Riverview College Observatory,

SYDNEY, N.S.W.

Seismological Bulletin.

$\phi = 33° 49' 49''$ S. $\lambda = 151° 9' 30''$ 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_o	$\epsilon : 1$	$\frac{r}{T_o^2}$
A_1 (1)	161	8.5	6.5	0.013
(3)	125	10.0	4.3	0.02
A_E	175	8.4	3.9	0.02
(3)	130	11.0	8.0	0.04
A_2	84	5.0	3.6	0.07

No.	Date.	Char.	Phase.	Time (Greenwich)	Per.	Amplitude. A_N	Amplitude. A_E	Amplitude. A_Z	Δ	Remarks.
	1919			h. m. s.	s.	μ	μ	μ	km.	
1	Jan. 1	III_r	eP	1 42 24	12	12	14		4810	On P waves,-
			iP	42 30	12	-11	+8	+60		(T=12s.), waves
			iPR_1	44 13	9	+9	$2\frac{1}{2}$			of 6s.& 3s. sup-
			iS	48 56	14	-35	+4	-		erposed.
			i	49 00	3	-12	+11			
				49 11	14	90	48			
			iPS	49 47	16	+64	-54	-		
			i (SR2?)	52 19	12	55	-50	-		
				52 39	20	210	505			
				52 54	11	70	15	25		
			eL	54.5	40					
			MN_1							
			ME_1	57.9	28	200	365			
			MZ_1	59 28	20			74		
			~~MN2,ME2~~							
			MN_2, ME_2	2 01.1	20	230	250			
			MZ_2	03 28	17			65		
			ME_3	05 04	16		180			
			MN_3	06 00	16	170				
			MZ_3	06 07	16			70		
			C_1	11.6	14	54	40			
			C_2	16.8	15	15	40			F lost in No.2.
2	" 1	III_r	eP	3 06 11	4	1	25		3100	
			iP	06 13	4	-4	-7	+14		Computed azim.
			~~i~~ i	06 47	4	-6	-26	+34		251° (N.71°E.)
			iPR_1	07 18	4	+20	12	-15		giving
			iPR_2	07 58	7	+70	+185	-120		ϕ, 22°S.
			iS	11 01	7	-90	65	18		$179\frac{1}{2}$°W.
				11 16	7	180	150			
			eL	13.3	18					
			MN_1, ME_1	14.2	8	270	160			
			MZ_1	14 19	7			80		Computed time ~~of~~
			M_2	16.5	9	530	245	43		at origin :-
			MZ_3	19 07	17			200		h m s
			M_3	19.2	13	360	210			3 00 09
			C_1	31.6	11	100	30	5		
			C_2	34.3	12	90	93	30		Very short
			F	7 55						wave-lengths.
3	" 4	I	e?	1 07.9	4		8			
			eL	15.1	18					
			M	18.0	14	4	4			
			F	1 55	2					
4	" 4	Ir	eP	21 43 48	4)		$1\frac{1}{2}$		1600	
			eS	45 42	3	9	8			
			eL	46.0	8					
			MN	46 28	6	11				
			ME	47 45	8		4			
			F	22 05						

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Riverview College Observatory,

SYDNEY, N.S.W.

Seismological Bulletin.

$\phi = 33° 49' 49''$ S. $\lambda = 151° 9' 30''$ 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_o	$\epsilon : 1$	$\frac{r}{T_o^2}$
A_N (1)	161	8.5	6.5	0.013
A_N (3)	125	10.0	4.3	0.02
A_E (1)	175	8.4	3.9	0.02
A_E (3)	130	11.0	8.0	0.04
A_Z (2)	84	5.0	3.6	0.07

No.	Date.	Char.	Phase.	Time (Greenwich) h. m. s.	Per. s.	Amplitude. A_N μ	A_E μ	A_Z μ	Δ km.	Remarks.
	1919									
1	Jan. 1	III_r	eP	1 42 24	12	12	14		4810	On P waves,- (T=12s.), waves of 6s. & 3s. superposed.
			iP	42 30	12	-11	+8	+60		
			iPR1	44 13	9	+9	2½			
			iS	48 56	14	-35	+4	-		
			i	49 00	3	-12	+11			
				49 11	14	90	48			
			iPS	49 47	16	+64	-54	-		
			i(SR2?)	52 19	12	55	-50	-		
				52 39	20	210	505			
				52 54	11	70	15	25		
			eL	54.5	40					
			MN1, ME1	57.9	28	200	365			
			MZ1	59 28	20			74		
			~~MN2, ME2~~							
			MN2, ME2	2 01.1	20	230	250			
			MZ2	03 28	17			65		
			ME3	05 04	16		180			
			MN3	06 00	16	170				
			MZ3	06 07	16			70		
			C1	11.6	14	54	40			
			C2	16.8	15	15	40			F lost in No.2.
2	" 1	III_r	eP	3 06 11	4	1	25		3100	
			iP	06 13	4	-4	-7	+14		Computed azim. 251° (N.71°E.) giving ϕ, 22°S. 179½°W.
			∠ i	06 47	4	-6	-26	+34		
			iPR1	07 18	4	+20	12	-15		
			iPR2	07 58	7	+70	+185	-120		
			iS	11 01	7	-90	65	18		
				11 16	7	180	150			
			eL	13.3	18					
			MN1, ME1	14.2	8	270	160			
			MZ1	14 19	7			80		Computed time at origin :- h m s 3 00 09
			M2	16.5	9	330	245	43		
			MZ3	19 07	17			200		
			M3	19.2	13	360	210			
			C1	31.6	11	100	30	5		
			C2	34.3	12	90	93	30		
			F	7 55						Very short wave-lengths.
3	" 4	I	e?	1 07.9	4		8			
			eL	15.1	18					
			M	18.0	14	4	4			
			F	1 55	2					
4	" 4	Ir	eP	21 43 48	4		1½		1600	
			eS	45 42	3	9	8			
			eL	46.0	8					
			MN	46 28	8	11				
			ME	47 45	8		4			
			Z	22 05	8					

(Continued on next sheet)

Riverview College Observatory,

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

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

INSTRUMENTS:

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

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

No.	Date.	Phase	Time (*Greenwich*)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks.
	1919		h. m. s.	s.	μ	μ	μ	km.	
5	Jan. 5	e	20 39.9						
		ME	48 55	12		1½			
		MN	51 52	11	1				
	6)	F	21 40						
6	" 7	eP	22 29 35	4	1	-		2700	Computed azimuth:-
		iP	29 42	4	-9	-5	+1		208° (N.28°E.)
		PR_1	30 47	5	4	3			ϕ, 12°S.
		iS	33 56	12	-28	-			λ, 163°E.
		PS	34 14	12	77	35	9		
		eL	36.1	28					
		M_1	38.0	13	100	58	20		
		ME_2	39 04	13		100			
		MN_2	40 58	12	63				Computed time at
		MZ_2	42 04	13			20		origion:-
		MN_3	43 09	12	66				h m s
		ME_3	43 43	11		53			22 24 03
		CE_1	51 38	10		18			
		CN_1	52 00	10	32				
		CE_2	55 47	8		18			
		CN_2	59 33	10	16				
		F	2 15						
7	" 7	e?	4 19.1	?					
		e?	28.5	?					
		eL	39.4						
		M	41.1	13	6	5			
		F	5 35						
8	" 8	eP?	6 33 42					2350?	
		iS	37 35	8	+2½				
		eL	39.4	15					
		ME	41 18	11		1½			
		MN	41 32	11	2				
		F	7 05						
9	" 8	e?	21 51.5						
		eS	55 14	9	1	1½			
		eL	57.2	16					
		MN	58 16	14	1				
		ME	59 03	15		2			
		F	22 05						
10	" 10	e	5 14.1						
		eL	21.0	?					
		MN	21 39	10	1				
		ME	22 51	10		1			
		F	6 20						
11	" 10	e	18 11.1						
		eL	15.7	20					
		ME	16 16	17		3			
		MN	17 31	16	2				
		F	19 00						

(Continued on next sheet)

Riverview College Observatory,

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

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

INSTRUMENTS:

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

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

No.	Date.	Phase	Time (*Greenwich*)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks.
	1919		h. m. s.	s.	μ	μ	μ	km.	
12	Jan. 11	eP	14 55 44	5	1	1			h m
		M	15 00.2	8	1	½			F, 15 15
13	" 12	e?	6 06.8						h m
		M	15.3	12	1½	1			F, 6 40
14	" 12	eP	15 30 36	4	-	1		2330	
		eS	34 27						
		iS	34 30	8	-12	9			
		PS	34 40	8	8	7			
		eL	36.5	14					
		ME	38 35	12		2			
		MN	39 01	11	3				
		F	17 30						
15	" 15	e	2 01.9						
		eL	09.8	14					
		MN	12 03	12	1½				
		ME	13 32	15		2			
		F	2 35						
16	" 18	eP	6 10 24	8	2	4		4440	
		S	16 36	?					
		SR_1	20 00	?					
		eL	24.1	24					
		ME_1	25 27	22		14			
		MN_1	25 47	17	11				
		MN_2	28 48	17	11				
		ME_2	29 25	16		9			
		F	8 50						
17	" 21	e?	7 37.0						
		eL	41.2	12					
		MN	41 33	10	1½				
		ME	42 35	10		1			
		F	7 50						
18	" 23	e(P?)	21 17 42						
		eL	24.0	14					
		MN	27 18	12	1				
		F	21 40						
19	" 24	e	0 34.0						
		eL	43.0	16					
		MN	43 57	12	33				
		ME	45 16	15		2¼			
		F	1 00						
20	" 29	e?	18 09.7						
		eL	15.1	14					
		MN	16 28	12	1½				
		ME	18 09	14		2			
		F	18 30						
20a	2 31	e	2 56.9						A few long waves.

