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^2	V_s
N	1/3	206	8.0	6.9	0.003	4	12.8	12.9	-0.02	470
E	1/3	228	8.2	5.9	0.004	4	12.3	12.9	-0.09	440
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).								
	1945		h m s	s	μ	μ	μ	km.	
1	Jan. 2	e_E	04 15 51	12					
		e_N	16 00	12					
		eL_N	16.8	18					
		ME	20 20	14		3			
		MN	20 31	13	6				
		F	04 55						
2	" 2	ePZ	05 01 38	10					
		eE	01 51	10					
		eN	06 02	9					
		eLEZ	06.8	27					
		MNEZ	08.5	20	4	4	8		
		F	05 55						
3	" 2	eL_N	22 14.6	18					A few waves.
		F	22 20						
4	" 3	$i(S)_E$	06 47 50	8		+4			
		iE	49 17	8		+5			
		$e(L)_E$	50.8	16					
		ME	52 41	16		3			
		MN	52 47	15	5				
		F	07 15						
5	" 5	eL_Z	07 05.0	25					
		MEZ	13.5	17	2	2			
		F	07 25						
6	" 5	eL_Z	08 47.0	20					
		MZ	53 47	18			2		
		ME	54 09	18		1			
		F	09 05						
7	" 5	eL_Z	11 47.6	20					
		ME	50 58	18		2			
		MZ	56 09	18			4		
		MN	56 35	16	3				
		F	12 10						
8	" 6	e_N	00 34 13	12					Masked by micro-seisms.
		eNE	37 32	10					
		iE	37 38	10		+12			
		i_N	37 40	8	-6				
		$e(L)_N$	38.8	20					
		ME	45 10	16		4			
		MN	46 09	16	3				
		MZ	53 34	16			4		
		F	01 15						

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RIVERVIEW COLLEGE OBSERVATORY,

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1945		h m s	s	μ	μ	μ	km.	
9	Jan. 6	eLZ	10 18.0	25					
		MZ	23 14	18			4		
		ME	24 12	16		1			
		MN	24 40	16	1				
		F	10 55						
10	" 6	e(P)Z	21 17 14						
		i(PP)E	17 52	5		+2			
		e(S)NE	22 05	10					
		eZ	22 08	10					
		eN	22 56	12					
		eLZ	24.2	24					
		eLE	24.8	24					
		MN	25 52	15	5				
		ME	26 38	20		11			
		MZ	27 22	17			8		
		F	22 25						
11	" 7	eLE	04 00.9	18					
		MZ	03 08	18			2		
		ME	03 36	14		2			
		MN	03 48	12	1				
		F	04 15						
12	" 7	eLE	05 05.8	24					
		eLZ	06.1	24					
		ME	08 26	24		2			
		MZ	09 22	22			2		
		F	05 20						
13	" 7	e?Z	06 32 32	6					
		eE	37 54	10					
		eN	38 24	15					
		eLZ	39.8	20					
		MN	41 20	16	2				
		MZ	41 43	18			3		
		ME	42 14	18		3			
		F	07 20						
14	" 7	eE	11 25 02	8					
		eN	25 19	8					
		eZ	28 23	14					
		eLEZ	38.3	20					
		MEZ	40.3	16		1	2		
		MN	40 23	14	1				
		F	11 50						
15	" 7	eLE	15 52.6	18					
		MN	54 16	16	1				
		MZ	55 50	16			1		
		ME	56 20	15		1			
		F	16 10						
16	" 7	eN	18 44 14	12					
		eE	47 02	10					
		eN	47 49	12					
		eLNE	54.3	18					
		MZ	56 46	16			2		
		ME	57 53	16		2			
		MN	58 28	16	2				
		F	19 20						
17	" 7	eLE	21 00.3	20					
		MZ	01 16	17			2		
		ME	01 40	18		1			
		MN	03 04	12	1				
		F	21 15						
18	" 8	eN	01 46 15						
		eLN	51.5	18					
		ME	54 31	14		2			
		MNZ	55.9	14	2		2		
		F	02 10						

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RIVERVIEW COLLEGE OBSERVATORY,
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
	1945								
19	Jan. 8	eE	04 29 09						
		MNZ	32.5	18	2		2		
		F	04 40						
20	" 8	eZ	09 51.5						
		MZ	57 19	14			2		
		MN	58 25	14	2				
		F	10 05						
21	" 8	eZ	17 29.5						
		ME	39 31	15		1			
		F	17 45						
22	" 9	eNE	16 35 45						
		eL_{NE}	42.4	20					
		ME	43 09	20		4			
		MZ	46 01	20			4		
		MN	46 07	20	3				
		F	17 50						
23	" 9	ePZ	21 36 27	5			1	4460 (40°1)	H 21 28 53
		eE	36 31	5					
		$ePPEZ$	38 11	12					
		eN	38 22	10	1				
		eE	38 30	10		1			
		iS_N	42 31	8	-6				
		$iSEZ$	42 32	8		+4	-3		
		eN	45 39	14					
		iNZ	45 49	11	-12		-6		
		iE	45 56	10		-7			
		eLR_N	49.0	32					
		$eLRZ$	49.8	32					
		MN	50 47	20	6				
		ME_1	51 09	22		6			
		MZ	53 54	22			7		
		ME_2	54 19	18		6			
		F	22 25						
24	" 10	eZ	13 22.7						
		ME	24 41	16		2			
		MNZ	25.3	15	1		2		
		F	13 35						
25	" 11	$iPNEZ$	01 10 48	4	+3	+4	-8	2510ca	Dilatation.
		$i(pP)NEZ$	11 30	4	-3	-4	+5	(22°6)ca	Some evidence for a focal depth of 0.03
		iNE	11 38	6	-4	-6			
		iS_{NE}	14 35	5	-4	+5			
		iNE	14 42	5	+8	+9			
		iZ	14 46	6			-9		
		eN	14 56	14					
		iN	15 12	6	+6				
		MZ	17 53	14			3		
		ME	18 43	12		2			
		MN	20 11	12	2				
		F	01 40						
26	" 11	P?Z	10 45 19	6					Masked by micro-seisms.
		e(S)E	48 56	7					
		eLN	50.2	25					
		ME	51 24	11		2			
		MNZ	52 25	11	2		2		
		F	11 10						
27	" 11	e(P)E	20 01 13	8					
		$e(S)_{NE}$	05 44	9					
		eL_{NE}	08.3	16					
		MN_1	10 56	12	3				
		ME_1	11 49	12		5			
		MZ	12 20	18			5		
		MN_2	12 34	20	4				
		ME_2	13 53	18		4			
		F							

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RIVERVIEW COLLEGE OBSERVATORY, 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
	1945								
28	Jan. 12	iP_{NZ}	18 49 38	7	-4		+6	7980	Compression.
		iNZ	49 42	7	+7		-19	(71°8)	
		iPP_N	52 18	12	+10				
		eNE	52 58	14					
		iS_N	58 54	9	-8				
		iE	58 57	10		-15			
		iN	59 47	12	+9				
		iE	59 49	12		+8			
		eLQ_E	19 09.1	34					
		eLR_{NZ}	12.6	32					
		ME_1	16 08	16		9			
		MZ_1	16 22	24			14		
		MN1	16 55	21	16				
		MZ_2	20 02	18			12		
		MN_2	20 24	17	12				
		ME_2	21 34	17		9			
	W_2	MZ	21 12 22	20			4		
		MN	16 50	24	3				
		F	21 55						
29	" 13	eLN	05 55.1	20					
		MEZ	57.5	15		1	2		
		MN	57.6	15	2				
		F	06 05						
	" 13		05 57 21	½	½				Explosions. On N-S Wiechert only.
			06 59.0	½	½				
			07 18.0	½	½				
30	" 13	e?Z	08 23.0						
		eEZ	29 36	8					
		eE	30 39	10					
		eLN	38.2	22					
		eLEZ	39.2	26					
		MN1	40 56	24	13				
		MEZ_1	41.5	22		15	19		
		MEZ_2	43 58	16		15	14		
		F	09 55						
31	" 13	iPNEZ	L2 05 57	6	-3½	+2	+6	5420	Compression.
		iZ	06 14	7			+5	(48°8)	H 11 57 13
		iPP_{NZ}	07 50	8	-5		+10		
		iPP_E	07 52	6		+3			
		iZ	08 07	6			+8		
		iS_E	12 56	8		-4			
		iS_N	12 59	8	-6				
		mN	13 07	10	5				
		iPS_E	13 14	10		+6			
		$iScS_{NE}$	15 50	8	+6	+7			
		iSS_N	16 23	11	+9				
		iSS_Z	16 24	10			+8		
		i_E	16 30	9		+7			
		MZ	25 32	18			9		
		ME	26 55	18		8			
		MN	27 36	20	15				
		F	13 50						
32	" 13	eLN	22 30.5	16					
		MNZ	31.7	16	1		2		
		ME	31 50	16		1			
		F	22 50						
	" 14		02 04 24	½	½				Explosions. On N-S Wiechert only.
			02 18 02	½	½				
			05 20 37	½	½				

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RIVERVIEW COLLEGE OBSERVATORY,

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1945		h m s	s	μ	μ	μ	km.	
33	Jan.16	eZ	13 35.8	6					
		eL_Z	42.6	22					
		MN	44 11	18	2				
		MZ	44 15	18			6		
		ME	44 21	18		4			
		F	Merged in No.34						
34	" 16	$e(S)_E$	13 56 58	8					Preliminaries obscured by No.33
		iN	57 00	8	+4				
		iE	57 04	8		-11			
		eE	57 55	12					
		mE	58 13	12		3			
		$eL(Q)_E$	14 07.4	28					
		eLR_N	10.8	24					
		ME	14 53	18		5			
		MN	15 30	20	4				
		MZ	15 43	18			5		
		F	15 05						
35	" 16	eZ	16 35 05						
		eL_Z	42.1	24					
		MZ	43 35	20			5		
		ME	44 16	18		3			
		MN	44 37	16	2				
		F	17 05						
36	" 17	e	11 14.0						
		F	11 25						
37	" 17	$i(P)_Z$	15 08 52	4			+4		Compression.
		$e(PP)_Z$	10 16	7?					
		eS_N	14 30	8	1				
		iS_{NE}	14 35	10	-7	+8			
		mE	14 48	12		5			
		$i(SS)_{NZ}$	17 17	12	+10		+10		
		eL_N	21.2	24					
		MN_1	22 39	20	14				
		MZ_1	23 46	25			12		
		ME	24 09	23		18			
		MN_2	25 37	16	19				
		MZ_2	25 49	16			19		
		F	17 00						
38	" 18	eE	04 12 27	14					
		eL_N	16.5	24					
		ME	19 54	20		2			
		MN	21 19	14	1				
		MZ	21 25	17			3		
		F	04 35						
39	" 19	eN	19 07.4	10					
		eNE	12.8	13					
		MZ	18.6	15			2		
		MN	18.8	14	2				
		F	19 30						
40	" 20	$e(P)_Z$	16 10 13	6					
		eZ	12 33	6					
		eN	19 42	12					
		eL_E	22.2	20					
		MNEZ	25.2	15	7	4	5		
		F	17 10						
41	" 23	eN	06 05 50						Obscured by heavy microseisms.
		MNE	08.8	14	6	5			
		MZ	09 22	14			5		
		F	06 25						
42	" 24	e	09 39.2						A few small waves.
		F	09 45						
43	" 24	$e(L)_Z$	20 45.6						A few small waves.

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RIVERVIEW COLLEGE OBSERVATORY

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1945		h m s	s	μ	μ	μ	km.	
44	Jan.25	i_N	01 26 57	8	+4				Masked by heavy microseisms.
		ME	28 19	15		2			
		MZ	32 07	17			2		
		F	01 35						
45	" 27	$e(S)_N$	19 21 04	14	2				Masked by heavy microseisms.
		MN	35 24	18	4				
		MZ	44 17	18			6		
		F	20 00						
46	" 28	eL_N	07 42.6	26					Masked by heavy microseisms. EW readings from Wiechert.
		ME	44 17	15		30			
		MZ	44 31	15			7		
		MN	44 38	14	18				
		F	08 45						
47	" 28	eN	20 10.7	16?					Masked by large microseisms.
		eN	15.5	12					
		eL_{NZ}	26.1	30					
		MN	30.2	20	3				
		MZ	30.5	20			3		
		F	21 10						
48	" 29	ePZ	21 09 23	4				5120	
		$ipPZ$	09 32	4			+5	(46°1)	
		eS_N	16 06	9					
		ePS_N	16 18	16					
		i_N	19 52	10	+6				
		eE	20 06	16					EW readings from Wiechert.
		i_N	20 21	10	+11				
		MN_1	27 26	20	6				
		MZ	29 38	18			6		
		MN_2	29 43	18	9				
		ME	30 51	18		6			
		F	22 15						
49	" 30	eL	02 40.1	20					A few long waves.
		F	02 45						
50	" 30	iP_{NZ}	03 13 21	4	-2		+4		Compression.
		$e(S)_N$	19 49	12					
		$i(SS)_N$	23 19	9	+4				
		$i(SS)_Z$	23 20	6			+4		
		MN	34 12	20	2				
		MZ	34 22	20			4		
		ME	35 08	16		5			
		F	04 00						
51	" 30	MNZ	07 46 26	12	3				NS & EW readings from Wiechert.
		ME	46 47	12		3			
		F	07 55						

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	s : 1	$\frac{r}{T_o^2}$		T_1 (Galv.)	T (Pend)	μ^2	V_s
N	1 3	203	8.0	6.6	0.002	4	12.8	12.9	-0.02	470
E	1 3	216	8.2	5.7	0.006	4	12.3	12.9	-0.09	440
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).								
	1945		h m s	s	″	″	μ	km.	
52	Feb. 1	iPNEZ	10 29 27	5	+7	+12	-9	2360	Dilatation.
		iS_{NE}	33 12	8	-8	+10		(21°2)	Perhaps deeper than
		iZ	33 18	8			-15		normal.
		iN	33 28	8	+17				Preceded by heavy
		iE	33 39	8		-13			microseisms.
		iN	33 42	9	+16				
		iZ	33 44	9			+17		
		eL_Z	34.5	18					
		ME	36 21	16		6			
		MZ	36 49	17			7		
		MN	36 56	14	7				
		F	Lost in No. 53.						
53	" 1	iP_{EZ}	10 40 27	6		-25	+19	2450ca.	Compression.
		$iNEZ$	40 34	6	-23	-34	+41	(22°ca)	Slightly deeper
		iPPNE	40 59	6	+31	+34			than normal.
		iN	41 36	5	+22				
		iE	44 17	5		+13			
		iS_N	44 20	8	-35				
		$iPcP_E$	44 24	6		-61			
		$i(SS)_N$	44 42	8	+40				
		eL_{EZ}	45.3	26					
		ME	47 20	18		61			
		MZ	47 45	16			55		
		MN	48 04	13	43				
		F	Lost in No. 54.						
54	" 1	iP_{EZ}	12 18 15	4		+8	-11	2450ca.	Dilatation.
		iP_{NEZ}	18 17	6	-26	-48	+54	(22°ca)	Compression.
		$i(pP)_Z$	18 30	7			+87		h 0.01 ca.
		iPPNE	18 48	6	-30	-56			
		iZ	19 17	7			+23		
		iE	19 21	6		-17			
		iS_{EZ}	22 06	5		+39	+52		
		$iPcP_{NE}$	22 14	7	+113	-114			
		mZ	22 22	10			79		
		iSS_E	22 48	12		-70			
		$iSSS_N$	23 03	12	+113				
		eL_E	23.1	25					
		MZ_1	23 37	25			186		
		Me_1	23 43	20		110			
		MN	26 40	13	60				
		MZ_2	27 48	14			35		
		ME_2MZ_3	32 02	13		54	54		F 14h 50m.

