

No.

1920, January.

19

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

Seismological Bulletin.

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

INSTRUMENTS:

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

	V	T_0	$\epsilon : 1$	$\frac{r}{T_0^2}$
$A_N^{(1)}$	161	8.3	6.1	0.02
$A_E^{(1)}$	174	8.3	3.7	0.03
$A_Z^{(2)}$	90	5.1	3.7	0.05

No.	Date.	Char.	Phase.	Time (Greenwich)				Amplitude.			Δ km.	Remarks.
				h.	m.	s.	s.	A_N μ	A_E μ	A_Z μ		
	1920											
	xxxxxx											
1	Jan. 1	I	eI MN F	3	18.2	16						
					18 35	14	3					
					3 50							
2	" 1	I_r	eP eS SR ₁ eL MN ₁ MZ ME ₁ MN ₂ ME ₂	12	12 42	5			3		2790	
					13 07	5			3			
					17 10	8	$1\frac{3}{4}$		1			
					18 54	11	$3\frac{3}{8}$					
					19.7	16						
					22 30	12	19					
					23 25	16			15			
					25 15	14			32			
					26 28	11	19					
					28 54	12			7			
3	" 1	I	F e? e eL MN ME	14	25							
					15 28.5							
					36.3							
					48.7	16						
					50 12	14	7					
					52 20	15			7			
4	" 1	I	F eP S? eL K F	16	30							
					18 10 49	4	$\frac{1}{2}$					
					15 11	?						
					18 2	14						
					20.2	14	9		1			
5	" 4	I	F eP e(PS?) eL ME MN ₁ MN ₂	18	35							
					4 38 01	4						
					52 06	?						Vera Cruz (Mexico)
					5 20.0	20						
					25 50	16			1			
					31 21	16	2					
					37 56	15	1					
5a	" 5	I	F eI c	8	25							
					5 36.4							
					42.3	16	1					
6	" 11	I_r	F eP eS eL ME MN F	7	30							
					2 58 52						2280	
					3 02 39	8	11		8			
					04.6	14						
					05 44	10			15			
					06 07	10	16					
					3 45							

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

Foundation: Triassic sandstone.

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

No.	Date.	Char.	Phase.	Time (Greenwich)			Per.	Amplitude.			Δ km.	Remarks.
				h.	m.	s.		A_N μ	A_E μ	A_Z μ		
7	1920 Jan. 12	I	eP	13	49	43	4	$\frac{1}{2}$	-	-		
			e(S?)	57	34		11	1	$\frac{3}{4}$			
			eL	14	06.4		20					
			MN ₁	10	23		16	3				
			ME ₁	11	16		14		3			
			M ₂	20.3		14	3	3				
8	" 13	I	F	15	15							
			e?	10	59.7							
			eL	11	02.8		18					
			ME	04	14		16		3			
			MN	04	23		16	6				
9	" 14	I _r	F	09	15		14	4	4	2740		
			eP	23	06	05	5	5	1			
			i	06	35		5	-6	$-3\frac{1}{2}$			
			iS	10	29		8	+8	+6			
			PS	10	52		8	8	2			
				11	21		10	18				
			eL	13.3		25						
			MN ₁	14	26		20	40				
			ME ₁)	15.3		20	43	35				
			MN ₂)	15	28		18	20	20			
10	" 14	I _r	ME ₂	17	13		10		24	2960		
			F	1	00							
			eP	14	44	16	9	$\frac{1}{2}$	-			
			eS	48	56		12	2	-			
			PS	49	22		16	24	-			
				51	34		12	2	$5\frac{1}{2}$			
			eL	52.8		20						
			ME ₁	55	02		17	23	23			
			MZ	55	20		17		18			
			MN ₁	55	31		16	30				
11	" 16	I	ME ₂	15	00	16	13		11			
			MN ₂	04	35		10	12				
			F	16	25							
			eP?	12	03	26						
			e(L?)	12.0		16						
			ME ₁	14	18		14		1			
			MN ₁	15	26		14	$1\frac{1}{4}$				
			ME ₂	19	26		11		$\frac{3}{4}$			
MN ₂	23	10		12	3							
F	12	50										

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2. Wiechert Vertical Seismometer (80 kilo.)
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	V	T ₀	ε : 1	r T ₀ ²
A _N				
A _E	(See last sheet)			
A _Z				

No.	Date.	Char.	Phase.	Time (Greenwich)			Per.	Amplitude.			Δ	Remarks.
				h.	m.	s.		A _N	A _E	A _Z		
12	1920 Jan. 16	I	i(S?)	15	47	56	7	3 $\frac{3}{4}$	-			
			i		48	05	7	-4	+3			
			ME		51	22	12		1			
			MN		52	12	11	3				
			F	16	00							
13	" 19	I	e?	5	18.2							
			e(S?)		23.0	10	1 $\frac{3}{4}$	-				
			eL		26.1	20						
			ME		27	39	16		3			
			MN		29	22	16	6				
14	" 20	I _r	F	6	10					2120	Short wave-lengths.	
			eP	1	50	29	3	1	-			
			iS		54	03	6	+4	1.5			
			eL		56.4		?					
			MN	2	00	16	6	7				
15	" 21	I?	ME		01	42	6		2			
			F	2	30							
			e?	6	08.6							
			e(S?)		14.7	8	5	2				
			e(L?)		19.0	18						
16	" 22	I _r	i		19	53	12	+42	+15	2660		
			MN		21	16	12	2				
			i		24	13	9	-11	2			
			ME		25	09	12		2			
			F	6	50							
			eP	21	24	25	5	2	2			
			S		28	43	8	1	-			
					28	51	8	6	-			
			eL		30.2	16						
			MN ₁		31	43	14	23				
ME ₁		33	35	12		9						
MN ₂		37	13	12	16							
MZ		37	56	14			7					
ME ₂		40	13	8		16						
F	22	40										

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

No.	Date.	Char.	Phase.	Time (Greenwich)			Per.	Amplitude.			Δ	Remarks.
				h.	m.	s.		A _N	A _E	A _Z		
							μ	μ	μ	km.		
17	1920 Jan. 24	I	eL	15	17.6		?					
			MN		25 33	11	2					
			ME		27 39	12		1				
18	" 25	I	F	15	40							
			e	5	14.1							
			M		21.2	12	1½					
19	" 26	I	F	5	35							
			e?	11	33.4	9	1½					
			eL		36.1	16						
20	" 27	I	ME		38 03	12		9				
			MN		38 16	12	6					
			F	11	45							
21	" 29	I _r	eL	14	00.1	14						
			MN		12 37	10	3					
			ME		13 44	11		1½				
22	" 30	I _r	F	14	20							
			eP	21	50 06	4	-	-		2550		
			eS		54 15	7	1	1½				
23	" 31	I	eL		55 36	20						
			MN		56 36	16	10					
			ME		57 11	16		5				
22	" 30	I _r	F	22	45							
			eP	19	40 02	3	-	1		3580		
			eS		45 24	8		1¼				
23	" 31	I	eL		49.4	28						
			ME		51 10	16	1	10				
			MN		54 36	9	5					
23	" 31	I	F	20	45							
			e(P?)	1	38 31							
			e(S?)		45 24	9	-	1				
23	" 31	I	eL		47.7	18						
			ME		50 02	10		1				
			MN		50 36	10	1½					
23	" 31	I	F	2	10							

Microseisms
obscuring earlier phases.

Edward F. Troughton

No2

1920, February.

