

YALE UNIVERSITY OBSERVATORY

CATALOGUE OF BRIGHT STARS

Containing all important data known in January, 1940,
relating to all stars brighter than 6.5 visual
magnitude, and to some fainter ones.

SECOND EDITION

By FRANK SCHLESINGER and LOUISE F. JENKINS

WITH APPENDICES CONTAINING GALACTIC CO-ORDINATES
AND INDICES TO THE CONSTELLATIONS

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The New Haven Printing Company

INTRODUCTION

- Column 1:** The **current number** which is the HR (Revised Harvard Photometry) number as well. It is recommended that BS followed by the number be used as an abbreviation in references to this catalogue. In this edition we have omitted nine novae (now very faint), three clusters, two nebula, and five stars considerably fainter than the seventh magnitude. We have inserted faint stars from the GC that are companions to BS stars.
- Column 2:** The **constellation name** with the Flamsteed number and the Bayer letter. These constellations conform to the limits adopted by the International Union in 1928. See Appendix 2. The four-letter abbreviations for the constellation names are those adopted by the same body in 1932. See Appendix 3.
- Column 3:** The **Durchmusterung number**; taken from the Bonn Durchmusterung between the north pole and -23° in 1855; the Cordoba Durchmusterung from this limit to -52° in 1875; the Cape Photographic Durchmusterung south of this limit. A + sign in this column indicates that the star is in the zone to the north of that indicated by the declination in Column 6; a — sign, that the star is in the zone to the south of that indicated in the same column.
- Column 4:** The number of the star in the **General Catalogue** (GC) of Boss, published by the Carnegie Institution of Washington in 1937.
- Column 5:** The **right ascension** for 1900 and the annual variation in right ascension. The latter is for 1950 and is taken from the GC.
- Column 6:** The **declination** for 1900. The precession in declination for 1950 is given at the bottom of each page and applies to the middle star on each page.
- Column 7:** The **magnitude** and the **spectrum** generally taken from the Henry Draper Catalogue.
- Column 8:** The **proper motions** in right ascension and declination expressed in seconds of arc, taken from the GC. In six cases the stars are not in the GC: then the proper motions, limited to two decimal places, were taken from miscellaneous sources.
- Column 9:** The absolute **parallax**. Determinations of all three kinds have been used, trigonometric, spectroscopic and dynamic. In addition the "cluster parallaxes" for the Taurus and Ursa Major groups have been used. In forty-nine cases the computed parallax comes out negative: in these cases (and in no others) ".000 has been inserted. This fact should be taken into account in statistical discussions.
- Column 10:** The **radial velocity**. All reliable determinations have been used, and have been reduced to the Lick system, making use of the corrections given in the Publications of the Lick Observatory, Volume 18, page xii. The recent Toronto velocities (Dunlap Observatory) have been used as published, and likewise those determined at Pulkowa.

Column 11: Remarks. These relate to a large extent to double stars. If these notes begin with two separate magnitudes it is to be understood that both stars are included in the magnitude given in Column 7. The word "binary" indicates that micrometer measures show orbital motion; while "cpm" (common proper motion) indicates that the two stars are moving together without orbital motion having yet developed. When the proper motions are small and the micrometer measures show no change, we have designated the pair as "fixed". We have omitted all mention of companions that are obviously "optical", that is, where the proximity of the two is merely accidental. In some cases the proper motions given in Column 8 would hardly imply equality, but such equality is shown conclusively by micrometer measures. If the period of a visual binary is known it is given in this column, always in *years*. If a period is given in *days* it is to be understood that this refers to variations in velocity, or variations in light, or both; it is easy to tell which of these applies in any particular case. For variable stars the maximum and the minimum magnitudes are given. "Two spectra" refers to spectroscopic binaries whose components are so nearly equal in brightness that both show in the spectrograms. The symbol " V_0 " is used throughout for the mean velocity; it is the velocity of the center of mass if that has been determined (in which case the period is also given); or it is the simple mean of all the separate determinations in case the orbit has not yet been determined, and if the range of velocity is not too great. In many cases this simple mean is not much inferior in accuracy to a determination of the velocity of the center of mass.

An **asterisk** denotes a remark that is too long for the last column, or which has been crowded out of it by others, and has been put at the bottom of the page.

Appendix 1: (page 188) The **galactic latitude** and **longitude** corresponding to a given right ascension and declination, assuming that the galactic pole is at $12^{\text{h}} 40^{\text{m}}, +28^{\circ}$ (1900). This was given as fully as possible on a single opening of this volume. Much more extensive tables (seventy-two pages) have been distributed in mimeograph form by the Observatory of Lund; this assumes the same position of the galactic pole. Still more extensive tables have been issued by Professor Emanuelli of the Specola Vaticana; these assume the galactic pole to be at $12^{\text{h}} 44^{\text{m}}, +26^{\circ}.8$ (1900).

Appendix 2: (page 190) The international **limits of the constellations**, modified so that every boundary is either a meridian or a circle of declination. These are for the equinox 1875, which is the one adopted by Gould for his similar rectification of most of the southern boundaries. The method of giving these limits used in this Appendix obviates the necessity for a map; to find in what constellation a star of given right ascension and declination belongs, we look down the table for the appropriate hour of right ascension till we come to the required declination, where the subdivisions of that hour are given. These new boundaries leave variable stars without exception in the constellations to which they were previously assigned. The same is true of stars that have been designated by Bayer letters.

Appendix 3: (page 196) The three-letter and the four-letter international **abbreviations for constellation names**.

Appendix 4: (page 197) An **index** to the right ascensions (1900), of stars given by their **Bayer letters** or **Flamsteed numbers**, whether these stars appear in this catalogue or not. The missing letters or missing numbers belong to stars which have lost these designations chiefly through the endless shifting of the constellation limits, as drawn by early cartographers. Stars designated by Latin letters have in general been omitted, in the hope that this will tend to make such designations ob-

solely: the following exceptions have, however, been retained: *d* Bootis, *i* Bootis, *a* Carinae, *l* Carinae, *P* Cygni, *g* Herculis, *u* Herculis, *b* Persei, *d* Serpentis, *N* Velorum, *d*² Virginis. We have not included variable stars (designated by one or two capital letters) in this index, as the positions of these can conveniently be found from the complete list published every year by the Observatory at Berlin-Babelsberg under the title: *Katalog und Ephemeriden Veränderlicher Sterne*.

Appendix 5: (page 213) An **index** to the positions, etc., of stars having specific **names**.

We are grateful to many colleagues at other institutions for sending us information in advance of publication. Miss Flora Castiglioni has carried out well the work of typing the manuscript from which the catalogue was photographed.

June 18, 1940.

Bright Star Catalogue - Errata

Page	Star	
3	61	Delete Par.
45	2141	Remark, should be for 2140.
66	3207	Magn. for 2.22 read 1.92.
73	3541	Name, for χ read λ .
93	4503	Remark, for 27" read 66".
115	5617	Decl, for + read -.
136	6616	Remark, for 5.0 read 5.9.
138	6752	Delete remark at the bottom of the page.
172	4433	Name, for ϵ read ν .
182	8878	Name, for PscA read Pisc.
213		Name, for Phocda read Phocda.

0^h

No	Name	DM	GC	RA		Decl 1900	Magn Spec	Prop Motion		Par	Rad Vel	Remarks
				1900	Ann Var			RA	Decl			
1		4550	54	0 ^m 2 ^s + 3.1		+44° 40'	6.51 A0	-.016	-.017		km	
2		4525	51	59 56 3.1		- 1 3	6.28 K0	+ .039	-.055	.007	-18	
3	33 Pisc	6357	59	0 13 3.1		- 6 16	4.68 K0	-.016	+ .096	18	var	72.9 days, V ₀ = -6km
4	86 Pegs	5063	75	0 34 3.1		+12 50	5.66 K0	+ .041	+ .002	13	var?	V ₀ = +1km
5		2865	88	1 2 3.1		+57 53	6.10 G5	+ .261	+ .034	48	-13	6.4:7.5, 107 years
6		14337	92	1 8 + 3.1		-49 38	5.77 G0	+ .560	-.037	45	+ 1	12m, 5", cpm
7	10 Cass	2107	94	1 14 3.1		+63 38	5.49 B8	+ .009	+ .004	8	- 2	
8		4704	95	1 25 3.1		+28 28	6.20 K0	+ .376	-.180	75	- 8	
9		4	98	1 43 3.1		-23 40	6.06 F0	+ .099	-.039	13		
10		-6428	103	2 12 3.1		-17 57	6.18 A3	-.023	+ .041			
11		2	114	2 36 + 3.1		- 3 6	6.33 B8	+ .021	+ .003	15	+13	
12		13	116	2 40 3.1		-23 4	5.92 A0	+ .048	-.041			2", cpm
13		17	120	2 58 3.0		-34 5	5.71 K0	-.046	+ .004			
14		3	124	3 5 3.1		- 3 0	6.32 K0	+ .003	-.004	5	var	96.4 days, V ₀ = +1km
15	21α Andr	4	127	3 13 3.1		+28 32	2.15 A0p	+ .134	-.161	28	var	96.7 days, V ₀ = -13km
16		5	126	3 11 + 3.1		- 9 23	6.11 K0	-.058	-.028			
17		8	131	3 32 3.1		+36 4	6.14 F5	-.105	-.145	54	-14	
18		3	129	3 27 3.1		-18 8	6.37 Ma	-.004	-.020			
19		3	138	3 42 3.1		+24 54	6.35 G5	+ .110	+ .033	6	+15	
20		-1	149	3 48 3.3		+79 10	6.22 A3	+ .104	-.023	10	+ 1	6.8:7.1, 275 years
21	11β Cass	3	147	3 50 + 3.2		+58 36	2.42 F5	+ .527	-.178	73	+12	
22	87 Pegs	7	144	3 53 3.1		+17 39	5.69 K0	+ .133	-.024	9	-24	
23		19	148	4 0 3.0		-54 34	6.34 G0	+ .047	+ .016	10		8.5m, 0.6, binary
24	κ ¹ Scul	16	155	4 15 3.1		-28 33	5.46 F2	+ .065	-.001	17	+ 9	6.2:6.3, binary
25	ε Phoe	18	158	4 20 3.0		-46 18	3.94 K0	+ .124	-.179	37	- 9	
26	34 Pisc	8	167	4 54 + 3.1		+10 35	5.51 B8	+ .035	.000	13	+14	10m, 8", binary
27	22 Andr	17	169	5 7 3.1		+45 31	5.08 F0	.000	-.001	13	- 6	
28		11	176	5 15 3.1		+56 36	6.54 B8	+ .022	+ .009	5		
29		-11	171	5 12 3.1		- 5 48	5.95 G5	+ .031	-.027	9	+24	
30	γ ³ Octn	4	173	5 30 2.7		-82 47	5.30 K0	-.016	-.015	9	+15	
31		13	181	5 35 + 3.1		-13 8	5.94 K0	+ .152	-.032			
32		4	184	5 44 2.9		-73 47	6.76 A5	+ .126	+ .016			7.0:8.5G, 1", cpm
33	6 Ceti	17	190	6 10 3.1		-16 1	5.05 F5	-.082	-.263	60	+15	
34	κ ² Scul	26	197	6 30 3.0		-28 21	5.56 K0	+ .003	+ .023	9	- 6	
35	θ Scul	42	202	6 39 3.0		-35 42	5.19 F5	+ .160	+ .127	34	- 1	
36		21	204	6 45 + 3.1		+47 36	6.30 K0	+ .054	+ .018	4	+18	
37		14	214	7 4 3.1		-18 30	5.47 K2	+ .051	-.026	5	var?	V ₀ = -8km
38		-12	228	7 39 3.1		+37 8	6.57 B3	+ .023	-.010		- 8	
39	88γ Pegs	14	238	8 5 3.1		+14 38	2.87 B2	-.001	-.010	7	var	Algenib, V ₀ = +5km
40		13	243	8 13 3.1		+26 25	6.30 F5	-.012	-.044	5	-13	6.5:8.0, binary
41	23 Andr	29	244	8 19 + 3.1		+40 29	5.73 A5	-.122	-.144	30	var?	V ₀ = -29km
42		56	249	8 38 3.0		-26 35	6.12 K2	+ .020	-.066			
43		57	250	8 40 3.0		-26 51	6.41 K5	-.025	+ .014			
44		21	256	8 51 3.1		+32 39	6.06 A0	-.015	-.021	8	+1	
45	89χ Pegs	27	270	9 26 3.1		+19 39	4.94 Ma	+ .089	+ .003	8	-46	
46		26	265	9 21 + 3.1		- 8 20	5.36 Ma	+ .054	+ .009	6	- 2	10m, 3", cpm
47		2	257	9 32 2.3		-85 33	5.74 K5	+ .008	+ .031			
48	7 Ceti	21	272	9 34 3.0		-19 29	4.68 Ma	-.028	-.063	14	-22	
49		13	281	9 45 3.1		+21 43	6.05 A0	+ .061	-.010	8	-15	
50	35 Pisc	19	287	9 50 3.1		+ 8 16	5.87 F0	+ .090	-.024	13	var*	12", binary
			288				8.1 Ag	+ .107	-.014		+ 8	

5: Fainter has velocity -16km.
50: 0.8 days, V₀ = 0km.

Precession in declination, +0.33.

CATALOGUE OF BRIGHT STARS

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No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
51		30	283	9 ^m 48 ^s + 3.1		-10° 8'	5.76 B9	+ .022 - .005	"008	km	
52		26	290	9 55 3.1		+30 59	6.61 K5	+ .031 - .004			
53		23	291	9 59 3.1		+26 44	6.06 A0	+ .017 - .028	10	var?	V ₀ = -8km
54		65	289	9 55 3.0		-35 28	6.29 K0	+ .066 - .021			
55		5	303	10 33 3.4		+76 24	6.23 B9	+ .020 + .001	8	- 8	6.8:7.3, binary
56		-41	310	11 6 + 3.2		+43 3	6.03 A0	+ .038 - .029	9	+ 3	10m, 9", cpm
57		72	306	11 5 3.0		-32 0	5.69 K0	+ .129 - .029	10		
58		19	307	11 20 2.7		-76 28	6.60 G5	- .010 + .009			
59	36 Pisc	27	315	11 26 3.1		+ 7 41	6.19 G5	- .030 - .010	8	+ 2	
60		21	329	11 35 3.2		+60 59	5.80 G5	- .001 + .003	7	- 5	12m, 20", fixed
61		-24	324	11 38 + 3.0		-20 46	6.50 B8	+ .008 - .010	75		
62		50	335	11 52 3.2		+47 24	5.82 B9	+ .008 + .017	5		
63	24 ^θ Andr	-34	334	11 52 3.1		+38 8	4.44 A2	- .055 - .018	23	+ 2	
64		7	337	12 22 2.7		-79 20	6.68 F5	+ .086 - .038			
65	A0 Cass	46	345	12 25 3.2		+50 53	var B0	- .008 - .002	2	var*	6.1 to 6.3, 3.5 days
66		30	343	12 28 + 3.0		-19 37	6.47 F0	+ .011 + .007			
67		-28	346	12 39 3.1		+ 1 8	6.43 G5	+ .082 + .010	10	-10	
68	25 ^σ Andr	-44	362	13 6 3.1		+ 36 14	4.51 A2	- .065 - .036	16	var	V ₀ = -9km
69		25	363	13 8 3.1		+10 39	6.20 K0	- .041 - .035			
70	26 Andr	-48	376	13 26 3.2		+43 14	6.04 B9	+ .015 - .002		+ 7	10m, 6", cpm
71		35	373	13 25 + 3.1		+30 58	5.80 A0	+ .060 - .001		- 5	
72		38	378	13 33 3.1		- 8 36	6.50 G0	+ .408 - .134			
73		64	381	13 44 3.0		-43 47	6.27 K2	+ .049 + .012			
74	8 ₁ Ceti	48	388	14 20 3.1		- 9 23	3.75 K0	- .018 - .029	14	+19	12m, 63"
75		-56	394	14 26 3.2		+40 10	6.41 K0	- .031 - .008			
76		79	400	14 46 + 3.2		+48 18	6.27 A0	.000 - .016	7	var?	V ₀ = -2km
77	γ Tucn	13	401	14 52 3.1		-65 28	4.34 F8	+1.708 +1.163	139	+ 9	
78		42	408	15 11 3.1		+30 23	5.82 B8	+ .017 + .005	5	+ 4	
79		45	414	15 32 3.1		+32 21	5.97 K5	- .029 - .013	13	-35	6.5:7.0, 1", binary
80	41 Pisc	36	413	15 27 3.1		+ 7 38	5.58 K0	- .007 + .014	9	+16	
81		32	419	15 45 + 3.1		+10 25	6.55 A0	- .051 - .024	6	-18	6.9:7.8, binary
82	27 ^ρ Andr	45	425	15 51 3.2		+37 25	5.20 F5	+ .061 - .036	20	+ 9	
83	π Tucn	12	420	16 1 2.8		-70 11	5.42 B9	- .014 - .001	8	+12	
84	ι Scul	86	433	16 30 3.0		-29 32	5.35 G5	+ .033 - .071	24	+21	
85	τ Ceti	50	437	16 43 3.0		-20 37	var M5	+ .068 - .001	6		5.2 to 6.0, 160 days
86	42 Pisc	25	446	17 15 + 3.1		+12 56	6.40 K0	+ .057 + .029	6	+ 3	
87		- 9	439	17 13 2.6		-77 59	5.86 K0	+ .009 - .005			
88	9 Ceti	-60	452	17 44 3.1		-12 46	6.44 G0	+ .388 + .066	42	- 7	
89		138	461	18 12 3.0		-31 36	6.66 B9	+ .022 .000			
90	R Andr	-58	472	18 45 3.2		+38 1	var Se	- .012 - .022		-36*	6.0 to 14.9*
91		62	476	18 52 + 3.2		+51 28	5.36 B3	+ .010 - .002	4	var	8.5m, 0".2, V ₀ = -12km
93	12 Cass	69	481	19 16 3.3		+61 17	5.39 B9	+ .011 + .003	8	-10	
94		-49	480	19 23 3.1		- 2 46	6.28 K0	- .039 - .032	6	+15	
96		61	488	19 42 3.2		+52 30	5.72 B9	+ .021 - .004	6		
97	44 Pisc	57	496	20 16 3.1		+ 1 23	5.99 G5	- .019 - .011	8	- 4	
98	β Hydi	16	503	20 30 + 3.2		-77 49	2.90 G0	+2.223 + .326	152	+23	
99	α Phoe	116	519	21 21 3.0		-42 51	2.44 K0	+ .198 - .395	43	var	3849 days, V ₀ = +75km*
100	κ Phoe	101	516	21 17 2.9		-44 14	3.90 A3	+ .102 + .030		+ 9	
101	10 Ceti	63	523	21 30 3.1		- 0 36	6.40 G5	+ .068 + .004	9	-24	
102		138	530	22 14 3.0		-26 6	5.95 G5	+ .022 - .015			

65: V₀ = -37km. Orbit, two spectra. Perhaps third body. Precession in declination, +0".33.
 90: Period, 411 days. Absorption lines give -8km. 99: Visual orbit, a = 0".07.

0^h

No	Name	DM	GC	RA		Decl 1900	Magn Spec	Prop Motion		Par	Rad Vel	Remarks
				1900	Var			RA	Decl			
103	47 TV Pisc	55	543	22 ^m 50 ^s + 3.1	+17° 20'	var Mb	+ ".113 + ".021	"010	+ 6	6.9 to 7.3 (ptg), irreg 4.0 days, V ₀ = +2km		
104		92	546	22 51 3.2	+43 50	5.16 A2	+ .093 - .010	14	var			
105	η Scul	152	544	22 58 3.0	-33 34	4.96 Mb	- .025 - .046	0	+11			
106	48 Pisc	63	548	23 1 3.1	+15 54	6.46 K2	+ .010 - .015	5	- 3			
107		47	550	23 10 3.1	+ 9 39	6.02 F2	+ .028 - .205	28	-10			
108		- 57	554	23 20 +3.0	-20 53	6.41 G0	- .116 - .105	36		7.2:7.2, 5.6 years		
109		93	558	23 31 3.0	-40 28	5.33 K5	+ .124 - .034	10	+32			
110		66	563	23 38 3.2	+36 21	6.42 G5	- .016 + .004	11	+10			
111		113	564	23 53 2.9	-51 5	6.39 K0	+ .144 - .001					
112		10	588	24 29 3.9	+76 28	6.35 G5	+ .338 - .022	19	+19			
113		68	586	24 45 +3.3	+59 25	5.92 B9	+ .017 - .008	5	-20	9.5m, 0".7, cpm		
114	28 Andr	- 75	583	24 51 3.2	+29 12	5.26 F0	+ .037 - .053	16	-10	13m, 2", cpm		
115		84	579	24 48 3.0	-15 25	6.24 F2	+ .136 - .026					
116		154	580	24 52 3.0	-32 40	6.63 K0	- .011 - .050					
117	12 Ceti	54	584	24 56 3.1	- 4 31	6.04 K5	+ .006 - .006	7	+ 4	11m, binary		
118		179	590	25 23 +3.0	-24 20	5.23 A3	- .030 + .019		var	V ₀ = +2km		
119		116	594	25 35 2.9	-41 30	6.31 F0	- .008 + .023		+ 2			
120		102	593	25 36 2.9	-48 46	5.65 F0	+ .123 - .087		-10			
121	13 Cass	67	609	25 40 3.5	+65 58	6.14 B5	+ .024 - .001	5	var?			
122		- 80	611	26 7 3.2	+33 2	6.08 K0	+ .044 - .019					
123	14 λ Cass	82	618	26 15 +3.3	+53 58	4.88 B8	+ .042 - .008	7	*	5.5:5.8, binary		
124		92	614	26 13 3.3	+52 17	5.69 K0	- .056 - .018	6	-52			
125	λ Phoe	115	619	26 36 2.9	-49 21	4.88 A2	+ .134 + .024	24	var	V ₀ = -5km		
126	β Tucn	50	625	26 58 2.7	-63 31	4.52 B9	+ .089 - .054	22	+10	26", cpm*		
127		626	26 58 2.7	-63 31	4.48 A2	+ .100 - .056						
128		99	634	27 3 +3.2	+42 57	6.43 A0	+ .014 - .009	15	var	V ₀ = -19km		
129		24	648	27 21 3.6	+70 26	6.36 A0	+ .038 + .004	5				
130	15 κ Cass	102	645	27 19 3.4	+62 23	4.24 B0	+ .004 .000	3	var	V ₀ = -4km		
131	52 Pisc	79	641	27 20 3.1	+19 45	5.53 G5	+ .128 - .045	10	-12			
132	51 Pisc	64	636	27 14 3.1	+ 6 24	5.66 A0	+ .031 + .011			9.5m, 28", cpm		
133		- 76	640	27 19 +3.2	+27 2	6.54 A0	- .021 - .013					
134		84	647	27 33 3.2	+27 44	6.38 G5	- .009 + .010	6	-11	11m, 9", cpm		
135		101	650	27 37 3.3	+54 21	6.14 K0	+ .069 - .039		+ 5	5.7:6.1, very close*		
136		52	651	28 10 2.7	-63 35	5.16 A2	+ .080 - .037		var			
137	16 Cass	- 70	671	28 35 3.5	+66 12	6.42 B9	+ .022 + .005	5				
138		156	665	28 44 +3.0	-30 7	5.62 K0	- .034 - .034	8				
139	θ Tucn	20	667	29 9 2.5	-71 49	6.10 A5	+ .074 - .020		+ 2			
140		-117	683	29 42 2.9	-52 56	5.55 F5	+ .217 + .032		+35			
141		57	689	29 45 3.1	+12 49	6.49 K0	- .093 - .054					
142	13 Ceti	62	696	30 6 3.1	- 4 9	5.24 G0	+ .410 - .020	59	var	5.7:6.5, 6.9 years*		
143	14 Ceti	68	701	30 25 +3.1	- 1 3	5.93 F8	+ .133 - .057	30	+ 4			
144		102	708	30 34 3.3	+53 37	5.14 B5	+ .019 + .003	9	+ 1			
145		59	707	30 44 3.1	+12 40	6.40 F5	- .146 - .186		-24			
146		84	717	30 46 3.4	+59 47	5.76 A3	- .001 + .002	15	- 8			
147	λ ² Phoe	121	706	30 55 2.9	-48 33	5.52 F8	+ .037 - .103		+ 8			
148		117	705	30 53 +2.8	-55 22	5.94 K0	+ .022 - .052					
149		91	722	31 3 3.2	+26 42	6.26 B8	+ .008 - .013	6	+ 1			
150		109	716	31 2 3.0	-15 32	6.56 K0	- .087 - .074					
151		220	719	31 8 3.0	-23 24	6.13 A3	- .080 - .038					
152		113	726	31 20 3.3	+43 56	5.44 K5	- .026 + .035	6	-33			

123: Velocity may be variable, V₀ = ±12km.

127: This is itself a close binary, 4.6:6.6, 41 years.

142: The brighter is a spectroscopic binary, 2.08 days.

Precession in declination, +0.33.

136: cpm with 126, 127.

CATALOGUE OF BRIGHT STARS

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No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
153	17 ξ Cass	105	727	31 ^m 24 ^s +3.3	+53° 21'	3.72 B3	+ .018 - .008	"005	+ $\frac{\text{km}}{2}$		
154	29 π Andr	-101	729	31 32 3.2	+33 10	4.44 B3	+ .013 - .006	7	var*	8.5m, 36", cpm	
155	53 Pisc	76	728	31 35 3.1	+14 41	5.86 B3	+ .001 - .016	4	-13		
156		84	735	31 51 3.2	+23 28	6.44 K0	- .016 - .042				
157		86	738	32 0 3.2	+34 51	5.62 G5	- .020 - .004	10	- I		
158		13	760	32 12 +4.5	+81 56	6.40 F8	- .111 + .091	28	-34		
159		225	741	32 12 3.1	-25 19	5.71 K0	+1.383 - .008	68	+17	6.4:6.5, 25 years	
160		58	733	32 13 2.6	-65 41	6.38 K0	+ .028 - .018				
161		80	744	32 22 3.1	+ 2 35	6.58 K0	+ .090 - .055	5	+ 4		
162		-130	745	32 39 2.8	-54 57	6.42 K0	+ .051 - .020				
163	30 ϵ Andr	103	759	33 16 +3.2	+28 46	4.52 G5	- .232 - .249	34	-83		
164		192	770	33 38 3.3	+48 48	5.72 K2	+ .004 - .010	7	-10	11m, 14", cpm	
165	31 δ Andr	91	774	33 59 3.2	+30 19	3.49 K2	+ .133 - .090	26	var	12m, 28", cpm. $V_0 = -8\text{km}$	
166	54 Pisc	85	778	34 10 3.1	+20 43	6.08 K0	- .466 - .369	104	-34		
167	55 Pisc	87	784	34 40 3.2	+20 53	5.57 K0	+ .025 - .033	8	-17	8.5m, 7", binary	
168	18 α Cass	139	792	34 50 +3.4	+55 59	var K0	+ .050 - .029	14	- 4	2.1 to 2.6, irregular	
169		42	777	34 45 2.4	-73 41	6.90 A0	- .015 + .021				
170	Z Scul	224	789	35 3 3.0	-34 30	var F8	+ .325 - .111			6.3 to 7.6	
171		201	788	35 6 2.9	-45 21	6.02 K0	+ .036 + .001				
172		109	798	35 27 3.0	-17 4	6.46 G5	+ .033 - .034				
173		263	799	35 31 +3.0	-24 21	6.24 K0	+ .640 - .329	36	-54		
174		-101	804	35 37 3.1	- 4 54	6.12 G5	- .018 - .014	9	+34	8.6m, 65"	
175	32 Andr	90	812	35 42 3.3	+38 55	5.42 G5	- .014 - .004	14	- 5		
176		46	801	35 44 2.8	-60 1	5.79 G0	+ .886 + .451	56			
177		83	825	36 5 3.6	+65 36	5.92 G5	- .005 - .004				
178		- 94	822	36 18 +3.2	+24 5	5.98 A5p	+ .100 - .021	18	-15		
179	19 ξ Cass	164	828	36 29 3.3	+49 58	4.85 B3	+ .011 - .005	6	var	$V_0 = -8\text{km}$	
180	μ Phoe	180	823	36 36 2.8	-46 38	4.65 K0	- .026 .000	10	+16	In Ursa Cluster?	
181		-132	837	36 46 3.5	+58 12	6.13 B9	+ .035 - .003	6			
183	ξ Phoe	143	830	37 13 2.7	-57 3	5.83 F0p	+ .081 + .046		+10	10m, 13", cpm	
184	20 π Cass	146	856	37 56 +3.3	+46 29	5.02 A5	- .025 - .033	17	var*	2.0 days, $V_0 = +12\text{km}$	
185	λ ' Scul	175	849	37 54 2.9	-39 1	6.07 A0	- .006 - .002			6.7:6.9, binary	
186		49	853	38 12 2.7	-60 49	5.84 K2	+ .252 - .043				
187	ρ Tucn	47	851	38 12 2.6	-66 1	5.46 F5	+ .052 + .047		var	4.8 days, $V_0 = +14\text{km}$	
188	16 β Ceti	115	865	38 34 3.0	-18 32	2.24 K0	+ .230 + .040	57	+13		
189		181	874	38 53 +3.3	+47 19	5.55 B3	- .030 + .016	5	-60		
190		126	869	38 48 3.0	-12 33	6.18 G5	+ .003 - .199				
191	η Phoe	42	866	38 52 2.7	-58 1	4.53 A0	- .006 + .011		+10	11m, 20"	
192	21 YZ Cass	27	891	39 2 4.0	+74 26	var A2	- .017 - .022	13	var*	5.7 to 6.1, 4.5 days	
193	22 \circ Cass	183	882	39 9 3.3	+47 44	4.70 B2	+ .017 - .007	5	- 8	12m, 33", cpm	
194	17 ψ ' Ceti	128	875	39 9 +3.0	-11 9	4.93 K0	- .013 - .106	15	+ 1		
195	λ ' Scul	-181	879	39 22 2.9	-38 58	5.97 K0	+ .229 + .121				
196		143	894	39 35 3.4	+54 40	5.47 A0	- .027 + .005	15	- 9	12m, 2", cpm	
197		127	889	39 48 3.0	-22 33	5.30 A5	- .069 + .087	30	+10		
198		207	900	40 13 2.8	-43 13	6.00 A5	- .071 - .104				
199		72	893	40 10 +2.6	-63 3	6.17 F5	+ .141 - .003			6.3:8.2, 3"	
200		49	921	40 22 3.8	+68 47	6.42 F2	+ .197 + .007	17			
201		120	905	40 19 3.1	- 5 11	6.44 K0	+ .024 + .039	4	+ 7		
202		166	902	40 23 2.8	-54 16	6.32 F8	+ .213 - .009				
203	18 Ceti	128	907	40 27 3.0	-13 25	6.11 G0	- .037 - .196	44	-13		

154: 144 days, $V_0 = +8\text{km}$, two spectra.
184: Two spectra.

Precession in declination, +0.33.
192: $V_0 = +11\text{km}$.

No	Name	DM	GC	RA		Decl	Magn	Prop Motion		Par	Rad	Remarks
				1900	Ann Var			RA	Decl			
204		148	916	40 ^m 32 ^s +3.4	+54° 45'	6.52 A2	+ "014 - "009	"006	km			
205		160	918	40 38 3.3	+44 18	5.99 B8	+ .026 - .007		- 4		6.4:9.4, 2".5	
206		-132	913	40 42 3.0	-16 58	6.32 F0	+ .010 + .001					
207		-101	926	40 53 3.5	+59 2	6.49 G5	- .008 + .003		2			
208	23 Cass	29	934	41 5 4.0	+74 18	5.39 B8	+ .017 - .004		8	var*	33.8 days, V ₀ = -3km	
209		176	920	41 4 +2.8	-48 6	5.79 K0	+ .176 + .087					
210		293	922	41 14 3.0	-23 4	5.62 K0	+ .197 - .001		17	-15		
211	57 Pisc	111	928	41 19 3.1	+14 56	5.58 Ma	- .030 - .043		7	var?	V ₀ = -27km	
212		- 37	943	41 37 3.9	+72 8	6.04 K0	+ .131 + .030					
213	58 Pisc	96	935	41 48 3.1	+11 26	5.68 G5	+ .051 - .029		10	- 1		
214	59 Pisc	-101	938	41 56 +3.2	+19 2	6.06 A5	+ .097 + .008		13	+ 2		
215	34 ♄ Andr	106	940	42 2 3.2	+23 43	var K0	- .104 - .080		34	var*	5.1 to 5.2 (ptg), 17.8 days	
216	60 Pisc	-104	941	42 13 3.1	+ 6 12	6.20 G5	+ .009 - .011		7	+14		
217	61 Pisc	105	951	42 37 3.2	+20 23	6.60 F8	+ .154 + .008		18	+ 1		
218		127	950	42 44 3.0	-18 37	5.88 K0	+ .040 + .037					
219	24 ♄ Cass	150	962	43 3 +3.6	+57 17	3.64 F8	+1.101 - .523		182	+ 9*	7.4m, 526 years	
220		134	957	43 4 3.0	-22 16	5.45 B9	+ .021 - .006		9	+21		
221	62 Pisc	105	958	43 6 3.1	+ 6 45	6.07 K0	+ .106 + .009		9	- 1		
222		123	959	43 8 3.1	+ 4 46	5.82 G5	+ .752 -1.142		148	-13		
223	25 ♄ Cass	147	961	43 10 3.4	+50 25	5.03 B9	+ .032 - .004		8	var?	V ₀ = +1km	
224	63 ♄ Pisc	-107	963	43 30 +3.1	+ 7 2	4.55 K5	+ .083 - .047		14	+32		
225	64 Pisc	76	968	43 43 3.2	+16 24	5.23 F5	- .009 - .201		45	var	V ₀ = +5km, two spectra	
226	35 ♄ Andr	171	989	44 18 3.3	+40 32	4.42 B3	+ .016 - .019		8	var*	4.3 days, V ₀ = -24km	
227		145	984	44 24 3.0	-14 6	5.84 K2	+ .102 - .092		10	+ 4	12m, 1", cpm	
228		345	980	44 18 3.0	-24 41	6.06 G5	+ .074 - .048				13m, 9"	
229		229	975	44 18 +2.8	-47 15	6.24 K0	- .019 + .019		5			
230			992	44 31 3.2	+27 10	6.29 F0	+ .081 - .007		7	+ 6		
231	65 Pisc	-131	993	44 31 3.2	+27 10	6.29 F0	+ .088 - .006		7	+ 4	4".5, cpm	
232		-347	990	44 38 3.0	-23 55	6.22 A2	- .012 + .003					
233		99	1004	44 39 3.6	+63 42	5.45 *	+ .032 - .007		16	var	V ₀ = +2km	
234		176	999	44 43 +3.4	+44 27	6.12 A0	+ .068 + .005		7	+ 2		
235	19 ♀ Ceti	153	1003	45 7 3.0	-11 11	5.24 F5	- .231 - .222		62	+ 8		
236	λ Hydi	64	983	45 7 2.1	-75 28	4.96 K5	+ .130 - .029		20	var	V ₀ = -9km	
237		178	1014	45 18 3.6	+61 16	6.36 K2	- .002 + .011		1	-20		
238		161	1013	45 14 3.4	+50 58	6.46 A5	+ .132 - .001		16	+ 2		
239		-216	1006	45 23 +2.8	-43 56	6.41 F0	+ .002 + .017					
240		- 20	1045	45 30 5.6	+83 10	5.55 A2	+ .060 - .014		10	+28		
241		-164	1024	45 51 3.4	+51 2	6.24 A0	- .013 - .017		8			
242	ρ Phoe	209	1019	46 8 2.7	-51 32	5.22 F5	+ .049 + .042		1	+22		
243		118	1026	46 9 3.1	+ 2 51	6.51 G5	+ .012 - .061		6	+ 6		
244		124	1047	47 6 +3.6	+60 35	4.93 F8	- .071 + .177		63	+21		
245		226	1037	47 12 2.8	-44 15	6.64 F2	+ .016 - .012		8		7.2:7.7, 1"	
246		-159	1049	47 23 3.3	+38 1	6.48 A0	+ .026 - .019		7	var	V ₀ = +16km	
247		376	1051	47 46 2.9	-24 33	5.59 K0	+ .030 + .038		8	var*	10m, 11", binary	
248	20 Ceti	114	1055	47 54 3.1	- 1 41	4.92 K0	+ .004 - .012		7	+16		
249		148	1060	47 59 +3.3	+36 53	6.13 K0	+ .010 - .045		8	- 7		
250		-179	1068	48 1 3.5	+52 9	6.22 A0	+ .073 - .023		14	0	10m, 8", cpm	
251			1063	48 18 2.9	-25 19	6.44 F2	+ .091 + .040				5", binary	
251		338	1064	48 18 2.9	-25 19	8.4	+ .072 + .024		7			
252	λ Tucn	37	1056	48 36 2.3	-70 3	6.59 F8	- .005 - .083				7.0:7.8, 20"	

208: Two spectra.

215: V₀ = -26km.

219: Velocity of fainter, +13km.

226: Two spectra.

233: Composite, F2, A2.

247: V₀ = +39km.

Precession in declination, +0.33.

CATALOGUE OF BRIGHT STARS

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No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
253	26 v ¹ Cass	134	1086	49 ^m 4 ^s +3.6		+58° 26'	4.95 KO	- .033 - .040	10	km -23	
254	66 Pisc	122	1084	49 17 3.2		+18 39	5.75 AO	+ .016 - .013	10	+14	6.1:7.2, 140 years
255	21 Ceti	181	1082	49 15 3.0		- 9 17	6.38 GO	+ .013 - .046	17	var?	V ₀ = +44km
256		-242	1090	49 24 3.4		+48 9	6.60 Ma	- .026 - .005			
257		83	1078	49 28 2.5		-63 25	5.64 Mb	+ .062 - .001		-12	
258	36 Andr	-146	1091	49 37 +3.2		+23 5	5.60 KO	+ .128 - .029	20	+ 2	6.1:6.7, 169 years
259		-126	1096	49 53 3.2		+24 1	6.36 Mb	+ .018 - .013	4	- 9	
260		172	1104	50 16 3.6		+57 26	6.43 K2	+ .037 - .011			
261		- 81	1114	50 26 3.9		+68 14	6.38 FO	+ .137 - .015	12		
262	67 Pisc	151	1105	50 36 3.2		+26 40	5.94 A2	- .020 + .010	15	- 8	
263		-167	1103	50 39 +3.0		- 7 53	6.00 K2	- .006 - .043			
264	27 γ Cass	-144	1117	50 40 3.6		+60 11	var BOp	+ .026 - .002	16	*	1.6 to 2.3, irregular*
265	28 v ² Cass	138	1115	50 42 3.6		+58 38	4.83 KO	- .092 - .043	25	-47	
266		146	1120	50 45 3.6		+59 49	5.54 B9	+ .033 - .003	7	var	6.0:6.8, binary
267	22 φ ³ Ceti	-162	1111	51 1 3.0		-11 48	5.49 KO	- .025 - .003	6	-26	
268		288	1110	51 4 +2.9		-28 19	6.20 Ma	- .007 + .006			
269	37 μ Andr	175	1122	51 12 3.3		+37 57	3.94 A2	+ .152 + .034	37	+ 8	
270	λ ² Tucn	40	1102	51 16 2.2		-70 4	5.34 KO	+ .002 - .035	15	+ 5	
271	38 η Andr	153	1136	51 52 3.2		+22 53	4.62 G5	- .037 - .040	9	var*	2.5 days, V ₀ = -9km
272		237	1142	52 0 3.4		+45 18	6.24 KO	+ .008 + .007	6	+ 5	
273		115	1156	52 11 +3.8		+65 49	6.00 B9	+ .044 - .001	8	-10	
274	68 Pisc	157	1148	52 25 3.2		+28 27	5.64 KO	+ .001 - .009	8	0	
275		140	1159	52 45 3.3		+33 26	6.22 KO	+ .046 - .058		-17	
276		-119	1153	52 40 3.1		+13 9	6.44 G5	- .015 - .010	6	+15	
277		131	1160	53 0 3.2		+20 52	6.41 AO	- .008 - .001	9	- 5	6.7:8.1, binary
278		65	1190	53 48 +4.0		+70 27	6.46 AO	+ .087 + .003	11	0	
279	23 φ ⁴ Ceti	-173	1173	53 43 3.0		-11 55	5.79 G5	- .038 - .014	10	-19	
280	α Scul	-297	1172	53 47 2.9		-29 54	4.39 B5	+ .010 + .005	12	+10	
281		50	1177	54 13 2.5		-61 14	6.37 A3	+ .047 + .020			
282			1191				6.84 B9	+ .009 - .022		var	
283		-193	1192	54 24 3.4		+44 10	6.04 B9	+ .014 - .021	8	var	8", binary
284		131	1193	54 39 +3.1		+ 5 56	6.31 Ma	+ .018 - .003	3	-15	
285		19	1288	55 2 8.2		+85 43	4.52 KO	+ .082 - .006	13	+ 8	
286		4	1473	55 37 22.0		+88 29	6.48 A2	+ .071 - .024		-11	
287		202	1241	56 29 3.5		+50 30	6.62 A3	- .007 - .011			
288	ξ Scul	260	1229	56 38 +2.8		-39 27	5.57 KO	+ .075 + .056	32	-31	
289		243	1257	57 15 3.5		+46 50	6.36 FO	+ .084 - .014	9	0	6.6:8.0, binary
290	39 Andr	209	1254	57 17 3.4		+40 48	5.86 A2	- .024 - .008	10	+ 4	
291	69 σ Pisc	168	1253	57 20 3.3		+31 16	5.46 B9	+ .012 - .026	10	var*	V ₀ = +11km
292		157	1263	57 27 3.7		+60 32	5.94 FO	- .005 + .009	9	- 1	6.0:9.2, 1"
293	σ Scul	410	1252	57 40 +2.9		-32 5	5.52 A2	+ .074 + .010		var?	V ₀ = -21km
294	71 ε Pisc	153	1258	57 45 3.1		+ 7 21	4.45 KO	- .082 + .029	25	+ 7	
295		220	1250	57 48 2.5		-57 32	6.00 KO	+ .001 + .017			
296	25 Ceti	177	1262	57 59 3.0		- 5 22	5.69 G5	- .112 - .101	10	+15	
297		-158	1279	58 9 3.7		+61 4	5.88 F8	- .069 - .017		-15	
298		220	1275	58 10 +3.5		+51 58	6.27 K2	+ .009 - .056			
299		-313	1266	58 19 2.7		-46 56	5.34 KO	- .009 + .008	14	- 1	
300		325	1270	58 31 2.9		-30 4	6.39 GO	- .122 - .027			
301	26 Ceti	174	1281	58 40 3.1		+ 0 50	6.07 FO	+ .118 - .036	21	+ 4	9m, 16", binary
302		212	1293	58 56 3.5		+50 29	6.50 B3	+ .016 .000	2	- 5	

264: 11m, 2", cpm. Velocity constant to 1929, var. since.
271: Two spectra.

Precession in declination, +0'.32.
291: Two spectra.

$0^h - 1^h$

No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
303		-174	I290	58 ^m 59 ^s +3.3		+29° 8'	6.08 F5	+ ".081 - ".113		km + 4	
304		80	I269	58 53 2.3		-66 0	6.22 Mb	+ .003 + .003			
305		249	I292	58 59 3.4		+39 27	6.69 F0	+ .074 - .020	"012	+11	
306		17	I403	59 6 10.2		+86 37	6.40 K0	+ .056 - .019	7	- 5	
307	73 Pisc	-172	I301	59 42 3.1		+ 5 7	6.17 K2	+ .024 - .010	8	-15	
308	72 Pisc	163	I302	59 49 +3.2		+14 24	5.65 F2	+ .004 + .052	21	var	$V_0 = +7\text{km}; 12\text{m}, 55''$, cpm
309		-206	I316	0 4 3.8		+62 14	6.44 A3	+ .103 - .019	10	var	
310		156	I309	0 19 3.2		+20 56	5.55 A2	+ .048 - .014	14	- 3	30'', cpm
311	74 ^v Pisc	157	I310	0 20 3.2		+20 56	5.82 A0	+ .045 - .016	14	- 4	
312		29	I358	0 40 5.1		+79 29	6.38 K0	- .026 - .033	12	-27	
313		175	I317	0 39 +3.1		+ 4 23	6.75 F2	+ .018 - .116	19	- 9	33'', cpm
314	77 Pisc	176	I319	0 41 3.1		+ 4 23	7.64 F2	+ .025 - .114			
315	27 Ceti	229	I313	0 36 3.0		-10 31	6.41 G5	- .038 - .028	8	+12	
316		196	I339	0 55 3.6		+56 24	6.58 K0	+ .110 - .128			
317	28 Ceti	230	I325	1 4 3.0		-10 23	5.59 A0	+ .025 + .009			
318		262	I343	1 12 +3.6		+52 58	6.49 K0	+ .021 + .002			
319	75 Pisc	135	I336	1 18 3.2		+12 25	6.22 G5	+ .012 + .036	9	+ 8	
320		484		1 17 2.9		-24 32	6.29 G5	- .02 - .04			
321	30 μ Cass	223	I360	1 37 4.0		+54 26	5.26 G5	+3.430 -1.575	130	-97	
322	β Phoe	324	I335	1 37 2.7		-47 15	3.35 K0	- .035 + .003	18	- 1	4.1:4.1, binary
323		417	I341	1 45 +2.8		-36 12	6.60 B9	+ .059 - .020			
324	41 Andr	234	I364	2 16 3.4		+43 25	5.16 A2	+ .163 - .057	22	+ 8	
325		496	I357	2 22 2.9		-24 32	6.26 A2	+ .093 - .033			
326		200	I376	2 26 3.7		+57 44	5.70 B8	+ .007 - .002	7		
327	78 Pisc	185	I368	2 29 3.3		+31 29	6.29 F2	+ .200 - .034	12	+14	
328	79 ψ^2 Pisc	-185	I370	2 35 +3.2		+20 12	5.63 A2	+ .085 - .092	14	- 2	
329	30 Ceti	238	I369	2 44 3.0		-10 19	5.87 F2	+ .148 + .023	27	+21	
330	80 Pisc	-190	I383	3 13 3.1		+ 5 7	5.67 F0	- .267 - .176	21	+ 6	
331	ν Phoe	391	I378	3 14 2.7		-42 1	5.15 A3	+ .031 + .002	12	+ 9	
332	ι Tucn	89	I372	3 21 2.4		-62 19	5.32 K0	+ .072 - .004	21	- 8	
333		- 34	I420	3 37 +5.2		+79 9	5.68 A0	+ .092 + .003	11	+18	
334	31 η Ceti	240	I384	3 34 3.0		-10 43	3.60 K0	+ .213 - .132	30	+12	
335	42 ϕ Andr	275	I394	3 42 3.5		+46 43	4.28 B8	+ .006 - .008	7	var?	$V_0 = 0\text{km}; 4.5:6.0$, binary
336	31 Cass	77	I406	3 53 4.1		+68 15	5.34 A0	+ .037 - .018	15	0	
337	43 β Andr	-198	I400	4 8 3.4		+35 5	2.37 Ma	+ .177 - .113	43	0	
338	ζ Phoe	241	I387	4 11 +2.5		-55 47	4.13 B8	+ .014 + .027	9	var*	7.2m, 0".6, binary*
339	81 ψ^3 Pisc	-153	I404	4 28 3.2		+19 7	5.60 G5	- .008 + .010	13	- 9	
340	44 Andr	219	I410	4 38 3.4		+41 33	5.74 G0	- .139 - .040	31	-11	
341		186	I415	4 54 3.3		+24 56	6.06 K5	- .003 - .112			
342		149	I426	4 58 3.9		+63 40	5.46 B9	+ .040 - .008	9	-10	
343	330 Cass	236	I424	5 1 +3.7		+54 37	4.52 A5	+ .228 - .019	13	+ 9	
344		-175	I411	4 53 3.2		+15 9	6.36 K5	+ .028 - .020	4	var?	$V_0 = -2\text{km}$ RU Cass, but not var?
345	32 Cass	127	I434	5 10 3.9		+64 29	5.49 B8	+ .024 - .011	9	- 7	
346	32 Ceti	227	I418	5 11 3.0		- 9 26	6.58 G5	- .018 - .031	7	-20	
347	33 Ceti	221	I422	5 25 3.1		+ 1 55	6.20 K0	- .004 - .009	6	- 3	
348	45 Andr	-201	I432	5 33 +3.4		+37 12	5.75 B8	- .015 - .006	5		
349	82 Pisc	181	I431	5 36 3.3		+30 54	5.04 A5	- .014 - .012	23	var?	
350		81	I425	6 3 2.4		-58 13	6.47 G5	- .018 - .111			
351	84 χ Pisc	172	I437	6 5 3.2		+20 30	4.89 K0	+ .035 - .011	13	+16	
352	83 τ Pisc	190	I441	6 9 3.3		+29 34	4.70 K0	+ .069 - .036	20	var	$V_0 = +30\text{km}$

338: Also 8m, 7'', cpm. Two spectra, 1.7 days, $V_0 = +18\text{km}$.

Precession in declination, +0'.32.

CATALOGUE OF BRIGHT STARS

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No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
353	34 Ceti	-161	1444	6 ^m 38 ^s +3.1 ^s		- 2° 47'	6.21 KO	-.066 - .020	.006	km - 9	
354		-186	1455	6 48 3.8		+61 10	6.29 B9	+.034 - .016	6	- 3	6.4:9.0, 1"
355		261	1451	6 46 3.5		+44 48	6.60 K5	+.017 + .028	5	+21	
356		195	1462	7 29 3.3		+29 32	6.40 KO	+.017 - .032			10m, 11", cpm
357		36	1494	7 39 5.3		+79 23	6.36 F2	-.052 + .064	17	-43	
358		484	1456	7 40 +2.8		-31 20	6.46 F5	+.052 - .073			
359		420	1465	8 9 2.8		-38 23	5.91 A5	+.083 - .033			
360	85 φ Pisc	-158	1474	8 19 3.3		+24 3	4.64 KO	+.012 - .030	11	var	V ₀ = +5km, 10m, 8", cpm
361	86 ζ Pisc	-174	1476	8 30 3.1		+ 7 3	5.57 A5	+.139 - .051	20	var	
362		-175	1477	8 32 3.1		+ 7 3	6.49 F8	+.142 - .047		var*	24", cpm*
363		-196	1480	8 35 +3.3		+28 0	6.63 Ma	+.077 - .046			
364	87 Pisc	177	1482	8 49 3.2		+15 36	5.85 B8	-.026 - .024	6	-16	
365		- 90	1505	9 0 4.3		+71 13	6.38 KO	+.007 + .010			
		215	1490	9 20 3.0		- 8 27	8.7 G	+.130 + .284		+17	
366	37 Ceti	216	1491	9 22 3.0		- 8 28	5.21 F0	+.121 + .279	46	+22	49", cpm
367	88 Pisc	181	1496	9 30 +3.1		+ 6 28	6.21 KO	-.016 - .020	7	- 9	
368	38 Ceti	162	1501	9 43 3.1		- 1 31	5.82 F5	-.016 + .210	28	+25	
369		357	1519	10 31 3.5		+47 33	6.50 B8	+.015 - .002			
370	v Phoe	346	1510	10 40 2.7		-46 4	4.88 G0	+.659 + .185	79	+12	
371		223	1521	10 44 3.3		+32 35	6.31 KO	+.014 - .032			
372		271	1539	11 16 +3.5		+44 23	6.48 K5	+.012 - .043			
373	39 Ceti	172	1534	11 32 3.0		- 3 2	5.54 G0	-.108 - .058	14	-20	
374		-196	1544	11 51 3.3		+31 13	6.86 KO	-.055 + .004			
375		- 40	1580	11 59 5.0		+77 3	6.38 G5	-.015 + .091	10		
376		319	1565	12 16 3.5		+46 54	6.41 KO	+.014 - .001			
377	κ Tucn	45	1535	12 23 +2.0		-69 24	7.3	+.349 + .113	47	+ 9	5", binary*
			1536				5.10 F8	+.399 + .112			
378	89 Pisc	-185	1566	12 38 3.1		+ 3 5	5.28 A2	-.052 - .019	14	var	V ₀ = +5km*
379		220	1578	13 7 3.4		+36 52	6.34 A3	-.014 - .013	9	+ 5	10m, 6", binary
380		- 81	1568	13 35 2.1		-66 56	6.30 A0	+.043 + .005	10		9.4m, 2".5, binary
381		59	1616	13 52 +4.9		+75 43	6.45 A3	+.073 - .024			
382	34 φ Cass	260	1594	13 47 3.8		+57 42	5.25 F5p	.000 + .001	2	var	V ₀ = -25km
383	90 φ Pisc	220	1591	13 58 3.3		+26 44	4.67 A2	+.021 - .008	18	var	V ₀ = +8km
384	35 Cass	-176	1613	14 24 4.0		+64 8	6.32 A0	+.058 - .014	9	-18	
385	42 Ceti	171	1600	14 41 3.1		- 1 2	6.01 F5	+.009 - .008	10	+17	6.4:7.3, binary
386		- 49	1642	14 57 +5.3		+78 12	6.10 A2	-.005 + .002	8	-76	
387		-185	1622	15 30 3.0		- 3 46	6.44 G5	-.016 + .012			
388		248	1618	15 30 3.0		-11 46	6.30 KO	-.049 - .066			
389	91 Pisc	-215	1630	15 35 3.3		+28 13	5.60 KO	+.026 - .069	9	-35	
390	46 ξ Andr	-287	1647	16 27 3.5		+45 0	4.99 KO	+.035 + .008	20	var?	V ₀ = -12km
391		274	1662	16 59 +3.8		+57 37	6.45 F5	+.139 - .090	5		7.1:7.3, 1", binary
392		-223	1657	17 28 3.1		+ 1 12	6.48 K2	+.052 - .044	4	-15	
393	43 Ceti	-179	1655	17 28 3.1		- 0 58	6.46 KO	+.019 - .008	5	+14	
394		229	1658	17 40 2.9		-19 36	6.44 F5	-.060 - .066	9		6.6:8.9, 5", cpm
395	47 Andr	-237	1681	17 57 3.4		+37 12	5.53 A0	+.076 - .016	16	var	V ₀ = +13km, two spectra
396		220	1680	17 57 +3.4		+33 43	6.34 G5	+.226 + .118			
397		226	1677	18 1 3.2		+19 57	6.30 K5	-.011 - .006			
398		102	1700	18 25 4.4		+70 27	6.52 A0	+.017 - .007			
399	36 ψ Cass	123	1707	18 52 4.2		+67 36	4.96 KO	+.077 + .030	13	-12	13m, 3", cpm
400		562	1687	18 52 2.8		-31 28	5.82 K5	-.015 - .040			

362: 11m, 0".9, binary. 9.1 days, V₀ = +11km.

Precession in declination, +0".32.

377: This binary shares its large proper motion with a binary 320" south following, 7.9:8.5.

378: In Ursa Cluster?

No	Name	DM	GC	RA		Decl 1900	Magn Spec	Prop Motion		Par	Rad Vel	Remarks
				1900	Ann Var			RA	Decl			
401	44 Ceti	243	1696	19 ^m 1 ^s + 3.0	- 8° 32'	6.46 A5	+ ".169 - ".065	.029	km			
402	45 θ Ceti	244	1695	19 1 3.0	- 8 42	3.83 K0	-.080 - .215	32	+17			
403	37 δ Cass	248	1715	19 16 3.9	+59 43	var A5	+.297 - .047		*		3.0 to 3.1, 759 days? 6.6:6.8, close binary	
404		223	1697	19 19 3.0	- 7 26	5.98 F0	+.037 + .008					
405		237	1703	19 46 2.9	-16 11	6.35 G5	+.007 .000					
406		195	1704	19 44 + 3.0	- 3 22	6.38 G5	+.016 - .029					
407		-226	1722	20 8 3.3	+23 0	6.07 F5	+.017 - .037	24	var			
408		493	1711	20 15 2.7	-42 1	5.33 K0	+.011 - .029	8	+73			
409		302	1729	20 26 3.5	+42 57	6.08 F8	+.100 - .058		+30			
410		-228	1726	20 26 3.4	+34 4	6.26 F5	+.228 - .085	31	+17			
411		463	1716	20 21 + 2.6	-45 3	6.38 K0	-.019 - .017					
412	46 Ceti	266	1725	20 42 2.9	-15 7	5.19 G5	+.036 - .013	9	-23			
413	93 ρ Pisc	187	1733	20 52 3.2	+18 39	5.32 F0	-.027 + .011	36	- 8			
414	94 Pisc	189	1740	21 18 3.2	+18 43	5.63 K0	+.043 - .060	10	-42			
415		234	1744	21 24 3.4	+33 52	6.28 F5	+.151 - .010		+14			
416		-189	1738	21 20 + 3.1	- 0 55	6.49 K0	+.040 + .005	10	- 7			
417	48 ω Andr	307	1752	21 40 3.6	+44 53	4.96 F5	+.341 - .105	28	+10		12m, slow binary	
418		289	1749	21 38 3.5	+40 35	6.38 A3	.000 .000	12	+ 1			
419		-211	1745	21 43 3.1	+ 3 1	6.42 B8	.000 - .029	17			9m, 6", binary	
420		-130	1730	21 38 2.1	-64 53	5.82 K5	+.013 - .017					
421	47 Ceti	262	1747	21 56 + 3.0	-13 35	5.68 F0	+.015 + .012	29	+10			
422		334	1756	21 58 3.5	+39 49	6.36 B9	+.011 - .018					
423	R Scul	525	1753	22 22 2.8	-33 4	var N3	-.020 - .026		var*		6.2 to 8.8, 376 days	
424	1 α UMin	8	2243	22 33 39.3	+88 46	var* F8	+.046 - .004	7	var*		Polaris*	
425		272	1769	22 47 3.0	-11 25	6.25 K0	+.175 + .024				6.3:10.0, 1".6	
426		213	1780	23 8 + 3.1	+ 7 27	6.44 K0	+.107 + .001					
427	38 Cass	102	1817	23 47 4.5	+69 45	5.95 F5	+.137 - .068	37	var			
428		175	1811	23 52 4.2	+65 35	6.16 A0	+.085 - .005	7	+10			
429	γ Phoe	449	1787	24 1 2.6	-43 50	3.40 K5	-.028 - .207	12	var		193.8 days, V ₀ = +26km	
430	49 Andr	370	1806	24 6 3.6	+46 29	5.33 G5	+.004 - .043	12	-11			
431		576	1796	24 10 + 2.7	-34 17	6.62 A3	-.064 - .020					
432	97 Pisc	210	1807	24 29 3.2	+17 51	5.96 A2	+.060 - .002	12	+ 4			
433	48 Ceti	254	1808	24 48 2.9	-22 9	5.13 A0	+.051 + .007	24	- 8		12m, 22", cpm	
434	98 μ Pisc	194	1819	24 57 3.1	+ 5 38	5.12 K2	+.291 - .043	14	+35			
435		440	1813	25 17 2.5	-47 16	6.29 Mb	-.022 + .014					
436		502	1828	25 40 + 2.8	-26 43	6.00 K0	+.038 + .004	7			11m, 3", cpm	
437	99 η Pisc	231	1839	26 8 3.2	+14 50	3.72 G5	+.026 - .006	15	+15		11m, 1", cpm	
438		265	1850	26 25 3.4	+34 17	6.28 B8	-.012 - .001					
439		320	1870	26 56 3.9	+57 49	6.05	+.011 + .006	3	- 1		Composite, KO, A0	
440	δ Phoe	425	1847	27 5 2.5	-49 36	3.96 K0	+.131 + .157	27	- 7			
441		506	1855	27 6 + 2.8	-30 48	5.77 K0	.000 - .064	7				
442	39 X Cass	260	1879	27 23 3.9	+58 43	4.88 K0	-.036 - .017	16	+ 7			
443		420	1857	27 24 2.5	-46 5	6.28 A0	-.010 + .007					
444		298	1877	28 4 3.0	- 9 31	6.60 A0	+.027 + .008					
445		589	1881	28 28 2.7	-37 23	5.49 K0	-.004 - .018	8	+13			
446		277	1892	28 30 + 3.5	+36 43	5.77 B9	+.008 - .013	8				
447		411	1876	28 31 2.5	-50 14	6.42 F5	-.039 - .075					
448		256	1888	28 41 3.0	- 7 32	5.88 G0	+.179 - .075					
449		81	1932	29 10 4.9	+73 47	6.42 B8	+.030 - .003					
450		224	1900	29 24 3.2	+17 57	6.05 Ma	+.031 - .068	7	-26			

403: Velocity may be variable, V₀ = +7km.

Precession in declination, +0'.31.

423: V₀ = -8km.

424: 2.5 to 2.7 (ptg), 4.0 days; velocity varies in two periods, 4.0 days and 30 years. 8.8 F1, binary; velocity, -13km.

CATALOGUE OF BRIGHT STARS

No	Name	DM	GC	RA		Decl	Magn	Prop Motion		Par	Rad Vel	Remarks
				1900	Ann Var			RA	Decl			
451	49 Ceti	265	1903	29 ^m 45 ^s +2.9 ^s		-16° 11'	5.64 A2	+ .094	+ .008		km	
452		328	1925	29 58 3.5		+40 34	6.39 K0	+ .139	+ .001			
453		613	1918	30 17 2.7		-32 24	6.18 G5	- .083	- .032			
454		-460	1938	30 20 3.7		+48 13	6.17 K0	- .015	- .016	006	-43	
455	101 Pisc	-240	1929	30 26 3.2		+14 9	6.20 B9	+ .003	- .009	6	-16	
456	40 Cass	86	1955	30 31 +4.8		+72 32	5.50 K0	- .008	- .012	10	- 4	
457		176	1931	30 30 3.2		+16 55	5.88 A5	+ .151	+ .011	15	+ 4	
458	50v Andr	332	1948	30 56 3.5		+40 54	4.18 G0	- .175	- .378	63	-28	
459	50 Ceti	-270	1941	31 6 2.9		-15 55	5.48 K0	+ .016	+ .022	10	+24	
460		123	1937	31 30 2.2		-58 39	6.12 F2	+ .274	- .032	7		
461		349	1965	31 35 +3.9		+57 28	5.74 K0	- .011	- .005	6	- 8	
462	τ Scul	540	1947	31 31 2.8		-30 25	5.68 F0	+ .095	+ .044	24	+ 5	6.0:7.1, binary
463	102π Pisc	205	1954	31 48 3.2		+11 38	5.63 F0	- .068	+ .043	20	- 3	
464	51 Andr	-467	1966	31 51 3.7		+48 7	3.77 K0	+ .063	- .112	19	+16	
465		341	1977	32 30 3.6		+44 54	6.34 A0	- .037	+ .016	9	var?	V ₀ = +2km
466		-343	1971	32 37 +3.0		- 9 55	6.40 F5	+ .250	+ .088	27		6.8:7.8, 0".2
467		40	1934	32 59 0.4		-79 1	6.06 G5	- .025	- .130			
468		126	1967	33 5 2.2		-58 47	6.10 Ma	+ .017	+ .005			
469	52χ Andr	343	1991	33 21 3.6		+43 53	5.17 G5	- .022	+ .014	11	var	V ₀ = +8km
470		363	2010	33 51 3.8		+53 22	6.64 K2	- .012	.000			
471		620	1989	34 1 +2.7		-37 2	5.96 G5	- .025	- .125			
472	α Erid	334	1979	33 59 2.2		-57 45	0.60 B5	+ .092	- .034	45	+19	Achernar
473		-272	1995	34 5 2.9		-21 47	5.68 F0	+ .119	+ .041	14		
474		670	1996	34 8 2.8		-25 32	6.42 A0	- .001	+ .014			
475	105 Pisc	245	2007	34 17 3.2		+15 54	6.11 K0	+ .075	- .014	8	+18	
476		345	2026	34 40 +3.6		+42 48	5.54 F0	+ .126	- .034	18	+19	
477	53τ Andr	-378	2025	34 40 3.5		+40 4	4.90 B8	+ .013	- .023	8	var	V ₀ = -14km; 10m, 52", cpm
478	43 Cass	149	2045	34 56 4.4		+67 32	5.54 A0p	+ .056	- .002	11	+ 5	
479		-358	2004	34 56 2.3		-53 57	7.49 F0	- .035	- .045			11", cpm
			2005	34 56 2.3		-53 57	8.54	- .068	- .056			
480	42 Cass	-114	2059	35 10 +4.7		+70 7	5.26 A0	+ .079	- .007	11	var	V ₀ = +8km
481		308	2046	35 15 4.1		+60 32	6.63 B8	+ .016	- .002	4		
482		-370	2058	35 39 4.0		+58 7	6.21 B9	+ .020	- .006			
483		-328	2050	35 42 3.7		+42 7	5.10 F8	+ .809	- .149	86	+ 4	
484		276	2042	35 44 3.3		+25 14	6.26 F5	+ .115	- .045	23	var*	11m, 11", cpm; V ₀ = +5km
485		286	2054	36 0 +3.4		+29 32	6.02 K0	- .016	- .003	9	+ 5	
486		329	2030	36 0 2.3		-56 42	6.03 G5	+ .272	+ .023	155		8", 250 years
487	p Erid	312	2073	36 9 4.1		+60 55	6.46 B8	+ .006	+ .016	4		
488		293	2055	36 14 3.1		+ 4 59	4.68 K0	- .024	+ .005	20	0	
489	106v Pisc	297	2064	36 16 +3.5		+34 44	5.45 B8	+ .052	- .028	9	- 2	
490		-307	2086	36 33 4.1		+60 3	5.75 B9	+ .010	- .015	6	var	12m, 2"
491	44 Cass	-315	2069	36 49 3.0		-11 49	5.84 F5	+ .041	- .407	23	-10*	7.9m, binary
492		279	2080	37 4 3.3		+19 47	5.32 G5	- .296	- .671	132	-34	
493	107 Pisc	584	2067	37 4 2.6		-38 38	6.10 F2	+ .042	+ .055			
494		354	2095	37 11 +3.7		+44 48	6.46 K0	+ .143	- .015	13	+12	
495	φ Pers	-444	2102	37 23 3.8		+50 11	4.19 B0p	+ .024	- .014	19	var*	126.5 days*
496	π Scul	666	2085	37 38 2.7		-32 50	5.28 K0	- .058	- .019		var?	V ₀ = +10km*
497		650	2082	37 39 2.6		-37 20	5.64 A0	- .046	- .025		+20	
498		-330	2109	37 41 4.0		+57 2	6.14 A2	+ .040	- .036	9	+ 4	6.4:7.8, binary
499												

484: 4.4 days, two spec. 492: Velocity of fainter -22km.
 496: Velocity probably varies in longer period as well.

Precession in declination, +0'.30.
 497: In Ursa Cluster.

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No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
500		260	2093	37 ^m 40 ^s +3.0 ^s		- 4° 12'	5.27 G5	- ".003 - ".030	".009	km -34	
501		461	2077	37 42 2.4		-50 33	6.72 A2	- .032 - .018			
502		334	2116	38 11 4.0		+56 35	6.18 A0	+ .014 .000	10	+ 5	
503		301	2108	38 7 3.4		+31 41	6.42 G5	- .023 - .006		var	
504		432	2112	38 20 3.7		+45 39	6.48 K5	- .011 - .026	6	-18	
505		130	2091	38 23 +2.1		-61 18	5.58 K0	+ .007 - .042		+ 2	
506		365	2104	38 38 2.3		-54 15	5.56 G0	+ .164 - .091		+13	
507		309	2113	38 53 3.0		- 5 16	6.41 K0	- .021 - .026			
508	109 Pisc	282	2131	39 28 3.3		+19 35	6.23 G5	- .042 - .108	50	-44	
509	52 τ Ceti	295	2123	39 25 2.8		-16 28	3.65 K0	-1.718 + .860	297	-16	
510	110 \circ Pisc	273	2139	40 7 +3.2		+ 8 39	4.50 K0	+ .071 + .053	17	+13	
511		238	2161	40 31 +4.3		+63 22	5.74 K0	+ .584 - .246	111	+ 2	
512		27	2063	40 34 -1.6		-83 29	5.88 G0	+ .126 + .129			
513		336	2148	40 58 +3.0		- 6 14	5.53 G5	- .015 - .027	8	+11	
514	ϵ Scul	704	2145	40 58 2.8		-25 33	5.39 F0	+ .160 - .051	33	+14	9m, binary
515		196	2156	41 10 +3.3		+16 55	6.46 F0	+ .051 + .012	11	- 8	
516	τ Hydri	44	2111	41 17 0.0		-79 39	6.24 K0	+ .061 + .017			12m, 16", cpm
517		595	2152	41 23 2.8		-27 51	6.42 A5	+ .092 - .049			
518		447	2176	41 40 3.7		+45 44	6.32 F5	+ .009 - .055		- 4	
519		419	2163	42 11 2.3		-51 19	5.46 Ma	+ .025 - .022		- 2	
520		377	2165	42 18 +2.3		-54 1	5.14 A0	+ .126 + .068	18	+10	
521		372	2193	42 44 3.5		+37 27	6.05 G5	+ .112 - .027	8	+36	
522	4 Arie	203	2188	42 45 3.3		+16 27	5.73 A0	+ .050 - .031	9	var	
523		-316	2195	42 58 3.4		+32 11	5.82 F5	- .173 + .301	38	-26	
524		633	2182	43 3 +2.5		-42 16	6.10 K2	+ .016 + .045			
525		17	2092	43 8 -3.4		-85 16	5.63 K0	+ .038 + .025		+18	
526		508	2200	43 3 +3.7		+47 24	5.99 A2	- .012 - .002	9	- 2*	6.5:7.0, binary
527		-270	2196	43 15 3.1		+ 3 11	6.00 G5	- .003 + .023			
528		687	2190	43 26 2.6		-37 40	6.38 K0	.000 + .014	4		
529		416	2222	44 33 3.8		+51 26	5.90 F5	+ .041 - .118	31	-17	
530	1 Arie	243	2216	44 37 +3.3		+21 47	6.2 F5	- .018 - .007	11	+ 4*	7.6 A2, binary
531	53 \times Ceti	352	2212	44 40 2.9		-11 11	4.77 F0	- .154 - .084	42	- 1	In Ursa Cluster?
532		753	2211	44 48 2.7		-31 34	6.42 K0	+ .096 - .022			
533	1 Pers	396	2241	45 25 3.9		+54 39	5.49 B3	+ .021 - .005	4	var	$V_0 = -11$ km
534		252	2229	45 34 3.2		+10 33	5.94 F0	- .072 - .024	23	+11	
535		-553	2219	45 30 +2.6		-38 54	6.46 F5	- .012 + .236	22		
536	2 Pers	379	2246	45 48 3.8		+50 18	5.64 B9	+ .018 - .025	8		
537		487	2234	46 19 2.4		-48 19	6.18 K0	+ .113 + .053			
538		-381	2265	46 27 3.8		+51 0	6.18 A0	- .011 - .007	9	+ 6	
539	55 ζ Ceti	-359	2249	46 31 3.0		-10 50	3.92 K0	+ .034 - .036	22	var	$V_0 = +9$ km, 1652 days
540		-408	2284	47 11 +4.0		+55 6	6.49 A2	+ .050 + .004	12	+ 8	
541		514	2247	47 2 2.3		-50 42	6.05 A0	- .061 - .006	17		
542	45 ϵ Cass	-320	2289	47 12 4.3		+63 11	3.44 B3	+ .035 - .016	7	- 8	
543	55 Andr	394	2274	47 17 3.6		+40 14	5.63 K0	- .006 - .001	6	- 7	
544	2 α Tria	-312	2272	47 23 3.4		+29 6	3.58 F5	+ .010 - .230	51	var	1.7 days, $V_0 = -13$ km
545	} 5 γ Arie	2290	48 2 +3.3		+18 48	4.83 A0p	+ .077 - .111		- 2		} 8", binary
546		2291	48 2 3.3		+18 48	4.75	+ .078 - .103	22	+ 4		
547		336	2283	48 4 2.9		-17 25	5.72 A3	+ .040 - .043			
548	46 ω Cass	-169	2313	48 14 4.7		+68 12	5.03 B8	+ .012 - .008	8	var	69.9 days, $V_0 = -24$ km
549	111 ξ Pisc	290	2293	48 23 3.1		+ 2 42	4.84 K0	+ .021 + .027	10	var	$V_0 = +30$ km

526: Fainter is a spectroscopic binary, with two spectra.
 530: Velocity of fainter, 0km.

Precession in declination, +0.30.

CATALOGUE OF BRIGHT STARS

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No	Name	DM	GC	RA	Ann	Decl	Magn	Prop Motion		Par	Rad	Remarks
				1900	Var	1900	Spec	RA	Decl		Vel	
550	τ^2 Hydi	35	2228	48 ^m 43 ^s -0.6		-80° 40'	6.06 F0	-".062	-.065		km	
551		-434	2310	48 52 +3.6		+40 12	6.50 K2	+.047	-.064			
552		346	2312	49 3 3.5		+36 38	6.39 K0	+.020	-.008			
553	6 β Arie	306	2309	49 7 3.3		+20 19	2.72 A5	+.098	-.110	.064	var	107.0 days, $V_0 = -3$ km
554		573	2297	49 5 2.6		-39 5	6.10 K0	+.124	+.031			
555	ψ Phoe	552	2303	49 38 +2.4		-46 48	4.41 Mb	-.095	-.087		var	$V_0 = +1$ km
556		354	2322	49 59 3.6		+36 47	6.06 K2	+.004	-.001	5	+ 6	
557	56 Andr	355	2324	50 13 3.6		+36 46	5.82 K0	+.181	+.008	11	+58	
558	φ Phoe	583	2315	50 13 2.5		-42 59	5.00 B9	-.041	-.032		var	$V_0 = +12$ km
559	7RR Arie	-284	2323	50 16 3.3		+23 5	var K0	+.008	-.006	7	+14	5.7 to 6.4, irregular*
560		347	2326	50 44 +3.1		+ 1 21	6.18 G0	+.157	+.190	28	var*	6.9:6.9, 158 years
561		-398	2362	51 28 4.3		+61 12	6.05 B8	+.016	-.003	6		
562		-407	2359	51 52 3.6		+41 12	6.58 B9	+.011	-.012			
563	8 ι Arie	289	2347	51 53 3.3		+17 20	5.16 G5	+.034	-.019	7	var	
564		310	2357	52 3 3.4		+27 18	6.02 Mb	+.027	-.055			
565	56 Ceti	721	2343	51 59 +2.8		-23 1	5.18 K5	+.061	-.020	7	+27	
566	χ Erid	241	2339	52 4 2.3		-52 6	3.73 G5	+.675	+.294	55	- 6	11L, 6", cpm
567		-265	2379	52 15 4.4		+64 8	5.18 A0	+.034	-.014	16	+ 5	
568	3 Pers	576	2372	52 12 3.8		+48 43	5.78 G5	+.009	+.039	12	0	
569	9 λ Arie	-288	2366	52 21		+23 7	4.83 A5	-.091	-.012	27	0	38", cpm*
		-289	2367	52 23 3.3		+23 7	7.6 G0	-.105	+.002	24	- 8	
570	η^2 Hydi	101	2331	52 24 +1.5		-68 8	4.72 K0	+.071	+.079	26	-16	
571		157	2341	52 35 1.9		-61 22	6.22 F0	-.001	+.058			
572		73	2425	52 49 6.1		+77 26	6.35 K0	+.001	+.004			
573		242	2365	53 11 2.3		-52 16	6.07 F8	+.349	+.251	41		
574		597	2369	53 12 +2.4		-47 52	4.74 G5	+.092	+.018	36	+12	
575	48 Cass	153	2424	53 44 4.9		+70 25	4.61 A3	-.064	+.009	26	- 7	4.7:7.0, 63 years
576		682	2384	54 2 2.6		-33 33	6.34 G5	+.018	-.021			
577		322	2398	54 2 3.3		+20 34	6.06 K0	+.137	-.021		- 2	
578		261	2395	54 5 3.2		+11 49	6.14 A2	+.003	-.034	11	-12	
579		108	2438	54 19 +5.3		+73 21	6.24 A3	-.025	.000	9	- 5	9m, 5", binary
580	50 Cass	117	2445	54 53 5.1		+71 56	4.06 A2	-.042	+.027	25	var	$V_0 = -12$ km, two spectra
581	47 Cass	63	2459	55 6 6.0		+76 48	5.36 F0	+.125	-.052	23	var?	$V_0 = -29$ km
582	112 Pisc	311	2416	54 57 3.1		+ 2 37	5.84 G0	+.231	-.245	37	-17	
583	57 Ceti	356	2411	55 4 2.8		-21 19	5.67 Ma	+.007	+.024	7	-15	
584		-123	2390	55 10 +1.6		-65 55	6.43 G5	-.012	-.011			
585	59 ν Ceti	358	2419	55 18 2.8		-21 34	4.18 Ma	+.127	-.018	14	+18	
586	52 Cass	282	2446	55 25 4.5		+64 25	5.92 A2	.000	-.009	10	var?	$V_0 = -29$ km
587		380	2426	55 29 3.0		- 9 0	5.72 Mb	+.093	-.005	6	+ 7	
588		684	2418	55 32 2.5		-42 31	5.42 K0	-.062	-.100		+27	
589	53 Cass	274	2451	55 36 +4.4		+63 54	5.62 B5p	+.006	+.001	5	-20	
590	4 Pers	-439	2442	55 38 4.0		+54 0	4.99 B8	+.037	+.001	9	var	$V_0 = -2$ km
591	α Hydi	162	2405	55 37 1.9		-62 3	3.02 F0	+.263	+.034	80	var?	$V_0 = +7$ km
592	49 Cass	86	2475	55 58 +5.7		+75 38	5.30 G5	-.017	-.015	14	var?	$V_0 = 0$ km; 13m, 5", cpm
593	σ Hydi	42	2377	56 1 -0.1		-78 50	6.22 F2	+.100	+.054			
594	π Forn	703	2443	56 47 +2.7		-30 29	5.39 G5	-.109	-.106	12	+24	
595	113 α Pisc	317	2452	56 52 3.1		+ 2 17	5.23 A2p	+.033	+.001	25	var	3", binary, $V_0 = +7$ km
596				56 52 3.1		+ 2 17	4.33					
597		64	2517	57 4 7.4		+80 49	5.99 A0	+.033	+.008	10	-13	
598		285	2480	57 9 4.5		+64 37	6.48 A0	+.053	-.026	10	var?	$V_0 = -4$ km

559: Perhaps not a variable.
569: In Ursa Cluster?

560: $V_0 = +31$ km.

Precession in declination, +0.29.

$$I^h - 2^h$$

No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
599	3 ϵ Tria	369	2458	57 ^m 7 ^s +3.5	+32° 48'	5.44 A2	- .016 - .012	.012	km var?	$V_0 = +3\text{km}$; 11m, 4"	
600		125	2433	57 4 1.6	-66 33	6.14 K2	+ .019 + .014				
601		-271	2456	57 12 3.2	+13 0	6.28 Mb	+ .015 - .008				
602	x Phoe	659	2455	57 42 2.4	-45 12	4.96 K0	- .034 - .045		-31		
603			2477	57 45 3.7	+41 51	2.28 K0	+ .046 - .050		-12		
604	57 γ Andr	395	2479	57 46 3.7	+41 51	5.08 A0	+ .037 - .053	8	-14	10", cpm*	
605	10 Arie	341	2476	57 59 +3.4	+25 27	5.68 F5	+ .132 + .025	27	var	$V_0 = +14\text{km}$; 5.8:8.0, bin.	
606		714	2463	58 0 2.7	-30 9	6.44 A3	- .039 + .030		+12		
607	60 Ceti	307	2474	58 4 3.1	- 0 21	5.56 A5	+ .076 + .022	16			
608		-356	2471	58 10 2.9	-15 48	5.91 G5	+ .020 + .007				
609		307	2483	58 13 +3.3	+17 46	6.42 K5	- .009 - .018	6	+10		
610	61 Ceti	-285	2488	58 41 3.1	- 0 49	6.01 G5	+ .078 - .040	9	+24	10m, 43", cpm	
611		324	2485	58 38 3.0	- 4 35	5.92 K0	+ .019 - .058				
612	v Forn	706	2506	0 1 2.7	-29 47	4.74 A0p	+ .007 + .008	7	+18		
613	12 κ Arie	-279	2527	0 58 3.4	+22 10	5.08 A0	+ .017 - .034	17	var*	15.3 days, $V_0 = +11\text{km}$	
614		324	2524	0 55 +3.2	+ 7 46	6.66 Mb	- .007 - .032				
615	11 Arie	349	2534	1 9 3.4	+25 13	6.00 B8	+ .016 - .008	7	- 9	12m, 1".5	
616		318	2531	1 22 3.1	- 0 27	6.33 K0	+ .063 - .004				
617	13 α Arie	306	2538	1 32 3.4	+22 59	2.23 K2	+ .192 - .146	44	-14		
618		494	2549	1 41 4.2	+57 57	5.90 A2p	- .010 + .007	11	-39		
619		431	2551	2 18 +3.8	+43 59	6.50 G5	+ .016 - .049				
620	58 Andr	486	2552	2 27 3.6	+37 23	4.77 A2	+ .158 - .038	23	var	Two spectra	
621		460	2580	3 25 4.0	+53 22	6.40 G5	+ .030 - .047	6	+10		
622	4 β Tria	381	2572	3 35 3.6	+34 31	3.08 A5	+ .150 - .042	18	var*	31.4 days, $V_0 = +10\text{km}$	
623	14 Arie	355	2573	3 44 3.4	+25 28	5.07 F0	+ .074 - .035	25	+ 1		
624		247	2575	3 53 +3.3	+16 46	6.43 F5	+ .140 - .180				
625		374	2569	4 1 2.8	-18 15	6.26 Ma	- .004 - .027				
626		121	2618	4 8 5.5	+73 33	6.19 G5	+ .054 - .030	8	-37		
627	5 Pers	-438	2604	4 31 4.2	+57 10	6.36 B3p	- .012 + .009		-34	13m, 5"	
628			2600	4 49 3.6	+38 34	6.05 A0	- .015 - .016		+ 2		
629	59 Andr	425	2602	4 50 3.6	+38 34	6.71 A2	- .009 - .024	8	+15	16", cpm	
630		921	2589	5 0 +2.7	-24 49	6.51 F0	- .038 - .025				
631	15 Arie	-277	2601	5 5 3.3	+19 2	5.92 Ma	+ .085 - .025	6	+60		
632		-632	2587	5 10 2.4	-43 59	5.78 K0	- .056 - .052	10			
633	16 Arie	362	2609	5 31 3.4	+25 28	6.18 K2	- .008 - .006	7	-19		
634	5 Tria	-347	2613	5 34 +3.5	+31 3	6.20 A0	+ .038 - .009	13	var	Two spectra	
635	64 Ceti	-347	2619	6 4 3.2	+ 8 6	5.74 G0	- .141 - .109	32	-18		
636		638	2605	6 6 2.4	-44 17	6.49 K0	+ .051 - .008				
637		532	2610	6 19 2.4	-51 19	6.28 G5	+2.108 + .651	84	+50		
638		447	2623	6 28 2.9	-10 31	6.09 F2	- .025 - .169				
639	63 Ceti	375	2624	6 31 +3.0	- 2 18	6.04 K0	- .007 - .029	9	+32		
640	55 Cass	-239	2661	6 38 4.7	+66 3	6.15	- .006 + .001	25	-12	Composite, F5, A2	
641		-519	2648	6 38 4.2	+58 6	6.50 A0p	- .011 + .024	13	-39		
642	6 Tria	371	2633	6 34 3.5	+29 50	5.43 G0	- .064 - .061	10	var*	7.0m, 4", binary	
643	60 Andr	447	2645	6 57 3.8	+43 46	5.08 K0	- .023 - .010	7	var	$V_0 = -45\text{km}$	
644		297	2638	6 58 +3.4	+23 43	6.19 K0	+ .040 - .005				
645		481	2653	6 57 4.0	+50 36	5.40 K0	+ .346 - .167	10	var	$V_0 = +25\text{km}$	
646	17 η Arie	348	2643	7 12 3.4	+20 44	5.35 F5	+ .160 + .004	38	+ 5		
647		-536	2668	7 38 3.8	+47 1	6.03 F0	- .065 - .058	25	- 8	6.4:7.3, 150 years*	
648	19 Arie	357	2655	7 36 3.3	+14 49	5.99 K5	+ .099 - .022	6	+24		

604: 5.4:6.6, 56 years. 613: Two spectra. 622: Two spectra. Precession in declination, +0.28.
 642: Both are spectroscopic binaries, 14.7 days and 2.2 days. $V_0 = -18\text{km}$ for both.
 647: In Ursa Cluster.

CATALOGUE OF BRIGHT STARS

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No	Name	DM	GC	RA		Decl 1900	Magn Spec	Prop Motion		Par	Rad Vel	Remarks
				1900	Ann Var			RA	Decl			
649	65 γ Ceti	345	2656	7 42 ^m 3.2 ^s	+ 8° 23'	4.54 G5	- .024	- .003	.013	km var	V ₀ = -5km	
650	66 Ceti	-336	2652	7 41 3.1	- 2 52	5.72 G0	+ .369	- .063	44	- 3*	7.8m, binary	
651		396	2662	8 21 2.8	-21 28	6.02 G0	+ .049	+ .039				
652	μ Forn	882	2663	8 30 2.6	-31 12	5.24 A0	+ .018	+ .009	61	+17		
653		590	2704	9 30 3.9	+47 21	6.44 K0	+ .060	- .069	11			
654		471	2721	9 52 +4.2	+56 35	6.42 B1p	+ .002	+ .001	1	-40	In a cluster	
655	7 Tria	409	2710	10 1 3.5	+32 54	5.26 A0	- .018	- .037	13	- 1		
656	20 Arie	373	2707	10 2 3.4	+25 19	5.84 F2	+ .174	- .060	33	+26		
657	21 Arie	329	2706	10 2 3.4	+24 35	5.64 F5	- .092	- .080	36	-44		
658		-460	2712	10 33 2.9	- 9 56	6.66 A0	- .006	+ .036				
659		621	2697	10 29 +2.4	-41 38	5.86 K0	- .028	- .030	7			
660	8 δ Tria	395	2733	10 57 3.7	+33 46	5.07 G0	+1.155	- .240	96	var	9.9 days, V ₀ = -6km	
661	8 Pers	535	2746	10 55 4.2	+57 26	6.09 K0	+ .061	+ .012	7	+ 3		
662	7 Pers	-486	2752	11 2 4.2	+57 3	6.15 K0	- .019	+ .009	7	-11		
664	9 γ Tria	397	2742	11 22 3.6	+33 23	4.07 A0	+ .046	- .048	30	var?	V ₀ = +13km	
665		307	2743	11 32 +3.4	+23 19	6.50 G5	- .047	- .033				
666	67 Ceti	-393	2748	12 0 3.0	- 6 53	5.70 G5	+ .092	- .104	10	+ 7		
667	π^1 Hydi	126	2715	12 9 1.3	-68 18	5.44 Ma	+ .036	+ .039	8	+26		
668		320	2789	12 32 4.6	+63 52	6.49 A0	- .018	+ .023	6	-26		
669	22 θ Arie	340	2767	12 34 3.3	+19 26	5.69 A0	- .013	.000	11	+10		
670	62 Andr	552	2779	12 49 +3.9	+46 55	5.12 A0	- .059	- .006	12	var	V ₀ = -30km	
671		-589	2777	12 46 3.9	+46 1	6.12 A3	- .017	- .008	13	-15		
672		410	2770	12 50 3.1	+ 1 17	5.82 F8	+ .372	+ .381	35	var	V ₀ = +27km, 93.5 days	
673		648	2785	12 51 3.9	+48 29	6.40 F0	- .095	+ .069				
674	ϕ Erid	-285	2756	12 56 2.1	-51 59	3.78 B8	+ .085	- .024	18	+10		
675	10 Tria	-360	2781	13 9 +3.5	+28 11	5.28 A2	+ .011	- .004	16	+ 4		
676		329	2786	13 19 3.4	+22 43	6.42	- .001	- .004	11	-21	Composite, A5, G	
677		521	2793	13 28 3.7	+39 23	6.51 B8	+ .032	- .008				
678	π^2 Hydi	128	2745	13 23 1.3	-68 13	5.52 K5	+ .034	- .014		+17		
679		557	2805	14 13 3.9	+46 51	6.08 B5	+ .005	- .006	4	- 1		
680		392	2798	14 13 +3.5	+29 44	6.60 K0	+ .016	- .021				
681	68 \circ Ceti	353	2796	14 18 3.0	- 3 26	var M5	- .009	- .232	4	var	2.0 to 10.1, 332 days*	
682	63 Andr	640	2813	14 21 4.0	+49 42	5.56 A0p	+ .033	- .026	11	- 2		
683		828	2794	14 30 2.7	-26 25	6.38 G0	- .220	+ .450	93	+ 6		
684		-438	2799	14 39 3.0	- 4 48	6.55 A2	+ .039	+ .011				
685	9 Pers	598	2836	15 23 +4.2	+55 23	5.22 A2p	.000	+ .003	1	-15	12m, 12", fixed	
686		785	2804	15 25 2.4	-42 19	6.34 G5	.000	+ .026				
687		500	2851	16 37 3.7	+40 57	5.87 F0	- .088	- .102	24	-35		
688		413	2821	16 40 1.9	-56 24	5.56 K5	+ .019	+ .025		+49	10m, 34"	
689	69 Ceti	355	2846	16 49 3.1	- 0 4	5.9 Ma	- .014	- .002	5	+22		
690		535	2863	16 54 +4.2	+54 55	6.46 G0p	+ .008	- .022	2	-26		
691	70 Ceti	322	2850	17 7 3.1	- 1 20	5.62 A5	- .024	- .049	17	+22:		
692		448	2849	17 8 2.9	-11 14	5.57 F0	+ .137	- .080	17	+11		
693		409	2853	17 22 2.8	-18 7	5.99 K0	+ .014	- .055	7			
694	64 Andr	649	2877	17 46 4.0	+49 33	5.49 G5	+ .023	- .038	7	-13		
695	κ Forn	1038	2862	17 58 +2.7	-24 16	5.37 F5	+ .200	- .057	69	+18		
696	10 Pers	-612	2885	18 12 4.2	+56 9	6.24 B2	- .002	+ .011	2	-47		
697		-444	2868	18 15 2.8	-18 48	6.43 G5	+ .148	- .104				
698		724	2861	18 17 2.4	-43 39	6.30 G5	+ .077	+ .049				
699	65 Andr	656	2902	18 57 4.0	+49 50	4.86 K5	+ .023	- .013	11	- 4		

650: Velocity of fainter, -5km.

681: Mira, close visual binary as well, companion 10m.

Precession in declination, +0.28.

2^h

No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
700		797	2875	18 ^m 59 ^s +2.5		-38° 2'	6.56 K2	-.023 - .035		km	
701		571	2878	19 23 2.1		-51 33	6.01 A3	+ .011 + .063			
702	24 ^g Arie	-316	2901	19 27 3.2		+10 9	5.53 B5	+ .019 - .010	.006	var	V ₀ = +7km
703		857	2900	19 50 2.7		-26 18	6.58 K0	+ .026 + .030			
704	71 Ceti	374	2910	19 55 3.0		- 3 14	6.30 A0	- .003 - .002			
705	8 Hydi	113	2872	19 58 +1.1		-69 7	4.26 A2	- .048 + .008	45	+11	
706		681	2912	20 32 2.4		-41 18	6.20 G0	+ .212 + .114			
707	ι Cass	213	2952	20 49 4.9		+66 57	4.59 A5p	- .013 + .016	18	var*	4.7:7.0, binary*
708	72 ^p Ceti	451	2932	21 7 2.9		-12 44	4.90 A0	- .016 - .004	19	var?	V ₀ = +10km
709	66 Andr	-666	2944	21 9 4.0		+50 7	6.27 F0	+ .035 - .092	20		
710		426	2933	21 15 +2.9		-15 47	5.84 A2	- .060 - .043	18	+ 7	9m, 12", cpm*
711		409	2940	21 20 3.5		+26 33	6.18 K5	- .056 - .062			
712	11 Tria	427	2943	21 32 3.6		+31 21	5.80 K0	- .027 - .027	9	-39	
713		455	2941	21 56 2.8		-20 30	6.05 K0	+ .076 + .104			
714	λ Horo	199	2931	22 6 1.7		-60 46	5.47 F2	- .072 - .137	19	+27	
715	κ Hydi	194	2913	22 16 +0.4		-74 6	6.00 K0	- .085 + .004			
716		-557	2965	22 22 4.2		+55 5	6.85 A2	+ .034 - .008			8.2m, 3"
717	12 Tria	417	2956	22 18 3.5		+29 13	5.38 F0	- .017 - .084	15	-25	
718	73 ^g Ceti	-388	2960	22 50 3.2		+ 8 1	4.34 A0	+ .040 - .004	18	var	V ₀ = +12km
719		431	2959	22 50 3.1		+ 1 31	6.49 K0	- .003 - .007			7.1:7.4, close binary
720	13 Tria	423	2964	22 56 +3.5		+29 29	5.90 G0	- .069 + .076	40	+42	
721	κ Erid	637	2954	23 19 2.2		-48 9	4.44 B5	+ .017 - .007	6	var	V ₀ = +29km
722		-154	2942	23 22 1.2		-66 57	6.40 Mb	- .031 - .017			
723		-354	2974	23 31 3.4		+23 2	6.10 A5	+ .080 - .027	16	+22	
724	φ Forn	905	2967	23 48 2.5		-34 16	5.16 A2	+ .011 + .010	11	+16	
725		-385	2983	24 15 +3.2		+ 9 7	6.30 K0	- .015 + .015			11m, binary
726		445	2991	24 15 3.6		+33 23	6.25 K0	+ .070 - .057			
727		990	2976	24 17 2.6		-31 33	6.14 G5	- .040 - .016			
728		358	3001	24 47 3.5		+24 48	5.86 F5	+ .063 - .078	27	-12	11m, binary
729	26 Arie	365	3003	25 2 3.4		+19 25	6.14 F0	+ .080 - .036	17	+16	
730		942	3000	25 21 +2.7		-23 8	6.56 A2	+ .075 + .010			11m, 28", cpm
731	27 Arie	380	3009	25 21 3.3		+17 16	6.41 G5	+ .029 - .085	29		
732		378	3012	25 38 3.1		- 0 11	6.03 A2	- .054 - .066			
733		979	3006	25 44 2.7		-25 38	6.50 F0	+ .086 + .034	15	+24	
734		174	2982	25 44 1.4		-64 45	6.36 B9	+ .011 + .004			
735		-947	3015	25 59 +2.7		-22 59	6.45 K5	+ .006 - .030	5	-19	
736	14 Tria	497	3032	26 0 3.7		+35 42	5.35 K0	+ .046 + .016		-36	
737		438	3029	26 20 3.1		+ 1 49	5.44 K0	+ .022 - .003	11	+26	
738		-454	3048	26 50 3.6		+34 6	5.90 G5	- .067 - .012		- 3	
739	75 Ceti	353	3043	27 4 3.1		- 1 29	5.53 K0	- .027 - .032			
740	76 ^σ Ceti	449	3045	27 21 +2.8		-15 41	4.82 F5	- .075 - .116	30	-29	In Ursa Cluster
741	29 Arie	419	3055	27 25 3.3		+14 36	6.07 F5	- .019 + .043	27	var	V ₀ = -3km
742		957	3056	28 8 2.5		-36 52	6.29 G5	+ .061 + .012			
743		140	3116	28 31 5.7		+72 23	5.34 K0	- .027 + .022	11	- 2	
744	λ' Forn	877	3067	28 57 2.5		-35 5	5.88 K0	- .022 - .020	7		
745		480	3074	29 3 +2.8		-20 26	6.42 K0	- .039 - .074			
746		573	3093	29 13 3.8		+39 14	6.28 B9	+ .028 - .024	6		
747		280	3125	29 26 4.9		+65 19	6.07 K0	+ .050 - .007			
748		519	3100	29 29 3.7		+36 52	5.93 K0	+ .005 - .008	6	- 6	11m, binary
749	ω Forn	819	3082	29 28 2.6		-28 40	8.69	- .018 - .001	11	var*	11", binary
			3083				4.95 B9	- .021 - .008			

707: V₀ of brighter, +1km. Also 8.2m, 7"; velocity, +10km.
 These stars form a physical system containing at
 least four components.

Precession in declination, +0.27.

710: In Ursa Cluster.

749: V₀ = +10km.

CATALOGUE OF BRIGHT STARS

2^h

No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
750	15 Tria	469	3103	29 ^m 43 ^s +3.6		+34° 15'	5.62 Mb	+".032 - ".048	".008	-9	
751		-392	3096	29 46 3.2		+ 7 2	6.19 K0	-.007 - .104	9	-25	
752	77 Ceti	484	3091	29 47 3.0		- 8 18	5.82 K0	+ .064 - .060			
753		398	3121	30 36 3.3		+ 6 25	5.92 K0	+1.807 +1.459	147	+23	
754	78 vCeti	-418	3117	30 38 3.1		+ 5 9	5.02 G5	-.030 - .024	8	+ 5	9m, 8", binary
755		611	3090	30 30 +2.0		-51 32	6.29 F5	-.009 - .030			
756		515	3132	30 42 3.7		+38 18	5.94 F5	+ .146 - .192		0	
757		-418	3130	30 45 3.6		+31 10	6.16 K0	-.041 - .003		+ 3	
758	R Tria	470		30 59 3.6		+33 50	var Md	+ .03 - .01	3	+60*	5.3 to 12.0, 266 days
759	80 Ceti	489	3126	31 5 3.0		- 8 16	5.71 K5	-.037 - .055			
760		582	3143	31 4 +3.8		+39 28	6.40 B8	+ .008 - .018	4	var	
761		473	3139	31 5 3.6		+32 27	6.29 F5	+ .067 + .063	25	0	
762		169	3094	31 6 1.5		-63 2	6.70 B8	+ .023 + .011		+ 9	
763	31 Arie	-360	3133	31 11 3.3		+12 1	5.68 F5	+ .279 - .082	34	+ 7	
764	30 Arie	375	3137	31 12 3.5		+24 13	7.37 F5	+ .145 + .003	18	+17	
765		376	3140	31 14 3.5		+24 13	6.57 F5	+ .138 - .004		var*	38", cpm
766		402	3134	31 17 +3.2		+ 7 18	6.04 K0	-.051 - .028	8	-25	
767	v Forn	958	3136	31 51 2.6		-30 29	5.79 G5	-.017 + .006			
768		588	3159	32 7 3.7		+37 19	6.29 F5	-.039 - .043	24	+ 8	11m, 21", cpm
769		591	3161	32 16 3.7		+37 40	6.26 A0	-.008 + .002	6	+ 2	
770		405	3162	32 41 +3.2		+ 7 16	6.46 F5	+ .085 - .039		+13	
771	81 Ceti	-436	3158	32 39 3.0		- 3 50	5.84 K0	+ .040 - .038			
772	λ ² Forn	903	3153	32 49 2.5		-35 0	5.80 G5	-.018 - .264	44		
773	32 vArie	362	3167	33 8 3.4		+21 32	5.36 A2	-.011 - .014	17	var?	V ₀ = +8km
774		- 86	3270	33 21 8.7		+81 1	5.92 K0	+ .016 - .068			
775		-406	3168	33 24 +3.1		+ 3 1	6.37 G5	+ .043 + .007			6.4:9.4, close binary
776	μ Hydi	66	3102	33 47 -1.3		-79 33	5.29 K0	+ .129 - .041		-14	
777	λ ² Forn	973	3170	34 0 +2.6		-30 37	5.79 F5	+ .098 - .082			
778	η Horo	-457	3166	34 6 2.0		-52 59	5.26 A5	+ .082 - .018	21	- 3	
779	82 δ Ceti	406	3192	34 21 3.1		- 0 6	4.04 B2	+ .012 + .002	4	var	V ₀ = +12km, 0.15 days*
780		875	3176	34 23 +2.4		-38 25	6.47 F5	+ .096 - .065			
781	83 ε Ceti	501	3199	34 44 2.9		-12 18	5.01 F5	+ .147 - .232	56	+16	
782	33 Arie	443	3215	34 50 3.5		+26 38	5.38 A2	+ .068 - .028	6	var	V ₀ = +17km, 9m, 29"
783		374	3210	34 59 3.2		+ 5 41	6.25 F2	+ .052 + .001	25	+18	
784		-525	3216	35 20 2.9		- 9 53	5.93 F5	-.151 - .082			
785	11 Pers	598	3253	35 53 +4.3		+54 41	5.66 B8	+ .040 - .021	7		
786		1081	3218	35 46 2.6		-31 4	6.54 G5	-.008 - .063			
787		-616	3254	35 56 4.2		+53 6	6.12 K0	+ .071 - .028	9	-12	14m, 13"
788	12 Pers	610	3245	35 56 3.8		+39 46	4.99 G0	-.014 - .186	27	var*	V ₀ = -22km, 331 days
789		814	3217	35 59 2.3		-43 19	4.53 A2	+ .097 - .024		+20	
790	84 Ceti	377	3235	36 7 +3.1		- 1 7	5.73 F5	+ .214 - .130	28	+ 8	9m, binary
791		224	3271	36 13 5.2		+67 24	5.84 A2	+ .020 - .026	14	var	2.5 days, V ₀ = +5km
792		683	3258	36 19 4.0		+47 51	6.56 G5	+ .007 + .003			11m, 6", fixed
793	34 μ Arie	403	3256	36 44 3.4		+19 35	5.72 A0	+ .031 - .042	11	- 7	12m, 19", cpm
794	v Erid	689	3237	36 43 2.4		-40 17	4.06 K0	+ .133 - .028	30	- 9	
795		421	3249	36 46 +3.0		- 3 39	6.11 K0	-.019 + .007			
796		-478	3247	36 49 2.8		-14 59	6.05 F5	-.030 + .046			
797		360	3260	37 6 3.2		+10 19	6.27 A0	-.025 - .019	8	+ 5	In Ursa Cluster?
798		192	3230	37 23 1.3		-64 43	6.60 B9	+ .023 + .015			
799	130 Pers	746	3277	37 22 4.1		+48 48	4.22 F8	+ .337 - .087	78	+25	10m, binary

758: Absorption lines give +67km.

765: 9.9 days, V₀ = +15km.

Precession in declination, +0.26.

779: Perhaps two periods of oscillation.

788: Two spectra.

2^h

No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
800	14 Pers	566	3278	37 ^m 34 ^s +3.9		+43° 52'	5.58 G5	+".004 - ".005	".002	km - 3	
801	35 Arie	424	3273	37 35 3.5		+27 17	4.58 B3	+ .008 - .007	7	+19	
802	ζ Horo	- 446	3246	37 33 1.9		-54 59	5.26 F2	+ .040 .000	27	var	V ₀ = -1km, two spectra
803		441	3282	38 3 3.5		+25 13	6.37 A2	- .009 - .003	6	-11	11m, 3", cpm
804	86 γ Ceti	422	3276	38 7 3.1		+ 2 49	3.58 A2	- .141 - .147	40	- 9*	3.7:6.2, binary*
805		894	3263	38 8 +2.4		-38 49	5.92 G5	+ .013 + .004			
806	ε Hydi	161	3240	38 3 0.9		-68 42	4.26 B9	+ .092 + .011	17	+ 6	
807		- 832	3269	38 32 2.2		-46 57	6.19 G5	+ .014 - .095			
808	36 Arie	426	3294	38 44 3.4		+17 20	6.47 K0	+ .040 - .033	7	-32	
809	37 ° Arie	457	3303	39 2 3.3		+14 53	5.80 B8	- .001 - .018	7	- 7	
810	ι Horo	641	3279	39 9 +2.0		-51 14	5.42 F5	+ .327 + .225	74	+17	
811	89 π Ceti	519	3300	39 22 2.9		-14 17	4.39 B5	- .006 - .012	10	var	V ₀ = +15km
812	38 Arie	- 377	3308	39 31 3.3		+12 1	5.16 A3	+ .122 - .081	25	- 2	
813	87 μ Ceti	359	3309	39 32 3.2		+ 9 42	4.36 F0	+ .284 - .030	32	var?	V ₀ = +29km
814		- 769	3290	39 27 2.3		-40 57	6.34 A0	+ .014 + .027	10		7.0:7.1, binary
815	RZ Cass	179	3345	39 53 +5.4		+69 13	var A0	+ .004 + .037	12	var*	6.3 to 7.8, 1.2 days
816		437	3315	40 6 3.1		+ 4 17	6.02 F0	+ .067 - .039	25	+19	
817		- 943	3310	40 9 2.5		-32 57	6.14 A0	+ .016 - .025		var	
818	1 τ ¹ Erid	518	3318	40 26 2.8		-19 0	4.61 F5	+ .331 + .045	66	+26	
819		553	3335	40 47 3.7		+35 35	6.38 G5	+ .051 - .004			
820		- 513	3337	40 55 +3.7		+35 8	6.34 F2	- .041 - .046	14	- 4	6.5:8.6, binary
821		475	3314	40 58 1.9		-53 0	6.28 A2	- .017 - .015			
822		797	3326	41 41 2.2		-46 42	6.80 K0	- .009 - .014			
823		181	3313	41 42 1.0		-67 8	6.30 F8	+ .107 - .067		-20	
824	39 Arie	462	3356	41 57 3.6		+28 50	4.62 K0	+ .151 - .121	18	-15	
825		718	3370	42 8 +4.4		+56 40	6.53	+ .007 - .007	4		Composite, F5, A2
826		479	3348	42 12 2.7		-22 4	6.49 F5	+ .092 + .014			
827		-1061	3357	42 41 2.7		-22 55	6.66 F2	- .019 - .034			
828	40 Arie	442	3369	42 56 3.4		+17 52	6.04 K0	+ .046 - .035	7	+47	
829	SU Cass	200	3403	43 3 5.4		+68 28	var F5	+ .007 - .007	6	var*	6.0 to 6.4, 1.95 days
830		396	3373	42 57 +3.5		+24 46	5.87 A0	+ .061 - .002	8	+14	
831		566	3375	43 13 3.7		+36 54	6.45 F5	+ .010 - .015	19	var?	
832	Z Erid	- 530	3366	43 8 2.9		-12 53	var Mb	+ .007 - .034		var	6.4 to 7.8
833		196	3346	43 19 1.3		-64 7	5.69 K0	+ .020 - .007			
834	15 η Pers	714	3390	43 24 4.4		+55 29	3.93 K0	+ .021 - .011	6	- 1	8.5m, 28", cpm
835	η ¹ Forn	-1050	3363	43 30 +2.4		-35 58	6.51 K0	- .046 - .036			
836	42 π Arie	- 355	3378	43 43 3.3		+17 3	5.30 B5	.000 - .014	5	var*	8.4m, 3", cpm
837	ζ Hydi	169	3354	44 0 0.9		-68 2	4.90 A2	+ .066 + .043	5	+ 4	
838	41 Arie	471	3391	44 6 3.5		+26 51	3.68 B8	+ .067 - .113	22	var	V ₀ = +4km
839		651	3413	44 15 4.5		+57 54	6.27 A0	- .064 + .019		var	8.3 days, V ₀ = -5km
840	16 Pers	646	3401	44 16 +3.8		+37 54	4.27 F0	+ .190 - .106	24	+14	
841	β Forn	1025	3387	44 54 2.5		-32 50	4.50 K0	+ .091 + .163	22	var?	V ₀ = +17km
842		648	3418	45 0 4.0		+46 25	5.97 G5	- .029 - .024		-10	
843	17 Pers	527	3419	45 21 3.7		+34 39	4.67 K5	+ .017 - .064	9	+14	
844	γ ¹ Forn	-1120	3404	45 25 2.7		-24 58	6.27 G5	- .044 - .124			13m, 12", cpm
845	γ ² Forn	903	3405	45 34 +2.6		-28 21	5.39 A0	+ .045 + .033	16	+24	
846		640	3439	45 46 4.3		+52 35	6.42 B9	+ .005 - .010	5		7.1:7.3, binary*
847	43 σ Arie	480	3427	45 58 3.3		+14 40	5.46 B5	+ .030 - .028	5	+17	
848	η ² Forn	1067	3414	46 12 2.4		-36 15	5.82 K0	+ .052 + .024	28		11m, 5", binary
849		- 723	3446	46 32 4.1		+48 9	6.51 K0	+ .015 - .026			10m, 7"

804: Fainter has velocity -13km. Also 10Mb, 840", cpm. Precession in declination, +0.25.

815: V₀ = -39km.836: 3.9 days, V₀ = +8km.829: V₀ = -7km.

846: Brighter is itself double, 7.2:9.5, 0.2.

CATALOGUE OF BRIGHT STARS

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No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
850	2 τ^2 Erid	509	3429	46 ^m 30 ^s +2.7		-21°25'	4.81 KO	- .050 - .011	.013	km - 9	
851	1 η^3 Forn	1070	3426	46 38 2.4		-36 5	5.49 KO	+ .002 - .058	13	+12	
852	v Horo	188	3412	46 48 1.3		-63 13	5.39 A0	+ .090 + .029	0	+31	
853		736	3432	46 56 2.3		-40 21	6.25 B9	+ .051 + .010			
854	18 τ Pers	641	3462	47 10 4.3		+52 21	4.06 *	+ .002 - .004	22	var	1516 days, V ₀ = +2km
855	20 Pers	655	3459	47 24 +3.8		+37 56	5.32 F0	+ .048 - .076	13	+ 6	6.5m, binary*
856		-400	3456	47 37 3.3		+16 5	6.38 F2	+ .060 - .061		+ 8	
857		544	3449	47 42 2.9		-13 11	6.14 G5	+ .395 - .170	124		
858		1148	3443	47 42 2.5		-31 14	6.38 F5	+ .121 + .110			
859		-569	3455	47 58 2.9		- 9 51	6.26 A2	+ .074 + .054			
860		-591	3487	48 1 +4.8		+61 7	5.63 F5	+ .148 + .037	35	+29	
861		369	3497	48 7 5.0		+63 55	6.57 K5	+ .009 + .003			
862		503	3480	49 5 2.7		-22 47	6.06 G5	+ .091 - .076			
863	v Forn	948	3482	49 39 2.4		-38 51	5.85 F2	+ .048 + .043			
864		665	3525	49 50 4.2		+50 51	6.52 K5	- .009 - .038			
865		658	3520	49 48 +4.1		+46 45	6.13 KO	+ .004 + .001	2	-12	
866		197	3478	50 10 1.3		-63 19	6.10 KO	+ .069 + .003			
867	45 Arie	457	3517	50 11 3.4		+17 56	5.94 Mb	- .007 - .016	6	+46	
868	R Horo	860		50 33 2.0		-50 18	var Md			+47*	4.0 to 13.4, 400 days
869	46 ρ Arie	458	3532	50 47 3.4		+17 37	5.57 F5	+ .277 - .209	35	+14	
870		450	3531	50 53 +3.2		+ 7 59	6.08 F8	+ .067 - .084	31	+29	
871		683	3501	50 52 +1.9		-51 17	6.06 KO	- .014 - .030			
872	v Hydi	204	3463	51 7 -0.4		-75 29	4.70 K2	- .032 - .019	11	+ 5	
873	21 Pers	509	3544	51 13 +3.6		+31 32	5.18 A0p	+ .001 - .032	10	var	V ₀ = +7km
874	3 η Erid	553	3539	51 32 2.9		- 9 18	4.05 KO	+ .078 - .213	24	-20	
875		502	3541	51 37 +3.0		- 4 7	5.27 A2	- .030 - .040	16	var?	
876		599	3556	51 42 3.8		+38 13	6.08 KO	- .006 - .015			
877		-410	3547	51 50 3.1		+ 4 5	6.31 Ma	+ .007 + .025			
878	47 Arie	480	3562	52 21 3.4		+20 16	5.85 F0	+ .233 - .033	32	+29	
879	22 τ Pers	681	3567	52 22 3.8		+39 16	4.62 A2	+ .031 - .039	12	var?	V ₀ = +13km
880		206	3528	52 27 +1.1		-64 51	6.46 KO	+ .008 - .003			
881		-103	3638	52 47 8.0		+79 1	5.66 Ma	- .034 + .010	7	-37	9m, binary
882	24 Pers	550	3575	52 52 3.7		+34 47	4.97 KO	- .047 + .008	11	-36	
883	4 Erid	1336	3561	52 57 2.7		-24 16	5.41 A5	+ .099 - .026	24	+29	Spec. prob. composite
884		1122	3560	52 59 2.5		-30 15	6.32 A5	+ .008 - .001			
885		669	3588	53 3 +4.1		+46 49	5.61 G5p	+ .020 + .025	8	+ 6	
886		639	3587	53 12 3.9		+40 38	6.07 K2	+ .022 - .038			
887	48 ϵ Arie	484	3582	53 30 3.4		+20 56	5.55 A2	- .015 - .004	8	- 6	1", binary
888				53 30 3.4		+20 56	5.25		8	- 8	
889	6 Erid	1343	3574	53 39 2.7		-24 0	5.96 KO	+ .060 + .054	5	+ 7	
890		665	3600	53 44 +4.3		+51 57	5.42 B5	+ .029 - .025		- 4	12", cpm
891			3602	53 44 4.3		+51 57	6.79 A1	+ .016 - .020	11	var	
892		470	3580	53 40 3.0		- 3 11	5.20 A2	- .030 - .052	15	- 6	5.20:12, 3", binary
893		976	3568	53 39 2.3		-38 36	6.34 A0	+ .002 + .008			
894		675	3594	53 52 3.8		+37 45	5.92 B9	+ .007 - .027		var	
895		585	3583	53 56 +2.9		-10 11	6.22 A2	+ .010 - .007			
896	91 λ Ceti	455	3595	54 21 3.2		+ 8 31	4.69 B5	+ .006 - .015	9	+11	
897		771	3584	54 28 2.3		-40 42	3.42 A2	- .055 + .026		var*	8", binary
898	8 Erid		3586	54 29 2.3		-40 42	4.42	- .070 + .021	27	+19	
899	5 Erid	-475	3597	54 38 3.0		- 2 52	5.48 B9	- .012 - .020	9	+18	

854: Composite, G0, A5.

