Riverview College Observatory

RIVERVIEW. N.S.W

1944 Jan-Dec

MOLOGICAL BULLETIN

Φ = λ = 151° 9′ 30″ E h = 25m. Foundation : Triassic sandstone.

INSTRUMENTS:

1. Wiechert Astatic Pendulum Seismometer (1000 kilo.) (NS. EW)
2. Wiechert Vertical Seismometer (80 kilo.)
3. Mainka Conical Pendulum Seismometer (450 kilo.) (NS, EW)
4. Galitzin Aperiodic Seismometer with Galvanometer registration (NS, EW, Vert.)

		V	T_o	ε : 1	$\frac{r}{T_o^2}$		T_1 (Galv.)	T (Pend)	μ^2	V_s
N	1	203	8.1	7.0	0.001	4	12.8	12.9	-0.02	470
	3	153	9.4	5.4	0.028					
E	1	231	8.1	7.5	0.005	4	12.3	12.9	-0.09	440
	3	134	9.8	8.8	0.011					
Z	2	59	5.2	5.5	0.059	4	11.9	11.8	-0.04	450

No.	Date	Phase	Time (G.M.T.)	Per	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	N.B.	Unless stated otherwise readings are from the Galitzins. The amplitudes given are trace amplitudes only. The times have not been corrected for phase-difference. Seismological Tables by H.Jeffreys & K.E.Bullen (British Association 1940) have been used.	h. m. s.	s.				km.	
	1943		h m s	s	mm.	mm.	mm.	km.	
1	Jan. 1	eNE	01 41 22	10					
		eLE	43.0	20					
		ME	46 20	16		0.8			
		MN	46 27	15	1.2				
		MZ	46 34	16			0.7		
		F	02 10						
2	" 1	iPZ	09 56 47	4			-1.4		Dilatation.
		i(pP)Z	58 26	8			-1.5		
		i(S)NE	10 02 19	6	+1.0	+2.0			
		i(S)Z	02 20	6			+1.1		
		i(sS)N	05 26	8	-1.4				
		i(sS)E	05 31	7		+1.2			
		eLN	10.0	14					
		ME	14 26	8		2.0			
		MZ	16 02	8			1.6		
		F	10 40						
3	" 2	i?Z	07 07 59	4			+1.5		Perhaps only a large microseism.
		e?N	22 32	12					
		eLEZ	33.9	20					
		MZ	35 36	18			1.0		
		F	08 05						
4	" 3	iN	13 17 02	6	+1.0				
		iN	19 38	9	+1.5				
		F	13 30						
5	" 4	eN	16 15 25						
		eLN	29.2	24					
		MZ	37 17	18			1.0		
		F	17 00						
6	" 4	iN	22 16 56	5	+0.6				iN & iE from the Wiechert. Beginning lost on Galitzin during change of record.
		iE	17 53	6?		+1.0			
		eLZ	20.2	20					
		ME	25 05	14		4.3			
		MNZ	25.7	14	3.7		3.7		
		F	23 10						
7	" 5	eN	03 11.0						
		eLN	29.6	24					
		F	03 40						

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY,
RIVERVIEW, N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per.	Amplitude			Δ	Remarks
					A_N	A_E	A_Z		
	1944		h m s	s	mm.	mm.	mm.	km.	
8	Jan. 5	iP_{NEZ}	21 22 18	8	-1.0	+1.4	+2.0	6335	Compression.
		ipP_E	22 46	10		-2.0		(57.°0)	h 0.01
		iPP_E	24 23	9		+1.8			H 21 12 40
		iS_E	30 03	9		+12.7			Provisional epic-
		iS_N	30 04	9	+7.1				entre: φ 0°,
		i_Z	30 09	9			+6.5		λ 102°E.
		iPS_N	30 28	8	+13.5				(from Auckland,
		isS_N	30 43	8	+3.5				Perth & Riverview).
		i_E	31 14	8		+4.5			
		i_E	32 07	9		-6.0			
		i_N	32 08	9	-10.0				
		i_N	33 32	8	+10.8				
		iSS_N	33 58	8	-4.0				
		eLR_E	39.9	35					
		ME	43 19	28		12.5			
		MZ	43 23	28			13.6		
		MN	43 35	22	26.0				
	" 6	F	00 55						
9	" 7	iP_{NZ}	02 55 24	5	+3.5		-2.7	3345	Dilatation.
		iPP_{NZ}	56 21	5	+2.9		-2.1	(30°1)	H 02 49 15
		$iPPP_{NZ}$	56 37	7	+5.2		-4.9		Provisional epi-
									centre: 5°S,142°E
		iS_E	03 00 19	7		-8.3			(from Auckland,
		i_N	00 23	10	+8.3				Brisbane & Riverview)
		i_E	01 49	6		+8.3			
		mN	01 59	14	16.5				
		mZ	02 03	14			9.1		
		iE	03 03	6		-9.5			
		ME_1	05 11	12		17.9			
		ME_2	07 51	12		21.8			
		MN	08 35	12	21.3				
		MZ	10 03	12			18.5		
		F	05 10						
10	" 7	e_N	09 18 30	8					
		eL_E	30.4	22					
		F	09 55						
11	" 8	e_E	13 13 54	11					
		eL_N	16.4	16					
		F	13 25						
12	" 8	$e(P)_{NZ}$	14 23 32	4					
		$i(S)_{NE}$	29 08	9	+1.5	+1.5			
		e_{NZ}	30.0	22					
		MZ	39 33	12			7.8		
		ME	39 47	12		9.0			
		MN	40 05	12	10.5				
		F	15 55						
13	" 8	eEZ	19 25 16						
		e_E	29 17	10					
		e_N	29 22	10					
		eL_N	31.9	16					
		MN	31 31	14	1.9				
		MEZ	35.6	18		1.5	1.5		
		F	20 30						
14	" 9	eLZ	04 36.9	20					
		MZ	38 42	15			0.5		
		MN	40 48	14	0.7				
		F	04 55						
15	" 9	e_{NE}	15 27 31	8					
		$eLEZ$	33.8	20					
		F	15 50						

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY,
RIVERVIEW, N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1944		h m s	s	mm.	mm.	mm.	km.	
16	Jan.10	$iSKS_E$	20 35 28	6		-1.6			
		$iSKKS_E$	36 36	10		+1.6			
		iPS_{EZ}	39 21	16		-1.9	+1.9		
		$e(SS)_E$	44 59	16					
		$e(SSP)_N$	45 23	12					
		eLQ_N	57.0	28					
		eLR_E	21 03.0	28					
		MZ	04 23	22			2.2		
		ME	04 51	22		2.0			
		MN	10 03	18	2.0				
	" 11	F	00 00						
17	" 11	$e(L)_Z$	16 53.8						Small waves masked by microseisms.
		F	17 00						
18	" 12	eLE_Z	15 52.6	30					
		ME_Z	16 01.9	16		0.5	0.5		
		F	16 30						
19	" 13	MN	03 50 12	10	0.7				
		F	04 10						
20	" 13	eL_E	10 07.7	18					
		MN_Z	10.7	12	0.5		0.9		
		F	10 15						
21	" 14	eN_E	03 21.8						Shallow waves.
		e_N	43.5						
		F	05 00						
22	" 14	e_E	14 25 45	0.3					Very small local shock. Reported felt Bondi, Sydney. (Readings from Wiechert).
		iN_E	25 48	0.6	0.1	+0.2			
		i_E	25 51	0.6		+0.3			
		F	14 26.3						
23	" 14	eL_Z	20 42.1	20					
		ME	44 07	16		0.4			
		F	20 50						
24	" 16	$P?_Z$	00 03 36	7			1.5	106°ca	Masked by very heavy microseisms.
		iPP_{NZ}	07 57	6	+3.0		+4.3		
		$iSKS_{NE}$	14 33	8	-5.0	+2.5			
		iPS_{NEZ}	17 15	14	+6.0	-3.8	-2.0		
		SS_N	22 56	14	2.3				
		$iSSS_{EZ}$	27 14	16		1.8	+3.2		
		eLQ_E	34.4	34					
		eLQ_N	34.6	34					
		eLR_E	38.3	26					
		eLR_N	38.5	26					
		MN_1	42 39	20	5.3				
		MEZ_1	42.8	20		6.7	8.5		
		$MNEZ_2$	52.0	16	10.5	8.0	11.8		
		F	03 10						
25	" 16	e_N	16 17.8						
		MN	24.4	18	1.1				
		F	16 30						
26	" 16	eNE	23 54 10						Very small local shock. Felt at Randwick, Coogee & Clovelly, Sydney.
		F	23 54.8						
27	" 17	eL_E	06 18.0	26					
		MN	23 23	18	0.5				
		F	06 35						
28	" 17	e_N	13 29 53	16					
		eL_Z	33.5	28					
		ME	34 45	18		1.1			
		MNZ	35.7	18	1.5		1.6		
		F	13 55						
29	" 18	e_N	05 13 53						
		eL_E	18.8	24					
		MZ	23 17	12			1.6		
		MN	23 27	12	2.0				
		ME	23 39	10		4.1			
		F	06 10						

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY,

RIVERVIEW, N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per	Amplitude			Δ	Remarks
					A_N	A_E	A_Z		
	1944		h m s	s	mm.	mm.	mm.	km.	
30	Jan.19	eNE	00 30.0						
		eL_N	36.5	24					
		ME	38 35	14		2.5			
		MN	38 50	14	3.8				
		MZ	41 04	12			2.8		
		F	01 10						
31	" 19	eE	05 18 41						
		eL_N	20.2	16					
		MN	21 20	15	0.7				
		F	05 40						
32	" 20	iP_{EZ}	03 06 13	5		+1.6	-1.8	4050	Dilatation.
		$iE_Z\bar{P}$	06 37	6	-	-1.0	+2.0	(36°5)	h 0.01
		iPP_{NEZ}	07 43	6	+1.5	+2.4	-1.9		H 02 59 15
		$iPPP_E$	08 04	9		-3.2			Provisional epi-
		i_N	08 10	8	+2.2				centre: 16°S,173°W.
		i_EPcP	08 33	5		-2.5			(from Apia, Bris-
		$iPcP_{NZ}$	08 35	7	+1.7		-2.5		bane & Riverview).
		eS_N	11 47	13					
		iE	12 10	8		-1.7			
		mE	12 25	8		3.2			
		$i(SS)_N$	14 31	10&20	+5.0				
		iZ	14 41	15			-2.5		
		$i(SSS)_N$	14 57	10&26	+4.7				
		i_N	15 28	10&20	+8.3				
		i_N	15 49	10&20	+6.2				
		$iScS_E$	16 27	8		+3.0			
		MZ	18 40	14			2.3		
		ME	18 45	16		2.5			
		MN	18 57	12	6.5				
		F	04 20						
33	" 20	e_N	12 45 39						
		eL_N	53.6	28					
		MN	56 25	20	1.0				
		MZ	13 01 17	18			0.7		
		ME	02 37	18		1.0			
		F	13 30						
34	" 20	e_N	17 58 10	12					
		eL_Z	18 01.2	24					
		eL_N	01.3	24					
		ME	03 58	14		0.5			
		MN	04 17	18	0.5				
		F	18 15						
35	" 21	iNE	05 06 04	0.3					Very small local
		MNE	06 09	0.6	0.2	0.2			shock, felt at
		F	05 06.9						Bondi, Sydney. (From
36	" 21	e_N	14 26 03	14					Wiechert).
		eL_Z	26.6	16					
		MZ	29 38	15			0.5		
		ME	30 10	14		0.5			
		F	14 35						
37	" 22	eL_Z	16 16.0	20					
		F	16 25						
38	" 24	eL_N	07 03.1	18					
		MN	09 04	10	0.9				
		ME	09 50	12		1.3			
		MZ	10 03	10			0.6		
		F	07 30						

(Concluded on next sheet)

RIVERVIEW COLLEGE OBSERVATORY,
RIVERVIEW, N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1944		h m s	s	mm.	mm.	mm.	km.	
39	Jan.25	iP_Z	07 40 36	4			-1.0	4345	Dilatation.
		ipP_{NEZ}	40 58	4	-1.5	+1.3	+2.5	(39°1)	h 0.01
		iNE	42 26	9	-1.2	+1.6			H 07 33 17
		iS_N	46 28	8	-2.5				Provisional epi-
		i_E	46 33	7		+2.3			centre: 10°S.,
		isS_E	47 13	6		+1.5			117°E.
		iSS_Z	49 24	10			-2.5		(from Brisbane &
		MN	57 24	14	4.6				Riverview).
		MZ	58 23	14			3.5		
		F	09 00						
40	" 26	eL_E	01 09.9	20					
		MEZ	13.1	10		1.8	1.3		
		MN	14 05	12	1.5				
		F	01 30						
41	" 26	eL_E	14 44.9	16?					
		ME	45 53	14		1.3			
		MZ	46 13	16			0.8		
		F	14 55						
42	" 28	eL_Z	02 15.3	28					
		MN	18 33	14	0.9				
		MZ	18 45	14			0.8		
		ME	19 33	12		0.8			
		F	02 30						
43	" 28	$P?_Z$	11 05 33	4					
		eS_N	10 22	10					
		iS_E	10 26	7		+1.2			
		eN	10 37	20					
		$i(SS)_E$	12 05	12		+2.2			
		eL_QE	12.4	24					
		eLR_E	13.0	28					
		eLR_N	13.1	28					
		ME_1	16 27	15		3.6			
		MZ	18 32	14			2.8		
		ME_2	20 37	12		5.2			
		MN	21 05	14	3.7				
		F	12 10						
44	" 29	eLE_Z	01 02.0	24					
		MZ	04 24	18			0.7		
		MN	04 32	15	0.7				
		ME	04 46	16		0.7			
		F	01 15						
45	" 29	eL_Z	09 26.7	20					
		ME	27 09	14		0.5			
		MN	29 24	15	0.5				
		MZ	29 36	16			0.6		
		F	09 40						
46	" 30	eP_{NZ}	00 20 15	8	0.9		1.3		
		$e(S)_E$	24 45	10?					
		eE	24 53	12					
		$i(SS)_E$	25 37	15		+2.1			
		eL_Z	26.6	24					
		ME	29 35	12		2.2			
		MZ	29 45	12			1.4		
		F	01 20						
47	" 31	eL_Z	00 38.8	20					
		MEZ	40.0	16		0.8	0.4		
		F	00 50						
48	" 31	eL_E	16 49.0	16					
		F	16 55						
49	" 31	eL_E	17 17.8	24					
		ME	20 05	14		2.0			
		MNZ	20 21	16	1.2		0.9		
		F	17 40						

D.J.K.O'CONNELL, S.J.
Director.

Riverview College Observatory

RIVERVIEW. N.S.W

SEISMOLOGICAL BULLETIN

Φ = 33° 49′ 46″ S. λ = 151° 9′ 30″ E h = 25m. Foundation : Triassic sandstone.

INSTRUMENTS:

1. Wiechert Astatic Pendulum Seismometer (1000 kilo.) (NS. EW)
2. Wiechert Vertical Seismometer (80 kilo.)
3. Mainka Conical Pendulum Seisometer (450 kilo.) (NS, EW)
4. Galitzin Aperiodic Seismometer with Galvanometer registration (NS, EW, Vert.)

		V	T_o	ε : 1	$\frac{r}{T_o^2}$		T_1 (Galv.)	T (Pend)	μ^3	V_s
N	1	208	8.0	6.1	0.001	4	12.8	12.9	-0.02	470
	3	153	9.5	7.1	0.022					
E	1	235	8.0	8.4	0.003	4	12.3	12.9	-0.03	440
	3	132	8.3	5.3	0.004					
Z	2	-	-	-	-	4	11.9	11.8	-0.04	450

No.	Date	Phase	Time (G.M.T.) h. m. s.	Per s.	Amplitude A_N mm.	A_E mm.	A_Z mm.	Δ km.	Remarks
	N.B.	Unless stated otherwise readings are from the Galitzins. The amplitudes given are trace amplitudes only. The times have not been corrected for phase-difference. Seismological Tables by H.Jeffreys & K.E.Bullen (British Association 1940) have been used.							
	1944		h m s	s	mm.	mm.	mm.	km.	
50	Feb. 1	e(PKS)$_N$	3 45 32	6					
		i$_E$	45 36	5		-2.0			
		e(SKS)$_E$	48 52	11					
		i$_N$	58 19	10	+1.5				
		e$_E$	58 57	11					
		e(SS)$_E$	4 02 42	29					
		e$_N$	09.9	27					
		eL$_N$	20.2	30					
		MN$_1$	29 34	30	2.5				
		ME$_1$	34 29	24		3.3			
		MN$_2$	37 36	22	2.5				
		ME$_2$	41 11	19		7.1			
		F	06 10						
51	" 2	eL$_{EZ}$	21 31.1	18					
		F	21 50						
52	" 2	eL$_N$	23 55.9	16					
		F	00 05						
53	" 3	ePP$_Z$	12 34 11	8				109°ca	Amplitudes very small.
		ePS$_Z$	43 42	15					
		e$_N$	44 03	10					
		ePPS$_N$	44 53	14					
		eSS$_N$	49 46	20					
		e$_E$	50 09	20					
		eLR$_N$	13 06.1	22					
		ME	11 51	22		0.4			
		MN	12 16	22	0.4				
		MZ	12 29	20			0.5		
		F	14 45						
54	" 3	i(S)$_E$	20 38 31	8		-0.7			
		e$_N$	39 37	16					
		eL$_{EZ}$	40.8	28					
		MN	43 09	16	0.9				
		MEZ	44.1	16		1.7	1.9		
		F	21 20						
55	" 4	eL$_Z$	04 08.0	24					
		F	04 20						
56	" 4	e$_N$	07 56 12						
		ME	08 02 36	14					
		MN	02 44	12	1.2				
		MZ	03 04	16			0.7		
		F	08 25						

RIVERVIEW COLLEGE OBSERVATORY,

RIVERVIEW, N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1944		h m s	s	mm.	mm.	mm.	km.	
57	Feb. 4	eL_Z	09 37.2	18					
		F	09 45						
58	" 5	iP_Z	17 30 19	5			+1.3	7200	Compression.
		iP_{NEZ}	30 41	5	+1.5	-1.0	-3.2	(64°8)	H 17 20 01
		iS_E	39 16	14		+1.5			
		i_N	39 24	20	+2.0				
		iE	39 28	14		+2.6			
		i_N	39 50	20	±2.5	±2.5			
		$iScS_E$	40 45	12		+3.0			
		eLR_E	49.6	30					
		ME	56 50	18		3.0			
		MNZ	57.3	18	5.0		4.4		
		F	19 10						
59	" 5	iP_{NEZ}	20 07 00	8	+1.0	+1.1	-1.5	2365	Dilatation.
		i_{NEZ}	07 04	8	-2.0	-3.0	+4.0	(21°3)	H 20 02 13
		$iPPP_{NE}$	07 30	8	+2.0	+2.3			Provisional epi-
		i_N	08 08	9	+1.5				centre: 20°S.,
		iE	08 10	8		+1.3			169°E.
		i_Z	08 14	8			+2.5		(From Brisbane,
		iS_{NE}	10 49	8	+1.2	+2.0			Melbourne, River-
		i_Z	10 52	9			+1.8		view & Wellington.
		i_{NEZ}	10 56	9	+2.5	+2.8	-2.8		Using P from Bris-
		i_E	11 13	10		+3.1			bane, Launceston
		eLR_Z	12.1	26					& Wellington
		MN_1	13 30	18	3.6				with H as above.)
		MZ	13 42	18			3.7		
		ME	13 47	18		3.1			
		MN_2	15 19	11	5.8				
		F	21 40						
60	" 6	e_N	02 42 03	12					
		eL_{EZ}	43.1	20					
		F	02 55						
61	" 6	e_E	04 48.7	14					
		F	04 55						
62	" 7	eN	13 59 29						
		eL_E	14 02.1	18					
		F	14 15						
63	" 7	$i(S)_N$	19 30 30	14	+1.5				Preliminaries obs-
		i_{NEZ}	30 51	14	+2.7	+1.0	-1.3		cured by micro-
		eL_Z	33.9	28					seisms.
		ME	35 07	16		2.9			
		MNZ	36.3	16	3.0		2.1		
		F	20 20						
64	" 7	eL	22 07.3	24					
		F	22 15						
65	" 8	eL_E	14 09.7	16					
		MN	11 07	13	0.5				
		MZ	11 54	16			0.5		
		F	14 25						
66	" 8	e_N	20 55.3						
		MN	58 48	9	0.6				Small shock masked
		F	21 05						by microseisms.
67	" 8	e_E	23 16 46						
		MNE	19 23	12	0.7	0.6			
		F	23 30						
68	" 10	eL_E	04 07.7	20					
		MNZ	10.1	16	0.5		0.6		
		F	04 25						
69	" 10	eLZ	11 21.9	24					
		MZ	24 41	18			0.4		
		ME	24 59	14		0.4			
		F	11 35						

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY,

RIVERVIEW, N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1944		h m s	s	mm.	mm.	mm.	km.	
70	Feb.10	eLEZ	20 19.4	20					
		F	20 30						
71	" 10	eLEZ	22 48.4	22					
		F	23 00						
72	" 11	eEZ	09 37.9	9					
		iE	38 54	6		+0.6			
		iNE	44 59	6	-0.7	+0.8			
		F	10 00						
73	" 12	eZ	19 15 40						
		F	19 20						
74	" 12	eN	20 17 10	16					
		eLNZ	21.0	24					
		MZ	22 36	20			0.5		
		ME	22 42	16		0.7			
		MN	23 03	20	0.5				
		F	20 40						
75	" 13	eLNZ	17 39.2	16					
		eLE	39.6	16					
		F	17 55						
76	" 13	iPNZ	23 25 33	8	+1.0		+1.2	2355	Compression.
		iNZ	25 44	8	L.3		+2.0	(21°2)	H 23 20 48
		eSE	29 22	13		0.7			Provisional epi-
		iZ	29 25	8			+1.1		centre: 55°S.,
		iN	29 27	8	+1.2				160°E. (From Christ-
		iN	29 34	8	+3.5				church, Melbourne,
		iE	29 34	18		+2.7			Riverview and Well-
		eLZ	30.1	22					ington. Using P from
		ME	31 42	11		2.8			Christchurch & Well-
		MN	31 54	9	3.2				ington with H as
		MZ	33 04	11			1.7		above.)
		F	00 50						
77	" 14	eZ	17 00.9						
		eLE	04.8	18					
		F	17 24						
78	" 15	eNE	05 16 26	15					Irregular waves,
		eNE	20 24	20					no definite phases.
		eE	22 56	30					
		eN	23 14	28					
		F	05 50						
79	" 16	eE	11 04 03						
		MNE	08 06	13	0.7	1.0			
		F	11 10						
80	" 18	eLE	08 27.6	24					
		MN	31 37	15	0.5				
		F	08 40						
81	" 19	eLNEZ	13 01.2	24					
		MN	02 42	16	0.5				
		MEZ	02 50	16		0.6	0.7		
		F	13 15						
82	" 19	eN	19 54 54	12					
		eLZ	20 04.2	26					
		MN	08 11	18	1.2				
		MZ	08 32	18			1.7		
		ME	08 56	18		1.3			
		F	20 55						
83	" 20	eZ	10 00 22	9					
		eNE	02 10	10					
		eLE	04.4	24					
		MNE	05 15	19	1.9	3.0			
		MZ	08 21	16			1.5		
		F	11 00						

(Concluded on next sheet)

RIVERVIEW COLLEGE OBSERVATORY,

RIVERVIEW, N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1944								
84	Feb.21	e_N	21 22 49	11					
		MN	26 29	15	0.7				
		F	21 30						
85	" 23	eL_N	06 26.7	25					Heavy microseisms
		MNZ	29.8	20	1.5		1.5		present.
		F	06 55						
86	" 23	eL_E	12 14.4	24					Heavy microseisms
		MN	15 44	20	1.0				present.
		F	12 30						
87	" 24	eN	12 27.5						large microseisms.
		MN	30 24	14	1.3				
		MZ	33 56	19			1.1		
		ME	34 02	19		1.0			
		F	12 45						
88	" 26	eL_E	23 17.5	20					
		F	23 30						
89	" 28	eZ	20 35.6						
		ME	37 12	14		0.7			
		F	20 50						
90	" 29	$i(PP)_{NEZ}$	4 01 36	8	+1.2	+1.5	-2.1		
		iZ	11 04	15			+1.9		At 04h 11m NS & EW
		e_N	12 03	14					disturbed by visit.
		e_E	12 10	18					
		i_{NE}	12 24	18	+5.5	+5.0			
		eSS_E	17 44	20					
		eSS_N	17 58	20					
		e_E	21 54	18					
		F	06 00						
91	" 29	iP_{EZ}	16 40 08	8		+1.5	+2.6	8710	Compression.
		$iPcP_{EZ}$	40 18	8		+7.5	+19.6	(78°4)	H 16 28 09
		$iPcP_N$	40 16	8	-2.5				
		iS_E	50 00	10		+13.0			
		iS_N	50 01	9	+3.8				
		$iScS_N$	50 22	10	+16.0				
		iPS_E	50 39	10		-14.9			
		$i(SS)_E$	54 51	13		+6.6			
		iE	55 24	14		+7.6			
		$iSSS_E$	58 26	18		+2.5			
		eN	58 32	30					
		iE	58 50	18		+6.2			
		eLQ_N	17 0.10	42					
		iLR_N	04 08	25	+26.0				
		MN	08 29	14	65				
		ME	11 18	21		80			
		MZ	11 28	20			66.8		
		eW_2	18 57.6	19					
		F	20 30						

D.J.K.O'CONNELL,S.J.
Director.