E. F. Pigott

Riverview College Observatory,

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

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

INSTRUMENTS:

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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_o	ϵ : 1	$\frac{r}{T_o^2}$
A_N	(See last sheet)			
A_E				
A_Z				

No.	Date.	Phase	Time (*Greenwich*)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks.
	1919		h. m. s.	s.	μ	μ	μ	km.	
5	Jan.5	e	20 39.9						
		ME	48 55	12		1½			
		MN	51 52	11	1				
	6	F	21 40						
6	" 7	eP	22 29 35	4	1	-		2700	Computed azimuth:-
		iP	29 42	4	-9	-5	+1		208° (N.28°E.)
		PR_1	30 47	5	4	3			ϕ, 12°S.
		iS	33 56	12	-28	-			λ, 163°E.
		PS	34 14	12	77	35	9		
		eL	36.1	28					
		M_1	38.0	13	100	58	20		
		ME_2	39 04	13		100			
		MN_2	40 58	12	63				
		MZ_2	42 04	13			20		Computed time at origion:-
		MN_3	43 09	12	66				h m s
		ME_3	43 43	11		53			22 24 03
		CE_1	51 38	10		18			
		CN_1	52 00	10	32				
		CE_2	55 47	8		18			
		CN_2	59 33	10	16				
		F	2 15						
7	" 7	e?	4 19.1	?					
		e?	28.5	?					
		eL	39.4						
		M	41.1	13	6	5			
		F	5 35						
8	" 8	eP?	6 33 42					2350?	
		iS	37 35	8	+2½				
		eL	39.4	15					
		ME	41 18	11		1½			
		MN	41 32	11	2				
		F	7 05						
9	" 8	e?	21 51.5						
		eS	55 14	9	1	1½			
		eL	57.2	16					
		MN	58 16	14	1				
		ME	59 03	15		2			
		F	22 05						
10	" 10	e	5 14.1						
		eL	21.9	?					
		MN	21 39	10	1				
		ME	22 51	10		1			
		F	6 20						
11	" 10	e	18 11.1						
		eL	15.7	20					
		ME	16 16	17		3			
		MN	17 31	16	2				
		F	19 00						

(Continued on next sheet)

Riverview College Observatory,

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

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

INSTRUMENTS:

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

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

No.	Date. 1919	Phase	Time (*Greenwich*) h m s	Per. s	Amplitude A_N μ	A_E μ	A_Z μ	Δ km.	Remarks.
12	Jan. 11	eP	14 55 44	5	1	1			h m
		M	15 00.2	8	1	½			F, 15 15
13	" 12	e?	6 06.8						h m
		M	15.3	12	1½	1			F, 6 40
14	" 12	eP	15 30 36	4	-	1		2330	
		eS	34 27						
		iS	34 30	8	-12	9			
		PS	34 40	8	8	7			
		eL	36.5	14					
		ME	38 35	12		2			
		MN	39 01	11	3				
		F	17 30						
15	" 15	e	2 01.9						
		eL	09.8	14					
		MN	12 03	12	1½				
		ME	13 32	15		2			
		F	2 35						
16	" 18	eP	6 10 24	8	2	4		4440	
		S	16 36	?					
		SR_1	20 00	?					
		eL_1	24.1	24					
		ME_1	25 27	22		14			
		MN_1	25 47	17	11				
		MN_2	28 48	17	11				
		ME_2	29 25	16		9			
		F	8 50						
17	" 21	e?	7 37.0						
		eL	41.2	12					
		MN	41 33	10	1½				
		ME	42 35	10		1			
		F	7 50						
18	" 23	e(P?)	21 17 42						
		eL	24.0	14					
		MN	27 18	12	1				
		F	21 40						
19	" 24	e	0 34.0						
		eL	43.0	16					
		MN	43 57	12	33				
		ME	45 16	15		2¼			
		F	1 00						
20	" 29	e?	18 09.7						
		eL	15.1	14					
		MN	16 28	12	1½				
		ME	18 09	14		2			
		F	18 30						
20a	" 31	e	2 56.9						A few long waves.

E. F. Pigot S.J.

Riverview College Observatory,

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

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

INSTRUMENTS:

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

		V	T_o	$\varepsilon : 1$	$\frac{r}{T_o^2}$
A_N	1	162	8.5	7.5	0.01
	3	134	9.0	4.0	0.02
A_E	1	166	8.5	3.7	0.02
	3	133	11.0	8.0	0.04
A_z	2	85	5.1	3.7	0.05

No.	Date.	Phase	Time (*Greenwich*)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_z	Δ	Remarks.
	1919		h. m. s.	s.	μ	μ	μ	km.	
21	Feb. 5	iP	1 36 21	4	-½	+2		2440	
		S	40 21	8	½	1			
		PS	40 42	8	1	2			
		eL	42.2	16					
		MN	43 54	12	18				
		ME	44 12	12		6			
		F	2 55						
22	" 12	eP	13 03 48	7	½	1		6090?	
		e(S?)	10 29	?					
		eL	21.4	24					
		MN_1	29 21	16	2				
		ME	29 36	16		2			
		MN_2	33 53	16	2½				
		F	14 20						
23	" 12	e?	21 21.3						
		e?	27.0						
		eL	33.4	18					
		ME	35 06	16		2			
		MN	35 30	18	2				
		F	21 55						
24	" 17	iP	4 39 10	4	+2	+3		2320	
		S	43 00	5	2	½			
		PS	43 09	5	6	2½			
		eL	43.5	10					
		MN	43 45	8	1				
		ME	43 54	8		1			
		F	5 00						

(Continued on next sheet)

Riverview College Observatory,

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

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

INSTRUMENTS:

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

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

No.	Date.	Phase	Time (*Greenwich*)	Per	Amplitude A_N	Amplitude A_E	Amplitude A_z	Δ	Remarks.
	1919		h. m. s	s.	μ	μ	μ	km.	
25	Feb. 17	e	6 52.6						
		eL	55.7	?					
		ME	56 01	15		¾			
		MN	57 27	15	2				
		F	7 15						
26	" 17	eP	18 05 00	4	1	-		4300	
		S	10 49	8	1¼	-			
		eL	19.1	16					
		ME	24 12	16		3			
		MN	24 30	15	5				
		F	19 00						
27	" 19	e?	3 08.9						
		MN	12 10	14	1				
		ME	13 02	14		¾			
		F	3 20						
28	" 23	e?	6 55.6						
		eL	7 02.9	14					
		MN	04 35	12	2				
		ME	05 50	12		1			
		F	7 10						
29	" 25	e?	0 52.8						
		eL	55.2	14					
		MN	56 49	12	3				
		ME	58 54	?					
		F	1 10						

E. F. Pigot Sy.

No. 3 192 1919, March.

Riverview College Observatory,

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

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

INSTRUMENTS:

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

		V	T_o	$\epsilon : 1$	$\frac{r}{T_o^2}$
A_N	(1)	164	8.3	7.0	0.01
	(3)	137	9.0	3.7	0.02
A_E	(1)	175	8.4	3.8	0.02
	(3)	125	11.0	8.0	0.04
A_Z	(2)	90	5.1	4.7	0.06

No.	Date.	Phase	Time (*Greenwich*)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks.
	1919		h. m. s.	s.	μ	μ	μ	km.	
30	Mar. 1	e?	6 46.0						
		eL	55.0	20					
		ME	55 36	17		6			
		MN	55 50	17	7				
		F	7 20						
31	" 1	e	13 50.5						
		eL	14 01.6	20					
		MN	02 23	16	8				
		ME	02 59	16		9			
		F	14 55						
32	" 2	e	3 39 16						Chiloe Island (Chile)
		eS	50 26	?					
		eL	4 09.0	35					
		MN_1	11.5	21	17	16			
		ME_1							
		MZ	13 56	18			6		
		M_2	14.1	18	18	14			
		M_3	20.2	15	11	7			
		F	6 30						
33	" 2	e	11 58 33						Chiloe Island (Chile)
		eS	12 08 54	18	13	4			
		PS	11 02	18	13	9			
		eSR_1	15 37	20	6	-			
			16 33	20	13	14			
		eL	27.1	30					
		MN_1	29 50	20	32				
		ME_1	29 56	21		32			
		MN_2	31.9	19	43	39			
		ME_2							
		MZ	32 08	18			18		
		MN_3	42 16	16	28				
		ME_3	44 03	14		14			
		MN_4	46 03	14	16				
		ME_4	50 04	14		10			
		CN_1	58 21	13	5				
		CE_1	13 01 33	15		6			
		CN_2	06 50	14	6				
		CE_2	13 03	14		5			
		F	16 05						

(Continued on next sheet)

Riverview College Observatory,

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

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

INSTRUMENTS:

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

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

No.	Date.	Phase	Time (*Greenwich*)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_z	Δ	Remarks.
	1919		h. m. s.	s.	μ	μ	μ	km.	
34	Mar. 4	eP	8 05 55					2130	
		eS	09 30	8	3	1½			
		eL	10.6	16					
		MN_1							
		ME_1	11.2	12	14	21			
		ME_2	13 39	9		17			
		MN_2	15 00	9	20				
		ME_3	15 29	10		29			
		MZ	15 38	11			5		
		MN_3	19 16	9	22				
		F	9 40						
35	" 9	eP?	3 29 34					10,100?	Chile.
		eS	40 41	16	8	2			
		PS	42 44	18	5	3			
		eL	4 00.9	22					
		MN_1	03 33	18	13				
		MZ	04 05	18			6		
		ME_1	05 07	16		9			
		ME_2	08 54	16		7			
		MN_2	11 08	14	9				
		CE	28 21	15		4			
		CN	31 19	14	4				
		F	6 55						
36	" 10	e(S?	21 39 01	7	1½	½			
		eL	51.4	16					
		M	58.6	14	2½	1			
		F	22 20						
37	" 13	iP	14 23 56	3	-2½	+3½	+4	3700	Short wave-lengths
		S	29 26	6?					
			30 12	6		1¼			
		eL	31.7	?					
		MZ	36 39	5			2½		
		MN	36 46	6	12				
		ME	38 26	6		½			
		F	15 30						
38	" 13	eL	15 47 47	17					
		MN	48 00	12	1				
		ME	51 00	12		1½			
		F	16 20						

(Continued on next sheet)

No. 3 (continued) 192 1919, March.