855: Also 10m, 14", cpm.

868: Absorption lines give +60km.

Precession in declination, +0.24.

897: V₀ = +12km, two spectra.

No.	Name	DM	GC	2 ^h - 3 ^h		Decl 1900	Magn Spec	Prop Motion		Par	Rad Vel	Remarks
				RA 1900	Ann Var			RA	Decl			
900		1106	3591	54 ^m 51 ^s +2.6		-29° 18'	6.19 G5	+ .016	- .040		km	
901	ζ Forn	1191	3603	55 12 2.6		-25 40	5.63 F2	+ .178	+ .092	"020	var?	V ₀ = +27km
902		401	3616	55 18 3.3		+10 29	6.20 K5	+ .079	- .029			
903		-1042	3606	55 31 2.5		-32 54	6.29 A0	- .001	+ .003			
904	7 Erid	478	3621	55 48 3.0		- 3 17	6.34 Ma	+ .019	+ .010			
905	49 Arie	- 477	3629	56 1 +3.5		+26 4	5.91 A2	- .013	+ .007	14	- 5	
906		- 97	3715	56 11 9.3		+81 5	5.95 A2	- .049	- .003	19	- 2	11m, 25"
907	8 ρ ¹ Erid	562	3627	56 15 3.0		- 8 3	5.94 G5	+ .098	- .065			
908		485	3636	56 36 3.2		+ 4 57	6.38 K0	+ .036	+ .019			
909	β Horo	215	3611	56 54 1.1		-64 28	5.08 A5	+ .017	+ .014		var?	V ₀ = +24km
910	93 Ceti	420	3646	57 8 +3.1		+ 3 58	5.63 B5	+ .015	+ .009	6		
911	92 α Ceti	419	3643	57 3 3.1		+ 3 42	2.82 Ma	- .009	- .074	13	-25	
912		594	3642	57 5 2.9		-10 21	6.02 G5	+ .049	- .009			
913		- 537	3644	57 12 3.0		- 6 53	6.26 F8	+ .088	- .143			
914	ε Forn	987	3641	57 19 2.6		-28 28	5.90 G5	+ .272	- .419	38	+31	
915	23 γ Pers	- 654	3664	57 33 +4.3		+53 7	3.08 *	+ .003	- .003	16	var	V ₀ = +1km
916		468	3656	57 32 3.6		+27 53	6.34 A5	+ .084	- .017	11	+11	
917	9 ρ ² Erid	568	3651	57 48 2.9		- 8 5	5.52 G5	+ .048	+ .003			10m, 2", cpm
918		767	3674	58 1 4.5		+56 19	5.08 K0	- .014	+ .076	17	-45	
919	11 τ ³ Erid	1387	3649	57 59 2.6		-24 1	4.16 A3	- .145	- .046	58	-10	
920		738	3681	58 12 +4.5		+55 41	6.50 K0	.000	- .036			
921	25 ρ Pers	630	3682	58 46 3.8		+38 27	var Mb	+ .132	- .106	16	+26	3.2 to 4.1, irregular
922		390	3705	58 57 5.0		+63 40	5.82 B9	- .015	+ .013	6	- 2	
923		664	3684	58 53 3.9		+40 12	6.18 K0	- .051	+ .002			
924		430	3680	59 6 3.3		+15 28	6.59 K0	.000	- .092			
925	10 ρ ³ Erid	572	3677	59 22 +2.9		- 8 0	5.43 A3	+ .057	+ .017	17	+16	
926		534	3683	59 28 3.1		+ 1 30	6.05 K0	+ .030	+ .008			
927				59 35 3.5		+24 52	6.11 B8	+ .004	- .006	5	+ 9	0".5, binary*
928	52 Arie	431	3697	59 35 3.5		+24 52	6.11 B8	+ .004	- .006			
929		932	3667	59 31 2.1		-47 22	5.66 K0	+ .020	+ .001	19	+17	
930		681	3725	0 53 +4.3		+51 50	6.17 B5	+ .033	- .025		+ 6	
931		436	3712	0 54 3.3		+12 48	5.84 G5	.000	- .058	12	var?	V ₀ = -15km
932		- 168	3759	1 5 6.5		+74 1	4.89 A2	+ .021	- .086	20	+10	
933		692	3723	0 56 4.1		+46 55	6.36 A0	+ .005	- .007	10	-10	
934	μ Horo	236	3694	1 15 1.4		-60 8	5.16 F0	- .072	- .061	21	+17	
935		606	3718	1 37 +3.0		- 6 29	5.56 Ma	+ .004	- .004	7	+16	
936	26 β Pers	673	3733	1 40 3.9		+40 34	var B8	+ .006	- .001	31	var*	2.2 to 3.5, 2.87 days*
937	ι Pers	857	3740	1 51 4.3		+49 14	4.17 G0	+1.267	- .081	85	+50	
938	53 Arie	493	3728	1 48 3.4		+17 30	6.09 B3	- .024	+ .008	3	var	V ₀ = +28km
939	θ Hydi	219	3687	2 3 0.1		-72 18	5.52 B8	+ .026	+ .018		+12	
940	54 Arie	414	3742	2 41 +3.4		+18 25	6.48 K5	+ .048	- .015	8	+43	
941	27 κ Pers	631	3755	2 45 4.0		+44 29	4.00 K0	+ .181	- .155	25	var	V ₀ = +29km
942		- 478	3751	3 17 3.2		+ 8 5	6.44 G5	- .016	+ .072			
943		1028	3747	3 35 2.6		-28 13	6.08 A2	+ .073	- .016			
944	55 Arie	499	3762	3 36 3.6		+28 42	5.60 B9	+ .020	- .013	6		
945		480	3779	4 10 +3.6		+27 27	6.38 A0	+ .007	- .046	7	- 5	
946		516	3783	4 31 3.6		+26 31	6.12 K0	+ .005	+ .073	4	-15	
947	28 ω Pers	724	3791	4 50 3.9		+39 14	4.82 K0	- .022	+ .006	17	+ 7	
948		445	3789	5 11 3.3		+11 30	5.91 B9	+ .041	- .023			
949		779	3812	5 31 4.2		+47 22	6.42 K0	+ .074	- .077	6	-36	

915: Composite, F5, A3.

Precession in declination, +0'.23.

927, 928: Also, 11m, 5"; a triple system.

936: Algol, a triple spectroscopic system, periods 2.9 days and 1.87 years. V₀ = +6km.

CATALOGUE OF BRIGHT STARS

3^h

No	Name	DM	GC	RA	Ann	Decl	Magn	Prop Motion		Par	Rad	Remarks
				1900	Var	1900	Spec	RA	Decl		Vel	
950	57δ Arie	-631	3810	5 ^m 33 ^s +4.0		+42° 0'	6.00 B8	+ .030	- .012		km	
951		477	3805	5 55 3.4		+19 21	4.53 KO	+ .152	- .007	"019	+25	
952		452	3803	5 52 3.3		+12 40	6.44 G5	- .013	+ .017			
953		1480	3796	6 11 2.6		-24 7	6.43 G5	+ .058	+ .037			
954		56 Arie	523	3821	6 17 3.6		+26 53	5.65 A0p	+ .012	- .014	10	+11
955		540	3806	6 18 +3.0		- 4 11	6.34 Ma	- .012	- .033			12m, 23", cpm
956		782	3830	6 27 4.2		+47 50	5.96 G5	+ .030	- .021	10	- 7	
957		587	3811	6 38 2.8		-16 24	6.34 KO	- .014	- .015			
958		496	3827	7 8 3.2		+ 6 17	5.84	- .007	.000	4	var*	Composite, G5, A5
959		174	3782	7 2 0.5		-69 39	6.05 G5	- .025	- .014			
960		884	3809	7 12 +2.0		-49 7	6.10 KO	+ .028	- .026			
961		115	3912	7 37 7.6		+77 22	5.50 F0	+ .068	- .053	15	+ 7	12.5m, 1", cpm
962	94 Ceti	457	3838	7 40 3.1		- 1 34	5.14 F8	+ .195	- .059	56	+18	11.5m, binary
963	α Forn	1177	3831	7 49 2.5		-29 23	3.95 F8	+ .331	+ .642	72	-21	6.9m, binary
964		798	3870	8 8 4.6		+56 46	5.92 A0p	- .001	+ .006	2	-12	
965		59	4030	8 35 +14.2		+84 33	5.78 KO	+ .071	- .129	8	var	V ₀ = +32km
966		-638	3864	8 18 4.0		+42 8	6.16 G5	+ .072	+ .013			
967		338	3893	8 46 5.3		+65 17	6.35 A2	- .005	+ .015	7		6.8:7.3, binary
968		1025	3845	8 55 2.1		-44 48	5.92 F2	+ .089	.000	24	var*	6.4:7.0, 40 years*
969		729	3883	9 3 4.3		+50 34	5.29 KO	- .006	- .015	5	+ 2	
970		1208	3851	9 6 +2.4		-36 19	6.24 B9	- .002	+ .001			
971		512	3879	9 15 3.7		+30 11	5.53 A0	- .005	+ .008	13	var	V ₀ = -3km
972	58ζ Arie	527	3872	9 9 3.4		+20 40	4.95 A0	- .025	- .073	14	+ 6	
973		648	3884	9 17 4.1		+44 58	6.42 Ma	+ .054	- .043			
974		1238	3863	9 28 2.5		-30 11	6.22 G5	+ .023	+ .002			
975		591	3885	9 36 +3.7		+32 29	6.34 F0	- .033	+ .009	17	+14	
976		610	3888	9 46 3.8		+34 19	6.42 A2	+ .046	- .033	8	var	5.5 days, V ₀ = +25km
977		513	3857	10 1 1.5		-57 42	5.72 Na	+ .010	+ .006		+21	
978		576	3904	10 25 3.7		+31 49	6.05 KO	- .015	- .107			
979		-743	3914	10 40 3.9		+40 7	6.44 A0	+ .017	- .022	9	- 8	6.7:8.0, 3", cpm
980		1210	3887	10 42 +2.6		-26 28	6.11 A0	- .022	- .011			
981		91	3819	10 56 -2.0		-79 22	5.70 F0	+ .076	+ .073		var	V ₀ = +3km; 8m, 15", cpm
982	30 Pers	674	3923	11 3 +4.0		+43 39	5.38 B5	+ .035	- .028	7	var	V ₀ = 0km
983		636	3907	11 4 3.0		- 6 17	6.02 B9	+ .007	.000	37		6.7:6.9, 0".8
984	13ζ Erid	624	3899	10 59 2.9		- 9 11	4.90 A3	- .004	+ .048	24	var	
985		340	3947	11 11 +5.3		+65 17	4.76 B3p	+ .020	- .008	7	var	4.5 years, V ₀ = +20km
986		690	3927	11 17 3.9		+38 56	5.97 A0	+ .027	- .014	11	var?	V ₀ = +27km
987	29 Pers	899	3934	11 30 4.3		+49 51	5.30 B3	+ .031	- .026	5	var	V ₀ = -5km
988	14 Erid	627	3918	11 45 2.9		- 9 31	6.16 F0	- .006	+ .052	29	- 6	
989	31 Pers	902	3945	12 0 4.3		+49 44	5.08 B3	+ .024	- .025	6	+ 3	
990		1303	3917	12 4 +2.5		-31 12	6.62 B9	+ .026	+ .008			
991		619	3948	12 28 3.8		+33 51	4.92 KO	+ .004	- .012	8	+ 2	
992	95 Ceti	469	3953	13 15 3.1		- 1 18	5.62 G5	+ .252	- .047	12	+28	10m, binary
993		1216	3954	13 50 2.5		-29 9	5.95 A5	+ .182	- .010			
994	15 Erid	1146	3955	13 57 2.7		-22 53	5.05 KO	+ .019	+ .015	17	+24	7.5m, binary
995	59 Arie	540	3970	13 57 +3.6		+26 43	5.94 G5	- .024	- .073	16	- 1	
996	96κ Ceti	-518	3969	14 7 3.1		+ 3 0	4.96 G5	+ .267	+ .096	106	+19	
997		-651	3959	14 7 2.7		-18 55	5.83 F0	+ .136	- .049	28	var	8.7m, binary
998		900	3952	14 11 2.0		-48 7	5.84 KO	- .022	+ .024			
999		516	3981	14 17 3.6		+28 41	4.72 K5	+ .001	- .014	12	- 2	

958: V₀ = +4km.

Precession in declination, +0.22.

968: V₀ = +34km. Also 10m, 3"; the three form a physical system.

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No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
I000	60 Arie	536	3987	14 ^m 30 ^s +3.6		+25° 18'	6.41 K0	+ .019 - .086	006	km +25	
I001		893	4006	14 47 4.3		+48 43	6.17 F5	+ .192 - .069	20	+25	
I002	32 Pers	750	4004	14 44 4.0		+42 58	4.98 A2	- .057 - .001	16	var	$V_0 = -7\text{km}^*$
I003	16 ^r Erid	584	3979	15 4 2.7		-22 7	3.95 Mb	+ .053 + .038	9	*	10m, 6", binary
I004		1578	3983	15 13 2.6		-24 29	5.96 Ma	+ .001 - .021			
I005	61 ^r Arie	543	4007	15 27 +3.5		+20 47	5.17 B3	+ .034 - .027	7	var?	$V_0 = +14\text{km}$
I006	g ¹ Reti	217	3966	15 36 1.3		-62 57	5.48 G0	+1.332 + .659	110	+12	cpm with No. 1010
I007	97 Ceti	461	4010	15 53 3.1		+ 3 19	5.76 G5	+ .052 - .021	9	+11.	
I008		1028	4000	15 56 2.4		-43 27	4.30 G5	+3.056 + .744	161	+87	
I009		391	4034	15 59 5.2		+64 14	5.55 K2	- .001 + .008	7	-21	
I010	g ² Reti	265	3975	16 2 +1.3		-62 53	5.16 G0	+1.328 + .655	100	+12	cpm with No. 1006
I011		899	4024	16 8 4.3		+48 51	5.30 B3	+ .024 - .020	7	+ 5	
I012	62 Arie	500	4017	16 12 3.6		+27 15	5.64 K0	+ .011 - .012	11	+ 6	
I013		1183	4013	16 29 2.6		-26 58	6.44 F8	+ .040 + .028	20		
I014		217	3984	16 51 0.7		-67 17	6.08 A2	+ .064 + .011			
I015	63 Arie	551	4026	17 0 +3.5		+20 23	5.25 K0	- .042 - .022	9	+ 2	
I016		1600	4018	17 2 2.6		-24 0	5.67 G5	- .021 - .026	10	+11	
I017	33 ^a Pers	917	4041	17 11 4.3		+49 30	1.90 F5	+ .025 - .024	12	- 2	
I018		1257	4031	17 58 2.6		-25 57	6.26 A0	+ .019 + .008			
I019		636	4052	18 14 3.8		+33 11	5.64 A0	+ .040 - .028	12	+ 2	9.5m, 4", cpm
I020		657	4066	18 19 +4.5		+53 34	6.39 F0	+ .090 - .028			
I021		930	4027	18 20 1.9		-48 8	6.46 K0	- .009 - .023			
I022	64 Arie	481	4051	18 24 3.5		+24 22	5.66 K0	+ .014 - .045	9	+13	
I023		532	4045	18 23 3.2		+ 4 31	6.47 G0	+ .006 - .004			12m, binary
I024		643	4043	18 25 +2.9		- 8 9	6.28 G0	+ .010 - .218	43		12m, binary
I025	Hydi	134	3977	18 27 -1.5		-77 45	5.53 F2	+ .108 + .067		var?	$V_0 = +19\text{km}$
I026		736	4063	18 32 +4.0		+40 54	6.38 A0	- .002 + .002	8	var?	$V_0 = -19\text{km}$
I027	65 Arie	556	4057	18 40 3.5		+20 27	5.92 B9	.000 - .006	9		
I028		473	4056	18 40 3.3		+12 17	6.22 G5	+ .015 - .021			
I029		913	4075	18 51 4.3		+48 45	5.91 B5	+ .028 - .022	5	+ 9	
I030	10 Taur	511	4070	19 26 +3.2		+ 8 41	3.80 G5	- .065 - .075	14	var	$V_0 = -21\text{km}$
I031		1202	4060	19 44 2.4		-33 4	6.52 K0	+ .018 .000			
I032		201	4116	19 57 6.2		+71 31	6.83 Ma	+ .015 + .010			
I033		657	4105	20 15 4.9		+59 54	6.48 B8	+ .022 - .017	6		8m, close binary
I034		920	4108	20 56 4.3		+48 43	4.94 B5	+ .026 - .028	8	var	$V_0 = +7\text{km}$
I035		660	4113	20 58 +4.9		+59 36	4.42 B9p	+ .002 .000	4	- 7	9.0m, 2".4
I036		484	4103	21 21 3.4		+18 24	6.45 A2	+ .048 + .002			
I037		944	4122	21 42 4.3		+49 30	5.64 B5	+ .030 - .026	6	var	$V_0 = 0\text{km}$
I038	2 g Taur	439	4107	21 45 3.3		+ 9 23	3.75 B8	+ .059 - .032	17	var	
I039		477	4109	21 48 3.3		+12 23	6.20 A0	+ .007 - .017	8	var	$V_0 = +16\text{km}$
I040		607	4140	21 55 +4.8		+58 32	4.76 A0p	+ .009 + .002	2	var	$V_0 = -6\text{km}$
I041		656	4120	22 4 3.8		+33 28	5.60 A0	+ .040 - .057	12	var	
I042	x ¹ Forn	1290	4097	22 4 2.3		-36 16	6.25 A2	+ .023 - .005			
I043		608	4145	22 7 4.8		+59 1	6.42 A0	+ .040 - .043	4	var?	$V_0 = +13\text{km}; 7.4, 3", \text{binary}$
I044	34 Pers	945	4133	22 13 4.3		+49 10	4.67 B5	+ .027 - .027	9	- 1	12m, 0".7, cpm
I045		1228	4104	22 9 +2.5		-27 40	6.00 G5	+ .005 + .053			
I046		684	4146	22 22 4.6		+55 6	4.98 A2	- .043 - .007	17	+ 1	9m, 15", cpm
I047		760	4142	22 28 4.2		+46 36	6.20 B5	+ .019 - .035		0	
I048	66 Arie	495	4126	22 36 3.5		+22 28	6.11 G5	+ .001 - .103	22	var?	$V_0 = +51\text{km}; 12\text{m}, \text{binary}$
I049		1115	4106	22 37 2.1		-41 59	6.42 A0	+ .009 + .030			

I002: In Ursa Cluster?

I003: Velocity may be variable, $V_0 = +42\text{km}$.

Precession in declination, +0.21.

CATALOGUE OF BRIGHT STARS

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No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks	
I050	35 σ Pers	667	4130	23 ^m 15 ^s +2.9		-11° 38'	5.85 K0	+ .001 - .046	.008	km - 2	$V_0 = +10\text{km}$	
I051		844	4159	23 33 4.2		+47 46	6.04 B9	+ .032 - .029	8	var		
I052		843	4158	23 31 4.2		+47 39	4.55 K0	+ .006 + .022	9	+16		
I053		- 230	4093	23 37 0.3		-69 59	6.22 A3	+ .028 + .017				
I054		χ^2 Forn	1306	4129	23 41 2.3		-36 2	5.72 K0	+ .068 - .010			+30
I055	χ^3 Forn	- 178	4225	24 15 +6.6		+73 0	6.41 A0	+ .015 - .020	9	- 9	11m, 6"	
I056		938	4177	24 20 4.3		+48 52	6.29 A0	- .004 + .001	10	-23		
I058		1310	4148	24 20 2.3		-36 12	6.50 A0	+ .024 - .001				
I059		- 942	4191	24 40 4.3		+49 4	6.32 B9	+ .014 - .005				
I060		606	4162	24 45 2.9		- 7 9	6.16 G5	- .095 - .100				
I061	4 Taur	- 452	4173	24 56 +3.3		+11 0	5.12 A0	- .009 - .016	8	0		
I062		662	4164	24 53 2.8		-13 1	5.59 A2	+ .012 + .005		+15		
I063		847	4205	25 4 4.2		+47 41	5.52 B8	+ .020 - .025	6	+ 1		
I064		192	4124	25 8 0.3		-69 41	5.96 F2	- .009 + .063				
I065	5 Taur	515	4193 4194	25 18 3.6		+27 14	6.85 6.54 A0	+ .037 - .031 + .043 - .027	11		11", cpm	
I066		486	4184	25 21 +3.3		+12 36	4.28 K0	+ .022 .000	17	var	960 days, $V_0 = +14\text{km}$	
I067		502	4183	25 27 3.2		+ 5 51	6.12 G5	+ .030 - .012		+12		
I068		619	4223	25 31 4.8		+58 26	6.27 A2	+ .012 - .053	15	+ 4	8m, 20", binary	
I069	36 Pers	778	4210	25 30 4.2		+45 43	5.35 F0	- .052 - .068	27	-45		
I070	17 Erid	674	4185	25 39 +3.0		- 5 25	4.80 B9	+ .016 + .014	11	+15		
I071		730	4226	25 46 4.7		+57 32	6.41 F5	- .014 - .001				
I072		734	4217	25 47 4.1		+44 31	6.33 B3	+ .014 - .012		+ 4		
I073		693	4229	26 2 4.6		+54 38	5.82 A2	- .045 - .003	11	var		
I074	6 Taur	- 674	4222	26 18 3.8		+35 7	5.80 B3	- .004 + .001		+25	6.8:7.8, binary 0.92 days, $V_0 = -3\text{km}$	
I075		-1085	4188	26 26 +2.1		-42 59	5.71 A3	- .080 - .001		+12		
I076		1029	4199	26 40 2.1		-41 42	6.10 F5	- .012 - .176				
I077		675	4250	26 50 4.9		+59 42	6.48 F5	- .030 + .016	20	+20		
I078		811	4236	26 59 4.0		+39 34	5.80 A0	+ .009 - .039	13	var		
I079		- 528	4231	27 11 3.2		+ 9 2	5.64 B8	+ .033 - .042	9			
I080		143	4290	27 21 +7.2		+75 24	6.38 G5	- .010 + .011				
I081	1071	4212	27 24 1.9		-47 43	6.01 A0	+ .075 + .018					
I082	κ Reti	-1333	4227	27 37 2.6		-25 57	6.31 A0	+ .080 - .015			11m, 54", cpm	
I083		234	4200	27 38 1.0		-63 17	4.80 F5	+ .372 + .371	59	+12		
I084		18e Erid	697	4244	28 13 2.8		- 9 48	3.81 K0	- .975 + .022	303		+15
I085		575	4253	28 26 +3.4		+17 30	6.39 K0	+ .093 - .315	28	+11		
I086	7 Taur	- 473	4257	28 31 3.6		+24 8	5.92 A2	+ .011 - .023	9	+29	6.6:6.7, 600 years*	
I087	37 ψ Pers	857	4287	29 23 4.3		+47 52	4.26 B5p	+ .027 - .026	8	0	6.2 days, $V_0 = +14\text{km}$	
I088	19 τ^5 Erid	- 628	4258	29 22 2.7		-21 58	4.32 B8	+ .044 - .022	13	var*		
I089	- 511	4270	29 30 3.2		+ 6 5	6.52 G0	- .007 - .014					
I090	10m, 1"	1071	4251	29 36 +1.8		-50 43	5.60 K0	+ .076 + .079		+40	6.7:7.3, close binary	
I091		704	4272	29 49 2.9		-10 12	6.27 A0	+ .018 - .001				
I092		195	4238	29 50 0.6		-66 50	5.78 B8	+ .008 .000				
I093		1450	4266	29 55 2.4		-31 25	6.18 F5	- .027 + .066				
I094		826	4315	30 28 4.7		+56 36	6.27 B9	+ .025 - .030	5			
I095		1358	4281	30 33 +2.4		-32 13	6.40 K0	+ .008 + .005				
I096		267	4265	30 57 1.1		-61 21	6.29 G5	+ .077 + .052				
I097		795	4316	31 14 4.1		+42 15	6.30 B8	+ .028 - .020				
I098		696	4296	31 12 2.9		-11 32	5.69 G0	+ .029 + .087	10	+37		
I099		616	4311	31 39 3.1		+ 0 16	6.12 G0	- .025 - .160	29	var*		8.9m, binary*

I086: Also 10m, 22", cpm.

I088: Two spectra.

Precession in declination, +0.20.

I099: Velocity of fainter -14km. Brighter shows two spectra.

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No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
II00	20 Erid	699	4305	31 ^m 44 ^s + 2.7 ^s		-17° 48'	5.32 A0p	+ .023 - .008	.008	km +14	
II01	10 Taur	-572	4313	31 46 3.1		+ 0 5	4.40 G5	-.234 -.479	57	+28	
II02		-586	4324	32 11 3.4		+15 6	6.47 A3	+ .017 - .020	10	+33	
II03		602	4341	33 12 3.5		+20 35	6.42 A0	+ .008 - .026	13	- 5	
II04		199	4302	33 17 0.7		-66 6	6.76 A2	+ .041 + .009			
II05		597	4383	33 28 + 5.2		+62 54	5.32 Ma	- .012 + .020	6	var	V ₀ = -22km
II06		1008	4329	33 30 2.2		-40 36	4.58 K0	- .017 - .031	13	+12	
II07		51	4693	33 55 21.7		+86 20	5.84 F5	+ .154 - .075	20	- 4	
II08		647	4340	33 36 + 2.9		- 7 43	5.90 G5	- .009 - .051			
II09		101	4260	33 37 - 2.2		-78 41	5.64 K0	- .008 - .024		var	V ₀ = +10km
II10		484	4348	33 46 + 3.4		+16 13	6.33 G5	+ .042 - .033	7	+14	
II11	21 Erid	-713	4347	34 5 3.0		- 5 57	6.00 G5	- .013 - .201	33	+40	
II12		699	4408	34 28 4.9		+59 39	5.98 K0	- .001 + .005	5	-10	
II13		811	4387	34 37 3.9		+37 15	5.57 B5	+ .026 - .030	6	- 2	
II14	τ Forn	1225	4351	34 38 2.5		-28 16	6.08 A0	+ .018 + .028			
II15	12 Taur	581	4365	34 39 + 3.1		+ 2 44	5.76 G5	- .034 + .011	12	+21	
II16		591	4361	34 38 3.0		- 3 43	6.44 G5	- .022 - .070			
II17		717	4358	34 38 2.9		-10 46	6.35 G5	- .021 - .101			
II18	11 Taur	-529	4382	34 48 3.6		+25 0	6.15 A0	+ .015 - .010	9	var	
II19		519	4370	34 54 3.1		- 1 27	6.15 G5	+ .024 + .020			
II20		634	4388	35 34 + 2.8		-15 33	6.44 G5	+ .001 + .008			
II21	22 Erid	715	4395	35 41 3.0		- 5 32	5.52 B8	- .001 - .004	7	+16	
II22	39δ Pers	876	4427	35 48 4.3		+47 28	3.10 B5	+ .030 - .035	12	var	V ₀ = -10km
II23	40 Pers	698	4420	36 2 3.8		+33 39	5.04 B2	- .001 - .010	3	var	V ₀ = +12km*
II24		284	4463	36 33 5.7		+66 53	5.84 F2	+ .098 - .109	13	+ 6	
II25		689	4415	36 29 + 2.8		-12 7.	6.50 F2	+ .072 + .016			
II26	13 Taur	578	4430	36 33 3.5		+19 23	5.50 B8	+ .004 - .012	9	var	
II27		984	4443	36 56 4.3		+48 13	6.28 K0	- .002 - .010	2	-12	14m, 4"
II28		-687	4418	36 54 2.7		-19 54	6.48 A0	- .001 - .002			
II29		-604	4470	37 17 5.2		+63 2	4.96 *	.000 - .009	7	var	V ₀ = -3km
II30		804	4459	37 40 + 4.2		+45 47	6.09 A5	- .004 - .037	17	+11	
II31	38ο Pers	642	4461	38 3 3.8		+31 58	3.94 B1	+ .011 - .012	8	var*	4.4 days, V ₀ = +18km*
II32	14 Taur	582	4451	38 0 3.5		+19 21	6.34 G5	+ .118 - .054	9	+78	
II33		742	4464	38 3 3.9		+36 9	5.57 A2	+ .048 - .035	14	+22	
II34	8 Forn	1430	4439	38 16 2.4		-32 15	4.93 B5	- .003 + .015		var	V ₀ = +26km
II35	41ν Pers	815	4474	38 24 + 4.1		+42 16	3.93 F5	- .010 + .002	15	var?	V ₀ = -12km
II36	23δ Erid	728	4450	38 27 2.9		-10 6	3.72 K0	- .092 + .744	II2	- 7	
II37		621	4467	38 39 3.5		+20 37	6.03 B9	+ .017 - .020		var	
II38		257	4530	38 49 6.2		+70 34	5.40 A0	+ .029 - .060	12	var*	V ₀ = +18km
II39		729	4460	38 47 2.9		-10 48	5.70 A0	- .015 - .014		+16	
II40	16 Taur	505	4475	38 51 + 3.6		+23 58	5.43 B5	+ .015 - .045	7	+ 2	Celaeno
II41		811	4495	38 59 4.2		+45 22	5.64 B9	+ .025 - .018	6	+ 1	15m, 6".5, cpm
II42	17 Taur	507	4477	38 56 3.6		+23 48	3.81 B5p	+ .022 - .045	16	+12	Electra
II43		1415	4455	39 8 2.2		-37 38	4.64 K2	- .093 - .071	16	+10	
II44	18 Taur	546	4485	39 12 3.6		+24 32	5.63 B8	+ .023 - .046		+25	
II45	19 Taur	547	4486	39 15 + 3.6		+24 9	4.37 B5	+ .022 - .044	11	+ 5	Taygeta
II46	24 Erid	526	4481	39 26 3.0		- 1 29	5.09 B8	+ .003 - .004	9	var	V ₀ = +39km
II47		824	4518	39 42 4.7		+55 37	6.04 B9	+ .034 - .014	8		
II48	γ Caml	-259	4557	39 48 6.3		+71 1	4.67 A0	+ .024 - .036	10	- 3	
II49	20 Taur	-516	4500	39 52 3.6		+24 3	4.02 B5	+ .023 - .045	13	+ 8	Maia

II23: 9.5m, 20", binary.

II29: Composite, F5, A.

II31: 8.5m, binary. Two spectra.

Precession in declination, +0.19.

II38: Two spectra.

CATALOGUE OF BRIGHT STARS

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No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
1150	25 Erid	593	4491	39 ^m 50 ^s +3.1		- 0° 37'	5.84 K2	+ ".057 + ".003	"008	^{km} +70	
1151	21 Taur	553	4502	39 57 3.6		+24 15	5.85 B8	+ .015 - .041	7	- 2	Asterope
1152	22 Taur	556	4506	40 5 3.6		+24 13	6.46 B9	+ .018 - .043	11	- 4	
1153	29 Taur	539	4505	40 22 +3.2		+ 5 44	5.36 B3	+ .022 - .006	5	var	V ₀ = +14km, two spectra
1154		105	4400	40 18 -2.3		-78 39	6.08 K0	- .010 + .010			
1155		369	4553	40 22 +5.5		+65 13	4.71 Ma	- .002 - .008	9	var	V ₀ = -3km
1156	23 Taur	522	4512	40 23 3.6		+23 38	4.25 B5	+ .025 - .044	11	+ 7	
1157		-1119	4490	40 34 2.1		-40 58	6.50 K0	+ .002 - .084			10m, 5", cpm
1158		612	4560	40 50 5.3		+62 59	5.96 A3	- .013 - .047	14	var	
1159		583	4515	40 49 3.2		+ 6 30	6.12 K0	+ .019 - .068	8		
1160		825	4544	41 0 +4.4		+50 26	5.92 B8	+ .018 - .005			11m, 7", cpm
1161		846	4562	41 21 4.8		+56 49	6.48 B9	+ .021 - .025			
1162	26 π Erid	707	4525	41 25 2.8		-12 25	4.64 Ma	+ .047 + .061	7	+46	
1163		717	4548	41 32 3.8		+33 18	6.36 B3	- .003 - .003	4	var*	10m, 3", binary
1164		650	4546	41 32 3.8		+31 54	6.23 G0	- .028 - .047			
1165	25 η Taur	541	4541	41 32 +3.6		+23 48	2.96 B5p	+ .023 - .044	17	+10	Alcyone. 6.3m, 117"
1166		286	4604	41 53 5.9		+68 12	6.33 B8	+ .021 - .011	7		
1167		1069	4511	41 47 1.8		-48 22	6.45 K0	+ .022 - .081			
1168		589	4510	42 1 1.5		-54 35	6.26 K0	+ .017 + .064			9m, 5", cpm
1169		1147	4523	42 9 1.9		-47 40	5.66 K0	- .018 - .020		- 2	
1170		818	4572	42 14 +4.1		+43 39	5.86 F0	+ .004 + .022		-16	
1171	σ Forn	1413	4537	42 23 2.4		-29 39	5.90 A2	.000 + .015			
1172		- 563	4564	42 26 3.6		+23 7	5.51 B8	+ .026 - .049	7	var?	V ₀ = +8km
1173	27 τ ⁶ Erid	1565	4547	42 33 2.6		-23 33	4.33 F8	- .157 - .524	56	+ 6	
1174	30 Taur	486	4568	42 47 3.3		+10 50	5.03 B3	+ .028 - .020	7	+19	10m, 9", binary
1175	β Reti	263	4517	42 57 +0.8		-65 7	3.80 K0	+ .305 + .078	43	var	1912 days, V ₀ = +51km
1176		801	4597	43 7 4.2		+44 40	5.79 G0	- .024 - .028	14	var	
1177	42 Pers	667	4592	43 13 3.8		+32 47	5.10 A2	- .025 - .001	7	var	
1178	27 Taur	557	4586	43 13 3.6		+23 45	3.80 B8	+ .019 - .045	11	+ 9	Atlas, poss. double
1179		1494	4561	43 15 2.4		-30 12	6.61 F5	+ .177 - .065			
1180	28 Taur	558	4587	43 14 +3.6		+23 50	5.18 B8p	+ .016 - .049	6	+10	Pleione
1181	28 τ ⁷ Erid	1877	4566	43 22 2.6		-24 11	5.04 A2	+ .042 + .051	9	+29	
1182		602	4584	43 31 3.1		- 0 5	6.10 K0	+ .058 - .004			
1183		563	4603	43 47 3.6		+23 25	6.11 B8	+ .018 - .048	5		
1184	ρ Forn	1497	4579	43 54 2.4		-30 28	5.61 G5	+ .026 - .242	11	+53	
1185		535	4610	44 2 +3.5		+21 57	5.92 B9	+ .018 - .037			
1186		1453	4581	44 4 2.3		-36 25	6.25 B8	+ .016 + .010		+ 5	
1187		703	4593	44 12 2.6		-21 12	6.06 K0	- .014 - .021			
1188		624	4616	44 18 3.6		+25 17	5.38 A3	+ .042 - .108	18	+ 4	6.0:6.3, 57 years
1189		-1297	4601	44 54 2.2		-37 56	5.42 A0	+ .054 - .011	24	+16	8", slow binary
1190			4602	44 54 2.2		-37 56	4.86 B8	+ .074 - .023		+16	
1191		- 728	4649	45 30 +3.8		+34 3	5.73 B3	+ .007 - .007	3	+18	
1192		752	4668	45 36 4.9		+57 41	5.79 A0	+ .083 - .097	19		
1193		539	4648	45 44 3.5		+21 44	6.82 G5	+ .017 - .019			
1194		516	4643	45 43 3.3		+12 45	6.16 B9	+ .022 - .028		+16	
1195		1467	4624	45 43 2.2		-36 30	4.24 K0	- .051 - .049	16	+ 2	In Ursa Cluster
1196		222	4691	45 43 6.5		+71 31	6.39 F0	- .048 + .010			
1197		582	4654	45 50 3.7		+30 52	6.22 A3	- .022 - .045	11	-38	
1198		1015	4671	46 24 4.4		+48 21	5.92 K0	+ .040 - .029	9	+ 8	
1199	31 Taur	594	4662	46 40 3.2		+ 6 14	5.62 B9	+ .010 - .004		+16	6.32:6.42, close binary

1163: V₀ = +36km.

Precession in declination, +0.18.

No	Name	DM	GC	RA		Decl 1900	Magn Spec	Prop Motion		Par	Rad Vel	Remarks
				1900	Ann Var			RA	Decl			
I200		1476	4651	46 ^m 54 ^s + 2.2		-36° 44'	6.79 B9	-".001 + ".022			km + 6	
I201		-523	4677	47 26 3.4		+17 2	5.96 F0	+ .147 - .028	.022		+33	In Taurus Cluster
I202	30 Erid	769	4675	47 45 3.0		- 5 40	5.49 B8	- .010 - .007	18		+15	10m, 8"
I203	44 ζ Pers	666	4688	47 51 3.8		+31 35	2.91 B1	+ .010 - .011	8		+21	9.3m, 13", cpm
I204		628	4730	48 36 5.3		+62 47	4.87 B9	+ .005 + .006	10		+ 5	
I205		768	4727	48 36 + 5.1		+60 49	5.22 K0	+ .002 - .009	9		- 2	8.2, A0, 2", cpm
I206		691	4687	48 43 2.7		-18 43	6.37 F2	+ .004 + .013				
I207		912	4721	48 46 + 4.3		+47 35	5.34 B5	+ .019 - .028	6		+10	
I208	γ Hydi	276	4633	48 47 - 0.9		-74 33	3.17 Ma	+ .051 + .114	13		+16	
I209	X Pers	591	4720	49 8 + 3.8		+30 45	var B0p	- .009 - .007			+17	6.0 to 6.6; 12m, 23"
I210	43 Pers	860	4728	49 10 + 4.5		+50 24	5.47 F5p	+ .095 - .129	28		var*	30.4 days, V ₀ = +27km
I211	32 Erid	631	4705	49 16 3.0		- 3 15	6.33 A2	+ .028 + .011	11		+20	7", binary
I212			4706	49 16 3.0		- 3 15	4.95 G5	+ .028 + .006		+27		
I213	33 τ ^β Erid	1945	4698	49 27 2.6		-24 54	4.76 B5	+ .022 - .013	5		var	V ₀ = +23km, two spectra
I214			4701	49 50 2.3		-35 2	5.12 B5	+ .032 - .009		+18		
I215		768	4734	50 2 + 3.9		+34 47	5.48 B3	+ .010 - .001	4		var	V ₀ = +17km
I216		1187	4711	50 27 1.9		-47 11	5.77 K0	+ .029 - .038				
I217		752	4729	50 34 2.8		-12 24	5.94 F0	- .056 - .037				
I218	32 Taur	605	4744	50 57 3.5		+22 11	5.76 F0	+ .071 - .108	27		+30	V ₀ = +2km; 12m, 23"
I219			4724	50 53 2.1		-40 39	5.61 *	- .026 + .006		var?		
I220	45 ε Pers	895	4759	51 8 + 4.0		+39 43	2.96 B1	+ .023 - .028	5		var*	V ₀ = -6km; 8.3m, 9", cpm
I221	33 Taur	607	4747	51 8 3.6		+22 53	5.98 B9	+ .012 - .018				
I222			4757	51 27 3.6		+24 10	6.38 K0	+ .004 - .011				
I223		773	4767	51 36 3.9		+34 32	6.39 A5	+ .018 - .018	13		- 2	
I224		564	4756	51 42 3.2		+ 5 45	6.02 A0	+ .036 - .064	11		+ 8	
I225		793	4751	51 50 + 2.9		-10 3	6.16 F0	+ .046 + .019				
I226		827	4770	51 50 4.0		+38 33	6.41 K0	+ .042 - .041	6		+22	
I227		-628	4735	51 56 1.6		-52 59	6.42 A2	+ .022 - .044				
I228	46 ζ Pers	775	4779	52 28 3.9		+35 30	4.05 Oe5	+ .009 - .001	0		var	
I229			4784	53 1 4.0		+38 32	6.38 A0	- .002 .000	7		- 2	9m, 2", binary
I230		125	4894	53 17 +10.1		+80 25	5.25	- .011 + .001	15		+ 4	5.6F8:6.6A2, binary
I231	34 γ Erid	781	4778	53 22 2.8		-13 48	3.19 K5	+ .064 - .109	14		+62	
I232			4785	53 57 3.0		- 5 45	5.96 K0	- .054 - .176				
I233		-524	4790	54 12 3.3		+10 3	6.42 F2	+ .172 + .008	30		+40	In Taurus Cluster
I234		805	4809	54 41 3.9		+36 42	6.33 B9	- .018 + .015				
I235		766	4791	54 49 + 2.8		-12 51	5.90 G5	- .012 - .029	7		- 5	
I236		275	4775	54 46 0.8		-63 46	6.04 K0	+ .069 + .049				
I237		-544	4798	54 53 3.4		+17 1	6.30 B9	+ .003 - .034				
I238		666	4807	55 3 3.5		+17 55	5.76 F0	+ .134 - .033	20		var*	In Taurus Cluster
I239	35 λ Taur	539	4805	55 8 3.3		+12 12	var B3	- .006 - .010	7		var*	3.8 to 4.1, 4.0 days
I240	36 τ ^β Erid	2022	4801	55 40 + 2.6		-24 18	4.69 A0p	+ .010 + .012	12		var	V ₀ = +23km
I241			4874	56 1 6.0		+68 24	6.14 K2	+ .013 + .012				
I242		690	4858	56 7 5.0		+58 53	5.07 F0	+ .001 + .002	14		-20	
I243		528	4830	56 19 3.3		+ 9 43	5.68 B8	+ .006 - .003			+ 3	12m, 12", fixed
I244	35 Erid	572	4828	56 28 3.0		- 1 50	5.25 B5	+ .021 - .011	7		var	V ₀ = +16km
I245		606	4794	56 34 + 1.3		-57 23	6.14 F2	+ .028 + .006				
I246		1597	4824	56 41 2.4		-30 46	5.85 A0	+ .046 + .011				
I247	δ Reti	290	4808	57 10 1.0		-61 41	4.41 Ma	+ .008 - .012	0		- 1	
I248			4903	57 17 5.6		+65 14	6.07 A2	+ .035 - .016	16		- 3	
I249			4851	57 29 3.1		- 0 32	5.42 F5	+ .150 - .247	54		+17	

I210: Two spectra.

I220: Two spectra.

Precession in declination, +0.17.

I219: Composite, F5, A3.

I238: V₀ = +13km.I239: Velocity shows two oscillations, 4.0 days and 30.0 days. V₀ = +16km.

CATALOGUE OF BRIGHT STARS

$3^h - 4^h$

No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
1250		975	4826	57 ^m 34 ^s + 1.6		-51° 51'	6.42 Ma	+ .020 + .014		km	
1251	38 v Taur	581	4862	57 50 3.2		+ 5 43	3.94 A0	+ .006 - .002	.026	- 5	
1252	36 Taur	609	4886	58 23 3.6		+23 50	5.67 *	.000 - .014	14	+19	12m, 25", cpm
1253	40 Taur	584	4876	58 27 3.2		+ 5 10	5.33 B3	+ .003 - .007	6	+12	
1254		592	4883	58 32 3.2		+ 7.55	5.48 F0	+ .170 + .026	29	+35	In Taurus Cluster
1255		732	4922	58 49 + 4.7		+53 45	6.42 K0	+ .060 - .098			
1256	37 Taur	585	4897	58 47 3.5		+21 49	4.50 K0	+ .092 - .059	15	+ 9	
1257		645	4892	58 56 3.1		+ 2 33	5.39 F5	+ .150 - .124	23	-18	
1258		769	4881	59 0 2.6		-20 25	6.39 B3	+ .003 - .010			
1259		770	4888	59 12 2.6		-20 26	7.39 K2	+ .020 + .010			
1260		-676	4931	59 0 +5.3		+62 4	7.07 B0	- .007 + .009		var	V ₀ = -13km } 18", fixed V ₀ = +11km }
			4932	59 2 5.3		+62 4	7.04	- .018 - .008		var	
1261	47 λ Pers	-1101	4924	59 8 4.5		+50 5	4.33 A0	- .007 - .037	19	+ 5	
1262	39 Taur	587	4913	59 25 3.6		+21 44	5.96 G5	+ .172 - .135	69	+25	
1263		770	4901	59 35 2.7		-16 51	6.49 K2	+ .102 - .071			
1264	γ Reti	312	4855	59 27 + 0.9		-62 26	4.46 Mb	- .002 + .026		var	V ₀ = -7km
1265		806	4907	59 42 2.8		-13 4	5.67 G5	+ .009 + .016	10	+32	
1266	ι Reti	293	4861	59 41 1.0		-61 22	4.81 K5	+ .062 + .093	6	+60	
1267		774	4920	0 17 2.6		-20 39	6.28 K0	+ .028 - .006			
1268	41 Taur	633	4937	0 28 3.7		+27 20	5.27 A0p	+ .024 - .052	11	var	V ₀ = -2km
1269	42 v Taur	619	4944	0 49 + 3.7		+28 44	5.29 F0	- .084 + .006	31	+ 9	
1270		759	4972	0 59 + 5.1		+59 38	6.46 K0	+ .005 - .003			
1271		44	4694	0 55 -11.0		-85 34	6.70 B9	+ .019 + .014	8		8.2, 2", binary
1272		811	4936	1 7 + 2.9		- 9 8	6.26 A2	+ .036 + .008			
1273	48 Pers	939	4967	1 24 4.4		+47 27	4.03 B3p	+ .025 - .030	15	var	V ₀ = +4km
1274		780	4939	1 24 + 2.6		-20 47	6.42 G5	- .020 + .015			
1275		1540	4938	1 30 2.5		-27 56	5.57 A5	+ .198 + .103	40	+61	
1276		740	4977	1 28 4.7		+54 34	6.28 F5	+ .087 - .092			
1277	49 Pers	881	4966	1 39 4.0		+37 28	6.20 G5	- .107 - .192	13	-40	
1278	50 Pers	882	4973	1 57 4.0		+37 47	5.59 F8	+ .168 - .200	46	+24	GC 4949, 12', cpm*
1279		657	4964	2 2 + 3.4		+14 54	5.94 F0	+ .135 - .024	25	var?	V ₀ = +34km; 9m, 4", cpm* 9m, 4", cpm
1280		-560	4971	2 16 3.4		+17 4	6.13 K0	+ .010 - .016	7	-31	
1281		239	5029	2 34 6.7		+71 52	6.15 G5	+ .018 - .022			
1282		310	5022	2 48 6.0		+68 14	6.41 K0	- .041 + .030			
1283	43 Taur	672	4995	3 20 3.5		+19 21	5.67 G5	+ .109 - .032	11	var?	V ₀ = +24km*
1284		648	4994	3 26 + 3.4		+13 8	6.02 B9	+ .015 - .009		- 26	
1285		1304	4981	4 8 2.0		-43 11	6.37 G5	- .011 + .004			
1286		807	5018	4 34 3.9		+33 19	5.91 K0	+ .003 - .016			
1287	44 Taur	686	5020	4 44 3.7		+26 13	5.55 F0	- .029 - .034	26	+19	
1288		796	5009	4 45 2.7		-16 39	5.45 B3	+ .001 + .010		+14	
1289		104	5208	4 59 +13.9		+83 34	5.39 B3	- .009 + .013	4	- 7	
1290	37 Erid	758	5027	5 30 2.9		- 7 11	5.60 G5	- .003 - .010	15	var?	V ₀ = -10km
1291		1314	5008	5 28 1.9		-46 8	6.38 F0	+ .075 + .014			
1292	45 Taur	601	5042	6 1 3.2		+ 5 16	5.71 F0	+ .149 + .011	32	+36	In Taurus Cluster
1293		837	5035	5 59 2.9		- 9 5	5.88 K0	+ .037 + .012			
1294		305	5001	6 16 + 0.7		-64 30	6.44 G0	+ .207 + .327	32		
1295		-569	5061	6 47 3.4		+17 2	6.30 G5	+ .054 - .019	8	+29	
1296		785	5091	6 49 4.9		+57 12	6.09 A2	+ .002 - .010	11	-23	
1297		649	5066	6 55 3.6		+22 9	6.16 B8	- .001 - .010		var	
1298	38 σ Erid	764	5056	6 59 2.9		- 7 6	4.14 F2	+ .009 + .087	31	+14	

1252: Composite, F5, A.

1279: In Taurus Cluster.

Precession in declination, +0.16.

1278: GC 4949 is a binary, 7.3:9.0. 1283: In Taurus Cluster.

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No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
I299		1588	5046	7 ^m 3 ^s + 2.2		-35° 32'	6.35 G5	-.026 -.034		km	
I300		801	5055	7 13 2.6		-20 37	5.80 A0	+.034 +.041			
I301		897	5079	7 20 4.0		+37 43	6.55 G5	-.054 -.001			
I302	8 Horo	1400	5051	7 29 2.0		-42 15	4.85 F0	+.189 +.066	.003	+37	
I303	51 μ Pers	1063	5099	7 33 4.4		+48 9	4.28 G0	+.010 -.022	8	var*	12m, 14", cpm
I304		-113	5279	7 59 +13.2		+83 6	5.70 G5	-.053 +.106	11	-39	
I305		687	5123	8 5 5.3		+61 36	5.64 B8	+.016 -.008	7	-2	
I306	52 Pers	912	5103	8 5 4.1		+40 14	4.89 *	+.017 -.025	5	var	V ₀ = +3km
I307		549	5088	8 6 3.3		+9 58	6.25 B8	+.046 -.023	5		
I308		651	5087	8 5 3.3		+8 38	6.45 A3	+.016 -.025	11	+8	14m, 7"
I309	46 Taur	617	5089	8 10 +3.2		+7 28	5.35 F0	-.001 +.009	27	var*	5.9:6.3, close binary
I310		564	5095	8 16 3.3		+12 30	6.49 K0	+.020 -.027		+49	
I311	47 Taur	-652	5100	8 30 3.3		+9 1	4.98 G5	-.009 -.036	8	-7	8.0m, 1", binary
I312		600	5097	8 33 3.0		-1 24	6.34 B5	+.007 +.002		+15	
I313		787	5139	8 51 5.0		+57 37	5.80 K0	+.034 -.032	12	-38	
I314		750	5132	8 55 +4.7		+53 22	5.12 A2	-.009 -.001	18	var?	V ₀ = +4km
I315		550	5111	9 8 3.3		+9 46	5.15 B8	+.003 -.023	9	+7	
I316		1450	5093	9 21 1.9		-44 37	6.66 K0	+.037 +.003			
I317		133	5265	9 37 10.5		+80 35	5.58 K0	+.010 -.020	12	-9	
I318	39 Erid	867	5114	9 38 2.9		-10 30	5.13 K0	-.009 -.160	13	+7	9m, 6", binary
I319	48 Taur	603	5137	10 6 +3.4		+15 9	6.35 F5	+.119 -.029	23	+34	In Taurus Cluster
I320	49 μ Taur	657	5134	10 6 3.3		+8 39	4.32 B3	+.027 -.023	8	+18	
I321		613	5130	10 6 3.2		+5 57	7.16 G0	-.106 -.105			65", cpm
I322		614	5135	10 10 3.2		+5 57	6.54 G0	-.060 -.114			
I323		1286	5112	10 10 2.1		-40 37	6.38 G5	.000 +.018			
I324	b Pers	-1150	5174	10 43 +4.5		+50 3	var A2	+.051 -.055	18	var*	4.8 to 4.9, 1.5 days
I325	40 ^o Erid	780	5138	10 40 2.8		-7 49	4.48 G5	-2.225 -3.418	205	-42	9.2m, 82", cpm*
I326	α Horo	1425	5121	10 41 2.0		-42 32	3.83 K0	+.038 -.206	22	+22	
I327		433	5199	11 16 5.6		+64 54	5.40 G0	-.027 -.002	10	-18	In Ursa Cluster?
I328		844	5177	11 13 4.2		+41 54	6.12 B8	+.033 -.034			
I329	50 ω Taur	724	5172	11 24 +3.5		+20 20	4.80 A3	-.041 -.059	31	+14	
I330		1155	5191	11 43 4.5		+49 48	5.54 A5	+.066 -.053		-16	
I331	51 Taur	618	5189	12 28 3.6		+21 20	5.56 A5	+.098 -.035	20	+34	In Taurus Cluster
I332		862	5183	12 26 2.9		-6 43	6.09 K0	-.019 +.005			
I333		973	5207	12 37 4.5		+50 41	5.54 B3	+.009 -.004	4	var	V ₀ = -18km
I334		558	5195	12 58 +3.3		+9 15	6.49 A2	-.022 -.032	10	+28	
I335		800	5244	13 6 5.2		+60 30	5.67 K0	+.058 -.106	6	+28	
I336	α Reti	332	5164	13 8 0.8		-62 43	3.36 G5	+.043 +.048	16	+36	12m, 49", cpm
I337		852	5220	13 20 4.1		+41 34	6.12 G5	+.015 -.026		+24	Possibly var. velocity
I338	γ Dora	1066	5179	13 24 1.6		-51 44	4.36 F5	+.101 +.186	69	+27	
I339	53 Taur	733	5210	13 32 +3.5		+20 54	5.39 B8	+.034 -.042	8	var	V ₀ = +10km
I340		334	5167	13 29 0.8		-62 27	5.40 K0	+.005 +.088	2	+36	
I341	56 Taur	623	5216	13 41 3.6		+21 32	5.32 A0p	+.033 -.040	8	+12	
I342		905	5253	13 43 4.9		+56 16	5.90 A2	-.011 +.015	12	var	
I343	54 Pers	860	5235	13 55 3.9		+34 20	5.10 G5	-.020 -.009	13	-27	
I344		757	5227	13 48 +3.8		+31 43	6.35 K5	+.006 -.010		-16	
I345		-831	5202	13 54 2.6		-20 58	6.36 Mb	-.013 +.015			
I346	54 γ Taur	612	5226	14 6 3.4		+15 23	3.86 K0	+.119 -.024	23	+38	In Taurus Cluster
I347	41 Erid	1614	5201	14 7 2.3		-34 3	3.59 B9	+.062 -.002	18	var*	5.0 days, V ₀ = +18km*
I348	52 φ Taur	655	5240	14 12 3.7		+27 7	5.06 K0	-.021 -.079	12	+3	

I303: 284 days, V₀ = +8km.

I306: Composite, G0, A5.

I309: V₀ = +4km.

I324: Variable elements, two spectra.

Precession in declination, +0.15.

I325: The companion is itself a binary, 248 years.

I347: 4.0:5.0, close binary, period short but unknown.

Two spectra.

CATALOGUE OF BRIGHT STARS

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No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
I349		562	5221	14 ^m 9 ^s +3.3		+ 9° 53'	6.62 K0	+ ".003 - ".038		km	
I350	53 Pers	872	5256	14 19	4.3	+46 16	4.89 B3	+ .022 - .039	.006	+ 1	
I351	57 Taur	663	5234	14 20	3.4	+13 48	5.59 F0	+ .117 - .020	23	var	In Taurus Cluster
I352		793	5276	14 25	5.1	+59 23	6.15 A0	+ .035 - .036	10	+12	6.16:11.2, 1", binary
I353		1856	5211	14 21	2.6	-23 13	6.08 A3	+ .046 + .032			
I354		624	5246	14 36	+3.5	+18 30	5.96 F0	+ .111 - .044	23	var	In Taurus Cluster
I355	ε Reti	324	5194	14 45	1.0	-59 33	4.42 K2	- .055 - .165	41	var?	V ₀ = +29km
I356	58 Taur	682	5252	14 56	3.4	+14 51	5.27 F0	+ .110 - .023	24	var*	In Taurus Cluster
I357		317	5193	14 50	0.9	-61 12	6.32 A0	+ .036 + .020	16		6.7:7.8, 1", binary
I358		665	5260	15 15	3.4	+13 38	6.14 F2	+ .114 - .024	17	var	In Taurus Cluster
I359		1626	5236	15 17	+2.3	-34 9	8.5	- .040 + .025	8		6", binary
I360		631	5237	15 21	3.2	+ 5 54	6.53 A2	+ .010 - .002			
I361		672	5259	15 21	3.2	+ 5 54	5.90 G5	- .016 - .048	9	+ 7	
I362		875	5261	15 22	3.3	+ 8 59	6.45 A3	+ .055 + .042	11	+39	
I363		798	5264	15 22	3.3	+ 8 59	6.45 A3	+ .055 + .042			
I364		1503	5264	15 44	2.9	- 6 29	6.33 G5	+ .103 - .040			
I365		798	5267	15 52	+2.9	- 7 50	5.72 B8	+ .003 - .004			
I366		1503	5250	16 7	1.9	-44 30	5.12 K0	+ .056 - .046	11	+24	10m, 70", cpm
I367		679	5245	16 12	1.5	-53 6	6.00 F5	+ .051 + .070			10m, 0".6
I368	60 Taur	668	5280	16 20	3.1	- 0 20	6.08 K2	- .015 - .120			
I369	59 χ Taur	707	5270	16 17	2.6	-20 53	5.31 A0	+ .028 - .007	20	+33	
I370		744	5287	16 25	+3.4	+13 50	5.76 A3	+ .114 - .025	21	var	In Taurus Cluster
I371		946	5292	16 30	3.7	+25 24	5.38 B9	+ .020 - .022	14	+11	7.5m, 19", cpm
I372		316	5289	16 30	3.5	+20 35	6.11 K5	+ .004 .000	5	- 9	8.8A0, 2", binary
I373	61 δ Taur	712	5305	16 38	4.2	+42 12	5.98 B9	+ .028 - .032	2		6.5:7.0, 0".7, binary
I374		1642	5232	16 33	0.7	-63 30	8.3	- .034 - .008			4", cpm
I375		751	5233	16 33	0.7	-63 30	6.20 B9	- .002 + .027			
I376	63 Taur	586	5304	17 10	+3.5	+17 18	3.93 K0	+ .110 - .031	19	+38	In Taurus Cluster
I377	55 Pers	853	5290	17 22	2.5	-25 58	5.88 F0	+ .045 - .049			6.6:6.6, 84 years*
I378	62 Taur	684	5291	17 24	2.5	-25 57	8.61 G0	+ .035 - .060	21		45", cpm with I374
I379	56 Pers	854	5317	17 39	3.5	+20 45	5.92 B8	+ .020 - .029	20		
I380	64 Taur	714	5315	17 41	+3.4	+16 33	5.68 A2	+ .107 - .029	22	var	8.4 days, V ₀ = +36km*
I381	66 Taur	570	5329	18 0	3.9	+33 54	5.58 B8	+ .025 - .045			
I382		800	5322	17 58	3.6	+24 4	6.16 B8	+ .010 - .010			8.0m, 29", cpm
I383	42 ζ Erid	818	5335	18 8	3.9	+33 44	5.81 F5	+ .047 - .073	36	-32	8.8m, 5", binary
I384		1862	5328	18 20	3.5	+17 13	4.84 A5	+ .113 - .039	24	+38	In Taurus Cluster
I385		633	5325	18 25	+3.3	+ 9 14	5.06 A2	- .015 - .006	14	- 4	5.8:5.8, 0".3, binary
I386		1687	5358	18 42	5.0	+57 21	6.23 A0	+ .015 - .018	9	- 1	
I387	65 κ Taur	642	5327	18 42	3.0	- 3 59	5.23 A2	- .049 - .057	18	var?	V ₀ = 10km*
I388	67 Taur	643	5324	18 55	2.5	-25 7	5.98 K5	+ .016 - .017			
I389	68 Taur	719	5344	19 7	3.5	+18 49	5.96 F0	+ .108 - .045	23	+36	In Taurus Cluster
I390		776	5331	19 28	+2.2	-35 47	6.39 G5	- .011 + .001			
I391	70 Taur	621	5350	19 24	3.6	+22 4	4.36 A3	+ .100 - .048	24	+39	In Taurus Cluster
I392	69 υ Taur	696	5351	19 28	3.6	+21 58	5.42 F0	+ .113 - .054	24	+32	In Taurus Cluster
I393	43 Erid	1664	5354	19 42	3.5	+17 42	4.24 A2	+ .112 - .029	25	+36	4.27:8.3, 1".5, binary*
I394	71 Taur	625	5359	19 44	3.8	+31 13	5.33 K0	+ .077 - .118	13	+28	
I395	η Reti	324	5356	19 55	+3.4	+15 43	6.39 F8	+ .109 - .029	24	+37	In Taurus Cluster
			5370	20 19	3.6	+22 35	4.40 A5	+ .108 - .047	26	var*	In Taurus Cluster
			5349	20 17	2.3	-34 15	4.06 K5	+ .056 + .052	8	+24	
			5375	20 39	3.4	+15 23	4.60 A5	+ .115 - .023	24	var	In Taurus Cluster
			5333	20 48	0.6	-63 37	5.18 K0	+ .081 + .170	12	+45	

I356: V₀ = +30km.
 I374: Also 8.3m, 45", cpm.
 I376: In Taurus Cluster.
 I383: In Ursa Cluster.

Precession in declination, +0.14.
 I389: Also 9m, 77", cpm. In Taurus Cluster.
 I392: V₀ = +33km, two spectra.

4^h

No.	Name	DM	GC	RA	Ann	Decl	Magn	Prop Motion		Par	Rad	Remarks
				1900	Var	1900	Spec	RA	Decl		Vel	
I396	73 π Taur	697	5383	20 ^m 57 ^s + 3.4		+14° 29'	4.94 KO	"000 - "033	"012	km	+32	
I397		687	5378	20 56 3.3		+ 8 22	5.99 B5	+ .003 - .014	5		+14	
I398	72 Taur	-1704	5361	21 14 2.2		-34 59	6.55 F5	- .020 - .106				
I399		699	5396	21 19 3.6		+22 46	5.41 B5	+ .010 - .017	6		+ 5	
I400		753	5399	21 49 3.1		+ 1 52	6.37 KO	+ .066 - .044				
I401		227	5478	21 55 +7.0		+72 19	5.97 A5	+ .035 - .079	9	var		4.2 days, $V_0 = +10\text{km}$
I402		577	5408	21 57 3.3		+10 59	5.84 B8	- .003 - .002	5			10m, binary
I403		647	5412	22 5 3.6		+21 24	5.74 A5	+ .099 - .038	21		+36	In Taurus Cluster
I404		1546	5380	22 10 1.9		-44 23	6.23 F8	+ .027 + .067				
I405		659	5365	22 15 1.2		-57 18	7.45	- .105 - .053				
			5366				7.15 G0	- .102 - .078	44			6", binary
I406		665	5431	22 33 +3.8		+30 8	6.47 F5	+ .014 - .023	20	var?		14", binary
			5432	22 34		+30 8	8.15	+ .013 - .026				
I407	75 Taur	605	5427	22 43 3.4		+16 8	5.29 G5	+ .009 + .027	13		+17	
I408	76 Taur	702	5425	22 43 3.4		+14 31	5.97 F0	+ .110 - .023	23	var?		$V_0 = +51\text{km}^*$
I409	74 ϵ Taur	640	5430	22 47 +3.5		+18 58	3.63 KO	+ .112 - .038	25		+39	In Taurus Cluster
I410		2343	5409	22 45 2.5		-24 18	6.14 A2	- .004 - .013	19			6.7:7.2, 1", binary
I411	77 θ^1 Taur	631	5433	22 52 3.4		+15 44	4.04 KO	+ .105 - .028	26	var		$V_0 = +40\text{km}^*$
I412	78 θ^2 Taur	632	5436	22 57 3.4		+15 39	3.62 F0	+ .105 - .026	26	var		141 days, $V_0 = +43\text{km}^*$
I413		755	5421	22 52 3.1		+ 1 38	6.12 KO	+ .027 + .007				
I414	79 Taur	598	5443	23 14 +3.4		+12 50	5.12 A5	+ .111 - .013	25		+34	In Taurus Cluster
I415		757	5441	23 22 3.1		+ 1 10	5.50 B8	+ .016 - .020	4		+24	
I416		335	5398	23 42 0.8		-61 28	5.58 K5	- .029 + .014			-19	
I417	1 Caml	779	5491	24 6 4.8		+53 42	6.6	- .015 - .006	4		0	
			5493				5.86 B1	+ .002 - .003		var*		10", binary
I418		1383	5428	24 10 +1.8		-47 10	6.18 F5	+ .056 - .275	24			
I419		806	5472	24 13 3.9		+32 14	6.19 B9	.000 - .012				
I420		583	5460	24 13 3.3		+10 18	6.61 B9	+ .004 + .003				
I421		931	5449	24 15 2.6		-19 40	6.10 KO	+ .028 - .086				
I422	80 Taur	636	5467	24 26 3.4		+15 25	5.70 F0	+ .104 - .025	24	var*		9.0m, 170 years*
I423		893	5458	24 28 +2.8		-13 16	5.50 B3p	+ .003 - .004			+12	
I424			5489	24 34 4.1		+39 48	6.92 B8	- .002 - .015				9", cpm
			5490				7.12	+ .005 - .030				
I425		- 590	5468	24 33 +3.3		+10 3	6.55 G5	- .006 - .065				
I426	δ Mens	116	5332	24 44 -4.0		-80 27	5.62 K0p	+ .032 + .063		var		$V_0 = -20\text{km}$
I427		637	5480	24 50 +3.4		+15 59	4.84 A5	+ .109 - .028	28	var*		In Taurus Cluster
I428	81 Taur	639	5482	24 57 3.4		+15 28	5.49 A5	+ .105 - .024	24		+39	In Taurus Cluster
I429		1510	5451	24 53 2.0		-42 11	6.38 Ma	- .018 - .005				
I430	83 Taur	690	5483	25 0 3.4		+13 30	5.49 F0	+ .107 - .022	25		+39	In Taurus Cluster
I431		896	5484	25 33 2.8		-13 49	6.37 G5	- .026 + .011				
I432	85 Taur	645	5517	26 9 +3.4		+15 38	6.04 F0	+ .104 - .028	23	var*		In Taurus Cluster
I433		1427	5485	26 22 1.8		-46 44	6.20 G5	+ .039 + .029				
I434	57 Pers	990	5541	26 23 4.2		+42 51	6.07 F0	+ .007 + .003	18		-24	
I435		357	5464	26 36 0.7		-62 44	5.78 KO	- .022 + .013				
I436		674	5531	26 45 3.2		+ 5 12	6.43 F2	+ .113 + .012	26			In Taurus Cluster
I437	45 Erid	713	5528	26 46 +3.1		- 0 16	4.97 KO	+ .003 - .006	7		+17	
I438		904	5520	26 49 2.8		-13 52	6.11 A2	- .012 - .061				
I439		1768	5512	27 2 2.2		-35 52	5.92 KO	- .001 + .035				
I440		- 515	5574	27 2 5.6		+64 3	5.91 A0	- .021 - .014			-16	
I441		809	5543	27 37 3.0		- 3 25	5.91 B9	- .006 - .003				

I408: In Taurus Cluster.

I417: $V_0 = -7\text{km}$.

Precession in Declination, +0.13.

I411: In Taurus Cluster.

I422: $V_0 = +27\text{km}$. In Taurus Cluster.I427: $V_0 = +36\text{km}$.

I412: In Taurus Cluster.

I432: $V_0 = +31\text{km}$.

CATALOGUE OF BRIGHT STARS

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No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
I442		750	5551	27 ^m 45 ^s +3.5		+17° 48'	6.24 B8	+ ".014 - ".025	.002	km	7.0:7.0, 3", binary
I443	8 Cael	1567	5527	27 46 1.8		-45 10	5.16 B3	+ .003 - .005		+15	
I444	86 ρ Taur	720	5558	28 10 3.4		+14 38	4.75 A5	+ .102 - .028	24	var*	In Taurus Cluster
I445		666	5571	28 22 3.8		+28 45	5.70 B9	+ .005 - .025		var	V ₀ = +13km; 10m, 26"
I446		600	5560	28 21 3.3		+ 9 12	6.20 K0	- .015 - .042			
I447		900	5557	28 39 +2.8		-11 0	6.24 K0	- .006 + .017			
I448		679	5570	28 49 3.2		+ 5 22	5.78 A0	- .019 - .010		- 7	In Ursa Cluster?
I449	46 Erid	- 838	5569	29 2 2.9		- 6 57	5.66 B9	.000 - .004		+ 2	10m, 1".5, cpm
I450		841	5578	29 22 2.9		- 7 2	6.42 K2	- .018 - .034			
I451	47 Erid	887	5576	29 23 2.9		- 8 26	5.45 Ma	- .027 + .007	5	-12	
I452		930	5577	29 24 +2.9		- 9 11	5.50 K2	- .037 - .109	8	var?	V ₀ = -27km
I453	50v Erid	-1883	5572	29 35 2.4		-29 58	4.59 K0	- .107 - .274	18	+20	
I454	58 Pers	-1000	5609	29 46 4.2		+41 4	4.46 *	- .011 - .018	10	var	V ₀ = +2km, 6270 days
I455		742	5591	29 51 +3.5		+19 41	6.56 F8	+ .003 - .018			
I456	v Mens	115	5418	29 49 -5.3		-81 48	5.79 F0	+ .009 + .131			
I457	87α Taur	629	5605	30 11 +3.4		+16 18	1.06 K5	+ .069 - .190	51	+54	Aldebaran*
I458	88 Taur	607	5599	30 10 3.3		+ 9 57	4.38 A3	+ .056 - .045	28	var*	8m, 69", cpm
I459		715	5611	30 28 3.6		+23 8	6.04 F2	+ .116 - .055	27	+43	
		- 958	5595	30 27 2.9		- 9 57	7.66 A0	+ .021 - .008			
I460		- 959	5597	30 28 2.9		- 9 57	6.69 A0	+ .021 - .021			13", cpm
I461		880	5592	30 38 +2.6		-20 8	6.19 K0	+ .080 + .084			
I462		830	5612	31 2 3.0		- 3 49	6.29 B9	- .007 - .011		+20	11m, 17", cpm
I463	48 v Erid	834	5617	31 19 3.0		- 3 33	4.12 B2	.000 + .001	5	var	0.19 days
I464	52 v ² Erid	1901	5614	31 40 2.3		-30 46	3.88 K0	- .054 - .011	11	- 4	
I465	α Dora	663	5600	31 50 1.3		-55 15	3.47 A0p	+ .051 - .001		+26	
I466	2 Caml	794	5659	32 3 +4.8		+53 17	5.44 F0	+ .052 - .092	22	+20	5.6:7.9, 1".5, binary*
I467	3 Caml	865	5658	32 2 4.7		+52 53	5.31 K0	+ .003 - .014	11	var*	12m, 4", cpm
I468		174	5711	32 8 8.3		+76 25	6.51 F5	+ .073 - .132	15	- 6	
I469		798	5627	32 4 3.1		+ 0 48	5.32 B5	- .004 - .003	8	+24	
I470		731	5648	32 19 3.7		+26 44	6.49 F0	+ .051 - .057	18		7.2:7.2, 3", binary
I471		785	5644	32 22 +3.5		+20 29	5.73 B9	- .014 - .007		var	
I472	89 Taur	661	5643	32 26 3.4		+15 50	5.80 F0	+ .095 - .024	23	+38	In Taurus Cluster
I473	90 Taur	618	5645	32 34 3.4		+12 19	4.30 A3	+ .101 - .012	24	var	V ₀ = +47km*
I474	51 Erid	963	5635	32 34 3.0		- 2 40	5.31 A5	+ .042 - .058	26	+21	
I475		342	5604	32 32 0.6		-63 2	5.86 K0	- .119 - .026			
I476		1911	5632	32 58 +2.3		-30 55	6.29 B8	- .018 + .014			
I477		- 674	5663	33 17 3.7		+25 2	6.27 A3	+ .022 - .004	11	+23	
I478	91 σ ¹ Taur	665	5662	33 27 3.4		+15 36	5.15 A2	+ .042 - .073	20	+18	
I479	92 σ ² Taur	666	5666	33 33 3.4		+15 43	4.85 A3	+ .084 - .018	20	var	V ₀ = +22km, two spec*
I480		681	5665	33 41 3.2		+ 7 40	5.55 F0	+ .089 + .002	22	var	V ₀ = +32km*
I481	53 Erid	933	5657	33 36 +2.7		-14 30	3.98 K0	- .073 - .158	32	var	V ₀ = +42km; 4.1:6.6, 1"
I482		1128	5687	33 56 4.5		+48 6	5.70 A0	+ .046 - .044	10	+23	
I483		955	5669	34 14 2.8		-12 19	5.02 A2	- .054 - .009	22	+ 5	
I484	93 Taur	- 639	5684	34 29 +3.3		+12 0	5.37 B9	.000 - .009	6	+24	
I485		91	5506	34 29 -7.0		-83 7	6.76 A2	- .009 + .002			
I486		826	5709	34 38 +5.2		+59 20	6.53 A3	+ .039 - .047	5		7.2:7.2, 0".5, binary
I487		936	5678	34 44 2.8		-14 33	5.61 G5	+ .122 - .125	15	+56	
I488		689	5682	34 42 3.0		- 1 15	6.18 K0	+ .025 - .016			
I489		- 954	5701	35 2 4.1		+38 5	5.82 F5	+ .241 - .098	27	+47	
I490		680	5694	35 4 3.8		+28 25	5.68 A0	+ .040 - .035	13	+26	11m, 43", cpm

I444: Two spectra.

I454: Composite, K0, A3.

I457: 13m, 31", binary.

I458: 3.6 days, V₀ = +29km.

I466: The brighter star is itself a close binary, 5.8:7.8, 0".2.

I467: 121 days, V₀ = -40km.

I473: In Taurus Cluster.

Precession in declination, +0".12.

I479: In Taurus Cluster.

I480: In Taurus Cluster..

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No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks	
1491	R Dora	189	5774	35 ^m 22 ^s + 8.1		+75° 46'	6.04 F0	+".043 - ".131	"015	km var	V ₀ = -4km	
1492		372	5661	35 36	0.7	-62 16	var M7	-.069 - .085		+24*	4.5 to 7.0, 335 days	
1493		1230	5726	35 45	4.6	+49 47	5.77 B8	-.001 - .022	5			
1494		59 Pers	1043	5719	35 49	4.3	+43 10	5.25 A0	+.043 - .051	12	var?	V ₀ = +10km
1495		2488	5690	35 57	2.5	-24 41	5.59 K0	-.068 + .017	10	var	V ₀ = -16km	
1496	54 Erid	988	5695	36 4	+ 2.6	-19 52	4.54 Ma	+.023 - .094	10	-34		
1497	94 Taur	739	5716	36 15	3.6	+22 46	4.33 B5	+.004 - .016	9	var	1.5 days, V ₀ = +14km	
1498	95 Taur	1207	5689	36 36	1.5	-51 52	6.38 K0	+.009 + .017				
1499		733	5735	37 10	3.6	+23 54	6.18 G0	+.021 - .022	25	+ 7		
1500		1032	5752	37 17	4.2	+40 36	6.10 B5	+.007 - .008		+41		
1501		827	5740	37 20	+ 3.9	+32 41	6.45 A3	-.030 - .044	11	0		
1502	α Cael	1587	5708	37 20	1.9	-42 3	4.52 F2	-.149 - .080	45	var	V ₀ = -1km; 13m, 6", cpm	
1503	β Cael	1867	5740	38 31	2.1	-37 20	5.08 F5	+.033 + .194	54	+31		
1504	55 Erid	370	5724	38 39	1.0	-59 8	6.38 G0	+.063 + .185	63		7.1:7.3, binary	
1505		-969	5759	38 47	2.9	- 8 59	6.75 F5	+.021 - .010	9	+40	9", cpm	
1506		-970	5760	38 47	2.9	- 8 59	6.67 F5	+.031 - .022		var		
1507		621	5767	38 53	+ 3.3	+10 58	5.35 A3	+.100 - .014	25	+39	In Taurus Cluster	
1508	56 Erid	929	5768	39 17	2.9	- 8 41	5.87 B5	+.001 - .002		+15		
1509	4 Caml	1968	5762	39 17	2.3	-30 57	5.73 K0	-.036 - .066		var?	V ₀ = -4km	
1510		322	5835	39 25	6.7	+70 46	6.39 B9	+.016 - .015				
1511		973	5811	39 40	+ 5.0	+56 35	5.35 A2	+.057 - .147	15	+19		
1512		739	5791	39 40	3.6	+23 27	6.17 B8	+.011 - .016				
1513	λ Pict	906	5773	39 43	2.6	-18 51	5.67 A0	+.062 - .004				
1514		1045	5803	39 50	4.1	+40 8	6.12 G5	+.003 - .030				
1515		928	5817	39 54	4.9	+55 26	6.34 F0	+.080 - .102				
1516		1471	5764	40 13	+ 1.5	-50 40	5.26 G5	-.046 + .036	0	+ 5		
1517		719	5805	40 26	3.5	+18 33	6.13 K0	+.075 - .066	7	+38		
1518	57 μ Erid	1549	5775	40 27	2.0	-41 15	6.22 K5	-.005 + .011				
1519		646	5802	40 28	3.3	+11 31	5.43 A0	+.072 - .005	19	var	V ₀ = +39km*	
1520		876	5796	40 30	3.0	- 3 26	4.18 B5	+.015 - .011	9	var	V ₀ = +17km	
1521		966	5794	40 46	+ 2.6	-21 28	6.03 K2	+.018 - .022				
1522	κ Dora	884	5813	41 24	3.0	- 3 8	6.29 A2	+.012 - .045	12			
1523		-155	5962	41 37	11.2	+81 2	5.32 K0	.000 + .029	12	var?	V ₀ = -8km	
1524		1859	5814	42 8	2.2	-34 11	6.84 B9	+.031 + .020				
1525		1735	5825	42 26	2.4	-28 16	5.97 A2	-.008 + .015				
1526		1624	5821	42 33	+ 2.0	-39 32	6.04 K0	-.068 - .020				
1527		543	5881	42 44	5.6	+63 20	5.81 Ma	+.045 - .096	6	-36		
1528		840	5856	42 51	3.9	+32 25	5.94 A3	+.023 - .033	14	var	7.1 days, V ₀ = +21km	
1529		816	5853	42 48	3.8	+31 16	5.76 K0	+.020 - .103	11	+23		
1530	376	5810	42 51	+ 0.9	-59 55	5.35 A3	+.032 + .038	19	+ 2			
1531	58 Erid	181	5750	42 54	- 2.7	-77 50	5.88 K0	-.028 + .004				
1532		954	5843	43 7	+ 2.7	-17 7	5.63 G0	+.133 + .174	63	+17		
1533		969	5868	43 11	4.0	+37 19	5.10 K2	-.032 + .034	11	-24		
1534		681	5858	43 30	3.2	+ 3 25	6.20 K0	.000 - .015				
1535		1162	5880	43 38	4.5	+48 34	5.79 G5	-.035 - .042	10	+29		
1536	96 Taur	1044	5860	43 40	+ 3.0	- 5 50	6.00 G0	+.306 - .239	39	+78		
1537		687	5873	44 1	3.4	+15 44	6.34 G5	+.007 - .012	5	+13		
1538		59 Erid	956	5864	44 3	2.7	-16 30	5.97 F8	+.004 + .039	32	+35	
1539		ζ Cael	2011	5851	43 56	2.3	-30 12	6.35 K0	+.032 + .095			
1540	365	5826	44 2	0.6	-63 25	6.32 K0	-.008 .000					

1492: Absorption lines give +26km.
1519: In Taurus Cluster.

Precession in declination, +0.11.

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No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
1541	μ Mens	282	5809	44 ^m 4 ^s -0.6		-71° 7'	5.69 B9	+".009 +".029		km -26	
1542	9 α Caml	358	5924	44 6 +6.0		+66 10	4.38 B0	+ .005 + .008	".002	+ 6	
1543	1 π^3 Orio	762	5875	44 25 3.3		+ 6 47	3.31 F8	+ .468 + .018	128	+24	
1544	2 π^2 Orio	777	5892	45 10 3.3		+ 8 44	4.35 A0	+ .004 - .031	25	var	
1545		-970	5882	45 7 2.8		-13 56	6.30 F2	- .115 - .163			
1546		891	5928	45 15 +4.7		+52 40	6.34 A2	- .003 - .022	10	-13	
1547	97 Taur	743	5907	45 31 3.5		+18 40	5.12 F0	+ .081 - .035	21	var	$V_0 = +30\text{km}^*$
1548		1720	5874	45 29 1.8		-44 9	6.56 G5	+ .009 + .028			
1549	60 Erid	964	5894	45 41 2.7		-16 23	5.16 K0	+ .042 + .057	12	+37	
1550		1081	5932	45 44 4.2		+42 25	5.62 A0	- .002 - .002	15	- 2	
1551	2 Auri	952	5934	45 56 +4.0		+36 32	5.04 K2	- .023 - .009	11	-16	
1552	3 π^4 Orio	745	5911	45 53 3.2		+ 5 26	3.78 B3	- .001 + .002	5	var	9.5 days, $V_0 = +23\text{km}$
1553		668	5920	46 14 3.3		+ 9 48	6.08 B5	.000 - .007	4	+10	
1554		701	5940	46 32 3.7		+27 44	5.91 F2	+ .052 - .032		+37	
1555	5 Caml	941	5964	46 53 4.9		+55 6	5.58 A0	- .009 - .008	12	+ 2	13m, 13", cpm
1556	4 σ^1 Orio	777	5942	46 52 +3.4		+14 5	5.19 Ma	- .004 - .057	6	- 7	
1557		1593	5913	47 1 2.0		-41 30	6.02 F0	- .002 + .065			9m, binary
1558		1116	5969	47 40 4.3		+43 54	5.98 B9	+ .031 - .055		0	
1559		1962	5939	47 50 2.2		-35 4	5.82 A0	+ .022 - .028			
1560	61 ω Erid	1068	5954	47 59 2.9		- 5 37	4.45 F0	- .018 + .024	23	- 8	
1561		898	5988	48 12 +4.8		+52 42	5.75 A2	+ .002 + .007	12	var	
1562	5 Orio	800	5961	48 10 3.1		+ 2 21	5.67 Ma	+ .034 - .017	6	+12	
1563	1 Pict	760	5945	48 42 1.3		-53 38	5.60 F0	- .097 + .081		var	12", cpm
1564		760	5946	48 43 1.3		-53 38	6.44 F0	- .098 + .079			
1565		847	5971	48 45 3.1		+ 1 25	6.45 A2	+ .009 - .001	9	+21	
1566		811	5984	49 6 +3.5		+19 20	6.24 F0	+ .063 - .039	20	+31	In Taurus Cluster
1567	8 π^5 Orio	810	5978	49 2 3.1		+ 2 17	var B3	- .001 .000	5	var*	3.6 to 3.7, 3.7 days
1568	7 Caml	829	6017	49 16 4.8		+53 36	4.44 A2	- .019 + .006	10	var	3.9 days, $V_0 = -8\text{km}^*$
1569	6 Orio	675	5983	49 14 3.3		+11 16	5.15 A3	- .013 + .020	17	var?	
1570	7 π^1 Orio	-683	5987	49 23 3.3		+10 0	4.74 A0	+ .046 - .131	17	+11	
1571		755	5986	49 23 +3.2		+ 7 37	5.54 K0	- .019 - .032	10	- 5	
1572		229	6070	49 39 7.6		+74 7	6.23 K0	+ .025 + .036	5	-52	
1573		-930	6011	49 40 4.0		+36 1	6.18 B2	- .015 + .011	3	- 7	
1574		893	5991	49 43 3.1		+ 0 19	5.86 B5	.000 + .005		var	$V_0 = +36\text{km}$
1575		709	6015	50 10 3.7		+24 26	6.28 F0	- .022 - .018	18	-11	
1576		787	6010	50 9 +3.4		+14 53	5.74 B8	+ .019 - .022	7	+ 9	
1577	31 Auri	-855	6029	50 29 3.9		+33 0	2.90 K2	+ .008 - .019	20	+17	
1578		769	6019	50 39 3.2		+ 5 14	6.59 A0	- .004 - .008			
1579		991	6008	50 38 2.7		-16 54	5.80 K0	+ .009 + .004	11	+11	
1580	9 σ^2 Orio	740	6025	50 45 3.4		+13 21	4.28 K0	- .073 - .048	17	+ 1	
1581		992	6012	50 49 +2.7		-16 35	5.82 K0	+ .007 + .048	12		
1582	62 Erid	1091	6032	51 29 3.0		- 5 20	5.46 B9	- .007 - .005		+24	
1583		2115	6024	51 25 2.5		-25 53	6.62 A2	+ .014 + .027	14		
1584		1691	6016	51 34 2.0		-39 47	6.01 K0	- .016 + .023			
1585		-672	6040	51 36 3.5		+17 0	5.68 K0	- .010 - .009	8	+25	
1586	99 Taur	777	6044	51 45 +3.6		+23 48	5.99 K0	+ .012 - .008	8	+ 4	12m, 6"
1587		264	6111	51 45 7.5		+73 37	6.76 K0	+ .026 - .014			
1588	8 Caml	-906	6062	51 48 4.8		+53 0	6.40 K2	- .009 - .010	7	- 2	
1589		265	6121	52 3 7.6		+73 55	6.00 A2	+ .018 - .015	11	- 1	close double
1590	98 Taur	717	6048	52 2 3.7		+24 54	5.65 B9	+ .033 - .051	8	var	

1547: In Taurus Cluster.

1567: $V_0 = +23\text{km}$.

Precession in declination, +0.10.

1568: 8m, 1", binary; also 11m, 26", cpm.

No	Name	DM	GC	RA		Decl 1900	Magn Spec	Prop Motion		Par	Rad Vel	Remarks
				1900	Ann Var			RA	Decl			
1591	4 Auri	762	6043	52 ^m 13 ^s + 3.0	- 1° 14'	6.23 F2	- .040	- .036	1016	+12 var*	8mF9, 6", binary 12m, 5", cpm	
1592		1005	6064	52 28 4.1	+37 44	4.99 A0	+ .045	- .102				
1593		853	6088	52 36 5.4	+60 56	6.12 F5	+ .015	- .174				
1594		370	6107	52 42 6.1	+66 41	6.29 F8	+ .073	- .343				
1595		1003	6055	53 10 2.7	-14 24	5.87 B3	+ .009	+ .013				
1596	5 Auri	1080	6060	53 9 + 3.0	- 2 22	6.43 A0	- .003	+ .027	18 + 6	+ 6	12m, 21", cpm 10m, 3", binary 39", fixed	
1597		437	6034	53 14 1.0	-58 42	6.12 F5	+ .094	+ .076				
1598		338	6022	53 21 0.1	-66 50	6.27 K5	+ .010	+ .002				
1599		1133	6084	53 26 4.1	+39 15	6.00 F5	- .013	+ .002				
1600		795 796	6071 6072	53 17 3.4 53 19 3.4	+14 24 +14 24	8.0 B9 5.98 B8	+ .006 + .007	+ .004 - .019				
1601	10 ^α Ori	872	6068	53 22 + 3.1	+ 1 34	4.73 K0	- .001	- .002	12	+14	6.2:6.5, 56 years 3.3 to 4.1, 9883 days*	
1602	6 Auri	1134	6086	53 30 4.1	+39 30	6.73 K5	+ .006	+ .005	5	-24		
1603	10 ^β Caml	856	6136	54 31 5.3	+60 18	4.22 G0p	- .002	- .015	6	- 2		
1604		1013	6082	54 33 2.7	-16 32	5.54 F2	- .141	+ .150	27			
1605	7 ^ε Auri	1166	6123	54 47 + 4.3	+43 41	var F5p	+ .003	- .007	7	var*	6.0 to 10.4, 443 days	
1606		332	6031	54 46 - 1.0	-72 35	6.18 F5	- .057	+ .273				
1607	R Leps	- 915	6093	55 3 + 2.7	-14 57	var N8	+ .022	+ .022			21", fixed	
1608	63 Erid	1066	6098	55 6 2.8	-10 25	5.69 K0	+ .027	- .133	44	-13		
1609		736	6108	55 17 3.2	+ 3 28	6.95 A0	+ .025	+ .003				
1610		737	6109	55 19 3.2	+ 3 28	6.63 A0	+ .007	- .010				
1611	64 Erid	1047	6104	55 17 + 2.8	-12 41	4.85 F0	+ .044	- .089	22	-15	V ₀ = +11km V ₀ = +24km 0.10 days V ₀ = +25km	
1612	8 ^γ Auri	1142	6137	55 29 4.2	+40 56	var *	+ .015	- .023	8	var		
1613		1095	6115	55 37 3.0	- 2 13	6.26 A5	- .019	+ .010				
1614		1123	6120	55 51 3.0	- 5 52	6.50 K0	+ .557	-1.089	106	var?		
1615	65 ^v Erid	1044	6153	56 18 + 4.2	+41 18	6.20 A0	+ .006	- .005	10	var	14", binary In Taurus Cluster	
1616			74	6447	56 18 21.3	+85 50	6.54 A5	+ .025	- .077	13		var
1617			948	6138	56 35 2.9	- 7 19	4.81 B8	+ .003	+ .010	5		var
1618			923	6143	56 42 3.1	+ 0 34	6.18 K0	+ .016	- .031			
1619			886	6147 6148	56 49 3.1	+ 1 28	7.4 A 6.75 B8	- .009 - .018	+ .013 + .022	14		
1620	102 ^α Taur	751	6158	57 7 + 3.6	+21 27	4.70 A5	+ .060	- .043	18	+42	180", probably cpm	
1621		990	6142	57 5 2.6	-20 12	4.99 B9	+ .035	- .013	19	+24		
1622	11 Caml	804	6193	57 27 5.2	+58 50	5.31 B3p	.000	- .007	5	-11		
1623	12 Caml	805	6197	57 30 5.2	+58 53	6.38 K0	+ .005	- .031	6	- 8		
1624		- 857	6202	57 27 + 5.4	+61 2	6.27 K0	+ .043	- .073		-39		
1625		1019	6167	57 48 3.0	- 4 21	6.10 K0	+ .054	+ .018				
1626		772	6176	57 52 3.8	+30 22	6.39 K0	+ .004	- .006				
1627		879	6182	58 8 3.9	+32 11	6.43 A3	- .006	- .073	15	- 8		
1628		1975	6160	58 6 + 2.4	-26 25	5.01 K0	+ .083	- .080	11	+27		
1629	η Mens	290	6078	58 3 - 1.7	-75 5	5.28 K0	+ .027	+ .060	17	+26		
1631	1 Leps	1744	6156	58 15 + 2.0	-39 52	5.99 G5	- .009	+ .030	12	+22	10m, 90"* V ₀ = +18km	
1632			723	6186	58 23 3.8	+27 33	6.48 A2	+ .023				- .032
1633			755	6183	58 24 3.6	+21 9	6.34 K0	+ .024				- .016
1634			1960	6172	58 32 2.5	-22 56	5.84 K0	+ .059				+ .024
1635			2163	6169	58 36 + 2.3	-31 55	6.00 K0	- .010				+ .073
1636	9 Auri	302	6245	58 40 6.6	+69 30	6.58 K0	+ .070	- .065	6			
1637			1024	6219	58 51 4.7	+51 28	4.99 F0	- .024	- .175	35	- 1	
1638			732	6191	58 51 3.4	+15 16	4.65 B9	+ .017	- .035	12	var	
1639		11 Ori	973	6216	59 20 4.0	+35 48	6.37 A3	- .009	.000	11	+14	

1592: V₀ = +5km; velocity of the fainter component +6km.1605: An eclipsing variable; V₀ = -3km.

1612: 4.9 to 5.6 (ptg), 972 days; composite, K0, B1.

Precession in declination, +0.09.

1637: Also 13m, 6", all three share the proper motion.

CATALOGUE OF BRIGHT STARS

4^h - 5^h

No	Name	DM	GC	RA		Decl	Magn, Spec	Prop Motion		Par	Rad Vel	Remarks
				1900	Ann Var			RA	Decl			
1640		1027	6187	59 ^m 18 ^s +2.7	-14° 31'	6.35 B3	- .010	+ .034			km	
1641	10 η Auri	1058	6226	59 30 4.2	+41 6	3.28 B3	+ .029	- .071	1013	+ 8		
1642		847	6211	59 38 3.5	+19 40	6.46 A2	- .006	- .024	10	-17		7.0:7.5, 1", binary
1643		274	6288	59 45 7.6	+73 49	5.38 A0p	+ .009	- .033	14	+10		
1644		1170	6230	59 41 4.3	+43 2	6.21 F2	+ .009	- .001				
1645		2795	6195	59 45 +2.5	-24 32	5.55 A2	+ .023	- .028			var	
1646		998	6206	59 54 3.0	- 3 11	5.98 B5	.000	+ .002			+26	
1647		500	6260	0 1 5.8	+64 47	6.40 F2	+ .025	- .168	24	- 2		
1648	W Orio	- 939	6221	0 14 3.1	+ 1 2	var Nb	+ .012	- .006			+21	5.9 to 7.7, 200 days
1649	η Pict	1641	6185	0 12 1.6	-49 18	5.44 F5	- .052	+ .023	50	+21		
1650		190	6323	0 30 +8.5	+76 21	6.31 B9	- .001	- .006				
1651		1690	6204	0 42 1.9	-41 53	6.31 F8	+ .018	+ .152				
1652	γ Cael	2089	6212	0 49 2.2	-35 37	4.62 K0	+ .121	- .051	14	var		V ₀ = +10km. 9m, 3", binary
1653		2090	6214	0 52 2.1	-35 51	6.26 F0	+ .020	+ .038				
1654	2 ε Lep	1000	6231	1 14 2.5	-22 30	3.29 K5	+ .025	- .073	15	+ 1		
1655		2005	6229	1 13 +2.4	-26 17	5.89 K0	+ .003	- .066	10			
1656	104 Taur	779	6255	1 32 3.5	+18 31	5.04 G0	+ .540	+ .017	57	+20		5.8:5.8, close binary
1657	66 Erid	1044	6246	1 49 3.0	- 4 47	5.19 B9	+ .015	+ .010	13	var*		5.5 days, V ₀ = +30km*
1658	106 Taur	885	6259	1 53 3.6	+20 17	5.29 A3	- .045	- .036	21	- 1		
1659	103 Taur	755	6267	2 1 3.7	+24 8	5.50 B3	+ .004	- .005	4	var		V ₀ = +16km. 58.4 days*
1660	105 Taur	766	6263	1 57 +3.6	+21 34	5.95 B3p	+ .008	- .008			var	V ₀ = +22km
1661		1063	6248	2 0 2.8	-13 15	6.06 A0	+ .018	+ .036				
1662	13 Orio	736	6261	2 10 3.3	+ 9 21	6.26 G0	.000	- .378	36	-24		
1663	η ² Pict	1662	6234	2 22 1.6	-49 43	4.92 K5	+ .059	- .001	2	+36		
1664	14 Orio	866	6269	2 26 3.3	+ 8 22	5.47 *	+ .025	- .064	16	var		V ₀ = +4km*
1665		1076	6268	2 45 +2.8	-12 37	6.14 F8	+ .139	- .078				
1666	67 β Erid	1162	6274	2 56 3.0	- 5 13	2.92 A3	- .092	- .079	39	- 9		
1667		768	6241	2 55 1.3	-54 33	6.14 K5	+ .004	- .009				
1668		970	6311	3 16 4.5	+46 50	5.59 F5	+ .060	- .150	27	+34		
1669		1067	6309	3 32 4.1	+37 11	6.17	+ .008	- .008	3	+ 9		6.8B2:7.1K, 2", cpm
1670		732	6301	3 28 +3.8	+27 54	6.13 A3	+ .062	- .070	17	+40		12", cpm*
			6302			8.1	+ .057	- .072				
1671		1037	6281	3 33 2.9	- 8 48	5.67 B8	+ .004	- .010	7			
1672	16 Orio	743	6300	3 50 3.3	+ 9 42	5.42 A2	+ .065	- .004	18	+39		In Taurus Cluster
1673	68 Erid	1056	6292	3 46 3.0	- 4 35	5.23 F5	+ .043	+ .019	42	+10		
1674	ζ Dora	735	6258	3 48 +1.0	-57 37	4.76 F8	- .037	+ .109	83	- 2		
1675		766	6345	3 53 5.5	+61 44	5.99 A0	+ .016	+ .007	11	- 5		
1676	15 Orio	752	6306	3 58 +3.4	+15 28	4.86 F0	+ .004	- .015	11	+31		
1677	β Mens	309	6232	4 0 -0.8	-71 27	5.30 K0	.000	+ .024	24	-11		
1678	14 Caml	734	6352	4 13 +5.6	+62 34	6.38 A2	- .030	+ .007	11	var		
1679	69 λ Erid	1040	6304	4 22 +2.9	- 8 53	4.34 B2	+ .003	.000	6	var?		V ₀ = +3km
1680		2126	6296	4 41 2.1	-35 51	6.44 G5	+ .002	+ .001				
1681		867	6322	4 57 +3.1	- 0 41	6.35 K0	- .001	- .052				
1682		165	6224	5 36 -3.2	-78 26	6.19 K0	- .017	- .013				
1683		280	6405	5 53 +7.4	+73 9	5.76 A0	.000	- .032	8			
1684		759	6350	5 57 +3.4	+15 55	5.36 K0	+ .012	+ .006	10	- 6		
1685		1161	6343	5 55 3.0	- 2 22	6.32 G5	+ .075	- .143				
1686		169	6455	6 4 9.9	+79 7	5.16 F8	- .076	+ .158	53	-10		
1687		1165	6348	6 17 3.0	- 2 37	5.93 F2	+ .072	+ .010				
1688		857	6385	6 24 5.3	+59 17	6.36 K0	+ .017	- .014			+ 4	

1657: 9m, 53". Two spectra.

Precession in declination, +0.08.

1659: 9m, 35".

1670: The companion is itself a close binary, 8.7:9.2.

1664: 5.9F0:6.7A2, 1", 500 years. GC 6270, 348" distant, shares the proper motion.

5^h

No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
I689	11 μ Auri	1063	6375	6 ^m 35 ^s + 4.1		+38° 22'	4.78 A3	- .016 - .076	.025	km var	$V_0 = +23$ km
I690		974	6359	6 31 3.1		+ 0 24	6.58 B9	+ .015 + .004			7.1:7.6, close binary
I691		975	6361	6 36 3.1		+ 0 55	6.3 F5	- .012 - .014	2	-19	7.8, 2", binary
I692		872	6383	6 43 4.8		+53 6	6.16 A0	+ .017 .000	12	var?	$V_0 = -5$ km
I693		-1092	6358	6 43 2.8		-11 58	5.91 Mb	+ .026 + .057	5	+46	
I694		2045	6346	6 41 + 2.4		-26 2	6.53 K0	- .020 + .058			
I695		420	6314	6 47 0.5		-63 32	5.24 Mb	+ .015 - .043	13	+19	
I696	3 μ Lep	-1095	6374	7 38 2.8		-11 59	4.54 B8	+ .026 - .014	11	var?	$V_0 = +25$ km. 10m, 12", cpm
I697		1109	6377	7 55 2.9		- 6 10	6.01 G5	+ .027 - .030			
I698	17 ρ Ori	888	6381	8 4 3.1		+ 2 45	4.64 K0	+ .001 - .005	8	var*	8.3m, 7", fixed
I699		2071	6371	8 9 + 2.1		-37 31	6.58 K5	.000 + .004			
I700		286	6313	8 10 - 1.2		-73 10	6.25 A0	+ .024 + .070			
I701		938	6388	8 20 + 3.1		+ 1 51	6.25 *	+ .010 + .013	7	+ 7	6.9:7.1, close binary
I702	5 μ Lep	1072	6382	8 26 2.7		-16 19	3.30 A0p	+ .042 - .026	21	+28	
I703		988	6394	8 39 3.1		+ 0 26	6.54 K2	+ .003 - .024			
I704		1059	6392	8 45 + 2.9		- 8 16	6.16 A0	+ .001 + .002			
I705	4 κ Lep	1092	6387	8 37 2.8		-13 4	4.46 B8	- .015 - .008	14	+18	7.5m, 2.5", cpm
I706	14 Auri	921	6409	8 53 3.9		+ 32 34	7.7	- .024 + .029	13	var*	15", binary
I707	R Auri	882	6435	9 13 4.8		+53 28	var M7	+ .022 - .022		-13	6.5 to 13.9, 462 days
I708	13 α Auri	1077	6427	9 18 + 4.4		+45 54	0.21 G0	+ .083 - .427	71	var	104 days, $V_0 = +30$ km*
I709		- 877	6407	9 25 3.2		+ 5 2	5.82 K0	- .006 + .009	7	- 8	
I710		1074	6400	9 27 2.7		-14 43	6.26 F2	- .003 + .010			
I711	108 Taur	864	6413	9 27 3.6		+22 10	6.16 A0	- .004 - .013	9		
I712	AE Auri	980	6429	9 42 4.0		+34 12	var B0p	+ .012 + .027	3	+59	5.3 to 6.2, irregular
I713	19 β Ori	1063	6410	9 44 + 2.9		- 8 19	0.34 B8p	+ .001 .000	6	var*	7m, 9", fixed*
I714		78	6778	9 52 20.4		+85 35	6.55 A0	- .009 + .004			
I715		2176	6404	10 13 + 2.1		-35 56	6.97 K0	+ .028 - .051			
I716	ξ Mens	106	6254	10 14 - 6.8		-82 36	5.85 K0	- .002 + .002			
I717		837	6425	10 15 + 3.0		- 1 31	6.12 F2	- .043 + .038			
I718	18 Ori	756	6436	10 31 + 3.3		+11 14	5.50 A0	- .003 - .010	10	+ 9	
I719	15 Caml	- 874	6478	10 50 5.2		+58 1	6.23 B3	+ .009 - .022	4	- 3	
I720		742	6496	11 2 5.6		+62 33	5.88 K2	+ .003 + .003	3	- 6	
I721		2127	6421	10 57 2.1		-36 5	5.79 K0	+ .007 + .004		var	$V_0 = +13$ km
I722		1239	6469	11 7 4.3		+42 41	5.88 Mb	+ .042 - .024	5	-38	
I723		2161	6438	11 24 + 2.4		-27 3	5.04 B9	+ .005 - .018		+29	
I724		957	6451	11 30 3.1		+ 1 50	6.37 B9	- .010 - .008			
I725		1240	6481	11 41 4.2		+40 21	6.32 K0	+ .021 - .017			
I726	16 Auri	1000	6473	11 37 3.9		+33 16	4.81 K0	+ .050 - .163	13	var	$V_0 = -29$ km. 11m, 4", cpm
I727		677	6423	11 34 1.4		-52 9	5.88 K5	- .011 - .025			
I728	17 α Auri	1002	6476	11 44 + 3.9		+33 39	var B9	+ .016 - .033	7	var*	5.8 to 6.5, 4.1 days
I729	15 λ Auri	-1248	6494	12 6 4.2		+40 1	4.85 G0	+ .528 - .659	68	+67	
I730		2199	6450	12 12 2.2		-35 2	6.68 A2	- .026 + .027			
I731		1069	6466	12 21 2.7		-17 15	6.48 B3	- .011 + .024			
I732		1008	6497	12 25 3.9		+33 39	5.39 A0p	+ .015 - .028	7	+30	
I733		1170	6508	12 47 + 4.4		+44 19	6.72 K0	+ .007 - .012			
I734	18 Auri	1010	6504	12 48 4.0		+33 53	6.52 A5	+ .014 - .013	12		13m, 5"
I735	20 α Ori	-1028	6480	12 45 2.9		- 6 57	3.68 B5	- .015 - .005	8	+20	
I736		998	6520	13 12 4.5		+46 52	6.48 F0	+ .006 - .005			8m, A, 23", fixed
I737		1116	6487	13 5 2.8		-13 38	5.66 K0	- .013 - .045	21	+75	

I698: $V_0 = +39$ km.I706: 3.8 days, $V_0 = -10$ km.

Precession in declination, +0'07".

I701: Composite, A2, G.

I708: Capella, two spectra; 0"05, observed with interferometer. Also 10m, 723", cpm, velocity +36km.

I713: Rigel, vel. varies in 21.9 days, $V_0 = +24$ km. Visual companion is a close binary, 7.7, 7.7.I728: $V_0 = +26$ km.

CATALOGUE OF BRIGHT STARS

5^h

No.	Name	DM	GC	RA	Ann	Decl	Magn	Prop Motion		Par	Rad	Remarks
				1900	Var	1900	Spec	RA	Decl		Vel	
1738		1253	6516	13 ^m 13 ^s +4.2		+40° 59'	5.46 A3	+ .002	- .060	.018	km	
1739	109 Taur	-816	6506	13 16 3.6	3.6	+22 0	5.14 K0	+ .014	- .083	12	+13	
1740	19 Auri	1013	6515	13 25 4.0	4.0	+33 51	5.16 A5p	+ .001	- .013	22	- 4	
1741		-893	6507	13 20 3.6	3.6	+20 2	6.22 K0	- .035	- .029	10	-47	10m, 9", cpm
1742		683	6459	13 20 1.4	1.4	-52 18	6.34 K0	+ .015	+ .026			
1743	o Colm	2214	6495	13 53 +2.2		-35 0	4.91 K0	+ .081	- .336	23	+21	
1744	θ Dora	401	6444	13 50 0.0	0.0	-67 18	4.78 K0	+ .006	+ .033	8	var	V ₀ = +10km
1745		195	6647	14 2 9.2	9.2	+77 53	6.54 A5	+ .011	- .013	11		
1746	21 Orio	916	6509	13 58 3.1	3.1	+ 2 30	5.45 F5	- .016	- .046	20	+13	
1747		1051	6511	14 23 2.7	2.7	-18 14	5.93 G0	+ .382	+ .062	63		
1748		859	6522	14 31 +3.0		- 1 31	6.42 B3	- .007	- .005		var	V ₀ = +29km
1749	20ρ Auri	1162	6556	14 44 4.2	4.2	+41 42	5.12 B3	+ .020	- .035	6	var	V ₀ = +5km
1750		758	6543	14 43 3.8	3.8	+27 51	6.30 B9	- .009	- .017		var	
1751	16 Caml	879	6578	14 54 5.1	5.1	+57 27	5.25 A0	+ .027	- .057	15	var	
1752		869	6550	14 51 3.8	3.8	+29 28	5.72 A0	+ .008	+ .002	9	var*	2.2 days, V ₀ = -19km
1753		1055	6524	14 54 +2.6		-18 37	6.17 B8	+ .013	+ .012			
1754		1056	6525	14 55 2.6	2.6	-18 36	6.36 B8	+ .006	.000			39", fixed
1755		902	6548	15 2 3.5	3.5	+19 43	6.44 K0	- .003	- .017			
1756	6λ LepS	1127	6531	14 58 2.8	2.8	-13 17	4.29 B1	- .003	- .005	4	+20	
1757	7ν LepS	1132	6538	15 21 2.8	2.8	-12 25	5.29 B5	- .007	+ .010		+16	
1758		2204	6535	15 25 +2.4		-27 28	5.75 A0	- .003	- .004			
1759		1225	6547	15 32 2.9	2.9	- 5 28	6.29 B9	- .010	+ .030			11m, 4", cpm
1760		1268	6582	15 49 4.2	4.2	+40 56	5.57 A3	- .009	+ .003	17		
1761		857	6569	16 3 3.2	3.2	+ 3 55	6.41 B3	- .001	- .008		+ 5	
1762		1135	6559	16 11 2.6	2.6	-21 20	4.73 A0	+ .006	+ .002	10	+30	9.5m, 4"
1763		933	6574	16 17 +3.3		+ 8 20	5.71 B2	+ .001	+ .002		var?	V ₀ = +21km
1764		929	6572	16 26 3.1	3.1	- 0 31	5.65 B3	- .003	+ .003	7	+ 8	
1765	22 Orio	930	6579	16 39 3.1	3.1	- 0 29	4.65 B3	+ .003	- .001	6	+29	
1766		2198	6565	16 45 2.2	2.2	-34 48	6.42 F0	- .015	- .003			
1767	ζ Pict	1723	6553	16 55 1.5	1.5	-50 43	5.52 F8	+ .014	+ .224	19	+45	
1768	22 Auri	788	6609	17 3 +3.8		+28 50	6.39 B9	+ .022	- .031	6	var	
1769		1135	6591	17 16 2.8	2.8	-13 51	6.47 B8	+ .007	- .006	4		
1770	23 Orio	871	6607	17 35 3.2	3.2	+ 3 27	4.99 B3	- .003	- .001	6	+18	32", fixed
		872	6610	17 36 3.2	3.2	+ 3 27	7.07 A	- .016	- .014			
1771		3023	6596	17 40 2.5	2.5	-24 52	5.45 G0	- .024	- .013	12	+ 4	3", binary
			6597				6.67 A3	- .035	- .014			
1772		2207	6588	17 40 +2.2		-34 27	6.12 B5p	+ .001	+ .002		var?	V ₀ = +20km. 12m, 2"
1773	21σ Auri	1175	6636	17 51 4.1	4.1	+37 18	5.22 K5	+ .004	- .010	8	-19	12m, 9", fixed
1774	110 Taur	765	6623	17 51 3.5	3.5	+16 36	6.09 A2	- .026	- .020		var	
1775		954	6642	18 12 3.9	3.9	+31 8	6.37 K0	- .038	- .011		var?	
1776		955	6643	18 12 +3.9		+31 3	5.93 B9	- .006	- .009	7	+ 8	
1777		905	6626	18 12 3.2	3.2	+ 5 14	6.38 A0	- .024	- .003	8	+ 9	
1778		1107	6629	18 31 2.9	2.9	- 8 30	5.83 A0	+ .003	- .015	14		8.5m, 6", binary
1779		1031	6650	18 34 4.0	4.0	+34 46	6.48 K0	- .001	- .042			8m, 31", cpm
1780	111 Taur	920	6645	18 35 3.5	3.5	+17 17	5.14 G0	+ .249	- .010	64	+37	
1781		936	6632	18 35 +3.1		- 0 15	5.64 B3	- .009	+ .004	7	+22	
1782		-882	6637	18 46 3.1	3.1	- 0 58	6.11 F5	- .004	- .008	22		6.7:7.0, 2", binary*
1783	8 LepS	1119	6635	18 56 2.7	2.7	-14 1	5.17 B3	+ .001	+ .005	3	var	V ₀ = +18km
1784	29 Orio	1064	6646	19 8 2.9	2.9	- 7 54	4.21 K0	- .015	- .042	12	-18	
1785		2185	6634	19 11 2.4	2.4	-26 48	6.44 F5	+ .024	+ .009			

1752: Two spectra.

