R I V E R V I E W C O L L E G E O B S E R V A T O R Y
S Y D N E Y, N. S. W.

PROVISIONAL BULLETIN No. 1.
1931, January.

				h m s G.M.T.	
1931	Jan. 2		eP	10 08 40	Δ, 10,100? km.
			i?	17 47	90.9°
			i?	23 42	
			L	39 to 46	Swelling uniformly.
			M	46 to 56	do. do.
	" 5		iP	18 11 31	Δ, 1880 km.
			S	14 40	16.9°
			L	16 26	
			MN	18 00	
			ME	19 00	
	" 7		eP?	12 46 49	Perhaps earlier.
			S?	51 05	Δ, 2760? km.
			M_1	56 00	
			M_2	13 00 00	
	" 8		P	03 17 25	Δ, 2560? km.
			S	21 27	
			L	23.7	
			M	27 00	
	" 10		P	21 30 07	Δ, 2760? km.
			S	34 22	
			SR_3?	36 07	
			L	37.6	
			M	40.6	
	" 12		e	20 56.8	Lost in micros.
			eL	21 17.0	
	" 16		e	20 14.4	Distant.
			M_1	21 00	
			M_2	28 00	
	" 17		eL	03 41.7	"
			M	51 00	
	" 18		e	13 28 08	Small irregular waves.
			M	40.7	
	" 18		e	15 13.8 to 31.0	do. do. do.
	" 18		e	20 13.4	Small.
			M	22 00	
	" 19		iP	12 31 00	Δ, 3960 km.
		N	iS	36 34	
			M	42.6	
			P	12 31 01	
		E	iS	36 34	
			M	44	
		Z	iP	12 31 02	
			M	41 to 43.3	
	" 19		iP	16 00 38	Δ, 2980? km.
			eS	05.1	Not very definite.
		N	L	06 54	L begins.
			M_1	09.2	
			M_2	11.6	
			P	16 00 45	
		E	eS	05 20	
			M_1	09.4	
			M_2	12	
		Z	iP	16 00 41	
			M	11.1	

(Continued on next sheet.)

For Mexican Eq. Jan.15 2h. see next sheet.

R I V E R V I E W C O L L E G E O B S E R V A T O R Y
S Y D N E Y, N. S. W.

PROVISIONAL BULLETIN No. 1.
(Continued.)

				h	m	s	
1931	Jan.20	N	i	23	56	29	Small.
			L	00	09.1		L begins.
			M		14		
		E	i	23	56	22	Small.
			i		59	31	do.
			S?		59	51	First definite waves.
			?	00	03.2		
	" 27		eP_N	20	20	56	Δ, 8900 km.
			iP_Z		21	22	
			iS		31	23	
			i_N		36	11	
			L		47.4		
			M		57		
	" 28	N	iP	21	32	23	Δ, 4960 km.
			iS		38	48	Increased amplitudes
			S_cS		42	29	34m 8s tc 35.6m,
			L		45	52	Irregular. 38 58 to 40.3,
			M		51.8		42 29 to 44.
		E	iP	21	32	29	
			iS		39	06	
			SR_1?		42	21	
			L (SR_3?)		44.1		
			M		51.6		
		Z	iP	21	32	23	
			M_1		46.3		
			M_2		49		
	" 29		eL	00	58	00	Small.
			M	01	04	00	

Addition to 1930 November & December Bulletins.

Nov. 26	e(P?)	05	05	43
	eL		10.7	
	M		12	25
Dec. 22	e	00	27.5	
	eL		44.4	
	M		49	23

1931, February 2. WM. O'LEARY S.J.

Jan.15	E	P	02	10	36		Disturbed by tremors, perhaps earlier.
		i?		13	02		
		i?		13	28		
		iPR2?		17	38		
		iPR_3		26	33	to	Group large waves.
		i		22	00		
		PPPS?		26	46		2 long waves, large amplitude.
		SR_1?		30	57		" " " "
		$SR_3?_N$		38	.6		" "
		eL		44			
				45			" wave " "
		M_1 (L?)		50			
		M_2		59			
	" 15	e	21	29	.6		Perhaps earlier. Small.
		eL		36	.4		
		M		39	.7		
	" 15	P	22	49	24		Δ, 32.3°
		S		54	35		
		L	23	00	00		
		M		02	.6		

R I V E R V I E W C O L L E G E O B S E R V A T O R Y
S Y D N E Y, N. S. W.

PROVISIONAL BULLETIN No. 2.
1931, February.

				h m s	Δ km.	
1931	Feb. 2		iP	22 51 44		Disastrous Napier Eq.
			iS	55 41		
	" 3			06 43 to 45		A few waves,
	" 3		iP	08 46 07		Aftershock of Napier EQ.
			iS	50 07		
			eL	52.1		
			M	54		
	" 3			12 43 to 49		Long shallow waves.
	" 3			15 57		A few long waves. Small.
	" 4		eM	04 56.7		Prelims. lost in micros.
	" 5		iP	09 01 57	2560	Large micros render doubtful
			iS	05 58	(23°)	Large amplitudes.
			L	08.0		Trailing off into M.
	" 8		iP	01 48 38	2700	iP much larger on E than N.
			i	48 42	(24°3)	
			iS	52 50		iS " " " N " E.
			M	56.7		
	" 8		e	10 15 00		Small.
			M?	23 00		
	" 10		P	06 43 50	5890	
		N	iS	51 16	(53°)	
			L	59.1		
			M	07 05 00		
			iP	06 43 47		P strongest on E. Comp.
			iS	51 18		
		E	L	59.0		
			M	07 06.8		
			P	06 43 50		
		Z	iS	51 20		
			L	07 03.1		
			M	06 to 10		
	" 10		L	17 33		Small.
			M	36.5		
	" 11			04 09		A few irregular waves.
	" 11		P	17 07 31	2780	
		N	iS	11 47	(25°)	
			L	13.0		
			M	15.0		
			iP	17 07 28		E record stronger for all
		E	iS	11 48		phases.
			L	13.0		
			M	15.0		
		Z	P	17 07 41		No waves appear after P.
	" 12		eP_Z	05 53 21	5760?	
			i	53 31	(51°8)	
			iS?	06 00 44		iS seems quite clear but
		N	L	11.7		L and M much too late.
			M	16.6		
		E	L	16.0		
			M	21.0		
	" 13		P	01 32 07	23°5	Off coast of New Zealand.
			S	36 14		P on E much greater than N.
			L	38.0		S " N " " " E.
			M	40.6		

