50 17		8770	USCGS: 33.2N, 95.3E, h about 45km. Tibet.
19	5	iP NEZ iS N iSS N Z iSSS N eL NEZ eT NEZ	13 04 43 07 47 08 01 08 14 08 40 18 56	+	1780	USCGS: 50.8S, 139.8E, h about 6 km. South west of Tasmania.
20	5	iP N Z	13 08 46		3590	USCGS: 16.0S, 168.1E, h about 145km. New Hebrides Islands. Felt Santo.
21	5	eP N Z	14 59 24			
22	6	iP NEZ	05 59 14.5	-	7100	USCGS: 13.7N, 93.6E, h about 53km. Andaman Islands. Mag. $5\frac{3}{4}$ - 6(Pal.)
23	6	iP? NEZ	07 17 38			
24	6	iP NEZ eL N Z	13 43 25.5 56.8	-	4530	USCGS: 23.5S, 176.0W, h about 18km. Tonga Islands region. Mag. $6\frac{1}{4}$ (Berk).

No.	Date 1961 Dec.	Phase	Time (G.M.T.)	Amp A _Z	Δ Km.	Remarks
25	6	eP N Z	15 25 50		4550	USCGS: 23.7S, 175.7W, h about 29km. Tonga Islands region.
26	6	eP NEZ	15 47 04		3660	USCGS: 8.2S, 117.4E, h about 64km. Flores Sea.
27	6	iP NEZ eL N Z	16 52 09 17 23.1	+	9470	USCGS: 49.4N, 155.2E, h about 22km, Kurile Islands. Mag 6-6 ¹ / ₄ (Pas.) 6 ¹ / ₄ (Berk.)
28	7	iP NEZ	00 26 06.5	-	4550	USCGS: 23.4S, 175.9W, h about 45km. Tonga Islands region.
29	7	eP NEZ iS NEZ	23 20 06 21 07			Local.
30	8	eP NEZ ipP NEZ i Z	06 13 58 14 16 14 55		3530	USCGS: 3.0S, 136.9E, h about 64km. North west New Guinea.
31	8	iP NEZ eL N Z	09 42 55 54.1	+	3660	USCGS: 1.8S, 139.4E, h about 55km. Near north coast of New Guinea.
32	8	iP NEZ	10 32 09	+	9050	USCGS: 30.5N, 86.7E, h about 45km. Tibet.
33	8	eP N Z	08 19 18		3010	(USCGS: 13.6S, 120.0E, h about 25km. Celebes.)
34	9	iP NEZ ipP EZ	04 32 37 32 52	-	3770	USCGS: 35.9S, 179.3W, h about 60km. North east of New Zealand.
35	9	iP NEZ	06 46 47	-		
36	9	iP NEZ	10 25 28		4330	USCGS: 7.5S, 108.3E, h about 295km. Java.
37	9	iP NEZ eT NEZ	10 58 50 11 16 45	+		
38	9	eP NEZ e(SKS) N ePS N eL EZ	11 31 34 42 16 44 15 12 05.6		10660	USCGS: 43.7S, 75.2W, h about 34km. Near coast of southern Chile. Mag. 6 ³ / ₄ (Pas.) 6 ¹ / ₂ (Berk) 5 ³ / ₄ -6(Pal.)
39	9	eP NEZ ipP NEZ i Z	16 43 28 43 37 44 11		4430	USCGS: 8.9S, 105.6E, h about 35km. South of Java.
40	9	iP NEZ ePP Z i EZ eS NE	19 56 15 58 04 20 01 10 01 27	+	4260	USCGS: 21.7S, 179.9E, h about 620km. Fiji Islands.
41	9	eP Z	20 26 13			
42	9	eP NEZ	22 45 07		3370	USCGS: 6.0S, 149.3E, h about 123km. New Britain.
43	11	eP NEZ iS NEZ	05 47 34 48 01			Local.
44	12	eP NEZ	04 01 38		3590	USCGS: 4.3S, 127.2E, h about 65km. Banda Sea.
45	12	iP Z	17 32 54	-	6300	USCGS: 21.7N, 146.0E, h about 24km. Northern Mariana Islands region.
46	12	iP Z i(sP) NEZ	23 18 15 18 33	-	8700	USCGS: 43.5N, 146.2E, h about 44km. Near east coast of Hokkaido, Japan.
47	13	iP Z	08 51 05	+	6870	USCGS: 26.7N, 129.6E, h about 161km. Ryukyu Islands.
48	13	eP NEZ	16 56 06		3420	USCGS: 18.9S, 168.4E, h about 30km. New Hebrides Islands. Felt : Port Vila.
49	13	iP NEZ	20 07 35	+	5140	USCGS: 9.9N, 125.8E, h about 69km. Near north coast of Mindanao, P.I.

