

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.)
2. Wiechert Vertical Seismometer (80 kilo.)
3. Mainka Conical Pendulum Seismometer (450 kilo.)

	V	T_0	$\epsilon : 1$	$\frac{r}{T_0^2}$
$A_{\frac{1}{2}}$	149	7.9	6.7	0.02
$\left\{ \begin{matrix} 3 \\ 3 \end{matrix} \right.$	127	10.0	4.2	0.02
$A_{\frac{1}{2}}$	161	7.1	3.2	0.03
$\left\{ \begin{matrix} 3 \\ 3 \end{matrix} \right.$	120	10.0	8.0	0.05
$A_{\frac{1}{2}}$	90	4.7	4.0	0.06

No.	Date.	Char.	Phase.	Time (Greenwich)			Per.	Amplitude.			Δ	Remarks.	
				h.	m.	s.		A_N	A_E	A_Z			
1	1917 Jan. 11	I_r	iP	11	50	18	4	$+2\frac{1}{2}$	$\frac{1}{4}$		3250		
			S		55.3		12	8	$1\frac{1}{2}$				
			PS		55	38		12	10				
			eL		57.2		21						
			ME		59	30		12		10			
			MN	12	00	19		12	10				
			MZ		01	12		12					6
2	" 14	I_r	F	12	25						2000		
			eP	19	22.4		5						
			iS		25	49		9	$+1\frac{1}{2}$				
			iPS		26	12		9	$+16$	$+4\frac{1}{2}$			
			eL		28.6		15						
			MN		31	16		12	4				
			ME		32	16		12		3			
3	" 17	I	F	19	45								
			e(S?)	2	51.9		7	1					
			e(SR ₁ ?)		54.6		11	2					
			eL		59.8		19						
			MN	3	03	24		14	11				
			ME		04	01		12		3			
4	" 17	I	F	3	40								
			e?	4	45.7								
			MN ₁		57	09		10	2				
			ME		58	38		12				$1\frac{1}{2}$	
			MN ₂		59	41		10	2				
5	" 19	I_r	F	5	15					4200?			
			eP?	23	03.6								
			S		09	37		8	$1\frac{1}{2}$				
			eL		13.4		17						
			MN		15	09		12	3				
			ME		15	47		12				$1\frac{1}{2}$	

(Continued on next sheet)

No. 1 (continued)

1917, January.

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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.

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2. Wiechert Vertical Seismometer (80 kilo.)
3. Mainka Conical Pendulum Seismometer (450 kilo.)

	V	T ₀	ε : 1	r T ₀ ²
A _N				
A _E	(See last sheet)			
A _Z				

No.	Date.	Char.	Phase.	Time (Greenwich)			Per.	Amplitude.			Δ	Remarks.
				h.	m.	s.		A _N	A _E	A _Z		
6	1917 Jan. 20 31	II _r	iP	23	19	33	4	+4½	-5	-7½	4600	
			i		19	40	4	-8	+9½	-10		
			PR ₁		21	07	4	6	8	6½		
			eS		25	.9	7	3½	3			
			iS		26	06	7	+16	-11			
			SR ₁		28	58	10	14	3			
			eL*		34	.9	20					
			MN ₁		35	24	16	115				
			MZ ₁		38	05	16			24		
			ME ₁		38	22	14		22			
			MN ₂		38	28	14	100				
			MN ₃		40	07	13	100				
			ME ₂		41	05	12		14	19		
7	" 21	I	F	1	25							
			e?	22	30	.2						
			MN ₁		36	07	10	1				
			ME		37	18	9		½			
			MN ₂		45	50	8	1				
8	" 25	I	F	23	05							
			eL	8	24	.7	30					
			M		30	29	18	6				
9	" 28	I _r	F	8	40							
			eP	23	52	.4	4	2	½	2500		
			eS		56	.5	7	2½	-			
			eL		57	.3	22					
			MN ₁		58	29	18	64				
			MZ		58	44	18				42	
			MN ₂	00	00	36	12	48				
			ME		02	16	8		12			
F	1	25										

(Continued on next sheet)

No. 1 (Continued)

1917, January.

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	V	T ₀	ε : 1	r T ₀ ²
A _N				
A _E	(See last sheet)			
A _Z				

No.	Date.	Char.	Phase.	Time (Greenwich)			Per.	Amplitude.			Δ	Remarks.
				h.	m.	s.		A _N μ	A _E μ	A _Z μ		
10	1917											
10	Jan. 30	III _u	iP	2	58	42	4	-4	-	1	9280	Kamtchatka.
			i		58	56	4	-11	-	-6		
			PR ₁	3	01	54	7	2	-	-		
					02	23	7	4	-	-		
			eS		09	06	11	15	-	-		
			iS		09	57	11	-52	+44	-		
			PS		09	51	11	40	35	-		
			i		15	40	13	+45	-51	-		
			i(SR ₂)		15	52	13	-80	-12	15		
			eL		23.	4	36					
			MN ₁)		28	03	32	875		885		
			MZ ₁)		28	21	28		270			
			MN ₂)		30	33	24	755				
			MZ ₂)		31	00	24			710		
			ME ₂)		32	21	20		280			
			MZ ₃)		33	11	20			585		
			MN ₃)		33	17	20	855				
			ME ₃)		37	42	17		275			
			MN ₄)		42	38	16	305				
			CE ₁)		52	03	16	100	78			
			CN ₁)						10			
			CE ₂)	4	00	23	14					
			CN ₂)		00	29	14	53				
			F		7	10						
11	" 30	I	e	8	15.	5	15					
			e		19.	8	14	1				
			e		23.	5	14	2				
12	" 31	II _u	iP	4	00	37	4	+7	+2	-1 $\frac{1}{2}$	5000	S. Mindanao.
			iPR ₁		10	27	5	+6	1			
			iS		15	20	8	-8	-			
			iPS		15	42	8	-7	+5			
			i(SR ₁)		18	46	10	15	+16			
					19	46	8	13	-			
			eL		25.	2	16					
			ME		29	44	18			62		
			ME									
			MN)		30	00	16	82	35			
			F		5	50						
7a	" 24	I	e	1	12.8							Hochan (China).

The following was omitted from last sheet :-
A few long waves

R.F. Pigot S.J.

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SEISMOLOGICAL BULLETIN.

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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	$\epsilon: 1$	$\frac{r}{T_0^2}$
$A_N(1)$	150	7.8	5.9	0.02
$A_N(3)$	129	9.9	5.1	0.02
$A_N(1)$	159	7.1	2.8	0.02
$A_N(3)$	130	9.7	8.0	0.04
$A_z(2)$	92	4.8	4.2	0.06

No.	Date.	Phase.	Time (Greenwich)				Amplitude			Δ km.	Remarks.
			h.	m.	s.	Per.	A_N μ	A_E μ	A_z μ		
3	1917 Feb. 1	eL	12	10.5	12						
		M		12 33	10	2					
		F	12	35							
4	" 1	e	13	29.6	7	$\frac{1}{2}$					
		M		31 03	10	1					
		F	13	35							
5	" 4	e	9	54.5	5	$1\frac{1}{2}$					
		eL	10	04.0	?						
		MN		06 06	14	2					
		F	10	30							
	" 4	e?	10	36.0							
		e		45.6	7	1					
				46 10	7	$4\frac{1}{2}$		1			
		M		53 08	12	$1\frac{1}{2}$					
		F	10	20							
7	" 5	e (PR ₁ ?)	12	28.6	6	$\frac{1}{2}$					
		iS		34 11	6	-		-3			
		iPS		34 37	6	-7		-11			
				35 01	6			8			
		SR ₁		36 33	7	3		7			
		eL ₁		36 55	16						
		MN		37 47	12	25					
		ME		38 24	10			9			
		F	13	20							
8	" 8	e	11	10.9	2	$\frac{1}{2}$					
		e		15.1	7	1					
				15 37	5			$\frac{1}{2}$			
				16 07	7	1					
		eL		17 35	12						
		MN		20 26	10	$\frac{1}{2}$					
		F	11	50							
19	" 8	e	12	41.0	25						A few long waves.
20	" 12	eP	9	08.0	4	1		$\frac{1}{2}$	2500		
				08 10	4	2		3	(22.5°)		
				08 26	8	2		$2\frac{1}{2}$			
		iS		12 05	8	-22		-3 $\frac{1}{2}$			
		PS		12 18	8	43		30			
		eL		13.7	28						
		M ₁		14.3	18	25		45			
		MZ		15 23	18				20		
		ME ₂		15 41	16			57			
		MN		19 01	12	38					
		F ²	11	30							

(Continued on next sheet)

No. 2 (Continued)

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1917, February:

Riverview College Observatory,

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4. Galitzin Aperiodic Seismometer, with galvanometer registration (NS, EW, Vert.)

	V	T_0	$\epsilon: 1$	$\frac{r}{T_0^2}$
A_N				
A_E	(See last sheet)			
A_Z				

No.	Date.	Phase.	Time (Greenwich)			Per.	Amplitude			Δ	Remarks.
			h.	m.	s.		A_N	A_E	A_Z		
28	1917 Feb. 18	eP	1	31	32				5300	Philippine Is. (47.7°)	
		S		38	32	9	1½	1			
		SR ₁		42	01	11	1½	2			
		eL ₁		47.0		18					
		MN		47	38	15	4				
		ME		53	41	11		1½			
29	" 20	F	2	25							
		eP	15	09.0					4700	(42.3°)	
		eS		15.4							
		eL		20.5	20						
		ME		21	19	14		7			
		MN		22	46	14	3				
30	" 20	F	16	35							
	21	eP	19	45.2	4				16,000	Caribbean Sea.	
		eS	20	00.6	?						
		eL		25.4	35						
		MN ₁		26	59	24	6				
		MN ₂		39	15	22	7				
		ME ₁		40	35	18		5			
		MN ₃		43	09	17	4				
		ME ₃		46	51	16		8			
		W2 series: (L rep.1) eW ₂	21	09.1	22						
		MN ₁		10	03	20	9				
		ME ₁		14	07	18		7			
		MN ₁		19	12	18	8				
		ME ₂		25	08	16		5			
		F	0	35							
31	" 20	eP	19	52	38	5					
				53	22	6					
		eS	20	00	55	7					
		eL		09.3	20						
		M		12.4	16		1½	1½			
32	" 21	eP	10	05	56	5				F. lost in N°30	
		eSR ₁		17	53	?					
		eL ₁		30.3	22						
		ME		34	34	18		3			
		MN		34	56	18	5				
		F	11	50							
33	" 21	eP	11	08	44	4			3420?		
		e(S?)		15	56	7		7			
		eL		14.8	?						
		MN		16	22	?					
		F Lost in N°32									

(Continued on next sheet)

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4. Galitzin Aperiodic Seismometer, with galvanometer registration (NS, EW, Vert.)

	V	T ₀	e: l	$\frac{r}{T_0^2}$
A _N				
A _E	(See last sheet)			
A _Z				

No.	Date.	Phase.	Time (Greenwich)			Per.	Amplitude			Δ	Remarks.			
			h.	m.	s.		A _N	A _E	A _Z					
34	1917 Feb. 21	eP	14	05	43				2370 (21.3°)					
		eS		09	38									
		eL		11.2	10									
		ME		11	25	8		8						
		MN		12	34	8	1½							
		F	Lost in N°35											
35	" 21	eL	14	14.1	18									
		ME		15	17	14		4						
		MN		15	31	14	8							
		F		14	55									
36	" 22	e(P?)	9	25.5					Chile.					
		e(S?)		36.6	?									
		eL	10	01.0	28									
		ME		04	00	18		5						
		MN		05	30	19	7							
		F		10	55									
37	" 25	eP	55	29	35	6	1	½	5880 (52.9°)	Philippines.				
		eS		37	05	7	¾	1						
				37	16	7	1½	2						
		eL		45.1	12									
		ME ₁		46	10	8		1						
		MN ₁		46	25	8	1							
		ME ₂		50	52	12		3						
		MN ₂		53	45	10	1							
		F	Lost in N°38											
				55	14	4	1	-						
38	" 25	iS	02	44	7		-¾	-2	5880 (52.9°)	Philippines.				
			02	52	7	3	4							
			06	49	10	4	4							
		eL		09.3	14									
		M ₁		11.8	8	2	2							
		ME ₂		16	30	15		7						
		MN ₂		17	09	15	4							
		MN ₃		22	15	12	2							
		ME ₃		24	44	15		4						
		MN ₄		27	32	14	3							
		ME ₄		32	45	16		4						
		MN ₄		33	21	14	2							
		F ₅		7	20									
		39	" 26	eP	9	06	36	5					2340?	
				PR ₁		06	56	5			-			
e(S?)				10	28	?								
eL				13.3	20									
M ₁				16.3	16	10								
MN ₂				19	28	12	6							
ME ₂				25	04	13								
F ₂				10	35									

Ernest F. Pigot

No. 3

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1917, March.