(Continued on next sheet.)

R I V E R V I E W C O L L E G E O B S E R V A T O R Y
S Y D N E Y, N. S. W.

PROVISIONAL BULLETIN No. 2.
(Continued.)

				h m s	Δ km.	
1931	Feb. 14		eP_Z	14 08 06	6030	
		E	iS	14 56	(54°3)	
			M	28 to 31		
		N	iS	15 44		
			L	22.8		
			M	28		
	" 16		e	19 10.4		Small.
			eL	27.1		
	" 18		eL	19 37.0		"
	" 19		e	11 54.1		
			eL	57.7		
			M	58 16		
	" 19		e	21 42.5		
			eL	48.1		
			M	49 52		
	" 19		e_Z	17 49 50	5870	Times and character of all
			iS?	57 .8	(52°8)	three records resemble those
			MN	18 11		of Feb. 10.
			ME	13		
			MZ_1	12 to 15		
			MZ_2	18		
	" 20		iP	05 44 56	74°8	Direction N. Japan?
			iS	54 27		P and S very sharp, following phases quite small.
	" 22		e	21 40 25		Disturbed by micros. Small.
			L	48.7		
			M	51.7		
	" 23		e	04 07 00		Very small.
	" 24		iP?	17 41 33	3160?	
			L	49.5		
			M	52		
	" 25		L	21 10.2		Ps too indefinite.
			M	12.2		
	" 26		e?	18 53.2		
			L	57.7		
			M	59		
	" 27		iP	09 45 34	5800	
			iS?	51 56		Early.
			iS_cS	55 18		strong on E.
			L	10 01.7		Clear on N and V.
			M	05.9		

1931, February 3.

WM. O'LEARY S.J.

R I V E R V I E W C O L L E G E O B S E R V A T O R Y
S Y D N E Y, N. S. W.

PROVISIONAL BULLETIN No.3.
1931, March.

1931		h m s	Ampl. m/m.	Δ Km.	
Mar. 2	iP	02 23 12	2.5	2400	NE. Dilatation.
	iS	27 03	16.5	(21.6°)	
	L	29.00	9.0		
	M	31.5	22.0		
" 3	e	19 13.7			P lost in micros.
	i	15 24	0.5		
	M	19 13	1.0		
" 5	M	00 30 to 35	0.5		" " " "
" 5	e	22 02.8			Very small.
	M	10 to 15	0.5		
" 7		02 19 to 23			Small irregular wawes.
" 7	iP	10 05 59	0.25	3040	Well marked.
	eS	10 14	0.75	(27.4°)	
	iS	10 32	1.5		
	L	14.0			
	M	16.7	5.0		
" 7	P_Z	18 23 36	0.5	2940?	
	eS?	28.0	0.5		
	L	34.2			
" 7	e	23 30.9			Disturbed by micros.
	M	32 to 37	0.6		Small.
" 8	eL	02 56 to 03 55			Long shallow waves. Jugo-Slavia.
" 8	eP_Z	06 02 19	0.5	2830	
	eS	06 42	0.5	(25.5°)	
	i	06 54	1.8		
	eL	09.8			
	M	13.5	1.0		
" 8 N	iP	11 55 31	0.5	2360?	
	i?	59 37	1.8		
E	iP	11 55 24	1.0		
	i?	56 04	2.0		
	iP_cP?	59 25	2.2		
	eL	12 01.2			
	M	03.4	4.0		
" 9	P	04 00 42	0.5		May be earlier, in hour mark.
	iS	10 03	1.25		
	eL	25.4			
	M	29.7	1.5		
	W_2	06 23.2	0.5		
" 11	P	06 10 50	0.4	1160	
	S	13 40	1.0	(15°)	
	M	16 48	5.0		
" 11	ePR_3?	12 38 14		6260?	Δ very doubtful.
	iS_cS?	44 26	1.0		
	iSR_1?	46 22	1.0		
	L	52 .2			
	M	57 14	1.0		
" 12	eL	11 06.2			
	M	13 14	0.5		
" 12		21 50 to 53			A few small waves
" 13 N	eP	21 14 31	0.5	?	Near shock.
	iS?	14 48	1.5		
	M_1	15v14	1.0		
	M_2	17 14	0.5		
E	eP	21 14 26	0.4		

(Continued on next sheet.)

R I V E R V I E W C O L L E G E O B S E R V A T O R Y
S Y D N E Y, N. S. W.

