

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

	V	T_0	$\epsilon:1$	$\frac{r}{T_0^2}$
$A^N(1)$	233	7.7	4.1	0.018
(3)	75	13.1	5.2	0.012
$A^E(1)$	247	8.5	4.5	0.038
(3)	104	12.0	3.0	0.022
$A^Z(2)$	64	5.2	2.4	0.117

No.	Date	Phase	Time (Greenwich)			Per s.	Amplitude.			Δ km.	Remarks.
			h.	m.	s.		A_N mm	A_E mm	A_Z mm		
1	1937 Jany, 4	eNE	22	58	51						
		iN	23	04	28	5	+1.5				
		eL		05.	2	20					
		mE		05	57	11		3.3			
		MN		07	15	9	2.3				
		ME		08	38	12		2.7			
		F	23	55							
2	" 5	eN	00	07	14						
		eN		12	10						
		eLE		14.	1	17					
		mE		15	58	10		3.1			
		MN		17	55	10	2.5				
		ME		18	55	11		2.7			
		F	01	10							
3	" 5	e?N	04	53.	3	2					
		eN		58	49	3					
		iN	05	04	59	5	+1.5				
		iE		05	01	5		+1.0			
		e(L)E		06.	4	15					
		ME		10	30	10		0.9			
		MN		11	28	10	2.3				
4	" 5	F	05	45							
		iN	10	29	13	5	-0.9				
		eLE		32.	7	15					
		MN		34	10	12	1.1				
		ME		34	17	12		1.2			
5	" 5	F	11	10							
		eN	21	57	27						
		eL	22	05.	4	21					
		MN		12	48	17	0.3				
		ME		13	26	17		0.2			
6	" 6	F	22	30							
		eN	03	58	43						
		e(S)N	04	03	17	9					
		eLE		03.	3	15					
		ME		07	25	15		0.8			
7	" 6	MN		08	31	14	0.6				
		F	04	45							
		eN	18	48.	2						
		eLE		51.	3	18					
		MN		55	13	10	0.2				
F	19	05									

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No. 1 (continued)

1937, January.

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RIVERVIEW COLLEGE OBSERVATORY.

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time <i>Greenwich</i>			Per s.	Amplitude.			Δ km.	Remarks.	
			h.	m.	s.		A_N mm	A_E mm	A_Z mm			
8	1937 Jany. 7	ePNEZ	13	33	21	3				8980 (80°8)		
		eSN		43	41	4						
		iN		43	47	6	+3.4					
		iE		43	49	6		-1.7				
		iN		44	05	7	+6.2					
		iE		44	10	5		-6.5				
		iN		44	42	5	+3.1					
		mN		44	58	7	4.1					
		e(SS)E		48.9			17					
		mN		49	30	20	3.0					
		mE		49	43	17		4.0				
		e(SSS)E		52.9			35					
		mE		55	51	30		5.5				
		eLN		57.9			70?					
		eLE		58.5			50					
		ME ₁	14	02	26	24		9.6				
		MZ ₁		04	42	22			0.2			
		MZ ₂		10	13	20			0.3			
MN ₁		10	42	24	12.5							
MN ₂		13	16	22	16.6							
ME ₂		14	07	20		15.3						
F	17	00										
9	" 9	eL	03	38.3		17				Earlier phases obscured by micro- seisms.		
		ME		38	51	13		0.3				
		MN		39	18	12	0.4					
10	" 9	F	03	50								
		eN	05	39.9								
		eL		43.6		14						
11	" 15	ME		45	03	11						
		F	05	55								
		eN	05	20.5		3						
12	" 17	eN		28.4		7						
		eL		35.4		17						
		MN		39	12	15	0.3					
		ME		41	21	10		0.2				
		F	05	50								
		eN	08	07.6								
13	" 22	eL		14.0		14						
		MN		16	02	12	0.2					
		F	08	30								
13	" 22	eN	09	58.2								
		eL	10	04.1		16						
		MN		06	53	10	0.5					
		ME		07	11	10		0.2				
F	10	35										

(Continued on next sheet.)

Vol. 1 (continued)

1937, January.

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RIVERVIEW COLLEGE OBSERVATORY.

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (Greenwich)			Per s.	Amplitude.			Δ km.	Remarks.
			h.	m.	s.		A _N mm	A _E mm	A _Z mm		
15	1937 Jan. 23	iPN	11	01	50	4	-0.8			3045 (27°4)	
		iZ		01	57	2			-0.4		
		mN		02	00	5	2.3				
		iNZ		02	18	4	+2.9		-0.2		
		iE		02	20	4		-1.0			
		mZ		02	23	4			0.7		
		SN		06	37						
		iN		07	26	7	+12.8				
		iE		08	59	6		-9.3			
		MN		11	53	19	8.8				
		ME		12	04	16			11.3		
		F		14	00						
		16	" 25	ePNEZ	06	39	34	3			
iNE				39	40	6	-3.5	-1.5			
iE				41	06	7		-3.6			
iN				41	10	6	+8.2				
eSE				43	47	10?					
iNE				44	08	7	+6.3	-10.0			
iZ				44	37	6			+1.3		
mN				45	23	10	36.0				
mZ				45	32	12			0.5		
ME				45	55	8		25.0			
iN				46	27	10	+38.0				
LE				47	0	14					
iME				47	19	10		-52.0			
MN				48	03	12	85.3				
MZ ₁				49	09	14			0.6		
ME		49	12	12		69					
MZ ₂		53	10	9			3.6				
F		10	00								
17	" 26	eN	07	34	7					Masked by micro- seisms.	
		MN		40	41	11	0.6				
		ME		44	26	12		0.3			
18	" 26	F	08	10							
		eE	20	23	0						
		ME	27	53	8		0.2				
F	20	35									

 WM. O'LEARY, S. J.
 Director.
 1937, Feb. 9th.

Riverview College Observatory.

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

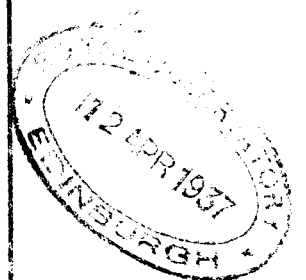
$\Phi = 33^\circ 49' 49''$ S. $\lambda = 151^\circ 9' 30''$ E. $h = 41.9$ m. Foundation: Triassic sandstone.

INSTRUMENTS:

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

	V	T ₀	$\epsilon:1$	$\frac{F}{T_0^2}$
A ₁ (1)	223	7.9	4.1	0.017
A ₃ (3)	137	9.5	4.3	0.020
A ₁ (1)	222	8.6	4.3	0.019
A ₃ (3)	53	11.8	5.4	0.009
A ₂ (2)	61	5.2	3.4	0.055

No	Date	Phase	Time (Greenwich)			Per s.	Amplitude.			Δ km.	Remarks.
			h.	m.	s.		A _N mm	A _E mm	A _Z mm		
19	1937 Feb. 1	eN	09	20	18						
		e(S) _N	24	16	8						
		mN	24	45	14	1.0					
		eL	27	6	29						
		ME	29	53	20		1.0				
		MN	30	01	20	1.4					
20	" 12	F	10	10							
		e?E	05	06	6						
		eN	07	4	8						
		eN	10	01	7						
		e(L)	13	6	17?						
		ME	16	15	10		0.5				
21	" 21	MN	16	31	8	2.0					
		F	05	50							
		iPNZ	07	14	59	3	-0.5		+0.1	8180 (73°6)	Readings from Mainka and Wiech- ert Vertical. Wiech.N-S & E-W out of commission from 3h 20m to 11h 15m.
		ePE	15	01	3			0.1			
		iSE	24	34	9			-1.1			
		iSN	24	37	9		-0.8				
		PSE	25	01	28			1.4			
		PSN	25	03	28		0.9				
		eSS _N	28	54	24						
		eE	29	14	24						
		mN	30	01	24	0.9					
		mE	35	32	28			1.8			
		eL _E	35	7	42						
		ME ₁	41	03	23			1.9			
22	" 25	MN ₁	42	03	21	1.5					
		ME ₂	46	20	23			2.0			
		MN ₂	46	42	21	2.7					
		MZ	53	55	14				0.1		
		F	10	25							
		eE	10	53	5						
		eN	56	8							
		eL	59	2	18						
23	" 27	ME	59	45	14			0.2			
		MN	11	00	45	12	0.3				
		F	11	10							
		eN	21	21	1						
		eNE	24	58	5			0.5			
		mE	25	06	7			0.5			
		mN	25	17	8	0.4					
		eL	29	5	17						
		F	21	40							



M small and indefinite.

WM. O'LEARY, S.J.
Director.

1937, March 1;

RIVERVIEW COLLEGE OBSERVATORY acknowledges with thanks the receipt of the following Bulletins during January and February 1937.

STATIONS.

BULLETINS.