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4. Galitzin Aperiodic Seismometer, with galvanometer registration (NS, EW, Vert.)

	V	T_0	$\epsilon: 1$	$\frac{r}{T_0^2}$
A_x (1)	151	7.8	5.1	0.02
A_y (1)	157	7.1	2.5	0.02
A_z (2)	95	5.0	4.4	0.05

No.	Date.	Phase.	Time (Greenwich)			Per.	Amplitude			Δ	Remarks.
			h.	m.	s.		A_N	A_E	A_Z		
						μ	μ	μ	km.		
	1917										
40	March 1	e(S?)	5	11.5							
		eL		14.7	15						
		MN ₁		15 27	15	4					
		ME ₁		18 23	11		5				
		MN ₂		18 36	11	3					
		F	5	55							
42	" 2	e?	1	06.7							
		eL		14.8	12						
		ME		15 45	9		1				
		MN		16 25	10	1					
		F	1	35							
42	" 3	eP	5	05 34					2480		
		iS		09 38	7	$-\frac{1}{2}$	$+\frac{1}{2}$		(22.3°)		
		PS		09 47	7	1	3				
		eL		10.9	20						
		MN		11 51	16	2					
		ME		12 34	16		4				
		F	5	50							
43	" 6	eP	5	36 55	4	-	$1\frac{1}{2}$		1350?		
		e(S?)		39 18	6	1	-				
		eL		40.6	16						
		MN ₁		41 00	12	2					
		MN ₂		45 03	13	3					
		F	6	20							
44	" 9	e	12	11.6							
		ME		17 51	5	2					
		MN		18 11	5	$1\frac{1}{2}$					Short wave-lengths.
		F	12	40							
45	" 12	e(L?)	7	28.0	16						
		MN		34 03	12	2					
		F	7	45							

(Continued on next sheet)

No. 3 (continued) -

192

1917, March.

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4. Galitzin Aperiodic Seismometer, with galvanometer registration (NS, EW, Vert.)

	V	T ₀	ε: 1	$\frac{r}{T_0^2}$
A _N				
A _E	(See last sheet)			
A _Z				

No.	Date.	Phase.	Time (Greenwich)				Amplitude			Δ	Remarks.
			h.	m.	s.	Per.	A _N	A _E	A _Z		
			h.	m.	s.	s.	μ	μ	μ	km.	
	1917										
46	March 15	eP?	0	25	49	?					
		eS		35	13	3	1	1			
		eL		47.5		19					
		ME		51	45	16		8			
		MN ₁		56	38	12	2				
		ME ₁		57	03	15		4			
		MN ₂		59	59	16	5				
		MN ₃	1	03	57	14	3				
		ME ₃		08	40	14		3			
		F ₃		8	35						
47	"	18 eL	19	56.5		16					
		MN		57	11	14	2				
		ME		58	28	16		2			
		F	20	15							
48	"	21 eL	8	02.8		?					
		ME ₁		04	24	16		4			
		ME ₂		06	24	12		2			
		MN ₂		08	55	?					
		F	8	15							
49	"	22 eL	4	00.1		20?					
		ME		03	01	15		3			
		MN		03	11	15	2				
		F	4	40							
50	"	24 eP	17	23	33	4	$\frac{1}{2}$	-		2390	
		PR ₁		23	50	8	$\frac{1}{2}$	2		(21.5°)	
		eS ₁		27	29	5	$\frac{1}{2}$	1			
		PS		27	38	5	$\frac{1}{2}$	$\frac{1}{2}$			
		eL		28.7		18					
		ME ₁		30	48	16		5			
		MN ₁		31	50	11	5				
		ME ₁		36	22	12		5			
		MN ₂		39	36	10	4				
		ME ₂		44	50	12		6			
		MN ₃		46	21	11	3				
		F ₃	18	50							

E. F. Pigot S.J.

No. 4

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1917, 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	$\epsilon: 1$	$\frac{r}{T_0^2}$
$A_x(1)$	147	7.8	5.1	0.01
$A_x(1)$	153	7.1	2.8	0.02
$A_z(2)$	97	4.8	4.0	0.06

No.	Date.	Phase.	Time (Greenwich)			Per.	Amplitude			Δ km.	Remarks.
			h.	m.	s.		A_x μ	A_y μ	A_z μ		
51	1917 Apr. 2	e	8	11.0	4		2				
		eL		14.2	18						
		MN		16 07	16	10					
		ME		16 27	16			5			
		F		8 50							
52	" 2	eP	19	57.0						Felt at Albury, Adelong, &c. (New South Wales)	
53	" 3	e(S?)	12	49 24	10		1	$\frac{1}{2}$			
		eL		55.7	20						
		MN ₁		57 11	16	3					
		MN ₂	13	00 45	14	9					
		ME ₁		01 45	18			14			
		MN ₃ , ME ₂		05.1	6	2		3			
		ME ₃		08 15	14			9			
		MN ₄		11 15	12	6					
		F ₄	14	30							
		54	" 8	eL	5	44.0	14				
		ME		46 08	8			$\frac{1}{2}$			
		MN		46 28	10	1					
		F		6 00							
55	" 8	eL	6	36.5							
		ME		37 41	8			2			
		MN		38 54	12	1					
		F		4 50							
56	" 12	e	3	42.6							
		MN		44 29	12			$\frac{1}{2}$			
		ME		49 07	14			1			
		F		3 50							
57	" 16	e(P?)	19	02 57	4		$\frac{1}{2}$				
		e(PS?)		12 40	8		3				
		eL		17.9	16						
		MN ₁		20 28	12	1					
		ME ₁		22 29	14			4			
		MN ₂		26 15	14	2					
		ME ₂		26 32	14			44			
F	20	05									
58	" 19	e	4	09 35							
		i		16 00	4	+3		$\frac{1}{2}$			
		MN		16 00	14	4					
		ME		20 18	10			8			
		F		4 45							

(Continued on next sheet)

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	e: l	r T ₀ ²
A _x				
A _y				
A _z				

(Continued on next sheet)

No.	Date.	Phase.	Time (Greenwich)				Amplitude			Δ km.	Remarks.
			h.	m.	s.	Per. s.	A _x μ	A _y μ	A _z μ		
59	1917 Apr. 23	e(P?)	3	35	31				3990?		
		eS		41	18	8					
		eL		44.	7	?					
		MEE		46	22	14		4			
		MN ₁		48	40	12	5				
		MEE ₂		50	23	10		2			
		F ₂	1	30							
60	" 25	eP	7	55	29	4	$\frac{1}{2}$	$\frac{1}{2}$	3790?		
		e(S?)	8	01	04	8	3	1			
		eL		02.	4	16					
		MN ₁		03	39	8	8				
		MN ₂		06	08	10	8				
		MEE ₁		07	12	14		9			
		MEE ₂		08	05	8		4			
		F ₂	11	10							
61	" 27	e(P?)	0	02	26				4290?		
		eS		08	30	7	$\frac{1}{2}$	$\frac{1}{2}$			
		eSR ₁		09	12	6	2	$\frac{1}{2}$			
		eL		11.	6	14					
		M		12.	9	10	4	8			
		F	1	40							
62	" 28	e(L?)	13	01.	8	14					
		ME		03	13	9		3			
		MN		03	56	12	$\frac{1}{2}$				
		F	13	30							
63	" 28	e(P?)	21	42	29	2					
		e(S?)		42	59	2?					
		M		43.	3	4	$\frac{1}{2}$	$\frac{1}{2}$			
		F	21	50							
64	" 29	e(S?)	11	17.	4	8	-	$\frac{1}{2}$			
		eL		24.	5	18					
		M ₁		25.	7	14	4	4			
		M ₂		29.	7	14	2	2			
		F ₂	12	15							
65	" 29	eP	16	09	15	4	-	$\frac{1}{2}$	3630 (32.7°)		
		eS		14	41	8	-	$\frac{1}{2}$			
		eL		17.	1	18					
		MEE		19	07	14		7			
		MN ₁		19	17	16	22				
		MEE ₁		22	57	12		1			
		MN ₂		24	39	12	1				
		F ₂	17	20							
" 30	" 30	e	17	27.	1					A few long waves.	

E.F. Pigot S.J.

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	$e : l$	$\frac{r}{T_0^2}$
A_x (1)	144	7.7	5.1	0.02
(3)	132	9.8	6.0	0.02
A_x (1)	150	7.0	3.0	0.02
(3)	144	9.5	8.0	0.04
A_z (2)	99	4.7	3.6	0.07

No.	Date.	Phase.	Time (Greenwich)			Per.	Amplitude			Δ km.	Remarks.
			h.	m.	s.		A_N μ	A_E μ	A_Z μ		
57	1917 May 1	eP	18	32.1	4	-	2	$\frac{1}{2}$	3700 (33.3°)	Az. 269° ϕ 27°S. λ 171°W. Computed time at origin:- h m s 18 25 12	
		i		32 25	4	-	-12				
		i		32 31	4	+1	+59	-50			
		PR ₁		33 41	5	19	97	18			
		iS ₁		37 35	7	+69	+30	+18			
		eL		39.1	30						
		M ₁		39 49	22	1260	500	710			
		M ₂		40 30	22	1900	1760	2200			
		MN ₃ , MZ ₃		41 30	18	1150		2540			
		ME ₃		41 35	18		1700				
		ME ₄		44 28	16		1040				
		MN ₄		45 39	12	380					
		ME ₅		48 06	16		750				
		MN ₅		50 16	11	300					
		ME ₆ , MZ ₄		54 02	14		800	50			
		MN ₆		54 20	10	370					
		C ₁		58 35	14	210	250				
C ₂	19	06 01	14	142	210						
C ₃		12 20	11	103	108						
C ₄		19 30	15	142	170						
C ₅		29 20	12	80	95						
F	23	00									
68	" 2	eP	0	19.9	4	-	-		4330 (39.0°)		
		eS		26.0	8	$\frac{1}{2}$	-				
		eL		29.3	16						
		MN		30 28	12	1					
		ME		31 33	12		4				
69	" 2	F lost in N°69									
		e	1	08.0	4	-	2				
		MN		16 43	12	1					
70	" 2	ME		21 28	12		6				
		F lost in N°70									
		eP	1	27.2	4	$\frac{1}{2}$	$\frac{1}{2}$	4220 (38.0°)			
		eS		33.2	8	3	2				
		eL		34.7	20						
		MN ₁		35 28	14	28					
		MZ ₁		36 29	15			9			
		ME ₁		36 36	15		50				
		MN ₂		38 28	12	28					
		ME ₂		39 22	12		36				
F lost in N°71											
71	" 2	eP	2	32.2	4		1 $\frac{1}{2}$				
		eL		40.8	16						
		MN		42 18	12	14					
		MZ		44 26	12			3			
		ME		44 45	12		18				
		F lost in N°72									

(Continued on next sheet)

No. 5 (Continued)

192

1917, May.

