



MELBOURNE OBSERVATORY

SOUTH YARRA S.E.1 VICTORIA

Seismological Bulletin No.37 Milne-Shaw Seismograph No.41 E-W Component.
 Period 12 secs. Damping ratio 20:1. Tilt 1" = 41.0mm.

Date 1937	Universal Time			Phase	A	t	Δ	Remarks
	h	m	s					
Jan. 3	20	49.3		e	vs			
		54 20		i	vs			
		54.5		m	2	11		
✓ 4	22	59 25		e				
	23	1 59		i	s			
		5 20		L				
		6.4		M1	20	9		
		7.5		M2	26	12		
→ 5	0	4 18		e	s			previous still recording
		7 49		iS				
		15 20		L				
		15.8		M	71	17		
→ 5	4	50 3		e	vs			may not be related to following
		54 10		e	vs			
		59 19		S				
	5	6 57		iL				
		7.3		M	83	18		
5	7	3 50		e	vs			
		6 5		L	s			
		9.3		M	6	13		
5	10	16 43		e	vs			
		29 10		i	s			
		32 27		L				
		33.4		M	14	13		
6	4	4 13		e	vs			
		8 17		L				
		13.3		M	6	11		
✓ 7	13	33 22		P	s			
		36 33		i				
		43 49		S			83.5	
		49 2		SS				
		55 41		i				
		57 50		L				
		13.9		M	674	23.5		
9	3	38 2		L				
		39 23		M	3	13		
15	5	25 18		i	vs			
		36.0		L				
		39.7		M	4	15		
22	4	39 35		e	ss			
		42 4		i				
		44 40		L?				
		49.5		M	16	10		

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Date 1937	Universal			Phase	A	t	Δ	Remarks
	h	m	s					
Jan. 23	11	2	33	P				
		5	30	i				
		7	43	S			30.1	
		9	50	L				
		15.2		M	92	13		
→25	6	40	31	P				
		42	30	PP				
		45	40	S			31.5	
		47	57	i				large amplitude
		49	2	L				
		51.5		M	440	12		off paper
→26	7	34	16	e	vs			obscured by micros
		40	34	e	s			
		44	20	L?				
		46.8		M	5	10		
30	6	40	33	i	s			phases not identified
		45	42	i	s			
		49	36	i				
Feb. 1	9	25	24	e	s			
		25	46	i	s			
		27	37	e	s			
		28	40	L				
		33.3		M	13	14		
1	20	36	29	e	vs			
		37	50	i	s			
		44.9		M	6	12		
→12	5	5	13	e	s			
		7	42	i				may be S
		11	9	i	s			
		13	50	i				may be L
		18.4		M	17	14		
→21	7	15	17	eP	s			
		25	14	S			78.0	
		30	10	SS				
		36	51	i				
		38	0	e				longer period
		41	18	L				
	8	0.2		M	73	18		little larger than earlier phases.
23	1	10	53	i	s			
		22	22	e	s			
		35.6		L?				
Mar. 5	13	29	12	e	vs			
		30	35	e	s			
		32	22	i	s			
		35.7		m	7	9		33m - 34m missing



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Date 1937	Universal			Phase	A	t	Δ	Remarks
	h	m	s					
Mar. 9	16	2	50	e	s			from distant source; all amplitudes small
		6	28	e	s			
		13	10	e	s			
		19	12	e				stronger
		41	20	L?				
13								record lost from 3h 10m to 14d 0h 10m.
14	1	59	43	i	s			
	2	3	14	L				
		5.3		M	8	12		
14	12	20	46	i	s			time marks indistinct; record partly fogged
		22	30	i	s			
		24	0	i	s			
		29	57	i	s			
		48.4		m	8	22		
15	6	11	10	i	s			
		20.7		L	s			
		25.5		m	4	20		
16	2	58	22	e	vs			
	3	1	33	L	s			
		2.2		m	4	17		
16	16	1	47	i	s			
		3	55	i	s			
		4	19	i	s			
		5	38	i	s			
16	22	45	12	i	s			
		48	30	i	s			
		50	50	i	s			
		54	35	L				
→23	1	7	37	i	s			
		8	40	i	s			
		13	15	e	s			
		24.5		L				
		29.0		M	7	20		

Small and insignificant disturbances recorded as follows:-

Jan. 2d 7h; 5d 19h; 21h; 8d 15h; 16d 20h; 17d 8h; 23d 9h; 26d 20h; 29d 17h,
30d 3h, 5h.