Precession in declination, +0.06.

1782: The faint component is itself a double, 7.7:7.8, 0".25.

No	Name	DM	GC	RA	Ann	Decl	Magn	Prop Motion		Par	Rad	Remarks
				1900	Var	1900	Spec	RA	Decl		Vel	
1786		947	6656	19 ^m 23 ^s +3.1		+ 2° 16'	6.32 B3	+ .012	- .006	"003	km	V ₀ = -8km V ₀ = +21km 3.8:4.8, 1", binary V ₀ = +19km Bellatrix
1787	27 Orio	- 886	6654	19 24 3.1		- 0 59	5.15 G5	- .006	+ .133	15	var?	
1788	28 Orio	1235	6655	19 27 3.0		- 2 29	3.44 B1	+ .007	+ .004	6	var*	
1789	25 Orio	1005	6660	19 33 3.1		+ 1 45	4.73 B3p	.000	.000	7	var	
1790	24 Orio	919	6668	19 46 3.2		+ 6 16	1.70 B2	- .006	- .014	14	+18	
1791	112 Taur	795	6681	19 58 +3.8		+28 31	1.78 B8	+ .030	- .175	25	+ 8	
1792		1117	6666	20 1 2.7		-17 4	5.68 A0	+ .016	- .025			
1793		1940	6648	20 6 2.0		-39 46	5.81 Ma	+ .013	+ .002			
1794		1102	6691	20 13 4.0		+35 23	6.30 K2	- .016	- .011			
1795		1040	6689	20 11 4.0		+34 18	5.85 A0	+ .011	- .014	10	+ 7	
1796		1045	6693	20 18 +3.9		+33 11	6.30 K0	+ .018	- .003			
1797		2176	6653	20 12 2.1		-37 26	6.87 G5	+ .026	+ .007			
1798	113 Taur	775	6683	20 19 3.5		+16 37	6.18 B3	- .006	- .006	4	+31	
1799		1178	6672	20 19 2.8		-10 25	5.90 K5	- .018	- .021			
1800		945	6676	20 25 3.1		- 0 38	6.25 B9	+ .012	- .006	14		6.7:7.3, close binary
1801		840	6644	20 32 +1.1		-56 14	6.20 B9	- .003	+ .023			
1802	17 Caml	759	6744	20 43 5.7		+62 59	5.75 K5	+ .001	- .004	6	-19	
1803		1056	6685	20 39 3.1		+ 0 25	6.02 B3	- .004	+ .020			V ₀ = -24km
1804		898	6703	20 44 3.8		+30 7	5.72 B9	+ .013	- .012	5	+14	
1805	24 Auri	1048	6715	21 1 4.0		+34 23	5.26 K0	+ .001	- .050	9	+31	
1806		1247	6694	21 8 +2.9		- 5 37	6.13 B9	+ .013	+ .010			
1807		923	6704	21 16 3.2		+ 6 47	6.39 B9	+ .003	- .012			
1808	115 Taur	928	6714	21 20 3.5		+17 53	5.31 B3	+ .010	- .029	6	+19	11m, 10", cpm
1809		822	6716	21 31 3.4		+15 11	6.13 A2	- .012	- .004	9	+24	
1810	114 Taur	847	6723	21 38 3.6		+21 51	4.83 B3	+ .006	- .009	4	+17	*
1811	30 Orio	- 962	6713	21 36 +3.1		+ 3 1	4.66 B2	+ .003	- .003	4	var*	9m, 3", fixed
1812		1173	6700	21 40 2.6		-19 47	5.79 F5	+ .006	- .021	24		9m, 27", cpm
1813		2036	6688	21 57 1.8		-44 19	5.90 K0	- .009	+ .002			
1814	116 Taur	826	6729	22 1 +3.4		+15 47	5.51 A0	+ .009	- .024	9	+15	
1815		134	6530	22 6 -5.8		-81 39	6.48 G5	+ .028	+ .045			
1816	117 Taur	931	6733	22 13 +3.5		+17 10	6.04 K5	+ .023	- .052			
1817		-1169	6726	22 25 2.8		-11 59	6.37 F5	+ .012	- .048	25	+18	
1818	6 Pict	718	6695	22 30 1.4		-52 24	6.32 A0	- .019	- .032	5		6.9:7.3, 0".5, binary
1819		903	6753	22 56 3.4		+13 36	6.26 A2	+ .015	- .020	10	+25	
1820		1021	6743	22 51 3.1		+ 1 13	6.37 B3	+ .018	+ .004		+34	
1821	118 Taur	839	6763	23 7 +3.7		+25 4	6.64	- .001	- .033	13	+16	5", binary
1822		909	6772	23 19 3.8		+29 6	6.24 F5	+ .026	- .056	20	+13	
1823		1174	6747	23 21 2.6		-21 28	6.14 K0	+ .013	+ .038			
1824		1206	6797	23 45 4.2		+41 23	6.09 K0	- .016	- .042			
1825		1322	6796	23 47 +4.2		+39 45	6.52 K0	+ .025	- .043			7.7m, 75"
1826		1115	6771	23 57 3.0		- 3 23	6.17 B9	- .036	- .014	3		6.8:7.1, close binary
1827		1884	6748	23 53 1.9		-41 2	5.85 A2	- .001	+ .091			
1828	18 Caml	889	6814	24 0 5.1		+57 9	6.46 G0	+ .126	- .217	15	+36	
1829	9 Lep	1096	6762	23 58 2.6		-20 50	2.96 G0	.000	- .090	16	-14	11m, 3", binary
1830		1116	6779	24 25 +3.0		- 3 32	6.06 K0	- .045	- .007	7		
1831		925	6807	24 41 3.6		+22 23	6.49 K0	+ .047	- .018			
1832		837	6805	24 43 3.4		+15 17	5.78 A2	- .025	- .053	13	- 8	
1833		1032	6800	24 43 3.1		+ 1 43	5.67 B3	+ .009	- .003		+15	
1834	31 Orio	913	6792	24 39 3.0		- 1 10	var K5	+ .004	- .022	8	+ 8	5.1 to 6.2 (ptg), irreg*

1788: Velocity varies in two periods 8.0 days and 9 years, Precession in declination, +0.05.
 V₀ = +20km. 1810: Three 12m stars, distant 38", 59", 74", possibly share the motion.
 1811: 2.5 days, V₀ = +12km, two spectra. 1834: 11m, 13", cpm.

CATALOGUE OF BRIGHT STARS

5^h

No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
1835		2220	6774	24 ^m 49 ^s + 2.1 ^s		-37° 19'	5.53 A0	+ .001 + .073		km +50	
1836	λ Dora	472	6749	24 52 0.9		-59 0	5.06 G5	- .018 + .023	.007	+10	
1837	CK Orio	949	6806	25 3 3.2		+ 4 7	var K0	+ .003 - .047			6.7 to 7.3, (ptg), irreg
1838		2421	6791	25 16 2.3		-30 12	6.62 K0	- .009 + .014			
1839	32 Orio	939	6813	25 26 3.2		+ 5 52	4.32 B3	+ .012 - .034	9	+21	4.4:7.0, close binary
1840		1099	6810	25 31 + 2.9		- 7 31	6.24 B3	- .013 + .002	4	+12	
1842	33 Orio	948	6823	26 0 3.1		+ 3 13	5.52 B3	+ .001 + .004	4	+20	7.3m, 2", fixed
1843	25λ Auri	1024	6849	26 13 3.9		+32 7	4.88 B1	+ .004 - .005	4	var	655 days, V ₀ = 0km
1844		252	6938	26 21 8.0		+74 59	6.36 K5	- .006 + .023	5	- 3	
1845	119 Taur	875	6841	26 21 3.5		+18 31	4.73 Ma	+ .006 - .004	3	+23	
1846		-1218	6857	26 22 + 4.3		+42 2	6.30 B8	+ .003 - .004			
1847		794	6843	26 26 3.5		+16 59	6.02 B9	+ .001 - .012	8	var	10", fixed
			6844	26 26 3.5		+16 59	6.52	- .007 + .004		var	V ₀ = +21km
1848		1207	6835	26 29 2.9		- 6 47	6.03 B3	+ .010 + .002		+23	
1849	10 Leps	1105	6837	26 51 2.6		-20 56	5.50 A0	+ .006 - .043	11	-11	
1850		1028	6865	26 55 + 3.9		+32 44	6.50 A0	+ .013 - .065	11	+38	
1851		982	6848	26 54 3.1		- 0 22	6.87 B0	+ .009 - .003		+23	53" from No 1852*
1852	34δ Orio	983	6847	26 54 3.1		- 0 22	var B0	+ .001 - .001	5	var*	2.5 to 2.6, 5.7 days*
1853		401	6909	27 2 6.1		+66 38	6.24 A5	- .006 - .029	13	-26	
1854		1083	6868	27 0 4.0		+34 39	6.05 A2	- .033 - .011	11	var	
1855	36ν Orio	1106	6850	27 6 + 2.9		- 7 23	4.64 B3	- .001 - .004	4	var	V ₀ = +17km
1856		1884	6830	27 24 1.6		-47 9	5.54 G5	+ .020 - .143		+16	
1857	19 Caml	536	6917	27 34 5.8		+64 5	6.03 B9	+ .008 - .068			10m, 1", cpm
1858	120 Taur	877	6879	27 40 + 3.5		+18 28	5.50 B3p	+ .003 - .002	4	var	V ₀ = +44km
1859		375	6795	27 31 - 0.3		-68 42	6.15 F0	- .001 - .021	13	+ 1	6.8:7.1, close binary
1860		989	6881	27 42 + 3.6		+20 24	6.09 B8	.000 - .013			
1861		935	6863	27 38 3.0		- 1 40	5.30 B2	- .001 - .008	3	+34	10m, 2", cpm
1862	ε Colm	2348	6846	27 40 2.1		-35 33	3.92 K0	+ .023 - .037	13	var	V ₀ = -5km
1863		939	6878	28 4 3.0		- 1 48	6.70 B3	- .025 - .039	4	+37	8.3, 2", cpm*
1864	35 Orio	947	6886	28 13 3.4		+14 14	5.58 B3	- .006 - .006	5	+19	
1865	11α Leps	1166	6875	28 19 + 2.6		-17 54	2.69 F0	+ .003 + .005	11	+24	
1866		914	6921	28 23 4.9		+54 22	5.96 K5	+ .001 + .002	6	+ 1	
1867		479	6832	28 23 0.5		-62 23	6.49 K2	+ .005 - .026			
1868	VV Orio	943	6884	28 27 3.0		- 1 14	var B2	- .004 + .002	3	var*	5.3 to 5.7, 1.49 days*
1869		1178	6922	28 43 4.5		+47 39	6.05 F0	+ .012 - .017	20	+13	
1870		1892	6864	28 46 + 1.7		-46 0	5.80 K2	+ .019 + .036			
1871		1058	6891	28 48 3.1		+ 1 20	6.42 B5	+ .007 + .005		+10	
1872	38 Orio	964	6896	29 1 3.2		+ 3 42	5.32 A2	- .031 - .018	14	var?	V ₀ = -9km*
1873		949	6893	28 59 3.0		- 1 6	6.18 B3	+ .007 + .003	4	+ 4	
1874		950	6894	29 0 3.0		- 1 32	6.22 K0	- .012 - .032			
1875	121 Taur	954	6916	29 21 + 3.7		+23 58	5.28 B3	+ .011 - .016	5	+23	
1876	37φ' Orio	877	6907	29 20 3.3		+ 9 25	4.53 B0	+ .004 - .004	3	var	8.4 years, V ₀ = +33km
1877		2085	6889	29 29 2.0		-38 35	5.45 K2	+ .033 - .003	0	- 1	
1878		806	6930	29 39 3.8		+27 36	6.47 K0	- .021 - .040			
1879			6915	29 38 3.3		+ 9 52	3.66	+ .001 - .006		+33	14", fixed*
1880	39λ Orio	879		29 38 3.3		+ 9 52	5.56 Oe5		4	var	V ₀ = +35km
1881		2367	6890	29 33 + 2.1		-35 12	5.75 K0	+ .091 - .041		var?	V ₀ = +15km
1882		452	6858	29 40 0.4		-64 0	6.28 F0	+ .005 + .052			12m, 9"
1883		818	6919	29 42 3.3		+10 10	5.59 B8	+ .024 - .008			10m, 3", cpm
1884		1346	6952	29 53 4.2		+40 7	6.18 K0	+ .001 - .012			

1851: Micrometer measures show that this star has the same motion as 1852. Precession, +0.04.
 1852: The first spectroscopic binary in which stationary lines were observed. V₀ = +20km.
 1863: Also 8m, 30"; and 9m, 30"; both cpm. 1872: In Ursa Cluster?
 1868: Vel. varies in a longer period as well. 1879: Also 11m, 28", fixed.

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No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
1885		80	7273	29 ^m 54 ^s +18 ^s		+85° 9'	6.41 KO	+ ".019 + ".004	.005	km -46	
1886		1233	6925	30 8 2.9		- 6 5	5.58 B1	- .010 + .002		+29	
1887		1234	6926	30 9 2.9		- 6 4	4.67 B1	+ .004 + .004	4	+28	36", fixed
1888		2348	6901	30 1 2.3		-29 55	6.34 A0	+ .010 + .020			
1889		879	6955	30 18 3.7		+25 53	6.32 F5	+ .018 + .003		+ 3	
1890		1183	6932	30 25 + 3.0		- 4 34	6.54 B0	- .012 + .031		var	V ₀ = +29km
1891		1184	6933	30 25 3.0		- 4 29	6.28 B0	+ .021 - .026		+31	
1892	42 Orio	1185	6934	30 27 3.0		- 4 54	4.65 B3	+ .003 + .001	6	var	V ₀ = +28km. 8.6m, binary
1893				30 22 2.9		- 5 27	6.84			var*	The Trapezium
1894	41 θ' Orio	1315		30 22 2.9		- 5 27	var* ^{0e5}			var*	Distances from
1895			6931	30 22 2.9		- 5 27	5.36	+ .003 + .003	6	var*	No 1895; 13", 17"
1896				30 22 2.9		- 5 27	6.85			var*	and 13", all fixed
1897	43 θ ² Orio	1319	6935	30 28 + 2.9		- 5 29	5.17 B1	.000 + .006	0	var*	5.4:6.8, 52", fixed
1898		1186	6939	30 34 3.0		- 4 26	6.29 B5	+ .001 - .020		+30	6.4:8.4, 4", cpm
1899	44 ι Orio	-1241	6937	30 32 2.9		- 5 59	2.87 0e5	+ .003 + .004	21	var*	2.9:7.3, 11", fixed
1900		1146	6943	30 36 + 3.0		- 3 19	6.33 B5	- .009 + .001		+24	
1901	45 Orio	1188	6945	30 44 3.0		- 4 55	5.28 F0	+ .007 + .012	18	- 9	
1902		870	6968	30 54 3.7		+26 52	5.70 B8	+ .015 - .026	8	var*	6.4:6.4, 1", binary
1903	46 ε Orio	969	6960	31 8 3.0		- 1 16	1.75 B0	.000 .000	7	+26	
1904		1102	6979	31 10 4.0		+33 30	6.43 K0	+ .008 - .003			
1905	122 Taur	822	6973	31 16 + 3.5		+16 59	5.39 A5	+ .049 - .034	25	+41	
1906		1334	6964	31 21 2.9		- 5 43	6.45 B3	.000 - .002		+11	
1907	40 φ ² Orio	898	6972	31 25 3.3		+ 9 14	4.39 K0	+ .093 - .305	26	+99	
1908		828	6975	31 31 3.3		+10 58	6.10 K0	+ .047 - .013		-119	
1909		2414	6956	31 35 2.2		-33 9	5.74 K0	+ .014 + .109			
1910	123 ζ Taur	908	6985	31 40 + 3.6		+21 5	3.00 B3p	+ .006 - .022	9	var	133 days
1911		1255	6971	31 43 2.9		- 6 8	5.62 B3	- .006 - .011		+29	10m, 5", cpm
1912		854	6929	31 45 1.2		-54 58	6.35 F5	+ .053 + .007			10m, 54"
1913		1016	6981	31 51 3.3		+ 8 53	6.09 B3	+ .001 - .001		+42	
1914	26 Auri	963	7002	32 13 3.9		+30 26	5.49 A2	- .015 - .010	12	+ 2	6.1:6.4, close binary*
1915		2298	6974	32 16 + 2.3		-28 46	6.15 A0	+ .020 - .001			
1916		485	7068	32 25 6.0		+65 39	5.78 K0	+ .001 - .021	9	-19	
1917		456	6927	32 27 0.3		-64 18	5.30 G5	+ .034 - .014	6	var	181 days, V ₀ = +10km
1918		1262	6994	32 34 2.9		- 6 0	5.75 B1	+ .013 + .004		+30	
1919		1238	6988	32 29 2.8		-11 50	6.02 A0	+ .021 - .032			
1920		953	7000	32 36 + 3.2		+ 7 29	5.70 B8	+ .007 - .017		var?	V ₀ = +18km
1921		884	7014	32 43 3.7		+26 34	6.47 K0	+ .028 - .019			
1922	β Dora	487	6944	32 45 0.5		-62 33	var* F5p	- .007 + .004	8	var*	V ₀ = +7km
1923		1196	7001	32 57 3.0		- 4 52	6.32 B1	+ .003 + .022		+29	
1924		947	7026	32 57 3.8		+29 10	6.00 B5	+ .016 - .005		var	V ₀ = +30km
1925		934	7064	33 14 + 4.9		+53 26	6.41 K0	+ .010 - .521	92	+ 1	9.4m, 99", cpm
1926	v' Colm	2389	6999	33 19 2.4		-27 56	5.95 A5	+ .011 - .062			
1927		1940	6986	33 20 1.6		-47 23	6.04 K0	- .022 - .020			
1928	125 Taur	902	7047	33 32 3.7		+25 50	5.00 B3	+ .023 - .023	5	var	27.9 days, V ₀ = +15km
1929		918	7038	33 27 3.6		+21 42	6.32 A2	.000 - .037	10	var	
1930		526	6977	33 36 + 0.9		-58 56	6.49 K2	- .042 + .014			
1931	48 σ Orio	1326	7031	33 44 3.0		- 2 39	3.78 B0	.000 + .004		var*	3.9:5.9, close binary*
			7032	33 44 3.0		- 2 39	7.2	- .013 + .003	4		13", cpm with 1931
1932		1327	7034	33 44 3.0		- 2 39	6.50 B3	- .018 + .013		+29	42", cpm with 1931
1933		1275	7028	33 46 2.9		- 6 38	5.92 B3	- .016 + .004		var	V ₀ = +22km

1893: V₀ = +32km.1895: V₀ = +23km.

Precession in declination, +0.04.

1894: BM Orio, 8.1 to 8.7, 6.6 days. 1896: V₀ = +27km.1897: 21.0 days, V₀ = +37km. Velocity of fainter +28km.1899: 29.1 days, V₀ = +22km.1902: V₀ = +10km.

1914: Also 8m, 12", cpm.

1922: 4.2 to 5.7 (ptg), 9.8 days.

1931, 1932: These two stars with their eight companions form a close group, all but one brighter than 10m. V₀ = +28km for the brightest star.

CATALOGUE OF BRIGHT STARS

5^h

No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
1934	47 ω Orio	1002	7042	33 ^m 54 ^s +3.2		+ 4° 4'	4.54 B3p	- .003 + .001	"005	km var	V ₀ = +22km
1935	v ² Colm	2321	7013	33 50 2.3		-28 45	5.32 F2	- .038 + .050	35	var?	V ₀ = +36km
1936		488	6978	33 52 0.7		-61 14	6.36 KO	+ .001 - .025			
1937	49 Orio	1142	7039	34 3 2.9		- 7 16	4.88 A3	- .013 - .052	26	var	
1938		1048	7066	34 8 3.9		+31 18	5.96 B8	+ .017 - .008			
1939		1049	7072	34 12 +3.9		+31 52	6.72 Ma	+ .014 + .004			
1940		1166	7056	34 32 3.0		- 3 37	5.97 A5	- .003 - .002			
1941	24 Caml	1050	7105	34 33 5.1		+56 32	6.19 KO	+ .017 + .030	17	-29	
1942		1197	7062	34 46 2.8		- 9 46	6.36 B5	+ .007 - .013		+21	
1943	23 Caml	816	7124	34 57 5.5		+61 26	6.39 G5	.000 + .002	8	- 4	
1944		1199	7058	34 52 +2.6		-17 54	6.22 B9	+ .001 + .004			6.4:8.0, 1"*
1945		953	7087	34 59 3.8		+29 26	6.75 A	+ .022 - .030		+36	26", cpm
		954	7088	34 59 3.8		+29 27	7.45 A	+ .005 - .055			
1946	126 Taur	841	7094	35 31 3.5		+16 29	4.87 B3	+ .012 - .021	5	var*	5.5:5.7, close binary
1947		1999	7061	35 31 1.9		-40 46	5.81 B8	- .013 + .008			
1948	50 ζ Orio	1338	7089	35 43 +3.0		- 2 0	2.05 B0	+ .004 - .002	8	+19	2"5, binary
1949				35 43 3.0		- 2 0	4.21			+13	
1950		1337	7085	35 37 3.0		- 2 53	6.07 B5	+ .007 + .011	4	+30	
1951		1007	7107	35 50 3.6		+23 16	6.49 B9	- .011 - .015			
1952		1004	7091	35 46 +3.0		- 1 11	5.00 B3	- .013 - .005	6	var	27.2 days, V ₀ = +26km
1953	γ Mens	333	6966	35 50 -2.4		-76 25	5.06 KO	+ .117 + .288	15	var	V ₀ = +57km
1954		996	7113	36 1 +3.6		+22 37	6.47 K2	- .006 - .022			
1955		1152	7098	35 57 3.1		+ 0 17	5.99 A5	+ .013 + .030	15	-12	
1956	α Colm	2375	7078	36 2 2.2		-34 8	2.75 B5p	- .001 - .026	22	+35	12m, 12"
1957		1258	7095	36 3 2.8		-10 28	6.36 B8	- .033 - .030			
1958		2479	7082	36 8 +2.2		-32 41	5.53 KO	- .028 - .029	6	- 8	
1959		1346	7116	36 39 3.0		- 2 57	6.33 F0	+ .040 + .031			6.7:7.7, 0.7", cpm
1960		439	7054	36 55 0.0		-66 37	6.44 A0	- .024 + .007			
1961		1015	7148	37 15 3.6		+23 10	6.06 B3	+ .004 - .023		+19	
1962		1208	7119	37 14 2.7		-16 46	6.10 B5	- .003 + .010			
1963	51 Orio	1105	7136	37 18 +3.1		+ 1 26	5.24 G5	- .054 - .014	11	+88	
1964		316	7017	37 14 -1.5		-73 48	5.61 Mb	- .015 + .038			
1965		1214	7140	37 49 +2.6		-17 34	6.33 KO	- .036 + .008			
1966		2483	7126	37 47 2.2		-33 27	6.38 A0	+ .008 - .002			
1967		1293	7151	38 2 2.9		- 6 51	5.98 F5	- .004 + .069	19	-11	6.4:7.3, 21 years
1968	12 Leps	1194	7141	38 2 +2.5		-22 25	5.86 A2	- .003 + .017			
1969	26 Caml	1058	7191	38 5 5.1		+56 4	6.06 A2	+ .023 - .057	11	var	
1970		1012	7153	38 6 3.0		- 1 39	6.49 K2	+ .003 - .025			
1971	27 α Auri	1398	7182	38 9 4.6		+49 47	5.52 A0	- .010 - .003	14	- 6	
1972		2571	7147	38 23 2.3		-30 35	6.22 A0	- .010 + .012			
1973		2401	7150	38 40 +2.2		-34 43	5.31 B9	- .015 + .051		+34	
1974		1403	7192	38 49 4.2		+40 28	6.48 A3	- .029 - .008	11	- 4	
1975		1172	7162	38 59 2.6		-18 36	5.75 B9	+ .017 - .015			
1976		784	7236	39 38 5.7		+62 46	6.13 A2	- .002 - .009	11	- 6	6.5:7.6, 1", binary
1977	Y Taur	1083	7197	39 41 3.6		+20 39	var Nb	+ .03 - .01		-18	6.5 to 8.9, 240 days
1978		1025	7198	39 45 +3.2		+ 3 58	6.14 F0	+ .019 - .019		+ 7	10m, 17"
1979		1396	7221	40 5 4.3		+42 29	6.41 KO	+ .019 - .086			
1980		1171	7193	40 10 2.6		-20 10	6.44 G0	- .016 + .046			
1981		2140	7179	40 12 2.0		-39 27	6.29 F0	+ .035 + .001			
1982		1210	7196	40 16 2.5		-22 27	6.41 G5	- .305 - .355	122	-10	95", cpm*
1983	13 γ Leps	1211	7197	40 18 2.5		-22 29	3.80 F8	- .287 - .371		var?	V ₀ = -10km

1944: Four other companions all brighter than 10m.
1946: V₀ = +21km.

Precession in declination, +0.03.
1982, 1983: In Ursa Cluster.

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No	Name	DM	GC	RA	Ann	Decl	Magn	Prop Motion		Par	Rad Vel	Remarks
				1900	Var	1900	Spec	RA	Decl			
1984		2131	7189	40 ^m 51 ^s + 1.7		-45° 53'	6.33 F0	+ .019	+ .088		km	
1985	129 Taur	926	7224	41 0 3.5		+15 47	5.91 B8	+ .009	- .007	.004		
1986		1235	7219	41 6 3.0		- 4 18	6.42 K0	.000	- .067			6.5:8.8, 7", cpm
1987		954	7228	41 23 3.3		+ 9 29	5.89 G5	- .034	- .065			
1988		1126	7226	41 26 3.1		+ 1 8	6.14 G5	- .073	- .148			
1989	131 Taur	1025	7237	41 31 +3.4		+14 27	5.67 A2	+ .013	- .042	14		
1990	130 Taur	1004	7241	41 36 +3.5		+17 41	5.51 F0	.000	- .010	17 + 9		
1991	γ Mens	195	7102	41 43 -3.7		-78 52	6.14 B9	+ .016	+ .017			
1992	29 Caml	1065	7293	42 2 +5.1		+56 53	6.38 A2	- .005	- .009	13		10m, 25"
1993	133 Taur	979	7249	42 3 3.4		+13 52	5.20 B5	+ .016	- .016	4 + 29		
1994		412	7319	42 10 +6.5		+68 26	6.40 K0	+ .018	- .040			
1995	29 τ Auri	1418	7277	42 15 4.2		+39 9	4.64 K0	- .022	- .025	11		In Ursa Cluster?
1996	μ Colm	2538	7230	42 17 2.2		-32 21	5.20 B2	+ .004	- .025	+110		
1997		1105	7266	42 24 3.6		+20 50	5.94 B9	+ .020	- .018	5	var	8m, close binary*
1998	14 ζ Leps	1232	7247	42 25 2.7		-14 52	3.67 A2	- .016	- .004	38	var	V ₀ = +20km
1999	52 Orio	1027	7262	42 38 +3.2		+ 6 25	5.27 A3	+ .007	- .020	15 + 40		6.0:6.0, 1".5, binary
2000		1244	7250	42 40 2.7		-16 16	6.31 G0	- .032	+ .003			
2001		1281	7258	42 45 2.8		-10 34	6.00 A3	- .031	- .024			
2002	132 Taur	970	7283	42 53 3.7		+24 32	5.02 K0	+ .004	- .028	12 + 16		
2003		1117	7308	42 59 4.8		+51 29	6.40 G5	+ .169	- .040			
2004	53 κ Orio	1235	7264	43 1 +2.8		- 9 42	2.20 B0	+ .004	- .002	6 + 20		
2005		2449	7259	43 10 2.3		-28 40	6.05 B8	+ .003	+ .004			
2006	30 Caml	863	7327	43 28 5.3		+58 56	6.06 B9	+ .011	- .023	6		
2007		1244	7286	43 37 3.0		- 4 7	5.95 G5	+ .070	- .220			
2008		1999	7257	43 41 1.7		-46 38	5.13 K0	- .004	+ .017	10 + 11		
2009		2509	7271	43 47 +2.1		-35 42	6.38 K0	- .015	+ .040			
2010	134 Taur	912	7306	43 56 3.4		+12 37	4.92 B9	- .018	- .026	11 + 24		
2011	31 ν Auri	1336	7322	44 13 4.1		+37 17	4.99 Ma	+ .043	- .044	8 + 38		
2012	32 ν Auri	1429	7334	44 34 4.2		+39 7	4.18 K0	.000	+ .008	16 + 9		10m, 55"
2013		888	7326	44 40 3.8		+27 56	5.65 K0	- .005	+ .011	8 + 8		
2014		978	7314	44 32 +3.3		+ 9 50	5.89 G5	+ .006	- .011	10 + 43		
2015	δ Dora	496	7246	44 36 0.1		-65 46	4.52 A5	- .030	+ .004	22 - 3		
2016	135 Taur	1041	7323	44 48 3.4		+14 17	5.71 K0	+ .009	- .038	10 + 45		
2017		2085	7294	44 45 1.9		-40 41	6.48 K0	- .001	+ .031			
2018		1109	7338	44 55 3.9		+32 6	6.41 Ma	+ .005	+ .004			12m, 15"
2019		1052	7320	44 55 +3.2		+ 4 24	6.12 K0	+ .018	- .043			
2020	β Pict	1620	7287	44 55 1.4		-51 6	3.94 A3	+ .002	+ .083	58 + 28		
2021		1251	7315	45 4 +2.7		-14 31	5.57 G5	- .026	- .045	11		9m, 2".5, cpm
2022	π Mens	161	7161	45 8 -4.8		-80 33	5.65 G5	+ .286	+1.062	42 + 12		
2023		892	7289	45 12 +1.2		-54 24	5.96 K5	- .022	- .013			
2024		1148	7328	45 18 +3.1		+ 2 0	6.26	.000	- .015			Composite, G0, A0
2025		1435	7363	45 42 4.2		+39 33	6.46 A2	- .023	- .019	8	- 19	
2026		3135	7325	45 43 2.5		-23 0	5.78 A2	- .012	+ .024		+ 44	
2027	31 TU Caml	920	7402	46 0 5.4		+59 52	var A0	+ .004	- .020	14	var*	5.2 to 5.3, 2.9 days
2028		1179	7369	46 3 4.0		+33 53	6.38 Ma	+ .011	+ .003			
2029	30 ζ Auri	1027	7404	46 28 +5.0		+55 41	4.92 A2	- .008	+ .017	15 - 10		
2030		1110	7372	46 28 3.6		+19 50	6.00 B9	+ .001	+ .001			
2031	55 Orio	1187	7354	46 32 2.9		- 7 33	5.32 B3	+ .001	.000	4 + 20		
2032		2274	7336	46 40 1.7		-44 55	6.32 K2	- .013	+ .008			
2033	137 Taur	1060	7374	46 41 3.4		+14 9	5.57 B9	- .017	- .008	7	var	V ₀ = -4km

1997: Also 7m, 75", cpm.

2027: V₀ = -3km, two spectra.

Precession in declination, +0.02.

CATALOGUE OF BRIGHT STARS

5^h

No	Name	DM	GC	RA	Ann	Decl	Magn	Prop Motion		Par	Rad	Remarks
				1900	Var	1900	Spec	RA	Decl		Vel	
2034	136 Taur	899	7389	47 ^m 3 ^s + 3.8		+27° 35'	4.54 A0	+ .008	- .015	0.016	km var*	I2m, 15". V ₀ = -16km
2035	158 Lep	1211	7362	47 1 2.6		-20 53	3.90 K0	+ .231	- .645	27	+100	
2036		1246	7371	47 18 2.5		-22 58	6.09 K0	+ .001	- .019			
2037	56 Ori	1151	7380	47 15 .3.1		+ 1 50	5.01 K0	- .006	- .007	4	+ 10	
2038		1156	7397	47 22 3.6		+20 17	6.56 B9	+ .008	- .012		- 6	
2039		1255	7376	47 22 + 2.9		- 9 5	5.96 A0	- .028	+ .052			
2040	β Colm	2546	7364	47 26 2.1		-35 48	3.22 K0	+ .048	+ .399	27	+ 89	
2041		413	7452	47 26 6.1		+66 5	6.59 K0	+ .044	- .023			
2042	γ Pict	946	7353	48 1 1.1		-56 11	4.38 K0	+ .074	- .067	15	+ 16	
2043		2556	7385	48 8 2.3		-29 28	6.49 K0	- .008	+ .018			
2044		791	7370	48 17 + 1.3		-52 48	6.34	- .033	+ .011			6.8F5:7.6A, 0.3
2045		1128	7445	48 17 4.8		+51 47	6.48 A3	- .006	- .012	9	- 12	
2046		1139	7426	48 30 3.9		+31 41	5.81 A3	- .037	- .179	19	- 21	
2047	54χ Ori	1162	7419	48 28 3.6		+20 15	4.62 F8	- .185	- .087	104	- 13	In Ursa Cluster
2048		927	7420	48 41 3.3		+10 34	6.50 K0	+ .007	+ .007			
2049		794	7377	48 37 + 1.4		-52 8	4.98 K0	- .001	- .078	18	+ 1	
2050		964	7427	48 57 3.4		+11 45	6.46 B9	+ .010	- .069			
2051		1071	7423	49 0 3.2		+ 3 13	6.55 K0	+ .052	- .060			
2052	57 Ori	1126	7436	49 1 3.6		+19 44	5.89 B2	+ .001	- .010	3	var	7.8 days, V ₀ = +8km
2053		2457	7407	49 9 2.0		-37 39	5.64 K0	+ .026	- .032		+ 32	
2054		1423	7470	49 24 + 4.6		+49 1	6.44 G5	+ .022	- .020			
2055		2270	7412	49 27 2.0		-38 33	6.74 K0	- .004	- .005	3		IIm, 1"
2056	λ Colm	2599	7416	49 29 2.2		-33 49	4.89 B5	- .010	+ .033	11	+ 30	
2057		1208	7440	49 35 3.1		+ 0 57	6.23 K0	+ .001	- .003			
2058		1281	7439	49 37 + 3.0		- 4 5	6.35 B3	- .001	+ .021		+ 23	
2059		75	7134	49 34 -11.6		-84 50	6.24 A0	- .006	+ .047			
2060		1293	7429	49 38 + 2.6		-19 40	6.46 A0	- .024	+ .004			
2061	58α Ori	1055	7451	49 45 + 3.2		+ 7 23	var Ma	+ .027	+ .007	11	var*	Betelgeuse, 0.1 to 1.2*
2062		418	7351	49 50 - 1.2		-72 44	6.51 K0	+ .018	+ .018			
2063	U Ori	1171a	7457	49 53 + 3.6		+20 8	var M7	+ .004	- .016		- 37*	5.4 to 12.2, 373 days
2064	ε Dora	463	7384	50 0 - 0.1		-66 56	5.15 B5	- .019	+ .013	11	+ 16	
2065		1321	7449	50 4 + 2.8		-11 48	5.81 K2	+ .065	+ .040	6	+ 87	
2066		952	7472	50 13 3.8		+28 56	6.42 A2	+ .007	- .002	9	+ 19	
2067		1036	7469	50 19 3.4		+13 56	6.48 G5	+ .389	- .468	60	- 2	
2068		2595	7446	50 21 2.3		-29 10	6.17 F2	- .024	- .053			
2069		2205	7431	50 20 + 1.8		-42 57	6.34 K0	+ .004	+ .006			
2070		1289	7463	50 33 3.0		- 4 38	5.98 K0	+ .039	- .016			
2071		1291	7466	50 39 3.0		- 4 49	6.22 A0	- .012	- .019			
2072		901	7422	50 40 1.0		-57 10	5.95 F5	+ .018	- .081			
2073		486	7411	50 50 0.3		-64 4	6.42	- .015	+ .012			Composite, K0, A3
2074		1033	7483	50 49 + 3.7		+24 14	6.02 B3	+ .007	- .002		var	V ₀ = -3km
2075		1016	7478	50 58 3.3		+ 9 29	6.01 B9	+ .001	- .002			
2076		975	7488	51 14 3.4		+11 30	6.08 G5	+ .100	- .054		+ 22	
2077	33δ Auri	970	7521	51 18 4.9		+54 17	3.88 K0	+ .085	- .128	22	+ 9	
2078		247	7606	51 22 8.3		+75 35	6.52 K5	+ .021	- .016			
2079		1036	7527	51 26 + 5.0		+55 19	6.48 A2	- .010	- .090	12	+ 45	
2080		971	7532	51 33 5.0		+54 33	6.26 K0	+ .016	- .037			
2081		1428	7523	51 36 4.7		+49 55	6.07 G5	+ .001	- .013			
2082		2260	7471	51 37 2.0		-39 58	5.63 K5	- .017	+ .012			
2083		1977	7462	51 44 1.5		-50 24	6.50 K0	+ .074	+ .568	31		

2034: Two spectra.

2061: 5.8 years, V₀ = +21km. The first star whose angular diameter was measured with interferometer.

Precession in declination, +0.01.

2063: Absorption lines give -17km.

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No.	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
2084	139 Taur	1052	7507	51 ^m 47 ^s +3.7		+25° 56'	4.90 B2	+".004 - ".003	".004	km var	V ₀ = +8km
2085	16η Lep	1286	7492	51 51 2.7		-14 11	3.77 F0	-.041 + .138	63	- 2	
2086		1269	7494	52 2 2.5		-22 51	6.01 K0	+.120 + .021			
2087	ξ Colm	2487	7481	52 3 2.1		-37 8	5.02 K0	+.025 - .027	7	var	V ₀ = +60km
2088	34β Auri	1328	7543	52 12 4.4		+44 56	var AOp	-.051 - .004	39	var*	2.1 to 2.2, 4.0 days*
2089		1945	7473	52 11 +1.5		-49 39	6.16 B5	+.003 + .011		+12	
2090		3263	7500	52 24 2.5		-23 14	6.41 K0	+.015 + .025			
2091	35π Auri	1217	7554	52 31 4.5		+45 56	4.59 Ma	+.003 - .009	6	+ 1	
2092	σ Colm	2848	7499	52 35 2.3		-31 24	5.54 F0	.000 + .008		+19	
2093		1168	7517	52 44 3.1		+ 1 13	6.49 K2	-.070 + .008			
2094		805	7479	52 38 +1.3		-52 39	5.30 A5	-.015 + .244	9	+24	
2095	37θ Auri	1380	7557	52 54 4.1		+37 12	2.71 AOp	+.051 - .083	25	+29	7.5m, binary
2096		1332	7563	53 0 4.4		+44 35	6.44 G5	-.022 - .044	7	+ 2	11m, prob. binary
2097		1078	7531	53 7 3.1		- 1 1	6.33 K0	+.007 - .024			
2098		2854	7508	53 5 2.2		-31 59	6.50 K0	-.004 + .018			
2099		968	7547	53 16 +3.4		+12 48	5.77 *	-.012 + .018	6	+10	Probably double
2100	59 Orio	1171	7539	53 13 3.1		+ 1 50	6.06 A5	+.004 - .008			10m, 36"
2101	36 Auri	1227	7580	53 23 4.6		+47 54	5.68 A0	+.009 - .022			
2102		498	7477	53 20 0.5		-63 7	4.53 K0	+.135 + .540	24	+25	
2103	60 Orio	1239	7556	53 41 3.1		+ 0 33	5.25 A0	-.015 - .003	7	var	V ₀ = +36km
2104		495	7486	53 45 +0.3		-64 30	6.62 F2	-.008 + .060			
2105		1333	7598	54 2 4.6		+48 58	6.24 K0	-.007 - .008			
2106	γ Colm	2612	7536	54 0 2.1		-35 18	4.36 B3	-.006 + .005	9	+24	
2107	1 Mono	1284	7560	54 16 2.9		- 9 23	6.28 F0	+.013 + .012	17	var	
2108	2 Mono	1285	7565	54 19 2.8		- 9 34	5.10 A5	+.016 - .052	14	var	9.4 days, V ₀ = +22km
2109		1083	7574	54 34 +3.0		- 1 27	6.37 B9	-.010 - .019			
2110		1164	7600	54 42 3.9		+31 2	6.01 A0	+.003 + .006	9	-11	
2111		945	7597	54 43 3.8		+27 35	6.08 B8p	+.003 - .005		+17	
2112		1441	7616	55 2 4.7		+49 54	5.98 A0	+.027 - .050			
2113		1256	7587	55 3 3.0		- 3 5	4.68 K0	+.009 - .070	20	+26	
2114		978	7551	55 7 +1.3		-53 26	6.35 K2	+.008 - .018			7.5m, 56"
2115		1421	7625	55 40 4.3		+43 22	6.52 K0	+.023 - .026			
2116		1140	7610	55 39 3.6		+22 24	6.28 B8	-.007 - .022			
2117		2363	7576	55 40 1.8		-44 3	5.74 K0	-.009 + .010			
2118		1337	7601	55 41 2.8		-12 54	6.29 F0	-.007 - .039			
2119	38 Auri	1473	7641	56 5 +4.3		+42 55	6.13 G5	+.119 - .146	11	+38	
2120	η Colm	2266	7591	56 5 1.8		-42 49	4.03 K0	+.011 - .022	13	+17	
2121		937	7667	56 15 5.3		+59 24	7.07 K0	+.010 - .051			
2122		1166	7636	56 22 3.9		+32 38	6.23 F5	+.082 - .212	25	+34	
2123		1146	7663	56 33 4.8		+51 35	6.30 A5	+.006 - .046	11	+20	8m, 40", cpm
2124	61μ Orio	1064	7635	56 53 +3.3		+ 9 39	4.19 A2	+.016 - .029	25	var*	4.3:6.6, 17.5 years
2125	κ Mens	202	7476	57 2 -4.0		-79 23	5.56 B8	-.014 + .065		+ 5	
2126		630	7693	57 5 +5.7		+63 27	6.49 K0	-.025 + .006			
2127		1195	7640	57 5 3.1		+ 1 42	6.46 A0	+.003 + .007	8	+ 3	
2128	3 Mono	1349	7631	57 8 2.8		-10 36	4.97 B8	-.007 .000	5	var*	10m, 2", binary
2129		2865	7623	57 9 +2.4		-25 25	5.90 A0	-.005 - .016			
2130	64 Orio	1186	7662	57 32 3.6		+19 42	5.17 B8	+.003 - .019	7	var	Two spectra
2131		2681	7630	57 39 2.2		-33 55	5.62 K5	+.009 - .021		+19	
2132	39 Auri	1477	7685	57 52 4.3		+42 59	5.90 F0	-.035 - .146	18	+34	
2133		1009	7665	57 50 3.3		+11 41	5.96 A0	-.015 - .016	9	-11	

2088: V₀ = -18km, two spectra. In Ursa Cluster.

2099: Composite, G5, A5.

2124: 4.4 days, V₀ = +42km, measured throughout a revolution.

Precession in declination, 0'.00.

2128: V₀ = +39km.

CATALOGUE OF BRIGHT STARS

5^h - 6^h

No	Name	DM	GC	RA	Ann	Decl	Magn	Prop Motion		Par	Rad	Remarks
				1900	Var	1900	Spec	RA	Decl		Vel	
2134	1 Gemi	1170	7676	58 ^m 2 ^s + 3.6		+23° 16'	4.30 G5	- .007	- .105	.028	km var	9.6 days, V ₀ = +20km
2135	62 X ² Orio	1233	7675	57 59 3.6		+20 8	4.71 B2p	+ .006	- .008	2	var	V ₀ = +16km
2136		1315	7656	58 1 2.7		-14 30	6.32 G5	+ .010	+ .011			
2137		1405	7688	58 11 4.1		+37 58	6.40 F8	+ .006	- .010		+ 5	12m, 18"
2138		1713	7637	58 29 1.4		-51 13	5.76 A0	- .030	+ .092		+ 5	
2139		1236	7701	58 58 +4.0		+33 36	6.10 B9	+ .012	- .016		+25	
2140		2675	7680	59 14 2.4		-26 17	5.18 G5	+ .054	+ .090	9	+183	
2141		1334	7713	59 27 4.0		+35 24	6.11 G0	- .126	- .306	45	-12	14m, 2"
2142		1391	7691	59 22 2.9		- 6 42	5.12 B2p	- .006	- .002		var	V ₀ = +51km
2143	40 Auri	1377	7723	59 41 4.1		+38 29	5.31 A3	+ .014	- .053	17	var*	28.3 days, V ₀ = +18km
2144	63 Orio	1085	7702	59 38 +3.2		+ 5 26	5.84 K0	.000	+ .003	8	+20	
2145	66 Orio	1116	7704	59 41 3.2		+ 4 10	5.70 K0	.000	- .004	7	+32	
2146		1112	7725	59 59 3.8		+29 31	6.32 Ma	+ .018	- .008			11m, 10"
2147		1357	7741	0 20 4.3		+41 52	6.32 K0	+ .010	- .024			
2148	17 Leps	1349	7711	0 31 2.7		-16 29	5.04 A0	- .006	- .001	31	var	
2149		2743	7708	0 37 +2.2		-32 10	5.64 B3	- .017	+ .129		var?	V ₀ = +94km
2150		1368	7721	0 44 2.8		-10 14	5.79 F0	+ .013	+ .024	23	var	
2151		537	7686	0 54 0.8		-60 6	6.50 Ma	+ .004	+ .001			
2152	37 Caml	897	7796	1 10 5.3		+58 57	5.42 K0	+ .028	+ .022	11	+31	
2153		1365	7780	1 20 4.2		+41 4	6.42 K0	- .013	- .056			
2154		1362	7750	1 41 +3.0		- 4 11	5.37 B3	- .009	- .002	5	+20	
2155	18 θ Leps	1331	7742	1 38 2.7		-14 56	4.67 A0	- .014	+ .018	17	var?	V ₀ = +30km
2156	S Leps	3679	7737	1 38 2.5		-24 11	var Mc	+ .025	- .020			6.0 to 8.0, 96 days?
2157		2300	7719	1 36 1.7		-45 2	6.22 F8	- .088	+ .241	34		198", cpm*
2158		2302	7727	1 48 1.7		-45 5	5.82 F5	- .081	+ .251	35		
2159	67 v Orio	1152	7772	1 52 +3.4		+14 47	4.40 B2	+ .009	- .027	4	var	131 days, V ₀ = +22km
2160		2684	7735	1 55 2.1		-35 30	5.89 A2	.000	+ .016			
2161		1386	7764	2 11 2.8		-11 10	6.38 B5	- .004	+ .001			
2162		2124	7731	2 11 1.6		-48 27	6.44 G5	- .099	- .042	55		7.0:7.3, 2", binary
2163		3431	7763	2 22 2.5		-23 6	5.50 A2	- .021	- .024	10	-15	
2164		2769	7751	2 15 +2.3		-29 45	5.72 A0	+ .010	- .043			
2165	36 Caml	517	7856	2 47 6.0		+65 44	5.39 K0	+ .011	- .029	9	+ 6	
2166		1353	7779	2 44 2.5		-21 48	6.12 Mb	+ .006	- .017			
2167		1202	7809	3 19 3.3		+ 8 41	6.45 B9	+ .033	+ .004			
2168	19 Leps	1361	7794	3 21 2.6		-19 9	5.51 Ma	+ .014	+ .054	5	+29	
2169		1198	7824	3 31 +3.6		+22 12	6.04 K2	- .014	- .015			
2170		2655	7788	3 28 2.2		-34 18	5.93 B5	- .004	+ .002		+ 9*	
2171	π Colm	2343	7785	3 36 1.9		-42 17	6.25 A2	- .041	+ .001			
2172		1041	7850	3 44 4.8		+52 40	6.27 A2	+ .015	- .074	12	+13	
2173	3 Gemi	1226	7827	3 40 3.6		+23 8	5.76 B1	+ .011	- .004	3	var	V ₀ = +16km. 10m, 0".5
2174		1139	7817	3 45 +3.1		+ 2 31	5.58 A0	+ .003	- .020			5.9:7.0, 29", cpm
2175	41 Auri	1352	7851	3 57 4.6		+48 44	6.82 A0	+ .015	- .070	9	+29	8", binary
2176			7853	3 57 4.6		+48 44	6.09 A0	+ .022	- .054		+33	
2177	θ Colm	2609	7805	4 6 2.1		-37 14	5.13 B9	- .004	- .001		+45	
2178		2317	7797	4 8 1.7		-45 5	6.36 K2	+ .076	+ .041			
2179		1523	7837	4 41 +2.9		- 5 41	6.19 F0	+ .057	+ .015			
2180		1327	7830	4 46 2.5		-22 25	5.46 A0	+ .004	- .041	7	+44	
2181	π ² Colm	2351	7816	4 47 1.9		-42 8	5.48 A0	- .007	- .016	12	+31	
2182		1316	7836	4 57 2.6		-18 6	6.17 A0	+ .014	- .015			
2183		1348	7841	5 2 2.7		-14 34	5.67 K0	- .048	+ .045		+31	

2143: Two spectra.

2157, 2158: The brighter star of this wide double is itself a binary, 5.9:9.0, 4".

Precession in declination, -0.01.

2170: Absorption lines give +18km.

6^h

No	Name	DM	GC	RA		Decl 1900	Magn Spec	Prop Motion		Par	Rad Vel	Remarks	
				1900	Ann Var			RA	Decl				
2184	5 Gemi	1112	7864	5 11	+3.5	+18° 9'	6.44 KO	+ .003	- .051	.008	km		
2185		1151	7872	5 24	3.7	+24 27	5.92 KO	+ .001	- .057		var		
2186		1330	7849	5 36	2.5	-22 45	5.71 F5	+ .081	+ .066		33		
2187		2452	7835	5 38	1.8	-44 20	6.25 B9	- .020	+ .006				
2188		1163	7907	5 52	4.7	+51 12	6.28 KO	- .003	- .069				
2189	TV Gemi	1217	7888	5 47	+3.9	+32 43	5.96 K2	+ .008	- .003				
2190		1146	7881	5 50	3.6	+21 54	var Ma	+ .007	+ .013			7.0 to 7.8, 425 days	
2191		1151	7877	5 48	3.4	+13 40	5.86 A2	- .003	- .020	13	+13		
2192		2761	7855	5 47	2.4	-26 41	6.19 KO	- .011	+ .019				
2193	68 Orio	1253	7887	6 6	3.6	+19 49	5.70 B9	+ .006	- .012		+31		
2194	η ¹ Dora	493	7813	6 2	+0.1	-66 2	5.83 B9	+ .015	+ .023				
2195	6 Gemi	1439	7875	6 10	2.9	-6 44	5.97 A0	+ .003	- .002	8	+22		
2196		582	7825	6 9	0.5	-62 8	5.05 KO	+ .015	- .079	3	+21		
2197		1220	7896	6 15	3.6	+22 56	6.30 K5	+ .007	- .007	7	var	V ₀ = +22km	
2198	69 Orio	1035	7891	6 17	3.5	+16 9	4.92 B3	+ .012	- .017			V ₀ = +24km	
2199	70 ε Orio	1187	7889	6 15	+3.4	+14 14	4.35 B3	+ .006	- .023	7	var		
2200	40 Caml	2780	7874	6 36	2.4	-27 8	5.79 KO	- .019	- .048	10			
2201		938	7949	6 42	5.4	+60 2	5.56 KO	+ .037	- .021	10	+13		
2202		1393	7894	6 47	3.0	-4 38	6.04 B9	- .012	- .009			6.2:8.6, binary	
2203		2291	7873	6 57	1.9	-40 20	5.56 Ma	- .034	+ .074		-19		
2204		2084	7865	6 53	+1.5	-49 33	6.43 F5	- .033	+ .078				
2205	δ Pict	1446	7899	7 0	2.9	-6 32	5.09 B3	- .006	- .004	5	+29		
2206		2784	7892	7 13	2.4	-26 27	5.98 A0	- .019	+ .001				
2207		1129	7929	7 41	3.5	+18 43	6.21 B8	+ .028	- .020				
2208		1050	7921	7 39	3.3	+10 40	6.46 G5	+ .094	- .286				
2209		371	8020	7 50	+6.6	+69 21	4.73 A0	+ .007	- .106	19	var	V ₀ = -15km	
2210		1512	7916	7 43	3.0	-2 29	6.48 A0	- .045	+ .012				
2211		2349	7893	7 47	1.7	-45 16	6.22 B9	- .011	- .001				
2212		980	7898	8 21	1.2	-54 57	4.84 B1	- .010	+ .004				
2213	1398	7925	8 22	2.6	-17 44	6.31 B3	- .007	+ .017					
2214	ι Lync	1182	7956	8 38	+3.5	+17 56	5.74 A5	- .006	- .016	11	var	6.5:6.5, close binary	
2215		869	8016	8 42	5.5	+61 33	5.30 Ma	+ .001	- .004	6	+11		
2216		7 η Gemi	1241	7969	8 50	3.6	+22 32	var M2	- .064	- .015	13	var*	3.2 to 4.2, 236 days*
2217	7 η Gemi	1388	7982	8 54	4.0	+36 11	7.48 F5	- .064	+ .003	20	+6	11", cpm	
				7983			6.93 F0	- .061	+ .004				
2218	44 κ Auri	1345	7952	8 56	+3.0	-3 43	5.93 G5	- .012	+ .025	18	+20		
2219		1154	7981	9 0	3.8	+29 32	4.45 KO	- .067	- .264				
2220		71 Orio	1270	7971	8 58	+3.5	+19 11	5.18 F5	- .094	- .191	40	+36	
2221		v Dora	474	7886	9 23	-0.4	-68 49	5.21 B9	- .052	+ .022	20	+18	
2222	72 Orio	1173	7984	9 28	+3.4	+13 53	5.81 B2	+ .034	+ .007	5	+34		
2223		1060	7987	9 39	+3.5	+16 10	5.28 B9	+ .007	- .016	8	+29		
2224		1421	7980	9 40	3.0	-4 32	5.76 A0	- .009	+ .006			12m, 1".5	
2225		3577	7961	9 37	2.5	-23 50	6.41 G5	- .069	+ .115				
2226		2883	7958	9 41	2.3	-29 22	6.40 B8	- .029	- .015				
2227	5 γ Mono	1469	7986	9 59	2.9	-6 15	4.09 KO	- .004	- .018	13	-5		
2228	42 Auri	1122	8037	10 7	+4.5	+46 27	6.46 F0	- .040	+ .014	15	-8		
2229	73 Orio	1081	7996	10 8	3.4	+12 35	5.36 B9	+ .001	- .002	7	+14		
2230	8 Gemi	1182	8015	10 12	3.7	+24 0	6.11 G5	- .010	- .012	10	-21		
2231		1172	7998	10 19	3.2	+6 6	5.95 B5	- .007	- .025		+26		
2232		1181	8010	10 29	3.2	+4 10	6.44 B3	- .018	- .002		var	V ₀ = +15km	

2216: V₀ = +21km. 9m, 1", binary.

Precession in declination, -0.01.

CATALOGUE OF BRIGHT STARS

6^h

No.	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
2233		1234	8001	10 ^m 29 ^s +3.1		- 0° 28'	5.68 F5	- .162 - .222	"026	km -36	11m, 4"
2234		1431	8000	10 34 3.0		- 4 53	6.00 A2	+ .024 - .045			
2235		1191	8025	10 35 3.5		+17 12	6.47 K0	+ .001 - .018			
2236		1275	8017	10 45 3.1		+ 1 12	6.34 F5	- .006 + .034			
2237		+1368	8002	10 40 2.9		- 9 0	6.03 B9	- .037 + .015	3		6.8:6.8, close binary
2238	2 Lync	959	8068	10 48 +5.3		+59 3	4.42 A0	- .005 + .022	31	- 2	
2239	43 Auri	1124	8055	10 49 4.5		+46 24	6.49 K0	+ .015 - .131	8	0	
2240	9 Gemi	1275	8039	10 53 3.7		+23 46	6.26 B2	+ .005 - .004	1	+12	
2241	74 Orio	1084	8033	10 50 3.4		+12 18	5.11 F5	+ .082 + .188	43	+ 9	
2242		1336	7997	10 50 2.6		-20 15	5.74 K0	+ .006 + .029			
2243		1352	8008	10 55 +2.6		-18 27	6.24 K0	+ .017 - .048			
2244		1411	8024	11 10 2.7		-13 41	4.99 B9	+ .010 - .010		var?	V ₀ = +38km
2245	η ² Dora	561	7946	11 2 0.1		-65 34	4.88 Mb	- .029 + .111	4	+34	
2246		1278	8036	11 11 3.1		+ 1 7	6.44 B8	+ .015 - .008			
2247	75 Orio	1173	8051	11 36 3.3		+ 9 59	5.29 A2	+ .003 - .064	15	+13	
2248		1216	8050	11 35 +3.2		+ 7 5	6.41 B8	- .010 + .008			
2249		1415	8038	11 40 2.7		-16 35	5.88 B5	.000 + .008			
2250		1233	8061	11 51 3.4		+14 6	6.48 B9	+ .003 - .015		+ 9	
2251		1168	8058	11 58 3.2		+ 5 8	5.81 G0	- .217 + .158	47	+13	
2252		2936	8042	12 6 2.3		-29 45	6.62 K2	.000 + .006			
2253		1235	8073	12 24 +3.4		+14 25	5.98 A0	- .017 - .001	12	+10	
2254		1364	8065	12 51 2.5		-22 40	6.04 G0	+ .122 - .252	16		
2255	6 Mono	1455	8070	12 53 2.8		-10 41	6.67 F0	- .004 - .007			
2256	κ Colm	2800	8062	13 0 2.1		-35 6	4.51 K0	- .011 + .080	16	var?	V ₀ = +24km
2257	4 Lync	964	8147	13 11 5.3		+59 25	6.02 A2	+ .003 + .003	9	-21	6.3:7.8, 1", binary
2258		1203	8101	13 13 +3.5		+17 21	6.17 B8	- .006 - .013			
2259		1184	8096	13 12 3.3		+ 9 6	6.38 K0	+ .031 - .045		var?	V ₀ = -14km
2260		1426	8080	13 15 +2.7		-16 47	5.28 K0	- .009 + .008	10	- 8	
2261	α Mens	374	7962	13 13 -1.8		-74 43	5.14 K0	+ .122 - .218	118	+35	
2262		2491	8064	13 17 +2.0		-39 14	6.08 A0	- .021 - .024			
2263		2707	8075	13 37 +2.0		-37 42	5.62 K0	- .006 + .079	8	+70	
2264	45 Auri	1008	8151	13 39 4.9		+53 30	5.41 F5	+ .032 - .096	24	var	6.5 days, V ₀ = 0km
2265		2708	8079	13 44 2.1		-37 13	6.00 A2	- .018 - .012			
2266		1407	8099	13 55 2.6		-19 56	5.31 B3	- .007 + .008	4	var	V ₀ = +23km
2267		1411	8107	14 5 2.9		- 9 21	5.67 K0	+ .003 - .033	10		
2268		1400	8108	14 17 +2.7		-14 59	6.28 K5	- .003 + .022			
2269		1247	8131	14 22 3.4		+14 42	6.02 K5	.000 - .017	6	+34	
2270		1386	8113	14 21 2.9		- 8 32	6.07 B9	- .022 - .010			
2271		1355	8120	14 43 2.6		-20 53	5.66 B5	- .007 - .011	4		
2272		1190	8156	14 49 3.8		+29 35	6.27 A0	+ .039 - .041	9	+25	
2273	7 Mono	1373	8132	14 54 +2.9		- 7 47	5.13 B3	- .007 .000	5	var	V ₀ = +34km
2274		619	8084	14 56 0.8		-59 10	6.42 G0	- .060 - .330	41		
2275		1564	8137	14 59 3.0		- 2 54	5.18 Ma	- .013 + .004	8	+47	
2276		1128	8158	15 17 3.4		+11 48	6.43 B5	+ .025 + .001		+19	
2277		1214	8172	15 36 3.5		+17 49	6.46 K0	+ .023 - .043			
2278		2902	8114	15 39 +1.3		-52 42	6.08 K0	- .005 - .010			
2279		795	8154	16 5 2.2		-34 21	5.83 B8	+ .007 .000	14	+26	
2280		1197	8181	16 13 3.1		+ 2 19	6.25 A5	- .016 - .026	13	-26	6.9:7.2, close binary
2281		2169	8145	16 20 1.5		-50 19	6.88 G5	- .002 + .001			
2282	1ξ CMaj	3038	8170	16 28 2.3		-30 1	3.10 B3	+ .003 + .002	13	var	V ₀ = +33km

Precession in declination, -0.02.

6^h

No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
2283		426	8093	16 ^m 42 ^s -1.0		-71° 40'	6.49 F8	-".026 + ".056		km	
2284		1460	8186	16 45 +2.8		-11 44	5.49 B2p	-.010 - .005	"002	+22	10m, 4", cpm
2285		401	8293	16 50 6.8		+70 35	5.99 A2	+ .004 + .023	12	-32	10m, 6", cpm
2286	13 μGemi	1304	8208	16 55 3.6		+22 34	3.19 Ma	+ .060 - .114	16	+55	
2287		1123	8203	17 0 3.4		+12 37	5.97 F0	-.031 - .040			
2288		2806	8180	16 59 +2.2		-34 6	5.60 B2	-.001 + .027	2	var	V ₀ = +73km
2289	46 v ¹ Auri	1488	8235	17 12 4.6		+49 20	5.10 K2	+ .004 - .007	3	var	V ₀ = +4km
2290		2259	8179	17 28 1.6		-48 41	6.39 G0	+ .228 - .271	38		
2291	RR Lync	1125	8281	17 59 5.1		+56 20	var A3	-.019 + .019	18	var*	5.6 to 6.0, 9.9 days
2292		1221	8227	18 2 3.2		+ 3 49	6.25 B3	+ .006 - .013		+22	
2293	5 Lync	927	8287	18 5 +5.2		+58 28	5.48 K2	-.001 - .010	7	- 3	
2294	2 β CMaj	1467	8223	18 18 2.6		-17 54	1.99 B1	-.004 - .001	11	var*	V ₀ = +33km*
2295		1484	8232	18 26 3.0		- 4 39	6.42 B9	-.013 - .007			
2296	5 Colm	2927	8214	18 28 2.2		-33 23	3.98 G5	-.030 - .056	18	var	869 days, V ₀ = -3km*
2297		1213	8263	18 30 3.8		+29 46	6.52 B9	-.029 - .011		+28	
2298	8 Mono	1236	8240	18 28 +3.2		+ 4 39	4.48 A5	-.018 + .008	25	var	14", prob. binary
2299		1237	8241	18 28 3.2		+ 4 39	6.54	-.021 - .011		+16	
2300		1316	8248	18 34 3.3		+ 8 56	6.11 A0	-.004 - .020	8	+ 9	
2301		1444	8244	18 52 2.8		- 9 49	6.44 K5	+ .007 + .018			
2302		1135	8270	19 7 3.5		+16 7	6.35 G5	+ .045 - .050		var?	
2303		+1428	8257	19 14 +2.7		-15 1	6.40 K2	-.014 - .007			
2304		1347	8290	19 28 3.6		+23 23	6.02 A0	-.004 - .026	10	-32	
2305		1478	8265	19 30 2.8		-11 29	5.39 K0	-.056 - .041	11	-26	
2306		1435	8260	19 28 2.6		-19 44	6.56 B8	-.016 + .013	3		7.2:7.5, 0".8, binary
2307		3245	8250	19 30 2.2		-31 44	6.44 G5	-.061 + .012			
2308	BL Orio	1283	8294	19 46 +3.4		+14 47	var Nb	-.012 - .006		+18	4.7 to 6.6
2309		1470	8273	19 44 2.8		-12 55	5.95 B8	-.013 - .012			11m, 23", cpm
2310	T Mono	1273	8291	19 49 3.2		+ 7 8	var G5p	+ .018 + .003	5	var*	5.8 to 6.8, 27.0 days
2311		3189	8267	19 52 2.4		-25 31	5.73 K2	-.009 - .034	6	+34	
2312		1332	8297	20 8 3.1		+ 1 33	6.46 A0	-.018 - .012	8	+ 7	
2313		1287	8298	20 9 +3.1		- 0 52	5.85 F8	+ .223 - .224		+44	
2314		1299	8332	20 19 4.5		+47 28	6.34 B9	-.001 + .015			
2315		1227	8312	20 34 3.1		+ 2 20	6.28 B9	+ .004 - .002			
2316		2873	8284	20 33 2.1		-36 39	5.72 G5	-.023 + .053			9m, 13", cpm
2317		1425	8316	20 49 3.0		- 3 50	6.40 G5	-.021 - .005			
2318		2981	8299	20 51 +2.3		-28 43	6.24 G0	-.162 - .118			
2319		1300	8342	21 3 3.9		+32 38	6.43 K0	+ .003 - .062			
2320	v Pict	1072	8274	21 9 1.1		-56 19	5.72 A0	-.040 - .028		var?	V ₀ = +7km
2321		1422	8318	21 10 2.9		- 7 51	6.39 A2	-.006 + .019			
2322		913	8288	21 22 1.4		-52 8	5.89 G5	-.033 - .026			
2323		2440	8311	21 30 +1.9		-40 14	6.30 B9	-.010 - .009			
2324		1242	8335	21 36 3.0		- 1 27	5.73 A0	-.003 - .035			
2325		1510	8334	21 38 3.0		- 4 32	6.07 B3	+ .006 - .002	5	+14	
2326	α Cari	914	8302	21 44 1.3		-52 38	-.86 F0	+ .018 + .017	14	+20	Canopus
2327		1421	8344	21 49 3.1		+ 0 54	6.51 A0	-.021 - .005			
2328		1429	8343	21 55 +2.9		- 7 27	6.30 A0	+ .004 - .001			9m, 21", fixed
2329		+2864	8322	21 56 2.1		-35 0	6.24 K0	-.011 - .037			
2330	16 Gemi	1428	8365	22 0 3.6		+20 33	6.11 A0	-.029 + .004			
2331	6 Lync	932	8416	22 6 5.2		+58 14	5.96 G5	-.019 - .337	23	+36	
2332	48RT Auri	1238	8371	22 8 3.9		+30 33	var G0	+ .005 - .016	4	var*	5.4 to 6.6(ptg), 3.7 days

2291: 9.9 days; V₀ = -13km.

2294: Velocity varies in two periods, 0.25 days and 49 days.

2296: In Ursa Cluster.

Precession in declination, -0.03.

2310: V₀ = +32km.2332: V₀ = +21km.

CATALOGUE OF BRIGHT STARS

6^h

No	Name	DM	GC	RA	Ann	Decl	Magn	Prop Motion		Par	Rad	Remarks	
				1900	Var	1900		RA	Decl		Vel		
2333		1237	8357	22 ^m 7 ^s + 3.1	3.1	+ 2° 58'	5.77 G5	-.046	+.007	008	km +53		
2334		1426	8355	22 6 3.1		+ 0 22	5.29 K0	+.006	-.008	5	+33		
2335		1299	8356	22 9 3.1		- 0 13	5.82 K0	-.001	-.008	8	+39		
2336		692	8306	22 17 0.9		-58 29	6.60 A2	+.004	+.017				
2337		561	8295	22 23 0.4		-63 38	6.22 Ma	-.029	+.008				
2338	47 Auri	1149	8411	22 35 + 4.5		+46 45	6.01 K0	-.002	+.004	9	-47		
2339		1122	8388	22 41 3.8		+27 2	6.49 F5	+.121	-.068		- 7		
2340		1159	8382	22 43 3.5		+16 18	6.33 G5	-.098	-.053		+42		
2341		919	8321	22 36 1.3		-52 45	6.26 K0	-.015	-.002				
2342		1149	8379	22 47 3.3		+10 23	6.19 K0	+.028	-.041				
2343	18 v Gemi	1441	8394	23 2 + 3.6		+20 17	4.06 B5	-.003	-.018	14	var	V ₀ = +38km*	
2344	10 Mono	1526	8378	23 1 3.0		- 4 42	4.98 B3	-.006	+.006	6	+24		
2345		608	8319	23 0 0.7		-60 13	6.02 A0	-.047	+.032				
2346		208	8545	23 6 10.3		+79 41	6.52 A0	+.005	+.016	7			
2347		+1244	8385	23 5 3.1		+ 1 58	6.29 B9	-.003	-.028				
2348		2308	8345	23 5 + 1.6		-48 7	5.94 B9	-.013	-.035	3		6.0:8.5, 1", binary	
2349		3237	8368	23 10 2.4		-25 47	6.04 F8	-.186	-.222	43			
2350		177	8605	23 23 12.7		+82 12	6.39 A2	+.007	-.054	10	+ 6		
2351	π ¹ Dora	1193	8405	23 27 + 3.3		+11 5	6.43 F0	-.025	-.012				
2352		607	8310	23 35 - 0.6		-69 56	5.56 K5	+.019	+.025		var?	V ₀ = +16km	
2353			2837	8377	23 44 + 2.0		-37 50	6.51 F0	-.019	+.040			
2354			568	8333	23 45 0.4		-63 22	6.46 G0	-.011	-.107			
2355			1253	8419	24 1 3.1		+ 2 43	6.39 Ma	+.009	-.040			
2356	11 β Mono	1574	8412	23 58 2.9		- 6 58	4.73	-.018	.000		var	Triple system	
2357			1575	8413	23 58 2.9		- 6 58	5.22 B2			7	+20	Distances from
2358					23 58 2.9		- 6 58	5.60	-.018	+.005		+23	No 2356, 7", 10"
2359		1506	8414	24 12 + 2.7		-17 24	5.94 G5	-.004	+.004				
2360		572	8354	24 19 0.4		-63 46	6.36 B5	-.019	+.021		- 1		
2361	λ CMaj	3066	8410	24 28 2.2		-32 31	4.48 B5	-.024	+.023	10	+41		
2362		1259	8430	24 37 3.3		+ 9 6	6.48 A0p	-.016	-.028	7	var?	V ₀ = +13km	
2363		227	8574	24 57 + 9.3		+78 5	5.88 K0	+.017	-.001	8	-15		
2364		3072	8421	24 56 2.2		-32 18	5.80 B3	-.009	+.016	5	+23	6.0:7.6, 1.4", binary	
2365		340	8540	25 18 7.6		+73 46	6.22 F2	-.145	-.026	37			
2366		1275	8449	25 22 3.5		+17 1	6.19 K0	+.004	-.053	10	+27	10m, 8", binary	
2367		+1493	8439	25 27 2.8		-10 1	6.13 K0	-.018	-.008				
2368		+2482	8425	25 30 + 1.9		-41 1	6.36 F2	+.021	+.026				
2369		1001	8408	25 29 0.9		-57 56	5.73 K0	-.021	-.019		+13		
2370		1204	8452	25 36 3.3		+11 19	5.83 B0	-.003	-.018	11	var*	16", binary	
2371	19 Gemi	+1178	8462	25 52 3.5		+15 58	10.2 A5	+.010	-.008				
2372	WW Auri			25 52 3.5		+15 58	6.37 A5	-.012	-.019		+20		
2373		1324	8474	25 56 + 3.9		+32 32	var A0	-.022	-.021		var*	5.6 to 6.2, 2.5 days	
2374		1519	8450	25 59 2.8		-13 5	6.09 B3	-.025	+.001				
2375		1207	8464	26 5 3.3		+11 52	6.46 B8	-.028	-.014				
2376	7 Lync	1209	8468	26 14 3.3		+11 37	5.08 A2	+.015	+.030	14	var?	V ₀ = -3km	
2377			1093	8508	26 13 + 5.0		+55 26	6.53 K0	+.004	+.001			
2378	π ² Dora	614	8390	26 20 - 0.5		-69 38	5.40 G5	-.017	+.198	3	+ 9		
2379		1213	8493	26 49 + 3.3		+11 45	6.15 K0	+.012	-.033				
2380		1518	8470	26 44 2.8		-12 19	5.33 K0	+.040	-.016	12	+18		
2381		3051	8463	26 49 2.4		-27 42	5.81 B5	+.001	-.007				
2381		1462	8485	27 2 2.9		- 8 5	5.59 K0	-.013	-.008	9			

2343: Observed also as a visual double. 8.5m, 113", cpm;
this companion is itself double, 9.2:9.3, 0.2.
2370: V₀ = -20km.

Precession in declination, -0.04.
2372: V₀ = -6km, two spectra.

6^h

No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks	
2382	12 Mono	1304	8494	27 ^m 1 ^s + 3.2	+ 4° 56'	5.98 KO	- .037 - .007	"007	+21	km	In a cluster	
2383		1356	8509	27 9 3.9	+33 6	6.38 AO	+ .015 + .006	7	- 9			
		2240	8457	27 21 1.5	-50 10	8.96	- .106 - .066	24	var			
2384	13 Mono	2241	8458	27 22 1.5	-50 10	5.32 F2	- .061 - .061				9.7:9.8, 13", cpm 6.0:6.1, 0.6, binary*	
2385		1337	8506	27 30 3.2	+ 7 24	4.50 AOp	+ .001 - .008	4	+12			
2386	4 ξ ¹ CMaj	1678	8500	27 29 + 2.9	- 5 48	5.64 A5	.000 - .042				V ₀ = +27km Composite, GO, A3	
2387		3991	8496	27 41 2.5	-23 21	4.35 B1	- .004 + .010	3	var			
2388		2947	8486	27 39 2.1	-35 11	5.76	- .017 - .002					
2389		1095	8459	27 44 1.0	-56 47	5.16 KO	- .044 + .018	4	+13			
2390		2512	8483	27 47 1.9	-40 51	6.12 K2	- .025 - .002					
2391	8 Lync	1339	8518	27 55 + 3.4	+14 14	5.61 KO	- .017 - .089	10	-12			
2392		1520	8510	28 6 2.8	-11 6	6.38 KO ^p	- .009 .000					
2393		2962	8498	28 7 2.1	-36 52	6.31 Ma	- .008 + .053					
2394		893	8582	28 33 5.5	+61 34	6.05 G0	- .199 - .279	23	-46			
2395		1274	8527	28 33 3.0	- 1 9	5.02 B3	- .007 - .019	8	var			
2396		359	8630	28 43 + 7.1	+71 50	6.07 G5	+ .020 + .005				V ₀ = +20km	
2397		3407	8520	28 54 2.2	-31 57	5.70 B3	- .005 - .003		var			
2398		49 Auri	1168	8557	28 54 3.8	+28 6	5.05 AO	+ .007 - .019	16	+17		
2399	2889		8514	28 56 2.1	-37 37	5.31 G5	+ .058 - .079	12	+39			
2400	1946		8504	28 58 1.4	-51 45	5.60 F8	+ .095 + .091		+16			
2401	11 Lync	212	8711	29 10 +10.2	+79 40	5.60 F8	- .084 - .610	44	+12			
2402		136	8591	29 8 5.1	+56 56	5.75 AO	+ .002 + .009		0			
2403	14 Mono UU Auri	1437	8533	29 10 2.6	-20 51	6.44 G5	- .028 - .028				11m, 10", fixed 5.1 to 6.8	
2404		1357	8558	29 21 3.2	+ 7 39	6.42 AO	- .010 - .006					
2405		1539	8581	29 40 4.1	+38 32	var Na	+ .008 - .030	1	+18			
2406		1186	8567	29 47 + 3.3	+10 4	6.06 K5	- .013 + .001					
2407		2730	8535	29 49 2.0	-38 33	6.38 KO	- .001 - .024					
2408		610	8499	29 47 0.2	-65 30	6.38 F2	+ .002 + .052					
2409		1491	8571	30 6 3.1	+ 0 58	5.69 B5	- .001 - .006		+10			
2410		669	8515	30 11 0.6	-61 48	6.34 B3	- .018 + .004		var			
2411		μ Pict	2990	8559	30 19 + 2.1	-36 9	5.45 K2	- .022 + .092	26	+32		
2412			722	8530	30 29 0.9	-58 41	5.78 B9	- .001 - .016				
2413	1335		8590	30 42 3.2	+ 4 35	6.46 B9	- .021 - .005					
2414	5 ξ ² CMaj	1458	8577	30 52 2.5	-22 53	4.54 AO	+ .010 + .013	16	+32			
2415		3168	8573	30 53 2.2	-32 38	5.57 B9	- .005 + .008		+42			
2416	51 Auri	947	8566	31 11 + 1.4	-52 15	6.14 G5	- .053 + .036				9m, 2", cpm	
2417		1328	8619	31 19 3.7	+24 40	6.44 A2	- .012 + .006	9	- 2			
2418		1710	8609	31 40 3.0	- 5 8	5.48 B9	.000 - .014		+27			
2419		1690	8648	31 44 4.2	+39 29	5.71 KO	- .021 - .114	8	+33			
2420		52 v ³ Auri	+1665	8655	31 51 4.2	+39 59	5.28 B8	- .006 - .016	8	+ 9		
2421	24 vGemi	1223	8633	31 56 + 3.5	+16 29	1.93 AO	+ .048 - .046	42	var		14.4 days, V ₀ = +24km	
2422		1309	8631	32 2 3.2	+ 6 13	6.06 BOp	+ .006 - .003		var			
2423	[6 v ¹ CMaj	1478	8613	31 59 2.6	-18 35	7.9 G0	- .02 + .035	10			17", cpm	
2424		1480	8614	32 0 2.6	-18 35	5.81 G5	- .010 + .016					
2425	53 Auri	3009	8597	31 56 2.1	-36 42	5.60 B9	- .018 + .016	11	+20		6.0:7.0, 1", binary*	
2426		1293	8649	32 3 + 3.8	+29 4	5.54 AO	- .017 - .023	9	+14			
2427		1201	8635	32 5 3.3	+10 56	6.60 KO	- .038 - .041					
2428	50 v ² Auri	1585	8662	32 11 4.3	+42 35	5.09 G5	+ .010 - .061	8	+17			
2429		1570	8623	32 10 2.8	-13 14	6.40 K5	+ .009 - .024					
2429	7 v ² CMaj	1502	8624	32 19 2.6	-19 10	4.14 KO	+ .064 - .076	39	+ 2			

2384: This pair and the preceding have cpm.

Precession in declination, -0.05.

2424: Also 11m, 21", cpm.

CATALOGUE OF BRIGHT STARS

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No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
2430		1315	8642	32 ^m 27 ^s +	3.1	+ 2° 47'	6.42 K0	- .031 - .048	"017	km	6.8:7.3, close binary V ₀ = +36km 9.2m, 9", binary
2431		+3005	8611	32 24	2.1	-36 0	6.28 F5	- .064 - .098			
2432		1334	8651	32 34	3.2	+ 5 3	6.16 B1	- .004 + .018		var	
2433		1472	8626	32 29	2.5	-22 32	6.23 B8	- .030 - .008	12	var	
2434		1506	8678	32 43	4.4	+44 6	6.51 K0	+ .037 - .006			
2435		953	8604	32 46	+ 1.3	-52 54	4.44 A0	- .018 + .006	8	+23	
2436		1416	8672	33 4	3.6	+22 7	6.28 K0	+ .008 - .029			
2437		1566	8656	33 4	2.8	-12 54	6.21 K0	+ .028 - .124			
2438	54 Auri	1196	8681	33 15	3.8	+28 21	5.84 B8	- .003 - .016	5	var	6.0:7.8, 0"8, binary
2439		1343	8682	33 24	3.7	+24 41	6.48 F5	+ .010 + .082			
2440		1691	8664	33 19	+ 3.0	- 2 27	6.33 K2	- .019 + .016			
2441		1365	8673	33 32	3.2	+ 4 47	6.55 B9	+ .012 - .008			
2442		1443	8671	33 27	3.1	+ 1 42	6.13 B0	- .007 - .005		+49	
2443	8 v ³ CMaj	1492	8660	33 30	2.6	-18 9	4.65 K0	- .009 - .007	12	- 2	
2444		2782	8654	33 38	2.0	-38 4	5.96 G5	- .001 + .038			
2445		2488	8653	33 41	+ 1.9	-41 28	6.25 K0	.000 + .006			
2446		3031	8658	33 46	2.1	-36 54	5.72 B9	- .022 + .015		+29	
2447		3216	8667	34 3	2.2	-32 15	5.27 G5	+ .100 + .067	15	+79	
2448		1554	8679	34 8	2.7	-16 47	5.93 A0	- .007 - .023			
2449		1356	8693	34 10	3.4	+13 5	5.88 A2	- .034 - .005	11	-16	12m, 2"5
2450		1525	8694	34 42	+ 2.7	-14 3	4.97 K0	+ .004 - .002	5	+29	
2451	v Pupp	2576	8675	34 42	1.8	-43 6	3.18 B8	- .004 - .009	23	var	V ₀ = +28km
2452		1482	8724	34 55	4.0	+36 2	6.33 F5	- .039 - .025		+86	
2453	25 Gemi	1207	8719	35 3	3.8	+28 17	6.54 K0	+ .012 - .011	3	- 4	
2454		1338	8713	35 10	3.2	+ 6 28	6.37 B9	- .028 + .010			
2455		4172	8708	35 27	+ 2.5	-23 36	5.91 A0	+ .012 - .005			
2456	15 Mono	+1220	8720	35 28	3.3	+ 9 59	4.68 Oe5	+ .003 - .005	3	+33	4.8:8.0, 3", binary
2457		1242	8729	35 36	3.5	+16 30	6.18 A0	- .019 - .012	8	+17	
2458		1273	8731	35 44	3.3	+11 6	6.43 Ma	- .001 + .007			
2459	55 v ⁴ Auri	1518	8751	35 48	4.4	+44 37	5.17 K5	- .041 - .032	13	-74	
2460		3386	8712	35 53	+ 2.3	-30 22	5.78 K0	- .009 - .184			
2461		1546	8732	35 57	3.1	+ 0 35	5.64 B9	- .016 - .003	6		
		2416	8702	35 57	1.6	-48 8	8.31 A0	- .006 - .002			
2462		2417	8704	35 58	1.6	-48 8	5.00 K0	- .002 + .008	9	+28	13", binary
2463		1056	8769	36 7	4.8	+53 24	6.38 K0	+ .055 - .181			
2464		1567	8766	36 26	+ 4.1	+37 15	6.24 K0	+ .039 - .045			
2465		2817	8722	36 32	2.0	-38 4	6.54 K0	+ .048 - .029			
2466	26 Gemi	1357	8755	36 35	3.5	+17 45	5.14 A0	+ .009 - .091	16	var	
2467		1351	8747	36 38	3.2	+ 6 27	6.20 B2	+ .010 - .008		var	V ₀ = +31km
2468		688	8707	36 56	0.6	-61 27	6.26 G0	- .016 + .080			6.4:8.4, 3", cpm
2469		1601	8756	37 10	+ 2.9	- 9 4	5.32 K5	+ .041 - .040	13	+ 1	
			8804				8.5	- .040 - .022			
2470	12 Lync	1015	8805	37 24	5.3	+59 33	4.89 A2	- .021 - .004	18	var	Trip. sys. with 2470 5.3:6.2, 2", binary
2471		1494	8785	37 29	4.0	+36 12	6.28 A0	+ .017 + .010	9	-10	
2473	27 ε Gemi	1406	8786	37 47	3.7	+25 14	3.18 G5	.000 - .016	9	+10	
2474		1371	8775	37 52	+ 3.1	+ 3 8	6.44 K0	- .001 - .021			
2475		2625	8759	37 59	2.0	-40 15	6.12 B5	- .022 + .013			
2476		2521	8753	38 7	1.6	-47 34	6.47 Ma	- .018 - .013			
2477	13 Lync	1004	8826	38 18	5.1	+57 16	5.47 G5	+ .023 - .041	14	+19	
2478	30 Gemi	1390	8793	38 21	3.4	+13 20	4.65 K0	- .001 - .062	9	+14	

Precession in declination, -0.05.

No	Name	DM	GC	RA		Decl 1900	Magn Spec	Prop Motion		Par	Rad Vel	Remarks	
				1900	Ann Var			RA	Decl				
2479	28 Gemi	1414	8790	38 ^m 22 ^s + 3.2	+ 4° 2'	5.78 B0	+ .006 - .006				+34		
2480		1327	8799	38 25 3.8	+29 4	5.54 K0	- .005 - .028		.008		+15		
2481				8779	38 33 2.5	-22 21	6.20 F0	- .085 + .076					18", cpm
			1505	8780	38 34 2.5	-22 21	9.0	- .075 + .089					
2482		2844	8776	38 53 2.0	-38 18	9.2	- .032 + .001			3			8"0, binary
			8777	38 53 2.0	-38 18	6.31 A3	- .022 + .003						
2483	56 ψ ⁵ Auri	1595	8836	39 32 +4.3	+43 41	5.34 G0	+ .002 + .160		64		-24		
2484	31 ξ Gemi	1396	8823	39 41 3.4	+13 0	3.40 F5	- .111 - .195		49		+26		
2485			8864	39 52 5.0	+55 49	6.33 F5	+ .060 - .104		29		var	5", cpm	
2486		1122	8862	39 52 5.0	+55 49	6.28 F5	+ .061 - .104				+ 9		
2487	57 ψ ⁶ Auri	1436	8858	40 2 +4.6	+48 54	5.28 K0	- .001 + .003		10		- 7		
2488		2798	8802	40 3 2.0	-39 6	6.30 A3	- .010 - .011						
2489	32 Gemi	1275	8834	40 17 3.4	+12 48	6.43 F0	+ .001 - .002						
2490	42 Caml	454	8902	40 32 6.3	+67 41	5.04 B3	+ .006 + .003		7		- 1		
2491	9 α CMaj	1591	8833	40 45 2.6	-16 35	-1.6 A0	- .537 -1.210		377		var*	Sirius, 50 years*	
2492	10 CMaj	3484	8827	40 40 +2.3	-30 58	5.16 B3p	- .019 + .006				+34		
2493		3248	8831	40 52 2.4	-27 15	6.43 F8	- .015 + .305		60				
2494	16 Mono	1486	8856	41 5 3.3	+ 8 42	5.84 B3	- .006 - .011		3		var	V ₀ = +10km	
2495		4325	8843	41 13 2.5	-23 22	6.23 K0	- .037 + .040						
2497		3495	8835	41 13 2.3	-30 29	6.47 B5	- .030 + .015						10m, 4", cpm
2498		1573	8852	41 27 +2.7	-14 41	5.30 A2	- .028 - .018		19		-19		
2499		1349	8877	41 33 3.5	+18 18	6.16 A0	+ .007 - .047		9		+16	6.7:7.2, close binary	
2500		3640	8846	41 38 2.2	-31 41	5.92 F8	- .222 - .323		49				
2501		3505	8850	41 42 2.3	-30 51	5.91 B3	+ .006 + .001		3		var?	V ₀ = +17km*	
2502		+1644	8873	41 55 2.8	-10 0	5.54 A0	- .004 .000		10		+21		
2503	17 Mono	1496	8880	41 54 +3.3	+ 8 9	5.00 K0	- .025 - .015		9		+47		
2504	11 CMaj	1584	8879	42 17 +2.7	-14 19	5.19 B8	- .004 + .011		4		+17		
2505		476	8803	42 28 -0.9	-71 40	6.43 K0	+ .032 - .056						
2506	18 Mono	1397	8892	42 39 +3.1	+ 2 31	4.70 K0	- .016 - .013		12		var	V ₀ = +11km	
2507		2831	8875	42 44 2.0	-39 26	6.53 B8	- .005 + .012						
2508		1558	8891	42 51 +2.9	- 8 53	5.26 K5	- .018 + .004		3		+23		
2509	12 CMaj	1576	8884	42 45 2.6	-20 54	6.00 B8	- .013 + .003						
2510		3065	8878	42 46 2.1	-37 40	6.10 B5	- .015 .000						
2511	43 Caml	394	8957	42 55 6.5	+69 0	5.13 B5	+ .004 + .008		6		-21		
2512		1414	8915	43 10 3.9	+32 43	5.76 K0	- .039 - .043		8		-16		
2513		996	8872	43 8 +1.4	-52 6	6.32 G5	- .002 - .011						
2514		1386	8903	43 15 3.0	- 1 12	5.66 A5	- .042 - .041						
2515		998	8882	43 36 1.4	-52 18	5.68 K0	- .013 - .007				+36		
2516	58 ψ ⁷ Auri	1536	8931	43 42 4.2	+41 54	5.04 K0	- .020 - .134		9		+61		
2517		1531	8916	43 54 3.1	+ 1 6	6.06 B3	+ .006 - .004				+24		
2518		3080	8899	43 56 +2.1	-37 49	5.25 B9	- .025 - .019				+47		
2519	33 Gemi	1298	8927	44 4 3.5	+16 19	5.69 B8	- .016 - .014		8		+13		
2520	14 Lync	1028	8968	44 16 5.3	+59 34	5.44 *	- .003 - .041		8		+13	5.7:7.0, close binary	
2521		1776	8923	44 14 3.0	- 2 10	5.65 A0	- .012 - .001						
2522		+1599	8922	44 26 2.7	-15 2	5.29 B5	+ .003 - .005		7		var*	5.4:8.0, 1", binary	
2523		2078	8901	44 29 +1.4	-51 9	5.28 K2	- .011 - .101		12		- 4		
2524		1115	8900	44 40 1.2	-54 35	6.35 G5	- .057 + .019		4			6.42:9.4, 1"5, binary	
2525	35 Gemi	1434	8938	44 47 3.4	+13 32	5.90 K0	- .001 - .006		7		+26		
2526		1063	8912	45 22 1.2	-55 26	5.62 K2	.000 + .013						
2527		266	9073	45 29 8.8	+77 6	4.75 K5	+ .079 - .011		16		var	V ₀ = -26km	

2491: Companion, 8.5m, first detected from non-uniformity in the p.m. of Sirius. V₀ = -8km. In Ursa Cluster. Companion extremely dense, spectrum F-type.

2501: 6.0:8.4, 5", binary.

Precession in declination, -0.06.

2520: Composite, F5, A2.

2522: V₀ = +20km.

CATALOGUE OF BRIGHT STARS

No	Name	DM	GC	RA		Decl	Magn	Prop Motion		Par	Rad	Remarks		
				1900	Ann Var			RA	Decl				Spec	Vel
2528	36 Gem	4438	8939	45 ^m 35 ^s +2 ^s .5		-23° 58'	6.24 A0	+ .001	- .006	"002	km	6.6:7.6, 2", binary		
2529		1405	8965	45 33 3.6		+21 53	5.22 A0	- .007	- .035	13	+34			
2530		1462	8954	45 43 +3.1		- 0 25	5.83 F2	+ .030	- .185	32	-17	12m, 6", cpm		
2531		+ 522	8881	45 40 -1.2		-73 0	6.33 K0	+ .034	- .110					
2532		+1359	8988	45 50 +4.4		+44 58	6.10 A5	+ .012	- .085	14	0			
2533		1518	8976	45 56 +3.6		+23 43	5.77 K5	- .036	- .013	9	+40			
2534		1592	8955	45 53 2.9		- 7 56	6.24 A0p	- .007	.000					
2535		1624	8951	45 55 +2.7		-16 58	5.94 K0	+ .014	+ .015					
2536		560	8895	45 56 -0.6		-70 20	5.88 K2	+ .006	+ .003					
2537		3310	8950	46 6 +2.4		-27 13	6.77 B3	- .003	- .003					
2538	13 κ CMaj	3404	8946	46 6 +2.2		-32 24	3.78 B2p	- .009	+ .004	6	+14			
2539	59 Auri	+1771	8993	46 9 4.1		+38 59	6.06 F2	+ .008	+ .004	13	+ 3	10m, 22", fixed		
2540	34 θ Gem	1481	8989	46 12 4.0		+34 5	3.64 A2	+ .005	- .053	24	var	$V_0 = +21$ km		
2541	60 Auri	1636	8997	46 22 4.1		+38 34	6.32 F5	+ .037	- .180	8	+32	Sometimes called ψ^8		
2542	1511	8995	46 22 4.0		+35 54	6.18 G5	- .017	+ .011		+ 6				
2543	61 ν^8 Auri	1437	8978	46 25 +3.1		+ 3 10	6.22 A0	- .010	- .042	9	+45			
2544		3691	8966	46 33 2.4		-25 40	6.24 B3	- .008	+ .011					
2545		3717	8961	46 37 2.3		-31 35	5.63 B8	- .006	+ .010					
2546		2773	8962	47 3 1.7		-45 20	6.37 K0	+ .009	- .048				11m, 7"	
2547		1638	9012	47 6 4.1		+38 38	6.23 A0	- .007	- .030					
2548		2703	8960	47 5 +1.7		-46 30	5.05 F2	- .012	+ .369	47	+19			
2549		3140	8979	47 14 2.2		-34 15	5.06 K0	+ .002	+ .004	0	+30			
2550		α Pict	720	8941	47 10 0.6		-61 50	3.30 A5	- .074	+ .262		+21		
2551		1543	9007	47 23 3.3		+ 8 30	5.76 A5	- .050	- .034					
2552		1845	9001	47 28 3.0		- 5 12	6.46 K0	- .021	- .008					
2553	τ Pupp	2415	8969	47 27 +1.5		-50 30	2.83 K0	+ .025	- .075	25	var	1066 days, $V_0 = +36$ km		
2554	1168	8972	47 41 1.3		-53 30	4.38 G5	- .008	+ .025	16	var	195 days, $V_0 = +26$ km			
2555	1344	9013	47 50 3.3		+11 7	6.30 G5	+ .012	- .138						
2556	+1202	9039	47 54 4.4		+45 57	6.48 K0	- .034	- .073						
2557	1551	9042	48 2 4.3		+44 2	6.04 F0	+ .014	- .012	24	- 8				
2558	3189	9003	48 11 +2.1		-36 6	6.00 A2	- .054	- .067						
2559	ξ Mens	196	8869	48 22 -5.0		-80 42	5.64 A2	- .005	+ .053		+ 9			
2560	15 Lync	982	9082	48 37 +5.2		+58 33	4.54 G0	+ .001	- .134	14	+ 9	4.9:6.0, close binary		
2561	1017	9081	48 40 5.1		+57 41	6.13 K2	+ .019	+ .019						
2562	712	8987	48 41 0.8		-60 8	6.14 F5	+ .004	+ .105						
2563	38 Gem	2556	9009	48 51 +1.6		-48 10	6.23 K0	+ .029	- .013					
2564		1462	9049	49 0 3.4		+13 18	4.70 F0	+ .079	- .086	39	+19*	8m, 7", binary*		
2565		1591	9021	48 57 2.6		-18 55	5.62 F0	- .048	+ .001					
2566		1594	9023	48 59 2.6		-18 48	6.16 A2	- .027	+ .021					
2567		3529	9018	48 59 2.4		-26 50	6.52 Mb	- .032	- .064					
2568	ν^9 Auri	1203	9075	49 8 +4.4		+46 24	5.80 B8	+ .021	+ .008	6				
2569	37 Gem	1496	9064	49 10 3.7		+25 30	5.77 G0	- .038	+ .019	52	-12			
2570	1863	9044	49 15 2.9		- 5 44	6.35 A3	- .021	- .001	7	+17	7.0:7.2, 1", binary			
2571	15 CMaj	1616	9034	49 13 2.6		-20 6	4.66 B1	- .006	+ .004	3	+30			
2572	+1487	9052	49 20 3.0		- 1 0	5.33 A2	+ .009	- .011	14	- 9				
2573	14 θ CMaj	1205	9089	49 32 +4.4		+46 49	6.03 K0	- .099	- .096					
2574		1681	9051	49 33 2.8		-11 55	4.25 K2	- .140	- .018	21	+97			
2575		2793	9019	49 32 1.9		-42 23	6.48 F2	- .010	- .010					
2576		3554	9038	49 35 2.4		-28 24	6.03 G0	+ .274	- .440	42	+72			
2577		1446	9063	49 39 3.0		- 1 38	6.25	+ .004	+ .007		+13	Composite, B3, F		

2564: Velocity of fainter +25km.

Precession in declination, -0.07.

6^h

No	Name	DM	GC	RA	Ann	Decl	Magn	Prop Motion		Par	Rad Vel	Remarks
				1900	Var	1900	Spec	RA	Decl			
2578	16 o' CMaj	4565	9050	49 ^m 47 ^s + 2.5		-24° 25'	6.20 A0	-.027	-.015	".005	+36	km
2579		2756	9027	49 45 1.8		-43 51	6.50 B9	-.012	-.003			
2580		4567	9059	49 59 2.5		-24 4	4.12 K2p	-.008	+.010			
2581		430	9152	50 0 6.8		+70 57	5.83 K0	+.019	-.020			
2582		1827	9070	49 58 3.0		- 2 41	6.00 K0	-.018	+.002			
2583		4553	9061	50 3 + 2.5		-23 48	6.55 0b	-.010	.000			
2584		1562	9076	50 9 3.3		+ 8 27	6.14 A0	-.018	+.015	8	+33	
2585	16 Lync	1367	9113	50 19 4.4		+45 13	4.80 A2	-.020	-.004	16	- 9	
2586		1433	9101	50 27 3.9		+33 49	6.01 G0	-.015	-.004			
2587		1177	9045	50 39 1.3		-53 58	6.50 K0	-.027	+.011			
2588	17 CMaj	1624	9078	50 44 + 2.6		-20 17	5.75 A2	-.001	-.005			
2589		1335	9100	50 56 3.3		+10 5	5.88 B8	-.027	-.021	7	+33	
2590	19 μCMaj	+1610	9096	51 17 2.6		-20 1	4.62 F5	+.048	+.042	28	+ 8	10m, 12", cpm
2591		2818	9077	51 18 1.9		-42 14	6.00 Na	+.001	+.022		+38	
2592		716	9056	51 17 0.9		-59 13	6.38 A2	-.017	+.033			
2593	18 μCMaj	1741	9103	51 32 + 2.7		-13 55	5.19 *	-.003	+.004	0	+20	8m, 3", fixed
2594		2458	9072	51 34 1.5		-50 29	6.13 K0	-.060	+.214			
2595		1602	9099	51 35 2.5		-22 49	5.26 B3	-.017	+.001		+38	
2596	20 μCMaj	1661	9107	51 41 2.7		-16 55	4.39 B5	-.003	+.010	5	+41	
2597		1361	9129	51 51 3.3		+12 2	6.16 F0	+.019	-.003		+ 8	
2598		3808	9115	52 8 + 2.3		-31 40	6.42 B8	-.010	+.011			
2599		+1642	9125	52 11 2.9		- 8 3	6.44	-.009	+.001			Composite, F5, A2
2600	62 Auri	1656	9151	52 14 4.1		+38 11	6.15 K2	-.038	-.125	5	+24	
2601	39 Gemi	1405	9153	52 38 + 3.7		+26 13	6.10 F5	-.164	+.090	27	+ 5	
2602	Voln	572	9057	52 36 - 0.7		-70 50	5.52 B8	-.001	+.025		+18	
2603		1616	9140	53 0 + 2.5		-22 4	6.37 B8	-.006	-.017			
2604		3225	9138	53 10 2.2		-35 13	6.28 K0	-.007	-.006			
2605	40 Gemi	1411	9176	53 17 3.7		+26 3	6.29 B9	-.007	-.010			
2606		1539	9161	53 14 3.2		+ 7 45	6.10 A2	-.016	-.032	10	-27	
2607		4648	9145	53 26 2.5		-24 30	5.43 F5	-.058	+.103	21	+20	5.7:7.2, 1"
2608		2601	9137	53 36 + 1.6		-48 35	4.88 Ma	-.004	+.006	0	+22	
2609		51	9772	53 44 28.1		+87 12	5.26 Ma	-.038	-.034	7	-25	
2610		1488	9175	53 41 3.2		+ 3 44	6.02 K0	-.012	-.007			13m, 3"
2611		3460	9154	53 43 2.4		-27 24	6.09 B3	-.036	+.002			
2612		3233	9146	53 43 2.1		-35 22	6.19 F5	-.044	+.005	58		6.8:7.1, 16 years
2613		1544	9187	53 56 + 3.2		+ 7 27	6.33 B8	-.018	-.013			
2614		+3646	9165	54 7 2.4		-27 2	6.19 B3	+.004	-.011			6.7:7.3, 0.2
2615	41 Gemi	1354	9200	54 31 3.4		+16 13	5.86 K2	-.004	-.010	2	+22	
2616		3864	9181	54 30 2.5		-25 17	5.66 B3	-.012	+.012	4	var?	V ₀ = +28km
2617		432	9289	54 33 6.8		+70 53	6.61 K0	+.038	-.008			
2618	21 μCMaj	3666	9188	54 42 + 2.4		-28 50	1.63 B1	+.003	-.003	10	+27	9m, 8", fixed
2619		3389	9184	54 45 2.2		-33 59	5.07 B5	-.020	+.014	3	+19	
2620		1460	9227	54 48 3.9		+32 33	6.46 F0	+.014	-.024			
2621		3757	9190	54 54 2.3		-30 52	6.38 B8	.000	+.019		+14	
2622		1910	9220	55 24 2.9		- 5 14	6.37 F8	-.119	+.087			
2623		1689	9205	55 23 + 2.6		-21 28	6.25 B8	-.001	-.012			
2624		1662	9226	55 35 2.9		- 8 16	5.84 A0	-.022	-.011			
2625		+1644	9224	55 48 2.6		-20 1	6.10 B8	-.027	-.010			
2626		2850	9199	55 47 1.7		-45 38	6.22 A0	-.015	-.025			
2627		+1667	9236	55 53 2.9		- 9 4	6.36 B0	-.009	-.007		+49	

2593: Composite, G5, A2.

Precession in declination, -0.08.

CATALOGUE OF BRIGHT STARS

6^h - 7^h

No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
2628	42 ω Gem	1695	9232	56 ^m 4 ^s +2.5		-21° 59'	6.33 B5	-".006 - ".020		km	
2629		+1513	9251	56 23 3.2		+ 4 58	6.50 A0	- .006 - .001	.007	-11	
2630		1502	9263	56 19 3.7		+24 21	5.21 K0	- .004 - .003	6	- 9	
2631		1479	9270	56 36 3.5		+17 53	6.20 Ma	+ .019 + .040			
2632		1431	9265	56 34 3.4		+15 29	5.89 K0	+ .003 - .021			
2633		1514	9258	56 35 +3.2		+ 5 42	6.46 B3	- .040 + .008		+34	
2634		1116	9212	56 43 1.2		-55 35	6.11 K0	- .078 - .095			
2635		1363	9275	56 47 3.5		+16 49	6.01 K5	+ .020 - .020			
2636		1509	9262	56 48 3.0		- 1 12	6.18 K0	+ .009 - .026			
2637		3711	9245	56 45 2.4		-28 21	6.38 F8	- .008 - .037			
2638	1211	9211	56 44 +1.1		-56 15	6.42 F2	- .036 - .032				
2639	1926	9269	57 2 2.9		- 5 35	5.38 K5	- .016 + .001	5	+ 3		
2640	3911	9253	56 59 2.5		-25 4	5.80 B3	- .010 + .019	4	var	V ₀ = +6km	
2641	3415	9250	57 8 2.2		-33 20	6.52 K0	+ .014 + .089	7			
2642	+1026	9322	57 12 5.3		+59 57	6.54 K0	+ .029 - .001		+23		
2643	1441	9292	57 9 +3.8		+29 30	5.95 F8	+ .161 - .828	60	+21		
2644	22 σ CMaj	9326				6.95 A2	- .020 - .077	12	+27	3", binary	
		1165	9327	57 43 4.8		+52 54	7.05	- .005 - .069	12		+16
2645	22 σ CMaj	1391	9317	57 40 4.5		+47 55	6.36 B9	+ .001 - .010	6		
2646		3544	9276	57 44 2.4		-27 47	3.68 K5	- .003 .000	11	+22	
2647	19 Mono	1496	9295	57 50 +3.3		+ 9 17	5.93 A2	- .024 + .004			
2648		1788	9293	57 57 3.0		- 4 6	4.89 B3	- .013 + .001	6	+24	
2649	43 ζ Gem	1428	9303	58 6 3.3		+11 6	5.25 K2	- .007 - .022	9	+21	
2650		1687	9313	58 11 3.6		+20 43	var G0p	- .004 - .003	4	var*	3.7 to 4.1, 10.2 days
2651		1406	9310	58 15 3.4		+12 44	6.17 K5	+ .003 - .003			
2652	24 σ^2 CMaj	2224	9273	58 26 +1.5		-51 16	5.02 Ma	- .025 + .015	0	var?	V ₀ = +5km
2653		4797	9307	58 51 2.5		-23 41	3.12 B5p	.000 .000	7	+49	
2654		1665	9328	59 10 3.1		+ 1 38	6.46 B9	+ .001 - .012			
2655		1943	9323	59 10 3.0		- 5 11	5.88 K0	- .007 + .009	4	+40	
2656		1818	9321	59 13 2.8		- 9 58	6.42 B8	- .027 - .012			
2657	23 γ CMaj	1625	9320	59 14 +2.7		-15 29	4.07 B5	+ .003 - .008	10	+30	
2658	44 Gem	2882	9298	59 10 1.9		-43 15	6.38 A0	+ .008 - .016			
2659		1566	9337	59 17 3.6		+22 47	5.91 A0	- .001 - .016	9		
2660		1524	9354	59 36 4.0		+34 38	5.60 G5	- .051 - .053	17	+ 4	
2661		820	9291	59 32 +0.9		-58 48	6.00 A5	- .060 + .134			
2662	R Gem	686	9280	0 1 -0.1		-67 47	5.08 K2	- .038 + .236	19	+39	
2663		1510	9355	0 10 +3.3		+ 9 20	6.02 K0	+ .047 - .022			
2664		1732	9351	0 32 2.6		-21 53	6.19 K0	+ .021 - .060			
2665		1530	9384	0 48 3.9		+34 10	6.13 K0	- .024 - .030	5	var	V ₀ = +13km
2666		2929	9342	0 53 1.9		-42 11	5.26 A2	- .021 + .063	20	var	V ₀ = +28km, two spectra
2667		2906	9340	0 53 +1.8		-43 28	5.80 G0	- .117 + .382	48		20", cpm*
2668		2907	9341	0 55 1.8		-43 28	6.92 G0	- .120 + .366			
2669		1314	9387	1 8 3.8		+28 20	6.23 B9	+ .009 + .017	6		
2670		1862	9371	1 6 2.8		-10 30	6.38 B3	- .001 - .030		var	V ₀ = +16km. 11m, 6"
2671		1577	9390	1 20 3.6		+22 52	var S	+ .007 - .005		-57*	6.5 to 14.3, 370 days
2672	2587	9348	1 18 +1.6		-49 26	5.12 A2	- .056 + .143		+25		
2673	+1533	9405	1 40 3.9		+33 59	6.47 K0	- .012 - .038				
2674	+ 826	9344	1 43 0.9		-59 2	5.69 B9	+ .017 + .004	15	- 5	6.1:6.9, 2", binary	
2675	1660	9412	1 50 4.1		+37 36	6.32 K0	- .005 - .017				
2676	1543	9394	1 48 3.2		+ 5 4	5.95 B8	- .033 - .021	6			

2650: V₀ = +7km.

2671: Absorption lines give -36km.

Precession in declination, -0.09.

2667: 9.2K2, 200", cpm.

7^h

No	Name	DM	GC	RA	Ann	Decl	Magn	Prop Motion		Par	Rad Vel	Remarks	
				1900	Var	1900	Spec	RA	Decl				
2677	45 Gemi	3325	9374	1 ^m 51 ^s + 2 ^s .2		-34° 37'	10.0	-".036 + ".060		.036	km	cpm with 2677	
		9376					6.32 F0	-.048 + .040				4", binary	
		3327	9377	1 54	2.2	-34 37	7.4	-.022 + .073					
2678		1790	9389	1 59	2.8	-11 8	5.28 B3	-.013 - .006			3	+31	5.6:6.8, 0".5
2679		1788	9386	1 56	2.8	-12 14	6.40 B5p	-.021 + .006					
2680		3907	9383	2 9	+ 2.3	-30 30	6.38 B8	-.004 + .007					var
2681		+ 352	9489	2 20	7.0	+71 59	6.45 K0	+ .020 + .020					
2682		1607	9409	2 25	3.2	+ 7 38	5.92 K0	.000 - .038			9	+24	
2683		1232	9368	2 26	1.1	-56 36	5.30 A0	+ .003 + .001			0	+30	
2684		1397	9421	2 38	3.4	+16 5	5.58 K0	-.004 - .104			9	-18	
2685	+3163	9388	2 36	+ 2.1	-38 14	6.06 G0	+ .007 + .014						
2686	4868	9402	2 45	2.5	-24 48	6.20 K2	-.031 + .004						
2687	2561	9381	2 44	1.5	-50 12	6.49 K0	-.020 + .028						
2688	3880	9406	2 57	+ 2.4	-26 30	6.38 B3	+ .015 - .035						
2689	0 Mens	238	9278	2 54	- 3.8	-79 17	5.51 A0	-.007 - .003			+ 5		
2690		4908	9414	3 12	+ 2.6	-23 41	5.75 B3p	-.005 + .020					
2691		2930	9419	3 51	2.0	-40 44	5.91 B9	-.015 + .002					
2692		1528	9462	4 10	3.6	+21 25	6.46 G5	-.161 - .482		28	-15		
2693	25 δ CMaj	3916	9443	4 20	2.4	-26 14	1.98 F8p	-.004 + .003		5	var	V ₀ = +34km	
2694		1892	9459	4 36	2.8	-10 11	6.20 Oe5	+ .003 - .021			+63		
2695		4949	9454	4 39	+ 2.6	-23 53	6.47 B3	-.014 - .012					
2696	63 Auri	1882	9490	4 47	4.1	+39 29	5.07 K2	+ .049 - .001		14	-27		
2697	46 γ Gemi	1439	9484	4 47	3.8	+30 25	4.48 K0	-.026 - .048		11	+22	11m, 2", cpm	
2698		2306	9435	4 49	1.4	-51 49	5.98 G5	-.018 + .053					
2699		1802	9467	5 3	2.7	-16 4	6.03 B3	-.022 - .010					
2700	47 Gemi	1327	9493	5 11	+ 3.7	+27 1	5.60 A2	-.019 - .041		15			
2701	20 Mono	1840	9477	5 16	3.0	- 4 5	5.02 K0	-.004 + .215		22	+79		
2702		3105	9463	5 30	2.0	-39 30	4.85 B3	-.012 + .003		8	var	V ₀ = +20km	
2703		1295	9526	5 36	4.7	+51 36	5.69 Ma	+ .007 + .009		6	-51		
2704		4120	9473	5 36	2.5	-25 4	5.76 B3	-.014 + .003			var	V ₀ = +28km	
2705		1711	9483	5 45	+ 2.6	-18 31	6.18 F0	-.009 + .014					
2706	48 Gemi	1558	9521	6 22	3.6	+24 18	5.76 F5	-.018 - .052		15	+14		
2707	21 Mono	1634	9505	6 17	3.1	- 0 8	5.40 F0	-.031 - .012		18	+36		
2708		3710	9495	6 18	2.4	-27 20	5.55 G5	-.005 + .006		9			
2709		242	9721	6 24	11.4	+81 26	6.20 B9	+ .005 - .028		8	- 8		
2710		1577	9516	6 31	+ 3.2	+ 5 50	6.04 A0	-.016 - .011		9	var		
2711		1337	9532	6 35	+ 3.7	+27 24	6.44 F5	+ .015 - .107		22	-14	7.2:7.2, 120 years	
2712		591	9447	6 36	- 0.2	-68 41	6.46 G5	-.005 + .005					
2713		1580	9524	6 48	+ 3.2	+ 5 39	6.22 G5	-.036 + .002					
2714	22 δ Mono	1636	9518	6 45	3.1	- 0 20	4.09 A0	-.001 + .006		18	+19		
2715	18 Lync	1065	9581	7 11	+ 5.2	+59 49	5.33 K0	-.091 - .260		26	+24		
2716		1767	9528	7 23	2.6	+20 43	5.71 A0	-.017 + .028					
2717	51 Gemi	1417	9551	7 38	3.4	+16 20	5.31 Mb	+ .013 - .044		7	- 9		
2718	26 CMaj	4191	9545	8 7	2.5	-25 47	5.86 B3	-.011 + .008		5	+22		
2719		2765	9523	8 6	1.6	-48 46	5.11 K2	-.027 + .202		56	+64		
2720		4081	9544	8 13	+ 2.3	-30 39	6.16 A5	-.043 + .013					
2721		1419	9606	8 25	4.5	+47 25	5.55 G0	+ .034 - .187		40	+88		
2722		1576	9577	8 20	3.7	+24 53	6.66 B9	+ .007 - .019		6	+ 3		
2723		1849	9558	8 25	2.8	-11 4	6.01 K0	-.013 + .009					
2724		3761	9550	8 23	2.4	-27 18	6.45 A2	-.027 + .005					

Precession in declination, -0.10.