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	ε: 1	r T ₀ ²
A _v				
A _n	(See last sheet)			
A _z				

No.	Date.	Phase.	Time (Greenwich)		Per.	Amplitude			Δ	Remarks.
			h.	m. s.		s.	A _N μ	A _E μ		
	1917									
72	May 2	eP	3	02.8	5		2			
		eL		10.5	20					
		ME ₁	12	32	16		45			
		MN	14	47	12	14				
		MZ	17	25	12			6		
		ME ₂	18	13	12		25			
		F lost in N ^o 73								
73	" 2	eP	4	28.1	4					
		eL		36.6	16					
		MZ	40	31	12			6		
		ME	40	50	14		33			
		MN	42	24	12	15				
		F lost in N ^o 74								
74	" 2	eP	5	48.5	4		1			
		ME	58	58	10		3			
		MN	6	02 36	10	4				
		F	6	55						
75	" 2	eL	11	15.4	20					
		ME	18	48	12		1			
		MN	20	43	8	½				
		F	11	40						
76	" 2	eP	14	16 30	4		½		2680 (24.1°)	
		S	21	49	?					
		eL	24	3	24					
		ME	25	11	12			½		
		MN ₁	26	38	12	21				
		ME ₁	27	01	14		23			
		ME ₂	29	32	12		29			
		F	15	35						
77	" 3	e	2	49.2						
		MN	52	24	10	2				
		ME	55	54	12		1			
		F	3	10						
78	" 3	e?	5	17.5	4		1½			
		e(S?)		22.0	?					
		eL		26.5	16					
		MN	27	28	12	17				
		ME	28	46	12		7			
		F	6	15						
79	" 3	e	6	56.5	4					
		MN	57	29	8	½				
		ME	7	01 02	10		2			
		F	7	15						

(Continued on next sheet)

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)
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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_x				
A_y	(See last sheet)			
A_z				

No.	Date.	Phase.	Time (Greenwich)				Per.	Amplitude			Δ km.	Remarks.
			h.	m.	s.	s.		A_x μ	A_y μ	A_z μ		
80	1917 May 3	eP	11	29.4		4			2			
		eL		35.2		18						
		MN		36	35		12	7				
		ME		38	51		14		11			
		F lost in N ^o 81										
81	" 3	e	11	58.3								
		MN		59	49		12	4				
		ME		12	01	54	12		4			
		F		12	15							
82	" 3	e	20	25.4								
		eL		35.7		20						
		MN		38	41		14	8				
		ME		41	20		12		4			
83	" 4	F	21	00								
		eP	0	48	43		4	-	1		3240	
		PR ₁		49	45		4	-	5		(29.1°)	
		eS ₁		53	43		8	3	2			
		eL		55.2		24						
		MN ₁		57	00		14	60				
		ME ₁		57	22		16		60			
		MN ₂		58	55		13	136				
		MZ ₁		59	45		12			59		
		ME ₂	1	00	08		14			176		
		MZ ₂		01	24		14			72		
		ME ₃		01	34		13			180		
		MN ₃		03	14		12	48				
		ME ₄		05	17		12			41		
		MN ₄		05	24		13			124		
ME ₅		09	00		11	30		60				
C		33.5			12	7		13				
84	" 4	F	4	05								
		eL	7	20.4		20						
		ME ₁		22	39		12		1			
		MN ₁		23	10		12	$\frac{3}{4}$				
85	" 4	ME ₂		24	51		12		3			
		F	7	50								
		e	14	02.3		8			$\frac{1}{2}$			
		eL		07.5		16						
		MN		08	41		14	8				
		ME		09	29		14		8			
		F	14	37								

(Continued on next sheet)

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	e: l	$\frac{r}{T_0^2}$
A _x				
A _y	(See last sheet)			
A _z				

No.	Date.	Phase.	Time (Greenwich)				Amplitude			Δ km.	Remarks.
			h.	m.	s.	Per.	A _N μ	A _E μ	A _Z μ		
86	1917 May 4	e	18	14.3	4		$\frac{1}{2}$				
		e(S?)		16.4	8		$1\frac{1}{2}$				
		eL		18.4	18						
		MN ₁		19 34	12		17				
		ME ₁		22 28	13			9			
		MN ₂		23 29	12		8				
		ME ₂		26 03	10			4			
		F	19	35							
87	" 5	eL	0	59.0	19						
		MN	1	01 29	9		$\frac{1}{2}$				
		ME ₁		03 07	12			3			
		ME ₂		05 59	15			2			
		F	1	40							
88	" 5	e(L?)	4	07.8	16						
		MN		08 41	10		1				
		ME ₁		10 05	12			1			
		ME ₂		12 31	14			9			
		F 2	4	25							
89	" 5	e(P?)	17	13 45	4			$\frac{1}{2}$			
		c(S?)		19 20	8			$\frac{1}{2}$			
		eL		21.8	20						
		ME ₁		23 15	14			9			
		MN		24 19	12		6				
		ME ₂		29 58	12			7			
		F	18	10							
90	" 6	e	12	47.0	8		$\frac{1}{2}$				
		e(L?)		53.4	16		$\frac{1}{2}$				
		MN		54 52	10						
		ME		55 39	14			9			
		F	13	35							
91	" 6 7	eP	23	03 29	4		$\frac{1}{2}$			5490	
		eS		10 38						(49.4°)	
		eL		16.6	20						
		M ₁		18.5	16		13	27			
		ME		21 46	14			33			
		MN ₂		22 54	12		4				
		MN ₃		28 04	14			14			
		ME ₃		32 08	12			7			
		F	0	55							
93	" 7	e(L?)	8	21.9	20						
		MN		26 59	16		8				
		ME		27 25	13			9			
		F lost in N° 94									

(Continued on next sheet)

No. 5 (Continued)

192

1917, May.

Riverview College Observatory,

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

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

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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	e: l	$\frac{r}{T_0^2}$
A _N				
A _E	(See last sheet)			
A _Z				

No.	Date.	Phase	Time (Greenwich)		Per	Amplitude			Δ	Remarks.
			h.	m. s.		A _N	A _E	A _Z		
						μ	μ	μ	km.	
93	1917 May 7	e	9	30.2	8		$\frac{1}{2}$			
		e		36.1	12		6			
		M		38.4	12	1	3			
94	" 8	F	10	12						
		e	8	36.2	8		2			
		e(L?)		40.3	16					
		ME		42 05	10		$\frac{1}{4}$			
95	" 9	MN		43 02	12	1				
		F	9	00						
		eP	16	03 06	5	4	2	2	4860	
		PR ₁		04 57	4	8	-	$\frac{3}{4}$	(43.7°)	
		eS ₁		09 41	8	17	5	-		
		PS		10 01	9	24	7	-		
		SR ₂		13 23	14	90	44	16		
		eL		15.0	24					
		MN ₁ , ME ₁		17.7	15	185	200			
		MZ ₁		21 05	18			100		
		MN ₂ , ME ₂		22.4	11	170	300			
		ME ₃ , MZ ₂		25.1	10		85	39		
		MN ₃		26 21	12	130				
		MN ₄ , MZ ₃		27.1	12	150		65		
		ME ₄		31 16	12		90			
		C ₁		47.4	12	20	8			
		C ₂		59.2	12	14	8			
F lost in N°96										
96	" 9	e	19	37 31	4					
		e(L?)		43.5	?					
		MN ₁		47 53	12	20				
		ME ₁ , MZ ₁		48 27	14		20	8		
		MN ₂		50 51	12	21				
		ME ₂		51 52	12			2		
		ME ₂		57 27	12		30			
		ME ₃		20 05 10	12		30			
F lost in N°97										
97	" 9	eP	20	34 31	4				3430?	
		e(S?)		39 44	?					
		eL		41.9	20					
		ME ₁		43 56	16		33			
		MN ₁		44 16	14	26				
		ME ₂ , MZ ₁		46.4	15		50	14		
		MN ₂		48 21	12	30				
		ME ₃ , MZ ₂		50.7	12		28	6		
		MN ₃		54 27	12	17				
		ME ₄		59 49	12		18			
F		23 45								

(Continued on next sheet)

No. 5 (Continued)

192

1917, May.

Riverview College Observatory,

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

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

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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				
A_E	(See last sheet)			
A_Z				

No.	Date.	Phase	Time (Greenwich)			Per.	Amplitude			Δ km.	Remarks.
			h.	m.	s.		A_N μ	A_E μ	A_Z μ		
98	1917 May 10	e(P?)	7	29.4	4		$\frac{1}{2}$	$\frac{1}{2}$			
		e(S?)		34.5	8		-	$\frac{1}{4}$			
		eL		37.4	24						
		MN	40	21	?						
		ME	41	35	13				8		
99	" 10	F	8	15							
		eP	18	14 08	5		$\frac{1}{4}$	2	3290 (29.6°)		
		eS		19 12	8		$\frac{1}{2}$	1			
		eL		21.2	18					9	
		ME ₁		23 39	13						
		MN ₁		23 51	12		7				
		MN ₂		26 26	12		5				
ME ₂		26 43	12				7				
100	" 10	F	19	35							
		e	22	39.2	?						
		a		46.2	8		$\frac{1}{2}$	$1\frac{1}{2}$			
		e(L?)		49.2	16				7		
		ME		51 00	12						
102	" 11	MN		52 17	12		5				
		F	23	15							
		eL	1	29.0	14						
102	" 11	MN		32 34	11		5				
		ME		34 12	12				7		
		F	2	25							
102	" 11	eL	5	01.8							
		MN		03 53							
		ME		04 01	8				$\frac{1}{2}$		
103	" 11	F	5	20							
		eL	13	09 38	16						
		ME		12 00	12				3		
104	" 13	MN		12 34	10		1				
		F	13	40							
		e	10	46.8	4		$\frac{1}{2}$				
104	" 13	eL		53.5	14						
		ME		56 04	11				1		
		MN		56 12	11		$\frac{1}{2}$				
		F	11	30							

(Continued on next sheet)

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				
A_E	(See last sheet)			
A_Z				

No.	Date.	Phase	Time (Greenwich)			Per	Amplitude			Δ km.	Remarks.
			h.	m.	s.		A_N μ	A_E μ	A_Z μ		
105	1917 May 14	e	0	29.3	6			$\frac{1}{2}$			
		e(L?)		31.0	20						
		MN	33	23	14	10					
		ME	34	34	14			9			
106	" 14	F	1	25							
		eP	22	06 06	4	$\frac{1}{4}$	$\frac{1}{4}$	-	2700	Computed Azimuth:- 229° (N.49°E.)	
		1P		06 13	4	+6	+9	$-1\frac{1}{2}$	(24.3°)		
		iPR ₁		06 31	4	-6	-14				
		1S ₁		10 27	8	+6	-15				
		SR ₁		11 10	8	19	22				
		eL		13.0	18					ϕ , 17°S.	
		ME ₁ , MZ ₁		14.2	16	52		5		λ , 170°E.	
		MN ₁		14 50	14	65				Computed time at origin :- h m s 22 00 26	
		MN ₂ , MZ ₂		18.3	12	33		6			
		ME ₂		19 06	12			38			
		ME ₃		24 28	12			29			
		MN ₃		24 57	10	9					
F ₃	23	55									
107	" 15	e	1	27.4	12	1	-		A few long waves.		
108	" 15	e	8	42.4	5						
		MN	47	13	14	9					
		ME	50	57	12		3				
109	" 17	F	9	25							
		e?	6	01.8	4		$2\frac{1}{2}$				
		e(L?)		09.7	20			9			
		ME		11 15	16						
110	" 18	MN		13 36	14	6					
		F	6	50							
		eP	5	20 14	7	-	9	3050	(27.4°)		
		PR ₁		21 09	7	$\frac{1}{2}$	$\frac{1}{2}$				
		eS ₁		25 01	8	1	2				
		eL		27.0	24						
		MN ₁		30 31	15	23					
		ME ₁		30 39	16		24				
		MN ₂		33 14	14	12					
		ME ₂		37 28	16		4				
F ₂	6	45									

(Continued on next sheet)

No. 5 (Continued)

192

1917, May.

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_x				
A_y				
A_z				

(See last sheet)

No.	Date.	Phase	Time (Greenwich)			Per.	Amplitude			Δ	Remarks.
			h.	m.	s.		A_x	A_y	A_z		
									km.		
	1917										
111	May 16	c	15	57.0		4	$\frac{1}{2}$	$1\frac{1}{2}$			
		ME		03 14		16		3			
		MN		04 20		12	5				
		F		16 40							
112	" 18	e	19	14.2		4	-	2			
		e(S?)		18 56		8	-	$\frac{1}{2}$			
		eL		21.6		24					
		MN ₁		23 09		17	12				
		ME ₁		23 31		16		12			
		MN ₂		26 09		12	7				
		ME ₂		27 07		14		9			
		F ₂		20 20							
113	" 21	e	10	36.1		5					
		MN		42 19		12	1				
		ME		44 28		12		$1\frac{1}{2}$			
		F		11 00							
114	" 23	e	21	45 51		3	-	$\frac{1}{2}$			
		i		47 21		5	-	-5			
		e(L?)		54.4		24					
		i		56 08		4	-	+5			
		MN		55 59		16	10				
		ME		56 58		17		13			
		F		22 25							
115	" 24	e	18	21.3		4	-	$\frac{1}{2}$			
		e(L?)		29.8		16					
		MN		31 32		13	3				
		ME		32 01		12		1			
		F		19 06							
116	" 24	eP	19	25 19		4	-	2			
		iS		30 19		8	+10	+2		3240	Felt at Rabaul (New
		eL		31.6		30				(29.1°)	Britain).
		ME ₁		32 48		20		62			
		MZ ₁		33 01		20			18		
		MN ₁		33 10		18	40				
		MN ₂		35 24		16	26				
		ME ₂ , MZ ₂		36.6		16		48	11		
		MN ₃		39 45		16	13				
		ME ₃		41 36		15		10			
		F ₃		21 10							

(Continued on next sheet)

No. 5 (Continued)

192

1917, May.