Feb. 3d 5h; 8d 9h; 19d 6h; 23d 19h; 25d 10h; 27d 15h, 21h.

Mar. 12d 9h; 16d 1h; 19d 4h, 19h.

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MELBOURNE OBSERVATORY

Seismological
Bulletin No. 38

SOUTH YARRA S.E.1 VICTORIA.
Milne-Shaw Seismograph No. 41 E-W Component,
Period 12 secs. Damping ratio 20:1. Tilt 1" = 44.2mm.

Date	Universal Time			Phase	A	t	Δ	Remarks
	h	m	s					
1937 Apr. 1	17	35	17	e	vs			
		38	37	e	vs			
		42	48	L				
		46.8		M	10	16		possibly another small disturbance in coda.
2	5	38	20	e	vs			
		41	29	i				
		44	50	i				remainder insignificant.
3	4	1	25	e	vs			
		3	55	i	vs			
		6	10	e				
		8	50	L				
		10.9		M	18	16		
5	7	4	0	P				
		5	33	PP				
		9	50	S			37.8	
		12	43	SS				
		14	22	L				
	18.8		M	259	12			
5	23	48	28	e	vs			
		50	23	e	s			
		53	21	e				
		55	25	i				
		57	37	L				
	59.1		M	16	10			
8	15	6	51	e	vs			
		6	54	i				
		7	29	i				
		9	4	e				
		9.6		m	9	10		
11	4	53	5	i				PP
		56	28	i				SP
		57	0	L				
		57.5		M	8	12		
11	6	36	45	e	vs			
		40.9		m	4	15		
16	3	8	14	P	*			
		8	20	i				much larger than P
		10	0	i				
		11	30	i				
		13	30	iS			32.5	
		15.4		SS				
	16.8		M	440	16		of paper on one side	
28	14	7	0	i	s			
		9	37	i	s			
		13	53	L				
		14.3		m	4	12		

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SOUTH YARRA S.E.1 VICTORIA.

Date	Time	Phase	A	t	Δ	Remarks
1937	h m s	i	μ	s	°	
Apr. 29	19 18 22	i				from distant source; all amplitudes small
	25 22	e				
	30 30	i				
	35 43	i				
	36 32	e				
	42 13	L				
	44.2	M	16	20		waves of longer period.
May 9	16 9 21	i	s			frequent interruptions in record due to faulty clock contact.
	20 54	i	vs			
	24 40	e	vs			
10	15 31 3	eP				24.9
	34 23	S				
	38 34	i				
	40 33	i				
12	2 52 18	e	vs			possible traces earlier.
	56 43	i	s			
	59 0	i	s			
	3 0 40	i				
	3 44	i				
	4 7	L?				
	8.2	M	17	10		
16	11 46 33	e	vs			
	48 13	i	s			
	51 48	i	s			
	56 23	i	s			
	58 43	L?				
	12 2.4	M	6	13		
23	6 23 23	e	vs			
	26 58	e	s			
	30 31	i	s			
31	15 42 23	i	vs			obscured by irregular micros.
	43 33	i	s			
	45 57	i	s			
	46 35	i	s			
	47 21	i	s			
	50.6	m	9	13		
June 3	0 14 9	i				
	16 13	L				
	18.7	M	8	12		
7	15 23 37	i	s			
	24 50	L				
	26.3	M	11	12		
14	12 36 33?	1P	vs			27.4?
	41 16	S				
	44 10	L				
	45.9	M	27	15		

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Universal

MELBOURNE OBSERVATORY
SOUTH YARRA S.E.1 VICTORIA.

