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)	166	8.3	6.9	0.02
	(3)	128	9.0	4.0	0.02
A_E	(1)	158	8.7	3.6	0.03
	(3)	160	10.2	3.1	0.038
A_z	(2)	80	5.3	5.0	0.06

No.	Date.	Phase	Time (*Greenwich*)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_z	Δ	Remarks.
	1921		h. m. s.	s.	μ	μ	μ	km.	
1	Jan. 3	eP	21 00 20	6	½	½		2760	
			00 22	6	1½	2		24°50′	
		eS	04 45	8		9			
			04 50	8	3½	2			
		eL	06.5	22					
		MN	07 54	16	10				
		ME	08 18	19		15			
		MZ	08 28	18			6		
		F	21 50						
2	" 4	e(L?)	7 40.5	?					
		ME	42 25	20		3			
		MN	42 50	18	2½				
		F	8 05						
3	" 6	eP	12 06 20	6	1¼	½		3000	
		eS	11 03	10	5	2		27°0′	
		PS	11 19	10	5	2			
			12 35	12		11			
		eL	13.0	26					
		ME	16 24	16		27			
		MN, MZ	18.3	15	17		8		
		F	13 25						
4	" 7	eP	1 06 18	?				3140	
		eS	11 11	8	1¼	2¾		28°15′	
		eL	13.1	30					
		MN	14 11	15	10				
		ME	15 21	18			12		
		ME	15 31	17		30			
		F	2 40						
5	" 7	iP	2 55 49	7	+11	+½	-27	2260	Computed Azimuth:-
			55 45	7	40	11	16	20°20′	182° (N.2°E.)
		eS	59 34	11	21	18			
		eL	3 00.0	20					φ, 13°S.
		MZ_1	01 41	20			77		λ, 151°E.
		ME_1 / MZ_2	03.1	12		100	32		
		MN_1	03 32	11	85				
		ME_2, MZ_3	05.1	9	80		30		
		MN_2	05 51	10	80				
		ME_3	06 49	9		50			Computed time at origin:-
		MN_3	07 48	8	36				h m s
		F	4 55						2 50 59
6	" 7	eL	17 41.8	14					
		MN	43 03	11	2				
		ME	47 35	?					
		F	18 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.
	1921		h. m. s.	s.	μ	μ	μ	km.	
7	Jan. 9	e	13 52.3	?					
		MN	55 27	18	2				
		ME	56 40	18		2			
		F	Lost in N°8						
8	" 9	eP	14 01 40	4	-	1		3540	
		PR_1	02 52	4	-	1		31°51	
		eS	07 00	8	1½	-			
		eL	10.8	20					
		MN	12 21	14	12				
		ME	13 23	16		10			
		F	15 25						
9	" 14	eL	9 16.3	18					
		ME	18 13	12		2½			
		MN	18 22	12	9				
		F	9 45						
10	" 15	eS	12 31 41	12	2	-			
		EL	36.3	20					
		ME	36 43	14		2			
		MN	38 48	14	7				
		F	13 10						
11	" 16	e	9 11.7						
		eL	16.4	16?					
		ME	17 01	12		½			
		MN	18 42	15	1¼				
		F	9 45						
12	" 19	eP	15 19 35	4	¼	-		6070?	
		e(S?)	27 15	9	¼	-		54°37	?
		eL	38.4	22					
		M	43.6	16	4	2			
		F	16 15						
13	" 20	e	1 42.6	13	2	?			A few long waves. E.W. component deranged
14	" 30	e(S?)	14 36.6	?					
		eL	40.5	20					
		ME	41 53	17		2			
		MN	43 38	14	3				
		F	15 00						

E. F. Pigot S.J.

Riverview College Observatory,

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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	$\frac{\epsilon}{T_o^2}$
A_N	1	166	8.5	6.0	0.02
	3	128	9.1	4.1	0.02
A_E	1	169	8.3	3.6	0.02
	3	157	10.3	2.6	0.04
A_Z	2	81	5.2	4.5	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.
	1921								
15	Feb. 4	e(PR_1)	8 42 34	12	-	1½			Destructive earth-
		eS	52 46	17	2	9	6		quake in S. Mexico.
		eSR_1	53 34	20	4	-			
			59 10	20	6	27			
		eL	9 17.4	40					
		M_1	18.8	28	18	40	17		
		MZ_2	21 59	19			4½		
		ME_2	22 22	20		9			
		MN_2	23 58	20	4				
		ME_3	27 16	17		6			
W_2 waves		eW_2	10 16.5	44					W_2 waves well-
(Lrepl)		ME_1	21 46	32		12			marked.
		ME_1^2	24 14	32		12			
		MN_1^2	25 26	?					
		ME_3	26 58	26		8			
		MN_2, ME_4	30.1	24	6	7			
		F	11 20						
16	" 4	e?	8 45.6	8	½	1			
		eL	49.8	13					
		ME	50 30	12		9			
		MN	50 41	12	1½				
		F Lost in N°15							
17	" 10	eP	19 50 00	4	-	½		4290	
		eS	56 04	8	1	-		38° 36′	
		PS	56 38	9	-	1¼			
		eL	58.5	18					
		MN	59 32	16	9				
		ME	20 01 40	18		15			
		MZ	02 49	18			7		
		F	21 10						
18	" 11	eP	0 02 53	4	1	-		5750	
		eS	10 16	12	1½	?		51° 45′	
		PS	11 01	14	3	?			
		eL	16.1	30					Computed time at
		ME_1	17 57	25		12			origin :-
		MN_1	19 53	28	12				h m s
		MZ	23 12	18			4		23 53 43
		ME_2	23 36	20		9			
		MN_2	24 05	18	9				
		F	1 20						

(Continued on next sheet)

Riverview College Observatory,

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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.
	1921		h. m. s.	s.	μ	μ	μ	km.	
19	Feb. 14	eP	1 08 59	2	1	-		4770	N. Clebes
		iS	15 29	10	-1½	-6		42°55′	
			15 32	10	2	5			
		eSR_1	18 38	14	-	1½			
		i	18 50	14	+17	+17			
		eL	23.8	17					
		ME_1	25 02	16		5			Computed time at origin :- h m s 1 00 39
		MN_1	28 14	14	4				
		ME_2	28 34	12		2			
		MN_2	33 18	15	3				
		F	2 50						
20	" 16	eP	10 02 47	2				1040?	Very short
		e(S?)	04 39	4	1			9°26′?	wave-lengths.
		M	06.3	8	1½	1			
		F	10 15						
21	" 18	e(S?)	4 58.5	?					
		eL	5 01.5	18					
		MN	02 24	16	11				
		ME	03 20	14		8			
		F	5 35						
22	" 18	e?	8 26.8	?					
		eL	32.2	18					
		ME	33 58	15		3			
		MN	40 42	?					
		F	8 45						
23	" 19	iP	14 41 08	3	-1	+½	-3	4060	
		iS	46 59	9	+11	1		36°32′	
			47 11	9	7	5			
			48 35	24	9	7			
		iSR_2	49 47	11	-	-			
		SR_3	50 26	8	10	6			
		eL	51.4	18					
		MN_1, MZ_1	54.5	8	34	14			
		ME_1	55 39	9	60				
		MN_2	55 45	8	34				
		MN_3, MZ_2	58.2	12	130		116		
		ME_2	58 25	12		210			
		MN_4, ME_3	15 00.4	8	50	45			
		F	16 30						

(Continued on next sheet)

No. 2 (continued) 192 1921, February.

