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MEAN POSITIONS OF STARS

OBSERVED WITH THE

MADRAS MERIDIAN CIRCLE

IN THE YEAR

1874

REDUCED TO JANUARY 1 OF THAT YEAR

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Mean Positions of Stars for 1874, January 1st.

Number.	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.
				h.	m.	s.	°	'	"		
1	21 Androm. $\alpha$ ( <i>Alpherat</i> )...	2.1	...	0	1	52.56	61	36	18.3	2	0.90
2	... ..	9.2	1	0	2	23.34	127	26	40.9	1	0.79
3	... ..	9.7	1	0	5	28.90	126	14	44.7	1	0.78
4	88 Pegasi $\gamma$ ( <i>Algenib</i> ) ...	3.0	...	0	6	44.94	75	31	0.8	4	0.87
5	... ..	9.0	1	0	19	31.75	26	33	17.5	1	0.75
36.45 34.67	6 12 Ceti ... ..	6.2	...	0	23	36.47 <sup>5</sup>	94	39	12.5	7	0.90
7	... ..	10.6	4	0	26	34.64 <sup>67</sup>	76	11	48.7	4	0.89
8	U Piscium, Var. 4. ...	9.7	5	0	36	40.96	83	22	16.7	5	0.87
9	16 Ceti $\beta$ ... ..	2.1	...	0	37	15.74	108	40	42.4	6	0.94
10	R. P. L. 10 ... ..	6.6	...	0	49	25.07	1	39	11.7	16	0.55
11	2 Ursæ Minoris ... ..	4.5	...	0	51	53.89	4	25	15.4	3	0.42
21.43	12 R. P. L. 14 ... ..	6.2	...	0	55	21.43 <sup>8</sup>	3	31	36.7	10	0.82
13	71 Piscium $\epsilon$ ... ..	4.5	...	0	56	24.30	82	47	18.0	7	0.95
3.21	14 ... ..	9.6	3	1	2	3.21 <sup>21</sup>	17	33	3.4	3	0.84
15	... ..	9.0	1	1	4	31.19	18	31	38.1	1	0.76
25.32 59.42	16 S Cassiopeis, Var. 4 ...	8.5	9	1	10	25.32 <sup>2</sup>	18	3	8.5	9	0.94
17	S Piscium, Var. 2... ..	8.9	8	1	10	59.42 <sup>2</sup>	81	43	59.9	10	0.89
18	R. P. L. 18 ... ..	7.9	...	1	11	25.23	2	5	42.7	9	0.34
12.09	19 ... ..	9.3	3	1	12	12.14 <sup>09</sup>	152	19	22.7	3	0.82
36.84	20 ... ..	9.1	3	1	12	36.84 <sup>20</sup>	152	14	22.8	3	0.86
21	1 Urs. Min. $\alpha$ ( <i>Polaris</i> ) ...	2.2	...	1	12	37.80	1	21	47.8	1	0.28
22	45 Ceti $\theta^2$ ... ..	3.8	...	1	17	43.53	98	50	0.8	1	0.95
23	93 Piscium $\rho$ ... ..	5.2	...	1	19	27.84	71	29	3.7	2	0.40
24	Lalande 2625 ... ..	8.5	2	1	20	22.20	79	17	13.4	2	0.77
37.58	25 ... ..	10.2	2	1	24	37.58 <sup>4</sup>	90	3	22.0	2	0.88
26	99 Piscium $\eta$ ... ..	3.7	...	1	24	44.53	75	18	17.7	1	0.95
27	106 Piscium $\nu$ ... ..	4.7	...	1	34	52.59	85	9	1.3	3	0.93
28	6 Arietis $\beta$ ... ..	2.8	...	1	47	40.92	69	48	31.0	7	0.95
29	... ..	9.9	2	2	6	29.29	151	21	14.5 <sup>29</sup>	2	0.02
30	... ..	10.1	2	2	7	6.39	87	9	40.9	2	0.84
31	67 Ceti ... ..	5.5	...	2	10	42.03	97	0	12.8	1	0.93
35.80	32 R Ceti, Var. 2 ... ..	8.0	10	2	19	35.80 <sup>32</sup>	90	44	53.3	10	0.05
33	73 Ceti $\xi^1$ ... ..	4.4	...	2	21	27.88	82	6	20.3	3	0.33
34	R. P. L. 26 ... ..	8.0	...	2	25	5.87	3	30	13.2	6	0.94
35	86 Ceti $\gamma$ ... ..	3.6	...	2	36	46.35	87	17	45.6	17	0.20

23.29

[14.5]

5.—Observed for map of Gemma's Nova of 1572.  
 7.—Observed for map of T Piscium, Var. 3.  
 10.—Groombridge 144.  
 12.—Groombridge 195.  
 14.—15.—Observed for map of S Cassiopeis, Var. 4.

18.—Carrington 188.  
 24.—Comparison star for Asia in 1873.  
 30.—Comparison star for Camilla in 1868  
 34.—Carrington 352.

Mean Positions of Stars for 1874, January 1st.

Number.	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.
				h.	m.	s.	°	'	"		
36	92 Ceti α ... ..	2.7	...	2	55	41.57	86	24	20.7	11	0.30
37	57 Arietis δ ... ..	4.5	...	3	4	25.59	70	45	6.5	4	0.51
38	38 Persei α ... ..	1.9	...	3	15	20.04	40	35	22.2	1	0.06
39	... ..	9.5	1	3	15	46.37	125	39	11.9	1	0.02
13.94	40	... ..	2	3	17	13.94 <sup>4</sup>	127	4	49.7	2	0.03
41	... ..	8.8	1	3	17	42.12	130	43	28.4	1	0.04
42	1 Tauri σ, Var. 5...	5.7	5	3	18	1.95	81	24	57.1	5	0.01
43	... ..	9.4	1	3	21	17.16	54	45	40.9	1	0.08
44	R Persei, Var. 3 ...	8.6	6	3	22	2.21	54	45	54.0	6	0.96
24.98	45	R. P. L. 34 ... ..	...	3	25	24.98 <sup>95</sup>	3	45	17.1	4	0.49
46	... ..	10.2	1	3	33	59.31	128	28	9.9	1	0.02
47	25 Tauri η ( <i>Alcyone</i> ) ..	3.0	...	3	39	59.79	66	17	11.0	11	0.13
48	34 Eridani γ <sup>1</sup> ... ..	3.0	...	3	52	9.03	103	52	6.0	20	0.04
49	R. P. L. 35... ..	6.7	...	3	57	42.54	4	46	48.4	1	0.99
50	38 Eridani σ <sup>1</sup> ... ..	4.1	...	4	5	42.91	97	10	3.8	11	0.06
51	74 Tauri ε... ..	3.7	...	4	21	15.63	71	6	4.0	10	0.06
52	... ..	10.4	1	4	22	35.77	80	26	47.6	1	0.03
53	87 Tauri α ( <i>Aldabaran</i> ) ...	1.0	...	4	28	41.49	73	44	46.4	10	0.17
20.02	54	Lacaille 1551—2nd ...	1	4	32	20.27 <sup>02</sup>	153	5	9.7	1	0.03
55	... ..	9.6	3	4	34	31.97	130	50	21.2	3	0.01
56	... ..	9.9	1	4	34	43.67	153	25	37.2	1	0.04
57	... ..	9.8	2	4	39	19.30	153	14	47.3	2	0.04
67.26	58	3 Aurigæ ι... ..	...	4	48	47.39 <sup>9</sup>	57	2	8.6	17	0.13
7.63	59	2 Leporis ε... ..	...	5	0	7.63 <sup>3</sup>	112	32	30.2	16	0.09
60	13 Aurigæ α ( <i>Capella</i> ) ...	0.2	...	5	7	22.85	44	7	59.0	1	0.06
61	19 Orionis β ( <i>Rigel</i> ) ...	0.3	...	5	8	28.95	98	20	55.3	9	0.11
19.64	62	112 Tauri β ... ..	...	5	18	19.64 <sup>64</sup>	61	30	5.1	18	0.10
4.07	63	... ..	3	5	20	4.19 <sup>07</sup>	129	43	34.8	3	0.03
64	R. P. L. 40... ..	2.1	...	5	21	50.14	4	52	30.3	1	0.53
65	34 Orionis δ, Var. 1 ...	2.4	...	5	25	34.16	90	23	37.6	2	0.15
10.37	66	11 Leporis α ... ..	...	5	27	10.37 <sup>7</sup>	107	54	50.6	4	0.13
49.26	67	46 Orionis ε ... ..	...	5	29	49.26 <sup>6</sup>	91	17	2.5	9	0.11
68	R. P. L. 42... ..	7.9	...	5	31	55.68	2	41	12.8	10	0.05
69	α Columbæ... ..	2.7	...	5	35	5.14	124	8	31.6	1	0.98
70	58 Orionis α ... ..	0.9	...	5	48	20.98	82	37	5.7	13	0.20

43.—Observed for map of R Persei, Var. 3.  
 45.—Groombridge 642.  
 49.—Groombridge 750.

52.—Observed for map of R Tauri, Var. 2.  
 54.—56.—57.—Observed for map of R Reticuli, Var. 1.  
 64.—Groombridge 944.

Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Number in Answers-Bradley.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
36	92 Ceti $\alpha$ ...	+ 3.1304	+ 0.0098	- 0.008	- 14.444	+ 0.323	+ 0.07	428
37	57 Arietis $\delta$ ...	+ 3.4086	+ 0.0171	+ 0.010	- 13.904	+ 0.364	- 0.01	446
38	38 Persei $\alpha$ ...	+ 4.2468	+ 0.0483	+ 0.002	- 13.201	+ 0.472	+ 0.08	464
39	... ..	+ 2.3490	+ 0.0012	...	- 13.172	+ 0.264	...	...
40	... ..	+ 2.3061	+ 0.0013	...	- 13.076	+ 0.261	...	...
41	... ..	+ 2.1980	+ 0.0015	...	- 13.044	+ 0.249	...	...
42	1 Tauri $\sigma$ , Var. 5 ...	+ 3.2257	+ 0.0115	- 0.005	- 13.022	+ 0.364	+ 0.07	477
43	... ..	+ 3.7992	+ 0.0279	...	- 12.804	+ 0.431	...	...
44	R Persei, Var. 3 ...	+ 3.8010	+ 0.0278	...	- 12.753	+ 0.432	...	...
45	R. P. L. 34 ...	+ 18.9826	+ 3.2309	+ 0.136	- 12.525	+ 2.168	+ 0.06	Gr.
46	... ..	+ 2.2183	+ 0.0022	...	- 11.930	+ 0.265	...	...
47	25 Tauri $\eta$ ( <i>Alcyone</i> )...	+ 3.5532	+ 0.0177	- 0.000	- 11.503	+ 0.430	+ 0.04	521
48	34 Eridani $\gamma^1$ ...	+ 2.7922	+ 0.0047	+ 0.003	- 10.617	+ 0.351	+ 0.11	546
49	R. P. L. 35 ...	+ 16.8377	+ 1.8114	+ 0.057	- 10.200	+ 2.117	- 0.05	Gr.
50	38 Eridani $\sigma^1$ ...	+ 2.9245	+ 0.0058	- 0.001	- 9.591	+ 0.379	- 0.09	568
51	74 Tauri $\epsilon$ ...	+ 3.4881	+ 0.0120	+ 0.007	- 8.376	+ 0.466	+ 0.08	609
52	... ..	+ 3.2772	+ 0.0090	...	- 8.270	+ 0.440	...	...
53	87 Tauri $\alpha$ ( <i>Aldebaran</i> )	+ 3.4314	+ 0.0105	+ 0.004	- 7.781	+ 0.464	+ 0.18	630
54	Lacaille 1551—2nd ...	+ 0.6238	+ 0.0205	...	- 7.486	+ 0.088	...	...
55	... ..	+ 1.9959	+ 0.0040	...	- 7.306	+ 0.274	...	...
56	... ..	+ 0.5817	+ 0.0209	...	- 7.291	+ 0.082	...	...
57	... ..	+ 0.5829	+ 0.0199	...	- 6.914	+ 0.088	...	...
58	3 Aurigæ $\iota$ ...	+ 3.8977	+ 0.0144	+ 0.001	- 6.181	+ 0.544	+ 0.00	677
59	22 Leporis $\epsilon$ ...	+ 2.5361	+ 0.0038	+ 0.000	- 5.180	+ 0.359	+ 0.07	713
60	13 Aurigæ $\alpha$ ( <i>Capella</i> )	+ 4.4140	+ 0.0173	+ 0.008	- 4.564	+ 0.629	+ 0.42	722
61	19 Orionis $\beta$ ( <i>Rigel</i> )...	+ 2.8809	+ 0.0040	- 0.001	- 4.470	+ 0.412	+ 0.01	736
62	112 Tauri $\beta$ ...	+ 3.7861	+ 0.0082	+ 0.001	- 3.626	+ 0.545	+ 0.18	756
63	... ..	+ 1.9780	+ 0.0034	...	- 3.476	+ 0.285	...	...
64	R. P. L. 40 ...	+ 18.5304	+ 0.6397	...	- 3.324	+ 2.667	...	...
65	34 Orionis $\delta$ ...	+ 3.0631	+ 0.0038	- 0.001	- 3.001	+ 0.443	+ 0.01	787
66	11 Leporis $\alpha$ ...	+ 2.6444	+ 0.0029	- 0.001	- 2.863	+ 0.383	- 0.01	796
67	46 Orionis $\epsilon$ ...	+ 3.0425	+ 0.0035	- 0.002	- 2.633	+ 0.441	- 0.01	809
68	R. P. L. 42 ...	+ 31.3502	+ 1.4978	...	- 2.445	+ 4.541	...	...
69	$\alpha$ Columbæ ...	+ 2.1709	+ 0.0027	+ 0.005	- 2.176	+ 0.316	+ 0.03	Stone
70	58 Orionis $\alpha$ ...	+ 3.2452	+ 0.0027	+ 0.001	- 1.019	+ 0.473	+ 0.02	860

45—49.—Proper motions from *Greenwich Catalogue 1872*.  
 69.—Proper motions from *Stone's Cape Catalogue*.

## Mean Positions of Stars for 1874, January 1st.

Number.	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.	
				h.	m.	s.	°	'	"			
30.21	71	...	10.3	2	5	50	30.27 <sup>1</sup>	137	10	12.6	2	0.04
4.51	72	...	9.6	3	5	52	46.1 <sup>51</sup>	140	36	31.4	3	0.03
	78	...	9.7	1	5	52	29.04	141	46	0.1	1	0.06
	74	...	9.6	1	5	54	50.49	137	45	13.2	1	0.06
[9.40]	75	...	9.5	1	5	55	9.1 <sup>40</sup>	121	31	0.1	1	0.01
	76	R. P. L. 43	6.6	...	5	56	27.57	3	14	16.7	9	0.31
13.65	77	...	9.2	3	6	0	13.60 <sup>5</sup>	121	34	34.1	3	0.10
	78	67 Orionis $\nu$	4.4	...	6	0	22.74	75	13	6.9	6	0.15
	79	Lalande 12072—1st	7.6	3	6	13	59.77	68	51	27.5	3	0.96
	80	13 Geminorum $\mu$	3.2	...	6	15	20.26	67	25	26.6	6	0.29
	81	24 Geminorum $\gamma$	2.0	...	6	30	26.07	73	29	43.6	1	0.16
	82	Bonn +8°. 1429	9.2	5	6	32	22.80	81	7	28.2	5	0.13
	83	9 Canis Maj. $\alpha$ ( <i>Sirius</i> )	-1.4	...	6	39	35.58	106	32	44.5	1	0.16
	84	51 Cephei	5.3	...	6	40	44.97	2	45	53.2	2	0.58
	85	...	8.5	5	6	42	56.63	130	36	59.3	5	0.17
40.50	86	21 Canis Majoris $\epsilon$	1.5	...	6	53	40.47.50	118	48	5.8	1	0.20
3.51	87	23 Canis Majoris $\gamma$	4.1	...	6	58	3.50 <sup>1</sup>	105	26	55.0	6	0.13
	88	R. Canis Min., Var. 1	8.2	1	7	1	46.71	79	46	45.2	1	0.04
5.84	89	Bonn +38°. 1778...	9.6	4	7	24	5.84 <sup>4</sup>	51	58	38.6	4	0.13
	90	...	10.5	4	7	24	12.18	41	55	53.9	4	0.15
	91	Bonn +48°. 1546	9.7	4	7	24	17.51	42	1	59.1	4	0.08
33.20	92	66 Gemin. $\alpha^1$ ( <i>Castor—1st</i> )	2.0	...	7	26	33.22 <sup>0</sup>	57	50	18.7	10	0.21
	93	66 Gemin. $\alpha^2$ ( <i>Castor—2nd</i> )	2.8	...	7	26	33.53	57	50	15.1	4	0.17
51.18	94	R. P. L. 45	7.2	...	7	27	51.18 47.47	1	0	14.9	7	0.35
	95	10 Canis Min. $\alpha$ ( <i>Procyon</i> )	0.5	...	7	32	42.28 <sup>1</sup>	84	27	12.3	13	0.18
	96	...	9.8	2	7	34	39.54	68	10	13.4	2	0.11
	97	...	10.5	2	7	35	6.84	68	26	14.6	2	0.14
17.30	98	...	9.9	1	7	35	17.37 <sup>0</sup>	68	11	9.6	2	0.12
46.30	99	...	10.0	2	7	35	46.32 <sup>0</sup>	66	17	15.9	2	0.14
	100	78 Geminorum $\beta$ ( <i>Pollux</i> )	1.1	...	7	37	36.29	61	40	18.6	5	0.17
	101	...	8.6	1	7	37	53.67	130	59	26.8	1	0.07
	102	...	10.6	3	7	37	56.94	68	30	58.1	3	0.21
22.80	103	...	10.4	5	7	38	22.85 <sup>0</sup>	68	29	54.1	5	0.20
	104	...	9.0	1	7	41	53.40	148	9	45.9	1	0.07
17.35	105	...	9.1	2	7	42	17.35 <sup>5</sup>	152	59	21.5	2	0.10

76.—Groombridge 1004.

