RIVERVIEW COLLEGE OBSERVATORY

SEISMOLOGICAL BULLETIN

1957

RIVERVIEW, SYDNEY, AUSTRALIA

RIVERVIEW COLLEGE OBSERVATORY

RIVERVIEW, N. S. W.

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SEISMOLOGICAL BULLETIN, JANUARY-DECEMBER, 1957.

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Lat. 33°49'46"S. Long. 151°09'30"E. h 25m. Foundation : Triassic Sandstone.

INSTRUMENTS:

Galitzin Aperiodic Seismometer, Galvanometer registration, NS, EW, Vert.
Sprengnether Short-period Vertical Seismometer.
Wiechert Astatic Pendulum Seismometer (1000 kilo.) NS, EW. (Not operating)
Wiechert Vertical Seismometer (80 kilo.). (Not operating)
Mainka Conical Pendulum Seismometer (450 kilo.) NS, EW.

No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
1	Jan. 1			11.8						Waves.
2	2	(eP)	Z	00 52 46	6					
		i	Z	52 58	6			+3		USCGS: 53N, 168½W, H 00 39 22
		iSKS	N	01 03 19	7	-6				
		e	N	03 34	12					Magnitude: 6½-6¾ Pasadena
		iS	E	03 52	9		+7			6½ Moscow, Hurbanovo
		i	N	03 58	7	-5				6.4 Tacubaya
		e	E	04 01	22					6-6¼ Praha.
		e(SS)	E	09 55	19					
		eLQ	E	18.2	?					
		M	E	27.7	19		3			
		M	N	28.1	19	2				
		M	Z	28.7	22			3		
3	2	iP	V	02 30 58	1½			+	10,510	Compression.
		iP	Z	30 59	4			+4	94°6	H 02 17 34
		i	Z	32 29	5			-5		
		iSKS	N	41 27	6	+7				USCGS: 52½N, 168W, H 02 17 35
		i	E	41 30	7		-3			Moscow: 52N, 168W, H 02 17 37
		e	E	41 46	22					
		i	E	42 00	6		-6			Magnitude: 6.9 Uppsala, Kiruna
		iS	E	42 09	10		+14			6.8 Praha
		i(ScS)	N	42 12	6	+12				6¾-7 Hurbanovo
		i(PS)	N	43 34	7	+10				6¾ Pasadena, Moscow
		i(PPS)	N	44 13	8	-8				6.6 Tacubaya.
		eSS	E	48 04	25					
		eSS	N	48 05	30					
		eLQ	E	56.6	27					
		eLQ	N	57.1	26					
		M	N	03 05.1	20	15				
		M	Z	05.3	19			9		
		M	E	06.4	21		11			
		M	NEZ	18.2	19	12	14	17		
4	2	i(SKS)	N	03 36 51	8	-5				Masked by coda of no.3
		i	N	37 15	8	+4				USCGS: 53N, 168W, H 03 12 52
		i(S)	E	37 18	8		-6			Magnitude: 7 Pasadena
										6.5 Uppsala, Kiruna
5	2	iP	V	04 02 05	1½			+	10,460	Compression.
		i	Z	02 31	6			+9	94°1	H 03 48 43
		i	Z	02 49	6			+8		USCGS: 53N, 168W, H 03 48 44
		iSKS	N	12 39	5	+6				Magnitude: 7-7¼ Pasadena
		iS	E	13 14	10		+33			7 Uppsala, Kiruna
		iScS	N	13 16	7	+19				6.8 Tacubaya
		i	N	13 56	6	+5				6½ Moscow, Praha.
		iPS	N	14 34	9	+9				
		iPPS	N	15 04	9	-17				
		eL	E	31.5	33					
6	2	iP	V	04 16 47	1½			+		Compression. Mag. 6.7 Uppsala.
		i(SKS)	N	27 22	6	+3				USCGS: 55½N, 169W, H 04 03 26

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No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
7	Jan. 2	iSKS	N	11 13 24	6	+2				P obscured by microseisma.
		iS	E	13 56	7		-3			USCGS: 52½N, 168W, H 10 49 32
		iScS	N	14 02	5	+2				Magnitude: 6½ Pasadena, Praha
		eSS	E	20 21	26					6.3 Uppsala, Kiruna
		eLQ	N	28.7	21					.6 Moscow
8	2			13.2	Waves.					USCGS: 53N, 168W, H 12 47 07
9	3			02.5	Waves.					USCGS: Fiji Is., H 02 18 03
10	3	iP	NEZ	12 59 39	4	-4	+2	+14	8920	Compression.
		ipP	Z	13 01 41	5			-7	80?3	h 0.085, H 12 48 26
		i	Z	01 51	6			+10		USCGS:BCIS: 44N, 130E, h 600 km.ca,
		i	Z	02 13	4			+3		H 12 48 27
		isP	Z	02 33	6			+3		Moscow: 45N, 130E, h 550 km.
		i	N	02 38	7	+6				H 12 48 30
		i	Z	02 41	7			+16		J.M.A.: 43½N, 131½E, h 600 km.ca.,
		i	N	08 57	4	+4				H 12 48 35
		iS	E	08 58	7		+23			Magnitude: 7 Pasadena, Uppsala
		i	E	09 08	4		+17			6.8 Wollington
		iScS	NE	09 13	4	+5	+16			6¾ Berkeley.
		isS	E	12 32	7		-6			
		iSKPP'	Z	28 58	4			+5		
11	3			20.6	Waves.					
12	4			01.8	Waves.					
13	4	(iP)	V	13 43 08	1½			+		Masked by large microseisms.
										USCGS: Solomon Is., h 100 km.ca.
										H 13 38 00
14	4	i	N	15 59 14	2	+1				Masked by microseisms.
										USCGS: Solomon Is., H 15 51 25
15	4			20.0	Waves.					
16	6			16.0	Waves.					
17	7	e	N	18 59 13						Masked by large microseisms.
		i	NE	19 01 53	3	+7	+2			
		i	N	02 18	4	+9				
		M	N	02.9	10	21				
		i	E	03 07	4		+13			
		i	E	05 01	4		+8			
18	8			01.8	Waves.					USCGS: Off west coast of Sumatra,
										H 01 20 15
19	8	(iP)	V	05 32 22	1½			+		Compr. Masked by microseisms.
		(S)	N	40 31	10					USCGS: 2S, 99E, H 05 22 26
		i	N	53 14	4	+4				
		M	N	55.0	14	2				
20	8			10.4	Waves.					BCIS: Tonga Is. region, h 150 km.ca.,
										H 10 11.4
21	9	(iP)	Z	06 21 22	4			+2		Masked by microseisms.
		e	N	26 29	13					USCGS: New Britain region,
		eL	N	29.5	21					H 06 15 37
		M	NE	31.7	20, 16	10	12			
		M	Z	32.1	19			9		
22	9			10.4	Waves.					
23	9	(S)	N	08 17 27						Masked by microseisms.
		e	N	24 25						USCGS: 53N, 167W, H 07 52 56
										Magnitude: 6½ Pasadena, 6¼ Praha.
24	9			10.3	Waves.					
25	9	i(P)	N	10 38 57	3	+2				Masked by microseisms.
										BCIS,JMA: 35.4N,141.5E, H 10 27 47
26	10	i	N	04 09 11	4	+3				Masked by microseisms.
		i	E	21 10	4		+4			
		i	E	24 20	4		+4			

No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
27	Jan.10	(iP)	V	04 25 28	2			+		Masked by large microseisms.
		eL	N	47.7	22					USCGS,BCIS: 6N,95½E, H 04 14 44
		M	N	51.3	18	3				Shillong: 5N, 96E, H 04 24 35
		M	E	54.5	20		3			
28	10	(i)	N	06 08 20	4	+3				Masked by large microseisms.
		i	N	14 42	?					USCGS: 14S, 175½W, H 06 02 33
		eL	N	17.7	?					BCIS: H 06 02 43
		M	N	20.8	15	3				
		M	E	22.8	13		2			
29	10			08.4	Waves.					BCIS: Samoa Is.region, H 08 11.0
30	14	iP	Z	00 34 07	3			-3	2810	Dilatation. Large microseisms
		iS	E	38 31	4		+4		2523	present.
		e	E	38 34						USCGS: 11S, 163E, H 00 28 38
		i	N	39 04	5	+4				BCIS: 11S, 163E, H 00 28 40
		i	N	39 35	4	+5				
		eL	N	41.3	24					
		M	E	45.4	13		2			
		i	E	46 15	3		-5			
31	14	iP	ZV	14 25 34	2			-4	3150	Dilatation
		i(pP)	V	27 10	1½			-	2823	h 0.085, H 14 20 24
		i	N	29 39	4	-4				USCGS: 22S, 179W, h 600 km.ca.,
		iS	E	29 42	4		+7			H 14 20 17
		i	E	29 50	5		+6			
		i(sS)	N	32 49	7	-8				
		iScS	N	35 08	5	-4				
		iScS	E	35 09	4		+7			
32	14	(iP)	Z	22 58 55	4			+3		Compression. Masked by microseisms.
		i	Z	59 58	4			+2		
		i(S)	E	23 03 53	5		+2			
		M	N	09.0	11	2				
		i(ScS)	N	09 37	7	+6				
33	15	(iP)	V	01 04 00	1½			+		Compr. Masked by microseisms.
34	15	(iP)	Z	20 30 14	4			+3		Compr. Masked by microseisms.
		(ipP)	Z	30 35	3			+3		USCGS: 6½N,127E, h 100 km.,H 20 21 45
35	16			12.3	Waves					BCIS: 10S, 67¾E, H 11 43 27
36	16			20.8	Waves					USCGS: Tonga region, H 20 36 07
37	17	i	V	07 33 42	1½			+		Obscured by microseisms.
		e	N	37 46						USCGS: 7½S, 129½E, h 100 km.ca.,
		i	N	40 44	3	-3				H 07 23 43
		i	E	40 56	3		-3			
38	17	iP	Z	11 33 34	3			+2	4000	Compression.
		iPP	V	34 55	1½			+	3690	USCGS: Flores Is., H 11 26 17
		eS	NE	39 13	4					
		eL	N	42.0	16					
		eL	E	42.6	20					
		i	N	44 00	4	+3				
39	17	iS	E	22 45 43	4		+2			Masked by microseisms.
										USCGS: 33N, 137½E, h 350 km.ca.,
										H 22 26 10
										JMA:33N,137.8E,h 360km.,H 22 26 49
40	18	P	V	01 08 40	1					
		iP	N	08 41	4	+3				South of New Zealand ??
		eS	E	12 16						
		eLQ	E	12.3	16					
		M	NEZ	13.5	12	2	3	1		
		eT	V	27.7	½					
41	18			05.1	Waves					BCIS: New Britain, H 05 32.8
42	19	(iP)	V	03 07 13	1½			-		Dilatation. Masked by microseisms
		(eS)	N	11 51						
		eL	N	16.4	17					

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No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
42 cont.	Jan.19	M	E	03 17.9	15		3			
		M	N	18.7	14	1				
		i	N	18 52	4	-3				
43	19	(iP)	Z	05 21 58	4			+2	(3220)	Compression.
		i(sP)	Z	24 52	5			-2	(29°0)	h 0.095 ca.
		iS	E	26 08	7		+4			USCGS: 21½S, 179W, h 650 km.ca.,
		isS	N	29 20	8	-5				H 05 16 37
		i	E	29 24	6		+4			Magnitude: 6½ Pasadena.
		iScS	N	31 24	6	-6				
44	21			04.7	Waves.					
45	21			16.1	Waves.					BCIS: Probably Fiji Is. region.
46	22			05.9	Waves.					BCIS: Tonga region, H 05 36 03
47	22	iP	Z	12 37 35	4			+3	2980	Compression.
		i	N	37 54	5	-2			26°8	H 12 31 51
		i	Z	38 01	4			+5		USCGS: 11S, 166½E, H 12 31 54
		e	E	42 05						
		iS	NE	42 10	5	+4	+4			
		i	N	42 19	7	+6				
		i	E	42 21	6		+6			
		i	E	42 32	7		+9			
		eLQ	N	43.0	18					
		i	N	43 13	6	+5				
		iSSS	N	43 40	6	+5				
		eLR	E	44.6	30					
		eL	Z	44.7	30					
		M	NEZ	45.8	21,18	5	7	4		
48	23	iP	Z	17 46 52	3			-2	3690	Dilatation.
		eS	E	52 05					32°2	H 17 40 20
		eSSS	N	54 24	16					USCGS: 22S, 175W, H 17 40 19
		eL	N	54.8	25					
		M	EZ	57.8	19		8	10		
		m	N	58.1	13	5				
49	24	(P)	Z	01 16 57					(3120)	Masked by microseisms.
		i	N	18 27	5	+4			(28°1)	h 0.01ca.
		i	Z	18 57	4			+3		USCGS: 6S, 147E, h 100 km.ca.,
		eS	N	21 33						H 01 11 11
		i	N	21 40	4	-6				
		isS	N	22 03	7	-8				
		i	N	22 36	7	+12				
		eLQ	E	22.8	18					
		i	N	23 16	7	+9				
		i	N	24 00	5	-12				
		eL	E	25.2	22					
		M	NE	28.2	13	6	10			
50	24	eSS	E	07 52 15	22					Masked by microseisms.
		eSS	N	52 19	25					USCGS: 12½S, 78W, H 07 16 29
		eL	E	08 11.6	21					Mag. 6½ Lwiro, 6¼ Pasadena.
51	24	i	Z	19 32 10	3			+2		Masked by large microseisms.
		e	N	36 59	8					USCGS: 20S, 176½W, H 19 25 16
		eL	E	38.8	?					
		eL	N	39.7	(30)					
		M	Z	42.7	20			12		
		M	N	43.8	13	10				
		M	E	44.2	18		14			
52	25	iP	V	03 49 48	1½			+	9840	Compression
		iP	Z	49 49	2			-4	88°5	Dilatation
		i	V	50 07	2			+		H 03 36 52
		i	Z	50 16	3			+4		USCGS: 51½N, 177W, H 03 36 47
		i	V	50 17	1½			-		Magnitude: 6½ Pasadena, Tacubaya
		iSKS	N	04 00 18	4	+3				6-6¼ Berkeley
		iS	N	00 33	5	+3				6 Moscow.
		iScS	N	00 40	4	+6				

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No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1961			h m s	s	μ	μ	μ	km.	
52 cont.	Jan.25	e	N	04 00 58	8					
		i	N	01 04	6	-4				
		ePS	N	01 39	13					
		ePPS	N	02 11	12					
		eL	N	16.1	25					
		eLR	N	18.5	30					
		M	Z	22.3	23			3		
		M	N	22.5	22	3				
		M	E	23.3	21		4			
53	25			19.6	Waves.					
54	26			04.9	Waves.					
55	27	(iP)	Z	11 12 23	3			+2		Compression. Masked by microseisms.
		i(S)	N	20 57	4	+3				
		e(PS)	N	21 18	10					
		e(SS)	N	24 50	13					
		eL	E	30.7	21					
		M	E	35.6	18		2			
		M	N	37.7	18	2				
		M	Z	37.9	16			2		
56	27	iP	V	14 12 20	2			+	5580	Compression. Large microseisms.
		i	Z	12 31	3			+3	50?2	H 14 03 20
		i	Z	14 25	3			+3		USCGS: 10N, 126½E, H 14 03 22
		i	N	14 31	3	+3				Magnitude: 5½ Moscow.
		iS	N	19 32	6	-3				
		ePS	E	19 39	9					
		i	E	22 17	5		+4			
		eSS	N	23 03	12					
		eL	N	23.8	24					
		M	E	33.8	19		5			
		M	N	35.7	18	4				
		M	Z	35.9	18			4		
57	28	(iP)	V	05 34 00	1½			+		Compression. Masked by microseisms.
		i	V	34 11	1½			+		USCGS: 27N, 130½E, H 05 23 25
		e(S)	N	42 32	7					
		eL	E	51.9	25					
		M	E	55.0	21		1			
58	28	iP	V	08 23 35	1			+	4100	Compression. Microseisms present.
		e	Z	23 39					36?9	H 08 16 23
		ePP	E	25 01	5					USCGS: 15½S, 173W, H 08 16 19
		ePP	Z	25 02	5					Magnitude: 6½ Pasadona.
		eS	N	29 20						
		e	E	29 25						
		eL	N	32.0	23					
		iScS	N	33 52	5	-3				
		eL	EZ	34.1	24					
		M	EZ	36.9	16		5	4		
		M	N	37.4	12	3				
59	29			05.9	Waves.					
60	29	i(P)	V	15 53 30	1½			+		Compression. Masked by microseisms.
		ePPP	E	54 59	8					USCGS: 16S, 176W, H 15 46 35
		eS	NE	58 53	?					Magnitude: 5.8 Wollington.
		e	N	59 01	8					
		e	E	59 08	14					
		eL	N	16 01.5	24					
		eL	E	02.6	21					
		eL	E	03.8	26					
		M	N	05.9	13	5				
		M	E	07.3	17		4			
		M	Z	09.2	17			3		
61	30	e	E	09 59 30	14					Masked by microseisms.
		e	N	10 01 55	13					USCGS: 15S, 173W, H 09 46 04
		eL	N	02.2	23					
		M	NEZ	06.4	*	1	2	2		* MN 17s, ME 13s, MZ 15s.

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	1957			h m s	s	μ	μ	μ	km.	
62	Jan.30	iP	Z	15 35 42	3			+2	3760	Compression.
		i(pP)	Z	35 51	2			+2	33°8	USCGS: 20.S, 174W, H 15 29 00
		e	E	37 39	7					Magnitude: 6-6¼ Pasadena.
		eS	N	41 06	10					
		e	E	41 12	15					
		e(SS)	E	43 13	14					
		e(SSS)	N	43 39	18					
		eL	N	44.6	22					
		M	N	49.3	13	6				
		M	EZ	50.0	15		12	10		
63	30	(P)	Z	17 01 54						Maskod by microseisms.
		e	E	08 00	7					BCIS: 15S, 172¾W, H 16 54 39
		i	N	10 30	5	+3				
		M	NEZ	14.8	17	1	2	1		
64	31	e(Pg)	V	06 00 10	½					Local. Quarry blast ??
65	31			20.5	Waves.					
66	Feb. 2	iP	NEZ	11 50 20	3	+3	+5	-7	2360	Dilatation.
		i	NEZ	50 23	3	-5	-9	+15	21°2	h 0.00, H 11 45 35
		ipP	NEZ	50 29	3	+8	+16	-14		
		i	NE	50 39	4	+6	+13			USCGS: 21½S, 170E, H 11 45 35
		iPPP	N	50 50	4	+8				Magnitude: 6 Lwiro.
		i	Z	50 51	4			+6		
		i	E	50 53	4		+5			
		i	E	51 03	4		+7			
		i	Z	51 05	4			+10		
		i	N	51 30	4	+7				
		i	E	51 31	4		+5			
		i	E	51 42	4		-11			
		i	N	52 07	4	+4				
		i	E	52 16	4		+5			
		eS	EZ	54 09	(9)					
		ei	N	54 12	10	-7				
		i	E	54 13	4		+4			
		i	Z	54 19	5			+16		
		isS	E	54 21	6		+31			
		i	N	54 22	10	-31				
		iPcP	Z	54 23	5			+16		
		i	E	54 31	5		-20			
		i	N	54 34	7	-17				
		i	E	54 39	7		-17			
		i	E	54 53	7		-14			
		iSSS	N	54 59	7	+16				
		eLR	N	55.4	19					
		eLR	E	55.6	24					
		M	Z	57.2	18			9		
		M	E	57.3	18		21			
		M	N	57.6	14	15				
67	2	(P)	Z	22 32 26						Masked by microseisms.
		e(S)	E	37 19	6					
		i	N	37 34	4	-2				
		eL	E	39.8	19					
		M	E	41.5	14		3			
		M	N	42.8	12	2				
68	3	iP	V	17 14 37	1			+		Compression. Large microseisms.
										USCGS: 53½N, 159E, H 17 01 47
69	3	iP	V	17 37 40	1½			+	9670ca.	Compression. Large microseisms.
		iPcP	Z	37 43	3			+2	87°ca.	H 17 24 51 ca.
		i	Z	37 55	3			+3		USCGS: 53½N, 159E, H 17 24 50
		i	V	38 05	1½			+		Moscow: 53½N, 159E, H 17 24 52
		iSKS	N	48 06	5	+3				Magnitude: 6½-6¾ Pasadena
		eSKKS	N	48 12	5					6¼ Moscow, Berkeley.
		i(ScS)	N	48 28	4	+3				
		e	E	48 50	10					

(Continued on next page)

No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitudo AN	Amplitudo AE	Amplitudo AZ	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
69 cont.	Feb. 3	e	E	17 53 12	16					
		eSS	N	54 06	21					
		eL	N	18 02.9	?					
		eLR	N	06.2	31					
		M	N	11.9	22	7				
		M	Z	12.1	21			4		
		M	E	13.7	20		2			
70	3			21.9	Long waves.					USCGS: 53½N, 159E, H 21 11 53 21 17 35
71	3	(iP)	V	23 11 12	1			+		Masked by microseisms.
		i	V	11 17	1½					USCGS: 53½N, 159E, H 22 58 24
72	5	iP	V	04 08 16	1½			-		Dilatation. Large micros.present. USCGS: 18S, 176½W, h 300 km.ca., H 04 02 05
73	5	iP	V	16 03 05	1½			+		Compression. Microseisms present.
		i(pP)	V	03 23	1½			+		h 0.01?
		i	V	03 28	1½			-		USCGS: 11S, 166E, H 15 57 27
		i(sP)	V	03 40	1½			+		
		i(S)	N	07 32	5	-2				
		e	E	07 51	?					
		i	N	07 56	4	+2				
		i	N	08 19	4	-2				
		i	E	08 33	5		+3			
		eL	E	09.9	20					
		eL	N	10.4	20					
		M	N	14.8	13	1				
74	5	iP	Z	16 33 21	3			+2	2440	Compression.
		ipP	Z	33 42	3			+1	21?9	h 0.01, H 16 28 35
		i	NE	34 18	4	+1	+2			USCGS: 18S, 168E, h 100 km.ca.,
		i	Z	37 06	4			-2		H 16 28 36
		iS	N	37 12	6	+3				
		iPcP	E	37 19	5		-3			
		i	N	37 21	5	+8				
		isS	N	37 47	5	+5				
		i	E	37 53	6		+4			
		iSS	NE	37 58	7	+3	+4			
		eL	E	39.5	21					
75	5	(i)	N	19 54 32	4	+3				Masked by microseisms.
		e(L)	E	58.4	13					
		i	E	59 50	4		-3			
		i	E	20 00 36	4		-3			
		i	N	02 31	4	-3				
76	5	iP	Z	20 15 06	3			+2	2070	Compression. Microseisms present.
		(i)	V	15 09	1			+	18?6	
		i	V	15 12	1			+		Wellington: 49.3S, 165½E,
		eLQ	E	18 24	18					H 20 11 01
		eS	E	18 31	(11)					
		e	N	18 39	6					
		i	N	18 42	5	-2				
		iSS	N	18 51	5	+3				
		iSSS	E	19 03	6		+5			
		eT	V	33 26	½					
77	6	iPg	V	00 47 53	½			-		Dilatation
		Sg	E	47 58	½					
78	6			14.1	Long waves.					USCGS: 2N, 91W, H 13 06 13 13 07 30
79	6			21.4	Long waves.					USCGS: 50N, 105½E, H 20 34 55 Moscow: 50½N, 10£E, H 20 35 01
80	7			04.1	Waves.					
81	8			15.8	Long waves.					BCIS: 9S, 110E, H 15 27 28

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No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
82	Feb. 9	iP	Z	02 00 00	4			+5	3860	Compression.
		i	N	00 02	4	+3			34°7	H 01 53 06
		eS	N	05 30	7					
		e	N	05 41	15					USCGS: 1½S, 137½E, H 01 53 05
		eL(Q)	N	07.5	24					
		i	E	09 57	4		-4			
		iScS	E	10 21	4		+2			
		eL	E	10.5	27					
		M	E	14.6	19		23			
		M	Z	15.6	19			19		
		M	N	15.7	15	17				
83	9	i	Z	06 08 35	4			+5		Masked by microseisms.
		e(S)	N	15 10	7					USCGS: 10½N, 126½E, h 60 km.ca.,
		e	N	20.2	15					H 05 59 04
		M	E	29.7	18		4			
		M	NZ	31.5	18	3		4		
84	9			08.6	Waves.					USCGS: 11½N, 138½E, H 08 07 15
85	9	iP	Z	13 34 27	2			+6	2940	Compression. Preceded by micro-
		i	EZ	34 29	2		-4	+6	26°4	seisms.
		i	EZ	34 31	8		+17	-17		h 150 km, H 13 28 59 (Gutenberg's
		i	E	34 50	5		+10			Tables used)
		ipP	Z	34 56	5			-7		
		i(sP)	E	35 03	5		-8			USCGS: 34S, 180°, h 150 km.ca.,
		i(sP)	Z	35 05	3					H 13 29 18
		i	Z	35 09	7			+29		Wellington: 33.8S, 179.5W, h 135 km.
		iPP	E	35 20	4		+7			H 13 29 20
		i	E	35 28	6		-8			Magnitude: 6½-7 Wellington
		i	EZ	35 41	5		-11	+10		6¾ Pasadena.
		i	Z	36 00	5			-7		
		i	E	36 02	5		-9			
		i	E	36 21	7		+13			
		i	Z	36 26	5			+10		
		i	N	36 34	3	+6				
		i	N	37 34	4	+4				
		iPcP	Z	37 38	4			+5		
		i(pPcP)	Z	38 14	5			+5		
		i(sPcP)	Z	38 35	4			+5		
		i	E	38 37	8		+13			
		iS	N	38 51	7	+8				
		i	E	39 30	6		-8			
		i	Z	39 39	7			-7		
		isS	N	39 41	8	+37				
		i	E	39 52	7		+7			
		iSS	N	40 21	9	+16				
		i	E	40 36	8		+14			
		i	Z	40 59	6			+12		
		eL	E	41.1	24					
		eL	N	41.3	21					
		M	N	42.8	13	9				
86	9			17.5	Long waves.					USCGS: 41½N, 126W, H 16 38 10
87	9			18.1	Waves.					USCGS: 19S, 174W, H 17 56 00
88	10	iP	Z	22 41 15	3			+7	5510	Compression. Large microseisms
		i	Z	41 30	3			+9	49°6	present.
		i	Z	41 41	3			+9		H 22 32 20
		i	N	41 52	5	+6				
		i	Z	42 06	3			+5		USCGS: 10N, 126E, H 22 32 15
		i(PcP)	V	42 41	1½			+		Moscow: 10N, 126E, H 22 32 17
		i	Z	42 46	4			+11		Magnitude: 7 Strasbourg
		iPP	N	43 04	5	+7				6¾ Uppsala, Kiruna
		i	Z	43 14	4			+8		6½-6¾ Pasadena
		i	Z	43 19	4			-9		6½ Moscow, Praha, Lwiro.
		i	NZ	43 37	5	-6		+11		
		i	Z	43 59	5			+11		
		iS	N	48 23	(6)	-(9)				

(Continued on next page)

No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
88	Feb.10	i	E	22 48 25	7		+7			
cont.		iPS	N	48 27	10	+33				
		iPPS	E	48 34	8		-15			
		iScS	E	51 07	7		-10			
		e	E	51 47	14					
		iSS	NE	51 52	8	+10	-10			
		i	N	52 04	8	+24				
		i	EZ	52 10	6		+6	+8		
		e	EZ	52.3	21					
		i	EZ	52 35	6		+12	-13		
		iSSS	N	53 20	12	+19				
		i	N	53 35	12	+20				
		i	E	57 36	7		+21			
		i	N	57 37	6	+12				
		i	E	57 50	7		-22			
		i	N	57 58	5	+11				
		i	N	58 07	5	+7				
		M	E	23 02.6	18		23			
		M	NZ	05.4	17	21		20		
89	10	iP	Z	22 59 51	4			+3	5580	Compression.
		i	Z	59 59	4			+16	5092	H 22 50 51
		i	Z	23 00 53	4			+15		Confused by surface waves of no.88.
		i	Z	01 14	5			-16		
		i	Z	01 54	5			+11		USCGS: 10½N, 126½E, H 22 50 52
		i	N	06 59	5	+8				BCIS: 10¼N, 126E, H 22 50 53
		iS	NE	07 03	8	+29	+22			Moscow: H 22 50 56
		i	N	07 19	6	+13				
		i	N	07 30	9	+22				Magnitude: 6.8 Uppsala, Kiruna
		i	N	07 46	9	+22				6¾ Pasadona
		i	N	08 39	12	-27				6½ Moscow, Praha.
		i	N	09 04	12	+32				
		iScS	NE	09 44	5	-21	-19			
		i	N	10 04	7	+34				
		i	E	10 16	11		+26			
		iSS	N	10 32	10	-42				
		i	E	10 51	8		+44			
		iSSS	N	11 57	12	+44				
		M	E	22.7	18		47			
		M	NZ	23.5	18	51		56		
90	11	(iP)	Z	01 23 43	?			-	(5480)	Dilatation. P masked by large
		i	NZ	23 49	4	-7		+16	(49.3)	microseisms.
		iPP	NEZ	25 37	5	+8	-5	-9		
		i	E	25 45	6		+6			USCGS: 10N, 126E, H 01 14 44
		i	NZ	25 49	5	+4		-9		Moscow: 10N, 126E, H 01 14 45
		iS	N	30 49	9	-23				
		i	EZ	30 43	8, 5		+11	+11		Magnitude: 6.6 Uppsala, Kiruna
		i	N	31 06	7	-34				6½ Pasadona.
		iScS	E	33 35	5		-11			
		iSS	N	34 16	10	+13				
		i	E	34 19	9		+30			
		i	N	34 25	9	-34				
		i	E	34 41	7		+			
		eL	E	34.8	22					
		M	N	46.9	18	52				
		M	EZ	47.4	18		49	45		
91	11	i	Z	03 46 16	4			+5		Masked by large microseisms.
		e(S)	N	52 16	10					USCGS: 10N, 126½E, H 03 36 11
92	11	iP	Z	03 53 28	4			+5	(5480)	Compression. Masked by large micros.
		i(S)	N	04 00 35	7	+3			(49.4)	H(03 44 35)
		i	N	00 46	7	+5				USCGS: 10N, 126E, H 03 44 33
		eSS	N	04 03	15					
		eL	N	08.3	21					
		M	N	15.4	18	6				
93	11			07.2	Waves.					USCGS: 10N, 126E, H 06 47 37
94	11			12.3	Waves.					USCGS: 10N, 126½E, H 11 57 16

No.	Date	Phase & Component	Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957		h m s	s	μ	μ	μ	km.	
95	Feb.11	i Z	14 34 49	4			-3		Obscured by large microseisms.
		e(PP) Z	36 45	?					USCGS: 10N, 126E, H 14 25 38
		S NE	41 49	9					Moscow: H 14 25 43
		iPPS E	42 04	5		+7			Magnitude: 6½ Pasadena
		i(ScS) E	44 34	6		+10			6.2 Uppsala, Kiruna
		eSS E	45 13	13					6 Moscow
		i E	48 35	5		+8			
		M NZ	58.0	19	10		9		
96	11		19.3	Waves.					USCGS: 10N, 126½E, H 18 56 50
97	13	iP Z	00 38 47	4			-4	5460	Dilatation.
		i Z	38 52	4			+5	49°1	H 00 29 56
		i Z	38 59	5			+6		
		iPP N	40 43	5	+5				USCGS: 10N, 126½E, H 00 29 48
		iS N	45 52	7	-6				Moscow: H 00 29 50
		i E	45 56	7		+10			
		i N	46 03	7	-10				Magnitude: 6.3 Uppsala, Kiruna
		iPPS E	46 08	5		+10			5¾ Moscow.
		iScS E	48 38	6		-6			
		iSS E	49 22	5, 10		+8			
		i N	49 30	6, 10	+11				
		i N	49 55	7	+11				
		i N	55 22	7, 10	+12				
		eL N	56.1	24					
		M N	01 00.9	19	14				
		M NEZ	02.2	17	12	12	13		
98	13	iP V	12 41 54	1½			+		Compression. Large micros. present.
		i(pP) V	42 38	2			+		USCGS: 18S, 169E, h 200 km.ca.,
		(S) N	45 41						H 12 37 14
		(S) E	45 43						
99	16		03.0	Surface waves.					BCIS: New Britain, H 02 46 34
100	20	(iP) N	20 19 18	4	+4				Masked by microseisms.
		eL E	35.1	19					BCIS: 5½N, 126¾E, H 20 11 00
101	20	iP Z	22 08 49	3			-3	7070	Dilatation. Microseisms present.
		i E	09 00	4		-2		63°6	h 0.005, H 21 58 21
		ipP Z	09 06	4			-3		
		iPcP Z	09 23	2			+2		USCGS: 2N, 97E, H 21 58 23
		i N	11 42	4	+2				BCIS: H 21 58 25
		iS N	17 16	3	+2				Shillong: 2N, 98E, H 21 58 25
		isS N	17 48	4	-2				
		i E	18 02	5		+3			Magnitude: 6.3 Uppsala, Kiruna.
		i(SSS) E	24 09	4		+2			
		eL N	29.0	22					
		eL N	33.1	32					
		M N	33.8	22	3				
		M E	34.5	25		4			
		M Z	35.9	22			3		
102	21	(pP) Z	14 43 40						Masked by microseisms.
		i(SKS) N	53 33	0	3				h 0.01 ca.
		i(S) E	54 06	4		+4			USCGS: 53N, 171W, h 100 km.ca.,
		i(ScS) NE	54 16	4	+3	+4			H 14 30 06
		i(sS) E	54 52	4		-2			Magnitude: 7 Moscow
									6¾ Pasadena, Uppsala.
103	21	(P) Z	19 41 47						Obscured by microseisms.
		e E	42 01						USCGS: 31S, 178W, H 19 36 05
		e(S) N	46 17						Wellington: 30½S, 178½W, H 19 36 24
		eL N	47.6	22					Magnitude: 5.8 Wellington.
		eLR E	48.7	26					
		M NEZ	51.0	17	2	4	3		
104	22	iP Z	00 34 50	3			+2		Compression. Large microseisms.
		i(S) N	38 50	4	+3				Wellington: 39.2S, 175.1E,
		eL E	40.3	22					H 00 30 11
		M Z	42.1	19			3		Magnitude: 5.5 Wellington.
		M E	42.7	15		2			
		M N	43.4	13	2				
		i(ScS) N	45 54	4	+3				

No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude A_N	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
105	Feb.22	iP	Z	07 01 07	3			+2	3220	Compression.
		iPP	N	01 59	4	+2			29°0	H 06 55 03
		e	Z	02 05	5					
		eS	N	05 58	10					
		i	E	06 10	5		-3			
		i	N	06 12	5	+4				
		eL	E	07.3	16					
		e(SS)	N	07 23						
		iSSS	E	07 44	7		+7			
		eLR	Z	08.5	24					
		i(ScS)	E	11 43	6		+5			
		M	E	12.3	10		4			
		M	Z	12.4	15			4		
		M	N	12.7	16	4				
106	23	(P)	Z	00 28 09						Masked by microseisms.
		e(S)	E	34 04						
		e	N	34 39						
		e	N	37 09						
		eL	N	39.8	21					
		M	NE	43.1	19	3	3			
		M	Z	46.9	15			1		
107	23	Pg	V	00 43 32	½					
		iSg	V	43 36	½			+		
		M	V	43 41	1					
108	23	iP	NEZ	20 36 53	5	+6	-3	-11	7110	Dilatation.
		ipP	NEZ	37 04	4	+6	-3	-7	64°0	h 0.00, H 20 26 21
		i	Z	37 15	3			+10		
		i	NZ	37 21	5	+4		-6		USCGS: 24N, 122E, H 20 26 12
		iPcP	Z	37 29	3			+5		BCIS: 24N, 121½E, H 20 26 09
		i	NZ	37 37	5	~~-8~~ +4		-9		Moscow: 23N, 121½E, H 20 26 09
		i	NZ	37 43	5	+6		-7		JMA: 23N, 122E, H 20 26 08
		i	N	39 39	4	+4				JSA: 24.1N, 121.5E, h 0.00,
		i	NZ	39 52	4	+4		-3		H 20 26 14
		i	Z	40 07	4			+6		
		i	Z	40 30	5			-4		Magnitude: 7¼ Uppsala, Kiruna
		iPPP	Z	40 47	5			+6		7-7¼ Pasadena
		iS	N	45 25	10	-15				7 Moscow, Romo
		i	E	45 29	7		-8			6¾ Hurbanovo.
		i	Z	45 30	5			-4		
		m	NE	45 35	10	15	16			
		i	Z	45 39	6			-15		
		esS	N	45 44						
		e	E	45 45	20					
		i	N	45 56	6	+19				
		i	N	46 07	6	+18				
		i	E	46 10	6		+18			
		i	N	46 13	5	+14				
		i	N	46 27	5	-9				
		i	E	46 43	7		-9			
		m	E	46 50	10		13			
		i	N	46 56	5	-9				
		i	E	47 10	9		+20			
		i	N	47 14	6	+15				
		iSS	N	49 33	8	+13				
		i	N	50 06	12	+12				
		eL	E	52.1	36					
		eL	N	52.7	30					
		eLR	E	54.7	30					
		M	N	57.5	22	21				
		M	E	58.0	27		70			
		M	EZ	21 02.8	21		44	20		
		eW2	Z	23 05	22					
109	25	(iP)	V	02 11 52	1½			+		Obscured by microseisms.
		i	E	14 17	3		+1			USCGS: 8½S, 118E, H 02 04 08

No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
110	Feb.25	i(P)	Z	13 28 00	3			-2		Dilatation. Masked by microseisms. USCGS: 6S, 130E, H 13 21 17
111	26	o	V	02 18 43	½					Small local shock ??
112	26	i(P)	N	03 03 34	3	+1				Masked by microseisms.
		i	Z	05 18	4			-2		USCGS: 9½N, 126E, h 100 km., H 02 54 43
		o(S)	E	10 41						
		e	N	10 44						
		e	E	13 25	13					
		e	N	13 57	10					
		eL	N	14.8	20					
		M	N	25.4	15	2				
113	26			09.3	Waves.					
114	26			14.1	Waves.					
115	27	e(P)	Z	16 13 49						Masked by microseisms.
		e(PP)	Z	14 30						
		e(S)	N	18 22						
		e	E	18 26	10					
		e(L)	N	19.6	21					
116	28	iP	Z	23 54 52	4			+4		Compression.
		eL	E	24 07.3	21					
		M	NZ	10.0	19	2		2		
		M	E	10.7	18		2			
117	March 1	iPg	V	06 12 43½	¼			-		Dilatation. Quarry blast ??
		iSg	V	12 46	½			+		
118	2	iPKP	V	00 46 56	1½			+		Compression.
		iPKP	Z	46 58	4			+2		
		ePP	Z	49 19	5					USCGS: 18½n, 78W, H 00 27 33
		iPKS	Z	50 22	5			-5		BCIS: 18½N, 78W, H 00 27 33
		i	E	50 31	5		+3			
		i	Z	50 35	5			-7		Magnitude: 6¾ Pasadena
		i	Z	51 10	4			+2		6.7 Tacubaya
		e	Z	52 00	5					6.5 Uppsala, Kiruna
		i	N	53 37	4	-2				6.3 Skalnate Pleso
		e	E	54 13	10					6 Moscow.
		e(SKKS)	E	56 13	13					
		e(SSS)	E	01 11 49	15					
		e	E	12 04	22					
		wL	N	18.2	31					
		eLR	Z	31.1	27					
		M	NEZ	40	18	1	4	3		
119	2	(Pg)	V	08 01 54						
		(Sg)	V	01 57	½					
120	2	iP	V	08 16 15	1½			+	3120	Compression.
		i(pP)	V	16 22	2			+	28°1	h 0.00, H 08 10 24
		i	Z	16 27	4			-3		
		isP	V	16 30	1½			+		USCGS: 6S, 151E, H 08 10 24
		i	N	16 32	5	+4				
		i	Z	16 35	3			-6		
		i	N	16 45	5	-2				
		i	N	16 57	4	+2				
		ePP	Z	17 08	8					
		i	N	17 16	4	+4				
		iS	N	20 56	7	-6				
		isS	NE	21 10	7	-6	-6			
		i	Z	21 20	4			+4		
		i	NE	21 25	10	+26	-6			
		i	Z	21 26	5			-9		
		i	N	21 48	?	+				
		iSS	E	22 17	6		+12			
		i	NZ	22 25	7	+9		+9		
		i	E	22 52	8		-10			
		eL	E	23.3	21					
		i	Z	24 22	6			+9		

Continued on next page.

