RIVERVIEW COLLEGE OBSERVATORY

PROVISIONAL BULLETIN No.1, 1934
1934, January.

Date	Phase	Time (G.M.T.)	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
1934		h m s	mm.	mm.	mm.	km.	
Jan. 1	e?	06 29.9					Masked by heavy micro-seisms.
	e	37.3					
	eL	39.3					
	MN	40.5	1.3				
	ME	40.7		1.1			
" 2	eE	17 39.8					
	e(S)E	41.8					
	mZ	42 06			0.7		
	mN	42 18	2.2				
	mE	42 32		4.5			
	LE	43.0					
	mN	43 29	4.6				
" 2	e	19 22.0					
	mE	24 24		2.0			
	L?E	24.9					
	mN	25 17					
" 2	eL	21 58.1					A few long waves.
" 3	iP_N	09 54 47	+0.6			8600	
	iPZ	54 48			-0.4	(77°4)	
	i_{NZ}	55 54	+1.8		-0.7		
	iS_N	10 04 41	-0.8				
	i_E	05 00		+1.7			
	L?	19.6					
" 12	e	14 11					Shallow waves.
" 15	eP	08 56 09		0.5		9310	
	iS_E	09 06 32		-3.2		(83°8)	
	iS_N	06 35	-6.1				
	i_N	06 47	-65.7	----------	----------		Very remarkable phase.
	mE	06 55		17.9			
	L	18	----------	----------	----------		Long waves commence.
	ME	30		19.1			Very large long waves from 9h 19m to 9h 29m on N and E. Periods from 40 to 60 seconds. On Vertical large long waves from 9 24 to 9 32. M period 30 sec.
	MN	31	20.5				
	MZ	33			1.1		
" 16	eP	18 48 18	0.5	0.2	0.2	8935	
	eS	58 37		0.6		(80°4)	
	m	58 46	0.9	0.6			
	L	Indefinite					
	M	19 16	0.4				

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY

PROVISIONAL BULLETIN No.1
1934, January.

Date	Phase	Time (G.M.T.)	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
1934		h m s	mm.	mm.	mm.	km.	
Jan.18	e?	10 48.1					
	eL	55.3					
	MN	56 33	0.3				
" 28	e	19 35.6					
	e	39.6					Long wave.
	e	46.2					" "
	eL	20 03 to 20 26					Train of long waves.
	e	21 15 to 21 40					" " " "
" 29	e?	13 03.6					Very small.
	e	04.6					
	ME	09 27		1.0			
	MN	10 44	0.8				
" 30	P_E	08 03 30				237	Felt at Gunning, N.S.W.
	e_N	03 38					
	i_{NE}	03 53	0.5	0.5			
	m	03 55	0.8	1.2			
" 30	$e?_N$	08 08 18					" " " "
	m_{NE}	08 38	0.7	0.8			
" 30	i_{NE}	15 03 00	0.1	0.2			" " " "
	m	03 01	0.4	0.7			
" 30	P_{NE}	20 28 32				237	Severely felt at Gunning
	P_Z	28 33					Perhaps earlier.
	eE	28 52					
	eN	28 55					
	iE	28 56		0.9			
	m_{NE}	28 58	2.8	3.7			
	ME	29 25		1.5			May be earlier.
" 31	i(P)	10 15 11		0.9			
	m	15 19		1.2			
	m	15 31		1.7			
	eL	24.2					
	ME	26 15		1.6			
	MN	27 07	1.0				

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1934, February 2nd.

W° O'LEARY S.J.
Director.

RIVEREVIEW COLLEGE OBSERVATORY

PROVISIONAL BULLETIN No.2
1934, February.

Date	Phase	Time (G.M.T.)	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ Km	Remarks
		h m s	mm.	mm.	mm.		
Feb.2	e?	15 19.6					Preliminary phases
	iE	22 09		8.7			completely obscured by
	eZ	23.9					by very strong micro-
	ME	24		47.8			seisms.
" 3	eN	14 39.3					
	iN	43 52	2.7				Group of three large
	mE	46 26		7.0			period waves on N from
	LN	48.3					43 50 to 44 50. Then
	M	50	9.5	8.3			short waves till 48.3
" 4	e	22 13 38					From N. Mainka.
	eL	20.0					
	MN	21.5	2.1				
	MZ	24			0.3		
" 5	eL	10 33.7					
	ME	36 30		0.2			Very small.
	MN	37 30	0.3				
" 5	e	13 44.7					
	M	50 34	0.3				" "
" m7	e	01 57.1					
	eL	58.1					
	MN	02 01 35	0.4				
	ME	02 00		0.6			
" 9	e(P?)	09 34 57					
	PR?	35 49					
	e(S?)	39 34	- -	- -	- -	- -	Large period waves (18s)
	L	43.6					
	MN	45.5	2.7				
	ME	45.7		3.5			
" 9	eL	12 10					Shallow long waves.
" 9	i_E	22 38 17		0.3			
	i_N	43 06	1.0				
	eL_N	47 2					
	i_E	48 27		1.1			
" 11	iP_N	09 05 20	0.5			2935	
	m_N	06 18	1.7			(26?4)	
	eS	09 59					
	eL	13.3					
" 12	e	11 58.4					
	eL	12 07.2					
	M	15	0.1				
" 14	e	01 33.5					
	M	39 07	1.1				
	M	41 43	1.2				
" 14	e(S?)	01 56.0					Preliminary phases ob-
	eL	57.9					scured by preceding
	M	02 00	0.8				shock.
" 14	iP_{NZ}	04 09 45	0.5		0.2	7235	
	iS_{NE}	17 50	7.0	1.8		(65?1)	
		18 04	8.3	3.5			
	eL	27.5	MNE 33-1	M 2 37			

RIVERVIEW COLLEGE OBSERVATORY

PROVISIONAL BULLETIN No.2
1934, February.

Date	Phase	Time (G.M.T.)	Amplitude AN	Amplitude AE	Amplitude AZ	Δ	Remarks
1934		h m s	mm.	mm.	mm.	km.	
Feb. 14	e	09 33.7					Small.
	e(S?)	37.7					
	eL	39.6					
	M	41.6	0.2				
" 14	e	22 30.3					Very small.
" 17	e	21 17.7					From Mainka. Wiechert out of commission.
	eL	24.2					
	M	26.1		0.3			
" 19	e	10 39.0					No definite phases.
	e	42.2					
	e(L?)	48.6					
	M_1	52 27	0.9				
	M_2	56 24					
							h m Continuing until 12 30
" 20	eL	04 13.3					Shallow long waves.
" 24	iP_N	06 33 27	1.1			6200 (55°8)	
	iS_N	41 19	4.5				
	mE	41 36		2.5			
	iNE	43 17	2.4	4.0			
	mNE	43.33	3.3	3.1			
	iLE	47 46		4.0			
	LE	49 43		7.2			
	ME	54 34		8.3			
	MN	57 39	4.3				
	W_{2N}	09 07					
" 27	i_N	21 36 12	0.3				
	iE	39 46		1.0			
	iE	41 25		1.8			
	mE	42 49		3.0			
	$i(L)_E$	43 50		3.6			
	ME	45 24		2.5			
" 28	e	09 44.9					Very small.
	M	49 25	0.3				
" 28	eP_Z	14 27 44					
	iS_N	32 49	17.9			3310 (29°8)	
	mE	35 19		13.5			
	LE	35.5					
	ME	37 50		25.9			
	MN	41 0	13.3				
	ME	42 0		49.8			
				----aOo----			
March 4	iP_{NE}	06 00 06					
	e_Z	00 17				2490 (22°4)	
	iS_{NE}	04 11					
	iNE	04 26					
	LE	06					
	LN	07.5					
" 5	iP_{NE}	11 50 59					
	iP_Z	51 01				2490 (22°4)	
	iNE_Z	51 14					
	iS_E	55 14					
	L	56.5					
	ME	57					
	MN	57.5					
	MZ	58					

WM. O'LEARY S.J.
Director.

RIVERVIEW COLLEGE OBSERVATORY

PROVISIONAL BULLETIN No.3
1934, March.