CATALOGUE OF BRIGHT STARS

7^h

No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
2725	52 Gemi	1618	9585	8 ^m 35 ^s + 3.7	+25° 4'	6.02 K0	+".052 - ".095	".007	km		
2726		3421	9555	8 53 2.1	-36 23	6.01 B5	-.029 + .001	4	+17		8.9m, 3", binary
2727		2987	9554	8 57 2.0	-40 20	5.40 A2	-.025 - .018	5	var		
2728		1469	9592	8 58 3.3	+12 17	5.84 K0	-.054 - .020	9	+29		
2729		1609	9590	9 6 3.1	+ 3 17	5.56 G5	-.006 - .003	9	+37		
2730		1756	9574	9 9 + 2.5	-22 30	6.19 K2	+ .007 - .010				
2731		1804	9589	9 12 3.0	- 3 43	6.12 K5	-.016 + .007				12m, 3"
2732		1921	9600	9 30 2.9	- 9 46	6.06 K2	-.006 + .003				
		1760	9587	9 33 2.5	-22 44	9.8	-.028 - .003				20", cpm
2733		1761	9588	9 35 2.5	-22 44	6.24 B3	-.011 - .020				
2734		3789	9583	9 35 + 2.4	-27 11	5.86 B3	-.027 + .003				
2735	γ Voln	600	9513	9 34 - 0.5	-70 20	5.81 G0	+ .005 + .097	25	var*		14", binary
2736			9514	9 36 - 0.5	-70 20	3.87 K0	+ .021 + .103		+ 3		
2737		1188	9642	9 43 + 4.7	+52 18	6.04 K0	+ .002 - .030				
2738	53 Gemi	1350	9627	9 42 + 3.7	+28 4	5.87 Ma	-.012 - .002	6	+22		
2739		1933	9605	9 44 + 2.8	-10 8	5.99 B1	-.006 - .012	1	+32		
2740		2977	9569	9 43 1.7	-46 36	4.47 F0	-.139 + .102	43	- 1		
2741		4143	9598	9 56 2.3	-30 55	6.53 B3	-.018 - .004		var?		V ₀ = +28km
2742		201	9851	10 3 12.6	+82 36	5.11 Mb	.000 - .041	7	+12		
2743		4146	9603	10 4 2.3	-30 10	6.31 B3	-.018 - .008		var		
2744	24 Mono	1871	9622	10 12 + 3.1	+ 0 1	6.52 G5	-.021 - .003	6	-10		12m, 4"
2745	27 CMaj	4057	9608	10 11 2.4	-26 11	4.66 B5p	-.011 + .004	5	var*		Complex system
2746		+3223	9591	10 14 1.8	-45 1	5.04 A0p	-.029 - .104	6	+ 4		
2747		1712	9628	10 14 3.3	+ 8 10	5.97 Mb	+ .028 + .005				
2748		3227	9604	10 29 1.8	-44 29	var M5	+ .104 + .326	18	+48*		3.1 to 6.3, 141 days
2749	28 ωCMaj	4073	9625	10 45 + 2.4	-26 36	3.83 B3p	-.009 + .003	8	+26		
2750		4074	9626	10 49 2.4	-26 52	5.80 K5	-.051 - .034	9	+14		
2751		1612	9681	10 56 4.6	+49 39	4.80 A2	-.002 + .008	13	-12		
2752		1945	9638	10 59 2.8	-10 24	6.09 K0	+ .009 - .008				
2753	64 Auri	1630	9677	11 5 4.2	+41 4	5.75 A3	-.014 + .010		-15		In Ursa Cluster?
2754		+ 789	9582	11 5 + 0.6	-63 1	6.10 A0	-.007 - .005	5			6.7:7.1, 0.5, binary
2755		5173	9644	11 36 2.5	-23 34	6.26 A0	+ .016 + .004				
2756		4184	9639	11 29 2.3	-30 31	5.31 B5	-.022 + .011		+33		
2757		1529	9688	11 41 3.8	+31 9	5.98 B9	-.023 - .020	7			
2758		1734	9657	11 43 2.7	-15 25	5.39 A2	-.064 - .007	22	+10		
2759		2906	9636	11 41 + 2.0	-41 15	6.10 B8	+ .001 + .020				
2760		1594	9679	11 56 3.2	+ 6 51	6.44 B9	+ .001 - .017				
2761		3000	9637	11 54 1.7	-46 40	5.82 A0p	-.028 - .013				
2762		2807	9635	11 53 1.7	-48 6	4.88 B8	-.006 .000	19	+44		
2763	54 λGemi	1443	9701	12 21 3.4	+16 43	3.65 A2	-.043 - .043	43	-12		10m, 10", cpm*
2764		5189	9675	12 24 + 2.5	-23 8	4.82 K5	-.010 .000	5	var?		V ₀ = +28km
		5192	9676	12 26 2.5	-23 8	6.82 F0	-.050 + .055	13	+36		27", from No 2764
2765		2032	9698	12 39 2.9	- 6 30	6.36 K2	-.015 + .010				
2766		3852	9678	12 34 2.4	-27 42	4.77 Mb	-.015 + .038	9	+41		
2767		1123	9664	12 59 1.4	-52 20	5.99 G5	-.067 + .098				
		4233	9693	13 5 + 2.3	-30 44	8.0	+ .019 - .018				38", cpm
2768		4234	9694	13 5 2.3	-30 43	6.23 A5	+ .001 - .023				
2769		3288	9685	13 4 2.1	-38 8	5.76 B3	-.022 + .002				
2770		3485	9696	13 16 2.1	-36 25	5.01 B3	-.006 - .005	5	var		V ₀ = +8km
2771		3023	9686	13 22 1.7	-46 36	5.54 K5	-.001 + .031		+20		
2772	47 Caml	1048	9775	13 32 5.3	+60 5	6.28 A5	+ .005 + .012	13	+ 6		10m, 2"

2735: V₀ = -3km.
2745: V₀ = +25km.

2748: Absorption lines give +53km.
2763: In Ursa Cluster.

Precession in declination, -0.10

No	Name	DM	GC	RA		Decl 1900	Magn Spec	Prop Motion		Par	Rad Vel	Remarks	
				1900	Ann Var			RA	Decl				
2773	♄ Pupp	3489	9706	13 ^m 37 ^s + 2 ^s		-36° 55'	2.74 K5	- .006	+ .005	"014	+16		
2774		4140	9717	13 44	2.4	-26 37	6.34 B5	- .012	- .002				
2775		1699	9765	13 59	4.2	+42 50	6.57 K0	- .015	- .050				
2776		1422	9769	14 3	4.3	+45 25	5.64 F0	- .042	+ .009	17	+25		
2777		55 δ Gemi	1645	9755	14 9	3.6	+22 10	3.51 F0	- .019	- .015	56	var*	8m, 7", binary*
2778		1640	9739	14 9	+ 3.1	+ 2 55	6.06 G5	- .004	- .018				
2779		1684	9752	14 24	3.2	+ 7 19	5.95 F8	+ .082	- .054		+21		
2780		1541	9759	14 26	3.4	+15 20	6.47 A0	+ .014	- .022	9	var	V ₀ = +15km	
2781	29 UW CMaj	5173	9734	14 31	2.5	-24 23	var Oe	- .007	- .003	6	var*	4.5 to 4.8, 4.4 days	
2782	30 τ CMaj	5176	9736	14 34	2.5	-24 46	4.40 Oe5	- .010	+ .007		var*	10m, 8", fixed	
2783	19 Lync	1192	9799	14 41	+ 4.9	+55 28	6.53 A	+ .005	- .028	12	var	15", binary	
2784			9800	14 42	4.9	+55 28	5.61 B8	.000	- .034		var*		
2785			1813	9742	14 39	2.6	-19 6	6.18 F0	+ .010	.000			
2786			4164	9740	14 47	2.4	-26 24	5.40 G0p	- .019	+ .005	3		+33
2787			3512	9733	14 45	2.1	-36 33	4.68 B3	- .010	- .002	7		+19
2788	R CMaj	1898	9758	14 57	+ 2.7	-16 12	var F0	+ .158	- .132	39	var*	5.4 to 6.0, 1.14 days	
2789			3093	9732	14 59	1.9	-43 49	5.96 B9	- .023	- .003			
2790			3519	9746	15 5	2.1	-36 34	5.11 B3	- .008	.000	6	var	V ₀ = +23km
2791			+3309	9743	15 9	2.0	-39 2	5.24 A2	+ .002	+ .004	10	+32	
2792			1927	9801	15 24	4.1	+39 11	6.48 K0	.000	- .043			
2793	65 Auri	+1707	9796	15 22	+ 4.0	+36 57	5.21 K0	- .086	- .028	16	+23	12m, 11", cpm	
2794		3696	9761	15 30	2.2	-33 33	6.43 K0	- .019	- .011				
2795	56 Gemi	1775	9808	16 3	3.5	+20 38	5.16 K2	- .062	- .031	8	+ 4		
2796		1846	9795	16 23	2.8	-14 10	5.72 K0	- .020	+ .015	10	+14		
2797		252	9983	16 27	10.9	+81 6	6.50 K0	- .006	+ .001	7	- 2		
2798		1862	9804	16 29	+ 2.9	- 8 41	6.50 F5	+ .036	- .157				
2799		1823	9798	16 39	2.5	-22 40	6.45 B3	+ .007	- .044				
2800		4223	9805	16 51	2.4	-26 47	5.84 B3	+ .008	+ .016				
2801		1915	9821	16 56	3.1	+ 0 22	6.00 B8	.000	+ .003	6			
2802		4400	9809	16 58	2.5	-25 42	6.10 Ma	- .014	+ .021	5	+23		
2803	δ Voln	730	9747	16 53	0.0	-67 46	4.02 F5	- .008	- .003	1	+23		
2804		1205	9860	17 9	+ 4.7	+52 5	5.91 K2	+ .018	- .040				
2805	66 Auri	1852	9850	17 13	4.2	+40 52	5.28 K0	- .003	- .026	6	+22		
2806		1872	9823	17 14	2.9	- 8 47	6.17 B5	+ .004	+ .020		+23		
2807		2079	9827	17 18	3.0	- 2 48	6.30 F5	- .018	+ .003				
2808	57 Gemi	1660	9843	17 23	+ 3.7	+25 15	5.08 G5	- .065	- .026	20	+ 6		
2809		502	9894	17 33	5.9	+66 32	6.29 B9	+ .005	- .024	7			
2810	58 Gemi	1698	9844	17 28	3.6	+23 8	6.02 A0	- .018	- .039	9			
2811		2089	9833	17 31	2.9	- 5 48	5.83 F0	- .012	- .005	17			
2812		1806	9836	17 49	2.6	-18 50	4.87 B8	+ .009	- .006	8	+27		
2813		1153	9811	17 57	+ 1.4	-52 8	6.36 F2	- .045	+ .130	35		10", binary	
2814		9812	17 57	1.4	-52 8	6.99 F2	- .050	+ .119					
2815		2445	9818	18 12	1.5	-51 54	5.50 B9	- .028	- .011		var	V ₀ = +21km	
2816	59 Gemi	1374	9868	18 20	3.7	+27 50	5.71 F0	+ .016	+ .014	17	- 5		
2817		1564	9876	18 46	3.4	+15 43	6.37 B3	+ .014	- .001	2	+38		
2818	21 Lync	1623	9909	19 10	+ 4.5	+49 25	4.45 A0	- .010	- .050	13	+26		
2819		4437	9862	19 11	2.3	-31 44	5.43 B5	- .018	+ .002		+24		
2820	1 CMin	1578	9891	19 25	3.3	+11 52	5.34 A2	- .016	- .017	13	0		
2821	60 δ Gemi	1385	9897	19 31	3.7	+28 0	3.89 K0	- .117	- .089	26	+ 9		
2822		4020	9870	19 27	2.4	-27 38	5.13 K2	+ .044	+ .002	1	var?	V ₀ = +48km	

2777: Velocity of fainter +2km.

2781: V₀ = -11km.2782: 155 days, V₀ = +40km.

Precession in declination, -0.11

2784: 2.3 days, V₀ = +4km, two spectra.2788: V₀ = -40km.

CATALOGUE OF BRIGHT STARS

7^h

No.	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
2823		+4454	9877	19 ^m 43 ^s + 2 ^s .3		-32° 0'	5.47 B3	-.013 + .002		km +21	
2824		+4322	9883	20 0 2.3		-30 1	6.59 B3	-.022 + .007		+ 7	
2825		+1810	9893	20 9 2.7		-16 0	5.20 B3p	-.013 - .011		- 5	
2826		1855	9890	20 3 2.5		-22 43	6.10 B9	-.015 - .003	.007		
2827	31 ηCMaj	4328	9886	20 8 2.4		-29 6	2.43 B5p	-.007 + .004	12	+40	
2828	2 εCMin	1643	9908	20 11 + 3.3		+ 9 28	5.07 G5	-.006 - .014	8	- 8	
2829		3569	9889	20 21 2.2		-35 39	6.34 B8	-.024 + .015			
2830		480	9985	20 29 6.2		+68 40	5.80 K0	-.006 - .043	10	+56.	
2831		1825	9899	20 26 2.6		-18 49	6.27 A3	-.020 + .003			6.3:11, 3", binary
2832		2001	9905	20 33 2.8		-13 33	5.82 F0	-.222 - .006	29	+ 7	
2833		2112	9923	20 55 + 2.9		- 5 35	6.08 G0	-.030 - .005			
2834		4482	9903	20 54 2.3		-31 37	5.44 G5	-.024 + .008	0	+20	11m, 2"
2835		1596	9934	20 56 3.5		+21 44	6.45 F5	-.311 - .025	35	+51	
2836		1532	9932	20 57 3.3		+10 49	6.22 A0	-.021 + .002	8	-12	
2837	61 Gem	1805	9937	21 3 3.5		+20 27	5.88 F0	-.001 - .023	16	var	V ₀ = 0km
2838		1943	9930	21 6 + 3.0		- 4 20	6.47 B9	+ .007 - .018			
2839		1925	9916	21 3 2.6		-21 47	5.93 A5	-.010 .000			
2840		1588	9935	21 9 3.3		+11 12	6.31 B8	+ .009 - .005			
2841		+5366	9920	21 17 2.5		-25 1	5.86 B9	-.022 + .001			
2842		3549	9912	21 15 2.1		-37 6	7.07 A3	+ .010 + .006			}7"
2843			9913	21 15 2.1		-37 6	6.99 A3	-.027 + .041			
2844		1538	9965	21 25 + 4.5		+48 23	5.57 B9p	+ .009 - .055	6		5.6:10, 1", binary*
2845	3 βCMin	1774	9947	21 44 3.3		+ 8 29	3.09 B8	-.050 - .042	24	var	V ₀ = +23km
2846	63 Gem	1602	9957	21 48 3.6		+21 39	5.27 F5	-.053 - .125	30	var*	9.5m, 43", cpm
2847		4506	9933	21 53 + 2.3		-31 32	6.20 B5	-.004 + .005		+10	
2848		105	9407	22 2 -21.1		-86 52	6.41 F2	.000 + .004			
2849	22 Lync	1630	9992	22 21 + 4.6		+49 53	5.36 F5	+ .116 - .085	46	-27	
2850		5477	9952	22 28 2.5		-23 31	6.50 A0	-.007 + .019			
2851	5 ηCMin	1729	9970	22 39 3.2		+ 7 9	5.34 A5	-.003 - .047	12	+18	11m, 4", cpm
2852	62 ρGem	+1562	9987	22 41 + 3.9		+31 59	4.18 F0	+ .154 + .172	53	- 6	12m, 3", cpm
2853		1980	9961	22 41 + 2.7		-17 40	5.70 F0	+ .003 + .014	19		12m, 2", prop. binary
2854	4 γCMin	1660	9974	22 43 3.3		+ 9 8	4.60 K0	-.062 + .014	13	var	389 days, V ₀ = +47km
2855		1874	9960	22 45 2.5		-22 53	5.48 B2p	-.011 + .001	1	+48	
2856		3813	9959	22 59 2.2		-33 56	5.98 B3	-.031 - .002		+ 7	
2857	64 Gem	1396	9997	23 7 3.7		+28 19	5.04 A2	-.037 - .059	13	+35	
2858		1579	9988	23 6 + 3.4		+15 19	6.07 A0	+ .007 - .030	11	+34	
2859		1951	9977	23 9 2.8		-11 21	8.6 A0	-.009 .000			{20", fixed with 2859 {6.0, F5:8.0, A0, 1", fixed
2860		1878	9979	23 10 2.8		-11 21	5.9	-.006 - .003	16		
2861	65 Gem	1400	10015	23 36 3.7		+28 7	5.09 K0	-.030 - .027	11	var	V ₀ = +32km
2862		2761	9964	23 48 + 1.5		-50 49	5.11 K0	-.008 - .002	9	+ 8	
2863		4383	9990	24 1 2.4		-28 57	5.52 B9	-.008 + .006	18	+ 4	
2864	6 CMin	1567	10024	24 14 3.3		+12 13	4.85 K0	.000 - .019	13	-15	
2865		1738	10017	24 15 3.0		- 1 42	5.80 K2	-.018 - .010	7	- 5	
2866		1996	10023	24 34 2.9		- 7 21	5.99 F8	+ .063 + .130	30		
2867		2067	10022	24 37 + 2.8		-10 7	6.00 K2	-.009 - .030			
2868		1925	10027	24 49 2.7		-14 47	5.94 F8	-.186 - .255	26		6.2:7.8, 2", binary
2869		3601	10011	24 52 2.1		-37 36	6.46 A0	-.026 - .053			
2870		4590	10020	25 1 2.3		-31 39	6.51 B3	+ .004 + .001		+ 2	}9"
2871			10021	25 2 2.3		-31 39	7.24	-.040 + .001		+ 4	

2844: Also 11m, 17", cpm.

2846: 1.9 days, V₀ = +25km,
two spectra.

Precession in declination, -0.12.

7^h

No	Name	DM	GC	RA	Ann	Decl	Magn	Prop Motion		Par	Rad	Remarks	
				1900	Var	1900	Spec	RA	Decl		Vel		
2872	σ Pupp	1958	10061	25 ^m 8 ^s +4.1		+39° 6'	6.46 A0	-.033	-.019	0008	+7	V ₀ = +8km	
2873		4593	10029	25 13 2.3		-31 15	5.80 B3	-.018	.000		var?		
2874		1897	10043	25 37 2.5		-22 49	4.80 A3	-.003	-.009	10	+36		
2875		3400	10033	25 38 2.1		-38 36	5.41 B8	-.029	+.018		+26		
2876		+1979	10053	25 55 3.0		-5 1	6.38 K0	-.010	-.008				
2877		1596	10073	26 2 +3.5		+17 18	5.64 K0	+.049	-.084	8	-40		
2878	7 δ' CMin	3260	10040	26 4 1.9		-43 6	3.27 K5	-.066	+.183	18	var*	22", cpm 6.6:8.4, 11", cpm	
		10042	26 4 1.9		-43 6	9.4 G5	-.102	+.188					
2879	7 δ' CMin	1744	10092	26 51 3.6		+23 6	6.44 G5	-.021	-.016				
2880		1691	10085	26 54 3.1		+2 8	5.26 A5	-.013	-.003	16	+29		
2881	68 Gemi 8 δ' CMin	4620	10071	26 49 +2.3		-30 45	4.77 G0	-.024	-.002	17	+14	9m, 23", cpm	
2882		3637	10074	27 10 2.1		-37 8	6.55 G5	-.105	+.038				
2883		1964	10090	27 18 2.9		-8 40	6.02 F5	-.090	-.159				
2884		1198	10072	27 34 1.5		-52 26	5.94 G5	-.039	+.053				
2885		3650	10089	27 49 2.2		-35 56	6.46 B5p	-.011	+.019				
2886		1510	10106	27 54 +3.4		+16 2	5.07 A2	-.017	-.017	15	+14		
2887	8 δ' CMin	1715	10104	27 57 3.1		+3 30	5.66 A5	-.019	+.037				
2888		721	10057	28 3 0.5		-64 18	6.28 K5	+.002	-.018				
2889		3652	10094	28 5 2.2		-35 40	6.52 A0	+.005	+.004				
2890	66 α Gemi	1581	10120	28 13 +3.8		+32 6	2.85 A0	-.165	-.110	70	var*	5", 340 years Castor*	
2891				28 13 3.8		+32 6	1.99		var*				
	YY Gemi	1582	10121	28 15 3.8		+32 5	var* M1	-.193	-.110		var*	73", cpm with 2891	
2892				1294	10083	28 15 1.4		-54 11	5.94 K5	+.008	+.036		
2893	66 α Gemi	1563	10117	28 35 3.3		+10 47	6.21 A0	-.006	-.012	9	0		
2894				+1227	10164	28 39 4.9		+55 59	6.04 K0	-.013	-.039	10	0
2895	9 CMin	3659	10102	28 44 +2.2		-35 45	6.28 B9	-.019	+.003				
2896		1620	10137	28 48 3.8		+31 11	5.34 K0	-.030	+.008	7	-6	5.8:6.4, close binary	
2897		1966	10113	28 46 2.8		-14 7	6.24 B5	-.012	-.006	3			
2898		1711	10156	28 54 4.2		+43 15	6.30 F0	-.021	-.054	5	+20	6.5:8.1, 2", binary	
2899		1944	10115	28 55 2.6		-19 12	5.76 K0	+.024	-.069	8	+16		
2900		9 CMin	5566	10114	28 59 +2.5		-24 30	5.74 A3	-.011	+.009			
2901			1719	10128	29 1 3.1		+3 35	5.82 A0	-.013	-.015			
2902		1971	10122	29 12 2.8		-14 18	5.06	-.015	+.002	2	var*	Composite, K5, B	
2903		1286	10168	29 16 4.4		+46 24	5.80 K5	-.025	-.041	8	+29		
2904		+1723	10141	29 33 3.1		+2 56	6.48 A3	-.045	-.028	6	+46		
2905	69 υ Gemi	1424	10167	29 46 +3.7		+27 7	4.22 K5	-.033	-.109	15	-21		
2906		+2007	10134	29 46 2.6		-22 5	4.52 F8	-.043	+.041	50	+61		
2907	3398	10123	29 49 2.0		-39 50	6.28 B8	+.011	-.012					
2908	3325	10127	30 1 1.9		-42 52	6.42 K0	-.003	-.038					
2909	5709	10144	30 5 2.5		-23 15	5.86 F2	-.094	-.001	25	var?	V ₀ = -6km 9", binary		
2910		10145	30 6 2.5		-23 15	6.01 F2	-.110	-.013		-7			
2911	ε Mens	3715	10139	30 14 +2.2		-36 7	5.51 B5p	-.019	-.001		var		
2912		4719	10157	30 22 2.5		-25 54	6.50 A0	-.020	-.029				
2913		3926	10150	30 27 2.3		-33 15	6.14 F0	-.061	+.068				
2914		+1653	10201	30 27 4.5		+48 59	5.92 A3	-.024	-.037	19	+10		
2915		1903	10193	30 27 +4.1		+40 15	6.57 Ma	-.003	-.041				
2916		4574	10161	30 30 2.4		-26 48	5.85 K0	-.041	+.075	7			
2917	3407	10148	30 34 2.0		-39 41	6.62 K0	-.025	+.043					
2918	1729	10194	31 15 +3.2		+6 5	5.94 F8	-.112	+.008		+4			
2919	265	10055	31 8 -3.3		-78 53	5.42 K2	-.031	+.009		+10			

2878: 258 days, V₀ = +88km.2890: 2.9 days, V₀ = -1km.2891: 9.2 days, V₀ = +6km. GC 10121, 9.0 to 9.6, 0.81 days, V₀ = +4km. A seventh member of the system, close to 2890, has been suspected from perturbations in the visual orbit.2902: V₀ = +20km.

Precession in declination, -0.13.

CATALOGUE OF BRIGHT STARS

7^h

No	Name	DM	GC	RA	Ann	Decl	Magn	Prop Motion		Par	Rad	Remarks
				1900	Var	1900	Spec	RA	Decl		Vel	
2920		+2065	10192	31 ^m 27 ^s +2.9		- 8° 5'	6.43 K2	+ .034	+ .001		km	
2921		1999	10189	31 28 2.8		-14 16	5.57 B5	- .012	+ .001	.005		9.5m, 20", fixed
2922		4566	10178	31 22 2.4		-28 9	4.55 B8	- .077	- .023	13	+13	
2923		2030	10196	31 50 2.6		-21 56	6.47 G5	+ .044	- .021			
2924	70 Gemi	1662	10237	31 59 3.9		+35 16	5.61 G5	+ .039	+ .025	11	-35	
2925		2571	10179	32 6 +1.5		-51 15	6.31 A0	- .015	- .004			
2926		1727	10233	32 11 3.6		+24 35	6.32 F0	+ .027	+ .009			
2927	25 Mono	1979	10217	32 18 3.0		- 3 53	5.17 F5	- .069	+ .017	24	+46	
2928		1967	10208	32 17 2.6		-19 29	5.66 B3	+ .013	+ .007	4		
2929	23 Lync	1093	10279	32 33 5.0		+57 19	6.20 K0	- .014	- .014	7	-13	
2930	71 o Gemi	1649	10257	32 38 +3.9		+34 49	4.92 F0	- .028	- .116	19	+ 7	
2931		1730	10265	33 10 3.6		+24 27	6.04 A0	- .010	- .002	9	-11	
2932		2053	10242	33 3 2.8		-14 13	6.42 B9	+ .012	- .006			
2933		5791	10231	33 3 2.5		-23 33	6.30 F0	- .015	+ .018			
2934		1231	10206	33 11 1.5		-52 19	4.92 K5	+ .016	- .026	7	var	V ₀ = +62km
2935		1803	10288	33 31 +4.0		+38 34	5.89 K5	- .047	- .013			
2936		1599	10280	33 30 3.8		+32 14	6.14 F0	- .015	- .050		+31	
2937		3755	10246	33 40 2.2		-34 45	4.62 B8	- .027	+ .012	25	+24	
2938	74 Gemi	+1701	10276	33 42 3.5		+17 54	5.24 K5	+ .007	- .001	7	var?	V ₀ = +28km
2939		1561	10305	33 49 4.4		+48 22	5.77 G5	- .044	- .136		+40	
2940		3069	10241	33 56 +1.7		-48 36	5.86 B9	- .012	+ .004			
2941		1282	10221	33 54 1.3		-55 40	6.37 G5	- .006	+ .006			
2942		+3760	10256	34 4 2.2		-35 3	6.54 K0	- .036	+ .010			
2943	10 α CMin	1739	10277	34 4 3.1		+ 5 29	0.48 F5	- .706	-1.032	291	var*	Procyon, 40 years*
2944		4828	10266	34 8 2.5		-25 8	4.64 B8	- .008	- .010	11	var	V ₀ = +41km. 5.2:5.6, 0".1
2945		3736	10260	34 13 +2.1		-37 47	6.28 K2	- .001	+ .056			
2946	24 Lync	+1103	10343	34 33 5.1		+58 57	4.96 A2	- .037	- .055	18	+ 9	10m, 55", cpm
2947		1946	10290	34 41 2.7		-18 27	6.44 B9	- .020	- .028			
2948			10281	34 43 2.5		-26 34	4.50 B8	- .019	+ .015	9	+24	10", binary
2949		4707	10283	34 44 2.5		-26 34	4.62 B3	- .031	+ .024		+33	
2950		1742	10303	34 48 +3.2		+ 5 28	5.81 A0	- .009	- .025	10	var	6.4:6.7, 1", binary
2951		1780	10318	34 59 3.6		+23 15	6.18 K5	- .011	- .004			
2952		3463	10278	34 59 2.1		-39 45	6.53 A0	+ .005	+ .016			
2953		1721	10317	35 9 3.4		+14 0	6.50 K0	+ .010	- .021			
2954		3773	10291	35 7 2.2		-36 16	5.74 B5	- .014	- .001		var?	V ₀ = +19km
2955		3521	10284	35 3 +2.1		-38 33	6.24 G5	+ .022	- .030			
2956		4722	10300	35 21 2.5		-26 38	6.23 B8	- .015	- .003			
2957		3091	10289	35 29 1.7		-48 22	5.65 F5p	- .007	+ .005			V ₀ = +11km
2958		2118	10331	35 45 2.9		- 7 57	5.99 A2	+ .015	- .038			
2959		+2082	10328	35 49 2.7		-15 2	5.15 K0	- .010	- .024	7	+ 1	
2960		2003	10322	35 50 +2.6		-19 26	6.08 K0	+ .008	+ .009			
2961		3531	10311	35 56 2.1		-38 5	4.91 B3	- .022	+ .002	7	+26	
2962		1657	10354	36 15 3.9		+34 14	6.00 F0	- .076	- .009		var*	31.5 days, V ₀ = -11km
2963		3767	10316	36 12 2.1		-37 55	5.74 B5	- .027	+ .009	6	+30	5.8:8.5, 1", binary
2964		+3768	10323	36 16 2.1		-38 2	5.78 B5	- .019	+ .002		+23	
2965		1737	10349	36 16 +3.4		+13 43	6.10 Ma	- .039	- .025			
2966		1758	10347	36 20 3.2		+ 3 52	5.87 A0	+ .013	- .026	11	-24	
2967		1729	10351	36 25 3.4		+14 27	5.81 Mb	- .004	- .012	5	-16	
2968		3770	10332	36 24 2.1		-37 21	6.02 B3	- .007	- .012		var	V ₀ = +23km
2969		1460	10377	36 30 4.5		+50 40	5.28 A0	- .009	- .035	11	var	

2943: Binary discovered in 1840 from variable proper motion; companion first seen in 1896. V₀ = -3km.

Precession in declination, -0".14.
2962: Two spectra.

7^h

No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
2970	26 α Mono	2172	I0345	36 ^m 28 ^s +2.9		- 9° 19'	4.07 KO	-.075 -.022	"018	+10	
2971		+1242	I0312	36 36 1.4		-53 3	6.22 A0	-.018 +.003			
2972		4393		36 40 2.4		-27 43	6.55 B8	-.02 +.04			
2973	75 σ Gemi	1590	I0373	37 4 3.7		+29 8	4.26 KO	+.070 -.235	19	var	19.6 days, $V_0 = +46\text{km}$
2974		4910	I0346	37 0 2.3		-31 26	6.64 G0p	+.009 +.010			
2975	51 Caml	593	I0420	37 7 +5.7		+65 42	6.00 KO	+.035 +.019	7	-28	
2976		+2077	I0352	37 6 2.6		-22 6	6.43 Ma	+.022 -.007			
2977	49 Caml	733	I0422	37 24 5.4		+63 4	6.35 A5	-.034 -.060	5		
2978		1756	I0378	37 25 +3.6		+22 39	6.34 KO	-.024 +.008			
2979		+ 457	I0269	37 25 -1.2		-74 3	7.16 B9	-.007 +.004	11		2", binary
2980				37 25 -1.2		-74 3	7.26 B9				
2981		3556	I0355	37 45 +2.1		-38 18	5.48 B2	-.025 +.011		var	Two spectra
2982		2054	I0381	37 57 3.1		+ 0 26	6.36 G5	+.007 -.012			6.5:8.5, 0".7
2983	76 Gemi	1633	I0392	38 1 3.7		+26 1	5.40 K5	-.016 -.019	8	+ 3	
2984		3655	I0363	38 14 1.9		-44 24	6.42 B9	.000 -.004			
2985	77 κ Gemi	1759	I0403	38 25 +3.6		+24 38	3.68 G5	-.027 -.054	23	+20	8m, 7", binary
2986		3564	I0374	38 27 2.1		-38 18	6.24 B8	-.025 .000			
2987		1750	I0407	38 39 3.4		+13 6	6.50 KO	-.023 -.047			
2988		4824	I0385	38 40 2.5		-26 7	5.78 KO	-.007 -.031	10		
2989		1761	I0410	38 55 3.1		+ 2 39	6.34 F0	-.049 -.023			
2990	78 β Gemi	1463	I0438	39 12 +3.7		+28 16	1.21 KO	-.623 -.052	98	+ 4	Pollux
2991	79 Gemi	1893	I0437	39 17 3.5		+20 33	6.28 A0	-.011 +.003	8	-12	
2992		4966	I0413	39 29 2.5		-25 16	6.66 A3	.000 -.008			14m, 5"
2993	1 Pupp	4767	I0409	39 30 2.4		-28 10	4.82 K5	-.017 +.021	11	+33	
2994		3809	I0401	39 32 2.2		-35 49	5.60 B8	-.027 +.006		- 1	
2995		3583	I0400	39 37 +2.1		-38 38	6.73 G5	+.001 -.020			
2996	3 Pupp	4774	I0417	39 48 2.4		-28 43	4.10 A2p	-.009 -.005	22	var	138 days, $V_0 = +24\text{km}$
2997		238	I0590	39 46 9.9		+80 31	6.47 G5	-.474 +.076	49	- 8	
2998		3675	I0402	39 51 1.9		-44 55	5.22 G5	-.072 -.563	53	+22	
2999		1769	I0460	39 59 +4.0		+37 46	5.45 Ma	+.025 +.007	5	-36	
3000		321	I0329	40 6 -2.4		-77 24	6.48 K2	-.008 +.036			
3001		3820	I0421	40 10 +2.1		-37 58	6.44 B5	-.033 +.004	6	- 6	
3002		3377	I0425	40 18 2.0		-40 41	5.11 KO	+.128 -.189	1	+53	
3003	81 Gemi	1733	I0456	40 20 3.5		+18 45	5.02 K2	-.075 -.062	10	var	$V_0 = +80\text{km}$
3004		5885	I0445	40 22 2.5		-24 26	5.53 B3	-.030 +.012			
3005		3014	I0416	40 23 +1.6		-49 45	6.58 A0	-.015 -.010			
3006		967	I0397	40 20 1.1		-58 24	6.44 B8	-.013 +.002		var	$V_0 = -4\text{km}$
3007		3825	I0440	40 30 2.2		-35 49	5.83 A5	-.091 +.073			
3008	11 CMin	1670	I0463	40 46 3.3		+11 1	5.30 A0	-.029 -.026	16	var	$V_0 = +30\text{km}$
3009		2193	I0453	40 53 2.8		-14 27	6.80 A0	-.017 -.020			
3010	2 Pupp	2194	I0455	40 53 2.8		-14 27	6.06 A0	-.016 -.028			17", binary
3011		3841	I0450	41 1 +2.1		-37 42	5.86 B8	-.026 +.002	9	+37	
3012		1305	I0423	41 0 1.1		-57 59	6.20 KO	-.033 +.028			
3013	80 π Gemi	1585	I0482	41 4 3.9		+33 40	5.29 K2	-.013 -.033	7	-12	11m, 21"
3014		2281	I0465	41 9 2.9		- 6 32	5.72 K2	+.055 -.095	10	-32	
3015	4 Pupp	2199	I0469	41 1 +2.8		-14 19	5.11 F0	-.013 +.006	24	- 2	
3016		3861	I0458	41 31 2.1		-37 39	6.45 B3	-.031 +.005		+24	
3017		3863	I0462	41 42 2.1		-37 44	3.72 K5	-.015 -.001	1	+17	
3018		4113	I0473	41 51 2.2		-33 59	5.39 F8	-.293 +1.663	63	+102	
3019		2135	I0486	42 4 2.8		-12 26	6.39 B9	+.016 -.002			

Precession in declination, -0.14 .

CATALOGUE OF BRIGHT STARS

7^h

No.	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks	
3020	82 Gemi	3534	10472	42 ^m 5 ^s +1.9		-43° 31'	6.12 B5	-.013 - .002		km		
3021		1812	10517	42 35 3.6		+23 23	6.21 *	-.008 + .003	.018	- 5	13m, 4"	
3022		3886	10485	42 36 2.1		-37 42	5.86 B8	-.043 + .002		+28		
3023	ξ Voln	2027	10501	42 55 +2.6		-22 16	5.84 B5	-.012 + .004	4			
3024		627	10444	43 3 -0.7		-72 22	3.89 K0	+ .026 + .012	28	+48	9m, 17", cpm	
3025	5 Pupp	3587	10497	43 7 +2.1		-39 49	6.65 B5	-.014 - .003				
3026		2049	10507	43 5 2.7		-15 44	6.71 K0	-.003 - .001			129", fixed	
3027		2052	10514	43 12 2.7		-15 46	6.77 K2	+ .001 - .003				
3028		1177	10561	43 13 4.7		+54 23	6.02 F5	-.038 + .046	32	- 3		
3029		2106	10521	43 16 2.8		-11 57	8.2	-.139 + .030	28	+27	3", binary	
			10522				5.52 F5	-.113 + .057				
3030			1772	10539	43 26 +3.4		+13 38	6.25 K0	+ .053 - .048			
3031			1420	10491	43 30 1.3		-56 29	6.37 F0	+ .002 + .012			
3032		3595	10506	43 36 2.1		-39 5	6.27 B9	-.019 - .007				
3033		1826	10541	43 42 3.2		+ 4 35	6.51 G0	-.037 - .032				
3034		5081	10532	43 56 +2.5		-25 41	4.59 B2	-.011 + .002	5	*		
3035		3650	10523	43 53 2.1		-38 16	5.11 B3	-.014 - .002	11	+12	10m, 11"	
3036		806	10487	44 6 0.4		-65 50	6.40 G5	-.017 + .039				
3037		3435	10533	44 30 +1.8		-46 22	5.26 B2	-.018 - .004		var	V ₀ = +36km	
3038		770	10484	44 31 -0.2		-69 35	6.21 A0	-.050 + .007				
3039		1228	10608	44 38 +4.8		+55 28	6.24 A0	-.003 - .044	9	+16		
3040		1601	10579	44 37 3.9		+33 30	6.02 A0	-.014 - .004	13	-10		
3041		3490	10542	44 44 2.1		-40 24	5.96 Ma	-.011 - .031				
3042		+2164	10560	44 50 2.8		-13 6	6.12 B9	-.037 - .020				
3043		6022	10556	44 50 2.5		-24 40	5.32 G0	-.030 + .015	14	var	V ₀ = +2km	
3044	6 Pupp	2146	10569	45 10 +2.7		-16 58	5.54 K0	+ .054 - .118				
3045	7 ξ Pupp	6030	10562	45 5 2.5		-24 37	3.47 G0p	-.005 - .002	5	var	V ₀ = +4km	
3046		3451	10553	45 22 1.8		-46 50	4.64 K0	-.097 - .082	18	var	V ₀ = -1km	
3047		2096	10578	45 22 2.9		- 8 56	5.78 K2	-.003 + .002	5	- 7		
3048		2085	10572	45 22 2.6		-19 57	6.48 G0	-.051 - .109				
3049		+3970	10568	45 31 +2.2		-35 0	6.06 A0	-.007 + .007				
3050		1818	10592	45 31 3.1		+ 3 32	6.30 G5	+ .052 - .032			7.0:7.0, 0.2	
3051		2089	10582	45 40 2.7		-19 17	6.40 K0	-.006 - .004				
3052		+4451	10574	45 46 2.3		-33 2	5.70 K5	-.049 + .004				
3053		1854	10619	46 8 3.5		+19 35	6.13 K0	-.052 - .038				
3054		2253	10606	46 11 +2.8		-10 53	6.32 K0	+ .003 - .042				
3055		3458	10576	46 11 1.8		-46 7	4.25 B0	-.010 + .001	4	+24		
3056		1437	10563	46 11 1.3		-56 13	6.18	-.029 - .001			6.4K0:8.2A2, 1"	
3057		3762	10583	46 19 1.9		-44 30	6.28 K0	-.058 - .001				
3058		3460	10575	46 12 1.8		-46 36	5.98 B2	-.010 + .006		+25		
3059	13 ξ CMin	1808	10622	46 31 +3.1		+ 2 1	5.11 B8	-.013 - .005	8	+32		
3060		6060	10613	46 47 2.5		-24 17	6.42 A0	-.012 - .027			10m, 1"	
3061		1824	10630	46 52 3.1		+ 3 32	6.59 Ma	+ .046 - .085				
3062		1442	10589	46 58 1.3		-56 9	5.54 K0	-.007 + .003		var	V ₀ = +22km. 11m, 7"	
3063	8 Pupp	2179	10627	47 0 2.8		-12 34	6.46 F2	-.003 - .013				
3064	9 Pupp	2267	10629	47 8 +2.8		-13 38	5.34 G0	-.060 - .340	60	var*	5.8:6.4, 23.2 years	
3065	25 Lync	1498	10659	47 13 4.4		+47 39	6.38 K0	-.015 - .001	7			
3066	26 Lync	1499	10666	47 26 4.4		+47 49	5.69 K0	-.044 - .004	8	+17		
3067	83 φ Gemi	1499	10653	47 23 3.7		+27 1	4.99 A2	-.031 - .036	18	var*	V ₀ = +4km	
3068		2235	10632	47 22 2.6		-20 55	5.78 K0	-.062 + .023	10			

3021: Composite, F2, A0.

3034: Hydrogen lines bright and complex.

3064: V₀ = -20km.

Precession in declination, -0.15.

3067: Two spectra.

7^h

No	Name	DM	GC	RA	Ann	Decl	Magn	Prop Motion		Par	Rad	Remarks
				1900	Var	1900	Spec	RA	Decl		Vel	
3069	10 Pupp	3780	10623	47 ^m 32 ^s + 1.9 ^s		-44° 20'	6.36 KO	- .031	+ .017	".006	km	
3070		908	10601	47 34 1.0		-60 2	5.82 F2	- .068	+ .146			
3071		3004	10618	47 41 1.6		-50 15	5.82 K5	- .069	- .053			
3072		2280	10649	47 52 3.0		- 5 10	5.75 F2	- .022	- .029			
3073		2250	10640	47 43 2.8		-14 35	5.69 F2	- .013	- .004			
3074		3601	10637	48 4 + 2.0		-42 50	6.38 B3	+ .003	- .014			+14
3075		338	10745	48 14 7.2		+74 11	5.56 KO	- .008	- .038		9	+36
3076		910	10620	48 13 1.0		-59 48	6.66 KO	- .002	+ .017			
3077		1253	10700	48 21 4.9		+56 46	6.49 A0	+ .001	- .028		7	var
3078		3610	10641	48 23 2.0		-42 38	6.16 B5	- .024	.000			+32
3079	4036	10651	48 32 + 2.2		-34 27	5.02 F2	- .201	+ .241	68	+28	9m, 3", binary V ₀ = +24km	
3080	3579	10655	48 47 2.1		-40 19	3.76 G5	- .016	+ .003	23	var		
3081	827	10628	49 1 0.4		-65 56	5.94 B9	- .005	- .006				
3082	265	10808	49 4 9.4		+79 45	5.33 A0	- .027	- .052	12	+ 3		
3083	1705	10701	49 10 3.9		+35 41	6.11 A0	- .062	- .016	9	+28		
3084	3769	10661	49 6 + 2.1		-38 36	4.53 B3	- .011	- .008	10	var	V ₀ = +14km	
3085	3989	10670	49 23 2.2		-36 6	5.46 KO	- .012	- .007	6	+13		
3086	1946	10707	49 50 3.5		+20 9	5.36 A0	- .017	- .045	10	var?		
3087	1815	10710	50 6 3.3		+ 9 8	5.78 F0	- .013	- .090	31	+21		
3088	1420	10673	50 7 1.4		-54 6	5.84 B3	- .011	- .001				
3089	3137	10686	50 15 + 1.7		-49 21	4.83 B3	- .007	+ .012	5	+ 8		
3090	3396	10689	50 22 1.8		-47 51	4.32 B1	- .005	- .003	3	+41		
3091	4002	10695	50 29 2.2		-35 37	5.41 B3	- .009	- .012	6	+28		
3092	4091	10709	50 54 2.3		-34 35	6.13 K2	- .017	- .021				
3093	1860	10734	51 7 3.2		+ 4 44	6.32 KO	- .006	- .001	6			
3094	1693	10757	51 15 + 4.2		+44 15	6.47 KO	+ .040	+ .009			7.1:7.3, 62 years	
3095	1590	10742	51 19 3.4		+16 3	5.96 KO	- .030	- .049	8	+10		
3096	5275		51 17 2.4		-30 39	6.52 KO	+ .06	+ .06				
3097	+1824	10751	51 50 3.3		+ 8 54	6.12 G5	+ .006	- .020				
3098	1959	10755	52 8 3.1		+ 1 24	6.44 F8	- .174	- .004	18	0		
3099	+5189	10749	52 24 + 2.4		-30 1	6.36 Mb	+ .001	- .034				
3100	1333	10733	52 26 1.5		-52 19	6.38 B9	- .017	+ .013				
3101	3737	10741	52 32 1.9		-43 35	6.04 B5	- .021	- .002		+14		
3102	2087	10756	52 34 2.6		-22 37	4.35 F8	- .028	+ .005	6	+14		
3103	1879	10766	52 44 3.2		+ 7 29	6.31 B9	- .021	- .010				
3104	1598	10773	52 49 + 3.4		+16 46	6.18 KO	- .004	- .007		0	6.7:6.9, 0".4	
3105	+1468	10735	52 49 1.2		-57 2	5.50 K2	- .080	+ .019		+26		
3106	1130	10809	52 58 5.0		+59 19	5.79 F2	+ .018	+ .028	16	-39		
3107	3655	10753	52 57 2.1		-40 28	6.32 B2	+ .011	- .004		+14		
3108	169	11031	53 2 14.3		+84 21	6.39 A0	- .006	- .018				
3109	53 Caml	1105	10822	53 10 + 5.1		+60 36	6.00 A2p	- .028	- .022	12		- 4
3110	14 CMin	1833	10776	53 10 3.1		+ 2 29	5.40 KO	- .160	+ .097	18		+47
3111		3717	10763	53 37 2.0		-42 8	5.95 K2	+ .021	+ .020			
3112		749	10851	53 33 5.4		+63 22	6.04 F8	- .011	- .022	11		
3113		+5236	10774	53 41 2.4		-30 4	4.85 A2	- .010	+ .003	22		+28
3114		3758	10765	53 41 + 2.0		-43 14	5.42 B3	- .007	+ .009		var	
3115		1811	10801	54 0 3.3		+13 31	6.20 K5	- .018	- .016			
3116		3766	10775	54 4 1.9		-43 50	5.10 B3	- .004	+ .004		+16	
3117	x Cari	1343	10770	54 14 1.5		-52 43	3.60 B3	- .034	+ .020	12	+19	
3118		3457	10778	54 22 1.8		-47 37	6.08 B5	- .029	+ .010	8	+12	6.5:7.4, 0".8, binary

Precession in declination, -0".16.

CATALOGUE OF BRIGHT STARS

7^h - 8^h

No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
3119		1118	10864	54 ^m 27 ^s +4 ^s 9		+57° 33'	6.52 GO	-".025 - ".068	".015	var ^{km*}	11.1 days, V ₀ = +25km
3120		935	10768	54 37 1.0		-60 15	5.59 K2	-.013 + .010			
3121		3611	10790	54 43 1.9		-45 18	5.16 K5	-.016 + .016	4	var	V ₀ = +51km
3122	27 Mono	2157	10811	54 44 3.0		- 3 24	5.06 KO	-.054 .000	28	-29	
3123	12 Pupp	+2104	10805	54 48 2.6		-23 2	5.22 G5	-.011 - .002	0	+11	
3124	20 Canc	1812	10844	54 53 +3.6		+25 40	5.88 KO	+ .016 - .001	6	+ 2	
3125		1976	10841	54 59 3.5		+20 5	6.28 KO	+ .001 - .019			
3126		1028	10780	54 58 1.1		-58 51	6.03 K5	-.026 - .025			
3127		1866	10849	55 3 3.6		+23 52	6.42 KO	-.023 - .029	10		11m, 3", binary
3128	3 Canc	1731	10845	55 4 3.4		+17 35	5.79 KO	-.009 - .010	7	+41	
3129	V Pupp	3349	10802	55 22 +1.7		-48 58	var B1p	-.020 + .004	3	var [*]	4.1 to 4.8, 1.45 days [*]
3130		1731	10869	55 25 3.9		+35 41	6.27 KO	-.040 - .013			
3131		2118	10825	55 23 2.7		-18 7	4.64 A2	-.009 - .047	21	-12	
3132	4 Canc	1816	10871	55 42 3.6		+25 22	6.20 AO	-.018 + .016	10	- 9	
3133		2784	10807	55 40 1.6		-51 11	6.38 F0	-.054 + .030			
3134	5 Canc	1612	10868	55 48 +3.4		+16 44	5.91 AO	+ .006 - .011	10	var	
3135		2379	10856	55 42 3.0		- 2 36	6.43 B3p	-.015 + .012		var	V ₀ = +33km
3136		1857	10865	55 57 3.2		+ 5 9	5.66 AO	-.039 + .007	12		
3137		3920	10820	55 51 1.9		-44 57	6.02 B5	-.020 - .008		- 3	
3138		+ 944	10804	55 56 1.1		-60 2	5.66 F8	+ .515 + .115	54	+13	10m, 48", cpm
3139		+ 925	10793	55 56 +0.8		-63 2	6.09 B8	-.019 + .009		+23	
3140		+3908	10830	55 57 2.1		-39 1	5.20 F0	-.090 - .046		- 8	
3141	28 Mono	+1882	10870	56 8 3.1		- 1 7	4.88 KO	+ .058 - .075	10	+27	
3142		3243	10832	56 23 1.7		-49 42	6.43 B3	-.010 + .011		var?	V ₀ = +13km
3143		3244	10834	56 24 1.7		-49 42	6.65 B3	-.017 + .009		var?	V ₀ = +23km } 17", cpm
3144		1843	10880	56 25 +3.3		+ 9 11	6.11 F5	-.006 + .025		+ 4	
3145		1854	10891	57 4 3.1		+ 2 37	4.52 KO	-.031 + .102	17	+71	
3146		3662	10872	57 10 1.9		-45 11	6.55 KO	-.001 - .003			
3147		1006	10848	57 10 1.0		-60 33	5.88 B3	-.010 + .011		- 3	
3148		3384	10875	57 21 1.7		-48 42	6.12 A2	-.025 + .043			
3149	x Gemi	1532	10912	57 23 +3.7		+28 4	5.04 KO	-.021 - .045	11	var	V ₀ = -11km
3150		+2339	10900	57 31 2.9		- 6 3	6.30 GO	+ .007 - .022	4		
3151		3388	10878	57 34 1.7		-48 36	6.16 A0p	-.023 + .008			
3152		954	10874	57 54 1.1		-59 56	6.41 B8	+ .003 .000		+23	
3153		1018	10873	57 55 1.0		-60 19	5.06 Ma	+ .001 + .007	0	+24	
3154		+4116	10894	57 58 +2.2		-37 0	5.85 A2	-.025 + .006			
3155		4120	10907	58 26 2.2		-36 46	6.30 Ma	+ .008 - .005			
3156		1505	10889	58 22 1.5		-53 52	5.89 B8	-.026 .000		var?	V ₀ = 0km
3157		1470	10903	58 57 1.5		-54 14	5.99 B5	-.025 + .016		var	
3158		1911	10948	58 59 3.5		+19 7	6.06 AO	-.033 - .022	8	+31	
3159		866	10893	59 4 +0.8		-63 17	4.96 B3	-.001 + .016	6	+21	
3160		4766	10938	59 10 2.3		-32 11	5.80 K2	-.022 - .003			
3161		1419	10910	59 11 1.4		-55 11	6.30 B8	-.020 - .012			
3162		+3775	10931	59 18 2.1		-41 1	8.5	-.008 - .038			
3162		+3776	10932	59 18 2.1		-41 2	5.55 B9	-.010 + .008		+56	27", fixed
3163	8 Canc	1831	10959	59 30 +3.3		+13 24	5.11 AO	-.034 - .071	14	var	V ₀ = +21km
3164		1536	10967	59 29 3.7		+27 49	6.16 B9	+ .004 - .013	7		6.5:7.5, 3", binary
3165	5 Pupp	3939	10947	0 4 2.1		-39 43	2.27 Od	-.031 + .012	4	-24	
3166		3832	10946	0 9 2.0		-42 40	6.25 KO	-.034 - .017			
3167	28 Lync.	1770	10995	0 14 4.2		+43 33	6.24 AO	-.004 - .034	6	var [*]	18.8 days, V ₀ = +9km

3119: Two spectra.

Precession in declination, -0.17.

3129: Eclipsing variable, two spectra, relative velocity 610km.

3167: Two spectra.

8^h

No	Name	DM	GC	RA	Ann	Decl	Magn	Prop Motion		Par	Rad	Remarks
				1900	Var	1900	Spec	RA	Decl		Vel	
3168	14 Pupp	2228	10964	0 ^m 15 ^s + 2.7		-19° 26'	6.06 B3	+ .004	+ .001		km	
3169	9 Canc	+1887	10988	0 23 3.6		+22 55	6.24 Mb	-.006	-.010	.004	+26	
3170		4796	10960	0 22 + 2.3		-32 24	5.40 Ma	-.008	+ .003	19	+36	
3171		654	10898	0 30 - 0.7		-72 58	6.42 A2	+ .004	-.040			
3172		1903	10986	0 43 + 3.1		- 0 17	6.60 K0	-.022	-.014			
3173	27 Lync	1391	11018	0 56 + 4.5		+51 48	4.87 A2	-.057	-.007	10	+ 5	
3174		2222	11006	1 38 2.9		- 8 57	5.92 A0	.000	-.014			8.0m, 31"*
3175		1102	11050	1 52 4.9		+58 33	6.05 K0	-.021	-.079			
3176	10u Canc	+1862	11021	1 53 3.5		+21 52	5.38 G0	+ .022	-.076	35	-36	
3177		4525	11002	1 53 2.3		-33 17	6.00 G5	-.011	+ .009			
3178		3138	10987	1 54 + 1.7		-50 18	6.00 K0	-.009	-.016			
3179		3764	10999	2 15 1.9		-46 41	6.26 B3	-.005	-.013			
3180		1376	10997	2 28 1.6		-52 49	5.44 K2	+ .026	-.010	16	+18	
3181		1819	11049	2 31 4.1		+42 43	6.44 K2	-.004	-.077	6	+38	
3182		524	11100	2 52 6.0		+68 46	5.48 G5	+ .003	+ .007	9	- 9	
3183		2395	11027	2 53 + 2.6		-20 16	5.25 A3	-.016	-.009	0	+12	
3184	12 Canc	+1831	11047	3 7 3.4		+13 56	6.26 F5	.000	-.022	18	- 9	
3185	15p Pupp	+6828	11034	3 17 2.6		-24 1	2.88 F5	-.086	+ .047	23	var	V ₀ = +47km
3186		953	11005	3 18 0.9		-62 33	6.42 B3	-.010	+ .013		var?	V ₀ = 0km
3187		4051	11026	3 28 1.9		-44 58	5.02 K0	-.010	-.004	0	+25	
3188	29g Mono	2450	11051	3 34 + 3.0		- 2 42	4.41 G0	-.019	-.006	3	+30	10m, 32", cpm
3189		+2400	11067	4 12 2.8		-11 3	6.25 B9	-.006	-.014			
3190		+2262	11066	4 18 2.7		-20 4	6.40 A3	-.010	-.002			
3191	14v Canc	1865	11091	4 26 3.6		+25 49	5.83 G5	-.065	-.352	32	-43	
3192	16 Pupp	2190	11071	4 34 2.7		-18 57	4.34 B3	-.016	-.009	8	var	V ₀ = +19km
3193		2065	11107	4 44 + 4.0		+39 2	6.47 G0	-.098	-.066			
3194		2280	11081	4 54 2.7		-15 57	5.54 B3	-.016	-.009	4	+33	13m, 5"
3195		4288	11070	4 58 2.2		-37 23	6.36 B5	-.018	-.012			
3196		+5620	11076	5 5 2.4		-30 2	6.66 K5	+ .021	-.004			11m, 1".2
3197		235	11296	5 13 11.6		+82 44	6.17 A0	-.013	-.029			
3198		+1775	11114	5 22 + 3.4		+14 56	6.14 A0	-.026	-.020	10	+21	
3199		4256	11085	5 23 2.3		-35 9	6.20 G5	-.005	+ .011			
3200		1278	11158	5 52 4.8		+56 45	5.90 K0	-.017	-.036	7		
3201		1746	11124	5 49 3.3		+10 7	6.07 B9	-.009	-.025	6		
3202	18 Pupp	2420	11118	6 2 2.8		-13 30	5.64 G0	-.243	+ .054	37	+38	
3203		3516	11096	6 11 + 1.8		-48 23	5.86 B8	-.009	-.008			
3204		3998	11104	6 18 2.0		-43 50	5.16 B3	-.014	-.016	7	+ 8	
3205		3944	11111	6 24 2.0		-42 21	6.71 A0	-.012	+ .007	17		6", binary
3206		+3846	11103	6 24 1.8		-47 3	4.79 B3	-.013	-.009		var	
3207	v Velr	+3847	11105	6 27 1.8		-47 3	2.22 Oap	-.010	+ .004		+35	41", cpm
3208				6 29 + 3.4		+17 57	5.56				- 6	
3209	16g Canc	+1867	11141	6 29 3.4		+17 57	6.26 G0	+ .069	-.141	42		0".9, 60 years
3210			11142	6 29 3.4		+17 57	6.02	+ .100	-.114		-11	Close binary, 18 yrs*
3211	19 Pupp	2385	11134	6 35 2.8		-12 38	4.68 K0	-.026	+ .010	24	+36	12m, 2"
3212		2378	11138	6 41 + 2.9		- 7 28	5.36 G5	-.042	-.023	13	-11	
3213		3653	11117	6 41 1.8		-47 39	5.40 B3	-.006	-.003		var?	V ₀ = +5km
3214		1850	11150	6 47 3.4		+14 18	6.40 A5	-.026	-.014	13	- 9	V ₀ = +19km
3215	15 Canc	+1664	11163	6 57 3.7		+29 57	5.59 A0p	-.004	-.024	10	var	
3216		310	11246	6 59 7.5		+76 4	5.73 G5	+ .031	+ .014	11	+ 7	

3174: Companion is itself double, 8.3:12, 1".

Precession in declination, -0'.18.

3210: This binary is in orbital motion around 3208-3209, 5" distant.

CATALOGUE OF BRIGHT STARS

8^h

No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
3217		896	II097	7 ^m 7 ^s +0.8 ^s		-63° 30'	6.38 B8	-.017 -.003		km var	
3218		1467	III19	7 14 1.4		-55 47	5.80 A2	-.009 +.025			
3219		+4291	III39	7 20 2.2		-37 0	6.31 B0	-.019 +.001			
3220		+1074	III15	7 21 1.0		-61 0	4.80 F5	-.161 -.285	.055	+25	
3221		III19	III199	7 25 5.1		+60 41	6.36 F0	-.012 +.004	13	-16	10m, 3"
3222		1662	III165	7 19 +3.4		+16 49	6.12 G5	-.007 -.025		var	V ₀ = -21km
3223	εVoln	736	II098	7 37 0.2		-68 19	4.46 B5	-.027 +.021	11	var*	8m, 6", cpm
3224		1913	III76	7 46 3.6		+23 27	6.44 A2	-.033 -.015	9	-2	
3225		4084	III49	7 47 2.1		-39 19	4.43 K5	-.008 -.006		var	V ₀ = +16km
3226		3979	III55	8 3 2.0		-42 41	4.87 A3	-.003 .000	1	+19	9m, 25", fixed
3227		3576	III54	8 10 +1.8		-48 10	5.94 B3	+ .006 -.008		+15	
3228		+1882	III89	8 28 3.4		+17 58	6.43 F0	-.003 +.005			13m, 1"
3229	20 Pupp	2324	III84	8 44 2.8		-15 29	5.05 G5	-.012 -.004	10	var	V ₀ = +17km
3230		5738	III77	8 43 2.4		-29 36	6.30 A2	-.027 +.028			
3231		1868	III96	8 48 3.3		+13 22	6.48 K0	-.020 -.023		var	
3232	AH Velr	3902	III72	8 51 +1.9		-46 21	var F8p	-.010 +.004			6.1 to 6.6(ptg), 4.23 days
3233		4394	III82	9 11 2.0		-37 37	6.35 A3	-.019 -.004			
3234		3892	III81	9 20 1.9		-45 58	6.08 B3	-.002 +.008		+13	6.6:7.2, 0"3
3235	29 Lync	+1124	II252	9 32 5.0		+59 53	5.52 A5	+ .001 .000	19	-20	
3236		409	II302	9 39 6.6		+72 43	6.20 K5	+ .005 -.028	6	+11	9m, 43"
3237		4349	III97	9 43 +2.3		-35 36	4.77 B3p	-.005 -.004	6	+35	
3238		4705	II201	9 48 2.3		-33 16	6.41 K2	+ .028 +.017			
3239		5742	II214	10 14 2.4		-31 50	6.10 B3	-.015 -.005		var	Two spectra
3240		+4358	II208	10 13 2.3		-36 1	5.12 B3	+ .002 -.005	2	+18	
3241		+4360	II209	10 13 2.3		-36 2	5.95 B8	+ .002 -.010			
3242		4365	II217	10 26 +2.3		-35 11	5.82 K0	-.064 +.005	8		
3243		+4128	II215	10 30 2.1		-40 3	4.43 K0	+ .039 -.070	10	var	V ₀ = +17km. 9m, 50", cpm
3244		3929	II207	10 28 1.9		-46 41	5.28 B3	-.006 -.008		var	V ₀ = +25km
3245		991	II291	10 35 5.2		+62 49	5.77 G0	-.012 +.004	8	var	
3246		1215	II272	10 34 4.6		+54 27	6.40 K5	-.021 -.043			
3247		3430	II210	10 40 +1.7		-49 54	5.44 K5	.000 -.008	0	-8	
3248	R Canc	1803	II255	11 3 3.3		+12 2	var M7	+ .013 -.014	0	+18*	6.0 to 11.8, 374 days
3249	17 βCanc	1917	II254	11 6 3.3		+9 30	3.76 K2	-.046 -.051	15	+22	14m, 29", cpm
3250		3914	II235	11 11 1.9		-45 32	6.02 B3	-.015 +.004		+20	6.2:7.8, 0"4
3251		5946	II256	11 52 2.4		+30 37	6.30 G5	-.050 -.008	9		6.5:8.5, 2", binary
3252		1921	II289	12 7 +3.2		+9 11	6.31 K0	-.012 -.017			
3253		4401	II263	12 12 2.3		-35 35	6.20 K2	-.002 +.012			
3254	30 Lync	1112	II338	12 22 4.8		+58 3	5.94 F2	+ .061 +.010	29	-16	
3255		+2467	II286	12 30 2.6		-21 0	6.52 A0	-.015 +.023			
3256		3227	II259	12 30 1.7		-50 8	6.41 K2	-.021 -.024			
3257	21 Pupp	2362	II299	12 48 +2.8		-15 59	6.31 A0	-.019 -.010			
3258		+1217	II344	12 52 4.6		+53 53	6.36 F0	-.061 -.098			
3259		2449	II325	13 39 2.8		-12 18	6.04 G5	+ .269 -.981	77	+30	
3260		985	II275	13 45 0.9		-62 36	5.26 A2	-.023 -.028	27	+4	4", cpm
			II276			8.5	8.5	-.051 -.006			
3261		5897	II322	13 54 +2.4		-29 42	6.43 K0	+ .038 +.011	8		
3262	18 γCanc	1589	II348	13 59 3.6		+27 32	5.16 F5	-.015 -.384	60	+32	
3263		+1043	II381	14 20 5.0		+60 57	6.48 G5	+ .010 -.005	7	-6	
3264		1817	II358	14 31 3.5		+21 4	5.93 G5	+ .066 -.056	8	-16	
3265		2471	II346	14 28 2.9		-9 52	6.32 A5	-.055 +.026			

3223: 14.2 days, V₀ = +10km.

3248: Absorption lines give +32km.

Precession in declination, -0.18.

8^h

No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
3266	19 λ Canc	4452	II337	14 ^m 28 ^s +2.3		-35° 8'	5.66 K2	+ .010 - .001	.009	km	7.1:7.6, 2", binary V ₀ = +24km
3267		+4443	II336	14 30 2.2		-37 4	6.54 A0	- .030 + .016			
3268		1909	II363	14 35 3.6		+24 20	5.87 A0	- .021 - .026			
3269		1954	II353	14 34 3.2		+ 4 15	6.29 G5	+ .033 - .031			
3270		4449	II343	14 49 2.2		-36 21	4.43 A5	- .110 + .093			
3271	31 Lync	1966	II365	15 7 +3.1		- 0 36	6.30 G0	+ .054 - .094	15	+ 5	
3272		+2303	II368	15 20 3.0		- 5 1	6.24 K2	+ .024 - .028			
3273		4627	II362	15 38 2.3		-34 17	6.38 B9	- .024 - .002			
3274		1095	II347	15 53 1.2		-58 51	6.42 F8	- .046 - .038			
3275		1815	II401	15 59 4.1		+43 31	4.43 K5	- .014 - .103			
3276	20 Canc	2233	II377	16 6 +2.6		-22 37	6.09 K0	- .010 - .002	20	+21	6.8:7.5, close binary Composite, G0, A3
3277		1246	II424	16 14 4.5		+53 33	5.58 A2	- .022 - .107			
3278		2017	II387	16 16 3.0		- 1 17	6.35 A0	- .019 - .042			
3279		2369	II393	16 54 2.7		-19 46	5.56	- .003 - .022			
3280		907	II366	17 12 0.7		-65 18	4.98 K0	+ .025 + .016			
3281	22 Pupp	2464	II409	17 22 +2.7		-17 16	5.85 K0	- .094 - .016	9	+68	V ₀ = +16km
3282		5185	II400	17 27 2.4		-32 44	4.94 K0	- .021 + .004			
3283		4513	II402	17 34 2.3		-36 10	5.17 B3	- .012 - .006			
3284		1930	II438	17 38 3.4		+18 39	5.88 F0	- .051 - .032			
3285		2512	II425	17 35 3.0		- 5 52	6.07 A3	- .052 + .002			
3286	21 Canc	4245	II405	17 47 +2.2		-39 18	6.18 A5	+ .001 - .006	5	+26	12m, 1"
3287		1859	II456	17 57 4.1		+42 20	6.22 K5	+ .018 + .002			
3288		2452	II437	18 1 2.9		- 7 14	6.15 Ma	- .024 .000			
3289		2490	II435	18 5 2.8		-12 44	6.30 K0	- .053 - .046			
3290		+1830	II454	18 27 3.3		+10 57	6.29 K5	+ .004 - .027			
3291	I Hyda	+5988	II443	18 36 +2.5		-26 2	5.86 F0	- .008 + .004	3	+64	6.5:6.8, 0"1
3292		1819	II473	18 41 3.8		+35 20	6.21 K0	- .001 - .019			
3293		1490	II428	18 59 1.3		-57 39	6.07 B5	- .010 + .004			
3294		3734	II450	19 27 1.8		-48 10	4.90 B2	- .022 + .004			
3295		2328	II480	19 38 3.0		- 4 23	6.00 F2	+ .021 - .052			
3296	25 Canc	4638	II460	19 35 +2.2		-37 58	6.34 Ma	+ .020 - .005	41	var	1.6 days, V ₀ = +72km
3297		2333	II479	19 36 3.0		- 3 26	5.67 F5	- .211 - .026			
3298		940	II436	19 44 0.8		-63 47	5.98 G5	- .003 - .030			
3299		1842	II494	20 10 3.4		+17 23	6.18 F2	- .189 - .158			
3300		2980	II464	20 8 +1.7		-51 48	5.93 B9	- .018 + .004			
3301	κ Voln	677	II421	20 6 -0.2		-71 12	5.44 B9	- .012 + .026	var*	65", cpm	
3302		678	II430	20 18 -0.2		-71 11	5.72 A0p	- .008 + .040			
3303		545	II561	20 20 +5.7		+67 38	6.01 G5	- .058 + .009			
3304		1602	II509	20 23 3.6		+28 13	5.83 K2	- .029 - .125			
3305		1965	II493	20 24 3.1		+ 2 26	5.91 K0	- .019 - .023			
3306	ϵ Cari	+2053	II505	20 33 +3.2		+ 7 53	5.23 K0	- .034 - .008	9	+14	10m, 31", cpm Composite, K0, B
3307		1032	II463	20 28 1.2		-59 11	1.74	- .028 + .012			
3308		2262	II490	20 34 2.6		-22 50	5.65 A2	- .040 + .038			
3309		+1398	II534	20 38 4.2		+45 59	6.33 G0	- .024 - .357			
3310		1612	II519	20 44 3.6		+27 16	6.32 A2	- .011 - .002			
3311	23 ϕ^2 Canc		II520	20 44 3.6		+27 16	6.30 A2	- .012 - .007	13	+15 +18	5", binary
3312		+1920	II517	20 43 +3.6		+24 52	7.10 A3	- .038 - .085			
3313			II518	20 43 3.6		+24 52	7.64 G	- .042 - .090			
3314		2339	II499	20 40 3.0		- 3 35	3.95 A0	- .066 - .026			
3315		7277	II491	20 45 2.6		-23 43	5.46 K5	- .040 + .021			
		7280	II492	20 48 2.6		-23 43	9.0 K1	- .032 + .004	18	+26	42", cpm

3301: Two spectra.

3313: This is itself a binary, 8.4:8.4, 0".2.

Precession in declination, -0".19.

CATALOGUE OF BRIGHT STARS

8^h

No	Name	DM	GC	RA	Ann	Decl	Magn	Prop Motion		Par	Rad	Remarks
				1900	Var	1900	Spec	RA	Decl		Vel	
3316		2522	11496	20 ^m 53 ^s +2.7 ^s		-20° 44'	6.00 F2	-.018	+.058		km	
3317		2442	11507	21 6 +2.7		-17 7	6.44 KO	-.006	-.007			
3318	α Cham	507	11419	21 7 -1.6		-76 36	4.08 F5	+.106	+.106	.049	-14	
3319	27 Canc	+1912	11525	21 12 +3.3		+12 59	5.75 Ma	-.025	-.105	6	-8	
3320		2517	11512	21 17 2.8		-14 36	5.91 A2	-.013	+.030			
3321	2 Hyda	2345	11523	21 27 +3.0		-3 40	5.41 A5	-.054	-.062	27	+27	10m, 72"
3322		4219	11504	21 30 2.1		-42 27	6.20 B5	-.019	+.015		+23	
3323	ι UMa j	1054	11593	21 58 5.0		+61 3	3.47 G0	-.128	-.113	12	+20	15m, 7", cpm
3324		2524	11539	21 59 2.8		-12 12	5.68 KO	-.092	-.021	8	+65	
3325		+2530	11553	22 22 3.0		-6 5	6.48 F5	-.040	-.032			
3326		4119	11532	22 22 +2.1		-41 50	5.30 B3	-.017	.000		+28	
3327		4462	11541	22 38 2.2		-38 44	6.68 A0	-.025	-.011	5		8", binary*
3328		11542	22 38 2.2			-38 44	7.28	-.019	+.003			
3329	28 Canc	1931	11580	22 41 3.6		+24 29	6.06 A5	-.029	-.063	14	var	
3330		3004	11531	22 40 1.7		-51 24	5.23 B3	-.050	-.016		+18	
3331		6048	11551	22 43 +2.5		-28 53	6.57 B9	-.008	+.014			
3332		472	11640	23 0 5.9		+69 39	6.44 KO	+.030	-.029			
3333	29 Canc	1899	11584	23 3 +3.3		+14 33	5.90 A2	-.015	-.016	15	-2	
3334	η Voln	+694	11485	22 59 -0.5		-73 5	5.40 A2	-.028	+.010	4	+20	12m, 31", cpm
3335		2538	11570	23 7 +2.7		-20 31	6.44 A0	+.011	-.011			
3336		6079	11569	23 15 +2.4		-31 21	6.28 KO	-.020	-.014			
3337		2581	11587	23 26 3.0		-2 11	6.29 F0	-.006	-.017	9	var	7.0:7.1, close binary*
3338		2374	11585	23 29 2.9		-8 29	6.48 KO	-.001	-.042			
3339		6109	11583	23 39 +2.5		-25 48	6.64 A2	-.057	-.007			
3340	θ Cham	383	11481	23 39 -1.8		-77 10	4.26 KO	-.134	+.034	19	+22	
3341		1474	11559	23 40 +1.7		-52 29	6.14 A0	-.025	-.014			
3342		2532	11600	24 2 2.9		-9 25	5.98 F2	-.013	+.006			
3343		4842	11589	24 7 2.3		-34 47	5.82 B5	-.028	.000		+23	
3344		2286	11599	24 14 2.6		-22 44	6.35 A0	-.041	-.026			
3345		2549	11602	24 27 2.7		-20 37	6.47 B8	-.011	-.012			
3346		878	11564	24 30 +0.8		-64 16	6.02 G5	-.011	+.002			
3347	β Voln	933	11567	24 39 0.7		-65 48	3.65 KO	-.027	-.159	29	+27	
3348		1870	11641	24 51 3.9		+37 36	6.06 B9	-.014	-.005	6		
3349		1647	11594	24 53 1.5		-54 41	6.42 A0	-.024	-.015			
3350		1484	11595	24 52 1.6		-52 45	5.12 F0	-.076	+.008	16	+25	
3351		1259	11665	25 3 +4.5		+53 27	6.53 KO	+.015	-.082	14	+44	
3352		342	11730	25 11 7.0		+75 4	6.28 A5	-.015	-.028	12	var*	10m, 2", cpm
3353		+6103	11624	25 15 2.5		-27 0	6.50 B9	-.001	-.012			
3354	2 UMa j	638	11700	25 39 5.4		+65 29	5.39 A0	-.048	-.067	17	-16	
3355	30 v' Canc	1940	11655	25 36 3.5		+24 25	5.73 F0	-.082	-.051	20	+18	
3356		4337	11628	25 44 +2.0		-43 50	5.94 B3	+.001	+.005		+3	
3357	31 θ Canc	1963	11659	25 54 3.4		+18 26	5.57 Ma	-.056	-.062	7	+44	
3358		4004	11630	25 55 1.9		-47 36	5.52 B5	-.020	-.005		var	V ₀ = +14km. 8.5m, 4"
3359		4462	11634	26 5 2.0		-44 23	6.66	-.021	-.034	1	var*	5", binary
			11635				5.22 B5	-.005	-.008			
3360		1920	11684	26 25 +3.9		+38 22	6.05 KO	-.095	-.169	9	+15	
3361		1816	11674	26 29 3.3		+10 9	6.58 A0	+.003	-.011			
3362		6165	11651	26 28 2.4		-31 49	5.63 K2	-.020	-.008			
3363		+4183	11642	26 30 2.0		-46 0	6.11 B8	-.039	-.002		+9	
3364		4715	11657	26 41 2.3		-36 23	6.67 K2	-.027	+.009			

3328: 7.9:8.1, 0".2.

3337: Also 11m, 18", binary.

3352: 4.3 days, V₀ = -6km.

Precession in declination, -0.20.

3359: V₀ = +20km.

8^h

No	Name	DM	GC	RA	Ann	Decl	Magn	Prop Motion		Par	Rad Vel	Remarks
				1900	Var	1900	Spec	RA	Decl			
3365	32 Lync	1836	11702	26 ^m 57 ^s +3.8		+36°47	6.14 F2	-	"141 - "006	"033	+ km	
3366	33 ηCanc	2109	11687	26 56 3.5		+20 47	5.52 K0	-	.045 - .052	10	+24	
3367		2438	11679	27 1 2.7		-19 14	5.38 A0	-	.033 - .010	8	var?	V ₀ = +12km*
3368		1667	11646	27 2 1.5		-54 51	6.38 G0	-	.019 - .019			
3369	32 υ ² Canc	1946	11695	27 5 3.5		+24 25	6.41 K0	-	.066 - .053	8	+75	
3370		919	11620	27 3 +0.1		-69 46	5.62 B9	-	.008 + .044		+20	
3371		4477	11669	27 17 2.0		-44 24	6.49 B5	-	.022 + .006		var?	V ₀ = +24km. 11m, 3"
3372	34 Canc	1818	11689	27 13 3.3		+10 24	6.30 A0	+	.003 - .009	7		6.4:8.3, 4"
3373		4566	11682	27 43 2.2		-38 44	6.24 B3	-	.025 + .001			
3374		2564	11703	27 55 2.8		-14 41	6.41 A5	-	.052 + .048			
3375		4048	11683	28 0 +1.9		-47 32	6.50 B5	-	.008 - .002		+11	
3376		1940	11726	28 13 3.3		+13 36	6.40 K0	-	.029 - .050			
3377	33 Lync	1840	11744	28 18 3.9		+36 46	5.83 A2	-	.029 - .050	12	+25	
3378		1997	11732	28 27 3.2		+ 5 6	6.13 K0	-	.006 - .016			
3379		+ 370	11799	28 36 6.7		+73 59	6.29 K0	-	.014 - .105	8	+ 1	
3380		2077	11745	28 50 +3.2		+ 8 48	5.97 F0	-	.004 - .035	23	+16	
3381		7089	11724	28 46 2.6		-24 16	6.15 A5	-	.008 - .020	14	- 8	6.9:6.9, close binary
3382		+1729	11701	28 49 1.6		-54 3	6.20 K2	+	.014 - .052			
3383		2074	11743	28 58 3.0		- 1 49	5.61 A0	-	.039 + .022			
3384		6229	11723	28 57 2.3		-31 11	6.36 G5	-	1.119 + .757	81	+19	
3385		4959	11729	29 4 +2.3		-34 18	6.16 K0	-	.016 + .002			
3386		1517	11713	29 18 1.7		-52 52	5.77	-	.027 + .002		+19	6.1G5:7.3A0, 1", binary
3387	35 Canc	+2118	11762	29 35 3.4		+19 56	6.55 G0	-	.035 - .015	11	+36	
3388		+4850	11742	29 36 2.2		-38 2	6.38 B3	-	.006 - .010		+ 5	
3389		4610	11748	29 56 2.2		-38 30	5.95 B8	-	.041 + .003			
3390		4300	11752	30 15 +2.0		-46 38	6.32 K2	+	.002 - .013			
3391	3 π ¹ UMaj	643	11817	30 19 5.3		+65 22	5.69 G0	-	.024 + .085	59	-11	In Ursa Cluster?
3392		2014	11768	30 12 +3.1		+ 3 5	6.48 K0	-	.007 + .005			
3393		258	11625	30 16 -3.6		-80 35	5.60 K0	-	.148 + .215			
3394		1851	11785	30 31 +3.4		+15 39	6.28 A5	+	.010 - .030	13	+ 4	
3395		+1997	11781	30 32 +3.2		+ 6 58	6.04 F5	-	.130 - .147	41	var*	10", cpm
3396			11782	30 32 3.2		+ 6 58	7.15	-	.130 - .146		+28	
3397		5465	11765	30 32 2.4		-32 15	6.38 G5	-	.048 - .136			
3398	3 Hyda	2540	11775	30 35 2.9		- 7 38	5.61 A2p	-	.027 + .017	11	+24	6.3:8.7, 2"
3399		4873	11766	30 43 2.3		-37 16	6.19 K5	-	.013 - .002			
3400		1268	11810	30 54 +4.5		+53 45	5.74 G5	-	.076 - .024	14	-43	
3401		1148	11827	31 3 4.9		+60 17	6.42 A0	-	.017 - .038	9	-14	
3402		6225	11786	31 14 2.5		-26 30	5.88 A2	-	.024 + .010	8		
3403	4 π ² UMaj	698	11850	31 29 5.2		+64 41	4.76 K0	-	.052 + .023	15	+15	
3404		4519	11787	31 32 2.2		-39 38	6.31 G0	+	.080 + .051			
3405		1269	11835	31 34 +4.5		+53 16	6.54 K0	-	.020 - .039			
3406	36 Canc	1837	11807	31 41 3.3		+10 0	5.98 A0	-	.033 - .012			
3407		3646	11783	31 40 1.8		-49 36	4.87 K0		.000 + .015	4	+ 4	
3408		1272	11844	31 53 4.4		+53 4	6.03 K0	-	.031 - .034	8	+26	
3409		1728	11832	32 4 3.7		+33 9	6.09 K0	-	.021 - .016	6	+ 4	
3410	4 δHyda	2001	11823	32 22 +3.2		+ 6 3	4.18 A0	-	.069 - .013	25	var	V ₀ = +10km
3411		2401	11821	32 29 3.0		- 4 35	6.21 K0	-	.009 + .018			
3412	37 Canc	+1840	11836	32 40 3.2		+ 9 55	6.48 A0	-	.040 - .011	7	+28	
3413		3417	11805	32 53 1.8		-50 37	5.96 B9	-	.011 - .007			
3414		1591	11797	32 58 1.4		-57 40	4.80 K0	+	.039 + .017	12	+24	

3367: 5.9:6.5, 0".5, binary.

3395: 14.3 days, V₀ = +25km.

Precession in declination, -0.21.

CATALOGUE OF BRIGHT STARS

8^h

No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
3415		1590	II796	32 ^m 56 ^s +1.4		-57° 53'	5.40 B3	- .034 .000	"011	km +28	
3416		2669	II851	33 25 +3.0		- 6 19	6.49 A2	- .001 - .008			
3417		+ 713	II776	33 23 -0.4		-73 1	6.02 KO	- .037 + .075			
3418	5σ Hyda	2026	II856	33 32 +3.1		+ 3 42	4.54 KO	- .021 - .020	12	+24	
3419		5257	II839	33 32 2.4		-33 23	6.50 A5	- .027 - .048			
3420	η Pyxi	6356	II848	33 36 +2.6		-25 54	5.20 A0	- .020 - .016	23	+31	
3421		4574	II840	33 43 2.2		-39 48	6.43 G0	- .315 + .029	58		
3422	34 Lync	1422	II903	34 7 4.1		+46 11	5.52 KO	+ .029 + .084	30	-36	
3423		1776	II886	34 6 3.7		+32 18	6.14 F2	- .033 - .034			
3424		2099	II871	34 3 3.2		+ 8 22	6.49 KO	- .027 - .041			
3425		2489	II865	34 10 +2.7		-19 23	6.53 K5	+ .008 - .017	5		10m, 4", binary
3426		4451	II852	34 8 2.1		-42 38	4.13 A5	- .013 .000	14	+19	
3427	39 Canc	2158	II888	34 21 3.5		+20 22	6.48 KO	- .035 - .020	6	+36	In Praesepe
3428		2166	II899	34 38 3.4		+20 1	6.40 G5	- .032 - .022	6	+35	In Praesepe*
3429	41ε Canc	+2171	II904	34 43 3.4		+19 54	6.32 A2	- .037 - .012	10	var*	In Praesepe; V ₀ = +39km
3430		2345	II877	34 45 +2.6		-22 19	5.13 G5	- .237 + .432	62	var?	V ₀ = +43km*
3431	6 Hyda	+2420	II908	35 17 2.8		-12 7	5.15 K2	- .082 - .004	14	-11	
3432		1058	II867	35 32 1.1		-62 30	5.38 G5	+ .001 - .028		+20	10m, 8"
3433	ζ Pyxi	6544	II907	35 33 2.5		-29 12	5.04 G5	- .018 - .100	18	-32	
3434		4872	II895	35 33 2.3		-36 15	6.06 F0	- .179 + .036			6.2:8.8, 1", binary
3435		1565	II890	35 55 +1.7		-52 44	6.48 B9	- .015 + .008			
3436		1606	II965	36 3 4.2		+47 16	6.21 G5	- .039 - .052			
3437		2452	II938	36 11 2.9		- 8 42	6.48 A0	- .028 - .003			
3438	β Pyxi	5128	II923	36 11 2.3		-34 57	4.04 G5	+ .013 - .018	14	-15	
3439		4653	II931	36 39 2.2		-39 55	5.17 B9	- .050 - .007		+21	9m, 4", prob. binary
3440		1796	II917	36 35 +1.7		-53 5	5.60 B5	- .036 + .014	9	+ 9	
3441	9 Hyda	2554	II959	37 5 2.8		-15 35	4.98 KO	- .003 - .094	25	- 2	
3442		1579	II933	37 6 1.7		-52 42	5.38 B5	- .029 + .007	7	var	10m, 17", cpm
3443		1075	II924	37 6 1.3		-59 58	6.40 A0	- .034 + .021	13		8.0m, 2", binary
3444		4679	II946	37 11 2.0		-44 50	5.74 K5	+ .004 - .008			
3445		4438	II951	37 19 +2.0		-46 18	4.06 F5p	- .012 - .003	26	var	V ₀ = +25km
3446		2432	II969	37 24 2.9		-11 36	6.30 A2	- .032 - .026			
3447	o Velr	1583	II943	37 26 1.7		-52 34	3.68 B3	- .026 + .014	7	var	V ₀ = +17km
3448		1584	II944	37 26 1.7		-52 40	5.73 B5	- .035 + .025		var?	V ₀ = +14km
3449	43γ Canc	1895	II982	37 30 3.5		+21 50	4.73 A0	- .103 - .044	14	var	V ₀ = +29km
3450	45 Canc	1972	II983	37 42 +3.3		+13 2	5.67	- .001 - .002	20	-18	Composite, A3, G
3451		1899	II995	37 46 3.8		+37 17	6.34 F2	- .031 - .100		+ 4	
3452		4448	II966	37 56 2.0		-46 58	4.85 A3	- .020 + .003	0	var	V ₀ = +17km
3453		4020	II962	37 55 1.9		-48 34	6.14 B5	- .013 + .004			
3454	7η Hyda	2039	II987	38 0 3.1		+ 3 45	4.32 B3	- .018 - .005	8	var	V ₀ = +22km
3455		1644	II963	38 17 +1.5		-57 11	6.53 A2	- .018 + .020	23		8.8m, 4", binary
3456		+4704	II978	38 33 2.0		-45 3	5.23 B5	- .012 - .007	2	+25	
3457		1080	II964	38 24 1.3		-59 24	4.42 B2	- .005 - .007	6	var	V ₀ = +13km
3458		2029	I2007	38 45 3.2		+ 4 42	6.33 B8	- .033 - .008	5		
3459		2708	I2006	38 46 2.9		- 6 52	4.70 G0	- .004 .000	6	+31	
3460	θ Voln	+ 946	II947	38 43 +0.2		-70 2	5.26 A0	+ .018 - .049		+13	
3461	47δ Canc	2027	I2022	39 0 3.4		+18 31	4.17 KO	- .014 - .236	15	+17	
3462		4251	II988	39 2 1.9		-47 44	5.48 B3	- .032 - .012	8	+58	
3463		4976	II998	39 3 2.3		-35 35	6.36 A0	- .007 + .015			
3464	46 Canc	1876	I2037	39 13 3.7		+31 4	6.14 KO	.000 - .008	7	-13	

3428: 9m, 21", cpm.

3430: 9m, close binary.

Precession in declination, -0.21.

3429: Two spectra.

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No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
3465	49 Canc	1864	I2029	39 ^m 19 ^s + 3.3		+10° 27'	5.58 AOp	- .015 - .022	.011	km +25	
3466		1605	I1992	39 27 1.7		-52 44	5.68 B9	- .035 + .018	9	+20	5.9:7.6, 0".5
3467		1607	I1997	39 33 1.7		-52 45	5.04 B5	- .022 + .017	11	+22	
3468	α Pyxi	5651	I2018	39 34 2.4		-32 50	3.70 B2	- .015 + .011	7	+16	
3469	10 Hyda	2030	I2041	39 44 3.2		+ 6 3	6.00 A2	- .003 - .008	12		
3470		560	I2108	39 46 +5.4		+67 4	6.15 B8	- .009 - .042	6		
3471		1688	I1999	39 44 1.6		-55 25	6.14 K0	- .075 + .047			
			I2053	40 17 3.0		- 2 14	7.5 F3	+ .006 - .023	10	-18	5", binary
3472		2676	I2054	40 18 3.0		- 2 14	6.17 F5	+ .003 - .008			
3473		2667	I2052	40 27 2.7		-20 48	6.13 A2	- .011 + .003			
3474	48 Canc	1823	I2080	40 38 +3.6		+29 8	6.61 A5	- .016 - .045	19	+16	30", binary
3475		1824	I2083	40 39 3.6		+29 8	4.20 G5	- .020 - .047			
3476		3761	I2031	40 32 1.9		-49 28	5.19 B2	+ .020 - .002		+28	
3477		4569	I2050	40 50 2.1		-42 17	4.12 G5	- .019 + .016	20	- 2	
3478		2125	I2077	40 58 3.0		- 1 41	5.82 K0	+ .040 + .040	9	+10	
3479		4980	I2058	41 1 +2.3		-36 47	5.76 B8	- .014 - .002			
3480		2634	I2086	41 19 2.9		-10 39	6.47 K5	- .021 + .023			
3481	50 Canc	1904	I2104	41 27 3.3		+12 29	5.71 A0	- .069 - .057			
3482	11 e Hyda	2036	I2102	41 29 3.2		+ 6 47	3.48 F8	- .191 - .054	24	var*	3.7:5.2, 15.2 years*
3483		+7377	I2082	41 30 2.6		-25 1	6.01 A0	- .031 + .028			
3484	12 Hyda	2673	I2097	41 39 +2.8		-13 11	4.44 G5	+ .015 - .015	11	var	V ₀ = -8km
3485	δ Velr	1788	I2069	41 57 1.7		-54 21	2.01 A0	+ .017 - .084	47	+ 2	6.5m, 3", binary*
3486		2130	I2122	42 11 3.0		- 1 32	5.22 A0	- .033 - .002	12	var	V ₀ = 0km
3487		4517	I2109	42 38 2.0		-45 41	4.09 A0	- .010 - .005	0	+24	
3488		4602	I2118	42 44 2.2		-40 45	6.14 A0	- .025 - .004			
			I2092	42 43 +1.4		-58 22	7.3 B8	- .020 - .014	6		4", binary
3489			I2094				6.87	- .033 - .026			
3490		5243	I2126	42 51 2.4		-34 15	6.38 B3	- .027 + .005			
3491		990	I2074	42 58 0.6		-67 51	6.21 K2	+ .001 + .021			
3492	13 ρ Hyda	2040	I2148	43 8 3.2		+ 6 12	4.42 A0	- .019 - .037	11	var*	12m, 12", cpm
3493		2727	I2141	43 9 +3.0		- 6 11	6.22 K0	+ .010 - .024			
3494		4526	I2125	43 6 2.0		-45 33	5.54 B5p	- .003 - .016		+25	
3495		1013	I2090	43 7 0.8		-65 28	6.02 A2	- .065 + .094			
3496		4541	I2142	43 55 2.0		-45 47	5.83 FOp	- .006 - .012		+32	
3497		4507	I2153	44 2 2.2		-41 22	6.48 G0	- .006 - .244			
3498		1865	I2138	44 7 +1.6		-56 24	4.63 B3	- .001 + .005	10	+27	
3499		1765	I2187	44 20 3.7		+33 40	6.22 F8	- .064 - .087	34	+ 5	
3500	14 Hyda	+2699	I2172	44 20 3.0		- 3 4	5.19 B9	- .027 - .023	8	+33	
3501		+4516	I2164	44 33 +2.2		-42 6	6.22 B8	- .010 - .011			
3502	η Cham	372	I2063	44 44 -2.0		-78 36	5.62 B9	- .031 + .017		+18	
3503		1675	I2166	45 4 +1.8		-52 29	6.37 B9	- .033 + .002			
3504		2110	I2200	45 4 3.4		+19 13	6.14 A0	- .013 - .027	10	+19	
3505	5 U Maj	1027	I2235	45 8 4.9		+62 20	5.72 F0	- .008 + .020	26		
3506		1198	I2234	45 12 4.7		+59 26	6.08 F0	+ .015 - .002			
3507		2693	I2188	45 15 2.7		-20 41	6.42 A3	+ .006 - .068			
3508	35 Lync	1794	I2221	45 14 +4.0		+44 6	5.24 G5	- .011 + .041	15	+15	
3509		1649	I2226	45 24 4.1		+45 41	6.08 K0	- .025 - .044		+14	
3510	54 Canc	1917	I2211	45 27 3.3		+15 43	6.29 G0	- .113 + .072	35	+45	
3511		1935	I2228	45 33 4.0		+42 23	6.14 K0	- .036 - .078			
3512		5770	I2195	45 48 2.4		-32 24	5.23 G5	+ .005 - .049	20	var*	In Ursa Cluster

3482: V₀ = +35km, two spectra. Also 8m, 3", binary; itself a spectroscopic binary, 9.9 days. Also 13m, 20", cpm.
 3485: Also 10m, 69", cpm; itself double, 11:12, 4".
 In Ursa Cluster?

Precession in declination, -0".22.
 3492: 8.2 days, V₀ = +33km.
 3512: V₀ = -8km.

CATALOGUE OF BRIGHT STARS

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No	Name	DM	GC	RA	Ann	Decl	Magn	Prop Motion		Par	Rad	Remarks
				1900	Var	1900	Spec	RA	Decl		Vel	
3513		+6600	I2202	45 ^m 51 ^s +2.5		-29° 5'	5.98 G5	-.018	+.004	"007	km	
3514		4838	I2193	45 56 2.2		-39 57	5.41 A2	-.015	-.017	32	+17	
3516		6610	I2212	46 8 2.5		-28 14	5.99 B9	-.024	-.026			
3517		4925	I2203	46 6 2.3		-38 46	6.30 A2	-.085	+.027			
3518	γ Pyxi	5986	I2216	46 17 2.5		-27 20	4.19 K2	-.129	+.083	17	+24	
3519	51 σ ¹ Canc	+1770	I2242	46 24 +3.7		+32 51	5.75 A3	.000	+.010	22	var	13m, 4"
3520		4861	I2204	46 20 2.1		-44 56	5.02 A2	+.001	+.011	8	var	V ₀ = +5km
3521	53 Canc	1659	I2240	46 28 3.6		+28 38	6.31 Ma	-.015	-.009	3	+11	
3522	55 ρ ¹ Canc	1660	I2244	46 39 3.6		+28 43	6.06 K0	-.481	-.240	69	+28	13m, 85", cpm
3523	15 Hyda	2743	I2232	46 40 +2.9		- 6 48	5.60 A2	-.046	-.002	15	var	9m, close binary
3524		378	I2128	46 38 -2.1		-78 42	6.12 A5	-.027	+.036			
3525		4560	I2218	46 43 +2.2		-41 43	6.10 B2	-.018	-.009			
3526		2074	I2249	47 7 3.2		+ 5 43	6.16 A3	-.006	-.018	10	- 6	11m, 0".8
3527		4661	I2227	47 10 2.0		-46 9	4.89 B0	-.009	-.006	1	var	V ₀ = +8km; 11m, 3", cpm
3528		+1883	I2272	47 38 3.8		+35 55	6.02 A2	-.022	-.028	11	var?	V ₀ = +22km
3529		2716	I2258	47 46 +2.8		-12 51	6.25 K0	+.023	-.023			
3530		4723	I2245	47 51 2.2		-42 8	6.30 A2	-.029	+.025			
3531	6 U Maj	+ 673	I2317	48 3 5.1		+64 59	5.62 G5	-.025	-.085	15	var	V ₀ = 0km
3532	57 Canc	+1907	I2289	48 9 3.7		+30 57	5.60 K0	+.043	-.024	7		6.1:6.6, 1", binary
3533		5814	I2262	48 21 2.4		-32 8	6.50 K2	-.013	-.008			
3534		5125	I2267	48 44 +2.3		-36 10	6.54	-.022	-.020			7.3F5:7.3A3, 0".2
3535		4980	I2274	48 59 2.3		-38 21	5.82 Ma	-.007	+.010			
3536		1759	I2260	49 4 1.5		-57 15	5.70 B8	-.014	+.008		+ 8	
3537		927	I2253	49 14 0.8		-66 25	5.41 F5	+.088	+.092	26	+42	
3538		+2490	I2307	49 22 3.0		- 5 4	6.01 G0	-.418	+.027			
3539		4460	I2279	49 21 +2.0		-47 59	6.11 B3	-.017	-.010		var?	V ₀ = +3km
3540	58 ρ ² Canc	1666	I2326	49 40 3.6		+28 19	5.25 G5	-.011	-.038	9	+17	
3541	X Canc	1973	I2322	49 45 3.4		+17 37	var Nb	+.003	+.003		+ 5	5.9 to 7.5, 130 days
3542		3303	I2288	49 39 +1.8		-51 45	6.48 A0	-.026	+.001			6.6:8.6, 3"
3543		352	I2194	49 36 -2.2		-79 8	5.76 K2	-.027	+.081			
3544		747	I2252	49 53 0.0		-72 11	6.09 A2	+.001	+.019			
3545		1459	I2346	50 4 +4.1		+46 1	5.92 K0	-.124	-.042	11	+56	
3546		2125	I2341	50 1 3.9		+40 35	5.88 F2	-.082	-.054			
3547	16 ζ Hyda	2060	I2327	50 7 3.2		+ 6 20	3.30 K0	-.100	+.011	26	+23	
3548		+4924	I2311	50 6 2.2		-40 4	6.46	-.013	+.004			Composite, K0, A5
3549		1918	I2303	50 24 +1.6		-56 16	6.03 B9	-.019	+.028			
3550	60 Canc	1941	I2339	50 28 3.3		+12 0	5.70 K0	-.010	-.015	8	+24	
3551		4480	I2314	50 29 2.0		-47 8	5.32 A5	-.002	-.032	14	var	Two spectra
3552	17 Hyda	2661	I2334	50 36 2.9		- 7 35	6.91 A3	-.003	-.041		-20	4", binary
3553			I2335	50 36 2.9		- 7 35	6.67	.000	-.027	5	-10	
3554		2691	I2331	50 37 +2.8		-17 51	5.90 K0	+.026	-.003			
3555	59 σ ² Canc	1785	I2358	50 46 3.7		+33 18	5.48 A3	-.045	-.074	19	+ 5	
3556	8 Pyxi	6072	I2343	51 14 2.6		-27 18	4.87 A2	+.077	-.106	32	+ 5	
3557		2081	I2361	51 22 3.1		+ 4 37	6.36 G5	-.021	+.002			
3558		1979	I2367	51 31 3.4		+17 32	6.29 K0	-.043	-.032			
3559		7902	I2352	51 31 +2.6		-23 26	6.47 A3	-.032	+.067			
3560		1174	I2325	51 32 1.4		-59 58	5.98 B3	-.008	-.003		+ 2	
3561	62 ο Canc	1945	I2373	51 40 3.3		+15 42	5.16 A3	+.058	+.011	21	0	
3562		4951	I2349	51 49 2.1		-44 40	6.32 B3	-.006	+.004			
3563	61 Canc	1795	I2388	51 54 3.6		+30 37	6.20 F5	+.057	+.019	27	+ 8	Poss. close double

Precession in declination, -0'.23.

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No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
3564	63 Canc	2639	12365	51 ^m 56 ^s + 2.8		-16° 19'	6.15 K0	-.010 - .050		km	
3565		+1864	12380	52 0 3.4		+15 58	5.64 A5	+.059 + .023	"019	var?	V ₀ = -4km
3566		1889	12393	52 10 3.8		+36 11	6.46 A0	+.010 - .017	7	-15	
3567		2093	12389	52 18 3.2		+ 9 46	6.32 K0	-.018 - .004			
3568		1790	12351	52 23 1.5		-57 51	6.32 B5	-.024 - .004			
3569	9 σ UMa j	1707	12407	52 22 + 4.1		+48 26	3.12 A5	-.442 - .243	66	+13	10.8m, binary*
3570		1925	12354	52 22 1.7		-54 35	5.72 F5	+.033 - .087		- 2	
3571	65 α Canc	1243	12359	52 47 1.4		-60 16	3.98 B8	-.017 + .042	15	+25	
3572		1948	12406	53 1 3.3		+12 15	4.27 A3	+.035 - .037	33	-14	11m, 11", binary*
3573		+2112	12398	52 59 3.1		+ 1 56	6.50 A0	-.033 - .012	9	+26	6.5:12, 3", binary
3574		1788	12381	53 18 + 1.8		-52 20	4.77 B5	-.006 + .002	10	var*	4.9:7.7, 3"
3575	64 σ ³ Canc	1821	12417	53 24 3.7		+32 48	5.64 G5	-.039 - .041	9	+23	
3576		551	12447	53 32 5.4		+68 1	4.99 Ma	-.020 + .014	9	+ 4	
3577	8 ρ UMa j	2093	12414	53 32 3.4		+18 31	6.57 Mb	-.041 - .075	4	+21	
2578		2656	12415	54 2 2.8		-15 45	5.92 G0	+.239 + .216	28	+122	
3579		1956	12434	54 9 + 3.9		+42 11	4.09 F5	-.436 - .255	72	+27	4:6, 0".6
3580		1986	12432	54 9 3.8		+38 0	6.54 K5	-.005 - .006			
3581		196	12603	54 32 12.5		+84 35	6.26 F0	+.027 + .013	17	var	V ₀ = +2km, two spectra
3582		1301	12405	54 32 1.5		-58 51	5.08 B3	-.015 + .003	6	+25	40", fixed
			12408	54 37 1.5		-58 51	7.5 B8	-.006 + .011			
3583		4282	12413	54 36 + 2.0		-48 11	5.86 K0	-.004 - .008	6		
3584		2536	12433	55 6 2.7		-18 49	6.26 F8	-.051 - .101			
3585		6793	12430	55 1 2.5		-28 25	6.40 G5	-.065 + .011			
3586		2138	12461	55 14 3.9		+40 6	6.21 F0	-.049 - .085	17	- 8	
3587	66 Canc	1829	12456	55 16 3.7		+32 39	5.83 A2	-.003 - .003	10	-13	6.0:8.1, 5", fixed
3588		4810	12431	55 29 + 2.0		-46 51	5.22 F0	-.095 + .049	8		11m, 25"
3589	67 Canc	1674	12471	55 51 3.6		+28 18	5.95 A5	-.054 - .081	17	var?	
3590		2087	12473	56 15 3.2		+ 6 2	6.31 K0	-.030 - .010			cpm with GC 12483, 269"
3591		4810	12451	56 21 2.2		-40 52	4.42 F8	-.044 + .041	26	var	74.1 days, V ₀ = -6km
3592		1272	12507	56 41 4.4		+54 41	5.68 A2	-.003 - .004	14		
3593		4875	12464	56 44 + 2.2		-42 47	6.12 B3	-.022 + .016			
3594	12 κ UMa j	1633	12503	56 48 4.1		+47 33	3.68 A0	-.032 - .062	14	+ 4	4.3:4.5, 0".2, binary
3595	69 ν Canc	+2029	12496	56 54 3.5		+24 51	5.45 A0	-.001 - .009	11	var?	V ₀ = -16km*
3596		+2449	12487	56 51 3.1		- 0 6	5.80 K0	-.051 + .074	8	+73	
3597		6647	12478	56 51 2.6		-26 16	6.38 K0	+.024 - .060			
3598		1327	12449	56 57 + 1.5		-58 42	5.17 F0	-.177 + .273	51	+11	
3599		2066	12499	57 25 3.2		+ 7 41	6.07 K0	-.018 - .009			
3600		4720	12489	57 38 2.2		-41 28	5.54 B5	-.029 + .002	14	var	V ₀ = +22km
3601	70 Canc	1683	12519	58 12 3.6		+28 18	6.34 A0	+.003 - .006	8	-26	
3602		+5154	12500	58 17 2.3		-39 0	6.30 K0	-.043 + .020			
3603		+1801	12540	58 30 + 4.1		+48 56	5.59 F5	-.011 - .024	10	var	
3604		1283	12494	58 28 1.4		-60 34	5.80 K0	-.007 - .005			
3605		3430	12501	58 38 1.9		-51 48	5.42 B9	-.015 + .014	12	+32	5.6:7.1, 1", binary
3606		1837	12537	58 48 3.7		+32 47	6.42 A5	-.040 - .064	11	+16	
3607		6829	12516	58 46 2.6		-25 7	6.66 B8	-.016 - .010			
3608		1217	12551	58 58 + 4.7		+59 45	6.19 A0	-.019 - .025	8	+ 3	
3609	11 σ' UMa j	573	12576	59 37 5.3		+67 16	5.33 K5	-.017 - .042	9	+15	
3610		879	12510	0 0 0.7		-68 17	5.82 K5	+.013 - .001			
3611		2072	12528	0 5 1.8		-53 9	6.48 B9	-.030 + .025		- 7	
3612		+2200	12565	0 10 3.8		+38 51	4.71 G5	-.028 - .023	10	+17	

3569: This companion is itself a close binary, 11.4:11.7.

3572: In Ursa Cluster?

3574: 0.9 days, V₀ = +22km.

Precession in declination, -0'.23.

3595: In Ursa Cluster?

CATALOGUE OF BRIGHT STARS

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No	Name	DM	GC	RA	Ann	Decl	Magn	Prop Motion		Par	Rad	Remarks
				1900	Var	1900	Spec	RA	Decl		Vel	
3613	18 ω Hyda	2116	12564	0 ^m 43 ^s +3.2	+ 5° 30'	5.41 K0	- .016	- .010	"005	+26		
3614		4883	12545	0 42 2.1	-46 42	3.69 K0	- .056	- .016	18	+24		
3615	α Voln	+1065	12532	0 52 0.9	-66 0	4.18 A5	- .002	- .104	47	var	V ₀ = +8km*	
3616	13 σ^2 UMaj	577	12619	1 36 5.3	+67 32	4.87 F8	+ .023	- .079	50	- 2	4.9:8.1, 1", binary	
			12582			7.3 F4	- .152	+ .012		+32		
3617		2048	12583	1 41 3.5	+23 23	6.77 F5	- .165	+ .003	11	+29	8", binary	
3618		+2145	12581	1 50 +3.1	+ 1 52	6.41 Ma	- .007	- .028	13			
3619	15 UMaj	1365	12604	1 49 4.2	+52 0	4.54 A3p	- .134	- .042	33	- 1		
3620		+1810	12594	1 58 3.7	+32 57	6.33 F2	- .082	- .024				
3621	72 τ Canc	1817	12593	2 0 3.6	+30 3	5.38 G5	- .029	- .005	10	-13		
3622		1859	12567	2 8 +1.6	-57 27	6.50 A3	- .028	+ .019			10m, 3"	
3623	76 κ Canc	1984	12596	2 20 3.2	+11 4	5.14 B8	- .024	- .013	8	var	6.4 days, V ₀ = +25km	
3624	14 τ UMaj	+ 723	12646	2 41 4.9	+63 55	4.74 *	+ .100	- .066	14	var	V ₀ = -6km	
3625		1949	12613	2 43 3.7	+34 18	5.95 F8	- .184	- .126		+28		
3626	75 Canc	1715	12615	2 54 3.5	+27 3	5.96 G5	- .124	- .374	43	var	19.5 days, V ₀ = +12km	
3627	77 ξ Canc	2061	12635	3 37 +3.4	+22 27	5.22 G5	+ .004	.000	10	var	V ₀ = -7km	
3628	κ Pyxi	6895	12614	3 39 2.6	-25 27	4.82 K5	+ .039	+ .004	9	-45		
3629		1957	12598	3 42 1.7	-55 24	6.22 B5	- .015	- .028				
3630	19 Hyda	2588	12626	3 49 2.9	- 8 11	5.50 B8	- .024	- .012	9	var*	5.5:10.5, 1".5, binary	
3631		3849	12611	4 1 1.9	-50 49	6.47 K5	+ .006	- .007				
3632		+1093	12601	4 12 +1.2	-64 6	6.36 K0	+ .021	+ .023				
3633		444	12687	4 20 5.8	+72 4	6.46 K0	+ .010	- .052				
3634	λ Velr	+4990	12623	4 19 2.2	-43 2	2.22 K5	- .025	+ .007	15	+18		
3635		+1979	12648	4 20 3.3	+11 58	6.46 F0	- .046	- .067				
3636		2565	12645	4 24 2.9	-11 57	5.81 K0	+ .019	- .011	11	var		
3637		6766	12636	4 22 +2.6	-26 22	6.20 A2	- .036	+ .012				
3638		2765	12643	4 27 2.8	-17 55	5.74 A0	- .053	+ .006				
3639	RS Canc	1946	12657	4 36 3.6	+31 23	var M6	- .019	- .040			5.3 to 6.8, 258 days	
3640	79 Canc	2063	12655	4 36 3.4	+22 24	6.09 G5	+ .007	.000	14	- 7		
3641	20 Hyda	2593	12649	4 42 2.9	- 8 23	5.66 G5	- .021	- .014	10	+26		
3642		861	12602	4 50 +0.5	-70 8	4.86 B3p	- .006	- .010	6	var?	V ₀ = +35km	
3643		779	12595	4 53 0.2	-72 12	4.50 F5	+ .009	- .011	18	+22		
3644	ϵ Pyxi	7194	12659	5 42 2.5	-29 57	5.56 A3	+ .006	- .050		var	9m, 18", cpm*	
3645		452	12726	5 50 6.0	+73 22	5.89 A2	- .083	- .068	22	+ 2		
3646		2512	12665	5 55 2.7	-22 46	6.49 A0	- .023	- .007				
3647		+4471	12663	6 23 +2.0	-49 1	6.41 A3	+ .007	- .044				
3648	16 UMaj	+1058	12713	6 26 4.7	+61 50	5.23 F8	+ .002	- .035	44	var	16.2 days, V ₀ = -14km	
3649		+2120	12690	6 40 3.2	+ 5 53	6.21 F0	- .103	- .028		+ 2		
3650	81 Canc	2003	12693	6 49 3.3	+15 24	6.40 G5	- .521	+ .240	56	+45		
3651		2139	12695	6 59 3.1	+ 4 17	6.11 A0	- .045	- .004	10	+20		
3652	36 Lync	1893	12716	7 16 +3.9	+43 38	5.30 B8	- .023	- .040	8	+21		
3653		2644	12697	7 24 2.7	-19 20	5.81 K0	- .051	+ .034	10	- 1		
3654		5206	12688	7 27 2.2	-44 28	4.96 B5	- .010	- .002	3	+35		
3655	21 Hyda	2845	12704	7 30 3.0	- 6 42	6.02 A2	- .018	+ .016				
3656		5358	12698	7 47 2.3	-38 51	6.12 B9	- .016	+ .003				
3657		1991	12722	7 55 +3.4	+21 42	6.09 A0	- .014	- .014	8			
3658		4987	12699	8 1 2.1	-46 10	5.92 B3	- .027	+ .005		+ 7		
3659	α Cari	1419	12696	8 20 1.6	-58 33	3.56 B3	- .028	+ .002	13	var*	6.7 days, V ₀ = +23km	
3660	17 UMaj	1211	12748	8 25 4.4	+57 9	5.48 K5	- .016	- .037	10	-30		
3661		5041	12719	8 49 2.2	-43 12	5.74 B8	- .019	- .002	5	+ 4	6.2:7.0, 3", binary	

3615: In Ursa Cluster?

3630: V₀ = +23km.

Precession in declination, -0.24.

3624: Composite, F5, A5.

3644: Comp. is double, 10:10, 0".3.

3659: Two spectra.