PROVISIONAL BULLETIN No.3
(Continued)

1931			H	m	s	Ampl. m/m.	Δ Km.	
Mar.13	Z	eP	21	14	36	0.2		
		M		16	48	0.2		
" 14		i?	14	05	28	1.0		Ps masked by micros.
		i		06	38	1.9		
		i		06	52	1.0		All very irregular waves.
		i		07	00	1.8		
		M		11	to 12	0.5		
" 18		i?	08	26	49	0.75		
		L		49.2				
		M_1	09	01	14	1.5		
		M_2		10	14	1.5		
		M_3		17	14	2.0		
" 18		iP	20	21	59	0.5	5000	
		iS		28	34	8.0	(45.)	
		iSR_1		32	01	15.0		
		iS_cS		32	05	25.0		L and M not definite on
		MZ		40	14	0.5		NS and EW components.
" 19		iP	06	35	06	0.7	6560	
		iS		43	10	2.0	(59°)	
		iS_cS?		44	57	6.0		
		i		45	26	5.0		Replicas of Preceding i.
		M		58	14	1.0		
" 28		P	12	45	09		3810	P in minute mark.
		iS		50	35	15.3	(34.3°)	
		iP_cS?		51	28	17.0		
	N	SR_1?		52	39	22.0		SR phases and L hard to
				53	12	39.0		identify.
				54	50	54.0		Banda Sea? Felt in
		M		56.4		103.0		Darwin, N. Australia.
		P	12	45	09			
		iS		50	37	16.5		
				52	10	26.5		
	E			53	10	40.0		
				54	17	48.5		
		M		56.4		89.0		
	Z	P	12	45	09			
		M		56.6		15.7		
" 31			17	01	to 15			Long shallow waves.

Additions to February Bulletin.

Feb. 4	e	14	14.1		
	eL		17.1		
	M		18.6		
" 27	e	01	54.2		Masked by micros.
	M	02	01.6		

1931, April 1.

WM. O'LEARY S.J.

RIVERVIEW COLLEGE OBSERVATORY

PROVISIONAL BULLETIN No.4.
1931, April.

Date	Phase	Time (G.M.T.)	Ampl. m/m	Δ Km.	Remarks.
		h m s			
1931 April 1	L	13 09.4			A few long waves.
" 3	iP	23 24 34	1.0	2540	
	eS_N	28 26	0.6	(22.75°)	
	iS_E	28 35	4.0		
	i_N	31 44	2.0		
	i_E	32 00	2.9		
	eL	33.1			
	i	34 00	3.3		
" 5	eP_Z	21 36 07	0.1	5400	
	i_N	37 21	1.6	(48.7°)	
	S	43 07	0.8		
" 6	iP	06 55 25	1.1	3010	
	iS	07 00 01	8.6	(27.1°)	
	iSR_2	01 47	13.8		
	L	03.8			
	MZ	05.8	0.8		
	MN	06.0	10.0		
" 9	e	19 10.0			No time marks.
	M	28	5.3		Guessed approximately.
" 11	e	15 09.3			
	S?	14 00	0.4		
	L	18.3			
	M	22 00	0.5		
" 12	P	02 05 07	1.9	2210	
	iS	08 43	6.5	(19.9°)	
	M	12 00	41.2		
" 16	e	12 12.6			
	M	24.0			
" 16	P_Z	21 40 52	0.3	3290	
	iS_N	45 44	2.0	(29.6°)	
E	iSR_1	47 16	3.0		iSR_1 early?
	iSR_3	48 06	3.0		
	iL	49 44	3.5		
	M	52.3	3.5		
" 17	P	03 53 18	0.2	276	Local shock.
	M	53 51	0.5		
" 17	e	05 35 56	0.3		
	L	39.6	0.5		
	M	42 00	1.0		
" 17	e	09 21 16	0.5		Short waves. No definite phases.
	M	25 00	1.8		

(Continued on next sheet.)

RIVERVIEW COLLEGE OBSERVATORY

PROVISIONAL BULLETIN No.4
(continued)

Date	Phase	Time (G.M.T.) h m s	Ampl. m/m.	Δ Km	Remarks.
1931 April 21	e	23 45 10	0.4		Emerging from micros.
	iS	49 15	2.0		Reported Hawkes Bay,
	L	52 00	3.5		New Zealand.
	M	53.2	6.0		Several Shocks?
	L	55.0	6.0		
	M	56.3	4.5		
	L	00 18.2	2.5		
	M	21.3	3.0		
" 24	L	06 13.4	0.5		Masked by micros.
" 24	iP	17 28 00	1.0	3100	All waves very irreg-
	iPR_1	28 42	8.5	(27.9°)	ular. Many sharp
	iS	32 40	7.0		impulses. L & M small
	i	32 55	17.0		
	i	33 08	19.0		
	L	35.6	13.0		
" 25	e	20 09.4			
	eL	15.5			
	M	21 18	0.5		
" 25	L	08 45 00			
" 25	e	19 30.2			P lost in micros.
	M_1	36 00	0.75		
	M_2	37.4	0.5		
	M_3	41.4	0.75		
" 25	e	22 14.5	0.5		" " " "
	L	19.0	0.4		
	M_1	21.0	1.5		
	M_2	23.4	2.0		
" 27	L	18 01.4			Long shallow waves.
" 27	e	21 17.4	0.6		No definite phases.
" 28	e	07 33.2	0.5		" " "

May 4th, 1931.

WM. O'LEARY S.J.

RIVERVIEW COLLEGE OBSERVATORY

PROVISIONAL BULLETIN No.5
1931, May.