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	A_E μ	A_z μ	Δ km.	Remarks.
	1921			4					
24	Feb.19	iP	18 21 16	8	-1½	-	-	3590	Near Aroe Islands.
			21 14	8	6	1½		32°18′	
		eS	26 39	9	2	1¼			
		iS	26 43	9	+15	-10			
		PS	27 02	9	10	15			
		eL	30.4	18					
		MN_1, ME_1	33.6	12	130	250			Computed time at origin:- h m s 18 14 21
		ME_2	34 29	13		290			
		ME_3	35 26	12		230			
		MZ_1	36 02	13			110		
		MN_2, MZ_2	36.9	9	125		75		
		ME_4	37 35	11		200			
		MN_3	37 50	12	170				
		MN_4	38 58	9	70				
		ME_5	40 19	12		250			
		MZ_3	40 32	12			80		
		F	20 25						
25	" 24	e	17 07.4						
		ME	09 53	13		1			
		MN	13 28	9	1¼				
		F	17 20						
26	" 27	iP	18 30 31	4	-	-14	+3	3670	Computed Azimuth:- 270° (due East)
			30 43	5	2	16	6	33°2′	
			32 10	5	2½	22			
		iS	35 59	11	+36	-40	5		φ, 27½S. λ, 171°W.
		PS	36 11	11	50	130	25		
		eL	38.3	20					
		MN_1, ME_1	38.7	15	105	70			
		M_2, MZ_1	41.2	20	230	360	255		
		MZ_2	42 01	21			600		Computed time at origin :- h m s 18 23 36
		ME_3	42 09	21		830			
		MN_3	42 34	16	310				
		MN_4	43 38	12	110				
		ME_4, MZ_3	44.6	16		530	320		
		MN_5	45 38	12	155				
		ME_5	47 11	16		200			
		MN_6, ME_6	50.5	16	130	140			
		C_1	19 02.4	12	34	44			
		C_2	08.5	12	20	27			
		F	22 10						
27	" 28	e?	15 16.2						
		e(S?)	19.2	7	1				h m F 15 45
		eL	20.7						
		M	23.2	14	4	3			

E. F. Pigot S.J.

No. 3 192 1921, March.

Riverview College Observatory,

SYDNEY, N.S.W.

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_o	ϵ : 1	$\frac{r}{T_o^2}$
A_N	1	155	8.9	3.9	0.02
	3	124	9.0	4.0	0.02
A_E	1	163	8.4	3.3	0.027
	3	157	10.2	2.4	0.04
A_z	2	79	5.3	4.6	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.
	1921								
28	March 1	e(P?)	6 41.3	6	1	-			
		e(S?)	44.7	12	1½	1			
		eL	47.5	22					
		ME_1	50 54	19		16			
		MN_1	52 03	20	1½				
		ME_2	53 56	12		8			
		MN_2	54 44	13	9				
		F	7 40						
29	" 3	eP	3 14 15	?				7270	
		iS	22 58	"	-4			(65°26	)
			23 04	"	4				
		PS	23 52	"	½				
		eL	33.9	19					
		MZ	36 14	20			8		
		MN	44 16	20	5				
		ME	44 52	20		3			
		F	4 40						
30	" 3	eP	8 29 36	4	-	1	1	5560	
		iS	36 49	5	-6	+7		(49°57	)
		PS	37 12	6	17	6			
		eL	46.2	22					
		MN_1, ME_1	48.8	20	40	24			
		ME_2, MZ_1	52.3	20	55	50	25		
		MN_2	52 39	16		35			
		M_2	53 17	15			10		
		F	10 10						
31	" 5	e?	6 49.3						Heavy micro-seisms.
		e(S?)	54.4						
		eL	59.1	22					
		MN_1	7 02 40	20	8				
		ME_1	02 50	20		6			
		MN_2	05 20	16	5				
		ME_2	08 06	18		21			
		MZ	08 35	20			9		
		F	7 55						
32	" 6	e(L?)	7 23.0	?					
		MN	26 56	14	3				
		ME	27 17	?					
		F	7 35						

(Continued on next sheet)

Riverview College Observatory,

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SEISMOLOGICAL BULLETIN.

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2. Wiechert Vertical Seismometer (80 kilo.)
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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*)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks.
	1921		h. m. s.	s.	μ	μ	μ	km.	
33	March 10	eP	20 10 41	5	1	-		2690	
		eS	15 01	7	1	1¼		(24.2°	
		iS	15 05	7	+12	-10			
		PS	15 25	7	7	7			
		eL	17.8	19					
		MN_1	19 21	16	30				
		ME_1	21 01	11		80			
		MZ	21 42	11			10		
		MN_2	21 50	11	25				
		ME_2	22 19	10		35			
		F	22 00						
34	" 11	e	19 27.8						
		MN	36 34	10	1				
		ME	37 26	9		1			
		F	19 55						
35	" 15	eP	22 33 37	6	½	½		2150	
		eS	37 13	½	-			(19.5°	
		eL	38.7	18					
		ME	40 45	15		6			
		MN	40 57	12	10				
		F	23 40						
36	" 16	eP	11 42 00	?				2560	Heavy micro-
		eS	46 10	8	2½	-		(23.0°	seisms.
		eL	48.7	26					
		MN	49 46	23	15				
		ME	50 23	18		9			
		MZ	50 35	18			4		
		F	12 20						
37	" 17	e?	6 41.2						
		e(S?)	46.2						
		eL	48.2	15					
		MN	50 32	11	1½				
		ME	50 52	12		1½			
		F	7 20						
38	" 20	e	22 40.5	9?					
		eL	44.7	18					
		ME	47 25	16		5			
		MN	48 05	11	2				
		F	23 30						
39	" 21	e?	5 10.6						
		e(L?)	16.8	?					
		MN	18 45	18	2				
		F	5 35						

(Continued on next sheet)

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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.
	1921		h. m. s.	s.	μ	μ	μ	km.	
40	March 22	e (P?	12 03 26						
		e (S?	10 50						
		eL	16.2	20					
		MN_1	20 26	13	5				
		ME_1	2o 44	15		3			
		ME_2	22 03	12		3			
		MN_2	22 19	12	5				
		F	13 30						
41	" 23	e	13 43.3						
		eL	46.7	15					
		MN	48 04	13	1				
		ME	49 48	15		3			
		F	14 25						
42	" 23,	eP	22 51 16					5320?	
	24	e (S?	58 16	7					
		eL	23 01.7	30					
		MN_1	02 50	24	115				
		ME_1	03 05	20		105			
		MN_2, ME_2	03.7	20	90	145			
		ME_3	06 08	14		80			
		MN_3	06 28	14	60				
		MZ	07 40	12			30		
		F	1 15						
43	" 24	eP	1 32 17	4	½			5320	
		es	39 17	6	1			(47.9°	
		eL	43.1	?					
		MN_1, ME_1	45.3	14	30	50			
		MZ	47 19	15			20		
		MN_2	47 48	15	55				
		ME_2	50 39	15		85			
		F Lost in N°44							
44	" 24	e?	3 58.7						
		ME	05 53	11		1			
		MN	06 23	9	1				
		F	3 30						
45	" 24	eP	9 22 57	5	-	¾		3240	
		PR	23 56	6	½	2		(29.1°	
		eS	27 57	8	1½	½			
		eL	30.2	24					
		MN_1	31 21	15	35				
		MZ_1	32 23	18			30		
		ME_1	32 45	18		60			
		MN_2	33 17	16	45				
		MZ_2	33 29	16			15		
		ME_2	33 52	16		55			
		ME_3	35 09	16		55			
		F	11 45						