Date	Time	Phase	A	t	Δ	Remarks
1937	h m s	i	μ	s	°	
June 14	13 17 5	i				previous still recording
	20 53	S				
	21 20	i				
	23 40	L				
	27.1	M	60	13		
17	19 54 57	e	s			local shock felt to East of Melbourne
	55 3	m	2	?		
19	17 12 53	i	s			
	17 13	i				
	20 32	i				
	20.7	m	5	12?		
21	14 13 32?	e	vs			
	15 15	i	s			
	16 45	i				
	17 27	L				
	18.0	M	10	8		
21	15 32 23	e	vs			from distant source; phases not identified.
	33 0	i				
	39 0	i				
	40 10	i	s			
	42 42	i				
	44 1	i				
	49 15	i				
	16 7 48	L				
	14.5	M	53	18		
28	19 40 22	e	vs			
	43 15	L				
	47.3	M	6	18		

Small and insignificant disturbances were recorded as follows:-

Apr. 21d 5h; 23d 14h; 24d 5h; 26d 11h.

May 1d 12h; 3d 1h, 9h; 5d 10h; 6d 8h; 11d 11h, 16h; 12d 10h, 13h; 25d 11h, 23h;
28d 3h.

June 1d 14h; 3d 1h; 8d 4h, 10h; 9d 19h; 13d 9h; 15d 10h, 22h; 28d 23h.

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Seismological MELBOURNE OBSERVATORY
 Bulletin No. 39 SOUTH YARRA S.E.1 VICTORIA.
 Period 12 secs. Damping ratio 20 : 1. Tilt 1" = 45° Om.

Date	Time			Phase	A t		Remarks.
	h	m	s		μ	s	
1957							
July 1	12	0	2	e	vs	probably P	Milne-Shaw Seismograph. E - W Component.
		8	15	S		60.2?	
		8	32	i			
		9	5	i			
		15	23	i			
		21	15	L			
		32.8		M	18	15	
2	2	43	32	P			
		48	31	S		30.1	
		50	24	SS			
		52	2	L			
		53.9		M	104	22	
4	6	1	38	P			Solomon Is. type
		6	55	S		32.7	interpretation difficult after JP
		7	32	i			
		8	11	e			longer period waves
		8	40	i			
		15.8		M	93	12	
4	6	50	25	S		P lost in previous	
		52	15	i		longer period waves	
		56.6		M	89	15	
4	7	36	5	e	s		obscured by previous
		37	18	i			
		39	42	L			
		45.5		M	121	13	
5	17	12	57	i	vs		possibly S
		19.3		L	vs		
		21.5		M	4	15	
10	20	57	57	e	vs		obscured by micros
		59	17	i	s		
	21	4	7	i	s		
		11	5	L			
		12.9		M	8	15	
13	10	59.6		e	vs		
	11	1	45	i	s		
		2.9		M	5	8	
19	3	5	15	eS			
		7	34	i	s		
		8	52	i	s		
		10	55	L			
		14.6		M	18	15	
19	9	33	3	i	s		
		36	38	eS			
		37	23	L			
		38.6		M	52	17	

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Date	Time	Phase	A	t	Δ	Remarks
1937	h m s		μ	s	°	
July 19	19 55 58	e				
	58 40	i				
	20 6 33	i				
	14.8	M	80	20		
22	17 37 12	i				probably SKS
	45 5	SS				
	49 56	SSS				
	52 5					
						two large waves of much longer period, followed by long train of slowly diminishing waves.
26	4 7 43	i				
	8 8	i				
	18 18	i				
	18 47	i				
	25 53	i				
	44 30	e				wave of long period; remainder insigni- ficant. probably S
26	20 17 59	i				
	23 52	i				
	28 40	L?				
30	13 58 8	i	vs			may be micro.
	14 9 13	e	vs			
	14 30	i				
	16 18	e				
	18 10	L				
	21.4	M	10	13		
31	20 57 33	i				
	57 57	i				
	21 12 53	L?				
	19.7	m	4	13		
Aug. 5	14 50 23	i				
	55 22					30.0
	56 38					
	57 38					
	58 43	L				
	15 40.4	M	24	10		
11	2 2 40	eL				deep focus type
	2 50					
	4 38	PP				
	5 32					
	7 3					
	8 12					34.7 largest amplitude in trace
	11 50					
	13 48	SS				L not evident; surface waves small
	20.5	m	31	10		
11	9 54 52	e	vs			
	10 0.3	m	5	10		