Melbourne.....	1936, December, 1937, January Prel.
Apia.....	1936, October-December.
Barcelona.....	1935, August 4-1936, March 2.
Belograd.....	1935, January-December, 1936 Jan-June Prel.
Berkeley etc.....	1934, April-1935, September.
Bucarest.....	1936, October, November.
Chiufong.....	1936, November, December.
Christchurch.....	1936, November, December Prelim.
Georgetown (Seismol. despatches).....	1936, August-October.
Göttingen.....	1936, April-June.
Holwan.....	1936, September-December.
Hong Kong.....	1936, October, November.
Jesuit Seismol. Association.....	1936, Nos. 24, 25, 26, 27.
Kew.....	1936, November, December.
Kobe.....	1935, July-September.
Koti.....	1933, July-Dec. 1934, January-December.
Ksara.....	1936, October-December Prelim.
La Plata.....	1936, October, November.
Manila.....	1936, October, November. Nov. Dec. Prelim.
Melbourne.....	1936, October-December.
Nanking.....	1936, July-September.
New Guinea (Eq. records).....	1936, October, November.
Ottawa.....	1931, July-September.
Oxford I.S.S.....	1936, October, November.
Paris.....	1936, October.
Pasadena.....	1936, September 19-December 19.
Perth.....	1936, April-September.
Prague.....	1936, October-December.
Rathfarnham.....	1930, 1931, 1932.
Rio de Janeiro.....	1936, June, July.
Saint Louis.....	1936, September-December.
San Fernando.....	1936, October, November.
Strasbourg.....	1936, No. 10, 1937 No. 1.
" Bull. d'échanges.....	1935, January-December.
Stuttgart.....	1936, November, December.
Sydney.....	1936, January-June.
Tokyo (Seismometrical report).....	1935, April-September.
Tortosa (Ebro).....	1936, January-March.
Trieste.....	1936, July 1-September 4.
Uccle.....	1936, January-June.
U.R.S.S. (Stations teleseismiques).....	1936, November 13, December 21.
U.S.C. & G.S. (Washington).....	1935, October-1936 March. Nov. Dec. Prel.
Wellington.....	1935, July-September.
Zagreb.....	

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Academie des Sciences de l'URSS.	Publications de l'Institut Seismologique Nos. 75, 76, 77, 78.
Dominion Observatory, Ottawa, Canada.	Bibliography of Seismology, Vol. XI Nos. 10, 11. Gravity and Isostasy by A.H. Miller & G. Hughson.
University Observatory, Oxford.	International Seismological Summary, 1931 July, August & September.
Koninklijk Magnetisch en Meteorologisch Observatorium, Batavia.	Pilot balloon observations in the Netherlands Indies 1936, Aug-Nov.
Dominion Observatory, Wellington.	Bulletin of the Dominion Obs. Nos. 113, 114, 116.
Weather Buureau, Manila.	Seismological Bulletin for 1935 July-December.
Dr. Eng. Ma. S. Navarro Neumann.	Sur les causes des tremblement de terre.

Kobe Meteorological Observatory,
Japan.

Earthquake Research Institute,
Tokyo Imperial University.

Imperial Academy,
Tokyo.

Observatorio del Ebro,
Tortosa.

U.S. Dept. of Commerce,
Coast & Geodetic Survey.

University of California.

Professore G. Agamennone,
Rome.

Wurt. Erdbebendienst,
Stuttgart.

Institut Sismologique a
Tasmajdan, Beograd.

Observatoire de Zi-Ka-Wei,
Shanghai, China.

Union Geodesique et Geophysique
International.

Dr. S.W. Visser,

Meteorological Observatory,
Malta University.

Observatorio Nacional,
Rio de Janeiro.

Geofizicki Institut,
Zagreb.

Universite de Strasbourg,
Faculte des Sciences.

Seismological Bulletin of the Imp-
erial Marine Observatory and Kobe
Meteorological Obs. Vol. XI, No. 5.

Bulletin of the Earthquake Res-
earch Institute Vol. XIV, Part 4.
Seismometrical report 1936, pgs. 1, 2

Proceedings of the Imperial Acad-
emy, Vol. XII, Nos. 8, 9, 10.

Boletin Mensual Vol. XXVI,
num. 4-5-6, 7-8-9.

Earthquake Investigations in Cal-
ifornia 1934-35. Special pub. No. 201

Earthquakes in California and the
Registration of Earthquakes at
Berkeley etc. from April 1, 1934
to Sept. 30, 1935.

Esame di alcune profondita ipocen-
trali calcolate con la formula
dell'Inglada. G. Agamennone.
La Perturbazioni magnetiche in
relazione con i terremoti. G. A.
Corrado Guzzanti. G. Agamennone.
La frana di Marino registrata nel
R. Osservatorio Geodynamico di
Rocca di Papa. G. Agamennone.

Seismische Bericht der Wurtten-
bergischen Erdbebenwarten Jahr-
gang 1935. Bearbeitit von Dr. W.
Hiller.

Annuaire Microseismique, 1935,
Annee XV.

Observations Magnetiques, tome XX,
Annee 1935.

Bulletin Bibliographique trimestrie
1936, April-October.

Some remarks on deep focus earth-
quakes in the I.S.S. 2nd. paper.

General abstract of meteorological
Observations and Rainfall Returns,
November, December, 1936.

Boletin Sismologico do Observatorio
Nacional 1930 a 1932.

Meteorologischer Monatsbericht,
1935, January-April.

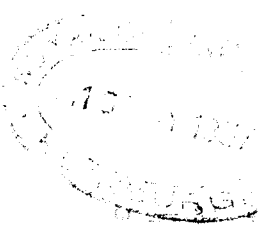
Annuaire de l'Institut de Physique
du Globe, 1934 Deuxieme partie,
Seismologie.

WM. O'LEARY, S. J.
Director.
1937, March 2.

Riverview College Observatory.

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.



33° 49' S λ = 151° 9' 30" E h = 41.9 m. Foundation: Triassic sandstone.

INSTRUMENTS:

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

	V	T ₀	ε:1	$\frac{r}{T_0^2}$
A ⁽¹⁾	211	8.1	3.8	0.017
A ⁽³⁾	92	11.9	3.9	0.012
A ⁽¹⁾	234	8.5	4.4	0.020
A ⁽³⁾	79	9.5	11.1	0.011
A ⁽²⁾	63	5.1	3.6	0.061

No.	Date	Phase	Time (Greenwich)		Per	Amplitude.			Δ km.	Remarks.
			h.	m. s.		A _N mm.	A _E mm.	A _Z mm.		
24	1937. March 5	eE	13	30 59						
		eN		31 07	2					
		eNE		34 54	5					
		MNZ		35 38	4	1.8		0.3		
		ME		35 41	7		1.3			
25	" 9	F	13	55						
		e?N	16	33.0						Times approximate. Clock correction uncertain.
		MN	17	01.5	17	0.2				
F	17	20								
26	" 14	eN	01	55	Approximately.					Contact clock stopp ed for adjustments.
		F	02	30	"					
27	" 14	eN	12	41.3						
		eLN		47.0	26					
		ME		48.8	23		0.2			
		F	13	10						
28	" 30	MN	15	07 52	11	0.3				
		ME		09 35	11		0.2			
		F	15	25						
eeeeeeeeeeeoOeeeeeeeeee										
Corrected February Constants.										
Mainka (No.3).										
			V	T ₀	ε:1	r/T ₀ ²				
N-S		88	11.8	4.3		0.013				
E-W		81	9.5	5.4		0.013				

RIVERVIEW COLLEGE OBSERVATORY acknowledges
of the following Bulletins and Publications during March 1937.

Cartuja.....	1936, January-May Provisional.
Chiufeng.....	1937, January.
Christchurch.....	1937, January Preliminary.
Florissant.....	1936, July, September.
Georgetown.....	1936, Nov.Dec. (Seismol.Despatches only)
Graz.....	1936, March 2-October 28.
Helwan.....	1937, January.
Hong Kong.....	1936, December, 1937 January.
Jesuit Seismol.Association...	1936, Nos.28,29. 1937, Nos.1,2.
Karlsruhe.....	1936, July-December.
Kew.....	1937, January.
Kobenhavn.....	1934, Oct-Dec. 1935, Jan-March.
Ksara.....	1935, Jan-Dec. 1937, Jan.Prelim.
Lemberg.....	1935, Sept.Dec. 1936, Jan.1-Sept.6.
Little Rock.....	1936, June-October.
Manila.....	1936, December. 1937, January.
Ottawa.....	1936, December.
Paris.....	1936, December.
Pasadena.....	1936, November.
Pennsylvania.....	1936, July-December.
Perth.....	1936, December 19-31.
Prague.....	1936, October-December.
Saint Louis.....	1936, August, September.
Santa Clara.....	1936, October, November.
Scpresby-Sund.....	1934, July-Dec. 1935 January-Decemb.
Strasbourg.....	1936, December.
Tananarive.....	1936, May-July.
Toledo.....	1936, June-September.
U.S.C. & G.S. (Washington).....	1936, Dec.20,21.1937 Jan.7,25, Feb.7.
Wellington.....	1936, April. 1937 January Prelim.
Wien.....	1936, January 1-July 12.

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Koninklijk Magnetischen Meteor- ologisch Observatorium Batavia.	Pilotballoon Observations made in Netherlands Indies Dec.1936.
Weather Bureau, Manila, P.I.	Meteorological Bulletin 1935 May-August.
Dominion Observatory, Wellington, N.Z.	The Seismicity of N.Z. Cities & Towns. R.C.Hayes.
Observatorio Astronomico y Meteorologico de Quito.	Boletin Meteorologico 1936 March April.
Imperial Marine Observatory, Kobe.	Memoirs of the Imperial Marine Observatory Vol.VI, No.3
Far Eastern Branch of the Academy of Sciences of U.S.S.R.	Bulletin of Far Eastern Branch etc. No.18, 1936.
Imperial Academy, Tokyo.	Proceedings of the Imperial Academy Vol.XIII, No.1.
Bureau International de l'Heure.	Bulletin Horaire, Tome VI, No.95
Georgetown University Seismological Observatory.	Seismological Despatches 1936 November, December.