Riverview College Observatory

RIVERVIEW. N.S.W

SEISMOLOGICAL BULLETIN

$\Phi = 33° 49' 46''$ S. $\lambda = 151° 9' 30''$ E h = 25m. Foundation : Triassic sandstone.

INSTRUMENTS:

1. Wiechert Astatic Pendulum Seismometer (1000 kilo.) (NS. EW)
2. Wiechert Vertical Seismometer (80 kilo.)
3. Mainka Conical Pendulum Seismometer (450 kilo.) (NS, EW)
4. Galitzin Aperiodic Seismometer with Galvanometer registration (NS, EW, Vert.)

		V	T_o	$\varepsilon : 1$	$\frac{r}{T_o^2}$		T_1 (Galv.)	T (Pend)	μ^2	V_s
N	1	206	8.0	5.7	0.002	4	12.8	12.9	-0.02	470
	3	156	9.3	9.8	0.025					
E	1	224	8.1	8.0	0.007	4	12.3	12.9	-0.06	440
	3	135	9.3	5.9	0.008					
Z	2	-	-	-	-	4	11.9	11.8	-0.04	450

No.	Date	Phase	Time (G.M.T.) h. m. s.	Per s.	Amplitude A_N mm.	A_E mm.	A_Z mm.	Δ km.	Remarks
	N.B.	Unless stated otherwise readings are from the Galitzins. The amplitudes given are trace amplitudes only. The times have not been corrected for phase-difference. Seismological Tables by H.Jeffreys & K.E.Bullen (British Association 1940) have been used.							
	1944								
92	Mar. 1	e_E	21 02.2	10					
		eL_N	08.0	16					
		MN	10 52	14	1.5				
		MZ	11 08	18			1.0		
		F	21 35						
93	" 2	e_E	03 27.5						
		MN	45.5	16	0.5				
		F	03 55						
94	" 2	$e(L)_E$	04 31.6	24					
		MZ	46 58	18			0.4		
		MN	47 22	18	0.5				
		F	05 05						
95	" 2	eL_N	11 52.4	24					
		MN	55 11	18	1.1				
		F	12 15						
96	" 2	i_N	16 56 45	5	-1.0				
		ME	59 44	13		0.7			
		F	17 05						
97	" 3	e_N	13 32 12	8					
		i_E	35 16	11		-1.3			
		i_E	37 16	9		+2.0			
		i_N	37 37	8	+1.8				
		i_E	38 11	8		+6.5			
		i_N	38 18	8	-5.0				
		m_E	38 26	8		9.3			
		eL_N	40.3	20					
		MZ	41 08	14			2.7		
		MN	41 51	12	4.7				
		F	14 20						
98	" 5	$e?_N$	05 03.5						
		eNE	12.4	16					
		MNE	29.3	17	0.4	0.4			
		F	05 40						
99	" 5	eL_E	12 08.8	16					
		MNE	09 40	12	0.6	1.0			
		F	12 25						
100	" 5	iP_Z	17 24 22	5			+1.2	5135 (46°2)	Dilatation. H 17 15 58 Provisional epi-centre: 11°N., 140°E. approx. (From Brisbane & Riverview)
		iN_E	24 27	5	-1.1	+1.2			
		iS_N	31 05	12	+2.8				
		$i(ScS)_E$	34 08	7		-2.0			
		$i(SS)_E$	34 29	10		+2.0			
		$i(SS)_N$	34 30	10	+1.5				

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY,
RIVERVIEW, N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
6	1944		h m s	s	mm.	mm.	mm.	km.	
100	Mar.5	i_N	17 34 54	12	+3.5				
Cont.		iE	35 02	10		+3.0			
		eZ	35.1	18					
		eLQ_N	35.9	30					
		$eLR?_E$	40.5	28					
		MNZ	45.3	20	2.2		2.0		
		ME	45 30	18		2.5			
		F	18 40						
101	" 6	eL_E	05 51.2	16					
		ME	53.1	14		0.5			
		F	06 00						
102	" 6	eL_{EZ}	20 58.8	28					
		MZ	21 06 48	16			0.8		
		ME	07 32	16		1.0			
		F	21 30						
103	" 7	eL_{EZ}	00 06.6	25					
		ME	14 50	18		0.8			
		F	06 35						
104	" 7	eP_Z	02 28 08	6			1.0		
		$eS?_N$	32 57	10					
		i_N	33 17	10	+1.3				
		eL_E	36.7	22					
		ME	38 32	16		1.2			
		MN	39 15	16	1.2				
		F	03 00						
105	" 7	eL_Z	15 18.7	24					
		F	15 30						
106	" 7	eL_{NE}	19 49.4	20					
		MNE	50 12	15	1.2	2.0			
		MZ	51 35	18			1.0		
		F	20 25						
107	" 7	iP_Z	20 38 58	4			+1.3	4700	Compression.
		iPP_Z	40 40	5			-1.0	(42?3)	H 20 31 06
		iPP_N	40 41	6	+1.0				
		$iPcP_Z$	40 53	5			+2.3		
		$iPPP_Z$	41 08	8			+1.8		
		iS_E	45 16	8		-1.6			
		iS_N	45 17	8	+1.5				
		$i(SS)_{NE}$	48 30	7	+1.5	-1.0			
		m_E	48 43	8		2.1			
		eL_N	54.1	28					
		ME	55 35	18		2.8			
		MNZ	59.4	16	2.6		2.0		
		F	21 30						
108	" 8	eE	11 17 21	8					
		eL_N	20.6	17					
		ME	22 55	12		2.0			
		MZ	23 47	13			1.0		
		F	11 40						
109	" 8	i_E	23 12 42	5		-0.7			iE &eL from Wiechert. Beginning lost on Galitzin while changing record.
		eL_N	16.3	18					
		MNZ	19 19	18	3.8		2.7		
		ME	19 23	18		3.1			
		F	00 20						
110	" 9	e_E	10 44 15						
		MNE	53.9	18	1.0	0.9			
		F	11 10						
111	" 9	$e(SKS)_{NE}$	22 37 17	12?					Masked by exceptionally heavy microseisms.
		$e(S)_E$	38 09	14?					
		$e(PS)_Z$	39 40	12					
		$e(SS)_{NE}$	45 12	16					
		e_E	49 57	20					
		eLQ_N	56.8	32					
		eLR_N	23 03.2	28					
		MEZ	12 17	20		4.2	4.6		
		MN	12 45	20	6.5				F 02h 15m.

RIVERVIEW COLLEGE OBSERVATORY,
RIVERVIEW, N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1944		h m s	s	mm.	mm.	mm.	km.	
112	Mar. 10	e_N	07 01 10	16					Masked by heavy microseisms.
		e_E	11 15	18					
		eL_N	17.1	24					
		F	08 00						
113	" 12	eNE	13 12 22	14					
		eL_E	15.4	25					
		MZ	19 02	15			2.4		
		ME	19 26	14		3.8			
		MN	20 22	14	4.8				
		F	14 00						
114	" 14	iP_{EZ}	11 29 19	4					
		iPP_{EZ}	29 59	10		+1.2	-1.5	2735	Dilatation.
		i_E	30 15	10		+1.4	-2.3	(24°6)	H 11 24 01
		i_Z	30 17	9		+1.9			
		iS_E	33 35	9			+1.6		
		eZ	33.9	8		+2.0			
		iSS_E	34 31	20					
		i_N	34 34	15		+1.4			
		eLR_Z	35.9	15	+1.2				
		MEZ	37.9	25					
		MN	39 05	20		1.6	1.7		
		F	12 50	15	2.5				
115	" 14	$P?_Z$	18 39 15	6					
		iS_N	43 33	8	-1.3				
		iNE	43 54	9	-1.6	+1.1			
		$eL(Q)_E$	45.8	26					
		eLR_{NZ}	46.8	25					
		MZ	47 52	22			1.7		
		MN	47 57	20	1.5				
		ME	48 07	17		1.7			
		F	19 15						
116	" 15	e	19 24.0						Shallow waves.
		F	19 40						
117	" 15	$i(S)_E$	22 05 34	5		+1.3			
		eL_E	07.0	26					
		MNE	09 08	18	2.3	2.0			
		F	22.5						
118	" 16	i_N	12 38 38	4	-0.8				
		i_E	41 07	4		+1.0			
		$e(L)_N$	43.9	20					
		eL_{EZ}	45.5	22					
		MN	48 56	13	2.0				
		MZ	49 54	17			1.2		
		F	13 25						
119	" 16	iP_{NZ}	23 35 47	3	+1.2		-1.7	2745	Dilatation to N.
		eS_N	40 04	14				(24°7)	
		iZ	40 15	10			+1.2		
		m_N	40 24	14	3.9				
		eL_N	42.6	26					
		eL_Z	42.9	26					
		MN_1	44 14	20	5.4				
		MZ_1	44 32	18			4.0		
		ME_1	44 54	14		13.8			
		ME_2	46 30	11		10.7			
		MZ_2	46 42	15			5.6		
		MN_2	47 10	12	7.9				
		MN_3MZ_3	50 03	10	10.2		8.0		
		ME_3	50 52	10		8.3			
		F	02 08						
120	" 17	e_E	10 07.6						
		MNZ	11.2	17	0.5		0.4		
		F	10 15						

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY,
RIVERVIEW, N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1944		h m s	s	mm.	mm.	mm.	km.	
121	Mar.17	i_N	16 40 17	10	+1.0				
		i_Z	40 19	10			+1.0		
		$e(S)_N$	44 19	10					
		i_E	44 31	10		+1.0			
		i_N	44 45	12	-1.0				
		i_{NE}	45 08	13	+1.9	-1.3			
		eL_E	46.4	25					
		ME	48 25	22		1.3			
		MNZ	50.1	18	1.5		1.4		
		F	17 10						
122	" 18	$e?_{NE}$	11 48.5	13					
		e_E	54 04	7					
		eL_E	54.8	20					
		ME	58 16	18		0.5			
		MZ	59 21	16			0.7		
		F	12 10						
123	" 19	e_N	20 18.0						
		eL_N	24.6	16					
		eL_Z	25.3	20					
		F	20 50						
124	" 21	e_{NE}	22 31 05						
		$e(L)_E$	42.2	28					
		MZ	49 50	24		9.7			
		F	23 25						
125	" 22	iP_{NEZ}	00 50 00	5	+6.2	-7.0	-15.5	4035 (36°3)	Dilatation. h 0.02 H 00 43 10 Provisional epicentre: 5°S., 127°E. (From Brisbane, Christchurch, Riverview & Wellington.)
		ipP_{NEZ}	50 36	8	-4.5	+4.9	+8.5		
		iPP_{NEZ}	51 23	8	+8.5	-10.0	-11.9		
		$iPcP_{NEZ}$	52 23	7	+5.0	-4.2	-5.5		
		iS_{EZ}	55 28	6		+30.6	+9.4		
		isS_E	56 26	10		+17.3			
		isS_N	56 29	10	+8.5				
		i_Z	57 28	11			+9.7		
		i_E	57 39	11		-14.7			
		iSS_E	58 01	8		-19.5			
		$i\emptyset\emptyset_N$	59 00	7	+20.0				
		m_N	59 18	7	35.7				
		MN_1ME_1	01 03 29	6&18	66.5	42.2			
		MN_2	04 50	14	44.5				
		MZ	06 51	17			42.5		
		ME_2	07 05	17		42.0			
		F	03 20						
126	" 22	e_N	12 53.4						
		MN	13 00 23	16	0.5				
		F	13 05						
127	" 22	e_N	19 22 39	17					
		MN	26 35	14	1.9				
		ME	28 02	16		2.2			
		MZ	28 59	15			2.2		
		F	20 20						
128	" 24	i_N	22 06 07	8	+2.0				Masked by heavy microseisms.
		i_E	06 08	8		+2.2			
		eL_E	06.5	20					
		F							
129	" 25	eL_E	14 43.2	20					Masked by heavy microseisms.
		ME	44 38	13		1.3			
		F	14 50						
130	" 25	eL_N	21 47.8	20					
		MZ	52 00	14			1.0		
		ME	52 20	16		1.0			
		F	22 10						
131	" 26	e_N	16 22 41	8					
		eL_E	29.2	20					
		MEZ	33.8	14		2.5	3.4		
		MN	33 52	14	2.3				
		F	17 05						

(Concluded on nexts sheet)

RIVERVIEW COLLEGE OBSERVATORY,
RIVERVIEW, N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.) h m s	Per. s	Amplitude A_N mm.	A_E mm.	A_Z mm.	Δ km.	Remarks
	1944								
132	Mar.27	eL_E	00 04.4	26					
		ME	07 45	20		0.8			
		MZ	08 05	20			1.0		
		F	00 20						
133	" 27	eL_E	07 44.5	18					
		F	07 55						
134	" 27	eL_Z	15 08.4	28					
		MNZ	10.5	20	0.6		1.0		
		F	15 25						
135	" 28	$e(P)_E$	10 40 55	6					
		e_Z	40 59	6					
		eL_E	46.8	27					
		MZ	48 00	23			1.3		
		ME	48 27	22		1.2			
		MN	48 55	18	1.2				
		F	11 10						
136	" 28	e_Z	13 53 39	8					
		eL_Z	57.2	20					
		MN	58 21	15	0.8				
		MZ	14 00 27	16			0.8		
		F	14 15						
137	" 28	e_N	18 04.4	12					
		ME	05 19	14		0.8			
		F	18 15						
138	" 28	iP_Z	22 47 56	7			-1.0	n	Compression.
		e_N	53 55	8					After iP readings
		eL_N	56.1	17					from Wiechert.
		MN	58 22	13	0.5				
		F	00 10						
139	" 29	e_N	15 47 15	6					
		eL_N	48.9	15					
		MN	50 48	14	0.7				
		ME	51 58	15		0.6			
		F	16 10						
140	" 29	e_N	16 35 05	11					
		eL_E	37.3	18					
		ME	40 29	18		0.6			
		MN	41 27	16	0.6				
		F	17 10						
141	" 30	e_N	02 27.1						
		eL_E	32.6	20					
		MNE	35.4	17	0.9	0.7			
		MZ	36 09	16			0.9		
		F	02 55						
142	" 31	iP_{NEZ}	02 58 21	6	+2.8	-2.0	-6.4	3755	Dilatation.
		ipP_Z	58 32	6			+2.5	(33?8)	H 02 51 40
		iS_{NE}	03 03 42	6	+3.3	+9.2			
		$i(sS)_N$	04 04	10	+7.8				Provisional epi-
		$i(SS)_E$	05 23	10		-8.2			centre: 4°S.,
		i_N	06 01	8	-9.1				135°E. (From Bris-
		$e(LQ)_E$	06.1	16					bane, Melbourne,
		i_{NEZ}	06 39	7	+10.0	-14.5	+8.6		Riverview & Well-
		i_E	07 29	7		-15.7			ington.)
		i_{NE}	07 48	8	+16.8	+26.7			
		MZ_1	10 07	5			21.0		
		MN_1ME_1	10 22	14	50.0	66.3			
		ME_2	13 22	14		39.6			
		MN_2	14 27	13	46.3				
		MZ_2	14 33	12			38.8		
		F	05 10						
143	" 31	e_N	21 26.0						
		eL_{NZ}	34.4	20					
		F	22 00						

D.J.K.O'CONNELL, S.J.
Director.

Riverview College Observatory

RIVERVIEW. N.S.W

SEISMOLOGICAL BULLETIN

$\Phi = 33° 49' 45''$ S. $\lambda = 151° 9' 30''$ E h = 25m. Foundation : Triassic sandstone.

INSTRUMENTS:

1. Wiechert Astatic Pendulum Seismometer (1000 kilo.) (NS. EW)
2. Wiechert Vertical Seismometer (80 kilo.)
3. Mainka Conical Pendulum Seismometer (450 kilo.) (NS, EW)
4. Galitzin Aperiodic Seismometer with Galvanometer registration (NS, EW, Vert.)

		V	T_o	ε : 1	$\frac{r}{T_o^2}$		T_1 (Galv.)	T (Pend)	μ^2	V_s
N	1	203	8.0	6.5	0.003	4	12.8	12.9	-0.02	470
	3	155	9.3	7.6	0.016					
E	1	223	8.0	8.2	0.009	4	12.3	12.9	-0.09	440
	3	140	9.1	4.9	0.008					
Z	2	-	-	-	-	4	11.9	11.8	-0.04	450

No.	Date	Phase	Time (G.M.T.) h. m. s.	Per s.	Amplitude A_N	A_E	A_Z	Δ km.	Remarks
	N.B.	Unless stated otherwise readings are from the Galitzins. The amplitudes given are trace amplitudes only. The times have not been corrected for phase-difference. Seismological Tables by H.Jeffreys & K.E.Bullen (British Association 1940) have been used.							
	1944								
144	Apr. 1	iPZ	09 32 04	5			+1.2	6535	Compression.
		iS$_N$	40 05	10	-1.0			(58°8)	Provisional epi-
		i(PS)$_E$	40 19	11		-1.6			centre: 50°S.,128°W.
		i(PS)$_N$	40 23	11	+1.8				(Approx.). From Auck-
		e(LQ)$_E$	46.5	25					land,Christchurch,
		eLRZ	48.9	28					Riverview & Wellington.
		MZ	49 41	24			1.5		Using S from Auckland
		MN	54 17	15	1.3				& Christchurch with
		ME	54 43	15		0.9			H 09 22 07.
		F	10 20						
145	" 2	eZ	04 38 35	7					Heavy microseisms.
		eNE	42 42	8					
		eL$_{NE}$	43.7	20					
		MN$_1$MZ$_1$	45.3	22	1.4		1.5		
		ME$_1$	46 42	10		2.5			
		MN$_2$MZ$_2$	48.0	9	3.0		2.0		
		ME$_2$	45 09	9		3.8			
		F	05 35						
146	" 3	e?Z	17 55.9						Masked by very heavy
		eE	18 04 14	15					microseisms.
		MN	05 56	16	2.8				
		ME	06 15	20		2.4			
		MZ	07 09	20			2.8		
		F	18 55						
147	" 6	eLEZ	11 01.0	22					
		MZ	03 12	16			0.4		
		F	11 15						
148	" 7		05.8h Small waves masked by irregular non-seismic waves.						
149	" 7	iZ	08 16 28	6			-1.0		
		eL$_E$	18.0	18					
		MN	20 09	13	0.5				
		F	08 30						
150	" 7	eL$_N$	12 16.6	16					
		MNE	17 48	12	0.6	0.6			
		F	12 25						
151	" 8	eN	02 35.0						
		eL$_N$	37.1	14					
		F	02 45						

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY,
RIVERVIEW, N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per.	Amplitude			Δ	Remarks
					A_N	A_E	A_Z		
	1944		h m s	s	mm.	mm.	mm.	km.	
152	Apr. 8	e_N	08 13 24	10					
		eL_{NE}	16.6	20					
		MN	17 53	14	0.5				
		ME	18 09	14		0.5			
		F	08 30						
153	" 8	e_E	08 56.0	10					
		F	09 05						
154	" 8	eL_N	09 30.7	16					
		MNE	32 45	13	0.5	0.4			
		F	09 40						
155	" 9	e_E	18 41 45	10					
		eL_E	45.1	25					
		ME	47 09	24		1.0			
		F	19 05						
156	" 12	ME	13 45 35	16		1.0			Obscured by large microseisms.
		F	13 55						
157	" 12	eL_{EZ}	15 35.8	20					Obscured by large microseisms.
		ME	38.1	16		0.7			
		F	15 50						
158	" 14	i_E	16 19 49	9		-1.3			
		eL_{NE}	21.4	22					
		ME	22 03	18		1.2			
		MN_1	22 15	20	1.3				
		MZ	23 10	18			1.2		
		MN_2	26 28	11	2.0				
		F	16 35						
159	" 16	e_N	12 52 28						
		eZ	52 41	12					
		e_E	54 01	14					
		eL_N	54.9	16					
		MN	56 36	12	1.3				
		MEZ	58.0	16		1.0	1.3		
		F	13 30						
160	" 17	eL_Z	08 24.9	24					
		MN	29 19	12	1.3				
		F	08 40						
161	" 17	iP_Z	17 45 55	4			+2.0		Compression.
		$i(S)_N$	53 23	10	+2.0				Preceded by heavy microseisms.
		i_N	56 08	9	+1.8				
		$i(SS)_N$	56 53	9	-2.0				
		i_E	57 00	8		+2.2			
		eLR_N	18 02.0	22					
		MN_1	05 43	12	9.1				
		MEZ	07.7	12		5.1	5.7		
		MN_2	08 00	10	9.8				
		F	19 30						
162	" 18	eL_E	06 58.6	16					Heavy microseisms present.
		MZ	07 01 40	16			0.8		
		MN	02 16	16	1.2				
		F	07 10						
163	" 18	e_E	08 15 21	9					Heavy microseisms present.
		MNZ	18 25	14	1.6	1.1			
		F	08 25						
164	" 18	eL_N	17 15.9	20					Heavy microseisms present.
		MN	18 26	20	0.8				
		F	17 30						
165	" 19	eL_Z	23 08.6	25					Beginning obscured by large microseisms and artificial disturbances.
		eL_{NE}	08.9	32					
		MZ	11 51	20			4.0		
		MN	12 46	19	3.7				
		ME	12 58	19		3.6			
		F	00 25						
166	" 21	eL_{NEZ}	13 18.9	24					
		F	13 30						

