RESULTS

OF

OBSERVATIONS OF THE FIXED STARS

MADE WITH THE

MERIDIAN CIRCLE

AT THE

GOVERNMENT OBSERVATORY MADRAS

IN THE YEARS 1877, 1878, AND 1879

UNDER THE DIRECTION OF THE LATE

NORMAN ROBERT POGSON, C.I.E., F.R.A.S.

BY

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OFFICIATING GOVERNMENT ASTRONOMER AT MADRAS

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MADRAS

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1893

CONTENTS

INTRODUCTION.

The present volume contains the results of the observations made with the Madras Meridian Circle in the years 1877, 1878, and 1879. The number of observations dealt with is 9,637, of which 2,744 were made in 1877, 3,416 in 1878, and 3,477 in 1879. The observers were P. Ragoonathachari (P. R), who ceased to observe in 1878 and died in 1880, Mootoosawmy Pillai (M), and P. Ragavachari (P).

The great increase in the number of observations over previous years was, unfortunately, accompanied by a decrease in the accuracy of the reductions, which has caused a large amount of extra labour in preparing the present volume for publication, and an unduly large list of errata for the years 1877 and 1878. The work was also greatly increased by the circumstance that a large proportion of the stars were observed in these years for the first time and consequently the constants, which had previously been calculated only for approximate places, had to be completely revised, the precessions being recalculated with 5-figure instead of 4-figure logarithms. As an additional check the constants were compared, when possible, with those given in other catalogues. As a consequence of this extra work the publication of the volume has been somewhat delayed.

In the first volume of the present series it is mentioned that the latitude of the Observatory is uncertain to the extent of nearly 1″ and that it was proposed to make a fresh determination of the latitude from a discussion of all the observations of circumpolar stars. This cannot be done yet, but pending the final result of such a discussion it may be well to give the following results which indicate the probable amount of the correction that will have to be applied to the N. P. Ds. given in these volumes.

1. Determination made by Mr. G. P. Lennox Conyngham R.E. of the G. T. Survey of India, by Zenith Sector observations in January 1891

$$13^\circ\ 4'\ 8{\cdot}77 \pm 0{\cdot}067$$

2. From approximate reduction of observation of three circumpolar stars between 1862 and 1877.

(*a*)	From 110 observations of	Polaris		13° 4′ 8·64″
(*b*)	... 116 ...	...	51 Cephei	8·68
(*c*)	... 79 ...	...	R. P. L. 150	8·68

The assumed latitude is

$$13^\circ\ 4'\ 8{\cdot}1''$$

and hence it is probable that the correction to be applied to the printed observations of N. P. D. is approximately

$$-0''{\cdot}6$$

This determination has, of course, no claim to be considered a final one, and was, in fact, made simply for the purpose of comparing the result deducible from the circumpolar observations with the result obtained with the Zenith Sector. The large deviations of individual observations from the mean indicate, as might have been expected, that the correction for refraction is often very uncertain, especially in the observations made *sub polo*, and it seems doubtful whether a thoroughly satisfactory determination of latitude can be made by means of circumpolar stars at a place situated so near the equator as Madras is. The close agreement between the four determinations given is probably accidental and cannot be considered as a test of their accuracy.

Instrumental Corrections adopted in 1877.

Date.	Observer.	Index.	Run in 5′.	Clock Rate.	Inclination.	Collimation.	Meridian.	Determining Stars.	
		″	″	s	s	s	s		
Jan. 1	R	− 11·4	0·0	− 0·19	+ 0·09	+ 0·04	+ 0·43		
4	,,	− 10·3	0·0	− 0·18	0·00	+ 0·03	+ 0·40		
5	,,	− 12·3	0·0	− 0·10	+ 0·03	+ 0·03	+ 0·39	35 and 115 R. P. L.	
6	,,	− 12·3	0·0	− 0·03	+ 0·04	+ 0·04	+ 0·45		+0·42
8	,,	− 10·0	0·0	− 0·10	+ 0·07	+ 0·06	+ 0·56	43 and 116 R. P. L.	·49
10	,,	− 10·4	0·0	− 0·09	+ 0·07	+ 0·05	+ 0·54		·46
12	,,	− 10·5	0·0	0·00	+ 0·05	+ 0·03	+ 0·53		·43
13	,,	− 10·6	0·0	+ 0·04	+ 0·03	+ 0·02	+ 0·52	33 and 115 R. P. L.	·42
15	,,	− 10·4	0·0	+ 0·06	+ 0·04	+ 0·03	+ 0·40		·42
16	,,	− 10·7	0·0	+ 0·03	+ 0·08	+ 0·01	+ 0·35	35 and 111 R. P. L.	·42
17	,,	− 10·0	0·0	+ 0·04	+ 0·13	+ 0·03	+ 0·41		·44
18	,,	− 10·1	0·0	+ 0·05	+ 0·13	+ 0·03	+ 0·47	40 and 115 R. P. L.	
19	,,	− 11·6	0·0	0·00	+ 0·11	+ 0·04	+ 0·47		
22	,,	− 10·2	0·0	+ 0·01	+ 0·13	+ 0·05	+ 0·48		
23	,,	− 10·8	0·0	+ 0·06	+ 0·13	+ 0·03	+ 0·48		
24	,,	− 11·3	0·0	+ 0·04	+ 0·11	+ 0·02	+ 0·48		
25	,,	− 11·5	0·0	− 0·06	+ 0·13	+ 0·04	+ 0·48	40 R. P. L. & δ Urs. Min.	
26	,,	− 10·8	0·0	− 0·08	+ 0·12	+ 0·04	+ 0·46		
27	,,	− 11·0	0·0	− 0·03	+ 0·10	+ 0·01	+ 0·45	43 R. P. L. & δ Urs. Min.	
29	,,	− 11·5	0·0	− 0·06	+ 0·10	+ 0·02	+ 0·48		
30	,,	− 10·4	0·0	− 0·03	+ 0·13	+ 0·04	+ 0·50		
31	,,	− 10·9	0·0	+ 0·06	+ 0·11	+ 0·04	+ 0·51	49 and 143 R. P. L.	
Feb. 2	M	− 11·7	+ 0·4	+ 0·07	+ 0·20	+ 0·08	+ 0·51	40 R. P. L. & ε Urs. Min.	
3	,,	− 11·4	+ 0·4	0·00	+ 0·15	+ 0·05	+ 0·49		
5	,,	− 10·5	+ 0·4	+ 0·06	+ 0·25	+ 0·04	+ 0·46	40 R. P. L. & ε Urs. Min.	
6	,,	− 11·1	+ 0·4	+ 0·13	+ 0·23	+ 0·03	+ 0·45		
7	,,	− 10·2	+ 0·4	+ 0·06	+ 0·24	0·00	+ 0·45	40 R. P. L. & ε Urs. Min.	
8	,,	− 11·1	+ 0·4	+ 0·02	+ 0·21	0·00	+ 0·45		
9	,,	− 10·4	+ 0·4	+ 0·05	+ 0·19	0·00	+ 0·46		
10	,,	− 10·9	+ 0·4	0·00	+ 0·23	0·00	+ 0·46	40 and 131 R. P. L.	
12	,,	− 10·6	+ 0·4	+ 0·14	+ 0·22	+ 0·02	+ 0·46		
13	,,	− 10·7	+ 0·4	+ 0·08	+ 0·20	+ 0·02	+ 0·46		
14	,,	− 11·0	+ 0·4	− 0·09	+ 0·21	+ 0·01	+ 0·46	43 R. P. L. & ε Urs. Min.	
15	,,	− 10·9	+ 0·4	0·00	+ 0·19	+ 0·02	+ 0·47		
16	,,	− 11·2	+ 0·4	+ 0·03	+ 0·21	+ 0·02	+ 0·47	40 R. P. L. & δ Urs. Min.	
17	,,	− 10·9	+ 0·4	+ 0·02	+ 0·24	+ 0·03	+ 0·49		
19	,,	− 11·4	+ 0·4	+ 0·05	+ 0·24	+ 0·04	+ 0·52		
20	,,	− 10·3	+ 0·4	+ 0·06	+ 0·22	+ 0·02	+ 0·54	49 and 143 R. P. L.	
22	,,	− 10·5	+ 0·4	+ 0·06	+ 0·21	+ 0·04	+ 0·52	49 and 143 R. P. L.	
23	,,	− 11·4	+ 0·4	− 0·08	+ 0·22	+ 0·05	+ 0·50		
24	,,	− 10·8	+ 0·4	− 0·17	+ 0·24	+ 0·05	+ 0·49	51 Cephei and δ Urs. Min.	
26	,,	− 10·8	+ 0·4	− 0·10	+ 0·20	+ 0·02	+ 0·50		
27	,,	− 11·0	+ 0·4	+ 0·01	+ 0·20	+ 0·03	+ 0·50	51 Cephei and δ Urs. Min.	
28	,,	− 10·8	+ 0·4	+ 0·13	+ 0·21	+ 0·03	+ 0·50		
Mar. 15	R	− 9·1	+ 0·1	+ 0·05	+ 0·27	+ 0·04	+ 0·50	49 R. P. L. and 83 Cancri.	
16	,,	− 9·7	+ 0·1	− 0·06	+ 0·26	+ 0·02	+ 0·52		
17	,,	− 9·9	+ 0·1	− 0·06	+ 0·28	+ 0·04	+ 0·54		+0·50
19	,,	− 9·8	+ 0·1	− 0·03	+ 0·26	+ 0·03	+ 0·59	49 and 143 R. P. L.	·50
20	,,	− 9·5	+ 0·1	− 0·09	+ 0·28	+ 0·03	+ 0·57		·53
21	,,	− 9·9	+ 0·1	− 0·04	+ 0·27	+ 0·03	+ 0·54		·51
22	,,	− 10·2	+ 0·1	− 0·03	+ 0·26	+ 0·02	+ 0·52	60 and 150 R. P. L.	·51
23	,,	− 10·0	+ 0·1	− 0·07	+ 0·28	+ 0·04	+ 0·49		
24	,,	− 10·1	+ 0·1	− 0·32	+ 0·26	+ 0·03	+ 0·46	70 and 151 R. P. L.	
26	,,	− 10·2	+ 0·1	− 0·60	+ 0·30	+ 0·04	+ 0·52		+0·48
27	,,	− 9·4	+ 0·1	− 0·40	+ 0·28	+ 0·04	+ 0·55		·49
28	,,	− 9·7	+ 0·1	− 0·29	+ 0·29	+ 0·02	+ 0·53	60 and 143 R. P. L.	·50

Instrumental Corrections adopted in 1877.

Date.	Observer.	Index.	Run in 5′.	Clock Rate.	Inclination.	Collimation.	Meridian.	Determining Stars.	
		″	″	*s*	*s*	*s*	*s*		
Apl. 2	R	− 10·4	0·0	− 0·24	+ 0·30	+ 0·02	+ 0·50		+0·48
4	,,	− 9·7	0·0	− 0·20	+ 0·31	+ 0·03	+ 0·47	72 and 150 R. P. L.	
5	,,	− 10·1	0·0	− 0·16	+ 0·34	+ 0·02	+ 0·47		
7	,,	− 9·3	0·0	− 0·12	+ 0·35	+ 0·03	+ 0·46		
10	,,	− 8·4	0·0	− 0·15	+ 0·37	+ 0·01	+ 0·45	72 and 151 R. P. L.	
11	,,	− 8·6	0·0	− 0·10	+ 0·36	+ 0·03	+ 0·44		+0·46
12	,,	− 9·7	0·0	− 0·06	+ 0·35	+ 0·01	+ 0·43		·46
13	,,	− 8·8	0·0	− 0·12	+ 0·38	+ 0·02	+ 0·41		·47
14	,,	− 8·8	0·0	− 0·41	+ 0·37	+ 0·02	+ 0·40	70 and 150 R. P. L.	·4
16	,,	− 7·9	0·0	− 0·53	+ 0·37	+ 0·02	+ 0·43		·45
17	,,	− 8·1	0·0	− 0·32	+ 0·34	+ 0·01	+ 0·44	72 and 151 R. P. L.	
18	,,	− 8·0	0·0	− 0·32	+ 0·35	+ 0·01	+ 0·45		0·48
19	,,	− 8·2	0·0	− 0·37	+ 0·35	+ 0·01	+ 0·47		·51
20	,,	− 8·7	0·0	− 0·31	+ 0·36	+ 0·03	+ 0·48	89 and 158 R. P. L.	·55
21	,,	− 8·4	0·0	− 0·29	+ 0·36	+ 0·03	+ 0·48		·55
23	,,	− 7·9	0·0	− 0·30	+ 0·38	+ 0·03	+ 0·47		·55
26	,,	− 8·2	0·0	− 0·07	+ 0·40	+ 0·03	+ 0·46		·55
27	,,	− 8·0	0·0	− 0·12	+ 0·39	+ 0·04	+ 0·45	89 and 150 R. P. L.	·55
28	,,	− 7·3	0·0	− 0·20	+ 0·37	+ 0·02	+ 0·38		·55
30	,,	− 8·0	0·0	− 0·04	+ 0·38	+ 0·05	+ 0·23	103 and 14 R. P. L.	·55
May 2	M	− 7·8	− 0·2	− 0·19	+ 0·36	+ 0·01	+ 0·44		·54
3	,,	− 6·7	− 0·2	− 0·13	+ 0·48	+ 0·05	+ 0·54	9 R. P. L. and Polaris.	
4	,,	− 7·1	− 0·2	− 0·01	+ 0·41	+ 0·01	+ 0·52		
5	,,	− 7·0	− 0·2	− 0·11	+ 0·41	+ 0·01	+ 0·51	99 R. P. L. and Polaris.	
8	,,	− 6·4	− 0·2	− 0·15	+ 0·47	+ 0·05	+ 0·52		
9	,,	− 6·6	− 0·2	− 0·16	+ 0·44	+ 0·01	+ 0·52	99 R. P. L. and Polaris.	
10	,,	− 6·1	− 0·2	− 0·17	+ 0·41	+ 0·01	+ 0·51		
12	,,	− 5·8	− 0·2	− 0·14	+ 0·46	+ 0·03	+ 0·48		
14	,,	− 7·0	− 0·2	− 0·10	+ 0·43	0·00	+ 0·45		
21	,,		...	+ 1·04	+ 0·25	+ 0·01	+ 0·31	89 R. P. L. and Polaris.	+0·38
23	,,	+ 1·1	− 0·2	+ 0·95	+ 0·25	+ 0·04	+ 0·32	99 R. P. L. and Polaris.	
24	,,	+ 1·2	− 0·2	− 0·15	+ 0·27	+ 0·02	+ 0·34		
25	,,	+ 1·2	− 0·2	− 0·30	+ 0·30	+ 0·02	+ 0·35	99 R. P. L. and Polaris.	
26	,,	+ 0·3	− 0·2	− 0·34	+ 0·29	0·00	+ 0·37		
28	,,	+ 0·5	− 0·2	− 0·38	+ 0·34	0·00	+ 0·42		
29	,,	+ 0·8	− 0·2	− 0·38	+ 0·44	+ 0·05	+ 0·44	99 R. P. L. and Polaris.	
30	,,	− 0·8	− 0·2	− 0·28	+ 0·32	0·00	+ 0·39		
31	,,	− 0·3	− 0·2	− 0·49	+ 0·34	+ 0·01	+ 0·34	99 R. P. L. and Polaris.	
June 1	R	+ 0·7	− 0·1	− 0·55	+ 0·40	+ 0·03	+ 0·31	116 and 33 R. P. L.	+0·45
2	,,	+ 0·3	− 0·1	− 0·47	+ 0·37	+ 0·03	+ 0·32		·45
4	,,	+ 0·1	− 0·1	− 0·66	+ 0·39	+ 0·04	+ 0·34	108 and 12 R. P. L.	·40
5	,,	+ 0·7	− 0·1	− 0·61	+ 0·36	+ 0·02	+ 0·35		·40
6	,,	− 0·2	− 0·1	− 0·56	+ 0·37	+ 0·04	+ 0·36		·40
7	,,	− 0·3	− 0·1	− 0·57	+ 0·37	+ 0·02	+ 0·36		·40
9	,,	− 0·2	− 0·1	− 0·60	+ 0·35	+ 0·03	+ 0·38		·44
14	,,	+ 1·0	− 0·1	− 0·55	+ 0·34	+ 0·02	+ 0·42		
15	,,	+ 0·5	− 0·1	− 0·59	+ 0·35	+ 0·03	+ 0·43	ζ Draconis and 40 R. P. L.	
16	,,	+ 0·4	− 0·1	− 0·64	+ 0·38	+ 0·02	+ 0·43		
18	,,	− 0·4	− 0·1	− 0·67	+ 0·36	+ 0·03	+ 0·43		
20	,,	− 0·8	− 0·1	− 0·67	+ 0·39	+ 0·03	+ 0·44		
21	,,	− 1·2	− 0·1	− 0·04	+ 0·37	+ 0·02	+ 0·44		
22	,,	− 1·4	− 0·1	− 0·04	+ 0·39	+ 0·04	+ 0·44		
23	M	− 2·0	− 0·2	− 0·12	+ 0·50	+ 0·02	+ 0·44		
25	,,	− 2·9	− 0·2	− 0·15	+ 0·50	− 0·01	+ 0·45		
27	,,	− 3·7	− 0·2	− 0·15	+ 0·49	+ 0·01	+ 0·45		
28	,,	− 2·9	− 0·2	− 0·11	+ 0·51	+ 0·01	+ 0·45	δ Urs. Min. and 51 Cephei.	

May 21 Transit Clock cleaned
23 1st weight put on Clock shelf

May 15-18 Cyclone with
2·19 inches of rain

Instrumental Corrections adopted in 1877.

Date.	Observer.	Index.	Run in 5′.	Clock Rate.	Inclination.	Collimation.	Meridian.	Determining stars.
		″	″	s	s	s	s	
June 29	M	− 3·3	− 0·2	− 0·10	+ 0·48	0·00	+ 0·45	
30	„	− 3·5	− 0·2	− 0·10	+ 0·49	0·00	+ 0·45	
July 2	„	− 4·3	− 0·1	− 0·07	+ 0·50	+ 0·03	+ 0·44	
3	„	− 4·5	− 0·1	− 0·13	+ 0·49	0·00	+ 0·44	
4	„	− 4·2	− 0·1	− 0·08	+ 0·48	− 0·01	+ 0·44	δ Urs. Min. and 51 Cephei.
5	„	− 4·1	− 0·1	− 0·09	+ 0·47	− 0·03	+ 0·47	
6	„	− 4·7	− 0·1	− 0·03	+ 0·52	+ 0·04	+ 0·50	
7	„	− 4·9	− 0·1	+ 0·02	+ 0·48	+ 0·02	+ 0·53	
9	„	− 5·4	− 0·1	+ 0·02	+ 0·52	+ 0·04	+ 0·60	δ Urs. Min. & δ Ophiuchi.
10	„	− 4·5	− 0·1	0·00	+ 0·48	+ 0·01	+ 0·59	
11	„	− 4·8	− 0·1	− 0·10	+ 0·51	+ 0·02	+ 0·58	
13	„	− 5·4	− 0·1	+ 0·01	+ 0·45	0·00	+ 0·56	
14	„	− 5·6	− 0·1	+ 0·07	+ 0·42	+ 0·01	+ 0·55	
16	„	− 5·3	− 0·1	− 0·06	+ 0·47	+ 0·03	+ 0·53	
17	„	− 5·4	− 0·1	− 0·10	+ 0·43	0·00	+ 0·52	
18	„	− 6·2	− 0·1	+ 0·03	+ 0·40	− 0·01	+ 0·51	δ Urs. Min. and Antares.
19	„	− 5·5	− 0·1	+ 0·04	+ 0·37	− 0·03	+ 0·50	
20	„	− 4·9	− 0·1	− 0·01	+ 0·41	0·00	+ 0·50	
21	„	− 5·3	− 0·1	+ 0·01	+ 0·42	+ 0·01	+ 0·49	
23	„	− 4·9	− 0·1	+ 0·08	+ 0·45	− 0·01	+ 0·48	
30	„	− 5·2	− 0·1	+ 0·20	+ 0·40	+ 0·01	+ 0·44	
31	„	− 5·6	− 0·1	+ 0·20	+ 0·39	0·00	+ 0·44	
Aug. 3	R	− 4·8	0·0	+ 0·22	+ 0·37	+ 0·02	+ 0·43	
4	„	− 4·9	0·0	+ 0·23	+ 0·34	+ 0·02	+ 0·43	
7	„	− 4·5	0·0	+ 0·28	+ 0·40	+ 0·02	+ 0·40	143 R. P. L. and ε Scorpii.
8	„	− 5·2	0·0	+ 0·19	+ 0·35	+ 0·01	+ 0·42	
9	„	− 4·9	0·0	+ 0·25	+ 0·36	+ 0·02	+ 0·44	
10	M	− 5·7	0·0	+ 0·39	+ 0·42	+ 0·05	+ 0·45	
14	R	− 5·0	0·0	+ 0·18	+ 0·37	+ 0·02	+ 0·53	
15	„	− 5·4	0·0	+ 0·07	+ 0·36	+ 0·03	+ 0·55	
16	„	− 4·4	0·0	+ 0·12	+ 0·37	+ 0·03	+ 0·57	η Cygni and 40 R. P. L.
17	„	− 5·7	0·0	+ 0·19	+ 0·38	+ 0·03	+ 0·57	
20	„	− 5·5	0·0	+ 0·20	+ 0·37	+ 0·01	+ 0·57	
21	„	− 5·5	0·0	+ 0·17	+ 0·38	+ 0·02	+ 0·57	
22	„	− 6·1	0·0	+ 0·11	+ 0·39	+ 0·03	+ 0·57	
23	„	− 5·5	0·0	+ 0·20	+ 0·36	+ 0·03	+ 0·57	
24	„	− 4·9	0·0	+ 0·26	+ 0·35	+ 0·01	+ 0·57	
25	„	− 5·0	0·0	+ 0·22	+ 0·38	+ 0·02	+ 0·57	
27	„	− 5·7	0·0	+ 0·22	+ 0·40	+ 0·02	+ 0·57	131 and 43 R. P. L.
Sep. 1	„	− 6·0	0·0	+ 0·18	+ 0·38	+ 0·03	+ 0·66	
3	„	− 5·1	0·0	+ 0·23	+ 0·38	+ 0·04	+ 0·69	
5	M	− 5·7	− 0·1	+ 0·03	+ 0·37	+ 0·01	+ 0·73	150 R. P. L. and ε Pegasi.
6	„	− 4·8	− 0·1	+ 0·09	+ 0·38	+ 0·04	+ 0·69	
7	„	− 5·0	− 0·1	+ 0·17	+ 0·36	+ 0·02	+ 0·65	
8	„	− 3·9	− 0·1	+ 0·13	+ 0·38	+ 0·02	+ 0·61	δ Urs. Min. and 51 Cephei.
10	„	− 4·2	− 0·1	+ 0·29	+ 0·37	+ 0·04	+ 0·72	150 and 72 R. P. L.
11	„	− 4·0	− 0·1	+ 0·30	+ 0·36	+ 0·02	+ 0·72	
12	„	− 3·4	− 0·1	+ 0·34	+ 0·40	+ 0·05	+ 0·72	
13	„	− 4·1	− 0·1	+ 0·22	+ 0·35	+ 0·02	+ 0·73	
14	„	− 4·0	− 0·1	+ 0·14	+ 0·40	+ 0·06	+ 0·73	
15	„	− 4·1	− 0·1	+ 0·24	+ 0·37	+ 0·03	+ 0·73	
17	„	− 4·9	− 0·1	+ 0·27	+ 0·37	+ 0·03	+ 0·74	150 and 72 R. P. L.
18	„	− 4·4	− 0·1	+ 0·26	+ 0·34	+ 0·01	+ 0·74	
19	„	− 4·8	− 0·1	+ 0·14	+ 0·35	+ 0·02	+ 0·73	
20	„	− 4·9	− 0·1	+ 0·28	+ 0·35	0·00	+ 0·73	
21	„	− 4·6	− 0·1	+ 0·33	+ 0·34	+ 0·01	+ 0·72	

Instrumental Corrections adopted in 1877.

Date.	Observer.	Index.	Run in 5′.	Clock Rate.	Inclination.	Collimation.	Meridian.	Determining Stars.
		″	″	s	s	s	s	
Sep. 22	M	− 4·7	− 0·1	+ 0·16	+ 0·34	0·00	+ 0·72	
24	,,	− 4·8	− 0·1	+ 0·08	+ 0·36	+ 0·02	+ 0·71	
25	,,	− 3·7	− 0·1	+ 0·07	+ 0·35	+ 0·03	+ 0·71	
27	,,	− 4·8	− 0·1	+ 0·03	+ 0·32	− 0·01	+ 0·70	150 and 72 R. P. L.
28	,,	− 4·1	− 0·1	− 0·04	+ 0·36	+ 0·02	+ 0·71	
Oct. 1	R	− 4·5	0·0	− 0·05	+ 0·35	+ 0·04	+ 0·74	150 and 72 R. P. L.
2	,,	− 4·0	0·0	+ 0·02	+ 0·36	+ 0·03	+ 0·73	
3	,,	− 4·5	0·0	+ 0·03	+ 0·34	+ 0·02	+ 0·73	
4	,,	− 4·5	0·0	+ 0·06	+ 0·37	+ 0·04	+ 0·72	150 and 70 R. P. L.
5	,,	− 4·2	0·0	+ 0·11	+ 0·34	+ 0·02	+ 0·69	
6	,,	− 5·3	0·0	+ 0·08	+ 0·35	+ 0·02	+ 0·66	151 and 72 R. P. L.
8	,,	− 4·5	0·0	+ 0·09	+ 0·34	+ 0·02	+ 0·60	
9	,,	− 4·4	0·0	+ 0·10	+ 0·37	+ 0·03	+ 0·58	
10	,,	− 5·0	0·0	+ 0·08	+ 0·35	+ 0·02	+ 0·55	143 and 60 R. P. L.
13	,,	− 3·9	0·0	− 0·11	+ 0·34	0·00	+ 0·75	151 and 70 R. P. L.
15	,,	− 4·2	0·0	− 0·20	+ 0·34	− 0·01	+ 0·64	
16	,,	− 4·7	0·0	− 0·21	+ 0·35	+ 0·01	+ 0·59	143 and 60 R. P. L.
17	,,	− 5·6	0·0	− 0·07	+ 0·38	0·00	+ 0·60	
18	,,	− 5·0	0·0	+ 0·10	+ 0·34	− 0·01	+ 0·60	
19	,,	− 4·2	0·0	+ 0·14	+ 0·37	− 0·01	+ 0·61	
20	,,	− 5·2	0·0	+ 0·05	+ 0·39	0·00	+ 0·62	143 and 60 R. P. L.
22	,,	− 4·3	0·0	− 0·11	+ 0·41	+ 0·03	+ 0·66	
24	,,	− 5·1	0·0	− 0·21	+ 0·39	0·00	+ 0·71	
25	,,	− 5·4	0·0	− 0·22	+ 0·39	0·00	+ 0·73	
27	,,	− 4·4	0·0	− 0·13	+ 0·38	0·00	+ 0·78	
31	,,	− 2·1	0·0	+ 0·08	+ 0·36	+ 0·01	+ 0·87	151 and 103 R. P. L.
Nov. 1	,,	− 0·1	0·0	+ 0·04	+ 0·34	+ 0·01	+ 0·87	
2	,,	+ 0·8	0·0	0·00	+ 0·32	+ 0·02	+ 0·87	
3	,,	+ 1·7	0·0	− 0·01	+ 0·30	+ 0·01	+ 0·87	14 and 99 R. P. L.
6	,,	+ 0·5	0·0	− 0·07	+ 0·32	0·00	+ 0·91	
7	,,	+ 1·1	0·0	− 0·19	+ 0·31	0·00	+ 0·93	
10	,,	+ 2·6	0·0	− 0·01	+ 0·31	0·00	+ 0·97	
12	,,	+ 3·2	0·0	+ 0·02	+ 0·33	0·00	+ 1·00	14 and 72 R. P. L.
16	M	+ 6·6	+ 0·3	+ 0·03	+ 0·22	− 0·02	+ 0·71	150 R. P. L. & γ Piscium.
17	,,	+ 6·1	+ 0·3	+ 0·02	+ 0·23	− 0·01	+ 0·69	
19	,,	+ 5·1	+ 0·3	− 0·10	+ 0·26	0·00	+ 0·64	35 R. P. L. and β Ceti.
20	,,	+ 4·5	+ 0·3	− 0·10	+ 0·26	− 0·02	+ 0·65	
21	,,	+ 4·6	+ 0·3	− 0·04	+ 0·28	− 0·03	+ 0·67	
22	,,	+ 2·9	+ 0·3	− 0·02	+ 0·22	− 0·05	+ 0·69	2 Urs. Min. & 116 R. P. L.
23	,,	+ 2·8	+ 0·3	− 0·05	+ 0·26	− 0·02	+ 0·68	
24	,,	+ 2·9	+ 0·3	− 0·05	+ 0·25	− 0·05	+ 0·67	2 Urs. Min. & θ^1 Ceti.
26	,,	+ 1·7	+ 0·3	− 0·10	+ 0·29	− 0·04	+ 0·69	
27	,,	+ 2·0	+ 0·3	− 0·15	+ 0·32	− 0·04	+ 0·70	33 and 114 R. P. L.
28	,,	+ 2·3	+ 0·3	− 0·05	+ 0·30	− 0·03	+ 0·72	
29	,,	+ 1·5	+ 0·3	− 0·21	+ 0·31	− 0·04	+ 0·73	2 Urs. Min. and 89 R. P. L.
30	R	+ 1·3	0·0	− 0·39	+ 0·33	+ 0·06	+ 0·74	
Dec. 3	,,	+ 1·9	0·0	− 0·19	+ 0·30	0·00	+ 0·77	26 and 89 R. P. L.
4	,,	+ 2·3	0·0	− 0·20	+ 0·29	0·00	+ 0·79	
6	,,	+ 2·7	0·0	− 0·16	+ 0·29	0·00	+ 0·83	
10	,,	+ 3·2	0·0	− 0·16	+ 0·29	0·00	+ 0·92	14 and 98 R. P. L.
11	,,	+ 1·9	0·0	− 0·10	+ 0·30	+ 0·01	+ 0·87	
12	,,	+ 2·9	0·0	0·00	+ 0·30	0·00	+ 0·82	
13	,,	+ 2·1	0·0	+ 0·01	+ 0·32	0·00	+ 0·78	
14	,,	+ 1·4	0·0	− 0·14	+ 0·32	0·00	+ 0·73	2 Urs. Min. and 89 R. P. L.
15	,,	+ 1·4	0·0	− 0·22	+ 0·32	+ 0·01	+ 0·77	
17	,,	+ 1·6	0·0	− 0·19	+ 0·31	0·00	+ 0·85	

Instrumental Corrections adopted in 1877.

Date.	Observer.	Index.	Run in 5′	Clock Rate.	Inclination.	Collimation.	Meridian.	Determining Stars.	
		″	″	s	s	s	s		
Dec. 18	R	+ 1·7	0·0	− 0·16	+ 0·31	0·00	+ 0·89		+0·65 ·67
19	„	+ 1·1	0·0	− 0·08	+ 0·34	0·00	+ 0·93	33 and 103 R. P. L.	
21	M	+ 0·3	+ 0·2	+ 0·01	+ 0·34	− 0·04	+ 0·62	Polaris and 111 R. P. L.	
27	„	− 0·8	+ 0·2	− 0·19	+ 0·34	− 0·01	+ 0·66	Polaris and 116 R. P. L.	+0·62 ·67
29	„	− 1·0	+ 0·2	− 0·18	+ 0·31	− 0·05	+ 0·76	40 and 116 R. P. L.	

Instrumental Corrections adopted in 1878.

Date.	Observer.	Index.	Run in 5′.	Clock Rate.	Inclination.	Collimation.	Meridian.	Determining Stars.
		″	″	s	s	s	s	
Jan. 4	M	− 3·9	0·0	− 0·24	+ 0·32	− 0·06	+ 0·76	
5	,,	− 4·7	0·0	− 0·18	+ 0·39	0·00	+ 0·76	33 and 114 R. P. L.
7	,,	− 4·9	0·0	− 0·22	+ 0·35	− 0·02	+ 0·75	
8	,,	− 5·1	0·0	− 0·22	+ 0·37	− 0·02	+ 0·74	33 and 114 R. P. L.
9	,,	− 6·0	0·0	+ 0·04	+ 0·39	+ 0·03	+ 0·72	
10	,,	− 6·0	0·0	+ 0·06	+ 0·33	− 0·04	+ 0·70	33 and 114 R. P. L.
11	,,	− 5·6	0·0	− 0·08	+ 0·34	− 0·02	+ 0·71	
14	,,	− 6·5	0·0	− 0·17	+ 0·33	− 0·01	+ 0·73	33 and 114 R. P. L.
15	,,	− 6·4	0·0	− 0·25	+ 0·33	− 0·01	+ 0·72	
16	,,	− 6·1	0·0	− 0·15	+ 0·32	− 0·03	+ 0·72	
17	,,	− 6·6	0·0	− 0·09	+ 0·34	− 0·01	+ 0·71	
18	,,	− 7·2	0·0	− 0·12	+ 0·33	− 0·01	+ 0·71	34 and 116 R. P. L.
19	,,	− 6·7	0·0	− 0·12	+ 0·29	− 0·02	+ 0·71	
21	,,	− 7·2	0·0	− 0·14	+ 0·32	− 0·03	+ 0·72	
22	,,	− 7·0	0·0	− 0·08	+ 0·32	− 0·02	+ 0·72	34 and 116 R. P. L.
23	,,	− 6·5	0·0	− 0·06	+ 0·33	− 0·02	+ 0·73	
24	,,	− 7·1	0·0	− 0·11	+ 0·32	− 0·02	+ 0·73	
25	,,	− 7·5	0·0	− 0·14	+ 0·33	− 0·03	+ 0·74	
26	,,	− 6·6	0·0	− 0·12	+ 0·33	− 0·04	+ 0·74	34 and 116 R. P. L.
28	,,	− 7·4	0·0	− 0·11	+ 0·32	− 0·04	+ 0·69	
29	,,	− 7·6	0·0	− 0·13	+ 0·32	− 0·05	+ 0·67	40 and 116 R. P. L.
30	,,	− 8·0	0·0	− 0·11	+ 0·33	− 0·04	+ 0·70	
31	,,	− 7·8	0·0	− 0·02	+ 0·36	− 0·03	+ 0·74	40 and 116 R. P. L.
Feb. 1	R	− 7·5	0·0	− 0·10	+ 0·30	− 0·01	+ 0·72	
2	,,	− 8·7	0·0	− 0·15	+ 0·32	− 0·01	+ 0·70	
4	,,	− 8·0	0·0	− 0·07	+ 0·35	− 0·01	+ 0·66	43 R. P. L. and δ Urs. Min.
5	,,	− 8·5	0·0	− 0·12	+ 0·36	− 0·01	+ 0·65	
6	,,	− 8·7	0·0	− 0·10	+ 0·34	− 0·01	+ 0·64	43 R. P. L. and ϵ Urs. Min.
7	,,	− 8·3	0·0	− 0·05	+ 0·34	− 0·01	+ 0·64	
8	,,	− 8·1	0·0	− 0·06	+ 0·36	− 0·01	+ 0·63	
9	,,	− 8·7	0·0	− 0·07	+ 0·35	− 0·01	+ 0·62	40 R. P. L. and ϵ Urs. Min.
11	,,	− 8·4	0·0	− 0·09	+ 0·35	− 0·01	+ 0·64	
12	,,	− 8·3	0·0	− 0·07	+ 0·36	+ 0·01	+ 0·65	
13	,,	− 7·9	0·0	+ 0·02	+ 0·37	+ 0·01	+ 0·66	43 R. P. L. and ϵ Urs. Min.
14	,,	− 8·7	0·0	+ 0·01	+ 0·37	0·00	+ 0·68	
15	,,	− 8·7	0·0	− 0·06	+ 0·36	0·00	+ 0·69	
16	,,	− 8·5	0·0	− 0·02	+ 0·35	+ 0·01	+ 0·71	40 R. P. L. and δ Urs. Min.
18	,,	− 7·5	0·0	+ 0·11	+ 0·36	0·00	+ 0·68	
19	,,	− 8·4	0·0	+ 0·05	+ 0·35	0·00	+ 0·67	
20	,,	− 9·2	0·0	+ 0·01	+ 0·37	+ 0·01	+ 0·66	40 R. P. L. and δ Urs. Min.
21	,,	− 8·2	0·0	+ 0·10	+ 0·34	0·00	+ 0·68	
22	,,	− 7·8	0·0	+ 0·08	+ 0·35	+ 0·01	+ 0·69	
25	,,	− 7·6	0·0	− 0·12	+ 0·35	+ 0·01	+ 0·73	43 R. P. L. & 24 Urs. Min.
26	,,	− 8·4	0·0	− 0·08	+ 0·38	0·00	+ 0·72	
27	,,	− 8·3	0·0	0·00	+ 0·38	0·00	+ 0·70	
28	,,	− 8·4	0·0	+ 0·03	+ 0·37	0·00	+ 0·68	
Mar. 1	,,	− 8·4	0·0	− 0·03	+ 0·37	0·00	+ 0·66	
2	,,	− 8·6	0·0	− 0·01	+ 0·37	+ 0·01	+ 0·65	49 R. P. L. & δ Urs. Min.
4	M	− 7·9	0·0	− 0·01	+ 0·36	− 0·02	+ 0·70	
5	,,	− 8·0	0·0	+ 0·03	+ 0·39	− 0·01	+ 0·72	40 R. P. L. & α Columbæ.
6	,,	− 8·1	0·0	− 0·01	+ 0·36	− 0·04	+ 0·70	
7	,,	− 7·2	0·0	− 0·04	+ 0·41	− 0·01	+ 0·68	
8	,,	− 8·0	0·0	0·00	+ 0·40	− 0·01	+ 0·66	
9	,,	− 8·0	0·0	− 0·07	+ 0·38	− 0·01	+ 0·64	51 Cephei & δ Urs. Min.
11	,,	− 7·6	0·0	+ 0·07	+ 0·44	+ 0·03	+ 0·63	
12	,,	− 8·5	0·0	+ 0·04	+ 0·40	− 0·02	+ 0·63	51 Cephei & δ Urs. Min.
13	,,	− 8·2	0·0	− 0·02	+ 0·43	0·00	+ 0·64	

Instrumental Corrections adopted in 1878.