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Date	Time	Phase	A	t	Δ	Remarks
1937	h m s		μ	s	°	
Aug. 14	11 8.3	e	vs			
	11 4	i				
	14.5	M	5	17		
16	10 35 28	e				
	36 32	i				
	37 30	i				remainder insignificant.
18	5 10 28	e	vs			
	11 40	i				
	12 21	i				
	13 15	L				
	15.8	M	16	9.5		
20	12 9 6	P	+			
	9 33	i				
	11 16	PP				
	16 9	i				
	19 48	PS				55.2
	19 57					
	25 15	L				
	28.2	M	623	23		
23	16 45 17	e	vs			
	48 23	i				
	50 12	i				
	51 23	L				
	52.7	M	13	17		
24	18 35 47	IP?				
	42 10	S?				
	48 10	L				
	57.8	M	12	16		
31	2 35 35	e	vs			
	40 25	i				
	42 32	e				
	42 55	L1				
	44 48	L2				
	45.9	M	14	20		
31	14 37 5	i				
	50 5	L				
	15 2.8	M	4	13		
Sept. 1	8 44 52	eP				
	45 58	PP				
	49 42	S				28.7 larger than S
	50 22	i				
	52 5	L				
	55.4	M	103	19		
1	21 48 19	i	vs			48"
	52 13	i				
	55 32	K				
	57.4	M	29	20		

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MELBOURNE OBSERVATORY
SOUTH YARRA S.E.1 VICTORIA

Date	Time	Phase	A	t	Δ	Remarks
1937	h m s		μ	s	°	
Sept. 3-19	1 52	iP	s	s		
	4 18	i	s	s		
	6 5	1	s	s		
	12 10	SKS			87.2	
	12 37	3				
	12 57	PS				
	13 15	1				
	13 32	1				
	26 38	eL				
	28 22	L1				
		M1	182	30		at 30.1 m.
	33 22	L2				
	35.6	M2	69	20		
3 19	13 30	1				
	19 32	1				
	26 33	e				
	29 31	L1				
	30.1	M1	182	30		
	33 22	L2				
	35.6	M2	63	19		
4 6	21 13?	e	vs			
	22 17	s				
	26 12	S				
	33 12	L				
	36 40	i				
	38.3	M	44	17		
5 21	6 55	e	vs			
	9 49	1	s			
	10 9	L				
	12.2	M	19	8		
8 0	52 35	1	s			
	56 25	1	s			
	57 57	1	s			
	1 2 49	S				largest wave extrain.
	8 47	1	s			
	15 15	L				
	20.9	M	35	25		
15 12	33 53	P	-			
	35 4	1				
	38 42	e				
	39 57	1E			31.0	
	39 20	1				
	42 22	L				
	44.0	M	262	20		
16 0	27 0	e	s			
	47 17	L				
	51.2	M	6	18		

MELBOURNE OBSERVATORY
International SOUTH YARRA S.E.1 VICTORIA
Seismological
Centre

Seismological
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Universal

Date	Time	Phase	A	t	Δ	Remarks
1937	h m s		μ	s	°	
Sept 17	9 50 51	1	vs			
	53 48	e	s			
	58 26	e	s			
	10 6 35	1	s			
	8 6	1				
	13 36	L				
	19.9	M	100	18		
21	9 47 51	iP	vs			
	54 14	S			42.8	
	57 15	SS				
	59 10	L				irregular waves more regular waves
	10 4 40	L				
	5.9	M	22	22		
21	10 30 25	L				earlier phases masked by previous.
	33.1	M	6	13		
22	9 36 43	L				
	38.8	M	4	16		
23	13 12 30	e	vs			
	12 34	iP				
	12 41	1				
	15 0	1				
	17 38?	S				31.3? identification doubtful stronger than previous phase
	18 0	1				
	19 9	L				
	24.7	M	>500	15		
23	17 19.5	e	vs			
	32 57	i	s			
	37 45	L	s			
	50.1	M	4	13		
23	19 25 53	s	vs			
	27.5	L	vs			
	29.5	M	4	14		
24	8 40 0	1				
	43.8	M	4	13		
25	17 55 25	e	vs			
	56 57	e	s			
	58 17	1	s			
	59 10	1				
	18 1 10	LP				
	2.2	M	9	10		
27	9 3 10	P				
	3 20	1				
	4 47	PoP				
	5 10	PP				
	9 53	S			46.0	
	12 19	1				
	12 40	1				