No.	Date	Phase & Component	Time (G.M.T.)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1957		h m s	s	μ	μ	μ	km.	
120	Mar. 2	eL Z	08 24.9	24					
cont.		iL N	25 21	16	+23				
		M Z	26.4	20			28		
		M E	26.8	19		29			
		M N	27.2	21	32				
		M NZ	28.3	16	24		25		
121	3		00.6	Long waves.					BCIS: Solomon Is., H 00 23.2
122	3	(i) V	01 30 24	2			+		Masked by microseisms.
		e N	34 18	7					
		eL NE	43.5	18					
123	3		04.1	Long waves.					USCGS: 8N, 103W., H 03 18 23 Magnitude: 5¾ Pasadena.
124	3	(iP) V	20 54 47	1½			-		Masked by large microseisms.
		iS N	59 17	6	+6				USCGS: 9½S, 154E, h 100 km.ca.,
		eL E	21 01.3	19					H 20 49 30
		M NE	04	13	5	6			
125	5	i(PKP_2) V	12 46 22	1½			+		Compr. Masked by large microseisms.
		L	13.8						USCGS: 33N, 34½W, H 12 24 35
									BCIS: 32¾N, 39½W, H 12 24 35
									Magnitude: 6½-6¾ Pasadena
									6 Uppsala, Kiruna
									5½ Moscow.
126	5	iP Z	19 08 46	4			+3	2770	Compression.
		i N	09 15	6	+4			2499	h 0.02, H 19 03 37
		ipP Z	09 20	4			-4		
		iPP Z	09 34	5			-4		USCGS: 14S, 167½E, H 19 03 30
		i E	10 25	5		+6			
		i N	11 06	4	+4				
		iS N	12 55	6	-6				
		iS E	12 56	4		+7			
		i N	13 04	5	-9				
		i E	13 05	4		+9			
		i E	13 34	4		+5			
		i N	13 37	4	+8				
		i Z	13 40	4			+7		
		i E	13 51	6		-4			
		isS N	13 53	5	+8				
		e E	14 10	16					
		i(SSS) N	14 26	5	+15				
		M N	16.5	16	5				
		i N	19 02	6	+5				
127	7		05.7	Long waves.					Wellington: 38.5S, 178.6E, H 05 29 17
128	7		18.0	Waves.					
129	8	iPKP Z	12 33 47	4			+3		Compression.
		i(SKS) N	40 54	4	+2				USCGS: 39½N, 23E, H 12 14 12
		e E	45 45	9					BCIC: 39½N, 22.8E, H 12 14 14
		e(PS) E	46 39	13					Moscow: 39½N, 22½E, H 12 14 20
		e(LQ) E	13 07.9	34					Magnitude: 6.8 Uppsala, Kiruna
		M N	28.2	27	3				6¾ Strasbourg, 6½ Praha &
		M E	32.5	28		4			Moscow, 6.3 Romo.
130	8	iPKP Z	12 40 43	5			+4		Compression.
		iPKS NE	44 21	6	+4	-6			Confused by no.129.
		i Z	44 23	6			+4		USCGS: 39.5N, 23E, H 12 21 08
		i N	48 05	4	+2				BCIS: 39.5N, 22.8E, H 12 21 14
		i N	48 34	5	+3				Magnitude: 7 Strasbourg, Uppsala
		e E	48 58	9					6.7 Praha
		i E	50 33	4		+1			6.6 Rome
		e N	54 02	13					6.3 Skalnate Pleso
		e N	55 43	9					6¼ Pasadena.
		i E	55 53	7		+8			
		eL N	13 21.4	30					
		M EZ	37.4	22		5	4		
		M N	40.7	21	2				

No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
131	Mar. 9	iP	Z	14 35 25	4			-2	10,610ca.	Dilatation.
		i	Z	35 37	6			+7	95°5ca	Record confused by overlapping of lines.
		i	N	35 39	6	-3				Gutenberg's Tables used.
		i	Z	35 48	4			+12i		
		i	Z	36 06	4			+22		
		i	E	36 09	4		+10			USCGS: 51.3N, 175.8W, H 14 22 27.5
		i	N	36 10	4	+10				Moscow: 51½N, 175½W, H 14 22 30
		i	Z	36 20	4			+60		
		i	E	36 21	6		-15			Magnitude: 8.4 Praha, Skalnate Pleso
		i	Z	36 31	5			-22		8.3 Rome, Hurbanovo
		i	E	36 35	6		-14			8¼ Uppsala, Kiruna
		i	N	36 45	6	+27				8-8¼ Lwiro
		i	N	37 18	6	+24				8 Moscow, Berkeley
		i	E	37 41	6		-18			7.9 Wellington
		i	N	37 43	5	+33				7¾-8 Pasadena
		i	N	38 27	7	-21				7.8 Tacubaya, Christchurch
		i	NE	38 50	6	+10	+29			7.6 Kew
		iPP	E	39 07	6		+26			7½ Strasbourg.
		i	N	39 27	6	+19				
		iPPP	N	41 15	7	+32				
		i	E	41 47	8		+16			
		i	N	43 44	9	-24				
		i	E	44 10	6		+31			
		i(SKS)	N	45 52	7	+25				
		i	E	45 58	7		+18			
		i(SKKS)	N	46 07	6	+36				
		i	N	46 28	4	-74				
		iS	NE	46 41	12	-185	-140			
		i	E	47 00	10		-96			
		i	*N	47 05	5	-				* From Mainka.
		i	*E	47 24	5		-			
		i	*N	47 36	7	+				
		iPS	*E	47 58	10		-			
		i	*N	48 13	7	-				
		iPPS	*N	48 39	9	-				
		i	*E	48 46	8		+			
		e	*E	52.6	40					
		eSS	*E	52 58	14					
		iSS	*E	53 13	9		-			
		i	*E	56 10	8		+			
		i	*E	56 25	11		+			
		i	*N	57 24	11	-				
		i	*N	57 43	5	-				
		eL	*E	59.6	50					
		M	N	15 07.9	24	420ca.				
		M	Z	08.3	23			530ca.		
		M	Z	11.2	20			470ca.		
		M	N	12.0	20					
		M	E	12.3	22		510ca.			
		M	Z	16.6	20			620ca.		
132	9	i(P)	NZ	15 54 50	4			-51		Dilatation. Masked by coda of 131.
		i	Z	54 56	3			+26		USCGS: 50½N, 177W, H 15 41 50
133	9	i(P)	V	19 50 49	1½			+		Compression.
										USCGS: 51N, 173W, H 19 37 31
134	9	eP	V	20 52 31	1				10,290	H 20 39 17
		iPP	Z	56 22	7			-3	92°6	
		iSKS	NE	21 03 05	7	+12	+6			USCGS: 52½N, 169½W, H 20 39 15
		i	NE	03 25	7	+10	+5			Moscow: H 20 39 27
		iS	E	03 35	7		-16			Magnitude: 7.4 Hurbanovo
		i	Z	03 38	10			+9		7.3 Skalnate Pleso
		i	NE	03 40	10	+17	+51			7½ Praha, Rome
		iPS	N	04 46	10	+13				7-7¼ Berkeley
		iPS	E	04 47	10		+15			7 Uppsala, Kiruna, Kew
		iPS	Z	04 52	11			+16		6¾-7 Pasadena.
		iPPS	N	05 23	8	+7				
		e(SS)	E	09 13	24					

No.	Date	Phase & Componont		Time (G.M.T.)	Por.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
134	Mar. 9	e(SS)	N	21 09 29	24					
cont.		m	E	10 33	21		21			
		m	N	10 55	20	23				
		e(SSS)	E	13 22	30					
		i	E	16 11	13		+28			
		eLQ	NE	18.0	33					
		eLR	N	22.6	33					
		M	N	26.9	23	48				
		M	E	28.3	22		55			
		M	Z	28.5	21			33		
135	9	i(P)	V	22 09 59	1½			+		Compr. Masked by coda of 134. USCGS: 53N, 168W, H 21 56 24
136	9	i(P)	NZ	23 13 40	4	+4	-3			Dil. Masked by coda of 135. USCGS: 51½N, 171W, H 22 59 26
137	9	i	V	23 37 00	1½			-		Masked by coda of preceding shocks.
		i	E	46 23	5		-4			BCIS: 52¾N, 174¾W, H 23 20 58
138	10	iP	V	03 19 18	1½			+	10,000	Compression
		i	V	19 27	1½			+	90°	
		i	Z	19 35	3			+5		USCGS: 52N, 176W, H 03 06 02
		i	V	19 38	1½			+		
		eSKS	N	29 46	7					Magnitude: 6½-6¾ Pasadena, Berkeley
		i	N	29 50	8	-18				6¾ Moscow, Praha, Rome
		i	E	29 51	8		-6			6.7 Kew
		iS	NE	30 10	7	-14	-9			6.8 Uppsala, Kiruna.
		i	NE	30 18	5	+9	+16			
		i	N	30 27	7	+9				
		i	E	30 33	9		+17			
		i	N	30 46	7	+9				
		i	E	31 15	6		-4			
		i	N	31 43	6	+6				
		iSS	E	36 06	10		-7			
		e	E	42 45	19					
		eLQ	E	44.1	30					
		eL	Z	47.8	24					
		M	Z	53.8	21			5		
		M	N	53.9	19	8				
		M	E	56.2	22		7			
139	10	iP	Z	03 22 19	2			+3		Compression.
		i(SKS)	N	32 33	6	+5				USCGS: 51½N, 174W, H 03 08 55
		i	E	32 35	6		+4			
140	10			05.4	Long waves.					
141	10	(iP)	V	07 36 18	1½			+		USCGS: 52N, 176W, H 07 23 18
		e	N	47 05						
142	10	iSKS	N	11 44 29	4	+4				USCGS: 52N, 171W, H 11 20 45
		eS	NE	44 57	11					Magnitude: 6.6 Uppsala, Kiruna
		eSS	E	51 04	21					6.3 Kew
		eSS	N	51 10	21					6 Moscow.
		eL	N	12 06.7	23					
143	10	(iP)	V	12 58 27	1½			+		USCGS: 51N, 177W, H 12 45 31
		e	E	13 18 04	18					Magnitude: 6.4 Uppsala, Kiruna
144	10	iP	V	13 23 11	1½			+	9940	Compression.
		iPcP	Z	23 13	3			+3	89°4	USCGS: 51½N, 180°, H 13 10 13
		i	N	33 44	4	+3				Magnitude: 6½ Uppsala, Kiruna
		eS	E	34 00						6¼ Rome
		i	N	34 09	5	+4				6.2 Kew
		M	NEZ	14 02.9	19	4	3	5		6 Praha.
145	10	iP	V	13 41 28	1½			+	9880	Compression. H 13 28 30
		iPP	V	44 59	1½			+	88°9	USCGS: 51½N, 179W, H 13 28 30
		iS	E	52 15	6		-4			Magnitude: 6½ Uppsala, Kiruna
		M	Z	14 16.7	19			4		6.2 Kew, Praha.

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No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
146	Mar.10	iP	Z	15 39 36	3			+4	10,110	Compression.
		iSKS	N	50 01	7	+8			91°0	H 15 26 29
		i	E	50 26	7		-9			
		i	Z	50 31	7			+6		USCGS: 52N, 173W, H 15 26 23
		iS	NE	50 32	9	+17	+21			
		i	E	50 51	4		+8			Magnitude: 6¾ Berkeley
		i	N	50 53	6	-5				6.6 Christchurch
		i	E	51 15	9		+10			6.5 Praha, Strasbourg
		i	N	51 54	7	+11				6.4 Kew, Wellington.
		e	E	56 26	13					
		iSS	N	56 44	12	-10				
		e	E	56 44	24					
		i	N	57 40	7	+7				
		i(SSS)	E	16 00 07	13		-11			
		eL	N	03.2	27					
		eLQ	N	04.7	27					
		M	N	12.9	19	8				
		M	Z	14.5	20			8		
		M	E	16.6	20		7			
147	10	(iP)	Z	19 31 31	3			-2		Dilatation. Masked by microseisms.
		i	V	31 47	2			+		USCGS: 51N, 177W, H 19 18 30
148	10	(iP)	V	19 54 02	1½			+		Masked by microseisms.
		(iPcP)	V	54 05	1½			+		USCGS: 52N, 173W, H 19 40 55
		iS	E	20 04 57	5		-2			
149	11			01.0	Surface waves.					USCGS: 52N, 169W, H 00 08 07
150	11	iP	V	03 25 40	1½			+	9980	Compression.
		i	Z	25 46	5			+9	89°8	H 03 12 38
		i	N	25 47	5	-3				
		i	V	25 53	1½			+		USCGS: 51N, 177W, H 03 12 41
		i	N	26 00	4	+3				Moscow: H 03 12 41
		i	Z	26 01	5			+11		
		i	Z	26 07	4			-9		Magnitude: 7.1 Rome, Praha
		i	N	26 08	5	+4				7 Berkeley
		i	E	26 44	5		+3			6.9 Wellington,
		i	Z	26 48	7			+6		Skalnate Ploso
		i	Z	26 59	5			+8		6¾-7 Pasadena, Strasbourg
		iPP	Z	29 15	7			+9		6.8 Tacubaya
		i	N	29 27	7	+6				6¾ Moscow
		i	E	29 28	6		+5			6.7 Kew, Christchurch
		iS	N	36 31	7	+13				6.6 Uppsala, Kiruna.
		i	N	36 44	4	+10				
		i	E	36 52	7		-6			
		i	N	36 55	5	-5				
		i	N	37 14	7	-8				
		m	E	37 25	12		7			
		i	N	37 28	8	-20				
		i	NE	37 58	7	+22	+10			
		i	N	38 26	9	-23				
		i	N	38 44	7	+12				
		i	E	38 50	9		-10			
		i	N	39 04	7	-9				
		i	Z	40 04	5			-5		
		i	E	41 33	9		-7			
		i	N	42 16	10	+15				
		iSS	N	42 32	7	+7				
		e	E	42 41	23					
		e	N	42 51	20					
		i	N	43 10	6	+6				
		e	E	44 44	25					
		i	Z	45 56	4			+5		
		iSSS	N	46 56	10	-12				
		eL	E	49.1	26					
		eL	N	49.3	30					
		eL	N	53.2	42					
		eL	E	53.9	30					
		LR	N	54.2	30					

(Continued on next page)

No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
150 cont.	Mar.11	M	N	03 57.5	22	22				
		M	Z	57.7	24			20		
		M	E	58.4	23		19			
		M	Z	04 04.8	19			19		
		M	N	08.6	18	23				
		M	E	12.1	17		17			
		W_2M	NZ	05 35	19	5		6		
151	11	i(P)	V	03 34 24	1½			+		Comp. Superposed on no.150.
		i(P)	Z	34 25	4			+3		BCIS: Replica of 150, H 03 21 56
152	11	i(P)	Z	03 48 03	4			+4		Comp. Superposed on no.150. USCGS: 52½N, 177W, H 03 35 00 Magnitude: 6.4 Uppsala, Kiruna.
153	11	i(P)	V	04 08 29	1½			¼		Compr. Galitzin record obscured by coda of no.150. USCGS: 50½N, 177W, H 03 55 27
154	11	iP	NZ	10 12 01	3	-1		+4	10,450	Compression.
		i	Z	12 09	3			+9	94°0	H 09 58 45, h 0.00
		ipP	NZ	12113	3	-4		+7		
		i	Z	12 25	3			+10		USCGS: 53N, 164½W, H 09 58 42
		iPP	N	15 51	6	+4				BCIS: 52¾N, 170W, H 09 58 44
		i	Z	15 59	6			+7		
		i	Z	16 16	5			+8		Magnitude: 7.3 Skalnate Pleso
		i	N	16 59	5	-5				7¼ Moscow
		iSKS	E	22 33	7		+8			7-7¼ Praha, Berkeley
		iSKS	NZ	22 34	6	+17		-7		7.1 Uppsala, Rome
		i	NE	22 54	7	+9	+6			7.0 Kew, Strasbourg
		iS	E	23 06	7		-19			6¾-7 Pasadena.
		i	N	23 09	4	+11				
		i	NZ	23 13	5	+21		+7		
		isS	E	23 25	6		-20			
		i	E	23 31	8		+26			
		i	N	23 34	7	-17				
		i	N	23 56	7	+6				
		i	NEZ	24 16	7	+19	+16	-12		
		ePS	N	24 28	15					
		i	E	24 41	7		-11			
		i	N	24 50	8	+14				
		i	EZ	26 22	7		+9	-7		
		i	N	26 29	9	+11				
		eSS	E	29 27	21					
		iSS	N	29 32	9	+10				
		i	N	29 47	18	+38				
		i	E	29 50	13		+28			
		i	E	30 11	13		+30			
		i	N	32 54	13	+17				
		i	E	33 17	15		+23			
		i	E	35 42	9		+22			
		i	N	35 51	15	+17				
		e	E	36 26	30					
		eL	E	36.9	37					
		eLQ	N	37.6	31					
		i	E	37 54	9		+16			
		eLR	E	42.2	32					
		M	N	46.3	22	43				
		M	E	47.2	21		44			
		M	Z	48.1	21			43		
		F		14.0						
155	11	iP	V	12 19 35	1½			+	6950	Compr. Superposed on coda of 154.
		iS	NE	28 02	5	+3	+7		62°5	H 12 09 07
		iPS	E	28 17	5		+7			USCGS: 2N, 97E, H 12 09 10
		M	E	44.4	25		10			BCIS: 1¼N, 97¼E, H 12 09 10
		M	N	45.2	14	6				Magnitude: 6.4 Uppsala, Kiruna.

No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
156	Mar.11	P	V	15 08 16	1				10,000ca	H 14 55 19 ca.
		iPcP	Z	08 18	3			+3	90°ca.	
		i	V	08 24	1½			-		USCGS: 51½N, 178½W, H 14 55 19
		i(sP)	Z	08 30	4			-17		Moscow: H 14 55 20
		i	N	08 31	4	+4				
		i	Z	08 34	4			+15		Magnitude: 7.3 Praha
		i	Z	08 49	4			-7		7-7¼ Berkeley
		i	Z	09 22	4			+4		7.1 Skalnate Pleso,
		e	Z	09 34	10					Wellington
		i	Z	11 57	7			-5		7 Moscow, Uppsala, Kiruna,
		iSKS	NE	18 45	6	+18	+6			Kew, Rome, Christchurch
		i	Z	18 47	10			-8		6.8 Tacubaya
		i	Z	19 01	10			-14		6¾ Pasadena, Strasbourg.
		iS	E	19 05	7		-39			
		iS	N	19 06	7	-15				
		i	N	19 13	6	+21				
		i(sS)	E	19 23	8		-27			
		i	N	19 47	6	+6				
		i	E	19 53	9		-13			
		iPS	N	20 09	9	+25				
		iPS	Z	20 12	10			+20		
		i	N	20 28	10	-17				
		e	N	21 10	21					
		i	E	22 08	9		+11			
		i	N	24 26	10	+12				
		iSS	E	24 57	9		+18			
		i	N	25 07	11	+7				
		e	Z	25 10	30					
		e	E	25 14	28					
		e	N	25 19	22					
		e	N	27 36	16					
		i(SSS)	NE	28 20	11,15	-14	+16			
		eL	E	31.6	22					
		eL	N	32.4	25					
		eLR	Z	36.4	35					
		eLR	N	36.7	30					
		M	NZ	40.3	22	36		32		
		M	E	41.2	19		22			
		M	NZ	44.8	19	25		31		
		M	E	45.2	19		26			
		eW2	Z	17 09.8	30					
		M	NZ	18.6	21	6		7		
		M	E	20.0	19		4			
157	11	P	V	15 48 51	1				10,000	H 15 35 48
		iPcP	V	48 53	1½			+	90°0	Superposed on coda of no.156.
		iSKS	N	59 22	7	-13				USCGS: 51N, 179W, H 15 35 50
		iS	E	59 43	6		+14			Magnitude: 6.6 Uppsala, Kiruna
		iS	N	59 44	7	+13				6½ Pasadena, Kew.
		eLR	E	16 17.6	33					
158	11	i(P)	V	19 12 15	1½			+		Compression.
										USCGS: Aleutian Is., H 18 58 16
159	12	e(PP)	E	00 37 35						Masked by microseisms.
		e(S)	E	41 48						
		eL	N	44.7	18					USCGS: 19S, 175½W, h 100 km.ca.,
		M	N	46.7	15	2				H 00 29 50
		M	EZ	50.3	16		6	5		
160	12	iP	Z	07 41 53	3			+2	10,040	Compression. H 07 28 49
		i	Z	41 59	3			+3	90°3	USCGS: 51½N, 173½W, H 07 28 46
		i	Z	42 04	3			-2		Moscow: H 07 28 53
		i	Z	42 10	3			-2		Magnitude: 6¾-7 Berkeley
		i	N	42 18	4	+2				6¾ Rome, Moscow.
		i	Z	42 31	4			+5		6.6 Skalnate Pleso
		i	N	42 37	5	+3				6.5 Uppsala, Kew
		iSKS	N	52 25	6	+7				6.4 Praha
		i	E	52 28	6		-5			6¼ Strasbourg
		iS	NE	52 46	7	-9	-9			

(Continued on next page)

No.	Date	Phase & Component	Time (G.M.T.)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1957		h m s	s	μ	μ	μ	km.	
160	Mar.12	i N	07 52 58	6	+5				
cont.		i E	53 10	10		+9			
		i N	53 11	10	+6				
		iPS N	53 58	7	+5				
		i N	54 12	6	-3				
		eSS E	58 44	20					
		e N	59 09	24					
		eL E	08 05.7	25					
		eL N	12.6	27					
		M N	20.3	21	4				
		M E	25.1	19		6			
		M Z	26.3	19			6		
161	12	iP Z	07 52 14	3			-2	10,080	Dilatation.
		iPcP V	52 15	1½			+	90?7	Superposed on no.160.
		i V	52 25	1½			-		USCGS: 52N, 178W, H 07 39 17
		iSKS N	08 02 43	5	+3				Magnitude: 6½ Uppsala, Tacubaya
		iS N	03 09	6	+5				6¼-6½ Pasadena.
		i N	04 07	6	+5				
		M N	29.9	18	5				
162	12	iP V	08 16 11	1½			+		Compr. Superposed on coda of 160.
		i V	16 21	1½			-		USCGS: 51N, 178W, H 08 03 11
		iSKS N	26 38	5	+3				
163	12	iP Z	11 57 52	3			+5	10,260	Compression,
		i NEZ	57 57	3	+4	+3	-14	92?4	
		i Z	58 02	3			+9		USCGS: 51N, 177W, H 11 44 50
		i Z	58 07	3			+4		Moscow: H 11 44 50
		i NZ	58 10	3	+5		-9		
		i Z	58 17	3			+12		Magnitude: 7.3 Hurbanovo
		i Z	58 35	4			-9		7¼ Moscow, Strasbourg
		i N	58 49	4	+6				7.2 Uppsala, Praha, Romo
		i Z	58 52	4			+10		7-7¼ Pasadena
		i E	59 14	4		+5			7.1 Christchurch
		i Z	59 19	4			+11		7 Lwiro
		i N	59 29	4	+5				6.9 Wellington
		i N	12 00 55	5	-4				6.7 Tacubaya.
		iPP NEZ	01 25	5	+5	+4	-8		
		i Z	01 34	5			+8		
		i N	01 35	5	-5				
		i N	02 29	5	+6				
		iSKS N	08 30	5	+8				
		i EZ	08 32	7		+6	-8		
		i E	08 44	7		+7			
		i N	08 45	6	+18				
		i Z	08 47	9			-11		
		iS E	08 54	7		+27			
		i N	09 04	5	+19				
		i Z	09 06	7			-6		
		i E	09 18	7		-12			
		i N	09 23	7	-24				
		i E	09 31	10		-14			
		i N	09 38	5	+15				
		e Z	09 40	12					
		i N	09 53	6	+5				
		i Z	09 54	8			-19		
		iPS NE	10 10	9	+41	+15			
		iPS Z	10 11	7			-8		
		i N	10 22	12	+56				
		i N	10 53	11	+37				
		i E	10 57	7		+15			
		i N	11 14	7	+14				
		e N	11 50	20					
		i N	12 06	9	-8				
		i E	13 37	9		+14			
		i E	13 51	9		+16			
		i N	14 27	9	+15				
		i E	14 49	10		-10			

(Continued on next page)

No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1857			h m s	s	μ	μ	μ	km.	
163	Mar.12	iSS	N	12 14 58	16	+24				
cont.		iSS	E	14 59	10		-9			
		i	E	15 13	13		-24			
		i	N	16 08	10	+14				
		i	N	16 50	10	+16				
		i	E	17 22	12		+19			
		i	N	17 29	10	-13				
		i	E	18 09	9		+21			
		iSSS	N	18 49	13	-13				
		eL	E	21.4	22					
		eL	N	21.9	25					
		eLQ	E	22.2	35					
		eLR	NEZ	26.2	34					
		M	NZ	29.6	23	49		35		
		M	E	31.7	22		55			
		M	EZ	44.0	17		36	23		
		M	N	45.3	16	24				
164	12	(P)	Z	12 59 36						Suporposod on coda of no.163. USCGS: 53N, 168½W, H 12 46 12
165	12	iP	NEZ	16 37 24	2	-2	-2	+4	2780	Compression.
		i	V	37 41	1½			+	25°0	h 0.01, H 16 32 08
		i(pP)	V	37 47	1			+		
		i	V	37 50	1½			-		USCGS: 14½S, 168E, H 16 32 05
		isP	NZ	37 58	3	+2		-2		
		isP	E	37 59	3		+2			
		iPP	Z	38 05	4			-5		
		iPP	NE	38 06	4	+4	+4			
		iS	N	41 38	4	+3				
		eS	E	41 40						
		i	E	41 47	6		-4			
		i	N	41 48	6	-5				
		i	Z	42 10	5			+3		
		isS	N	42 12	7	+8				
		i	N	42 22	8	+10				
		i	EZ	42 24	6		+5	+4		
		eLQ	E	42.7	16					
		iSSS	N	43 01	6	-1				
		M	N	45.1	14	2				
		M	E	45.7	15		2			
166	12	i(P)	V	17 13 40	1½			-		Dilatation. USCGS: 51½N, 175W, H 17 00 21
167	12	i(P)	V	17 27 06	1			+		Compression.
		e(S)	E	31 17	9					USCGS: 21½S, 179W, h 700 km.ca, H 17 21 47
168	12	i(P)	V	17 37 16	1½			+		Compression.
169	12	iP	V	18 34 28	1			+		Compression.
		e(S)	E	38 58	8					USCGS: 18S, 178½W, h 650 km.ca., H 18 28 50
170	12	iP	NEZ	19 17 30	4	+2	+2	-3	3660ca	Dilatation.
		iPP	Z	19 00	4			-2	33°ca.	h 300 km.ca., H 19 11 18 ca,
		iPP	E	19 01	4		+2			(Gutonberg's Tables used)
		i	N	19 04	4	-1				
		isP	V	19 06	2			+		USCGS: 16S, 176½W, h 400 km.ca., H 19 11 16
		i	E	19 15	4		-2			
		i	V	19 32	1½			+		
		i	N	19 37	4	+1				
		i	N	19 48	4	-2				
		iPcP	Z	20 00	2			+2		
		isPP	V	20 07	1½			+		
		e(S)	N	22 22	9					
		e(S)	E	22 27	9					
		i	NE	25 21	5	+2	+2			
		e	N	25 48	9					
		iScS	NE	27 16	4	-3	-4			

No.	Date	Phase & Component	Time (G.M.T.)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1957		h m s	s	μ	μ	μ	km.	
171	Mar.12	iP V	23 58 43	1			+		Compression.
		i V	58 50	1½			+		USCGS: 52N, 174W, H 23 45 25
		i V	58 56	1½			-		
172	13	iP Z	03 01 28	3			+1		Compression.
		i N	12 11	4	+2				
		e(S) E	12 18	9					USCGS: 52N, 171½W, H 02 48 20
		i N	12 23	4	+2				Moscow: H 02 48 27
		i N	12 54	6	+2				
		e N	13 57	13					Magnitude: 6.2 Wellington
		e(SS) E	18 49	20					6.1 Uppsala, Kiruna
		eL N	26.4	20					6.0 Romo
		eL N	31.8	24					5¾ Moscow.
		M Z	35.7	21			1		
		M E	36.7	22		2			
		M N	37.8	20	3				
173	13	(iP) V	03 46 14	1½			+		Masked by micros. & coda of 172.
		i E	58 43			-			USCGS: 52N, 175W, H 03 32 58
174	13	iP EZ	09 15 47	3		+1	-3	(2500)	Dilatation.
		i(pP) V	16 42	1½			+	(2295)	h (0.045), H (09 11 13)
		i(pP) Z	16 43	4			+2		Perhaps multiple shock.
		i NEZ	17 02	4	+1	-4	+3		
		i V	17 05	2½			+		USCGS: Near west coast of North Is.,
		i(sP EZ	17 17	5		-7	+7		New Zealand, H 09 11 15
		i(sP) N	17 18	5	+3				Wellington: 38.7S, 175.6E, h 270 km.,
		i V	17 40	1½			+		H 09 11 30,
		i E	19 19	7		+5			Magnitude 6½
		iS N	19 28	7	+12				
		i(PcP) Z	19 29	6			-11		
		i E	19 33	6		+14			
		i N	19 51	7	+8				
		i N	20 04	7	-8				
		i N	20 25	7	+10				
		i E	20 42	7		+11			
		i Z	20 45	7			-7		
		i(SS) N	20 47	7	-15				
		i E	21 04	7		-7			
		i N	21 05	6	+12				
		i Z	25 45	3			+3		
175	13	iP Z	15 55 03	4			-12	9940	Dilatation
		iP NE	55 04	4	+2	+2		89°4	H 15 42 03
		i V	55 11	1½			+		
		i Z	55 13	3			+5		USCGS: 51½N, 179W, H 15 42 05
		i V	55 21	1½			+		Moscow: 51N, 178½W, H 15 42 10
		i Z	55 39	3			+4		
		i Z	57 55	4			+4		Magnitude: 6.9 Uppsala, Kiruna
		i Z	58 14	4			+4		6¾ Pasadena, Moscow,
		iPP Z	58 32	5			-4		Berkeley, Praha, Romo
		iSKS N	16 05 31	5	+7				6.6 Skalnate Pleso,
		i N	05 50	5	+3				Hurbanovo, Wellington
		iS E	05 52	7		-11			6½ Lwiro, Christchurch.
		iScS N	05 57	6	+5				
		i E	06 18	4		+5			
		iPS NE	06 57	7	+7	+4			
		iPPS N	07 27	7	-6				
		e N	08 03	16					
		e E	11 33	22					
		eLQ E	18.8	34					
		eL Z	21.8	27					
		eLR N	22.9	28					
		eL Z	23.8	28					
		M NZ	27.4	22	14		9		
		M E	28.0	22		5			
		eW_2 N	17 58.2	25					
		M NZ	18 08.7	19	2		3		

No.	Date	Phase & Componont	Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957		h m s	s	μ	μ	μ	km.	
176	Mar.13	i(PP) Z	20 16 48	4			+3		Masked by largo microseisms.
		iSKS N	23 22	4	+3				
		eS NE	24 01						USCGS: 54N, 166W, H 19 59 23
		e N	25 57						Moscow: H 19 59 30
		e N	29 07	19					
		eL N	44.0	28					Magnitude: 6.2 Uppsala, Kiruna
		M Z	49.1	19			2		6 Romo
		M N	49.5	22	4				$5\frac{3}{4}$ Moscow.
		M E	50.3	21		3			
177	14		13.0	Waves.					
178	14	iP Z	15 00 43	4			-6	9840	Dilatation.
		iP N	00 44	4	+2			88?5	H 14 47 47
		iPcP V	00 45	1			+		
		i V	00 49	1			+		USCGS: $51\frac{1}{2}$N, 177W, H 14 47 45
		i Z	00 50	4			+6		Moscow: H 14 47 46
		i Z	00 53	3			-12		
		i EV	00 54	4,$1\frac{1}{2}$		+3	+		Magnitude: $7\frac{1}{2}$ Pasadena, Moscow,
		i N	00 57	4	+6				Hurbanovo, Lwiro
		i Z	00 58	4			+20		7.4 Romo, Skalnato Pleso
		i Z	01 09	4			+7		$7\frac{1}{4}$-$7\frac{1}{2}$ Berkeley
		i NEZ	01 14	4	+5	+5	+21		7-$7\frac{1}{4}$ Strasbourg
		i Z	01 24	4			-13		7.1 Uppsla, Kiruna.
		i N	01 26	4	+5				
		i Z	01 38	3			+12		
		i NE	01 39	4	-5	-2			
		i N	01 58	4	-6				
		i Z	02 03	5			-10		
		i N	02 09	4	-5				
		i E	02 26	4		-4			
		i Z	02 40	4			+7		
		i Z	03 28	4			+7		
		i NZ	04 06	5	+5		+10		
		iPP NZ	04 11	5	+9		-9		
		i Z	04 18	4			+9		
		i Z	04 31	4			-10		
		i Z	04 49	7			+14		
		i NZ	05 56	4	-8		+12		
		i Z	08 13	5			-9		
		i Z	09 14	5			-7		
		iSKS NE	11 16	6	+10	+7			
		i Z	11 19	5			-9		
		iS NEZ	11 28	6	+44	+17	+13		
		i Z	11 40	6			+11		
		i N	11 41	4	+3				
		i E	11 49	7		-31			
		i N	11 50	4	+10				
		i Z	11 51	8			-14		
		i E	11 58	10		+36			
		i N	12 01	5	+27				
		i N	12 17	7	+17				
		i E	12 18	6		+12			
		iPS N	12 30	10	-29				
		iPS E	12 34	10		-24			
		i Z	12 37	6			+13		
		i N	12 46	10	-55				
		i Z	12 49	66			+22		
		i N	13 12	9	-34				
		i Z	13 17	6			-14		
		i Z	13 31	7			+6		
		i N	13 33	8	+12				
		i E	13 34	6		+10			
		i Z	13 42	7			+14		
		i E	13 45	7		+17			
		i Z	13 55	7			+12		
		i N	14 04	12	-50				
		i Z	14 14	6			-7		
		i N	14 23	9	-30				

