

No. 1.

1935, January.

# Riverview College Observatory.

SYDNEY, N.S.W.

## SEISMOLOGICAL BULLETIN.

 $\Phi = 33^{\circ} 49' 49''$  S.

 $\lambda = 151^{\circ} 9' 30''$  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.)

	$\gamma$	$T_0$	$\epsilon:1$	$\frac{r}{T_0^2}$
A <sup>(1)</sup>	222	7.6	3.6	0.019
A <sup>(3)</sup>	82	11.8	7.4	0.015
A <sup>(1)</sup>	226	8.6	2.4	0.015
A <sup>(3)</sup>	68	13.1	3.3	0.024
A <sup>(2)</sup>	93	4.9	4.1	0.12

No.	Date	Phase	Time (Greenwich)			Per s.	Amplitude.			$\Delta$ km.	Remarks.
			h.	m.	s.		$A_N$ mm	$A_E$ mm	$A_Z$ mm		
1	1935 Jan. 1	iP <sub>NEZ</sub>	13	27	31	3	-0.5	-1.8	+0.4	3420 (30°8)	S.W. Condensation. Deep focus?
		iE		28	29	4		-2.0			
		iZ		28	31	3			-1.6		
		iNE		29	11	4	+1.6	-4.5			
		iE		30	05	5		+3.5			
		iE		30	42	5		-3.7			
		iS <sub>NE</sub>		32	42	5	+8.6	-3.0			
		iNE		34	35	12	+3.5	-2.8			
		iNE		35	39	9	-8.0	-3.8			
		iN		37	22	7	+5.9				
		iE		37	24	7		-6.3			
		MN		39	26	10	5.5				
		F		15	10						
2	" 3	eNE	02	13	22						
		iNE		13	23	5	0.7	0.9			
		iNE		13	38	5	0.6	1.0			
		eLE		32	3	23					
		ME		42	56	18		0.2			
3	" 4	MN		44	31	20	0.1				
		F	03	15							
4	" 4	e	00	31	5						Small and indef- inite.
		M		39	22	10	0.2				
5	" 4	F	00	45							
		eN	15	46	3						
		eL		54	5	25					
		ME	16	01	36	25		0.2			
6	" 5	F	16	50							
		eN	19	05	8						
		eLE		11	2	20					
		MN		14	30	12	0.2				
7	" 14	ME		15	28	12		0.2			
		F	19	40							
		iNE	10	22	55	4	0.2	+0.6			
		eL		33	6	23					
8	" 5	MN		37	42	17	0.2				
		ME		39	17	20		0.3			
		F	10	50							
9	" 14	e	02	22	6						A few small waves obscured by micro- seisms.

(Continued on next sheet)



No. 1 (continued)

1935, January.

## RIVERVIEW COLLEGE OBSERVATORY,

SYDNEY, N.S.W.

## SEISMOLOGICAL BULLETIN.

No.	Date.	Phase	Time (Greenwich)			Per s.	Amplitude.			$\Delta$ km.	Remarks.
			h.	m.	s.		A <sub>N</sub> mm	A <sub>Z</sub> mm	A <sub>Z</sub> mm		
8	1935 Jan. 17	iPNE	02	13	00	3	+2.1	+3.5		2345 (21.91)	N.E. Dilatation. Deep focus?
		iPZ		13	01	2			-0.4		
		iN		13	09	3	+4.2				
		mZ		13	09	2			2.7		
		iNE		13	20	4	+5.1	+9.9			
		iSN		16	53	5?	-11.3				
		iE		16	54	4		+5.5			
		iSE		16	57	4		-19.7			
		iN		16	58	5	+28.0				
		iN		17	12	8	+25.4				
		iE		17	13	5		+25.0			
		iE		17	28	5		+25.8			
		e(L)E		18	0	28					
		ME1		21	56	12		4.3			
		ME2		24	54	10		4.9			
		9	" 18	F	03	40					
e(P)E	11			08	16	4		0.6			
eSE				12	38	6		1.0			
e(SR1)N				13	38	7	0.5				
eLN				14	9	19					
MN				17	22	15	1.2				
10	" 22	ME		17	33	15		0.5			
		F	11	40							
		e	07	48.2							
11	" 22	eL		55.8		15			3480 (31.3)	Long waves absent Short periods throughout.	
		MN		58	20	13					
		F	08	10							
12	" 23	ePN	15	03	25	3	0.5		0.6		
		iSN		08	40	5	1.4				
		ME		14	55	6		11.5			
		MZ		15	19	4					
		MN		15	24	6	6.9				
		F	16	20							
		e?	07	20.1							
		e		37.5							
13	" 26	eN		47	46	10			0.7	Obscured by micro- seisms.	
		eE		47	50	10					
		ME		48	20	13		1.2			
		eL		54.1		32					
		MN	08	10	44	19					
		ME		12	28	23		0.9			
		F	10	10							
		e	11	08.8							
		e(L)		10.2		13?					
		ME		12.0		12		0.3			
14	" 27	F	11	20							
		e	16	03.3							
		iNE		07	10	6	-0.6	+2.0			
		iNE		07	16	6	+1.1	-4.3			
15	" 31	eL		08.7		8			3660?	After 07 16 phases very small and indefinite.	
		F	16	25							
		e(P)	17	50	11	3					
		e(PR1)		51	12	4					
		PR2?		51	37	7	0.6	0.5			
		iSNE		55	37	7	+1.6	-1.6			
		mNE		55	56	9	2.5	2.3			
		eLE		59.0		17					
		LN		59	44	15	1.3				
		ME	18	02	19	13		1.3			
15	" 31	MN		02	47	12	1.9				
		F	19	00							

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

1935, Feb. 2nd.



No. 2.

1935, February.

# Riverina College Observatory.

SYDNEY, N.S.W.

## SEISMOLOGICAL BULLETIN.

 $\Phi = 33^{\circ} 49' 49''$  S.     $\lambda = 151^{\circ} 9' 30''$  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	$T_0$	$\epsilon:1$	$\frac{r}{T_0^2}$
$A^N(1)$	201	8.1	3.5	0.017
$(3)$	82	12.3	5.9	0.009
$A^E(1)$	221	8.8	3.7	0.012
$(3)$	69	13.4	4.1	0.019
$A^Z(2)$	93	5.0	3.1	0.100

1935, Feb. 15.

No.	Date	Phase	Time (Greenwich)			Per	Amplitude.			$\Delta$ km.	Remarks.
			h.	m.	s.		$A_N$ mm	$A_E$ mm	$A_Z$ mm		
16	1935 Feb. 4	eE	17	36.9	?						
		eN		39.6	7	0.4					
		eL		42.2	19						
		ME		43.32	17		0.8				
		MN		45.13	12	0.4					
17	" 8	F	18	30							
		e?	07	29.6							Phases very small and indefinite.
		eNE		30.4	3						
eNE		38.3	8								
18	" 8	F	07	45							
		e?	18	41.6							
		e		45.8	4	0.3					
		eL		48.3	17						
		MN		49.14	13	0.2					
		F	19	05							
19	" 20	e	18	28.3							
		F	18	40							Small waves with short periods, no definite phases.
20	" 22	eNEZ	17	19.14	?						
		eNE		29.53	6	0.5	0.5				
		eLE		42.2	37						
		MN		49.55	13	0.9					
		ME		52.00	15		2.0				
21	" 23	F	20	15							
		eN	03	39.56	3	0.4					
		eL		44.5	11						
22	" 23	MN		46.22	10	0.9					
		F	04	15							
		ePN	12	39.15	2	0.3					
		iSN		43.33	4	-0.6				2645 (23:8)	
		eLN		44.7	23?						
23	" 24	ME		46.34	10		0.3				
		MN		46.50	10	0.3					
		F	13	15							
		eNE	11	10.2	5						
		eLN		16.2	14						
24	" 27	eLE		18.4	15						
		MN		18.36	12	0.7					
		ME		20.37	14		0.5				
		F	12	00							
		e?	09	18.5							
		iN		23.37	3	0.5					
		eL		33.7	28?						
		MN		37.58	13	0.2					
		ME		38.08	13		0.3				
		F	09	55							

 WM. O'LEARY, S.J.  
 1935, March 13.



No. 3.

1935, March.