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RIVERVIEW COLLEGE OBSERVATORY
SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per	Amplitude			Δ	Remarks
					A_N	A_E	A_Z		
	1945		h m s	s	μ	μ	μ	km.	
55	Feb. 3	eZ	00 19.7						
		eLZ	28.1	20					
		MZ	33 43	18			4		
		F	00 50						
56	" 3	iP_Z	05 38 14	6			+5	2500 (22°5)	Compression.
		iPPE	38 40	6		+4			
		iS_{NZ}	42 14	7	+4		+5		
		eL_E	43.0	22					
		MZ	44 33	18			3		
		MN	46 24	12	2				
		F	06 20						
57	" 3	iP_{NEZ}	15 04 36	6	+4	+6	-6	2340 (21°0)	Dilatation.
		ipP_{NEZ}	04 44	6	+4	+10	-10		
		$iPPP_{EZ}$	05 09	6		+6	-6		
		iS_N	08 23	7	+3				
		$i(PcP)_{EZ}$	08 30	6		+7	-10		
		eL_E	10.6	22					
		MEZ	12.2	16		4	5		
		MN	12.19	14	5				
		F	15 50						
58	" 3	eP_E	19 06 08	6		1		2340 (21°0)	
		ePZ	06 12	6			2		
		ipP_E	06 16	6		+5			
		eS_N	09 55	7	1				
		$i(PcP)_E$	10 03	6		+4			
		$i(PcP)_Z$	10 04	6			-4		
		eL_Z	12.2	18					
		MEZ	13.7	16		2	3		
		MN	14 06	13	2				
		F	19 45						
59	" 4	$e(P)_Z$	22 57 24	8					
		$i(S)_E$	23 01 16	8		+13			
		iZ	01 18	6			+4		
		eL_N	02.2	22					
		MNE	03 15	20	8	6			
		MZ	03 58	17			4		
		F	23 40						
60	" 5	eN	02 54 51						
		eL_Z	56.6	22					
		MN	58 54	16	1				
		ME	59 05	16		2			
		MZ	59 15	18			3		
		F	03 15						
61	" 6	$e(S)_{NE}$	05 14 49	12					
		$i(SS)_{NE}$	18 05	10	+9	+9			
		ME	26 31	16		3			
		MZ	27 29	18			4		
		MN	29 39	15	3				
		F	05 45						
62	" 7	eP_{EZ}	23 54 17	8					
		iE	54 55	8		+7			
		$i(S)_Z$	59 16	8			+6		
		eL_{EZ}	00 01.3	25					
		MN	02 47	16	6				
		MEZ	03.2	18		7	11		
		F	01 05						
63	" 8	iP_{NEZ}	13 59 33	6	-4	-6	+9	2410 (21°7)	Compression. h 0.01 ca. H 13 54 49
		iNEZ	59 36	6	+8	+18	-18		
		ipP_E	59 51	6		+13			
		iPP_{NE}	14 00 01	7	-9	-10			
		iS_{NZ}	03 23	7	+13		+8		
		iE	03 26	5		-8			
		$i(PcP)_Z$	03 29	8			-21		
		$sS?_Z$	03 56	8			15		
		$i(SS)_{NZ}$	04 13	6	+14		-8		
		eL_E	05.5	20					
		$i(PcS)_{NE}$	07 29	7	+26	+28			

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY
SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1945		h m s	s	μ	μ	μ	km.	
63	Feb. 8	iZ	14 07 35.	7			-40		
cont.		MZ	08 57	25			65		
		ME	09 29	18		27			
		MN1	10 28	13	16				
		MN2	12 22	13	19				
		F	14 10						
64	" 8	e_E	17 59.5						
		eL_Z	18 01.5	22					
		MN	02 05	20	2				
		MEZ	02.8	20		2	2		
		F	18 25						
65	" 8	e_Z	23 47.8						
		eL_N	48.8	22					
		MN	50 13	18	2				
		MZ	51 47	17			2		
		F	00 10						
66	~~8~~ " 10	iP_N	05 09 37	10	-6			8390	h 0.01
		$i(PcP)_N$	09 54	16	+14			(75°5)	H 04 58 03
		iS_{NE}	19 08	11	-34	-39			
		$iSKS_E$	19 38	8		-56			
		isS_E	19 49	7		+60			
		$iPPS_E$	20 18	9		-29			
		iSS_N	24 11	20	-50				
		eLQ_E	29.6	45					
		eLR_N	32.3	29					
		MN1	35 48	26	86				
		MN2	38 10	22	125				
		ME	39 16	22		91			
		F	09 20						
67	" 11	e_N	11 46.2						
		eL_N	51.3	18					
		MEZ	53.9	17		2	2		
		F	12 10						
68	" 11	eNE	19 42 45						
		eLZ	46.7	18					
		F	19 55						
69	" 11	eL_N	21 17.6	17					
		MZ	19 47	16			2		
		ME	19 54	16		1			
		F	Merged in No.70						
70	~~"~~ 11	MN	21 35 29	16	2				
		MZ	35 35	18			2		
		ME	36 47	18		2			
		F	21 55						
71	" 12	e_N	06 09 11	10					
		ME	11 19	14		1			
		MZ	12 57	10			1		
		F	06 20						
72	" 12	MZ	17 13 51	25					Shallow waves.
		F	17 20						
73	" 13	eL_E	09 45.5	18					Heavy microseisms.
		MEZ	46 37	13		4	2		
		MN	46 50	13	3				
		F	10 05						
74	" 13	$eL?_N$	12 44.3	50?					
		MZ	56 48	25			7		
		MN	13 00.0	20	2				
		ME	01.3	20		3			
		F	13 20						
75	" 14	eL_Z	14 42.1	20					
		MN	44 15	16	1				
		MZ	44 36	17			2		
		F	14 55						

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY
SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1945		h m s	s	μ	μ	μ	km.	
76	Feb.14	$i(P)_E$	23 39 57	4		+4			
		eZ	40 01	8					
		$e(PP)_Z$	40 30	7					
		$e(SS)_N$	44 41	12					
		eL_E	45.5	22					
		eL_Z	46.4	26					
		MN	48 25	17	5				
		MZ	48 34	20			11		
		ME	48 39	18		8			
		iE	49 52	10		-30			
		F	00 50						
77	" 15	$i(S)_N$	02 00 10	7	+4				
		eL_EZ	03.0	22					
		MEZ	04.5	20		4	5		
		MN	05 00	14	2				
		F	02 25						
78	" 16	MNE	21 25.9	12	1	1			A few waves.
		F	21 30						
79	" 17	$e(P)_Z$	18 48 10						
		$i(PP)_E$	48 58	5		+4			
		$e(S)_E$	53 06	12					
		mE	53 28	14		2			
		eLR_EZ	55.7	25					
		MN	58 06	14	4				
		MZ	58 28	17			9		
		ME	58 49	17		7			
		F	20 10						
80	" 18	eL_E	05 20.8	17					Masked by micro-seisms.
		MZ	24.5	14			2		
		F	05 30						
81	" 18	eL_Z	07 46.1	25					
		MZ	47 51	20			2		
		ME	48 18	20		2			
		F	08 10						
82	" 18	iP_{NZ}	10 19 51	10	-4		+10	8340	Compression.
		$iPcP_Z$	20 02	8			+6	(75°0)	h 0.01 ca.
		iS_E	29 19	10		-9			H 10 08 19
		iS_N	29 21	10	-4				
		$iSKS_{NE}$	29 42	14	+11	+15			
		isS_E	30 01	9		+7			
		eE	33 59	15					
		$e(SS)_N$	34 17	16					
		eLQ_E	39.7	24					
		eLR_{NZ}	42.3	25					
		MN	46 32	22	12				
		MZ_1	46 38	24			16		
		MZ_2	49 04	24			24		
		ME	49 21	19		14			
		eW_2N	12 36.7	20					
		eW_2Z	39.6	24					
		(MN)	42 48	22	4				
		(MZ)	42 54	24			7		
		F	Merged in No.83						
83	" 18	ePE_Z	13 16 10	12				3170	
		iPPE	17 00	12		+9		(28°5)	
		iZ	17 05	12			+10		
		eS_N	20 50	12					
		i_N	21 00	12	+9				
		i_E	21 38	14		+16			
		i_N	22 42	13	+12				
		eLR_Z	23.6	28					
		MN, MZ_1	26.2	17	25		26		
		ME_1	26 20	17		20			
		MZ_2	27 38	16			26		
		ME_2	27 59	16		22			
		F	15 30						

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY
SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1945		h m s	s	μ	μ	μ	km.	
84	Feb.18	e_E	15 48.5	8					
		e_N	49 10	10					
		MN	54 13	14	1				
		ME	56 01	16		1			
		MZ	56 44	16			3		
		F	16 10						
85	" 18	eL_{EZ}	17 42.3	24					
		MN	43 56	15	2				
		MEZ	44 36	16		2	3		
		F	18 05						
86	" 18	e_E	22 55.4	11					
		e_E	59.2	12					
		$e(L)_N$	23 00.4	16					
		eL_{EZ}	02.3	24					
		MN	03 58	16	7				
		MEZ	05.8	18		11	12		
		F	00 20						
87	" 19	eL_N	09 18.5	20?					
		MEZ	21.5	20		3	4		
		MN	22 09	16	2				
		F	10 00						
88	" 19	$e(P)_Z$	14 59 50	8					
		e_E	15 04 16	10					
		eL_N	05.0	20					
		eL_Z	06.6	20					
		MZ	08 43	18			4		
		MN	08 57	16	4				
		ME	09 09	20		4			
		F	16 05						
89	" 20	eL_E	06 51.0	15					
		ME	53 23	13		1			
		F	07 00						
90	" 20	eL_Z	17 24.2	20					
		MN	25 32	20	2				
		MZ	25 53	20			3		
		F	17 35						
91	" 20	e_N	22 13 01	10					
		e_{NE}	16 17	10					
		eL_E	24.1	20					
		ME	26 52	20		2			
		MN	27 02	20	2				
		MZ	27 14	20			3		
		F	22 40						
92	" 21	MZ	09 40.1	20			2		A few long waves.
		F	09 50						
93	" 22	e_N	08 36.9						
		MEZ	40.7	15		2	2		
		F	08 50						
94	" 22	e_N	11 45 40	13					
		eL_{EZ}	47.0	22					
		ME	48 56	18		4			
		MN	49 04	16	3				
		MZ	49 11	18			5		
		F	12 20						
95	" 22	e_E	21 20.5						
		MEZ	25.0	16		2	3		
		F	21 35						
96	" 22	eL_N	22 11.4	20					
		MZ	13 40	15			1		
		F	22 20						
97	" 23	eL_E	03 47.1	18					
		MZ	49 22	18			2		
		ME	49 27	13		2			
		MN	49 54	16	1				
		F	04 05						

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RIVERVIEW COLLEGE OBSERVATORY
SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per.	Amplitude			Δ	Remarks
					A_N	A_E	A_Z		
	1945		h m s	s	μ	μ	μ	km.	
98	Feb.26	$e(P)_Z$	09 49 17	7					
		iS_{NZ}	53 08	10	+6		+5		
		$i(sS)_N$	53 21	10	+6				
		eL_Z	54.6	18					
		MZ	56 12	17			3		
		MN	56 42	14	1				
		F	10 15						
99	" 26	$e(P)_Z$	16 04 57	7					Replica of No.98
		iS_{NZ}	08 48	9	+6		+4		
		$i(sS)_N$	09 00	9	+6				
		eL_Z	10.3	18					
		MZ	11 55	17			3		
		MN	12 21	15	1				
		F	16 55						
100	" 26	iP_{NZ}	22 24 32	8	+3		-6	6790	Dilatation.
		ipP_N	24 43	9	+9			(61°1)	H 22 14 19
		$iPcP_{NZ}$	25 20	6	+7		-10		
		iS_{NE}	32 50	8	+12	+2			EW readings from
		i_N	32 57	9	+17				Wiechert.
		iPS_{NZ}	33 12	10	+18		+15		
		i_E	33 20	8		-6			
		i_N	33 35	9	+24				
		eL_E	41.4	35					
		eLR_N	42.3	26					
		ME	42 56	24		66			
		MN	45 47	28	44				
		MZ	46 04	26			37		
		eW_2ME	00 53.8	25					
		F	01 30						
101	" 27	eZ	04 31.2						
		MZ	33 53	12			1		
		F	04 40						
102	" 27	eNE	05 10 32						Small local shock.
		iNE	10 40	1	-½	-1			Readings from Wiech-
		F	05 11.0						ert.
103	" 27	iP_Z	13 16 57	4			+4	2720	Compression.
		iNE	17 00	4	+4	+5		(24°5)	
		eS_N	21 12						
		iEZ	21 35	6		+9	+5		
		i_N	21 47	10	-4				
		eSS_E	22 13	12					
		eLR_N	23.2	20					
		MN	24 49	15	9				
		MEZ	25.1	18		9	8		
		F	14 10						
104	" 27	eL_Z	21 23.3						
		MNZ	27.0	14	1		2		
		ME	27.1	14		2			
		F	21 40						
105	" 28	eN	11 57.0						Masked by heavy
		MZ	58 36	16			3		microseisms.
		ME	58 44	14		3			
		MN	12 00 15	15	2				
		F	12 10						
106	" 28	oN	13 31 18	8					masked by micro-
		eLNZ	33.1	22					seisms.
		MZ	34 04	20			4		
		ME	35 26	11		5			
		MN	35 40	11	3				
		F	13 55						
107	" 28	eN	17 44.7	10					Masked by micro-
		$e(L)_E$	46.5	16					seisms.
		MN	49 43	16	1				
		MZ	51 28	16			2		
		F	18 00						

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^3	V_s
N	1 3	202	7.9	6.0	0.003	4	12.8	12.9	-0.02	470
E	1 3	219	8.1	5.7	0.005	4	12.3	12.9	-0.09	440
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).								
	1945		h m s	s	μ	μ	μ	km.	
108	Mar. 1	$e(L)_Z$	02 51.8	20					
		MZ	59 55	18			3		
		ME	03 00 34	17		2			
		F	03 10						
109	" 2	e_N	11 40.7						
		eL_{EZ}	50.7	22					
		MN	54 09	18	2				
		MEZ	54.7	22		3	5		
		F	12 20						
110	" 2	i_{NE}	19 51 12	6	+6	+4			Deep focus.
		i_E	58 24	9		+4			Phases cannot be
		i_N	59 18	7	-4				identified.
		i_E	20 02 24	8		+4			
		F	20 10						
111	" 5	$i?_N$	12 25 43	6	+7				Heavy microseisms
		eL_N	31.9	18					present.
		ME_1	35 34	18		8			
		MZ_1	35 48	20			12		
		MN	36 26	12	6				
		MEZ_2	37.5	17		10	12		
		F	13 25						
112	" 6	MNZ	17 01.2	16	2		3		
		ME	06 39	14		1			
		F	17 25						
113	" 8	$i?_{NZ}$	13 20 21	4	+3		+4		Perhaps only a
		e_E	31 55	8		2			large microseism.
		MNEZ	35.7	14	3	3	4		
		F	13 45						
114	" 10	iP_Z	00 50 33	5			-3	4710	Dilatation.
		$ipPE_Z$	50 56	5		+6	+13	(42°4)	h 0.01
		$iPPE_Z$	52 13	6		+6	+7		H 00 42 40
		$iPcPN_Z$	52 19	6	+4		-6		
		iS_{NE}	56 47	8	-12	+8			
		iSS_Z	59 54	10					
		i_E	59 59	8		+10			
		i_N	01 00 01	8	+12				
		$iScS_E$	00 09	8		-22			
		eL_Z	05.1	30					
		MZ	07 23	26			26		
		MN	07 32	26	22				
		ME	07 47	24		15			
		F	01 55						

(Continued on next sheet)

1945, March.

RIVERVIEW COLLEGE OBSERVATORY,
SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.) h m s	Per. s	Amplitude AN μ	AE μ	AZ μ	Δ km.	Remarks
	1945								
115	Mar. 11	ePZ	17 53 14					5010	
		iP$_{NEZ}$	53 18	3	-4	+3	+9	(45°1)	Compression.
		iE	53 57	5		+4			h 0.01
		iNZ	53 59	5	-4		+7		H 17 45 06
		iS$_N$	59 45	10	-15				
		mN	18 00 11	15	6				
		iScS$_N$	02 57	10?	10?				
		iSS$_E$	03 03	8		-13			
		iSS$_N$	03 05	8	+18				
		eL$_E$	09.7	24					
		eL$_N$	11.1	26					
		MEZ	13.9	20		13	12		
		MN	14 03	20	11				
		F	18 55						
116	" 11	iPZ	21 49 14	4			+4	8000	Compression.
		iN	49 18	4	+4			(72°0)	H 21 37 52
		iZ	49 24	8			+11		
		iS$_N$	58 32	8	-8				
		iS$_E$	58 35	10		-8			
		iE	58 56	8		+7			
		eN	59 11	15					
		iN	59 27	15	+14				
		eL$_E$	22 07.9	24					
		ME$_1$	10 52	19		6			
		MNZ	15.8	19	8		9		
		ME$_2$	16 13	18		7			
		F	00 50						
117	" 12	eN	08 39.4						
		MN	43 26	14	2				
		ME	44 27	14		1			
		F	08 50						
118	" 13	e?$_N$	05 00 08						
		i(S)$_{NZ}$	04 31	10	+10		+5		
		iE	04 33	8		+6			
		eL$_E$	06.2	22					
		MN	07 21	16	2				
		MZ	07 31	20			4		
		ME	07 37	18		2			
		F	05 40						
119	" 13	ME	12 37 17	12		1			
		MN	38 13	12	1				
		F	12 45						
	" 14		05 00.9	Very	small	local	shock		(or, perhaps, explosion). On Wiechert only.
120	" 15	eN	09 17 38	14					
		MN	19 16	16	3				
		eL$_{EZ}$	19.3	24					
		ME	20 24	24		4			
		MZ	20 55	20			5		
		F	09 30						
121	" 16	eNE	04 46.7						
		F	04 55						
122	" 16	ME	05 59 37	13		2			
		F	06 00						
123	" 18	ePZ	00 26 38	6				2710ca	
		iPEZ	26 43	8		+10	-11	(24°4)ca	Dilatation.
		ipPEZ	27 00	8		-8	+19		h 0.01 ca.
		i(PP)$_{NE}$	27 10	6	+5	-10			
		iN	27 24	6	+8				
		iZ	27 33	6			+12		
		iN	27 38	6	+8				
		iE	27 40	10		+19			
		iN	29 04	7	+9				
		i(S)$_E$	30 48	8		-9			
		iZ	31 06	12			+11		
		i(SS)$_{NE}$	31 39	8	+24	+18			
		eL$_E$	32.6	28					

Continued on next sheet.