No.	Date 1961 Dec.	Phase	Time (G.M.T.)	Amp A _Z	ΔKm.	Remarks
50	14	eP i iPP iPPP eS e i i iL	NEZ Z Z N Z N Z N Z N Z NEZ	07 16 45 16 48 17 36 18 04 21 58 25 47 27 42 27 54 30 22		3520 USCGS: 3.1S, 140.9E, h about 44km. Near north coast of New Guinea.
51	14	eP ipP	NEZ Z	12 21 01.5 21 12		3530 USCGS: 7.8S, 120.5E, h about 62km. Flores Sea.
52	14	iP	NEZ	23 32 25	-	3980 USCGS: 26.1S, 179.3E, h about 497km. South of Fiji Islands.
53	15	iP i isP	NEZ Z Z	12 42 27 42 39 43 21	-	3360 USCGS: 5.5S, 147.2E, h about 181km. Near north coast of New Guinea.
54	15	iP	NEZ	19 43 17	-	4170 USCGS: 0.9N, 126.2E, h about 47km. Molucca Passage.
55	16	eP i	NEZ N Z	01 45 30 45 40		5120 USCGS: 9.7N, 125.6E, h about 163km. Near north coast of Mindanao, P.I.
56	16	iP	N Z	20 27 06	+	
57	17	eP e eT	NEZ N NEZ	22 17 01 21 02 35 04		2220 USCGS: 54.5S, 143.9E, h about 45km. South of Tasmania.
58	17	eP	NEZ	22 25 03		
59	18	iP	NEZ	16 53 44	+	8100 USCGS: 26.4N, 96.3E, h about 85km. Burma-India border.
60	19	iP	NEZ	15 49 00.5	-	4580 USCGS: 5.0N, 127.2E, h about 33km. Talaud Islands region.
61	19	iP	NEZ	17 40 20.5	-	6760 USCGS: 24.2N, 122.4E, h about 93km. Near east coast of Formosa.
62	20	iP ipP ePP iPcP	NEZ EZ N Z Z	01 52 16 52 26 53 51 54 09.5	-	4700 USCGS: 3.0N, 118.4E, h about 17km. Near east coast of Borneo.
63	20	iPKP e ePP iSKP e	NEZ Z Z NEZ Z	13 44 37 45 22 47 22 47 54 56 55	-	15100 USCGS: 4.6N, 75.6W, h about 176km. West-central Colombia. 23 killed, 100 injured and moderate property damage in Caldas Province. Mag. $6\frac{3}{4}$ (Pas.) 6 (Pal.)
64	20	eP	NEZ	14 34 15		
65	21	eP	NEZ	00 52 28.5		4760 U.S.C.G.S.: 6.6N, 126.6E, h about 25km. Near coast of Mindanao, P.I.
66	21	iP	NEZ	01 09 33	-	
67	21	iP	NEZ	07 17 35	+	
68	21	iP eS	NEZ NEZ	07 40 31.5 40 49	-	Local.
69	21	iP	NEZ	10 51 46	-	
Power off from 11 11 30 G.M.T. to 11 34 30 G.M.T. on 21st.						
70	21	iP e e	NEZ NEZ NEZ	13 36 27 37 04 42 16	-	3190 USCGS: 7.5S, 129.2E, h about 201km. Banda Sea.
71	21	iP	NEZ	19 41 38	-	
72	21	eP i	NEZ NEZ	23 43 31 43 41		
N power off from 01 10 G.M.T. to 01 14 G.M.T. on 22nd						