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	V	T_0	$\epsilon : 1$	$\frac{r}{T_0^2}$
A_N (1)	160	8.3	6.3	0.02
A_E (1)	173	8.3	4.0	0.03
A_Z (2)	89	5.1	3.9	0.05

No.	Date.	Char.	Phase.	Time (Greenwich)			Per.	Amplitude.			Δ km.	Remarks.
				h.	m.	s.		A_N μ	A_E μ	A_Z μ		
24	1920 Feb. 1	I	eP	13	31	13	4	+5	-2		2200?	
			S?		34	53	8	3	-			
			eI.		38	.1	16					
			MN ₁		38	23	10	8				
			ME ₁		40	56	10		5			
			LN ₂		42	27	10	6				
			ME ₂		43	15	8		4			
			F		14	25						
24a	" 1	I	e	14	55	.8						
			MN	15	03	07	14	3 $\frac{1}{4}$				
			ME		03	31	14		1			
			F	15	15							

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No. 2 (continued)

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

No.	Date.	Char.	Phase.	Time (Greenwich)			Per. s.	Amplitude.			Δ km.	Remarks.
				h.	m.	s.		A _N μ	A _E μ	A _Z μ		
25	1920 Feb. 2	III _r	eP	11	28	21	4	1	-	-	2970	Computed azimuth: 175° (N. 5° W.) hence, φ, 7½° S. λ, 149° E.
			IP	26	33	4	+13	-13	-8			
				29	07	5	24	2½				
			iPR ₁	29	47	6	-16	-6	+19			
				30	30	6	31	6				
				31	25	6	33	10				
			IS	33	02	9	+210	+12	-70			
			PS	33	32	15	460	60	55			
			eL	36	.1	28						
			LZ ₁	39	00	18			900			
			ME ₁	39	37	13		730				
			LN ₁	39	53	14	830					
			ME ₂	41	22	15		1120				
			LN ₂	43	39	11	660					
			LZ ₂	44	14	12			415			
			ME ₃	44	27	15		1425+				
			LN ₃	47	02	10	605+					
			MZ ₃	47	27	11			650			
			MC ₄	47	36	11		680+				
			LN ₄	49	18	9	580+					
			LZ ₄	49	38	10			1020			
			ME ₅	49	44	10		500+				
			ME ₆	53	51	11		390				
			LN ₅	54	12	9	310					
			LN ₆	58	19	10	280					
			ME ₇	12	01	12	12	380				
			LN ₇	01	19	12	340					
			C ₁	04	.8	12	200	.175	55			
			C ₂	12	.7	12	150	46	50			
			C ₃	17	.2	12	170	22	43			
			C ₄	34	.4	12	44	64	27			
			eW ₂	14	13.0	17						
LN ₁	14	55	14	9								
ME ₁	15	06	14		6							
ME ₂	17	12	15		7							
LN ₂	18	30	13	4								
ME ₃	28	09	20		9							
LN ₃	29	07	17	7								
eW ₃ ?	49	.7	20									
LN	51	14	20	13								
LE	52	09	20		5							
F	16	00										

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

No.	Date.	Char.	Phase.	Time (Greenwich)			Per.	Amplitude.			Δ km.	Remarks.
				h.	m.	s.		A _N μ	A _E μ	A _Z μ		
26	1920 Feb. 2	I	e (P?)	16	25	02	5	10	-			
			e (S?)		30	06	?					
			eL		34.4		17					
			LZ		35	50	14				4	
			ME		36	52	14			4		
			MN		37	38	16	8				
			F (lost in No. 27)									
27	" 2	I	S?	16	54	02	12	4	2			
			PS		54	27	12	9	1½			
			eL		57.6		20					
			ME ₁	17	00	08	16			16		
			MN ₁		01	02	16	16				
			MZ		04	10	12			1		
			MN ₂		05	18	10	6				
			ME ₂		11	02	10			7		
			F (lost in No. 28)									
28	" 2	I	e	18	06.5							
			M		13.0	11	2	1½				
			F		18	25						
29	" 2	I	e	18	52.6							
			eL	19	01.2	18						
			MN ₁		03	15	17	4				
			ME		07	02	12			3½		
			ME ₂		10	42	12	2				
			F	19	35							
30	" 2	I	eL	20	56.5	20						
			MN ₁		58	08	18	5				
			ME		58	36	16			2½		
			MN ₂	21	08	37	12	3				
			F	21	20							
30a	" 3	I	e	0	32.6							
			ME		32	38	15			1		
			MN		40	37	12	1½				
			F (last in No. 31)									
31	" 3	I	eL	0	49.6	18						
			ME ₁		50	20	15			3		
			MN ₁		53	02	12	2				
			ME ₂		56	38	12			2		
			MN ₂		58	10	11	6				
			xxxxxxx									
32	" 3	I	F	1	15							
			e	1	39.8	4	-		1			
			eL		43.8	16						
			ME		45	15	13			2		
			MN		52	15	11	1½				
			F	2	05							

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	V	T_0	$\epsilon : 1$	$\frac{r}{T_0^2}$
A_N				
A_E				
A_Z				

(See last sheet)

No.	Date.	Char.	Phase.	Time (Greenwich)	Per.	Amplitude.			Δ	Remarks.
						A_N	A_E	A_Z		
	1920									
33	Feb. 3	I	e?	30.1s.	s.	μ	μ	μ	km.	
			ME	45 02	12			$\frac{1}{2}$		
			LN	48 25	12	1				
			F	3 00						
34	" 3	I	e	4 14.7						
			LN	27 10	13	2				
			ME	27 48	13			$1\frac{1}{2}$		
			F	4 40						
35	" 3	I	e	6 18.1						
			ME	28 01	12			2		
			LN	29 06	12	3				
			F	(Lost in No. 36)						
36	" 3	I_r	eP	6 42 33					3090	
			eS	47 23	12	3		-		
			eL	51.1	18					
			LN ₁	52 31	16	10				
			ME ₁	54 00	12			9		
			LN ₂	56 08	14	7				
			ME ₂	58 31	12			$3\frac{1}{2}$		
			MN ₃	7 00 02	11	6				
			ME	01 46	11				$2\frac{1}{4}$	
			F	7 40						
37	" 3	I	e	10 39.4						
			LN	44 35	13	1				
			ME	47 11	?					
			F	10 55						
38	" 3	I_r	eP	14 58 52	7	$\frac{1}{2}$			3050	
			eS	15 03 39	12	2				
			e(SR ₂ ?)	06 06 45	13	4				
				07 15	13	14				
			eL	07.5	18					
			ME ₁	09 59	12			10		
			MZ ₁	11 20	15				17	
			LN ₁	11 32	15	36				
			ME ₂	15 04	12			$3\frac{1}{2}$		
			LN ₂)	19.2	12	24			10	
			MZ ₂)							
			F	16 25						
39	" 3	I	e	19 22.6						
40	" 3	I_r	eP	19 49 02	?					A few long waves,
			eS	53 42	11	$2\frac{3}{4}$			2960	
			eL	57.0	17					
			LN ₁	20 01 10	12	11				
			ME ₁	02 02	14			16		
			MZ	08 55	11				4	
			LN ₂	09 02	10	11				
			ME ₂	10 02	10			5		
			F	21 00						

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

No.	Date.	Char.	Phase.	Time (Greenwich)			Per.	Amplitude.			Δ	Remarks.
				h.	m.	s.		A _N	A _E	A _Z		
41	1920 Feb. 3	I	e	21	25.3							
			MT		30 43	15		$\frac{3}{4}$				
			LN		32 36	13	2					
			F	21	55							
42	" 4	I	e(P?)	21	42 09							
			eL		50.4	14						
			MN		50 42	14	1					
			ME		51 14	11		$1\frac{1}{2}$				
			F	22	20							
43	" 5	I	e(L?)	18	45.2	?						Heavy micro-seisms.
			ME		50 01	12		2				
			MN		54 53	12	1					
			F	19	30							
44	" 6	I	e?	9	10.6							do. do.
			eS		14 52	12	2	-				
			eL		18.9	16						
			ME ₁		21 09	11		6				
			MN ₁		21 34	12	5					
			ME ₂		27 45	10		3				
			MN ₂									
			MZ		29.1	10	5			3		
			F	10	05							
45	" 7	I _r	eP	15	30 30	8	1	$\frac{1}{2}$		2820		
			iS		35 00	8	+8	-2				
			PS		35 22	8	9	4				
			eL		38.6	18						
			ME ₁		40 38	12	18					
			ME ₁		40 51	12		13				
			ME ₂		43 51	10		8				
			MZ		44 42	12				37		
			MN ₂		44 58	12	16					
			F	(lost in No. 46)								
46	" 7	I	eP	15	50 00	?						
			eL		56.8	15						
			MN ₁		58 44	16	38					
			ME	16	01 08	10		17				
			MN ₂		07 04	11	30					
			MZ		07 28	11				17		
			ME ₂		09 00	10		11				
			F	17	25							
47	" 8	I	e	2	25.3							
			e?		28.2							
			eL		31.6	?						
			MN ₁		34 07	10	3					
			MN ₂									
			ME		36.5	12	4	3				
			F	3	30							

(Continued on next sheet)

No. 2 (continued)

FEB 1920 19

Riverview College Observatory,

SYDNEY, N.S.W.

Seismological Bulletin.