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SOUTH YARRA S.E.1 VICTORIA

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Date	Time	Phase	A	t	Δ	Remarks
1937	h m s		μ	s		
Sept 27	15 0	1				(contd) three waves of long period
	17 32	L				
	20.3	M	100	11		
27	11 26 33					
	29 20	L1				
	33 5	L2				
	39.7	M	8	13		
30	21 42 32					
	46 50					
	51.6	L				
	54.6	M	14	37		

Small and insignificant disturbances were recorded as follows:-

- July 4d 10h; 11d 13h; 12d 0h; 14d 22h; 15d 2h; 26d 18h; 29d 17h.
- August 1d 11h; 3d 3h; 5d 0h; 6d 5h; 8d 15h; 10d 18h; 20d 6h; 26d 19h.
- Sept. 3d 21h; 8d 14h; 22d 3h; 23d 11h; 24d 5h, 6h, 17h; 28d 7h, 13h; 30d 4h.

Correction to Bulletin No.38.

May 9. For 16h read 15h.

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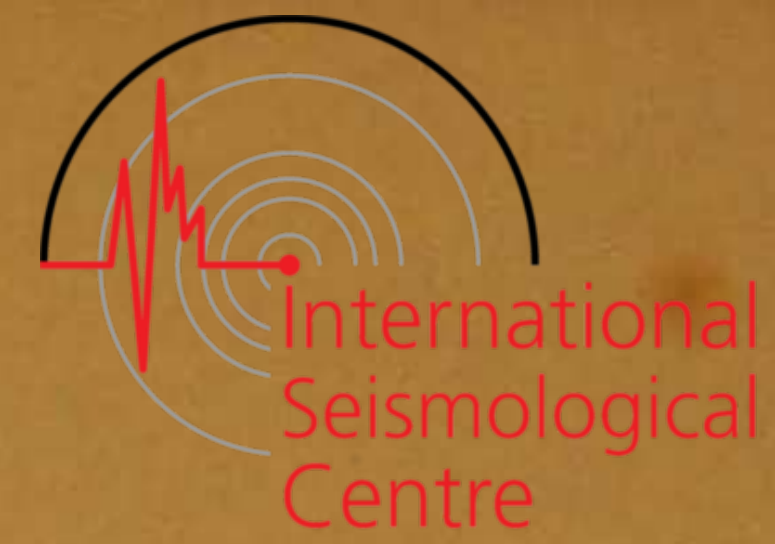
MELBOURNE OBSERVATORY
SOUTH YARRA S.E.1 VICTORIA.

Seismological
Bulletin No.40

Milne-Shaw Seismograph No.41 E-W Component.
Period 12 Secs. Damping ratio 20:1. Tilt 1" = 43.5mm.

Date	Time	Phase	A	t	Δ	Remarks.
1937	h m s		μ	s		
Oct. 1	14 59 7	e	vs			
	15 0 0	L				
	1.3	M	14	20		
1	19 23 53	i	vs			
	25 4	i	s			
	29 29	i				
	32 9	i				
	33 0	i				
	35 10	i				
	36 17	i				
	37 7	i				
	39.3	M	26	12		
4	7 48 44	i	s			
	58 43	i	s			
	8 0	L				
	2.8	M	5	13		
6	17 11 35	eP				uncertain
	16 37	iS				30.5?
	20 10	L				
	23.0	M	90	17		
9	18 3 8	e	vs			
	5 47	i	s			
	9 13	L				
	7.7	M	27	20		
11	17 32 5	i	s			
	32 57	i	s			
	33 28	L				remainder insignificant
11	22 4 13	e	vs			
	5.6	L	vs			
12	3 16 32	S				minute traces earlier waves of longer period
	17 0	mi				
	18 5	L				
	18.9	M	47	10		
17	5 8 3	e	vs			
	19.2	L	vs			
	20.3	M	5	17		
18						Instrument out of adjustment till beginning of 22d.
22	1 2 22	e	vs			
	2 58	i	vs			
	6 16	i	s			remainder insignificant.