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY,

RIVERVIEW, N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1944		h m s	s	mm.	mm.	mm.	km.	
167	Apr.22	e(P)Z	01 34 00						
		e(S)E	41 15	12					
		mNE	41 26	15	1.0	0.9			
		eLN	47.9	30					
		MZ	51 29	22			0.7		
		MN	52 07	24	0.7				
		ME	53 20	20		1.0			
		F	Merged in no.168.						
168	" 22	e(P)Z	02 20 28	6					
		iZ	20 44	6			+1.5		
		eN	25 12	6					
		i(S)N	25 30	10	+2.0				
		eLE	26.8	26					
		MZ	27 45	22			1.9		
		MNE	28.4	19	1.5	1.7			
		F	03 00						
169	" 22	eLZ	04 12.7						
		eLE	12.8	30					
		MZ	14 16	24			1.0		
		ME	15 10	22		1.0			
		MN	15 20	22	0.9				
		F	05 00						
170	" 23	e(P)Z	09 07 03	5					
		e(S)E	11 02	6					
		iNEZ	11 05	9	+1.2	+1.0	+0.5		
		e(SS)E	11 30	9					
		eLRE	12.7	22					
		eLRZ	13.0	20					
		MN	13 36	16	1.1				
		MEZ	14.9	15		0.9	1.0		
		F	09 55						
171	" 23	eN	10 36.0	8					Readings from the Wiechert.
		ME	43 34	13		0.2			
		F	10 50						
172	" 23	iPEZ	11 03 22	5		+1.5	-2.0	3400	Dilatation.
		ipPZ	04 33	6			+1.2	(30°2)	h 0.06
		iPPEZ	04 42	6		-1.2	+1.5		H 10 57 46
		iZ	05 18	7			-1.7		Provisional epi-
		iPcPE	06 07	10		+1.5			centre: 21°S, 178°W.
		iSNEZ	07 51	6	-2.0	+1.7	+2.0		(From Apia, Bris-
		isSNE	10 06	8	-1.7	+1.2			bane, Christchurch,
		iSSE	10 21	14		+1.7			Riverview & Wellington.)
		iNE	10 32	11	+2.4	-3.2			
		iZ	10 33	11			-4.4		
		iE	11 40	8		+2.0			
		iN	11 51	10	+2.3				
		MN	13 50	12	2.0				
		F	12 00						
173	" 23	eE	15 23 47						
		eZ	26 14	7					
		eLE	26.5	22					
		MN	30 50	17	0.8				
		ME	31 38	15		0.8			
		MZ	32 23	16			0.5		
		F	15 50						
174	" 23	eL?E	18 30.2	24					
		ME	38 26	16		0.5			
		MN	41 14	12	1.8				
		MZ	42 16	13			0.7		
		F	19 05						

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY,
RIVERVIEW, N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1944		h m s	s	mm.	mm.	mm.	km.	
175	Apr.25	e?E	06 05 44	2					Ammunition dump reported to have exploded near Liverpool (about 15 miles from Riverview) about this time.
		iN	06 10	3					
		iN	06 58	3	+1.1				
		iE	09 21	4		-1.3			
		iZ	09 27	4			-1.7		
		iN	09 41	4	-1.9				
		iN	10 11	4	+1.3				
		mN	11 48	5	1.7				
		F	06 16						
176	" 25	eL$_N$	18 22.0	28					
		MN	23 05	20	1.0				
		MZ	25 53	18			1.0		
		ME	26 00	18		1.3			
		F	18 45						
177	" 26	iPNZ	02 01 22	6	-1.2		+2.2	4080	Compression.
		iP$_{NE}$Z	01 24	6	+7.0	-3.7	-10.7	(36°7)	H 01 54 16
		mZ	01 32	6			12.5		Provisional epicentre: 0°5 S., 134°E. (From Brisbane, Christchurch, Perth, Riverview & Wellington.
		iPP$_{NE}$Z	02 49	6	+6.5	-2.5	-5.9		
		mNEZ	02 56	7	8.0	3.7	10.8		
		iPcP$_{NE}$Z	03 44	6	-4.4	+3.8	+7.5		
		iS$_{EZ}$	07 03	8		-6.7	-5.5		
		iNE	07 05	8	-7.7	+17.4			
		mZ	07 18	9			12.0		
		mE	07 22	10		22.5			
		mN	07 27	16	12.5				
		iN	08 01	8	+8.7				
		mN	08 22	10	12.3				
		iSS$_E$	09 26	11		+6.8			
		iZ	09 33	12			+6.8		
		iE	09 48	12		-18.0			
		mZ	09 53	13			16.0		
		mE	10 00	12		20.5			
		iN	10 45	8	+14.3				
		iScS$_E$	11 33	8		-20ca.			
		iZ	12 20	8			∓10.2		
		eL$_E$	12.6	32					
		ME$_1$	14 48	6		15.6			NS & EW Max. from the Wiechert. Galitzin record too faint to measure.
		MN$_1$	15 37	6	18.0				
		ME$_2$	16 32	6		22.6			
		MN$_2$	18 00	13	39.0				
		ME$_3$	18 13	11		31.7			
		MZ	18.9	14			75±		
		ME$_4$	19 47	11		32.0			
		eW$_2$N	04 36.3	32					
		eN	05 04.7	38					
		F	05 30						
178	" 27	iPNZ	14 45 11	6	-1.1		+1.7	4255	Compression.
		iP$_{NE}$Z	45 18	5	-3.0	+2.3	+4.5	(38°3)	H 14 37 59
		mNE	45 27	4	2.8	1.2			
		iPPE	46 53	5		+2.0			After 14h 45m 18s all measurements are from the Wiechert. Galitzin record too entangled to be deciphered.
		iN	47 00	5	-4.2				
		mNE	47 03	5	5.2	3.3			
		iPcP$_N$	47 34	6	-3.5				
		iE	47 58	6		+2.6			
		iS$_E$	51 10	10		-12.2			
		iS$_N$	51 14	10	-8.6				
		eN	51 39	22					
		iE	51 51	13		-6.0			
		iN	52 13	6	+7.1				
		iE	53 38	10		-6.5			
		iSS$_N$	53 52	6	-10.7				
		iN	54 19	11	+13.3				
		eLQ$_E$	54.6	27					
		eLR$_E$	56.0	30					
		eLR$_N$	57.0	27					

(Concluded on next sheet)

RIVERVIEW COLLEGE OBSERVATORY,
RIVERVIEW, N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1944		h m s	s	mm.	mm.	mm.	km.	
178	Apr.27	ME_1	14 58.3	8		72.5			
		MN_1	59.6	(6 19	41.5				
		ME_2	15 00.2	10		75+			
		MN_2	00.7	(6 19	56.0				
		MN_3	01.9	16	88+				
		ME_3	02.1	14		85+			
		MN_4ME_4	03.9	14	90+	85+			
		eW_2E	17 30.6	22					
		MN	36 07	22	1.5				W_2 from Galitzin.
		MZ	36 13	23			1.6		
		ME	37 25	22		1.6			
		F	18 40						
179	" 27	iP_Z	19 12 18	6			+2.0	4180 (37°6)	Compression.
		iP_N	12 20	9	+1.3				
		mZ	12 29	9			3.0		Aftershock of No.178.
		iS_{NE}	18 05	10	+2.4	+2.7			
		mNE	18 15	10	4.3	4.5			
		i_E	18 56	10		+2.1			
		i_N	19 05	16	+2.0				
		$i(SS)_Z$	20 33	10			+2.5		
		iE	20 39	13		+3.5			
		mE	20 57	13		6.5			
		MNE_1	25 32	8	5.0	8.1			Max. from Wiechert.
		MNE_2	29 05	11	11.5	8.0			
		F	Merged in No.180						
180	" 27	i_E	20 11 59	6		+2.0			Aftershock of 178.
		eL_E	14.2	20					
		MNE	18.3	13	9.3	4.0			
		MZ	18.4	13			9.8		
		F	Merged in No.181.						
181	" 27	eL_E	20 35.9	18					Aftershock of 178.
		MN	39 38	13	3.5				
		MZ	39 49	13			3.5		
		F	21 00						
182	" 27	eL_E	21 15.8	27					Aftershock of 178.
		ME	20 23	13		4.2			
		MN	20 29	12	8.5				
		MZ	20 38	12			8.8		
		F	21 45						
183	" 27	e_E	22 27 10						Aftershock of 178.
		eL_E	30.9	20					
		MEZ	35 24	12		3.4	6.6		
		MN	35 29	12	5.5				
		F	22 55						
184	" 28	eL_N	00 09.6	18					Aftershock of 178.
		MNZ	12 42	12	31		3.1		
		F	00 25						
185	" 28	MNZ	01 44.4	13	1.9		2.0		Aftershock of 178.
		F	01 55						
186	" 28	eL_{NE}	05 18.9	20					
		MEZ	22.7	12		2.0	5.6		
		MN	22 44	12	5.6				
		F	05 50						
187	" 29	eZ	06 50.6						
		MN	54 29	14	0.6				
		ME	54 34	14		0.7			
		F	07 05						

D.J.K.O'CONNELL, S.J.
Director.

Riverview College Observatory

RIVERVIEW. N.S.W

SEISMOLOGICAL BULLETIN

$\Phi = 33° 49' 46''$ S. $\lambda = 151° 9' 30''$ E h = 25m. Foundation : Triassic sandstone.

INSTRUMENTS:

1. Wiechert Astatic Pendulum Seismometer (1000 kilo.) (NS. EW)
2. Wiechert Vertical Seismometer (80 kilo.)
3. Mainka Conical Pendulum Seisometer (450 kilo.) (NS, EW)
4. Galitzin Aperiodic Seismometer with Galvanometer registration (NS, EW, Vert.)

		V	T_o	ε : 1	$\frac{r}{T_o^2}$		T_1 (Galv.)	T (Pend)	μ^2	V_s
N	1	193	7.9	6.2	0.006	4	12.8	12.9	-0.02	470
	3	151	9.4	6.9	0.022					
E	1	225	7.9	8.1	0.019	4	12.3	12.9	-0.09	440
	3	129	9.2	5.0	0.010					
Z	2					4	11.9	11.9	-0.04	450

No.	Date	Phase	Time (G.M.T.)	Per	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
			h. m. s.	s.				km.	
		Unless stated otherwise readings are from the Galitzins. From May 1, 1944, ground amplitudes are given. The amplitudes of initial impulses on the Galitzins were computed by Galitzin's method. The tables used are those of Jeffreys and Bullen (1940).							
	1944				μ	μ	μ		
188	May 1	eZ	22 22 35	6					
		eL_N	30.0	24					
		ME	32 05	18		4			
		F	Merged in No. 189						
189	" 1	eL_E	22 43.4	22					
		ME	44 12	16		4			
		MN	45 17	13	4				
		F	23 15						
190	" 1	eL_{NE}	23 29.3	22					
		ME	30 47	12		2			
		MN	32 17	12	3				
		F	23 55						
191	" 2	$e(L)_E$	18 00.6	18					
		F	18 10						
192	" 4	ePZ	06 46 00	10				3350	
		$i(PP)_Z$	47 03	6			+7	30°1	
		iS_N	50 55	12	-17				
		iS_Z	50 56	12			+7		
		eLR_Z	53.4	24					
		eLR_E	53.6	24					
		ME_1	54 59	22		22			
		MN_1	56 49	18	12				
		MZ_1	57 20	18			18		
		ME_2	58 53	13		24			
		MN_2	07 00 33	13	18				
		MZ_2	01 33	12			19		
		F	Merged in No. 193.						
193	" 4	PZ	07 58 27	8				3380	
		iS_N	08 03 24	12	-7			30°4	
		eLR_Z	05.7	28					
		eLR_E	05.9	28					
		ME_1	07 23	22		10			
		MN_1	09 11	18	6				
		MZ_1	09 43	17			8		
		ME_2	11 15	14		8			
		MZ_2	12 21	13			13		
		MN_2	12 26	13	12				
		F	09 05						
194	" 5	MEZ	05 34.5	18		4	5		Masked by irregular non-seismic waves.
		F	05 45 ca.						

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY,
RIVERVIEW, N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per	Amplitude			Δ	Remarks
					A_N	A_E	A_Z		
	1944		h m s	s	μ	μ	μ	km.	
195	May 5	$i(S)_N$	06 04 55	7	-6				Earlier phases
		iE_Z	04 58	7		-4	+4		obscured by irreg-
		m_N	05 12	10	4				ular non-seismic
		m_Z	05 21	10			9		waves.
		m_E	05 25	10		4			
		eL_E	10.2	20					
		ME_1	12 35	18		6			
		MZ_1	12 47	22			9		
		MN	13 47	20	11				
		MZ_2	15 07	18			8		
		ME_2	15 30	15		7			
		F	06v35 ca						
196	" 6	$e(LQ)_N$	01 19.2	30					Masked by irreg-
		MEZ	40.6	20		5	5		ular non-seismic
		MN	44.4	20	4				waves.
		F	02 40						
197	" 6	eL_{NE}	06 20.2	22					
		ME	23 46	16		4			
		MN	24 22	16	4				
		MZ	26 55	16			5		
		F	06 40						
198	" 7	$e?_Z$	18 24 59						
		i_{NZ}	29 27	7	-4		-4		
		eL_{EZ}	32.6	17					
		MN	34 02	16	2				
		MZ	34 11	16			2		
		F	18 45						
199	" 8	e_{NZ}	07 31.1						A few waves.
200	" 9	eL_Z	15 31.3	24					
		MEZ	33.4	22					
		F	16 00						
201	" 11	e_N	07 07.3	8					Readings from Wiech-
		eL_N	14.2	18					ert. Galitzin rec-
		ME	16 38	13		6			ord obscured by
		MN	17 33	13	5				non-seismic waves.
		F	07 30						
202	" 12	iP_Z	07 07 33	6			+4	2920	Compression.
		iS_N	12 01	8	+6			26°3	H 07 01 59
		eS_E	12 01	8					
		i_N	12 43	8	-6				
		i_N	12 59	8	+12				
		eLR_Z	14.4	22					
		eLR_N	14.5	20					
		MN_1	15 23	17	10				
		MZ	15 38	18			6		
		ME	16 25	15		9			
		MN_2	16 33	14	10				
		F	08 10						
203	" 14	iP_Z	08 56 37	3			+7	3090	Compression.
		$iPcP_{EZ}$	59 18	7		-3	+3	27°8	h 0.10
		iS_E	09 00 38	7		+4			H 08 51 36
		isS_{NE}	03 38	8	+3	+5			NS readings from
		$iScS_E$	06 19	6		-5			Wiechert. Record
		MZ	08 02	14			1		lost on N Galitzin.
		F	09 15						
204	" 14	iP_Z	11 01 20	4			+5		Compression.
		$i(PP)_{EZ}$	02 56	6		+4	-4		
		$e(S)_E$	06 57	14					N. Galitzin record
		eL_Z	10.1	25					lost.
		$i(ScS)_E$	11 27	6		-6			
		MZ	12 09	20			3		
		ME	13 08	18		3			
		F	11 25						

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY,
RIVERVIEW, N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1944		h m s	s	μ	μ	μ	km.	
205	May 15	e(P)Z	19 24 40	14					
		iE	29 21	8		+6			
		e(S)Z	29 40	18					N. Galitzin record
		mZ	30 07	18			7		lost. NS readings
		iE	30 34	8		-9			from Wiechert.
		iE	31 09	10		+13			
		eLE	32.1	24					
		MN	34 04	21	21				
		MZ	35 04	20			25		
		ME	35 08	16		23			
		F	20 20						
206	" 18	iPNZ	04 49 44	6	+7		-14	3560	Dilatation.
		iPPZ	50 51	11			+10	32°0	H 04 43 19
		iN	54 45	8	+8				
		iSE	54 52	10		+24			
		iN	54 53	22	+19				
		iE	57 03	16		+21			
		iN	58 29	10	-22				
		ME1	05 01 01	15		31			
		MNZ1	02 49	16	20		21		
		ME2	03 50	12		35			
		MN2	04 17	13	25				
		MZ2	05 22	14			25		
		MZ3	09 29	13			28		
		MN3	09 35	12	28				
		F	06 30						
207	" 19	iPNZ	00 25 44	10	+22		-29	3520	Dilatation.
		iPPNZ	26 48	10	+18		-19	31°7	H 00 19 21
		iPcPN	28 29	10	+13				
		iSN	30 50	13	-39				
		iSE	30 53	10		+58			
		isSN	31 10	18	-77				
		iZ	31 30	15			+76		
		mN	31 38	18	52				
		iSSSE	33 01	16		+63			
		eLRNE	34.1	24					
		ME1	35 42	15		103			
		ME2	37 01	15		115			
		MNZ1	38 58	15			67		
		MN1	38 56	15	77				
		ME3	40 00	12		105			
		MN2	41 21	13	91				
		MZ2	41 30	14			87±		
		ME4	42 02	11		76			
		MNZ3	46.0	12	76		77±		
		MZ4	48 15	12			102±		
		MN4	48 59	10	68				
		F	03 05						
208	" 19	e(L)N	16 52.3	13					
		MN	55 26	10	4				
		F	17 20						
209	" 20	eN	17 01 44	12					
		eLE	05.5	22					
		eLNZ	05.9	22					
		MZ	07 25	20			3		
		MN	07 30	20	3				
		ME	08 06	16		2			
	21	F	17 30						
210	" 22	ME	08 01 34						
		F	08 05						

(Concluded on next sheet)

RIVERVIEW COLLEGE OBSERVATORY,
RIVERVIEW, N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.) h m s	Per	Amplitude A_N	A_E	A_Z	Δ	Remarks
	1944		h m s	s	μ	μ	μ	km.	
211	May 22	eNE	12 10 05	9					
		iNE	12 54	8	+4	+5			
		eLE	17.0	22					
		iN	17 34	12	+9				
		ME	18 49	12		6			
		MNZ	21.2	13	5		7		
		F	12 55						
212	" 25	iPNEZ	01 11 49	5	+16	+61	-110±	3180	Dilatation.
		iPcPZ	14 39	10			+84	28°6	Azimuth 75°
		iPcPNE	14 43	10	+15	+48			h 0.10
		iSNE	15 56	6	-119	+102			H 01 06 41
		mNE	16 01	7	158	155			
		iN	16 14	5	+63				After iP NS & EW
		iE	16 28	5		+73			readings from Wiech-
		iE	16 50	8		+35			ert. Galitzin
		iSSNE	19 03	8	+73	+49			record indecipher-
		mE	19 11	8		103			able.
		mE	19 28	8		110			
		eLN	19.6	14					
		MN	20 44	13	185				
		iScSE	21 12	7		-48			
		iN	21 19	7	+52				
		F	03 10						
213	" 25	iPNZ	13 04 30	4	-15		+25	3660	Compression.
		iN	04 35	6	+18			32°9	H 12 57 57
		iPPN	05 39	10	+25				
		PPPN	05 52	11	49				After iP readings
		iSNE	09 44	9	-34	+91			are from Wiechert,
		iN	10 05	19	-390				Galitzin record
		iSSE	11 43	16		-153			indecipherable.
		iSSSE	12 11	22		+1170			
		eL(R)NE	12.4	32					
		ME1	14 24	21		1090			
		MN1	15 13	16	415				
		ME2	15 56	14		515			
		MN2	17 28	15	440				
		ME3	17 36	13		710			
		MN3	19 28	13	400				
		eW2NZ	15 39.5	25					
		F	16 50						
214	" 26	eE	15 25 17						
		ME	27 43	14		2			
		F	15 40						
215	" 27	iE	09 38 42	6		+4			
		MNE	41.5	13	2	2			
		F	09 50						
216	" 28	eLNE	04 39.7	20					
		MN	42 05	14	5				
		ME	42 35	16		2			
		MZ	43 47	13			2		
		F	05 00						
217	" 29	eLEZ	03 28.2	25					
		MEZ	31.1	20		4	3		
		F	03 55						

-----oOo-----

CORRECTION.

1941 September, Galitzin ~~xxxxxx~~ constants should read:

	T_1	T	μ^2	Vs
N	12.6	13.1	-0.03	276
E	12.8	13.1	+0.04	305
Z	12.1	12.0	+0.04	259

D.J.K.O'CONNELL,S.J.
Director.

Riverview College Observatory

RIVERVIEW. N.S.W

SEISMOLOGICAL BULLETIN

$\Phi = 33° 49' 46''$ S. $\lambda = 151° 9' 30''$ E h = 25m. Foundation : Triassic sandstone.

INSTRUMENTS:

1. Wiechert Astatic Pendulum Seismometer (1000 kilo.) (NS. EW)
2. Wiechert Vertical Seismometer (80 kilo.)
3. Mainka Conical Pendulum Seisometer (450 kilo.) (NS, EW)
4. Galitzin Aperiodic Seismometer with Galvanometer registration (NS, EW, Vert.)

		V	T_o	ε : 1	$\frac{r}{T_o^2}$		T_1 (Galv.)	T (Pend)	μ^2	V_s
N	1	197	8.0	6.2	0.009	4	12.8	12.9	-0.02	470
	3	155	9.3	7.1	0.024					
E	1	220	8.0	6.3	0.022	4	12.3	12.9	-0.09	440
	3	132	9.1	5.4	0.012					
Z	2					4	11.9	11.8	-0.04	450

No.	Date	Phase	Time (G.M.T.)	Per	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
			h. m. s.	s.				km.	
	Unless stated otherwise readings are from the Galitzins. From May 1 1944, ground amplitudes are given. The amplitudes of initial impulses on the Galitzins were computed by Galitzin's method. The Tables used are those of Jeffreys and Bullen (1940).								
	1944		h m s	s	μ	μ	μ	km.	
218	June 1	iZ	15 21 55	5			-4		
		ME	25 43	14		2			
		MN	26 09	15	1				
		MZ	26 59	18			2		
		F	15 35						
219	" 2	eZ	02 58 .20	4					Masked by microseisms and non-seismic waves.
		iE	58 58	5		+5			
		iN	03 01 05	7	+8				
		MNE	02 23	8	5	4			
		F	03 10						
220	" 3	iZ	04 20 31	5			+6		Masked by non-seismic waves.
		MNE	31.3	14	2	4			
		F	04 40						
221	" 3	ME	08 16 55						Masked by non-seismic waves.
		MZ	17 26						
		MN	17 34						
		F	Merged in	No. 222.					
222	" 3	iZ	08 18 53	13			+5		Confused by No. 221.
		eL_N	28.5	27					
		ME_1	30 48	14		9			
		MZ_1	31 05	20			10		
		MN_1	31 28	18	11				
		ME_2	32 42	12		11			
		MN_2	33 15	14	7				
		MZ_2	33 40	14			7		
		F	09 05						
223	" 4	$i(P)_N$	09 33 20	4	+3				
		iS_E	37 11	6		-6			
		iN	37 14	6	+9				
		iZ	37 17	6			+9		
		mN	37 31	7	4				
		eLR_E	39.0	25					
		MZ	39 25	24			8		
		ME	39 57	22		7			
		MN	41 01	15	3				
		F	09 55						
224	" 4	MZ	20 24.2						Masked by non-seismic waves.
		F	20 30 ca,						

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY,
RIVERVIEW, N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per	Amplitude			Δ	Remarks
					A_N	A_E	A_Z		
			h m s	s	μ	μ	μ	km.	
225	June 6	iP_{NZ}	03 50 31	9	+6		-7	2860	Dilatation.
		iPP_{NZ}	51 12	9	+10		-11	25°7	
		iS_N	54 55	10 16	-18				
		$i\not{S}_Z$	54 59	7			+11		
		i_N	55 23	18	+49				
		i_E	57 41	10		+24			
		eL_Z	58.3	28					
		eL_N	58.5	28					
		MZ	04 00 19	20			32		
		ME	00 35	20		29			
		MN	00 46	20	32				
		F	05 20						
226	" 8	i_{NE}	07 32 57	½	½	1			From Wiechert.
		F	07 33.6						
227	" 8	e_N	21 15 31	9					
		eL_Z	17.2	20					
		MN	19 29	16	2				
		MEZ	20.0	16		2	2		
		F	Merged in	No.228.					
228	" 8	$i?_Z$	21 19 05	6			+4		
		$i?_E$	19 09	6		+5			
		iE	20 49	6		+4			
		iS_N	24 23	7	-5				
		iS_{EZ}	24 25	7		-5	+4		
		m_N	24 47	8	3				
		eL_N	25.9	20					
		ME	28 09	15		3			
		MN	28 15	14	2				
		MZ	28 20	14		∅	3		
		F	21 50						
229	" 9	$i(P)_E$	20 33 52	6		+4			
		$i(PP)_N$	35 29	6	+11				
		iE	35 54	6		+10			
		$i(S)_Z$	41 03	7			+10		
		$i(SS)_E$	45 58	12		-19			
		iZ	46 28	10			+17		
		i_N	49 18	12	+36				
		eL_E	49.3	32					
		eL_Z	50.8	22					
		MN_1	52 44	18	62				
		ME_1	52 48	18		203			
		MN_2MZ	55.8	14	120ca		135		
		ME_2	56.1	10		81			
		F	23 00						
230	" 10	eL_E	01 05.6	24					
		ME	07 16	18		5			
		MN	09 51	13	5				
		MZ	09 59	13			2		
		F	01 25						
231	" 11	eL_E	07 55.4	22					
		ME	58 08	14		2			
		MN	08 00 18	14	2				
		MZ	00 49	14			3		
		F	08 25						
232	" 11	eL_E	19 26.0	20					
		MZ	28 32	13			2		
		ME	29 18	13		3			
		F	19 45						
233	" 11	eL_Z	20 17.3	18					
		F	20 25						