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

INSTRUMENTS:

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

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

No.	Date.	Char.	Phase.	Time		Per.	Amplitude.			Δ	Remarks.
				(Greenwich)			A _N	A _E	A _Z		
				h.	m. s.		μ	μ	μ		
48	1920 Feb. 8	I _r	eP	5	31.09	4				3600	
			eS		56.33	11	1	1½			
				36.41	12	2	5				
			SR ₁	39.33	12	2	2				
			eL	40.9	20						
			ME ₁	44.05	18		33				
			MZ	44.12	18			13			
			MN ₁	44.16	18	25					
			ME ₂	50.05	12		13				
			MN ₂	51.05	12	12					
49	" 8	I	e(L?)	20	58.3	16					
			MN ₁	21	07.06	12	1½				
			ME ₁		09.46	11		2			
			ME ₂		30.13	12		2			
			MN ₂		31.29	13	1				
			F	21	50.	1					
50	" 9	I _r	eP	2	36.40	4	1	-		3180	
			eS		41.44	7	1	2			
			eL		44.7	15					
			ME ₁		46.27	11		7			
			MN ₁		49.43	14	9				
			ME ₂		54.20	12	24		8		
			MZ		54.36	12		10			
			ME ₂		54.36	12		10			
			F	4	45						
51	" 9	I	e	13	14.5						
			eL?		23.6	16					
			MN ₁		27.26	12	1½				
			MN ₂		33.12	11	2				
			ME		34.07	11		1½			
			F	14	00						
52	" 9	I _r	eP	19	09.15					3540	
			eS		14.35	9	1	-			
			eL		18.7	16					
			ME ₁		24.23	16		20			
			MN ₁		25.56	15	16				
			ME ₂		27.11	11		18			
			ME ₃		32.19	12		10			
			MZ		34.13	11			7		
			MN ₂		34.27	11	18				
			F	21	35						

(Continued on next sheet)

Riverview College Observatory,

SYDNEY, N.S.W.

Seismological Bulletin.

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

INSTRUMENTS:

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

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

No.	Date.	Char.	Phase.	Time (Greenwich)			Per.	Amplitude.			Δ	Remarks.			
				h.	m.	s.		A _N	A _E	A _Z					
								μ	μ	μ	km.				
53	1920 Feb. 10	I _r	eP	9	18	20	4	1	$\frac{1}{2}$		2770				
			eS		22	46	9	2	$\frac{1}{2}$						
			PS		23	17	9	12	10						
			eL		24	.7	16								
			M ₁		28	.7	12	50	13						
			MZ		30	51	12			8					
			MN ₂		31	43	12	34							
			ME ₂		33	22	12		10						
54	" 10	I _r	F (lost in No 54)												
54	" 10	I _r	eP	10	08	05	?				2790?				
			S?		12	33	7	$\frac{1}{2}$	$\frac{1}{2}$						
			eL		15	.5	15								
			MZ		18	03	12			5					
			MN		18	34	12	18							
			ME		19	04	12		10						
55	" 10	I	e	16	28.6	17					A few long waves				
56	" 11	I _r	eP	22	27	31	4	-	$\frac{1}{2}$		12,500?				
			e(S?)		40	19	10	-	1						
			eL		23	17.0	25								
			M ₁		19	.0	22	3	7						
			ME ₂		23	14	16		3						
			MN ₂												
			ME ₃)		32	.1	17	3	4						
			MN ₃		46	27	20	3							
			MN ₄		49	49	17	3							
			F		0	55									
			" 11	I	e	7	28.8								
			" 11	" 11	I	eL		33	.8	18					
						ME		35	21	15			4		
						MN		36	44	12		2			
F		8				22									
" 12	I _r	eP				8	04	02	5	-	$\frac{1}{2}$	30000			
eS		08	45	6	$\frac{1}{2}$	-									
ME		12	25	14		1									
MN		13	15	12	2										
F		8	40												
" 12	" 12	I	eP?	19	04	07									
			eS?		09	07									
			e(SR ₁ ?)		12	07	13	2	1						
			eL		14	.3	16								
			ME		17	45	12		2 $\frac{1}{2}$						
			MN		16	30	12	2							
F		20	05												

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1920, February.

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Riverview College Observatory,

SYDNEY, N.S.W.

Seismological Bulletin.

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

INSTRUMENTS:

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

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

No.	Date.	Char.	Phase.	Time (Greenwich)			Per.	Amplitude.			Δ km.	Remarks.
				h.	m.	s.		A _N μ	A _E μ	A _Z μ		
60	1920 Feb. 13	I	e	8	14.6	4	-	1				
			c		16.4	7	2	-				
			cL		19.0	14						
			MN		20 57	10	1½					
			ME		21 07	10		1				
		F	9	00								
61	" 13	I	c	12	18.3	18				A few long waves.		
62	" 13	I	c	12	44.1	?						
		c		46.3	10	1	-					
		F		13	05							
63	" 15	I _r	cP	15	31 03					2890		
			cS		35 38	10	1	½				
			SR ₁		38 06	?						
			eL		39.1	13						
			MN ₁		40 50	12	2					
			MN ₂		44 02	11	2					
			ME		44 38	9		1				
		F	16	55								
64	" 16	I	cP	6	40 38							
			cL		59.4	18						
			M	7	01.1	15	3	2				
		F	7	40								
65	" 16	I	c?	13	13 22							
			eL		22.8	14						
			MN		23 23	13	1					
			ME		23 83	12		2				
			F	13	45							
66	" 17	I	c	4	04.0	6	-	½				
			eL		11.3	14						
			ME		11 59	12		1½				
			MN		20 00	12	1½					
		F	4	25								
67	" 18	I _r	cP?	20	01 40					4280?		
			cS		07 43	15	2	-				
			PS		08 13	15	3	-				
			SR ₁		10 21	?						
			eL		11.5	20						
			ME ₁		13 13	14		10				
			MN ₁		13 46	14	15					
			ME ₂		14 23	12		13				
			MN ₂		18 17	12	9					
		F	21	40								
68	" 22	I _u	cP	17	46:32					9300		
			cS		56 57	8	-	1				
					57 05	8	3	2				
		cL	18	10.5	18							

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S (continued)

1920, February.

No.

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Riverview College Observatory,

SYDNEY, N.S.W.

Seismological Bulletin.

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

Foundation: Triassic sandstone.

INSTRUMENTS:

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

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

No.	Date.	Char.	Phase.	Time (Greenwich)			Per.	Amplitude.			Δ	Remarks.
				h.	m.	s.		A _N	A _E	A _Z		
68	1920 Feb. 22		ME	18	13	10	16		2			
			MN		16	15	18	3				
			F	19	00							
69	" 26	I _u	eP	22	48	30	5	1	-		5200?	Heavy micro-seisms.
			i(S?)		55	22	7	+5	+1			
			e(SR1?)		58	17	9	3	1			
			eL	23	06	00	20					
			ME		08	13	20		8			
			MN		08	38	20	10				
			F	00	05							
70	" 26	I	e?	1	38.6							
			e(S?)		43	56	8	1	2			
			eL		50.8		18					
			MN		54	26	13	4				
			ME		56	16	12		2			
			F	2	30							
71	" 27	I _r	eP	7	15	15	6	$\frac{3}{2}$	$\frac{1}{2}$		2800	Strong micro-seisms
			eS		19	43	8	3	-			
					19	52	8	14	8			
			eL		21.4		18					
			MN		22	55	14	16				
			ME		23	35	15	16	16			
			F	8	00							
72	" 27	I _r	eP	9	58	04					3610	
			eS	10	03	40	8	1	$\frac{1}{2}$			
			eL		08.1		14					
			MN		10	02	12	2				
			ME		10	35	12	1				
			F									
73	" 27	I _r	eP	10	40	00					3430	
			eS		43	59	8	2	1			
					44	01	8	6	4			
			eL		45.6		19					
			MN		46	56	15	7				
			ME		47	35	16		12			
			F	11	30							
74	" 28	I	e(P?)	19	15	02						
			eL		34.3		23					
			MN		35	58	18	3				
			ME		36	45	18		2			
			F	19	50							
75	" 28	I	eL	20	48.8		15					
			MN		49	49	12	2				
			ME		51	30	15		1			
			F	21	25							

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

Seismological Bulletin.