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	ε: 1	r T ₀ ²
A _x				
A _y	(See last sheet)			
A _z				

No.	Date.	Phase	Time (Greenwich)				Amplitude			Δ km.	Remarks.
			h.	m.	s.	Per.	A _x μ	A _y μ	A _z μ		
117	1917 May 26	eP	18	00	20	4	2	2	$\frac{1}{4}$	2450 (22.0°)	
		eS		04	21	8	$\frac{1}{2}$	$\frac{1}{2}$			
		iS		04	28	8	+5	-5			
		eL		05	5	24					
		ME ₁		07	22	10		14			
		MN ₁		07	33	10	9				
		ME ₂ , MN ₂ , MZ		09	4	8	6	3	1		
		MN ₃		11	56	8	4				
		ME ₃		12	09	8		5			
		F		19	15						
118	" 29	eP	6	08	53	5	3	-	2840 (25.5°)	NS & EW reductions from seismometer N ^o 3	
		eS		13	24	10	4	3			
		eL		15	0	55					
		MN ₁		17	09	13	13				
		ME ₁		18	53	14		4			
		ME ₂		22	08	11		4			
		MN ₂		22	44	10	8				
		F		7	15						
119	" 31	eP?	9	01	7	?			8500?		
		eS		11	5	10	2	-			
		i		11	48	10	-15	-4 $\frac{1}{2}$			
		i		12	48	10	-7	+32			
				19	36	14	6	13			
		eL		27	7	38					
		ME ₁		33	43	28		112			
		MZ		35	34	24				27	
		MN ₁		36	13	22	100				
		ME ₁		39	36	20		53			
		MN ₂		41	11	20	38				
		ME ₂		41	30	20		62			
		C		53	32	16	8	18			
F		12	45								

E.F. Pigot S.J.

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_x 1	149	7.7	6.0	0.02
3	118	9.8	4.2	0.02
A_x 1	150	7.0	3.1	0.02
3	143	9.2	7.1	0.06
A_x 2	77	4.5	3.4	0.07

No.	Date.	Phase	Time (Greenwich)			Per.	Amplitude			Δ km.	Remarks.
			h.	m.	s.		A_x μ	A_y μ	A_z μ		
120	1917 June. 1	e (P?)	8	40.8	4		$\frac{1}{4}$	1			
		e (S?)		46.5	7		$\frac{1}{2}$	1			
		eL		48.6	18						
		ME ₁		51 18	14			3			
		ME ₂		52 18	14			3			
		LN		52 36	14		2				
		F		9 20							
121	" 1	e	1	48.5	8			$\frac{1}{4}$	Felt at Ioma, New Guinea.		
		e (L?)		53.2	18						
		M		56.2	12	2	$\frac{3}{4}$				
122	" 2	F	2	30							
		e (P?)	3	27.0	6			$\frac{1}{4}$			
		e (S?)		31.6	8			$\frac{1}{2}$			
		eL		33.9	18						
		MN		35 49	12	4					
		ME ₁		36 19	16			9			
		ME ₂		39 41	14			9			
123	" 2	MN ₂		42 40	12	4					
		F	4	30							
		eL	9	58.0	20						
		MN		58 52	10	5					
		ME		59 40	12			1			
		F	10	25							
		e	14	49.7	4						
124	" 3	e		52.9	12		$\frac{3}{4}$	1			
		e (L?)		58.1	24						
		MN		59 40	20	4					
		ME ₁	15	01 25	20			19			
		ME ₂		03 52	13			7			
		MN ₂		04 01	16	10					
		F	15	50							
125	" 4	e	1	54.6	6		-	2			
		e (L?)	2	15.6	22						
		MN ₁		18 18	18	1					
		ME ₁		22 53	16			3			
		MN ₁		25 57	14	1					
		ME ₂		29 53	16			1			
		F ₂	3	05							

(Continued on next sheet)

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	e: I	$\frac{r}{T_0^2}$
A _N				
A _E	(See last sheet)			
A _Z				

No.	Date.	Phase	Time (Greenwich)				Amplitude			Δ	Remarks.
			h.	m.	s.	s.	A _N	A _E	A _Z		
1917											
June. 6											
126		eP	4	04	47	5	$\frac{1}{2}$	2		2340 (21.0°)	
		eS		08	39	8	1	1			
		eL		10.	4	?					
		MN ₁		12	22	16	8				
		ME ₁		14	18	16		27			
		MN ₂		14	51	12	14				
		MZ ₁		15	46	12			3		
		ME ₂ , MN ₃		17.8		12	24	19			
		MZ ₂		18	02	12			3		
		ME ₃		20	00	13		11			
		ME ₄		25	22	12		7			
		MN ₄		26	22	12	7				
		F	7	20							
127	" 6	eL	5	40.	5	18					
		MN ₁		41	48	13	$1\frac{1}{2}$				
		ME ₁		42	01	12		4			
		ME ₂		44	04	12		3			
		MN ₂		45	56	12	7				
		F	lost in N°				26				
128	" 6	e(S?)	11	11.5		8	$\frac{1}{4}$				
		eL		16.7		20					
		ME ₁		19	30	14		6			
		MN ₁		20	18	12	2				
		MN ₂		24	30	16	1				
		ME ₂		25	22	?					
		F	12	05							
129	" 6	eP	15	54	39	4	$\frac{1}{4}$	$\frac{1}{2}$	3850 (34.5°)		
		PR ₁		55	48	4	$\frac{1}{4}$	$\frac{1}{2}$			
		eS ₁	16	00	18	9	$\frac{1}{8}$	1			
		eL		02.5		20					
		M ₁		04.0		14	10	11			
		MN ₂		06	01	13	8				
		ME ₂		07	59	14		11			
		F ₂	18	00							
130	" 7	e	16	15.4							
		eL		20.7		17					
		M		24.3		14	8	5			
		F	17	06							
131	" 7	e?	19	32	27				Heavy microseisms		
		e(S?)		36.8		8?					
		eL		39.8		22					
		MN		42	36	13	7				
		ME		44	06	?					
		F	20	10							

(Continued on next sheet)

No. 6 (Continued)

192

1917, June.

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. Manka 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				
A _E	(See last sheet)			
A _Z				

No.	Date.	Phase	Time (Greenwich)		Per.	Amplitude			Δ	Remarks.
			h.	m. s.		A _N	A _E	A _Z		
132	1917 June. 8	e(S?)	1	22.5	?					Heavy microseisms
		e(L?)		49.0	24?					
		ME ₁	52	05	20		5			
		MN ₁	54	56	16	2				
		ME ₂	58	38	16		12			
		MN ₂	2	03	14	$\frac{3}{4}$				
		F ₂	3	45						
133	" 8	e	17	21.7						
		eL		14.3	24					
		M ₁		22.9	16	6	12			
		M ₂		26.9	12	6	8			
		F ₂	18	00						
134	" 9	eP	17	03	45	8	$\frac{1}{2}$	$\frac{1}{2}$	3030?	
		e(S?)		08	30	12	$\frac{1}{4}$	$\frac{1}{4}$		
		eL		10.1	?					
		MN ₁		11	57	14	20			
		ME ₁		12	54	17		15		
		ME ₁		13	17	16		45		
		MN ₂		14	57	14	30			
		ME ₂		17	01	14		10		
		ME ₂		17	22	14		33		
		MN ₃		22	13	10	5			
		ME ₃		23	44	12		7		
		F ₃	18	25						
135	" 10	e	4	45.7	6		$\frac{1}{2}$			
		e(SR ₁ ?)	5	06.5	12	$\frac{3}{4}$	$\frac{1}{2}$			
		eL		21.8	32					
		ME ₁		25	02	20		2		
		MN ₁		26	49	16	3			
		ME ₂		34	54	16		9		
		MN ₂		35	21	12	1			
		ME ₃		46	58	16		3		
		F ₃	6	55						
136	" 11	e	16	26.1	4					
		e		29.4	6			3		
		a		30.4	4	3				
		ME		31	05	8		2		
		MN		31	44	8	$\frac{1}{2}$			
		F	16	55						
137	" 12	eP	5	28	49	4		$\frac{1}{4}$	2740	
		eS		33	13	12	$\frac{1}{2}$		(24.5°)	
		eL		35.8	?					
		MN ₁		37	06	16	2			
		ME ₁		37	57	16		3		
		MN ₂		38	58	10	$\frac{1}{2}$			
		ME ₂		41	06	14		2		
		F	6	40						

(Continued on next sheet)

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	e: 1	$\frac{r}{T_0^2}$
A _s				
A _x	(See last sheet)			
A _z				

No.	Date.	Phase.	Time (Greenwich)			Per.	Amplitude			Δ km.	Remarks.
			h.	m.	s.		A _s μ	A _x μ	A _z μ		
138	1917 June 12	e?	14	43.8	4						
		eL		47.0	20						
		ME ₁	49	05	16			3			
		MN ₁	49	26	16	2					
		ME ₂	53	37	15			5			
		MN ₂	54	59	8	$\frac{3}{2}$					
		F	15	25							
139	" 13	IP	6	47	28	4	-	+9 $\frac{1}{2}$	-7	2960	Az., 270°
		PR ₁	48	55	5		4 $\frac{1}{2}$	13		(26.6°)	
		IS	52	08	7		+12	10	4		ϕ , 27°S
		eL	54.0		26						λ , 167°W
		M ₁	55	08	20		147	245			
		MN ₂	56	33	14		232				
		ME ₂ , MZ ₁	57	10	16			465	280		Computed time
		MN ₃	58	33	12		147				at origin :-
		ME ₃	7	00	31	14		264			h m s
		MZ ₂	00	54	13				158		6 41 33
		C ₁	04	20	11		54	68	29		
		C ₂	09	03	10		34	28			
		F	9	55							
140	" 13	eP	8	58	35	4	$\frac{1}{2}$	2 $\frac{1}{2}$		2760	
		eS	9	03	00	9	$\frac{1}{2}$	1		(24.8°)	
		eL		05.3	20						
		MN ₁	06	55	16		26				
		MZ ₁	07	09	16				13		
		ME ₁	07	34	16			45			
		MN ₂	08	56	12		15				
		ME ₂	10	51	14			22			
		MZ ₂	11	03	16				13		
		F	lost in N°159								
141	" 13	e	13	42.1	10						
		MN		47	00	16	2				
		ME		47	36	16		3			
142	" 13	F	13	55							
		eP	14	42	22	5	-	$\frac{1}{2}$		2980?	
		e(S?)		47	04	8	$\frac{1}{2}$	-			
		eL		48.0	16						
		ME		48	54	12			2		
		MN		49	43	10	3				
F	15	00									

(Continued on next sheet)

No. 6 (Continued)

192

1917, June.

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	e: 1	$\frac{r}{T_0^2}$
A _x				
A _y	(See last sheet)			
A _z				

No.	Date.	Phase.	Time (Greenwich)			Per.	Amplitude			Δ	Remarks.
			h.	m.	s.		A _x	A _y	A _z		
143	1917 June 13	e	16	36.1	5						
		MN		39 43	12	$\frac{1}{3}$					
		ME		41 31	12			7			
		F	16	50							
144	" 15	eP	17	10 01	4	$\frac{1}{5}$				2740	
		eS		14 25	8			$\frac{1}{2}$		(24.6°)	
		eL		18.7	24						
		ME		20 22	13			12			
		MN		21 05	16	26					
		F	17	50							
145	" 17	eP	8	34 33	4			$\frac{1}{2}$		2900	
		eS		39 09	8	$\frac{1}{2}$		$\frac{1}{2}$		(26.1°)	
		eL		40.3	20						
		MZ		42 31	16						
		ME ₁		43 04	16			15			
		MN ₁		43 21	16	13					
		ME ₂		45 03	13			9			
		MN ₂		49 30	13	7					
		F	9	35							
146	" 18	e	9	19.7	5			$\frac{1}{2}$			
		eL		22.2	18						
		MN		24 58	12	1					
		ME ₁		25 36	12			1			
		ME ₂		28 06	12			3			
		F	9	50							
147	" 18	e	14	37.5							
		ME		40.9	4			2			
		MN		42 37	6			$\frac{1}{2}$			
		F		45 42	8	$\frac{1}{2}$					
		F	14	45							
148	" 18	eP	22	15 51	4					2900	
		iPR ₁		16 57	4	+8		2		(26.1°)	
		iS		20 25	5	6		-3			
		eL		21.7	20						
		ME ₁		23 50	6			10			
		MZ ₁		25 02	8						
		MN ₁		25 18	6	8				$\frac{1}{4}$	
		ME ₂		26 07	7			11			
		MN ₂		28 38	8	7					
		ME ₃		28 51	8			8			
		MZ ₂		29 59	12					3	
		F	23	25							

(Continued on next sheet)

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	$e:1$	$\frac{r}{T_0^2}$
A_N				
A_E	(See last sheet)			
A_Z				

No.	Date.	Phase.	Time (Greenwich)			Per.	Amplitude			Δ km.	Remarks.
			h.	m.	s.		A_N μ	A_E μ	A_Z μ		
143a	1917 June 24	e	2	12	5	5					
		ME		17	17	5		2			
		MN		27	15	?					
		F	2	40							
148b	" 24	iP	19	55	20	5	+3	+13	-3	4840	Computed Azimuth:- (43.5°) 257° (N. 77° E)
		iPR ₁	55	24	5	5	3	21	10		
		iS	56	37	6	6	+8	+17	-3		
		eL	56	49	6	6	9	50	8		
		MCN ₁	20	01	54	7	-12	-23	-		$\phi, 164^{\circ}$ S.
		ME ₁	02	06	15	15					$\lambda, 164^{\frac{1}{2}}$ W.
		MN ₁	03	13	14	14	80				
		MN ₂	03	45	8	8		11			
		MN ₃	03	51	19	19	85				
		MN ₄	04	37	19	19	22				
		i ₄	05	16	12	12	43				
		ME ₂	05	38	6	6	-9	+29			
		MZ	05	59	9	9		14			
		ME ₃	06	12	9	9			4		
		MN ₅	07	03	14	14		77			
		ME ₄	08	12	11	11	7				
		CE	10	00	12	12		45			
		ON	17	16	11	11		25			
		F	17	59	10	10	10				
			22	10							

(Continued on next sheet)

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.