Riverview College Observatory,

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

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

INSTRUMENTS:

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

	V_0	T_0	$\epsilon : 1$	$\frac{r}{T_0^2}$
A_N	(See last sheet)			
A_E				
A_Z				

	Date.	Phase.	Time (*Greenwich*) h. m. s.	Per. s.	Amplitude A_N μ	A_E μ	A_Z μ	Δ km.	Remarks.
	1919								
39	Mar. 14	e?	17 06.7						
		e(S?)	10 57	6	1	½			
		eL	13.2	20					
		MN_1	17 57	12	3				
		ME_1	18 49	14		2½			
		ME_2	22 53	12		3½			
		MN_2	23 11	12	4				
		F	18 15						
40	" 16	eP	8 41 59	?				5070	Strong microseisms.
		PR_1	43 52	4	3	1			
		eS	48 45	8	2	-			
			48 52	14	10	10			
		PS	49 17	16	14	5			
		eSR_1	51 59	14	1½	4			
			52 29	12	24	9			
		eL	57.7	22					
		ME_1	59 34	18		18			
		MN_1	9 00 51	16	18				
		ME_2	05 55	16		18			
		MN_2	08 03	15	19				
		MZ	09 05	13			2		
		MN_3	10 09	13		8			
		F	10 05						
41	" 16	e	15 36.7						A few long waves.
42	" 21	e	1 20.2						
		e(S?)	24 17	?					Unusually large microseisms.
		ME	30 39	14		6			
		MN	32 50	12	5				
		F	2 25						
43	" 21	eP	16 07 34					2790	
		i	07 48	4	-7	-			
		eS	12 02	9	3	1½			
		PS	12 35	11	19	5			
		eL	14.0	26					
		M_1	16.6	20	110	85	37		
		M_2	18.0	12	50	48			
		F	17 30						

(Continued on next sheet)

Riverview College Observatory,

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

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

INSTRUMENTS:

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

	V	T_o	ϵ : 1	$\frac{r}{T_o^2}$
A_N	(See last sheet)			
A_E				
A_z				

No.	Date.	Phase.	Time (*Greenwich*)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_z	Δ	Remarks.
	1919		h. m. s.	s.	μ	μ	μ	km.	
44	Mar. 21	e(S?)	17 44 39	?					
		eL	51.8	22					
		ME_1	57 38	12		2½			
		MN_1	58 51	12	2				
		ME_2	18 00 34	12		2			
		MN_2	02 16	13	4				
		F	19 00						
45	" 22	eP	12 49 39					3040?	
		e(S?)	54 25	7	-	½			
		eL	56.4	22					
		MN	58 39	12	2				
		ME	13 00 00	12		4½			
		F	14 00						
46	" 22	e?	16 24 08	5	½	-			
		eS	28 12	?					
		PS	28 36	10	4	½			
		eL	31.9	19					
		M	34.1	12	6	4½			
		F	17 30						
47	" 22	e	14 47.3						
		ME	50 20	9		¾			
		MN	51 10	9	1½				
		F	15 00						
48	" 30	e	0 21.2						A few long waves.
49	" 30	eP?	10 50 09						
		e(S?)	56 09						
		eL	11 06.2	17					
		ME	07 12	16		3			
		MN	10 10	15	4				
		F	12 00						
50	" 31	eS?	0 38 10						
		eL	41.7	14					
		ME	43 22	10		1			
		MN	44 14	12	1½				
		F	1 05						

E. F. Pigott S.J.

Riverview College Observatory,

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

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

INSTRUMENTS:

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

	V	T_o	e : 1	$\frac{r}{T_o^2}$
$A_N(1)$	162	8.3	4.8	0.02
$A_E(1)$	169	8.3	3.6	0.02
$A_z(2)$	89	5.1	3.9	0.07

No.	Date.	Phase	Time (*Greenwich*) h. m. s.	Per. s.	Amplitude A_N μ	A_E μ	A_z μ	Δ km.	Remarks.
	1919								
51	Apl. 2	eP	0 44 04	4	1½	2		5560	Strong microseisms present.
		PR_1	46 00	4	-	2			
		eS	51 17	6	1	1			
			51 36	6	¾	5			
		PS	51 50	6	1	5			
		SR_1	54 22	8	2	-			
		eL	59.1	14					
		ME_1	04 09	20		15			
		MN_1	04 23	20	34				
		ME_2	05 12	18		24			
		MN_2	07 30	9	55				
		F	3[illegible] 40						
52	" 10	e(S?)	[illegible]7 15 15						
		eL	17.9	18					
		MN	19 31	10	1				
		ME	20 43	10		1			
		F	7[illegible]40						
53	" 15	iP	21 47 48	4	+5	-4	+1½	2080	Computed azimuth:- 317° (S.43°E.) ϕ, 46½°S. λ, 170°E. Computed time at origin:- h m s 21 43 23
		eS	51 18	8	½	½			
		PS	51 27	10	3	3			
		eL	51.6	11					
		MN	52 35	10	2				
		ME	52 59	10		2½			
		F	22 30						
54		iP	11 27 43	12	-	-26	+33	2860	Computed azimuth:- 270° (East,) ϕ, 30°S. λ, 178°W.
		iFR_1	38 35	12	-	107			
		iS	32 16	9	5	-31	-		
		PS	32 27	9	14	26	14		
		SR_1	33 47	12	120	46			
		eL	34.1	24					
		MZ_1	34 35	24			270		
		MN_1)	34.8	24	340	610			Computed time at origin:- h m s 11 22 03
		ME_1)							
		MZ_2	35 06	18			420		
		ME_2	36 13	17		126			
		MN_2	36 23	15	180				
		MN_3	37 [illegible] 57	16	250				On P waves short-period waves (T=1½ Sec.) superposed.
		MZ_3	38 07	16			430		
		ME_3	39 [illegible]3	15		540			
		ME_4	40 27	13		200			
		C_1	49.2	12	32	76			
		C_2	55.0	10	18	19			
		F	16 10						

(Continued on next sheet)

Riverview College Observatory,

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

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

INSTRUMENTS:

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

	V	T_o	e : 1	$\frac{r}{T_o^2}$
A_N		(See last sheet)		
A_E				
A_z				

No.	Date.	Phase.	Time (*Greenwich*) h. m. s.	Per. s.	Amplitude A_N μ	Amplitude A_E μ	Amplitude A_z μ	Δ km.	Remarks.
	1919								
55	Apl. 17	eP?	21 09 51						
	18	e(PR_1?)	14 54	?					
		PR_3?	20 32	10	-	1½			
		eS	23 21	10	-	2			
		PS	24 20	20	5	6			
		eSR_1	30 05	18					
			30 30	18	10	14			
		SR_2	33 55	17	1	1			
			34 47	20	7	-			
		eL	48.7	30					
		MN_1							
		ME_1	52.8	18	8	5			
		MN_2	56 21	16	6				
		ME_2							
		MZ_1	57.8	15		9	4		
		ME_3							
		MZ_2	22 02.8	16		11	5		
		MN_3	03 55	16	6				
		MN_4	12 32	15	7				
		ME_4	12 51	12		4			
		F	0 10						
56	" 18	e(S?)	21 34 36	8		½			
		PS?	35 49	8		1			
		eL	51.8	26					
		ME	04 05	16		3			
		MN	07 54	13	2				
		F	?						
57	" 21	eL	9 09.1	16					
		ME	11 27	13		1½			
		F	9 40						
58	" 21	e?	12 15.9						
		e	31.2						
		eL	43.5	24					
		ME_1	47 40	18		5			
		MN_1	50 26	16	3				
		MN_2	57 48	18	8				
		ME_2	59 07	15		2¼			
		MN_3	13 04 39	16	2				
		ME_3	07 31	18		5			
		F	14 35						

(Continued on next sheet)

Riverview College Observatory,

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

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

INSTRUMENTS:

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

	V	T_o	e : 1	$\frac{r}{T_o^2}$
A_N		(See last sheet)		
A_E				
A_z				

No.	Date. 1919	Phase	Time (Greenwich) h. m. s.	Per. s.	Amplitude A_N μ	A_E μ	A_z μ	Δ km.	Remarks.
59	April 22	eP	2 50 17	4	½	-		4090	
		iPR_1	51 43	5	-5	-			
		eS	55 34	7	1	-			
		PS	56 09	7	3	1½	1½		
		eL	58.6	12					
		ME_1	3 05 01	11		27			
		ME_2	06 43	10		20			
		MN_1	06 52	12	27				
		MZ_1	08 14	12			5		
		MN_2	11 11	10	18				
		MZ_2	11 33	10			5		
		ME_3	21 36	11		16			
		MN_3	22 36	11	13				h m F, 4 30+
60	" 23	eP	7 12 05					3410	
			14 43	6	-	2			
		eS	17 16	12	3	3			
		PS	17 35	12	5	5			
		SR_1	19 ~~20~~ 22	16	12	-			
			19 52	16	30	-			
		eL	20.6	26					
		ME_1	21 56	19		51			
		MZ_1	22 31	18			21		
		MN_1	22 54	11	37				
		MN_2	26 22	12	13				
		ME_2	26 30	14		32			
		MZ_2	27 53	15			13		
		ME_3	30 43	12		15			h m
61	" 24	eP	17 26 33	5	1	½			F, 9 11
		eL	37.7	24					
		ME_1	39 08	19		5			
		MN	41 21	16	8				
		ME2	42 42	16		5			h m F, 18 30
62	" 27	eP	0 31 26	?				5730	
		eS	38 48	6	½	1			Philippines.
		eL	42.8	13					
		MN_1	44 27	12	4				
		ME_1	45 39	12		4			
		ME_2	52 03	16		7			
		MN2	52 18	15	10				
		MN_3	57 17	15	3				
		ME_3	57 52	15		9			h m F, 1 55
63	" 27	e?	20 37.7						
		eL	43.3	16					
		ME	44 22	11		2			
		MN	45 09	11	1½				
		F	21 30						

(Continued on next sheet)

Riverview College Observatory,

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

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

INSTRUMENTS:

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

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

No.	Date.	Phase	Time (*Greenwich*)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_z	Δ	Remarks.
	1919		h. m. s.	s.	μ	μ	μ	km.	
64	April 30	eP	7 24 04	3	-	¾	-	3850	Computed azimuth :- 250° (N.70°E.)
		iP	24 15	6	-1½	-3½	+5½		
		i	24 24	6	+25	+68	-22		
		PR_1	25 59	7	-12	+48	18		φ, 17° S.
		PR_2	26 33	7	25	95	38		λ, 176°W.
		eS	29 43	20					
		iS	29 56	21	-1400	-1170	560		
		PS	30 17	21	600	1260	760		Computed time at origin :- h m s 7 16 54
		SR_1	32 26	20	1170	900	-360		
		eL	32.9	24					
		SR_2	33 42	18	2080+	1070	-240		
		MN_1, ME_1	34.3	18	2080+	590			
		MN_2, ME_2	35.8	17	1620+	1270			
		MZ_1	37 42	17			4500		
		MN_3, ME_3	39.3	15	1200	1500+			
		MZ_2	39 55	15			2450		Seismometer No.1 against stops for several minutes of L maxima.
		M_4 MZ_3)	43.9	14	900+	780	2030		
		M_5 MZ_4)	48.2	15	1020+	1350+	2120		
		M_6	53.0	13	660	570			
		M_7	56.8	12	550	150	390		
		M_8	8 05.5	13	520	430	410		
		M_9	15.7	12	410	95	115		
		C_1	31.8	12	330	105	85		
		CE_2	36 08	11		150			
		CN_2	40 44	13	175				
		CE_3	42 52	14		230	47		
		CN_3	44 29	13	175				
		CE_4	49 21	12		110			
		CN_4	49 42	11	110				
		CE_5	53 51	12		100	28		
		CN_5	54 44	11	70				
		CN_6	9 00 15	12	100				
		CE_6	03 42	13		85			
	2 series	W_2	10 16.3	20					
	(L rep.1	M_1	17.0	17	37	13			
		M_2	27.5	16	18	20			
		M_3	40.2	17	48	17			
	W_3 (?)	eW_3?	11 14.6	17					Sinusoidal character of waves suddenly distorted (W_3 ?)
	(L rep.2)		15.9	17	7	10			
		F	16+						
65	April 30	eL	19 57.1	16					
		MN	58 06	15	2½				
		ME	20 01 36	12			1¼		
		F	20 20						

E. F. Pigot Esq.

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

	V	T_o	ε : 1	$\frac{r}{T_o^2}$
A_N 1	164	8.4	6.0	0.02
A_N 3	133	9.0	2.4	0.05
A_E 1	177	8.3	2.9	0.03
A_E 3	168	9.3	8.0	0.04
A_Z 2	120	4.4	3.6	0.11

No.	Date.	Phase	Time (*Greenwich*) h. m. s.	Per. s.	Amplitude A_N μ	A_E μ	A_Z μ	Δ km.	Remarks.
	1919								
66	May. 1	e?	5 39.6						
		e(L?)	48.8	11					
		MN	50 08	11	4½				F. lost in N° 67
67	" 1	eL	6 00.2	22					
		ME_1	03 38	18.		13			
		MN_1	05 08	16	8				
		ME_2	06 51	16		8			
		F	6 35						
68	" 1	iP	15 28 38	4	½5	1½		2780	
		eS	33 05	7	1	1		(25.0°)	
		iPS	33 10	7	+10	+6			
		eL	35.8	20					
		ME_1	37 59	14		20			
		MN_1	38 47	12	16				
		ME_2	39 38	10		13			
		MN_2	39 58	10	8				
		ME_3	42 27	8		5			
		MZ	43 50	12			3		
		MN_3	43 57	12	16				
		F	16 35						
69	" 1	iP	21 26 34	4	+5	-	2½	2760	Computed Azimuth:-
		eS	30 59	6	2	2		(24.8°)	180° (due North)
		PS	31 10	6	5	12			
		eL	33.8	16					φ, 9°S
		MN_1, ME_1	35.9	12	27	42			λ, 151°E
		MN_2	37 08	10	19				
		ME_2	37 14	9		16			
		ME_3	40 13	8		9			Computed time at origin:-
		MN_3, ME_4, MZ	45.1	9	14	12	8		h m s
		F	22 00						
70	" 2	eP	2 15 37	4	1	9		2440	21 20 54
		PR_1	16 08	6	1	2½		(21.9°)	
		eS	19 37	7	3	-			
		eL	20.3	?					
		MN_1	24 07	20	19				
		MZ_1	26 24	19			55		
		ME_1	26 31	16		55			
		MN_2	27 41	11	23				
		MZ_2	30 20	16			30		
		ME_2, MN_3	30.7	12	22	26			
		ME_3	32 37	12		23			
		MN_4	35 43	12	27				
		ME_4	36 37	11		16			
		ME_5	40 37	12		15			
		C_1	50.8	13	10	12			
		C_2	3 05.8	11	5	5			
		F	5 03						

(Continued on next sheet)

Riverview College Observatory,

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

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

INSTRUMENTS:

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

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

No.	Date.	Phase.	Time (*Greenwich*) h. m. s.	Per. s.	Amplitude A_N μ	A_E μ	A_Z μ	Δ km.	Remarks.
	1919								
71	May. 2	e?	6 32.6						
		eL	40.6	20					
		ME	44 13	15		7			
		MN_1	45 51	10	6				
		MN_2	49 04	10	4				
		F	7 40						
72	" 3	eP	1 03 37	6	1½			8380 (75.4°)	N. Japan.
		iP	03 43	6	-2½				
		PR_1	06 47	8	1	1			
		iPR_2	07 50	8	+6	-			
		iS	13 16	8	+19	+2			
		PS	14 07	12	28	7	12		
		SR_1	17 40	13	17	2			
		SR_2	19 15	16	16	7			
		eL	23.6	30					
		MN_1	24 03	?					
		ME_1	24 58	25		112			
		MN_2, ME_2	26.9	14	17	31			
		MZ_1	27 24	14			11		
		MN_3, ME_3	30.3	17	39	38			
		MZ_2	30 36	18			29		
		MN_4, ME_4	33.5	12	17	21			
		MN_5, ME_5	38.8	14	24	10			
		MZ_3	41 19	13			14		
		C_1	47.9	16	18	8			
		C_2	58.3	13	13	5			
		F	5 20						
73	" 3	e(S?)	10 40.6	10		1			
		eL	44.6	20					
		ME	46 13	17		3			
		MN	48 17	11	4				
		F	11 20						
74	" 4	e?	8 52.5						
		eL	9 03.0	11					
		MN	03 52	9	1¼				
		ME	10 53	?					
		F	9 20						
75	" 4	e(S?)	22 52.2						
	5	eL	57.7	16					
		ME	23 02 29	15		7			
		MN	03 40	12	4				
		F	0 25						

(Continued on next sheet)

Riverview College Observatory,

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

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

INSTRUMENTS:

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

	V	T_o	ε : 1	$\frac{r}{T_o^2}$
A_N		(see last sheet)		
A_E				
A_Z				

No.	Date.	Phase	Time (*Greenwich*)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks.
	1919		h. m. s.	s.	μ	μ	μ	km.	
76	May 6	eP	4 17 59	4	-	[illegible]		3720?	
		e(S?)	23 30	10	-	[illegible]			
		eL	24.8	19					
		MN_1, ME_1	28.6	16	12	8			
		MN_2, MZ	29.9	12	11		8		
		ME_2	30 15	14		12			
		F	6 00						
77	" (6	iP	19 47 09	5	-8	-	+2	3250	Computed Azimuth : 180° (due North)
	7	iPR_2	48 47	6	+36	-16			φ, 4°S.
		i	49 02	6	+14	-11			λ, 152°E.
		S	52 10	10	53	23	78		Computed time at origin: 19-40-44.
		PS	52 36	9	124	33	63		
		eL	55.6	22					
		MN_1, ME_1	56.0	16	790	1090	890		
		MZ_1	57 17	14	970	840	[illegible]		Felt severely at Rabaul, New Britain, the intensity reaching VII-VIII. F.M.
		M_2	59.0	12	715+	560+	1450		
		[illegible]							
		MN_3, ME_3	20 02.0	12	750+	490			
		MZ_3	02 24	12			960		Govt. Printing-Office wrecked. Many landslips.
		M_4	06.0	9	420+	180	570		
		M_5	09.2	10	240	320			
		M_6	13.8	9	170	260			
		C_1	22.6	12	200	230			
		C_2	28.3	11	94	100			
		C_3	38.6	12	110	32			
	W_2 series	eW_2	22 19.0	40					Well-marked W_2 waves.
	(Lrep1)	MN_1	19.4	40	39				
		MN_2	24.4	28	20				
		F	3 15						
78	" 7	e(S?)	0 18.0	9	3				
		eL	21.7	18					
		ME	23 36	12		5			
		MN_1	23 49	12	4				
		MN_2	27 51	12	4				
		F	lost in No. 77.						