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	V	T_0	$\epsilon : 1$	$\frac{r}{T_0^2}$
$A_N(1)$	159	8.4	6.6	0.02
$A_E(1)$	172	8.3	4.3	0.03
$A_Z(2)$	89	5.0	4.1	0.05

No.	Date.	Char.	Phase.	Time (Greenwich)			Per.	Amplitude.			Δ	Remarks.
				h.	m.	s.		A_N	A_E	A_Z		
76	1920 March 1	I	e?	11	03.3	4	-	1				
			eL		10.1	20						
			MN		12 56	12	10					
			ME		13 19	15		4				
			MZ		13 27	15			4			
77	" 3	I_r	F	12	05						1740? Very short wave-lengths	
			eP	10	57 25	2	1	$\frac{1}{2}$				
			o(S?)	11	00 25	5	$\frac{1}{2}$	2				
			L?		01.4	8						
			MZ		02 06	?						
			MN, ME		02.7	8	7	6				
78	" 3	I	F	10	25							
			e?	12	22.9	5	$\frac{1}{2}$	-				
			e		27.4	8	-	$\frac{1}{2}$				
			eL		29.7	16						
			MN		32 48	12	2					
			ME		33 11	11		$1\frac{1}{2}$				
79	" 6	I	F	13	00							
			eP	17	07 45	4	$\frac{1}{2}$	$\frac{1}{2}$				
			eL		16.3	20						
			ME		17 30	16		2				
			MN		18 06	12	$1\frac{1}{2}$					
80	" 10	I	F	17	40							
			e?	11	06.3							
			ME		11 42	10		$\frac{1}{2}$				
			MN		12 42	10	1					
81	" 11	I_r	F	11	25					2350		
			eP	5	47 11	6	$\frac{1}{2}$	$\frac{1}{2}$				
			eS		51 04	8	-	1				
			eL		52.6	19						
			ME		53 40	16		3				
			MN		54 16	13	2					
82	" 11	II_r	F	6	25					2230		
			eP	11	51 38	7	1	$\frac{1}{2}$				
			iS		55 21	8	-	+5				
			PS		55 33	8	12	11	3			
			eL		56.6	22						
			M_1		57.7	16	50	40				
			ME_2		58 29	14		65				
			MN_2		59.6	8	45		7			
			MZ									
			ME_3	12	00 21	18		30				
			ME_4		02 21	8		30				
			ME_5		03 53	7		30				
			MN_3		04 13	7	30					
F	13	35										

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No. 3 (continued)

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

No.	Date.	Char.	Phase.	Time (Greenwich)			Per.	Amplitude.			Δ	Remarks.
				h.	m.	s.		A _N	A _E	A _Z		
83	1920 March	I _r	GP	18	38	46	4				2650	
			OS		43	03	10					
			OL		46	0	20					
			M		48	9	16	4	3			
			F	19	30							
84	" 12	I	c?	2	47	5						
			OL		51	6	18					
			ME		51	42	16		2			
			MN		51	49	16	3				
			F	3	40							
85	" 12	I	c	15	38	6						
			c(L?)		44	5	14					
			M		47	6	14	3	4			
			F	16	25							
86	" 13	I	c(P?)	4	07	6						
			c(S?)		14	18	6		1			
			OL		21	3	16					
			MN		25	24	12	5				
			ME		26	19	16		9			
			F	5	25							
87	" 13	I	c(S?)	5	36	7	10	1				
			MN		41	25	19	3				
			ME		41	57	17		2			
			F	6	00							
88	" 13	I _r	cP	8	55	44	2			2650		
						4						
			c(S?)		38	56	?					
			OL		39	7	10					
			MN		43	19	8	1				
			ME		44	19	8		1			
89	" 14	I	F	9	05							
			c(S?)	9	30	30	8	1				
			OL		38	9	14					
			ME		40	37	12		1			
			MN		41	27	11	2				
90	" 15	I _r	F	11	05					2650	Heavy rain - seism	
			cP	12	11	03	?					
			IS		15	22	7	-6	4			
			OL		17	1	20					
			MN1		17	24	18	40				
			MZ		18	56	18					14
			ME1		19	21	18		32			
			MN2		23	16	12	19				
			ME2		27	26	12		12			
			F	13	10							

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19 March.

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Riverview College Observatory,

SYDNEY, N.S.W.

Seismological Bulletin.

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

No.	Date.	Char.	Phase.	Time (Greenwich)			Per.	Amplitude.			Δ	Remarks.	
				h.	m.	s.		A _N	A _E	A _Z			
								μ	μ	μ	km.		
91	1920 March 15	I	e(S?)	17	12	12	?					Heavy micro-seisms.	
			eL		14.5		19						
			ME		15	21		18		7			
			MN		15	33		18	13				
92	" 17	I	F	17	40								
			eP	19	00	16	4	2	1½				
			eL		09.0		16						
			MN ₁		11	21		12	6				
			ME		11	33		12		2			
93	" 19	I	MN ₂	14	22		10	8					
			F	19	45								
94	" 20	IIu	e	6	36.8		14				A few long waves.		
95	" 21	I	eP	18	43	42	?				8220	Strong micro-seisms.	
			PS		54	30	15	14	19				
			SR ₂		58	13		12	3	7			
			eL	19	04.3		25						
			M ₁		07.9		25	48	46				
			MN ₂		13	34		16	32				
			MZ		14	16		16		27			
			ME ₂		14	28		16		45			
			C		28.8		12	3	4				
			F	21	40								
96	" 22	I	e(L?)	21	01.1		16						
			ME		03	54		12	2				
			MN		04	38		11	5				
97	" 22	Ir	F	21	20								
			e(S?)	23	31	53	?						
			MN ₁		35	43		?					
			ME		40	14		12	2				
97	" 22	Ir	MN ₂		41	35		12	5		2940		
			F	0	15								
			eP	1	44	34	5	1	-				
			eS		49	13		10	1				
			SR ₁		50	46		10	5	2			
			eL		52.3		16						
			MN ₁		53	55		12	6				
			ME ₁		54	08		12		5			
			ME ₂		57	18		11		4			
			MN ₂		58	22		12	9				
F	2	05											

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No.

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Riverview College Observatory,

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

No.	Date.	Char.	Phase.	Time (Greenwich)			Per.	Amplitude.			Δ	Remarks.	
				h.	m.	s.		A_N	A_E	A_Z			
98	1920 March 22	Ir	eP	20	07	55	3	μ	μ	μ	3410		
			eS		13	06	8	3		3			
			PS		13	35	8	$1\frac{1}{2}$		3			
			eL		14	.7	20						
			LN ₁		16	22	18	46					
			ME ₁		18	52	14			30			
			LN ₂		19	10	12	29					
			MZ		19	19	14						12
			ME ₂)		23	.3	11	21		14			
			LN ₃)										
			ME ₃		28	11	12			14			
			LN ₄		28	21	11	21					
			F		22	00							
99	" 24	I	e	6	10.9						A few long waves.		
100	" 26	I	e	20	25.1	16					" " "		
101	" 28	I	e	11	50.3	18					" " "		
102	" 29	I	e	5	55.0								
			LN	6	02 13	16	2						
			ME		02 52	18			2				
			F		6 20								
			e(L?)	7	06.5	16							
103	" 29	I	LN ₁		10 41	16	2						
			LN ₂		17 36	18	3						
			ME		18 08	?							
			F		7 45								
			eP	8	56 15	5	-		1		3340		
104	" 30	Ir	eS	9	01 22	8	$\frac{1}{2}$						
					01 32	8	3						
			eL		04.9	14							
			LN		05 45	10	1						
			ME		19 05	10							
105	" 30	I	F	9	30								
			e	16	00.2	17					A few long waves.		
106	" 30	I	e?	19	14.1								
			e		20.7	?							
			F	19	30								

Edward F. Tegner

No. 4

1920, April.

19

Riverview College Observatory,

SYDNEY, N.S.W.

Seismological Bulletin.

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

INSTRUMENTS:

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

	V	T_0	$\epsilon : 1$	$\frac{r}{T_0^2}$
$A_{(1)}$	164	8.2	6.0	0.019
$A_{(1)}$	174	8.2	3.9	0.025
$A_{(2)}$	91	5.1	3.1	0.06

No.	Date.	Char.	Phase.	Time (Greenwich)			Per.	Amplitude.			Δ km.	Remarks.			
				h.	m.	s.		A_N μ	A_E μ	A_Z μ					
107	1920 Mar. 31 Apr. 1	I	e(P?)	23	46	51									
			e(S?)		51	36	9	1	-						
			eL ₅		55	9	16								
			ME		48	05	12		5						
			MN		59	20	11	4							
108	" 2	II _r	F	0	30						2700				
			eP	1	10	34	?								
			eS		14	55	10	1	-						
			eL		17	5	?								
			MN ₁)		20	8	16	30	47						
			ME ₁)		21	53	16			15					
			MZ ₁		22	16	14	54							
			MN ₂		23	20	11		62						
			ME ₂		25	53	13			12					
			MZ ₂		26	1	12	34	17						
			ME ₄		30	24	10		21						
			MN ₄		32	12	10	21							
			F	3	05										
109	" 2	I	eP?	15	18	59									
			e(S?)		25	04	10	$\frac{3}{4}$	-						
			eL		30	7	18								
			ME		34	08	15		$\frac{3}{4}$						
			MN		35	29	19	9							
110	" 5	I _r	F	16	40						2210?				
			eP	15	59	22									
			e(S?)	16	03	03	?								
			e(L?)		04	9	16								
			ME ₁)		08	5	20	43	27						
			MN ₁)		11	00	13		20						
			MN ₂		12	16	14	30							
			MZ		14	03	10			5					
			MN ₃		14	12	10	16							
			ME ₃		14	37	10		13						
			F	17	10										
			" 6	" 6	I _r	eP	19	07	06	4		$\frac{1}{2}$	-		3770
						eS		12	40	10		3	2		
PS		13				02	10	7	3						
eL		15				5	22								
MN ₁)		16				6	17	36	23						
ME ₁)		17				45	16		80						
MZ		18				20	16			15					
MN ₂		18				54	16	28							
F	20	35													

(Continued on next sheet)

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

Seismological Bulletin.