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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_x				
A_y				
A_z				

(See last sheet)

No.	Date.	Phase.	Time (Greenwich)			Per.	Amplitude			Δ	Remarks.
			h.	m.	s.		A_x	A_y	A_z		
149	1917 June 26	eP	5	56	42	5	μ	μ	μ	km. 4370 (39.3°)	Severely felt, but without loss of life, in Samoan islands. At Apia Observatory, intensity estimated as VIII Mercalli.
		iP		56	46	5	-4 $\frac{1}{2}$	-18	+6 $\frac{3}{4}$		
				57	02	5		36	15		
		iPR ₁		58	15	6	-5 $\frac{1}{4}$	37	29		
				58	23	6	23	84	53		
				58	34	6	47	150	84		
		S	6	02	50	13	99	218	50		
		PS		03	13	15	184	946	153		
		SR ₁		05	24	16	135	180	81		
		eL		05	.8	30					
		MN ₁		06	16	24	2160	740	790		
		MZ ₁		08	17	24			2890		
		ME ₁		08	28	20	820	2890			
		MN ₂		11	34	13	690	560			
		ME ₂		12	28	14	456	805	430		
		ME ₃		14	21	15	175	950			
		MZ ₂		14	32	15			472		
		MN ₃		16	40	12	346	256			
		ME ₄		17	21	14	360	535			
		MN ₄		21	47	14	370	210			
		C ₁		33	13	12	126	73			
		C ₂		40	20	12	62	121			
		C ₃		51	14	12	50	43			
W ₂ waves		8	33	.8	25				Well-marked W ₂ series (major arc)		
ME ₁		37	44	20		34					
MN ₁		42	00	20	25						
MN ₂		48	10	20	42						
ME ₂		48	38	20		59					
MZ		49	01	20	21	93	32				
F		11	05								
eP		14	08	11	4	-	$\frac{1}{4}$	2500?			
e(S?)		12	16	8		$\frac{1}{2}$	$\frac{1}{2}$				
eL		15	.1	22							
MN ₁		17	55	12	4						
ME ₁		19	33	13		1					
MN ₂		20	46	9	5						
ME ₂		22	30	11		3					
F		15	02								
e		18	48	.8	4	$\frac{1}{2}$					
eL		52	.7	20							
MN ₁		54	36	12	2						
MN ₂		56	26	10	3						
ME ₂		57	54	10		$\frac{1}{2}$					
F		19	35								
eL		3	24	.8	20						
MN		28	33	12	9						
F		3	55								

No. 6 (Continued)

1917, June.

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	e: l	$\frac{r}{T_0^2}$
A _x				
A _y	(See last sheet)			
A _z				

No.	Date.	Phase.	Time (Greenwich)			Per.	Amplitude			Δ km.	Remarks.
			h.	m.	s.		A _x μ	A _y μ	A _z μ		
153	1917 June 27	eL	5	32	.8	20					
		MN		36	03	13	1				
		ME		37	58	12		1½			
		F	6	15							
154	" 27	e?	22	58	.0	8					
		MN	23	03	24	13	7				
		ME		07	02	16		1½			
155	" 28	e(P?)	14	03	.7	5	-	½			
		eL		10	.7	18					
		MN ₁		16	21	12	4				
		ME ₁		19	38	12		3			
		MN ₂		25	29	12	1				
		ME ₂		26	59	14		5			
156	" 28	F	15	30							
		e	17	37	.5	7					
		ME		41	54	11		¼			
		MN		42	06	12	¾				
157	" 28	F	18	00							
		eL	22	02	.1	?					
		MN		04	59	13	1½				
		ME		05	21	16		6			
		F	23	00							

E.A. Pigot 57

No. 7

July 1 to 31

 17
19

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.)
2. Wiechert Vertical Seismometer (80 kilo.)
3. Mainka Conical Pendulum Seismometer (450 kilo.)

	V	T ₀	$\epsilon : 1$	$\frac{r}{T_0^2}$
A _N (1)	145	7.7	4.9	0.02
A _N (3)	139	9.7	4.5	0.02
A _E (1)	154	7.0	2.7	0.02
A _E (3)	136	9.5	8.0	0.06
A _Z (2)	83	4.5	3.6	0.06

No.	Date.	Char.	Phase.	Time (Greenwich)		Per.	Amplitude.			Δ	Remarks.
				h.	m. s.		A _N	A _E	A _Z		
158	1917 July 4	I _u	iP	0	48 59	5	-1 $\frac{1}{2}$	-	-	6800	
			eS		57.3	7	1 $\frac{1}{2}$	1			
			PS		57 50	7	0	3			
			eL	1	08.4	22					
			MN		15 45	17	60				
			MZ		15 51	17			16		
			ME		16 55	17			43		
159	" 4	I	F	2	30						
			e	5	55.7	7	$\frac{1}{2}$	-			
			eL		09.7	24					
			MN	6	13 37	18	14				
160	" 11	I _r	ME		14 55	16		9			
			F	6	35						
			eP	22	50.1	5	-	$\frac{3}{4}$			
					50 30	5	$\frac{1}{2}$	$\frac{6}{2}$			
			S?		54 42	8	$\frac{1}{2}$	$\frac{1}{2}$			
			eL		57.4	18					
161	" 12	I _r	ME	23	01 29	15		7 $\frac{1}{2}$			
			MN		02 04	13	3 $\frac{1}{2}$				
			F	0	05						
			eP	11	47.7	8	1 $\frac{1}{4}$	-			
			S		52 14	11	2 $\frac{1}{4}$	-			
			PS		52 27	11	22	6			
162	" 13	I	eL		55.0	18					
			ME		57 30	12		21			
			MZ	12	00 15	10			7 $\frac{1}{2}$		
			MN		00 38	10	10				
			F	13	40						
			e	16	30.8						
163	" 15	I _r	eL		36.9	14					
			MN		40 43	10	5				
			ME		42 05	10		4 $\frac{1}{2}$			
			F	17	15						
			eP	10	48.5	5	-	1 $\frac{1}{4}$			
					48 33	5					
164	" 17	I	e(S?)		53.7	?					
			eL		59.8	22					
			MN	11	08 16	16	5				
			ME		08 58	16		9			
			F	12	05						
			e(P?)	3	16.9	5	-	$\frac{1}{2}$			
164	" 17	I	e(S?)		18.7	7	$\frac{1}{2}$	-			
			eL		22.8	12					
			M		24.0	10	1	1 $\frac{1}{2}$			
			F	3	45						

(Continued on next sheet)

No.7 (continued)

July 1 to 31

1917

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:

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2. Wiechert Vertical Seismometer (80 kilo.)
3. Mainka Conical Pendulum Seismometer (450 kilo.)

	V	T _o	ε : 1	$\frac{r}{T_o^2}$
A _N				
A _E				
A _Z				

(See last sheet)

No.	Date.	Char.	Phase.	Time (Greenwich)		Per.	Amplitude.			Δ	Remarks.
				h.	m. s.		A _N	A _E	A _Z		
							μ	μ	μ	km.	
165	1917 July 27	I _u	eP	1	22.8					11,000	Argentina.
			PR ₁		25 47	7		2			
			eS		34.6	11		2 1/4			
					34 50	11	1	2			
			e(SR ₂)		42.7	14	2	-			
					43 42	14	2	6			
			eL	2	09.0	25					
			M ₁		13.5	20	8	28			
			MZ		14 49	20			23		
			ME ₂		19 21	15		10			
			MN ₂		24 46	16	5				
			ME ₃		25 49	18		12			
			(see Remarks)		e	3	36.1				
		MW ₂		36 37	25	14	16			Probably W ₂ (or Lrep.1)waves.	
		F		(lost in 166)						For W ₃ , see 166.	
166	" 27	I	e(P?)	3	19.1					3200	Probably W ₃ (or Lrep.2)waves of No.165.
			e		24.8	?					
			eL		42.4	20					
			M ₁		45.0	16	10	9			
			MN ₂		49 31	14	8				
			ME ₂)		52 39	13		7	9		
			MZ		52 56	13	5				
			MN ₃		52 56	13	5				
			MN ₄	4	05 05	15	7				
			ME ₃		05 50	15		7			
			eW ₃	5	17.0	25	-	8			
			F	5	40						
					eP	23	42.4				
		eS		47.3	7	1					
		eL		49.9	25						
		ME ₁		55 07	12		32				
		MN ₁		56 54	12	21					
		ME ₂		57 21	12		35				
		MZ		58 49	12			8			
	28	MN ₂	0	00 04	10	14					
		F	1	35							

(Continued on next sheet)

No. 7 (continued)

July 1 to 31, 1917

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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.)
2. Wiechert Vertical Seismometer (80 kilo.)
3. Mainka Conical Pendulum Seismometer (450 kilo.)

	V	T ₀	ε : 1	r T ₀ ²
A _N				
A _E	(See last sheet)			
A _Z				

No.	Date.	Char.	Phase.	Time (Greenwich)			Per.	Amplitude.			Δ	Remarks.
				h.	m.	s.		A _N	A _E	A _Z		
168	1917 July 29	III _r	eP	21	58	47	4				3390	Computed azi- muth: 166° (N.14°W.) φ, 4°S. λ, 144½E.
			iP		58	51	4	+15	-4	-7		
			iPR ₁	22	00	01	6	+18	-5	-4		
					00	51	6	27	5	3		
			iS		03	57	8	-20	-10	3		
					04	04	8	54	29			
			eL		05.9	18						
			M ₁		07	47	10	90	155			
			M ₂		10	13	16	690+	1260+			
			MZ ₁		11	19	14			980		
			M ₃		13	15	17	470	1460+			
			MZ ₂		14	57	10	205		650		
			M ₄		15	07	10	205	480+			
			M ₅		18	53	10	165	410			
			M ₆		20	19	10	270	420			
			M ₇		21	28	10	145	380			
C ₁		26	14	10	103	166						
C ₂		28	33	9	116	122						
C ₃		37	43	10	30	87						
169	" 30	I	F	2	45		3			5	Computed time at origin :- h m s 21 52 17 h m From 22 6 ,NS & EW data from Seismometer No. 3, as No.1 be- came deranged.	
			e	0	46.0	3	¾	½				
			ME		47	33	10		8			
170	" 30	I	MN		48	01	10	5½		5	F lost in 168.	
			MZ		49	06	10					
			e	2	10.2	5						
171	" 30	I	ME		15	51	11		2¼			
			MN		16	32	11	1				
			F	2	25							
172	" 30	I	e	4	28.2					2000?		
			eL		34.3	14						
			ME		37	28	10	2				
			ME		38	14	10		2			
			F	5	10							
			eP	8	59.3	4	-	½				
173	" 30	I	e(S?)	9	02.8	8	-	1		3		
			eL		04.7	16						
			ME		06	07	11		12			
			LZ		09	54	8					
			MN		10	02	8	8				
			F	9	50							
174	" 30	I	eP	10	35.2					3	F lost in 174.	
			eL		41.2	17						
			ME		41	55	14		8			
			MN		46	15	10	3				
174	" 30	I	eP	10	54.2	3	½	1		5	F lost in 174.	
			ME		55	53	10					
			MN		57	35	9	3				

(Continued on next sheet)

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Riverview College Observatory,

SYDNEY, N.S.W.