Date	Phase	Time (G.M.T.)	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
1934		h m s	mm.	mm.	mm.	km.	
March 1	e_N	03 57.4					
	eL_E	04 01.0					
	ME	07		0.5			
" 1	eL	04 41.6					
	M	45 44		0.2			
" 1	eP_N	19 46 58				2980	
	eS_N	51 40				(26?8)	
	mN	52 08	1.6				
	eL_E	54.8					
	ME_1	57 21		3.5			
	ME_2	59 42		6.6			
" 1	e	22 02.2					
	i_{NE}	09 10	1.0	0.6			
	eE	09.8					
	$e(L)_N$	11.5					
	eL_E	11.8					
	ME	16 30		0.5			
" 2	$e?$	13 30.3					
	M	38.3	0.2				
" 2	$e(S)$	19 57 13					
	eL	20 00.9					
	ME	03 15		0.3			
	MN	04 22	0.2				
" 4	iP_{NE}	06 00 06	+0.8	+0.8		2490	Deep focus.
	eZ	00 17				(22?4)	
	iS_{NE}	04 11	-4.7	-3.0			
	i_{NE}	04 16	+9.5	+10.5			
	LE	06					
	LN	07.5					
" 4	$e(L)$	12 03.9					Shallow waves.
" 5	e	04 02.4					
	$e(S)$	05.2					
	eL	07.2					
	M	09.3	0.2				
" 5	iP_{NEV}	11 50 59	+3.5	-9.0		2490	V= Galitzin Vertical
	iP_Z	51 01			+0.5	(22?4)	Z= Wiechert Vertical.
	i_{NEZ}	51 04	-7.1	+18.6	-3.0		
	mNE	51 20	10.0	27.8			
	mNE	51 38	15.4	38.2			
	m_E	51 48		31.2			
	iS_E	55 05		-30.5			
	L_E	56.1					
	L_N	56.4					
	ME	56.8		80+			During Max. recording pens stopped before reaching their full amplitude.
	MN	57.5	85+				
	MZ	57.8			9.3		
" 6	e	12 57.2					
	eL	13 03.6					
	M	05	0.4				
" 9	e	21 37.2					
	eL	39.0					
	M	41.0	0.2				

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RIVERVIEW COLLEGE OBSERVATORY

PROVISIONAL BULLETIN No.3
1934, March.

Date	Phase	Time (G.M.T.)	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
1934		h m s	mm.	mm.	mm.	km.	
March 10	e(P)	08 01 58				2480?	
	e(S)	06 01					
	eL	08.0					
	M	08.9	1.1				
" 13	eP_{NE}	13 17 20				2390?	
	iNE	17 28	1.8	1.0			
	mNE	17 55	3.1	1.8			
	$e(S)_N$	21 17					
	mNE	22 00	6.3	3.6			Long waves absent.
	ME	24 17		11.1			
" 14	eE	09 14.1					
	eL_N	19.0					
	MN	21.6					
" 15	eP_E	10 51 26		0.5		2480	
	eP_Z	51 28				(22°3)	
	iNE	51 29	-0.5	+1.3			
	mE	51 46		2.0			
	mE	52 08		2.2			
	iS_E	55 30		+2.3			
	e_N	55 43					
	mNE	55 57	2.1	3.2			
	eL_E	57.2					
	MN	59 30	2.1				
	ME	11 00 17		6.9			
" 16	eN	14 19.8					
	$S?_N$	24.0					Phases very indefinite.
	$L?_E$	27.9					
	ME	30		1.9			
" 20	eN	02 45.1					Early phases masked by microseisms.
	eN	49.7					
	eL_E	51.3					
	iME	55 40		7.5			
	ME	56 23		17.6			
	MN	03 00 27	6.0				
" 24	eP_{NZ}	13 09 55	1.0			2890	
	$iPNE_Z$	09 58	+2.2	+0.9	-0.3	(26°0)	
	m	10 08	5.0	3.7	1.8		
	iS_N	14 30	+16.0				
	mE	14 42		18.0			
	m_N	14 50	26.8				
	SR_E	15 27		19.0			
	eL_Z	15.8					
	MN_1	17 19	20.3				
	MN_2	18 38	16.1				
	MEZ	18 50		22.1	1.0		
	ME_2	19 54		27.2			
" 27	e	03 31.3					
	M	39.0	0.3				

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RIVER VIEW COLLEGE OBSERVATORY

PROVISIONAL BULLETIN No.4
1934, April

Date	Phase	Time (G.M.T.)	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks.
1934		h m s	mm.	mm.	mm.	km.	
Apr. 3	e?	08 32.6					
	e	33.3					
	S	37 55					
	eL	42.3					
	M	47	8.9	1.5			
" 8	e?	02 18.2					
		19 16					Preliminaries masked by very heavy micro-seisms.
	i	21 59	3.0	3.5			i only outstanding phase.
	eL	25.3					Earlier phases obscured by microseisms.
" 9	e	15 52 30					
	e	58 08					
	eL	16 08.5					
	M	16	0.2				
" 10	iP_{NE}	10 30 55	0.1	1.0			
	eP_Z	30 56			0.1	4550 (41°0)	
	iS_N	37.15	2.0				
	i_E	37 22		2.0			
	m_{NE}	37 27	1.9	3.3			
	i_E	40 22		2.0			
	i_{NE}	40 41	2.0	3.0			
	eL_E	45.5					
	MN	48 30	2.5				
" 11	iP_{NE}	21 16 41	+2.2	+4.0		2300 (20°7)	Deep focus.
	iP_Z	16 42					
	mNE	16 46	3.8	5.5			
	iS_N	20 31	-10.0				
	iS_E	20 33		-4.2			
	mN	20 38	18.8				
	mE	20 42		9.3			
	mNE	21 03	11.3	4.0			
	L	24.3					After this waves small and indefinite.
	M	25 44		2.5			
" 13	eL	14 02.0					
	M	04.3	0.2				
		22 24.3					
" 15	e_N	[illegible]					
	$e(S)_N$	30 31					Masked by very heavy microseisms.
	i_N	30 60	4.6				
	eE	30 53					
	i_N	31 03	6.4				
	i_E	31 06		5.9			
	i_{NE}	34 06	3.5	6.5			
	m	34 24	7.7	10.0			
	m	34 37	9.6	13.4			Most outstanding group of waves.
	m	34 52	6.4	9.1			
	LE?	41.2					
	ME?	43.9		7.2			
	MZ	52 05			0.1		
	MF	53		8.3			

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY

PROVISIONAL BULLETIN No. 4
1934, April.

Date	Phase	Time (G.M.T.)	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks.
1934		h m s	mm.	mm.	mm.	km.	
Apr.24	e	02 08 35					Phases very indefinite
	S?	12 54					
	ME	16 57		4.7			
	MN	17 22	4.4				
" 24	e	17 33.2					
	e	38.8					
	eL	41.9					
	M	54 58	1.3				
" 26	eP_{EZ}	05 36 44		0.5		2400 (21°6)	Deep focus.
	m_N	37 18	1.2				
	eS_N	40 39	0.8				
	iS_E	40 43		-2.9			
	m	40 54	2.8	8.7			
	eL_N	42.2					
	MN	45.2	1.8				
	ME	47.3		2.7			
" 26	eP_{NEZ}	08 01 42	0.5	1.0		2400 (21°6)	" " This record is an almost exact replica, wave for wave, of the previous one. Clearly same epicentre.
	mN	02.18	1.1				
	eS_N	05 41	1.1				
	iS_E	05 42		-3.4			
	m	05 54	2.4	8.3			
	eL_N	07.2					
	MN	09.4	3.2				
	ME	12.3		2.8			
" 26	e	13 54.5					
	e	57.9					
	eL	14 05.2					
	MN	07.4	0.2				
	ME	08.3		0.3			
" 26	e	15 56.8					
	e	57.5					
	eL	59.9					
	MN	16 02.2	0.1				
" 26	e_N	17 30.8					
	i_E	36 47		-1.2			
	eL_N	38.8					
" 26	iP_{NEZ}	21 05 32	+0.8	+0.8	-0.2	2665 (24°0)	
	m	05 41	3.1	2.8	1.0		
	iS_N	09 51	+3.9				
	iS_E	09 53		-1.5			
	mN	10 000	5.9				
	mE	10 04		4.0			
	mE	10 10		4.5			
	mN	10 19	5.0				
	mE	10 31		4.3			
	eL	12.0					
	ME	13 50		2.8			
	MN	14 05	2.7				

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY

PROVISIONAL BULLETIN No.4
1934, April.