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WM.O'LEARY, S.J.
Director.
1937, Apr.3.

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

	V	T ₀	$\epsilon:1$	$\frac{F}{T_0^2}$
A ^N 1	213	8.0	3.8	0.019
3	92	11.9	5.0	0.012
A ^E 1	227	8.5	4.3	0.024
3	78	9.3	13.5	0.012
A ^V 2	62	5.1	3.3	0.050

No.	Date	Phase	Time (Greenwich)	Per	Amplitude.			Δ km.	Remarks.
					A _N mm	A _E mm	A _Z mm		
29	1937 April 1	e ^{?E}	17 29.3						
		eL	36.3	21					
		MN	41 19	13	0.6				
		ME	42 31	15		0.2			
		F	Lost in No. 30						
30	" 1	e	17 59.3						
		iNE	18 02 38	8	+2.1	+1.7			
		eL	05.4	18					
		MN	06 21	13	0.4				
		F	18 25						
31	" 2	eE	05 36 58						
		eN	37 01						
		iE	37 02	4		-0.9			
		iE	39 42	5		+1.2			
		iN	39 43	5	+2.2				
		MN	44 12	15	0.3				
		iNE	45 01	5	+2.5	-1.3			
		F	06 00						
32	" 3	eN	03 57.2						
		eN	04 03.1	11					
		eL	04.4	22					
		MN	09 46	15	1.0				
		ME	10 22	13		1.0			
		F	04 55						
			07 03 46	5	+2.6	-1.3		3590 (32.3)	
33	" 5	iNE	05 13	5	+3.0	-2.0			
		eSN	09 08	8					
		iSN	09 14	9	-2.2				
		iE	09 24	8		-1.4			
		mNE	09 46	9	3.1	3.1			
		iE	12 10	?		-3.0			
		iN	12 21	5	+4.2				
		LE	15.1	30					
		ME	19 12	15		27.0			
		MZ	20 34	12			3.1		
		MN	20 42	13	64.1				
34	" 5	F	09 00						
		e	23 50.1						
		eL	56.8	18					
		ME	58 55	11		1.8			
		MN	00 00 11	13	1.6				
F	00 30								

In minute mark.

Masked by micro-seisms.

(Continued on next sheet)

4 (continued)

1937, April.

No

RIVERVIEW COLLEGE OBSERVATORY.

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (Greenwich)			Per s.	Amplitude.			Δ km.	Remarks.
			h.	m.	s.		A _N mm	A _E mm	A _Z mm		
35	1937 April 8	eE	15	08	48						
		eN		08	53	4					
		ME		11	55	9		1.0			
		MN		12	34	9	1.1				
		F	15	20							
36	" 11	eNZ	04	52	53	4		-0.8			
		iE		56	12	4					
		eN		56	12		1.4				
		MN		56	34	13			1.1		
		ME		56	40	16					
		F	05	50							
37	" 11	eN	06	30	47	9					
		eN		34	37	9					
		eL		35	36	22					
		MN		37	13	16	0.6				Deep focus.
38	" 16	iPNE	03	07	25	4	+0.5	+1.8			
		ePZ		07	26	4					
		iPZ		07	27	4			-1.0		Dilatation, ENE.
		iNEZ		07	31	4	+3.2	+15.0	-3.5		
		iZ		08	50	5			-2.7		
		iNE		08	54	6	-10.5	-23.2	4.0		Striking group of reflections, especially on E-W & Z.
		mZ		08	59	6			37.0		
		mE		09	02	6					
		i(S)N		12	04	5	+27.1		-5.2		S group very striking.
		i(S)Z		12	05	5					
		i(S)E		12	07	5		>-77.0			
		mN		12	09	5	60.8				
		iE		14	19	9		+39.7			Very prominent group on N-S and Z.
		iN		14	38	11	+52.0		-56.0		
		iE		14	49	10				4.2	
		mZ		14	53	16					Long waves very indefinite. Period increases at 3h
		mN		15	04	16	>71			1.3	13.6m on N-S and 3h 14.3m on Z.
		MZ		18	14	19					Surface waves small on E-W.
		MN		18	49	12	42.3				
		F	06	00							
39	" 24	eE	05	05	53	4					
		eN		06	07	4					
		MN		14	03	13	0.2				
		iE		14	42	4		+1.8			
		F	05	20							
40	" 28	eP	14	09	00						
		ME		12	25	14			0.2		
		MN		13	58	14	0.2				
		F	14	25							
41	" 29	eN	14	17	00						
		iE		17	27	5			-0.6		
		iE		17	54	7			-0.6		
		eN		24	2	20					
		eN		30	1	18					
		eL		38	7	26					
		MN		43	03	22	0.2				
		ME		46	15	21			0.2		
		F	20	15							

WM. O'LEARY, S. J.
Director.
1937, May 4.

RIVERVIEW COLLEGE OBSERVATORY acknowledges with thanks the receipt of the undermentioned Bulletins and Publications during April, 1937.

Adelaide.....	1937 February Preliminary.
Apia.....	1937 January-March.
Bucarest.....	1937 January.
Chiufeng.....	1937 February.
Christchurch.....	1937 February Preliminary.
Florissant.....	1936 August & October.
Hamburg.....	1936 September 31-1937 February 17.
Helwan.....	1937 February.
Hong Kong.....	1937 February.
Jena.....	1935 January-December.
Jesuit Seismological Assoc.....	1937, Nos. 3, 4, 5.
Kew.....	1937 February.
Ksara.....	1937 February Provisional.
La Plata.....	1936 December, 1937 January, Febr.
Ottawa.....	1937 January, February.
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Paris.....	1937 January, February.
Perth.....	1936 December 19-31, 1937 Jan. 6-22.
Rathfarnham.....	1937 January, February.
San Fernando.....	1937 January, February.
Strasbourg.....	1937 January, February. Bull. d'ech. 2
Sydney.....	1937, January- March.
Tortosa.....	1935 October-December.
Uccle.....	1936 September 5-December 31.
U.S.C. & G.S. (Washington).....	1937 Feb. 21, March 9, 9, 14.
Wellington & Auxiliary Stations..	1937 February Preliminary.

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A subsoil survey of Wellington City
By. L. Bastings, D.Sc., F.Inst.P.

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Geosynklinale. Von August Sieberg.
Tabelle der Normalschwere von 47° bis
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Schweremessungen. Von O. Meisser.
Temperaturkompensiertes Stabpendel
Von. O. Meisser.
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H. Martin.
Ein Piezoelektrischer Beschleunigungs-
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Von Gerhard Schmerwitz.

The International Seismological
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WM. O'LEARY, S. J.,
Director.



Riverview College Observatory.

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

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

INSTRUMENTS :

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

	V	T ₀	$\epsilon:1$	$\frac{r}{T_0^2}$
A ^N (1)	212	7.9	3.7	0.024
(3)	92	11.8	4.0	0.009
A ^E (1)	233	8.3	4.3	0.019
(3)	82	9.5	4.2	0.010
A ^Z (2)	61	6.2	2.8	0.099

No	Date	Phase	Time (Greenwich)	Per	Amplitude.			A	Remarks.
					A _N	A _E	A _Z		
			h. m. s.	s.	mm	mm	mm	km.	
42	1937 May 9	e?N	15 03.4						
		eN	08.7						
		eL	23.9	22					
		MN	31 23	22	0.1				
		ME	34 02	20		0.1			
		F	16 15						
43	" 9	eN	21 38.6						A few shallow long waves.
		eL	42.4	21					
44	" 10	iPE	15 30 15	3		-0.5			Deep focus?
		eN	20 20	1					
		iS _{NE}	33 56	4	-1.7	-0.5			
		MN	38 58 40 01	13	0.2				
		iE	40 01	4		-1.0			
		F	16 00						
45	" 12	eN	02 51 30						
		eE	51 54						
		e(L)	59.0	14					h m
46	" 12	ME	03 04 14	12		0.8			F 03 35
		eN	10 04.5						
		eL	08.0	16					
47	" 12	MN	10 03	14	0.1				F 10 20
		eN	13 32.3						
		eL	39.5	15					
48	" 12	MN	41 07	14	0.2				
		F	13 55						
		eN	11 43.3						
49	" 16	eE	46.5						
		eL	53.8	19					
		MN	57 23	12	0.5				
		ME	58 07	18		0.3			F 12 25
		F	06 30						
50	" 23	ePNE	06 17 20					2300 (20:7)	
		iPE	17 23	4		-0.5			
		eSE	21 10	5			1.0		
		ME	21 22	5					
		MN	24 34	16	0.3				
		F	06 30						
51	" 28	iNZ	20 05 14	2	-0.3		+0.2		
		iE	12 38	4		-1.2			
		iN	12 39	4	-1.0				F 20 15
52	" 31	eZ	15 37 36						Preliminaries made by microseism.
		eNE	38 04						
		iSE	42 15	4		+1.5			
		iN	42 18	4	+1.0				
		iN	42 41	5	+0.9				
		eL	45.9	25					
		MNE	48 25	14	0.9	0.8			
		F	16 10						

WM. O'LEARY S.J.
Director.

