RESULTS

OBSERVATIONS OF THE FIXED STARS

MADE WITH THE

MERIDIAN CIRCLE

AT THE

GOVERNMENT OBSERVATORY MADRAS

IN THE YEARS 1880, 1881, AND 1882

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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CONTENTS

INTRODUCTION.

The present volume contains the results of the observations made with the Madras Meridian Circle in the years 1880, 1881, and 1882. The number of observations dealt with is 9,267 of which 2,325 were made in 1880, 3,492 in 1881, and 3,450 in 1882. The observers were P. Ragavachari (R) and L. Moghansing (M). For convenience a personal equation of $-0^s.30$ was applied to all the observations of R.A. made by the latter, but this does not affect the deduced places as each observer determined his own clock error.

After part of the 'Separate Results' for 1880 had been struck off it was discovered that the observations on certain days differed seriously from those made on other days and the divergence was finally traced to erroneous determinations of the meridian error. This was found to be due to a wrong position having been adopted for the star R. P. L. 14 (Groombridge 195). This error arose from using the proper motion given in the Greenwich *Nine-year Catalogue* for 1872 in bringing up the position of the star. The proper motion in R. A. there given is $-0^s.171$ while that adopted in the *Ten-year Catalogue* from Auwers' Bradley is $+0^s.0540$. The result was that the adopted position differed from the true position by more than 7^s. In the light of this discovery it was thought necessary to re-examine the adopted positions of all the other meridian stars, as most of them had been taken from the Radcliffe catalogue of polar stars published in the Radcliffe observations for 1855. In doing this use was made of all available data but for many of the stars used the only recent observations that could be found were those in the *Williams College Catalogue of North Polar Stars*. The result of this investigation was that several of the adopted positions were found to be in error, but none were so seriously wrong as Groombridge 195, and as most of the meridian errors had been determined in the later years from observations of at least six circumpolar stars the actual corrections which had to be applied to the meridian errors were, in most cases, small except for the days on which Groombridge 195 had been used. All the meridian errors have, however, been re-computed and the reductions have been revised

throughout. From 1881 onwards the reductions have been revised in duplicate but the labour involved has seriously delayed the publication of this volume. The circumstance that part of the "Separate Results" for 1880 had been struck off before the error was discovered accounts for the large number of errata in that part.

As regards the volumes already published the effect of these errors has not yet been fully examined, but it may be here noted that Groombridge 195 was used for determination of the meridian error in 1874, June 9, October 31, November 2, 9, and 12 to 30; 1875, March 23 to April 5, November, 2, 19 to 23, and 30; 1876, April 28 and May 9; 1877, April 30, May 2, November 3 to 12, and December 10; 1879, November 8 to 24 and December 6 to 10. The errors due to this will be fully examined before the publication of next volume.

In preparing the present volume it has been found necessary to reject a considerable number of observations for several reasons. In examining cases of divergence between the different observations of the same star it was found in several cases that the observations in the transit book had evidently been tampered with, and in such cases the observations were rejected unless it was possible to determine what the original figures had been. Other observations were rejected on account of evident carelessness of the observer as shown by the reduction of the transits across each of the wires. In most of these cases the nights were more or less cloudy and it seems clear that, with the object of showing a large number of observations, the observers entered stars which ought to have been rejected on account of the interference caused by passing clouds. On the whole it is feared that the present volume compares somewhat unfavourably with those that have gone before, though every care has been taken to obtain the best possible results from the available data.

Instrumental Corrections adopted in 1880.

Date.	Observer.	Index.	Run in 5′.	Clock Rate.	Inclination.	Collimation.	Meridian.	Determining Stars.
		″	″	s	s	s	s	
Jan. 3	M	− 5·5	0·0	− 0·43	− 0·22	+ 0·05	− 0·32	
6	,,	− 6·2	0·0	− 0·07	− 0·21	+ 0·09	− 0·31	
7	,,	− 7·0	0·0	− 0·18	− 0·21	+ 0·04	− 0·31	40 R. P. L. & ε Urs. Min.
8	,,	− 6·9	0·0	− 0·38	− 0·22	+ 0·02	− 0·32	
9	,,	− 8·3	0·0	− 0·32	− 0·22	+ 0·03	− 0·32	
10	,,	− 8·9	0·0	− 0·31	− 0·22	+ 0·05	− 0·32	
12	,,	− 8·6	0·0	− 0·18	− 0·24	+ 0·04	− 0·33	
13	,,	− 9·8	0·0	− 0·09	− 0·26	+ 0·05	− 0·33	
15	,,	− 11·2	0·0	− 0·27	− 0·27	+ 0·03	− 0·34	40 R. P. L. & ε Urs. Min.
16	,,	− 9·7	0·0	− 0·22	− 0·25	+ 0·05	− 0·35	
17	,,	− 11·3	0·0	− 0·17	− 0·24	+ 0·05	− 0·36	
19	,,	− 12·8	0·0	− 0·37	− 0·21	+ 0·05	− 0·36	
20	,,	− 12·3	0·0	− 0·32	− 0·22	+ 0·03	− 0·36	
21	,,	− 11·4	0·0	− 0·21	− 0·17	+ 0·03	− 0·37	
22	,,	− 10·8	0·0	− 0·26	− 0·19	+ 0·02	− 0·37	40 R. P. L. & ε Urs. Min.
23	,,	− 11·8	0·0	− 0·30	− 0·18	+ 0·03	− 0·37	
24	,,	− 11·7	0·0	− 0·32	− 0·18	+ 0·10	− 0·37	
26	,,	− 11·4	0·0	− 0·39	− 0·18	+ 0·07	− 0·38	
27	,,	− 12·2	0·0	− 0·35	− 0·13	+ 0·08	− 0·38	
31	,,	− 9·4	0·0	− 0·23	− 0·14	+ 0·05	− 0·39	
Feb. 2	,,	− 8·0	0·0	− 0·12	− 0·17	+ 0·04	− 0·40	κ Orionis and 51 Cephei.
3	,,	− 8·2	0·0	− 0·13	− 0·19	+ 0·05	− 0·39	
4	,,	− 8·1	0·0	− 0·24	− 0·19	+ 0·06	− 0·38	
5	,,	− 7·2	0·0	− 0·21	− 0·19	+ 0·04	− 0·38	
6	,,	− 6·4	0·0	− 0·16	− 0·19	+ 0·02	− 0·37	49 R. P. L. & δ Urs. Min.
7	,,	− 8·0	0·0	− 0·23	− 0·20	+ 0·03	− 0·38	
9	,,	− 8·4	0·0	− 0·30	− 0·21	+ 0·04	− 0·40	
10	,,	− 8·5	0·0	− 0·20	− 0·22	0·00	− 0·42	
11	,,	− 9·1	0·0	− 0·07	− 0·21	+ 0·03	− 0·44	
12	,,	− 9·5	0·0	− 0·01	− 0·22	+ 0·02	− 0·45	49 R. P. L. & δ Urs. Min.
13	,,	− 10·1	0·0	− 0·10	− 0·23	− 0·01	− 0·43	
14	,,	− 10·0	0·0	− 0·17	− 0·19	+ 0·03	− 0·41	
16	,,	− 10·2	0·0	− 0·16	− 0·19	+ 0·02	− 0·36	
17	,,	− 9·1	0·0	− 0·07	− 0·15	0·00	− 0·34	
18	,,	− 8·5	0·0	− 0·03	− 0·12	+ 0·01	− 0·32	49 and 143 R. P. L.
20	,,	− 6·7	0·0	+ 0·01	− 0·13	+ 0·02	− 0·44	
21	,,	− 6·4	0·0	− 0·04	− 0·16	+ 0·01	− 0·52	69,141 R.P.L.& 76 Draconis.
23	,,	− 6·3	0·0	+ 0·07	− 0·16	+ 0·04	− 0·45	
24	,,	− 7·1	0·0	+ 0·13	− 0·16	+ 0·02	− 0·42	
25	,,	− 7·6	0·0	+ 0·03	− 0·15	+ 0·04	− 0·39	60 and 141 R. P. L.
26	,,	− 7·4	0·0	+ 0·03	− 0·14	+ 0·06	− 0·43	
27	,,	− 8·1	0·0	+ 0·05	− 0·14	+ 0·06	− 0·47	69,141 R.P.L.& 76 Draconis.
28	,,	− 7·8	0·0	0·00	− 0·13	+ 0·08	− 0·43	69,141 R.P.L.& 76 Draconis.
Mar. 1	R	− 8·8	0.0	− 0·03	− 0·11	+ 0·03	− 0·39	49 and 141 R. P. L.
2	,,	− 7·9	0·0	− 0·07	− 0·11	+ 0·02	− 0·41	49,141 R.P.L.& 76 Draconis.
3	,,	− 9·4	0·0	− 0·04	− 0·12	+ 0·03	− 0·39	49,141 R.P.L.& 76 Draconis.
4	,,	− 8·4	0·0	− 0·03	− 0·13	+ 0·02	− 0·40	43 and 141 R. P. L.
5	,,	− 9·6	0·0	0·00	− 0·13	+ 0·01	− 0·42	51 Cephei and 141 R. P. L.
6	,,	− 9·1	0·0	+ 0·09	− 0·16	+ 0·02	− 0·40	60 and 141 R. P. L.
15	T	− 11·3	0·0	− 0·17	− 0·08	+ 0·04	− 0·39	
17	,,	− 11·8	0·0	− 0·10	− 0·06	+ 0·03	− 0·39	79 and 158 R. P. L.
19	,,	− 11·0	0·0	− 0·21	− 0·04	+ 0·04	− 0·33	79 and 131 R. P. L.
22	,,	− 10·4	0·0	− 0·29	+ 0·05	+ 0·05	− 0·33	
24	,,	− 11·1	0·0	− 0·22	+ 0·11	+ 0·06	− 0·32	
Apl. 3	,,	− 10·1	0·0	− 0·11	+ 0·02	+ 0·03	− 0·31	

Instrumental Corrections adopted in 1880.

Date.	Observer.	Index.	Run in 5′.	Clock Rate.	Inclination.	Collimation.	Meridian.	Determining Stars.
		″	″	s	s	s	s	
Apl. 7	T	− 10·2	0·0	− 0·08	+ 0·08	+ 0·03	− 0·30	49 and 143 R. P. L.
10	,,	− 9·7	0·0	− 0·09	+ 0·04	+ 0·01	− 0·36	
13	,,	− 9·8	0·0	− 0·21	+ 0·07	+ 0·02	− 0·41	69 and 143 R. P. L.
15	,,	− 10·5	0·0	− 0·19	+ 0·13	+ 0·07	− 0·37	
17	,,	− 9·9	0·0	− 0·19	+ 0·12	+ 0·06	− 0·34	60 and 158 R. P. L.
19	,,	− 9·3	0·0	− 0·09	+ 0·12	+ 0·06	− 0·35	
22	,,	− 10·1	0·0	+ 0·04	+ 0·15	+ 0·09	− 0·38	
24	,,	− 9·0	0·0	0·00	+ 0·11	0·00	− 0·40	
26	,,	− 9·1	0·0	− 0·01	+ 0·09	+ 0·02	− 0·42	69 and 158 R. P. L.
29	,,	− 9·5	0·0	+ 0·02	+ 0·18	+ 0·12	− 0·43	
May 1	R	− 8·5	0·0	− 0·03	+ 0·05	− 0·01	− 0·44	70 and 150 R. P. L.
4	,,	− 9·1	0·0	− 0·09	+ 0·15	+ 0·04	− 0·46	
5	,,	− 9·3	0·0	− 0·03	+ 0·10	+ 0·03	− 0·46	
6	,,	− 9·1	0·0	− 0·01	+ 0·12	+ 0·02	− 0·46	103 and 158 R. P. L.
7	,,	− 9·0	0·0	− 0·06	+ 0·10	+ 0·03	− 0·44	
8	,,	− 9·6	0·0	− 0·06	+ 0·12	+ 0·02	− 0·42	
10	,,	− 8·6	0·0	− 0·08	+ 0·11	+ 0·03	− 0·36	89 and 158 R. P. L.
11	,,	− 8·2	0·0	− 0·07	+ 0·12	+ 0·03	− 0·35	
12	,,	− 8·8	0·0	− 0·01	+ 0·10	+ 0·02	− 0·34	
13	,,	− 8·8	0·0	+ 0·10	+ 0·09	+ 0·02	− 0·32	
14	,,	− 9·3	0·0	+ 0·12	+ 0·10	+ 0·05	− 0·31	
15	,,	− 8·7	0·0	+ 0·11	+ 0·10	+ 0·03	− 0·29	
17	,,	− 8·2	0·0	+ 0·07	+ 0·11	+ 0·04	− 0·27	
18	,,	− 8·8	0·0	+ 0·05	+ 0·11	+ 0·02	− 0·26	
19	,,	− 9·0	0·0	+ 0·06	+ 0·11	+ 0·03	− 0·25	108 and 26 R. P. L.
20	,,	− 9·5	0·0	+ 0·05	+ 0·11	+ 0·04	− 0·25	
22	,,	− 9·0	0·0	+ 0·04	+ 0·11	+ 0·03	− 0·26	
24	,,	− 8·9	0·0	+ 0·05	+ 0·11	+ 0·02	− 0·26	
25	,,	− 8·9	0·0	+ 0·03	+ 0·12	+ 0·03	− 0·27	
27	,,	− 9·4	0·0	− 0·12	+ 0·12	+ 0·04	− 0·27	τ Virginis and 111 R.P.L.
28	,,	− 8·5	0·0	− 0·11	+ 0·11	+ 0·02	− 0·27	
29	,,	− 8·3	0·0	− 0·06	+ 0·12	+ 0·03	− 0·27	
June 1	,,	− 8·5	0·0	+ 0·04	+ 0·12	+ 0·03	− 0·28	
2	,,	− 8·3	0·0	+ 0·08	+ 0·12	+ 0·03	− 0·28	
3	,,	− 9·2	0·0	+ 0·02	+ 0·11	+ 0·03	− 0·29	
4	,,	− 9·0	0·0	− 0·07	+ 0·12	+ 0·02	− 0·29	115 and 33 R. P. L.
5	,,	− 9·0	0·0	− 0·01	+ 0·12	+ 0·03	− 0·28	
7	,,	− 8·9	0·0	+ 0·08	+ 0·12	+ 0·03	− 0·27	
8	,,	− 9·4	0·0	0·00	+ 0·13	+ 0·03	− 0·26	
9	,,	− 8·6	0·0	− 0·06	+ 0·13	+ 0·01	− 0·26	
16	,,	− 9·6	0·0	− 0·09	+ 0·10	+ 0·03	− 0·21	
17	,,	− 9·9	0·0	− 0·09	+ 0·10	+ 0·02	− 0·20	115 and 33 R. P. L.
18	,,	− 9·9	0·0	− 0·07	+ 0·11	+ 0·02	− 0·20	
19	,,	− 10·4	0·0	− 0·06	+ 0·11	+ 0·02	− 0·20	
28	,,	− 9·4	0·0	− 0·02	+ 0·13	+ 0·04	− 0·19	
July 5	M	− 12·3	0·0	+ 0·04	+ 0·05	+ 0·05	− 0·18	
9	,,	− 9·9	0·0	− 0·10	+ 0·01	+ 0·06	− 0·18	
10	,,	− 11·9	0·0	− 0·14	+ 0·03	+ 0·03	− 0·18	
13	,,	− 9·9	0·0	− 0·07	+ 0·02	+ 0·03	− 0·17	
15	,,	− 10·4	0·0	− 0·14	− 0·01	+ 0·03	− 0·17	
16	,,	− 9·9	0·0	− 0·05	+ 0·04	+ 0·04	− 0·17	
17	,,	− 10·7	0·0	+ 0·07	+ 0·04	+ 0·03	− 0·17	111 R.P.L.& 1887 Radcliffe.
20	,,	− 9·4	0·0	+ 0·02	+ 0·07	+ 0·05	− 0·17	
23	,,	− 10·8	0·0	+ 0·07	+ 0·06	+ 0·08	− 0·17	115 R. P. L. and β Libræ.

Instrumental Corrections adopted in 1880.

Date.	Observer.	Index.	Run in 5′.	Clock Rate.	Inclination.	Collimation.	Meridian.	Determining Stars.
		″	″	s	s	s	s	
July 27	R	− 10·5	0·0	+ 0·01	+ 0·08	+ 0·04	− 0·16	
28	,,	− 10·9	0·0	+ 0·01	+ 0·04	+ 0·05	− 0·16	
29	,,	− 10·3	0·0	− 0·07	+ 0·05	+ 0·05	− 0·16	
30	M	− 10·5	0·0	− 0·07	+ 0·03	+ 0·04	− 0·16	
31	,,	− 10·5	0·0	+ 0·02	+ 0·04	+ 0·07	− 0·16	
Aug. 3	,,	− 11·2	0·0	+ 0·01	+ 0·07	+ 0·06	− 0·15	
7	,,	− 10·6	0·0	− 0·07	+ 0·07	+ 0·08	− 0·14	
9	,,	− 9·3	0·0	+ 0·03	+ 0·09	+ 0·09	− 0·14	131 R. P. L. & θ Aquilæ.
10	,,	− 10·0	0·0	+ 0·16	+ 0·07	+ 0·06	− 0·18	
11	,,	− 9·1	0·0	+ 0·17	+ 0·07	+ 0·05	− 0·23	λ Ursæ Min. & 1887 Radcliffe.
14	,,	− 9·2	0·0	+ 0·01	+ 0·04	0·00	− 0·22	
18	,,	− 8·8	0·0	+ 0·02	0·00	+ 0·09	− 0·22	
19	,,	− 9·2	0·0	+ 0·01	− 0·04	+ 0·03	− 0·23	
20	,,	− 7·8	0·0	− 0·02	− 0·05	+ 0·06	− 0·23	
23	,,	− 9·0	0·0	+ 0·10	− 0·05	+ 0·07	− 0·23	
24	,,	− 8·3	0·0	+ 0·16	− 0·07	+ 0·05	− 0·23	
25	,,	− 7·7	0·0	+ 0·16	− 0·06	+ 0·04	− 0·23	δ Ursæ Min. & 40 R. P. L.
30	,,	− 7·8	0·0	+ 0·28	− 0·10	+ 0·08	− 0·27	
31	,,	− 8·4	0·0	+ 0·15	− 0·12	+ 0·07	− 0·28	
Sep. 1	R	− 8·8	0·0	0·00	− 0·11	+ 0·06	− 0·29	
3	,,	− 9·1	0·0	0·00	− 0·17	+ 0·02	− 0·31	
4	,,	− 7·0	0·0	0·00	− 0·20	+ 0·04	− 0·31	
6	,,	− 4·1	0·0	− 0·08	− 0·21	+ 0·04	− 0·33	
7	,,	− 4·2	0·0	− 0·12	− 0·20	+ 0·04	− 0·34	λ Sagittarii & δ Urs. Min.
13	,,	+ 0·6	0·0	− 0·42	− 0·37	− 0·05	− 0·28	
14	,,	+ 2·1	0·0	− 0·47	− 0·27	+ 0·03	− 0·26	
15	,,	+ 0·8	0·0	− 0·42	− 0·19	+ 0·03	− 0·27	150 and 72 R. P. L.
16	,,	+ 1·7	0·0	0·00	− 0·21	+ 0·04	− 0·27	
17	,,	− 0·6	0·0	− 0·38	− 0·15	+ 0·08	− 0·26	
18	,,	− 0·4	0·0	− 0·39	− 0·14	+ 0·04	− 0·26	
20	,,	− 1·4	0·0	− 0·27	− 0·11	+ 0·03	− 0·25	
21	,,	− 1·5	0·0	− 0·20	− 0·10	+ 0·05	− 0·25	141 and 49 R. P. L.
22	,,	− 2·7	0·0	− 0·03	− 0·05	+ 0·06	− 0·25	
23	,,	− 2·4	0·0	− 0·05	− 0·08	+ 0·03	− 0·28	141 R. P. L. & 1887 Radcliffe.
24	,,	− 2·2	0·0	0·00	− 0·05	+ 0·04	− 0·26	
28	,,	− 5·0	0·0	− 0·20	− 0·04	+ 0·03	− 0·17	
29	,,	− 4·9	0·0	− 0·16	− 0·02	+ 0·01	− 0·15	141 and 49 R. P. L.
30	,,	− 4·4	0·0	− 0·09	− 0·04	+ 0·04	− 0·17	141 and 49 R. P. L.
Oct. 1	M	− 6·2	0·0	− 0·09	− 0·06	+ 0·04	− 0·19	
2	,,	− 6·7	0·0	− 0·07	− 0·08	+ 0·03	− 0·22	141 and 49 R. P. L.
4	,,	− 6·8	0·0	+ 0·07	− 0·11	− 0·01	− 0·24	141 and 49 R. P. L.
5	,,	− 6·2	0·0	+ 0·06	− 0·12	+ 0·01	− 0·24	
6	,,	− 8·0	0·0	+ 0·11	− 0·11	+ 0·05	− 0·24	
7	,,	− 7·6	0·0	+ 0·14	− 0·10	+ 0·04	− 0·24	
8	,,	− 8·4	0·0	+ 0·12	− 0·09	+ 0·07	− 0·24	
9	,,	− 8·8	0·0	+ 0·12	− 0·08	+ 0·04	− 0·25	
13	,,	− 9·3	0·0	+ 0·21	− 0·09	+ 0·05	− 0·25	
14	,,	− 8·8	0·0	+ 0·15	− 0·08	+ 0·02	− 0·25	2 Urs. Min. & 93 R. P. L.
15	,,	− 8·4	0·0	+ 0·05	− 0·06	+ 0·06	− 0·23	
16	,,	− 9·4	0·0	+ 0·03	− 0·05	+ 0·03	− 0·20	
20	,,	− 4·9	0·0	− 0·03	− 0·12	+ 0·04	− 0·11	150 and 72 R. P. L.
21	,,	− 2·2	0·0	0·00	− 0·13	+ 0·06	− 0·12	
25	,,	+ 0·4	0·0	+ 0·08	− 0·18	+ 0·06	− 0·13	2 Urs. Min. & 93 R. P. L.
26	,,	− 0·4	0·0	+ 0·08	− 0·12	+ 0·09	− 0·14	
27	,,	− 0·9	0·0	+ 0·19	− 0·13	+ 0·05	− 0·16	

Instrumental Corrections adopted in 1880.

Date.	Observer.	Index.	Run in 5′.	Clock Rate.	Inclination.	Collimation.	Meridian.	Determining Stars.
		″	″	s	s	s	s	
Oct. 28	M	− 1·3	0·0	+ 0·08	− 0·16	+ 0·02	− 0·17	
29	,,	− 2·2	0·0	+ 0·03	− 0·12	+ 0·04	− 0·18	2 Urs. Min. & 93 R. P. L.
30	,,	− 1·3	0·0	− 0·04	− 0·11	+ 0·04	− 0·17	
Nov. 1	R	− 1·1	− 0·1	− 0·18	− 0·11	+ 0·03	− 0·16	
2	,,	− 0·3	− 0·1	− 0·19	− 0·12	+ 0·04	− 0·16	
5	,,	+ 0·3	− 0·1	− 0·19	− 0·22	+ 0·04	− 0·15	
6	,,	0·0	− 0·1	− 0·17	− 0·13	+ 0·03	− 0·14	150 and 72 R. P. L.
8	,,	0·0	− 0·1	+ 0·04	− 0·12	+ 0·03	− 0·17	
9	,,	− 0·1	− 0·1	+ 0·03	− 0·13	+ 0·04	− 0·18	π Cephei and 89 R. P. L.
11	,,	+ 0·1	− 0·1	− 0·19	− 0·15	+ 0·03	− 0·22	
12	,,	− 0·4	− 0·1	− 0·06	− 0·12	+ 0·04	− 0·23	
13	,,	+ 1·4	− 0·1	0·00	− 0·15	+ 0·02	− 0·25	Polaris and 89 R. P. L.
16	,,	+ 0·2	− 0·1	− 0·24	− 0·14	+ 0·02	− 0·16	
17	,,	+ 0·6	− 0·1	− 0·16	− 0·13	+ 0·03	− 0·13	α Pegasi and 89 R. P. L.
18	,,	− 0·8	− 0·1	− 0·12	− 0·13	+ 0·02	− 0·19	
19	,,	− 1·1	− 0·1	− 0·18	− 0·15	+ 0 02	− 0·24	26 and 108 R. P. L.
22	,,	+ 1·0	− 0·1	− 0·21	− 0·13	+ 0·02	− 0·23	
24	,,	+ 1·1	− 0·1	− 0·20	− 0·13	+ 0·02	− 0·22	2 Urs. Min. & 89 R. P. L.
25	,,	+ 1·0	− 0·1	− 0·25	− 0·13	+ 0·02	− 0·21	
Dec. 3	,,	+ 6·5	0·0	− 0·07	+ 0·25	+ 0·02	− 0·15	33 and 89 R. P. L.
4	,,	+ 6·4	0·0	− 0·10	+ 0·29	+ 0·02	− 0·15	
7	,,	+ 6·8	0 0	− 0·33	+ 0·27	+ 0·02	− 0·14	14 and 99 R. P. L.
8	,,	+ 5·7	0·0	− 0·27	+ 0·28	+ 0·02	− 0·20	
9	,,	+ 5·7	0·0	− 0·23	+ 0·24	+ 0·04	− 0·25	
10	M	+ 7·6	0·0	− 0·31	+ 0·23	+ 0·06	− 0·31	26 R. P. L. and ε Urs. Min.
11	,,	+ 5·8	0·0	− 0 39	+ 0·22	+ 0·09	− 0·26	26 R. P. L. and ε Urs. Min.
13	,,	+ 4·1	0·0	− 0 35	+ 0·17	+ 0·05	− 0·29	26 R. P. L. and ε Urs. Min.
14	,,	+ 3·8	0·0	− 0·28	+ 0·15	+ 0·04	− 0 24	26 and 93 R. P. L.
15	,,	+ 2·8	0·0	− 0·32	+ 0·13	+ 0·03	− 0·34	26 and 93 R. P. L.
16	,,	+ 2·9	0 0	− 0·29	+ 0 14	+ 0·05	− 0·34	
17	,,	+ 1·6	0·0	− 0·28	+ 0·11	− 0·01	− 0·34	
18	,,	+ 1·7	0·0	− 0·34	+ 0·06	+ 0·01	− 0·34	
20	,,	+ 1·3	0·0	− 0·36	− 0·04	− 0·04	− 0·33	
22	R	+ 1·8	0·0	− 0·45	+ 0·04	+ 0·04	− 0·33	35 and 111 R. P. L.
25	,,	+ 0·6	0·0	− 0 37	− 0·05	+ 0·04	− 0·34	
27	,,	+ 2·1	0 0	− 0·55	− 0·14	+ 0·01	− 0·36	34 and 111 R. P. L.
28	,,	+ 1·8	0·0	− 0·90	− 0·05	+ 0·03	− 0·36	
29	,,	+ 2·3	0·0	− 0·79	− 0·07	+ 0·03	− 0·36	34 and 111 R. P. L.
30	M	+ 3·1	0·0	− 0·39	− 0·04	+ 0 04	− 0·34	
31	,,	+ 2·1	0·0	− 0·46	− 0·06	+ 0·05	− 0·32	

Instrumental Corrections adopted in 1881.

Date.	Observer.	Index.	Run in 5′.	Clock Rate.	Inclination.	Collimation.	Meridian.	Determining Stars.
		″	″	s	s	s	s	
Jan. 3	M	+ 2·0	0·0	− 0·46	− 0·03	+ 0·08	− 0·22	34 and 111 R. P. L.
4	,,	+ 1·3	0·0	− 0·29	− 0·07	+ 0·04	− 0·24	
5	,,	+ 1·8	0·0	− 0·38	− 0·03	+ 0·02	− 0·27	
6	,,	+ 0·1	0·0	− 0·35	− 0·09	+ 0·01	− 0·29	
8	,,	− 1·4	0·0	− 0·29	− 0·04	+ 0·05	− 0·34	35 and 111 R. P. L.
12	,,	+ 0·5	0·0	− 0·23	0·00	+ 0·04	− 0·28	
13	R	− 0·4	0·0	− 0·22	+ 0·01	+ 0·03	− 0·27	
15	M	− 0·9	0·0	− 0·25	+ 0·01	+ 0·04	− 0·24	34 and 111 R. P. L.
18	,,	− 1·6	0·0	− 0·22	+ 0·03	+ 0·08	− 0·28	
19	,,	− 1·6	0·0	− 0·26	− 0·01	+ 0·03	− 0·33	
20	,,	− 1·9	0·0	− 0·28	− 0·03	+ 0·01	− 0·34	
21	,,	− 3·6	0·0	− 0·27	− 0·04	+ 0·03	− 0·35	*o* Tauri and 111 R. P. L.
22	,,	− 2·9	0·0	− 0·29	0·00	+ 0·08	− 0·35	
24	,,	− 4·5	0·0	− 0·31	− 0·06	+ 0·03	− 0·36	
25	,,	− 3·7	0·0	− 0·35	− 0·08	0·00	− 0·36	
26	,,	− 6·3	0·0	− 0·43	− 0·09	+ 0·03	− 0·36	35 and 115 R. P. L.
27	,,	− 6·3	0·0	− 0·46	− 0·09	+ 0·05	− 0·38	
28	,,	− 5·9	0·0	− 0·39	− 0·08	+ 0·05	− 0·39	
29	,,	− 5·4	0·0	− 0·35	− 0·12	+ 0·04	− 0·41	
31	,,	− 8·0	0·0	− 0·58	− 0·16	+ 0·02	− 0·44	
Feb. 1	R	− 8·3	0·0	− 0·45	− 0·12	+ 0·04	− 0·46	35 R. P. L. and ε Urs. Min.
2	,,	− 8·2	0·0	− 0·24	− 0·12	+ 0·03	− 0·41	
3	,,	− 8·6	0·0	− 0·30	− 0·13	+ 0·02	− 0·36	
4	,,	− 8·6	0·0	− 0·31	− 0·10	+ 0·03	− 0·31	40 and 116 R. P. L.
5	,,	− 9·1	0·0	− 0·26	− 0·09	+ 0·05	− 0·31	
7	,,	− 10·1	0·0	− 0·36	− 0·12	+ 0·03	− 0·31	
8	,,	− 9·4	0·0	− 0·23	− 0·10	+ 0·03	− 0·31	
9	,,	− 9·2	0·0	− 0·19	− 0·11	+ 0·04	− 0·31	35 and 115 R. P. L.
10	,,	− 9·2	0·0	− 0·26	− 0·10	+ 0·04	− 0·31	
11	,,	− 8·9	0·0	− 0·23	− 0·12	+ 0·04	− 0·31	
12	,,	− 9·1	0·0	− 0·23	− 0·11	+ 0·04	− 0·30	
14	,,	− 9·5	0·0	− 0·48	− 0·12	+ 0·02	− 0·30	
15	,,	− 9·1	0·0	− 0·58	− 0·07	+ 0·03	− 0·30	43 R. P. L. and 24 Urs. Min.
16	,,	− 8·9	0·0	− 0·61	− 0·08	+ 0·01	− 0·30	
17	,,	− 9·3	0·0	− 0·51	− 0·05	+ 0·02	− 0·30	
18	,,	− 9·0	0·0	− 0·42	− 0·02	+ 0·04	− 0·30	
19	,,	− 8·9	0·0	− 0·49	− 0·02	+ 0·02	− 0·30	
21	,,	− 9·3	0·0	− 0·55	− 0·04	+ 0·02	− 0·30	49 and 143 R. P. L.
22	,,	− 8·8	0·0	− 0·53	− 0·03	+ 0·03	− 0·30	
23	,,	− 9·0	0·0	− 0·51	− 0·04	+ 0·02	− 0·30	
24	,,	− 10·0	0·0	− 0·46	− 0·04	+ 0·02	− 0·30	
25	,,	− 10·6	0·0	− 0·42	− 0·03	+ 0·03	− 0·30	43 and 131 R. P. L.
26	,,	− 10·1	0·0	− 0·45	− 0·02	+ 0·04	− 0·31	
28	,,	− 10·0	0·0	− 0·51	− 0·05	+ 0·03	− 0·32	49 and 131 R. P. L.
Mar. 1	M	− 9·4	0·0	− 0·59	− 0·01	+ 0·04	− 0·31	
2	,,	− 10·4	0·0	− 0·45	+ 0·04	+ 0·09	− 0·30	
3	,,	− 9·7	0·0	− 0·35	0·00	+ 0·06	− 0·29	
4	,,	− 9·0	0·0	− 0·52	− 0·03	+ 0·02	− 0·29	
5	,,	− 9·8	0·0	− 0·58	0·00	+ 0·01	− 0·28	
7	,,	− 9·3	0·0	− 0·42	+ 0·02	+ 0·07	− 0·26	49 and 131 R. P. L.
8	,,	− 9·5	0·0	− 0·42	+ 0·04	+ 0·05	− 0·27	
9	,,	− 9·7	0·0	− 0·50	+ 0·01	+ 0·02	− 0·28	
10	,,	− 9·4	0·0	− 0·39	+ 0·07	+ 0·04	− 0·29	
11	,,	− 9·2	0·0	− 0·35	+ 0·04	+ 0·02	− 0·29	
12	,,	− 9·1	0·0	− 0·48	+ 0·10	+ 0·03	− 0·30	
14	,,	− 9·9	0·0	− 0·55	+ 0·07	+ 0·02	− 0·32	49 and 131 R. P. L.

Instrumental Corrections adopted in 1881.