(Continued on next page)

No.	Date	Phase & Component	Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957		h m s	s	μ	μ	μ	km.	
178 cont.	Mar.14	i E	15 14 32	6		+11			
		i Z	14 35	6			+9		
		i E	14 47	7		+9			
		i Z	14 48	6			+10		
		i Z	15 03	7			+11		
		i E	15 18	7		+17			
		i N	15 23	7	-19				
		i Z	15 27	7			+6		
		i E	15 51	8		-15			
		i N	16 08	7	-13				
		i E	16 29	8		+12			
		i N	16 35	7	+9				
		i E	16 44	7		+14			
		i N	16 54	9	-21				
		iSS Z	17 32	10			+15		
		iSS N	17 35	12	+17				
		iSS E	17 37	9		+18			
		i N	17 51	12	+32				
		i N	19 01	10	+19				
		i E	19 50	10		-19			
		i E	20 13	9		+16			
		i(SSS) N	20 45	10	+26				
		i(SSS) Z	20 47	9			-18		
		i(SSS) E	21 05	13		-39			
		eLQ N	24.1	31					
		eLR Z	28.6	34					
		eLR E	28.8	31					
		M NE	34.9	18	43	31			
		M Z	39.4	19			36		
		M N	41.3	18	63				
		M Z	44.9	18			56		
		M E	46.6	18		66			
		eW2 Z	17 03	30					
179	14	i(P) V	15 18 13	1½			+		Compr. Masked by no.178.
		i(S) N	28 58	?	+				BCIS: 51½N, 177W, H 15 05 06
180	14	i(P) V	16 03 58	1½			-		Dil. Masked by no.178.
									USCGS: 51½N, 177½W, H 15 51 00
181	15	(eP) V	02 51 34	1					
		eS NE	55 49	7					
		eL E	57.8	19					
		M NE	03 01.6	13	1	1			
182	15	iP V	03 05 32	1½			-	10,440	Dilatation.
		i Z	05 47	3			-2	9399	H 02 52 11
		i Z	05 56	3			+3		
		ePP Z	09 22	7					USCGS: 53N, 167W, H 02 52 08
		iSKS NE	16 04	7	+6	-4			Moscow: H 02 52 10
		e(SKKS) N	16 20	6					
		i N	16 33	7	-5				Magnitude 6¾ Pasadona
		iS E	17 40	7		-6			6.7 Tacubaya
		e Z	16 41	10					6½-6¾ M'Bour
		i N	16 49	7	-5				6.6 Skalnato Pleso
		i E	16 59	8		+9			6½ Uppsala, Kiruna, Moscow,
		iPS Z	17 59	5			+4		Lwiro, Hurbanovo, Rome,
		e Z	18 29	14					Berkely, Strasbourg.
		e E	22 14	22					
		eSS E	22 49	22					
		e N	23 13	18					
		i N	26 44	5	-5				
		i E	29 15	11		+8			
		i N	29 16	5	-4				
		eLQ N	31.6	24					
		M E	40.5	19		3			
		M N	41.4	18	4				
		M Z	43.4	18			5		
		M EZ	52.0	18		6	4		
		M N	53.8	18	5				

No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
183	Mar.15	i(S)	N	04 36 54	5	+3				Masked by coda of no.182.
										USCGS: 51N, 176W, H 04 12 56
184	16	iP	Z	02 47 09	2			-2	9900	Dilatation.
		i	Z	47 14	3			-8	89°1	H 02 34 11
		i	N	47 15	4	+3				
		i(pP)	Z	47 21	4			+12		USCGS: 52N, 179W, H 02 34 12
		i(sP)	Z	47 26	3			-5		Moscow: 51N, 178W, H 02 34 09
		i	Z	47 38	4			+13		
		i	Z	47 55	4			+5		Magnitude: 7.8 Hurbanovo
		i	Z	57 34	4			+5		7½ Moscow
		iSKS	N	57 39	6	+9				7.3 Skalnate Pleso
		iSKS	E	57 '0	7		+4			7-7¼ Strasbourg, Lwiro
		iSKKS	N	57 46	6	-28				6¾-7 M'Bour
		i	Z	57 52	7			+6		6¾ Pasdona
		iS	E	57 58	8		-28			6.7 Tacubaya.
		iScS	NZ	58 02	7,10	-18		+22		
		i	E	58 06	7		+61			
		i(sS)	E	58 19	8		-40			
		i	N	58 21	9	+17				
		i	N	58 31	5	+8				
		e	E	58 58	16					
		iPS	NZ	59 05	9,12	+30		+25		
		i	E	59 08	10		-22			
		iPPS	N	59 30	9	+17				
		i	N	03 03 20	9	+16				
		i	N	03 37	9	+14				
		iSS	E	03 45	11		-17			
		e	EZ	04.1	30					
		i	N	04 07	16	-53				
		i(SSS)	E	07 16	13		+23			
		i(SSS)	N	07 22	13	+28				
		eL	E	10.1	31					
		i	E	10 43	19		+58			
		eLR	N	15.5	30					
		i	N	15 44	13	+27				
		M	NZ	19.6	22	82		57		
		M	E	21.6	20		47			
		M	Z	24.1	19			64		
		M	N	26.0	19	64				
		$M(W_2)$	N	05 00.6	22	11				
		$M(W_3)$	NE	06 29.6	20	1	1			
185	16	i	Z	14 02 26	3			+2		
		i	N	02 28	3	+2				
		e	N	05 36						
		eL	E	07.7	19					
		M	E	10.6	15		2			
		M	N	11.2	13	4				
186	17	iP	Z	08 06 51	3			+1	9880	Compression.
		iSKS	N	17 18	7	+2			88°9	H 07 53 53
		iS	E	17 37	7		-3			
		iScS	E	17 43	6		+4			USCGS: 51N, 179W, H 07 53 51
		ePS	E	18 42	7					Magnitude: 6.1 Uppsala.
		eL	E	31.5	19					
		eLR	N	35.9	(30)					
		M	NE	40	21	2	2			
187	17	(P)	Z	22 58 11					10,550ca	P masked by microseisms.
		iSKS	N	23 08 45	6	+3			95°ca.	USCGS: 54N, 166W, H 22 44 44
		iS	NE	09 25	7	-4	-6			Moscow:55N, 165W, H 22 44 57
		i	N	09 48	7	+5				Magnitude: 6.6 Uppsala,Kiruna,
		i	E	09 53	7		+5			Skalnate Pleso
		eLR	Z	28.6	30					6½ Pasadona, Lwiro,
		M	Z	34.5	19			4		Moscow, 6.4 Rome,
		M	N	34.6	21	8				6¼ Strasbourg
		M	E	37.2	21		4			6.1 Hurbanovo.

No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
188	Mar.18	iP	V	00 25 09	1½			+		Compr. Masked by coda of no.187.
		i(S)	N	35 58	5	-2				USCGS: 51N, 179½W, H 00 12 10
189	18	(Pg)	V	01 15 22						
		e	V	15 24						
		iSg	V	15 29	½			+		
		i	V	15 36	1			+		
190	18	i(SKS)	N	02 49 08	7	+3				USCGS: 52½N, 171W, H 02 25 56
		i(S)	N	49 43	5	-4				Magnitude: 6.2 Uppsala, Kiruna.
		eL	N	03 08.7	30					
191	18	e(Pg)	V	03 44 38	½					
		i(Sg)	V	44 45	1			+		
192	18	(iP)	V	05 21 32	1½			-		Masked by microseisms.
		i	V	21 38	1½			+		USCGS: 51½N, 179W, H 05 08 34
		i(S)	E	32 19	4		+2			
193	18			09.0	Surface waves.					BCIS: 54N, 167W, H 07 50 50
194	18	i(P)	V	19 36 00	1			+		USCGS: 20S, 179W, h 450 km., H 19 30 16
195	18	iP	NZ	21 20 07	5	-3		+4	3150	Compression.
		i	Z	20 15	5			+7	28°3	h 0.01 ca., H 21 14 21
		ipP	Z	20 32	5			-9		
		ipP	N	20 33	5	+9				BCIS: 6S, 152E, H 21 14 16
		i	N	20 59	5	+5				USCGS: 6S, 152E, H 21 14 12
		iPP	Z	21 02	6			+9		
		iPPP	N	21 13	4	+6				
		iPPP	Z	21 14	5			+9		
		i	Z	21 20	5			+7		
		i	Z	21 36	5			+9		
		i	Z	21 49	5			-5		
		i	N	22 20	5	-4				
		i	N	24 16	5	+6				
		i	E	24 27	5		-4			
		iS	N	24 45	9	+15				
		i	E	24 59	5		+7			
		i	Z	25 03	9			-12		
		i	N	25 06	9	+40				
		i	Z	25 22	8			+14		
		isS	N	25 31	8	-36				
		i	Z	25 40	6		-			
		i	E	25 43	6		-10	+15		
		i	N	25 45	7	-13				
		i	Z	25 53	9			+13		
	---	i	E	26 05	7		+9			--- i N 25 58 per.10s, +23μ
		iSS	N	26 13	9	+21				
		i	E	26 23	7		-15			
		i	N	26 28	6	+10				
		i	N	26 41	7	+13				
		i	N	27 34	5	+8				
		i	N	27 47	7	+17				
		eL	N	27.9	28					
		i	N	28 11	6	-6				
		M	E	31.1	13		21			
		M	NZ	31.9	14	22		24		
196	19	iP	V	03 52 38	1			+		Compr. Other phases obscured by microseisms.
										USCGS: 52N, 175½W, H 03 39 35
197	19	(P)	Z	11 41 59						
		iSKS	N	52 19	5	+3				USCGS: 51½N, 176½W, H 11 28 50
		iS	N	52 44	5	+4				Moscow: H 11 28 48
		M	N	12 17.0	19	2				
		M	Z	17.5	18			2		
		M	E	17.8	19		3			

No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
198	Mar.19	iP	V	13 03 52	1½			+	10,110	Compression.
		i	Z	04 01	5			+8	91°0	
		i	Z	04 12	4			+6		USCGS: 51½N, 175W, H 12 50 51
		i	Z	04 21	4			-6		Moscow: H 12 51 00
		i	Z	04 55	4			+5		
		i	Z	05 21	5			+6		Magnitude: 6.8 Rome
		i	Z	05 34	7			+7		6¾ Pasadena, M¹Bour, Skalnate Pleso
		i	N	05 40	5	+4				6½-6¾ Strasbourg, Praha
		iPP	N	09 37	5	+5				6.6 Uppsala, Kiruna, Hurbanovo.
		i	N	09 44	4	-4				
		i	N	12 38	6	-4				
		e(SKS)	N	14 29						
		iSKKS	N	14 34	5	-4				
		i	N	14 40	5	-6				
		iS	N	14 48	7	+6				
		i	E	14 53	9		-7			
		i	N	14 56	5	-14				
		i	N	15 04	4	+10				
		i	Z	15 12	5			-5		
		i	E	15 18	8		+13			
		i	N	15 19	5	+8				
		i	N	15 29	9	-17				
		iPS	N	16 02	8	-10				
		i	E	16 13	6		+6			
		i	N	16 20	8	+18				
		i	Z	16 24	7			+8		
		i	N	16 39	10	+16				
		i	Z	16 53	8			-14		
		i	N	16 57	6	+12				
		i	Z	17 53	5			-9		
		i	N	20 39	9	+9				
		eSS	E	20 50	25					
		eSS	N	21 00	27					
		eL	N	28.6	22					
		eLR	Z	32.1	31					
		eLR	E	32.4	33					
		eLR	N	32.8	30					
		M	NZ	35.6	24	27		22		
		M	E	39.5	18		10			
		eW2	Z	15 05.4	25					
199	20			00.3	Waves.					
200	21	i(P)	Z	16 41 55	3			+2		Compression. Masked by microseisms.
		i	N	43 32	5	+3				
		i	N	46 03	6	-4				USCGS: 3S, 144½E, H 16 35 28
		e(S)	NE	46 53	10					
		i	N	47 17	6	-3				Magnitude: 6.3 Uppsala, Kiruna.
		i	E	47 22	7					
		i	Z	47 25	5			+3		
		eL	E	49.8	(30)					
		eL	E	50.5	30					
		i(ScS)	N	52 22	5	-4				
		M	E	53.7	18		44			
		i	N	55 01	6	+18				
		M	NZ	56.5	13	31		27		
201	22	e	N	01 27 10						Masked by microseisms.
		i	N	28 55	7	+3				
		i	N	29 10	5	+3				
		eL	N	29.4	18					
		M	NE	31.6	14	2	2			
202	22	(iP)	V	10 36 32	1½			-		Large microseisms present.
		(iPcP)	V	36 36	1½			+		
		e(S)	N	47 00	9					BCIS : 46S, 34E, H 10 24.7
		e	E	48 09	12					
		e(SS)	N	52 42	15					
		M	N	11 10.4	16	1				

No.	Date	Phase & Component	Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957		h m s	s	μ	μ	μ	km.	
203	Mar.22	eP Z	14 34 29					10,650	
		eP N	34 30					95°9	
		i Z	34 35	6			-14		Dilatation.
		i N	34 36	6	+6				
		iPP Z	38 21	7			+8		USCGS: 54N, 166W, H 14 21 06
		iSKS NE	45 04	7	+10	+3			BCIS: 55N, 165½W,
		i N	45 29	7	+6				Moscow: 53½N, 165W, H 14 21 11
		i E	45 33	9		-12			
		iS E	45 45	9		-31			Magnitude: 7½ Moscow, Pasadena,
		i NZ	45 49	7	+7		+10		Berkeley, Christchurch
		i N	46 04	7	-11				7¼ Praha
		i E	46 11	7		-18			7.2 Rome, Skalnate Pleso,
		i N	46 17	10	-22				Hurbanovo
		i E	46 23	10		-24			7.1 Tacubaya, Uppsala,
		i N	46 30	7	+10				Kiruna.
		o Z	46 52	16					7 Pasadena, Berkeley,
		i E	46 58	7		+10			Christchurch.
		i N	46 59	7	+12				
		i E	47 16	8		+12			
		e Z	47 16	28					
		i N	47 18	15	+37				
		i E	47 25	7		+4			
		iPPS E	47 48	7		-6			
		e N	48 03	27					
		iSS E	52 09	12		+19			
		iSS N	52 16	11	-15				
		iSSS E	55 46	11		+13			
		iSSS N	55 47	13	+15				
		e E	56 03	30					
		i N	58 15	9	-15				
		i E	58 16	10		+27			
		eLQ E	15 00.1	38					
		eL N	00.5	31					
		eL Z	02.5	30					
		eLR E	04.8	28					
		M E	10.1	24		28			
		M NZ	10.6	21	19		17		
204	23	iP Z	05 19 14	2			-2	3750	Dilatation.
		i Z	19 19	3			+8	33°7	h 0.01 ca., H 05 12 40
		i N	19 43	4	+7				
		isP EZ	19 46	3		+5	+21		Felt on board SS."Changte" 05h 12m
		i N	20 07	3	+5				at 6°13'S, 131°25'E.
		i EZ	20 10	3		+7	+14		
		iPP Z	20 33	4			+11		USCGS: 5½S, 131E, h 100 km.ca.,
		i N	20 38	4	+6				H 05 12 31
		i Z	20 39	3			-13		Moscow: h 150 km., H 05 12 45
		i NEZ	21 30	3	+4	-7	+7		
		i Z	21 33	3			+14		Magnitude: 7.1 Uppsala, Kiruna
		iS NE	24 29	4,6	+9	-35			7 Pasadena, M'Bour,
		i E	24 35	7		+44			Christchurch
		e NE	24 45	14					6.9 Wellington
		i Z	25 14	4			+12		6.6 Tacubaya
		iScP NE	25 20	5	-28	-31			6.5 Rome.
		iPcS E	25 31	5		-32			
		i N	25 33	4	-22				
		i Z	25 36	4			-12		
		i Z	26 07	4			+11		
		i N	26 16	6	+21				
		i E	26 25	5		+23			
		i N	26 27	4	-35				
		iSS Z	26 37	5			+20		
		i Z	26 54	6			-32		
		i E	27 28	5		+34			
		i E	28 09	4		+65			
		i E	29 14	4		-92			
		M N	29.8	8	59				
		M E	31.3	15		145			M Z 05^h 32.4^m Per,16^s 105μ

No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
205	Mar.24	iP	Z	06 43 52	4			-2	3330ca.	Dilatation.
		iPP	N	44 49	5	+3			30°ca.	H 06 37 39 ca.
		i	N	46 29	6	+4				
		e(S)	N	48 50	(15)					USCGS: North of Ballony Is.,
		eS	E	48 53	(12)					H 06 37 40
		eLQ	E	50.3	18					BCIS: 63S, 165E, H 06 37.7
		eSS	N	50 24	16					
		eSS	E	50 25	19					
		i	Z	50 37	4			+5		
		iSSS	N	50 47	12	+22				
		m	E	50 51	16		26			
		i	Z	51 10	6			+6		
		i	N	51 20	7	+9				
		eLR	Z	51.5	24					
		eLR	N	51.6	24					
		i	Z	53 59	6			+8		
		M	E	54.2	10		13			
		M	N	55.5	10	8				
		M	Z	55.9	9			6		
206	24	iP	Z	08 23 28	3			+4		Compression.
		i	Z	23 33	3			+4		
207	24			09.2	Long waves.					USCGS: 51N, 130W, H 08 22 23
										Magnitude: 6¾-7 Pasadena, 6.1 Rome.
208	24			11.6	Long waves.					USCGS: 52½N, 169½W, H 11 06 10
										Moscow: H 11 05 55, Magnitude 5½.
209	24	iP	Z	11 50 00	4			+3	10,240	Compression.
		iSKS	N	12 00 33	5	+4			92?1	H 11 36 48
		eS	N	01 01	13					
		iScS	E	01 06	5		+4			USCGS: 52½N, 171½W, H 11 36 50
		eSS	N	07 15	19					Moscow: H 11 36 32
		eLR	N	20.5	24					
		M	NZ	24.5	21	2		4		
		M	E	25.5	21		2			
210	25	(iP)	Z	00 52 49	3			+2		Compression. Masked by microseisms.
										USCGS: 53N, 167W, H 00 39 29
211	25	i(S)	E	21 29 37	6		-4			
		e(SS)	N	35 07	16					BCIS: 60S, 27¾W, H 21 06 12
		e(SS)	E	35 19	16					
		eLQ	E	41.3	21					
		eLR	N	45.8	20					
		M	NZ	56.7	18	5		5		
		M	E	57.3	16		2			
212	26	iP	V	16 14 45	1½			-		Dilatation.
										USCGS: 50½N, 180°, H 16 01 53
213	27	(P)	Z	07 37 59	3					Masked by microseisms.
		e(L)	N	45.3	?					USCGS: 22S, 177W, h 150 km.ca.
										H 07 31 56
214	27	(i)	V	13 05 57	1½			+		Compression.
		(iP)	V	06 24	1½			+		Compression.
		(i)	V	06 36	1½			+		Confused by microseisms.
		(ipP	V	06 46	1½			+		USCGS: 5S, 153½E, h 100 km.ca.
		(isP)	V	07 00	1½			+		H 13 00 27
		e	E	11 34	7					
		e	N	11 38	13					
		eL	N	14.6	30					
		M	NZ	17.2	19	4		3		
		M	E	17.6	13		3			
215	28	(iP)	Z	04 01 47	3			+2		Compr. Obscured by microseisms.
		eL	E	10.2	(20)					BCIS: S.W. of Samoa, H 03 54.3
216	28	(i)	Z	20 21 33	2			+1		Obscured by microseisms.
		i	Z	21 53	2			+2		USCGS: 51N, 171½W, H 20 08 20
		e	N	32 05	3					Moscow: H 20 08 37, Magnitude 5¾
		e	E	32 25	8					

No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
217	Mar.29	iP	V	05 23 53	1½			+	10,450	Compression.
		iP	Z	23 54	3			+2	9491	Compression.
		eP	N	23 55						H 05 10 31
		i	Z	24 08	3			+3		
		ePP	Z	27 34	7					USCGS: 53½N, 167W, H 05 10 28
		e	Z	27 52	12					Moscow: H 05 10 33
		ePPP	Z	29 38	7					
		e	Z	29 46	13					Magnitude: 6.9 Skalnato Pleso
		iSKS	N	34 25	8	+7				6¾ Moscow
		e	NEZ	34 33	22					6.7 Uppsala, Kiruna, Romo, Hurbanovo
		i	N	34 52	5	+3				6½-6¾ Praha
		iS	E	35 02	10		-9			6.6 Tacubaya.
		i	N	35 07	10	+11				
		i	N	35 24	10	+14				
		e	E	35 26	17					
		e	E	36 05	23					
		e	Z	36 06	19					
		ePS	N	36 13	13					
		ePS	E	36 19	19					
		ePS	Z	36 21	12					
		e	NE	37 16	23					
		i	N	37 56	10	+8				
		eSS	Z	41 14	21					
		eSS	E	41 17	21					
		eSS	N	41 23	19					
		PSPS Max.	NE	42 01	20	13	8			
		eSSS	NE	44 47	25					
		eLQ	E	48.5	34					
		eG	E	49.5	45					
		eL	N	49.7	32					
		eLR	E	53.9	36					
		eLR	Z	54.0	41					
		M	NZ	58.2	22	24		16		
		M	E	59.2	24		28			
		eW_2	N	07 27.2	22					
218	29	(ePg)	V	06 47 27						
		i	V	47 30	½			-		
		i	N	47 32	¾	+1				
219	29			23.3	Wavos.					USCGS: 53N, 169W, H 22 49 51
										Magnitude: 6-6¼ Pasadena, 6 Moscow.
220	30	(P)	V	00 55 36						Masked by microseisms.
		(S)	E	01 06 26	4					USCGS: 51½N, 179½W, H 00 42 40
		e(SS)	N	12 27	18					Moscow: H 00 42 34
		M	N	34.8	19	1				
221	30	iP	ZV	06 50 04	3			+2		Compression.
										USCGS: 51N, 180°, H 06 37 00
222	30	iSKS	N	09 40 35	4	+1				
		eS	N	41 02	7					USCGS: 52N, 175W, H 09 17 00
		eSS	N	47 20	18					Moscow: H 09 17 00
		eLQ	E	54.9	25					Magnitude: 6.2 Uppsala, Kiruna
		eLR	N	59.0	27					
		M	N	10 02.7	24	1				
223	31	eSKS	N	10 31 54	4					USCGS: 51½N, 178W, H 10 08 28
		eS	E	32 16	9					BCIS: 51½N, 178W, H 10 08 25
		ePS	N	33 25	?					Moscow: H 10 08 26
		eL	N	51.3	30					Magnitude: 6.1 Uppsala, Kiruna.
		M	N	53.3	22	1				
		M	E	55.6	18		½			
224	Apr. 1	(iP)	Z	08 02 19	3			+3		Compr. Masked by large microseisms
										USCGS: 4½N, 129E, h 100 km.ca., H 07 54 20
	1	(i)	Z	16 08 54	3			+6		Very large microseisms present.
		(i)	N	14 36	3	+3				

RIVERVIEW COLLEGE OBSERVATORY
SEISMOLOGICAL BULLETIN, APRIL, 1957.

No.	Dato	Phase & Component		Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
244	Apr. 9	e	Z	02 27 03						Masked by microseisms.
		(eS)	N	34 46						USCGS: 22½N, 144½E, H 02 17 06
		i(SS)	N	38 38	5	-2				Magnitude: 5.7 Rome
		eL	E	42.7	(25)					5¼ Moscow.
		M	N	49.4	22	2				
		M	E	51.3	18		2			
245	9	i(P)	V	11 15 10	1			+		Compression. Masked by large
		i	V	15 13	1			-		microseisms.
		i	Z	15 13	3			+2		USCGS: 51½N, 178½W, H 11 02 09
		i	N	26 22	4	+2				Magnitude: 6.1 Kew
		i	N	26 42	4	+2				6.0 Uppsala, Kiruna
		eL	N	43.6	27					5.8 Rome
		M	N	52.7	18	1				5¾ Moscow.
		M	E	53.2	18		1			
246	9	iP	Z	15 41 46	3			+2		Compression.
247	10	(eS)	E	03 49 47						Masked by microseisms.
		M	NE	04 17	20	1	1			USCGS: 53N, 168W, H 03 25 20
										Moscow: H 03 25 30
										Magnitude: 5.7 Rome, 4¾ Moscow.
248	10	(i)	E	05 35 36	4		+2			Masked by microseisms.
		ePS	E	41 46	19					USCGS: 15½N, 98W, H 05 12 08
		e	N	44 35	27					Tacubaya: 15°31'N, 98°15'W,
		e	E	47 02	16					H 05 12 09
		eSS	E	48 16	27					Magnitude: 6¾-7 Pasadena
		eLQ	N	59.5	30					6.6 Uppsala, Kiruna
		eLR	E	06 05.4	30					6½ Berkeley, Kew
		M	N	11.4	19	1				6.4 Tacubaya
		M	E	13.7	19		2			6 Moscow
		M	Z	14.2	18			2		5.9-6 Rome.
249	10	(iP)	Z	11 44 00	3			+3	11,200ca.	Large microseisms present.
		i	Z	44 20	4			+4	101°ca.	
		iPP	Z	48 10	4			+5		USCGS: 56N, 154W, H 11 29 58
		i	Z	48 47	4			+4		BCIS: 55¾N, 153½W, H 11 29 58
		i	Z	49 32	7			+5		Moscow: H 11 29 59
		e	Z	52 20	13					
		iSKS	N	54 29	7	+8				Magnitude: 7½ Berkeley
		iSKS	E	54 35	6		-9			7.2 Uppsala, Kiruna
		iS	NE	55 36	7	+10	-18			7.1 Skalnate Pleso
		i	N	55 48	9	+23				7 Pasadona, Moscow
		i	E	55 51	8		-28			6.8 Hurbanovo.
		i	E	56 19	7		+8			
		i	N	56 23	6	+12				
		i	E	56 45	7		+7			
		iPS	Z	56 58	8			-9		
		iPS	E	57 04	7		+8			
		e	N	57 44	15					
		iPPS	N	57 57	7	-9				
		i	Z	58 32	7			+10		
		i	N	58 47	7	+12				
		i	E	58 51	9		+11			
		e	N	59 20	18					
		i	N	12 00 08	8	+13				
		e	N	00 43	22					
		iSS	E	02 27	13		+33			
		i	E	02 49	7		+14			
		ei	N	02 56	13	+21				
		eLQ	E	11,6	26					
		eL	E	13.0	30					
		eL	Z	17.6	27					
		M	NEZ	23.9	19	43	41	45		
		eW_2	E	13 45	27					
		M	NZ	49	21	11		10		
		M	E	51	20		8			
		F		15.1						

No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
250	Apr.11	e(S)	E	01 23 05	9					Obscured by large microseisms.
		i	E	23 45	6		+5			
		eL	N	26.1	19					BCIS: 150 km. S.W. of Samoa,
		i(ScS)	N	27 45	4	+4				H 01 10.3
		eL	E	28.9	19					
		M	N	30.5	12	6				
		M	EZ	33.3	16		7	8		
251	11	e(SS)	N	07 00 18	13					Obscured by large microseisms.
		i	N	00 39	4	-4				USCGS: Samoa, H 06 44 33
		eL	E	02.2	20					BCIS: 15¼S, 172¼W, H 06 44 29
		M	N	06.3	11	2				
		M	E	09.0	16		3			
252	11			14.5	Waves.					BCIS: 5S, 154E, h 100 km.ca.,
										H 14 20.3
253	12	iP	Z	04 30 14	2			+1		Compression.
										USCGS,BCIS: 51½N,178½W, H 04 17 45
										Moscow: H 04 17 52, Magnitude 5.
254	13			05.7	Waves.					USCGS: 52½N, 168½W, H 05 13 32
255	13	P	Z	06 38 38					5140	H 06 30 09
		iP	V	38 40	1½			-	46?3	Dilatation.
		i	Z	38 48	3			+2		
		o	E	40 13						USCGS: 6½N, 126½E, H 06 30 08
		i	NZ	42 22	3	+2		+2		Magnitude: 6.0 Uppsala, Kiruna.
		eS	E	45 25	7					
		eSS	E	48 38	16					
		iSS	N	48 47	6	-2				
		M	N	57.9	14	1				
		M	E	58.2	18		1			
256	13	iP	Z	10 19 10	3			+2	5240	Compression.
		i	Z	19 20	3			-2	47?1	h 0.01, H 10 10 46
		ipP	Z	19 32	3			-2		
		iPP	N	21 01	4	+1				USCGS: 5N, 126½E, 10 10 48
		iPP	Z	21 02	4			+3		BCIS: 5¼N, 126¼E, h 100 km.,
		iPP	E	21 04	4		+2			H 10 10 55
		i	Z	25 08	4			+5		Magnitude: 6.0, Uppsala, Kiruna.
		iS	N	25 54	5	-3				
		iS	E	25 56	4		-3			
		isS	NE	26 36	4	+2	+3			
		iSS	NEZ	29 15	5	-3	-4	+4		
		m	NE	29 20	6,10	4	6			
257	14	(iP)	Z	07 24 51	2			+1	10,000ca.	Compression. Masked by microseisms
		i	Z	25 03	4			-5	90°ca.	USCGS,BCIS: 31N, 84½E, H 07 11 50
		eS	E	35 44	10					Moscow: 30N, 84½E, H 07 11 53
		i	N	35 52	7	-5				Shillong: 31N, 84½E, 07 11 50
		ePPS	E	37 23	15					Magnitude: 6.9 Praha, Rome
		eSS	N	41.8	13					6.7 Uppsala, Kiruna
		eL	E	49.0	22					6½ Moscow
		eL	N	51.8	30					6.4 Shillong
		eLR	N	54.9	46					6¼ Pasadena
		M	NE	08 02.4	24	7	8			6.2 Lwiro.
258	14			09.6	Waves.					BCIS: 5½S, 150E, H 09 23 44
259	14	(i)	Z	12 37 38	2			+1		Masked by microseisms.
		i	Z	39 30	3			+2		
		i	Z	39 36	3			+2		USCGS: 4½S, 150E, H 12 32 39
		i	Z	40 42	3			+2		BCIS: H 12 31.7
		e(S)	N	42 25	6					
		o	E	45 02						
		i	N	45 28	4	+3				
		M	E	50.1	15		3			
		M	N	50.2	13	1				

No.	Date	Phase & Component	Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957		h m s	s	μ	μ	μ	km.	
260	Apr.14	iP NEZ	19 25 11	4	-7	-23	+36	4110 ca.	Compression.
		ipP E	25 20	4		+15		37°ca.	h 0 00
		ipP Z	25 21	4			+12		Between pP and PP short period waves
		i Z	25 32	4			+12		1½-2 seconds, superposed on normal
		i E	25 45	7		+20			waves of 4-7 seconds.
		i E	26 27	6		+12			
		i Z	26 31	4			-14		S cannot be identified.
		iPP Z	26 39	5			+52		
		iPP E	29 40	5		-58			USCGS: 15½S, 173W, H 19 17 57
		iPP N	26 41	5	-18				BCIS: 15S, 173½W, H 19 18 00
		i N	26 51	5	-16				JSA: 15.3S, 173.2W, h 0.00,
		iPPP EZ	26 57	5		-84	+67		H 19 18 03
		i N	27 05	4	+25				Moscow: H 19 18 09
		i E	27 09	6		+75			
		i Z	27 14	4			+28		Magnitude: 8 Pasadena
		i NZ	27 18	4	-34		+37		7¾ Romo
		i E	27 20	5		+25			7½ Berkeley, Praha
		i N	27 30	4	-19				7.3 Kow
		i N	27 41	6	+16				7.2 Uppsala, Kiruna
		i Z	27 43	4			+13		7 Moscow.
		i E	27 49	5		+28			
		i N	28 00	5	+29				
		i Z	28 01	5			-26		
		i E	28 02	4		+17			
		i E	28 24	7		+27			
		i Z	28 31	4			+23		
		i N	28 34	5	+19				
		i Z	28 54	5			-20		
		i N	28 56	5	+23				
		i Z	29 59	4			+10		
		i E	30 12	7		+18			
		i NE	30 30	5, 7	+14	+27			
		i N	30 39	5	+14				
		i Z	30 41	6			+17		
		i E	30 59	7		-20			
		i N	31 01	8	+21				
		i E	31 08	7		+29			
		i Z	31 18	9			+34		
		i E	31 25	12		-57			
		o N	31.5	20					
		i E	31 31	13		+94			
		i N	31 53	6	+27				
		o NEZ	32.1	22					
		i E	32 23	8		-34			
		i N	32 45	6	+18				
		i N	32 52	9	+27				
		i E	33 04	10		+25			
		oLQ N	33.5	25					
		oL E	33.9	32					
		iSSS N	33 58	20	-260				
		i EZ	34 14	9		+15	+68		
		i E	34 30	9		+84			
		i Z	34 38	9			+35		
		i EZ	35 12	10		-62	+58		
		i(ScS) N	35 29	7	-50				
		oiLR E	35 51	19		-160			
		iLR Z	35 54	19			+140		
		M EZ	36.5	25		380	280		
		M N	38.6	13	110				
		M EZ	39.1	17		190	130		
261	14	(iP) Z	21 11 52	3			+4		Masked by coda of no.260.
									USCGS: 50½N, 179W, H 20 59 00
									Moscow: 49N, 178W, H 20 59 00
262	15		04.8		Surface waves, masked by microseisms.				BCIS: 6S, 153E, H 04 32.8

No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
263	Apr.15	iP	Z	10 51 34	3			-2	9860	Dilatation.
		iSKS	N	11 02 01	5	+2			88°7	H 10 38 37
		iS	E	02 20	5		-3			
		ePS	N	03 24	9					USCGS: 51½N, 179W, H 10 38 37
		eL	E	16.5	24					Moscow: 51½N, 178½W, H 10 38 40
		eLR	E	20.2	27					
		M	N	23.6	23	3				Magnitude: 5¾ Moscow.
		M	E	25.5	23		1			
		M	Z	27.4	21			2		
264	15	iP	Z	21 46 24	3			+2	10,480	Compression. H 21 33 02
		iSKS	N	56 57	4	-2			94°3	USCGS: 52½N, 167W, H 21 33 05
		iSKS	E	57 00	4		+2			Moscoo: 51N, 166½W, H 21 33 05
		iS	N	57 34	5	-2				Magnitude: 6½ Praha, 6.4 Uppsala.
265	16	iP	NEZ	04 12 11	3	+3	-5	-10	5580	Dilatation.
		i	Z	12 56	3			-3	50°2	h 0.085, H 04 04 05
		i	E	12 59	4		-2			
		iPcP	Z	13 20	3			-6		USCGS: 4½S, 107½E, h 600 km.ca.,
		ipP	Z	13 57	4			-10		H 04 04 04
		ipP	NE	13 59	4	+2	-5			JSA: 4.3S, 107.5E, h 0.09,
		i	NEZ	14 05	4	+7	-6	+30		H 04 04 08
		iPP	Z	14 13	4			-17		Moscow: 4S, 107½E, h 600 km.,
		iPP	NE	14 14	4	+6	-9			H 04 04 09
		isP	NEZ	14 56	3	-3	+7	+8		
		i	Z	15 02	4			+8		Magnitude: 7½ Pasadona
		i(PPP)	N	15 24	4	-6				7.3 Uppsala, Kiruna
		i	Z	15 32	6			-23		7.2 Kew.
		i	E	15 37	3		+8			
		iScP	Z	16 21	3			+14		
		i	Z	16 35	4			-14		
		i	N	16 59	4	+10				
		i	E	17 00	3		-6			
		iPcS	Z	17 10	4			+13		
		iS	NEZ	18 41	4	-25	-83	+22		
		i	NZ	18 49	4	+16		+37		
		i	NE	18 57	5	+16	-25			
		i	Z	18 58	4			+14		
		i	N	19 20	4	+10				
		i	E	19 25	4		+20			
		iScS	N	21 00	4	-29				
		iScS	E	21 01	4		+12			
		i	E	21 34	4		+9			
		i	N	21 39	4	+16				
		isS	N	21 58	8	+41				
		i	NE	22 07	7	-54	+35			
		i	E	22 22	6		+33			
		i	E	23 57	6		+26			
		i	N	24 12	4	+12				
		i	NE	24 54	7	-14	-31			
		eL	E	29.0	19					
		M	N	31.9	12	50				
		M	Z	35.5	13			21		
		M	E	35.7	13		30			
266	16	(iP)	V	15 16 22	1			-		Dilatation. Masked by microseisms.
267	16			17.7	Long wavos.					BCIS: Tonga region, H 17 27.8
268	17	iP	EZ	08 14 14	2		+1	-2		Dilatation.
		i(sP)	Z	15 23	2			-1		
		iPP	E	15 33	4		+3			USCGS: 20S, 176W, h 200 km.ca.,
		iPP	Z	15 34	4			-3		H 08 07 58
		iS	N	19 13	4	-2				
		i(sS)	N	20 18	4	-1				
		e(SS)	N	21 31	10					
		e	N	22 00	7					
		i	N	22 39	6	-2				
		i(ScS)	E	24 31	4		+3			

No.	Date	Phase & Component		Time (G.M.T.)	Por.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
269	Apr.17			14.5	Waves.					
270	17			19.2	Waves.					
271	18	iP	V	07 13 07	1½			-		Dilatation. Masked by microseisms. USCGS: 52N, 176½W, H 07 00 03
272	19	i(P)	V	04 29 29	1½			+		
273	19	(iP)	Z	08 45 28	4			+3		Compression. Microseisms present.
		o(S)	N	50 03						
		i	N	50 34	4	+3				USCGS: 6½S, 155½E, H 08 39 37
		oL	N	53.1	27					
		M	NEZ	56	16	1	1	1		
274	19	iP	V	15 58 05	1½			+	10,350	Compression.
		i(SKS)	NE	16 08 44	5	+3	+3		93?1	USCGS: 51½N, 168½W, H 15 44 53
		iS	N	09 10	4	+2	+			Moscow: 50½N, 167½W, H 15 44 55
		oSS	NE	15 54	16					Magnitude: 6.7 Uppsala, Kiruna.
		oL	N	22.9	20					
275	19	iP	NZ	22 32 46	3	+1		-7	10,540	Dilatation.
		ipP	V	32 59	1½			+	94?8	h 0.00, H 22 19 27
		i	NZ	33 07	4	+1		-8		
		i	Z	34 50	4			+2		USCGS: 52N, 166½W, H 22 19 26
		i	Z	35 49	4			+3		JSA: 52.3N, 166.7W, h 0.00,
		i	Z	36 24	4			-3		H 22 19 32
		iPP	Z	36 37	5			-5		Moscow: H 22 19 32
		iSKS	NE	43 21	6	-13	-6			
		i	Z	43 25	4			+4		Magnitude: 7-7¼ Pasadona
		iS	NE	43 54	5, 9	-5	+6			7.3 Uppsala, Kiruna.
		i	E	44 11	5		+6			
		isS	N	44 14	6	+5				
		i	N	44 29	6	-8				
		i	EZ	45 07	7		-6	+7		
		i	N	45 30	8	-5				
		i	N	45 46	6	-3				
		oSS	N	50 32	16					
		oSS	E	50 38	19					
		oL	E	57.6	33					
		oL	N	58.7	31					
		M	EZ	23 05.8	18		6	5		
		M	N	06.3	24	10				
276	20	iP	V	00 14 41	1½			+		Compr. Masked by coda of no.275. USCGS: Solomon Is., H 00 09 10
277	20	iP	Z	06 57 49	4			-2	6360	Dilatation.
		i	V	58 20	1½			-	57?2	H 06 47 58
		iPcP	V	58 45	1½			+		
		oS	N	07 05 44	8					USCGS: 54½S, 131½W, H 06 48 04
		oPS	E	05 57	10					
		iPPS	N	06 04	12	+8				
		oLQ	E	12.1	23					
		oLR	NZ	14.4	30					
		L	NEZ	15.2	23	6	6	6		
		M	NEZ	19	16	3	2	3		
278	20	iP	Z	12 36 35	3			+2	3000	Compression.
		i	NZ	36 47	6	+5		-6	27?0	
		oPP	NZ	37 22	10					USCGS: 6S, 147½E, H 12 30 37
		oPPP	Z	37 33	10					BCIS: 6¼S, 147¾E, H 12 30 40
		i	N	38 10	4	-4				
		iS	NZ	41 12	6	-6		+6		Maghitude: 6.6 Uppsala
		i	E	41 15	4		+3			6 Moscow
		i	E	41 29	6		-6			
		i	N	41 30	12	-31				
		i	E	41 53	5		+10			
		oLQ	N	42.3	27					
	---	i	N	44 43	15	+46				--- oLQ E 42.4 por. 30s.
		oL	N	45.0	33					
		M	ZNE	47	*	110	53	78		*Por. MN 21s, ME 16s, MZ 20s.