(Continued on next sheet)

Riverview College Observatory,

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

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

INSTRUMENTS:

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

	V	T_o	ϵ : 1	$\frac{r}{T_o^2}$
A_N		(See last sheet)		
A_E				
A_z				

No.	Date.	Phase.	Time (*Greenwich*) h. m. s.	Per. s.	Amplitude A_N μ	A_E μ	A_z μ	Δ km.	Remarks.
79	1919 May. 7	eP	5 19 36	4	1	½		3090 (27.8°)	
		eS	24 26	8	10	5			
		PS	24 42	8	8	4			
		SR_1	26 07	10	34	15			
		SR_2	26 51	10	45	33			
		ME_1	30 36	12		155			
		MN_1	30 51	14	127				
		MZ_1	30 57	14			84		
		ME_2	32 45	12		100			
		MN_2	33 20	12	150				
		MZ_2	33 36	12			110		
		ME_3	35 04	12		85			
		MN_3	36 45	12		140			
		MZ_3	37 51	12			120		
		MN_4	39 25	12	100				
		MN_5	42 19	9	115				
		ME_4	42 36	9		53			
		ME_5	45 49	8		25			
		ME_6	52 09	9		22			
		C_1	6 00.1	11	9	6			
		C_2	10.6	10	7	5			
		F	8 35						
80	" 7	e	8 59.1	12		4			A few long waves.
81	" 7	e (P?)	9 25.3	4	¼	-			
		e (S?)	29.2	8	¼	-			
		eL	31.0	20					
		MN	35 18	12	5				
		ME	35 28	8		2½			
		F	10 05						
82	" 7	eL	10 29.4	16					
		ME	31 49	12		3			
		MN	36 23	10	½				
		F	10 50						

(Continued on next sheet)

Riverview College Observatory,

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

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

INSTRUMENTS:

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

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

No.	Date.	Phase.	Time (*Greenwich*)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_z	Δ	Remarks.
	1919		h. m. s.	s.	μ	μ	μ	km.	
83	May. 7	eL	12 25.5	12					
		MŒ	26 06	8		¼			
		MN	26 53	9	1				
		F	12 55						
84	" 7	e	18 52.6	8		¼			A few long waves.
85	" 7	e	21 06.6	12		1			" " " "
86	" 8	eL	4 57.8	20					
		MN	5 01 26	14	½				
		F	5 40						
87	" 8	e	5 53.5	8	3				
		e(L?)	58.8						
		ME	6 02 48	?					
		MN	04 56	12	1				
		F	6 55						
88	" 8	e(L?)	7 40.1	?					
		MN	42 44	9	½				
		ME	51 43	8		¼			
		F	8 05						
89	" 8	e	10 16.2	6	-	½			
			16.6	6	-	½			
		eL	22.7	20					
		MN_1	27 11	12	11				
		ME_1	28 10	15		12			
		MN_2	30 29	10	11				
		MN_3	35 46	10	7				
		ME_2	37 10	14		6			
		F	12 00						
90	" 8	eL	18 23.8	?					
		ME	25 34	9		1½			
		MN_1	26 22	13	4				
		MN_2	28 52	12	4				
		F lost in N°91							

(Continued on next sheet)

Riverview College Observatory,

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

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

INSTRUMENTS:

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

	V	T_o	e : 1	$\frac{r}{T_o^2}$
A_N		(See last sheet)		
A_E				
A_z				

No.	Date.	Phase.	Time (*Greenwich*)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_z	Δ	Remarks.
	1919		h. m. s.	s.	μ	μ	μ	km.	
91	May. 8	e(P?)	19 06.9	4	¼				
		eL	14.7	20					
		ME_1	16 35	12		8			
		MN_1	18 48	11	4				
		ME_2	19 43	9		2			
		MN_3	21 37	12	4				
		F lost in No. 92							
92	" 8	e?	19 50.5	8					
		e(S?)	54.6	8	½				
		eL	58.2	16					
		ME	59 48	12		4			
		MN	20 03 36	12	1				
		F	20 15						
93	" 9	e(S?)	1 28 34	8		¼			
		eL	33.1	14					
		MN	35 16	12	5				
		ME	35 25	13		1			
		F	2 05						
94	" 9	eL	2 28.8	16					
		ME	30 07	8		¼			
		MN	32 07	10	2				
		F	2 50						
95	" 9	eL	6 47.3	16					
		ME	48 40	8		¼			
		MN	56 13	6	½				
		F	7 05						
96	" 14	e	15 57.8	8	½	1			
		eL	16 06.7	16					
		ME	10 07	12		½			
		MN	10 20	12	4				
		F	16 40						
97	" 18	e	21 58.7						
		e(L?)	22 02.5	?					
		MN	04 14	12	1				
		ME	08 22	12		½			
		F	22 30						
98	" 22	e	16 10.5	6	-	½			
		ME	11 58	8		1½			
		MN	15 23	6	½				
		F	16 35						

E. F. Pigot Esq.

Riverview College Observatory

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN

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

INSTRUMENTS:

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

	V	T_o	ϵ : 1	$\frac{r}{T_o^2}$
$A_N(1)$	154	8.5	4.8	0.03
$A_E(1)$	172	8.5	3.8	0.03
$A_Z(2)$	87	5.0	4.1	0.08

No.	Date.	Phase.	Time (*Greenwich*) h. m. s.	Per. s.	Amplitude. A_N μ	A_E μ	A_Z μ	Δ km.	Remarks.
	1919								
99	June 4	e	4 02.6	12					A few long waves
100	" 4	e	9 14.3						
		eL	17.6	14					
		M_1	19.7	14	3	1			
		M2	21.7	12	3	1¾			
		F	9 55						
101	" 9	e(P?)	16 03 49						
		eL	13.5	14					
		ME	16 35	?					
		MN	17 31	8	1				
		F	16 40						
102	" 10	eP	20 11 28					4160	
		eS	17 24					(37°4)	
		eL	21.3	20					
		MN_1	23 28	16	12				
		ME_1	23 43	16		12			
		ME_2	25 45	12		9			
		MN_2	26 58	11	7				
		ME_3	32 01	10		1			
		MN_3	32 28	10	2¼				
		F	21 20						
103	" 11	eP	6 10 17					3850	
		eS	15 56					(34°6)	
		eL	18.2	20					
		MN_1	19 53	22	6				
		MN_2	21 57	15	2				
		ME1	22 33	?					
		ME_2	27 21	12		1			
		F	7 15						
104	" 12	e	11 15.1						
		eL	18.3	16					
		MN_1	19 35	14	1½				
		ME_1	20 00	15		1½			
		MN_2	22 05	11	1¾				
		ME_2	23 44	14		1			
		F	12 10						

N.B. As hitherto, all reductions from records of Seismometers Nos. 1 & 2, unless otherwise distinctly specified.

(Continued on next sheet)

Riverview College Observatory,

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

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

INSTRUMENTS:

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

	V	T_o	ϵ : 1	$\frac{r}{T_o^2}$
A_N		(See last sheet)		
A_E				
A_z				

No.	Date.	Phase.	Time (*Greenwich*)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_z	Δ	Remarks.
	1919		h. m. s.	s.	μ	μ	μ	km.	
105	June 28	eP	4 53 29	5		1½		3270	
		eS	58 31	?				(29.4°)	
		eL	5 02.0	18					
		ME_1	03 39	16		8			
		MN_1	03 47	15	10				
		MN_2	06 05	12	10				
		ME_2	06 44	12		7			
		MN_3	08 41	12	8				
		ME_3	09 49	12		7			
		F	5 10						
106	" (29	e(PR_1)	23 34 44	?					
	30	eS	45 06	7	¾	1½			
		e(SR_1)	50 53	?					
			52 25	26	8½	7			
		eL	0 09.6	28					
		ME_1	12 29	24					
		MN_1	13 18	20	6½				
		ME_2	17 49	16		2½			
		MN_2	22 31	16	3				
		ME_3	23 23	16		7			
		MN_3	28 40	14	6				
		F	Lost in N°107						
107	" 30	e	2 45.3						
		MN	3 03 45	?					
		F	3 55						
108	" 30	e(L)	8 26.7	20					
		ME_1	32 53	16		1			
		MN	33 31	16	4				
		ME_2	40 14	15		4			
		F	9 15						