Date.	Observer.	Index.	Run in 5′.	Clock Rate.	Inclination.	Collimation.	Meridian.	Determining Stars
		″	″	s	s	s	s	
Mar. 15	M	− 9·2	0·0	− 0·44	+ 0·09	+ 0·06	− 0·34	
16	,,	− 9·9	0·0	− 0·34	+ 0·10	+ 0·03	− 0·36	
17	,,	− 9·6	0·0	− 0·40	+ 0·05	− 0·02	− 0·39	
18	,,	− 10·0	0·0	− 0·32	+ 0·09	+ 0·01	− 0·41	
19	,,	− 10·1	0·0	− 0·28	+ 0·06	− 0·04	− 0·43	60 and 131 R. P. L.
21	,,	− 10·0	0·0	− 0·36	+ 0·10	− 0·03	− 0·36	
22	,,	− 9·7	0·0	− 0·34	+ 0·12	− 0·01	− 0·32	
23	,,	− 9·8	0·0	− 0·48	+ 0·12	− 0·01	− 0·29	
24	,,	− 10·8	0·0	− 0·30	+ 0·18	+ 0·06	− 0·25	60 and 131 R. P. L.
25	,,	− 10·6	0·0	− 0·27	+ 0·14	+ 0·01	− 0·26	
26	,,	− 10·0	0·0	− 0·38	+ 0·15	+ 0·04	− 0·27	
28	,,	− 10·1	0·0	− 0·23	+ 0·14	+ 0·03	− 0·29	
29	,,	− 8·7	0·0	− 0·25	+ 0·13	0·00	− 0·30	60 and 151 R. P. L.
30	,,	− 9·1	0·0	− 0·37	+ 0·15	+ 0·03	− 0·30	
31	,,	− 9·0	0·0	− 0·34	+ 0·18	+ 0·03	− 0·29	
Apl. 1	,,	− 8·1	0·0	− 0·23	+ 0·15	+ 0·01	− 0·28	
2	,,	− 8·4	0·0	− 0·32	+ 0·12	− 0·01	− 0·27	
4	R	− 8·0	0·0	− 0·37	+ 0·21	+ 0·04	− 0·26	70 and 150 R. P. L.
5	,,	− 9·6	0·0	− 0·27	+ 0·20	+ 0·04	− 0·26	
6	,,	− 9·6	0·0	− 0·26	+ 0·21	+ 0·03	− 0·26	
7	,,	− 10·2	0·0	− 0·31	+ 0·19	+ 0·02	− 0·27	
8	,,	− 9·2	0·0	− 0·36	+ 0·20	+ 0·03	− 0·27	70 and 150 R. P. L.
9	,,	− 8·6	0·0	− 0·36	+ 0·21	+ 0·04	− 0·27	
11	,,	− 8·6	0·0	− 0·31	+ 0·19	+ 0·02	− 0·26	
12	,,	− 8·2	0·0	− 0·27	+ 0·21	+ 0·03	− 0·26	70 and 150 R. P. L.
13	,,	− 8·0	0·0	− 0·20	+ 0·25	+ 0·03	− 0·26	
14	,,	− 8·6	0·0	− 0·20	+ 0·22	+ 0·03	− 0·26	
15	,,	− 8·2	0·0	− 0·28	+ 0·22	+ 0·03	− 0·27	
16	,,	− 8·2	0·0	− 0·31	+ 0·22	+ 0·02	− 0·27	70 and 150 R. P. L.
19	,,	− 8·0	0·0	− 0·21	+ 0·21	+ 0·03	− 0·26	
20	,,	− 8·3	0·0	− 0·18	+ 0·21	+ 0·03	− 0·25	70 and 150 R. P. L.
21	,,	− 8·4	0·0	− 0·18	+ 0·21	+ 0·03	− 0·24	
22	,,	− 8·5	0·0	− 0·18	+ 0·22	+ 0·03	− 0·24	
23	,,	− 8·9	0·0	− 0·20	+ 0·20	+ 0·02	− 0·23	
25	,,	− 8·9	0·0	− 0·19	+ 0·22	+ 0·04	− 0·22	70 and 150 R. P. L.
26	,,	− 9·1	0·0	− 0·21	+ 0·19	+ 0·02	− 0·22	
27	,,	− 8·6	0·0	− 0·20	+ 0·23	+ 0·04	− 0·21	
28	,,	− 8·5	0·0	− 0·21	+ 0·22	+ 0·02	− 0·21	
29	,,	− 8·9	0·0	− 0·25	+ 0·22	+ 0·02	− 0·21	
30	,,	− 7·7	0·0	− 0·17	+ 0·24	+ 0·02	− 0·21	
May 2	,,	− 7·6	− 0·1	− 0·12	+ 0·27	+ 0·02	− 0·20	
3	,,	− 8·1	− 0·1	− 0·02	+ 0·26	+ 0·05	− 0·20	72 and 150 R. P. L.
4	,,	− 7·1	− 0·1	+ 0·03	+ 0·26	+ 0·02	− 0·26	
5	,,	− 7·1	− 0·1	− 0·10	+ 0·28	+ 0·03	− 0·32	72 and 151 R. P. L.
6	,,	− 7·2	− 0·1	− 0·02	+ 0·29	+ 0·05	− 0·29	
7	M	− 7·2	− 0·1	+ 0·06	+ 0·28	+ 0·04	− 0·26	
9	,,	− 7·4	− 0·1	− 0·15	+ 0·34	+ 0·07	− 0·19	
10	,,	− 6·7	− 0·1	− 0·14	+ 0·35	+ 0·08	− 0·16	79 and 18 R. P. L.
11	,,	− 6·3	− 0·1	− 0·10	+ 0·35	+ 0·06	− 0·18	
12	,,	− 6·5	− 0·1	− 0·08	+ 0·31	+ 0·04	− 0·20	
14	,,	− 7·1	− 0·1	− 0·10	+ 0·33	+ 0·03	− 0·25	
16	,,	− 6·8	− 0·1	− 0·21	+ 0·32	+ 0·04	− 0·20	89 R. P. L. & β Centauri.
17	,,	− 5·9	− 0·1	− 0·16	+ 0·33	+ 0·04	− 0·20	
18	,,	− 6·6	− 0·1	− 0·13	+ 0·33	0·00	− 0·20	
19	,,	− 7·5	− 0·1	− 0·10	+ 0·30	+ 0·03	− 0·19	
20	,,	− 6·9	− 0·1	− 0·03	+ 0·32	+ 0·05	− 0·19	
21	,,	− 7·4	− 0·1	− 0·05	+ 0·33	+ 0·02	− 0·19	99 R. P. L. and Polaris.

Instrumental Corrections adopted in 1881.

Date.	Observer.	Index.	Run in 5′.	Clock Rate.	Inclination.	Collimation.	Meridian.	Determining Stars.
		″	″	*s*	*s*	*s*	*s*	
May 23	M	− 7·8	− 0·1	− 0·08	+ 0·37	+ 0·07	− 0·20	
24	,,	− 6·8	− 0·1	− 0·15	+ 0·41	+ 0·06	− 0·20	
25	,,	− 7·6	− 0·1	− 0·04	+ 0·40	− 0·01	− 0·20	
26	,,	− 6·6	− 0·1	+ 0·01	+ 0·32	− 0·06	− 0·21	
27	,,	− 7·5	− 0·1	− 0·13	+ 0·33	− 0·05	− 0·21	99 and 18 R. P. L.
28	,,	− 6·2	− 0·1	− 0·12	+ 0·33	0·00	− 0·20	
30	,,	− 6·5	− 0·1	− 0·01	+ 0·32	− 0·01	− 0·18	
31	,,	− 6·6	− 0·1	− 0·03	+ 0·31	+ 0·01	− 0·17	
June 2	R	− 6·2	0·0	− 0·13	+ 0·29	0·00	− 0·14	
4	,,	− 9·1	0·0	− 0·20	+ 0·33	+ 0·01	− 0·12	
6	,,	− 8·2	0·0	− 0·15	+ 0·33	+ 0·02	− 0·10	
7	,,	− 6·4	0·0	− 0·09	+ 0·31	+ 0·02	− 0·09	115 and 34 R. P. L.
15	,,	− 8·4	0·0	− 0·08	+ 0·28	+ 0·03	− 0·17	
16	,,	− 8·1	0·0	− 0·07	+ 0·29	+ 0·02	− 0·18	115 and 34 R. P. L.
17	,,	− 8·2	0·0	+ 0·04	+ 0·28	+ 0·04	− 0·16	
18	,,	− 8·1	0·0	+ 0·09	+ 0·27	+ 0·03	− 0·14	
21	,,	− 7·9	0·0	+ 0·01	+ 0·30	+ 0·03	− 0·09	
22	,,	− 8·4	0·0	− 0·01	+ 0·27	+ 0·04	− 0·07	115 and 34 R. P. L.
23	,,	− 8·1	0·0	0·00	+ 0·28	+ 0·02	− 0·06	
24	,,	− 8·2	0·0	+ 0·01	+ 0·27	+ 0·03	− 0·06	
25	,,	− 8·2	0·0	− 0·05	+ 0·29	+ 0·04	− 0·05	
28	,,	− 8·5	0·0	− 0·10	+ 0·25	+ 0·02	− 0·04	
29	,,	− 8·6	0·0	− 0·13	+ 0·27	+ 0·02	− 0·03	ε Urs. Min. and 33 R. P. L.
30	,,	− 8·2	0·0	− 0·14	+ 0·29	+ 0·04	− 0·02	
July 5	,,	− 6·5	0·0	− 0·06	+ 0·26	+ 0·07	0·00	
11	,,	− 6·5	0·0	− 0·07	+ 0·27	+ 0·05	+ 0·04	
13	,,	− 8·8	0·0	− 0·10	+ 0·37	+ 0·05	+ 0·05	
14	,,	− 8·9	0·0	− 0·11	+ 0·31	+ 0·01	+ 0·05	
16	,,	− 9·2	0·0	− 0·06	+ 0·36	+ 0·04	+ 0·06	
18	,,	− 8·8	0·0	− 0·11	+ 0·35	+ 0·04	+ 0·07	
19	,,	− 9·3	0·0	− 0·12	+ 0·36	+ 0·02	+ 0·08	ε Urs. Min. and 34 R. P. L.
20	,,	− 9·1	0·0	− 0·13	+ 0·36	+ 0·05	+ 0·10	
21	,,	− 9·7	0·0	− 0·19	+ 0·35	+ 0·03	+ 0·12	
22	,,	− 7·9	0·0	− 0·13	+ 0·40	+ 0·04	+ 0·13	
23	,,	− 8·6	0·0	− 0·09	+ 0·34	+ 0·01	+ 0·15	
25	,,	− 9·2	0·0	− 0·08	+ 0·37	+ 0·03	+ 0·19	
26	,,	− 9·1	0·0	− 0·14	+ 0·35	+ 0·01	+ 0·21	ε Urs. Min. and 40 R. P. L.
27	,,	− 9·1	0·0	− 0·16	+ 0·37	+ 0·03	+ 0·20	
28	,,	− 9·0	0·0	− 0·06	+ 0·37	+ 0·04	+ 0·20	
29	,,	− 9·1	0·0	− 0·02	+ 0·36	+ 0·02	+ 0·19	
30	,,	− 9·0	0·0	− 0·05	+ 0·37	+ 0·03	+ 0·18	
Aug. 10	M	− 8·7	− 0·1	− 0·32	+ 0·27	+ 0·04	+ 0·10	
11	,,	− 7·2	− 0·1	− 0·14	+ 0·30	+ 0·06	+ 0·10	
12	,,	− 8·3	− 0·1	+ 0·07	+ 0·26	+ 0·02	+ 0·09	
13	,,	− 6·2	− 0·1	− 0·01	+ 0·22	+ 0·01	+ 0·08	
15	,,	− 7·5	− 0·1	− 0·21	+ 0·29	+ 0·02	+ 0·07	ε Urs. Min. and 60 R. P. L.
16	,,	− 8·2	− 0·1	− 0·18	+ 0·27	+ 0·02	+ 0·08	
17	,,	− 9·1	− 0·1	− 0·12	+ 0·27	+ 0·02	+ 0·09	
19	,,	− 8·8	− 0·1	− 0·12	+ 0·29	+ 0·03	+ 0·10	
20	,,	− 9·0	− 0·1	− 0·19	+ 0·28	+ 0·04	+ 0·11	
22	,,	− 9·0	− 0·1	− 0·21	+ 0·29	+ 0·03	+ 0·12	
23	,,	− 8·3	− 0·1	− 0·12	+ 0·27	+ 0·03	+ 0·13	ε Urs. Min. and 51 Cephei.
24	,,	− 8·4	− 0·1	− 0·06	+ 0·28	+ 0·02	+ 0·12	
25	,,	− 8·1	− 0·1	− 0·07	+ 0·28	+ 0·03	+ 0·11	
26	,,	− 8·8	− 0·1	− 0·07	+ 0·27	+ 0·03	+ 0·10	
27	,,	− 9·0	− 0·1	− 0·05	+ 0·27	+ 0·03	+ 0·10	

Instrumental Corrections adopted in 1881.

Date.	Observer.	Index.	Run in 5′.	Clock Rate.	Inclination.	Collimation.	Meridian.	Determining Stars.
		″	″	s	s	s	s	
Aug. 29	M	− 8·9	− 0·1	− 0·04	+ 0·25	+ 0·03	+ 0·08	δ Urs. Min. and 51 Cephei.
30	,,	− 8·6	− 0·1	− 0·06	+ 0·24	+ 0·03	+ 0·07	
31	,,	− 8·9	− 0·1	− 0·06	+ 0·24	+ 0·03	+ 0·06	
Sep. 2	,,	− 8·1	− 0·1	− 0·08	+ 0·23	+ 0·03	+ 0·05	
3	,,	− 8·1	− 0·1	− 0·18	+ 0·23	+ 0·03	+ 0·04	143, & 60 R. P. L. & 1887 [Radcliffe.
5	,,	− 7·7	− 0·1	− 0·28	+ 0·25	+ 0·03	+ 0·04	
12	,,	− 6·2	− 0·1	− 0·24	+ 0·22	+ 0·03	+ 0·04	
13	,,	− 5·9	− 0·1	− 0·19	+ 0·21	+ 0·03	+ 0·04	
14	,,	− 5·9	− 0·1	− 0·14	+ 0·20	+ 0·03	+ 0·04	143 and 60 R. P. L.
15	,,	− 6·0	− 0·1	− 0·13	+ 0·19	+ 0·03	+ 0·04	
16	,,	− 5·3	− 0·1	− 0·19	+ 0·20	+ 0·03	+ 0·04	143 R. P. L. & 1887 Radcliffe.
17	,,	− 5·6	− 0·1	− 0·22	+ 0·19	+ 0·03	+ 0·02	
20	,,	− 6·6	− 0·1	− 0·13	+ 0·23	+ 0·04	− 0·04	
21	,,	− 2·3	− 0·1	− 0·12	+ 0·16	+ 0·03	− 0·06	
23	,,	− 1·6	− 0·1	− 0·10	+ 0·11	+ 0·04	− 0·10	
24	,,	− 2·3	− 0·1	− 0·10	+ 0·07	+ 0·03	− 0·12	143 and 60 R. P. L.
26	,,	− 1·4	− 0·1	− 0·05	+ 0·06	+ 0·03	− 0·10	
27	,,	− 2·2	− 0·1	− 0·15	+ 0·06	+ 0·03	− 0·08	
28	,,	− 1·2	− 0·1	− 0·21	+ 0·06	+ 0·03	− 0·07	
29	,,	− 0·5	− 0·1	− 0·14	+ 0·07	+ 0·03	− 0·06	
30	,,	− 0·3	− 0·1	− 0·13	+ 0·07	+ 0·03	− 0·05	
Oct. 1	R	− 0·2	0·0	− 0·15	+ 0·06	+ 0·04	− 0·03	
3	,,	− 2·9	0·0	− 0·27	+ 0·08	− 0·01	− 0·02	
4	,,	− 1·5	0·0	− 0·30	+ 0·06	+ 0·01	− 0·01	
5	,,	− 1·5	0·0	− 0·24	+ 0·09	+ 0·02	+ 0·01	
7	,,	− 0·6	0·0	− 0·12	+ 0·04	+ 0·02	+ 0·03	2 Urs. Min. and 89 R. P. L.
8	,,	− 1·3	0·0	− 0·12	+ 0·06	+ 0·03	+ 0·03	
10	,,	− 1·8	0·0	− 0·14	+ 0·08	+ 0·02	+ 0·02	
11	,,	− 1·7	0·0	− 0·11	+ 0·09	+ 0·02	+ 0·02	158 and 60 R. P. L.
12	,,	− 2·2	0·0	− 0·10	+ 0·06	+ 0·01	− 0·01	
13	,,	− 3·1	0·0	− 0·10	+ 0·10	+ 0·02	− 0·05	
14	,,	− 2·2	0·0	− 0·06	+ 0·10	+ 0·02	− 0·06	
15	,,	− 2·3	0·0	− 0·05	+ 0·07	+ 0·02	− 0·09	143 and 60 R. P. L.
17	,,	− 2·5	0·0	− 0·12	+ 0·10	+ 0·02	− 0·02	
18	,,	− 2·6	0·0	− 0·15	+ 0·09	+ 0·03	+ 0·02	
19	,,	− 1·7	0·0	− 0·10	+ 0·09	+ 0·03	+ 0·05	150 and 60 R. P. L.
20	,,	− 1·5	0·0	− 0·08	+ 0·09	+ 0·02	+ 0·06	
21	,,	− 1·2	0·0	− 0·21	+ 0·09	+ 0·02	+ 0·06	
22	,,	− 1·0	0·0	− 0·30	+ 0·10	+ 0·02	+ 0·07	150 and 60 R. P. L.
24	,,	− 0·9	0·0	− 0·20	+ 0·08	+ 0·01	+ 0·07	
25	,,	− 1·6	0·0	− 0·20	+ 0·05	0·00	+ 0·08	
26	,,	− 1·3	0·0	− 0·20	+ 0·08	+ 0·01	+ 0·08	2 Urs. Min. and 70 R. P. L.
27	,,	− 1·4	0·0	− 0·21	+ 0·08	+ 0·01	+ 0·08	
28	,,	− 1·3	0·0	− 0·23	+ 0·07	+ 0·01	+ 0·09	
29	,,	− 1·4	0·0	− 0·24	+ 0·08	+ 0·01	+ 0·09	
31	,,	− 0·4	0·0	− 0·26	+ 0·08	+ 0·02	+ 0·09	150 and 72 R. P. L.
Nov. 2	M	− 9·4	− 0·1	− 0·23	+ 0·07	+ 0·04	+ 0·08	
5	,,	− 6·2	− 0·1	− 0·14	+ 0·06	+ 0·04	+ 0·03	
7	,,	− 4·6	− 0·1	− 0·18	+ 0·04	+ 0·03	+ 0·01	
9	,,	− 3·1	− 0·1	− 0·34	− 0·01	+ 0·03	− 0·01	158 and 89 R. P. L.
10	,,	− 1·8	− 0·1	− 0·42	− 0·03	+ 0·03	− 0·02	
14	,,	+ 0·3	− 0·1	− 0·36	− 0·23	+ 0·09	− 0·05	
16	,,	+ 1·4	− 0·1	− 0·28	− 0·08	+ 0·11	− 0·06	158 and 89 R. P. L.
17	,,	+ 1·0	− 0·1	− 0·15	− 0·01	+ 0·12	− 0·04	
18	,,	+ 2·3	− 0·1	− 0·08	− 0·07	+ 0·05	− 0·02	
21	,,	− 0·1	− 0·1	− 0·34	− 0·09	+ 0·03	+ 0·05	

Instrumental Corrections adopted in 1881.

Date.	Observer.	Index.	Run in 5′	Clock Rate.	Inclination.	Collimation.	Meridian.	Determining Stars.
		″	″	*s*	*s*	*s*	*s*	
Nov. 23	M	− 1·3	− 0·1	− 0·36	− 0·08	+ 0·04	+ 0·10	158 and 89 R. P. L.
24	,,	− 0·1	− 0·1	− 0·29	− 0·10	+ 0·04	+ 0·10	
25	,,	− 0·3	− 0·1	− 0·29	− 0·10	+ 0·03	+ 0·11	
26	,,	− 0·3	− 0·1	− 0·33	− 0·10	+ 0·03	+ 0·11	
30	,,	− 0·3	− 0·1	− 0·27	− 0·06	+ 0·03	+ 0·12	
Dec. 1	R	− 1·0	0·0	− 0·28	− 0·01	+ 0·02	+ 0·12	
2	,,	− 2·3	0·0	− 0·31	− 0·03	+ 0·02	+ 0·13	
5	,,	− 1·8	0·0	− 0·41	− 0·01	+ 0·03	+ 0·14	
6	,,	− 1·8	0·0	− 0·43	− 0·01	+ 0·03	+ 0·14	
7	,,	− 2·2	0·0	− 0·38	− 0·02	+ 0·03	+ 0·14	
12	,,	− 0·8	0·0	− 0·28	+ 0·08	+ 0·05	+ 0·16	
14	,,	− 1·6	0·0	− 0·25	+ 0·09	+ 0·04	+ 0·17	
15	,,	− 1·6	0·0	− 0·27	+ 0·10	+ 0·03	+ 0·17	14 and 99 R. P. L.
16	,,	− 1·4	0·0	− 0·29	+ 0·10	+ 0·06	+ 0·17	
17	,,	− 2·3	0·0	− 0·32	+ 0·09	+ 0·05	+ 0·18	
21	,,	− 2·1	0·0	− 0·32	+ 0·08	+ 0·05	+ 0·20	
22	,,	− 1·8	0·0	− 0·37	+ 0·05	+ 0·06	+ 0·21	
23	,,	− 2·1	0·0	− 0·39	+ 0·05	+ 0·06	+ 0·21	14 and 99 R. P. L.
24	,,	− 2·2	0·0	− 0·40	+ 0·05	+ 0·06	+ 0·20	
26	,,	− 1·8	0·0	− 0·50	+ 0·03	+ 0·03	+ 0·19	
27	,,	− 1·5	0·0	− 0·50	+ 0·06	+ 0·03	+ 0·18	

Instrumental Corrections adopted in 1882.

Date.	Observer.	Index.	Run in 5′.	Clock Rate.	Inclination.	Collimation.	Meridian.	Determining Stars.
		″	″	s	s	s	s	
Jan. 3	M	+ 2·0	0·0	− 0·25	+ 0·09	+ 0·07	+ 0·11	33 and 114 R. P. L.
4	,,	+ 1·9	0·0	− 0·28	+ 0·10	+ 0·07	+ 0·10	
5	,,	+ 2·1	0·0	− 0·34	+ 0·09	+ 0·06	+ 0·09	
6	,,	+ 1·2	0·0	− 0·32	+ 0·14	+ 0·08	+ 0·09	
7	,,	+ 1·1	0·0	− 0·36	+ 0·14	+ 0·04	+ 0·08	
9	,,	+ 1·6	0·0	− 0·47	+ 0·18	+ 0·06	+ 0·06	
10	,,	− 0·9	0·0	− 0·46	+ 0·15	+ 0·05	+ 0·06	
11	,,	− 1·0	0·0	− 0·40	+ 0·17	+ 0·07	+ 0·05	41 and 108 R. P. L.
12	,,	− 0·4	0·0	− 0·36	+ 0·13	+ 0·05	+ 0·05	
13	R	− 2·2	0·0	− 0·34	+ 0·09	+ 0·06	+ 0·05	
14	M	− 2·5	0·0	− 0·34	+ 0·07	+ 0·03	+ 0·04	41 and 108 R. P. L.
16	,,	− 3·0	0·0	− 0·50	+ 0·10	+ 0·03	+ 0·03	
17	,,	− 2·9	0·0	− 0·43	+ 0·12	+ 0·03	+ 0·03	
18	,,	− 2·5	0·0	− 0·38	+ 0·11	+ 0·03	+ 0·02	
19	,,	− 3·9	0·0	− 0·43	+ 0·11	+ 0·03	+ 0·00	41 R. P. L. and ϵ Urs. Min.
20	,,	− 3·4	0·0	− 0·34	+ 0·10	+ 0·04	+ 0·01	
21	,,	− 2·6	0·0	− 0·38	+ 0·10	+ 0·03	+ 0·03	
23	,,	− 2·6	0·0	− 0·45	+ 0·13	+ 0·04	+ 0·05	41 R. P. L. and ϵ Urs. Min.
24	,,	− 4·0	0·0	− 0·34	+ 0·11	+ 0·03	+ 0·05	
25	,,	− 5·0	0·0	− 0·39	+ 0·13	+ 0·04	+ 0·05	
26	,,	− 5·3	0·0	− 0·44	+ 0·12	+ 0·05	+ 0·05	
27	,,	− 4·9	0·0	− 0·42	+ 0·12	+ 0·04	+ 0·05	
28	,,	− 5·3	0·0	− 0·40	+ 0·10	+ 0·04	+ 0·05	41 R. P. L. and ϵ Urs. Min.
30	,,	− 6·6	0·0	− 0·50	+ 0·10	+ 0·04	+ 0·10	
31	,,	− 7·0	0·0	− 0·43	+ 0·15	+ 0·05	+ 0·13	
Feb. 1	R	− 7·5	− 0·1	− 0·25	+ 0·19	+ 0·04	+ 0·15	41 R. P. L. and ϵ Urs. Min.
2	,,	− 6·8	− 0·1	− 0·28	+ 0·14	+ 0·06	+ 0·18	41 R. P. L. and δ Urs. Min.
3	,,	− 7·9	− 0·1	− 0·33	+ 0·16	+ 0·07	+ 0·15	
4	,,	− 8·0	− 0·1	− 0·29	+ 0·14	+ 0·04	+ 0·13	41 R. P. L. & 24 Urs. Min.
6	,,	− 8·4	− 0·1	− 0·36	+ 0·08	+ 0·04	+ 0·11	
7	,,	− 8·3	− 0·1	− 0·33	+ 0·15	+ 0·06	+ 0·09	
8	,,	− 8·0	− 0·1	− 0·25	+ 0·14	+ 0·06	+ 0·08	
9	,,	− 9·4	− 0·1	− 0·30	+ 0·15	+ 0·07	+ 0·07	41 R. P. L. and 24 Urs. Min.
10	,,	− 8·7	− 0·1	− 0·32	+ 0·16	+ 0·05	+ 0·08	
11	,,	− 9·1	− 0·1	− 0·41	+ 0·16	+ 0·05	+ 0·09	
13	,,	− 8·7	− 0·1	− 0·47	+ 0·15	+ 0·04	+ 0·11	
14	,,	− 9·1	− 0·1	− 0·44	+ 0·19	+ 0·06	+ 0·18	70 and 153 R. P. L.
15	,,	− 8·7	− 0·1	− 0·43	+ 0·20	+ 0·06	+ 0·16	
16	,,	− 8·8	− 0·1	− 0·40	+ 0·18	+ 0·05	+ 0·13	
17	,,	− 8·6	− 0·1	− 0·42	+ 0·22	+ 0·06	+ 0·11	
18	,,	− 7·7	− 0·1	− 0·42	+ 0·21	+ 0·02	+ 0·09	70 R. P. L. & 2 Urs. Min.
20	,,	− 7·8	− 0·1	− 0·37	+ 0·25	+ 0·07	+ 0·08	
21	,,	− 8·8	− 0·1	− 0·32	+ 0·25	+ 0·06	+ 0·07	
22	,,	− 9·0	− 0·1	− 0·33	+ 0·25	+ 0·04	+ 0·07	70 and 158 R. P. L.
23	,,	− 9·3	− 0·1	− 0·36	+ 0·23	+ 0·02	+ 0·07	
24	,,	− 9·4	− 0·1	− 0·36	+ 0·24	+ 0·04	+ 0·06	
25	,,	− 9·2	− 0·1	− 0·33	+ 0·26	+ 0·05	+ 0·06	89 and 158 R. P. L.
27	,,	− 9·1	− 0·1	− 0·35	+ 0·26	+ 0·07	+ 0·03	
28	,,	− 9·5	− 0·1	− 0·22	+ 0·24	+ 0·05	+ 0·03	
Mar. 1	M	− 7·7	0·0	− 0·19	+ 0·27	+ 0·04	+ 0·03	
2	,,	− 8·8	0·0	− 0·36	+ 0·26	+ 0·03	+ 0·02	
3	,,	− 10·4	0·0	− 0·41	+ 0·21	+ 0·03	+ 0·02	
4	,,	− 9·4	0·0	− 0·42	+ 0·22	+ 0·03	+ 0·02	
6	,,	− 0·8	0·0	− 0·46	+ 0·25	+ 0·03	+ 0·04	72 and 158 R. P. L.
7	,,	− 0·0	0·0	− 0·29	+ 0·25	+ 0·04	+ 0·02	
8	,,	− 1·6	0·0	− 0·18	+ 0·26	+ 0·04	+ 0·03	
9	,,	− 1·6	0·0	− 0·32	+ 0·28	+ 0·04	+ 0·04	

Instrumental Corrections adopted in 1882.

Date.	Observer.	Index.	Run in 5′.	Clock Rate.	Inclination.	Collimation.	Meridian.	Determining Stars.
		″	″	*s*	*s*	*s*	*s*	
Mar. 10	M	− 0·7	0·0	− 0·33	+ 0·27	+ 0·04	+ 0·05	
11	,,	− 0·1	0·0	− 0·31	+ 0·27	+ 0·04	+ 0·06	
13	,,	− 1·7	0·0	− 0·14	+ 0·29	+ 0·05	+ 0·08	
14	,,	− 0·8	0·0	− 0·17	+ 0·27	+ 0·03	+ 0·09	
15	,,	− 2·8	0·0	− 0·28	+ 0·29	+ 0·04	+ 0·10	79 and 158 R. P. L.
16	,,	− 1·6	0·0	− 0·23	+ 0·28	+ 0·03	+ 0·04	72 R.P.L. and γ Urs. Maj.
17	,,	− 0·5	0·0	− 0·25	+ 0·30	+ 0·04	+ 0·08	55, 69, 131 R. P. L., 24 Ursæ Minoris and 51 Cephei.
18	,,	− 1·3	0·0	− 0·28	+ 0·31	+ 0·04	+ 0·07	48, 55, 62, 69, 72, 131, 138 R. P. L. 24 Urs. Min., and 76 Draconis.
21	,,	+ 0·3	0·0	− 0·25	+ 0·34	+ 0·04	+ 0·05	80, 153, and 149 R. P. L.
22	,,	− 0·6	0·0	− 0·30	+ 0·36	+ 0·03	+ 0·11	53, 55, 62, 131, & 153 R.P.L.
23	,,	− 0·6	0·0	− 0·41	+ 0·37	+ 0·03	+ 0·04	53, 55, 62, 80, 131, & 153 R. P. L.
24	,,	− 0·9	0·0	− 0·31	+ 0·38	+ 0·04	+ 0·18	80, 149 R. P. L. and 51 Cephei.
25	,,	0·0	0·0	− 0·26	+ 0·39	+ 0·04	+ 0·15	48, 53, 55, 62, 79, 131, 153 R. P. L. and 51 Cephei.
27	,,	0·0	0·0	− 0·42	+ 0·39	+ 0·03	+ 0·13	62, 143 R. P. L. and 51 Cephei.
28	,,	0·0	0·0	− 0·36	+ 0·42	+ 0·04	+ 0·02	80, 149, 153 R. P. L. and 51 Cephei.
29	,,	+ 1·2	0·0	− 0·32	+ 0·41	+ 0·04	+ 0·05	48, 55, 62, 79, 81, 138, 149, 152 R. P. L. and 51 Cephei.
30	,,	0·0	0·0	− 0·36	+ 0·38	+ 0·04	+ 0·07	48, 55, 62, 80, 81, 138, 149, 153, 158 R. P. L. and 51 Cephei.
31	,,	+ 0·2	0·0	− 0·33	+ 0·39	+ 0·04	+ 0·09	48, 55, 62, 80, 81, 138, 149, 152, and 158 R. P. L.
Apl. 1	R	+ 0·2	0·0	− 0·27	+ 0·43	+ 0·02	+ 0·08	48, 55, 62, 80, 81, 133, 138, 149, 152, 158, 162, R.P.L. and 76 Draconis.
3	,,	− 0·2	0·0	− 0·32	+ 0·45	+ 0·03	+ 0·08	62, 80, 81, 89, 149, 152, 155, & 162 R. P. L.
4	,,	− 1·9	0·0	− 0·37	+ 0·43	+ 0·03	+ 0·06	48, 53, 80, 81, 82, 89, 133, 138, 143, 149, 152, & 162 R.P.L.
5	,,	− 2·4	0·0	− 0·36	+ 0·43	+ 0·04	+ 0·08	48, 53, 55, 81, 89, 138, 149, 152, 155, 162 R.P. L. and 76 Draconis.
6	,,	− 1·1	0·0	− 0·31	+ 0·43	+ 0·04	+ 0·10	48, 53, 81, 82, 89, 133, 138, 162 R. P. L. and 76 Draconis.
7	,,	− 1·1	0·0	− 0·32	+ 0·44	+ 0·03	+ 0·15	48, 53, 81, 82, 133, 138, 143, 152, & 162 R. P. L.
8	,,	− 2·1	0·0	− 0·35	+ 0·45	+ 0·02	+ 0·09	53, 80, 81, 138, 143, 152, 155, 162 R. P. L. and 76 Draconis.
10	,,	0·0	0·0	− 0·36	+ 0·45	+ 0·04	+ 0·13	53, 79, 143, 152, 155, and 162 R. P. L.
11	,,	− 0·2	0·0	− 0·35	+ 0·43	+ 0·03	+ 0·10	53, 79, 89, 143, 152, 155, 162, and 4 R. P. L.
15	,,	+ 0·6	0·0	− 0·34	+ 0·48	+ 0·04	+ 0·19	82, 97, 98, 143, 155, 162, and 4 R. P. L.
17	,,	− 0·4	0·0	− 0·37	+ 0·46	+ 0·04	+ 0·17	82, 89, 97, 99, 155, & 4 R.P.L.
18	,,	+ 0·2	0·0	− 0·40	+ 0·49	+ 0·05	+ 0·16	82, 89, 97, 98, 155, 4, and 14 R. P. L.
19	,,	+ 0·4	0·0	− 0·32	+ 0·53	+ 0·08	+ 0·24	82, 97, 98, 155, & 14 R. P. L.
20	,,	− 0·1	0·0	− 0·18	+ 0·48	+ 0·05	+ 0·19	

Instrumental Corrections adopted in 1882.