# Riverview College Observatory.

## SYDNEY, N.S.W.

### SEISMOLOGICAL BULLETIN.

$\Phi = 33^\circ 49' 49''$  S.       $\lambda = 151^\circ 9' 30''$  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 <sub>0</sub>	$\epsilon:1$	$\frac{r}{T_0^2}$
A <sup>n</sup> (1)	201	8.2	3.6	0.018
(3)	77	12.3	5.9	0.009
A <sup>e</sup> (1)	217	8.9	3.5	0.015
(3)	74	13.4	3.3	0.018
A <sup>z</sup> (2)	87	5.0	3.3	0.11

No.	Date	Phase	Time (Greenwich)			Per s.	Amplitude.			$\Delta$ km.	Remarks.
			h.	m.	s.		A <sub>N</sub> mm	A <sub>E</sub> mm	A <sub>Z</sub> mm		
25	1935 March 5	e?	09	29.7							
		eS		34 13	3						
		eL		36.3	13						
		ME		37 59	15			0.3			
		MN		38 36	13	0.7					
26	" 11	F	10	05							
		iN	15	06 27	8	1.2					
		ME		06 32	8			1.7			
		MN		17 17	8	1.2					Obscured by very heavy microseisms.
27	" 12	F	15	25							
		eL	14	03.9	20						A few long waves masked by micros.
28	" 13	eP?N	18	42 43	?						
		iSNE		47 47	5	+1.5	-2.3		3310?		
		iE		49 55	6		-2.1		(29?8?)		
		eL		51.3	17						
		ME		54 39	10			0.7			
		F	19	25							
29	" 14	eN	11	45.2							
		eL		48.4	18						
		MN		53 22	13	0.3					
		ME		53 44	12			0.6			
		F	12	15							
30	" 14	eP?E	13	45.3	4					2580?	" "
		eSE		49 22	7			1.4			
		eSN		49 24	7	0.8					
		eL		51.4	20						
		MN		53 17	13	0.8					
		ME		53 44	13			0.5			
31	" 14	F	14	20							
		eN	15	43.3	5						
		eL		46.4	20						
		MN		49 34	14	1.4					
		ME		51 17	15			1.6			
32	" 15	F	16	30							
		eE	11	19.3	5						
		eL		24.4	18						
		ME		27 17	12			0.9			
		MN		28 06	13	0.3					Microseisms.
F	11	50									

(Continued on next sheet)



No. 3 (continued)

1935, March.

## RIVERVIEW COLLEGE OBSERVATORY,

SYDNEY, N.S.W.

## SEISMOLOGICAL BULLETIN.

No.	Date.	Phase	Time (Greenwich)			Per s.	Amplitude.			$\Delta$ km.	Remarks.
			h.	m.	s.		A <sub>N</sub> mm	A <sub>E</sub> mm	A <sub>Z</sub> mm		
33	1935 March 16	e	08	05	57				3045 (27°4)	Small and indef- inite.	
		ME		11	09	8		0.6			
		MN		11	21	8	0.7				
34	" 20	F	08	25					3045 (27°4)		
		ePNEZ	23	03	03	3	0.4	0.4			
		PR1N		03	41	6	1.2				
		iSN		07	50	7	+4.1				
		ME		08	07	8		6.6			
		eLE		10	4	20					
		ME		12	58	10		8.7			
35	" 27	MN		13	31	12	7.1		3365 (30°3)		
		F	01	00							
		iE	14	27	46	4		-0.5			
		iNEZ		29	10	4	-0.7	-1.0			-0.2
		ME		29	16	5		1.9			
		iN		29	37	5	-1.1				
		iNE		32	11	5	+1.0	-2.7			
		mNE		34	52	7	0.6	0.7			
		F	15	00							
		36	" 29	iPEZ	12	30	02	3			
iPR1E				30	40	5		-2.8			
iSNE				35	10	6	+1.6	+2.7			
iSR1E				36	14	8	+3.8				
L				37	50	17					
MZ				40	28	17			0.1		
MN				41	44	12	8.4				
ME				42	49	13		7.0			
F	14			40							
37	" 30			eE	02	15	1				3365 (30°3)
		eL		21	6	17					
		MN		24	29	13	0.3				
		ME		25	26	13		0.2			
38	" 30	F	03	10					3365 (30°3)		
		iN	16	43	35	4	-0.3				
		iE		48	44	4		+0.5			
39	" 30	mN		48	47	7	0.4		3365 (30°3)		
		F	17	00							
		e	21	40	3	5		0.4			
40	" 31	eL		58	0	23			3365 (30°3)		
		MN	22	01	6	20	0.2				
		F	22	20							
		eNE	22	58	3						
		eN	23	01	9						
40	" 31	eL		03	3	22			3365 (30°3)		
		ME		05	57	15		0.2			
		MN		06	44	12	0.2				
		F	23	30							
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1935, April 4th.											

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



1935, April.

# Riverview College Observatory.

SYDNEY, N.S.W.

## SEISMOLOGICAL BULLETIN.

 $\Phi = 33^{\circ} 49' 49''$  S.

 $\lambda = 151^{\circ} 9' 30''$  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	$T_0$	$\epsilon:1$	$\frac{P}{T_0^2}$
$A^N(1)$	211	8.0	3.4	0.019
$(2)$	86	11.9	5.1	0.009
$A^E(1)$	223	8.6	4.0	0.013
$(3)$	73	13.0	3.2	0.018
$A^Z(2)$	90	4.9	3.6	0.060

No.	Date	Phase	Time (Greenwich)			Per s.	Amplitude.			$\Delta$ km.	Remarks.
			h.	m.	s.		$A_N$ mm	$A_E$ mm	$A_Z$ mm		
41	1935 April 1	eE	02	28.4	4						
		eN		30.5	7						
		eL		32.6	15						
		MN		35 20	12	0.5					
42	" 1	ME		36 30	16		0.5			F 03 40	
		e	15	46.4	3						
43	" 2	eL		54.9	17					F 16 15	
		eE	16	29 10	2						
44	" 3	eL		36.9	17						
		MN		39 04	14	0.2				F 17 00	
45	" 3	eN	16	46.6	4						
		ME		57 04	10		0.2			F 17 05	
46	" 4	e?E	20	48.8							
		eE		55.4	4						
		eL	21	01.4	18					Preliminaries obscured by microseisms.	
		MN		06 25	11	0.7				F 22 00	
47	" 5	ME		07 25	12		0.5				
		eN	09	54.5							
		eN		59.6	11					Obscured by microseisms.	
		eLE	10	02.0	18						
48	" 8	MN		03 00	12	0.4					
		ME		03 32	15		0.3			F 11 05	
		eN	03	03.1							
		eN		08.6	12					Obscured by microseisms.	
49	" 12	eLE		10.4	27		0.6				
		ME		12 06	14					F 13 35	
		MN		13 28	13	0.8				Very small.	
		eN	11	58.0						F 12 10	
49	" 12	MNE	12	01.1	8	0.3	0.2				
		ePZ	01	34 20	1			0.1	1080		
		eSZ		36 19	2			0.3	(9.7)		
		iNEZ		36 42	2	+6.5	+8.0	+0.8		On N-S and E-W	
		iNZ		36 52	2	+12.4		+2.0		Comp. S in minute mark.	
		mN		36 55	2	12.4					
		iZ		37 04	2			+3.6			
		iNE		37 08	2	-13.2	+21.0			Felt in Queensland.	
		mZ		37 09	3			5.1			
		iE		37 12	2		+18.7				
		LZ		37 33	5						
		iN		37 42	4	-13.2					
		iME		37 51	4		-15.3				
		MZ1		37 52	4			3.5			
		ME1		37 59	6			21.8			
iN		38 02	4	+26.0							
MN		38 06	5	19.4							
ME2		38 16	5			27.5		F 01 55			
MZ2		38 24	3				4.9				

(Continued on next sheet)





SEISMOLOGICAL BULLETIN.