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

INSTRUMENTS:

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

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

No.	Date.	Char.	Phase.	Time (Greenwich)	Per.	Amplitude.			Δ	Remarks.
						A_N	A_E	A_Z		
112	1920 April 6	I	e eL MN ME MZ)	2h. 20.4 s. 21.5 23 35 23.8	s. 16 9 9	μ 1	μ 1	μ $\frac{1}{2}$	km.	
113	" 8	I	F e? eL MN ME	21 35 14 04.9 07.3 08 03 08 56	 16 14 16	 2	 2			
114	" 8	I_r	F eP eS eL MN ME	14 20 14 53 15 55 19 56.1 56 45 59 23	 16 14 11	 2	 3		1160	
115	" 8	I	e(P?) e eL MN F	22 11 53 16.6 42.5 48 00 23 15	 25 ?					
116	" 9	I	e	19 45.2	17					A few long waves.
117	" 11	I	eL MN ME F	19 57.4 20 00 11 01 27 20 25	17 12 14	6	2			
118	" 11 12)	I_u	eP eS eL ME MN F	23 16 31 26 01 37.5 42 07 48 24 0 35	4 8 30 15 19	$\frac{1}{2}$ $\frac{1}{2}$ 4	- 1 3		8200	
119	" 25	I	e? eS MN ME) MZ F	16 57.1 59.1 17 03.4 03 53 17 40	 6 6 6	1 6	1 7 1			
120	" 29	I	eP ME MN F	16 27 11 31 46 32 04 16 55	2 5 5	9	4			Felt slightly at Darwin (N. Australia)
121	" 30	I	e	2 02.1	16					A few long waves.

E. F. Pigot

No. 5

1920, May.

19

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

Seismological Bulletin.

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INSTRUMENTS:

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

	V	T_0	$\epsilon : 1$	$\frac{r}{T_0^2}$
$A_N(1)$	161	8.3	5.1	0.018
$A_E(1)$	173	8.1	3.3	0.03
$A_Z(2)$	95	5.0	3.0	0.06

No.	Date.	Char.	Phase.	Time (Greenwich)			Per. s.	Amplitude.			Δ km.	Remarks.
				h.	m.	s.		A_N μ	A_E μ	A_Z μ		
122	1920 May 4	I	eP	11	55	06					2070?	
			e(S?)		58	35						
			eL	12	00	.9	15					
			MN		02	16	12	$1\frac{1}{2}$				
			ME ₁		03	10	12		$1\frac{1}{4}$			
			ME ₂		07	14	9		2			
			F	12	35							
123	" 5	I _r	eP	8	54	54	4	-	$\frac{1}{2}$		2620	
			IS		43	09	7	+5	-3			
			e(SR ₂ ?)		45	07	12	15	2			
			eL		45	.9	15					
			i		48	51	8	5	+4			
			ME									
			MN ₁)		49	.0	8	5	6			
			MN ₂		50	59	10	1				
124	" 6	I	MZ	9	01	51	14			3		
			F	9	30							
			eP	21	57	14	?					
125	" 7	I _u	MN	22	03	.7	?				Most phases uncertain (alterations in progress in seismometer-vault).	
125	" 7	I _u	eP	5	49	14	4	$\frac{1}{2}$			5080	
			eS		56	01	10	6	2			
			PS		56	28	10	11	3			
			SR ₂ ?		59	41	11	26	30			
			eL	6	01	18	20					
			ME ₁		05	44	15		16			
			MN ₁		06	49	15	15				
			ME ₂		08	23	15		30			
			MN ₂		09	14	16	18				
			ME ₃		12	06	16		30			
			MN ₃)									
			MZ		12	.6	16	32		2		
			ME ₄		15	23	14		17			
			MN ₄		17	27	14	13				
			F	7	35							

(Continued on next sheet)

Riverview College Observatory,

SYDNEY, N.S.W.

Seismological Bulletin.

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

INSTRUMENTS:

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

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

No.	Date.	Char.	Phase.	Time (Greenwich)			Per.	Amplitude.			Δ	Remarks.	
				h.	m.	s.		A _N	A _E	A _Z			
126	1920 May 7	III _r	eP	21	36	37	5	3	-		2920	Computed azim. 164° (N. 16° W.) φ, 8½ S. λ, 144° E. Computed time at origin :- h m s 21 30 42	
			iP		36	45	5	-16	+4	+5			
					37	19		5	26	6			11
			S		41	14		8	13	6			4
					41	32		8	92	41			20
			eL		43.3			22					
			M ₁		44.3			19	400	420			155
			ME ₂		46	42		11	240	240			
			MN ₂		46	54		12	175				
			MZ ₂		47	49		12					100
			ME ₃		49	24		10		60			
			MN ₃)		51.3			9	100	107			
			ME ₄)										
			MZ ₃		52	38		15					27
			ME ₅		52	54		8		90			
			MN ₄		54	12		8	60				
			MZ ₄		55	51		8					9
			MN ₅		57	22		9	67				
			ME ₆		58	20		8		66			
			MN ₆		59	35		8	68				
M ₇	22	01.2			8	62	50						
C ₁		08.3			10	40	35						
C ₂		13.1			10	37	20						
C ₃		19.3			10	16	12						
F		lost in			No	127							
127	" 8	Ir	eP	0	05	13	6	1	½		2770		
			eS		09	39	8	3	1				
					09	51	8	8	4				
			PS		10	11	8	8	3				
			eL		12.9		18						
			M ₁		15.3		11	9	25				
			ME ₂		16	59	8		14				
			MN ₂		17	44	8	6					
			ME ₃		18	18	8		5				
			F		?								
128	" 9	Ir	eP	8	05	34				2660			
			eS		09	32	7	1	-				
			eL		12.3		16						
			MN		13	59	13	8					
			F		9	05							

(Continued on next sheet)

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

Seismological Bulletin.

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

INSTRUMENTS:

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

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

No.	Date.	Char.	Phase.	Time (Greenwich)		Per.	Amplitude.			Δ	Remarks.	
				h.	m. s.		A _N	A _E	A _Z			
							μ	μ	μ	km.		
129	1920 May 10	II _r	iP	18	56 12	3	-3	+2	+4	3290	Felt at Darwin (N. Australia.) Computed time at origin :- 18h.49m.52s. Very short wave-lengths.	
			iPR ₁									
			iS	19	01 16	7	2	-16				4
			i		01 21	7	-20	+19				
			PS		01 31	7	17	14				
			iSR ₂		03 55	9	+32	+24				
			eL		04.6	13						
			ME ₁)		06.2	8	32	27				
			MZ ₁		06 39	7			24			
			ME ₂		08 14	7	46					
			ME ₂		08.34	7		42				
			MZ ₂		09.27	6			18			
			ME ₃		09 57	7	54					
			ME ₃		11 25	8		42				
ME ₄		14 37	9		46							
F		21 00										
130	" 11	I _u	e(P?)	2	53 47					5600?		
			e(S?)		3 01 03	?						
			e(L?)		10.7	20						
			H		13.1	14	1	1				
31	" 12	I	F	4	10							
			e	18	43.9	5	1	-				
			eL		50.6	22						
			ME		52 06	18	4					
32	" 13	III _r	F	19	20					3360		
			eP	1	54 54	4						
			iS	2	00 02	8	-10	-12				
			iSR ₁		02 08	8	-28	+18				
			SR ₂		02 50	9	24	17				
			eL		03 26	28						
			N ₁		05.4	25	355	610	65			
			ME ₂)		06.8	18	290	1210				
			ME ₂)									
			ME ₃)		08.2	12	240		70			
			MZ ₂)									
			ME ₃		08 30	13		360				
			MZ ₃		09 34	13			230			
			ME ₄)		09.8	13	370	530				
			ME ₄)									
MZ ₄		11 25	12			110						
ME ₅		11 33	12	255								

(Continued on next sheet)

No. 5 (continued)

1920, May.

19

Riverview College Observatory,

SYDNEY, N.S.W.

Seismological Bulletin.