(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				

3

No.	Date.	Phase.	Time (*Greenwich*)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_z	Δ	Remarks.
	1921		h. m. s.	s.	μ	μ	μ	km.	
46	March 24	eP	14 54 05					9600	
		eS	15 04 45	11	3	-		(86.4°)	
			05 09	6	1	1½			
		SR_2	11 03	22	5	-			
		e	17 05	28	½	9			
		eL	21.8	32					
		M	23.5	28	19	13			
		F	17 15						
47	" 26	e(S?)	0 50.3	9	½	1			
		eL	51.5	20					
		ME	52 56	17		2			
		MN	53 19	12	2				
		F	1 15						
48	" 26	e?	2 08.5						
		eL	13.1	16					
		M	15.6	12	3	1¾			
		F	2 35						
49	" 26	e(S?)	13 19.0	5	1	-			
		eL	22.8	18					
		ME	23 17	16		2			
		MN	27 06	16	2½				
		F	13 50						
50	" 29	eP	8 06 21	5	1	½		13,800	Nicaragua?
		eS	19 49	7	1	1¼		(124.2°)	
		PS	20 37	8	1½	5			
		eSR_1	27 08	24	8	23			
			27 53	24	8	23			
		eL	44.2	34					
		MN_1	47 12	26	30				
		MZ	47 51	24			50		
		ME_1	48 06	28		100			
		MN_2	49 53	24	20				
		ME_2	50 16	20		35			
		ME_3	53 25	18		19			
		MN_3	54 04	18	7				
		ME_4	59 35	16		16			
		MN_4	9 01 21	16	10				
	W_2 waves (Lrepl)	eW2	41.3	32					
		ME_1	42 32	26		11			
		MN_1	42 45	26	7				
		ME_2	44 03	36		22			
		MN_2	51 51	24	6				
		ME_3	55 08	24		11			
		ME_4	57 29	24		14			
		MN_3	58 03	24	8				
		ME_5	10 03 17	20		9			
		ME_6	07 41	22		7			
		MN_4	08 06	22	5				h m F 10 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	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.
51	1921 March 29	eP?	22 21.9						
		e(S?)	33.9	10	1	½			
		eL	56.8	24					
		MN_1	58 08	20	7				
		ME_1	23 03 19	?					
		MN_2	03 55	18	3				
		F	23 40						
52	" 30	eP	15 08 48	2 4	½	½		3360 (30.2°)	Short wave-length.
		iS	13 56	8	-18	+25			
			14 06	8	24	42			
		PS	14 24	9	6	7			
		eL	15.0	20					
		MN_1, ME_1	15.5	13	40	40			
		MN_2, ME_2	16.5	8	50	50			
		MN_3	17 52	4	80				
		ME_3	18 44	8		79			
		MZ_1	19 55	6			75		
		ME_4	20 08	8		125			
		MN_4	20 20	8	130				
		MZ_2	21 56	6			60		
		MN_5	22 50	11	150				
		ME_5, MZ_3	23.8	11		220	180		
		MN_6	24 04	13	200				
		ME_6	25 42	9		90			
		ME_7	27 29	8		55			
		C_1	35.6	10	9	12			
		C_2	40.7	11	7	6			
		F	18 35						

E. F. Pigott Esq.

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.) (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)	157	8.8	4.2	0.03
	(3)	130	9.0	4.2	0.03
A_E	(1)	159	8.5	3.2	0.03
	(3)	157	10.2	2.3	0.04
A_z	(2)	81	5.3	4.4	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.
53	1921 Apr. 1	e(P?)	4 06 30						Microseisms present.
		e	25 09	?					
		eL	33.2	50					
		MN_1, ME_1	36.7	30	55	45			
		MN_2	41 49	20	40				
		ME_2	42 40	20		36			
		MN_3	43 25	13	15				
		ME_3	47 35	16		25			
		MZ	47 56	17			5		
		F	8 00						
54	" 1	eP	12 06 13	4	2¼	2		2590	" "
		eS	10 25	9	4	2½		(23.3°)	
		eL	11.5	24					
		MN_1, ME_1	14.0	16	25	23			
		MN_2	15 41	14	22				
		ME_2	16 07	13		18			
		MZ	17 07	13			3½		
		MN_3	18 09	12	15				
		ME_3	19 21	10		22			
		F	13 50						
55	" 2	eP	9 47 15					7030	" "
		eS	55 46	7	9	½		(63.6°	
			56 00	7	5	2			
		eL	10 05.1	24					
		ME_1	06 00	20		12			
		MN_1	08 09	20	11				
		ME_2	11 06	17		6			
		MN_2	11 46	19	13				
		MN_3	16 30	16	10				
		ME_3	18 06	16		2			
		F	11 20						
56	" 4	e	11 09.6	14					A few long waves.
57	" 6	e?	4 26 36						
		eS	29 59	9	-	1¼			
		eL	32.4	16					
		MN_1	33 34	13	3				
		ME_1	34 38	9		1			
		MN_2	36 41	9	1½				
		ME_2	37 38	9		1			
		F	5 05						
58	" 7	e?	19 16.1						
		ME	20 30	9		2½			
		MN	21 34	?					
		F	19 30						

(Continued on next sheet)

Riverview College Observatory,

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

$\varphi = 33° 49' 49''$ S. $\lambda = 151° 9' 30''$ 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*) h. m. s.	Per. s.	Amplitude A_N μ	A_E μ	A_z μ	Δ km.	Remarks.
59	1921 Apr. 14	e?	16 44.1						Heavy microseisms.
		eL	48.1	16					
		MN	49 21	14	2½				
		ME	49 42	14		2½			
		F	17 00						
60	" 15	eP	21 12 32	5	-	1½		3230	
		iP	12 36	5	-	+13	-2	(29.1°)	
		iPR_1	13 21	6	+3	+17			
			13 23	6			3		
		eS	17 33	8	5	1			
		PS	17 46	8	10	8			
		eL	19.6	?					
		MN	20 51	15	12				
		ME	22 07	16		4			
		F	22 20						
61	" 22	eP	6 27 09	3 9)	-	1		2920	
			28 50	9	½	3		(26.3°)	
		eS	31 46	9	½	2			
		PS	32 06	9	2½	1½			
		eL	34.4	24					
		MN_1	35 46	16	49				
		ME_1	36 32	16		27			
		MZ	36 46	17			24		
		ME_2	37 50	16		38			
		MN_2	39 46	12	14				
		ME_3	45 02	16		14			
		MN_3	46 46	12	13				
		F	8 45						
62	" 22	eP	20 52 46					3480?	
		e(S?)	58 02	10	1	-			
		eL	59.9	24					
		ME_1	21 02 06	19		8			
		MN	04 27	15	3				
		ME_2, MZ	06.7	16		7	5		
		F	22 25						
63	" 23	eP	19 04 48	1				410?	Evidently of near origin, (N.S.W.)
		S?	05 33	2	1	3			
		MN	06 01	9	2¼				
		ME	06 30	9		¾			
		F	19 10						
64	" 23	e	20 53.2						
		MN	56 58	14	4				
		ME	57 40	16		3			
		F	lost in No. 65.						

(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.
	1921		h. m. s.	s.	μ	μ	μ	km.	
65	Apr. 23	eP	21 10 28	?				2290	
		iS	14 16	7	+4	+1½		(20.6°	
		PS	14 32	7	¾	3			
		eL	16.6	16					
		ME	17 56	14		2			
		MN	18 48	12	1¼				
		F	21 35						
66	" 25	eP	2 47 09	3				2200	
		eS	50 49	7	½	½		(19.8°	
		iS	50 56	7	-5	+5½			
		PS	51 09	7	1½	½			
		MN	55 22	10	½				
		ME	55 32	10		1			
		F	3 10						
67	" 25	eP	17 39 27	4	-	½		2820	
		eS	43 57	7	2	-		(25.4°	
		iS	44 02	7	-10	-			
		SR_2	45 29	11	19	4			
		SR_3	45 41	12	28	9			
		eL	45.8	24					
		ME_1, MZ_1	47.1	22	70	30			
		MN_1	47 37	16	34				
		MZ_2	48 26	17			12		
		ME_2	48 48	16		25			
		MN_2	49 00	14	27				
		MN_3	50 45	12	18				
		F	19 15						
68	" 27	eP	1 46 11					2240	Heavy long-period
		eS	49 55	8	¾	½		(20.1°	microseisms, (T, 9s.)
		PS	50 07	9	-	2			
		eL	52.7	17					
		ME	54 10	16		3½			
		MN	54 51	14	2½				
		F	2 15						

J. F. Pigot S.J.

No. 5 1921, May.