No.	Date.	Phase	Time (Greenwich)			Per	Amplitude.			Δ km.	Remarks.
							A <sub>N</sub> mm	A <sub>E</sub> mm	A <sub>Z</sub> mm		
	1935		h.	m.	s.	s.					
50	April 16	e	20	51	.3						
		eL		56	.2	14					
		ME		58	15	9		0.3			
		F	21	10							
51	" 19	e	15	45	.1						
		e		57	.1						
		eN	16	04	58	10					
		eL		21	.5	27					
		ME <sub>1</sub>		38	16	25		1.1			
		MN <sub>1</sub>		44	22	25	0.8				
		MZ		46	25	20			0.1		
		ME <sub>2</sub>		46	41	22		1.9			
		MN <sub>2</sub>		50	32	23	1.3				
		F	18	40							
52	" 20	e	06	24	.4						
		e(L)		32	.7	16?					
		ME		34	09	16		0.1			
		MN		35	34	14	0.2				
		F	07	00							
53	" 20	e	09	41	.5						
		m		44	11	4	0.3	0.4			
		F	09	55							
54	" 20	e	19	53	.6						
		eL		57	.3	15					
		MN	20	00	31	12	0.1				
		ME		01	00	12		0.1			
		F	20	20							
55	" 20	ePN	22	13	02	3	0.5		6665		
		eS <sub>NE</sub>		21	21	6	0.5	0.6	(60°0)		
		eL		31	.3	22					
		ME		38	28	22		0.5			
		MN		38	53	20	0.5				
		F	23	50							
56	" 21	e	07	40	.9	7					
		iN		44	16	6	1.5				
		eN		47	55	9					
		eL		50	.0	23					
		MN		53	03	15	0.3				
		ME		54	54	18		0.2			
		F	08	35							
57	" 21	e	17	19	.8	3					
		e(L)		22	.1	?					
		MN		23	21	13	0.1				
		F	17	35							
58	" 23	e	17	25	.6	5					
		eL		31	.4	13					
		MN		33	35	8	0.2				
		ME		33	44	7		0.3			
		F	17	45							
59	" 24	e	16	26	.7	3					
		eL		28	.7	19					
		MN		32	44	13	0.2				
		ME		35	34	18		0.3			
		F	16	50							
60	" 29	e	11	51	.5						
		e		55	.3						
		ME		57	16	8		0.9			
		MN		47	30	7	0.9				
		F	12	10							

1935, May 3.

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

# Riverview College Obs



## SYDNEY, N.S.W.

### SEISMOLOGICAL BULLETIN.

$\Phi = 33^{\circ} 49' 49''$  S.     $\lambda = 151^{\circ} 9' 30''$  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. Manka Conical Pendulum Seismometer (450 kilo.) NS, EW)
4. Galitzin Aperiodic Seismometer, with galvanometer registration (NS, EW, Vert.)

	V	$T_0$	$\epsilon:1$	$\frac{r}{T_0^2}$
A <sup>(1)</sup>	211	7.9	3.4	0.021
(3)	93	11.8	2.9	0.009
A <sup>(1)</sup>	225	8.6	3.4	0.015
(3)	86	12.5	2.9	0.021
A <sup>(2)</sup>	92	4.7	3.7	0.081

No.	Date	Phase	Time (Greenwich)			Per s.	Amplitude.			$\Delta$ km.	Remarks.
			h.	m.	s.		$A_N$ mff.	$A_E$ mff.	$A_Z$ mff.		
61	1935 May 3	e	01	11.8		3				Small and indefinite.	
		m		13 03		6	0.5	0.5			
62	" 7	F	01	25							
		e <sup>?E</sup>	06	03.3							
		e <sup>N</sup>		05.5		5					
		e <sup>NE</sup>		10.4		9	0.4	0.4			
		e <sup>N</sup>		13 46		7	0.6				
		e <sup>E</sup>		13 50		7		0.8			
		e(L)		18.7		21?					
eL		22.6		25							
63	" 12	MNE		25.1		16	0.3	0.4			
		F	06	55							
		e <sup>NE</sup>	19	51.6		4					
		e <sup>N</sup>		56.2		19					
		eL	20	00.9		22					
		ME <sub>1</sub>		02 12 <sup>8</sup>		19		0.6			
		MN		02 12		19	0.6				
64	" 13	ME <sub>2</sub>		04 04		13		1.2			
		F	20	45							
		e <sup>E</sup>	20	14.3		7					
		e <sup>N</sup>		14.4		7					
		e(L)		25.0		18					
		eL		29 29		23					
		MN		34 48		20	0.2				
65	" 13	ME		41 00		17		0.1			
		F	21	00							
		e	23	56.3							
		eL		59.1		16					
		MN	00	00 53		14	0.7				
		ME		01 56		14		0.6			
		F	00	40							
66	" 14	e <sup>PNZ</sup>	23	35 47		1	0.1		0.1	9065 (81.6) Deep focus?	
		mN		35 55		3	0.7				
		e(PR <sub>1</sub> ) <sup>N</sup>		39 10		5	0.6				
		mN		39 17		5	1.3				
		i <sup>S<sub>N</sub></sup>		46 01		5	-4.2				
		i <sup>S<sub>E</sub></sup>		46 04		5		+2.6			
		i <sup>N</sup>		46 18		5	+4.8				
		ME		46 19		7		4.5			
		SR <sub>1</sub> <sup>?E</sup>		52 06		8?		0.5			
		eL	00	06.4		24					
		MN <sub>1</sub>		13 45		16	0.3				
		ME		14 42		17		0.3			
		MN <sub>2</sub>		19 15		16	0.5				
F	02	00									

(Continued on next sheet)



No. 5 (continued)

1935, May.

## RIVERVIEW COLLEGE OBSERVATORY,

SYDNEY, N.S.W.

## SEISMOLOGICAL BULLETIN

No.	Date.	Phase	Time (Greenwich)			Per s.	Amplitude.			Δ km.	Remarks.
			h.	m.	s.		A <sub>N</sub> mm	A <sub>E</sub> mm	A <sub>Z</sub> mm		
67	1935 May 16	e(S)	21	00	14	12					
		e(L)		07.4		19?					
		eL		09.3		22					
		MN		12	50		19	0.6			
		ME		13	11		17		0.8		
68	" 18	F	22	10						2355 (21?2)	
		ePNEZ	21	36	30	3	0.2	0.5	0.2		
		iE		36	39		7	-1.2			
		iSE		40	23		7	-1.0			
		iSN		40	25		7	+3.2			
		mE		40	43		7		3.0		
		eLE		43.0			16				
		MN		44	45		10	0.3			
69	" 20	F	22	05							
		eN	05	36.2		6?					
		eNE		39.4		6					
		eL		47.7		25					
		MNE		50	30		17	0.5	0.4		
70	" 21	F	06	10						3065 (27?6)	
		ePNZ	06	57	37	2	0.5		0.1		
		mNE		58	43		4	0.8	0.3		
		eSE	07	02	23		6		0.8		
		iSN		02	25		5	+1.6			
		mN		03	10		9	2.6			
		mN		04	09		7	3.0			
		iE		05	33		7		-5.8		
		eL		06.5			30?				
		LNE		08	10		21	4.6	8.3		
		eLZ		08.4			23				
		ME <sub>1</sub>		10	26		12		7.2		
		MN		10	53		12	3.1			
MZ		11	58		10						
ME <sub>2</sub>		12	04		11		6.8				
71	" 24	F	09	10						5610 (50?5)	
		ePNE	05	45	51	4	0.5	0.5			
		iSN		53	09		6?	-2.7			
		iSE		53	12		6?		+2.5		
		mNE		53	21		20	5.9	2.5		
		mNE		53	41		20	6.8	3.2		
		iE		56	43		14		+5.2		
		iN		57	14		12	+8.7			
		iNE		57	35		9	+8.5	-8.9		
		eL	06	01.8			20				
		ME		03	27		16		11.3		
		MN		07	15		16	7.8			
		F	08	00							
72	" 25	eNE	00	17	18	5	0.3	0.4			
		iN		24	37		5	+1.2			
		eN		28	33		12	0.6			
		eL		39.4			20				
		MN		44	32		10				
73	" 26	F	01	25							
		iN	22	13	09	3	+0.6				
		eN		20	19		8	1.2			
		eE		20	25		7		0.9		
		eE		23	52		8		0.8		
		eN		24	05		8	1.0			
		eLE		33.1			?				
		MN		48	21		14	0.5			
F	23	15									

(Continued on next sheet)



No. 5 (continued)

1935, May.

## RIVERVIEW COLLEGE OBSERVATORY,

SYDNEY, N.S.W.

## SEISMOLOGICAL BULLETIN.

No.	Date.	Phase	Time (Greenwich)			Per s.	Amplitude.			$\Delta$ km.	Remarks.
			h.	m.	s.		$A_N$ mm	$A_E$ mm	$A_Z$ mm		
74	1935 May 27	e	03	16	6						
		eL		23	3	19					
		ME		27	31	17		1.0			
		MN		28	21	11	1.0				
		F	04	30							
75	" 30	e	21	51	2	6			0.05	Earlier phases obscured by heavy microseisms.  Destructive Quetta Earthquake.	
		iNE		58	01	5	+0.7	-1.1			
		iN		58	25	6	-1.2				
		iE		58	27	8		-1.9			
		eLN	22	17	4	39					
		MZ		30	39	20?					
		ME1		30	56	24		2.8			
		MN1		34	49	21	2.2				
		ME2		35	18	20		3.1			
		MN2		37	41	19	2.2				
		ME3		39	38	18		5.9			
		F	01	10							
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1935, June 6th.											
WM. O'LEARY, S.J. Director.											