No	Name	DM	GC	RA		Decl 1900	Magn Spec	Prop Motion		Par	Rad Vel	Remarks
				1900	Ann Var			RA	Decl			
3662	18 UMa _j	1285	12761	9 ^m 0 ^s +4.3 ^s		+54° 26'	4.89 A5	+ .056 + .055	.022	km var*	In Ursa Cluster?	
3663		1201	12707	9 0 1.4		-61 54	4.18 B3	-.043 + .003	13	+17		
3664		1966	12749	9 6 3.7		+35 3	6.02 G0	-.147 + .046	18	+56		
3665	22 θ Hyda	2167	12743	9 10 3.1		+ 2 44	3.84 A0	+ .130 - .315	22	var		
3666		393	12814	9 37 6.2		+74 26	6.54 G5	-.035 - .072				
3667		5376	12735	9 30 +2.4		-38 12	6.46 A0	+ .002 - .015				
3668		4904	12734	9 32 2.3		-41 52	6.12 K0	-.023 + .051				
3669	82 π Canc	2009	12758	9 43 3.3		+15 21	5.57 K0	-.039 - .015	9	+25		
3670		5010	12746	10 4 2.1		-46 56	5.92 B9	-.024 - .002				
3672		5068	12754	10 27 2.2		-43 44	5.94 B5	-.046 - .002				
3673		+1432	12740	10 19 +1.6		-59 0	5.58 G5	-.002 - .006			+16	
3674		5086	12759	10 41 2.2		-42 49	5.15 B3	-.027 + .007	16	+32	10m, 6"	
3675		2793	12774	10 41 2.8		-14 36	6.23 A0	-.028 - .018				
3676		1658	12799	10 49 4.0		+47 14	5.70 A0	+ .021 + .008	9	var	16.0 days, V ₀ = -12km	
3677		5578	12773	10 58 +2.4		-37 11	6.04 G0	+ .005 - .016				
3678	ζ Octn	183	12580	11 14 -8.7		-85 16	5.38 F0	-.120 + .031			- 2	
3679		2035	12767	11 20 +1.8		-55 9	5.20 K0	-.036 + .016	9	+ 9		
3680		4982	12782	11 37 2.2		-45 8	6.34 A0	-.011 - .015	7		6.7:7.8, 1", binary	
3681	23 Hyda	2762	12800	11 44 3.0		- 5 56	5.40 K0	+ .019 + .003	11	var*	5.4:11, 2", binary	
3682		5408	12784	11 40 2.4		-38 9	4.98 K0	-.071 - .011	14	+ 2		
3683	24 Hyda	2623	12802	11 47 +2.9		- 8 20	5.54 B9	-.022 .000	7	+10		
3684		+5505	12787	11 45 2.4		-37 0	4.70 F5	+ .020 - .013			+12	
3685	β Cari	1023	12764	12 6 0.7		-69 18	1.80 A0	-.154 + .098			- 5	
3686		1971	12827	12 16 3.7		+35 47	5.76 A5	-.039 - .031	10	+22*	6.4:6.7, 2", binary	
3687		+2808	12811	12 23 2.8		-14 9	5.97 K0	-.049 + .008				
3688		5305	12801	12 24 +2.2		-44 29	6.03 B5	+ .009 + .005				
3689		+2009	12824	12 26 3.3		+11 55	6.29 A0	-.013 - .008	10	var?	V ₀ = -7km*	
3690	38 Lync	1965	12830	12 37 3.7		+37 14	3.82 A2	-.030 - .129	30	var*	4.0:5.9, 3", binary	
3691		1949	12792	12 33 1.6		-57 58	6.06 B5	-.024 - .012			+ 7	
3692		5103	12808	12 41 2.2		-43 51	5.01 K5	-.005 - .005	4	- 3		
3693		1951	12798	12 46 +1.7		-57 10	6.33 K0	+ .001 - .009				
3694		5430	12821	13 2 +2.4		-38 59	5.37 K0	-.015 - .034	10	0		
3695		574	12766	13 13 -0.6		-76 15	6.34 K0	+ .075 - .030				
3696		1961	12813	13 23 +1.7		-57 7	4.18 K5	-.016 - .013	14	- 5		
3697		1495	12865	13 47 4.2		+51 41	6.12 F2	-.035 + .143	33	- 8	10m, 6", binary	
3698		1214	12883	14 23 +4.4		+57 8	5.98 Mb	-.008 - .013				
3699	ι Cari	1465	12831	14 25 1.6		-58 51	2.25 F0	-.019 - .001			+13	
3700		+2281	12839	14 37 1.9		-54 4	6.26 K0	-.024 - .010				
3701		2025	12875	14 44 3.8		+38 37	5.86 F2	-.042 - .019	21	0*	6.5:6.7, 1.5, binary	
3702		2804	12861	14 44 2.9		-10 53	6.53 A2	-.087 + .032	6			
3703		4001	12844	14 46 +2.0		-50 38	5.34 B9	-.030 + .004			var	
3704		2763	12862	14 50 2.8		-15 25	5.93 K0	+ .051 - .050	8		11m, 4"	
3705	40 α Lync	+1979	12880	14 58 3.7		+34 49	3.30 K5	-.217 + .013	19	+38		
3706	26 Hyda	2609	12867	14 57 2.9		-11 33	4.94 G5	-.026 + .006	11	- 2		
3707		1848	12892	15 23 3.6		+33 20	6.22 K0	+ .014 - .041	5	+28		
3708		3693	12859	15 24 +2.0		-51 8	5.87 B8p	-.022 - .003				
		2801	12877	15 28 2.9		- 9 11	6.87 F2	-.024 - .033				
3709	27 Hyda	+2643	12881	15 36 2.9		- 9 8	4.97 G5	-.016 - .033	14	+26	229", cpm	
3710		5973	12873	15 39 2.5		-33 41	6.48 B8	-.010 - .012				
3711		2027	12894	15 44 3.3		+15 48	6.49 A0	-.035 - .022	9	+18		

3662: V₀ = -19km.3681: 922 days, V₀ = -8km.

3686: Velocity of fainter, +30km.

3689: 13m, 23", fixed.

Precession in declination, -0.25.

3690: V₀ = +2km.

3701: Velocity of fainter, -2km.

CATALOGUE OF BRIGHT STARS

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No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
3712	θ Pyxi	918	12848	15 ^m 53 ^s +0.8		-68° 16'	5.44 F2	-".108 - ".027	".021	km +32	3", cpm
3713		1002	12857	16 8 1.0		-66 38	5.88 K0	-.003 +.008			
3714		+2828	12897	16 11 2.8		-15 11	6.34 F5	+.065 -.105			
3715		7162	12900	16 30 2.5		-31 20	7.24 A0	-.038 -.013			
			12902	16 30 2.5		-31 20	8.0	-.027 -.024			
3716	θ Pyxi	5668	12893	16 29 +2.4		-37 9	6.10 K0	-.023 -.021	II	+17 +20 +1 +11	5.8:6.7, close binary*
3717		2186	12879	16 29 1.8		-54 46	6.44 B5	-.009 -.006			
3718		7114	12916	17 4 2.7		-25 32	4.93 Ma	-.015 -.011			
3719		377	12988	17 23 +6.3		+75 32	6.29 A2	-.025 +.027			
3720		579	12869	17 36 -0.1		-74 28	5.45 A0	-.014 +.025			
3721		580	12870	17 35 +0.1		-74 19	6.02 A0	-.040 +.028			
3722		733	12970	17 41 4.8		+64 23	6.46 K2	-.008 -.045			
3723		2088	12940	17 45 3.5		+25 37	6.46 G5	-.119 .000			
3724		2816	12936	17 58 2.9		-9 24	6.53 A2	-.030 -.025			
3725		1389	12962	18 0 4.2		+52 1	6.37 G0	+.043 -.012			
3726	5023	12926	18 0 +2.3		-41 46	5.76 Ma	+.047 -.062	10	+15		
3727	1978	12957	18 12 3.7		+37 1	6.45 A5	-.082 -.034				
3728	1242	12923	18 33 1.4		-61 59	4.86 K0	+.005 -.011	21	+51		
3729	5446	12942	18 41 2.4		-39 21	6.50 K0	-.069 +.071	8	-2	7.3:7.3, close binary 6.6:8.3, 1.5, cpm	
3730	5099	12939	18 45 2.2		-45 37	6.00 G5	-.005 +.010				
3731	ι κ Leon	1939	12972	18 50 +3.5		+26 37	4.61 K0	-.028 -.050	10	+28	11m, 3", binary
3732		+2213	12933	18 47 1.8		-55 5	5.66 A2	-.068 +.054		+59	
3733	λ Pyxi	7196	12952	18 52 2.6		-28 24	4.90 K0	-.140 +.016	19	+10	117 days, V ₀ = +22km
3734	κ Velr	2219	12938	19 1 1.9		-54 35	2.63 B3	-.012 +.001	17	var	
3735	5721	12971	19 44 2.4		-37 20	6.48 A2	-.089 +.014				
3736	28 Hyda	2078	12990	20 0 +3.3		+17 1	6.27 K0	-.086 -.022	10	+11	
3737		+5541	12983	20 18 2.4		-39 0	6.18 A2	+.006 -.039			
3738		2616	12992	20 24 3.0		-4 41	5.81 K5	-.015 -.011	7	+5	
3739		3767	12984	20 39 2.0		-51 18	6.14 F0p	+.006 -.006			
3740		1374	12981	20 48 1.6		-59 52	6.34 K0	-.006 -.009			
3741	29 Hyda	+2195	13010	21 17 +3.1		- 1 1	6.14 K0	-.003 -.006	12	+38	7.2:7.2, 0.2, cpm* 6.4:7.2, close binary
3742		1265	12991	21 34 1.5		-61 13	5.97 G5	+.015 -.056			
3743		1509	13051	22 7 3.9		+46 2	5.56 G5	-.009 -.131			
3744		2678	13039	22 21 2.9		- 8 47	6.45 A0	-.031 -.003			
3745		7271	13033	22 23 2.6		-28 21	6.02 B8	-.030 -.005			
3746	30 α Hyda	+5507	13032	22 32 +2.4		-40 4	6.39 A3	+.018 -.001	16	-4	Alphard
3747		1388	13073	22 40 4.3		+56 11	6.46 F2	-.133 -.040			
3748		2680	13044	22 40 2.9		- 8 14	2.16 K2	-.015 +.030			
3749		2802	13043	22 44 2.7		-21 54	4.94 K0	+.181 -.164			
3750		2802	13048	22 50 3.0		- 5 38	5.44 G0	-.225 -.078			
3751	2 ω Leon 3 Leon	302	13174	22 51 +8.5		+81 46	4.58 K2	-.015 -.022	11	-5	9m, 9", cpm
3752		1271	13021	22 58 1.5		-61 31	6.00 A2	-.130 +.055			
3753		2360	13035	23 3 2.0		-52 57	5.22 B5	-.013 -.005		var	
3754		2188	13062	23 6 3.2		+ 9 30	5.52 G0	+.053 -.008	29	-5	
3755		2226	13063	23 10 3.2		+ 8 37	5.88 K0	-.033 -.037	9	+20	
3756	23 U Maj	5895	13055	23 29 +2.5		-34 34	6.48 A3	-.033 -.033	38	-9	9m, 23", binary
3757		845	13109	23 39 4.7		+63 30	3.75 F0	+.110 +.024			
3758	31 τ' Hyda	2201	13078	23 57 3.1		- 0 49	6.29 A5	-.075 -.002	71	var?	V ₀ = +10km 65", cpm
3759		2901	13080	24 4 3.0		- 2 20	4.78 F5	+.127 -.017			
		2902	13081	24 5 3.0		- 2 19	8.1	+.145 -.018			

3720: Also 10m, 7", cpm.

3744: Also 12m, 11", cpm.

Precession in declination, -0.26.

9^h

No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
3760		2268	13087	24 ^m 20 ^s +3.0		- 1° 46'	6.04 A3	- .048 - .006		km	
3761		1037	13056	24 34 1.3		- 64 30	6.36 A3	- .055 + .057			
3762		2693	13090	24 31 3.0		- 3 48	6.41 G5	- .031 - .083			
3763		2915	13088	24 36 2.8		- 20 19	5.96 K5	- .017 + .018			
3764	7 LMin	1999	13112	24 41 3.6		+ 34 6	5.98 K0	- .015 - .051	.007	+ 2	
3765	ε Antl	5724	13091	25 7 +2.5		- 35 31	4.64 K2	- .027 - .009	8	+22	
3766		5817	13094	25 15 2.4		- 37 57	6.24 A2	- .091 - .016			
3767		2623	13106	25 18 2.7		- 22 54	6.50 K0	- .001 - .008			
3768	22 UMaj	462	13178	25 28 5.7		+ 72 39	5.82 F5	+ .075 - .080	29		
3769	8 LMin	2015	13133	25 27 3.7		+ 35 33	5.52 K5	- .054 - .110	9	+38	
3770		7117	13110	25 28 +2.7		- 26 9	5.67 K0	- .024 - .003	9	+12	
3771	24 UMaj	565	13171	25 39 5.3		+ 70 16	4.57 G0	- .061 + .074	42	-27	
3772		+2867	13122	25 38 2.8		- 15 9	6.10 K0	- .067 - .066			
3773	4 λLeon	2107	13143	26 1 3.4		+ 23 25	4.48 K5	- .023 - .044	18	var?	V ₀ = +27km
3774		402	13204	26 7 6.0		+ 74 46	6.38 B9	- .016 - .074			
3775	25 θ UMaj	1401	13157	26 10 +4.0		+ 52 8	3.26 F8p	- .946 - .542	58	+15	14m, 5", binary
3776		1277	13101	26 16 1.5		- 61 50	6.01 K0	- .077 + .025			
3777		833	13082	26 7 0.6		- 71 10	5.48 K0	- .100 + .069		var	V ₀ = +3km
3778		+1657	13162	26 25 4.0		+ 49 53	6.50 A3	- .023 + .001	9	var?	V ₀ = -10km
3779	6 Leon	2014	13150	26 36 3.2		+ 10 9	5.28 K0	- .004 - .017	7	+18	9m, 37", fixed
3780	ζ ¹ Antl	7355	13135	26 29 +2.6		- 31 27	7.21 A0	- .017 - .029	I		8", binary
3781			13137	26 29 2.6		- 31 27	6.35	+ .024 - .030			
3782	5 ξ Leon	2053	13149	26 33 3.2		+ 11 45	5.12 G5	- .094 - .089	11	+29	
3783		1018	13103	26 34 1.2		- 66 15	6.18 A0	- .031 + .042			
3784		+4204	13129	26 40 2.0		- 51 5	5.60 B8	- .011 + .006		+10	
3785		+2856	13148	26 46 +2.9		- 10 6	6.06 A5	+ .012 - .024			
3786	ψ Velr	+5580	13140	26 46 2.4		- 40 2	3.64 F5	- .192 + .068	65	+12	3.9:5.1, 34.9 years
3787	32 τ ² Hyda	2211	13153	26 53 3.1		- 0 45	4.50 A3	- .013 - .014	28	var	V ₀ = +6km
3788		2858	13155	27 4 2.9		- 9 55	6.32 K0	- .089 + .006			
3789	ζ ² Antl	7369	13152	27 16 2.6		- 31 26	5.96 F0	- .043 - .002			
3790		5751	13154	27 23 +2.5		- 35 16	5.96 K0	+ .137 - .180	0		
3791	9 LMin	+1998	13183	27 22 3.7		+ 36 56	6.41 K2	+ .032 - .042	6	-17	
3792		+1913	13182	27 27 3.5		+ 28 49	6.35 A2	- .046 - .041	11	var	
3793		2090	13145	27 28 1.8		- 57 55	5.78 Ma	- .032 + .022			
3794		2217	13172	27 31 +3.1		+ 2 18	6.15 F5	- .016 - .039		+28	
3795	ι Cham	350	13066	27 29 -2.0		- 80 21	5.44 F2p	- .141 + .122		+ 7	
3796		2708	13169	27 42 +2.8		- 18 58	5.70 A2	- .011 .000			
3797		1683	13194	27 46 3.9		+ 47 21	6.43 A5	- .063 - .016	9	+11	
3798	S Antl	7373	13173	27 56 2.6		- 28 11	var F0	- .074 + .034		var*	6.4 to 6.8, 0.65 days
3799	26 UMaj	1402	13212	27 59 4.1		+ 52 30	4.65 A0	- .064 - .042	23	+24	
3800	10 LMin	+2004	13203	28 6 +3.7		+ 36 50	4.62 G5	+ .010 - .027	19	-12	
3801		+2836	13187	28 7 3.0		- 8 4	6.30 K0	- .024 - .038			
3802		+2926	13185	28 8 2.9		- 13 4	6.21 K5	- .001 - .020			
3803	N Velr	2270	13160	28 11 1.8		- 56 36	var K5	- .036 - .001	23	-14	3.4 to 4.2, not a Nova
3804		+2104	13199	28 17 3.4		+ 23 53	6.43 K5	- .049 - .093	4		
3805		2939	13190	28 23 +3.0		- 6 45	6.39 K0	- .036 - .015			
3806		470	13252	28 24 5.7		+ 73 32	7.20 F0	- .041 - .030	18		7.2m, 5", binary
3807		5284	13180	28 21 2.4		- 40 12	5.36 K0	+ .009 - .015	19	- I	
3808		2936	13191	28 36 2.8		- 20 40	5.16 K0	- .032 + .012	20	+13	
3809		2224	13221	28 50 3.7		+ 40 4	4.99 K0	- .023 + .010	13	-12	

3798: V₀ = -5km.

Precession in declination, -0.26.

CATALOGUE OF BRIGHT STARS

9^h

No	Name	DM	GC	RA	Ann	Decl	Magn	Prop Motion		Par	Rad	Remarks
				1900	Var	1900	Spec	RA	Decl		Vel	
3810		2645	13201	28 ^m 53 ^s +2.7		-22° 25'	5.84 A0	-	"051 + "056		km	
3811		2226	13227	29 7 3.8		+40 24	6.56 F2	-	.015 + .005			25", nearly fixed
			13229	29 8 3.8		+40 24	7.6 F5	-	.073 + .002			
3812		5676	13198	29 6 2.4		-38 41	6.41 F2	-	.033 + .045			
3813		1025	13186	29 32 1.2		-66 17	6.34 K0	-	.023 - .012			
3814	33 Hyda	2840	13226	29 33 +3.0		- 5 28	5.70 K0	+	.006 - .057	"009	+13	
3815	11 LMin	1979	13242	29 40 3.6		+36 16	5.48 K0	-	.705 - .251	95	+13	14m, binary
3816	R Cari	1253	13192	29 44 1.5		-62 21	var M5	-	.034 + .013		+16*	4.0 to 10, 305 days
3817		4802	13219	30 9 2.2		-48 34	5.35 B3	-	.022 + .005	12	+27	5.8:6.4, 2", binary
3818	7 Leon	+2077	13250	30 25 3.3		+14 50	6.21 A0	-	.038 - .007	8	+24	9m, 41", cpm
3819		4270	13234	30 41 +2.1		-50 49	5.16 B3	-	.017 - .020		var	
3820		2011	13265	30 47 3.6		+31 37	5.74 Ma	+	.008 - .042	6	-20	
3821		835	13205	30 51 0.5		-72 38	5.52 K2	-	.018 - .007			
3822		+2728	13254	30 55 2.8		-19 8	6.25 A0	-	.040 - .049			10m, 51"
3823		5803	13248	31 3 2.5		-35 23	6.48 F5	-	.074 - .007			
3824		602	13304	31 11 +5.0		+67 43	6.28 K5	-	.007 - .045			
3825		1576	13246	31 33 1.7		-58 47	4.20 B5	-	.012 + .007	5	+22	
3826	8 Leon	+2109	13277	31 32 3.3		+16 53	5.92 K0	-	.011 - .010	7	+ 6	
3827	10 Leon	2160	13283	31 56 3.2		+ 7 17	5.14 K0	-	.060 - .003	11	var	V ₀ = +20km
3828		8263	13278	32 4 2.7		-24 15	6.52 F2	-	.123 + .055			
3829	42 Lync	2232	13301	32 7 +3.7		+40 41	5.24 A5	-	.016 - .001	20	- 4	
3830		8272	13287	32 30 2.7		-24 51	5.94 K0	-	.063 + .038	9	+30	
3831		4831	13284	32 48 2.2		-48 18	6.48 F0p	-	.016 - .029	21		6.6:9.4, 3", binary
3832	34 Hyda	2725	13307	32 57 2.9		- 8 58	6.38 A0	-	.064 - .001			
3833		7458	13292	32 52 2.6		-31 44	5.63 K0	+	.034 - .025	8		
3834		2207	13316	33 14 +3.1		+ 5 6	4.78 K0	-	.163 - .057	15	+44	
3835		5833	13306	33 18 2.5		-35 39	6.09 K0	-	.038 - .005			
3836		4836	13293	33 15 2.1		-48 54	4.49 A5	-	.112 + .022	22	+21	
3837		2612	13296	33 25 2.0		-52 30	6.10 G5	-	.125 + .075			
3838		531	13358	33 42 5.1		+69 42	5.74 K0	-	.066 - .074	10	- 9	
3839	27 UMa _j	466	13364	33 45 +5.5		+72 42	5.39 K0	-	.026 - .032	9	-17	
3840		2646	13309	33 52 2.0		-53 13	5.53 A2	-	.059 - .023		-13	6.2:6.3, 0".4, cpm
3841		1049	13290	33 46 1.4		-64 30	6.88 A2	-	.036 + .028			
3842		5462	13319	34 7 2.3		-42 44	5.50 K0	+	.026 - .038	6	+ 3	
3843		317	13392	34 10 6.8		+78 36	6.41 G5	+	.005 - .003			
3844		5697	13334	34 38 +2.4		-39 10	6.66 F5	-	.048 - .066			9m, 1", cpm
3845	35, Hyda	2231	13341	34 45 3.1		- 0 41	4.10 K0	+	.046 - .069	20	var?	V ₀ = +23km
3846	37 Hyda	+2898	13343	34 54 2.9		-10 7	6.19 B9	-	.028 + .002			
3847		319	13419	35 27 7.1		+79 36	6.13 F0	-	.024 - .033		- 6	
3848		2888	13353	35 27 2.9		-10 19	6.19 A2	-	.006 - .004			
3849	38 κ Hyda	2917	13354	35 31 +2.9		-13 53	4.96 B3	-	.029 - .021	8	+18	
3850		2026	13369	35 40 3.5		+31 44	6.08 K5	+	.031 - .007	4	-12	
3851	43 Lync	2241	13372	35 49 3.7		+40 13	5.50 K0	-	.052 - .046	11	+30	
3852	14 ο Leon	2044	13366	35 49 3.2		+10 21	3.76 *	-	.142 - .041	19	var	14.5 days, V ₀ = +27km
3853	13 Leon	1991	13370	35 53 3.5		+26 22	6.43 K0	-	.012 - .038	7	-26	
3854		+1868	13379	36 9 +3.9		+48 53	6.34 A0	-	.026 - .019	9	var	
3855		+1345	13386	36 12 4.1		+54 49	6.34 A2	-	.041 - .036	13	+21	
3856		1477	13355	36 35 1.7		-60 53	4.67 B9	-	.041 + .014	14	var?	V ₀ = +24km
3857	13 LMin	2042	13388	36 41 3.6		+35 32	6.03 F2	-	.015 - .055			
3858		+2684	13373	36 43 2.7		-23 8	4.74 B2p	-	.030 - .008	6	+26	

3816: Absorption lines give +28km.
3852: Composite, F5, A3.

Precession in declination, -0'.27.

9^h

No	Name	DM	GC	RA	Ann	Decl	Magn	Prop Motion		Par	Rad	Remarks
				1900	Var	1900	Spec	RA	Decl		Vel	
3859	ζ Cham 15 Leon	731	13408	36 ^m 45 ^s + 4.7		+ 65° 26'	6.18 F2	- .050	+ .009		+ 29	V ₀ = -52km
3860		365	13308	36 50 - 1.8		- 80 30	5.24 B3	- .030	+ .003		var	
3861		1901	13406	37 42 + 3.5		+ 30 26	5.73 A2	- .023	- .111	"014		
3862	28 UMa 16 ♀ Leon	8646	13394	37 44 2.7		- 23 28	5.04 G0	- .400	+ .254	75	+ 34	6.0:6.3, 11 years
3863		2228	13376	37 38 1.8		- 57 32	5.36 A2	- .034	- .002	39	var	
3864		2435	13380	37 52 + 1.9		- 56 48	5.83 K0	+ .081	- .049	8		
3865	16 ♀ Leon	752	13429	38 14 4.6		+ 64 7	6.50 F2	- .013	- .047	11	- 32	
3866		2136	13414	38 17 3.3		+ 14 29	5.62 Ma	+ .001	- .005	5	+ 7	
3867		+ 6097	13404	38 28 2.5		- 35 3	6.41 B9	- .020	- .008			
3868		2594	13399	38 30 2.0		- 54 45	6.17 B5	- .022	- .010			
3869	θ Antl	2251	13422	38 57 + 3.3		+ 19 20	6.64 K0	- .006	- .060			12m, 2"
3870		1231	13442	39 27 4.2		+ 57 35	5.36 Ma	+ .002	+ .028	5	+ 8	
3871		6881	13425	39 45 2.7		- 27 19	4.98 F5p	- .052	+ .032	37	+ 24	
3872	17 ♀ Leon	4420	13421	39 54 2.1		- 50 46	6.46 B8	- .029	- .009			
3873		2129	13443	40 11 3.4		+ 24 14	3.12 G0p	- .044	- .018	10	+ 5	
3874		+ 5850	13431	40 11 + 2.5		- 39 7	6.70 A5	- .032	+ .004			
3875	18 Leon	2788	13426	40 19 2.0		- 53 26	5.71 A0	- .072	+ .016		var	
3876		2181	13452	40 54 3.2		+ 7 10	5.99 Ma	+ .004	- .034	5	+ 3	
3877		2090	13454	41 0 3.2		+ 12 16	5.87 K5	- .018	+ .010	7	+ 30	
3878		7758	13445	40 58 2.6		- 29 45	6.50 B2	- .034	- .004			
3879	19 Leon	2246	13459	41 14 + 3.1		+ 2 15	5.69 F2	- .057	- .048	19	+ 16	
3880		2095	13485	42 3 3.2		+ 12 2	6.37 F0	- .054	.000	14	- 2	
3881		1551	13497	42 8 3.9		+ 46 29	5.20 G0	+ .224	- .100	65	+ 5	
3882	R Leon	+ 2096	13489	42 11 3.2		+ 11 54	var M7	+ .001	- .047	1	- 4*	5.0 to 10.5, 309 days
3883		2499	13467	42 29 1.9		- 56 43	6.58 B8	- .031	+ .010			
3884		ℓ Cari	+ 1333	13462	42 30 + 1.6		- 62 3	var G0	- .015	+ .007	22	var*
3885	29 ♀ UMa	637	13519	42 34 4.7		+ 66 4	6.29 F0	- .053	- .032			V ₀ = -8km
3886		5846	13481	42 36 2.3		- 44 18	5.68 B3	- .013	- .003		var?	
3887		1640	13476	42 52 1.8		- 58 20	6.28 F5	- .124	+ .050			
3888		1268	13540	43 53 4.3		+ 59 31	3.89 F0	- .292	- .158	35	+ 30	12m, 11", cpm
3889	20 Leon	2113	13528	44 14 + 3.4		+ 21 39	6.01 F0	- .045	- .017	12	var	V ₀ = +33km, two spectra*
3890	ν Cari		13506	44 36 1.5		- 64 36	3.15 F0	- .011	+ .004			5", cpm
3891		1084	13507	44 36 1.5		- 64 36	6.03 F0	- .008	+ .015	6	+ 14	
3892		5955	13539	45 17 2.5		- 36 43	6.05 K0	- .088	+ .018			
3893	4 Sext	+ 2240	13545	45 18 3.1		+ 4 49	6.24 F5	- .148	- .059	18	var	V ₀ = +18km
3894	30 φ UMa	1331	13559	45 18 + 4.1		+ 54 32	4.54 A2	- .004	+ .014	19	- 12	5.1:5.7, 113 years
3895	23 Leon	2548	13527	45 23 2.0		- 55 57	6.14 K0	- .057	+ .007			
3896		2164	13554	45 37 3.2		+ 13 32	6.70 K5	+ .028	- .013	4	- 10	
3897		5961	13543	45 37 2.5		- 35 48	6.30 K0	- .024	- .002			
3898		5470	13547	46 4 2.3		- 45 16	5.26 B8	- .032	- .002	11	+ 12	
3899	6 Sext	2794	13558	46 12 + 3.0		- 3 46	6.00 A2	+ .010	- .031			
3900	22 Leon	+ 2169	13569	46 13 3.4		+ 24 52	5.33 A2	+ .008	- .184	30	- 2	
3901		2923	13565	46 23 3.0		- 5 43	6.52 G0	- .128	+ .056			
3902	ν Cham	598	13514	46 18 0.0		- 76 19	5.35 K0	+ .104	- .055	17	+ 10	In Ursa Cluster?
3903	39 ♀ Hyda	2963	13570	46 40 2.9		- 14 23	4.29 K0	+ .019	- .029	16	- 14	
3904		5558	13563	46 52 + 2.3		- 46 28	6.02 K0	- .040	+ .010			
3905	24 μ Leon	2019	13590	47 5 3.4		+ 26 29	4.10 K0	- .218	- .059	21	+ 14	
3906	7 Sext	+ 2280	13582	47 3 3.1		+ 2 55	5.88 A0	- .183	+ .089	11	+ 96	
3907		2573	13583	47 4 3.1		+ 0 33	6.29 K0	- .039	- .028			
3908		+ 2920	13580	47 13 2.9		- 16 4	6.31 K0	+ .024	- .070			

3882: Absorption lines give +15km.

3884: V₀ = +4km.Precession in declination, -0.28.
3889: 6.6:6.9, 0.3.

CATALOGUE OF BRIGHT STARS

9^h

No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks	
3909	8 ^r Sext	2909	I3593	47 ^m 33 ^s +3.0	- 7° 38'	5.16 A2	- "058 - "043	"014	+11	km	5.8:6.0, 79 years*	
3910		5499	I3574	47 27 2.3	-45 44	5.72 K0	- .045 + .030					
3911		1151	I3613	47 46 4.4	+61 36	6.42 K0	+ .006 - .004					
3912	31 UMa _j	+5508	I3587	47 49 2.3	-46 5	4.56 G5	- .015 - .007	I	var		329 days, V ₀ = +11km	
3913		1673	I3584	48 5 1.9	-58 57	5.78 K2	+ .022 - .047					
3914		1335	I3578	48 7 +1.7	-62 17	5.59 K0	- .005 .000			+12		
3915		2224	I3608	48 28 3.2	+ 6 26	6.27 Ma	- .009 - .011					
3916		7505	I3599	48 30 2.7	-26 52	6.32 F8	- .286 + .087	I4				
3917		1698	I3643	49 11 3.9	+50 18	5.34 A2	- .006 + .016	I3	- 6			SY UMa _j , may be var.
3918		478	I3684	49 27 5.4	+73 21	5.96 K0	- .076 - .044	II	+ 4			
3919		7585	I3627	49 40 +2.7	-25 28	5.00 K0	- .185 + .061	2I	+50			
3920		2816	I3612	49 35 2.0	-54 54	6.68 B0	- .019 - .006					
3921		+2935	I3631	49 54 2.8	-22 1	6.34 A2	- .039 - .035					
3922	+1224	I3677	50 15 4.2	+57 54	5.99 G5	+ .031 - .065	7	-44				
3923	2810	I3644	50 9 2.8	-18 32	5.16 Ma	- .048 - .037	9	var			V ₀ = +49km	
3924	19 LMin	4622	I3629	50 10 +2.2	-50 40	6.00 B3	- .010 - .015	3	+ 8			
3925		5987	I3637	50 21 2.4	-44 49	5.89 B5	- .025 - .014			+26		5.9:8.0, 5"
3926		2262	I3679	51 8 3.2	+ 9 24	5.93 K0	- .089 + .011	7	+ 9			
3927		4801	I3655	51 8 2.2	-49 46	5.89 A0	- .035 + .007					
3928		2033	I3700	51 34 3.7	+41 32	5.19 F5	- .117 - .031	43	var			9.3 days, V ₀ = -10km
3929		+1566	I3704	51 38 +3.8	+45 53	6.50 K0	+ .004 - .038					
3930		5626	I3685	51 58 2.5	-40 21	6.34 Ma	- .006 - .039					
3931		+7622	I3697	52 15 2.7	-26 4	6.23 A2	- .114 .000					11m, 3"
3932		6895	I3695	52 13 2.6	-32 57	5.86 K0	+ .028 + .019					
3933		+7551	I3701	52 23 2.7	-27 0	6.32 A2	- .083 + .024					
3934	27 ^v Leon	225	I3814	52 37 +9.6	+84 24	6.48 K0	- .005 + .004					
3935		4662	I3698	52 41 2.2	-50 52	6.47 B3	+ .002 - .017	3	+ 9			
3936		1824	I3725	52 43 3.4	+28 14	6.42 F0	- .115 - .039			var		V ₀ = +35km, two spectra
3937		+2183	I3724	52 51 3.2'	+12 55	5.18 A0	- .025 - .022	I4	var			
3938		+2269	I3721	52 50 3.2	+ 8 47	6.27 K0	+ .009 - .029	5	-19			
3939		1242	I3735	52 59 +4.1	+57 17	5.71 K5	- .030 - .035	9	-13			
3940		+3075	I3711	53 21 2.1	-54 6	3.70 B5	- .014 + .002	9	+14			
3941		2980	I3718	53 33 2.2	-52 10	6.15 B3	- .015 - .008			+17		
3942		1946	I3742	53 50 3.5	+30 7	5.86 K0	- .087 - .043	8	- 1			
3943		5399	I3727	53 52 2.3	-47 56	6.42 B5	- .021 - .021					11m, 14", cpm
3944	12 Sext	953	I3716	54 25 +1.0	-70 55	6.42 B0	- .012 - .006			-30		
3945		+2276	I3746	54 32 3.1	+ 3 52	6.63 A5	- .070 + .018	9	var			
3946		8898	I3743	54 29 2.8	-23 28	6.12 B5	- .052 + .018					
3947	η Antl	6050	I3741	54 35 2.6	-35 25	5.25 F0	- .095 - .022	25	+30			12m, 31", cpm
3948		+1233	I3728	54 33 1.6	-64 1	6.49 K0	- .124 + .064					
3949	29 ^v Leon	1011	I3729	54 51 +1.3	-68 37	6.34 B5	- .021 - .007			+20		
3950		2301	I3755	54 56 3.2	+ 8 31	4.89 Ma	- .031 - .028	12	+24			
3951		1964	I3763	55 15 3.5	+32 25	5.60 G5	- .522 - .436	52	+55			
3952		2164	I3796	57 14 3.3	+22 26	5.59 B3	- .019 - .013	4	+ 3			
3953		2746	I3772	57 10 2.0	-56 28	6.37 G5	- .064 + .001					
3954		1348	I3827	57 58 +4.0	+54 23	5.74 F5	- .023 - .012	30	-16			
3955		3087	I3792	58 3 2.2	-52 53	6.50 B5	- .041 - .024			+12		
3956	+8034	I3810	58 21 2.7	-30 6	6.62 K0	- .019 + .016						
3957	2770	I3803	58 34 2.0	-56 52	6.07 K0	- .041 + .020						
3958	+1384	I3842	58 37 3.9	+52 50	6.15 A2	- .004 - .028	II	var			V ₀ = -23km	

3909: 12m, 36", cpm

Precession in declination, -0.29.

9^h - 10^h

No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
3959		+2836	13823	58 ^m 44 ^s +3.0		- 9° 5'	6.41 KO	+ ".003 - ".014		km	
3960		1695	13809	58 49 1.9		-59 56	6.11 FO	- .018 - .001			
3961	13 Sext	2311	13836	58 58 3.1		+ 3 41	6.42 F2	- .076 - .100	".019	- 1	
3962		8711	13833	59 5 2.8		-24 50	6.73 AO	- .039 + .004			13m, 16"
		3046	13838	59 15 2.9		-17 37	8.0 AO	- .016 + .006			21"
3963		3047	13839	59 17 2.9		-17 37	5.78 AO	- .011 - .005			
3964		5759	13830	59 23 +2.4		-46 9	6.27 AO	- .035 - .016			
3965		8973	13848	59 44 2.8		-23 48	5.80 FO	- .097 + .022			
3966		1752	13834	59 47 1.9		-59 42	6.02 A5	- .011 - .002			
3967		1431	13826	59 46 1.8		-61 40	6.44 K5	- .009 + .003			
3968		6100	13853	0 11 +2.5		-39 29	6.44 KO	- .039 - .004			
3969		2077	13867	0 15 3.3		+16 15	6.28 FO	- .078 - .024			
3970	40 v ² Hyda	3073	13861	0 15 2.9		-12 35	4.72 B8	- .038 + .010	13	var	V ₀ = +27km
3971		1441	13845	0 29 1.9		-61 24	6.34 B8	- .004 - .002	8		6.6:8.0, 1", binary
3972		6130	13870	0 56 2.6		-35 54	6.28 KO	- .012 - .001			
3973	14 Sext	2259	13888	1 34 +3.1		+ 6 6	6.29 G5	- .034 - .021	8	+17	
3974	21 LMin	2110	13896	1 32 3.5		+35 44	4.47 A5	+ .052 - .002	27	var?	V ₀ = -18km*
3975	30 η Leon	2171	13899	1 53 3.3		+17 15	3.58 AOp	- .001 - .008	4	+ 2	
3976		5806	13890	2 14 2.4		-46 53	5.22 KO	+ .005 - .063	14	+20	5.4:7.1, close binary
3977		2974	13902	2 22 2.9		-16 39	5.87 K2	+ .026 - .047			
3978		4471	13891	2 23 +2.2		-51 42	6.76 KO	- .073 + .009			
3979		1982	13917	2 30 3.5		+32 6	6.18 F5	- .082 - .088		- 8	13m, 27", cpm
3980	31 Leon	2112	13911	2 36 3.2		+10 29	4.58 K2	- .081 - .066	13	+41	13m, 8", cpm
3981	15 α Sext	2615	13916	2 49 3.1		+ 0 7	4.50 AO	- .016 - .013	12	+ 5	
		2147	13922	2 53 3.2		+12 29	7.64 G	- .235 - .001	42	+ 1	177", binary*
3982	32 α Leon	2149	13926	3 3 +3.2		+12 27	1.34 B8	- .248 + .001		+ 3	
3983	μ Cham	399	13849	3 24 -1.6		-81 44	5.62 AO	- .024 + .028		var	Two spectra
3984		6156	13928	3 43 +2.6		-36 51	6.36 KO	- .014 - .001			
3985		3000	13935	3 50 3.0		-10 24	6.46 AO	+ .001 - .006			
3986		+3036	13933	3 46 2.9		-15 7	6.16 AO	- .029 + .011			
3987		2063	13976	4 57 +3.6		+41 9	6.51 KO	- .014 - .010	5	+13	
3988		2818	13965	5 2 2.9		-11 36	6.20 A2	- .007 - .039			
3989	17 Sext	2972	13969	5 9 3.0		- 7 55	6.06 AO	- .030 - .004			
3990		4507	13953	5 9 2.3		-51 19	5.10 B5	- .015 - .005	6	+23	
3991		3101	13970	5 13 2.9		-12 19	5.42 FO	- .127 - .117	21	+23	
3992		6194	13961	5 13 +2.6		-35 22	6.28 G0	- .437 + .001	41	+41	
3993		+2110	13985	5 17 3.6		+37 53	6.14 KO	- .029 - .033			
3994	41 λ Hyda	2820	13982	5 43 2.9		-11 52	3.83 KO	- .204 - .093	16	var	1586 days, V ₀ = +19km
3995		1248	13960	5 55 1.7		-65 20	5.36 KO	- .068 + .036	5	0	
3996	18 Sext	2977	13990	5 57 +3.0		- 7 56	5.79 KO	- .009 - .047	8	0	
3997		+ 423	13909	6 3 -1.1		-81 5	6.60 G5	- .034 + .042			
3998	34 Leon	+2217	13999	6 16 +3.2		+13 51	6.41 F5	+ .039 - .042	26	-16	6.8:7.6, 0".2, cpm*
3999	S Cari	+1701	13971	6 11 1.9		-61 4	var Md	- .094 + .066		+279*	5.4 to 9.5, 149 days
4000		3096	13995	6 18 3.0		- 6 49	6.06 AO	+ .009 - .008	11	- 5:	
4001		5658	13992	6 25 2.5		-41 13	6.12 KO	+ .047 - .124			
4002		1034	13986	7 2 +1.5		-68 11	6.06 AO	- .003 + .004	8		6.8:6.9, 1", binary
4003		+7266	14010	7 29 2.7		-28 7	6.10 AO	- .028 - .019			6.8:6.9, 0".2
4004	19 Sext	2301	14022	7 36 3.1		+ 5 7	5.91 KO	- .052 - .009	8	+32	
4005		2870	14025	7 54 2.8		-18 39	6.44 F5	- .237 - .120			
4006		1862	14037	8 11 3.4		+27 38	6.10 G5	- .016 - .003		var	

3974: In Ursa Cluster?

3982: Regulus. The companion is itself a binary, 13m, 3".

3998: Two spectra.

Precession in declination, -0.29.

3999: Absorption lines give +289km.

CATALOGUE OF BRIGHT STARS

10^h

No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
4007	U UMa _j	1979	I4013	8 ^m 10 ^s +2.1		-58° 20'	6.16 Mb	-".050 +".011		km	6.1 to 6.8, irregular
4008		1246	I4054	8 14 4.1	+60 29		var Ma	+ .015 - .005			
4009		2781	I4018	8 17 2.1	-57 34		6.12 B2p	- .024 - .005			
4010		4560	I4027	8 35 2.3	-51 40		6.42 K0	- .046 + .040			
4011		7752	I4039	8 43 2.8	-26 32		6.21 F0	- .058 + .033			
4012	22 LMin	2165	I4056	9 0 +3.3	+21 40		6.12 F5	- .141 - .088		+18	
4013		7158	I4042	9 0 2.7	-32 32		6.44 G0	- .364 + .056	.051	+41	
4014		+2005	I4068	9 22 3.4	+31 58		6.56 G5	- .036 - .009	6	+14	
4015		6222	I4052	9 31 2.6	-39 51		5.96 K0	- .081 + .012			
4016		489	I4101	9 36 5.1	+73 34		6.48 F0	- .057 - .083	20	var	
4017		4924	I4047	9 31 +2.3	-50 44		5.54 A5	- .045 - .031		+48	
4018		1974	I4046	9 38 2.0	-59 25		6.40 B3	- .005 - .007			
4019		6225	I4059	9 41 2.6	-39 49		6.33 K0	- .030 - .006			
4020		4578	I4050	9 38 2.3	-51 16		6.04 A2	- .051 - .002			
4021		534	I4102	9 47 4.8	+71 34		6.58 A3	- .033 - .052	14	+11	
		I4104				7.20 A3	- .029 - .050		+13		
4022	23 LMin	1517	I4055	10 6 +2.0	-61 10		6.48 B3	- .016 - .001		var?	V ₀ = +11km
4023		5713	I4076	10 32 2.5	-41 38		4.09 A2	- .152 + .031	31	var	V ₀ = +8km
4024		+1981	I4086	10 34 3.4	+29 49		5.35 A0	- .073 - .030	14	+21	
4025		1273	I4066	10 41 1.7	-65 53		5.37 A3	- .035 - .002		-15	
4026		32 UMa _j	767	I4123	10 47 +4.4	+65 36		5.74 A3	- .089 - .009	14	- 5
4027	24 LMin	2021	I4091	10 48 3.4	+29 11		6.51 G0	- .054 - .095	31	+30	
4028	35 Leon	2338	I4090	10 49 3.3	+18 14		6.56 F0	- .004 - .006	14	- 8	7.2:7.4, 1", binary
4029		+6260	I4081	10 58 2.6	-36 1		6.25 K0	- .035 - .010			
4030		2207	I4096	11 0 3.3	+24 0		5.91 G0	- .203 + .029	27	-33	
4031	36 ♁ Leon	+2209	I4107	11 8 +3.3	+23 55		3.65 F0	+ .019 - .013	18	var	V ₀ = -19km*
4032	33 λ UMa _j	+2064	I4106	11 7 3.4	+25 53		6.01 K0	- .105 + .024		+34	
4033		2005	I4113	11 4 3.6	+43 25		3.52 A2	- .164 - .045	31	+19	
4034		3029	I4092	11 13 3.0	-10 42		6.17 K0	- .016 + .004			
4035	37 Leon	2228	I4110	11 19 3.2	+14 14		5.74 Ma	- .022 - .022	7	+ 2	
4036	ω Cari	6074	I4088	11 20 +2.5	-42 37		5.77 K2	+ .005 - .070			
4037		1178	I4074	11 22 1.4	-69 32		3.56 B8	- .028 - .000	18	+ 4	
4038	39 Leon	3356	I4087	11 34 2.2	-54 29		6.48 B3	- .017 - .007		var?	V ₀ = +8km
4039		2207	I4124	11 45 3.3	+23 36		5.85 F5	- .408 - .106	54	+38	11m, 7", binary
4040		+2964	I4121	12 1 2.8	-20 10		6.52 F5	- .128 - .042			10m, 1"
4041		+1867	I4132	12 33 +3.4	+27 55		6.46 B9	- .056 + .001	5		
4042	22 ε Sext	3001	I4129	12 40 3.0	- 7 34		5.40 F0	- .159 + .003	25	+15	
4043	40 Leon	2008	I4119	12 38 2.1	-59 24		6.44 A2	- .045 + .009	12		7.2:7.2, 0"3, binary
4044		1761	I4145	12 49 3.7	+47 16		6.48 K0	- .021 - .038			
4045		4990	I4126	12 46 2.3	-50 42		6.40 Mb	- .033 - .005			
4046		+1940	I4154	13 14 +3.7	+48 54		6.15 K0	- .096 - .128			
4047		568	I4180	13 26 4.6	+69 15		5.84 F0	- .051 - .042		+ 4	
4048		2231	I4151	13 27 3.3	+25 13		6.60 K0	- .045 - .013			
4049		8070	I4144	13 33 2.8	-28 30		5.62 B9	- .018 + .006		-39	
4050	1817	I4133	13 45 2.0	-60 50		3.44 K5	- .023 - .001	12	+ 9		
4051	40 Leon	1366	I4172	13 48 +3.9	+54 17		6.44 F8	- .085 + .038			
4052		1367	I4181	14 3 3.9	+54 43		6.22 K0	- .037 - .010	6	+ 9	
4053		6281	I4155	14 14 2.6	-36 18		6.40 K0	- .046 + .003			
4054		+2466	I4170	14 18 3.3	+19 59		4.97 F5	- .233 - .221	50	+ 6	
4055		+2851	I4166	14 22 2.9	-12 2		6.16 F0	- .016 - .023			

4031: In Ursa Cluster?

Precession in declination, -0.30.

No	Name	DM	GC	RA		Decl 1900	Magn Spec	Prop Motion		Par	Rad Vel	Remarks	
				1900	Ann Var			RA	Decl				
4056	41 r Leon	5765	I4153	14 ^m 13 ^s +2.6	-41° 10'	6.26 A0	- .030 + .002				km		
4057		2467	I4177	14 28 3.3	+20 21	2.61 K0	+ .307 - .152	"020		-36		4", 400 years	
4058			I4178	14 28 3.3	+20 21	3.80	+ .313 - .174			-36			
4059			2840	I4171	14 30 3.0	- 4 37	6.44 K0	- .055 - .064					
4060			2897	I4183	15 2 3.0	- 8 34	6.34 F2	- .068 - .071					
4061		3220	I4164	15 0 +2.2	-55 37	6.14 F8	- .253 + .119						
4062		234	I4305	15 9 8.7	+84 46	5.64 A3	- .129 - .041	21		+ 5			
4063	23 Sext	3474	I4185	15 51 2.3	-54 32	4.58 K0	- .009 - .013	7		+13			
4064		+2352	I4204	15 52 3.1	+ 2 48	6.53 B3	- .007 - .005	3		var	V ₀ = +6km	7.0:7.0, 2", cpm	
4065		1248	I4184	15 59 1.9	-64 10	6.24 A0	- .040 - .001						
4066			5790	I4197	16 12 +2.4	-47 12	5.62 K0	- .016 - .010			+16		
4067			2076	I4225	16 14 3.6	+41 44	5.88 F5	- .122 - .144	52		- 7		
4068		3129	I4209	16 19 2.9	-17 29	6.55 F5	- .053 - .031						
4069	34 μ U Maj	2115	I4232	16 22 3.6	+42 0	3.21 K5	- .082 + .025	32		var	V ₀ = -18km		
4070	42 Leon	2192	I4224	16 28 3.2	+15 29	6.10 B9	- .035 - .022	6		+10			
4071		+2904	I4223	16 46 +2.8	-23 12	6.48 A3	- .050 + .020						
4072		664	I4260	16 56 4.3	+66 4	4.92 A0	- .010 - .023	23		var	11.6 days, V ₀ = 0km	6.7:8.4, 2", binary	
4073		+3045	I4227	16 52 2.8	-22 1	6.45 A0	- .031 + .002	6					
4074			I4220	17 11 2.2	-55 32	4.65 B5p	- .016 - .004	7		+10			
		3286	I4222	17 11 2.2	-55 32	8.7	- .035 + .004						
4075	27 LMin	2120	I4252	17 21 +3.5	+34 25	5.83 A3	- .009 - .018	15		-15			
4076		2987	I4244	17 26 2.9	-19 22	6.12 A0	- .032 - .005						
4077	43 Leon	2289	I4255	17 47 3.1	+ 7 3	6.28 K0	- .018 - .105	7		var			
4078			2005	I4266	18 2 3.4	+30 7	6.46 K0	- .005 - .016			-12		
4079			2301	I4263	18 3 3.1	+ 6 12	6.50 F2	- .240 - .076	6		+29		
4080		5809	I4248	18 2 +2.6	-41 9	4.99 K5	- .027 + .054	19		+21			
4081	28 LMin	2123	I4280	18 24 3.4	+34 13	5.78 K0	- .017 - .011	6		-22			
4082	25 Sext	2911	I4268	18 23 3.0	- 3 34	6.10 B9	- .055 + .001	10		+23			
4083			8306	I4269	18 38 2.8	-29 39	6.29 F0	+ .004 - .016					
4084		297	I4367	18 55 7.3	+83 4	5.34 F2	- .082 + .024	39		+ 7			
4085		+2358	I4288	19 3 +3.1	+ 2 52	6.43 K0	+ .036 - .026						
4086		6509	I4281	19 7 2.6	-37 30	5.40 A3	- .158 - .061	11		+17			
4087		5833	I4285	19 24 2.6	-41 27	6.38 K0	- .133 + .006						
4088	44 Leon	2351	I4301	19 59 3.2	+ 9 18	5.92 Ma	+ .010 - .042	7		-20			
4089			1243	I4283	20 0 1.8	-66 24	5.28 B8	- .023 - .003			var	Two spectra	
4090	30 LMin	2128	I4315	20 11 +3.4	+34 18	4.83 F0	- .068 - .069	35		+14			
4091		3127	I4294	20 11 2.2	-57 27	6.44 K2	- .001 - .014						
4092		3146	I4321	20 44 3.0	- 6 33	5.85 K5	- .143 + .118	5		+32			
4093		5850	I4318	21 0 2.6	-41 58	6.33 K0	- .006 - .038						
4094	42 μ Hyda	3052	I4326	21 15 2.9	-16 20	4.06 K5	- .128 - .081	15		+40			
4095			+3164	I4319	21 22 +2.2	-58 4	6.22 F0	- .076 - .000					
4096		2123	I4347	21 33 3.6	+42 7	5.80 A2	- .054 - .084	14		+ 5			
4097		+2487	I4340	21 34 3.3	+19 52	6.29 K0	- .058 - .015						
4098		1961	I4357	21 54 3.7	+49 19	6.50 G0	+ .081 - .892	56		- 7			
4099		6222	I4332	21 54 2.6	-42 14	6.28 K2	- .131 - .056						
4100	31β LMin	2080	I4358	22 6 +3.5	+37 13	4.41 K0	- .120 - .110	17		+ 5		4.5:7.0, close binary	
4101	45 Leon	2152	I4361	22 22 3.2	+10 16	5.87 A0	+ .006 - .003	8		- 8			
4102			733	I4323	22 25 1.2	-73 31	4.08 F5	- .016 - .032			var	V ₀ = -4km	
4103		1832	I4377	22 35 3.6	+45 43	6.49 K0	- .025 - .030						
4104	α Antl	8465	I4352	22 35 2.7	-30 34	4.42 K5	- .077 + .008	10		var	V ₀ = +13km		

Precession in declination, -0.30.

CATALOGUE OF BRIGHT STARS

10^h

No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks	
4105	35 UMa _j	735	14328	22 ^m 44 ^s +1.2		-73° 28'	6.32 A2	-".026 + ".010		km		
4106		671	14394	22 48 4.3		+66 8	6.39 K0	-.001 - .035	".008	-25		
4107		3651	14353	22 58 2.3		-54 22	5.58 K0	-.010 - .014				
4108		789	14404	23 29 4.2		+64 45	6.00 A3	-.055 - .056	12	-12		
4109		2929	14391	23 40 3.0		- 3 14	6.11 A0	+.001 - .030	14			
4110	36 UMa _j	3256	14373	23 41 +2.2		-57 8	4.94 F5p	-.012 - .007	0	- 1		
4111		5655	14387	23 56 2.5		-48 54	6.04 K2	+.002 - .041				
4112		1459	14427	24 14 3.8		+56 30	4.84 F5	-.178 - .037	81	+ 9		
4113		32 LMin	2357	14417	24 16 3.5		+39 26	5.87 A2	-.016 - .009	13	var?	V ₀ = +4km
4114		2227	14388	24 12 2.2		-58 14	4.08 F0	-.015 - .011		+ 9		
4115	29 δ Sext	1354	14383	24 16 +1.9		-65 12	6.20 A0	-.078 + .015				
4116		3155	14403	24 24 3.0		- 2 14	5.24 B9	-.049 - .017	9	+22	Also DM -1° 2395	
4117		8381	14416	24 52 2.8		-29 9	5.80 K5	-.060 + .010	7			
4118		8 Ant1	+8383	14421	24 59 2.8		-30 6	5.65 B9	-.035 - .005	3	var*	9m, 11", binary
4119		30 Sext	+2663	14431	25 11 3.1		- 0 7	4.95 B5	-.040 - .025	9	+12	
4120	33 LMin	1440	14419	25 33 +2.0		-63 40	5.25 K5	-.010 - .002	6	- 3		
4121		343	14509	25 44 6.2		+81 1	6.56 G5	-.020 - .009	7	-12		
4122		+3173	14442	25 58 3.0		- 7 7	6.40 K5	-.042 + .002	6	var	10m, 3", cpm	
4123		+3181	14444	26 5 2.9		-13 5	5.51 B9	-.047 + .005	8	var		
4124		+1999	14455	26 11 3.4		+32 54	5.83 B9	+.015 - .002	8			
4125	46 Leon	8084	14443	26 10 +2.8		-25 58	6.45 F5	-.065 + .009				
4126		393	14507	26 36 5.1		+76 14	5.04 G5	-.033 - .008	17	+17		
4127		2255	14468	26 52 3.2		+14 39	5.74 Ma	-.041 + .016	5	+35		
4128		1944		27 6 2.1		-60 51	6.36 B9					
4129		1291	14445	27 3 1.9		-66 28	6.40 B5	-.019 - .015		var	V ₀ = -9km	
4130	47 ρ Leon	7503	14465	27 10 +2.8		-27 44	5.98 F8	-.087 - .021				
4131		1381	14498	27 27 3.8		+54 1	6.39 A0	-.046 - .032	8	+ 2		
4132		+2101	14491	27 24 3.5		+40 56	4.84 A5	-.136 - .008	26	var?		
4133		+2166	14487	27 33 3.2		+ 9 49	3.85 B0p	-.007 - .006	4	+42		
4134		3909	14464	27 29 2.3		-53 12	5.08 G0	-.422 + .197	31	+20		
4135	34 LMin	6583	14478	27 41 +2.6		-44 33	6.19 B8	-.004 - .009				
4136		6582	14477	27 40 2.6		-44 33	6.54	-.017 - .000			14", fixed	
4137		2154	14501	27 48 3.4		+35 30	5.58 A2	-.029 - .014	14	+12		
4138		1034	14457	27 49 1.5		-71 29	4.94 A2	+.022 - .037		+ 8		
4139		+6347	14493	28 16 2.6		-44 6	6.05 K0	-.016 - .039				
4140	37 UMa _j	1704	14489	28 28 +2.1		-61 10	3.58 B5p	-.021 .000	12	+26		
4141		1277	14527	28 43 3.9		+57 36	5.16 F0	+.066 + .033	28	-13	In Ursa Cluster	
4142		981	14480	28 42 1.4		-72 42	4.90 K5	-.011 - .008		+11		
4143		6205	14505	28 44 2.5		-46 29	5.11 K0	-.012 - .012	6	+ 4	9m, 40", cpm	
4144		2285	14508	29 3 2.2		-58 9	6.19 A2p	-.020 - .010				
4145	44 Hyda	+2946	14524	29 15 +2.9		-23 14	5.32 K2	-.011 + .016	10	- 4	14m, 19"	
4146	48 Leon	2330	14533	29 35 3.1		+ 7 28	5.17 K0	-.106 + .056	16	+ 5		
4147	49 TX Leon	3431	14522	29 38 2.3		-57 41	6.25 B8	-.014 - .013		+ 7		
4148		2374	14541	29 47 3.1		+ 9 10	var A0	-.056 - .011	9	var	5.9 to 6.0, 2.4 days*	
4149		2952	14546	30 12 2.9		-22 40	6.16 F5	-.099 + .030	22	var		
4150	35 LMin	+2100	14567	30 37 +3.4		+36 51	6.27 F2	+.036 - .044	27	-24		
4151	U Ant1	1983	14540	30 34 2.2		-60 28	6.36 K2	+.008 - .012				
4152		+3187	14561	30 48 2.9		-18 3	6.43 A0	+.007 + .004				
4153		+6579	14552	30 46 2.7		-39 3	var Nb	-.031 - .007			5.7 to 6.8, 168 days	
4154		6395	14553	30 51 2.6		-43 9	6.20 G5	-.034 + .016				

4118: V₀ = +19km.

4148: 8.5m, 2", cpm.

Precession in declination, -0.31.

No	Name	DM	GC	10 ^h		Decl 1900	Magn Spec	Prop Motion		Par	Rad Vel	Remarks
				RA 1900	Ann Var			RA Decl	Decl			
4155		+3108	I4576	31 ^m 19 ^s +3 ^s	-10° 4'	6.50 A5	+".015 - ".038				km	
4156		3087	I4578	31 24 2.9	-15 50	6.23 K5	-.027 - .005		"004			13m, 3"
4157		8022	I4571	31 21 2.8	-26 9	6.25 F8	+ .008 - .069		21	-21		6.5:7.8, close binary
4158		2918	I4582	31 34 3.0	-11 42	5.85 F8	+ .254 - .676		42	- 9		
4159		+3544	I4570	31 45 2.3	-57 2	4.54 K5	-.019 - .010		10	var?		V ₀ = +10km
4160		+3094	I4599	32 15 +3.0	-11 14	6.52 F0	-.054 - .037					
4161		449	I4534	32 26 -0.3	-81 24	7.02 B8	-.015 + .003					
4162		8033	I4603	32 32 +2.8	-26 54	5.08 K5	-.105 + .010		8	+17		
4163	U Hyda	3218	I4611	32 37 3.0	-12 52	var Nb	+ .031 - .036			-20		4.8 to 5.9, irregular
4164		+2371	I4594	32 36 2.2	-59 3	5.26 K0	-.055 - .063		34	-12		
4165		1387	I4625	32 54 +3.7	+54 11	5.72 K0	-.096 - .084		9	+46		
4166	37 LMin	2061	I4624	33 6 3.4	+32 30	4.77 G0	+ .003 - .001		8	- 7		
4167		6042	I4614	33 6 2.5	-47 42	4.06	-.152 - .026		31	var*		4.6F2:5.1A3, 16 years
4168	38 LMin	2166	I4634	33 25 3.4	+38 26	5.83 G5p	-.219 - .046		29	+16		
4169		2411	I4622	33 38 2.3	-58 13	5.57 A2p	-.029 - .008		1	var		
4170		678	I4595	33 34 +1.1	-75 47	6.24 K0	-.018 + .006					
4171	φ Hyda	3100	I4631	33 43 2.9	-16 21	5.11 K0	-.102 + .022		12	var		V ₀ = +17km
4172		2925	I4636	33 56 3.0	-11 56	5.89 A0	-.060 - .003					
4173		3588	I4626	34 9 2.3	-56 44	6.35 B3	-.025 - .008			var		
4174	γ Cham	+ 622	I4604	34 17 0.7	-78 5	4.10 Ma	-.039 + .011		4	-22		
4175		6390	I4640	34 27 +2.6	-42 14	6.22 F5	-.028 - .024					
4176		+ 583	I4682	34 42 4.3	+68 58	5.90 K0	-.029 - .029		6	+ 6		
4177		2460	I4647	34 57 2.3	-58 40	4.73 K5	-.009 - .009		11	+11		15", fixed
			I4649			9.3 A	-.002 - .015					
4178	38 UMaJ	678	I4688	35 8 4.1	+66 14	5.12 K0	-.164 - .075		17	- 9		
4179		2474	I4654	35 11 +2.3	-58 18	6.09 M2	-.083 + .002					
4180		+3915	I4662	35 20 2.4	-55 5	4.37 G0	-.017 - .010		17	+20		52", probably cpm
		+3916	I4665	35 26 2.4	-55 5	6.62 B8	-.021 - .005					
4181		586	I4713	35 55 4.3	+69 36	5.23 K0	-.002 - .016		9	0		
4182	33 Sext	+2364	I4694	36 19 3.1	- 1 13	6.40 K0	-.141 - .124		19	+43		
4183		6646	I4689	36 18 +2.7	-35 13	6.51 G5	-.029 + .014					6.6:8.9, 0.7
4184		2066	I4708	36 35 3.4	+32 13	6.33 Ma	+ .009 - .028		5	+16		
4185		1403	I4685	36 44 2.1	-64 35	5.82 A0p	-.020 - .006			+30		
4186		758	I4679	36 55 1.4	-73 58	5.98 K5	+ .009 - .014					
4187	39 UMaJ	1286	I4736	37 25 3.8	+57 43	5.79 B9	+ .015 - .058		7			
4188		2450	I4707	37 28 +2.3	-59 9	6.48 Ocp	-.003 - .011				-50*	
4189	40 LMin	+1927	I4730	37 33 3.3	+26 51	5.55 A2	-.105 - .068		15	+16		
4190		3197	I4724	37 35 3.0	-13 27	6.44 K2	-.023 - .007					
4191		1657	I4737	37 40 3.5	+46 44	5.28 F0	-.276 - .071		21	+ 3		GC14751, 8.1F8, 287", cpm
4192	41 LMin	2253	I4740	37 59 3.3	+23 43	5.05 A2	-.116 + .004		18	+19		
4193	35 Sext	2384	I4744	38 9 +3.1	+ 5 16	7.4 G7	+ .016 - .057		5	- 2		7", binary
			I4745	38 10 3.1	+ 5 16	6.34 K0	+ .021 - .034			- 5		
4194		7572	I4732	38 5 2.8	-32 12	5.73 A0	-.022 - .004			+ 4		
4195		+ 617	I4761	38 7 4.2	+67 56	6.32 Na	+ .003 - .003			+ 4		
4196		1589	I4733	38 41 2.1	-63 57	5.20 B3	-.021 + .008		6	+24		
4197		2514	I4760	38 52 +3.2	+20 17	6.10 A3	-.114 - .033		13	var		V ₀ = +10km
4198		2581	I4743	38 49 2.3	-58 42	5.44 B3p	-.005 - .010		1	- 2		
4199	θ Cari	1599	I4755	39 23 2.1	-63 52	3.03 B0	-.017 + .007		7	var		V ₀ = +24km
4200		+2532	I4762	39 44 2.3	-60 3	4.49 K5	-.028 - .003		14	var		V ₀ = +9km
4201	36 Sext	2408	I4789	40 0 3.1	+ 3 1	6.57 K2	-.052 - .027		5	+10		

4167: The brighter is a spectroscopic binary,
10.2 days, V₀ = +19km.

4188: Absorption lines give +33km.

Precession in declination, -0.31.

CATALOGUE OF BRIGHT STARS

10^h

No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
4202	41 U Maj	+1281	I4802	40 ^m 7 ^s + 3 ^s .8		+57° 54'	6.49 Ma	- .051 - .069	"005	- 1	V ₀ = +15km
4203	42 L Min	2180	I4798	40 18 3.3		+31 13	5.37 B9	- .026 - .041	8	var	
4204		1619	I4769	40 15 2.2		-63 43	6.14 B3	- .009 - .003		+ 8	
4205		1623	I4778	40 30 2.2		-63 26	5.09 B3	- .013 + .003	7	+26	
4206		548	I4758	40 48 0.6		-79 16	6.18 B5	- .014 + .005		0	
4207		+2356	I4805	40 53 +3.1		+ 6 54	6.29 KO	- .009 - .039	7	- 9	
4208	51 Leon	2371	I4813	41 1 3.2		+19 25	5.64 KO	+ .094 - .045	9	- 6	
4209	52 Leon	2294	I4814	41 8 3.2		+14 43	5.64 KO	- .126 - .071	11	+34	
4210	η Car	2620	I4799	41 11 2.3		-59 10	* Pec	- .001 - .001		-25	
4211		1183	I4792	41 19 1.8		-70 20	6.32 A3	- .064 - .015			63", cpm
4212		1185	I4796	41 31 1.8		-70 20	6.51 A3	- .049 - .001			
4213		1118	I4797	41 41 1.7		-71 55	6.30 F8	- .165 + .030			
4214		3124	I4835	41 58 2.9		-16 46	5.56 A0	- .022 - .017			
4215		803	I4865	42 9 4.0		+65 40	6.24 B9	+ .008 - .003	7		
4216	μ Velr	5913	I4842	42 28 2.6		-48 54	2.84 G5	+ .064 - .056	31	+ 7	7.0m, 2", binary
4217		+2671	I4830	42 26 +2.3		-60 5	6.47 A0	- .057 - .018	9		
4218		3186	I4855	42 42 3.0		-14 44	6.46 A0	.000 - .018		var	
4219		1646	I4837	42 39 2.2		-63 59	5.54 B5	- .019 - .015	9	+32	
4220		1649	I4844	42 51 2.2		-63 44	5.43 B8	- .003 + .002	10	+21	
4221		3800	I4849	42 55 2.4		-56 14	5.46 B8	- .013 - .012		+31	
4222		1655	I4850	43 13 +2.2		-63 51	5.10 B5	- .018 + .002	6	+16	
4223	43 L Min	+2072	I4879	43 26 3.3		+29 57	6.29 KO	- .085 - .048	20	+10	
4224		2446	I4877	43 35 3.1		- 1 26	6.19 Ma	- .013 + .005			
4225		8536	I4873	43 33 2.8		-31 10	5.90 A0	- .023 - .019			
4226		3821	I4867	43 37 2.4		-56 56	6.28 K5	+ .013 - .014			
4227	53 Leon	2283	I4889	44 0 +3.2		+11 4	5.27 A0	- .006 - .031	15	var	V ₀ = -5km
4228		2720	I4878	44 10 2.3		-59 23	6.12 A2p	- .013 - .006	1		
4229	40 Sext	2999	I4891	44 13 3.0		- 3 30	6.91 A2	- .051 - .015	10	+14	7.7, 2", binary
4230	44 L Min	1931	I4897	44 24 3.3		+28 30	6.12 F5	- .005 + .027	17	+ 3	
4231	δ' Cham	554	I4848	44 19 0.6		-79 56	5.48 KO	- .020 - .038	3	+11	6.1:6.4, 0".6, binary
4232	ν Hyda	3138	I4898	44 41 +3.0		-15 40	3.32 KO	+ .095 + .199	26	- 1	
4233		3147	I4900	44 43 3.0		- 9 19	6.04 KO	+ .006 - .041			
4234	δ ² Cham	+ 556	I4863	44 51 0.6		-80 1	4.62 B3	- .033 .000	8	+22	
4235	43 U Maj	1294	I4910	45 1 3.7		+57 7	5.76 G5	- .060 - .002	8	+15	
4236	42 U Maj	+1296	I4912	45 7 3.8		+59 51	5.66 KO	- .030 - .057	10	-21	
4237	41 Sext	3018	I4906	45 17 +3.0		- 8 22	5.78 A2	- .007 - .019			
4238		7288	I4904	45 18 2.8		-33 32	5.73 A0	- .049 + .009			
4239		2755	I4902	45 27 2.4		-58 48	6.10 A0	- .039 - .009	11		6.4:7.7, 1", binary
4240		3236	I4919	46 0 3.0		- 2 34	6.18 K2	- .048 - .009			
4241		1439	I4936	46 30 3.6		+53 6	6.72 KO	- .020 - .030	6	-12	
4242		1440	I4937	46 32 +3.6		+53 2	6.58 KO	- .071 - .059	5	- 6	
4243		634	I4954	46 40 4.1		+70 23	6.08 G5	- .394 - .077	29	+16	
4244		2495	I4940	47 5 3.1		+ 1 33	6.28 A2	- .003 - .001	11	var?	
4245		2710	I4952	47 29 3.1		+ 0 20	6.59 K5	- .010 - .022			
4246	44 U Maj	1418	I4962	47 31 3.6		+55 7	5.36 KO	- .068 - .015	12	+ 1	
4247	46 L Min	2172	I4961	47 43 +3.4		+34 45	3.92 KO	+ .090 - .286	32	+16	
4248	45 ω U Maj	2058	I4974	48 13 3.5		+43 43	4.84 A0	+ .046 - .030	14	var	15.8 days, V ₀ = -17km
4249		2459	I4969	48 20 3.1		- 1 43	6.23 KO	- .139 - .086			10m, 35", cpm
4250		3947	I4960	48 25 2.5		-56 43	5.57 B8p	- .004 - .006		-22	
4251		3125	I4971	48 36 2.9		-19 36	5.28 F5	+ .078 - .244	45	- 5	

4210: Varies irregularly from first to eighth magnitude.

Precession in declination, -0".32.

10^h

No	Name	DM	GC	RA	Ann	Decl	Magn	Prop Motion		Par	Rad	Remarks	
				1900	Var	1900	Spec	RA	Decl		Vel		
4252	48 LMin	3213	14972	48 ^m 36 ^s +3.0		-14° 55'	6.56 KO	+ ".064	- ".047		km		
4253		2460	14975	48 38 3.1		- 1 36	5.72 KO	- .085	+ .010	"010	+15		
4254		2147	14999	49 16 3.3		+26 1	6.18 FO	- .054	- .002	14	+15		
4255		+3293	14994	49 20 3.0		-13 14	5.84 GO	.000	+ .009	10	+ 5		
4256		2178	15006	49 25 3.3		+34 34	5.86 KO	- .059	- .056	10	-28		
4257		2834	14980	49 26 +2.4		-58 19	3.88 KO	+ .070	+ .020	36	+ 8		
4258	46 UMaj	2181	15018	50 12 3.3		+34 2	5.23 KO	- .108	- .034	12	-22		
4259		15016	50 12 3.2		+25 17	4.51 AO	- .072	- .018		+ 3			
4260	54 Leon	2314	15017	50 12 3.2		+25 17	6.30	- .073	- .032	16	var?	6", binary	
4261		+3134	15015	50 19 2.9		-20 8	6.55 KO	- .021	- .017				
4262	55 Leon	1246	15002	50 25 +2.0		-70 11	6.11 B8	- .023	- .013	4		6.6:7.2, 1".5, binary	
4263		6220	15014	50 29 2.7		-41 43	6.30 AO	- .041	- .007				
4264		2162	15030	50 32 3.4		+42 33	6.11 KO	+ .013	- .098	11	-55		
4265		2501	15022	50 34 3.1		+ 1 16	6.05 F2	+ .105	- .004	20	var?	V ₀ = +3km*	
4266	1960	15011	50 34 2.4		-61 18	6.05 K5	+ .007	- .014					
4267	56 Leon	2369	15032	50 50 +3.1		+ 6 43	6.05 Mb	- .022	- .013	3	-13		
4268		+ 589	14988	50 50 1.0		-79 2	6.12 K2	- .025	- .003				
4269		+2279	15035	50 54 3.2		+22 53	6.24 K2	- .026	+ .003				
4270	50 LMin	2152	15039	51 9 3.3		+26 2	6.40 KO	- .024	- .020				
4271		T Cari	2840	15026	51 18 2.4		-59 59	var KO	- .031	+ .075	5	-26	7.2 to 8.2 (ptg), irreg
4272	: Ant1	367	15077	51 58 +4.8		+78 18	6.26 G5	- .073	- .030	7	-50		
4273		6808	15047	52 3 2.8		-36 36	4.70 KO	+ .082	- .136	14	0		
4274		5534	15057	52 47 2.6		-50 14	6.16 A3	- .043	- .012				
4275		1528	15082	53 24 3.5		+52 26	6.34 KO	- .010	- .004				
4276	U Cari	2888	15071	53 44 2.4		-59 12	var GO	+ .011	+ .006			6.3 to 7.5, 38.7 days	
4277		47 UMaj	+2147	15087	53 52 +3.4		+40 58	5.14 GO	- .318	+ .052	73	+13	
4278	2139	15089	53 58 3.3		+36 38	6.22 Ma	+ .071	- .056	9	-25			
4279	755	15072	54 25 1.7		-74 34	6.05 K2	- .014	- .003					
4280	1680	15109	54 30 3.4		+46 4	5.67 K2	+ .006	.000	8	+ 9			
4281	2284	15102	54 28 3.1		+12 14	6.36 F5	- .232	+ .035		+20			
4282	7 α Crat	7401	15094	54 30 +2.8		-33 12	5.76 FO	+ .013	- .049			9m, 2", binary	
4283		1529	15112	54 33 3.5		+52 2	6.52 G5	- .029	- .022				
4284		3174	15101	54 34 3.0		-15 49	6.16 Ma	- .048	- .020				
4285		2068	15113	54 41 3.4		+43 27	6.12 F8	- .109	- .139	22	- 6		
4286		+ 824	15122	54 47 3.8		+63 58	6.34 AO	- .041	- .052	14	+11		
4287		3273	15106	54 54 +2.9		-17 46	4.20 KO	- .461	+ .123	20	+47		
4288		49 UMaj	2400	15128	55 14 3.4		+39 45	5.12 FO	- .073	- .026	22	+ 3	
4289		3271	15116	55 13 3.0		-13 33	6.10 K5	- .022	- .027				
4290	58 Leon	2433	15104	55 12 2.4		-60 47	6.31 B9	- .026	+ .009			10m, 4"	
4291		2407	15125	55 24 3.1		+ 4 9	5.05 KO	+ .013	- .019	9	+ 6		
4292	59 Leon	6692	15117	55 27 +2.7		-43 16	5.94 B9	- .063	+ .004				
4293		6276	15118	55 34 2.8		-41 41	4.56 A2	+ .018	.000	0	- 5		
4294		2384	15130	55 34 3.1		+ 6 38	5.08 A5	- .049	- .030	19	-12		
4295		48 β UMaj	+1302	15145	55 49 3.6		+56 55	2.44 AO	+ .082	+ .029	43	var	0.31 days, V ₀ = -12km*
4296	5220	15121	55 47 2.6		-51 17	6.34 A3	- .042	- .003					
4297	61 Leon	3178	15136	55 59 +3.0		-15 15	6.54 KO	+ .053	- .044				
4298		8696	15131	55 56 2.8		-31 18	6.18 GO	- .083	+ .099				
4299		2471	15151	56 44 3.1		- 1 57	4.97 Ma	+ .015	- .037	9	var	V ₀ = -13km*	
4300	60 Leon	2547	15162	57 0 3.2		+20 43	4.42 AO	- .010	+ .030	16	-11		
4301	50 α UMaj	1161	15185	57 34 3.7		+62 17	1.95 KO	- .119	- .070	31	var*	2.0:4.9, 44 years	

4265: 10m, 1", binary.

4295: In Ursa Cluster.

4299: In Ursa Cluster?

4301: V₀ = -9km.

Precession in declination, -0.32.

CATALOGUE OF BRIGHT STARS

10^h - 11^h

No	Name	DM	GC	RA	Ann	Decl	Magn	Prop Motion		Par	Rad	Remarks
				1900	Var			1900	Decl			
4302		8302	15171	57 ^m 34 ^s +2.9		-26° 17'	6.16 FO	+ 0.64	- 0.127		km	6.7:7.1, close
4303		+2728	15186	58 8 3.1		- 0 13	6.13 A3	- .015	- .115			
4304		+ 509	15143	58 5 0.7		-81 1	6.67 F5	- .142	+ .067	0.010		7.4:7.5, close binary
4305		3184	15188	58 15 3.0		-10 46	5.62 KO	- .074	- .113	11	- 8	10m, 4", cpm
4306	62 Leon	2729	15195	58 29 3.1		+ 0 32	6.15 KO	- .058	- .003	8	- 8	
4307		8726	15192	58 30 +2.9		-31 25	6.52 Ma	- .033	- .032			
4308		3333	15201	58 37 3.0		-12 54	6.37 G5	.000	+ .005			
4309	51 UMa j	+2414	15215	58 58 3.3		+38 47	6.08 A2	- .074	- .003	15	+ 6	12m, 8", cpm
4310	63 X Leon	+2455	15235	59 52 3.1		+ 7 53	4.66 FO	- .340	- .050	19	+ 6	4.7:11, 2", binary
4311		6466	15230	0 1 +2.7		-47 8	5.94 A5	- .117	+ .036		-16	
4312	η Octn	+ 386	15164	0 1 -0.5		-84 3	6.26 A0	- .061	- .012			
4313		6954	15238	0 11 +2.8		-35 16	5.53 A0	- .029	.000		+11	
4314	χ' Hyda	8338	15248	0 31 2.9		-26 45	5.06 F5	- .194	- .007	36	+17	5.7:5.9, close binary
4315		3190	15256	0 33 3.0		-10 32	6.14 A3	+ .015	- .096			
4316		6157	15243	0 35 2.7		-48 51	6.40 A0	- .027	- .003			
4317	χ ² Hyda	8342	15260	1 6 +2.9		-26 45	5.69 B8	+ .033	- .021		var	
4318		5686	15265	1 38 2.7		-50 40	6.36 G5	.000	- .072			
4319	65 Leon	2387	15282	1 48 3.1		+ 2 30	5.66 G5	- .384	- .088	29	+55	11m, 2", binary
4320		8657	15278	1 49 2.9		-28 11	6.53 A0	- .058	- .039			
4321		5693	15277	2 0 2.7		-50 25	6.33 K2	- .072	- .001			
4322	64 Leon	+2318	15302	2 19 +3.2		+23 52	6.39 A2	- .012	+ .002	16	var	40.4 days, V ₀ = -3km
4323		3112	15283	2 14 2.5		-58 8	6.07 KO	- .010	- .010			
4324		+8776	15296	2 22 2.9		-32 3	6.56 F5	- .084	- .058			
4325		2067	15288	2 26 2.5		-61 53	4.76 KO	- .038	+ .003	19	- 2	
4326		1630	15285	2 23 2.4		-64 18	6.40 A2	- .043	- .002			
4327		+6343	15300	2 39 +2.8		-42 6	5.34 A2p	- .100	+ .037	9	+ 5	8.5m, 2", binary
4328		8875	15311	3 9 2.9		-29 38	6.53 G0	- .515	- .146	41	+11	
4329		1305	15305	3 13 2.2		-70 20	5.80 B3	- .013	- .012			
4330		+ 632	15332	3 19 3.8		+67 45	6.09 A5	- .085	- .028	13	+ 5	
4331		8877	15314	3 26 2.9		-29 26	6.38 A0	+ .005	- .027			
4332	67 Leon	2344	15319	3 27 +3.2		+25 12	5.63 A2	+ .005	- .001	13	- 6	14m, 5"
4333		+2162	15334	3 49 3.3		+36 51	5.99 Mb	- .046	- .030		+22	
4334		7886	15325	3 54 2.9		-27 32	5.49 A2	- .081	- .023	6	var?	V ₀ = +16km
4335	52 v UMa j	1897	15340	4 3 3.4		+45 2	3.15 KO	- .063	- .035	35	- 4	
4336		2083	15339	4 3 3.4		+43 45	6.03 Ma	- .065	- .018	4	+18	
4337		3189	15329	4 19 +2.6		-58 26	4.02 F8p	- .007	- .011	0	var	V ₀ = +7km
4338		2075	15331	4 24 2.5		-61 24	5.42 A0p	- .021	+ .001	4	-22	
4339		8816	15350	5 5 2.9		-31 49	5.76 A2	+ .020	- .035			
4340		+ 602	15378	5 48 3.8		+68 49	6.42 A2	+ .029	+ .007	9	-18	
4341		+2301	15380	6 29 3.1		+14 56	6.29 A5	- .067	- .016	13	+ 8	
4342		4387	15374	6 36 +2.6		-57 55	6.34 B8	- .032	- .007		+17	
4343	11 β Crat	3095	15385	6 44 3.0		-22 17	4.52 A2	.000	- .104	48	var	V ₀ = +6km
4344		1446	15399	6 55 3.5		+55 26	6.48 A2	.000	- .008	9	var	
4345		2162	15397	7 6 3.3		+36 21	6.32 G0	- .272	- .177	64	- 3	
4346		8847	15398	7 26 2.9		-31 53	6.46 Ma	+ .022	+ .002			
4347		3321	15405	7 33 +3.0		-17 57	6.09 A0	- .020	- .034			6.6:7.2, 0 ^m 5, cpm
4348		+3374	15407	7 39 3.0		-21 12	6.52 KO	- .013	+ .006			
4349		1336	15393	7 48 2.2		-70 53	6.22 KO	- .009	- .005			
4350		6263	15411	8 0 2.7		-48 33	5.67 A2	- .117	+ .033		var	
4351		2170	15425	8 8 3.3		+41 38	6.49 KO	- .005	+ .006			10m, 3", fixed

Precession in declination, -0.32.

ii^h

No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
4352		3190	15415	8 ^m 19 ^s +2.8		-59° 46'	4.73 F5p	-.001 - .006	.001	- 8	11m, 22", fixed
4353		5937	15420	8 23 2.7		-49 11	6.32 KO	-.013 - .016			
4354		6872	15426	8 35 2.8		-43 50	5.84 K5	-.002 - .007			
4355		1860	15421	8 37 2.5		-63 38	5.52 B8	-.038 - .012	14	+21	
4356	69 Leon	2761	15430	8 38 3.1		+ 0 28	5.40 A0	-.045 - .006	14	+ 5	
4357	68δ Leon	2298	15438	8 47 +3.2		+21 4	2.58 A3	+.146 - .138	51	var?	V ₀ = -22km*
4358		2476	15437	8 50 3.1		+ 8 36	5.90 KO	+.043 - .110	9	+17	
4359	70θ Leon	+2234	15441	9 0 3.1		+15 59	3.41 A0	-.059 - .085	23	+ 8	
4360		4350	15436	9 10 2.7		-52 41	5.91 K2	-.028 + .030			
4361		+3315	15435	9 11 2.6		-59 4	5.98 B3	-.005 - .016		+17	
4362	72 Leon	2322	15460	9 53 +3.2		+23 38	4.87 Ma	-.021 - .012	8	+16	
4363		1480	15484			7.9		+.151 + .039			
4364		6899	15485	10 19 3.5		+53 19	6.34 F2	+.161 + .050	32	-39	13", cpm
4365	73 Leon	+2367	15461	10 13 2.8		-43 11	6.36 K5	-.028 - .024	32		
4366		2379	15487	10 38 3.1		+13 51	5.48 KO	-.007 - .015	10	var	V ₀ = +15km
4367		1807	15491	10 44 +3.1		+13 23	6.54 F0	-.035 - .062	12	-20	
4368	74φ Leon	+3315	15506	11 4 3.4		+50 1	5.97 KO	-.086 - .015	10	- 1	
4369		3344	15511	11 35 3.1		- 3 6	4.58 A5	-.112 - .041	22	- 4	
4370		6837	15514	11 54 3.0		- 6 35	6.03 F0	-.012 - .011			12m, 1", cpm
4371	75 Leon	2409	15512	11 49 2.8		-45 20	7.12 F2	-.143 + .058	17		7.4, 2", binary
4372		7146	15520	12 9 +3.1		+ 2 34	5.44 K5	+.054 - .148	9	-59	
4373		7345	15523	12 26 2.9		-37 28	6.24 A0	-.091 + .004			
4374		2132	15530	12 50 2.9		-34 11	6.45 F2	-.011 - .004			
4375	53ξ U Maj	2132	15537	12 51 3.2		+32 6	4.87 G0	-.431 - .593	130	var*	2.5, 60 years; V ₀ = -16km
4376		7111	15537	12 51 3.2		+32 6	4.41			var*	
4377	54ν U Maj	2098	15534	12 55 +2.9		-35 59	6.60 KO	-.080 + .020			
4378		2319	15547	13 5 3.2		+33 38	3.71 KO	-.025 + .021	12	- 9	10m, 7", cpm
4379		1703	15545	13 8 3.1		+12 32	6.50 A0	+.003 - .041	8	-34	
4380	55 U Maj	2225	15532	13 14 2.5		-67 17	6.09 Ma	+.023 - .021			
4381		2411	15558	13 41 3.3		+38 44	4.78 A2	-.058 - .077	19	var*	2.5 days, V ₀ = -3km
4382	76 Leon	2411	15556	13 47 +3.1		+ 2 12	6.02 KO	-.039 - .059	8	+ 5	
4383	12δ Crat	+3345	15567	14 20 3.0		-14 14	3.82 KO	-.125 + .199	25	- 5	
4384		692	15586	14 47 3.7		+67 38	6.31 KO	+.053 - .049			
4385		+1881	15574	15 5 2.5		-64 2	6.06 F5	-.295 + .032			
4386		+ 638	15572	15 38 1.8		-79 7	6.29 A3	+.049 - .048			
4387	77σ Leon	2437	15600	15 59 +3.1		+ 6 35	4.13 A0	-.094 - .017	16	var	
4388		801	15584	16 0 2.2		-74 36	6.34 A0	-.028 - .004			
4389		1316	15607	16 6 3.4		+57 37	6.32 A2	-.049 + .016	9	var	V ₀ = -21km
4390		1238	15592	16 11 2.3		-71 27	6.45 B3	-.028 - .015			
4391	π Cent	4498	15601	16 27 2.7		-53 57	4.26 B5	-.033 - .013	10	+16	4.8:5.3, close binary
4392		+ 828	15619	16 55 +3.6		+64 53	5.98 A0	-.004 + .031	10	+ 2	
4393	56 U Maj	2083	15625	17 20 3.3		+44 2	5.06 G5	-.035 - .016	8	+ 3	
4394		+7006	15624	17 39 2.8		-44 6	6.29 G5	-.053 - .041			
4395		2782	15639	18 11 3.1		+ 0 41	6.26 KO	-.039 - .022			
4396	13λ Crat	+3367	15644	18 24 3.0		-18 14	5.15 F2	-.313 - .039	18	var	V ₀ = +12km
4397		7163	15641	18 22 +2.9		-35 37	5.12 K5	-.038 - .018	8	var	V ₀ = -5km
4398		+ 662	15628	18 35 2.0		-77 4	6.43 A2	-.070 - .012			
4399	78ι Leon	4449	15643	18 36 2.7		-56 14	6.02 A0	-.038 - .011			
4400	79 Leon	+2418	15652	18 43 3.1		+11 5	4.03 F5	+.169 - .081	47	var?	V ₀ = -10km*
			15656	18 54 3.1		+ 1 57	5.52 G5	-.021 + .001	10	-10	

4357: In Ursa Cluster.
4374: 4 days.

4375: 669 days.
4380: Two spectra.

Precession in declination, -0.33
4399: 4.1:6.8, 3", 400 years. In Ursa Cluster?

CATALOGUE OF BRIGHT STARS

11^h

No	Name	DM	GC	RA	Ann	Decl	Magn	Prop Motion		Par	Rad	Remarks
				1900	Var	1900		RA	Decl			
4401	14 ϵ Crat	1657	15648	^m 19	^s 2	^s +2.6	6.84 B5	+".001	-"012	1011	km	2".5, binary
4402		3260	15649	19	34	3.0	5.66 B5	+ .006	-.015		var?	$V_0 = +19\text{km}$
4403		+6529	15663	19	35	2.9	5.07 K5	-.031	+ .022	10	+ 3	
4404		+2335	15670	19	48	3.1	6.42 B3	-.024	-.008			
4405	15 γ Crat	+3244	15669	19	53	+3.0	5.96 K0	-.106	-.014	7	+38	
4406	81 Leon	1248	15667	20	12	2.4	4.14 A5	-.106	-.001	22	0	9m, 5", binary
4407		1518	15686	20	19	3.4	5.69 B3	-.026	-.015			
4408		2356	15677	20	24	3.1	5.85 G5	-.069	+ .042	9	- 6	
4409		7189	15680	20	38	2.9	5.63 F2	-.145	-.014	26	+17	
4410	80 Leon	2463	15688	20	42	+3.1	5.34 K0	-.116	+ .014	15	+ 4	10m, 1"
4411	83 Leon	7235	15684	20	43	2.9	6.36 F0	-.081	-.045	12	var	$V_0 = -3\text{km}$
4412		2222	15698	21	5	3.2	6.02 Ma	-.045	-.020			11m, 5"
4413		1893	15693	21	23	2.6	6.29 F5	-.040	+ .009		-25	
4414		2502	15705	21	42	3.0	5.34 F5	-.307	-.089	41	var	Two spectra
4415	16 κ Crat	2941	15706	21	43	3.0	6.19 K0	-.722	+ .177	53	- 3	29", binary
4416		3098	15714	22	7	3.0	7.9 K0	-.723	+ .169			
4417		4567	15710	22	8	2.8	5.54 B5	-.021	-.008	5	+ 9	
4418		2504	15729	22	48	3.1	5.96 F8	-.104	+ .016	25	+ 5	
4419	84 τ Leon	+2442	15728	22	47	+3.1	5.91	-.044	+ .006			6.5G0:6.9A2, close binary
4420		7471	15735	23	5	2.9	5.18 K0	+ .018	-.017	21	- 9	In Ursa Cluster?
4421		1183	15745	23	22	3.4	6.28 K0	-.036	-.006	6	-10	
4422		+2433	15751	23	41	3.2	6.49 K2	-.010	+ .006			
4423	57 U Maj	+6565	15744	23	46	2.9	5.26 A2	-.051	+ .009	17	var	$V_0 = -12\text{km}$; 8m, 5", binary
4424		1324	15760	24	8	+3.4	5.34 B9	-.043	+ .002	8	var	5.4:8.0, 13", binary
4425		1253	15746	24	13	2.5	6.13 A2	-.091	-.040	14	+ 9	
4426		+2266	15765	24	29	3.1	6.31 B3	-.031	-.030			7.0:7.1, 0".2
4427	85 Leon	+1468	15773	24	39	3.3	6.00 K0	-.027	-.052	7	-29	
4428		10009	15768	24	40	3.0	6.49 G5	+ .010	-.064		-22	
4429		373	15795	24	48	+4.2	5.73 A0	-.051	+ .036	16		5.9:7.9, 8", binary
4430		1880	15778	24	58	3.3	6.13 A0	-.146	+ .031	16	+ 3	
4431	58 U Maj	2122	15782	25	6	3.2	6.49 K0	+ .009	+ .024			
4432	87 Leon	3360	15779	25	12	3.1	5.88 F8	-.051	+ .073	30	-30	
4433	86 Leon	+2459	15784	25	16	3.1	5.07 K2	+ .018	-.019	10	+19	
4434	1 λ Drac	+ 665	15799	25	28	+3.6	5.74 K0	-.084	+ .010	13	+27	
4435		1952	15789	25	28	3.3	4.06 Ma	-.040	-.022	17	+ 7	
4436		2062	15797	25	42	3.3	6.38 G5	-.230	-.079			
4437		88 Leon	+2345	15810	26	35	3.1	6.42 G5	-.031	-.048		
4438	o ¹ Cent	3011	15811	26	35	3.1	8.2	-.311	-.174	30	-10	15", binary
4439		1246	15822	26	41	3.4	6.15 G0	-.331	-.196		- 4	
4440		+3285	15815	26	48	3.0	6.36 A2p	-.002	-.007			
4441		3692	15818	27	9	2.8	5.47 F5	+ .001	-.073	38	-46	5.7:7.0, 72 years
4442	o ² Cent	3693	15820	27	11	2.8	6.26 F5	-.119	+ .039			
4443	o ¹ Cent	8928	15830	27	19	+3.0	4.96 F8p	-.001	-.016		var	$V_0 = -20\text{km}$; 11m, 14"
4444		1246	15831	27	19	3.0	5.26 A2p	-.016	-.009		-17	
4445		8620	15832	27	25	3.0	5.86 G0	-.016	+ .131	31		9", cpm
4446		3250	15841	27	43	3.0	5.78 G0	-.030	+ .138			
4447	7168	15842	27	56	2.9	6.50 Ma	-.079	+ .025				
4448							6.17 K0	-.012	-.003	7		
4449							5.71 Ma	-.072	+ .054			

Precession in declination, $-0'.33$.

ii^h

No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks	
4448	ξ Hyda	1605	15837	27 ^m 53 ^s +2 ^s .7		-66° 24'	5.93 KO	+ .005 - .012		km		
4449		9303	15844	27 57 3.0		-30 32	5.23 Ma	- .035 - .001		+19		
4450		9083	15845	28 5 3.0		-31 18	3.72 G5	- .210 - .047	"020	- 5		
4451		3295	15847	28 12 3.0		-15 43	6.00 G0	- .004 - .049				
4452		2195	15857	28 38 3.2		+37 22	6.33 KO	- .128 - .063	6	var?	V ₀ = +16km	
4453	89 Leon	+7175	15854	28 45 +2.9		-40 2	5.50 A2	- .078 + .017	19	+ 9	6.3:6.3, 1", binary	
4454		2372	15865	28 59 3.1		+11 35	6.46 A2	+ .044 - .037	12	- 9		
4455		2521	15867	29 15 3.1		+ 3 37	5.81 F5	- .183 - .108	33	+ 6		
4456		90 Leon	2374	15874	29 30 3.1		+17 21	6.05 B3	- .011 - .005	4	+19*	7.3m, 3", binary
4457		1473	15875	29 34 3.3		+55 20	5.76 G5	+ .008 - .002	9	+18		
4458		8179	15873	29 38 +2.9		-32 18	6.14 G5	- .680 + .818	91	-23		
4459		+2331	15879	29 51 3.1		+20 59	6.44 KO	- .059 - .012				
4460	2 Drac	4637	15877	30 1 2.8		-53 43	4.82 B8	- .064 + .007	17	+ 4		
4461		+ 670	15893	30 11 3.5		+69 53	5.36 KO	+ .109 - .130	14	- 2		
4462		6630	15881	30 10 2.9		-48 35	5.57 KO	- .178 + .159	22	- 1		
4463	λ Cent	7199	15886	30 24 +2.9		-46 49	5.63 Ma	- .097 - .014		+18		
4464		2377	15892	30 33 3.1		+11 28	6.45 A2	+ .029 - .026	11	var		
4465		2022	15905	31 2 3.2		+28 20	5.82 A3	+ .023 - .002	12	+ 4	6.4:6.8, close binary*	
4466		+7205	15901	31 5 2.9		-47 5	5.42 F0	+ .027 - .058		+ 5		
4467		2127	15899	31 10 2.8		-62 28	3.34 B9	- .034 - .019	31	+ 8		
4468		21 θ Crat	+3202	15921	31 37 +3.0		- 9 15	4.81 B9	- .065 + .003	12	+ 1	
4469		+8199	15917	31 37 3.0		-33 1	5.87 KO	+ .035 - .044			9.2m, 3", cpm	
4470	91 υ Leon	7291	15923	31 45 3.0		-36 41	6.46 A0	- .019 - .027				
4471		2458	15927	31 50 3.1		- 0 16	4.47 KO	+ .003 + .038	17	+ 1		
4472		3140	15913	31 42 2.8		-60 30	5.84 B3	- .018 - .004	5	+ 9		
4473	59 U Maj	8202	15930	32 3 +3.0		-32 26	6.44 F5	- .016 - .086		- 4		
4474		1679	15947	32 29 3.2		+51 10	5.99 KO	- .053 - .042		+ 3		
4475		3182	15935	32 23 2.8		-60 44	5.10 KO	- .221 - .006		- 1		
4476		6997	15945	32 43 2.9		-47 12	5.45 K2	- .080 + .017		+ 4		
4477		2110	15962	33 1 3.2		+44 11	5.52 F0	- .145 - .041	21	+ 4		
4478		2523	15961	32 58 +3.1		+ 9 26	6.55 KO	- .061 + .013				
4479		π Cham	744	15946	33 8 2.5		-75 21	5.74 F0	- .120 - .004		+27	
4480	60 U Maj	1894	15970	33 12 3.2		+47 23	6.25 F2	- .041 - .034		-22	7.8m, 2", binary	
4481		+ 843	15974	33 12 3.4		+64 54	6.80 A2	+ .016 + .002	9	-22		
4482		2242	15972	33 16 3.2		+34 11	6.36 K2	- .029 - .026				
4483	1 ω Virg	2532	15971	33 18 +3.1		+ 8 41	5.47 Mb	- .009 .000	9	+ 4		
4484		2546	15967	33 17 3.1		- 1 53	6.25 KO	- .033 + .004	6	-15	10m, 5", cpm	
4485		+1629	15959	33 17 2.7		-67 4	5.90 KO	- .075 - .022				
4486	24 ι Crat	1947	15975	33 28 3.2		+45 40	8.4	- .628 - .012	51	var*	10", binary	
			15976	33 29 3.2		+45 40	6.34 G0	- .594 + .018		var*		
4487		2463	15965	33 27 +2.8		-61 16	5.32 A0	+ .068 + .005		+ 4		
4488		3466	15977	33 35 3.0		-12 39	5.64 G0	+ .089 + .113	36	-24	5.6:11, 2", binary	
4489		9867	15990	33 59 3.0		-24 9	6.39 G5	+ .014 - .243				
4490		3420	16009	34 47 3.0		-13 55	6.39 A0	- .044 - .019			13m, 8", cpm	
4491		+3323	16008	34 47 3.0		-16 4	6.48 Ma	- .013 - .014				
4492	ο Hyda	1685	16004	34 51 +2.8		-64 51	5.08	- .033 - .018		var*	5.5G0:6.3A0, 0".2	
4493		1331	16020	34 59 3.3		+58 31	6.10 A0	- .012 + .016	7	+ 4		
4494		7610	16019	35 15 3.0		-34 11	4.88 B8	- .036 - .001	12	+ 6		
4495		92 Leon	+2391	16030	35 35 3.1		+21 54	5.43 G5	- .061 - .048	12	+ 9	
4496		61 U Maj	+2270	16035	35 47 3.2		+34 46	5.46 G5	- .014 - .390	108	- 5	

4456: Fainter component is a spectroscopic binary,

Precession in declination, -0.33.

V₀ = +14km.4486: V₀ = -18km. GC 15975 is a spec. binary, 23.5 days, V₀ = -14km.

4465: Also 11m, 21"

4492: V₀ = +4km.

CATALOGUE OF BRIGHT STARS

II^h

No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
4497		4691	16033	35 ^m 53 ^s +2 ^s .9		-53° 25'	5.98 Ma	-".001 -".030		km	
4498		9027	16044	36 10 3.0		-28 39	6.46 G0	-.328 +.206	"025		
4499		2514	16037	36 10 2.8		-61 32	4.88 G0	-.017 - .005	21	var?	V ₀ = +14km
4500		1481	16052	36 19 3.2		+55 43	6.40 K5	-.015 +.016			
4501	62 UMa _j	2179	16051	36 22 3.1		+32 18	5.74 F5	-.348 +.017	30	+31	
4502		7155	16048	36 25 +3.0		-42 32	5.69 A0	-.088 - .009		var	V ₀ = +8km
4503		9181	16055	36 44 3.0		-31 57	5.31 K5	-.001 - .049	9	+34	27", cpm
		9182	16058	36 48 3.0		-31 56	8.37 G0	-.028 - .046			
4504	3 Drac	714	16072	36 54 3.3		+67 18	5.48 K0	-.048 +.035	8	+ 3	
4505		+2375	16066	36 54 3.1		+22 46	6.62 F2	-.091 - .070		-23	
4506		3326	16069	37 1 +3.0		-19 44	6.30 K0	-.017 - .055			
4507		469	16057	37 33 2.1		-82 33	6.22 K0	-.028 +.010			
4508		7371	16086	38 28 3.0		-36 38	6.12 K2	-.007 - .034			
4509		677	16083	38 39 2.5		-78 45	6.34 K0	+.149 - .014			
4510		+3340	16097	38 49 3.1		- 6 7	6.23 K0	+.057 - .046	8	- 3	
4511		2559	16092	38 45 +2.9		-61 56	5.18 F8p	-.005 - .010	32	var?	V ₀ = +10km
4512		+2250	16105	39 1 3.1		+25 47	6.19 K5	-.018 +.013			
4513		2250	16102	39 6 2.9		-62 19	6.22 A0	+.021 - .028			
4514	27 γ Crat	3460	16112	39 42 3.0		-17 48	4.90 G5	+.034 - .038	17	- 5	In Ursa Cluster
4515	2 ε Virg	+2545	16118	40 8 3.1		+ 8 49	5.06 A3	+.061 - .024	28	- 1	
4516		6777	16119	40 17 +3.0		-48 31	6.27 K0	-.039 +.005			
4517	3 v Virg	2479	16135	40 43 3.1		+ 7 5	4.20 Ma	-.018 - .188	14	+50	
4518	63 χ UMa _j	1966	16137	40 46 3.2		+48 20	3.85 K0	-.138 +.019	18	- 9	
4519		+7564	16133	40 47 3.0		-45 8	5.44 B8	-.055 - .001	9	- 7	
4520	λ Musc	1640	16131	40 53 2.8		-66 10	3.80 A5	-.092 +.027		+16	
4521		1544	16153	41 35 +3.2		+56 11	5.41 K0	+.013 - .038	11	+ 2	
4522		3325	16147	41 40 2.9		-60 37	4.22 G0	-.026 - .027		- 4	
4523		7301	16149	41 45 2.9		-39 57	5.04 G5	-1.538 +.393	93	+15	
4524		7438	16160	42 6 3.0		-35 21	6.26 K0	+.028 - .045			
4525		9337	16162	42 16 3.0		-29 43	6.56 G0	-.281 - .248	62		
4526		4989	16165	42 26 +2.9		-57 8	5.44 K5	-.031 +.006	0	-52	
4527	93 Leon	+2358	16173	42 50 3.1		+20 46	4.54 F8	-.150 - .012	34	var	71.7 days, V ₀ = 0km
4528	4 Virg	+2549	16171	42 47 3.1		+ 8 48	5.22 A0	-.058 +.006	13	- 1	
4529		3366	16178	43 18 3.1		- 9 45	6.30 G0	-.102 - .122			
4530	μ Musc	1649	16176	43 26 2.9		-66 16	4.71 K5	+.023 - .026		+37	
4531		+2381	16181	43 30 +3.1		+14 50	5.90 A5	-.107 .000	24	+ 9	IIm, 1", binary
4532		8789	16183	43 42 3.0		-26 12	5.45 Mb	-.027 - .017	8	+ 7	
4533		2843	16187	43 55 3.1		+ 0 14	6.24 F8	-.219 +.004		+ 6	
4534	94 β Leon	2383	16189	43 58 3.1		+15 8	2.23 A2	-.496 - .122	77	- 1	Denebola
4535		+2402	16192	44 5 3.1		+16 48	5.95 A2	+.053 - .068	12	var	2.8 days, V ₀ = -23km
4536		2284	16199	44 30 +3.1		+35 29	5.76 F5	-.115 - .002	27	var	32.9 days, V ₀ = -7km
4537		1988	16201	44 49 2.9		-63 14	4.52 B5	-.021 - .009	7	+37	
4538		1595	16206	45 9 2.9		-69 40	4.90 G5	-.016 - .008	4	+18	
4539		3363	16210	45 14 3.1		-15 18	6.29 K0	-.016 +.003			
4540	5 β Virg	2489	16215	45 29 3.1		+ 2 20	3.80 F8	+.742 - .277	101	+ 5	
4541		+2677	16213	45 33 +2.9		-62 6	5.65 A2p	-.009 - .015			
4542		8807	16214	45 34 3.0		-26 43	6.53 K0	-.090 +.002			
4543		+2465	16219	45 48 3.1		+12 50	6.22 A3	-.126 +.007	10	+ 7	IIm, 15", cpm
4544		3152	16220	45 55 3.1		- 4 47	5.81 K0	+.001 - .007	17	var	
4545		+2264	16223	45 58 3.1		+33 56	6.14	-.021 +.012	12	+ 1	Composite, F2, A2

Precession in declination, -0.33.

II^h

No	Name	DM	GC	RA	Ann	Decl	Magn	Prop Motion		Par	Rad	Remarks
				1900	Var	1900	Spec	RA	Decl		Vel	
4546		7614	I6226	46 ^m 9 ^s + 3.0		-44° 37'	4.71 KO	-	"088 - "015	"018	+ km	
4547		3190	I6231	46 18 3.0		-11 38	6.22 FO	-	.217 + .005			
4548		9506	I6236	46 38 3.0		-30 16	5.96 G0	-	.016 - .295	19	+33	
4549		1724	I6241	46 58 2.9		-64 39	5.10 B5	-	.034 - .023	5	+26	5.2:7.8, 2", cpm
4550		2285	I6253	47 13 3.5		+38 26	6.46 G5	+	3.994 -5.800	108	-98	Groombridge 1830
4551		4836	I6246	47 13 +3.0		-56 26	5.69 A2	-	.117 + .020			
4552	β Hyda	8018	I6258	47 51 3.0		-33 21	4.40 B9	-	.055 - .002	12	- 1	5.0:5.4, 1", binary
4553		7760	I6265	48 24 3.0		-34 31	6.28 A2	-	.094 - .033			
4554	64 γ U Maj	1475	I6268	48 34 3.2		+54 15	2.54 A0	+	.094 + .004	37	-11	In Ursa Cluster
4555		2624	I6271	48 43 3.1		+ 1 7	6.40 A5	-	.040 - .012	15	+10	
4556		4861	I6279	49 12 +3.0		-56 51	6.26 A0	-	.012 - .008			
4557		7536	I6280	49 25 3.0		-37 12	6.53 F8	-	.316 + .052	50		6.7:9.0, 2", cpm
4558		8930	I6286	49 37 3.1		-25 10	5.50 G5	+	.047 + .075	18	-11	
4559	6 Virg	2560	I6294	49 55 3.1		+ 9 0	5.62 K0	-	.030 + .011	12	-10	
4560		1913	I6296	49 54 3.1		+47 2	6.46 A0	+	.001 .000	7	-16	
4561	65 U Maj	1914	I6298	49 59 3.1		+47 2	6.81 B9	-	.009 - .003		- 8	63", cpm*
4562		2230	I6299	50 4 +3.1		+37 19	6.54 Mb	-	.055 - .057			
4563		2408	I6295	50 1 3.0		-62 43	6.05 A2p	-	.022 - .002			
4564	95 Leon	2319	I6311	50 32 3.1		+16 12	5.49 A2	+	.010 - .007	11	var	6.6 days, V ₀ = -21km
4565		8384	I6312	50 35 3.1		-27 55	6.12 K5	+	.001 - .034	6	+ 8	
4566	66 U Maj	1343	I6315	50 45 +3.1		+57 9	5.93 K0	+	.007 - .005	8	+13	
4567	30 η Crat	3358	I6319	50 55 3.1		-16 36	5.16 A0	-	.053 - .012	23	var?	V ₀ = +15km
4568		+7410	I6314	50 50 3.0		-39 8	6.30 K0	+	.042 - .016			
4569		1204	I6336	51 40 3.1		+62 6	6.28 G5	-	.030 - .044			
4570		7521	I6335	51 42 3.0		-46 31	6.42 F2	-	.135 + .006			
4571		8413	I6344	51 59 +3.0		-32 46	6.29 A0	-	.060 - .004			
4572		+2253	I6347	52 6 3.1		+40 54	6.54 F5	-	.167 - .071			
4573		2829	I6357	52 38 3.0		-61 54	5.70 B5	-	.019 - .019	6	var?	V ₀ = +16km
4574		+2174	I6368	52 59 3.1		+32 50	6.30 F0	-	.110 - .070	19	+ 2	13m, 7", cpm
4575		1206	I6373	53 8 3.1		+62 1	6.66 G5	+	.042 - .004			
4576		4751	I6371	53 12 +3.0		-55 46	5.64 B8	-	.020 - .014			
4577		7041	I6374	53 16 3.0		-40 23	6.81 K0	-	.064 + .013			10m, 3", binary
4578		2073	I6383	53 45 3.0		-63 47	5.66 A2p	+	.004 - .001			
4579		8963	I6384	53 48 3.1		-25 21	6.39 A0	-	.030 - .028			6.9:7.4, close binary
4580		2636	I6385	53 56 3.1		+ 1 5	6.48 K0	-	.063 + .022	5	+12	
4581		2176	I6392	54 9 +3.1		+33 43	6.02 K0	+	.004 - .004		- 1	12m, 4", fixed
4582		6236	I6389	54 6 3.0		-51 8	6.18 K2	-	.018 - .014			
4583	ε Cham	772	I6402	54 39 3.0		-77 40	5.05 B9	-	.038 - .014	15	+22	5.5:6.3, 1", binary
4584		2279	I6408	54 49 3.1		+34 35	6.27 F0	-	.064 + .035	21	- 8	
4585	7 Virg	2556	I6406	54 50 3.1		+ 4 13	5.24 A0	-	.019 - .015	13	- 2	
4586		389	I6414	55 6 +3.1		+81 25	6.44 Ma	-	.069 - .038	3	+31	
4587		3413	I6421	55 36 3.1		- 9 53	5.63 G5	+	.123 - .483	76	+ 1	
4588		3443	I6420	55 35 3.1		-21 17	6.42 K0	+	.025 - .001			
4589	8 π Virg	2502	I6425	55 45 3.1		+ 7 10	4.57 A3	.	.000 - .034	20	var	V ₀ = -24km
4590		+3295	I6423	55 44 3.1		-19 6	5.28 B3	-	.016 + .007	3	var	3.0 days, V ₀ = +3km
4591		+2520	I6426	55 55 +3.1		- 1. 13	6.45 K0	-	.016 - .075	6	+36	
4592		4954	I6434	56 24 3.1		-56 57	6.41 B9	-	.071 - .028			
4593		2230	I6439	56 32 3.1		+36 36	5.62 K0	-	.091 - .091	13	+30	
4594	67 U Maj	2179	I6445	57 2 3.0		+43 36	5.07 A3	-	.322 + .067	23	var?	
4595		+ 371	I6449	57 19 3.0		-85 4	5.89 K2	-	.052 + .001			9m, 25", cpm

4560: 9m, 0.3, binary; also 8m, 4", binary.

Precession in declination, -0.33.