82.—Observed for map of R. Monocerotis, Var. 1.

94.—Groombridge 1119.

99.—Observed for map of  $\beta$  Geminorum, Var. 3.

## Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Number in Answers-Bradley.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
		<i>s</i>	<i>s</i>	<i>s</i>	"	"	"	
71	... ..	+ 1.6311	+ 0.0030	...	- 0.830	+ 0.238	...	...
72	... ..	+ 1.4450	+ 0.0031	...	- 0.693	+ 0.211	...	...
73	... ..	+ 1.3761	+ 0.0031	...	- 0.657	+ 0.201	...	...
74	... ..	+ 1.6006	+ 0.0023	...	- 0.493	+ 0.233	...	...
75	... ..	+ 2.2525	+ 0.0024	...	- 0.424	+ 0.329	...	...
76	R. P. L. 43 ...	+ 26.7016	+ 0.1003	...	- 0.304	+ 3.894	...	...
77	... ..	+ 2.2504	+ 0.0023	...	+ 0.020	+ 0.328	...	...
78	67 Orionis $\nu$ ...	+ 3.4250	+ 0.0017	- 0.000	+ 0.033	+ 0.500	+ 0.01	887
79	Lalande 12072—1st...	+ 3.5882	0.0000	...	+ 1.224	+ 0.522	...	...
80	13 Geminorum $\mu$ ...	+ 3.6268	- 0.0003	+ 0.004	+ 1.341	+ 0.527	+ 0.10	929
81	24 Geminorum $\gamma$ ...	+ 3.4648	- 0.0015	+ 0.002	+ 2.655	+ 0.500	+ 0.04	969
82	Bonn +8°. 1429 ...	+ 3.2789	- 0.0008	...	+ 2.824	+ 0.472	...	...
83	9 Canis Majoris $\alpha$ ...	+ 2.6809	+ 0.0010	- 0.037	+ 3.447	+ 0.384	+ 1.20	994
84	51 Cephei ...	+ 30.3210	- 2.0620	...	+ 3.547	+ 4.350	...	...
85	... ..	+ 1.0458	+ 0.0013	...	+ 3.736	+ 0.277	...	...
86	21 Canis Majoris $\epsilon$ ...	+ 2.3572	+ 0.0013	- 0.001	+ 4.654	+ 0.332	- 0.02	1023
87	23 Canis Majoris $\gamma$ ...	+ 2.7145	+ 0.0005	- 0.002	+ 5.026	+ 0.381	+ 0.00	1023
88	R. Can. Min., Var. 1...	+ 3.3046	- 0.0031	...	+ 5.341	+ 0.463	...	...
89	Bonn +38°. 1773 ...	+ 4.0480	- 0.0165	...	+ 7.196	+ 0.549	...	...
90	... ..	+ 4.4613	- 0.0259	...	+ 7.203	+ 0.604	...	...
91	Bonn +48°. 1546 ...	+ 4.4562	- 0.0256	...	+ 7.210	+ 0.605	...	...
92	66 Geminorum $\alpha^1$ ...	+ 3.8536	- 0.0133	- 0.015	+ 7.396	+ 0.519	+ 0.08	1087
93	66 Geminorum $\alpha^2$ ...	+ 3.8536	- 0.0133	- 0.015	+ 7.396	+ 0.519	+ 0.08	1087
94	R. P. L. 45 ...	+ 73.8239	- 30.0114	- 0.323	+ 7.496	+ 9.983	- 0.01	Gr.
95	10 Canis Minoris $\alpha$ ...	+ 3.1915	- 0.0041	- 0.047	+ 7.893	+ 0.425	+ 1.03	1106
96	... ..	+ 3.5627	- 0.0094	...	+ 8.049	+ 0.473	...	...
97	... ..	+ 3.5558	- 0.0093	...	+ 8.085	+ 0.472	...	...
98	... ..	+ 3.5617	- 0.0095	...	+ 8.100	+ 0.472	...	...
99	... ..	+ 3.6087	- 0.0131	...	+ 8.138	+ 0.479	...	...
100	78 Geminorum $\beta$ ...	+ 3.7285	- 0.0128	- 0.048	+ 8.285	+ 0.491	+ 0.05	1112
101	... ..	+ 2.0149	+ 0.0008	...	+ 8.308	+ 0.264	...	...
102	... ..	+ 3.5510	- 0.0095	...	+ 8.311	+ 0.468	...	...
103	... ..	+ 3.5513	- 0.0097	...	+ 8.346	+ 0.467	...	...
104	... ..	+ 1.1283	- 0.0078	...	+ 8.626	+ 0.145	...	...
105	... ..	+ 0.7064	- 0.0158	...	+ 8.656	+ 0.089	...	...

Mean Positions of Stars for 1874, January 1st.

Number.	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.
				h.	m.	s.	°	'	"		
29.49	106 R. P. L. 49 ... ..	6.7	...	7	46	28.66.49	5	35	10.5	11	0.63
	107 Brisbane 1791 ... ..	8.4	1	7	46	32.69	144	26	9.4	1	0.17
6.72	108 ... ..	9.0	5	7	50	47.82	130	23	34.0	5	0.20
47.38	109 ... ..	8.6	4	7	50	47.38	129	24	13.8	4	0.19
	110 ... ..	9.5	4	7	51	47.95	151	38	28.9	4	0.23
	111 Lacaille 3082 ... ..	7.7	4	7	52	3.60	130	24	4.8	4	0.23
15.41	112 ... ..	10.0	1	7	52	17.94	151	42	5.0	1	0.22
5.30	113 ... ..	8.4	2	7	53	8.35.0	144	43	16.9	2	0.08
	114 6 Cancri ... ..	5.0	...	7	55	46.64	61	51	16.5	2	0.18
	115 ... ..	10.0	1	8	0	42.78	78	29	30.5	1	0.15
40.44	116 ... ..	9.2	3	8	1	40.62.44	69	5	42.4	3	0.10
59.58	117 ... ..	10.0	1	8	1	59.58.9	69	14	46.3	1	0.11
	118 15 Argus ... ..	2.9	...	8	2	10.62	113	56	32.7	7	0.20
	119 ... ..	9.3	1	8	11	2.28	77	39	35.2	1	0.08
16.63	120 ... ..	9.5	2	8	13	18.60.3	130	47	24.7	2	0.13
	121 ... ..	9.3	1	8	13	41.75	131	43	0.1	1	0.15
	122 ... ..	9.6	4	8	13	48.12	131	44	51.3	4	0.22
	123 33 Cancri $\eta$ ... ..	5.5	...	8	25	25.23	69	7	56.8	7	0.21
11.52	124 ... ..	9.9	3	8	26	11.52.2	61	49	42.4	3	0.11
	125 ... ..	9.0	1	8	29	22.18	70	42	41.6	1	0.14
	126 Taylor 3710 ... ..	8.0	1	8	31	41.68	141	23	7.6	1	0.15
	127 11 Hydræ $\epsilon$ ... ..	3.6	...	8	40	6.15	83	7	12.4	13	0.21
	128 R. P. L. 60 ... ..	7.0	...	8	48	40.68	5	19	8.2	5	0.46
	129 ... ..	8.7	1	8	54	19.21	132	57	54.4	1	0.17
	130 82 Cancri $\pi^2$ ... ..	7.2	1	9	8	16.60	74	32	16.6	1	0.16
28.17	131 ... ..	9.6	2	9	11	28.23.17	70	43	15.2	2	0.12
	132 83 Cancri ... ..	6.6	...	9	11	56.80	71	45	42.6	6	0.23
29.70	133 ... ..	9.8	1	9	13	29.76.0	70	34	39.7	1	0.13
	134 ... ..	9.4	3	9	16	38.50	139	3	32.7	3	0.14
2.26	135 ... ..	7.8	1	9	20	2.21.6	75	9	3.8	1	0.11
6.71	136 ... ..	8.7	1	9	20	8.68.71	125	23	44.2	1	0.14
	137 ... ..	8.4	2	9	20	46.07	137	30	30.3	2	0.15
	138 ... ..	8.4	1	9	20	51.98	125	25	31.8	1	0.16
0.17	139 ... ..	9.0	2	9	21	0.17	153	40	48.1.8	1	0.16
	140 30 Hydræ $\alpha$ , Var. 2 ...	2.0	...	9	21	23.67	98	6	48.1	11	0.25

106.—Groombridge 1359.

124.—Comparison star for Isis in 1870.

125.—Observed for map of U Cancri, Var. 4.

128.—Carrington 1286.

48.8

## Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Number in Answers-Bradley.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
106	R. P. L. 49 ...	+ 15.2928	- 1.2342	...	+ 8.986	+ 1.990	...	...
107	Brisbane 1791 ...	+ 1.4007	- 0.0043	...	+ 8.991	+ 0.179	...	...
108	... ..	+ 2.0632	+ 0.0010	...	+ 9.266	+ 0.263	...	...
109	... ..	+ 2.0996	+ 0.0011	...	+ 9.321	+ 0.267	...	...
110	... ..	+ 0.8843	- 0.0135	...	+ 9.399	+ 0.110	...	...
111	Lacaille 3082 ...	+ 2.0676	+ 0.0010	...	+ 9.420	+ 0.262	...	...
112	... ..	+ 0.8812	- 0.0137	...	+ 9.438	+ 0.109	...	...
113	... ..	+ 1.4091	- 0.0044	...	+ 9.503	+ 0.177	...	...
114	6 Cancri ...	+ 3.6980	- 0.0148	- 0.003	+ 9.705	+ 0.468	+ 0.04	1149
115	... ..	+ 3.3072	- 0.0074	...	+ 10.081	+ 0.413	...	...
116	... ..	+ 3.5125	- 0.0114	...	+ 10.154	+ 0.438	...	...
117	... ..	+ 3.5087	- 0.0114	...	+ 10.178	+ 0.437	...	...
118	15 Argus ...	+ 2.5609	+ 0.0009	- 0.008	+ 10.192	+ 0.318	- 0.06	1170
119	... ..	+ 3.3183	- 0.0082	...	+ 10.851	+ 0.403	...	...
120	... ..	+ 2.1084	+ 0.0013	...	+ 11.018	+ 0.252	...	...
121	... ..	+ 2.0774	+ 0.0015	...	+ 11.046	+ 0.248	...	...
122	... ..	+ 2.0767	+ 0.0015	...	+ 11.055	+ 0.248	...	...
123	33 Cancri $\eta$ ...	+ 3.4826	- 0.0129	- 0.004	+ 11.888	+ 0.404	+ 0.05	1207
124	... ..	+ 3.0474	- 0.0176	...	+ 11.943	+ 0.423	...	...
125	... ..	+ 3.4442	- 0.0124	...	+ 12.165	+ 0.395	...	...
126	Taylor 3710 ...	+ 1.7519	- 0.0006	...	+ 12.326	+ 0.197	...	...
127	11 Hydre $\epsilon$ ...	+ 3.1957	- 0.0071	- 0.014	+ 12.897	+ 0.351	+ 0.02	1243
128	R. P. L. 60 ...	+ 13.7156	- 1.7166	...	+ 13.463	+ 1.476	...	...
129	... ..	+ 2.1702	+ 0.0037	...	+ 13.824	+ 0.224	...	...
130	82 Cancri $\pi^2$ ...	+ 3.3242	- 0.0117	- 0.003	+ 14.683	+ 0.325	- 0.02	1304
131	... ..	+ 3.3859	- 0.0140	...	+ 14.872	+ 0.326	...	...
132	83 Cancri ...	+ 3.3670	- 0.0134	- 0.009	+ 14.900	+ 0.323	+ 0.14	1309
133	... ..	+ 3.3853	- 0.0142	...	+ 14.991	+ 0.322	...	...
134	... ..	+ 2.0643	+ 0.0048	...	+ 15.171	+ 0.190	...	...
135	... ..	+ 3.3001	- 0.0116	...	+ 15.364	+ 0.303	...	...
136	... ..	+ 2.4620	+ 0.0056	...	+ 15.371	+ 0.224	...	...
137	... ..	+ 2.1379	+ 0.0057	...	+ 15.405	+ 0.193	...	...
138	... ..	+ 2.4637	+ 0.0057	...	+ 15.412	+ 0.223	...	...
139	... ..	+ 0.8818	- 0.0285	...	+ 15.419	+ 0.076	...	...
140	80 Hydre $\alpha$ , Var. 2 ...	+ 2.9505	- 0.0013	- 0.002	+ 15.441	+ 0.268	- 0.05	1330



## Mean Positions of Stars for 1874, January 1st.

Number.	Star:	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.
				h.	m.	s.	°	'	"		
141	25 Ursæ Majoris $\theta$	3.2	...	9	24	25.20	37	44	56.5	2	0.17
142	... ..	9.4	1	9	24	29.78	158	43	22.3	1	0.14
4.60 143	R. P. L. 69	7.9	...	9	36	<del>5.04</del> 4.72	2	49	30.8	8	0.62
144	17 Leonis $\epsilon$	3.1	...	9	38	41.77	65	38	49.3	10	0.25
145	... ..	9.5	1	9	44	28.23	148	32	41.0	1	0.14
5.00 146	R. P. L. 70	5.0	...	9	48	6.29	5	28	39.2	4	0.78
50.90 147	... ..	9.8	1	9	48	50.7190	152	10	28.6	1	0.20
148	W. B. N. IX. 1020...	9.0	2	9	49	0.54	71	51	41.7	1	0.15
149	W. B. N. IX. 1047...	8.9	2	9	50	5.64	72	20	46.0	2	0.11
8.62 150	... ..	9.7	6	9	51	8.642	72	33	32.1	7	0.18
151	... ..	9.6	1	9	52	48.97	72	4	26.6	1	0.14
152	29 Leonis $\pi$	5.0	...	9	53	33.24	81	21	7.8	7	0.27
153	W. B. N. IX. 1160...	9.0	4	9	55	39.62	73	20	32.8	4	0.15
154	... ..	10.1	5	9	55	41.20	72	20	51.3	5	0.22
155	... ..	9.9	1	9	56	23.40	130	0	17.2	1	0.16
156	W. B. N. IX. 1189...	9.7	4	9	57	0.32	73	10	31.5	4	0.18
157	... ..	9.0	1	9	58	8.66	145	35	55.7	1	0.24
158	W. B. N. IX. 1230...	9.6	4	9	58	25.70	72	55	24.3	4	0.22
30.2 159	... ..	8.9	2	9	58	30.5529	143	56	59.6	2	0.19
160	14 Sextantis	7.0	3	10	0	12.15	83	46	28.4	3	0.16
51.40 161	W. B. N. IX. 1282...	9.0	1	10	0	51.410	73	6	31.4	1	0.14
162	32 Leonis $\alpha$ ( <i>Regulus</i> )	1.4	...	10	1	39.59	77	25	4.2	8	0.29
163	33 Leonis ...	8.5	1	10	3	53.69	73	40	30.1	1	0.16
164	R. P. L. 72...	6.0	...	10	10	59.32	5	6	35.3	3	0.14
165	41 Leonis $\gamma^1$	2.5	...	10	13	1.35	69	31	18.8	7	0.27
166	47 Leonis $\rho$	4.0	...	10	26	10.51	80	2	42.7	5	0.30
167	53 Leonis $l$	5.3	...	10	42	38.00	78	47	17.7	8	0.29
168	... ..	9.9	1	10	42	54.40	75	7	59.5	1	0.17
169	... ..	8.6	1	10	43	1.98	141	7	37.5	1	0.17
170	... ..	10.1	3	10	47	59.00	148	51	45.3	2	0.32
171	R Crateris, Var. 1	9.0	2	10	54	21.69	107	38	56.8	2	0.21
172	... ..	9.1	1	10	54	31.66	107	41	27.6	1	0.20
173	R. P. L. 79	7.7	...	10	58	4.46	1	40	36.0	6	0.40
174	63 Leonis $\chi$	4.7	...	10	58	31.00	81	58	59.2	5	0.27
175	Taylor 5092	8.7	2	11	5	45.24	143	52	23.6	2	0.17

143.—Carrington 1418.

146.—Carrington 1451.

148—149—150—151—153—154—156—158—

161.—Comparison stars for Mars in 1869.

160.—Comparison star for Ariadne in 1873.

164.—Groombridge 1620.

170.—(Observed for map of  $\eta$  Argus.

