

# RIVERVIEW COLLEGE OBSERVATORY, SYDNEY, N.S.W.

No. 1. JANUARY, 1910.

## Seismological Bulletin.

φ = 33° 49' 49" S.  
λ = 10h. 4m. 38s. E.G.  
h = 41.9 metres.

(For further details, see inside of cover.)

No.	Date.	Character.	Phase.	Time.		Period. (T)	A (Earth-particle.)			Δg			REMARKS.	
				(Greenwich Midnight = 0)			E	N	Z	E	N	Z		
				h.	m.	s.	μ			milligal				
1	Jan. 1	II <sub>u</sub>	i P	11	23	0	10	1.7			0.07			Ep. = 16,000 km.
			i		24	24	10	2.8			0.1			
			i (PR <sub>1</sub> )		30	8	10	4.7			0.19			
			S		40	20	10	5.1	5.4		0.2	0.2		
			(PS)		44	8	10							
			eL	12	1.8	24								
			MN <sub>1</sub>		9	2	14		10.6			0.2		
			ME <sub>1</sub>		10	42	15	17.5			0.3			
			ME <sub>2</sub>		14	42	15	15.0			0.27			
			MN <sub>2</sub>		16	16	15		12.2			0.2		
			MZ		22	56	15			6.2			0.1	
ME <sub>3</sub>		23	28	13	14.3			0.3						
(M <sub>rt</sub> )		52	56	17		4.8			0.06					
F		13	50											
2	" 10	I <sub>r</sub>	e P	19	20.5		4		1.2		0.3		Ep. = 2500 km.	
			S		24.6									
			eL		27.1	14								
			M		31.8	8	1.7	2.0		0.1	0.12			
F		20	20											
3	" 13	I <sub>r</sub>	i P	0	17	54	4	2.2	2.0		0.5	0.5	Ep. = about 1100 km.	
			iL		21	22	6	8.2	5.2		0.9	0.5		
			MN		21	38	7		23.0			1.8		
			ME		22	32	7	12.3			1.0			
			F		0	50								
4	" "	I <sub>r</sub>	(e P)	13	53.3		9	1.4	1.8		0.06	0.08	Ep. = 2200 km.	
			eS		57.0									
			(eL)	14	0									
			MN		0	54	8		3.9			0.2		
			ME		5	6	7	4.1			0.3			
F		14	20											
5	" 15	I <sub>r</sub>	e P	10	39.2		6						Ep. = about 1500 km.	
			iL		43	47	8							
			MN		44	3	7		4.9			0.4		
			ME		50	59	9	4.9			0.2			
			F		11	15								
6	" "	I <sub>r</sub>	e P	22	27.6		3			1.0		0.4	Ep. = 3200 km.	
			SR <sub>1</sub>		33	59	10		7.0			0.3		
			eL		37.4		10							
			M		37.6		10	14.5	11.8		0.6	0.5		
F		23	10											
7	" 19	I <sub>r</sub>	e P	14	57.4								Ep. = 3300 km	
			PR <sub>1</sub>		59	4	4	1.8			0.45			
			(S)		15	2	26	6	1.2			0.13		
			eL		7	5	16							
			MN		11	0	12		4.5			0.12		
			ME		11	33	14	6.5			0.13			
F		16	25											

(Continued on next sheet.)

# RIVERVIEW COLLEGE OBSERVATORY, SYDNEY, N.S.W.

No. 1. JANUARY, 1910. (Continued.)

## Seismological Bulletin.

$\phi = 33^{\circ}49'49''$  S.  
 $\lambda = 10^{\text{h.}} 4^{\text{m.}} 38^{\text{s.}}$  E.G.  
 $h = 41.9$  metres,

(For further details, see inside of cover.)

No.	Date.	Character.	Phase.	Time. (Greenwich Midnight = 0)	Period. (T)	A (Earth-particle.)			$\Delta g$			REMARKS.
						E	N	Z	E	N	Z	
				h. m. s. <i>infra</i>	s.	$\mu$	$\mu$	$\mu$	milligal.			
8	Jan. 22	(see Note)	(e P)	19 12.5								Ep. = 11,000 km.
	" 23	I <sub>u</sub>	e (SR <sub>1</sub> )	14 33 31 51								Jan. 26. On No. 1, friction present all night. (10h. till 22h. 30m.)
			(e L)	51.8	25							
			M	20 9 44	17	6.5	4.8		0.09	0.07		
9	" 29	I <sub>r</sub>	F	21 25								Ep. = 3300 km.
			i P	5 2 18	6	3.2	3.0		0.3	0.3		
			S	2 41	5	10.5			1.6			
			e L	7 18								
			ME	11.1	26				0.1			
			MN	13 26	14	6.4						
			F	13 58	12		5.2			0.1		
10	" 30	III <sub>r</sub>	i P	6 0								Ep. = 2300 km. Origin close to Macquarie Island.
			i S	3 50 15	6	14.3	37.5	37.5	1.6	4.1	4.1	
			e L	54 5	10	78.4	45.9		3.1	1.8		
			MZ <sub>1</sub>	57.3	18							
			MN	57 40	10			62.5			2.5	On Z, P and L waves well-marked, but S quite absent.
			ME	59 28	10		104			4.2		
			MZ <sub>2</sub>	59 36	10	167			6.7			
			F	4 4 16	9			50.0			2.4	
				6 35								
												N.B.—Jan. 22, 9h. 18m., friction began in N.S. damping-cylinder (Seismometer No. 1), and at 9h. 59m. in EW cylinder, causing cessation of microseismic waves. At 11h. 25m., assistant observed friction, and removed it. Probably the determining cause of this derangement was the great E.Q. near Iceland (P= 8h. 49m. 7s. at Reykjavic, P= 9h. 8m. 38s. at Batavia), whose waves were due here just at this time.

# RIVERVIEW COLLEGE OBSERVATORY,

## SYDNEY, N.S.W.

No. 2 FEBRUARY, 1910.

### Seismological Bulletin.

$\phi = 33^{\circ} 49' 49''$  S.  
 $\lambda = 10^{\text{h.}} 4^{\text{m.}} 38^{\text{s.}}$  E.G.  
 $h = 41.9$  metres.

(For further details, see inside of cover.)

No.	Date.	Character.	Phase.	Time. (Greenwich Midnight = 0)			Period. (T)	A (Earth-particle.)			$\Delta g$			REMARKS.	
				h.	m.	s.		s.	E	N	Z	E	N		Z
11	Feb. 3	I <sub>r</sub>	eP S eL MN ME F	9	51	47	6								Ep. = 2500 km.
							8	4.4	5.5		0.2	0.3			
							11								
							12		2.2			0.06			
							15	6.2			0.1				
				10	40										
12	" "	I <sub>r</sub>	(P)  i(S)  F	16	48	4	{1 4								Ep. = about 2600 km. [Friction present from 11h. till 21h. 15m. P uncertain, — probably slightly earlier.]
							12		6.7			0.2			
							12	31.6			0.9				
							?								
13	" 4	III <sub>r</sub>	iP  iS  eL MN ME F	14	5	0	{3 18 9	64.7	45.5		0.8	0.5			Ep. = 2300 km.
							9	30.8	27.9		1.5	1.3			
							9	81.8	153.0		4.0	7.5			F obscured by No. 14.
							20								N.B.—Remarkable onset (P): several long waves (T = 18s.), on which were superposed those of 3s. period.
							14		231.0			4.7			
							16	298.7			4.6				
							?								
14	" "	II <sub>r</sub>	iP iS  eL ME MN F	14	45	13	9	13.7	9.0		0.6	0.4			Ep. = 2300 km. (After-shock of No. 13.)
							9								
							9	40.1	45.0		1.9	2.2			
							18								
							14	61.5			1.2				
							11		47.8			1.5			
				16	45										
15	" "	II <sub>r</sub>	iP iS  eL ME MN F	17	41	40	7	11.4	5.6		0.9	0.4			Ep. = 2300 km. (After-shock of No. 13.)
							8								
							8	45.3	31.6		2.8	1.9			
							18								
							14	70.2			1.4				F obscured by No. 16.
							14		45.5			0.9			
							?								
16	" "	II <sub>r</sub>	iP iS eL M F	18	37	44	7	6.1			0.5				Ep. = 2300 km. (After-shock of No. 13.)
							10	25.2	31.3		1.0	1.2			A few long waves (T = 15–25s.) at intervals for several hours possibly non-seismic?
							16								
							14	22.6			0.4				
				19	10										
17	" 8		e e e e	5	30	7									
18	" 9	I <sub>r</sub>	eP S eL MN ME F	7	50	1	6	0.8	1.1		0.09	0.1			Ep. = 2800 km.
							18								
							15		3.6			0.06			
							15	3.7			0.06				
				8	25										

(Continued on next sheet.)



# RIVERVIEW COLLEGE OBSERVATORY, SYDNEY, N.S.W.

No. 3. MARCH, 1910.

## Seismological Bulletin.

$\phi = 33^{\circ}49'49''$  S.  
 $\lambda = 10$ h. 4m. 38s. E.G.  
 $h = 41.9$  metres.

(For further details, see inside of cover.)

No.	Date.	Character.	Phase.	Time. (Greenwich Midnight = 0)		Period. (T)	A (Earth-particle.)			$\Delta g$			REMARKS.
							E	N	Z	E	N	Z	
							$\mu$	$\mu$	$\mu$	milligal			
23	Mar. 1	I <sub>r</sub>	eP	h. m. s.	s.	$\mu$	$\mu$	$\mu$	milligal			Ep. = 3400 km.	
			(S)	11 37.2	5	1.3			0.2				
			eL	42.3									
			MN	46.8	17			3.9		0.1			
			ME	48 45	12	6.1			0.1				
			F	50 38	14								
				12 35									
24	" 25	I <sub>u</sub>	e(P)	15 32.1								Ep. = 11,000 km (?)	
			e(L)	16 6.3	30								
			ME	23.6	16	4.8			0.08				
			MN	26.7	14		2.1		0.04				
			F	45									
			(M <sub>r1</sub> )	52.6	(40)								
25	" 30	II <sub>r</sub>	iP	17 0 34	6	4.4	2.3		0.5	0.2	Ep. = 2500 km.		
			PR <sub>1</sub>	1 30	6	35.3	34.2		3.9	3.8			
			iS	4 29	8	47.0	44.8		2.9	2.8			
				4 51	8	211.0	134.2		13.2	8.4			
			eL	5.4	16								
			MN	9 5	14		180.2			0.9			
			ME	9 23	12	164.3			4.5				
	19 30												
26	" "	I <sub>r</sub>	iP	18 0 34	?						Ep. = 2500 km. (After-shock of No. 25.)		
			iS	4 29	6	19.4	7.6		2.1	0.8			
			eL	7.7	15								
			ME	9 42	13	30.9			0.7				
			MN	10 36	10		18.3			0.7			
	F	?							F obscured by end portion of No. 25.				