CATALOGUE OF BRIGHT STARS

11^h - 12^h

No	Name	DM	GC	RA		Decl	Magn	Prop Motion		Par	Rad	Remarks
				1900	Ann Var			RA	Decl			
4596		1454	16451	57 ^m 22 ^s + 3.1		-70° 56'	6.36 KO	-".052 + ".007			km	
4597		1604	16455	57 31 3.1		-68 38	6.10 B8	-.044 - .023				
4598		+3499	16458	57 45 3.1		- 7 7	6.46 K5	-.039 + .014				
4599	θ ¹ Cruc	2543	16463	57 56 3.1		-62 45	4.48 A5	-.146 - .005	".016	var*		24.5 days, V ₀ = -2km
4600		6938	16472	58 29 3.1		-41 52	5.28 FO	+ .324 - .125	34	+36		
4601		924	16474	58 35 +3.1		-73 39	6.32 KO	-.017 - .005				
4602	2 Coma	2437	16489	59 9 3.1		+22 1	5.77 FO	+ .036 - .011	11	+ 5		6.0:7.5, 4", binary
4603	θ ² Cruc	2561	16490	59 10 3.1		-62 37	4.98 B3	-.016 - .005	5	var		3.4 days, V ₀ = +16km
4604		1896	16493	59 29 3.1		-67 46	5.42 A0	-.044 - .023	11	+23		
4605	κ Cham	777	16497	59 36 3.1		-75 58	5.00 K5	-.071 + .039	0	- 2		
4606		176	16496	59 43 +2.8		+86 8	6.38 F5	-.058 + .086	17			
4607		3697	16503	59 48 3.1		-60 24	5.96 Ma	-.035 - .045				
4608	γ ^o Virg	2583	16512	0 7 3.1		+ 9 17	4.24 G5	-.221 + .042	24	-30		
4609		461	16514	0 10 3.0		+77 28	5.96 KO	+ .148 - .094	8	-19		
4610		999	16524	0 37 3.0		+63 30	6.24 KO	-.050 - .079	6	-26		11m, 2", cpm
4611		1791	16527	0 42 +3.1		-64 59	6.48 B8	-.021 - .024				
4612		7694	16528	0 48 3.1		-35 8	6.26 B9	-.040 - .009				
4613		3460	16530	0 53 3.1		- 2 34	6.47 KO	-.033 - .023	7	+17		
4614		+1903	16542	1 7 3.1		-68 6	6.24 KO	-.003 + .009				
4615		1788	16544	1 12 3.1		-65 9	5.98	-.040 - .010				6.2F5:7.9A3, 9", cpm
4616	η Cruc	+2145	16551	1 40 +3.1		-64 3	4.30 FO	+ .034 - .046	49	var?		V ₀ = +9km
4617		880	16572	2 34 3.2		-74 49	5.16 KO	-.087 + .019	13	-45		
4618		+6813	16576	2 54 3.1		-50 6	4.81 B5	-.041 - .019	8	+16		368", cpm
4619		6688	16575	2 54 3.1		-50 12	6.53 B9	-.043 - .007		+15		
4620		+7396	16581	3 4 3.1		-48 8	5.58 A0	-.032 - .027	14	+ 6		
4621	δ Cent	6697	16584	3 10 +3.1		-50 10	2.88 B3p	-.037 - .020	15	var?		V ₀ = +9km
4622		3777	16585	3 11 3.1		-60 17	6.22 K2	-.010 - .010				
4623	1α Corv	10174	16586	3 15 3.1		-24 10	4.18 F2	+ .083 - .048	52	+ 4		
4624		7502	16592	3 43 3.1		-43 46	5.93 A2	-.053 - .059				
4625		7128	16593	3 44 3.1		-40 40	5.62 B3	-.031 - .014	3	var?		V ₀ = 0km
4626	10 Virg	2517	16608	4 34 +3.1		+ 2 28	6.13 KO	+ .043 - .184	13	+ 3		
4627		469	16612	4 56 2.9		+75 13	6.36 F5	+ .001 + .002		-20		
4628		7956	16613	4 53 3.1		-34 9	6.14 A0	-.057 - .025	6			6.3:8.6, 3", binary
4629	11 Virg	2559	16616	4 58 3.1		+ 6 22	5.74 FO	-.160 + .015	19	- 9		
4630	2ε Corv	+3487	16618	4 59 3.1		-22 4	3.21 KO	-.069 + .007	29	+ 5		
4631		7714	16624	5 22 +3.1		-37 19	6.08 A2	-.036 - .034				
4632	3 Coma	2446	16625	5 26 3.1		+17 22	6.34 A0	-.020 - .009	9	-12		
4633		+2084	16630	5 41 3.0		+27 50	5.78 A2	-.009 - .019	12	var		V ₀ = -2km
4634		3812	16636	5 50 3.1		-60 43	6.24 FO	-.131 - .031				
4635	3 Corv	+3305	16638	5 55 3.1		-23 3	5.44 A2	-.065 - .024	19	+11		
4636		7845	16634	5 51 +3.1		-44 52	6.48 KO	-.025 - .002				11m, 3"
4637		6752	16646	6 20 3.1		-50 48	6.40 KO	-.214 - .076				
4638	ρ Cent	6455	16651	6 25 3.1		-51 49	4.20 B3	-.041 - .026	15	+21		
4639		356	16641	6 30 2.7		+82 16	6.28 KO	-.028 + .001	5	-26		
4640	4 Coma	2316	16659	6 47 3.0		+26 26	5.81 KO	-.046 - .033	7	var		463 days, V ₀ = +22km
4641	68 U Maj	1359	16658	6 46 +3.0		+57 37	6.53 K5	+ .007 - .019	5	+34		
4642		2265	16664	6 56 3.1		+29 6	6.40 F2	+ .096 - .076		-14		
4643	5 Coma	2398	16667	7 4 3.1		+21 6	5.67 G5	-.018 - .029	10	-25		
4644		2624	16669	7 4 3.2		-62 24	6.17 B2	-.003 - .011				
4645	S Musc	1646	16679	7 24 3.2		-69 36	var F8p	-.010 - .021		var*		6.2 to 7.0, 9.7 days

4599: Two spectra.

4645: V₀ = 0km.

Precession in declination, -0.33.

12^h

No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
4646		412	16672	7 ^m 31 ^s +2.8		+78° 10'	5.12 A5	+".009 +".017	".027	km var	1.3 days, V ₀ = 0km
4647		8252	16687	8 2 3.1		-33 34	6.64 Mb	-.035 -.013			
4648		7581	16692	8 13 3.1		-38 22	5.90 B3	-.009 -.014		-47	
4649		+ 804	16698	8 18 3.4		-78 1	6.35 K2	-.018 -.010			
4650	12 Virg	+2440	16693	8 20 3.1		+10 49	5.81 A2	-.096 -.021	16	+ 3	
4651		8257	16696	8 25 +3.1		-33 14	6.35 B9	-.011 -.018			6.4:9.0, 1 ["] 5, cpm
4652		7630	16703	8 49 3.1		-45 10	5.29 K0	-.049 -.004	9	var*	5.5:7.1, 3 ["] , binary
4653		2203	16707	8 56 3.2		-63 51	6.42 B1	-.007 -.009		- 7	
4654		+1504	16721	9 46 3.0		+53 59	6.26 K0	-.019 -.021	8	0	
4655		3606	16723	9 49 3.1		-20 17	5.98 G5	.000 -.003			
4656	8 Cruc	4189	16724	9 50 +3.2		-58 12	3.08 B3	-.037 -.017	17	+26	
4657		3468	16731	10 2 3.1		- 9 44	6.12 F8	+ .031 -1.024	31	+ 6	
4658		7056	16734	10 19 3.1		-41 21	6.28 K0	-.337 -.183	23		
4659		+ 610	16733	10 23 2.9		+70 45	5.89 K0	-.025 -.024	8	-15	
4660	69 δUMaj	1363	16736	10 29 3.0		+57 35	3.44 A2	+ .106 +.003	43	-13	In Ursa Cluster
4661		3322	16739	10 36 +3.1		-22 48	6.42 F5	+ .037 -.038	19		7.0:7.5, 1 ["] , binary
4662	4 γCorv	3424	16740	10 40 3.1		-16 59	2.78 B8	-.162 +.015	24	var	V ₀ = -4km
4663	6 Coma	2436	16747	10 56 3.0		+15 27	5.08 A2	-.084 -.035	20	var	V ₀ = +11km
4664		+1323	16749	10 52 3.3		-72 3	6.28 A0	-.041 -.038			
4665		549	16744	11 0 2.8		+73 7	6.55 K0	-.015 -.039		var	
4666	2 CVen	2284	16750	11 7 +3.0		+41 13	5.80 K5	+ .016 -.039	6	-15	8m, 11 ["] , binary
4667	7 Coma	2443	16752	11 17 3.0		+24 30	5.06 K0	-.029 -.014	10	-28	
4668		2213	16754	11 29 3.0		+33 37	5.08 K0	-.049 -.122	11	var	V ₀ = -40km
4669		+1844	16760	11 42 3.2		-65 8	6.23 A0	-.047 -.013			
4670		+3442	16762	11 54 3.1		-16 8	5.96 A2	-.050 -.003			
4671	ε Musc	1931	16764	12 10 +3.2		-67 24	4.16 Mb	-.234 -.036	41	var	V ₀ = +7km
4672		+1510	16767	12 34 3.0		+53 45	6.00 K2	+ .034 -.054	9	-42	
4673		2275	16766	12 28 3.0		+29 30	5.68 A0	-.043 +.032	21	- 6	10m, 8 ["] , cpm
4674	β Cham	741	16775	12 28 3.5		-78 45	4.38 B5	-.034 +.008	13	+23	
4675		7842	16770	12 34 3.1		-35 32	6.28 A0	-.044 -.013	4		6.9:7.2, 1 ["] , binary
4676		2442	16771	12 39 +3.1		+15 42	6.53 K0	+ .043 -.070		var	
4677		3262	16781	13 2 3.1		- 3 23	6.97 F0	-.019 +.011			
4678		3263	16782	13 2 3.1		- 3 24	6.65 F0	-.015 +.019	18	0	20 ["] , binary
4679	ζ Cruc	2235	16785	13 1 3.3		-63 27	4.26 B3	-.044 -.023	14	+19	
4680		+2350	16789	13 29 3.0		+30 49	6.14	+ .090 -.130	15	var?	Composite, F5, A2
4681	13 Virg	+2920	16790	13 33 +3.1		- 0 14	5.92 A3	+ .027 -.021		-12	
4682		5113	16792	13 40 3.2		-54 35	4.98 Ma	-.078 -.028	5	var	V ₀ = -7km
4683		+ 107	16778	13 56 1.8		+86 59	6.33 F2	+ .210 -.009	29	- 6	
4684		2326	16795	14 0 3.0		+26 34	6.39 A3	-.004 -.027	10	- 5	
4685	8 Coma	2448	16799	14 16 3.0		+23 35	6.15 A3	-.022 -.018	11	+ 1	
4686		71	16763	14 23 +0.6		+88 15	6.28 F0	-.031 +.052	22	- 4	
4687		470	16797	14 21 2.7		+75 43	5.41 A2	-.032 +.001	15	var?	V ₀ = -4km
4688	9 Coma	2106	16804	14 29 3.0		+28 43	6.30 F5	-.198 -.134	21	- 8	
4689	15 ηVirg	+2926	16813	14 47 3.1		- 0 7	4.00 A0	-.063 -.025	26	var	71.9 days, V ₀ = +6km
4690	3 CVen	2130	16814	14 53 3.0		+49 32	5.56 K2	-.010 -.004	5		
4691		3511	16822	15 0 +3.1		-21 37	6.11 G5	-.111 -.032	9		6.3:8.3, 1 ["] , binary
4692		1842	16824	14 59 3.3		-65 17	6.42 B9	-.047 -.027		- 8	
4693		2114	16829	15 18 3.0		+27 11	5.72 K0	-.066 -.112	10	- 9	
4694		2329	16827	15 17 3.0		+26 34	6.11 A5	-.145 +.014	26	var	V ₀ = +7km
4695	16 Virg	+2604	16828	15 16 3.0		+ 3 52	5.10 K0	-.292 -.072	7	+36	

4652: V₀ = +7km.

Precession in declination, -0.33.

CATALOGUE OF BRIGHT STARS

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No	Name	DM	GC	RA	Ann	Decl	Magn	Prop Motion		Par	Rad	Remarks	
				1900	Var	1900	Spec	RA	Decl		Vel		
4696	5 ^z Corv	3514	16830	15 ^m 23 ^s + 3.1		-21° 40'	5.30 B8	-.097	-.035	"008	km var?	V ₀ = +2km	
4697	11 Coma	2592	16835	15 40 3.0		+18 21	4.91 KO	-.113	+.081	20	+42	13m, 9", cpm	
			16832	15 38 3.0		+27 37	7.10	-.008	-.123		-14		
4698		2115	16833	15 39 3.0		+27 37	7.00 F2	-.001	-.119		14	-18	9", binary
4699		+3614	16841	15 46 3.1		-13 1	5.36 KO	+.001	+.012	11	+13		
4700	e Cruc	4188	16849	15 58 +3.2		-59 51	3.57 K2	-.176	+.074	19	- 5		
4701	70 UMa _j	1371	16843	16 0 2.9		+58 25	5.72 K2	+.041	-.078	8	-43		
4702		5019	16856	16 34 3.2		-55 49	5.95 Ma	-.006	-.025				
4703	ξ ² Musc	1747	16857	16 34 3.3		-66 58	5.26 A5	-.018	-.018	3	var?	V ₀ = -17km	
4704	ξ ¹ Musc	1939	16860	16 37 3.4		-67 45	5.82 KO	-.006	-.069	8			
4705		2498	16866	17 9 +3.0		+25 19	6.02 A0	-.063	-.014	8	- 3		
4706		+5202	16877	17 24 3.3		-57 7	5.59 B8	-.044	-.026	15	+ 1		
4707	12 Coma	2337	16873	17 29 3.0		+26 24	4.78 F5	-.009	-.015	16	var	V ₀ = +2km; 8m, 65"	
4708	17 Virg	+2599	16871	17 27 3.1		+ 5 52	6.46 F8	-.167	-.058	27	+ 5	9m, 20", binary	
4709		343	16903	17 37 4.8		-85 36	6.19 KO	-.008	-.012				
4710		+1752	16882	17 51 +3.2		-67 5	6.38 KO	-.748	+.243	7			
4711	6 Corv	10314	16887	18 9 3.1		-24 17	5.81 KO	-.022	-.019	10	- 2		
4712		8117	16892	18 20 3.2		-34 51	5.42 B9	-.039	-.018	12	-10		
4713		7700	16893	18 20 3.2		-38 45	6.43 A5	-.015	-.024				
4714		7701	16896	18 29 3.2		-38 21	5.90 B9	-.042	-.009		- 8		
4715	4 CVen	2218	16899	18 52 +3.0		+43 6	5.98 F0	-.077	+.006				
4716	5 CVen	1626	16906	19 10 2.9		+52 7	4.97 KO	+.011	+.007	18	var?		
4717	13 Coma	2344	16910	19 18 3.0		+26 39	5.10 A2	-.016	-.016	13	+ 1		
4718		7281	16920	19 27 3.2		-40 50	6.16 KO	-.070	-.079			6.3:8.6, 10", cpm	
4719		2345	16911	19 26 3.0		+26 8	6.31 A5	-.015	-.009	13	-14	6.6:7.8, 360 years	
4720		1862	16927	19 43 +3.3		-65 13	6.35 KO	-.070	-.133				
4721		7163	16928	19 51 3.2		-41 57	6.26 G0	-.155	-.037				
4722		+3467	16931	20 2 3.1		-11 3	5.95 A0	-.068	-.030				
4723		8670	16936	20 4 3.1		-27 11	6.34 KO	-.008	-.015				
4724		8146	16938	20 5 3.2		-34 38	5.77 B9	-.039	-.013	10	-11		
4725		2455	16940	20 13 +3.0		+24 29	6.08 KO	+.059	-.045	6	- 5		
4726	71 UMa _j	1373	16934	20 16 2.9		+57 20	5.99 Ma	-.014	-.024	5	-18		
4727		896	16941	20 27 2.8		+64 22	6.37 G5	-.019	-.002		- 3		
4728	6 CVen	2521	16948	20 55 3.0		+39 34	5.22 KO	-.075	-.038	22	- 4		
4729		2742	16951	20 57 +3.3		-62 34	5.14 B5	-.036	-.038		var*	89" from No 4730	
4730			16952	21 2 3.3		-62 33	1.58 B1	-.032	-.027	15	var*	V ₀ = -12km	
4731	a Cruc	2745	16953	21 3 3.3		-62 33	2.09	-.036	-.022		var*	V ₀ = 0km } 5", binary	
4732		6975	16954	21 7 3.2		-50 54	5.04 B3	-.050	-.026	13	+24		
4733	14 Coma	+2115	16955	21 24 3.0		+27 49	5.15 A5	-.015	-.014	18	- 6		
4734		7426	16957	21 31 3.2		-48 21	6.22 G0	-.639	-.091	38			
4735		8713	16959	21 35 +3.2		-32 17	5.68 A0	-.010	-.042				
4736		2283	16968	21 49 3.4		-63 14	6.20 B8	-.029	-.031		+42		
4737	15 γ Coma	+2288	16964	21 57 3.0		+28 49	4.56 KO	-.084	-.088	11	+ 4		
4738	16 Coma	2134	16965	21 59 3.0		+27 23	5.04 A2	-.007	-.016	20	+ 1		
4739		4289	16969	21 58 3.3		-58 26	5.43 Mb	-.028	-.008	4	+71		
4740		565	16960	22 4 +2.6		+72 29	6.44 KO	-.155	-.021	5			
4741		2628	16982	22 37 3.1		+ 9 10	6.42 KO	+.018	-.016				
4742		+3471	16986	22 38 3.1		-16 5	6.46 G5	-.020	-.003	5	- 9		
4743	σ Cent	7115	16990	22 38 3.2		-49 41	4.16 B3	-.026	-.026	10	+12		
4744		2297	16994	22 42 3.3		-63 47	6.28 A0	-.062	-.040				

4729: V₀ = +30km.

4730, 4731: Both periods 0.98 days.

Precession in declination, -0.33.

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No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
4745	73 UMa j	1598	16985	22 ^m 50 ^s + 2 ^s .9		+56° 16'	5.84 Ma	- .025 - .016	"006	+17	V ₀ = -14km
4746		+3298	16989	22 44 3.1		- 4 4	6.03 F2	- .088 - .006	11	var	
4747		3209	16996	22 51 3.3		-61 14	6.23 KO	- .030 - .027			
4748		7753	17001	23 3 3.2		-38 29	5.60 B8	- .029 - .022	11	+ 5	
4749		5084	17003	23 7 3.3		-55 51	6.22 KO	- .237 - .233	18		
4750		+2138	17005	23 39 +3.0		+26 47	6.48 A3	- .020 - .019	11	var	11.8 days, V ₀ = +3km
4751		2353	17007	23 45 3.0		+26 27	6.69 A3	- .019 - .026	12		145", cpm*
4752	17 Coma	2354	17012	23 55 3.0		+26 28	5.38 AOp	- .026 - .025	14	- 2	
4753	18 Coma	2464	17020	24 27 3.0		+24 40	5.49 F5	- .030 - .008	17	-26	
4754		5097	17023	24 23 3.3		-55 58	5.76 Ma	- .020 + .006			
4755		7219	17030	24 36 +3.2		-41 11	5.90 Mb	+ .002 - .032			
4756	20 Coma	2424	17026	24 42 3.0		+21 27	5.72 A2	+ .025 - .038	13	- 7	
4757	78 Corv	3482	17027	24 40 3.1		-15 58	9.2	- .210 - .148	24	+ 8	24", cpm
4758		3647	17029	24 41 3.1		-15 58	3.11 A0	- .210 - .145			10m, 2", binary
			17036	24 55 3.1		-12 50	6.41 G0	- .251 - .048	38	0	
4759		+3383	17039	25 3 +3.1		-23 9	5.87 K5	- .022 - .011	6	-12	
4760	74 UMa j	+1444	17038	25 17 2.8		+58 57	5.44 A5	- .064 + .085	19	+ 8	
4761	7 CVen	1631	17040	25 19 2.8		+52 5	6.25 F8	- .289 + .016	32	+19	
4762	75 UMa j	1446	17042	25 23 2.8		+59 19	6.22 KO	+ .031 - .029			
4763	γ Cruc	5272	17052	25 37 3.3		-56 33	1.61 Mb	+ .025 - .273		+21	
4764		5274	17055	25 44 3.3		-56 32	6.68 A2	+ .005 - .013			
4765	4 Drac	+ 700	17046	25 44 +2.6		+69 45	5.25 Ma	- .061 - .055	7	var	V ₀ = -14km
4766	21 Coma	2517	17056	26 1 3.0		+25 7	5.39 A3p	- .012 - .015	15	0	
4767		1554	17053	26 5 2.9		+53 37	6.23 F8	+ .015 + .173	35	-22	
4768		4344	17065	26 5 3.4		-58 52	5.44 F8p	- .015 - .017	6	var	V ₀ = -20km
4769		1261	17075	26 7 +3.6		-72 27	5.96 KO	+ .051 - .037			
4770		2609	17063	26 16 3.0		+ 8 9	6.16 K5	- .030 + .003			
4771		2805	17072	26 16 3.4		-62 57	6.13 A5	- .059 - .006			
4772		3296	17071	26 30 3.1		- 4 30	6.28 KO	- .040 + .026	9	+ 2	
4773	γ Musc	1336	17086	26 29 3.6		-71 35	4.04 B5	- .044 - .012	12	+14	
4774		9746	17085	26 47 +3.2		-31 59	6.56 A3	- .019 - .015			
4775	8η Corv	3489	17087	26 55 3.1		-15 39	4.42 F0	- .428 - .067	55	var	V ₀ = -4km, two spectra
4776		3552	17095	27 25 3.1		-13 18	5.70 F0	- .147 - .058	13	- 1	
4777	20 Virg	+2473	17103	27 59 3.0		+10 51	6.46 KO	- .056 - .003	7	0	
4778		+3416	17108	28 9 3.1		-19 14	6.15 A5	- .014 - .009			
4779		3659	17113	28 23 +3.1		-12 17	5.76 G5	- .026 + .050	10	-16	
4780	22 Coma	+2523	17117	28 35 3.0		+24 50	6.14 A2	- .018 - .010	12	+ 2	
4781	21 Virg	3372	17122	28 37 3.1		- 8 54	5.41 A0	- .083 .000	14	-12	
4782		7195	17124	28 33 3.3		-49 21	6.49 F2	- .168 - .049			
4783		+2332	17121	28 43 3.0		+33 48	5.43 KO	+ .018 - .041	17	-21	
4784		+2333	17125	28 52 +3.0		+33 56	6.37 KO	+ .001 - .016	53		
4785	8β CVen	+2321	17127	29 0 2.8		+41 54	4.32 G0	- .705 + .284	108	+ 7	
4786	9β Corv	3401	17133	29 8 3.2		-22 51	2.84 G5	+ .004 - .059	27	- 8	
4787	5κ Drac	703	17126	29 13 2.6		+70 20	3.88 B5p	- .059 + .007	11	var	0.89 days, V ₀ = -11km
4788		+7755	17139	29 18 3.2		-44 7	5.86 G5	- .089 - .225	23		12m, 1"
4789	23 Coma	2475	17142	29 52 +3.0		+23 11	4.78 A0	- .069 + .013	9	var	V ₀ = -16km, two spectra
4790		3298	17151	29 51 3.4		-61 17	6.29 G5	- .301 - .096			
4791		+2584	17146	30 5 3.0		+18 56	6.72 A3	- .003 + .017	12	var*	20", binary
4792	24 Coma		17147	30 7 3.0		+18 56	5.18 KO	- .007 + .018		+ 4	
4793		2490	17150	30 8 3.0		+22 26	6.06 KO	+ .014 - .026		-14	

4751: This is itself double, 14m, 2".
 4791: 7.3 days, V₀ = +5km, two spectra.

Precession in declination, -0.33.

CATALOGUE OF BRIGHT STARS

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No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
4794	6 Drac	7376	17158	30 ^m 23 ^s +3.2		-40° 28'	5.23 A5	-".111 -".012	"019	- km - 11	V ₀ = +4km
4795		705	17148	30 30 2.5	+70 34		5.18 KO	- .033 - .004	10	var	
4796		7717	17164	30 38 3.2		-39 19	5.92 A0	- .039 - .044			
4797	α Musc	3521	17165	30 44 3.1		-19 58	6.12 A5	+ .013 - .044			
4798		1702	17179	31 13 3.6		-68 35	2.94 B3	- .032 - .018	15	+ 18	
4799	25 Virg	3535	17180	31 38 +3.1	- 5 17		5.90 A0	- .031 - .023	12	- 7	5.5 to 13.5, 261 days
4800	T U Maj	1406	17178	31 50 2.7	+60 2		var M4	- .023 - .017		-106*	
4801	25 Coma	2504	17183	31 57 3.0	+17 38		5.78 K2	- .037 - .024	8	- 8	
4802	τ Cent	7745	17194	32 14 3.3		-47 59	4.02 A2	- .190 - .015	21	+ 5	
4803		9233	17198	32 24 3.2		-26 35	5.44 F0	+ .072 - .100	33	- 1	12m, 2"
4804		955	17214	32 49 +3.9	-74 49		6.52 B9	- .024 + .019			6.6:8.8, 2", cpm
4805		+2631	17203	32 59 3.1	+ 3 50		6.25 A0	- .030 - .015	9	0	
4806		1861	17210	32 56 3.6		-66 39	6.46 B2	+ .002 - .015			
4807		2560	17209	33 16 3.1	+ 2 24		6.02 Ma	- .078 - .026	7	- 16	
4808	R Virg	2561	17212	33 26 3.0	+ 7 32		var M4	- .028 - .010	10	- 34*	6.2 to 12.0, 145 days
4809		3668	17216	33 31 +3.1	-17 42		6.08 F0	- .117 + .011			
4810		9845	17223	33 44 3.2		-29 52	6.02 K0	- .035 - .020	10		
4811	9 CVen	2312	17221	33 58 2.9	+41 25		6.29 A3	- .026 - .024			
4812		2479	17224	34 4 3.0	+23 13		6.47 K0	- .050 - .023			
4813	26 xVirg	3452	17227	34 5 3.1	- 7 27		4.78 K0	- .079 - .032	14	- 20	
4814		1941	17234	34 1 +3.6	-65 58		6.43 B9	- .051 - .033			
4815	26 Coma	2439	17225	34 9 3.0	+21 37		5.51 K0	- .084 - .017	8	var	V ₀ = -26km
4816		2295	17231	34 25 2.9	+36 30		6.32 A0p	+ .024 - .013	9	- 15	
4817		7748	17236	34 28 3.2	-39 26		4.79 B8p	- .053 - .038	14	var	V ₀ = +15km
4818		7944	17257	35 53 3.3	-45 36		5.84 K0	- .088 + .041			
4819	γ Cent	7597	17262	36 0 +3.3	-48 25		2.38 A0	- .196 - .015	25	- 8	3.1:3.1, 85 years
4820	R Musc	1731	17267	35 58 3.7	-68 52		var G5	+ .006 - .014			5.9 to 7.2, 7.5 days
4821			17259	36 4 3.1	-12 28		6.08 F5	- .116 + .012		var	
4822		3676	17260	36 5 3.1	-12 28		5.98 F5	- .130 + .001	13	var	6", binary
4823		4393	17268	36 11 3.5	-59 8		5.02 B8p	- .022 - .014	9	+ 12	
4824	27 Virg	+2484	17269	36 32 +3.0	+10 58		6.33 A5	- .111 - .002	12	var	
4825				36 36 3.0	- 0 54		3.65 F0				
4826	29 γ Virg	2601	17270	36 36 3.0	- 0 54		3.68 F0	- .567 + .005	95	- 20	4", 171 years
4827		+3442	17273	36 36 3.1	-19 12		6.01 F2	- .214 + .020			
4828	30 ρ Virg	+2485	17276	36 49 3.0	+10 47		4.95 A0	+ .084 - .097	13	var	
4829	31 Virg	2568	17279	36 53 +3.0	+ 7 21		5.49 A0	- .070 - .018	9	+ 4	11m, 4", binary
4830		2898	17286	36 58 3.5	-62 31		6.00 B1p	- .016 - .030		var	
4831		7608	17282	37 3 3.3	-48 16		4.65 K0	- .132 - .041	14	- 12	
4832		5194	17288	37 9 3.4	-55 24		6.23 B9	- .045 - .031	10	var?	V ₀ = +37km
4833	76 U Maj	1026	17278	37 12 2.6	+63 16		5.92 A0	- .034 - .021	9		
4834		5197	17294	37 28 +3.4	-55 38		6.25 B8	- .040 - .022	8	+ 10	
4835		4453	17300	37 44 3.4	-58 21		6.46 K0	- .083 - .023			
4836		7785	17301	37 59 3.3	-39 38		6.55 A5	+ .022 - .022			
4837		+2603	17309	38 30 3.1	- 1 2		6.08 G0	+ .048 - .082	22	0	
4838		8155	17311	38 34 3.2	-35 48		6.44 A0	- .010 - .002			
4839		8832	17315	38 41 +3.2	-27 47		5.73 K2	- .037 - .046	8	+ 7	
4840		1312	17305	38 41 2.6	+61 42		6.46 K0	- .045 + .020			
4841		1745	17325	38 53 3.7	-68 17		6.34 G0	- .023 - .027			
4842	ι Cruc	4273	17339	39 45 3.5	-60 26		4.68 K0	+ .101 - .075	26	+ 9	In Ursa Cluster
4843		2221	17329	39 44 2.8	+44 39		6.34 F5	- .028 - .002		- 16	

4800: Absorption lines give -99km.
4808: Absorption lines give -34km.

Precession in declination, -0'.33.

No	Name	DM	GC	12 ^h		Decl 1900	Magn Spec	Prop Motion		Par	Rad Vel	Remarks
				RA 1900	Ann Var			RA	Decl			
4844	β Musc	2064	17348	40 ^m 9 ^s + 3.7		-67° 34'	3.26 B3	-".028 - ".030	".012	var*	km*	3.9:4.2, 1", binary
4845	10 CVen	+2570	17337	40 16 2.8		+39 49	5.97 F8	-.355 + .132	64	+81		
4846	Y CVen	+1817	17342	40 26 2.8		+45 59	var Nb	+.004 + .008	0	+12		4.8 to 6.0
4847	32d ² Virg	2639	17346	40 34 3.0		+ 8 13	5.24 A5	-.108 - .001	20	var*		38.3 days, $V_0 = -9$ km
4848		5215	17352	40 38 3.4		-55 56	4.86 B3	-.042 - .039		var?		$V_0 = +17$ km
		5216	17353	40 39 3.4		-55 57	9.2	-.063 - .031	14			52", cpm
4849	33 Virg	2468	17355	41 18 +3.0		+10 6	5.86 KO	+.275 - .452	19	+51		
4850		8912	17360	41 22 3.2		-32 46	5.98 KO	-.013 - .037				
4851	27 Coma	2533	17363	41 39 3.0		+17 7	5.33 K2	+.009 .000	10	+51		
4852		402	17347	41 54 1.5		+81 10	6.26 A0	+.027 - .046	14	var		$V_0 = -26$ km
4853	β Cruc	4451	17374	41 53 +3.5		-59 9	1.50 B1	-.041 - .026	10	var		$V_0 = +20$ km
4854		2660	17366	41 58 3.0		+ 6 30	6.39 B9	+.033 - .049	6	+16		
4855	34 Virg	2512	17371	42 12 3.0		+12 30	6.05 A3	+.041 - .025	15			
4856		3569	17375	42 23 3.1		- 5 45	6.26 F8	-.001 - .050	21	+13		
4857		10540	17380	42 35 3.2		-24 18	6.29 B9	-.052 + .030				
4858	35 Virg	2653	17381	42 46 +3.1		+ 4 7	6.66 Ma	-.006 - .008	5	+ 8		
4859		1034	17377	43 3 2.6		+63 20	5.83 A5	+.017 - .006	15	-16		
4860		+9340	17391	43 6 3.2		-27 3	5.80 G5	-.143 - .071				
4861	28 Coma	2546	17390	43 14 3.0		+14 6	6.43 A0	-.048 - .036	7	0		
4862		1391	17403	43 16 3.9		-71 26	5.60 KO	+.011 - .018	6			
4863	7 Drac	764	17387	43 29 +2.5		+67 20	5.67 K5	+.004 - .008	7	+ 8		
4864		2568	17400	43 55 2.9		+25 23	6.39 G5	-.338 - .116	39	- 8		
4865	29 Coma	2549	17401	43 54 3.0		+14 40	5.64 A0	+.032 - .032	10	- 7		In Ursa Cluster
4866	11 CVen	2163	17402	44 6 2.8		+49 1	6.20 A3	-.065 + .007	13	- 2		
4867		+1320	17404	44 18 2.6		+60 52	5.87 F5	+.107 - .005	38	-12		In Ursa Cluster
4868		4483	17418	44 17 +3.5		-59 51	5.96 A2	-.004 - .029				
4869	30 Coma	2153	17410	44 25 2.9		+28 6	5.83 A0	-.097 + .015	8	+ 1		
4870	1 Octn	407	17460	44 27 6.3		-84 35	5.38 KO	+.077 + .021		+53		
4871		7893	17422	44 42 3.4		-47 55	6.44 A0	-.042 - .008				
4872		5947	17434	45 15 3.4		-52 15	5.90 A3	-.031 - .027				
4873		2502	17432	45 21 +3.0		+23 24	6.46 KO	+.109 - .076				
4874		8653	17433	45 16 3.3		-33 27	5.01 A0	-.034 - .032	15	+18		
4875		2373	17430	45 26 2.9		+38 4	5.86 A2	-.097 + .020	12	-13		
4876		4494	17437	45 22 3.6		-59 47	5.94 A2p	-.022 - .005		-22		
4877		3569	17445	46 11 3.1		- 9 48	6.52 KO	-.010 - .013	8	-17		9m, 30"
4878	37 Virg	2703	17449	46 31 +3.1		+ 3 36	6.12 KO	-.036 + .014	7	+ 3		
4879		7879	17452	46 26 3.3		-39 8	6.14 B8	-.041 - .036	8	+ 5		
4880		7917	17454	46 27 3.4		-47 33	6.44 A0	-.065 + .002				
4881		9369	17456	46 37 3.2		-26 12	6.12 A0	-.113 + .031				
4882		5359	17461	46 39 3.5		-53 17	6.34 KO	-.023 + .001				12m, 6"
4883	31 Coma	2156	17455	46 50 +2.9		+28 5	5.07 G0	-.016 - .016	17	- 2		
4884	32 Coma	2551	17464	47 14 3.0		+17 37	6.53 K5	-.003 - .022	4	- 1		
4885		5360	17472	47 17 3.5		-54 25	5.92 KO	-.122 .000	4			
4886		2430	17469	47 29 3.0		+16 40	6.25 A2	-.043 - .026	11	-28		
4887		4529	17475	47 24 3.6		-59 47	5.84 B9p	-.010 - .012		-15		
4888		7753	17473	47 27 +3.4		-48 24	4.35 K2	-.089 - .029	15	var?		$V_0 = -2$ km
4889		7893	17489	47 54 3.3		-39 38	4.34 A5	+.068 - .032	50	- 2		
4890	κ Cruc	4555	17492	47 51 3.6		-59 50	6.11 B3	+.007 - .033		- 1		
4891	38 Virg	+3593	17487	48 4 3.1		- 3 1	6.15 F5	-.259 - .007	32	- 7		
4892		+ 289	17440	48 16 0.5		+83 58	5.81 A0	-.026 + .018	8	var*		22", cpm
4893		+ 290	17443	48 23 0.5		+83 57	5.28 A2	-.029 + .016	10	+ 3		

4844: $V_0 = +42$ km.4892: 3.3 days, $V_0 = +1$ km,
two spectra.Precession in declination, -0.33 .

4847: Two spectra.

CATALOGUE OF BRIGHT STARS

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12^h - 13^h

No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
4894	35 Coma	+2519	17493	48 ^m 22 ^s +3.0	+21° 47'	5.10 KO	- .048 - .029	1017	- km	5.2:8.0, 1", binary*	
4895	S Cruc	5776	17509	48 27 3.6	-57 53	var GO	- .011 - .014			6.4 to 7.1, 4.7 days	
4896		3373	17497	48 29 3.1	- 3 41	6.46 KO	- .001 - .047				
4897	λ Cruc	4584	17514	48 43 3.6	-58 36	4.84 B3	- .033 - .022	13	+16		
4898	μ Cruc	5487	17512	48 43 3.5	-56 38	4.26 B3	- .030 - .018	9	+12	35", cpm	
4899			17513	48 44 3.5	-56 38	5.46 B3p	- .033 - .013		+19		
4900	41 Virg	+2602	17502	48 49 +3.0	+12 58	6.34 A3	+ .050 - .032	16	var?	In Ursa Cluster	
4901		+3570	17515	49 6 3.1	-11 6	5.96 A0	- .144 + .006				
4902	40 ♀ Virg	+3449	17516	49 9 3.1	- 9 0	4.91 Mb	- .024 - .022	9	+18		
4903		7953	17523	49 25 3.3	-43 36	6.04 G0	- .229 - .235	42			
4904		2369	17517	49 27 +2.9	+34 5	6.26 A2	- .096 + .022	11	+ 5		
4905	77 ε UMa j	1627	17518	49 38 2.6	+56 30	1.68 A0p	+ .113 - .011	67	var	4.15 years, V ₀ = -12km*	
4906		7975	17529	49 44 3.3	-42 22	5.55 K5	- .041 - .024				
4907		1404	17545	49 51 4.0	-71 39	5.84 KO	- .017 - .024				
4908		5498	17540	50 3 3.5	-56 18	5.58 Oe5	- .021 - .022	2	+22		
4909		2003	17533	50 23 +2.7	+47 45	6.02 Mb	- .017 - .012	3	-17		
4910	43 δ Virg	+2669	17543	50 34 3.0	+ 3 56	3.66 Ma	- .469 - .060	18	-18		
4911		3605	17548	50 39 3.2	-14 47	6.10 A0	- .010 - .007				
4912		9508	17558	51 7 3.2	-25 55	6.76 G0	+ .011 - .024	3	-22		
4913		7394	17569	51 19 3.5	-50 39	5.29 B8	- .030 - .025	13	+25		
4914	12 C Ven	+2580	17556	51 20 +2.8	+38 51	5.39 A0p	- .236 + .055	24	var*	20", binary	
4915			17557	51 21 2.8	+38 51	2.90	- .233 + .048		- 3		
4916	8 Drac	+ 778	17554	51 30 2.4	+65 59	5.27 F0	- .004 - .035	27	+ 9		
4917		1556	17567	51 55 2.6	+54 38	6.01 A2	- .077 - .007	13		8.0m, 4", binary	
4918		+3635	17585	52 13 3.2	-22 13	6.40 G5	- .054 - .037				
4919		1833	17582	52 34 +2.7	+46 44	6.22 KO	- .022 - .055		var		
4920	36 Coma	+2682	17616	53 59 3.0	+17 57	4.96 Ma	- .034 + .022		- 2		
4921	44 Virg	3384	17631	54 30 3.1	- 3 16	5.87 A0	- .036 + .004			11m, 21", cpm	
4922		9083	17645	55 4 3.3	-32 58	6.08 F2	- .075 - .083				
4923	8 Musc	+1548	17672	55 23 4.1	-71 1	3.63 K2	+ .273 - .038	21	var	V ₀ = +37km	
4924	37 Coma	2434	17647	55 29 +2.9	+31 19	5.08 KO	- .021 - .014	11	-13	14m, 5", cpm	
4925	46 Virg	3609	17649	55 27 3.1	- 2 50	6.12 KO	- .027 + .045	9	+23	11m, 1", cpm	
4926		+2622	17654	55 45 2.9	+18 55	6.12 F5	- .226 + .053	26	0		
4927		473	17637	55 50 1.8	+76 0	6.19 KO	+ .006 + .006		-14		
4928	9 Drac	773	17651	56 8 2.3	+67 8	5.50 KO	- .140 - .017	6	-30		
4929	38 Coma	2573	17667	56 13 +3.0	+17 40	6.01 G5	- .006 - .032	8	- 6		
4930		1553	17685	56 17 4.1	-70 56	5.96 B3p	- .013 - .026		-35*		
4931	78 UMa j	+1408	17664	56 26 2.6	+56 54	4.89 F0	+ .114 - .016	35	- 9	9.5m, 1", 90 years*	
4932	47 ε Virg	2529	17687	57 12 3.0	+11 30	2.95 KO	- .274 + .016	36	-14		
4933	ξ Cent	7887	17704	57 46 3.5	-48 59	5.02 A0	- .064 - .023	16	-10		
4934		927	17690	57 53 +2.3	+64 9	6.02 F5	- .179 + .025	36	-11		
4935		+3629	17711	58 25 3.2	-20 3	5.68 G0	+ .141 + .011	35	+33	6.2:6.7, 1", cpm	
4936		1439	17702	58 34 2.5	+60 16	6.33 A0	- .024 - .015	9	-36		
4937	48 Virg	+3622	17715	58 45 3.1	- 3 8	6.51 F0	- .037 - .041	7	+ 1	7.2:7.3, close binary	
4938		7662	17729	59 10 3.4	-40 39	6.19 Mb	- .033 - .041				
4939		7248	17740	59 38 +3.5	-51 35	6.42 Ma	- .052 + .021				
4940		8088	17750	0 29 3.5	-47 56	4.96 B3	- .035 - .033	10	+ 9	10m, 12", cpm	
4941		+7682	17763	0 55 3.4	-41 3	5.74 KO	+ .040 - .028				
4942	ξ Cent	7644	17773	1 4 3.5	-49 22	4.40 B3	- .030 - .018	7	var*	9m, 24", cpm	
4943	14 C Ven	2337	17751	1 4 2.8	+36 20	5.11 B9	- .029 + .012	9	-14		

4894: Also 9m, 29", cpm.

4905: Velocity variable in 0.95 days as well. In Ursa Cluster.

4914: V₀ = -3km.

4930: Emission lines give variable velocity.

Precession in declination, -0.32.

4931: In Ursa Cluster.

4942: 7.6 days, V₀ = +14km.

13^h

No	Name	DM	GC	RA		Decl 1900	Magn Spec	Prop Motion		Par	Rad Vel	Remarks
				1900	Ann Var			RA	Decl			
4944	39 Coma	4740	17778	1 ^m 14 ^s +3.7 ^s		-59° 20'	6.06 B9	-.024	-.024		+ km 4	6.7:6.9, 1"
4945		+1847	17758	1 22 2.7		+45 48	5.72 KO	-.016	+.024	"009	var?	V ₀ = -19km*
4946		2487	17767	1 29 2.9		+21 41	6.04 F5	-.077	-.042	28	0	
4947		8441	17774	1 20 3.3		-35 19	5.61 A0	+.037	-.086		+16	
4948		2365	17764	1 24 2.9		+29 34	6.44 A2	-.071	-.005	12	+ 3	11m, 6", cpm*
4949	40 Coma	2538	17769	1 31 +2.9		+23 9	5.90 Mb	+.025	-.055	5	- 5	
4950		583	17748	1 44 1.9		+73 34	6.33 A5	-.019	+.015	12	-15	6.5:8.5, close binary
4951	θ Musc	6194	17783	1 42 3.6		-52 55	5.96 B9	-.043	-.038	12		
4952		2183	17788	1 40 3.9		-64 46	5.64 Oap	-.008	-.021		-28	8m, 5", cpm
4953		1275	17780	2 26 2.4		+62 35	6.31 KO	+.006	-.043	8	+15	
4954	41 Coma	2185	17787	2 23 +2.9		+28 10	4.90 K5	+.030	-.078	9	-16	
4955	49 Virg	+3628	17794	2 39 3.1		-10 12	5.26 KO	+.015	-.013	12	- 9	
4956		2187	17796	3 7 2.9		+28 5	6.40 K5	-.042	-.070		- 8	
4957		3491	17805	3 20 3.1		- 8 27	5.70 KO	-.036	-.067	10	var?	V ₀ = +16km
4958	45 ψ Hyda	3515	17813	3 40 3.2		-22 35	5.11 KO	-.023	-.046	9	-18	
4959		+3495	17815	4 1 +3.1		- 9 0	6.44 KO	-.036	-.016			
4960		2516	17817	4 12 3.0		+10 33	5.95 KO	+.015	-.009	9	0	
4961	50 Virg	3636	17822	4 31 3.1		- 9 48	6.20 K2	-.010	-.019	6	- 7	
4962		2595	17825	4 53 2.9		+17 22	6.18 KO	-.067	-.019	3	-17	
4963	51 θ Virg	+3430	17828	4 46 3.1		- 5 0	4.44 A0	-.036	-.039	16	var	9m, 7", cpm. V ₀ = -3km
4964		+2407	17826	5 2 +2.8		+37 57	6.14 K2	-.103	-.002			
4965		+7329	17839	5 1 3.6		-52 2	6.29 A0p	-.044	-.028			
4966		1772	17846	4 57 4.1		-69 25	6.13 F2	+.046	-.006			
4967	15 CVen	2611	17829	5 6 2.8		+39 4	6.22 B9	-.016	-.005	4		
4968	42 α Coma	2697	17833	5 7 2.9		+18 3	5.22 F5	-.431	+.129	57	-18	0".7, 25.9 years
4969				5 7 2.9		+18 3	5.22 F5					
4970		7648	17843	5 27 +3.4		-41 42	5.82 F5	-.085	-.031			
4971	17 CVen	2614	17835	5 28 2.8		+39 2	6.04 F0	-.073	+.035		var?	V ₀ = +1km
4972		3046	17852	5 28 3.8		-62 46	6.40 F0	-.001	-.010			
4973		8175	17850	5 40 3.4		-42 50	5.32 KO	-.122	-.036	9	- 9	
4974		+1056	17837	5 58 +2.3		+62 46	6.49 A0	-.029	-.014	6	-17	
4975		4815	17866	6 3 3.7		-59 23	4.76 B8	-.045	-.036	15		5.3:5.7, close binary*
4976		890	17886	5 58 5.0		-77 55	5.77 G5	+.001	-.015			
4977		2201	17872	6 12 4.0		-65 42	6.03 A0	+.032	-.007			
4978		+9653	17861	6 13 3.3		-26 1	6.48 A3	-.073	-.004			7.2:7.3, 0".2
4979		8437	17869	6 28 +3.3		-37 16	4.89 G5	-.388	+.036	46	-15	
4980		4827	17880	6 40 3.8		-59 17	6.39 F5	+.017	-.119			
4981	53 Virg	3613	17870	6 44 3.2		-15 40	5.09 F2	+.095	-.293	60	-14	
4982		8196	17882	7 7 3.4		-42 10	6.12 KO	-.024	-.004			
4983	43 β Coma	2193	17874	7 12 2.8		+28 23	4.32 G0	-.799	+.876	123	+ 6	
4984		+2610	17877	7 20 +2.9		+24 47	6.46 KO	-.018	-.036			
4985		7589	17890	7 27 3.6		-50 10	6.04 A0	-.024	-.036			6.8:6.8, close binary
4986		2565	17884	7 34 3.0		+12 5	5.82 K5	-.053	-.030		+25	
4987		2648	17888	7 43 2.9		+19 17	6.58 G5	-.065	-.010		- 2	
4988		4738	17908	7 59 3.7		-58 9	5.96 KO	-.082	-.024			
4989		4740	17910	8 4 +3.7		-58 34	5.04 F8	-.262	-.169	50	-65	10.5m, 2".7
4990	54 Virg	3562	17902	8 6 3.2		-18 18	6.27 A0	-.023	-.024		var	5", binary
4991			17903	8 6 3.2		-18 18	7.3	-.028	-.017	11		
4991		8213	17909	8 14 3.4		-42 37	6.14 KO	-.173	+.019			
4992		2649	17904	8 21 2.9		+19 15	6.48 KO	-.216	-.056			

4945: 12m, 3", binary.

4948: The companion is itself a binary, 11.5:11.7, 0".4.

Precession in declination, -0".32.

4975: Also 8m, 2", binary.

CATALOGUE OF BRIGHT STARS

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No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
4993	η Musc	2223	17923	8 ^m 23 ^s +4.1 ^s		-67°21'	8.2 A0	-".045 -".018	".016	km var?	59", cpm V ₀ = +5km
4994		2224	17927	8 28 4.1		-67 22	4.95 B8	-.032 -.020			
4995	55 Virg	1784	17931	8 30 4.2		-69 9	6.39 K0	-.091 -.060			
4996		3651	17918	8 50 3.2		-19 24	5.63 G5	-.123 +.160		-45	
4997		8050	17926	8 50 3.5		-48 25	5.97 K0	-.134 -.090	14		
4998		2633	17916	9 11 +2.7	+40 41	5.05 K0	-.049 +.007	7	-21		
4999		+2572	17933	9 32 3.0	+11 52	5.81 K5	+.072 -.058	7	+12		
5000		8547	17938	9 32 3.4	-35 50	6.32 K0	-.017 -.023				
5001	57 Virg	2316	17955	10 9 4.0	-64 36	6.12 F5	-.097 -.064				
5002		3653	17951	10 34 3.2	-19 25	5.32 K0	+.305 -.123	34	+34		
5003		2142	17959	10 29 +4.0	-66 15	4.78 K0	-.011 -.027	2	-10		
5004	19 CVen	587	17934	10 40 1.7	+73 20	6.43 A0	+.021 -.031	8	var		
5005		2374	17953	11 2 2.7	+41 23	5.68 A5	-.108 +.008	19			
5006		2674	17960	11 18 3.1	- 0 52	6.49 F0	-.054 -.018				
5007		10457	17968	11 20 3.3	-30 59	5.36 K0	+.029 -.053	11	var?	V ₀ = +13km	
5008		2655	17958	11 23 +2.9	+19 35	6.54 G5	-.102 -.005		-45		
5009		8165	17978	11 26 3.5	-43 27	5.87 A3p	-.014 -.023				
5010		416	17932	11 32 0.5	+81 0	6.32 G5	-.009 +.008	8	-10	10m, 0".8	
5011	59 Virg	2814	17970	11 41 2.9	+20 19	6.29 A3	-.118 +.017	10	-33	GC 17977, 204", cpm	
5012		+2531	17975	11 49 3.0	+ 9 57	5.22 G0	-.336 +.185	70	-26		
5013		1458	18004	12 0 +4.4	-71 30	6.07 K2	-.018 -.072				
5014		2591	17988	12 19 3.0	+14 12	5.45 K2	+.006 +.031	10	-26		
5015	60 σVirg	+3040	17993	12 23 3.1	- 0 9	6.32 F0	-.060 -.031				
5016		2722	17995	12 33 3.0	+ 6 0	5.01 Ma	-.010 +.010	9	-27		
5017		7660	18003	12 34 3.6	-50 46	6.39 A0	-.052 -.032				
5018	20 CVen	2380	18000	13 4 +2.7	+41 6	4.66 F0	-.123 +.013	14	+ 7		
5019		+ 694	17991	13 11 2.0	+68 56	6.11 B9	-.015 +.011	6	-23		
5020	61 Virg	3813	18007	13 10 3.1	+17 45	4.80 G5	-1.075 -1.076	116	- 8		
5021	46 γHyda	3554	18012	13 29 3.3	-22 39	3.33 G5	+.069 -.052	25	- 5		
5022		2721	18015	13 47 3.0	+ 4 13	6.56 A0	-.051 -.017			7.1:7.6, 260"	
5023	21 CVen	2410	18010	13 50 +2.8	+34 37	5.98 K0	+.032 -.005				
5024		1994	18009	13 59 2.6	+50 12	5.13 A0	-.030 +.011	14	- 3		
5025		4912	18030	14 13 3.8	-59 15	6.38 F2	-.039 -.036				
5026		2435	18023	14 28 2.8	+35 39	5.96 A5	-.029 +.005	15	- 2		
5027		6405	18034	14 33 3.6	-52 13	5.70 B3	-.033 -.030		+ 6		
5028	Cent	5504	18036	14 36 +3.7	-55 17	6.20 B0	-.014 -.006				
5029		8497	18039	14 58 3.4	-36 11	2.91 A2	-.339 -.092	49	0		
5030		8580	18044	15 4 3.5	-46 21	5.80 K0	-.080 -.006				
5031		1467	18078	15 27 4.5	-71 37	6.12 B5	-.012 -.026			6.4:7.8, 0".3	
5032	23 CVen	2758	18050	15 37 3.0	+ 3 28	6.23 A0	-.060 -.035	6	+ 4	6.7:7.4, 1", binary	
5033		2647	18048	15 50 +2.7	+40 41	5.69 K0	-.056 -.012	9	-20		
5034		3587	18066	16 7 3.2	-18 58	6.18 A0	-.068 +.001				
5035		4627	18084	16 8 3.9	-60 27	6.51 B3	-.016 -.025	9	- 7	60", cpm	
5036		7465	18081	16 11 3.6	-51 40	6.10 B0	-.029 -.020	1	-15		
5037		2664	18079	16 37 +3.1	+ 2 37	5.68 A0	-.063 -.060	13	- 6		
5038		8260	18095	16 55 3.6	-47 25	6.32 A2	+.031 -.006			6.9:7.4, 0".7	
5039		+8261	18099	17 4 3.6	-48 2	6.46 B5	-.014 -.016			Possibly double	
5040	64 Virg	2737	18091	17 7 3.0	+ 5 41	5.87 A0	-.067 -.042	11	-11		
5041		+2732	18107	17 17 4.0	-64 1	4.50 G0	+.035 -.039	0	+12		

Precession in declination, -0'.32.

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No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
5042	1 ⁱ Musc	1057	18116	17 ^m 14 ^s +4.7	-74° 22'	4.96 KO	- .104 - .139	.012	km	+29	
5043		9322	18103	17 32 3.4	-32 40	6.32 Ma	- .010 - .012				
5044	63 Virg	+3650	18104	17 40 3.2	-17 13	5.45 KO	- .049 - .035	1		-26	
5045		2269	18094	17 41 2.6	+44 26	6.41 A3	- .072 + .003	9		- 2	
5046		7884	18110	17 51 3.6	-49 18	6.44 KO	- .071 - .053				
5047	65 Virg	3469	18109	18 8 +3.1	- 4 24	5.94 KO	- .019 - .021	8		+10	
5048		2743	18132	18 32 4.0	-63 58	5.46 F5	- .161 - .038	4		- 2	
5049		+1838	18141	18 33 4.4	-70 6	5.84 A0p	- .056 - .021				
5050	66 Virg	3472	18135	19 21 3.1	- 4 38	5.76 F2	+ .157 - .036	30		var	
5051	1 ² Musc	1059	18157	19 21 4.8	-74 10	6.76 B9	- .039 - .030				
5052		2404	18127	19 22 +2.7	+37 33	6.37 Ma	+ .021 - .014	3		+ 1	
5053		+2663	18139	19 34 3.0	+12 57	6.50 KO	- .018 + .034			var	
5054	79 ζ U Maj	1598	18133	19 54 2.4	+55 27	2.40 A2p	+ .124 - .028	42		var*	14", binary*
5055			18134	19 55 2.4	+55 27	3.96 A2	+ .118 - .036			var*	
5056	67 α Virg	3672	18144	19 55 3.2	-10 38	1.21 B2	- .041 - .035	17		var*	Spica, 4.0 days
5057		2578	18147	20 21 +2.9	+24 23	5.75 A2	- .008 - .015	12		var?	V ₀ =0km
5058		8246	18153	20 20 3.5	-39 14	5.25 KO	+ .182 - .065	16		+68	
5059		2686	18163	21 4 3.1	- 0 40	6.01 A3	- .112 - .001				
5060		7894	18166	21 7 3.5	-40 59	5.76 K2	- .009 - .026				
5061		8202	18170	21 4 3.6	-48 38	6.31 A0	- .025 - .015				
5062	80 U Maj	1603	18155	21 13 +2.4	+55 31	4.02 A5	+ .119 - .024	38		var	Alcor, V ₀ = -2km*
5063		8206	18174	21 18 3.6	-48 52	6.34 B3	+ .007 .000			var?	V ₀ = -10km
5064	68 Virg	+3516	18168	21 26 3.2	-12 11	5.59 K2	- .135 - .024	8		-29	
5065		8260	18176	21 27 3.5	-39 39	6.52 KO	- .012 - .010				
5066		+1929	18189	21 31 4.4	-69 6	6.24 B9	- .036 - .057				
5067		1868	18171	21 59 +2.6	+46 33	5.89 KO	+ .024 - .029	10		+ 6	
5068	69 Virg	3668	18181	22 7 3.2	-15 27	4.89 KO	- .121 + .018	22		-14	
5069		2418	18206	22 19 4.1	-64 9	6.24 A0	- .077 - .018				
5070		+ 949	18173	22 35 2.1	+63 46	6.55 G5	- .391 + .213	33		-31	
5071		7812	18220	23 17 3.7	-50 39	5.31 A2	- .006 - .027	7		- 2	
5072	70 Virg	2621	18212	23 32 +2.9	+14 19	5.16 G0	- .237 - .583	45		+ 4	
5073		+ 592	18183	23 35 1.5	+72 55	6.07 K5	+ .022 - .014	5		-48	
5074		935	18196	23 43 2.0	+65 15	6.66 F0	- .068 + .024				69", cpm
5075		936	18198	23 49 2.0	+65 13	7.01 F0	- .063 + .028				
5076		1622	18213	23 59 2.4	+53 16	6.16 F0	- .115 - .016	19		- 7	
5077		2400	18218	24 2 +2.6	+41 15	6.54 KO	+ .008 - .063				
5078		2694	18228	24 7 3.1	- 0 51	6.36 KO	- .045 - .068	7		+39	
5079		1846	18217	24 6 2.5	+51 6	6.77 A3	- .113 + .033				
5080	R Hyda	3601	18239	24 15 3.3	-22 46	var M7	- .057 + .008			-23*	3.5 to 10, 415 days*
5081	71 Virg	2575	18234	24 16 3.0	+11 20	5.78 KO	- .062 - .046	9		var?	V ₀ =0km
5082	S Cham	+ 767	18279	24 35 +5.2	-77 3	var F5	- .334 - .119			-41	7.0 to 8.0, (ptg)*
5083		1847	18230	24 39 2.5	+51 14	6.30 F0	+ .029 - .091	19		- 7	
5084	κ Octn	384	18357	24 42 9.7	-85 16	5.65 A2	- .084 - .024			var	
5085		1461	18226	24 47 2.2	+60 28	5.41 A0	- .081 + .035	16		- 7	
5086		2655	18249	24 59 3.0	+ 7 42	6.29 K5	+ .007 - .004				
5087		2750	18248	24 56 +3.0	+ 6 32	6.41 KO	- .019 + .044				
5088	72 Virg	3706	18251	25 13 3.1	- 5 57	6.07 A5	+ .040 + .011			var	11m, 30", binary
5089		8592	18254	25 15 3.5	-38 53	3.96 KO	- .016 - .022	6		- 3	4.6:4.9, close binary
5090		9278	18277	26 0 3.3	-27 35	6.55 A2	- .065 - .006				
5091		422	18223	26 6 0.5	+79 10	5.94 G5	- .136 + .026	11		+15	

5054: Mizar; the first spect. binary to be discovered,
20.5 days, V₀ = -10km, two spectra. In Ursa Cluster.

5055: V₀ = -9km. In Ursa Cluster.

5056: V₀ = +2km, two spectra.

Precession in declination, -0.31.

5062: In Ursa Cluster.

5080: Absorption lines give -5km. 12m, 22", cpm.

5082: 9m, 23", cpm.

CATALOGUE OF BRIGHT STARS

13^h

No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
5092		8695	18286	26 ^m 18 ^s +3.5 ^s		-37° 53'	6.34 KO	+ .031 - .051		km	
5093		+ 2465	18300	26 37 4.2		-65 7	6.42 AO	- .042 - .024			
5094	73 Virg	+ 3877	18287	26 39 3.2		-18 13	5.93 A3	- .097 - .021			
5095	74 Virg	3714	18288	26 46 3.1		- 5 44	4.83 Ma	- .101 - .048	.014	+18	
5096		2405	18283	26 56 2.6		+42 37	6.15 KO	- .094 + .019	8		
5097		10128	18295	27 2 +3.3		-28 11	5.67 AO	- .106 - .035			
5098		+10127	18294	26 59 3.4		-29 3	6.44 F5	- .075 - .004			
5099	75 Virg	3739	18305	27 31 3.2		-14 51	5.65 KO	- .075 - .009	8	-40	
5100	76 Virg	3711	18309	27 42 3.2		- 9 39	5.43 G5	- .034 - .043	16	- 1	
5101	S Virg	3837	18312	27 47 3.1		- 6 41	var M6	+ .046 - .012		- 5*	6.0 to 12.9, 384 days
5102		+ 2643	18313	28 4 +2.8		+24 52	6.18 G5	+ .048 - .213	6	+ 7	12m, 1 ^h 5, binary
5103		8417	18333	28 24 3.6		-47 46	6.44 AO	- .032 - .020			
5104		9459	18343	29 3 3.4		-32 48	6.48 K2	- .093 - .011			
5105	78 Virg	2764	18335	29 4 3.0		+ 4 10	4.93 A2p	+ .039 - .031	16	-11	In Ursa Cluster
5106		3843	18348	29 21 3.2		-12 42	5.81 AO	- .048 - .018	8	-20	6.3:6.8, close binary
5107	79 Virg	+ 3076	18351	29 36 +3.1		- 0 5	3.44 A2	- .285 + .034	33	-14	
5108		2658	18352	29 57 2.7		+39 18	6.21 A3	+ .013 + .016	12	-12	
5109	81 UMa	+ 1667	18353	30 17 2.3		+55 52	5.48 AOp	- .021 - .010	12	- 9	
5110		2426	18359	30 20 2.7		+37 42	4.96 FO	+ .088 - .015	23	var	V ₀ = +7km
5111	80 Virg	3515	18366	30 19 3.1		- 4 53	5.75 KO	+ .016 + .076	11	- 8	
5112	24 CVen	2227	18356	30 22 +2.5		+49 32	4.63 A3	- .125 + .019	26	var	V ₀ = -12km
5113		3841	18384	30 25 4.1		-61 11	5.59 F5	+ .138 - .124	33	+40	6.2:6.5, 35 years
5114		2565	18368	30 35 3.0		+10 43	6.46 KO	+ .074 - .068			8.5m, 70", cpm
5115		882	18406	30 38 5.1		-75 10	6.44 AO	- .023 - .026			
5116		2285	18370	30 59 2.6		+44 43	6.63 A5	- .019 + .008			
5117		9189	18387	31 7 +3.4		-33 57	6.62 G5	- .016 - .035			
5118		8418	18391	31 8 3.6		-43 38	5.96 KO	- .055 - .023			
5119		1898	18410	31 10 4.6		-69 56	5.97 K2	- .076 - .050			
5120		9900	18388 18389	31 15 3.3		-25 59	7.0 A 5.49 A2	- .101 + .022 - .093 + .013	12	-10	10", binary
5121		8578	18395	31 21 +3.6		-45 55	6.04 B8	- .012 - .042			
5122		6169	18405	31 34 3.9		-57 54	6.38 KO	- .005 - .047			11m, 2"
5123		2652	18399	32 17 2.8		+25 7	5.90 Ma	- .027 - .010			
5124		+ 5856	18428	32 17 3.9		-57 7	6.04 KO	- .003 - .024			
5125		1653	18448	32 20 4.6		-70 17	6.50 KO	- .017 - .039			
5126		2014	18400	32 36 +2.4		+50 0	6.60 KO	- .004 - .021			
5127	25 CVen	+ 2433	18421	33 1 2.7		+36 48	4.92 FO	- .100 + .019	26	- 6	5.1:7.0, 220 years
5128		+10181	18442	33 5 3.4		-29 3	5.84 FO	- .081 - .077			
5129		+ 2602	18434	33 14 2.9		+14 48	6.35 FO	+ .033 - .028	15	- 2	
5130		+ 2896	18457	33 11 4.2		-64 4	5.78 FO	- .053 - .023			
5131		516	18390	33 24 +0.8		+77 4	6.70 K5	- .026 - .006			
5132	e Cent	6655	18458	33 33 3.8		-52 57	2.56 B1	- .023 - .023	12	+ 6	
5133		1856	18437	33 43 2.4		+51 13	6.59 K5	- .011 - .008	2		6.8:8.3, 2", binary
5134		8095	18462	33 49 3.7		-49 27	5.62 Mb	- .115 + .004			
5135		8390	18459	33 48 3.5		-39 14	6.36 Mb	- .024 - .030			
5136		8392	18461	33 56 +3.5		-39 33	5.72 KO	- .048 - .066			
5137		+ 2697	18454	34 14 2.9		+18 46	6.46 KO	- .046 - .026	4	-11	
5138		2589	18466	34 39 3.0		+11 15	5.54 F2	- .115 - .020	15	-20	6.3:6.3, 23 years
5139		659	18445	34 47 1.4		+71 45	5.67 KO	- .039 - .006	8	+15	
5140		5059	18500	35 23 4.0		-58 17	5.53 B9	- .031 - .020	11	-30	

5101: Absorption lines give +11km.

Precession in declination, -0.31.

13^h

No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
5141	82 UMa _j	+ 5725	18494	35 ^m 20 ^s +3.8		-54° 3'	7.1	-".087 -".060	"008	km	5", binary
5142		1640	18495	35 20 3.8		-54 3	5.65 B9	-.049 -.055	14	+ 2	
5143		2526	18473	35 38 2.3		+53 26	5.28 A2	-.141 +.053		-17	
5144		2858	18479	35 43 2.7		+31 31	6.08 G5	-.079 +.080		-15	
5145	1 Boot	2248	18485	35 54 2.9		+20 28	5.65 A2	-.049 +.015	16	var?	V ₀ = -22km*
5146		3645	18491	36 2 +2.8		+28 35	6.36 K0	-.069 +.008			
5147	T Cent	+ 9549	18502	36 0 3.3		-22 57	6.42 A0	-.014 -.003		+28	5.6 to 9.0, 91 days 10m, 18", cpm
5148	2 Boot	1859	18505	36 2 3.4		-33 6	var Md	-.019 +.019	45	-12	
5149		2600	18492	36 25 2.4		+51 1	6.33 F8	-.131 +.052	9	+ 4	
5150	82 Virg	+ 3674	18499	36 19 2.8		+23 0	5.80 G5	-.021 -.032	10	-37	V ₀ = -48km
5151		5891	18509	36 22 +3.1		- 8 12	5.16 Ma	-.098 +.034		var?	
5152	83 UMa _j	7983	18517	36 24 3.9		-56 16	6.30 B2	-.017 -.022			10m, 0".7
5153		1456	18521	36 39 3.8		-50 17	6.29 K0	-.010 -.034			
5154		1625	18496	36 42 2.2		+57 43	6.14 A2	-.056 +.018	10	- 1	
5155		8096	18504	36 42 2.2		+57 43	4.75 Ma	-.022 -.014	12	-17	
5156	+ 2798	8089	18526	36 59 +3.6		-40 54	6.00 K0	-.063 -.054			5.7:8.1, 3", binary
5157		8089	18520	37 17 3.0		+ 8 54	6.13 F5	-.384 -.096	29	-14	
5158	84 Virg	7998	18546	37 42 3.6		-41 34	6.10 B8	-.030 -.011			7 -42
5159		2775	18555	37 59 3.8		-50 31	6.46 A0p	-.039 -.048	7	-42	
5160	83 Virg	2431	18540	38 2 3.0		+ 4 3	5.62 K0	-.293 -.077			9.9 days, V ₀ = -23km
5161		2474	18538	38 13 +2.6		+42 11	6.34 K0	-.091 .000			
5162		953	18539	38 16 2.7		+35 30	5.98 K0	+ .018 +.004		-26	
5163		+ 3540	18527	38 23 1.9		+65 20	5.70 A0	+ .052 -.019	10	-14	
5164	I Cent	2606	18562	38 42 3.1		- 5 0	6.47 A0	-.054 -.025		var	10m, 10" 437 days, V ₀ = -6km 10m, 1".6, cpm*
5165		3731	18564	39 2 2.8		+23 12	6.41 K2	+ .048 -.043	7	+ 9	
5166		+ 11057	18568	39 6 +3.2		-15 41	5.71 G0	+ .010 -.010			
5167		9972	18571	39 12 3.3		-25 0	6.25 K0	-.054 -.025	18	0	
5168	85 Virg	9603	18572	40 2 2.3		+52 34	5.82 A0	-.026 -.011	45	var	10m, 10" 437 days, V ₀ = -6km 10m, 1".6, cpm*
5169		1733	18593	40 0 3.4		-32 32	4.36 F5	-.460 -.151	10	-12	
5170	86 Virg	3735	18595	40 2 2.3		+52 34	5.82 A0	-.026 -.011		var	6.6:7.6, close binary
5171		+ 4003	18610	40 12 +3.2		-15 16	6.15 A0	-.046 -.031			
5172	87 Virg	8017	18610	40 12 4.2		-62 5	6.23 G5p	-.018 -.021			36.0 days, V ₀ = +8km
5173		8017	18607	40 19 3.8		-50 56	4.68 K0	+ .004 -.040	13	var	
5174		3591	18604	40 37 3.2		-11 56	5.82 K0	-.021 .000	10		
5175		8995	18604	40 37 3.2		-11 56	5.82 K0	-.021 .000	10		
5176	4 τ Boot	8194	18618	41 7 3.5		-35 45	5.24 A0	-.015 -.024	14	-10	11m, 7", binary
5177		8194	18622	41 9 +3.8		-49 45	6.06 A3	+ .066 -.019			
5178	84 UMa _j	8198	18627	41 22 3.8		-49 49	5.50 K0	-.153 -.030	9	+30	6.5:9.3, 12", cpm
5179		1683	18627	41 22 3.8		-49 49	5.50 K0	-.153 -.030	9	+30	
5180		+ 3639	18605	41 31 2.2		+56 23	6.39 F5	+ .102 -.368	29	- 4	
5181		2424	18630	41 56 3.2		- 9 13	6.24 K0	+ .004 -.044	7	+ 7	
5182	3 Boot	2678	18620	41 59 2.5		+41 35	5.69 A3	-.115 -.050	16	var?	36.0 days, V ₀ = +8km
5183		2678	18621	41 59 +2.6		+39 0	6.00 K0	-.051 -.009		-12	
5184	+ 2690	3932	18632	41 59 3.3		-17 22	5.79 Ma	+ .057 -.041	5	+63	11m, 7", binary
5185		2494	18632	41 59 3.3		-17 22	5.79 Ma	+ .057 -.041	5	+63	
5186	84 UMa _j	466	18623	42 0 3.0		+ 6 51	6.32 G0	-.513 -.114	18	var*	11m, 7", binary
5187		2690	18625	42 0 3.0		+ 6 51	6.32 G0	-.513 -.114	28	-31	
5188	+ 1634	466	18583	42 13 0.3		+78 34	6.11 K0	-.068 +.040	12	- 8	6.5:9.3, 12", cpm
5189		2782	18637	42 31 +2.9		+17 57	4.51 F5	-.483 +.029	63	-17	
5189	2680	18636	42 41 2.6		+39 3	5.57 K0	-.137 -.025	11	-10		
5189	585	18731	42 52 2.2		+54 56	5.53 A0p	-.019 -.007	11	- 5		
5189	9019	18652	43 10 3.5		-35 12	6.47 G0	-.522 -.178	33	+ 6		

5144: 5.7:8.6, 5", binary.

5173: Also 11.5m, 26", which is itself binary, 12:13, 2".

Precession in declination, -0.30.

5182: Two spectra.

CATALOGUE OF BRIGHT STARS

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No	Name	DM	GC	RA		Decl 1900	Magn Spec	Prop Motion		Par	Rad Vel	Remarks	
				1900	Var			RA	Decl				
5190	v Cent	8171	18665	43 ^m 30 ^s +3.6		-41° 11'	3.53 B2	-.026	-.026	.007	km var	2.6 days, V ₀ = +9km	
5191	85 η U Maj	+2027	18643	43 36 2.4	+49	49	1.91 B3	-.122	-.018	17	-11		
5192	2 Cent	9358	18666	43 39 3.5	-33	57	4.40 Mb	-.047	-.064	52	+41		
5193	μ Cent	8172	18667	43 35 3.6	-41	59	3.32 B2p	-.021	-.024	9	+13		
5194		2014	18696	44 1 4.7	-68	54	5.74 K2	+.009	-.016				
5195		2547	18662	44 8 +2.7	+31	41	5.81 K0	-.017	+.034	9	+11		
5196	89 Virg	3937	18676	44 26 3.3	-17	38	5.11 K0	-.101	-.044	18	-40		
5197		10277	18681	44 26 3.4	-28	35	6.10 B9	-.050	-.029				
5198		8501	18682	44 22 3.6	-39	24	6.54 K0	+.002	-.017				
5199	R CVen	2694	18671	44 40 2.6	+40	2	var M7	+.022	-.009	0	-24*	7.4 to 12.2, 326 days	
5200	5 υ Boot	2564	18674	44 39 +2.9	+16	18	4.28 K5	-.095	+.034	13	-6		
5201	6 Boot	2578	18683	44 59 2.8	+21	46	5.06 K0	+.017	+.010	14	-3		
5202		3754	18695	45 6 +3.3	-19	24	6.31 F8	-.047	+.026				
5203		397	18611	45 10 -1.7	+83	15	6.16 G5	+.033	-.044	9	var?	V ₀ = -49km	
5204		2457	18691	45 24 +2.6	+37	8	6.35 A3	-.076	+.014	11	-12		
5205		+2800	18698	45 23 +3.0	+5	59	6.25 K0	+.022	-.016				
5206		8909	18715	45 35 3.7	-46	24	5.87 B3	-.022	-.039		var	V ₀ = -6km	
		6787	18718	45 36 3.9	-52	19	7.72 A3	-.057	-.035				
5207			18720	45 38 3.9	-52	19	5.68 B8	-.047	-.043	0	+27	18", cpm	
5208		9054	18714	45 46 3.5	-35	56	6.52 G0	-.104	-.122	0			
5209		11329	18713	45 50 +3.3	-23	53	6.48 G0	-.575	-.310	55	+3		
5210	3 Cent		18724	46 3 3.5	-32	30	4.72 B5	-.038	-.045	11	+14	8", binary	
5211			18725	46 4 3.5	-32	30	6.17	-.059	-.034		+1		
5212			10706	18733	46 17 3.4	-31	7	6.20 F8	-.056	-.059	17		6.5:7.8, 1", binary
5213			+1318	18704	46 30 2.0	+61	59	6.05 K0	+.067	-.104			
5214		2492	18721	46 40 +2.6	+35	16	6.57 A2	+.029	-.019		-12	In Ursa Cluster	
5215		2493	18726	46 44 2.6	+35	10	6.00 Ma	+.004	-.062	7	-40		
5216		1533	18716	47 1 2.1	+59	2	6.36 A0	-.028	+.005	7			
5217		6805	18757	47 13 3.9	-52	53	6.06 B5	-.025	-.037		+8		
5218		2426	18771	47 12 4.6	-67	10	5.68 K0	-.026	-.039	6			
5219		+2496	18741	47 23 +2.6	+34	56	4.96 Ma	-.022	-.038	14	-44		
5220		2635	18746	47 24 2.9	+12	40	5.99 A2	+.023	-.014	11	-16		
	4 Cent		18754	47 27 3.5	-31	26	9.2'	-.001	-.006	6		15", cpm	
5221			18755	47 27 3.5	-31	26	4.76 B5	-.018	-.019		var*		
5222			9090	18761	47 42 3.5	-35	10	5.64 F2	-.083	-.024	9	var*	6.4:6.4, 1", binary
5223		8931	18765	47 44 +3.7	-46	38	5.94 B3p	-.041	-.009		-21		
5224		9223	18770	48 3 3.5	-34	49	6.27 K0	-.275	-.080				
5225	7 Boot	2795	18764	48 26 2.9	+18	26	5.71 K0	-.040	-.004	9	-10		
5226	10 Drac	963	18750	48 31 1.8	+65	13	4.77 Ma	.000	-.011	10	-11		
5227		+724	18744	48 32 1.5	+68	49	6.44 K0	-.189	-.070	24			
5228		+9478	18783	48 37 +3.4	-28	5	6.30 K0	-.173	-.077				
5229		2464	18769	48 38 2.7	+29	8	5.84 A5	-.122	+.021	18	-12		
5230		7832	18795	48 45 3.9	-51	40	5.84 B8	-.029	-.032	12	+8		
5231	ζ Cent	8949	18809	49 18 3.7	-46	48	3.06 B2p	-.059	-.048	13	var	8.0 days, two spectra	
5232	90 Virg	+2758	18800	49 34 3.1	-1	1	5.30 K0	-.082	-.031	14	var?	V ₀ = -7km	
5233		3728	18807	49 43 +3.1	-7	34	6.20 F8	-.175	-.037	23	-19	7.7m, 3", binary	
5234		5805	18822	49 46 3.9	-53	38	6.36 A2	-.038	-.022	12	var	6.7:8.0, 2", binary	
5235	8 η Boot	+2725	18805	49 55 2.9	+18	54	2.80 G0	-.063	-.365	101	var	492 days, V ₀ = 0km	
5236		5806	18828	49 57 4.0	-54	12	6.07 G0	-.039	-.224				
5237		11015	18819	49 59 3.4	-30	48	6.47 K0	-.050	+.002				

5199: Absorption lines give -9km.
5221: 6.9 days, V₀ = +5km.

Precession in declination, -0.30.
5222: V₀ = -8km.

13^h - 14^h

No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
5238	86 UMa _j	1630	18796	50 ^m 10 ^s +2.2		+54° 13'	5.65 A0	-".030 - ".011	".012	^{km} -21	
5239		+8815	18826	50 8 3.7		-46 6	5.88 K0	-.167 - .084	6		
5240		+ 922	18877	50 13 6.2		-78 7	6.20 A0	-.005 - .027			
5241		3070	18845	50 25 4.3		-63 12	4.68 K0	-.036 - .046	17	+22	10m, 6"
5242		2553	18861	51 3 4.5		-65 19	6.22 K0	-.029 - .047			
5243		2680	18830	51 1 +2.9		+14 34	6.15 F5	-.292 - .005	33	-13	
5244	92 Virg	2865	18841	51 22 3.1		+ 1 32	5.94 A3	-.028 + .007			
5245		2411	18843	51 45 2.7		+32 31	6.29 F2	-.132 + .042	20	-22	
5246		3687	18859	51 54 3.3		-22 32	6.28 K0	-.041 - .002			
5247	9 Boot	+2278	18850	52 0 2.7		+27 59	5.18 K0	+ .025 - .054	8	-40	
5248	φ Cent	8329	18874	52 11 +3.6		-41 37	4.05 B3	-.028 - .026	9	+ 7	
5249	ν' Cent	9010	18883	52 30 3.7		-44 19	4.17 B3	-.030 - .028	13	+ 7	
5250	47 Hyda	11202	18887	52 54 3.4		-24 29	5.17 B8	-.052 - .032	10	- 4	
5251		8356	18895	52 52 3.9		-49 53	6.09 K0	+ .009 - .041	8		
5252		+5135	18909	53 12 4.3		-61 0	6.50 F2	-.068 - .050			
5253		2573	18914	53 20 +4.5		-65 47	6.12 A5	-.129 - .027			
5254		2651	18899	53 50 2.9		+15 8	6.02 K0	-.064 - .065	8	-41	
5255	10 Boot	2650	18900	53 58 2.8		+22 11	5.42 A0	-.011 - .052	11	+ 6	
5256		+1325	18893	54 26 1.9		+61 59	6.40 K5	-.032 + .205			
5257	48 Hyda	11215	18918	54 24 3.4		-24 31	5.80 F0	-.202 - .103	24	-18	
5258		+3768	18919	54 38 +3.1		- 3 4	6.30 F5	-.028 - .070	21	- 8	
5259		8628	18936	55 17 3.6		-39 44	6.28 K0	-.041 - .011			
5260	ν ² Cent	+9040	18939	55 29 3.7		-45 7	4.39 F5	-.001 - .028	10	var	V ₀ = -2km 5.5 to 6.7
5261	θ Apus	799	18975	55 34 5.9		-76 19	var Mb	-.084 - .042			
5262		2835	18941	56 23 3.0		+ 9 22	5.88 A2	+ .034 + .004	13	-14	
5263	11 Boot	+2287	18943	56 38 +2.7		+27 52	6.12 A3	-.082 + .011	14	var	V ₀ = -23km
5264	93 ν Virg	2761	18945	56 33 3.1		+ 2 2	4.34 A2	+ .015 - .026	18	var?	
5265		10060	18954	56 41 3.4		-26 57	5.74 K0	-.035 - .016	9	0	
5266		5846	18964	56 41 4.1		-55 44	5.91 K0	-.081 - .040			
5267	β Cent	5365	18971	56 46 4.2		-59 53	0.86 B1	-.021 - .028	17	var	V ₀ = -12km. 0.9:4.1, 1 ^h .2 6.6:8.0, 2", binary
5268		10859	18966	57 13 +3.5		-31 12	6.32 F5	+ .019 + .076	26		
5269		8373	18976	57 22 3.7		-40 56	6.44 A0p	-.052 - .036			
5270		2617	18965	57 38 2.9		+10 11	6.12 G0	-.199 - .069		-21	
5271		1922	18969	58 14 2.4		+46 15	6.46 K5	+ .016 - .079			
5272		3824	18986	58 18 3.3		-21 56	6.21 F2	-.006 - .013			
5273		2625	18985	58 37 +2.9		+11 16	6.43 G5	+ .080 - .314			
5274		2810	18989	58 39 3.0		+ 8 1	6.35 K0	-.040 - .018			
5275		2836	18993	58 55 3.0		+ 5 23	6.28 F2	-.018 - .007			
5276		3614	18996	59 1 3.1		- 4 54	6.72 K0	-.012 - .017			
5277		3863	18999	59 2 3.2		-14 29	6.36 K0	-.038 - .027	8	-15	
5278		5887	19006	59 5 +4.0		-54 11	6.30 A3	-.077 - .033			
5279		1142	19036	59 18 5.5		-74 22	6.03 G0	-.245 + .164	39		
5280		1889	18990	59 16 2.2		+51 27	6.05 A0	-.021 - .009	8		
5281		5395	19013	59 22 4.2		-59 14	6.50 B0	-.007 + .008			
5282		733	18980	59 38 1.3		+69 10	6.42 K5	-.036 - .005			
5283		2768	19001	59 33 +3.0		+ 2.47	6.35 K0	-.033 - .010			
5284		3805	19009	59 47 3.3		-15 51	6.44 A2	.000 - .001			
5285	x Cent	8405	19017	59 56 3.7		-40 42	4.54 B3	-.022 - .025	8	+12	
5286		9027	19020	0 0 3.7		-42 37	6.27 K0	-.010 - .044			
5287	49 π Hyda	10095	19029	0 41 3.4		-26 12	3.48 K0	+ .043 - .150	37	+27	

Precession in declination, -0.29.

CATALOGUE OF BRIGHT STARS

14^h

No	Name	DM	GC	RA	Ann	Decl	Magn	Prop Motion		Par	Rad	Remarks	
				1900	Var	1900	Spec	RA	Decl		Vel		
5288	50 Cent	9260	19033	0 ^m 48 ^s + 3.5		-35° 53'	2.26 KO	-"	"521 - "522	"058	+ km	51.4 days, V ₀ = -16km	
5289		3941	19057	0 51 4.4		-62 44	6.49 KO	+	.007 + .024		+ I		
5290	95 Virg	3697	19041	1 25 3.2		- 8 50	5.53 F5	-	.142 + .004	22	-36		
5291	11 α Drac	+ 978	19019	1 41 1.6		+64 51	3.64 A0p	-	.053 + .014	15	var		
5292		5383	19073	1 53 4.2		-58 48	6.43 B5	-	.006 - .022		+ 3		
5293		2012	19090	2 11 +5.0		-69 50	6.04 KO	-	.016 .000				
5294		+9065	19080	2 39 3.7		-43 0	6.35 B9	-	.023 - .035				
5295		2014	19101	2 47 4.9		-69 15	6.24 A3	-	.026 - .037				
5296		+8294	19089	3 1 3.9		-51 2	6.16 B9	-	.052 - .027				
5297		7028	19099	3 15 4.0		-52 58	4.78 KO	-	.147 - .104	15	-17		
5298	96 Virg	3865	19092	3 41 +3.2		- 9 52	6.48 G5	-	.009 + .018	8	-20		
5299		2325	19084	3 56 2.4		+44 20	5.44 Mb	+	.012 - .033	9	-36		
5300	13 Boot	+2047	19095	4 33 2.2		+49 56	5.44 Ma	-	.064 + .055	8	-14		
5301		3817	19125	5 23 3.3		-15 50	5.10 Ma	+	.004 - .013	5	+18		
5302		+1516	19109	5 40 1.9		+59 49	6.50 K0	-	.121 - .028	7	+11		
5303	η Apus	706	19211	5 39 +7.5		-80 32	4.97 A2p	-	.016 - .066		var		V ₀ = -9km, two spectra
5304	12d Boot	2737	19127	5 50 2.7		+25 34	4.82 F5	-	.027 - .067	39	var*		9.6 days, V ₀ = +10km
5305	3 UMin	529	19097	6 9 0.5		+75 4	6.34 A3	-	.059 + .011	12	- 4		
5306		940	19200	6 22 6.3		-77 12	6.24 KO	-	.008 - .001				
5307		+2783	19141	6 27 3.0		+ 1 50	6.30 F5	-	.127 + .022	37	-17		
5308		5912	19162	6 32 +4.0		-53 12	5.48	-	.013 - .026	7	- 3	Composite KO, A2	
5309		11551	19154	6 45 3.4		-23 53	6.45 KO	+	.010 - .038				
5310		2443	19143	6 54 2.6		+32 45	6.24 K2	-	.028 + .015				
5311		5933	19169	6 52 4.1		-54 9	6.23 B9	-	.019 - .023				
5312	50 Hyda	10158	19163	7 2 3.4		-26 47	5.25 KO	-	.013 - .042	13	+27		
5313		+2867	19157	7 12 +3.0		+ 2 53	4.90 A0p	-	.051 - .034	10	var	V ₀ = +3km	
5314		10163	19172	7 30 3.4		-26 9	6.28 KO	+	.008 - .022	5	-10		
5315	98 κ Virg	3878	19168	7 34 3.2		- 9 49	4.31 K0	+	.004 + .134	20	- 4		
5316		6206	19199	7 59 4.2		-56 37	5.20 B3p	-	.036 - .019		+19		
5317		2796	19188	8 31 3.1		- 0 22	5.81 F5	+	.204 - .147	23	var	2.7 days, V ₀ = +18km	
5318		8589	19202	8 32 +3.7		-41 22	5.82 G5	-	.137 - .026				
5319		+7087	19216	8 36 4.0		-53 2	6.30 K2	-	.030 - .006				
5320		2490	19230	8 44 +4.7		-66 7	5.88 B2	-	.007 - .016	3	var?	V ₀ = -20km	
5321	4 UMin	478	19142	9 14 -0.2		+78 1	5.00 KO	-	.031 + .030	10	var	575 days, V ₀ = +10km	
5322		3837	19209	9 9 +3.1		- 5 29	6.29 G0	+	.309 + .082	24	-33		
5323	14 Boot	2764	19205	9 17 +2.9		+13 26	5.54 F8	-	.257 - .059	17	-39		
5324		10528	19218	9 14 3.5		-28 49	6.03 A0	-	.033 - .023				
5325		9181	19227	9 17 3.8		-44 32	6.37 F8	+	.131 - .150				
5326	R Cent	5476	19234	9 22 4.3		-59 27	var M4	-	.015 - .027		-23*	5.3 to 13, 545 days	
5327		601	19317	9 32 8.9		-82 23	6.37 B8	+	.015 - .028		+27		
5328		1782	19204	9 53 +2.1		+52 15	6.61 A5	+	.054 - .027		var?	V ₀ = -20km	
5329	17 κ Boot		19207	9 54 2.1		+52 15	4.60 A5	+	.063 - .010	17	var	V ₀ = -15km	
5330	15 Boot	2654	19226	9 57 2.9		+10 34	5.36 G5	-	.028 - .160	15	+17	5.5:8.1, close binary	
5331		+2841	19223	9 51 3.0		+ 3 47	6.62 Ma	-	.048 - .020				
5332		4046	19229	9 53 3.3		-17 44	5.58 B9	-	.040 - .019	9	-18		
5333		2678	19224	10 3 +2.8		+22 20	6.40 A2	+	.039 - .010	12	- 4		
5334		+ 778	19189	10 12 1.1		+69 54	5.36 Ma	-	.025 - .050	11	-23		
5335		+2472	19225	10 22 2.4		+41 59	6.22 K2	-	.026 - .112	15	-10		
5336	ε Apus	755	19305	10 16 7.3		-79 39	5.20 B5	-	.008 - .018		+ 5		
5337		9982	19240	10 23 3.6		-32 47	6.56 F0	+	.019 - .002				

5304: Two spectra.

5326: Absorption lines give -20km.

Precession in declination, -0.28.

14^h

No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
5338	99 α Virg	3843	19244	10 ^m 46 ^s + 3.1	- 5 31	- 5° 31'	4.16 F5	- .010 - .429	"044	+ 12 ^{km}	
5339	5 Octn	557	19349	10 52 9.6	- 83 13	- 83 13	4.14 K2	- .092 - .014	16	+ 5	
5340	16 α Boot	2777	19242	11 6 2.7	+ 19 42	+ 19 42	0.24 K0	- 1.098 - 2.003	87	- 4	Arcturus
5341		+ 3845	19252	11 6 3.2	- 6 9	- 6 9	6.24 A3	- .036 - .023			
5342		3812	19255	11 19 3.1	- 2 44	- 2 44	6.03 A0	- .028 - .044		+ 2	
5343		2779	19251	11 22 + 2.8	+ 19 23	+ 19 23	5.84 A5	+ .043 - .036	14	+ 4	
5344		+ 4053	19265	11 32 3.3	- 18 7	- 18 7	6.37 G5	.000 - .002			
5345		1699	19248	11 47 2.1	+ 53 0	+ 53 0	6.44 A2	- .032 - .011	8	- 15	
5346		2954	19263	11 54 2.8	+ 20 35	+ 20 35	6.36 F5	- .149 - .110	30	- 9	6.6:8.3, 4", binary
5347		2760	19266	12 20 2.4	+ 40 13	+ 40 13	6.31 F2	- .148 + .001	26	- 24	
5348		10005	19291	12 29 + 3.6	- 32 45	- 32 45	6.48 F0	- .074 - .049			
5349		5294	19302	12 31 4.4	- 60 49	- 60 49	5.28 A3	- .167 - .102	29	+ 21	
5350	21 α Boot	+ 1784	19269	12 37 2.1	+ 51 50	+ 51 50	4.78 A5	- .149 + .087	38	var*	38", cpm
		+ 1785	19271	12 39 2.1	+ 51 50	+ 51 50	8.8 A2	- .162 + .079			
5351	19 α Boot	1949	19273	12 35 2.3	+ 46 33	+ 46 33	4.26 A0	- .184 + .154	33	- 8	
5352		2690	19284	12 42 + 2.9	+ 15 44	+ 15 44	6.05 Ma	+ .012 + .003	5	- 11	
5353		+ 3964	19289	12 42 3.2	- 7 4	- 7 4	6.50 G0	+ .250 - .247			
5354	α Lupi	9084	19304	13 0 3.8	- 45 36	- 45 36	4.10 B3	- .016 - .006	7	+ 22	
5355		3789	19295	13 6 3.3	- 18 15	- 18 15	5.74 A0p	- .064 - .046		var?	$V_0 = -9$ km
5356		10271	19303	13 20 3.4	- 25 22	- 25 22	5.92 F5	- .372 + .343	44	- 21	13m, 3", cpm
5357		9268	19309	13 21 + 3.6	- 36 32	- 36 32	6.02 A0	- .050 - .064			
5358		5984	19318	13 20 4.2	- 55 56	- 55 56	4.41 B5	- .008 - .018	10	var?	$V_0 = +5$ km
5359	100 α Virg	4018	19311	13 42 3.2	- 12 55	- 12 55	4.60 A2	- .019 + .024	22	var*	206.9 days, $V_0 = -11$ km
5360		1908	19293	13 48 2.1	+ 51 46	+ 51 46	6.09 A0	- .025 - .012	11	var	$V_0 = -11$ km
5361		+ 2468	19296	13 46 2.5	+ 35 58	+ 35 58	4.83 K0	- .004 + .006	15	var	212.0 days, $V_0 = -26$ km
5362		9235	19327	13 53 + 3.8	- 42 36	- 42 36	5.71 G5	- .013 + .003	5		5.8:8.7, 4", cpm
5363		2188	19297	14 6 2.2	+ 48 28	+ 48 28	6.25 F5	- .012 - .054		- 17	
5364		9236	19336	14 20 3.8	- 44 44	- 44 44	5.03 F0	+ .029 - .088	15	var	$V_0 = 0$ km
5365	18 Boot	2782	19319	14 26 2.9	+ 13 28	+ 13 28	5.31 F0	+ .104 - .037	31	- 2	In Ursa Cluster?
5366	102 α Virg	2938	19323	14 23 3.1	- 1 48	- 1 48	5.24 K0	- .120 - .074	9	- 27	
5367	ψ Cent	9336	19337	14 28 + 3.6	- 37 26	- 37 26	4.17 A0	- .068 - .014	0	- 4	
5368		+ 2913	19329	14 35 3.1	+ 0 51	+ 0 51	6.17 A3	- .043 - .019	12	- 13	
5369		2749	19320	14 49 2.5	+ 39 14	+ 39 14	6.48 G5	- .003 + .024			
5370	20 Boot	2637	19334	15 1 2.8	+ 16 46	+ 16 46	4.97 K0	- .145 + .052	16	- 8	
5371		+ 6619	19361	15 27 4.3	- 58 0	- 58 0	5.06 G0	- .048 + .002	18	var*	9", binary
			19362	15 28 4.3	- 58 0	- 58 0	7.0	- .038 + .002			
5372		1678	19333	15 37 + 2.0	+ 55 19	+ 55 19	6.55 A3	- .027 + .004			
5373		2750	19341	15 41 2.5	+ 39 15	+ 39 15	5.98 A2	+ .021 - .020	10	- 11	In Ursa Cluster?
5374		+ 2605	19345	15 46 2.6	+ 30 53	+ 30 53	6.34 A2	- .015 - .007	14	+ 1	
5375		9082	19367	16 7 3.9	- 47 52	- 47 52	6.26 B3	- .016 - .021		- 18	9m, 4", cpm
5376		9570	19365	16 20 + 3.6	- 34 20	- 34 20	5.72 B8	- .032 + .003		- 37	
5377		8501	19379	16 40 4.0	- 50 19	- 50 19	6.03 K0	- .018 - .016			10m, 1.3
5378		+ 9329	19377	16 52 3.7	- 39 3	- 39 3	4.55 B5	- .031 - .037	11	+ 9	
5379		2574	19402	16 49 5.0	- 67 44	- 67 44	5.71 A2p	- .011 - .016		var	
5380		7195	19392	17 0 4.1	- 52 43	- 52 43	5.94 K0	- .072 - .032			
5381	51 Hyda	9803	19389	17 20 + 3.5	- 27 18	- 27 18	4.93 K2	- .196 - .120	17	+ 20	
5382		2718	19422	17 40 4.8	- 65 43	- 65 43	6.42 A2	- .051 - .037			
5383	2 Libr	3729	19399	18 3 3.2	- 11 15	- 11 15	6.30 K0	- .015 - .066	7	- 1	
5384		2920	19397	18 8 3.1	+ 1 43	+ 1 43	6.34 G0	+ .222 - .484	52	- 18	
5385		+ 2882		18 28 3.0	+ 8 54	+ 8 54	6.64 A0		12	var*	6", binary*
5386			19401	18 28 3.0	+ 8 54	+ 8 54	5.11	- .077 - .014		- 23	

5350: $V_0 = -18$ km.

5359: Two spectra.

5371: $V_0 = +15$ km.Precession in declination, -0.28 .

5385: Itself a close binary, 7.4:7.4, 40 years.

 $V_0 = -17$ km.

CATALOGUE OF BRIGHT STARS

14^h

No	Name	DM	GC	RA	Ann	Decl	Magn	Prop Motion		Par	Rad	Remarks
				1900	Var	1900	Spec	RA	Decl		Vel	
5387		2770	19400	18 ^m 38 ^s +2 ^s .7		+25°48'	6.15 F2	-".165	+".064	"028	km -10	
5388		2857	19417	19 5 3.0		+ 8 42	5.74 A0	+ .001	-.031	13	- 4	
5389		826	19483	19 3 6.3		-76 17	5.95 K0	-.030	-.036			
5390		11469	19435	19 6 3.4		-24 21	5.39 K0	-.060	-.027	10	-22	
5391		2732	19456	19 8 4.8		-65 22	5.76 K5	-.022	-.023			
5392		2875	19428	19 13 +3.0		+ 6 16	5.08 A3	-.082	.000	20	var	V ₀ = -5km
5393		3736	19437	19 18 3.2		-11 13	6.48 F2	-.075	-.036	14		6.7:8.5, 1", binary
5394		2858	19433	19 23 3.0		+ 8 33	6.22 K2	-.116	-.098	52		
5395	τ ¹ Lupi	9322	19453	19 43 3.9		-44 46	4.65 B3	-.013	-.022	7	-18	
5396	τ ² Lupi	9323	19454	19 45 3.9		-44 56	4.49 F8	+ .013	-.016	0	var*	5.2:5.3, close binary
		3879	19448	19 53 +3.4		-19 31	6.7 A0	-.041	-.012			
5397		3880	19449	19 55 3.4		-19 31	6.43 A0	-.040	-.013	15		.35", triple system*
5398		8757	19455	19 57 3.8		-41 52	6.37 K0	-.127	-.075			
5399		10280	19452	20 1 3.5		-26 24	6.62 G5	-.020	-.069	14		
5400		8918	19472	20 38 3.7		-39 26	6.44 B9	-.023	-.021			
5401		9188	19478	20 45 +3.9		-45 41	5.88 A3	-.155	-.090		-26	
5402		+2764	19464	21 24 2.4		+38 51	6.32 K0	-.008	-.022	6	+25	
5403		5549	19495	21 25 4.4		-58 45	6.50 A0	-.007	-.025			
5404	23 θ Boot	1804	19467	21 48 2.0		+52 19	4.06 F8	-.238	-.404	68	-11	
5405	22 Boot	2810	19480	21 48 2.8		+19 41	5.36 A5	-.072	+ .018	24	-27	
5406	104 Virg	3880	19491	22 9 +3.1		- 5 40	6.16 A0	-.075	-.064	10	-15	
5407	52 Hyda	+10712	19499	22 19 3.5		-29 3	5.00 B8	-.022	-.032	14	+ 6	11m, 4", cpm
5408		2595	19540	22 55 5.0		-67 16	5.76 K0	+ .043	-.077			
5409	105 φ Virg	2957	19504	23 3 3.1		- 1 47	4.97 K0	-.141	-.008	39	-10	10m, 5", binary
5410	106 Virg	4009	19516	23 25 3.2		- 6 27	5.74 K5	-.021	-.061	8	-50	
5411		2504	19501	23 30 +2.4		+41 28	6.50 F0	-.058	-.026	19	-17	
5412		9383	19533	23 41 3.9		-44 52	5.49 B9	-.049	-.048	16	+10	11m, 11", cpm
5413		+9098	19539	23 41 4.0		-49 4	5.52 A2	-.055	-.054		var*	12m, 22", cpm
5414		2331	19521	24 7 2.6		+28 44	7.45 A0	+ .025	-.018			
5415		2332	19522	24 9 2.6		+28 44	6.95 A0	+ .014	+ .002			25", fixed
5416		2495	19519	24 8 +2.5		+36 39	6.19 K0	-.029	-.010			
5417		8729	19555	24 41 3.8		-40 24	6.30 K2	-.034	-.002			
5418		2941	19542	24 44 3.1		+ 1 16	5.80 A3	.000	+ .001	16	-10	
5419		9430	19565	24 59 3.7		-38 26	6.02 K0	+ .004	+ .026			
5420	24 Boot	2084	19532	25 9 2.1		+50 18	5.61 G0	-.306	-.053	21	- 6	
5421	V Cent	6296	19582	25 23 +4.3		-56 27	var F5	-.024	-.021			6.3 to 7.3, 5.5 days
5422		2482	19553	25 33 2.6		+32 14	5.96 B9	-.020	-.003	6	var	V ₀ = -9km
5423		2508	19550	25 40 2.4		+42 15	6.45 G0	+ .154	-.225	23		
5424		2886	19572	25 45 3.0		+ 5 13	6.13 K2	-.001	-.021			
5425	σ Lupi	+8831	19590	25 53 4.0		-50 1	4.60 B2	-.044	-.017	7	var?	V ₀ = -2km
5426		6053	19604	26 31 +4.2		-54 34	5.99 F5	-.096	-.004			
5427		7301	19606	26 37 4.1		-52 14	5.88 K0	-.009	-.038	10		
5428		11519	19609	27 14 3.6		-30 16	6.11 K0	+ .037	-.024	6		10m, 2"5, binary
5429	25 ρ Boot	+2628	19597	27 31 +2.6		+30 49	3.78 K0	-.101	+ .115	23	var?	V ₀ = -14km
5430	5.UMin	527	19548	27 44 -0.1		+76 8	4.37 K2	+ .008	+ .018	12	+10	
5431		8890	19628	27 47 +3.8		-41 40	6.76 A2	-.019	-.035			
5432		5642	19637	27 49 4.5		-59 35	6.35 K0	-.019	-.040			
5433		2388	19608	27 55 2.7		+27 7	5.90 A2	-.067	-.035	14	- 5	6.6:6.8, 29 years
5434	26 Boot	2715	19611	28 0 2.7		+22 42	5.96 F0	-.129	+ .029	21	-12	
5435	27 γ Boot	2565	19607	28 3 2.4		+38 45	3.00 F0	-.115	+ .146	20	-36	

5396: 3043 days, V₀ = -1km.

5397: GC 19448 is itself binary, 7.6:8.8, 1".

Precession in declination, -0.27.

5413: V₀ = +4km, two spectra.

No	Name	DM	GC	14 ^h		Decl 1900	Magn Spec	Prop Motion		Par	Rad Vel	Remarks	
				RA 1900	Ann Var			RA	Decl				
5436	η Cent	1136	19595	28 ^m 24 ^s +1.4	+1.4	+63° 38'	6.04 F5	-".179 + ".003	".035	km	V ₀ =0km		
5437		1547	19613	29 0 1.6		+60 40	6.18 F0	-.049 + .018		- 4			
5438		+3903	19649	29 13 3.4		-20 0	6.48 A0	+ .017 - .006					
5439		+8794	19657	29 12 3.8		-41 5	5.82 B8	-.023 - .023					
5440		8917	19656	29 9 3.8		-41 43	2.65 *	-.037 - .032		12 var			
5441		2545	19636	29 15 +2.5		+37 24	6.44 F5	-.006 - .065		+ 2			
5442		+1746	19627	29 23 1.9		+55 50	5.99 K5	+ .007 - .022					
5443		2616	19678	29 23 5.0		-67 29	6.09 F5	-.363 - .286		47			
5444		9293	19669	29 46 3.9		-45 49	5.41 K2	-.043 + .012		14 +60			
5445		+2474	19650	29 56 2.6		+32 59	6.28 F2	+ .115 - .003		30 - 9			
5446	28σ Boot	9047	19674	30 9 +3.7		-39 10	6.15 K0	-.039 - .024			19", cpm		
5447		2536	19659	30 20 2.6		+30 11	4.48 F0	+ .187 + .124		61 0			
5448		2551	19662	30 33 2.5		+37 4	6.24 K0	-.031 - .062		3 -12			
5449		9050	19682	30 27 3.8		-39 47	5.90 B8	-.018 - .031		+14			
5450		9302	19689	30 47 3.9		-45 42	5.54 K0	-.019 - .027		12 -16			
			19690	30 48 3.9		-45 42	8.9 A	-.037 - .052					
5451	ρ Lupi	1519	19666	31 15 +1.8		+57 30	6.25 F5	+ .214 - .240		-22			
5452		+2095	19668	31 10 2.1		+49 48	5.90 K5	-.047 + .044		6 -20			
5453		9198	19698	31 9 4.0		-48 59	4.14 B5	-.034 - .025		14 +14			
5454		2710	19687	31 36 2.7		+23 41	6.48 K0	-.015 + .015					
5455	α Cent	3770	19695	31 41 +3.2		-11 53	6.24 F8	-.876 + .359		33 -70	18", 80.1 years; the nearest star*		
5456		9529	19710	32 5 3.7		-38 22	6.14 K0	+ .063 - .029					
5457		9469	19725	32 37 3.9		-46 9	6.20 F8	-.187 - .217		20			
5458		9218	19727	32 43 4.0		-48 37	6.47 F2	-.171 - .137					
5459		5483	19728	32 48 4.1		-60 25	0.33 G0	-3.606 + .705		756 var*			
5460			19728	32 48 4.1		-60 25	1.70 K5			756 var*			
5461		α Circ	+6107	19745	33 19 +4.3		-56 1	6.28 K0	-.034 - .005				16", binary
5462			2906	19726	33 35 2.8		+18 44	5.98 K0	-.033 - .081			14 -15	
5463	2977		19771	34 23 4.8		-64 32	8.8	-.205 - .276		57 + 7			
			19772	34 25 4.9		-64 32	3.41 F0	-.187 - .244					
5464	2376		19733	34 27 +2.3		+44 4	5.92 K0	-.116 + .023		5 -48	V ₀ = -10km		
5465	5672		19763	34 30 4.5		-58 11	6.32 F8	+ .021 - .053					
5466	9702	19758	34 53 3.7		-35 42	5.75 A0	-.026 - .014						
5467	1693	19742	35 5 1.9		+54 27	5.52 A0	+ .013 - .024		11 var?				
5468	+2204	19747	35 7 2.2		+44 50	5.39 A0	-.069 - .028		13 var				
5469	9501	19774	35 17 +4.0		-46 58	2.89 B2	-.021 - .026		9 var				
5470	893	19834	35 25 7.5		-78 37	3.81 K5	+ .002 - .025		14 0				
5471	9618	19779	35 45 3.7		-37 22	4.09 B3	-.025 - .038		10 + 8				
5472	2731	19762	35 49 2.7		+22 24	6.17 F5	-.019 + .026		25 var*				
5473	+2769	19766	35 55 2.9		+13 58	5.98 A5	+ .052 - .034		16				
5474	29π Boot	11624	19780	35 53 +3.6		-30 30	6.47 B9	-.034 - .030		4	6.8:8.0, 1", binary		
5475		+2768	19769	36 2 2.8		+16 51	4.94 A0	+ .013 + .006		9 var*			
5476		19770	36 2 2.8		+16 51	5.81	-.001 + .001		9 var?				
5477		30ζ Boot	2770	19777	36 22 2.9		+14 9	4.83 A2	+ .052 - .026		14 - 5		
5478	2770		19777	36 22 +2.9		+14 9	4.43			0".6, 126 years			
5479	31 Boot	448	19705	36 23 -1.6		+80 6	6.35 K0	-.096 + .083		6 -23			
5480		2903	19789	36 44 +2.9		+ 8 35	5.03 G5	-.006 - .004		11 -22			
5481		2729	19793	36 55 2.9		+12 5	5.63 G5	-.159 - .123		10 -23			
5482		4275	19832	37 22 4.8		-62 27	5.34 A5	+ .066 - .094		7 + 7			
5483		2674	19800	37 20 2.7		+21 33	6.43 G5	-.013 - .061					

5440: Composite, B3p, A2p.

5459,5460: Velocity of center of mass, -22km. IIm, (14^h 22^m 8, -62° 15') 2.2 distant, cpm; parallax, 0".785.

5472: V₀ = 0km.

Precession in declination, -0".26.

5475: V₀ = -1km.

CATALOGUE OF BRIGHT STARS

14^h

No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
5484	4 Libr	11637	19812	37 ^m 27 ^s + 3.5		-24° 34'	5.75 B9	-.020 - .011	"008	km - 4	
5485		9868	19820	37 32 3.7		-34 45	4.13 K0	-.070 - .190	15	-39	
5486		+6772	19830	37 29 4.5		-58 3	6.10 K0	-.081 - .063			
5487	107 μVirg	3936	19816	37 47 3.2		- 5 13	3.95 F5	+ .106 - .322	46	var	V ₀ = +5km
5488		6150	19835	37 58 4.3		-55 11	6.24 B3	-.014 - .022		- 4	
5489		9888	19845	38 51 + 3.7		-34 46	5.00 A0	.000 - .012	16	- 5	
5490	34 Boot	+2413	19831	39 2 2.6		+26 57	4.93 Ma	-.012 - .020	6	+ 6	
5491		235	20261	39 0 29.4		-87 45	6.52 A2	-.100 - .073			
5492		1451	19825	39 34 1.5		+61 41	6.17 F2	+ .071 - .036	22	- 7	6.3:8.5, 4", binary
5493		+2523	19841	39 52 2.3		+40 53	5.79 K0	-.011 + .021	7	+13	
5494		+9562	19866	39 48 + 4.0		-47 1	5.89 A0	-.026 - .022			
5495		8457	19876	40 1 4.2		-51 58	5.20 K0	-.022 - .096	17	-20	13m, 9", cpm
5496		2867	19852	40 3 3.1		- 0 59	6.23 Ma	-.055 - .010			
5497	54 Hyda	+11661	19864	40 13 3.5		-25 1	5.21 F5	-.152 - .112	22	-13	9", binary
			19865	40 13 3.5		-25 1	7.09 F9	-.141 - .088		-20	
5498		8461	19882	40 13 + 4.2		-51 47	6.26 A0	-.028 - .024			
5499		3844	19871	40 22 3.4		-22 44	5.91 K0	+ .022 - .065			
5500		2645	19898	40 16 5.1		-66 10	6.05 B3	-.014 - .035			
5501	108 Virg	2972	19860	40 25 3.1		+ 1 8	5.54 B9	-.042 - .013	9	-15	
5502	35 oBoot	2780	19858	40 34 2.8		+17 23	4.69 K0	-.060 - .058	28	- 9	
5503	5 Libr	+4023	19870	40 27 + 3.3		-15 2	6.60 K0	-.033 - .008	6	-40	11m, 3", binary
5504		4087	19873	40 30 3.4		-20 45	6.40 G0	-.062 - .112	30	0	7.1:7.2, 0".3
5505	36 sBoot	2417	19856	40 37 2.6		+27 30	5.12 A0	-.049 + .014	15	var?	3", binary, V ₀ = -16km
5506			19856	40 37 2.6		+27 30	2.70 K0				
5507		2854	19862	40 43 2.8		+19 18	6.39 K0	+ .030 + .006			
5508		9686	19888	40 49 + 3.8		-37 52	6.00 K0	+ .050 - .096			
5509		9326	19893	41 2 3.9		-43 8	6.34 G5	-.015 - .038			
5510		2489	19867	41 3 2.5		+33 13	6.47 Ma	+ .039 - .084			
5511	109 Virg	2862	19884	41 12 3.0		+ 2 19	3.76 A0	-.114 - .036	30	- 6	
5512		2758	19885	41 23 2.8		+15 33	6.10 Mb	-.084 + .009		-23	
5513		4093	19895	41 32 + 3.4		-20 54	6.11 K2	-.013 - .004	6	-24	
5514	55 Hyda	10534	19897	41 33 3.5		-25 12	5.67 AOp	-.008 - .025		-18	
5515		6441	19915	41 48 4.4		-56 15	6.32 K0	-.109 - .131			
5516	56 Hyda	10537	19904	41 54 3.5		-25 40	5.39 G5	+ .042 - .012	16	- 1	
5517	57 Hyda	10519	19908	42 6 3.5		-26 14	5.80 B9	-.013 - .020		+ 6	
5518		4134	19912	42 27 + 3.3		-12 25	6.42 G5	+ .038 - .093			
5519		9645	19917	42 26 3.7		-36 13	6.12 Mb	-.017 - .054			
5520		1604	19976	43 13 6.0		-72 47	5.62 G5	+ .030 + .022		+38	5.7:8.5, 2", cpm
5521		11916	19936	43 32 3.5		-23 50	5.78 K0	-.025 - .012	6		
5522		2886	19932	43 46 3.1		- 0 26	6.06 A0	-.009 + .013	8	-16	
5523	7 μLibr	3986	19938	43 50 + 3.3		-13 44	5.38 A2p	-.064 - .022	11	var?	V ₀ = -2km*
5524		2779	19928	43 57 2.7		+24 47	6.29 F5	-.112 + .038	19	-31	8.0, 2", binary
5525	π Octn	629	20070	44 13 10.6		-82 49	5.60 K0	+ .018 + .050			
5526	58 Hyda	10073	19954	44 25 3.5		-27 33	4.63 K2	-.242 - .067	10	-10	
5527		3436	19981	44 27 4.9		-63 24	5.78	-.020 - .019			6.5F5:6.5A2, close bin.
5528	o Lupi	9391	19977	45 7 + 3.9		-43 10	4.49 B5	-.022 - .033	14	+ 7	
5529		2593	19949	45 11 2.4		+38 13	5.98 F0	-.260 + .104	27	-35	
5530	8] αLibr	3965	19970	45 9 3.3		-15 35	5.33 F5	-.100 - .075	42	-23	
5531	9] αLibr	3966	19975	45 21 3.3		-15 38	2.90 A3	-.107 - .074	53	var*	231", cpm
5532		2581	19966	45 40 2.6		+29 2	5.66 A2	+ .021 - .005	14	-14	

5523: 5.8:6.7, 2", binary.