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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	ϵ : 1	$\frac{r}{T^2}$
A_N	1	155	8·7	6·7	0·02
	3	122	9.0	4.2	0.03
A_E	1	161	3.3	8.3	0.02
	3	149	10.2	2.0	0.04
A_Z	2	88	5.1	3.5	0.08

No.	Date.	Phase	Time (*Greenwich*)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks.
	1921		h. m. s.	s.	μ	μ	μ	km.	
69	May 1	e(S?)	6 07.9	16?					
		eL	31.4	28					
		MN_1	38 18	19	4				
		ME_1	39 21	16		4			
		ME_2	41 03	16		7			
		MN_2	47 46	17	3				
		ME_3	50 22	14		3			
		MN_3	52 39	15	2½				
		ME_4	53 10	16		5			
		F	7 30						
70	" 2	e	16 17.1						
		eS	20 07	7	1	1			
		eL	22.2	15					
		ME	23 07	14		3			
		MN	24 36	11	1¾				
		F	16 50						
71	" 3	e(P?)	10 51.2						
		e(L?)	58.6	?					
		ME	11 03 07	18		3¾			
		MN	03 29	11	1¼				
		F	11 15						
72	" 4	e?	21 21.9						
		e(L?)	28.0	?					
		M_1	29.5	8	2	1			
		MN_2	31 58	12	2				
		ME_2	37 04	13		1			
		F	21 45						
73	" 5	e?	3 04.1						
		eL	06.3	18					
		ME	07 02	15		3			
		MN	07.54	10	1½				
		F	3 50						
74	" 12	eP	3 46 08	3				2960	
		i	46 20	4	-6	-		(26.6°)	
		eS	50 48	8	3½	-			
		PS	51 04	8	10	2½			
			51 27	17	63	16	18		
		eL	52.3	40					
		ME_1	55 40	20		80			
		MN_1	55 48	20	65				
		MZ	56 13	20			70		
		ME_2	57 04	18		45			
		MN_2	59 25	16	38				
		F	6 20						
75	" 13	e	13 00.5						
		ME	07 57	20		3			
		MN	08 33	18	2½				
		F	13 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*) h. m. s.	Per. s.	Amplitude A_N μ	A_E μ	A_z μ	Δ km.	Remarks.
76	1921 May, 13	e?	20 19.8						
		e(L?)	27.5	20					
		MN	32 17	16	4				
		ME	32 47	19		2 4			
		F	21 10						
77	" 13	e(P?)	21 23 05						
		e(S?)	27 49	?					
		eL	34.3	20					
		MN_1	37 49	19	5				
		ME_1	37 24	15		2½			
		MN_2	41 13	16	9				
		ME_2	42 29	16		4			
		MN_3	45 45	12	3				
		ME_3	49 57	12		2			
		F	22 40						
78	" 14	eP	11 26 13	?				5250	
		eS	33 09	9	1	3		(47.1°)	
		PS	33 29	12	3	9			
		SR_1	36 41	11	3½	2			
			36 54	12	11	9			
		eL	40.6	24					
		ME_1	43 27	22		23			
		MN_1	44 25	20	18				
		ME_2	46 33	20		8			
		MN_2	47 41	17	10				
		ME_3	49 37	17		14			
		MN_3	51 14	16	13				
		MZ	54 49	?					
		F Lost in N°79							
79	" 14	e(P?	12 33 17	5	½	1			
		e(S?	38 23	9	-	¾			
		eL	40.3	22					
		MN	41 17	18	10				
		ME_1	42 13	18		15			
		ME_2	45 13	14		7			
		F	13 30						
80	" 14	iP	20 24 13	4	+1¼	-5		2960	
		ePR_1	24 53	5	-	1		(26.6°)	
			25 07	5	-	5			
		eS	28 53	8	-	1			
		PS	29 13	11	-	3			
		eL	30.7	25					
		ME_1	32 29	21		45			
		MN_1	33 25	16	30				
		ME_2. ME_1	34.2	16		75	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	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.
	1921								
80	May 14	MZ_2	20 35 40	16			22		
	(continued)	ME_3	36 17	16		75			
		MN_2, ME_4	38.3	13	24	28			
		ME_5	41 49	13		23			
		MN_3	42 33	12	11				
		F	22 25						
81	" 16	eP	15 18 19	5	-	¾		2850	
		eS	22 51	8	-	½		(25.6°)	
		eL	24.6	18					
		MN_1, ME_1	27.4	16	11	11			
		ME_2	28 29	16		20			
		MZ	28 45	16			6		
		MN_2	30 55	12	6				
		MN_3	33 15	12	10				
		ME_3	35 27	13		11			
		ME_4	38 21	12		10			
		F	17 20						
82	" 20	e	1 15.8	11	1¾	-			
		e(L?)	25.7	25					
		ME	29 18	19		3			
		MN	29 37	14	2				
		F	2 20						
83	" 20	e?	2 44.5						
		eL	48.7	18					
		M	51.7	16	3	3			
		F	3 10						
84	" 20	e(P?)	13 30 32						
		eL	44.9	18					
		ME_1	45 41	16		4			
		MN	46 30	16	5				
		ME_2	50 46	12		2			
		F	15 05						
85	" 21	eP	8 51 18	4	1	-		6050	
			51 34	6	1	-		(54.4°)	
		eS	58 57	10	3	1¼			
			59 04	10	7	3½			
		eSR_1	9 02 58	12	5	2			
			03 10	12	9	2			
		eL	07.9	20					
		ME_1	09 42	18		10			
		MN_1, ME_2	12.3	20	15	25			
		MN_2	15 07	18	15				
		ME_3	17 38	18		10			
		MN_3	19 26	16	11				
		F	10 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.
	1921		h. m. s.	s.	μ	μ	μ	km.	
86	May 21	e?	22 58.3						
		eL	23 08.5	17					
		MN_1	10 46	15	3				
		MN_2	20 09	16	3				
		ME_1	23 13	15		2½			
		MN_3	28 46	16	3				
		ME_2	28 57	15		2½			
		F	lost in No. 87.						
87	" 21, 22)	e?	23 54.1	4	3	½			
		e	0 06.2	9	1¼	¾			
		F	0 35						
88	" 23	iP	4 30 20	5	-4	+4		2440?	
		e(S?)	34 20	8	2	1			
		e(L?)	38.3	?					
		MN_1	45 54	16	3				
		ME	48 47	16		3			
		MN_2	55 52	16	3				
		MN_3	5 00 32	13	2				
		F	5 20						
89	" 25	e	0 14.3						Microseisms.
		MN_1	25 17	?					
		ME	34 20	14?					
		MN_2	35 21	?					
		F	0 55						
90	" 28	e(S?)	19 34 04	12					
			34 37	12	.3	-			
		e(SR_1)	37 42	11	1¼	-			
			38 02	11	5	4			
		eL	46.7	20					
		M_1	48.5	19	5	8			
		MN_2	54 30	15	5				
		ME_2	55 22	14		4			
		F	20 35						
91	" 30	eP?	14 53 19	?				560–600 km.	
		S	54 21	1					
			54 28	1	7	8			Felt at Hay, Balranald, Tocumwal, &c.: (New South Wales)
		MN	54 48	4	3				
		ME	54 55	6		2¼			
		F	14 58						
92	" 31	e(P?)	21 11 44					2960?	
		eS	16 24	?					
		eL	18.4	17					
		ME	20 46	13		3			
		MN	21 25	12	12				
		F	21 35						

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)	158	8.9	5.5	0.02
	(3)	122	8.9	4.0	0.02
A_E	(1)	146	8.2	3.4	0.02
	(3)	159	10.1	2.0	0.04
A_z	(2)	80	5.1	4.8	0.07

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.
	1921								
93	June. 1	e(S?)	8 52.4	7	1¾				
		eL	58.0	20					
		MN	9 01 39	15	5				
		ME	02 08	12		1¾			
		F	9 30						
94	" 2	e?	7 35.4	7					
		e(L?)	36.8						
		ME	45 22	22		6			
		MN	45 48	20	4				
		F	8 15						
95	" 4	eL	4 34.0	?					
		MN	36 30	14	2				
		ME	37 34	14		3			
		F	4 55						
96	" 5	e(P?)	1 53 38					2640?	
		eS	57 54	6					
			58 14	7		1			
		eL	59.6	16					
		MN	2 00 31	13	1¾				
		ME	02 23	10		1			
		F	2 25						
97	" 5	e(S?)	18 17.6						
		eL	20.2	?					
		ME_1	22 15	11					
		MN_1	22 51	14	2				
		ME_2	24 35	10		3½			
		MN_2	26 27	11	4				
		F	19 00						

(Continued on next sheet)

(continued) 1921, July.