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

INSTRUMENTS:

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

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

No.	Date.	Char.	Phase.	Time (Greenwich)			Per. s.	Amplitude.			Δ km.	Remarks.
				h.	m.	s.		A _N μ	A _E μ	A _Z μ		
132 (contin.)	1920 May 13		ME5	2	13	02	12		260			
			MN6		14	08	11	20				
			ME6		18	02	10		80			
			C1		21	.8	9	33	50			
			C2		24	.7	9	35	35			
			F		5	05						
133	" 18	I	eP	11	20	36	4					
			eL		25	.4	15					
			M		26	.8	11	2	1			
			F		11	50						
134	" 19	I _r	eP	3	24	18					1890	
			eS		27	31	8	2	-			
			eL		31	.2	17					
			MN ₁		32	41	15	13				
			ME ₁		33	08	14		11			
			MN ₂		34	.1	15	10	11			
			ME ₂		36	10	17		17			
			MN ₃		37	14	16	14				
			F		4	30						
			134a	" 19	I	e(PR ₁)	12	57	21	4	2	-
eS	13	00				44	?					
eL		06				.4	20					
MN		06				48	18	8				
ME ₁		09				05	20		6			
ME ₂		12				31	16		6			
135	" 20	II _r	iP	7	31	30	4	-5	-4	+1½	2730	Computed azim. 218½° (N.38½°E)
					31	54	4	13	12			
			iS		35	53	7	-7	-7			
			PS		36	27	7	10	20			φ, 13½°S. λ, 167° E.
					36	43	7	41	11			
			eL		37	.2	25					
			MZ ₁		38	32	25			140		Computed time at origin :- h m s
			MN ₁)		38	.8	21	250	260			7 25 51
			ME ₁)									
			MZ ₂		39	44	19			140		
			MN ₂)		40	.5	15	90	90			
			ME ₂)		42	41	12	33				
			MN ₃		44	17	13		50			
			ME ₃		48	.1	12	13	18			
C		9	30									
136	" 22	I	e(P?)	17	06	36	?					Probably same origin as No. 137.
			e(S?)		09	10	8	1				
			F		Lost in No. 137.							

(Continued on next sheet)

Riverview College Observatory,

SYDNEY, N.S.W.

Seismological Bulletin.

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h = 41.9 m.

Foundation: Triassic sandstone.

INSTRUMENTS:

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

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

No.	Date.	Char.	Phase.	Time (Greenwich)			Per.	Amplitude.			Δ	Remarks.
				h.	m.	s.		A_N	A_E	A_Z		
137	1920 May 23	I_r	eP iS eL M F	17	12	10	4	μ 2	μ $\frac{1}{2}$	μ	1500	
138	" 23	I_r	eP S eL MN F	17	04	10	4	2	1		2480	
139	" 23	I_r	eP eS eL ME MN F	20	19	44	9	1	$\frac{1}{2}$		3430	
140	" 26	I_r	eP PR ₁ eS PS eL MN ₁ ME ₁ MZ MN ₂ ME ₂ MN ₃ ME ₃ F	12	29	03	5	-	1		4500	Computed time at origin :- h m s 12 21 05
141	" 27	I_r	iP eS eL M F	6	01	33	6	-3	-9	+1	1660	Computed azim. 247 $\frac{1}{2}$ $^{\circ}$ (N. 67 $\frac{1}{2}$ $^{\circ}$ E) ϕ , 27 $\frac{1}{2}$ $^{\circ}$ S. λ , 166 $^{\circ}$ E Short wave- lengths.
141a	" 27	I	eL MN ₁ MN ₂ ME F	6	10.6		13					
42	" 29	I	e	6	38.5							A few long waves.

E. F. Pigot

Riverview College Observatory,

SYDNEY, N.S.W.

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INSTRUMENTS:

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

	V	T_0	$\epsilon : 1$	$\frac{r}{T_0^2}$
A_N (1)	157	8.4	5.2	0.018
A_E (1)	173	8.2	3.7	0.025
A_Z (2)	91	5.0	2.8	0.06

No.	Date.	Char.	Phase.	Time (Greenwich)		Per.	Amplitude.			Δ km.	Remarks.
				h.	m. s.		s.	A_N μ	A_E μ		
143	1920 June 4	I	e	2	34.6						
			eL		41.2	17					
			MN		44 03	13	2				
			ME		46 46	11		$\frac{3}{4}$			
			F	3	00						
144	" 5	II _u	eP	4	32 04	4	1	$\frac{1}{2}$		7130	Computed azim. $132\frac{1}{2}^\circ$ (N. $17\frac{1}{2}^\circ$ W)
			iP		32 08	4	+15	-5	-10		
			iPR ₁		34 48	4	-11	+14			
			iS		40 40	8	-32	-			ϕ , 28° N. λ , 133° E.
			i		40 48	8	-31	-11			
			PS		41 02	8	41	18	3		
			eL		47.5	30					Computed time at origin :- h m s 4 21 26
			MN ₁		52 30	24	180				
			ME ₁		53 06	24		330			
			ME ₂		55 42	22		114			
			MZ ₁		56 18	22			50		
			MN ₂		57 24	21	140				
			MZ ₂		57 58	22			60		
			ME ₃		59 29	19		120			
			MN ₃	5	01 21	19	100				
			MZ ₃		02 56	18			54		
			MN ₄		04 51	17	80				
			ME ₄		05 21	17		70			
			C		20.2	16	22	16			
			eW ₂	6	55.1	24					
			ME ₁		58 12	17		4			
			MN ₁	7	01 00	21	4				
			MN ₂		04 51	19	4				
			ME ₂		09 27	17		3			
			MN ₃		12 27	19	8				
			F	7	55						
5	" 6	I _r	e(P?)	11	25 11					3240?	
			eS		30 11						
			eL		32.6	16					
			ME		33 58	13		3			
			MN		34 28	13	5				
			F	12	00						

(Continued on next sheet)

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

Seismological Bulletin.

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

INSTRUMENTS:

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

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

No.	Date.	Char.	Phase.	Time (Greenwich)			Per. s.	Amplitude.			Δ km.	Remarks.
				h.	m.	s.		A _N μ	A _E μ	A _Z μ		
46	1920 June 9	II _r	eP	11	37	33	3	½	½		3940	Felt on island of Amboina (Molucca Is.) Computed time at origin h m s 11 30 15 No. 2 seismom- eter (Z) out of order.
			i		37	44	3	+4	-5			
			PR ₁		39	16	4	5	5			
			iS		43	17	6	+9	-12			
			PS		43	27	6	23	15			
			eL		46.	7.	25					
			MN ₁		51	26	9	29				
			ME ₁		51	39	10		100			
			ME ₂		53	44	9		90			
			MN ₂		53	57	9	80				
			MN ₃		57	24	9	48				
			ME ₃		58	57	11		64			
			C		12	10.2	9	13	12			
			F		13	30						
47	" 9	I	eL	19	01.	7	16					
			ME		02	12	15		3			
			MN		03	42	17	2				
48	" 12	I _r	eP	15	31	05	6	½	2		2350	
					31	18	6	2	4			
			eS		34	58	8	7	1			
			PS		35	19	8	11	1			
			eL		36.	1	22					
			ME		38	14	17		26			
			MN		38	28	14	42				
49	" 20	I	e(P?)	0	31	03						
			eL		39.	6	12					
			M		40.	3	14	3	1			
50	" 20	I	e	8	26.	5	15				A few long waves.	
											" " " "	
51	" 26	I	e	13	26.	3						

E. F. Pigot S. J.

Riverview College Observatory,

SYDNEY, N.S.W.

Seismological Bulletin.