Seismological Bulletin.

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INSTRUMENTS:

1. Wiechert Astatic Pendulum Seismometer (1000 kilo.)
2. Wiechert Vertical Seismometer (80 kilo.)
3. Mainka Conical Pendulum Seismometer (450 kilo.)

	V	T ₀	ε : 1	$\frac{r}{T_0^2}$
A _N				
A _E	(See last sheet)			
A _Z				

No.	Date.	Char.	Phase.	Time (Greenwich)		Per.	Amplitude.			Δ	Remarks.
				h.	m. s.		A _N	A _E	A _Z		
175	1917 July 30	I	e	13	40.3	4	μ	μ	μ	3000	F lost in 176.
			ME		41 51	10	-	1 1/4			
			MN		44 11	8	1	-			
176	" 30	II _r	eP	13	56.6	4	1/2	-		3000	F lost in 177.
			eS	14	01.3	8	-	1			
			eL		05.8	14					
			ME		11 17	10		34			
			MN		11 53	10	53				
			MZ		12 08	10			15		
177	" 30	II	eP	16	29.1					3000?	F lost in 177.
			e?		34.3	6	-	1/2			
			eL		38.4	20					
			M ₁		40.6	12	30	59			
			MN ₂		41 30	12	32				
			ME ₂		42 15	12		70			
			MZ		45 35	12			8		
			F	18	15						
178	" 30	I	e?	18	33.4	?				3000?	F lost in 177.
			MN		35 49	10	1				
			ME		37 55	10		1			
179	" 30	I	F	18	45					3000?	F lost in 177.
			eP	23	02.0						
			eL		06.9	18					
			M		09 52	12	7	3			
180	" 31	I	F	0	05					3000?	F lost in 177.
			eP?	0	16.0	6	-	1/2			
			e(S?)		23.1	9	-	1			
			eL		32.4	22					
			ME ₁		37 17	18		11			
			MN		41 06	18	10				
			ME ₂		49 51	16		8			
181	" 31	II	F	1	45					3000?	F lost in 177.
			e(P?)	3	20.0	5	1/2	-			
			eS		25.1	7	-	1 1/2			
			eL		27.0	18					
			M ₁		32.4	11	44	101			
			ME ₂		33 33	11		88			
			ME ₃		34 08	11		95			
			MN ₂		35 17	8	43				
			MZ		36 45	8			15		
			MN ₃		37 37	8	48				
			C		39 45	8	18	11			
			F	5	50						
182	" 31	I	eP	8	59.1	5	-	1/4		3000?	F lost in 177.
			e(S?)	9	02.4	7	1/2	1/4			
			eL		04.2	16					
			ME		05.6	12	10	13			
			F	9	50						

Riverview College Observatory, SYDNEY, N.S.W.

Seismological Bulletin.

 $\phi = 33^{\circ} 49' 49'' \text{ S.}$
 $\lambda = 151^{\circ} 9' 30'' \text{ E.}$
 $h = 41.9 \text{ m.}$

Foundation: Triassic sandstone.

INSTRUMENTS:

1. Wiechert Astatic Pendulum Seismometer (1000 kilo.)
2. Wiechert Vertical Seismometer (80 kilo.)
3. Mainka Conical Pendulum Seismometer (450 kilo.)

	V	T ₀	$\epsilon : 1$	$\frac{r}{T_0^2}$
$A_{(M)}^{(1)}$	144	7.7	4.9	0.02
$A_{(3)}^{(1)}$	136	9.7	4.9	0.02
$A_{(F)}^{(1)}$	152	7.0	2.9	0.02
$A_{(3)}^{(2)}$	136	9.5	8.0	0.05
$A_{(2)}^{(2)}$	86	4.2	3.3	0.07

No.	Date.	Char.	Phase.	Time (Greenwich)			Per.	Amplitude.			Δ km.	Remarks.
				h.	m.	s.		A_N μ	A_E μ	A_Z μ		
183	1917 Aug. 1	I	e eL M F	1	12.6	5						
184	" 1	I	e MN ME F	5	02.6	?						
185	" 5	III _r	eP iP i PR ₁ iS PS eL M ₁ MZ M ₂ ME ₃ MN ₃ CE ₁ CN ₁ CE ₂ CN ₂ F	15	55 11	(4)					2440	Az. (computed), 296° (S. 64° E.) ϕ , 40.9 S. λ , 177.1 E. See Special Bulletin, 9/8/17 Computed time at origin :- 15h 50m 01s Strongly felt in SE part of N. Island, N.Z. (VII-VIII F.M.)
186	" 6	I _r	iP i S eL M F	16	13 08	4					2450	Felt at Napier, Masterton, &c., (N.Z.)
187	" 7	I _r	e? eL MN ME F	0	04.9	20						Slightly felt in North Island (N.Z.)
188	" 7		e eL ME MN F	7	53.6	14						

(Continued on next sheet.)

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.)
2. Wiechert Vertical Seismometer (80 kilo.)
3. Mainka Conical Pendulum Seismometer (450 kilo.)

	V	T_0	$\epsilon : 1$	$\frac{r}{T_0^2}$
A_N	(See last sheet)			
A_E				
A_Z				

No.	Date.	Char.	Phase.	Time (Greenwich)	Per.	Amplitude.			Δ	Remarks.
						A_N	A_E	A_Z		
189	1917 Aug. 7	I	e	10 07.5 s.	s.	μ	μ	μ	km.	
			e	11.1	8	$\frac{1}{2}$	$\frac{1}{2}$			
			e	14.6	8	-	1			
				14 52	8	2	1			
			eL	21.2	18					
			MN	26 18	14	4				
			ME	27 55	12		3			
			F	16 50						
190	" 8	Ir	eP	18 05.2	3	-	$\frac{1}{2}$		2400	
				05 24	6	-	1			
			eS	09.2	7					
			iS	09 16	7	-	+6			
				09 24	7	2	7			
			eL	10.8	20					
			MN	11 28	15	4 $\frac{1}{2}$				
			ME	12 28	15		8			
			F	19 10						
191	" 8	I	e	21 03.8	6	-	1			
			ME	06 45	12		1 $\frac{1}{2}$			
			MN	07 15	12	1 $\frac{1}{2}$				
			F	21 15						
192	" 9	I	e	23 16.3	5					
			eL	22.3	14					
			MN	24 35	10	2				
			ME	24 49	10		3			
			F	0 25						
193	" 10	I	e	0 56.6						
			eL	1 05.8	16					
			MN	05 57	12	4				
			ME	06 47	12		13			
			F	1 30						
194	" 10	I	e	17 37.2	3					
			e	40.6	5	3	1 $\frac{1}{2}$			
			eL	42.2	16					
			MN	43 42	12	7				
			ME	44 00	12		13			
			MZ	44 36	12			9		
			F	18 10						
195	" 10	I	eP	22 20.1						
			eL	32.9	18					
			MN	35 10	14	2				
			ME	37 48	12		1 $\frac{1}{2}$			
			F	22 45						
196	" 14	I	e	8 20.8						
			eL	25.4	16					
			ME	25 55	12		8			
			MN	27 40	12	4				
			F	8 50						

(Continued on next sheet)

8 (continued)
 No.

1917, August 1 to 31

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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.)
2. Wiechert Vertical Seismometer (80 kilo.)
3. Mainka Conical Pendulum Seismometer (450 kilo.)

	V	T ₀	ε : 1	r T ₀ ²
A _N				
A _E	(See last sheet)			
A _Z				

No.	Date.	Char.	Phase.	Time (Greenwich)			Per.	Amplitude.			Δ	Remarks.
				h.	m.	s.		A _N	A _E	A _Z		
197	1917 Aug. 14	1	eP	17	13.1	5	-	$\frac{1}{2}$				
			eL		19.6	24						
			M		21.2	16	3	6				
			F	17	40							
198	" 16	1 _r	iP	23	02 48	3	+5	+5	1	2760		
			iS		07 13	7	+1	$-\frac{1}{2}$				
			(PS?)		08 00	7	-3	+17				
					08 20	7	9	7				
			eL		08.9	24						
			M		10.2	20	50	30				
199	" 17	1	MZ		10 53	20			25			
			F	0	10							
			e	5	36.2							
			eL		42.3	18						
200	" 21	1 _r	ME		43 40	8		1	3300	Short wave lengths.		
			MN		46 24	11	2					
			F	6	10							
			eP	15	29.3	2						
			S		34 24	5	$\frac{3}{4}$					
			eL		39.2	10						
201	" 22	1	MN		41 11	8	10					
			ME		41.5	7		5		4		
			MZ									
			F	16	25							
			e	15	05.6	?						
			ME		08 42	12		$1\frac{1}{2}$				
202	" 26	1	MN		09 32	14	2					
			F	15	20							
			e	4	02.4							
			e		06.2	5						
			ME		10 09	13		2				
			MN		12 26	10	1					
203	" 26	1	F	4	25							
			e(P?)	22	35.4	5	-	$\frac{1}{2}$				
			e(S?)		39.9	8		1				
			eL		42.4	20						
			M ₁		45 01	14	4	$6\frac{1}{2}$				
			ME ₂		47 45	14		9				
204	" 27	1	F	23	15							
			(e?)	3	40.0	5						
			ME		52 34	14		$3\frac{1}{2}$				
			MN		53 04	14	2					
205	" 28	1	F	4	00							
			e	4	30							

(Continued on next sheet)

A few long waves.

Riverview College Observatory,

SYDNEY, N.S.W.

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INSTRUMENTS:

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2. Wiechert Vertical Seismometer (80 kilo.)
3. Mainka Conical Pendulum Seismometer (450 kilo.)

	V	T _o	ε : 1	$\frac{r}{T_o^2}$
A _N				
A _E	(See last sheet)			
A _Z				

No.	Date.	Char.	Phase.	Time (Greenwich)			Per.	Amplitude.			Δ	Remarks.
				h.	m.	s.		A _N	A _E	A _Z		
206	1917 Aug. 30	ll _r	eP	4	13	53	22	1½	½	1	3500	Az. (computed) 147° (N. 33° W.) φ, 70° S. λ, 135 E. Computed time at origin :- h m s. 4 07 13
			iP		14	04	(22)	+15	-15	-15		
			i		14	34	(24)	-22	+14	+21		
			PR ₁		15	25	(56)	22	21	51		
			iS		19	11	8	-87	+106	63		
					20	25	8	100	110	52		
			eL		20.6	18						
			M ₁		21	48	8	220	114			
			MZ ₁		23	06	(48)			110		
			ME ₂		24	23	7		315			
			MN ₂		24	39	(28)	450				
			MN ₃		25	19	(48)	550				
			MZ ₂		25	29	(48)			220		
			ME ₃		25	51	(28)		520			
			MZ ₃		27	08	7			460		
			MN ₄		27	26	14	360				
			MN ₅		28	35	10	460				
			ME ₄		29	03	8		340			
			ME ₅		31	54	7		210			
			C ₁		37	14	8	135	80	56		
C ₂		41	37	8	36	90	35					
C ₃		45	46	8	55	48	7					
eW ₂		6	41.0	40	18			W ₂ waves (L rep. 1)				
F		8	05									
e		4	12.0	12	3	3						
eL		20.3	25									
MN		21	58	14	4							
ME		22	24	12		3						
F		8	05									
e (PR ₁ ?)		11	57.6	?								
i (PR ₂ ?)			58 52	7	2	-9						
eS		12	07.7	8	1½	2						
iS			07 50	8	-	+8						
•L			37.3	28								
ME ₁			43 59	16		14						
MN ₁			44 38	16	5							
MN ₂			49 31	15	6							
ME ₂			52 31	14		9						
MN ₃		13	25 12	15	6							
F		14	15									

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.)
2. Wiechert Vertical Seismometer (80 kilo.)
3. Mainka Conical Pendulum Seismometer (450 kilo.)