No.	Date 1961 Dec.	Phase	Time (G.M.T.)	Amp A _Z	ΔKm.	Remarks
73	22	eP e	NEZ NEZ 01 43 51 44 20		3310	USCGS: 6.4S, 128.9E, h about 38km. Banda Sea.
74	22	eP ePP e e(ScS)	NEZ NEZ E EZ 10 40 05 41 14 46 50 50 04		3570	USCGS: 2.8S, 136.7E, h about 38km. New Guinea.
75	22	iP	NEZ 22 55 35	-	5970	USCGS: 18.6N, 145.6E, h about 155km. Mariana Islands.
76	23	iP	NEZ 03 55 53.5	+		
77	23	iP i	NEZ Z 16 29 52 31 02	-		
78	23	eP	NEZ 17 27 13			
79	23	iP	EZ 20 40 47	-		
80	23	eP	N Z 22 48 59			
81	24	iP	NEZ 00 06 14	+		
82	24	eP	Z 00 39 46			
83	24	iP ipP i i i i i i e e(ScS) eL	NEZ N Z Z NEZ NEZ N Z Z Z N N Z N Z N Z 02 46 29.5 46 39 46 47 47 09.5 47 17 47 21 47 45 48 00.5 52 22 57 02 59.6	-	3490	USCGS: 3.4S, 140.3E, h about 29km. New Guinea.
84	24	iP	NEZ 03 03 38.5	+		
85	24	eP i	NEZ Z 07 26 00 26 57		9440	USCGS: 29.5N, 80.9E, h about 20km. Nepal.
86	24	iP	NEZ 16 44 03	+		
87	25	iP	NEZ 05 50 53	+		
88	25	iP ipP e	NEZ N Z N 08 07 32 07 39 12 56	-	3630	USCGS: 3.7S, 127.7E, h about 47km. Ceram.
89	25	iP	NEZ 08 20 07	+	3940	USCGS: 1.1S, 126.7E, h about 25km. Spice Is.
90	25	iP i iS	NEZ NEZ NEZ 09 15 39 16 37 20 47	+	3630	USCGS: 3.7S, 127.7E, h about 54km. Ceram Sea.
91	25	iP	NEZ 09 27 58	-	3640	USCGS: 3.7S, 127.3E, h about 27km. Ceram Sea.
92	25	iP	NEZ 11 31 01.5	-	8550	USCGS: 26.9N, 90.1E, h about 46km. Bhutan-India border.
93	25	iP	NEZ 12 28 48	+		
94	25	iP i	NEZ Z 14 03 43 05 40		4900	USCGS: 20.4S, 173.7W, h about 64km. Tonga Islands.
95	25	eP	NEZ 15 54 55			
96	25	eP	NEZ 22 31 56		4080	USCGS: 8.9S, 110.2E, h about 155km. Off coast of Java.
97	26	iP i i ipP eS eScS	NEZ NEZ NEZ Z N Z N 04 31 37.5 31 51 32 36 33 18 36 56 40 44	-	4330	USCGS: 5.5S, 110.7E, h about 566km. Java Sea.

No.	Date, 1961 Dec.	Phase	Time (G.M.T.)	Amp A_z	Δ Km.	Remarks
98	26	eP NEZ	06 29 06		8100	USCGS: 44.2S, 38.1E, h about 22km. Prince Edward Islands region.
99	26	iP e NEZ Z	06 41 31 42 29	*		
100	27	eP NEZ	02 32 16		3590	USCGS: 2.7S, 141.3E, h about 22km. Near north coast of New Guinea.
101	27	iP NEZ	07 25 06.5	-	4640	USCGS: 18.7S, 177.5W, h about 616km. Fiji Is.
102	27	iP NEZ	22 00 50	*		
103	27	iP NEZ i N Z ePcP Z e(S) Z i N eL NEZ	23 54 06 54 16 57 08 58 44 00 01 45 03.4	*	3220	USCGS: 41.2S, 175.7E, h about 57km. Near coast of North Island, New Zealand. Mag. $6\frac{3}{4}$ (Pas.) $6-6\frac{1}{4}$ (Pal.).
104	28	eP NEZ iS NEZ	07 36 26 37 46			Regional.
105	28	iP NEZ	18 25 02.5	*	4620	USCGS: 17.7S, 178.6W, h about 592km. Fiji Is.
106	29	iP iS eL N N Z	00 02 31.5 07 50 16.2	*		
107	29	iP NEZ	10 06 58	-	3540	USCGS: 6.3S, 154.5E, h about 44km. Solomon Is.
108	30	eP e(S) eL NEZ N N Z	00 52 39 03 17 01 20.3		10320	USCGS: 52.3N, 177.7E, h about 52km. Rat Islands, Aleutian Islands. Mag. $6\frac{3}{4}$ (Pas) $6\frac{1}{2}$ (Berk.) 7(Pal.).
109	30	eP NEZ	03 49 06		3320	USCGS: 7.2S, 148.0E, h about 78km. Near northern coast of New Guinea.
110	30	iP N Z	08 41 00	*		
111	30	iP ipP NEZ Z	09 07 20 07 33	*	4640	USCGS: 22.9S, 175.2W, h about 41km. Tonga Islands.
112	30	iP NEZ	11 26 29	-		
113	30	iP i i NEZ NEZ N Z	13 02 04.5 02 11 02 23	-		
114	30	iP i ipP Z Z Z	15 38 19 38 25 38 35	*	3740	USCGS: 16.0S, 170.0E, h about 65km. New Hebrides Islands.
115	30	eP Z	15 49 42			
116	30	iP i NEZ Z	18 26 36 26 53	-	5000	USCGS: 8.7N, 126.3E, h about 119km. Near coast of Mindanao, P.I.
117	31	iP i NEZ Z	13 53 05.5 54 06	*	4210	USCGS: 1.6N, 127.3E, h about 140km. Halmahera.
118	31	eP iS NEZ NEZ	14 50 08 50 53			Local.
119	31	iP NEZ	16 15 15	-	4410	USCGS: 7.8S, 106.8E, h about 66km. Near coast of Java.

E long period not functioning throughout the month.

J. Pearce

D.J. Sutton