RIVERVIEW COLLEGE OBSERVATORY,
SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per.	Amplitude			Δ	Remarks
					A_N	A_E	A_Z		
	1945		h m s	s	μ	μ	μ	km.	
123 cont.	Mar. 18	eL_{NZ}	00 32.9	30					
		ME_1	34 00	20		23			
		MZ	34 14	22			46		
		MN	34 42	18	19				
		ME_2	35 18	17		24			
		F	02 35						
124	" 18	e_N	08 55 58	9					
		eL_Z	09 01.2	20					
		MNEZ	03.8	20	3	3	5		
		F	09 30						
125	" 18	iP_{EZ}	16 13 14	6		-4	+2		Compression.
		i_N	16 08	8	+5				
		eN	17 52	9					
		i_N	18 31	8	+8				
		i_Z	18 38	8			+8		
		MN	19 53	13	2				
		MZ	22 07	12			2		
		F	16 35						
126	" 19	i_N	19 42 38	6	-6				Heavy microseisms.
		F	19 50 ca						
127	" 19	eZ	20 38 28						Heavy microseisms.
		e_E	41 27	9					
		i_N	41 38	9	+6				
		MZ	42 54	14			4		
		F	20 50						
128	" 20	eN	09 04.5						Masked by heavy microseisms.
		eL_E	06.2	24					
		eL_N	07.5	25					
		MNZ_1	12 06	20	4		6		
		ME	12 16	20		6			
		MZ_2	18 52	18			6		
		F	09 45						
129	" 21	e_N	12 29.9						
		eL_Z	32.8	18					
		MN	33 30	14	3				
		MEZ	35.5	16		2	3		
		F	13 05						
130	" 23	e_E	02 24 34	12					Masked by very heavy microseisms.
		i_{NE}	24 46	12	+8	+9			
		MZ	28 11	16			5		
		F	02 40 ca.						
131	" 23	eP_N	23 20 03	10				3980 (27°7)	
		eP_Z	20 06	10					
		iP_{NZ}	20 10	12	-28		-30		Dilatation.
		iPP_{NZ}	20 49	8	-26		-20		
		i_N	21 17	8	-46				
		iS_E	24 41	8		-25			
		i_N	24 58	8	+25				
		$i(sS)_E$	25 03	12		-127			
		i_N	25 14	10	+22				
		$e(LQ)_E$	25.4	22					
		iSS_E	25 59	16		-193			
		i_N	26 09	16	+110				
		$iSSS_E$	26 17	15		-340			
		eLR_{NZ}	27.0	24					
		MNZ_1	27.7	21	254		174		
		ME, MZ_2	29 06	11		140	124		
		MN_2	30 02	12	144				
	" 24	eW_2	02 02.0	26					
		MZ	04 20	26			11		
		MN	04 28	26	7				
		F	02 45						
132	" 24	e_N	12 00.7						
		eL_N	05.7	18					
		F	12 10						

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RIVERVIEW COLLEGE OBSERVATORY, SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1945		h m s	s	μ	μ	μ	km.	
133	Mar.28	iP_{NZ}	13 09 08	9	+4		-6	3240	Dilatation.
		iS_N	13 56	13	+20			(29°1)	
		iZ	14 22	8			-11		
		i_N	14 46	10	+46				
		iZ	14 47	10			-19		
		eLRE	17.2	30					
		eLR_Z	18.0	32					
		ME	19 57	16		38			
		MZ	20 49	18			46		
		MN	20 57	20	57				
		F	14 30						
134	" 29	iPEZ	09 00 08	5		+4	-5		Dilatation.
		$i(S)_N$	04 18	10	+6				
		iE	04 33	8		-5			
		$e(L)_Z$	04.5	22					
		MN	06 16	14	2				
		MZ	06 50	14			1		
		ME	09 41	14		1			
		F	09 20						
135	" 30	e_N	04 58.4						Masked by heavy microseisms.
		eLE	05 02.5	22					
		F	05 10						
136	" 30	e_N	11 25.7						Masked by heavy microseisms.
		MN	28 11	16	4				
		F	11 40						
137	" 30	eL_E	14 33.4	20					Masked by heavy microseisms.
		MZ	34.1	20			5		
		ME	35.5	18		4			
		F	14 40						
138	" 31	iPZ	06 54 04	5			+9	4920	Compression.
		iNEZ	54 11	6	+10	-6	-10	(44°3)	H 06 45 56
		iPPZ	55 52	6			+8		
		iS_N	07 00 35	10	+13				Heavy microseisms.
		iS_E	00 37	10		+6			
		i_N	00 42	10	+13				
		mNE	01 00	13	6	6			
		$iScS_E$	03 53	8		-13			
		$iScS_N$	03 54	8	+10				
		iE	03 59	10		+19			
		i_N	04 03	10	+19				
		$iSSS_E$	04 37	12		+26			
		eLRE	06.6	25					
		ME	10 45	18		11			
		MZ	12 41	18			11		
		MN	12 47	20	13				
		F	08 00ca.						
139	" 31	eE	21 48 11	9					
		e_N	48 33	15					
		eL_N	50.8	24					
		ME	51 50	26		16			
		MZ	54 11	20			10		
		MN	54 15	20	12				
		F	22 10						
140	" 31	eLNE	23 05.2	30					
		ME	10 04	22		8			
		F	23 25						

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_i (Galv.)	T (Pend)	μ^2	V_s
N	1 3	202	7.9	5.3	0.007	4	12.8	12.9	-0.02	470
E	1 3	219	8.1	5.7	0.005	4	12.3	12.9	-0.09	440
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).								
	1945		h m s	s	μ	μ	μ	km.	
141	Apr. 1	iPZ	00 49 24	5			-7	3010 (27°1)	Dilatation.
		ipPE	49 49	5		+9			h 0.015
		iZ	50 10	5			-14		H 00 43 52
		iSN	53 51	6	+8				Heavy microseisms.
	SS	iSE	54 39	6		+6			
		iE	54 50	10		+9			
		iN	54 51	12	+11				
		F	01 05 ca						
142	" 1	MEZ	09 21.1	22		7	5		Masked by heavy microseisms.
		F	09 30						
143	" 1	eN	15 20.1	12					
		MN	21 21	12	2				Masked by heavy microseisms.
		ME	22 21	12		2			
		F	15 30						
144	" 2	eNE	00 54.0	8					Masked by microseisms.
		iN	54 10	10	+9				
		iE	55 01	12		+8			
		eLN	55.1	24					
		MN	59 12	14	6				
		ME	59 47	11		11			
		F	01 15						
145	" 5	i(P)Z	23 13 23	4			+7		Compression.
		eN	18 10						NS & EW readings from Wiechert.
		ME	21 15	16		5			
		MN	22 00	16	6				
		F	23 30						
146	" 8	eLZ	01 10.2	24					Masked by very heavy microseisms.
		MZ	11 33	18			13		
		ME	11 54	18		11			
		MN	12 17	18	11				
		F	01 35						
147	" 10	eNE	01 43 33	8	2	2			S or SKS ?
		eLE	54.8	32					Masked by microseisms.
		ME	02 03 40	20		6			
		MNZ	04.1	20	8		9		
		F	02 25						
148	" 10	eZ	16 26.3						Masked by microseisms.
		eN	34.9	12?					
		eN	35.4	25					
		eZ	42.8	18					
		ME	51 16	22		8			
		MNZ	52.7	22	9		12		
		F	17 15						

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RIVERVIEW COLLEGE OBSERVATORY,
SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per.	Amplitude			Δ	Remarks
					A_N	A_E	A_Z		
	1945		h m s	s	μ	μ	μ	km.	
149	Apr. 11	i_N	08 53 20	12	+7				Preceded by heavy microseisms.
		eL_N	57.7	18					
		MZ	59 17	18			6		
		ME	59 21	18		8			
		F	09 20						
150	" 11	$i(P)_Z$	15 23 49	5			+8		Compression.
		i_Z	25 09	6			+6		Preceded by heavy
		i_E	28 47	8		+8			microseisms.
		eL_{EZ}	31.4	24					
		MN	32 37	14	11				
		ME_1	33 40	16		20			
		MZ_1	34 28	16			30		
		ME_2	35 16	15		25			
		MZ_2	35 28	15			31		
		F	16 45						
151	" 13	P?Z	18 15 25	6			5		
		$i(S)_E$	19 24	6		+6			
		eLZ	21.5	20?					
		MEZ	22.6	17		3	4		
		MN	22 42	16	2				
		F	18 30						
152	" 13	$i(P)_{EZ}$	21 20 09	6		+5	-8	3220ca	Dilatation.
		$i(pP)_E$	21 31	6		+7		(29°)ca	h 0.07 ca
		$i(S)_N$	24 26	5	+9				
		F	21 35						
153	" 15	iP_Z	02 48 32	5			-5	10,220ca	Dilatation.
		ipP_Z	48 41	6			+21	(92°)ca	H 02 35 25
		iPP_Z	52 17	6			+10		Normal depth.
		$iSKS_N$	59 08	10	+18				
		iS_E	59 26	10		+7			
		$iScS_N$	59 38	8	-21				
		$iScS_E$	59 39	8		-19			
		iSS_E	03 05 44	10?		+19?			
		eLQ_E	12.7	30					
		eLR_Z	18.2	30					
		ME_1	22 17	22		39			
		MZ_1	23 35	24			67		
		MN	23 51	22	63				
		MZ_2	25 07	19			57		
		ME_2	28 25	18		24			
		F	05 35						
154	" 17	e_N	12 24.2	10					
		eL_{EZ}	25.9	25					
		ME	27 29	20		3			
		MZ	27 42	20			5		
		F	12 35						
155	" 18	eP_{EZ}	13 14 13	6				6280	
		iS_E	22 00	10		+7		(56°5)	
		iS_N	22 02	10	+7				
		iPS_E	22 18	22?		+16?			
		$e(SS)_{NE}$	25 34	14					
		eLQ_E	28.6	28					
		eLR_Z	30.9	30					
		MN	32 25	22	20				
		ME_1	33 20	22		28			
		MZ	33 35	22			33		
		ME_2	34 43	17		24			
		F	15 10						
156	" 19	eP_{EZ}	02 07 35	10?				2400	
		ipP_E	07 48	8		+6		(21°6)	
		eS_E	11 27	10					
		eL_Z	13.0	20					
		MN	14 39	14	3				
		ME	15 25	14		2			
		MZ	15 37	16			3		
		F	02 50						

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY,
SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.) h m s	Per. s	Amplitude AN μ	AE μ	AZ μ	Δ km.	Remarks
	1945								
157	Apr.19	iPNEZ	13 08 39	8	+19	+31	-36	2450	Dilatation.
		ipPE	08 54	8		+26		(22°0)	H 13 03 46
		iPPE	09 00	8		+59			
		iPPNZ	09 01	8	+30		-36		
		mNEZ	09 14	8	21	42	45		
		iN	09 39	8	-55				
		iE	09 42	7		-33			
		iSEZ	12 35	10		-77	-53		
		iS_N	12 36	10	+120				
		mEZ	12 45	12		65	109		
		iSS_N	13 12	12	+96				
		$e(LQ)_N$	13.4	25					
		iLREZ	13 58	26		+214	+210		
		MZ_1	15 01	20			193		
		ME_1	15 34	16		126			
		MN	15 53	14	200cs				
		ME_2	16 32	14		127			
		MZ_2	17 10	17			152		
		F	Merged in No.158.						
158	" 19	MN	15 46 47	14	2				
		ME	48 15	15		2			
		MZ	51 11	16			3		
		F	Merged in No.159.						
159	" 19	e(L)Z	16 07.5	20					
		MN	12 32	12	2				
		MZ	12 45	16			4		
		ME	14 19	17		4			
		F	16 50 ca						
160	" 20	eLZ	04 04.1	22					A few long waves.
		F	04 10						
161	" 20	e?EZ	22 40 17						
		e(P)EZ	40 40	9					
		eE	41 02						
		iE	41 18	12		+8			
		i(S)E	44 59	9		+7			
		iN	45 21	9	+5				
		iE	45 36	10		+12			
		eLE	47.9	30?					
		MN	51 10	14	13				
		MEZ	56.2	14		18	15		
	" 21	F	00 35						
162	" 21	iPZ	01 21 18	8			-5		Dilatation.
		ePE	21 18	8					
		e(S)Z	25 09	12					
		eE	25 11	12					
		iE	25 25	12		+8			
		eLE	27.1	20					
		ME	30 09	12		3			
		MN	33 19	14	5				
		MZ	33 29	16			7		
		F	02 25						
163	" 21	eN	10 49 43	10					
		eLNZ	51.9	20					
		MN	53 10	16	6				
		MZ	58 09	16			4		
		ME	59 36	13		3			
		F	11 30						
164	" 21	eZ	12 22 03	9					
		eE	26 11	13					
		MN	29 49	12	2				
		ME	30 15	16		2			
		MZ	30 57	14			2		
		F	13 00						

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY
SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.) h m s	Per. s	Amplitude AN μ	AE μ	AZ μ	Δ km.	Remarks
	1945								
165	Apr.21	eE	15 43.0						
		MZ	48 13	15			2		
		ME	48 17	15		1			
		F	15 55						
166	" 21	eLEZ	18 07.9	26					
		ME	14 19	18		1			
		MZ	14 51	18			3		
		F	18 30						
167	" 22	e(PP)E	05 56 17						
		eN	56 40	12					
		i(PcP)Z	56 48	6			+5		
		eSN	04 00 34	14					
		iE	00 41	10		+6			
		iN	01 04	10	-12				
		iE	02 18	13		+12			
		iN	03 10	14	+17				
		iE	03 24	13		+19			
		e(LQ)E	03.6	34					
		i(ScS)E	04 48	10		+37			
		iN	04 55	10	+27				
		eLRN	05.9	25					
		ME1	07 03	16		33			
		MN	07 48	16	33				
		MZ1	08 02	17			30		
		ME2MZ2	09 53	15		51	35		
		F	05 30						
168	" 22	iPNEZ	09 59 00	4	+4	-4	-12		Dilatation.
		iZ	10 00 42	6			-5		Probably very
		iSN	05.05	6	+20				deep focus.
		iSEZ	05 08	6		-11	-10		
		iE	07 50	8		-9			
		ME	18 42	18		7			
		MN	19 38	18	9				
		MZ	19 54	18			11		
		F	10 50						
169	" 23	iPNZ	06 28 34	5	+4		-5	3010	Dilatation.
		ipPZ	28 58	6			+8	(27°1)	h 0.01
		iN	29 00	6?	+10?				
		iZ	29 08	8			+13		Region of 10°S.,
		iNZ	29 30	7	-20		+24		165°E.
		iE	31 23	8		+12			
		iSNE	33 04	9	-54	-30			
		iSZ	33 06	5			+22		
		isSE	33 39	6		+21			
		iN	34 36	8	+49				
		iE	34 58	8		+54			
		iZ	35 12	12			-56		
		iE	35 30	7		+40			
		eLE	37.2	15					
		ME	38 37	12		39			
		MN	40 16	14	37				
		MZ	40 28	16			51		
		F	07 50						
170	" 25	eLN	02 44.1	25					Masked by large
		eLE	45.	26					microseisms.
		MN	46 42	12	8				
		ME	47 18	14		9			
		MZ	48 51	13			7		
		F	03 10						

(Concluded on next sheet)

RIVERVIEW COLLEGE OBSERVATORY

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per	Amplitude			Δ	Remarks
					A_N	A_E	A_Z		
	1945		h m s	s	"	"	"	km.	
171	Apr.25	iP_EZ	13 04 51	8		-7	+11	2370 (21°3)	Compression.
		iPP_E	05 18	8		+8			
		$iPPP_Z$	05 25	8			+8		
		iS_E	08 41	5		+7			
		i_N	08 46	8	+16				
		i_Z	08 47	8			+15		
		i_E	08 49	8		+20			
		eLQ_E	08.9	16					
		eLR_{EZ}	10.0	30					
		MZ	11 00	20			14		
		ME	12 29	20		9			
		MN	12 41	12	9				
		F	13 50						
172	" 26	iP_Z	13 46 42	3			+4	3410 (30°7)	Compression. h 0.07 H 13 41 06 esS from Wiechert
		iS_E	51 11	6		-5			
		iS_N	51 12	6	-8				
		esS_N	53 48	7					
		i_N	55 25	8	+6				
		$iScS_N$	56 28	5	-8				
		$iScS_E$	56 29	5		+8			
		MN	59 49	9	4				
		F	14 10						
173	" 29	i_N	02 43 43	6	+7				Masked by micro-seisms.
		eNE	44.5	22					
		e_N	55.3	25					
		F	03 10						
174	" 29	$i(P)_Z$	19 50 40	5			+5		Compression.
		i_{NE}	56 04	8	-3	+6			
		e_N	57 19	14					
		eL_N	58.7	19					
		MNE	20 01 26	17	6	4			
		MZ	01 35	16			5		
		F	20 40						
175	" 30	e_N	13 02.3						
		MN	03 27	13	1				
		F	13 10						
176	" 30	e_N	17 14.8						
		eL_E	24.3	26					
		MZ	30 09	18			2		
		F	Merged in No.177.						
177	" 30	iP_EZ	17 32 53	3		+3		3320 (29°9)	Dilatation. h 0.08 H 17 27 27
		ipP_E	34 37	4		+4			
		$iPcP_Z$	35 24	6			+6		
		iS_N	37 12	6	-11				
		iS_E	37 14	6		+11			
		i_N	38 18	7	+6				
		isS_N	40 31	10	+9				
		MN	41 59	14	5				
		$iScS_{NE}$	42 28	7	-19	+10			
		i_{NE}	46 22	9	-10	+10			
		MZ	46 23	20			7		
		F	18 40						

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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	1/3	200	7.8	5.8	0.003	4	12.8	12.9	-0.02	470
E	1/3	223	8.0	5.9	0.006	4	12.3	12.9	-0.09	440
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).								
	1945		h m s	s	μ	μ	μ	km.	
178	May 1	eZ	04 39.7						
		eE	40.2						
		eLZ	41.5	20					
		ME	45 18	18		2			
		MNZ	45.8	19	3		3		
		F	05 00						
179	" 1	$e(PP)_Z$	06 17.5						
		$e(PS)_{NZ}$	26 34	14					
		$e(PS)_E$	26 36	14					
		e_E	33.5	18					
		eL_Z	53.9	22					
		F	07 00						
180	" 1	eL_Z	08 48.4	18					
		MZ	55.0	18			1		
		F	09 00						
181	" 1	eZ	16 53.6						
		eZ	17 02.7						
		$e(L)_Z$	25.3						
		MZ	34 22	16			1		
		F	17 50						
182	" 1	e_E	21 46.4	10					
		eLE_Z	50.0	20					
		MN	51 32	12	1				
		MZ	51 56	16			2		
		ME	53 04	16		1			
		F	22 25						
183	" 1	eZ	23 30.1	12					
		MZ	38 36	20			3		
		F	00 00						
184	" 3	i_N	11 55 35	4	+3				
		i_Z	56 10	4			+5		
		MNE	56 34	7	2	2			
		F	12 01						
185	" 3	$i(P)_Z$	15 23 28	8			+4		
		i_E	23 32	8		+4			
		e_N	29 35	14					
		eLR_{EZ}	31.2	24					
		MN	32 42	18	4				
		ME	33 48	18		7			
		MZ	34 02	17			9		
		F	16 10						