# Riverview College Observatory.

SYDNEY, N.S.W.

## SEISMOLOGICAL BULLETIN.

 $\phi = 33^{\circ} 49' 49''$  S.     $\lambda = 151^{\circ} 9' 30''$  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 <sub>0</sub>	$\epsilon:1$	$\frac{F}{T_0^2}$
A <sup>N</sup> (1	211	8.1	3.2	0.015
3	78	11.0	4.1	0.011
A <sup>E</sup> (1	219	8.6	3.4	0.016
3	73	12.6	5.2	0.021
A <sup>Z</sup> (2	100	4.6	3.3	0.066

No.	Date	Phase	Time (Greenwich)			Per s.	Amplitude.			$\Delta$ km.	Remarks.
			h.	m.	s.		A <sub>N</sub> mm	A <sub>E</sub> mm	A <sub>Z</sub> mm		
76	1935 June 1	e(P) <sub>NE</sub>	21	05	21	0.3				220?	Small local shock.
		eS <sub>NE</sub>		05	44	0.8					
		i <sub>NE</sub>		05	46	0.4	+0.5	-0.3			
		m <sub>NEZ</sub>		05	47	0.4	0.9	1.1	0.2		
77	" 3	F	21	08							Small waves, no definite phases.
		e	02	42	09	2?					
78	" 6	eL <sub>E</sub>	00	09	.7	11					
		MN		16	08	10	0.3				
79	" 16	F	00	40							
		e	06	25	23	6					
		e(S)		29	28	11?					
		eL		33	.8	22					
80	" 18	ME		34	41	18		1.5			Small local shock.
		MN		35	47	13	0.6				
		F	07	00							
		e <sub>NE</sub>	10	19	41						
81	" 19	i		20	03	0.3					
		MZ		20	32	2			0.3		
		F	10	22							
		e?N	22	20	.3						
82	" 22	eSE		24	40	6		0.6			
		m <sub>NE</sub>		25	06	6	0.8	0.7			
		eL		27	.6	17					
		MN		28	28	14	0.7				
83	" 23	ME		30	09	14		0.8			
		F	22	50							
		e?	15	55	.2						
		e(S)	16	02	22	10					
84	" 23	eL		10	.8	21					
		ME		12	05	17		1.6			
		MN		15	28	16	1.0				
		F	16	55							
85	" 23	e	09	39	08						No definite phases.
		e(S)		41	18	6					
		ME		42	28	8		1.2			
		m <sub>N</sub>		42	32	8	1.2				
86	" 23	F	10	00							
		e?N	15	17	.7						
		iS <sub>NE</sub>		22	23	6	+1.5	-1.0			
		eL		24	.6	14					
87	" 23	ME		25	54	12		0.2			
		MN		29	12	14	0.5				
		F	15	50							

(Continued on next sheet)



No 3 (continued)

1935, June.

## RIVERVIEW COLLEGE OBSERVATORY,

SYDNEY, N.S.W.

## SEISMOLOGICAL BULLETIN.

No.	Date.	Phase	Time (Greenwich)			Per	Amplitude.			Δ km.	Remarks.
			h.	m.	s.		A <sub>N</sub> mm	A <sub>E</sub> mm	A <sub>Z</sub> mm		
85	1935 June 24	iPNEZ	23	28	17	4	-4.4	-4.7	+1.7	2365 (2193)	iF Condensation. Azimuth NE.  Deep focus.          L and M not very well marked.
		mNEZ		28	20	4	5.0	6.9	2.6		
		iNEZ		28	43	5	+12.8	+17.0	+7.5		
		iNEZ		29	00	5	-31.5	-36.5	+9.2		
		eSN		32	06	8					
		eSE		32	09	8					
		iN		32	26	6	-31.7				
		iE		32	43	6		+22.6			
		iNE		33	01	6?	+23.0	+19.5			
		mN		33	09	7	+29.5				
		iN		33	17	6	-24.5				
		MEZ		33	19	6		44.2	3.1		
		iE		33	32	6		+37.3			
		iN		33	40	6	-59.3				
		mNE		33	55	8	+25	37.6			
		LE		35	0	23?					
		ME1		35	59	22		18.7			
		MN		36	14	12	12.1				
		ME2		39	13	10		14.8			
		86	" 25	F	02	50					
iNE	07			32	18	5	+1.0	-1.8			
87	" 29	eL		35.5		14				Small and indef- inite.	
		F	07	45							
		eL	07	43.1		20?					
		ME		49 48		15		0.2			
88	" 29	MN		49 54		15	0.1				
		F	08	20							
		eL	18	56.1		14					
89	" 30	MN		57 43		11	0.2			A few very small waves.	
		ME		59 37		11?		0.2			
		F	19	10							
89	" 30	e	11	26	30	3					
		F	11	32							
-----oOo-----											
1935, July 3rd.											
WM.O'LEARY, S.J. Director.											



# Riverview College Observatory.

SYDNEY, N.S.W.

## SEISMOLOGICAL BULLETIN.

 $\phi = 33^{\circ} 49' 49''$  S.

 $\lambda = 151^{\circ} 9' 30''$  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	$T_0$	$\epsilon : l$	$\frac{r}{T_0^2}$
$A^N(1)$	216	7.8	3.6	0.015
$(3)$	90	11.8	4.4	0.009
$A^E(1)$	224	8.4	3.5	0.015
$(3)$	74	12.6	4.0	0.021
$A^Z(2)$	59	5.0	4.1	0.040

No.	Date	Phase	Time (Greenwich)			Per s.	Amplitude.			$\Delta$ km.	Remarks.
			h.	m.	s.		$A_N$ mm	$A_E$ mm	$A_Z$ mm		
90	1935 July 6	e?	22	01.6							
		iNE		05	03	5	-1.2	-0.9			
		eL		05.5		14					
		MN		07	55	10	0.6				
91	" 9	F	22	20							
		ePE	13	50	06	0.3				227?	Perhaps earlier.
		iSNE		50	32	1	+1.2	+1.3			Small local shock
		mN		50	33	0.7	3.3				
		mEZ		50	35	0.7		3.5	0.5		
		mNE		50	41	4?	3.8	3.5			Waves of 1.5s. period superimposed.
		eLZ		50	45	5					
		mE		50	55	3		2.5			
		mZ		50	56	3			0.4		
		MZ		51	06	2			0.3		
92	" 9	F	13	53							
		e	21	25	57						
93	" 11	MNE		32	34	12	0.6	0.9			
		F	21	45							
94	" 12	eE	13	16.1							
		eN		20.1							
		eL		23.1	15						
		ME		25	12	19		0.3			
		MN		26	10	13	0.5				
		F	14	05							
95	" 15	iNE	03	02	22	1	+0.3	+0.5			Small local shock.
		L		02	32	3					
		ME		02	51	2		0.8			
		MZ		02	53	2			0.3		
96	" 15	F	03	04							
		e(P)EZ	12	04	08	3					
		iSN		08	19	7	+2.0				
		iSE		08	20	6		+1.2			
		eL		11.2		15					
		MN		13	16	11	1.8				
		ME		13	33	12		1.0			
96	" 15	F	13	15							
		iEZ	14	18	58	3		-0.7	+0.1		
		iE		20	31	3		-0.7			
		iN		23	12	4	-1.0				
		iE		23	13	4		+0.8			
		eN		26	10	6					
		mN		26	25	7	1.2				
		mE		26	31	6		1.0			
		iE		28	31	4		2.5			
		iN		28	32	6	+3.3				
96	" 15	ME		32	40	9		0.5			
		F	14	50							



No. 7 (Continued)

1935, July.

## RIVERVIEW COLLEGE OBSERVATORY,

SYDNEY, N.S.W.