Date	Phase	Time (G.M.T.)	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
1934		h m s	mm.	mm.	mm.	km.	
Apr. 27	e?	03 24.6					Small and indefinite.
	e	25.1					
" 27	eP_{NE}	20 51 45				2400	Same epicentre as
	iP_E	51 48		-2.6		(21°6)	April 26 5h. & 8h.?
	mE	52 00		2.1			
	iS_N	55 42	+3.7				
	iS_E	55 47		-6.3			S phase very striking
	mN	55 56	6.5				on EW.
	mE	56 00		14.6			
	mZ	56 02			0.5		
	LN	57.2					
	MN	59 10	6.2				
	ME	21 02 06		14.2			
" 27	e	22 55 55					
	m	56 04	1.3	1.7			
	eL	57.3					
	M	59.1	0.6				
" 28	e	15 14.1					
	e(L)	21.1					
	ME	26 08		1.1			
	MN	26 38	0.6				
" 28	e	18 07.5					
	e	11.8					
	eL	16.3					
	ME	18.3		0.5			
	MN	19.9	0.3				

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1934, May 2nd.

WM. O'LEARY S.J.
Director.

RIVERVIEW COLLEGE OBSERVATORY

PROVISIONAL BULLETIN No. 5.
1934, May.

Date	Phase	Time (G.M.T.)	Period	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
1934		h m s	s.	mm.	mm.	mm.	km.	
May 1	e?	07 17.0						
	i_{NE}	23 26	4	+1.1	+3.6			
	m_E	23 30	4		4.8			Only outstanding phases.
	i_N	24 48	4	+1.9				
	m_N	24 54	4	2.1				
	e(L?)	30.5	13					
	MN	36.0	11	0.2				
" 4	e?	04 49.4						
	e_N	54.7	6?	0.3				
	e_N	05 01.3	5	0.6				
	e_E	02.2	5		0.2			
	e_N	04.4	7	1.0				
	e_N	09.7	13	0.5				
	eL	26.7	31					
	MN_1	29.2	26	0.4				
	ME	32.0	24		0.3			
	MN_2	37.0	22	0.4				
	eW_2	06 42.4	26?					
	M	47.9	21	0.2				
" 5	eP_E	14 37 47	5		0.7		2665	
	PR_1E	38 18	5		1.0		(24°0)	
	eS_E	42 06	7		1.1			
	i_N	42 21	8	+3.0				
	e_N	42 29	10					Two long waves.
	e_N	42 39	19					
	i_N	42 58	7	+5.9				
	m_N	43 09	7	5.6				
	eLE	44.4	26					
	MN	46 03	13	0.4				
" 5	e	16 59.2	3					
	M	17 04 51	7	0.2				Very small.
" 8	e	19 18 33	7					Masked by micros.
	eL	27.8	20					
	M	30 09	13	1.8				
" 11	e_N	18 28.0						
	e_E	32.8						
	e_E	34.7	4					
	M	37.2	7		0.3			
" 13	iP_N	09 08 04	5	-1.0			3010	
	PR_1N	08 35	4	1.3			(27°1)	
	m_N	09 52	6	1.1				
	iS_{NE}	12 48	8	-2.8	-2.5			
	i_E	14 39	5		-3.1			
	m_E	15 26	8		8.6			
	L?E	17.5	?					
	ME	19 51	8		4.9			
	MN	20 08	14	2.0				
" 16	eL_N	03 29.8	19					A few lomg waves.
" 16	eL_N	08 29.9	18					" " " "
	MN	31.1	18	0.2				
" 17	e	22 25.2						Very small. No definite phases.
				---OIO---				
1934, June 4.							WM.	O'LEARY, S.J. Director.

Riverview College Observatory.

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN

ϕ = 33° 49′ 49″ S. λ = 151° 9′ 30″ E. h = 41·9 m. **Foundation : Triassic sandstone.**

INSTRUMENTS :

1. Wiechert Astatic Pendulum Seismometer (1000 kilo.) (NS. EW.)
2. Weichert 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	$\frac{r}{T_o^2}$
A_N	(1)	211	7.2	4.1	0.012
	(3)	82	11.9	3.9	0.014
A_E	(1)	214	9.1	3.4	0.022
	(3)	72	13.2	3.2	0.020
A_Z	(2)	98	4.9	3.0	0.100

No.	Date	Phase	Time (Greenwich)	Per.	Amplitude. A_N	Amplitude. A_E	Amplitude. A_Z	Δ	Remarks.
	1934		h. m. s.	s.	mm.	mm.	mm.	km.	
90	June 3	iP_Z	16 20 44	2			+0.2	2510	
		P_{NE}	20 46					(22°6)	P_{NE} in minute mark.
		iS_N	24 51	7	+1.5				
		m_N	25 01	6	2,1				
		m_{NE}	25 46	6	1.8	1.2			
		eL_E	28,8	15					
91	" 3	e	21 13.3	5					
		eL	18.1	20?					
		ME	20 10	11		2.0			
		MN	20 35	8	1.3				
92	" 6	e_N	03 31.2	3					
		$e(S)_N$	35 01	10					
		m_{NE}	35 20	15	0.3	0.1			
		$e(L)_N$	40.2	?					
		ME	43 18	12		0.2			
		MN	43 35	12	0.3				
93	" 6	e_N	10 17.4						
		e_N	21.8						
		eL_E	26.1	20					
		MN	28 18	13	0.1				
		ME	30 34	13		0.1			
94	" 7	e	20 31 34	2					
		ME	35 41	4		0.4			Small periods.
		MN	36 05	4	0.7				
95	" 9	ePN_Z	13 04 30	1	0.1		0.1	2910	
		S_{NE}	09 07	7	1.6	2.3		(26°2)	
		$SR_1?_N$	09 36	7	2.1				
		m_N	10 25	9	7.9				
		i_Z	11 16	3			-1.3		
		m_E	12 37	6		14.3			
		L?	13.9	19?					
		ME	15.1	14		15.6			
96	" 13	i_N	02 02 46	5	-0.8				
		iE	12 32	5		-0.6			
		iN	12 53	5	+0.7				
		iN	13 12	6	+0.8				
		eL_N	23.7	19					
		ME	27 58	17		0.2			
97	" 13	e	17 11.0	3					A few small waves.
98	" 13	e?E	22 25.9						
		eN_E	28.7	5					
		e_E	38.2	9					
		eL_N	58.0	24					
		ME_1	23 06 31	24		0.7			
		MN	07 00	22	0.5				
		ME_2	10 44	22		1.5			

Continued on next sheet.

RIVERVIEW COLLEGE OBSERVATORY,

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date.	Phase	Time (Greenwich) h. m. s.	Per s.	Amplitude. A_N mm	A_E mm	A_Z mm	Δ km.	Remarks.
	1934								
99	June 14	ME	20 26 21	11		0.2			Small.
		MN	26 58	9	0.2				
100	" 15	$e(P)_N$	02 57 52	3	0.2				
		$e(S)_N$	03 02 48	5	0.6				
		eL	07.6	24					
		ME	11 18	11		1.5			
		MN	12 47	10	1.3				
101	" 22	$e(P)_N$	18 01.8	?					
		eNE	07.7	5					
		eL_E	09.3	21					
		ME	14 03	14		0.9			
		MN	15 03	10	0.5				
102	" 24	eP_E	03 30 19	2		0.4		2335	
		PR_1E	30 40	7		0.5		(21°0)	
		iS_N	34 10	3	+1.4				
		iS_E	34 13	3		-0.5			
		SR_1NE	34 27	8	1.3	1.6			
		SR_2NE	34 34	7	1.9	1.6			
		eL_N	35.5	17					
		MN	36 35	15	0.7				
		ME	37 30	9		0.4			
103	" 24	e_N	06 19 18	5	0.4				
		e_{NE}	25 24	7	0.3	0.3			
		e_N	28 07	17	0.2				
		m_N	34 24	17	0.3				
		m_E	35 05	15		0.7			
		eL	46.2	30					
		MN	51 49	14	0.3				
		ME	52 22	15		0.2			
104	" 28	e	01 01.2	5					
		e(S)	06.6	12?					
		eL	09.0	19					
		MN_1	10 50	12	1.4				
		MN_2	12 22	7	1.7				
		ME	15 12	8		1.4			
105	" 29	iP_{NEZ}	08 31 35	2	-1.7?	+3.0?	+1.7	3310	Deep focus.
		m_Z	31 37	3			2.2		
		m_{NE}	31 38	3	1.7	2.5			iP_{NE} in minute mark, Amplitudes
		i_{NE}	33 19	3	+1.5	-2.9			uncertain.
		i_Z	33 20	2			-0.9		
		m_Z	33 23	3			2.4		
		m_{NE}	33 26	4	2.7	3.5			
		iS_N	36 39	4	-7.2				
		iS_E	36 40	4		-23.0			S phase very
		m_E	36 41	4		29.7			striking on EW.
		i_Z	36 42	4			-1.4		
		m_N	36 42	4	11.4				
		i_E	36 48	4		-10.3			
		m_Z	36 49	4			1.3		
		i_E	39 52	5		-8.5			
		i_N	39 53	5	+9.7				
		i_E	40 13	5		+11.0			
106	" 29	iP_Z	12 41 29	2			-0.2		
		iS_{NE}	46 49	3	-1.0	-4.0			P disturbed on NS and EW.
		m_E	50 41	7		1.1			
107	" 30	e?	08 26.8						A few waves.
		eL	30.6	13					
108	" 30	e(P)	12 08.5	?					
		e(S)	12.7	12		0.7			
		eL	14.0	22					
		ME	15.3	13		0.4			

W.O'LEARY S.J.