T. F. Rogers F.

Riverview College Observatory

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN

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

INSTRUMENTS:

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

	V	T_o	ϵ:1	$\frac{r}{T_o^2}$
$A_N(1)$	158	8.1	4.8	0.02
$A_E(1)$	164	8.4	3.9	0.03
$A_Z(2)$	70	4.7	2.8	0.1

No.	Date.	Phase.	Time (*Greenwich*) h. m. s.	Per. s.	Amplitude. A_N μ	A_E μ	A_Z μ	Δ km.	Remarks.
	1919								
109	July 3	e	23 20.7						Short wave-lengths
		MN	25 01	7	2				(L)
		ME	26 51	7		1			
		F	23 45						
110	" 7	eP	13 57 12	4	½			3110	Felt at Kieta
		PR_1	58 26	4				(28°0)	Bouganville Is.
		eS	14 02 03	??					
		SR_1	04 03	7					
		eL	05.7	18					
		ME_1	07 17	11		4			
		MN_1	08 17	12	1				
		ME_2	09 26	12		2			
		MN_2	12 49	10	2½				
		F	15 10						
111	" 8	e(PR_1)	21 25 31	?				11,000?	
		eS	33 03	9	½	-			
		e(SR_1)	45 05	12	2	1			
		eL	54.7	28					
		ME_1	02 23	20		5			
		MN_1	03 03	16	13				
		MN_2	04 31	16	13				
		ME_2	06 10	16		1			
		ME_3	08 26	15		12			
		MN_3	08 54	14	6½				
		MN_4, ME_4	12.9	12	5½	5			
		ME_5	18 58	15					
		MN_5	19 07	13	5				
	" 9	F	01 15						
112	" 16	e	3 48.5						A few long waves.
113	" 16	eP	18 15 25	5		½		2920?	
		e(S?)	20 02	?					
		eL	24.9	20					
		MN_1	37 02	10	1½				
		ME_1	28 11	14		4			
		MN_2	32 57	10	1½				
		ME_2	34 02	12		1¾			
		F	19 15						

(Continued on next sheet)

Riverview College Observatory,

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

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

INSTRUMENTS:

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

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

No.	Date.	Phase.	Time (*Greenwich*)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_z	Δ	Remarks.
	1919		h. m. s.	s.	μ	μ	μ	km.	
114	July 17	e(S?)	8 21.8						
		eL	26.9	?					
		MN	29 52	11	4¾				
		ME	32 30	9					
		F	8 35						
115	" 17	eL	10 23.7	20					
		MN	25 56	16	2½				
		F	10 45						
116	" 24	e	3 04.5						A few long waves.
117	" 24	eP?	4 12.8						
		MN	16 15	5	2½				
		ME	16 26	5		1½			
		F	4 25						
118	" 29	e	13 37.0						Short period waves
		M	41.6	8	7	5			
		F	13 55						
119	" 31	eP	7 05 50					2770	h m s 0., 7 00 10
		iS	10 16	8	-5	+4		(24.9°)	
		eL	13.0	20					
		ME_1	14 25	16		3			
		MN_1	15 42	12	5				
		MN_2	18 25	12	3				
		ME_2	19 26	11		1½			
		F	8 50						

Edward F. Pigot S.J.

Riverview College Observatory

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN

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

INSTRUMENTS:

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

	V	T_o	ϵ:1	$\frac{r}{T_o^2}$
A_N(1)	159	8.2	4.9	0.02
A_E(1)	172	8.3	3.8	0.03
A_Z(2)	78	4.0	2.7	0.1

No.	Date.	Phase.	Time (*Greenwich*)	Per.	Amplitude. A_N	Amplitude. A_E	Amplitude. A_Z	Δ	Remarks.
	1919		h. m. s.	s.	μ	μ	μ	km.	
120	Aug. 1	e	13 48.6						A few long waves. h m s
121	" 5	eP	4 51 04	4				2400	0, 4 46 04
		eS	55 01	8	1½	-		(21°6)	
		eL	56.4	22					
		MN	58 24	12	9				
		ME	59 28	14		6			
		F	5 50						
122	" 13	e	0 01.7						
		eL	04.6	15					
		MN	06 45	12	1				
		ME	09 48	11		1			
		F	0 25						
123	" 15	iP	10 21 31	?				70	Felt in and around Sydney.
		iS	21 39	?	15 (2A, on record)	20 m/m			Intensity III-IV, (F.-M. scale)
		M	21 44	?					
		i	22 00	?					
		F	10 30						h m s
124	" 18	eP	17 01 17	(¼	-	2		2960	0, 16 55 17
			01 23	¼	2¾	5			
		iPR1	02 36	7	+2½	+6			
			02 53	?	7	34			
		iS	05 57	8	+28	-6			
		e(L?)	07.9	18					
		i	08 31	8	+130	+18			
		MN_1	08 48	8		60			
		MN_1	08 54	8	125				
		ME_2	09 34	11		32			
		MN_2	11 19	8	51				
		MN_3	14 07	10	19				
		ME_3	16 45	8		15			
		F	18 55						
125	" 18	eL	21 03.4	20					
		MN	05 23	15	8				
		ME	08 36	14		8			
		F	21 35						
126	" 24	eL	19 56.0	18					
		ME	57 38	16		2			
		MN	20 01 15	?					
		F	20 15						
127	" 27	e(PR1?)	5 26 25	?					Heavy microseisms.
		eL	44.1	24?					
		ME_1	47 01	20		15			
		ME_2	51 43	20		12			
		MN_2	59 25	15	12				
		F	6 40						

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY,

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date.	Phase.	Time (*Greenwich*)	Per.	Amplitude.			Δ	Remarks.
					A_N	A_E	A_Z		
	1919		h. m. s.	s.	μ	μ	μ	km.	h m s
128	Aug. 29	eP	5 51 19	5	1½	1		3980	0, 5 43 59
		PR_1	52 50	5	6	4		(35°.8)	
		PR_2	53 02	6	10	6			Banda Sea.
		iS	57 03	8	+11	-10			
		PS	57 24	10	21	30			
		SR_1	59 20	15	66	45			
		eL	59.6	?					
		SR_2	59 53	15	204	75			
		ME_1	6 02 09	8		39			
		MN_1	03 00	7	67				
		ME_2	04 28	20		255			
		MN_2	04 41	18	300				
		ME_3	07 33	17		340			
		MN_3	08 09	19	390				
		ME_4	10 07	20		370			
		MN_4	12 02	13	120				
		ME_5	12 22	12		150			
		MN_5	13 22	16	210				
		ME_6	14 35	18		340			
		C_1	19.1	15	58	66			
		CE_2	24 15	12		22			
		CN_2	26 20	12	21				
		CE_3	32 11	12		12			
		CN_3	32 17	13	8				
		F	7 40						h m s
129	" 29	eP	13 51 50	4	1	1		2520	0, 13 46 25
		PR_1	52 24	5	3	2		(22°.7)	
		PR_2	52 49	6	9	8			(Perhaps origin
		iS	55 57	8	-11	+2			same as that of
		PS	56 07	8	9	-			No.130)
		SR_2	56 46	8	13	6			
		M	57.1	8	12	10			
		F	14 30						
130	" 31	iP	17 25 44	5	-15	-12		2520	Computed azimuth:-
		iPR_1	26 16	5	-135	-125		(22°.7)	N.39½°E.
			2635	5	110	110			
		iS	29 50	8	-185	+46			φ, 16°S.
		PS	30 05	9	265	165			λ, 166°E.
		eL	30.7	18					h m s
		ME_1	32 58	14		320			0, 17 20 24
		ME_2, MZ_1	33.7	14		320	45		h m
		ME_3	34 52	11		120			After 17 30.5 N-S
		ME_4	36 59	12		135			component deranged
		MZ_2	37 06	15			43		by violence of the
		ME_5	38 54	11		100			oscillations.
		ME_6	42 06	10		51			
		ME_7	47 53	9		47			
		CE_1	18 00 32	9		30			
		CE_2	06 31	8		11			
		CE_3	12 06	9		10			
		F	21 45						

1919, September.

Riverview College Observatory

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN

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

INSTRUMENTS:

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

	V	T_o	ϵ:1	$\frac{r}{T_o^2}$
A_N (1)	159	8.2	4.9	0.02
A_E (1)	172	8.3	3.8	0.03
A_Z (2)	78	4.0	2.7	0.1

No.	Date.	Phase.	Time (*Greenwich*)	Per.	Amplitude. A_N	Amplitude. A_E	Amplitude. A_Z	Δ	Remarks.
	1919		h. m. s.	s.	μ	μ	μ	km.	
131	Sept. 1	e	12 15.2	4					
		e(PS?)	19.8	8	$2\frac{3}{4}$	$1\frac{1}{2}$			
		e(L?)	23.7	16					
		MN	26 42	10	2				
		ME	27 21	10		1			
		F	13 05						
132	" 1	eL	13 21.6	20					
		MN	25 25	12	5				
		ME	26 17	15		4			
		F	14 00						
133	" 1	e(S?)	19 31.2	?					
		eL	40.0	22					
		MN	43 29	19	6				
		ME	43 55	18		5			
		F	20 25						
134	" 6	eP	14 54 44						h. m. s.
		eL	15 04.5	18					MN 15 06 39
		MN	~~43 29 19~~		9				
		ME	08 26	11		7			
		F	15 35						h m s
135	" 12	iP	6 10 55	7	+1	+6		2450	0. 6 05 37
			11 12	6		26		(22.0°)	
		eS	14 56	10	$2\frac{1}{2}$	3			
		iPS	15 07	10	-20	+8			
		eL	16.2	20					
		ME_1	18 01	16		49			
		MN_1	18 34	12	38				
		ME_2	19 42	12		27			
		MN_2	19 59	11	45				
		ME_3	21 38	10		19			
		MN_3	22 36	12	28				
		CN	28 42	10	8				
		CE	32 16	10		10			
		F	7 45						
136	" 12	e	12 28 59						
		eL	34.7	18					
		MN_1	35 38	16	8				
		ME_1	35 44	16		7			
		MN_2	37 35	12	8				
		ME_2	37 46	12		4			
		F	13 40			2		2900?	
137	" 19	eP	4 26 40	4		7			
			27 05	5					
		e(S?)	31 18	?					
		eL	33.0	24					F 5h. 10m.
		ME	33 48	20		1½			