# RIVERVIEW COLLEGE OBSERVATORY, SYDNEY, N.S.W.

No. 4. APRIL, 1910.

## Seismological Bulletin.

φ = 33° 49' 49" S.  
λ = 10h. 4m. 38s. E.G.  
h = 41.9 metres.

(For further details, see inside of cover.)

No.	Date.	Character.	Phase.	Time. (Greenwich Midnight = 0)			Period. (T)	A (Earth-particle.)			Δg			REMARKS.
				h.	m.	s.		E	N	Z	E	N	Z	
				μ	μ	μ		milligal.						
27	April 1	II <sub>u</sub>	e(P)	13	55.5	5							Ep. = 6500 km. (?)	
			(S)	14	3.6	6	2.2	4.5		0.2	0.5			
			(eL)		6.3	?								
			M		7.6	8	74.0	70.2		4.6	4.4			
27a	" 2	I	e(S)	11	28.0									
			i		28 20	10		3.6			0.1			
			M		30.4	12	0.9	3.0		0.02	0.08			
28	" "	I <sub>r</sub>	e P	12	14.2	{1 3							Ep. = 2300 km.	
			i S		17 56	6	3.1	6.4		0.3	0.7			
					18 20	5	11.4	3.6		1.8	0.5			
			e L		19.4	17								
			ME		21 6	14	3.7			0.07				
			MN		21 37	12		1.5			0.04			
29	" 8	I <sub>r</sub>	F	12	35								Ep. = 2500 km.	
			i P	16	42 26	5	2.2	1.2		0.3	0.2			
					43 11	5	6.6	0.4		1.0	1.1			
			S		46 30	?								
			e L		49.2	18								
			i M		51 26	18	90.3	32.4		1.1	0.4			
30	" 12	II <sub>u</sub>	MN <sub>2</sub>		54 3	11		12.2			0.4		Ep. = 7200 km. (Formosa.)	
			F	17	20									
			i P	0	32 32	{2 6	3.5	6.5	23.5	0.4	0.7	2.6		
			i S		41 2	6	61.6	24.7	3.3	6.8	2.7	0.3		
					41 20	6			6.7			0.7		
			(PS)		42 16	7	48.6	47.5		3.9	3.8			
31	" 13	I <sub>r</sub>	(eL)		48.2	(20)							Ep. = 1700 km. (?)	
			M		49.7	16	61.6	37.0	31.4	0.9	0.5	0.4		
			C		58.5	12	17.2	14.8		0.4	0.4			
			F	1	45									
			e(P)	5	46.2	?								
			(S)		49 0	10								
32	" 16	II <sub>r</sub>	e L		51.0	16							Ep. = 3700 km. (?)	
			ME		52 23	11	4.4			0.1				
			MN		54 6	9		4.0			0.2			
			F	6	20									
			(e P)	12	36.6									
			S		41.9									
33	" 20	I <sub>r</sub>	(eL)		46.9	(16)							Ep. = 3100 km.	
			ME		49 34	11	120.4			3.9				
			MN		50 4	10		94.4			3.7			
			MZ		51 25	9			17.8		0.8			
			F	14	0									
			i P	22	27 46	4	8.7	1.3		2.1	0.3			
34	" 23	I	PR <sub>1</sub>		29 5	6	20.2	2.6		2.2	0.3		Ep. = 3100 km.	
			S		32 21	7	4.5	3.4		0.3	0.3			
			SR <sub>1</sub>		35 3	7	22.1	39.9		1.8	3.2			
			SR <sub>2</sub>		34 47	10	1.9	8.1		0.1	0.3			
			e L		40.5	12								
			M		43.5	10	3.1	2.5		0.1	0.1			
34	" 23	I	F	23	20									
			e	15	52.8									
			ME		53 17	14	2.4			0.05				
			MN		54 48	16		1.4			0.02			
F	16	5												

# RIVERVIEW COLLEGE OBSERVATORY, SYDNEY, N.S.W.

No. 5. MAY, 1910.

## Seismological Bulletin.

$\phi = 33^{\circ} 49' 49''$  S.  
 $\lambda = 10^{\text{h}} 4^{\text{m}} 38^{\text{s}}$  E.G.  
h = 41.9 metres.

(For further details, see inside of cover.)

No.	Date.	Character.	Phase.	Time. (Greenwich Midnight = 0)		Period. (T)	A (Earth-particle.)			$\Delta g$			REMARKS.		
				h.	m. s.		E	N	Z	E	N	Z			
35	May 1	II <sub>r</sub>	i P	18	35 15	7	$\mu$	$\mu$	$\mu$	milligal.			Ep. = 2400 km.		
						15.0	5.1	14.9	1.2	0.4	1.2				
						65.3	22.8	34.0	4.1	1.4	2.1				
						141.8	112.5	33.6	5.7	4.5	1.4				
						39 24		9			4.4				
						(eL)	40.3	(15)							
						MZ	43 15	16			157.0			2.4	
						MN	43 28	13		149.6		3.5			
			ME	42 32	14	80.6			1.6						
			F	20 30											
36	" "	I <sub>r</sub>	i P	21	26 56	{1						Ep. = 2300 km			
						2									
						i S	30 43	6	13.8	4.1	1.5		0.4		
						MN	34 24	12		2.2			0.06		
			ME	36 36	12	1.8		0.05							
			F	21 45											
37	" 4	I	e	15	49.6										
						ME	51 44	11	3.7		0.1				
						MN	53 1	11		1.8		0.06			
			F	16 5											
38	" 6	I	e	23	18.3										
						ME	24 37	12	2.6		0.07				
						MN	24 50	12		5.2		0.1			
			F	23 40											
39	" 8	I	e	18	23.7										
						M	27.0	12	1.8	2.2	0.05	0.06			
			F	18 35											
40	" 10	I	e	18	40.7							A few long waves.			
41	" 11	I	e		47.5										
42	" "	I	e	18	14.8							Very long waves (T = 50-55s.)			
43	" "	I	e	19	56.4							" " " " "			
44	" "	I	e	20	32.4										
45	" 15	II <sub>r</sub>	e	45.5											
43	" 13	I	e	2	28.2										
						M	31.8	12	0.9	1.5	0.02	0.04			
						F	2 36								
			44	" "	I <sub>u</sub>	i P	8	22 12							
									ME	58 3	14	2.5		0.05	
									MN	9 5.3	12		1.5		0.04
			F	9 26											
45	" 15	II <sub>r</sub>	i P	16	11 37	4	3.2	2.5	4.9	0.8	0.6	1.2	Ep. = 4900 km.		
						PR <sub>1</sub>	12 55	4	4.5	2.1	1.1	0.5			
						S	17 8	5	2.2		0.3				
						PS	17 50	5	5.6		0.9				
						(eL)	19.7	?							
						M	24.7	10	22.7	32.1	56.0	0.9		1.2	2.2
46	" 18	I	F	17	5										
						(e)	9 57.6								
						MN	10 1.9	14		2.2		0.04			
						ME	3.0	16	6.6			0.1			
			F	10 20											

(Continued on next sheet.)

# RIVERVIEW COLLEGE OBSERVATORY, SYDNEY, N.S.W.

No. 5. MAY, 1910. (Continued)

## Seismological Bulletin.

$\phi = 33^{\circ}49'49''\text{S.}$   
 $\lambda = 10\text{h. }4\text{m. }38\text{s. E.G.}$   
 $h = 41.9\text{ metres.}$

(For further details, see inside of cover.)

No.	Date.	Character.	Phase.	Time. (Greenwich Midnight = 0)	Period. (T)	A (Earth-particle.)			$\Delta g$			REMARKS.
						E	N	Z	E	N	Z	
						$\mu$	$\mu$	$\mu$	milligal			
47	May 21	I	eP	22 48.0	6	0.9	3.7		0.1	0.4		
			i	52 18	8		5.7		0.3			
			MN	53.7	6	4.3			0.5			
			ME	54.0								
			F	23 15								
48	" 22	I <sub>u</sub>	eP	6 35.9	2	0.5	?	3.8	0.5	?	3.8	Ep. = 8600 km.
			eS	45.6	12	1.8	3.0		0.05	0.08		
			PS	47.0	12	0.9	4.5		0.02	0.1		
			SR	51.2	18	6.3	21.6		0.07	0.2		
			eI.	57.7	25							
			ME	7 3 49	20	39.0			0.4			
			MN <sub>1</sub>	6 6	20		34.5		0.3			
			MZ	6 12	20			50.0		0.5		
			ME <sub>2</sub>	8 53	16	23.1			0.3			
			F	8 10								
49	" 31	I <sub>r</sub>	e(P)	5 25.2	?							Ep. = 4800 km. (?)
			e(S)	31.5	16	3.3			0.05			
			e(L)	49.2	24							
			ME <sub>1</sub>	50.7	20	10.4			0.1			
			MN <sub>1</sub>	53.2	16		2.8		0.04			
			ME <sub>2</sub>	6 4.7	14	3.7			0.08			
			MN <sub>2</sub>	7.1	12		1.5		0.04			
			F	7 0								
44a	May 15	I <sub>r</sub>	eP	4 36.6	5	1.3			0.2			Ep. = 2400 km.
			iS	40 31	7	3.1	4.5		0.2	0.4		
			PS	40 47	7	7.9	1.1		0.6	0.1		
			eL	42.8	20							
			ME	43 35	16	5.0			0.07			
			MN	44 51	12		0.8			0.02		
			F	5 8								

N.B.—The following was inadvertently omitted in the last sheet:



# RIVERVIEW COLLEGE OBSERVATORY, SYDNEY, N.S.W.

No. 6. JUNE, 1910.

## Seismological Bulletin.

$\phi = 33^{\circ} 49' 49''$  S.  
 $\lambda = 151^{\circ} 4m. 38s.$  E.G.  
h = 41.9 metres.

(For further details, see inside of cover.)