1934, July.

Riverview College Observatory.

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

Φ = 33° 49' 49" S. λ = 151° 9' 30" E. h = 41·9 m. 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	$\frac{r}{T_o^2}$
A^N	1	211	7.9	3.6	0.017
	3	88	11.9	4.4	0.012
A^E	1	230	8.8	3.4	0.022
	3	76	12.7	3.9	0.019
A^Z	2	94	4.7	3.8	0.08

No.	Date	Phase	Time (Greenwich) h. m. s.	Per s.	Amplitude. A_N mm	A_E mm	A_Z mm	Δ km.	Remarks.
	1934								
109	July 4	e	02 28.4	?					
		eL	34.5	17					
110	" 4	e_{NE}	13 40.6						Long waves till 02h. 41m.
		M_E	42.8	10		0.3			
		M_N	44.6	10	0.3				
		F	14 00						
111	" 5	e?	01 43.6						
		eL?	53.4						Very small and indefinite.
		F	02 05						
112	" 5	E	02 29.2						
		M	36.3	7	0.2				
		F	02 45						A few small waves.
113	" 5	e	04 07.8						
		e(L)	16.7						Small and indef-
114	" 6	e_N	23 14.6	3					inite.
		e_{NE}	23.0	12					
		eL_{NE}	33.6	26					
		M_E	40.7	24		0.2			
		M_N	50.7	19	0.2				
	" 7	F	01 20						
115	" 12	e_N	14 41.6	2?					
		e_E	42.0	2					
		i_N	42 42	4	+0.8				
		$S?_N$	45 50	8	0.6				
		m_N	46 05	9	1.6				
		m_N	46 25	9	2.0				
		F	15 10						
116	" 16	e	22 39.8						
		M	45.4	12		0.1			
		F	23 00						
117	" 18	iP'_E	01 57 14	5		+1.5		118°?	
		e_E	02 02 35	15					
		$e(S_cP_cS)_E$	04 10	17					
		m	04 25	17		1.8			
		i_E	07 22	14		+3.0			
		i_E	07 28	15		-12.0			
		i_N	07 31	15	+5.0				Very outstanding phase.
		$e(PPS)_E$	09 26	17					
		m_E	09 52	17		4.2			
		m_E	10 13	17		4.6			
		i_E	14 11	15		-4.5			
		$i(SR_1)_E$	14 37	22		+12.0			
		m_N	15 02	51	3.2				Most outstanding phase.
		e_E	17 11	28					
		m_E	17 24	28		3.5			

Continued on next sheet.

RIVERVIEW COLLEGE OBSERVATORY,

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date.	Phase	Time (Greenwich) h. m. s.	Per s.	Amplitude. A_N mm	A_E mm	A_Z mm	Δ km.	Remarks.
	1934								
117	July 18	SR_2?$_E$	02 19 13	21		5.0			
Cont.		m_E	19 33	21		5.2			
		$e(L)_N$	29.3	29					
		eL_E	34.9	32					
		L_{NE}	35 33	32	1.9	5.2			
		MN_1	41 10	17	2.4				
		ME_1	42 09	17		7.6			
		MN_2	45 59	17	2.7				
		ME_2	55 16	15		5.4			
		F	06 20						
118	" 18	e_E	13 09.2						
		e_{NE}	13 32	4					
		i_{NE}	13 56	9	+0.7	+0.5			
		e_{NE}	21.2	13					
		MN	43 21	16	0.3				
		F	14 10						
119	" 18	e_E	17 20.2	?					
		e_E	30.6	10					
		m_{NE}	30 54	14	0.8	1.0			
		e_E	33.2	20					
		e_E	37.4	20					
		m_E	38 13	22		1.3			
		e_E	41.6	17					
		m_N	42 21	14	0.3				
		eL_E	58.6	30					
		ME	18 02 26	20		0.5			
		MN	04 00	17	0.3				
		F	19 35						
120	" 18	eP_{NEZ}	19 45 50	3	0.4	0.2		3165	
		$ePNEZ$	45 53	3	0.4	0.5		(28°5)	
		iP_{NEZ}	45 56	2	+0.9	+0.8	-0.2		
		iP_{NEZ}	45 58	2	+6.6	+6.0	-0.7		
		m_{NE}	46 18	7	13.7	10.8			
		i_Z	46 44	4			-6.0		
		i_{NE}	46 56	7	-52.2	-35.7			
		i_E	50 28	10		+30.3			
		i_N	50 36	10	+15.5				
		iS_E	50 45	10		-42.2			
		i_N	50 56	10	-55.5				After 19 50 56
		m_N	51 07	11	33.8				N-S measurements,
		i_N	51 40	10	-43.0				from Mainka, till 1957
		m_E	51 57	14		+65.0+			
		i_N	52 11	11	+60.2				
		L_Z	52.2	21					
		i_E	52 29	12		>+68>			
		i_N	53 33	16	-42.0				
		MZ	53 43	18			6.2		
		ME_1	54 17	21		75>			
		MN_1	54 21	20	52>				
		ME_2	57 24	14		62>			
		MN_2	57 55	13	44.2				
W_2	series	eW_2	22 20.7	85					Remarkable wave.
		ME	32 10	20		0.8			
		MN	35 45	20	1.2				
		F′	Lost in No.13[illegible].						
12[illegible]	" 19	iP_{NE}	00 12 13	5	-1.2	-1.0		2955	
		i_Z	12 15	2			-0.8	(26°6)	
		iS_{NE}	16 53	9	+13.0	+11.3			S very outstanding.
		MNE	21 12	12	6.5	7.2			
		F	Lost in No.12[illegible].						

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY,

SYDNEY. N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date.	Phase	Time (Greenwich)	Per	Amplitude.			Δ	Remarks.
					A_N	A_E	Az		
	1934		h. m. s.	s.	mm	mm	mm	km.	
122	July 19	$_{e}P_Z$	01 34 40						
		eP_{NE}	34 41	3					
		iN_E	36 24	6	-3.0	+1.7			Several shocks superimposed?
		iN_E	40 22	5	+3.0	+1.7			
		mN_E	40 34	6	3.8	3.0			
		iN_E	43 02	9	-3.7	-5.0			
		eLE	43.5	48					Irregular waves begin on E-W. General period 48s. with waves of 7s. to 10s. superimposed. Large irregular waves from 1 46 to 1 50.
		MN_1	46 54	20?	16.5				
		ME_1	47 50	20		30.2			
		ME_2	49 47	17		47			
		MN_2, ME_3	51 32	12	32.4	41.6			
		MZ	51 38	14			1.3		
		F	04 00						
123	" 19	e	05 01.7	4					
		eL	05.2	14					
		F	05 45						
124	" 19	eP_{NE}	05 50 35	3	0.4	0.3		2910	
		iS_{NE}	55 12	7	+3.6	-8.5		(26°2)	
		ME	59 48	12		4.0			
		MN	06 00 00	12	5.0				
		F	07 38						
125	" 19	eP_{NE}	07 42 18	7	1.1	0.2		2955	
		eP_Z	42 23	7			0.2	(26°6)	
		iN_E	42 24	7	-3.5	-2.8			
		iS_E	46 58	10		-11.2			
		iS_N	47 00	10	-12.5				
		mN_E	47 10	10	12.0	14.3			L waves absent.
		ME	57 32	8		25.5			
		F	09 45						
126	" 19	e	09 48.6						
		M	10 00.5	13	0.5				
		F	10 25						
127	" 19	e	12 09.7	5					
		eL	13.9	15					
		M	18 .6	12	0.4				
		F	12 45						
128	" 19	e	14 28.7	9					Shallow waves.
129	" 19	e	23 03.1	3					
		S?E	07 26	7		0.7			
		MN	10 57	12	1.0				
		F	00 15						
130	" 20	e	01 01.6						
		M	06.8	10	0.1				
		F	01 40						
131	" 20	eP_{NE}	03 57 43	4	0.7	0.5		2835	
		eS_E	04 02 10	7		0.6		(25°5)	
		eS_N	02 14	7	0.5				
		mN_E	02 21	7	1.3	1.0			
		eL	05.1	14					
		MN	08 19	12	0.7				
		ME	08 56	12		0.6			
		F	04 55						
32	" 20	e	08 05.4	8					
		M	13.8	11	0.2				
		F	08 40						
33	" 20	e	10 54.9						Small and indefinite.
		F	11 05						

(Continued on next sheet)

1934, July.