No.	Date	Phase & Component		Time (G.M.T.)	Por.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
279	Apr.20			17.1	Wavos.					
280	21			02.9	Wavos.					
281	21	(iPKP)	V	21 31 43	1½			+	14,660ca	Compression. Masked by microseisms.
		iPP	Z	34 06	4			+3	132°ca.	NS Galitzin not operating.
		iPKS	Z	35 09	7			+6		
		i	E	35 20	7		+11			USCGS: 7N, 72W, H 21 12 26
		i	Z	35 24	7			+8		JSA: 6.9N, 72.0W, H 21 12 28,
		i	Z	36 11	5			-3		h 0.00
		i	Z	36 44	5			+2		Magnitude: 6¾ Moscow
		i	Z	37 28	5			-3		6½-6¾ Pasadena
		i	E	37 40	5		+4			6.6 Tacubaya.
		o	E	38 07	12					
		i	Z	38 17	5			+3		
		o	E	38 27	13					
		o	E	38 40	13					
		o	E	48 11	17					
		o(SS)	E	52 31	20					
		o(SSS)	E	57 04	25					
		oLQ	E	22 07.1	28					
		oLR	E	15.4	28					
		M	EZ	25.8	18		7	8		
	21	(iP)	V	22 07 48	1½			+		Non-seismic ??
282	23	(iPPP)	V	22 19 58	1½			+		Masked by microseisms.
		M	E	56.2	16		1			USCGS: 27S, 68W, H 21 58 35
283	24	(i)	V	13 10 31	1½			-		Masked by microseisms.
		oL	E	21.4	20					
284	24	o	N	16 52 49						Obscured by large microseisms.
		i	E	52 56	4		+2			BCIS: 4½s, 112E, H 16 35.3
		oL	N	57.2	27					
		M	NE	58.6	20	7	5			
285	24	iPKP	Z	19 29 31	3			+3	14,780ca.	Compression. Large microseisms
		i	Z	29 37	4			+4	133°ca.	present.
		i	Z	29 45	4			+4		
		i	Z	30 06	3			-3		USCGS: 36N, 28½E, H 19 10 05
		oPP	Z	31 58						BCIS: 36.3N, 29.1E, H 19 10 16
		iPKS	Z	32 56	4			-5		JSA: 36.3N, 28.8E, H 19 10 11
		i	E	33 04	5		+4			h 0.00
		i	Z	33 09	5			+8		
		i	EZ	33 20	5		+6	+8		Magnitude: 7.4 Praha
		i	N	33 22	5	+7				6¾-7 Pasadena
		i	Z	33 29	6			+9		6.9 Uppsala, Kiruna
		i	E	33 41	5		+6			6¾ Athens.
		i	Z	34 04	5			-4		
		i	E	34 05	5		+6			
		i	Z	34 37	4			-4		
		i	N	35 28	6	+4				
		i	E	35 57	5		+5			
		(iSKS)	N	36 34	4	-1				
		i	Z	36 54	4			+4		
		i	Z	37 14	6			+6		
		i	Z	37 29	6			+5		
		i	EZ	38 07	7, 4		-4	+5		
		i	E	38 51	4		+5			
		oPS	E	42 02	13					
		oPS	NZ	42 09	7					
		iPPS	EZ	43 55	6		+4	+6		
		i	N	43 58	9	+5				
		i	E	44 06	8		+12			
		i	Z	44 43	3			+5		
		o	E	45.3	20					
		i	Z	45 47	6			+5		
		iSS	N	49 36	8	+5				
		i	E	49 42	6		+2			
		o	N	49.9	18					

(Continued on next page)

No.	Date	Phase & Componont		Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
285 cont.	Apr.24	eL	E	20 01.3	40					
		eL	N	05.9	55					
		eL	N	09.6	45					
		L	N	11.4	42	39				
		M	NE	22.1	30	12	13			
		M	Z	23.2	24			11		
286	25	(PKP)	V	02 45 00						Large microseisms prosent.
		iPKP	Z	45 26	4			-3	14,780ca.	Dilatation.
		ePP	E	47 33	12				133°ca.	
		ePP	Z	47 35	10					USCGS: 36½N, 29E, H 02 25 36
		iPP	Z	47 57	6			+6		BCIS: 36.5N, 28.9E, H 02 25 36
		iPKS	Z	48 20	4			+7		JSA: 36.3N, 28.9E, H 02 25 39
		i	NE	48 40	7	+7	-8			h 0.00
		i	Z	48 43	6			+17		Moscow: 36N, 28.5E, H 02 25 38
		i	EZ	48 54	5		-6	+9		
		i	NE	49 06	5	+3	-4			Magnitude: 7.8 Praha, Hurbanovo
		i	EZ	49 16	5		+4	-5		7.2 Uppsala, Kiruna
		i	NZ	49 27	4	+4		-6		7¼ Strasbourg, Berkeley
		i	Z	49 39	6			-6		7-7¼ Pasadona
		i	NE	49 42	5	+3	-4			7 Lwiro, Athens
		i	N	50 02	6	+4				6¾ Moscow
		i	E	50 12	4		-3			6¼-6½ Jorusalom.
		i	N	51 39	5	-3				
		i(SKS)	N	52 04	5	+3				
		i(SKS)	E	52 06	5		+5			
		i	E	52 23	6		+4			
		i	N	52 28	7	+4				
		i	E	52 45	5		+4			
		i	Z	53 09	4			+3		
		i	N	54 25	7	-3				
		e(SKKKS)	E	54 30	12					
		i	N	56 30	6	-3				
		e(PS)	E	57 29	16					
		e(PS)	N	57 36	18					
		i(PPS)	N	59 24	7	+4				
		iPPS	E	59 34	8		+11			
		iPPS	Z	59 36	6			+7		
		iPPPS	N	03 00 29	7	+7				
		i	N	00 43	9	+5				
		i	N	01 03	7	-5				
		i	E	01 13	6		+4			
		eSS	N	05 14	15					
		i	N	05 20	6	+4				
		i	E	05 27	7		+4			
		e	E	06 44	20					
		i(ScSScS)	N	07 56	6	+5				
		SSS	N	09 55	10	2				
		eL	N	22.5	37					
		eL	N	25.1	42					
		L	N	26.9	40	49				
		eL	Z	28.5	45					
		M	NE	37.5	27	14	27			
		M	EZ	43.3	21		41	26		
287	25	(iP)	Z	07 22 29	2			+2		Compr. Maskod by large microseisms.
		i	Z	24 12	3			+2		USCGS: 45N, 100E, H 07 09 20
288	25	(iP)	V	07 28 19	1			+		Compr. Maskod by large microseisms.
		i	N	39 03	4	+4				USCGS: 52N, 173½W, H 07 15 15
		e(S)	E	39 19	?					Magnitude: 5.9 Uppsala, 5½ Moscow.
289	25	iP	V	10 22 59	1½			+	3680	Compression
		i	Z	23 11	4			+5	33?1	
		iPP	Z	24 10	4			+3		USCGS: 4½S, 134E, H 10 16 18
		i	Z	26 06	3			+3		Magnitude: 5 Moscow.
		iS	N	28 18	5	-4				
		eS	E	28 19	6					
		e(SS)	N	30 03	12					
		i	N	31 16	6	-4				

No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
289	Apr.25	oL	E	10 31.4	?					
cont.		i	N	32 04	4	-4				
		i	E	33 37	7		+12			
		i	EZ	34 18	4		+5	-8		
		i	Z	35 20	4			-16		
		M	NE	35.5	10	16	24			
		i	Z	36 15	4			+13		
		i	N	38 25	7	+39				
		M	Z	38.5	12			21		
290	25	iP	ZV	11 14 01	2			+2	4800	Compression.
		i	V	14 05	1			+	43°2	H 11 06 01
		ipP	V	14 13	1½			+		
		isP	V	14 19	1½			+		USCGS: 1½N, 126E, H 11 06 02
		iPP	V	15 40	1½			-		
		iPcP	V	15 48	1½			+		Magnitudo: 5¼ Moscow.
		iS	N	20 25	4	+3				
		oSS	E	23 21	13					
		oL	E	26.3	36					
		M	NE	30.9	24	4	7			
		M	Z	33.0	24			5		
291	26	(iP)	V	04 25 33	1½			+		
		(iPcP	Z	29 23	4			+3		
		iS	E	29 37	7		-6			
		i	N	29 43	6	+6				
		oLQ	E	30.2	27					
		o(SSS)	E	30 39	16					
		oLR	Z	30.9	21					
		oL	N	31.1	18					
		M	NEZ	33	11	6	6	2		
292	26			07.8	Surface waves.					BCIS: 36.3N, 29.1E, H 06 33 43 USCGS: 36½N, 29E, H 06 33 32 Magnitudo 6¼-6½ Athens.
293	26	iP	V	15 20 23	1½			-		Dilatation.
		ipP	V	20 40	2			-		USCGS: 45N, 148E, H 15 08 22 BCIS: 44¾N, 147½E, H 15 08 27, h 60km. JMA: 44N, 148E, H 15 08 29, h 60 km.
294	27	o(P)	Z	00 17 54						Masked by microseisms.
		o	Z	18 00						
		o(S)	E	24 22	7					USCGS: 0°, 121½E, H 00 09 47, h 60 km.ca.
		(iSS)	N	27 38	7	+4				
		o(SS)	E	27 47	9					
		oL	N	30.0	30					
		M	E	33.3	19		3			
		M	N	34.2	18	3				
		M	Z	36.4	20			2		
295	27	iP	NEZ	11 35 13½	2	-1	-2	+4	2440	Compression.
		i	Z	35 24	3			+2	21°9	h 0.005, H 11 30 24
		ipP	Z	35 31½	2			+4		
		isP	Z	35 37	2			+6		USCGS: 20S, 170E, h 100 km.ca., H 11 30 33
		iPP	Z	35 43	3			+3		
		i	Z	36 17	2			+4		
		oS	N	39 06	7					
		iPcP	NZ	39 09	4	+2		+2		
		i	E	39 10	6		+4			
		o	Z	39 20	8					
		isS	N	39 32	5	-3				
		i	N	39 34	5	+4				
		i	Z	39 37	4			+2		
		i	E	39 42	6		+3			
		o	N	39 47	19					
		iSS	E	39 49	6		+5			
		oL	EZ	40.0	19					
		oLR	EZ	40.4	28					
		M	EZ	41.9	19		3	2		M N 44.0 per.12s, 2μ

No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
296	Apr.28	iP	Z	01 32 15½	2			+2	5190	Compression.
		i	N	32 23	4	+3			46°7	h 0.00, H 01 23 48
		ipP	V	32 25½	1			+		
		i	Z	34 13	4			+4		USCGS: 7N, 127E, H 01 23 40
		iS	N	39 02	7	-5				Moscow: H 01 23 45
		isS	N	39 18	6	-6				
		i	E	39 25	6		+3			Magnitudo: 6.5 Uppsala, Kiruna
		i	N	39 31	6	+5				5¾-6 Pasadena.
		i	E	39 34	8		+7			
		i	E	40 17	7		-6			
		iScS	N	42 08	4	-4				
		iSS	E	42 24	9		-9			
		i	N	42 31	7	-6				
		e	Z	42 49	16					
		i	E	42 52	10		-16			
		i	N	42 54	7	+10				
		i	N	43 11	7	-5				
		eLQ	E	43.5	(30)					
		i	N	45 05	6	-4				
		i	N	45 38	7	+7				
		eLR	E	46.0	(30)					
		M	E	49.4	25		25			
		M	N	52.9	23	10				
		M	EZ	53.5	18		13	8		
297	28	iP	V	10 42 32	1			+	3100	Compression. Microseisms present.
		i	N	42 33	2	-1			27°9	H 10 36 43
		i(PPP)	N	43 30	4	+2				
		i	E	44 45	4		+1			USCGS: 6S, 155E, h 60 km.,
		iS	N	47 11	7	-3				H 10 36 41
		isS	N	47 33	8	-8				
		e	Z	47 36	13					
		i	N	47 45	5	+4				
		i(SS)	NE	48 29	6	+5	-2			
		eL(Q)	N	48.6	19					
		i	E	49 08	6		+5			
		eLR	NZ	50.4	27					
		M	Z	51.7	22			9		
		M	NE	52.7	14	6	9			
298	28	eS	E	15 13 17	10					USCGS: 52½N, 168½W, H 14 48 52
										Magnitudo: 5¾ Moscow.
299	28	(iP)	V	19 05 37						Maskod by microseisms.
										USCGS: North of Sumatra, H 18 55 04
300	29	(i)	Z	04 42 16	3			-2		
		e	E	47 11	9					
		e	E	48 03	8					
		i	N	48 14	4	-2				
		M	NEZ	50.8	13	1	1	1		
301	29	e	V	07 33 28						Small local tremor.
302	29	iP	Z	21 04 38	3			+1	5180	Compression.
		iPP	Z	06 30	5			-4	46°6	H 20 56 06
		i	E	06 32	4		-3			
		eS	E	11 27	7					USCGS: 9S, 107E, H 20 55 57
		ePPS	E	11 41	13					
		e(SS)	E	15 10	15					Magnitudo: 6.2 Uppsala, Kiruna
		eL	E	19.2	30					5¾ Moscow.
		M	N	22.6	13	15				
		M	N	24.9	10	24				
		M	EZ	26.2	16		14	8		
303	May 1	iPg	NV	02 07 46½	½	-		-		Dilatation.
		i	N	07 48	1	+1				
		iSg	V	07 50	¾			+		

No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitudo AN	Amplitudo AE	Amplitudo AZ	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
304	May 1	oPg	V	02 21 25	½					
		iSg	V	21 31	½			+		
		i	V	21 36	½			+		
		M	V	21 46	1½					
	1	(iP)	Z	23 41 31	4			+7		Obscured by large microseisms. USCGS: 52½N, 171W, H 23 28 09 Magnitude: 5½ Moscow.
305	2	(isS)	N	02 01 24	6	+4				Obscured by large microseisms.
		oL	Z	04.9	24					USCGS: 4½S, 153E, h 60 km.ca., H 01 50 09
		oL	N	05.1	27					
		i	E	07 15	6		+8			
		i	E	07 30	6		+7			
	2	(iP)	Z	02 35 43	3			+2		Obscured by large microseisms. USCGS: 54N, 166W, H 02 22 18
	2	(iPKP)	V	04 15 23	1½			+		Obscured by large microseisms.
		(i)	V	15 26	1½			+		USCGS: 72N, 67½W, H 03 55 34
		(i)	V	15 29	1½			+		Magnitude: 6¼-6½ Pasadena, 6 Berkeley
		(i)	V	15 38	1½			+		5.8 Kew, 5½ Moscow.
306	2	(iP)	V	10 44 32	1½			+	(6780)	Obscured by large microseisms.
		i	Z	44 39	4			+3	(61?0)	H (10 34 14)
		i	N	44 47	4	+3				
		i	V	45 07	1½			+		USCGS: 56½S, 123W, H 10 34 14
		iPP	N	46 50	4	+4				
		oS	N	52 50	9					Magnitude: 6½ Kew.
		iPS	N	53 04	9	+4				
		iPPS	NE	53 12	10	+19	-14			
		oLQ	E	59.9	26					
		oLR	EZ	11 02.1	30					
		oLR	N	02.2	28					
		M	NZ	06.7	18	9		14		
		M	E	06.8	18		9			
307	2	i	Z	11 43 44	4			+6		Masked by coda of no.306. USCGS: 52½N, 169W, H 11 29 13 Magnitude 6.3 Uppsala, Kiruna.
308	2	i	V	11 52 27	1½			+		Confused by coda of preceding.
		iPP	V	55 58	2			+		USCGS: 52½N, 169W, H 11 38 52
		iSKS	N	12 02 41	7	+4				Moscow H 11 38 55
		i	N	03 02	6	+3				Magnitude: 6.4 Uppsala, Kiruna
		eS	E	03 16	10					6¼ Kew
		e(L)	N	15.8	?					5½ Moscow.
		M	N	26.2	21	4				
309	2	iP	V	21 43 06	1½			-	4340	Dilatation.
		iP	NE	43 07	3	+2	-2		39?1	h 0.09 ca., H 21 36 28
		ipP	ZV	44 52	3			+3		
		iPcP	ZV	45 02	2			-4		USCGS: 7½S, 120E, h 600 km.ca.,
		i(pPcP)	E	47 17	4		-2			H 21 36 25
		iS	N	48 25	3	+8				Moscow: h 600 km.ca., H 21 36 25
		iS	Z E	48 27	3		-31	+5		
		i	NEZ	48 33	4	-10	+15	+17		
		iPcS	NEZ	48 40	4	+7	-9	+7		
		i(sS)	N	51 28	(7)	+(6)				
		iSS	NEZ	51 46	6	+15	-13	+12		
		i	Z	51 58	6			+10		
		iScS	N	52 08	5	-8				
		i	N	55 42	4	+6				
		i(sScS)	N	56 07	4	+4				
	3	(iP)	V	07 23 19	1½			-		Masked by microseisms. USCGS: 51N, 179½E, H 07 10 25
310	3	(i)	Z	12 28 17	4			-2		Masked by microseisms.
		e	E	43 43	13					BCIS: 28S, 113W, H 12 16.0
		eLR	NE	53.4	25					
		M	NEZ	58.4	18	1	2	2		

No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
311	May 3	iP	V	14 52 18	1½			-		Dilatation.
		iP	Z	52 20	3			+2		Compression. Microseisms present.
		i	V	52 21	1½			+		USCGS: 12½N, 125½E, H 14 43 03
		i	Z	52 44	3			+2		Moscow: H 14 43 00, Magnitude 5
		S	N	59.7	?					Beginning of S obscured by paper clip.
		iPS	N	59 53	6	-4				
		eSS	N	15 03 18	12					
312	4	iP	ZV	10 12 22	4			+2	3600	Compression. Microseisms present.
		eS	N	17 36	14				32°4	USCGS: 3½S, 137E, H 10 05 45
		e	N	17 50	21					Magnitude: 6.4 Uppsala, Kiruna
		M	NEZ	27.2	12	95ca.	125	105		6.3 Kew, 5¾ Moscow.
313	5	i	Z	00 41 35	4			+2		Masked by microseisms.
		e	N	46 10	?					
		i	N	49 35	7	+5				BCIS: Near East coast of New Guinea,
		M	E	52.3	12		3			H 00 35.2
		M	NZ	53.5	16	6		4		
314	7	iP	V	05 49 26	1½			-		Dilatation. Microseisms present.
										USCGS: 51½N, 179½E, H 05 36 32
315	8	iPg	V	07 13 11	½			-		Quarry blast ??
		iSg	V	13 14½	¾			+		
316	8	eL	N	20 23.7						From Mainka. No Galitzin record.
										USCGS: 15½S, 179E, h 400 km.ca.,
										H 20 09 53
317	10	e	N	18 30 26						
318	11	iP	V	07 43 21	1½			+		Compression. Microseisms present.
										USCGS: 51½N, 178½W, H 07 30 21
319	12	iP	V	05 00 27	1½			-	9550	Dilatation.
		iP	Z	00 28	4			-3	85°9	H 04 47 44
		iP	N	00 29	4	+3				
		iPP	NZ	03 51	4	+3		+3		USCGS: 60½S, 26W, H 04 47 44
		i	Z	04 02	5			+4		
		iS	NE	11 00	6, 7	+3	-4			
		ePS	N	11 59	15					
		eSS	N	16 37	13					
		i	N	16 47	10	-5				
		eLQ	E	22.6	28					
		eLR	N	30.7	32					
		M	NZ	36.2	20	4		3		
		M	NZ	38.5	18	3		4		
		M	E	39.8	16		1			
		M	NZ	41.8	16	3		3		
	12	(iP)	V	07 01 17	1½			+		Masked by microseisms.
										USCGS: 53N, 142E, H 06 48 27
										Moscow: 53N, 142½E, H 06 48 30,
										Magnitude 5½
320	12	iP	ZV	11 37 43	3			+2	5320	Compression.
		i	V	37 51	1½			+	47°9	H 11 28 04
		iPcP	V	39 14	1½			-		
		i	E	39 23	5		+4			USCGS: 8½S, 107½E, H 11 29 07
		eS	N	44 38	7					Moscow: H 11 29 02
		iPS	N	44 44	7	-7				
		ePPS	E	44 51	10					Magnitude: 6¼ Moscow.
		eSS	E	48 05	14					
		iLQ	N	48.9	13	+13				
		eLR	N	51.4	17					
		eL	N	52.5	23					
		eL	E	53.3	25					
		M	NE	56	13	80	36			
		M	Z	57	15			24		
		M	N	58	10	92				
		M	EZ	59	14		45	31		
321	12	e(L)	E	23 50.2	15					BCIS: 15S, 172W, H 23 29 36

No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
	May 17	(iP)	V	02 48 36	1			+		Masked by microseisms. USCGS:18S, 176½W, h 60km.,H 02 42 02
322	18	iP	Z	05 37 11	2			+1	10,290	Compression. Microseisms present.
		iPcP	V	37 12	1½			-	92°6	
		eSKS	N	47 45	7					USCGS: 51N, 171W, H 05 24 01
		eS	N	48 14	7					Moscow: 51N, 170W, H 05 24 05
		M	Z	06 14.4	19			1		Mag.: 6.2 Uppsala, 6 Rome, 5½ Moscow
323	18	iPg	V	06 41 17	¼			+		Compression. Quarry blast ??
		iSg	V	41 20	½			+		
324	20	M	Z	02 42.4	19					Masked by large microseisms. USCGS: 51N, 180°, H 01 50 54 Magnitude: 6 Moscow, 5.7 Uppsala.
	20	i	EZ	02 50 52	4		+5	+4		Masked by microseisms & coda of 324.
		e	E	57 53	6					
325	21	iP	NZV	01 21 31	3	-8		+21	6170ca.	Compression.
		isP	V	22 04	1½			+	55½ca.	h 0.01 ca., H 01 12 03
		i	Z	22 06	6			-7		
		iPcP	Z	22 29	3			+10		USCGS,BCIS: 21½N, 144E, h 100 km.ca., H 01 11 58
		iPP	N	23 45	6	+8				JMA: 21½N, 144½E, h 120 km.ca., H 01 12 07
		i(PcS)	Z	26 19	4			+8		JSA: 21.8N, 144.3E, h 0.01, H 01 12 02
		iS	N	29 06	5	-7				Moscow: h 100 km., H 01 12 06
		iS	E	29 08	5		-13			
		i	E	29 14	5		+18			
		isS	E	29 50	6		+9			
		iScS	NE	31 12	4	-16	-19			
		i(pScS)	N	31 45	4	+8				Magnitude 7-7¼ Pasadena.
		e(G)	E	35.0	27					
	21	(iP)	Z	11 47 27	3			-2		Dilatation. Masked by large micros. USCGS: 36½N, 141½E, H 11 36 06 JMA: 36.3N, 141.5E, H 11 36 08 Magnitude: 4½ Moscow.
326	22	(iP)	Z	13 42 43	3			-4		Masked by large microseisms.
		e	E	53 43	9					USCGS: 50N, 177W.,H 13 29 44
		e	N	54 39	10					JSA:50N, 177.3W, h 0.00, H 13 29 47
		e(SS)	E	59 25	18					Magnitude: 6½ Pasadena, 6.3 Moscow, 6¼ Rome.
		eL	E	14 10.3	(24)					
327	24	eLR	E	03 37.3	28					Masked by microseisms. USCGS: 3N, 76½W, H 02 37 37 JSA: 3.8N,76.6W, H 02 37 47, h 0.00 Magnitude: 6¾ Pasadena, 6½ Berkeley, 6¼ Rome, 6.0 Moscow.
328	24	ePg	V	05 52 41.5	¼					
		iSg	V	52 45.3	½			-		
329	24	(ePg)	V	06 05 51						
		i(Sg)	N	05 54.5		-				
	24	i	E	07 01 11	½					Local ??
330	24	M	EZ	13 10	16					USCGS: 15S, 173½W, H 12 49 14
331	26	ePP	Z	06 55 19						Microseisms present.
		iPKS	Z	56 15	5			-3		
		i	NE	56 25	4	+2	-3			USCGS: 41N, 31E, H 06 33 31
		i	Z	56 27	4			+7		BCIS: 40.7N, 31.2E, H 06 33 30
		i	NE	56 48	4	+2	-3			JSA: 40.6N, 30.8E, H 06 33 35, h 0.00
		i	N	07 00 24	5	+6				
		e(SKKS)	E	02 11	7					Magnitude: 7 Pasadena, Moscow, Athens
		ePS	N	05 27	15					7.1 Uppsala
		i	N	05 47	7	+6				7.1-7.3 Praha
		ePPS	Z	07 13	18					7¼ Rome.
		i	Z	08 25	12			+11		
		e	N	08 28	28					
		e	E	08 46	24					
		eSS	N	13 09	15					

(Continued on next page)

No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
331 cont.	May 26	e	E	07 14 17	40					
		e(SSS)	N	17 41	33					
		eL	E	28.0	(38)					
		eL	N	28.1	(36)					
		eL	N	30.1	(36)					
		e	N	31.9	27					
		eLR	N	35.6	21					
		e	Z	40.3	38					
		M	EZ	47.3	22		82	59		
		M	N	48.0	22	75				
		M	Z	50.0	21			72		
		M	E	50.2	21		96			
		M	N	51.2	21	55				
		M	N	53.0	19	47				
		M	EZ	54.4	20		91	76		
332	26	e(LR)	E	10 39.4	22					USCGS: 41N, 31E, H 09 36 33
333	26	iP	ZV	16 00 38	2			+2		Compression.
		iPcP	Z	03 03	2			-1		
		i(S)	N	06 03	4	-1				USCGS: 3S, 131E, H 15 53 30
		e	E	06 16	6					
		M	E	15.0	18		5			
		M	E	18.1	16		6			
		M	N	19.3	16	6				
		M	Z	19.5	16			5		
334	28	M	E	00 40.1	15		2			Masked by microseisms. USCGS: Samoa Is., H 00 19 10
335	28	iP	V	06 03 39	1			+		Compression. USCGS: 25½N, 95E, H 05 51 30 Shillong: 25.5N, 94.2E, H 05 51 45 Magnitude: 6.0 Uppsala, 5¼ Moscow.
336	28	iP	V	23 24 28	1			-		Dilatation.
		i(pP)	Z	25 19	3			+1		h (0.04)
		i(S)	N	28 24	4	-3				USCGS: 15S, 168E, h 300 km.ca.,
		i	N	28 36	5	+4				H 23 19 39
337	29	iP	V	07 47 48	1½			+		Compression.
(338)		M	E	08 12.3	10		1			2nd shock ??
		M	Z	13.7	13			½		BCIS: 4½S, 121E, H 07 51 22
339	30	iP	Z	00 25 33	4			+2		Compression. Microseisms present.
		i	E	25 37	3		+2			
		i(PP)	EZ	26 44	4		+2	+3		USCGS: 20S, 175W, H 00 18 52
		i	N	31 03	7	+4				Moscow: H 00 18 50
		eL	N	34.4	21					
		M	EZ	37.0	19		8	6		
		M	N	39.2	12	7				
340	30	iP	V	09 06 13	1			-		Dilatation.
341	30	M	E	20 00.6	15		2			Masked by microseisms. BCIS: Tonga Is., H 19 40 58
342	30	iP	V	21 03 33	1			-		Dilatation. Deep focus.
		iS	N	07 43	3	-1				USCGS: 22S, 179W, h 600 km.ca.,
		iS	E	07 44	3		+2			H 20 58 15
343	31	i	V	04 18 22	1			+		Masked by microseisms.
		(eL)	E	27.7	?					
		i	E	30 20	3		+2			
344	31	eL	E	20 22.4	18					Masked by microseisms. BCIS: Fiji Is. region, H 20 04.5
345	31	iP	V	22 30 05	1½			+		Compression. Microseisms present.
		(pP)	V	30 15	1					USCGS: 51N, 179½W, H 22 17 10 Moscow: 51N, 179W, H 22 17 11 Magnitude: 6.0 Uppsala, Kiruna 5¾ Moscow.