Riverview College Observatory,

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

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

INSTRUMENTS:

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

	V	T_0	ε : 1	$\frac{r}{T_0^2}$
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.
	1921								
98	~~July~~ 12, June 13)	eP	23 20 39	4				2390	
		eS	24 35	6	1	1½		(21.5°)	
		PS	24 43	6	½	1			
		eL	26.2	18					
		MN	27 09	15	3				
		ME	28 03	17		3			
		F	0 10						
99	" 28	iP	14 03 29	2	-1	+4		2340	Computed Azimuth:-
		i	03 34	2			+11	(21.0°)	292° (S, 68° E)
		i	03 41	4	-5	+12			
		i	03 44	4	+9	-26			φ, 39.8° S
		PR_1	03 55	6	32	100	37		λ, 177.4° E
		PR_2	04 11	6	23	65	9		
		PR_3	04 23	6	7	41			
		PR_4	04 32	6	7	28			Computed time at origin:-
		iS	07 21	7	+55	-32	-		h m s
		PS	07 38	8	50	12	10		13 58 29
		SR_1	08 04	10	100	100	25		
		SR_2	08 22	9	60	17			
		eL	08.9	25					
		ME_1, MZ_1	10.7	12		55	10		
		MN_1	11 12	12	50				Strongly felt in New Zealand,- especially near Hawke's Bay.
		ME_2	11 45	13		85			
		MZ_2	12 02	12			15		
		MN_2, ME_3	13.4	12	65	60			
		F	16 10						

Edward F. Pigot S.J.

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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	151	8.7	5.2	0.02
	3	125	9.0	3.5	0.02
A_E	1	160	8.3	3.4	0.02
	3	154	10.3	2.3	0.04
A_Z	2	85	5.0	3.7	0.06

No.	Date.	Phase	Time (*Greenwich*)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks.
	1921		h. m. s.	s.	μ	μ	μ	km.	
100	July 3	e?	5 09.5						
		eL	15.6	20					
		ME, MN_1	18.0	18	7½	5			
		MN_2	20 13	12	3				
		F	6 00						
101	" 4	eP	14 28 03	4	1½	-	1¼	6460	
		iS	36 04	5	-1¾	-12		(58.1°)	
			36 11	5	3	12			
		eL	45.1	18					
		ME_1	46 16	16		2			
		MN_1	48 01	?					
		ME_2	49 30	17		3½			
		MN_2	54 49	?					
		F	15 15						
102	" 5	e(P?)	12 42.8	7	-	½			
		e(S?)	46.4	8	3	½			
		e(L?)	49.6	15					
		MN	50 26	12	1½				
		F	13 00						
103	" 5	e	20 39.0						
		eL	43.5	14					
		ME	44 09	13		1½			
		MN	44 28	12	2				
		F	21 00						
104	" 7	eP	10 51 27	5	½	¾		2740	
		eS	55 51	9	2	-		(24.6°)	
			56 15	9	9	5			
		eL	58.8	21					
		ME_1	11 01 19	17		11			
		MN_1	01 47	19	17				
		ME_2	03 25	15		6			
		MN_2	04 06	16	9				
		bMZ	04 24	16			? 7		
		MN_3	06 01	12	6				
		F	12 25						
105	" 8	e	13 36.3	6	1	-			
		eL	41.0	18					
		MN	43 43	12	4				
		ME	44 43	12		1½			
		F	14 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	$\epsilon : 1$	$\frac{r}{T_o^2}$
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.
	1921		h. m. s.	s.	μ	μ	μ	km.	
106	July 10	e?	1 52.7						
		eL	57.6	16					
		MN_1	57 59	14	5				
		ME_1	58 26	12		2			
		ME_2	2 06 11	12		2			
		MN_2	06 43	12	2				
		F	2 40						
107	" 13	e?	13 14.4						
		eL	19.1	22					
		MN	21 15	22	8				
		ME	22 21	15		3			
		F	13 45						
108	" 15	iP	18 13 54	4	$-1\frac{1}{4}$	+1	$+1\frac{1}{4}$	4860 (43.7°)	Sangir Islands (cf, Batavia)
		i	15 42	5	+10	-6			
		eS	20 29	7	1	-			
		eSR_1	23 42	12					
			24 01	12	8	5			
		eL	28.8	22?					
		ME	33 38	12		8			
		MN	35 16	12	10				
		F	19 20						
109	" 29	e(P?)	0 37 11	5	$\frac{1}{2}$	1			
			37 32	5	$2\frac{1}{4}$	4			
		eL	44.2	28					
		ME	46 55	22		9			
		MN_1	49 08	13	5				
		ME_2	50 38	15		5			
		F	1 15						
110	" 31	eP	10 56 10	5	1	$\frac{1}{2}$		2620 (23.6°)	
			11 50	6	$3\frac{1}{4}$	4			
		eS	11 00 25	8	4	$\frac{1}{2}$			
			00 42	8	25	7			
			00 59	8	10	18	2		
		eL	01.6	25					
		MN_1	03 31	20	50				
		ME_1	04 04	20		60			
		MN_2, MZ	04.9	18	37				
		ME_2	05 18	16		28			
		MN_3	11 02	13					
		F	11 15						

Edmund F. Pigott S.J.

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.) (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)	160	8.3	2.1	0.03
	(3)	128	9.0	3.6	0.02
A_E	(1)	156	8.5	2.0	0,02
	(3)	177	10.0	2.0	0.04
A_z	(2)	83	5.0	3.8	0.08

No.	Date.	Phase.	Time (*Greenwich*)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_z	Δ	Remarks.
	1921		h. m. s.	s.	μ	μ	μ	km.	
111	Aug. 13	eL	3 19.0	16					
		MN	19 51	13	3				
		F	3 30						
112	" 13	eP	13 01 15	4	1	1½		3790	
		eS	06 50	5	1¼	½		(34.1°)	
		PS	07 11	6	1½	3			
		eL	10.8	?					
		MN_1	11 35	6	15				
		ME_1	13 17	8		16			
		MN_2	13 52	7	19				
		ME_2	15 50	8		22			
		MN_3	18 15	11	13				
		MZ	19 16	9			5		
		F	14 15						
113	" 14	e?	14 06.9						
		eL	12.4	28					
		ME	16 42	20		3			
		F	14 40						
114	" 14	e?	16 38.3						
		e(S?)	40.2	6	-	1¾			
		i	40 53	5	+5	+3			
		ME	43 59	10		1			
		MN	44 20	10	1				
		F	16 55						
115	" 15	eL	14 20.9	20					
		MN_1	23 19	16	4				
		ME_1	24 45	16		6			
		MN_2	25 17	13	6				
		ME_2	27 17	14		8			
		MZ	27 49	13			3		
		F	15 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.
	1921		h. m. s.	s.	μ	μ	μ	km.	
116	Aug. 18	e?	7 14.5						
		eL	18.8	12					
		MN	21 16	11	4				
		ME	21 23	11		1			
		F	8 10						
117	" 18	e(L?)	0 17.5	?					
		ME_1	20 45	19		3			
		MN	28 00	16	2				
		ME_2	28 36	16		2			
		F	1 05						
118	" 21	eL	11 01.5	20					
		ME	03 32	16		2			
		MN	05 59	14	2				
		F	11 25						
119	" 23	e(P?)	10 04 18	?					Short wave-lengths.
		i(S?)	08 23	4	-	+6			Microseisms present.
		e(L?)	09.6	?					
		ME_1	13 37	5		11			
		ME_2	14 47	7		13			
		MN	15 02	6	20				
		MZ	15 21	6			3		
		F	10 45						
120	" 24	e?	20 37,4						
		i(S?)	40.3	4	+5				
		MN	43 05	14	5				
		ME	45 47	?					
		F	20 55						

Edward F. Pigot S.J.