5531: V₀ = -10km.

Precession in declination, -0.25.

I4^h

No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
5533	38 Boot	1993	19959	45 ^m 45 ^s + 2 ^s .1		+46°32'	5.76 F5	- .004 - .084	029	- 5	
5534		2786	19974	45 47	2.7	+24 20	5.81 G0	+ .149 + .023		- 6	
5535	11 Libr	2991	19978	45 50	3.1	- 1 53	5.05 K0	+ .081 - .130	16	+83	
5536		3253	19979	45 53	3.1	+ 0 9	6.24 K2	- .028 + .009			
5537		1957	19969	46 18	1.9	+51 47	6.42 F2	+ .011 .000	21	var	V ₀ = -6km. 10m, 16"
5538	39 Boot	2326	19972	46 17	+ 2.0	+49 8	6.10 F5	- .077 + .088	20	-32	6.8, 3", binary*
5539	γ Circ	2918	20017	46 14	5.1	-65 35	6.16 B3	- .015 - .032		var?	V ₀ = -21km
5540	R Apus	924	20057	46 29	6.8	-76 15	var K2	- .073 - .021	4	-31	5.0 to 6.2
5541		2580	19982	46 33	2.4	+37 41	5.50 K0	- .213 + .087	18	-66	
5542		11780	19999	46 36	3.6	-30 10	6.43 G0	- .331 - .034	29	-25	
5543		9760	20000	46 34	+ 3.8	-37 23	5.11 B8	- .034 - .020	3	+ 5	
5544	37 γ Boot	2870	19991	46 46	2.8	+19 31	4.64 G5	+ .134 - .107	147	+ 4*	4.8:6.7, 150 years
5545	π ² Octn	636	20145	47 21	10.5	-82 38	5.55 K0	- .003 - .017		-21	
5546		5753	20054	47 52	4.6	-59 42	5.24 K0	- .130 - .113	18	-15	
5547		931	20104	48 27	7.1	-76 45	5.96 K0	+ .007 - .004			
5548	12 Libr	11735	20047	48 32	+ 3.5	-24 14	5.44 K0	- .011 - .036	12	+ 9	
5549		10457	20051	48 31	3.7	-32 53	5.94 K0	- .003 - .006			11m, 13", cpm
5550		2705	20032	48 42	2.8	+16 7	6.43 G0	- .024 .000	21	+21	6.9:7.6, 2", binary
5551	θ Circ	4337	20067	48 41	4.8	-62 22	5.42 B3	- .008 - .009		- 4	
5552		1615	20012	48 54	1.5	+59 42	5.67 K2	- .124 + .132	9	+11	
5553		2881	20037	48 52	+ 2.7	+19 33	5.98 K0	- .453 + .209	84	var	V ₀ = -25km
5554	13 ε ¹ Libr	3827	20052	48 57	3.3	-11 29	5.84 K0	- .056 - .018	9	-24	
5555		1281	20110	49 8	6.5	-74 38	6.32 B9	+ .001 - .024			
5556		7634	20068	49 10	4.3	-52 24	5.56 A2	+ .027 - .007		var	V ₀ = +7km
5557	ω Octn	490	20223	49 22	13.1	-84 24	5.90 A0	+ .002 + .003			
5558		10169	20066	49 36	+ 3.7	-33 27	5.34 A0	+ .017 - .005	2	var	12m, 24", cpm
			20077			7.3	- .043 - .051				
5559		9543	20078	49 44	4.1	-47 28	5.78 B9	- .043 - .026	9	var	3", cpm
5560		+8939	20085	50 1	4.2	-51 3	6.49 Ma	- .079 - .014			
5561		+9785	20082	50 14	3.8	-39 1	6.44 A0	- .028 - .030			
5562		10480	20084	50 25	+ 3.7	-32 14	6.19 K0	- .010 - .036			
5563	7 β UMin	595	20029	51 0	- 0.2	+74 34	2.24 K5	- .032 + .007	28	+17	
5564	15 ε ² Libr	+3989	20096	51 20	+ 3.3	-11 0	5.63 K0	+ .004 .000	8	+15	
5565		11055	20103	51 16	3.6	-28 45	6.18 B9	- .028 - .040			
5566		9494	20118	51 17	+ 4.1	-48 27	6.48 K0	- .021 - .318			
5567		+2796	20092	51 30	+ 2.8	+14 51	5.77 A0	- .015 - .010	10		
		4123	20111	51 37	3.5	-20 58	8.9 K5	+ .975 -1.672	172	+25	binary, now over 20"
5568		4125	20113	51 37	3.5	-20 58	5.76 K5	+1.041 -1.745		+20	
5569		2531	20093	51 50	2.5	+32 42	6.11 A0	- .047 - .005	12	-12	10m, 5", cpm
5570	16 Libr	3696	20115	51 58	3.1	- 3 56	4.59 F0	- .103 - .161	38	+21	
5571	β Lupi	9853	20128	51 59	+ 3.9	-42 44	2.81 B2p	- .046 - .048	12	var	V ₀ = 0km
5572		9402	20133	52 13	3.8	-39 30	6.28 K2	- .050 - .068			
5573		3277	20122	52 26	3.1	+ 0 14	5.71 K0	+ .064 - .031	13	+19	
5574		+2764	20120	52 33	2.7	+21 57	6.24 A0	- .021 - .032	8	-11	
5575		2715	20121	52 32	2.8	+16 47	5.78 K0	+ .003 - .008	9	-16	
5576	κ Cent	9342	20146	52 39	+ 3.9	-41 42	3.35 B3	- .017 - .028	11	var	V ₀ = +9km. 11m, 4"
5577	59 Hyda	10148	20140	52 44	3.6	-27 15	5.68 A5	- .043 - .019	8	-16	6.4:6.4, 1", binary
5578	17 Libr	3994	20136	52 48	3.3	-10 45	6.42 A0	- .015 - .021			
5579		9836	20154	52 55	3.8	-37 29	6.49 B8	- .021 - .030			
5580		9871	20156	52 53	3.9	-42 46	6.21 F8	- .020 - .019			

5538: Companion is a spectroscopic binary with two spectra, 12.8 days, V₀ = -27km.

Precession in declination, -0.24.
5544: Velocity of fainter, +6km.

CATALOGUE OF BRIGHT STARS

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14^h - 15^h

No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
5581	18 Libr	2126	20119	53 ^m 4 ^s +2.0		+50° 2'	5.68 F5	+ .108 - .231	0.030	km -15	
5582		3999	20157	53 29 3.2		-10 45	6.02 K0	- .105 - .069	6		10m, 20", cpm
5583		3783	20158	53 40 3.1		- 4 35	6.00 F5	- .360 - .103	15	-29	13m, 9", cpm
5584		+2954	20174	54 24 3.0		+ 4 58	6.16 Ma	+ .001 - .015	4	-11	
5585		9863	20189	54 53 3.8		-37 40	5.98 K2	+ .011 - .040			
5586	19 δ Libr	+3938	20195	55 38 +3.2		- 8 7	var A0	- .065 - .012	16	var*	4.8 to 5.9, 2.3 days
5587	40 Boot	10244	20203	55 47 3.7		-33 58	6.38 A3	- .027 - .028			
5588		2820	20183	55 47 2.3		+39 40	5.58 F2	- .032 + .031	19		
5589		878	20170	55 59 1.0		+66 20	4.86 Mb	- .078 + .026	10	var	750 days, V ₀ = +7km
5590		3928	20202	56 8 3.1		- 2 22	5.68 K5	+ .030 - .026	6	-15	
5591	60 Hyda	10183	20209	56 9 +3.6		-27 40	5.87 A5	+ .093 - .046			
5592	η Circ	2772	20200	56 23 2.7		+22 27	6.45 K0	+ .008 - .001			
5593		3493	20242	56 27 5.0		-63 38	5.22 G5	+ .103 - .006	30	+45	
5594		3297	20212	56 42 3.1		+ 0 15	5.91 K0	+ .006 - .030	3	-34	6.0:8.3, 0".5, cpm
5595		10560	20225	56 52 3.7		-32 15	5.45 B3	- .024 - .034	6	+ 6	
5596		+ 431	20087	57 3 -4.0		+82 55	5.73 G0	+ .165 - .230	11	-42	
5597	41 ω Boot	2192	20205	57 14 +2.0		+47 40	6.16 A0p	- .011 + .016	8	-14	9m, 35", cpm
5598		1729	20280	57 12 6.0		-71 31	6.50 K5	+ .032 - .026			
5599		3933	20228	57 33 3.1		- 2 38	6.48 A2	- .042 - .026			
5600		2861	20224	57 44 2.6		+25 24	4.93 K5	- .007 - .054	21	+14	
5601	110 Virg	2905	20237	57 51 +3.0		+ 2 29	4.62 K0	- .057 + .005	18	-16	
5602	42 β Boot	2840	20226	58 11 2.3		+40 47	3.63 G5	- .044 - .039	24	-20	
5603	20 σ Libr	11834	20253	58 13 3.5		-24 53	3.41 Mb	- .073 - .052	31	- 4	
5604	τ Lupi	9243	20262	58 14 3.9		-40 28	6.42 Mb	- .017 - .044			
5605		9773	20271	58 18 4.1		-46 40	4.72 B5	- .024 - .025	10	+17	2", binary
5606		9773	20271	58 18 4.1		-46 40	4.82 B5	- .024 - .025			
5607		9257	20278	58 49 +3.9		-40 41	5.28 K0	+ .018 - .009	11	- 3	
5608		1582	20233	59 7 1.4		+60 36	5.89 A2	- .023 + .012			
5609	5610	2642	20252	59 7 2.4		+35 36	5.66 K0	- .044 + .003	9	-27	
5610		+2983	20266	59 9 3.0		+ 5 53	7.34 F0	- .015 - .049	16	+ 7	10", binary
5610		20267	59 9 3.0		+ 5 53	7.06 F0	- .012 - .048				
5611	43 ♁ Boot	3095	20306	59 23 +5.1		-64 53	6.04 K2	+ .013 - .019			
5612		2251	20258	59 35 2.1		+45 2	6.43 F5	- .093 + .005	24	-20	
5613		+2644	20265	59 35 2.4		+34 57	6.43 K0	- .005 - .025			
5614		10710	20292	59 55 3.5		-25 24	6.59 B8	- .003 - .029			
5615		10035	20294	59 57 +3.8		-35 53	6.42 K5	- .019 + .003			
5616		2447	20285	0 10 2.6		+27 20	4.67 K0	- .179 - .014	14	-26	
5617		9630	20315	0 28 4.2		+48 42	5.83 K0	+ .011 + .012			
5618		44i Boot	2259	20281	0 30 2.0		+48 3	var G0	- .409 + .027	79	-25
5619	11960	20303	0 29 3.6		-30 32	6.01 A0p	- .018 - .045				
5620	21 ♁ Libr	4030	20305	0 41 +3.5		-21 39	6.11 K0	+ .063 - .066		+ 5	
5621		2725	20339	0 36 5.3		-66 42	5.80 F8p	+ .003 - .013			
5622		4026	20311	1 3 3.3		-15 52	5.28 K0	- .043 - .028	11	-15	
5623		3518	20347	1 5 5.0		-63 15	6.38 A0p	- .011 - .027			
5624		9305	20335	1 43 3.9		-40 12	6.01 A0p	- .039 - .052			
5625		10050	20350	2 3 +4.0		-42 29	6.00 B5	- .030 - .024		var?	V ₀ = +2km
5626		λ Lupi	9889	20356	2 6 4.0		-44 54	4.39 B3	- .019 - .026	9	+18
5627	47 Boot	2262	20308	2 7 2.0		+48 32	5.59 A0	- .065 + .022	15	-13	13m, 6", cpm
5628	5629	1714	20391	2 16 6.2		-72 23	6.11 A0	- .015 - .017			
5629		887	20297	2 26 0.9		+66 18	6.09 A0	+ .022 - .011	11	- 5	

5586: V₀ = -40km.

Precession in declination, -0".24.

5618: Companion is variable, 6.6 to 7.0 (ptg), 0.27 days, and is also a spectroscopic binary.

15^h

No	Name	DM	GC	RA	Ann	Decl	Magn	Prop Motion		Par	Rad	Remarks
				1900	Var	1900	Spec	RA	Decl		Vel	
5630		+2608	20329	2 ^m 40 ^s +2.4		+36° 50'	6.30 F5	-".065	+"020	"028	km	
5631		+3001	20346	2 43 3.0		+ 5 52	6.22 G5	-.009	-.025	8	var	V ₀ = +4km
5632		+5656	20379	2 43 4.8		-61 2	6.43 G5	-.195	-.028			
5633		+2924	20340	2 45 2.8		+18 50	6.00 A0	+.041	-.063		var*	6.7:6.7, close binary
5634	45 Boot	2873	20342	2 55 2.6		+25 16	5.03 F0	+.183	-.177	62	- 8	In Ursa Cluster
5635		+1730	20332	3 25 +1.7		+54 56	5.21 G5	+.053	+.006	20	+16	
5636		10020	20382	3 43 3.8		-38 25	6.02 G5	-.008	-.028			
5637		6367	20395	3 49 4.5		-54 58	5.56 G5	-.011	-.020	6	- 4	12m, 11"
5638	46 Boot	2656	20367	4 5 2.6		+26 41	5.73 K0p	+.003	-.021	7	var?	V ₀ = +21km
5639		2901	20373	4 10 2.8		+13 37	6.07 K0	-.058	+.056		-48	
5640		2876	20372	4 14 +2.6		+25 29	5.94 K0	-.011	-.008	6	-16	
5641		10758	20389	4 24 3.5		-25 57	5.94 K0	-.032	-.019			
5642		9922	20405	4 49 4.1		-44 54	6.40 K0	-.013	+.007			10m, 1.1"
5643		9921	20403	4 46 4.1		-44 54	7.06 K0	+.021	-.062			
5644	X TrAu	2267	20436	4 43 5.8		-69 42	var Nb	+.007	-.015		0	8.2 to 10.0 (ptg)
5645		4856	20422	4 52 +4.9		-61 22	6.10 K2	-.007	-.016			
5646	κ Lupi	9704	20409	4 59 4.2		-48 21	4.14 B9	-.092	-.059	21	+ 3	27", cpm
5647		9705	20411	5 0 4.2		-48 22	6.04 A0	-.106	-.045		0	
5648		2146	20380	5 9 1.9		+50 27	6.27 K0	-.006	-.028			
5649	ζ Lupi	8827	20414	4 59 4.3		-51 44	7.9 F8	-.111	-.068	23	-10	71", cpm*
		8830	20418	5 6 4.3		-51 43	3.50 K0	-.113	-.074			
5650		9779	20426	5 35 +4.2		-47 50	6.32 K0	-.017	-.034			
5651		9932	20435	6 6 4.0		-44 7	4.92 B3	-.036	-.035	9	var	V ₀ = +11km
5652	24 Libr	4047	20433	6 31 3.4		-19 25	4.66 A0p	-.038	-.047	13	var*	9.7m, 58", cpm*
5653		10119	20446	6 49 3.8		-35 43	6.12 B9	-.046	-.026			
5654		2935	20442	7 31 2.7		+19 21	5.98 Mb	-.013	+.002	4	-35	
5655		12133	20453	7 27 +3.5		-23 38	6.39 B9	-.012	-.030			
5656	25 Libr	4055	20456	7 37 3.4		-19 16	6.05 A2	-.051	-.044	12		
5657	23 Libr	11928	20461	7 38 3.5		-24 56	6.43 G5	-.398	-.078	32	+ 2	
5658		10801	20466	7 58 3.6		-25 49	6.05 K0	-.016	-.009			11m, 2"
5659		2939	20457	8 16 +2.7		+19 39	6.83 G5	-.591	+.284	27	-36	24", binary
			20458	8 16 2.7		+19 40	7.6 G6	-.605	+.276		-42	
5660	ι Lupi	11813	20480	8 30 3.7		-31 9	4.95 F0	-.003	-.005	8	-23	
5661		5698	20497	8 32 4.8		-60 32	5.95 B1	-.023	-.008			6.0:9.0, 1.2*
5662	26 Libr	4285	20484	8 55 3.4		-17 24	6.31 B9	-.023	-.021	5	-26	
5663		9824	20496	8 56 +4.2		-47 42	6.19 A2	+.014	-.038			10m, 13"
5664	δ Circ	5701	20507	8 52 4.9		-60 35	5.24 Oe5	-.016	-.017		+88	
5665		2789	20474	9 7 2.7		+23 21	6.25 A0	+.050	+.089	8	- 5	
5666	ε Circ	3544	20519	9 12 5.1		-63 14	4.84 K0	+.003	+.001	1	- 5	
5667		9682	20503	9 29 3.9		-41 7	5.20 *	-.007	-.011	0	-27	May be visual double
5668		9749	20506	9 29 +4.0		-43 7	6.32 B5	-.010	-.003		-21	
5669		+3840	20491	9 34 3.2		- 5 8	6.45 K2	-.022	-.002			
5670	β Circ	5875	20526	9 41 4.7		-58 26	4.16 A3	-.099	-.145		+ 9	
5671	γ TrAu	2383	20538	9 34 5.6		-68 19	3.06 A0	-.059	-.032		0	
5672		823	20451	9 40 0.6		+68 10	6.15 A2	-.001	-.003	11	var	V ₀ = -8km
5673		2629	20483	9 47 +2.3		+38. 38	6.42 K0	-.011	-.048	7	-62	
5674		2561	20489	10 0 2.5		+32 9	6.22 K5	+.039	-.027		+ 5	
5675	3 Serp	2985	20501	10 13 3.0		+ 5 19	5.44 K0	-.021	-.002	13	-34	
5676	48x Boot	2640	20495	10 18 2.5		+29 32	5.26 A0	-.071	+.022	20	-16	
5677		2577	20494	10 33 2.2		+42 33	6.37 Ma	+.016	-.021			

5633: V₀ = -5km.

Precession in declination, -0.23.

5649: This pair has nearly the same proper motion as 5646 and 5647.

5661: Also 12m, 10".

5652: V₀ = -12km. Companion is itself binary, 10.5:10.5, 2".

5667: Composite, F5, A3.

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No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
5678		+4065	20522	10 ^m 35 ^s +3.5		-22° 2'	5.71 K2	-.035 -.004	.009	km - 5	
5679	4 Serp	3327	20515	10 43	3.1	+ 0 45	5.63 A3	-.111 +.010	15	- 8	
5680		5720	20549	10 46	4.8	-60 8	5.50 Oe5	-.024 -.010	3	- 6	12m, 6"
5681	49 S Boot	2561	20523	11 28	2.4	+33 41	3.54 K0	+.085 -.121	28	-12	7.5m, 105", cpm
5682		9481	20551	11 35	3.9	-40 42	6.32 A5	+.026 +.002			
5683	μ Lupi	9860	20556	11 34	+4.2	-47 30	4.36 B8	-.029 -.044	17	+15	5.1:5.3, 1".5, binary
		9861	20557	11 36	4.2	-47 30	7.17 A	-.022 -.035			24", cpm with 5683
5684		2836	20573	11 32	5.5	-67 7	6.48 B5	+.005 -.018			6.6:9.0, 1"
5685	27 β Libr	+3935	20539	11 37	3.2	- 9 1	2.74 B8	-.098 -.026	20	-37	
5686	2 Lupi	11630	20550	11 45	3.7	-29 47	4.43 K0	-.012 -.015	12	- 3	
5687		9496	20566	12 23	+3.9	-40 25	5.78 B8	-.016 -.029	13	var	V ₀ = +16km
5688		12117	20563	12 34	3.7	-30 51	6.32 K0	-.008 -.015			
5689		10062	20581	13 9	3.8	-36 44	6.24 G5	-.095 -.129			
5690		+3337	20570	13 18	3.1	- 0 6	6.04 K5	+.003 -.013			
5691		876	20532	13 29	0.7	+67 44	5.23 G0	+.218 -.394	47	-47	
5692		+2755	20575	13 55	+2.7	+20 56	5.66 G5	-.014 -.027	9	- 8	
5693		789	20544	14 7	0.4	+69 19	6.50 A0	+.022 -.013	9	-11	
5694	5 Serp	2944	20591	14 12	3.1	+ 2 9	5.18 G0	+.369 -.521	39	+53	10m, 11", binary
5695	δ Lupi	9538	20620	14 48	3.9	-40 17	3.43 B2	-.015 -.028	12	+ 2	
5696		9539	20632	15 1	3.9	-40 24	6.24 A2	-.013 -.037			
5697		10171	20630	15 3	+3.9	-37 51	6.72 A0p	-.015 -.046			5", probably cpm
			20631				8.8	-.037 -.031			
5698	ν ¹ Lupi	9922	20644	15 10	4.2	-47 34	5.06 F8	-.140 -.143	27	-11	
5699	ν ² Lupi	9919	20635	15 3	4.0	-47 57	5.71 G0	-1.621 -.275	63	-69	
5700		5760	20654	15 4	4.9	-60 18	5.63 F5	-.086 -.027			
5701	28 Libr	4312	20618	15 13	+3.4	-17 48	6.20 K0	-.011 -.068	7	+ 3	
5702		+2574	20606	15 28	2.4	+32 53	6.14 A2	-.018 +.008	13	var	3.6 days, V ₀ = -25km
5703	29 α Libr	4083	20628	15 26	3.4	+15 11	6.11 F5	+.023 +.018	13		
5704	γ Circ	5908	20663	15 25	4.8	-58 58	4.54	-.014 -.047	12	-17	5.2B5:5.3F8, 1", binary
5705	φ ¹ Lupi	10236	20643	15 28	3.8	-35 54	3.59 K5	-.093 -.096	12	-29	
5706		+3047	20626	15 38	+3.1	- 2 3	6.50 K2	-.256 -.182	36		
5707		4057	20636	15 51	3.2	- 5 28	5.60 K2	-.054 -.022	10	-33	
5708	ε Lupi	10066	20659	15 53	4.1	-44 20	3.74 B3	-.022 -.019	11	var*	3.9:6.0, 1", binary*
5709	1 α Corb	+2647	20619	16 1	2.5	+29 59	5.57 K0	-.124 -.053	7	-53	
5710	6 Serp	3067	20637	15 56	3.1	+ 1 5	5.48 K0	-.046 -.112	8	+ 9	9m, 3", cpm
5711		2902	20649	16 48	+2.6	+25 20	6.44 K0	-.029 -.032			
5712	φ ² Lupi	10103	20676	16 46	3.8	-36 30	4.69 B3	-.022 -.032	8	- 1	
5713		2864	20700	16 49	5.7	-67 57	5.96 K0	+.129 +.001			
5714	11 UMin	678	20598	17 10	0.0	+72 11	5.14 K0	+.006 +.007	13	-16	
5715		1869	20641	17 9	1.8	+52 19	5.52 A3	+.010 +.005	16	+ 6	
5716		2453	20651	17 15	+2.1	+44 48	5.88 F0	+.023 -.114	25	0	
5717	7 Serp	+2928	20681	17 39	2.8	+12 56	6.20 A0	-.004 -.016			
5718	50 Boot	2581	20672	17 48	2.4	+33 17	5.36 B9	-.055 +.009	8	var	
5719	ν Lupi	9827	20698	18 13	3.9	-39 21	5.38 A0	-.039 -.052	12	- 8	11.4m, 1".4
5720		+3940	20695	18 23	3.3	-12 1	5.78 K0	-.041 -.046	9	-26	
5721	8 Serp	2961	20697	18 34	+3.1	- 0 40	6.10 F0	+.072 -.036	15	- 3	
5722		10225	20708	18 39	3.9	-37 49	7.09 A2	-.012 -.034			
5723	31 ε Libr	4138	20699	18 47	3.3	- 9 58	5.08 F0	-.071 -.160	31	var	227 days, V ₀ = -10km
5724		10289	20714	18 51	3.9	-38 23	4.68 A0	-.054 -.021	7	- 3	
5725		3178	20733	18 50	5.2	-64 11	5.72 K5	-.029 -.033			

5708: V₀ = +4km, two spectra. Also 9m, 27", cpm.

Precession in declination, -0.22.

15^h

No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
5726		+ 2877	20690	18 ^m 55 ^s + 2.2		+39° 56'	5.85 K5	-".001 - ".022	"006	-11	
5727	2 ηCorB	2653	20696	19 4 2.5		+30 39	5.58 G0	+ .133 - .195	65	var*	0.9, 41.6 years*
5728				19 4 2.5		+30 39	6.08				
5729	ρOctn	510	20915	20 12 13.9		-84 8	5.66 A2	+ .148 + .089		-11	
5730	κ'Apus	+ 1802	20801	20 37 6.5		-73 3	5.65 B5p	+ .002 - .040		var?	
5731		1410	20703	20 45 + 1.1		+62 23	5.80 B9	+ .010 - .039	7	-24	
5732		2284	20720	20 43 2.0		+45 37	6.24 K2	- .024 - .008			
5733	51 μBoot	2636	20724	20 43 2.3		+37 44	4.47 F0	- .147 + .080	33	- 9	108", cpm*
5734			2637	20725	20 44 + 2.3		+37 42	6.66 K0	- .146 + .087	- 9	
5735	13 γUMin	679	20692	20 53 - 0.1		+72 11	3.14 A2	- .020 + .016	18	var	0.11 days*
5736		10161	20756	20 54 + 3.8		-36 25	5.52 B5	- .013 - .040	10	+ 7	
5737		1192	20706	20 58 1.0		+63 42	5.78 K2	- .020 - .098	9	-46	
5738		9132	20767	21 9 4.4		-51 15	6.16 K0	- .008 .000			9m, 13"
5739	9 τ' Serp	2858	20740	21 9 2.8		+15 47	5.46 Ma	- .017 - .018	10	-20	
5740			2966	20745	21 23 2.7		+19 50	6.29 G0	- .059 - .013		- 4
5741		2645	20761	22 22 + 2.3		+34 41	5.87 K0	- .108 + .048	7	-48	
5742		10100	20799	22 27 4.2		-46 23	5.05 K0	- .014 - .015	14	-18	
5743	32 Libr	4089	20782	22 37 3.4		-16 22	5.92 K0	+ .014 - .037	8		
5744	12 δDrac	1654	20747	22 42 1.3		+59 19	3.47 K0	- .008 + .009	32	-10	
5745		2916	20786	23 21 2.6		+25 27	6.26 K5	- .005 - .029	5	- 7	
5746	10 Serp	2965	20805	23 35 + 3.0		+ 2 11	5.12 A5	- .088 - .045	26	-12	
5747	3 βCorB	2670	20795	23 42 2.5		+29 27	3.72 F0p	- .181 + .081	32	var	V ₀ = -21km
5748		1747	20775	23 49 1.6		+54 22	6.18 A2	+ .046 - .027	13	- 5	
5749		4246	20834	24 49 3.5		-20 23	6.10 A2	+ .014 - .027			
5750	34 Libr	4099	20842	25 2 3.4		-16 16	5.86 K0	+ .017 - .006	7	- 2	
5751		10425	20857	25 34 + 3.9		-38 17	6.34 A3	- .028 - .094			
5752		2227	20825	25 31 1.9		+47 33	5.96 A0	- .017 - .010	12	var	106 days, V ₀ = -16km
5753		10868	20852	25 35 3.7		-32 32	6.56 B8	- .020 - .040			
5754		1414	20817	25 54 1.1		+62 37	6.37 A0	+ .033 - .029	10	var	V ₀ = -12km
5755		1509	20819	25 52 1.2		+61 1	6.08 K5	- .019 - .006		-43	
5756		4128	20860	25 57 + 3.5		-19 49	8.7 F0	- .062 - .058			11", cpm
5757		1134	20948	26 2 8.0		-77 35	6.04 K2	- .069 - .134			
5758		+ 3055	20850	26 4 2.9		+ 8 55	6.46 F2	+ .037 - .011		-19	
5759		1756	20833	26 22 1.5		+55 32	6.30 A2	- .011 + .025	13	- 7	
5760		2742	20848	26 20 + 2.4		+31 38	6.35 A2	- .028 - .019	11	- 4	
5761		2651	20851	26 40 2.3		+37 9	6.52 K0	- .061 + .016			
5762		4135	20878	26 52 3.4		-19 20	5.46 A2	- .023 - .046	11	-33	
5763	52 ν'Boot	2609	20866	27 20 2.2		+41 10	5.15 K5	+ .010 - .015	9	- 9	
5764	35 ζLibr	4110	20887	27 16 3.4		-16 31	5.59 B3	- .013 - .021	7	var*	Spectrum composite?
5765		12155	20892	27 14 + 3.6		-24 9	7.06 A3	- .005 - .048	13		9", binary*
5766		3100	20893	27 18 5.4		-65 16	7.02 F0	- .030 - .032			
5767		9970	20901	27 26 4.0		-39 43	6.52 F0	- .088 - .070			
5768		1416	20849	27 35 1.1		+62 27	6.49 K5	- .024 - .005			
5769		+ 2653	20871	27 34 + 2.3		+36 57	6.32 F5	+ .004 - .039		-50	
5770	12 τ ² Serp	2797	20880	27 33 2.8		+16 24	6.14 B9	- .001 .000	7		
5771	ε TrAu	3102	20932	27 34 5.5		-65 59	4.11 K0	+ .029 - .074	29	var?	V ₀ = -16km
5772	11 Serp	2982	20896	27 49 3.1		- 0 51	5.76 K0	- .013 - .042	9	-16	
5773		+10464	20911	27 47 3.9		-39 0	6.46 B9	- .029 - .052			

5727, 5728: V₀ = -7km. In Ursa Cluster?
 5734: Itself binary, 7.2:7.8, 224 years.
 5735: Variable elements.

Precession in declination, -0.21.
 5764: V₀ = +11km.
 5765: Fainter itself binary, 7.7:7.7, 55 years.

15^h

No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
5774	53 ν^2 Boot	2611	20883	28 ^m 12 ^s +2 ^s .1	+41° 14'	4.98 A2	- "020 - "016	"019	-16	km	5.7:5.7, close binary
5775	36 Libr	10443	20918	28 33 3.6	-27 43	5.19 K0	+ .012 - .041	8	var		$V_0 = +13$ km
5776	γ Lupi	9760	20926	28 29 4.0	-40 50	2.95 B3	- .016 - .033	14	+ 6		3.6:3.8, 100 years
5777	37 Libr	4171	20914	28 43 3.3	- 9 43	4.83 K0	+ .301 - .242	25	+48		
5778	4 θ CorB	2750	20908	28 54 2.4	+31 42	4.17 B5	- .026 - .022	15	-25		
5779		4100	20920	29 4 +3.2	- 5 21	6.46 G0	- .096 + .009				
5780		4010	20923	29 2 3.2	- 8 51	5.15 B5	- .021 - .030	6	- 5		
5781		10239	20943	29 0 4.1	-44 37	4.84 B3	- .028 - .037	7	var*		4.9:7.6, 2", binary
5782	κ^2 Apus	1625	21003	29 16 6.7	-73 7	5.76 B8	- .015 - .032	13	-19		
5783		2880	20919	29 19 2.7	+17 29	6.45 F0	- .046 - .047				
5784		+10036	20950	29 21 +4.1	-44 4	5.47 K5	- .059 - .053	13	-19		
5785		1074	20894	29 31 0.8	+64 33	5.88 G5	- .113 + .074	9	+10		
5786		1222	21025	29 37 7.4	-75 45	6.02 A0	- .005 - .037				
5787	38 ν Libr	4237	20949	29 56 3.4	-14 27	4.02 K0	+ .064 - .002	30	-26		12m, 42", cpm
5788			20941	30 2 2.9	+10 52	5.16 F0	- .077 - .012	19	var?		4", binary, $V_0 = -40$ km
5789	13 δ Serp	+ 2821	20942	30 2 2.9	+10 52	4.23	- .077 + .005		var		
5790		10930	20954	29 55 +3.8	-32 45	6.29 B9	- .018 - .024				7.0:7.0, very close
5791		2977	20946	30 1 3.0	+ 2 0	6.58 A3	- .078 - .040				
5792		2422	21008	30 8 6.0	-69 54	6.46 A2	- .036 - .050				
5793	5 α CorB	2512	20947	30 27 2.5	+27 3	var A0	+ .119 - .098	49	var*		2.3 to 2.4, 17.4 days*
5794	39 ν Libr	10464	20979	30 57 +3.6	-27 48	3.78 K2	- .008 - .006	24	-25		12m, 3"
5795	15 τ^3 Serp	+ 3044	20962	31 1 2.7	+17 59	6.06 K0	- .080 - .022	8	-22		
5796		2826	20968	31 8 2.9	+11 35	6.11 G5	- .043 - .019		-26		
5797	ω Lupi	10601	21001	31 19 4.0	-42 14	4.27 K5	- .146 + .055	14	var*		11m, 12", cpm
5798		+ 9324	21007	31 23 4.5	-52 3	5.48 A0	- .044 - .036	13	-12		
5799	14 Serp	2988	20980	31 26 +3.1	- 0 14	6.51 F5	- .030 - .027	16	var		
5800	6 μ CorB	2889	20964	31 35 2.2	+39 21	5.44 Ma	+ .026 - .002	6	-19		
5801		11000	20993	31 28 3.6	-25 57	6.03 B9	- .011 - .031				
5802	16 Serp	2884	20981	31 41 2.9	+10 21	5.40 K0	+ .041 - .136	13	var		$V_0 = +8$ km
5803		6206	21027	31 46 4.9	-59 34	6.06 F5	- .125 - .225	27			
5804	18 τ^5 Serp	2807	20985	31 53 +2.8	+16 27	5.88 F0	+ .073 - .016	16	- 4		
5805		10532	21012	31 58 3.9	-38 50	6.62 B9	- .033 - .027				
5806		3989	21005	31 55 3.5	-22 49	5.82 K0	- .023 - .088	10	+ 7		
5807		10536	21015	32 7 3.9	-38 48	6.02 A3	+ .022 - .013				
5808		2678	20978	32 7 2.2	+38 42	6.50 K2	+ .026 - .014				
5809		10478	21011	32 11 +3.6	-27 53	6.33 K2	+ .001 - .034				
5810		4285	21014	32 27 3.5	-20 41	5.94 K0	+ .067 - .068	6			
5811		1756	20977	32 37 1.6	+54 16	6.03 K0	- .013 - .011	10	- 9		
5812	40 τ Libr	11837	21019	32 31 3.7	-29 27	3.80 B3	- .017 - .038	17	var		$V_0 = 0$ km
5813		2682	21004	32 48 2.5	+30 19	6.52 F5	+ .083 - .068		-13		
5814	41 Libr	4118	21031	33 9 +3.5	-18 58	5.53 G5	+ .084 - .084	23	+46		
5815		4031	21029	33 16 3.2	- 8 28	6.61 F8	+ .018 - .021		+ 3		
5816		4032	21030	33 16 3.2	- 8 28	6.54	+ .024 - .025	19	var		12", binary
5817		1886	21000	33 16 1.7	+52 24	6.48 F0	- .023 + .075	20	-16		
5818		+ 1766	20999	33 23 1.5	+54 58	5.74 A0	- .037 - .017				
5819		3996	21039	33 28 +3.5	-22 49	6.21 A0	- .037 - .037				
5820	3 ψ^1 Lupi	+10631	21042	33 25 3.8	-34 5	4.63 K0	+ .012 - .008	18	-23		
5821		10210	21062	33 52 4.3	-47 25	6.26 K5	- .030 - .030				
5822		12431	21055	34 3 3.7	-30 53	6.49 K2	- .063 - .028				
5823	54 ϕ Boot	2907	21032	34 14 2.2	+40 41	5.41 G5	+ .059 + .053	18	-10		

5781: $V_0 = +8$ km.

5793: In Ursa Cluster. $V_0 = +3$ km.

Precession in Declination, $-0'.20$.

5797: $V_0 = -7$ km.

15^h

No	Name	DM	GC	RA	Ann	Decl	Magn	Prop Motion		Par	Rad	Remarks	
				1900	Var	1900	Spec	RA	Decl		Vel		
5824	42 Libr	12458	21057	34 ^m 22 ^s +3.5		-23° 30'	5.06 K0	-.021	-.024	"010	km -23		
5825		10310	21070	34 19 +4.1		-44 20	4.69 F5	-.180	-.268	57	- 7		
5826	15 θ UMin	592	20952	34 23 -1.8		+77 41	5.33 K5	-.048	+.007	12	-25		
5827		2711	21048	34 57 +2.3		+35 0	6.19 K0	.000	-.024		+ 5		
5828		1758	21036	34 58 +1.5		+54 51	6.00 K0	-.039	-.022		-23		
5829		480	20929	34 59 -3.5		+80 47	6.47 G5	-.227	+.113	37	-17	31", binary	
		481	20935	35 12 -3.5		+80 47	8.6 G5	-.206	+.103		var		
5830		2253	21044	35 4 +1.9		+47 8	5.78 F0	+.085	-.133	21	- 2		
5831		2875	21073	35 27 2.8		+12 23	6.31 G5	-.010	-.015			10m, 15", cpm	
5832		9909	21092	35 23 +4.3		-49 10	6.06 K0	-.020	-.032				
5833	7 ζ CorB	+2665	21063	35 37 +2.3		+36 58	6.00 B8	-.017	-.021	11	-19	6", binary	
5834			21064	35 37 2.3		+36 58	5.07	-.016	-.014		var*		
5835			2206	21054	35 39 1.8		+50 45	5.94 G5	+.004	-.045			-14
5836			6257	21113	35 37 5.0		-59 58	6.56 G5	-.015	-.012			
5837			10441	21103	36 8 3.9		-37 6	5.31 K0	-.051	-.023	4		-16
5838	43 κ Libr	4188	21094	36 11 +3.5		-19 21	4.96 K5	-.040	-.113	16	var	V ₀ = -5km	
5839	4 ψ ² Lupi	10494	21106	36 19 3.8		-34 23	4.82 B5	-.023	-.036	11	var	V ₀ = +8km, two spectra	
5840	19 τ ⁶ Serp	2816	21089	36 23 2.8		+16 21	5.97 G5	+.026	-.022	8	+ 3	In Ursa Cluster?	
5841		1583	21076	36 57 1.3		+58 14	6.46 K0	-.006	+.005				
5842	21 ι Serp	3138	21102	37 5 2.7		+20 0	4.49 A2	-.061	-.054	13	var*	5.2:5.2, close binary	
5843	20 χ Serp	2982	21105	37 5 +2.8		+13 10	5.26 A0p	+.038	-.020	15	var*	In Ursa Cluster	
5844		806	21065	37 23 0.2		+69 36	5.86 K0	-.051	+.047				
5845	22 τ ⁷ Serp	3059	21111	37 25 2.7		+18 47	5.80 A3	-.074	+.045	18			
			21137				8.0	-.034	-.022				
5846		10245	21138	37 38 4.0		-41 30	6.57 A0	-.030	-.052			4", cpm	
5847		4266	21129	37 48 +3.4		-14 43	6.44 K0	-.007	-.103	13	+20		
5848	44 η Libr	4171	21146	38 27 3.4		-15 21	5.55 A5	-.036	-.070				
5849	8 γ CorB	2722	21130	38 33 2.5		+26 37	3.93 A0	-.106	+.038	23	var*	4.0:7.0, 90 years	
5850		+2922	21132	38 30 2.8		+13 59	6.44 G5	-.013	-.040	2		7.0:7.4, d ⁵ , binary	
5851			21184	38 46 5.5		-65 8	6.48 A5	-.001	-.049			2", cpm	
5852		3139	21184	38 46 5.5		-65 8	6.52 A5	-.001	-.049				
5853	23 ψ Serp	2989	21155	39 0 +3.0		+ 2 50	5.80 G5	-.084	-.157	54	+11	12m, 3", binary	
5854	24 α Serp	3088	21158	39 21 3.0		+ 6 44	2.75 K0	+.134	+.039	44	+ 3		
5855	9 π CorB	2621	21161	40 3 2.4		+32 50	5.60 K0	-.035	-.019	11	- 4		
5856		10550	21182	40 8 3.7		-27 45	6.45 A5	-.069	-.034			7.2:7.2, close binary*	
5857		1898	21154	40 8 +1.6		+52 41	5.48 A0p	-.064	+.025	11	var?	V ₀ = -16km	
5858	26 τ ⁸ Serp	2906	21164	40 10 2.7		+17 35	5.89 A0	-.029	-.008	10	var		
5859		3072	21177	40 27 3.0		+ 5 46	5.56 A0	+.024	-.021	9	- 9		
5860		10524	21188	40 21 3.8		-34 22	5.61 B8	-.023	-.035	15	- 5	6.2:6.5, 0 ^m 12	
5861		3125	21181	40 34 3.1		+ 1 12	6.46 K0	+.039	+.002		+14		
5862		10157	21202	40 46 +4.0		-39 53	6.45 G5	-.177	-.041				
5863	25 Serp	3092	21187	40 55 3.1		- 1 29	5.37 B8	-.030	-.043	7	var	39.0 days, V ₀ = -12km	
5864		10500	21205	40 59 3.9		-37 36	6.12 G0	-.432	-.220	69	- 3		
5865		8912	21227	41 19 4.5		-52 8	6.04 K0	-.009	-.007			12m, 1 ^m 2	
5866		4161	21203	41 27 3.2		- 5 49	6.36 K0	-.003	+.016				
5867	28 β Serp	2911	21194	41 34 +2.8		+15 44	3.74 A2	+.066	-.055	27	- 2*	9m, 31", cpm	
5868	27 λ Serp	3023	21201	41 35 2.9		+ 7 40	4.42 G0	-.226	-.072	95	-66		
5869		8944	21250	42 32 4.6		-52 54	5.96 B8	-.050	-.036	13	+21		
5870	31 υ Serp	2939	21224	42 39 2.8		+14 25	5.72 A0	-.063	+.031	13	-34		
5871		10349	21252	42 43 4.3		-48 37	6.02 A2	-.036	-.006				

5834: 12.6 days, V₀ = -29km, two spectra.5842: V₀ = -17km, two spectra.5843: V₀ = +1km.

5867: Also 8.2m (DM 2906), 1642", cpm; this is itself double, 8.4:10.5, 6", cpm; all four stars are in Ursa Cluster.

Precession in declination, -0^m.19.5849: V₀ = -10km, two spectra.

5856: Also 9m, 51", fixed.

CATALOGUE OF BRIGHT STARS

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15^h

No	Name	DM	GC	RA		Decl 1900	Magn Spec	Prop Motion		Par	Rad Vel	Remarks
				1900	Ann Var			RA	Decl			
5872		10251	21263	43 ^m 16 ^s +4.2 ^s		-45° 6'	6.21 A5	+".041 - ".044			km	11m, 2"*
5873		6711	21273	43 20 4.7		-54 45	5.84 B5	-.001 - .020	.002		- 3	9m, 19"
5874		2940	21245	43 34 2.8		+14 6	6.10 K0	-.009 - .124			-53	
5875		3829	21251	43 42 3.1		- 3 31	5.61 A3	-.036 + .003		15	-16	
5876		3286	21289	43 48 5.5		-64 51	6.58 A3	+ .039 .000				
5877		2631	21247	44 4 +2.4		+32 2	6.56 K5	+ .028 - .050				
5878		1777	21233	44 12 1.4		+55 47	5.90 K2	-.124 + .070				
5879	35 κ Serp	3074	21255	44 14 2.7		+18 27	4.28 K5	-.048 - .095		20	-38	
5880	R CorB	2477	21257	44 27 2.5		+28 28	var G0p	-.005 - .022		39	+25	5.8 to 13.8
5881	32 μ Serp +	4052	21269	44 24 3.1		- 3 7	3.63 A0	-.088 - .029		17	var?	V ₀ = -10km
5882		10430	21284	44 25 +4.3		-46 45	6.12 K0	-.116 - .035				
5883	5 λ Lupi	10754	21281	44 36 3.8		-33 19	4.11 B9	-.014 - .036		12	var	Two spectra
5884		4990	21308	44 40 5.2		-62 18	6.18 K0	-.008 - .030				
5885	1 Scor	11131	21285	44 58 3.6		-25 27	4.77 B3	-.019 - .032		13	-10	
5886		+ 1225	21246	45 8 0.9		+62 55	5.13 A2	+ .037 - .061		16	var	24.4 days, V ₀ = -7km*
5887		1779	21253	45 13 +1.4		+55 41	5.79 A2	+ .010 + .003		17	- 2	11m, 1", binary
5888	34 ω Serp	3007	21280	45 15 3.0		+ 2 30	5.33 K0	+ .027 - .056		19	- 4	
5889	10 δ CorB	2737	21276	45 24 2.5		+26 22	4.73 G5	-.079 - .075		21	-19	
5890		9939	21314	45 28 4.4		-50 19	6.42 K2	+ .012 + .006				
5891	κ TrAu	2585	21328	45 36 5.9		-68 18	5.20 K0	-.009 - .017		2	+ 5	
5892	37 ε Serp	3069	21288	45 50 +3.0		+ 4 47	3.75 A2	+ .124 + .057		38	- 9	
5893		12030	21313	46 2 3.7		-29 35	6.43 K0	-.137 - .096				13m, 29", cpm
5894	R Serp	2918	21292	46 5 2.8		+15 26	var M7	-.007 - .049			+ 8*	5.6 to 13.8, 354 days
5895	36 Serp	4058	21301	46 3 3.1		- 2 47	5.16 A2	-.090 - .032		20	- 9	
5896		4269	21305	46 3 3.4		-13 50	6.25 G0	-.029 - .012		7	-21	
5897	β TrAu	3723	21332	46 20 +5.3		-63 7	3.04 F0	-.192 - .404		85	0	
5898		6191	21330	46 25 5.1		-60 27	6.34 B8	-.007 - .004			- 5	6.5:8.2, 1"
5899	38 ρ Serp	2829	21311	46 52 2.6		+21 17	4.88 K5	-.055 + .011		11	-62	
5900		6428	21350	47 9 5.0		-59 53	6.04 A3	-.050 - .081		29		10m, 4", binary
5901	11 κ CorB +	2652	21319	47 28 2.3		+35 58	4.77 K0	-.012 - .356		27	-24	
5902	45 λ Libr	4249	21327	47 32 +3.5		-19 52	5.06 B3	-.013 - .031		6	var	V ₀ = 0km
5903	16 ζ UMin	527	21243	47 37 -2.1		+78 6	4.34 A2	+ .019 - .004		15	var	
5904	2 Scor	+12352	21329	47 36 +3.6		-25 2	4.66 B3	-.016 - .033		14	-12	4.8:7.3, 3", cpm
5905		6208	21359	47 40 5.1		-60 11	5.96 A2	-.033 - .088				
5906		12354	21339	47 55 3.6		-24 14	5.44 B5	-.026 - .032		5	+13	
5907		12569	21341	47 59 +3.6		-23 41	5.36 B3	-.018 - .034		4	-27	
5908	46 θ Libr	4174	21342	48 8 3.4		-16 26	4.34 K0	+ .098 + .126		24	+ 3	
5909		2926	21331	48 25 2.7		+17 43	6.44 K0	-.043 - .006				
5910		+11096	21352	48 25 3.7		-27 3	6.01 B5	-.025 - .031				
5911	39 Serp	3024	21337	48 33 2.8		+13 31	6.16 G0	-.153 - .564		43	var?	V ₀ = +38km
5912	3 Scor	12365	21355	48 39 +3.6		-24 57	5.93 B8	-.014 - .030		3		
5913		2840	21348	49 0 2.7		+16 23	6.14 F2	+ .024 - .028			+ 2	13m, 3" ⁵
5914	1 χ Herc	2648	21340	49 13 2.1		+42 44	4.61 G0	+ .437 + .629		60	-55	
5915	47 Libr	+ 4195	21364	49 14 3.5		-19 5	5.90 B5	-.017 - .028				6.1:8.0, close binary
5916		12663	21369	49 15 3.8		-30 47	6.34 K0	+ .013 + .016				
5917	4 Scor	11190	21371	49 27 +3.6		-25 58	5.61 A2	-.046 - .029			- 5	
5918		10237	21377	49 25 4.0		-39 34	6.13 B9	-.036 - .022				
5919	40 Serp	+ 3116	21367	49 50 2.9		+ 8 52	6.20 A2	-.003 - .006		11	-20	
5920		3320	21414	49 48 5.5		-64 45	5.88 B8	-.008 - .026				12m, .10"
5921		10456	21392	49 51 4.3		-47 52	6.47 F2	-.112 - .100				

5872: Companion is itself double, 12:12, 0".7.
5886: In Ursa Cluster?

Precession in declination, -0".18.
5894: Absorption lines give +27km.

15^h

No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
5922		1838	21345	49 ^m 57 ^s +1.4 ^s		+56° 7'	5.92 K0	-.021 +.051	"009	km	
5923		12407	21386	49 56 3.8		-31 30	6.53 F5	+ .034 - .006			
5924		3166	21368	50 10 2.6		+20 36	5.76 K5	- .082 + .039	7	-61	
5925	ε Lupi	10826	21395	50 30 3.8		-33 40	5.37 A0	+ .015 - .049	20	-10	11", binary
5926			21396	50 30 3.8		-33 40	5.73 A0	+ .016 - .046		-12	
5927	5 ρ Scor	+4290	21391	50 38 +3.4		-14 6	6.39 F5	+ .028 - .080	20		
5928		11714	21398	50 43 3.7		-28 55	4.02 B3	- .010 - .026	9	+ 3	
5929		10611	21405	50 51 3.9		-35 54	5.95	- .019 - .007			Composite, G0, A2
5930		4314	21397	50 56 3.4		-14 32	6.17 A0	+ .067 - .034			
5931		+3036	21390	51 11 2.7		+18 55	6.22 B9	- .016 - .023	4		
5932	2 Herc	2542	21382	51 18 +2.0		+43 26	5.54 Ma	- .036 + .057	9	-11	
5933	41 γ Serp	+2849	21408	51 50 2.8		+15 59	3.86 F5	+ .307 -1.292	79	var	V ₀ = +7km
5934		4364	21420	51 50 3.5		-20 41	5.87 B5	- .017 - .025			
5935		10620	21435	51 56 3.9		-37 13	6.41 G5	- .025 - .006			
5936	12 λ CorB	2712	21402	52 9 2.2		+38 14	5.47 F2	+ .035 + .074	36	-11	
5937		6911	21450	52 10 +4.6		-53 44	6.38 B5	- .025 - .023		-38	
5938	4 Herc	2652	21400	52 9 2.0		+42 51	5.61 B8	- .029 + .008	8	var	V ₀ = -15km
5939	S TrAu	3765	21470	52 12 5.4		-63 30	var G5	- .005 - .011		var*	6.4 to 7.8 (ptg), 6.3 days
5940	φ Serp	2969	21428	52 38 2.8		+14 42	5.66 K0	- .123 + .080	8	-68	
5941	48 Libr	4302	21439	52 35 3.4		-13 59	4.68 B3p	- .016 - .025	8	-12	
5942		12427	21442	52 35 +3.6		-24 33	5.41 B8	- .016 - .027	7	-11	
5943		10478	21451	52 42 4.1		-41 27	5.07 G5	- .043 - .013	16	-27	
5944	6 π Scor	11228	21447	52 48 3.6		-25 50	3.00 B2	- .012 - .032	12	var*	1.6 days, V ₀ = -3km
5945		10113	21465	53 12 4.1		-40 22	6.28 K0	+ .021 + .003			
5946		6922	21488	53 19 4.7		-54 17	6.38 A3	- .045 - .045			
5947	13 ε CorB	2558	21440	53 27 +2.5		+27 10	4.22 K0	- .082 - .068	19	-30	12m, 2", cpm
5948	η Lupi	10797	21478	53 30 4.0		-38 7	3.61 B3	- .022 - .036	9	+ 7	15", binary
			21479	53 30 4.0		-38 6	7.7	- .032 - .029			
5949		1691	21424	53 53 1.2		+59 12	6.17 B9	- .025 + .017	6	- 6	
5950		+2948	21445	53 59 2.1		+39 59	6.44 K0	- .066 + .052	9		
5951		5122	21510	54 5 +5.3		-62 15	6.36 A0	- .040 - .030			
5952		10120	21494	54 9 4.0		-40 9	6.50 A0	+ .014 + .032			10m, 0.8; and 10m, 8"
5953	7 δ Scor	4068	21489	54 25 3.5		-22 20	2.54 B0	- .011 - .030	11	var	V ₀ = -16km
5954	49 Libr	4196	21495	54 43 3.4		-16 14	5.53 F8	- .630 - .400	31	var	
5955		1902	21557	54 47 6.7		-72 8	5.71 K0	- .028 + .068	7		
5956		12470	21504	55 1 +3.8		-31 36	6.40 K0	+ .009 - .011			
5957		+2695	21486	55 16 2.2		+36 56	5.71 K5	+ .019 + .021	7	+10	
5958	T CorB	2765	21491	55 19 2.5		+26 12	nov. Pec	- .008 + .006		- 5	Nova 1866, 2.0m
5959	50 Libr	+4162	21502	55 24 3.2		- 8 8	5.55 A0	- .019 - .021	13	-19	
5960		1793	21467	55 25 1.4		+55 2	4.96 A5	- .154 + .105	23	var	
5961	ι ¹ Norm	7500	21533	55 24 +4.9		-57 30	8.5	- .141 - .072	25	*	11", triple system [5.5:5.8, 27 years
5962			21535	55 24 +4.9		-57 30	4.87 A2	- .123 - .091			
5963	η Norm	10512	21539	55 52 4.4		-48 57	4.74 G5	+ .026 .000	17	0	
5964		3096	21508	55 53 3.0		+ 4 42	5.90 K0	- .046 + .070	10	- 4	
5965		2239	21499	56 14 1.7		+50 10	5.90 F0	+ .006 - .061	24	+ 5	
5966	5 Herc	11817	21540	56 28 +3.7		-28 51	6.16 K0	+ .034 - .021			
5967		3101	21525	56 45 2.7		+18 6	5.28 G5	- .053 + .145	8	-19	
5968	15 ρ CorB	10832	21548	56 45 4.0		-38 19	4.97 B5	- .031 - .036	11	0	
5969		2663	21527	57 13 2.3		+33 36	5.43 F8	- .200 - .774	42	+18	
5969		11295	21556	57 18 3.6		-25 35	5.10 K0	- .072 - .046	14	-39	

5939: V₀ = +2km.

5944: Two spectra.

Precession in declination, -0.17.
5961: Velocity variable? V₀ = -18km.

CATALOGUE OF BRIGHT STARS

15^h - 16^h

No	Name	DM	GC	RA		Decl	Magn	Prop Motion		Par	Rad	Remarks
				1900	Ann Var			RA	Decl			
5970		12505	21559	57 ^m 15 ^s +3.8	-31° 43'	6.11 F5	-".046	-.034			km	
5971	14 *CorB	2738	21534	57 26 2.4	+30 8	4.91 A0	-.031	-.015	0.014	-23		
5972	44 *Serp	2886	21552	57 59 2.6	+23 5	4.82 A2	+.011	+.015	16	var	V ₀ = -30km	
5973		12499	21571	57 54 3.6	-24 27	6.42 K0	-.001	.000				
5974		11386	21574	57 55 3.8	-32 56	6.21 F0	-.033	-.061				
5975		10680	21584	58 1 +4.0	-37 35	5.96 F0	-.138	-.122				
5976	43 Serp	3131	21582	58 49 3.0	+ 5 16	6.18 K0	-.045	+.006				
5977	ξ Scor	+ 4237	21593	58 52 3.3	-11 6	5.07 F8	-.065	-.036	39	-32	0".7, 44.7 years	
5978			21594	58 53 3.3	-11 6	4.77	7.2	-.071		-.021		-34
			4057	21595	58 56 +3.3	-11 10	7.4 K0	-.072	-.030	39	-34	11", cpm with 5978
			4058	21596	58 57 3.3	-11 10	8.1 K	-.068	-.028			280" distant
5979		7079	21627	59 23 4.8	-55 55	6.28 F0	-.003	-.018				
5980	8 Norm	10625	21615	59 25 4.2	-44 54	4.84 A3p	+.001	+.022	14	-16		
5981		1834	21569	59 32 1.5	+53 12	6.18 K2	-.004	-.041	6	-6		
5982	6 *Herc	2142	21580	59 41 +1.9	+46 19	4.64 B9	+.054	-.067	11	+3		
5983		+ 2708	21590	59 39 2.2	+36 54	5.85	+.007	-.025	32	var*	Composite, F5, A2	
5984	8 β Scor	4307	21609	59 37 3.5	-19 32	2.90 B1	-.007	-.026	8	var*	14", cpm*	
5985			21610	59 38 3.5	-19 32	5.06	-.020	-.027		-4		
5986	13 θ Drac	1608	21572	0 1 1.1	+58 50	4.11 F8	-.318	+.334	48	var	3.1 days, V ₀ = -8km	
5987	θ Lupi	10642	21625	0 1 +3.9	-36 32	4.33 B3	-.019	-.037	14	+15		
5988			21620	0 8 3.6	-23 20	5.94 B8	-.014	-.036	10			
5989		+ 4234	21616	0 24 3.2	- 6 1	6.36 F5	+.033	-.014	8	-14	6.4:9.1, 1".5, binary*	
5990		4235	21626	0 40 3.2	- 5 53	6.49 K0	-.034	-.002				
5991		10648	21647	0 42 3.9	-36 29	5.77 F0	+.066	-.048				
5992		3134	21622	0 47 +2.9	+ 8 22	6.14 A2	-.012	-.008	10	var	8.9 days, V ₀ = -20km	
5993	9 ω' Scor	4405	21639	0 57 3.5	-20 24	4.13 B2	-.010	-.029	8	-6		
5994	ι ² Norm	7613	21677	1 5 4.9'	-57 40	5.79 A0	-.016	-.061	16	0		
5995			21604	1 20 1.1	+59 41	6.20 Ma	-.023	-.027	-5			
5996		4342	21653	1 29 3.3	-13 48	6.26 G0	-.261	+.018				
5997	10 ω ² Scor	4408	21659	1 32 +3.5	-20 36	4.58 G0	+.041	-.045	15	-5		
5998		12552	21668	1 52 3.6	-24 11	6.22 B8	-.014	-.016				
5999		10893	21679	1 52 4.0	-38 50	6.44 A0	-.020	-.035				
6000		10894	21680	1 52 4.0	-38 50	6.71 A0	-.028	-.039				44", cpm
6001		+ 11369	21673	2 2 3.7	-26 4	5.64 Ma	+.108	-.011	5	-18		
6002	11 Scor	4425	21667	2 3 +3.3	-12 29	5.64 A0	-.050	-.036	10	var*	10m, 3", cpm	
6003		12731	21694	2 45 3.6	-23 25	5.79 B9	-.015	-.031				
6004	45 Serp	2958	21682	2 51 2.9	+10 10	5.63 A5	-.021	-.015	15	var	V ₀ = -28km	
6005			2926	21678	3 2 2.6	+22 6	6.34 K0	-.015	-.048	3	+56	
6006		11456	21713	3 10 3.8	-32 23	6.74 G5	-.029	-.059				8", cpm
			21714	3 11 3.8	-32 23	7.48	-.035	-.049				
6007		10961	21722	3 28 +3.8	-33 17	5.58 B8	-.028	-.065	12	var		
6008	7 *Herc	2964	21696	3 34 2.7	+17 19	5.34 G5	-.037	-.018	12	-10		
6009			2965	21698	3 34 2.7	+17 19	6.52 G5	-.033	-.036	6	+38	29", cpm
6010	47 Serp	3141	21702	3 39 2.9	+ 8 48	5.90 Mb	-.021	-.016	6	-22		
6011		3132	21717	3 59 +3.0	+ 3 43	6.10 K5	-.031	+.010		+9		
6012		+ 4502	21730	4 10 3.5	-18 4	6.40 F5	-.085	-.082				
6013	8 Herc	2967	21718	4 16 2.7	+17 28	6.07 A0	-.024	-.034	10	-16		
6014			3169	21724	4 16 3.0	+ 6 40	6.02 G5	+.235	-.744	29	-3	
6015		10251	21748	4 29 4.1	-40 51	6.16 F0	-.104	-.130				

5983: V₀ = -5km.

5984: 6.8 days, V₀ = -9km, calcium and sodium lines nearly stationary. Also 9m, 1", cpm.

5989: Also 10m, 29", fixed.

Precession in declination, -0".16.

6002: V₀ = -25km.

16^h

No	Name	DM	GC	RA	Ann	Decl	Magn	Prop Motion		Par	Rad	Remarks
				1900	Var	1900	Spec	RA	Decl		Vel	
6016		3884	21738	4 ^m 36 ^s + 3.1		- 3° 12'	5.41 KO	- .033	- .012	.008	km	
6017		12343	21749	4 49 3.7		-29 9	5.16 KO	- .094	- .094	13	var	
6018	16 τ Cor B	2699	21733	5 19 2.2		+36 45	4.94 KO	- .060	+ .322	28	var?	$V_0 = -20$ km. 14m, 3", cpm
6019		7229	21783	5 25 4.8		-55 17	5.96 FO	- .105	- .049			
6020	8 Apus	1092	21862	5 24 9.0		-78 27	4.78 Mb	- .005	- .042	15	-12	103"
6021		1093	21865	5 31 9.0		-78 25	5.22 K5	+ .004	- .026	15	-10	
6022		7413	21782	5 29 +4.7		-53 25	5.98 Ma	- .019	- .022			
6023	11 ϕ Herc	2376	21736	5 37 1.9		+45 12	4.26 B9p	- .030	+ .028	14	-16	
6024	* Norm	7245	21787	5 35 4.7		-54 22	5.09 KO	- .009	- .034	12	-14	
6025		864	21705	6 3 0.2		+68 4	5.40 AO	- .038	+ .060	12	-18	
6026	14 ν Scor	4332	21771	6 10 +3.5		-19 11	6.49 A	- .011	- .016	11		6.8:7.8, 2", binary* 4.4:6.4, 1", binary*
6027		4333	21773	6 11 3.5		-19 12	4.29 B3	- .011	- .030	11	var*	
6028	13 Scor	10841	21778	6 9 3.7		-27 40	4.70 B3	- .015	- .033	9	+ 9	
6029	12 Scor	11962	21776	6 5 3.7		-28 9	5.70 B9	- .033	- .051	21		5.8:8.6, 4", binary
6030	8 Tr Au	3854	21819	6 20 5.5		-63 26	4.03 G0	+ .006	- .022	25	- 5	
6031	15 ν Scor	4324	21780	6 32 +3.3		- 9 48	4.91 A2	- .010	- .020	17	var?	$V_0 = -7$ km
6032		+2971	21774	6 43 2.9		+ 9 58	6.46 A3	+ .010	- .011	11	-27	
6033	16 Scor	4180	21784	6 42 +3.3		- 8 17	5.49 A3	+ .037	- .004	8	+ 4	
6034		616	21676	6 49 -2.0		+77 4	5.60 AO	- .022	+ .013	14	var	$V_0 = -31$ km
6035		+2982	21777	6 57 +2.7		+16 55	5.90 AO	+ .003	- .004	10	-14	
6036		1622	21753	7 5 +1.2		+58 12	6.31 AO	- .025	+ .017	8	var	
6037		3054	21849	7 7 6.0		-67 41	6.18 A3	- .042	- .099			
6038		1867	21756	7 14 1.3		+56 5	6.59 KO	- .034	+ .018			
6039	10 Herc	2909	21786	7 23 2.6		+23 45	5.96 Mb	- .032	- .019	5	-25	
6040		7716	21837	7 34 5.0		-57 39	5.86 A2	- .021	- .055			
6041		3891	21803	7 41 +3.2		- 3 58	6.08 AO	- .034	- .021		-16	
6042		12623	21814	7 45 3.6		-24 10	6.34 B8	+ .011	- .022			10m, 1 ^h 5
6043		2696	21792	7 51 2.3		+33 36	6.41 KO	+ .010	+ .001	9	- 2	10m, 5", binary
6044		11525	21829	7 58 3.8		-32 45	6.07 KO	- .016	- .040			
6045	0 Norm	10611	21836	8 0 4.4		-47 7	5.36 B8	- .036	- .056	11	+ 2	
6046		2706	21800	8 9 +2.2		+36 41	5.68 K5	- .014	- .044	7	var	2150 days, $V_0 = -30$ km
6047	9 Herc	3165	21815	8 19 3.0		+ 5 17	5.64 KO	+ .040	- .013	8	- 2	
6048	17 X Scor	4096	21828	8 19 3.3		-11 35	5.50 KO	- .015	- .013	14	-25	
6049		11132	21846	8 27 4.2		-42 39	6.16 KO	- .028	- .015			
6050		2683	21802	8 29 2.0		+42 38	6.01 K5	- .010	+ .021			10m, 23", cpm
6051		4444	21834	8 36 +3.5		-20 51	6.31 AO	- .028	- .033			
6052		+2603	21811	8 38 2.5		+26 56	6.37 F2	+ .046	- .032	20		10m, 2 ^h 5, binary
6053		4249	21840	8 53 3.5		-18 17	6.37 KO	- .108	- .115			
6054		11453	21845	8 50 3.6		-25 13	6.19 B9	+ .007	- .027			
6055		7594	21861	8 54 4.7		-53 34	5.43 Ma	- .007	- .001	15	-28	
6056	18 Ophi	3903	21838	9 6 +3.1		- 3 26	3.03 Ma	- .046	- .149	31	-20	
6057		3184	21841	9 18 2.9		+ 6 9	6.44 G5	+ .025	- .018	5	-21	
6058	γ Norm	10474	21871	9 32 4.5		-49 49	5.00 F8p	- .008	- .008	0	-18	
6059		9469	21874	9 36 4.6		-52 50	6.44 A5	- .061	- .063			
6060	18 Scor	+4242	21864	10 11 3.3		- 8 6	5.56 G0	+ .227	- .508	67	+12	
6061		4383	21867	10 13 +3.4		-14 36	6.10 AO	+ .007	+ .010			
6062	S Norm	7821	21898	10 34 5.0		-57 39	var G0p	+ .002	- .008		var*	6.6 to 7.6, 9.8 days
6063	17 σ Cor B	2750	21863	10 56 2.2		+34 7	5.76 GO	- .275	- .086	46	var*	5", binary
6064		10 56 2.2	+34 7	6.66						-18		
6065	16 Herc	3075	21870	11 3 2.7		+19 4	5.86 KO	- .067	- .085	9	-18	

6026, 6027: These two binaries, 41" apart, probably form a quadruple system.

6027: $V_0 = -6$ km, short period.

Precession in declination, -0.15 .

6062: $V_0 = -6$ km.

6063: 8.0 days, $V_0 = -11$ km, two spectra.

CATALOGUE OF BRIGHT STARS

16^h

No	Name	DM	GC	RA		Decl	Magn	Prop Motion		Par	Rad	Remarks
				1900	Ann Var			RA	Decl			
6066		+4454	21883	11 ^m 5 ^s +3 ^s .5	-21° 3'	6.42 B9	-".015	-.023			km	
6067		3910	21895	11 40 3.2	- 3 42	6.12 F0	+ .037	+ .003			-11	
6068		2613	21879	11 43 2.4	+27 41	6.30 K2	- .032	-.040				
6069		930	21852	12 3 0.2	+67 24	6.28 K0	- .027	-.046		.028		
6070		12037	21910	12 6 3.7	-28 22	4.87 A0	- .032	-.111			-12	
6071	λ Norm	11188	21923	12 20 +4.2	-42 26	5.62 A2	+ .014	-.017			var?	V ₀ = -22km*
6072	γ ² Norm	10536	21933	12 21 4.5	-49 55	4.14 K0	- .165	-.059	40		-29	
6073		7493	21942	12 26 4.8	-54 54	5.91 K0	+ .019	-.028				
6074	18 υ CorB	2803	21900	12 44 2.4	+29 24	5.73 A0	+ .016	-.025	16		var?	V ₀ = +6km
6075	2 ε Ophi	4086	21920	13 2 3.2	- 4 27	3.34 K0	+ .082	+ .035	33		-10	
6076		4357	21935	13 16 +3.5	-19 58	6.38 K0	+ .010	-.012	8		+ 8	
		13040	21940	13 12 3.8	-30 40	7.2 F8	+ .067	+ .020	26		var*	23", cpm
6077		13041	21941	13 13 3.8	-30 40	5.42 F2	+ .082	+ .018				
6078		4398	21934	13 22 +3.4	-14 38	6.06 K0	- .030	+ .008	7		var	
6079	19 UMin	594	21851	13 40 -1.7	+76 8	5.51 B8	- .001	+ .010	8		- 1	
6080		10412	21959	13 47 +4.1	-39 11	6.22 A0	- .013	-.068				10m, 10"
6081	19 σ Scor	12849	21969	14 37 +3.6	-23 56	4.76 A3	- .005	-.032	10		- 8	
6082	20 UMin	586	21880	15 3 -1.5	+75 28	6.51 K2	- .042	+ .030	6		-25	
6083		10591	21997	15 0 +4.5	-49 20	5.49 B5	- .014	-.028	12		- 9	
6084	20 σ Scor	11485	21982	15 7 3.6	-25 21	3.08 B1	- .011	-.028	9		var*	10m, 20", cpm
6085		10724	22000	15 26 +4.2	-43 41	6.00 G5	- .028	-.020				10m, 41", cpm
6086		1665	21943	15 35 1.0	+60 0	5.64 Mb	+ .008	+ .020	5		-36	
6087		2902	21976	15 44 +2.6	+21 23	6.14 G5	- .020	-.057			-24	
6088		713	21916	16 12 -1.0	+73 38	5.98 A0	- .016	+ .028	11		-15	
6089		5325	22034	16 17 +5.5	-62 54	6.28 A2	- .023	+ .017				
6090		2491	21974	16 24 +1.7	+49 17	6.19 K0	- .022	+ .027	6		-32	
6091		+3005	21984	16 30 2.1	+39 57	5.54 F2	- .126	-.006	35		-30	5.6:11, 1", binary
6092	22 τ Herc	2169	21987	16 44 1.8	+46 33	3.91 B5	- .013	+ .032	12		-14	14m, 7", cpm
6093	50 σ Serp	3215	22007	17 0 3.0	+ 1 16	4.80 F0	- .162	+ .048	37		var?	V ₀ = -46km
6094		10983	22030	17 15 4.1	-38 58	5.40 G0	+ .078	-.010	52		+10	
6095	20 γ Herc	3086	22012	17 31 +2.6	+19 23	3.79 F0	- .048	+ .039	23		var	11.9 days; 9m, 41"
6096		3174	22019	17 28 3.1	- 1 51	6.11 B9	- .015	-.002	7			
6097			22031	17 31 3.9	-32 58	7.06 A0	- .019	-.037	9			6", binary
			22032	17 31 3.9	-32 58	7.6	- .024	.000				
6098	ξ TrAu	2558	22089	17 43 6.5	-69 52	4.93 G0	+ .200	+ .100	86		var	13.0 days, V ₀ = +8km
6099		10633	22046	17 44 +4.3	-45 7	6.46 A2	+ .021	-.006				12m, 5"
6100		10778	22043	17 52 4.0	-37 20	5.43 B8	- .020	-.028			+ 8	6.1:6.3, very close
6101		868	21983	18 12 0.0	+68 48	6.47 K0	- .047	+ .043	0			
6102	γ Apus	1103	22142	18 6 9.2	-78 40	3.90 K0	- .120	-.074	31		var	V ₀ = +5km
6103	19 ξ CorB	2845	22020	18 12 2.3	+31 7	4.72 K0	- .099	+ .106	15		-29	
6104	4 υ Ophi	4365	22042	18 15 +3.5	-19 48	4.59 K0	- .028	-.054	12		0	
6105			22053	18 23 3.8	-29 28	6.59 G0	+ .061	-.110				
6106		12513	22054	18 23 3.8	-29 28	5.94 G0	+ .064	-.088	36			6", binary
6107	20 υ CorB	2773	22026	18 36 2.3	+34 2	5.36 Ma	+ .004	-.046	8		-13	
6108	21 υ CorB	+2774	22029	18 43 +2.3	+33 56	5.28 K5	- .010	+ .050	13		-39	
6109	ι TrAu	3923	22100	18 40 5.6	-63 50	5.30 F0	+ .050	+ .020	24		var	39.9 days, V ₀ = -5km
6110		2716	22040	19 6 2.3	+32 34	6.20 A2	+ .013	-.015	10		- 6	6.3:8.8, 35"*
6111	21 Herc	3164	22058	19 18 2.9	+ 7 11	5.72 A0	.000	+ .010	10		var	5.0 days, V ₀ = -33km

6071: 6.0:6.8, close binary.

6077: V₀ = -8km.

6084: 34 days; stationary calcium lines.

Precession in declination, -0'.14.
6110: In Ursa Cluster?

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No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
6112	5 ρ Ophi	12860	22070	19 ^m 24 ^s + 3 ^s .6		-23° 14'	6.56 B3	-".011 - ".045		km	156", cpm with 6112*
6113		12861	22079	19 35 3.6		-23 13	5.22 B5	+ .001 - .026	".015	-13	3", binary
6114		12862	22080	19 35 3.6		-23 11	7.13 A	+ .006 - .037			152", cpm with 6112
		6800	22116	19 49 5.1		-58 22	5.78 B9	- .035 - .045	10		
	ε Norm	10764	22104	19 50 + 4.4		-47 19	7.46 A	- .031 - .025			
6115		10765	22106	19 51 + 4.4		-47 20	4.80 B5	- .008 - .034	5	var*	22", cpm
6616	21 η UMin	+ 596	21999	20 25 - 1.7		+75 59	5.04 F0	- .079 + .248	34	-10	
6117	24 ω Herc	3049	22090	20 48 + 2.8		+14 16	4.53 A0p	+ .041 - .065	28	var?	12m, 2", cpm. V ₀ = -6km
6118	7 χ Ophi	4282	22117	21 14 3.5		-18 14	4.85 B3p	- .011 - .032	5	var	
6119	U Herc	3098	22107	21 22 + 2.7		+19 7	var M7	+ .020 - .011	5	-40*	6.7 to 13.0, 402 days
6120		8035	22140	21 25 5.0		-57 32	5.99 K0	- .016 + .008			
6121		2984	22112	21 29 2.8		+11 38	6.21 K0	- .034 + .007			
6122		10783	22131	21 35 4.0		-36 57	5.87 K0	+ .034 - .012			
6123	25 Herc	2750	22108	21 50 2.1		+37 37	5.53 A3	- .001 - .017	14	- 2	
6124		3106	22123	21 48 + 3.0		+ 2 35	6.18 G5	+ .019 - .032		+ 4	
6125		5701	22159	21 56 + 5.3		-61 25	5.11 K0	- .008 - .011	6	var?	V ₀ = +4km
6126		845	22062	22 2 - 0.1		+69 20	5.44 K0	- .022 - .008	11	- 8	
6127		1845	22102	22 14 + 1.3		+55 26	5.66 A2	+ .013 + .016	10	- 4	
6128		4292	22133	22 20 3.2		- 7 22	5.45 Ma	+ .009 - .161	6	+100	
6129	3 υ Ophi	4243	22134	22 24 + 3.2		- 8 9	4.68 A2	- .079 + .004	22	-31	
6130		+ 1478	22091	22 28 0.8		+61 55	5.64 G5	- .037 + .030	6	-24	6.0:7.2, 1", binary
6131		+ 10697	22150	22 27 4.3		-46 1	5.46 B1p	- .011 - .015	2	-19	
6132	14 η Drac	1591	22101	22 38 0.8		+61 44	2.89 G5	- .023 + .058	33	-14	8m, 5", binary
6133		259	22679	22 53 31.9		-87 24	6.52 K0	- .128 - .144			
6134	21 α Scor	11359	22157	23 17 + 3.7		-26 13	1.22 *	- .009 - .028	14	var*	6.5m, 3", cpm
6135		2256	22212	23 17 6.6		-70 46	5.57 K0	- .027 - .029		- 3	
6136		3529	22148	23 28 3.1		+ 0 53	5.47 K2	- .006 - .070	8	+ 7	
6137		4299	22152	23 25 3.2		- 7 55	6.41 F0	- .063 - .079			9.0m, 5"; binary
6138		+ 687	22340	23 31 13.4		-83 3	6.36 K5	+ .021 + .013			
6139		333	22519	23 35 +22.5		-86 11	6.13 A0	+ .011 .000			
6140		4433	22171	24 8 3.4		-14 20	5.75 G0	+ .026 + .010	14	-32	
6141	22 Scor	12695	22179	24 8 3.6		-24 54	4.87 B3	- .008 - .029	8	- 4	
6142		10695	22198	24 45 4.2		-41 36	5.47 B1p	- .016 - .004		-14	13m, 9"
6143		11044	22195	24 51 3.9		-34 29	4.33 B3	- .009 - .022	7	var.	V ₀ = 0km
6144		4305	22187	25 7 + 3.2		- 7 17	6.39 A5	- .019 - .017	11	var?	V ₀ = +2km
6145		11379	22201	25 14 3.7		-26 19	6.22 K0	- .030 - .041			
6146	30g Herc	2714	22172	25 21 2.0		+42 6	var Mb	+ .025 - .008	8	+ 3	4.4 to 5.6, irregular
6147	8 φ Ophi	4298	22200	25 25 3.4		-16 24	4.40 K0	- .053 - .041	13	-34	
6148	27 β Herc	2934	22193	25 55 2.6		+21 42	2.81 K0	- .103 - .022	18	var	411 days, V ₀ = -26km
6149	10 λ Ophi	3118	22203	25 52 + 3.0		+ 2 12	3.85 A0	- .027 - .085	17	var*	4.0:6.1, 133 years
6150		2106	22185	26 10 1.5		+51 38	6.37 K0	+ .024 - .004	6	-16	
6151	θ TrAu	3331	22264	26 7 5.8		-65 17	5.38 K0	+ .029 - .046	11	+10	
6152		3283	22202	26 13 2.6		+20 42	5.29 G5	- .080 - .070	8	+18	
6153	9 ω Ophi	4381	22221	26 12 3.6		-21 15	4.57 F0	+ .013 + .030	27	+ 2	
6154		2983	22216	26 57 + 2.6		+22 25	5.96 K5	- .014 - .004			
6155	μ Norm	10900	22258	26 59 4.3		-43 50	5.15 B0p	- .012 - .010	1	var?	V ₀ = +5km
6156	34 Herc	2514	22211	27 21 1.6		+49 11	6.22 A0	- .051 - .069	10	- 8	
6157		2828	22224	27 23 2.2		+35 27	6.47 K5	+ .006 - .032			
6158	28 Herc	3223	22244	27 40 3.0		+ 5 44	5.56 B8	+ .015 - .005	7	-27	

6112: GC 22070 is itself binary, 6.9:8.0, 1".

6115: V₀ = -12km, two spectra.

6119: Absorption lines give -21km.

Precession in declination, -0'.13.

6134: Antares; composite, Ma A3; 7.35 years, V₀ = -3km.6149: V₀ = -16km.

CATALOGUE OF BRIGHT STARS

16^h

No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
6159	29 Herc	3008	22250	27 ^m 55 ^s +2.8		+11° 42'	4.92 K5	-".179 -".084	".008	+ 3 km	
6160		+10964	22275	27 56 +4.3		-45 2	6.42 K0	-.028 -.079			
6161	15 Drac	+ 850	22194	28 11 -0.1		+68 59	4.98 B8p	-.027 +.031	15	- 9	
6162		2422	22251	28 47 +1.8		+45 49	5.55 A0	-.008 +.036	17	-16*	5.7:8.2, 16", binary
6163	β Apus	1221	22370	28 47 8.6		-77 18	4.16 K0	-.284 -.350	30	-30	
6164		11399	22304	29 20 +4.2		-42 39	5.58 B1	-.009 -.014		var?	V ₀ = -48km
6165	23♄ Scor	+11015	22303	29 39 3.7		-28 1	2.91 B0	-.011 -.028	9	+ 1	
6166		+11112	22311	29 48 3.9		-35 3	4.30 Ma	+ .020 -.004	18	var	V ₀ = -2km
6167		6594	22334	30 2 5.3		-60 47	6.24 B5	-.004 -.029			
6168	35♄ Herc	2724	22296	30 53 1.9		+42 39	4.25 A0	-.012 +.039	23	-11	
6169		3053	22314	30 57 +2.7		+17 15	6.27 A0	-.006 -.007	8	var*	10.6 days, V ₀ = -9km
6170		1598	22281	31 1 0.8		+61 2	5.85 A0	+ .015 -.016	11	-13	
6171	12 Ophi	4211	22321	31 6 3.2		- 2 7	5.87 K0	+ .451 -.317	90	-15	Also DM -1° 3220
6172	η TrAu	2789	22379	31 4 +6.2		-68 6	6.04 B5	-.003 -.017			
6173		498	22205	31 17 -3.3		+79 11	5.54 A3	-.113 +.109	26	-12	
6174		10959	22347	31 22 +4.2		-43 12	6.14 B3	-.024 -.032	5	+ 2	9m, 16", cpm
6175	13♄ Ophi	4350	22332	31 39 3.3		-10 22	2.70 B0	+ .010 +.020	6	var	V ₀ = -19km
6176		3029	22335	32 10 2.7		+15 42	6.29 A0p	-.012 -.014	8	0	
6177		6603	22383	32 3 5.3		-60 15	6.24 F8	+ .050 -.076			6.3:9.0, 1"2
6178		+10879	22368	32 24 4.0		-37 1	6.10 A0	-.019 -.036			
6179		4467	22360	32 40 +3.2		- 6 20	6.00 A0	-.006 -.010			
6180		734	22290	33 0 -0.9		+72 49	6.45 K0	-.046 +.038	10		
6181		3177	22361	33 12 +2.8		+13 54	6.20 F2	-.038 -.063		-22	
6182		3196	22435	33 15 6.1		-67 14	6.32 A0	+ .015 -.042			
6183		2194	22344	33 16 1.8		+46 49	5.95 G5	-.015 +.004	7	-12	
6184	16 Drac	1875	22351	33 49 +1.4		+53 6	5.64 A0	-.011 +.027	11	- 9	90" from 6185, cpm*
6185			22352	33 52 1.4		+53 8	5.56 A2	-.011 +.021	11	var?	3", binary
6186	17 Drac	1876		33 52 1.4		+53. 8	6.58			-18	
6187		11070	22418	33 50 4.5		-48 34	7.1	-.064 -.017	7	var	10", cpm*
6188			22419	33 51 4.5		-48 34	5.90 Oe5	-.012 -.007			
6189		10890	22425	34 6 +4.5		-49 27	5.91 B1p	+ .003 +.005			
6190		4430	22394	34 11 3.3		- 9 21	6.38 F5	+ .001 -.151			
6191		4537	22421	34 41 +3.5		-20 13	6.46 K0	+ .011 +.027	7		
6192		627	22301	34 56 -2.6		+77 39	6.39 G5	-.100 +.271	13	-32	
6193		11913	22444	35 17 +3.9		-32 57	5.94 G0	-.060 -.088			
6194	36 Herc	12765	22447	35 32 +3.6		-24 16	6.08 A5	-.057 -.016			
6195	37 Herc	3234	22428	35 37 3.0		+ 4 24	6.86 A0	-.006 -.016	8	-30	70", cpm
6196		3235	22430	35 41 3.0		+ 4 25	5.73 A0	-.004 -.018		-34	
6197		4618	22449	35 47 3.5		-17 33	5.04 K0	-.021 -.005		-25	
6198		10858	22465	35 46 4.4		-45 53	6.28 F5	-.021 -.023			
6199		1289	22382	35 55 +0.6		+63 17	6.44 K5	+ .001 -.091			
6200	42 Herc	1907	22398	35 59 1.2		+56 13	5.44 G5	.000 +.065	13	var?	V ₀ = -19km
6201		2531	22412	36 2 1.6		+49 7	5.14 Ma	-.043 +.030	12	-55	
6202		3168	22448	36 2 3.1		- 0 48	6.26 A5	+ .003 -.020			
6203		4406	22453	36 1 3.5		-19 44	5.60 F5	+ .021 +.034			
6204		3063	22446	36 12 +2.8		+12 35	5.98 A2	-.029 -.016	12	-27	
6205	14 Ophi	3009	22513	36 36 6.0		-66 55	5.30 A0p	-.011 -.020	1	- 2	
6206		3290	22460	36 39 3.0		+ 1 22	5.86 F0	-.108 +.048	27	-45	
6207		10649	22475	36 49 4.2		-40 56	6.29 A3	-.049 -.019			cpm with No 6209
6207		10161	22493	36 45 4.7		-52 58	5.97 K0	-.015 -.009			

6162: Velocity of fainter -17km.

6169: Two spectra.

6184: Accidentally omitted from A. G. Catalogue.

Precession in declination, -0.12.

6187: 5.9:8.9, 2", binary.

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No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
6208		3115	22452	36 ^m 52 ^s +2 ^s .5	+25° 3'	6.22 K2	- .030 .000			km	
6209		10653	22481	36 57 4.2	-40 55	6.17 B8	- .028 - .016		- 2		cpm with No 6206
6210		10942	22479	37 2 4.1	-37 58	6.16 A0	- .012 - .054				
6211		13161	22482	37 13 3.9	-31 55	6.55 B9	- .013 - .021				
6212	40 ζ Herc	2884	22464	37 31 2.3	+31 47	3.00 G0	- .470 + .385	"110	var*		6.5m, 34.4 years
6213	39 Herc	2668	22468	37 33 +2.4	+27 7	5.91 F2	- .001 - .049	30	var*		2.3 days, V ₀ = -13km
6214		10661	22505	37 47 4.2	-40 39	5.68 B3	- .028 - .030	5	+12		
6215		6889	22524	37 49 5.1	-58 19	5.94 B3	- .008 - .022	4	-16		
6216		11103	22503	38 5 3.7	-27 16	6.38 A0	- .019 - .014	13			11m, 2", binary
6217	α TrAu	2822	22558	38 4 6.4	-68 51	1.88 K2	+ .023 - .037	26	- 4		
6218		12358	22520	38 45 +3.8	-28 19	5.96 A2	- .029 - .006				
6219		6893	22549	38 48 5.1	-58 9	5.76 B0	- .019 - .026	2	-51		
6220	44 η Herc	3029	22502	39 28 2.1	+39 7	3.61 K0	+ .035 - .090	48	+ 8		
6221		10677	22559	39 57 4.1	-39 12	5.52 K0	- .035 - .037	8			
6222		2830	22522	40 10 2.2	+34 13	5.90 F2	- .073 + .048	16	-10		
6223	18 Drac	1145	22489	40 13 +0.4	+64 47	5.00 K0	+ .001 - .019	11	0		
6224	16 Ophi	3298	22546	40 25 3.0	+ 1 12	5.99 B9	- .001 + .008	5	var		V ₀ = -14km
6225	25 Scor	11667	22570	40 44 3.7	-25 21	6.57 K0	- .005 - .021	7			
6226		1872	22521	40 56 1.2	+55 52	6.18 A2p	+ .048 + .079	6	var?		V ₀ = -49km
6227		+3013	22553	40 51 2.7	+15 56	5.78 Mb	+ .025 - .050	8	-19		
6228	43 Herc	3271	22560	41 2 +2.9	+ 8 46	5.38 K2	- .003 + .010	10	-21		
6229	η Arae	6906	22606	41 9 5.2	-58 52	3.68 K5	+ .039 - .037	20	+ 9		
6230		2642	22564	42 4 1.9	+43 24	6.07 K2	- .020 - .052		- 9		
6231		3232	22645	42 3 6.1	-67 30	6.35 K0	- .070 - .068				
6232	19 Ophi	3175	22592	42 7 3.0	+ 2 15	6.04 A2	- .019 - .015	12	var*		9m, 23", cpm
6233		3365	22641	42 11 +5.8	-65 12	6.30 B8	- .008 - .015		-10		
6234	45 Herc	3272	22605	42 51 3.0	+ 5 26	5.28 A0p	- .022 - .042	12	var		V ₀ = -16km
6235		4486	22608	42 46 3.4	-14 44	6.12 A0	- .025 - .006				
6236		10998	22633	42 58 4.6	-49 52	7.30 A5	- .023 - .027	9			3", binary
			22634			7.30 A5	- .029 - .002				
6237		+1702	22584	43 24 +1.1	+56 58	4.88 F0	+ .019 + .062	43	var?		V ₀ = 0km
6238		511	22491	43 34 -3.4	+79 6	6.38 K0	- .022 + .033	46			
6239		3225	22616	43 32 +2.8	+13 46	6.32 G5	+ .012 - .022	8	var?		V ₀ = +1km
6240		4395	22631	43 45 3.4	-15 30	6.11 A3	+ .010 + .025				
6241	26 ε Scor	11285	22640	43 41 3.9	-34 7	2.36 K0	- .613 - .256	47	- 2		
6242		2749	22611	44 8 +1.9	+42 25	6.15 Mb	- .002 - .029		- 6		
6243	20 Ophi	4394	22643	44 18 3.3	-10 36	4.73 F5	+ .090 - .100	40	0		
6244		11023	22658	44 16 4.0	-37 20	6.22 B9	- .031 - .013	6			9m, 7", binary
6245		10957	22669	44 35 4.2	-41 4	5.37 Oe	- .001 - .005	1	-61		In a cluster
6246		3233	22648	44 58 2.8	+13 26	5.95 A0	- .034 - .027	12	var?		V ₀ = -23km*
6247	μ ¹ Scor	11033	22677	45 6 +4.1	-37 53	var B3p	- .014 - .030	11	var*		3.1 to 3.4, 1.45 days*
6248		4259	22661	45 9 3.1	- 2 29	6.32 F2	+ .006 - .035				
6249		10972	22684	45 18 4.2	-41 41	6.56 Oe	- .020 - .005		+30		In a cluster
6250	47 Herc	3256	22664	45 28 2.9	+ 7 25	5.46 A0	+ .049 - .015	20	- 2		
6251		8157	22712	45 31 5.1	-57 45	5.95 K5	- .034 - .132				
6252	μ ² Scor	11037	22691	45 34 +4.1	-37 51	3.64 B2	- .013 - .028	7	var?		V ₀ = +2km*
6253		4032	22739	46 5 5.6	-63 6	6.14 A0	+ .009 - .029				
6254	52 Herc	2220	22662	46 19 1.8	+46 9	4.86 A2p	+ .023 - .062	16	- 1		10m, 1".5, binary*
6255	21 Ophi	3323	22688	46 21 3.0	+ 1 23	5.47 A0	- .027 - .009	12	-26		5.6:7.5, 1", binary
6256		2654	22671	46 34 1.9	+43 36	6.37 K0	- .022 - .014		-19		

6212: V₀ = -71km.

6213: Two spectra.

6232: Two spectra.

6246: 10m, 6", binary.

6247: Two spectra. No 6252, 346", cpm.

6252: No 6247, 346", cpm.

Precession in declination, -0.11.

6254: In Ursa Cluster? Companion is itself a close binary, 11.0:11.1.

CATALOGUE OF BRIGHT STARS

16^h

No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks	
6257	50 Herc	11627	22725	46 ^m 37 ^s +4.3		-42° 53'	5.67 Mb	-".019 - ".032	".006	km	V ₀ = -11km	
6258		+ 2884	22682	46 45 2.3		+29 59	5.86 K5	- .008 - .006		var?		
6259		2795	22685	46 57 2.3		+32 44	6.26 K0	+ .015 + .039				
6260		11024	22733	47 1 4.2		-41 38	5.34 B0	- .010 - .012		var?		In a cluster; V ₀ = -13km*
6261		11021	22729	46 57 4.2		-41 50	6.18 B0	- .004 - .022				In a cluster
6262		11633	22730	46 56 +4.2		-42 12	4.88 B1p	+ .001 - .008	2	-26		
6263		11036	22737	47 10 4.2		-41 41	6.02 B0	+ .009 - .043		var*	In a cluster	
6264		2753	22694	47 24 1.9		+42 4	6.29 K0	- .078 + .064	8	-37		
6265		11041	22742	47 19 4.2		-41 39	6.72 Oa	- .013 - .015		.	In a cluster	
6266		11642	22748	47 23 +4.2		-42 19	5.78 F5	- .006 - .009				
6267		634	22604	47 33 -2.7		+77 41	6.01 F2	+ .050 + .206	16		10m, 3", cpm	
6268	49 Herc	3066	22714	47 32 +2.7		+15 9	6.41 A0p	+ .012 - .002	8	-23		
6269		4572	22731	47 31 3.5		-20 15	5.91 G5	- .051 - .035	26			
6270	51 Herc	3069	22708	47 37 2.5		+24 49	5.20 K0	+ .011 + .004	9	-16		
6271	ζ Scor	11646	22751	47 33 4.2		-42 11	3.75 K5	- .127 - .237	21	-19		
6272		+10919	22768	48 0 +4.2		-41 0	6.03 Oep	- .019 - .016		*	12m, 5"	
6273		13594	22765	48 13 3.8		-30 25	6.33 A5	+ .037 - .004				
6274		10905	22790	48 26 4.6		-50 31	6.57 B3p	- .010 - .023		+28		
6275		10333	22794	48 37 4.7		-52 7	6.16 A0	- .049 - .050				
6276		2666	22837	48 50 6.4		-69 7	6.01 A0	- .018 - .020				
6277		3268	22773	49 0 +3.1		- 1 27	6.21 F0	+ .012 - .076		-21		
6278		4231	22781	49 6 3.3		-11 38	6.47 A0	+ .018 - .019				
6279	53 Herc	2925	22752	49 11 2.3		+31 52	5.35 F0	- .099 - .026	16	-22		
6280	23 Ophi	4374	22783	49 15 3.2		- 5 59	5.35 K0	- .039 - .023	8	-18		
6281	25 Ophi	3092	22775	49 17 2.8		+10 20	4.29 B8	- .053 - .041	14	var	V ₀ = -21km, two spectra	
6282		11570	22801	49 26 +3.9		-33 21	6.42 K2	+ .021 - .008		-92		
6283		10975	22813	49 38 4.2		-40 40	6.40 B0	+ .002 - .012			In a cluster	
6284		4371	22815	50 15 3.5		-16 39	6.49 K0	+ .079 + .034	14	- 3		
6285	ζ Arae	7766	22845	50 21 5.0		-55 50	3.06 K5	- .018 - .037	21	- 6		
6286		2400	22782	50 30 1.7		+47 34	6.30 K0	- .040 + .099		-62		
6287		3002	22802	50 37 +2.6		+21 7	5.48 K0	+ .053 - .002	9	- 3		
6288	27 Scor	11590	22830	50 40 3.9		-33 6	5.51 K5	- .010 - .010				
6289		10924	22841	50 35 4.6		-50 29	5.70 B9	- .018 - .054		-45		
6290		3258	22808	50 40 2.8		+13 47	6.16 F2	+ .029 - .042	23	var	11.8 days, V ₀ = -3km	
6291	24 Ophi	4249	22824	50 46 3.6		-22 59	5.60 A0	- .006 - .006	9		6.3:6.5, close binary	
6292	56 Herc	3156	22810	50 57 +2.5		+25 53	6.33 K0	+ .011 - .026	7	0	10m, 18", cpm*	
6293	54 Herc	3266	22816	50 58 2.6		+18 36	5.56 K2	- .112 + .008	8	+12	12m, 2", cpm	
6294	ε' Arae	4471	22834	51 11 3.5		-19 23	8.3	- .047 - .050	9		5", binary	
6295		+10372	22835	51 11 3.5		-19 23	6.14 B8	- .011 - .022	9			
6296		4417	22848	51 54 +3.3		-10 49	6.23 G5	+ .016 - .087	12			
6297		7947	22878	51 59 4.9		-54 27	5.85 A2	- .017 - .068				
6298		11131	22867	52 6 4.1		-37 28	6.24 A3	+ .021 - .065	13		6.9:7.1, close binary	
6299	27 Ophi	3298	22862	52 56 2.8		+ 9 32	var K0	+ .293 - .014	24	-56	4.1 to 5.0 (ptg) irreg.	
6300		11360	22895	52 54 4.5		-48 30	6.08 G5	- .008 - .082			6.4:7.7, close binary	
6301		3155	22861	52 57 +2.7		+14 2	6.51 G5	- .089 + .065				
6302		4509	22875	53 0 3.4		-14 42	6.47 F2	- .001 - .028				
6303		11123	22897	53 15 4.4		-45 18	6.52 K2	- .008 - .005				
6304		6964	22916	53 7 5.2		-58 48	6.32 B0p	- .003 - .017				
6305	57 Herc	3166	22866	53 25 2.5		+25 30	6.69 K0	+ .001 + .008	6	+ 9		

6260: 5.5:7.5, 0".4.

6263: V₀ = -22km.

6272: Emission lines give -18km.

Precession in declination, -0".10.

6292: In Ursa Cluster?

16^h - 17^h

No	Name	DM	GC	RA	Ann	Decl	Magn	Prop Motion		Par	Rad	Remarks
				1900	Var	1900		RA	Decl			
6306		2345	22852	53 ^m 33 ^s +1.5		+50° 13'	6.70 Ma	- .024	- .015		km	
6307		3095	22870	53 33 2.5		+24 32	6.36 KO	+ .004	- .031			
6308		12997	22898	53 50 3.7		-24 56	5.92 Ma	- .005	- .013	.006	-32	
6310	26 Ophi	13002	22905	54 2 3.7		-24 50	5.78 FO	+ .058	- .065	26		
6311		11236	22911	53 57 4.0		-35 47	6.04 KO	- .016	- .073			
6312		10955	22922	54 0 +4.7		-50 59	6.57 A3	- .031	- .042			7.1:7.6, 0".4
6313		2774	22882	54 41 1.9		+42 40	6.38 K2	- .012	- .059	5	+26	
6314	ε ² Arae	8316	22956	55 9 4.8		-53 5	5.36 F8	- .007	- .148	35	+7	
6315	19 Drac	1157	22871	55 29 0.3		+65 17	4.82 F5	+ .237	+ .044	64	var	52.1 days, V ₀ = -23km
6316		+13473	22942	55 25 3.9		-32 0	5.06 B8	- .006	- .054	17	+15	
6317		3332	22927	55 37 +2.9		+ 6 44	6.38 A5	+ .036	- .045	11	var	V ₀ = -16km
6318	30 Ophi	4215	22937	55 47 3.2		- 4 4	5.00 KO	- .049	- .083	17	-7	
6319	20 Drac	1159	22881	55 55 0.3		+65 11	6.44 FO	- .044	+ .029	14		7.0:7.5, close binary
6320		8265	22983	55 54 5.1		-57 34	5.88 B3	- .013	- .033	5	+6	
6321	29 Ophi	4381	22951	56 0 3.5		-18 44	6.37 KO	- .040	+ .024	7	+43	
6322	22 ε UMin	498	22749	56 12 -6.1		+82 12	4.40 G5	+ .014	- .001	11	var	39.5 days, V ₀ = -11km
6323		+11191	22977	56 15 +4.5		-47 1	6.28 A2	.000	+ .024			12m, 6"
6324	58 ε Herc	2947	22935	56 28 2.3		+31 4	3.92 A0	- .050	+ .022	23	var	4.0 days, V ₀ = -25km
6325		3045	22948	56 45 2.5		+22 47	5.74 KO	- .014	- .026	5	+11	
6326		3095	22960	57 0 +2.7		+15 5	6.16 A0p	+ .001	- .014	11	-32	10m, 19", fixed
6327		+11201	22991	57 1 +4.1		-38 0	5.98 FO	+ .068	- .028			
6328		2738	22957	57 9 2.4		+27 21	6.37 F5	- .017	- .068	31	-31	
6329		3337	22971	57 11 2.9		+ 8 36	6.24 A0	+ .036	- .002	10	var	6.6:7.8, 1", binary
6330		1934	22938	57 31 1.1		+56 50	6.11 KO	- .049	+ .031	9	-15	
6331		11188	23016	57 47 4.4		-45 21	6.40 A2	- .036	- .022			
6332	59 Herc	2817	22975	57 55 +2.2		+33 43	5.27 A2	.000	- .008	19	-12	
6333		3183	22985	58 13 2.5		+25 39	5.95 KO	+ .051	+ .084		-50	
6334		11706	23019	58 15 +3.9		-33 59	4.87 B1p	+ .005	- .007	3	+10	
6335		751	22910	58 16 -1.2		+73 17	6.24 A5	- .003	- .025	11	-17	
6336		2835	22990	58 30 +2.3		+32 2	6.60 KO	+ .041	+ .030			
6337		3179	23002	58 33 +2.7		+14 14	5.10 Ma	+ .019	- .070	8	+44	
6338		11396	23038	58 36 4.3		-43 58	6.38 A3	+ .026	+ .014			
6339		3180	23004	58 38 2.7		+14 40	6.52 KO	- .173	- .191		-55	
6340		4627	23034	58 50 3.6		-20 21	6.17 B3	- .007	- .030			
6341		3292	23014	59 4 2.8		+13 45	5.86 A0	- .013	- .040	12	-35	
6342		3295	23025	59 22 +2.8		+13 43	6.14 K2	+ .017	- .135	10	+45	
6343		3218	23028	59 32 2.6		+19 50	6.57 K5	- .021	+ .010			11m, 2", cpm
6344		11274	23056	59 35 +4.1		-37 5	6.14 A2	+ .010	- .027			10m, 7"
6345		884	22962	59 36 -0.3		+69 20	6.52 KO	- .005	- .042	15		
6346	61 Herc	2911	23029	59 55 +2.2		+35 33	6.75 Mb	+ .031	- .042	3	-12	
6347		11306	23063	59 49 +4.0		-35 19	6.27 B3	+ .011	- .010		+13	12m, 3"
6348		1728	22998	0 1 0.8		+60 47	6.24 KO	- .056	+ .055			
6349		3629	23050	0 11 3.1		+ 0 51	5.94 G0	- .009	- .342	51	-18	
6350		4512	23065	0 13 3.6		-21 26	6.29 A0	- .020	- .082			
6351		2890	23037	0 17 2.2		+34 56	6.01 A3	- .071	- .009	12	var	Two spectra
6352		3220	23046	0 20 +2.6		+19 45	6.13 A0	+ .007	- .005	9	-25	10m, 2"
6353		3224	23058	0 23 3.1		- 0 45	5.62 B3	.000	- .005	3	var?	V ₀ = +18km
6354		11896	23081	0 41 3.7		-26 22	6.20 A0	.000	- .026			
6355	60 Herc	3142	23061	0 44 2.8		+12 53	4.91 A3	+ .047	- .012	19	-4	
6356		5842	23117	0 59 5.5		-61 33	6.52 B9	- .016	- .010			

Precession in declination, -0.09.

CATALOGUE OF BRIGHT STARS

17^h

No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
6357		2361	23140	1 ^m 1 ^s +6.8		-70° 35'	6.28 KO	+ ".045 - ".084		km	
6358		3322	23080	1 25 2.9	+ 9 53		6.56 K5	+ .018 - .013			
6359		3142	23084	1 29 2.8	+10 35		6.47 KO	+ .044 + .013			
6360		1170	23035	1 42 0.3	+64 45		6.09 KO	- .053 + .023	".014	-26	
6361		3292	23091	1 42 3.1	- 1 31		6.25 A2	+ .030 - .040	16		6.4:8.6, 20", cpm
6362		+2652	23073	2 2 +1.8	+43 57		6.36 A0	+ .002 - .003	9	- 9	
6363		+2583	23071	2 11 1.6	+48 57		6.32 KO	+ .030 - .077	9	var	V ₀ = +12km
6364		3073	23089	2 4 2.5	+22 13		5.72 K2	- .101 - .047	10	-96	
6365		4717	23116	2 26 3.5	-17 29		6.14 KO	+ .003 - .031	8	-14	
6366		13840	23118	2 24 3.8	-30 16		5.82 A3	+ .008 - .078			
6367		3230	23120	3 4 +3.1	- 0 57		6.02 A0	- .022 - .038	11	var*	6.2:8.2, close binary
6368		3296	23174	3 5 6.1	-67 4		5.94 KO	- .178 - .095			
6369	21 μ Drac	1857	23092	3 16 1.2	+54 36		5.83 F5	- .075 + .080	46	-18	2", binary*
6370			3 16 1.2	+54 36		5.80				-17	
6371			11502	23148	3 27 4.3	-44 26		5.14 G5	- .035 - .061	10	
6372		4063	23133	3 39 +3.2	- 3 45		6.45 G5	- .063 - .162			
6373		1610	23219	3 39 7.8	-74 25		6.41 A0	- .018 - .062			
6374		11492	23169	4 2 4.6	-48 45		5.95 Ma	+ .025 - .034			
6375		4445	23145	4 16 3.3	-10 24		5.58 F5	+ .059 - .109	33		
6376		3103	23128	4 31 2.0	+40 39		6.27 A2	- .038 - .038	8	- 7	
6377		2827	23132	4 29 +2.1	+36 4		5.38 A5	- .027 - .017	17	-30	6.1:6.1, 16 years
6378	35 η Ophi	4467	23158	4 39 +3.4	-15 36		2.63 A2	+ .035 + .090	42	- 1	3.2:3.7, close binary
6379		613	23066	4 49 -1.9	+75 26		6.32 F0	+ .011 - .085	19	+ 1	
6380	η Scor	11485	23180	4 59 +4.3	-43 6		3.44 F2	+ .019 - .292	66	-28	
6381		11182	23184	5 22 4.1	-39 23		5.65 A0	- .012 - .075		var?	V ₀ = +12km
6382		11632	23185	5 24 +4.1	-38 42		6.45 KO	+ .016 - .046			
6383		+2178	23147	5 50 1.5	+50 58		6.28 B9	- .004 + .022		-15	11m, 17", cpm
6384		8098	23217	5 46 5.1	-56 46		6.05 K5	- .016 - .002			
6385		3161	23178	6 7 2.8	+12 35		6.46 A0	+ .032 - .012	9	var	23.2 days, V ₀ = +4km
6386		12018	23195	6 5 3.7	-25 8		6.32 A0	- .015 - .040			
6387		11516	23198	6 9 +3.8	-27 38		6.10 B9	- .011 - .046			
6388		3109	23172	6 19 1.9	+40 54		5.12 KO	- .054 + .004	14	var	V ₀ = -56km
6389		12460	23209	6 29 3.9	-32 19		6.00 B3	+ .011 - .017		var?	V ₀ = +7km
6390		3367	23199	6 56 2.9	+ 8 1		6.39 KO	+ .027 + .004			
6391	63 Herc	3140	23191	6 55 2.5	+24 22		6.19 A3	- .014 + .028	10	- 2	
6392		11212	23241	7 32 +4.2	-39 39		6.62 K5p	+ .002 - .014			
6393	37 Ophi	3165	23220	7 45 2.8	+10 42		5.56 K5	+ .006 - .030	6	+25	
6394		3654	23228	7 48 3.1	+ 0 29		6.52 F5	+ .016 - .082			
6395		2032	23200	8 13 1.4	+52 32		6.13 B9	- .013 - .013	9	-42	
6396	22 ζ Drac	1170	23182	8 30 0.2	+65 50		3.22 B5	- .018 + .019	22	-14	
6397		11875	23263	8 45 +3.9	-33 26		5.50 B3p	+ .008 - .005		+ 4	
6398		11686	23270	8 46 4.1	-38 28		6.06 F8	- .187 - .414	40		
6399		2604	23229	9 7 1.5	+49 52		6.05 A2	+ .017 + .028	13	-11	10m, 5", cpm
6400		2715	23337	9 7 6.7	-69 56		6.61 G0	- .043 - .203			10m, 2"
6401	36 Ophi	12026	23274	9 12 3.7	-26 27		5.33 KO	- .464 -1.146	178	0	4", binary*
6402			23273	9 12 3.7	-26 27		5.29	- .497 -1.137		- 1	
6403		13968	23287	9 28 +3.8	-30 6		6.21 A0	- .003 - .043			
6404		4585	23280	9 39 3.4	-14 28		6.15 KO	- .016 - .007			11m, 4", cpm
6405		11426	23295	9 41 4.0	-35 38		6.18 F8	- .122 - .321	18		
6406	64 α Herc	23277	10 5 2.7	+14 30		var Mb	- .010 + .030			-33	3.1 to 3.9, irregular*
6407			23278	10 6 2.7	+14 30		5.39 G	- .007 + .039	6	var	

6367: V₀ = -20km.

6369: Also 13m, 12", cpm.

6402: Also GC 23298, 6.7m, 52.5 following, 3.2 north, shares the proper motion and parallax.

Precession in declination, -0.08.

6406, 6407: 5", binary.

17^h

No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks	
6408		6954	23340	10 ^m 21 ^s + 5.3		-59° 35'	6.03 K2	-.012 -.012		km		
6409		12545	23313	10 33 3.9		-32 33	5.55 F5	-.095 -.058		-36		
6410	65 δ Herc	+ 3221	23294	10 55 2.5		+24 57	3.16 A2	+.024 -.162	.031	var	V ₀ = -39km	
6411	ι Apus	+ 2719	23388	10 56 6.7		-70 1	5.60 B8	-.001 -.023		-4		
6412		3283	23312	11 12 3.0		+ 2 18	6.02 A0	-.003 -.025	9	-7		
6413		4575	23319	11 21 + 3.2		- 6 8	6.16 K0	-.015 -.029				
6414	38 U Ophi	3408	23317	11 27 3.0		+ 1 19	var B8	-.001 -.020	3	var *	5.7 to 6.4, 1.7 days	
6415	41 Ophi	3255	23320	11 29 3.1		- 0 20	4.82 K0	-.027 -.070	10	-2	7.6m, close binary	
6416		11370	23353	11 28 4.6		-46 32	5.58 K0	+.975 +.213	132	+19	8.2m, 240 years	
6417	ζ Apus	3310	23392	11 32 6.3		-67 40	4.74 K2	-.032 -.001	10	+13		
6418	67 η Herc	2844	23302	11 34 + 2.1		+36 55	3.36 K5	-.029 -.001	19	-26		
6419		3070	23309	11 32 2.5		+23 52	6.10 K2	-.027 +.017				
6420		+ 11572	23350	11 34 4.3		-44 1	6.08 B9	-.002 -.026				
6421		+ 1336	23266	11 41 0.5		+62 59	5.47 A3	+.014 +.048	15	-7		
6422		12573	23348	11 50 3.9		-32 27	6.41 B8	-.014 -.024		var?	V ₀ = -14km	
6423		11324	23365	11 47 + 4.6		-49 58	6.47 F0	-.018 -.018				
6424	39 ο Ophi		23344	11 55 3.7		-24 11	5.39 K0	-.056 -.016	11	-29	11", binary	
6425			23343	11 55 3.7		-24 11	6.90 K0	-.075 -.016		-29		
6426			11626	23362	12 9 4.1		-34 53	5.89 K2	+.167 -.176	147	0	6.0:8.0, 42 years*
6427			11595	23367	12 10 4.3		-44 7	6.91 A0	-.009 -.020			7.6:7.7, close binary
6428		4470	23357	12 34 + 3.5		-16 12	6.50 K5	-.007 +.004				
6429		828	23550	12 45 11.2		-80 46	5.93 Mb	+.007 -.044				
6430		3074	23360	13 25 2.5		+23 12	6.53 K2	-.004 -.006				
6431	68 u Herc	2864	23359	13 38 2.2		+33 12	var B3	-.013 -.010	7	var*	4.6 to 5.3, 2.05 days*	
6432		3216	23371	13 38 2.7		+17 26	5.90 A0	+.010 -.017	10	var		
6433		+ 3156	23382	13 55 + 2.8		+10 58	5.28 K5	+.001 -.096	7	+40		
6434		3386	23384	13 59 2.9		+ 6 11	6.44 F0	+.016 +.002				
6435		4773	23396	14 4 3.5		-17 39	6.04 A0	-.011 -.026	12		6.4:7.5, 2"; binary*	
6436	69 Herc	2864	23374	14 13 2.1		+37 24	4.80 A2	-.037 +.057	16	var	V ₀ = -10km	
6438		8478	23439	14 18 5.2		-57 55	5.94 K0	-.021 -.016			11m, 2"	
6439		4426	23410	14 38 + 3.2		- 5 49	6.30 G5	+.034 -.185				
6440		5558	23465	14 38 5.6		-62 46	5.88 B3	-.006 -.013	2	-1		
6441		4605	23420	14 42 3.5		-19 14	6.55 G0	-.153 -.107			14m, 5", cpm	
6442		8191	23449	14 41 5.1		-56 26	5.75 K0	-.008 +.004				
6443		2719	23393	14 53 2.4		+28 56	5.78 K0	+.042 -.009	9	-14		
6444		2910	23390	15 2 + 2.0		+38 55	5.98 K0	-.019 +.071				
6445	40 ξ Ophi	+ 4731	23423	15 1 3.6		-21 0	4.46 F5	+.231 -.213	62	-9	9m, 3"	
6446	53 ν Serp	4722	23424	15 12 3.4		-12 45	4.35 A0	+.041 +.001	22	var?	V ₀ = +5km	
6447		6800	23481	15 18 5.4		-60 35	5.96 B8	-.008 -.006		-10		
6448	VW Drac	1743	23372	15 17 0.7		+60 47	var K0	-.043 +.011	5	+17	6.3 to 7.0, irregular	
6449		4477	23425	15 20 + 3.3		-10 36	6.42 F0	+.060 -.015				
6450		11507	23462	15 50 4.1		-37 42	6.30 *	+.014 -.017			12m, 3"	
6451	ι Arae	11484	23470	15 46 4.5		-47 22	5.50 B3p	-.014 -.020				
6452		3351	23426	15 54 2.6		+18 10	5.17 Ma	+.003 -.062	7	-46		
6453	42 θ Ophi	13292	23451	15 52 3.7		-24 54	3.37 B3	-.003 -.025	8	var	0.29 days	
6454		11505	23463	15 55 + 4.0		-35 49	6.32 G0	+.079 +.109				
6455		3246	23427	16 5 2.4		+25 38	5.32 A2	+.018 -.020	15	var	V ₀ = -5km	
6456		11512	23471	16 7 4.1		-37 7	6.02 K0	+.031 -.030				
6457	70 Herc	3167	23447	16 47 2.5		+24 36	5.12 A0	-.025 -.003	12	var	V ₀ = -16km	
6458	72 Herc	2896	23446	16 55 2.2		+32 36	5.36 G0	+.126 -1.047	76	-79		

6414: V₀ = -12km.

