
MEAN POSITIONS OF STARS

OBSERVED WITH THE

MADRAS MERIDIAN CIRCLE

IN THE YEAR

1869

REDUCED TO JANUARY 1 OF THAT YEAR.

Mean Positions of Stars for 1869 January 1st.

Number.	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.
				h	m	s	°	'	"		
1	21 Androm. α (<i>Alpherat</i>)...	2.0	...	0	1	37.14	61	37	58.7	5	0.84
2	Lacaille 9746	9.3	1	0	3	3.28	146	55	15.2	1	0.76
3	... ..	9.0	1	0	6	26.28	131	6	37.2	1	0.82
4	88 Pegasi γ (<i>Algenib</i>)	3.0	...	0	6	29.54	75	32	42.2	3	0.88
5	Taylor 64	7.7	1	0	14	22.86	129	57	59.4	1	0.83
2.63	6	9.0	1	0	17	2.52.63	26	25	35.1	2	0.83
7	... ..	9.0	1	0	19	15.21	26	34	57.9	1	0.84
8	10 Ceti	6.7	...	0	19	54.32	90	46	33.2	1	0.72
9	12 Ceti	6.2	...	0	23	21.22	94	40	54.9	5	0.82
10	18 Cassiopeæ α , Var. 2	2.2	...	0	33	5.35	34	10	53.0	1	0.83
11	16 Ceti β	2.1	...	0	37	0.71	108	42	22.9	6	0.87
12	W. B. E. O-716	8.9	1	0	41	56.90	94	35	10.4	1	0.84
13	R. P. L. 10	6.8	...	0	48	20.94	1	40	50.9	1	0.24
34.48	14	8.7	1	0	50	34.53.48	129	38	31.8	1	0.88
15	... ..	8.9	2	0	51	17.75	130	39	19.0	2	0.91
16	71 Piscium ϵ	4.5	...	0	56	8.72	82	48	56.8	5	0.86
17	80 Piscium e	5.7	...	1	1	37.36	85	2	38.7	2	0.72
18	... ..	7.9	1	1	3	20.71	150	14	48.4	1	0.91
19	83 Ceti	6.3	...	1	3	49.12	88	15	8.8	1	0.79
20	86 Piscium ζ ... 1st...	5.4	...	1	6	53.30	83	7	5.6	1	0.86
56.66	21 1 Urs. Min. α (<i>Polaris</i>)	2.2	...	1	10	56.66	1	23	21.6	5	0.55
22	89 Piscium f	5.1	...	1	11	2.55	87	4	34.9	3	0.75
23	... ..	6.9	1	1	15	11.68	150	45	48.7	1	0.91
24	46 Ceti θ^1	3.8	...	1	17	28.60	98	51	37.9	6	0.91
25	98 Piscium μ	5.2	...	1	23	19.35	84	31	57.5	1	0.65
26	99 Piscium η	4.5	...	1	24	28.47	75	19	50.9	5	0.87
27	... ..	8.1	2	1	25	55.91	150	20	8.1	2	0.95
28	... ..	8.0	1	1	31	2.77	130	49	4.9	1	0.91
29	α Eridani (<i>Achernar</i>)	1.0	...	1	32	50.03	147	54	14.0	1	0.92
30	106 Piscium ν	4.7	...	1	34	36.91	85	10	35.0	5	0.82
31	Lacaille 503	7.5	1	1	35	53.60	151	39	47.8	1	0.90
32	... ..	9.5	1	1	40	35.56	128	35	32.6	1	0.92
33	6 Arietis β	2.8	...	1	47	24.38	60	50	2.7	5	0.90
34	... ..	8.8	1	1	49	27.72	126	6	4.8	1	0.90
35	... ..	9.0	1	1	56	19.53	129	57	5.3	1	0.93

6-7—Observed for map of "Gemma's Nova of 1572."

10— α Cassiopeæ Var. 2 (*Shedir*) changes irregularly between 2.2 and 2.8 magnitude.

12—Comparison star for Europa in 1861.

13—Groombridge 144.

12—Comparison star for Mars in 1862.

Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Number in B. A. C.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
		<i>s</i>	<i>s</i>	<i>s</i>	"	"	"	
1	21 Andromedæ α ...	+ 3.0772	+ 0.0182	+ 0.009	- 20.055	+ 0.018	+ 0.15	4
2	Lacaille 9746 ...	+ 3.0447	- 0.0429	...	- 20.058	+ 0.015	...	...
3	... ..	+ 3.0394	- 0.0233	...	- 20.047	+ 0.021	...	...
4	88 Pegasi γ (<i>Algenib</i>). ...	+ 3.0818	+ 0.0100	0.000	- 20.047	+ 0.022	+ 0.02	26
5	Taylor 64	+ 3.0019	- 0.0211	...	- 20.015	+ 0.087	...	69
6	... ..	+ 3.2720	+ 0.0704	...	- 20.000	+ 0.044	...	...
7	... ..	+ 3.2963	+ 0.0710	...	- 19.984	+ 0.049	...	...
8	10 Ceti	+ 3.0706	+ 0.0026	+ 0.005	- 19.979	+ 0.047	+ 0.03	95
9	12 Ceti	+ 3.0610	+ 0.0008	- 0.002	- 19.961	+ 0.055	+ 0.01	112
10	18 Cassiopeiæ α Var. 2. ...	+ 3.3553	+ 0.0553	+ 0.006	- 19.846	+ 0.080	+ 0.04	169
11	16 Ceti β	+ 2.9993	- 0.0055	+ 0.013	- 19.794	+ 0.080	- 0.02	196
12	W. B. E. 0.716	+ 3.0572	+ 0.0018	...	- 19.719	+ 0.088	...	...
13	R. P. L. 10... ..	+ 12.6141	+ 7.1799	+ 0.061	- 19.610	+ 0.393	+ 0.03	240
14	... ..	+ 2.8207	- 0.0155	...	- 19.568	+ 0.098	...	...
15	... ..	+ 2.8073	- 0.0160	...	- 19.554	+ 0.099	...	...
16	71 Piscium ϵ	+ 3.1130	+ 0.0087	- 0.002	- 19.456	+ 0.119	0.00	288
17	80 Piscium e	+ 3.1033	+ 0.0077	- 0.021	- 19.334	+ 0.128	+ 0.19	328
18	... ..	+ 2.4340	- 0.0237	...	- 19.294	+ 0.105	...	...
19	33 Ceti	+ 3.0833	+ 0.0062	- 0.003	- 19.282	+ 0.181	+ 0.02	344
20	36 Piscium 3—1st ...	+ 3.1186	+ 0.0090	+ 0.008	- 19.206	+ 0.139	+ 0.07	363
21	1 Urs. Min. α (<i>Polaris</i>) ...	+ 19.8712	+ 14.0041	+ 0.065	- 19.102	+ 0.891	0.00	360
22	89 Piscium f	+ 3.0929	+ 0.0072	- 0.005	- 19.099	+ 0.146	+ 0.02	388
23	... ..	+ 2.8024	- 0.0190	...	- 18.985	+ 0.116	...	...
24	45 Ceti θ^1	+ 3.0030	+ 0.0018	- 0.007	- 18.920	+ 0.154	+ 0.22	420
25	98 Piscium μ	+ 3.1176	+ 0.0089	+ 0.019	- 18.744	+ 0.169	+ 0.18	443
26	99 Piscium η	+ 3.1982	+ 0.0141	0.000	- 18.708	+ 0.177	0.00	453
27	... ..	+ 2.2126	- 0.0148	...	- 18.622	+ 0.126	...	...
28	... ..	+ 2.6253	- 0.0101	...	- 18.492	+ 0.156	...	...
29	α Eridani (<i>Achernar</i>). ...	+ 2.2322	- 0.0128	+ 0.008	- 18.432	+ 0.137	+ 0.07	507
30	106 Piscium ν	+ 3.1174	+ 0.0091	- 0.004	- 18.370	+ 0.191	- 0.04	518
31	Lacaille 508	+ 2.0049	- 0.0104	...	- 18.325	+ 0.130	...	...
32	... ..	+ 2.6187	- 0.0081	...	- 18.153	+ 0.171	...	...
33	6 Arietis β	+ 3.2039	+ 0.0183	+ 0.002	- 17.893	+ 0.226	+ 0.11	577
34	... ..	+ 2.6240	- 0.0063	...	- 17.811	+ 0.184	...	...
35	... ..	+ 2.5278	- 0.0065	...	- 17.527	+ 0.187	...	...