No.	Date.	Character.	Phase.	Time. (Greenwich Midnight = 0)		Period. (T)	A (Earth-particle.)			$\Delta_g$			REMARKS.	
				h.	m.		s.	E	N	Z	E	N		Z
50	June 1	II <sub>r</sub>	i P	6	0	14	6	20.2	11.0	20.2	2.2	1.2	2.2	Ep. = 2400 km.
			i S	4	10	13	162.0	90.0	185.4	3.8	2.1	4.4		
				4	24	13	378.0	276.3	309.0	9.0	6.5	7.3		
			e L	5	3	20								
			ME	7	42	15	220.4		157.0	3.9				
			MZ	8	13	16						2.4		
MN	8	25	13		171.0			4.0						
F	?													
(F obscured by No. 51).														
51	" "	II <sub>r</sub>	i P	6	52	54	7	11.2	2.5	14.9	0.9	0.2	1.2	Ep. = 2400 km. (After-shock of No. 50.)
			i S	53	6	7	51.6	22.4	74.2	4.2	1.8	6.0		
				56	47	12	106.8	55.5	139.2	3.0	1.5	3.8		
				57	6	12	215.4	231.6	156.6	6.0	6.4	4.3		
			e L	57	8	20								
			ME	7	0	12	113.1		65.6	2.0				
MZ	0	25	16						1.0					
MN	1	15	11		37.2			1.2						
F	8	30												
52	" "	I <sub>r</sub>	i P	18	23	35	{	1.4			0.6		Ep. = 2300 km.	
			i S	27	25	7	11.2	2.5		0.9	0.2			
			SR <sub>1</sub>	29	55	8	10.8	6.0		0.7	0.4			
			e L	32	1	?								
			MN	34	1	12		61.4			1.7			
ME	34	16	12	53.4			1.5							
F	19	6												
53	" 9											E.Q. waves were recorded from about 5h 8m. till 6h. but measurements would be unreliable, owing to work going on just then in the vicinity of the seismometers.		
54	" "	I <sub>u</sub>	e P	11	58	5	2						Ep. = 7200 km.	
			S	12	7	2	10	1.9	2.0	0.07	0.08			
			(eL)	14	3	?								
			ME	22	4	20	10.8			0.1				
			MN	23	8	20		11.8			0.1			
F	12	50												
55	" 16	III <sub>r</sub>	i P	6	35	25	5	200.7	132.9	123.0	32.1	21.2	19.7	Ep. = 2400 km. Felt in New Caledonia, but origin at some distance eastwards, in bed of Pacific.
				36	30	5	269.0			43.0				
				36	53	6		206.9			23.0			
			i S	39	17	8	320.6	228.8		20.0	14.3			
			e L	40	8	40								
			MZ	43	55	15			1000.8			17.6		
			ME	44	16	14	945.0			19.3				
			MN	46	29	12		861.8			24.0			
			C	7	32	9	10	3.2	22.5		0.1	0.9		
F	10	20												
56	" 23	I <sub>r</sub>	(eP)	3	2	1	4						Ep. = 1800 km. (?)	
			(S)	5	2	6	8.4			0.2				
			(eL)	9	5	?								
			M	13	8	15	58.0	37.8		0.2	0.1			
			F	3	30									

(Continued on next sheet.)

# RIVERVIEW COLLEGE OBSERVATORY, SYDNEY, N.S.W.

## Seismological Bulletin.

No. 6. JUNE, 1910. (Continued.)

$\phi = 33^{\circ} 49' 49''$  S.  
 $\lambda = 10^{\text{h.}} 4^{\text{m.}} 38^{\text{s.}}$  E.G.  
 $h = 41.9$  metres.

(For further details, see inside of cover.)

No.	Date.	Character.	Phase.	Time. (Greenwich Midnight = 0.	Period. (T)	A (Earth-particle.)			$\Delta g$			REMARKS.	
						E	N	Z	E	N	Z		
						$\mu$	$\mu$	$\mu$	milligal				
57	June 23	I <sub>r</sub>	e P	10 4.4	{ 2							Ep. = 2200 km.	
			S	7 52	? 4			0.8		0.05			
			e L	10.9	18								
			ME	13 37	12	2.7			0.07				
			MN	14 20	12			2.9		0.08			
			F	10 43									
58	" 24	I <sub>r</sub>	(e P)	2 35.1								Ep. = 2900 km. (?)  Unusually short wave-lengths.	
			S	39 30	8								
			(e L)	42.3	5			5.8		0.9			
			MN	43 14	6	6.3			0.7				
			ME	43 59	12	5.4		4.5	0.1	0.1			
			C	46.0									
			F	3 0									
59	" 29	II <sub>r</sub>	i P	10 50 52	3							Ep. = 3400 km (?)  N.B.—On EW component, just after P, remarkable occurrence of long waves (T = 20s.), as in No. 13 (1910, Feb. 4).	
				52.0	20	54.0			0.5				
			i (S)	55 56	20	81.0	24.0		0.8	0.2			
			(SR <sub>1</sub> )	57 13	16	30.0	83.8		0.4	1.3			
			(e L)	58.1	(25)								
			ME	11 2 4	16	220.4			3.4				
			MN <sub>1</sub>	4 17	11			67.1		2.2			
			MN <sub>2</sub>	7 28	10			62.0		2.5			
			MN <sub>3</sub>	13 4	12			88.8		2.4			
			F	13 30									
60	" "	II <sub>r</sub>	i P	14 23 21	3							Ep. = 3400 km. (?) (After-shock of No. 59?)	
				24 2	5	2.3			1.0				
			(S)	28 30	10	6.8			1.1				
			(e L)	30.9	30	8.2	4.0		0.3	0.2			
			MN	35 13	10			54.5		2.2			
			ME	36 20	12	61.4			1.7				
			F	16 10									
61	" "										A few long-period waves from 14h. 45m. till 16h. (probably non-seismic).		
62	" "	I	(e P)	18 20.0									
			(e S)	22.6	4	2.2			0.5				
			(e L)	25.2	(20)								
			MN	26 43	16			33.8		0.5			
			ME	27 43	16	30.1			0.5				
			F	18 56									
63	" 30	I <sub>r</sub>	e(P)	3 8.8	3							Ep. = 2000 km.	
			(S)	12 14	8	4.6	0.9		2.0	0.4			
			(e L)	15.9	(12)								
			MN	21 58	8			1.9		0.1			
			ME	23 54	14	6.3			0.1				
			F	3 35									
64	" "	I	e	4 4.9									
			e	6.4	12								
			ME	8 10	16	3.4			0.05		0.06		
			MN	9 17	12			2.2					
			F	4 29				2.2		0.06			

# RIVERVIEW COLLEGE OBSERVATORY, SYDNEY, N.S.W.

## Seismological Bulletin.

No. 7. JULY, 1910.

φ = 33° 49' 49" S.  
λ = 10h. 4m. 38s. E.G.  
h = 41.9 metres.

(For further details, see inside of cover.)

No.	Date.	Character.	Phase.	Time. (Greenwich Midnight = 0)		Period. (T) s.	A (Earth-particle.)			Δg			REMARKS.
							E	N	Z	E	N	Z	
							μ	μ	μ	milligal			
65	July 3	I <sub>r</sub>	e	6 16.0									
			eL	18.4	15								
			ME	19-16	15	22			0.4				
			MN	19-28	14		11			0.2			
			F	6-43									
66	" 5	I <sub>r</sub>	eP	10-39.8								Ep. = 3700 km.	
			S	45-19									
			eL	48.0	16								
			MN	49 33	14		4½		0.1				
			ME	51 6	14	6½			0.1				
F	11 24												
67	" 7	II <sub>r</sub>	eP	8 24.7								Ep. = 4800 km.	
			e(PR <sub>1</sub> )	26.4	3								
			S	31 6									
			PS	31 39	?								
			SR <sub>1</sub>	34 47	10	5½	7		0.2	0.2			
			eL	38.4	22								
			MZ	43 48	20			100			1.0		
			ME	44 19	16	89			1.4				
MN	44 53	12		65			1.8						
F	10 40												
68	" 8	II <sub>r</sub>	e(L)	3 12.0	20							Earlier portion lost (adjustments).	
			MN	13 19	16		4½		0.07				
			ME	16 46	?								
			F	3 30									
69	" 8	I <sub>u</sub>	eP	4 8.2								Ep. = 6500 km. (?)	
			(S)	16 13	8	1	½		0.06	0.03			
			eL	21.4	20								
			MN <sub>1</sub>	23 7	18		19			0.2			
			ME	26 14	16	17			0.3				
			MN <sub>2</sub>	28 45	14		27			0.5			
F	5 50												
70	" 9	I <sub>r</sub>	eP	16 14.6	2.5							Ep. = 3200 km.	
			PR <sub>1</sub>	15 54	4	½			0.3				
			S	19 25	6	½			0.04				
			eL	26.0	18								
			M	27 27	14	1½			0.03				
			F	16 40									

(Continued on next sheet.)

# RIVERVIEW COLLEGE OBSERVATORY, SYDNEY, N.S.W.

No. 7. JULY, 1910. (Continued.)

## Seismological Bulletin.

$\phi = 33^{\circ} 49' 49''$  S.  
 $\lambda = 10$ h. 4m. 38s. E.G.  
 $h = 41.9$  metres.

(For further details, see inside of cover.)

No.	Date.	Character.	Phase.	Time.		Period. (T)	A (Earth-particle.)			$\Delta g$			REMARKS.
				(Greenwich Midnight = 0)			E	N	Z	E	N	Z	
				h.	m.								
71	July 11	I	(e)	20	38.2								
			MN	42	15	15		5			0.1		
			ME	43	31	15	8				0.1		
			F	21	25								
72	" 12	II <sub>r</sub>	i P	21	9 21	4	4 $\frac{1}{2}$	12 $\frac{1}{2}$		1.1	3.1		Ep. = 2100 km.
			i		9 44	4	11	33		2.8	8.3		
			i (S)		12 53	12	43	32		1.2	0.9		
			MN <sub>1</sub>		13 24	12		48			1.3		
			ME		13 42	14	115			2.3			
			MN <sub>2</sub>		15 15	12		44			1.2		
			MN <sub>3</sub>		19 22	10		40			1.6		
			F		23 22								
73	" 15	I	i P	12	7 41	3	2 $\frac{1}{2}$			1.02		Ep. = 3200 km	
			PR <sub>1</sub>		9 33	5		2 $\frac{1}{2}$			0.4		
			i S		12 31	8		3 $\frac{3}{4}$			0.2		
			e L		14.2	22							
			ME		15 18	20	39				0.4		
			MN		18 43	12		4 $\frac{3}{4}$					0.1
			F		13 33								
74	" 24	I <sub>r</sub>	e P	15	23.2	3						Ep. = 3200 km.	
			S		28 4	7	1				0.07		
			e L		30.7	22							
			MN		32 9	15		21			0.4		
			ME		33 35	15	23				0.4		
F		16 30											
75	" 29	III <sub>r</sub>	e P	10	32.7	3		1 $\frac{1}{2}$			0.6	Ep. = 2100 km.	
			i (PR <sub>1</sub> )		33 47	6		5 $\frac{1}{2}$			0.6		
			S		37 16	8	4 $\frac{1}{2}$	2 $\frac{1}{4}$		0.3	0.1		
			e L		40.0	40							
			MN		43 54	20		884			8.8		
			ME		44 52	20	1200				12.0		
			M <sub>r1</sub>		12 21 40	40?							
			F		12 33								

# RIVERVIEW COLLEGE OBSERVATORY, SYDNEY, N.S.W.

No. 8. AUGUST, 1910.