Date	Phase	Time (G.M.T.) h m s	Ampl. m/m.	Δ Km.	Remarks.
1931					
May 3	eM	02 40 51			
" 4	e	17 32 29			
	eL	41.9			
	M	44.5	0.3		
" 6	iP	14 59 51	1.4		Felt in Hawkes Bay, N.Z.
	S	15 03 51			
	L	05.6			
	M_1	08.3	2.8		
	M_2	11.2	2.0		
" 6	e(L?)	17 52			Very small.
" 6	eL	23 56.5			" "
	M	58 00	0.3		
" 7	eM	05 09.0			Disturbed by visitor.
" 10	eL	20 01.4	0.1		
	eM	03.3	0.1		
" 11	e?	03 55 16			
	M_1	44 50	0.2		
	M_2	50 50	0.2		
" 13	e?	04 28 07			Small.
	i?	29 30	0.5		
	M	33 50	0.5		
" 13	e	07 49 50			Very small.
" 13	e	08 18 50			" "
" 15	i	07 49 21	2.5		i's all sharp. Other waves small and masked by heavy micros.
	i	50 49	3.1		
	i	56 49	3.0		
" 16	P	21 14 49	0.3		
	S?	20 33	0.5		
	L?	24.6	1.0		
	M	27.1	2.5		
" 17	e	02 10.8			Masked by micros.
	L?	16.4			
	M	21 50	0.5		
" 20	e	02 48.3	0.4		
	L_1	03 16 to 23			Very long waves. Per. 40s
	L_2	33 to 41			" " " " 60
	M_1	53	0.3		
	M_2	59	0.7		
	M_3	04 02	1.1		
	M_4	05.5	1.5		
	M_5	10	0.8		
" 24	e	21 34.0			Masked by micros. Waves very irregular, no definite phases.
	i?	41 53	2.0		
" 30	e?	18 54.0			Masked by micros. i largest wave, subsequent waves sharp and very irregular
	i	55 30	2.5		

WM. O'LEARY S.J.

RIVERVIEW COLLEGE OBSERVATORY

PROVISIONAL BULLETIN No. 6
1931, June.

Date	Phase	Time (G.M.T.)	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks.
1931		h m s	mm.	mm.	mm.	Km.	
June 1	i	01 02 50	1.5	0.5			Obscured by micros.
	iL	04 50	1.5				
	ME	05 49		1.2			
" 1	eP	12 00 27	0.2		0.1	3320	
	e	04 58	0.5			(29°9)	
	eS	05 19	1.1				
	SR_1	07 01		1.0			
		07 26		1.8			
	SR_2	07 35		1.5			
	iSR_3	07 49	2.0				
	eL	08.9					
	ME	11 19		1.3			
	MN	11 40	1.7				
" 2	e	05 47.3		0.5			
	eL	49.3					
	MN	50 43	0.2				
	ME	52 06		0.2			
		5					
" 4	iP	09 26 47	1.5	1.5	1.1	3720	Region of New Guinea?
	iS	10 02 05		3.5		(33°5)	
	SR_1	04 03	1.6	1.0			
	SR_2	04 28		2.6			
	SR_3	04 48	1.9				L conspicuously absent
	ME_1	08 27		3.8			
	MN_1	08 48	4.7				
	MN_2, ME_2	10 00	4.2	5.0			
" 9	eP	13 59 20		0.4	0.1	3960	
	eS	04 52	0.3	1.0		(35°6)	
	eL	09.2					
	MN_1	11 48	2.0				
	ME_1	13 07		1.3			
	MN_2	14 10	2.5				
	ME_2	14 46		1.7			
" 9	eP	16 08 47	0.2	0.5		2860	
	eS	10 12	0.3	0.7		(25°7)	
	eL	13.3					
	MN_1	15 16	4.2				
	MZ	16 04			0.2		
	MN_2	16 18	6.5				
	ME	16 41		5.7			
" 11	e	18 52.8					Very small.
	eL	53.0					
	MN	55 16	0.2				
	ME	56 41		0.2			
" 13	e?	15 40 08		0.4			
	e	41 17		0.5			
	eS?	45 34		0.4			
	eL	48.6					
	MN_1	49 47	1.5				
	MN_2, ME_1	50 47	1.9	1.1			
	ME_2	52 13		1.5			

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY

PROVISIONAL BULLETIN No.6
1931, June.

Date	Phase	Time (G.M.T.)	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks.
1931		h m s	mm.	mm.	mm.	Km.	
June 13	e	16 36 45.					A few long waves.
	eL	40.0					
" 17	eP?	17 07 39	0.3			2900?	
	iS?	12 09	0.4	1.0			
	i	12 24	1.8	1.8			
		15 32		2.7			
	eL	17.1					
	ME	20 03		3.2			
" 22	eP?	15 36 16		0.5		2400?	Reported felt in Nuhaka and Morere Districts, New Zealand
	eSR_1?	40 53		0.4			
	eSR_2?	41 10	0.5				
	cL	42.4					
	MN	44 04	0.7				
	ME	44 24		0.8			
" 23	i	06 35 26	0.6	1.0			
	i	36 20		1.5			
	eL	52.0 to 07h. 07m.					Long shallow waves on N.
" 27	e?	18 10.8				2600?	
	e	12 46	0.6	0.5			
	eS?	14 47	0.4				
	eSR_1	15 47		0.3			
	eL	17.8					
	ME_1	19 15		1.1			
	MN	20 24	0.7				
	ME_2	22 30		2.2			

ERRATA May 1931 Bulletin.
May 17 e 02 10.8 should read 12 10.8

1931, July 1.

RIVERVIEW COLLEGE OBSERVATORY

PROVISIONAL BULLETIN No. 8.
1931, July.