9.—20.—Proper motions from "Greenwich Catalogue 1872."

29.—Proper motions from "Stone's Cape Catalogue."

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Number.	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.
				h.	m.	s.	°	'	"		
36	... ..	9.3	1	1	56	19.78	129	25	49.4	1	0.92
37	... ..	9.1	1	1	56	20.47	87	28	5.3	1	0.96
38	13 Arietis α	2.0	...	1	59	47.50	87	9	31.3	3	0.88
39	... ..	9.5	2	2	1	6.95	87	17	6.0	2	0.93
40	... ..	9.4	1	2	2	7.65	130	0	58.8	1	0.92
41	Lalande 4053	7.2	2	2	4	55.49	87	9	55.9	2	0.93
42	65 Ceti ξ ¹	4.4	...	2	6	3.47	81	46	9.4	2	0.91
43	... ..	9.3	...	2	7	5.93	87	5	30.9	1	0.93
44	67 Ceti	5.5	...	2	10	26.95	97	1	38.8	6	0.90
45	68 Ceti o Var. (Mira)	Var.	...	2	12	43.70	98	34	26.3	1	0.84
46	... ..	7.9	1	2	16	32.19	151	17	6.3 ^{1.6}	1	0.96
47	... ..	8.3	3	2	17	52.57	151	1	47.1	3	0.95
48	73 Ceti ξ ²	4.4	...	2	21	11.73	82	7	43.0	9	0.88
49	... ..	9.7	1	2	23	20.45	129	45	9.7	1	0.92
50	... ..	9.2	1	2	31	20.57	148	30	1.5	1	0.86
51	32 Arietis ν	5.4	...	2	31	25.92 ²	68	36	19.6	1	0.96
52	... ..	8.8	1	2	34	15.66	74	55	16.1	1	0.81
53	86 Ceti γ	3.6	...	2	36	30.32	87	19	4.8	9	0.84
54	87 Ceti μ	4.4	...	2	37	51.70	80	26	25.9	1	0.95
55	Taylor 940...	7.8	1	2	40	27.12	128	43	14.8	1	0.84
56	Taylor 973...	7.0	1	2	47	29.74	147	43	57.9	1	0.90
57	91 Ceti λ	4.6	...	2	52	41.74	81	36	59.9	1	0.88
58	... ..	9.3	1	2	53	23.64	146	43	15.4	1	0.86
59	92 Ceti α (Menkar)	2.7	...	2	55	25.93	86	25	34.3	10	0.93
60	25 Persei ρ Var. 2	3.7	...	2	56	47.22	51	40	10.9	1	0.90
61	... ..	9.0	1	2	59	2.36	130	37	12.9	1	0.86
62	26 Persei β Var. 1 (Algol)	2.3	...	2	59	39.21	49	33	4.2	1	0.86
63	R. P. L. 33	5.9	...	3	1	46.70	5	33	39.0	1	0.96
64	57 Arietis δ	4.5	...	3	4	8.42	70	46	15.9	5	0.95
65	Lacaille 1007	6.9	1	3	4	54.38	152	13	13.5	1	0.96
66	Taylor 1112	7.5	1	3	10	27.91	129	29	12.9	1	0.86
67	Taylor 1113	8.0	1	3	10	29.21	131	43	4.2	1	0.91
68	... ..	9.3	1	3	15	34.65	125	40	19.6	1	0.01
69	... ..	9.0	1	3	17	31.06	130	44	33.6	1	0.93
70	... ..	9.9	1	3	17	47.15	127	4	42.7	1	0.92

[130 1.12]

[1.8]

[22.92]

[2.60]

[5 57.3]

37-39-41-43-Comparison stars for Camilla in 1868.
 45-o Ceti Var. 1 (Mira)-Period 331 days-Range, 2nd to 10th magnitude.
 60-p Persei Var. 2-Changes irregularly from 3.5 to 4.3 magnitude.
 62-β Persei Var. 1 (Algol)-Period 2 867 days. Range, 2.3 to 4th magnitude.
 63-Groombridge 595.