## Seismological Bulletin.

$\phi = 33^{\circ} 49' 49''$  S.  
 $\lambda = 10$ h. 4m. 38s. E.G.  
h = 41.9 metres.

(For further details, see inside of cover.)

No.	Date.	Character.	Phase.	Time. (Greenwich Midnight = 0)		Period. (T) s.	A (Earth-particle.)			$\Delta g$			REMARKS.		
				h.	m.		s.	E	N	Z	E	N		Z	
				h.	m.	s.	$\mu$	$\mu$	$\mu$	milligal					
76	Aug. 15	I	e	17	16.5										
			MN		23	20	12					0.07			
			ME		23	43	12	6			2 $\frac{3}{4}$	0.1			
			F		18	0									
77	" 16	I	eP	7	47.5									Ep. = 1700 km. (?)	
			eL		52.7	20									
			MN		56	12	18				10 $\frac{1}{2}$	0.1			
			ME		57	14	18	14			0.2				
78	" 17	I	e	23	18										
			eL		19.4	24									
			ME		24	7	16	6 $\frac{1}{2}$			0.1				
			MN		28	47	16				5	0.08			
79	" 18	I	(e)	11	25.8										
			ME		30	12	12	4 $\frac{1}{4}$			0.1				
			MN		30	38	10				2	0.08			
			F		11	52									
80	" 18	I	e	16	50.2										
			e(S)		53.9	7	1 $\frac{1}{2}$			0.1					
			MN		57	14	16				7	0.1			
			ME		59	28	9	1 $\frac{1}{4}$			0.06				
81	" 20	I	e	20	59.0	8	1 $\frac{1}{2}$			0.1					
					59	16	5	6 $\frac{1}{2}$			1.0	0.6			
			MZ		59	31	5				4		0.3		
			ME		59	58	6	10			2	1.1			
82	" 21	II	MN	21	0 0	6					0.6				
			F	21	10										
			iP	5	44 8	2.5							2.6	Ep. = 3600 km.  Beginning lost on E and N (adjustments).	
					44 17	2.5							39.7		
i(PR <sub>1</sub> )		45 45	3							78					
iS		49 24	6							13					
			(PS)		49 37	6							27	3.0	
			SR <sub>1</sub>		51 51	7							20	1.6	
			MN		56 58	12									
			ME		57 4	14	29		53		0.6	1.4			
			MZ	6	2 0	12									
			F	6	53								17	0.5	

# RIVERVIEW COLLEGE OBSERVATORY, SYDNEY, N.S.W.

No. 9. SEPTEMBER, 1910.

## Seismological Bulletin.

$\phi = 33^{\circ}49'49''$  S.  
 $\lambda = 10^{\text{h.}} 4^{\text{m.}} 38^{\text{s.}}$  E.G.  
 h = 41.9 metres.

(For further details, see inside of cover.)

No.	Date.	Character.	Phase.	Time. (Greenwich Midnight = 0)		Period. (T)	A (Earth-particle.)			$\Delta g$			REMARKS.	
				h.	m. s.		s.	E	N	Z	E	N		Z
							$\mu$	$\mu$	$\mu$	milligal.				
83	Sept. 2	I <sub>n</sub>	(e P)	0	55.2								Ep. = 7500 km. (?)	
			(e S)	1	4.0									
			(e L)		12.3									
			MN	22	30	18		7			0.08			
			ME	22	34	18	15				0.2			
		F	1	51										
84	" 2	I	e	14	39.2	4		1½			0.3			
			eL		54.0	26								
			MN	58	14	20		5¾			0.06			
			ME	59	26	18	6				0.07			
			F	15	20									
85	" 2	I	e	17	8.1									
			MN		16 38	20		5¾			0.06			
			ME		17 6	16	4½				0.07			
			F	17	43									
86	" 6	I <sub>n</sub>	i (P)	20	21 39	5		1¼			0.2		Ep. = 10,000 km (?)	
			i		31 7	8		3			0.2			
			eL		53.1									
			ME <sub>1</sub>	56	58	20	3¾				0.03			
			MN <sub>1</sub>	57	13	20		8½			0.08			
			e	21	14.0	14		2¼			0.04			
			ME <sub>2</sub>	21	36	16	2¼				0.04			
			MN <sub>2</sub>	23	50	15		4¾			0.08			
		F	21	56										
87	" 7	III <sub>r</sub>	i P	7	16 54								Ep. = 3100 km.	
			i S		21 35									
			PS		21 44									
			eL		25.6									
			ME	29	0	12	208				5.8			
			MN	30	0	15		372			6.6			
			MZ	30	50	15			306			5.4		
			F	9	27									
88	" 8	I	e	5	52.0	24?								
			M		56.2	16	9.4	6.4		0.1	0.1			
			F	6	18									

(Continued on next sheet.)

# RIVERVIEW COLLEGE OBSERVATORY, SYDNEY, N.S.W.

No. 9. SEPTEMBER, 1910. (Continued.)

## Seismological Bulletin.

$\phi = 33^{\circ}49'49''$  S.  
 $\lambda = 10$ h. 4m. 38s. E.G.  
h = 41.9 metres.

(For further details, see inside of cover.)

No.	Date.	Character.	Phase.	Time.		Period. (T)	A (Earth-particle.)			. $\Delta g$			REMARKS.
				(Greenwich Midnight = 0)			E	N	Z	E	N	Z	
				h.	m.								
89	Sept. 9	I <sub>u</sub>	i P	1	26	19	4						Ep. = 9500 km.  At 3h. 36.3m., some long waves of larger amplitude (M rep. 1?)
			S		36	49	6	8½	7½	1.0	0.8		
			eL		49.2		24						
			MN		58	12	22		37		0.3		
			ME		59	44	24	25.			0.2		
F		3	52										
90	" 10	II <sub>r</sub>	i P	12	32	35	3	2	6	0.8	2.7	Ep. = 2900 km.	
			i		33	14	3	2½	8	1.0	3.5		
			iS		37	3	7	12	4½	1.0	0.4		
			eL		41	4	?						
			MN		43	34	12		21		0.6		
			ME		44	54	10	16			0.6		
F		13	52										
91	" 15	I <sub>r</sub>	e P	14	2.1						Ep. = 4400 km.		
			S		8	14	6	1½		0.2			
			eL		15.3		20						
			ME		21	10	15	10				0.2	
			MN		22	26	12		6			0.2	
F		15	20										
92	" 16	I	e(L)	12	6.0		16				Ep. = 2800 km.		
			MN		10	55	14		2¾			0.05	
			ME		12	20	12	1¼				0.03	
			F		12	40							
93	" 23	I <sub>r</sub>	e(P)	0	52.8						Ep. = 2800 km.		
			e(S)		57.2		5		1½			0.2	
			MN	1	0	52	14		12			0.2	
			ME		2	54	14	7¼				0.1	
			F		1	52							

# RIVERVIEW COLLEGE OBSERVATORY, SYDNEY, N.S.W.

## Seismological Bulletin.

$\phi = 33^{\circ} 49' 49''$  S.  
 $\lambda = 10^{\text{h.}} 4^{\text{m.}} 38^{\text{s.}}$  E.G.  
 $h = 41.9$  metres.

No. 10. OCTOBER, 1910.

(For further details, see inside of cover.)

No.	Date.	Character.	Phase.	Time. (Greenwich Midnight = 0)		Period. (T)	A (Earth-particle.)			Δg			REMARKS.
							E	N	Z	E	N	Z	
				h.	m.	s.	μ	μ	μ	milligal.			
94	Oct. 3	I	e(S)	10	59.8	8	4			0.2			
			ME	11	2 35	16	10½			0.1			
			MN		2 47	14		7¼			0.1		
			F	11	27								
95	" 7	I <sub>r</sub>	e	7	0.7								Ep. = 2900 km.
			e(L)		9.4	20							
			MN		11 15	12		17			0.4		
			ME		16 36	12	10			0.3			
		F		8 28									
96	" 7	I	e(P)	11	58.2								
			e	12	3.1	?							
			MN		6 19	15		10			0.2		
			ME		10 20	12	10			0.3			
		F		13 0									
97	" 8	I	MN	21	6 30	14			6			0.1	
			ME		6 51	12	4½				0.1		
			F		21 31								
98	" 14	II	e	4	3.9								
			e(L)		10.0	16							
			ME <sub>1</sub>		12 30	12	4½			0.1			
			MN <sub>1</sub>		12 55	14		4¼			0.09		
			MN <sub>2</sub>		21 43	10		3¾			0.1		
			ME		22 23	12	4½			0.1			
		F		4 43									
99	" 18	I <sub>r</sub>	e	2	41.7								Ep. = 2100 km.
			e(L)		48.0	20							
			MN		50 43	15		29			0.5		
			MZ		51 13	15			56			1.0	
			ME		52 4	15	46			0.8			
		F		4 7									
100	" 20	I	e(P)	5	19.7	5	1¾			0.3			
			e		23.4	9	2½			0.1			
			e(L)		29 2	?							
			MN		30 49	14		16			0.3		
			ME		35 37	16	21			0.3			
			F		6 34								
101	" 24	I <sub>r</sub>	eP	14	35.4	3	2¼			1.0	0.2		Ep. = 3000 km.
			i		35 32	4	3½		½	0.8	0.1		
			i(S)		39 56	8	2½		5	0.1	0.3		
			eL		41.4	20							
			MN		42 58	14		5¾			0.1		
			ME		43 22	15	16			0.3			
			F		15 10								
102	" 30	I	e(L)	7	48.1	20							
			M		53.1	14	22		32	0.4	0.6		
			F		8 57								



# RIVERVIEW COLLEGE OBSERVATORY, SYDNEY, N.S.W.

No. 11. NOVEMBER, 1910.

## Seismological Bulletin.

$\phi = 33^{\circ}49'49''$  S.  
 $\lambda = 10$ h. 4m. 38s. E.G.  
h = 41.9 metres.

(For further details, see inside of cover.)