Date.	Observer.	Index.	Run in 5′.	Clock Rate.	Inclination.	Collimation.	Meridian.	Determining stars.
		″	″	s	s	s	s	
Apl. 21	R	− 0·1	0·0	− 0·20	+ 0·49	+ 0·06	+ 0·14	79, 82, 98, 155, & 14 R. P. L.
22	,,	− 0·7	0·0	− 0·26	+ 0·49	+ 0·07	+ 0·20	79, 82, 97, 14 R. P. L. and 2 Ursæ Minoris.
27	,,	+ 1·4	0·0	− 0·28	+ 0·54	+ 0·07	+ 0·25	82, 98, 4 R. P. L. and 2 Ursæ Minoris.
28	,,	+ 1·3	0·0	− 0·21	+ 0·54	+ 0·08	+ 0·31	97, 98, 100, 4 R. P. L. and 2 Ursæ Minoris.
29	,,	+ 0·6	0·0	− 0·13	+ 0·46	0·00	+ 0·17	97, 98, and 4 R. P. L.
May 1	M	+ 1·3	0·0	− 0·22	+ 0·52	+ 0·04	+ 0·19	97, 100, 103, 108, 110, 111, 114, 4, & 14 R. P. L.
2	,,	+ 1·1	0·0	− 0·25	+ 0·50	+ 0·03	+ 0·17	97, 100, 110, 114, 4, 14, 33, 35 R. P. L. and Polaris.
3	,,	+ 0·9	0·0	− 0·21	+ 0·52	+ 0·03	+ 0·17	97, 101, 108, 114, 14, 33 and 35 R. P. L.
4	,,	+ 1·3	0·0	− 0·24	+ 0·56	+ 0·04	+ 0·11	100, 108, 110, 114, 115, 4, 18, and 35 R. P. L.
5	,,	+ 1·3	0·0	− 0·33	+ 0·58	+ 0·04	+ 0·12	100, 108, 115, 18, 33, and 35 R. P. L.
6	,,	+ 1·6	0·0	− 0·30	+ 0·57	+ 0·04	+ 0·18	100, 110, 111, 115, 18 and 35 R. P. L.
8	,,	+ 1·9	0·0	− 0·29	+ 0·55	+ 0·04	+ 0·20	100, 117, 18 and 35 R.P.L.
9	,,	+ 1·9	0·0	− 0·28	+ 0·55	+ 0·03	+ 0·22	100, 110, 117, 35 R. P. L. and Polaris.
10	,,	+ 3·2	0·0	− 0·22	+ 0·55	+ 0·03	+ 0·23	110 and 18 R. P. L.
11	,,	+ 1·8	0·0	− 0·15	+ 0·54	+ 0·04	+ 0·20	
12	,,	+ 1·4	0·0	− 0·08	+ 0·54	+ 0·04	+ 0·17	100 and 18 R. P. L.
13	,,	+ 2·0	0·0	− 0·08	+ 0·54	+ 0·04	+ 0·17	
15	,,	+ 2·2	0·0	− 0·17	+ 0·53	+ 0·03	+ 0·17	100 and 18 R. P. L.
16	,,	+ 2·3	0·0	− 0·29	+ 0·54	+ 0·04	+ 0·20	
17	,,	+ 2·8	0·0	− 0·27	+ 0·53	+ 0·04	+ 0·22	101 R.P.L. and ε Serpentis.
18	,,	+ 2·7	0·0	− 0·13	+ 0·53	+ 0·04	+ 0·22	
20	,,	+ 2·6	0·0	− 0·19	+ 0·52	+ 0·04	+ 0·22	
22	,,	+ 2·7	0·0	− 0·24	+ 0·56	+ 0·04	+ 0·22	101, 110, R. P. L. and Polaris.
23	,,	+ 3·3	0·0	− 0·24	+ 0·57	+ 0·04	+ 0·27	101, 110, 26, & 35 R. P. L.
24	,,	+ 3·2	0·0	− 0·22	+ 0·56	+ 0 03	+ 0·27	
25	,,	+ 2·9	0·0	− 0·17	+ 0·59	+ 0·04	+ 0·27	117, 35 R. P. L. and ε Ursæ Minoris.
26	,,	+ 3·1	0·0	− 0·15	+ 0·58	+ 0·03	+ 0·34	101, 110, 116, & 26 R. P. L.
27	,,	+ 2·8	0·0	− 0·19	+ 0·58	+ 0·04	+ 0·35	103, 117, & 26 R. P. L.
29	,,	+ 3·2	0·0	− 0·19	+ 0·60	+ 0·04	+ 0·41	103, 116, & 26 R. P. L.
30	,,	+ 3·0	0·0	− 0·14	+ 0·59	+ 0·04	+ 0·37	101, 116, & 26 R. P. L.
31	,,	+ 2·5	0·0	0·00	+ 0·57	+ 0·04	+ 0·35	
June 5	R	+ 2·4	+ 0·1	+ 0·15	+ 0·69	+ 0·10	+ 0·32	
6	,,	+ 3·2	+ 0·1	+ 0·14	+ 0·60	+ 0·04	+ 0·32	
8	,,	+ 3·3	+ 0·1	+ 0·21	+ 0·64	+ 0·05	+ 0·31	
10	,,	+ 3·1	+ 0·1	+ 0·25	+ 0·62	+ 0·04	+ 0·30	
13	,,	+ 1·9	+ 0·1	+ 0·24	+ 0·63	+ 0·01	+ 0·29	
14	,,	+ 2·0	+ 0·1	+ 0·25	+ 0·63	+ 0·04	+ 0·28	
15	,,	+ 2·2	+ 0·1	+ 0·20	+ 0·64	+ 0·05	+ 0·28	117 and 37 R. P. L.
16	,,	+ 2·2	+ 0·1	+ 0·12	+ 0·65	+ 0·04	+ 0·32	
17	,,	+ 2·2	+ 0·1	+ 0·13	+ 0·66	+ 0·05	+ 0·36	
19	,,	+ 2·1	+ 0·1	+ 0·20	+ 0·66	+ 0·04	+ 0·45	
20	,,	+ 2·1	+ 0·1	+ 0·13	+ 0·66	+ 0·04	+ 0·49	118, 26, & 37 R. P. L.
21	,,	+ 2·2	+ 0·1	+ 0·04	+ 0·64	+ 0·06	+ 0·56	101 and 26 R. P. L.
22	,,	+ 2·2	+ 0·1	+ 0·03	+ 0·66	+ 0·08	+ 0·59	101 and 26 R. P. L.

Instrumental Corrections adopted in 1882.

Date.	Observer.	Index.	Run in 5′	Clock Rate.	Inclination.	Collimation.	Meridian.	Determining Stars.
		″	″	*s*	*s*	*s*	*s*	
June 23	R	+ 4·1	+ 0·1	0·00	+ 0·57	+ 0·04	+ 0·55	
24	,,	+ 4·1	+ 0·1	− 0·02	+ 0·63	+ 0·04	+ 0·51	
26	,,	+ 3·2	+ 0·1	− 0·13	+ 0·62	+ 0·04	+ 0·44	δ Urs. Min. and 39 R.P.L.
27	,,	+ 2·9	+ 0·1	− 0·05	+ 0·57	+ 0·02	+ 0·33	117 and 37 R. P. L.
28	,,	+ 3·4	+ 0·1	+ 0·06	+ 0·57	+ 0·04	+ 0·44	117, 120, 37, & 39 R. P. L.
29	,,	+ 2·8	+ 0·1	+ 0·06	+ 0·60	+ 0·05	+ 0·42	
July 12	,,	+ 3·7	0·0	+ 0·21	+ 0·45	+ 0·04	+ 0·41	
17	,,	+ 2·8	0·0	+ 0·16	+ 0·54	+ 0·06	+ 0·41	
18	,,	+ 3·0	0·0	+ 0·23	+ 0·53	+ 0·04	+ 0·41	
19	,,	+ 3·2	0·0	+ 0·39	+ 0·54	+ 0·03	+ 0·41	
20	,,	+ 3·3	0·0	+ 0·41	+ 0·55	+ 0·04	+ 0·41	
21	,,	+ 3·1	0·0	+ 0·48	+ 0·54	+ 0·04	+ 0·41	
22	,,	+ 3·5	0·0	+ 0·48	+ 0·62	+ 0·06	+ 0·41	
24	,,	+ 2·2	0·0	+ 0·34	+ 0·46	+ 0·05	+ 0·41	118 and 37 R. P. L.
26	,,	+ 2·7	0·0	+ 0·29	+ 0·47	+ 0·05	+ 0·51	120 and 40 R. P. L.
27	,,	+ 2·7	0·0	+ 0·27	+ 0·49	+ 0·04	+ 0·51	
29	,,	+ 2·0	0·0	+ 0·34	+ 0·53	+ 0·06	+ 0·52	
Aug. 3	M	+ 2·1	− 0·1	+ 0·46	+ 0·46	+ 0·02	+ 0·53	
8	,,	+ 1·4	− 0·1	+ 0·54	+ 0·49	+ 0·04	+ 0·53	
9	,,	+ 3·1	− 0·1	+ 0·47	+ 0·47	+ 0·03	+ 0·54	
11	,,	+ 1·9	− 0·1	+ 0·33	+ 0·48	+ 0·08	+ 0·54	118, 37 R.P.L. & 51 Cephei.
14	,,	+ 3·6	− 0·1	+ 0·45	+ 0·47	+ 0·07	+ 0·49	
15	,,	+ 2·3	− 0·1	+ 0·52	+ 0·41	+ 0·03	+ 0·46	
17	,,	+ 2·3	− 0·1	+ 0·59	+ 0·45	+ 0·03	+ 0·45	ε Urs. Min. and 37 R.P.L.
18	,,	+ 2·7	− 0·1	+ 0·48	+ 0·45	+ 0·04	+ 0·45	118,37 R.P.L., δ Ursæ Minoris & 24 Ursæ Minoris.
19	,,	+ 3·0	− 0·1	+ 0·41	+ 0·43	+ 0·04	+ 0·48	
21	,,	+ 2·9	− 0·1	+ 0·47	+ 0·41	+ 0·04	+ 0·53	134, 45, & 41 R. P. L.
22	,,	+ 2·9	− 0·1	+ 0·52	+ 0·40	+ 0·04	+ 0·60	134 R. P. L. & 51 Cephei.
23	,,	+ 2·9	− 0·1	+ 0·50	+ 0·40	+ 0·04	+ 0·59	134, 40, & 49 R. P. L.
24	,,	+ 2·8	− 0·1	+ 0·46	+ 0·39	+ 0·03	+ 0·58	
28	,,	+ 2·0	− 0·1	+ 0·42	+ 0·39	+ 0·03	+ 0·54	134, 138 49, & 60 R. P. L.
29	,,	+ 3·3	− 0·1	+ 0·45	+ 0·39	+ 0·03	+ 0·53	
30	,,	+ 4·1	− 0·1	+ 0·47	+ 0·37	+ 0·03	+ 0·53	120, 40 R.P.L. & 51 Cephei.
31	,,	+ 3·4	− 0·1	+ 0·42	+ 0·37	+ 0·04	+ 0·49	δ Urs. Min., 40, & 41 R.P.L.
Sept. 2	R	+ 2·4	0·0	+ 0·46	+ 0·37	+ 0·03	+ 0·50	
9	M	+ 3·1	0·0	− 0·66	+ 0·35	+ 0·04	+ 0·54	
11	R	+ 3·3	0·0	− 0·69	+ 0·36	+ 0·04	+ 0·56	
13	,,	+ 2·4	0·0	− 0·77	+ 0·34	+ 0·04	+ 0·57	
15	,,	+ 2·4	0·0	− 0·65	+ 0·38	+ 0·03	+ 0·58	ε Delphini and 53 R. P. L.
16	,,	+ 2·8	0·0	− 0·62	+ 0·36	+ 0·05	+ 0·58	76 Draconis and 53 R.P.L
18	,,	+ 2·5	0·0	− 0·87	+ 0·32	+ 0·04	+ 0·57	
19	,,	+ 2·6	0·0	− 0·90	+ 0·35	+ 0·05	+ 0·58	
20	,,	+ 2·5	0·0	− 0·87	+ 0·38	+ 0·03	+ 0·59	
21	,,	+ 2·4	0·0	− 0·76	+ 0·35	+ 0·05	+ 0·59	133, 150, 48, & 53 R P. L
22	,,	+ 1·6	0·0	− 0·76	+ 0·31	+ 0·03	+ 0·56	
23	,,	+ 1·6	0·0	− 0·81	+ 0·33	+ 0·04	+ 0·53	138 and 53 R. P. L.
25	,,	+ 2·3	0·0	− 0·79	+ 0·31	+ 0·03	+ 0·53	
26	,,	+ 2·6	0·0	− 0·79	+ 0·31	+ 0·03	+ 0·53	
Oct. 4	M	+ 2·3	0·0	− 0·56	+ 0·28	+ 0·03	+ 0·54	151 and 69 R. P. L.
5	,,	+ 1·8	0·0	− 0·59	+ 0·26	+ 0·03	+ 0·52	133, 152, 49, 53, & 60 R.P.L.
6	,,	+ 2·0	0·0	− 0·62	+ 0·27	+ 0·03	+ 0·51	138 and 60 R. P. L.
7	,,	+ 1·0	0·0	− 0·63	+ 0·25	+ 0·02	+ 0·54	152, 55, 60, & 62 R. P. L.
13	,,	+ 3·3	0·0	− 0·60	+ 0·23	+ 0·03	+ 0·48	
16	,,	+ 7·8	0·0	− 0·34	+ 0·17	+ 0·03	+ 0·42	151, 152, 162, 60, 80, 81 R.P.L.

Instrumental Corrections adopted in 1882.

Date.	Observer.	Index.	Run in 5′	Clock Rate.	Inclination.	Collimation.	Meridian	Determining Stars.
		″	″	s	s	s	s	
Oct. 17	M	+ 8·4	0·0	− 0·40	+ 0·15	+ 0·03	+ 0·45	α Gruis and 155 R. P. L.
18	,,	+ 7·8	0·0	− 0·55	+ 0 12	+ 0·04	+ 0·43	149, 151, 152, 155, 162, 55, and 80 R. P. L.
20	,,	+ 8·0	0·0	− 0·59	+ 0·12	+ 0·04	+ 0·48	152,155,55, 62, & 69 R.P.L.
21	,,	+ 8·7	0·0	− 0·59	+ 0·10	+ 0·04	+ 0·41	
24	,,	+ 10·7	0·0	− 0·64	+ 0·08	+ 0·04	+ 0·37	138, 149, 152, 155, 162, 55, 69, & 79 R. P. L.
25	,,	+ 10·8	0·0	− 0·62	+ 0·06	+ 0·04	+ 0·40	138, 149, 152, 162, 55, 69, 80, 82, & 90 R. P. L.
26	,,	+ 11·1	0·0	− 0·59	+ 0·06	+ 0·04	+ 0·40	
Nov. 1	R	+ 10·4	0·0	− 0·55	+ 0·09	+ 0·05	+ 0·38	152, 155, 81, & 62 R. P. L.
2	,,	+ 10·1	0·0	− 0·51	+ 0·07	+ 0·03	+ 0·41	
3	,,	+ 9·7	0·0	− 0·52	+ 0·07	+ 0·03	+ 0·44	152,162,69, 81, & 90 R.P.L.
6	,,	+ 10·7	0·0	− 0·54	+ 0·10	+ 0·04	+ 0·44	149, 152, 4, 69, 87, 90 R.P.L.
7	,,	+ 9·7	0·0	− 0·60	+ 0·11	+ 0·04	+ 0·41	149,4,69,80, & 81 R. P. L.
8	,,	+ 9·9	0·0	− 0·56	+ 0·09	+ 0·04	+ 0·39	149,155,4,80, & 82 R. P. L.
9	,,	+ 10·3	0·0	− 0·57	+ 0·09	+ 0·03	+ 0·42	149, 155, & 80 R. P. L.
10	,,	+ 10·0	0·0	− 0·61	+ 0·12	+ 0·04	+ 0·42	155, 18, 62, & 98 R. P. L.
11	,,	+ 9·9	0·0	− 0·58	+ 0·12	+ 0·03	+ 0·46	149, 80, & 99 R. P. L.
13	,,	+ 9·7	0·0	− 0·64	+ 0·09	+ 0·03	+ 0·43	155 and 80 R. P. L.
14	,,	+ 8·8	0·0	− 0·66	+ 0·10	+ 0·04	+ 0·43	4 and 99 R. P. L.
17	,,	+ 11·6	0·0	− 0·50	+ 0·02	+ 0·08	+ 0·29	155 and 80 R. P. L.
18	,,	+ 13·7	0·0	− 0·44	+ 0·04	+ 0·05	+ 0·30	155 and 80 R. P. L.
Dec. 1	M	+ 7·5	− 0·1	− 0·35	+ 0·24	+ 0·03	+ 0·39	162 & 81 R. P. L.
2	,,	+ 7·9	− 0·1	− 0·18	+ 0·34	+ 0·05	+ 0·38	4, 90, & 82 R. P. L.
4	,,	+ 6·2	− 0·1	+ 0·17	+ 0·32	+ 0·04	+ 0·33	4, 14, 26, 81, 90, 93, 101, and 108 R. P. L.
5	,,	+ 5·0	− 0·1	+ 0·21	+ 0·32	+ 0·04	+ 0·38	4, 14, 18, 26, 82, 89, 90, 98, and 108 R. P. L.
7	,,	+ 5·4	− 0·1	+ 0·36	+ 0·26	+ 0·03	+ 0·35	4, 14, 18, 26, 81, 90, 99, 108, and 114 R. P. L.
8	,,	+ 5·7	− 0·1	+ 0·38	+ 0·27	+ 0·04	+ 0·37	4, 14, 18, 81, 108, 110, and 114 R. P. L.
11	R	+ 0·3	− 0·1	+ 0·20	+ 0·21	+ 0·04	+ 0·33	4, 33, 81, & 110 R. P. L.
12	,,	− 0·9	− 0·1	+ 0·25	+ 0·24	+ 0·04	+ 0·38	14, 34, 81, 89, 90, 97, 110, and 111 R. P. L.
13	,,	− 1·2	− 0·1	+ 0·42	+ 0·26	+ 0·03	+ 0·34	162, 34, 89, 90, 97, 98, 110 R.P.L. & 2 Ursæ Minoris.
14	M	− 0·8	− 0·1	+ 0·42	+ 0·25	+ 0·04	+ 0·41	14, 18, 34, 82, 89, 93, 97, 108, & 110 R. P. L.
15	,,	− 0·6	− 0·1	+ 0·31	+ 0·24	+ 0·04	+ 0·33	34, 89, 93, 97, & 110. R.P.L.
16	,,	− 1·1	− 0·1	+ 0·31	+ 0·25	+ 0·04	+ 0·33	34, 162, 89, 93, 101, and 110 R. P. L.
18	,,	− 0·9	− 0·1	+ 0·42	+ 0·25	+ 0·03	+ 0·29	162, 34, 35, & 89 R.P.L.
19	,,	− 0 9	− 0·1	+ 0·35	+ 0·24	+ 0·04	+ 0·34	162, 18, 89, 97, 98, and 115 R. P. L.
20	,,	− 1·7	− 0·1	+ 0·29	+ 0·25	+ 0·04	+ 0 36	10, 18, 34, 35, 89, 97, 103, and 115 R P.L.
21	,,	− 2·6	− 0·1	+ 0·44	+ 0·29	+ 0·04	+ 0·36	
22	,,	− 2·5	− 0·1	+ 0·48	+ 0·30	+ 0·04	+ 0·36	10, 35, 100, & 115 R.P.L.
23	,,	− 3·5	− 0·1	+ 0·42	+ 0·29	+ 0·04	+ 0·33	34 R.P.L. and 3 Urs. Min.
28	,,	− 2·8	− 0·1	+ 0·46	+ 0·31	+ 0·03	+ 0·33	
29	,,	− 3·0	− 0 1	+ 0 31	+ 0·33	+ 0·04	+ 0·32	14, 35, and 98 R. P. L.
30	R	− 4·3	− 0·1	+ 0·20	+ 0·39	+ 0·06	+ 0·32	

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

Stars.	Approximate Place 1881.			1880.			1881.			1882.		
				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 34	3	− 0·02	+ 0·3	8	− 0·04	− 0·5	8	0·00	− 0·7
γ Pegasi (*Algenib*) ...	0	7	75 29	7	− 0·03	− 2·2	1	− 0·08	− 1·2	4	+ 0·01	− 0·9
ι Ceti	0	13	99 29	9	+ 0·01	− 1·9	9	+ 0·02	− 0·1	7	+ 0·04	− 0·7
12 Ceti	0	24	94 37	8	0·00	+ 0·4	2	+ 0·03	+ 2·0	...	.....	... ..
β Ceti	0	38	108 38	9	− 0·06	− 0·5	3	− 0·09	+ 1·0	...	.....	.....
δ Piscium	0	43	83 4	9	+ 0·02	− 2·2	12	+ 0·01	− 1·5	7	+ 0·01	− 0·1
ε Piscium	0	57	82 45	10	− 0·05	− 1·4	3	− 0·08	− 0·5	...	.....	.....
β Andromedæ ...	1	3	55 1	...	.....	.....	3	− 0·04	− 0·3	9	− 0·13	+ 1·7
α Urs. Min. (*Polaris*)..	1	15	1 20	1	+ 1·86	+ 0·1	1	− 0·11	+ 0·7	3	+ 0·50	− 0·5
θ Ceti...	1	18	98 48	5	− 0·02	− 1·1	3	+ 0·01	+ 0·7	4	+ 0·06	+ 1·5
η Piscium	1	25	75 16	9	0·00	+ 0·1	2	− 0·06	− 1·1	3	− 0·05	+ 0·9
α Eridani (*Achernar*) .	1	33	147 51	...	.....	.....	...	.....	.....	5	+ 0·02	+ 3·0
ν Piscium	1	35	85 7	10	+ 0·07	− 1·6	4	+ 0·07	− 2·1	...	.....	.....
ο Piscium	1	39	81 27	4	+ 0·04	+ 0·6	5	+ 0·00	+ 0·2	19	+ 0·01	+ 0·5
β Arietis	1	48	69 46	7	− 0·01	+ 0·1	4	+ 0·03	+ 0·1	...	.....	.....
α Arietis	2	0	67 6	4	− 0·06	− 0·4	...	... ..	.....	2	+ 0·03	− 0·5
67 Ceti	2	11	96 58	13	+ 0·01	− 2·1	7	+ 0·05	− 1·5	13	+ 0·03	0·0
ξ^2 Ceti	2	22	82 4	2	+ 0·03	− 1·5	8	− 0·02	− 1·1	6	+ 0·07	+ 0·7
γ^2 Ceti	2	37	87 16	3	− 0·02	− 2·8	11	+ 0·01	− 1·5	9	+ 0·03	− 0·3
σ Arietis	2	45	75 25	...	.....	.....	12	− 0·04	− 0·2	28	+ 0·03	+ 1·0
α Ceti	2	56	86 23	1	− 0·07	− 1·6	11	+ 0·02	− 0·8	4	+ 0·06	+ 1·5
δ Arietis	3	5	70 43	5	− 0·02	− 1·4	7	0·00	− 1·7	1	− 0·06	− 2·4
α Persei	3	16	40 34	...	.....	.....	...	.....	.....	1	+ 0·01	− 0·7
ο Tauri	3	18	81 23	1	+ 0·03	− 0·6	13	− 0·04	− 1·8	6	0·00	− 0·2
ε Eridani	3	27	99 52	5	− 0·03	− 1·8	13	0·00	− 0·1	11	− 0·03	− 0·1
η Tauri	3	40	66 16	1	− 0·01	− 0·4	2	− 0·03	+ 0·6	3	− 0·04	+ 0·7
γ^1 Eridani	3	52	103 51	3	− 0·10	− 0·9	3	+ 0·02	− 1·3	7	+ 0·03	+ 2·1
A Tauri	3	58	68 15	10	− 0·02	− 0·5	12	− 0·05	− 1·0	4	+ 0·01	− 1·1
o^1 Eridani	4	6	97 9	7	+ 0·04	− 0·9	5	+ 0·06	− 1·2	2	+ 0·08	− 0·2
γ Tauri	4	13	74 40	17	+ 0·04	+ 0·6	5	0·00	− 0·5	9	+ 0·02	+ 0·3
ε Tauri	4	22	71 5	7	+ 0·02	+ 0·1	3	+ 0·01	− 1·4	7	− 0·02	− 1·1
α Tauri (*Aldebaran*) ...	4	29	73 44	4	− 0·05	+ 1·0	...	.....	.....	...	.....	.....
μ Eridani	4	40	93 28	6	0·00	+ 0·3	6	+ 0·04	− 1·2	6	− 0·02	+ 0·7
ι Aurigæ	4	49	57 1	...	.....	.....	2	− 0·09	− 0·8	...	.. ...	.....
ε Leporis	5	0	112 32	...	.....	.....	4	+ 0·03	− 0·7	4	− 0·08	− 0·1

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

Stars.	Approximate Place 1881.			1880.			1881.			1882.		
				Obs.	R. A.	P. D.	Obs.	R. A.	P. D.	Obs.	R. A.	P. D.
	h.	*m.*	° ′		*s*	″		*s*	″		*s*	″
β Orionis (*Rigel*) ...	5	9	98 20	2	+ 0·07	− 1·3	1	+ 0·08	− 1·4	1	− 0·07	+ 1·3
β Tauri	5	19	61 30	4	− 0·01	− 0·2	7	− 0·08	− 1·1	14	− 0·08	+ 0·1
δ Orionis	5	26	90 23	2	+ 0·02	+ 0·3	2	+ 0·02	− 1·5	1	+ 0·01	− 1·2
α Leporis	5	27	107 55	4	− 0·07	− 0·5	7	+ 0·05	0·0	3	− 0·06	+ 0·4
ε Orionis	5	30	91 17	4	+ 0·08	− 0·6	1	+ 0·09	+ 0·1	3	+ 0·01	0·0
α Columbæ ...	5	35	124 8	...	.....	.....	4	+ 0·04	+ 0·7	...	.....	.....
κ Orionis	5	42	99 43	16	− 0·04	− 0·8	18	0·00	+ 0·5	7	− 0·04	0·0
α Orionis (*Var.*) ...	5	49	82 37	2	− 0·05	− 0·5	7	− 0·02	+ 0·7	5	− 0·01	+ 0·1
ν Orionis	6	1	75 13	4	− 0·07	− 2·4	10	0·00	− 2·8	...	.....	.....
η Geminorum ...	6	8	67 28	11	+ 0·01	− 0·9	9	0·00	− 1·0	...	... .	.....
μ Geminorum ...	6	16	67 26	4	− 0·02	− 0·5	4	− 0·08	− 2·5	2	− 0·11	+ 1·3
α Argus (*Canopus*) ...	6	21	142 38	...	.....	... ..	9	+ 0·05	+ 1·8	...	.....	.....
γ Geminorum ...	6	31	73 30	4	+ 0·07	+ 2·1	7	− 0·01	+ 0·5	...	.....	.....
ξ Geminorum ...	6	39	76 59	11	0·00	− 1·8	6	− 0·01	− 2·1	8	− 0·01	− 0·5
α Canis Maj. (*Sirius*)..	6	40	106 33	...	.....	.....	6	− 0·03	+ 2·1	...	.....	.....
Cephei 51 (*Hev.*) ...	6	44	2 46	1	− 0·43	− 1·2	2	0·00	+ 3·2	10	− 0·82	− 0·7
θ Canis Majoris ...	6	49	101 53	14	− 0·03	− 1·7	26	+ 0·02	− 1·2	5	+ 0·01	− 1·1
ε Canis Majoris ...	6	54	118 49	...	.....	.....	6	+ 0·03	− 0·6	...	.....	.....
γ Canis Majoris ...	6	58	105 28	3	− 0·06	+ 0·8	10	+ 0·03	+ 0·4	...	.....	.....
δ Geminorum ...	7	13	67 48	1	− 0·09	− 2·3	2	− 0·01	− 2·3	...	.....	.....
β Canis Minoris	7	21	81 23	13	+ 0·04	− 1·9	12	+ 0·03	− 1·3	...	.....	.....
α² Geminor. (*Castor*).	7	27	57 51	...	.....	.....	9	− 0·02	0·0	...	.....	.....
α Can. Min. (*Procyon*).	7	33	84 28	4	− 0·08	− 4·9	2	− 0·01	− 2·6	4	− 0·01	− 1·8
β Geminor. (*Pollux*).	7	38	61 41	...	.....	.....	5	+ 0·01	+ 1·2	...	.....	.....
ξ Argus	7	44	114 34	4	− 0·08	− 0·3	4	− 0·09	+ 0·4	7	− 0·03	+ 0·7
6 Cancri	7	56	61 52	4	+ 0·01	− 0·1	7	− 0·06	− 1·0	5	+ 0·03	− 2·3
15 Argus	8	2	113 58	3	+ 0·04	− 0·4	9	− 0·01	+ 1·0	...	.....	.....
β Cancri	8	10	80 27	14	− 0·01	− 0·4	11	+ 0·03	+ 1·0	10	0·0	+ 0·5
η Cancri	8	26	69 9	3	+ 0·05	− 0·7	5	− 0·05	− 0·7	...	.....	.....
γ Cancri	8	36	68 6	8	− 0·01	+ 1·5	7	− 0·01	+ 0·7	..	.....	.....
ε Hydræ	8	40	83 9	...	.....	.....	2	− 0·02	− 0·2	...	.....	.....
ι Ursæ Majoris ...	8	51	41 30	...	.....	.....	...	.....	.....	8	− 0·08	− 0·7
α Cancri	8	52	77 41	5	− 0·02	− 0·5	6	− 0·02	+ 0·8	...	.....	.....
κ Cancri	9	1	78 51	6	− 0·01	+ 0·3	11	− 0·02	+ 0·4	19	+ 0·02	− 0·2
88 Cancri	9	12	71 47	2	+ 0·01	− 1·5	6	0·00	− 0·4	...	.....	.....

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

Stars.	Approximate Place 1881.			1880.			1881.			1882.		
				Obs.	R. A.	P. D.	Obs.	R. A.	P. D.	Obs.	R. A.	P. D.
	h.	*m.*	° ′		*s*	″		*s*	″		*s*	″
ι Argus	9	14	148 47	...	.....	.....	7	+ 0·05	+ 2·3	...	.....	.....
θ Ursæ Majoris ...	9	25	37 47	1	+ 0·05	− 0·6	9	+ 0·06	− 1·2	...	.....	.....
ο Leonis	9	35	79 34	1	+ 0·08	− 2·6	5	+ 0·03	− 0·1	28	+ 0·03	− 0·7
ε Leonis	9	39	65 41	1	− 0·19	− 0·1	9	− 0·05	− 1·7	...	.....	.....
μ Leonis	9	46	63 26	...	.....	.....	14	− 0·01	− 0·9	22	+ 0·04	0·0
π Leonis	9	54	81 23	1	+ 0·01	− 3·0	...	.....	.....	...	.....	.....
α Leonis (*Regulus*) ...	10	2	77 27	1	+ 0·07	− 0·4	...	.....	.....	..	.....	.....
γ^1 Leonis	10	13	69 33	2	+ 0·06	− 2·3	12	− 0·02	− 2·1	...	.....	.....
μ Hydræ	10	20	106 14	...	.....	.....	15	+ 0·01	− 1·3	10	− 0·03	− 1·3
ρ Leonis	10	27	80 5	2	+ 0·02	− 3·2	5	+ 0·01	− 3·0	...	.....	.....
η Argus, (*Var.* 1.) ...	10	40	149 4	...	.....	.....	4	+ 0·05	− 1·6	...	.....	.....
l Leonis	10	43	78 50	2	0·00	− 1·6	3	+ 0·01	− 1·3	...	.....	.....
d Leonis	10	54	85 45	2	+ 0·04	− 2·2	13	+ 0·03	+ 0·2	20	+ 0·03	− 1·1
α Ursæ Majoris ...	10	56	27 36	...	.....	.....	9	− 0·12	− 1·7	...	.....	.....
χ Leonis	10	59	82 1	...	.....	.....	4	− 0·07	− 2·4	...	.....	.....
δ Leonis	11	8	68 49	2	− 0·09	− 1·5	1	− 0·05	− 1·3	...	.....	.....
δ Crateris	11	13	104 8	2	− 0·03	− 2·1	4	− 0·03	− 1·4	...	.....	.....
τ Leonis	11	22	86 29	5	+ 0·04	− 0·7	10	+ 0·03	− 0·2	10	+ 0·14	+ 1·2
λ Draconis	11	24	20 1	...	.....	.....	5	− 0·30	− 2·7	...	.....	.....
υ Leonis	11	31	90 10	3	+ 0·06	− 1·0	8	0·00	− 0·9	...	.....	.....
β Leonis	11	43	74 46	3	0·00	− 1·5	4	+ 0·01	− 2·5	...	.....	.....
π Virginis	11	55	82 43	6	− 0·02	− 4·1	14	+ 0·04	− 2·5	10	− 0·01	− 2·3
ε Corvi	12	4	111 57	4	+ 0·03	− 0·9	2	+ 0·04	− 0·8	10	− 0·05	+ 0·3
η Virginis	12	14	90 0	4	+ 0·04	− 0·9	8	+ 0·03	− 0·7	10	+ 0·05	− 0·6
δ^2 Corvi	12	24	105 51	7	− 0·03	− 0·6	18	+ 0·01	+ 0·4	29	− 0·08	+ 0·2
β Corvi	12	28	112 44	5	+ 0·08	− 1·3	5	+ 0·02	− 0·3	...	.....	.....
α Crucis	.....		.....	...	.....	.....	...	.....	.....	...	.....	.....
δ Virginis	12	50	85 57	4	0·00	− 2·2	21	+ 0·04	− 1·2	...	.....	.....
α Canum Venaticorum	12	50	51 2	...	.....	.....	...	.....	.....	3	− 0·03	− 3·1
ε Virginis	12	56	78 24	3	+ 0·01	− 1·6	12	− 0·03	− 1·0	10	+ 0·03	+ 0·5
θ Virginis ...	13	4	94 54	2	+ 0·08	− 1·3	6	+ 0·10	0·0	...	.....	.....
α Virginis (*Spica*) ...	13	19	100 32	2	0·00	− 0·7	8	+ 0·02	+ 1·0	...	.....	.....
ζ Virginis	13	20	89 59	3	+ 0·02	− 0·1	2	+ 0·01	+ 1·0	...	.....	.....
τ Bootis	13	42	71 57	6	− 0·03	− 0·3	13	+ 0·01	+ 0·9	16	+ 0·04	+ 0·5
η Ursæ Majoris ...	13	43	40 6	...	.....	.....	..	.....	.....	4	− 0·02	− 0·2

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

Star.	Approximate Place 1881.		1880.			1881.			1882.		
			Obs.	R. A.	P. D.	Obs.	R. A.	P. D.	Obs.	R. A.	P. D.
	h.	*m.*	° ′	*s*	″		*s*	″		*s*	″
η Bootis	13	49	71 0	...	.....	... ...	1	+ 0·12	+ 2·4	...	.....	.....
β Centauri	13	55	149 48	...	.....	.....	6	− 0·10	+ 3·0	...	.....	.....
τ Virginis	13	56	87 53	3	+ 0·01	− 0·9	1	+ 0·08	+ 1·3	10	+ 0·04	− 2·1
α Draconis	14	1	25 3	5	− 0·24	− 1·5	...	.....	.....	...	.....	.....
α Bootis (*Arcturus*) ...	14	10	40 12	...	.....	.....	3	− 0·06	+ 1·6	...	.....	.....
f Bootis	14	21	70 14	7	− 0·03	− 0·6	19	− 0·07	0·0	14	− 0·11	+ 0·1
ρ Bootis	14	27	59 6	...	.....	.....	7	− 0·04	+ 0·1	2	− 0·07	+ 0·6
α Centauri	.....		.....	...	.....	.....	...	.....	.....	...	.....	.....
ϵ^3 Bootis	14	40	62 25	5	0·00	− 1·4	5	− 0·05	− 0·6	10	− 0·05	+ 0·4
α Libræ	14	44	105 33	3	+ 0·01	− 0·4	6	− 0·04	− 0·2	...	.....	.....
β Ursæ Minoris ...	14	51	15 22	...	.....	.....	...	.....	.....	4	− 0·06	− 0·9
ψ Bootis	14	59	62 35	7	− 0·02	− 0·1	1	− 0·01	− 0·9	...	.....	.....
β Libræ	15	11	98 57	10	+ 0·04	− 0·4	7	+ 0·05	− 0·7	10	+ 0·03	0·0
α Coronæ	15	30	62 53	4	− 0·07	− 1·8	...	.....	.....	...	.....	.....
α Serpentis	15	38	83 12	5	− 0·04	− 1·6	2	− 0·05	− 0·7	10	− 0·04	− 1·1
ε Serpentis	15	45	85 10	13	+ 0·02	− 2·0	12	0·00	− 0·4	20	+ 0·02	+ 0·3
β^1 Scorpii	15	59	109 29	2	− 0·08	− 2·9	4	+ 0·01	− 1·7	...	.....	.....
δ Ophiuchi	16	8	93 23	4	+ 0·05	− 1·1	9	+ 0·03	− 1·4	...	.....	.....
γ Herculis	16	17	70 34	1	− 0·01	− 0·1	5	− 0·03	− 0·9	20	− 0·04	+ 0·8
α Scorpii (*Antares*) ..	16	22	116 10	3	+ 0·04	+ 0·1	3	+ 0·01	− 0·5	7	+ 0·05	− 1·0
ζ Ophiuchi	16	31	100 19	12	+ 0·02	− 1·4	10	+ 0·01	0·0	12	+ 0·01	− 0·7
ζ Herculis	16	37	58 11	5	− 0·05	− 0·4	4	− 0·08	− 0·1	...	.....	.....
κ Ophiuchi	16	52	80 26	5	− 0·01	− 0·7	7	− 0·01	− 0·5	...	.....	.....
ε Ursæ Minoris ...	16	58	7 46	6	− 0·09	− 0·4	6	+ 0·05	− 2·1	6	+ 0·37	− 1·0
η Ophiuchi	17	4	105 35	5	0·00	− 0·3	14	+ 0·02	− 0·7	...	.....	.....
α^1 Herculis (*Var.*) ...	17	9	75 28	3	+ 0·03	+ 0·1	...	.....	.....	...	.....	.....
θ Ophiuchi	17	15	114 53	2	+ 0·02	+ 0·1	6	− 0·02	+ 1·7	...	.....	.....
σ Ophiuchi	17	21	85 45	12	0·00	− 0·3	1	− 0·02	− 1·2	17	+ 0·04	+ 0·4
α Ophiuchi	17	29	77 21	3	− 0·02	− 0·5	1	− 0·02	+ 0·3	5	− 0·01	+ 0·5
β Ophiuchi	17	38	85 23	10	+ 0·03	− 1·9	5	+ 0·09	− 1·2	10	+ 0·01	+ 0·4
μ Herculis	17	42	62 13	8	− 0·01	− 1·7	3	− 0·07	− 0·7	...	.....	.....
72 Ophiuchi	18	2	80 27	6	− 0·05	− 1·2	18	− 0·01	− 0·6	21	− 0·04	− 0·5
μ Sagittarii	18	7	111 5	3	+ 0·04	− 0·6	2	− 0·01	− 1·1	...	.....	.....
δ Ursæ Minoris ...	18	11	3 23	3	+ 0·27	− 0·9	1	− 0·08	+ 0·7	5	− 0·49	+ 1·6
η Serpentis	18	15	92 56	5	+ 0·02	+ 0·4	12	+ 0·05	+ 2·9	8	+ 0·01	+ 1·6