No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
346	June 4	iP	V	11 20 34	1½			-		Dilatation.
		i(pP)	V	21 02	1½			-		
		i	V	21 11	2			+		USCGS: 10½S, 166½E, H 11 14 50
		i	V	21 25	1½			+		
		eS	N	25 07	6					
		i	E	25 41	6		-2			
		i	N	26 01	6	+2				
		i	N	26 41	4	+1				
		M	N	30.4	15	2				
347	4	iP	EZV	17 10 48	2		+2	-6	3450	Dilatation.
		i	V	10 56	1			+	31?0	h 0.08, H 17 05 13
		i(pP)	V	12 12	1			+		
		ePP	Z	12 21	6					USCGS: 17½S, 178W, h 550 km.ca.,
		iS	NE	15 16	5	-6	+9			H 17 05 02
		i	E	16 02	4		+3			JSA: 17.8S, 178.4W, h 0.08,
		i	V	16 14	1½			-		H 17 05 09
		i(ScP)	E	16 29	3		+3			Magnitude: 6¼-6½ Pasadona.
		i	Z	18 15	4			+2		
		i	E	18 19	5		+2			
		iScS	E	20 16	4		+6			
		iScS	N	20 17	4	-3				
348	4	iP	ZV	22 41 02	2			+1		Compression. Microseisms present.
		M	EZ	55.3	16		2	2		BCIS: 16S, 173W, H 22 34 24
		M	N	56.2	12	2				
	6	(iP)	V	03 43 20	1			+		Masked by microseisms.
										USCGS: 52N, 178W, H 03 30 22
349	6	(iP)	V	14 28 20	1½			+		Masked by microseisms.
		eL	E	34.9	?					
		M	E	37.1	18		3			
350	6	eL	E	15 20.9	27					Masked by microseisms.
		M	E	23.5	19		5			
351	6	iP	ZV	19 57 57	3			+1	4780	Compression.
		i	V	57 59	1			-	43?0	
		i(sP)	V	58 03	1½			-		USCGS: 3N, 126½E, H 19 49 47
		i	V	58 11	1½			-		
		eS	N	20 04 23	10					Magnitude: 6.1 Kiruna,
		i	E	04 27	6		+3			6¼ Matsushiro.
		iSS	NE	07 36	7	+4	+4			
		e(LQ)	E	07.9	15					
		eL	E	11.3	(25)					
		M	E	14.6	22		8			
		M	NEZ	18.5	19	10	8	10		
352	7	iP	V	20 58 26	1½			-		Dilatation.
										BCIS: 19½S, 180°, H 20 52 24
353	8	(i)	N	03 30 15						Masked by microseisms.
		(eL)	E	37.2	(30)					
		M	E	41.0	19		3			USCGS: 3S, 147½E, H 03 23 33
		M	NZ	44.1	15	3		3		
354	8	(iP)	V	03 58 50	1½					Masked by microseisms & coda of 353.
		M	E	04 13.7	12		2			BCIS: New Hebrides region,
		M	N	14.8	12	2				H 03 54 00
355	8	iP	ZV	06 14 08	2			+2	3450	Compression.
		eS	E	19 13	7				31?0	H 06 07 47
		eSS	E	20 59	8					
		eSSS	N	21 20	9					USCGS: 2½S, 150E, H 06 07 47
		eL	E	22.0	28					
		i	N	24 17	7					
		M	N	25.7	19	6				
		M	Z	26.3	18			5		
		M	E	26.8	15		8			
356	8	M	N	21 49.1	13	2				USCGS: 7S, 102½E, H 21 19 42

No.	Date	Phase & Component	Time (G.M.T.)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1957		h m s	s	μ	μ	μ	km.	
357	June 8	iP Z	22 31 10	4			+3	2410	Compression.
		PPP N	31 48	6	1			21°7	
		iS NEZ	35 06	6	+9	-3	+5		USCGS: 19½S, 168E, H 22 26 17
		eL Z	36.5	21					
		M E	38.2	18		4			
		M Z	38.4	18			5		
358	9	i(P) V	02 31 15	1			+		Compression.
359	9	(P) V	11 48 18	1½					BCIS: Loyalty Is., H 11 43.4
360	10	iP V	01 07 32	1			-	4390	Dilatation.
		iP NEZ	07 35	3	+4	-5	-10	39°5	h 0.015 ca., H 01 00 13
		ipP EZ	08 00	3		+6	+10		
		isP Z	08 12	4			+3		USCGS: 9S, 117E, H 00 59 54
		iPP Z	09 10	4			+11		JSA: 8.3S, 118.2E, h 0.00,
		iPP E	09 11	4		+10			H 01 00 03
		iPPP E	09 34	(5)		-(9)			
		i(PcS) Z	13 18	4			+6		Magnitudo: 6¾ Pasadena, Matsushiro
		iS N	13 24	6	-28				6.6 Uppsala, Kiruna
		iS E	13 27	5		-7			6.4 Rome.
		i N	13 58	6	+6				
		i E	14 16	5		-5			
		SS N	16 21	?					
		iSS E	16 22	6		-17			
		i Z	16 29	9					
		i E	16 31	5		+14			
		i N	16 37	4	+29				
		i E	17 11	7		+29			
		M N	34.6	11	23				
		M NEZ	35.4	14	17	30	22		
361	10	iP NZV	03 21 36	4	+1		-2		Dilatation.
		i V	22 00	1½			+		USCGS: 13½N, 143½E, h 150 km.ca.,
		i Z	22 04	4		+2			H 03 13 11
		i V	22 08	1½			+		JSA: 13.3N, 144.1E, h 0.02,
		M E	37.7	16		3			H 13 03 18
		M Z	41.5	19			2		Moscow: h 150 km., H 03 13 22
		M N	41.9	18	3				Magnitudo: 6¾-7 Pasadona,
									6.0 Kiruna, Rome.
362	10	iP ZV	06 09 10	4			-2		Dilatation.
		ePP Z	09 37	6					BCIS: 19S, 169½E, H 06 04 10
		(eS) E	13 12	?					
363	11	iP V	14 55 18½	1½			+	2870	Compression.
		iP EZ	55 19½	3, 6		-8	+10	25°8	h 0.00, H 14 49 48
		i EZ	55 22	2		-9	+10		
		ipP Z	55 27	7			+20		USCGS: 30S, 178W, h 100 km.ca.,
		isP V	55 30	1½			+		H 14 49 47
		i Z	55 38	7			+13		JSA: 30.4S, 177.9W, h 0.01,
		i V	55 42	1½			+		H 14 49 50
		iPP V	55 58	1½			+		
		iPPP E	56 11	9		+27			Magnitudo: 6¾-7 Pasadona
		iS N	59 43	6	+11				6.8 Rome
		i E	59 47	9		-27			6½ Moscow, Lwiro.
		i(sS) N	15 00 03	8	+16				
		i Z	00 13	7			+27		
		i N	00 20	6	+10				
		i N	00 33	8	+25				
		i N	00 59	7	+26				
		eL E	01.0	24					
		iM Z	02 23	10			+23		
		iM E	02 24	16		+110			
		M N	03.8	16	51				
		M Z	04.5	17			82		
		M E	04.6	17		99			

No.	Date	Phase & Component		Time (G.M.T.	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
364	June 11	iP	V	18 59 31	1½			+	6450	Compression.
		i	V	59 35	1½			+	58°0	H 18 49 34
		i	V	19 00 07	1½			+		
		i	V	00 19	1½			+		USCGS: 18N, 120½E, H 18 49 24
		i	Z	02 14	4			-2		Moscow: 18N, 121½E, H 18 49 32
		ePPP	N	03 02	7					
		ePPP	EZ	03 04	7					Magnitude: 6.8 Uppsala, Kiruna
		i	EZ	03 19	4		+3	+2		6.7 Rome
		i	N	03 46	5	+3				6½ Moscow.
		iS	N	07 30	7	-3				
		i	E	07 34	7		-7			
		i	Z	07 38	7			-4		
		iPS	N	07 44	9	-8				
		iPPS	E	07 53	10		-7			
		i	Z	08 03	7			+5		
		iScS	N	09 21	7	-8				
		i	N	09 59	4	+5				
		e	E	11 54	30					
		e	N	12 17	29					
		eL	E	15.9	38					
		M	E	20.8	23		26			
		M	Z	22.3	21			8		
		M	N	23.7	21	16				
365	11	M	EZ	24 43	18		2	1		USCGS: 52N, 176W, H 23 53 57
										Moscow: 50½N, 175W, H 23 53 54
										Mag.: 6.1 Uppsla, 6 Moscow.
366	12	iP	ZV	08 40 17	3			+1	8400	Compression.
		i	V	40 24				+	75°6	USCGS) : 41½N, 142½E, H 08 28 34
		i	Z	40 25	3			+1		Moscow
		eS	N	49 58	9					JMA: 41.1N, 142.9E, h 40 km.ca.,
		ePPS		50 53	?					H 08 28 35
		eL	E	09 01.3	25					Magnitude: 6.2 Uppsala, Kiruna
		M	NEZ	14.7	19	1	½	1		6.1 Matsushiro, 6 Moscow.
367	13	iP	V	10 53 42	1			+	10,070	Compression.
		ipP	ZV	53 50	4			+3	90°6	h 0.00, H 10 40 42
		isP	ZV	53 55	4			+5		
		iSKS	N	11 04 11	6	+9				USCGS: 51½N, 175W, H 10 40 38
		iSKKS	N	04 22	6	-4				JSA: 51.8N, 175.2W, h 0.00,
		iS	E	04 33	10		-11			H 10 40 42
		iScS	N	04 35	7	-17				Moscow: 51N, 175W, H 10 40 40
		isS	E	04 52	10		-17			
		i	N	04 57	7	-5				Magnitude: 7.1 Praha
		i	N	05 37	7	-5				7 Pasadona, Romo,
		ePS	Z	05 46	13					Matsushiro
		e	N	06 00	22					6.9 Uppsala, Kiruna
		eSS	E	10 12	19					6¾ Moscow, Lwiro.
		eSS	Z	10 39	22					
		i	N	10 43	7	+7				
		eG	E	18.0	45					
		eLR	Z	22.1	33					
		M	NEZ	29.0	19	12	10	7		
		eW_2	Z	13 02	19					
		M	NEZ	05	19	8	4	7		
368	13	iP	V	20 30 56	1		+			Compression.
										USCGS: 3S, 101E, h 150km, H 20 21 42
369	14	iP	V	05 47 42	1½			+		Compression.
										USCGS: 16½S, 168½E, H 05 42 38
370	14	iP	V	06 37 20	1½			+	10,110ca	Compression. h 0.00
		iP	Z	37 21	3			+1	91°ca.	USCGS: 52N, 175½W, H 06 24 20
		isP	V	37 35	1½			+		JSA: 52.0N, 176.2W, h 0.00, H 06 24 23
		iS	E	48 12	6		-2			Moscow: H 06 24 17
		M	E	07 13.4	23		1			Magnitude: 6¼ Borkoloy, 6.1 Romo,
										6.0 Matsushiro,
										5.9 Uppsala, 5¾ Moscow.

No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
371	June 15	i	Z	00 56 30	4			+2		Masked by large microseisms.
		e(S)	N	01 05 53	10					USCGS: 34S, 56E, H 00 44 15
		eLQ	N	17.1	27					Moscow: 34½S, 56½E, H 00 44 13
		eLR	EZ	20.4	30					Magnitude: 6.4 Kew, 6¼ Lwiro,
		M	NEZ	24.8	18	2	2	2		6-6¼ Pasadena, 5½ Moscow.
372	15	e(S)	E	18 42 24	(10)					Confused by microseisms.
		e(SSS)	E	52 16	(22)					USCGS: 52N, 171W, H 18 18 20
		e(LQ)	E	57.2	(25)					Magnitude: 6-6¼ Matsushiro, 6.1 Romo
		e(LR)	E	19 01.3	(34)					6 Berkeley, 5.8 Uppsala
		M	E	06.6	(19)					5¾ Moscow.
373	17	iP	V	06 23 55	1½			+		Compression. Confused by microseisms.
		i(PP)	E	25 24	5		-2			USCGS: 15S, 173½W, H 06 16 44
		i(PP)	Z	25 27	5			-2		
		i(PPP)	Z	25 47	4			-3		Magnitude: 5¾ Pasadena.
		eLR	E	33.5	24					
		M	E	36.1	20		2			
		M	N	36.3	13	1				
		M	Z	37.4	17			1		
374	18	iP	V	02 23 35	2			-	8010	Dilatation.
		i	ZV	23 42	3			-3	72°1	Galitzin record confused by irreg-
		iS	N	32 57	5	+3				ular long-period microseisms.
	---	(eSS)	N	37 33	?					---iS E 32 59 per.5s -2μ
		e	E	38 02	13					USCGS: 14½N, 96E, H 02 12 12
		eSSS	E	40 46	12					Moscow: 13½N, 96½E, H 02 12 13
		e	N	41 32	16					
		(eLQ)	N	42.6	(25)					Magnitude: 6½ Matsushiro
		M	N	52.1	20	6				6.4 Uppsala, Kiruna
		M	Z	53.7	24			5		5.9 Romo
		M	E	54.0	22		4			5¾ Moscow.
375	18	(i)	Z	09 11 58	3			+1		Masked by microseisms.
		M	N	33.8	15	½				
376	18	(eS)	E	11 37.0						Masked by microseisms.
										USCGS: 18N, 120½E, H 11 18 53, h 60km.
										Magnitude 5-5¼ Matsushiro.
377	18	eP	Z	14 59 41	6				8010	
		i	V	59 48	1½			+	72°1	
		i	Z	59 49	4			-5		USCGS: 14N, 96E, H 14 48 17
		ePP	Z	15 02 26	6					
		iS	N	09 03	6	+3				Magnitude: 6.7 Uppsala, Kiruna
		iS	E	09 06	6		-2			6.6 Kew
		i	N	09 15	6	+4				6½ Matsushiro
		ePS	N	09 33	6					6.3 Romo
		e	N	09 50	7					6 Moscow.
		eSS	N	13 51	16					
		eSS	E	13 56	19					
		eSSS	N	17 07	(22)					
		e	E	17 31	18					
		eLQ	E	18.6	(30)					
		eLR	E	21.9	20					
		M	NEZ	28.2	21	11	8	3		
		M	EZ	30.0	24		11	8		
		M	N	30.4	22	13				
378	18	iP	NEZV	18 00 24	4	+14	+42	-38	2060 ca	Dilatation.
		iPP	NEZ	00 36	4	+15	+38	-38	18°5 ca	H 17 56 05 ca.
		iPPP	NEZ	00 45	4	+9	+18	-15		
		i	EZ	00 54	4		+22	-11		USCGS: 25S, 170E, H 17 56 03
		i	E	01 03	5		+23			
		i	N	01 05	4	+15				Magnitude: 6¾ Matsushiro
		i	E	03 56	7		+13			6.3 Moscow
		i	N	04 00	4	-11				6¼ Romo, Lwiro
	---	i	EZ	04 06	5		+26	+27		6 Pasadona.
		i	E	04 10	4		+21			
		iSS	N	04 12	7	-71				---i N 04 05 per.6s, +56μ

(Continued on next page)

No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
378 cont.	June 18	iSS	Z	18 04 13	7			-23		
		eL	E	04.5	27					
		eLR	Z	04.8	22					
		M	Z	06.5	18			75		
		M	E	06.6	16		80			
		M	N	06.8	13	80				
		eW_2	N	20 58.4	22					
379	19	iP	ZV	01 36 05	3			+2	3450	Compression.
		ipP	V	36 15	1½			+	3190	h.00, H 01 29 48
		iPP	Z	37 07	6			+4		
		iPP	E	37 08	6		-4			USCGS: 24S, 175½W, H 01 29 48
		iPPP	EZ	37 23	4		-4	+3		JSA: 23.9S, 176.0W, h 0.00
		i	N	38 26	4	+1				H 01 29 54
		iS	N	41 06	5	-2				Moscow: H 01 29 46
		i	E	42 19	6		+3			
		i	N	42 27	5	-2				Magnitude: 6¼-6½ Pasadena
		iSS	E	42 53	6		+3			6.3 Moscow
		eLQ	NE	43.0	21					6 Romo.
		iSSS	N	43 17	7	-5				
		eLR	NZ	44.4	28					
		M	N	45.5	16	12				
		M	EZ	46.3	19		27	19		
380	19	iP	V	08 07 33	1			+	3180	Compression.
		i	V	07 34	1½			-	2896	h 0.00, H 08 01 37
		i	NEZ	07 37	3	-5	-8	+12		
		i(pP)	ZV	07 42	3			-10		USCGS: 16½S, 176½E, H 08 01 30
		i	NE	07 44	4	+5	+5			JSA: 16.5S, 176.8E, h 0.00,
		isP	ZV	07 46	3			+7		H 08 01 34
		i	NEZ	08 02	3	-3	-3	+6		
		iPP	Z	08 21	6			+5		Magnitude: 6.8 Uppsala, Kiruna
		iPP	NE	08 22	6	-3	-5			6¾ Berkeley, Lwiro
		eS	E	12 17	10					6.6 Romo
		i	NE	12 24	6	+7	+9			6½ Pasadena, Matsushiro
		m	NE	12 36	9	16	29			6.3 Moscow.
		i	N	12 50	6	+3				
		i	N	14 20	7	+19				
		eLR	NEZ	15.6	24					
		M	EZ	17.5	17		64	47		
		M	N	19.5	12	34				
381	20	i(P)	V	01 15 46	1½			-		Dilatation. Masked by microseisms.
		i	Z	16 21	4			+2		USCGS: 20 N, 145½E, H 01 06 25
		i	Z	19 04	3			-1		Moscow: 20N, 144½E, H 01 06 40
		e	E	23 06	12					
		e	E	25 27	8					Magnitude: 6.0 Uppsala, Kiruna
		eL	Z	29.3	24					5½ Moscow.
		M	E	32.4	18		2			
382	22	e(PS)	E	06 49 26	13					Obscured by large microseisms.
		eSS	E	56 17	18					USCGS: 16N, 94W, H 06 19 06
		eLR	E	07 14.5	29					JSA: 16N, 93.7W, h 0.00, H 06 19 10
										Moscow: h 80 km., H 06 19 10
										Magnitude: 7.1 Uppsala, Kiruna
										6½ Pasadena, 6¼ Romo.
383	22	iP	NZ	23 57 16	4	-8		+17		Compression.
		i	Z	57 21	4			+8		Galitzin records difficult to read.
		i	NE	57 23	4	+14	-9			* From Mainka.
		i	E	24 02 33	6		-10			USCGS: 1½S, 137E, H 23 50 23
	*	e(S)	E	02 48						JSA: 1.6S, 136.6E, h 0.00, H 23 50 26
		iS	E	02 55	7		+28			Moscow: H 23 50 24
		i	N	02 57	9	-70				Magnitude: 7¾ Skalnate Pleso
		i	N	03 30	9	-94				7¼-7½ Matsushiro
		i	N	03 46	7	+68				7.3 Romo, 7¼ Pasadena
		i	E	05 13	7		-61			7.2 Uppsala, Kiruna
	*	eL	E	06.0	35					7-7¼ Berkeley, Lwiro
		i	N	07 13	6	-44				7 Moscow.
	*	M	NEZ	10.9	15	545*	795*	145		

(Continued on next page)

No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
383	June 23	eW2	NZ	26 40	22					
cont.		M	NEZ	47	22	6	5	6		
384	23	e	E	03 51 45	13					Masked by large microseisms.
		eL	N E	54.2	23					USCGS: 14S, 173½W, H 03 38 25
		M	N	58.5	12	3				
		M	EZ	04 00.5	15		7	7		
385	24	e	E	01 07 37	9					Masked by microseisms.
		eL	E	08.9	18					
		M	N	09.3	6	4				
		M	E	10.4	7	5	5			
		M	Z	12.1	11			2		
386	24	iP	V	11 28 55	1½			+	4460	Compression. Microseisms present.
		e	N	30 49	15				40?1	
		eS	N	35 02	8					BCIS: 10S, 116E, H 11 21 13
		i	E	35 09	6		-2			USCGS: About 300 km. south-east of
		M	NEZ	43.8	15	9	5	2		Java, H 11 21 15
		M	N	54.0	10	8				
		M	EZ	56.1	10		6	6		
387	25	iP	ZV	10 22 33	4			+3		Compression.
		M	NE	50.7	25	1	1			USCGS: 10N, 94E, H 10 11 17
		M	Z	51.3	25			1		Moscow: H 10 11 22
388	26	(P)	E	02 58 29						Masked by microseisms.
		iS	N	03 07 29	6	+3				USCGS, BCIS) 7½S, 85½E, H 02 47 36
		eL	N	17.2	33					
		M	N	20.4	15	4				Moscow: 6S, 86E, H 02 47 43
		M	EZ	24.4	21		4	2		Mag.: 5¾Matsushiro, 5 Moscow.
389	26			13 08	Waves.					BCIS: Off E. coast of New Guinea.
390	27	iP	ZV	00 22 53	4			+5	10,400	Compression.
		i	N	22 58	6	+4			93?6	
		i	Z	23 12	6			+13		USCGS, BCIS) 56½N, 116E, H 00 09 28
		i	N	23 14	7	-5				
		i	N	25 51	5	+3				
		iPP	Z	26 38	6			-5		JSA: 56½N, 116E, h 0.00, H 00 09 32
		i	N	26 49	6	-9				Moscow; 56½N, 117E, H 00 09 30
		i	Z	27 01	6			+16		
		iSKS	NE	33 35	7	-15	+7			Magnitude: 8 Lwiro, Praha
		iS	E	34 00	8		+15			7.9 Uppsala, Kiruna
		i	N	34 12	7	+29				7½-7¾ Strasbourg, Borkoloy
		i	E	34 26	12		+27			7½ Pasadena.
		ePS	E	35 17	15					
		iPS	E	35 28	9		-8			
		iPS	Z	35 30	7			+21		
		i	N	35 32	9	-38				
		i	N	35 44	11	+63				
		PPS	E	35 53	?					
		i	N	36 02	9	+31				
		i	Z	36 17	11			+25		
		i	N	36 24	10	-40				
		i	N	37 21	12	+32				
		i	E	38 23	7		+17			
		eSS	N	40 42	33					
		i	E	40 45	10		+44			
		e	EZ	40.9	38					
		i	E	41 26	9		+36			
		i	N	41 35	15	+70				
		e	E	41.8	27					
		i	N	44 30	10	+19				
		i	E	45 18	10		-21			
		i	E	45 50	13		-35			
		eL	E	46.2	40					
		i	N	46 30	9	+16				
		i	N	47 41	12	-33				
		i	E	49 05	13		+44			
		i	E	49 50	12		-31			

(Continued on next page)

No.	Date	Phase & Component		Time (G.M.T.T	Por.	Amplitudo AN	Amplitudo AE	Amplitudo AZ	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
390 cont.	June 27	eLR	E	00 52.2	34					
		eLR	Z	52.3	31					
		M	E	01 00.0	24		125			
		M	NZ	02.6	22,25	110		95		
		M	E	05.7	19		68			
		M	NZ	08.6	18	90		72		F 04.5h
391	27	iP	V	12 54 38½	1			-	2420	Dilatation.
		i	V	54 50	1½			-	21?8	H 12 49 43
		iPP	V	55 03	1½			+		
		iPPP	Z	55 12	4			+3		USCGS: 22S, 171E, H 12 49 51
		iS	N	58 36	9	+5				
		iPcP	Z	58 38	3			+2		
		i	E	58 39	6		+5			
		i	Z	58 41	6			+3		
		eL	N	59.6	19					
		eLR	E	59.9	25					
		M	NEZ	13 02	15,17	1	2	2		
392	28	(P)	Z	00 38 54						Microseisms present.
		i	Z	39 04	?			+		
		eS	E	42 50						BCIS: Repetition of no.391,
		i	E	42 53	6		+5			H 00 34 07
		iPcP	Z	42 56	5			+5		
		eLQ	E	43.1	16					
		eLR	E	44.2	18					
		M	NEZ	46.0	16,18	2	2	2		
393	28	iP	V	18 57 31	1½			+	2400	Compression.
		i	V	57 52	1½			+	21?6	H 18 52 38
		ePP	E	57 57	7					
		eS	E	19 01 26						BCIS: 22S, 171E, H 18 52 45
		iPcP	E	01 33	4		+3			
		iPcP	Z	01 34	4			+3		
		eLQ	E	01 39	16					
		eLR	E	02.9	19					
		M	NEZ	04.7	13,17	1	2	1		
	29	i(P)	V	04 33 33	1½			+		Compression. Seismic ??
		i	V	33 46	1½			+		
394	July 1	(iP)	V	19 42 13	1½			+		Masked by large microseisms.
		i	Z	42 17	3			+2		
		i	V	42 39	1½			-		USCGS: 25N, 94E, H 19 30 16
		iSKS	N	52 20	7	+6				Moscow: h 100 km.,H 19 30 23
		iScS	E	52 29	4		+3			Uppsala: h 80 km.
		iPS	N	53 09	9	+4				
		e	NE	53 39	9					Magnitude: 7¼ Matsushiro
		eLQ	NE	20 03.3	27					6.7 Uppsala, Kiruna
		eL	E	05.7	60					5.7 Reykjavik.
		eL	N	06.0	50					
		M	NE	10.1	25,30	16	11			
		M	E	14.1	24		6			
		M	N	15.3	24	11				
395	± 2	iPP	Z	01(02 08)	4			+3		Masked by large microseisms & con-
		e	N	09.8	9					fused by work going on in vault.
		iPS	E	11 45	7		-5			USCGS: 36N, 53E, H 00 42 23
		i	N	11 47	4	+4				BCIS: 36.1N, 52.3E, H 00 42 24
		iPPS	E	13 00	8		-4			JSA:35.9N,52.4E, h 0.00, H 00 42 26
		eL	Z	41.5	28					Moscow:36N, 52½E, H 00 42 27
		M	N	46.6	24	12				Shillong:37N, 52.5E, H 00 42 21
		M	Z	48.7	24			19		Magnitude: 7¼-7½ Pasadona
		M	E	49.0	24		24			7.5 Matsushiro
										7.2 Uppsala, Kiruna
										7¼ Lwiro
										7.1 Praha.

No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks.
	1957			h m s	s	μ	μ	μ	km.	
396	July 3	iP	Z	06 07 43	3			+4		Compression. Large microseisms present.
		iS	E	11 44	4		+5			
		i	E	14 12	4		+3			USCGS:24S,180°,h 550 km.ca,H 06 02 37
397	3	(iP)	V	12 37 34	1½			+		Masked by large microseisms.
		ePS	N	49 24	10					USCGS: 50½N, 179W, H 12 24 37
		eL	N	13 05.5	?					Magnitude: 6½-6¾ Matsushiro
		M	N	09.1	22	3				6.7 Uppsala, Kiruna,
										6.5 Tacubaya
										6-6¼ Pasadona, 5.8 Romo.
398	4	iP	V	08 38 21	1			+		Compr. Masked by microseisms.
										USCGS: 4S, 102E,h 100 km.,H 08 29 01
										Mag.: 6¾ Matsushiro, 5.3 Moscow.
399	4	eL	E	09 59.5	18					BCIS: Kermadec Is., H 09 45.5
										Magnitude: 5.5 Wellington.
400	4	eL	N	14 27.3	19					USCGS:5.2S, 152E, H 14 11 36
401	4	i(sP)	Z	19 29 48	3			+2		Masked by microseisms.
										USCGS: 20N, 146E,h 150 km,H 19 19 45
402	5	iP	V	12 39 30	1½			+		Compression. Microseisms present.
		iP	Z	39 31	4			+3		
		i	Z	39 54	5			-3		USCGS: 28½S, 179W, H 12 33 56
		e	N	44 38	11					
		e	N	45 16	18					Magnitude: 6¼ Matsushiro.
		eLR	Z	46.2	28					
		M	NEZ	48.9	16	3	5	5		
403	7	(iP)	Z	15 41 34	3			+2		Masked by microseisms.
		i	Z	41 48	3			+2		
		i	N	46 07	4	+3				BCIS: 13½S, 165½E, H 15 36 15
		M	N	50.0	16	2				Magnitude: 5¾ Matsushiro
		M	EZ	50.9	16		2	2		
404	7	iP	V	16 17 03½	1			-	3020	Dilatation.
		i	V	17 06½	1½			-	27°2	h 0.00, H 16 11 21
		ipP	ZV	17 13	2			+3		
		isP	ZV	17 18	3			+6		USCGS: 6½S, 156E, H 16 11 15
		i	NZ	17 36	4	+3		-3		JSA: 6.7S, 155.3E, h 0.00,
		iPP	Z	17 53	4			-4		H 16 11 20
		iS	N	21 39	9	-16				Magnitude: 6¾ Pasadona
		i	Z	21 41	4			-3		5½ Moscow.
		isS	N	21 57	5	+5				
		i	Z	22 00	6			+8		
		i	E	22 06	5		+10			
		i	N	22 11	7	+23				
		i	N	22 31	9	+26				
		i	E	22 36	6		+8			
		iSS	N	22 54	7	+18				
		i	E	23 19	6		-8			
		eL	N	23.9	27					
		eL	Z	24.6	30					
		M	E	26.6	13		10			
		M	N	27.6	18	24				
		M	Z	27.8	17			14		
405	9	iP	Z	10 07 14	2			-1	5810	Dilatation. Large microseisms
		ipP	Z	07 28	3			+4	52°3	present.
		i	Z	07 49	3			+3		h 0.005 ca., H 09 58 06
		iS	E	14 33	6		+3			
		iS	N	14 34	4	+4				USCGS: 6S, 104E, h 60 km.ca.,
		isS	E	14 58	5		-4			H 09 58 09
		eLR	N	23.7	28					Magnitude: 6½ Matsushiro
		M	N	27.7	16	5				6.1 Uppsala, Kiruna
		M	EZ	30.8	20		10	10		5½ Moscow, Romo.
		M	N	31.0	17	9				

No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
406	July 10	(i)	Z	09 24 29	3			+4		Masked by large microseisms.
		e(PS)	E	35.3	?					USCGS: 8N, 82½W, H 09 04 08
		e	E	37.6	18					JSA:7.8N,82.3W, h 0.00, H 09 04 15
		eSS	E	41.9	19					Magnitude: 7-7¼ Matsushiro
		eLR	E	10 02.9	30					6¾-7 Berkeley
		M	Z	09.5	18			8		6.9 Reykjavik
		M	NE	09.8	18	4	5			6½-6¾ Pasadena
										6.6 Uppsala, Kiruna
										6¼ Moscow, 6.2 Rome.
407	12	e(L)	N	08 31.4						Masked by microseisms.
										BCIS: Banda Soa, H 08 10.6
408	12	(iP)	V	21 02 38	1½			+		Masked by microseisms.
		eS	N	07 41						
		i	N	08 19	5	+4				USCGS: 3S, 148½E, H 20 56 18
		eL	N	12.7	24					
		M	E	13.8	17		8			Magnitude: 6¼ Matsushiro.
		M	N	14.5	16	5				
		M	Z	15.6	17			4		
409	12	eL	E	22 15.0	24					USCGS: 3S, 148½E, H 21 58 45
		M	NE	18.7	12	2	5			Magnitude: 6 Matsushiro.
410	13	e	E	09 45 31	16					Masked by microseisms.
		eL(Q)	N	47.9	23					USCGS: 15S, 173W, H 09 32 05
		eL(R)	E	50.4	22					Magnitude:6¼ Matsushiro.
		M	EZ	53.4	17		3	3		
411	14	iP	V	06 29 31	1½			+	3050	Compression.
		iP	EZ	29 32	3		-5	+6	27°4	h 0.02, H 06 23 59
		i	V	29 48	1½			-		
		i	EZ	30 14	4		-10	+14		USCGS: 27S, 178W, h 150 km.ca.,
		isP	Z	30 23	4			+15		H 06 23 52
		isP	E	30 24	4		-13			JSA: 26.7S, 178.1W, h 0.02,
		iPP	N	30 29	4	-3				H 06 23 57
		m	EZ	30 32	6		24	25		Moscow: h 200 km., H 06 24 00
		iPPP	EZ	30 46	5		-43	-25		
		i	N	31 00	5	-14				Magnitude: 7½ Rome
		i	N	31 25	5	+11				7-7¼ Pasadena
		i	E	31 32	10		-53			7 Tacubaya
		i	N	32 22	7	-12				6¾ Berkeley
		i	N	33 43	7	+12				6.7 Kiruna.
		iS	E	33 58	6		+24			
		i	N	34 20	7	+16				
		i	E	34 26	7		+47			
		i	N	34 38	7	-31				
		i	E	34 40	7		+39			
		i	N	35 07	7	+16				
		i	N	35 17	7	+43				
		i	EZ	35 19	7		+52	-23		
		i(SS)	N	35 27	10	+50 ca,				
		i	E	35 41	7		+44			
		i	N	36 01	(11)	+(28)				
		eL	E	36.3	24					
		M	N	36.5	17	89				
		i	N	37 08	7	+33				
		M	EZ	39.1	16		50	52		
		iScS	N	39 58	6	-33				
		i	E	40 01	6		-20			
		M	N	40.7	13	49				
412	14	iP	EZV	08 16 32	4		-5	+6		Compression.
		ipP	V	16 41	1½			+		
		i	EZ	16 50	4		-6	+8		USCGS: 30S, 177W, H 08 10 45
		i	Z	16 59	4			+9		JSA: 30.0S, 177.4W, h 0.00,
		i(PPP)	E	17 32	9		+17			H 08 10 50
		i	Z	17 45	6			-21		Magnitude: 7 Berkeley
		i	E	17 51	5		+17			6.9 Uppsala, Kiruna
		i	N	18 01	5	+8				6¾ Pasadena.

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RIVERVIEW COLLEGE OBSERVATORY
SEISMOLOGICAL BULLETIN, July, 1957.

No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
412 cont.	July 14	i	E	08 18 21	6		-12			
		i	E	21 16	6		+18			
		i	E	21 38	6		+9			
		i	E	22 04	8		-20			
		eL	E	22,6	(24)					
		i	N	22 44	7	+14				
		i	N	22 55	9	-24				
		eLR	EZ	23.5	27					
		M	EZ	24.2	24		73	73		
		M	N	24.6	18	37				
413	14	iP	Z	09 49 06	4			+3	3680	Compression. Confused by microseisms
		eS	E	54 25	?				33°1	and coda of 412.
		M	N	10 00.6	15	6				USCGS: 20S, 174½W, H 09 42 27
		M	EZ	02.0	16		9	9		Magnitude: 6½ Matsushiro.
414	16	(iP)	Z	17 05 40	3			-1		Masked by microseisms.
		M	E	27.9	15		2			BCIS: 1S, 118E, H 16 57.2
										Magnitude: 5½-5¾ Matsushiro.
415	17	iP	NEZV	11 15 49	4	-10	-10	+18	2940	Compression.
		isP	NE	16 25	5	+10	+10		26°4	h 0.01, H 11 10 20
		isP	Z	16 28	5			+32		
		i	N	16 45	5	+19				USCGS: 11S, 167E, H 11 10 10
		i	Z	16 56	5			+12		JSA: 11.4S, 166.7E, h 0.00,
		i	NE	17 00	5	+14	+10			H 11 10 13
		i	NE	17 33	5	+10	+11			Moscow: h 100 km., H 11 10 20
		i	Z	17 58	4			+11		
		i	N	18 20	5	-10				Magnitude: 6½ Berkeley
		iPcP	Z	19 13	3			+7		6¼-6½ Pasadena
		iS	N	20 13	8	-36				6.3 Uppsala, Kiruna.
		iS	E	20 14	7		-8			
		i	Z	20 15	6			+15		
		i	N	20 26	7	-27				
		i	Z	20 38	7			-18		
		i	E	20 44	4		+12			
		isS	E	20 55	7		+14			
		i	N	20 58	6	-				
		i	E	21 08	5		+11			
		i	Z	21 11	7			+28		
		m	NE	21 26	9,12	29	40			
		i(SS)	Z	21 31	7			+28		
		i	N	21 35	6	-19				
		i	N	21 58	4	+23				
		M	E	23.9	10		25			
		M	NZ	24.3	13	30		14		
416	17	iP	ZV	12 32 58	3			+2		Compression. Microseisms present.
		eL	N	44.5	28					USCGS: 2S, 137E, H 12 26 06
		M	E	46.4	15		15			
		M	N	48.3	15	13				
417	18	e(S)	N	11 22 04						Masked by microseisms.
		eL	E	24.7	30					USCGS: 5S, 146E, H 11 10 58
		M	E	27.4	21		16			
		M	NZ	28.6	16,18	12		5		
418	18	i(sS)	E	12 27 24	6		-5	-		Masked by microseisms.
		i	N	27 40	4	+3				USCGS: 30N, 139E, h 400km., H 12 06 39
										JMA: 30½N, 139E, h 400km., H 12 06 49
										Magnitude: 6.1 Uppsala, Kiruna.
419	18	eL	E	20 05.0	?					Masked by microseisms.
		M	NE	11.8	14	2	2			
420	19	eP	Z	13 12 44					7190	Masked by microseisms.
		ipP	Z	13 09	3			+2	64°7	h 0.01, H 13 02 14
		eS	N	21 15	7					USCGS: 25N, 122½E, H 13 02 05
		e(PPS)	N	21 59	13					Moscow: h 100 km., H 13 02 10
		eL	E	32.8	22					Magnitude: 6-6¼ Matsushiro.
		M	N	39.5	20	1				

No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
421	July 19	M	E	20 45.2	18		2			USCGS: 3S, 142E, H 20 26 03
422	19	(iS)	NE	21 48 17	4	-2	-2			Masked by microseisms.
		M	E	56.0	18		8			USCGS: 3½N, 142E, H 21 36 46
		M	NZ	59.8	14	7		6		
423	20	(P)	V	15 45 31	1½					Masked by microseisms.
		(i)	V	45 36	1½					
		i	EZ	46 57	3		+1	-1		USCGS: 19½S, 174W, H 15 38 47
		eLR	EZ	54.9	27					
		M	NEZ	57.9	12,17	1	3	3		
424	21	i	V	04 11 03	¾			+		Small local tremor.
		e	N	11 05	¾					
425	21	(iP)	V	06 05 15	1			+		Microseisms present.
		i	V	05 21	1½			+		
		i	N	06 03	6	+3				USCGS: 62½S, 156E, H 05 59 13
		eS	N	10 06	9					
		i	E	10 11	7		+4			
		i	N	10 16	7	+4				
		e	E	11 19	12					
		e	N	11 27	12					
		eL	NZ	12.4	22					
		M	N	15.6	13	7				
		M	EZ	15,9	10		6	5		
426	21	iP	V	07 06 14	1			+		Compression. Confused by coda of 425,
		M	Z	17.1	16			2		USCGS: 4½S, 153E, H 07 00 10
		M	NE	17.5	13	2	4			Magnitude: 5¾-6 Matsushiro.
427	21	M	N	19 53.8	13	4				Masked by microseisms.
		M	E	56.7	15		3			USCGS:28S,175W, h 150km. H 19 37 10
		M	Z	56.9	15			2		Magnitude 6½ Matsushiro.
428	22	iP	EZ	06 22 28	3		-3	+2		Compression.
		i	EZ	22 32	3		+5	-6		
		i(PP)	E	23 00	6		+4			USCGS: 33½S, 178W, H 06 16 52
		iPP	Z	23 05	5			+5		Moscow: H 06 17 02, Probably deep.
		i	N	23 30	4	+2				
		i	Z	23 36	4			+2		
		e(S)	E	26 48	12					
		i	E	27 07	4		-4			
		i(SS)	E	27 36	9		+5			
		i(SSS)	N	27 56	9	+10				
		e(L)	E	28.1	(30)					
		eLR	EZ	28.6	30					
		M	NEZ	30.4	22	9	15	13		
		i(ScS)	E	33 42	8		+8			
429	22	i(P)	V	06 27 25						(Dilatation) Masked by no.428.
		i(PP)	Z	28 02	4			+3		USCGS: 34S, 177½W, H 06 21 50
430	22	e(P)	Z	18 36 14						Masked by microseisms.
		e	E	40 20						
		e(L)	Z	42.1						BCIS: Probably New Hebrides.
		M	NE	44.2	13	1	½			
431	23	iP	Z	00 58 19	3			-2		Dilatation.
		i	Z	58 37	4			+2		
		iSKS	N	01 08 37	5	+4				USCGS: 52N, 177W, H 00 45 12
		iS	NE	08 58	7	-3	-4			JSA: 51.8N, 177.4W, h 0.00,
		ePS	Z	10 04	12					H 00 45 15
		ePPS	N	10 33	20					Moscow: H 00 45 16
		eSS	N	14 30	21					Magnitude: 6¾-7 Matsushiro
		eLQ	E	21.9	30					6½ Moscow, Praha
		eLR	N	26.5	33					6¼-6½ Pasadena
		M	N	30.6	22	5				6.3 Uppsala
		M	NZ	33.0	21	5		3		6¼ Lwiro.
		M	E	33.8	20		4			
		eW_2	N	03 03	(27)					