Date.	Observer.	Index.	Run in 5′.	Clock Rate.	Inclination.	Collimation.	Meridian.	Determining Stars
		″	″	s	s	s	s	
Mar. 14	M	− 7·8	0·0	+ 0·09	+ 0·40	+ 0·01	+ 0·65	
15	,,	− 7·9	0·0	+ 0·06	+ 0·35	− 0·05	+ 0·66	
16	,,	− 7·7	0·0	− 0·06	+ 0·40	− 0·04	+ 0·66	60 and 143 R. P. L.
18	,,	− 8·5	0·0	0·00	+ 0·39	0·00	+ 0·64	
19	,,	− 8·0	0·0	− 0·09	+ 0·43	− 0·01	+ 0·63	
20	,,	− 7·9	0·0	− 0·03	+ 0·41	− 0·03	+ 0·63	
21	,,	− 7·9	0·0	− 0·01	+ 0·44	− 0·02	+ 0·62	
22	,,	− 7·9	0·0	− 0·07	+ 0·44	− 0·02	+ 0·61	
23	,,	− 8·3	0·0	+ 0·02	+ 0·45	− 0·01	+ 0·60	70 and 150 R. P. L.
25	,,	− 8·1	0·0	− 0·09	+ 0·41	− 0·05	+ 0·59	
26	,,	− 8·1	0·0	− 0·09	+ 0·47	+ 0·01	+ 0·58	
27	,,	− 7·8	0·0	− 0·04	+ 0·40	− 0·03	+ 0·58	
28	,,	− 7·6	0·0	− 0·12	+ 0·41	− 0·02	+ 0·57	70 and 150 R. P. L.
29	,,	− 7·5	0·0	− 0·10	+ 0·46	− 0·01	+ 0·58	
30	,,	− 7·4	0·0	− 0·07	+ 0·44	− 0·04	+ 0·60	
Apl. 1	,,	− 6·6	0·0	− 0·12	+ 0·49	− 0·01	+ 0·63	
2	,,	− 6·8	0·0	− 0·18	+ 0·47	− 0·02	+ 0·65	70 and 150 R. P. L.
3	R	− 8·0	0·0	− 0·19	+ 0·44	− 0·01	+ 0·64	
4	,,	− 7·3	0·0	− 0·18	+ 0·44	0·00	+ 0·64	
5	,,	− 7·7	0·0	− 0·24	+ 0·45	− 0·01	+ 0·63	
6	,,	− 7·7	0·0	− 0·23	+ 0·46	0·00	+ 0·63	70 and 150 R. P. L.
8	,,	− 7·2	0·0	− 0·07	+ 0·44	0·00	+ 0·04	
9	,,	− 8·0	0·0	− 0·13	+ 0·45	0·00	+ 0·65	
10	,,	− 7·0	0·0	− 0·18	+ 0·47	+ 0·01	+ 0·66	70 and 150 R. P. L.
11	,,	− 7·8	0·0	− 0·14	+ 0·47	− 0·01	+ 0·66	
12	,,	− 6·9	0·0	− 0·13	+ 0·48	− 0·01	+ 0·66	
15	,,	− 7·1	0·0	− 0·05	+ 0·47	− 0·01	+ 0·66	
17	,,	− 6·8	0·0	− 0·04	+ 0·46	− 0·01	+ 0·65	
22	,,	− 6·2	0·0	− 0·13	+ 0·47	0·00	+ 0·65	70 and 150 R. P. L.
24	,,	− 7·2	0·0	− 0·14	+ 0·46	0·00	+ 0·65	
25	,,	− 6·6	0·0	− 0·07	+ 0·47	0·00	+ 0·65	
26	,,	− 7·0	0·0	0·00	+ 0·47	0·00	+ 0·66	
27	,,	− 6·8	0·0	− 0·03	+ 0·47	0·00	+ 0·66	70 and 150 R. P. L.
29	,,	− 6·7	0·0	− 0·08	+ 0·48	0·00	+ 0·66	
30	,,	− 6·2	0·0	− 0·05	+ 0·49	0·00	+ 0·66	
May 1	,,	− 6·8	0·0	− 0·05	+ 0·48	− 0·01	+ 0·66	
4	,,	− 6·3	0·0	− 0·06	+ 0·50	+ 0·01	+ 0·66	
6	,,	− 6·7	0·0	− 0·06	+ 0·49	− 0·01	+ 0·66	
8	,,	− 6·1	0·0	− 0·09	+ 0·40	− 0·01	+ 0·66	98 and 150 R. P. L.
10	,,	− 6·1	0·0	− 0·12	+ 0·50	− 0·01	+ 0·66	
11	,,	− 6·3	0·0	− 0·15	+ 0·50	− 0·01	+ 0·66	
15	,,	− 6·1	0·0	+ 0·37	+ 0·52	− 0·01	+ 0·65	98 and 158 R. P. L.
16	M	− 5·9	− 0·1	+ 0·14	+ 0·50	− 0·03	+ 0·63	
17	,,	− 5·6	− 0·1	− 0·22	+ 0·53	− 0·01	+ 0·61	
20	,,	− 5·1	− 0·1	− 0·07	+ 0·56	− 0·01	+ 0·56	89 and 158 R. P. L.
21	,,	− 6·6	− 0·1	− 0·11	+ 0·54	− 0·03	+ 0·56	
22	,,	− 5·8	− 0·1	− 0·21	+ 0·56	− 0·02	+ 0·56	
23	,,	− 5·3	− 0·1	− 0·27	+ 0·56	− 0·01	+ 0·56	
24	,,	− 4·8	− 0·1	− 0·13	+ 0·57	+ 0·01	+ 0·57	
25	,,	− 4·7	− 0·1	− 0·03	+ 0·58	+ 0·02	+ 0·57	89 R. P. L. and Polaris.
27	,,	− 4·4	− 0·1	− 0·24	+ 0·54	− 0·02	+ 0·54	
28	,,	− 5·2	− 0·1	− 0·14	+ 0·54	− 0·02	+ 0·53	
29	,,	− 4·7	− 0·1	− 0·13	+ 0·55	− 0·02	+ 0·51	
30	,,	− 4·6	− 0·1	− 0·14	+ 0·55	− 0·02	+ 0·49	
31	,,	− 4·8	− 0·1	− 0·09	+ 0·54	− 0·05	+ 0·48	89 R. P. L. and Polaris.
June 1	,,	− 4·9	− 0·1	− 0·17	+ 0·62	+ 0·03	+ 0·50	

Instrumental Corrections adopted in 1878.

Date.	Observer.	Index.	Run in 5′.	Clock Rate.	Inclination.	Collimation.	Meridian.	Determining Stars.
		″	″	s	s	s	s	
June 3	M	− 4·5	− 0·1	− 0·15	+ 0·59	0·00	+ 0·55	
4	,,	− 4·2	− 0·1	− 0·19	+ 0·62	− 0·01	+ 0·58	
5	,,	− 3·6	− 0·1	− 0·21	+ 0·64	+ 0·01	+ 0·60	
6	,,	− 4·4	− 0·1	− 0·26	+ 0·60	− 0·01	+ 0·63	
7	,,	− 5·0	− 0·1	− 0·26	+ 0·60	− 0·03	+ 0·65	Polaris and 12 Can. Ven.
8	,,	− 4·6	− 0·1	− 0·17	+ 0·63	− 0·01	+ 0·65	
10	,,	− 4·8	− 0·1	− 0·14	+ 0·62	− 0·01	+ 0·66	
11	,,	− 4·9	− 0·1	− 0·14	+ 0·60	− 0·02	+ 0·67	
12	,,	− 3·7	− 0·1	− 0·12	+ 0·62	− 0·01	+ 0·67	Polaris and δ Ophiuchi.
13	,,	− 4·8	− 0·1	− 0·13	+ 0·62	− 0·01	+ 0·65	
15	,,	− 3·4	− 0·1	− 0·23	+ 0·62	− 0·01	+ 0·62	99 R. P. L. and Polaris.
17	R	− 3·9	0·0	− 0·25	+ 0·58	0·00	+ 0·62	
18	,,	− 3·6	0·0	− 0·23	+ 0·59	− 0·01	+ 0·62	
19	,,	− 4·1	0·0	− 0·16	+ 0·59	0·00	+ 0·62	
20	,,	− 4·0	0·0	0·00	+ 0·62	− 0·01	+ 0·62	
21	,,	− 4·8	0·0	+ 0·01	+ 0·59	− 0·01	+ 0·62	
22	,,	− 3·9	0·0	− 0·10	+ 0·58	− 0·01	+ 0·62	
24	,,	− 4·3	0·0	− 0·12	+ 0·55	− 0·01	+ 0·61	
25	,,	− 4·5	0·0	− 0·08	+ 0·55	0·00	+ 0·61	
26	,,	− 4·0	0·0	+ 0·03	+ 0·54	0·00	+ 0·61	
27	,,	− 4·5	0·0	+ 0·01	+ 0·52	0·00	+ 0·61	
28	,,	− 5·0	0·0	− 0·10	+ 0·54	0·00	+ 0·61	
29	,,	− 4·3	0·0	− 0·09	+ 0·54	− 0·01	+ 0·60	
July 2	,,	− 3·9	+ 0·5	− 0·23	+ 0·45	− 0·01	+ 0·60	
4	,,	− 3·1	+ 0·5	− 0·18	+ 0·62	+ 0·02	+ 0·60	
6	,,	− 3·6	+ 0·5	− 0·00	+ 0·42	− 1·78	+ 0·60	ε Urs. Min. and Polaris.
8	,,	− 3·4	+ 0·5	− 0·15	+ 0·40	− 0·01	+ 0·61	
9	,,	− 3·4	+ 0·5	− 0·15	+ 0·36	0·00	+ 0·61	115 and 34 R. P. L.
10	,,	− 4·1	+ 0·5	− 0·05	+ 0·39	− 0·03	+ 0·63	
11	,,	− 3·3	+ 0·5	− 0·04	+ 0·37	0·00	+ 0·65	
12	,,	− 3·7	+ 0·5	− 0·21	+ 0·39	0·00	+ 0·67	
13	,,	− 3·6	+ 0·5	− 0·38	+ 0·46	+ 0·03	+ 0·69	111 and 35 R. P. L.
15	,,	− 2·1	+ 0·5	− 0·48	+ 0·43	− 0·02	+ 0·68	
16	,,	− 3·5	+ 0·5	− 0·54	+ 0·45	+ 0·02	+ 0·68	
23	,,	− 5·3	+ 0·5	− 0·31	+ 0·32	+ 0·01	+ 0·66	
24	,,	− 5·0	+ 0·5	− 0·30	+ 0·38	+ 0·01	+ 0·66	
27	,,	− 3·2	+ 0·5	− 0·33	+ 0·42	0·00	+ 0·65	
Aug. 3	M	− 5·3	0·0	− 0·31	+ 0·40	+ 0·01	+ 0·64	
5	,,	− 3·4	0·0	− 0·29	+ 0·42	− 0·01	+ 0·63	
6	,,	− 3·7	0·0	− 0·29	+ 0·44	0·00	+ 0·63	
9	,,	− 4·2	0·0	− 0·32	+ 0·43	+ 0·03	+ 0·62	
12	,,	− 3·6	0·0	− 0·41	+ 0·42	+ 0·04	+ 0·61	
13	R	− 3·2	0·0	− 0·37	+ 0·39	0·00	+ 0·61	
14	,,	− 2·3	0·0	− 0·28	+ 0·38	+ 0·01	+ 0·60	
15	,,	− 1·6	0·0	− 0·22	+ 0·36	+ 0·02	+ 0·60	131 and 43 R. P. L.
16	,,	− 2·0	0·0	− 0·22	+ 0·35	+ 0·03	+ 0·59	
17	,,	+ 0·1	0·0	− 0·23	+ 0·35	+ 0·02	+ 0·58	
19	,,	+ 0·1	0·0	− 0·21	+ 0·34	+ 0·01	+ 0·56	δ Urs. Min. and 40 R. P. L.
20	,,	+ 0·2	0·0	− 0·24	+ 0·36	0·00	+ 0·56	
21	,,	− 0·3	0·0	− 0·27	+ 0·34	0·00	+ 0·56	
22	,,	+ 0·9	0·0	− 0·25	+ 0·38	+ 0·03	+ 0·56	
23	,,	+ 1·5	0·0	− 0·27	+ 0·34	+ 0·01	+ 0·55	
24	,,	+ 0·7	0·0	− 0·31	+ 0·37	+ 0·01	+ 0·55	
26	,,	+ 0·6	0·0	− 0·29	+ 0·34	+ 0·01	+ 0·55	143 and 49 R. P. L.
28	,,	+ 2·2	0·0	− 0·21	+ 0·37	+ 0·03	+ 0·54	
29	,,	+ 0·4	0·0	− 0·24	+ 0·35	+ 0·01	+ 0·54	
30	,,	− 0·2	0·0	− 0·26	+ 0·38	+ 0·01	+ 0·53	

Instrumental Corrections adopted in 1878.

Date.	Observer.	Index.	Run in 5′.	Clock Rate.	Inclination.	Collimation.	Meridian.	Determining Stars.
		″	″	s	s	s	s	
Aug. 31	R	− 0·1	0·0	− 0·24	+ 0·36	0·00	+ 0·53	
Sep. 2	„	+ 0·1	− 0·1	− 0·32	+ 0·37	+ 0·01	+ 0·52	
3	„	+ 0·8	− 0·1	− 0·32	+ 0·36	0·00	+ 0·52	143 and 49 R. P. L.
4	„	+ 0·1	− 0·1	− 0·32	+ 0·36	+ 0·01	+ 0·52	
10	„	+ 1·6	− 0·1	− 0·38	+ 0·31	+ 0·02	+ 0·55	
12	„	+ 3·1	− 0·1	− 0·38	+ 0·27	+ 0·01	+ 0·56	
16	C R	+ 3·9	− 0·1	− 0·46	+ 0·30	+ 0·01	+ 0·58	
17	R	+ 3·7	− 0·1	− 0·37	+ 0·32	+ 0·02	+ 0·58	
18	„	+ 3·1	− 0·1	− 0·34	+ 0·29	+ 0·01	+ 0·58	
19	„	+ 2·9	− 0·1	− 0·42	+ 0·31	0·00	+ 0·59	
20	„	+ 2·0	− 0·1	− 0·50	+ 0·28	0·00	+ 0·59	
21	„	+ 1·9	− 0·1	− 0·52	+ 0·32	0·00	+ 0·60	
23	„	+ 0·6	− 0·1	− 0·42	+ 0·32	0·00	+ 0·61	
24	„	+ 1·8	− 0·1	− 0·36	+ 0·32	+ 0·01	+ 0·61	150 and 70 R. P. L.
25	„	+ 1·3	− 0·1	− 0·32	+ 0·34	+ 0·01	+ 0·61	
26	„	+ 1·8	− 0·1	− 0·32	+ 0·31	− 0·01	+ 0·61	
27	„	+ 0·2	− 0·1	− 0·23	+ 0·32	+ 0·01	+ 0·62	
28	„	+ 1·2	− 0·1	− 0·19	+ 0·32	0·00	+ 0·62	
30	„	− 0·2	− 0·1	− 0·24	+ 0·32	+ 0·01	+ 0·63	α Cygni and 49 R. P. L.
Oct. 1	„	− 0·4	+ 0·4	− 0·25	+ 0·39	+ 0·01	+ 0·64	
2	„	+ 0·8	+ 0·4	− 0·28	+ 0·37	− 0·01	+ 0·65	
3	„	+ 0·4	+ 0·4	− 0·38	+ 0·36	+ 0·02	+ 0·66	
4	„	0·0	+ 0·4	− 0·26	+ 0·40	+ 0·06	+ 0·67	
5	„	+ 0·8	+ 0·4	− 0·11	+ 0·34	+ 0·02	+ 0·68	
8	„	+ 3·2	+ 0·4	− 0·33	+ 0·32	+ 0·05	+ 0·71	150 and 72 R. P. L.
11	„	+ 2·9	+ 0·4	− 0·36	+ 0·34	+ 0·04	+ 0·68	
12	„	+ 2·9	+ 0·4	− 0·39	+ 0·34	+ 0·04	+ 0·67	
15	„	+ 2·9	+ 0·4	− 0·43	+ 0·32	+ 0·02	+ 0·64	
17	„	+ 3·2	+ 0·4	− 0·44	+ 0·37	+ 0·01	+ 0·62	150 and 79 R. P. L.
18	„	+ 3·5	+ 0·4	− 0·41	+ 0·40	+ 0·04	+ 0·61	
19	„	+ 3·1	+ 0·4	− 0·36	+ 0·39	+ 0·03	+ 0·60	150 R. P. L. & Fomalhaut
21	„	+ 2·5	+ 0·4	− 0·41	+ 0·36	0·00	+ 0·63	
22	„	+ 2·4	+ 0·4	− 0·40	+ 0·39	+ 0·02	+ 0·65	150 and 72 R. P. L.
23	„	+ 1·5	+ 0·4	− 0·42	+ 0·38	− 0·01	+ 0·64	
24	„	+ 1·3	+ 0·4	− 0·48	+ 0·43	+ 0·02	+ 0·64	
25	„	+ 0·7	+ 0·4	− 0·42	+ 0·45	+ 0·04	+ 0·63	
26	„	+ 0·1	+ ·04	− 0·39	+ 0·44	+ 0·02	+ 0·62	
29	„	− 0·1	+ ·04	− 0·46	+ 0·32	− 0·02	+ 0·60	
Nov. 2	„	− 1·3	+ 0·4	− 0·41	+ 0·33	− 0·02	+ 0·57	150 and 79 R. P. L.
5	M	− 1·4	+ 0·1	− 0·29	+ 0·39	+ 0·02	+ 0·61	
6	„	− 2·5	+ 0·1	− 0·36	+ 0·38	+ 0·01	+ 0·62	150 and 79 R. P. L.
8	„	− 1·4	+ 0·1	− 0·32	+ 0·40	+ 0·01	+ 0·52	
9	„	− 2·7	+ 0·1	− 0·30	+ 0·39	− 0·02	+ 0·47	150 and 93 R. P. L.
11	„	− 2·5	+ 0·1	− 0·40	+ 0·40	0·00	+ 0·53	
12	„	− 3·4	+ 0·1	− 0·40	+ 0·36	− 0·04	+ 0·56	
14	„	− 3·9	+ 0·1	− 0·61	+ 0·42	+ 0·01	+ 0·62	150 and 89 R. P. L.
15	„	− 0·2	+ 0·1	− 0·65	+ 0·23	− 0·04	+ 0·54	150 and 72 R. P. L.
16	„	− 0·6	+ 0·1	− 0·66	+ 0·11	− 0·01	+ 0·55	
21	„	− 1·1	+ 0·1	− 0·74	+ 0·04	− 0·01	+ 0·59	150 and 89 R. P. L.
22	„	− 0·8	+ 0·1	− 0·67	+ 0·06	0·00	+ 0·56	
25	„	− 1·2	+ 0·1	− 0·46	+ 0·04	− 0·01	+ 0·47	Polaris and 99 R. P. L.
26	„	− 1·1	+ 0·1	− 0·50	+ 0·05	− 0·01	+ 0·47	
27	„	− 1·8	+ 0·1	− 0·68	+ 0·05	− 0·01	+ 0·47	Polaris and 99 R. P. L.
28	„	− 1·9	+ 0·1	− 0·80	+ 0·07	0·00	+ 0·48	
29	„	− 1·4	+ 0·1	− 0·78	+ 0·07	0·00	+ 0·50	

Instrumental Corrections adopted in 1878.

Date.	Observer.	Index.	Run in 5′.	Clock Rate.	Inclination.	Collimation.	Meridian.	Determining Stars.
		″	″	*s*	*s*	*s*	*s*	
Dec. 2	R	− 0·6	+ 0·1	− 0·70	+ 0·08	0·00	+ 0·54	
6	,,	+ 0·8	+ 0·1	− 0·55	+ 0·07	0·00	+ 0·60	
7	,,	− 0·6	+ 0·1	− 0·57	+ 0·09	− 0·01	+ 0·61	33 and 114 R. P. L.
9	,,	+ 0·1	+ 0·1	− 0·64	+ 0·07	0·00	+ 0·61	
11	,,	− 0·9	+ 0·1	− 0·57	+ 0·09	+ 0·01	+ 0·61	
12	,,	− 0·1	+ 0·1	− 0·62	+ 0·08	0·00	+ 0·61	
13	,,	− 0·3	+ 0·1	− 0·62	+ 0·09	0·00	+ 0·61	
14	,,	− 0·3	+ 0·1	− 0·56	+ 0·08	0·00	+ 0·61	
16	,,	− 0·1	+ 0·1	− 0·62	+ 0·06	0·00	+ 0·61	
18	,,	− 1·5	+ 0·1	− 0·66	+ 0·08	0·00	+ 0·61	
20	,,	+ 0·2	+ 0·1	− 0·81	− 0·05	0·00	+ 0·61	
21	,,	− 1·5	+ 0·1	− 0·84	− 0·05	+ 0·01	+ 0·61	33 and 114 R. P. L.
28	,,	− 0·8	+ 0·1	− 0·49	0·00	0·00	+ 0·45	35 and 115 R. P. L.
31	C. R.	− 3·1	+ 0·1	− 0·40	− 0·15	− 0·08	+ 0·50	

Nov. 15.—Cleaned and oiled the pivots and adjusted the levelling screws. Cleaned and adjusted the microscopes.

Dec. 31.—The clock was put back one minute at 5*h*. 0*m*. S. T. and the weight on the pendulum shelf was reduced from 35 to 25 grains.

Instrumental Corrections adopted in 1879.

Date.	Observer.	Index.	Run in 5′.	Clock Rate.	Inclination.	Collimation.	Meridian.	Determining Stars.
		″	″	s	s	s	s	
Jan. 4	M	− 3·1	+ 0·2	+ 0·15	− 0·07	0·00	+ 0·58	
7	,,	− 3·0	+ 0·2	+ 0·36	− 0·02	+ 0·04	+ 0·63	Polaris and 111 R. P. L.
8	,,	− 4·0	+ 0·2	+ 0·31	− 0·06	+ 0·02	+ 0·62	
9	,,	− 2·3	+ 0·2	+ 0·25	− 0·06	+ 0·02	+ 0·62	
10	,,	− 4·3	+ 0·2	+ 0·33	− 0·08	0·00	+ 0·61	34 and 115 R. P. L.
11	,,	− 3·0	+ 0·2	+ 0·33	− 0·09	0·00	+ 0·60	
13	,,	− 3·0	+ 0·2	+ 0·07	− 0·11	− 0·03	+ 0·58	
14	R	− 2·8	+ 0·2	+ 0·23	− 0·07	+ 0·01	+ 0·57	
15	M	− 3·3	+ 0·2	+ 0·35	− 0·05	+ 0·03	+ 0·56	
16	,,	− 3·6	+ 0·2	+ 0·24	− 0·07	0·00	+ 0·55	43 R. P. L. & ε Urs. Min.
17	,,	− 2·9	+ 0·2	+ 0·37	− 0·08	0·00	+ 0·54	
18	,,	− 3·1	+ 0·2	+ 0·40	− 0·12	− 0·03	+ 0·54	
20	,,	− 3·0	+ 0·2	+ 0·23	− 0·12	− 0·04	+ 0·53	38 R. P. L. & ε Urs. Min.
23	,,	− 2·9	+ 0·2	+ 0·15	− 0·10	− 0·02	+ 0·51	40 R. P. L. & ε Urs. Min.
24	,,	− 1·7	+ 0·2	+ 0·28	− 0·06	+ 0·02	+ 0·52	
25	,,	− 1·7	+ 0·2	+ 0·41	− 0·04	+ 0·01	+ 0·54	40 R. P. L. & ε Urs. Min.
27	,,	− 3·1	+ 0·2	+ 0·30	− 0·11	− 0·04	+ 0·53	
28	,,	− 3·8	+ 0·2	+ 0·27	− 0·08	+ 0·01	+ 0·52	40 R. P. L. & ε Urs. Min.
29	,,	− 3·2	+ 0·2	+ 0·33	− 0·10	0·00	+ 0·51	
30	,,	− 3·7	+ 0·2	+ 0·41	− 0·11	− 0·02	+ 0·50	40 R. P. L. & ε Urs. Min.
31	,,	− 3·1	+ 0·2	+ 0·31	− 0·14	− 0·05	+ 0·51	
Feb. 1	R	− 4·6	0·0	+ 0·24	− 0·15	− 0·02	+ 0·52	
3	,,	− 1·9	0·0	+ 0·34	− 0·16	− 0·02	+ 0·54	
4	,,	− 2·6	0·0	+ 0·29	− 0·15	− 0·02	+ 0·54	
5	,,	− 2·8	0·0	+ 0·38	− 0·11	0·00	+ 0·55	
6	,,	− 3·8	0·0	+ 0·44	− 0·13	− 0·01	+ 0·55	
7	,,	− 4·3	0·0	+ 0·37	− 0·15	− 0·01	+ 0·57	43 R. P. L. & 24 Urs. Min.
8	,,	− 3·4	0·0	+ 0·43	− 0·11	0·00	+ 0·57	
10	,,	− 4·2	0·0	+ 0·48	− 0·11	− 0·01	+ 0·56	
11	,,	− 4·3	0·0	+ 0·50	− 0·09	− 0·01	+ 0·56	
12	,,	− 4·2	0·0	+ 0·52	− 0·06	0·00	+ 0·56	
13	,,	− 5·5	0·0	+ 0·47	− 0·04	− 0·01	+ 0·55	
14	,,	− 4·3	0·0	+ 0·40	− 0·01	0·00	+ 0·55	43 R. P. L. & 24 Urs. Min.
15	,,	− 5·1	0·0	+ 0·48	− 0·01	0·00	+ 0·56	
17	,,	− 4·8	0·0	+ 0·41	− 0·01	0·00	+ 0·57	
18	,,	− 5·1	0·0	+ 0·45	− 0·04	0·00	+ 0·58	
19	,,	− 4·4	0·0	+ 0·44	0·00	+ 0·01	+ 0·59	
20	,,	− 4·3	0·0	+ 0·41	+ 0·01	+ 0·01	+ 0·59	
21	,,	− 5·9	0·0	+ 0·33	− 0·02	0·00	+ 0·60	49 R. P. L. and 15 Argûs.
22	,,	− 4·6	0·0	+ 0·34	+ 0·01	0·00	+ 0·59	
24	,,	− 3·5	0·0	+ 0·50	− 0·01	0·00	+ 0·57	
25	,,	− 4·2	0·0	+ 0·48	− 0·03	− 0·01	+ 0·57	
26	,,	− 4·8	0·0	+ 0·48	+ 0·03	+ 0·01	+ 0·56	
27	,,	− 4·3	0·0	+ 0·63	0·00	+ 0·01	+ 0·55	
28	,,	− 5·9	0·0	+ 0·57	+ 0·03	+ 0·01	+ 0·54	49 and 131 R. P. L.
Mar. 1	,,	− 4·4	+ 0·1	+ 0·63	+ 0·06	+ 0·01	+ 0·53	
3	M	− 2·8	+ 0·1	+ 0·41	+ 0·01	− 0·07	+ 0·50	
4	,,	− 4·6	+ 0·1	+ 0·33	+ 0·12	+ 0·02	+ 0·48	51 Cephei and δ Urs. Min.
5	,,	− 4·5	+ 0·1	+ 0·35	+ 0·04	− 0·04	+ 0·54	
6	,,	− 4·1	+ 0·1	+ 0·43	+ 0·10	+ 0·03	+ 0·60	60 R. P. L. and λ Urs. Min.
7	,,	− 4·2	+ 0·1	+ 0·54	+ 0·05	− 0·03	+ 0·57	
8	,,	− 4·1	+ 0·1	+ 0·53	+ 0·07	− 0·01	+ 0·55	
10	,,	− 4·5	+ 0·1	+ 0·22	+ 0·03	− 0·05	+ 0·50	60 and 150 R. P. L.
11	,,	− 4·2	+ 0·1	+ 0·17	+ 0·06	− 0·02	+ 0·50	
12	,,	− 4·1	+ 0·1	+ 0·53	+ 0·07	− 0·01	+ 0·50	
13	,,	− 3·9	+ 0·1	+ 0·51	+ 0·05	− 0·03	+ 0·50	51 Cephei and δ Urs. Min.

Instrumental Corrections adopted in 1879.

Date.	Observer.	Index.	Run in 5′.	Clock Rate.	Inclination.	Collimation.	Meridian.	Determining Stars.
		″	″	s	s	s	s	
Mar. 14	M	− 4·0	+ 0·1	+ 0·31	+ 0·07	0·00	+ 0·48	
15	,,	− 4·1	+ 0·1	+ 0·35	+ 0·08	− 0·01	+ 0·46	
17	,,	− 4·7	+ 0·1	+ 0·37	+ 0·06	− 0·02	+ 0·43	70 R.P.L.& γ CanisMajoris.
19	,,	− 3·7	+ 0·1	+ 0·42	+ 0·10	0·00	+ 0·44	
22	,,	− 4·0	+ 0·1	+ 0·39	+ 0·04	− 0·04	+ 0·46	70 and 150 R. P. L.
24	,,	− 3·8	+ 0·1	+ 0·49	+ 0·07	− 0·01	+ 0·50	
25	,,	− 2·9	+ 0·1	+ 0·55	+ 0·08	− 0·01	+ 0·51	70 and 150 R. P. L.
26	,,	− 2·9	+ 0·1	+ 0·53	+ 0·09	+ 0·01	+ 0·49	
27	,,	− 3·6	+ 0·1	+ 0·53	+ 0·09	0·00	+ 0·47	72 and 150 R. P. L.
28	,,	− 2·8	+ 0·1	+ 0·42	+ 0·07	− 0·02	+ 0·45	
29	,,	− 2·6	+ 0·1	+ 0·36	+ 0·08	− 0·01	+ 0·43	70 R. P. L. and 15 Argûs.
31	,,	− 3·0	+ 0·1	+ 0·09	+ 0·09	+ 0·01	+ 0·40	70 R.P.L.& ε CanisMajoris.
Apl. 1	R	− 2·9	− 0·1	+ 0·19	+ 0·07	0·00	+ 0·54	60 and 151 R. P. L.
2	,,	− 2·4	− 0·1	+ 0·47	+ 0·08	0·00	+ 0·53	
3	,,	− 3·4	− 0·1	+ 0·42	+ 0·08	0·00	+ 0·52	
4	,,	− 2·8	− 0·1	+ 0·41	+ 0·09	0·00	+ 0·51	
5	,,	− 2·7	− 0·1	+ 0·44	+ 0·11	0·00	+ 0·51	
7	,,	− 2·2	− 0·1	+ 0·48	+ 0·10	− 0·01	+ 0·49	
8	,,	− 1·8	− 0·1	+ 0·47	+ 0·11	− 0·01	+ 0·48	72 and 150 R. P. L.
9	,,	− 1·0	− 0·1	+ 0·49	+ 0·10	− 0·01	+ 0·49	
12	,,	− 2·1	− 0·1	+ 0·66	+ 0·12	− 0·01	+ 0·50	
14	M	− 2·0	− 0·1	+ 0·51	+ 0·09	− 0·05	+ 0·51	
16	R	− 2·1	− 0·1	+ 0·51	+ 0·18	− 0·02	+ 0·52	
17	,,	− 2·4	− 0·1	+ 0·47	+ 0·16	− 0·02	+ 0·53	
18	,,	− 1·8	− 0·1	+ 0·39	+ 0·18	− 0·01	+ 0·53	
19	,,	− 1·6	− 0·1	+ 0·42	+ 0·17	− 0·01	+ 0·53	89 R. P. L. and α Hydræ.
21	,,	− 1·6	− 0·1	+ 0·44	+ 0·16	− 0·01	+ 0·50	
22	,,	− 1·4	− 0·1	+ 0·48	+ 0·17	− 0·01	+ 0·50	
23	,,	− 0·6	− 0·1	+ 0·51	+ 0·20	− 0·01	+ 0·49	
24	,,	− 0·5	− 0·1	+ 0·47	+ 0·16	0·00	+ 0·48	70 and 158 R. P. L.
25	,,	− 1·2	− 0·1	+ 0·54	+ 0·18	0·00	+ 0·47	
26	,,	− 0·7	− 0·1	+ 0·58	+ 0·17	− 0·01	+ 0·46	
28	,,	− 0·7	− 0·1	+ 0·51	+ 0·17	− 0·01	+ 0·43	
29	,,	− 0·9	− 0·1	+ 0·54	+ 0·18	0·00	+ 0·42	
30	,,	− 1·0	− 0·1	+ 0·53	+ 0·19	+ 0·01	+ 0·41	
May 1	,,	− 0·8	− 0·1	+ 0·70	+ 0·20	+ 0·01	+ 0·40	72 and 150 R. P. L.
2	M	− 0·9	0·0	+ 0·68	+ 0·26	+ 0·05	+ 0·45	
3	,,	+ 0·3	0·0	+ 0·46	+ 0·25	+ 0·02	+ 0·49	70 and 150 R. P. L.
5	,,	+ 0·4	0·0	+ 0·56	+ 0·30	+ 0·07	+ 0·49	
6	,,	+ 0·7	0·0	+ 0·57	+ 0·32	+ 0·07	+ 0·50	
7	,,	− 0·3	0·0	+ 0·56	+ 0·31	+ 0·07	+ 0·50	70 and 158 R. P. L.
8	,,	+ 0·7	0·0	+ 0·60	+ 0·30	+ 0·05	+ 0·52	
9	,,	+ 0·1	0·0	+ 0·57	+ 0·28	+ 0·03	+ 0·53	
10	,,	− 0·1	0·0	+ 0·54	+ 0·28	+ 0·05	+ 0·55	99 and 150 R. P. L.
12	,,	+ 3·0	0·0	+ 0·68	+ 0·32	− 0·13	+ 0·51	
13	,,	+ 3·5	0·0	+ 0·66	+ 0·20	− 0·16	+ 0·49	89 and 158 R. P. L.
14	,,	+ 4·0	0·0	+ 0·64	+ 0·27	− 0·18	+ 0·49	
15	,,	+ 4·0	0·0	+ 0·61	+ 0·22	− 0·22	+ 0·50	
16	,,	+ 3·8	0·0	+ 0·54	+ 0·27	+ 0·05	+ 0·50	89 and 158 R. P. L.
17	,,	+ 3·7	0·0	+ 0·50	+ 0·29	+ 0·06	+ 0·52	
22	,,	+ 7·2	0·0	+ 0·59	+ 0·18	+ 0·06	+ 0·62	
24	,,	+ 7·8	0·0	+ 0·55	+ 0·05	− 0·05	+ 0·66	99 R. P. L. and Polaris
26	,,	+ 8·5	0·0	+ 0·60	+ 0·08	− 0·08	+ 0·66	
27	,,	+ 8·0	0·0	+ 0·56	+ 0·09	− 0·06	+ 0·66	
28	,,	+ 6·8	0·0	+ 0·44	+ 0·13	− 0·05	+ 0·66	

March 19—22.— 1·60 inches of rain fell.
May 12.—Object glass cleaned. Pivots oiled but not cleaned.
May 19—21.—A cyclone passed over Madras. Rainfall 4·42 inches.