## SEISMOLOGICAL BULLETIN.

No.	Date.	Phase	Time (Greenwich)			Per s.	Amplitude.			Δ km.	Remarks.
			h.	m.	s.		A <sub>N</sub> mm	A <sub>E</sub> mm	A <sub>Z</sub> mm		
97	1935 July 17	i <sub>N</sub>	11	09	26	5	-1.5			Long waves.	
		i <sub>N</sub>		09	35	5	-1.5				
		i <sub>E</sub>		09	36	6		-1.0			
		e <sub>N</sub>		15	11	15					
		m <sub>N</sub>		15	34	15	0.5				
		e <sub>E</sub>		21	39	21					
		e <sub>L<sub>N</sub></sub>		33	11	23					
		M <sub>N</sub>		36	38	20	1.2				
		M <sub>E</sub>		36	54	16		0.5			
		F	12	20							
98	" 19	e	01	10.3		8?					
		e <sub>L</sub>		22.5		27					
		M <sub>N</sub>		27	36	21	0.4				
		M <sub>E</sub>		28	38	22		0.3			
99	" 24	F	02	05							
		e <sub>E</sub>	03	29.6		5					
		i <sub>N</sub>		33	14	5	+1.1				
100	" 24	M <sub>E</sub>		33	23	6		0.8			
		F	03	45							
		e <sub>E</sub>	04	57.4		3					
101	" 28	i <sub>NE</sub>	05	00	57	5	+1.5	+2.0			
		F	05	05							
102	" 29	e <sub>PE</sub>	04	09	53	0.3			220	Small local shock	
		i <sub>S<sub>NEZ</sub></sub>		10	18	0.6	+0.3	+0.3	+0.2		
		M <sub>Z</sub>		10	51	2			0.1		
		F	04	11							
103	" 30	i <sub>PE</sub>	07	44	23	3		+1.2		Deep focus. Azimuth ENE. SW.Condensation.  2 remarkable groups of waves.	
		e <sub>PZ</sub>		44	24	1			0.2		
		i <sub>PZ</sub>		44	25	1			+0.5		
		i <sub>NEZ</sub>		44	26	3	-1.3	-6.3	+1.0		
		m <sub>Z</sub>		44	29	3			1.3		
		i <sub>NE</sub>		45	50	4	+2.5	11.5			
		i <sub>Z</sub>		45	51	3			+4.2		
		m <sub>N</sub>		46	21	6	5.5				
		i <sub>EZ</sub>		48	44	4		+43.5	+1.8		
		i <sub>N</sub>		48	45	4	-18.2				
		i <sub>E</sub>		51	27	9		+21.0			
		i <sub>E</sub>		51	36	8		+61.4			
		i <sub>N</sub>		51	40	8	-24.2				
104	" 31	F	09	50						Masked by micro- seisms.	
		e	05	57.9		5					
		e <sub>L</sub>	06	05.0		25					
		M <sub>E</sub>		08	38	17		1.3			
		M <sub>N</sub>		08	48	12	1.9				
105	" 31	F	07	00							
		e <sub>L</sub>	20	15.0		14					
		M <sub>N</sub>		16	14	10	0.2				
106	" 31	F	20	20							
		e	18	56.0							
		e <sub>L</sub>		58.1		21?					
		M <sub>N</sub>	19	00	32	12	0.3				
F	19	10									

 W.L. O'LEARY, S.J.  
 1935, August 7th.



# Riverview College Observatory.

SYDNEY, N.S.W.

## SEISMOLOGICAL BULLETIN.

$\phi = 33^{\circ} 49' 49''$  S.     $\lambda = 151^{\circ} 9' 30''$  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	$T_0$	$\epsilon:1$	$\frac{r}{T_0^2}$
$A^N$ { 1	219	7.6	3.2	0.021
3	91	11.7	3.3	0.010
$A^E$ { 1	224	8.4	3.7	0.014
3	85	12.4	3.0	0.021
$A^{*2}$ { 2	63	5.0	4.4	0.032

No.	Date	Phase	Time (Greenwich)			Per	Amplitude.			$\Delta$ km.	Remarks.
			h.	m.	s.		$A_N$ mm	$A_E$ mm	$A_Z$ mm		
106	1935 August 1	$e_N$	14	15.8	6						
		$e_W$		23.0	7						
		$e_N$		26.7	9?						
		$e_L$		33.2	22						
		MN		40 28	12	0.3					
107	" 3	F	15	05							
		e	01	21.2							Preliminaries obscured by micro seisms.
		$i(S)_{NE}$		29 16	6	-3.1	-6.1				
		$SR_1?N$		33 15	10	1.2					
		$e_{LN}$		38.0	45				0.1		
		MZ		46 30	25						
		MN		46 47	17	11.9					
		ME		48 46	20		9.5				
F	05	00									
108	" 10	e	18	06.8							
		$e_L$		14.3	21?						
		ME		15 31	15		0.4				
109	" 17	F	18	25							
		$e_{PZ}$	01	49 25	14			0.1	2365	Deep focus?	
		$i_Z$		49 33	2			+1.0	(21?3)		
		$i_{NEZ}$		49 34	3	+5.5	+12.7	-3.4		Dilatation.	
		$i_{PR_1}E$		49 51	4		-33.7			Azimuth ENE.	
		ME		50 05	7		48.0				
		mN		50 28	6	22.8					
		$i_{SNE}$		53 17	8	+24.6	-17.3				
		$i_E$		53 23	8		+53.9				
		mNE		53.9	11	41.8	68 $\pm$				
		$i_E$ MN		54.6	25						
		MN		56 49	11	14.7					
ME		56 51	11		19.2						
F	05	20									
110	" 21	$e_{NEZ}$	13	55.7	2	0.1	0.2	0.2			
		$e_E$		57.2	2		0.6				
		ME		57.7	6		1.1				
		$e_N$	14	04.2	8	0.5					
		MN		07.6	12	0.2					
F	14	20									
111	" 23	$e_N$	10	24.1	2?						
		$e(S)_N$		29 09	14	0.7					
		$e_L$		33.1	23						
		MN		36.9	12	0.4					
		ME		37.3	12		0.5				
F	11	05									

(Continued on next sheet)



No. 8 (continued)

1935, August.

## RIVERVIEW COLLEGE OBSERVATORY,

SYDNEY, N.S.W.

## SEISMOLOGICAL BULLETIN.

No.	Date.	Phase	Time (Greenwich)			Per	Amplitude.			$\Delta$ km.	Remarks.
			h.	m.	s.		$A_N$ mm	$A_E$ mm	$A_Z$ mm		
112	1935 Augst. 23	eEZ	14	07.2	3		0.2				
		iN	14	49	8	-1.0					
		iE	14	52	8		-1.7				
		eLN	23	3	27						
		MN	27	29	22	0.5					
		ME	28	54	25		0.5				
113	" 26	F	15	25							
		eN	12	31.8	6						
		eL		35.9	24						
		ME	36	37	14		0.5				
		MN	37	04	12	0.3					
		F	13	00							
						-----oOo-----					

 WM. O'LEARY, S. J.  
 Director.  
 1935, September 4th.



# Riverview College Observatory.

SYDNEY, N.S.W.

## SEISMOLOGICAL BULLETIN.

 $\Phi = 33^{\circ} 49' 49''$  S.     $\lambda = 151^{\circ} 9' 30''$  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	$T_0$	$\epsilon:1$	$\frac{r}{T_0^2}$
$A^N$ (1	210	7.7	3.4	0.020
3	95	11.6	3.8	0.009
$A^E$ (1	226	8.3	3.7	0.019
3	81	12.9	4.1	0.022
$A^Z$ (2	62	5.0	4.0	0.048

No.	Date	Phase	Time (Greenwich)			Per	Amplitude.			$\Delta$	Remarks.
			h.	m.	s.		$A_N$	$A_E$	$A_Z$		
						mm			km.		
114	1935 Sept. 2	e	07	26.6							
		eL		32.0	18						
		MN		34 03	15	0.6					
		ME		34 19	12		0.5				
115	" 4	F	07	55							
		e	01	48.2							
		eN		56.6	7						
		eL	02	06.6	21						
116	" 9	ME		14 00	21		0.3				
		MN		14 22	21	0.3					
		F	02	50							
		iPN	06	25.17	4	-0.7			4380		
		ePEZ		25 17	3?				(29.95)		
		iNZ		26 57	4	-3.0		+0.5			
		mZ		27 04	4			0.6			
		mN		27 05	4	3.0					
		SNE		31 28	7?						
		mE		34 41	10			3.3			
117	" 11	L		36.4	25						
		MZ		41 48	21			0.3			
		ME		44 22	10		17.0				
		MN		45 10	12	9.5					
		F	08	50							
		e(P)E	11	51 13							
		iSE		55 48	6		-1.2				Preliminaries masked by micro- seisms.
		eL		59.2	20						
		ME	12	02 00	16		2.9				
		MN		02 35	13	1.7					
118	" 11	F	13	20							
		ePZ	14	15 54					8335		
		PNE		16 01	6	0.9			(75.0)		Perhaps earlier in minute mark.
		eSE		25 36	6		0.6				
		iSN		25 38	9	-1.7					
		iN		26 03	7	+3.4					
		PSNE		26 15	7	4.4	3.1				
		mN		31 05	10	1.1					
		eLE		36.7	39						
		eLN		37.4	36						
		MN		42 55	25	2.3					
		MZ		43 01	23			0.2			
		ME		44 19	22			3.9			
eW <sub>2</sub>	16	28.2	24								
MN		40 19	21	0.1							
F	17	15									

(Continued on next sheet).