No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
432	July 23	iP	V	06 25 33	1½			+	2390ca.	Compression.
		i	Z	25 36	3			+2	21½°ca	
		i	NEZ	25 41	5	+3	+3	-4		USCGS: 20½S, 170E, H 06 20 43
		iPP	E	25 56	6		-4			
		iPP	Z	25 57	6			-5		
		i	Z	26 48	4			+4		
		i	NE	26 50	6	+4	+3			
		i(S)	NE	29 36	6	+5	+6			
		i(PcP)	Z	29 41	5			-3		
		i	Z	29 53	5			+4		
		iSS	E	30 01	6		-5			
		eLR	E	30.8	28					
		M	NZ	32.7	16,19	9		7		
		M	E	32.8	18		10			
433	23	(iP)	V	07 58 46	1½			+		Masked by microseisms.
		eL	E	08 06.2	21					BCIS: About 400 km. south of
		M	Z	08.2	16			1		Kermadec Is. H 07 53.5
		M	NE	09.5	13,15	1	1			
434	23	i(P)	V	13 35 17	1			+		Masked by large microseisms.
		i	N	39 18	3	+1				USCGS: Kermadec Is. region,
										h 600 km.ca., H 13 30 17
435	24	(iSKS)	N	02 22 16	4	+3				Masked by large microseisms.
		(eSS)	N	30.8	(27)					USCGS: 30S, 70½W, H 01 57 25
		eLQ	N	41.9	28					JSA: 29.7S, 70.7W, h 0.005,
		eLR	N	46.2	27					H 01 57 38
		eLR	Z	46.7	(27)					Magnitude: 6½ Pasadena
		M	NZ	55.7	16	1		1		6.3 Uppsala.
436	24	(iP)	Z	06 10 53	3			-		Masked by large microseisms.
		M	NEZ	19.6	16					Wellington: 35.9S, 179.4W,
										H 06 05 34.5, Mag.5.2
437	24	iP	V	10 01 59	1½			-	2620	Dilatation. Microseisms present.
		iPP	Z	02 34	4			-3	23°6	
		iPPP	Z	02 45	4			-2		USCGS: 18S, 169½E, H 09 56 57
		iS	NE	06 11	8	+4	+5			
		i	Z	06 25	8			+5		
		i	Z	06 31	6			-6		
		i	N	06 42	8	+6				
		iSS	E	06 57	6		+5			
		eL	N	07.2	24					
		iSSS	E	07 14	4		+6			
		eL	Z	07.6	25					
		M	E	09.2	19		6			
		M	Z	09.4	19			6		
		M	N	10.1	15	8				
		M	N	11.2	13	8				
		M	E	11.7	13		5			
438	24	iP	NEZ	11 07 34	3	-2	-2	+5		Compression.
		ipP	ZV	07 43	3			+7		
		isP	NE	07 46	4	+4	+4			USCGS: 20S, 169E, H 11 02 30
		iPP	V	08 07	1½			+		JSA: 17.9S, 169.2E, h 0.00,
		iPPP	Z	08 16	7			-9		H 11 02 35
		i	E	08 24	4		-9			Magnitude: 6½ Pasadena, Matsushiro.
		i	Z	08 38	4			+9		
		i	E	08 41	4		-5			
		i	E	08 59	6		+8			
		i	E	09 14	4		+6			
		i	N	09 20	4	+8				
		i	Z	11 40	7			+10		
		i(S)!	NE	11 45	7	+	+			
		m	NEZ	12 01	11	18	17	15		
		i	E	12 40	6		+10			
		eL	N	12.8	22					
		eL	EZ	13.4	24					
		M	Z	14.6	21			39		
		M	NE	15.5	16,18	45	41			

No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
439	July 24	i	Z	14 48 04	3			+2		Obscured by microseisms.
		e	NE	55 10	13					
		eL	NE	57.6	30					USCGS: 3S, 134½E, H 14 40 45
		M	NE	15 00.6	13	10	13			
		M	N	02.2	13	10				
		M	EZ	02.6	15		12	12		
440	24	(i)	Z	17 00 25	3			+2		Obscured by microseisms.
		e	E	06 59	7					
441	24	eL	N	18 33.6	17					Obscured by microseisms. Wellington: 34S, 177¾W, H 18 21 18, Magnitude 5¼
442	25	M	EZ	00 18.4	13		1	1		
443	25	e	N	08 06 00						Obscured by microseisms.
		e	N	07 38						USCGS: 51N, 177W, H 07 42 25
		eL	N	26.1	25					Magnitude: 6¼ Berkeley
		M	NEZ	31.7	19	1	2	1		6.1 Uppsala, Kiruna
										5½ Moscow.
444	26	iP	Z	06 54 58	4			+3		Compression.
		i	E	55 00	4		-2			
		ipP	V	55 08	1½			+		USCGS: 35S, 180°, H 06 49 42
		iPP	Z	55 32	6			-3		Wellington: 35.8S, 179.1W,
		iPP	E	55 33	6		+4			H 06 49 42
		i	Z	55 38	3			+4		Magnitude: 5¾ Matsushiro
		i(sS)	E	59 27	5		-2			5.4 Wellington.
		eL	N	07 00.0	(18)					
		eSS	E	00 04	9					
		eLR	EZ	02.1	22					
		M	NEZ	03.8	16	11	9	7		
445	27	(i)	V	14 16 16	1½			+		Masked by microseisms.
		M	E	25.1	15		1			Wellington: 35.8S, 179.4W,
										H 14 10 56, Mag. 5.1
446	27	eL	E	15 02.5	20					Masked by microseisms.
										USCGS: 20S, 174½W, H 14 45 28
										Nagnitudo: 5¾ Matsushiro.
447	27	iP	V	18 48 47	1½			+		Compression. Microseisms present.
		e	Z	53 41	15					
		i	E	54 27	6		+5			USCGS: 6½S, 151½E, H 18 43 01
		e(L)	E	55.4	?					Moscow: H 18 43 15
		eL	E	56.5	24					
		M	EZ	19 00.0	14		8	8		
448	28	(iP)	V	01 36 02	1½			+		Masked by microseisms.
		e(S)	E	40 19	?					
		i	Z	40 22	7			+4		USCGS: 15S, 167½E, H 01 30 52
		M	EZ	44.5	16		2	3		
449	28	eL	E	08 21.0	18					Masked by microseisms.
450	28	(iPKP)	Z	08 58 34	4			-2		Microseisms present.
		i	Z	58 50	4			-2		No NS Galitzin record.
		iPP	EZ	09 00 02	5		+7	-8		
		i	Z	00 18	5			+6		USCGS: 17N, 99W, H 08 40 04
		i	E	00 55	5		+5			JSA: 16.5N,99.0W, h 0.00, H 08 40 05
		i	Z	00 56	5			+9		Moscow: 17N, 99W, H 08 40 04
		iSKS	E	05 56	8		-19			Tacubaya: 16 21N, 99 13W, H 08 40 00
		i	E	06 24	8		+25			
		iSKKS	E	07 02	8		+15			Magnitude: 7.8 Uppsala
		i	E	07 13	7		-16			7.7 Praha
		e	E	07 23	18					7½ Romo, Moscow, Lwiro &
		iPS	E	09 46	10		+24			Tacubaya
		iPS	Z	09 50	12					7¼-7½ Berkeley
		e	E	10 04	24					7¼ Pasadena.
		iPPS	E	11 02	10		+27			
		i	E	11 30	9		+31			
		e	E	12.1	26					
		i	E	13 38	10		-13			

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No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
450 cont.	July 28	e(SS)	E	09 15 35	?					
		iSS	E	16 05	?		+			
		m	E	16.6	36		175			
		eSSS	E	20.1	27					
		eLQ	N	28.1	40					LQ from Mainka.
		eL	E	29.6	30					
		eLR	Z	33.6	27					
		M	EZ	38.1	19		64	53		
		M	EZ	39.0	19		72	55		
		F		12.9						
451	28	(SS)	E	10 34 28	?					Masked by coda of no.450.
		e	E	36.1	24					USCGS: 17N, 99W, H 09 58 30
		e(SSS)	E	38.9	(30)					Magnitude: 6.3 Tacubaya.
		eL	E	44.8	30					
		M	EZ	56.6	20		39	27		
452	29			09.4	Waves.					BCIS: 18½S, 176½E, H 09 11 51
453	29	i	Z	10 02 55	4			+3		Masked by microseisms.
		i	E	03 30	4		+4			Wellington: 34S, 178W, H 09 57 13,
		M	NEZ	12.0	16	2	2	2		Magnitude 5.4
454	29	i	N	17 38 17	4	-2				Masked by microseisms.
		e(SKS)	E	40 39	16					
		ePS	E	43 52	16					USCGS: 23½S, 71½W, H 17 15 14
		i	N	44 00	7	-3				JSA: 23.5S, 71.1W, h 0.00,
		i	Z	44 04	8			+7		H 17 15 21
		i	Z	44 18	8			+8		Magnitude: 7-7¼ Pasadona
		i	N	44 21	7	+5				7.1 Uppsala, Kiruna
		eSS	E	49 57	13					6¾ Berkeley
		e	N	50 02	13					6½ Moscow, Lwiro.
		i	E	50 08	?		-			
		eLR	N	18 06.5	30					
		eLR	Z	06.6	30					
		eLR	E	06.7	33					
		M	NEZ	08.6	22	7	10	13		
		M	NEZ	16.0	17	2	5	6		
		eW_2	Z	19 30	21					
455	31	(i)	Z	07 42 03						Masked by large microseisms.
		i	N	43 34	4	+3				USCGS: 6½S, 105E, h 100 km.ca.,
		i	N	46 42	4	+6				H 07 32 39
										Magnitude: 5½-5¾ Matsushiro.
456	Aug. 1	i	Z	17 03 37	3			+1		Masked by microseisms.
		eL	E	10.4	19					USCGS: 30S, 177½W, H 16 57 30
457	2	i(P)	V	02 17 29	1½			+		Compression. Masked by microseisms.
		e	E	21 38	15					USCGS: 38S, 178E, H 02 12 30
		M	E	24.0	18		4			Wellington: 38.3S, 177.9E,
		M	Z	24.2	19			5		H 02 12 28, Magnitude 5.2
		M	E	24.8	16	5				
458	3	M	N	07 13.2	14	3				Masked by large microseisms.
										USCGS: 7S, 103E, H 06 43 40
459	3	e(P)	Z	08 21 45						Masked by large microseisms.
		eL	EZ	30.1	19					USCGS: 28S, 176½W, H 08 15 45
		M	EZ	34.2	15		8	10		
460	4	(P)	Z	00 45 38						Masked by large microseisms.
		(S)	E	50 38						USCGS: 3½S, 145E, H 00 39 12
		e(L)	E	53.5	(37)					Magnitude: 6½-6¾ Matsushiro
		eL	E	54.2	30					6.2 Uppsala, Kiruna
		M	E	57.4	19		110			6 Moscow.
		M	NZ	01 00.1	15	44		61		
461	4	i(PP)	N	02 26 50	4	+4				Masked by large microseisms.
		i(ScS)	N	36 27	4	+4				BCIS: 4½S, 155½E, H 02 19.8
462	4	eL	E	04 27.5	21					

No.	Date	Phase & Component	Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957		h m s	s	μ	μ	μ	km.	
463	Aug. 4	iP Z	21 21 20	3			+2		Compression.
		e(SKS) NE	31 40	?					USCGS: 45S, 35E, H 21 08 51
		eL Z	48.7	19					Magnitude: 7.1 Quetta
		M NZ	51.9	18	3		3		6 Moscow.
		M E	52.3	16		1			
464	5	eL E	04 43.5	22					Masked by large microseisms.
		M NEZ	46.5	17	4	7	6		BCIS: 24½S, 176W, H 04 29 47
465	5	(P) Z	08 18 46						Masked by microseisms.
		M E	28.9	15		1			USCGS: 5S, 154E, H 08 12 46
466	5	i E	21 35 58	4		+2			Masked by microseisms.
		M NEZ	46.2	13,16	2	4	3		USCGS: Kermadec Is., H 21 30 39
									Wellington: 32½S, 179½W, H 21 30 30,
									Magnitude 5.4
	7	iP V	00 24 39	½			+		Compression.
		i V	25 18½	½			+		Snowy River explosion.
		i V	25 22	½			+		
467	7	iP ZV	04 41 22	3			+2		Compression.
		i(pP) V	41 30	2			+		
		i(pP) Z	41 31	3			+2		BCIS: 19S, 170E, H 04 36 22
		iPPP Z	42 01	3			+2		
		eS E	45 24	7					
		i E	45 47	7		-4			
		eL E	46.6	24					
		eL Z	46.8	24					
		i N	48 04	5	+2				
		M E	48.6	16		3			
		M N	48.7	14	2				
		M Z	48.8	17			2		
	7	iPg V	06 30 22½	½			+		Compression.
		iSg V	30 26½	½			-		Quarry blast ?
		i N	30 27½	½	-2				
		i ! V	30 30	¾			+		
468	7	eL E	19 08.2	18					BCIS: Kermadec Is., H 18 52.8
469	7	iP V	19 46 28	1½			-	3440	Dilatation. Microseisms present.
		ipP EZ	48 00	4		-3	+2	30°9	h 0.08, H 19 40 54
		i V	48 01	1½			-		USCGS: 19½S, 178W, h 550 km.ca.,
		iS E	50 55	5		+3			H 19 40 46
									Magnitude: 5½ Matsushiro.
470	9	iP NZV	02 36 12	3	+5		-7	3840	Dilatation.
		i Z	37 59	4			+3	34°5	H 02 29 20
		eS E	41 41	(7)					
		e E	41 50	18					USCGS: 2S, 137E, H 02 29 20
		i N	41 54	4	+3				
		i N	42 09	6	+8				Magnitude: 7 Matsushiro
		iSS E	43 50	6		-6			6.2 Uppsala, Kiruna
		e(SSS) E	44 14	16					5½ Moscow.
		i E	45 12	4		-5			
		i N	45 14	4	+4				
		eL NE	47.2	25					
		M E	49.2	16		65			
		M N	49.6	(16)	(57)				
		M E	52.5	15		63			
		M NZ	52.7	16	76		76		
		M EZ	54.0	10		54	53		
471	9	e(L) E	10 57.8						Masked by microseisms.
472	9	e E	22 08 22	9					Masked by microseisms.
		i E	08 44	4		+5			
473	10	iP V	02 23 52	1½			-		Dilatation. Large microseisms.
		i V	23 56	1½			+		USCGS: 21½S, 179½W, h 600 km.ca.,
									H 02 18 38

No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks.
	1957			h m s	s	μ	μ	μ	km.	
474	Aug.10	i	E	04 03 31	4		+3			Masked by microseisms.
		i(PP)	Z	04 43	3			+4		
		i	E	08 34	4		+3			USCGS: 17S, 172W, H 03 55 46
		eL	E	13.5	24					
		M	N	17.2	12	2				
		M	EZ	17.4	17		4	4		
475	10	iP	Z	19 20 38	2			+3		Compression. Deep focus.
		i(PP)	Z	22 28	2			+3		USCGS: 3½N, 124½E, h 300 km.ca., H 19 12 47
		eS	NE	26 56	7					
		e	E	30 04	?					Magnitude: 6-6¼ Matsushiro.
		e(SS)		30 23	7					
476	11	iP	EZ	05 17 28	3		+2	-3	2360	Dilatation.
		ipP	V	17 38	1½			+	2192	h 0.00, H 05 12 43
		isP	EZ	17 41	4		+2	+5		
		i	E	17 47	4		+3			USCGS: 38½S, 177E, H 05 12 40
		i	N	17 48	4	+2				BCIS: 39S, 177E, H 05 12 43
		iPP	Z	17 49	4			+3		Wollington: 39S, 176E, H 05 12 54,
		iPPP	Z	17 58	4			+3		Magnitude 5.8
		eS	N	21 17	7					
		e	Z	21 25	7					
		iSSS	N	22 03	7	+7				
		M	EZ	25.8	11,14		2	2		
		M	N	26.3	12	2				
477	11	i	Z	13 46 22	3			+1		Masked by microseisms.
		(eS)	N	50 32	?					
		e	E	50 59	10					USCGS: 31½S, 177½W, H 13 40 18
		eL	E	53.3	22					
		M	N	54.7	16	2				
		M	Z	55.3	17			4		
		M	E	56.7	16		4			
478	11	iP	NEZ	21 43 09	3	-2	-2	+(5)	(2560)	Compression.
		ipP	NEZ	43 18	3	-3	-3	+9	(2390)	h 0.00, H (21 38 06)
		iPP	Z	43 43	4			-8		
		iPPP	EZ	43 53	6		+7	-6		USCGS: 17½S, 169E, H 21 38 05
		iPPP	N	43 54	5	+6				BCIS: 17.8S, 169.2E, h 0.00,
		i	Z	44 04	5			+9		H 21 38 08
		i	EZ	44 32	5		-6	-6		
		i	N	44 33	5	+5				
		i	N	45 04	4	+6				
		i(S)	E	47 13	6			+3		
		i	NE	47 19	8	+14	+14			
		i	NE	47 32	9	+32	+34			
		i	Z	47 33	9			+21		
		i	E	47 45	9		+32			
		i	N	47 48	6	-6				
		i	E	48 11	7		-16			
		eL	Z	49.0	24					
		i	E	49 04	10		+38			
		eL	E	49.3	23					
		M	Z	50.3	20			27		
		M	E	50.8	17		31			
		M	N	51.5	15	38				
		M	N	52.3	13	36				
		M	E	52.8	13		25			
479	12	i(P)	V	07 17 23	1			+		Compression.
		i	V	20 38	1½			+		USCGS: 6N, 124½E, H 07 08 38
480	12	(i)	Z	10 19 00						Obscured by microseisms.
		(e)	E	24 37						
		eL	E	30.2	20					
		M	NEZ	34.6	14	2	2	3		
	13	i	V	06 05 08	½			+		Quarry blast ?
		i	V	05 11	¾			+		
481	14	eL	E	14 42.7						Masked by microseisms.

No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
	Aug.14	(iP)	Z	18 33 00	2			+3		Masked by largo microseisms.
										USCGS:21S, 176½W,h 200 km.,H 18 26 52
482	15	iP	V	20 50 44	1			+	3290	Compression. Microseisms present.
		(i)	N	52 01	4	+2			29°6	h 0.08, H 20 45 21
		ipP	NZ	52 08	3	+4		-4		No well defined phases on EW.
		iPP	Z	52 13	3			-4		
		iS	NZ	55 02	4	+12		+3		USCGS: 4½S, 155E, h 500 km.ca.,
		i	N	55 09	5	+9				H 20 45 20
		i	N	55 56	4	+4				
		isS	N	57 47	7	+12				
		i	N	58 03	4	+7				
483	16	(eP)	Z	03 32 09	3					Masked by microseisms.
		i	Z	32 31	4			+3		
		i	Z	32 37	4			+7		USCGS: 5S, 154E, H 03 26 05
		i	N	34 25	6	+3				
		i	N	36 33	5	-3				
		e(S)	E	36 51	8					
		eL	E	38.7	?					
		eL	Z	40.4	27					
		M	NE	42.0	15	3	4			
		M	Z	42.3	18			3		
	16	i(P)	Z	12 00 54	4			-3		Largo microseisms present.
484	16	i	Z	12 03 46	4			-3		Masked by microseisms.
		iS	N	08 16	5	-4				
		i	E	08 31	7		+5			USCGS: 5S, 155E, H 11 57 16
		i(sS)	N	08 35	7	-5				
		i(SS)	N	09 28	7	+6				
		eL	E	09.5	25					
		eL	Z	11.1	27					
		i	N	11 22	4	+4				
		M	E	13.3	15		6			
		M	NZ	13.9	19	6		6		
485	16	e(PS)	E	24 00 37	18					Masked by microseisms.
		e(PPS)	E	01 34	18					
		eSS	E	06 10	23					USCGS: 10½N, 104W, H 23 31 55
		eSSS	E	10 27	18					JSA: 10.5N, 103.4W, h 0.00,
		eLQ	N	16.3	(45)					H 23 31 59
		eL	N	17.2	31					Magnitude: 6.7 Tacubaya
		eLR	Z	21.8	28					6½-6¾ Pasadona, Berkeley
		M	EZ	25.6	21		9	6		6½ Moscow
		M	N	27.4	21	5				6.4 Uppsala, Kiruna
		M	EZ	32.1	18		12	12		6.3 Romo.
486	17	eL	E	04 44.2						Masked by microseisms.
487	17	e	E	18 45 15	9					Masked by microseisms.
		eL	E	49.0	22					
488	18	(P)	V	06 43 16						Masked by microseisms.
		i	V	43 22	1½			+		
		iS	N	50 28	4	+3				USCGS: 57S, 142½W, H 06 34 16
		eS	E	50 29	9					
		e(PS)	N	50 37	9					
		i	N	50 52	6	+4				
		eLR	Z	57.5	30					
		M	N	07 02.6	15	2				
		M	Z	05.3	15			2		
		M	E	07.2	15		2			

No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
489	Aug.18	iP	Z	08 46 15	3			+3	5860	Compression.
		i	Z	46 18	3			+5	52°7	H 08 36 57
		i	NZ	46 21	3	+2		+11		
		i	Z	46 35	3			+6		USCGS: 12N, 124E, H 08 3⅙ 57
		i	Z	46 45	4			+9		BCIS: 12N, 124½E, H 08 ⅓6 58
		iPcP	Z	47 23	4			+5		
		i	Z	47 29	4			+9		Magnitude: 6¾ Strasbourg
		iPP	Z	48 13	6			+6		6½ Rome, Uppsala
		i	Z	49 06	4			+8		6¼ Matsushiro.
		i	N	49 13	6	+7				
		iPPP	Z	49 18	6			+8		
		i	E	49 19	5		+5			
		i	N	49 27	4	+4				
		i	N	50 14	4	+4				
		i	Z	50 17	4			+5		
		e	N	53 37	10					
		iS	N	53 42	9	-9				
		i	E	53 46	7		-13			
		i	Z	53 48	7			+4		
		iPPS	Z	53 57	7			+13		
		iPPS	NE	53 58	7	+	-27			
		i	Z	54 22	6			+9		
		i	E	54 25	6		+11			
		i	E	54 51	6		+6			
		i	N	55 13	7	-15				
		i	N	55 31	5	+8				
		iSS	Z	57 19	7			+5		
		i	E	57 30	9		-16			
		i	N	57 47	7	+6				
		i	N	58 36	10	-23				
		i	E	59 25	12		+18			
		i	N	59 47	9	+21				
		eL	E	09 02.3	27					
		M	E	08.3	13		16			
		M	NZ	08.5	18,13	14		9		
490	18	iP	Z	21 55 00	4			+3	9370	Compression.
		iSKS	N	22 05 19	5	+3			84°3	H 21 42 30
		iS	E	05 22	8		-4			
		i	N	05 28	6	+5				USCGS,JMA: 50N, 157E, H 21 42 30
		eSS	N	10 40	(27)					BCIS: 50N, 157E, H 21 42 29
		eSS	E	10 52	(24)					JSA: 50.1N,156.4E,h 0.00,H 21 42 32
		eLQ	E	17.2	45					MOSCOW: 50N, 157E, H 21 42 27
		M	Z	23.2	30			11		Magnitude: 6.6 Tacubaya
		M	E	23.8	28		9			6½ Pasadena, Moscow
		M	N	26.7	22	4				6¼ Matsushiro.
491	19	(P)	V	00 17 20						Masked by microseisms.
		M	E	27.7	15		1			USCGS: 4½S, 153E, H 00 11 13
492	19	iP	V	02 47 11	1			+		Compression.
		i	NE	52 33	4	+2	-2			USCGS: New Britain region,
		eL	E	53.7	20					H 02 41 14
493	19	M	N	11 08						BCIS: About 300 km. south of Samoa,
494	19	iP	Z	11 40 07	4			-3		H 10 46.9 Dilatation.
		i	NZ	40 12	4	-7		+8		
		e	Z	40 19	7					USCGS: 10S, 161E, H 11 34 36
		i	Z	40 26	4			-5		JSA: 10.1S,160.7E,h 0.00,H 11 34 42
		i	N	40 39	4	+8				Moscow: H 11 34 40
		i	N	40 48	4	+4				
		e(S)	NE	44 29	10					Magnitude: 6½ Pasadena.
		i	N	44 35	6	+8				
		i	E	44 36	6		-7			
		i	N	44 42	6	+15				
		i	Z	44 44	6			+6		
		m	NEZ	44 55	10	20	13	18		
		eL	N	46.1	(20)					
		M	NEZ	50.9	13	16	15	9		

No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
495	Aug.19	iP	Z	13 50 38	3			-1		Dilatation.
		iS	N	54 36	7	+2				
		i	N	54 52	6	+3				
		eSS	N	55 14	4					
		eL	E	55.7	(16)					
		M	N	59.8	12	1				
		M	E	14 00.1	13		½			
496	20	(eP)	Z	04 57 57						Maskod by microseisms.
		i	V	58 20	1			+		
		e(S)	E	05 05 57						BCIS: 56S, 130W, H 04 48 06
		e	E	06 13						
		eLR	Z	14.3	25					
		M	E	20.6	16		1			
497	20	iP	NEZV	06 32 35	4	+4	+2	-4	2850	Dilatation.
		i	NEZ	32 41	4	-5	-4	+9	25°7	
		i	NZV	32 49	4	-7		+14		USCGS: 10S, 161E, H 06 27 07
		i	NEZ	32 59	5	+7	+3	-6		
		iPPP	Z	33 29	5			+10		Magnitudo: 6¾ Matsushiro
		i	N	33 51	7	+8				6-6¼ Pasadona
		i	Z	33 52	6			-5		5.9 Romo.
		i	E	33 56	7		-5			
		i	E	34 26	7		+7			
		i	Z	34 30	6			-5		
		i	N	34 38	6	+6				
		iS	N	37 02	7	-12				
		i	E	37 05	7		-13			
		i	Z	37 11	7			-11		
		i	N	37 14	8	-56				
		i	E	37 17	7		-21			
		i	N	37 51	9	-14				
		i	E	37 52	7		+20			
		iSS	N	38 08	8	+26				
		eLR	E	39.0	21					
		eLR	Z	39.5	24					
		M	N	40.8	15	35				
		M	E	41.1	15		25			
		M	Z	41.2	17			24		
		M	N	43.3	12	35				
		M	Z	43.4	12			17		
		M	E	43.8	11		54			
498	20	iP	NZ	12 07 22	4	+2		-2	2780	Dilatation.
		i	Z	07 28	4			+5	25°0	
		i	Z	07 40	7			+5		USCGS: 10S, 161E, H 12 01 54
		i	N	07 42	7	-4				JSA: 10.0S,160.2E,h0.00,H 12 01 58
		iPP	NZ	08 00	6	-4		+5		
		iS	N	11 44	7	+4				Magnitudo: 6¾ Matsushiro
		iS	E	11 45	7		+6			6½ Pasadona
		i	NE	11 52	7	+16	-6			6¼-6½ Berkeley
		i	Z	11 58	10			+17		6.3 Rome.
		i	NE	12 01	10	-?0	-28			
		i	NE	12 21	8	+22	+19			
		eLQ	E	12.2	24					
		iSS	E	12 40	10		-8			
		iSSS	N	12 56	7	+18				
		eL	NE	13.2	24					
		eLR	Z	13.7	24					
		M	N	15.0	15	22				
		M	E	16.3	15		26			
		M	Z	16.7	17			18		
	20	(S)	E	15 46 31	?					USCGS: 37N, 71½E, h 200 km.ca., H 15 21 06
										BCIS: 35½N, 70½E, h 220 km.ca., H 15 21 11
										Quotta: 36½N, 71E, h 200 km.ca., H 15 21 13

No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
499	Aug.20	iP	Z	20 29 53	4			-2	3150	Dilatation.
		iS	NE	34 39	7	+3	+5		2893	
		eL	N	37.5	17					
		M	NZ	39.7	12	1		1		
		M	E	40.3	12		2			
500	20			23 18	Surface waves.					BCIS: 17S, 174W, H 22 57 30
501	21	iP	ZV	05 52 45	3			+1		Compression. Microseisms present.
		isP	V	52 59	1½			+		
		i(S)	E	56 41	4		+2			Wellington: 40.9S, 176.0E, H 05 48 03
		eL	EZ	58.3	22					
		M	N	58.8	15	2				
		M	EZ	59.9	18		2	3		
502	21	e(S)	N	10 23 17						
		eL	E	26.2	18					
		M	E	28.7	12		1			
503	21			17 37	Waves.					
504	21	iP	V	17 45 54	1½			+		Compression.
		eL	E	56.5	22					USCGS: 15S, 173½W, H 17 38 38
		M	EZ	59.7	18		1	1		Magnitude: 5½-5¾ Matsushiro.
505	22	i	Z	08 03 11	3			-1		Masked by microseisms.
		eS	N	09 19	9					
		eSS	E	12 18	12					USCGS: 1N, 126E, H 07 55 06
		i(ScS)	E	13 09	5		+3			
		eL	E	18.3	20					
		M	Z	21.4	21			2		
		M	E	21.6	19		4			
		M	N	22.1	21	1				
506	22	iP	Z	16 48 53	3			+2		Compression.
		ipP	Z	49 16	4			+2		h 0.01 ca.
		i	NE	49 19	4	+1	+3			
		isP	E	49 25	4		+3			USCGS: 15S, 168E, H 16 43 35
		iPP	EZ	49 35	4		+2	+8		
		i	N	49 37	4	-3				
		i	E	51 23	4		-3			
		iS	N	52 58	4	-6				
		i	E	53 09	?		-			
		i	N	53 04	4	-7				
		i	E	53 10	6		-5			
		isS	N	53 37	4	+8				
		i	E	53 45	6		-8			
		i	Z	53 48	4			-4		
		i	N	54 15	5	-10				
		i	E	54 16	4		+5			
		i	E	54 25	4		+5			
		i	N	54 26	6	+13				
		i(PcS)	N	56 18	4	+6				
		M	E	56.7	15		2			
507	22	e	E	18 38 51	7					Masked by microseisms.
		eL	E	44.7	20					
508	23	iP	N	02 06 04	4	-3				
		i	Z	06 06	3			+2		USCGS: 6S, 154½E, h 60 km.ca., H 02 00 09
		e	NZ	06 15	15					
		i	NZ	06 39	5	-8		+17		JSA: 4.9S, 154.9E, h 0.00, H 02 00 10
		i	Z	07 09	6			-7		
		i	E	09 12	4		+4			Magnitude: 6½ Pasadena 6 Romo.
		i	N	10 33	4	-5				
		i	N	10 40	4	+5				
		e	E	10 47	13					
		i	N	10 48	4	+6				
		i	NZ	11 07	7	+12		+6		
		i	E	11 18	7		+4			
		i	N	11 19	7	-16				
		i	NE	11 43	7	+14	+11			

(Continued on next page)

No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
508	Aug.23	i	E	02 11 54	7		+11			
cont.		eL	E	12.2	30					
		eL	N	12.9	30					
		eL	Z	13.7	30					
		M	NE	16.3	16	19	35			
		M	Z	17.2	18			24		
509	23	i(S)	N	13 44 37	4	-4				Masked by microseisms.
		eL	E	47.7	20					USCGS: 6S, 154E, h 100 km.ca.,
		i(ScS)	E	49 19	5		-3			H 13 33 51
510	23	i	N	16 28 59	3	+2				Masked by microseisms.
		eL	E	40.1	18					BCIS: 0°, 126½E, H 16 14 30
511	23	eL	E	20 24.4	21					Masked by microseisms.
		M	N	26.0	16	3				Wollington: 30.5S, 176.9W,
		M	Z	27.0	17			3		H 20 11 22, Magnitude: 5.4
		M	E	27.7	16		4			
512	23	i	Z	22 59 27	2			+2		Masked by microseisms.
		M	N	23 21.4	13	2				USCGS,BCIS:7S,112E,h 100km.H 22 51 10
										Moscow:6S,111½E,H 22 51 04, Mag.5
513	24	eL	E	01 17.6	(20)					Masked by large microseisms.
		i(ScS)	N	19 12	5	+4				BCIS: 19½S, 175W, H 01 01 58
		M	N	20.7	13	4				
		M	E	22.0	16		2			
514	26	(i)	E	11 43 32	3		+2			Masked by microseisms.
		ePS	N	58 45	14					USCGS,BCIS: 19S, 63W, H 11 28 50
		ePS	E	58 51	15					JSA:18.9S,63.2W, h 0.00, H 11 28 55
		eLQ	E	12 19.9	(30)					Magnitude: 6.8 Tacubaya, 6¾ Berkeley
		M	EZ	33.2	16		4	3		6¼-6½ Pasadena, 6.3 Rome
		M	NEZ	36.1	16	2	3	3		6.2 Strasbourg, Uppsala.
515	26	e(SKKS)	E	14 26 09	15					Masked by microseisms.
		ePS	EZ	28 58	16					USCGS: 2S, 81W, H 13 58 48
		eSS	E	35 27	18					Magnitude: 6.4 Uppsala, Kiruna
		e	N	35 47	?					6.2 Strasbourg
		e(SSS)	E	39 21	(18)					6 Pasadona.
		eLR	E	55.2	28					
		M	NEZ	15 00	19	3	5	5		
516	26	(iP)	Z	19 59 30	3			-2		Masked by microseisms.
		e	E	20 04 08	8					
		eL	E	07.4	23					USCGS: 5½S, 154E, h 100 km.ca.,
		eL	Z	07.7	22					H 19 53 33
		M	E	09.2	16		5			
		M	NZ	10.5	15,18	2		4		
517	27	iP	V	21 01 09	1			+	2770	Compression. Microseisms present.
		(iPcP)	Z	04 25	3			-3	24°9	h 0.09, H 20 56 30
		i	E	04 36	4		+3			USCGS: 25½S, 178E, h 650 km.ca.,
		iS	N	04 52	4	-3				H 20 56 29
		iScS	E	10 57	4		+3			
518	28	(iP)	V	08 25 16						Masked by microseisms.
		i	Z	26 03	4			+3		
		i	N	30 19	4	+3				USCGS: 28½S, 175W, H 08 19 10
		e	N	31 28	10					
		eL	N	33.3	21					
		M	N	35.3	15	3				
		M	EZ	36.7	16		5	4		
519	28	eL	E	23 49.4	(26)					Masked by microseisms etc.
		eL	Z	50.6	25					USCGS: 21N, 145E, H 23 22 21
		M	NZ	56.0	15	1		1		Magnitude: 5.7 Kiruna, Rome.
520	30	e	E	04 02 12	9					USCGS: Kermadec Is., H 03 50 36
		M	EZ	07.1	16		1	1		BCIS: 28S, 176¾W, H 03 50 38