Instrumental Corrections adopted in 1879.

Date.	Observer.	Index.	Run in 5′.	Clock Rate.	Inclination.	Collimation.	Meridian.	Determining Stars.
		″	″	*s*	*s*	*s*	*s*	
June 3	R	+ 6·5	0·0	+ 0·49	+ 0·20	− 0·04	+ 0·67	108 and 12 R. P. L.
6	,,	+ 5·4	0·0	+ 0·57	+ 0·20	− 0·02	+ 0·61	
7	,,	+ 6·4	0·0	+ 0·56	+ 0·18	− 0·03	+ 0·59	
9	,,	+ 4·6	0·0	+ 0·54	+ 0·19	− 0·02	+ 0·54	
11	,,	+ 4·5	0·0	+ 0·60	+ 0·20	− 0·03	+ 0·50	
12	,,	+ 5·0	0·0	+ 0·68	+ 0·20	− 0·04	+ 0·48	108 and 12 R. P. L.
13	,,	+ 1·9	0·0	+ 0·70	+ 0·20	− 0·02	+ 0·48	
14	,,	+ 5·8	0·0	+ 0·61	+ 0·20	− 0·04	+ 0·49	
16	,,	+ 4·8	0·0	+ 0·48	+ 0·20	− 0·01	+ 0·49	
18	,,	+ 5·2	0·0	+ 0·54	+ 0·19	− 0·02	+ 0·50	
19	,,	+ 5·4	0·0	+ 0·53	+ 0·20	− 0·02	+ 0·50	
20	,,	+ 4·5	0·0	+ 0·52	+ 0·21	− 0·02	+ 0·50	
21	,,	+ 5·0	0·0	+ 0·52	+ 0·21	− 0·02	+ 0·51	
23	,,	+ 4·6	0·0	+ 0·50	+ 0·19	− 0·01	+ 0·51	
27	,,	+ 3·9	0·0	+ 0·55	+ 0·19	− 0·02	+ 0·52	
30	,,	+ 4·5	0·0	+ 0·80	+ 0·18	− 0·03	+ 0·53	
July 2	M	+ 3·7	+ 0·3	+ 0·77	+ 0·13	− 0·08	+ 0·54	
4	,,	+ 4·4	+ 0·4	+ 0·59	+ 0·17	+ 0·01	+ 0·54	
7	,,	+ 4·1	+ 0·3	+ 0·49	+ 0·19	0·00	+ 0·55	
8	,,	+ 3·0	+ 0·3	+ 0·44	+ 0·19	− 0·01	+ 0·55	
9	,,	+ 3·9	+ 0·3	− 0·67	+ 0·22	+ 0·02	+ 0·50	
10	R	+ 5·4	+ 0·3	− 1·10	+ 0·20	+ 0·02	+ 0·56	116 and 34 R. P. L.
11	M	+ 3·3	+ 0·3	− 0·59	+ 0·21	+ 0·02	+ 0·56	
12	,,	+ 4·2	+ 0·3	− 0·62	+ 0·17	− 0·02	+ 0·55	
15	,,	+ 3·9	+ 0·3	− 0·59	+ 0·21	0·00	+ 0·54	δ Urs. Min. and 40 R. P. L.
24	,,	+ 6·6	+ 0·3	− 0·20	+ 0·25	+ 0·07	+ 0·67	δ Urs.Min. and α Herculis.
25	,,	+ 7·8	+ 0·3	− 0·36	+ 0·20	+ 0·01	+ 0·67	
26	,,	+ 6·4	+ 0·3	− 0·50	+ 0·19	+ 0·02	+ 0·67	
31	,,	+ 5·5	+ 0·3	− 0·54	+ 0·16	− 0·02	+ 0·69	
Aug. 1	R	+ 4·8	0·0	− 0·55	+ 0·15	0·00	+ 0·60	
5	,,	+ 5·1	0·0	− 0·13	+ 0·16	+ 0·03	+ 0·70	
6	,,	+ 4·5	0·0	− 0·22	+ 0·16	+ 0·02	+ 0·70	
7	,,	+ 3·5	0·0	− 0·20	+ 0·17	+ 0·02	+ 0·70	
9	,,	+ 3·4	0·0	− 0·22	+ 0·16	+ 0·02	+ 0·71	
11	,,	+ 3·6	0·0	− 0·24	+ 0·16	+ 0·02	+ 0·71	
12	,,	+ 3·5	0·0	− 0·13	+ 0·18	+ 0·03	+ 0·72	
13	,,	+ 4·2	0·0	0·00	+ 0·17	+ 0·01	+ 0·72	
14	,,	+ 3·5	0·0	− 0·06	+ 0·19	+ 0·02	+ 0·72	δ Urs. Min. and 51 Cephei.
16	,,	+ 4·6	0·0	− 0·26	+ 0·15	+ 0·01	+ 0·73	
19	,,	+ 6·2	0·0	− 0·22	+ 0·06	+ 0·04	+ 0·75	
20	,,	+ 5·5	0·0	− 0·22	+ 0·03	+ 0·04	+ 0·76	
21	,,	+ 5·8	0·0	− 0·27	+ 0·03	+ 0·02	+ 0·77	
23	,,	+ 7·9	0·0	− 0·26	+ 0·08	+ 0·03	+ 0·78	141 and 49 R. P. L.
25	,,	+ 7·8	0·0	− 0·10	+ 0·09	+ 0·02	+ 0·77	
27	,,	+ 7·7	0·0	+ 0·14	+ 0·09	+ 0·03	+ 0·77	
28	,,	+ 8·3	0·0	+ 0·14	+ 0·08	+ 0·03	+ 0·76	
Sep. 1	,,	+ 8·8	0·0	− 0·19	0·00	+ 0·02	+ 0·74	
2	,,	+ 8·9	0·0	− 0·17	+ 0·02	+ 0·02	+ 0·74	141 and 49 R. P. L.
3	,,	+ 7·9	0·0	− 0·10	+ 0·06	+ 0·02	+ 0·73	
4	,,	+ 10·2	0·0	− 0·02	+ 0·09	+ 0·02	+ 0·73	
8	M	+ 8·6	0·0	0·00	+ 0·15	+ 0·03	+ 0·71	
13	R	+ 4·9	0·0	− 0·16	+ 0·18	+ 0·02	+ 0·68	
15	,,	+ 5·8	0·0	− 0·11	+ 0·19	+ 0·03	+ 0·67	
16	,,	+ 6·6	0·0	− 0·07	+ 0·19	+ 0·03	+ 0·67	
17	,,	+ 3·7	0·0	+ 0·05	+ 0·20	+ 0·04	+ 0·66	

On July 9 at 9*h*. 45*m*. S. T. the clock was put back one minute and the rate reduced.
July 24.—Collimators cleaned. Pivots cleaned and oiled.

Instrumental Corrections adopted in 1879.

Date.	Observer.	Index.	Run in 5′.	Clock Rate.	Inclination.	Collimation.	Meridian.	Determining Stars.
		″	″	s	s	s	s	
Sep. 18	R	+ 3·9	0·0	+ 0·12	+ 0·22	+ 0·02	+ 0·66	
19	,,	+ 4·2	0·0	0·00	+ 0·21	0·00	+ 0·65	
20	,,	+ 2·2	0·0	− 0·13	+ 0·20	+ 0·01	+ 0·65	141 and 49 R. P. L.
24	,,	+ 1·5	0·0	− 0·18	+ 0·20	+ 0·01	+ 0·65	
25	,,	+ 0·9	0·0	− 0·16	+ 0·25	+ 0·01	+ 0·65	
26	,,	+ 0·8	0·0	− 0·12	+ 0·27	+ 0·01	+ 0·65	141 and 60 R. P. L.
27	,,	+ 0·3	0·0	− 0·11	+ 0·22	+ 0·01	+ 0·67	
29	,,	+ 0·9	0·0	− 0·15	+ 0·22	+ 0·01	+ 0·71	
30	,,	+ 0·8	0·0	− 0·17	+ 0·23	+ 0·01	+ 0·73	
Oct. 2	M	+ 3·0	+ 0·3	− 0·26	+ 0·32	− 0·01	+ 0·77	
3	,,	+ 3·2	+ 0·3	− 0·27	+ 0·32	− 0·01	+ 0·79	
6	,,	+ 8·0	+ 0·3	+ 0·19	+ 0·23	+ 0·04	+ 0·85	10 and 89 R. P. L.
7	,,	+ 8·2	+ 0·3	+ 0·11	+ 0·21	+ 0·05	+ 0·88	
8	,,	+ 9·1	+ 0·3	0·00	+ 0·20	+ 0·03	+ 0·90	11 Cephei and 89 R. P. L.
9	,,	+ 9·8	+ 0·3	+ 0·06	+ 0·12	+ 0·03	+ 0·89	
13	,,	+ 9·4	+ 0·3	+ 0·11	+ 0·20	+ 0·11	+ 0·85	
14	,,	+ 9·3	+ 0·3	+ 0·08	+ 0·15	+ 0·06	+ 0·84	158 and 108 R. P. L.
15	,,	+ 7·7	+ 0·3	+ 0·06	+ 0·14	+ 0·05	+ 0·84	
16	,,	+ 8·6	+ 0·3	+ 0·07	+ 0·13	+ 0·01	+ 0·84	
17	,,	+ 7·5	+ 0·3	+ 0·04	+ 0·14	+ 0·03	+ 0·83	
20	,,	+ 8·4	+ 0·3	+ 0·04	+ 0·12	0·00	+ 0·83	
23	,,	+ 12·6	+ 0·3	+ 0·06	+ 0·08	+ 0·04	+ 0·82	
25	,,	+ 12·0	+ 0·3	− 0·09	+ 0·05	+ 0·01	+ 0·82	
27	,,	+ 11·2	+ 0·3	− 0·01	+ 0·15	+ 0·05	+ 0·82	
28	,,	+ 10·1	+ 0·3	+ 0·05	+ 0·09	+ 0·03	+ 0·82	
31	,,	+ 14·2	+ 0·3	− 0·01	+ 0·15	0·00	+ 0·81	
Nov. 1	R	+ 11·7	0·0	+ 0·01	+ 0·01	+ 0·03	+ 0·81	
3	,,	+ 10·7	0·0	+ 0·05	+ 0·03	+ 0·02	+ 0·81	150 and 69 R. P. L.
4	,,	+ 10·2	0·0	+ 0·04	+ 0·04	+ 0·02	+ 0·87	
5	,,	+ 10·3	0·0	− 0·06	+ 0·02	+ 0·01	+ 0·92	
8	,,	+ 11·5	0·0	− 0·17	+ 0·03	+ 0·06	+ 1·09	14 and 99 R. P. L.
10	,,	+ 9·5	0·0	− 0·17	+ 0·02	+ 0·02	+ 1·06	
11	,,	+ 9·3	0·0	− 0·22	− 0·02	+ 0·02	+ 1·05	
12	,,	+ 9·9	0·0	− 0·26	− 0·03	+ 0·02	+ 1·04	
19	,,	+ 12·2	0·0	− 0·24	− 0·02	+ 0·01	+ 0·95	
20	,,	+ 10·3	0·0	− 0·48	+ 0·03	+ 0·01	+ 0·94	14 and 99 R. P. L.
21	,,	+ 10·4	0·0	− 0·42	− 0·04	+ 0·02	− 0·03	14 and 99 R. P. L.
22	,,	+ 8·8	0·0	− 0·15	− 0·22	+ 0·02	− 0·11	
24	,,	− 1·9	0·0	− 0·30	− 0·21	+ 0·03	− 0·28	
25	,,	− 2·6	0·0	− 0·22	− 0·20	+ 0·03	− 0·36	2 Urs. Min. and 89 R. P. L.
26	,,	− 2·3	0·0	− 0·17	− 0·21	+ 0·03	− 0·33	
27	,,	− 4·2	0·0	− 0·18	− 0·21	+ 0·04	− 0·29	
28	,,	− 4·4	0·0	− 0·10	− 0·24	+ 0·04	− 0·26	η Piscium and 111 R. P. L.
29	,,	− 2·4	0·0	− 0·10	− 0·25	+ 0·04	− 0·23	
Dec. 1	,,	− 3·7	0·0	− 0·21	− 0·26	+ 0·04	− 0·18	
2	,,	− 4·6	0·0	− 0·26	− 0·28	+ 0·05	− 0·15	
3	,,	− 4·8	0·0	− 0·22	− 0·25	+ 0·06	− 0·13	
5	,,	− 4·3	0·0	− 0·12	− 0·22	+ 0·04	− 0·08	
6	,,	− 4·5	0·0	− 0·13	− 0·24	+ 0·04	− 0·05	14 and 99 R. P. L.
8	,,	− 4·8	0·0	− 0·21	− 0·24	+ 0·04	− 0·22	
9	,,	− 4·9	0·0	− 0·30	− 0·28	+ 0·04	− 0·31	
10	,,	− 4·6	0·0	− 0·35	− 0·27	+ 0·04	− 0·39	
11	,,	− 4·8	0·0	− 0·30	− 0·28	+ 0·03	− 0·48	35 R. P. L. & R Camelopardi
12	,,	− 5·0	0·0	− 0·27	− 0·25	+ 0·04	− 0·46	
17	,,	− 7·1	0·0	− 0·45	− 0·22	+ 0·04	− 0·37	

November 21.—Azimuth adjusted.
November 23.—Collimation and microscopes adjusted.

Instrumental Corrections adopted in 1879.

Date.	Observer.	Index.	Run in 5′.	Clock Rate.	Inclination.	Collimation.	Meridian.	Determining Stars.
		″	″	*s*	*s*	*s*	*s*	
Dec. 18	R	− 5·5	0·0	− 0·48	− 0·20	+ 0·05	− 0·35	
19	,,	− 5·6	0·0	− 0·41	− 0·18	+ 0·04	− 0·33	35 R.P.L. & R Camelopardi.
20	,,	− 5·3	0·0	− 0·30	− 0·18	+ 0·04	− 0·28	35 R.P.L. & R Camelopardi.
26	,,	− 6·2	0·0	− 0·31	− 0·22	+ 0·04	− 0·39	35 and 115 R. P. L.
30	,,	− 5·4	0·0	− 0·38	− 0·23	+ 0·05	− 0·38	40 R. P. L. and ϵ Urs. Min.

Corrections to the Nautical Almanac Stars as given by the Madras Mean Positions.

Stars.	Approximate Place 1878.			1877.			1878.			1879.		
				Obs.	R. A.	P. D.	Obs.	R. A.	P. D.	Obs.	R. A.	P. D.
	h.	*m.*	° ′		*s*	″		*s*	″		*s*	″
α Andromedæ ...	0	2	61 35	2	+0·10	+ 0·5	4	+0·01	+ 0·8	3	+0·08	− 0·7
γ Pegasi (*Algenib*) ...	0	7	75 30	4	− 0·03	+ 0·4	2	+0·01	− 0·8	7	+0·02	− 1·5
12 Ceti	0	24	94 38	5	− 0·01	− 0·3	1	+0·12	− 1·6	3	− 0·06	− 0·3
β Ceti...	0	37	108 39	4	+0·05	− 0·5	5	− 0·04	− 2·2	4	+0·05	− 2·6
ε Piscium	0	57	82 46	5	− 0·04	− 0·6	9	− 0·02	− 1·1	8	− 0·05	− 2·1
α Urs. Min. (*Polaris*)..	1	14	1 20	9	+0·08	+ 2·7	6	− 0·02	− 1·1	2	− 1·42	+ 1·3
θ Ceti	1	18	98 49	4	0·00	− 0·5	8	+0·04	− 1·1	4	+0·04	− 1·1
η Piscium	1	25	75 17	4	+0·04	+ 0·1	8	− 0·04	+ 0·1	9	− 0·02	− 0·4
ν Piscium	1	35	85 8	4	0·00	− 0·6	9	− 0·04	− 2·2	7	+0·01	− 1·2
β Arietis	1	48	69 47	3	+0·02	+ 0·5	9	+0·04	+ 0·6	6	0·00	+ 0·1
α Arietis	2	0	67 7	3	− 0·06	+ 1·0	11	− 0·03	+ 0·1	7	− 0·01	− 0·5
67 Ceti	2	11	96 59	...	.....	.....	8	+0·03	− 2·3	16	+0·06	− 2·7
ξ^2 Ceti	2	22	82 5	1	− 0·10	− 1·9	3	0·00	− 1·7	9	+0·03	− 0·9
γ^2 Ceti	2	37	87 17	4	+0·07	− 1·1	6	+0·01	− 0·7	2	0·00	− 1·3
α Ceti...	2	56	86 23	4	+0·03	− 2·5	8	− 0·01	− 2·2	2	+0·04	− 3·0
δ Arietis	3	5	70 44	5	+0·02	+ 0·4	3	+0·03	+ 1·0	4	+0·07	+ 0·1
α Persei	3	16	40 34	...	.....	.....	...	.....	.....	1	+0·04	− 0·7
ε Eridani	3	27	99 52	4	+0·19	− 1·1	...	.....	.....	...	.....	.....
η Tauri	3	40	66 16	6	+0·01	+ 0·2	8	+0·02	+ 1·1	2	− 0·10	− 0·7
γ^1 Eridani	3	52	103 51	7	+0·01	− 0·2	8	+0·02	− 0·5	4	0·00	− 0·8
o^1 Eridani	4	6	97 9	5	− 0·02	− 1·1	1	+0·04	− 3·1	4	− 0·03	− 1·7
ε Tauri	4	21	71 6	10	+0·01	+ 0·4	7	− 0·02	+ 0·6	6	− 0·02	+ 0·7
α Tauri (*Aldebaran*)...	4	29	73 44	4	+0·03	− 0·4	3	+0·02	+ 0·2	6	+0·01	+ 1·3
ι Aurigæ	4	49	57 2	12	− 0·02	− 0·2	6	+0·02	− 1·2	16	+0·05	+ 0·3
ε Leporis	5	0	112 32	7	+0·02	− 0·8	5	0·00	− 1·7	13	− 0·03	− 1·6
β Orionis (*Rigel*) ...	5	9	98 21	3	+0·03	− 0·2	3	0·00	− 1·7	4	− 0·01	− 2·5
β Tauri	5	19	61 30	6	0·00	− 0·3	4	− 0·06	− 0·3	8	− 0·05	0·0
δ Orionis	5	26	90 23	3	0·00	− 2·0	2	0·00	− 3·3	6	− 0·05	− 2·6
α Leporis	5	27	107 55	2	+0·04	+ 0·2	1	− 0·02	− 1·2	2	+0·08	− 1·5
ε Orionis	5	30	91 17	3	+0·02	+ 0·5	3	− 0·01	− 1·3	5	− 0·01	− 1·9
α Columbæ	5	35	124 8	...	.....	.....	2	− 0·13	+ 0·3	4	− 0·16	+ 0·4
α Orionis	5	49	82 37	4	+0·01	− 1·8	8	+0·02	− 2·2	4	− 0·05	− 2·1
ν Orionis	6	1	75 13	6	− 0·01	− 0·4	8	+0·05	− 1·7	6	+0·02	− 1·6
μ Geminorum ...	6	16	67 26	2	0·00	0·0	12	+0·01	− 0·6	10	+0·01	− 1·3
γ Geminorum ...	6	31	73 30	9	− 0·02	+ 0·5	11	+0·02	+ 0·3	4	+0·02	+ 0·5

Corrections to the Nautical Almanac Stars as given by the Madras Mean Positions.

Stars.	Approximate Place 1878.			1877.			1878.			1879.		
				Obs.	R. A.	P. D.	Obs.	R. A.	P. D.	Obs.	R. A.	P. D.
	h.	*m.*	° ′		*s*	″		*s*	″		*s*	″
51 Cephei (*Hev.*) ...	6	43	2 46	5	− 0·13	+ 0·1	2	− 0·24	− 2·0	3	− 0·73	+ 1·1
ϵ Canis Majoris ...	6	54	118 48	4	− 0·04	− 0·1	4	0·00	− 0·6	13	− 0·07	− 2·4
γ Canis Majoris ...	6	58	105 27	...	.....	.....	11	− 0·01	− 1·0	13	+ 0·01	− 0·8
α^2 Geminorum(*Castor*)	7	27	57 51	2	− 0·02	− 0·7	16	+ 0·02	+ 0·1	10	− 0·05	0·0
α Can. Min. (*Procyon*)	7	33	84 28	11	− 0·06	− 2·6	3	− 0·01	− 4·2	5	− 0·14	− 5·7
β Geminorum(*Pollux*)	7	38	61 41	7	0·00	+ 0·7	2	+ 0·02	+ 0·4	6	0·00	+ 0·1
6 Cancri	7	56	61 52	3	+ 0·02	− 0·9	10	+ 0·02	− 0·4	14	+ 0·05	− 0·9
15 Argûs (*Navis*) ...	8	2	113 57	7	+ 0·03	0·0	4	− 0·02	− 1·6	9	− 0·05	− 1·9
η Cancri	8	26	69 9	5	+ 0·04	− 0·9	10	+ 0·01	− 0·5	20	+ 0·09	− 1·0
ϵ Hydræ	8	40	83 8	4	− 0·02	+ 0·2	3	− 0·14	− 2·7	5	+ 0·02	− 4·0
83 Cancri	9	12	71 47	11	+ 0·03	+ 0·5	6	+ 0·08	+ 0·2	2	0·00	− 1·0
α Hydræ	9	22	98 8	10	+ 0·03	− 0·7	4	0·00	− 1·9	10	− 0·01	− 3·6
ϵ Leonis	9	39	65 40	7	− 0·03	+ 0·6	7	+ 0·01	− 1·4	14	+ 0·03	− 1·1
π Leonis	9	54	81 22	10	+ 0·01	− 0·6	17	− 0·01	− 2·7	15	− 0·05	− 2·7
α Leonis (*Regulus*) ...	10	2	77 26	7	− 0·03	− 0·4	8	0·00	− 1·0	4	− 0·04	− 1·4
γ^1 Leonis	10	13	69 33	6	− 0·01	− 1·7	1	− 0·02	− 2·5	11	+ 0·03	− 1·9
ρ Leonis	10	26	80 4	7	− 0·02	− 0·9	6	− 0·05	− 3·5	4	− 0·06	− 2·8
l Leonis	10	43	78 49	7	+ 0·03	− 0·5	18	+ 0·03	− 2·7	14	+ 0·03	− 1·7
χ Leonis	10	59	82 0	9	+ 0·02	− 0·3	14	− 0·01	− 3·2	8	+ 0·05	− 2·8
δ Leonis	11	8	68 48	7	− 0·01	− 0·8	6	− 0·02	− 2·2	3	+ 0·07	− 1·9
δ Crateris	11	13	104 7	5	− 0·03	− 1·3	20	− 0·05	− 1·1	6	− 0·05	− 1·4
υ Leonis	11	31	90 9	5	+ 0·05	− 0·2	16	+ 0·01	− 1·6	3	+ 0·03	− 1·5
β Leonis	11	43	74 45	4	+ 0·02	+ 0·1	6	+ 0·08	+ 0·8	6	− 0·07	+ 0·1
ϵ Corvi	12	4	111 56	6	− 0·08	− 0·9	8	− 0·04	− 1·2	5	− 0·01	+ 0·2
η Virginis	12	14	89 59	10	+ 0·01	− 0·8	4	+ 0·04	− 1·5	5	+ 0·01	− 0·5
β Corvi	12	28	112 43	8	+ 0·06	− 0·5	2	+ 0·21	− 2·7	12	+ 0·08	− 2·2
γ Virginis (*Mean*) ...	12	35	90 47	...	.. ...	.....	...	.....	.....	1	− 0·07	− 0·9
α Canum Venaticorum	12	50	51 1	4	− 0·03	− 1·6	2	− 0·08	− 0·5	...	.....	.....
θ Virginis	13	4	94 53	3	− 0·02	− 0·4	5	+ 0·04	− 1·9	1	+ 0·15	− 1·9
α Virginis (*Spica*) ...	13	19	100 31	4	0·00	− 0·7	4	− 0·04	− 0·5	4	+ 0·05	− 0·9
ζ Virginis ...	13	28	89 58	4	− 0·05	− 1·6	4	+ 0·05	− 1·7	11	− 0·01	− 1·8
η Bootis	13	49	70 59	5	− 0·03	+ 0·5	6	− 0·05	+ 0·1	5	+ 0·01	− 1·1
τ Virginis	13	55	87 52	6	− 0·07	− 0·9	3	− 0·01	− 2·6	10	0·00	− 2·4
α Bootis (*Arcturus*)...	14	10	70 11	5	+ 0·02	+ 1·7	7	+ 0·03	+ 1·8	5	0·00	+ 0·4
ρ Bootis	14	27	59 6	4	0·00	+ 0·3	9	− 0·02	− 0·4	14	+ 0·02	0·0

Corrections to the Nautical Almanac Stars as given by the Madras Mean Positions.

Stars.	Approximate Place 1878.			1877.			1878.			1879.		
				Obs.	R. A.	P. D.	Obs.	R. A.	P. D.	Obs.	R. A.	P. D.
	h.	*m.*	° ′		*s*	″		*s*	″		*s*	″
ϵ^2 Bootis	14	40	62 25	2	+ 0·05	− 0·1	4	+ 0·06	− 0·2	1	+ 0·10	− 0·2
α Libræ	14	44	105 32	3	+ 0·04	− 0·7	7	0·00	− 0·8	5	− 0·02	− 1·1
ψ Bootis	14	59	62 35	3	− 0·06	− 0·1	5	0·00	− 0·3	6	− 0·03	− 0·8
β Libræ	15	10	98 56	2	0·00	− 0·2	12	− 0·01	− 1·0	3	− 0·02	− 0·2
α Coronæ	15	30	62 52	7	− 0·01	− 0·5	9	+ 0·03	− 1·3	6	− 0·08	− 1·6
α Serpentis	15	38	83 11	10	+ 0·02	− 1·3	12	− 0·01	− 1·7	4	0·00	− 3·3
β^1 Scorpii	15	58	109 28	16	0·00	− 1·7	9	+ 0·02	− 2·7	1	+ 0·30	− 4·1
δ Ophiuchi	16	8	93 23	15	− 0·01	+ 0·3	15	− 0·01	+ 0·1	1	0·00	+ 0·1
α Scorpii (*Antares*) ...	16	22	116 10	11	0·00	− 1·1	10	+ 0·05	+ 0·1	2	− 0·05	− 0·6
ζ Herculis	16	37	58 11	11	0·00	+ 1·3	4	− 0·09	+ 0·9	3	− 0·05	+ 0·6
κ Ophiuchi	16	52	80 26	7	0·00	− 0·7	4	+ 0·06	− 0·8	4	0·00	− 0·2
ϵ Ursæ Minoris ...	16	59	7 46	4	+ 0·61	− 0·4	4	+ 0·44	− 0·4	7	+ 0·67	+ 4·5
α^1 Herculis	17	9	75 28	7	0·00	− 1·5	3	+ 0·02	− 3·6	9	− 0·02	− 2·1
θ Ophiuchi	17	15	114 53	2	+ 0·07	− 0·9	2	+ 0·04	+ 0·5	2	+ 0·02	0·0
α Ophiuchi	17	29	77 21	7	+ 0·01	− 0·1	4	+ 0·02	− 3·1	4	0·00	− 2·2
μ Herculis	17	42	62 12	8	− 0·03	− 1·1	7	0·00	− 2·4	10	− 0·08	− 1·4
μ Sagittarii	18	6	111 5	12	+ 0·03	− 0·8	3	− 0·06	− 1·9	14	+ 0·03	− 1·5
δ Ursæ Minoris ...	18	12	3 23	8	− 0·13	− 0·1	7	− 0·05	+ 1·2	4	− 0·37	+ 0·5
α Lyræ	18	33	51 20	12	− 0·02	− 0·4	3	− 0·04	− 3·8	4	− 0·09	− 0·4
β^1 Lyræ	18	46	56 47	11	− 0·02	− 0·2	9	− 0·01	− 1·3	13	− 0·01	− 0·4
ζ Aquilæ	19	0	76 19	5	+ 0·06	+ 0·3	6	+ 0·01	− 2·0	15	− 0·01	− 1·5
ω Aquilæ	19	12	78 37	7	− 0·01	− 0·8	5	0·00	− 3·3	7	+ 0·01	− 1·3
δ Aquilæ	19	19	87 8	6	+ 0·01	− 0·2	10	+ 0·01	− 2·0	8	+ 0·04	− 1·2
h^2 Sagittarii ...	19	29	115 9	3	+ 0·07	+ 0·8	6	+ 0·01	− 2·1	8	+ 0·03	− 1·1
γ Aquilæ	19	40	79 41	4	− 0·04	− 1·2	8	− 0·01	− 2·6	9	0·00	− 1·7
α Aquilæ (*Altair*) ...	19	45	81 27	4	− 0·07	− 1·2	2	+ 0·01	− 2·5	...	.....	.....
λ Ursæ Minoris ...	19	46	1 4	...	.....	.....	...	.....	.....	1	− 0·93	+ 0·9
β Aquilæ	19	49	83 54	3	− 0·02	+ 0·3	7	0·00	− 2·9	3	+ 0·07	− 3·5
α^2 Capricorni ...	20	11	102 55	8	+ 0·03	− 0·2	9	+ 0·05	− 1·7	5	+ 0·04	− 1·8
ρ Capricorni ...	20	22	108 13	7	+ 0·10	0·0	15	+ 0·07	− 0·6	8	+ 0·09	− 0·3
α Cygni	20	37	45 9	12	+ 0·02	+ 0·2	5	− 0·02	− 0·9	4	− 0·26	− 2·1
32 Vulpeculæ ...	20	49	62 24	9	0·00	− 0·2	10	− 0·08	− 1·4	10	− 0·06	− 2·1
ζ Cygni	21	8	60 16	16	0·00	− 0·2	8	− 0·01	− 1·0	7	− 0·02	− 2·5
β Aquarii	21	25	96 6	16	− 0·01	− 0·1	7	− 0·02	0·0	9	+ 0·14	− 1·1
ϵ Pegasi	21	38	80 41	2	− 0·04	− 1·8	3	− 0·04	− 0·2	5	− 0·02	− 1·7

Corrections to the Nautical Almanac Stars as given by the Madras Mean Positions.

Star.	Approximate Place 1878.			1877.			1878.			1879.		
				Obs.	R. A.	P. D.	Obs.	R. A.	P. D.	Obs.	R. A.	P. D.
	h.	*m.*	° ′		*s*	″		*s*	″		*s*	″
16 Pegasi	21	48	64 39	6	− 0·06	− 0·2	2	− 0·07	− 1·3	7	− 0·08	− 2·7
α Aquarii	22	0	90 55	8	− 0·02	− 0·4	5	+ 0·04	0·0	4	+ 0·07	− 1·4
θ Aquarii	22	10	98 23	13	− 0·01	− 1·6	4	+ 0·04	− 1·7	6	0·00	− 1·9
η Aquarii	22	29	90 45	15	+ 0·02	+ 0·2	9	+ 0·05	+ 0·3	4	+ 0·05	− 1·9
ζ Pegasi	22	35	79 48	9	− 0·03	− 0·8	10	− 0·01	− 0·6	6	+ 0·02	− 1·6
α Pis.Aus.(*Fomalhaut*)	22	51	120 16	1	+ 0·11	+ 0·8	2	− 0·06	+ 0·2	2	+ 0·10	− 0·5
α Pegasi (*Markab*) ...	22	59	75 27	11	0·00	+ 1·2	10	− 0·03	+ 0·9	7	− 0·03	+ 0·2
γ Piscium	23	11	87 23	1	− 0·01	− 1·2	6	+ 0·02	− 0·9	5	− 0·04	− 1·8
κ Piscium	23	21	89 25	2	+ 0·02	− 0·9	3	− 0·02	0·0	3	− 0·01	− 2·5
ι Piscium	23	34	85 2	15	− 0·01	− 0·6	4	− 0·04	− 1·1	4	+ 0·02	− 1·4
δ Sculptoris	23	48	118 48	8	+ 0·01	+ 1·0	1	− 0·01	0·0	6	+ 0·01	+ 0·6
ω Piscium	23	53	83 49	10	− 0·04	− 2·0	2	− 0·03	− 2·2	5	− 0·05	− 2·1

ERRATA.

Page.	No.	Subject.	For	Read
		In Madras Meridian Circle Observations for 1865, 66, *and* 67.		
66	85	Degrees of Mean P. D.	161	151
68	129	" "	158	153
70	142	" "	152	153
"	143	Hours of Mean R. A.	8	3
		In Madras Meridian Circle Observations for 1871, 72, *and* 73.		
5 38	60	Degrees of Mean P. D.	79	81
		In Madras Meridian Circle Observations for 1877, 78, *and* 79.		
5	53	Seconds of Mean R. A.	23·02 22·92	22·68 22·54
54	"	" "	22·97	22·61
40 78	460	Name	...	delete 54
61	160	Sign of proper motion in P. D.	−	+
"	173	" " in R. A.	+	−
67	275	Name	26	27
73	365	Annual Precession in P. D.	1·658	1·669
77	427	Sign of proper motion in P. D.	−	+
86	9	Seconds of Mean R. A.	52·98	52·71
"	"	Minutes of Mean P. D.	50	40
"	17	Minutes and seconds of Mean P. D.	56 8·9	57 9·9
87	35	Seconds of R. A.	9·97 10·26	9·67 9·76
88	38	Date	13	Dec. 13
89	55	Seconds of Mean R. A.	36·67	36·37
"	61	Minutes and Seconds of Mean P. D.	11 55·9	13 36·5
93	124	Seconds of Mean R. A.	44·11	42·32
"	128	" "	36	37
94 164	148	" "	41·42	41·68
129 190	596	Seconds of Mean R. A.	41·50	41·12
"	"	Degrees of Mean P. D.	8	6
"	"	Seconds of Mean P. D.	10·1	7·1
138 196	730	" " R. A.	36·10	35·93
141	774	Date	2	Sep. 2
141 200	771	Seconds of Mean P. D.	31	21
151	914	Seconds of Mean R. A.	44·60 44·78	44·39 44·49
"	915	" "	37·12 37·36	36·97 37·13
157	20	Name	2	20
159	39	Sign of proper motion in R. A.	+	−
"	46	" " in P. D.	+	−
163	111	" " in R. A.	+	−
"	137	" " in P. D.	−	+

Page.	No.	Subject.	For	Read
175	341	Sign of proper motion in R. A.	−	+
179	389	Annual Precession in R. A.	3·5381	3·5361
181	452	" " "	3·1965	3·1973
"	"	Secular Variation "	0·4892	0·4929
185	504	Annual Precession "	3·8063	3·8057
191	"	Annual Precession in R. A.	2·8700	4·5957
191	"	Secular Variation in R. A.	0·3963	0·7034
"	"	" in P. D.	0·288	0·465
"	626	Sign of proper motion in P. D. ...	−	+
193	658	Annual Precession in R. A.	3·3660	3·3633
194	687	Seconds of Mean R. A.	12	13
197	718	Annual Precession in P. D.	3·515	3·512
"	721	Sign of proper motion in P. D.	−	+
199	750	Annual Precession in R. A.	2·8121	3·8121
"	752	" in P. D.	6·867	6·862
"	757	Secular Variation in P. D.	0·051	0·031
203	834	Sign of Annual Precession in R. A.	+	−
"	"	Annual Precession in P. D.	13·660	13·634
208	914	Seconds of Mean R. A.	44·69	44·44
"	915	" "	37·24	37·05
209	933	Secular Variation in R. A....	0·0398	0·0388
211	948	Sign of proper motion in P. D.	−	+
"	949	" "	−	+
214	11	Seconds of Mean P. D.	0·0	3·0
216	37	Date	...	delete Sep.
223 } 294 }	143	Seconds of Mean R. A.	27·68	27·96

SEPARATE RESULTS

OF

OBSERVATIONS

OF THE FIXED STARS

MADE WITH THE

MADRAS MERIDIAN CIRCLE

IN THE YEAR

1877

Separate Results of Madras Meridian Circle Observations in 1877.

Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
1		21 *Andromedæ a, Alpherat.*			
Nov. 23	...	0 2 1·98	3	61 35 19·5	M
24	...	2 2·01	...	35 20·3	M
2		11 *Cassiopeiæ β*			
Oct. 16	2·3	0 2 37·20	...	31 31 44·4	R
17	2·0	2 37·31	...	31 44·0	R
18	2·0	2 37·25	...	31 44·8	R
3		*ε Phœnicis.*			
Oct. 2	4·0	0 3 9·66	...	136 25 34·7	R
3	4·0	3 9·68	...	25 35·4	R
5	4·0	3 9·56	...	25 36·1	R
4		88 *Pegasi γ, Algenib.*			
Nov. 27	...	0 6 54·28	...	75 30 2·6	M
28	...	6 54·18	...	30 3·5	M
Dec. 10	...	6 54·04	...	30 1·3	R
13	...	6 54·21	...	30 1·8	R
5		8 *Ceti ι*			
Oct. 1	4·0	0 13 9·63	...	99 30 21·3	R
6		*κ Phœnicis.*			
Oct. 1	4·0	0 20 9·07	...	134 21 45·5	R
6	4·0	20 8·85	...	21 43·1	R
7		*α Phœnicis.*			
Oct. 10	2·0	0 20 11·88	...	132 58 27·4	R
13	2·0	20 12·04	...	58 28·9	R
8		12 *Ceti.*			
Nov. 23	...	0 23 45·61	...	94 38 13·7	M
29	...	23 45·46	...	38 13·9	M
Dec. 3	...	23 45·72	...	38 13·3	R
10	...	23 45·69	...	38 14·5	R
15	...	23 45·67	...	38 13·2	R
9		*β Tucanæ*—1st.			
Oct. 18	4·0	0 25 53·98	...	153 38 11·5	R
20	4·0	25 54·01	...	38 10·8	R
31	4·0	25 53·97	...	38 10·7	R
10		*β Tucanæ*—2nd.			
Nov. 3	4·0	0 25 54·74	...	153 38 38·0	R
6	4·0	25 54·99	...	38 35·0	R
11		31 *Andromedæ δ*			
Oct. 1	3·0	0 32 45·38	...	59 48 43·6	R
20	3·0	32 45·41	...	48 44·1	R
12		16 *Ceti β*			
Nov. 19	...	0 37 24·79	...	108 39 43·4	M
21	...	37 24·91	...	39 43·1	M
Dec. 10	...	37 24·99	...	39 43·1	R
15	...	37 24·89	...	39 44·0	R
13		24 *Cassiopeiæ*—*η* 1st.			
Nov. 3	4·0	0 41 40·80	...	32 50 14·4	R
14		24 *Cassiopeiæ*—*η* 2nd.			
Oct. 31	3·2	0 41 40·55	...	32 50 19·0	R
15		27 *Cassiopeiæ γ*			
Oct. 31	...	0 49 18·09	...	29 56 56·7	R
Nov. 6	...	49 17·97	...	56 59·9	R
16		2 *Ursæ Minoris.*			
Nov. 22	...	0 52 14·84	3	4 24 13·2	M
29	...	52 15·55	3	24 14·0	M
Dec. 14	...	52 14·37	3	24 13·3	R
		2 *Ursæ Minoris*—*s.p.*			
June 4	...	0 52 14·75	2	4 24 20·5	R

Separate Results of Madras Meridian Circle Observations in 1877.

Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
17		*R. P. L.* 14.			
Nov. 3	...	0 55 42·64	3	3 30 37·0	R
12	...	55 42·83	3	30 36·7	R
Dec. 10	...	55 42·71	3	30 37·4	R
		R. P. L. 14—*s.p.*			
Apl. 30	...	0 55 42·00	3	3 30 37·5	R
18		71 *Piscium* ε			
Nov. 26	...	0 56 33·06	...	82 46 20·7	M
27	...	56 33·01	...	46 20·6	M
Dec. 11	...	56 33·04	...	46 22·3	R
15	...	56 33·06	...	46 20·1	R
17	...	56 33·05	...	46 22·8	R
19		β *Phœnicis.*			
Oct. 31	3·5	1 0 35·41	...	137 22 39·2	R
20		υ *Phœnicis.*			
Nov. 19	5·8	1 2 10·42	...	132 8 43·8	M
20	5·7	2 10·64	...	8 43·4	M
28	5·9	2 10·42	...	8 43·5	M
Dec. 10	5·5	2 10·64	...	8 42·2	R
11	5·5	2 10·56	...	8 40·5	R
21		31 *Ceti* η			
Nov. 7	3·6	1 2 24·14	...	100 50 5·2	R
10	3·5	2 23·82	...	50 3·8	R
12	3·5	2 23·99	...	50 3·6	R
22		ι *Tucanæ.*			
Nov. 24	5·7	1 2 25·96	...	152 25 59·7	M
29	5·0	2 26·09	...	25 58·4	M
30	5·0	2 26·02	3	25 58·9	R
Dec. 12	5·0	2 26·01	...	25 59·8	R
13	5·0	2 25·97	...	25 59·0	R

Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
23		43 *Androm.* β (*Mirach*).			
Nov. 21	2·7	1 2 50·85	...	55 1 57·4	M
22	2·3	2 50·94	...	1 58·3	M
23	2·4	2 50·88	...	1 55·6	M
24		33 *Cassiopeiæ* θ			
Nov. 26	4·7	1 3 37·17	...	35 30 17·5	M
27	4·4	3 37·04	...	30 18·2	M
Dec. 3	4·5	3 37·01	...	30 17·0	R
14	4·5	3 37·16	...	30 17·5	R
15	4·5	3 37·19	...	30 17·8	R
25		*Lalande* 2186.			
Oct. 31	8·9	1 7 16·09	...	81 40 38·7	R
Nov. 3	9·0	7 16·04	...	40 43·0	R
6	9·4	7 15·93	...	40 41·5	R
7	9·0	7 15·97	...	40 41·9	R
10	9·1	7 15·86	...	40 43·1	R
26		1 *Ursæ Minoris a, Polaris.*			
Dec. 21	...	1 13 40·95	3	1 20 48·1	M
27	...	13 40·92	3	20 46·7	M
		1 *Ursæ Minoris a, Polaris—s.p.*			
May 3	...	1 13 40·39	2	1 20 50·7	M
5	...	13 41·08	2	20 51·5	M
9	...	13 41·47	3	20 50·9	M
23	...	13 41·16	3	20 52·2	M
25	...	13 40·74	3	20 51·7	M
29	...	13 41·07	3	20 52·1	M
31	...	13 41·40	3	20 53·0	M
27		37 *Cassiopeiæ* δ			
Nov. 3	3·0	1 17 47·11	...	30 24 17·7	R
6	3·0	17 47·24	...	24 18·3	R
28		45 *Ceti* θ			
Nov. 24	...	1 17 52·36	...	98 49 5·6	M
29	...	17 52·53	...	49 5·9	M
Dec. 14	...	17 52·46	...	49 7·6	R
18	...	17 52·48	...	49 6·2	R

Separate Results of Madras Meridian Circle Observations in 1877.

Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
29		*R Sculptoris, Var.* 1.			
Nov. 19	7·0	1 21 18·10	4	123 10 54·7	M
20	6·9	21 18·26	...	10 54·4	M
21	7·0	21 18·18	...	10 55·5	M
Dec. 12	8·0	21 17·96	...	10 54·5	R
13	7·0	21 18·05	...	10 54·9	R
30		*γ Phœnicis.*			
Nov. 3	3·0	1 23 ~~1·17~~	...	133 56 56·8	R
7	3·0	23 ~~1·22~~	...	56 53·9	R
31		99 *Piscium η*			
Nov. 22	...	1 24 54·24	...	75 17 20·8	M
Dec. 13	...	24 54·18	...	17 19·7	R
14	...	24 54·25	..	17 19·5	R
18	...	24 54·09	...	17 20·4	R
32		*δ Phœnicis.*			
Nov. 6	4·0	1 26 7·50	...	139 42 44·9	R
10	4·0	26 7·47	...	42 46·4	R
33		106 *Piscium ν*			
Dec. 19	...	1 35 1·82	...	85 8 8·4	R
21	...	35 1·78	...	8 7·6	M
27	...	35 1·84	...	8 7·1	M
29	...	35 1·78	...	8 8·8	M
34		52 *Ceti τ*			
Nov. 3	3·5	1 38 20·98	...	106 35 7·7	R
35		55 *Ceti ζ*			
Nov. 6	3·0	1 45 23·64	...	100 56 35·3	R
12	3·0	45 23·45	...	56 35·8	R
36		45 *Cassiopeiæ ϵ*			
Oct. 31	...	1 45 33·82	...	26 56 10·2	R
Nov. 3	...	45 33·81	...	56 14·6	R
7	...	45 33·77	...	56 11·3	R

Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
37		6 *Arietis β*			
Dec. 19	...	1 47 50·66	...	69 47 39·9	R
21	...	47 50·75	...	47 39·7	M
29	...	47 50·89	...	47 38·5	M
38		*χ Eridani.*			
Jan. 6	4·0	1 51 10·09	...	142 13 18·6	R
39		*α Hydri.*			
Nov. 3	3·0	1 54 53·64	...	152 10 9·9	R
7	3·0	54 53·79	...	10 9·1	R
40		57 *Andromedæ γ—1st.*			
Jan. 6	...	1 56 21·04	...	48 15 39·9	R
10	...	56 21·22	...	15 41·0	R
Oct. 31	...	56 21·19	...	15 39·5	R
~~Nov. 10~~	...	~~56 21·23~~	...	~~15 39·7~~	R
				40·1	
41		57 *Andromedæ γ—2nd.*			
Jan. 8	...	~~1 56 22·13~~	...	~~48 15 37·8~~	R
12	...	56 22·01	...	15 36·1	R
16	...	56 22·02	...	15 37·0	R
				36·6	
42		13 *Arietis a*			
Dec. 17	...	2 0 14·41	...	67 7 12·8	R
21	...	0 14·51	...	7 12·5	M
29	...	0 14·36	...	7 15·7	M
43		4 *Trianguli β*			
Nov. 24	...	2 2 13·63	...	55 35 44·9	M
26	...	2 13·62	...	35 43·8	M
27	...	2 13·62	...	35 44·9	M
Dec. 10	...	2 13·63	...	35 44·3	R
11	...	2 13·60	...	35 43·1	R
44		*μ Fornacis.*			
Nov. 12	5·0	2 7 29·74	...	121 18 5·4	R
23	5·5	7 29·50	...	18 6·1	M
29	5·5	7 29·67	...	18 5·5	M
Dec. 10	5·0	7 29·60	...	18 6·7	R
11	5·0	7 29·58	...	18 5·2	R

Separate Results of Madras Meridian Circle Observations in 1877.

Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
45		*8 Trianguli δ*			
Nov. 22	5·9	2 9 32·89	...	56 20 23·7	M
Dec. 18	5·5	9 32·77	4	20 25·2	R
29	5·7	9 32·78	...	20 25·0	M
46		*9 Trianguli γ*			
Nov. 19	5·7	2 10 0·26	...	56 43 22·0	M
21	5·5	10 0·34	...	43 22·2	M
Dec. 13	5·5	10 0·19	...	43 21·3	R
15	5·5	10 0·19	...	43 20·8	R
17	5·5	10 0·13	...	43 21·8	R
47		*π¹ Hydri.*			
Dec. 19	5·5	2 11 40·32	...	158 25 0·7	R
27	5·8	11 40·77	...	25 2·3	M
48		*φ Eridani.*			
Jan. 10	4·0	2 12 6·64	...	142 4 57·5	R
13	4·0	12 6·61	...	4 58·5	R
15	4·0	12 6·66	...	4 54·2	R
49		*π² Hydri.*			
Dec. 21	5·0	2 12 55·11	...	158 18 59·2	M
50		*S Persei, Var.* 4.			
Jan. 5	10·5	2 14 2·38	...	31 58 37·9	R
6	10·6	14 2·54	...	58 30·9	R
51		*Anon.*			
Jan. 12	8·9	2 14 27·86	...	31 43 42·9	R
52		*κ Fornacis.*			
Nov. 12	5·0	2 16 55·01	...	114 22 33·4	R
26	5·7	16 54·83	...	22 34·0	M
Dec. 3	5·5	16 55·11	...	22 33·9	R
10	5·5	16 54·92	...	22 34·3	R
11	5·5	16 54·94	...	22 32·8	R
53		*Taylor* 798.			
Nov. 27	5·4	2 17 23·02	...	133 45 46·6	M
Dec. 15	5·5	17 22·92	...	45 47·4	R
54		*24 Arietis ξ*			
Nov. 29	5·8	2 18 13·61	...	79 56 51·0	M
Dec. 17	5·5	18 13·56	...	56 51·1	R
18	5·5	18 13·56	...	56 50·4	R
19	5·5	18 13·52	...	56 49·5	R
27	5·7	18 13·70	...	56 50·8	M
55		*Radcliffe* 706.			
Nov. 28	4·8	2 18 57·26	...	23 9 8·0	M
Dec. 29	4·6	18 57·33	...	9 7·8	M
56		*δ Hydri.*			
Jan. 5	4·0	2 19 34·30	4	159 13 12·9	R
8	4·0	19 34·26	...	13 14·4	R
10	4·0	19 34·14	...	13 11·4	R
57		*73 Ceti ξ²*			
Jan. 1	...	2 21 37·09	...	82 5 30·9	R
58		*R. P. L.* 26.			
Dec. 3	...	2 25 53·17	8	3 39 24·6	R
59		*82 Ceti δ*			
Jan. 8	4·0	2 33 10·34	...	90 12 12·5	R
60		*ι Eridani.*			
Jan. 5	4·0	2 35 48·58	...	130 22 58·9	R
10	4·0	35 48·71	...	22 59·6	R
61		*86 Ceti γ—2nd.*			
Jan. 1	...	2 36 55·82	...	87 16 59·7	R
13	...	36 55·78	...	17 0·0	R
Dec. 18	...	36 55·68	...	17 1·8	R
27	...	36 55·68	...	17 3·5	M

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Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
62		*89 Ceti π*			
Jan. 6	4·0	2 38 16·16	...	104 22 48·4	R
8	4·0	38 16·16	...	22 51·6	R
12	4·0	38 16·44	...	22 50·2	R
63		*41 Arietis.*			
Jan. 5	...	2 42 44·55	...	63 14 51·0	R
6	...	42 44·52	...	14 50·9	R
10	...	42 44·62	...	14 51·8	R
64		*3 Eridani γ*			
Jan. 1	...	2 50 25·05	...	99 23 18·0	R
5	...	50 24·97	...	23 16·6	R
65		*θ Eridani—1st.*			
Jan. 6	3·5	2 53 35·77	...	130 47 54·6	R
10	3·5	53 35·62	...	47 56·8	R
66		*θ Eridani—2nd.*			
Jan. 8	5·5	2 53 36·81	...	130 47 56·2	R
13	5·5	53 36·65	...	47 53·0	R
67		*92 Ceti α, Menkar.*			
Jan. 16	...	2 55 51·40	...	86 23 36·2	R
Dec. 17	...	55 51·13	...	23 36·7	R
19	...	55 51·07	...	23 37·0	R
27	...	55 50·96	...	23 35·4	R
68		*11 Eridani τ³*			
Jan. 12	4·0	2 56 58·16	...	114 6 27·9	R
15	4·0	56 57·98	...	6 28·1	R
69		*R. P. L. 33.*			
Jan. 13	...	3 3 30·69	3	5 31 46·6	R
Nov. 27	...	3 30·51	3	31 46·9	M
Dec. 19	...	3 28·88	3	31 47·3	R
		R. P. L. 33—s.p.			
June 1	...	3 3 30·37	3	5 31 46·5	R
70		*57 Arietis δ*			
Jan. 4	...	3 4 35·88	...	70 44 25·0	R
5	...	4 35·93	...	44 22·8	R
8	...	4 35·84	...	44 23·7	R
12	...	4 35·82	...	44 24·0	R
15	...	4 35·86	...	44 24·5	R
71		*12 Eridani.*			
Jan. 10	3·5	3 6 50·63	...	119 28 24·0	R
72		*13 Eridani ζ*			
Jan. 1	...	3 9 51·35	4	99 16 38·4	R
5	...	9 51·42	...	16 39·8	R
73		*16 Eridani τ⁴*			
Jan. 1	3·5	3 14 2·49	...	112 12 25·9	R
4	3·4	14 2·52	...	12 26·6	R
6	...	14 2·53	...	12 23·6	R
8	3·5	14 2·64	...	12 26·1	R
74		*18 Eridani ε*			
Jan. 1	3·4	3 27 7·83	...	99 52 32·5	R
5	3·5	27 7·96	...	52 32·1	R
10	3·5	27 8·00	...	52 33·6	R
13	3·5	27 7·99	...	52 33·3	R
75		*19 Eridani τ⁵*			
Jan. 4	4·0	3 28 21·30	..	112 2 47·6	R
8	4·0	28 21·42	.	2 48·9	R
12	4·0	28 21·47	...	2 46·9	R
15	4·0	28 21·25	...	2 46·5	R
76		*39 Persei δ*			
Jan. 1	3·0	3 34 10·20	...	42 36 27·5	R
4	3·0	34 10·19	...	36 28·4	R
5	3·0	34 10·24	...	36 25·8	R
6	3·0	34 10·14	...	36 27·5	R
Nov. 19	3·4	34 10·36	...	36 27·7	M

Separate Results of Madras Meridian Circle Observations in 1877.

Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
77		*23 Eridani δ*			
Jan. 8	3·5	3 37 21·44	...	100 10 53·3	R
12	3·5	37 21·28	...	10 51·0	R
15	3·5	37 21·34	...	10 52·3	R
16	3·5	37 21·26	...	10 51·8	R
78		*25 Tauri η, Alcyone.*			
Jan. 4	...	3 40 10·47	...	66 16 38·6	R
6	...	40 10·42	...	16 36·8	R
10	...	40 10·50	...	16 37·3	R
13	...	40 10·46	...	16 36·7	R
17	...	40 10·47	...	16 37·6	R
19	...	40 10·47	...	16 36·0	R
79		*26 Eridani π*			
Nov. 21	5·3	3 40 19·67	...	102 29 19·3	M
22	5·4	40 19·55	...	29 17·8	M
28	5·5	40 19·57	...	29 17·8	M
Dec. 19	5·0	40 19·55	...	29 18·6	R
27	5·4	40 19·70	...	29 20·7	M
80		*27 Eridani τ⁶*			
Nov. 23	4·4	3 41 33·30	...	113 36 52·5	M
27	4·7	41 33·19	...	36 52·2	M
29	4·6	41 33·32	...	36 51·1	M
Dec. 21	4·7	41 33·32	...	36 52·8	M
29	5·2	41 33·32	...	36 54·0	M
81		*υ² Eridani.*			
Jan. 1	4·0	3 44 50·80	...	126 34 23·8	R
8	4·0	44 50·89	4	34 25·8	R
12	4·0	44 51·03	...	34 26·3	R
82		*Lalande* 7193.			
Nov. 20	7·5	3 47 26·51	..	73 44 36·7	M
21	7·6	47 26·75	..	44 38·0	M
22	7·7	47 26·72	...	44 38·0	M
Dec. 19	7·0	47 26·59	...	44 38·1	R
21	7·4	47 26·51	...	44 39·1	M

Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
83		*34 Eridani γ¹*			
Jan. 4	...	3 52 17·35	...	103 51 35·9	R
6	...	52 17·42	...	51 34·0	R
8	...	52 17·46	...	51 35·7	R
10	...	52 17·44	...	51 35·8	R
15	...	52 17·40	...	51 35·6	R
17	...	52 17·44	...	51 35·6	R
22	...	52 17·44	...	51 36·2	R
84		*R. P. L.* 35.			
Jan. 5	...	3 58 32·40	3	4 46 16·7	R
16	...	58 32·72	3	46 19·8	R
85		*T Tauri, Var.* 4.			
Jan. 22	11·0	4 4 34·57	3	68 30 36·0	R
28	11·0	4 34·57	2	30 36·0	R
86		*38 Eridani o¹*			
Jan. 1	...	4 5 51·59	...	97 9 33·5	R
5	...	5 51·61	...	9 33·4	R
10	...	5 51·57	...	9 35·0	R
12	...	5 51·63	...	9 34·2	R
15	...	5 51·65	...	9 35·3	R
87		*γ Doradus.*			
Jan. 4	4·0	4 12 48·06	...	141 47 52·8	R
5	4·0	12 47·96	...	47 50·4	R
16	4·0	12 48·07	...	47 51·0	R
18	4·0	12 48·08	...	47 52·0	R
88		*a Reticuli.*			
Jan. 1	3·5	4 12 50·56	...	152 46 57·7	R
8	3·5	12 50·50	..	46 57·8	R
13	3·5	12 50·57	...	46 56·6	R
15	3·5	12 50·53	...	46 56·8	R
Feb. 19	3·6	12 50·75	...	47 58·7	M
89		*41 Eridani υ⁴*			
Jan. 6	3·5	4 13 14·28	...	124 6 1·2	R
10	3·5	13 14·30	4	6 2·4	R
12	3·5	13 14·20	...	6 0·8	R
17	3·5	13 14·28	...	6 3·2	R

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Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
90		*43 Eridani v^5*			
Jan. 4	4·0	4 19 24·77	...	124 18 14·3	R
5	4·0	19 24·78	...	18 12·0	R
10	4·0	19 24·86	5	18 14·0	R
15	4·0	19 24·71	...	18 13·2	R
91		*74 Tauri ϵ*			
Jan. 6	...	4 21 26·09	...	71 5 38·6	R
8	...	21 26·06	...	5 40·3	R
13	...	21 26·01	...	5 39·1	R
16	...	21 26·18	...	5 39·6	R
18	...	21 26·14	...	5 40·1	R
22	...	21 25·94	...	5 40·2	R
26	...	21 26·16	...	5 39·6	R
Feb. 2	...	21 26·14	...	5 39·8	M
3	...	21 26·15	...	5 39·5	M
10	...	21 26·04	...	5 39·6	M
92		*87 Tauri α, Aldebaran.*			
Jan. 5	...	4 28 51·76	...	73 44 22·2	R
12	...	28 51·81	...	44 22·6	R
Feb. 5	...	28 51·88	...	44 23·8	M
6	...	28 51·93	...	44 22·6	M
93		*48 Eridani ν*			
Jan. 18	4·0	4 30 10·45	...	93 36 22·0	R
23	4·0	30 10·38	...	36 22·8	R
25	4·0	30 10·56	...	36 20·6	R
27	4·0	30 10·56	...	36 20·1	R
Feb. 9	4·6	30 10·40	...	36 20·1	M
94		*52 Eridani υ^7*			
Jan. 19	3·5	4 30 46·26	...	120 48 54·6	R
24	3·5	30 46·31	...	48 55·5	R
26	3·5	30 46·12	...	48 54·7	R
29	3·5	30 46·22	...	48 53·8	R
Feb. 10	3·8	30 46·17	...	48 53·4	M
95		*α Doradus.*			
Jan 1	3·0	4 31 20·17	...	145 17 58·1	R
4	3·0	31 20·13	...	17 58·6	R
22	3·0	31 20·26	...	18 0·8	R

Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
96		*53 Eridani.*			
Jan. 30	4·0	4 32 32·63	...	104 32 44·5	R
31	4·0	32 32·72	...	32 43·6	R
Feb. 2	4·4	32 32·80	...	32 44·4	M
3	4·4	32 32·69	...	32 45·1	M
16	4·0	32 32·83	...	32 44·5	M
97		*54 Eridani.*			
Jan. 18	4·0	4 35 3·67	...	109 54 32·6	R
22	4·0	35 3·76	...	54 32·7	R
23	4·0	35 3·79	...	54 33·0	R
25	4·0	35 3·74	...	54 31·7	R
Feb. 12	4·5	35 3·52	...	54 30·1	M
98		*3 Aurigæ ι*			
Jan. 18	...	4 48 59·07	...	57 1 50·8	R
23	...	48 59·05	...	1 50·3	R
25	...	48 59·04	...	1 49·8	R
27	...	48 59·06	...	1 50·0	R
Feb. 5	...	48 59·15	...	1 50·7	M
6	...	48 59·04	...	1 50·0	M
7	...	48 59·02	...	1 51·4	M
9	...	48 59·15	...	1 51·2	M
10	...	48 59·08	...	1 50·9	M
12	...	48 58·93	...	1 51·5	M
14	...	48 58·91	...	1 50·4	M
16	...	48 59·07	...	1 50·5	M
99		*2 Leporis ϵ*			
Jan. 16	...	5 0 15·15	...	112 32 16·7	R
30	...	0 15·24	...	32 15·0	R
Feb 3	...	0 15·16	...	32 16·0	M
8	...	0 15·25	...	32 14·8	M
12	...	0 15·30	...	32 15·1	M
13	...	0 15·32	...	32 15·8	M
16	...	0 15·20	...	32 15·9	M
100		*67 Eridani β*			
Jan. 18	3·0	5 1 48·12	...	95 14 50·0	R
22	3·0	1 48·13	...	14 49·7	R
23	3·0	1 48·18	...	14 49·2	R
25	3·0	1 48·25	...	14 48·8	R
Feb. 9	3·6	1 48·14	...	14 49·3	M

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Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
101		69 *Eridani* λ			
Jan. 19	4·0	5 3 15·50	...	98 54 46·7	R
24	4·0	3 15·53	...	54 48·4	R
26	4·0	3 15·62	...	54 50·2	R
27	4·0	3 15·73	...	54 47·5	R
Feb. 10	4·6	3 15·59	...	54 47·8	M
102		*μ Doradûs, Var.* 1.			
Jan. 1	9·5	5 5 54·48	...	151 57 51·1	R
4	9·6	5 54·49	...	57 50·8	R
5	9·8	5 54·49	...	57 48·1	R
8	9·8	5 54·49	...	57 49·4	R
10	9·8	5 54·52	...	57 50·7	R
13	9·8	5 54·59	...	57 49·8	R
15	9·9	5 54·48	...	57 50·2	R
103		19 *Orionis* β, *Rigel.*			
Jan. 27	...	5 8 37·59	...	98 20 46·1	R
31	...	8 37·59	...	20 42·9	R
Feb. 14	...	8 37·68	...	20 42·1	M
104		*Anon.*			
Jan. 13	9·2	5 10 53·80	6	152 11 7·9	R
15	9·2	10 53·68	...	11 6·6	R
16	9·2	10 53·70	...	11 6·8	R
18	9·3	10 53·71	...	11 4·6	R
Feb. 13	9·2	10 53·78	...	11 6·8	M
105		20 *Orionis* τ			
Jan. 22	4·0	5 11 38·14	...	96 58 44·2	R
23	4·0	11 38·14	...	58 43·1	R
24	4·0	11 38·28	...	58 41·2	R
25	4·0	11 38·06	...	58 42·5	R
Feb. 9	4·3	11 38·07	...	58 43·1	M
106		112 *Tauri* β			
Jan. 17	...	5 18 31·04	...	61 29 56·7	R
19	...	18 31·08	...	29 54·2	R
23	...	18 31·12	...	29 55·4	R
24	...	18 31·11	...	29 54·3	R
29	...	18 31·07	...	29 55·2	R
Feb. 8	...	18 31·03	...	29 54·4	M
107		24 *Orionis* γ			
Jan. 1	2·0	5 18 32·15	...	88 45 44·8	R
4	2·0	18 32·12	...	45 45·2	R
108		*R. P. L.* 40.			
Jan. 18	...	5 22 45·81	3	4 52 19·1	R
25	...	22 45·65	3	52 17·5	R
Feb. 2	...	22 46·86	3	52 18·2	M
5	...	22 46·04	3	52 18·1	M
7	...	22 46·13	3	52 18·6	M
10	...	22 46·60	3	52 16·5	M
16	...	22 46·58	3	52 16·9	M
Dec. 29	...	22 48·22	2	52 18·0	M
109		9 *Leporis* β			
Jan. 4	4·0	5 22 58·34	...	110 51 33·7	R
5	4·0	22 58·48	...	51 31·3	R
8	4·0	22 58·44	...	51 32·7	R
110		34 *Orionis* δ, *Var.* 1.			
Jan. 24	...	5 25 43·42	...	90 28 29·3	R
Feb. 9	...	25 43·35	...	28 29·8	M
13	...	25 43·40	...	28 28·9	M
111		*e Columbæ.*			
Jan. 1	4·0	5 26 50·58	...	125 33 41·8	R
10	4·0	26 50·62	...	33 44·4	R
12	4·0	26 50·46	...	33 41·8	R
13	4·0	26 50·44	...	33 42·7	R
112		11 *Leporis* a			
Jan. 26	...	5 27 18·35	...	107 54 42·7	R
29	...	27 18·38	...	54 42·9	R
113		44 *Orionis* ι—1st.			
Jan. 5	3·5	5 29 24·68	4	95 59 29·9	R
15	3·5	29 24·86	...	59 32·1	R
16	3·5	29 24·80	...	59 32·0	R
17	3·5	29 24·92	...	59 33·3	R

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Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
114		*46 Orionis ϵ.*			
Jan. 27	...	5 29 58·29	...	91 16 56·6	R
30	...	29 58·32	...	16 57·0	R
31	...	29 58·32	...	16 56·2	R
115		*β Doradûs.*			
Jan. 4	4·0	5 32 33·12	...	152 34 16·7	R
18	4·0	32 33·35	...	34 17·5	R
23	4·0	32 33·34	...	34 14·8	R
25	4·0	32 33·28	...	34 14·4	R
Feb. 14	4·0	32 33·37	...	34 15·7	M
116		*48 Orionis σ—1st.*			
Jan. 12	4·0	5 32 34·13	...	92 40 23·4	R
13	4·0	32 34·21	...	40 22·7	R
19	4·0	32 34·34	...	40 22·7	R
22	4·0	32 34·31	...	40 22·8	R
117		*50 Orionis ζ*			
Jan. 1	2·0	5 34 33·07	...	92 0 33·8	R
10	2·0	34 33·04	...	0 34·9	R
15	2·0	34 32·90	...	0 35·5	R
17	2·0	34 33·04	...	0 33·7	R
Feb. 10	2·0	34 33·02	...	0 33·3	M
118		*13 Leporis γ*			
Jan. 4	4·0	5 39 19·84	...	112 29 25·2	R
5	4·0	39 19·90	...	29 23·3	R
10	4·0	39 20·09	...	29 25·1	R
16	4·0	39 20·06	...	29 22·6	R
Feb. 9	4·3	39 19·98	...	29 23·2	M
119		*53 Orionis κ*			
Jan. 1	2·8	5 41 55·19	...	99 42 51·6	R
8	3·0	41 55·28	...	42 54·4	R
15	3·0	41 55·28	...	42 53·9	R
17	3·0	41 55·32	...	42 53·8	R

Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
120		*β Columbæ.*			
Jan. 5	3·0	5 46 37·13	6	125 48 56·8	R
8	3·0	46 37·44	...	48 58·2	R
10	3·0	46 37·35	...	48 56·6	R
121		*58 Orionis a, Var.* 1, *Betelgeux.*			
Jan. 19	...	5 48 30·76	...	82 37 2·3	R
25	...	48 30·80	...	37 2·7	R
Feb. 2	...	48 30·67	...	37 1·9	M
7	...	48 30·90	...	37 2·5	M
122		*34 Aurigæ β*			
Jan. 12	2·0	5 50 30·88	...	45 4 4·9	R
16	2·0	50 30·18	...	4 2·2	R
18	2·0	50 30·08	...	4 3·3	R
23	2·0	50 30·15	...	4 2·7	R
123		*16 Leporis η*			
Jan. 15	4·0	5 50 47·93	...	104 11 30·8	R
17	4·0	50 48·19	...	11 30·9	R
22	4·0	50 47·90	4	11 30·9	R
24	4·0	50 48·16	...	11 28·4	R
Feb. 9	4·4	50 48·04	...	11 30·7	M
124		*γ Columbæ.*			
Jan. 4	4·0	5 53 10·11	...	125 17 53·6	R
5	4·0	53 10·32	...	17 52·3	R
13	4·0	53 10·25	...	17 50·4	R
19	4·0	53 10·34	...	17 51·0	R
Feb. 12	4·4	53 10·34	...	17 50·2	M
125		*R. P. L.* 43.			
Jan. 8	...	5 57 46·65	3	3 14 14·2	R
27	...	57 48·16	3	14 15·8	R
Feb. 14	...	57 48·93	3	14 16·4	M
		R. P. L. 43—*s.p.*			
Aug. 27	...	5 57 49·33	3	3 14 12·7	R

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Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
126		*67 Orionis ν*			
Jan. 18	...	6 0 32·89	...	75 13 7·8	R
22	...	0 33·06	...	13 7·3	R
26	...	0 32·85	...	13 7·8	R
Feb. 2	...	0 32·99	...	13 6·3	M
3	...	0 32·92	...	13 6·0	M
15	...	0 32·94	...	13 6·9	M
127		*13 Geminorum μ*			
Jan. 30	...	6 15 31·11	...	67 25 31·8	R
Feb. 15	...	15 31·22	...	25 31·8	M
128		*1 Canis Majoris ζ*			
Jan. 13	2·5	6 15 35·42	...	120 0 36·8	R
17	2·5	15 35·27	...	0 36·8	R
24	2·5	15 35·63	...	0 37·0	R
26	2·5	15 35·39	...	0 37·1	R
Feb. 18	2·9	15 35·42	...	0 36·7	M
129		*2 Canis Majoris β*			
Jan. 16	2·5	6 17 16·70	...	107 53 45·1	R
19	2·5	17 16·80	...	53 44·9	R
25	2·5	17 16·74	...	53 44·6	R
29	2·5	17 16·82	...	53 47·5	R
Feb. 10	2·6	17 16·77	...	53 46·9	M
130		*3 Canis Majoris.*			
Jan. 15	4·0	6 17 36·89	...	123 22 33·1	R
18	4·0	17 36·85	...	22 30·9	R
22	4·0	17 36·84	...	22 29·8	R
23	4·0	17 36·88	...	22 30·4	R
Feb. 12	4·5	17 36·96	...	22 31·9	M
131		*24 Geminorum γ*			
Jan. 24	...	6 30 36·28	...	73 29 51·5	R
25	...	30 36·32	...	29 50·7	R
29	...	30 36·28	...	29 52·3	R
31	...	30 36·30	...	29 51·8	R
Feb. 6	...	30 36·25	...	29 52·2	M
8	...	30 36·35	...	29 51·2	M
15	...	30 36·29	...	29 52·4	M
17	...	30 36·35	...	29 53·0	M
27	...	30 36·34	...	29 53·1	M

Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
132		*ν Argûs.*			
Jan. 17	3·0	6 33 59·72	...	133 5 21·5	R
18	3·0	33 59·74	...	5 22·0	R
19	3·0	33 59·77	...	5 20·9	R
22	3·0	33 59·70	...	5 24·5	R
Feb. 12	3·6	33 59·80	...	5 20·9	M
133		*Lalande 12863.*			
Mar. 16	...	6 35 22·71	4	33 32 20·2	R
17	...	35 22·81	...	32 19·9	R
20	7·0	35 22·87	...	32 21·3	R
134		*51 Cephei Hev.*			
Feb. 24	...	6 42 15·93	3	2 46 2·6	M
27	...	42 16·78	3	46 1·4	M
		51 Cephei Hev.—s.p.			
June 28	...	6 42 16·07	2	2 46 4·1	M
July 4	...	42 15·20	2	46 4·2	M
Sept. 8	...	42 16·06	3	46 6·0	M
135		*13 Canis Majoris κ*			
Jan. 17	4·0	6 45 14·52	...	122 22 5·3	R
19	4·0	45 14·67	...	22 3·2	R
23	4·0	45 14·65	...	22 4·1	R
26	4·0	45 14·62	...	22 4·9	R
Feb. 10	4·5	45 14·72	...	22 5·4	M
136		*τ Argûs.*			
Jan. 18	4·0	6 46 52·99	...	140 28 8·4	R
22	4·0	46 52·85	...	28 9·0	R
25	4·0	46 53·13	...	28 7·2	R
30	4·0	46 52·98	...	28 7·5	R
Feb. 12	4·0	46 53·11	...	28 8·3	M
137		*16 Canis Majoris o¹*			
Jan. 24	4·0	6 49 1·78	...	114 1 53·6	R
27	4·0	49 1·59	...	1 55·0	R
29	4·0	49 1·67	...	1 53·7	R
31	4·0	49 1·71	...	1 53·2	R
Feb. 13	4·5	49 1·88	...	1 53·6	M

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Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
138		21 *Canis Majoris* ϵ			
Jan. 23	...	6 53 47·50	...	118 48 22·0	R
Feb. 5	...	53 47·39	...	48 20·7	R
14	...	53 47·58	...	48 21·7	M
Mar. 17	...	53 47·44	...	48 21·0	R
139		22 *Canis Majoris.*			
Jan. 18	3·5	6 56 49·00	...	117 45 39·0	R
24	3·5	56 49·09	...	45 36·2	R
29	3·5	56 49·24	...	45 35·1	R
30	3·5	56 49·19	...	45 36·6	R
Feb. 12	3·9	56 49·04	...	45 36·6	M
140		*Taylor* 2813.			
Jan. 19	8·4	6 57 20·26	...	94 5 15·3	R
22	8·4	57 20·23	..	5 16·6	R
25	8·5	57 20·43	...	5 16·3	R
26	8·5	57 20·36	...	5 16·7	R
Feb. 13	8·4	57 20·42	...	5 15·7	M
141		24 *Canis Majoris* o^2			
Jan. 27	...	6 57 53·17	...	113 39 16·8	R
31	...	57 53·17	...	39 18·4	R
Feb. 2	...	57 53·32	...	39 16·4	M
3	...	57 53·18	...	39 16·4	M
17	...	57 53·33	...	39 15·9	M
142		25 *Canis Majoris* δ			
Jan. 19	...	7 3 23·31	...	116 11 57·4	R
22	...	3 23·24	...	11 58·1	R
23	...	3 23·19	...	11 58·1	R
24	...	3 23·47	...	11 58·1	R
Feb. 14	...	3 23·38	...	11 57·5	M
143		*π Argûs.*			
Jan. 19	3·0	7 12 47·86	...	126 52 39·5	R
23	3·0	12 47·76	..	52 40·4	R
24	3·0	12 47·82	...	52 38·6	R
25	3·0	12 47·83	...	52 37·9	R
Feb. 9	3·5	12 47·70	...	52 40·3	M

Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
144		31 *Canis Majoris* η			
Feb. 2	2·6	7 19 13·52	...	119 3 50·9	M
5	2·7	19 13·67	...	3 51·1	M
6	2·3	19 13·73	...	3 50·9	M
10	2·5	19 13·68	...	3 51·5	M
Mar. 15	2·0	19 13·67	...	3 51·0	R
145		3 *Canis Minoris* β			
Jan. 23	3·0	7 20 28·66	...	81 27 50·4	R
24	3·0	20 28·66	...	27 47·0	R
25	3·0	20 28·70	...	27 48·5	R
26	3·0	20 28·61	...	27 46·6	R
Feb. 13	3·4	20 28·86	...	27 48·1	M
146		*σ Argûs.*			
Jan. 23	4·0	7 25 19·62	...	133 3 11·9	R
24	4·0	25 19·71	...	3 13·1	R
25	4·0	25 19·69	...	3 12·2	R
26	4·0	25 19·61	...	3 13·3	R
Feb. 14	4·3	25 19·63	...	3 13·7	M
147		66 *Geminorum* a^2, *Castor.*			
Feb. 19	...	7 26 45·01	...	57 50 35·6	M
22	...	26 45·01	...	50 37·3	M
148		10 *Canis Minoris a, Procyon.*			
Feb. 7	...	7 32 51·72	...	84 27 39·6	M
13	...	32 51·67	...	27 40·4	M
16	...	32 51·81	...	27 38·0	M
17	...	32 51·74	...	27 39·5	M
19	...	32 51·74	...	27 39·0	M
20	...	32 51·76	...	27 39·7	M
22	...	32 51·70	...	27 39·0	M
23	...	32 51·60	...	27 38·5	M
Mar. 16	...	32 51·72	...	27 39·5	R
17	...	32 51·74	...	27 39·5	R
19	...	32 51·80	...	27 40·1	R

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Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
149	*S Geminorum, Var.* 3.				
Jan. 26	10·4	7 35 20·82	...	66 14 2·9	R
27	10·4	35 20·96	...	14 2·6	R
29	10·5	35 20·75	...	14 2·9	R
30	10·5	35 20·74	...	14 2·5	R
150	78 *Geminorum* β, *Pollux.*				
Feb. 9	...	7 37 47·20	...	16 40 43·9	M
12	...	37 47·31	...	40 44·5	M
24	...	37 47·23	...	40 43·1	M
26	..	37 47·14	...	40 42·5	M
27	...	37 47·32	...	40 43·0	M
Mar. 16	...	37 47·21	...	40 43·1	R
19	...	37 47·16	...	40 43·3	R
151	7 *Argûs* ξ				
Jan. 24	3·5	7 44 7·28	...	114 33 8·0	R
25	3·5	44 7·28	...	33 7·1	R
26	3·5	44 7·20	...	33 8·1	R
29	3·5	44 7·17	...	33 7·5	R
Feb. 15	3·9	44 7·22	...	33 7·8	M
152	*R. P. L.* 49.				
Jan. 31	...	7 47 13·81	3	5 35 35·7	R
Feb. 20	...	47 13·87	3	35 36·0	M
22	...	47 14·35	3	35 36·9	M
153	*Taylor* 3318.				
Jan. 24	4·0	7 49 41·17	...	137 46 59·5	R
25	4·0	49 41·21	...	46 59·4	R
26	4·0	49 41·18	...	47 1·3	R
27	4·0	49 41·12	...	47 0·3	R
Feb. 9	4·9	49 41·04	5	46 59·8	M
154	χ *Argûs.*				
Jan. 29	4·0	7 53 38·84	...	142 39 9·8	R
30	4·0	53 38·90	...	39 11·1	R
31	4·0	53 38·95	...	39 8·8	R
Feb. 2	4·3	53 39·00	...	39 10·4	M
16	4·1	53 39·09	...	39 10·6	M

Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
155	6 *Cancri.*				
Mar. 15	...	7 55 57·67	...	61 51 44·8	R
16	...	55 57·69	...	51 44·2	R
20	...	55 57·76	..	51 44·9	R
156	ζ *Argûs.*				
Jan. 26	2·5	7 59 15·52	...	129 39 24·3	R
29	2·5	59 15·65	...	39 24·1	R
30	2·5	59 15·80	...	39 24·4	R
31	2·5	59 15·72	...	39 22·7	R
Feb. 14	2·7	59 15·69	...	39 27·0	M
157	15 *Argûs* ι				
Feb. 20	...	8 2 18·26	...	113 57 4·6	M
23	...	2 18·34	...	57 2·9	M
24	...	2 18·33	...	57 4·0	M
26	...	2 18·49	...	57 4·4	M
28	...	2 18·38	...	57 4·0	M
Mar. 17	...	2 18·49	...	57 2·5	R
19	...	2 18·42	...	57 2·2	R
158	γ *Argûs*—2*nd.*				
Jan. 26	2·0	8 5 44·36	...	136 58 30·6	R
29	2·0	5 44·42	...	58 29·8	R
30	2·0	5 44·42	...	58 31·2	R
31	2·0	5 44·50	...	58 29·4	R
Feb. 9	2·6	5 44·40	...	58 30·6	M
159	ϵ *Argûs.*				
Jan. 31	2·0	8 19 59·19	...	149 6 52·8	R
Feb. 2	2·3	19 59 37	...	6 51·4	M
5	2·6	19 59·27	...	6 52·1	M
6	2·4	19 59·19	...	6 53·1	M
9	2·4	19 59·36	...	6 53·3	M
160	33 *Cancri* η				
Feb. 10	...	8 25 35·64	...	69 8 31·2	M
17	...	25 35·68	...	8 32·6	M
27	...	25 35·53	...	8 31·2	M
Mar. 15	...	25 35·71	...	8 33·9	R
23	...	25 35·74	...	8 32·4	R

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Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
161 *Anon.*					
Mar. 26	9·8	8 36 28·02	...	81 30 27·3	R
27	9·9	36 28·10	...	30 27·6	R
28	9·9	36 28·24	...	30 28·5	R
162 *o Argûs.*					
Feb. 5	4·0	8 36 46·17	...	142 29 10·3	M
6	4·3	36 46·06	...	29 9·0	M
7	4·4	36 45·99	...	29 9·7	M
8	4·2	36 46·15	...	29 9·8	M
Mar. 15	4·0	36 46·11	...	29 10·2	R
163 *Anon.*					
Mar. 19	9·5	8 37 24·63	...	81 36 52·3	R
164 *11 Hydræ* ϵ					
Feb. 19	...	8 40 15·75	...	83 7 51·1	M
Mar. 21	...	40 15·61	...	7 54·3	R
23	...	40 15·61	...	7 52·2	R
Apl. 10	...	40 15·62	...	7 53·2	R
165 *δ Argûs.*					
Feb. 10	2·9	8 41 18·50	...	144 15 30·1	M
13	3·0	41 18·80	...	15 29·1	M
14	3·2	41 18·61	...	15 29·9	M
15	3·2	41 18·62	...	15 29·5	M
Mar. 16	3·0	41 18·57	...	15 29·9	R
166 *R. P. L.* 60.					
Mar. 22	...	8 49 22·31	3	5 19 48·7	R
28	...	49 20·84	3	19 48·2	R
R. P. L. 60—*s.p.*					
Oct. 10	...	8 49 26·77	2	5 19 50·1	R
16	...	49 21·17	3	19 47·9	R
20	...	49 21·76	3	19 47·6	R
167 *W. B. E.* VIII. 1302.					
Apl. 13	8·5	8 51 27·03	...	98 56 43·9	R

Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
168 *Taylor* 3930—1*st* (b^1 *Carinæ*).					
Feb. 6	5·5	8 53 57·63	...	148 45 17·9	M
7	5·0	53 57·73	...	45 20·2	M
8	4·9	53 57·74	...	45 19·0	M
12	4·7	53 57·86	...	45 20·7	M
Mar. 15	4·0	53 57·76	...	45 19·5	R
169 *Taylor* 3949—(b^2 *Carinæ*).					
Feb. 10	4·8	8 56 22·95	...	148 36 49·5	M
13	4·6	56 23·12	...	36 49·5	M
14	4·9	56 22·92	...	36 49·6	M
15	4·9	56 23·13	...	36 49·9	M
Mar. 20	4·0	56 23·03	...	36 48·7	R
170 λ *Argûs.*					
Feb. 5	3·4	9 3 28·41	...	132 56 13·1	M
6	3·3	3 28·36	...	56 12·9	M
7	3·6	3 28·49	...	56 14·0	M
8	3·4	3 28·38	...	56 12·9	M
9	3·3	3 28·41	...	56 13·7	M
171 *Taylor* 4028.					
Feb. 16	8·2	9 6 34·04	4	132 46 6·2	M
172 *β Argûs.*					
Feb. 7	1·5	9 11 50·72	...	159 12 48·0	M
8	1·5	11 50·61	...	12 40·9	M
9	1·4	11 50·80	...	12 42·3	M
10	1·4	11 50·63	...	12 42·2	M
Mar. 19	...	11 50·86	...	12 40·5	R
173 83 *Caneri.*					
Feb. 20	...	9 12 6·96	...	71 46 28·4	M
22	...	12 6·93	...	46 29·1	M
23	...	12 7·03	...	46 28·2	M
24	...	12 6·85	...	46 28·4	M
26	...	12 6·79	...	46 28·7	M
28	...	12 6·85	...	46 28·1	M
Mar. 15	...	12 6·71	...	46 29·3	R
20	...	12 6·89	...	46 29·1	R
22	...	12 6·80	...	46 27·9	R
28	...	12 6·88	...	46 28·7	R
Apl. 2	...	12 6·76	...	46 29·0	R

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Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′	Observer.
174		*κ Argûs.*			
Feb. 10	3·5	9 18 18·47	5	144 29 10·2	M
13	3·5	18 18·55	5	29 9·2	M
14	3·5	18 18·33	...	29 8·9	M
15	3·2	18 18·41	...	29 9·7	M
Mar. 15	3·0	18 18·40	...	29 10·2	R
175		30 *Hydræ a, Var.* 2.			
Feb. 28	...	9 21 32·40	...	98 7 34·5	M
Mar. 20	...	21 32·50	...	7 34·1	R
21	...	21 32·57	...	7 35·1	R
22	...	21 32·56	...	7 33·2	R
24	...	21 32·57	...	7 35·4	R
27	...	21 32·55	...	7 33·8	R
Apl. 2	...	21 32·66	...	7 35·6	R
4	...	21 32·57	...	7 35·7	R
19	...	21 32·49	...	7 35·4	R
May 23	...	21 32·63	...	7 34·9	M
176		*ψ Argûs.*			
Feb. 12	4·0	9 25 51·35	...	129 55 45·0	M
15	4·2	25 51·32	...	55 43·3	M
16	4·3	25 51·43	...	55 45·8	M
17	4·0	25 51·53	...	55 45·1	M
Mar. 15	4·0	25 51·34	...	55 44·5	R
177		*W. B. E. IX.* 708			
Apl. 7	8·7	9 33 15·71	...	86 14 57·1	R
11	8·8	33 15·75	...	14 56·2	R
12	8·8	33 15·72	...	14 54·9	R
14	8·8	33 15·83	...	14 55·3	R
18	8·7	33 15·84	...	14 56·7	R
178		*Anon.*			
Apl. 10	10·0	9 37 3·60	4	79 51 50·4	R
13	10·0	37 3·76	...	51 47·2	R
16	10·0	37 3·78	...	51 51·2	R
17	10·0	37 3·70	...	51 50·7	R
19	10·0	37 3·86	...	51 50·4	R
179		*Anon.*			
Apl. 11	10·0	9 37 48·12	4	79 46 16·7	R
12	10·0	37 47·93	...	46 15·7	R
14	10·0	37 47·86	...	46 16·6	R
18	10·0	37 47·78	...	46 19·2	R
20	10·0	37 47·76	...	46 16·7	R
180		17 *Leonis* ϵ			
Mar. 22	...	9 38 52·04	...	65 39 37·4	R
23	...	38 51·98	...	39 39·0	R
24	...	38 52·04	...	39 40·7	R
26	...	38 52·01	...	39 39·0	R
28	...	38 51·99	...	39 38·0	R
Apl 2	...	38 52·02	...	39 37·5	R
May 23	...	38 52·04	...	39 37·1	M
181		*Anon.*			
Apl. 17	8·2	9 41 11·56	...	79 21 19·5	R
19	8·2	41 11·60	...	21 20·7	R
20	8·2	41 11·46	...	21 20·3	R
21	8·3	41 11·51	...	21 19·4	R
23	8·3	41 11·33	...	21 19·7	R
182		*υ Argûs.*			
Feb. 15	3·4	9 44 1·73	...	154 30 7·3	M
16	3·2	44 1·79	...	30 9·1	M
17	3·5	44 1·84	...	30 7·6	M
20	3·2	44 1·81	...	30 8·6	M
Mar. 16	3·0	44 1·60	...	30 5·1	R
183		24 *Leonis* μ			
Feb. 22	4·0	9 45 45·87	...	63 24 52·3	M
23	3·3	45 45·97	...	24 52·7	M
24	3·9	45 45·89	...	24 53·5	M
26	3·9	45 45·89	...	24 53·6	M
Mar. 19	3·0	45 45·90	...	24 52·4	R
184		*R. P. L.* 70.			
Mar. 24	...	9 48 37·89	3	5 29 25·0	R
Apl. 14	...	48 33·46	3	29 25·3	R

Separate Results of Madras Meridian Circle Observations in 1877.

Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
		R. P. L. 70—s.p.			
Oct. 4	...	9 48 37·63	3	5 29 28·5	R
13	...	48 37·38	3	29 27·3	R
185		***φ Argûs.***			
Feb. 17	4·5	9 52 32·68	...	143 58 58·1	M
19	4·5	52 32·78	...	58 58·0	M
20	4·5	52 32·86	...	58 58·8	M
22	4·3	52 32·88	...	58 58·8	M
Mar. 16	4·0	52 32·70	...	58 57·5	R
186		***29 Leonis π***			
Mar. 21	...	9 53 42·71	...	81 21 58·9	R
26	...	53 42·80	...	21 59·2	R
27	...	53 42·73	...	21 58·8	R
Apl. 4	...	53 42·79	...	21 59·4	R
7	...	53 42·76	...	21 58·7	R
11	...	53 42·79	...	21 59·1	R
13	...	53 42·78	...	21 59·4	R
16	...	53 42·77	...	21 59·8	R
20	...	53 42·77	...	21 59·4	R
23	...	53 42·73	...	21 59·3	R
187		***32 Leonis α, Regulus.***			
Mar. 24	...	10 1 49·17	...	77 25 56·9	R
27	...	1 49·21	...	25 55·1	R
Apl. 4	...	1 49·11	...	25 55·1	R
7	...	1 49·18	...	25 56·5	R
12	...	1 49·18	...	25 57·4	R
17	...	1 49·21	...	25 56·8	R
May 32	...	1 49·10	...	25 56·6	M
188		***q Velorum.***			
Feb. 19	4·7	10 9 34·61	...	131 30 48·4	M
20	4·7	9 34·75	...	30 48·2	M
22	4·5	9 34·55	...	30 48·3	M
23	4·6	9 34·45	...	30 47·2	M
Mar. 19	4·0	9 34·62	...	30 47·1	R
189		***ω Argûs.***			
Feb. 24	4·0	10 10 49·03	5	159 25 43·8	M
26	4·0	10 48·78	...	25 40·8	M
28	4·3	10 48·85	...	25 39·8	M
Mar. 20	4·0	10 48·80	...	25 41·0	R
23	4·0	10 48·77	...	25 41·2	R
190		***R. P. L. 72.***			
Apl. 4	...	10 11 29·23	3	5 7 30·2	R
10	...	11 29·22	3	7 29·1	R
17	...	11 29·43	3	7 30·6	R
		R. P. L. 72—s p.			
Sep. 10	...	10 11 29·07	3	5 7 33·1	M
17	...	11 29·37	3	7 33·2	M
27	...	11 29·92	3	7 33·2	M
Oct. 1	...	11 29·93	3	7 30·6	R
6	...	11 29·19	3	7 33·0	R
Nov. 12	...	11 31·98	3	7 32·8	R
191		***41 Leonis γ¹***			
Mar. 26	...	10 13 11·32	...	69 32 11·6	R
Apl. 5	...	13 11·27	...	32 11·0	R
7	...	13 11·34	...	32 10·9	R
18	...	13 11·34	...	32 13·5	R
21	...	13 11·29	...	32 12·2	R
27	...	13 11·34	...	32 11·5	R
192		***34 Ursæ Majoris μ***			
Feb. 27	3·7	10 14 59·63	...	47 52 56·5	M
Mar. 16	3·0	14 59·52	...	52 53·7	R
19	3·0	14 59·60	...	52 56·3	R
21	3·0	14 59·62	...	52 55·4	R
22	3·0	14 59·64	...	52 56·1	R
193		***42 Hydræ μ***			
Feb. 22	4·3	10 20 8·43	...	106 12 32·6	M
23	4·3	20 8·52	...	12 31·1	M
24	4·5	20 8·37	...	12 32·8	M
26	4·6	20 8·41	...	12 32·9	M
Mar. 15	4·0	20 8·56	...	12 31·2	R

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Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
194		*47 Leonis ρ*			
Mar. 28	...	10 26 20·05	...	80 3 40·4	R
Apl. 5	...	26 20·01	...	3 39·0	R
11	...	26 19·99	...	3 39·1	R
13	...	26 20·07	...	3 40·5	R
16	...	26 20·01	...	3 40·3	R
19	...	26 19·97	...	3 41·8	R
21	...	26 20·02	...	3 40·1	R
195		*θ Argûs.*			
Mar. 24	3·0	10 38 34·02	...	153 45 2·9	R
26	3·0	38 34·08	...	45 1·8	R
27	3·0	38 34·25	...	45 1·6	R
28	3·0	38 34·32	...	45 1·6	R
Apl. 2	3·0	38 34·22	...	44 59·5	R
196		*μ Argûs.*			
Feb. 27	3·5	10 41 29·00	...	138 46 15·9	M
28	...	41 29·06	...	46 15·1	M
Mar. 15	3·0	41 28·91	...	46 13·4	R
16	3·0	41 28·84	...	46 13·6	R
20	3·0	41 29·07	...	46 12·4	R
197		*53 Leonis l.*			
Apl. 5	...	10 42 47·52	...	78 48 16·6	R
10	...	42 47·43	...	48 16·4	R
12	...	42 47·50	...	48 15·6	R
14	...	42 47·46	...	48 16·0	R
20	...	42 47·44	...	48 16·3	R
26	...	42 47·41	...	48 16·0	R
28	...	42 47·42	...	48 14·0	R
198		*ν Hydræ.*			
Mar. 19	4·0	10 43 33·49	...	105 33 0·2	R
23	4·0	43 33·38	...	32 59·0	R
27	4·0	43 33·44	...	32 56·5	R
Apl. 2	4·0	43 33·45	...	32 58·3	R
4	4·0	43 33·54	...	32 56·7	R

Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
199		*Anon.*			
Mar. 21	10·5	10 43 50·76	...	81 48 21·2	R
22	10·5	43 50·75	...	48 21·3	R
24	10·5	43 50·71	...	48 22·4	R
26	10·5	43 50·76	...	48 22·2	R
28	10·5	43 50·81	...	48 19·9	R
200		*Taylor* 4915.			
Mar. 20	8·5	10 47 6·97	...	135 33 51·1	R
201		*48 Ursæ Majoris β*			
Mar. 15	...	10 54 24·37	...	32 57 32·0	R
19	...	54 24·34	...	57 31·5	R
20	...	54 24·40	...	57 32·4	R
21	...	54 24·47	...	57 30·2	R
22	...	54 24·11	...	57 31·2	R
202		*63 Leonis χ*			
Apl. 10	...	10 58 40·61	...	81 59 58·3	R
11	...	58 40·28	...	59 58·4	R
14	...	58 40·31	...	59 58·6	R
17	...	58 40·34	...	59 59·7	R
20	...	58 40·28	...	59 58·6	R
23	...	58 40·28	...	59 58·3	R
26	...	58 40·30	...	59 59·1	R
30	...	58 40·22	...	59 58·9	R
May 5	...	58 40·35	...	59 59·0	M
203		*11 Crateris β*			
Mar. 19	4·0	11 5 36·58	...	112 9 15·8	R
20	4·0	5 36·56	...	9 16·5	R
21	4·0	5 36·48	...	9 15·8	R
24	4·0	5 36·42	...	9 16·2	R
Apl. 2	4·0	5 36·61	...	9 14·2	R
204		*68 Leonis δ*			
Apl. 12	...	11 7 33·86	...	68 48 10·4	R
14	...	7 33·85	...	48 11·0	R
18	...	7 33·92	...	48 8·4	R
21	...	7 33·97	...	48 9·5	R
27	...	7 33·90	...	48 8·7	R
30	...	7 33·96	...	48 8·2	R
May 8	...	7 34·00	...	48 8·7	M

Separate Results of Madras Meridian Circle Observations in 1877.

Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires	Mean Polar Distance 1877. ° ′ ″	Observer.
205		*70 Leonis θ*			
Mar. 22	3·0	11 7 46·80	...	73 53 54·1	R
23	3·0	7 46·79	...	53 53·6	R
26	3·0	7 47·03	...	53 54·7	R
28	3·0	7 47·04	...	53 55·8	R
Apl. 4	3·0	7 47·02	...	53 56·2	R
206		*12 Crateris δ*			
Apl. 13	...	11 13 11·47	...	104 6 46·2	R
17	...	13 11·44	...	6 46·1	R
18	...	13 11·54	...	6 46·9	R
23	...	13 11·52	...	6 45·9	R
26	...	13 11·49	...	6 46·9	R
207		*π Centauri.*			
Mar. 20	4·0	11 15 24·10	...	143 49 1·8	R
22	4·0	15 23·99	...	49 0·6	R
24	4·0	15 23·88	...	48 59·3	R
28	4·0	15 24·00	...	48 57·5	R
Apl. 12	4·0	15 23·99	...	48 57·9	R
208		*15 Crateris γ*			
Mar. 21	4·0	11 18 44·10	...	107 0 29·5	R
23	4·0	18 44·01	...	0 29·1	R
26	4·0	18 44·23	...	0 29·1	R
Apl. 4	4·0	18 44·05	...	0 29·9	R
5	4·0	18 44·03	...	0 30·4	R
209		*19 Hydræ ξ*			
Mar. 20	4·0	11 26 57·47	...	121 10 38·0	R
21	4·0	26 57·38	...	10 37·8	R
23	4·0	26 57·26	...	10 36·2	R
24	4·0	26 57·26	...	10 34·6	R
Apl. 2	4·0	26 57·35	...	10 38·3	R
210		*21 Crateris θ*			
Mar. 21	...	11 30 26·43	...	99 7 17·4	R
22	...	30 26·46	...	7 17·2	R
23	...	30 26·40	...	7 17·3	R
26	...	30 26·66	...	7 17·7	R
Apl. 4	...	30 26·51	...	7 18·6	R
211		*91 Leonis υ*			
Apl. 16	...	11 30 39·01	...	90 8 42·2	R
19	...	30 39·12	...	8 40·9	R
28	...	30 39·03	...	8 41·0	R
May 3	...	30 39·13	...	8 41·1	M
8	...	30 39·03	...	8 42·0	M
212		*27 Crateris ζ*			
Mar. 23	...	11 38 31·43	...	107 39 59·9	R
24	...	38 31·40	...	39 59·2	R
26	...	38 31·43	...	39 57·8	R
Apl. 2	...	38 31·38	...	39 58·5	R
5	...	38 31·38	...	39 58·6	R
213		*Anon.*			
May 26	8·4	11 38 45·97	...	149 43 8·1	M
214		*Anon.*			
May 9	8·6	11 38 50·97	...	148 40 12·9	M
24	9·0	38 50·97	...	40 13·8	M
25	8·9	38 51·19	...	40 12·8	M
28	8·9	38 51·17	...	40 11·7	M
215		*94 Leonis β, Denebola.*			
Apl. 27	...	11 42 47·10	...	74 44 25·6	R
28	...	42 47·05	...	44 26·5	R
30	...	42 47·08	...	44 24·7	R
May 4	...	42 47·11	...	44 25·8	M
216		*28 Hydræ β*			
Mar. 24	4·0	11 46 41·99	...	123 13 26·4	R
26	4·0	46 42·13	...	13 24·8	R
Apl. 2	4·0	46 42·08	...	13 24·3	R
4	4·0	46 41·96	...	13 23·9	R
5	4·0	46 41·94	...	13 26·2	R

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Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
217	X *Virginis, Var.* 10.				
Mar. 24	10·4	11 55 34·00	...	80 14 27·9	R
26	10·5	55 34·14	...	14 28·4	R
Apl. 2	10·6	55 34·09	...	14 28·9	R
4	10·5	55 34·12	...	14 27·8	R
5	10·5	55 34·17	8	14 28·8	R
7	10·6	55 34·16	...	14 30·2	R
10	10·6	55 34·10	...	14 30·8	R
11	10·6	55 33·93	...	14 31·5	R
12	10·6	55 33·95	...	14 31·2	R
18	10·6	55 33·97	4	14 31·9	R
218	*R. P. L.* 89.				
Apl. 20	...	11 58 32·73	8	3 43 50·1	R
27	...	58 33·10	8	43 49·7	R
	R. P. L. 89—*s.p.*				
Nov 29	...	11 58 34·20	8	3 43 52·2	M
Dec. 8	...	58 32·20	8	43 50·3	R
14	...	58 33·26	8	43 52·3	R
219	*δ Centauri.*				
Mar. 26	3·0	12 1 59·41	...	140 2 14·0	R
Apl. 2	3·0	1 59·32	...	2 13·4	R
4	3·0	1 59·34	...	2 12·8	R
11	3·0	1 59·52	...	2 10·5	R
14	3·0	1 59·30	...	2 13·1	R
220	1 *Corvi a*				
Apl. 5	4·5	12 2 4·04	...	114 2 32·4	R
10	4·5	2 4·02	...	2 32·0	R
12	4·5	2 3·97	...	2 31·7	R
16	4·5	2 3·91	...	2 31·6	R
May 2	4·6	2 4·17	...	2 33·1	M
221	*Taylor* 5574.				
May 9	7·5	12 3 22·85	...	141 5 59·0	M
24	7·5	3 22·80	...	5 58·3	M
June 4	7·5	3 22·75	...	5 56·7	R

Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
222	2 *Corvi ε*				
May 4	...	12 3 48·05	...	111 56 7·8	M
8	...	3 47·98	...	56 7·5	M
12	...	3 47·94	...	56 6·9	M
23	...	3 48·00	...	56 7·3	M
25	...	3 47·91	...	56 7·3	M
26	...	3 48·05	...	56 6·8	M
223	*ρ Centauri.*				
Apl. 7	4·0	12 5 13·72	...	141 41 0·4	R
13	4·0	5 13·66	...	41 0·7	R
17	4·0	5 13·60	...	41 1·5	R
19	4·0	5 13·56	...	41 2·1	R
May 3	4·6	5 13·68	...	41 1·7	M
224	*δ Crucis.*				
Apl. 5	3·0	12 8 37·47	...	148 3 51·6	R
11	3·0	8 37·34	...	3 51·1	R
14	3·0	8 37·32	...	3 49·8	R
18	3·0	8 37·42	...	3 49·1	R
May 4	4·0	8 37·55	...	3 53·9	M
225	4 *Corvi γ*				
Apl. 10	3·0	12 9 28·94	...	106 51 31·0	R
12	3·0	9 28·94	...	51 30·5	R
13	3·0	9 28·97	...	51 30·7	R
16	3·0	9 28·83	...	51 29·8	R
May 5	3·4	9 28·92	...	51 31·6	M
226	15 *Virginis η*				
May 2	...	12 13 36·65	...	89 58 58·0	M
10	...	13 36·71	...	58 58·6	M
12	...	13 36·85	...	58 59·7	M
23	...	13 36·77	...	58 58·2	M
24	...	13 36·73	...	58 58·7	M
25	...	13 36·76	...	58 59·1	M
26	...	13 36·80	...	58 57·4	M
28	...	13 36·78	...	58 59·5	M
30	...	13 36·69	...	58 57·6	M
31	...	13 36·87	...	58 57·9	M

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Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
227		*ε Crucis.*			
Apl. 5	4·0	12 14 43·54	...	149 43 15·5	R
7	4·0	14 43·53	4	43 15·7	R
10	4·0	14 43·48	...	43 15·0	R
11	4·0	14 43·33	...	43 14·0	R
12	4·0	14 43·45	...	43 13·8	R
228		*7 Corvi δ*			
Apl. 10	3·0	12 23 30·04	...	105 49 48·5	R
12	3·0	23 30·05	...	49 48·6	R
14	3·0	23 30·01	...	49 49·2	R
16	3·0	23 29·95	...	49 47·8	R
May 2	3·4	23 29·99	...	49 48·6	M
229		*γ Crucis.*			
Apl. 17	2·0	12 24 20·67	...	146 25 27·7	R
19	2·0	24 20·69	...	25 26·9	R
21	2·0	24 20·82	...	25 26·1	R
26	2·0	24 20·86	...	25 26·6	R
May 3	2·3	24 20·82	...	25 28·1	M
230		*γ Muscæ.*			
Apl. 11	4·0	12 25 8·16	...	161 27 16·5	R
13	4·0	25 8·03	...	27 15·6	R
18	4·0	25 8·05	...	27 15·9	R
20	4·0	25 8·15	...	27 15·5	R
May 5	5·0	25 8·18	...	27 15·7	M
231		*9 Corvi β*			
May 10	...	12 27 55·66	...	112 42 58·8	M
12	...	27 55·61	...	42 57·6	M
23	...	27 55·62	...	42 59·1	M
24	...	27 55·60	...	42 57·1	M
25	...	27 55·72	...	42 58·1	M
28	...	27 55·47	...	42 59·3	M
29	...	27 55·68	...	42 59·3	M
30	...	27 55·65	...	42 59·0	M

Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ″	Observer.
232		*α Muscæ.*			
Apl. 12	4·0	12 29 51·45	...	158 27 29·4	R
14	4·0	29 51·55	...	27 31·0	R
23	4·0	29 51·48	...	27 27·3	R
27	4·0	29 51·66	...	27 27·5	R
May 8	5·5	29 51·60	...	27 30·7	M
233		*Anon.*			
June 2	9·5	12 32 31·74	...	84 34 48·7	R
234		*γ Centauri.*			
Apl. 10	3·0	12 34 44·14	...	138 17 1·9	R
11	3·0	34 44·09	...	17 1·3	R
13	3·0	34 44·14	...	17 0·1	R
16	3·0	34 43·97	...	16 58·7	R
May 2	3·3	34 44·23	...	17 0·8	M
235		*β Muscæ.*			
Apl. 12	4·0	12 38 44·78	...	157 26 3·2	R
14	4·0	38 44·66	...	26 5·4	R
17	4·0	38 44·80	...	26 6·2	R
19	4·0	38 44·82	...	26 5·2	R
May 9	3·7	38 44·92	...	26 4·9	M
236		*β Crucis.*			
Apl. 11	2·0	12 40 32·29	...	149 0 58·3	R
13	2·0	40 32·23	...	0 57·5	R
16	2·0	40 31·97	...	0 56·4	R
18	2·0	40 32·09	...	0 56·1	R
May 8	2·0	40 31·98	...	0 56·9	M
237		*Anon.*			
June 2	10·9	12 44 10·46	3	80 44 50·6	R
4	10·9	44 10·62	2	44 50·7	R
5	10·8	44 10·30	5	44 50·7	R
238		*R. P. L. 98—sp.*			
Dec. 10	...	12 48 0·65	3	5 54 48·5	R

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Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
239		*R. P. L.* 99.			
May 3	...	12 48 14·15	3	5 55 3·9	M
June 5	...	48 14·72	3	55 4·4	M
9	...	48 15·08	3	55 5·9	M
23	...	48 14·97	3	55 4·5	M
25	...	48 14·36	3	55 3·5	M
29	...	48 14·64	3	55 5·4	M
31	...	48 14·99	3	55 3·7	M
		R. P. L. 99—*s.p.*			
Nov. 3	...	12 48 14·66	2	5 55 5·7	R
240		77 *Ursæ Majoris* ε (*Alioth*).			
Apl. 16	3·0	12 48 36·50	...	38 22 16·8	R
17	3·0	48 36·53	...	22 17·0	R
19	3·0	48 36·46	...	22 18·5	R
20	3·0	48 36·49	...	22 19·2	R
May 4	3·3	48 36·68	...	22 18·2	M
241		12 *Canum Venaticorum* α			
May 14	...	12 50 16·26	...	51 0 58·9	M
26	...	50 16·25	...	0 59·7	M
28	...	50 16·26	...	1 0·0	M
30	...	50 16·26	...	0 58·9	M
242		δ *Muscæ*.			
Apl. 20	3·0	12 53 49·64	...	160 53 9·7	R
23	4·0	53 49·73	...	53 7·8	R
27	4·0	53 49·63	...	53 8·5	R
28	4·0	53 49·81	...	53 7·7	R
May 24	5·0	53 49·56	...	53 11·1	M
243		17 *Virginis* ε (*Vindemiatrix*).			
Apl. 17	3·0	12 56 3·08	...	78 22 42·7	R
19	3·0	56 3·05	...	22 41·6	R
21	3·0	56 3·05	...	22 41·8	R
26	3·0	56 3·08	...	22 42·5	R
May 10	4·0	56 3·27	...	22 44·3	M

Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
244		51 *Virginis* θ			
May 14	...	13 3 34·85	...	94 52 52·8	M
June 1	...	3 34·89	...	52 55·4	R
4	...	3 34·93	...	52 55·3	R
245		46 *Hydræ* γ			
Apl. 20	4·0	13 12 14·23	...	112 31 18·9	R
23	4·0	12 14·16	...	31 18·8	R
27	4·0	12 14·22	...	31 18·7	R
30	4·0	12 14·09	...	31 18·0	R
May 2	4·4	3 12 14·03	...	31 18·7	R
246		ι *Centauri*.			
Apl. 21	3·0	13 13 40·06	...	126 3 45·5	R
26	3·0	13 40·92	...	3 43·9	R
28	3·0	13 40·87	...	3 43·3	R
May 4	3·5	13 41·14	...	3 46·4	M
10	4·0	13 41·10	...	3 46·3	M
247		67 *Virginis* α, *Spica*.			
May 2	...	13 18 42·79	...	100 31 6·1	M
14	...	18 42·90	...	31 6·0	M
24	...	18 42·80	...	31 6·7	M
June 4	...	18 42·78	...	31 8·0	R
248		*R. P. L.* 103.			
Apl. 30	...	13 19 39·15	3	4 36 8·9	R
		R. P. L. 103—*s.p.*			
Oct. 31	...	13 19 38·74	3	4 36 11·9	R
Dec. 19	...	19 40·97	3	36 9·4	R
249		79 *Virginis* ζ			
May 3	...	13 28 25·56	...	89 57 58·2	M
5	...	28 25·48	...	57 57·4	M
31	...	28 25·49	...	57 56·1	M
June 4	...	28 25·61	...	57 56·6	R

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Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
250		*ε Centauri.*			
Apl. 26	3·0	13 32 5·83	...	142 50 23·5	R
27	3·0	32 5·79	...	50 23·0	R
28	3·0	32 5·58	...	50 23·7	R
30	3·0	32 5·53	...	50 22·4	R
May 4	3·4	32 5·60	...	50 23·4	M
251		*ν Centauri.*			
May 2	3·8	13 42 7·77	...	131 4 24·7	M
5	3·9	42 8·07	...	4 25·3	M
8	3·8	42 7·87	...	4 24·8	M
28	3·9	42 8·06	...	4 23·9	M
June 2	3·5	42 8·06	...	4 24·8	R
252		*μ Centauri.*			
Apl. 28	3·5	13 42 12·54	...	131 51 36·7	R
May 4	3·8	42 12·79	...	51 36·3	M
10	3·6	42 12·75	...	51 37·8	M
12	4·0	42 12·64	...	51 37·1	M
23	3·8	42 12·76	...	51 36·2	M
253		*ζ Centauri.*			
May 3	3·4	13 47 52·51	...	136 40 56·2	M
24	3·0	47 52·42	...	40 54·2	M
25	3·3	47 52·60	...	40 56·3	M
June 1	3·0	47 52·52	...	40 54·0	R
4	3·0	47 52·62	4	40 52·5	R
254		*8 Bootis η*			
May 9	...	13 48 49·74	...	70 59 6·8	M
June 2	...	48 49·68	...	59 5·5	R
5	...	48 49·71	...	59 6·1	R
7	...	48 49·64	...	59 5·7	R
14	...	48 49·74	...	59 8·4	R
255		*φ Centauri.*			
Apl. 30	4·5	13 50 47·84	...	131 29 55·8	R
May 4	4·9	50 47·95	...	29 55·8	M
14	...	50 48·01	...	29 56·8	M
30	4·4	50 47·94	...	29 55·1	M
31	5·0	50 48·07	...	29 56·1	M
256		*Stone* 7666.			
May 12	8·5	13 51 25·75	...	123 47 45·6	M
257		93 *Virginis τ*			
May 10	...	13 55 23·18	...	87 51 34·1	M
29	...	55 23·19	...	51 33·2	M
June 1	...	55 23·21	...	51 33·7	R
5	...	55 23·16	...	51 33·8	R
6	...	55 23·13	...	51 34·5	R
14	...	55 23·18	...	51 35·4	R
258		5 *Centauri θ*			
May 2	...	13 59 26·86	...	125 45 50·2	M
3	...	59 26·97	...	45 51·9	M
4	...	59 26·81	...	45 51·5	M
26	...	59 26·90	...	45 46·5	M
June 2	...	59 26·86	...	45 50·3	R
259		*R. P. L.* 108.			
June 4	...	14 2 15·34	3	3 39 10·1	R
260		16 *Bootis a, Arcturus.*			
May 2	...	14 10 3·22	...	70 10 34·6	M
3	...	10 3·01	...	10 35·8	M
9	...	10 3·20	...	10 36·1	M
29	...	10 3·06	...	10 35·5	M
June 9	...	10 3·11	...	10 36·7	R
261		*W. B. E.* XIV. 192.			
May 31	7·9	14 12 34·24	...	103 50 20·4	M
June 1	7·8	12 34·09	...	50 19·9	R
2	7·8	12 34·03	...	50 19·4	R
262		25 *Bootis ρ*			
May 5	...	14 26 31·78	...	59 5 16·2	M
9	...	26 31·62	...	5 16·6	M
June 2	...	26 31·80	...	5 15·8	R
9	...	26 31·83	...	5 16·7	R

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Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
263 *R Camelopardi, Var.* 1—*s.p.*					
Jan. 5	9·8	14 27 0·53	3	5 36 43·9	R
6	9·9	27 1·10	7	36 44·1	R
8	10·0	27 0·90	3	36 40·9	R
10	10·0	27 0·06	3	36 40·9	R
13	10·0	26 59·12	7	36 43·9	R
15	10·0	27 0·80	4	36 42·8	R
16	10·3	26 58·45	7	36 40·1	R
264 *η Centauri.*					
May 2	3·5	14 27 41·95	...	131 36 58·9	M
3	3·3	27 42·07	...	36 1·1	M
8	3·4	27 42·21	...	36 59·7	M
28	3·5	27 42·17	...	36 58·6	M
June 5	3·0	27 42·98	...	36 58·8	R
265 *a Circini.*					
May 4	4·4	14 32 35·26	...	154 26 17·5	M
5	4·3	32 35·23	...	26 17·8	M
10	4·4	32 35·35	...	26 16·4	M
June 1	4·0	32 35·15	...	26 19·7	R
2	4·0	32 35·20	...	26 18·4	R
266 36 *Bootis* ε, *Mirac.*					
June 5	...	14 39 37·01	...	62 24 23·1	R
7	...	39 36·91	...	24 22·2	R
267 9 *Libræ* a^2					
June 6	...	14 44 4·48	...	105 31 44·5	R
15	...	44 4·66	...	31 46·2	R
18	...	44 4·61	...	31 45·4	R
268 *β Lupi.*					
May 12	4·0	14 50 28·87	...	132 38 11·1	M
24	3·0	50 28·95	...	38 10·3	M
June 1	3·0	50 28·91	...	38 7·1	R
4	3·0	50 29·00	...	38 8·7	R
6	3·0	50 28·87	...	38 9·9	R
269 *κ Centauri.*					
May 31	3·4	14 51 9·98	...	131 36 32·3	M
June 2	3·0	51 9·94	...	36 32·4	R
5	3·0	51 9·94	...	36 32·3	R
7	3·0	51 9·89	...	36 31·4	R
9	3·0	51 9·93	...	36 31·1	R
270 42 *Bootis* β					
May 24	3·2	14 57 18·74	...	49 7 21·5	M
25	3·4	57 18·71	...	7 22·1	M
26	3·6	57 18·64	...	7 20·8	M
June 2	3·0	57 18·78	...	7 21·4	R
4	3·0	57 18·98	...	7 21·8	R
271 43 *Bootis* ψ					
June 9	...	14 59 10·46	...	62 34 17·6	R
16	...	59 10·49	...	34 20·0	R
20	...	59 10·53	...	34 17·7	R
272 *ζ Lupi.*					
May 12	...	15 3 27·49	...	141 37 45·2	M
28	...	3 27·69	...	37 46·0	M
31	...	3 27·69	...	37 45·5	M
June 2	...	3 27·61	...	37 45·1	R
4	...	3 27·44	...	37 44·6	R
273 *R. P. L.* 111—*s.p.*					
Jan. 16	...	15 4 14·05	3	5 34 24·9	R
Dec. 21	...	4 15·12	3	34 24·7	M
274 *γ Trianguli Australis.*					
May 29	3·4	15 7 26·77	...	158 18 22·9	M
30	3·8	7 26·72	...	18 23·5	M
June 5	3·0	7 26·66	...	18 21·5	R
6	3·0	7 26·61	...	18 22·0	R
7	3·0	7 26·80	...	18 22·3	R
275 27 *Libræ* β					
May 31	...	15 10 28·30	...	98 55 40·5	M
June 21	...	10 28·33	...	55 39·1	R

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Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
276 U *Coronæ Var.* 4.					
May 3	8·8	15 13 10·57	...	57 54 8·9	M
4	8·7	13 10·60	...	54 8·6	M
5	8·6	13 10·72	...	54 8·3	M
8	8·6	13 10·77	...	54 9·2	M
9	8·5	13 10·87	...	54 8·9	M
10	8·7	13 10·68	...	54 8·7	M
24	9·0	13 10·60	...	54 8·3	M
25	8·6	13 10·48	...	54 8·4	M
28	8·3	13 10·87	...	54 7·1	M
June 2	8·5	13 10·77	...	54 8·5	R
277 *δ Lupi.*					
May 23	4·7	15 13 18·05	...	130 12 6·9	M
June 6	4·0	13 18·11	...	12 7·2	R
7	4·0	13 17·88	...	12 8·3	R
9	4·0	13 17·90	...	12 8·1	R
15	4·0	13 17·90	...	12 8·0	R
278 *ε Lupi.*					
June 4	4·3	15 14 19·78	...	134 14 39·7	R
16	4·5	14 19·74	...	14 43·4	R
18	4·5	14 19·70	...	14 42·5	R
27	4·8	14 19·91	...	14 41·9	M
July 3	4·6	14 19·71	...	14 42·5	M
279 *S. Libræ, Var.* 5.					
July 9	9·0	15 14 20·27	...	109 56 34·9	M
10	9·0	14 20·35	...	56 36·6	M
11	9·4	14 20·42	...	56 34·8	M
280 *R. P. I.* 114—*s.p.*					
Nov. 27	...	15 17 34·07	2	2 17 49·0	M
281 13 *Ursæ Minoris γ*					
May 30	3·9	15 20 56·32	...	17 43 40·2	M
June 1	3·5	20 56·58	...	43 40·7	R
5	3·5	20 56·40	...	43 40·3	R
7	3·5	20 56·27	...	43 39·9	R
9	3·5	20 56·35	...	43 31·3	R

Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
282 12 *Draconis ι*					
June 2	3·0	15 22 12·16	...	30 36 7·8	R
6	3·0	22 12·10	...	36 8·9	R
15	3·0	22 11·92	...	36 11·5	R
18	3·0	22 11·96	...	36 11·0	R
July 3	3·5	22 12·03	...	36 8·1	M
283 *γ Lupi.*					
May 12	3·4	15 26 56·81	...	130 45 5·8	M
23	3·4	26 56·87	...	45 5·1	M
June 16	3·0	26 56·76	...	45 5·6	R
20	3·0	26 56·76	...	45 5·4	R
27	...	26 56·94	...	45 4·5	M
284 37 *Libræ.*					
May 25	...	15 27 27·41	...	99 38 26·8	M
29	...	27 27·42	...	38 27·3	M
June 4	...	27 27·63	...	38 27·2	R
9	...	27 27·89	...	38 28·7	R
18	...	27 27·59	...	38 29·4	R
285 13 *Serpentis δ—2nd.*					
May 31	...	15 28 55·64	...	79 2 51·6	M
June 2	...	28 55·65	...	2 53·1	R
7	...	28 55·43	...	2 52·6	R
28	...	28 55·49	...	2 53·3	M
July 4	...	28 55·51	...	2 51·4	M
286 5 *Coronæ Borealis a, Alpheta.*					
May 4	...	15 29 28·83	...	62 52 11·6	M
June 15	...	29 28·72	...	52 13·8	R
July 7	...	29 28·76	...	52 11·3	M
10	...	29 28·90	...	52 13·0	M
11	...	29 28·89	...	52 11·9	M
16	...	29 28·89	...	52 12·7	M
18	...	29 28·89	...	52 12·1	M
287 39 *Libræ.*					
May 30	4·2	15 29 33·42	...	117 43 31·6	M
June 1	4·0	29 33·61	...	43 32·7	R
5	4·0	29 33·66	...	43 33·1	R
6	4·0	29 33·54	...	43 33·2	R
July 5	4·0	29 33·39	...	43 32·9	M

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Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
288		24 *Serpentis a*			
June 1	...	15 38 12·67	...	83 11 8·8	R
2	...	38 12·59	...	11 9·9	R
6	...	38 12·77	...	11 8·9	R
13	...	38 12·60	...	11 9·2	R
20	...	38 12·74	...	11 9·6	R
29	...	38 12·55	...	11 8·6	M
July 9	...	38 12·64	...	11 7·9	M
10	...	38 12·59	...	11 9·6	M
11	...	38 12·54	...	11 8·3	M
16	...	38 12·53	...	11 9·4	M
289		28 *Serpentis β*			
May 28	3·7	15 40 30·59	...	74 11 30·7	M
29	3·7	40 30·60	...	11 31·9	M
June 4	3·5	40 30·78	...	11 30·5	R
7	3·5	40 30·62	...	11 30·6	R
14	3·5	40 30·60	...	11 33·2	R
290		5 *Lupi χ*			
May 30	4·5	15 43 8·69	...	128 15 2·4	M
June 5	4·0	43 8·64	...	15 5·0	R
9	4·0	43 8·68	...	15 5·2	R
16	4·0	43 8·74	...	15 2·9	R
25	4·0	43 8·54	...	15 1·9	M
291		32 *Serpentis μ*			
May 25	3·8	15 43 11·98	...	93 3 7·0	M
June 6	3·5	43 12·26	...	3 7·6	R
15	3·5	43 12·09	...	3 9·4	R
18	3·5	43 12·04	...	3 8·7	R
20	3·5	43 12·03	...	3 8·9	R
292		*β Trianguli Australis.*			
May 31	3·5	15 44 19·20	...	153 2 56·0	M
July 3	3·0	44 19·03	...	2 55·1	M
4	3·5	44 19·07	...	2 55·6	M
5	3·1	44 19·09	...	2 56·8	M
7	3·5	44 19·26	...	2 56·7	M

Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
293		37 *Serpentis ε*			
June 7	3·0	15 44 41·86	...	85 9 0·6	R
July 9	3·5	44 40·96	...	8 59·1	M
10	3·6	44 41·05	...	9 0·8	M
11	3·7	44 41·18	...	8 59·7	M
14	3·0	44 41·01	...	9 1·0	M
294		45 *Libræ λ*			
June 2	4·0	15 46 12·02	...	109 47 50·8	R
4	4·0	46 12·16	...	47 50·4	R
28	4·6	46 11·88	...	47 50·9	M
July 16	4·5	46 11·88	...	47 50·7	M
18	4·0	46 11·80	...	47 49·5	M
295		*R. P. L.* 115—*s.p.*			
Jan. 5	...	15 46 23·97	3	4 46 19·3	R
13	...	46 25·83	3	46 19·9	R
18	...	46 24·95	3	46 18·9	R
296		5 *Scorpii ρ*			
June 1	4·0	15 49 17·52	...	118 51 12·1	R
16	4·0	49 17·51	...	51 11·9	R
20	4·0	49 17·48	...	51 11·9	R
July 6	4·0	49 17·43	...	51 9·7	M
10	4·2	49 17·55	...	51 9·9	M
297		41 *Serpentis γ*			
May 28	4·0	15 50 46·38	...	78 56 9·2	M
29	3·9	50 46·31	...	56 10·1	M
June 5	3·0	50 46·35	...	56 10·3	R
6	3·0	50 46·21	...	56 9·3	R
9	3·0	50 46·19	...	56 11·5	R
298		6 *Scorpii π*			
June 4	3·5	15 51 24·70	...	115 45 29·0	R
7	3·5	51 24·52	...	45 28·6	R
14	3·5	51 24·54	...	45 28·9	R
July 4	3·6	51 24·45	...	45 28·8	M
9	3·4	51 24·55	...	45 28·0	M

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Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
299		*8 Scorpii β*[1]			
June 7	...	15 58 17·05	...	109 28 1·2	R
15	...	58 17·19	...	28 1·7	R
16	...	58 17·14	...	27 59·8	R
22	...	58 17·18	...	28 0·4	R
23	...	58 17·25	...	27 59·1	M
25	...	58 17·23	...	27 59·3	M
27	...	58 17·12	...	28 0·2	M
28	...	58 17·11	...	28 1·1	M
29	...	58 17·25	...	27 59·3	M
July 3	...	58 17·24	...	27 59·7	M
4	...	58 17·10	...	28 0·6	M
5	...	58 17·19	...	28 1·1	M
6	...	58 17·13	...	28 0·6	M
7	...	58 17·24	...	28 0·8	M
11	...	58 17·19	...	28 0·1	M
14	...	58 17·25	...	27 59·7	M
300		*13 Draconis θ*			
May 26	...	15 59 35·28	...	31 6 17·9	M
29	...	59 35·22	...	6 19·2	M
June 2	...	59 35·44	...	6 19·1	R
4	...	59 35·89	...	6 19·6	R
5	...	59 35·30	...	6 20·2	R
301		*R. P. L.* 116.			
June 1	...	16 2 3·28	3	4 20 54·3	R
		R. P. L. 116—*s.p.*			
Jan. 8	...	16 2 1·20	3	4 20 51·1	R
Nov. 22	...	2 2·24	3	20 53·4	M
Dec. 27	...	2 2·82	3	20 51·7	M
29	...	2 0·27	3	20 50·2	M
302		*1 Ophiuchi δ*			
June 14	...	16 7 54·02	...	93 22 35·4	R
16	...	7 54·07	...	22 35·0	R
20	...	7 53·87	...	22 35·4	R
22	...	7 54·05	...	22 33·9	R
25	...	7 53·98	...	22 32·5	M
27	...	7 53·95	...	22 33·8	M
June 28	...	16 7 54·06	...	93 22 35·1	M
29	...	7 53·96	...	22 32·7	M
July 5	...	7 53·94	...	22 33·7	M
6	...	7 54·05	...	22 33·4	M
7	...	7 54·01	...	22 33·9	M
9	...	7 53·92	...	22 32·5	M
10	...	7 53·95	...	22 35·0	M
14	...	7 53·78	..	22 32·9	M
16	...	7 54·01	...	22 33·8	M
303		*2 Ophiuchi ε*			
May 28	3·9	16 11 48·69	...	94 23 28·8	M
29	3·2	11 48·73	...	23 28·4	M
30	3·6	11 48·59	...	23 22·4	M
June 2	3·0	11 48·96	...	23 23·0	R
4	3·0	11 48·97	...	23 23·0	R
304		*20 Herculis γ*			
May 25	3·7	16 16 29·76	...	70 33 23·9	M
June 4	3·5	16 29·95	...	33 24·1	R
5	3·5	16 29·90	...	33 26·8	R
6	3·5	16 29·82	...	33 27·8	R
7	3·5	16 29·67	...	33 27·4	R
305		*21 Scorpii a, Antares.*			
June 21	...	16 21 52·09	...	116 9 24·6	R
23	...	21 52·04	...	9 25·2	M
27	...	21 52·15	...	9 24·7	M
28	...	21 52·05	...	9 25·0	M
July 14	...	21 52·19	...	9 23·5	M
17	...	21 52·01	...	9 25·1	M
18	...	21 51·99	...	9 24·8	M
19	...	21 52·06	...	9 24·9	M
30	...	21 52·07	...	9 24·8	M
31	...	21 51·98	...	9 24·5	M
Aug. 3	...	21 51·97	...	9 24·8	M
306		*α Normæ.*			
May 30	4·4	16 23 20·74	...	124 26 2·3	M
June 16	4·0	23 20·75	...	26 4·6	R
20	4·0	23 20·75	...	26 4·7	R
29	4·0	23 20·83	...	26 3·5	M
July 2	4·0	23 20·68	...	26 2·6	M

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Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
307		*27 Herculis β*			
May 31	2·8	16 24 56·08	...	68 14 28·9	M
June 18	2·5	24 55·95	...	14 29·6	R
July 3	3·0	24 56·11	...	14 28·4	M
4	3·3	24 55·91	...	14 28·0	M
5	3·0	24 56·05	...	14 28·4	M
308		*S Ophiuchi, Var.* 3.			
June 1	10·9	16 27 10·56	5	106 54 3·4	R
2	10·8	27 10·55	...	54 3·8	R
4	10·8	27 10·44	...	54 1·7	R
5	10·8	27 10·36	...	54 1·8	R
6	10·9	27 10·47	3	54 1·7	R
7	10·9	27 10·35	3	54 0·5	R
9	10·9	27 10·45	1	54 1·6	R
14	10·9	27 10·61	3	54 1·0	R
15	10·9	27 10·45	3	54 1·3	R
309		*40 Herculis ζ*			
June 21	...	16 36 38·97	...	58 10 24·6	R
22	...	36 38·96	...	10 24·1	R
23	...	36 38·97	...	10 23·5	M
30	...	36 38·98	...	10 24·3	M
July 17	...	36 39·04	...	10 26·6	M
19	...	36 39·10	...	10 25·0	M
20	...	36 39·02	...	10 26·1	M
30	...	36 39·04	...	10 24·8	M
31	...	36 39·04	...	10 24·8	M
Aug. 3	...	36 39·06	...	10 23·9	R
7	...	36 39·00	...	10 24·2	R
310		*44 Herculis η*			
June 15	3·0	16 38 40·70	...	50 50 34·5	R
18	3·0	38 40·66	...	50 34·2	R
July 2	3·3	38 40·65	...	50 33·1	M
3	3·5	38 40·81	...	50 33·0	M
4	3·0	38 40·79	...	50 33·7	M
311		*η Arcæ.*			
June 16	4·5	16 39 10·36	...	148 49 10·4	R
20	4·5	39 10·42	...	49 9·5	R
July 9	4·8	39 10·48	...	49 8·7	M
10	4·3	39 10·63	...	49 9·0	M
11	5·0	39 10·51	...	49 7·7	M

Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
312		*26 Scorpii ε*			
July 5	3·0	16 42 12·08	...	124 4 4·1	M
14	3·6	42 11·97	...	4 3·5	M
Aug. 7	3·0	42 11·80	...	4 4·4	R
10	3·5	42 11·96	...	4 2·3	M
17	3·0	42 11·95	...	4 4·9	R
313		*μ^1 Scorpii.*			
July 16	3·5	16 43 32·49	...	127 50 3·0	M
19	3·5	43 32·38	...	50 2·6	M
314		*μ^2 Scorpii.*			
June 18	4·0	16 44 0·32	...	127 48 21·7	R
22	4·0	44 0·32	...	48 19·8	R
25	4·3	44 0·48	...	48 19·4	M
July 17	4·5	44 0·47	...	48 19·9	M
20	4·3	44 0·05	...	48 20·8	M
315		*ζ^1 Scorpii.*			
June 16	4·5	16 45 19·13	...	132 9 18·0	R
20	4·5	45 19·18	...	9 17·5	R
July 21	4·7	45 19·16	...	9 16·7	M
30	5·0	45 19·13	...	9 17·5	M
Aug. 8	4·5	45 19·17	...	9 16·5	R
316		*ζ^2 Scorpii.*			
June 23	4·0	16 45 55·91	...	132 8 52·4	M
29	3·5	45 55·75	...	8 52·7	M
30	3·2	45 55·83	...	8 53·4	M
July 31	4·0	45 55·67	...	8 52·1	M
Aug. 21	3·0	45 55·81	...	8 53·2	R
317		*ζ Arcæ.*			
June 15	3·5	16 48 26·91	...	145 47 38·0	R
28	4·0	48 26·90	...	47 35·2	M
July 7	3·7	48 26·84	...	47 34·5	M
10	3·5	48 27·02	...	47 35·4	M
11	4·0	48 26·95	...	47 36·5	M

Separate Results of Madras Meridian Circle Observations in 1877.

Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
318		*ε*[1] *Arcæ.*			
June 20	4·0	16 49 47·02	...	142 58 7·9	R
22	4·0	49 46·99	...	58 6·8	R
July 5	4·0	49 47·16	...	58 4·7	M
16	4·5	49 47·29	...	58 5·6	M
19	4·4	49 47·00	...	58 6·3	M
319		27 *Ophiuchi κ*			
June 18	...	16 51 50·65	...	80 25 55·6	R
July 3	...	51 50·71	...	25 55·5	M
13	...	51 50·75	...	25 55·3	M
17	...	51 50·74	...	25 55·7	M
20	...	51 50·71	...	25 55·8	M
Aug. 3	...	51 50·78	...	25 54·7	R
7	...	51 50·75	...	25 54·6	R
320		58 *Herculis ε*			
June 15	...	16 55 34·87	...	58 53 29·4	R
16	...	55 34·77	...	53 29·2	R
20	...	55 34·79	...	53 28·7	R
25	...	55 34·97	...	53 27·4	M
July 4	...	55 34·94	...	53 28·7	M
321		22 *Ursæ Minoris ε—s.p.*			
Feb. 2	...	16 58 38·87	3	7 45 47·3	M
5	...	58 38·06	3	45 45·3	M
7	...	58 38·30	3	45 47·6	M
14	...	58 39·03	3	45 49·4	M
322		*η Scorpii.*			
June 18	3·5	17 3 20·68	...	133 4 27·8	R
20	3·5	3 20·69	...	4 27·1	R
23	3·8	3 20·85	...	4 27·2	M
July 2	3·8	3 20·72	...	4 24·9	M
9	3·7	3 20·71	...	4 26·1	M
323		U *Ophiuchi, Var.* 5.			
June 1	9·3	17 3 40·91	...	106 11 54·5	R
2	9·3	3 40·90	...	11 54·0	R
4	9·4	3 40·84	...	11 53·7	R
June 5	9·4	17 3 40·76	...	106 11 54·1	R
6	9·5	3 40·64	...	11 52·3	R
7	9·5	3 40·73	...	11 50·7	R
9	9·6	3 40·58	3	11 50·6	R
14	9·6	3 40·60	4	11 50·5	R
15	9·6	3 40·82	...	11 51·7	R
16	9·7	3 40·66	...	11 51·0	R
324		22 *Draconis ζ*			
June 15	3·0	17 8 25·95	...	24 8 1·3	R
20	3·0	8 26·11	...	8 3·1	R
28	3·5	8 26·15	...	8 0·7	M
July 11	3·9	8 26·17	...	7 59·8	M
14	3·4	8 26·21	...	8 0·4	M
325		64 *Herculis a*[1], *Var.* 1.			
June 25	...	17 9 2·31	...	75 28 1·7	M
30	...	9 2·41	...	28 4·3	M
July 13	...	9 2·20	...	28 5·3	M
18	...	9 2·37	...	28 5·0	M
Aug. 4	...	9 2·33	...	28 4·9	R
10	...	9 2·44	...	28 2·5	M
20	...	9 2·38	...	28 2·9	R
326		*ζ Apodis.*			
June 22	4·0	17 9 9·15	...	157 38 21·5	R
July 10	5·0	9 9·22	...	38 18·3	M
Aug. 8	4·0	9 9·21	...	38 19·4	R
16	...	9 9·38	...	38 18·4	R
17	4·0	9 9·34	...	38 18·0	R
327		67 *Herculis π*			
June 16	3·5	17 10 45·71	...	53 3 3·5	R
July 19	4·0	10 45·87	...	3 3·3	M
20	4·0	10 45·85	...	3 3·0	M
21	4·0	10 45·89	...	3 2·6	M
30	4·0	10 45·89	...	3 5·0	M
328		68 *Herculis u, Var.* 7.			
May 30	6·0	17 12 47·15	...	56 46 4·4	M
June 1	5·7	12 47·13	...	46 5·8	R
4	5·8	12 47·21	...	46 3·7	R

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Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
June 5	5·6	17 12 47·33	...	56 ~~43 4·0~~	R
6	5·6	12 47·23	...	~~46 3·2~~	R
7	5·6	12 47·94	...	~~46 2·8~~	R
9	5·8	12 47·12	...	~~46 3·8~~	R
14	5·8	12 47·24	...	~~46 1·5~~	R
18	5·8	12 47·15	...	~~46 3·2~~	R
21	6·0	12 47·24	...	~~46 2·0~~	R
329		*40 Ophiuchi ξ*			
June 20	4·5	17 13 37·95	...	100 58 44·3	R
27	4·9	13 38·09	...	58 42·0	M
July 17	5·0	13 37·91	...	58 42·4	M
31	5·0	13 38·03	...	58 42·5	M
Aug. 7	4·5	13 38·06	...	58 42·4	R
330		*42 Ophiuchi θ*			
July 2	...	17 14 27·45	...	114 52 27·0	M
Aug. 17	...	14 27·41	...	52 27·5	R
331		*γ Arœ.*			
June 29	3·2	17 15 2·55	...	146 15 31·8	M
Aug. 21	3·0	15 2·89	...	15 33·3	R
22	3·0	15 2·46	...	15 32·6	R
332		*β Arœ.*			
Aug. 20	3·0	17 15 4·46	...	145 24 26·7	R
333		*δ Arœ.*			
June 18	4·0	17 19 59·78	...	150 34 40·5	R
21	4·0	19 59·91	...	34 37·8	R
July 5	4·0	20 0·00	...	34 41·6	M
19	4·0	19 59·85	...	34 40·1	M
21	4·2	19 59·75	...	34 37·4	M
334		*α Arœ.*			
June 16	3·0	17 22 19·99	...	139 46 34·1	R
20	3·0	22 19·96	...	46 35·1	R
22	3·0	22 19·93	...	46 33·9	R
28	3·6	22 19·93	...	46 33·5	M
July 8	3·2	22 19·93	...	46 32·6	M

Number and Date.	Magnitude.	Mean Right Ascension. 1877. h. m. s.	No. of Wires.	Mean Polar Distance. 1877. ° ′ ″	Observer.
335		*34 Scorpii υ*			
June 25	...	17 22 24·01	...	127 11 43·2	M
28	...	22 23·95	...	11 43·4	M
30	...	22 23·98	...	11 43·5	M
July 4	...	22 23·90	...	11 43·3	M
6	...	22 24·08	...	11 43·3	M
336		*35 Scorpii λ*			
June 29	...	17 25 15·21	...	127 0 42·1	M
July 13	...	25 15·41	...	0 42·8	M
20	...	25 15·22	...	0 42·8	M
30	...	25 15·33	...	0 42·6	M
31	...	25 15·21	...	0 43·0	M
337		*θ Scorpii.*			
June 16	3·0	17 28 28·70	...	132 55 3·7	R
18	3·0	28 28·66	...	55 2·2	R
20	3·0	28 28·71	...	55 2·1	R
July 2	3·0	28 28·80	...	54 59·6	M
18	3·6	28 28·90	...	55 0·4	M
338		*55 Ophiuchi α*			
Aug. 4	...	17 29 18·55	...	77 20 56·1	R
7	...	29 18·46	...	20 54·6	R
8	...	29 18·48	...	20 56·1	R
10	...	29 18·46	...	20 56·3	M
14	...	29 18·42	...	20 56·7	R
17	...	29 18·38	...	20 54·6	R
21	...	29 18·51	...	20 56·4	R
339		*η Pavonis.*			
June 15	4·5	17 33 39·51	...	154 39 44·0	R
18	4·5	33 39·57	...	39 42·8	R
21	4·5	33 39·63	...	39 40·3	R
July 5	4·7	33 39·51	...	39 43·9	M
10	4·8	33 39·63	...	39 40·8	M
340		*Taylor* 8199.			
June 20	9·5	17 36 41·05	...	65 21 50·8	R

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Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
341		*69 Ophiuchi β*			
June 16	3·0	17 37 23·96	...	85 22 45·8	R
23	3·4	37 23·81	...	22 44·4	M
25	3·5	37 23·64	...	22 44·3	M
July 3	3·4	37 23·70	...	22 44·5	M
4	3·5	37 23·63	...	22 44·7	M
342		*ι¹ Scorpii.*			
June 29	3·6	17 38 58·78	...	130 4 35·9	M
30	3·8	38 58·77	...	4 37·1	M
July 9	3·4	38 59·05	...	4 34·8	M
11	3·6	38 59·04	...	4 36·2	M
18	3·9	38 58·86	...	4 35·1	M
343		*3 Sagittarii, Var.* 7.			
June 1	4·4	17 39 49·29	...	117 46 53·0	R
4	4·5	39 49·24	...	46 53·6	R
15	4·7	39 49·02	...	46 55·0	R
18	4·9	39 48·98	...	46 54·4	R
21	4·6	39 48·99	...	46 53·7	R
27	...	39 49·19	...	46 54·8	M
July 30	5·0	39 49·17	...	46 54·9	M
Aug. 7	4·5	39 48·99	...	46 54·3	R
8	4·5	39 48·96	...	46 54·6	R
16	...	39 49·04	...	46 54·9	R
344		*Taylor* 8229.			
June 16	4·0	17 41 29·12	...	127 0 7·1	R
20	4·0	41 29·04	...	0 6·1	R
July 31	4·0	41 28·96	...	0 5·6	M
Aug. 14	4·0	41 28·90	...	0 5·6	R
17	4·0	41 28·85	...	0 5·8	R
345		*86 Herculis μ*			
July 2	...	17 41 38·60	...	62 12 21·5	M
6	...	41 38·67	...	12 20·9	M
19	...	41 38·62	...	12 22·5	M
20	...	41 38·72	...	12 21·1	M
21	...	41 38·72	...	12 19·7	M
Aug. 4	...	41 38·62	...	12 21·8	R
9	...	41 38·69	...	12 22·8	R
22	...	41 38·74	...	12 21·7	R
346		*Lacaille* 7494.			
Aug. 7	7·0	17 48 13·19	...	122 27 7·8	R
9	7·0	48 13·24	...	27 7·4	R
20	7·0	48 13·41	...	27 6·4	R
347		*Lacaille* 7506.			
Aug. 14	7·0	17 48 43·90	...	116 44 54·4	R
17	7·0	48 43·87	...	44 56·6	R
22	7·0	48 43·90	...	44 54·2	R
348		*Lacaille* 7502.			
Aug. 8	7·0	17 48 46·41	...	122 40 2·1	R
16	...	48 46·49	...	40 2·6	R
21	7·0	48 46·60	...	40 3·1	R
349		*64 Ophiuchi ν*			
June 15	4·0	17 52 15·21	...	99 45 23·9	R
16	4·0	52 15·16	...	45 23·5	R
20	4·0	52 15·29	...	45 21·7	R
23	4·0	52 15·37	...	45 22·5	M
July 2	4·0	52 15·41	...	45 22·0	M
350		*θ Arcæ.*			
June 16	4·0	17 57 3·40	...	140 5 48·9	R
21	4·0	57 3·23	...	5 48·8	R
25	4·0	57 3·29	...	5 46·9	M
July 10	4·0	57 3·46	...	5 48·6	M
23	4·5	57 3·27	...	5 44·7	M
351		*10 Sagittarii γ²*			
June 15	...	17 57 54·27	...	120 25 25·0	R
20	...	57 54·24	...	25 26·7	R
22	...	57 54·20	...	25 23·4	R
July 3	...	57 54·25	...	25 22·3	M
11	...	57 54·43	...	25 23·0	M
352		*Radcliffe* 3828.			
Aug. 14	...	17 59 56·25	...	41 32 25·5	R
16	...	59 56·17	...	32 26·7	R
Sep. 5	6·0	59 56·25	...	32 25·1	M
8	5·7	59 56·19	...	32 26·1	M
13	5·5	59 56·31	...	32 23·3	M