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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	
	1945		h m s	s	μ	μ	μ	km.	
186	May 4	e_N	08 38.5						
		eL_Z	40.7	24					
		i_E	43 51	7		-5			
		MEZ	46 41	18		33	4		
		MN	48 01	14	3				
		F	09 05						
187	" 5	e_Z	14 03.5						Masked by micro-seisms.
		eL_N	05.5	18					
		eL_{EZ}	06.2	26					
		MZ	07 33	22			14		
		ME	07 56	19		11			
		MN	08 23	16	6				
		F	14 40						
188	" 7	e_Z	17 26.9	10					Masked by micro-seisms.
		e_{NE}	29.8	10					
		e_Z	29.9	10					
		MN	34 36	16	9				
		ME	35 08	14		9			
		MZ	38 17	14			9		
		F	18 20						
189	" 8	eL_N	17 16.4	16					Masked by heavy microseisms.
		ME	17 53	14		4			
		MNZ	18.2	16	6		5		
		F	17 35						
190	" 9	iP_{NEZ}	03 37 32	5	-10	+11	+24	4070	Compression.
		ipP_{NEZ}	39 09	6	-25	+24	+42	(36°6)	h 0.09
		iS_Z	42 34	6			+23		H 03 31 14
		iS_{NE}	42 35	6	+21	-90			
		i_E	45 18	6		-11			
		isS_{NEZ}	45 40	6	+28	+36	+57		
		eL_Z	45 51	22					
		F	05 00 ca						
191	" 9	$e(P)_N$	22 29 31	3					Heavy microseisms present.
		$i(S)_N$	31 42	3	-7				
		i_N	32 11	3	+5				
		MNE	34 05	6	7	6			
		i_N	35 26	5	-9				
		i_E	35 38	5		-6			
		i_E	36 25	5		+14			
		F	22 50						
192	" 10	e_N	18 20 42						
		e_E	29 29						
		eL?N	47.4	20					
		eL_Z	50.6	22					
		MN	51 39	20	3				
		MZ	52 03	20			4		
		ME	52 43	20		3			
		F	19 30						
193	" 11	eL_N	08 17.8	20					
		eL_Z	18.5	20					
		MN	19 29	16	1				
		ME	20 37	14		2			
		F	08 30						
194	" 12	eL_N	13 53.0	16					
		MN	55 44	14	2				
		ME	56 48	14		1			
		F	14 10						

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY
SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.) h m s	Per s	Amplitude AN μ	AE μ	AZ μ	Δ km.	Remarks
195	1945 May 14	e(P)N	05 04 20	1				1000ca	
		eE	04 51	1				(9°)ca	
		eNZ	05 12	4?					
		iE	05 38	4		+4			
		iZ	05 55	4			+4		
		iE	05 58	3		-5			
		iSN	06 02	4	-8				
		iZ	06 03	3			-7		
		iSSE	06 11	3		+11			
		iZ	06 25	3			-12		
		eLN	06 22	9					
		eLE	06 36	10					
		iN	06 37	4	+16				
		MN	06 51	10	8				
		iE	07 08	4		+10			
		iNZ	07 09	4	+15		+10		
		MZ	07 25	9			10		
		ME	07 39	9		10			
		F	03 20						
196	" 14	eN	08 54 15	1					Replica of No.195
		eE	54 23	1					
		eNZ	54 48	5?					
		iN	55 05	3	+4				
		iE	55 14	4		+3			
		iE	55 36	3		-7			
		iSZ	55 40	4			-7		
		iSN	55 41	4	-7				
		iSSE	55 48	4		+13			
		eLN	56 02	10					
		iZ	56 03	3			-10		
		eLE	56 10	11					
		iN	56 12	4	+16				
		MN	56 27	10	6				
		iN	56 45	4	+15				
		MZ	57 05	8			6		
		ME	57 07	8		4			
		F	09 10						
197	" 15	iPZ	03 41 ~~28~~ 23	4			+7		Compression.
		i(S)N	45 18	10	+19				Deep focus?
		iE	46 07	8		+7			
		F							
198	" 16	eLN	19 25.6						
		MN	28 10	16	3				
		F	19 45						
199	" 17	i(S)E	08 35 20	9		+9			Obscured by
		iE	36 55	4		-4			microseisms.
		eLEZ	38.2	18					
		ME	39 12	14		7			
		MNZ	40 16	14	5		4		
		F	08 50						
200	" 18	eLZ	09 38.2	20					
		MZ	39 18	18			2		
		F	09 45						
201	" 19	eZ	02 35 13						
		eLZ	42.9	24					
		MNZ1	45 32	16	5		5		
		ME1	45 42	15		5			
		MZ2	47 14	16			8		
		MNE2	47 50	14	9	6			
		F	03 40						
202	" 19	eE	08 21.3						
		eE	25.3						
		ME	39 06	20					
		eLZ	41.5	25					
		ME	51 52	16		3			
		MN	53 56	15	1				
		MZ	54 54	20			33		
		F	09 35						

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RIVERVIEW COLLEGE OBSERVATORY
SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1945		h m s	s	μ	μ	μ	km.	
203	May 19	e_N	15 13 44						
		e_E	14 15						
		eL_Z	18.7	18					
		MN	19 00	18	2				
		MZ	19 22	18			4		
		ME	20 02	15		3			
		F	Merged in No.204						
204	" 19	i_E	15 32 08	10					
		e_E	34 50	18					
		e_N	34 54	18					
		e_N	40 46	14					
		i_E	41 00	10		-6			
		mNE	41 08	18	6	8			
		eLRNEZ	55.8	32					
		MZ_1	56 42	34			19		
		ME	58 30	24		11			
		MN	16 00 22	20	6				
		MZ_2	00 53	18			7		
		F	17 50						
205	" 19	$e(L)_Z$	23 32.9	15					
		MN	35 48	15	4				
		MZ	36 59	16			4		
		ME	37 04	16		4			
		F	00 00						
206	" 20	MN	06 22 08	15	4				
		ME	22 50	18		4			
		MZ	23 56	16			2		
		F	06 40						
207	" 20	eL_N	12 04.7	18					
		MN	06 06	15	2				
		ME	07 10	16		3			
		MZ	07 24	17			3		
		F	12 25						
208	" 20	$i(P)_Z$	18 11 16	2			+3		Compression.
		$i(pP)_Z$	11 35	4			-5		
		$i(S)_N$	18 27	6	+3				
		$i(S)_E$	18 29	5		+5			
		$i(sS)_{NE}$	19 03	9	+5	+5			
		ME	32 11	18		3			
		F	18 40						
209	" 21	eZ	11 45.7						
		eL_Z	51.3	20					
		MZ	52 32	18			3		
		MN	52 46	16	2				
		ME	53 12	16		3			
		F	12 10						
210	" 21	eL_Z	12 32.2	18					
		F	12 40						
211	" 21	eL_E	16 10.1	18					
		ME	10 34	18		5			
		MN	10 51	14	3				
		MZ	12 18	13			2		
		F	16 30						
212	" 21	eZ	19 02.6						
		ME	04 29	14		1			
		F	19 10						
213	" 28	iP_Z	09 44 50	5			+4	2940 (26°4)	Compression.
		iS_E	49 19	9		-6			
		eLR_E	51.2	26					
		eLR_Z	51.5	26					
		MN	52 08	18	7				
		ME	52 14	21		9			
		MZ	52 30	20			10		
		F	Merged in No.214						

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RIVERVIEW COLLEGE OBSERVATORY

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1945		h m s	s	μ	μ	μ	km.	
214	May 28	iP_Z	10 13 54	4			+5	2950 (26°5)	Compression.
		iN_E	13 57	4	+4	+6			
		ipP_Z	14 01	8			+13		
		iPP_Z	14 21	6			+7		
		m_{EZ}	14 33	8		4	6		
		iS_{NEZ}	18 23	9	-9	-15	-11		
		isS_N	18 44	8	+15				
		isS_Z	18 46	8			+12		
		iSS_N	19 29	9	-25				
		eL_N	20.0	24					
		eL_Z	20.2	25					
		MN1	21 13	18	20				
		MZ	21 54	16			17		
		ME	22 18	18		21			
		MN2	23 22	14	21				
		F	11 30						
215	" 29	iP_Z	17 42 33	5			+5	5300 (47°7)	Compression.
		iPP_Z	44 21	6			+6		
		eS_E	49 26	12					
		iSS_{NE}	52 47	9	+7	+6			
		MN	58 58	16	3				
		ME	59 37	17		4			
		MZ	18 01 34	18			4		
		F	18 35						
216	" 30	eZ	08 58 05	6					
		eL_E	09 05.8	16					
		eL_{NZ}	06.5	20					
		ME	07 46	18		5			
		MZ	08 44	16			5		
		MN	10 36	12	2				
		F	09 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	ε : 1	$\frac{r}{T_o^2}$		T_1 (Galv.)	T (Pend)	μ^2	V_s
N	1/3	195	7.8	6.1	0.002	4	12.8	12.9	-0.02	470
E	1/3	220	8.0	6.0	0.017	4	12.3	12.9	-0.09	440
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	Amplitude A_E	Amplitude A_Z	Δ km.	Remarks
	Unless stated otherwise, readings are from the Galitzins. 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).								
	1945		h m s	s	μ	μ	μ	km.	
217	June 1	e_N	15 37 43	14					
		eL_N	55.8	25					
		MZ	16 02 46	18			2		
		F	16 45						
218	" 3	e(PP)Z	13 26 24						
		i(PS)E	36 45	10	+7	-6			
		e_E	39 09						
		e(SS)E	43 32	30					
		m_E	44 22	25		7			
		e_E	46 32	18					
		e_Z	47.8	30					
		m_{EZ}	48 50	20		4	7		
		e_Z	51 27	22					
		eLR_Z	14 05.0	30					
		eL_E	05.7	26					
		MZ_1	09 15	22			15		
		ME_1	09 22	22		13			
		MN_1	09 47	18	6				
		ME_2MZ_2	13 43	16		10	15		
		MN_2	13 50	16	7				
		F	15 45						
219	" 4	eL_Z	08 18.1	25					
		F	08 25						
220	" 4	i(SKS)	12 33 13	7	-4	-5			Microseisms present
		e_N	39 29	14					
		MN_1	13 01 45	22	5				
		MZ	03 41	22			8		
		ME	05 59	22		8			
		F	13 45						
221	" 6	e_E	01 13 30	12					Masked by microseisms.
		eL_Z	25.3						
		ME	28 24	20		7			
		MZ	28 53	20			7		
		MN	29 17	20	7				
		F	01 55						
222	" 7	eL_E	03 06.0	20					
		F	03 20						

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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
	1945								
223	June 7	i(P)EZ	11 54 42.	5		+6	-6		Dilatation.
		e(S)N	58 50	13					
		eLN	12 00.7	24					
		eLZ	01.3	28					
		MN	05 11	14	9				
		MZ	06 26	17			11		
		F	13 25						
224	" 8	eLZ	17 59.5	20					
		MZ	18 00 36	20			7		
		ME	00 42	18		5			
		MN	01 28	14	2				
		F	18 15						
225	" 9	e(L)N	15 56.2	15					
		MN	58 20	13	3				
		ME	58 45	14		2			
		F	16 10						
226	" 12	eZ	16 15.5						
		MN	18 18	13	12				Masked by very heavy microseisms.
		MZ	19 23	18			15		MN from Wiechert.
		ME	19 47	17		12			
		F	16 50 ca						
227	" 14	eLZ	00 22.3	20					Masked by very heavy microseisms.
		MN	26 01	14	8				
		MEZ	27 21	18		10	10		
		F	00 40						
228	" 14	MZ	08 59 22	20			10		Masked by heavy microseisms.
		F	09 05						
229	" 20	ePZ	01 36 27						
		iE	46 04	10		+7			
		eN	46 17	15					
		eN	51 05	21					
		eLQE	58.3	30					
		eLRN	02 04.5	24					
		ME	06 21	16		3			
		MZ	07 11	20			6		
		MN	07 17	18	4				
		F	03 10						
230	" 20	iPNZ	08 55 17	5	-4		+6	3350	Compression.
		PPNEZ	56 23	10	-10	+5	+10	(30°1)	H 08 49 08
		iSN	09 00 11	10	+12				Felt in the Wewak-Wom area, New Britain.
		eE	00 15	13					
		eZ	00 46	24					
		i(SSS)E	02 05	18		+10			
		eLE	04.0	28					
		eLZ	04.2	36					
		ME1	06 13	18		29			
		MZ1	06 55	20			28		
		MN1	07 01	18	31				
		ME2MZ2	08 33	16		28	24		
		MN2	08 55	16	26				
		F	10 35						
231	" 20	e?Z	11 46 15						
		eE	50 49	9					
		eLN	53.7	20					
		MZ	55 41	20			7		
		ME	55 45	20		6			
		MN	56 41	14	6				
		F	13 05						

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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
	1945		h m s	s	μ	μ	μ	km.	
232	June 20	iPZ	17 47 23	5			+5	8890	Compression.
		iSE	57 23	9		-7		(80°0)	H 17 35 15
		iSN	57 24	9	-5				
		iPSN	58 11	14	-7				
		eSSN	18 02 31	18					
		eLQN	08.6	26					
		eLRZ	12.6	24					
		ME1	15 39	16		4			
		MZ1	17 33	22			10		
		MN1	18 40	18	8				
		MZ2	20 38	20			10		
		MN2	21 40	18	8				
		ME2	25 39	20		7			
		F	19 40						
233	" 21	eZ	20 15 23	6					
		MN	22 31	12	2				
		MZ	23 55	16		3			
		F	20 35						
234	" 22	eLZ	01 48.7	20					
		MN	55 41	16	3				
		ME	56 22	16		2			
		F	02 20						
235	" 22	iPNZ	09 30 29	6	+5		-11	8750	Dilatation.
		ipPZ	30 59	5			-7	(78°7)	h 0.015
		eZ	32 58	12					H 09 18 40
		iPPN	33 21	10	+8				
		SN	40 09	12					
		iE	40 16	10		+13			
		iScSN	40 37	8	-5				
		iE	40 45	8		+9			
		mE	41 15	13		9			
		iZ	41 39	12			+16		
		iZ	45 13	12			+10		
		iSSN	45 21	17	+14				
		iSSSN	48 32	13	+9				
		iE	50 49	12		+8			
		mE	51 08	15		6			
		mZ	51 19	18			8		
		mN	51 51	18	7				
		eLZ	56.5	26					
		ME	10 00 39	20		8			
		MZ	03 13	22			13		
		MN	03 19	22	8				
		F	11 10						
236	" 22	ePZ	18 14 27					10,900ca	
		iSKKSNE	25 42	9	-7	-6		(98°)ca	
		eN	32 03	10					
		mN	32 33	12	3				
		eLQN	43.1	22					
		eLRN	47.4	26					
		MN1	56 04	22	6				
		MN2	57 44	18	6				
		ME	58 18	24		13			
		MZ	58 23	24			19		
		F	20 20						
237	" 23	iE	20 49 37	8		5			Masked by micro-
		MZ	21 15 47	20			7		seisms.
		ME	16 29	20		6			
		MN	17 34	20	8				
		F	21 45						

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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
	1945		h m s	s	μ	μ	μ	km.	
238	June 26	e_N	06 53 19	12					
		MZ	07 03 01	21			11		Masked by micro-seisms and non-seismic disturb-ances.
		ME	03 07	20		7			
		MN	03 17	20	10				
		F	07 20						
239	" 27	$ePPP_Z$	13 29 37	12					Masked by micro-seisms.
		ePPS	37 34	13					
		$e(SS)_E$	43 27	22					
		eLQ_N	54.5	24					
		eLRZ	59.4	40					
		MN_1	14 00 42	28	25				
		MEZ_1	01.2	22		20	32		
		MN_2	04 15	20	11				
		MEZ_2	10 35	18		16	20		
		F	16 10						
240	" 27	MZ	19 08.4						
		F	- -						
241	" 28	$e(L)_Z$	07 19.8	20					
		ME	30 38	18		6			
		MZ	30 47	16			5		
		F	07 55						
242	" 30	$eSKS_E$	05 55 47						Masked by micro-seisms.
		e_N	57 12	14					
		eZ	58 41	15					
		eLQ_N	06 14.0	25					
		eLR_E	17.9	30					
		ME_1	19 37	25		11			
		MZ_1	20 19	25			17		
		MN_1	26 55	20	8				
		MZ2	27 55	18			9		
		ME_2	29 27	18		9			
		MN_2	37 11	20	7				
		F	08 10						