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY,
RIVERVIEW, N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.) h m s	Per s	Amplitude A_N μ	A_E μ	A_Z μ	Δ km.	Remarks
	1944								
234	June 12	eL_Z	02 04.2	20					
		M_N	04 18	14	2				
		M_E	08 20	18		2			
		M_Z	08 34	18			3		
		F	02 35						
235	" 12	e_E	05 53.2						
		e_{NE}	57 12	13					
		$MNEZ$	06 01.1	14	8	7	7		
		F	06 20						
236	" 12	eL_E	16 26.0	20					
		M_N	26 56	13	2				
		M_E	27 14	12		2			
		F	16 40						
237	" 15	i_E	17 29 37	7		+6			
		eL_{NE}	30.4	20					
		MNE	32 36	16	4	4			
		M_Z	34 45	16			3		
		F	17 45						
238	" 16	iP_Z	00 04 05	5			+7	2870	Compression.
		iP_{NEZ}	04 06	5	+4	+6	-13	25°8	Azimuth 56°ca.
		i_Z	06 37	5			-7		H 23 58 35
		iS_E	08 30	7		+7			
		iS_N	08 32	7	-12				Heavy microseisms
		$eLRE$	10.3	28					all day.
		eLR_Z	10.4	24					
		ME_1	11 16	14		12			
		MN_1	11 21	16	13				
		MZ_1	11 30	20			14		
		MZ_2	12 25	10			8		
		ME_2	12 49	8		7			
		MN_2	13 02	8	8				
		F	00 50						
239	" 16	eE_Z	22 20.5						
		eL_{EZ}	43.0	30					
		MNZ	50.1	16	4		4		
		ME	50.6	16		3			
		F	23 15						
240	" 18	eL_E	02 14.2	24					
		ME	16 52	18		12			
		M_Z	17 06	18			10		
		M_N	19 48	13	7				
		F	02 50						
241	" 19	eL_Z	02 00.7	24					Preceded by large
		M_Z	03 00	20			6		microseisms.
		M_E	03 06	20		8			
		F	02 20						
242	" 21	iP_{NEZ}	11 02 55	8	+33	+59	-61	2260	Dilatation.
		ipP_N	03 05	7	+37			20°3	Azimuth 60°ca.
		ipP_E	03 07	7		-52			H 10 58 19
		iPP_{NE}	03 17	5	+44	+70			
		iPP_Z	03 19	5			-87		
		i_{NE}	03 36	6	-68	-57			
		iS_E	06 36	7		+44			
		isS_N	06 49	(7 10	+92				
		isS_Z	06 51	10			-114		
		isS_E	06 54	6		-118			
		m_E	06 59	6		67			
		iSS_E	07 03	7		-215			
		$iPcP_N$	07 10	7	+66				
		SSS_E	07 19	7		51			
		i_N	07 37	10	-110				
		eL_N	07.7	27					
		eL_E	07.9	27					
		mZ	08 07	10			86		

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY,
RIVERVIEW, N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per	Amplitude			Δ	Remarks
					A_N	A_E	A_Z		
	1944		h m s	s	μ	μ	μ	km.	
242	June 21	MZ_1	11 09 43	20			138		
cont.		ME_1	09 56	16		102			NS & EW maxima
		MN_1	10 09	14	119				from Wiechert.
		MN_2	11 10	13	150				
		ME_2	12 05	15		110			
		MZ_2	12 27	14			80		
		MN_3	13 07	11	150				
		ME_3	15 25	13		107			
		MZ_3	15 36	14			77		
		MN_4	15 54	11	99				
		ME_4	18 21	11		108			
		MZ_4	18 36	11			106		
		eW$_2$E	14 06,2	25					
		MZ	08 15	18			2		
		MN	08 31	18	2				
		F	14 20						
243	" 23	$i(P)_E$	16 45 01	4		+3			
		$i(S)_E$	48 30	6		+5			
		i_Z	48 32	7			+4		
		eL_{EZ}	50,1	22					
		ME	52 05	16		2			
		MZ	52 18	16			3		
		MN	52 40	16	3				
		F	17 10						
244	" 25	eL_Z	05 33,5	24					
		MEZ	36,1	18		2	2		
		F	05 55						
245	" 25	iPNEZ	14 22 08	8	+11	+17	-21	2380	Dilatation.
		iPP_Z	22 36	8			+30	(21°4	H 14 17 21
		iE	22 40	8		+19			
		iN	22 42	8	+26				
		iS_{NE}	25 59	6	-43	+33			
		iE	26 02	9		-78			
		iN	26 04	8	+200ca				
		iZ	26 12	8			+67		
		iSS_N	26 30	8	+63				
		i_N	26 44	10	+76				
		eLR_N	26,9	22					
		eLR_E	27,4	22					
		i_N	27 42	17	+156				Begins train of
		MZ	28 23	18			76		sinusoidal waves
		ME	28 55	16		65			lasting until
		MN	29 12	14	88				14h 30.8m on NS.
		F	16 10						
246	" 25	iPKPZ	18 01 47	5			-7		
		i_N	01 49	5	+5				
		mZ	01 51	5			9		
		iZ	03 30	6			+5		
		i_Z	05 09	5			+7		
		eLRZ	51,3	30					
		MZ	58,1	20			2		
		F	19 40 ca.						
247	" 26	$i(P)_Z$	04 50 28	3			-5		
		eN	54 59	8					Confused by non-
		eE	55 53	9					seismic waves.
		ME	59 25	10		3			
		MZ	59 39	20			3		
		MN	05 01 09	15	3				
		F	05 20						

(Concluded on next sheet)

RIVERVIEW COLLEGE OBSERVATORY,

RIVERVIEW, N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1944		h m s	s	μ	μ	μ	km.	
248	June 27	MN	17 04 36	14	1				
		ME	04 41	14		1			
		F	17 10						
249	" 27	ME	17 44 26	16		1			
		MN	44 34	13	2				
		MZ	44 45	12			1		
		F	17 55						
250	" 28	ePP$_E$	08 19 08	13					
		i$_Z$	19 16	10			+8		
		iSKS$_E$	24 38	12		+5			
		iSKKS$_{EZ}$	26 09	12		+13	+7		
		ePS$_Z$	28 48	17					
		iPS$_E$	28 57	18		+19			
		i$_Z$	29 06	13			+37		
		iPPS$_E$	30 14	20		+28			
		ePPS$_N$	30 17	20					
		i$_Z$	35 18	25			+24		
		iSS$_N$	35 34	15	-17				
		i(SSP)$_Z$	35 45	26			+17		
		i(SSP)$_E$	35 48	24		+40			
		iSSS$_N$	39 12	18	-14				
		iSSS$_E$	39 16	20		+10			
		eLQ$_N$	47.7	30					
		eLR$_{EZ}$	54.2	32					
		MZ$_1$	58 08	20			10		
		MN$_1$	58 48	20	7				
		ME$_1$	58 58	20		11			
		MNEZ$_2$	09 03.9	16	8	9	12		
		F	11 30						
251	" 29	eNE	09 39 16						A few waves.
		F	09 45						
252	" 29	eEZ	12 28.4						
		F	12 40						

D.J.K.O'CONNELL,S.J.
Director.

Riverview College Observatory

RIVERVIEW. N.S.W

SEISMOLOGICAL BULLETIN

$\Phi = 33° 49' 46''$ S. $\lambda = 151° 9' 30''$ E h = 25m. Foundation : Triassic sandstone.

INSTRUMENTS:

1. Wiechert Astatic Pendulum Seismometer (1000 kilo.) (NS. EW)
2. Wiechert Vertical Seismometer (80 kilo.)
3. Mainka Conical Pendulum Seisometer (450 kilo.) (NS, EW)
4. Galitzin Aperiodic Seismometer with Galvanometer registration (NS, EW, Vert.)

		V	T_o	ε : 1	$\frac{r}{T_o^2}$		T_1 (Galv.)	T (Pend)	μ^2	V_s
N	1	192	7.9	6.8	0.007	4	12.8	12.9	-0.02	470
	3	150	9.2	7.8	0.020					
E	1	218	8.0	7.6	0.012	4	12.3	12.9	-0.09	440
	3	133	9.0	6.3	0.013					
Z	2					4	11.9	11.8	-0.04	450

No.	Date	Phase	Time (G.M.T.)	Per	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
			h. m. s.	s.				km.	
	Unless stated otherwise readings are from the Galitzins. From May 1, 1944, ground amplitudes are given. The amplitudes of initial impulses on the Galitzins were computed by Galitzins method. The tables used are those of Jeffreys and Bullen (1940).								
	1944		h m s	s	μ	μ	μ	km.	
253	July 1	e_N	21 09 14						
		eL_N	11.2	18					
		MN	13 28	14	3				
		MEZ	14.0	16		2	2		
		F	21 30						
254	" 1	eL_{EZ}	23 58.0	18?					
		MN	00 00 25	18	4				
		ME	00 42	18		3			
		MZ	01 55	18			3		
		F	00 25						
255	" 2	i_N	08 45 56	7	-6				Perhaps deep focus.
		i_E	45 58	7		+4			
		e_N	48 50	10					
		e_E	49 07	10					
		i_N	51 13	8	-9				
		i_E	51 15	8		+5			
		MN	54 18	11	1				
		F	09 10						
256	" 2	eNE	23 40 16	½					Small local shock.
		F	23 41.2						
257	" 2	eNE	23 41 33	½					" " "
		F	23 42.9						
258	" 4	$e(L)_E$	02 57.0	12					Large microseisms.
		F	03 00						
259	" 5	e_N	10 17 53	8					
		eL_N	29.5	22					
		MN	33 26	22	7				
		ME	38 04	22		8			
		MZ	38 18	22			11		
		F	11 15						
260	" 7	eL_{EZ}	02 35.3	22					
		MN	37 50	12	2				
		F	02 55						
261	" 7	e_E	17 31 27	8					
		e_E	35 08	6					
		eL_Z	37.3	30					
		MZ_1	38 43	22			11		
		MN	38 58	20	7				
		ME_1	39 08	20		7			
		M_2EZ	41.6	18		7	9		
		F	18 10						

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY,
RIVERVIEW, N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.) h m s	Per s	Amplitude A_N μ	A_E μ	A_Z μ	Δ km.	Remarks
	1944								
262	July 10	iP_{EZ}	13 31 45	5		+8	-6		Dilatation.
		i_Z	32 51	5			-9		
		iZ	33 16	7			+9		May be more than
		iE	33 17	7		-6			one shock.
		e_E	34 12	14					
		$e(L)_E$	39,2	18					
		i_N	39 56	8	+11				
		MN	42 07	16	4				
		MZ	42 37	16			3		
		F	13 55						
263	" 10	iP_Z	15 53 16	8			+9		Compression.
		i_E	53 23	9		+6			
		$i(PP)_Z$	53 39	9			+18		
		iE	53 44	8		+13			
		iE	54 16	10		-17			
		iZ	54 18	8			+9		
		iE	57 28	9		+8			S difficult to
		i_N	58 01	10	+13				identify.
		iN	58 27	14	+14				
		eLR_N	59.1	20					
		MZ_1	16 00 45	22			35		
		ME_1	00 51	22		23			
		MN	01 53	15	15				
		ME_2	03 03	16		20			
		MZ_2	03 07	16			25		
		F	17 10						
264	" 11	iP_Z	18 37 05	(3			+9	2410	Compression.
		i_{P_E}	37 07	(8		-6		21°7	H 18 32 15
	PP	i_{PZ}	37 35	6			+8		
		iS_E	40 59	10		-14			
		iS_N	41 02	10	+36				
		$iPcP_Z$	41 08	10			+10		
		i_N	41 28	10	+15				
		eLQ_N	41.6	20					
		eLR_{EZ}	42.4	22					
		MZ	43 20	20			12		
		ME	43 44	18		9			
		MN	44 08	16	17				
		F	19 15						
265	" 13	iP_{EZ}	00 19 49	6		-8	+7		Compression.
		i_Z	19 53	6			-17		
		$i(S)_N$	24 18	9	+7				S difficult to
		iN	24 31	9	+11				identify.
		iE	24 44	6		+11			
		e_N	25 41	12					
		eL_{NE}	25.9	24					
		eLZ	26.0	24					
		MN	26 56	16	8				
		MZ	26 59	20			14		
		ME	27 03	20		11			
		F	01 10						
266	" 13	eNE	11 05 24						Heavy microseisms
		eL_{NE}	25.4	26					present.
		MN	26 05	22	9				
		MZ	26 21	20			6		
		F	11 45						
267	" 15	iN	23 40 25	5	+8				Heavy microseisms
		iE	43 25	5		+7			present.
		eL_Z	50.2	26					
		ME	51 17	20		7			
		MZ	51 43	26			14		
		MN	53 26	21	8				
		F	00 10						

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY,
RIVERVIEW, N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1944		h m s	s	μ	μ	μ	km.	
268	July 16	iP_Z	10 25 00	6			+10	3610	Compression.
		ipP_E	26 30	6		-7		32°5	h 0.08
		iS_E	29 38	9		-11			H 10 19 13
		isS_E	32 25	9		-6			
		iSS_N	32 29	11	-13				
		$i(SoS)_N$	34 39	6	+7				
		i_E	34 43	5		-5			
		MN	35 20	12	4				
		F	11 00						
269	" 17	eN	10 52 06	8					Large microseisms present.
		eN	55 18	24?					
		eL_Z	57.1	30					
		MN	59 28	26	10				
		MEZ_1	11 00.6	28		11	13		
		MEZ_2	04.3	22		10	9		
		F	11 45						
270	" 19	iZ	10 32 44	6			+8		Compression.
		iN	32 59	6	-8				
		iZ	34 51	7			+10		Heavy microseisms present.
		iNE	41 18	6	+7	+6			
		iE	41 43	10		+16			
		eL_E	52.0	28					
		ME	59 36	20		9			
		MZ	59 45	22			15		
		MN	59 52	20	9				
		F	13 20						
271	" 19	eP?Z	23 00 02						
		iP_{NZ}	00 08	8	+10		+	2470	Compression.
		$iNEZ$	00 18	8	+9	+6	+11	22°2	H 22 55 13
		iS_E	04 06	10		-45			
		iN	04 10	9	+20				
		eLQ_E	04.6	30					
		iZ	04 38	8			-19		
		eLR_{NZ}	05.3	24					
		MEZ_1	05 45	22		11	20		
		MN_1	06 00	22	29				
		ME_2	07 00	11		24			
		MN_2	07 15	10	19				
		MZ_2	07 48	12			13		
		F	00 30 ca						
272	" 21	ME	13 53 11	12		3			
		F	14 05						
273	" 22	eE	06 21 10						
		eL_{NE}	25.1	18					
		MN	26 31	13	4				
		F	06 46						
274	" 22	eEZ	07 04 13	6					
		eL_E	08.1	24					
		MN	10 07	20	4				
		F	07 30						
275	" 23	ePZ	10 27 07	5			2	4490	H 10 19 30
		ePP_{NEZ}	28 42	10	2	2	3	40°4	
		iS_{NE}	33 13	12	-7	+8			
		eSS_{NE}	36 00	14	5	5			
		eSS_Z	36 02	14			4		
		MN_1	42 16	20	8				
		ME_1	42 54	18		5			
		MZ_1	43 46	20			5		
		ME_2	44 55	16		4			
		MN_2	45 32	16	6				
		MZ_2	46 42	15			5		
		F	Merged in No.276						

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY,
RIVERVIEW, N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.) h m s	Per s	Amplitude A_N μ	A_E μ	A_Z μ	Δ km.	Remarks.
	1944								
276	July 23	iPZ	11 13 52	5			+2½	4280	Compression.
		iPPNEZ	15 26	10	+3½	+5	+7	39°5	Very similar to
		iSN	19 52	14	-8				No.275.
		iSE	19 54	14		+8			
		mN	20 04	18	5				
		ME	20 16	18		5			
		eSSNE	22 40	14	5	6			
		eSSZ	22 42	16			5		
		eLRZ	27.0	30					
		MN1	29 18	22	12				
		ME1	29 37	18		7			
		MZ1	30 27	22			6		
		ME2	31 38	14		5			
		MN2	32 30	14	5				
		MZ2	33 25	14			5		
		F	Merged in No.277.						
277	" 23	i(P)Z	11 52 10	5			+3½		Compression.
		i(pP)NEZ	53 10	8	-4	-6	+7		superimposed on
		i(S)N	56 16	8	-5				Coda of No.276.
		iE	56 19	7		-2			
		iNE	57 07	8	-8	+5			Deep focus?
		iN	57 42	8	-9				
		iN	57 55	8	+9				
		F	12 20						
278	" 23	eLE	13 00.7	24					
		MZ	01 58	20			2		
		ME	02 14	20		2			F 13h 15m.
279	" 24	iPNEZ	07 35 50	5	+5½	+2½	-6	2910	Dilatation.
		mNEZ	35 56	5	4	2	6	26°2	H 07 30 17
		ipPZ	36 01	5			+6		
		iPPZ	36 32	6			-10		
		iSNE	40 18	7	-9	+3			
		isSNEZ	40 36	8	+37	+21	-17		
		iNE	41 07	9	-15	+11			
		eLQE	41.3	24					
		eLRZ	42.4	26					
		iN	42 46	8	+18				
		iN	43 38	16	+42				
		MN1	43 58	18	25				
		MZ1	44 14	20			14		
		ME1	44 20	18		11			
		MN2	44 56	14	15				
		ME2	47 03	12		14			
		MZ2	47 49	13			77		
		F	09 20						
280	" 25	MN	02 51 52	10	1				
		F	02 55						
281	" 26	eLZ	15 46.3	25					
		MZ	50 46	20			2		
		ME	51 10	18		2			
		F	16 05						

(Concluded on next sheet)

RIVERVIEW COLLEGE OBSERVATORY,
RIVERVIEW, N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks.
	1944		h m s	s	μ	μ	μ	km.	
282	July 27	iPZ	00 17 43	5			+7	10,480	Compression.
		ipPZ	18 11	7			+8	94°3	h 0.61
		iPPZ	21 34	6			+6		H 00 04 33
		iZ	22 39	6			+6		
		i(SKS)NE	28 15	6	-15	-6			
		iZ	28 17	6			+6		
		iSN	28 43	10	+9				
		iNE	28 59	9	+13	+20			
		iZ	29 02	10			-10		
		iN	29 25	9	+10				
		iSEZ	29 32	9		+21	+9		
		iN	30 00	7	+7				
		iN	30 32	12	+11				
		iN	30 45	14	+8				
		iN	31 05	13	+16				
		iSSE	35 17	14		+8			
		eLQE	43.0	30					
		eLRNEZ	48.2	36					
		MNE1	49 14	28	4	17			
		MZ1	49 19	28			15		
		MEZ2	53 28	22		9	10		
		MN2	54 35	20	8				
		e(W2)N	02 18.4	26					
		MN	21 46	24	5				
		MZ	23 35	20			3		
		ME	25 33	20		3			
		F	03 00						
283	" 27	i(S)NE	08 39 20	5	+5	-5½			
		i(PS)E	39 58	9		+6½			
		e(SSS)E	47 19	12					
		eLRE	52.3	30					
		eLRZ	52.8	30					
		MNEZ	09 00.0	28	16	17	21		
		ME2	01 41	22		13			
		MZ2	03 21	20			10		
		MN2	04 26	20	8				
		F	09 40						
284	" 27	eLE	17 56.1	20					
		MZ	58 06	18			3		
		MN	58 35	14	1				
		ME	58 46	13		2			
		F	18 15						
285	" 29	ePZ	09 48 18						
		eN	52 43						
		eLN	53.6	20					
		MZ	56 47	18			3		
		MN	57 57	14	4				
		ME	58 12	15		4			
		F	10 15						
286	" 30	MN	09 17 37	14	2				Masked by heavy microseisms.
		F	09 25						
287	" 30	eLZ	09 37.0	16					Masked by heavy microseisms.
		MN	39 27	13	4				
		F	09 45						
288	" 31	MEZ	18 03.0	15		3	3		Masked by heavy microseisms.
		F	18 15						

D.J.K.O'CONNELL,S.J.
Director.

Riverview College Observatory

RIVERVIEW. N.S.W.

SEISMOLOGICAL BULLETIN

$\Phi = 33° 49' 46''$ S. $\lambda = 151° 9' 30''$ E h = 25m. Foundation : Triassic sandstone.

INSTRUMENTS:

1. Wiechert Astatic Pendulum Seismometer (1000 kilo.) (NS. EW)
2. Wiechert Vertical Seismometer (80 kilo.)
3. Mainka Conical Pendulum Seismometer (450 kilo.) (NS, EW)
4. Galitzin Aperiodic Seismometer with Galvanometer registration (NS, EW, Vert.)

		V	T_o	ε : 1	$\frac{r}{T_o^2}$		T_1 (Galv.)	T (Pend)	μ^2	V_s
N	1	199	7.8	6.6	0.015	4	12.8	12.9	-0.02	470
	3	151	9.2	6.7	0.026					
E	1	218	8.0	5.1	0.019	4	12.3	12.9	-0.09	440
	3	137	8.9	5.8	0.011					
Z	2					4	11.9	11.8	-0.04	450

No.	Date	Phase	Time (G.M.T.)	Per	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
			h. m. s.	s.				km.	
	Unless stated otherwise readings are from the Galitzins. From May 1, 1944, ground amplitudes are given. The amplitudes of initial impulses on the Galitzins were computed by Galitzin's method. The Tables used are those of Jeffreys and Bullen (1940).								
	1944		h m s	s	μ	μ	μ	km.	
289	Aug. 1	eL_{NZ}	12 54.4	20					Masked by heavy microseisms.
		MN_Z	56.6	18	6		6		
		F	13 05						
290	" 2	e_N	18 05 16	13					
		eL_E	07.4	22					
		MN	09 45	14	3				
		ME	10 00	16		3			
		F	18 35						
291	" 4	eLE	04 02.4	18					
		MZ	04 00	16			1		
		F	04 10						
292	" 6	$e(P)_Z$	16 38 15	10					
		iN	42 16	10	-7				
		eE	45 02	14					
		eLQ_E	45.6	24?					
		eLR_{NZ}	47.1	24					
		ME_1	48 19	18		19			
		MZN	49 35	16	9		12		
		ME_2	51 09	12		14			
		F	17 40						
293	" 6	$iP?_Z$	18 19 09	4			-3½		
		iN_Z	20 33	4	-5		+5		
		$i(S)_E$	24 34	8		+5			
		$i(S)_N$	24 37	8	-6				
		eE	24 43	23					
		eZ	25 01	16					
		iZ	28 15	9			+14		
		?	30.1	5					Short period waves begin.
		$mNEZ$	31 15	5	47+	52	39		
		ME_1	32 13	11		68			
		MN_1ME_2	33 34	11	80	78			
		MZ	34 35	11			116		
		MN_2	34 40	10	86				
		F	20 00						

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY,
RIVERVIEW, N.S.W.

Seismological Bulletin.