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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.) (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	153	8.5	4.2	0.02
	3	117	9.0	3.9	0.02
A_E	1	156	8.4	3.5	0.02
	3	153	10.5	1.8	0.02
A_z	2	70	5.4	4.1	0.09

No.	Date.	Phase.	Time (*Greenwich*) h. m. s.	Per. s.	Amplitude A_N μ	A_E μ	A_z μ	Δ km.	Remarks.
	1921								
121	Sep. 5	e(P?)	20 09 40	6	-	½		8490?	
		eS	19 25	8	½	½			
			19 58	8	-	½			
		eL	31.2	28					
		ME_1	32 00	24		9			
		MN_1	37 17	16	3				
		ME_2	38 16	13		2			
		ME_3	40 21	13		2¾			
		MN_2	40 49	14	5				
		MN_3	46 15	15	3				
		F	21 55						
122	" 6	eP	4 31 00	5	-	¾		3700	
		eS	35 30	7	1	1		(33.3°)	
		eL	37.4	20					
		MN	39 22	15	3				
		ME	44 10	13		1			
		F	5 15						
123	" 11	eP	4 09 35	4				4680	Computed azimuth =
		iP	09 37	4	-5½	+15	+12	(42.1°)	110° (N.70°W.)
			10 05	8	9	19	30		
		iS	16 00	9	+13	-21	+7		Computed φ, 13°S.
			16 34	9	29	45			" λ, 111°E.
		SR_1	18 33	14	39	36			
		eL	19.2	32					" time at origin :-
		SR_2	19 34	9	40	41			h m s
		SR_3	19 55	9	60	75			4 01 25
			20 07	9	36	90			
		M_1	23.8	25	1200	53	140		
		MN_2	24 42	20	170				Felt in Java, Bali,
		ME_2	25 51	12		240+			and Lombok Is.
		MN_3	26 55	14	580				
		ME_3, MZ_2	27.5	13		270	210		Reductions NS & EW
		ME_4	30 31	9		155			from seismom. No. 3,
		MZ_3	31 19	12			400		(except initial P-
		MN_4	32 17	12	500+				waves, from No. 1,
		ME_5	32 56	8		190			which later became
		MZ_4	33 00	13			510		deranged by large
		MN_5	35 23	9	320				oscillations at
		ME_6	36 35	9		125+			4h.24.6m.
		MZ_5	38 07	12			420		

(Continued on next sheet)

 1921, September.

Riverview College Observatory,

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

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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.
	1921								
123	Sept. 11	ME_7	4 38 35	12		170+			
(continued)		MN_6	39m27	9	230				
		ME_8	40 47	12		150			
		MN_7	41 16	8	200				
		MN_8	42 27	9	180				
		ME_9	43 08	12		230+			
		MZ_6	44 32	11			270		
		MN_9	46 23	8	120				
		ME_{10}	47 20	13		280+			
		ME_{11}	49 53	13		220			
		MN_{10}	50 07	9	130				
		ME_{12}	56 30	9		105			
		ME_{13}	5 04 38	10		65			
		C_1	15.3	9	35	47	20		
		C_2	19.2	9	36	27	17		
		CE_3, CZ_3	23.4	9		25	5		
		CN_3	23 52	9	20				
		F	6 10						
124	" 13	eP	2 50 03	4	1	-		9240 (83.1°)	Aleutian Islands ?
			54 21	9	1½	-			
		eS	3 00 26	?					
			00 47	16	4	2			
		eL	14.0	25					
		MN_1	15 02	19	5				
		ME_1	15 15	24		14			
		ME_2	22 34	19		13			
		MN_2	23 43	20	16				
		MN_3	29 39	18	47				
		ME_3, MZ_1	29.9	16		20	17		
		ME_4	33 43	16		11			
		MZ_2	35 31	17			13		
		MN_4	36 42	16	36				
		ME_5	39 43	16		9			
		MN_5	40 58	16	13				
		MZ_3	43 25	14			6		
		MN_6	43 59	14	15				
		ME_6	44 47	12		4			
		MN_7	50 27	15	17				
		F	5 40						

(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	A_E μ	A_z μ	Δ km.	Remarks.
	1921								
125	Sept. 15	e(S?)	0 18.8	7	1½	1			
			19 54	8	1¾	1¾			
		eL	20.8	14					
		ME	22 52	15		7			
		MN	23 56	12	2				
		F	0 30						
126	" 17	e?	17 16.8						
			17.5	7	1½	1			
		i	17 45	7	1	+4			
		F	?						
127	" 19	e	8 56.9	5	1½	1			
		eL	9 02.1	18					
		ME	02 57	15		4			
		MN	04 17	14	3				
		F	9 15						
127a	" 19	eP	23 21 51	?				4050 (36.4°)	
			22 45	7	2	2			
		PR_2	23 37	9	2½	3			
			23 51	9	3	10			
		eS	27 41	10	8	4			
		PS	27 49	10	18	35			
		SR_1	29 38	11	13	8			
			29 57	11	27	21			
		eL	30.2	32					
		M_1	31.1	25	56	180	75		
		ME_2	32 05	18		65			
		MN_2	33 52	14	40				
		MZ_2	34 15	13			14		
		MN_3	34 41	12	30				
		ME_3	35 18	12		22			
		MN_4	38 09	12	15				
		ME_4	38 53	11		14			
	" 20	F	1 45						
128	" 20	e?	9 11.9						
		e	15.9						
		eL	17.9	13					
		M_1	18.9	8	4	2			
		MN_2	20 31	12	3				
		ME_2	20 46	10		4			
		F	9 40						
129	" 20	e(S?)	19 03.7	9	1½	-			
		e(L?)	05.0	10					
		M	07.1	12	1½	1½			
		F	19 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				
A_E		(See last sheet)		
A_z				

No.	Date.	Phase	Time (*Greenwich*)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_z	Δ	Remarks.
	1921		h. m. s.	s.	μ	μ	μ	km.	
130	Sept. 20	eP	20 37 57	4	1	-		2550?	
		e(S?)	42 06	8	1	-			
		eL	44.5	16?					
		MN_1	46 29	11	3½				
		MN_2	48 53	13	3				
		ME	49 11	13		1			
		F	21 05						
131	" 21	e(P?)	11 53.7	5	1	-			
		eL	12 01.4	24					
		ME_1	03 06	20		4			
		MN	04 29	16	3.				
		ME_2	07 57	16		3			
		F	12 40						
132	" 22	e?	6 50.4						
		e(S?)	54.7	12?					
		eL	7 01.5	16					
		MN_1	02 00	14	3				
		ME	03 53	18		3½			
		MN_2	05 38	14	2				
		F	7 30						
133	" 26	eS	2 53.8	8	1	-			
		eL	57.2	16					
		MN	57 53	12	2				
		ME	3 03 54	?					
		F	3 20						
134	" 26	eP	20 18 19					3660	
		iS	23 46	7	-	+4		(32.9°	
		eL	25.9	22					
		ME	28 02	14		4			
		MN	28 10	14	3				
		F	21 00						

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	e : 1	$\frac{r}{T_o^2}$
A_{NS}	1	153	8.5	4.2	0.02
	3	117	9.0	3.9	0.02
A_E	1	156	8.4	3.5	0.02
	3	153	10.5	1.8	0.02
A_z	2	70	5.4	4.1	0.09