	V	T ₀	$\epsilon : 1$	$\frac{r}{T_0^2}$
$A_N \begin{cases} 1 \\ 3 \end{cases}$	144	7.9	5.8	0.02
$A_E \begin{cases} 1 \\ 3 \end{cases}$	137	9.9	5.8	0.02
$A_Z \begin{cases} 1 \\ 3 \end{cases}$	154	7.0	3.0	0.02
	137	9.5	8.0	0.04
	76	4.7	3.6	0.07

No.	Date.	Char.	Phase.	Time (Greenwich)			Per.	Amplitude.			Δ	Remarks.		
				h.	m.	s.		A_N	A_E	A_Z				
							s.	μ	μ	μ	km.			
209	1917 Sept. 5	I	e	16	29.7									
			e		30.8	7	-	1						
			eL		37.4	20								
			MN	38	33	12	7							
			ME	39	15	16			12					
210	" 9	I	F	17	30									
			e	2	25.1									
			e		29.7	10	-	1						
			eL		35.8	18								
			MN ₁	37	33	13	3							
			ME ₁	38	23	15		5						
211	" 15	I	M ₂	45	.4	11	2½	2						
			F	3	30									
			e	10	14.6	40							A few long waves.	
212	" 20	II _r	iP	2	55 00	6	-6	-4	1½	2350				
			PR ₁		55 45	6	12	10						
			iS		58 53	7	+11	-16	+2½					
			eL	3	00.9	18								
			MZ ₁		03 07	14								
			ME ₁		03 24	14		61						
			MN ₁		04 04	12	65							
			MN ₂		09 35	11	21							
			ME ₂		12 52	10		22						
			MZ ₂		15 30	10			10					
			MN ₃		15 49	10	20							
			ME ₃		17 17	10		27						
			F	4	30									

(Continued on next sheet).

No. 9 (continued).

1917, September 1 to 30.

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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:

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	V	T ₀	ε : 1	r T ₀ ²
A _N				
A _E	(See last sheet)			
A _Z				

No.	Date.	Char.	Phase.	Time (Greenwich)			Amplitude.			Δ	Remarks.	
				h.	m.	s.	Per.	A _N	A _E			A _Z
				h.	m.	s.	s.	μ	μ	μ	km.	
213	1917 Sept. 21	I _r	eP	10	53.6		4				1500	Short wave lengths.
			eS		56.3		5	$\frac{1}{2}$	2			
			(SR ₁ ?)		57 17		5	$\frac{4}{2}$	2			
			MN		59 12		6	$2\frac{1}{2}$				
			ME		59 26		6		3			
			MZ		59 48		5			$\frac{1}{2}$		
214	" 24	I	F	11	10						2900	
			eP	20	13 32		5	1	$\frac{1}{2}$			
					13 37		5	$2\frac{1}{2}$	1	$1\frac{1}{2}$		
			PR ₁		14 35		5	8	1			
			iS ₁		18 08		7	+13	+5			
			SR ₁		19 44		8	17	12			
			eL ₁		21.7	20						
			M		24 15	12	33	53				
215	" 25	I	MZ	24	26		13		11			
			F	21	55							
			e	1	22.2							
			e		25.1							
			eL		32.5	20						
			ME		34 56	15		$2\frac{1}{2}$				
216	" 25	I	MN		39 28		11	1				
			F	1	50							
			e	3	49.1							
			e		52.4							
			ME		56 29	10		1				
MN		57 25	10		1							
F	4	05										

E. F. T. got 87.

Riverview College Observatory,

SYDNEY, N.S.W.

Seismological Bulletin.

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INSTRUMENTS:

1. Wiechert Astatic Pendulum Seismometer (1000 kilo.)
2. Wiechert Vertical Seismometer (80 kilo.)
3. Mainka Conical Pendulum Seismometer (450 kilo.)

	V	T_0	$\epsilon : 1$	$\frac{r}{T_0^2}$
$A_N(1)$	147	7.8	6.0	0.02
(3)	126	9.8	5.5	0.02
$A_E(1)$	150	7.1	2.9	0.02
(3)	140	0.4	8.0	0.04
$A_Z(2)$	90	5.0	3.7	0.07

N.B. NS & EW data always from No. 1, unless No. 3 specified.

No.	Date.	Char.	Phase.	Time (Greenwich)			Per.	Amplitude.			Δ km.	Remarks.
				h.	m.	s.		A_N μ	A_E μ	A_Z μ		
217	1917 Oct. 2	I	e	10	05.8		16	2	3		A few long waves.	
218	" 5	I	e	20	10.7							
			eL		12.5		20					
			ME		13 29		15		12			
			MN		14 46		12	4				
			F	20	35							
219	" 6	I	e	12	54.8		6	-	2		Strong micro-seismic movement.	
			eL	13	03.4		16					
			MN		09 26		12	3				
			ME		10 55		12		3			
			F	13	45							
220	" 7	I	e	15	53.1							
			e(L?)	16	07.9		20					
			ME		10 17		15		2			
			MN		11 31		16	3				
			F	16	20							
221	" 11	I	e	10	16.2						A few long waves.	
222	" 16	I	e?	21	42.4							
			eL		54.4		20					
			ME		55 32		15		3			
			MN		57 54		12	1 1/2				
			F	22	10							
23	" 17	I	e	7	33.2							
			eL		44.0		10	2	1			
			F	7	50							
24	" 17	I	e	14	51.5							
			eL		59.5		20					
			ME	15	02 41		15		3			
			MN		04 43		15	2				
			F	15	20							
25	" 18	I	e	11	35.0							
			e(L?)		40.1		?					
			MN		45 09		10	1				
			ME		45 55		12		1 1/2			
			F	11	55							
26	" 19	I	e	5	14.4							
			eL		30.4		?					
			ME		32 25		12		1			
			MN		35 35		12	1 1/2				
			F	5	50							

(Continued on next sheet)

Riverview College Observatory, SYDNEY, N.S.W.

Seismological Bulletin.

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INSTRUMENTS:

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2. Wiechert Vertical Seismometer (80 kilo.)
3. Mainka Conical Pendulum Seismometer (450 kilo.)

	V	T ₀	ε : 1	r T ₀ ²
A _N	(See last sheet)			
A _E				
A _Z				

No.	Date.	Char.	Phase.	Time (Greenwich)			Per.	Amplitude.			Δ	Remarks.
				h.	m.	s.		A _N	A _E	A _Z		
227	1917 Oct. 19	I	eP	17	33.6	3	3	-				
			eL		40.6	?						
			ME		41 35	15		1				
			MN		43 50	12	1					
			F	18	05							
228	" 20	I _r	eP	17	38.9	2	3	-			2500	Short wave-lengths in earlier phases.
			eS		43.1	8	1	-				
			i		45 01	8	3	+5				
			eL		47.1	20						
			ME		49 00	14		4				
229	" 21	I _r	MN		49 14	15	7				2500	
			eP	6	59.6	4	1	-				
			eS	7	03.8	8		3				
			PS		04 04	8	5	2½				
			eL		04.9	22						
			MN ₁		05 48	18	16					
			ME ₁		06 39	13		18				
			M ₂		07.5	10	11	14				
			MZ		09 33	9			1½			
			M ₃		10 18	9	12	11				
30	" 23	I _r	F	8	40						2700	
			eP	1	13.8	4	-	2				
			eS		18.1	7	3	½				
			PS		18.85	7	3	1				
			eL		21.4	18						
			ME ₁		23 13	16		9				
			MN		24 45	11	6					
			ME ₂		26 29	15		8				
			F	2	20							
			e?	15	44.7							
1	" 23	I	e		47.4							
			e		49.2	8	-	3				
			eL		53.4	16						
			ME		54 31	12		4				
			MN		55 27	14	4					
			F	15	40							

(Continued on next sheet)

No. 10 (continued)

1917, October 1 to 31

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Riverview College Observatory,

SYDNEY, N.S.W.

Seismological Bulletin.

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INSTRUMENTS:

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2. Wiechert Vertical Seismometer (80 kilo.)
3. Mainka Conical Pendulum Seismometer (450 kilo.)

	V	T ₀	ε : 1	r T ₀ ²
A _N				
A _E	(See last sheet)			
A _Z				

No.	Date.	Char.	Phase.	Time (Greenwich)			Per. s.	Amplitude.			Δ km.	Remarks.
				h.	m.	s.		A _N	A _E	A _Z		
				μ	μ	μ						
232	1917 Oct. 25	I _r	iP	15	16	46	4	$\frac{2}{2}$	$\frac{2}{2}$	$\frac{2}{2}$	2350	Short wave-lengths.
			iS		20	40	6	+5	+2			
			eL		22	3	12					
			ME		22	57	8		1			
			MN		24	54	10	1				
233	" 25	I	F	15	45						A few long waves.	
			e	20	12	4						
234	" 27	I _e	e?	6	28	1					A few long waves.	
			e		36	5	$\frac{2}{2}$	$\frac{2}{2}$				
			eL		39	16						
			MN		40	14	4					
			ME		40	14		6				
235	" 29	II _r	F	7	25					2900		
			iP	20	42	06	2	2	-			
					42	5	$3\frac{1}{2}$	1				
			eS		46	8	3	2				
			iPS		47	8	+15	+12				
					49	7	7	16				
			eL		50	20						
			M ₁		52	16	84	155	17			
			MN ₂		54	14	70					
			MZ ₂		54			30				
236	" 31	I _r	F	22	45					2700		
			iP	2	16	50	4	+2	+2			
			iS		21	7	-2	$-1\frac{1}{2}$				
					22	7	-	$1\frac{1}{2}$				
			eL		23	18						
			ME		25	14		4				
			MN		25	12	3					
			F	3	10							

E. F. Pigot

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$\phi = 33^{\circ} 49' 49''$ S. $\lambda = 151^{\circ} 9' 30''$ E. $h = 41.9$ m. Foundation: Triassic sandstone.

INSTRUMENTS:

1. Wiechert Astatic Pendulum Seismometer (1000 kilo.)
2. Wiechert Vertical Seismometer (80 kilo.)
3. Manka Conical Pendulum Seismometer (450 kilo.)

	V	T_0	$\epsilon : 1$	$\frac{r}{T_0^2}$
$A_N(1)$	146	7.7	5.7	0.02
$A_N(3)$	133	9.9	4.8	0.02
$A_E(1)$	152	7.0	3.1	0.02
$A_E(3)$	140	9.5	8.0	0.04
$A_Z(2)$	93	5.0	3.9	0.07

No.	Date.	Char.	Phase.	Time (Greenwich)			Per.	Amplitude.			Δ	Remarks.
				h.	m.	s.		A_N	A_E	A_Z		
							s.	μ	μ	μ	km.	
237	1917 Nov. 2	I	eL	5	57.7		15					
			MN		59	33		11	$2\frac{1}{2}$			
			ME	6	00	25		11		1		
			F	6	10							
238	" 2	I_r	eP	19	05.4		4	-	$\frac{1}{2}$		3500?	
			S?		10	42		7	-	$\frac{1}{2}$		
			eL		14.3		16					
			ME		18	39		14		7		
			MN		19	40		14	4			
			F	19	45							
			eP	12	22.2		8	2	2		2600?	
239	" 4	I_r	S?		22	37		7	$\frac{1}{2}$	1		
			eL		53.7		26					
			MN		39	32		20	25			
			ME		39	41		20		19		
			F	14	25							
			eP	18	30.1		5	$\frac{1}{2}$	$\frac{1}{2}$			
			ME		31	52		6	1	$\frac{1}{2}$		
240	" 8	I	cP		34	53		15		3		
			MN		35	42		12	$1\frac{1}{2}$			
			F	18	45							
			e	13	07.3							
241	" 9	I	MN		10	48		12	$1\frac{1}{2}$			
			ME		11	19		12		3		
			F	13	20							
			c	20	16.5		5	$\frac{1}{2}$	$\frac{1}{2}$			
242	" 13	I	eL		25.7		16					
			ME		27	13		14		2		
			MN		27	32		14	4			
			F	20	40							
			e	5	23.1							
			eL		34.1		15					
			MN		37.00		14	2				
243	" 14	I	ME		39	04		12		$1\frac{1}{2}$		
			F	5	55							
			e?	9	46.8							
			MN	10	09	07		16	3			
244	" 14	I	ME		11	16		14		2		
			F	10	35							
			e?	10	50.4							
245	" 14	I	MN		11	05	14		18	3		
			ME		05	30		20		5		
			F	11	30							

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11 (continued)
 No.