Date	Phase	Time (G.M.T.)	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
1931		h m s	mm.	mm.	mm.	Km.	
July 12	iP	16 54 49	+0.5	-0.5	-0.3	5880	Dilatation.
	iS	17 02 14	-2.0	+1.2		(52°9)	Azimuth NW.
	PS	02 33	2.3	2.9			
		03 36	1.2	1.2			L hard to identify.
	MN	12 33	1.5				
	ME	14 29		1.2			
" 12	eL?	18 53.0					A few waves.
" 14	iP?	15 46 05	+0.9			2110?	
	iS	49 33		+1.1			
	eL	51.3					
	ME_1	52 44		2.0			
	MN	53 08	1.1				
	ME_2	55 49		2.8			
" 18	e	11 36 37	0.4	0.1	0.2		Very distant shock.
	e	47 30	0.3	0.5			
	e	49 05	0.5				
	eL	12 06.3					
" 20	iP	08 38 56		+1.0		3800?	
	m	39 19		2.2			
	ePR_1	40 07	0.7				
	eSR_1	46 19	0.6				
	eL	48.4					
	ME	50 12		0.4			
	MN	50 50	0.4				
" 21	iP	03 41 01	+3.0	+5.5	-1.0	2360	Dilatation.
	m	41 05	5.5	6.0	1.7	(21°2)	Azimuth NE.
	PR_1	41 27	0.7	2.5	0.3		0, 03 36 09
	PR_2	41 33	3.0	4.2	0.8		
	PR_3	41 39	3.8	4.5	0.3		
	m	41 55	3.5	4.8			
	iS	44 49	+3.2	+5.9	-0.7		
	iP_cP	44 57	+8.0	+18.6			
	SR_1	45 34	6.0	5.7	0.4		
	SR_2	45 52	14.1	11.0			
	eL	47.0					
	MN	48 15	5.8				Surface waves very small
	ME	48 26		3.0			on EW. component.

(Continued on next sheet.)

RIVERVIEW COLLEGE OBSERVATORY

PROVISIONAL BULLETIN No.8
1931, August.

Date	Phase	Time (G.M.T.)	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
1931		h m s	mm.	mm.	mm.	Km.	
Aug. 1	iPNE	19 19 09	0.5	0.7		2200	
	iPZ	19 16			0.4	(19°8)	
	iS	22 48	0.5				
	L	24.5					
	ME_1	26 12		5.8			
	MN_1	26 21	4.4				
	MN_2	27 22	7.0				
	ME_2	29 09		6.4			
" 3	e	09 15.2					Very small.
	L	18.5					
	MN	19 00	0.2				
" 6	e	15 34.1					
	eL	39.1					
	ME_1	40.7		0.6			
	MN_1	42.8	0.5				
	ME_2	43.8		0.6			
	MN_2	45.0	0.5				
" 7	iP	02 18 05	2.5			3600	
	PR_2	19 20	4.2	1.6		(32°4)	
	PR_3	19 26	4.3	1.5			
	iS	23 19	12.4	10.1			
	SR_1	25 17	3.3	6.5			
	SR_2	25 48	8.0				
	SR_3	25 59	8.5	10.7			
	MNE	30 00	36.8	23.6			MNE from Mainka.
	MZ	31.6			6.6		Weichert pens off paper.
" 7	e	07 36 26					A few irregular waves, lost in microseisms.
" 7	e	12 03.7					" " " " " "
" 8	e?	21 08.1					
	i	12 20	0.3	1.5			
	eL	14.3					
	MN	16 10	0.8				
	ME	16 27		0.7			
" 10	iP	09 48 43	0.5	0.7		3670	
	iS	52 32	1.4			(21°3)	
	eL	53 45					
	ME	55 59		5½			
	MN	56 25	5.1				
" 10	iP	21 32 31	0.4	0.4		11,100?	Perhaps eP earlier.
	iPS?	45 23	7.0	13.5		(99°9)	
	iSR_1	51 05	5.0	8.0			
	eL	59.4					
	MN_1	22 12 00	22.0				
	MN_2	14 20	38.3				
	ME_1	15 10		33.0			
	ME_2	17 53		34.0			

(Continued on next sheet.)

RIVERVIEW COLLEGE OBSERVATORY

PROVISIONAL BULLETIN No. 8
1931, August.

Date	Phase	Time (G.M.T.)	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
1931		h m s	mm.	mm.	mm.	Km.	
Aug.13	iP	XXXXX					
		22 14 45		0.7	0.2	2800	
	eS?	19 21		0.8		(25°2)	
	eL	22.0					
	MN	23 48	0.5				
	ME	24 00		2.5			
" 16	e?	12 44.0					A few waves, masked
	e(L?)	46.3					by microseisms.
	L	49 09	0.1				
" 18	e	14 45 12	0.5	0.2			Distant earthquake.
	eL	15 10.3					
	ME	16 00		0.6			
	MN	16 10	0.5				
" 22	e?	22 39 14	0.5				Small and obscured by
	e(S?)	43 06	1.0	1.0			microseisms.
	eL	48.5					No max. phases.
" 24	e	22 02.5	0.5				Early phases obscured
	L	24.2					by micros.
	MN_1	31 50	0.7				
	ME_1	34 00		1.3			
	ME_2	39 00		1.3			
	MN_2,MZ	39 20	0.6		0.1		
" 27	e	15 44 49	0.3				Reported from India.
	i	51 53		-1.6			
	i	54 23	+1.5	-5.0			
	eL	16 20.3					
	MN_1,MZ_1	25 17	2.8		0.3		
	ME_1	25 35		8.8			
	MN_2	28 41	4.1				
	ME_2,MZ_2	30 53		10.5	0.2		
	MN_3	36 59	1.7				
	ME_3	25 15		3.0			
. 31	e?	06 58.4					A few small waves
	MN	07 06 26	0.1				

September 3, 1931.