No.	Date.	Phase	Time (*Greenwich*)	Per.	Amplitude A_S	Amplitude A_E	Amplitude A_z	Δ	Remarks.
	1921		h. m. s.	s.	μ	μ	μ	km.	
135	Oct. 5	e?	2 13.1						
		eL	22.5	15					
		MN_1	23 53	14	4				
		MN_2	25 53	11	2				
		F	2 45						
136	" 5	eS	20 40 57	8	½				
		eL	44.5	18					
		ME	45 13	15		1½			
		MN	46 17	15	2				
		F	21 05						
137	" 7	eP	15 15 14					5100?	
		e(S?)	22 02	?					
		eL	27.0	24					
		MN_1	27 34	22	11				
		ME_1	29 04	16		11			
		MN_2	28 54	18	10				
		ME_2	29 50	16		15			
		MN_3	31 54	12	3				
		ME_3	33 54	10		3			
		F	16 00						
138	" 7	eL	18 11.6	20					
		ME	13 10	18		3			
		MN	13 41	18	3				
		F	18 30						
139	" 9	e(P?)	0 09 14	?					
		e(S?)	20 03	?					
		eL	41.6	24					
		ME_1	46 58	24		6			
		MN_1	47 06	24	5				
		ME_2	50 41	20		5			
		MN_2	52 39	14	3				
		F	2 25						
140	" 9	e	6 55.6						
		eL	58.3	?					
		MN	7 00 30	16	2				
		ME	00 45	16		2			
		F	7 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				
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.
	1921								
141	Oct. 10	eP	2 12 32	4	1	-	1	3250 (29.2°)	Short wave-lengths.
			13 02	4	3	1			
			14 19	6	12	3	8		
		eS	17 33	8	5	2			
			17 43	8	13	9			
		eL	19.3	?					
		MN_1	21 20	12	60				
		ME_1	21 41	9		40			
		MN_2, ME_2	23.7	9	135	290			
		MZ_1	24 30	5			55		
		ME_3	24 42	8		145			
		MZ_2	25 04	6			50		
		MN_3	26 07	6	65				
		ME_4	26 59	9		105			
		MN_4	27 27	8	70				
		ME_5	28 34	8		75			
		MN_5	31 05	8	45				
		ME_6	31 24	7		45			
		F	4 15						
142	" 12	eP	8 25.1						
		e(L?)	9 02.4						
		MN	04 27	15	2½				
		F	9 15						
143	" 15	iP	5 03 31	4	-4	-2¾		2920 (26.3°)	Computed Azimuth:- 111° (N.31°E.)
			03 59	5			13		
			04 28	4	24	8			
		eS	08 08	8	70	28			ϕ, 11°S.
			08 28	18			150		λ, 165°E.
			08 56	9	65	43			
		eL	09.5	30					
		MN_1, MZ_1	10.3	26	480		350		Computed time at origin:- h m s 4 57 36
		ME_1	10 28	24		570			
		MN_2, ME_2	11.9	17	250	330			
		MZ_2	12 28	17			390		
		ME_3	12 53	17		330			
		MN_3	14 22	15	290				
		ME_4	15 44	15		130			
		MN_4	16 48	13	70				
		MZ_3	17 36	13			37		
		ME_5	18 16	13		100			
		MN_5	19 47	15	95				
		C_1	28.1	12	40	27			
		C_2	34.5	12	25	10			
		F	8 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		(See last sheet)		
A_E				
A_z				

No.	Date.	Phase	Time (*Greenwich*)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_z	Δ	Remarks.
	1921		h. m. s.	s.	μ	μ	μ	km.	
144	Oct. 18	eP	0 33 36	4				2850	
		eS	38 08	7	7	1		(25.6°)	
		eL	40.7	24					
		MN	42 08	16	8				
		ME	42 40	16		5			
		F	1 50						
145	" 18	e?	12 03.3						
		e	07.3	7		6			
		eL	09.0	24					
		ME	09 51	20		5			
		MN	10 59	16	4				
		F	12 50						
146	" 19	e	3 45.0						
		eL	49.3	20					
		MN	51 01	16	3				
		ME	51 50	18		3			
		F	4 20						
147	" 20	eP	6 22 37	5	1	-		8320	
		eS	32 13	8	2	1		(74.7°)	
		eL	51.0	28					
		M_1	52.4	20?					
		MN_2	57 01	15	2½				
		ME_2	59 43	18		2½			
		MN_3	7 02 01	15	3				
		F	8 10						
148	" 20	eP	10 42 13	4				2290	
		eS	46 01	?				(20.6°)	
			46 49	10	3	½			
		eL	48.2	?					
		ME_1	52 08	16		60			
		MN_1	52 49	15	19				
		ME_2	53 49	14		50			
		MN_2	54 13	14	20				
		ME_3	54 56	12		23			
		MN_3	56 23	12	16				
		MZ	57 01	12			9		
		F	12 07						
149	" 20	e?	23 19.6						
		eL	25.2	22					
		ME	21 26	16		5			
		MN	27 46	13	2				
		F	23 55						
150	" 24	e(S?)	2 38.4	10	¼	-			
		eL	41.5	14					
		ME	42 19	12		2			
		MN	42 44	8	1				
		F	3 00						

Edward F. Pigott

No. 11 1921, 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	1	141	8.6	5.8	0.02
	3	120	9.1	4.9	0.02
A_E	1	148	8.4	3.5	0.027
	3	146	10.6	1.9	0.05
A_z	2	72	5.5	4.4	0.07

No.	Date.	Phase	Time (*Greenwich*)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_z	Δ	Remarks.
	1921		h. m. s.	s.	μ	μ	μ	km.	
151	Nov. 2	e(S?)	8 32.0	18	¾	4			
		eL	51.4	26					
		ME_1	57 30	18		4			
		MN	57 46	18	5				
		ME_2	9 00 15	15		3			
		F	10 20						
152	" 2	e(S?)	21 01.1	9					
		eL	03.2	16					
		MN	04 36	14	2½				
		ME	05 39	14		2			
		F	21 25						
153	" 5	eP	21 20 26	5	1	¾			
		eS	24 10	6	1	½			
		eL	25.7	18					
		MN_1	26 11	14	3				
		ME	26 50	16		3			
		MN_2	29 38	12	2				
		F	22 00						
154	" 6	e	5 01.6						A few long waves.
155	" 6	e	17 06.7						
		e(L?)	11.0	20					
		MN_1	13 04	15	5				
		ME_1	14 38	18		5			
		MN_2	15 14	15	4				
		ME_2	18 34	16		4			
		MN_3	19 13	12	3				
		F	18 40						
156	" 7	eP	16 08 18	5?				5100	
			08 41	12	2	1		(45.9°)	
		eS	15 06	10	3	1			
		PS	15 22	10	9	8			
		eSR_1	18 18	14	8	8			
			18 42	14	29	34			
		eL	21.7	?					
		ME_1	25 29	17		39			
		MZ	28 11	18			7		
		MN_1	28 18	18	53				
		ME_2	30 21	16		20			
		ME_3	34 27	14		17			
		MN_2	37 58	16	17				
		F	17 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.
	1921		h. m. s.	s.	μ	μ	μ	km.	
157	Nov. 11	eP	18 44 48	5				5100 (45.9°	Sangir Is.
			45 16	10	21	9			
		iS	51 36	6	-14	-13			
		PS	51 48	12	103	40			
			52 25	20	157	145			
		iSR_1	55 03	10	+55	-16			
			55 11	10	58	105			
		SR_2	56 20	11	95	100			
		eL	58.0	?					
		MN_1, ME_1	19 00.2	14	96	100			
		ME_2	01 56	18		340			
		MN_2	02 24	16	185				
		ME_3	04 16	17		255			
		MN_3	04 50	18	240				
		MZ_1	06 10	18			84		
		ME_4	06 57	15		160			
		MN_4	07 22	17	225				
		MZ_2	07 31	18			112		
		MN_5	08 47	15	190				
		ME_5	08 55	16		200			
		MZ_3	10 59	17			156		
		ME_6	11 07	14		130			
		MN_6	11 28	16	275				
		ME_7	14 52	15		125			
		C_1	19.2	15	75	55			
		C_2	24.5	14	40	22			
		F	22 30						
158	" 13	e(S?)	0 14.3						
		e(L?)	18.5	13					
		MN	21 03	10	1				
		ME	21 16	10		½			
		F	1 05						
159	" 13	e(P?)	14 01 23						
		e(S?)	08 36	?					
		eL	14.2	14					
		ME	18 16	12		1½			
		MN^1	20 48	12	2				
		ME_2	23 36	13		2			
		MN_2	25 23	12	2				
		F	15 10						
160	" 13	e	18 17.3						
		e(L?)	26.5	16					
		MN_1	30 01	12	2				
		ME	31 53	12		½			
		MN_2	32 04	8	2				
		F	18 45						