RIVERVIEW COLLEGE OBSERVATORY acknowledges with thanks the receipt of the following bulletins and publications during May, 1937

Adelaide.....	1937 April Preliminary.
Batavia.....	1936 July-September.
Berkeley & affiliated stations.	1936 October-December.
Bucarest.....	1937 February, March.
Chiufeng.....	1937 March.
Christchurch.....	1937 March Provisional.
Florissant.....	1936 November.
Granada.....	1936 June-September Provisional.
Helwan.....	1937 March.
Hong Kong.....	1937 March.
Kew.....	1937 March.
Ksara.....	1937 March Provisional.
Little Rock.....	1936 November.
Manila.....	1937 February, March Preliminary.
Melbourne.....	1937 April Preliminary.
Nagoya.....	1936 January-December.
Pasadena.....	1936 December. 1937 Feb. Local shocks
Phu Lien.....	1937 March Preliminary.
Saint Louis.....	1936 October.
Strasbourg.....	1937 Bulletin d'echanges No.3.
Tananarive.....	1936 August, September.
Trieste.....	1936 April-June.
U.S.C. & G.S. (Washington).....	1937 March 25.
Wellington & N.Z. stations.....	1937 March Provisional.
Zagreb.....	1936 January-June.

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Dept. of Terrestrial Magnetism
Carnegie Institution of
Washington.

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Progress of research in magnetic-diurnal variation at the Dept. of Terrestrial Magnetism--McNish.
Report by Department of Terrestrial Magnetism to the Edinburgh Assembly on work done since the Lisbon Assembly. By J.A. Fleming.
Results on international comparisons of magnetic horizontal intensity with CIW Sine-galvanometer T. By S. E. Forbush & E.A. Johnson.
Investigation of magnetic rays. McNish
Design of Tuned Resistance-Capacity Coupled Amplifiers. By E.A. Johnson.
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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.) (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	s:l	$\frac{P}{T_0^2}$
$A^N(1$	210	7.8	3.3	0.024
$3)$	91	11.7	5.0	0.008
$A^E(1$	229	8.3	4.1	0.020
$3)$	74	9.1	8.6	0.014
$A^Z(2)$	61	5.1	2.9	0.009

No.	Date	Phase	Time (Greenwich)			Per s.	Amplitude.			Δ km.	Remarks.
			h.	m.	s.		A_N mm	A_E mm	A_Z mm		
52	1937 June 3	eN	00	11.0						Masked by micro-seisms.	
		eL		14.8	17						
		MN		16 54	12	1.0					
		ME		17 25	12		0.6				
		F	00	40							
53	" 3	eL	01	40.1	17?					Masked by micro-seisms.	
		ME		42 03	12		0.3				
		MN		42 12	12	0.4					
		F	01	50							
54	" 7	eL	15	25.3	19					Earlier phases obscured by micro-	
		MN		26 37	14	0.3					
		ME		27 36	12		0.5				
		F	15	40							
55	" 8	eN	03	56.4							
		eL		59.2	18						
		MN	04	02 13	12	0.3					
		F	04	15							
56	" 8	eN	10	48.0							
		eL		52.0	18						
		MN		53 16	18	0.3					
		F	11	10							
		iPE	12	35 35	3		-0.4				
57	" 14	ePNZ		35 35	3				2390 (21.5)		
		iNE		35 40	4	+0.4	+1.1				
		eSNE		39 32	6						
		iN		39 38	6	-4.6					
		iSSE		39 54	6		+2.6				
		eL		41.2	20						
		MN		42 57	14	3.3					
		ME		43 46	12		1.3				
		F	12	58							
		iPE	13	15 08	3		-0.5				
		ePNZ		15 08	3						
		iNE		15 11	3	+0.6	+1.3				
		iE		15 17	4		-2.3				
		iE		15 26	4		-2.5				
iNE		16 22	6	+2.7	+2.5						
eSN		19 06	7								
iSE		19 10	7		-2.5						
iN		19 17	7	+6.1							
iE		19 22	6		-3.5						
SSE		19 31	8		5.3						
SSN		19 33	8	4.3							
EL		21.0	18								
MZ		22 12	15			0.1					
ME		22 30	14		2.8						
MN1		22 55	13	6.4							
MN2		25 56	12	8.4							

F 14 30

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY.

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (Greenwich)			Per	Amplitude.			Δ km.	Remarks.
							A _N mm	A _E mm	A _Z mm		
59	1937 June 15	eNE iNE F	10 02 14		5						
			10 06 14		5	+1.2	-0.5				
50	" 15	e MN ME F	21 50.2		13	0.2					
			56 26		13		0.1				
			58 11		?						
	" 19	eE iE iN MN iE F	17 12.0							Masked by micro-seisms.	
			15 45		5		+1.0				
			15 47		5	+2.6					
			20 27		13	0.4					
			21 48		5		+2.2				
			17 30								
62	" 21	iN iE iNE F	14 13 08		5	+1.1				All other phases obscured by very heavy microseisms.	
			15 04		5		-1.3				
			15 54		5	+2.3	+2.5				
			14 25								
63	" 21	iNE eNE mNE eNE mNE eLN MN MZ ME ME F	15 32 47		4	+1.1	-1.2			Preliminaries masked by very heavy microseisms.	
			42 37								
			42 57		18	1.5	2.5				
			49 03								
			49 26		21	0.7	1.5				
			16 06.5		24						
			13 20		19	1.2					
			14 24		18			0.1			
			15 04		18		2.5				
	W2 series	ME F	17 19 31		18		0.5				
			18 20								
64	" 28	eL MN ME F	19 40.5		18						
			41 37		12	0.2					
			43 05		12		0.3				
			19 55								
65	" 28	e eL ME MN F	23 48.3								
			52.2		17						
			52 35		12		0.3				
			53 16		11	0.2					
			00 00								

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1937, July 5

RIVERVIEW COLLEGE OBSERVATORY acknowledges with thanks the receipt of the undermentioned Bulletins and Publications during June, 1937.

Adelaide.....	1937 May Preliminary.
Berkeley & Auxiliary Stations..	1936 January-June.
Bucarest.....	1937 April.
Chiufeng.....	1937 April.
Christchurch.....	1937 April Preliminary.
Firenze.....	1935 April-July.
Helwan.....	1937 April.
Hong Kong.....	1937 April.
Kew.....	1937 April.
Ksara.....	1937 April Provisional.
La Plata.....	1937 February, March.
Manila.....	1937 March & April. April & May Prel.
Melbourne.....	1937 January-March. May Preliminary.
Nanking.....	1936 October-December.
Osaka.....	1935 March 31-June 28.
Ottawa.....	1937 March.
Paris.....	1937 March.
Phu Lien.....	1937 April Preliminary.
Praha.....	1937 January-March.
Rathfarnham.....	1937 March, April.
Reykjavik.....	1936 January-December.
Rome.....	1931 January-December.
San Fernando.....	1937 March, April.
Santa Clara.....	1936 December, 1937 January.
Strasbourg.....	1937 March.
Sydeny.....	1937 April.
Trieste.....	1935 January-December.
U.S.C. & G.S.....	1937 April 16.
Venezia.....	1935 January-September.
Wellington & Auxiliary Stations	1937 April Preliminary.
Zinsen.....	1936 Sept-Dec. 1937 January, February.

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1937, July 1.

Riverview College Observatory.

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

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

INSTRUMENTS :

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

	V	T ₀	$\epsilon:1$	$\frac{r}{T_0^2}$
A ^N (1)	217	7.8	3.3	0.023
(3)	86	11.8	5.4	0.009
A ^E (1)	235	8.2	4.1	0.024
(3)	75	9.3	8.5	0.013
A ^Z (2)	63	5.1	2.6	0.096

No.	Date	Phase	Time (Greenwich)			Per s.	Amplitude.			Δ km.	Remarks.
			h.	m.	s.		A _N mm	A _R mm	A _Z mm		
66	1937 July 1	eP _{NE}	12	08	47	6	0.4	0.2			
		e _E	10	08		6		0.8			
		e _N	17	02		12					
		e _L	21	2		26					
		M _N	26	09		21	0.4				
		M _E	31	54		21		0.5			
67	" 2	F	13	15						2680 (24:1)	
		iP _{NE}	02	42	35	4	-1.5	-1.4			
		m _{NE}	42	46		4	2.2	3.0			
		i _N	43	05		5	+3.3				
		i _{SNE}	46	55		7	-4.0	-1.4			
		i _{NE}	47	23		7	+8.6	-5.3			
		i _E	47	50		7		+6.2			
		e _L	48	5		32					
68	" 4	M _E	50	53		19		4.1		2790?	
		F	03	55							
		iP _{NE}	06	00	46	5	+1.0	+0.5			
		e(S) _E	05	12		9					
		e(S) _N	05	16		9					
		i _N	05	23		7	-5.5				
		i _E	06	29		7		-9.0			
		i _N	06	37		8	-7.6				
		i _N	08	09		12	+8.4				
		M _N	12	00		10	10.0				
69	" 4	M _E	13	17		10		16.5		2855 (25:7)	
		F	Lost in No. 69.								
		eP _{NE}	06	44	17	3					
		i _{NE}	44	31		4	-1.9	-1.7			
		i _{SN}	48	50		7	+1.7				
		i _{SE}	48	51		7		-4.0			
		i _N	50	03		7	+7.0				
		i _N	51	02		14	-5.5				
		i _N	51	45		15	+5.0				
		M _E	56	51		9		12.5			
70	" 4	M _N	59	00		8	6.0			2620 (23:6)	
		F	Lost in No. 70.								
		iP _N	07	31	39	5	+1.7				
		i _E	31	42		5		-1.0			
		i _{SE}	35	55		9		-2.8			
		i _{SN}	35	58							
		i _N	36	11		9	+3.0				
		i _E	36	c22		7		+11.0			
		M _N	36	29		9	7.8				
		i _N	37	07		7	+7.7				
		M _E	37	14		8		6.8		i _{SN} in minute break.	
		M _N	37	16		7	13.0				
		M _E	38	8		17					
		M _E	41	09		11		9.5			
		M _N	42	53		11	11.5				
		M _N	42	53		11	11.5				

F 09h 15m.