RIVERVIEW COLLEGE OBSERVATORY,

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date.	Phase	Time (Greenwich) h. m. s.	Per s.	Amplitude. A_N mm	A_E mm	A_Z mm	Δ km.	Remarks.
	1934								
134	July 20	e(S)NE	13 13 44	10					
		ME	18 26	10		0.2			
		MN	19 21	10	0.2				
		F	13 45						
135	" 20	e_{PNE}	16 53 45	3	0.3	0.1		2835	
		iS_E	58 16	6		+1.0		(25°5)	
		iS_N	58 22	9	+1.9				
		m_E	58 30	9		1.2			
		eL	17 01.2	16					
		MN	02 57	15	0.6				
		F	17 40						
136	" 20	$e(P)_N$	18 15 59	4					
		$e(S)_N$	20 21	10					
		m_{NE}	20 58	9	1.3	1.4			
		M	26.2	12	2.0	1.1			
		F	Lost in No.137						
137	" 20	eP_{NE}	18 54 30	3				2800	
		eS_N	58 59	7	1.1			(25°2)	
		m_{NE}	59 25	8	2.5	2.7			
		m_{NE}	19 00 16	8	2.6	2.8			
		MNE	04 53	13	5.7	3.5			
138	" 20	e	19 25.0	3					Traces of new shock superimposed on No. 137.
		F	20 30 (No.137)						
139	" 21	iP_{NE}	06 23 54	3	+0.6	+0.6		3135	
		iP_Z	23 55	2			+0.3	(28°2)	
		$i(S)_E$	28 49	8?		+18.5		M-P	S hard to identify owing to entangling of lines.
		i_N	29 17	11	-22.7				
		i_E	29 21	12		+53.5			
		i_N	29 50	11	-15.5				
		i_E	30 11	7		+49.7			
		m_N	30 53	15	26.7				
		m_E	31 00	11		47.0			
		m_N	31 30	9	48.5				
		i_E	32 31	13		-56.7			
		i_N	32 49	13	+40.5				
		i_E	34 06	11		+32.0			
		MNE	34 32	15	56.5	49.2			
		i_E	35 27	13		-58.5			
		ME_2	35 47	14		61.6			
		MZ	35 48	15			0.9		
	W_2 series	eW_2N	09 12.2	24					
		MN	15 30	17	0.3				
		F	Lost in No.140						
140	" 21	e_{NE}	11 01 11	5					
		eNE	10 10	13					
		m	10 19	14	0.7	1.0			
		$e(SR_1)_E$	17 08	28					
		m_E	17 44	28		0.7			
		$SR_2?_E$	22 08	17		0.7			
		eL_{NE}	38.0	30					
		MN	43 13	17	0.5				
		ME	44 47	17		1.7			
		F	13 25						
141	" 21	e	18 40.8						
		e(L)	43.8						A few small waves.
142	" 21	e	20 20.4						
		m	23 11	7	0.8	0.5			
		MN	31 56	9	0.8				
		F	21 15						

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY,

SYDNEY. N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date.	Phase	Time (Greenwich)	Per	Amplitude. A_N	Amplitude. A_E	Amplitude. A_Z	Δ	Remarks.
	1934		h. m. s.	s.	mm	mm	mm	km.	
143	July 22	eP_{NE}	03 03 21	?				3035	
		iS_{NE}	08 07	8	+2,9	+3.0		(27°3)	
		m_N	09 40	7	2.4				
		m_E	09 48	7		2.5			
		m_N	09 57	8	2.3				
		L?	11.3	11					
		MN	13 41	14	1.4				
		ME	14 02	10		1.3			
		F	04 15						
144	" 23	e	13 09.2						
		eL	17.6	14					
		MN	19 22	12	0.3				
		F	13 40						
145	" 25	e	15 36.5	3					
		MN	45.2	7	0.2				
		F	16 05						
146	" 27	eP_N	12 31 12					2855	
		eS_{NE}	35 35	8				(25.7°)	
		eL	37.7	17					
		ME	39 46	14		0.3			
		MN	40 13	14	0.4				
		F	13 30						
147	" 27	e	23 37.7						
		MN	44.6	13	0.2				A few small waves.
148	" 28	eE	22 02 18	8		0.5			
		e_N	10.0	23					Long wave.
		e(L)	20.5	17					
		ME	30 08	22		0.2			
		MN	33 18	20	0.2				
		F	22 50						
149	" 31	e_N	01 53.8						
		m_N	54c07	7	0.7				
		MN	57 40	12	0.2				
		F	02 10						

----oOo----

1934, August 8.

WM. O'LEARY, S.J.
Director.

Riverview College Observatory.

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

Φ = 33° 49′ 49″ S. λ = 151° 9′ 30″ E. h = 41·9 m. 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	$\frac{r}{T_o^2}$
A^N	1	204	8.1	3.7	0.016
	3	91	12.0	3.6	0.014
A^E	1	226	8.8	3,6	0.026
	3	69	13.2	5.7	0.02
A^Z	2	100	5.0	6.0	0.15

No.	Date	Phase	Time (Greenwich)	Per	Amplitude. A_N	Amplitude. A_E	Amplitude. A_Z	Δ	Remarks.
	1934		h. m. s.	s.	μm.	μm.	μm.	km.	
150	August 2	e_N	03 08.5	3					
		eL_N	12.4	14					
		MN	14 08	14	0.3				
		F	03 26						
151	" 2	e_{NE}	07 10.0	3					
		e_N	11 18	4					
		i_E	12 00	4		1.5			
		m_{NE}	12 16	4	1.8	4.9			
		L?E	13.1	10					
		F	07 50						
152	" 2	e	11 09.6						M small and indef.
		eL	11.5	14					
		MN	14 20	10	0.2				
		F	11 25						
153	" 4	$e(P)_N$	13 14.4	4					
		e_N	16.0	4					
		$e(S)_N$	20.0	10					
		eL	24.6	21					
		ME	28 22	14		2.7			
		MN	29 13	9	2.9				
		F	14 15						
154	" 7	iP_{NE}	03 45 33	4	-1.0	-0.3		2720	
		eP_Z	45 34	1?				(24°5)	
		m_N	46 09	6	5.0				
		m_E	46 09	4		2.1			
		m_Z	46 10	3			1.0		
		m_E	46 15	3		3,6			
		$i(S)_N$	49 56	7	-7.5				
		$i(S)_E$	49 58	7		-4.5			
		$i(SR1)_E$	50 29	7		+7.4			
		m_E	50 43	7		24.8			
		m_N	50.n53	6	11.8				
		m_N	51 21	7	13.3				
		L?N	53.0	16?					
		MN	54 48	15	9.0				
		ME	55 08	16		9.8			
		F	05 55						
155	" 9	e_N	13 21.1	4	0,3				
		e_N	24.0	12					
		eL	17.2	15					
		ME	39.3	11		0,3			
		MN	39.5	10	2.1				

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY,

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date.	Phase	Time (Greenwich)	Per	Amplitude.			Δ	Remarks.
					A_N	A_E	A_Z		
	1934		h. m. s.	s.	mm	mm	mm	km.	
156	August 9	e	14 34.1	3	0.2				
		eL	37.4	13					
		MN	41 35	12	0.2				
		F	15 00						
157	" 9	e_N	19 41.5	6	0.2				
		e_N	48 55	10					
		eL	50.1	15					
		MNE	20 00 10	10	4.3	1.8			
		F	Lost in No.158.						
158	" 9	e_E	20 02.2						
		e(L)	08.0	17					Preliminaries masked by preceding shock.
		MNE	21 00	10	3.0	1.3			
		F	21 05						
159	" 11	eP_N	12 03 35	5	0.4			3165	
		iS_N	08 30	10	1.0			(28°5)	
		L	13.1	22					
		ME_1	14 44	12		2.4			
		ME_2	17 54	12		3.0			
		MN_1	18 00	14	5.7				
		MN_2	25 54	11	9.3				
		F	Lost in No.160.						
160	" 11	e_N	13 27.3						
		MN_1	40 17	10	0.3				
		MN_2	50 11	10	0.5				
		ME	50 20	10		0.2			
		F	14 00						
161	" 12	e	07 15.6						
		eL	18.6	17					
		MN	27 00	11	0.6				
		F	07 35						
162	" 12	e	13 53.3						
		eL	56.8	17					
		MN	14 07 07	12	0.7				
		ME	09 07	11		0.2			
		F	Lost in No.165.						
163	" 12	eL	14 17.9	17					
		MN	26 44	11	1.1				
		F	15 10						
164	" 13	e?	00 00.2						
		e	05.0						Masked by heavy microseisms.
		MN	09 11	11	1.1				
		F	Lost in No.165.						
165	" 13	e	00 14.0						
		eL	18.0	19					
		MN	21 37	14	1.1				
		F	01 00						
166	" 13	e?	10 47.4						
		e_N	50.7						
		e_N	54.8	7	0.4				
		eL	55.8	15					
		MNE	11 06.0	10	3.0	0.6			
		F	11 35						
167	" 14	e_N	08 56.0	4					
		eNE	59.7	7					
		m_N	09 01 09	8	1.2				
		eL	01.9	17					
		MN	06 22	8	0.7				
		F	09 40						