(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.
	1921								
161	Nov, 14	eP	6 57 25	4	2	1		2810	
		eS	7 01 54	7	3	-		(25.2°)	
			02 26	7	10	5			
		eL	04.2	24					
		MN_1	05 17	14	16				
		ME_1	05 53	14		5			
		MN_2	08 09	12	6				
		ME_2	10 25	14		5			
		F	8 40						
162	" 14	e	12 50.3	7	½	2			
		eL	53.6	12					
		MN	59 21	10	1				
		ME	58 44	10		½			
		F	13 10						
163	" 14	e?	15 41.5						
		e	51.1	7					
		e	51.3	7					
		eL	53.6	20					
		ME, MN_1	57.4	10	1	½			
		MN_2	16 03 03	9	½				
		F	17 15						
164	" 15	eP	20 54 07	?				4680?	Strong microseisms.
		e(S?)	21 00 32	6	3	5			
		e(SR_1)	03 09	6	3	-			
		e	08 57	11	4	1			
			09 09	11	12	8			
		eL	10.4	20					
		ME_1	18 16	14		5			
		MN_1	20 38	16	13				
		MN_2	22 36	13	8				
		ME_2	23 10	18		8			
		MN_3	31 55	16	6				
		ME_3	32 37	16		6			
		MN_4	38 53	20	14				
		ME_4	39 41	20		13			
		F	23 20						
165	" 16	e	14 53v9						
		eS	58 33	10		½			
		PS	58 50	9	2	1½			
		eL	15 05.4	14					
		MN_1	09 17	16	5				
		ME_1	09 56	16		6			
		MN_2	14 49	16	5				
		ME_2	14 49	16		5			
		F	16 35						

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.
	1921		h. m. s.	s.	μ	μ	μ	km.	
166	Nov. 17	eP	8 02 17	8	1½			5190	
		eS	09 10	8	2½	1½		(46.7°)	
		eL?	15.2						
		ME	21 42	4		1			
		MN	22 05	3	1½				
		F	8 45						
167	" 18	e?	2 51.9	10	1½				
		eL?	3 05.1						
		MN	08 57	12	2				
		F	2 25						
168	" 18	e?	6 05.5						
		e?	12.5	15	2				
		MN	21 47	10	1½				
		F	6 55						
169	" 24	eL?	15 23.4	15					
		MN	25 35	16	4				
		ME	26 27	15		1½			
		F	15 40						
170	" 24	eS	18 19 23	12	2				
		eL	22.1	23					
		ME_1	23 24	15		8			
		MN_1	25 43	14	8				
		ME_2	27 27	14		4			
		MN_2	33 31	13	6				
		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.	Phase.	Time (*Greenwich*) h m s.	Per. s.	Amplitude A_N μ	A_E μ	A_z μ	Δ km.	Remarks.
	1921								
171	Nov, 25	e?	6 16.6						
		eL	24.4	17					
		ME	25 31	17		1½			
		MN	31 41	12	1				
		F	7 00						
172	" 29	eL	10 22.3	23					
		ME	23 24	19		3			
		MN	27 35	14	1½				
		F	10 40						
173	" 29	eP	18 44 05					2460	
		iS	48 07	6	+3	+3		(22.1°)	
		PS	48 19						
		eL	49.1	23					
		MN	50 48	16	5				
		ME_1	51 35	15		5			
		MN_2	53 20	12	12				
		MZ	59 53	11			2		
		F	19 45						
174	" (29	e(P?)	22 53 50	5	1				
	" 30		54 54	8	½	1			
		e(S?)	58 50	5	1½				
		eL	23 02.1	23					
		MN_1	03 28	17	3				
		ME_1	05 39	19		6			
		MN_2	08 28	11	5				
		MN_3	11 26	11	4				
		ME_2	12 26	13		6			
		F	0 20						

E. F. Pigot S.J.

Riverview College Observatory,

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

$\phi = 33° 49' 19''$ S. $\lambda = 151° 9' 30''$ 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	157	9.0	5.4	0.02
	3	122	9.0	3.4	0.02
A_E	1	167	8.5	3.7	0.02
	3	160	10.4	1.7	0.05
A_z	2	77	5.4	3.4	0.08

No.	Date.	Phase	Time (*Greenwich*)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_z	Δ	Remarks.
	1921		h. m. s.	s.	μ	μ	μ	km.	
175	Dec. 2	eL	6 23.9	22					
		ME	28 00	15		1			
		MN	32 50	14	½				
		F	6 50						
176	" 2	e(S?)	8 13.1	9		5			
		eL	17.9	15	9				
		MN	21 04	11	1½				
		ME	22 04	10		3			
		F	8 40						
177	" 2	iP	20 48 00	8	-2½	-3	-5	2480	
		S	52 04	8	1	4		(22.3°)	
		eL	53.5						
		ME_1	53 53	17		10			
		MN_1	54 25	15	15				
		ME_2	55 23	14		8			
		MN_2	56 27	12	9				
		ME_3	58 45	12		4			
		F	22 30						
178	" 3	e	5 18.1						
		e(L?)	28.3	14					
		MN	31 12	11	4				
		ME	32 16	11		3			
		F	5 50						
179	" 3	e	21 14.3	11	4				
		eL	18.6	15					
		MN	20 21	12	1				
		ME	21 26	14		2½			
		F	21 45						
180	" 7	eP	17 35 03	?				5080	
		iS	41 50	7	11	4		(45.7°)	
		eSR_1	44 53	?					
			45 17	8	11	11			
		eL	51.3	?					
		MN_1	53 41	10	3				
		ME_1	55 35	23		8			
		MN_2	56 51	17	14				
		ME_2	57 55	15		6			
		MN_3	18 00 14	11	4				
		ME_3	02 17	11					
		F	19 15						
181	" 8	e	12 50.1						
			52.8	11	1½	1½			
		F	13 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		(See last sheet)		
A_E				
A_Z				

No.	Date.	Phase.	Time (*Greenwich*)	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks.
	1921		h. m. s.	s.	μ	μ	μ	km.	
182	Dec. 9	eL	11 37.2	?					
		ME_1	38 37	15		1½			
		MN_1	40 41	12	1				
		ME_2	41 04	16		1½			
		MN_2	45 47	12	1½				
		F	12 30						
183	" 13	eL	3 20.4	13					
		MN	21 45	13	½				
		ME	26 22	12		½			
		F	3 30						
184	" 15	e?	7 57.0						
		e	58.6	?					
		ME_1	59 22	6		3½			
		MN_1	59 48	5	6				
		ME_2	8 01 00	6		5			
		MN_2	02 34	12	3				
		F	8 20						
185	" 15	e(S?)	8 55.4	?					
		eL	9 01.1	?					
		ME	01 58	21		6			
		MN	02 30	15	1½				
		F	9 35						
186	" 18	eP	15 46 01					11,790	
		eS	58 14	?				(106.1°)	
		PS	59 26	7		7			
			16 10 01	25	48				
		eL	20.8	33					
		M	31.5	25					

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)
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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_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.
	1921		h. m. s.	s.	μ	μ	μ	km.	
189	Dec. 20	eP	5 11 47	5				3110	
		eS	16 38	?				(28.0°)	
		eL	20.3	19					
		ME	22 18	11		3			
		MN	23 22	10	4				
		F	6 10						
190	" 21	e	7 15.9	13					
		MN	18 21	12	1				
		ME	19 50	12		½			
		F	7 45						
191	" 22	e(S?)	18 18.8	?					
		eL	20.7	21					
		ME_1	22 58	13		3			
		MN_1	23 29	12	12				
		ME_2	25 27	11		3			
		MN_2	26 23	10	4				
		F	19 10						
192	" 23	eL	7 30.7	12					
		M	31.6	11	½	½			
		F	7 45						
193	" 26	eL	7 18.2	19					
		ME	19 16	15		2½			
		MN	22 46	12	3				
		F	7 50						