No.	Date	Phase	Time (G.M.T.)	Per	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1944		h m s	s	μ	μ	μ	km.	
294	Aug. 7	$iSKS_N$	03 50 53	7	+5				
		iPS_E	54 34	16		+7			
		iPS_{NZ}	54 43	14	+7		+13		
		eSS_E	04 00 49	14					
		eSS_N	00 51	14					
		i_N	01 19	10	+9				
		eLR_Z	18.0	34					
		MZ_1	20 47	20			7		
		ME_1	21 53	20		6			
		MN_1	22 57	20	4				
		MZ_2	28 17	18			6		
		ME_2	28 21	17		4			
		MN_2	31 07	17	3				
		F	06 30						
295	" 7	iP_{NZ}	12 46 32	6	-5		+8	2820	Compression.
		iN_Z	46 57	6	-5		+5	25°4	H 12 41 06
		iS_N	50 54	10	+11				
		iZ	51 17	14			-10		
		eL_Z	54.1	25					
		MZ	55 08	22			18		
		MN	55 13	21	16				
		ME	55 25	16		10			
		F	14 00						
296	" 8	eL_E	00 13.9	24					
		ME	17 49	16		5			
		MZ	19 41	13			4		
		F	00 40						
297	" 8	iP_{NZ}	08 39 44	4	+5		-11	3450	Dilatation.
		iN_Z	40 17	7	+7½		-13	31°0	
		i_N	41 23	8	+10				
		iE_Z	41 29	8		+7	+18		
		iS_N	44 46	10	+7				
		i_N	45 59	13	+19				
		$LQ?_N$	46.2	22?					
		$LR?_E$	48.3	24?					
		MZ_1	51 05	5			12		Maxima have very
		MN_1	51 37	6	30				short periods.
		ME_1	51 47	12		50			
		ME_2	52 35	10		40			
		MN_2	52 54	6	25				
		MN3	53 44	8	22				
		ME_3MZ_2	53.9	9		32	28		
		MZ_3	56 43	10			28		
		F	10 30						
298	" 8	eL_{EZ}	13 14.8	20					
		F	13 30						
299	" 8	eL_{NZ}	15 11.1	24					
		MNZ	12.2	22	2		4		
		F	15 20						
300	" 9	eL_E	13 06.9	14					
		ME	07.9	12		2			
		F	13 15						
301	" 10	eL_N	02 38.8	26					Masked by large
		eL_E	42.8	30					microseisms.
		ME	47 56	22		8			
		MZ	48 14	22			11		
		MN	49 56	18	5				
		F	03 30						

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY,

RIVERVIEW, N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.) h m s	Per s	Amplitude A_N μ	A_E μ	A_Z μ	Δ km.	Remarks
	1944								
302	Aug.10	e_N	10 49.1	12					Masked by very large microseisms.
		e(S)	53 20	12					
		i_N	56 49	8	-7				
		i_N	11 00 33	12	+9				
		i_E	00 40	12		+10			
		i_E	02 28	16		+16			
		eL_E	04.2	29					
		eL_N	04.9	28					
		ME_1	06 36	18		55			
		MN_1	07 58	20	40				
		MZ_1	08 26	20			35		
		ME_2	08 56	17		63			
		MN_2	09 42	13	29				
		ME_3	10 04	13		61			
		MZ_2	10 43	13			46		
		MN_3	10 47	12	40				
		F	12 40						
303	" 11	eL_E	00 01.9	18					Masked by very large microseisms.
		ME	05.0	12		4			
		F	00 15						
304	" 11	eL_N	01 24.8	28					Masked by very large microseisms.
		ME	28 46	16		7			
		MN	29 06	16	5				
		MZ	29 18	18			10		
		F	01 35						
305	" 11	eL_E	17 13.0	24					
		ME_1	16 06	16		7			
		ME_2MZ	17.5	14		8	5		
		MN	18 06	14	5				
		F	17 35						
306	" 13	e_N	19 52 37	12					
		e_E	52 42	12					
		eL_E	20 00.5	20					
		MN	02 05	18	5				
		ME	03 15	14		3			
		F	20 20						
307	" 14	iP_Z	14 31 14	6			-6½	6250	Dilatation.
		i_{NZ}	34 21	6	-5		+6½	56°2	H 14 21 35
		iS_{NE}	39 00	7	-6	-6			
		m_{NE}	39 14	12	5	3			
		e_N	41 39	20					
		eL_{EZ}	45.1	20					
		ME_1	49 50	14		5			
		MNZ	50.2	14	5		4		
		ME_2	52 50	20		9			
		F	15 40						
308	" 14	eL_E	16 54.1	18					Preceded by micro-seisms.
		MN	57 41	11	5				
		MEZ	58 15	12		7	7		
		F	17 30						
309	" 15	e_Z	01 44 02	18					Masked by micro-seisms.
		ME	55 14	18					
		MN	55 56	18					
		F	02 15						

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY,
RIVERVIEW, N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1944		h m s	s	μ	μ	μ	km	
310	Aug.15	$P?_Z$	11 56 02	5			4	5150?	Preceded by heavy
		$e(pP)_Z$	56 26	6			6	46°3?	microseisms.
		i_Z	58 12	6			+6		h 0.01?
		iS_{EZ}	12 02 41	7		+6	+8		
		iS_N	02 42	7	+11				
		i_N	05 24	8	+8				
		i_{NE}	06 38	10	-7	+11			
		$eL?_E$	08.5	20?					
		i_N	10 40	7	+11				
		ME_1	11 41	14		8			
		MZ_1	12 06	18			9		
		MEZ_2	14 58	15		11	8		
		MN	15 07	20	10				
		F	13 15						
311	" 18	iP_{NZ}	10 44 32	7	+7		-10	8140	Dilatation.
		ipP_Z	45 23	7			-12	73°2	h 0.03
		iS_N	53 40	7	+6				H 10 33 24
		iS_E	53 48	7		-9			
		$i(ScS)_N$	54 26	8	+6				
		i_E	54 35	7		-8			
		isS_N	55 16	7	+9				
		i_E	55 33	8		+10			
		e_E	58,3	24					
		eL_Z	11 03,9	22					
		ME	06 26	18		8			
		MZ	07 48	16			5		
		F	11 50						
312	" 18	e_Z	20 03 50	9					Masked by heavy
		eL_Z	15.9	25					microseisms.
		MZ	17 54	23			8		
		ME	18 38	20		3			
		F	20 40						
313	" 20	eL_Z	18 53.2	20					
		MZ	55 01	16			2		
		F	19 10						
314	" 21	eL_N	11 05.6	17					
		eL_Z	06.1	19					
		MN	07 05	14	6				
		MZ	11 11	14			3		
		ME	13 15	12		4			
		F	11 25						
315	" 22	eL_{EZ}	01 47.4	24					
		MZ	48 57	18			4		
		F	02 00						
316	" 25	e_N	03 26 15	12					Masked by micro-
		eL_N	27.3	16					seisms.
		MNE	31 16	13	6	4			
		F	03 45						
317	" 25	e_N	05 20.50	14					Masked by micro-
		MNE	25 49	12	4	2			seisms.
		F	05 40						
318	" 25	e_E	06 32,5						
		MN	41 10	12	4				
		F	06 50						
319	" 25	e_N	07 47,1						
		MN	49 34	12	2				
		F	07 55						

(Concluded on next sheet)

RIVERVIEW COLLEGE OBSERVATORY,
RIVERVIEW, N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.) h m s	Per s	Amplitude A_N μ	A_E μ	A_Z μ	Δ km.	Remarks
	1944								
320	Aug.25	$i(P)_{EZ}$	12 31 27	5		-5½	+5½		Compression.
		$i(pP)_{EZ}$	32 54	6		-9	+11		Large microseisms.
		$i(S)_N$	36 31	6	-5				Some evidence for
		i_N	38 08	8	-8				a focal depth of
		$i(sS)_N$	39 16	6	+15				about 0.08.
				6					
		i_E	39 16	6		-5			
		i_Z	39 24	10			-13		
		i_N	40 22	11	+7				
		i_{EZ}	40 25	9		+7	+7		
		$i(ScS)_{NE}$	41 27	6	+6	+9			
		MN	43 18	12	3				
		F	13 05						
321	" 25	e_N	15 26 10	14					
		eL_Z	28.0	20					
		MN_1	29 06	14	4				
		ME	30 34	14		3			
		MZ	30 46	18			4		
		MN_2	30 56	12	5				
		F	16 00						
322	" 28	MZ	10 58 39	15			1		
		F	11 05						
323	" 28	MZ	18 07 05	12			1		
		MN	07 23	13	1				
		F	18 10						
324	" 30	iP_{NEZ}	01 19 16	6	+8	+10	-19	2750	Dilatation.
		mN_{EZ}	19 25	6	8	9	15	24°7	h 0.01 ca.
		$i(pP)_Z$	19 33	6			+16		H 01 14 03
		$i(S)_N$	23 28	7	-20				
		iS_E	23 33	7		+31			
		i_{NZ}	23 34	8	+63		+30		
		i_E	23 41	6		+20			
		mE_Z	23 51	12		24	16		
		i_N	23 58	6	+18				
		i_N	24 01	9	+44				
		eL_Z	25.5	18					
		eL_{NE}	25.6	20					
		MEZ_1	26 00	21		25	39		
		MN_1	26 26	21	25				
		MEZ_2	27 37	16		19	25		
		MN_2	28 00	16	20				
		F	02 30						
325	" 30	e_E	16 22 58	16					
		eL_Z	24.0	22					
		MEZ	25.9	10		5	5		
		MN	27 15	10	6				
		ME_2	28 22	10		8			
		F	17 05						
326	" 30	e_N	23 06 04						
		eL_Z	08.7	20					
		MZ	10 10	10			3		
		MNE	10 53	10	5	2			
		F	23 30						
327	" 31	eNE	04 26 33	1					Very small local
		F	04 27.4						shock.

D.J.K. O'CONNELL, S.J.
Director.

Riverview College Observatory

RIVERVIEW. N.S.W

SEISMOLOGICAL BULLETIN

Φ = 33° 49′ 46″ S. λ = 151° 9′ 30″ E h = 25m. Foundation : Triassic sandstone.

INSTRUMENTS:

1. Wiechert Astatic Pendulum Seismometer (1000 kilo.) (NS. EW)
2. Wiechert Vertical Seismometer (80 kilo.)
3. Mainka Conical Pendulum Seismometer (450 kilo.) (NS, EW)
4. Galitzin Aperiodic Seismometer with Galvanometer registration (NS, EW, Vert.)

		V	T_o	ε : 1	$\frac{r}{T_o^2}$		T_1 (Galv.)	T (Pend)	μ^2	V_s
N	1	208	7.8	6.2	0.007	4	12.8	12.9	-0.02	470
	3	145	9.3	5.5	0.030					
E	1	223	7.9	5.4	0.010	4	12.3	12.9	-0.09	440
	3	143	10.2	5.5	0.010					
Z	2					4	11.9	11.8	-0.04	450

No.	Date	Phase	Time (G.M.T.)	Per	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
			h. m. s.	s.				km.	
	Unless stated otherwise, readings are from Galitzins. From May 1, 1944, ground amplitudes are given. The amplitudes of initial impulses on the Galitzins were computed by Galitzin's method. The Tables used are those of Jeffreys and Bullen (1940).								
	1944		h m s	s	μ	μ	μ	km.	
328	Sept. 3	iP_{NZ}	19 21 48	7	+5		+8	6 20	Compression
		iPP_Z	23 54	8			+6	(61°4)	
		m_Z	24 04	8			3		H 19 11 33
		iS_N	30 05	10	+16				
		iS_E	30 06	10		-8			
		i_Z	30 09	10			+17		
		m_E	30 25	14		17			
		iPS_Z	30 26	14			+30		
		m_N	30 33	14	27				
		i_Z	30 48	14			+34		
		i_N	30 49	16	+38				
		eLQ_{NE}	37.2	20					
		eLR_{NEZ}	39.5	30					
		M_N	40 25	26	62				
		M_Z	40 33	24			75		
		M_E	40 41	24		47			
			41.8						Sinusoidal waves begin
		M_Z	43 11	18			105		
		M_NM_E	43 26	18	55	52			
		F	22 10						
329	" 5	eL	12 18.4	20					
		F	12 25						
330	" 5	$e(S)_N$	12 44 31	16					
		eL_Z	47.7	26					
		M_N	49 53	18	1				
		M_Z	50 03	18			3		
		F	13 00						
331	" 5	$e?_Z$	15 34 55	6					Large microseism ?
		$e(P)_Z$	36 13	10					
		$i(PPP)_E$	38 04	6		-6			
		$e(S)_N$	41 57	10					
		$i(SS)_N$	44 11	10	+5				
		$e(LQ)_N$	44.4	20					
		eLR_{EZ}	47.5	20					
		M_N	48 53	14	9				
		M_{EZ}	49 55	17		10	14		
		F	17 00.						

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY.
RIVERVIEW, N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1944		h m s	s	μ	μ	μ	km	
332	Sept 6	iP_{NEZ}	05 57 17	7	+5	+9	-12	2500	Dilatation
		i_{EZ}	57 41	5		+9	-9	(22°5)	
		iPP_{EZ}	57 53	7		+12	-10		H 05 52 28
		i_N	59 22	7	+6				h ℓ.015 ca
		iS_N	06 01 10	7	+32				
		iS_E	01 11	7		-8			
		i_N	01 15	8	-129				
		i_{EZ}	01 16	8		+116	-23		
		m_{NEZ}	01 23	8	44	53	24		
		i_Z	01 31	10			+41		
		i_{NE}	01 37	8		+79	-26		
		iSS_Z	01 55	8			+17		
		i_{NE}	02 00	7	+44	-14	. .		
		m_Z	02 07	8			12		
		$iSSS_N$	02 20	11	+40				
		eL_N	03.8	17					
		M_N	05 41	13	11				
		M_{EZ}	06 21	13		9	9		
		$iScS_N$	08 28	6	+8				
		F	07 05						
333	" 6	eL_Z	14 21.6	30					
		M_E	29 25	20		3			
		M_Z	30 11	20			4		
		M_N	33 55	19	3				
		F	15 05						
334	" 7	eL_{NEZ}	21 27.1	18					
		F	21 35						
335	" 11	iP_{NEZ}	09 53 17	7	-11	+6	+16	4700	Compression
		i_E	55 03	5		-10		(42°3)	
		i_Z	55 15	12			-36		H 9 45 25
		i_N	55 19	11	+36				
		iS_{NE}	59 35	12	+70	-35			
		i_N	59 57	14	+28				
		e_N	10 00 07	30					
		e_Z	00 18	35					
		iSS_Z	02 35	14			-26		
		iSS_{NE}	02 37	13	+70	+36			
		i_E	02 55	8		-67			
		m_Z	03 04	18			42		
		eL_Z	07.1	34					
		M_{N1}	10 14	20	77				
		M_{Z1}	11 41	24			105		
		M_{E1}	12 31	20		74			
		$M_{N2}M_{E2}$	13.4	18	77	69			
		M_{Z2}	14 43	16			70		
		M_{E3}	15 59	14		63			
		$M_{N3}M_{Z3}$	16 07	14	91		68		
		F	11 50						
336	" 12	e_Z	02 37 07						
		$e(S)_N$	42 10	14	8				
		eL_N	46.2	30					
		i_{NE}	48 00	4	-7	-22			
		i_Z	48 02	4			+12		
		M_E	48 41	18		32			
		M_{NZ}	50.9	17	28		27		
		F	03 30						
337	" 12	$e?_N$	11 10.7						
		M_E	16 43	11		2			
		M_{NZ}	18.4	14	3		3		
		F	11 35						

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY,
RIVERVIEW, N.S.W.

SEISMOLOGICAL BULLETIN

No.	Date	Phase	Time (G.M.T.)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1944		h m s	s	μ	μ	μ	km	
338	Sept 13	M_Z	01 58.2	18					Confused by non-seismic waves
		M_E	58.4	18					
		F	? ?						
339	" 14	iP_{EZ}	06 47 29	6		+4	+6	5200	
		iPP_{EZ}	49 19	6		+7	+8	(46°8)	H 06 39 21
		$iPPP_Z$	50 05	6			+8		
		iS_E	54 16	12		+11			
		iPS_E	54 28	19		+22			
		iSS_N	57 33	16	+18				
		i_N	57 54	16	+34				
		eLR_N	07 01.6	28					
		M_{N1}	03 46	20	65				
		M_{N2}	05 55	14	51				
		M_{E1}	07 46	18		45			
		M_{N3}	08 18	13	53				
		M_{E2}	09 46	18		50			
		M_{Z1}	09 51	20			65		
		M_{Z2}	11 56	16			46		
		M_{E3}	12 22	14		39			
		F	09 30						
340	" 14	e_Z	13 47 28	8					
		e_E	47 31	8					
		eL_E	50.9	20					
		M_E	53 00	18		4			
		M_Z	54 18	16			3		
		M_N	55 24	16	4				
		F	14 05						
341	" 14	e_N	23 46.9						e_N from Wiechert
		eL_N	56.2	21					
		M_E	00 01 03	22		8			
		M_Z	02 00	23			12		
		M	03 06	20	7				
		F	00 35						
342	" 17	iP_Z	23 17 42	8			+6	3200	Compression
		iS_N	22 28	12	-19			(28°8)	
		eL_E	25.9	24					
		M_{NE}	27 10	20	10	13			
		M_Z	27 28	23			13		
		M_{E2}	28 18	16		12			
		M_{N2}	30 46	14	8				
		F	00 30						
343	" 21	iP_Z	06 21 08	7			+6	3010	Compression
		iS_E	25 42	7		-6		(27°1)	
		eL_E	27.8						H 6 15 26
		eL_Z	28.1	22					
		M_N	28 25	20	3				
		M_E	29 04	22		4			
		M_Z	29 56	18			5		
		F	06 40						
344	" 21	e_N	11 55.2						
		$e(L)_N$	57.3	15					
		M_N	58 12	14	2				
		M_E	59 26	12					
		M_Z	59 52	12			3		
		F	12 10						
345	" 22	e_N	19 35 12	14					
		e_E	35 16	14					
		eL_N	40.4	22					
		M_{EZ}	43.3	22		3	6		
		F	20 00						

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY,
RIVERVIEW, N.S.W.

SEISMOLOGICAL BULLETIN

No.	Date	Phase	Time (G.M.T.)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1944		h m s	s	μ	μ	μ	km	
346	Sept23	$i(PP)_Z$	03 19 07	6			+6		
		$e(SS)_N$	25 25	13					
		eLR_Z	27.0	28					
		M_{EZ}	28 13	24		12	14		
		M_N	30 06	13	5				
		F	03 40						
347	" 23	iP_Z	12 26 09	4			+9	9870	Compression
		i_N	26 10	4	+4			(88°8)	
		i_Z	27 28	6			+16		H 12 13 17
		$iSKS_N$	36 34	10	-13				
		iS_E	36 52	10		+36			
		$iScS_{NZ}$	36 55	10	+10		+8		
		i_{NE}	37 16	12	+24	+22			
		i_N	38 01	17	+40				
		m_N	38 33	17	24				
		i_N	39 39	12	-23				
		$i(SS)_N$	42 23	22	+35				
		i_E	42 27	18		+25			
		m_N	42 56	24	35				
		eLQ_{NE}	49.9	32					
		eLR_Z	52.9	30					
		eLR_N	53.8	40					
		M_{E1}	55 13	20		43			
		M_{Z1}	56 07	28			109		
		M_{N1}	56 17	26	118				
		M_{N2}	58 39	22	83				
		M_{E2}	59 27	16		27			
		M_{Z2}	13 00 00	20			105		
		M_{N3}	03 45	18	45				
		M_{Z3}	07 55	18			60		
		M_{E3}	08 19	18		45			
		F	15 45						
348	" 23	iP_{EZ}	16 07 00	6		+6	-7	3120	Dilatation
		i_{EZ}	07 27	7		+13	-13	(28°1)	
		i_Z	07 37	8			+20		
		i_E	07 39	9		-17			
		$i(PPP)_Z$	08 01	10			+20		
		i_N	08 36	8	+9				
		iS_N	11 41	10	+10				
		iS_E	11 43	9		+13			
		iSS_N	13 05	14	+29				
		$iSSS_N$	13 19	15	+16				
		eLR_Z	14.9	24					
		M_{N1}	15 48	15	20				
		M_{E1}	16 31	18		21			
		M_{Z1}	16 43	18			29		
		M_{N2}	17 39	14	21				
		M_{E2})	18 08	16		40	48		
		M_{Z2})							
		F	18 00						
349	" 24	i_Z	11 08 27	4			-4		
		eL_N	37.9	23					
		eL_Z	38.1	27					
		M_N	41 59	22	2				
		M_Z	42 13	22			5		
		M_E	43 09	20		1			
		F	12 05						

(Concluded on next sheet)

RIVERVIEW COLLEGE OBSERVATORY,
RIVERVIEW, N.S.W.

SEISMOLOGICAL BULLETIN

No.	Date	Phase	Time (G.M.T.)	Per	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1944		h. m s	s	μ	μ	μ	km	
350	Sept 26	eL_N	12 04.5	22					
		M_E	06 17	16		3			
		M_{NZ}	06.9	16	3		3		
		F	12 20						
351	" 26	e_E	18 00.7						
		M_N	03 05	20	3				
		M_Z	03 48	16			5		
		F	18 10						
352	" 27	eL_N	13 35.2	24					
		M_Z	36 07	20			6		
		M_N	36 11	20	4				
		M_E	36 15	20		5			
		F	13 45						
353	" 27	eP_Z	16 38 59	6			5		
		ePP_Z	43 03	8			6		
		$iSKS_{NE}$	49 39	9	-6	+9			
		eSS?	57 43	14					
		eLR_E	17 14.1	28					
		M_{NE1}	17 43	32	25	24			
		M_{N2}	21 57	28	16				
		M_Z	26 15	22			26		
		M_{E2}	26 30	20		23			
		F	19 15						

D. J. K. O'CONNELL, S.J.
Director.

Riverview College Observatory

RIVERVIEW. N.S.W

SEISMOLOGICAL BULLETIN

$\Phi = 33° 49' 46''$ S. $\lambda = 151° 9' 30''$ E h = 25m. Foundation : Triassic sandstone.

INSTRUMENTS:

1. Wiechert Astatic Pendulum Seismometer (1000 kilo.) (NS. EW)
2. Wiechert Vertical Seismometer (80 kilo.)
3. Mainka Conical Pendulum Seisometer (450 kilo.) (NS, EW)
4. Galitzin Aperiodic Seismometer with Galvanometer registration (NS, EW, Vert.)

		V	T_o	ε : 1	$\frac{r}{T_o^2}$		T_1 (Galv.)	T (Pend)	μ^2	V_s
N	1	200	8.0	6.4	0.002	4	12.8	12.9	-0.02	470
	3	141	9.4	8.2	0.028					
E	1	231	8.2	6.6	0.004	4	12.3	12.9	-0.09	440
	3	136	10.4	8.8	0.010					
Z	2					4	11.9	11.8	-0.04	450

Unless stated otherwise readings are from the Galitzins.
From May 1, 1944, ground amplitudes are given. The amplitudes of initial impulses on the Galitizins were computed by Galitizin's method.
The Tables used are those of Jeffreys and Bullen (1940).

No.	Date	Phase	Time (G.M.T.) h. m. s.	Per s.	Amplitude A_N	A_E	A_Z	Δ km.	Remarks
	1944		h m s	s	μ	μ	μ	km.	
354	Oct. 2	i_{EZ}	17 52 02	5		+4	+4		A few small waves
		F	? ?						
355	" 2	eP_Z	20 41 35	9				8220 (74°0)	h 0.015 ?
		e_N	41 39	10					
		iS_{NE}	50 56	9	-5	-8			
		i_{NE}	51 33	7	+4	+6			
		i_N	55 56	5	+6				
		eL_E	21 02.2	30					
		M_{N1}	06 19	28	8				
		M_{Z1}	07 25	28			11		
		M_{E1}	07 59	26		6			
		M_{N2}	09 37	24	9				
		M_{Z2}	10 13	24			10		
		M_{E2}	10 39	22		6			
		F	22 10						
356	" 3	iP_Z	16 15 52	6			+8	5960 (53°6)	Compression
		$i(pP_Z)$	16 55	6			+5		
		iS_N	23 02	10	+10				Some evidence for focal depth of 0.04
		i_{NZ}	23 08	10	-19		-7		
		i_E	23 35	13		+8			
		e_Z	27 11	14					
		i_N	27 17	10	+7				
		i_E	28 11	9		+11			
		$i(SSS)_N$	28 57	8	-9				
		M_E	34 56	14		5			
		M_{Z1}	37 13	14			5		
		M_N	38 31	15	5				
		M_{Z2}	39 27	20			9		
		F	17 20						
	" 4		00 59 to 00 46						Series of explosions, (Probably depth charges). Amplitude 1½μ
357	" 4	eL_E	01 28.1	18					
		M_N	28 50	14	1				
		M_E	29 14	15		2			
		M_Z	31 31	14			2		
		F	01 40						

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY,
RIVERVIEW, N.S.W.