1917, November 1 to 30

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	V	T ₀	ε : 1	r T ₀ ²
A _N				
A _E	(See last sheet)			
A _Z				

No.	Date.	Char.	Phase.	Time (Greenwich)			Per.	Amplitude.			Δ	Remarks.
				h.	m.	s.		A _N	A _E	A _Z		
246	1917 Nov. 15	I	e	3	54.2							A few long waves.
247	" 15	I	e(P?)	17	10.1	5	½	-				
			e(S?)		14.5	8	1	3				
			eL		19.6	?						
			ME		21 37	16		.9				
			MN		22 43	15	7					
			F	19	00							
248	" 16	III	iP	3	25 12	(2)	-	-14	+7	2850	Az. 269°	
			i		25 38	(4)	+2	+60	-29		(N.89°E.)	
			iPR ₁		26 12	4	+6	+24	-8			
					26 17	4	6	43	5½		φ, 29° S.	
			S		29 44	7	9	13	-		λ, 178° W.	
			PS		30 12	8	17	52	11			
			SR ₁		31 18	10	83	22				
			eL		32.1	24						
			SR ₂		32 12	(12)	77	90				
						(24)						
			MN ₁		33 08	17	360					
			MZ ₁		34 25	17			590			
			ME ₁		34 47	17		755				
			MN ₂		36 38	12	235					
			ME ₂		38 44	14		555				
			MZ ₂		38 56	14			342			
			MN ₃		40 02	12	130					
			ME ₃		45 54	12		195				
			C1		54.2	12	72	53				
			CB ₂)									
			CZ		59.9	12		68	33			
			CN ₂	4	03 12	11	37					
			F	7	30							
249	" 16	I _r	eP	22	25.4	5	½	½		4800		
			S		31.9	10	6	2				
			PS		32 42	12	6	3				
			iSR ₁		35 16	10	+10	+11				
					37 28	10	9	17				
			eL		42.6	22						
			M ₁		46.1	20	17	29				
			MZ		46 45	18			9			
			M ₂		50.4	13	5	5				
			F	23	25							
250	" 17	I	e(S?)	2	29.4							
			eL		35.8	16						
			MN		39 22	12	3					
			ME		40 53	14		2				
			F	3	00							

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2. Wiechert Vertical Seismometer (80 kilo.)
3. Mainka Conical Pendulum Seismometer (450 kilo.)

	V	T ₀	ε : 1	r T ₀ ²
A _N				
A _E	(See last sheet)			
A _Z				

No.	Date.	Char.	Phase.	Time (Greenwich)			Per. s.	Amplitude.			Δ km.	Remarks.
				h.	m.	s.		A _N μ	A _E μ	A _Z μ		
251	1917 Nov. 17	I	e(S?)	8	17.0							
			eL		24.4	15						
			MN		27 44	12	3					
			ME		30 40	12		4				
252	" 17	I	F	9	15							
			eL	10	25.7	12						
			MN		27 30	10	1					
			ME		32 40	10		1				
253	" 18	II _u	cP	3	06.7	(2)	1	-	-		5600	Az. 147° (N. 33° W.) φ, 33° S. 11° W. φ, 126° E. Later phases not measur- able on No. 2, (friction)
			iP		06 53	4	-5	+3	+4			
			PR ₁		08 45	5	2	2				
			iS		13 58	7	-16	-				
			i		14 04	7	+44	+6				
			SR ₁		16 38	8	9	6				
			SR ₂		18 16	9	20	20				
			eL		18.7	18						
			MN ₁		24 01	15	25					
			ME ₁		24 08	15		43				
			MN ₂		26 45	16	65					
			ME ₂		26 58	16		50				
			MN ₃		30 19	14	28					
			ME ₃		32 36	14		33				
254	" 18	I	F	4	55							
			eL	5	59.7	20						
			MN	6	02 19	15	3½					
255	" 18	I	ME		02 23	15		2½				
			F	6	10							
			cP	19	56.5							
256	" 20	I _c	i		57 09	4	2	-4				
					57 55	10	1	3				
			ME	20	00.1	12	6	4½				
			F	20	10							
257	" 21	I	e	15	49.6							
			eL	16	01.3	16						
			MN		02 05	12	1					
			ME		03 22	14		2				
257	" 21	I	F	16	20							
			e(S?)	00	12.9	8	1½	½				
			eL		16.7	13						
			ME		20 43	9		½				
			MN		21 19	9	1					
F	00	40										

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2. Wiechert Vertical Seismometer (80 kilo.)
3. Manka Conical Pendulum Seismometer (450 kilo.)

	V	T ₀	ε : 1	$\frac{r}{T_0^2}$
A _N				
A _E	(See last sheet)			
A _Z				

No.	Date.	Char.	Phase.	Time (Greenwich)			Per.	Amplitude.			Δ	Remarks.
				h.	m.	s.		A _N	A _E	A _Z		
258	1917 Nov. 22	I _r	iP	6	19	52	4	-2	-1		2450	
							4	1	2½			
							7	-3	+9			
							7	9	9			
							16					
							12	4				
							12		4½			
							12	3	3			
259	" 23	I	e	11	11.1						A few long waves.	
260	" 23	I	e	19	44.6	4	½	-				
			eL		54.6	18						
261	" 24	I _u	iP	11	19	20	4	-2½	-		5000	
							5	3	½			
							10	2	1			
							12	3	3			
							28					
							20	17				
							15		15			
							15		4½			
262	" 25	I _u	eP	12	40							
							4					
							18					
							14	4	13			
							10		16			
							10	12				
							10			4		
							9		11			
263	" 26	I	e	2	57.9	20					A few long waves	
264	" 26	I	eL	5	34.9	22						
							17		1½			
							17	1½				
265	" 27	I _r	eP	5	55					2700		
							4	½	1			
							7	1	1			
							7	3	2			
							19					
							16	14				
							15		12			

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1917, November 1 to 30

No.

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 $\lambda = 151^{\circ} 9' 30'' \text{ E.}$
 $h = 41.9 \text{ m.}$

Foundation: Triassic sandstone.

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3. Mainka Conical Pendulum Seismometer (450 kilo.)

	V	T ₀	ε : 1	r T ₀ ²
A _N				
A _E	(See last sheet)			
A _Z				

No.	Date.	Char.	Phase.	Time (Greenwich)			Per.	Amplitude.			Δ	Remarks.
				h.	m.	s.		A _N	A _E	A _Z		
266	1917 Nov. 27	I	e	12	58.8		16	μ	μ	μ	km.	A few long waves
267	" 28	I	e	14	32.8	?	18	3½	-			
			e		37.7		18	7	4			
			eL		42.2		20					
			ME		43 31		16		6			
			MN		43 59		16	8				
			F	15	05							
268	" 29	I _r	eP	22	18.5		3	½	-		2700	
			eS		18 33		3	1	½			
					22.9		4	2	-			
			PS		23 10		4	7	3			
			eL		26.0		16					
			MN		28 56		14	4				
			ME		29 48		11		3½			
			F	23	15							
269	" 29	I	eP	23	49.9							
			eL		50 13		5	-	1½			
			M		56.2		18		8			
			F	0	35		18	10				
270	" 30	I _r	eP	17	09.0		3	1½	½	1	2800	
	" 30		eS		13.5		8	2	-	-		
			PS		13 49		8	20	8	2		
			eL		16.4		19					
			ME		19 28		10		11			
			MN		20 39		13	17				
			MZ		21 07		10			2		
			F	19	10							

N.B. NS & EW data always from No. 1, unless No. 3 specified.

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	V	T_0	$\epsilon : 1$	$\frac{r}{T_0^2}$
A_N (1)	151	7.7	6.0	0.02
A_E (1)	133	10.0	4.0	0.02
(1)	150	7.1	3.1	0.02
A_S (3)	132	9.7	8.0	0.04
(2)	92	5.0	4.5	0.05

No.	Date.	Char.	Phase.	Time (Greenwich)			Per.	Amplitude.			Δ	Remarks.
				h.	m.	s.		A_N	A_E	A_Z		
				μ	μ	μ		km.				
271	1917 Dec. 1	I	eP	4	07.3	4						
			ME	11	29	11		$2\frac{1}{2}$				
			MN	12	22	9	1					
272	" 2	I	F	4	20							
			(e)	4	54.8							
			eL	5	01.8	18						
273	" 3	I	MN	03	12	$1\frac{1}{2}$						
			ME	06	32	12		$1\frac{1}{2}$				
			F	5	20							
274	" 3	I	eL	4	45.3	20						
			ME	47	55	12		3				
			MN	50	13	$1\frac{1}{2}$	$1\frac{1}{2}$					
275	" 6	I	F	5	20							
			e	7	43.9							
			eL	46.9								
276	" 9	I _r	eL	51.7		?						
			ME	54	45	12		$1\frac{1}{2}$				
			MN	55	00	12	$1\frac{1}{2}$					
277	" 9	I	F	8	05							
			eP	7	12.5	2						
			ME	17	44	8		$\frac{1}{2}$				
278	" 11	I	MN	19	42	11	1					
			F	7	35							
			eP	2	35.1	4	-	1		3100?	Perhaps double	
279	" 11	I	e(S?)	36.5		5	-					
			(PR ₁ ?)	36	37	5	-	3				
			S??	39	55							
280	" 11	I	eL	42.4		?						
			ME	43	48	9		$1\frac{1}{2}$				
			MN	44	53	11	$2\frac{1}{2}$					
281	" 11	I	i	45	21	6	-	-5				
			F	46	56	7	-	1				
			F	3	20							
282	" 11	I	iP	15	57	19	4	+3	+5	$-2\frac{1}{2}$		
			e	01.6		9		$\frac{1}{2}$				
			e	02	40	8		1				
283	" 11	I	e	02	51	8	$1\frac{1}{2}$					
			F	16	35							
			(e)	13	09.8							
284	" 11	I	e(S?)	14.2								
			eL	18.5		22						
			MN	20	26	16	$2\frac{1}{2}$					
285	" 11	I	ME	24	22	12		$1\frac{1}{2}$				
			F	13	50							

(Continued on next sheet)

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	V	T ₀	ε : 1	r T ₀ ²
A _N				
A _E	(See last sheet)			
A _Z				

No.	Date.	Char.	Phase.	Time (Greenwich)			Per.	Amplitude.			Δ	Remarks.
				h.	m.	s.		A _N	A _E	A _Z		
279	1917 Dec. 15	I _r	eP	15	41.0		2	μ	μ	μ	km. 3700?	
			e(S?)		46.5							
			eL		48.3		21					
			ME	50	12		16		6			
280	" 20	I _r	MN	50	28		15	2			3400	
			F	16	25							
			eP	1	57.6		3	-	2			
			eS	2	02.8		9	-	1			
			eL		05.0		25					
			MN ₁	07	44		15	9				
			MZ									
			ME ₁)	08.0			16		40	11		
			MN ₂	12	07		13	5				
			ME ₂)	14	58		12		15			
281	" 21	I _r	F	3	50						6400	
			eP	18	19.1		8	1/2	2			
			i		20 16		8	-1 1/2	+6			
			eS		27.1		10	-	2			
			eL		41.9		26					
			MN ₁	48	41		18	10				
			MZ	49	08		18			7		
			ME ₁	50	08		18		7 1/2			
			MN ₂	51	32		18	6 1/2				
			ME ₂)	55	09		18		11			
282	" 21	I	F	20	00							
			eL	20	05.3		19					
			MZ	10	02		20			8 1/2		
			MN	10	48		18	3 1/2				
			ME	14	49		16		3			
			F	20	45							

(Continued on next sheet)

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	V	T ₀	ε : 1	r T ₀ ²
A _N				
A _E	(See last sheet)			
A _Z				

No.	Date.	Char.	Phase.	Time (Greenwich)			Per.	Amplitude.			Δ	Remarks.
				h.	m.	s.		A _N	A _E	A _Z		
283	1917 Dec. 28	I _u	eP	21	39.1	7				6400		
				40	21	7						
			eS	47.1	9							
			eL	22	01.8	20						
			MN	08	39	18	6½					
284	" 29	I _u	eP	23	07.7					12500	Guatemala	
			e	10.5								
			eS	20.4	14	-	8					
			PS	21	36	14	2	10				
			SR ₂	26	48	20	12	14				
				27	30	20	4	42				
			eL	39.6	34							
			M ₁	45.3	26	14	34					
			ME ₂	48	35	20		24				
			MZ ₁	49	08	18			10			
			MN ₂	50	13	16	5					
			MN ₃	54	13	15	9					
			MZ ₂	55	51	15			4½			
			ME ₃	56	13	15		12				
			ME ₄	00	02	14	15	15				
C	10.6	15	4½	7								
285	" 30	I	e?	3	40							
			e	4	52.1							
			e	59.1								
			e	5	09.0	14?						
286	" 30	I	M	16	38	?						
			F	5	40							
			eL	6	22.3	20						
287	" 30	I	eL	8	15.6	?				A few long waves		
288	" 30	I	eL	8	50.3	?				" " "		
289	" 30	I	eL	9	36.3	?				" " "		

Erratum. In last month's Bulletin, please correct clerical error in No. 253 (Nov. 18) for $\phi, 9^{\circ} 8'$, read $\phi, 11^{\circ} N$.