# RIVERVIEW COLLEGE OBSERVATORY,

SYDNEY, N.S.W.

## SEISMOLOGICAL BULLETIN.

No.	Date.	Phase	Time (Greenwich)			Per s.	Amplitude.			Δ km.	Remarks.
			h.	m.	s.		A <sub>N</sub> mm	A <sub>E</sub> mm	A <sub>Z</sub> mm		
119	1935 Sept. 15	eNZ	11	21.3		12					
		LN		25.9		24					
		ME		31 04		19		3.2			
		MZ		31 19		22			0.3		
		MN <sub>1</sub>		32 13		19	3.8				
		MN <sub>2</sub>		40 47		12	3.5				
		F	<sup>12</sup> / <sub>27</sub>	35							
120	" 15	e(P)	14	21 16		6					
		e(S)		31 19		9					
		e		32 28		14?					
		e		36 35		12					
		e		36 47		12					
		eL		45.6		37					
		MZ		46 51		25			0.1		
		ME		48 11		24		1.5			
		MN		48 36		22	1.2				
		F	16	10							
121	" 19	e	02	33.1							
		eL		36.8		24					
		MN		41 24		24	0.6				
		ME		42 57		18		1.4			
122	" 20	PNZ	01	52 58		4				3480 (31°3)	P in minute mark.
		iNE		53 17		5	+6.8	-2.0			
		iZ		53 19		5			-1.5		
		iZ		54 23		5			-2.8		
		iNE		54 24		5	+18.0	-8.0			
		mNE		54 44		5	14.6	6.7			
		iSE		58 13		7		+17.6			
		iN		58 19		7	+19.1				
		mN		58 34		9	32.2				
		ME		58.39		8		29.5			
		LE	02	00.4		45					
		mN		00 26		13	26.1				
		LZ		02.3		34					
		ME		03 23		25		60.5			
		MZ		06.6		16	Max.	begins on Z.			
		MZ		08 34		15			22.8		
		eWZ	04	34.7		21					
		F	Lost in No. 124.								
123	" 20	e	04	18.1							
		M		25 40		12		4.0			
		F	Lost in No. 122.								
124	" 20	PNZ	05	29 25		7?	1.0			3335 (30°0)	
		iNE		30 40		12?	+4.0	-2.5			
		iSN		34 30		12?	-6.0				
		iSE		34 32		12?		+5.0			
		iN		35 16		9	-10.4				
		iN		35 32		8	+8.4				
		iE		36 10		8		+9.0			
		iE		36 30		8		+6.2			
		LE		39.0		27?					
		iMN		41 19		15	+46.6				
		MNEZ		42.8		15	75	72.5	4.8		
		F	08	45							
125	" 20	e	13	08.7							
		F	13	25							
126	" 20	e	13	42.0							
		F	14	00							
127	" 20	e	15	49.1							
		F	16	10							

(Continued on next sheet)

Very small. No definite phases.  
do. do. do. do  
do. do. do. do



No. 9 (continued)

1935, September.

## RIVERVIEW COLLEGE OBSERVATORY,

SYDNEY, N.S.W.

## SEISMOLOGICAL BULLETIN.

No.	Date.	Phase	Time (Greenwich)			Per s.	Amplitude.			Δ km.	Remarks.
							A <sub>N</sub> mm	A <sub>E</sub> mm	A <sub>Z</sub> mm		
128	1935 Sept. 20	e	h.	m.	s.					Small and indefinite.	
		F	20	19.1							
129	" 20	e	21	13.2						Earlier phases obscured by end of No. 129.	
		eL	20.2		25						
		ME	23	01	13		7.3				
		MN	24	15	12	4.8					
		F	Lost in No. 130								
130	" 20	eL	21	53.3	24					Earlier phases obscured by end of No. 129.	
		MN	55	01	14	2.0					
		ME	56	01	15		2.1				
		F	22	30							
131	" 23	eE	09	13.2	3					Preliminaries masked by No. 131.	
		eN	14.3		6						
		eLE	19.1		21						
		eZ	19	36	5						
		LE	20	41	13		3.7				
		MN	22	23	9	1.4					
		ME	23	19	10		3.0				
		F	Lost in No. 132.								
132	" 23	eZ	09	24	39					Preliminaries masked by No. 131.	
		i(S)N	29	42	5	-4.6					
		i(L)E	31	38	15?		+10.5				
		LE	32	20	35						
		ME	36	52	17		60+				
		MN	39	35	11	43.0					
		MZ	39	49	14			4.8			
		F	12	00							
133	" 23	e	13	10.6						No definite phases May be more than one shock.	
		eL	14.5		18						
134	" 24	F	13	25						No definite phases May be more than one shock.	
		e?	04	05.3							
		e	11.1		8						
		eL	14.1		15						
		M	17.2		15	0.3	0.4				
		F	04	30							
135	" 24	eNZ	05	07	24	3				No definite phases May be more than one shock.	
		eE	14	11	6						
		ME	16	14	8		1.3				
		iE	17	42	5		-1.7				
		eZ	17	53	3						
		mNE	18	18	5	2.4	3.3				
136	" 24	F	06	00						No definite phases May be more than one shock.	
		eE	07	58.2							
		eL	08	05.1	18						
		MN	06	20	15	0.5					
		ME	06	30	14		0.7				
		F	08	35							
137	" 25	eZ	10	27.2	?						No definite phases May be more than one shock.
		eNE	27	23	7	1.2	0.7				
		eN	31	07	7	1.0					
		eE	33	02	7		1.5				
		ME	33	35	7		2.5				
		iN	35	06	?	3.4					
		ME	35	39	9		3.6				
		LE	37.3		17						
		ME	38	38	12		17.7				
		MN	40	10	12	10.0					
		ME	40	51	9		13.8				
		MZ	42	52	15			0.7			
		F	11	45							

(Continued on next sheet.)



No. 9 (continued)

1935, September.

# RIVERVIEW COLLEGE OBSERVATORY,

SYDNEY, N.S.W.

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## SEISMOLOGICAL BULLETIN.

No.	Date.	Phase	Time (Greenwich)			Per	Amplitude.			Δ km.	Remarks.
							A <sub>N</sub> mm	A <sub>E</sub> mm	A <sub>Z</sub> mm		
138	1935 Sept. 25	eNE	12	44.4		5					
		eL		48.5		15					
		ME		51	51		9		1.4		
		MN		52	06		9	2.0			
		F	13	40							
139	" 26	e(L)	22	32.4		15					
		MN		39	24		15				
		F	23	15							
140	" 27	e	18	28.2							
		eL		30.6		18					
		ME		34	37		11		0.3		
		MN		37	28		11	0.4			
		F	19	05							
-----oOo-----											
1935, October 10th.											
										WM. O'LEARY, S.J. Director.	



No. 10

1935, October.

# Riverview College Observatory.

SYDNEY, N.S.W.

## SEISMOLOGICAL BULLETIN.

 $\Phi = 33^\circ 49' 49''$  S.     $\lambda = 151^\circ 9' 30''$  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	$T_0$	$\epsilon:1$	$\frac{r}{T_0^2}$
$A^N$ (1)	235	7.7	3.3	0.020
(3)	89	11.9	4.9	0.010
$A^E$ (1)	223	8.6	3.5	0.020
(3)	75	13.2	3.3	0.019
$A^Z$ (2)	58	5.1	4.8	0.030