SEISMOLOGICAL BULLETIN

No.	Date	Phase	Time (G.M.T.)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1944		h m s	s	μ	μ	μ	km	
	Oct. 4		01 40 to 01 46						Series of explosions, (probably depth charges). Amplitude 1μ
358	" 5	eL_E	10 49.8	18					
		M_Z	50 12	16			1		
		M_N	50 26	13	1				
		M_E	51 10	16		1			
		F	10 55						
359	" 5	iP_{NZ}	17 03 03	(4 (10	-11		+17	3370	Compression
		$i(pP)_Z$	03 32	(.6 (.14			+21	(30°3)	h 0.015
		i_Z	03 46	10			+17		H 16 57 01
		$i(PPP)_{NZ}$	04 24	8	+14		-14		
		m_{NZ}	04 39	15	13		12		
		m_N	04 52	14	13				
		m_E	04 57	14		6			
		i_Z	05 48	8			+16		
		i_Z	06 44	7			-30		
		iS_N	07 52	14	+44				
		i_Z	08 06	9			+24		
		i_{NEZ}	08 25	10	-46	-57	+24		
		$i(SS)_N$	08 44	13	+105				
		i_E	10 13	12		-71			
		eL_N	11.2	21					
		eL_E	11.3	22					
		M_{Z1}	11 44	26			135		
		$M_{N1}M_{E1}$	11 53	24	95	110			
		$M_{N2}M_{Z2}$	13.1	18	71		78		
		M_{E2}	13 16	15		64			
		F	merged in No.360						
360	" 5	iP_{NEZ}	17 33 13	3	+4	+21	-31	2400	Dilatation
		i_{NEZ}	33 16	4	+30	+65	-83	(22°6)	h 0.02
		ipP_Z	33 42	5			+52		
		ipP_N	33 43	4	-19				H 17 28 26
		iPP_{EZ}	33 49	7		-115	+112		
		i_N	35 20	6	+67				x Amplitudes from Wiechert; illegible on Galitzin.
		iS_N	37 05	10	+162x				
		iS_E	37 07	10		-71x			
		i_Z	37 14	8			-160		
		m_{NEZ}	37 20	8	210x	510x	125		
		i_N	37 34	10	+252x				
		iSS_E	37 56	8		+74x			
		M_N	41 29	10	67				
		M_E	42 08	11		66			
		M_Z	42 22	12			57		
		$iScS_Z$	44 16	9			+86		F. 20h 35m
		$iScS_N$	44 23	9	+150				
361	" 6	$iPKP_Z$	02 54 14	4			+6		
		$i(PKS)_Z$	57 28	10			+6		
		$i(SKS)_Z$	03 01 11	6			+4		
		eL_N	33.2	24					
		eL_{RN}	35.9	30					
		M_{N1}	40 59	26	7				
		M_{E1}	45 48	30		10			
		M_{Z1}	45 54	30			12		
		M_{N2}	46 09	22	6				
		M_{Z2}	49 10	24			8		
		M_{E2}	49 54	26		9			
		M_{E3}	51 54	24		9			
		M_{N3}	52 16	22	7				
		M_{Z3}	53 24	24			10		
		$ME(W2)$	04 26 18	15		8			F. 05h 05m

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY,
RIVERVIEW, N.S.W.

SEISMOLOGICAL BULLETIN

No.	Date	Phase	Time (G.M.T.) h m s	Per. s	Amplitude A_N μ	A_E μ	A_Z μ	Δ km	Remarks
	1944								
362	Oct.6	iP_Z	08 52 27	4			-5	3250 (29°2)	Dilatation
		iP_N	52 28	4	+3				
		iS_{NE}	57 16	13	+5	+8			H 08 46 27
		i_{NE}	57 51	9	+7	-6			
		i_E	59 42	7		-9			
		eL_E	09 00.7	22					
		M_Z	02 26	20			10		
		M_N	02 32	15	5				
		M_E	02 54	15		6			
		F	09 35						
363	" 7	$eL?_E$	06 41.9						
		M_N	43 36	13					
		F	06 50						
364	" 7	iP_{NZ}	18 57 18	8	+8		-10	3220 (29°0)	Dilatation
		ipP_Z	57 49	8			+6		h 0.02
		i_N	57 54	8	+4				
		$iPPP_{NZ}$	58 32	7	+7		+9		H 18 51 31
		i_N	58 41	14	+12				
		i_Z	58 41	10			+10		
		iS_N	19 01 56	12	-10				
		iS_E	01 58	8		-8			
		i_N	02 33	12	-17				
		i_E	02 36	12		-22			
		isS_N	02 55	12	+43				
		i_Z	02 57	10			-12		
		eL_E	03.9	25					
		i_E	04 29	8		-30			
		i_E	04 49	8		+27			
		i_E	05 34	9		+39			
		M_{EZ1}	06.0	22		32	33		
		M_{Z2}	07 15	20			29		
		M_N	07 22	14	10				
		M_{E2}	07 44	14		24			
		F	20 10						
365	" 9	eE	20 52 41						
		e_{NE}	56 29						
		eL_N	59.2	18			8		
		M_{Z1}	21 01 29	18		7			
		M_{E1}	01 35	18					
		M_{N1}	01 43	15	4				
		M_{N2}	04 21	12	4				
		$M_{E2}M_{Z2}$	04.7	14		8	8		
		$M_{E3}M_{Z3}$	07.3	14		7	10		
		F	21 50						
366	" 11	eN	05 32 18	7					
		eN	32 57	15					
		eL_E	36.2	22					
		M_E	38 02	14		4			
		F	05 50						
367	" 11	iP_{EZ}	09 52 25	6		+8	-15	4350 (39°1)	Dilatation
		iPP_Z	53 56	6			+8		h 0.01
		$iPPP_Z$	54 26	6			+8		
		$iPcP_Z$	54 37	6			+8		H 09 45 06
		iS_N	58 17	9	+19				
		iS_E	58 19	11		+23			
		iE	58 34	16		+30			
		eSS_N	10 01 04	18		+10	+11		
		iE_Z	01 14	12					
		$m(SSS)_N$	01 36	26	15				
		$i(ScS)_N$	02 30	12	+11				
		eLE_Z	03.0	36			27		
		M_Z	04 30	22		20			
		M_E	04 36	22	7				
		M_N	05 33	12					
		F	10 55						

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY,
RIVERVIEW, N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per.	Amplitude			Δ	Remarks
					A_N	A_E	A_Z		
	1944		h m s	s	μ	μ	μ	km	
368	Oct. 12	iP_Z	14 16 38	5			+4	2450	Compression
		iPP_{NE}	16 52	8	+4	+3		(22°0)	
		eS_N	20 34	9	+5				
		$iPcP_E$	20 36	8		+10			
		eLR_E	22.1	20					
		M_Z	24 06	18			6		
		M_E	24 44	16		5			
		M_N	24 52	13	3				
		F	14 50						
369	" 12	iPZ	16 12 31	5			+6	2840	Compression
		ipP_Z	13 12	8			+6	(25°5)	
		iZ	13 32	8			+11		h 0.03 ca.
		iE	13 49	8		+8			
		$i(S)_N$	16 34	5	+5				H 16 07 20
		iS_N	16 39	10	+10				
		iE	16 58	8		+10			
		iN	17 49	6	-7				
		iSS_N	18 03	8	-13				
		$e(L)_Z$	19.4	20					
		M_Z	21 04	18			8		
		F	16 45						
370	" 13	$e(P)_E$	11 25 46	6					Perhaps deeper than normal Readings from Wiechert.
		mE	25 59	8		6			
		eN	26 16	7					
		$i(S)_E$	30 37	8		-7			
		mE	30 51	9		12			
		eL_N	32.8	16					
		M_N	34 03	13	23				
		M_E	36 08	11		7			
		F	12 30						
371	" 14	$iPNZ$	02 24 06	10	-13		+17	3060	Compression
		$ipPNZ$	24 16	10	-12		+16	(27°5)	
		$i(PP)_{NZ}$	24 44	6	+8		-10		
		iZ	24 54	9			+10		
		iS_N	28 43	12	+24				
		iS_E	28 43	8		+13			
		iNE	29 00	12	-56	+10			
		iZ	29 05	12			-42		
		mN	29 12	12	29				
		$i(SS)_N$	29 54	13	+32				
		iE	30 32	5		+21			
		L_E	31.5	24					
		eL_Z	32.8	24					
		M_{E1}	33 01	22		59			
		M_{E2}	34 31	18		67			
		M_{Z1}	35 42	16			44		
		M_{N1}	35 51	16	33				
		M_{Z2}	38 07	13			43		
		M_{N2}	38 57	14	39				
		F	04 05						
372	" 14	$(i)_Z$	09 12 23	7			+6		Masked by large micro-seisms.
		$i(S)_E$	19 00	8		+7			
		eLZ	21.9	30					
		M_{EZ}	23.8	18		8	8		
		M_N	24 40	14	4				
		F	09 40						
373	" 14	eE	16 04.0						A few waves masked by lagre microseisms
		M_{Nz}	07.6	16	5		6		
		F	16 15						

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY,
RIVERVIEW,N.S.W.

SEISMOLOGICAL BULLETIN

No.	Date	Phase	Time (G.M.T.)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1944		h m s	s	μ	μ	μ	km	
374	Oct. 14	i(P)Z	16 26 57	6			-7		Masked by large microseisms
		i_N	30 12	8	+8				
		iS_E	32 02	8		+13			
		i_N	32 06	8	-9				
		m_E	32 13	8		9			
		eL_E	35.0	30					
		M_N	35 40	22	14				
		M_Z	36 28	22			27		
		M_E	36 34	22		20			
		F	17 05						
375	" 14	i_E	19 31 27	8		+5			
		eL_{NE}	35.0	24					
		M_Z	35 32	20			6		
		M_E	35 58	20		6			
		F	19 45						
376	" 14	iPZ	20 24 59	6			-10	3700 (33°3)	Dilatation
		iS_E	30 16	12		+27			
		i_N	30 23	10	+18				Large micro-seisms
		i_E	33 04	14		+17			
		i_Z	33 16	14			-25		
		i_N	33 20	12	-35				
		i_E	33 30	14		+31			
		i_E	34 14	10		+30			
		i_N	35 32	12	-32				
		eL_E	37.0	32					
		M_{E1}	39 06	22		36			
		M_{N1}	39 28	22	28				
		M_{E2}	40 56	18		75			
		M_{Z1}	41 10	22			37		
		M_{N2}	41 14	14	37				
		$M_{N3}M_{Z2}$	42.9	14	65		70		
		F	21 40						
377	" 14	i(P)Z	22 12 32						Dilatation
		iS_{NE}	17 38	10	+6	+12			
		eL_E	20.6	30					
		M_{Z1}	22 28	22			33		
		M_E	22 34	22		28			
		M_N	23 18	15	9				
		F	23 10						
378	" 15	i_Z	08 04 17	7					Heavy micro-seisms
		$e(L)_{EZ}$	10.3	24					
		i_N	14 35	6	+9				
		i_Z	15 13	6			+17		
		i_E	15 52	7		-39			
		M_N	19 23	13	51				
		M_{EZ}	19 31	14		26	71		
		F	09 00						
379	" 15	$(e)_Z$	09 17 00						
		i_E	25 31	8		-10			
		i_N	25 33	8	+7				
		eL_E	28.5	28					
		M_N	29 11	28	8				
		M_Z	29 34	26			19		
		M_E	29 39	26		16			
		F	merged in No.380						
380	" 15	M_{EZ}	10 03.3	20		5	9		
		F	10 25						
381	" 15	eLE	12 35.5	18					
		M_E	38 28	14		2			
		M_{NZ}	38.8	14	2		2		
		F	12 45						

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY,
RIVERVIEW, N.S.W.

SEISMOLOGICAL BULLETIN

No.	Date	Phase	Time (G.M.T.)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1944		h m s	s	μ	μ	μ	km	
382	Oct. 17	i(P)N	03 44 29	8	+5				
		i(S)E	48 07	10		+13			Masked by heavy microseisms
		i_N	48 13	8	+8				
		i_{EZ}	48 19	12		-19	-11		
		eLR_Z	49.2	26					
		eLR_N	49.5	25					
		M_{Z1}	50 15	22			16		
		M_E	51 21	12		12			
		M_{N1}	51 27	16	16				
		M_{N2}	53 05	13	15				
		M_{Z2}	53 49	11			11		
		F	04 30 ca						
383	" 17	i_{NE}	15 33 24	6	+9	+8			
		i_E	33 42	5		+11			
		eL_E	35.3	15					
		M_Z	36 01	13			4		
		M_N	36 05	14	3				
		F	15 40						
384	" 17	iP_Z	18 50 01	6			+10	10,450 (94°)	Compression
		iPP_Z	53 41	10			+12		H 18 36 45
		$iSKS_E$	19 00 37	13		+14			
		$iSKS_N$	00 41	10	+11				
		iS_N	01 05	12	-16				
		iPS_{NZ}	02 17	14	+11		-16		
		iSS_N	07 21	20	+30				
		iSS_E	07 26	14		+18			
		$eSSS_N$	11 31	30					
		eLQ_N	16.2	40					
		eLR_{NE}	21.0	40					
		M_{EZ1}	24.6	28		39	26		
		M_{N1}	25 01	30	67				
		M_{EZ2}	29.9	26		33	30		
		M_{N2}	30 55	22	35				
		F	21 05						
385	" 18	eL_N	03 25.0	20					Masked by microseisms
		M_N	29 27	15	3				
		M_Z	29 31	16			5		
		M_E	29 35	18		5			
		F	03 40						
386	" 18	eL_N	04 30.0	20					Masked by microseisms
		M_N	34 25	14	3				
		M_Z	34 28	16			5		
		M_E	34 49	17		5			
		F	04 40						
387	" 19	eL_E	06 46.5	26					
		M_E	48 44	24		6			
		M_Z	48 52	22			6		
		M_N	50 51	22	6				
		F	07 05						
388	" 19	M_N	20 04 24	18	3				
		M_E	05 29	18		3			
		M_Z	06 02	18			4		
		F	20 20						
389	" 21	e(P)N	10 44 35	(2)					
		i(S)N	46 38	5	+4				
		e_{NE}	47 16	7					
		M_{1NE}	48 18	8	3	2			
		M_{2NE}	48 56	8	3	2			
		F	11 00						
390	" 21	i(P)Z	21 23 27	6			+6		
		e(S)E	27 18	12					
		e(S)N	27 19	9					
		eL_N	29.9	25					
		M_N	30 53	19	4				
		M_{EZ1}	31 43	20		3	5		
		M_{EZ2}	33 09	20		4	4		
		F	22 00						

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY,
RIVERVIEW, N.S.W.

SEISMOLOGICAL BULLETIN

No.	Date	Phase	Time (G.M.T.)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1944		h m s	s	μ	μ	μ	km	
391	Oct.22	iPZ	18 57 02	4			-4	7120	Dilatation
		iS_N	19 05 35	8	+4			(64°1)	
		eLE	17.5	26					H 18 46 29
		M_N	21 33	22	2				
		M_E	21 37	22		2			
		M_Z	23 33	20			4		
		F	19 40						
392	" 23	eL_N	04 46.0	18					
		M_N	47 47	16	2				
		M_E	49 17	18		1			
		M_Z	50 03	16			2		
		F	05 05						
393	" 23	e_N	05 48 10	7					
		M_N	51 13	10	1				
		F	06 10						
394	" 23	eLZ	12 14.8	16					
		M_Z	16 29	16			1		
		M_E	16 33	16		1			
		M_N	17 41	14	1				
		F	12 30						
395	" 23	eL_{NE}	15 18.2	18					
		M_Z	19 17	16			2		
		F							
396	" 23	e_N	17 27 31	8					
		eL_N	28.7	20					
		M_E	29 25	18		1			
		M_N	29 31	18	1				
		M_Z	30 01	16			4		
		F	17 40						
397	" 23	ePE_Z	22 18 31	7					
		$e(S)_Z$	22 43	12					
		$e(S)_E$	23 31	12					
		eL_{EZ}	24.7	20					
		eL_N	25.2	20					
		M_N	27 03	18	9				
		M_{EZ}	27 47	20		9	12		F 23h 05m
398	" 23	eL_N	23 51.9	20					
		M_N	52 53	16	2				
		M_Z	53 53	20			3		
		M_E	54 33	18		2			F merged in
399	" 24	iPP_Z	00 00 47	8			+6		No 399
		i_N	00 48	8	+3				
		i_E	01 03	8		+3			
		$iPKS_Z$	02 13	12			+5		
		e_E	04 21	12					
		e_N	04 28	12					
		e_N	08 47	16					
		e_E	08 53	14					
		e_E	10 34	16					
		eLR_{NEZ}	37.1	28					
		M_{E1}	40 03	22		15			
		M_{N1}	40 15	22	11				
		M_{Z1}	41 03	22			29		
		M_{N2}	45 01	18	6				
		M_{EZ2}	45.4	18		9	13		F 02h 50m
400	" 24	eE	03 36.5						
		eL_{NZ}	38.4	26					
		ME	40 41	14		1			F 03h 55m
401	" 26	eL_N	05 29.1	18					F 05 40
402	" 26	eL_E	06 27.3	20					F 06 40
403	" 26	e_N	18 16.3						
		M_N	18.8	12	1				F 18 25

(Concluded on next sheet)

RIVERVIEW COLLEGE OBSERVATORY,
RIVERVIEW, N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1944		h m s	s	μ	μ	μ	km	
404	Oct.27	eL_N	19 15.2	18					
		M_N	16 29	14	2				
		M_E	16 42	16		1			
		M_Z	16 54	18			3		F. $19^h\ 25^m$
405	" 28	e_N	10 25 14	8					
		e_Z	25 19	6					
		$i(S)_N$	29 22	8	-4				
		e_N	31 27	10					
		eL_E	35.0	18					
		M_{E1}	35 38	18		7			
		M_{E2}	36 52	13		5			
		M_{NZ}	37.2	15	7		5		F. $11^h\ 20^m$
406	" 29	iP_Z	00 24 40	4			+4	10220	
		iPP_Z	28 22	5			+5	(92°)	H 00 11 33
		$iSKS_{NE}$	35 08	6	-6	+6			
		iS_{NE}	35 36	8	-10	+8			
		iPS_{EZ}	36 41	9		+6	+8		Similar to No. 384
		iPS_N	36 45	12	+8				
		$i(SS)_N$	41 40	12	+5				
		iSS_E	41 50	12		-12			
		m_N	41 58	15	5				
		e_N	46 30	30					
		eL_E	53.0	26					
		M_{NEZ_1}	59.0	26	14	12	11		
		M_{N2}	01 00 32	26	12				
		M_{E2}	01 04	26		12			
		M_{N3}	05 22	22	11				
		M_{Z2}	06 12	22			9		F. $02^h\ 15^m$
407	" 29	e_N	08 11.6						
		eL_N	13.3	18					
		M_N	14 36	15	3				F. $08^h\ 25^m$
408	" 29	e_E	14 16 38						
		eL_N	18.7	25					
		M_N	20 27	18	3				
		M_Z	20 42	16			3		
		M_E	21 26	16		4			F. $14^h\ 45^m$
409	" 29	eL_N	18 10.3	18					
		M_N	11 46	12	1				
		M_E ...	12 46	12		1			F. $18^h\ 15^m$
410	" 30	e_E	06 43.1						
		$e(L)_N$	44.9	19					
		M_N	46.9	13					F. $06^h\ 55^m$
411	" 31	e_N	09 38 40						
		eL_E	42.4	16					
		M_E	44 13	14		2			
		M_N	44 17	14	1				
		M_Z	45 03	15			1		F. $10^h\ 00^m$
412	" 31	e_N	13 20 40	10					
		$e(L)_N$	24.3	13					
		M_N	27 47	13	2				
		M_{EZ}	28.9	16		2	3		F. $14^h\ 15^m$

D. J. K. O'CONNELL, S.J.,
Director.

Riverview College Observatory

RIVERVIEW. N.S.W

SEISMOLOGICAL BULLETIN

$\Phi = 33° 49' 46''$ S. $\lambda = 151° 9' 30''$ E h = 25m. Foundation : Triassic sandstone.

INSTRUMENTS:

1. Wiechert Astatic Pendulum Seismometer (1000 kilo.) (NS. EW)
2. Wiechert Vertical Seismometer (80 kilo.)
3. Mainka Conical Pendulum Seisometer (450 kilo.) (NS, EW)
4. Galitzin Aperiodic Seismometer with Galvanometer registration (NS, EW, Vert.)

		V	T_o	ε : 1	$\frac{r}{T_o^2}$		T_1 (Calv.)	T (Pend)	μ^s	V_s
N	1	214	8.0	6.6	0.003	4	12.8	12.9	-0.02	470
	3	151	9.4	8.6	0.029					
E	1	228	8.2	5.6	0.002	4	12.3	12.9	-0.09	440
	3	136	10.5	4.1	0.014					
Z	2					4	11.9	11.8	-0.04	450

No.	Date	Phase	Time (G.M.T.) h. m. s.	Per s.	Amplitude A_N	A_E	A_Z	Δ km.	Remarks
		Unless stated otherwise, readings are from the Galitzins. From May 1, 1944, ground amplitudes are given. The amplitudes of initial impulses on the Galitzins were computed by Galitzin's method. The Tables used are those of Jeffreys and Bullen (1940).							
	1944		h. m. s	s	″	″	″	km.	
413	Nov. 1	iPE_Z	12 10 46	4		+2½	+5	5750	Compression
		iS_{EZ}	10 04	5		-3½	+3½	(51°7)	
		iS_N	10 05	5	+6½				H 12 01 40
		iPS_E	10 14	6		-5			
		iPS_N	10 15	6	-6				
		eSS_E	21 36	14					
		iE	22 26	8		-4			
		eN	22 28	8					
		iN	26 00	10	+6				
		eL_N	28.9	22					
		M_N1	30 43	18	7				
		M_E1	30 49	24		8			
		M_Z1	30 55	24			7		
		M_N2	33 39	13	9				
		M_Z2	33 43	22			9		
		M_E2	34 01	22		9			F. 13h 30m
414	" 2	$(i)_Z$	04 54 45	4					
		eL_Z	05 04.2	18					
		M_Z	06 01	18			2		
		M_N	06 16	18	1				F. 05h 20m
415	" 2	eL_N	09 35.7	20					
		M_E	37 15	18		1			
		M_N	37 25	14	1				
		M_Z	37 47	18			2		F. 09h 50m
416	" 3	$(e)_Z$	06 21 18						
		eE	26 27	8		2			
		eL_N	28.5	18					
		M_N	29 56	15	5				
		M_{EZ}	31.1	17		5	6		F. 07h 10m
417	" 5	eZ	16 23 03	6					
		iE	23 06	4		-5			Masked by micro-seisms. Probably deep focus
		iE	24 32	8		+4½			
		iE	25 56	8		+5			
		iN	26 00	4	+4				
		iNE	28 01	8	+6	-4			
		iZ	28 09	8			+13		
		iN	28 16	8	+10				
		I	50 22	12	1				F. 18h 50m

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY,
RIVERVIEW, N.S.W.