RIVERVIEW COLLEGE OBSERVATORY,

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date.	Phase.	Time (*Greenwich*)	Per.	Amplitude.			Δ	Remarks.
					A_N	A_E	A_Z		
	1919		h. m. s.	s.	μ	μ	μ	km.	
138	Sept.19	e	15 27.1						
		ME	32 27	16		3½			
		F	16 05						
139	" 21	e	20 23.9						
		eL	33.6	13					
		MN	35 06	11	2½				
		ME	36 32	16		2			
		F	21 05						
140	" 25	e	8 40.8						
		eL	9 06.0						
		MN	09 23	13	2				
		ME	10 10	17		2			
		F	9 35						
141	" 26	e	9 25.1						
		MN	32 44	14	2½				
		ME	37 22	15		1½			
		F	10 25						
142	" 26	eP	19 48 14					5400	h m s 0, 19 39 14
		eS	55 18	13	8	9		(48°6)	
		SR_1	59 01	10	4	7			
		eL	20 02.4	28					
		ME_1	09 09	19		54			
		MN_1	09 31	19	57				
		ME_2	10 18	16		32			
		MN_2, MZ_1	11.0	17	46		33		
		ME_3	13 11	15		30			
		MN_3	16 48	13	39				
		MZ_2	16 53	13			19		
		C_1	25.6	13	25	5			
		CE_2	33 28	13		4			
		CN_2	34 05	13	5				
		F	22 40						
143	" 26	eS	21 53.9	9	1½	1½			
		eSR_1	57 31	12	3	2½			
		eL	22 04.3	18					
		MN_1	16 14	15	3				
		ME	16 41	13		3			
		MN_2	21 14	13	4				
		F	Lost in No.144						
144	" 26	eL	23 04 04	?					
		eSR_1	07 36	10	1½	2½			
		MN	22 49	13	2				
		ME	24 49	12		1½			
	27	F	00 05						
	" 30	e	15 47.8						
		ME	49 46	12		2			
		MN	49 52	12	2				
		F	15 55						

Riverview College Observatory,

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

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

INSTRUMENTS:

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

	V	T_o	ϵ : 1	$\frac{r}{T_o^2}$
A_N(1)	158	8.3	5.9	0.03
A_E(1)	167	8.6	3.1	0.03
A_Z(2)	84	5.1	4.2	0.06

No.	Date.	Phase.	Time (*Greenwich*) h. m. s.	Per. s.	Amplitude A_N μ	A_E μ	A_Z μ	Δ km.	Remarks.
	1919								h m s
146	Oct.3	eP	9 43 40	5		2¼		3370	0.,9 37 10
		iS	48 49	8	3	3		(30.3°)	
		PS	49 09	6	2	3			
		eL	50.5	19					
		MN_1, ME_1	52.1	17	105	22			
		MN_2	52 40	17	140				
		MZ_1	54 20	17			25		
		ME_2	54 55	15		92			
		MN_3	55 40	12	110				
		ME_3	56 49	13		39			
		MN_4	57 21	11	46				
		ME_4	58 46	12		30			
	MN_5ME_5, MZ_2		10 01.7	11	13				
		CN	05 14	11	13				
		CE	07 23	11		7			
		F	12 40						
147	" 4	e	11 47.4						A few long wavrs.
148	" 4	e	18 10.2	9					
		eL	22.4	29					
		MN	24 36	24	7				
		ME	25 44	23		2½			
		F	18 45						
149	" 7	e	1 58.1						" " " "
150	" 7	e	3 17.1	17					" " " "
150a	" 7	e	9 03.9						" " " "
151	" 8	e	2 00.5						" "h m" s "
152	" 8	eP	4 46 45					3050	0.,4 40 40
		eS	51 32	11				(28.3°)	
		eS	44.1	32					
		MN_1	57 16	23	33				
		ME_1	57 41	16		37			
		MZ_1	59 12	17			12		
		MN_1	59 23	13	48				
		ME_2	5 00 14	13		100			
		MZ_2	02 03	12			6		
		MN_3	02 40	12	45				
		ME_3	02 51	11		44			
		MZ_3	03 58	11			5		
		ME_4	04 41	11		22			
		CN_4	10 32	11	16				
		CE	12 53	11		6			
		eW_2	7 26.7						
	W_2waves	MN	29 03	13	2				
		F	7 45						

(Continued on next sheet)

Riverview College Observatory,

SYDNEY, N.S.W.

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ϕ=33° 49′ 49″ S. λ=151° 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.) (NS, EW)
4. **Galitzin Aperiodic Seismometer, with galvanometer registration** (NS, EW, Vert.)

	V	T_o	ϵ : 1	$\frac{r}{T_o^2}$
A_N		(See last sheet)		
A_E				
A_z				

No.	Date.	Phase.	Time (*Greenwich*)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_z	Δ	Remarks.
	1919		h. m. s.	s.	μ	μ	μ	km.	
153	Oct. 8	eL	9 10.4	19					
		MN_1	11 52	19	4				
		ME_1	13 52	13		2			
		MN_2	16 20	13	2				
		ME_2	17 23	12		1½			
		F	9 50						
154	" 9	e	7 20.6	19					A few long waves.
155	" 10	e(L?)	1 56.7	27					
		ME_1	2 06 19	17		1			
		ME_2	09 49	17		4			
		F	1 20						
156	" 12	eP	21 50 20	?				5620	h m s 0.,21 50 10
	(13	iS	22 05 36	5	2	4		(50.6°)	
		eL	13.1	38					
		MN_1	18 36	29	100				
		ME_1	19 36	25		40			
		MN_2	19 51	23	57				
		MN_3	22 32	18	13				
		ME_2	22 49	21		28			
		CE_1	29 11	17		8			
		CN^1	29 49	17	9				
		CE_2	33 18	15		4			
		eW_2	0 27 28						
	W_2 waves		43 14	8					
			46 05						
		F	1 10						
157	" 14	e	11 29.8						
		MN	32 39	14	2½				
		ME	34 18	16		2½			
		F	11 55						
158	" 19	e	1 39.9						
		eS	44 37	7	3	¾			
		eL	46.4	22?					
		ME	47 08	20		11			
		MN	47 31	16					
		F	2 20						

(Continued on next sheet)

Riverview College Observatory,

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	V	T_o	ϵ : 1	$\frac{r}{T_o^2}$
A_N		(See last sheet)		
A_E				
A_z				

No.	Date. 1919	Phase.	Time (*Greenwich*) h. m. s.	Per. s.	Amplitude A_N μ	A_E μ	A_z μ	Δ km.	Remarks.
159	Oct. 21	e (PR?)	21 29 05	?					Very heavy micro-seisms.
		i (S?)	32 30	21	44				
		cL	36.1	23					
		ME_1	37 42	19		25			
		MZ_1	38 15	18			14		
		MN_1	38 30	18	36				
		ME_2	40 52	10		5			
		MZ_2	48 10	11			5		
		MN_2	48 29	10	8				
		F	22 05						
160	" 23	e?	16 17.4						
		M	30.5	15	2¾	3			
		F	16 45						
161	" 26	e?	14 31.4						
		ME	38 19	17		2			
		MN	38 25	13	1				
		F	14 50						
162	" 26	e	19 08.0	9					
		M	18.2	15	2¾	4			
		F	19 25						
163	" 31	eP.	15 52 32	4		3		4000	h m s 0.,15 45 12
		eS	58 19	10	5			(36.0°)	
		eL	16 04.3	34					
		ME_1	12 38	19		2½			
		MN_1	13 08	25	5				
		ME_2	18 04	15		1½			
		MN_2	18 57	17	7				
		MN_3	23 32	16	6				
		MN_4	25 26	15	5				
		ME_3	26 43	14		1½			
		CN_1	30 27	15	3				
		CE_1	31 52	13		1			
		CN_2	36 45	14	2½				
		F	17 25						
164	" 31	e	19 20.9						
		ME	38 32	21		1½			
		MN	39 40	17	1½				
		F	19 50						

P. T. Pigott S.J.

No.