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

INSTRUMENTS:

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

	V	T ₀₃	$\epsilon : 1$	$\frac{r}{T_0^2}$
(1) A _N	158	8.3	4.3	0.022
(1) A _E	168	8.3	3.1	0.02
(2) A _Z	93	5.0	2.4	0.06

No.	Date.	Char.	Phase.	Time (Greenwich)		Per.	Amplitude.			Δ	Remarks.	
							A _N	A _E	A _Z			
153	1920 JULY 2	IIr	iP	18	41	19	4	$1\frac{1}{2}$	μ	$1\frac{1}{4}$	1380	Computed time at origin :- h m s 18 36 24
			PR2	46	36	6	10	1				
			iS	50	28	8	-9	+3				
			PS	50	46	8	10	6				
			SR2	52	10	9	5	18				
			eL	53	.2	34						
			MN ₁	54	46	18	60					
			ME ₁	55	02	17		53				
			MN ₂	56	25	13	27					
			ME ₂	57	40	12		13				
			MZ	19	01	38	17			30		
153	" 2	IIr	iP	22	44	16	4	-2	$+2\frac{1}{2}$		4170	
			PR ₁	45	52	6	3	4				
				46	02	3						
			PR ₂	46	32	6	3	3				
			eS	50	13	9	2	2				
			PS	50	33	9	6	6				
			eL	52	.8	18						
			MZ	54	56	18				23		
			MN ₁	56	38	8	22					
			ME ₁	57	38	8		13				
			MN ₂	23	00	39	12	25				
			ME ₂	05	32	8		19				
			ME ₃	07	11	11		26				
			MN ₃	08	38	10	18					
154	" 6	Ir	iP	3	06	05	4	-1	$-1\frac{1}{2}$	$+\frac{1}{2}$	2600	Computed time at origin :- h m s 3 00 43
				06	40	7	12	9		7		
			PR ₁	07	15	5	8	7				
			iS	10	18	8	-11	+5				
			PS	10	29	8	27	19				
				11	15	10	59	15				
			eL	12	.1	24						
			MN	13	18	15	36					
			ME	15	39	15		15				
			MZ	15	51	15				7		
			F	4	35							
155	" 6	I	eL	5	14	.1	20					
			ME	15	48	15		3				
			MN	17	04	14	3					
155	" 7	Ir	iP	10	45	40	3	-	+2		1130?	Very short wave-lengths
			e(S?)	47	41	6	-	1				
			MZ	51	36	6				3		
			M ₁	52	.1	5	19	16				
			M ₂	55	.5	5	9	8				
			F	11	20							

(Continued on next sheet)

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	V	T ₀	ε : 1	$\frac{r}{T_0^2}$
A _N				
A _E				
A _Z				

(See last sheet)

No.	Date.	Char.	Phase.	Time (Greenwich)	Per.	Amplitude.			Δ	Remarks.	
						A _N	A _E	A _Z			
157	July 7	I _r	e(P?)	20 07 55	8	μ	μ $\frac{3}{4}$	μ	2740?		
			eS	09.19	8	$\frac{1}{2}$	$\frac{1}{2}$				
			eL	13.0	18						
			ME ₁	14 11	15		5				
			MN ₁	14 25	15	10					
			MN ₂	15 41	16	20					
			ME ₂	17 32	14		9				
158	" 8	I	e	2 09.9	12	1					
			e	16.5	12	1					
			M	28 50	14	3					
159	" 8	I	e(S?)	4 59 42	?						
			eL	5 03.7	22						
			M	08.3	11	11	2				
160	" 15	I	e	1 29.4	5						
			e?	31.9							
			eL	35.1	15						
			MN	39 20	12	3					
161	" 15	I _r	eP	11 06 54	3			1840			
			S	10 03	4	3	2				
			M	10.7	4	8	2				
162	" 20	I	e?	0 40.3						Very short wave-lengths.	
			eL	49.8	22						
			M	53.2	16	5	7				
163	" 22	I	eL	1 20	20						
			ME ₁	23 14	16		5				
			MN ₁	24 07	13	5					
			M ₂	26.4	8	4	2				
164	" 24	I	eL	7 05.6	20						
			ME	09 29	13		3				
			MN	10 25	16	6					
165	" 25	I	e?	4 54.4	5	1	$\frac{1}{2}$				
			(S?)	59.3	8	1	$\frac{1}{2}$				
			eL	04.5	13						
			MN	04 55	13	2					
166	" 25	I	ME	07 22	10		2				
			F	4 20							
			e	7 31.0	3						
			M	52.3	5	2 $\frac{1}{2}$	2 $\frac{1}{2}$				
			F	7 40							

E. P. T. J. ...

No. 8

1920, August.

Riverview College Observatory,

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SEISMOLOGICAL BULLETIN.

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

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

h=41.9 m.

Foundation: Triassic sandstone.

INSTRUMENTS:

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

SEISMOMETER No. 4.

Oct., 1920 Installation not yet quite completed.
 Installation pas encore complètement finie.
 Aufstellung noch nicht ganz vollständig.

No.	Date.	Phase.	Time (Greenwich)			Per. s.	Amplitude			Δ km.	Remarks.
			h.	m.	s.		A_N μ	A_E μ	A_Z μ		
167	1920 Aug. 2	eP	5	24	05				6900		
		e(S?)		32	30						
		eL		43.6		16					
		MN		44	35	12	1½				
		ME		47	35	15		4			
168	" 2	F	6	30							
		e(S?)	20	14	57						
		eL		17.1		15					
		MN		17	48	13	1				
		ME		19	03	11		1½			
169	" 3	F	20	35					4840		
		eP	3	10	18	2)	1	½			
		iS		16	52	8	-7	-1			
		PS		17	39	10	10	3			
		iSR ₁		20	13	9	+14	-11			
				20	27	9	16	42			
		eL		24.8		18					
		ME ₁		25	39	8		12			
		MZ ₁		28	21	7				2	
		MN ₁		26	50	9	16				
170	" 3	MN ₂		31	31	11	9		7860		
		ME ₂		36	34	11		7			
		F	4	50							
		eP	20	22	26						
		eS		31	39						
		eL		46.6		28					
		M ₁		49.2		26	21	11			
		ME ₂		54.6		16	6	7			
		ME ₃		56	34	16		9			
		MN ₃		56	48	14	7				
171	" 10	F	22	45					2390		
		eP	20	53	30	2					
		iS		57	26	7	-2	-3			
				57	31	7	2	8			
		eL	21	00.6		?					
		ME		02	52	12		1			
		MN		04	45	9	1				
		F	21	25							

(Continued on next sheet)

No. 8 (continued)

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1920, August.

Riverview College Observatory,

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

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

 $\lambda = 151^\circ 9' 30''$ E.

h=41.9 m.

Foundation: Triassic sandstone.

INSTRUMENTS:

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

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

No.	Date.	Phase	Time (Greenwich)			Per.	Amplitude			Δ	Remarks.
			h.	m.	s.		A _x	A _y	A _z		
173	1920 Aug. 15	iP	8	21	35	4	-11	-4 $\frac{1}{2}$	+10	3910 km.	Computed azimuth:- 202° (N. 22° E.) ϕ , 1° S. λ , 163 $\frac{1}{2}$ ° E.
			22	04		4	8	15	19		
		PR ₁	22	39		5	24	9	13		
			22	56		5	39	35	24		
		eS	26	17		7	25	8			
		PS	26	39		7	14	28			
		eL	26	.8		?					
		M ₁	27	.7		7	85	65	48		
		MN ₂	29	19		8	50				
		ME ₂	30	11		7		61			
		ME ₃)	31.2			7		46	10		
		MZ ₂)									
MN ₃	31	59		9	41						
F	10	40									
173	" 15	eP	13	26	21	4	-	$\frac{3}{4}$		3850	
			iS	32	00		6	-3 $\frac{1}{2}$	-1 $\frac{1}{4}$		
			32	06		6	2	1			
		PS	32	20		7	8	6			
		eL	34	.0		15					
		M	35	.6		15	5	6			
174	" 20	e(P?)	2	48	18						
			e(S?)	51	51						
		eL	53	.3		14					
		ME	56	46		10		3			
		MN	56	56		9	2				
F	3	30									
175	" 20	eP	13	54	34	?				2390	
			eS	58	30		6	2	1		
		iS	58	34		6	+19	+17			
		eL	14	00.6		18					
		ME	01	47		16		9			
		MN	02	16		13	6				
		F	14	40							
176	" 20	eP	16	39	38	?				5880	
			eS	47	08		16	3	3		
		e	56	47		25					
			57	21		20	10	9			
		eL	59	.2		30					
		M ₁	17	01.8		24	19	17			
		ME ₂	04	34		20		33			
		MN ₂	04	46		19	30				
		M ₂	08	.8		17	12	12			
		F	19	30							
177	" 22	eP	0	50	06	5	$\frac{1}{2}$	1			
			ME	54	48		12	$\frac{2}{2}$	2		
		MN	55	24		12	$\frac{1}{2}$				
		F	1	15							

(Continued on next sheet)

No. 8 (continued)

1920, August.

Riverview College Observatory,

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

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

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

h = 41.9 m.

Foundation: Triassic sandstone.