No. 7 (continued)

1937, July.

12.

RIVERVIEW COLLEGE OBSERVATORY.

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time			Per	Amplitude.			Δ	Remarks.	
			h.	m.	s.		A _N	A _E	A _Z			
			G. (with)						km.			
						mm	mm	mm				
71	1937 July 13	eE	10	59.4	5							
		mE	11	00 42	7		0.4					
		mN		00 46	6	0.3						
		MN		06 26	12	0.1						
72	" 19	F	11	10								
		e?E	02	59.1								
		eN		59.9	3							
		eSN	03	04 10	11							
		eL		07.5	21							
		MN		10 47	18	0.5						
73	" 19	ME		10 55	14		1.8					
		F	03	30								
		eE	09	35.5	8							
		eN		35.7	9							
		eL		37.2	25							
		ME		40 57	11	0.7						
74	" 19	MN		41 20	15	0.3						
		F	10	10								
		i?NE	19	56 26	5	0.8	-1.1				May only be a large microseism.	
		eNE	20	06 24	7							
		MN		13 10	16	0.2						
		ME		13 55	14	0.5						
75	" 22	F	20	30								
		eN	17	34 39	5							
		iE		36 20	7		-1.0					
		iNE		44 06	9	0.5	-1.4					
		eL		55.4	36							
		MN	18	03 05	27	0.7						
76	" 22	ME		08 07	23		0.6					
		F	Lost in No. 76.									
		eL	19	19.0								May be earlier.
		MN		23 22	22	0.5						
		ME		25 06	18	0.3						
		F	20	15								
77	" 26	eE	04	13.4	7							
		ME		24 36	14		0.9					
		MN		24 42	13	0.2						
		F	04	40								
		eNE	20	08.1								
		iNE		17 24	5	3.0	+3.1					
78	" 26	eE		26 10	7							
		eL		29.0	25							
		MN		31 24	13	0.2						
		ME		32 14	20	0.3						
		F	21	00								
		eN	18	02.4								
79	" 29	ME		06 17	7		0.4					
		F	18	15								
		eN	14	06.4	15							
		eL		08.3	15							
		MN		09 36	16	0.3						
		F	Lost in No. 81.									
80	" 30	eE	14	08 35	2							
		eL		15.0	20							
		MN ₁		16 00	19	1.2						
		MN ₂		17 55	12	2.5						
		ME		18 46	12	0.5						
		F	15	10								
81	" 30	eEZ	14	08 35	2							
		eL		15.0	20							
		MN ₁		16 00	19	1.2						
		MN ₂		17 55	12	2.5						
		ME		18 46	12	0.5						
		F	15	10								

 WM. O'LEARY, S. J.
 Director.
 1937, Aug 6.

RIVERVIEW COLLEGE OBSERVATORY acknowledges with thanks the receipt of the undermentioned bulletins and publications during July 1937.

Adelaide.....	1937 June Preliminary.
Apia.....	1937 April-June.
Bergen.....	1935, 1936.
Bucarest.....	1937 May.
Chiufeng.....	1937 May.
Christchurch.....	1937 May Preliminary.
De Bilt.....	1934 January-December.
Granada.....	1936 October-December Provisional.
Hong Kong.....	1937 May.
Kew.....	1937 May.
Kobe.....	1935 October-December.
Ksara.....	1937 May Provisional.
Melbourne.....	1937 June Provisional.
Numadu.....	1936 January-December.
Osaka.....	1936 January-March.
Ottawa.....	1937 April.
Oxford (Internat. Seismol. Summary.)	1932 January-March.
Papua (Earthquake Notes).....	1937 May, June.
Paris.....	1937 April.
Pasadena (local shocks).....	1937 March.
Perth.....	1937 Jan. 22-27, Feb. 12-May 16.
Phu Lien.....	1936 December. 1937 May Prov.
Rathfarnham.....	1937 May.
Strasbourg.....	1937 April.
Sydney.....	1937 May.
Tiflis.....	1929, 1930, 1931, 1932, 1935 Apr-Dec. 1936 January-June.
Tokyo.....	1936 July-December.
Trieste.....	1936 July-September.
U.R.S.S. Stations teleseismiques.	1936 July-December.
U.R.S.S., Stations Crimee.....	1934 July-Dec. 1935 Jany-Dec.
U.R.S.S., Stations Asie Centrale.	1933, 1934, 1935, 1936 January-March.
U.S.C. & G.S.	1937 May 21, June 8, 21.
Wellington & Auxiliary Stations.	1937 May Preliminary.
Weston.....	1937 January, February.

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Observatorio Geofísico Cartuja, Granada.	Resumen del Boletín Meteorológico de 1936.
Dominion Observatory, Ottawa, Canada.	Bibliography of Seismology, Vol. XII, No. 13.
University Observatory, Oxford.	International Seismological Summary 1932 Jan. Feb. Mar. Table for the near Earthquake Pulses by Harold Jeffreys.
Imperial Marine Observatory, Kobe.	Seismological Bulletin of the Imperial Marine Observatory and Kobe Meteorolog- ical Observatory Vol. XI, No. 4.
Earthquake Research Institute, Tokyo Imperial University.	Bulletin of the Earthquake Research Institute Vol. XV, part XXXXX 2. Seismometrical Report 1936 Part 3&4.
R. Stazione Aerologica, Montecassino.	Osservazioni Meteoro-Sismiche 1937 January, February & March.
Prime Minister's Department, Canberra.	Earthquake Notes from Papua. 1937 May 31 & June 13.

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1937, August 6th.

Wm. O'LEARY, S. J.
Director.

Riverview College Observatory.

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

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

INSTRUMENTS:

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

	V	T ₀	$\epsilon:1$	$\frac{r}{T_0^2}$
A ^N (1)	206	8.2	3.6	0.022
(3)	87	11.8	4.2	0.009
A ^E (1)	225	8.3	3.9	0.020
(3)	76	9.2	4.5	0.014
A ^Z (2)	59	5.2	3.0	0.070

No.	Date	Phase	Time (Greenwich)			Per s.	Amplitude.			Δ km.	Remarks.
							A _N mm	A _E mm	A _Z mm		
82	1937 August 1	e _N e _L F	11 16.7 20.1							A few long waves.	
83	" 5	ePZ iP _N iPR _{1N} iPR _{2N} iE mN iSN iSR _{1N} iE mE MZ MN ME F	14 49 37 49 38 50 15 50 34 50 36 50 43 54 24 55 35 55 48 55 58 58 07 58 13 15 02 12 16 00	3 3 6 6 5 7 7 8 6 7 7 7 8				0.2 0.3	3045 (27.4)	L waves absent.	
84	" 6	e _N e _L MN F	05 36.1 42.3 43 22 05 55								
85	" 11	PNEZ iNE iZ iSN iSE iZ iZ iN iN iE L?N MN ME F	01 02 52 02 59 03 00 08 35 08 36 08 38 08 42 08 43 11 52 12 02 24.4 26 54 30 54 03 10	3 3 4 4 3 4 4 4 5 6 23? 10 10					3920 (35.4)	P in minute mark. Deep focus?	
86	" 16	e eL ME MN F	10 32.2 37.5 39 48 40 24 10 55					0.4			
87	" 18	e _N i _N i _E i _E i _N i _N e(L) F	05 09.5 12 41 13 47 14 10 14 13 14 46 16.7 05 45	3 4 5 5 5 13							

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY.