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RIVERVIEW. N.S.W

SEISMOLOGICAL BULLETIN

$\Phi = 33° 49' 46''$ S. $\lambda = 151° 0' 30''$ 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	s : 1	$\frac{r}{T_o^2}$		T_1 (Galv.)	T (Pend)	μ^3	V_s
N	1/3	199	7.7	6.2	0.001	4	12.8	12.9	-0.02	470
E	1/3	220	7.8	6.1	0.022	4	12.3	12.9	-0.09	440
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. 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).								
			h m s	s	μ	μ	μ	km.	
243	July 3	iZ	17 13 58	6			+6		Masked by micro-seisms.
		eN	19 06	10					
		eN	24 15	16					
		eL_E	29.1	20					
		MZ	31 33	16			4		
		ME	32 54	15		5			
		MN	33 53	15	4				F 18h 15m
244	" 6	eE	21 09.9						
		MEZ	16.6	12		3	3		
		MN	19.1	13	5				MN from Wiechert.
		F	21 30 ca						
245	" 10	eL_Z	03 01.8	25					
		ME	04.0	20		6			F 03h 15m
246	" 11	ME	01 29 03	18		4			
		MZ	30 49	18			4		F 01 40
247	" 11	eE	07 26.0						
		MZ	28 41	16			2		F 07 35
248	" 12	$e(L)_E$	01 05.1	18					
		MN	08 45	11	2				
		ME	09 25	12		3			F 01 15
249	" 15	iPZ	05 44 08	6			+17	5780ca	Compression.
		iP_N	44 09	6	-7			52°ca	h 0.02 ca
		ipP_Z	44 39	6			+10		H 05 35 12
		iNZ	45 01	7	+11		-19		
		$iPcP_{NZ}$	45 13	7	+14		-12		
		iS_{NE}	51 18	10	-28	-41			
		isS_E	52 08	9		+25			
		$iScS_E$	53 48	7		+57			
		iSS_E	54 46	8		+14			
		iE	57 08	12		+33			
		ME	06 04 56	18		22			
		MN	06 35	16	13				F 07 25
250	" 15	eE	19 30.3						
		ME	37 39	13		4			
		MN	38 19	12	4				
		MZ	38 58	12			4		F 19 45
251	" 16	eN	05 05.8						Masked by micro-seisms.
		eLE	09.3	25					
		ME	15 34	18		6			
		MN	15 48	18	5				
		MZ	15 58	18			7		F 05 40

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RIVERVIEW COLLEGE OBSERVATORY,
SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	
	1945		h m s	s	μ	μ	μ	km.	
252	July 16	eN	18 04.5						
		ME	11 17	13		9			Masked by microseisms.
		MN	11 49	16	5				F 18 25
253	" 21	e?Z	13 57.2						Masked by heavy microseisms.
		F	14 10						
254	" 21	eZ	22 06.8						
		eLZ	11.5	22					
		ME	13 39	17		7			
		MN	13 45	16	10				
		MZ	13 53	20			13		F 22 50
255	" 22	eL_N	11 08.9	42					Earlier phases
		MN_1	12 04	36	43				
		MN_2	15 11	24	25				
		ME	18 08	24		17			
		MZ	18 13	24			18		
		F	Merged in No.256.						
256	" 22	eL_E	11 41.5	24					
		MZ	42 49	22			12		
		ME	43 18	15		7			
		MN	43 45	20	11				F 12 30
257	" ~~X~~ 23	eP_Z	04 05 38					7300	
		$iPcP_Z$	06 05	9			+6	(65°7)	H 03 54 55
		iS_N	14 18	5	+14				
		iS_E	14 20	5		-10			
		eLQ_E	22.8	26					
		eLR_N	24.9	38					
		ME	27 33	32		53			
		MNE	30.3	22	54	39			
		MN	32 27	15	52				
		MZ	33 19	20			54		
		ME	34 57	18		58			
		MZ	35 03	20			61	—	F 06 55
258	" 25	$e(L)_Z$	06 22.5						
		MZ	24 14	14			3		
		ME	24 48	14		3			F 06 35
259	" 25	eL_E	12 32.4	20					
		MNZ	34.1	17	4		4		
		ME	34 51	14		3			F 12 50
260	" 26	eP_{NE}	18 40 40	1				8°5	H 18 38 36
		iS_{EZ}	42 16	2		-3^x	-6		^{x}From Wiechert
		i_N	42 19	2½	$+3^x$				
		iSS_N	42 26	3	$+3^x$				
		eL_{NE}	42 34	12					
		$iSSS_E$	42 39	3		-2^x			
		MNE	42 51	12	8	4			
		MZ	43 43	8			4		
		F	18 55						
261	" 27	e?Z	20 03.0						
		eLE	08.5	22					
		MZ	12 16	12			5		
		MN	12 24	12	4				
		ME	12 50	12		6			F 21 00
262	" 30	eLZ	00 22.9	25					
		MZ	27.0	18			3		F 00 45
264	" 30	ME	07 34 28	16		3			
		MN	34 30	8	2				F 07 40
265	" 31	eL_{NZ}	05 37.5	24					
		MNZ	40.0	18	5		5		
		F	06 00						
263	" 30	eL_E	01 50.1	20					
		MZ	51 43	16			5		
		ME	51 49	14		3			
		MN	52 07	14	4				
		F	02 10						

D.J.K.O'CONNELL,S.J.
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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	13	193	7.7	5.6	0.007	4	12.8	12.9	-0.02	470
E	13	224	7.8	4.8	0.008	4	12.3	12.9	-0.09	440
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. Ground amplitudes are given. The amplitudes of initial impulses on the Galitzins aere computed by Galitzin's method. The Tables used are those of Jeffreys and Bullen (1940).								
	1945		h m s	s	μ	μ	μ	km.	
266	Aug. 1	i?Z	22 33 57	6			+13		Masked by very heavy microseisms.
		MZ	23 05 35	20			10		
		MN	05 41	20	ε				
		F	(00 05)						
267	" 3	eE	04 49 34	18					Masked by heavy microseisms.
		eLZ	05 10.1	25					
		ME	17 55	18		5			
		MZ	18 41	20			9		
		F	06 05						
268	" 5	eE	04 19.1						
		MNZ	22.5	16	3		3		
		F	04 35						
269	" 6	eZ	23 49.2	8					
		eLZ	00 01.4	18					
		MZ	06 21	16			3		
		F	00 25						
270	" 7	ePZ	22 18 22	8				7200	H 22 07 44
		iS_N	26 59	8	-6			(64?8)	
		iS_E	27 03	8		+6			
		cL_N	36.9	22					
		MN	43 42	19	6				
		MZ_1	44 25	20			7		
		MZ_2	47 04	20			10		
		F	23 30 ca						
271	" 8	iPZ	10 05 02	6			+10	8080	Compression.
		iPcPZ	05 19	6			-7	(72?7)	H 09 53 36
		iS_{NE}	14 2?4	6	+11	+4			
		isS_N	14 39	7	+11				
		iPS_N	14 59	12	+9				
		c_N	22 43	16					
		cLR_N	27.0	35					
		cLR_Z	27.3	32					
		MN_1	33 28	25	19				
		MZ	35 38	24			19		
		ME	35 54	14		13			
		F	12 05						
272	" 9	cLZ	02 30.8	21					
		MN	33 24	11	3				
		F	02 40						
273	" 9	cZ	22 00 27	12					
		MZ	25 46	16			3		F 22 40

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY,
SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	
	1945		h m s	s	μ	μ	μ	km.	
274	Aug.10	e?Z	11 44.9						Masked by micro-seisms.
		cZ	50.4						
		MZ	12 27.0	16			37		
		F	12 40						
275	" 11	eLZ	01 32.3	26					
		MZ	35 37	22			8		
		F	02 00						
276	" 12	e(L)N	09 07.8	24					
		eLZ	13.4	20					
		F	09 25						
277	" 13	eE	12 49.2						
		ME	52.6	?					
		F	13 00						
278	" 14	iP_{EZ}	08 04 14	2		+3	+8		Compression.
		i_{EZ}	07 33	3		-7	+4		Deep focus.
		i_N	10 47	6	+5				Microseisms pres-ent.
		F	08 15						
279	" 14	P?Z	12 21 29						
		i_Z	21 51	9			+7		
		eS_N	29 55		11	2			
		iN	30 08	6	+8				
		MN	45 00	24	14				
		ME	46 28	20		11			
		MZ	47 00	22			16		
		F	13 50						
280	" 16	e(S)E	00 25 57	14		2			
		eZ	26 02	11					
		e_N	26 04	11	2				
		eL_N	31.7	22					
		eLZ	33.3	30					
		MN	34 47	20	11				
		MZ	36 51	18			12		
		ME	37 05	18		12			
		F	01 35						
281	" 16	eL_{NZ}	02 19.5	33					
		MNZ	28.0	20	4		4		
		F	02 40						
282	" 16	eL_{EZ}	14 32.4	19					
		MN	33 47	18	2				
		F	14 40						
283	" 16	iE	23 27 58	4		-2			i_E from Wiechert
		eL_N	33.8	16					
		MN	34 55	14	4				
		MZ	35 21	16			7		
		ME	35 33	16		4			
		F	Merged in No.284						
284	" 16	MEZ	23 46.8	12		2	4		
		MN	47 03	10	5				
		F	Merged in No.285						
285	" 17	iP_N	00 01 07	6	+7				
		iEZ	01 09	6		+7	-10		
		iNEZ	01 17	6	+8	+14	-14		
		i_N	01 46	7	+8				
		iS_N	04 54	8	+6				
		iSEZ	04 57	8		+12	+11		
		$i(PcP)_{NE}$	05 09	7	-16	+20			
		mZ	05 13	9			11		
		$i(SS)_Z$	05 25	8			-15		
		eLR_Z	06.3	20					
		ME	08 05	15		4			
		MZ	08 51	17			12		
		MN	09 53	15	10				
		F	01 10						
286	" 17	eP_Z	23 42 10	8					
		$e(S)_{EZ}$	46 03	10					
		MN	49 03	16	4				
	" 18	F	00 15						

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RIVERVIEW COLLEGE OBSERVATORY,

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	
	1945		h m s	s	μ	μ	μ	km.	
287	Aug.19	eL_N	22 05.3	20					
		MZ	07 22	17			3		
		MN	07 45	16	2				
		F	22 20						
288	" 21	iP_{EZ}	20 07 36	6		5	-8	2560	Dilatation.
		iE_Z	07 41	10		-15	+29	(23°0)	
		PP_Z	08 06	8			11		
		iS_E	11 40	8		+21			
		iS_N	11 41	8	-8				
		iZ	11 48	10			+41		NS readings from the Wiechert.
		mNE	11 54	8	22	24			
		iN	12 03	10	+21				
		iE	12 07	10		-72			
		iSS_N	12 25	11	-25				
		iE	12 29	10		+49			
		eLR_N	13.2	21					
		eLR_E	13.3	20					
		MN	14 35	16	78				
		MZ	15 18	16			66		
		ME	15 38	15		71			
		$iScS_E$	19 06	10		-70			
		F	22 40						
289	" 22	ePZ	05 08 54						
		iS_E	12 39	6		-10		2310	Preceded by microseisms
		iN	12 40	6	+14			(20°8)	
		iZ	12 44	6			+9		
		$i(PcP)_Z$	13 01	6			-6		
		iE	13 06	9		-9			
		eLQ_N	13.1	20					
		eLR_Z	14.2	20					
		MN	15 29	15	7				
		MZ	16 10	16			7		
		ME	16 14	16		6			
		F	Merged in No.290						
290	" 22	iP_Z	05 19 22	8			-31	2340	Dilatation.
		iP_{NE}	19 23	8	+19	+11		(21°0)	
		iS_N	23 09	10	-38				
		iE	23 14	8		-27			
		iZ	23 18	10			+39		
		eL_N	24.4	18					
		eLR_Z	25.1	25					
		MN	26 06	15	31				
		MEZ	26 40	15		22	27		
		F	07 25						
291	" 22	$i(S)_{NE}$	08 48 46	8	+5	+5			
		eL_E	50.4	20					
		MN	51 00	16	3				
		MEZ	52.3	18		4	5		
		F	09 15						
292	" 23	P?Z	07 17 21						
		iS_N	21 20	7	+5				
		iS_E	21 21	7		+5			
		eLR_Z	23.2	20					
		MN	25 26	14	3				
		MZ	27 46	14			3		
		F	07 55						
293	" 27	iP_{NEZ}	01 22 05	4&8	+20	-12	+20	2060	Compression.
		iZ	23 12	6			-15	(18°5)	
		iS_E	25 25	14?		+16?			
		iE	25 38	13		-53			
		iNZ	25 39	10	-14				
		mN	26 13	11	24		-31		
		eLR_Z	26.3						
		mE	26 26	11		34			
		$iPcPE$	26 37	13			+48		
		mN	26 39	12	26				
		mE	26 51	11		40			
		MZ	27 40	14			34		

F 03 00

RIVERVIEW COLLEGE OBSERVATORY,

Seismological Bulletin.

No.	Date	Phase	Time (G.M.T.)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	
	1945		h m s	s	μ	μ	μ	km.	
294	Aug.27	MEZ	05 35.5	14		3	4		A few waves.
		F	05 40						
295	" 27	iPZ	07 44 19	5			+11		Compression.
		i_N	44 21	6	+7				Large micro-
		i(S)E	52 07						seisms present.
		i_N	52 54	5	+7				
		i_E	54 39	6		+8			
		eL_NZ	08 02.7	30					
		MN	04 03	26	14				
		MZ	04 23	28			24		
		ME	04 35	20		7			
		F	08 30						
296	" 28	iP_{NEZ}	12 55 22	5	+2	+2	-6	2780ca	Dilatation.
		ipPEZ	55 47	5		+4	-10	(25°ca)	h 0.015 ca.
		ipPN	55 48	5	+4				
		iS_E	59 34	6&12		+6			
		i_{NE}	59 45	8	+7	+6			
		iN	59 53	7	+11				
		iZ	13 00 07	9			+7		
		i(sS)E	00 13	8		-13			
		iN	00 25	12	-12				
		i(SS)E	00 47	9		+16			
		eL_NZ	01.7	28					
		eL_E	01.8	28					
		MZ	02 49	24			22		
		ME	02 55	21		12			
		MN	03 19	17	13				
		F	14 00						
297	" 28	e?Z	19 32.3						
		eZ	33.1						
		e(S)N	41 17	12					
		e(S)E	41 18	15					
		eN	46 03	18					
		eL_E	51.1	35					
		ME	53 45	24		13			
		MZ	55 33	40			49		
		MN	55 39	25	12				
		F	20 50						
298	" 29	iP_{NEZ}	10 28 03	6	+27	+19	-48	2870	Dilatation.
		ipP_{NE}	28 24	6	-97	-90		(25°8)	h 0.01ca.
		iPP_N	28 47	6	+18				H 10 22 40
		$iPPP_E$	28 59	6		-41			
		i_N	29 07	6	+41				
		i_E	29 10	6		-32			
		i_N	30 10	7	+44				
		$i(PcP)_N$	31 23	7	-23				
		iS_N	32 23	7	-48				
		i_N	32 50	9	+138				
		i_E	32 54	10		-188			
		m_{NE}	33 16	11	330	265			
		eL_E	33.5	21					
		MN_1	34 18	17	875				
		ME_1	35 26	19		570			
		MN_2	36 22	17	940				
		ME_2	37 03	1'		490			
		iScSE	38 55	8		-58			
		iScSN	39 00	10	-180				
		MN_3	39 23	13	580				
		F	Merged in No.299.						
299	" 29	i_N	12 58 29	8	-7				Masked by No.298
		F	Merged in No.300.						
300	" 29	i_N	13 06 30	10	+9				Masked by No.299
		eL?Z	10.0	26					
		F	Merged in No.301.						

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RIVERVIEW COLLEGE OBSERVATORY,

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1945		h m s	s	μ	μ	μ	km.	
301	Aug.29	iE_Z	13 21 02	7		-8	+11		Masked by No.300
		eL_Z	21.6	20					
		MZ	24 08	20			10		
		ME	24 24	20		7			
		F	Merged in No.302.						
302	" 29	eL_Z	13 40.4	27					Masked by No.301
		MZ	42 24	20			7		
		F	Merged in No.303.						
303	" 29	eL_Z	13 49.9	24					Masked by No.302
		MZ	53 36	20			8		
		F	14 20						
304	" 29	eL_Z	14 53.8	20					
		ME	58 24	17		3			
		F	Merged in No.305.						
305	" 29	$i(P)_{NE}$	15 20 54	8	-4	-4			
		i_Z	21 02	8			+6		
		eL_E	30.1	28					
		MN	31 52	20	13				
		ME	31 57	22		13			
		MZ	32 02	22			16		
		F	17 05						
306	" 30	eL_E	05 04.7	20					
		MN	05 49	16	3				
		MZ	05 58	16			3		
		ME	06 02	16		2			
		F	05 30						
307	" 30	eL_Z	06 44.2	16					
		F	07 00						
308	" 30	eL_Z	10 35.1	18					
		F	10 45						
309	" 30	$e(P)_N$	23 36 51						eP from Wiechert.
		eE	37 58						
		iS_{NE}	42 07	10	+17	+14			
		i_N	44 35	10	+24				
		eL_N	44.8	20					
		eL_E	45.2	23					
		MN	48 25	12	51				
		ME	50 37	16		17			
		MZ	50 41	18			22		
	" 31	F	01 10						
310	" 31	i_N	10 01 04	9	+6				Masked by heavy microseisms.
		MN	05 01	13	3				
		F	10 10						
311	" 31	eL_Z	23 46.3	22					
		MZ	48 16	18			4		
		ME	51 18	16		3			
		F	00 10						

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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	7.7	7.1	0.004	4	12.8	12.9	-0.02	470
	3	145	9.3	7.3	0.026					
E	1	229	7.3	5.2	0.006	4	12.3	12.9	-0.09	440
	3	136	10.1	7.1	0.016					
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. 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).								
	1945		h m s	s	μ	μ	μ	km.	
312	Sept.1	iPNEZ	22 48 10	5	-29	+19	-26	1950	Dilatation
		ipPNEZ	48 17	8	+110	-71	+94	(17°5)	H 22 44 07
		iPPNE	48 27	14	-260	+162			
		iPPPZ	48 33	14			+186		After iE, NS & EW
		i_N	51 08	13	+77				readings from Wiech-
		iE	51 15	13		-100			ert. Galitzins in-
		iS_E	51 22	16		+440			decipherable.
		iS_N	51 24	16	+300				Wiechert out of comm-
		iSS_{NZ}	51 40	14	+550ca		-370		ission from 22h 53m
		L_Z	52.3	16					to 22h 59m.
		ME	52 19	13		860ca			
		MN	52 22	13	1000ca				
	" 2	F	04 00						
313	" 2	cL_Z	12 58.2	25					
		F	13 10						
314	" 2	MZ	17 23 17	16			3		
		F	17 30						
315	" 4	$c(S)_E$	15 55 28	14					
		c_N	55 31	12					
		i_N	55 48	12	+7				
		m_E	56 06	14		7			
		m_N	56 20	14	5				
		F	16 15						
316	" 4	iP_Z	17 18 06	8			+6	1950ca	Compression.
		PNE	18 09	8	3	3		(17°5ca)	
		ipP_Z	18 16	8			+8		
		iS_E	21 16	13		+18			
		iS_N	21 19	13	+13				
		i_E	21 24	14		-63			
		iSS_N	21 36	14	+90				
		m_E	22 10	13		67			
		cLR_Z	22.3	22					
		m_N	22 20	12	54				
		MZ	22 50	20			28		
		F	18 55						
317	" 5	cZ	15 49.3						
		i_N	55 18	6	+4				
		cL_Z	59.4	22					
		MN	16 00 49	18	3				
		MZ	00 59	18			4		
		ME	01 49	13		2			
		F	16 15						

(Continued on next sheet.