WM. O'LEARY S.J.
Director.

RIVERVIEW COLLEGE OBSERVATORY

PROVISIONAL BULLETIN No. 9
1931, September.

Date	Phase	Time (G.M.T.)	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
		h m s	mm.	mm.	mm.	Km.	
Sept. 6	e	20 58.8					Very small.
	M_1	21 02 00					
	M_2	04 00					
" 9	e	00 01 28					
	eS?	04 47	0.5				
	eL	06.5					
	MN	08 05	0.5				
" 9	iP_N	20 47 25	0.8				
	i_N	48 05	3.1				i_S sharply recorded.
	i_N	50 41	2.0				Waves after 57m. very
	i_{NE}	54 41	1.5	2.6			irregular and of small
	i_E	57 03		3.5			amplitude.
	eL?	21 07.1					
	MN	12 08	1.0				
" 15	iP?	21 12 35	-1.0	+1.7			New Zealand. IP largest
	M	18 04	0.7	0.6			wave. Rapid irregular waves with no definite phases between P & M.
" 15		21 29 0 to 30 0					Very rapid waves. Per. about 0.5sec. Local EQ.
" 16	L	04 35 00 to 38 00					A few long shallow waves.
" 19	P_Z	07 48 58			0.2	4778	
	i_N	49 34	0.3			(43°0)	
	iPR_1	50 44	0.4				
	S	55 18	0.2				
	M	08 06 04	0.5				
" 20	e	20 17.1					Small.
	M	18.6					
" 21	i?	02 40 26					P masked by micros.
	eL	55.1					Small.
" 21	e?	10 45.4					Small and disturbed
	M_1	11 05.6					by micros.
	M_2	08.1					
	M_3	13.7					
" 21	P	13 39 16		0.5	0.1	2520	New Zealand.
	iP	39 20	-2.0	+7.0	-1.9	(22°65)	Deep focus type in
	i_E	39 56		3.5			SE. sector.
	i_E	40 12		7.0			iSR_1 max. wave. Subseq-
	iS_E	43 16		3.0			uent waves small.
	i_E	44 11		5.5			
	iSR_1N	44 14	13.5				
" 22	e	09 19.4					
	M_1	26 04	0.3				Perhaps two shocks.
	M_2	39 00	0.5				
	M_3	44 00	0.7	1.3			
" 22		23 00 00					A few long waves. Small.
" 24		18 50 00					A few quick " "

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY

PROVISIONAL BULLETIN No. 9
1931, September

Date	Phase	Time (G.M.T.)	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks
1931		h m s	mm.	mm.	mm.	Km.	
Sept.25	iP	06 09 05		0.5		6000	
	iS	16 38	+6.0	+7.0		(54°)	
	iS_cS?	18 59	9.5				
	eMZ	29.0					
	M_1	30.5	31.0				
	M_2	33.0		29.0	1.7		
" 25	eP	16 40 25	0.5			2133	
	S?	44 05		0.7		(19°2)	
	SR_1?	44 39		1.0			
	M	48 0	2.5				
" 25	e	20 36.1					
	i?	41 05		1.5			
	eL	41.6					
	M	44 23	1.0	1.0			
" 28	MN	17 49 06					Small.
	ME	57 00					
" 29	e	05 28.5					" Lost in micros.
	?	32.1	0.5				
	M	43	0.5				
" 29	e	09 06.4					P_S lost in tremors.
	eL	09.1					
	ME	10 0		0.7			
Oct.3	eP	19 18 37				3210	
	iP	~~22~~ 40					Dilatation. Az.NNE. Solomon Is.
	iS	23 23					
" 3	iP	22 53 01				3060	Dilatation. Az.NNE. Aftershock.
	iS	57 35					
" 10	iP	00 ~~25~~ 27				3290	Probaby from same epi-centre as preceding Eqs
	iS	30 18					

ERRATA ... Bull. No.8,
Earthquake of Aug.10 9h. Δ 21°3 should read Δ 33°0

October 16, 1931.

WM. O'LEARY S.J.
Director.

RIVERVIEW COLLEGE OBSERVATORY

PROVISIONAL BULLETIN No.10
1931, October.

Date	Phase	Time (G.M.T.)	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks.
1931		h m s	mm.	mm.	mm.	Km.	
Oct, 3	iP	19 18 37	1.0	1.0		3190	After iS phases indef.-
	iS	23 23	54.5			(28°7)	inite. Max. ampl. 91mm
" 3	iP_Z?	21 23 26			1.4	3070	Preliminaries masked
	iS?	28 25	11.2	11.0		(27°6)	by previous shock.
" 3	eP_Z	22 00 28			0.2		
	MNZ	08.1	5.6		0.2		Long period waves.
" 3	iP	22 53 00	4.7	2.0	0.4	2890	
	i_Z	53 07			2.0	(26°0)	
	iS_N	57 27	21.5				
	iS_E	57 35		14.0			
	i_Z	57 41			0.7		
		59 40			1.4		Long waves, large ampl.
	MN	23 00.6	40.0				
	ME	01.5		44.0			
" 4	M	01 05 00	4.0	10.5			W series or aftershock?
" 4	06	06 39 to 07 15					Irregular waves.
" 4		13 35 to 14 00					Small irregular waves.
" 5	e	07 17 00					Masked by micros.
	M	19 00	0.7	1.7			
" 6	e	17 12.1					
	L	18					
" 6	eP	18 19 05	0.5		0.3	2990	
	iS	23 41	1.6	2.0		(26°9)	Following waves small.
" 7	e	15 54.3					
	M	16 00					Very small.
" 8	i	02 05 35	0.7	0.6			Followed by irregular
" 8	e	16 00 38					waves till 2 16. No
	e	04 30	0.5	0.5			definite phases.
	M	12.7	0.5				Very small.
" 8	e	17 01.6	0.2	0.2			
	i	05 35		0.6			Small.
	L	08.0					
	M	10					
" 8	eP	23 28 08				2940	
	S	32 38				(26°5)	Small.
	L	35.5					
" 9	iP_Z	02 50 59			0.3	2800	
	S	55 20	0.5			(25°2)	
	M	03 00	0.4				
" 10	iP	00 25 27	2.5	1.4		3220	
	iS	30 16	64.0			(29°0)	
	MZ	32 46					
	MNZ	33.5	70+		5.0		Very regular max.phase.
	ME	35		60+			