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RIVERVIEW COLLEGE OBSERVATORY,

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date.	Phase	Time (Greenwich)	Per	Amplitude.			Δ	Remarks.
					A_H	A_E	A_Z		
	1934		h. m. s.	s.	mm	mm	mm	km.	
168	August 21	e?	09 47.3						
		e	48.6	4					
		eL	53.7	15					
		MN	58 04	14	0.3				
169	" 21	e	19 44 32						
		e	54.9						
		eL	59.0	18					
		MN	20 03 00	18	0.2				
		F	20 25						
170	" 23	P_{NE}	23 35 44	?				2580	
		S_N	39 56	7	1.2			(23°2)	
		m_{NE}	40 08	7	2.1	1.0			
		eL_N	43.0	24?					
		MN	44 46	17	1.0				
		F	Lost in No.171.						
171	" 23	eP_{NE}	23 54 09					2565	
		iE_{NE}	54 13	3	+0.9	-1.2		(23°1)	
		iS_N	58 20	7	-2.1				
		i_N	58 30	7	÷4.8				
		i_E	58 34	7		-4.5			
		eL_N	00 00.0	19					
		ME	02 06	20		1.8			
		MN	02 18	17	1.8				
		F	00 55						
172	" 30	e?	22 07.5						
		e	14.7	9					
		eL	21.1	14					
		MN	22.9	12	0.4				
		F	22 50						

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1934, September 5th.

WM. O'LEARY S.J.
Director.

1934, September.

Riverview College Observatory.

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

Φ = 33° 49′ 49″ S. λ = 151° 9′ 30″ E. h = 41·9 m. 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	$\frac{r}{T_o^2}$
A^N	(1)	216	8.1	3.9	0.019
	(3)	87	12.0	5.0	0.014
A^E	(1)	236	8.9	3.9	0.016
	(3)	48	13.0	4.7	0.018
A^Z	(2)	96	4.8	4.4	0.07

1934, Sept.18.

No.	Date	Phase	Time (Greenwich)	Per	Amplitude. A_N	Amplitude. A_E	Amplitude. A_Z	Δ	Remarks.
	1934		h. m. s.	s.	mm	mm	mm	km.	
173	Sept. 4	iP_N	16 39 17	5	0.5			2300	
		iP_E	39 19	3		0.7		(20°7)	
		eS	43 04	7	0.8	0.2			
		iS_N	43 07	12	3.0				
		L_N	44.9	19					
		MN	46 43	14	5.8				
		ME	48 24	12		0.6			
		F	18 05						
174	" 5	e_N	15 02.4	4					
		eL_N	05.9						A few shallow waves.
175	" 5	e_N	15 27.9	6					
		eL_N	31.6	15					
		MN	32 34	14	0.3				
		F	15 45						
176	" 6	i_N	00 42 23	4	+1.7				
		eL_N	44.5	17					Earlier phases obscured by micro-seisms.
		MN	46 01	12	1.0				
		F	01 20						
177	" 8	$e?_N$	11 21.3						
		eL_N	29.3	17					
		MN	32 16	13	0.3				
		F	12 05						
178	" 11	e_E	08 21 32						
		e_N	23 00						
		i_E	27 52	3		1.0			
		e_N	28 21						
		MN	31 12	10	0.3				
		F	08 50						
179	" 14	e_N	06 30.2						
		eL	33.6	16					
		MN	34 05	12	0.3				
		F	06 50						
180	" 15	eP_N	00 01 18	?	0.3			2835	
		eP_E	01 20	2		0.3		(25°5)	
		iS_{NE}	05 49	6	+2.2	-2.8			
		eL	08.5	17					
		MN	12 20	11	0.3				
		F	00 45						
181	" 21	e	06 04.8						
		eL	07.1	16					Phases makked by heavy microseisms
		ME	09 00						

(Continued on next sheet)

1934, September.

RIVERVIEW COLLEGE OBSERVATORY,

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date. 1934	Phase	Time (Greenwich) h. m. s.	Per s.	Amplitude. A_N mm	A_E mm	A_Z mm	Δ km.	Remarks.
182	Sept. 22	eP_N	23 13 03	4	0.5			2500	
		eS_N	17 09	6	0.8			(2595)	
		eL	18.7	17					
		ME	19 51	12		0.8			
		MN	20 11	9	0.9				
		F	23 50						
183	" 23	iP_E	08 04c38	4		1.0		3135?	
		mE	05 37	6		1.1			
		$e(S)_E$	09 31	6		0.6			
		e_N	09 47	6	0.9				
		eL	11.8	28					
		MNE	13 46	15	0.7	0.9			
		F	08 30						
184	" 24	e	10 40.0	6					
		eL	43.9	23					
		MN_1	46 53	12	0.4				
		MN_2	49 51	10	0.5				
		ME	50 20	10		0.7			
		F	11 10						
185	" 25	e_N	19 21 03	4					
		e_{NE}	25 05	5	0.6	0.5			
		i_E	27 46	5		2.4			
		eL	29.7	15					
		MNE	32 17	14	1.0	1.0			

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1934 October 3rd.

WM. O'LEARY S.J.
Director.

Riverview College Observatory.

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

Φ = 33° 49′ 49″ S. λ = 151° 9′ 30″ E. h = 41·9 m. 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	e:1	$\frac{r}{T_o^2}$
A_N	(1)	202	7.9	3.7	0.010
	(3)	78	12.2	5.3	0.014
A_E	(1)	236	8.5	3.6	0.016
	(3)	76	13.4	3.4	0.019
A_Z	(2)	91	5.0	4.8	0.12

No.	Date	Phase	Time (Greenwich)	Per	Amplitude. A_N	Amplitude. A_E	Amplitude. A_Z	Δ	Remarks.
	1934		h. m. s.	s.	mm	mm	mm	km.	
186	Oct. 4	e_N	08 07.3						Masked by micro-seisms.
		e_E	08.0						
		eL	12.7	22					
		MN	16 38	12	0.3				
		ME	16 40	12		1.0			
		F	08 40						
187	" 4	e_{NE}	09 32.0						Small and Obscured by micro-seisms.
		eL	36.2	14					
		F	09 55						
188	" 5	P_E	21 26 59	4		0.4		2910	
		eS_N	31 36	7				(26°2)	
		eL	34.0	25					
		ME	35 00	19		0.6			
		MN	35 15	16	0.3				
		F	22 05						
189	" 10	eP_Z	15 47 13	2			0.1		Deep focus? Very short periods.
		eP_{NE}	47 14	2	0.1	0.7			
		mZ	47 18	2			0.5		
		eE	48 35	5		1.5			
		mE	48 49	6		5.4			
		mN	49 21	5	3.0				
		mE	49 52	6		5.8			
		iN	51 13	5	-7.5				
		iN	51 15	6	+29.5				Very large
		iE	51 19	7		-10.6			
		iN	54 10	9	-26.1				Large
		iE	54 14	9		+11.2			
		mE	54 31	9		16.6			
		iN	57 01	7	-25.6				"
		iE	57 04	6		+34.1			Very large
		mE	16 01 14	8		11.7			
		F	17 47						
190	" 11	e	17 45.6						Small and obscured by microseisms.
		m_N	48 13	4	1.0				
		e(L)	49.5	9?					
		mE	51 34	3		1.4			
		F	18 00						
191	" 18	iP_N	07 54 01	3	+0.9			3080	
		iPE	54 02	3		+0.6		(27°7)	
		iP_Z	54 03	2			-0.2		
		m_Z	54 05	2			0.6		
		m_{E1}	54 06	5		1.2			
		m_{N1}	54 08	5	1.8				
		m_{E2}	54 11	5		1.1			
		m_{N2}	54 14	6	1.7				
		PR_1N	54 42	4	1.7				