RIVERVIEW COLLEGE OBSERVATORY, SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1945		h m s	s	μ	μ	μ	km.	
318	Sept.5	iP_{NZ}	21 54 40	4&8	+4		-8	3250	Dilatation.
		ipP_{NZ}	54 58	4&8	+13		-20	(29°2)	h 0.005
		mN	55 54	15	10				H 21 48 43
		iN	58 29	7	-16				
		iZ	59 16	8			+12		
		iS_N	59 26	12	-27				
		$i(sS)_N$	59 47	20	-143				
		m_N	22 00 17	21	103				
		eL_Z	03.3	22					
		ME	05 29	13		57			
		MZ	05 39	16			83		
		MN	06 03	19	100				
		F							
319	" 6	$e(S)_N$	01 37 08	16					Readings from
		eE	37 26	?					the Mainka.
		eL_E	38.8	21					
		ME	42 16	17		23			
		MN	43 00	17	24				
		F	Merged in	No.320					
320	" 6	$e(S)_N$	03 45 51	15	4				
		eLZ	48.7	25					
		ME	50 44	18		5			
		MN	51 29	18	6				
		MZ	51 39	18			7		
		F	04 20						
321	" 6	eN	11 39 29	24					
		ME	44 43	18		6			
		MZ	45 01	18			7		
		MN	45 21	18	5				
		F	12 00						
322	" 6	$ePNZ$	14 55 31	10				3110	H 14 49 41
		$i(pP)_{NZ}$	55 41	10	-4		+10	(28°0)	
		iNZ	56 09	7	+8		-11		
		iPP_{NZ}	56 23	7	-14		+12		
		iS_N	15 00 11	13					
		$i(sS)_{NZ}$	00 38	14	+119		-63		
		eL_E	03.3	24					
		eL_{NZ}	03.7	28					
		MNE	06 01	19	92	87			
		MZ	06 16	19			128		
		F	16 40						
323	" 7	iN	06 16 00	7	+4				Large micro-
		iZ	16 02	7			+6		seisms present.
		iN	17 34	10	+7				
		iN	20 17	7	-5				
		iNE	2o 50	9	-13	-12			
		iE	21 57	8		+14			
		eL_E	24.6	18					
		MZ	26 15	12			5		
		MNE	26.3	12	18	17			
		F	07 05						
324	" 7	eN	13 10 36						Heavy micro-
		eL_Z	14.4	28					seisms.
		MN	15 22	24	11				
		MZ	15 42	24			14		
		ME	16 58	14		12			
325	" 8	iP_Z	03 38 17	8			+9	3020	F 13 50
		iN	38 25	8	+9			(27°2)	Compression.
		$i(pP)_N$	38 37	7	+9				h 0.01
		iPP_N	39 02	12	+9				Preceded by
		$iPPP_Z$	39 15	8			+6		large microseisms
		iS_E	42 47	9		-35			
		eL_{NZ}	44.0	27					
		MNZ	45.3	20	51		50		
		ME	45 33	16		25			
		$iScS_E$	48 49	8		+22			
		F	05 00						

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RIVERVIEW COLLEGE OBSERVATORY,
SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per.	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1945		h m s	s	μ	μ	μ	km.	
326	Sept.9	iP_{NEZ}	04 07 51	4	+7	+4	-12	2700	Dilatation.
		i_{NEZ}	07 55	4	+16	+19	-32	(24°3)	h 0.01
		mZ	08 00	7			33		H 04 02 42
		ipP_E	08 11	10		-47ca			
		i_{NZ}	09 45	6	-31		+30		
		i_N	10 10	7	+51				
		iS_E	12 01	8		-48			
		iS_N	12 04	8	-130ca				
		i_E	12 05	8		+180			
		iSS_E	13 00	9		-133			
		i_N	13 09	10	-190				
		eL_{NE}	14.0	24					
		MN_1	14 46	14	150				
		MZ_1	14 57	14			94		
		ME_1	15 24	14		140			
		MN_2	16 07	12	170ca				
		ME_2	17 34	14		170			
		MZ_2	18 15	14			115ca		
327	" 9	eL_{EZ}	09 31.0	20					F 07 20
		MN	33 19	13	4				F 09 40
328	" 9	eEZ	10 06.5	15					
		F	10 15						
329	" 9	$e(P)Z$	16 18 41						
		iS_{NE}	22 43	8	+10	+6			
		iSS_Z	23 26	8			-6		
		eL_{EZ}	24.6	20					
		MEZ	25.4	20		7	10		
		MN	25 33	20	6				F 16 50
330	" 10	eE	08 11 01	10					
		eL_E	13.3	16					
		ME	14 39	12		2			F 08 20
331	" 10	eL_E	14 15.2						
		F	14 20						
332	" 11	eL_Z	09 29.0	20					
		xF	09 40						
333	" 11	iP_Z	18 02 56	8			+6	2550	Compression.
		iP_{NE}	02 57	4	+2	+2		(22°9)	
		iPP_Z	03 32	8			+6		
		iS_E	07 00						
		iS_{NE}	07 02	9	+15	-9			
		i_E	07 36	10		+9			
		eL_{EZ}	09.0	25					
		ME	10 01	18		8			
		MN	10 08	17	8				
		MZ	10 20	20			14		F merged in 334
334	" 11	iZ	18 18 08	6			-5		
		iS_E	20 34	6		+5			
		i_E	23 25	6		-4			F 19 40
335	" 12	eL_Z	02 01.2	20					
		MZ	06.4	18			4		F 02 10
336	" 12	eE	08 42.4						
		F	08 50						
337	" 12	iS_N	20 03 17	10	+4				
		i_E	03 28	10		+4			
		eL_Z	05.8	22					
		MZ	07 08	18			2		F 20 20
338	" 12	eZ	21 26.2						
		eL_{NZ}	30.3	20					
		MEZ	31.6	17		4	4		
		F	21 55						
339	" 13	eL_Z	09 43.0	20					
		F	10 00						

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RIVERVIEW COLLEGE OBSERVATORY,

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.	
	1945								
340	Sept.13	i(pPP)Z	L1 35 44	4			-6		
		iSKKS$_N$	42 13	8	-13				
		iSKKS$_E$	42 15	8		-12			
		iPSZ	44 20	12			+8		
		i$_Z$	44 47	12			+11		
		iSS$_E$	49 46	9		+7			
		iSSPZ	49 58	11			+8		
		i$_E$	50 30	10		+13			
		eLR$_N$	12 04.4	30					
		eLR$_{EZ}$	04.6	30					
		MZ	11 42	16			4		
		MNE	13.1	16	2	2			
		F	13 40						
341	" 13	iPNZ	21 45 37	5	-4		+7	2660	Compression.
		i(pP)Z	45 54	5			+6	(23°9)	h 0.01 ca.
		i(pP)$_{NE}$	45 55	5	+4	+7			
		eZ	46 31	7					
		i$_Z$	47 54	7			+7		
		iS$_{NE}$	49 43	8	+15	-25			
		i$_Z$	49 53	8			-11		
		i$_N$	50 24	10	+12				
		eLR$_N$	51.3	21					
		eL$_Z$	52.1	22					
		MNE	52 24	18	15	12			
		MZ	53 18	18			13		
		MN2	53 58	12	15				
		F	22 55						
342	" 14	e$_N$	02 46.6	16					
		eL$_N$	03 17.1	30?					
		eLZ	17.3	30					
		MZ	23 16	25			14		
		ME	23 23	20		6			
		MN	23 51	20	8				
		F	04 10						
343	" 15	eP?Z	06 29 26	5					
		e$_N$	29 30						
		i(S)$_N$	33 32	10	+9				
		i$_E$	33 36	9		+8			
		eL$_Z$	35.2	24					
		MN	36 26	18	8				
		ME	36 36	19		6			
		MZ	36 51	19			8		
		F	07 05						
344	" 17	eL$_Z$	14 40.5	20					
		MZ	42 36	16			4		
		ME	43 28	16		4			
		F	15 00						
345	" 19	iPZ	12 39 46	5			-6	8540	Dilatation.
		ipP$_Z$	39 59	5			-5	(76°8)	H 12 27 57
		iS$_N$	49 29	7	-5				
		ePS$_Z$	50 14	11					
		eLR$_Z$	13 03.9	25					
		ME	05 49	24		9			
		MZ	06 13	22			9		
		MN	06 20	22	6				
		F	14 00						

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RIVERVIEW COLLEGE OBSERVATORY,
SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per.	Amplitude			Δ	
					A_N	A_E	A_Z		
	1945		h m s	s	μ	μ	μ	km.	
346	Sept.22	ePZ	09 16 10	8				3650	H 09 09 38
		ipP_{NZ}	16 16	8	+6		-8	(32°8)	
		iPP_{NZ}	17 19	9	+24		-19		
		$iPPP_N$	17 34	8	+18				
		iS_{NE}	21 21	10	-53	-26			
		i_E	22 03	10		+27			
		i_E	23 00	10		+25			
		iSS_E	23 21	10		+32			
		i_N	23 32	7	+26				
		i_E	23 46	6		-32			
		m_N	23 55	12	30				
		eL_E	24.2	28					
		eL_Z	25.1	28					
		ME_1	27 01	20		107			
		MN_1	27 54	18	79				
		MZ_1	28 32	20			108		
		ME_2	28 50	14		120			
		MN_2	28 56	15	127				
		ME_3	30 46	14		160ca			
		MN_3MZ_2	33 0	13	87		83		F 11 40
347	" 23	eN	11 54.1						
		MN	56.8	13	2				F 12 05
348	" 23	eZ	16 06.0	18					
		eLE	12.8	25					
		MZ	21.3	18			3		F 17 00
349	" 24	iPZ	12 40 48	4&8			+6	3060	Compression.
		iP_N	40 50	4&8	+5			(27°5)	h 0.01 probably.
		$i(pP)Z$	41 07	4&8			-7		
		iS_N	45 20	8	+8				
		i_E	45 25	8		+8			
		i_E	45 38	7		-6			
		i_N	45 45	10	+13				
		i_E	45 55	8		-9			
		i_E	46 10	7		-12			
		i_N	46 14	8	-19				
		i_E	47 17	12		-18			
		eL_Z	48.0	34					
		i_E	48 13	7		+29			
		MZ	49 18	24			22		
		ME	50 09	12		13			
		MN	51 25	13	13				F 14 05
350	" 26	$e(L)Z$	18 01.2						A few waves masked by large micros.
351	" 27	eL_Z	10 11.6						A few waves masked by microseisms.
352	" 27	eL_Z	23 25.4	20					
		MZ	29.1	20			7		
		ME	29.2	20		8			
		MN	29.3	15	9				F 00 15
353	" 28	eL_Z	11 20.9	20					
		MN	26.5	12	2				F 11 35
354	" 28	eL_Z	18 43.1	20					
		MN	48.6	14	3				F 19 00
355	" 28	eLQ_N	23 08.7	24					
		eLR_Z	13.7	26					
		MZ	17 51	20			6		
		ME	19 14	20		4			
		F	00 10						
356	" 29	$eLEZ$	05 02.3	24					
		MZ	03 26	17			6		
		F	05 15						
357	" 29	eL_Z	14 48.8	25					
		MN	49 36	20	6				
		ME	51 38	20		5			
		MZ	52 10	20			7		
		F	15 10						

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^2	V_s
N	1/3	208	7.8	5.8	0.002	4	12.8	12.9	-0.02	470
E	1/3	219	7.2	4.1	0.010	4	12.3	12.9	-0.09	440
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. 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).								
	1945		h m s	s	μ	μ	μ	km.	
358	Oct. 1	eE	02 35.8	8					
		MZ	42.2	15			1		
		F	02 50						
359	" 1	eL_{EZ}	06 14.5	25					
		MEZ	16.5	24		7	5		
		F	06 40						
360	" 1	eE	18 20.7						
		MEZ	24.6	17		2	4		
		MN	25.2	15	3				
		F	18 50						
361	" 2	eL_{NZ}	12 38.8	20?					
		MNZ	43.9	14	2		2		
		F	12 50						
362	" 3	$e(P)_Z$	18 00 22						
		$e(S)_N$	06 02						
		eL_N	10.0	26					
		MNE	12 50	14	11	9			
		MZ	14 11	17			6		
		F	19 00						
363	" 5	e_N	03 37.4						
		$e(L)_Z$	41.3	18					
		MENZ	47.9	16	1	1	2		
		F	04 15						
364	" 5	e_N	15 33.3	14					
		eL_N	37.1	24					
		MNE	38.6	16	4	3			
		F	16 10						
365	" 6	iP_{NZ}	09 19 16	4	+5		-9	3780	Dilatation.
		iS_N	24 38	10	-5			(34°0)	
		$e(L)_N$	29.4	?					
		ME_1	31 33	15		32			
		ME_2	33 47	18		43			
		MZ	34 04	12			27		
		MN	34 08	12	27				
		F	10 45						
366	" 6	e_N	22 11 15						
		eL_Z	13.1	25					
		MN	15 24	14	4				
		MZ	15 52	15			6		
		ME	16 10	15	¾	6			
		F	22 50						

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RIVERVIEW COLLEGE OBSERVATORY,
SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per.	Amplitude			Δ	Remarks
					A_N	A_E	A_Z		
	1945		h m s	s	μ	μ	μ	km.	
367	Oct. 7	$e(PS)_Z$	13 53 52	16					
		eLR_Z	14 19,9	28					
		MZ_1	25 22	20			5		
		ME	30 16	18		3			
		MZ_2	30 32	18			4		
		F	15 10						
368	" 9	iP_Z	14 48 26	5			+6	8790	Compression.
		iZ	48 30	5			+18	(79°1)	h 0.01
		i_N	48 32	5	-7				H 14 36 31
		ipP_{NZ}	48 43	6	-6		+19		
		iPP_Z	51 33	10			+8		
		iS_E	58 16	11		+20			
		iS_N	58 18	11	+12				
		$i(ScS)_N$	58 39	11	-22				
		i_E	58 48	9		+11			
		isS_N	59 00	10	+9				
		iPS_N	59 09	10	-13				
		i_{EZ}	15 09 04	13		+22	+13		
		eL_N	13.0	33					
		ME_1	13 28	19		16			
		MZ_1	14 41	30			65		
		MN_1	14 50	24	29				
		ME_2	17 17	22		16			
		MZ_2	17 30	24			33		
		MN_2	17 35	24	26				
		F	16 25						
369	" 9	i_Z	22 55 37	8			+6		
		$iNEZ$	59 22	7	+7	+8	+5		
		i_N	59 31	8	+8				
		i_E	59 42	7		+10			
		eL_E	23 01.1	28					
		MZ	02 33	22			6		
		F	23 15						
370	" 11	e_N	09 08.7						Large micro-seisms.
		eL_E	13.5	26					
		ME	14 47	16		6			
		MNZ	15 31	16	6		4		
		F	09 30						
371	" 12	eL	18 37.0						Very large microseisms.
		F	18 55						
372	" 14	iP_Z	04 14 25	6			-6	4270	Dilatation.
		iP_E	14 27	6		-4		(38°4)	H 04 07 05
		iPP_E	15 52	6		+4			
		i_Z	15 56	6			+5		
		i_E	16 47	6		+5			
		iS_{NE}	20 18	7	+6	+9			
		isS_E	20 34	7		+6			
		e_Z	23 07	16					
		$e(SSS)_N$	23 23	16					
		eL_Z	24.9	26					
		ME_1	26 13	20		7?			
		MZ_1	26 34	20			8		
		MN	27 19	14	4				
		ME_2	29 57	15		5			
		MZ_2	31 08	18			8		
		F	05 10						