No.	Date	Phase	Time (Greenwich)			Per	Amplitude.			$\Delta$	Remarks.
			h.	m.	s.		$A_N$	$A_E$	$A_Z$		
						s.	mm.	mm.	mm.	km.	
141	1935 Oct. 2	ePN	05	44	51	4	0.6			8435 (75°9)	
		iSE		54	34	7		1.2			
		iSN		54	37	7	1.3				
		mNE		55	34	7	0.6	0.5			
		eL	06	09.5		30					
		MN		16	26	21	0.3				
		ME		17	35	21		0.2			
142	" 2	F	06	35							
		e	19	45.3							
		eL		57.1		15					
143	" 4	MN		58	32	12	0.3				
		F	20	10							
		ePNEZ	05	09	14	3				2665 (24°0)	Very small.
eSNE		13	33	4							
eL		17.6		14?							
144	" 4	F	Lost in No. 144								
		iNE	05	29	53	4	+0.8	-1.8			Only outstanding phase.
145	" 6	F	05	50							
		iPNEZ	04	40	51	4	-1.0	-1.7	+0.1	2300 (20°7)	
		ME		41	36	8		2.5			
		iSN		44	41	5	-0.7				
		iSE		44	44	5		-1.8			
		mNE		45	08	7	1.7	2.4			
		eL		46.6		12					
		ME1		50	12	12		1.2			
		MN1		50	36	11	4.0				
		ME2		59	33	12		2.6			
MN2		59	50	11	1.7						
146	" 10	F	05	55							
		eN	12	38.9		5					
		MN		41	52	11	0.3				
147	" 11	F	12	50							
		S?NE	22	27.3		7	1.7	1.0		Earlier phases ob- scured by micros. Time marks failed at 22h 12m.	
		eL?E		29.2		33?					
		iLE		30.2		8?		-4.4			
		iLE		31.4		8		-9.6			
		eLN		32.5		27					
		ME1		34.1		18		18.0+			
		ME2		37.1		12		17.5+			
MN		37.4		12	16.4						
148	" 12	F	00	10							
		e	17	06.6		7					
		eL		17.2		40					
		ME		21.6		18		0.5			
		MN		23.7		20	0.5				
		F	18	15							

(Continued on next sheet)



No. 10 (continued)

1935, October.

# RIVERVIEW COLLEGE OBSERVATORY,

## SYDNEY, N.S.W.

### SEISMOLOGICAL BULLETIN.

No.	Date.	Phase	Time (Greenwich)			Per	Amplitude.			Δ km.	Remarks.
							A <sub>N</sub> mm	A <sub>E</sub> mm	A <sub>Z</sub> mm		
149	1935 Oct. 15	eP	01	32	28	4				2535 (22°8)	
		eSN		36	37	4	0.4				
		iSE		36	39	5		+1.0			
		SR <sub>1</sub>		37	01	7	0.7	0.5			
		SR <sub>2</sub>		37	08	8	0.8	0.6			
		eL		39	6	15					
		ME		40	44	10		0.3			
		MN		40	46	12	0.3				
150	" 18	F	02	05							
		e?	00	25.3							
		eNE		33.2	6						
		eL?E		43.0	30?						
		eLE		44.5	30						
		ME		51	27	14		0.3			
		MN		52	38	20	0.3				
151	" 18	F	02	10							
		eE	02	35.7							
		eN		39.2							
		eLE		44.6	18						
		MN		45	29	15	0.4				
152	" 18	ME		47	35	15		0.3			
		F	03	30							
		ePZ	11	13	54					5245 (47°2)	
		iPNZ		13	56	4	-0.9		-0.4		
		ePE		13	56						
		(PR <sub>1</sub> )		15	56	4	2.0				
		MN		16	11	6	2.3				
		SN		20	53	9	1.3				
		(SR <sub>1</sub> )		24	17	8	-1.5				
		(SR <sub>2</sub> )		24	41	9	-3.5				
eL		28.5	30								
MZ		31	19	16			0.3				
153	" 18	cME		32	40	15		4.7			
		MN		35	22	15	2.8				
		F	13	15							
		e	15	15.1	?						
		e		31.2	?						
		eL?		36.2	15?						
		M		38.7	15	0.3					
154	" 24	F	16	00							
		eE	23	58.5							
		eN	00	04.8	9						
		eL		07.2	17						
		MN		08	29	15	0.6				
155	" 31	ME		10	05	15		1.2			
		F	00	55							
		e	23	07.5	3						
		M		14.4	9	0.5					
F	23	35									

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WM. O'LEARY, S.J.  
Director.  
1935, Nov. 5th.



No. 11.

1935, November.

# Riverview College Observatory.

SYDNEY, N.S.W.

## SEISMOLOGICAL BULLETIN.

 $\Phi = 33^{\circ} 49' 49''$  S.     $\lambda = 151^{\circ} 9' 30''$  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 <sub>0</sub>	$\epsilon:1$	$\frac{r}{T_0^2}$
A <sup>N</sup> (1)	210	7.8	3.6	0.018
(3)	90	11.8	6.5	0.009
A <sup>E</sup> (1)	229	8.5	3.8	0.016
(3)	78	13.0	3.0	0.020
A <sup>Z</sup> (2)	55	5.2	4.1	0.042

No.	Date	Phase	Time (Greenwich)	Per s.	Amplitude.			$\Delta$ km.	Remarks.
					A <sub>N</sub> mm	A <sub>E</sub> mm	A <sub>Z</sub> mm		
156	1935 Nov. 1	e?	h. m. s.						
		e	16 27.9						
		eL	42.9						
		MN	55.7	30					
		ME	17 05 34	17	0.5				
157	" 4	F	08 44	18		0.4			
		e	18 00						
		eL	11 14.2						
		MN	23.0	17					
		ME	24 29	12	0.7				
158	" 5	F	25 07	11		1.5			
		e(P)Z	11 50						
		eN	09 35 11					3355?	
		eS <sub>N</sub>	35 13						
		eL	40 18	9	1.2				
		MN	45.1	15					
		ME	46 30	13	1.0				
		MZ	48 14	12		2.4			
159	" 5	F	48 24	10			0.11		
		eE	10 20						
		eN	21 08.4	6					
		iNE	10.5	6					
		iNE	12 30	5	+1.1	+0.6			
		iE	15 49	5	+0.5	+0.4			
		eL	16 03	8		+1.6			
160	" 7	F	25.3	21					No Outstanding M.
		e(P) <sub>N</sub>	21 50						
		e(S) <sub>N</sub>	20 47 45	3				2900?	
		eL	52 21	7					
		ME	53.8	21					
161	" 8	MN	56 49	9		0.6			
		F	58 49	9	0.7				
		e	21 20						
162	" 11	ME	20 20.5						Obscured by micro-seisms.
		MN	23 34	11		0.7			
		F	23 46	8	0.5				
163	" 11	e	20 35						
		eL	12 37.3						
		MN	39.7	13					
163	" 11	F	41 29	12	0.1				
		eN	12 50						
		eE	13 19 21						
		eL	25 15						
		ME	28.3	18					
		MN	31 28	11		2.8			
F	32 38	10	0.8						

(Continued on next sheet)



No. 11 (continued)

1935, November.

## RIVERVIEW COLLEGE OBSERVATORY,

SYDNEY, N.S.W.

## SEISMOLOGICAL BULLETIN.

No.	Date.	Phase	Time (Greenwich)			Per s.	Amplitude.			$\Delta$ km.	Remarks.
			h.	m.	s.		$A_N$ mm	$A_E$ mm	$A_z$ mm		
164	1935 Nov. 12	eE	21	47	8	.					
		eLN		59	3	22					
		MN	22	03	29	20	0.2				
		ME		05	18	21		0.2			
		F	22	25							
165	" 14	PNZ	20	02	51	3	0.5		0.4	2835 (23°5)	2 large waves of long period. Long period wave.
		iSN		07	22	7	-2.6				
		mN		07	36	21	2.0				
		mN		07	52	21	2.4				
		eE		08	30	28					
		ME		09	48	8		3.3			
		eLN		11	5	24					
		MZ		12	29	22			0.1		
		MN		13	49	18	3.4				
		ME		13	57	15	4	4.5			
166	" 17	F	21	05							
		eE	07	46	6						
		iN		52	21	6	-1.2				
		iN		53	34	7	+1.5				
		eL		54	4	16					
		ME		56	28	14		0.6			
167	" 19	MN		57	21	11	2.4				
		F	08	50							
		eN	06	19	4						
		eL		21	5	16					
168	" 22	MN		22	40	11	0.4				
		ME		25	31	13?		0.3			
		F	06	35							
169	" 25	e	10	50	7						
		M		55	30	13	0.4				Obscured by micro- seisms.
170	" 29	F	11	05							
		ePE	10	14	27	4		0.3		6735 (60°6)	
		eSE		22	50	8?					
		iSN		22	52	5	1.5				
		eL		35	7	16					
		MN		40	08	14	1.0				
ME		41	11	16		0.5					
171	" 30	F	11	50							
		eL	18	41	7	16					
		MN		44	23	13	0.4				
171	" 30	ME		47	20	13?		0.1			
		F	19	10							
171	" 30	eL	04	49	8	17					Shallow long waves.
		F	05	05							
-----000-----											
1935, December 2nd.										WM	O'LEARY, S.J. Director.



No. 12

1935, December.

# Riverview College Observatory.

SYDNEY, N.S.W.