No.	Date.	Character.	Phase.	Time. (Greenwich Midnight = 0)	Period. (T)	A (Earth-particle.)			$\Delta g$			REMARKS.
						E	N	Z	E	N	Z	
103	Nov. 1	I	eL	h. m. s.	s.	$\mu$	$\mu$	$\mu$	milligal.			
			M	20 58.2	16				0.04	0.1		
			F	21 0 4	10	1	3					
104	" 2	I <sub>r</sub>	e	13 34.5	8	3½	3½		0.2	0.2		Ep. = 2000 km. (?)
			e(S)	37.6	16							
			e(L)	43.0	14		7			0.1		
			MN	45 39	14				0.2			
			ME	45 47	14	8						
105	" 8	I	F	14 28								Ep. = 2700 km. (?)
			e	16 58.3	10		1½		0.06			
			eS	17 2.6	18							
			eL	8.7	18	56			0.7			
			ME	8 52	18							
			MN	10 27	15		31			0.5		
			MN <sub>2</sub>	11 37	14		25			0.5		
106	" 9	III <sub>r</sub>	F	18 24								Ep. = 2800 km.
			iP	6 7.0	4	8½	9½	2½	2.2	2.3	0.6	
			i	7.6	6	37	40	67	4.1	4.5	7.4	Near island of Mallicolo (New Hebridies) where strongly felt
				7.9	7			128			10.5	
				9.7	10	108	91	67	4.3	3.6	2.7	At 6h. 14m. 44.. displacement of zero-line on both the Wiechert and Mainka seismometers, showing a tilt of ground (towards N.) of approximately 1.5"
			S	10.3	10	50	120	134	2.0	4.8	5.4	
				11.4	12	280	212	260	7.8	6.0	7.2	
				11.9	12	630	520	260	17.7	14.5	7.2	
				12.7	14	1200	1190	480	24.6	24.3	10.0	
			eL	13.9	20							
			ME	14.6	19	3600			40.0			
			MZ	15.1	18			3200			40.4	
			MN	15.4	17		1780			24.7		
				21.1	14		338	480		8.0	10.0	
				25.1	12		673	191		18.7	5.3	
				41.4	12	168	154	87	4.6	4.3	2.4	
			C	7 1.0	10	74	58	45	3.0	2.3	1.8	
				9 20.8	20	13	8½		0.1	0.08		
107	" 9	I <sub>r</sub>	F	10 20								Ep. = 2700 km.
			eP	9 42.6	4	½			0.1			L waves not discernible from those of No. 106, on which P and S are superposed.
			iS	46 9	7	1½	3		0.1	0.2		
108	" 10	II <sub>r</sub>	iP	12 25 12	4	7	6½		1.8	1.6		Ep. = 2600 km.
				25 17	4			5			1.2	
			iS	29 26	7	18	15	10	1.5	1.2	0.8	
			PS	29 54	7	29	20		2.4	1.8		
			eL	32.3	20							
			ME	33 23	16	68			1.0			
			MZ	33 38	16			33			0.5	
			MN	34 44	14		42			0.8		
109	" 15	I <sub>u</sub>	F	15 10								Ep. = 9100 km.
			iP	14 34 26	4	¼		12	0.2		3.0	
			PR	37 58	9		5½			0.3		
			iS	44 40	14	20½	17		0.4	0.3		
			(PS)	45 57	14	10	19½		0.2	0.4		
			eL	39.1	24							
			ME	15 4 55	24	32			0.2			
			F	17 0								

(Continued on next sheet.)

# RIVERVIEW COLLEGE OBSERVATORY, SYDNEY, N.S.W.

No. 11. NOVEMBER, 1910. (Continued.)

## Seismological Bulletin.

φ = 33° 49' 49" S.  
λ = 10h. 4m. 38s. E.G.  
h = 41.9 metres.

(For further details, see inside of cover.)

No.	Date.	Character.	Phase.	Time. (Greenwich Midnight = 0)		Period. (T)	A (Earth-particle.)			Δg			REMARKS.
				h.	m. s.		E	N	Z	E	N	Z	
				h.	m. s.		μ	μ	μ	milligal			
110	Nov. 16	I	e P	12	28.8	3							Ep. = 2700 km.
			e S		33.0	7							
			i		33.9	7		5			0.4		
			e L		36.0	12							
			ME		39 42	10	2				0.1		
			MN		40 7	10		3				0.1	
111	" 24	I v	e P	22	54.6	1	1	1½		1.0	1.5		Ep. = 500 km. (?)  At 22h. 54.7m. several waves of relatively long period, with 1 s. waves superposed.
			e		54.7	8							
			(e L)		55.1	8	10	3			0.6	0.2	
			M		56.1	7							
			F		56.3	5	3½	3			0.6	0.4	
				23	12								
112	" 25	I r	i P	19	9 56	3	1	2		0.4	0.8		Ep. = 2700 km.
			i		10 11	4	4	4½		1.0	1.1		
			i S		14 7	7	2½	5		0.2	0.4		
			i		14 17	7	17	24		1.4	2.0		
			e L		16.4	20							
			MZ		16.8	20			50			0.5	
			ME		17 31	20	76			0.7			
			MN		17 48	18		31			0.4		
113	" 26	III r	i P	4	46 29	4	14½	18½	6	3.6	4.6	1.5	Ep. = 2400 km.  (F obscured by No. 114.)
					46 42	5	25	30	27	4.0	5.0	4.2	
			S		50 18	11	34	36	14	1.1	1.2	0.4	
			i		50 42	11	309	356	143	10.2	11.7	4.7	
			(e L)		52.9	20							
			MZ		54 22	18			442			5.4	
			ME		55 3	14	400			8.2			
			MN		55 31	14		437			8.9		
			i		5 9 26	12			122			3.4	
			C		5 51.0	12	63	34	17½	1.7	0.9	0.5	
114	" "	II r	i P	6	18 14	4	7½	16	1½	1.9	4.0	0.3	Ep. = 2400 km.  (2nd shock of No. 113.)
					18 27	5			12			2.0	
			S		21 59	8	4½	5		0.3	0.3		
					22 42	9	56	63		2.7	3.1		
			(e L)		24.1	24							
			ME		26 17	16	125			2.0			
			MZ		26 53	12			35			1.0	
			MN		27 20	14		105			2.1		
115	" 29	I r	i P	11	59 32	4.5	7	7		1.3	1.3		Ep. = 1500 km.
					59 36	4.5	10	9¾		2.0	1.9		
			i (S)		12 2 7	6	4	4		0.4	0.4		
			F		12 27								
116	" 30	I r	e P	14	44.1								Ep. = 3000 km.
			i		44 15	4	2	3	1½	0.5	0.7	0.3	
			e S		48.7								
			i		49 5	7	2	4		0.1	0.3		
			e L		51.4	16							
			MN		52 3	12		1			0.03		
			ME		53 10	12	3			0.08			
			F		15 14								

# RIVERVIEW COLLEGE OBSERVATORY, SYDNEY, N.S.W.

No. 12. DECEMBER 1910.

## Seismological Bulletin.

φ = 33° 49' 49" S.  
λ = 10h. 4m. 38s. E.G.  
h = 41.9 metres.

(For further details, see inside of cover.)

No.	Date.	Character.	Phase.	Time. (Greenwich Midnight = 0)			Period. (T)	A (Earth-particle.)			Δg			REMARKS.
				h.	m.	s.		E	N	Z	E	N	Z	
				h.	m.	s.	μ	μ	μ	milligal.				
117	Dec. 1	I <sub>r</sub>	e(P)	3	40.6								Ep. = 1300 km. (?)	
			e(S)		42.9	7			2½		0.2			
			eL		43.7	22								
			ME	}	47.1	12	22	11½	0.6	0.3				
			MN											
			MZ		55 7	9					4½	0.2		
			F		4 36									
118	" 1	II <sub>r</sub>	iP	15	50 3	4	3	2¾	3½	0.8	0.7	0.9	Ep. = 4300 km.	
			PR		51 38	14	24	18		0.5	0.3			
			S		56.0	16	27	15	0.4	0.2				
			eL		16 0.1	22								
			MN	}	5.1	12	52	48	1.4	1.3				
			ME											
			MZ		7 57	12					17	0.5		
F		17 36												
119	" 2	I <sub>r</sub>	eP	3	17.8								Ep. = 2400 km.	
			S		21 48	12	7½	4¼		0.2	0.1			
			e(L)		23.1	16								
			ME		28 30	9	6½		0.3					
			MN <sub>1</sub>		28 40	10		15		0.6				
			MN <sub>2</sub>		31 20	9		12		0.6				
			F		4 40									
120	" 3	I <sub>r</sub>	eP	4	7.6								Ep. = 3100 km.	
			iS		12 16	10			4½		0.2			
			eL		15.3	24								
			ME		17 41	16	11½		0.1					
			MZ		18 34	15		14			0.2			
			MN		19 26	14		14		0.3				
			F		4 56									
121	" 3	II <sub>r</sub>	iP	8	0 29	3	1½	9½		0.6	4.2		Ep. = 2700 km. At commencement (P), several waves of long period (15-20s.) on which short waves (3s.) superposed.	
					0 37	3			11		4.8			
			iS		4 40	10	20	48	11	0.8	1.9	0.4		
					6 47	10	114	73		4.5	2.9			
			eL		8.6	16								
			MN		10 33	9		60		3.0				
			ME		10 42	9	93			4.6				
			MZ <sub>1</sub>		11 7	8			14		0.8			
			MZ <sub>2</sub>		16 28	8			20		1.2			
F		9 56												
122	" 4	III <sub>r</sub>	iP	11	7 40	6	2¾	11½	17	0.3	1.3	1.9	Ep. = 1300 km. S. doubtful.	
			L		11 34	12	6	24		0.1	0.6			
			M <sub>1</sub>		13.6	12	315	265	87	8.7	7.3	2.4		
			M <sub>2</sub>		17 38	9	168	129	18	8.3	6.3	0.9		
			C		46 36	8	29	11		1.8	0.7			
			F		13 19									

(Continued on next sheet.)

# RIVERVIEW COLLEGE OBSERVATORY, SYDNEY, N.S.W.

No. 12. DECEMBER 1910. (Continued.)

## Seismological Bulletin.

$\phi = 33^{\circ}49'49''$  S.  
 $\lambda = 10^{\text{h.}} 4^{\text{m.}} 38^{\text{s.}}$  E.G.  
 $h = 41.9$  metres.

(For further details, see inside of cover.)