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time			Per	Amplitude.			Δ	Remarks.
			Greenwich)				A _s	A _E	A _Z		
			h.	m.	s.	s.	mm	mm	mm	km.	
88	1937 Aug. 20	eE	07	03	0						
		e(L)		12	3	17					
		MN		16	32	12	0.2				
89	" 20	F	07	35							
		eP _{NE}	12	08	57	3				6010	
		iP _{NE}		09	00	5	-1.0	+0.9		(54°1)	
		iS _E		16	38	7		-5.1			
		iS _N		16	39	7	-3.8				
		m _{NE}		16	54	7	8.6	6.3			
		SR ₁ ? _E		20	14	28		3.2			
		m _{1N}		21	00	19	5.9				
		m _{2N}		21	17	19	7.1				
		m _{3N}		21	35	19	9.2				
		eL _E		22	8	30					
		ME _L		28	00	30		19.8			
		MN ₁		28	56	19	13.0				
		MZ ₁		29	01	18			0.2		
		ME ₂		33	08	19		15.0			
		MZ ₂		33	16	19			0.6		
		MN ₂		33	31	19	18.1				
		eW ₂	14	44	9	23					W ₂ series.
		ME		53	07	19		0.2			
		MN		53	44	19	0.2				
90	" 23	F	15	30							
		i(P) _E	16	40	32	5		-1.0			
		m _E		42	34	5		0.7			
		i(S) _N		46	11	5	+1.0				
		i(S) _E		46	14	6		-1.7			
		eL		47	9	16					
		MN		48	53	16	0.7				
		ME		49	19	16		0.6			
91	" 24	F	17	15							
		i(P) _E	18	35	00	4		-0.9			
		eE		36	19	8		0.6			
		eN		40	50	6					
		iE		40	57	6		-1.2			
		eL		42	8	27					
		ME		46	39	20		0.4			
		MN		47	30	15	0.4				
92	" 31	F	19	35							
		e(P) _{NE}	02	54	4	5					
		S? _{NE}		38	8	8	0.8				
		eL		41	5	21?					
		MN		45	31	16	0.2				
93	" 31	F	03	20							
		e? _N	14	36	8						
		eN		49	9						
		eL		54	0	19					
		MN	15	01	00	19					
		ME		01	06	19		0.2			
		F	15	25							

 WM.O'LEARY, S. J.
 Director.
 1937, September 4.

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

	V	T ₀	$\epsilon:1$	$\frac{r}{T_0^2}$
A ^N (1)	209	7.8	3.6	0.022
(3)	91	11.8	4.2	0.009
A ^E (1)	224	8.3	4.4	0.029
(3)	83	9.3	5.1	0.012
A ^Z (2)	63	5.1	3.4	0.065

No.	Date	Phase	Time (Greenwich)			Per	Amplitude.			Δ km.	Remarks.
			h.	m.	s.		A _N mm	A _E mm	A _Z mm		
94	1937 Sept. 1	iPE	08	44	10	4		-1.6		3220 (29°0)	
		iPZ		44	11	4			-0.4		
		mE		44	30	9		2.3			
		iE		44	42	6		+4.6			
		iN		44	52	6	+2.4				
		iSN		49	09	7	+5.2				
		eLE		50.	4	33					
		eLN		50.	9	33					
		MZ		51	30	22			0.1		
		MN		52	14	19	2.7				
		ME		52	37	19		4.5			
		F		10	10						
95	" 1	eN	21	48.	2				Masked by micro-seisms.		
		eE		51.	1						
		eL		53.	0	25					
		MN		55	03	16	0.3				
		ME		55	21	16		0.7			
		F		22	10						
96	" 3	ePZ	19	01	(18)				9100 (82°0)	Depth of Focus (200? Km.) Times may be in error \pm 13s. Clock correction unknown.	
		iPNZ		01	(19)	3	+0.5				+0.3
		iPE		01	(20)	3		-0.7			
		iz		01	(20)	3					+1.0
		iNEZ		01	(32)	4	-2.0	-1.8			+2.0
		iPNEZ		02	(05)	4	+1.3	+1.9			-1.0
		iPPN		05	(04)	5	-3.0				
		iSN		11	(39)	6	+4.0				
		iSE		11	(42)	6		-2.5			
		isSN		12	(23)	5	-5.0				
		mN		12	(40)	7	10.1				
		ME		13	(05)	7		3.5			
		eE		18	(.2)	38					
		eLN		25	(.2)	42					
		ME		25	(26)	25		1.5			
		MN		30	(32)	35	1.5				
		ME		31	(16)	31		0.8			
eW ₂ N		20	57	(.1)	25?						
MN		21	02	(21)	25	0.2					
F		21	50								
97	" 3	eL	21	59	(.2)	14					
		MN	22	01	(14)	14	0.3				
		ME		01	(33)	14		0.2			
		F	22	20							

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY.

SYDNEY, N.S.W

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time			Per	Amplitude.			Δ	Remarks	
			Greenwich)				A _N	A _E	A _Z			
			h.	m.	s.	s.	mfn	mfn	mfn	km.		
	1937											
98	Sept. 4	e(P)	06	20	(30)						Times may be in error by ± 13s.	
		iSN		24	(35)	6	-1.2					
		iE		24	(53)	6		+1.5				
		iN		25	(16)	8	-2.1					
		mN		26	(18)	15	2.5					
		eLN		26	(.4)	27						
		MN		27	(37)	16	2.0					
		ME		28	(11)	20		1.0				
		F	Lost in No. 99.									
99	" 4	eNE	07	17	(42)	6						Earlier phases masked by end of No. 98.
		iE		18	(30)	7		-1.5				
		F	07 35									
100	" 5	eN	21	06	(31)						Short Periods throughout.	
		iE		08	(17)	4		-1.0				
		iN		08	(35)	4	+1.8					
		iE		09	(49)	4		-2.0				
		iN		11	(00)	5	-2.5					
		iE		11	(14)	5		-2.9				
		iN		11	(30)	5	+3.5					
		iE		11	(31)	5		-4.0				
		mN		12	(09)	8	2.0					
		F	21 20									
101	" 8	iPN	00	52	51	5	+0.4			9180 (82°6)		
		ePE		52	53	5						
		iN		56	28	5	+1.1					
		iSN	01	03	10	5	+1.7					
		iSE		03	11	5		-1.1				
		iE		03	32	9		-1.7				
		mN		05	00	12	0.7					
		mN		05	28	12	1.0					
		eLQE		17	.1	28						
		eLRE		24	.2	25						
		eLRN		25	.0	25						
		MN		30	03	14	0.5					
		F	02 30									
102	" 8	eE	14	14	43	3					Short periods throughout.	
		eN		15	05	3						
		eN		18	54	4						
		ME		24	05	6		0.4				
		F	14 30									
103	" 15	iPNE	12	32	56	5	-1.7	-0.6		2700	E-W readings from Mainka. Wiechert E-W out of commission.	
		iPZ		32	57	4			-1.2			
		mNE		33	00	5	5.7	1.6				
		ME		33	21	7		1.6				
		mN		33	24	8	6.3					
		mN		33	x32	8	7.2					
		iE		35	20	7		+1.6				
		iSN		37	17	9	-10.1					
		iSE		37	19	7		-2.6				
		iNE		37	29	8	+10.1	+6.6				
		iN		37	55	8	-8.1					
		iE		38	06	8		-10.5				
		iE		38	22	8		-12.8				
		iN		38	27	8	-11.1					
		e(L)N		38	.7	24						
		iN		40	10	17	+24.5					
		MZ		40	40	20			0.4			
		ME		41	00	8		6.6				
		F	14 35									

(Continued on next sheet)

No 9 (continued)

1937, September.

17

RIVERVIEW COLLEGE OBSERVATORY.

SYDNEY, N.S.W

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time			Per	Amplitude.			Δ	Remarks
			Greenwich)				A _N	A _E	A _Z		
			h.	m.	s.	s.	mm	mm	mm	km.	
104	1937 Sept. 17	iNE	09	54	30	8	+0.8	-1.4			
		eE	10	07.4							
		eLN		19.4		21					
		MN		22	18		19	0.5			
		ME		25	38		18		0.3		
105	" 21	F	11	20							
		iPNE	09	47	45	2	+0.4	-0.4		5620 (50°6)	
		PPNE		49	39		5	0.5	0.7		
		iSN		55	05		7	+1.5			
		eSSN		58	08		9				
		mN		58	29		9	1.2			
		eLN	10	03.4		21					
		eLE		04.2		25					
		ME		08	23		18		0.8		
		MN		08	27		18	0.7			
		F	Lost in No. 106.								
106	" 21	eE	10	20.4							
		eL		26.4		18					
		MN		29	06		16	0.3			
		ME		30	01		17		0.5		
107	" 22	F	10	55							
		eN	09	29.8							
		eL		33.5		18					
		MN		36	00		14	0.2			
		ME		36	58		14		0.1		
108	" 23	F	09	45							
		iPN	13	11	44	4	-1.1			3020 (27°2)	
		ePE		11	44		4				
		eZ		11	51		3				
		iZ		11	53		3				+0.7
		iNE		11	55		4?	+3.4	-0.4		
		iN		12	56		6	+9.0			
		iN		13	25		7	+19.4			
		i(PcP)E		14	59		5		-8.4		
		iSE		16	27		8		-21.5		
		iSN		16	31		12	-32.5			
		iNEZ		16	50		12	-126.5	-30.5		+2.0
		iE		17	13		10		-63.5		
		LE		19.3		25					
		iME		20	18		14		+76.1		
		ME1		21	20		14		72+		
		iMN		21	36		12	-58.0			
		MZ1		22	30		16				1.9
		MN1		23	40		14	76+			
		MZ2		25	46		15				5.0
		ME2		24	33		13		63.3		
		MN2		25	37		14	75+			
		eW2N	16	01.5		22					
MN		04	13		20	0.2					
ME		04	22		18		0.2				
F	16	20									
" 23	" 23	eN	17	15.7							
		eL		20.0		19					
		MNE		20	53		15	0.1	0.1		
" 23	" 23	F	Lost in No. 110.								
		e(P)NE	17	26	34		3				
		eSN		31	24		8	0.5			
		eL		35.0		24					
		MN		38	15		14	0.3			
		ME		38	23		14	0.3			
F	18	10									

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY.