No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
521	Sept.1	(i)	Z	24 09 16	3			+2		Masked by large microseisms.
		(eS)	N	16 36	6					USCGS: 18N, 147½E, H 23 59 54
		M	E	29.6	21		7			Magnitude: 5.9 Uppsala, Kiruna.
		M	Z	34.9	19			4		
522	2	iP	Z	05 43 37	5			-5		Dilatation. Large microseisms.
		i	Z	44 05	4			-3		
		i(S)	E	48 02	5		+7			BCIS: 19S, 174E, H 05 38.3
		i	N	48 06	5	+4				
		i	E	48 23	5		+3			
		i	N	48 38	5	+3				
		eLR	E	49.6	24					
		eLR	Z	49.8	24					
		i	N	51 03	5	+5				
		M	EZ	51.5	18		3	4		
523	2	(iP)	Z	09 53 39	3			+3		Masked by large microseisms.
		e(PP)	E	55 06	7					
		(iS)	E	59 20	4		-3			USCGS: 15S, 173½W, H 09 46 30
		e	E	59 32	13					
		e	N	10 02 15	15					Magnitude: 6-6¼ Berkeley.
		eL	N	02.5	24					
		M	N	06.7	13	5				
		M	EZ	06.9	17		5	3		
524	3	(i)	Z	06 12 30	3			-2		Masked by microseisms.
		e	E	17 19	12					USCGS: 12S, 167E, H 06 06 42
		eL	E	19.8	23					
		M	N	22.0	15	3				
525	3	(iP)	V	14 45 38	1½			-		Masked by microseisms.
		(i)	V	45 49	1½			+		USCGS: Fiji Is. region, h 600 km.ca.
		i	E	49 46	3		+3			H 14 39 34
526	4	i	NZ	01 37 19	3	+2		-2		Masked by microseisms.
		i(PP)	E	37 38	3		+2			USCGS: 12S, 167½E, H 01 31 23
		e	E	42 20	12					
		eL	E	43.9	25					
		M	E	46.6	16		2			
527	4	(P)	Z	04 42 34	?					Masked by microseisms.
		iPP	Z	44 36	4			+3		USCGS: South Indian Ocean, 1600 km.
		e	E	49 55	13					NE of Kerguelen Is.,
		e	E	50 05	13					H 04 33 51
		eL	N	55.4	25					BCIS: 42½S, 88½E, H 04 33 52
		eL	E	57.2	30					
		M	EZ	05 01.1	16		5	4		
528	4	M	E	12 44.7	12		2			Masked by microseisms.
		i	E	45 29	6		-5			BCIS: 4S, 156½E, H 12 26.6
529	4	e	NE	22 29 01						Masked by microseisms.
		e(L)	N	35.3	(16)					
530	5	iP	V	03 16 00	1½			+		Compression. Microseisms present.
		e(S)	E	19 59	7					
		i	Z	20 06	4			+2		BCIS: New Hebrides, H 03 11.0
		eL	E	21.6	23					
		i	N	21 53	3	+3				
		M	EZ	23.4	16		2	2		
531	5	eL	E	08 17.8						
532	7	iP	V	10 19 42	1			-		Dilatation. No Galitzin records.
		iPcP	V	19 43	1		+	+		USCGS: 51½N, 178½W, H 10 06 47
		i	V	20 01	1½			+		Moscow: 51N, 178W, H 10 06 47
										Magnitude: 6.8 Tacubaya, 6¼ Roma,
										6 Moscow.
533	8	(iP)	V	08 47 46	1½			+		Masked by microseisms.
		(i)	Z	49 32	3			+1		USCGS: 2S, 141E, H 08 41 26
		e	E	55 26	(15)					
		eL	E	58.8	21					
		M	E	09 00.7	13		5			

No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
534	Sept.8	(iP)	V	13 24 49	1½			+		Masked by microseisms.
		M	E	35.8	14		1			USCGS:5S,152E,h 60 km.,H 13 18 55
535	9	e	Z	00 22 15	7					P masked by microseisms.
		i(PP)	V	22 41	1½			+		
		i(S)	E	27 28	9		+15			USCGS: 48S, 100E, H 00 13 30
		i	Z	27 33	6			+6		BCIS: 47¾S, 101E, H 00 13 31
		e	N	30 28	10					
		e	E	30 32	12					
		eL	E	31.0	27					
		eL	Z	33.0	28					
		M	E	34.4	21		47			
		M	Z	35.2	18			25		
		M	N	35.6	16	15				
536	9	iP	ZV	09 07 27	3			+3	3870	Compression.
		e	E	07 29	6				34°8	H 09 00 33
		iPPP	Z	08 58	5			-5		
		iPPP	E	09 00	6		+4			USCGS: 15S, 176½W, H 09 00 33
		iS	N	12 58	4	+3				
		i	E	13 04	7		+6			
		e	E	13 18	19					
		i	N	14 36	5	+3				
		eL	N	15.4	19					
		i	E	15 58	6		+4			
		eL	Z	16.6	21					
		eL	E	17.1	27					
		i(ScS)	N	17 42	6	+6				
		M	Z	20.1	16			9		
		M	N	20.7	12	9				
		M	E	20.9	15		13			
537	11	eL	E	14 42.8	22					
		M	NE	44.5	17	2	5			USCGS: New Ireland region,
		M	Z	45.6	17			4		H 14 26 45
538	11	M	E	15 25.8	16		2			
539	11	iP	V	23 29 30	1½			+		Compression.
		eS	E	35 18	12					
		iS	N	35 20	5	+3				USCGS: 16S, 172W, H 23 22 09
		eL	E	39.3	(27)					
		M	EZ	41.6	21		5	1		
540	12	M	E	01 36.9						USCGS: 17½N, 85W, H 00 28 02
										Magnitude: 6.3 Tacubaya, 6¼ Rome,
										6.0 Uppsala, Kiruna
										5¾ Strasbourg.
541	12	M	E	09 07.1						
542	14	(P)	Z	06 20 22	2					Masked by microseisms.
		M	E	36.7	(15)					USCGS: 4S, 130E, H 06 13 20
543	14	i(S)	N	12 44 46	5	+3				Masked by large microseisms.
		M	EZ	50.0	17		6	5		BCIS: About 500 km. NE of Macquario
		i	E	52 18	5		+7			Is., H 12 36.8
544	15	(iP)	Z	04 30 47	4			+5		Masked by large microseisms.
		i(S)	E	37 30	6		+5			USCGS:5½S,108E, h 300 km.,H 04 22 34
	15	(iP)	Z	05 43 34	4			+8		Large microseisms present.
545	15	(i)	V	18 48 10	1½			+		Masked by large microseisms.
		(i)	V	48 22	1½			+		USCGS: 6S, 153½E, h 150 km.ca.,
		(i)	V	48 31	1½			+		H 18 42 20
		(i)	E	52 16	4		+7			
		M	E	58.0	13		7			
	20	(i)	V	17 42 24	1			+		Masked by microseisms.
		(i)	Z	42 39	3			+2		

No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
546	Sept.20	M	E	19 04.8	16		½			BCIS: 20½S, 174½W, H 18 46 29
547	23	(eP)	V	09 29 21						Masked by microseisms.
		(iS)	N	34 41	5	+2				USCGS: 6S, 131E, H 09 22 36
		i(ScS)	N	39 39	4	-5				
		M	E	41.4	8		4			
		M	NZ	41.7	7	3		2		
548	24	(iP)	ZV	08 29 28	4			-2	5140ca.	Dilatation. Preceded by microseisms.
		iP	ZV	29 29	4			+3	46°2ca.	Compression.
		i	V	29 31	1			+		h 0.00, H (08 21 05)
		ipP	NEZ	29 39	4	-2	+5	+6		
		i	V	29 41	1			+		USCGS: 5½N, 127½E, H 08 21 05
		i	V	29 46	1			+		BCIS: 5N, 126¾E, H 08 21 08
		i	NEZ	29 47	5	-6	+6	+29		JSA: 5.4N,127.0E, h 0.00,H 08 21 11
		i	E	30 00	5		+8			Moscow: 6N, 127E, H 08 21 15
		i	Z	30 25	4			+11		Shillong: 4.6N, 125.6E, H 08 21 18
		i	N	30 27	4	-5				
		i	Z	30 59	5			+12		Magnitudo: 7¾ Pasadena
		i	N	31 03	4	+8				7.7 Bucarest
		e	E	31.3	35					7.5 Reykjavik
		i	E	31 36	3		-5			7.4 Rome
		i	Z	31 37	3			+7		7¼-7½ Strasbourg
		iPPP	Z	32 01	4			-12		7.3 Tacubaya
		iS	E	36 12	6		-12			7¼ Uppsala, Kiruna, Moscow, Shillong
		iS	N	36 14	8	-21				7.2 Quetta.
		iPS	E	36 22	6		-36			
		ePPS	E	36 29	(16)					
		i	N	36 40	8	+25				
		i	NE	36 46	8	-38	-34			
		e	N	37.3	40					
		i	E	39 07	7		+22			
		iScS	N	39 23	4	+8				
		iSS	N	39 34	8	+9				
		iSS	E	39 39	9		+88			
		i	E	40 04	12		-140			
		i	N	40 16	6	-34				
		i	E	40 27	6		-32			
		eL	E	41.0	45					
		eL	N	41.4	60*					* From Mainka.
		M	E	49.3	19		125			
		M	E	50.0	21		165			
		M	Z	50.1	21			56		
		M	N	50.2	19	33				
		W_2 M	E	11 08.9	25		10			
	25	e(Pg)	V	02 16 42	(¼)					Small local tremor.
		i	V	16 49	½			-		
		i	V	16 50	½			+		
		(M)	NZ	16 58	¾					
	25	(M)	N	06 41 38	¾					Small local tremor.
549	25	e(L)	E	07 16.2	(18)					
		M	E	19.6	12		3			
550	25	eL	E	09 53.1	28					BCIS: New Hanover region,
		M	E	56.3	18		6			H 09 38.9
551	25	(iP)	V	14 14 41	1½					Masked by microseisms.
		eL	E	25.4	(23)					BCIS: 2S, 140E, H 14 08.0
		M	E	28.0	13		2			
552	25	e(L)	E	15 41.2	18					
553	25	eP	Z	16 44 58						Masked by microseisms.
		eS	N	51 37						USCGS: Aftershock of no.548,
		i	E	51 42	4		+3			H 16 36 37
		eSS	E	54 57	13					Moscow: 6N, 127½E, H 16 36 38
		eL	E	55.7	25					Magnitudo: 6 Uppsala, Strasbourg
		M	E	17 04.2	22		12			5.9 Rome, 5½ Moscow.
		M	NZ	06.0	19	4		5		

No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
554	Sept.25	i	Z	22 25 39	3			+1		Masked by microseisms.
		i	Z	28 30	4			+2		USCGS: 6N, 127½E, H 22 17 00
		e	E	32 42						Moscow: H 22 17 04
		e(SS)	E	35 21						
		M	E	44.6	22		4			
	25	(iP)	Z	23 37 14	3			+2		
555	25	eL	E	23 57.1	(28)					Masked by microseisms.
		M	E	24 01.5	22					USCGS: 5½N, 127½E, H 23 33 30
556	26	(eP)	Z	02 40 24						Masked by microseisms.
		eL	E	55.8	(21)					USCGS: 5N, 127E, H 02 32 01
	26	e	V	03 30 39	(¼)					Small local tremors ??
		e	V	31 36	(¼)					
		e	V	31 54	(½)					
557	26	M	E	06.5						BCIS: Aftershock of 548, H 06 00 43
558	26	e	Z	10 16 21						Masked by microseisms.
		M	E	39.4	18		2			USCGS: About 300 km. south of Mindanao, P.I., H 10 07 42
559	26	(iP)	Z	12 07 21	3			-2		Dilatation. Microseisms present.
		iP	V	07 22	1			+		Compression. h (0.02)
		i	E	07 25	3		+2			USCGS: 39½S, 174½E, h 150 km.ca., H 12 03 01
		i(sP)	E	08 09	3		+3			
		i	Z	08 22	4			+4		Wellington: 40.1S, 137.8E, h 110 km.ca. H 12 03 06, Mag.6.0
		i	N	11 03	4	+2				
		e	E	11 25	9					
560	26	i	V	18 55 26	1½			-		Masked by microseisms.
		e	E	19 02 13	7					USCGS: 6N, 126½E, H 18 46 41
		i(ScS)	E	05 07	4		-4			Moscow: h 60 km., H 18 46 48
		e	E	05 36	15					Magnitude: 6.0 Uppsala, Kiruna.
		M	E	15.0	21		4			
561	26	M	E	20 36.8	15		1			Wellington: 34S, 178½W, H 20 21 12, Magnitude 5.5
562	27	(iP)	Z	04 16 00	4			+2		Compression. Preceded by microseisms.
		i	V	16 05	1½			+		
		i	Z	16 11	4			+4		USCGS: 1S, 127E, H 04 08 23
		i	N	16 12	4	-2				
		i	V	16 13	1½			-		Magnitude: 6.2 Uppsala, Kiruna
		i	Z	16 48	4			+2		6.1 Strasbourg, Rome.
		i(PP)	N	17 38	5	+3				
		i(PcP)	Z	18 06	4			+4		
		e(S)	E	22 06						
		i	Z	22 13	4			+5		
		i	E	24 02	5		+6			
		e	E	24 40	12					
		i	N	25 08	5	+5				
		i	E	25 21	5		+5			
		eL	E	27.7	45					
		M	E	30.3	24		22			
563	27	iP	ZN	04 26 26	3			+3		Compression.
		i(PP)	N	28 04	5	+3				Superposed on no.562.
		i(PPP)	Z	28 25	4			+4		
		i	N	28 43	4	+5				USCGS: 1S, 127½E, H 04 18 49
		i	N	29 09	4	-5				
		i	N	29 53	4	+3				
		i(SS)	N	35 16	6	-6				
564	27	iP	V	06 04 27	1½			+	4440	Compression.
		i	Z	04 30	3			-2	3999	H 05 56 50
		eS	E	10 33	(12)					
		i	E	10 37	5		+4			USCGS: 1S, 127E, H 05 56 50
		i	E	13 42	5		-2			Moscow: H 05 56 58
		e(L)	E	15.5	(22)					
		eL	E	18.1	23					
		M	NEZ	22.3	18	2	6	2		
		e	E	23.1	(30)					

RIVERVIEW COLLEGE OBSERVATORY
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No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
565	Sept.28	i(pP)	V	00 39 06	1½			+		Masked by microseisms. Vert.Galitzin not recording.
		iS	E	45 41	4		+7			USCGS:30½N,137½E,h 500km.,H 00 27 31
		iScS	NE	46 44	4	+4	+3			JMA:31N,138E, h 450 km, H 00 27 33
		isS	E	48 29	7		-4			JSA:31.0N,137.7E,h 0.07, H 00 27 33
		i	E	49 57	6		+5			Moscow: h 450 km.,H 00 27 32
										Magnitudo: 6¾ Pasadena, 6.4 Quotta, 6.3 Uppsala, Kiruna.
	28	e(Pg)	V	00 47 42	(¼)					
		i(Sg)	V	47 46	½			-		
566	28	i	E	04 25 59	4		-2			Obscured by microseisms.
		i	E	28 35	6		+4			
		eL	E	29.6	(26)					USCGS: 3S, 135½E, H 04 11 23
		i	NE	30 08	4	-6	-8			
		i	N	30 17	4	+14				
		M	NE	33.4	13	17	7			
567	28	iP	NEV	14 25 27½	4	+4	+14	-	3350	Dilatation. Vert.Galitzin not recording.
		i	E	26 59	4		+14		3092	
		ipP	NE	27 04	4	+6	+26			h 0.09, H 14 20 03
		i	E	27 16	5		-42			
		i	N	27 27	6	+27				USCGS: 20½S, 178W, h 650 km.ca., H 14 20 00
		i	N	27 49	5	-19				
		isP	E	28 12	9		-69			JSA: 20.7S, 178.8W, h 0.09, H 14 20 03
		i	N	28 15	6	-16				
		i	E	28 55	10		-31			
		i	E	29 38	(12)		+(140)			Magnitudo: 7.6 Uppsala
		i	N	29 45	6	-28				7½ Pasadena, Strasbourg
		iS !!	E	29 47	12		-530			7-7¼ Berkeley.
		i	N	29 54	6	+46				
		i	N	30 09	7	+72				
		i(ScP)	N	30 53	9	+46				
		i	N	31 32	6	+26				
		i	N	32 12	7	-31				
		i	E	32 28	5		+25			
		i(sS)	E	32 44	15		-140			
		i(sS)	N	32 47	8	+100				
		i	N	32 55	9	-250ca.				
		i	E	33 04	10		-280			
		i	N	33 38	7	-45				
		i	E	34 14	6		+46			
		i	E	34 25	9		-55			
		i	N	34 32	7	+36				
		iScS	E	34 56	6		-87			
		iScS	N	34 59	6	-68				
		i	N	35 28	6	-46				
		i	N	35 37	6	+44				
		M	N	36.9	12	74				
		i	E	38 14	9		+32			
		i(sScS)	E	38 53	9		+68			
		i	E	39 10	9		+230			
568	28	e	E	23 45 08	7					Vertical Galitzin not recording.
		e(L)	E	48.0	16					
		M	E	51.3	10		3			
		i	N	51 22	4	-2				
		e(L)	N	51.9	18					
569	29	e	E	02 21 24						Vertical Galitzin not recording.
		e(S)	E	22 22	9					
		i	NE	22 27	6	+6	-3			USCGS: 64½S, 172½W, H 02 08 55
		eL	E	24.8	18					
		eL	N	25.2	18					
		M	N	28.1	12	6				
		M	E	28.6	11		11			
	29	(iP)	V	07 11 38	1			+		Masked by microseisms.
										USCGS: 20S, 178W, h 650 km.ca., H 07 06 11

No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
570	Sept.29	iP	NEV	08 18 10	4	+1	+11	-	2840ca.	Dilatation. Vert. Galitzin not
		i	V	20 39	2			-	25½°ca.	recording.
		i(sP)	E	20 51	5		+13			h 0.08-0.09, H 08 13 24 ca.
		i	V	21 06	2			-		
		i	V	21 18	1½			+		USCGS: 25S, 178½E, h 600 km.ca.,
		i	V	21 28	1½			+		H 08 13 22
		iS	NEV	21 59	4	-23	+15	+		JSA: 25.2S, 178.7E, h 0.09,
		i	V	22 03	2			+		H 08 13 27
		i	N	22 08	4	-15				
		i	N	22 16	3	-5				Magnitude:6¼ Berkeley.
		i(ScP)	V	24 07	1½			+		
		e(L)	E	24.5	16					
		iPcS	E	24 56	7		-21			
		i	N	25 01	5	-8				
		iScS	NE	27 59	4	-10	+37			
		i	N	28 01	4	-8				
		i(sScS)	E	31 56	5		-6			
	29	i	N	09 41 17	4	-4				Masked by microseisms.
571	29	e	E	17 49 44	19					BCIS: 4N, 126¼E, H 17 34 16
		i	E	52 50	7		+4			
		eL	E	18 01.7	22					
		M	E	05.0	16		2			
572	Oct. 2	(P)	Z	11 33 27	3					Masked by microseisms.
		eS	N	40 09	7					USCGS: 5½N, 127E, H 11 25 02
		e(SS)	E	43 33	?					
		M	E	52.8	22		2			
573	2	e	E	13 10.1						Masked by microseisms.
		e(SSS)	E	14.9	22					USCGS: 11N, 63W, H 12 27 55
		eLR	E	35.4	(30)					JSA: 10.7N,63.0W, h 0.00, H 12 28 00
		M	EZ	47.1	17		2	2		Magnitude: 6½-6¾ Pasadona
										6½ Matsushiro, Tacubaya
										5.8 Uppsala, Kiruna.
574	2	iP	V	21 10 53	1½			+		Compression. Masked by microseisms.
		M	NZ	31.5	18	4		3		USCGS: 6½S, 69½E, H 20 58 39
										Magnitude: 6¼ Matsushiro.
575	3	iP	V	06 04 57	1½			+	3750	Compression. Microseisms present.
		iP	NZ	04 58	(3)	-		+	33?7	H 05 58 13
		iS	E	10 20	4		-2			USCGS: 4S, 134E, H 05 58 12
		i	N	11 09	6	-3				Magnitude: 6-6¼ Matsushiro.
		M	E	21.8	16		6			
576	4	(PKP)	V	05 45 28						Masked by microseisms.
		(i)	Z	45 43						
		(ePP)	Z	48 44						USCGS: 11N, 63W, h 60km.ca.,
		e(SKS)	E	52 24						H 05 26 09
		e(SKKS)	E	55 39						JSA: 10.8N, 62.5W, h 0.005,
		e(PS)	E	59 30	19					H 05 26 10
		e(PPS)	E	06 01 21	19					Trinidad: 11.0N,62.5W, H 05 26 15
		e(SS)	E	08.0	19					
		m	NE	09.1	20	4	3			Magnitude: 7¼ Matsushiro
		e(SSS)	E	12.2	?					7 Berkeley, Strasbourg
		m	NE	13.7	19	2	5			6¾ Pasadona
		e	E	20.1	33					6½ Moscow, Tacubaya
		eLR	E	32.3	40					6.3 Uppsala, Kiruna.
		M	NEZ	38	22	4	7	9		
577	5	(P)	Z	16 12 41						Masked by microseisms.
		i	V	12 44	1½			+		USCGS: 10½S, 122½E, H 16 05 38
578	7	i	V	04 01 03	1½			+		Masked by large microseisms.
		M	E	13.2	16		2			USCGS: 21S, 174½W, H 03 53 53
579	7	M	E	14.3						Masked by large microseisms.
										USCGS: 51N, 159E, H 13 19 45
										Magnitude: 6.5 Uppsala,Kiruna
										6¼-6½ Matsushiro
										5.5 Moscow.

No.	Date	Phase & Component	Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957		h m s	s	μ	μ	μ	km.	
580	Oct. 7	i(P) V	16 54 16	1½			+		Masked by microseisms.
		i E	54 17	3		+2			USCGS: 20S, 179W, h 650 km.ca.,
		e E	58 30	?					H 16 48 47
		e N	17 01 43	12					
581	10	e E	14 33 53	13					Masked by microseisms.
		eL E	35.2	30					USCGS: 3½S, 146E, H 14 20 55
		M E	38.8	16		4			
		M Z	40.5	18			3		
582	~12	iP V	19 05 25	1½			+	4970	Compression. Microseisms present.
		iS NE	12 05	5	-2	+5		4497	H 18 57 08
		i E	15 27	7					
		eL E	17.0	27					USCGS: 8S, 11E, H 18 57 02
		eL E	18.9	36					Shillong: 7S, 111E, H 18 57 10
		M EZ	25.0	20		15	15		Magnitude: 6 Matsushiro.
		M N	25.4	20	9				
583	12	eL E	22 17.2	35					Masked by microseisms.
		M E	23.0	16		5			USCGS: 3S, 146½E, H 22 03 00
									BCIS: 3.0S, 146.5E, H 22 03 02
584	13	eS E	04 42 41						Masked by microseisms.
		e(LQ) E	55.9	(22)					USCGS, BCIS: 52½N, 160E, H 04 19 17
		eL E	58.1	22					Moscow: 51½N, 162½E, H 04 19 02
		M N	05 05.4	22	2				Magnitude: 6½ Matsushiro
		M Z	05.6	21			2		6.4 Uppsala, Kiruna
		M E	15.2	19		2			6.2 Moscow.
585	13	eL E	05 31.5	16					Masked by microseisms.
		M E	34.9						
586	13	iP NZ	20 38 45	4	+6		+5	3000	Compression. Microseisms present.
		i N	39 19	6	+4			2790	H 20 33 00
		i(PP) Z	39 23	6			+5		
		iS E	43 22	8		+14			USCGS: 60S, 151E, H 20 33 01
		i N	43 29	7	+7				
		i Z	43 39	4			+6		Magnitude: 6¾ Strasbourg.
		i N	43 48	6	+11				
		i E	44 07	6		+14			
		i E	44 22	10		+33			
		i Z	44 23	6			+12		
		iSS E	44 32	9		-46			
		i N	44 38	6	-7				
		eLR Z	45.3	21					
		eLR N	45.5	21					
		i N	46 04	7	+21				
		M NZ	46.5	18	20		26		
		M E	46.8	12		28			
		M E	49.1	9		25			
		M Z	49.8	10			18		
		M N	51.0	9	24				
587	14	iP ZV	03 21 01	3			+2		Compression. Microseisms present.
		i(S) E	24 51	3		+2			
		i E	24 58	4		+2			BCIS: 53½S, 140E, H 03 16 09
		e N	25 09	9					
		M NE	28.1	9	1	2			
	14	(iP) V	12 51 17	1½			+		Masked by microseisms.
									BCIS: Santa Cruz, h 60km. H 12 46.0
588	15	eL N	06 06.7	16					Masked by microseisms.
									USCGS: 30S, 179W, h 150km., H 05 55 21
589	18	eL E	19 14.4	?					Masked by microseisms.
		M E	17.8	15		½			BCIS: 2½S, 146½E, H 18 59 15
590	18	i Z	19 13 54	4			+2		Masked by microseisms & coda of 589
		e(L) N	17.8	(20)					USCGS: 22S, 172E, H 19 08 53
		M E	19.8	15		1			
		M Z	20.4	15			1		

No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
591	Oct.19	iP	Z	18 39 26	4			+2	7180	Compression.
		ipP	V	39 37	1½			-	6426	h 0.00, H 18 28 50
		isP	NEZ	39 41	4	-4	+3	+10		
		e	NEZ	39 48	13					USCGS: 23½N, 122E, H 18 28 50
		e	Z	47 59	18					JSA: 23.8N, 121.6E, h 0.00,
		iS	N	48 02	7	-4				H 18 28 55
		iS	E	48 05	7		-4			Moscow: 23N, 121½E, H 18 28 55
		e	E	48 31	22					
		i	NZ	48 33	6	+4		-5		Magnitudo: 7 Moscow
		i	N	48 45	4	+4				6¾ Shillong
		e	E	49 21	15					6.7 Romo
		eSS	EZ	52 22	22					6½-6¾ Pasadena
		e(L)	E	54.7	33					6.5 Uppsala, Kiruna,
		e	E	55.3	(33)					Strasbourg.
		eL	E	56.9	30					
		eLR	NE	19 00.0	22,27					
		M	NZ	05.1	22	9		6		
		M	E	05.3	20		17			
		eW2	E	21 01	24					
592	19	(S)	E	22 03 29						USCGS: 44½N,146E,h 150km.H 21 41 59
										JSA: 44.6N,145.7E,h0.015,H 21 41 58
										JMA: 44¼N,146¼E,h 120km. H 21 42 00
										Magnitudo: 6½-6¾ Pasadena
										6.1 Uppsala, Kiruna.
593	20	i	Z	08 54 41	3			-2		Masked by microseisms.
		eL	N	09 07.7	(21)					
		M	NEZ	11.7	17	1	1	2		
594	20	(PKP)	V	12 24 12						Masked by microseisms.
		iSKS	N	31 08	4	-2				
		iSKKS	N	34 59	4	-3				USCGS: 11½N, 42W, H 12 04 22
		e	E	49 35	(15)					
		e	N	49 41	(15)					
		eSSS	NE	53 50	19					
		eL	E	13 03.7	24					
		eG	E	09.6	42					
		eLR	E	14.8	33					
		M	E	23.5	25		1			
		M	N	24.5	24	2				
		M	Z	25.0	24			5		
		M	E	27.0	22		3			
		M	NZ	27.2	21	2		3		
595	21	iP	Z	00 23 04	5			+3		Compression. Microseisms present.
		i(sP)	Z	23 40	5			+3		
		i	N	27 55	5	+2				USCGS: 11S, 167E, h 100 km.ca.,
		e	E	27 57	15					H 00 17 25
		e	N	28 07	15					
		i	E	28 15	8		+6			
		i	Z	28 24	7			-4		
		eL	Z	29.9	30					
		eL	E	30.5	27					
		M	N	32.9	13	2				
		M	E	33.9	15		3			
596	21	(iP)	Z	15 09 51	2			+1		Masked by microseisms.
		e	E	14 28	7					
		e	N	14 37	9					BCIS: 21½S, 176E, H 15 04.4
		eL	E	16.2	27					
		M	N	17.1	18	1				
		M	EZ	17.8	19		2	3		
597	22	M	NE	06 16.4	15	½	1			Masked by microseisms.
										BCIS: 45N, 148E, H 05 32 23
598	22	e	EZ	22 11 45						Masked by microseisms.
		M	E	21.4	18		1			BCIS: 32S, 178W, H 22 06 00
		M	Z	21.5	18			1		

No.	Date	Phase & Component	Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957		h m s	s	μ	μ	μ	km.	
599	Oct.23	iP V	06 10 08	1½			+	10,340	Compression. Large microseisms
		i Z	14 10	3			+2	93°0	present.
		eSKS N	20 40	?					USCGS: 52½N, 169½W, H 05 56 52
		eS E	21 09	7					JSA: 52.9N, 169.7W, h 0.00,
		eL E	37.6	28					H 05 56 57
		eLR Z	40.6	27					Magnitude: 6¼ Pasadena, Berkeley
		M E	45.9	21		5			6 Moscow,Rome,Uppsala
		M Z	46.1	21			3		5¾-6 Strasbourg.
		M N	46.5	20	2				
600	23	M E	12 29.4						Masked by large microseisms.
									USCGS: Kermadec Is., H 12 13 36
601	24	iP ZV	00 23 01	2			+3		Compression.
		i NEZ	23 04	4	+9	+8	-15		
		ipP Z	23 10	5			-20		USCGS: 14½S, 168E, H 00 17 37
		i N	23 11	6	+9				JSA: 14.7S, 168.1E, h 0.00,
		i E	23 22	6		+8			H 00 17 42
		i Z	23 26	5			+10		Magnitude: 6½ Pasadena.
		i N	23 28	4	-8				
		i N	23 41	4	-7				
		i Z	23 49	4			+5		
		i E	24 00	4		-7			
		i Z	24 08	4			-6		
		i E	24 17	6		+15			
		i N	24 19	5	+4				
		i Z	24 36	5					
		i N	26 36	6	+10				S cannot be identified.
		i(sS) N	27 35	5	+6				
		i E	27 36	5		-7			
		i Z	27 50	6			-11		
		i NE	27 55	9	-13	-27			
		i Z	27 57	7			-14		
		i E	28 11	7		-16			
		e(LQ) N	28.3	21					
		i N	28 32	7	+13				
		i E	28 35	7		-14			
		i N	29 11	6	-13				
		i E	29 13	6		-6			
		eL Z	29.3	25					
		eL E	29.5	24					
		M EZ	30.5	16		19	14		
		M N	31.5	16	14				
602	24	iP Z	09 13 07	3			+1	3270ca.	Compression. Microseisms present.
		ipP NEZ	14 35	4	-3	-6	+8	29°4ca.	h 0.08 ca.
		i Z	14 42	4			+6		
		i E	14 43	4		-3			USCGS: 20½S, 179W, h 550 km.ca.,
		i Z	14 47	4	-6		-7		H 09 07 30
		iS N	17 24	4	-6				Moscow: h 550 km.ca., H 09 07 34
		iS E	17 26	4		+8			
		i E	17 33	5		+12			
		i N	19 18	5	+4				
		e EZ	20 25	9					
		i N	20 30	4	+4				
		i E	20 32	4		-5			
		i Z	21 01	5			-3		
		iScS N	22 35	4	+6				
		iScS E	22 39	4		+7			
		i Z	24 44	4			-5		
		i N	25 04	4	-4				
		i E	26 31	4		-4			
603	24	eSS E	22 19 26	18					USCGS: 25N, 109½W, H 21 44 28
		eLR E	36.0	30					Magnitude: 6 Pasadena, Tacubaya.
		M EZ	44.2	18		2	2		
604	25	eL E	02 13.5	(25)					Masked by microseisms.
									USCGS:21½N, 121½E, H 01 42 52.

No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks.
	1957			h m s	s	μ	μ	μ	km.	
605	Oct.25	eL	E	05 24.0	(31)					Masked by microseisms. USCGS: 52½N, 169½W, H 04 37 35
606	25	M	E	06.9	22					Masked by microseisms. USCGS: 21½N, 121½E, H 06 19 06
607	25	eP	Z	10 16 01					9370ca.	P confused by microseisms.
		e	Z	16 14	6				8493ca.	H 10 03 31 ca.
		i	Z	16 24	4			-5		
		i	Z	19 54	4			+3		USCGS: 50½N, 156½E, H 10 03 32
		iS	N	26 23	5	+4				JSA: 50.0N, 156.4E, h 0.00, H 10 03 32
		iS	E	26 26	(5)		-(4)			Moscow: 50.5N, 156E, H 10 03 35
		e	Z	26 46	27					
		i	N	26 54	6	+5				
		i	E	26 56	6		-7			Magnitude: 6¾ Pasadena
		iPS	E	27 16	6		+5			6½ Berkeley, Praha.
		iPS	N	27 17	4	-3				6.3 Uppsala, Kiruna, Moscow
		eSS	N	31 47	28					6.2 Romo.
		e	E	34 03	25					
		eG	E	38.3	46					
		eLR	Z	42.9	34					
		eLR	NE	43.0	34					
		M	NEZ	44.9	27,30	4	12	13		
		M	NEZ	48.3	22,24	4	4	5		
608	25	eL	E	21 00.7	24					
609	26	iPP	V	04 40 36	1½			+		Masked by microseisms.
		eS	N	45 16	9					
		e(SS)	E	48 20	?					USCGS: 0°, 125E, H 04 31 03
		e	E	52.8	(18)					
		eL	E	54.1	(33)					
		M	E	57.2	(16)		(2)			
610	26	i	N	08 31 43	4	+2				Masked by microseisms.
		i(pP)	Z	33 16	4			-3		
		i	E	35 18	4		+3			USCGS: 20½S, 178W, h 600 km.ca., H 08 26 12
		e	E	35 49	15					
		i(S)	E	36 01	8		-10			Magnitude: 6-6¼ Pasadons.
		i(ScS)	N	41 13	4	-3				
		i(ScS)	E	41 14	4		+3			
611	26	iP	ZV	14 25 23	3			+2	5100	Compression.
		i	N	25 24	3	-1			4509	H 14 16 57
		i(pP)	Z	25 31	3			+9		
		i	NE	25 32	4	-3	+4			USCGS: 2S, 116E, H 14 16 56
		i	Z	25 35	3			-9		
		ePP	Z	27 05	10					Magnitude: 6.3 Uppsala
		i	NZ	27 18	3			+7		6.0 Romo.
		i	N	30 08	4	-2				
		iS	N	32 08	9	-6				
		iS	E	32 11	7		+9			
		i	Z	32 16	6			+4		
		i(sS)	NE	32 20	5	-8	+11			
		i	E	32 26	4		+4			
		o	E	32.9	(27)					
		iSS	E	35 24	6		+5			
		i	N	35 30	6	+6				
		i	Z	35 37	5			+6		
		i	E	35 38	7		-10			
		i	N	35 52	7	-9				
		i	Z	35 59	8			+9		
		eL	NE	40.4	33					
		M	NE	44.1	18	11	13			
		M	Z	44.9	24			8		
612	26	(iP)	Z	17 47 23	4			+3		Masked by microseisms.
		eL	Z	58.4	20					BCIS: Indian Ocean, 2000 km.ca. SW of Australia, H 17 39.7
		M	E	18 00.3	14		3			
613	27	i	V	05 45 46	1			+		Masked by microseisms.
		i	N	50 46	4	+3				USCGS: 13½S, 167½E, h 250km. H 05 40 56

No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
614	Oct.27	iP	Z	22 45 24	3			+4	10,150ca.	Compression.
		ipP	NZ	45 59	3	+1		-3	91°3ca.	h 0.02 ca.
		iSKS	N	55 39	5	+3				USCGS: 56N, 161E, H 22 32 25
		iS	NE	56 06	6	-3	-2			JSA:55.8N,160.9E, h 0.0z, H 22 32 40
		i	N	57 00	4	+3				Moscow:55.5N,162E,h 150km.H 22 32 41
		i	N	57 09	4	+4				Magnitudo: 6½-6¾ Pasadena.
615	27	(iP)	Z	23 02 33	3			+3		Masked by microseisms.
		i(PP)	E	03 11	4		+4			USCGS: 11½S, 166½E, H 22 56 55
		e(S)	E	07 05						
		i	NE	07 27	6	+2	+3			
616	29	iP	Z	02 29 58	4			-2	5200	Dilatation.
		i(pP)	Z	30 06	4			+3	46°8	h 0.00 ca., H 02 21 30
		ePP	Z	31 42	9					
		eS	E	36 45	6					USCGS: 2S, 116E, H 02 21 30
		eS	N	36 47	6					
		i(sS)	E	36 59	5		+3			
		iPPS	E	37 04	6		-3			
		eSS	E	40 08	10					
		eSS	NZ	40 11	9					
		i	N	40 24	6	+2				
		eL	E	43.7	24					
		M	NE	48.6	20	3	5			
617	29	eL	E	14 25.9	15					Masked by microseisms.
618	30	(eS)	E	02 37 45						Masked by microseisms.
		M	E	03 02.0	22		1			USCGS: 53N, 167W, H 02 13 08
619	30	M	E	08 50.4	21		1			USCGS: 36N, 27½E, H 07 30 20
										BCIS: 35.3N, 27,8E, H 07 30 18
										Magnitudo: 5.7 Uppsala, Kiruna
										5½-5¾ Athens, 5½ Praha
										5 Moscow.
620	31	(iPPP)	V	04 30 48	1½			+		Masked by microseisms.
		i	Z	32 32	4			+2		
		e	Z	35 16	15					USCGS: 8S, 161E, H 04 24 04
		M	EZ	39.7	18		1	1		
		M	N	41.4	15	2				
621	31	(ePP)	Z	10 28 43						USCGS: 6½N, 83W, H 10 07 54
		(SKS)	E	34 07	4					JSA: 6.6N, 82.7W, h 0.00, H 10 07 58
		eSS	E	45 55	21					Magnitudo: 7 Tacubaya
		eSSS	N	50 14	21					6¾ Berkeley
		eLR	E	11 05.9	37					6½-6¾ Pasadena
		M	NEZ	09.7	21	2	6	6		6.5 Uppsala, Kiruna.
622	31	iP	ZV	10 32 38	3			+1		Compression.
		eS	N	37 12	6					BCIS: Santa Cruz I., H 10 26 52
		e(L)	E	38.4	15					
		M	E	41.3	18		1			
623	31	i(P)	ZV	13 35 13	3			+2		Masked by microseisms.
624	31	iP	V	15 34 01	1½			+		Compression.
		iP	NZ	34 02	3	+3		+2		
		i	NZ	34 06	3	-4		-4		USCGS: 55S, 148E, H 15 29 10
		ipP	NZ	34 11	5	+8		+9		
		isP	V	34 14	1½			+		
		i	NZ	34 18	5	-5		-3		
		i	Z	34 23	4			+5		
		e(S)	E	37 53	7					
		e	E	38 02	13					
		i	E	38 11	9		-26			
		i	N	38 12	5	+7				
		eL	NE	38.7	21					
		eL	Z	39.0	30					
		M	NEZ	41.7	10	14	21	9		
625	31	iPKP	V	16 43 10	1½			-		Dilatation.
		eSS	E	17 00 58	19					USCGS: 1½N, 86W, H 16 24 17
		eLR	E	19.6	27					
		M	NEZ	23	19	1	2	2		