172.—Observed for map of R Crateris, Var. 1.

173.—Groombridge 1689.

## Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Number in Answers- Bradley.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
141	25 Ursæ Majoris $\theta$ ...	+ 4.1564	- 0.0561	- 0.104	+ 15.608	+ 0.374	+ 0.56	1332
142	... ..	+ 0.9175	- 0.0275	...	+ 15.612	+ 0.077	...	...
143	R. P. L. 69 ... ..	+ 18.9881	- 5.5751	...	+ 16.229	+ 1.620	...	...
144	17 Leonis $\epsilon$ ... ..	+ 3.4221	- 0.0180	- 0.004	+ 16.362	+ 0.282	+ 0.01	1368
145	... ..	+ 1.8538	+ 0.0047	...	+ 16.649	+ 0.144	...	...
146	R. P. L. 70 ... ..	+ 10.6602	- 1.5648	...	+ 16.824	+ 0.839	...	...
147	... ..	+ 1.7006	+ 0.0017	...	+ 16.860	+ 0.128	...	...
148	W. B. N. IX. 1020 ...	+ 3.3092	- 0.0187	...	+ 16.867	+ 0.255	...	...
149	W. B. N. IX. 1047 ...	+ 3.3007	- 0.0133	...	+ 16.918	+ 0.251	...	...
150	... ..	+ 3.2961	- 0.0131	...	+ 16.967	+ 0.250	...	...
151	... ..	+ 3.3001	- 0.0134	...	+ 17.045	+ 0.247	...	...
152	29 Leonis $\pi$ ... ..	+ 3.1788	- 0.0080	- 0.004	+ 17.079	+ 0.236	+ 0.01	1398
153	W. B. N. IX. 1160 ...	+ 3.2787	- 0.0127	...	+ 17.176	+ 0.240	...	...
154	... ..	+ 3.2918	- 0.0132	...	+ 17.176	+ 0.241	...	...
155	... ..	+ 2.4960	+ 0.0097	...	+ 17.207	+ 0.130	...	...
156	W. B. N. IX. 1189 ...	+ 3.2789	- 0.0127	...	+ 17.235	+ 0.238	...	...
157	... ..	+ 2.0824	+ 0.0099	...	+ 17.285	+ 0.147	...	...
158	W. B. N. IX. 1230 ...	+ 3.2800	- 0.0129	...	+ 17.298	+ 0.235	...	...
159	... ..	+ 2.1435	+ 0.0105	...	+ 17.302	+ 0.151	...	...
160	14 Sextantis ... ..	+ 3.1440	- 0.0066	- 0.005	+ 17.377	+ 0.222	- 0.02	1404
161	W. B. N. IX. 1282 ...	+ 3.2739	- 0.0127	...	+ 17.405	+ 0.231	...	...
162	32 Leonis $\alpha$ ... ..	+ 3.2195	- 0.0102	- 0.018	+ 17.440	+ 0.225	- 0.02	1406
163	33 Leonis ... ..	+ 3.2622	- 0.0123	+ 0.005	+ 17.536	+ 0.223	+ 0.01	Gr.
164	R. P. L. 72 ... ..	+ 9.9189	- 1.6270	- 0.006	+ 17.828	+ 0.655	- 0.04	1399
165	41 Leonis $\gamma^1$ ... ..	+ 3.2968	- 0.0148	+ 0.021	+ 17.909	+ 0.208	+ 0.14	1432
166	47 Leonis $\rho$ ... ..	+ 3.1656	- 0.0080	- 0.001	+ 18.397	+ 0.176	- 0.01	1467
167	53 Leonis $l$ ... ..	+ 3.1600	- 0.0080	- 0.002	+ 18.923	+ 0.145	+ 0.02	1500
168	... ..	+ 3.1894	- 0.0104	...	+ 18.931	+ 0.147	...	...
169	... ..	+ 2.5257	+ 0.0205	...	+ 18.934	+ 0.114	...	...
170	... ..	+ 2.3882	+ 0.0245	...	+ 19.072	+ 0.100	...	...
171	R Crateris, Var. 1 ...	+ 2.9522	+ 0.0068	...	+ 19.238	+ 0.114	...	...
172	... ..	+ 2.9521	+ 0.0069	...	+ 19.242	+ 0.114	...	...
173	R. P. L. 79 ... ..	+ 15.2624	- 8.7944	...	+ 19.327	+ 0.586	...	...
174	63 Leonis $\chi$ ... ..	+ 3.1221	- 0.0056	- 0.026	+ 19.337	+ 0.113	+ 0.02	1535
175	Taylor 5092 ... ..	+ 2.6427	+ 0.0276	...	+ 19.495	+ 0.083	...	...

Mean Positions of Stars for 1874, January 1st.

Number.	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.
				h.	m.	s.	°	'	"		
176	... ..	9.9	1	11	6	12.26	83	53	41.3	1	0.20
177	68 Leonis $\delta$	2.8	...	11	7	24.26	68	47	11.2	3	0.30
178	73 Leonis $\eta$	5.5	...	11	9	16.27	76	0	19.6	4	0.18
179	... ..	9.9	1	11	9	55.24.34	145	58	31.1	1	0.19
180	... ..	9.7	2	11	10	59.48	141	11	51.5	2	0.20
181	12 Crateris $\delta$	3.9	...	11	13	2.54	104	5	49.3	2	0.30
182	... ..	9.2	...	11	23	39.72.90	142	55	53.4	1	0.18
183	Cordoba 15790	8.7	2	11	27	4.05.15	151	7	23.0	2	0.19
184	... ..	9.9	2	11	27	10.80.40	151	44	51.0	2	0.20
185	... ..	10.0	1	11	27	14.88	23	20	52.6	1	0.20
186	... ..	9.1	2	11	27	31.91	23	0	49.5	3	0.21
187	94 Leonis $\beta$	2.2	...	11	42	37.86	74	43	24.9	1	0.38
188	Bonn +5°. 2550	9.8	2	11	44	38.19.06	84	48	9.5	2	0.19
189	Groombridge 1830.	7.8	4	11	45	42.94	51	22	39.9	5	0.23
190	64 Ursæ Majoris $\gamma$	2.6	...	11	47	11.82	35	36	15.1	1	0.26
191	Bonn +4°. 2550	10.1	3	11	51	3.99	85	22	40.4	3	0.25
192	R. P. L. 87...	8.0	...	11	52	57.24	2	18	14.6	7	0.40
193	Bonn +3°. 2592	9.0	1	11	57	47.41.67	86	23	41.0	1	0.19
194	R. P. L. 89...	6.3	...	11	58	23.62	3	42	54.2	1	0.33
195	W. B. E. XI. 986	9.0	1	11	58	38.45.38	85	55	18.8	1	0.20
196	9 Virginis $\alpha$ ...	4.3	...	11	58	47.56	80	34	1.3	3	0.24
197	2 Corvi $\epsilon$ ...	3.1	...	12	3	38.85	111	55	7.4	5	0.35
198	... ..	9.0	1	12	4	9.47	146	0	24.0	1	0.20
199	... ..	9.0	...	12	4	20.93	145	59	43.4	1	0.20
200	... ..	9.1	4	12	6	38.53	110	2	10.2	4	0.35
201	... ..	9.0	3	12	6	59.96	150	29	40.0	3	0.30
202	... ..	9.5	3	12	6	59.99	142	54	2.3	3	0.28
203	R. P. L. 90...	7.7	...	12	7	17.25.53	2	22	1.7	12	0.71
204	... ..	9.4	1	12	8	8.16.21	90	17	34.9	2	0.20
205	69 Ursæ Majoris $\delta$	3.4	...	12	9	11.03	32	16	2.6	1	0.30
206	... ..	9.8	3	12	9	25.63	97	16	44.6	3	0.38
207	Lalande 22983	8.5	2	12	9	37.78	96	45	57.2	2	0.27
208	Lalande 22993	8.6	1	12	9	53.60	96	49	51.7	1	0.21
209	W. B. E. XII. 139..	9.2	3	12	10	41.15	87	35	14.2	3	0.33
210	W. B. E. XII. 155...	8.4	3	12	11	31.02	87	43	27.1	3	0.25

185.—Comparison star for Comet in 1861.  
 188—191—193—195—209—210.—Comparison stars for Mars in 1871.  
 194.—Groombridge 1850.  
 200.—Comparison star for Julia 1873.  
 203.—Carrington 1816.  
 206—207—208.—Comparison stars for Ariadne in 1870.

## Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Number in Answers-Bradley.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
176	... ..	+ 3.1055	- 0.0043	...	+ 19.504	+ 0.098	...	...
177	68 Leonis $\delta$ ...	+ 3.1902	- 0.0132	+ 0.010	+ 19.529	+ 0.098	+ 0.12	1546
178	73 Leonis $\eta$ ...	+ 3.1452	- 0.0049	- 0.002	+ 19.566	+ 0.043	+ 0.02	1550
179	... ..	+ 2.6430	+ 0.0804	...	+ 19.577	+ 0.076	...	...
180	... ..	+ 2.7194	+ 0.0273	...	+ 19.597	+ 0.077	...	...
181	12 Crateris $\delta$ ...	+ 3.0039	+ 0.0064	- 0.011	+ 19.635	+ 0.081	- 0.21	1557
182	... ..	+ 2.7928	+ 0.0818	...	+ 19.803	+ 0.056	...	...
183	Cordoba 15790 ...	+ 2.7251	+ 0.0415	...	+ 19.847	+ 0.049	...	...
184	... ..	+ 2.7171	+ 0.0425	...	+ 19.849	+ 0.048	...	...
185	... ..	+ 3.5133	- 0.0889	...	+ 19.850	+ 0.065	...	...
186	... ..	+ 3.5166	- 0.0899	...	+ 19.854	+ 0.063	...	...
187	94 Leonis $\beta$ ...	+ 3.0999	- 0.0074	- 0.036	+ 19.997	+ 0.025	+ 0.10	1605
188	Bonn +5°. 2550 ...	+ 3.0803	- 0.0017	...	+ 20.010	+ 0.021	...	...
189	Groombridge 1830 ...	+ 3.1387	- 0.0237	+ 0.346	+ 20.016	+ 0.019	+ 5.78	Gr.
190	64 Ursæ Majoris $\gamma$ ...	+ 3.1764	- 0.0433	+ 0.010	+ 20.024	+ 0.017	- 0.01	1608
191	Bonn +4°. 2550 ..	+ 3.0764	- 0.0016	...	+ 20.039	+ 0.008	...	...
192	R. P. L. 87 ...	+ 4.0935	- 1.2844	...	+ 20.045	+ 0.009	...	...
193	Bonn +3°. 2592 ...	+ 3.0730	- 0.0001	...	+ 20.054	+ 0.005	...	...
194	R. P. L. 89 ...	+ 3.2165	- 0.5016	...	+ 20.054	- 0.006	...	...
195	W. B. E. XI. 986 ...	+ 3.0728	- 0.0003	...	+ 20.054	+ 0.006	...	...
196	9 Virginis $\sigma$ ...	+ 3.0733	- 0.0032	- 0.016	+ 20.054	- 0.007	- 0.05	1623
197	2 Corvi $\epsilon$ ...	+ 3.0808	+ 0.0142	- 0.006	+ 20.052	- 0.016	- 0.02	1626
198	... ..	+ 3.1082	+ 0.0473	...	+ 20.051	- 0.016	...	...
199	... ..	+ 3.1098	+ 0.0474	...	+ 20.050	- 0.017	...	...
200	... ..	+ 3.0863	+ 0.0132	...	+ 20.046	- 0.022	...	...
201	... ..	+ 3.1444	+ 0.0574	...	+ 20.046	- 0.022	...	...
202	... ..	+ 3.1263	+ 0.0430	...	+ 20.046	- 0.022	...	...
203	R. P. L. 90 ...	+ 2.0406	- 0.2343	...	+ 20.044	- 0.018	...	...
204	... ..	+ 3.0725	+ 0.0024	...	+ 20.041	- 0.024	...	...
205	69 Ursæ Majoris $\delta$ ...	+ 2.9875	- 0.0425	+ 0.013	+ 20.038	- 0.026	- 0.00	1637
206	... ..	+ 3.0791	+ 0.0062	...	+ 20.038	- 0.027	...	...
207	Lalande 22983 ...	+ 3.0788	+ 0.0059	...	+ 20.037	- 0.027	...	...
208	Lalande 22993 ...	+ 3.0790	+ 0.0061	...	+ 20.036	- 0.028	...	...
209	W. B. E. XII. 139 ..	+ 3.0696	+ 0.0012	...	+ 20.032	- 0.030	...	...
210	W. B. E. XII. 155 ...	+ 3.0695	+ 0.0014	...	+ 20.029	- 0.032	...	...

189.—Proper motions from *Greenwich Catalogue 1872.*

Mean Positions of Stars for 1874, January 1st.

Number	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.
				h.	m.	s.	°	'	"		
211	13 Virginis .. ..	6.2	1	12	12	12.58	90	5	10.6	1	0.28
212	.... ..	8.7	2	12	13	24.71	108	34	27.4	2	0.25
213	15 Virginis $\eta$ ...	4.0	...	12	13	27.57	89	57	57.2	4	0.37
214	... ..	10.0	...	12	19	11.35	143	33	27.2	1	0.20
215	$\alpha$ Crucis—1st ...	1.0	...	12	19	35.59	152	23 <sup>4</sup>	57.3 <sup>4.4</sup>	1	0.27
216	... ..	9.2	...	12	20	24.32	124	17 <sup>6</sup>	27.9	1	0.21
217	O. A. S. 12164 ...	8.1	5	12	20	29.48	111	41	34.5	5	0.30
218	... ..	8.0	1	12	21	39.41	145	45	37.5	1	0.22
219	... ..	9.4	3	12	24	25.12	91	43	9.9	3	0.23
220	... ..	10.0	1	12	25	8.37	151	43	19.0	2	0.26
221	... ..	9.7	4	12	27	44.61	38	3	43.5	4	0.28
222	9 Corvi $\beta$ ... ..	2.8	...	12	27	46.23	112	41	57.7	4	0.39
223	... ..	9.0	2	12	28	22.24	140	58	52.4	2	0.23
224	... ..	9.0	1	12	33	22.52	143	10	40.6	1	0.21
225	29 Virginis $\gamma^2$ (S.)	3.5	...	12	35	16.66	90	45	31.5	4	0.27
226	29 Virginis $\gamma^1$ (N.)	3.5	...	12	35	16.99	90	45	32.0	1	0.22
227	R. P. L. 98... ..	6.6	...	12	48	5.91	5	53	50.6	16	0.51
228	R. P. L. 99 ... ..	5.6	...	12	48	14.10 15.33	5	54	7.3	1	0.92
229	12 Canum Venaticorum $\alpha$ ...	3.1	...	12	50	7.88	51	0	2.2	2	0.44
230	51 Virginis $\theta$ ... ..	4.4	...	13	3	25.62	94	51	56.9	10	0.41
231	R. P. L. 101 ... ..	7.5	...	13	8	38.52	1	40	29.2	7	0.34
232	67 Virginis $\alpha$ ( <i>Spica</i> )	1.2	...	13	18	33.34 <sup>5</sup>	100	30	10.6	9	0.42
233	Stone 7365 ... ..	7.8	...	13	19	37.94	143	29	53.3	2	0.27
234	Lacaille 5546 ... ..	9.0	2	13	20	17.93	143	30	37.1	2	0.29
235	... ..	9.5	2	13	22	22.35	112	31	4.3	2	0.25
236	$\kappa$ Virginis, Var. 10 ...	6.1	9	13	27	58.66	102	34	2.0	10	0.29
237	79 Virginis $\zeta$ ... ..	3.5	...	13	28	16.46	89	57	2.5	6	0.41
238	Taylor 6294 ... ..	6.3	5	13	29	46.99	135	47	0.9	5	0.35
239	... ..	8.1	4	13	33	27.39	137	40	45.6	5	0.32
240	... ..	7.6	5	13	35	13.31	136	21	12.2	5	0.30
241	... ..	9.4	4	13	35	17.08	136	43	11.0	5	0.31
242	Bonn +0°. 3090 ... ..	9.5	1	13	35	30.31	89	28	38.7	1	0.24
243	Bonn +0°. 3091 ... ..	10.2	2	13	36	28.14	89	38	1.3	2	0.40
244	... ..	9.3	1	13	37	9.69	144	41	22.5	1	0.38
245	Taylor 6363 ... ..	8.1	1	13	37	17.93	147	36	30.4	1	0.38

[152 4 4.4]  
[16 27.9]

14-10

33-35

217.—Comparison star for Danaë in 1874.  
219.—Comparison star for Hestia in 1863.  
227.—Groombridge 1937.  
228.—Groombridge 1940.  
231.—Groombridge 2006.

235.—Observed for map of R. Hydræ, Var. 1.  
238—239—240—241.—Comparison stars for Comet in 1873.  
242—243.—Comparison stars for Isis in 1871.

## Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Number in Answers- Bradley.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
		s	s	s	"	"	"	
211	13 Virginis ...	+ 3.0723	+ 0.0026	- 0.000	+ 20.026	- 0.032	+ 0.03	1643
212	... ..	+ 3.0985	+ 0.0128	...	+ 20.020	- 0.035	...	...
218	15 Virginis $\eta$ ...	+ 3.0722	+ 0.0027	- 0.006	+ 20.019	- 0.035	+ 0.02	1647
214	... ..	+ 3.2236	+ 0.0464	...	+ 19.984	- 0.047	...	...
215	$\alpha$ Crucis—1st ...	+ 3.2905	+ 0.0680	- 0.006	+ 19.982	- 0.050	+ 0.04	Stone
216	... ..	+ 3.1533	+ 0.0244	...	+ 19.974	- 0.049	...	...
217	O. A. S. 12164 ...	+ 3.1196	+ 0.0152	...	+ 19.974	- 0.050	...	...
218	... ..	+ 3.2576	+ 0.0518	...	+ 19.964	- 0.053	...	...
219	... ..	+ 3.0764	+ 0.0042	...	+ 19.940	- 0.057	...	...
220	... ..	+ 3.3451	+ 0.0685	...	+ 19.934	- 0.063	...	...
221	... ..	+ 2.8660	- 0.0293	...	+ 19.908	- 0.059	...	...
222	9 Corvi $\beta$ ...	+ 3.1397	+ 0.0164	- 0.003	+ 19.908	- 0.064	+ 0.05	1685
223	... ..	+ 3.2760	+ 0.0447	...	+ 19.901	- 0.067	...	...
224	... ..	+ 3.3314	+ 0.0496	...	+ 19.842	- 0.079	...	...
225	29 Virginis $\gamma^2$ (S.) ...	+ 3.0749	+ 0.0043	- 0.039	+ 19.818	- 0.078	- 0.02	1698-9
226	29 Virginis $\gamma^1$ (N.) ...	+ 3.0749	+ 0.0043	- 0.039	+ 19.818	- 0.078	- 0.02	1698-9
227	R. P. L. 98 ...	+ 0.3757	+ 0.2194	- 0.017	+ 19.615	- 0.019	- 0.02	1730
228	R. P. L. 99 ...	+ 0.3687	+ 0.2205	- 0.020	+ 19.611	- 0.019	- 0.02	1731
229	12 Can. Venat. $\alpha$ ...	+ 2.8373	- 0.0152	- 0.022	+ 19.577	- 0.098	- 0.07	1725
230	51 Virginis $\theta$ ...	+ 3.1033	+ 0.0078	- 0.004	+ 19.291	- 0.132	+ 0.04	1747
231	R. P. L. 101 ...	- 10.4203	+ 7.6084	...	+ 19.162	+ 0.440	...	...
232	67 Virginis $\alpha$ ...	+ 3.1555	+ 0.0116	- 0.004	+ 18.888	- 0.163	+ 0.02	1774
233	Stone 7365 ...	+ 3.6875	+ 0.0587	...	+ 18.856	- 0.190	...	...
234	Lacaille 5546 ...	+ 3.6927	+ 0.0589	...	+ 18.836	- 0.192	...	...
235	... ..	+ 3.2672	+ 0.0191	...	+ 18.773	- 0.175	...	...
236	$\alpha$ Virginis, Var. 10 ...	+ 3.1838	+ 0.0130	...	+ 18.595	- 0.182	...	...
237	79 Virginis $\zeta$ ...	+ 3.0717	+ 0.0064	- 0.021	+ 18.586	- 0.176	- 0.06	1789
238	Taylor 6294 ...	+ 3.5968	+ 0.0443	...	+ 18.535	- 0.208	...	...
239	... ..	+ 3.6544	+ 0.0478	...	+ 18.410	- 0.219	...	...
240	... ..	+ 3.6379	+ 0.0457	...	+ 18.348	- 0.212	...	...
241	... ..	+ 3.6455	+ 0.0463	...	+ 18.346	- 0.223	...	...
242	Bonn +0°. 3090 ...	+ 3.0672	+ 0.0065	...	+ 18.338	- 0.189	...	...
243	Bonn +0°. 3091 ...	+ 3.0687	+ 0.0065	...	+ 18.304	- 0.191	...	...
244	... ..	+ 3.8488	+ 0.0642	...	+ 18.279	- 0.237	...	...
245	Taylor 6363 ...	+ 3.9403	+ 0.0733	...	+ 18.274	- 0.243	...	...

## Mean Positions of Stars for 1874, January 1st.

Number.	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.
				h.	m.	s.	°	'	"		
40-44	246 Lacaille 5661 ... ..	7.8	2	13	37	40.89 <sup>14</sup>	138	9	32.9	2	0.44
	247 ... ..	9.7	2	13	38	4.94	123	51	7.4	2	0.33
	248 ... ..	8.9	1	13	39	15.83	152	49	4.0	1	0.26
44-61	249 ... ..	8.7	1	13	39	44.84 <sup>61</sup>	138	53	10.9	1	0.30
	250 ... ..	8.1	3	13	40	0.70	138	32	0.0	3	0.30
	251 ... .. 2nd Star...	10.0	2	13	46	6.72	128	26	11.6	2	0.27
	252 X Virginis, Var. 5..	9.0	1	13	47	44.83	78	18	54.6	1	0.27
	253 Taylor 6473 ... ..	7.7	...	13	48	21.85	97	26	16.2	1	0.24
	254 8 Bootis $\eta$ ... ..	2.9	...	13	48	41.13	70	58	10.7	14	0.41
	255 ... ..	10.2	1	13	52	1.33	108	33	34.7	1	0.26
	256 ... ..	9.6	3	13	53	1.59	128	4	22.5	3	0.27
	257 $\beta$ Centauri ... ..	1.0	...	13	54	56.87	140	45	50.1	3	0.42
	258 W. B. E. XIII. 1023 ...	8.3	7	13	59	6.42	102	5	55.4	7	0.28
	259 W. B. E. XIII. 1070 ...	8.4	7	14	1	38.68	101	57	55.4	7	0.33
37-85	260 R. P. L. 108. ... ..	7.8	...	14	2	29.54 <sup>85</sup>	3	38	20.0	6	0.57
	261 ... ..	9.4	4	14	3	3.95 <sup>6</sup>	101	48	18.0	4	0.40
3-96	262 Bootis, Var. 4 ... ..	9.2	3	14	4	51.11	79	35	22.1	3	0.28
	263 ... ..	9.2	7	14	6	45.98	102	20	59.2	8	0.33
54-91	264 16 Bootis $\alpha$ (Arcturus) ...	0.0	...	14	9	54.92 <sup>91</sup>	70	9	38.9	5	0.43
	265 ... ..	8.3	4	14	10	28.45	128	17	59.3	4	0.30
	266 ... ..	9.4	2	14	13	9.33	136	52	40.9	2	0.27
	267 W. B. E. XIV. 240 ... ..	9.1	5	14	15	2.27	102	36	17.9	5	0.27
	268 ... ..	9.0	1	14	15	54.90	122	14	21.7	1	0.28
	269 W. B. E. XIV. 280..	8.1	4	14	16	54.10	102	24	22.5	5	0.38
	270 Lacaille 5926 ... ..	9.1	1	14	17	15.01	119	2	45.0	1	0.29
	271 Taylor 6721 ... ..	7.2	1	14	17	54.46	101	5	46.2	1	0.31
0-67	272 ... ..	10.2	2	14	18	0.79 <sup>67</sup>	123	16	10.3	2	0.42
28-33	273 W. B. E. XIV. 315 ... ..	6.8	8	14	18	28.32 <sup>3</sup>	102	46	54.8	8	0.40
55-54	274 W. B. E. XIV. 360 ... ..	7.9	8	14	20	55.54 <sup>4</sup>	102	47	28.9	9	0.33
	275 W. B. E. XIV. 392 ... ..	9.1	5	14	22	44.44	103	15	36.2	6	0.37
	276 W. B. E. XIV. 410 ... ..	9.1	3	14	23	55.34	103	2	36.9	3	0.28
	277 25 Bootis $\rho$ ... ..	3.6	...	14	26	23.97	59	4	29.4	2	0.45
	278 W. B. E. XIV. 458 ... ..	9.5	5	14	26	42.00	103	31	11.2	5	0.27
	279 O. A. N. 14652 ... ..	8.6	1	14	27	9.79	20	9	42.2	1	0.43
	280 ... ..	9.6	3	14	27	19.77	123	22	42.4	3	0.41

246-249-250.—Comparison stars for Comet in 1873.

255.—Comparison star for Thisbe in 1870.

258-259-263-267-269-273-274-275-276--

278.—Comparison stars for Mars in 1873.

265.—Comparison star for  $\Delta$ gle in 1874.

279.—Comparison star for Comet 2, 1862.

## Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Number in Answers-Bradley
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
246	Lacaille 5661 ...	+ 3.6894	+ 0.0491	...	+ 18.256	- 0.231	...	...
247	... ..	+ 3.4444	+ 0.0292	...	+ 18.246	- 0.215	...	...
248	... ..	+ 3.1649	+ 0.0964	...	+ 18.203	- 0.261	...	...
249	... ..	+ 3.7180	+ 0.0507	...	+ 18.181	- 0.237	...	...
250	... ..	+ 3.7116	+ 0.0500	...	+ 18.175	- 0.237	...	...
251	... 2nd Star...	+ 3.5461	+ 0.0346	...	+ 17.943	- 0.238	...	...
252	X Virginis, Var. 5 ...	+ 2.9470	+ 0.0022	...	+ 17.879	- 0.202	...	...
253	Taylor 6473 ...	+ 3.1528	+ 0.0109	...	+ 17.854	- 0.217	...	...
254	8 Bootis $\eta$ ...	+ 2.8616	- 0.0006	- 0.005	+ 17.841	- 0.199	+ 0.34	1821
255	... ..	+ 3.2830	+ 0.0173	...	+ 17.706	- 0.232	...	...
256	... ..	+ 3.5681	+ 0.0343	...	+ 17.664	- 0.253	...	...
257	$\beta$ Centauri ...	+ 4.1751	+ 0.0841	- 0.010	+ 17.584	- 0.301	+ 0.05	Stone
258	W. B. E. XIII. 1023..	+ 3.2145	+ 0.0135	...	+ 17.407	- 0.240	...	...
259	W. B. E. XIII. 1070..	+ 3.2156	+ 0.0134	...	+ 17.295	- 0.245	...	...
260	R. P. L. 108 ...	- 7.6485	+ 2.4276	...	+ 17.251	+ 0.562	...	...
261	... ..	+ 3.2151	+ 0.0134	...	+ 17.232	- 0.247	...	...
262	Bootis, Var. 4 ...	+ 2.9450	+ 0.0035	...	+ 17.151	- 0.229	...	...
263	... ..	+ 3.2360	+ 0.0137	...	+ 17.065	- 0.254	...	...
264	16 Bootis $\alpha$ (Arcturus)	+ 2.8131	+ 0.0004	- 0.080	+ 16.917	- 0.227	+ 1.98	1847
265	... ..	+ 3.6413	+ 0.0340	...	+ 16.892	- 0.293	...	...
266	... ..	+ 3.8557	+ 0.0477	...	+ 16.764	- 0.314	...	...
267	W. B. E. XIV. 240 ...	+ 3.2383	+ 0.0139	...	+ 16.673	- 0.270	...	...
268	... ..	+ 3.5436	+ 0.0281	...	+ 16.630	- 0.294	...	...
269	W. B. E. XIV. 280 ...	+ 3.2376	+ 0.0138	...	+ 16.582	- 0.273	...	...
270	Lacaille 5926 ...	+ 3.4908	+ 0.0252	...	+ 16.565	- 0.293	...	...
271	Taylor 6721 ...	+ 3.2207	+ 0.0132	...	+ 16.532	- 0.272	...	...
272	... ..	+ 3.5691	+ 0.0292	...	+ 16.527	- 0.301	...	...
273	W. B. E. XIV. 315 ...	+ 3.2445	+ 0.0141	...	+ 16.504	- 0.276	...	...
274	W. B. E. XIV. 360 ...	+ 3.2473	+ 0.0140	...	+ 16.381	- 0.280	...	...
275	W. B. E. XIV. 392 ...	+ 3.2562	- 0.0144	...	+ 16.289	- 0.284	...	...
276	W. B. E. XIV. 410 ...	+ 3.2542	+ 0.0143	...	+ 16.228	- 0.286	...	...
277	25 Bootis $\rho$ ...	+ 2.5946	- 0.0015	- 0.009	+ 16.100	- 0.233	- 0.13	1869
278	W. B. E. XIV. 458 ...	+ 3.2642	+ 0.0145	...	+ 16.084	- 0.291	...	...
279	O. A. N. 14652 ...	+ 0.8913	+ 0.0366	...	+ 16.060	- 0.084	...	...
280	... ..	+ 3.6002	+ 0.0291	...	+ 16.051	- 0.321	...	...

257.—Proper motions from Stone's *Cape Catalogue*.



## Mean Positions of Stars for 1874, January 1st.

Number.	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.
				h.	m.	s.	°	'	"		
281	W. B. E. XIV. 512 ...	9.0	2	14	29	26.75	103	28	35.4	2	0.29
282	B Bootis, Var. 1 ...	8.0	1	14	31	38.31	62	42	56.2	2	0.27
283	... ..	10.0	1	14	35	17.79	61	58	39.7	1	0.24
284	... ..	9.4	3	14	37	16.11	150	19	57.3	3	0.27
285	36 Bootis $\epsilon^2$ ( <i>Mirac</i> ) ...	2.6	...	14	39	29.07	62	23	37.1	13	0.43
286	... ..	9.0	1	14	43	2.61	120	9	22.2	1	0.24
287	8 Libræ $\alpha^1$ ...	5.3	...	14	43	43.01	105	28	18.1	2	0.26
288	9 Libræ $\alpha^2$ ...	3.0	...	14	43	54.57	105	31	1.9	3	0.47
289	... ..	8.1	2	14	46	1.81	101	51	52.4	2	0.27
290	13 Libræ $\zeta^1$ ...	5.9	...	14	47	32.43	101	22	55.6	2	0.30
291	... ..	9.8	2	14	48	16.70	150	43	26.9	2	0.39
292	... ..	9.2	2	14	51	1.72	130	34	39.9	2	0.39
293	... ..	9.1	3	14	51	42.71	39	22	4.5	3	0.29
294	... ..	9.0	2	14	52	12.28	123	15	11.6	2	0.26
295	Taylor 6991 ...	5.5	1	14	52	12.28	39	51	20.2	2	0.40
296	O. A. N. 14999 ...	9.0	3	14	53	52.61	41	27	51.1	3	0.37
297	O. A. N. 15004 ...	7.9	1	14	54	12.44	39	23	27.8	1	0.29
298	19 Libræ $\delta$ , Var. 4 ...	5.6	4	14	54	14.60.57	98	1	3.9	5	0.44
299	... ..	8.5	...	14	58	21.26	131	33	6.3	1	0.27
300	43 Bootis $\psi$ ...	4.5	...	14	59	2.85	62	33	35.2	3	0.51
301	47 Bootis $k$ ...	5.6	...	15	1	15.42	41	21	40.7	4	0.33
302	... ..	8.9	3	15	1	30.32	97	24	42.4	3	0.31
303	... .. 2nd star...	8.8	2	15	4	10.88	122	21	3.1	2	0.34
304	O. A. N. 15138 ...	9.0	1	15	4	27.85	43	2	22.8	2	0.45
305	R. P. L. 111 ...	7.0	...	15	4	33.29	5	33	45.5	4	0.27
306	W. B. E. XV. 86 ...	9.2	1	15	7	3.72	98	4	9.5	1	0.27
307	... ..	8.6	3	15	7	18.50	98	17	37.4	5	0.43
308	... ..	8.9	2	15	7	22.10.4	130	28	46.1	2	0.50
309	27 Libræ $\beta$ ...	2.7	...	15	10	13.68	98	54	59.3	9	0.44
310	Redhill 2293 ...	8.0	...	15	13	24.12	4	23	19.1	4	0.06
311	... ..	9.0	1	15	14	49.56	123	9	44.2	1	0.27
312	Lacaille 6354 ...	9.0	3	15	15	38.41	124	17	23.3	3	0.32
313	S Coronæ Borealis, Var. 2.	7.0	6	15	16	15.97.5	58	10	42.9	7	0.43
314	W. B. E. XV. 290 ...	8.3	3	15	17	33.90	102	27	25.1	4	0.44
315	... ..	9.1	3	15	17	43.42	130	5	43.4	3	0.53

281.—Comparison star for Mars in 1871.

283.—Observed for map of B Bootis, Var. 1.

293—295—296—301—304.—Comparison stars for Comet 2, 1861.

302—306—307—314.—Comparison stars for Comet 2, 1867.

305.—Groombridge 2213.

316.—Groombridge 2233.

## Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Number in Awers- Bradley.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
281	W. B. E. XIV. 512 ...	+ 3.2667	+ 0.0145	...	+ 15.940	- 0.296	...	...
282	R. Bootis, Var. 1 ...	+ 2.6486	- 0.0004	...	+ 15.822	- 0.244	...	...
288	... ..	+ 2.6262	- 0.0004	...	+ 15.624	- 0.247	...	...
284	... ..	+ 4.5594	+ 0.0874	...	+ 15.515	- 0.426	...	...
285	36 Bootis $\epsilon^a$ ...	+ 2.6204	- 0.0001	- 0.004	+ 15.394	- 0.252	- 0.00	1890
286	... ..	+ 3.7832	+ 0.0850	...	+ 15.190	- 0.366	...	...
287	8 Libræ $\alpha^1$ ...	+ 3.3146	+ 0.0154	- 0.010	+ 15.152	- 0.323	+ 0.09	1893
288	9 Libræ $\alpha^a$ ...	+ 3.3156	+ 0.0154	- 0.009	+ 15.140	- 0.324	+ 0.07	1894
289	... ..	+ 3.2583	+ 0.0135	...	+ 15.018	- 0.321	...	...
290	13 Bootis $\zeta^1$ ...	+ 3.2519	+ 0.0132	- 0.006	+ 14.930	- 0.322	+ 0.01	1901
291	... ..	+ 4.6700	+ 0.0883	...	+ 14.888	- 0.460	...	...
292	... ..	+ 3.8497	+ 0.0363	...	+ 14.724	- 0.386	...	...
293	... ..	+ 1.9624	+ 0.0014	...	+ 14.684	- 0.201	...	...
294	... ..	+ 3.6707	+ 0.0280	...	+ 14.655	- 0.370	...	...
295	Taylor 6991 ...	+ 1.9790	+ 0.0013	...	+ 14.655	- 0.203	...	...
296	O. A. N. 14009 ...	+ 2.0313	+ 0.0008	...	+ 14.555	- 0.209	...	...
297	O. A. N. 15004 ...	+ 1.9505	+ 0.0017	...	+ 14.534	- 0.202	...	...
298	19 Libræ $\delta$ , Var. 4 ...	+ 3.2020	+ 0.0116	- 0.006	+ 14.533	- 0.328	+ 0.01	1911
299	... ..	+ 3.9041	+ 0.0371	...	+ 14.282	- 0.405	...	...
300	43 Bootis $\psi$ ...	+ 2.5834	+ 0.0010	- 0.015	+ 14.240	- 0.271	+ 0.01	1922
301	47 Bootis $k$ ...	+ 1.9927	+ 0.0018	- 0.008	+ 14.102	- 0.212	- 0.01	1925
302	... ..	+ 3.1960	+ 0.0112	...	+ 14.088	- 0.337	...	...
303	... 2nd Star... ..	+ 3.6818	+ 0.0264	...	+ 13.920	- 0.392	...	...
304	O. A. N. 15138 ...	+ 2.0405	+ 0.0015	...	+ 13.902	- 0.220	...	...
305	R. P. L. 111 ...	- 6.8268	+ 1.1695	...	+ 13.895	+ 0.712	...	...
306	W. B. E. XV. 86 ...	+ 3.2103	+ 0.0114	...	+ 13.738	- 0.347	...	...
307	... ..	+ 3.2143	+ 0.0115	...	+ 13.721	- 0.348	...	...
308	... ..	+ 3.9046	+ 0.0349	...	+ 13.717	- 0.420	...	...
309	27 Libræ $\beta$ ...	+ 3.2270	+ 0.0117	- 0.008	+ 13.534	- 0.353	+ 0.02	1934
310	Redhill 2293... ..	- 9.9451	+ 1.9461	...	+ 13.328	+ 1.076	...	...
311	... ..	+ 3.7286	+ 0.0264	...	+ 13.234	- 0.414	...	...
312	Lacaille 6354 ...	+ 3.7504	+ 0.0274	...	+ 13.180	- 0.418	...	...
313	S Cor. Bor., Var. 2 ...	+ 2.4455	+ 0.0014	...	+ 13.139	- 0.275	...	...
314	W. B. E. XV. 200 ...	+ 3.2965	+ 0.0134	...	+ 13.054	- 0.371	...	...
315	... ..	+ 3.9274	+ 0.0334	...	+ 13.042	- 0.440	...	...

2-6240

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## Mean Positions of Stars for 1874, January 1st.

Number.	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.
				h.	m.	s.	°	'	"		
316	R. P. L. 114. ...	6.9	...	15	18	37.54	2	17	12.8	1	0.08
317	W. B. E. XV. 319 ...	9.1	2	15	18	44.32	102	25	25.8	2	0.30
318	... ..	9.1	2	15	22	19.50	129	28	7.0	2	0.36
319	... ..	8.6	1	15	23	2.41	125	12	16.4	1	0.27
320	... ..	9.6	3	15	25	12.83	130	11	1.4	3	0.36
321	Lacaille 6421 ...	8.0	1	15	26	16.54	122	44	37.8	1	0.29
322	Lalande 28320 ...	8.2	3	15	27	2.71	103	48	11.0	4	0.38
323	5 Coronæ Borealis $\alpha$ ...	2.4	...	15	29	21.19	62	51	34.9	7	0.51
324	... ..	10.0	3	15	29	49.51	119	42	26.7	3	0.52
325	... ..	9.5	1	15	30	49.34	129	35	29.5	1	0.27
326	W. B. E. XV. 557 ...	7.5	2	15	30	58.40	104	6	48.2	3	0.41
327	W. B. E. XV. 564 ...	7.1	3	15	31	27.59	104	5	56.0	3	0.36
328	43 Libræ $\kappa$ ...	5.0	...	15	34	41.25	109	16	6.4	3	0.40
329	... ..	8.6	3	15	35	30.31	129	3	23.7	3	0.47
330	24 Serpentis $\alpha$ ...	2.7	...	15	38	3.76	83	10	33.5	5	0.47
331	O. A. S. 14840 ...	8.5	2	15	38	20.01	114	19	5.0	3	0.40
20.32	332 ... ..	8.1	5	15	38	20.30 <sup>2</sup>	125	29	2.3	5	0.51
333	O. A. S. 14841 ...	9.0	3	15	38	24.30	114	9	40.7	3	0.51
334	O. A. S. 14874 ...	9.2	1	15	40	1.65	104	50	32.4	1	0.38
20.14	335 Lacaille 6524 ...	5.9	1	15	41	20.12 <sup>4</sup>	144	40	8.4	1	0.48
336	... ..	9.7	2	15	42	43.30	104	26	15.6	2	0.45
337	B Coronæ Borealis, Var. 1.	6.4	5	15	43	22.90	61	27	20.4	5	0.45
338	... ..	9.5	1	15	44	31.56	104	23	23.8	1	0.27
339	36 Serpentis $\beta$ ...	5.2	...	15	44	42.35	92	42	27.0	1	0.39
340	W. B. E. XV. 861... ..	9.5	2	15	46	5.07	101	27	17.5	2	0.54
341	Radcliffe 3462 ...	8.3	1	15	46	41.05	47	3	20.7	1	0.50
342	R. P. L. 115 ...	7.0	...	15	46	55.66	4	45	46.9	6	0.64
343	O. A. S. 14996 ...	9.5	2	15	47	3.82	105	17	19.0	2	0.47
344	Lalande 28970 ...	8.4	1	15	48	24.91	70	50	55.6	1	0.38
345	O. A. S. 15053 ...	8.3	1	15	49	36.13	105	27	43.3	1	0.43
346	W. B. E. XV. 923... ..	9.2	1	15	49	51.75	104	57	49.2	1	0.50
56.16	347 ... ..	9.0	2	15	49	58.12 <sup>6</sup>	104	0	46.7	2	0.49
348	Lalande 29054 ...	8.7	...	15	51	3.98	104	5	26.7	1	0.39
349	4 Herculis... ..	5.7	...	15	51	16.16	47	3	59.0	2	0.45
350	7 Scorpii $\delta$ ...	2.5	...	15	52	53.20	112	15	40.3	1	0.39

316.—Groombridge 2283.

317—322—326—327.—Comparison stars for Comet 2, 1867.

331.—Comparison star for Iphigenia in 1873.

332.—Comparison star for Thyra in 1874.

334—336—338—343—345—346.—Comparison stars for Asia in 1861.

335.—Comparison star for Niobe in 1874.

339.—Comparison star for Donati's comet in 1858.

340—347—348.—Comparison stars for Sappho in 1871.

342.—Carrington 2380.

344.—Comparison star for Comet 2, 1862.

*Observed with the Madras Meridian Circle in that Year.*

Number.	Star.	In Right Ascension.			In Polar Distance.			Number in Answers- Bradley.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
316	R. P. L. 114 ...	- 22.4481	+ 7.5794	...	+ 12.983	+ 2.490	...	...
317	W. B. E. XV. 319 ...	+ 3.2968	+ 0.0131	...	+ 12.976	- 0.373	...	...
318	... ..	+ 3.9227	+ 0.0322	...	+ 12.734	- 0.445	...	...
319	... ..	+ 3.8029	+ 0.0276	...	+ 12.685	- 0.484	...	...
320	... ..	+ 3.9535	+ 0.0327	...	+ 12.538	- 0.454	...	...
321	Lacaille 6421 ...	+ 3.7458	+ 0.0252	...	+ 12.466	- 0.433	...	...
322	Lalande 28320 ...	+ 3.3302	+ 0.0134	...	+ 12.413	- 0.387	...	...
323	5 Coronæ Borealis α...	+ 2.5297	+ 0.0023	+ 0.009	+ 12.253	- 0.297	+ 0.09	1973
324	... ..	+ 3.6771	+ 0.0224	...	+ 12.219	- 0.429	...	...
325	... ..	+ 3.9518	+ 0.0314	...	+ 12.151	- 0.463	...	...
326	W. B. E. XV. 557 ...	+ 3.3398	+ 0.0134	...	+ 12.141	- 0.393	...	...
327	W. B. E. XV. 564 ...	+ 3.3390	+ 0.0134	...	+ 12.107	- 0.394	...	...
328	43 Libræ κ ...	+ 3.4488	+ 0.0157	- 0.005	+ 11.880	- 0.409	+ 0.10	1981
329	... ..	+ 3.9485	+ 0.0302	...	+ 11.822	- 0.471	...	...
330	24 Serpentis α ...	+ 2.9419	+ 0.0062	+ 0.008	+ 11.642	- 0.354	- 0.06	1990
331	O. A. S. 14840 ...	+ 3.5646	+ 0.0182	...	+ 11.622	- 0.429	...	...
332	... ..	+ 3.8489	+ 0.0264	...	+ 11.622	- 0.463	...	...
333	O. A. S. 14841 ...	+ 3.5612	+ 0.0181	...	+ 11.617	- 0.428	...	...
334	O. A. S. 14874 ...	+ 3.3626	+ 0.0133	...	+ 11.501	- 0.405	...	...
335	Lacaille 6524 ...	+ 4.6233	+ 0.0555	...	+ 11.408	- 0.560	...	...
336	... ..	+ 3.3565	+ 0.0130	...	+ 11.306	- 0.409	...	...
337	R Cor. Bor., Var. I ...	+ 2.4705	+ 0.0026	...	+ 11.259	- 0.303	...	...
338	... ..	+ 3.3571	+ 0.0129	...	+ 11.176	- 0.411	...	...
339	36 Serpentis b ...	+ 3.1248	+ 0.0087	- 0.008	+ 11.162	- 0.395	+ 0.02	2004
340	W. B. E. XV. 861 ...	+ 3.2982	+ 0.0116	...	+ 11.063	- 0.406	...	...
341	Radcliffe 3462 ...	+ 2.0326	+ 0.0033	...	+ 11.019	- 0.252	...	...
342	R. P. L. 115 ...	- 10.3234	+ 1.5323	...	+ 11.001	+ 1.254	...	...
343	O. A. S. 14996 ...	+ 3.3779	+ 0.0131	...	+ 10.991	- 0.416	...	...
344	Lalande 28970 ...	+ 2.6825	+ 0.0089	...	+ 10.892	- 0.333	...	...
345	O. A. S. 15053 ...	+ 3.3838	+ 0.0131	...	+ 10.805	- 0.420	...	...
346	W. B. E. XV. 923 ...	+ 3.3735	+ 0.0128	...	+ 10.786	- 0.419	...	...
347	... ..	+ 3.3536	+ 0.0125	...	+ 10.778	- 0.417	...	...
348	Lalande 29054 ...	+ 3.3561	+ 0.0125	...	+ 10.697	- 0.418	...	...
349	4 Herculis ...	+ 2.0195	+ 0.0035	- 0.001	+ 10.682	- 0.254	+ 0.01	2028
350	7 Scorpii δ ...	+ 3.5376	+ 0.0159	- 0.002	+ 10.562	- 0.443	+ 0.03	2024

## Mean Positions of Stars for 1874, January 1st.

Number.	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.
				h.	m.	s.	°	'	"		
351	49 Libræ ...	5.6	1	15	53	15.71	106	9	36.0	1	0.50
352	Taylor 7439 ...	8.8	1	15	55	6.12	126	46	50.6	1	0.38
353	O. A. S. 15146 ...	9.0	2	15	55	21.45	107	30	32.2	2	0.53
354	W. B. E. XV. 1047 ...	8.1	1	15	56	27.34	91	17	49.1	1	0.50
355	51 Scorpii ζ ...	4.1	...	15	57	26.40	101	1	26.7	1	0.39
356	8 Scorpii β <sup>1</sup> ...	3.0	...	15	58	6.73	109	27	29.8	10	0.47
357	9 Scorpii ω <sup>1</sup> ...	4.1	...	15	59	26.36	110	19	34.2	3	0.44
358	O. A. S. 15237 ...	8.5	1	15	59	53.29	106	36	3.5	2	0.40
359	Lalande 29306 ...	8.7	1	16	0	0.52	107	35	40.8	1	0.43
360	11 Scorpii ...	5.6	...	16	0	36.78	102	24	15.9	5	0.55
38.02	361 R. P. L. 116 ...	7.0	...	16	2	38.32.01	4	20	26.8	3	0.04
362	Lalande 29414 ...	8.0	3	16	2	52.47	102	33	7.4	3	0.58
363	W. B. E. XVI. 83... ..	8.3	1	16	6	36.53	102	42	39.0	2	0.39
364	O. A. S. 15412 ...	9.1	2	16	6	52.58	106	4	41.6	2	0.51
4.46	365 O. A. S. 15416 ...	7.9	3	16	7	4.436	110	47	5.9	3	0.48
366	O. A. S. 15418 ...	9.0	2	16	7	5.06	106	13	6.5	2	0.56
367	1 Ophiuchi δ ...	2.8	...	16	7	44.60	93	22	5.2	9	0.53
368	... ..	10.1	1	16	10	19.02	112	35	1.7	1	0.50
369	... ..	10.5	1	16	12	59.08	107	38	15.4	2	0.39
370	... ..	8.0	1	16	15	1.23	146	12	35.1	1	0.38
371	... ..	9.5	3	16	16	26.50	128	9	6.9	3	0.52
372	... ..	9.2	1	16	16	37.05	152	18	33.2	1	0.62
373	... ..	10.0	1	16	17	10.50	107	27	3.3	1	0.50
374	O. A. S. 15606 ...	9.1	2	16	17	26.30	107	15	56.8	2	0.50
375	O. A. S. 15613 ...	7.8	2	16	17	51.04	113	10	2.7	2	0.43
1.90	376 5 Ophiuchi ρ ...	7.1	4	16	18	1.88.9ρ	113	9	17.7	4	0.46
377	Taylor 7621 ...	9.0	3	16	18	2.09	113	6	45.0	3	0.56
378	... ..	9.0	3	16	18	40.13	129	32	2.5	3	0.61
379	7 Ophiuchi χ ...	5.0	...	16	19	43.44	108	10	6.0	3	0.40
380	21 Scorpii α (Antares) ...	1.1	...	16	21	41.04	116	8	59.8	6	0.55
381	Lalande 30042 ...	8.8	1	16	23	4.23	48	28	11.5	1	0.38
382	8 Ophiuchi φ ...	4.4	...	16	23	55.63	106	20	7.4	2	0.46
383	30 Herculis γ ...	5.1	...	16	24	29.74	47	50	26.3	1	0.61
384	... ..	9.5	2	16	27	5.43	130	56	9.7	2	0.40
385	13 Ophiuchi ζ ...	2.8	...	16	30	13.19	100	18	36.4	2	0.40

351.—Comparison star for Asia in 1861.

353—358—359—369—373.—Comparison stars for Sylvia in 1866.

354—360—365—381.—Comparison stars for Comet 2, 1862.

361.—Carrington 2423.

362—364—366.—Comparison stars for Sappho in 1864.

368.—Observed for map of R. S. T. Scorpii, Vars.

374.—Observed for map of U Scorpii, Var. 4.

375—376—377.—Comparison stars for Angelina in 1866.

## Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Number in Answers-Bradley.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
351	49 Libræ ...	+ 3.4019	+ 0.0131	- 0.047	+ 10.533	- 0.427	+ 0.37	2026
352	Taylor 7439 ...	+ 3.9310	+ 0.0761	...	+ 10.396	- 0.493	...	...
353	O. A. S. 15146 ...	+ 3.4331	+ 0.0135	...	+ 10.377	- 0.432	...	...
354	W. B. E. XV. 1047 ...	+ 3.0983	+ 0.0079	...	+ 10.295	- 0.392	...	...
355	51 Scorpii ξ ...	+ 3.2964	+ 0.0109	- 0.007	+ 10.220	- 0.417	+ 0.02	2033
356	8 Scorpii β <sup>1</sup> ...	+ 3.4793	+ 0.0142	- 0.003	+ 10.169	- 0.441	+ 0.03	2034
357	9 Scorpii ω <sup>1</sup> ...	+ 3.5005	+ 0.0106	- 0.003	+ 10.069	- 0.446	+ 0.02	2039
358	O. A. S. 15237 ...	+ 3.4173	+ 0.0129	...	+ 10.035	- 0.435	...	...
359	Lalande 29306 ...	+ 3.4394	+ 0.0132	...	+ 10.026	- 0.438	...	...
360	11 Scorpii ...	+ 3.3272	+ 0.0112	- 0.005	+ 9.981	- 0.425	+ 0.03	2042
361	R. P. L. 116 ...	- 12.2821	+ 1.7488	...	+ 9.827	+ 1.558	...	...
362	Lalande 29414 ...	+ 3.3318	+ 0.0111	...	+ 9.808	- 0.428	...	...
363	W. B. E. XVI. 83 ...	+ 3.3377	+ 0.0110	...	+ 9.523	- 0.431	...	...
364	O. A. S. 15412 ...	+ 3.4116	+ 0.0122	...	+ 9.501	- 0.442	...	...
365	O. A. S. 15416 ...	+ 3.5193	+ 0.0140	...	+ 9.487	- 0.456	...	...
366	O. A. S. 15418 ...	+ 3.4147	+ 0.0123	...	+ 9.485	- 0.442	...	...
367	1 Ophiuchi δ ...	+ 3.1416	+ 0.0081	- 0.005	+ 9.435	- 0.408	+ 0.14	2065
368	... ..	+ 3.5659	+ 0.0147	...	+ 9.235	- 0.465	...	...
369	... ..	+ 3.4518	+ 0.0123	...	+ 9.028	- 0.453	...	...
370	... ..	+ 4.8642	+ 0.0492	...	+ 8.868	- 0.638	...	...
371	... ..	+ 4.0172	+ 0.0233	...	+ 8.757	- 0.530	...	...
372	... ..	+ 5.3649	+ 0.0682	...	+ 8.742	- 0.706	...	...
373	... ..	+ 3.4509	+ 0.0119	...	+ 8.699	- 0.457	...	...
374	O. A. S. 15606 ...	+ 3.4468	+ 0.0118	...	+ 8.674	- 0.457	...	...
375	O. A. S. 15613 ...	+ 3.5885	+ 0.0141	...	+ 8.646	- 0.476	...	...
376	5 Ophiuchi ρ ...	+ 3.5884	+ 0.0141	- 0.002	+ 8.631	- 0.476	+ 0.01	Stone
377	Taylor 7621 ...	+ 3.5873	+ 0.0141	...	+ 8.631	- 0.476	...	...
378	... ..	+ 4.0696	+ 0.0240	...	+ 8.581	- 0.540	...	...
379	7 Ophiuchi χ ...	+ 3.4697	+ 0.0119	- 0.004	+ 8.497	- 0.462	+ 0.02	2088
380	21 Scorpii α ( <i>Antares</i> )	+ 3.6691	+ 0.0150	- 0.002	+ 8.342	- 0.491	+ 0.03	2091
381	Lalande 30042 ...	+ 1.9924	+ 0.0040	...	+ 8.231	- 0.269	...	...
382	8 Ophiuchi φ ...	+ 3.4301	+ 0.0110	- 0.005	+ 8.162	- 0.461	+ 0.03	2094
383	30 Herculis γ ...	+ 1.9653	+ 0.0042	0.000	+ 8.117	- 0.265	- 0.04	2102
384	... ..	+ 4.1379	+ 0.0235	...	+ 7.909	- 0.557	...	...
385	13 Ophiuchi ζ ...	+ 3.2969	+ 0.0087	- 0.001	+ 7.656	- 0.447	- 0.04	2109

## Mean Positions of Stars for 1874, January 1st.

Number.	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.
				h.	m.	s.	°	'	"		
386	Brisbane 5784 ... ..	9.8	1	16	31	47.58	150	40	41.3	1	0.38
387	Taylor 7724 ... ..	7.3	2	16	34	29.60	109	40	50.3	2	0.39
388	... ..	8.2	1	16	35	19.62	134	8	14.6	1	0.41
389	$\alpha$ Trianguli Australis ... ..	2.0	...	16	35	20.62	158	47	36.4	3	0.62
390	40 Herouliis $\zeta$ ... ..	3.1	...	16	36	32.17	58	10	3.7	3	0.58
391	... ..	9.0	1	16	37	25.45	180	59	8.4	1	0.50
392	O. A. S. 15952 ... ..	9.3	1	16	39	58.05	111	56	41.2	2	0.39
393	Lacaille 6984 ... ..	8.0	3	16	40	21.29	120	58	32.7	3	0.61
394	... ..	8.4	1	16	45	6.15	131	2	32.6	1	0.38
395	... ..	10.1	2	16	45	20.98	75	17	45.6	2	0.55
396	Taylor 7815 ... ..	8.4	2	16	46	11.08	130	18	54.0	2	0.48
397	49 Herouliis ... ..	7.5	2	16	46	20.66	74	48	44.2	2	0.65
398	... ..	9.0	1	16	46	56.30	136	38	34.4	1	0.41
399	... ..	8.6	1	16	47	32.69	130	17	27.1	1	0.62
400	Stone 9208 ... ..	8.1	2	16	48	12.46 <sup>9</sup>	121	6	6.6	2	0.52
401	... ..	8.2	1	16	49	33.48	125	32	19.0	2	0.39
402	27 Ophiuchi $\kappa$ ... ..	3.4	...	16	51	42.23	80	25	37.5	8	0.57
403	... ..	8.6	3	16	52	18.59	122	54	41.3	3	0.41
404	O. A. S. 16232 ... ..	10.0	1	16	54	32.86	110	15	39.0	1	0.55
405	22 Ursae Minoris $\epsilon$ ... ..	4.5	...	16	58	57.12	7	45	31.9	3	0.73
406	... ..	8.2	1	17	4	43.35	59	8	1.1	2	0.39
407	Lacaille 7168 ... ..	8.0	1	17	5	16.33	128	8	28.6	1	0.41
408	O. A. S. 16432 ... ..	8.1	2	17	6	24.04 <sup>6</sup>	105	24	28.4	2	0.48
409	... ..	9.0	2	17	6	48.70	130	54	48.2	2	0.65
410	64 Herouliis $\alpha$ , Var. 1 ... ..	Var.	...	17	8	54.18	75	27	51.2	8	0.60
411	... ..	8.1	1	17	9	40.79	124	4	59.3	1	0.50
412	... ..	10.2	1	17	12	40.25	130	28	19.4	1	0.41
413	42 Ophiuchi $\theta$ ... ..	3.4	...	17	14	16.37	114	52	16.7	4	0.57
414	... ..	8.9	4	17	21	55.34	130	46	12.4	4	0.58
415	Brisbane 6091 ... ..	8.5	1	17	22	11.66	148	27	34.4	1	0.41
416	Lacaille 7315 ... ..	7.6	4	17	22	50.61	130	56	22.1	4	0.64
417	23 Draconis $\beta$ ... ..	3.0	...	17	27	35.14	37	36	17.1	2	0.62
418	Taylor 8129 ... ..	8.2	1	17	28	11.36	77	23	50.6	1	0.41
419	55 Ophiuchi $\alpha$ ... ..	2.2	...	17	29	5.08	77	20	47.4	2	0.61
420	... ..	8.0	1	17	29	5.56	125	15	6.0	1	0.50

398.—Comparison star for Ianche in 1873.

400.—Comparison star for Alexandra in 1871.

404.—Observed for map of T Serpentis, Var. 4.

414.—Apparently wrong as no star was afterwards found in this place.

420.—Comparison star for Donati's comet of 1858.

12.49

24.06

## Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Number in Answers-Bradley.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
386	Brisbane 5784 ...	+ 5.2785	+ 0.0545	...	+ 7.530	- 0.715	...	...
387	Taylor 7724 ...	+ 3.5175	+ 0.0112	...	+ 7.310	- 0.481	...	...
388	... ..	+ 4.2821	+ 0.0247	...	+ 7.242	- 0.584	...	...
389	$\alpha$ Trianguli Australis.	+ 6.2853	+ 0.0907	0.000	+ 7.241	- 0.858	+ 0.06	Stone
390	40 Herculis $\zeta$ ...	+ 2.2967	+ 0.0033	- 0.036	+ 7.143	- 0.316	- 0.41	2127
391	... ..	+ 4.1593	+ 0.0215	...	+ 7.071	- 0.570	...	...
392	O. A. S. 15952 ...	+ 3.5784	+ 0.0114	...	+ 6.862	- 0.493	...	...
393	Lacaille 6984 ...	+ 3.8268	+ 0.0149	...	+ 6.830	- 0.528	...	...
394	... ..	+ 4.1746	+ 0.0198	...	+ 6.438	- 0.579	...	...
395	... ..	+ 2.7399	+ 0.0039	...	+ 6.417	- 0.381	...	...
396	Taylor 7815 ...	+ 4.1434	+ 0.0191	...	+ 6.348	- 0.576	...	...
397	49 Herculis ...	+ 2.7279	+ 0.0040	+ 0.000	+ 6.335	- 0.381	+ 0.00	2144
398	... ..	+ 4.4168	+ 0.0237	...	+ 6.286	- 0.615	...	...
399	... ..	+ 4.1495	+ 0.0186	...	+ 6.235	- 0.578	...	...
400	Stone 9208 ...	+ 3.8395	+ 0.0137	...	+ 6.179	- 0.536	...	...
401	... ..	+ 3.9825	+ 0.0156	...	+ 6.068	- 0.556	...	...
402	27 Ophiuchi $\kappa$ ...	+ 2.8567	+ 0.0044	- 0.021	+ 5.888	- 0.402	- 0.02	2156
403	... ..	+ 3.9002	+ 0.0139	...	+ 5.837	- 0.547	...	...
404	O. A. S. 16232 ...	+ 3.5457	+ 0.0093	...	+ 5.650	- 0.498	...	...
405	22 Ursæ Minoris $\epsilon$ ...	- 6.3941	+ 0.3072	+ 0.009	+ 5.279	+ 0.898	+ 0.00	2201
406	... ..	+ 2.2962	+ 0.0031	...	+ 4.791	- 0.327	...	...
407	Lacaille 7168 ...	+ 4.0923	+ 0.0139	...	+ 4.743	- 0.581	...	...
408	O. A. S. 16432 ...	+ 3.4306	+ 0.0070	...	+ 4.647	- 0.439	...	...
409	... ..	+ 4.1998	+ 0.0146	...	+ 4.613	- 0.598	...	...
410	64 Herculis $\alpha$ , Var. 1.	+ 2.7342	+ 0.0035	- 0.002	+ 4.434	- 0.391	- 0.03	2133
411	... ..	+ 3.9551	+ 0.0113	...	+ 4.367	- 0.565	...	...
412	... ..	+ 4.1888	+ 0.0132	...	+ 4.112	- 0.599	...	...
413	42 Ophiuchi $\theta$ ...	+ 3.6796	+ 0.0080	- 0.002	+ 3.975	- 0.528	+ 0.04	2189
414	... ..	+ 4.2092	+ 0.0111	...	+ 3.316	- 0.606	...	...
415	Brisbane 6091 ...	+ 5.2209	+ 0.0227	...	+ 3.292	- 0.753	...	...
416	Lacaille 7315 ...	+ 4.2163	+ 0.0109	...	+ 3.237	- 0.608	...	...
417	23 Draconis $\beta$ ...	+ 1.3537	+ 0.0052	- 0.002	+ 2.827	- 0.197	- 0.00	2221
418	Taylor 8129 ...	+ 2.7761	+ 0.0031	...	+ 2.775	- 0.402	...	...
419	55 Ophiuchi $\alpha$ ...	+ 2.7748	+ 0.0080	+ 0.007	+ 2.697	- 0.402	+ 0.22	2218
420	... ..	+ 4.0085	+ 0.0079	...	+ 2.697	- 0.580	...	...

389.—Proper motions from Stone's *Cape Catalogue*.



## Mean Positions of Stars for 1874, January 1st.

Number.	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.
				h.	m.	s.	°	'	"		
421	... ..	9.2	2	17	30	5.24	130	56	49.1	2	0.55
422	Taylor 8141 ... ..	6.4	1	17	31	10.59	111	50	8.4	1	0.50
423	56 Serpentis $\epsilon$ ... ..	4.4	...	17	34	20.25	102	48	18.6	2	0.54
424	... ..	9.2	1	17	34	53.96	128	57	52.7	1	0.61
425	... ..	8.5	1	17	40	36.35	126	28	35.6	1	0.41
426	86 Hercules $\mu$ ... ..	3.5	...	17	41	31.67	62	12	15.5	4	0.63
[41] 427	... ..	8.6	3	17	41	42.93	118	27	37.9	3	0.57
428	Radcliffe 3765 ... ..	8.4	1	17	43	33.49	17	32	9.4	1	0.50
429	31 Draconis $\psi^A$ ... ..	6.0	...	17	44	12.80	17	46	53.5	4	0.62
42.66 430	... ..	8.0	1	17	45	42.59.66	128	35	31.2	1	0.46
431	Lacaille 7499 ... ..	7.4	1	17	43	57.14	129	4	50.1	1	0.41
40.68 432	33 Draconis $\gamma$ ... ..	2.4	...	17	53	40.91.88	38	29	46.0	1	0.46
433	... ..	10.0	1	18	4	20.01	59	9	50.0	1	0.50
434	13 Sagittarii $\mu^1$ ... ..	4.1	...	18	6	13.68	111	5	22.4	3	0.64
435	14 Sagittarii ... ..	5.9	...	18	6	41.64	111	44	40.1	4	0.59
436	... ..	8.0	2	18	7	23.23	122	22	38.5	2	0.65
437	15 Sagittarii ... ..	5.6	...	18	7	41.87	110	45	49.7	3	0.62
438	Lacaille 7644 ... ..	7.0	...	18	9	39.94	132	19	53.5	1	0.55
439	23 Ursæ Minoris $\delta$ ... ..	4.3	...	18	12	53.66	3	23	31.3	3	0.63
25.82 440	24 Ursæ Minoris ... ..	3.1	...	18	17	25.82	3	0	50.4	5	0.17
58.82 441	O. A. S. 18326 ... ..	8.4	1	18	23	53.80.2	109	14	35.3	1	0.48
442	V Sagittarii, Var. 5 ... ..	7.3	2	18	24	0.74	108	20	50.6	3	0.65
443	Taylor 8527 ... ..	6.1	1	18	24	3.10	108	29	9.8	1	0.53
444	U Sagittarii, Var. 4 ... ..	6.4	2	18	24	27.97	109	12	40.0	3	0.60
445	$\epsilon$ Coronæ Australis ... ..	6.9	2	18	24	30.12	132	24	1.2	2	0.62
446	O. A. S. 18346 ... ..	7.1	1	18	24	43.07	109	12	37.0	1	0.53
447	Taylor 8551 ... ..	7.3	2	18	28	10.73	149	13	17.0	2	0.62
448	... ..	9.7	3	18	30	6.77	135	12	2.3	3	0.68
449	... ..	9.0	2	18	30	10.49	135	51	26.0	2	0.53
450	3 Lyræ $\alpha$ (Vega) ... ..	0.2	...	18	32	40.30	51	19	57.3	9	0.63
451	... ..	9.0	1	18	35	23.41	136	44	27.3	1	0.53
452	... ..	9.6	1	18	35	44.76	137	15	47.7	1	0.55
453	... ..	9.0	3	18	41	5.79	127	26	53.9	3	0.62
454	O. A. S. 18773 ... ..	9.0	1	18	45	3.01	118	17	36.7	1	0.53
455	10 Lyræ $\beta^1$ , Var. 1 ... ..	Var.	...	18	45	25.64	56	46	57.4	10	0.64

430—431—445—448—449—451—452.—Comparison stars for Donati's comet of 1858.

435.—Comparison star for D'Arrest's comet of 1870.

439.—R. P. L. 125.

440.—R. P. L. 128.

441—443—446.—Observed for map of U Sagittarii, Var. 4.

454.—Comparison star for Amphitrite in 1863.

## Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Number in Answers. Bradley.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
421	... ..	+ 4.2224	+ 0.0091	...	+ 2.610	- 0.611	...	...
422	Taylor 8141 ...	+ 3.6036	+ 0.0054	...	+ 2.515	- 0.522	...	...
423	56 Serpentis $\sigma$ ...	+ 3.3743	+ 0.0041	- 0.006	+ 2.241	- 0.490	+ 0.04	2225
424	... ..	+ 4.1471	+ 0.0075	...	+ 2.191	- 0.602	...	...
425	... ..	+ 4.0572	+ 0.0057	...	+ 1.695	- 0.591	...	...
426	86 Herculis $\mu$ ...	+ 2.3697	+ 0.0025	- 0.024	+ 1.614	- 0.346	+ 0.75	2237
427	... ..	+ 3.7949	+ 0.0045	...	+ 1.511	- 0.553	...	...
428	Radcliffe 3765 ...	- 1.1480	+ 0.0164	...	+ 1.437	- 0.166	...	...
429	31 Draconis $\psi^a$ ...	- 1.0866	+ 0.0156	- 0.001	+ 1.380	+ 0.157	+ 0.28	2252
430	... ..	+ 4.1371	+ 0.0049	...	+ 1.250	- 0.603	...	...
431	Lacaille 7499 ...	+ 4.1568	+ 0.0042	...	+ 0.967	- 0.605	...	...
432	33 Draconis $\gamma$ ...	+ 1.3918	+ 0.0030	- 0.002	+ 0.553	- 0.203	+ 0.03	2267
433	... ..	+ 2.2743	+ 0.0021	...	- 0.379	- 0.332	...	...
434	13 Sagittarii $\mu^1$ ...	+ 3.5876	+ 0.0009	- 0.001	- 0.545	- 0.523	- 0.00	2284
435	14 Sagittarii ...	+ 3.6052	+ 0.0009	- 0.003	- 0.536	- 0.526	+ 0.02	2286
436	... ..	+ 3.9194	+ 0.0001	...	- 0.646	- 0.571	...	...
437	15 Sagittarii ...	+ 3.5789	+ 0.0008	- 0.002	- 0.673	- 0.522	- 0.01	2288
438	Lacaille 7644 ...	+ 4.2891	- 0.0010	...	- 0.845	- 0.625	...	...
439	23 Ursæ Minoris $\delta$ ...	- 19.4462	- 0.3787	+ 0.026	- 1.135	+ 2.831	- 0.04	2395
440	24 Ursæ Minoris ...	- 22.2406	- 0.6558	+ 0.067	- 1.524	+ 3.236	+ 0.02	2417
441	O. A. S. 18326 ...	+ 3.5364	- 0.0010	...	- 2.094	- 0.512	...	...
442	V Sagittarii, Var. 5 ...	+ 3.5132	- 0.0010	...	- 2.097	- 0.509	...	...
443	Taylor 8527 ...	+ 3.5167	- 0.0010	...	- 2.097	- 0.509	...	...
444	U Sagittarii, Var. 4 ...	+ 3.5354	- 0.0011	...	- 2.136	- 0.512	...	...
445	$\theta$ Coronæ Australis ...	+ 4.2861	- 0.0049	0.000	- 2.140	- 0.620	- 0.03	Stone
446	O. A. S. 18346 ...	+ 3.5353	- 0.0011	...	- 2.166	- 0.512	...	...
447	Taylor 8551 ...	+ 5.3000	- 0.0153	...	- 2.460	- 0.767	...	...
448	... ..	+ 4.4070	- 0.0078	...	- 2.628	- 0.636	...	...
449	... ..	+ 4.4379	- 0.0080	...	- 2.633	- 0.641	...	...
450	3 Lyræ $\alpha$ ...	+ 2.0132	+ 0.0016	+ 0.017	- 2.840	- 0.290	- 0.30	2341
451	... ..	+ 4.4761	- 0.0098	...	- 3.084	- 0.644	...	...
452	... ..	+ 4.5017	- 0.0103	...	- 3.114	- 0.648	...	...
453	... ..	+ 4.0798	- 0.0075	...	- 3.577	- 0.584	...	...
454	O. A. S. 18773 ...	+ 3.7781	- 0.0055	...	- 3.916	- 0.533	...	...
455	10 Lyræ $\beta^1$ , Var. 1 ...	+ 2.2139	+ 0.0015	- 0.001	- 3.949	- 0.315	- 0.02	2369

445.—Proper motions from Stone's *Cape Catalogue*.

Mean Positions of Stars for 1874, January 1st.

Number.	Star.	Magnitudes.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.
				h.	m.	s.	°	'	"		
	...	8.1	1	18	46	31.32	126	40	15.4	1	0.53
	...	9.1	5	18	48	0.32	116	5	32.5	5	0.68
48.51	B. P. L. 131	6.5	...	18	55	48.68.51	3	27	8.8	6	0.67
	...	10.0	3	18	57	53.55	111	20	19.5	3	0.68
	17 Aquilæ ζ	8.1	...	18	59	37.08	76	19	20.5	13	0.66
	...	9.6	2	19	5	49.51	126	27	18.5	2	0.52
	...	9.0	1	19	7	47.65	129	46	40.9	1	0.53
	...	9.4	1	19	9	0.06	129	48	3.5	1	0.58
	...	9.6	3	19	9	41.75	109	31	45.7	3	0.70
3.36	...	8.4	2	19	10	3.34.6	129	46	7.3	2	0.71
54.62	...	8.1	2	19	10	54.57.62	146	11	55.8	2	0.69
	O. A. S. 19353	7.6	2	19	10	56.57	116	17	57.0	2	0.58
	O. A. S. 19366	8.1	1	19	11	15.39	116	16	0.8	1	0.55
	25 Aquilæ ω	5.1	...	19	11	54.13	78	37	47.2	10	0.66
	30 Aquilæ δ	3.5	...	19	19	8.64	87	8	4.2	16	0.66
	52 Sagittarii h <sup>3</sup>	4.6	...	19	29	2.17	115	9	34.4	10	0.69
	13 Cygni θ...	4.6	...	19	33	3.84	40	4	10.3	2	0.54
	...	9.0	1	19	35	3.39	127	15	43.9	1	0.66
	50 Aquilæ γ	2.8	...	19	40	16.14	79	41	31.1	10	0.71
	O. A. S. 19996	9.5	2	19	42	51.89	108	10	35.2	2	0.61
	S Vulpeculæ, Var. 3	8.9	1	19	43	13.91	63	1	37.5	1	0.66
38.10	53 Aquilæ α (Altair)	1.0	...	19	44	38.10	81	27	44.6	9	0.72
	Lacaille 3249	7.6	2	19	44	43.01	122	17	48.9	2	0.60
	55 Aquilæ η, Var. 1	Var.	...	19	46	3.36	89	18	57.7	6	0.66
	O. A. S. 20055	9.0	1	19	46	54.01	107	44	16.9	1	0.68
	60 Aquilæ β	4.0	...	19	49	7.48	83	54	21.9	5	0.73
	...	8.7	1	19	50	21.81	145	55	17.4	1	0.68
52.50	O. A. N. 20046	9.2	7	20	2	52.54.0	32	21	48.8	7	0.69
	...	9.4	7	20	5	50.63	74	46	39.5	7	0.71
22.18.71	B Sagittarii, Var. 1	9.4	4	20	8	22.18.71	73	39	12.1	4	0.79
	5 Capricorni α <sup>1</sup>	4.5	...	20	10	39.72	102	53	44.9	4	0.61
	6 Capricorni α <sup>2</sup>	3.8	...	20	11	3.66	102	56	0.5	7	0.71
	7 Capricorni σ	5.6	...	20	12	7.35	109	30	35.4	2	0.77
	...	9.3	4	20	12	38.22	88	45	26.0	4	0.78
	34 Cygni, Var. 1	Var.	...	20	13	8.62	52	21	29.0	6	0.67

[35.8]

457.—Comparison star Julia in 1874.

458.—Carrington 2882.

467—468.—Comparison stars for D'Arrest's comet in 1870.

480.—Comparison star for Hestia in 1869.

484.—Observed for map of S Aquilæ, Var. 4.

## Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Number in Answers. Bradley.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
		<i>s</i>	<i>s</i>	<i>s</i>	"	"	"	
456	... ..	+ 4.0473	- 0.0084	...	- 4.042	- 0.576	...	...
457	... ..	+ 3.7127	- 0.0054	...	- 4.171	- 0.528	...	...
458	R. P. L. 131 ...	- 18.4343	- 1.5447	...	- 4.836	+ 2.612	...	...
459	... ..	+ 3.5780	- 0.0053	...	- 5.011	- 0.503	...	...
460	17 Aquilæ $\xi$ ...	+ 2.7578	+ 0.0003	- 0.003	- 5.158	- 0.387	+ 0.09	2405
461	... ..	+ 4.0195	- 0.0121	...	- 5.680	- 0.560	...	...
462	... ..	+ 4.1369	- 0.0144	...	- 5.846	- 0.576	...	...
463	... ..	+ 4.1360	- 0.0146	...	- 5.947	- 0.574	...	...
464	... ..	+ 3.5248	- 0.0061	...	- 6.005	- 0.488	...	...
465	... ..	+ 4.1334	- 0.0149	...	- 6.034	- 0.573	...	...
466	... ..	+ 4.9745	- 0.0328	...	- 6.106	- 0.689	...	...
467	O. A. S. 19353	+ 3.7015	- 0.0086	...	- 6.109	- 0.511	...	...
468	O. A. S. 19366	+ 3.7004	- 0.0085	...	- 6.135	- 0.511	...	...
469	25 Aquilæ $\omega$ ...	+ 2.8165	- 0.0003	- 0.001	- 6.189	- 0.388	- 0.03	2432
470	30 Aquilæ $\delta$ ...	+ 3.0092	- 0.0018	+ 0.015	- 6.789	- 0.410	- 0.09	2451
471	52 Sagittarii $h^*$ ...	+ 3.6533	- 0.0102	+ 0.002	- 7.597	- 0.490	+ 0.01	2478
472	13 Cygni $\theta$ ...	+ 1.6120	- 0.0016	- 0.003	- 7.922	- 0.213	- 0.24	2498
473	... ..	+ 4.0031	- 0.0179	...	- 8.032	- 0.533	...	...
474	50 Aquilæ $\gamma$ ...	+ 2.8519	- 0.0011	- 0.001	- 8.496	- 0.373	- 0.01	2511
475	O. A. S. 19996	+ 3.4677	- 0.0087	...	- 8.702	- 0.452	...	...
476	S Vulpeculæ, Var. 3...	+ 2.4597	+ 0.0011	...	- 8.728	- 0.319	...	...
477	53 Aquilæ $\alpha$ ...	+ 2.8920	- 0.0014	+ 0.035	- 8.841	- 0.374	- 0.38	2524
478	Lacaille 8249	+ 3.8307	- 0.0160	...	- 8.847	- 0.498	...	...
479	55 Aquilæ $\eta$ , Var. 1...	+ 3.0580	- 0.0031	- 0.002	- 8.952	- 0.396	+ 0.00	2526
480	O. A. S. 20055	+ 3.4541	- 0.0088	...	- 9.018	- 0.446	...	...
481	60 Aquilæ $\beta$ ...	+ 2.9453	- 0.0020	+ 0.001	- 9.192	- 0.378	+ 0.47	2538
482	... ..	+ 4.8237	- 0.0479	...	- 9.289	- 0.621	...	...
483	O. A. N. 20046	+ 1.2586	- 0.0074	...	- 10.244	- 0.154	...	...
484	... ..	+ 2.7618	- 0.0004	...	- 10.467	- 0.339	...	...
485	R Sagittarii, Var. 1...	+ 2.7398	- 0.0020	...	- 10.638	- 0.186	...	...
486	5 Capricorni $\alpha^1$ ...	+ 3.3300	- 0.0084	- 0.001	- 10.824	- 0.406	- 0.03	2593
487	6 Capricorni $\alpha^2$ ...	+ 3.3304	- 0.0084	- 0.002	- 10.854	- 0.403	- 0.02	2595
488	7 Capricorni $\sigma$ ...	+ 3.4693	- 0.0115	- 0.001	- 10.932	- 0.420	- 0.01	2597
489	... ..	+ 3.0479	- 0.0037	...	- 10.969	- 0.367	...	...
490	34 Cygni, Var. 1 ...	+ 2.2103	+ 0.0019	- 0.001	- 11.006	- 0.265	- 0.00	2614

## Mean Positions of Stars for 1874, January 1st.

Number.	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.	
				h.	m.	s.	°	'	"			
	491	9 Capricorni $\beta$ ... ..	3.4	...	20	13	55.63	105	10	36.9	1	0.53
	492	... ..	9.3	2	20	16	17.69	106	15	47.4	2	0.79
	493	... ..	9.0	1	20	17	28.18	121	9	54.6	1	0.72
37.28	494	24 Cephei (Hev), Var 1 ...	Var.	...	20	20	<del>36.64</del> 37.23	1	15	8.4	5	0.16
40.27	495	11 Capricorni $\rho$ ... ..	5.0	...	20	21	40.267	103	13	41.2	11	0.73
	496	... ..	8.6	2	20	23	53.93	124	55	2.9	2	0.51
	497	R. P. L. 143 ... ..	6.7	...	20	28	16.87	5	16	27.4	10	0.34
35.42	498	... ..	8.9	2	20	28	35.8797	143	14	22.6	2	0.69
	499	... ..	9.5	1	20	29	20.32	121	4	25.5	1	0.53
	500	... ..	9.0	1	20	30	30.55	143	49	58.4	1	0.55
40.88	501	... ..	9.5	3	20	31	40.888	123	41	33.5	3	0.71
4.35	502	... ..	9.7	4	20	32	9.345	124	38	43.5	4	0.66
	503	50 Cygni $\alpha$ ... ..	1.5	...	20	37	8.16	45	10	8.3	13	0.76
	504	W. R. E. XX. 935 ... ..	8.5	4	20	37	15.44	73	20	55.9	5	0.60
31.37	505	T Delphini, Var. 3. ...	10.5	3	20	39	31.387	74	3	27.5	3	0.70
	506	W. B. E. XX. 1024 ... ..	9.6	1	20	41	26.51	105	22	7.6	1	0.67
17.38	507	T Aquarii, Var. 4. ... ..	8.0	5	20	43	17.378	95	36	45.7	5	0.73
	508	32 Vulpeculæ ... ..	5.1	...	20	49	11.39	62	25	14.3	10	0.77
46.75	509	R Vulpeculæ, Var. 3 ...	7.7	4	20	58	46.765	66	40	40.7	4	0.71
	510	... ..	9.7	1	20	59	21.86	148	50	18.2	1	0.67
	511	Taylor 9772 ... ..	8.3	1	21	1	11.84	145	4	52.5	1	0.58
	512	61 Cygni—2nd ... ..	6.3	...	21	1	16.71	51	52	17.1	7	0.68
	513	64 Cygni $\zeta$ ... ..	3.5	...	21	7	34.37	60	17	20.3	12	0.78
56.84	514	... ..	10.6	2	21	8	56.889	110	46	40.1	2	0.70
	515	... ..	9.7	1	21	14	26.32	128	57	47.8	1	0.58
	516	T Capricorni, Var. 3 ..	9.2	4	21	14	59.03	105	37	39.6	4	0.68
	517	... ..	9.2	1	21	15	38.18	130	13	38.6	1	0.63
	518	... ..	9.7	1	21	23	31.53	110	4	51.0	1	0.58
	519	22 Aquarii $\beta$ ... ..	3.1	...	21	24	55.44	96	7	26.9	18	0.78
29.14	520	... ..	9.5	3	21	29	29.104	134	1	41.3	3	0.70
	521	... ..	10.1	4	21	35	7.92	102	57	23.1	4	0.68
44.96	522	S Cephei, Var. 3 ... ..	8.3	6	21	36	<del>45.06</del> 44.96	11	56	34.4	6	0.74
	523	8 Pegnsi $\epsilon$ ... ..	2.4	...	21	37	59.74	80	42	5.1	5	0.81
	524	$\mu$ Cephei, Var. 2 ... ..	Var.	...	21	39	39.45	31	47	50.1	2	0.65
20.70	525	... ..	10.3	1	21	41	20.70	102	29	42.4	1	0.84

492.—Comparison star for Hestia in 1865.

497.—Carrington 3128.

## Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Number in Awers- Bradley.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion	
		<i>s</i>	<i>s</i>	<i>s</i>	"	"	"	
491	9 Capricorni $\beta$ ...	+ 3.3747	- 0.0095	+ 0.001	- 11.063	- 0.406	- 0.02	2609
492	... ..	+ 3.3953	- 0.0101	...	- 11.235	- 0.406	...	...
493	... ..	+ 3.7897	- 0.0191	...	- 11.320	- 0.447	...	...
494	24 Cephei (Hev), Var. 1	- 46.9387	- 24.7998	...	- 11.539	+ 5.604	...	...
495	11 Capricorni $\rho$ ...	+ 3.4310	- 0.0115	- 0.003	- 11.622	- 0.403	+ 0.01	2626
496	... ..	+ 3.8275	- 0.0229	...	- 11.780	- 0.447	...	...
497	R. P. L. 143 ...	- 8.4836	- 1.2718	...	- 12.089	+ 0.992	...	...
498	... ..	+ 4.4988	- 0.0515	...	- 12.111	- 0.520	...	...
499	... ..	+ 3.7129	- 0.0201	...	- 12.162	- 0.427	...	...
500	... ..	+ 4.5208	- 0.0535	...	- 12.244	- 0.519	...	...
501	... ..	+ 3.8301	- 0.0243	...	- 12.324	- 0.436	...	...
502	... ..	+ 3.7998	- 0.0234	...	- 12.358	- 0.432	...	...
503	50 Cygni $\alpha$ ...	+ 2.0435	+ 0.0021	- 0.000	- 12.608	- 0.226	- 0.00	2679
504	W. B. E. XX. 935 ...	+ 2.7629	+ 0.0002	...	- 12.706	- 0.307	...	...
505	T Delphini, Var. 3 ...	+ 2.7791	0.0000	...	- 12.856	- 0.305	...	...
506	W. B. E. XX. 1024 ...	+ 3.3523	- 0.0109	...	- 12.987	- 0.367	...	...
507	T Aquarii, Var. 4 ...	+ 3.1717	- 0.0066	...	- 13.110	- 0.345	...	...
508	32 Vulpeculæ ...	+ 2.5557	+ 0.0026	- 0.002	- 13.496	- 0.270	+ 0.00	2709
509	B Vulpeculæ, Var. 3...	+ 2.6625	+ 0.0022	...	- 14.105	- 0.271	...	...
510	... ..	+ 4.6400	- 0.0737	...	- 14.141	- 0.476	...	...
511	Taylor 9772 ...	+ 4.4194	- 0.0624	...	- 14.254	- 0.449	...	...
512	61 Cygni—2nd ...	+ 2.3344	+ 0.0044	+ 0.350	- 14.260	- 0.233	- 3.03	2745
513	64 Cygni $\zeta$ ...	+ 2.5509	+ 0.0038	- 0.002	- 14.642	- 0.248	+ 0.07	2760
514	... ..	+ 3.4165	- 0.0149	...	- 14.724	- 0.332	...	...
515	... ..	+ 3.7872	- 0.0315	...	- 15.015	- 0.360	...	...
516	T Capricorni, Var. 3...	+ 3.3189	- 0.0120	...	- 15.076	- 0.314	...	...
517	... ..	+ 3.8156	- 0.0331	...	- 15.114	- 0.361	...	...
518	... ..	+ 3.3807	- 0.0147	...	- 15.558	- 0.305	...	...
519	22 Aquarii $\beta$ ...	+ 3.1620	- 0.0071	- 0.001	- 15.636	- 0.282	+ 0.00	2797
520	... ..	+ 3.8614	- 0.0394	...	- 15.882	- 0.338	...	...
521	... ..	+ 3.2539	- 0.0106	...	- 16.181	- 0.273	...	...
522	S Cephei, Var. 3 ...	- 0.6261	- 0.1622	...	- 16.263	+ 0.059	...	...
523	8 Pegasi $\epsilon$ ...	+ 2.9451	- 0.0005	+ 0.001	- 16.327	- 0.242	- 0.01	2835
524	$\mu$ Cephei, Var. 2 ...	+ 1.8327	+ 0.0039	...	- 16.409	- 0.147	...	...
525	... ..	+ 3.2408	- 0.0104	...	- 16.495	- 0.263	...	...

## Mean Positions of Stars for 1874, January 1st.

Number.	Star.	Magnitnde.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.
				h.	m.	s.	°	'	"		
	...	7.9	2	21	41	42.31	37	16	40.8	2	0.78
	51 Capricorni $\mu$ ...	5.2	...	21	46	25.46	104	8	36.3	1	0.67
	16 Pegasi ...	5.0	...	21	47	19.82	64	40	1.7	4	0.81
	84 Aquarii $\alpha$ ...	3.2	...	21	59	18.73	90	55	51.9	4	0.81
33.90	530 ...	10.0	4	22	2	33.90	114	56	52.6	3	0.83
	...	9.5	3	22	2	35.31	114	51	49.6	3	0.76
	...	9.4	2	22	3	46.97	129	2	26.6	2	0.78
	...	9.0	1	22	3	51.52	101	5	59.9	1	0.71
	88 Aquarii $\epsilon$ ...	5.4	...	22	3	53.33	102	11	0.3	1	0.77
54.99	535 Lalande 43402 ...	9.1	3	22	8	54.979	99	1	19.6	3	0.60
10.99	536 43 Aquarii $\theta$ ...	4.3	...	22	10	<sup>10.97</sup> 11.02	98	24	34.8	6	0.84
53.11	537 ...	9.6	2	22	14	53.0511	146	31	27.3	2	0.68
51.08	538 ...	8.1	2	22	15	51.078	82	44	24.1	2	0.86
	539 ...	10.2	2	22	16	29.31	82	39	36.3	2	0.72
	540 ...	9.7	3	22	19	38.75	88	30	50.3	3	0.73
	541 R. P. L. 150 ...	5.5	...	22	23	1.36	4	31	38.9	2	0.14
29.00	542 R. P. L. 151 ...	6.9	...	22	23	<sup>23.52</sup> 23.89	4	24	47.0	11	0.45
	543 ...	9.6	3	22	25	12.70	129	41	34.9	3	0.72
18.21	544 ...	9.6	3	22	25	18.90	146	47	30.7	3	0.85
	545 R. P. L. 153 ...	7.6	...	22	28	10.24	2	33	31.5	7	0.30
52.79	546 62 Aquarii $\eta$ ...	4.2	...	22	28	52.789	90	45	58.3	4	0.82
	547 ...	9.0	1	22	34	53.41	155	28	11.8	1	0.71
10.62	548 42 Pegasi $\zeta$ ...	3.6	...	22	35	10.612	79	49	31.6	8	0.88
42.46	549 ...	9.0	2	22	49	42.3746	152	32	1.5	2	0.76
40.96	550 24 Pis. Aust. $\alpha$ , (Pomalhaut)	1.3	...	22	50	<sup>40.96</sup> 41.00	120	17	22.2	6	0.83
	551 ...	9.0	1	22	52	21.18	85	23	15.6	1	0.68
	552 ...	9.8	2	22	57	40.53	57	8	50.2	2	0.78
29.09	553 54 Pegasi $\alpha$ ...	2.6	...	22	58	29.059	75	28	18.9	8	0.85
	554 Lacaille 9377 ...	7.6	1	23	2	49.29	151	14	47.4	1	0.77
	555 6 Piscium $\gamma$ ...	3.8	...	23	10	37.95	87	24	20.1	6	0.86
41.56	556 ...	9.6	2	23	11	41.8456	151	12	30.1	2	0.83
	557 ...	9.5	2	23	12	7.01	131	4	54.9	2	0.77
	558 ...	9.4	3	23	12	10.80	129	54	36.7	3	0.79
	559 ...	8.8	1	23	12	41.17	137	0	38.2	1	0.82
30.24	560 Groombridge 4040 ...	6.5	2	23	13	20.204	16	59	56.9	2	0.76

531.—Comparison star for D'Arrest's comet in 1870.

535.—Comparison star for Ausonia in 1862.

541.—Groombridge 3826.

542.—Groombridge 3824.

545.—Carrington 3466.

## Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Number in Answers- Bradley.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
		<i>s</i>	<i>s</i>	<i>s</i>	"	"	"	
526	... ..	+ 2·0758	+ 0·0075	...	- 16·515	- 0·165	...	...
527	51 Capricorni $\mu$ ...	+ 3·2577	- 0·0113	+ 0·018	- 16·744	- 0·255	- 0·01	2860
528	16 Pegasi ...	+ 2·7259	+ 0·0052	- 0·001	- 16·787	- 0·210	+ 0·00	2864
529	34 Aquarii $\alpha$ ...	+ 3·0831	- 0·0041	- 0·001	- 17·388	- 0·219	- 0·00	2890
530	... ..	+ 3·3771	- 0·0155	...	- 17·480	- 0·233	...	...
531	... ..	+ 3·3759	- 0·0182	...	- 17·481	- 0·233	...	...
532	... ..	+ 3·5988	- 0·0312	...	- 17·580	- 0·236	...	...
533	... ..	+ 3·1994	- 0·0092	...	- 17·534	- 0·219	...	...
534	38 Aquarii $\epsilon^a$ ...	+ 3·2122	- 0·0099	+ 0·001	- 17·586	- 0·220	- 0·01	2909
535	Lalande 43402 ...	+ 3·1711	- 0·0079	...	- 17·745	- 0·207	...	...
536	43 Aquarii $\theta$ ...	+ 3·1633	- 0·0075	+ 0·006	- 17·796	- 0·205	+ 0·02	2923
537	... ..	+ 3·9673	- 0·0679	...	- 17·982	- 0·249	...	...
538	... ..	+ 2·9975	0·0000	...	- 18·019	- 0·185	...	...
539	... ..	+ 2·9971	+ 0·0001	...	- 18·044	- 0·184	...	...
540	... ..	+ 3·0589	- 0·0025	...	- 18·162	- 0·181	...	...
541	R. P. L. 150 ...	- 3·8606	- 1·2082	+ 0·052	- 18·286	+ 0·240	- 0·04	2993
542	R. P. L. 151 ...	- 4·0098	- 1·2752	+ 0·025	- 18·302	- 0·247	- 0·01	2997
543	... ..	+ 3·5182	- 0·0324	...	- 18·363	- 0·199	...	...
544	... ..	+ 3·8922	- 0·0676	...	- 18·367	- 0·221	...	...
545	R. P. L. 153 ...	- 8·5967	- 4·0586	...	- 18·466	+ 0·497	...	...
546	62 Aquarii $\eta$ ...	+ 3·0791	- 0·0031	+ 0·006	- 18·490	- 0·166	+ 0·11	2979
547	... ..	+ 4·1354	- 0·1067	...	- 18·687	- 0·213	...	...
548	42 Pegasi $\zeta$ ...	+ 2·9854	+ 0·0023	+ 0·004	- 18·697	- 0·149	+ 0·02	2992
549	... ..	+ 3·8487	- 0·0848	...	- 19·118	- 0·162	...	...
550	24 Piscis Australis $\alpha$ .	+ 3·3048	- 0·0210	+ 0·023	- 19·145	- 0·135	+ 0·16	3032
551	... ..	+ 3·0409	+ 0·0005	...	- 19·187	- 0·122	...	...
552	... ..	+ 2·8403	+ 0·0144	...	- 19·317	- 0·104	...	...
553	54 Pegasi $\alpha$ ...	+ 2·9803	+ 0·0056	+ 0·003	- 19·336	- 0·107	+ 0·03	3050
554	Lacaille 9377 ...	+ 3·6739	- 0·0753	...	- 19·433	- 0·126	...	...
555	6 Piscium $\gamma$ ...	+ 3·0592	+ 0·0005	0·049	- 19·591	- 0·087	- 0·02	3082
556	... ..	+ 3·5813	- 0·0721	...	- 19·610	- 0·103	...	...
557	... ..	+ 3·3140	- 0·0304	...	- 19·618	- 0·093	...	...
558	... ..	+ 3·3039	- 0·0290	...	- 19·619	- 0·093	...	...
559	... ..	+ 3·3663	- 0·0384	...	- 19·628	- 0·094	...	...
560	Groombridge 4040 ...	+ 2·1878	+ 0·0392	...	- 19·640	- 0·057	...	...



Mean Positions of Stars for 1874, January 1st.

Number.	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.
				h.	m.	s.	°	'	"		
561	T Cephei, Var. 4 ...	8.4	8	23	14	54.27.42	34	34	32.9	9	0.88
562	... ..	10.0	3	23	16	14.60	130	36	27.8	3	0.85
4768 14.83 17.19	563 ... ..	10.1	2	23	18	47.74.68	131	5	9.3	2	0.87
564	... ..	9.6	1	23	20	14.87.3	109	16	3.2	1	0.86
565	... ..	9.6	2	23	20	17.27.19	151	34	49.4	2	0.84
566	8 Piscium κ ... ..	5.0	...	23	20	28.36	89	26	2.1	6	0.90
567	Lacaille 9514 ... ..	8.9	1	23	26	25.28	131	32	29.1	1	0.76
13.69	568 ... ..	9.0	1	23	28	13.03.9	108	24	24.0	1	0.76
26.15	569 17 Piscium ι ... ..	4.3	...	23	33	28.14.5	85	3	21.1	10	0.91
570	35 Cephei γ ... ..	3.4	...	23	34	11.60	13	4	15.3	5	0.77
571	... ..	9.5	1	23	34	53.34	147	24	8.8	1	0.79
24.825	572 ... ..	10.1	4	23	35	34.85.2	107	45	47.8	4	0.88
573	... ..	9.6	4	23	35	43.58	107	46	6.5	4	0.81
59.27	574 ... ..	9.9	4	23	35	59.31.27	107	51	6.9	4	0.85
30.52	575 ... ..	9.6	2	23	36	30.55.2	128	6	22.3	2	0.86
21.57	576 8 Sculptoris ... ..	4.6	...	23	42	21.60.57	118	49	36.2	9	0.90
577	... ..	9.4	2	23	43	14.73	150	50	45.2	2	0.80
578	... ..	9.4	1	23	43	18.45	129	40	27.4	1	0.71
579	... ..	9.0	5	23	43	34.12	85	18	6.4	5	0.81
580	... ..	9.5	1	23	48	2.79	150	42	32.2	1	0.77
581	G. C. Z. XXIII. 1321 ... ..	9.4	2	23	48	29.12	150	40	19.8	2	0.92
582	R Cassiopeiae, Var. 3 ... ..	8.3	6	23	52	0.87	39	18	47.2	6	0.78
583	... ..	8.6	1	23	52	16.84	152	17	15.8	1	0.71
30.61	584 ... ..	9.6	2	23	52	30.72.64	143	12	39.3	2	0.83
50.52	585 28 Piscium ω ... ..	4.2	...	23	52	50.50.2	83	50	1.7	4	0.91
586	30 Piscium ... ..	4.6	...	23	55	29.90	96	42	50.1	4	0.92
587	... ..	9.5	1	23	56	29.74	130	13	40.7	1	0.84
588	... ..	9.4	2	23	56	57.20	126	40	1.3	2	0.77
34.26	589 Taylor 10997 ... ..	9.3	1	23	58	34.20.26	126	43	9.2	1	0.86
4.16	590 ... ..	9.1	2	23	59	6.21.16	125	49	53.6	2	0.79

564—568—572—573—574.—Comparison stars for D'Arrest's comet in 1870.

579.—Comparison star for Ariadne in 1874.

*Observed with the Madras Meridian Circle in that Year.*

Number.	Star	In Right Ascension.			In Polar Distance.			Number in Answers-Bradley.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
561	T Cephei, Var. 1 ...	+ 2·6980	+ 0·0816	...	- 19·668	- 0·069	...	...
562	... ..	+ 3·2958	+ 0·0295	...	- 19·689	- 0·084	...	...
563	... ..	+ 3·2807	- 0·0304	...	- 19·731	- 0·078	...	...
564	... ..	+ 3·1528	- 0·0111	...	- 19·753	- 0·071	...	...
565	... ..	+ 3·4982	- 0·0703	...	- 19·753	- 0·081	...	...
566	8 Piscium $\kappa$ ...	+ 3·0699	0·0000	+ 0·004	- 19·757	- 0·069	+ 0·10	3116
567	Lacaille 9514 ...	+ 3·2451	- 0·0293	...	- 19·839	- 0·061	...	...
568	... ..	+ 3·1337	- 0·0101	...	- 19·861	- 0·054	...	...
569	17 Piscium $\iota$ ...	+ 3·0588	+ 0·0030	+ 0·023	- 19·921	- 0·042	+ 0·44	3148
570	35 Cephei $\gamma$ ...	+ 2·4251	+ 0·0748	- 0·020	- 19·928	- 0·031	- 0·14	3152
571	... ..	+ 3·3008	- 0·0532	...	- 19·934	- 0·045	...	...
572	... ..	+ 3·1177	- 0·0092	...	- 19·941	- 0·039	...	...
573	... ..	+ 3·1175	- 0·0092	...	- 19·942	- 0·039	...	...
574	... ..	+ 3·1172	- 0·0093	...	- 19·945	- 0·038	...	...
575	... ..	+ 3·1793	- 0·0244	...	- 19·949	- 0·039	...	...
576	8 Sculptoris ...	+ 3·1288	- 0·0161	+ 0·009	- 19·995	- 0·026	+ 0·10	Stone
577	... ..	+ 3·2474	- 0·0590	...	- 20·001	- 0·027	...	...
578	... ..	+ 3·1529	- 0·0251	...	- 20·001	- 0·025	...	...
579	... ..	+ 3·0643	+ 0·0034	...	- 20·003	- 0·023	...	...
580	... ..	+ 3·1965	- 0·0566	...	- 20·026	- 0·016	...	...
581	G. C. Z. XXIII. 1321.	+ 3·1918	- 0·0561	...	- 20·030	- 0·015	...	...
582	R Cassiopeiae, Var. 3.	+ 3·0154	+ 0·0364	...	- 20·042	- 0·007	...	...
583	... ..	+ 3·1580	- 0·0590	...	- 20·042	- 0·008	...	...
584	... ..	+ 3·1307	- 0·0402	...	- 20·043	- 0·007	...	...
585	28 Piscium $\omega$ ...	+ 3·0677	+ 0·0047	+ 0·009	- 20·045	- 0·005	+ 0·11	3191
586	30 Piscium ...	+ 3·0752	- 0·0019	+ 0·002	- 20·051	0·000	+ 0·03	3197
587	... ..	+ 3·0896	- 0·0240	...	- 20·052	+ 0·001	...	...
588	... ..	+ 3·0854	- 0·0208	...	- 20·053	+ 0·003	...	...
589	Taylor 10997 ...	+ 3·0783	- 0·0206	...	- 20·054	+ 0·006	...	...
590	... ..	+ 3·0760	- 0·0198	...	- 20·054	+ 0·007	...	...

576.—Proper motions from Stone's Cape Catalogue.