No.	Date.	Character.	Phase.	Time.		Period. (T)	A (Earth-particle.)			$\Delta g$			REMARKS.	
				(Greenwich Midnight = 0)			E	N	Z	E	N	Z		
				h.	m.	s.	$\mu$	$\mu$	$\mu$	milligal				
123	Dec. 10	III <sub>r</sub>	i P	9	32.1	6	11	21	20	1.2	2.3	2.2	Ep. = 2800 km	
			S		32.6	7	24	33	99	2.0	2.7	8.0		
			(eL)		36.6	9	52	53	44	2.5	2.6	2.2		
			MN <sub>1</sub>		39.6	18								
					42.9	10		547			21.8			
			MZ		44.7	10			280			11.2		
			ME		45.1	10	737			29.5				
			MN <sub>2</sub>		45.7	10		474			18.9			
			C	10	9.7	11	49	100	57	1.6	3.3	1.9		
124	" 11	I <sub>r</sub>	e P	3	46.3							Ep. = 3300 km.		
			S		51.18									
			eL		54.3	15								
			MN		57.18	10		7 1/4			0.3			
			ME		58.18	10	12			0.4				
125	" 11	I <sub>r</sub>	e(P)	14	9.4									
			e(S)		13.4									
			eL		17.0	16								
			ME		19.54	14	4 1/4			0.08				
			MN		20.13	11		3 1/2			0.1			
126	" 11	I <sub>r</sub>	e	23	51.3							Ep. = 2500 (?) km.		
			eL		56.7	16								
			ME		58.54	15	10			0.1				
			MN		59.15	12		6 1/2			0.1			
			F	0	38									
127	" 13	II <sub>u</sub>	e P	12	2.8	5	2 1/2			0.4		Ep. = 12,000 km. (Zanzibar.)  Strong microseismic movement all day.		
			(PR <sub>1</sub> )		6.32	8	6			0.4				
			(eS)		15.1	(10)								
			(eL)		23.6	30								
			ME <sub>1</sub>		35.55	16	82			1.3				
			MN <sub>1</sub>		37.22	16		77			1.2			
			ME <sub>2</sub>		43.49	14	104			2.1				
			MZ		43.53	14			72		1.4			
			MN <sub>2</sub>		43.59	14		65			1.3			
			ME <sub>3</sub>		49.0	14	62			1.2				
128	" 14	II <sub>r</sub>	F	14	33							Ep. = 2400 km.		
			i P	20	51.39	4	21	9 1/4	23	5.2	2.3		5.8	
			i		53.11	5	16	9 1/4	6	2.6	1.5		1.0	
			S		55.32	6	17	5.6		1.9	0.6			
			i PS		56.7	6	53	13	13	6.0	1.4		1.5	
			i		59.11	9	45	35		2.2	1.7			
			(eL)	21	2.5	?								
			ME		5.11	10	25			1.0				
			MN		5.26	9		19			0.9			
			F	22	21									

(Continued on next sheet.)

# RIVERVIEW COLLEGE OBSERVATORY, SYDNEY, N.S.W.

No. 12. DECEMBER 1910. (Continued.)

## Seismological Bulletin.

φ = 33° 49' 49" S.  
λ = 10h. 4m. 38s. E.G.  
h = 41.9 metres.

(For further details, see inside of cover.)

No.	Date.	Character.	Phase.	Time.		Period. (T)	A (Earth-particle.)			Δg			REMARKS.
				(Greenwich Midnight = 0)	s.		E	N	Z	E	N	Z	
129	Dec. 16	III u	i P	h. m. s.	s.	μ	μ	μ	milligal.			Ep. = 5500 km. (Mindanao) Nos. 130-132 proceed from the same origin.	
				14 53 11	4	1	2 $\frac{1}{4}$	1 $\frac{1}{4}$	0.2	0.6	0.3		
				53.8	4	7	12	12	1.7	3.1	3.0		
			PR <sub>1</sub>	55.5	5	8 $\frac{3}{4}$	16	16	1.4	2.6	2.6		
			S	15 0 14	7	29	17	5	2.3	1.4	0.4		
			SR <sub>1</sub>	3 36	8	37	36	27	2.3	2.2	1.7		
				3.8	8	131	113	34	8.2	7.0	2.1		
			(e L)	8.9	?								
			M	15.0	17	650	790	540	9.1	10.9	7.4		
			C	33 53	13	87	91	62	2.0	2.1	1.4		
130	" 16	I u	ME	23 46 21	16	4 $\frac{3}{4}$			0.07			(See No. 129.) Beginning lost (changing paper).	
			MN	46 42	20		9		0.09				
			F	0 17									
131	" 17	I u	(e P)	6 31.0								(See No. 129.)	
			MN	51 14	14		3		0.05				
			ME	54 49	12	1 $\frac{1}{2}$			0.04				
132	" 18	I u	i P	2 53 22	6	1 $\frac{1}{2}$	1 $\frac{1}{2}$		0.1	0.1	(See No. 129.)		
			S	3 0 4	9	2 $\frac{1}{2}$	2		0.1	0.09			
			PS	0 24	9	4	5 $\frac{1}{2}$		0.2	0.3			
			SR <sub>1</sub>	3 16	8	3	2 $\frac{3}{4}$		0.2	0.16			
				3.6	8	8	5		0.5	0.3			
			e L	9.0	20								
			M	14.5	16	23	28		0.3	0.4			
133	" 22	I	e(L)	15 36.3	15				0.2				
			ME	37 16	10	6							
			MN	38 5	10		5 $\frac{3}{4}$			0.2			
			F	16 12									
134	" 29	I r	e P	8 8.1							Ep. = 2800 km.		
			e S	12.5	6	1 $\frac{1}{2}$	2		0.06	0.2			
			e L	16.7	14								
			ME	20 11	8	6 $\frac{3}{4}$			0.4				
			MN	22 53	8		4 $\frac{1}{2}$			0.2			
			F	9 23									
135	" 29	I u	e P	13 14.8	3						Ep. = 5100 km.		
			i S	21 32	8	3	5		0.2	0.3			
			SR <sub>1</sub>	24 38	8	3	2		0.2	0.13			
			SR <sub>2</sub>	26 30	8	4	5 $\frac{1}{2}$		0.2	0.3			
			(e L)	32.3	?								
			M	36.2	15	17	8		0.3	0.1			
			F	14 50									
136	" 30	I r	(e P)	0 57.0	4		1 $\frac{1}{2}$			0.3	Ep. = 4600 km.		
			(PR <sub>1</sub> )	58 42	5	1 $\frac{3}{4}$	5		0.2	0.8			
			i (S)	1 3 2	8	3 $\frac{3}{4}$	10		0.2	0.6			
			i (SR <sub>1</sub> )	6 33	9	6 $\frac{1}{2}$	7 $\frac{1}{2}$		0.3	0.4			
				6 44	9	12	12 $\frac{1}{2}$		0.6	0.6			
			e L	11.3	18								
			M	14.7	14	29	18		0.6	0.3			
			F	1 46									

# RIVERVIEW COLLEGE OBSERVATORY, SYDNEY, N.S.W.

No. 8. AUGUST, 1910.

## Seismological Bulletin.

φ = 33° 49' 49" S.  
λ = 10h. 4m. 38s. E.G.  
h = 41.9 metres.

(For further details, see inside of cover.)

No.	Date.	Character.	Phase.	Time.		Period. (T)	A (Earth-particle.)			Δg			REMARKS.
				(Greenwich Midnight = 0)			E	N	Z	E	N	Z	
				h.	m. s.								
76	Aug. 15	I	e MN ME F	17 16.5 23 20 23 43 18 0	12 12			2½		0.1	0.07		
77	" 16	I <sub>r</sub>	e P e L MN ME F	7 47.5 52.7 56 12 57 14 9 0	20 18 18		10½		0.2	0.1		Ep. = 1700 km. (?)	
78	" 17	I	e e L ME MN F	23 18 19.4 24 7 28 47 23 40	24 16 16	6½	5		0.1	0.08			
79	" 18	I	(e) ME MN F	11 25.8 30 12 30 38 11 52	12 10	4½	2		0.1	0.08			
80	" 18	I	e e(S) MN ME F	16 50.2 53.9 57 14 59 28 17 20	7 16 9	1½	7		0.1	0.1	0.06		
81	" 20	I	e MZ ME MN F	20 59.0 59 16 59 31 59 58 21 0 0 21 10	8 5 5 6 6	1½ 6½	4	2	0.1 1.0	0.6	0.3		
82	" 21	II <sub>r</sub>	i P i(PR <sub>1</sub> ) i S (PS) SR <sub>1</sub> MN ME MZ F	5 44 8 44 17 45 45 49 24 49 37 51 51 56 58 57 4 6 2 0 6 53	2.5 2.5 3 6 6 7 12 14 12			4 62 78 13 27 20		2.6 39.7 34.8 1.5 3.0 1.6		Ep. = 3600 km. Beginning lost on E and N (adjustments).	
							29	53	0.6	1.4	0.5		

# RIVERVIEW COLLEGE OBSERVATORY, SYDNEY, N.S.W.

No. 9. SEPTEMBER, 1910.

## Seismological Bulletin.

φ = 33° 49' 49" S.  
λ = 10h. 4m. 38s. E.G.  
h = 41.9 metres.

(For further details, see inside of cover.)

No.	Date.	Character.	Phase.	Time. (Greenwich Midnight = 0)		Period. (T) s.	A (Earth-particle.)			Δg			REMARKS.
				h.	m. s.		E	N	Z	E	N	Z	
							μ	μ	μ	milligal.			
83	Sept. 2	I <sub>n</sub>	(e P)	0	55.2								Ep. = 7500 km. (?)
			(e S)	1	4.0								
			(e L)		12.3								
			MN	22	30	18		7		0.08			
			ME	22	34	18	15			0.2			
		F	1	51									
84	" 2	I	e	14	39.2	4		1½			0.3		
			eL		54.0	26							
			MN	58	14	20		5¾		0.06			
			ME	59	26	18	6			0.07			
			F	15	20								
85	" 2	I	e	17	8.1								
			MN	16	38	20		5¾		0.06			
			ME	17	6	16	4½			0.07			
			F	17	43								
86	" 6	I <sub>u</sub>	i (P)	20	21 39	5		1½			0.2		Ep. = 10,000 km (?)
			i		31 7	8		3		0.2			
			eL		53.1								
			ME <sub>1</sub>	56	58	20	3½			0.03			
			MN <sub>1</sub>	57	13	20		8½		0.08			
			e	21	14.0	14		2¼		0.04			
			ME <sub>2</sub>	21	36	16	2½			0.04			
			MN <sub>2</sub>	23	50	15		4¾		0.08			
	21	56											
87	" 7	III <sub>r</sub>	i P	7	16 54								Ep. = 3100 km.
			i S		21 35								
			PS		21 44								
			eL		25.6								
			ME	29	0	12	208			5.8			
			MN	30	0	15		372		6.6			
			MZ	30	50	15			306		5.4		
			F	9	27								
88	" 8	I	e	5	52.0	24?							
			M		56.2	16	9.4	6.4		0.1	0.1		
			F	6	18								

(Continued on next sheet.)

# RIVERVIEW COLLEGE OBSERVATORY, SYDNEY, N.S.W.

No. 9. SEPTEMBER, 1910. (Continued.)

## Seismological Bulletin.

$\phi = 33^{\circ} 49' 49''$  S.  
 $\lambda = 10^{\text{h.}} 4^{\text{m.}} 38^{\text{s.}}$  E.G.  
 $h = 41.9$  metres.

(For further details, see inside of cover.)