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RIVERVIEW COLLEGE OBSERVATORY,
SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1945		h m s	s	μ	μ	μ	km.	
373	Oct.16	iPZ	16 10 50	5			+9	4670	Compression.
		iP_{NE}	10 52	5	+8	-5		(42°0)	h 0.01
		ipP_{NEZ}	11 08	5	+15	-10	-20		H 16 03 07
		m_{NEZ}	11 28	14	12	9	20		
		iPP_N	12 32	8	+9				
		iPP_E	12 35	8		+8			
		$iPcP_{NZ}$	12 49	9	+29		-41		
		m_E	12 57	9		9			
		iS_{NE}	17 01	8	+19	-13			
		i_{NE}	17 06	8	-75	+48			
		e_E	17 24	16					
		isS_N	17 41	9	+61				
		i_E	17 46	9		+61			
		iSS_N	20 02	10	+40				
		i_E	20 14	9		-47			
		i_E	20 29	12		-83			
		m_N	20 31	12	29				
		i_Z	20 36	14			+56		
		$iScS_E$	20 44	12		-116			
		$iSSS_N$	20 58	8	+43				
		eL_Z	24.3	40					
		eL_N	24.4	40					
		MZ_1	25 49	30			146		
		MN_1	25 57	24	108				
		ME_1	26 45	22		73			
		ME_2	28 05	22		81			
		MZ_2	28 31	22			96		
		MN_2	28 39	22	104				F 19 10
374	" 19	e_E	06 23 57						
		e_Z	26 34						
		MN	33 45	15	1				
		MZ	35 31	15			2		
		ME	35 43	15		2			F 06 50
375	" 20	i_Z	12 27 24	4			+3		
		e_{NE}	33.6	10					
		e_N	35 18	7					
		i_N	38 17	4	-3				
		MN	40 08	7	2				
		ME	41 11	7		1			F 12 50
376	" 20	eL_E	14 47.8	14					
		MNE	48.7	14	1	1			F 14 55
377	" 21	eP_{NZ}	03 31 39	5				7220	H 03 21.0
		eS_{NE}	40 17	12				(65°0)	
		i_{NE}	40 28	7	+4	+3			
		e_E	41 45	10					
		$e(L)_N$	49.7	18					
		MN_1	56 35	20	9				
		MZ_1	57 12	20			6		
		ME_1	58 04	20		9			
		M_2NEZ	04 02.2	18	7	10	9		F 05 35
378	" 22	e_E	07 37.4						
		eL_N	38.8	16					
		MZ	41.3	13			2		
		MN	41.4	13	1				F 07 50
379	" 22	ME	14 42.5	12		2			
		F	14 50						
380	" 24	e_Z	02 29.2						
		e_E	29.5						
		e_N	34 11						
		eL_Z	36.1	20					
		MN	37 25	18	4				
		MZ	37 34	20			6		
		ME	37 39	20		5			
		F	13 30						

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RIVERVIEW COLLEGE OBSERVATORY,

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1945		h m s	s	μ	μ	μ	km.	
381	Oct.24	e_N	09 15 10	11					
		eL_N	16.7	18					
		M_N	18 06	15	2				
		M_Z	19 17	15			1		
		F	09 30						
382	" 25	eL	01 38.0						
		F	01 50						
383	" 25	e_Z	03 06.3	7					
		e_E	06.4	7					
		e_E	11 06	10					
		i_N	11 52	12	+5				
		M_N	14 46	18	7				
		M_E	15 17	18		5			
		M_Z	15 45	18			9		
		F	04 15						
384	" 25	e_N	10 20 51	3					
		e_E	21 11	4					
		eL_Z	23.1	18					
		M_E	24 22	14		1			
		M_Z	24 34	14			6		
		M_N	24 41	14	5				
		F	10 35						
385	" 25	iP_Z	15 11 51	10			-7	10,340 (93°0)	Dilatation. H 14 58 40
		eP_N	11 51	10					
		e_Z	15 07	8					
		e_N	15 10	8					
		$iSKS_N$	22 22	10	+6				
		iS_E	22 52	10		+6			
		$iScS_N$	22 57	10	+10				
		m_E	23 07	12		4			
		e_N	23 59	14					
		i_N	25 57	11	+8				
		e_N	28 36	16					
		eLQ_E	37.7	36					
		eLR_Z	41.1	40					
		ME_1MZ_1	45 00	24		11	22		
		MN_1	45 04	24	17				
		MN_2	49 21	18	12				
		MZ_2	49 54	20			17		
		ME_2	50 01	20		11			
		eW_2Z	17 17.2	28					
		eW_2N	17.5	28					
		MNZ	21.5	20	2		2		
		F	17 50						
386	" 26	eL_Z	09 43.7	20					
		F	09 55						
387	" 26	e_Z	14 19.2						
		e_E	36.9	12					
		$e(LQ)_N$	51.3	22					
		eL_E	15 01.6	30					
		ME_1	08 18	26		8			
		MZ_1	08 22	26			10		
		MN	09 48	22	6				
		ME_2	11 42	19		7			
		MZ_2	11 50	20			9		
		F	16 10						
388	" 26	e_N	23 35 24						Readings from the Wiechert.
		eL_N	38.5	21					
		M_E	39 44	16		6			
		M_N	40 11	15	5				
	27	F	00 40						

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RIVERVIEW COLLEGE OBSERVATORY,
Seismological Bulletin.

No.	Date	Phase	Time (G.M.T.) h m s	Per. s	Amplitude AN μ	AE μ	AZ μ	Δ km.	Remarks
389	1945 Oct.27	iPPZ	11 44 44	6			-3	13,450ca	
		iZ	45 30	6			-3	(121°ca)	h 0.02 ca.
		eSKSE	49 51	8					
		iSKSE	49 55	8		-8			
		iSKKSN	51 22	8	+4				
		iSKKSE	51 26	8		+12			
		iPSE	54 26	9		+7			
		iPSZ	54 29	10			+22		
		iPPSE	56 02	10		+8			
		eSSN	12 00 59	16					
		iNE	01 12	12	+9	-9			
		eE	04 38	12		4			
		eE	05 57	16		3			
		ME	31 04	16		2			
		MZ	31 32	16			2		
		MN	31 43	16	1				
		F	13 15						
390	" 28	eZ	00 59.1						
		eLZ	01 12.4	24					
		MZ	18 50	20			3		
		ME	19 06	20		2			
		F	01 45						
391	"28	ME	05 29 00	16		4			
		MNZ	29 08	19	6		2		
		F	Merged in	No.392					
392	" 28	iPNEZ	05 42 56	6	-8	-4	+17	2870	Compression.
		ipPNEZ	43 40	6	+11	+8	-16	(25.8)	h 0.03
		iPPNEZ	43 52	6	-13	-12	+32		H 05 37 44
		iSN	47 07	8	-22				
		iN	47 22	7	+24				
		iN	46 50	8	+17				
		iNE	48 10	8	+34	-14			
		iE	48 21	6		+22			
		isSN	48 25	10	+24				
		iSSE	48 37	10		+41			
		iN	48 48	12	-53				
		eLZ	49.9	18					
		MN	52 01	12	12				
		ME	54 29	12		10			
		F	07 20						
393	" 29	eN	05 10 53						Readings from
		eLN	12.8	15					Wiechert.
		MN	14 33	16	11				
		ME	17 51	16		10			
		F	05 30						
394	" 30	e(P)Z	01 13 40	6					
		e(S)N	18 18	12					
		iZ	19 58	10			+5		
		eLZ	21.7	30					
		ME	23 08	20		9			
		MZ	23 28	26			15		
		MN	23 34	22	10				
		F	02 05						
395	" 30	e(L)N	07 53.5	16					
		MN	55 34	14	2				
		F	08 05						
396	" 31	eZ	07 33 27						
		iE	34 28	5		+4			
		iZ	34 31	6			+4		
		iNE	35 06	6	+3	+4			
		MZ	38 14	14			4		
		MN	38 18	14	3				
		ME	38 25	14		3			
		F	07 50						

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 3	201	7.9	6.0	0.002	4	12.2	12.2	-0.01	457
E	1 8	224	7.2	4.4	0.009	4	12.3	12.2	-0.02	490
Z	2					4	11.9	12.0	+0.02	466

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
		Unless stated otherwise, readings are from the Galitzins. 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).							
	1945		h m s	s	μ	μ	μ	km.	
397	Nov. 2	eLZ	08 46.3	24					
		F	08 55						
398	" 2	iPZ	19 05 05	3			+3	4170	
		iPNEZ	05 07	4	+3	-2	-8	(37°5)	Dilatation.
		iSE	10 51	10		+10			H 18 57 53
		iSN	10 52	7	+3				
		iSSN	13 29	10	+9				
		iE	13 31	7		+12			
		iScSNEZ	15 15	7	+4	+5	-8		
		eLE	17.4	20					
		MN	17 53	14	11				
		ME	18 35	10		10			
		MZ	23 44	12			11		F 20 30
399	" 3	i(S)E	22 35 06	6		-4			
		iN	35 14	5	+5				
		e(SS)E	42 18	10					
		MZ	23 03 50	20			4		
		MN	04 54	18	2				
		ME	06 09	18		3			F 23 30
400	" 6	eE	18 29 23	9					
		eLE	37.8	20					
		MNZ	42.8	15	1		1		F 18 50
401	" 6	eN	19 51 19	8					
		eZ	51 22	8					
		e(S)NE	55 41	12					
		MNE	20 03.9	16	3	3			
		MZ	04 14	22			4		F 20 30
402	" 7	eN	08 08 28	8					
		eZ	11 47	8					
		eLE	16.8	20					
		eLZ	17.8	20					
		MEZ	21.9	16		7	7		
		MN	21 58	16	6				F 09 00
403	" 8	e?N	07 46.7						
		eE	47 51	8					
		MZ	52 53	14			1		
		MNE	53.8	14	1	1			F 08 15
404	" 8	eLZ	10 14.0	24					
		MZ	25.1	18			1		
		F	Merged in No 405.						

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY,
SEISMOLOGICAL BULLETIN.

NO.	Date 1945	Phase	Time (G.M.T.) h m s	Per. s	Amplitude A_N μ	A_E μ	A_Z μ	Δ km.	Remarks
405	Nov. 8	eLZ	11 11.2	24					
		F	11 40						
406	" 9	e(L)Z	20 15.4	18					Very heavy microseisms.
		F	20 30						
407	" 10	eZ	17 47.9						
		eLN	55.4	18					
		MZ	57 40	16			4		
		MN	57 52	17	3				
		ME	58 05	16		3			F 18 25
408	" 10	eZ	19 08.5						
		eE	08.6						
		eLN	15.9	22					
		eLZ	17.5	22					
		ME	19 40	16		3			
		MZ	19 51	18			4		
		MN	20 22	13	2				F 19 40
409	" 10	eZ	20 57.2						
		eN	21 01 14	10					
		iNE	01 53	6	-5	-6			
		iE	02 29	9		-3			
		MN	06 21	14	4				
		MZ	07 31	14			3		
		ME	09 52	12		5			F 21 50
410	" 10	eE	22 19.2	8					
		eE	23.5	14					
		eLN	25.9	22					
		eLZ	28.1	24					
		MN	29 29	14	4				
		MEZ	31.8	16		5	5		F merged in No.411 From Wiechert.
411	" 10	MN	23 11 10	12	7				
		F	23 40						
412	" 11	i(P)Z	09 28 18	10			+8		Masked by very large microseisms
		e(S)N	32 38	12					
		iN	32 51	14	+15				
		iN	33 17	16	+45				
		mZ	33 29	18			39		
		eLZ	36.5	26					
		ME	38 43	18		27			
		MZ	39 18	18			38		
		MN	39 22	18	31				F 10 50
413	" 12	eE	21 14.3						
		eLE	19.0	20					
		MEZ	21.6	16		2	2		F 21 30
414	" 13	eLE	07 56.0	20					
		eLZ	58.3	24					
		MZ	08 04 42	18			4		F 08 15
415	" 13	eLZ	19 51.8	20					
		ME	53 50	17		2			
		MZ	54 01	16			2		F 20 05
416	" 15	iPZ	01 41 06	5			+5	3060	Compression.
		iPPZ	41 58	5			+5	(27°5)	H 01 35 21
		eSN	45 43	8					NS readings from
		iSE	45 45	9		+4			the Wiechert.
		iE	46 14	9		+4			
		eLN	47.4	18					
		eLZ	47.6	18					
		MN	50 04	14	11				
		MEZ	51.3	14		4	3		F 02 35
417	" 15	e?E	12 45.1						
		eLE	52.7	18					
		ME	13 00 11	18		2			
		MZ	00 20	18			3		F 13 10
418	" 16	ME	19 00 10	14		1			
		MZ	04 21	16			1		F 19 15
419	" 16	e(S)E	21 03 20	10					
		eLE	05.4	22					
		ME	07 02	14		8			
		MNZ	08 00	14	2		2		F21 40

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY, SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1945		h m s	s	μ	μ	μ	km.	
420	Nov.19	eE	19 53.5						
		F	20 05						
421	" 20	eL_Z	12 35.2	20					
		F	12 45						
422	" 21	e_E	04 51 24						
		eL_Z	55.0	26					F 05 15
423	" 21	eL_E	15 27.6	18					
		MZ	30 53	18			4		F 15 50
424	" 22	$e(P)_E$	06 41 17						
		$e(S)_E$	45 37						
		eL_Z	48.2	18					
		eL_E	48.3	24					
		MNEZ	50.5	18	1	2	3		F 07 35
425	" 22	e_E	13 12 57						
		MEZ	22.5	13		1	1		F 13 30
426	" 22	iP_{EZ}	20 58 03	5				4270	
		iPP_{EZ}	59 28	5		+2	+3	(38°4)	H 20 50 43
		iPP_N	59 30	5	+1				NS readings from
		iE_Z	59 39	8		+2	+4		the Wiechert.
		iS_N	21 03 55	8	+4				
		iS_E	03 58	8		-5			
		eSS_Z	06 31	14					
		i_Z	06 46	12			+8		
		eL_E	09.5	28					
		eL_Z	09.6	28					
		ME	14 27	20		25			
		MNZ	15.4	20	45		29		F 22 35
427	" 23	eP_Z	04 55 12	6				2870	
		eS_E	59 37	10				(25°8)	H 04 49 32
		eLR_Z	05 01.6	28					
		ME	02 21	24		4			
		MZ	03 07	24			5		F 05 50
428	" 23	eL_Z	13 24.5						
		F	13 40						
429	" 23	ME	19 37 25	11		1			
		F	19 45						
430	" 24	eL_E	02 31.8	18					
		MEZ	35.3	16		3	3		F 03 20
431	" 24	eE	14 34 50						
		F	14 55						
432	"~~X~~ 26	iP_{NEZ}	05 18 21	4	+2	+4	-14	3160	Dilatation.
		ipPZ	19 51	4			+6	(28.4)	h 0.09 ca.
		ipP_E	19 56	5		-5			H 05 13 12
		$i(PcP)_Z$	21 06	8			-18		NS & EW measure-
		iS_Z	22 27	5			+26		ments from the
		iS_{NE}	22 28	5	-8	+19			Wiechert.
		i_E	23 40	4		+11			
		i_Z	24 00	4			-19ca		
		isS_{NE}	25 33	8	-13	-7			
		iNE	25 42	8	+12	-7			
		MZ	25 49	18			22		
		m_E	25 53	8		14			
		$iScS_N$	27 56	5	-7				
		$iScS_E$	27 57	5		+18			
		ME	2[illegible] 52	11		6			
		MN	29 41	11	12				
		F	06 35						
433	" 26	eE	06 55 38						
		eL_Z	07 04.2	26					
		F	07 20						
434	" 27	eL_Z	06 14.5	22					
		MZ	17 40	20			2		
		F	06 35						

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY,
SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1945		h m s	s	μ	μ	μ	km.	
435	Nov.27	iP_Z	12 01 24	9			-7	4180	Dilatation.
		i_{NE}	01 29	9	-2	+5		(37°6)	H 11 54 11
		iZ	02 21	8			+28		Perhaps more than
		i_E	02 53	10		+11			one shock.
		i_{EZ}	03 05	6		+12	+20		
		i_{NE}	03 47	8	-3	+10			NS readings from
		iS_E	07 10	10		+16			Wiechert.
		iSS_E	09 24	10		+17			
		i_E	13 43	8		+31			
		ME	14 36	15		43			
		MN	15 55	11	50				
		MZ_1	17 10	14			31		
		MZ_2	18 57	13			40		
436	" 27	$P?Z$	12 30 34						Merged in No.436.
		i_E	31 32	9		+12			Preliminaries
		i_E	32 21	8		-15			masked by No.435
		$i(S)_E$	36 23	8		-14			
		$i(SS)_E$	38 58	8		-19			
		iN	39 02	8	+13				NS readings from
		MN	44 29	8	53				the Wiechert.
		ME	44 34	8		41ca			
		MZ	46 56	15			47		F 14 35 ca.
437	" 27	eZ	15 39.3						
		MEZ	46.5	14		1	1		F 16 05
438	" 27	e_E	17 14 46						
		e_E	19 59	8					
		eL_E	20.8	16					
		ME	22 10	14		2			
		MZ	24 20	12			2		F 17 40
439	" 27	$ePEZ$	22 11 03	10				11,560	
		iP_{EZ}	11 10	10		+9	+16	(104°)	Compression.
		eEZ	11 19	25					H 21 57 02
		iEZ	12 08	14		+10	+48		
		iZ	14 56	12			-26		
		iPP_Z	15 22	16			+44		
		mEZ	15 47	20		26	65		
		eEZ	15 57	32					
		mEZ	16 18	26		51	92		
		iEZ	17 26	12		+35	+34		
		iEZ	17 52	10		+27	+40		
		$iSKS_E$	21 42	18		+43			
		eN	21 51	24					NS readings from
		iE	21 57	11		-78			the Wiechert.
		$i(SKKS)_N$	22 17	24	+155				
		i_E	22 20	22		-350			
		iS_N	22 54	16	+83				
		iS_E	22 55	11		-123			
		mN	23 23	24	290				
		iPS_N	24 34	18	+81				
		mE	24 53	28		290			
		mN	25 08	28	250				
		iE	25 41	16		+180			
		iN	26 57	13	-58				
		iN	29 52	17	+68				
		mN	30 24	32	540				
		mE	30m56	32		450ca			
		iN	32 25	18	+150				
		iE	32 57	22		-210			
		iE	34 04	21		+300			
		iNE	34 47	16	-90	+160			
		mE	35 02	24		340			
		eLQ_N	38.8	40					
		eLQ_E	39.6	32					
		iLR_N	42 29	25	-400				
		MN_1	42 56	32	2200				
		MN_2	44 53	32	2000				
		MZ_1	45 52	24			415		