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY

PROVISIONAL BULLETIN No.10
1931, October.

Date	Phase	Time (G.M.T.)	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks.
1931		h m s	mm.	mm.	mm.	km.	
Oct.10	eP_Z	02 22 08			0.2		Confused by previous
	i_Z	22 36			0.9		shock on other records.
	i_Z	22 52			0.9		
		28					More pronounced phase.
	MZ	31.8			0.5		
" 10	iP	03 01 38	3.6			2930	
	iS	06 08	11.7	10.5		(26°4)	
	MZ	10 00			0.3		
" 10	e	05 37.8					
	M	40					
" 10	e	07 06.0					
	M	13 00	0.4				
	M	23 00	0.8				
" 12	P	00 43 50	0.4			2990	
	S	48 24	1.0			(26°9)	
" 12	iP	03 05 26	0.3			2830	
	iS	09 48	1.5	2.7		(25°5)	
	i	09 58	3.2	0.9			
	L	12.7					
" 12	P	10 24 08				3170	P in minute mark.
	S	28 52				(28°5)	
							All four records close-
" 12	iP	13 29 08	0.5			2900	ly alike.
	i	29 17	1.5	1.0		(26°1)	P sharp
	iS	33 36	2.2	3.5			S generally large
	L	36.4					following waves shall-
	M	38.5	1.1	1.7			ow.
" 13	eP	04 40 23	0.2			2900	
	iS	44 51	0.7			(26°1)	
	L	47.5					
" 13	e	10 58.7					Very small.
	L	11 02					
" 13	iP	11 21 47	1.0	0.9	0.3	2930	
	iS	26 17				(26°4)	Following waves small.
" 13	e_Z	20 15					No time marks.
	i_E	16.5		0.6			Pens not functioning
	i	21		0.6			on NS. comp.
	L	25					
	M	28		1.7			
" 17	i	15 51 31	0.6	0.8			Rest lost in micros.
" 18	eP_Z	00 44 16			0.2		
	i	44 52	2.5	1.5			
	S	48 32	1.4				
	iS	48 50	5.0	6.0			
	i	49 34	6.6				

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY

PROVISIONAL BULLETIN No.10
1931, October.

Date	Phase	Time (G.M.T.)	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks.
1931		h m s	mm.	mm.	mm.	Km.	
Oct.18	iP	04 35 32		3.5	0.2	2440	
	iE	37 55		9.5		(22°0)	
	i_S	39 27	12.8	15.2			i_S all very sharp, other waves shallow.
	i_N	42 10	18.5				Largest wave.
	i	45 31	7.5	15.5			
" 18	e	23 32 58					Small.
	eL	38.2					
	M	41					
" 22	e	01 33.5					Small.
	L	36					
" 23	iP	11 50 10	0.2	0.2		2420	
	iS	54 03	1.7	2.7		(21°8)	All sharp phases.
	i	54 36	4.7	4.6			Largest wave. Following shallow.
" 23	iP	18 51 24	0.3	0.7		2330	
	iS	55 10				(21°0)	S in minute mark. Following waves shallow.
" 23	iP	20 12 10				3030	P in min. mark.
	S	16 47	1.0	0.8		(27°3)	
	i	17 16	5.5	4.0			Largest wave on NS.
	L	20.8					
	M	24 10	1.6	4.0			
" 24	e	11 35 43	0.2	0.4		2490	
	iS?	39 41	1.1	0.6		(22°4)	
	L	41.4					
	M	43	1.8				
" 24		17 39 to 45					A few long waves.
" 26	E	12 16 40 to 47					Long shallow waves.
" 27	e	18 15 48					
	M	26	0.6	0.5			

WM. O'LEARY S.J.
Nov.9. 1931.

No.

PROVISIONAL BULLETIN No.11, 1931, November.