INSTRUMENTS:

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

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

No.	Date.	Phase	Time (Greenwich)		Per.	Amplitude			Δ	Remarks.
			h.	m. s.		A _N	A _E	A _Z		
178	1920 Aug. 25	eP?	21	58 48					3340	P masked by micro-seisms.
		eS	22	03 55	7	1	1½			
		eL		06.4	22					
		MN ₁)		06 09	10	12	19			
		ME ₁)		09 38	16		95			
		MN ₂)		10 04	12	24				
		ME ₃)		10 57	13		88			
		MZ		11 49	12			8		
		MN ₃)		12.6	12	49	48			
		ME ₄)								
F	23	20								
179	" 27	e	1	37.5						
		M		40.0	12	2	½			
180	" 27	F	1	50						
		e(P?)	3	44 02						
181	" 27	e(S?)		47 02	12		1			
		e(L?)		48.1	14					
		ME		50 41	12		3			
		MN		54 20	12	1½				
		F	4	15						
		e(P?)	11	11 28						
182	" 27	MN		17 53	11	2				
		ME		18 11	?					
		F	Lost in No. 182							
183	" 27	eL	11	24.2	14					
		MN		27 41	12	6				
		ME		29 07	12		1			
184	" 27	F	Lost in No. 183							
		e	12	07.2	4	½	-			
		MN		11 28	11	4				
185	" 29	ME		12 47	11		1½			
		F	12	40						
		e(S?)	13	11 41						
		eL		15.4	15					
185	" 29	MN		17 50	12	5				
		ME		18 58	12		2			
		F	14	05						
		eP	10	54 33	3	½	½		2600	
		eS		58 46	9	1	2			
		eL	11	00.4	22					
185	" 29	ME		01 33	20		12			
		MN		02 46	13	9				
		F	11	25						

Ernest F. Pigot S.J.

Riverview College Observatory,

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

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h = 41.9 m.

Foundation: Triassic sandstone.

INSTRUMENTS:

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

	V	T_0	$e:1$	$\frac{r}{T^2}$
A_1 (1)	153	8.8	5.5	0.02
(3)	112	9.0	3.9	0.02
A_2 (1)	159	8.6	4.0	0.028
(3)	148	10.2	2.1	0.04
A_3 (2)	83	5.1	5.5	0.05

No.	Date.	Phase	Time (Greenwich)			Per. s.	Amplitude			Δ km.	Remarks.
			h.	m.	s.		A_N μ	A_E μ	A_Z μ		
186	1920 Sept. 4	e(P?)	2	32	31	5	1	-			
		eL		45	.1	22					
		ME ₁		47	28	40		22			
		ME ₂		54	33	20		4			
		MN ₁		55	17	24	6				
		MN ₂		57	03	18	10				
		F	5	05							
187	" 8	iP	2	51	40	5	$+\frac{1}{2}$	+10	-1	4220	Computed azimuth :- 267° (N. 87° E.)
		PR ₁		52	00	6	8	60			
		S		57	40	10	62	35			
		PS		58	42	10	115	51			ϕ , 24° S. λ , 163 $\frac{1}{2}$ ° W.
		eL	3	00	.6	18					
		MN ₁		01	43	20	560				
		MZ ₁		02	05	20			54		
		ME ₁		02	15	20		320			Computed time at origin :-
		MN ₂)		03	.8	10	69	69			h m s
		ME ₂)		04	48	12			36		2 44 00
		F	5	00							
188	" 9	eP	19	01	47	5	$\frac{1}{2}$	$\frac{1}{2}$		3150	
		i		02	14	5	-4	+9			
				02	37	5	8	4			
		iS		06	41	7	-25	-20			
		PS		07	09	8	20	2013			
		eL		08	.7	25					
		ME ₁		08	57	20		105			
		MN ₁		09	22	24	140				
		MZ		09	31	24			104		
		MN ₂)		16	.0	14	37	36			
		ME ₂)		17	57	15		37			
		ME ₃		20	00	12	26				
		MN ₃		22	20						
		F	22	20							
189	" 10	eP	22	07	58					2330	
		eS		11	49	11	2	1			
		PS		12	15	11	2	-			
		eL		15	.0	15					
		ME		15	54	13		1 $\frac{1}{2}$			
		MN		20	58	13	2				
		F	23	20							
190	" 17	e?	18	51	15	9	$\frac{1}{2}$	-			
		(SR ₁ ?)	19	00	06	10	1 $\frac{1}{2}$	-			
		eL		02	.5	18					
		MN		05	32	13	2				
		ME		06	01	?					
		F	19	30							

No.

192

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

SEISMOLOGICAL BULLETIN.

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

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

$h=41.9$ m.

Foundation: Triassic sandstone.

INSTRUMENTS:

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

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

Date.	Phase.	Time (Greenwich)	Per.	Amplitude			Δ	Remarks.	
				A_N	A_E	A_Z			
1920	iP	14 43 42	7	+19	+20	-21	2320 km.	Computed azimuth:- 226° (N. 46° E.) $\phi, 18\frac{1}{2}^{\circ}$ S. $\lambda, 167^{\circ}$ E. Computed time at origin:- h m s 14 38 46 <u>ERRATUM.</u> In Special Bulletin issued 1920, Sept. 21, for iP amplitudes read 19μ (N), 20μ (E), instead of $12\mu, 16\mu$, respectively.	
		43 58	7	198	184	74			
	iPR ₂	45 08	7	+49	+60				
	iS	47 32	9	-189	+54	+46			
	PS	47 56	8	405	230+	280			
	eL	48.4	18						
	MZ ₁	49 27	18			1120			
	MN ₁								
	ME ₁ ¹)	49.6	16	445	410				
	MN ₂ ²)								
	ME ₂ ²)	52.5	10	500	170+				
	MZ ₂	52 41	13			460			
	MN ₃	54 16	9	340					
	ME ₃	54 52	11		190				
	MZ ₃	55 23	14			680			
	ME ₄	56 36	11		190				
	MN ₄	56 51	8	290					
	MN ₅	15 02 29	9	250					
	ME ₅	03 23	12		150				
	MN ₆								
	ME ₆ ⁶)	07.4	11	210	150				
	CE ₁	15 19	9		46				
	CN ₁	15 31	8	65					
	CE ₂	19 29	9		48				
	CN ₂	19 57	10	29					
	CE ₃	36 14	9		6				
	CN ₃	36 42	9	52					
V_2 waves (Lrepl)	eW ₂	17 30.6	18						
	ME	31 39	18		2 $\frac{3}{4}$				
	F	19 10							
192	" 20	iP	17 32 50	5	-	-1	2410		
			33 02	8					3
		iS	36 52	6	-1 $\frac{1}{4}$	+9			
		MZ	38 01	8					2
	MN ₁	39 27	11	6					
	ME ₁	39 55	12		2				
	MN ₂	40 42	11	7					
193	" 21	eP	2 38 54	5	3	$\frac{1}{8}$	2700	F lost in 191. Computed azimuth:- 228° (N. 48° E.) $\phi, 17^{\circ}$ S. $\lambda, 169^{\circ}$ E.	
		iP	39 00	5	+13	+15			-5
			40 12	5	9	11			
		iS	43 15	7	3	-12			
		eL	44.5	17					
		ME ₁	44 52	16		33			
		MZ ₁	45 15	13					7
		MN ₁	45 29	15	32				
		ME ₂	46 25	15		18			
		MN ₂	49 41	11	21				
	F	4 55							

(Continued on next sheet)

No. 9 (continued)

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1920, September.

Riverview College Observatory,

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

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

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

 $h = 41.9$ m.

Foundation: Triassic sandstone.

INSTRUMENTS:

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

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

No.	Date.	Phase	Time (Greenwich)		Per.	Amplitude			Δ	Remarks.
			h.	m. s.		A _N	A _E	A _Z		
						μ	μ	μ	km.	
194	1920 Sept. 21	e?	16	10.5						
		eL		16.2	20					
		MN		17 13	15	3				
		ME		21 13	14		2			
		F		17 05						
195	" 21	e?	17	41.5						
		e?		49.6						
		e		54.3	7	$\frac{1}{2}$	-			
		e(L?)	18	04.4	17					
				05 03	15	3				
		MN ₁		09 55	18	5				
196	" 23	MN ₂		31 36	20	3				
		ME		37 09	16		2			
		F	19	10						
		e?	5	59.1						
		e	6	09.2	12	1	-			
		eL		13.9	?					
197	" 24	ME		15 03	20		$1\frac{1}{2}$			
		MN		16 32	20	3				
		F	6	30						
		eP?	4	34 31	4	$\frac{1}{2}$	-			
		eS		38 59	9	$\frac{1}{2}$				
198	" 27	eL		41.5	17					
		MN		42 33	14	3				
		F	5	05						
		eP	10	01 36					1930	
		eS		04 53	9	-	$\frac{1}{2}$			
		PS		05 16	10	3	3			
199	" 30	eL		06.1	18					
		MN		06 20	12	4				
		ME		08 16	12		4			
		F	10	40						
		e?	10	18.1						
		eL		26.1	13					
		MN		26 47	12	1				
		ME		30 19	?					
		F	10	40						

E. F. Pigot