MELBOURNE OBSERVATORY
SOUTH YARRA S.E.1 VICTORIA



MELBOURNE OBSERVATORY SOUTH YARRA S.E.1 VICTORIA

Table with columns: Date, Universal Time (h m s), Phase, Δ t Δ, Remarks. Contains seismic data for Oct 23, 25, 28 and Nov 2, 5, 13, 14.

MELBOURNE OBSERVATORY SOUTH YARRA S.E.1 VICTORIA

Table with columns: Date, Universal Time (h m s), Phase, Δ t Δ, Remarks. Contains seismic data for Nov 14, 15, 18, 23, 25, 27, 28, 30.



MELBOURNE OBSERVATORY SOUTH YARRA S.E.1 VICTORIA.

Seismological Bulletin No. 40 contd

Date	Universal Time			Phase	A	t	Remarks
	h	m	s				
1957 Dec. 2	16	34	55	i	vs		
		42.3		i	s		
		43.0		L			
		46.6		M	9	17	
5	15	24	50	e	vs		P?
		26	22	i	s		PPPP
		30	22	i			S?
		33	2	i			SS?
		34	7	L			
		35.9		M	30	17	
6	4	55	14	i	s		
		56	0	i	s		
	5	3	46	e	s		
		15.2		m	6	17	
8	8	42	48	e	s		phases hard to identify
		51	33	eS			
		58	15	e			
	9	2	10	e			few irregular waves of long period
		8	55	e			regular long waves
8	16	57	4	b i	s		
		59	7	e			
	17	1	4	L			
		3.0		M	16	12	
12	8	3	6	i	vs		
		4	15	i	s		
		8	23	i	s		
		8	35	i			
		11	13	i			
		12	37	L			
		15.1		M	18	15	
12	10	43	32	e	vs		
		48	0	L			
		50.2		M	6	17	
13	19	4	36	i	vs		
		13	16	i			
		30	24	L			
		35.7		M	10	19	
14							out of adjustment till 17d 23h 17m
20	3	48	50	i	s		minute traces earlier
		51	0	L			
		55.1		M	16	13	
20	22	38	53	i	s		
		40	32	i			
		42.5?		S			record underexposed

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Date	Universal Time			Phase	A	t
	h	m	s			
1957 Dec. 22	4	6	50?	e	s	
			30.5	L		
			33.0	M	11	27
23	13	34	28	e	vs	
		38	22	e		
		38	32	iPP		
		39	58	i		
		43	52	SKS		
		45	20	SKKS		
		48	27	PS		
		49	43	PPS		
		55	22	SS		
		59	15	SSS		
	14	6	17	L1		
		14	4	L2		
		21.4		M	69	18
24	7	42	18	i	vs	
		57	22	i	vs	
	8	17.5		L	vs	
		23		M	6	20
25	1	16	38	iP	vs	
		22	7	iS		34.5
		25	9	i		
		26	50?	L		
		29.9		M	14	8
25	21	22	33	i	s	
		29	28	e	s	
		30	18	i	s	
28	3	16	5	P	vs	
		21	32	S		34.2
		24	57	L		
		26	19	i		
		29.2		M	36	7
31	18	7	18	e	vs	
		12	2	e	vs	
		37.8		L	vs	

Small and Very small amplitudes denoted by s and vs respectively.

Small and insignificant disturbances recorded as follows:-

- Oct. 2d, 3h; 3d, 3h; 7d, 8h; 10d, 20h; 12d, 22h; 22d, 16h; 23d, 14h; 27d, 4h; 28d, 18h.
- Nov. 2d, 15h; 3d, 5h; 7d, 10, 11, 16h; 8d, 15h; 15d, 2h; 16d, 16h; 17d, 3h; 23d, 8h; 26d, 10h; 27d, 11.13h; 29d, 10h.
- Dec. 10d, 13h; 18d, 14h, 19h; 19d 23h;

J. M. Baldwin.