SEISMOLOGICAL BULLETIN

No.	Date	Phase	Time (G.M.T.)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1944		h m s	s	μ	μ	μ	km.	
418	Nov. 6	i_{NE}	17 21 53	5	-5	+5½			Masked by micro-seisms
		i_E	23 37	5		+3½			
		$e(L)_N$	28 45	16					F. 17h 40m
		M_N	29 56	10	3				
419	" 7	i_{NE}	09 43 11	5	-2	-2			Readings from
		e_{NE}	46 58	6	1	2			Wiechert
		eL_E	49.2	19					
		M_E	50 20	16		3			F. 10h 00m
420	" 7	e_N	15 10 26						
		eL_N	14.6	16					From Wiechert
		M_{NE}	17 31	16	5	5			F. 15 30
421.	" 10	eL_Z	14 07.7	22					
		M_E	08 19	20		3			
		M_N	09 23	20	3				F 14h 20m
422	" 13	e_{NE}	02 00 43	7	1	1½			From Wiechert
		$e(L)_N$	15.0	16					
		i_{NE}	17 36	6	+2½	+3			
		M_E	20 29	19		4			
		M_N	20 37	19	7				F. 02h 30m
423	" 13	e_N	04 47.0	15					From Wiechert
		M_N	52 22	14					
		M_E	52 27	11					F. 05h 05m
424	" 13	i_{NE}	05 24 09	6	2½	2			From Wiechert
		F	05 30						
425	" 13	$e(L)_N$	06 55.0	14					From Wiechert
		M_N	57 21	10	2				
		M_E	59 30	12		3			F. 07h15m
426	" 15	iP_{NEZ}	20 55 10	8	-22	+12	+45	5020	Compression
		ipP_{NEZ}	55 27	8	-14	+8	+43	(45°2)	
		i_{NZ}	56 02	8	-17		+43		Azimuth 327°
		i_E	56 03	8		+11			
		$iPcP_N$	56 47	8	+11				Prov. epicentre:
		iPP_{NEZ}	56 58	8	+12	-11	-20		5°N., 128½°E
		i_N	57 21	9	+21				
		i_E	57 33	9		+14			
		iS_{NE}	21 01 44	10	-45	-51			H 20 46 57
		iPS_{NZ}	02 03	11	+67		+51		
		isS_E	02 09	11		+68			h 0.005
		iSS_{NE}	05 03	16	+108	+53			
		i_E	05 11	14		+87			
		i_N	05 16	8	-73				
		i_E	05 42	8		-80			
		i_N	05 46	7	+53				
		i_Z	05 55	6			-40		
		eLR_E	07.8	25					
		eL_N	10.8	22					
		M_{E1}	11 00	18		86			
		M_{N1}	12 43	16	67				
		M_{E2}	14 09	18		102			
		M_{Z1}	14 22	16			62		
		M_{E3}	16 47	16		99			
		M_{Z2}	16 53	16			91		
		M_{N2}	16 57	15	81				F. 00h 50m

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY
RIVERVIEW, N.S.W.

SEISMOLOGICAL BULLETIN

No.	Date	Phase	Time (G.M.T.) h m s	Per. s	Amplitude A_N ″	A_E ″	A_Z ″	Δ km.	Remarks
427	1944								
	Nov.16	iP_{NEZ}	12 16 29	9	+19	+11	-25	2990 (26°9)	Dilatation Azimuth 31° H 12 10 49
		ipP_{NE}	16 40	9	+11	+8			
		i_{NE}	17 03	11	+16	+16			
		i_N	17 37	11	+28				
		i_E	17 38	11		+32			After iP all readings are from Wiechert. Galitzin records too entangled to be decipherable
		i_E	18 01	9		+17			
		i_N	18 27	7	-13				
		i_E	18 32	8		-16			
		i_E	19 42	7		-16			
		i_E	20 01	7		-23			
		iS_N	21 02	16	+120				
		i_E	21 08	13		-100			
		i_N	21 16	10	-150				
		i_N	21 47	10	-93				
		i_N	22 03	11	-200				
		i_E	22 04	11		-120			
		i_N	22 20	11	+130				
		i_E	22 39	11		-148			
		eLR_E	23.3	25					
		M_{N1}	24 57	14	345				
		M_{E1}	28 43	13		356			
		M_{N2}	29 09	13	300				
		M_{E2}	29 59	14		390			
		M_{N3}	31 44	13	470				
		M_{E3}	33 30	12		230			
		eW_{2E}	15 09.0	19					F. 16^h 25^m
		eW_{2N}	12.4	21					
428	" 16	e_Z	16 44 41						
		eS_N	49 00	8					
		i_{NE}	49 19	12	+9	+8			
		M_Z	52 25	16			3		
		M_E	52 35	15		3			
		M_N	52 39	15	2				F. 17^h 30^m
429	" 16	eP_Z	18 48 22	8				2940	
		i_Z	49 11	8			+4	(26°4)	
		iS_N	52 51	8	-8				H 18 42 47
		iS_E	52 53	8		+6			
		i_{NE}	53 13	12	+13	+18			
		i_N	54 11	12	+12				
		eL_Z	55.7	28					
		M_Z	56 41	20			8		
		M_N	56 50	16	9				
		M_E	59 05	14		6			F. 20^h 05^m
430	" 16	e_{NE}	22 32.3	12					
		eL_Z	35.0	20					F. 23^h 20^m
		M_N	35.9	16					
431	" 17	eL_E	01 58.7	21					
		M_N	02 01 17	18	4				
		M_E	01 39	17		3			
		M_Z	02 02	17			4		F. 02^h 30^m
432	" 17	e_Z	02 34 58	6					
		e_E	35 04	6					
		$e(S)_E$	39 11	12					
		e_Z	39 15	7					
		i_N	39 17	8	+2½				
		eL_N	41.0	20					
		M_{N1}	41 29	20	4				
		M_{N2}	42 37	18	3				
		eL_Z	43.0	26					
		M_{EZ}	44.0	20		4	4		F. 03^h 10^m

(Continued on next sheet).

RIVERVIEW COLLEGE OBSERVATORY,
RIVERVIEW, N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1944		h m s	s	μ	μ	μ	km.	
433	Nov. 17	eP_Z	04 38 26	5				2940 (26°4)	
		eS_{NE}	42 55	14					
		eZ	43 01	10			5		
		i_{NE}	43 13	11	+9	+4			
		M_{Z1}	46 39	20			5		
		M_{N1}	46 46	16	4				
		M_{N2}	49 07	16	4				
		M_{Z2}	49 55	17			5		
		M_E	51 13	14		4			F. 05h 25m
434	" 17	eZ	07 03.2						
		i_N	07 07	9	+4½				
		$e(L)_N$	07.6	16					
		M_N	10 37	12	1				F. 07h 25m
435	" 17	e_N	07 48 09	10					
		M_E	55 23	12		1			
		M_N	58 17	14	1				
		M_Z	58 43	12			1		F. 08h 05m
436	" 17	iP_Z	22 15 54	6			-4	2940 (26°4)	Dilatation
		iP_N	15 56	6	-4				H 22 10 19
		iS_N	20 23	8	-5				
		i_N	20 41	13	+15				
		i_E	20 43	13		+22			
		iSS_N	21 17	13	+17				
		eL_E	22.9	24					
		M_{EZ1}	23.9	20		8	11		
		M_{N1}	24 20	16	8				
		M_{N2}	27 51	15	6				
		M_{Z2}	27 59	16			7		
		M_{E2}	28 52	15		7			F. 23h 45m
437	" 18	eE	07 21.0	14					
		M_Z	26 12	12			1		
		M_N	26 23	14	1				F. 07h 40m
438	" 18	$(e)_Z$	08 06 52						
		e_N	08 39						
		e_{NE}	15 23	10					
		e_E	15 49	14					
		e_E	20 38	14					
		m_{NE}	21 01	13	1	2			
		eL_Z	29.0	30					
		M_{N1}	31 58	24	4				
		M_{Z1}	32 05	22			6		
		M_{E1}	32 11	22		4			
		M_{N2}	34 59	18	5				
		$M_{E2}M_{Z2}$	35 03	20		5	8		F. 09h 25m
439	" 18	e_{NE}	12 04 17	10					
		eL_Z	07.1	20					
		M_N	08 01	18	2				
		M_Z	09 09	16			2		F. 12h 30m
440	" 19	eP_Z	03 51 19						
		i_{EZ}	51 29	6		+4	-6		
		$e(S)_N$	55 57	8					
		$e(SS)_N$	57 03	12					
		i_N	57 17	10	+3				
		m_N	57 49	15	3				
		eLR_N	58.3	24					
		M_{N1}	59 26	18	6				
		M_{E1}	04 00 19	22		5			
		M_{N2}	01 39	14	12				
		M_Z	02 01	18			9		
		M_{E2}	02 05	16		7			F. 05h 05m

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY
RIVERVIEW, N.S.W.

SEISMOLOGICAL BULLETIN

No.	Date	Phase	Time (G.M.T.)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1944		h m s	s	μ	μ	μ	km.	
441	Nov.19	e_E	05 39 42	10					
		e_N	45 37	10					
		i_N	46 12	12	+5				
		eL_N	47.4	18					
		M_N	50 05	14	6				
		M_E	50 19	16		4			
		M_Z	50 31	16			5		F. 05h 40m
442	" 19	e(P)	06 55 50						
		e_E	55 59						
		e_N	07 01 45	12					
		i_N	01 59	14	+2½				
		m_N	02 19	14	2				
		eL_N	02.9	24					
		M_{N1}	03 55	18	5				
		M_{E1}	04 49	20		3			
		M_{N2}	05 29	13	6				
		M_Z	06 15	18			7		
		M_{E2}	06 19	16		5			F. 07h 50m
443	" 20	i_N	03 25 21	6	+4				
		i_E	25 24	6		-7½			May be deep
		i_Z	25 26	6			-4		focus
		e_E	28 10	8					
		e_N	28 27	8					
		i_E	28 29	8		-4			
		m_N	28 38	12	2				
		i_E	28 45	8		+4			
		i_N	28 49	8	+5½				F. 04h 00m
444	" 20	e_Z	04 48 51						
		eL_E	57.0	22					
		M_{E1}	58 05	22		4			
		M_{Z1}	58 23	22			4		
		M_N	59 31	15	5				
		M_{Z2}	05 01 33	18			7		
		M_{E2}	01 37	18		7			F 06h 10m
445	" 21	$i(P)_Z$	08 58 31	5			+4		
		$e(S)_{NEZ}$	09 02 31	10	6	5	5		
		M_E	07 43	14		1			
		M_Z	08 29	14			1		
		M_N	08 41	14	2				F. 09h 25m
446	" 21	eP_Z	10 14 55	8				9340	
		$e(PP)_Z$	18 23	10				(84°)	
		$iSKS_E$	25 10	8		+4			H 10 02 27
		iS_N	25 16	6	+3				
		i_E	25 20	5		+6½			
		$i(SS)_N$	31 28	14					
		eLQ_{NE}	37.7	26					
		eLR_Z	41.6	26					
		$M_{N1}M_{Z1}$	43.0	20	4		6		
		M_{E1}	43 10	20		3			
		M_{Z2}	46 59	16			4		
		M_{N2}	47 12	16	3				
		M_{E2}	47 55	16		4			F. 11h 50m
447	" 21	i_{NE}	15 03 00	5	+3½	-8			
		i_N	05 38	5	+3½				Deep focus
		i_E	05 47	7		+6			
		i_N	05 50	7	-7½				
		i_Z	07 50	5			+5		
		i_Z	09 35	5			-7		F. 15h 30m

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY,
RIVERVIEW, N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per.	Amplitude			Δ	Remarks
					A_N	A_E	A_Z		
	1944		h m s	s	μ	μ	μ	km.	
448	Nov.24	iP_{NEZ}	04 53 45	5	+97	+133	-115	2460	Dilatation
		ipP_{NZ}	54 14	8	+123		-126	(22°.1)	
		ipP_E	54 15	5		+129			(Azimuth 54°)
		$i(PP)_N$	54 25	10	+122				
		$iPPP_{EZ}$	54 31	10		-215	+300		h 0.02
		i_E	54 48	6		+210			
		i_E	54 59	6		-170			H 04 49 02
		i_N	55 00	6	-61				
		iS_N	57 37	8	-350				
		iS_E	57 38	7		-197			
		m_{NEZ}	57 46	9	240[x]	170[x]	125		[x]From Wiechert; Galitzin illegible.
		$i(LQ)_N$	58 15	19					
		isS_E	58 22	9		-130[x]			
		m_E	58 46	9		170[x]			
		eL_E	59.5	26					
		M_{N1}	05 01 06	14	104				
		M_{Z1}	01 18	16			110		
		M_E	01 36	15		150			
		M_{Z2}	02 08	16			130		
		M_{N2}	03 00	12	91				
		$i(ScS)_{NE}$	04 51	10	+53	+96			F. $08^h\ 15^m$
449	" 26	e_N	00 16 20	8					
		e_N	19 54	14					
		e_E	20 09	14					
		eL_N	23.8	24					
		M_Z	26 34	24			9		
		M_N	26 52	22	7				
		M_E	26 56	22		6			F. $01^h\ 05^m$
450	" 26	e_N?	07 57 44						
		eL_E	08 08.7	16					
		eL_N	09.1	20					
		M_Z	09 56	17			4		F. $08^h\ 15^m$
451	" 26	iP_Z	08 22 23	4			+7	3700	Compression
		iPP_{EZ}	23 37	9		+7	-7	(33°.3)	
		iS_{NEZ}	27 40	9	-8	+14	-7		
		$iSSS_N$	30 07	12	+17				
		M_{N1}	31 18	18	16				
		eL_{EZ}	31.4	28					
		M_{Z1}	31 53	28			29		
		M_E	32 50	22		17			
		M_{Z2}	33 26	20			17		
		M_{N2}	35 32	12	14				F. $09^h 15^m$
452	" 26	e_E	15 48.4						
		M_N	55 32	12	1				
		M_Z	55 42	12			2		
		M_E	56 20	12		1			F. $16^h 05^m$
453	" 27	e_{NZ}	13 32 38	6					
		e_N	36 10	8					
		e_N	37 24	14					
		M_E	41 56	12		2			
		M_Z	44 42	14			3		F. $14^h\ 00^m$
454	" 28	e_N	19 26 26	16					
		e_E	26 42	12					
		eL_{NZ}	32.7	26					
		M_Z	38 12	22			2		
		M_N	38 20	22	2				F. $20^h\ 00^m$

(Concluded on next sheet)

RIVERVIEW COLLEGE OBSERVATORY
RIVERVIEW, N.S.W.

SEISMOLOGICAL BULLETIN

No.	Date	Phase	Time (G.M.T.)	Per.	Amplitude			Δ	Remarks
					A_N	A_E	A_Z		
	1944		h m s	s	μ	μ	μ	km.	
455	Nov.29	iP_{NE}	18 56 03	4	+19	+26		2500	
		ipP_{NE}	56 33	10	+15	-13		(22°.5)	h 0.02
		i_{NE}	56 45	10	+14	+26			
		iE	57 18	6		-32			H 18 51 16
		iN	57 21	7	+25				
		iN	57 57	9	+15				(Azimuth 54°)
		iE	57 58	9		+23			
		iE	59 31	10		-20			
		iS_N	59 54	10	-67				
		iS_E	59 55	10		-34			
		iE	19 00 01	10		+57			
		mN	00 03	10	72				
		iN	00 22	9	+125				
		isS_E	00 44	14		+91			
		iSS_N	00 53	14	+130				
		eL_E	01.9	25					
		eL_N	02 00	20					
		M_{E1}	03 59	14		28			
		M_{E2}	05 01	14		29			
		M_N	05 19	14	33				
		$iScS_E$	07 07	8		+18			
		iE	08 26	8		+36			F. $20^h\ 30^m$
456	" 30	iP_{EZ}	01 51 24	6		-6	+6	3550	ca. Compression
		ipP_{EZ}	52 02	8		-6	+6½	(32°)	ca.
		iEZ	52 24	11		+15	-18		h 0.03 ca.
		eE	52 51	16					
		$i(PcP)_N$	54 05	8	+6				
		iS_E	56 19	12		-13			
		iN	57 11	12	-24				
		iE	57 27	12		+13			
		mNZ	57 37	11	14		6		
		iN	58 13	12	-32				
		eL_Z	58.5	18					
		iE	58 35	12		-15			
		M_{N1}	02 00 54	14	12				
		$i(ScS)_E$	01 53	8		+11			
		M_{N2}	03 19	12	14				
		iE	03 21	7		+19			
		M_E	03 57	12		6			
		M_Z	04 23	16			7		F. $03^h\ 00^m$
457	" 30	eZ	19 54 34	7					
		eZ	58 33	10					
		eNE	58 39	8					
		eL_E	59.6	20					
		M_Z	20 00 55	16			4		
		M_E	01 17	16		2			
		M_N	02 01	12	3				F. $20^h\ 20^m$

D.J.K. O'CONNELL, S.J.
Director.

Riverview College Observatory

RIVERVIEW. N.S.W

SEISMOLOGICAL BULLETIN

$\Phi = 33° 49' 46''$ S. $\lambda = 151° 9' 30''$ E h = 25m. Foundation : Triassic sandstone.

INSTRUMENTS:

1. Wiechert Astatic Pendulum Seismometer (1000 kilo.) (NS. EW)
2. Wiechert Vertical Seismometer (80 kilo.)
3. Mainka Conical Pendulum Seisometer (450 kilo.) (NS, EW)
4. Galitzin Aperiodic Seismometer with Galvanometer registration (NS, EW, Vert.)

		V	T_o	ε : 1	$\frac{r}{T_o^2}$		T_1 (Galv.)	T (Pend)	μ^2	V_s
N	1	203	9.0	6.6	0.002	4	12.8	12.9	- 0.02	470
	3	163	9.2	7.2	0.021					
E	1	231	8.1	4.8	0.005	4	12.3	12.9	-0.09	440
	3	136	10.4	5.4	0.012					
Z	2					4	11.9	11.8	-0.04	450

No.	Date	Phase	Time (G.M.T.)	Per	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
			h. m. s.	s.				km.	
	Unless stated otherwise, readings are from the Galitzins. From May 1, 1944, ground amplitudes are given. The amplitudes of initial impulses on the Galitizins were computed by Galitzin's method. The Tables used are those of Jeffreys and Bullen (1940).								
	1944		h m s	s	μ	μ	μ	km.	
458	Dec. 1	$iPEZ$	04 05 46	5		+5½	-9	3340	Dilatation
		$ipPEZ$	07 22	5		-6½	+9½	(3090)	
		$iPcPEZ$	08 27	10		+8	-12		h 0.10
		iS_E	10 02	8		+23			
		isS_N	13 03	8	-14				H 04 00 26
		isS_E	13 05	8		+10			
		m_N	13 15	8	11				
		m_E	13 25	8		7			
		i_{NE}	13 42	10	+14	+19			
		M_Z	14 05	13			5		
		M_N	14 59	13	6				
		$iScS$	15 22	7		+14			
		$i(sScS)_E$	19 25	8		+17			F 05h 15m
459	" 1	eL_{NE}	10 04.8	22					
		M_N	07 19	16	1				F. 10h 20m
460	" 1	eE	12 21 26	16					
		eL_E	23.4	20					
		M_E	24 45	20		2			
		M_N	25 13	20	3				
		M_Z	25 27	20			2		F. 12h 35m
461	" 1	eE	15 16 01						
		eN	16 31						
		M_E	28 25	14		1			
		M_N	32 19	14	1				F. 15h 45m
462	" 2	eN	09 22 46						
		eE	23 01						
		eE	26 33	14					
		eL_N	29.3	24					
		eL_E	29 .9	24					
		M_{NE}	33 55	18	3	4			
		M_Z	36 23	18			5		F. 10h 00m

(Continued on next sheet)

NIVERVIEW COLLEGE OBSERVATORY
NIVERVIEW, N.S.W.

SEISMOLOGICAL BULLETIN

No.	Date	Phase	Time (G.M.T.)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1944		h m s	s	μ	μ	μ	km.	
463	Dec.2	e_N	13 55.9						
		e_Z	56.8						
		e_{NE}	59 25	12					
		e_E	14 00 21	12					
		e_N	01 16	12					
		e_N	03 29	12					
		i_E	08 17	7		-4			
		M_N	13 27	14	2				
		M_Z	13 57	14			2		
		M_E	15 19	14		2			F. $14^h\ 55^m$
464	" 2	eL_N	20 11.0	18					
		M_N	12 25	16	1				
		M_E	13 35	16		1			F. $20^h\ 20^m$
465	" 4	eL_Z	10 06.3	20					
		M_{NZ}	07.5	18	1		1		F. $10^h\ 15^m$
466	" 4	iP_Z	20 43 24	6			+3	5410	Compression
		$i(pP)_{NZ}$	43 38	5	+2		-3	(48°7)	
		ePP_N	45 20	8					H 20 34 41
		i_Z	45 26	6			+5		
		iS_{NE}	50 22	6	-6	-3			Perhaps slightly deeper than normal
		iPS_E	50 40	8		+4			
		i_N	50 43	8	+8				
		$iScS_E$	53 15	6		+8			
		i_N	54 22	12	+7				
		eL_E	56.5	28					
		eL_N	56.9	24					
		eL_Z	58.0	30					
		M_{NZ}	21 00.7	22	7		8		
		M_E	01 28	25		8			F. $21^h\ 40^m$
467	" 5	iP_Z	14 31 25	3			+4½	3000	Compression
		ipP_E	31 33	5		+3		(27°0)	
		ipP_Z	31 35	5			+5		
		$i(PP)_Z$	31 59	10			+5		
		eS_N	35 58	10					
		i_N	36 24	12	-10				
		i_N	37 20	14	+14				
		eL_Z	37.8	30					
			39 22	12					Begins train of
		M_Z	39 44	18			8		sinusoidal
		M_N	40 50	11	24				waves on NS
		M_E	41 52	15		11			F. Merged in No. 468
468	" 5	$(P)_Z$	14 48 56						
		$(S)_N$	53 33	10					Beginning masked by preceding
		i_N	53 59	12	-14				
		eL_Z	55.4	30					
			56 56	14					Begins train of
		M_Z1	57 01	22			18		sinusoidal
		M_N	58 25	13	40				waves on NS
		M_Z2	59 22	16			15		Same epicentre
		M_E	59 28	15		17			as No. 467
		F.	16 40						
469	" 6	e_N	20 06.5						
		M_N	10 17	13	3				
		M_E	10 27	16		1			
		M_Z	10 41	16			2		F. $20^h\ 20^m$

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY
RIVERVIEW, N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1944		h m s	s	μ	μ	μ	km.	
470	Dec. 7	ePZ	04 46 43	8				7850	Dilatation from
		iP_{NZ}	46 48	10	+10		-14	(70°6)	N.
		ePE	46 54						
		iP_{NZ}	46 56	16	-59		+103		H 04 35 34
		ipP_{NZ}	47 06	16	+82		-158		
		$iPcP_Z$	47 16	16			+195		
		i_{NEZ}	47 46	16	-133	+26	+240		
		i_Z	49 12	14			-110		
		i_{NZ}	49 45	12	+108		-135		
		i_{NZ}	50 25	14	+80		-126		
		iS_Z	55 58	18			+268		
		iS_{NE}	56 00	18	+420	+234			After iS_{NE},NS
		isS_N	56 17	18	+725				readings are
		isS_E	56 19	18		-150			from Wiechert,
		m_Z	56 26	18			157		EW from Mainka.
		iPS_N	56 33	18	-470				
		i_Z	56 37	18			+225		
		$iPPS_N$	56 45	18	+385				
		i_E	57 13	18		-260			
		m_N	57 14	20	750				
		e_N	57 29	29					
		iSS_N	05 00 41	20	-400				
		i_Z	01 02	20			+306		
		i_N	01 15	24	+610				
		i_N	01 41	24	+400				
		$e(LQ)_N$	02.8	35					
		$e(LR)_E$	05.0	38					
		i_N	06 04	20	-238				
		M_{E1}	06 46	29		1130			
		M_{N1}	10 26	31	1590				
		M_{N2}	11 58	29	1440				
		M_{E2}	13 02	20		340			
		M_{N3}	17 05	20	740				
		M_{E3}	17 44	16		275			
		M_{N4}	18 19	18	840				
		M_{E4}	19 52	17		360			F. 10^h 20^m
471	" 7	e_Z	18 38 16						
		$e(S)_{NE}$	41 27	10					
		i_Z	41 36	8			-4		
		eL_E	43.0	20					
		eL_Z	43.2	22					
		M_Z	43 58	18			2		
		M_E	44 18	18		2			
		M_N	44 30	16	1				F. 18^h 55^m
472	" 7	e_E	21 31.3						Shallow waves
		F.	21 45						
473	" 7	iP_{EZ}	22 52 41	8		+2	+ 6	2400	Compression
		i_Z	53 12	5			+3½	(21°6)	
		iS_{NE}	56 33	12	+15	-6			H 22 47 52
		i_Z	56 46	10			-7		
		eSS_N	57 04	21					
		eL_Z	57.9	25					
		M_{N1}	58 22	21	6				
		M_Z	58 51	20			6		
		M_E	59 35	20		6			
		M_{N2}	59 39	15	6				F. 23^h 25^m
474	" 8	$e(P)_{EZ}$	01 17 19	5					
		$e(S)_E$	22 56	17					
		e_N	24 41	10					
		$i(SS)_{NEZ}$	25 08	14	+5	+8	+5		
		i_N	25 23	16	+8				
		eL_Z	26.4	24					
		eL_E	26.5	22					
		M_N	27 56	14	4				
		M_E	28 36	18		5			
		M_Z	29 04	16			5		F. 02^h 25^m

(Continued on next sheet).