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY,

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date.	Phase	Time (Greenwich)	Per	Amplitude. A_N	Amplitude. A_E	Amplitude. A_Z	Δ	Remarks.
	1934		h. m. s.	s.	mm	mm	mm	km.	
191 Cont.	Oct. 18	iS_N	07 58 50	7	-4.1				
		i_E	59 01	7		+3.7			
		m_E1	08 00 31	8		3.5			
		m_E2	00 40	7		3.5			
		eL_E	01.5	17					
		MN	03 23	16?	4.5				
		ME	04 49	14		4.7			
		F	09 40						
192	" 21	e_N	18 02.5	4					
		e_E	16.4	10?					Very indefinite.
		eL	22.3	14					
		F	18 50						
193	" 24	e	06 24.5						A few shallow waves.
		eL	27.3	15?					
194	" 25	i?N	10 25 08	3	+0.9				Perhaps only large micro-seisms.
		i?N	27 47	2	+0.6				
		i?E	27 51	4		+0.8			
		i_N	32 03	5	+1.1				
		i_E	32 04	4		+1.8			Deep focus?
		L?	32 25	12					
		M	34.3	9	1.0	1.5			
		F	11 00						
195	" 26	i_E	14 50 50	2		-0.6			Deep focus.
		i_Z	50 51	2			-0.4		
		i_{NEZ}	52 35	4	-1.6	+1.5	+0.3		
		iNE	55 56	3	+2.8	-3.2			
		i_E	59 06	6		+4.0			
		m_E	59 29	7		5.4			Largest phase.
196	" 26	i_N	17 30 39	7	+1.9				
		i_E	31 53	5		-2.1			Masked by micro-seisms.
		eL_E	41.0	23					
		ME	47 17	18		0.8			
		MN	48 03	20	0.8				
		F	18 10						
197	" 27	e_N	10 15.0						
		eL	26.3	26					
		MN	28 41	18	0.5				
		ME	29 16	18		0.7			
		F	11 20						

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1934, October 31st.

WM. O'LEARY, S.J.
Director.

Riverview College Observatory.

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

Φ = 33° 49′ 49″ S. λ = 151° 9′ 30″ E. h = 41·9 m. 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	$\frac{r}{T_o^2}$
A^N	1	201	8.0	3.7	0.011
	3	84	11.0	7.5	0.016
A^E	1	213	9.0	3.7	0.013
	3	69	13.3	4.6	0.018
A^Z	2	85	5.0	4.2	0.10

1934, Nov.15th.

No.	Date	Phase	Time (Greenwich) h. m. s.	Per s.	Amplitude A_N mm	Amplitude A_E mm	Amplitude A_Z mm	Δ km.	Remarks.
	1934								
198	Nov. 4	eP_{EZ}	01 58 50	3		0.5		2720	
		eN	58 54	4	0.7			(24°4)	
		mE	59 06	6		3.0			
		iS_E	02 03 13	9		-4.4			
		iE	03 30	9		-5.5			
		iSR_1E	03 46	9		+9.6			
		SR_1N	03 46	9	5.3				
		$eL?E$	05.0	16?					
		eLZ	05.4	20					
		LN	05 39	17					
		LE	06 00	22		10.2			
		MN	08 00	12	8.9				
		ME	10 58	14		8.8			
		F	Lost in No.199						
199	" 4	iP_{NE}	03 19 29	5	-0.3	-1.3		2720	
		mNE	19 42	6	2.4	7.9		(24°4)	
		$i(S)E$	23 48	7		+9.7			
		iS_N	23 52	5	+4.8				
		iE	24 00	8		+9.8			
		LN	25 14	17	5.5				
		LE	26 07	17		10.2			
		MN	28 27	10	13.1				
		ME	31 27	13		10.2			
		F	05 30						
200	" 4	e_N	13 25.4						
		eL	27.4	15					
		MN	29 42	10	0.3				
		F	13 45						
201	" 4	eL_E	14 21.9	14					
		ME	25 39	10		0.3			
		F	15 45						
202	" 4	eP_E	16 32 56	3		0.5		2600	
		iS_N	37 10	4	+0.7			(23°4)	
		iE	37 16	7		-1.6			
		eL	39.6	?					
		MN	41 24	13	0.8				
		F	17 25						
203	" 5	e_N	01 29.5						
		MN	38.6	12					
		F	01 55						

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RIVERVIEW COLLEGE OBSERVATORY,

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date.	Phase	Time (Greenwich)	Per.	Amplitude. A_N	Amplitude. A_E	Amplitude. A_Z	Δ	Remarks.
	1934		h. m. s.	s.	mm	mm	mm	km.	
204	Nov. 5	i_E	05 55 45	3		-0.7			
		e_N	59 26						
		i_N	06 00 09	3	+0.4				
		i_{NE}	03 16	5	+0.6	-1.0			No definite phases
		e(L)	06.5	12				after	03m. 16s.
		F	06 25						
205	" 5	e_{NE}	23 18.0	4					
		e_N	23.9	5	0.8				Phases hard to
		i_N	25 52	5	+1.0				identify.
		MN	28 16	10	0.8				
		F	Lost in No.206						
206	" 5	eL	23 43.2	17					Long irregular
		F	00 20						waves till 23 58.
207	" 9	e	04 05.9						Obscured by heavy
		e(L)	14.8						microseisms.
208	" 10	e_N	08 04.2						
		eL_E	06.7	16					
		ME	08 00	12		0.7			
		MN	08 24	11	0.4				
		F	08 35						
209	" 10	e_E	16 08 09	4		0.5			
		e_N	12 23	5	0.6				
		eL	15.3	15					
		MN	16 37	12	0.3				
		F	16 40						
210	" 10	P_{NEZ}	23 48 14	0.3				222	Local shock, felt
		iS_{NEZ}	48 38	0.9	+2.3	?	-0.3	(2°)	at Canberra, F.C.T.
		m_E	48 40	0.?		6.5			
		m_Z	48 41	0.?			1.1		
		m_N	48 46	0.?	3.5				
		L_Z	48 56	3					
		MNEZ	49 09	1.9	1.4	2.2	1.0		
		F	23 55						
211	" 11	P_E	10 47 03	?				222	Very small.
		iS_E	47 22	0.9		-0.3			
		iS_N	47 25	0.9	+0.1				
		m_E	47 26	0.9		0.7			
		m_N	47 27	0.9	0.7				
		L_E	47 42	4					
		ME	47 55	2		0.4			
		F	10 51						
212	" 16	e_E	12 13.1						
		e_N	17.8	5					
		eL	19.8	24					
		ME	25 25	15		1.0			
		MN	26 16	15	0.5				
		F	12 55						
213	" 16	e_N	13 49 46	3	0.3				
		eZ	49 50	2			0.3		
		$S?_N$	54 04	5	0.8				
		i_E	54 10	4		+0.7			
		m_N	54 33	5	1.5				
		eL_E	56.7	34					
		m_E	57 56	8		4.4			
		MZ	14 01 45	11			0.2		
		ME	03 32	14		15.0			
		MN	03 34	11	5.8				
		F	15 25						

(Continued on next sheet).