SYDNEY, N.S.W

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time			Per	Amplitude.			Δ	Remarks
			Greenwich)				A _N	A _E	A _Z		
			h.	m.	s.	s.	mm	mm	mm	km.	
111	1937 Sept. 23	eE	19	21.1							
		eL		26.2		14					
		ME		27	28		12		0.3		
		MN		29	15		12	0.3			
112	" 24	F	19	45							
		eN	05	56	02	7					
		eLN	06	01.1		16					
		ME		01	14		12		0.2		
113	" 25	MN		02	04		12	0.1			
		F	06	20							
		eN	03	36.2							
		eL		39.4		16					
114	" 25	MN		41	30		12	0.2			
		MN		41	43		12		0.2		
		F	03	50							
		eE	17	57.1							
115	" 27	iNE	18	01	07	5	+2.9	+2.3			
		e(L)		01.8		13					
		F	18	20							
		iPNEZ	09	03	28	4	+1.2	-3.7	-1.1	5345	iP Dilatation.
116	" 27	iPPN	05	07		5	+2.7			(48°1)	
		iPPEZ	05	12		5		-7.2	-1.4		
		iNE	06	10		5	+3.5	-5.4			
		iE	07	08		5		-2.6			
		iN	07	36		4	+2.9				
		iE	07	58		5		+2.9			
		iSNE	10	32		7	+5.0	+6.7			
		iSSN	13	29		12	+5.7				
		iN	13	40		16	+5.7				
		mN	14	02		16	5.2				
		iN	16	04		7	-3.7				
		eLE	16	.3		44					
		mN1	18	58		21	7.6				
		mN2	19	19		21	6.4				
		mN3	19	38		21	8.5				
		MZ1	20	45		28				0.1	
		ME1	21	05		25		5.6			
		iMN	22	19		11	-17.6				
		MZ2	23	04		22				0.3	
		MN	23	16		14	20.6				
ME2	26	00		19		9.1					
117	" 27	F	Lost in No. 116.								
		e(P)Z	11	20	34	2					
		eL		33.5		18					
		ME		38	19		12		0.7		
118	" 30	MN		39	20		12	0.5			
		F	12	15							
119	" 30	eNE	04	44.0							
		eN		49.1							
120	" 30	F	05	05							
		eE	21	41.1		6					
		eL		47.4		20					
		MNE		50.5		18	1.1	1.0			Times approximate only. No minute marks.
121	" 30	F	Lost in No. 119.								
		eL	21	58.3		17					
		MN	22	00.1		15	0.7				Do. do. do.
		ME		00.5		17		0.5			
		F	22	50							

WM. O'LEARY, S. J.
Director.
1937-X-11.

Riverina College Observatory.

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

 $\phi = 33^{\circ} 40' 49''$ S.

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

 $h = 41.9$ m.

Foundation: Triassic sandstone.

INSTRUMENTS:

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

	V	T_0	$\epsilon:1$	$\frac{r}{T_0^2}$
$A^{\#}(1)$	214	8.0	3.9	0.019
$A^{\#}(3)$	94	11.8	5.0	0.009
$A^{\#}(1)$	226	8.5	4.1	0.020
$A^{\#}(3)$	82	9.3	6.9	0.011
$A^{\#}(2)$	62	5.1	3.3	0.069

No.	Date	Phase	Time (Greenwich)			Per	Amplitude.			Δ km.	Remarks.
			h.	m.	s.		A_N mm	A_E mm	A_Z mm		
120	1937 Oct. 1	eL	15	01.9	18				Masked by heavy microseisms.		
		MN		04.0	16	0.3					
		ME		04.3	16		0.3				
121	" 1	F	15	20					Masked by heavy microseisms.		
		eE	19	24.4							
		eN		28.9							
		eN		29.9	12						
		eL		31.2	15						
		MN		33.2	13	2.9					
		ME		34.0	15		2.0				
122	" 3	F	20	30							
		eL	03	44.0	16						
		MN		45.7	14	0.3					
123	" 4	ME		47.2	14		0.2		A few long waves.		
		F	03	55							
		eLN	02	08.7	14						
124	" 4	F	02	15							
		eN	07	48.0							
		eL		55.0	18						
		MN		56.9	14	0.6					
125	" 4	F	08	30							
		eN	17	59.3							
		eL	18	01.7	16						
		MN		03.3	12	0.2					
126	" 6	F	18	10					3110 (28°0)		
		ePNZ	17	10 38.9	2						
		iS _E		15 30	9		+1.7				
		iS _N		15 31	9	+6.5					
		iN		15 58	9	-6.5					
		eL		18.1	25						
		MN ₁		19 56	18	2.5					
		ME		20 07	16		6.3				
		MN ₂		26 03	12	5.8					
127	" 7	F	18	35					A few waves.		
		e(L) _E	07	17.2	17						
128	" 12	eN	03	14 47	5						
		iE		18 22	4		-2.2				
		eLN		19.7							
		MNE		21 30	11	1.1	3.0				
		F	04	10							
129	" 17	eNE	05	07.6	5						
		eLN		24.6	24						
		MN		27 48	21	0.3					
		F	05	45							

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RIVERVIEW COLLEGE OBSERVATORY.

SYDNEY, N.S.W

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time			Per	Amplitude.			Δ	Remarks
			Greenwich)				A _N	A _E	A _Z		
			h.	m.	s.	s.	mm	mm	mm	km.	
130	1937 Oct. 23	ePZ	17	58	14	2				2545 (22°9)	
		iPE		58	15	6		-2.2			
		ePN		58	15	6					
		eSE	18	02	24						
		eLN		04.	2	21					
		MN		06	12	14	5.3				
		ME		06	18	14		2.6			
131	" 25	F	18	10							
		eN	07	37	40	8					
		eE		37	45	8					
		eL		44.	6	19					
		MN		46	00	17	0.3				
		ME		47	45	15		0.4			
		F	08	00							
132	" 25	iPNEZ	10	38	20	5	+0.6	-2.8	+0.3	2545 (22°9)	
		eSNE		42	30	11					
		ME		42	51	11		2.6			
		MN		42	53	11	1.2				
		eL		44.	6	16					
		MN		46	16	14	4.0				
		ME		46	23	14		3.0			
133	" 28	F	11	30							
		eZ	09	40	36	1					
		eE		40	38	1					
		iN		40	43	1	+0.2				
		iE		41	11	2		-1.2			
		iE		42	09	3		-1.2			
		iN		42	17	5	+4.0				
		i(S)N		42	31	4	-5.7				
		iZ		42	33	3			-0.6		
		iE		42	36	4		-5.0			
		ME		41	43	4		5.8			
		iZ		42	47	3			+1.6		
		iZ		42	54	3			-0.8		
		MN		44	22	6	5.3				
		ME		44	57	6		4.9			
MN		46	31	6	5.9						
134	" 28	F	10	20							
		eNE	18	23	56	1				Very small.	
		iN		25	41	2	+1.5				
		iE		25	45	2		-1.4			
		iE		25	51	2		-1.6			
		MN		26	13	4	1.0				
		ME		26	50	7		0.6			
F	18	40									

 WM.O'LEARY, S. J.
 Director.
 1937-XI-3.

N.B. Since January 1931 all Amplitudes given in these Bulletins are TRACE AMPLITUDES ONLY and do NOT represent actual earth movements.

RIVERVIEW COLLEGE OBSERVATORY acknowledges with thanks the receipt of the following Bulletins and Publications during September and October 1937.

Adelaide.....	1937 August, September Preliminary.
Bucarest.....	1937 July, August.
Christchurch.....	1937 July, August Preliminary.
Denver.....	1936 January-December.
Florissant.....	1936 December, 1937 January-May.
Graz.....	1936 October 26-1937 February 23.
Harvard.....	1935 July-December, 1936 Jan-Dec.
Helwan.....	1937 July, August.
Hong Kong.....	1937 July, August.
Jesuit Seismological Association	1937 Nos.14,15,16,17,18,19.
Karlsruhe.....	1937 January-June.
Kew.....	1937 July, August.
Ksara.....	1937 July, August Provisional.
La Plata.....	1937 April-June. 1930 & 1931.
Lemberg.....	1936 September 7-December 31.
Little Rock.....	1936 December-1937 March.
Manila.....	1937 June-August, July-Sept.Prelim.
Melbourne.....	1937 August, September Preliminary.
Ottawa.....	1937 June.
Papua (Earthquake Notes).....	1937 May 31, June 13, Aug.6,12, Sept.3.
Paris.....	1937 June, July.
Pasadena.....	1937 January-March.
Pennsylvania.....	1937 January-June.
Perth.....	1937 May 16-July 22.
Phu Lien.....	1937 January-June, June-August Prel.
Rathfarnham.....	1937 June, July.
San Fernando.....	1937 May, June.
Saint Louis.....	1936 November-1937 May.
Strasbourg.....	1937 June, July. Bull.d'ech. 5,6.
Sydney.....	1937 August, September.
Tananarive.....	1937 January-March.
Tiflis.....	1933 January-December.
Tortosa.....	1936 January-June.
Tyosen.....	1934 January-December.
Uccle.....	1937 April-June.
U.S.C. & G.S. (Washington).....	1937 July 22,26(2), Sept.1,3,8,15.
Venezia.....	1933 October-1934 June.
Wellington & Aux.Stations.....	1937 July, August Preliminary.
Wien.....	1936 July 13-December 29.