## SEISMOLOGICAL BULLETIN.

 $\Phi = 33^{\circ} 49' 49''$  S.     $\lambda = 151^{\circ} 9' 30''$  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	$T_0$	$\epsilon:1$	$\frac{r}{T_0^2}$
$A^N$ (1)	211	7.9	3.8	0.024
3	90	12.1	3.7	0.010
$A^E$ (1)	218	8.8	3.6	0.014
3	67	13.2	3.3	0.019
$A^Z$ (2)	59	5.2	4.1	0.029

No.	Date	Phase	Time (Greenwich)			Per s.	Amplitude.			$\Delta$ km.	Remarks.
			h.	m.	s.		$A_N$ mm	$A_E$ mm	$A_Z$ mm		
172	1935 Dec. 5	e?Z	17	57.4							
		e(P) <sub>E</sub>	58	25							
		eSN	18	02	36	8					
		eSE	02	39	8						
		eL	06	0	16						
		ME	08	12	19			1.9			
		MN	09	22	13		1.1				
173	" 6	F	18	50							
		eE	11	48.3							
174	" 8	eLN	54	9	15						
		F	12	10							
175	" 8	iNE	03	08	23	0.3					Very small local shock. Felt at Bowral, N.S.W.
		F	03	08	51						
176	" 9	eN	22	06.0							
		e(L) <sub>N</sub>	09	7	16						
		eLE	11	3	21						
		MN	12	41	13		0.2				
		ME	13	03	16			0.2			
177	" 14	F	22	30							
		iPNE	07	28	31	3	+1.2	-0.5	-0.4	2535 (22:98)	
		iPZ	28	32	?						
		iSE	32	40	6			+2.2			
		SR <sub>1E</sub>	33	13	16			4.1			
		MN	33	27	10		2.5				
		ME	33	49	13			4.5			
178	" 14	eLE	34	7	17						
		ME	36	13	9			3.0			
		F	08	40							
		eN	01	56.5							
		eL	02	01.0	17						
		MN	11	0	17		0.2				
		F	02	25							
		eE	22	21.8							
		eE	32	3	?						
		ME	32	47	16			0.6			
178	" 14	eE	35	3	19						
		ME	35	42	19			1.0			
		eNE	42	1	22						
		ME	42	37	25			1.2			
		eE	45	8	25						
		eL	23	00.7	32						
		ME	15	31	16			0.6			
		MN	23	36	19		6.2				
		W2?	00	12.5	26						
		F	01	30							

(Continued on next sheet).



No. 12 (continued)

1935, December.

## RIVERVIEW COLLEGE OBSERVATORY,

SYDNEY, N.S.W.

## SEISMOLOGICAL BULLETIN.

No.	Date.	Phase	Time (Greenwich)			Per s.	Amplitude.			Δ km.	Remarks.
							A <sub>N</sub> mm	A <sub>E</sub> mm	A <sub>Z</sub> mm		
179	1935 Dec. 15	iPNE	07	13	18	3	+1.7	+0.7		2920 (26.3)	h m s After 7 18 33 Wiechert records too confused for fur- ther readings. i <sub>E</sub> & ME from Mainka. N-S Mainka out of commission. E-W pen dislodged at 7 23.5
		iE	/	13	36	4		-3.2			
		iN		13	37	4		+9.7			
		iSE		17	56	10			-26.9		
		iN		18	13	10		+40.0			
		iE		18	29	10			+54.7		
		mN		18	33	13		49.5			
		iE		19	12	12			+50.0		
		ME		22	48	14			>65		
		MZ		24	42	12					
		F		11	15						
180	" 15	e	19	12.	4						
		e(S)		15	44	10					
		eL		18.	7	16					
		MN		20	20	13		0.9			
181	" 16	F	20	15							
		eN	06	13.	7						
		eS		18	25	8					
		eL		21.	7	15					
		MN		23	56	13		0.2			
182	" 17	ME		25	43	11			0.3		
		F	06	40							
		e(P)Z	13	22	16	3					
		eN		22	19	5		0.5			
		eSN		26	46	12					
		mN		27	05	10		1.8			
		eL		29.	5	19					
183	" 17	MN		32	57	14		1.5			
		ME		33	33	10			3.9		
		F	14	30							
		e(P) <sub>N</sub>	19	27	52	3					
		eZ		27	55	3?					
		iSE		36	11	6			+1.5		
		iSN		36	16	6		+1.5			
		ME		36	16	6			2.9		
		mN		36	24	6		2.3			
		SR2?E		42	58	12			1.2		
184	" 18	eL		45.	3	33					
		ME		50	39	22			2.0		
		MN		50	58	22		1.0			
		F	20	50							
		e(S) <sub>N</sub>	11	39	37						
185	" 20	eL		42.	7	14					
		ME		44	13	11			1.0		
		MN		44	33	11		0.5			
		F	12	10							
		ePE	18	42	23	4				2800 (25.2)	
		ePZ		42	24	3					
		iPN		42	26	3		+1.1			
		iE		42	32	4			-1.5		
		iN		42	34	4		+4.5			
		mN		43	52	7		1.9			
		iSE		46	52	8			-2.5		
		iSN		46	53	8		-2.8			
		iE		47	07	8			-7.5		
iN		47	08	8		-14.6					
mN		47	16	9		15.4					
iN		47	50	8		+6.4					
ME		48	02	8			4.4				
eLN		49.	7	24							
eLZ		50.	3	20							

(Continued on next sheet)



# RIVERVIEW COLLEGE OBSERVATORY,

SYDNEY, N.S.W.

## SEISMOLOGICAL BULLETIN.

No.	Date.	Phase	Time (Greenwich)			Per s.	Amplitude.			Δ km.	Remarks.
			h.	m.	s.		A <sub>N</sub> mm	A <sub>E</sub> mm	A <sub>Z</sub> mm		
185 (cont.)	1935 Dec. 20	MZ	18	53	15	17			0.2		
		ME		53	50	11		10.8			
		MN		53	59	13	9.5				
186	" 24	F	20	30							
		eE	13	23.0							
		eLN		27.1		21					
		eLE		28.3		22					
		MN		34	24	16	0.2				
187	" 26	ME		36	47	16		0.3			
		F	14	25							
		eN	05	43.3							Obscured by heavy microseisms.
		eL		46.8		17					
		ME		48	49	17		0.3			
188	" 26	MN		50	21	11	0.7				
		F	06	10							
		iPE	20	11	36	6		-1.9		2300 (20°7)	
		iSE		15	26	8		-1.7			
		iSN		15	30	8	+1.5				
		ME		15	41	10		2.2			
		eL		17.1		24					
		MN		18	31	14	0.8				
189	" 28	ME		18	55	16		1.0			
		F	21	05							
		iPEZ	02	45	37	3		-1.8	-0.5	6455 (58°1)	
		iPNE		45	41	3	+1.6	-3.3			
		iSN		53	43	7	+6.6				
		iSE		53	44	7		27.8			
		iN		53	49	8	-55.7				
		ME		53	54	7		39.1			
		iE		54	01	7		-37.6			
		iN	54	06	29	7	+25.0				
		iN		55	29	9	-19.0				
		iN		57	27	8	+14.8				
		iE		58	54	10		-14.2			
		iN	03	00	23	?	-29.5				
		LN		02.2		32?					
		eLZ		04.7		38					
		ME <sub>1</sub>		07	20	26		38.5			
MN <sub>1</sub>		08	50	22	46						
MZ		09	51	25				3.0			
ME <sub>2</sub>		13	20	21		60					
190	" 29	MN <sub>2</sub>		13	52	22	60				F 06 40
		ePZ	23	44	30	4					
		iPNE		44	31	4	+1.2	-1.0		4010 (36°1)	
		mNE		45	58	6	1.8	1.4			
		iSNE		50	18	8	+5.6	-5.0			
		mN		53	06	8	3.6				
		ME		53	43	10		5.8			
		ME		54	35	8		6.2			
		mN		54	46	7	5.5				
		LE		56.6		16					
		ME <sub>1</sub>		57	24	10		15.0			
		MN		58	36	9	22.1				
		ME <sub>2</sub>		58	40	9		22.1			
191	" 30	MZ	00	00	51	11			0.3		F 01 35
		e(P) <sub>N</sub>	23	31	19						L & M very indef.
		e(S) <sub>N</sub>		36	49	6					
192	" 31	mN		37	05	10	1.4				
		MN		41	27	10	0.5				F 00 35
		e	01	46.1							
		e(L)		56.8		19?					
		MN		01	47	16	0.2				WM. O'LEARY, S.J.