RIVERVIEW COLLEGE OBSERVATORY,

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date.	Phase	Time (Greenwich) h. m. s.	Per s.	Amplitude. A_N mm	A_E mm	A_Z mm	Δ km.	Remarks.
214	1934 Nov. 18	iP_{NE}	21 59 12	1.7	-1.6	-2.7		222	S.W.Dilatation.
		iP_Z	59 13	1.5			-0.8	(2°)	Felt extensively
		i_{NE}	59 19	3	-7.2?	-12.3			over S.Tablelands
		iS_{NE}	59 35	1.5	?	8.8			of N.S.W., also at
		iS_Z	59 36	1.5			-2.2		Riverview and East-
		m_Z	59 40	1.5			4.9		ern Suburbs of
		m_{NE}	59 46	1.5?	30.7	32.0			Sydney.
		L_Z	59 50	4					
		MZ_1	59 57	4			9.9		
		MZ_2	22 00 09	2			9.2		
		F	22 12						
215	" 18	e_Z	22 46 16	2			0.2		
		i_N	51 04	7	+5.4				Preliminaries lost
		m_{NE}	51 31	9	3.7	2.2			on Horizontal while
		eL	54.6	29					changing papers.
		MZ	57 55	15			0.1		
		MN	59 46	14	2.9				
		F	23 50						
216	" 19	P_Z	06 56 49	0.3			0.1	222	
		eS_Z	57 12	1			0.2	(2°)	
		m_Z	57 14	1			0.2		
		MZ	57 43	1.5			0.15		
		F	06 59						
217	" 19	P_{NEZ}	07 10 49	0.3			0.1	222	
		iS_Z	11 14	1			0.25	(2°)	
		mEZ	11 15	1		1.5	0.5		
		ME	11 44	2		1.25			
		MZ	11 45	2			0.4		
		F	07 13						
218	" 20	e	18 07 00	6					
		m	07 31	5	0.8	0.8			
		MN	10 16	9	0.2				
		F	18 20						
219	" 21	iP_{NEZ}	06 32 37	1	-0.3	-0.6	-0.2	222	S.W.Dilatation.
		iS_{NEZ}	33 00	1	+4.8	-2.6	-0.8	(2°)	
		mEZ	33 04	1		16.2?	1.8		
		L_E	33 12	5		9.5			
		L_Z	33 14	5					
		MEZ	33x25	3		7.0	2.9		
		MZ_2	33 33	2			2.8		
		F	06 39						
220	" 24	iP_N	12 39 12	4	+1.4			2710	
		e_Z	39 15	3				(24°.4)	
		m_N	39 20	5	5.0				
		i_E	39 23	5		-1.4			
		m_E	39 54	5		2.4			
		iS_{NE}	43 35	7	+1.7	-5.5			
		m_N	43 55	7	5.5				
		L	45.6	20?					
		ME_1	47 04	11		6.0			
		MN_1	47 26	10	5.8				
		ME_2	48 11	9		8.3			
		MN_2	50 13	10	7.0				
		F	14 20						

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RIVERVIEW COLLEGE OBSERVATORY,

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date.	Phase	Time (Greenwich)	Per	Amplitude. A_N	Amplitude. A_E	Amplitude. A_Z	Δ	Remarks.
	1934		h. m. s.	s.	mm	mm	mm	km.	
221	Nov.25	eN	00 27.6	4	0.4				
		eN	32.1	7	0.5				
		e(L)	34.2	17?					
		ME	36 33	9		0.4			
		MN	38 33	10	0.4				
		F	00 55						
222	" 26	e	12 19.1						
		e	26.4	9					
		iN	27 17	6	+1.4				
		ME	37 34	14		0.4			
		MN	40 20	14	0.3				
		F	13 10						
223	" 27	PNE	06 22 01					4465	P in minute mark.
		iNEZ	22 04	3	+3.1	+2.1	-1.1	(40°2)	N.W.Dilatation.
		iNEZ	23 42	4	-2.1	+1.0	+0.2		S.E.Condensation.
		mNZ	23 51	4	2.2		0.4		
		iSE	28 17	3		-2.7			
		mNE	28 30	8	2.3	2.8			
		iE	31 26	7		+2.7			
		mE	31 40	7		5.6			
		mE	35 10	9		5.4			
		eLE	37.2	17					
		ME1	39 56	8		4.5			
		MN	43 09	11	3.8				
		ME2	43.39	10		4.3			
		F	08 45						
224	" 27	PE	22 08 14	?				222	
		SEZ	08 38	0.7		0.3	0.1	(2°)	
		mNEZ	08 39	0.7	0.5	0.6	0.2		
		MN	09 06	2			0.2		
		ME	09 09	2		0.4			
		F	22 10						
225	" 28	e(L)	11 02.0	12					A few shallow waves.
226	" 30	e?	02 30.8						Obscured by heavy
		e	35.1						microseisms.
		eL	56.7	24					
		MN1	03 03 22	17	0.5				
		ME1	04 02	17		1.7			
		ME2	13 02	17		1.4			
		MN2	13 17	15	0.5				
		F	04 20						

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1934, December 8th.

WM. O'LEARY, S.J.
Director.

Riverview College Observatory.

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

Φ = 33° 49′ 49″ S. λ = 151° 9′ 30″ E. h = 41·9 m. **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	$\frac{r}{T_o^2}$
1934, Dec.17.	A_N (1)	219	7.5	3.6	0.012
	A_N (3)	81	12.1	5.8	0.015
	A_E (1)	238	8.7	3.9	0.012
	A_E (3)	72	13.3	3.3	0.018
	A_Z (2)	91	5.0	4.7	0.072

No.	Date	Phase	Time (Greenwich)	Per	Amplitude. A_N	Amplitude. A_E	Amplitude. A_Z	Δ	Remarks.
	1934		h. m. s.	s.	mm	mm	mm	km.	
227	Decemb.5	e	19 15.2						Obscured by micro-seisms.
		eL	19.2	17					
		ME	22 27	14		0.7			
		MN	22 55	10	0.9				
		F	19 40						
228	" 7	e(L)	11 21.6	14?					Small and obscured by microseisms.
		MN	24 45	10	0.3				
229	" 8	e_{NEZ}	20 56 25	4	0.7	0.8			
		i_{NE}	56 27	4	+2.7	-2.6			Only outstanding phase.
		e_E	59 41	5		0.5			
		ME	21 02 22	9		0.3			
		F	21 10						
230	" 9	e_N	11 45.1						
		eL_E	50.2	24					
		ME	41.7	17		0.2			
		F	12 00						
231	" 12	e_Z	08 47 04	3					
		i_E	48 08	4		+1.1			
		i_E	49 21	4		+1.7			
		m_E	49 25	5		2.8			
		m_N	52 27	7	1.2				
		i_{NE}	55 24	4	+2.3	+2.1			
		F	09 05						
232	" 15	e_Z	02 09 57						
		e_N	21 07	4	0.7				
		e_E	21 10	4		0.7			
		m_E	21 15	6		1.0			
		m_N	21 17	6	1.9				
		eL_N	35.1	30					
		L_N	38 00	44					
		MN_1	42 17	31	0.9				
		ME_1	42 34	31		1.2			
		MN_2	48 08	22	0.6				
		ME_2	49 41	20		0.8			
		F	04 30						
233	" 15	ePE	18 03 30	3		0.2		2335	
		iS_E	07 22	3		-0.5		(21?0)	
		i_N	07 26	4	+1.6				
		i_E	07 27	4		+0.7			
		m_E	07 51	5		1.4			
		eL	09.6	17?					
		ME	11 20	15		0.1			
		F	18 25						

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RIVERVIEW COLLEGE OBSERVATORY,

SYDNEY. N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date.	Phase	Time (Greenwich)	Per	Amplitude.			Δ	Remarks.
					A_N	A_E	A_Z		
	1934		h. m. s.	s.	mm	mm	mm	km.	
234	Dec.15	e_E	19 19 34	3		0.2			
		i_E	21 04	4					i_E in minute mark.
		i_{NE}	23 37	4	-3.3	+1.3			
		i_E	26 25	4		-0.6			
		m_E	26 43	7		3.2			
		i_{NE}	29 22	4	-1.4	+3.2			
		e(L)	31.5	17					
		ME	33 08	8		1.3			
		MN	35 48	10	0.5				
		F	20 10						
235	" 17	e_{NZ}	15 59.1						
		e_N	16 03 53	10					
		e(L)E	06.7	28?					
		eL_N	08.4	35?					
		ME	13 01	10		7.8			
		MN	15 32	11	3.0				
		F	17 40						
236	" 22	e	15 29.6						
		eL	32.2	17					
		ME	33 33	17		0.2			
		F	16 10						
237	" 25	$e?_E$	05 52.4						
		e_E	57.2						
		eL_N	06 01.3	16					
		MN	04 00	12	0.2				
		F	06 15						
238	" 25	e_N	06 43.1	5					
		e_E	44.2	7					
		eL_E	51.5	24					
		MNE	57.9	16	0.2	0.2			
		F	07 30						
239	" 28	eP_E	11 30 28	4				2780	
		i_E	30 33	6		-1.3		(25?0)	
		eL	37.4	24					
		MN	39 53	15	1.1				
		ME	40 00	16		2.6			
		F	12 45						
240	" 30	e	14 34.2	9					
		eL	44.3	23					
		ME	49.6	19		0.1			
		MN	50.1	12	0.2				
		F	15 30						
241	" 30	eL	16 11.1	20					A few shallow long waves.
241	" 30	$e?_N$	19 05.2						
		e_{NE}	13 .1	9					
		e_E	15.5	9					
		eL_E	36.8	32					
		ME	44 44	18		1.0			
		MN	45 02	18	0.5				
		F	21 50						

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1935, January 3rd.

WM. O'LEARY, S.J.
Director.