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The Intermediate Earthquake of June
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Riverina 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	s:1	$\frac{r}{T_0^2}$
A ^N (1)	215	8.2	4.1	0.019
(3)	88	12.0	4.1	0.010
A ^E (1)	224	8.7	4.5	0.018
(3)	77	9.5	5.2	0.011
A ^Z (2)	43	5.3	3.4	0.09

No.	Date	Phase	Time			Per	Amplitude.			Δ	Remarks
			Greenwich)				A _N	A _E	A _Z		
			h.	m.	s.	s.	mm	mm	mm	km.	
135	1937 Nov. 2	eE	11	06.1							Masked by micro-seisms.
		eE		08.7		11					
		eL		10.0		21					
		ME		11 13		21		1.1			
		MN		11 45		19	0.8				
		F	11	50							
136	" 4	eN	22	57.6							A few small waves.
		eL	23	00.6		14					
		F	23	10							
137	" 5	eNE	09	36.8		2					No definite phases.
		eE		43.5		6					
		eE		47.9		5					
		e(L)		52.9		21					
		F	10	10							
138	" 6	e?E	07	10.0							Very small, short period waves.
		eN		11 32		2					
		iNE		11 39		2	+0.4	-0.4			
		F	07	15							
139	" 13	eN	09	50 34		3					Readings from Mainka. Wiechert out of commission from 3h 46m to 14h 29m.
		eN		51 47		3					
		e(S)E		56 07		8					
		ME		56 37		8		0.5			
		eL	10	01.6		23					
		MN		04 33		17	1.2				
		ME		06 09		17		1.2			
		F	11	15							
140	" 13	e?N	17	56.6							Early phases masked by micro-seisms.
		eE		59.6							
		eL	18	06.4		24					
		MN		08 00		16	0.9				
		ME		08 05		18		1.0			
		F	19	00							
141	" 14	eNEZ	11	15.6							
		iE		22 04		7		-1.8			
		iN		24 50		6	+1.8				
		iE		26 22		7		-3.0			
		iNE		30 51		12	+2.1	-2.8			
		eLQ		32.6		43					
		eLRN		40.2		29					
		ME		43 05		21		0.7			
		MN		44 12		23	0.9				
		F	12	55							
142	" 15	e?E	06	32.7							
		eN		38.2		7					
		eL		40.2		18					
		MN		41 13		14	0.2				
		ME		41 54		12		0.2			
		F	07	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.) (NS, EW.)
2. Weichert 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	s:1	$\frac{F}{T_0^2}$
A ^N (1)	214	8.5	4.6	0.023
(3)	88	12.0	4.2	0.010
A ^E (1)	230	8.8	4.8	0.019
(3)	80	9.4	5.1	0.012
A ^Z (2)	62	5.2	2.7	0.08

No.	Date	Phase	Time <i>Greenwich</i>	Per s.	Amplitude.			Δ km.	Remarks
					A _N mm	A _E mm	A _Z mm		
157	1937 Dec. 2	eN	16 38.9	14	0.6	0.6		Earlier phases obscured by micro-seisms.	
		eL	40.7	17					
		ME	43 35	17					
		MN	44 35	17					
		F	17 10						
158	" 5	e(P)E	15 24 10		1.3	1.4			
		e(S)N	28 33	10					
		eE	28 53	10					
		eL	31.4	22					
		MN	32 46	15					
		ME	33 38	18					
159	" 8	e?	08 33.6		0.5	0.8			
		eNE	42 39	12					
		eNE	51 30	19					
		eL	57.9	22					
		ME	09 05 02	21					
		MN	07 13	19					
160	" 12	eE	08 03 08	7	0.8	0.6			
		eL	09.5	27					
		MN	10 55	15					
		ME	11 16	17					
		F	09 00						
160	" 8	e?E	16 51 06		1.2	1.2	3065 (27'6)		
		ePN	51 10	3					
		iSE	55 54	7					
		iSN	55 58	6					
		mN	56 26	7					
		ME	56 30	7					
		eL	59.5	17					
		ME	17 01 09	12					
		MN	01 18	12					
		F	17 45						
		161	" 12	eE					08 03 08
eL	09.5			27					
MN	10 55			15					
ME	11 16			17					
162	" 12	F	09 00		0.4	0.5			
		eE	10 39.8						
		eL	45.6	17					
		ME	47 37	15					
		MN	50 15	13					
F	11 10								

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RIVERVIEW COLLEGE OBSERVATORY.

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time			Per	Amplitude.			Δ	Remarks
			Greenwich)				A _N	A _E	A _Z		
			h.	m.	s.	s.	mm	mm	mm	km.	
163	1937 Dec.13	eE	19	07	8						Early phases obscured by microseisms.
		eN		12	48	8					
		eE		13	03	8					
		eL		21	9	25					
		MN		28	41	17	0.7				
		ME		29	58	20		0.6			
		F	20	20							
164	" 16	eE	08	37.2		2					No well defined phases. Times approx. only. No time marks. Small waves- no definite phases. Times approximate only.
		eN		37.3		2					
		MN		46.5		12	0.3				
		F	09	10							
165	" 16	e?N	18	42.1							
		eN		47.6		2					
		ME		52.1		7		0.3			
		F	19	00							
166	" 17	eN	04	45.1							
		eL		51.8		17					
		MN		54	52	10	0.2				
		ME		57	38	11		0.3			
		F	05	35							
167	" 17	eN	09	43.0							
		eN		51.4							
		eL	10	02.1		20					
		ME		04	47	20		0.2			
		MN		07	05	17	0.2				
		F	10	35							
168	" 18	eL	02	47.2		23					
		MN		49	00	17	0.2				
		F	03	05							
169	" 20	e(P) _N	03	41	16	2?					
		e(S) _N		45	52	7					
		eE		46	05	5					
		iN		46	11	7	+1.3				
		eL		48.8		17					
		ME		51	35	12		2.0			
		MN		51	37	13	0.5				
		F	04	30							
170	" 20	e(P) _Z	22	38	34	1?					
		eNE		38	35	?					
		iNE		42	00	3	+3.5	-2.9			
		iN		42	05	4	+4.1				
		iN		42	36	4	+6.5				
		iZ		42	52	4			-1.4		
		ME		43	03	4		9.6			
		mN		43	05	4	11.0				
		mZ		43	43	4			1.5		
		LE		44.0		8					
		ME		45	15	7		7.8			
		MZ		45	56	5			1.6		
		MN		46	49	6	9.7				
		F	23	30							
171	" 22	eN	04	10.?							
		eL		28.3		27					
		MN		34	54	17	0.2				
		ME		36	24	17		0.3			
		F	05	10							

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY.

SYDNEY, N.S.W

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time			Per	Amplitude.			Δ	Remarks
			Greenwich)				A _N	A _E	A _Z		
			h.	m.	s.	s.	mm	mm	mm	km.	
172	1937 Dec. 23	e(PP) _E	13	37	56						
		iScPcSE		43	41	10		-2.5			
		iScPcPcSE		44	53	12		+1.7			
		iPSE		47	38	15		+3.5			
		ME		47	51	17			4.4		
		SSE		54	29	22			3.9		
		SSSE		59	06	15			2.7		
		eLQN	14	05.7		33					
		eLRE		11.1		29					
		eLZ		12.9		25					
		ME ₁		13	14	24			2.5		
		MN		17	12	19	1.8				
		MZ		26	07	16				0.1	
		ME ₂		26	27	17			3.9		
		W ₂ series		ME	15	30	12	20		1.1	
		F	16	30							
173	" 25	e? _N	01	21.5							Preliminaries masked by micro- seisms. Phases hard to identify
		eNE		22.1							
		eNE		26.9	9						
		MN		28	38	5	5.2				
174	" 25	ME		28	57	7		4.9			
		eNE	21	22.4		13					
175	" 28	eL		29.0		17					
		F	21	50							
176	" 28	eN	03	16.6		1					phases hard to identify.
		iE		21	34	5		-1.0			
		iN		24	12	5	+0.8				
		MN		28	11	5	3.1				
		ME		30	44	6		4.8			
177	" 31	F	04	00							
		eN	07	31.7							
		eL		37.8		21					
		MN		42	43	17	0.2				
177	" 31	ME		45	42	17		0.2			
		F	08	05							
		e? _E	18	16.9							
		eL		39.7		21					
		MN		47	44	14	0.2				
ME		48	28	14			0.2				
F	19	15									
-----oOo-----											
<u>ERRATA.</u>											
130	Oct. 23	for	eP	17	58	14					
			eS	18	02	24					
read			eP	16	58	14					
			eS	17	02	24					
-----oOoe-----											

 WM. O'LEARY, S.J.
 Director.