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RIVERVIEW COLLEGE OBSERVATORY,

SIESMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1945		h m s	s	μ	μ	μ	km.	
439 cont.	Nov.27	MN_3	22 51 32	21	900				
		MZ_2	52.7	28			1160ca		NS & EW maxima from Wiechert.
		iME	53 01	22		+780			
		ME_1	54 10	22		2000ca			
		MN_4	55 12	21	1120				
		ME_2	56 39	21		2350ca			
		ME_3	57 37	19		2100ca			
	" 28	F	03 30						
440	" 28	iP_{NEZ}	08 40 20	4	+4	+6	-11	2420 (21°8)	Dilatation. h 0.01 H 08 35 30
		iS_N	44 10	5	-15				
		iS_E	44 11	7		-9			
		$iPcP_Z$	44 14	7			-10		
		$iPcP_N$	44 15	6	+30				
		i_E	44 24	8		+7			
		i_N	44 29	7	+14				
		isS_E	44 39	7		-7			
		isS_N	44 43	6	-11				
		$iSSS_{NE}$	45 02	11	-5	+7			
		iZ	45 05	10			+15		
		ME	48 00	14		4			
		MZ	48 11	14			4		
		MN	49 26	13	2				
		$iScS_E$	51 23	6		+5			
		F	09 30						
441	" 29	eE	12 40 18						
		eL_{EZ}	45.0	20					
		MEZ	47.8	14		1	1		
		F	13 00						
442	" 29	eZ	15 39 43	12					
		ME	44 04	14		2			
		MN	45 12	10	4				MN from Wiechert.
		MZ	48 26	12			2		
		F	16 05						
443	" 30	ePZ	12 17 47	8				5150 (46°3)	H 12 09 23
		$ePPZ$	19 39	10					
		iS_N	24 31	8	-5				
		PS_E	24 42	14					
		iSS_E	27 48	14		+12			
		i_N	27 54	7	-6				
		eL_E	32.3	34					
		eL_Z	35.6	30					
		MEZ	38.5	20		9	12		
		MN	38 42	18	3				
		F	13 20						

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Riverview College Observatory

RIVERVIEW. N.S.W

SEISMOLOGICAL BULLETIN

$\Phi = 33° 49' 46''$ S. $\lambda = 151° 9' 39''$ 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^3	V_s
N	1/3	202	8.0	6.2	0.002	4	12.2	12.2	-0.01	457
E	1/3	228	7.2	4.2	0.007	4	12.3	12.2	-0.02	490
Z	2					4	11.9	12.0	+0.02	466

No.	Date	Phase	Time (G.M.T.) h. m. s.	Per s.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ km.	Remarks
		Unless stated otherwise, readings are from the Galitzins. 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).							
	1945		h m s	s	μ	μ	μ	km.	
444	Dec. 1	e_{NZ}	05 27 47	8					NS readings from
		eL_E	29.5	18					the Wiechert.
		MZ	32 44	12			3		
		MN	33 57	8	1				
		ME	34 56	10		2			F merged in No.445
445	" 1	eZ	05 55 08	7					Masked by No.444.
		iZ	57 20	6			+3		
		$i(S)_E$	59 36	9		+4			
		MEZ	06 02.5	14		2	3		F 06 30
446	" 1	$e(P)_Z$	19 42 47	5					
		$e(S)_E$	49 20	12					
		$e(SS)_N$	52 38						
		$i(SS)_E$	52 39	11		+6			
		eL_Z	19 00.4	26					
		ME	03 12	20		4			
		MZ	03 38	20			3		F 19 25
447	" 2	eL_Z	23 36.7	20					
		ME	39 58	20		1			NS readings from
		MZ	40 24	18			1		the Wiechert.
		MN	41 40	11	1				F 00 10
448	" 3	ME	19 46 39	14		1			
		MZ	48 59	14			2		F 19 55
449	" 5	eZ	22 42 09						
		eL_Z	46.8	18					F 23 05
450	" 8	iPNZ	01 09 49	4&8	+1		-6	3320	Dilatation.
		iZ	09 55	4&8			+8	(29°9)	h 0.01
		ipPZ	10 08	4&8			-16		H 01 03 48
		iZ	10 12	9			+36		NS readings from
		iN	10 14	9	-10				the Wiechert.
		iN	10 38	8	+9				
		iZ	11 01	10			+31		
		iS_N	14 38	21	+165				
		iZ	14 46	20			+64		
		i_E	15 09	15		+60			
		mN	15 10	21	210				
		mZ	15 18	24			150		
		i_E	17 33	10		+99			
		eL_Z	17.7	32					
		ME_1	19 30	20		105			
		MN_1	19 36	21	145				
		MZ	20 40	20			140ca		
		MN_2	22 12	18	160				
	W_2	MZ	03 49 32	26			11		F 05 10

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY,
SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
	1945		h m s	s	μ	μ	μ	km.	
451	Dec. 8	e?$_E$	08 33.8						
		M_Z	45 08	14			1		
		M_E	45 42	14		1			F 09 05
452	" 8	eL_Z	19 13.6		20				
		ME_Z	17.3	17		2	2		F 19 30
453	" 9	eL_E	03 58.6	18					
		F	07 10						
454	" 9	eZ	21 46.4	20					
		F	22 15						
455	" 10	e$_Z$	01 55.8						
		M_E	58 39	12		1			
		M_Z	59 00	14			3		F 02 10
456	" 11	eL_Z	11 15.1	26					
		ME_Z	22.8	22		6			F 11 45
457	" 12	M_E	01 38 39	14		2			
		F	01 45						
458	" 12	e$_E$	05 54 59	6					
		e(S)$_E$	58 49	8					
		eL_Z	06 05.6	20					
		MN_1	07 00	11	1				
		MZ_1	07 46	16			5		
		ME_1	07 52	16		5			
		MN_2	10 47	13	2				
		ME_2MZ_2	11 00	16		6	7		F 07 15
459	" 12	eL	07 37.3	20					
		F	07 45						
460	" 14	eZ	17 47 27	18					
		i(SKKS)$_E$	54 58	7		-2			
		i(SKKS)$_N$	55 00	7	+2				
		e(PS)$_{NE}$	57 52	12					
		eSS_{NE}	18 04 37	16					
		eL_Z	26.1	20					F 18 40
461	" 14	eL_N	19 53.2	16					
		MN	54 38	12	1				
		MZ	55 10	14			1		
		ME	55 58	12		1			F 20 10
462	" 15	eL_Z	17 23.9	18					
		MN	29 12	12	1				F 17 35
463	" 16	eL_Z	16 39.0	22					
		F	16 50						
464	" 17	eL_Z	08 44.3	20					
		MNZ	45 20	14	2		3		F 08 55
465	" 17	ME	22 07 35	13		1			
		F	22 15						
466	" 18	eL_E	02 27.0	22					
		MN	30 03	20	2				
		MZ	30 28	20			3		
		ME	30 56	20		2			F 03 00
467	" 18	eL_E	04 21.6	22					
		ME	25 04	18		2			
		MN	27 00	18	2				
		MZ	31 11	16			2		F 04 40
468	" 19	eL_E	00 05.5	18					Large micro-
		ME	09 17	10		1			seisms present.
		MN	09 47	10	2				
		MZ	09 56	10			4		
		F	00 25						
469	" 19	eL_E	17 11.1	16					
		ME	12 12	14		1			
		MN	12 29	14	1				
		F	17 20						
470	" 20	eZ	00 21.3						
		eL_{EZ}	26.4	25					
		MN	28 05	18	3				
		MEZ	29 10	18		4	4		
		F	01 10						

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY,
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
	1945								
471	Dec.20	iPZ	04 07 52	6			+4	5270	Compression.
		iNEZ	07 57	6	+4	-3	-8	(47°4)	H 03 59 19
		iPPNEZ	09 50	8	-8	+5	+10		
		iSNE	14 43	12	-14	+6			
		i(PPS)N	15 05	10	-28				
		iE	15 08	16		+28			
		iSSE	16 17	14		+25			
		iSSN	16 19	11	-27				
		mE	16 39	16		31			
		mZ	16 51	18			20		
		eLN	20.9	30					
		MN1	24 35	16	23				
		ME	24 41	14		20			
		MN2	27 02	15	23				
		MZ	27 45	15			19		
		eW2Z	06 44.1	28					
		MZ	50 27	26			12		
		MN	51 19	25	11				F 07 20
472	" 23	ePKPZ	08 29 39	8			2		
		iPKSZ	33 05	6			-7		
		eE	37 21	14					
		eN	38 01	14					
		eSKKSE	39 09	14					
		eNE	39 53	12					
		ePSZ	42 47	18					
		eSSN	51 05	16	4				
		eSSSN	56 18	18	4				
		eE	56 58	20		3			
		eLE	09 13.1	28					
		eLZ	17.4	30					
		MZ	19 11	30			14		
		MN	23 33	24	10				
		ME	24 21	24		9			F 10 55
473	" 24	eLEZ	07 19.2	18					
		F	07 25						
474	" 25	iPZ	01 38 49	4			+2	9690	Compression.
		eN	38 52					(87°2)	H 01 26 05
		eZ	40 13	12					
		iSKSN	49 15	6	+7				
		iSN	49 25	6	+4				
		iPSZ	50 39	8			+4		
		iSSN	54 54	12	-5				
		eE	55 55	12					
		eN	55 57	15					
		ME	02 10 12	25		7			
		MZ	10 26	24			11		
		MN1	10 48	22	7				
		MN2	13 33	22	9				F merged in No.475
475	" 25	eZ	03 10.2						
		eNE	15.1	21					
		eLE	15.6	28					
		ME	17 48	17		2			
		MZ	19 54	12			2		
		MN	20 02	12	2				F 04 15
476	" 25	eLEZ	09 19.1	22					
		MN	20 20	12	2				F 09 35
477	" 25	eN	15 16 10	6					
		eLN	19.0	22					
		MN	21 51	15	3				
		ME	22 28	14		2			
		MZ	22 56	16			2		
		F	15 50						
478	" 26	e(L)N	22 27.3						From the Wiechert.
		F	22 30						

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY,
SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
	1945		h m s	s	μ	μ	μ	km.	
479	Dec.27	iPNZ	04 46 50	9	+9		-10	3260	Dilatation.
		mNZ	47 09	9	11		16	(29°3)	h 0.015
		ipPNZ	47 19	9	-26		+30		H 04 40 57
		iNZ	47 35	7	-18		+16		
		iPPNZ	47 47	8	-22		+24		
		iSN	51 33	8&19	-90				
		iZ	51 49	12			+63		
		iN	51 52	19	-370				
		mZ	52 12	18			140		
		i(sS)N	52 15	19	-295				
		iN	53 01	11	+78				
		iN	53 29	11	+59				
		iE	54 04	13		-133			
		eLZ	54.5	30					
		eLN	54.7	35					
		MN1ME1	56 28	19	235	156			
		MZ1	56 41	21			190		
		MN2	58 07	16	200				
		ME2	58 29	13		118			
		MZ2	58 36	16			260ca		
		eW2Z	07 25.3	32					
		MZ	35 13	22			4		
		MN	35 39	22	4				↘ ↙
		ME	37 24	20		3			F 08 50
480	" 28	eL	04 51.5	20					Masked by micro-seisms.
		F	05 10						
481	" 28	e(P)N	14 03 33						Masked by micro-seisms.
		eZ	03 38						
		i(S)N	08 11	8	-5				
		iN	08 29	12	-8				
		iZ	08 35	12			-6		
		eLE	11.6	24					
		MEZ	12 54	20		9	10		
		MN	13 12	18	7				
482	" 28	iPNZ	17 54 39	8	+42		-43	3260	F 15 00
		iPPNZ	55 30	6	+92		-75	(29°3)	Dilatation.
		iSN	59 22	8&19	-400				h 0.015
		iN	59 42	19?	-1250?				H 17 46 46
		iN	18 00 04	19?					Replica of No.479
		eLN	02.5	30					After iS, NS & EW measurements from the Wiechert.
		MN1ME1	04 16	19	1000	765			
		MZ1	04.8	19?			460?		
		ME2	06 04	13		550ca			
		MN2	06 12	16	820				
		ME3	08 26	13		550ca			
		ME4	10 57	12		400ca			
		MN3	11 22	14	600				
		ME5	12 43	11		380ca			
		MN4	13 16	13	520				
		MN5	14 56	12	580				
		eW2N	20 28.6	35					
		ME	32 46	28		24			W2 from the Galitzins.
		MN	34 07	30	45				
		MZ	34 20	28			35		
		F	22 40						
483	" 28	eN	22 54 16						Readings from the Wiechert.
		eLN	56.1	18					
		MN	58 16	16	11				
		F	Merged in No.484.						
484	" 28	eN	23 25.9						
		eLZ	29.7	25					
		ME	32 46	13		7			
		MN	33 42	15	10				
		MZ	33 52	16			11		
	" 29	F	00 30						

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RIVERVIEW COLLEGE OBSERVATORY,

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks.
	1945		h m s	s	μ	μ	μ	km.	
485	Dec.29	eLZ	05 12.7	20					
		F	05 25						
486	" 29	eNZ	06 55.0	11					
		F	07 00						
487	" 29	eLNZ	09 45.3	16					
		ME	51 14	15		4			
		MN	51 46	18	6				
		MZ	51 59	18			6		F Merged in No.488
488	" 29	iPN	09 56 37	7	-7			3010	
		iPZ	56 41	7			+8	(27°1)	
		iZ	57 27	8			+14		
		iSN	10 01 11	10	+13				
		iN	01 29	12	+27				
		MEZ	07.3	20		32	37		
		MN	07 45	18	34				
489	" 29	eLZ	11 46.1	18					F merged in No.489
		MNE	48.6	14	1	1			
		MZ	48 49	16			2		F 12 10
490	" 29	ePZ	12 32 40	8				3100	
		eN	32 46	12				(27°9)	
		eSN	37 19	16					
		mNZ	38.1	20	11		10		
		eLE	41.5	24					
		MNZ	43.8	18	26		27		
		ME	44 10	15		16			F merged in No.491
491	" 29	eLN	13 32.2	28					
		ME	33 55	20		6			
		MZ	34 31	20			12		
		MN	34 45	18	9				F 14 30
492	" 29	eLE	14 40.5						
		MZ	42 27	16			2		
		MN	43 17	16	2				
		F	Merged in No.493						
493	" 29	eLEZ	14 58.4	28					
		MEZ	15 00.2	20		3	3		
		F	Merged in No.494						
494	" 29	eN	15 27.3	14					
		eLZ	31.5	20					
		MN	32 15	18	2				
		ME	32 28	18		2			
		MZ	33 55	16			3		
		F	16 00						
495	" 29	eZ	23 48.3						
		F	00 00						
496	" 30	eLNZ	00 48.5	18					
		F	Merged in No.497						
497	" 30	iPN	00 54 24	8	+6			3260	
		iNZ	54 31	8	-10		+15	(29°3)	h 0.015
		ipPNZ	54 52	9	-23		+22		H 00 48 31
		iSN	59 06	8&18	-33				Replica of No.479
		iN	59 28	8&18	-200				
		iZ	59 32	16			-86		
		iN	01 02 53	10	+142				
		cLN	03.4	30					
		ME1	05 33	14		81			
		MZ1	06 25	16			140ca		
		MN1	06 59	16	180				
		MZ2	07 27	16			150ca		
		ME2	13 35	13		88			
		MN2	14 08	12	110				
		MZ3	14 13	12			110ca		
		(W2)Z	03 42.6	25					
		F	04 10						

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RIVERVIEW COLLEGE OBSERVATORY,

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (G.M.T.)	Per.	Amplitude			Δ	Remarks
					A_N	A_E	A_Z		
	1945		h m s	s	μ	μ	μ	km.	
498	Dec.30	$e(L)_N$	04 22.4						
		ME	28.1	12		1			
		MNZ	32.9	12	2		1		
		F	04 50						
499	" 30	eN	07 52 05						
		eZ	52 14						
		eL_Z	55.7	24					
		ME	58 11	14		2			
		MZ	59 02	17			4		
		MN	59 13	16	3				
		F	08 20						
500	" 30	MN	17 33 43	11	1				
		ME	34 17	12		1			
		F	17 40						
501	" 30	eZ	18 36 40						
		eN	41 36	14					
		MN	47 33	18	7				
		MEZ	48.1	13		5	4		
		F	19 30						
502	" 31	eL	00 15.3	20					
		F	00 30						
503	" 31	eL	04 36.6						
		F	0450						
504	" 31	MN	11 28 05	18	2				
		ME	31 15	14		1			
		F	11 40						
505	" 31	eL_E	14 38.7	20					
		MNEZ	43.0	14	3	5	3		
		F	15 05						
506	" 31	iP_{NZ}	17 31 52	8	-9		+11		Compression.
		iS_N	36 33	11	-6				Probably after-
		iN	36 56	12	+18				shock of No.479.
		iE	37 41	16		+18			
		eL_E	38.8	28					
		ME1	42 02	16		72			
		MN	43 06	14	63				
		MZ	43 25	14			38		
		F	19 35						

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