No.	Date.	Character.	Phase.	Time. (Greenwich Midnight = 0)		Period. (T) s.	A (Earth-particle.)			Δg			REMARKS.
							E	N	Z	E	N	Z	
							μ	μ	μ	milligal			
89	Sept. 9	I <sub>r</sub>	iP	1 26 19	4							Ep. = 9500 km.  At 3h. 36.3m., some long waves of larger amplitude (M rep. 1?)	
			S	36 49	6	8½	7½	1.0	0.8				
			eL	49.2	24								
			MN	58 12	22		37		0.3				
			ME	59 44	24	25		0.2					
			F	3 52									
90	" 10	II <sub>r</sub>	iP	12 32 35	3	2	6	0.8	2.7	Ep. = 2900 km.			
			i	33 14	3	2¼	8	1.0	3.5				
			iS	37 3	7	12	4½	1.0	0.4				
			eL	41 4	?								
			MN	43 34	12		21		0.6				
			ME	44 54	10	16		0.6					
F	13 52												
91	" 15	I <sub>r</sub>	eP	14 2.1					Ep. = 4400 km.				
			S	8 14	6	1¼		0.2					
			eL	15.3	20								
			ME	21 10	15	10		0.2					
			MN	22 26	12		6			0.2			
F	15 20												
92	" 16	I	e(L)	12 6.0	16				0.05				
			MN	10 55	14		2¼						
			ME	12 20	12	1¼		0.03					
			F	12 40									
93	" 23	I <sub>r</sub>	e(P)	0 52.8					Ep. = 2800 km.				
			e(S)	57.2	5		1½			0.2			
			MN	1 0 52	14		12			0.2			
			ME	2 54	14	7¼		0.1					
			F	1 52									



# RIVERVIEW COLLEGE OBSERVATORY, SYDNEY, N.S.W.

No. 10. OCTOBER, 1910.

## Seismological Bulletin.

φ = 33° 49' 49" S.  
λ = 10h. 4m. 38s. E.G.  
h = 41.9 metres.

(For further details, see inside of cover.)

No.	Date.	Character.	Phase.	Time. (Greenwich Midnight = 0)		Period. (T)	A (Earth-particle.)			Δg			REMARKS.
				h.	m. s.		E	N	Z	E	N	Z	
				h.	m. s.	μ	μ	μ	milligal.				
94	Oct. 3	I	e(S)	10	59.8	8	4			0.2			
			ME	11	2 35	16	10½			0.1			
			MN		2 47	14		7¼			0.1		
			F	11	27								
95	" 7	I <sub>r</sub>	e	7	0.7								Ep. = 2900 km.
			e(L)		9.4	20							
			MN		11 15	12		17			0.4		
			ME		16 36	12	10			0.3			
96	" 7	I	e(P)	11	58.2								
			e	12	3.1	?							
			MN		6 19	15		10			0.2		
			ME		10 20	12	10			0.3			
97	" 8	I	MN	21	6 30	14		6			0.1		
			ME		6 51	12	4½			0.1			
			F	21	31								
98	" 14	II	e	4	3.9								
			e(L)		10.0	16							
			ME <sub>1</sub>		12 30	12	4½			0.1			
			MN <sub>1</sub>		12 55	14		4¼			0.09		
			MN <sub>2</sub>		21 43	10		3¼			0.1		
			ME		22 23	12	4½			0.1			
99	" 18	I <sub>r</sub>	e	2	41.7								Ep. = 2100 km.
			e(L)		48.0	20							
			MN		50 43	15		29			0.5		
			MZ		51 13	15			56			1.0	
			ME		52 4	15	46			0.8			
			F	4	7								
100	" 20	I	e(P)	5	19.7	5	1¼			0.3			
			e		23.4	9	2½			0.1			
			e(L)		29.2	?							
			MN		30 49	14		16			0.3		
			ME		35 37	16	21			0.3			
			F	6	34								
101	" 24	I <sub>r</sub>	e P	14	35.4	3	2¼	½		1.0	0.2		Ep. = 3000 km.
			i		35 32	4	3½	½		0.8	0.1		
			i(S)		39 56	8	2½	5		0.1	0.3		
			e L		41.4	20							
			MN		42 58	14		5¼			0.1		
			ME		43 22	15	16			0.3			
			F	15	10								
102	" 30	I	e(L)	7	48.1	20							
			M		53.1	14	22	32		0.4	0.6		
			F	8	57								

# RIVERVIEW COLLEGE OBSERVATORY, SYDNEY, N.S.W.

No. 11. NOVEMBER, 1910.

## Seismological Bulletin.

$\phi = 33^{\circ}49'49''$  S.  
 $\lambda = 10$ h. 4m. 38s. E.G.  
h = 41.9 metres.

(For further details, see inside of cover.)

No.	Date.	Character.	Phase.	Time. (Greenwich Midnight = 0)	Period. (T)	A (Earth-particle.)			Δg			REMARKS.
						E	N	Z	E	N	Z	
103	Nov. 1	I	eL	h. m. s.	s.	μ	μ	μ	milligal.			
			M	20 58.2	16							
			F	21 0 4	10	1	3		0.04	0.1		
104	" 2	I <sub>r</sub>	e	21 16								
			e(S)	13 34.5	8	3½	3½		0.2	0.2		Ep. = 2000 km. (?)
			e(L)	37.6	16							
			MN	43.0	14		7			0.1		
			ME	45 39	14	8			0.2			
			F	45 47	14							
105	" 8	I	e	14 28								
			eS	16 58.3	10		1½		0.06			Ep. = 2700 km. (?)
			eL	17 2.6	18							
			ME	8 52	18	56			0.7			
			MN	10 27	15		31			0.5		
			MN <sub>2</sub>	11 37	14		25			0.5		
106	" 9	III <sub>r</sub>	F	18 24								
			iP	6 7.0	4	8½	9½	2½	2.2	2.3	0.6	Ep. = 2800 km.
			i	7.6	6	37	40	67	4.1	4.5	7.4	Near island of Mallicolo (New Hebrides) where strongly felt
				7.9	7			128			10.5	
				9.7	10	108	91	67	4.3	3.6	2.7	
			S	10.3	10	50	120	134	2.0	4.8	5.4	At 6h. 14m. 44. displacement of zero-line on both the Wiechert and Manka seismometers, showing a tilt of ground (towards N.) of approximately 1.5"
				11.4	12	280	212	260	7.8	6.0	7.2	
				11.9	12	630	520	260	17.7	14.5	7.2	
				12.7	14	1200	1190	480	24.6	24.3	10.0	
			eL	13.9	20							
			ME	14.3	19	3600			40.0			
			MZ	15.1	18			3200			40.4	
			MN	15.4	17		1780			24.7		
				21.1	14		333	480		8.0	10.0	
				25.1	12		673	191		18.7	5.3	
				41.4	12	168	154	87	4.6	4.3	2.4	
			C	7 1.0	10	74	58	45	3.0	2.3	1.8	
				9 20.8	20	13	8½		0.1	0.08		
			F	10 20								
107	" 9	I <sub>r</sub>	eP	9 42.6	4	½			0.1			Ep. = 2700 km.
			iS	46.9	7	1½	3		0.1	0.2		L waves not discernible from those of No. 106, on which P and S are superposed.
108	" 10	II <sub>r</sub>	iP	12 25 12	4	7	6½		1.8	1.6		Ep. = 2600 km.
				25 17	4			5			1.2	
			iS	29 26	7	18	15	10	1.5	1.2	0.8	
			PS	29 54	7	29	20		2.4	1.8		
			eL	32.3	20							
			ME	33 23	16	68			1.0			
			MZ	33 38	16			33			0.5	
			MN	34 44	14		42			0.8		
			F	15 10								
109	" 15	I <sub>u</sub>	iP	14 34 26	4	¾		12	0.2		3.0	Ep. = 9100 km.
			PR	37 58	9		5½			0.3		
			iS	44 40	14	20½	17		0.4	0.3		
			(PS)	45 57	14	10	19½		0.2	0.4		
			eL	39.1	24							
			ME	15 4 55	24	32			0.2			
			F	17 0								

(Continued on next sheet.)

# RIVERVIEW COLLEGE OBSERVATORY, SYDNEY, N.S.W.

No. 11. NOVEMBER, 1910. (Continued.)

## Seismological Bulletin.

φ = 33° 49' 49" S.  
λ = 10h. 4m. 38s. E.G.  
h = 41.9 metres.

(For further details, see inside of cover.)

No.	Date.	Character.	Phase.	Time.		Period. (T)	A (Earth-particle.)			Δg			REMARKS.	
				(Greenwich Midnight = 0)			E	N	Z	E	N	Z		
				h.	m. s.									μ
110	Nov. 16	I	eP	12	28.8	3							Ep. = 2700 km.	
			eS		33.0	7								
			i		33.9	7		5		0.4				
			eL		36.0	12								
			ME		39 42	10	2			0.1				
111	" 24	I <sub>v</sub>	MN	40	7	10		3			0.1		Ep. = 500 km. (?)  At 22h. 54.7m. several waves of relatively long period, with 1 s. waves superposed.	
			F	13	25									
			eP	22	54.6	1	1	1½		1.0	1.5			
			e		54.7	8								
			(eL)		55.1	8	10	3		0.6	0.2			
112	" 25	I <sub>r</sub>	M	56.1		7							Ep. = 2700 km.	
			F	23	12									
			iP	19	9 56	3	1	2		0.4	0.8			
			i		10 11	4	4	4½		1.0	1.1			
			iS		14 7	7	2½	5		0.2	0.4			
			i		14 17	7	17	24		1.4	2.0			
			eL		16.4	20								
113	" 26	III <sub>r</sub>	MZ	16.8		20					50		Ep. = 2400 km.  (F obscured by No. 114.)	
			ME	17	31	20	76			0.7		0.5		
			MN	17	48	18			31		0.4			
			F	20	25									
			iP	4	46 29	4	14½	18½	6	3.6	4.6	1.5		
			S		46 42	5	25	30	27	4.0	5.0	4.2		
			i		50 18	11	34	36	14	1.1	1.2	0.4		
			(eL)		50 42	11	309	356	143	10.2	11.7	4.7		
			MZ		52.9	20								5.4
			ME		54 22	18			442					
114	" "	II <sub>r</sub>	MN	55	3	14	400			8.2		8.9	Ep. = 2400 km.  (2nd shock of No. 113.)	
			i	5	9 26	12								3.4
			C	5	51.0	12	63	34	17½	1.7	0.9	0.5		
			iP	6	18 14	4	7½	16	1¼	1.9	4.0	0.3		
			S		18 27	5			12					2.0
			i		21 59	8	4½	5		0.3	0.3			
			(eL)		22 42	9	56	63		2.7	3.1			
			ME		24.1	24								
			MZ		26 17	16	125			2.0				
			MN		26 53	12			35					1.0
115	" 29	I <sub>r</sub>	F	27	20	14							Ep. = 1500 km.	
			iP	8	46									
			i	11	59 32	4.5	7	7		1.3	1.3			
			i(S)		59 36	4.5	10	9½		2.0	1.9			
			F	12	2 7	6	4	4		0.4	0.4			
116	" 30	I <sub>r</sub>	eP	14	44.1								Ep. = 3000 km.	
			i		44 15	4	2	3	1¼	0.5	0.7	0.3		
			eS		48.7									
			i		49 5	7	2	4		0.1	0.3			
			eL		51.4	16								
			MN		52 3	12		1			0.03			
			ME		53 10	12	3			0.08				

# RIVERVIEW COLLEGE OBSERVATORY, SYDNEY, N.S.W.

No. 12. DECEMBER 1910.