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	V	T_o	ϵ : 1	$\frac{r}{T_o^2}$
A_N (1)	158	8.3	5.9	0.03
A_E (1)	167	8.6	3.1	0.03
A_z (2)	84	5.1	4.2	0.06

No.	Date.	Phase	Time (*Greenwich*) h. m. s.	Per. s.	Amplitude A_N μ	A_E μ	A_z μ	Δ km.	Remarks.
165	Nov. 2	e?	19 57.5						
		M	20 07.9	10	2½	1			
		F	19 20						
166	" 5	e?	20 16.6						
		e	19.5						
		eS	20 53	9	½	-			
			21 13	9					
		eL	22.5	?					
		ME_1	25 40	16		8			
		MN_1	26 45	14	5				
		ME_2	28 50	10		1½			
		MN_2	30 39	12	4				
		F	20 55						
167	" 9	e	7 27.7						
		ME	31 55	10		½			
		MN	32 29	12	1½				
		F	7 45						
168	" 9	e	9 49.4						
		eL	56.9						
		MN	19 01	14	1½				
		ME	10 19 12	14		2			
		F	11 25						
169	" 13	e	3 03.2						
		MN	13 51	11	1				
		ME	14 00	11		1			
		F	3 30						
170	" 13	eL	7 03.0	14					
		MN	03 30	10	4				
		ME	06 02	8		2			
		F Lost in N°171							
171	" 13	e?							
		eL	08.7	18					
		M	11.0	18	5	4			
		F	7 40						
172	" 16	e(S?)	3 20.5	8	2				Perhaps double.
		e	24.1	?					
			29 03	5	1				
		ME	34 54	14		2			
		MN	37 50	10	1				
		F Lost in N°173							
173	" 16	e?	4 52.9						
		MN	59 03	11	1				
		F	5 25						

(Continued on next sheet)

No. 11

1919, November.

Riverview College Observatory,

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

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

INSTRUMENTS:

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

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

No.	Date.	Phase.	Time (*Greenwich*)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks.
	1919		h. m. s.	s.	μ	μ	μ	km.	h m s
174	Nov. 18	eP	4 05 05	4	3	1½		3420	0.,3 58 30
		iS	10 17	6	5	+10		(30.8°)	
		SR_1	12 09	6	5	4			
		eL	13.7	18					
		ME_1	14 28	10		25			
		MN_1	15 03	8	38				
		ME_2	15 59	11		49			
		MN_2	16 38	12	96				
		ME_3	17 03	10		43			
		MZ_1	17 14	9			21		
		MZ_2	18 00	9			24		
		MN_3	18 56	11	50				
		ME_4	20 05	8		24			
		MN_4	21 12	8	30				
		ME_5	21 54	9		25			
		CZ	25 49	12			8		
		CN	26 50	14	24				
		CE	27 19	13		15			
		F	5 10						
175	" 18	eL	23 02.2	22					
		MN	12 06	20	5				
		ME_1	14 58	18		4			
		ME_2	18 06	16		2½			
		F	23 50						h m s
176	" 20	iP	14 16 53	5	-4	-3		2650	0.,14 11 23
		iPR_1	17 24	6	+6	-7		(23.8°)	
			17 46	6	10	12			
		iS	21 10	8	-19	-9			
			21 17	8	30	19			
		eL	22.0	15					
		MN_1	22 45	12	123				
		ME_1	22 55	12		72			
		ME_2	25 12	14		83			
		MN_2	26 00	13	47				
		ME_3	26 51	12		48			
		MZ	29 06	12			8		
		MN_3	32 44	9	27				
		CE_1	37 19	9	18				
		CN	37 31	9	17				
		GE_2	42 53	10		6			
		F	17 10						

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Riverview College Observatory,

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

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

INSTRUMENTS:

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

	V	T_o	ϵ : 1	$\frac{r}{T_o^2}$
A_N		(See last sheet)		
A_E				
A_z				

No.	Date.	Phase.	Time (*Greenwich*)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_z	Δ	Remarks.
	1919		h. m. s.	s.	μ	μ	μ	km.	
177	Nov. 21	e?	2 11.4						
		ME	22 58	14		7			
		MN	25 28	15	9				
		F	3 00						
178	" 21	e	7 54.9						
		M	8 00.1	10	2	1			
		F	8 30						
179	" 22	e(S?)	8 27.4	8	3	2			
			27 42	8	3	2			
		eL	29.8	16					
		MN	31 04	13	4				
		ME	31 16	13		2			
		F	9 15						
									h m s
180	" 23	eP	6 03 21					3000	0.,5 57 21
		eS	08 04	?				(27.0°)	
			08 49	11	23	9			
		eL	10.1	22					
		ME_1, MN_1	13.6	20	140	150			
		MZ	13 50	20			36		
		ME_2	15 50	14		66			
		MN_2	16 22	15	87				
		F	7 55						
181	" 23	e	8 34.5						
		eL	37.7	24					
		M	39.7	18	13	13			
		F	9 05						
182	" 23	e	14 17.6						
		ME	21 49	12		1½			
		MN	22 01	12	1½				
		F	14 30						
183	" 24	e	5 43.8	20					A few long waves.

E. F. Pigott S.J.

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

	V	T_o	$\epsilon : 1$	$\frac{r}{T_o^2}$
A_N (1)	164	8.5	6.0	0.02
A_E (1)	163	8.6	3.3	0.02
A_z (2)	91	5.1	3.6	0.05

No.	Date.	Phase.	Time (*Greenwich*)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_z	Δ	Remarks.
	1919		h. m. s.	s.	μ	μ	μ	km.	
184	Dec. 3	e(L?)	9 31.7	16					
		MN	38 00	11	1½				
		ME	41 46	11		½			
		F	9 55						
185	" 4	eL	0 41.7	20					
		ME	44 32	16		2			
		MN	44 47	15	1½				
		F	1 00						
186	" 5	eL	22 23.3	?					
		MN	25 35	12	1¼				
		F	22 40						
187	" 7	e	3 55.6						
		eL	57.0	22					
		ME	4 00 15	14		3			
		MN	00 41	15	3				
		F	4 20						
188	" 8	e	18 57.2						
		ME	59 59	12		1¼			
		MN	19 02 18	?					
		F	18 10						
189	" 10	eP	7 59 36	5				2680 (24.1°)	h m s 0.,7 50 06
		eS	8 03 55	6					
			04 03	6	3	5			
		eL	05.3	20					
		ME	06 12	18		4			
		MN	06 29	16	4				
		F	7 40						
190	" 11	e	23 25.9						
		eL	32.6	?					
		MN	34 18	13	3				
		ME	37 01	16		8			
		F	23 55						
191	" 12	e(P?)	3 46.5						Strong microseisms.
		e(S?)	51.6	7	1	1½			
		eL	52.4	16					
		MN_1	55 38	12	10				
		ME_1	56 17	12		6			
		MN_2	59 01	10	7				
		ME_2	59 12	10		5			
		F	4 50						
192	" 14	eP	1 16 11					2660 (23.9°)	h m s 0.,1 10 36
		eS	20 29	?					
		eL	21.5	24					
		ME	24 11	19		39			
		MN	24 50	16	38				
		F	2 25						

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Riverview College Observatory,

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

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

INSTRUMENTS:

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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_o	e : 1	$\frac{r}{T_o^2}$
A_N		(See last sheet)		
A_E				
A_z				

No.	Date.	Phase.	Time (*Greenwich*)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_z	Δ	Remarks.
	1919		h. m. s.	s.	μ	μ	μ	km.	
[illegible]	Dec. 15	e(S?)	12 03.8						
		eL	07.8	15					
		M	08.9	12	3	1½			
		F	12 45						
193	" 15	eL	19 31.8	16					
		MN	33 12	15		4			
		MN	34 08	12	3				
		F	19 55						
194	" 17	eP	23 38 14	5	1	-		2770	0.,23 30 34
	" (18	eS	40 40	8	3	1		(24.9°)	
			40 53	8	13	2			
		eL	43.3	16					
		L_1	45.4	13	6	12			
		L_2	47.1	10	7	9			
		F	1 00						
195	" 20	e(S?)	0 51.8						
		MN	1 07 12	16	2				
		F	1 40						
196	" 20	e	7 00.5						
		ME	23 26	16		2			
		MN	26 17	15	2				
		F	7 55						
197	" 20	e	19 52 55						
		e	20 04 13	15		3			
		MN	10 03	14	5				
		ME	11 21	16		3			
		F Lost in N°198							
198	" 20	eP	20 47 55					6920	0.,20 37 32
		eS	56 20	?				(62.3°)	
		eL	21 03.2	24					
		MN_1	04 04	16	10				
		ME_1	06 51	18		11			
		ME_2	08 22	16		26			
		MN_2	08 38	17	12				
		ME_3	10 04	18		22			
		F	21 40						

(Continued on next sheet)

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

	V	T_o	e : 1	$\frac{r}{T_o^2}$
A_N		(See last sheet)		
A_E				
A_z				

No.	Date.	Phase.	Time (*Greenwich*) h. m. s.	Per. s.	Amplitude A_N μ	A_E μ	A_z μ	Δ km.	Remarks.
	1919								
199	Dec. 21	e	18 19.8						
		MN	24 39	18	2				
		ME	25 16	16		1			
		F	18 35						
200	" 26	e?	5 27.5						
		eL	31.0	18					
		ME	33 32	?					
		MN	34 08	16	2				
		F	6 00						
201	" 26	e?	16 12.0						
		e(S?)	21.9	7					
			22 07	7					
		eL	28.6	18					
		MN	31 12	13	9				
		ME	31 44	15		7			
		F	18 05						
202	" 26	e	21 33.8						
		MN	58 29	?					
		F	22 15						
203	" 27	e?	20 27.0						
		eL	34.6	?					
		MN	40 30	14	5				
		ME	41 13	16		8			
		F	21 40						
204	" 30	e	10 23.6						
		eL	25.6	18					
		MN	27 58	14	2				
		ME	28 30	13		1			
		F	10 45						
205	" 31	e	16 31.0						
		ME	35 29	16		2			
		MN	36 41	16	3				
		F	17 00						

E. F. Pigott S.J.