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Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
353		*Taylor* 8376.			
Aug. 7	5·0	18 0 17·27	...	118 28 6·5	R
9	5·0	0 17·38	...	28 7·0	R
Sep. 10	6·0	0 17·24	...	28 6·7	M
14	5·4	0 17·40	...	28 7·1	M
17	5·0	0 17·37	...	28 6·2	M
354		72 *Ophiuchi*.			
Aug. 8	4·0	18 1 31·13	...	80 27 7·1	R
20	4·0	1 31·21	...	27 7·0	R
Sep. 18	4·0	1 31·26	4	27 6·7	M
19	4·0	1 31·09	...	27 6·7	M
22	4·4	1 31·29	...	27 6·4	M
355		ϵ *Telescopii*.			
Aug. 22	4·5	18 2 5·89	...	135 58 22·9	R
356		*Lacaille* 7577.			
Aug. 21	5·0	18 3 59·58	...	153 5 4·9	R
27	5·0	3 59·79	...	5 4·5	R
357		13 *Sagittarii* μ^1			
July 2	...	18 6 24·37	...	111 5 18·7	M
4	...	6 24·61	...	5 18·5	M
5	...	6 24·38	...	5 18·8	M
13	...	6 24·48	...	5 19·6	M
23	...	6 24·33	...	5 20·2	M
30	...	6 24·32	...	5 19·4	M
Aug. 8	...	6 24·26	...	5 20·3	R
9	...	6 24·37	...	5 20·9	R
10	...	6 24·28	...	5 20·7	M
14	...	6 24·42	...	5 21·0	R
16	...	6 24·42	...	5 21·3	R
20	...	6 24·47	...	5 20·2	R
358		η *Sagittarii*.			
June 15	...	18 9 18·11	...	126 47 48·2	R
20	...	9 18·24	...	47 48·7	R
22	...	9 18·24	...	47 46·8	R
23	...	9 18·17	...	47 48·0	M
July 10	...	9 18·31	...	47 47·6	M

Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
359		23 *Ursæ Minoris* δ			
June 28	...	18 12 0·98	3	3 23 28·6	M
July 4	...	12 0·13	2	23 29·8	M
Sep. 8	...	12 0·84	2	23 29·7	M
		23 *Ursæ Minoris* δ—*s.p.*			
Jan. 25	...	18 12 0·74	3	3 23 32·3	R
27	...	12 1·09	3	23 30·0	R
Feb. 16	...	12 1·52	3	23 32·8	M
24	...	12 0·47	3	23 30·9	M
27	...	12 0·46	3	23 31·4	M
360		19 *Sagittarii* δ			
June 16	3·5	18 18 7·11	...	119 52 42·5	R
21	3·5	18 7·11	...	52 41·6	R
25	3·6	18 7·09	...	52 42·7	M
July 11	3·6	18 7·29	...	52 40·8	M
19	3·7	18 7·09	...	52 40·8	M
361		58 *Serpentis* η			
June 29	4·0	18 14 56·73	...	92 55 45·3	M
30	4·2	14 56·59	...	55 46·7	M
July 5	4·0	14 56·46	...	55 45·7	M
20	4·0	14 56·86	...	55 46·1	M
30	4·0	14 56·54	...	55 46·1	M
362		20 *Sagittarii* ϵ			
June 15	...	18 16 0·27	...	124 26 28·7	R
July 2	...	16 0·26	...	26 24·0	M
Aug. 3	...	16 0·13	...	26 25·0	R
8	...	16 0·17	...	26 24·8	R
9	...	16 0·08	...	26 24·6	R
363		α *Telescopii*.			
June 16	4·0	18 17 51·10	...	136 2 1·0	R
20	4·0	17 50·93	...	2 0·9	R
July 10	4·0	17 51·08	...	2 1·1	M
Aug. 7	4·0	17 50·87	...	2 1·6	R
14	...	17 51·00	...	2 1·8	R

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Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
364 *Anon.*					
Aug. 20	9·0	18 17 55·28	4	121 49 11·3	R
22	8·9	17 55·29	...	49 10·9	R
27	8·9	17 55·40	...	49 11·6	R
Sep. 12	8·6	17 55·15	...	49 11·3	M
17	8·8	17 55·35	...	49 10·8	M
365 *Anon.*					
Aug. 21	7·7	18 19 5·96	...	121 26 28·8	R
24	7·8	19 5·99	...	26 27·5	R
25	7·7	19 6·06	...	26 29·6	R
366 *ζ Telescopii.*					
June 21	4·5	18 19 21·36	...	139 8 5·3	R
Aug. 8	4·5	19 21·14	...	8 2·6	R
Sep. 7	5·2	19 21·33	...	8 5·2	M
11	5·4	19 21·36	...	8 4·5	M
13	4·6	19 21·39	...	8 4·6	M
367 *ν Pavonis.*					
Sep. 14	5·9	18 19 52·92	...	152 21 11·2	M
18	5·0	19 53·21	...	21 11·1	M
368 *δ¹ Telescopii.*					
Aug. 21	5·0	18 22 38·64	...	135 59 40·3	R
27	5·0	22 38·62	...	59 41·0	R
Sep. 19	5·2	22 38·66	...	59 40·6	M
21	5·5	22 38·77	...	59 42·0	M
22	5·5	22 38·76	...	59 42·0	M
369 *δ² Telescopii.*					
Aug. 7	5·0	18 22 56·16	...	135 50 20·9	R
22	5·0	22 56·06	...	50 19·5	R
Sep. 24	5·5	22 56·00	...	50 20·8	M
25	6·0	22 56·03	...	50 21·7	M
27	5·9	22 56·19	...	50 21·4	M
370 *ζ Pavonis.*					
June 28	...	18 28 39·22	...	151 31 47·6	M
29	4·0	28 39·23	...	31 50·4	M
Aug. 25	4·0	28 39·10	...	51 52·4	R
Sep. 17	4·5	28 39·20	...	51 51·8	M
18	5·6	28 39·36	...	51 47·9	M

Number and Date.	Magnitude.	Mean Right Ascension. 1877. h. m. s.	No. of Wires.	Mean Polar Distance. 1877. ° ′ ″	Observer.
371 *3 Lyræ α, Vega.*					
June 30	...	18 32 46·41	...	51 19 46·5	M
July 3	...	32 46·40	...	19 46·1	M
4	...	32 46·56	...	19 47·0	M
21	...	32 46·45	...	19 47·6	M
23	...	32 46·46	...	19 46·7	M
Aug. 22	...	32 46·27	...	19 47·1	R
Sep. 5	...	32 46·36	...	19 47·4	M
11	...	32 46·46	...	19 48·4	M
13	...	32 46·36	...	19 48·2	M
14	...	32 46·39	...	19 48·0	M
15	...	32 46·36	...	19 48·4	M
19	...	32 46·45	...	19 48·0	M
372 *Taylor 8577.*					
Aug. 7	5·0	18 33 22·65	...	154 59 2·2	R
8	5·0	33 21·93	3	59 3·9	R
21	5·0	33 21·98	...	59 5·8	R
Sep. 12	5·0	33 22·08	...	59 2·4	M
22	5·0	33 22·23	...	59 3·7	M
373 *λ Coronæ Australis.*					
Aug. 14	...	18 35 20·62	...	128 26 22·8	R
24	5·5	35 20·50	...	26 23·7	R
Sep. 6	6·0	35 20·65	...	26 22·6	M
7	6·0	35 20·57	...	26 21·6	M
10	6·0	35 20·44	...	26 22·0	M
374 *θ Pavonis.*					
Aug. 25	5·0	18 36 31·86	...	155 12 4·2	R
27	5·0	36 31·80	...	12 4·5	R
Sep. 24	5·8	36 31·90	...	12 6·4	M
27	5·5	36 32·02	...	12 6·2	M
375 *27 Sagittarii φ*					
June 27	...	18 37 58·33	...	117 6 54·0	M
July 5	...	37 58·12	...	6 54·5	M
9	...	37 58·17	...	6 53·6	M
11	...	37 58·28	...	6 54·0	M
14	...	37 58·28	...	6 54·5	M

Separate Results of Madras Meridian Circle Observations in 1877.

Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
376		T *Aquilæ, Var.* 3.			
June 1	9·4	18 39 50·65	...	81 28 7·4	R
2	9·4	39 50·64	...	28 6·4	R
15	9·7	39 50·49	...	28 6·3	R
21	9·8	39 50·42	...	28 5·9	R
Aug. 3	9·7	39 50·50	4	28 8·4	R
7	9·7	39 50·49	...	28 10·1	R
9	9·8	39 50·56	...	28 10·3	R
14	...	39 50·62	...	28 9·1	R
20	9·8	39 50·63	...	28 9·4	R
22	10·0	39 50·70	...	28 9·5	R
377		λ *Pavonis.*			
Aug. 21	5·0	18 40 49·06	...	152 19 31·8	R
Sep. 13	5·0	40 49·17	...	19 33·0	M
17	5·0	40 49·12	...	19 32·9	M
18	5·0	40 49·02	...	19 33·0	M
22	5·9	40 49·03	...	19 32·4	M
378		κ *Telescopii.*			
Aug. 27	5·5	18 42 53·92	...	142 14 43·5	R
Sep. 12	5·8	42 54·09	...	14 43·0	M
25	5·9	42 54·11	...	14 45·7	M
28	5·9	42 53·97	...	14 45·0	M
379		κ *Pavonis.*			
Aug. 7	5·0	18 44 15·99	...	157 23 2·6	R
15	5·0	44 15·28	...	23 2·2	R
380		10 *Lyræ* β, *Var.* 1.			
July 21	...	18 45 32·27	...	56 46 43·0	M
23	...	45 32·32	...	46 44·7	M
Aug. 9	...	45 32·36	...	46 43·9	R
24	...	45 32·18	...	46 44·1	R
25	...	45 32·27	...	46 44·5	R
Sep. 8	...	45 32·28	...	46 45·4	R
7	...	45 32·32	...	46 45·4	M
10	...	45 32·30	...	46 46·2	M
14	...	45 32·31	...	46 44·3	M
15	...	45 32·23	...	46 44·9	M
21	...	45 32·34	...	46 44·8	M

Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
381		34 *Sagittarii* σ			
June 15	...	18 47 38·15	...	116 26 50·7	R
20	...	47 38·12	...	26 49·7	R
30	...	47 38·27	...	26 50·0	M
July 2	...	47 38·32	...	26 49·5	M
10	...	47 38·35	...	26 50·1	M
382		ϵ *Coronæ Australis, Var.* 1.			
Aug. 14	5·5	18 50 25·45	...	127 15 57·4	R
15	...	50 25·47	4	15 58·4	R
21	5·5	50 25·52	...	15 56·8	R
Sep. 3	...	50 25·50	...	15 56·3	R
12	5·5	50 25·35	...	15 56·4	M
383		13 *Aquilæ* ϵ			
June 15	3·5	18 54 2·30	...	75 5 52·6	M
27	4·2	54 2·50	...	5 50·8	M
July 3	3·7	54 2·20	...	5 50·1	M
9	3·6	54 2·38	...	5 50·8	M
18	3·9	54 2·47	...	5 50·4	M
384		14 *Lyræ* γ			
June 29	3·5	18 54 20·82	...	57 28 41·8	M
July 19	3·4	54 20·62	...	28 41·5	M
21	3·5	54 20·73	...	28 40·2	M
23	3·9	54 20·65	...	28 41·9	M
30	3·5	54 20·67	...	28 41·4	M
385		38 *Sagittarii* ζ			
June 25	...	18 54 47·03	...	120 3 14·6	M
July 14	...	54 47·10	...	3 13·0	M
16	...	54 47·22	...	3 14·7	M
17	...	54 46·99	...	3 14·5	M
18	...	54 47·17	...	3 13·8	M
386		*R. P. L.* 131			
Aug. 27	...	18 54 54·85	3	3 26 55·9	R
		R. P. L. 131—*s.p.*			
Feb. 10	...	18 54 54·03	2	3 26 56·6	M

Separate Results of Madras Meridian Circle Observations in 1877.

Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
387	*γ Coronæ Australis.*				
Aug. 7	5·0	18 58 5·98	...	127 14 16·1	R
22	5·0	58 6·00	...	14 14·0	R
23	5·0	58 5·97	...	14 15·8	R
Sep. 7	5·1	58 6·18	...	14 15·6	M
11	5·0	58 5·96	...	14 16·0	M
388	*40 Sagittarii τ*				
June 30	4·0	18 59 15·52	...	117 50 52·1	M
July 10	4·0	59 15·54	...	50 54·4	M
11	4·0	59 15·50	...	50 51·7	M
Aug. 9	4·0	59 15·31	...	50 53·8	R
14	4·0	59 15·38	...	50 55·6	R
389	*16 Aquilæ λ*				
July 23	3·6	18 59 43·10	...	95 3 55·3	M
Aug. 4	...	59 43·29	...	3 54·2	R
Sep. 13	3·2	59 43·31	...	3 54·8	M
15	4·0	59 43·05	...	3 56·1	M
18	3·2	59 43·12	...	3 54·8	M
390	*17 Aquilæ ζ*				
Aug. 15	...	18 59 45·36	...	76 19 4·2	R
21	...	59 45·30	...	19 4·4	R
25	...	59 45·30	...	19 6·2	R
Sep. 3	...	59 45·38	...	19 4·4	R
8	...	59 45·44	...	19 5·3	M
391	*δ Coronæ Australis.*				
Aug. 24	5·0	18 59 46·98	...	130 41 6·1	R
Sep. 22	5·4	59 46·97	...	41 7·1	M
24	5·0	59 47·05	...	41 7·2	M
25	5·0	59 46·92	...	41 8·4	M
27	5·0	59 46·95	...	41 7·9	M
392	*α Coronæ Australis.*				
June 15	4·5	19 1 5·95	...	128 5 38·9	R
July 14	5·0	1 6·03	4	5 37·8	M
18	4·8	1 5·99	...	5 36·8	M
30	4·2	1 6·14	...	5 36·9	M
Aug. 27	4·5	1 5·96	...	5 38·2	R

Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
393	*20 Aquilæ.*				
Aug. 14	5·0	19 6 0·48	...	98 8 35·1	R
21	5·0	6 0·32	...	8 34·8	R
22	5·0	6 0·41	...	8 35·0	R
Sep. 3	...	6 0·58	...	8 36·2	R
10	5·9	6 0·34	...	8 33·7	M
394	*25 Aquilæ ω*				
July 9	...	19 12 2·53	...	78 37 28·5	M
Aug. 8	...	12 2·50	...	37 30·5	R
16	...	12 2·53	...	37 30·6	R
24	...	12 2·50	...	37 29·2	R
27	...	12 2·51	...	37 28·9	R
Sep. 1	...	12 2·51	...	37 28·1	R
17	...	12 2·52	...	37 29·9	M
395	*S Sagittarii, Var.* 2.				
June 2	10·2	19 12 14·24	...	109 14 46·5	R
15	10·4	12 14·14	...	14 47·0	R
396	*57 Draconis δ*				
June 27	4·0	19 12 31·80	...	22 33 16·5	M
29	3·4	12 31·88	...	33 15·9	M
July 17	4·0	12 31·68	...	33 15·6	M
19	3·0	12 31·78	...	33 15·7	M
30	3·4	12 31·96	...	33 16·2	M
397	*β¹ Sagittarii.*				
June 28	3·5	19 13 47·47	...	134 41 17·1	M
July 11	3·7	13 47·43	...	41 14·6	M
Aug. 9	3·5	13 47·38	...	41 16·0	R
15	3·5	13 47·31	...	41 17·5	R
20	3·5	13 47·36	...	41 16·5	R
398	*1 Cygni κ*				
Sep. 14	4·5	19 14 15·40	...	36 51 27·6	M
24	4·2	14 15·47	...	51 26·8	M

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Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
399		*β² Sagittarii.*			
July 2	4·3	19 14 19·71	...	185 1 43·8	M
Sep. 12	4·0	14 19·88	...	1 45·5	M
13	4·5	14 19·84	...	1 44·7	M
15	5·0	14 19·64	...	1 45·0	M
18	4·0	14 19·88	...	1 45·1	M
400		46 *Sagittarii υ*			
Aug. 14	...	19 14 41·03	...	106 11 2·7	R
22	...	14 41·11	...	11 1·7	R
25	...	14 41·16	...	11 3·2	R
Sep. 3	...	14 41·20	...	11 3·0	R
21	...	14 41·04	...	11 2·6	M
401		*α Sagittarii.*			
July 20	4·0	19 15 21·57	...	130 50 42·5	M
Sep. 22	4·0	15 21·79	...	50 43·3	M
25	4·0	15 21·55	...	50 44·1	M
27	4·0	15 21·88	...	50 42·0	M
402		*Taylor* 8907—*2nd.*			
Aug. 21	6·0	19 17 54·86	...	144 34 5·7	R
24	6·0	17 54·73	...	34 5·3	R
Sep. 1	6·0	17 54·83	...	34 3·6	R
28	6·0	17 54·95	...	34 5·3	M
403		30 *Aquilæ δ*			
Aug. 16	...	19 19 17·65	...	87 7 43·7	R
23	...	19 17·70	...	7 43·2	R
Sep. 6	...	19 17·71	...	7 43·9	M
7	...	19 17·76	...	7 43·4	M
8	...	19 17·78	...	7 44·4	M
19	...	19 17·72	...	7 45·7	M
404		*μ Telescopii.*			
Aug. 22	4·0	19 20 35·30	...	145 21 38·5	R
27	...	20 35·28	...	21 38·5	R
Sep. 21	5·0	20 35·53	...	21 34·9	M
24	5·0	20 35·34	...	21 35·4	M
27	5·0	20 35·49	...	21 35·4	M

Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
405		6 *Vulpeculæ a*			
Aug. 7	4·0	19 28 35·39/57	...	65 34 57·8	R
14	4·0	23 35·54	...	35 1·9	R
Sep. 12	4·0	23 35·24	...	34 59·1	M
13	4·0	23 35·27	...	34 59·1	M
17	4·0	23 35·28	...	34 58·5	M
406		6 *Cygni β*—*1st.*			
July 11	3·5	19 25 45·79	...	62 17 48·2	M
17	3·5	25 45·90	...	17 48·0	M
Aug. 3	3·0	25 45·88/78	...	17 49·4	R
4	...	25 46·07/05	...	17 50·6	R
9	3·0	25 46·08/03	...	17 52·6	R
407		6 *Cygni β*—*2nd.*			
July 18	...	19 25 47·82	...	62 17 29·8	M
20	...	25 47·88	...	17 31·0	M
Aug. 20	...	25 47·68	...	17 31·2	R
21	...	25 47·83	...	17 31·7	R
24	...	25 47·81	...	17 34·0	R
25	...	25 47·72	...	17 34·3	R
408		38 *Aquilæ μ*			
July 19	5·0	19 28 4·61	...	82 52 48·8	M
30	4·9	28 4·71/62	...	52 49·9	M
Sep. 1	4·5	28 4·75	...	52 49·0	R
10	4·6	28 4·54	...	52 50·0	M
14	4·6	28 4·69	...	52 50·4	M
409		52 *Sagittarii h²*			
Aug. 23	...	19 29 13·20	...	115 9 11·4	R
25	...	29 13·20	...	9 11·9	R
Sep. 3	...	29 13·29	...	9 11·4	R
410		39 *Aquilæ κ*			
Aug. 7	4·0	19 30 16·24/8	...	97 17 56·1	R
14	4·0	30 16·42	...	17 57·3	R
Sep. 6	5·0	30 16·45	...	17 57·5	M
7	4·9	30 16·52	...	17 57·0	M
8	4·5	30 16·27	...	17 57·1	M

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Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
411		41 *Aquilæ* ι			
Aug. 21	...	19 30 21·41	...	91 33 26·1	R
Sep. 15	...	30 21·17	...	33 27·0	M
17	...	30 21·34	...	33 26·0	M
18	...	30 21·38	...	33 26·3	M
22	...	30 21·26	...	33 27·0	M
412		*Radcliffe* 4400.			
Aug. 9	10·0	19 33 33·53	...	40 3 3·7	R
22	10·0	33 33·39	...	3 4·5	R
24	10·0	33 33·33	...	3 7·4	R
27	10·0	33 33·58	...	3 8·0	R
Oct. 2	10·0	33 33·34	...	3 4·1	R
413		12 *Cygni* φ			
Sep. 27	4·9	19 34 31·17	...	60 7 44·8	M
Oct. 4	4·0	34 30·96	...	7 45·4	R
5	4·0	34 31·00	...	7 46·2	R
6	4·0	34 31·06	...	7 45·1	R
9	4·0	34 31·02	...	7 44·9	R
414		5 *Sagittæ a*			
Aug. 20	4·0	19 34 35·81	...	72 16 3·5	R
25	4·0	34 35·78	...	16 4·8	R
Sep. 1	4·0	34 35·90	...	16 3·0	R
3	...	34 36·03	...	16 4·6	R
12	4·4	34 36·04	...	16 4·6	M
415		*ν Telescopii.*			
Aug. 7	5·5	19 37 57·98	...	146 39 21·0	R
8	5·5	37 57·95	...	39 20·3	R
Sep. 13	5·9	37 58·19	...	39 20·4	M
14	6·0	37 58·02	...	39 21·2	M
28	5·5	37 58·03	...	39 24·1	M
416		*Lacaille* 8195.			
Oct. 1	5·5	19 39 14·18	...	155 54 13·0	R
3	5·5	39 14·32	...	54 13·3	R
8	5·5	39 14·23	...	54 10·7	R

Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
417		50 *Aquilæ* γ			
Aug. 14	...	19 40 24·69	...	79 41 6·0	R
15	...	40 24·64	...	41 5·6	R
27	...	40 24·80	...	41 5·7	R
Sep. 22	...	40 24·58	...	41 5·8	M
418		18 *Cygni* δ			
July 13	3·8	19 41 7·48	...	45 10 4·2	M
16	3·9	41 7·60	...	10 6·3	M
Aug. 3	3·5	41 7·69	...	10 6·7	R
20	3·5	41 7·57	...	10 6·7	R
24	3·5	41 7·55	...	10 8·8	R
419		*Anon.*			
Aug. 21	8·0	19 41 49·89	...	123 3 58·9	R
Sep. 1	8·0	41 49·93	...	3 59·3	R
24	7·9	41 49·78	...	4 0·1	M
25	7·9	41 50·00	...	4 1·0	M
Oct. 4	8·5	41 49·86	...	3 59·3	R
420		7 *Sagittæ* δ			
Aug. 8	4·0	19 41 54·28	...	71 46 5·2	R
23	4·0	41 54·05	...	46 3·8	R
Sep. 8	4·3	41 54·08	...	46 5·9	M
18	4·0	41 54·12	...	46 5·9	M
21	4·5	41 54·31	...	46 4·9	M
421		*Taylor* 9099.			
Aug. 22	6·0	19 42 48·94	...	145 16 52·6	R
Sep. 12	6·0	42 49·10	...	16 54·0	M
17	6·0	42 49·11	...	16 54·5	M
Oct. 2	6·0	42 48·90	...	16 55·6	R
10	6·0	42 48·91	...	16 53·4	R
422		*Taylor* 9125.			
July 17	8·0	19 44 9·35	...	56 52 9·2	M
18	7·9	44 9·40	...	52 8·6	M
Aug. 7	7·8	44 9·37	...	52 10·2	R
9	7·8	44 9·49	...	52 10·7	R
25	7·9	44 9·46	...	52 10·0	R

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Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
423		53 *Aquilæ α, Altair.*			
Sep. 6	...	19 44 46·79	...	81 27 17·9	M
7	...	44 46·84	...	27 17·5	M
10	...	44 46·82	...	27 17·9	M
11	...	44 46·86	...	27 17·4	M
424		*Lacaille* 8224.			
Oct. 5	5·5	19 45 57·03	...	159 29 1·0	R
9	5·5	45 57·06	8	29 0·9	R
425		*ι Sagittarii.*			
Oct. 3	4·5	19 46 46·25	...	132 11 23·6	R
6	4·5	46 46·01	...	11 25·1	R
426		μ^1 *Pavonis.*			
Oct. 1	5·5	19 48 23·38	...	157 16 14·8	R
4	5·6	48 23·44	...	16 16·7	R
8	5·5	48 23·42	...	16 14·1	R
427		60 *Aquilæ β*			
Aug. 15	...	19 49 16·26	...	88 53 56·9	R
23	...	49 16·22	...	53 55·6	R
Sep. 1	...	49 16·21	...	53 59·4	R
428		59 *Sagittarii b.*			
Aug. 9	5·0	19 49 23·66	...	117 29 38·7	R
14	...	49 23·63	...	29 41·3	R
20	5·0	49 23·53	...	29 41·1	R
Sep. 13	5·2	49 23·65	...	29 38·3	M
22	5·0	49 23·76	...	29 39·4	M
429		μ^2 *Pavonis.*			
Sep. 27	5·9	19 49 53·01	...	157 16 24·4	M
Oct. 13	5·5	49 53·00	...	16 27·6	R
15	5·5	49 52·95	...	16 24·3	R
16	5·5	49 52·86	...	16 23·0	R
17	5·5	49 52·93	...	16 25·2	R

Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
430		61 *Sagittarii g.*			
Aug. 27	5·5	19 50 58·29	...	105 48 55·9	R
Sep. 14	5·9	50 58·29	...	48 57·3	M
21	5·8	50 58·28	...	48 57·0	M
25	6·0	50 58·37	...	48 58·8	M
28	5·7	50 58·38	...	48 59·1	M
431		60 *Sagittarii* A.			
Aug. 7	5·5	19 51 27·81	...	116 31 35·9	R
Sep. 6	6·1	51 27·19	...	31 37·6	M
17	5·8	51 27·28	...	31 36·4	M
18	5·7	51 27·45	...	31 37·4	M
Oct. 2	5·5	51 27·27	...	31 38·2	R
432		21 *Cygni η*			
July 19	...	19 51 41·59	...	55 14 32·8	M
20	...	51 41·46	...	14 33·6	M
Aug. 3	...	51 41·61	...	14 32·3	R
16	...	51 41·58	4	14 36·1	R
21	...	51 41·34	...	14 32·3	R
433		12 *Sagittæ γ*			
Aug. 20	4·5	19 53 16·82	...	70 50 26·9	R
Sep. 12	4·6	53 17·00	...	50 29·1	M
19	4·7	53 16·87	...	50 27·5	M
Oct. 18	4·5	53 17·01	...	50 26·1	R
19	4·5	53 16·96	...	50 28·1	R
434		62 *Sagittarii e.*			
Aug. 8	4·5	19 55 5·44	...	118 2 58·3	R
14	...	55 5·67	...	3 2·1	R
22	4·5	55 5·61	...	3 1·2	R
Oct. 1	4·5	55 5·52	...	3 2·4	R
3	4·5	55 5·64	...	3 2·1	R
435		*δ Pavonis.*			
Oct. 4	4·0	19 56 38·11	...	156 29 35·0	R
5	4·0	56 38·14	...	29 35·5	R
13	4·0	56 38·29	...	29 37·3	R

Separate Results of Madras Meridian Circle Observations in 1877.

Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
436		*O. A. S.* 20266.			
Sep. 24	6·3	20 1 32·77	...	105 22 57·5	M
25	6·2	1 32·65	...	22 59·4	M
28	6·6	1 32·62	...	22 59·3	M
Oct. 2	6·6	1 32·66	...	22 58·6	R
3	6·8	1 32·82	...	22 58·5	R
437		*O. A. S.* 20269.			
Oct. 1	9·0	20 1 52·32	...	105 46 8·2	R
5	8·8	1 52·12	...	46 8·0	R
10	9·0	1 52·24	...	46 4·9	R
438		~~*O. A. N.* 20046.~~ *S. Cygni* 6			
Oct. 6	10·5	20 2 55·79	...	32 22 2·4	R
8	10·5	2 55·66	...	22 1·6	R
13	10·5	2 55·47	...	22 0·3	R
15	10·5	2 55·61	...	22 0·9	R
16	10·4	2 55·45	...	22 0·7	R
17	10·3	2 55·79	...	22 0·1	R
18	10·3	2 55·70	...	21 58·0	R
19	10·2	2 55·64	...	21 57·9	R
20	10·1	2 55·52	...	21 58·7	R
22	10·1	2 55·73	...	21 59·3	R
439		65 *Aquilæ* θ			
July 19	3·9	20 4 57·56	...	91 11 4·8	M
20	4·0	4 57·46	...	11 5·3	M
Aug. 3	3·5	4 57·54	...	11 4·8	R
7	3·5	4 57·45	...	11 7·2	R
8	3·5	4 57·56	...	11 6·5	R
440		*Lacaille* 8363—1*st.*			
Aug. 9	9·0	20 5 2·66	...	147 20 27·1	R
21	9·0	5 2·77	...	20 28·0	R
Sep. 1	9·2	5 2·85	...	20 26·5	R
17	9·0	5 2·69	...	20 28·7	M
441		*Cordoba* XX. 180.			
Sep. 18	8·8	20 5 15·08	...	147 12 18·8	M
442		6 *Capricorni* a^2			
Aug. 27	...	20 11 13·67	...	102 55 28·0	R
Sep. 1	...	11 13·78	...	55 28·2	R
12	...	11 13·62	...	55 29·2	M
13	...	11 13·82	...	55 28·2	M
Oct. 1	...	11 13·74	...	55 28·8	R
3	...	11 13·71	...	55 20·1	R
5	...	11 13·67	...	55 20·4	R
19	...	11 13·67	...	55 29·7	R
443		8 *Capricorni* ν			
Aug. 8	5·0	20 13 50·52	...	103 8 39·3	R
Sep. 6	5·4	13 50·39	...	8 39·4	M
21	5·5	13 50·35	...	8 40·0	M
22	5·3	13 50·30	...	8 40·3	M
24	5·2	13 50·28	...	8 39·1	M
444		*U Cygni, Var* 6.			
July 20	9·2	20 15 47·58	...	42 29 35·0	M
Aug. 3	9·1	15 47·78	...	29 35·4	R
7	9·1	15 47·72	...	29 38·4	R
9	9·1	15 47·68	...	29 38·2	R
15	9·3	15 47·76	4	29 38·4	R
445		*O. A. N.* 20387—2*nd.*			
July 30	8·0	20 15 52·51	...	42 28 54·6	M
Aug. 21	8·0	15 52·27	...	28 54·9	R
22	8·0	15 52·49	...	28 55·4	R
Sep. 25	8·2	15 52·50	...	28 56·7	M
28	8·3	15 52·39	...	28 56·2	M
446		37 *Cygni* γ			
Sep. 8	...	20 17 48·85	...	50 8 8·9	M
13	...	17 49·03	...	8 8·1	M
Oct. 1	...	17 48·96	...	8 7·7	R
3	...	17 49·06	...	8 8·8	R
5	...	17 49·11	...	8 8·2	R

Separate Results of Madras Meridian Circle Observations in 1877.

Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
447		10 *Capricorni* π			
Aug. 7	5·0	20 20 16·72	...	108 36 47·9	R
27	5·0	20 16·84	...	36 47·6	R
Sep. 1	5·0	20 16·80	...	36 48·3	R
7	5·9	20 16·65	...	36 49·0	M
18	5·2	20 16·77	...	36 49·0	M
448		11 *Capricorni* ρ			
Aug. 22	...	20 21 50·61	...	108 18 6·7	R
24	...	21 50·66	...	18 8·0	R
Sep. 22	...	21 50·71	...	18 8·3	M
Oct. 2	...	21 50·52	...	18 8·4	R
4	...	21 50·56	...	18 7·7	R
13	...	21 50·55	...	18 8·3	R
20	...	21 50·57	...	18 7·2	R
449		ν *Indi.*			
Aug. 8	5·5	20 25 27·86	...	134 55 54·7	R
9	5·5	25 27·66	...	55 51·0	R
20	5·5	25 27·50	4	55 51·4	R
Sep. 12	5·7	25 27·59	...	55 54·2	M
15	5·9	25 27·64	...	55 52·8	M
450		*R. P. L.* 143.			
Oct. 10	...	20 27 51·53	3	5 15 50·1	R
16	...	27 51·93	3	15 53·5	R
20	...	27 52·52	3	15 50·9	R
		R. P. L. 143—*s.p.*			
Jan. 31	...	20 27 51·81	2	5 15 49·7	R
Feb. 20	...	27 51·92	3	15 51·0	M
22	...	27 52·35	3	15 52·7	M
Mar. 19	...	27 51·76	3	15 52·2	R
28	...	27 51·54	3	15 52·1	R
451		*a Indi.*			
Aug. 3	3·0	20 28 54·28	...	137 43 8·5	R
14	...	28 54·40	...	43 9·5	R
21	3·0	28 54·19	...	43 6·9	R
Sep. 1	3·0	28 54·34	...	43 5·3	R
17	3·0	28 54·47	...	43 6·8	M

Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
452		β *Pavonis.*			
Sep. 18	3·0	20 38 51·33	...	156 38 34·5	M
20	3·0	38 51·19	...	38 33·3	M
Oct. 1	3·0	38 51·17	...	38 36·0	R
2	3·0	38 51·16	...	38 35·7	R
3	3·0	38 51·20	...	38 35·6	R
453		η *Indi.*			
Aug. 8	5·5	20 35 0·15	...	142 21 31·8	R
9	5·5	35 0·14	...	21 30·9	R
21	5·5	35 0·14	...	21 30·8	R
Sep. 1	5·5	35 0·16	...	21 29·2	R
12	5·9	35 0·28	...	21 30·7	M
454		50 *Cygni a, Deneb.*			
July 31	...	20 37 14·33	...	45 9 29·8	M
Aug. 20	...	37 14·16	...	9 31·1	R
Sep. 5	...	37 14·36	...	9 29·3	M
10	...	37 14·39	...	9 31·6	M
11	...	37 14·32	...	9 30·9	M
18	...	37 14·22	...	9 30·6	M
14	...	37 14·35	...	9 31·3	M
15	...	37 14·43	...	9 32·0	M
17	...	37 14·42	...	9 31·3	M
24	...	37 14·30	...	9 29·8	M
25	...	37 14·34	...	9 31·1	M
Oct. 20	...	37 14·23	...	9 29·5	R
455		σ *Pavonis—2nd.*			
Aug. 27	4·5	20 37 37·68	...	159 13 26·5	R
Sep. 28	5·0	37 37·80	...	13 26·4	M
Oct. 4	4·5	37 37·62	...	13 25·7	R
5	4·5	37 37·63	...	13 23·6	R
6	4·5	37 37·68	...	13 22·0	R
456		12 *Delpini* γ—*1st.*			
Aug. 9	7·0	20 40 56·37	...	74 19 4·4	R
21	7·0	40 56·17	...	19 4·4	R
22	7·0	40 56·24	...	19 4·3	R
Sep. 21	7·0	40 56·35	...	19 4·1	M
22	7·0	40 56·26	...	19 3·9	M

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Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
457	12 *Delphini* γ—2nd.				
Aug. 10	5·1	20 40 57·18	...	74 19 3·6	M
Sep. 1	4·0	40 57·20	...	19 3·7	R
Oct. 2	4·0	40 56·91	...	19 4·8	R
8	4·0	40 57·01	...	19 3·0	R
10	4·0	40 56·98	...	19 2·0	R
458	53 *Cygni* ε				
Oct. 17	3·0	20 41 13·88	...	56 29 21·1	R
459	3 *Aquarii.*				
Aug. 14	4·0	20 41 14·83	...	95 28 35·4	R
Sep. 27	4·3	41 14·65	...	28 35·4	M
Oct. 3	4·0	41 14·75	...	28 35·4	R
13	4·0	41 14·79	...	28 35·1	R
16	4·0	41 14·75	...	28 34·7	R
460	~~54~~ *Cygni* λ¹, *Var.* 5.				
Aug. 3	6·3	20 42 16·29	...	56 4 36·6	R
23	6·3	42 16·12	...	4 37·0	R
25	6·5	42 16·10	...	4 38·1	R
Sep. 25	5·9	42 16·13	...	4 38·4	M
Oct. 6	6·0	42 15·93	...	4 37·0	R
22	6·4	42 16·17	...	4 38·9	R
24	6·5	42 16·15	...	4 36·1	R
461	*a Microscopii.*				
Aug. 8	4·5	20 42 16·76	...	124 13 59·4	R
Oct. 5	4·5	42 16·55	...	13 58·8	R
9	4·5	42 16·66	...	13 57·5	R
18	4·5	42 16·74	...	13 59·9	R
20	4·5	42 16·86	...	13 59·4	R
462	ι *Indi.*				
Oct. 1	5·5	20 42 35·84	...	142 3 52·4	R
4	5·5	42 35·83	...	3 52·3	R
463	β *Indi.*				
Aug. 27	4·0	20 45 11·04	...	148 54 58·9	R
Sep. 1	4·0	45 11·13	...	54 58·6	R
18	4·0	45 11·26	...	54 59·9	M
Oct. 2	4·9	45 11·13	...	55 0·2	R
464	32 *Vulpeculæ.*				
Aug. 21	...	20 49 19·00	...	62 24 32·8	R
Sep. 24	...	49 19·02	...	24 33·3	M
28	...	49 19·04	...	24 34·6	M
Oct. 1	...	49 19·05	...	24 32·5	R
6	...	49 19·11	...	24 32·7	R
8	...	49 19·16	...	24 33·8	R
15	...	49 19·03	...	24 34·6	R
17	...	49 19·14	...	24 32·5	R
19	...	49 19·10	...	24 33·9	R
465	ζ *Microscopii.*				
Aug. 8	5·5	20 55 ~~5·95~~ 6·05	...	129 6 36·8	R
10	5·8	55 6·02	...	6 35·6	M
15	5·5	55 6·08	...	6 38·2	R
Sep. 1	5·5	55 5·93	...	6 37·4	R
11	5·7	55 6·01	...	6 37·6	M
466	μ *Indi.*				
Aug. 21	5·5	20 56 10·52	...	145 12 42·6	R
22	5·5	56 10·60	...	12 41·6	R
27	5·5	56 10·58	...	12 40·8	R
Sep. 13	5·8	56 10·73	...	12 43·5	M
17	5·5	56 10·57	...	12 42·0	M
467	64 *Cygni* ζ				
Sep. 12	...	21 7 42·11	...	60 16 36·7	M
17	...	7 41·93	...	16 35·8	M
18	...	7 42·01	...	16 37·1	M
21	...	7 42·03	...	16 36·8	M
24	...	7 42·12	...	16 36·3	M
25	...	7 42·21	...	16 37·4	M
27	...	7 41·97	...	16 36·6	M
Oct. 3	...	7 41·99	...	16 37·4	R

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Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
468		*29 Capricorni.*			
Aug. 7	5·0	21 8 56·12	...	105 40 53·3	R
10	5·3	8 56·17	...	40 52·6	M
15	5·0	8 56·08	...	40 54·8	R
Sep. 1	5·0	8 56·20	...	40 52·5	R
11	5·6	8 56·24	...	40 53·7	M
469		*θ Indi.*			
Aug. 8	5·5	21 11 ~~5·06~~	...	148 57 46·8	R
Sep. 22	5·7	11 5·00	...	57 48·3	M
28	5·5	11 5·06	...	57 48·9	M
Oct. 4	5·5	11 5·06	...	57 47·1	R
5	5·5	11 5·05	...	57 48·0	R
470		*θ¹ Microscopii.*			
Aug. 9	5·5	21 12 ~~53·33~~	...	181 19 40·9	R
22	5·5	12 53·10	...	19 41·7	R
Oct. 2	5·5	12 53·18	...	19 42·5	R
6	5·5	12 53·14	...	19 40·4	R
13	5·5	12 53·23	...	19 41·3	R
471		*γ Pavonis.*			
Aug. 27	3·0	21 16 15·00	...	155 55 16·8	R
Sep. 1	3·0	16 14·97	...	55 15·6	R
Oct. 1	3·0	16 15·11	...	55 15·9	R
3	3·0	16 15·18	...	55 15·6	R
5	3·0	16 15·11	...	55 16·1	R
472		*1 Pegasi.*			
Aug. 7	4·0	21 16 ~~23·88~~	...	70 43 13·0	R
15	...	16 23·81	...	43 16·0	R
20	4·0	16 23·93	...	43 16·9	R
Sep. 15	4·4	16 23·69	...	43 15·4	M
20	4·5	16 23·55	...	43 14·2	M

Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
473		*θ² Microscopii.*			
Aug. 8	6·0	21 16 33·89	...	131 31 57·4	R
Sep. 11	6·2	16 33·65	...	31 58·3	M
28	6·0	16 33·86	...	31 57·8	M
Oct. 9	6·0	16 ~~33·76~~	...	31 58·1	R
10	6·0	16 ~~33·75~~	...	31 56·8	R
474		*γ Indi.*			
Sep. 17	5·7	21 17 28·20	...	145 11 25·0	M
27	5·4	17 28·15	...	11 25·7	M
Oct. 4	5·0	17 27·99	...	11 25·1	R
6	5·0	17 27·97	...	11 24·0	R
8	5·0	17 ~~27·94~~	...	11 24·9	R
475		*34 Capricorni ζ*			
Aug. 10	4·2	21 19 ~~38·66~~	...	112 56 34·6	M
16	4·0	19 38·51	...	56 34·9	R
Sep. 21	4·4	19 38·58	...	56 33·8	M
22	4·2	19 38·48	...	56 34·7	M
25	4·0	19 38·48	...	56 36·8	M
476		*22 Aquarii β*			
Sep. 12	...	21 25 4·90	...	96 6 41·7	M
18	...	25 4·84	...	6 40·3	M
20	...	25 4·85	...	6 39·7	M
27	...	25 5·07	...	6 40·5	M
28	...	25 4·94	...	6 41·2	M
Oct. 2	...	25 4·85	...	6 40·7	R
4	...	25 4·83	...	6 41·1	R
8	...	25 4·86	...	6 40·7	R
10	...	25 4·89	...	6 40·2	R
13	...	25 4·91	...	6 41·1	R
15	...	25 4·87	...	6 41·1	R
17	...	25 4·92	...	6 41·0	R
22	...	25 4·84	...	6 42·4	R
25	...	25 4·90	...	6 40·0	R
27	...	25 4·93	...	6 40·2	R
Nov. 2	...	25 4·86	...	6 39·8	R

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Number and Date.	Magnitude.	Mean Right Ascension. 1877. h. m. s.	No. of Wires.	Mean Polar Distance. 1877. ° ′ ″	Observer.
477		*39 Capricorni ϵ*			
Aug. 10	...	21 30 11·46	...	110 0 57·8	M
20	...	30 11·24	...	0 58·4	R
21	...	30 11·21	...	0 58·6	R
Sep. 1	...	30 11·51	...	0 57·7	R
14	...	30 11·50	...	0 59·0	M
478		*Anon.*			
Oct. 16	9·0	21 30 19·27	...	133 59 2·9	R
479		*41 Capricorni.*			
Aug. 27	5·0	21 35 0·28	...	113 49 5·2	R
Sep. 15	5·9	35 0·09	...	49 4·5	M
21	5·5	35 0·33	...	49 5·1	M
22	5·0	35 0·24	...	49 3·7	M
25	5·0	35 0·18	...	49 6·0	M
480		*43 Capricorni κ*			
Aug. 21	5·0	21 35 47·46	...	109 25 33·2	R
Oct. 1	5·0	35 47·38	...	25 33·7	R
3	5·0	35 47·42	...	25 33·1	R
4	5·0	35 47·40	...	25 33·1	R
8	5·0	35 47·44	...	25 33·4	R
481		*V Cygni, Var.* 7.			
Oct. 16	10·2	21 36 53·12	...	47 43 11·7	R
17	10·3	36 53·22	...	43 10·3	R
18	10·3	36 53·09	...	43 10·0	R
20	10·5	36 53·09	...	43 11·8	R
22	10·4	36 53·10	...	43 12·2	R
25	10·4	36 52·97	...	43 12·5	R
27	10·5	36 52·91	5	43 11·3	R
31	10·5	36 53·09	...	43 8·8	R
Nov. 1	10·4	36 52·96	...	43 10·6	R
2	10·5	36 52·95	3	43 10·2	R
482		*Anon.*			
Oct. 2	9·2	21 37 17·37	...	47 44 22·1	R
6	9·3	37 17·31	...	44 21·4	R
9	9·2	37 17·44	...	44 22·8	R
13	9·5	37 17·43	...	44 20·5	R
15	9·5	37 17·42	...	44 22·5	R

Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
483		*9 Piscis Australis ι*			
Sep. 1	4·5	21 37 36·93	...	123 35 8·3	R
Oct. 5	4·5	37 36·82	...	35 11·4	R
10	4·5	37 36·91	...	35 8·4	R
Nov. 6	4·5	37 36·99	...	35 8·8	R
7	4·5	37 36·90	...	35 9·4	R
484		*8 Pegasi ϵ*			
Sep. 5	...	21 38 8·73	...	80 41 15·5	M
Oct. 24	...	38 8·63	...	41 16·2	R
485		*o Indi.*			
Oct. 1	5·5	21 40 20·96	...	160 12 5·4	R
486		*10 Piscis Australis θ*			
Sep. 11	5·2	21 40 30·85	...	127 27 59·4	M
Oct. 3	5·0	40 30·92	...	28 0·6	R
4	5·0	40 30·93	...	28 1·5	R
8	5·0	40 30·92	...	28 1·6	R
17	5·0	40 30·78	...	27 58·8	R
487		*γ Gruis.*			
Aug. 20	3·0	21 46 28·35	...	127 56 33·0	R
Sep. 1	3·0	46 28·47	...	56 31·7	R
15	4·0	46 28·45	...	56 32·8	M
Oct. 2	3·0	46 28·37	...	56 35·0	R
3	3·0	46 28·44	...	56 34·0	R
488		*16 Pegasi.*			
Sep. 20	...	21 47 27·77	...	64 39 10·6	M
25	...	47 27·78	...	39 11·3	M
Oct. 5	...	47 28·07	...	39 12·2	R
18	...	47 27·98	...	39 10·7	R
Nov. 1	...	47 27·96	...	39 10·3	R
6	...	47 27·93	...	39 9·2	R
489		*π Indi.*			
Sep. 13	5·7	21 47 35·16	...	148 28 52·0	M
Oct. 6	5·5	47 34·96	...	28 51·9	R
10	5·5	47 35·22	...	28 50·9	R
15	5·5	47 35·04	...	28 52·4	R
17	5·5	47 35·08	...	28 50·7	R

Separate Results of Madras Meridian Circle Observations in 1877.

Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
490		*δ Indi.*			
Sep. 28	5·0	21 49 32·20	...	145 34 35·6	M
Oct. 8	5·0	49 32·03	...	34 33·7	R
20	5·3	49 32·26	...	34 35·7	R
24	5·0	49 32·02	...	34 34·9	R
25	5·0	49 31·94	...	34 32·9	R
491		*κ¹ Indi.*			
Sep. 11	5·6	21 49 47·24	6	149 35 50·8	M
Oct. 1	5·0	49 47·18	...	35 51·1	R
9	5·0	49 47·31	...	35 51·9	R
16	5·0	49 47·18	...	35 50·2	R
22	5·0	49 47·18	...	35 52·6	R
492		12 *Piscis Australis η*			
Aug. 20	5·0	21 53 45·86	...	119 2 35·5	R
Sep. 1	5·0	53 45·80	...	2 32·9	R
14	5·0	53 45·99	...	2 34·7	M
Oct. 2	5·0	53 45·94	...	2 35·9	R
8	5·0	53 46·01	...	2 36·0	R
4	5·0	53 46·03	...	2 36·4	R
493		*κ² Indi.*			
Oct. 1	5·5	21 57 11·70	...	150 13 50·9	R
13	5·5	57 11·79	...	13 49·6	R
15	5·5	57 11·80	...	13 48·8	R
Nov. 6	5·5	57 11·95	...	13 46·8	R
7	5·5	57 12·00	...	13 46·2	R
494		*λ Gruis.*			
Sep. 13	5·0	21 58 41·77	...	130 8 10·4	M
Oct. 5	5·0	58 41·65	...	8 11·1	R
17	5·0	58 41·54	...	8 10·4	R
18	5·0	58 41·66	...	8 10·2	R
24	5·0	58 41·75	...	8 11·3	R
495		34 *Aquarii a*			
Sep. 20	...	21 59 27·66	...	90 54 59·5	M
27	...	59 27·79	...	54 59·2	M
Oct. 6	...	59 27·82	...	54 59·0	R
9	...	59 27·88	...	55 0·6	R
Oct. 16	...	21 59 27·88	...	90 55 0·1	R
22	...	59 27·94	...	55 1·1	R
25	...	59 27·96	...	55 0·0	R
Nov. 2	...	59 27·90	...	54 59·1	R
496		22 *Pegasi ν*			
Sep. 10	...	21 59 28·66	...	85 32 30·5	M
Oct. 3	...	59 28·68	...	32 30·5	R
4	...	59 28·71	...	32 31·2	R
8	...	59 28·62	...	32 31·0	R
10	...	59 28·65	...	32 31·0	R
497		*α Tucanæ.*			
Sep. 11	3·0	22 10 3·65	...	150 52 20·0	M
12	2·0	10 3·66	...	52 19·7	M
13	2·5	10 3·61	...	52 18·4	M
Oct. 2	2·0	10 3·48	...	52 19·7	R
4	2·0	10 3·62	...	52 19·6	R
498		43 *Aquarii θ*			
Sep 18	...	22 10 20·59	...	98 23 40·2	M
28	...	10 20·46	...	23 40·4	M
Oct. 3	...	10 20·52	...	23 41·5	R
5	...	10 20·39	...	23 40·0	R
10	...	10 20·46	...	23 41·8	R
13	...	10 20·42	...	23 40·8	R
17	...	10 20·49	...	23 42·7	R
20	...	10 20·48	...	23 42·3	R
24	...	10 20·58	...	23 40·7	R
31	...	10 20·56	...	23 42·1	R
Nov. 1	...	10 20·46	...	23 41·8	R
3	...	10 20·44	...	23 40·7	R
6	...	10 20·44	...	23 39·7	R
499		δ^1 *Gruis.*			
Sep. 12	4·4	22 21 54·61	...	134 7 25·9	M
21	4·4	21 54·85	...	7 23·8	M
Oct. 3	4·0	21 54·85	...	7 25·7	R
9	4·0	21 54·73	...	7 23·5	R
10	4·0	21 54·65	...	7 25·1	R

Separate Results of Madras Meridian Circle Observations in 1877.

Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
500		*δ² Gruis.*			
Oct. 2	5·0	22 22 23·91	...	134 22 39·7	R
8	5·0	22 23·01	...	22 39·1	R
15	5·0	22 24·14	...	22 41·6	R
18	5·0	22 23·94	...	22 40·4	R
Nov. 6	5·0	22 24·01	...	22 39·1	R
501		*R. P. L.* 150.			
Sep. 10	...	22 22 49·06	3	4 30 41·4	M
17	...	22 49·43	3	30 42·2	M
27	...	22 48·91	3	30 41·7	M
Oct. 1	...	22 50·04	3	30 42·1	R
4	...	22 49·50	2	30 43·2	R
		R. P. L. 150—*s.p.*			
Mar. 22	...	22 22 49·82	3	4 30 45·0	R
Apl. 4	...	22 49·23	3	30 45·9	R
14	...	22 50·31	3	30 46·4	R
27	...	22 48·88	3	30 45·8	R
502		*R. P. L.* 151.			
Oct. 6	...	22 23 16·31	3	4 23 51·5	R
13	...	23 16·42	3	23 52·2	R
31	...	23 17·33	3	23 49·5	R
		R. P. L. 151.—*s.p.*			
Mar. 24	...	22 23 16·75	3	4 23 54·2	R
Apl. 10	...	23 16·22	3	23 52·0	R
17	...	23 16·52	3	23 53·5	R
503		17 *Piscis Australis β*			
Oct. 5	4·0	22 24 30·39	...	122 58 34·3	R
17	4·0	24 30·32	...	58 33·9	R
20	4·0	24 30·51	...	58 34·6	R
Nov. 7	4·0	24 30·35	...	58 34·4	R
12	4·0	24 30·50	...	58 33·5	R
504		62 *Aquarii η*			
Oct. 2	...	22 29 2·07	...	90 45 4·5	R
4	...	29 2·06	...	45 2·7	R
9	...	29 2·04	...	45 5·5	R
15	...	29 2·14	...	45 3·7	R
16	...	29 1·97	...	45 3·8	R
18	...	29 2·06	...	45 3·4	R
22	...	29 2·05	...	45 5·4	R
27	...	29 2·13	...	45 4·0	R
Nov. 1	...	29 2·10	...	45 2·9	R
3	...	29 2·08	...	45 2·8	R
7	...	29 2·07	...	45 2·3	R
10	...	29 2·04	...	45 2·1	R
17	...	29 2·08	...	45 3·5	M
19	...	29 2·09	...	45 3·3	M
20	...	29 2·05	...	45 3·4	M
505		18 *Piscis Australis ε*			
Sep. 1	4·0	22 33 50·87	...	117 41 7·2	R
5	4·5	33 51·03	...	41 3·9	M
Oct. 1	4·0	33 50·98	...	41 4·9	R
5	4·0	33 50·96	...	41 5·1	R
6	4·0	33 51·05	...	41 3·8	R
506		*β Gruis.*			
Oct. 3	3·0	22 35 18·77	...	137 31 39·3	R
4	3·0	35 18·76	...	31 39·5	R
8	3·0	35 18·65	...	31 37·3	R
9	3·0	35 18·64	...	31 36·2	R
Nov. 7	3·0	35 18·92	...	31 36·6	R
507		42 *Pegasi ζ*			
Sep. 8	...	22 35 19·36	...	79 48 35·1	M
22	...	35 19·51	...	48 34·7	M
Oct. 25	...	35 19·57	...	48 33·7	R
31	...	35 19·58	...	48 37·4	R
Nov. 2	...	35 19·58	...	48 36·0	R
10	...	35 19·54	...	48 36·5	R
12	...	35 19·61	...	48 34·8	R
16	...	35 19·61	...	48 36·9	M
Dec. 4	...	35 19·64	...	48 36·9	R

Separate Results of Madras Meridian Circle Observations in 1877.

Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
508		*44 Pegasi η*			
Sep. 11	3·2	22 37 14·06	...	60 25 19·2	M
17	3·4	37 14·18	...	25 20·0	M
Oct. 10	3·0	37 14·02	...	25 18·3	R
13	3·0	37 13·84	...	25 21·1	R
15	3·0	37 14·13	...	25 18·4	R
509		*ε Gruis.*			
Sep. 1	4·0	22 41 6·88	...	141 57 46·4	R
10	4·0	41 6·85	...	57 47·0	M
21	4·0	41 6·88	...	57 47·5	M
Oct. 2	4·0	41 6·82	...	57 48·1	R
3	4·0	41 6·84	...	57 47·2	R
510		*Anon.*			
Oct. 8	10·0	22 42 17·22	4	102 28 38·5	R
13	9·8	42 17·25	...	28 39·3	R
16	9·9	42 17·13	...	28 35·1	R
18	9·6	42 17·28	...	28 37·9	R
22	9·4	42 17·35	...	28 38·9	R
25	9·9	42 17·13	...	28 36·7	R
Nov. 7	9·8	42 17·11	...	28 35·1	R
12	9·5	42 17·21	...	28 35·9	R
30	9·8	42 17·39	...	28 35·4	R
Dec. 3	9·8	42 17·27	...	28 36·6	R
511		*Lalande* 44635.			
Oct. 9	8·3	22 42 57·42	...	101 59 58·3	R
15	8·0	42 57·68	...	59 57·9	R
17	8·0	42 57·66	...	59 55·9	R
20	8·2	42 57·62	...	59 57·5	R
24	8·5	42 57·63	...	59 56·8	R
27	8·3	42 57·49	...	59 57·5	R
31	8·4	42 57·81	...	59 56·4	R
Nov. 1	8·5	42 57·32	...	59 59·2	R
3	9·0	42 57·42	5	59 57·0	R
6	8·5	42 57·44	...	59 54·8	R
512		*W. B. E.* XXII. 918.			
Oct. 3	9·8	22 45 6·67	...	102 41 10·7	R
5	9·3	45 6·59	...	41 10·6	R
6	9·2	45 6·60	...	41 8·8	R
Nov. 10	9·3	45 6·52	...	41 8·5	R
Nov. 19	9·3	22 45 6·76	...	102 41 8·8	M
20	9·3	45 6·61	...	41 10·7	M
21	9·3	45 6·56	...	41 10·3	M
23	9·1	45 6·72	...	41 9·1	M
26	9·1	45 6·70	...	41 8·7	M
27	9·0	45 6·81	...	41 9·4	M
513		*73 Aquarii λ*			
Nov. 16	...	22 46 11·52	...	98 14 0·3	M
514		*74 Aquarii.*			
Oct. 10	6·6	22 47 0·19	...	102 16 13·5	R
20	6·8	47 0·38	...	16 12·5	R
22	6·8	47 0·38	...	16 12·4	R
24	6·9	47 0·32	...	16 9·1	R
25	6·8	47 0·33	...	16 9·4	R
515		*75 Aquarii.*			
Sep. 28	7·9	22 47 37·82	...	102 50 35·6	M
Oct. 1	7·8	47 37·78	...	50 34·6	R
2	7·6	47 37·75	...	50 35·8	R
4	8·0	47 37·71	...	50 34·9	R
9	8·2	47 37·73	...	50 33·7	R
13	7·8	47 37·74	...	50 35·8	R
15	7·9	47 37·89	...	50 34·7	R
16	7·9	47 37·91	...	50 34·2	R
17	7·9	47 37·93	...	50 33·2	R
18	8·2	47 37·77	...	50 35·2	R
516		*76 Aquarii δ*			
Sep. 1	3·0	22 48 7·11	...	106 28 26·1	R
17	3·2	48 7·07	...	28 27·2	M
Oct. 27	3·2	48 6·93	...	28 27·8	R
31	3·2	48 7·01	...	28 28·0	R
Nov. 1	3·3	48 7·00	...	28 26·3	R
517		*24 Piscis Australis a, Fomalhaut.*			
Nov. 28	...	22 50 51·07	...	120 16 26·9	M

Separate Results of Madras Meridian Circle Observations in 1877.

518 *W. B. E.* XXII. 1129.

Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
Oct. 1	9·3	22 55 2·02	...	102 44 34·2	R
2	9·3	55 2·03	...	44 35·1	R
5	9·3	55 1·96	...	44 34·7	R
6	9·2	55 1·98	...	44 33·5	R
9	9·3	55 1·88	...	44 35·1	R
10	9·3	55 1·81	...	44 34·9	R
13	9·3	55 1·76	...	44 34·9	R
15	9·3	55 1·98	...	44 34·1	R
Nov. 7	9·4	55 1·90	...	44 31·5	R
10	9·3	55 1·77	...	44 32·7	R

519 *O. A. S.* 22573.

Oct. 16	9·0	22 56 14·03	...	110 2 35·7	R
20	9·2	56 14·13	...	2 35·8	R
22	9·4	56 14·13	...	2 35·6	R
24	9·5	56 14·22	3	2 32·6	R
25	9·3	56 14·20	...	2 37·1	R
Nov. 12	9·4	56 14·26	...	2 35·8	R

520 1 *Andromedæ o*

Sep. 10	4·0	22 56 15·69	...	48 20 4·2	M
11	4·4	56 15·58	...	20 4·2	M
Oct. 27	4·2	56 15·73	...	20 5·6	R
31	...	56 15·43	...	20 3·5	R
Nov. 1	4·2	56 15·49	5	20 5·5	R

521 *W. B. E.* XXII. 1204.

Sep. 21	8·3	22 58 3·08	...	102 50 29·5	M
22	8·0	58 3·10	...	50 29·0	M
25	8·3	58 3·01	...	50 30·2	M
27	8·2	58 2·87	...	50 29·7	M
28	8·1	58 2·90	...	50 30·9	M
Oct. 3	8·5	58 2·86	...	50 28·8	R
4	8·6	58 2·99	...	50 30·0	R
8	8·3	58 2·93	...	50 29·2	R
17	8·0	58 2·89	...	50 28·0	R
18	8·6	58 2·98	...	50 28·7	R

522 54 *Pegasi a, Markab.*

Nov. 3	...	22 58 38·09	...	75 27 22·4	R
16	...	58 38·03	...	27 24·6	M
17	...	58 38·07	...	27 25·3	M
19	..	58 38·00	...	27 24·1	M
20	...	58 38·08	...	27 23·1	M
21	...	58 38·07	...	27 25·2	M
22	...	58 38·00	...	27 24·5	M
30	...	58 38·10	...	27 21·7	R
Dec. 3	...	58 38·02	...	27 21·7	R
4	...	58 38·01	...	27 22·1	R
6	...	58 37·94	...	27 22·2	R

523 *Lalande* 45213.

Sep. 13	8·3	23 0 57·97	...	102 28 15·2	M
Oct. 2	8·0	0 57·81	...	28 14·0	R
5	8·1	0 57·92	...	28 15·4	R
6	8·1	0 57·73	...	28 13·3	R
9	8·2	0 57·90	...	28 14·0	R
10	8·2	0 57·92	...	28 12·1	R
13	8·2	0 58·05	...	28 15·8	R
15	8·0	0 57·90	...	28 16·4	R
20	8·2	0 57·99	...	28 14·7	R
24	8·5	0 58·00	...	28 15·6	R

524 *O. A. S.* 22620.

Oct. 16	9·1	23 1 30·86	...	109 52 14·3	R
17	9·0	1 30·90	...	52 13·9	R
18	9·3	1 30·85	...	52 14·0	R
22	9·4	1 31·01	...	52 12·9	R
25	9·3	1 30·84	...	52 14·5	R
Nov. 6	9·5	1 30·92	...	52 15·3	R

525 *Lalande* 45504.

Sep. 17	8·0	23 8 55·83	...	102 14 3·8	M
18	7·9	8 55·95	...	14 4·0	M
21	8·0	8 55·92	...	14 4·1	M
22	7·9	8 56·04	...	14 4·4	M
27	7·9	8 55·97	...	14 5·2	M
28	7·9	8 55·87	...	14 5·5	M
Oct. 1	7·9	8 55·96	...	14 4·3	R
3	8·0	8 55·90	...	14 4·3	R
4	8·5	8 55·88	...	14 3·6	R
6	8·0	8 55·91	...	14 2·2	R

Separate Results of Madras Meridian Circle Observations in 1877.

Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
526 *W. B. E.* XXIII. 143.					
Sep. 11	9·3	23 9 20·81	...	101 42 49·3	M
Oct. 2	9·3	9 21·01	...	42 50·2	R
5	9·3	9 21·09	...	42 50·7	R
9	9·3	9 21·01	...	42 49·4	R
10	9·3	9 20·86	3	42 48·6	R
13	9·0	9 21·11	...	42 50·3	R
15	9·0	9 21·11	...	42 49·6	R
16	9·3	9 21·06	...	42 49·4	R
18	9·3	9 20·98	...	42 49·2	R
20	9·3	9 20·96	...	42 48·9	R
527 *γ Tucanæ.*					
Dec. 11	4·0	23 10 14·48	...	148 54 34·9	R
12	4·0	10 14·21	4	54 35·8	R
13	4·0	10 14·51	...	54 35·8	R
528 6 *Piscium γ*					
Nov. 16	...	23 10 47·27	...	87 23 22·1	M
529 *Lalande* 45582.					
Sep. 18	7·9	23 11 14·81	...	102 28 4·6	M
Oct. 17	8·0	11 14·66	...	28 4·0	R
22	8·0	11 14·88	...	28 4·5	R
24	8·2	11 14·81	...	28 6·5	R
27	8·3	11 14·83	3	28 4·4	R
Nov. 3	8·5	11 14·68	...	28 4·3	R
7	8·5	11 14·79	...	28 1·8	R
21	7·9	11 14·73	...	28 5·7	M
22	7·9	11 14·76	...	28 3·9	M
26	7·8	11 14·86	...	28 4·7	M
530 *W. B. E.* XXIII. 193.					
Oct. 25	9·2	23 11 27·66	...	101 56 9·9	R
Nov. 1	9·3	11 27·74	...	56 9·5	R
19	9·0	11 27·91	...	56 9·7	M
20	9·1	11 27·63	...	56 11·7	M
27	8·0	11 27·86	...	56 11·0	M
29	9·0	11 27·91	...	56 10·5	M
30	9·4	11 27·79	...	56 11·8	R
Dec. 3	9·2	11 27·79	...	56 9·4	R
4	9·2	11 27·64	...	56 9·2	R
6	9·5	11 27·55	4	56 10·4	R

Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
531 *S. Pegasi, Var.* 5.					
Oct. 6	10·3	23 14 18·99	...	81 45 14·2	R
9	10·5	14 19·16	...	45 14·8	R
13	9·9	14 19·10	...	45 11·5	R
15	9·9	14 19·04	...	45 10·2	R
16	10·0	14 19·08	...	45 10·1	R
18	10·2	14 19·10	...	45 11·1	R
31	10·0	14 19·17	...	45 11·1	R
Nov. 6	10·4	14 19·15	4	45 11·1	R
10	9·9	14 19·09	...	45 9·8	R
12	9·8	14 19·10	...	45 10·9	R
532 *Lalande* 45708.					
Sep. 10	8·1	23 14 28·38	...	101 12 18·8	M
25	8·2	14 28·40	...	12 21·4	M
Oct. 1	8·0	14 28·65	...	12 20·1	R
3	8·3	14 28·32	...	12 20·8	R
5	8·2	14 28·61	...	12 20·3	R
20	8·2	14 28·62	...	12 19·4	R
Dec. 4	8·2	14 28·42	4	12 20·6	R
10	8·2	14 28·41	...	12 19·0	R
11	8·3	14 28·52	...	12 18·5	R
12	...	14 28·61	4	12 19·1	R
533 *Lalande* 45777.					
Oct. 2	8·1	23 16 37·47	...	101 26 51·1	R
4	8·5	16 37·50	...	26 50·5	R
17	8·0	16 37·46	...	26 51·1	R
22	8·2	16 37·63	...	26 53·0	R
24	8·4	16 37·74	...	26 53·8	R
Nov. 1	8·2	16 37·64	...	26 51·9	R
3	8·5	16 37·46	...	26 52·8	R
22	8·0	16 37·63	...	26 51·2	M
26	8·0	16 37·62	...	26 51·5	M
27	7·9	16 37·61	...	26 51·6	M
534 *Lalande* 45885.					
Sep. 19	9·0	23 20 22·27	...	101 42 31·5	M
27	8·8	20 22·31	...	42 31·5	M
Oct. 3	8·7	20 22·10	...	42 31·3	R
10	9·0	20 22·07	3	42 29·4	R
13	9·1	20 22·25	...	42 32·5	R

Separate Results of Madras Meridian Circle Observations in 1877.

Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
535		8 *Piscium* κ			
Dec. 6	...	23 20 37·66	...	89 25 2·2	R
12	...	20 37·56	...	25 3·3	R
536		*W. B. E.* XXIII. 423.			
Oct. 1	9·0	23 22 29·75	...	100 46 41·2	R
4	9·5	22 29·66	...	46 40·6	R
18	9·2	22 29·54	...	46 42·2	R
Nov. 21	9·3	22 29·70	...	46 42·8	M
30	9·4	22 29·73	...	46 38·5	R
Dec. 13	9·5	22 29·69	...	46 41·3	R
14	9·8	22 29·58	...	46 40·8	R
15	10·2	22 29·58	...	46 40·9	R
537		*Lalande* 45965.			
Sep. 12	7·9	23 22 38·92	...	99 56 34·3	M
17	7·9	22 38·80	...	56 35·4	M
20	7·9	22 38·76	...	56 33·9	M
21	7·7	22 39·06	...	56 33·8	M
22	7·8	22 38·92	...	56 34·6	M
25	7·6	22 38·83	...	56 35·5	M
28	7·6	22 38·88	...	56 35·0	M
Oct. 15	8·0	22 39·04	...	56 34·3	R
20	8·0	22 38·98	...	56 33·5	R
22	8·0	22 38·94	...	56 32·3	R
538		*W. B. E.* XXIII 453.			
Oct. 2	9·2	23 23 52·12	...	101 7 39·8	R
6	9·2	23 52·13	...	7 39·7	R
17	9·2	23 52·06	...	7 37·9	R
Nov. 22	9·2	23 52·11	...	7 38·6	M
27	9·3	23 52·38	...	7 39·7	M
29	9·3	23 52·24	...	7 39·5	M
Dec. 3	9·3	23 52·30	...	7 37·5	R
4	9·3	23 52·20	...	7 38·3	R
10	9·2	23 52·31	...	7 37·6	R
11	9·5	23 52·20	...	7 37·2	R

Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
539		*W. B. E.* XXIII. 463.			
Oct. 5	9·2	23 24 29·07	...	100 50 1·3	R
25	9·4	24 29·08	...	50 0·8	R
31	9·3	24 29·21	...	50 2·8	R
Nov. 1	9·3	24 29·24	...	50 4·7	R
3	9·5	24 29·20	...	50 3·7	R
6	9·5	24 29·28	...	50 1·4	R
10	9·3	24 28·92	...	50 0·2	R
12	9·3	24 29·08	...	49 59·9	R
17	9·3	24 29·02	...	50 1·7	M
19	9·3	24 29·14	...	50 1·7	M
540		*Lalande* 46123.			
Sep. 18	9·2	23 26 42·85	...	100 2 47·3	M
Oct. 3	9·3	26 42·79	...	2 48·1	R
9	9·3	26 42·73	3	2 46·8	R
13	9·2	26 42·71	...	2 49·2	R
15	9·2	26 42·88	...	2 47·6	R
16	9·2	26 42·91	...	2 47·7	R
18	9·2	26 42·75	...	2 47·2	R
20	9·2	26 42·93	...	2 47·4	R
22	9·3	26 43·06	...	2 49·1	R
24	9·5	26 43·00	...	2 47·7	R
541		*R. P. L.* 158—*s.p.*			
Apl. 20	...	23 27 50·43 49·26	3	3 22 19·8	R
542		17 *Piscium* ι			
Sep. 19	...	23 33 37·38	...	85 2 24·5	M
21	...	33 37·41	...	2 24·6	M
Oct. 1	...	33 37·36	...	2 25·1	R
6	...	33 37·43	...	2 25·3	R
Nov. 6	...	33 37·49	...	2 25·8	R
7	...	33 37·41	...	2 23·4	R
12	...	33 37·44	...	2 23·5	R
23	...	33 37·37	...	2 24·8	M
24	...	33 37·41	...	2 23·9	M
30	...	33 37·40	...	2 24·1	R
Dec. 4	...	33 37·38	...	2 24·3	R
6	...	33 37·44	...	2 26·0	R
11	...	33 37·39	...	2 23·3	R
12	...	33 37·39	...	2 24·2	R
14	...	33 37·32	...	2 25·5	R

Separate Results of Madras Meridian Circle Observations in 1877.

Number and Date.	Magnitude.	Mean Right Ascension 1877. h. m. s.	No. of Wires.	Mean Polar Distance 1877. ° ′ ″	Observer.
543		*δ Sculptoris.*			
Oct. 18	...	23 42 30·95	...	118 48 37·1	R
Nov. 10	...	42 31·01	...	48 36·3	R
20	...	42 30·93	...	48 37·8	M
26	...	42 30·98	...	48 38·2	M
28	...	42 30·88	...	48 39·2	M
29	...	42 31·07	...	48 40·3	M
Dec. 11	...	42 31·01	...	48 36·8	R
13	...	42 30·90	...	48 38·4	R
544		*28 Piscium ω*			
Nov. 7	...	23 52 59·63	...	83 49 0·6	R
12	...	52 59·65	...	49 0·6	R
Nov. 17	...	23 52 59·65	...	83 49 1·2	M
21	...	52 59·58	...	49 2·8	M
22	...	52 59·65	...	49 1·6	M
26	...	52 59·72	...	49 1·6	M
27	...	52 59·78	...	49 2·2	M
30	...	52 59·65	...	49 4·5	R
Dec. 8	...	52 59·67	...	49 3·0	R
12	...	52 59·76	...	49 2·0	R
545		*2 Ceti.*			
Sep. 19	4·5	23 57 26·48	...	108 1 15·4	M
20	5·0	57 26·29	...	1 14·9	M