## Seismological Bulletin.

φ = 33° 49' 49" S.  
λ = 10h. 4m. 38s. E.G.  
h = 41.9 metres.

(For further details, see inside of cover.)

No.	Date.	Character.	Phase.	Time.		Period. (T)	A (Earth-particle.)			Δg			REMARKS.	
				(Greenwich Midnight = 0)			E	N	Z	E	N	Z		
				h.	m.	s.	μ	μ	μ	milligal.				
117	Dec. 1	I <sub>r</sub>	e(P)	3	40.6								Ep. = 1300 km. (?)	
			e(S)		42.9	7		2½			0.2			
			eL		43.7	22								
			ME	}	47.1	12	22	11½			0.6	0.3		
			MN											
			MZ			55	7	9		4½				0.2
			F		4	36								
118	" 1	II <sub>r</sub>	iP	15	50	3	4	3	2¾	3½	0.8	0.7	0.9	Ep. = 4300 km.
			PR		51	38	14	24	18		0.5	0.3		
			S		56.0	16	27	15			0.4	0.2		
			eL	16	0.1	22								
			MN	}	5.1	12	52	48			1.4	1.3		
			ME											
			MZ			7	57	12		17			0.5	
F		17	36											
119	" 2	I <sub>r</sub>	eP	3	17.8								Ep. = 2400 km.	
			S		21	48	12	7½	4¼		0.2	0.1		
			e(L)		23.1	16								
			ME		28	30	9	6½			0.3			
			MN <sub>1</sub>		28	40	10		15			0.6		
			MN <sub>2</sub>		31	20	9		12			0.6		
F		4	40											
120	" 3	I <sub>r</sub>	eP	4	7.6								Ep. = 3100 km.	
			iS		12	16	10		4½			0.2		
			eL		15.3	24								
			ME		17	41	16	11½			0.1			
			MZ		18	34	15			14				0.2
			MN		19	26	14		14			0.3		
			F		4	56								
121	" 3	II <sub>r</sub>	iP	8	0	29	3	1½	9½		0.6	4.2	4.8	Ep. = 2700 km. At commencement (P), several waves of long period (15-20s.) on which short waves (3s.) superposed.
					0	37	3			11				
			iS		4	40	10	20	48	11	0.8	1.9	0.4	
					6	47	10	114	73		4.5	2.9		
			eL		8.6	16								
			MN		10	33	9		60			3.0		
			ME		10	42	9	93			4.6			
			MZ <sub>1</sub>		11	7	8			14			0.8	
MZ <sub>2</sub>		16	28	8			20			1.2				
F		9	56											
122	" 4	III <sub>r</sub>	iP	11	7	40	6	2¾	11½	17	0.3	1.3	1.9	Ep. = 1300 km. S. doubtful.
			L		11	34	12	6	24		0.1	0.6		
			M <sub>1</sub>		13.6	12	315	265	87	8.7	7.3	2.4		
			M <sub>2</sub>		17	38	9	168	129	18	8.3	6.3	0.9	
			C		46	36	8	29	11		1.8	0.7		
			F		13	19								

(Continued on next sheet.)

# RIVERVIEW COLLEGE OBSERVATORY, SYDNEY, N.S.W.

No. 12. DECEMBER 1910. (Continued.)

## Seismological Bulletin.

φ = 33° 49' 49" S.  
λ = 10h. 4m. 38s. E.G.  
h = 41.9 metres.

(For further details, see inside of cover.)

No.	Date.	Character.	Phase.	Time. (Greenwich Midnight = 0)		Period. (T)	A (Earth-particle.)			Δg			REMARKS.
							E	N	Z	E	N	Z	
							μ	μ	μ	milligal			
123	Dec. 10	III r	i P	9	32.1	6	11	21	20	1.2	2.3	2.2	Ep. = 2800 km
			S		32.6	7	24	33	99	2.0	2.7	8.0	
			(eL)		36.6	9	52	53	44	2.5	2.6	2.2	
			MN <sub>1</sub>		39.6	18							
			MZ		42.9	10		547			21.8		
			ME		44.7	10			280			11.2	
			MN <sub>2</sub>		45.1	10	737			29.5			
			C	10	9.7	11	49	100	57	1.6	3.3	1.9	
			F	14	30								
			e P	3	46.3								
124	" 11	I r	S		51 18							Ep. = 3300 km.	
			eL		54.3	15							
			MN		57 18	10		7½		0.3			
			ME		58 18	10	12			0.4			
			F	4	57								
125	" 11	I r	e(P)	14	9.4								
			e(S)		13.4								
			eL		17.0	16							
			ME		19 54	14	4½			0.08			
			MN		20 13	11		3½			0.1		
126	" 11	I r	e	15	8							Ep. = 2500 (?) km.	
			eL	23	51.3	16							
			ME		56.7	15	10			0.1			
			MN		58 54	12		6½		0.1			
			F	0	38								
127	" 13	II u	e P	12	2.8	5	2½			0.4		Ep. = 12,000 km. (Zanzibar.)  Strong microseismic movement all day.	
			(PR <sub>1</sub> )		6 32	8	6			0.4			
			(eS)		15.1	(10)							
			(eL)		23.6	30							
			ME <sub>1</sub>		35 55	16	82			1.3			
			MN <sub>1</sub>		37 22	16		77			1.2		
			ME <sub>2</sub>		43 49	14	104			2.1			
			MZ		43 53	14			72		1.4		
			MN <sub>2</sub>		43 59	14		65			1.3		
			ME <sub>3</sub>		49.0	14	62			1.2			
128	" 14	II r	MN <sub>3</sub>		49 39	14		45			1.0	Ep. = 2400 km.	
			F	14	33								
			i P	20	51 39	4	21	9½	23	5.2	2.3		5.8
			i		53 11	5	16	9½	6	2.6	1.5		1.0
			S		55 32	6	17	5.6		1.9	0.6		
			i PS		56 7	6	53	13	13	6.0	1.4		1.5
			i		59 11	9	45	35		2.2	1.7		
			(eL)	21	2.5	?							
			ME		5 11	10	25			1.0			
			MN		5 26	9		19			0.9		

(Continued on next sheet.)

# RIVERVIEW COLLEGE OBSERVATORY, SYDNEY, N.S.W.

No. 12. DECEMBER 1910. (Continued.)

## Seismological Bulletin.

$\phi = 33^{\circ} 49' 49''$  S.  
 $\lambda = 10^{\text{h.}} 4^{\text{m.}} 38^{\text{s.}}$  E.G.  
 $h = 41.9$  metres.

(For further details, see inside of cover.)

No.	Date.	Character.	Phase.	Time. (Greenwich Midnight = 0)		Period. (T)	A (Earth-particle.)			$\Delta g$			REMARKS.	
				h.	m.		s.	E	N	Z	E	N		Z
129	Dec. 16	III u	i P	14	53	11	4	$\mu$	$\mu$	$\mu$	milligal.			Ep. = 5500 km. (Mindanao) Nos. 130-132 proceed from the same origin.
							1	$2\frac{1}{4}$	$1\frac{1}{4}$	0.2	0.6	0.3		
							7	12	12	1.7	3.1	3.0		
			PR <sub>1</sub>	55.5	5	$8\frac{3}{4}$	16	16	1.4	2.6	2.6			
			S	15 0 14	7	29	17	5	2.3	1.4	0.4			
			SR <sub>1</sub>	3 36	8	37	36	27	2.3	2.2	1.7			
				3.8	8	131	113	34	8.2	7.0	2.1			
			(eL)	8.9	?									
			M	15.0	17	650	790	540	9.1	10.9	7.4			
			C	33 53	13	87	91	62	2.0	2.1	1.4			
130	" 16	I u	ME	23	46	21	16	$4\frac{3}{4}$		0.07			(See No. 129.) Beginning lost (changing paper).	
			MN	46	42	20		9		0.09				
			F	0 17										
131	" 17	I u	(eP)	6	31.0								(See No. 129.)	
			MN	51	14	14		3		0.05				
			ME	54	49	12	$1\frac{1}{2}$			0.04				
132	" 18	I u	i P	2	53	22	6	$1\frac{1}{2}$	$1\frac{1}{2}$	0.1	0.1		(See No. 129.)	
			S	3	0	4	9	$2\frac{1}{2}$	2	0.1	0.09			
			PS	0	24	9	4	$5\frac{1}{2}$	5	0.2	0.3			
			SR <sub>1</sub>	3	16	8	3	$2\frac{3}{4}$	5	0.2	0.16			
				3.6	8	8	5			0.5	0.3			
			eL	9.0	20									
			M	14.5	16	23	28			0.3	0.4			
133	" 22	I	(eL)	15	36.3	15								
			ME	37	16	10	6			0.2				
			MN	38	5	10		$5\frac{3}{4}$			0.2			
			F	16	12									
134	" 29	I r	e P	8	8.1								Ep. = 2800 km.	
			e S	12.5	6	$\frac{1}{2}$	2		0.06	0.2				
			e L	16.7	14									
			ME	20	11	8	$6\frac{3}{4}$			0.4				
			MN	22	53	8		$4\frac{1}{2}$			0.2			
			F	9	23									
135	" 29	I u	e P	13	14.8	3							Ep. = 5100 km.	
			i S	21	32	8	3	5		0.2	0.3			
			SR <sub>1</sub>	24	38	8	3	2		0.2	0.13			
			SR <sub>2</sub>	26	30	8	4	$5\frac{1}{2}$		0.2	0.3			
			(eL)	32.3	?									
			M	36.2	15	17	8			0.3	0.1			
136	" 30	I r	(e P)	14	50	4							Ep. = 4600 km.	
			(PR <sub>1</sub> )	0	57.0	5		$1\frac{1}{2}$			0.3			
				58	42	5	$1\frac{3}{4}$	5		0.2	0.8			
			i (S)	1	3	2	8	$3\frac{3}{4}$	10		0.2	0.6		
			i (SR <sub>1</sub> )	6	33	9	$6\frac{1}{2}$	$7\frac{1}{2}$		0.3	0.4			
				6	44	9	12	$12\frac{1}{2}$		0.6	0.6			
			eL	11.3	18									
M	14.7	14	29	18			0.6	0.3						
F	1	46												