RIVERVIEW COLLEGE OBSERVATORY,

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (Greenwich)	Per	Amplitude. A_N	Amplitude. A_E	Amplitude. A_Z	Δ	Remarks.
	1931		h. m. s.	s.	mm.	mm.	mm.	km.	
	Nov. 1	iS?	19 13 14		0.8	0.2			P's lost in micros.
		M	20		0.1				Very small.
	" 2	e	01 19.9		0.1				
		L	26						
		M	32		0.2	0.3			
	" 2	iP	20 14 14		0.8	0.3	0.2	7490	
		iS	23 02		3.4	1.0		(67°4)	
		$i(PS)_E$	23 26			2.5			
		$i(S_cS)$	24 09		7.8	11.6			
		iSR_{2E}	30 47			6.8			
		L?	38						
		iM	42 48			7.0			
	" 2	P	17 08 36		0.4			2950	
		iP	48 40		1.1	0.3	0.1	(26°5)	
		S	13 12		0.7	1.1			
		iS_N	13 32		2.5				
		L	15.2						
		ME	20.5			30.8			
		MN	22		17.5				
	" 2	e	22 33 52						
		eS	38.5		0.2				
		L	42.5						
		M	45.7			1.3			
	" 4	e	17 45.4						
		iS?	47 09		1.0	1.0			Small.
		M	50		0.2				
	" 5	e	07 31.0						
		L	34.0						
	" 5		13 30						A few long waves.
	" 11	e	04 06.6						
		L	08.6						
	" 12	e	14						
		L	24.4						
		M	32.3						
			34.4		0.3				
	" 13	S?	13 22 29						
		M	27 06						Very small.
	" 16	e	03 59.2						
		i	04 01 25			0.3			
		m	01 54			0.6			
						1.0			
	" 16	e	09 33.7						
		L	36.7						
		MN	40 30		0.2				
		ME	42			0.2			
	" 16	L	14 52.0						A few long waves.

(Continued on next sheet)

RIVERVIEW COLLEGE OBSERVATORY,

SYDNEY, N.S.W.

SEISMOLOGICAL BULLETIN.

No.	Date	Phase	Time (Greenwich)	Per	Amplitude. A_N	Amplitude. A_E	Amplitude. A^Z	Δ	Remarks.
	1931		h. m. s.	s.	mm.	mm.	mm.	km.	
	Nov. 17	e	20 17.1						
		L	21						
		ME	23			0.3			
		MN	24		0.3				
	" 17	i	20 29 00						Rapid waves. Another shock? P's masked by microseisms,
	" 18	e	03 45.5						
		M	50		0.9	0.9			
	" 18	e	19 03						A few shallow long waves.
	" 20	iP	14 21 51		019	0.3		2880	
		iS	14 26 17			4.0		(25°9)	Following waves very irregular.
	" 21	e	06 50 17						
		M	54		0.5	0.4			
	" 21	e	12 27.5						
		i	31 47						
		L	33.1						
		M	35		0.5				
	" 21	eP	17 11 23					2890	
		iS	15 50		1.5	3.6		(26°0)	
		L	17.6						
		MN	19		1.0				
		MEZ	20			0.7	0.1		
	" 21	e	23 43.7						
		M	46						Very small.
	" 26	e	12 05.0						
		L	07.4						
		M	12		0.2	0.2			
	" 26	e	12 35 44						
		L	42						
		ME	45.0			0.9			
		MN	47.8		0.8				
	" 27		08 27						A few long waves.

1931, Dec. 7.

WM. O'LEARY S.J.
Director.

RIVERVIEW COLLEGE OBSERVATORY

PROVISIONAL BULLETIN No.12
1931, December.

Date	Phase	Time (G.M.T.)	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks.
1931		h m s	mm.	mm.	mm.	Km.	
Dec. 1	e	03 27 40		0.3			
	L	32.7					
	ME	37		1.3			
	MN	40	1.2				
" 1	e	18 16 50					
	eL	22.0					
	ME	25		1.0			
	MN	26	0.4				
" 2	P_Z	12 17 42			0.1	1920	Near shock.
	M	22	0.6	0.6	0.2	(17°3)	No sharp succeeding phases.
" 3	e	15 13.3	0.2				
	M	17 00	0.3				
" 6	iP	04 10 32	0.5	1.2			
	e	14 30	0.4				
	i	14 40	1.7	4.2			Largest wave.
	L	15.3					
	M	17	0.8				
" 7	iP	18 57 26	0.4	0.1		3100	
	iS	19 02 06	1.2	1.5		(27°9)	
	SR_1	03.8					
	L	06 00	0.6	2.8			
	M	08 00	1.0	2.0			
" 10	L?	08 08.1					
	M	11		0.3			
" 13	e	15 41 to 50					A few long waves.
" 15	e	11 46.6					A few small waves.
" 16	e	14 27					A few waves masked by strong microseisms.
" 18	P	09 58 39		0.3	0.1	6000	
	S	10 06 12		0.9		(54°0)	
	eL	16.3					
	L	18	1.1				
	M_1	22.5	1.7	0.5			
	M_2	25.5	2.2	0.5			

(Continued on next sheet)

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1931, December.

Date	Phase	Time (G.M.T.)	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Δ	Remarks.
1931		h m s	mm.	mm.	mm.	km.	
Dec.20	e	05 21.7					Small.
	M	24.7	0.2				
" 20	e	23 34.5 to 50					Small waves.
" 21	eP	10 19 28	0.2	0.2		2720	
	eS	23 41	0.4	0.4		(39°4)	
	m	23 48		0.8			
	L	26					
	M	28.5	0.3				
" 23	M	21 32 to 40					Small.
" 25	iP	03 09 04	1.5	0.5		2400	
	iS	12 56		2.2		(34°8)	
	i	13 00	2.5	9.6			
	L	14.2					
	i	16 13	6.1	11.5			
	M_1	17 54	9.7	7.7			
	M_2	18 24	7.3	11.6			
	M_3	19 56	5.7	8.8			
" 27	e	12 13.1					
	eL	18.4					
	M	22	0.4				
" 28	e	09 25.5					Small.
	M	35	0.4	0.2			
" 31	e	00 49.5					Very small.
	M	59.5	0.2				
" 31	e	04 19.1					Small and masked by microseisms.
	M	30.0	0.3	0.4			

1932, January 6.

WM. O'LEARY S.J.
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