RIVERVIEW COLLEGE OBSERVATORY
RIVERVIEW, N. S. W.

SEISMOLOGICAL BULLETIN

No.	Date	Phase	Time (G.M.T.)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1944		h.m. s	s	μ	μ	μ	km.	
475	Dec.8	iP_{NEZ}	07 21 45	8	+6	+6	-8	2410	Dilatation
		i_Z	21 48	8			+19	(21°.7)	
		m_{NEZ}	21 58	8	3	5	7		h 0.01 ca.
		ipP_Z	22 07	8			+8		
		$iPPP_Z$	22 22	8			+11		H 07 17 01
		i_E	22 27	8		+10	-13		
		i_N	22 55	8	+7		-9		
		iS_N	25 34	11	-14				
		iS_E	25 36	9		-9			
		$iPcP_N$	25 42	11	+66				
		$iPcP_{EZ}$	25 44	11		+52	+35		
		i_E	25 59	11		+27			
		m_Z	26 01	11			26		
		iSS_N	26 20	13	+27				
		$L(Q)_N$	26.5	20					
		eLR_{EZ}	27.1	24					
		M_{NEZ}	28.0	20	26	26	40		
		M_{E2}	28 26	17		23			
		M_{N2}	28 48	13	26				F. $09^h\ 00^m$
476	" 8	iP_{NEZ}	13 04 03	8	+5	+9	-12	2450	Dilatation
		i_Z	04 06	9			+25	(22°.)	
		m_{NEZ}	04 16	10	4	7	9		h 0.01
		ipP_Z	04 27	11			+13		
		i_E	04 36	8		+8			H 12 59 16
		i_Z	04 41	10			+17		
		i_E	04 46	10		+14			
		i_N	05 12	10	+9				
		iS_{NE}	07 55	10	-18	+6			
		$iPcP_{NEZ}$	08 02	11	+54	+58	+57		
		i_E	08 19	13		+35			
		m_Z	08 22	13			31		
		iSS_N	08 41	10	+24				
		$(LQ)_N$	08.9	22					
		eLR_N	09.3	24					
		M_{Z1}	09 58	20			37		
		M_{N1}	10 16	17	21				
		M_E	10 24	20		25			
		M_{Z2}	10 26	17			29		
		M_{N2}	11 22	14	17				F. $14^h\ 30^m$
477	" 8	eP_Z	18 32 06	8				7820	
		eS_E	41 15	9				(70°.4)	H 18 20 53
		eS_N	41 16	10					
		i_N	41 37	10	+7				
		eN	45 43	12					
		eL_E	51.8	30					
		eL_Z	53.2	22					
		M_{E1}	54 15	22		9			
		M_{Z1}	57 09	24			6		
		M_N	58 56	20	6				
		M_{E2}	59 30	20		4			
		M_{Z2}	19 00 28	18			7		F. $20^h\ 65^m$
478	" 9	$i(P)_{EZ}$	07 54 55	6		+5	-5		Dilatation
		i_E	58 20	9		+5			
		i_N	58 21	9	+4				Deep focus ?
		$i(S)_N$	08 01 02	12	+6				
		eZ	01 02	12					F. " -
479	" 9	eN	11 54 08						
		eE	54 28	12					
		eL_N	56.2	18					
		eL_Z	56.4	22					
		M_N	57 10	17	5				
		M_{EZ}	12 00.2	15		2	2		F. $12^h\ 25^m$

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY
RIVERVIEW, N.S.W.

SEISMOLOGICAL BULLETIN

No.	Date	Phase	Time (G.M.T.)	Per.	Amplitude			Δ	Remarks
					A_N	A_E	A_Z		
	1944		h m s	s	μ	μ	μ	km.	
480	Dec 10	iP_Z	05 23 09	6			-9	8080	Dilatation
		i_E	23 12	8		+5		(72°.7)	
		$iPcP_Z$	23 24	12			+9		H 05 11 42
		eS_{NE}	32 31	13	11	8			
		i_{NE}	32 46	11	+23	+23			
		iPS_E	33 07	15		+10			
		$iPPS_E$	33 18	15		-28			
		e_E	34 18	13					
		i_E	37 36	16		-18			
		e_N	37 46	20					
		eL_N	42.6	32					
		M_{N1}	47 56	16	10				
		M_{E1}	50 55	18		14			
		M_{N2}	51 32	16	12				
		M_{Z1}	53 06	16			14		
		M_{E2}	55 55	16		16			
		M_{Z2}	56 44	16			19		F. $08^h\ 10^m$
481	" 10	iP_{NEZ}	16 29 46	4	+9	+12	-20	2660 c.	Dilatation
		m_{NZ}	30 02	8	58		79	(24°ca)	
		m_E	30 09	8		90			Deep focus h probably ca. 0.03
		$i(pP)_E$	30 26	5		-96			
		i_N	30 29	5	+105				
		$i(PP)_N$	30 36	7	+59				
		i_E	31 04	6		-103			
		iS_N	33 46	8	-340				After iS,NS & EW measurements are from Wiechert.
		iS_E	33 48	8		-340			
		iS_Z	33 50	8			-190		
		m_N	33 56	8	220ca.				
		m_{EZ}	34 00	8		185	140		
		LQ_E	34.3	29					
		LR_{EZ}	35.5	22					
		M_Z	36 02	20			370	c	
		M_E	37 04	17		320			
		M_N	37 17	15	195				F. $20^h\ 30^m$
482	" 12	iP_{NEZ}	04 30 05	8	-3	+3	+9	9950	Compression
		ipP_Z	30 13	10			+17	(89°.5)	
		$iSKS_{NE}$	40 30	8	+14	+5			H 04 17 10
		iS_{NE}	40 51	10	-21	-30			
		iPS_N	41 55	8	+12				
		iSS_E	46 37	14		+21			
		i_N	47 00	14	-6				
		eLQ_E	53.5	28					
		eLR_N	58.8	32					
		M_Z	05 01 55	20			15		
		M_N	02 02	20	18				
		M_E	02 39	20		9			
		eW_{2NE}	06 35.4	25					F. $07^h\ 55^m$
483	" 12	iP_Z	10 36 16	6			-8	7770	Dilatation
		iS_E	45 22	9		-5		(69°.9)	
		i_N	45 29	8	-4				H 10 25 07
		iPS_N	45 50	14	+7				
		e_E	46 26	13					
		eL_E	55.7	26					
		M_E	58 40	20		4			
		M_Z	11 04 12	17			4		
		M_N	06 05	17	4				F. $12^h\ 00^m$
484	" 13	e_{NE}	04 54 11	8					
		i_E	54 22	8		-8			
		eL_N	55.4	22					
		M_Z	56 25	18			3		
		M_E	57 16	12		3			
		M_N	57 31	10	3				F. $05^h\ 10^m$
485	" 13	e_E	06 54.3						
		M_N	07 03 57	18	2				
		M_E	05 56	14		1			
		M_Z	07 39	16			2		F. $07^h\ 15^m$

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY
RIVERVIEW,N.S.W.

SEISMOLOGICAL BULLETIN

No.	Date	Phase	Time (G.M.T.)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1944		h m s	s	μ	μ	μ	km.	
486	Dec.13	eL_E	21 00.8	20					
		M_N	02 57	20	3				
		M_E	04 27	18		3			
		M_Z	04 41	18			2		F. 21h 15m
487	" 16	$i(P)_Z$	06 44 26	5			-5		Dilatation.
		e_N	50 41						
		e_Z	52 36	10					
		e_E	52 43	10					
		e_N	54 01	10					
		i_{NE}	55 58	7	+6	+7			
		i_E	56 41	8		-7			
		i_N	57 00	6	+12				
		i_{NE}	57 33	7	+12	+13			
		M_{EZ}	59.6	13		6	5		
		M_N	07 01 01	12	7				F07h 50m
488	" 17	i_N	07 37 47	9	+6				
		i_N	35 57	13	+10				
		e_E	45 43	14					
		eL_Z	50.2	24					
		M_Z	52 34	24			6		
		M_N	52 42	24	4				
		M_E	53 20	22		4			F. 08h 10m
489	" 17	i_N	14 08 21	8					Masked by heavy
		eL_Z	10.7	20					microseisms
		M_N	12 04	16	2				
		M_Z	12 50	16			4		
		M_E	14 56	14		3			F. 14h 30m
490	" 17	eL_N	21 31.5	24					
		M_E	32 50	14		3			
		M_N	34 02	15	2				
		M_Z	34 14	18			5		F. 21h 45m
491	" 18	i_N	13 38 44	6	-5				Masked by heavy
		i_E	38 50	13		+11			microseisms
		eL_{NZ}	40.5	22					
		M_{NZ}	41.7	18	7		6		
		M_E	43 08	10		5			F. 13h 50m
492	" 19	i_E	14 30 43	10		-7½			Masked by heavy
		e_N	39 36	20					microseisms
		e_Z	40 00	18					
		eLR_E	43.6	30					
		M_E	48 54	20		6			
		M_Z	49 34	25			14		
		M_N	49 45	21	7				F. 15h 45m
493	" 20	$e(L)_N$	14 34.3	18					
		$e(L)_E$	35.2	18					
		M_Z	38 03	20			5		
		M_E	38 08	20		3			
		M_N	38 22	14	4				F. 15h 45m
494	" 20	iP_{EZ}	20 50 50	8		-3	+4		Compression
		ipP_Z	50 58	8			+7		
		iPP_Z	51 30	6			+5		
		$iPPP_{EZ}$	51 40	6		+5	-4		
		i_E	51 55	7		+6			
		i_Z	52 13	8			+6		
		$i(SS)_E$	56 05	14		+8			
		eLR_E	57.7	24					
		eL_Z	58.1	25					
		M_{EZ}	59 29	22		25	15		
		M_N	21 00 06	16	12				
		M_{E2}	00 34	18		27			
		M_{Z2}	00 45	16			27		F. 22h 30m

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY
RIVERVIEW, N.S.W.

SEISMOLOGICAL BULLETIN

No.	Date	Phase	Time (G.M.T.)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1944		h m s	s	μ	μ	μ	km.	
495	Dec.20	eZ	23 26 30						
		eLN	32.4	26					
		eLZ	33.6	26					
		ME	35 13	20		7			
		MZ	35 56	18			9		
		MN	36 16	16	4				F. 24h 20m
496	" 21	eE	03 55 43						Possibly non-seismic
		MZ	59 16	18			2		
		MN	04 00 26	15	2				F. 04h 10m
497	" 21	eE	05 21.6						Possibly non-seismic
		ME	33 04	16					
		MZ	37 14	15					
		MN	38 22	13					F. 06h 10m?
498	" 21	iPZ	09 06 19	4			+3½	2670ca. (24°ca.)	Compression Preceded by microseisms
		ipPNEZ	06 53	7	-3	-6	+6		
		iSN	10 18	8	-18				
		iSE	10 20	8		+24			
		iSZ	10 22	8			+17		h probably 0.02
		MN	14 29	14	3				
		MZ	14 52	16			2		
		ME	15 24	15		3			F. 09h 45m
499	" 21	iPEZ	20 19 33	8		-6	+8½	3100ca. (28°c)	Compression
		i(PP)E	20 23	12		+13			
		i(PPP)E	20 35	9		-20			
		eN	24 16	22					
		iE	24 49	14		+21			
		eLE	26.3	28					
		eLZ	26.8	30					
		MN1	28 49	17	31				
		MZ1	29 13	18			75		
		ME1	29 17	18		70			
		MZ2	31 03	16			54		
		MN2	31 25	13	23				
		ME2	31 41	14		42			F. 22h 05m
500	" 21	iPZ	22 33 28	8			+8	3100ca. (28°c)	Compression
		iE	33 33	10		+9			
		i(PP)E	34 19	12					Replica of No. 499
		eN	36 11	22					
		iE	38 41	15		+16			
		eLE	40.2	26					
		eLZ	40.7	26					
		MN1	42 43	17	29				
		MZ1	43 05	18			56		
		ME1	43 27	17		55			
		MZ2	44 59	16			38		
		MN2	45 23	13	21				
		ME2	45 54	15		39			F. 00h 20m
501	" 22	iZ	01 36 09	4			-7		
		eLZ	49.6	20					
		MN	02 00 05	18	6				
		ME1	00 39	20		6			
		MZ1	00 51	20			8		
		ME2	04 49	16		8			
		MZ2	05 09	16			9		F. 02h 40m
502	" 22	iPEZ	05 41 14	8		+5	-7		Dilatation
		iE	42 10	8		+6			
		eN	45 55	22					Similar to Nos. 499 & 500
		eLE	47.9	32					
		eLZ	48.5	26					
		MN	49 24	16	10				
		MZ	51 05	20			42		
		ME	51 09	20		39			F. 07h 10m

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY,
RIVERVIEW, N.S.W.

SEISMOLOGICAL BULLETIN

No.	Date	Phase	Time (G.M.T.)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1944		h m s	s	μ	μ	μ	km.	
503	Dec 22	e(L)E	08 49.9	20					
		ME	51 05	12		3			
		MN	53 25	12	2				
		MZ	53 37	12			3		F.merged in No. 504
504	" 22	eLE	09 09.8	22					
		MNEZ	11.7	18	3	5	6		F. 09h 30m
505	" 22	eLE	09 53.0	18					
		MZ	54 09	18			4		
		ME	54 13	16		2			
		MN	54 27	14	1				F. 10h 05m
506	" 22	i(P)Z	10 41 43	6			-6		
		iZ	42 56	8			+6		
		e(S)NE	46 10	10					
		mNE	46 20	10	4	3			
		iN	47 33	10	+11				
		iN	48 25	9	+14				
		iE	48 29	8		+12			
		MN1	52 48	10	9				
		ME1	53 03	10		6			
		MZ1	53 37	13			4		
		MN2	54 21	10	8				
		MZ2	55 11	11			6		
		ME2	55 42	9		9			F. 12h 10m
507	" 22	eLEZ	15 19.7	20					
		MEZ	21.4	18		2	4		F. 15h 35m
508	" 22	eE	16 01 24	9					
		eN	03 15	14					
		eE	03 23	11					
		eLEZ	04.6	20					
		ME1	05 56	20		5			
		MN	06 05	14	4				
		MZ1	06 15	20			6		
		MEZ2	08.2	17		6	7		F. 16h 55m
509	" 22	iPEZ	22 56 49	8		-3	-5		
		iPPEZ	57 37	6		+4	-4		Similar to Nos. 499,500 & 502
		eLZ	23 04.1						
		eLE	04.2	28					
		MN1	05 17	16	11				
		MZ1	06 27	18			17		
		ME1	06 47	18		12			
		MN2	07 29	14	6				
		MEZ2	09.9	16		15	15		F. 00h 30m
510	" 23	eLZ	00 34.1	24					
		eLE	34.4	24					
		MNZ	35 53	20	3		7		
		ME	35 59	20		5			F. 01h 15m
511	" 23	eLEZ	03 50.7	20					
		ME1	55 29	14		2			
		MZ1	55 43	14			2		
		MZ2	04 00 51	18			3		
		ME2	01 15	18		3			
		MN	02 23	14	1				F. 04h 20m
512	" 23	eN	09 17.3	6					
		MN	23 08	12	2				
		MZ	25 54	13			2		F. 09h 30m
513	" 23	eLZ	17 33.4	20					
		ME	37 09	20		4			
		MZ	37 15	20			5		
		MN	37 31	20	4				F. 18h 00m
514	" 23	eZ	21 52 46	8					
		eN	57 26	16					
		ME	22 01 57	16		2			
		MZ	03 43	17			4		
		MN	04 07	16	3				F. 22h 20m
515	" 24	eN	15 08 48	12					
		eLNE	26.0	25					F. 15h 50m

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY
RIVERVIEW, N.S.W.

SEISMOLOGICAL BULLETIN

No.	Date	Phase	Time (G.M.T.)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1944		h m s	s	μ	μ	μ	km.	
516	Dec 24	eL_N	21 08.2	18					
		M_N	09 37	16	1				
		M_Z	09 53	16			2		
		M_E	09 56	16		1			F. 21h 20m
517	" 25	iP_Z	18 19 13	8			-5	2090	Dilatation
		i_{NE}	19 25	7	+4	+4		(18°8)	
		iS_{EZ}	22 38	10		+7	+8		
		i_N	22 41	10	+5				
		eL_N	23.6	22					
		eL_Z	23.8	22					
		eL_E	24.5	22					
		M_Z	25 33	18			5		
		M_E	25 55	18		4			
		M_N	26 01	14	3				F. 18h 55m
518	" 26	e_N	04 26.2	13					
		M_E	34.8	14		2			
		M_Z	35.2	16			2		
		M_N	35.6	16	1				F. 04h 50m
519	" 27	e_{NE}	03 16.2	15					
		eL_N	18.3	24					
		M_N	22 29	14	3				
		M_Z	23 26	18			4		
		M_E	23 30	18		3			F. 04h 05m
520	" 27	i_Z	06 18 22	6			+4		
		$e(L)_N$	25.3	18					
		M_N	29 12	13	2				
		M_E	29 27	14		2			
		M_Z	30 28	14			2		F. 06h 40m
521	" 27	eP_{NZ}	15 31 28					3000	
		iP_{NZ}	31 34	6	-16		+23	(27°0)	Compression.
		iPP_{NEZ}	32 10	11	+44	+6	-53		H 15 25 47
		i_{NZ}	33 05	7	+30		+24		
		iS_N	36 01	9	+31				
		i_E	36 07	10		-24			
		m_N	36 15	12	32				
		i_{NE}	36 29	11	-196	-68			
		i_Z	36 32	12			-152		
		i_N	36 54	12	+118				
		$e(L)_E$	37.6	22					
		eL_N	39.8	25					
		$ME1$	40 45	18		150			
		M_{Z1}	41 10	20			162		
		$MN1$	41 18	22	225x				x From Wiechert
		$MZ2$	42.1	15			215		
		$MN2$	42 47	15	240x				
		$ME2$	43.1	13		170			
		eW_{2N}	18 14.0	25					
		eW_{2Z}	14.5	25					
		M_Z	22 14	20			4		
		M_N	22 48	20	3				F. 18h 45m
522	" 27	M_E	20 05 32	16		1			A few waves
		M_Z	06 16	16			2		F. 20h 15m
523	" 27	eEZ	21 03.2	12					A few waves
		M_N	06.5	14	2				F. 21h 15m

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY
RIVERVIEW, N.S.W.

SEISMOLOGICAL BULLETIN

No.	Date	Phase	Time (G.M.T.) h m s	Per. s	Amplitude A_N μ	A_E μ	A_Z μ	Δ	Remarks
	1944							km.	
524	Dec28	iP_{NZ}	01 11 23	8	+10		-11	3010	Dilatation
		i_N	11 38	7	-36			(27°1)	Somewhat similar to No. 521
		i_Z	11 41	8			-64		
		i_Z	11 55	13			+50		
		i_N	12 04	15	+18				H 01 05 41
		iS_N	15 57	10	-31				
		i_N	16 20	10	-200				
		i_{EZ}	16 22	10		+33	+70		
		m_Z	16 44	20			89		
		eL_{NE}	18.7	25					
		M_{E1}	20 10	25		142			
		M_{N1}	21 06	25	173				
		M_{Z1}	21 22	24			102		
		M_{E2}	22 32	18		260			
		M_{N2}	23 14	16	116				
		M_{Z2}	23 26	15			130		
		M_{N3}	28 56	12	98				
		eW_{2Z}	03 55.3	22					
		M_N	59 39	22	1				
		M_Z	04 05 32	20			3		
		$e(W_3)_N$	22.8	30					
		M_N	23 40	28	5				
		M_Z	23 58	20			3		F. 04h 55m
525	" 28	e_E	09 11.2	8					
		M_E	13 28	13		2			
		M_N	13 46	16	1				
		M_Z	15 49	14			1		F. 09h 30m
526	" 28	e_N	13 26 34						
		eL_N	30.7	18					
		M_E	32 28	16		1			
		M_N	33 28	16	1				
		M_Z	33 54	15			2		F. 13h 50m
527	" 29	e_Z	12 32 10	6					
		eL_N	36.5	22					
		M_E	37 45	16		1			
		M_Z	38 17	18			2		
		M_N	38 41	18	2				F. 13h 05m
528	" 29	e_Z	14 22.4						
		eL_N	27.1	20					
		M_E	29 08	18		1			
		M_Z	29 48	18			2		
		M_N	29 56	18	1				F. 14h 40m
529	" 29	$e(P)_Z$	20 37 57						
		e_N	42 20	10					
		eL_{NE}	46.8	20					
		M_E	48 17	15		2			
		M_N	49 13	15	1				
		M_Z	49 23	15			2		F. 21h 05m
530	" 29	$(e)_N$	23 41.0						
		eL_{EZ}	46.0	22					
		M_E	53 39	19		2			
		M_Z	53 53	18			3		
		M_N	54 41	17	1				F. 00h 30m
531	" 30	eL_{EZ}	00 35.1	24					
		M_E	42 45	18		2			
		M_Z	43 06	18			3		
		M_N	43 39	18	2				F. 01h 10m

(Concluded on next sheet)

RIVERVIEW COLLEGE OBSERVATORY
RIVERVIEW, N.S.W.

SEISMOLOGICAL BULLETIN

No.	Date	Phase	Time (G.M.T.) h m s	Per. s	Amplitude AN μ	AE μ	AZ μ	Δ km.	Remarks
	1944								
532	Dec 30	i_E	02 30 40	6		+3			
		i_E	31 24	6		+4			
		e_N	31 31	13					
		i_E	31 54	10		+1[illegible]			
		m_{NE}	32 09	12	6	8			
		M_{NEZ}	34.9	13	11	8	11		F. $03^h\ 05^m$
533	" 30	e_N	08 49 59	14					
		e_Z	50 03	14					
		eL_{NZ}	54.2	20					
		M_E	54 33	16		2			
		M_Z	56 17	16			4		
		M_N	56 21	16	3				F. $09^h\ 20^m$
534	" 30	e_{NE}	22 32.1	12					
		e_{NE}	37.0	14					
		m_{NE}	37 19	17	3	5			
		eLQ_N	47.7	24					
		eLR_{EZ}	51.5	36					
		M_{N1}	54 21	26	9				
		M_{EZ1}	54 38	26		11	15		
		M_{N2}	57 45	20	5				
		M_{Z2}	23 01 00	1[illegible]			6		
		M_{E2}	03 44	18		5			F. $00^h\ 20^m$
535	" 31	eL_Z	12 27.5	18					A few waves obscured by heavy micro-seisms.
		F.	12 40						

D. J. K. O'CONNELL, S.J
Director,