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

Stars.	Approximate Place 1881.		1880.			1881.			1882.		
			Obs.	R. A.	P. D.	Obs.	R. A.	P. D.	Obs.	R. A.	P. D.
	h.	*m.*	° ′		*s*	"		*s*	"		*s*	"
λ Sagittarii	18	21	115 29	6	− 0·04	− 4·8	14	− 0·03	− 2·7	14	+ 0·06	− 4·7
α Lyræ (*Vega*) ...	18	33	51 20	5	− 0·04	− 1·0	3	− 0·03	− 1·0	5	− 0·13	− 2·0
β^1 Lyræ (*Var.*) ...	18	46	56 46	1	− 0·15	+ 0·2	6	− 0·09	− 0·6	...	.....	.....
ε Aquilæ	18	54	75 6	1	− 0·06	− 2·0	14	+ 0·01	0·0	10	+ 0·02	− 0·4
ζ Aquilæ	19	0	76 19	8	− 0·03	− 1·7	1	+ 0·16	− 1·1	...	.....	.....
ω Aquilæ	19	12	78 37	10	− 0·04	− 1·0	3	− 0·03	0·0	...	.....	.....
δ Aquilæ	19	19	87 7	18	+ 0·02	− 0·6	5	+ 0·07	+ 1·2	...	.....	.....
h^3 Sagittarii... ...	19	29	115 9	7	+ 0·01	− 0·3	8	+ 0·04	− 1·5	5	− 0·05	+ 1·0
γ Aquilæ	19	41	79 41	13	− 0·01	− 1·6	3	− 0·07	− 0·5	...	.....	.....
λ Ursæ Minoris ...	19	43	1 3	1	+ 0·01	− 1·7	...	.....	.....	...	.....	.....
α Aquilæ (*Altair*) ...	19	45	81 27	...	.....	.....	...	.....	.....	10	− 0·01	− 1·1
β Aquilæ	19	49	83 53	7	− 0·02	− 3·0	2	+ 0·01	− 4·5	3	+ 0·07	+ 0·3
θ Aquilæ	20	5	91 10	16	+ 0·04	− 0·8	17	+ 0·07	+ 1·1	12	+ 0·02	− 0·4
α^2 Capricorni ...	20	11	102 55	8	+ 0·01	− 1·4	1	− 0·09	− 0·2	...	.....	.....
ρ Capricorni	20	22	108 12	1	+ 0·02	− 0·6	5	+ 0·08	+ 0·9	...	.....	.....
ε Delphini	20	28	79 6	2	− 0·07	− 1·5	5	− 0·02	− 0·5	13	0·00	+ 0·4
ε Aquarii	20	41	99 56	8	+ 0·01	− 1·0	14	+ 0·01	+ 0·8	9	+ 0·02	− 0·1
32 Vulpeculæ ...	20	49	62 24	4	+ 0·06	− 2·6	2	− 0·04	− 2·6	...	.....	.....
θ Capricorni... ...	20	59	107 42	5	− 0·04	− 0·1	7	− 0·07	+ 2·0	10	+ 0·01	+ 2·1
61^1 Cygni	21	2	51 50	...	.....	.....	2	+ 0·02	+ 5·2	...	.....	.....
ζ Cygni	21	8	60 16	2	+ 0·02	− 2·6	6	− 0·02	− 0·1	4	− 0·04	− 1·0
α Cephei	21	16	27 55	.	.....	.....	...	.....	.....	1	− 0·53	− 2·2
β Aquarii	21	25	96 6	11	+ 0·04	− 0·7	5	+ 0·01	0·0	..	.....	.....
ε Pegasi	21	38	80 40	6	− 0·04	− 1·7	4	− 0·03	− 0·1	..	.....	.....
16 Pegasi	21	48	64 38	9	− 0·05	− 3·2	5	− 0·07	− 0·2	...	.....	.....
α Aquarii	22	0	90 54	4	− 0·02	− 2·4	2	+ 0·02	− 1·5	...	.....	.....
α Gruis	22	1	137 32	...	.....	.....	...	.....	.....	9	− 0·07	+ 2·2
θ Aquarii	22	11	98 23	9	+ 0·05	− 1·4	4	0·00	+ 0·8	...	.....	.....
γ Aquarii	22	16	91 59	12	+ 0·03	− 0·2	14	+ 0·03	+ 0·3	19	0·00	+ 0·7
η Aquarii	22	29	90 44	7	+ 0·02	− 1·8	8	+ 0·07	− 0·2	...	.....	.....
ζ Pegasi	22	36	79 47	9	− 0·01	− 1·9	5	− 0·03	− 0·6	...	.....	.....
λ Aquarii	22	46	98 13	7	+ 0·03	− 0·9	16	+ 0·04	+ 1·1	12	+ 0·02	+ 1·5
α Pis.Aus.(*Fomalhaut*)	22	51	120 15	...	.....	.....	...	.....	.....	18	0·00	− 0·8
α Pegasi (*Markab*) ...	22	59	75 26	3	− 0·09	+ 0·5	1	− 0·04	+ 0·3	...	.....	.....
γ Piscium	23	11	87 22	7	+ 0·02	− 2·3	5	+ 0·01	+ 0·5	...	.....	.....

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

Stars.	Approximate Place 1881.		1880.			1881.			1882.		
			Obs.	R. A.	P. D.	Obs.	R. A.	P. D.	Obs.	R. A.	P. D.
	h. *m.*	° ′		*s*	″		*s*	″		*s*	″
κ Piscium	23 21	89 24	6	+ 0·02	− 2·2	9	− 0·03	− 0·3	...	.....	.....
ι Piscium	23 34	85 1	1	+ 0·01	− 2·4	10	+ 0·01	0·0	...	.....	.....
γ Cephei	23 34	13 2	...	.....	.....	...	.....	.....	8	−0·14	+ 0·4
δ Sculptoris	23 43	118 47	1	− 0·05	+ 1·6	4	− 0·10	+ 1·9	18	− 0·03	+ 1·7
ω Piscium	23 53	83 48	7	− 0·01	− 1·6	5	− 0·04	− 0·5	...	.....	.....

ERRATA.

Page.	No.	Subject.	For	Read
		In Madras Meridian Circle Observations for 1862, 63, *and* 64.		
67, 128	194	Minutes of P. D.	32	31
		In Madras Meridian Circle Observations for 1865, 66, *and* 67.		
72	190	Minutes of R. A.	3	8
,,	194	Minutes and Seconds of P. D.	30 18·7	29 18·4
80	334	Degrees of P. D.	192	129
82	365	Minutes of R. A.	47	48
190	171	Minutes of P. D.	53	58
194	211	,, ...	5	51
204	391	Degrees of P. D.	53	153
,,	400	Minutes of P. D.	40	41
252, 312	214	,, ...	32	52
318	340	Degrees of P. D.	153	152
		In Madras Meridian Circle Observations for 1868, 69, *and* 70.		
68	314	Minutes of P. D.	56	26
154	198	,, ...	46	36
236	177	,, ...	9	29
		In Madras Meridian Circle Observations for 1871, 72, *and* 73.		
81, 134	236	Minutes of P. D.	13	14
		In Madras Meridian Circle Observations for 1877, 78, *and* 79.		
294, 295	173	Name	ζ Eridani	ζ Eridani
229, 298	230	Seconds of R. A.	20·88	21·88
299	245	Precession in R. A	3·1916	3·1919
305	322	,, P. D.	0·825	0·845
309	404	,, R. A.	2·1405	2·1605
326	734	Degrees of P. D.	18	81
327	735	Sign of Precession in P. D.	−	+
327	717	Precession in P. D.	8·995	8·795
,,	734	Secular Variation R. A.	0·048	0·0048
,,	,,	Sign of Precession in P. D.	−	+
329	750	Precession in R. A.	3·7200	3·7195
269, 330	804	Minutes and seconds of Mean P. D.	18 56·1	19 12·1
278, 338	935	Minutes of R. A.	11	10
339	940	Precession in R. A.	2·4661	2·4670
,,	,,	,, P. D....	18·019	18·026
		In Madras Meridian Circle Observations for 1880, 81, *and* 82.		
13	140	Seconds of P. D. (Oct. 22)	88·2	58·2
86	9	,, ,, ...	3·4	4·4
87	16	,, ,, ...	32·9	33·9
,,	20	,, ,, ...	4·0	5·0

Page.	No.	Subject.	For	Read
87	28	Seconds of P. D. (Oct. 22)	4·5	5·5
88	28	,, ,, ...	13·9	14·9
,,	32	,, ,, ...	55·4	56·4
,,	36	,, ,, ...	56·7	57·7
90	56	Seconds of R. A.	43·43	42·43
93	93	Degrees of P. D.	136	132
94	111	Seconds of R. A.	22·28	23·28
151	25	Secular Variation in P. D.	8·099	0·099
157	109	Annual Precession in P. D.	14·095	14·111
,,	120	,, in R. A.	1·3336	1·3415
,,	,,	,, in P. D.	12·827	12·870
196 } 254 }	25	Seconds of P. D.	15·8	32·3
240	513	Date	June	July

In R. A. for 1880.

Page	Number	Date	For	Read	Page	Number	Date	For	Read
			s	*s*				*s*	*s*
11	121	Dec. 4	2·86	2·93	17	205	Jan. 7	41·36	40·47
,,	122	,, 14	29·89	29·91	,,	209	,, 9	59·49	59·45
,,	124	Jan. 12	10·11	10·15	,,	218	,, 3	7·99	8·04
,,	,,	Dec. 3	·03	9·91	18	219	,, 6	47·00	46·92
,,	130	,, 3	25·80	25·74	,,	220	,, 7	10·50	10·62
,,	,,	,, 28	·75	·70	,,	222	,, 8	38·95	38·87
,,	,,	,, 29	·66	·60	,,	,,	,, 10	·87	·80
12	135	Jan. 3	38·69	38·65	,,	223	,, 12	19·54	19·61
,,	136	Dec. 25	7·38	7·34	,,	224	,, 9	1·50	1·45
,,	,,	,, 27	·68	·59	,,	225	,, 13	22·32	22·35
,,	,,	,, 28	·47	·34	,,	230	Mar. 4	8·29	9·33
,,	,,	,, 29	·41	·25	,,	231	Jan. 6	23·67	23·59
,,	,,	,, 30	·44	·30	,,	,,	,, 7	·76	·65
,,	137	,, 14	9·70	9·75	,,	,,	,, 10	·78	·70
13	155	Jan. 3	41·76	41·80	,,	234	,, 9	1·08	1·15
,,	156	,, 7	0·49	0·45	,,	236	Mar. 4	37·13	37·27
,,	,,	,, 8	·53	·49	19	241	Jan. 3	1·97	1·92
,,	157	Dec. 31	30·24	30·21	,,	244	,, 7	15·88	15·95
14	165	Jan. 9	21·95	22·02	,,	245	,, 6	8·37	8·43
,,	167	Mar. 4	40·07	40·14	,,	,,	,, 9	·39	·44
,,	171	Dec. 27	55·29	55·25	,,	247	,, 10	19·99	20·08
,,	,,	,, 28	·14	·08	,,	,,	,, 12	20·08	·14
,,	,,	,, 29	·18	·11	,,	248	,, 13	4·46	4·49
,,	,,	,, 30	·23	·17	20	256	Jan. 12	51·12	51·16
,,	,,	,, 31	·39	·33	,,	257	,, 10	52·77	52·69
,,	172	Jan. 10	6·66	6·62	,,	,,	,, 13	·73	·69
15	176	Dec. 27	21·23	21·21	,,	261	,, 10	16·69	16·76
,,	179	,, 28	13·23	13·17	,,	,,	,, 12	·50	·55
,,	,,	,, 29	·09	·02	,,	262	,, 13	46·67	46·71
,,	180	Jan. 6	16·81	16·86	21	265	Sep. 23	44·52	44·13
,,	,,	,, 8	·84	·89	,,	266	Jan. 10	24·69	24·64
,,	181	Mar. 4	16·86	16·92	,,	267	,, 12	41·31	41·29
,,	182	Dec. 30	6·01	6·09	,,	269	,, 13	4·10	4·07
,,	,,	,, 31	·06	·13	,,	276	,, 10	25·42	25·47
,,	183	Jan. 9	40·32	40·40	,,	,,	,, 12	·20	·24
,,	184	,, 12	9·27	9·33	22	281	,, 13	14·38	14·42
,,	185	,, 8	51·64	51·69	,,	283	Mar. 4	14·85	14·81
,,	,,	,, 10	·49	·57	,,	,,	Apl. 3	·80	·85
,,	186	Mar. 4	48·51	48·80	,,	,,	,, 10	·59	·62
16	195	Jan. 9	41·88	41·85	,,	286	,, 7	47 59·69	48 0·72

SEPARATE RESULTS

OF

OBSERVATIONS

OF THE FIXED STARS

MADE WITH THE

MADRAS MERIDIAN CIRCLE

IN THE YEAR

1880

Separate Results of Madras Meridian Circle Observations in 1880.

Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No. of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
1		21 *Andromedæ α, Alpherat.*			
Nov. 19	...	0 2 11·16	...	61 34 18·4	R
22	...	2 11·10	...	34 19·7	R
25	...	2 11·19	...	34 21·8	R
2		88 *Pegasi γ, Algenib.*			
Oct. 7	...	0 7 3·40	...	75 28 58·5	M
9	...	7 3·48	...	28 59·0	M
27	...	7 3·34	...	28 58·2	M
Nov. 18	...	7 3·42	...	29 0·1	R
24	...	7 3·42	...	29 0·0	R
Dec. 4	...	7 3·46	...	29 0·0	R
10	...	7 3·31	...	29 1·8	M
3		8 *Ceti ι*			
Nov. 5	...	0 13 18·77	...	99 29 19·8	R
17	...	13 18·71	...	29 21·3	R
18	...	13 18·68	...	29 19·8	R
25	...	13 18·80	...	29 20·9	R
Dec. 3	...	13 18·69	...	29 21·1	R
7	...	13 18·76	...	29 19·6	R
10	...	13 18·65	...	29 22·7	M
11	...	13 18·73	...	29 20·2	M
13	...	13 18·65	...	29 21·0	M
4		12 *Ceti.*			
Nov. 9	...	0 23 54·99	...	94 37 14·1	R
11	...	23 54·83	...	37 14·5	R
17	...	23 54·80	...	37 15·1	R
19	...	23 54·77	...	37 14·1	R
Dec. 8	...	23 54·81	...	37 13·9	R
10	...	23 54·87	...	37 15·7	M
11	...	23 54·74	...	37 15·1	M
13	...	23 54·77	...	37 14·6	M
5		*Taylor* 120.			
Oct. 8	6·0	0 24 37·50	...	138 52 32·8	M
15	...	24 37·55	...	52 31·8	M
6		14 *Cassiopeiæ λ*			
Oct. 9	5·5	0 25 9·16	...	36 8 23·3	M
13	...	25 9·31	5	8 20·4	M
16	...	25 9·33	...	8 24·5	M
21	5·5	25 9·21	...	8 22·7	M
7		*T Piscium, Var.* 3.			
Dec. 9	10·5	0 26 47·35	3	76 3 41·4	R
8		β^3 *Tucanæ.*			
Oct. 20	...	0 27 15·47	...	153 41 33·4	M
26	...	27 15·48	5	41 33·2	M
30	5·5	27 15·57	...	41 34·4	M
Nov. 16	5·0	27 15·27	...	41 34·8	R
9		*Lacaille* 139.			
Oct. 28	7·0	0 28 17·54	2	161 55 44·6	M
Nov. 24	...	28 17·31	4	55 43·8	R
Dec. 3	...	28 17·03	4	55 44·2	R
4	...	28 16·93	5	55 46·4	R
7	...	28 17·29	4	55 44·1	R
10		*ξ Phœnicis.*			
Oct. 9	5·5	0 36 17·90	...	147 9 41·5	M
27	5·5	36 17·96	...	9 42·9	M
Nov. 5	5·0	36 17·90	...	9 43·0	R
9	...	36 17·93	4	9 40·6	R
11		*ρ Tucanæ.*			
Nov. 16	5·6	0 37 20·45	4	156 7 39·6	R
19	...	37 20·43	4	7 38·5	R
24	5·6	37 20·47	...	7 41·6	R
25	5·6	37 20·37	...	7 38·0	R
12		16 *Ceti β*			
Nov. 18	...	0 37 33·79	...	108 38 42·6	R
Dec. 4	...	37 33·81	...	38 44·1	R
7	...	37 33·81	...	38 44·6	R

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Dec. 9	...	0 37 33·75	...	108 38 43·1	R
11	...	37 33·76	...	38 43·7	M
13	...	37 33·89	...	38 43·6	M
14	...	37 33·76	...	38 44·0	M
15	...	37 33·70	...	38 45·3	M
16	...	37 33·74	...	38 44·9	M
13	*η Phœnicis.*				
Oct. 13	...	0 37 57·57	...	148 7 18·4	M
Nov. 13	...	37 57·48	...	7 18·1	R
17	...	37 57·45	...	7 19·5	R
14	*17 Ceti* ϕ^1				
Oct. 15	...	0 38 8·09	...	101 15 47·4	M
20	...	38 8·05	...	15 47·7	M
25	...	38 7·99	...	15 48·1	M
30	...	38 8·00	...	15 48·6	M
15	λ^2 *Sculptoris.*				
Oct. 16	...	0 38 23·66	...	129 4 58·1	M
21	6·0	38 23·85	...	4 57·7	M
26	...	38 23·85	...	4 57·9	M
29	5·5	38 23·81	...	4 56·9	M
16	*63 Piscium δ*				
Nov. 11	...	0 42 27·25	...	83 4 2·9	R
13	...	42 27·36	...	4 5·1	R
22	...	42 27·41	...	4 3·4	R
24	...	42 27·38	...	4 3·8	R
Dec. 3	...	42 27·37	...	4 5·4	R
9	...	42 27·37	...	4 2·6	R
14	...	42 27·37	...	4 4·6	M
15	...	42 27·36	...	4 4·5	M
16	...	42 27·28	...	4 4·3	M
17	*T Cephei, Var.*				
Nov. 19	8·0	0 51 43·34	...	8 46 16·8	R
22	8·2	51 43·31	...	46 18·7	R
25	7·0	51 43·66	...	46 17·5	R
Dec. 4	7·0	51 43·53	...	46 17·9	R
9	8·0	51 43·79	...	46 16·8	R
Dec. 10	8·0	0 51 43·30	...	8 46 19·1	M
11	8·0	51 43·46	...	46 19·3	M
13	8·0	51 43·21	...	46 19·9	M
14	8·0	51 42·72	...	46 19·9	M
15	8·0	51 43·55	...	46 20·1	M
18	*2 Ursæ Minoris.*				
Oct. 14	...	0 52 37·33	3	4 23 13·7	M
25	...	52 36·37	3	23 14·0	M
29	...	52 35·87	3	23 14·1	M
Nov. 24	...	52 35·76	3	23 16·3	R
19	*R. P. L.* 14.				
Dec. 7	...	0 56 12·47	3	3 29 41·5	R
20	*71 Piscium ε*				
Oct. 20	...	0 56 43·04	...	82 45 21·3	M
21	...	56 42·91	...	45 21·8	M
26	...	56 42·98	...	45 22·7	M
27	...	56 42·87	...	45 22·0	M
28	...	56 42·89	...	45 21·1	M
30	...	56 43·00	...	45 23·9	M
Nov. 16	...	56 42·95	..	45 22·3	R
18	...	56 42·93	...	45 21·7	R
Dec. 8	...	56 43·06	...	45 21·2	R
16	...	56 42·95	...	45 23·0	M
21	*1 Ursæ Minoris a, Polaris.*				
Nov. 13	...	1 14 46·74	2	1 19 51·2	R
22	*45 Ceti θ*				
Oct. 13	...	1 18 1·41	...	98 48 8·7	M
14	...	18 1·49	...	48 9·5	M
Dec. 8	...	18 1·40	...	48 9·5	R
17	...	18 1·39	...	48 9·5	M
18	...	18 1·45	...	48 11·5	M
23	*U Ceti, Var* 5.				
Nov. 5	7·0	1 19 47·30	...	94 33 4·6	R
11	8·0	19 47·30	...	33 4·6	R
16	7·5	19 47·27	...	33 7·7	R

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Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No. of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
Nov. 18	7·2	1 19 47·29	...	94 33 6·5	R
19	...	19 47·22	...	33 6·0	R
22	9·0	19 47·29	...	33 6·2	R
24	7·6	19 47·37	...	33 8·3	R
Dec. 3	7·0	19 47·29	...	33 5·3	R
4	7·0	19 47·57	...	33 6·2	R
7	7·0	19 47·20	...	33 5·5	R
24	48 *Andromedæ* ω				
Oct. 25	...	1 20 28·77	...	45 12 47·0	M
28	...	20 28·76	...	12 45·4	M
30	...	20 28·53	...	12 46·7	M
Nov. 25	...	20 28·89	...	12 47·1	R
25	R *Seulptoris, Var.* 1.				
Dec. 9	7·0	1 21 26·45	...	123 9 56·6	R
10	7·0	21 26·54	...	9 58·4	R
11	7·0	21 26·42	...	9 56·5	R
13	7·0	21 26·48	...	9 56·3	R
14	7·0	21 26·45	...	9 57·4	R
26	38 *Cassiopeiæ.*				
Jan. 3	6·0	1 22 19·28	...	20 21 13·1	M
Oct. 21	6·0	22 19·39	...	21 11·6	M
26	...	22 19·42	...	21 9·7	M
29	5·5	22 19·44	...	21 12·9	M
27	R *Piscium, Var.* 1.				
Dec. 4	9·5	1 24 26·91	...	87 44 22·7	R
7	9·6	24 26·85	...	44 21·4	R
28	99 *Piscium* η				
Nov. 19	...	1 25 3·77	...	75 16 23·3	R
24	...	25 3·78	...	16 24·0	R
25	...	25 3·80	...	16 24·0	R
Dec. 3	...	25 3·62	...	16 24·9	R
17	...	25 3·71	...	16 21·7	M
18	...	25 3·85	...	16 23·7	M
20	...	25 3·68	...	16 24·2	M
30	...	25 3·80	...	16 25·4	M
31	...	25 3·76	...	16 24·7	M

Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No. of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
29	106 *Piscium* ν				
Oct. 21	...	1 35 11·24	...	85 7 11·5	M
Dec. 7	...	35 11·17	...	7 12·3	R
9	...	35 11·17	...	7 10·7	R
17	...	35 11·29	...	7 11·2	M
18	...	35 11·19	...	7 12·2	M
22	...	35 11·13	...	7 13·1	M
25	...	35 11·18	...	7 10·8	M
29	...	35 11·20	...	7 12·1	M
30	...	35 11·28	...	7 13·3	M
31	...	35 11·22	...	7 13·1	M
30	*Taylor* 568.				
Oct. 26	...	1 36 53·89	...	140 38 40·0	M
28	6·0	36 53·87	...	38 42·1	M
30	6·0	36 53·65	...	38 42·7	M
Nov. 5	5·5	36 53·82	...	38 40·6	R
11	5·6	36 53·71	...	38 40·1	R
31	*Lacaille* 507.				
Oct. 27	5·8	1 37 41·46	...	151 23 41·1	M
Nov. 18	5·6	37 41·34	...	23 38·4	R
24	5·6	37 41·39	...	23 40·7	R
32	q^1 *Eridani.*				
Oct. 29	6·0	1 37 51·84	...	144 20 28·5	M
Nov. 18	5·6	37 51·78	...	20 33·1	R
16	5·6	37 51·83	4	20 30·6	R
Dec. 8	5·6	37 51·63	...	20 33·5	R
33	110 *Piscium* o				
Jan. 6	...	1 39 3·45	...	81 26 49·5	M
7	...	39 3·44	...	26 48·0	M
Dec. 14	...	39 3·54	...	26 52·1	M
20	...	39 3·44	...	26 48·5	M
34	6 *Arietis* β				
Nov. 22	...	1 48 0·65	...	69 46 46·5	R
Dec. 20	...	48 0·72	...	46 44·8	M
22	...	48 0·65	...	46 46·5	R

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Dec. 27	...	1 48 0·56	...	69 46 44·6	R
28	...	48 0·75	...	46 43·4	R
30	...	48 0·50	...	46 46·6	M
31	...	48 0·56	...	46 47·4	M
35		η^1 *Hydri, Var.*			
Jan. 6	...	1 49 32·85	...	158 32 7·8	M
Oct. 28	...	49 32·75	...	32 9·6	M
Dec. 10	7·5	49 32·72	...	32 10·7	M
11	7·5	49 32·80	...	32 10·1	M
13	...	49 32·82	5	32 11·6	M
14	7·5	49 32·81	...	32 11·0	M
15	7·5	49 32·63	...	32 9·5	M
36		η^2 *Hydri.*			
Nov. 24	...	1 51 53·78	...	158 14 20·5	R
Dec. 3	...	51 53·62	...	14 18·1	R
7	...	51 53·56	...	14 18·4	R
37		48 *Cassiopeiæ.*			
Jan. 7	5·0	1 52 7·01	...	19 40 32·7	M
Oct. 29	...	52 7·05	...	40 31·8	M
Nov. 5	5·0	52 7·00	...	40 31·3	R
13	5·0	52 7·22	...	40 33·8	R
38		50 *Cassiopeiæ.*			
Oct. 30	...	1 53 12·47	...	18 9 37·6	M
Nov. 11	...	53 12·78	...	9 37·1	R
16	...	53 12·82	...	9 36·7	R
18	...	53 12·99	...	9 37·5	R
39		*Lacaille* 616.			
Jan. 3	...	1 56 32·51	...	156 38 52·7	M
40		χ *Phœnicis.*			
Jan. 8	...	1 56 53·60	...	135 17 30·8	M
Nov. 5	5·0	56 53·60	...	17 29·4	R
13	5·0	56 53·72	...	17 31·2	R

Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No. of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
41		S *Arietis, Var.* 2.			
Dec. 9	10·5	1 58 10·88	3	78 2 56·9	R
27	10·2	58 11·14	4	2 55·2	R
29	10·0	58 10·97	5	2 55·6	R
30	10·0	58 10·84	2	2 55·1	M
42		13 *Arietis a*			
Oct. 29	...	2 0 24·54	...	67 6 20·5	M
Nov. 24	...	0 24·47	...	6 21·8	R
Dec. 4	...	0 24·51	...	6 20·7	R
28	...	0 24·59	...	6 19·6	R
43		67 *Ceti.*			
Jan. 3	...	2 10 59·82	...	96 58 30·2	M
Nov. 18	...	10 59·91	...	58 31·9	R
19	...	10 59·86	...	58 29·8	R
25	...	10 59·62	...	58 32·3	R
Dec. 11	...	10 59·91	...	58 30·8	M
13	...	10 59·79	...	58 33·5	M
14	...	10 59·88	...	58 33·3	M
15	...	10 59·94	...	58 31·9	M
22	...	10 59·86	...	58 32·2	R
25	...	10 59·88	...	58 30·2	R
27	...	10 59·85	...	58 31·3	R
29	...	10 59·92	...	58 33·4	R
31	...	10 59·68	...	58 33·2	M
44		73 *Ceti* ξ^2			
Nov. 24	...	2 21 46·80	...	82 4 42·5	R
Dec. 22	...	21 46·72	...	4 42·1	R
45		*R. P. L.* 26.			
Nov. 19	...	2 26 40·56	3	3 28 40·2	R
Dec. 10	...	26 42·95	3	28 39·8	M
11	...	26 43·20	3	28 38·2	M
13	...	26 43·34	3	28 38·1	M
14	...	26 42·58	3	28 38·1	M
15	...	26 42·93	3	28 38·7	M

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		R. P. L.* 26—*s.p.			
May 19	...	2 26 41·57	3	3 28 39·1	R
46		**35 *Arietis.***			
Jan. 8	...	2 36 24·58	...	62 48 13·6	M
47		**ζ *Horologii.***			
Nov. 24	5·6	2 36 55·66	...	145 3 52·8	R
25	...	36 55·62	...	3 50·8	R
Dec. 3	5·6	36 55·45	...	3 54·2	R
7	5·6	36 55·50	...	3 52·1	R
48		***Lalande* 5033.**			
Jan. 7	8·0	2 36 58·00	...	72 57 43·4	M
9	8·0	36 57·99	...	57 44·9	M
13	8·0	36 58·05	...	57 47·1	M
16	8·0	36 57·89	...	57 46·4	M
19	8·0	36 58·07	...	57 43·6	M
22	8·0	36 58·05	...	57 45·9	M
49		**86 *Ceti* γ^2**			
Jan. 3	...	2 37 5·00	...	87 16 13·6	M
Dec. 27	...	37 4·98	...	16 13·7	R
28	...	37 4·86	...	16 12·8	R
50		**36 *Arietis.***			
Jan. 12	7·0	2 37 37·38	...	72 44 42·7	M
15	7·0	37 37·44	...	44 41·2	M
17	7·0	37 37·48	...	44 41·2	M
23	7·0	37 37·57	...	44 40·1	M
Nov. 16	7·0	37 37·40	...	44 43·0	R
18	7·0	37 37·37	...	44 42·4	R
51		**ε *Hydri.***			
Dec. 9	5·0	2 37 44·76	...	158 46 54·6	R
10	5·5	37 44·67	...	46 57·9	M
11	5·5	37 44·85	...	46 54·0	M
13	...	37 44·87	5	46 55·4	M
14	5·0	37 44·86	...	46 54·8	M
52		***Lacaille* 893.**			
Nov. 24	5·6	2 41 21·00	...	157 13 11·7	R
53		**15 *Persei* η**			
Jan. 10	...	2 41 57·01	...	34 36 13·0	M
Dec. 15	...	41 57·03	...	36 13·0	M
17	...	41 56·94	...	36 12·9	M
18	...	41 56·92	...	36 13·4	M
20	...	41 56·98	4	36 13·6	M
54		**γ *Horologii.***			
Dec. 8	5·6	2 42 53·63	...	154 12 30·0	R
30	5·6	42 53·69	...	12 30·5	M
55		**16 *Persei.***			
Dec. 4	...	2 43 0·49	...	52 10 35·6	R
16	...	43 0·67	...	10 35·4	M
22	...	43 0·46	...	10 36·0	R
25	...	43 0·47	...	10 35·7	R
29	...	43 0·64	...	10 35·4	R
56		**ζ *Hydri.***			
Dec. 27	...	2 43 41·84	...	158 7 18·1	R
57		**ν *Fornacis*—1st.**			
Nov. 18	...	2 43 50·68	...	127 54 9·3	R
25	...	43 50·65	...	54 10·6	R
Dec. 7	...	43 50·35	...	54 8·6	R
8	...	43 50·54	...	54 8·2	R
31	...	43 50·72	4	54 12·2	M
58		**γ^1 *Fornacis.***			
Dec. 9	5·0	2 44 32·09	...	115 3 14·8	R
11	6·0	44 32·21	...	3 17·4	M
14	6·0	44 32·02	...	3 16·9	M
59		**2 *Eridani* τ^2**			
Jan. 22	...	2 45 35·54	...	111 29 59·1	M
24	...	45 35·79	...	29 57·7	M

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60		18 *Persei* τ			
Dec. 10	...	2 45 45·19	...	37 43 46·9	R
13	...	45 45·15	...	43 46·2	M
17	...	45 45·37	6	43 46·4	M
18	...	45 45·25	3	43 47·6	M
28	...	45 45·41	4	43 45·6	R
61		η^3 *Fornacis.*			
Jan. 8	5·6	2 45 49·38	...	126 10 12·7	M
16	6·0	45 49·58	...	10 15·3	M
62		44 *Arietis* ρ^1			
Jan. 7	7·0	2 48 11·89	...	72 45 16·1	M
9	7·0	48 11·71	...	45 15·0	M
63		46 *Arietis* ρ^3			
Jan. 10	...	2 49 39·94	...	72 27 21·9	M
12	...	49 39·78	...	27 23·8	M
15	...	49 39·73	...	27 22·0	M
17	...	49 39·95	...	27 23·3	M
20	...	49 39·77	...	27 21·8	M
23	...	49 39·79	...	27 22·9	M
64		22 *Persei* π			
Jan. 27	...	2 51 5·49	...	50 49 6·5	M
Nov. 19	...	51 5·51	...	49 7·3	R
24	...	51 5·43	...	49 7·7	R
65		*Lalande* 5456.			
Jan. 13	8·9	2 51 10·96	...	72 40 11·9	M
19	8·0	51 10·93	...	40 11·4	M
22	9·0	51 10·84	...	40 13·0	M
26	9·0	51 11·06	...	40 10·9	M
Nov. 16	8·0	51 10·89	...	40 13·6	R
18	8·0	51 10·91	...	40 12·8	R
66		6 *Eridani.*			
Nov. 25	5·6	2 52 45·54	...	114 5 19·5	R
Dec. 4	5·6	52 45·38	...	5 20·6	R
67		50 *Arietis.*			
Jan. 6	7·0	2 53 46·90	...	72 28 19·3	M
8	...	53 46·77	...	28 20·3	M
68		92 *Ceti* α, *Menkar.*			
Dec. 29	...	2 56 0·32	...	86 22 54·2	R
69		23 *Persei* γ			
Jan. 24	...	2 56 6·93	...	36 57 52·5	M
Dec. 10	...	56 6·66	...	57 52·3	M
70		*Radcliffe* 860.			
Dec. 8	5·0	2 56 31·75	...	33 45 59·8	R
16	5·0	56 31·72	...	46 0·5	M
17	5·0	56 31·77	...	45 59·9	M
18	...	56 31·66	...	46 2·5	M
71		462 *Brisbane.*			
Nov. 18	5·0	2 56 32·01	...	154 32 54·4	R
Dec. 9	5·0	56 31·83	...	32 55·5	R
11	5·0	56 32·03	...	32 56·7	M
13	...	56 32·10	6	32 57·8	M
14	5·0	56 32·06	...	32 56·1	M
72		9 *Eridani* ρ^2			
Jan. 20	...	2 56 48·85	...	98 9 30·2	M
Nov. 24	...	56 48·83	...	9 29·1	R
25	...	56 48·76	...	9 29·0	R
Dec. 7	...	56 48·75	...	9 27·4	R
73		*Lalande* 5701.			
Jan. 3	9·0	2 59 1·42	...	72 17 15·7	M
7	9·0	59 1·49	...	17 17·3	M
74		ι *Persei.*			
Jan. 15	...	3 0 24·73	...	40 50 47·5	M
17	...	0 24·85	...	50 47·7	M
19	...	0 24·72	...	50 46·8	M
27	...	0 24·55	...	50 46·9	M
Nov. 19	...	0 24·68	...	50 48·2	R

Separate Results of Madras Meridian Circle Observations in 1880.

Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No. of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
75		*53 Arietis.*			
Jan. 9	7·8	3 0 40·21	...	72 35 3·1	M
76		*27 Persei κ*			
Jan. 12	...	3 1 24·32	...	45 35 55·3	M
77		*R. P. L.* 33.			
Dec. 3	...	3 4 9·61	3	5 31 5·3	R
		R. P. L. 33—*s.p.*			
June 4	...	3 4 7·76	3	5 31 5·0	R
17	...	4 8·40	3	31 5·1	R
78		*57 Arietis δ*			
Nov. 25	...	3 4 46·13	...	70 43 40·8	R
Dec. 7	...	4 46·05	...	43 40·9	R
9	...	4 46·12	...	43 39·5	R
25	...	4 46·07	...	43 39·6	R
30	...	4 46·04	...	43 41·5	M
79		*Radcliffe* 914.			
Jan. 16	6·0	3 9 26·99	...	24 47 18·6	M
19	5·7	9 26·76	...	47 15·1	M
80		*Lalande* 6095.			
Jan. 9	9·0	3 11 32·88	...	72 15 56·5	M
10	...	11 32·78	...	15 55·0	M
12	7·8	11 32·95	...	15 58·7	M
81		*Anon.*			
Jan. 13	9·5	3 11 52·31	...	71 57 59·4	M
15	9·5	11 52·42	...	57 55·6	M
17	9·0	11 52·28	...	57 57·5	M
22	9·5	11 52·41	...	57 55·1	M
82		*15 Eridani.*			
Jan. 24	...	3 13 3·72	...	112 57 1·8	M
83		*96 Ceti* κ^1			
Jan. 23	...	3 13 4·10	...	87 4 14·1	M
26	...	13 4·09	...	4 16·4	M
84		*e Eridani.*			
Nov. 18	...	3 15 8·23	...	133 31 45·3	R
19	...	15 8·32	4	31 48·0	R
85		ζ^1 *Reticuli.*			
Jan. 27	6·0	3 15 9·95	...	153 2 7·3	M
Nov. 24	5·6	15 9·97	...	2 5·7	R
Dec. 10	5·5	15 10·13	...	2 7·6	M
13	...	15 10·07	2	2 8·6	M
86		ζ^2 *Reticuli.*			
Dec. 3	5·6	3 15 36·46	...	152 57 56·1	R
9	5·6	15 36·49	...	57 56·0	R
11	5·5	15 36·79	...	57 57·4	M
14	5·5	15 36·58	...	57 58·2	M
87		*Lacaille* 1092.			
Dec. 15	...	3 16 37·51	...	157 21 50·1	M
17	...	16 37·53	...	21 47·0	M
18	...	16 37·46	...	21 48·5	M
22	...	16 37·63	...	21 48·4	R
27	...	16 37·34	...	21 49·6	R
88		*Anon.*			
Jan. 3	9·3	3 16 49·98	...	71 52 22·4	M
7	9·3	16 50·28	...	52 23·3	M
21	9·0	16 50·05	...	52 22·6	M
89		1 *Tauri o, Var.* 5.			
Dec. 4	...	3 18 21·46	...	81 23 40·1	R
90		*Lalande* 6341.			
Jan. 6	7·5	3 20 12·36	...	71 39 52·9	M
8	7·5	20 12·26	...	39 54·4	M
13	7·8	20 12·31	...	39 54·4	M
15	7·8	20 12·52	...	39 53·4	M
19	8·0	20 12·14	...	39 52·4	M

Separate Results of Madras Meridian Circle Observations in 1880.

Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No. of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
91		*Radcliffe* 962.			
Jan. 20	...	3 20 20·68	...	31 32 17·9	M
Feb. 2	...	20 20·53	...	32 18·7	M
92		*Radcliffe* 969.			
Jan. 12	5·0	3 20 51·44	...	34 57 50·4	M
Nov. 19	5·0	20 51·37	...	57 54·4	R
Dec. 8	5·0	20 51·66	...	57 52·6	R
93		*Anon.*			
Dec. 9	10·0	3 21 18·22	...	71 56 10·6	R
22	10·0	21 18·24	...	56 11·9	R
25	10·0	21 18·24	...	56 10·1	R
28	10·0	21 18·11	...	56 11·4	R
94		35 *Persei* σ			
Feb. 4	...	3 22 7·24	...	42 25 13·7	M
Dec. 11	...	22 7·03	...	25 14·0	M
16	...	22 6·98	...	25 13·3	M
95		*Anon.*			
Jan. 17	9·5	3 22 56·32	...	71 40 31·5	M
26	9·5	22 56·48	...	40 32·7	M
Nov. 18	9·0	22 56·22	...	40 32·6	R
Dec. 3	9·2	22 56·33	...	40 32·8	R
4	9·3	22 56·49	...	40 32·7	R
7	9·5	22 56·52	...	40 32·2	R
14	9·5	22 56·35	..	40 31·6	M
96		17 *Eridani.*			
Dec. 10	...	3 24 39·83	..	95 29 16·5	M
13	...	24 39·81	...	29 15·6	M
97		*Lalande* 6483.			
Jan. 19	9·5	3 24 52·60	...	71 36 36·9	M
24	9·0	24 52·33	...	36 37·6	M
Nov. 24	9·0	24 52·41	4	36 38·5	R
25	9·0	24 52·38	...	36 38·7	R

Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No. of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
98		ζ *Eridani.*			
Jan. 27	...	3 25 56·90	...	131 46 32·5	M
Feb. 7	...	25 57·04	6	46 34·4	M
99		18 *Eridani* ϵ			
Jan. 6	...	3 27 16·53	...	99 51 56·2	M
7	...	27 16·63	...	51 55·7	M
8	...	27 16·65	...	51 55·5	M
9	...	27 16·52	...	51 54·9	M
Dec. 25	...	27 16·55	...	51 53·4	R
100		*R. P. L.* 34.			
Dec. 27	...	3 27 21·65	3	3 44 4·6	R
29	...	27 22·22	3	44 5·4	R
101		*Lacaille* 1164.			
Feb. 3	...	3 29 38·46	...	156 53 46·0	M
4	...	29 38·34	5	53 45·5	M
102		*Lalande* 6656.			
Jan. 3	9·0	3 30 29·85	...	71 47 59·9	M
103		*Lacaille* 1188.			
Jan. 10	...	3 33 4·21	...	156 9 47·4	M
16	6·0	33 4·16	...	9 48·3	M
26	6·0	33 3·98	...	9 48·8	M
104		τ *Fornacis.*			
Jan. 17	6·0	3 33 48·27	...	118 20 11·1	M
22	...	33 48·14	...	20 11·1	M
27	6·0	33 48·21	...	20 10·7	M
105		*Radcliffe* 1039			
Jan. 19	6·0	3 35 33·25	...	27 2 6·4	M
24	6·0	35 33·52	...	2 7·1	M
Feb. 2	6·0	35 33·22	...	2 6·0	M

Separate Results of Madras Meridian Circle Observations in 1880.

Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No. of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
106		40 *Persei o*			
Jan. 7	...	3 36 47·74	...	58 5 36·8	M
107		41 *Persei ν*			
Jan. 23	...	3 37 2·75	...	47 48 4·7	M
Feb. 5	...	37 2·63	...	48 5·4	M
9	...	37 2·86	...	48 5·8	M
11	...	37 2·76	...	48 4·9	M
108		*δ Fornacis.*			
Feb. 7	5·0	3 37 28·53	...	122 19 21·8	M
Dec. 14	5·5	37 28·38	...	19 20·0	M
15	5·5	37 28·50	...	19 21·1	M
17	5·5	37 28·34	...	19 18·4	M
18	...	37 28·37	...	19 21·0	M
109		16 *Tauri, Celæno.*			
Feb. 10	...	3 37 40·15	...	66 5 22·0	M
Nov. 19	...	37 40·30	...	5 21·1	R
24	...	37 40·26	...	5 23·4	R
110		*γ Camelopardi.*			
Dec. 27	...	3 37 42·80	...	19 2 21·8	R
111		19 *Tauri, Taygeta.*			
Nov. 25	5·0	3 38 3·92	...	65 54 38·1	R
Dec. 4	5·0	38 4·09	...	54 38·9	R
16	5·0	38 4·01	...	54 38·9	M
20	...	38 4·07	...	54 38·1	M
22	5·0	38 3·92	...	54 37·6	R
112		*Radcliffe* 1053.			
Feb. 6	5·5	3 38 32·94	...	24 50 50·0	M
12	...	38 32·92	...	50 48·3	M
Dec. 30	5·0	38 32·89	...	50 50·7	M

Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No. of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
113		20 *Tauri, Maia.*			
Dec. 3	...	3 38 41·24	...	66 0 32·7	R
28	...	38 41·42	...	0 30·7	R
31	...	38 41·16	...	0 31·2	M
114		21 *Tauri, k Asterope.*			
Dec. 8	7·0	3 38 45·06	...	65 49 16·6	R
25	7·0	38 45·15	...	49 15·8	R
29	7·0	38 45·10	...	49 17·8	R
115		22 *Tauri, l Asterope.*			
Dec. 7	7·0	3 38 54·02	...	65 50 52·2	R
116		23 *Tauri, Merope.*			
Dec. 11	...	3 39 12·36	...	66 25 37·3	M
13	...	39 12·38	...	25 37·3	M
117		25 *Tauri η, Alcyone.*			
Jan. 21	...	3 40 21·11	...	66 16 2·3	M
118		*W. B. N.* III. 883.			
Jan. 6	9·2	3 41 3·63	...	71 42 28·8	M
8	9·2	41 3·43	...	42 32·5	M
119		*Taylor* 1304.			
Jan. 13	5·6	3 41 32·33	...	137 44 4·0	M
20	...	41 32·26	...	44 3·9	M
Feb. 3	6·0	41 32·48	...	44 3·8	M
120		27 *Tauri, Atlas.*			
Feb. 4	...	3 42 1·78	...	66 18 53·3	M
Nov 25	...	42 1·57	...	18 52·2	R
Dec. 18	...	42 1·54	...	18 52·9	M
22	...	42 1·64	...	18 53·3	R

Separate Results of Madras Meridian Circle Observations in 1880.

Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
121		28 *Tauri, Pleione.*			
Nov. 19	...	3 42 2·89	...	66 13 52·0	R
24	...	42 2·84	...	13 53·4	R
Dec. 4	...	42 2·86	...	13 53·1	R
122		28 *Eridani* τ^7			
Jan. 26	...	3 42 29·85	...	114 14 50·2	M
Feb. 10	...	42 29·97	...	14 50·6	M
13	...	42 30·05	...	14 50·7	M
Dec. 10	...	42 29·74	...	14 53·1	M
14	...	42 29·89	...	14 50·6	M
123		f^1 *Eridani—1st.*			
Jan. 17	..	3 44 9·94	...	127 59 24·2	M
27	...	44 9·98	...	59 24·0	M
Feb. 2	...	44 9·85	...	59 23·9	M
9	...	44 9·94	...	59 24·9	M
124		f^2 *Eridani.*			
Jan. 12	...	3 44 10·11	...	127 59 16·1	M
24	..	44 10·21	...	59 16·9	M
Feb. 5	...	44 10·00	...	59 17·7	M
14	...	44 10·15	...	59 16·6	M
Dec. 3	...	44 10·08	...	59 15·8	R
125		*Lalande* 7131.			
Jan. 10	9·4	3 45 23·93	...	71 26 34·1	M
126		*W Tauri, Var.*			
Dec. 15	7·5	3 46 45·57	...	82 35 7·5	M
16	7·5	46 45·83	...	35 6·4	M
25	7·8	46 45·82	...	35 4·9	R
27	8·0	46 45·96	...	35 5·6	R
28	8·0	46 45·74	...	35 4·6	R
30	8·0	46 45·76	...	35 9·0	M
31	8·0	46 45·86	...	35 8·0	M

Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No. of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
127		*Radcliffe* 1089.			
Jan. 15	5·0	3 46 50·77	...	27 16 53·0	M
19	...	46 50·69	...	16 52·7	M
Feb. 6	6·0	46 50·75	...	16 56·6	M
128		υ^3 *Eridani.*			
Jan. 23	...	3 49 4·47	...	125 5 17·2	M
26	...	49 4·59	4	5 17·9	M
Feb. 3	...	49 4·76	...	5 17·6	M
129		45 *Persei* ϵ			
Jan. 13	...	3 49 48·38	...	50 20 19·5	M
21	...	49 48·23	...	20 19·5	M
130		34 *Eridani* γ^1			
Dec. 3	...	3 52 25·84	...	103 51 3·9	R
28	...	52 25·75	...	51 2·6	R
29	...	52 25·66	...	51 3·6	R
131		35 *Eridani.*			
Jan. 22	...	3 55 27·28	6	91 53 14·2	M
Feb. 2	...	55 27·13	...	53 12·7	M
132		38 *Tauri* ν			
Feb. 4	...	3 56 46·57	...	84 20 40·9	M
6	...	56 46·45	...	20 42·8	M
9	...	56 46·39	...	20 41·5	M
133		δ *Reticuli.*			
Feb. 5	6·0	3 56 50·96	...	151 44 24·6	M
11	...	56 50·73	...	44 22·6	M
Nov. 19	5·0	56 50·79	5	44 24·5	R
Dec. 10	5·0	56 50·83	...	44 25·3	M
11	5·0	56 50·85	...	44 24·4	M
134		37 *Tauri* A^1.			
Jan. 6	...	3 57 36·12	...	68 14 51·2	M
7	...	57 36·07	...	14 50·6	M
8	...	57 36·00	...	14 51·1	M

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Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No. of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
Jan. 9	...	3 57 36·21	...	68 14 51·6	M
10	...	57 36·05	...	14 51·7	M
12	...	57 35·96	...	14 51·3	M
13	...	57 36·08	...	14 51·3	M
15	...	57 36·06	...	14 50·0	M
16	...	57 36·07	...	14 52·8	M
31	...	57 36·09	...	14 50·5	M
135	47 *Persei* λ				
Jan. 3	...	3 57 38·69	...	39 58 33·4	M
23	...	57 38·90	...	58 34·5	M
27	...	57 38·80	...	58 33·5	M
136	*Lacaille* 1339.				
Dec. 25	8·0	3 59 7·33	...	134 43 14·4	R
27	8·0	59 7·68	...	43 16·2	R
28	8·0	59 7·47	...	43 15·4	R
29	8·0	59 7·41	...	43 15·3	R
30	8·0	59 7·44	...	43 16·9	M
137	γ *Reticuli.*				
Feb. 7	5·0	3 59 9·74	...	152 29 41·2	M
12	...	59 9·80	...	29 41·5	M
Dec. 13	...	59 9·78	3	29 44·0	M
14	5·0	59 9·76	...	29 43·6	M
138	ι *Reticuli.*				
Feb. 3	...	3 59 21·65	...	151 24 57·3	M
13	...	59 21·49	...	24 54·6	M
14	...	59 21·46	...	24 55·8	M
139	*R. P. L.* 35.				
Dec. 22	...	3 59 23·55	3	4 45 47·8	R
140	48 *Persei c.*				
Jan. 17	...	3 59 57·17	...	42 36 34·8	M
21	...	59 56·95	...	36 33·5	M
24	...	59 57·24	...	36 33·7	M

Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No. of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
141	38 *Eridani* o^1				
Dec. 10	...	4 6 0·53	...	97 9 6·4	M
11	...	6 0·48	...	9 4·5	M
13	...	6 0·51	...	9 3·8	M
14	...	6 0·29	...	9 7·1	M
15	...	6 0·40	...	9 6·7	M
17	...	6 0·45	...	9 5·2	M
27	...	6 0·46	...	9 5·5	R
142	52 *Persei f.*				
Jan. 13	...	4 6 43·41	...	49 49 17·8	M
143	39 *Eridani* A.				
Jan. 15	...	4 8 40·98	...	100 33 16·9	M
19	...	8 41·04	...	33 17·1	M
21	...	8 41·10	...	33 18·5	M
144	40 *Eridani* o^2				
Jan. 6	5·0	4 9 44·78	...	97 50 26·3	M
7	5·0	9 44·97	...	50 27·4	M
17	5·0	9 44·96	...	50 26·7	M
Feb. 2	5·0	9 45·04	...	50 25·1	M
145	*a Horologii.*				
Jan. 20	...	4 10 1·31	...	132 35 29·2	M
Feb. 3	5·0	10 1·56	...	35 27·8	M
146	54 *Tauri* γ				
Jan. 8	...	4 12 57·97	...	74 39 50·3	M
9	...	12 57·88	...	39 50·6	M
10	...	12 57·99	...	39 48·0	M
12	...	12 57·85	...	39 47·8	M
13	...	12 57·88	...	39 47·7	M
15	...	12 58·04	...	39 50·1	M
16	...	12 57·99	...	39 51·2	M
Feb. 4	...	12 57·95	...	39 49·3	M
5	...	12 57·95	...	39 50·6	M
6	...	12 58·03	...	39 50·9	M
7	...	12 57·86	...	39 50·4	M
9	...	12 58·06	...	39 48·7	M

Separate Results of Madras Meridian Circle Observations in 1880.

Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No. of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
Feb. 10	...	4 12 58·02	...	74 39 50·2	M
11	...	12 57·91	...	39 48·7	M
Dec. 15	...	12 57·71	...	39 49·8	M
16	...	12 58·11	...	39 49·2	M
18	...	12 57·71	...	39 49·7	M
147		*73 Tauri π*			
Jan. 7	...	4 19 49·52	...	75 33 32·4	M
8	...	19 49·56	...	33 31·4	M
148		*74 Tauri ε*			
Jan. 3	...	4 21 36·54	...	71 5 12·2	M
17	...	21 36·72	...	5 15·6	M
19	...	21 36·69	...	5 12·9	M
Dec. 16	...	21 36·55	...	5 16·2	M
17	...	21 36·48	...	5 12·9	M
18	...	21 36·55	...	5 15·2	M
22	...	21 36·56	...	5 15·1	R
149		*47 Eridani.*			
Jan. 6	5·0	4 28 24·65	...	98 28 59·8	M
9	5·0	28 24·70	...	28 58·2	M
12	5·5	28 24·66	...	29 0·5	M
15	5·5	28 24·69	...	28 58·7	M
150		*87 Tauri a, Aldebaran.*			
Jan. 20	...	4 29 2·03	...	73 44 2·4	M
24	...	29 2·19	...	44 2·1	M
31	...	29 2·04	...	44 1·3	M
Feb. 2	...	29 2·06	...	43 59·8	M
151		*88 Tauri d.*			
Jan. 8	...	4 29 3·59	...	80 5 14·5	M
10	...	29 3·81	...	5 12·7	M
13	...	29 3·68	...	5 13·2	M
152		*90 Tauri c*[1].			
Jan. 16	...	4 31 27·02	...	77 43 54·1	M
19	...	31 26·93	...	43 52·8	M
21	...	31 26·79	...	43 52·0	M
153		*51 Eridani c.*			
Jan. 17	...	4 31 33·90	...	92 42 54·6	M
22	...	31 33·81	...	42 53·0	M
23	...	31 33·89	...	42 51·6	M
154		*Anon.*			
Feb. 17	10·0	4 34 23·79	...	130 49 45·5	M
155		*a Cœli.*			
Jan. 3	...	4 36 41·76	...	132 5 36·1	M
156		*4 Camelopardi.*			
Jan. 7	...	4 38 0·49	...	33 27 28·2	M
8	...	38 0·53	...	27 28·7	M
157		*57 Eridani μ*			
Jan. 10	...	4 39 30·07	...	93 28 32·7	M
12	...	39 30·30	...	28 33·4	M
13	...	39 30·17	...	28 31·8	M
15	...	39 30·04	...	28 33·5	M
16	...	39 30·09	...	28 35·2	M
Dec. 31	...	39 30·24	...	28 33·6	M
158		*λ Cœli.*			
Jan. 17	5·6	4 39 47·79	...	131 17 20·6	M
19	6·0	39 47·71	...	17 20·5	M
159		*ζ Cœli.*			
Jan. 22	6·0	4 41 52·30	...	129 34 29·6	M
24	6·0	41 52·20	...	34 27·4	M
Feb. 2	...	41 52·01	5	34 25·5	M
4	6·0	41 52·22	...	34 27·1	M
160		*9 Camelopardi a*			
Jan. 21	...	4 42 7·53	...	33 51 45·7	M
23	...	42 7·64	...	51 48·5	M
Feb. 3	...	42 7·81	...	51 48·2	M
7	...	42 7·78	...	51 50·0	M
9	...	42 7·68	...	51 49·6	M

Separate Results of Madras Meridian Circle Observations in 1880.

Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No. of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
161		*1 Orionis* π^1			
Feb. 5	...	4 43 19·59	...	88 14 59·9	M
10	...	43 19·55	...	14 58·8	M
12	...	43 19·65	...	14 57·5	M
Mar. 2	...	43 19·64	...	14 59·9	R
3	...	43 19·74	...	14 59·5	R
162		*2 Orionis* π^2			
Jan. 6	...	4 44 4·27	...	81 18 22·6	M
163		*3 Orionis* π^3			
Feb. 6	...	4 44 48·87	...	84 36 6·9	M
11	...	44 49·01	...	36 3·6	M
13	...	44 49·05	...	36 3·8	M
164		*4 Orionis* o^1			
Feb. 14	...	4 45 44·69	...	75 57 3·1	M
16	...	45 44·62	...	57 1·6	M
165		*ν Cœli.*			
Jan. 9	5·6	4 46 21·95	...	131 31 41·9	M
Feb. 17	...	46 22·01	...	31 45·3	M

Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No. of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.	
168		*8 Orionis* π^5				
Jan. 19	...	4 48 0·05	...	87 45 25·0	M	
Feb. 24	...	48 0·16	...	45 25·0	M	
27	...	48 0·28	...	45 26·3	M	
Mar. 2	...	48 0·05	...	45 26·6	R	
3	...	48 0·13	...	45 26·3	R	
169		*ι*^{1} *Pictoris.*				
Feb. 7	...	4 48 14·87	...	143 40 1·1	M	
28	...	48 14·89	...	39 57·9	M	
170		*9 Orionis* o^2				
Jan. 12	...	4 49 37·83	...	76 40 36·9	M	
15	...	49 37·50	...	40 36·1	M	
171		*R Eridani, Var.*				
Dec. 18	5·5	4 49 55·14	...	106 36 46·9	M	
25	5·6	49 55·34	...	36 44·4	R	
27	6·0	49 55·29	...	36 47·0	R	55·25
28	6·2	49 55·14	...	36 46·9	R	·08
29	6·4	49 55·18	...	36 46·0	R	·11
30	6·5	49 55·26	...	36 48·4	M	·17
31	6·5	49 55·39	...	36 47·8	M	·33
172		*A Aurigæ*				

Separate Results of Madras Meridian Circle Observations in 1880.

Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No. of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
175		63 *Eridani.*			
Jan. 20	...	4 54 9·45	...	100 26 23·4	M
Feb. 6	...	54 9·59	...	26 26·5	M
176		*S Eridani, Var.*			
Dec. 25	5·0	4 54 21·09	...	102 42 53·2	R
27	5·4	54 21·24	...	42 55·7	R
177		65 *Eridani* ψ			
Jan. 21	...	4 55 37·13	...	97 21 3·9	M
Feb. 10	...	55 37·13	...	21 5·4	M
13	...	55 37·27	...	21 3·5	M
178		11 *Camelopardi.*			
Feb. 5	...	4 55 42·70	...	31 11 52·6	M
9	...	55 42·82	...	11 51·4	M
12	...	55 42·93	...	11 51·6	M
179		*Taylor* 1796.			
Feb. 14	5·5	4 56 13·13	...	110 13 38·1	M
16	5·5	56 13·33	...	13 38·9	M
23	5·5	56 13·17	...	13 40·1	M
Dec. 28	5·6	56 13·28	...	13 38·0	R
29	5·6	56 13·09	...	13 38·6	R
180		*Taylor* 1806.			
Jan. 6	5·0	4 57 16·81	...	116 26 46·6	M
8	5·0	57 16·84	...	26 45·5	M
Feb. 11	5·5	57 16·85	...	26 47·0	M
181		9 *Aurigæ.*			
Feb. 17	...	4 57 16·92	...	38 33 50·2	M
20	...	57 17·03	...	33 50·7	M
25	...	57 16·77	...	33 48·9	M
Mar. 2	...	57 16·95	...	33 51·4	R
4	...	57 16·86	...	33 51·1	R
182		10 *Aurigæ* η			
Feb. 7	...	4 58 6·07	...	48 55 46·4	M
18	...	58 6·20	...	55 47·3	M
21	...	58 6·15	...	55 46·6	M
Dec. 30	...	58 6·01	...	55 48·1	M
31	...	58 6·06	...	55 48·3	M
183		η^1 *Pictoris.*			
Jan. 9	5·6	4 59 40·32	...	139 19 16·4	M
19	6·0	59 40·53	...	19 14·0	M
184		*Taylor* 1836.			
Jan. 12	7·0	5 0 9·27	...	139 39 39·6	M
16	7·0	0 9·36	...	39 39·5	M
24	7·0	0 9·28	...	39 37·9	M
185		η^2 *Pictoris.*			
Jan. 3	5·6	5 1 51·61	...	139 45 27·2	M
10	5·6	1 51·49	...	45 25·5	M
186		*Radcliffe* 1402.			
Feb. 3	...	5 2 48·72	...	10 54 39·7	M
6	...	2 48·59	...	54 44·3	M
24	...	2 48·81	...	54 39·4	M
Mar. 3	...	2 48·53	...	54 40·3	R
4	...	2 48·54	...	54 42·1	R
187		ζ *Doradûs.*			
Jan. 23	5·0	5 3 27·35	...	147 38 13·0	M
188		11 *Aurigæ* μ			
Jan. 13	...	5 5 13·00	...	51 39 35·6	M
17	...	5 18·11	...	39 33·6	M
21	...	5 12·95	...	39 33·8	M
189		3 *Leporis* ι			
Feb. 2	...	5 6 41·90	...	102 0 52·5	M
5	...	6 41·76	...	0 54·5	M

Separate Results of Madras Meridian Circle Observations in 1880.

Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No. of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
190		17 *Orionis* ρ			
Feb. 9	...	5 7 1·01	...	87 16 59·0	M
191		5 *Leporis* μ			
Feb. 10	...	5 7 32·41	...	106 20 54·8	M
12	...	7 32·48	...	20 55·3	M
192		14 *Aurigæ*—2*nd*.			
Feb. 13	...	5 7 35·45	...	57 27 10·3	M
14	...	7 35·52	...	27 10·5	M
16	...	7 35·52	...	27 11·7	M
Mar. 2	...	7 35·52	...	27 11·8	R
3	...	7 35·57	...	27 11·5	R
193		4 *Leporis* κ			
Feb. 7	5·0	5 7 41·34	...	103 5 5·4	M
11	5·0	7 41·61	...	5 4·9	M
194		19 *Orionis* β, *Rigel*.			
Jan. 20	...	5 8 46·26	...	98 20 29·8	M
22	...	8 46·33	...	20 28·7	M
195		15 *Aurigæ* λ			
Jan. 9	...	5 10 41·98	...	50 0 33·5	M
196		7 *Leporis* ν			
Jan. 12	5·6	5 14 24·91	...	102 26 22·9	M
15	5·6	14 24·86	...	26 22·8	M
197		23 *Orionis* m.			
Jan. 13	...	5 16 31·69	...	86 34 22·4	M
16	...	16 31·71	...	34 23·3	M
17	...	16 31·73	...	34 22·0	M
198		*Bradley* 757.			
Jan. 23	5·6	5 17 45·28	...	90 58 51·1	M
Feb. 2	5·6	17 45·22	...	58 50·1	M
4	...	17 45·44	...	58 51·2	M
6	6·0	17 45·45	...	58 51·7	M
18	6·0	17 45·28	...	58 49·8	M
199		29 *Orionis* e.			
Jan. 6	...	5 18 9·85	...	97 55 10·0	M
19	...	18 9·95	...	55 7·4	M
21	...	18 10·01	...	55 11·0	M
200		28 *Orionis* η			
Jan. 24	...	5 18 26·54	...	92 30 34·2	M
Feb. 3	...	18 26·85	...	30 33·5	M
201		112 *Tauri* β			
Jan. 26	...	5 18 42·48	...	61 29 44·5	M
27	...	18 42·40	...	29 45·2	M
Feb. 21	...	18 42·50	...	29 45·3	M
23	...	18 42·36	...	29 44·4	M
202		24 *Aurigæ* φ			
Jan. 8	...	5 19 41·53	...	55 37 39·4	M
Feb. 5	...	19 41·37	...	37 40·5	M
9	...	19 41·59	...	37 40·1	M
203		31 *Orionis*, *Var*.			
Jan. 3	5·0	5 23 38·41	...	91 11 17·7	M
12	5·0	23 38·47	...	11 19·5	M
Dec. 31	5·5	23 38·46	...	11 18·2	M
204		*Radcliffe* 1485.			
Feb. 7	6·5	5 23 41·21	...	15 2 21·9	M
12	6·5	23 41·13	...	2 22·8	M
13	7·0	23 41·31	...	2 20·8	M
Mar. 1	5·2	23 41·15	...	2 20·9	R
2	5·2	23 41·14	...	2 21·7	R

Separate Results of Madras Meridian Circle Observations in 1880.

Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No. of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
205		*R. P. L.* 40.			
Jan. 7	...	5 23 44·46 (0·47)	3	4 52 8·8	M
15	...	23 40·94	3	52 7·0	M
22	...	23 41·91	3	52 8·3	M
		R. P. L. 40—*s.p.*			
Aug. 25	...	5 23 41·95	3	4 52 10·5	M
206		32 *Orionis* A.			
Jan. 17	...	5 24 21·81	...	84 8 38·9	M
207		25 *Aurigæ* χ			
Jan. 10	...	5 24 55·22	...	57 53 53·8	M
24	...	24 55·11	...	53 53·1	M
208		34 *Orionis* δ, *Var.* 1.			
Dec. 10	...	5 25 52·58	...	90 23 23·4	M
30	...	25 52·62	...	23 21·9	M
209		10 *Leporis.*			
Jan. 9	...	5 25 59·45	...	110 57 11·7	M
16	...	25 59·64	...	57 14·1	M
210		36 *Orionis* υ			
Jan. 13	5·0	5 26 7·70	...	97 23 27·5	M
19	5·0	26 7·59	...	23 26·5	M
21	6·0	26 7·52	...	23 28·3	M
211		11 *Leporis* α			
Jan. 26	...	5 27 26·17	...	107 54 33·0	M
Feb. 24	...	27 26·31	..	54 34·6	M
25	...	27 26·20	...	54 33·4	M
26	...	27 26·12	...	54 33·4	M
212		*Lacaille* 1895.			
Feb. 2	...	5 28 48·98	...	128 35 55·0	M
213		42 *Orionis* ϵ.			
Feb. 3	...	5 29 28·00	...	94 55 6·6	M
214		*Lacaille* 1922.			
Feb. 4	6·5	5 29 32·67	...	154 1 3·4	M
6	6·5	29 32·56	...	1 2·4	M
9	6·5	29 32·79	...	1 3·2	M
Mar. 2	5·6	29 32·66	...	1 3·9	R
3	5·7	29 32·74	...	1 2·2	R
215		46 *Orionis* ϵ			
Jan. 20	...	5 30 7·49	...	91 16 48·7	M
23	...	30 7·46	...	16 47·1	M
31	...	30 7·50	...	16 47·2	M
Feb. 27	...	30 7·50	...	16 47·7	M
216		26 *Aurigæ.*			
Jan. 6	...	5 30 55·69	...	59 34 52·0	M
217		53 *Orionis* κ			
Jan. 17	...	5 42 3·72	...	99 42 48·7	M
19	...	42 3·80	...	42 46·7	M
21	...	42 3·93	...	42 48·3	M
22	...	42 3·76	...	42 49·6	M
23	...	42 3·88	...	42 47·4	M
24	...	42 3·73	...	42 48·6	M
26	...	42 3·94	...	42 48·2	M
Feb. 2	...	42 3·88	...	42 48·0	M
3	...	42 3·89	...	42 49·5	M
4	...	42 3·91	...	42 48·8	M
5	...	42 3·69	...	42 48·9	M
6	...	42 3·91	...	42 49·9	M
7	...	42 3·81	...	42 49·7	M
9	...	42 3·82	...	42 48·7	M
10	...	42 3·78	...	42 48·1	M
Mar. 1	...	42 3·87	...	42 47·9	R
218		*Taylor* 2170.			
Jan. 3	5·0	5 43 7·99 (2·07)	...	136 38 30·8	M

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Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No. of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
219		136 *Tauri.*			
Jan. 6	...	5 45 47·00	...	62 25 3·9	M
220		*Taylor* 2214.			
Jan. 7	...	5 48 10·50	...	142 8 12·7	M
221		58 *Orionis, α Var 2, Betelgeux.*			
Jan. 21	...	5 48 40·46	...	82 36 59·5	M
27	...	48 40·46	...	37 1·9	M
222		33 *Aurigæ δ*			
Jan. 8	...	5 49 38·95	...	35 43 38·5	M
10	...	49 38·87	...	43 37·4	M
223		*Taylor* 2232.			
Jan. 12	5·6	5 50 19·54	...	147 10 45·0	M
15	...	50 19·74	...	10 42·1	M
19	5·6	50 19·56	...	10 41·2	M
224		35 *Aurigæ π*			
Jan. 9	...	5 51 1·50	...	44 4 34·3	M
225		δ^2 *Columbæ.*			
Jan. 13	5·6	5 51 22·32	...	127 8 20·7	M
16	5·6	51 22·46	...	8 21·5	M
226		37 *Aurigæ θ*			
Feb. 3	...	5 51 32·17	...	52 47 48·8	M
6	...	51 32·25	...	47 53·3	M
9	...	51 32·11	...	47 50·4	M
11	...	51 31·99	...	47 49·1	M
Mar. 3	...	51 31·98	...	47 49·1	R
227		*Lacaille* 2106.			
Jan. 22	5·0	5 53 11·24	...	153 7 39·6	M
23	5·0	53 11·20	...	7 36·2	M
228		*Anon.*			
Feb. 17	...	5 55 23·14	...	121 30 56·5	M
229		3 *Monocerotis.*			
Jan. 3	...	5 56 11·83	...	100 36 1·8	M
230		*R. P. L.* 43.			
Mar. 4	...	5 59 8·29	3	3 14 13·2	R
231		37 *Camelopardi.*			
Jan. 6	...	5 59 23·67	...	31 3 5·5	M
7	...	59 23·76	...	3 5·3	M
10	...	59 23·78	...	3 5·0	M
232		17 *Leporis.*			
Jan. 17	...	5 59 37·92	...	106 28 38·6	M
23	...	59 37·90	...	28 37·1	M
Feb. 3	...	59 37·93	...	28 38·7	M
4	...	59 38·14	...	28 39·6	M
7	...	59 38·10	...	28 39·7	M
233		67 *Orionis ν*			
Jan. 22	...	6 0 43·20	...	75 13 4·3	M
Feb. 20	...	0 43·10	...	13 6·0	M
Mar. 1	...	0 43·16	...	13 5·8	R
3	...	0 43·19	...	13 4·9	R
234		*Taylor* 2315.			
Jan. 9	5·6	6 1 1·08	...	135 2 10·4	M
235		ρ^2 *Columbæ.*			
Jan. 15	...	6 5 2·77	...	134 20 10·9	M
236		*Radcliffe* 1664.			
Feb. 5	...	6 5 36·98	...	20 38 28·5	M
9	...	5 37·11	...	38 28·1	M
11	...	5 37·00	...	38 27·7	M
Mar. 2	...	5 37·00	...	38 28·2	R
4	...	5 37·13	...	38 29·0	R