No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
	Nov. 1	iPg	V	05 56 31	¼			+		Quarry blast ??
		iSg	V	56 35	½			-		
		i !	V	56 38	¾			+		
	2	(iSKS)	N	07 46 17	4	+1				USCGS:15N,93½W,h 100km.H 07 20 58
626	2	e(SS)	E	16 35 12	10					USCGS: 6N, 127½E, H 16 16 52
		M	E	44.7	22		½			Magnitude: 6.1 Quetta, 5½ Matsushiro.
627	2	iP	NEZV	18 35 51	4	-6	-6	+12	2780	Compression.
		i	Z	36 00	4			-8	25?0	
		i	NEZ	36 02	4	-4	-7	+12		USCGS: 13S, 166½E, H 18 30 24
		iPP	NZ	36 25	4	+9		-11		BCIS: 13.0S, 166½E, H 18 30 25
		iPPP	N	36 35	4	-7				
		iS	N	40 10	7	-20				Magnitude: 6.4 Kiruna, Uppsala
		iS	E	40 12	7		-9			6¼ Matsushiro.
		i	EZ	40 25	7,6		-16	+11		
		i	Z	40 43	6			+22		
		iSS	N	41 01	7	+27				
		eL	N	41.3	18					
		eL	Z	42.1	27					
		eL	E	42.2	25					
		M	E	44.0	18		26			
		M	Z	44.2	19			22		
		M	N	44.8	14	9				
628	3	(P)	Z	10 30 46						Masked by microseisms.
		e	Z	30 52						
		(eS)	E	35 30	(12)					USCGS: 6S, 147E, H 10 24 51
		i	N	35 50	7	+8				
		e	Z	35 50	9					Magnitude: 5¾ Matsushiro.
		i	N	36 03	5	+5				
		eL	E	37.7	28					
		eL	N	39.2	24					
		M	E	40.4	18		14			
		M	NEZ	43.9	11	6	10	7		
629	3	i	N	11 25 41	5	+3				Masked by microseisms & coda of 628
		eL	E	27.4	25					USCGS: 6½S, 147E, H 11 14 30
		M	E	30.0	18		4			BCIS: H 11 14 32
		M	NEZ	33.5	12	2	4	2		Magnitude: 5¼-5½ Matsushiro.
630	4	e	E	14 01 01						Masked by microseisms.
631	5	(iP)	V	09 59 21	1½			+		Masked by microseisms.
		i(PcP)	V	10 02 26	1			+		USCGS: 13S, 169E, h 650 km.ca.,
		iS	E	03 11	4		+3			H 09 54 29
		i	E	06 15	5		-3			
		i	N	06 16	4	+2				Magnitude: 5¼ Matsushiro.
		(iScS)	N	09.03	4	-1				
632	5	M	E	11 34.2	16		½			Masked by microseisms.
		M	NZ	36.0	18	½		1		USCGS: 6S, 150E, H 11 18 43
633	6	eL	E	00 55.3						Masked by microseisms.
										BCIS: 5S, 154E, H 00 41.7
634	6	(SKS)	E	13 35 11	5					Masked by microseisms.
		M	E	58.4	(19)					USCGS: 45N, 149½E, H 13 12 53
										Magnitude: 6.3 Quetta
										5¾ Matsushiro.
635	7	(P)	Z	06 30 49						Masked by microseisms.
		eS	E	37 51	11					
		ePS	N	37 56	11					USCGS: 57½S, 143½W, H 06 21 56
		m	NE	38 15	13	3	4			
		e	E	40 05	20					Magnitude: 6 Matsushiro.
		i(ScS)	N	40 41	4	+2				
		eLR	Z	44.6	30					
		M	NE	44.8	15	2	5			
		M	Z	46.6	19			3		

No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks.
	1957			h m s	s	μ	μ	μ	km.	
636	Nov. 8	e	E	02 58 24						Masked by microseisms.
		M	E	03 02.1	15		2			USCGS: 5½S, 155E, H 02 46 22
637	8	M	E	19 01.5	14		½			Masked by microseisms.
638	10	iP	NZ	02 42 05	3	+3		-4	2950	Dilatation.
		i	V	42 06	1½			+	26°5	H 02 36 24
		i	NEZ	42 09	5	-6	-3	+9		
		i	NZ	42 20	6	-13		+16		USCGS: 7S, 155½E, H 02 36 21
		iPP	N	42 46	5	+8				
		iPP	V	42 48	1½			+		Magnitude: 6.5 Quetta
		ePPP	EZ	42 57	10					6¼-6½ Matsushiro.
		i	NZ	43 14	6	+12		-14		
		i	E	46 25	7		-11			
		iS	N	46 38	7	-22				
		i	N	46 43	11	+43				
		i	Z	46 53	8			-15		
		i	E	47 00	6		+9			
		i	Z	47 03	9			-50		
		i	NZ	47 15	7	-53		-21		
		i	E	47 17	7		-18			
		i	N	47 26	7	-28				
		i	E	48 12	8		+50			
		i	N	48 44	7	+12				
		i	E	48 55	9		-64			
		eL	Z	49.8	24					
		M	E	53.4	11		76			
		M	NZ	53.9	11	44		36		
639	10	i(P)	Z	03 49 37	4			-3		Dilatation. Masked by coda of638
		i	N	50 07	5	-7				
		i(S)	N	54 11	9	+11				USCGS: 7½S, 155½E, H 03 43 49
		i	N	54 24	8	+24				
		i	E	54 27	5		+5			Magnitude: 6.2 Quetta
		M	E	04 00.7	10		13			6.0 Uppsala, Kiruna.
		M	NZ	01.3	11	15		7		
640	10	eS	E	05 39 27						Masked by microseisms and coda of
		eL	E	42 19	26					preceding shocks.
		M	NEZ	45.1	14,17	4	9	5		USCGS: 24½S, 175½W, H 05 28 10
										Magnitude: 6.3 Uppsala, Kiruna
										6¼-6½ Matsushiro.
641	10	i(P)	NZ	05 54 53	4	-3		+5		Compression. Masked by microseisms
		iPP	Z	55 37	5			+6		and coda of no.640.
		iPPP	Z	55 49	6			+6		
		i	N	58 36	4	-3				USCGS: 6½S, 147E, H 05 48 57
		i	E	59 04	5		+4			
		e(S)	N	59 33	9					Magnitude: 6.5 Quetta.
		i	Z	59 55	9			-12		
		i	E	06 00 38	6		-8			
		i	Z	01 05	6			+7		
		eL	E	01.7	31					
		eL	Z	02.9	30					
		M	E	04.7	17		75			
		M	N	05.8	21	53				
		M	Z	06.2	19			34		
		M	Z	07.8	12			54		
		M	N	08.3	12	58				
642	10	e(S)	E	08 46 16						Masked by microseisms.
		M	NEZ	09 03.3	13	1	1	1		USCGS: 34½N, 139E, H 08 26 06
										JMA: 34.3N, 139.3E, H 08 26 03
										Magnitude 5.9 Matsushiro
										5.8 Uppsala, Kiruna.
643	10	e(S)	N	08 53 01	10					Masked by no.462.
		M	E	09 00.0	10		1			USCGS: 7½S, 156½E, H 08 42 50

No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
	Nov.10	(ePKP)	Z	10 40 29						Masked by microseisms. USCGS: 8N, 74½W, H 10 21 14
644	10	eL	E	16 48.7	18					Masked by microseisms.
645	10	M	E	18 32						Masked by microseisms. USCGS: 2S, 116E, H 18 01 37
646	10	(eP)	Z	19 31 13						Masked by microseisms.
		eS	E	40 19						
		i	N	40 22	5	-3				USCGS: 34N, 139½E, H 19 20 05
		i(ScS)	N	41 14	5	+3				JMA: 34.3N, 139.4E, H 19 20 05
		e(LQ)	E	48.1	(30)					
		eG	E	48.6	46					Magnitudo: 6.6 Matsushiro
		eLR	E	50.2	31					6.4 Praha
		M	E	57.2	16		3			6.1 Uppsala, Kiruna.
		M	N	58.4	20	2				
		M	Z	59.1	19			3		
647	12	e	N	01 42 27						Masked by large microseisms.
		e	N	42.9						USCGS: 6S, 149½E, H 01 31 40
		eL	E	44.6	25					
		M	E	47.3	18		6			
648	12	M	NEZ	09 55.4	13,16	1	6	4		Masked by large microseisms. USCGS: 7½S, 128½E, H 09 33 51
649	13	(i)	Z	01 10 57	4			+3		Masked by microseisms.
		i(S)	N	15 24	4	+2				BCIS: Solomon Is., H 01 50.1
		M	N	21.3	15	1				
		M	E	22.1	13		1			
650	13	iP	V	17 28 03	1½			+		Compression.
		i	EZ	28 09	(6)		-	+		
		i	EZ	28 14	7		+22	-21		
		i	EZ	28 26	6		+18	-17		Phases cannot be identified.
		i(PPP)	N	28 54	6	+6				
		i	EZ	28 57	?		+	-		USCGS: 33S, 179W, H 17 22 41
		i	Z	29 02	9			+28		JSA: 32.3S, 178.5W, h 0.00,
		i	E	29 04	9		-38			H 17 22 46
		i	N	29 19	6	-6				
		i	N	31 18	7	-16				Magnitudo: 6¾ Berkeley
		i	N	31 31	7	+17				6.7 Tacubaya
		i	E	32 09	7		-9			6½-6¾ Pasadena
		i	E	32 38	11		+30			6.5 Wellington.
		i	Z	33 07	8			-21		
		i	NE	33 09	10	+31	+49			
		i(SSS)	N	33 35	10	+32				
		eL	N	34.4	30					
		eL	Z	34.5	31					
		M	N	36.2	19	52				
		M	EZ	36.7	19		130	115		
651	15	iP	V	08 01 20	1½			+	5580	Compression. Large microseisms
		iP	Z	01 21	2			+3	50°2	present.
		(iPP)	V	03 11	1½			+		USCGS: 8½N, 124E, H 07 52 25
		iS	NE	08 32	3	+3	+2			Moscow: 8N, 122½E, H 07 52 26
		eSS	N	11 56	15					Shillong: 8N, 124½E, h 100 km.ca.,
		e	E	12 10	16					H 07 52 35
		eLQ	E	13.2	(25)					Manila: 8 40'N, 123 12'E.
		M	E	22.7	24		9			Magnitudo: 6.3 Quetta.
		M	Z	22.8	22			6		
652	18	eL	E	14 05.6						Masked by large microseisms.
653	19	eL	Z	02 47.5						Masked by large microseisms. USCGS: Antarctic Ocean, 500 km. NW of Balleny Is. H 02 34 15
654	19	(iP)	Z	16 25 25	3			-2		Masked by microseisms.
		e(L)	E	45.5	21					USCGS: 47N, 152½E, H 16 13 29, h 100 km.ca.

No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
655	Nov.20	eP	Z	12 53 58					10,600	Microseisms present.
		ePP	Z	57 53	6				95°4	
		iSKS	N	13 04 33	4	-4				USCGS: 54N, 165W, H 12 40 23
		iS	E	05 12	9		+13			JSA: 54.1N, 164.7W, h 0.00,
		i	N	05 14	6	+1				H 12 40 29
		i	N	05 30	4	+2				Moscow: 54.5N, 165W, H 12 40 35
		i	E	05 32	6		+6			
		eSS	E	11 28	27					Magnitudo: 6¾ Matsushiro
		eSS	N	11 44	19					6½ Moscow, Quotta
		eSSS	E	15 25	(28)					6¼-6½ Berkeley
		eLQ	N	19.8	34					6.4 Uppsala, Kiruna.
		eLR	E	24.6	30					
		M	Z	30.2	21			4		
		M	N	30.7	22	3				
		M	E	31.2	22		6			
656	21	e(S)	E	05 25 12						Masked by microseisms.
		e(LQ)	E	28.0	25					USCGS: ½S, 127½E, H 05 11 33
		eL	E	32.4	22					
		M	E	38.0	19		2			Magnitudo: 5¾ Matsushiro.
		M	Z	38.9	19			1		
657	21	e	E	15 02 36						Masked by microseisms.
		M	N	05.7	11	½				
		M	EZ	05.8	10		½	½		
658	21	e(S)	E	18 10 17						Masked by microseisms.
		e	E	12 55	16					
		eL	E	15.8	16					USCGS: 3S, 130E, H 17 57 21
		M	E	19.0	18		1			
659	22	(iP)	V	07 50 15	1½			+		Masked by microseisms.
		e(SS)	N	54 15	7					BCIS: 23½S, 169E, H 07 46.0
		eL	NZ	54.6	12					
660	22	e(S)	E	16 10 39	7					Masked by large microseisms.
		eL	E	11.1	15					Wellington: SW of South Is.,
		M	E	11.4	10		5			New Zealand,
		eT	V	25 36	½					H 16 03 02
661	22	eP	Z	16 10 34	6				2460ca.	
		i	Z	10 40	4			-4	2292ca.	
		i	Z	10 47	4			+6		USCGS: 22½S, 172½E, H 16 05 35
		i	E	10 49	5		+6			
		iPP	E	11 02	4		+5			Magnitude: 5.7 Wellington.
		i	N	11 15	4	+5				
		iS	E	14 34	6		-8			
		i	E	14 39	6		+20			
		i	N	14 41	6	+7				
		i	Z	14 49	6			-7		
		eL	N	15.6	21					
		M	N	16.9	15	5				
		M	Z	17.3	18			8		
		M	E	17.4	18		10			
662	22	M	E	22 17.5	16					Masked by microseisms.
										USCGS: 1S, 127E, H 21 51 04
663	23	e(S)	E	01 23 07						Masked by large microseisms.
		eL	E	43.2						USCGS: 53N, 167½W, H 00 58 36
										Magnitude: 6.7 Quotta, 6,2 Uppsala
										5½ Moscow.
664	23	eS	E	22 13 12						Masked by microseisms.
		i	E	13 18	7		+4			
		i	N	13 28	5	+4				USCGS: 23S, 173E, H 22 04 13
		eLR	E	14.9	22					
		M	E	16.4	17		2			
		M	Z	16.7	16			1		
665	24	(i)	Z	04 49 33	3					Masked by microseisms.
		M	E	05 01.1	17		1			USCGS: East coast of New Guinea,
										H 04 44 52

No.	Date	Phase & Component	Time (G.M.T.)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks.
	1957		h m s	s	μ	μ	μ	km.	
665	Nov.24	iP Z	22 43 28	3			+5	5140	Compression. Microseisms present.
		iP E	43 29	3		+2		46°2	H 22 35 00
		isP NEZ	43 36	3	-5	+5	+7		
		iPcP Z	45 04	4			+3		USCGS: 1½S, 116½E, H 22 35 00
		iPP EZ	45 16	4		+3	+3		Moscow: H 22 35 03
		iPP N	45 17	4	+4				
		iS NEZ	50 15	6,8	-7	+9	-4		Magnitude: 6½-6¾ Matsushiro
		i(PPS) E	50 31	8		-9			6.5 Quotta
		i N	50 36	4	-6				6.3 Uppsala, Kiruna.
		iSS E	53 29	6		+7			
		iSS N	53 34	6	+13				
		m E	53 47	10		9			
		i Z	53 53	7			+11		
		i N	53 56	7	-12				
		iSSS E	54 28	7		+14			
		i E	55 02	4		+6			
		i N	56 24	6	+6				
		i E	56 25	6		+8			
		oL E	56.7	(28)					
		M E	23 02.1	18		18			
		M N	02.3	18	11				
		M Z	02.6	21			16		
		M E	06.0	15		15			
		M N	06.4	15	12				
		M Z	06.6	13			7		
667	26	iP EZV	05 18 30	3		+2	+5	5150	Compression. Microseisms present.
		i Z	18 36	4			+10	46°3	H 05 10 01
		i N	18 42	3	+4				
		i V	19 44	1½			+		USCGS: 2S, 116E, H 05 10 00
		iPP NEZ	20 20	4	+4	-6	-5		BCIS: Repotition of 666, H 05 10 01
		iS N	25 17	5	-7				Moscow: H 05 10 03
		iS E	25 18	6		+10			
		i NZ	25 28	5	-7		+8		Magnitude: 6½ Matsushiro
		i E	25 33	7		-9			6.7 Quotta
		iSS E	28 34	7		-7			6.3 Uppsala.
		iSS N	28 35	6	+7				
		e N	28 42	16					
		i Z	28 44	5			+8		
		i Z	28 53	9			+10		
		i E	29 29	8		+11			
		i E	31 37	5		+11			
		oL E	31.8	(24)					
		M E	37.1	18		15			
		M N	37.4	18	11				
		M Z	37.6	(20)			(10)		
		M E	41.0	15		13			
		M N	41.4	15	14				
		M Z	41.6	15			9		
668	26	e E	12 09 45	(18)					Masked by large microseisms.
		M E	32.6	19					USCGS: 51½N, 176W, H 11 35 44
									Moscow: H 11 36 00, Mag.: 6.2
	26	(iP) V	19 17 10	1½			+		Masked by large microseisms.
									USCGS: 19N, 121E, H 19 07 02
669	28	(eS) NE	05 25 27						Masked by microseisms.
		M E	36.1	19		1			USCGS: 8½N, 126½E, H 05 09 35
670	28	iP NEZV	20 55 32	3	-4	-6	+8	2840ca	Compression.
		i Z	55 36	6			+29	25°5ca	
		i E	55 52	5		-5			USCGS: 15S, 168½E, H 20 50 10
		i N	55 54	5	+4				Moscow: H 20 50 05
		i Z	55 56	5			+15		
		iPP N	56 13	6	+7				Magnitude: 6¼ Matsushiro.
		i E	56 19	5		-8			
		i NE	21 00 01	6	+9	+14			

(Continued on next page)

No.	Dato	Phase & Componont		Timo (G.M.T.)	Por.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
670 cont.	Nov.28	i	Z	21 00 28	6			-15		
		m	N	00 37	10	19				
		iSS	N	00 58	10	+19				
		iSSS	E	01 15	7		-18			
		eL	Z	02.3	23					
		M	E	03.0	19		22			
		M	N	04.1	16	11				
		M	Z	06.7	15			13		
671	29	iP	Z	17 49 04	4			+2	2790	Compression.
		iP	N	49 05	4	+1			25°1	
		eS	E	53 27	9					USCGS: 48½S, 124½E, H 17 43 38
		i	N	53 41	5	-2				
		i	E	53 49	7		+5			
		eL	E	54.7	25					
		M	NEZ	56.9	12	2	8	2		
672	29	iP	Z	22 34 15	4			-2	12,780ca	Dilatation.
		e	NEZ	34 22	9				115°ca	h 200 km.ca. (Gutenberg Tables)
		e(PKP)	E	37 51	4					
		e	E	38 01	9					USCGS: 21S, 66 W, h 200 km.ca.,
		i	Z	38 04	4			-2		H 22 19 38
		iPP	NEZ	39 03	6	-11	+10	-28		JSA: 20.8S, 66.3W, h 0.035,
		i	Z	39 07	4			+12		H 22 19 45
		i	NE	39 10	5	-8	+9			
		i	E	39 28	6		+12			Magnitudo: 7¾-8 Pasadena
		i(pPP)	Z	39 55	4			-7		7½-7¾ Matsushiro
		i(SKS)	N	44 31	6	+6				7½ Berkeley, Uppsala,
		iSKS	E	44 38	7		-17			Kiruna.
		e(pSKS)	E	45 37	12					
		i	E	46 39	7		-9			
		i	E	47 08	7		+14			
		i(pS)	N	47 36	6	+5				
		e	E	47 55	34					
		e	Z	48 29	12					
		iPS	NZ	48 46	13	-26		+24		
		iPS	E	48 48	13		+43			
		ipPS	E	49 24	7		+19			
		i(SPP)	N	49 30	7	+7				
		isPS	E	49 41	7		+29			
		i	N	49 46	7	-18				
		i	N	50 00	7	-17				
		i(PPS)	E Z	50 04	19		-83	-		
		i	N	50 13	18	-64				
		i	E	51 45	7		+20			
		i	Z	53 38	6			-15		
		iSS	N	54 46	10	+11				
		iSS	E	54 48	9		+13			
		i	N	55 05	13	+23				
		e	E	55 13	30					
		i	E	56 14	12		+32			
		e	E	58 24	25					
		eSSS	E	58 50	25					
		eG	E	23 07.0	34					
		M	EZ	17.5	21		33	24		
	30	(iP)	Z	02 13 03						Masked by microseisms.
										BCIS: 7.0S, 52.0E, H 01 59 42
673	30	eS	E	22 16 36	10					Masked by microseisms.
		eL	E	27.9	22					USCGS,JMA:47N, 154E, H 21 54 10
		M	EZ	40.5	19		1	1		Magnitudo: 6.2 Uppsala, 6.1 Quetta,
										6-6¼ Matsushiro.
674	Dec.1	(P)	V	01 12 44						Masked by microseisms.
		e(S)	E	22 51	?					USCGS: 47½N, 153½E, H 01 00 26
675	1	M	Z	01 54.8						Masked by microseisms & no.674
										USCGS: 47½N, 154E, H 01 09 00
										JMA: 47N, 154E, H 01 08 57
										Mag.: 6-6¼ Matsushiro, 5¾-6 Kew.

No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
676	Dec. 4	iP	V	00 34 54	1½			-		Dilatation. Masked by large micros.
		M	E	53.0	16		2			USCGS: 0°, 125E, H 00 27 01
677	4	iP	ZV	03 50 58	3			+4		Compression.
		ipP	Z	51 09	3			-9		Galitzin records hard to read owing
		isP	NEZ	51 13	5	-7	+8	+34		to overlapping of lines.
		iPP	Z	54 44	9			+43		
		iPP	NE	54 45	9	-17	+15			* From Mainka.
		iPPP	NEZ	56 48	7	-28	+13	+34		
		*e	N	04 01 30	6					USCGS: 45½N, 99½E, H 03 37 45
		*i	N	01 38	10	-				BCIS: 45¼N, 99.4E, H 03 37 44
		i	E	01 39	10		+49			JSA:44.8N,99.4E, h 0.00, H 03 37 42
		*i	N	01 49	6	+				Moscow:44½N, 100E, H 03 37 47
		i(sS)	N	02 08	10	+47				Quotta: 47N, 102½E, H 03 37 19
		*i !	N	02 14	10	-				Shillong: 47N, 100E, H 03 37 30
		*i	N	03 08	7	+				Oulan Bator:45.1N,99.4E,H 03 37 45
		*i	N	03 31	7	+				
		i	E	03 37	9		-110			Magnitude: 8.6 Pasadona m 7.9
		*e(SS)	N	08 51	34					8.5 Noumoa
		*eG	N	17.7	60					8.4 Reykjavik
		*eL	E	22.0	45					8.1 Shillong
		*M	N	24.7	22	290ca				8.0 Praha
		*M	E	25.3	28		540ca			7.9 Tacubaya
		*M	N	28.1	26	380ca.				7¾-8 Barkeloy
		*M	E	31.7	19		240ca.			7.8 Quotta
		*M	N	31.8	21	340ca				7¾ Moscow
		M	Z	32.9	20			300ca		7.7 Kew.
		M	Z	38.2	18			300ca		
		*M	N	38.3	18	500ca.				
		F		08.5						
678	5	eL	E	14 18.9	21					
679	7	iP	ZV	03 23 14	3			+3	4140	Compression.
		ipP	EZ	24 59	4		+3	+4	37°2	h 0.095, H 03 16 54
		iS	EZ	28 19	5		-8	+3		USCGS: 6½S, 123½E, h 550 km.ca.,
		iS	N	28 21	5	+6				H 03 16 43
		isS	NE	31 32	6	+3	-5			Magnitude: 6¼-6½ Matsushiro
										5.8 Quotta.
680	9	iP	V	15 54 58	1½			+		Compression.
		i(S)	NE	59 18	6	+3	+3			No Vertical Galitzin record.
		i	N	59 45	4	+3				
		i	N	16 00 00	4	+3				USCGS: New Hebrides, H 15 49 34
		e	N	00 04	13					
		eL	E	01.3	23					
		M	NE	03.5	15	2	2			
681	10	iP	NZV	14 41 48	3	+3		-4	2990	Dilatation.
		i	Z	41 55	3			+8	26°9	H 14 36 03
		i	NZ	42 03	6	+21		-32		
		iPP	NZ	42 31	5	-14		+15		USCGS: 6S, 154½E, H 14 35 57
		i	Z	42 46	7			+23		JSA: 6.5S,155.1E, h 0.00, H 14 36 01
		iS	N	46 24	9	-57				Moscow: H 14 36 00
		i	E	46 29	7		-23			
		i	E	46 41	6		-41			Magnitude: 7 Matsushiro
		i	Z	46 44	7			+37		6.8 Uppsala, Kiruna
		i	N	46 45	9	-100				6.7 Kew
		i	E	46 50	10		+125			6¾ Pasadona
		i	E	47 12	7		+50			6½-6¾ Borkoloy
		i	N	47 18	9	-91				6.6 Romo
		iSS	E	47 35	9		-70			6½ Moscow, Quotta.
		i	E	47 49	10		-120			
		i	N	48 04	12	-81				
		i	E	48 08	9		+85			
		i	N	48 24	7	-54				
		i	E	48 30	9		-65			
		M	NZ	50.9	20	140		140		
		M	E	51.1	15		170			oW2 E 17h 28.8m per. 19s.
		M	NZ	52.3	15	140ca		125		oW3 E 18 58.1 19

No.	Date	Phase & Component	Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957		h m s	s	μ	μ	μ	km.	
	Dec.10	i(P) V	18 13 08	1½			+		Masked by microseisms.
		i V	13 12	1½			+		
682	12	iP ZV	09 52 26	3			+6		Compression.
		iS E	56 44	6		+4			
		e N	56 48	14					USCGS: 14½S, 167½E, H 09 47 02
		e E	57 14	7					
		eL E	59.2	21					
		M E	10 01.0	16		2			
		M N	01.3	13	1				
683	12	iP NEZV	18 43 45	3	-3	-3	+5	2790	Compression.
		ipP ZV	43 55	4			+8	25°1	h 0.00, H 18 38 22
		i NE	43 56	4	-3	-3			
		i V	44 15	1			+		USCGS: 13½S, 167E, H 18 38 19
		iPP Z	44 21	4			+5		
		i V	44 29	1½			+		Magnitudo: 6 Matsushiro.
		iS NE	48 05	6	-3	+3			
		i NE	48 29	6	-5	+5			
		i Z	48 36	5			+7		
		i N	48 50	4	+3				
		iSS N	49 07	6	+5				
		eLR E	50.1	24					
		eLR Z	50.2	24					
		M EZ	51.8	21		12	7		
684	13	e E	02 03 56	(20)					Confused by following shock.
		eL E	31.1	25					USCGS: 7N, 76W, H 01 31 57, h 100 km.
		M EZ	40	18		3	3		JSA: 6.8N,77.1W,H 01 31 46, h 0.005
									Magnitudo 6¾ Pasadena.
685	13	i E	02 10 29	5		-3			USCGS: 34½N, 48E, H 01 44 59
		iSKS E	10 43	6		-3			BCIS: 34.6N, 47.8E, H 01 44 59
		iSKS N	10 46	6	-4				JSA: 34.0N, 47.9E, h 0.00, H 01 45 03
		iSKKS E	12 00	6		+3			Moscow:33.5N, 47E, H 01 44 57
		ePS EZ	14 34	15					Shillong: 34N, 48E, H 01 45 00
		i Z	14 46	7			-5		Magnitude: 7¼ Pasadena
		eG E	33.1	(45)					7.1 Rome, Uppsala, Kiruna
		eL NE	39.1	35					7.0 Kew, Praha
		M EZ	49.0	30		20	13		6¾-7 Quotta, Matsushiro
		M N	50.0	24	6				6½ Lwiro, Moscow
		M EZ	54.1	22		16	11		6 Oulan Bator.
686	13	i E	02 28 44	4		-3			Masked by no.685.
	13	(iP) V	02 33 47	1½			+		USCGS: 6S, 145½E, H 02 27 45
	13	Pg V	05 55 41½	¼					Quarry blast ??
		iSg V	55 45½	½			-		
687	13	(P) Z	20 09 42						Masked by microseisms.
		e(S) N	14 26						
		e(L) N	14.9	19					USCGS: 6½S, 155½E, H 20 03 58
		e(L) E	15.5	19					
		M E	18.8	15		2			
		M NZ	20.3	15	2		2		
688	13	(i) Z	20 39 50						Masked by microseisms.
		(SKS) N	50 08						USCGS: 52½N, 170W, H 20 26 22
		eS E	50 44						Moscow: 52N, 169W, H 20 26 23
		M E	21 14.4	19		1			Magnitudo: 6½ Matsushiro, 5.6 Moscow.
698	14	eL E	19 40.2	15					
	16	(iP) ZV	03 52 37	3			+1		Masked by microseisms.
									BCIS: Tonga Is. region, h 100 km.ca., H 03 45 30
	16	(iP) ZV	08 43 43	3			+3		Large microseisms present.

No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
690	Dec.17	eP	Z	05 23 04	4			~~9820~~	9820	h 0.00, H 05 10 13
		ipP	V	23 13	1½			+	88°4	Compression.
		isP	Z	23 16	4			+3		
		i	Z	23 37	4			+4		USCGS: 53½N, 162E, H 05 10 11
		i	ZV	24 05	4			+3		JSA:53.6N,161.8E, h 0.00, H 05 10 14
		iPP	N	26 34	4	+3				Moscow: 52N, 163E, H 05 10 08
		ePPP	Z	28 37	10					
		eSKS	N	33 32	12					Magnitudo: 6.8 Quotta
		iS	E	33 45	6		-6			6¾ Pasadena, Romo, Matsushiro
		i	N	33 52	6	+3				6.7 Praha
		ePS	N	34 45	12					6.6 Moscow, Uppsala, Kiruna, Lwiro .
		e	E	35 36	13					6½ Strasbourg, Kew.
		eSS	E	39 38	15					
		eLQ	E	46.2	36					
		eL	E	47.4	28					
		M	E	58.6	18		9			
		M	Z	59.1	18			6		
		M	N	06 00.2	18	8				
		eW_2	EZ	07 36	18					
691	17	iP	V	13 55 37	1½			+	2840ca.	Compression.
		i	V	55 39	1½			+	25°5ca.	h 0.01 ca.
		i	Z	55 41	2			+		After13h 55m 42s Galitzin records
		i	NEZ	55 42	5	-82	-81	+105		indociphorable.
		*ipP	E	55 58	6		+28*			* Readings from Mainka.
		*iPP	E	56 18	6		+46*			
		*iPcP	E	59 06	5		-25*			USCGS: 12½S, 166½E, h 100 km.ca., H 13 50 12
		*i(S)	E	59 59	(10)		-(38)*			
		*i	N	14 00 03	8	-110*				JSA: 12.1S, 166.3E, h 0.015, H 13 50 19
		*i	E	00 05	12		+170*			
		*i	E	00 22	8		-88*			Magnitudo: 7¾ Pasadona
		*iSS	N	01 01	8	+39*				7.6 Uppsala, Kiruna, Tacubaya
		*M	N	01.3	14	740*				7½ Praha, Kew,Strasbourg
		*M	E	01.6	14		275*			7¼ Matsushiro, Romo
		e(G_2)	E	16 30.7	(40)					7 Lwiro.
		F		17.8						
	18	e(Pg)	V	05 51 39	½					Local. Quarry blast ??
		(Sg)	N	51 44	½					
		i	V	51 45	½			-		
		i	V	51 46	½			+		
692	18	iP	V	20 57 31	1½			+		Compression. Microseisms present.
		eS	E	21 08 11	9					USCGS: 60S, 28W, H 20 44 53
		eSS	N	13 56	(9)					
		M	N	35.7	17					
693	23	ePP	Z	12 59 35	(6)					USCGS: 35N, 36½W, H 12 34 03
		e(SS)	E	13 20 54	13					BCIS: 35¾N, 35W, H 12 34 06
		eSS	N	21 00	16					Magnitudo: 6-6¼ Matsushiro
		eL	E	57.1	30					6.0 Kew
		M	NE	14 04	24	1	2			5.9 Uppsala, Kiruna
										5.8 Praha
										5½ Moscow, Romo.
694	25	i	Z	16 45 49	4			+2		USCGS: 10½N, 62½W, H 16 26 01
		eSS	Z	17 05 00	15					Trinidad: 9.9N, 62.5W, H 16 26 02
		eL	E	29.4	33					Magnitudo: 6¼ Matsushiro
		M	NEZ	37	24	2	2	2		6 Kew, 5.6 Tacubaya.
695	26	(P)	E	12 14 50	3					Masked by largo microseisms.
		i	Z	15 03	3			+4		
		e	E	15 23	13					USCGS: 32½S, 178W, H 12 09 11
		e	N	18 12	7					
		i	N	19 41	5	+6				Magnitudo: 5¾ Matsushiro.
		eL	Z	21.0	28					
		eL	E	21.1	28					
		M	E	22.6	20		10			
		M	N	22.7	19	7				
		M	Z	23.2	18			10		

RIVERVIEW COLLEGE OBSERVATORY
SEISMOLOGICAL BULLETIN, DECEMBER, 1957.

No.	Date	Phase & Component		Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1957			h m s	s	μ	μ	μ	km.	
696	Dec.28	(iP)	V	02 11 13	1½			+		Masked by large microseisms.
		eL	E	17.4	16					BCIS: 11S, 163E, H 02 05 43
		M	N	19.6	13	½				
		M	E	20.3	13		1			
697	28	i	Z	14 56 25	3			+2		Masked by microseisms.
		e	E	15 13 27	14					USCGS: 18S, 64½W, H 14 36 40
		e	N	14 36	15					
		eLR	E	34.0	25					Magnitude: 6 Kew.
		M	NEZ	42.5	18	1	1	1		
698	28	iP	Z	19 08 40	3			+2	4180	Compression. Microseisms present.
		i(PcP)	EZ	10 59	3		-2	+2	3726	H 19 01 22
		iS	E	14 28	8		+5			
		iS	N	14 30	5	+3				USCGS: 16S, 172W, H 19 01 22
		eLQ	N	17.2	19					
		eLR	E	18.9	25					
		i(ScS)	N	18 58	5	+3				
		eLR	Z	19.1	27					
		M	N	21.7	13	3				
		M	Z	23.7	17			2		
		M	E	23.9	17		2			
699	31	iP	V	14 32 03	1			-		Dilatation. Very large microseisms
		iP	NEZ	32 04	4	-22	+	-18		present. EW Galitzin defective.
		iPP	Z	32 15	3			+9		
		iPPP	Z	32 23	3			+12		USCGS: 45S, 165½E, H 14 28 15
		i	N	32 28	4	-28				Wellington: 44.5S, 166.0E, H 14 28 18
		i	N	35 12	(7)	-				
		iSS	N	35 18	7	+30				Magnitude: 6.6 Wellington
		i	Z	35 22	4			+20		6½ Kew, Matsushiro
		i	N	35 25	4	+13				6.2 Quotta.
		i	EZ	35 27	5		+	+28		
		i	N	35 35	?	+				
		eLR	Z	35.6	23					
		M	N	37.5	19	65				
		M	EZ	37.8	16			46		
		T	V	48.4	½					
		T Max.	NEV	49.2	½					
700	31	(iP)	Z	21 24 05						Obscured by large microseisms.
		i	N	30 51	4	-6				USCGS: 45S, 96½E, H 21 16 03

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A. Fynn, S.J.
Director.

P.F.Rheinberger.
March 21, 1962.