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Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No. of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
237		*Brisbane* 1172.			
Jan. 19	6·0	6 5 57·79	5	152 8 1·6	M
21	6·0	5 57·56	...	8 2·3	M
24	6·0	5 57·70	...	8 4·8	M
238		*B. F.* 864.			
Jan. 16	...	6 6 1·49	...	96 31 27·6	M
239		1 *Lyncis.*			
Feb. 4	...	6 6 50·87	...	28 26 54·2	M
10	...	6 50·82	...	26 53·9	M
16	...	6 50·99	...	26 52·6	M
Mar. 1	...	6 50·85	...	26 53·5	R
3	...	6 50·74	...	26 53·8	R
240		7 *Geminorum* η			
Jan. 17	...	6 7 38·00	...	67 27 36·4	M
Feb. 3	...	7 37·99	...	27 34·1	M
7	...	7 38·13	...	27 35·8	M
13	...	7 37·89	...	27 34·4	M
14	...	7 37·97	...	27 33·7	M
20	...	7 38·09	...	27 36·3	M
23	...	7 38·09	...	27 37·2	M
24	...	7 38·05	...	27 36·9	M
26	...	7 38·14	...	27 35·1	M
27	...	7 38·01	...	27 34·0	M
28	...	7 38·02	...	27 35·0	M
241		2 *Lyncis.*			
Jan. 3	...	6 9 1·97	...	30 56 54·6	M
242		74 *Orionis* k^2.			
Jan. 6	...	6 9 42·15	...	77 41 46·0	M
243		13 *Geminorum* μ			
Jan. 19	...	6 15 41·98	...	67 25 35·8	M
Feb. 21	...	15 42·13	...	25 33·6	M
Mar. 2	...	15 42·07	...	25 36·8	R
4	...	15 42·00	...	25 36·9	R

Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No. of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
244		*Taylor* 2458.			
Jan. 7	...	6 16 15·88	...	124 5 27·7	M
245		*Taylor* 2578.			
Jan. 6	5·6	6 30 8·37	...	122 37 21·6	M
9	5·6	30 8·39	...	37 19·8	M
246		24 *Geminorum* γ			
Feb. 2	...	6 30 46·81	...	73 30 0·5	M
23	...	30 46·76	...	30 1·0	M
Mar. 4	...	30 46·81	...	30 3·5	R
17	...	30 46·81	...	30 2·0	T
247		*Taylor* 2604.			
Jan. 10	5·0	6 32 19·99	...	142 52 40·9	M
12	5·0	32 20·08	...	52 42·4	M
15	5·0	32 20·12	...	52 39·4	M
22	5·0	32 19·88	...	52 40·4	M
248		*Taylor* 2607.			
Jan. 13	5·6	6 33 4·46	...	126 53 20·1	M
16	5·6	33 4·42	...	53 22·4	M
249		55 *Aurigæ* ψ^4			
Jan. 17	...	6 34 20·79	...	45 21 41·9	M
19	...	34 20·90	...	21 43·1	M
250		31 *Geminorum* ξ			
Feb. 9	...	6 38 33·16	...	76 58 33·5	M
10	...	38 33·22	...	58 34·5	M
11	...	38 33·37	...	58 35·2	M
12	...	38 33·25	...	58 35·2	M
16	...	38 33·23	...	58 35·2	M
24	...	38 33·19	...	58 33·8	M
25	...	38 33·27	...	58 33·7	M
26	...	38 33·27	...	58 35·0	M
28	...	38 33·20	...	58 33·3	M
Mar. 2	...	38 33·23	...	58 36·4	R
19	...	38 33·38	...	58 33·3	T

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Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No. of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
251 43 *Camelopardi.*					
Feb. 4	...	6 40 45·57	...	20 58 29·5	M
6	...	40 45·63	...	58 33·9	M
252 *Taylor* 2672.					
Feb. 13	8·0	6 40 48·16	...	110 38 57·6	M
18	8·0	40 48·31	...	38 57·3	M
20	...	40 48·12	...	38 56·5	M
23	7·8	40 48·11	...	38 58·2	M
253 *Radcliffe* 1813.					
Feb. 5	...	6 42 32·51	...	12 52 28·0	M
	...	42 32·30	...	52 27·6	M
254 51 *Cephei (Hev.)*					
Mar. 5	...	6 43 46·27	3	2 46 13·8	R
255 *Lalande* 13199.					
Feb. 8	8·0	6 45 0·69	...	80 25 10·2	M
9	8·0	45 0·47	...	25 10·5	M
21	8·0	45 0·74	...	25 9·8	M
Mar. 1	7·8	45 0·78	..	25 9·7	R
3	8·0	45 0·77	...	25 10·4	R
256 h^1 *Canis Majoris.*					
Jan. 12	5·6	6 45 51·12	...	121 34 0·1	M
15	5·6	45 51·26	...	33 58·5	M
257 15 *Lyncis.*					
Jan. 10	...	6 46 52·77 / 52·69	...	31 25 21·9	M
13	...	46 52·78 / 52·67	...	25 21·6	M
16	...	46 52·69	...	25 23·8	M
258 14 *Canis Majoris* θ					
Feb. 4	...	6 48 36·76	...	101 53 21·3	M
6	...	48 36·70	...	53 22·5	M
11	...	48 36·76	...	53 19·8	M
12	...	48 36·74	...	53 19·4	M
13	...	48 36·84	...	53 21·8	M
Feb. 14	...	6 48 36·89	..	101 53 20·0	M
16	...	48 36·84	...	53 20·1	M
17	...	48 36·90	...	53 21·3	M
18	...	48 36·88	...	53 20·0	M
25	...	48 36·91	...	53 19·2	M
27	...	48 36·78	...	53 20·3	M
28	...	48 36·92	...	53 21·0	M
Mar. 6	...	48 36·90	...	53 21·0	R
24	...	48 36·78	...	53 19·0	T
259 19 *Canis Majoris.*					
Jan. 17	...	6 50 25·28	...	109 59 4·8	M
19	...	50 25·17	...	59 2·5	M
260 23 *Canis Majoris* γ					
Jan. 23	...	6 58 19·74	...	105 27 25·5	M
Feb. 21	...	58 19·69	...	27 26·8	M
Mar. 5	...	58 19·79	...	27 26·4	R
261 *Taylor* 2845.					
Jan. 10	5·6	7 0 16·69 / 16·76	...	133 26 29·5	M
12	5·6	0 16·59 / 16·56	...	26 31·2	M
262 *Taylor* 2849.					
Jan. 13	5·6	7 0 46·67	...	139 24 31·0	M
15	5·6	0 46·48	...	24 30·3	M
17	5·6	0 46·56	...	24 28·9	M
263 *Taylor* 2876.					
Feb. 18	6·0	7 4 46·37	...	115 2 16·6	M
20	6·0	4 46·31	...	2 16·7	M
21	6·0	4 46·22	...	2 18·2	M
264 18 *Lyncis.*					
Jan. 16	...	7 5 25·60	...	30 9 8·1	M
19	...	5 25·82	...	9 4·6	M
21	...	5 25·66	...	9 5·2	M

Separate Results of Madras Meridian Circle Observations in 1880.

Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No. of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
265		*Radcliffe* 1887.			
July 17	...	7 5 44·48	4	7 21 50·5	M
Aug. 11	...	5 45·13	7	21 49·3	M
Sep. 23	...	5 44·52	3	21 49·4	R
266		*Radcliffe* 1917.			
Jan. 10	...	7 9 24·69	...	40 19 24·6	M
23	...	9 24·72	...	19 23·8	M
Feb. 3	...	9 24·74	...	19 23·1	M
5	...	9 24·56	...	19 25·1	M
267		64 *Aurigæ*.			
Jan. 12	...	7 9 41·81	...	48 54 18·9	M
15	...	9 41·43	...	54 18·9	M
24	...	9 41·23	...	54 21·4	M
Feb. 4	...	9 41·45	...	54 20·6	M
268		55 *Geminorum* δ			
Mar. 17	...	7 12 57·30	...	67 47 51·9	T
269		19 *Lyncis—2nd.*			
Jan. 13	...	7 13 4·40	...	34 29 42·2	M
21	...	13 4·25	...	29 40·4	M
Feb. 6	...	13 4·15	...	29 44·1	M
270		*Taylor* 2975.			
Feb. 7	...	7 14 2·34	...	126 31 0·2	M
271		*Taylor* 2984.			
Feb. 9	6·0	7 14 21·40	...	133 46 9·2	M
12	6·0	14 21·34	...	46 6·7	M
14	6·0	14 21·42	...	46 6·2	M
272		*Taylor* 2980.			
Feb. 11	5·5	7 14 22·09	...	126 31 27·4	M
13	5·5	14 21·92	...	31 26·0	M
16	5·5	14 22·19	...	31 26·1	M

Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No. of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
273		66 *Aurigæ*.			
Jan. 16	...	7 15 49·76	...	49 5 55·0	M
Feb. 10	...	15 49·48	...	5 54·7	M
21	...	15 49·70	...	5 54·0	M
274		*Taylor* 3029.			
Feb. 18	6·0	7 18 0·09	...	146 4 13·7	M
20	6·0	17 59·96	...	4 14·4	M
23	6·0	17 59·77	5	4 14·6	M
Mar. 2	6·0	17 59·89	...	4 13·7	R
3	5·6	17 59·97	...	4 12·6	R
275		*Radcliffe* 1949.			
Jan. 17	...	7 18 22·54	...	21 17 30·7	M
23	...	18 22·76	...	17 30·5	M
24	...	18 22·67	...	17 30·6	M
276		*s Puppis*.			
Jan. 10	5·6	7 18 25·42	...	121 41 36·5	M
12	5·6	18 25·26	...	41 31·8	M
15	5·6	18 25·40	...	41 35·9	M
Feb. 4	6·0	18 25·48	...	41 37·3	M
277		3 *Canis Minoris* β			
Feb. 3	...	7 20 38·55	...	81 28 10·7	M
5	...	20 38·70	...	28 12·8	M
12	...	20 38·67	...	28 10·4	M
13	...	20 38·70	...	28 11·5	M
14	...	20 38·57	...	28 10·3	M
16	...	20 38·61	...	28 10·7	M
17	...	20 38·59	...	28 10·9	M
Mar. 1	...	20 38·61	...	28 10·1	R
6	...	20 38·56	...	28 11·4	R
19	...	20 38·63	...	28 10·1	T
24	...	20 38·49	...	28 10·5	T
Apl. 3	...	20 38·70	...	28 10·2	T
7	...	20 38·45	...	28 8·9	T

Separate Results of Madras Meridian Circle Observations in 1880.

Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No. of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
278 10 *Canis Minoris, α Procyon.*					
Jan. 24	...	7 33 1·31	...	84 28 5·3	M
Mar. 17	...	33 1·24	...	28 4·1	T
24	...	33 0·97	...	28 2·1	T
Apl. 3	...	33 1·04	...	28 4·4	T
279 75 *Geminorum σ*					
Jan. 15	...	7 35 48·52	...	60 49 39·2	M
16	...	35 48·60	...	49 40·4	M
21	...	35 48·77	...	49 39·1	M
280 1 *Puppis.*					
Jan. 12	5·6	7 38 41·83	...	118 7 36·6	M
22	6·0	38 41·73	...	7 37·4	M
31	6·0	38 41·75	...	7 35·7	M
281 *Taylor* 3209.					
Jan. 13	5·6	7 39 14·38	...	134 52 11·8	M
23	6·0	39 14·30	...	52 11·6	M
Feb. 2	5·6	39 14·31	...	52 12·7	M
5	6·0	39 14·29	...	52 11·3	M
282 *Taylor* 3265.					
Jan. 16	5·6	7 43 54·06	...	136 18 43·3	M
21	6·0	43 53·95	...	18 42·1	M
283 7 *Argûs ξ*					
Mar. 4	...	7 44 14·85	...	114 33 35·9	R
22	...	44 14·87	...	33 33·4	T
Apl. 3	...	44 14·86	...	33 31·7	T
10	...	44 14·89	...	33 33·4	T
284 6 *Puppis.*					
Jan. 24	6·0	7 44 15·85	...	106 55 23·9	M
Feb. 3	5·6	44 15·86	...	55 26·3	M
285 *Taylor* 3275.					
Jan. 22	5·6	7 44 46·00	...	136 46 32·3	M
Feb. 4	5·6	44 46·12	...	46 35·7	M
5	6·0	44 45·99	...	46 34·9	M
286 *R. P. L.* 49.					
Feb. 6	...	7 48 0·42	3	5 36 8·3	M
12	...	48 0·53	3	36 4·2	M
18	...	47 59·31	3	36 5·1	M
Mar. 1	...	47 59·76	3	36 2·9	R
2	...	48 0·06	3	36 4·6	R
3	...	47 59·94	3	36 5·5	R
Apl. 7	...	47 59·69	7	36 2·8	T
R. P. L. 49—*s.p.*					
Sep. 21	...	7 47 59·69	3	5 36 6·2	R
29	...	48 0·18	2	36 7·0	R
30	...	48 0·32	3	36 3·9	R
Oct. 2	...	47 59·69	3	36 4·1	M
4	...	48 0·65	3	36 5·7	M
287 6 *Cancri.*					
Jan. 27	...	7 56 8·87	...	61 52 14·9	M
Mar. 15	...	56 8·72	...	52 14·9	T
Apl. 15	...	56 8·67	...	52 14·2	T
17	...	56 8·74	...	52 15·0	T
288 *Taylor* 3399.					
Jan. 22	5·6	7 57 53·01	...	143 49 10·0	M
Feb. 4	6·0	57 52·98	...	49 9·8	M
7	6·0	57 52·88	...	49 10·8	M
9	6·0	57 52·68	...	49 10·9	M
289 27 *Lyncis.*					
Jan. 21	...	7 59 25·37	...	38 8 57·5	M
23	...	59 25·39	...	8 55·8	M

Separate Results of Madras Meridian Circle Observations in 1880.

Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No. of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
290		55 *Camelopardi.*			
Jan. 24	...	8 0 50·99	6	21 10 30·6	M
Feb. 5	...	0 50·72	...	10 31·9	M
6	...	0 50·74	...	10 31·0	M
291		15 *Argûs ι*			
Apl. 13	...	8 2 26·03	...	113 57 33·3	T
15	...	2 25·97	...	57 33·0	T
17	...	2 26·17	...	57 34·1	T
292		*Anon.*			
Feb. 20	10·5	8 6 40·30	...	128 42 29·7	M
24	...	6 40·33	5	42 29·3	M
25	...	6 40·54	...	42 30·0	M
293		17 *Cancri β*			
Feb. 17	...	8 10 0·32	...	80 26 44·8	M
18	...	10 0·39	...	26 44·4	M
Mar. 1	...	10 0·41	...	26 44·1	R
2	...	10 0·35	...	26 45·1	R
3	...	10 0·39	...	26 44·7	R
5	...	10 0·40	...	26 45·3	R
15	...	10 0·41	...	26 44·1	T
22	...	10 0·48	...	26 44·9	T
Apl. 7	...	10 0·21	...	26 43·0	T
10	...	10 0·26	...	26 43·1	T
13	...	10 0·39	...	26 43·9	T
15	...	10 0·50	...	26 43·3	T
17	...	10 0·33	...	26 43·8	T
24	...	10 0·45	...	26 42·9	T
294		33 *Cancri η*			
Mar. 15	...	8 25 46·10	...	69 9 12·0	T
Apr. 22	...	25 46·19	...	9 6·6	T
24	...	25 45·99	...	9 6·6	T
295		43 *Cancri γ*			
Mar. 2	...	8 36 20·44	...	68 6 5·3	R
3	...	36 20·40	...	6 4·3	R
4	...	36 20·38	...	6 5·9	R
Mar. 6	...	8 36 20·36	...	68 6 7·2	R
15	...	36 20·23	...	6 4·0	T
22	...	36 20·29	...	6 3·5	T
Apl. 22	...	36 20·40	...	6 2·4	T
24	...	36 20·36	...	6 5·7	T
296		*θ Volantis.*			
Feb. 20	6·0	8 38 38·04	...	159 57 34·8	M
23	6·0	38 37·94	...	57 36·6	M
297		*R. P. L.* 60.			
Feb. 25	...	8 50 3·43	3	5 20 25·6	M
Mar. 6	...	50 2·69	3	20 27·8	R
Apl. 17	...	50 2·35	3	20 26·1	T
298		65 *Cancri α*			
Feb. 18	...	8 51 55·33	...	77 40 42·2	M
20	...	51 55·41	...	40 42·7	M
Mar. 5	...	51 55·34	...	40 43·7	R
15	...	51 55·35	...	40 43·8	T
Apl. 7	...	51 55·24	...	40 42·6	T
299		76 *Cancri κ*			
Mar. 1	...	9 1 14·81	...	78 50 59·2	R
2	...	1 14·82	...	51 0·0	R
4	...	1 14·79	...	51 1·2	R
6	...	1 14·79	...	51 1·6	R
Apl. 13	...	1 14·78	...	50 59·4	T
29	...	1 14·79	...	50 59·4	T
300		*Taylor* 4022.			
Feb. 20	6·5	9 4 48·72	...	162 7 12·0	M
21	...	4 48·91	5	7 14·7	M
301		22 *Hydræ θ*			
Feb. 23	...	9 8 7·16	...	87 10 ~~55~~ 0	M
26	...	8 7·25	...	10 53·9	M

Separate Results of Madras Meridian Circle Observations in 1880.

Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No. of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
302		*i Carinæ.*			
Feb. 25	5·0	9 8 33·28	...	151 49 32·1	M
27	5·0	8 33·09	...	49 30·7	M
303		83 *Cancri.*			
Apl. 26	...	9 12 16·88	...	71 47 12·0	T
29	...	12 16·89	...	47 11·6	T
304		25 *Ursæ Majoris θ*			
Apl. 29	...	9 24 49·33	...	37 46 36·8	T
305		14 *Leonis o*			
May 1	...	9 34 44·75	...	79 33 42·4	R
306		*R. P. L.* 69.			
Feb. 21	...	9 37 57·79	3	2 51 6·3	M
27	...	37 57·61	3	51 6·3	M
28	...	37 57·70	3	51 7·7	M
Apl. 13	...	37 56·68	3	51 5·7	T
26	...	37 58·33	3	51 6·0	T
307		17 *Leonis ε*			
Apl. 19	...	9 39 2·11	...	65 40 26·9	T
308		*R. P. L.* 70.			
May 1	...	9 49 8·78	3	5 30 18·1	R
309		29 *Leonis π*			
Apl. 26	...	9 53 52·28	...	81 22 48·2	T
310		32 *Leonis a, Regulus.*			
Apl. 19	...	10 1 58·87	...	77 26 48·6	T
311		*R. P. L.* 72—*s.p.*			
Sep. 15	...	10 11 57·96	3	5 8 24·2	R
Oct. 20	...	11 57·99	2	8 26·0	M
Nov. 6	...	11 57·91	3	8 24·7	R

Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No. of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
312		41 *Leonis* γ^1			
Apl. 19	...	10 13 21·41	...	69 33 5·7	T
26	...	13 21·27	...	33 5·0	T
313		47 *Leonis ρ*			
May 4	...	10 26 29·56	...	80 4 32·7	R
5	...	26 29·55	...	4 33·6	R
314		53 *Leonis l.*			
May 4	...	10 42 56·87	...	78 49 11·5	R
7	...	42 56·90	...	49 11·5	R
315		58 *Leonis d.*			
May 1	...	10 54 21·76	...	85 44 17·6	R
7	...	54 21·75	...	44 17·0	R
316		*R. P. L.* 79.			
Mar. 17	...	10 59 32·15	3	1 42 31·7	T
19	...	59 35·89	3	42 31·6	T
317		68 *Leonis δ*			
May 1	...	11 7 43·41	...	68 49 7·2	R
6	...	7 43·49	...	49 7·9	R
318		12 *Crateris δ*			
May 5	...	11 13 20·49	...	104 7 43·1	R
7	...	13 20·45	...	7 44·6	R
319		84 *Leonis τ*			
May 4	...	11 21 45·95	...	86 28 58·8	R
5	...	21 45·93	...	28 57·1	R
6	...	21 45·93	...	28 57·6	R
8	...	21 45·92	...	28 57·3	R
10	...	21 45·99	...	28 58·2	R

Separate Results of Madras Meridian Circle Observations in 1880.

Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No. of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
320		91 *Leonis v*			
May 11	...	11 30 48·25	...	90 9 39·8	R
12	...	30 48·32	...	9 40·0	R
15	...	30 48·28	...	9 40·9	R
321		94 *Leonis β, Denеb.*			
May 8	...	11 42 56·25	...	74 45 24·2	R
10	...	42 56·29	...	45 24·6	R
13	...	42 56·25	...	45 24·5	R
322		8 *Virginis π*			
May 6	...	11 54 43·38	...	82 42 56·4	R
8	...	54 43·39	...	42 56·3	R
11	...	54 43·38	...	42 56·5	R
13	...	54 43·39	...	42 57·0	R
14	...	54 43·36	...	42 56·7	R
17	...	54 43·42	...	42 58·0	R
323		*R. P. L.* 89.			
May 10	...	11 58 41·49	3	3 44 55·6	R
		R. P. L. 89—*s.p.*			
Nov. 9	...	11 58 40·90	3	3 44 54·6	R
13	...	58 43·41	3	44 52·8	R
24	...	58 41·18	3	44 52·4	R
Dec. 3	...	58 41·37	3	44 53·1	R
324		2 *Corvi ε*			
May 12	...	12 3 57·31	...	111 57 7·0	R
14	...	3 57·36	...	57 6·6	R
18	...	3 57·31	...	57 7·9	R
19	...	3 57·30	...	57 8·0	R
325		*Lalande* 22945.			
May 1	8·0	12 8 51·47	...	90 39 33·1	R
4	8·0	8 51·31	...	39 33·6	R
5	8·2	8 51·46	...	39 32·0	R
6	8·0	8 51·43	...	39 32·2	R
8	8·5	8 51·52	5	39 31·6	R
326		*Anon.*			
May 13	8·5	12 11 15·19	...	138 15 24·9	R
14	8·8	11 15·23	...	15 25·1	R
15	8·5	11 15·20	...	15 25·7	R
17	8·8	11 15·08	...	15 25·8	R
18	8·6	11 15·11	...	15 25·6	R
327		15 *Virginis η*			
May 5	...	12 13 45·99	...	89 59 58·2	R
19	...	13 45·98	...	59 58·7	R
20	...	13 45·96	...	59 58·0	R
22	...	13 45·99	...	59 58·9	R
328		*R. P. L.* 93—*s.p.*			
Oct. 14	...	12 14 21·76	2	1 38 7·4	M
25	...	14 21·30	2	38 5·5	M
29	...	14 21·74	3	38 7·4	M
Dec. 14	...	14 17·97	3	38 5·7	M
15	...	14 18·56	3	38 7·1	M
329		7 *Corvi δ*			
May 10	...	12 23 39·44	...	105 50 49·5	R
11	...	23 39·45	...	50 49·4	R
12	...	23 39·50	...	50 48·8	R
15	...	23 39·40	...	50 50·7	R
17	...	23 39·54	...	50 51·4	R
20	...	23 39·50	...	50 48·9	R
24	...	23 39·49	...	50 49·5	R
330		*Anon.*			
May 1	9·2	12 28 0·59	...	93 47 1·5	R
4	9·2	28 0·62	...	47 0·2	R
5	9·4	28 0·80	...	47 0·3	R
6	9·2	28 0·77	...	47 1·0	R
7	9·3	28 0·71	...	47 0·9	R
331		9 *Corvi β*			
May 13	...	12 28 5·04	...	112 43 58·2	R
14	...	28 5·08	...	43 57·0	R
18	...	28 5·07	...	43 57·5	R
22	...	28 5·01	...	43 57·4	R
25	...	28 5·01	...	43 58·1	R

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Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No. of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
332		*R. P. L.* 99—*s.p.*			
Dec. 7	...	12 48 15·77	3	5 56 4·9	R
333		43 *Virginis* δ			
May 17	...	12 49 33·56	...	85 57 0·1	R
22	...	49 33·50	...	56 59·3	R
24	...	49 33·53	...	56 59·0	R
27	...	49 33·61	...	56 58·3	R
334		*Lacaille* 5335.			
May 18	10·3	12 51 38·60	4	160 11 16·0	R
20	10·3	51 38·40	3	11 15·4	R
335		47 *Virginis* ϵ, *Vindemiatrix.*			
May 15	...	12 56 12·19	...	78 23 42·2	R
19	...	56 12·18	...	23 42·0	R
25	...	56 12·26	...	23 42·6	R
336		51 *Virginis* θ			
May 24	...	13 3 44·29	...	94 53 51·4	R
27	...	3 44·28	...	53 51·5	R
337		42 *Comæ a*			
May 1	...	13 4 8·91	5	71 50 7·4	R
4	...	4 8·92	...	50 7·8	R
6	...	4 9·00	...	50 7·2	R
338		*Taylor* 6057.			
May 7	5·6	13 4 48·57	...	149 16 53·4	R
11	5·6	4 48·82	...	16 53·9	R
13	5·6	4 48·92	...	16 53·4	R
339		53 *Virginis.*			
May 5	5·3	13 5 40·39	...	105 33 1·3	R
8	...	5 40·29	5	33 0·8	R
14	5·3	5 40·54	...	33 0·2	R
17	5·2	5 40·40	...	33 0·0	R
19	5·2	5 40·35	...	32 59·7	R
340		*η Muscæ.*			
May 10	5·3	13 7 8·39	...	157 15 30·8	R
12	5·5	7 8·24	...	15 28·1	R
15	5·5	7 8·28	...	15 30·7	R
18	5·2	7 8·34	...	15 31·4	R
20	5·1	7 8·37	...	15 28·7	R
341		67 *Virginis a, Spica.*			
May 1	...	13 18 52·29	...	100 32 3·7	R
4	...	18 52·24	...	32 3·3	R
342		*R. P. L.* 103.			
May 6	...	13 19 31·17	3	4 37 8·1	R
343		79 *Virginis* ζ			
May 6	...	13 28 34·78	...	89 58 53·8	R
7	...	28 34·76	...	58 54·2	R
18	...	28 34·76	...	58 54·4	R
344		4 *Bootis* τ			
May 10	...	13 41 33·56	...	71 56 39·8	R
12	...	41 33·54	...	56 40·2	R
14	...	41 33·49	...	56 39·6	R
17	...	41 33·53	...	56 41·0	R
20	...	41 33·61	...	56 39·5	R
25	...	41 33·58	...	56 39·4	R
345		93 *Virginis* τ			
May 15	...	13 55 32·48	...	87 52 27·7	R
22	...	55 32·39	...	52 25·9	R
27	...	55 32·34	...	52 27·5	R
346		11 *Draconis a*			
May 11	...	14 1 8·30	...	25 2 59·6	R
12	...	1 8·29	...	2 59·0	R
13	...	1 8·22	...	2 59·3	R
17	...	1 8·24	...	3 0·5	R
20	...	1 8·12	...	2 59·5	R

Separate Results of Madras Meridian Circle Observations in 1880.

Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No. of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
347		*R. P. L.* 108.			
May 19	...	14 1 49·26	3	3 40 3·5	R
		R. P. L. 108.—*s.p.*			
Nov. 19	...	14 1 50·14	3	3 40 5·6	R
348		22 *Bootis f.*			
May 10	...	14 20 52·54	...	70 13 56·7	R
11	...	20 52·61	...	13 57·3	R
12	...	20 52·50	...	13 56·9	R
13	...	20 52·55	...	13 56·7	R
18	...	20 52·51	...	13 57·7	R
20	...	20 52·53	...	13 57·9	R
24	...	20 52·57	...	14 0·4	R
349		36 *Bootis* ϵ, *Mirac.*			
May 27	...	14 39 44·78	...	62 25 7·4	R
28	...	39 44·83	...	25 7·9	R
June 1	...	39 44·80	...	25 6·6	R
3	...	39 44·73	...	25 8·4	R
28	...	39 44·73	...	25 7·4	R
350		109 *Virginis.*			
May 12	...	14 40 11·03	...	87 36 0·0	R
19	...	40 10·86	...	36 0·9	R
22	...	40 10·87	...	36 1·1	R
351		55 *Hydræ.*			
May 10	5·6	14 40 23·93	...	115 7 8·4	R
13	5·6	40 24·17	...	7 9·1	R
17	5·7	40 24·04	...	7 10·1	R
352		56 *Hydræ.*			
May 11	...	14 40 44·64	...	115 35 0·8	R
14	...	40 44·57	...	35 0·4	R
353		57 *Hydræ.*			
May 15	...	14 40 56·63	...	116 8 30·5	R
18	...	40 56·53	...	8 30·4	R
20	...	40 56·53	...	8 29·4	R
24	...	40 56·57	...	8 31·4	R
354		9 *Libræ* a^2			
May 25	...	14 44 14·47	...	105 32 31·1	R
29	...	44 14·54	...	32 31·7	R
June 1	...	44 14·44	...	32 31·1	R
355		43 *Bootis* ψ			
May 28	...	14 59 18·15	...	62 35 0·9	R
29	...	59 18·21	...	35 1·6	R
June 1	...	59 18·26	...	35 1·2	R
2	...	59 18·21	...	35 0·7	R
7	...	59 18·26	...	35 0·5	R
28	...	59 18·29	...	35 1·9	R
July 5	...	59 18·33	...	35 0·6	M
356		*O. A. S.* 14246.			
May 10	7·0	14 59 31·80	...	111 33 47·1	R
12	7·3	59 31·76	...	33 46·7	R
14	7·1	59 31·74	...	33 45·6	R
19	7·0	59 31·78	...	33 48·4	R
22	8·2	59 31·57	...	33 48·0	R
357		*Anon.*			
May 11	9·0	14 59 31·83	...	111 23 13·1	R
13	9·2	59 31·95	...	23 12·4	R
18	9·2	59 31·94	...	23 12·6	R
20	9·4	59 31·93	...	23 10·6	R
24	9·4	59 31·78	...	23 12·5	R
358		*Taylor* 7053.			
May 15	...	15 2 20·00	...	144 53 14·3	R
359		κ *Lupi*—1*st.*			
May 17	...	15 3 36·08	...	138 16 48·3	R
360		*R. P. L.* 111—*s.p.*			
Dec. 22	...	15 3 53·88	3	5 35 7·4	R
27	...	3 53·84	3	35 6·3	R
29	...	3 53·18	3	35 9·8	R

Separate Results of Madras Meridian Circle Observations in 1880.

Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No. of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
361		*μ Lupi*—1st.			
May 12	5·0	15 10 11·50	...	137 25 58·7	R
13	5·1	10 11·51	...	25 52·0	R
362		*27 Libræ β*			
June 2	...	15 10 32·99	...	98 56 21·0	R
3	...	10 32·98	...	56 20·8	R
4	...	10 32·98	...	56 20·5	R
5	...	10 32·96	...	56 21·0	R
7	...	10 33·01	...	56 20·4	R
8	...	10 33·06	...	56 18·7	R
17	...	10 33·00	...	56 19·5	R
28	...	10 33·00	...	56 21·1	R
July 5	...	10 33·01	...	56 18·6	M
23	...	10 33·14	...	56 20·2	M
363		*ν¹ Lupi.*			
May 17	...	15 13 47·41	...	137 29 20·8	R
364		*φ¹ Lupi.*			
May 18	...	15 14 11·69	...	125 49 28·6	R
19	...	14 11·66	...	49 28·1	R
20	...	14 11·66	...	49 27·8	R
365		*S Libræ, Var.* 5.			
May 25	10·0	15 14 30·70	...	109 57 14·4	R
27	10·0	14 30·64	...	57 16·2	R
28	10·0	14 30·77	...	57 15·0	R
29	10·0	14 30·82	...	57 15·2	R
366		*O. A. S.* 14617.			
June 9	9·6	15 24 57·57	...	119 47 4·7	R
17	9·5	24 57·65	...	47 3·7	R
18	9·5	24 57·46	3	47 3·5	R
19	9·5	24 57·64	...	47 2·7	R
July 20	...	24 57·50	...	47 2·8	M
367		*5 Coronæ Bor. a, Alpheta.*			
June 18	...	15 29 36·38	...	62 52 46·5	R
July 5	...	29 36·36	...	52 47·4	M
15	...	29 36·39	...	52 49·4	M
23	...	29 36·43	...	52 48·1	M
368		*ι Lupi.*			
June 2	5·0	15 29 58·29	...	132 10 19·9	R
3	...	29 58·21	4	10 18·8	R
4	5·0	29 58·32	...	10 17·7	R
5	5·0	29 58·36	...	10 18·3	R
7	5·3	29 58·40	...	10 18·8	R
369		*42 Libræ.*			
May 24	5·8	15 33 11·30	...	113 25 36·5	R
27	5·7	33 11·27	...	25 36·5	R
28	5·6	33 11·36	...	25 36·8	R
370		*h Lupi.*			
May 25	5·6	15 34 50·54	...	127 2 17·2	R
June 2	5·6	34 50·55	...	2 17·7	R
4	5·6	34 50·34	...	2 17·6	R
371		*ζ Coronæ Borealis*—2nd.			
May 29	...	15 34 51·51	...	52 58 26·2	R
372		*15 Ursæ Minoris θ*			
June 17	...	15 34 59·93	...	12 15 4·6	R
18	...	34 59·98	...	15 5·9	R
19	...	34 59·78	...	15 4·6	R
373		*ψ² Lupi.*			
June 1	5·6	15 35 2·45	...	124 19 24·2	R
3	...	35 2·46	...	19 25·4	R
5	5·6	35 2·40	...	19 24·3	R
7	...	35 2·39	...	19 24·7	R
8	5·6	35 2·38	...	19 24·8	R

Separate Results of Madras Meridian Circle Observations in 1880.

Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No. of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
374		*24 Serpentis a*			
May 28	...	15 38 21·44	...	83 11 43·9	R
June 9	...	38 21·42	...	11 44·3	R
July 10	...	38 21·47	...	11 41·6	M
17	...	38 21·40	...	11 43·3	M
20	...	38 21·30	...	11 43·8	M
375		*κ Trianguli Australis.*			
May 25	5·2	15 43 39·31	...	158 14 35·8	R
27	5·2	43 39·40	..	14 35·8	R
28	5·0	43 39·29	...	14 34·9	R
376		*37 Serpentis ϵ*			
May 29	...	15 44 50·07	...	85 9 34·8	R
June 2	...	44 50·09	...	9 34·4	R
5	...	44 50·06	...	9 33·8	R
7	...	44 50·11	..	9 34·9	R
8	...	44 50·03	..	9 35·8	R
9	...	44 50·05	..	9 35·0	R
18	...	44 50·08	..	9 34·3	R
19	...	44 50·11	...	9 33·4	R
July 10	...	44 50·14	...	9 32·9	M
15	..	44 50·10	...	9 34·0	M
20	...	44 50·08	...	9 34·4	M
27	..	44 50·08	..	9 34·2	R
28	...	44 50·05	.	9 34·2	R
377		*R. P. L.* 115.			
June 4	..	15 45 53·26	3	4 46 51·2	R
17	...	45 52·99	3	46 50·8	R
378		*Radcliffe* 3468.			
May 27	5·2	15 49 28·83	...	33 49 4·5	R
28	5·1	49 28·82	...	49 6·0	R
29	5·1	49 28·83	...	49 7·3	R
June 1	5·5	49 28·96	..	49 7·2	R
2	5·4	49 28·91	...	49 7·9	R

Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No. of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
379		*Anon.*			
June 4	9·0	15 53 17·80	...	150 8 55·6	R
5	9·1	53 17·82	...	8 56·7	R
7	...	53 17·87	4	8 56·8	R
17	9·2	53 17·65	...	8 54·8	R
380		*η Normæ.*			
May 28	5·6	15 54 24·16	...	138 53 34·6	R
29	5·6	24 24·18	...	53 34·4	R
381		*δ Normæ.*			
June 1	...	15 58 1·04	...	134 50 44·9	R
382		*8 Scorpii* β^1			
July 29	...	15 58 27·56	...	109 28 29·6	R
30	...	58 27·49	...	28 29·7	M
383		*8 Scorpii β—2nd.*			
June 4	5·6	15 58 27·93	...	109 28 16·7	R
July 5	...	58 28·08	...	28 18·2	M
10	...	58 28·13	...	28 17·6	M
23	...	58 28·15	...	28 18·8	M
28	5·6	58 28·14	...	28 16·8	R
384		*6 Herculis υ*			
June 3	...	15 59 3·35	...	43 37 45·0	R
5	...	59 3·31	...	37 44·6	R
7	...	59 3·36	...	37 46·1	R
385		ι^2 *Normæ.*			
May 29	5·6	15 59 27·57	...	147 36 34·4	R
June 2	5·6	59 27·60	...	36 33·7	R
9	5·8	59 27·30	...	36 32·9	R
17	5·7	59 27·41	...	36 30·8	R
386		*m Scorpii.*			
June 18	...	16 0 48·92	...	116 0 11·8	R
19	...	0 48·95	...	0 11·0	R
July 16	...	0 48·87	...	0 13·3	M

Separate Results of Madras Meridian Circle Observations in 1880.

Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
387		*ζ Normæ.*			
May 28	5·7	16 3 49·89	...	145 13 38·4	R
June 5	5·7	3 49·72	...	13 35·3	R
388		*κ Normæ.*			
June 1	...	16 4 1·46	...	144 19 2·9	R
July 27	...	4 1·28	...	19 3·6	R
Aug. 9	...	4 1·28	...	19 5·3	M
10	...	4 1·22	...	19 3·5	M
11	...	4 1·38	...	19 5·1	M
389		*δ Trianguli Australis.*			
July 28	...	16 4 31·74	...	153 22 36·6	R
390		11 *Herculis* ϕ			
May 27	...	16 4 59·20	...	44 44 56·7	R
June 2	...	4 59·13	...	44 59·1	R
7	...	4 59·08	...	44 59·1	R
8	...	4 59·06	...	44 57·9	R
17	...	4 59·13	...	44 58·4	R
391		*Radcliffe* 3511.			
July 29	...	16 5 59·61	...	21 52 23·1	R
31	...	5 59·52	...	52 21·9	M
392		*θ Normæ.*			
May 29	5·6	16 6 32·99	...	137 3 52·5	R
June 19	5·5	6 32·90	...	3 48·9	R
Aug. 7	...	6 32·99	5	3 50·9	M
14	...	6 32·91	...	3 51·7	M
393		γ^1 *Normæ.*			
July 16	...	16 8 2·12	...	139 45 58·9	M
Aug. 19	...	8 2·13	6	45 56·6	M
394		1 *Ophiuchi* δ			
June 3	...	16 8 3·41	...	93 22 59·3	R
July 20	...	8 3·52	...	23 2·8	M
27	...	8 3·34	...	23 2·4	R
Aug. 3	...	8 3·48	...	22 59·9	M
395		18 *Scorpii.*			
May 28	...	16 9 6·03	...	98 3 1·4	R
396		*R Scorpii, Var.* 1.			
June 4	9·8	16 10 29·74	...	112 38 44·7	R
5	9·9	10 29·86	4	38 45·2	R
8	9·9	10 29·81	...	38 45·5	R
397		*S Scorpii, Var.* 2.			
June 17	10·7	16 10 31·54	3	112 35 42·4	R
398		*d Scorpii.*			
July 5	...	16 10 51·51	...	118 18 50·0	M
30	...	10 51·58	...	18 48·9	M
Aug. 10	...	10 51·68	...	18 49·2	M
11	...	10 51·62	...	18 49·8	M
399		γ^2 *Normæ.*			
Aug. 24	...	16 10 51·96	...	139 51 33·0	M
400		*W. B. E. XVI.* 197.			
June 19	9·0	16 12 7·61	...	101 12 42·3	R
July 28	9·2	12 7·53	...	12 43·8	R
401		19 *Scorpii.*			
June 2	...	16 13 25·07	...	113 52 42·1	R
July 10	...	13 25·07	...	52 40·3	M
29	...	13 24·92	...	52 41·9	R
402		19 *Ursæ Minoris.*			
June 7	...	16 14 15·81	...	13 49 15·2	R
403		*Radcliffe* 3534.			
June 9	...	16 15 15·22	...	29 57 10·9	R
July 16	...	15 15·06	5	57 15·0	M
Aug. 9	...	15 15·26	6	57 10·8	M
14	...	15 15·21	...	57 11·4	M

Separate Results of Madras Meridian Circle Observations in 1880.

Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
387		*ζ Normæ.*			
May 28	5·7	16 3 49·89	...	145 13 38·4	R
June 5	5·7	3 49·72	...	13 35·3	R
388		*κ Normæ.*			
June 1	...	16 4 1·46	...	144 19 2·9	R
July 27	...	4 1·28	...	19 3·6	R
Aug. 9	...	4 1·28	...	19 5·3	M
10	...	4 1·22	...	19 3·5	M
11	...	4 1·38	...	19 5·1	M
389		*δ Trianguli Australis.*			
July 28	...	16 4 31·74	...	153 22 36·6	R
390		11 *Herculis* ϕ			
May 27	...	16 4 59·20	...	44 44 56·7	R
June 2	...	4 59·18	...	44 59·1	R
7	...	4 59·08	...	44 59·1	R
8	...	4 59·06	...	44 57·9	R
17	...	4 59·13	...	44 58·4	R
391		*Radcliffe* 3511.			
July 29	...	16 5 59·61	...	21 52 23·1	R
31	...	5 59·52	...	52 21·9	M
392		*θ Normæ.*			
May 29	5·6	16 6 32·99	...	137 3 52·5	R
June 19	5·5	6 32·90	...	3 48·9	R
Aug. 7	...	6 32·99	5	3 50·9	M
14	...	6 32·91	...	3 51·7	M
393		γ^1 *Normæ.*			
July 16	...	16 8 2·12	...	139 45 58·9	M
Aug. 19	...	8 2·13	6	45 56·6	M
394		1 *Ophiuchi* δ			
June 3	...	16 8 3·41	...	93 22 59·3	R
July 20	...	8 3·52	...	23 2·8	M
27	...	8 3·34	...	23 2·4	R
Aug. 3	...	8 3·48	...	22 59·9	M

Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No. of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
395		18 *Scorpii.*			
May 28	...	16 9 6·03	...	98 3 1·4	R
396		*R Scorpii, Var.* 1.			
June 4	9·8	16 10 29·74	...	112 38 44·7	R
5	9·9	10 29·86	4	38 45·2	R
8	9·9	10 29·81	...	38 45·5	R
397		*S Scorpii, Var.* 2.			
June 17	10·7	16 10 31·54	3	112 35 42·4	R
398		*d Scorpii.*			
July 5	...	16 10 51·51	...	118 18 50·0	M
30	...	10 51·58	...	18 48·9	M
Aug. 10	...	10 51·68	...	18 49·2	M
11	...	10 51·62	...	18 49·8	M
399		γ^2 *Normæ.*			
Aug. 24	...	16 10 51·96	...	139 51 33·0	M
400		*W. B. E. XVI.* 197.			
June 19	9·0	16 12 7·61	...	101 12 42·3	R
July 28	9·2	12 7·53	...	12 43·8	R
401		19 *Scorpii.*			
June 2	...	16 13 25·07	...	113 52 42·1	R
July 10	...	13 25·07	...	52 40·3	M
29	...	13 24·92	...	52 41·9	R
402		19 *Ursæ Minoris.*			
June 7	...	16 14 15·81	...	13 49 15·2	R
403		*Radcliffe* 3534.			
June 9	...	16 15 15·22	...	29 57 10·9	R
July 16	...	15 15·06	5	57 15·0	M
Aug. 9	...	15 15·26	6	57 10·8	M
14	...	15 15·21	...	57 11·4	M

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Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No. of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
404		50 *Serpentis* σ			
May 29	...	16 15 59·84	...	88 41 15·4	R
405		*O. A. S.* 15571.			
June 1	7·6	16 16 0·75	...	106 44 6·2	R
406		22 *Herculis* τ			
June 3	...	16 16 7·97	...	43 23 59·4	R
5	...	16 8·01	...	21 0·2	R
18	...	16 7·95	...	24 0·1	R
Aug. 18	...	16 8·19	...	23 58·3	M
20	...	16 8·14	4	23 59·5	M
407		20 *Herculis* γ			
June 4	...	16 16 37·57	...	70 33 49·9	R
408		19 *Coronæ Borealis* ξ			
July 27	...	16 17 25·29	...	58 49 43·1	R
28	...	17 25·17	...	49 43·9	R
409		20 *Coronæ Borealis* ν^1			
May 28	...	16 17 50·27	...	55 55 3·4	R
July 30	..	17 50·20	...	55 4·5	M
Aug. 10	...	17 50·40	...	55 2·3	M
23	..	17 50·29	4	55 2·2	M
410		21 *Coronæ Borealis* ν^2			
Aug. 7	...	16 17 57·62	...	56 0 59·7	M
411		ε *Normæ.*			
Aug. 11	...	16 18 23·34	...	137 16 46·6	M
19	...	18 23·35	...	16 42·2	M
412		24 *Herculis* ω			
June 2	...	16 19 52·59	...	75 41 22·1	R
413		25 *Herculis.*			
June 17	...	16 21 7·62	...	52 19 53·0	R
19	...	21 7·67	...	19 52·7	R
July 10	...	21 7·51	...	19 52·2	M
31	...	21 7·51	...	19 54·2	M
414		*B. F.* 2255.			
May 29	...	16 21 15·46	...	97 19 20·3	R
June 1	...	21 15·43	...	19 20·2	R
5	...	21 15·37	...	19 19·6	R
8	..	21 15·38	..	19 19·8	R
9	...	21 15·37	...	19 19·3	R
415		21 *Scorpii a. Antares.*			
June 16	...	16 22 3·11	...	116 9 50·2	R
July 15	...	22 3·08	...	9 52·4	M
29	...	22 3·08	...	9 50·0	R
416		29 *Herculis h.*			
June 7	...	16 26 59·37	...	78 15 10·8	R
8	...	26 59·33	...	15 10·9	R
9	...	26 59·41	...	15 11·8	R
417		15 *Draconis* Λ.			
May 28	..	16 28 13·21	...	20 58 18·7	R
29	...	28 13·12	...	58 19·8	R
June 4	...	28 13·09	...	58 21·4	R
17	...	28 13·12	...	58 18·3	R
28	...	28 13·15	...	58 19·2	R
418		β *Normæ.*			
June 1	...	16 28 28·83	...	125 0 25·0	R
2	...	28 28·76	...	0 24·1	R
3	...	28 28·76	...	0 23·3	R
419		η^1 *Trianguli Australis.*			
Aug. 9	...	16 29 1·59	6	158 3 15·2	M
11	...	29 1·53	...	3 14·2	M
19	...	29 1·58	...	3 14·2	M

Separate Results of Madras Meridian Circle Observations in 1880.

Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
387		*ζ Normæ.*			
May 28	5·7	16 3 49·89	...	145 13 38·4	R
June 5	5·7	3 49·72	...	13 35·3	R
388		*κ Normæ.*			
June 1	...	16 4 1·46	...	144 19 2·9	R
July 27	...	4 1·28	...	19 3·6	R
Aug. 9	...	4 1·28	...	19 5·3	M
10	...	4 1·22	...	19 3·5	M
11	...	4 1·38	...	19 5·1	M
389		*δ Trianguli Australis.*			
July 28	...	16 4 31·74	...	153 22 36·6	R
390		11 *Herculis* ϕ			
May 27	...	16 4 59·20	...	44 44 56·7	R
June 2	...	4 59·13	...	44 59·1	R
7	...	4 59·08	...	44 59·1	R
8	...	4 59·06	...	44 57·9	R
17	...	4 59·13	...	44 58·4	R
391		*Radcliffe* 3511.			
July 29	...	16 5 59·61	...	21 52 23·1	R
31	...	5 59·52	...	52 21·9	M
392		*θ Normæ.*			
May 29	5·6	16 6 32·99	...	137 3 52·5	R
June 19	5·5	6 32·90	...	3 48·9	R
Aug. 7	...	6 32·99	5	3 50·9	M
14	...	6 32·91	...	3 51·7	M
393		γ^1 *Normæ.*			
July 16	...	16 8 2·12	...	139 45 58·9	M
Aug. 19	...	8 2·13	6	45 56·6	M
394		1 *Ophiuchi* δ			
June 3	...	16 8 3·41	...	93 22 59·3	R
July 20	...	8 3·52	...	23 2·8	M
27	...	8 3·34	...	23 2·4	R
Aug. 3	...	8 3·48	...	22 59·9	M
395		18 *Scorpii.*			
May 28	...	16 9 6·03	...	98 3 1·4	R
396		*R Scorpii, Var.* 1.			
June 4	9·8	16 10 29·74	...	112 38 44·7	R
5	9·9	10 29·86	4	38 45·2	R
8	9·9	10 29·81	...	38 45·5	R
397		*S Scorpii, Var.* 2.			
June 17	10·7	16 10 31·54	3	112 35 42·4	R
398		*d Scorpii.*			
July 5	...	16 10 51·51	...	118 18 50·0	M
30	...	10 51·58	...	18 48·9	M
Aug. 10	...	10 51·68	...	18 49·2	M
11	...	10 51·62	...	18 49·8	M
399		γ^2 *Normæ.*			
Aug. 24	...	16 10 51·96	...	139 51 33·0	M
400		*W. B. E. XVI.* 197.			
June 19	9·0	16 12 7·61	...	101 12 42·3	R
July 28	9·2	12 7·53	...	12 43·8	R
401		19 *Scorpii.*			
June 2	...	16 13 25·07	...	113 52 42·1	R
July 10	...	13 25·07	...	52 40·3	M
29	...	13 24·92	...	52 41·9	R
402		19 *Ursæ Minoris.*			
June 7	...	16 14 15·81	...	13 49 15·2	R
403		*Radcliffe* 3534.			
June 9	...	16 15 15·22	...	29 57 10·9	R
July 16	...	15 15·06	5	57 15·0	M
Aug. 9	...	15 15·26	6	57 10·8	M
14	...	15 15·21	...	57 11·4	M

Separate Results of Madras Meridian Circle Observations in 1880.

Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No. of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
404		50 *Serpentis* σ			
May 29	...	16 15 59·84	...	88 41 15·4	R
405		*O. A. S.* 15571.			
June 1	7·6	16 16 0·75	...	106 44 6·2	R
406		22 *Herculis* τ			
June 3	...	16 16 7·97	...	43 23 59·4	R
5	..	16 8·01	...	24 0·2	R
18	...	16 7·95	...	24 0·1	R
Aug. 18	.	16 8·19	...	23 58·3	M
20	...	16 8·14	4	23 59·5	M
407		20 *Herculis* γ			
June 4	...	16 16 37·57	...	70 33 49·9	R
408		19 *Coronæ Borealis* ξ			
July 27	...	16 17 25·29	...	58 49 43·1	R
28	...	17 25·17	...	49 43·9	R
409		20 *Coronæ Borealis* ν^1			
May 28	...	16 17 50·27	...	55 55 3·4	R
July 30	..	17 50·20	...	55 4·5	M
Aug. 10	...	17 50·40	...	55 2·3	M
23	...	17 50·29	4	55 2·2	M
410		21 *Coronæ Borealis* ν^2			
Aug. 7	...	16 17 57·62	...	56 0 59·7	M
411		ε *Normæ.*			
Aug. 11	...	16 18 23·34	...	137 16 46·6	M
19	...	18 23·35	...	16 42·2	M
412		24 *Herculis* ω			
June 2	...	16 19 52·59	...	75 41 22·1	R
413		25 *Herculis.*			
June 17	...	16 21 7·62	...	52 19 53·0	R
19	...	21 7·67	...	19 52·7	R
July 10	...	21 7·51	...	19 52·2	M
31	...	21 7·51	...	19 54·2	M
414		*B. F.* 2255.			
May 29	...	16 21 15·46	...	97 19 20·3	R
June 1	...	21 15·43	...	19 20·2	R
5	...	21 15·37	...	19 19·6	R
8	..	21 15·38	...	19 19·8	R
9	...	21 15·37	...	19 19·3	R
415		21 *Scorpii* α, *Antares.*			
June 16	...	16 22 3·11	...	116 9 50·2	R
July 15	...	22 3·08	...	9 52·4	M
29	...	22 3·08	...	9 50·0	R
416		29 *Herculis* h.			
June 7	...	16 26 59·37	...	78 15 10·8	R
8	...	26 59·33	...	15 10·9	R
9	...	26 59·41	...	15 11·8	R
417		15 *Draconis* A.			
May 28	...	16 28 13·21	...	20 58 18·7	R
29	...	28 13·12	...	58 19·8	R
June 4	..	28 13·09	...	58 21·4	R
17	...	28 13·12	...	58 18·3	R
28	...	28 13·15	...	58 19·2	R
418		β *Normæ.*			
June 1	...	16 28 28·83	...	125 0 25·0	R
2	...	28 28·76	...	0 24·1	R
3	...	28 28·76	...	0 23·3	R
419		η^1 *Trianguli Australis.*			
Aug. 9	...	16 29 1·59	6	158 3 15·2	M
11	...	29 1·53	...	3 14·2	M
19	...	29 1·58	...	3 14·2	M

Separate Results of Madras Meridian Circle Observations in 1880.

Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No. of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
420		13 *Ophiuchi* ζ			
June 5	...	16 30 33·12	...	100 19 20·3	R
18	...	30 33·15	...	19 20·5	R
19	...	30 33·07	...	19 19·8	R
July 16	...	30 33·06	...	19 21·6	M
17	...	30 33·06	...	19 21·0	M
27	...	30 33·11	...	19 20·3	R
28	...	30 33·10	...	19 20·9	R
30	...	30 33·14	...	19 20·9	M
Aug. 8	...	30 33·14	...	19 20·1	M
7	...	30 33·13	...	19 21·2	M
18	...	30 33·11	...	19 20·3	M
20	...	30 33·07	...	19 20·5	M
421		40 *Herculis* ζ			
June 16	...	16 36 45·74	...	58 10 43·3	R
17	...	36 45·76	...	10 43·4	R
July 10	...	36 45·70	...	10 41·9	M
28	...	36 45·67	...	10 44·9	M
Aug. 18	...	36 45·91	...	10 41·4	M
422		43 *Herculis i.*			
May 28	...	16 40 4·21	...	81 11 51·2	R
29	...	40 4·22	...	11 51·7	R
423		18 *Draconis g.*			
June 4	...	16 40 5·25	...	25 10 59·3	R
5	...	40 5·26	...	10 59·4	R
7	...	40 5·11	...	11 0·4	R
8	...	40 5·34	...	11 0·6	R
9	...	40 5·32	...	11 2·2	R
424		*Radcliffe* 3602.			
June 8	...	16 43 1·09	...	33 0 10·5	R
425		52 *Herculis.*			
Aug. 7	...	16 45 43·86	...	48 48 23·2	M
11	...	45 43·44	...	48 22·4	M
19	...	45 43·42	...	48 20·6	M

Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No. of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
426		*Taylor* 7804.			
June 4	7·0	16 45 44·62	...	131 37 26·3	R
7	...	45 44·70	4	37 26·9	R
9	7·2	45 44·66	...	37 25·3	R
427		*Taylor* 7805.			
June 5	7·0	16 45 46·26	...	131 38 49·4	R
16	7·0	45 46·30	...	38 52·3	R
18	...	45 46·34	...	38 52·2	R
428		*Taylor* 7806.			
June 8	8·0	16 45 54·43	...	131 37 9·5	R
17	8·0	45 54·58	...	37 8·0	R
July 16	...	45 54·51	...	37 9·9	M
28	8·0	45 54·51	...	37 8·5	R
29	...	45 54·49	...	37 9·8	R
429		50 *Herculis.*			
June 28	...	16 45 57·86	...	59 59 15·9	R
July 10	...	45 57·65	...	59 13·9	M
17	...	45 57·88	...	59 15·0	M
31	...	45 57·69	...	59 15·8	M
Aug. 9	...	45 57·67	...	59 17·0	M
430		*Taylor* 7807.			
May 29	5·6	16 45 58·62	...	132 16 42·0	R
June 1	5·6	45 58·54	...	16 41·0	R
19	5·5	45 58·44	...	16 41·4	R
Aug. 3	...	45 58·58	4	16 43·0	M
10	...	45 58·47	...	16 41·9	M
14	..	45 58·54	...	16 41·4	M
431		*Lacaille* 6989.			
May 28	...	16 46 42·07	...	159 4 33·3	R
432		23 *Ophiuchi.*			
Aug. 18	...	16 48 11·03	...	95 57 21·6	M
20	...	48 10·81	...	57 20·7	M
23	...	48 10·87	...	57 20·9	M

Separate Results of Madras Meridian Circle Observations in 1880.

Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No. of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
433		25 *Ophiuchi* ι			
Aug. 24	...	16 48 19·59	...	79 38 5·8	M
25	...	48 19·75	...	38 5·6	M
30	...	48 19·60	...	38 6·5	M
31	...	48 19·84	...	38 5·6	M
434		27 *Ophiuchi* κ			
June 8	...	16 51 59·19	...	80 26 12·4	R
17	...	51 59·28	...	26 11·7	R
July 16	...	51 59·16	...	26 13·5	M
28	...	51 59·22	...	26 12·9	R
29	...	51 59·24	...	26 14·0	R
435		ϵ^2 *Arcæ.*			
May 29	...	16 53 33·74	...	143 3 17·8	R
436		19 *Draconis* h^1.			
May 28	...	16 55 21·98	...	24 40 54·0	R
June 5	...	55 22·29	...	40 53·9	R
9	...	55 22·12	...	40 53·4	R
28	...	55 22·10	5	40 54·7	R
July 10	...	55 22·08	...	40 51·2	M
437		59 *Herculis d.*			
June 1	...	16 57 10·59	...	56 15 25·8	R
3	...	57 10·53	...	15 25·8	R
4	...	57 10·48	...	15 26·7	R
7	...	57 10·52	...	15 26·0	R
438		22 *Ursæ Minoris* ϵ—*s.p.*			
Jan. 7	...	16 58 19·23	3	7 46 3·1	M
15	...	58 18·23	3	46 4·4	M
22	...	58 19·21	3	46 3·1	M
Dec. 10	...	58 18·42	3	46 1·9	M
11	...	58 18·68	3	46 1·5	M
13	...	58 18·81	3	46 6·3	M
439		*Lacaille* 7102.			
May 29	5·8	16 59 9·75	...	151 30 56·1	R
June 17	5·6	59 9·71	...	30 55·2	R
19	5·5	59 9·64	...	30 53·8	R
Aug. 11	...	59 9·68	...	30 55·6	M
14	...	59 9·75	...	30 54·1	M
440		*Lacaille* 7107.			
June 8	...	17 1 2·42	...	157 2 26·9	R
Aug. 19	...	1 2·42	...	2 27·7	M
441		*l Scorpii.*			
June 4	5·6	17 2 0·69	...	134 23 59·0	R
5	5·6	2 0·65	...	24 2·1	R
16	5·6	2 0·76	...	24 2·1	R
442		21 *Draconis* μ			
June 7	...	17 2 50·74	...	35 22 13·9	R
July 28	...	2 50·63	...	22 14·4	R
29	...	2 50·65	...	22 15·5	R
31	...	2 50·76	...	22 11·9	M
Aug. 3	...	2 50·71	...	22 10·7	M
443		35 *Ophiuchi* η			
June 9	...	17 3 29·81	...	105 34 29·1	R
July 9	...	3 29·77	...	34 29·0	M
17	...	3 29·82	...	34 28·5	M
Aug. 18	...	3 29·63	...	34 27·9	M
20	...	3 29·71	...	34 28·8	M
444		37 *Ophiuchi.*			
May 28	...	17 6 48·51	...	79 16 5·1	R
445		36 *Ophiuchi* A—*1st.*			
May 29	5·0	17 7 58·22	...	116 25 31·2	R
June 1	5·3	7 58·16	...	25 30·6	R

Separate Results of Madras Meridian Circle Observations in 1880.

Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No. of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
446		*ι Apodis.*			
June 8	...	17 8 43·50	...	159 59 38·8	R
Aug. 24	...	8 43·52	...	59 37·4	M
25	...	8 43·42	...	59 35·6	M
30	...	8 43·30	...	59 39·4	M
31	...	8 43·48	...	59 37·7	M
447		64 *Herculis* a^1, *Var.* 1.			
June 19	...	17 9 10·50	...	75 28 18·8	R
July 9	...	9 10·66	...	28 18·2	M
13	...	9 10·54	...	28 18·6	M
448		*u Scorpii.*			
June 4	5·6	17 9 15·27	...	122 31 31·4	R
5	5·6	9 15·27	...	31 31·7	R
449		65 *Herculis* δ			
July 10	...	17 10 6·04	...	65 1 4·2	M
16	...	10 5·95	...	1 5·5	M
23	...	10 6·17	...	1 4·7	M
28	...	10 6·17	...	1 5·4	R
29	...	10 6·09	...	1 5·5	R
450		41 *Ophiuchi.*			
June 17	...	17 10 26·89	...	90 18 26·5	R
28	...	10 26·88	...	18 30·1	R
July 17	...	10 27·08	...	18 28·2	M
30	...	10 26·96	...	18 28·3	M
31	...	10 27·02	...	18 30·0	M
451		39 *Ophiuchi*—(*South.*)			
June 16	...	17 10 41·62	...	114 9 15·6	R
Aug. 3	...	10 41·50	...	9 16·0	M
10	...	10 41·40	...	9 16·2	M
11	...	10 41·78	...	9 15·9	M
14	...	10 41·71	...	9 15·2	M

Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No. of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
452		69 *Herculis e.*			
May 28	...	17 13 31·81	...	52 34 55·0	R
June 5	...	13 31·99	...	34 55·0	R
7	...	13 31·90	...	34 55·0	R
8	...	13 31·96	...	34 55·2	R
453		53 *Serpentis ν*			
June 1	...	17 14 4·81	...	102 43 23·7	R
9	...	14 4·61	...	43 22·7	R
454		42 *Ophiuchi θ*			
June 4	...	17 14 38·42	...	114 52 40·5	R
Aug. 19	...	14 38·40	...	52 39·7	M
455		κ^1 *Arœ.*			
July 16	...	17 16 38·70	...	140 31 19·8	M
456		κ^2 *Arœ.*			
May 29	5·6	17 17 51·32	...	140 31 17·3	R
June 17	5·6	17 51·15	4	31 18·1	R
July 17	...	17 51·16	...	31 17·7	M
457		*Taylor* 8071.			
June 4	...	17 20 15·83	...	94 58 45·0	R
7	...	20 15·85	...	58 44·1	R
458		49 *Ophiuchi σ*			
June 1	...	17 20 33·66	...	85 45 14·2	R
5	...	20 33·62	...	45 14·6	R
16	...	20 33·69	...	45 14·0	R
July 30	...	20 33·69	...	45 13·9	M
Aug. 7	...	20 33·63	...	45 15·2	M
9	...	20 33·60	...	45 13·9	M
14	...	20 33·68	...	45 12·8	M
20	...	20 33·68	...	45 14·2	M
23	...	20 33·56	...	45 11·3	M
24	...	20 33·56	...	45 13·1	M
30	...	20 33·58	...	45 15·6	M
31	...	20 33·66	...	45 14·4	M

Separate Results of Madras Meridian Circle Observations in 1880.

Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No. of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
459		*σ Arœ.*			
May 28	5·6	17 26 43·81	...	136 25 14·4	R
29	5·6	26 43·81	...	25 14·5	R
460		*Taylor* 8122.			
June 4	5·6	17 28 17·01	...	128 32 54·4	R
8	5·6	28 16·90	...	32 56·0	R
9	5·6	28 16·97	...	32 54·6	R
17	5·3	28 16·96	...	32 54·1	R
July 16	...	28 16·94	...	32 56·6	M
461		55 *Ophiuchi α*			
July 13	...	17 29 21·77	...	77 21 4·3	R
31	...	29 21·73	...	21 4·1	M
Sep. 1	...	29 21·82	...	21 3·8	R
462		24 *Draconis ν*[1]			
June 7	...	17 29 48·65	...	34 44 0·1	R
16	...	29 48·65	...	43 58·6	R
July 30	...	29 48·61	6	43 58·1	M
Aug. 10	...	29 48·79	...	43 56·2	M
11	...	29 48·83	...	43 58·7	M
463		25 *Draconis ν*[2]			
July 28	...	17 29 53·86	...	34 44 40·1	R
29	...	29 53·85	...	44 41·0	R
Aug. 9	...	29 54·00	...	44 41·9	M
14	...	29 54·08	...	44 40·9	M
19	...	29 53·90	...	44 38·0	M
464		57 *Ophiuchi μ*			
May 29	...	17 31 19·39	...	98 2 38·6	R
465		*Taylor* 8150.			
June 5	7·0	17 32 12·00	...	122 7 52·6	R
Aug. 20	...	32 12·02	...	7 51·8	M
466		27 *Draconis f.*			
May 28	...	17 32 26·44	...	21 47 18·2	R
June 1	...	32 26·55	...	47 20·7	R
4	...	32 26·46	...	47 20·9	R
Aug. 23	...	32 26·64	...	47 18·8	M
467		60 *Ophiuchi β*			
July 13	...	17 37 32·65	...	85 22 50·3	R
16	...	37 32·64	...	22 51·0	R
31	...	37 32·78	...	22 51·0	M
Aug. 10	...	37 32·74	...	22 49·7	M
11	...	37 32·66	...	22 50·6	M
19	...	37 32·64	...	22 50·5	M
24	...	37 32·62	..	22 50·4	M
25	...	37 32·57	...	22 50·7	M
30	...	37 32·61	...	22 52·7	M
31	...	37 32·54	...	22 50·9	M
468		28 *Draconis ω*			
May 29	...	17 37 38·93	...	21 11 10·5	R
June 5	...	37 38·97	...	11 11·7	R
8	...	37 39·08	...	11 12·5	R
469		86 *Herculis μ*			
June 7	...	17 41 45·73	...	62 12 28·2	R
8	...	41 45·71	...	12 28·3	R
9	...	41 45·73	...	12 29·6	R
16	...	41 45·72	...	12 27·7	R
17	...	41 45·70	...	12 27·5	R
Aug. 3	...	41 45·59	...	12 25·6	M
9	...	41 45·76	...	12 28·4	M
Sep. 1	...	41 45·81	...	12 28·3	R
470		*ι*[2] *Scorpii.*			
May 28	5·6	17 41 47·54	...	130 2 58·8	R
June 1	5·8	41 47·38	...	2 58·2	R
4	5·6	41 47·56	...	2 58·9	R
471		92 *Herculis ξ*			
May 28	...	17 53 6·03	...	60 44 17·7	R
29	...	53 6·04	...	44 18·2	R

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Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No. of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
472		94 *Herculis v*			
June 4	...	17 53 54·48	...	59 47 57·0	R
July 28	...	53 54·29	...	47 58·3	M
28	...	53 54·48	...	47 56·8	R
31	...	53 54·42	...	47 55·5	M
473		66 *Ophiuchi.*			
June 5	...	17 54 19·20	...	85 37 22·1	R
9	...	54 19·12	...	37 22·8	R
16	...	54 19·12	...	37 22·4	R
474		67 *Ophiuchi.*			
June 1	...	17 54 38·29	...	87 3 39·5	R
July 10	...	54 38·14	...	3 36·9	M
16	...	54 38·06	...	3 40·3	M
30	...	54 38·28	6	3 39·2	M
Aug. 9	...	54 38·08	...	3 38·8	M
475		93 *Herculis.*			
July 13	...	17 54 42·76	...	73 14 28·2	M
Aug. 10	...	54 42·91	...	14 26·2	M
11	...	54 42·86	...	14 27·6	M
476		35 *Draconis.*			
Aug. 14	...	17 54 49·14	6	13 1 17·4	M
23	...	54 49·43	...	1 16·8	M
Sep. 1	...	54 49·31	...	1 20·5	R
3	...	54 49·37	...	1 18·2	R
7	...	54 49·33	...	1 18·4	R
477		69 *Ophiuchi τ*			
June 7	...	17 56 32·88	...	98 10 42·7	R
478		*π Pavonis.*			
Aug. 24	...	17 57 1·71	2	153 40 15·7	M
25	...	57 1·71	...	40 16·0	M
31	...	57 1·70	...	40 15·7	M
Sep. 4	...	57 1·78	...	40 16·1	R

Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No. of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
479		72 *Ophiuchi.*			
July 31	...	18 1 39·49	...	80 27 5·3	M
Aug. 7	...	1 39·56	...	27 5·9	M
10	...	1 39·54	...	27 7·6	M
11	...	1 39·49	...	27 5·2	M
19	...	1 39·58	...	27 7·5	M
Sep. 3	...	1 39·63	...	27 7·2	R
480		13 *Sagittarii* μ^1			
May 28	...	18 6 35·22	...	111 5 18·7	R
29	...	6 35·18	...	5 19·2	R
Sep. 4	...	6 35·05	...	5 17·6	R
481		40 *Draconis.*			
Aug. 11	...	18 9 1·63	...	10 0 58·4	M
14	...	9 1·29	...	0 57·4	M
19	...	9 1·33	6	0 58·0	M
482		41 *Draconis.*			
Aug. 9	...	18 9 7·14	6	10 0 45·1	M
24	...	9 7·10	3	0 47·9	M
30	...	9 7·54	...	0 48·1	M
Sep. 1	...	9 7·22	...	0 47·0	R
3	...	9 7·55	...	0 47·8	R
483		23 *Ursæ Minoris* δ			
Aug. 25	...	18 11 3·26	3	3 23 27·0	M
		23 *Ursæ Minoris* δ—*s.p.*			
Feb. 6	...	18 11 2·72	3	3 23 24·8	M
12	...	11 2·83	3	23 28·2	M
484		36 *Draconis.*			
May 28	...	18 13 12·04	...	25 38 35·7	R
July 10	...	13 12·22	...	38 31·4	M
15	...	13 12·38	...	38 34·7	M
16	...	13 12·09	...	38 35·7	M
23	...	13 12·39	...	38 31·3	M

Separate Results of Madras Meridian Circle Observations in 1880.

Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No. of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
485		58 *Serpentis* η			
Aug. 10	...	18 15 5·92	...	92 55 42·0	M
23	...	15 6·03	...	55 42·3	M
Sep. 4	...	15 6·01	...	55 40·6	R
6	...	15 6·01	...	55 43·2	R
13	...	15 6·09	...	55 43·1	R
486		22 *Sagittarii* λ			
Aug. 23	...	18 20 33·88	...	115 29 8·8	M
Sep. 3	...	20 33·79	...	29 7·8	R
6	...	20 33·80	...	29 8·5	R
7	...	20 33·84	...	29 7·9	R
13	...	20 33·88	...	29 7·0	R
15	...	20 33·75	...	29 8·8	R
487		44 *Draconis* χ			
July 10	...	18 23 12·97	...	17 19 8·6	M
23	...	23 13·19	6	19 9·6	M
Aug. 9	...	23 13·17	...	19 12·9	M
11	...	23 13·15	...	19 12·2	M
488		3 *Lyræ a, Vega*			
Aug. 14	...	18 32 52·55	...	51 19 37·2	M
25	...	32 52·51	...	19 37·7	M
Sep. 14	...	32 52·51	...	19 37·2	R
15	...	32 52·41	...	19 36·4	R
16	...	32 52·41	...	19 38·7	R
489		46 *Draconis c.*			
Aug. 9	..	18 40 18·32	...	34 34 51·8	M
10	...	40 18·48	...	34 52·0	M
19	...	40 18·46	...	34 49·5	M
490		4 *Lyræ* ϵ^1 *2nd.*			
May 28	...	18 40 21·69	...	50 27 14·0	R
June 16	...	40 21·74	...	27 12·4	R
July 10	...	40 21·90	5	27 14·3	M
23	...	40 21·80	5	27 14·0	M
29	...	40 21·79	...	27 14·9	R
491		5 *Lyræ* ϵ^2—*2nd.*			
Aug. 11	...	18 40 24·21	...	50 30 44·1	M
14	...	40 24·23	...	30 42·4	M
23	...	40 24·24	...	30 40·2	M
24	...	40 24·25	...	30 41·1	M
492		6 *Lyræ* ζ^1			
Aug. 20	...	18 40 38·26	...	52 31 7·8	M
25	...	40 38·46	...	31 5·9	M
Sep. 1	...	40 38·34	...	31 9·0	R
3	...	40 38·35	...	31 9·6	R
6	...	40 38·46	...	31 8·4	R
493		7 *Lyræ* ζ^2			
Aug. 30	...	18 40 40·11	6	52 31 48·7	M
Sep. 4	...	40 39·97	...	31 46·5	R
7	...	40 40·18	...	31 45·2	R
13	...	40 39·98	...	31 46·2	R
494		*Radcliffe* 4070.			
Sep. 16	...	18 44 1·96	...	37 8 36·3	R
18	...	44 2·08	...	8 35·0	R
21	...	44 2·13	..	8 34·6	R
22	...	44 1·86	...	8 34·6	R
495		κ *Pavonis, Var.*			
Sep. 17	5·0	18 44 34·04	...	157 22 52·7	R
23	5·0	44 33·97	...	22 50·4	R
Oct. 2	...	44 33·94	...	22 49·5	M
4	...	44 33·97	...	22 50·2	M
5	...	44 34·05	...	22 53·0	M
496		10 *Lyræ* β^1, *Var.* 1.			
July 9	...	18 45 38·80	...	56 46 33·3	M
497		ω *Pavonis.*			
May 28	...	18 47 56·25	...	150 21 20·3	R

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Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No. of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
498		*B. F.* 2577.			
Aug. 14	...	18 48 45·81	6	16 3 6·6 (10·7)	M
Sep. 15	...	48 45·87	...	3 9·0	R
18	...	48 45·67	...	3 8·5	R
22	...	48 45·75	...	3 6·8	R
24	...	48 45·92	...	3 7·7	R
499		*Radcliffe* 4109.			
July 16	...	18 48 53·48	...	87 10 43·5	M
Aug. 24	...	48 53·35	...	10 42·2	M
Sep. 3	...	48 53·42	...	10 40·9	R
4	6·5	48 53·42	...	10 42·5	R
500		47 *Draconis* o			
Aug. 19	...	18 49 25·87	...	30 45 26·6	M
25	...	49 25·70	...	45 27·0	M
501		11 *Lyræ* δ^1			
July 29	...	18 49 32·04	3	53 10 39·8	R
Aug. 20	...	49 32·05	...	10 37·4	M
23	...	49 31·98	...	10 36·7	M
Sep. 1	...	49 31·90	...	10 38·1	R
502		50 *Draconis.*			
Sep. 17	...	18 50 14·35	...	14 42 29·3	R
23	...	50 14·13	...	42 28·2	R
Oct. 2	...	50 13·94	4	42 26·2	M
4	...	50 14·06	5	42 27·7	M
5	...	50 14·05	5	42 29·3	M
503		θ *Serpentis—2nd.*			
July 31	...	18 50 16·65	...	85 57 10·0	M
Aug. 11	...	50 16·78	...	57 8·8	M
Sep. 6	...	50 16·61	...	57 8·6	R
504		12 *Lyræ* δ^2			
Aug. 30	...	18 50 18·31	...	53 15 12·1	M
Sep. 7	...	50 18·30	...	15 9·8	R
13	...	50 18·34	...	15 8·6	R
14	...	50 18·35	4	15 10·5	R
16	...	50 18·36	...	15 12·1	R
505		*R. P. L.* 131—*s.p.*			
Mar. 19	...	18 53 59·45	3	3 26 41·5	T
506		13 *Aquilæ* ϵ			
Sep. 24	...	18 54 10·42	...	75 5 35·1	R
507		52 *Draconis* υ			
Aug. 19	...	18 55 51·94	6	18 51 43·1	M
20	...	55 51·82	6	51 43·9	M
25	...	55 51·70	6	51 43 0	M
Sep. 6	...	55 51·77	...	51 47·2	R
13	...	55 51·77	...	51 45·9	R
508		17 *Aquilæ* ζ			
Aug. 14	...	18 59 53·48	...	76 18 47·8	M
30	...	59 53·51	...	18 48·3	M
Sep. 1	...	59 53·58	...	18 46·9	R
7	...	59 53·52	...	18 46·7	R
15	...	59 53·55	...	18 46·7	R
16	...	59 53·48	...	18 47·8	R
18	...	59 53·61	...	18 47·5	R
21	...	59 53·52	...	18 48·1	R
509		25 *Aquilæ* ω			
Aug. 9	...	19 12 10·94	...	78 37 10·3	M
24	...	12 11·03	...	37 9·1	M
Sep. 3	...	12 10·94	...	37 10·7	R
6	...	12 10·97	...	37 9·9	R
13	...	12 10·93	...	37 10·7	R
14	...	12 10·93	...	37 12·0	R
18	...	12 10·89	...	37 10·1	R
22	...	12 10·96	...	37 9·9	R
28	...	12 10·95	...	37 10·3	R
Oct. 5	...	12 10·70	...	37 12·0	M
510		*Lacaille* 8036—1*st.*			
Sep. 17	...	19 12 37·75	4	161 41 40·1	R
24	...	12 37·82	4	41 37·8	R
29	9·0	12 38·07	4	41 38·3	R
30	9·0	12 38·07	4	41 39·7	R
Oct. 4	9·0	12 38·08	5	41 37·0	M

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Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No. of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
511		30 *Aquilæ* δ			
Aug. 11	...	19 19 26·87	...	87 7 22·5	M
25	...	19 26·84	...	7 22·2	M
30	...	19 26·86	...	7 23·0	M
31	...	19 26·84	...	7 21·7	M
Sep. 1	...	19 26·75	...	7 22·7	R
3	...	19 26·80	...	7 23·9	R
4	...	19 26·77	...	7 26·1	R
6	...	19 26·82	...	7 22·6	R
13	...	19 26·69	...	7 23·3	R
14	...	19 26·82	...	7 24·1	R
17	...	19 26·79	...	7 22·2	R
18	...	19 26·74	...	7 23·5	R
21	...	19 26·84	...	7 22·7	R
23	...	19 26·76	...	7 22·7	R
28	...	19 26·77	...	7 21·9	R
30	...	19 26·83	...	7 23·4	R
Oct. 2	...	19 26·81	...	7 21·4	M
5	...	19 26·75	...	7 24·6	M
512		51 *Sagittarii* h^1, *Var.*			
Aug. 24	...	19 28 44·59	5	114 58 46·0	M
25	...	28 44·39	...	58 47·9	M
Sep. 17	6·7	28 44·56	...	58 47·3	R
18	...	28 44·49	...	58 48·6	R
21	...	28 44·39	...	58 48·0	R
513		52 *Sagittarii* h^2.			
Sep. 1	..	19 29 24·11	...	115 8 47·1	R
16	...	29 24·16	...	8 48·6	R
20	...	29 24·16	...	8 48·4	R
22	...	29 24·13	...	8 47·4	R
24	...	29 24·11	...	8 46·9	R
29	...	29 24·18	...	8 47·7	R
Oct. 4	...	29 24·14	...	8 47·2	M
514		50 *Aquilæ* γ			
Sep. 7	...	19 40 33·32	...	79 40 39·9	R
13	...	40 33·28	...	40 39·5	R
16	...	40 33·36	...	40 40·7	R
17	...	40 33·31	...	40 39·9	R
20	...	40 33·27	...	40 40·2	R
Sep. 21	...	19 40 33·21	...	79 40 40·8	R
23	...	40 33·28	...	40 40·6	R
28	...	40 33·28	...	40 39·6	R
29	...	40 33·26	...	40 40·3	R
30	...	40 33·21	..	40 40·2	R
Oct. 1	...	40 33·28	...	40 39·3	M
4	...	40 33·24	...	40 39·9	M
6	...	40 33·19	...	40 38·4	M
515		λ *Ursæ Minoris.*			
Aug. 11	...	19 44 11·41	1	1 3 21·4	M
516		13 *Vulpeculæ.*			
Aug. 9	...	19 48 21·43	...	66 13 56·1	M
10	...	48 21·47	...	13 56·2	M
517		58 *Sagittarii* ω			
Sep. 22	...	19 48 29·25	...	116 36 58·2	R
518		60 *Aquilæ* β			
July 16	...	19 49 25·16	...	83 53 28·9	M
Sep. 20	...	49 25·07	..	53 28·7	R
23	...	49 25·07	.	53 28·8	R
24	...	49 25·05	...	53 27 9	R
Oct. 6	...	49 25·05	...	53 26 2	M
7	...	49 24·98	...	53 27·0	M
8	...	49 25·09	...	53 27·4	M
519		65 *Aquilæ* θ			
Aug. 9		20 5 6·76	...	91 10 35·1	M
Sep. 4	...	5 6·71	...	10 33·0	R
15	...	5 6·85	...	10 33·7	R
17	...	5 6·76	...	10 33·9	R
18	...	5 6·76	...	10 33·8	R
24	...	5 6·75	...	10 34·7	R
28	...	5 6·76	...	10 33·0	R
29	...	5 6·70	...	10 33·5	R
Oct. 1	...	5 6·83	...	10 35·0	M
2	...	5 6·86	...	10 33·4	M
4	...	5 6·68	...	10 33·7	M

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Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No. of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
Oct. 5	...	20 5 6·85	...	91 10 35·3	M
6	...	5 6·82	...	10 33·2	M
7	...	5 6·84	...	10 35·2	M
8	...	5 6·81	...	10 34·9	M
9	...	5 6·64	...	10 34·4	M
520	6 *Capricorni* a^2				
Sep. 6	...	20 11 23·66	...	102 54 56·0	R
17	...	11 23·71	...	54 54·9	R
21	...	11 23·78	...	54 55·6	R
22	...	11 23·66	...	54 55·1	R
30	...	11 23·72	...	54 56·2	R
Oct. 7	...	11 23·66	...	54 55·2	M
8	...	11 23·63	...	54 54·0	M
9	...	11 23·62	...	54 53·3	M
521	1 *Cephei* κ				
Aug. 19	...	20 12 54·29	...	12 39 0·9	M
30	...	12 54·47	...	39 3·8	M
31	...	12 54·51	...	39 2·8	M
Sep. 3	...	12 54·31	...	38 59·9	R
4	...	12 54·53	...	39 0·1	R
522	11 *Capricorni* ρ				
Sep. 3	...	20 22 0·79	...	108 12 32·3	R
523	∇ *Capricorni, Var.* 8.				
Sep. 4	9·5	20 23 49·84	...	102 37 47·8	R
6	9·4	23 49·68	...	37 51·2	R
7	...	23 49·77	...	37 51·8	R
15	...	23 49·82	4	37 51·3	R
16	9·3	23 49·90	...	37 51·3	R
17	9·2	23 49·97	...	37 49·2	R
18	...	23 49·93	...	37 49·3	R
20	...	23 49·90	3	37 48·6	R
22	...	23 49·86	...	37 50·3	R
24	9·2	23 49·85	...	37 50·0	R
524	*R. P. L.* 141.				
Sep. 21	...	20 25 41·34	3	5 17 7·6	R
23	...	25 41·95	3	17 7·2	R
Sep. 29	...	20 25 41·83	3	5 17 7·8	R
30	...	25 41·98	3	17 5·6	R
Oct. 2	...	25 41·33	3	17 4·3	M
4	...	25 42·31	3	17 5·9	M
	R. P. L. 141.—*s.p.*				
Feb. 21	...	20 25 41·37	3	5 17 4·8	M
25	...	25 42·58	3	17 5·7	M
27	...	25 40·80	3	17 4·8	M
28	...	25 41·06	3	17 7·7	M
Mar. 1	...	25 41·41	3	17 5·8	R
2	...	25 41·61	3	17 3·1	R
3	...	25 41·53	3	17 4·8	R
4	...	25 41·66	5	17 6·1	R
5	...	25 41·54	3	17 4·0	R
6	...	25 41·85	3	17 6·2	R
525	*R. P. L.* 143—*s.p.*				
Feb. 18	...	20 27 26·04	3	5 15 16·2	M
Apl. 7	...	27 27·50	3	15 16·6	T
13	...	27 25·58	3	15 16·6	T
526	2 *Delphini* ϵ				
Oct. 1	...	20 27 28·67	...	79 6 11·7	M
13	...	27 28·66	...	6 10·5	M
527	2 *Cephei* θ				
Aug. 19	...	20 27 33·90	...	27 24 27·8	M
30	...	27 33·93	...	24 28·9	M
31	...	27 33·91	...	24 30·6	M
Sep. 3	...	27 33·77	...	24 28·5	R
528	2 *Aquarii* ϵ				
Aug. 30	...	20 41 10·72	...	99 56 2·9	M
Sep. 4	...	41 10·73	...	55 59·6	R
7	...	41 10·69	...	56 1·1	R
15	...	41 10·76	...	56 1·3	R
Oct. 2	...	41 10·61	...	56 1·6	M
4	...	41 10·70	...	56 2·3	M
13	...	41 10·59	...	56 1·3	M
15	...	41 10·70	...	56 1·8	M

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Number and Date.	Magnitude.	Mean Right Ascension. 1880. h. m. s.	No. of Wires.	Mean Polar Distance. 1880. ° ′ ″	Observer.
529		32 *Vulpeculæ.*			
Oct. 13	...	20 49 26·87	...	62 23 49·2	M
14	...	49 26·85	...	23 51·6	M
15	...	49 26·70	...	23 50·7	M
16	...	49 26·72	...	23 50·7	M
530		76 *Draconis—s.p.*			
Feb. 21	...	20 51 10·65	5	7 54 50·9	M
27	...	51 10·88	5	54 51·5	M
28	...	51 10·82	5	54 54·9	M
Mar. 2	...	51 10·78	3	54 52·5	R
3	...	51 10·62	3	54 54·1	R
531		*Radcliffe* 5066.			
Aug. 30	...	20 52 59·81	...	9 53 54·4	M
31	...	52 59·26	...	53 55·2	M
Sep. 4	...	52 59·60	...	53 52·1	R
532		23 *Capricorni θ*			
Sep. 30	...	20 59 11·97	...	107 42 31·4	R
Oct. 14	...	59 11·84	...	42 30·2	M
15	...	59 11·89	...	42 30·7	M
16	...	59 11·88	...	42 29·7	M
20	...	59 12·10	...	42 30·8	M
533		*o Pavonis.*			
Sep. 17	5·5	21 2 3·43	...	160 36 50·4	R
18	...	2 3·46	4	36 48·6	R
Oct. 9	5·5	2 3·44	...	36 51·6	M
13	5·5	2 3·58	...	36 47·0	M
534		*Anon.*			
Sep. 23	9·5	21 2 50·74	...	120 58 45·8	R
Oct. 2	...	2 50·69	...	58 45·5	M
4	10·0	2 50·82	...	58 46·0	M
5	10·0	2 50·81	...	58 47·0	M
7	10·0	2 50·84	...	58 45·9	M
535		*Anon.*			
Sep. 22	9·0	21 4 53·25	...	121 4 38·9	R
24	8·5	4 53·33	...	4 39·6	R
30	8·5	4 53·30	...	4 37·7	R
Oct. 6	8·0	4 53·38	...	4 38·9	M
8	8·5	4 53·39	...	4 40·6	M
536		64 *Cygni ζ*			
Oct. 16	...	21 7 49·70	...	60 15 51·1	M
20	...	7 49·74	...	15 49·8	M
537		*Anon.*			
Sep. 3	9·0	21 9 28·67	5	120 47 4·0	R
4	9·2	9 28·49	...	47 4·0	R
15	9·8	9 28·49	...	47 5·9	R
17	9·7	9 28·62	...	47 6·3	R
21	...	9 28·60	...	47 4·4	R
538		*O. A. S.* 21345.			
Sep. 3	8·0	21 15 32·78	...	119 56 40·5	R
4	8·3	15 32·81	...	56 39·9	R
6	8·5	15 32·74	4	56 42·8	R
15	8·2	15 32·96	...	56 43·4	R
16	8·8	15 32·90	...	56 43·5	R
539		~~*Brisbane* 7025.~~			
Sep. 23	9·2	21 21 59·02	4	147 23 41·7	R
Oct. 1	...	21 59·33	6	23 38·1	M
2	...	21 59·13	...	23 38·7	M
4	9·5	21 59·06	...	23 41·1	M
540		*Anon.*			
Oct. 14	9·5	21 22 22·91	6	147 28 52·5	M
541		22 *Aquarii β*			
Sep. 16	...	21 25 14·44	...	96 5 53·3	R
18	...	25 14·41	...	5 52·8	R
21	...	25 14·37	...	5 53·7	R
22	...	25 14·45	...	5 53·1	R
24	...	25 14·45	...	5 53·8	R

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Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No. of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
Oct. 5	...	21 25 14·44	...	96 5 53·8	M
6	...	25 14·48	...	5 52·2	M
9	...	25 14·44	...	5 52·0	M
20	...	25 14·33	...	5 52·1	M
26	...	25 14·42	...	5 52·7	M
Nov. 1	...	25 14·34	...	5 55·1	R
542	8 *Pegasi* ε				
Oct. 2	...	21 38 17·49	...	80 40 26·8	M
21	...	38 17·52	...	40 25·1	M
25	...	38 17·54	...	40 27·0	M
26	...	38 17·42	...	40 28·5	M
Nov. 1	...	38 17·58	...	40 27·1	R
2	...	38 17·54	...	40 26·8	R
543	78 *Draconis.*				
Sep. 16	...	21 41 35·97	...	18 13 47·8	R
18	...	41 36·00	...	13 46·6	R
22	...	41 35·97	...	13 47·3	R
24	...	41 36·01	...	13 46·1	R
30	...	41 35·81	...	13 47·5	R
Oct. 1	...	41 36·13	...	13 45·3	M
544	10 *Cephei* ν				
Sep. 15	...	21 41 59·00	...	29 25 56·4	R
17	...	41 59·05	...	25 57·2	R
21	...	41 58·96	...	25 57·7	R
23	...	41 59·12	...	25 57·2	R
545	U *Cephei, Var.* 5.				
Oct. 2	...	21 44 58·65	...	20 24 19·0	M
4	6·5	44 58·86	...	24 19·1	M
5	6·8	44 58·69	...	24 20·6	M
6	7·0	44 58·84	...	24 18·9	M
7	7·0	44 58·60	...	24 19·2	M
546	16 *Pegasi.*				
Sep. 17	...	21 47 36·06	...	64 38 18·6	R
22	...	47 36·10	...	38 16·6	R
23	...	47 36·16	...	38 16·4	R
Oct. 8	...	47 36·13	...	38 18·6	M
Oct. 14	...	21 47 36·15	...	64 38 16·4	M
21	...	47 36·13	...	38 17·0	M
25	...	47 36·08	...	38 15·4	M
26	...	47 36·25	...	38 18·1	M
Nov. 5	...	47 36·07	...	38 19·0	R
547	*W. B. E. XXI.* 1334.				
Oct. 13	8·0	21 59 12·08	...	98 16 38·8	M
16	...	59 11·98	...	16 38·3	M
25	...	59 11·85	...	16 39·5	M
26	...	59 12·04	...	16 40·3	M
29	8·0	59 11·98	...	16 39·1	M
548	34 *Aquarii* α				
Oct. 2	...	21 59 37·11	...	90 54 5·9	M
6	...	59 37·07	...	54 6·5	M
8	...	59 37·12	...	54 5·7	M
Nov. 8	...	59 37·06	...	54 5·3	R
549	17 *Cephei* ξ—2*nd.*				
Sep. 17	...	22 0 19·00	...	25 57 21·3	R
18	...	0 18·87	...	57 21·7	R
21	...	0 18·79	...	57 21·6	R
22	...	0 18·97	...	57 20·4	R
23	...	0 19·21	...	57 21·2	R
550	*Anon.*				
Oct. 21	9·5	22 1 43·95	...	98 31 57·0	M
27	9·5	1 44·12	...	31 56·3	M
28	9·5	1 44·08	...	31 56·8	M
30	9·5	1 43·93	...	31 58·3	M
Nov. 2	9·6	1 44·02	5	31 57·6	R
551	15 *Piscis Australis.*				
Sep. 6	5·6	22 3 6·58	...	123 8 14·0	R
15	5·6	3 6·80	...	8 12·7	R

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Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No. of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
552		*W. B. E. XXII.* 14.			
Oct. 14	...	22 3 9·83	...	98 7 15·8	M
15	...	3 10·07	...	7 15·8	M
25	...	3 9·82	...	7 17·5	M
26	...	3 10·05	...	7 18·6	M
29	...	3 10·05	...	7 15·1	M
553		26 *Pegasi* θ			
Sep. 16	...	22 4 8·93	...	84 23 29·9	R
24	...	4 8·76	...	23 28·7	R
30	...	4 8·70	...	23 30·2	R
Oct. 1	...	4 8·87	...	23 28·7	M
554		*Radcliffe* 5591.			
Sep. 22	5·0	22 6 30·01	...	39 46 7·9	R
23	5·0	6 30·08	...	46 8·4	R
Oct. 2	...	6 29·90	4	46 7·4	M
4	5·5	6 29·83	...	46 6·9	M
555		24 *Cephei.*			
Sep. 17	...	22 7 29·69	...	18 14 56·5	R
21	...	7 29·82	...	14 59·6	R
556		*Radcliffe* 5612.			
Sep. 6	5·5	22 8 43·57	...	50 52 46·5	R
16	5·0	8 43·65	...	52 48·2	R
18	...	8 43·68	...	52 46·8	R
557		μ^2 *Gruis.*			
Oct. 5	5·0	22 9 12·81	...	132 13 26·5	M
7	...	9 12·80	...	13 25·5	M
8	5·5	9 12·84	...	13 25·0	M
9	5·5	9 12·88	...	13 24·2	M
558		43 *Aquarii* θ			
Oct. 16	...	22 10 30·09	...	98 22 47·1	M
21	...	10 30·06	...	22 49·5	M
27	...	10 30·09	...	22 47·8	M
Oct. 28	...	22 10 29·97	...	98 22 48·0	M
29	...	10 30·00	...	22 48·4	M
30	...	10 30·02	...	22 49·2	M
Nov. 5	...	10 29·98	...	22 46·3	R
8	...	10 30·03	...	22 47·1	R
11	...	10 30·00	...	22 48·2	R
559		23 *Cephei* ϵ			
Sep. 24	...	22 10 36·94	...	33 33 14·3	R
30	...	10 36·90	...	33 14·5	R
Oct. 1	...	10 37·02	5	33 14·2	M
560		47 *Aquarii.*			
Sep. 17	5·0	22 14 59·23	...	112 11 55·5	R
18	...	14 59·16	...	11 56·0	R
22	5·0	14 59·09	...	11 55·3	R
561		48 *Aquarii* γ			
Oct. 9	...	22 15 27·49	...	91 59 28·6	M
13	...	15 27·49	...	59 26·1	M
15	...	15 27·38	...	59 29·0	M
16	...	15 27·41	...	59 28·7	M
27	...	15 27·49	...	59 30·4	M
28	...	15 27·42	...	59 28·7	M
29	...	15 27·56	...	59 27·1	M
30	...	15 27·40	...	59 30·2	M
Nov. 2	...	15 27·41	...	59 27·7	R
8	...	15 27·40	...	59 29·9	R
11	...	15 27·44	...	59 26·4	R
12	...	15 27·40	...	59 28·6	R
562		2 *Lacertæ.*			
Sep. 16	...	22 16 4·06	...	44 4 3·0	R
Oct. 2	...	16 3·80	...	4 0·2	M
5	...	16 3·86	...	3 59·6	M
7	...	16 4·00	...	4 0·0	M
563		δ *Tucanæ.*			
Sep. 30	5·0	22 18 46·91	...	155 34 36·7	R
Oct. 4	5·0	18 46·79	...	34 34·5	M
6	5·0	18 46·75	...	34 36·3	M

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Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No. of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
564		*R. P. L.* 150.			
Sep. 15	...	22 22 37·77	3	4 29 46·6	R
Oct. 20	...	22 37·64	3	29 47·0	M
Nov. 6	...	22 37·07	3	29 48·1	R
		R. P. L. 150—*s. p.*			
May 1	...	22 22 37·27	3	4 29 48·3	R
565		7 *Lacertæ a*			
Sep. 22	...	22 26 20·65	...	40 20 2·0	R
24	...	26 20·76	5	20 3·2	R
566		59 *Aquarii v*			
Sep. 15	5·0	22 28 7·74	...	111 19 18·2	R
17	5·0	28 7·65	...	19 18·3	R
Oct. 2	...	28 7·69	...	19 18·7	M
4	...	28 7·58	...	19 18·3	M
5	5·5	28 7·72	...	19 18·8	M
567		62 *Aquarii η*			
Oct. 7	...	22 29 11·35	...	90 44 6·6	M
15	...	29 11·45	...	44 6·1	M
30	...	29 11·26	...	44 8·1	M
Nov. 2	...	29 11·26	...	44 6·9	R
8	...	29 11·29	...	44 5·6	R
12	...	29 11·29	...	44 4·7	R
16	...	29 11·33	...	44 6·2	R
568		42 *Pegasi ζ*			
Sep. 23	...	22 35 28·55	...	79 47 39·6	R
Oct. 20	...	35 28·39	...	47 38·0	M
27	...	35 28·59	...	47 40·4	M
28	...	35 28·64	...	47 38·0	M
Nov. 2	...	35 28·59	...	47 38·9	R
5	...	35 28·53	...	47 39·0	R
6	...	35 28·53	...	47 38·1	R
9	...	35 28·45	...	47 40·1	R
13	...	35 28·54	...	47 40·1	R

Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No. of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
569		*ρ Gruis.*			
Sep. 22	5·5	22 36 32·15	...	132 2 18·8	R
24	5·5	36 32·10	...	2 20·4	R
30	5·5	36 32·16	...	2 23·0	R
Oct. 1	...	36 32·18	...	2 22·1	M
570		*η Gruis.*			
Oct. 2	...	22 38 15·28	...	144 7 50·2	M
4	5·5	38 15·25	...	7 47·7	M
5	5·5	38 15·37	...	7 50·6	M
571		32 *Cephei ι*			
Oct. 5	...	22 45 24·49	...	24 25 50·4	M
7	...	45 24·51	...	25 48·1	M
9	...	45 24·67	...	25 48·5	M
572		*ρ Indi.*			
Oct. 4	5·5	22 46 17·18	3	160 42 52·6	M
6	5·5	46 17·24	...	42 50·4	M
8	...	46 17·38	...	42 49·0	M
573		73 *Aquarii λ*			
Oct. 29	...	22 46 21·17	...	98 13 3·8	M
Nov. 5	...	46 21·16	...	13 2·5	R
6	...	46 21·13	...	13 1·9	R
9	...	46 21·14	...	13 1·1	R
12	...	46 21·14	...	13 1·9	R
16	...	46 21·09	...	13 2·8	R
17	...	46 21·04	...	13 3·7	R
574		54 *Pegasi a, Markab.*			
Sep. 30	...	22 58 46·94	...	75 26 24·9	R
Nov. 13	...	58 46·90	...	26 24·4	R
17	...	58 46·87	...	26 25·2	R
575		86 *Aquarii* c^1.			
Oct. 1	...	23 0 14·09	...	114 23 26·4	M
5	...	0 13·99	...	23 28·0	M
7	...	0 13·89	...	23 27·5	M

Separate Results of Madras Meridian Circle Observations in 1880.

Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
576		56 *Pegasi.*			
Oct. 2	...	23 1 15·86	...	65 10 42·8	M
8	...	1 15·82	...	10 43·3	M
13	...	1 15·42	...	10 42·4	M
16	...	1 16·01	...	10 44·0	M
Nov. 6	..	1 15·8	...	10 43·9	R
577		88 *Aquarii* a^2.			
Oct. 6	..	23 3 2·76	...	111 49 21·1	M
9	...	3 2·77	...	49 22·0	M
15	...	3 2·58	..	49 22·0	M
Nov. 5	...	3 2·86	..	49 21·2	R
8	...	3 2·79	..	49 23·0	R
578		*ι Gruis.*			
Oct. 21	5·0	23 3 33·66	...	135 53 46·6	M
25	...	3 33·72	...	53 48·6	M
27	5·5	3 33·87	...	53 48·8	M
579		33 *Cephei* π			
Oct. 20	...	23 4 5·07	...	15 15 37·3	M
26	...	4 5·19	...	15 38·8	M
28	..	4 4·73	..	15 40·2	M
Nov. 9	...	4 5·10	..	15 38·4	R
12	..	4 4·96	...	15 38·8	R
580		6 *Piscium* γ			
Oct. 25	...	23 10 56·73	..	87 22 22·3	M
Nov. 1	...	10 56·61	...	22 23·0	R
6	..	10 56·56	...	22 21·4	R
9	...	10 56·56	...	22 21·3	R
11	...	10 56·60	..	22 21·0	R
13	...	10 56·66	..	22 24·0	R
16	...	10 56 60	...	22 22·4	R
581		8 *Andromedæ.*			
Oct. 1	..	23 12 11·00	...	41 38 21·3	M
582		95 *Aquarii* ψ^3			
Oct. 2	...	23 12 43·24	...	100 15 58·3	M
4	5·0	12 43·07	...	16 0·3	M
7	5·5	12 43·22	...	16 0·4	M
9	5·5	12 43·13	...	15 58·4	M
13	...	12 43·11	...	15 58·4	M
583		68 *Pegasi* υ			
Oct. 5	...	23 19 23·36	...	67 15 23·5	M
6	...	19 23·29	...	15 23·4	M
584		8 *Piscium* κ			
Oct. 1	...	23 20 46·77	...	89 24 2·0	M
4	...	20 46·90	...	24 3·2	M
25	...	20 46·84	...	24 3·2	M
Nov. 6	...	20 46·82	...	24 3·0	R
12	...	20 46·76	...	24 1·3	R
16	..	20 46·86	...	24 3·0	R
585		*Radcliffe* 6084.			
Oct. 2	...	23 22 12·21	6	20 17 58·7	M
7	5·5	22 12·36	...	18 0·5	M
8	5·5	22 11·93	...	18 0·5	M
13	...	22 12·20	...	17 58·0	M
586		*R. P. L.* 158—*s.p.*			
Mar. 17	...	23 27 48·20	3	3 21 18·4	T
Apl. 17		27 49·58	3	21 17·9	T
May 6	..	27 47·61	3	21 19·3	R
10	...	27 49·78	3	21 19·8	R
587		*Anon.*			
Oct. 21	9·0	23 29 48·36	...	138 7 49·7	M
27	9·0	29 18·36	...	7 47·2	M
588		16 *Andromedæ* λ			
Oct. 5	...	23 31 41·19	...	44 11 31·2	M
8	...	31 41·42	...	11 29·5	M

Separate Results of Madras Meridian Circle Observations in 1880.

Number and Date.	Magnitude.	Mean Right Ascension 1880. h. m. s.	No. of Wires.	Mean Polar Distance 1880. ° ′ ″	Observer.
589		17 *Andromedæ* ι			
Oct. 6	...	23 32 14·87	...	47 23 45·2	M
9	...	32 15·17	...	23 44·2	M
13	...	32 14·95	...	23 41·8	M
590		*θ Phœnicis—2nd.*			
Oct. 26	...	23 33 1·24	...	137 18 13·2	M
Nov. 5	...	33 1·25	...	18 13·4	R
8	...	33 1·25	...	18 13·7	R
591		*Anon.*			
Oct. 28	9·5	23 33 26·16	...	138 15 15·6	M
30	9·5	33 26·09	...	15 15·7	M
Nov. 6	9·5	33 26·19	...	15 15·4	R
9	9·5	33 26·13	...	15 12·5	R
12	9·6	33 26·06	...	15 14·3	R
592		*Anon.*			
Nov. 16	6·7	23 33 32·78	...	137 59 28·3	R
17	6·7	33 32 93	...	59 28·7	R
593		102 *Aquarii* ω^1			
Oct. 2	...	23 33 33·56	...	104 53 6·4	M
14	...	33 33·60	...	53 5·7	M
15	...	33 23·52	...	53 7·5	M
20	...	33 33·54	...	53 6·6	M
Nov. 11	...	33 33·54	...	53 7·1	R
594		17 *Piscium* ι			
Oct. 1	...	23 33 46·68	...	85 1 24·4	M
595		19 *Andromedæ* κ			
Oct. 16	...	23 34 29·83	...	46 19 46·3	M
25	...	34 29·95	...	19 47·7	M
29	...	34 29·84	...	19 47·3	M
596		78 *Pegasi.*			
Oct. 5	...	23 37 57·36	...	61 18 7·6	M
597		106 *Aquarii* ι^1			
Oct. 6	5·5	23 37 58·35	...	108 56 32·8	M
7	5·5	37 58·53	...	56 33·7	M
8	5·5	37 58·44	...	56 33·5	M
598		*Radcliffe* 6184.			
Oct. 9	5·5	23 42 10·68	...	22 51 34·7	M
599		*δ Sculptoris.*			
Nov. 17	...	23 42 40·32	...	118 47 38·9	R
600		28 *Piscium* ω			
Oct. 5	...	23 53 8·88	...	83 48 2·2	M
26	...	53 9·02	...	48 2·5	M
28	...	53 9·02	...	48 2·8	M
29	...	53 8·82	...	48 2·9	M
30	...	53 8·97	...	48 3·9	M
Nov. 9	...	53 8·89	...	48 1·6	R
22	...	53 8·94	...	48 2·4	R
601		*Anon.*			
Dec. 7	10·5	23 54 0·44	3	101 21 23·2	R
8	10·5	54 0·43	3	21 24·4	R
602		*τ Phœnicis.*			
Oct. 6	5·5	23 54 54·40	...	139 28 40·3	M
9	5·5	54 54·58	...	28 39·7	M
13	...	54 54·48	...	28 39·8	M
15	...	54 54·41	...	28 40·2	M
20	...	54 54·31	...	28 41·8	M
603		*Radcliffe* 6265.			
Oct. 7	5·5	23 55 29·90	...	29 26 42·3	M
14	...	55 29·89	...	26 41·0	M
16	...	55 29·75	...	26 42·5	M
21	5·5	55 29·75	...	26 44·9	M
604		*ζ Sculptoris.*			
Oct. 8	...	23 56 10·72	...	120 23 21·8	M