6426: Also 10m, 32", binary.

6431: Two spectra. V₀ = -21km. 10m, 4", binary.

Precession in declination, -0.06.

6435: Also 12m, 11", cpm.

6450: Composite, B8p, G.

CATALOGUE OF BRIGHT STARS

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No	Name	DM	GC	RA	Ann	Decl	Magn	Prop Motion		Par	Rad	Remarks
				1900	Var	1900	Spec	RA	Decl		Vel	
6459	43 Ophi	13081	23492	17 ^m 4 ^s +3.8		-28° 3'	5.43 K2	+".004	-"037	"006	-14	
6460		11669	23503	16 58 4.3		-44 4	5.10 B8	-.013	-.033	16	+ 8	
6461	β Arae	8100	23515	16 59 5.0		-55 26	2.80 K2	-.011	-.033	21	0	
6462	γ Arae	8225	23517	16 59 5.1		-56 17	3.51 B1	-.003	-.017	4	- 4	10m, 18"
6463		3163	23466	17 6 2.7		+16 50	6.59 Ma	-.022	-.030			
6464	74 Herc	2293	23452	17 32 +1.7		+46 20	5.77 K2	-.033	+ .040	6	-57	
6465		4343	23493	17 38 3.1		- 2 17	6.30 G5	+ .042	-.116			
6466		2728	23474	17 36 2.4		+28 51	6.33 F8	+ .003	+ .001	21	var?	V ₀ = -6km; 6.5:8.5, 0".7
6467		2506	23461	17 52 1.6		+48 17	6.32 F2	+ .188	-.027	40	+31	
6468	κ Arae	11269	23552	18 12 4.7		-50 33	5.24 K0	+ .003	-.002	11	+18	
6469		3136	23487	18 27 +2.0		+40 4	5.72 F8	+ .005	-.070	22	var	V ₀ = +11km
6470		11674	23534	18 24 4.0		-34 36	6.28 A0	+ .002	-.032			
6471		5590	23601	18 42 5.7		-62 57	6.36 B9	-.021	-.032		- 3	
6472		4597	23533	18 43 3.6		-21 21	5.96 K0	-.021	-.034	10	-56	11.5m, 4"
6473		4516	23531	18 46 3.5		-18 22	6.29 A0	+ .010	-.014			
6474		13325	23549	18 59 +3.7		-24 9	6.26 K0	+ .014	+ .004	9	+20	
6475		10881	23579	19 1 4.8		-51 52	6.46 B8	+ .002	-.025			
6476		3405	23527	19 11 2.9		+ 8 56	5.92 K2	+ .006	-.007			
6477		11531	23589	19 29 4.4		-45 45	5.84 B9	-.045	-.044	9	var?	V ₀ = -9km; 7m, 2", binary
6478		11283	23594	19 25 4.7		-50 32	6.06 B9	-.011	-.007		+11	
6479		1937	23505	19 35 +1.3		+53 31	5.95 K5	+ .019	-.007			
6480	73 Herc	3100	23546	19 55 2.5		+23 3	5.70 A3	-.044	-.045	20	-20	
6481		3174	23556	20 3 2.7		+16 24	5.69 A2	+ .006	-.032	13	+11	
6482		3179	23559	20 3 2.7		+15 43	6.25 B9	+ .006	+ .009	7	-26	10m, 4", fixed
6483		10662	23616	20 0 4.8		-52 13	5.77 K0	-.010	-.056			
6484	75 p Herc	2878	23543	20 14 +2.1		+37 14	5.47 A0	-.044	-.002	12	-19	4", binary
6485			23544	20 14 2.1		+37 14	4.52	-.041	.000		-21	
6486	44 Ophi	13337	23597	20 16 3.7		-24 5	4.28 F0	.000	-.123	40	-37	
6487		8144	23638	20 22 5.0		-55 5	6.00 K0	-.019	-.016			
6488		2928	23560	20 40 2.0		+38 40	6.42 F8	-.015	+ .033	8	-24	7.1:7.2, 0".3, cpm
6489		3329	23598	20 46 +3.1		- 1 34	6.31 F5	+ .061	+ .047		-24	
6490		12160	23612	20 44 3.7		-25 51	6.32 A0	-.028	-.032			
6491		2882	23571	20 59 2.1		+37 2	6.48 G5	-.029	+ .041	6	-17	8.5m, 33", cpm
6492	45 Ophi	13557	23627	20 58 3.8		-29 47	4.37 F5	+ .018	-.147	23	+38	
6493		+4275	23617	21 19 3.2		- 5 0	4.61 F0	-.094	-.048	26	var*	26.3 days, V ₀ = 0km
6494		13563	23637	21 15 +3.8		-29 38	5.92 B9	-.009	-.032			
6495		3241	23608	21 27 2.7		+17 0	6.29 Mb	-.010	+ .005			
6496		4750	23629	21 25 3.4		-12 25	6.30 F8	+ .032	-.068	26	-40	Composite, A0, G
6497		3368	23614	21 29 2.9		+ 7 41	5.98	-.001	-.009			
6498	49 σ Ophi	3422	23621	21 33 3.0		+ 4 14	4.44 K0	-.001	+ .004	9	-27	
6499		+2809	23619	22 0 +2.4		+26 58	6.36 A5	+ .003	+ .016	12	-28	
6500	δ Arae	6842	23681	22 4 5.4		-60 36	3.79 B8	-.054	-.096	22	+12	
6501		11546	23664	22 10 4.1		-36 42	6.03 K0	.000	-.013			
6502		3481	23641	22 30 2.6		+20 10	5.42 B5	-.003	+ .013	6	-30	
6503		11927	23673	22 33 4.1		-38 26	6.44 A2	+ .029	+ .016			7.0:7.3, 0".4
6504		4444	23653	22 37 +3.3		- 8 7	6.31 F8	-.086	-.133			
6505		8304	23688	22 53 5.1		-56 50	6.29 B8	-.019	+ .003		- 3	
6506		2971	23647	23 11 2.2		+34 47	5.91 B9	-.038	+ .037	10	var	5.9 days, V ₀ = -22km
6507		3697	23677	23 44 3.1		+ 0 25	5.16 A5	-.063	+ .011	15	-36	
6508	34 υ Scor	11638	23693	23 58 4.1		-37 13	2.80 B3	-.004	-.039	10	var	V ₀ = +18km

6493: Two spectra.

Precession in declination, -0.05.

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No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
6509	77 Herc	2517	23658	24 ^m 5 ^s + 1.6		+48° 21'	5.81 A2	- .001 - .010	"012	km -17	
6510	α Arae	11511	23708	24 7 4.6		-49 48	2.97 B3p	- .032 - .077	15	- 2	
6511		1754	23649	24 24 0.8		+60 8	5.66 A2	- .010 + .023	12	+14	
6512		4450	23687	24 26 3.2		- 5 50	6.42 G5	- .027 - .078		+ 4	11m, 0"8
6513		11626	23713	24 25 4.4		-45 58	6.31 G0	- .003 + .003			
6514		1731	23654	24 35 + 0.9		+58 44	6.52 A2	- .009 + .012		-32	
6516		3300	23706	25 15 3.1		- 0 59	5.34 G5	- .121 - .173	54	-77	5.9:6.3, 46 years
6517		12149	23721	25 12 + 4.0		-33 38	6.50 K0	- .007 - .020			
6518		1014	23651	25 18 - 0.2		+67 23	6.31 K0	- .529 .000	73	-40	
6519	51 Ophi	13412	23717	25 19 + 3.7		-23 53	4.89 A0	+ .001 - .034	36	-12	
6520		12152	23725	25 32 + 3.7		-26 12	6.01 B9	- .004 - .031			
6521		3234	23711	25 43 2.8		+12 0	6.40 A0	- .029 + .048	8	-25	
6522		11757	23737	25 47 4.0		-34 12	6.30 F2	- .020 - .044			
6523		11742	23748	26 4 4.2		-41 6	6.09 B9	+ .001 - .027			
6524		3337	23732	26 20 3.0		+ 2 48	5.59 G0p	- .018 + .016	12	var*	6.3:6.3, close binary
6525		7071	23795	26 40 + 5.4		-59 47	6.43 A0	- .008 - .013			
6526	76 λ Herc	3034	23726	26 42 2.4		+26 11	4.48 K0	+ .018 + .015	14	-26	
6527	35 λ Scor	11673	23769	26 49 4.1		-37 2	1.71 B2	- .001 - .031	16	var	5.6 days
6528		3047	23736	27 8 + 2.3		+31 14	5.82 K0	+ .005 + .016	9	-26	
6529		544	23599	27 11 - 4.5		+80 13	5.91 K2	+ .016 .000			
6530		8682	23800	27 15 + 4.9		-53 17	6.27 A0	- .004 - .020			
6531		+ 3147	23735	27 20 2.0		+38 57	6.45 F2	+ .009 + .008			
6532		3241	23757	27 36 2.8		+12 0	6.18 B9	+ .021 + .020	6	var	6.8 days, V ₀ = -12km
6533	78 Herc	2767	23754	27 54 2.4		+28 29	5.58 A0	+ .003 + .023	13	-25	
6534		4461	23788	28 10 3.2		- 5 40	5.69 A2	- .048 - .102	13	-25	
6535		12935	23804	28 10 + 3.9		-32 31	5.71 Oe5	+ .005 - .010		var*	10m, 5"
6536	23 β Drac	2065	23741	28 10 1.4		+52 23	2.99 G0	- .017 + .008	9	-20	14m, 4"
6537	σ Arae	11661	23815	28 13 4.5		-46 26	4.63 A0	- .034 - .039	0	+ 4	
6538		2989	23770	28 27 2.2		+34 21	6.54 G5	- .238 + .046			
6539		11702	23828	28 54 4.1		-37 22	6.56 A0	- .017 - .042			
6540		1774	23758	29 7 + 1.0		+57 57	6.50 K2	+ .028 - .034		var?	
6541		3354	23798	29 2 2.6		+19 20	5.59 F5	- .034 - .097	32	-59	
6542		3218	23803	29 11 2.7		+16 23	5.66 K0	- .022 - .061	15	-22	
6543		3279	23805	29 10 2.7		+14 55	6.66 Mb	+ .019 - .075			
6544		4411	23816	29 13 3.3		-11 10	5.56 B8	- .015 + .002	9		
6545	52 Ophi	4659	23826	29 17 + 3.6		-21 59	6.57 A0	- .006 - .015		-12	
6546		12044	23846	29 40 4.1		-38 34	4.34 K0	- .016 - .204	18	var	V ₀ = -49km
6547		11577	23854	29 42 4.7		-49 59	5.86 K0	- .014 - .101			
6548	53 Ophi	3423	23823	29 51 2.8		+ 9 39	8.2	- .009 - .007			
		3424	23824	29 52 2.8		+ 9 39	5.77 A2	.000 - .011	10	-14	41", fixed
6549	π Arae	8403	23862	29 53 + 4.9		-54 26	5.31 A3	- .043 - .153	53	- 4	
6550		2850	23807	29 57 1.9		+41 19	5.82 K0	- .074 - .069	12	-29	
6551		3220	23822	29 59 2.7		+16 34	6.40 A5	- .009 - .021	12	-41	
6552		469	24171	30 0 19.0		-85 11	6.44 F5	- .012 - .144			
6553	θ Scor	12312	23857	30 8 4.3		-42 56	2.04 F0	+ .011 - .005	24	+ 1	
6554	24 ν Drac	1944	23797	30 12 + 1.2		+55 15	4.98 A5	+ .145 + .052		-15	
6555	25 ν Drac	1945	23801	30 18 1.2		+55 14	4.95 A5	+ .147 + .052	27	var*	62", binary
6556	55 α Ophi	3252	23837	30 18 2.8		+12 38	2.14 A5	+ .117 - .232	49	var	V ₀ = +15km
6557		+11723	23864	30 36 4.1		-38 0	6.45 K0	- .017 + .023			
6558		12327	23876	30 58 4.3		-42 49	5.96 B9	- .001 - .046			

6524: V₀ = -32km.6535: 3.4 days, V₀ = -4km, two spectra.

Precession in declination, -0.04.

6555: V₀ = -15km.

CATALOGUE OF BRIGHT STARS

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No	Name	DM	GC	RA	Ann	Decl	Magn	Prop Motion		Par	Rad	Remarks
				1900	Var	1900	Spec	RA	Decl		Vel	
6559		3157	23861	31 ^m 43 ^s +2.6		+21° 4'	5.82 A2	+ ".008	- ".019	".013	km	9m, 10", cpm
6560		1780	23838	31 53 1.0		+57 38	6.17 F2	+ .013	+ .010		-18	
6561	55 ε Serp	4621	23881	31 52 3.4		-15 20	3.64 A5	- .042	- .066	31	var	2.3 days, V ₀ = -43km
6562		4622	23882	31 52 3.4		-15 31	5.92 A5	- .012	- .005			
6563		2908	23863	32 16 2.1		+37 22	6.15 K0	+ .012	- .016			
6564		2787	23868	32 12 +2.4		+28 14	6.48 K5	- .036	+ .014			
6565		2086	23971	32 18 +7.2		-72 10	6.66 F5	+ .003	+ .108	45		7.2:7.6, close binary
6566	27 Drac	938	23821	32 22 -0.2		+68 12	5.21 K0	- .015	+ .131	15	-74	
6567	57 μ Ophi	4472	23889	32 25 +3.3		- 8 3	4.65 B8	- .013	- .027	11	-18	
6568		4528	23897	32 37 3.3		- 10 52	5.92 K0	- .018	- .014		-32	
6569	λ Arae	11616	23918	32 40 +4.6		-49 21	4.84 F5	+ .072	- .179	40	+ 4	
6570		3033	23879	32 48 2.3		+30 51	5.76 A2	+ .027	- .011	16	-17	
6571	79 Herc	3218	23901	33 24 2.5		+24 22	5.67 A0	- .015	- .001	13	- 1	
6572		11747	23951	33 47 4.5		-46 52	6.11 A0	+ .001	- .014			
6573	26 Drac	1678	23874	33 57 0.6		+61 57	5.31 F8	+ .253	- .513	60	-13	9m, 81 years*
6574	82 Herc	2542	23894	34 1 +1.6		+48 39	5.54 K0	+ .029	+ .058	13	+28	
		3372	23920	34 2 3.0		+ 2 7	7.49 F0	+ .034	- .040	8	0	111", cpm
6575		3373	23922	34 6 3.0		+ 2 5	6.35 K0	+ .036	- .025			
6576		11474	23970	34 15 4.7		-50 27	6.23 Ma	+ .020	- .015			
6577		3421	23923	34 22 2.8		+13 23	6.29 F5	- .028	+ .033		var	
6578		4425	23953	35 0 +3.1		- 2 6	6.44 Mb	- .025	- .021			
6579		2964	23935	35 8 2.2		+32 47	6.45 K0	+ .013	- .016	6	-14	
6580	κ Scor	12137	23988	35 34 4.1		-38 59	2.51 B2	- .013	- .028	9	var	V ₀ = -10km
6581	56 ο Serp	4808	23978	35 48 3.4		-12 49	4.39 A2	- .075	- .057	11	var	V ₀ = -30km, two spectra
6582	η Pavo	3662	24044	35 55 5.9		-64 41	3.58 K0	- .009	- .059	18	- 8	
6583		11804	24001	36 4 +4.1		-36 54	5.58 K2	- .002	- .037		- 4	
6584		3075	23967	36 11 2.3		+31 15	6.30 Ma	- .017	+ .010	4		
6585	μ Arae	11094	24024	36 12 4.8		-51 47	5.26 G5	- .021	- .197	47	-12	
6586		8703	24034	36 19 5.2		-57 30	6.14 G5	+ .009	- .006			
6587		+13208	24013	36 33 3.9		-33 0	6.47 Ma	+ .005	- .002			
6588	85 λ Herc	2349	23965	36 38 +1.7		+46 4	3.79 B3	- .007	.000	5	var	0.14 days? V ₀ = -22km
6589		3246	23986	36 40 2.7		+15 13	6.26 A0	- .016	- .020	10	-18	
6590		3498	23991	36 40 2.9		+ 6 22	5.98 K0	- .009	- .013			
6591		3076	23984	36 55 2.3		+31 20	6.43 K0	- .072	- .077			
6592		3225	23989	36 59 2.5		+24 34	6.46 K0	- .023	+ .054	7	-32	6.6:8.9F1, 17", cpm
6593		11850	24023	37 0 +3.8		-27 50	6.35 A5	+ .009	- .012			
6594		3256	24009	37 29 2.7		+16 0	5.58 F5	+ .006	+ .096	32	-44	11m, 1", binary
6595	58 Ophi	4712	24030	37 26 +3.6		-21 38	4.89 F5	- .093	- .049	56	+11	
6596	28 ω Drac	949	23944	37 32 -0.4		+68 48	4.87 F5	+ .003	+ .322	39	var	5.3 days, V ₀ = -14km
6597		12431	24054	37 32 +4.3		-42 41	6.18 A2	+ .002	+ .014			
6598		933	23939	37 31 -0.5		+69 38	6.48 F8	- .063	- .209	16		
6599		2781	23993	37 36 +1.8		+43 31	6.67 K0	+ .052	+ .056			
6600		4732	24047	38 10 3.4		-13 28	6.27 F2	- .053	- .113			
6601		4487	24051	38 23 3.2		- 7 2	6.20 B5	- .006	- .010		var	V ₀ = -26km
6602	83 Herc	3231	24028	38 22 2.5		+24 37	5.59 K5	- .060	- .108	10	-27	
6603	60 β Ophi	3489	24048	38 32 +3.0		+ 4 37	2.94 K0	- .043	+ .154	28	-12	
6604		3321	24052	38 49 2.7		+14 20	6.21 F5	- .010	+ .027	16	-42	
6605		1791	24010	38 57 +1.0		+57 22	6.84 K0	- .015	+ .031			
6606		800	23968	39 2 -1.1		+72 31	5.96 K0	+ .017	+ .019	0		
6607		2243	24025	39 4 +1.4		+51 52	6.12 K0	- .032	- .020			

6573: Also 12m, 740", cpm.

Precession in declination, -0.03.

17^h

No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
6608	84 Herc	3237	24059	39 ^m 15 ^s + 2 ^s 5		+24° 22'	5.72 G0	- .119 + .067	"014	-25	
6609	61 Ophi	3390	24077	39 33	3.0	+ 2 37	6.25 A0	.000 + .011	8	-36	21", cpm
6610		3391	24078	39 34	3.0	+ 2 37	6.64 A0	.000 + .007		-21	
6611		3329	24075	39 44	2.7	+14 27	6.13 A3p	- .003 + .013	11	var*	3.9 days, V ₀ = -31km
6612		2757	24067	40 8	1.8	+44 8	6.57 K2	- .041 + .038			
6613		12189	24112	40 13	+ 4.1	-38 4	6.24 B9	- .006 - .010			6.8:7.1, 0".2
6614		8312	24136	40 18	5.0	-55 22	6.28 F0	- .039 + .024			
6615	† Scor	11838	24125	40 35	4.2	-40 5	3.14 F5p	.000 - .004	8	var	V ₀ = -28km
6616	3X Sgtr	11930	24135	41 16	3.8	-27 48	var F8	- .003 - .014	31	var*	4.8 to 5.0 (ptg)*
6617		4423	24147	41 43	3.6	-22 27	6.24 K0	+ .001 - .016			
6618		1978	24093	41 54	+ 1.3	+53 51	5.70 A0	+ .019 - .020	12	var?	V ₀ = 0km*
6619		3090	24116	41 55	2.3	+31 33	6.25 B9	- .006 - .004	7	+ 1	
6620		4770	24148	41 55	3.4	-14 42	6.07 B9	- .015 - .026			
6621		12367	24160	42 13	3.8	-26 56	6.16 B3	- .001 - .018			
6622		8799	24187	42 20	4.9	-53 35	5.90 B3	- .017 - .009		var*	V ₀ = -8km; 9m, 12"
6623	86 μHerc	2888	24138	42 33	+ 2.3	+27 47	3.48 G5	- .313 - .748	109	-16	9.5M4, now 33", binary*
6624		6950	24207	42 36	5.4	-60 8	5.77 K0	- .005 - .032	6		
6625		2997	24128	42 34	2.0	+38 55	6.51 K0	+ .004 - .038			
6626		3219	24131	42 40	2.0	+39 22	6.56 K0	+ .007 + .011			
6627		3334	24150	42 43	2.6	+17 44	5.58 A0	+ .007 - .012	8	var	5.7:7.7, 0".8, binary
6628		14609	24176	42 41	+ 3.9	-31 40	4.83 B8	+ .009 - .020	10	-13	
6629	62 γ Ophi	3403	24162	42 53	3.0	+ 2 45	3.74 A0	- .024 - .076	32	- 5	
6630		11907	24188	43 3	4.1	-37 1	3.25 K2	+ .057 + .028	27	+25	
6631	† Scor	11886	24197	43 11	4.2	-40 3	4.88 A2p	+ .003 - .011	8	-18	
6632		8812	24208	43 6	4.9	-53 6	6.40 A0	+ .003 - .016			
6633		3493	24175	43 22	+ 3.0	+ 3 50	6.19 A0	+ .003 + .001	7	-44	
6634		3507	24235	43 19	6.0	-65 28	6.50 K0	- .016 - .088			
6635		1226	24315	43 32	+ 8.5	-76 10	6.11 K2	+ .008 + .014			
6636	31 γ Drac	804	24089	43 43	- 1.1	+72 12	4.90 F5	+ .017 - .268	47	-11	31", cpm
6637		805	24090	43 45	- 1.1	+72 12	6.07 F5	+ .022 - .281		-10	
6638		3570	24184	44 7	+ 2.6	+20 36	5.77 K0	+ .020 - .006	19	-26	
6639		3406	24200	44 16	3.0	+ 2 0	6.46 K0	- .028 + .062			
6640		11958	24228	44 21	4.4	-45 34	6.19 G5	+ .003 - .009			
6641		2537	24173	44 27	1.6	+47 39	6.34 A0	- .008 - .002	14	var	2.8 days, V ₀ = -26km
6642		3435	24194	44 27	2.6	+19 17	6.04 A0	- .010 + .017	8	-22	
6643		11905	24226	44 31	+ 4.2	-40 45	5.96 Ma	- .032 - .056			
6644	87 Herc	3353	24199	44 46	2.4	+25 39	5.34 K0	- .008 - .043	13	-26	
6645		14802	24223	44 46	3.9	-30 32	8.7	- .006 + .028			10", fixed
6646		799	24431	45 26	12.0	-81 29	6.51 A0	.000 - .016			
6647		12165	24259	45 33	+ 4.0	-34 46	6.32 K2	+ .022 - .040			
6648		12170	24261	45 41	4.0	-34 24	5.97 B8	+ .001 - .008	3	-14	
6649		12139	24268	45 44	4.3	-41 58	5.84 K0	- .004 - .001			
6650		+ 3305	24238	46 5	2.8	+11 59	6.35 F8	+ .149 - .201			
6651		12186	24273	46 11	4.0	-34 6	6.35 K2	- .026 - .028			
6652		+ 12187	24277	46 15	+ 4.0	-35 0	6.12 K0	- .001 + .013			
6653		12013	24278	46 15	4.0	-35 36	6.48 A0	+ .012 + .004			
6654		3126	24241	46 30	2.3	+29 21	6.04 F2	+ .043 - .050			
6655		3227	24251	46 36	2.5	+22 20	5.61 K0	+ .025 + .046	9	-14	
6656	30 Drac	2468	24221	46 41	1.4	+50 48	5.91 A3	+ .010 - .021	13	+ 4	
							5.19 A2	- .052 + .204	11	var?	V ₀ = -56km

6611: Two spectra.

6616: 7.0 days, V₀ = -14km.

6618: In Ursa Cluster?

Precession in declination, -0.02.

6622: Two spectra.

6623: Companion itself binary, 10.0:10.5, 43 years.

CATALOGUE OF BRIGHT STARS

17^h

No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks	
6657	Y Ophi	12200	24290	46 ^m 40 ^s +4.0		-34° 42'	6.20 B9	+ .002 - .005	.005	km	6.9:7.0, close binary	
6658		12203	24294	46 43 4.0		-34 52	5.68 K0	- .012 - .014	3		6.4:6.5, close binary	
6659		3412	24271	46 49 3.1		- 1 12	6.45 K0	- .018 - .004				
6660		12219	24307	47 5 4.0		-34 46	6.38 A0	+ .006 - .007				
6661		4672	24288	47 17 3.2		- 6 7	var G0p	+ .003 - .012	0	var*	6.2 to 7.0, 17.1 days	
6662		12226	24314	47 15 +4.0		-34 44	6.08 B9	+ .018 - .007				6.4:7.7, 0".3
6663		12228	24318	47 18 4.0		-34 48	6.45 A0	+ .004 - .027				
6664		2581	24253	47 26 1.6		+48 25	6.43 B8	- .002 + .009		-16		
6665		3292	24281	47 28 2.7		+15 21	6.54 K0	- .004 + .026	5			7.1:7.4, 0".7, binary
6666		4560	24301	47 30 3.3		-10 53	6.34 G5	+ .050 + .038	9	-35		
6667	3528	24295	47 31 +3.0		+ 1 20	6.15 K5	- .051 - .020					
6668	12244	24329	47 48 4.0		-34 27	6.05 A0	+ .007 + .002					
6669	3225	24279	47 59 1.9		+40 6	6.52 G0	- .017 + .007	24				
6670	3566	24320	48 22 2.9		+ 6 7	5.82 F5	- .127 + .069	40	var	V ₀ = -31km		
6671	12008	24344	48 22 4.1		-36 27	6.06 A2	- .017 - .012					
6672	13615	24347	48 45 +3.7		-24 52	6.13 B2	- .007 - .007		-14			
6673	3228	24309	48 49 2.0		+40 0	6.06 K0	- .017 + .047	8	var?	V ₀ = -66km		
6674	2379	24317	49 14 1.7		+46 41	6.57 K0	+ .035 - .129		-28			
6675	12201	24374	49 30 4.4		-44 20	4.98 K0	- .014 - .016	12	+45			
6676	3283	24349	49 34 2.8		+11 9	6.26 F5	- .077 - .176		var			
6677	90 Herc	3233	24342	50 3 +2.0		+40 2	5.12 K0	+ .007 + .048	9	-35	9m, 2", binary	
6678		12001	24383	49 55 4.2		-40 17	6.48 K5	+ .013 + .002				
6679		4686	24369	50 2 3.5		-18 47	6.40 A0	+ .011 - .025				
6680		13878	24386	50 23 3.8		-28 3	5.76 A3	+ .038 - .023				9m, 20", cpm
6681		4722	24384	50 34 3.5		-15 48	5.94 A0	- .013 - .067				
6682	12231	24402	50 41 +4.3		-41 42	4.89 Ma	- .019 - .014	0	+ 4			
6683	12058	24411	51 2 4.2		-39 7	6.39 A0	- .009 - .042				6.6:8.5, 1", binary	
6684	3813	24393	51 13 3.1		+ 0 41	5.73 B3	- .009 .000	3	-18			
6685	89 Herc	3120	24382	51 23 2.4		+26 . 4	5.48 F5p	.000 + .004	3	var?	V ₀ = -29km	
6686		4376	24398	51 31 3.2		- 4 4	5.60 K0	- .015 - .011	10	-37		
6687	32 ♁ Drac	3237	24392	51 39 +2.5		+22 29	5.69 K2	- .006 - .003	7	-44		
6688		2033	24364	51 48 1.0		+56 53	3.90 K0	+ .093 + .074	31	var?	V ₀ = -26km	
6689		3816	24414	51 57 3.1		+ 0 5	6.14 A2	+ .025 - .019	8	-11	6.8:7.0, 1", binary	
6690		3578	24413	52 4 2.9		+ 6 30	6.16 A0	+ .022 - .001	8	-14		
6691		12060	24435	52 8 4.1		-36 51	5.78 G5	+ .005 + .010				
6692	91 θ Herc	13936	24434	52 18 +3.8		-28 45	5.95 B5	- .001 - .015				
6693		15035	24451	52 40 3.9		-30 15	5.27 K5	- .001 - .016	5	-20	6", fixed	
6694		24452	52 40 3.9		-30 15	7.00	- .022 - .007					
6695		2982	24415	52 49 2.1		+37 16	3.99 K0	+ .004 + .002	8	-28		
6696		3299	24422	52 46 2.8		+11 3	6.50 A0	- .022 - .027		var		
6697	64 v Ophi	3283	24423	53 7 +2.5		+24 1	6.36 G0	- .027 + .072				
6698		4632	24468	53 31 3.3		- 9 46	3.50 K0	- .009 - .118	17	+12		
6699		1995	24410	53 34 1.1		+55 59	6.10 F0	+ .031 + .116	18	-27		
6700	4 Sgtr	13731	24483	53 41 +3.7		-23 48	4.76 A0	.000 - .048	15	-22		
6701	35 Drac	667	24343	53 56 -2.7		+76 59	5.04 F5	+ .037 + .242	27	-22		
6702	92 ♁ Herc	2627	24428	53 56 +1.7		+45 22	6.22 Mb	+ .004 - .033	4	+11		
6703		3156	24448	53 53 2.3		+29 16	3.82 K0	+ .085 - .019	20	- 2		
6704		4940	24490	54 3 3.6		-20 20	6.48 K0	+ .004 - .011				
6705	33 v Drac	2282	24432	54 17 1.4		+51 30	2.42 K5	- .011 - .024	22	-27		
6706		4384	24487	54 18 3.2		- 4 48	5.98 K0	- .018 - .096				

6661: V₀ = -5km.

Precession in declination, -0.01.

17^h - 18^h

No	Name	DM	GC	RA	Ann	Decl	Magn	Prop Motion		Par	Rad	Remarks
				1900	Var	1900	Spec	RA	Decl		Vel	
6707	94 ♀ Herc	3093	24478	54 ^m 41 ^s + 2.3		+30° 12'	4.48 F0	- .005	+ .003	009	km	
6708		12115	24512	55 3 4.1		-36 22	6.32 B9	- .011	- .020		-22	
6709		3832	24499	55 10 3.1		+ 0 38	6.29 A2p	- .010	+ .001		var?	V ₀ = -34km
6710	57 ♂ Serp	4217	24503	55 12 3.2		- 3 41	4.60 F0	+ .144	- .048	40	var	V ₀ = -43km
6711		2986	24488	55 13 2.1		+36 18	5.98 K0	+ .002	- .060			
6712	66 Ophi	3570	24500	55 19 + 3.0		+ 4 22	4.81 B3	- .001	- .016	7	-11	
6713	93 Herc	3335	24502	55 36 2.7		+16 45	4.71 K0	- .004	- .010	9	-24	
6714	67 Ophi	3458	24509	55 38 3.0		+ 2 56	3.92 B5p	- .003	- .011	4	- 4	8m, 55", fixed
6715	6 Sgtr	4987	24517	55 34 3.5		-17 9	6.31 K2	.000	- .009	4	-22	
6716		4503	24526	55 51 + 3.6		-22 47	5.73 B0	- .004	- .013		-13	12m, 8"
6717		616	24370	55 49 - 3.4		+78 20	6.38 K5	+ .016	+ .016			
6718		2635	24495	56 1 + 1.7		+45 28	6.22 B9	- .001	+ .022	11	-25	
6719		3597	24515	56 0 2.9		+ 6 16	6.18 B3	.000	- .006	3	-26	
6720		3494	24510	56 8 2.6		+19 31	6.42 B9	+ .011	- .005	6	-29	
6721	x Octn	274	25207	56 5 35.4		-87 40	5.22 K0	- .047	- .132		+34	
6722		3327	24522	56 26 + 2.7		+15 7	6.30 G5	- .064	- .112		+ 4	
6723	68 Ophi	3560	24534	56 41 3.0		+ 1 18	4.44 A2	+ .010	- .015	21	var*	10m, 1", binary
6724	7 Sgtr	13793	24555	56 43 + 3.7		-24 17	5.49 A5	+ .003	- .014	10	-12	
6725	34 Drac	818	24459	56 55 - 1.0		+72 1	5.54 F2	+ .003	.000	22	var	V ₀ = -3km
6726		3006	24523	56 56 + 2.2		+33 14	6.07 K5	- .008	- .024	4	-15	
6727		4516	24558	56 58 + 3.6		-22 43	6.57 B0	+ .001	+ .002		+15	
6728		2638	24518	57 5 1.7		+45 30	5.92 K2	- .009	- .038	8	-10	
6729		3280	24538	57 15 2.5		+21 36	5.21 G5	+ .007	+ .027	7	-30	
6730	95 Herc	24539	57 16 2.5			+21 36	5.13 A3	+ .008	+ .030	7	-30	6", binary
6731		1410	24680	57 16 8.4		-75 54	5.69 K5	+ .003	- .287	8		
6732		4560	24561	57 26 + 3.2		- 5 21	6.61 A0	+ .006	- .038			
6733	69 ♂ Ophi	4549	24565	57 38 3.3		- 8 11	6.04 F0	+ .024	- .041	32	var*	1".3, 224 years
6734				57 38 + 3.3		- 8 11	5.34					
6735		647	24462	57 44 - 2.0		+75 11	6.44 K0	- .016	+ .022	0		
6736	9 Sgtr	13814	24574	57 45 + 3.7		-24 22	5.86.0e5	.000	- .003	3	var	V ₀ = +15km
6737		3009	24554	57 56 + 2.2		+33 19	6.27 K5	+ .020	+ .024			
6738	96 Herc	3649	24563	58 7 2.6		+20 50	5.09 B3	+ .001	- .014	4	var	50.2 days? V ₀ = -15km
6739		12229	24597	58 6 4.0		-35 54	5.82 K0	- .023	- .043	7		
6740		3796	24640	58 0 5.9		-64 33	6.41 K2	- .014	- .056			
6741	97 Herc	3260	24568	58 19 2.5		+22 55	6.12 B8	- .008	- .012	4	var	V ₀ = -36km
6742	W Sgtr	14447	24605	58 38 + 3.8		-29 35	var F8p	+ .010	- .006		var*	4.7 to 6.1, (ptg)*
6743	θ Arae	11720	24635	58 51 4.7		-50 6	3.90 B1p	- .015	- .020	7	+ 3	
6744		3508	24583	58 55 2.6		+19 37	6.48 A0	+ .020	- .012	9	-32	
6745	π Pavo	4292	24665	58 57 5.8		-63 40	4.44 A5	+ .015	- .190	27	var	V ₀ = -16km
6746	10 ♀ Sgtr	15215	24632	59 23 3.9		-30 26	3.07 K0	- .052	- .193	29	var	V ₀ = +22km
6747		3578	24617	59 34 + 3.0		+ 1 55	6.09 B3	- .006	- .006	2	var	V ₀ = +17km
6748		12214	24643	59 38 4.1		-36 2	5.92 G5	+ .107	+ .011	30		
6749				59 36 4.3		-43 26	5.77 A3	- .004	- .103	26		1", 154 years
6750		12272	24649	59 36 4.3		-43 26	5.77					
6751		1888	24731	59 52 7.6		-73 41	5.92 F5	- .053	- .235	27		9.5m, 2", binary
6752	70 Ophi	3482	24641	0 24 + 3.0		+ 2 31	4.07 K0	+ .256	-1.097	195	var*	4.3:6.0, 87.8 years
6753		2627	24607	0 32 1.6		+48 28	6.06 A0	+ .025	+ .008		- 7	
6754		3254	24633	0 32 2.5		+23 56	6.25 F0	+ .007	- .061	21	-34	
6755		4558	24656	0 40 3.3		- 8 20	5.79 B8	+ .001	- .020	6	var	
6756		4395	24660	0 56 3.2		- 4 46	5.90 K0	+ .137	- .035	17	-19	

6723: V₀ = -3km.6733, 6734: V₀ = -40km.6742: 7.6 days, V₀ = -25km.

Precession in declination, 0.00.

6752: The brighter is a spec. binary, 18.1 years, V₀ = -7km; velocity of fainter -7km.

CATALOGUE OF BRIGHT STARS

18^h

No	Name	DM	GC	RA		Decl 1900	Magn Spec	Prop Motion		Par	Rad Vel	Remarks
				1900	Ann Var			RA	Decl			
6757		3414	24659	0 ^m 59 ^s + 3.1	- 0° 27'	6.52 G5	- ".022 - ".032				km	
6758		3383	24655	1 4 2.8	+12 0	7.05 A0	- .013 - .003		.008	var*		7.4m, 7", binary
6759		12215	24687	1 5 4.4	-45 47	6.42 B8	- .015 - .028			var?		V ₀ = -35km; 11m, 4"
6760		7231	24710	1 8 5.3	-59 3	6.42 K5	- .022 - .005					
6761	1 Pavo	5797	24718	1 8 5.6	-62 1	5.48 G0	- .084 + .220		49	var		V ₀ = +29km
6762		4855	24678	1 11 + 3.6	-21 27	6.22 B1	- .011 - .001				- 6	
6763		3300	24654	1 16 2.5	+21 38	6.43 K0	+ .011 + .005		5		-35	
6764		3276	24646	1 28 2.0	+40 5	6.48 F5	+ .025 + .020				- 1	
6765	98 Herc	3273	24670	1 49 2.5	+22 13	5.32 Ma	- .014 - .012		9		-20	
6766		14174	24694	1 45 3.8	-28 28	4.66 K0	+ .026 - .034		19		- 4	
6767		2968	24658	1 54 + 1.9	+41 56	6.42 F0	- .026 + .102			var		
6768		3047	24671	2 6 2.2	+32 14	5.92 K0	+ .008 - .031				+ 2	
6769		5028	24692	2 0 3.5	-17 10	5.74 K0	- .100 + .056		10		-32	
6770	71 Ophi	3582	24693	2 31 2.9	+ 8 43	4.73 G5	+ .006 + .029		16		- 3	
6771	72 Ophi	3564	24695	2 37 2.8	+ 9 33	3.73 A3	- .062 + .078		40		-24	14m, 25", cpm
6772		12265	24725	2 36 + 4.1	-36 41	6.58 B0	- .014 - .007					
6773		12793	24719	2 43 3.7	-25 29	6.27 B8	+ .001 + .012					
6774		2507	24796	2 54 6.9	-70 46	6.97 B9	- .019 - .021					
6775	99 Herc	3128	24700	3 14 2.3	+30 33	5.21 F8	- .098 + .067		51	+ 1		10m, 55 years
6776		3529	24709	3 12 2.8	+13 3	6.46 A0	+ .012 + .004		9		-15	
6777		13814	24742	3 27 + 3.9	-32 44	6.52 G5	- .003 - .153					
6778		12098	24761	3 31 4.5	-47 32	6.08 K0	+ .001 - .032					12m, 1.8
6779	103 oHerc	2925	24711	3 38 2.3	+28 45	var A0	.000 + .007		13	-29		4.1 to 4.2, 22 days
6780		15316	24747	3 39 3.9	-30 45	8.2	- .026 - .011		7		- 4	4", binary
6781			24748			5.58 K0	.000 - .031					
6781	100 Herc	3178	24721	3 48 + 2.4	+26 5	5.92 A3	- .011 + .030		14	var?		V ₀ = -15km
6782			24720	3 48 2.4	+26 5	6.00 A3	- .007 + .030				-20	14", binary
6783	e Tele	12251	24767	3 48 4.5	-45 58	4.60 K0	- .018 - .039		11		-26	
6784		3427	24734	4 0 2.7	+14 16	6.30 A2	- .016 - .018		13		- 9	
6785		4863	24750	4 3 3.4	-13 57	6.50 K0	+ .003 - .005					
6786		12491	24769	4 0 + 4.3	-41 23	5.90 A5	+ .027 - .037				-32	
6787	102 Herc	3674	24740	4 29 2.6	+20 48	4.32 B3	.000 - .012		3		-13	
6788		12917	24771	4 18 + 4.0	-33 49	6.24 B5	- .014 + .009				-32	
6789	23 δ UMin	269	24236	4 33 -19.4	+86 37	4.44 A0	+ .011 + .051		10		- 7	
6790		2525	24714	4 30 + 1.4	+50 48	6.35 K0	- .003 + .099					
6791		2892	24724	4 28 + 1.8	+43 27	5.11 G5	- .002 - .064		14	var?		V ₀ = -16km
6792		2732	24722	4 36 1.5	+49 42	6.31 A0	- .005 + .015		10	var*		11m, 2", binary
6793		3027	24735	4 34 2.1	+36 23	5.67 K0	- .100 - .187		11		- 7	
6794	101 Herc	3675	24743	4 34 2.6	+20 2	5.24 A3	+ .004 - .024		13		-16	
6795	73 Ophi	3610	24754	4 36 3.0	+ 3 59	5.67 F2	+ .034 - .010		18	-14		5.9:7.4, 400 years
6796		4334	24817	4 39 + 5.8	-63 43	6.40 K2	- .033 - .055					
6797		3613	24764	4 54 3.0	+ 3 6	5.73 F5	+ .016 - .195		31	-15		12m, 7", binary
6798		4886	24788	5 19 3.6	-19 52	6.33 A2	- .003 - .032		13			7.0:7.2, 1", binary
6799		3138	24758	5 21 2.3	+30 26	6.64 K2	+ .066 + .128					
6800		3620	24783	5 41 3.0	+ 3 18	5.70 K0	+ .021 - .001		8	+10		
6801	1 Sgtr	14047	24799	5 37 + 3.7	-23 43	5.13 K0	+ .015 - .025		13	+ 4		
6802		14268	24805	5 37 3.8	-28 55	6.38 A0p	+ .016 - .010					
6803		3390	24777	5 41 2.7	+16 27	6.14	- .009 - .012		16	-13		6.5F2:7.6A0, 1", binary
6804		12534	24824	6 8 4.2	-41 22	5.52 B3	- .017 - .006		2	-15		
6805		4343	24861	6 11 5.7	-63 5	5.61 K0	- .022 - .035				- 6	11m, 42", cpm

6758: V₀ = +15km.
6792: V₀ = -30km.

Precession in declination, +0.01.

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No	Name	DM	GC	RA		Decl 1900	Magn Spec	Prop Motion		Par	Rad Vel	Remarks
				1900	Ann Var			RA	Decl			
6806		3095	24778	6 ^m 19 ^s + 2 ^s 0		+38° 27'	6.40 KO	-".310 - ".475	"097	km		
6807		3039	24787	6 30 2.1		+36 27	5.87 G5	+ .007 + .010	9	-19		
6808		3081	24902	7 19 + 6.4		-68 16	6.26 A0	.000 - .016				
6809	40 Drac	570	24667	7 32 - 4.5		+79 59	6.18 F5	+ .046 + .126			var* 10m, 2".5	
6810	41 Drac	571	24669	7 38 - 4.5		+79 59	5.80 F5	+ .043 + .119	26		var? 20", binary V ₀ = +9km	
6811	24 UMin	- 272	24266	7 48 -22.3		+87 0	5.86 A3	+ .053 + .003	14	+ 1		
6812	13 μSgtr	4908	24856	7 47 + 3.6		-21 5	var B8p	+ .001 - .003	6	var	4.0 to 4.2, 180 days	
6813		4415	24849	7 53 3.2		- 4 3	6.57 A2	+ .006 + .033				
6814		3044	24829	8 6 2.2		+33 26	5.85 A2	+ .008 + .005	10	var	10m, 0".6, fixed	
6815	104 Herc	3199	24831	8 8 2.3		+31 23	5.02 Ma	- .013 + .019	9	0		
6816	14 Sgtr	4916	24871	8 15 + 3.6		-21 44	5.73 KO	- .010 - .027	9	-59		
6817		1950	24820	8 29 1.2		+54 15	5.94 KO	+ .113 + .248	16	-16		
6818		12456	24892	8 36 4.4		-44 14	5.55 KO	+ .071 + .007				
6819		8706	24906	8 42 5.1		-56 3	5.54 B5	- .021 - .021		var		
6820		3347	24869	9 2 2.5		+21 51	6.25 KO	+ .058 + .046	3	-66		
6821		11460	24909	9 8 + 4.7		-51 6	6.27 B9	- .004 - .024				
6822	15 Sgtr	5054	24893	9 15 3.6		-20 45	5.42 B0	+ .003 - .001		var	V ₀ = -5km	
6823	16 Sgtr	5055	24895	9 16 3.6		-20 25	6.02 B1	- .003 - .003		var*	12m, 6"	
6824		3011	24868	9 32 1.9		+41 7	6.36 KO	- .019 - .050				
6825		4864	24900	9 38 3.5		-18 42	6.08 A2	+ .013 + .002				
6826		3113	24874	9 45 + 2.0		+38 45	5.88 A0	- .015 + .007	9	var		
6827		1813	24848	9 55 0.7		+60 23	6.32 A0	- .013 + .005	10	-22		
6828		4370	24958	10 0 5.8		-63 55	6.20 G0	+ .042 - .290	15		11m, 7"	
6829	φ Octn	1417	24999	10 9 8.1		-75 5	5.61 A0	+ .001 + .027		+ 1		
6830		4259	24913	10 42 3.2		- 3 39	6.30 A3	+ .012 + .017				
6831		3213	24903	10 51 + 2.3		+29 11	6.49 G0	+ .009 - .252	21	+ 3		
6832	η Sgtr	12423	24944	10 52 4.1		-36 48	3.16 Mb	- .141 - .167	24	0	10m, 4", binary	
6833	RS Sgtr	12673	24947	10 58 4.0		-34 8	var B5	- .017 - .013		var	6.1 to 6.8, 2.4 days	
6834		3547	24914	11 4 3.0		+ 2 21	6.31 Mb	- .007 - .018				
6835		14407	24941	11 4 3.8		-28 41	6.04 A3	+ .003 - .032				
6836		14408	24939	11 4 + 3.8		-28 19	6.26 F8	+ .132 - .162				
6837		849	25089	11 18 10.8		-80 17	5.92 KO	- .024 - .061				
6838		5112	24946	11 22 3.5		-17 24	5.98 K5	- .004 - .022		- 7		
6839		13101	24963	11 31 4.3		-42 20	6.48 B0	- .010 - .007		-25		
6840		4263	24945	11 39 3.1		- 3 2	6.11 G5	+ .007 - .270	6	+ 1		
6841		4886	24950	11 37 + 3.5		-18 30	6.37 Oe5	- .004 - .003		var	V ₀ = +14km	
6842		12684	24961	11 48 3.8		-27 5	4.69 K5	+ .007 .000	13	-17		
6843		4678	24952	11 54 3.3		- 9 48	6.30 A5	.000 - .067				
6844		3907	24949	12 0 3.0		+ 0 58	6.60 F0	- .015 - .029				
6845		3035	24936	12 32 1.9		+42 8	5.42 B5	- .009 - .006	7	-21		
6846		12995	24976	12 30 + 3.7		-25 39	6.43 KO	- .005 - .035				
6847		2684	24937	12 40 1.7		+45 10	6.30 G0	- .072 - .114	46			
6848		4896	24978	12 51 3.5		-18 39	6.38 B0	+ .011 + .002	21		7m, close binary	
6849		2080	24927	12 56 1.1		+56 33	6.41 F0	- .012 + .026	11	var*	2.0 days, V ₀ = -7km	
6850	36 Drac	1252	24916	13 19 0.3		+64 22	5.03 F5	+ .346 + .031	44	-35		
6851		3593	24977	13 28 + 2.7		+13 44	6.18 B5	- .010 - .026	4	-21		
6852		3623	24980	13 44 2.6		+18 6	5.99 A0	- .010 - .009	8	var		
6853		3332	24973	13 56 1.9		+40 54	6.10 KO	- .168 + .066	10	-74		
6854		3299	24982	13 58 2.5		+23 15	6.72 K5	+ .003 - .022				
6855	ξ Pavo	6140	25045	14 1 5.5		-61 32	4.25 K2	- .003 .000	15	var*	8m, 3", binary	

6809: 10.5 days, V₀ = +4km.

6823: Two spectra.

6849: Two spectra.

Precession in declination, +0".02.

6855: 2214 days, V₀ = +12km.

CATALOGUE OF BRIGHT STARS

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No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
6856		12457	25018	14 ^m 6 ^s +4.1		-37° 32'	6.48 K0	+ .007 - .011		km	
6857		3629	24995	14 19 2.9		+ 7 13	5.57 K0	- .051 .000	"012	- 8	
6858		4927	25006	14 23 3.5		-15 52	5.71 K2	+ .035 - .037		8 +30	
6859	19 δ Sgtr	14834	25024	14 36 3.8		-29 52	2.84 K0	+ .038 - .032	32	-20	
6860	105 Herc	3381	25003	15 4 2.5		+24 24	5.49 K5	+ .008 - .003	5	var	485 days, V ₀ = -13km
6861		14219	25039	15 22 +3.7		-24 58	6.36 Mb	+ .005 + .003	4	+ 3	
6862		12729	25051	15 25 . 4.1		-38 42	5.14 K0	- .036 - .030	7	+18	
6863	Y Sgtr	4926	25038	15 30 3.5		-18 54	var F5p	+ .010 - .013	0	var*	5.7 to 6.8 (ptg) 5.8 days
6864		14495	25050	15 40 +3.8		-28 29	6.07 A2	+ .013 - .006			
6865	37 Drac	984	24975	15 52 -0.4		+68 43	6.11 K0	+ .015 - .061	7	-10	
6866	74 Ophi	3680	25036	15 52 +3.0		+ 3 20	4.92 G5	- .004 + .009	13	+ 5	
6867		3236	25025	16 0 2.3		+29 37	6.14 K0	- .005 - .005			
6868	106 Herc	3390	25033	16 4 2.5		+21 55	4.98 K5	+ .013 - .059	12	-32	
6869	58 η Serp	4599	25046	16 8 3.1		- 2 55	3.42 K0	- .556 - .700	48	+ 9	
6870		12524	25067	16 7 4.1		-36 43	5.39 B8	- .004 - .021	8	-12	
6871		4406	25097	16 3 +5.7		-63 4	6.36 A2	- .007 - .103			
6872	ι κ Lyra	3094	25032	16 21 2.1		+36 1	4.34 K0	- .023 + .042	14	-22	
6873		3704	25054	16 34 2.9		+ 5 24	6.04 B5	+ .009 - .007	4	var	V ₀ = -9km
6874		12537	25083	16 44 4.1		-36 17	5.61 K0	+ .013 - .009			
6875		12569	25094	17 2 4.4		-44 10	5.42 B3	+ .005 - .024	6	+14	
6876	108 Herc	3241	25056	17 6 +2.3		+29 49	5.54 A2	+ .009 + .053	15	var	5.5 days, V ₀ = -20km
6877	107 Herc	2981	25057	17 7 2.3		+28 49	5.05 A5	+ .001 + .047	20	var	V ₀ = -27km
6878		4673	25086	17 30 3.3		-10 16	6.32 A0	+ .019 - .011			
6879	20 ε Sgtr	12784	25100	17 32 4.0		-34 26	1.95 A0	- .041 - .129	20	-11	
6880		2357	25047	17 36 1.4		+51 18	6.25 K2	- .037 - .057	8	var	V ₀ = -10km
6881		5024	25090	17 36 +3.4		-12 4	5.73 B8	- .013 - .032			
6882		3316	25082	17 58 2.5		+23 14	5.66 K5	+ .008 + .073	8	-57	
6883		3442	25084	17 56 2.8		+11 59	5.89 A0	+ .007 - .012	9	-55	
6884	ζ Scut	-4712	25101	18 11 3.3		- 8 59	4.83 G5	+ .040 + .042	14	var	V ₀ = -5km
6885		3555	25093	18 24 2.7		+17 47	5.48 K0	+ .066 + .018	13	-19	
6886		2776	25073	18 37 +1.5		+49 40	6.51 K0	- .010 + .019			
6887		3478	25098	18 35 2.7		+16 38	6.38 K0	- .023 - .021		var?	
6888	18 Sgtr	15661	25120	18 36 3.9		-30 48	5.66 K0	- .126 - .075			
6889		12589	25124	18 38 4.0		-36 3	6.25 G5	- .036 + .011			
6890		4277	25112	18 48 3.2		- 3 38	6.38 F2	- .028 - .057			
6891		2782	25085	18 59 +1.5		+49 4	5.09 Ma	- .029 + .049	7	+14	
6892		4598	25123	19 17 3.2		- 7 7	6.53 K0	+ .129 - .008			
6893		12802	25138	19 18 4.0		-34 0	6.38 B8	- .001 + .002		- 6	
6894		12505	25150	19 18 4.6		-48 10	5.48 G5	- .013 - .045	13	var	V ₀ = +4km
6895	109 Herc	3411	25116	19 26 2.6		+21 43	3.92 K0	+ .194 - .250	22	-57	
6896	21 Sgtr	5134	25132	19 24 +3.6		-20 36	4.96 K0	+ .006 - .029	10	-12	8.5A0, 2", binary
6897	α Tele	12379	25154	19 34 4.4		-46 1	3.76 B3	- .018 - .049	11	var?	V ₀ = -1km
6898		3486	25131	19 46 3.1		- 1 38	6.11 F5	- .019 - .013	11	-11	6.8:7.0, close binary
6899		1682	25223	20 5 7.7		-74 2	5.86 K2	+ .010 - .114			
6900		3730	25144	20 13 3.0		+ 5 2	6.56 B9	- .007 + .006			
6901		3160	25130	20 36 +2.0		+38 41	6.45 K2	+ .022 + .002			
6902		3682	25153	20 50 2.9		+ 7 59	5.69	+ .001 - .008	7	var	Composite, G0, A3
6903	2 μ Lyra	3410	25137	20 56 2.0		+39 27	5.04 A2	- .022 - .011	10	var	V ₀ = -25km
6904		3016	25147	21 0 2.4		+27 20	6.20 A0	- .003 + .006	6	var?	V ₀ = -37km*
6905	ζ Tele	12153	25183	21 8 4.6		-49 7	4.14 K0	+ .138 - .245	22	-31	

6863: Velocity probably varies in a long period as well.

Precession in declination, +0.03.

6904: 6.6:7.6, close binary.

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No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
6906		3533	25160	21 ^m 23 ^s + 2.7		+14° 55'	6.45 B9	+ .007 - .010		$\frac{\text{km}}{-25}$	
6907		14965	25175	21 26 3.8		-29 53	5.86 G0	- .005 + .027			
6908		9063	25202	21 20 5.2		-57 35	5.79 K0	+ .039 - .038	"012		12m, 1".8
6909		13184	25174	21 30 3.7		-26 42	6.23 A5	+ .001 - .030	9		6.9:7.0, 2", binary
6910		12626	25185	21 32 4.1		-39 3	5.65 A2	- .006 - .040			
6911		2079	25145	21 39 + 1.3		+53 15	6.21 A2	+ .005 - .019	15	- 4	
6912		813	25366	21 42 12.3		-81 53	6.34 A0	+ .014 - .005		-12	
6913	22 λ Sgr	13149	25180	21 48 3.7		-25 29	2.94 K0	- .047 - .188	36	-43	
6914		13192	25184	21 52 3.7		-26 49	6.28 A3	- .001 - .041			
6915		12564	25201	21 58 4.3		-43 54	6.50 K0	- .005 + .023			
6916	ν Pavo	5879	25227	22 2 + 5.6		-62 20	4.81 B8	- .003 - .048	10	+59	
6917		3259	25165	22 7 2.3		+29 46	5.71 A2	+ .013 - .025	13	var	9.6 days, $V_0 = +8\text{km}^*$
6918	59d Serp	3936	25176	22 6 3.1		+ 0 8	var *	- .010 - .005	12	var*	4.9 to 5.6, irregular*
6919		5203	25186	22 6 + 3.5		-17 52	6.03 B8	- .006 + .004		-35	
6920	43 ϕ Drac	889	25114	22 12 - 0.9		+71 17	4.24 A0p	- .008 + .037	10	var*	4.5:6.2, close binary
6921		12824	25209	22 12 + 4.1		-38 55	6.65 B8	- .008 - .009		-28	
6922		12319	25216	22 25 4.5		-47 17	5.70 K0	+ .008 - .006			
6923	39 Drac	1809	25151	22 27 0.9		+58 45	4.85 A2	- .040 + .060	22	var*	4.9:8.0, 4", binary*
6924		3259	25178	22 40 2.4		+26 24	6.36 B3	- .008 - .002		var	$V_0 = -17\text{km}$
6925		3716	25194	22 52 3.0		+ 3 41	6.14 K2	- .009 - .007			
6926		13206	25211	22 43 + 3.7		-26 39	6.46 A0	+ .001 + .004			
6927	44 χ Drac	839	25122	22 52 - 1.1		+72 41	3.69 F8	+ .522 - .361	122	var	281 days, $V_0 = +33\text{km}^*$
6928		3790	25198	23 6 + 2.9		+ 6 8	5.62 B8	- .004 - .026	7		
6929		13170	25218	23 12 3.7		-25 19	6.23 B2p	+ .003 - .006			
6930	γ Scut	5071	25220	23 30 3.4		-14 38	4.73 A3	.000 - .002	22	-41	
6931		12871	25249	23 56 + 4.3		-41 59	6.27 A5	- .003 - .025			
6932		5077	25232	24 5 3.4		-14 39	5.99 A0p	+ .019 + .022	11	-16	
6933		4982	25239	24 19 3.5		-18 48	5.76 K0	+ .036 - .099	9	- 1	
6934	δ^1 Tele	12550	25269	24 21 4.4		-45 59	5.05 B8	- .014 - .035	5	var	
6935	60 Serp	4641	25234	24 29 3.1		- 2 3	5.44 K0	+ .027 - .034	13	var	3.2 days, $V_0 = +27\text{km}$
6936		13281	25263	24 31 + 3.9		-33 3	5.44 A3	- .004 - .049	19	+ 9	11m, 3", cpm
6937		12600	25272	24 43 4.3		-43 35	5.71 K0	- .009 - .024			
6938	δ^2 Tele	12556	25273	24 38 4.4		-45 50	5.33 B5	- .002 - .011	3	var	$V_0 = -6\text{km}$
6939		7418	25294	24 43 5.3		-58 47	6.50 G0	+ .025 - .128			
6940		4675	25253	24 53 3.2		- 5 48	6.33 G5	+ .006 - .023			
6941		-3727	25256	25 7 + 3.0		+ 4 0	6.50 B5	- .010 - .020		-22	
6942		12696	25285	25 23 4.2		-39 46	5.25 A2	+ .032 - .042	15	- 2	
6943		3347	25250	25 27 2.5		+23 48	5.72 B5	- .004 - .010	4	var	$V_0 = -17\text{km}$
6944		4988	25279	25 35 3.5		-18 28	5.17 A0	- .004 - .028	13	-37	
6945	42 Drac	1271	25212	25 42 0.2		+65 30	4.99 K0	+ .100 - .028	16	+33	
6946		4713	25282	25 53 + 3.3		-10 52	5.80 B3	- .004 - .019		-17	9m, 12", cpm
6947	U Sgr	5047	25287	26 0 3.5		-19 12	var F8	- .010 - .003		var*	6.5 to 7.3, 6.7 days
6948		12704	25304	26 2 4.2		-39 58	6.27 F0	+ .037 - .093			
6949		1899	25233	26 20 0.8		+59 29	6.47 K0	+ .052 + .042	11	-10	
6950		3821	25280	26 24 2.6		+20 45	6.59 G5	+ .006 - .261	28		
6951	θ CorA	13378	25313	26 22' + 4.3		-42 23	4.69 G5	+ .028 - .022	7	var?	$V_0 = -2\text{km}$
6952		12896	25315	26 29 4.1		-38 48	6.55 B8	+ .018 - .030		-16	
6953	κ CorA	12895	25314	26 29 4.1		-38 48	5.95 A	- .007 - .032		-20	22", cpm
6954		11158	25324	26 29 4.8		-52 58	6.30 K0	- .013 - .056			
6955		3529	25284	26 38 2.7		+16 52	5.67 A0	- .042 - .033	14	var?	$V_0 = -8\text{km}$

6917: In Ursa Cluster?

6918: Composite, A0, G. 8m, 4", binary. $V_0 = -29\text{km}$.6920: $V_0 = -17\text{km}$, two spectra.6923: Also 7.1m, 89", cpm. $V_0 = -12\text{km}$.

Precession in declination, +0.04.

6927: Visual orbit, $a = 0.06$.6947: $V_0 = -2\text{km}$.

CATALOGUE OF BRIGHT STARS

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No	Name	DM	GC	RA	Ann	Decl	Magn	Prop Motion		Par	Rad	Remarks
				1900	Var	1900	Spec	RA	Decl		Vel	
6956	61 Serp	5098	25303	26 ^m 39 ^s + 3.4		-14° 43'	6.34 A2	+ .016	- .021		km	
6957		3504	25302	26 47 3.1		- 1 4	5.81 A2	+ .007	- .009		-27	
6958		3737	25308	27 8 3.0		+ 3 35	6.34 B9	+ .027	+ .012	.007		
6959		5099	25310	27 1 3.4		-14 56	5.88 K2	- .007	- .001		2	+ 1
6960		13338	25327	27 24 3.9		-33 5	5.38 B3	+ .005	- .016		3	-17
6961	24 Sgtr	14472	25336	27 47 + 3.7		-24 6	5.71 K2	.000	- .013		3	-14
6962		5106	25333	27 56 3.4		-14 56	5.74 A0	+ .020	- .015			
6963		-4791	25329	28 2 3.2		- 5 59	6.37 A0	+ .007	- .019			
6964	25 Sgtr	663	25590	28 0 14.4		-83 25	6.77 K2	- .014	+ .004			
6965		14479	25358	28 26 3.7		-24 18	6.39 F0	- .003	- .004		4	+ 9
6966		3363	25328	28 36 + 2.5		+23 33	5.99 K5	+ .005	+ .010		6	- 5
6967		3741	25342	28 35 2.9		+ 8 12	6.26 B8	+ .001	- .005		5	
6968		3223	25340	29 1 2.3		+30 29	5.37 B8	+ .005	+ .005		8	-12
6969		5189	25378	29 23 3.6		-20 55	6.52 A5	+ .028	- .016			
6970		4681	25374	29 29 3.3		-11 3	5.25 G5	+ .046	- .004		11	+ 7
6971	α Scut	3227	25357	29 35 + 2.3		+30 49	6.43 B3	+ .005	+ .005		4	- 5
6972		15123	25395	29 37 3.8		-29 47	6.48 K0	+ .010	- .010		6	
6973		4638	25385	29 46 3.3		- 8 19	4.06 K0	- .018	- .314		16	+36
6974		2232	25343	29 54 1.4		+52 2	6.43 B9	- .015	+ .005			
6975		3847	25371	30 1 2.6		+20 23	6.44 A2	- .001	- .006		9	var
6976	45 Drac	3573	25381	30 5 + 2.8		+10 49	6.38 A0	- .001	- .009		10	-35
6977		3740	25398	30 49 2.6		+18 7	5.73 A0	+ .009	+ .002		12	var
6978		2113	25362	30 51 1.0		+56 58	4.95 F8p	- .009	- .007		5	-12
6979		1276	25348	30 57 0.2		+65 22	6.31 A3	- .021	+ .071		16	var*
6980		3385	25407	31 21 2.5		+23 31	5.76 K0	.000	+ .002		7	+16
6981	ζ Pavo	3560	25411	31 26 + 2.7		+16 54	6.17 G0	+ .043	- .073		21	+ 9*
6982		2353	25522	31 21 7.0		-71 31	4.10 K0	.000	- .163		30	-17
6983		2238	25396	31 41 1.4		+52 16	5.42 K0	- .006	+ .004		7	-24
6984		3245	25406	31 27 2.2		+34 22	5.93 B5	+ .001	- .001			var
6985		3783	25422	31 42 2.9		+ 9 3	5.40 F2	- .006	- .128		30	-22
6986	3 α Lyra X Ophi	12644	25474	31 40 + 4.5		-48 0	6.04 A5	+ .025	+ .015			
6987		3855	25427	31 47 2.9		+ 6 36	5.41 F2	- .031	- .143		29	var
6988		5076	25450	31 55 3.6		-21 29	5.80 A5	- .007	- .072			
6989		5139	25465	32 24 3.4		-14 6	6.45 B9	+ .015	.000			11m, 2", fixed
6990		14572	25475	32 26 3.6		-23 35	5.75 B9	- .006	- .023			
6991		12699	25488	32 24 + 4.3		-43 16	5.36 Mb	- .056	- .054		0	+28
6992		3530	25446	32 32 2.8		+11 20	6.36 A0	- .026	- .013		8	-27
6993		3521	25456	32 28 3.1		- 0 24	5.80 A0	+ .007	- .024		10	+10
6994		1314	25593	32 28 9.2		-77 58	6.33 G0	- .010	+ .188			In Ursa Cluster
6995		3563	25449	32 40 2.7		+16 7	6.38 K0	+ .004	+ .043			
6996	3 α Lyra X Ophi	3942	25529	32 36 + 5.9		-64 44	6.54 A2	- .004	- .034			
6997		3154	25443	32 57 2.2		+33 23	5.46 B8	- .025	- .004		7	-27
6998		5081	25484	32 56 3.6		-21 8	5.91 G5	- .081	- .154		60	
6999		4331	25481	33 9 3.1		- 3 17	6.47 F8	- .013	+ .030		27	-21
7000		3529	25480	33 9 3.1		- 1 12	6.49 F2	- .031	- .013			7.2:7.2, 12.1 years
7001	3 α Lyra X Ophi	3238	25466	33 33 + 2.0		+38 41	0.14 A0	+ .200	+ .281	121	-14	Vega
7002		3780	25485	33 34 2.9		+ 8 44	var M6	- .019	+ .004		0	-86*
7003		3027	25464	33 42 1.8		+43 8	6.26 A5	+ .023	- .014		14	var
7004		3943	25561	33 52 5.8		-64 39	5.84 K0	+ .007	- .038			
7005		12668	25535	33 56 4.5		-48 11	6.44 K0	- .028	- .123			

6979: Two spectra.

6981: Velocity of fainter +2km.

6983: Also 8m, 26", fixed.

Precession in declination, +0.05.

7002: Very close double, equal magnitudes; absorption lines give -71km.

18^h

No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
7006		699	25372	34 ^m 35 ^s -2.9		+77° 28'	5.84 KO	-".002 +".001	".008	+ km I	
7007		4648	25524	34 35 +3.3		- 7 53	6.08 KO	-.003 -.034			
7008		3891	25520	34 42 3.0		+ 5 10	6.30 G0p	+ .009 -.015	6	-18	
7009	XY Lyra	3476	25502	34 48 2.0		+39 35	var Mb	.000 +.003	3	-18	5.8 to 6.8, irregular
7010		3798	25527	35 1 2.9		+ 7 16	6.36 KO	+ .001 -.058			
7011	26 Sgtr	14625	25563	35 46 +3.7		-23 56	6.14 A2	+ .030 -.027	21	+ I	
7012		3948	25604	35 38 5.9		-64 58	4.90 A2	+ .018 -.159	30	+ 5	
7013		1283	25491	35 54 0.2		+65 24	6.00 A3	+ .014 +.081	8		
7014		5156	25564	36 1 3.4		-14 40	6.50 F5	+ .001 -.001			
7015		6229	25606	36 5 5.5		-61 12	6.16 K2	+ .025 -.025			
7016		3262	25547	36 13 +2.3		+30 45	6.48 KO	-.010 +.028			
7017		3446	25541	36 20 1.9		+40 50	6.11 A0	+ .022 -.005	10	var?	
7018		1637	25519	36 39 0.5		+62 26	5.60 A0	-.010 +.042	9	var?	V ₀ = -10km
7019		3254	25553	36 49 2.0		+38 16	6.48 A3	+ .020 -.002	11	+17	
7020	δ Scut	4796	25580	36 48 3.3		- 9 9	var F0	+ .010 -.002	17	var*	5.0 to 5.2, 0.19 days*
7021	λ CorA	13036	25599	36 55 +4.1		-38 25	5.13 A0	-.001 -.059	19	-26	
7022		-9180	25618	36 55 5.1		-56 59	6.30 KO	-.053 -.009			
7023		5134	25588	37 2 3.5		-19 23	6.49 Mb	-.004 -.026			
7024		4670	25586	37 12 +3.2		- 7 10	6.15 G5	-.009 +.003			
7025		536	25334	37 22 -7.9		+83 6	6.15 A2	+ .012 -.025	9	-11	
7026		12946	25609	37 22 +4.1		-36 49	6.38 KO	-.004 +.062			
7027		1939	25701	37 25 7.4		-73 6	6.22 A0	+ .001 +.020			6.3:8.7, 2", binary
7028		2263	25559	37 35 1.4		+52 6	5.85 B9	-.001 +.024			
7029		12876	25613	37 38 4.0		-35 44	4.82 B3	-.001 -.038	7	+ 3	
7030		3332	25583	37 55 2.3		+31 31	6.47 A0	+ .001 +.004			
7031		12864	25628	38 0 +4.2		-39 47	5.48 *	+ .006 -.012	6	var?	V ₀ = -17km
7032	ε Scut	4686	25610	38 4 3.3		- 8 22	5.09 G5	+ .018 +.008	11	-11	
7033		3285	25597	38 32 2.2		+34 39	6.12 B5	+ .005 +.004	4	var*	25", fixed
		3286	25600	38 34 2.2		+34 49	8.6 B8	+ .006 -.001			
7034		4859	25617	38 28 3.2		- 6 55	6.32 F5	+ .042 -.057			
7035		13394	25636	38 41 +3.7		-25 7	5.76 B8	+ .003 -.027			
7036	θ Pavo	3754	25706	38 48 5.9		-65 11	5.89 A3	+ .043 -.086		0	
7037		12135	25680	39 15 4.6		-50 12	6.56 F0	-.003 -.034			
7038		5131	25653	39 20 3.6		-21 6	6.35 F5	+ .025 -.022			
7039	27 φ Sgtr	13170	25661	39 25 3.7		-27 6	3.30 B8	+ .052 -.002	15	var	V ₀ = +22km
7040	4 Aqil	3766	25652	39 47 +3.0		+ 1 57	5.04 B5	+ .004 -.020	8	-13	
7041		3505	25634	39 57 2.0		+39 13	6.55 K5	+ .010 -.005			
7042		1641	25603	40 4 0.5		+62 39	6.01 KO	-.002 +.060			
7043		3246	25640	40 6 2.1		+36 28	6.25 KO	+ .019 +.062			
7044		3348	25643	40 6 2.3		+31 50	5.52 F0	-.039 -.133	26	- 3	
7045		5154	25677	40 7 +3.5		-19 43	6.55 Mb	-.004 +.002			
7046	28 Sgtr	4854	25687	40 19 3.6		-22 30	5.80 K2	+ .029 -.002	6	- 3	
7047		3439	25663	40 30 2.5		+23 29	6.17 F2	+ .004 -.090	23	-14	
7048		3941	25674	40 33 2.9		+ 5 24	5.72 A0	+ .010 -.013	10	var	6.3:6.7, 2", binary
7049	46 Drac	2107	25635	40 42 1.2		+55 26	5.08 A0	-.005 +.020	10	var*	9.8 days, V ₀ = -30km
7050	μ CorA	12807	25722	40 45 +4.2		-40 31	5.28 G0	+ .006 -.016	19	var?	V ₀ = -18km
7051	4 ε ¹ Lyra	3509	25667	41 2 2.0		+39 34	5.06 A3	+ .012 +.056			3", binary
7052			25666	41 2 2.0		+39 34	6.02 A3	-.002 +.056			208", cpm
7053	5 ε ² Lyra	3510	25668	41 4 2.0		+39 30	5.14 A5	+ .002 +.061	16	-33	2", binary
7054				41 4 2.0		+39 30	5.37 A5				

7020: 10m, 52", fixed. V₀ = -45km.

7031: Composite, F8, A2.

7033: V₀ = -19km. GC 25600, V₀ = -6km.

Precession in declination, +0.06.

7049: Two spectra.

CATALOGUE OF BRIGHT STARS

18^h

No	Name	DM	GC	RA	Ann	Decl	Magn	Prop Motion		Par	Rad	Remarks		
				1900	Var	1900	Spec	RA	Decl		Vel			
7055	6] ζ Lyra	4797	25718	41 ^m 12 ^s + 3.3		-10° 14'	5.81 F5	-.010	.000	.005	+10	14m, 3", fixed		
7056		3222	25676	41 20 2.1	2.1	+37 30	4.29 A3	+.023	+.021			var*	44", cpm	
7057	7] ζ Lyra	3223	25678	41 22 2.1	2.1	+37 29	5.87 A3	+.017	+.016			var?		
7058	5 Aqil	3550	25695	41 21 2.5	2.5	+21 53	6.39 A0p	+.010	+.008		12	-17		
7059		3559	25713	41 19 3.1	3.1	- 1 4	5.68 A0	+.009	-.023		14	+17	5.9:7.4, 13"; binary	
7060	110 Herc	2126	25657	41 21 +1.3		+53 47	6.08 A2	+.001	-.012		9	0		
7061		3926	25698	41 21 2.6	2.6	+20 27	4.26 F5	-.014	-.338		53	+23		
7062	η' CorA	12841	25748	41 38 4.3	4.3	-43 47	5.59 A2	+.022	-.017			- 6		
7063	β Scut	4582	25730	41 52 3.2	3.2	- 4 51	4.47 G0	-.010	-.021		8	var	834 days, V ₀ = -21km	
7064	R Scut	3349	25721	42 3 2.4	2.4	+26 33	4.92 K0	+.015	+.018		18	-17		
7065		12779	25758	42 4 +4.4	4.4	-45 55	5.79 K0	+.062	+.060		18			
7066	4760	25735	42 9 3.2	3.2	- 5 49	var K0p	-.046	-.029		2	var*	4.5 to 9, 146 days		
7067	3817	25729	42 18 2.6	2.6	+18 36	6.27 K5	+.023	-.026				var?	V ₀ = -23km	
7068	η ² CorA	12854	25766	42 23 4.3	4.3	-43 33	5.64 B9	-.007	-.026				var?	V ₀ = -45km
7069	111 Herc	3823	25734	42 36 2.6	2.6	+18 4	4.37 A3	+.067	+.110		37	var		
7070	λ Pavo	13128	25764	42 38 +4.0	4.0	-34 51	6.56 K0	+.041	-.104					
7071		2034	25715	42 54 1.2	1.2	+54 47	6.26 G5	+.002	-.023					
7072	λ Pavo	5079	25761	42 54 3.5	3.5	-18 42	6.46	-.010	-.006				6.9K0:7.6A1, 0".2	
7073		3137	25732	43 1 1.9	1.9	+41 20	5.88 B9	-.007	-.009					
7074	5983	25823	42 57 5.6	5.6	-62 18	4.42 B2	-.006	-.023		3	+20			
7075	29 Sgtr	1845	25705	43 8 +0.7	0.7	+60 57	6.23 K0	-.007	+.016		13	-25	6.3:9.0, 2", binary	
7076		3884	25756	43 5 3.0	3.0	+ 4 8	6.34 K5	+.001	-.003					
7077	κ Tele	5182	25782	43 42 3.5	3.5	-19 15	6.42 A0	+.014	+.008					
7078		5277	25785	43 44 3.6	3.6	-20 26	5.37 K0	+.003	+.034		10	var	V ₀ = -19km	
7079	3461	25772	44 6 2.5	2.5	+23 24	6.04 F5	+.018	-.033			0			
7080	30 Sgtr	2551	25755	44 8 +1.7	1.7	+46 12	6.47 A0	-.007	-.014		8	0		
7081		3369	25768	44 11 +2.3	2.3	+31 39	5.78 B3	+.004	-.006		4	-15		
7082	S Scut	1023	25707	44 18 -0.7	-0.7	+70 41	6.56 K2	-.005	-.005					
7083		4922	25801	44 20 +3.2	3.2	- 6 1	6.22 K0	-.001	-.007					
7084	2280	25757	44 29 1.3	1.3	+52 53	5.76 B5	+.013	-.009				var	V ₀ = -20km	
7085	κ Tele	4027	25805	44 32 +3.1	3.1	+ 0 44	6.26 A0	-.006	-.026		8	-45		
7086		3798	25786	44 32 2.6	2.6	+19 13	5.82 A0	+.011	-.025		11	var	V ₀ = +3km	
7087	11268	25859	44 44 4.8	4.8	-52 13	5.27 K0	+.032	-.107		12	-44			
7088	4881	25835	44 50 3.6	3.6	-22 17	6.24 F0	-.032	-.037		13				
7089	4726	25824	44 54 3.3	3.3	- 8 1	var N3	-.003	+.001			+11	7.0 to 8.0, 144 days?		
7090	8 Lyra	2767	25776	45 3 +1.6	1.6	+48 58	6.41 A0	.000	+.014		8	-17		
7091		3545	25810	45 8 2.5	2.5	+24 56	6.56 A0	-.003	-.017					
7092	9 v Lyra	12669	25861	45 1 4.5	4.5	-46 43	5.49 Ma	+.015	-.005		5	-28		
7093		11273	25871	45 18 4.7	4.7	-52 3	6.48 B8	+.008	-.007			-23		
7094	4859	25846	45 28 3.3	3.3	- 9 53	5.89 F0	-.004	-.004						
7095	8 Aqil	12769	25872	45 28 +4.5	4.5	-48 29	6.50 A0	-.006	-.047					
7096		2770	25799	45 38 1.6	1.6	+48 39	6.02 A3	-.020	+.042					
7097	8 Aqil	12676	25873	45 34 4.5	4.5	-46 42	6.34 A2	-.031	+.022					
7098		3373	25836	45 57 2.3	2.3	+31 31	6.50 B9	-.009	-.016					
7099	3685	25851	46 3 2.8	2.8	+10 52	6.63 K2	+.018	+.007		6		7.0:8.0, 4", binary		
7100	8 Lyra	3227	25837	46 3 +2.2	2.2	+32 42	5.77 B2	.000	-.012		4	-16		
7101	8 Aqil	4392	25862	46 7 3.2	3.2	- 3 26	6.04 A3	-.004	-.027		13	+12		
7102	9 v Lyra	3228	25841	46 9 2.2	2.2	+32 26	5.16 A2	-.015	-.018		16	+10		
7103	8 Lyra	13562	25876	46 15 3.7	3.7	-26 46	6.32 G5	+.009	-.051					
7104		15449	25880	46 16 3.8	3.8	-29 30	6.29 K0	-.005	-.044					

7056: 4.3 days, V₀ = -26km.
7066: V₀ = +38km.

Precession in declination, +0.07.

18^h

No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
7105	10 β Lyra	16356	25881	46 ^m 17 ^s +3.9		-30° 51'	6.63 B8	-".004 - ".029		km	
7106		3223	25847	46 23 2.2		+33 15	var Bp	+ .001 - .007	"003	var*	3.4 to 4.3, 12.9 days*
		3224	25848	46 25 2.2		+33 14	7.8 B3	- .006 - .008		var*	46", fixed with 7106
7107		κ Pavo	3603	25930	46 38 6.2		-67 22	var F5p	- .006 + .009		var*
7108		12206	25907	46 50 4.6		-50 0	6.62 A2	- .012 - .012			
7109		3787	25886	47 27 +2.7		+13 51	6.09 B9	- .010 - .019	6		
7110		4876	25897	47 32 3.3		- 9 42	6.26 A3	+ .035 - .004			
7111		6002	25944	47 34 5.6		-62 55	6.50 K0	+ .004 + .030			
7112		3104	25883	47 40 2.4		+28 39	6.43 K0	+ .007 + .006	5	-23	
7113	112 Herc	3582	25895	48 0 2.6		+21 18	5.33 B9	- .011 - .012	9	var	6.4 days, V ₀ = -20km
7114	33 Sgtr	5176	25914	48 2 +3.6		-21 29	5.75 K0	+ .006 - .017	4	- 4	
7115		3295	25889	48 6 2.1		+36 25	6.01 B5	- .012 - .026		-21	
7116	32 v' Sgtr	4907	25918	48 8 +3.6		-22 52	4.96 G5	+ .007 - .013	7	-12	11m, 2", fixed
7117		835	25803	48 16 -1.5		+73 58	5.38 G5	+ .004 + .077	14	+ 3	
7118		3167	25906	48 55 +1.9		+41 16	6.20 B9	- .021 - .004			
7119		5143	25931	48 59 +3.4		-15 44	5.04 B5	- .012 - .007	6	- 2	
7120	35 v ² Sgtr	4915	25939	49 4 3.6		-22 48	5.04 K0	+ .100 - .029	9	var	V ₀ = -110km
7121	34 σ Sgtr	13595	25941	49 4 3.7		-26 25	2.14 B3	+ .012 - .058	21	-11	
7122		13761	25956	49 9 4.3		-42 50	5.42 K0	- .039 - .028	5	-21	
7123		2294	25904	49 21 +1.3		+52 51	5.62 G5	- .048 + .268	49	+ 2	
7124	50 Drac	682	25839	49 36 -1.9		+75 19	5.37 A0	- .016 + .072	10	var*	4.1 days, V ₀ = -8km
7125	47 ° Drac	1925	25905	49 44 +0.9		+59 16	4.78 K0	+ .079 + .024	8	var	138.4 days, V ₀ = -20km
7126		5078	25955	49 45 3.5		-16 30	5.58 F5	- .029 - .185	29	-42	
7127	ω Pavo	7213	26008	49 43 5.3		-60 20	5.14 K0	- .124 + .031	13	+180	
7128		14844	25963	49 57 3.6		-23 18	5.89 B8	- .004 - .012			
7129		12982	25973	49 54 +4.1		-37 28	5.41 B5	+ .005 - .028	8	+ 3	
7130		3404	26023	49 54 6.1		-66 47	6.06 K0	+ .006 - .043			
7131	11 δ' Lyra	3307	25934	50 14 2.1		+36 51	5.51 B3	- .002 - .006	4	var	88.1 days, V ₀ = -26km
7132		3150	25942	50 15 2.4		+27 47	5.82 K2	- .021 - .076			
7133	113 Herc	3524	25954	50 32 2.5		+22 31	4.56 *	+ .003 + .001	15	var	245.3 days, V ₀ = -23km
7134	λ Tele	9402	26016	50 28 +4.8		-53 4	5.03 B9	+ .014 - .003		var	V ₀ = -6km
7135		3978	25964	50 35 2.9		+ 6 29	5.66 G5	+ .015 - .090	9	var	
7136		13012	26005	50 38 4.2		-39 57	6.36 A3	+ .033 + .028			
7137		2686	25935	50 45 1.5		+50 35	4.97 G5	.000 - .029	16	+ 8	
7139	12 δ ² Lyra	3319	25959	51 0 2.1		+36 46	4.52 Mb	- .014 + .007	6	-27	
7140		3257	25965	51 13 +2.2		+33 50	6.08 G0	- .012 - .001	6	var*	10m, 2", fixed*
7141	63 θ Serp	3916	25991	51 15 3.0		+ 4 4	4.50 A5	+ .043 + .030		-46	
7142		3917	25993	51 16 3.0		+ 4 4	5.37 A5	+ .045 + .024	23	-54	22", binary
7143		3602	25995	51 11 3.1		- 1 56	6.20 A0	- .021 - .019	8	-26	
7144		3730	26000	51 24 3.0		+ 2 21	6.28 K0	+ .003 - .013			
7145	36 ξ' Sgtr	5339	26012	51 24 +3.6		-20 47	5.06 A0	- .003 - .009	0	+ 2	
7146		3177	25972	51 40 1.9		+41 28	5.57 K0	- .003 - .005	10	- 9	
7147		3778	25997	51 38 2.7		+17 52	6.41 B9	+ .006 - .022			
7148		3779	25999	51 41 2.6		+17 59	5.72 K2	- .047 - .166	9		
7149	η Scut	-4976	26013	51 42 3.2		- 5 59	5.04 K0	+ .061 - .037	25	-93	
7150	37 ξ ² Sgtr	5201	26019	51 46 +3.6		-21 14	3.61 K0	+ .031 - .016	14	-20	
7151		16189	26029	51 56 3.9		-31 10	6.14 K0	- .049 - .059			
7152	ε CorA	13001	26038	51 59 4.0		-37 14	4.87 F5	- .131 - .100	26	+53	
7153		1915	25960	52 2 1.0		+57 22	6.41 K0	+ .015 - .008	6	- 6	
7154		2793	25980	52 9 1.6		+48 44	5.87 F5	- .067 - .122	21	-11	12m, 1".5, binary

7106: V₀ = -19km; spectra of three stars appear, one with emission lines. GC 25848, V₀ = -13km.

7107: V₀ = +36km.

7124: Two spectra.

Precession in declination, +0'.08.

7133: Composite, G0, A3.

7140: Also 7.1m, 45", fixed. V₀ = -25km.

CATALOGUE OF BRIGHT STARS

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18^h

No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
7155		13574	26037	52 ^m 13 ^s +3.7		-25° 1'	6.60 A0	+ .004 - .001		km	
7156		13032	26044	52 16 4.1		-39 40	6.45 A0	+ .006 - .036			
7157	13R Lyra	3117	25996	52 18 1.8		+43 49	var M5	+ .019 + .077	.006	var*	4.0 to 4.5, 43 days
7158	64 Serp	3738	26020	52 15 3.0		+ 2 24	5.65 B8	- .009 - .014	6		
7159		4928	26039	52 23 +3.6		-22' 40	6.04 A2	- .025 + .014			
7160		604	25868	52 42 -4.2		+79 50	6.33 A5	+ .021 + .075	11	var?	V ₀ = -7km
7161		3180	26117	52 49 +6.4		-68 54	5.94 G0	- .011 - .006			
7162		3267	26030	53 17 2.2		+32 46	5.21 G0	+ .165 - .161	63	-47	9m, 62 years
7163		3989	26050	53 30 2.9		+ 6 7	6.38 F5	- .009 - .106		- 9	
7164		5155	26065	53 36 +3.5		-18 42	6.34 G5	.000 - .044			
7165	FF Aqil	3799	26052	53 48 +2.7		+17 14	var F5	- .009 - .011	3	var*	6.4 to 6.9, 4.5 days*
7166		-5172	26068	53 47 3.4		-12 59	5.36 B5	- .003 - .020	6	-13	5.9:6.4, 0".2
7167	10 Aqil	3838	26064	54 11 2.8		+13 46	5.94 A3p	- .007 - .055	12	+14	
7168		13614	26089	54 17 3.7		-25 5	6.38 K0	+ .053 + .039	9		
7169		13017	26099	54 18 4.1		-37 12	6.84 B8	+ .007 - .022			
7170		13018	26100	54 19 4.1		-37 12	6.62 B8	+ .006 - .042			13", cpm
7171		3858	26067	54 24 +2.6		+19 39	6.22 B8	- .001 - .008		- 1	
7172	11 Aqil	3841	26075	54 29 2.8		+13 29	5.37 F5	+ .009 - .126	34	+16	
7173		-3951	26080	54 33 2.8		+10 0	6.52 B5	+ .019 - .013		-22	
7174		3373	26059	54 37 2.1		+38 8	5.75 B8	- .005 - .003	5	var	3 days ±
7175	48 Drac	1922	26049	55 4 +1.0		+57 41	5.71 K0	- .037 - .069	10	-34	
7176	13e Aqil	3736	26091	55 5 2.7		+14 56	4.21 K0	- .056 - .075	22	var	V ₀ = -48km
7177		13839	26126	55 4 4.2		-42 3	6.39 A2	+ .045 .000			
7178	14 γ Lyra	3286	26086	55 12 2.2		+32 33	3.30 A0p	- .006 - .003	15	var	V ₀ = -22km
7179		3544	26087	55 30 +2.0		+40 33	6.12 B5	+ .002 - .003		-19	9m, 19", fixed
7180	52 v Drac	915	26024	55 37 -0.7		+71 10	4.91 K0	+ .048 + .042	10	var	V ₀ = -7km
7181		3418	26101	55 41 +2.4		+26 6	5.28 K0	+ .083 - .010	10	var?	V ₀ = -24km
7182		4946	26127	55 36 3.6		-22 50	6.34 K5	+ .001 - .003			
7183		3549	26107	55 45 2.5		+22 40	6.41 Ma	- .028 + .009			
7184		1849	26069	55 50 1.0		+58 5	6.31 A2	+ .011 + .045	8	0	6.8:7.4, 0".5, 233 years
7185		3602	26095	55 50 +2.0		+39 5	6.25 B5	- .003 + .009		-18	
7186		5185	26132	55 51 3.4		-15 25	6.38 G5	- .004 + .002	6	+21	
7187		1309	26055	55 59 0.3		+65 7	5.78 K0	- .027 - .018	8	- 4	
7188	ζ CorA	13855	26165	56 2 4.2		-42 14	4.85 A0	+ .051 - .054	23	- 7	
7190		11893	26182	56 10 4.7		-51 10	6.01 K5	+ .025 - .146			
7191		1669	26074	56 17 +0.6		+62 16	6.44 K0	+ .003 - .041	6	- 8	6.6:9.0, 17", cpm
7192	15 λ Lyra	-3424	26115	56 14 2.3		+32 0	5.11 K5	+ .008 + .009	6	-15	
7193	12 Aqil	4840	26141	56 20 3.2		- 5 53	4.15 K0	- .024 - .034	18	-44	
7194	38 ζ Sgtr	16575	26161	56 15 3.8		-30 1	2.71 A2	- .019 - .005	32	var?	V ₀ = +22km*
7195		-13655	26159	56 20 3.7		-24 59	5.73 K2	- .026 - .179	8		
7196		2705	26103	56 30 +1.5		+50 41	6.37 G5	+ .020 + .014			
7197		13300	26177	56 28 4.1		-38 24	5.73 F0	+ .009 + .007		+16	
7198		3879	26136	56 43 +2.6		+19 10	6.51 K0	+ .013 - .002			
7199		683	26035 26036	56 55 -2.0		+75 39	7.4 A0 6.60	+ .004 + .018 + .011 + .025	6	var var	6", binary
7200		4022	26147	57 4 +2.6		+20 42	6.55 B3	+ .001 + .014		var	16.0 days, V ₀ = -10km
7201		3555	26130	57 2 2.0		+40 33	6.77 Ma	- .003 - .013			
7202		3429	26151	57 14 2.4		+26 9	5.50 B3	- .011 - .012	6	var	V ₀ = -14km
7203		5273	26184	57 11 3.5		-19 23	6.03 G5	+ .004 + .005			9m, 8", cpm
7204		3287	26142	57 14 2.2		+33 40	6.15 K0	+ .002 - .001	7	-26	

7157: V₀ = -28km.

7165: Velocity varies in 4109 days as well. 12m, 6", fixed.

Precession in declination, +0".08.

7194: 3.4:3.6, 0".6, 20.8 years.

18^h - 19^h

No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
7205		5275	26188	57 ^m 15 ^s + 3.5		-19° 14'	6.33 F5	+ .004 - .016		km	
7206		3608	26164	57 28 2.5		+24 53	6.92 K2	- .007 - .003			
7207		3561	26167	57 35 2.5		+22 8	6.37 A3	+ .015 - .011	.010	var?	V ₀ = -38km
7208		3951	26179	57 33 2.9		+ 8 14	6.62 K2	+ .021 + .020			
7209	14 Aqil	4460	26190	57 39 3.2		- 3 51	5.55 A0	+ .018 + .005	11	-37	
7210		2708	26138	57 43 + 1.5		+50 23	5.24 B3	+ .018 - .001	4	-19	
7211		16306	26209	58 0 3.9		-31 12	5.53 A0	+ .010 - .019		-20	
7212		3295	26180	58 7 2.2		+33 29	6.22 B3	- .008 - .001	4	-23	
7213	ρ Tele	11356	26240	58 25 4.7		-52 29	5.18 G0	+ .027 - .119	17	var	V ₀ = +2km, two spectra
7214		3865	26205	58 29 3.0		+ 1 40	5.72 A2	+ .001 - .069	15	var	Two spectra
7215	16 Lyra	2602	26181	58 37 + 1.7		+46 48	5.06 A5	+ .013 - .088	26	+ 9	
7216		3888	26198	58 31 2.6		+19 31	6.25 K0	- .004 - .008			
7217	39 σ Sgtr	5237	26224	58 41 3.6		-21 53	3.90 K0	+ .078 - .062	30	+25	
7218	49 Drac	2137	26169	58 45 1.2		+55 31	5.52 G5	- .019 - .009	10	+ 9	
7219		3882	26223	59 11 3.0		+ 3 11	6.50 A2	+ .003 + .011	10	-13	
7220	V Aqil	4858	26226	59 4 + 3.2		- 5 50	var Np	+ .015 - .006		-40	6.7 to 8.2
7221		3185	26313	59 17 6.4		-68 35	5.30 K0	+ .148 - .057	22	-10	
7222		3648	26221	59 25 2.6		+21 7	6.50 F2	+ .017 - .024		+ 4	
7223		12901	26272	59 23 + 4.5		-48 27	6.10 A0	+ .012 - .016			
7224		1018	26146	59 30 - 0.4		+69 23	6.40 B9	+ .019 - .042			
7225	15 Aqil	4683	26235	59 40 + 3.2		- 4 11	7.15 K0	- .006 - .034	8	-59	38"
7226		4684	26237	59 41 3.2		- 4 11	5.53 K0	+ .015 - .029		-18	
7227	γ CorA	13048	26263	59 40 4.1		-37 12	5.01 F8	+ .091 - .276	56	-52	2", 119 years
7228	σ Octn	47	28194	59 44 77.1		-89 15	5.48 F0	+ .027 - .004		+12	
7229		2326	26202	59 46 + 1.4		+52 7	6.42 K2	- .012 - .030	6	+ 4	6.5:9.2, 5", cpm*
7230		5223	26259	59 58 3.4		-15 49	5.90 A0p	- .006 - .007		var?	
7231		3642	26251	0 8 3.1		- 1 40	6.45 F0	- .007 - .008			
7232		13049	26283	0 7 4.1		-37 57	6.27 G5	- .189 - .353	60		
7233		9001	26319	0 36 5.0		-55 52	6.50 K0	+ .030 - .112			
7234	40 τ Sgtr	13564	26291	0 42 + 3.7		-27 49	3.42 K0	- .054 - .255	37	var	V ₀ = +45km
7235	17 λ Aqil	3899	26270	0 49 2.8		+13 43	3.02 A0	- .009 - .101	38	var*	12m, 5", binary
7236	16 λ Aqil	4876	26285	0 57 3.2		- 5 2	3.55 B9	- .025 - .089	26	-14	
7237		3453	26266	1 9 2.3		+31 36	5.80 K5	+ .070 - .071	7	+ 6	
7238		3409	26264	1 7 2.3		+30 35	6.39 Ma	+ .025 - .025	5	var?	V ₀ = -16km
7239		5153	26299	1 7 + 3.5		-16 23	5.93 B8	+ .017 + .002			9m, 6"
7240		15403	26308	1 13 3.8		-28 47	6.19 K2	+ .005 - .014			
7241		5206	26306	1 17 3.5		-18 54	6.37 B8	+ .016 - .005			
7242	δ CorA	13061	26322	1 23 4.2		-40 39	4.66 K0	+ .033 - .027	15	+20	
7243	R Aqil	3970	26297	1 33 2.9		+ 8 5	var M6	.000 - .072		+23*	5.5 to 11.8, 302 days
7244		3472	26293	1 53 + 2.3		+29 46	6.62 K5	- .010 - .012	4	-28	
7245		4106	26314	2 3 3.1		+ 0 29	6.44 B9	- .001 + .007			
7246		15041	26329	2 8 + 3.7		-24 49	6.24 B9	+ .015 + .001			
7247		712	26183	2 9 - 2.5		+76 54	6.49 F0	- .042 - .062	24	-28	
7248	18 Aqil	3787	26315	2 16 + 2.8		+10 55	5.10 B8	- .006 - .031	8	var	1.3 days, V ₀ = -19km
7249		5312	26335	2 24 + 3.5		-19 27	5.41 B3	+ .003 + .007	4	-28	
7250		3640	26310	2 28 2.5		+24 6	5.72 A5	+ .050 + .012	14	-22	
7251	51 Drac	2178	26290	2 40 1.3		+53 15	5.35 A0	- .007 + .021	16	var	V ₀ = -24km
7252		2929	26294	2 35 1.5		+49 46	6.55 K5	- .009 + .010	4	+ 9	
7253		3193	26317	2 40 2.4		+28 28	5.46 A5	+ .074 + .083	21	var	V ₀ = -22km

7229: Companion itself a close binary, 10.0:10.1.

7235: V₀ = -25km.

Precession in declination, +0.09.

7243: Absorption lines give +32km.

CATALOGUE OF BRIGHT STARS

19^h

No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
7254	α CorA	13350	26360	2 ^m 40 ^s + 4.1	4.1	-38° 4'	4.12 A2	+ ".087 - ".102	"032	km -18	
7255		-13074	26365	2 45 4.1		-39 59	6.42 KO	- .005 - .050			
7256		13355	26368	2 55 4.0		-36 19	6.58 B9	- .018 - .013			
7257		13933	26375	2 55 4.2		-42 3	5.86 B5	+ .007 - .021		+ 6	
7258		3232	26318	3 3 1.9		+41 16	6.15 B3	- .003 - .009	4	var	1.0 days, V ₀ = -21km
7259	β CorA	13146	26380	3 9 +4.1		-39 30	4.16 G5	- .001 - .039	9	+ 3	
7260		3752	26347	3 28 2.7		+16 42	5.99 G5	+ .053 - .310	56	var	22.0 days, V ₀ = +14km
7261	17 Lyra	3326	26340	3 39 2.3		+32 21	5.04 F0	+ .124 + .019	19	+ 4	10m, 4", binary
7262	18 Lyra	3485	26338	3 44 2.1		+35 57	5.13 B5	- .007 - .007	7	-18	
7263		3672	26355	3 46 2.6		+21 32	6.16 F2	+ .046 + .071	22	-40	
7264	41 Sgtr	5275	26386	3 49 +3.6		-21 11	3.02 F2	- .001 - .040	19	-10	3.7:3.8, 0.1*
7265		- 5415	26389	3 54 3.5		-19 58	6.33 KO	+ .017 - .081			6.8:7.4, close binary
7266	19 Aqil	4040	26379	4 6 2.9		+ 5 55	5.37 F2	- .015 - .078	30	var?	V ₀ = -45km
7267		3758	26374	4 12 2.7		+16 42	6.46 F5	- .032 - .099	41	var*	In Ursa Cluster?
7268		13156	26405	4 11 4.1		-39 10	6.24 B8	- .015 - .019		var	
7269		3662	26400	4 43 +3.1		- 0 36	6.39 B8	+ .001 - .007			
7270		15804	26411	4 59 3.8		-29 40	6.25 B9	+ .029 - .022			
7271		12377	26431	5 3 4.6		-50 39	6.17 KO	+ .037 - .044			
7272		3439	26396	5 25 2.2		+34 26	6.54 G5	+ .049 + .191	39	-42	6.8:8.1, 17", binary
7273		13090	26426	5 24 4.1		-37 45	6.54 G5	+ .006 + .006			
7274	τ Pavo	2962	26487	5 45 +6.4		-69 22	6.50 A3	+ .004 - .027			
7275		2350	26397	6 6 1.4		+52 16	5.93 KO	- .104 - .062	4		
7276		5292	26445	6 30 3.6		-21 49	6.42 KO	+ .025 - .014	6	var	V ₀ = -5km
7277		13936	26463	7 4 3.7		-26 4	5.86 KO	- .007 - .010	4		
7278		3417	26512	7 9 6.0		-66 50	5.57 A2	+ .009 - .020		+12	5.8:7.3, close binary
7279	20 Aqil	4887	26461	7 15 +3.3		- 8 6	5.37 B3	+ .010 - .010	5	-15	
7280		3474	26446	7 27 2.4		+26 34	6.32 F5	+ .019 - .037	26	-27	
7281		13054	26485	7 23 4.4		-45 22	5.98 KO	+ .056 - .038	18		
7282		5311	26469	7 40 3.4		-12 27	5.62 KO	+ .010 - .026	10		
7283	19 Lyra	3497	26459	7 56 2.3		+31 7	5.77 A0	- .013 - .003	7	-30	
7284		3620	26454	8 4 +2.0		+40 16	6.12 A0	- .006 - .025	11	+ 6	
7285		3775	26467	8 5 2.7		+16 41	6.44 B9	- .011 - .018	6	-18	6.7:8.0, 0.8, cpm
7286		3690	26470	8 19 2.6		+21 23	5.90 A0	.000 - .005	11	- 6	
7287	21 Aqil	3824	26490	8 40 3.0		+ 2 7	5.10 B8	+ .006 .000	7	- 6	
7288		4081	26494	8 49 3.0		+ 5 21	6.34 A2	+ .012 - .008	9	+14	
7289		13072	26526	9 5 +4.4		-45 38	5.32 KO	- .005 + .001	5	+ 6	
7290	55 Drac	1326	26449	9 23 0.2		+65 49	6.19 A2	- .001 + .033	9		
7291		15161	26518	9 28 3.7		-24 21	6.22 F8	+ .114 - .098			
7292	42 Sgtr	13866	26516	9 25 3.7		-25 26	4.93 F5	+ .043 - .030	16	var*	5.5:6.0, close binary
7293			26476	9 30 1.5		+49 40	6.84 G5	- .190 + .634	45	-39	9", binary
7294		2959	26477	9 30 1.5		+49 40	6.62 G5	- .210 + .632		-41	
7295	53 Drac	2209	26475	9 47 +1.1		+56 41	5.24 KO	+ .036 + .044	11	-15	
7296	RY Sgtr	14076	26544	10 1 3.9		-33 42	var G0p	+ .007 + .021			6.1 to 14.0
7297		9513	26573	10 11 4.8		-53 34	6.42 F5	- .014 - .067			
7298	20 Lyra	3490	26507	10 21 2.0		+38 58	4.46 B3	- .001 .000	4	- 8	8m, 28", fixed
7299		- 3956	26530	10 42 +2.6		+20 2	6.14 G5	- .017 - .003	7	+ 7	
7300		3846	26539	10 47 2.7		+14 55	5.69 G5	- .003 - .014	6	-23	7.7m, 90"
7301	I Sgte	- 4088	26542	10 59 2.6		+21 3	5.62 A3	+ .034 + .009	14	-23	
7302		3491	26550	11 32 2.3		+30 21	6.13 Ma	+ .023 - .026	5	-63	
7303	22 Aqil	4045	26567	11 34 3.0		+ 4 39	5.40 A2	+ .010 - .018	13	-22	

7264: Also 6.0m, 0.4.

7267: Two spectra, 4.8 days, V₀ = +10km.

7292: V₀ = -34km, two spectra.

Precession in declination, +0.10.

19^h

No	Name	DM	GC	RA	Ann	Decl	Magn	Prop Motion		Par	Rad	Remarks
				1900	Var	1900	Spec	RA	Decl		Vel	
7304	43 Sgtr	5379	26589	11 ^m 47 ^s + 3 ^s .5		-19° 8'	5.03 KO	-".013	-".018	"008	+15	
7305		3313	26560	11 55 2.4		+27 17	6.26 B9	+ .003	- .019	2		7.0:7.1, 1", binary
7306	1 Vulp	3713	26569	11 55 2.6		+21 13	4.60 B5	- .010	- .005	10	var?	V ₀ = -17km
7307		3852	26572	11 52 2.7		+14 22	5.46 A0	+ .006	+ .006	16	-19	8.5m, 8", cpm
7308		3314	26562	11 59 2.4		+27 45	6.06 F8p	- .004	+ .021		-15	
7309	54 Drac	1968	26537	12 8 +1.1		+57 32	5.26 KO	- .014	- .072	19	-28	
7310	57 δ Drac	1129	26520	12 32 0.0		+67 29	3.24 KO	+ .094	+ .090	27	-25	
7311		2968	26565	12 43 +1.6		+49 54	6.34 G5	.000	- .007	9	+ 6	11m, 2", cpm
7312	59 Drac	717	26484	12 50 -2.2		+76 24	5.06 F0	+ .047	- .121	41	- 4	In Ursa Cluster?
7313		3960	26599	12 45 +3.0		+ 1 52	6.12 A0	- .009	- .032	10	var?	V ₀ = -26km
7314	21 θ Lyra	3398	26585	12 54 +2.1		+37 57	4.46 KO	- .005	.000	8	-31	
7315	25 ω Aqil	3790	26609	13 7 2.8		+11 25	5.14 A5	- .001	+ .012	15	-14	
7316		13393	26631	13 2 4.0		-35 36	5.61 B5	- .012	- .006	5	-10	
7317		5310	26626	13 18 3.4		-15 43	6.28 K2	- .097	- .268	10	-18	
7318	2 Vulp	3648	26613	13 30 2.5		+22 51	5.40 B0	- .004	- .008	4	+ 1	9m, 2", binary
7319	23 Aqil	4168	26623	13 27 +3.1		+ 0 54	5.32 KO	+ .006	+ .017	8	-24	9m, 3", binary
7320		3218	26698	13 40 6.3		-68 34	6.50 KO	- .023	- .006			
7321	24 Aqil	4170	26629	13 44 3.1		+ 0 9	6.52 KO	+ .007	+ .010	7	-28	
7322		2658	26604	13 59 1.7		+46 49	6.04 F5	- .016	+ .288	22	-44	
7323		15071	26648	14 0 3.9		-32 0	6.59 K5	- .008	+ .001			
7324		3502	26625	14 9 +2.3		+30 50	6.48 A0	- .009	+ .017	9	-27	
7325		4057	26636	14 7 2.9		+ 9 26	6.38 KO	- .003	- .040			
7326	U Sgte	3975	26639	14 26 2.6		+19 26	var B9	+ .017	- .001		var*	6.5 to 9.4, 3.4 days
7327		5063	26664	14 39 3.6		-22 35	5.55 A5	- .017	+ .033	21		
7328	1 κ Cygn	2216	26621	14 48 1.4		+53 11	3.98 KO	+ .057	+ .122	22	var?	V ₀ = -29km
7329	η Tele	9339	26696	14 47 +4.8		-54 37	5.16 A0	+ .015	- .074	14	+12	
7330		13422	26679	14 53 4.0		-35 10	6.45 G5	+ .102	- .100			
7331	28 Aqil	3879	26654	14 59 2.8		+12 11	5.42 F0	+ .003	+ .018	11	+ 3	
7332	29 Aqil	3802	26660	15 11 2.8		+11 21	6.02 A2	+ .037	+ .024	1	-22	
7333	26 Aqil	4936	26669	15 13 3.2		- 5 36	5.10 G5	+ .110	+ .047	27	var	V ₀ = -18km
7334		14133	26687	15 9 +4.2		-42 12	6.46 KO	- .053	- .035			
7335		3409	26647	15 19 2.2		+33 13	6.32 B3	- .016	- .036		var	V ₀ = +10km
7336	27 Aqil	3716	26673	15 26 3.1		- 1 5	5.46 B9	+ .001	+ .005	7	var	V ₀ = -31km
7337	β' Sgtr	13277	26703	15 27 4.3		-44 39	4.24 B8	+ .002	- .022	12	- 9	28", cpm
		13278	26704	15 29 4.3		-44 39	8.5 A3	+ .002	- .010			
7338		3413	26650	15 30 +2.1		+37 16	6.19 A0	+ .010	+ .015	8	var	10.4 days, V ₀ = -14km
7339		5412	26689	15 46 3.5		-19 25	6.38 B8	+ .004	- .002			
7340	44 ρ' Sgtr	5322	26694	15 52 3.5		-18 2	3.95 A5	- .027	+ .023	40	+ 1	
7341		2977	26652	15 59 1.6		+49 23	6.26 KO	+ .006	+ .050	2		
7342	46 υ Sgtr	5283	26697	16 0 3.4		-16 9	4.58 *	- .003	- .002	3	var	138 days, V ₀ = +12km
7343	β ² Sgtr	-13171	26718	16 0 +4.3		-44 59	4.51 F0	+ .092	- .057	25	+22	
7344	45 ρ ² Sgtr	5325	26700	16 1 3.5		-18 30	6.02 KO	+ .098	- .093	9	var?	V ₀ = -12km
7345		3417	26670	16 8 2.1		+37 9	6.36 G5	- .072	- .189			
7346		- 3503	26690	16 54 2.2		+35 0	6.29 B8	+ .006	+ .008			
7347		4950	26720	16 55 3.3		- 8 23	6.49 B5	- .019	- .025		-14	
7348	α Sgtr	13245	26737	16 58 +4.2		-40 48	4.11 B8	+ .030	- .120	13	var	V ₀ = +4km
7349		3725	26723	17 13 3.1		- 0 27	5.95 KO	+ .048	- .028	8	-11	
7350		13352	26747	17 13 4.3		-43 55	6.08 Ma	+ .021	- .040			
7351		2123	26682	17 24 +1.3		+54 11	6.24 A0	+ .014	- .028		- 6	
7352	60 τ Drac	857	26638	17 29 -1.2		+73 10	4.63 KO	- .142	+ .110	14	var	V ₀ = -30km

7326: V₀ = -17km.

7342: Composite, B8p, F2p.

Precession in declination, +0.11.

CATALOGUE OF BRIGHT STARS

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No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
7353		4942	26731	17 ^m 40 ^s + 3.2		- 7° 35'	6.39 KO	+ .036 - .008		km	
7354		4081	26736	18 3 2.9		+ 9 43	6.25 F8	+ .009 + .094		-20	
7355		15767	26766	18 16 3.7		-28 4	5.94 B3	+ .001 - .005			
7356		1986	26708	18 26 1.1		+57 27	6.10 Ma	+ .020 + .009			
7357		3896	26749	18 34 2.7		+14 44	6.56 A3	- .032 - .012		+ 9	
7358	3 Vulp	-3811	26748	18 45 + 2.5		+26 4	4.92 B5	- .005 - .011	.009	-13	
7359		3434	26743	18 49 2.2		+33 19	6.30 KO	+ .003 - .036			
7360		16104	26777	18 46 3.8		-29 30	6.09 KO	- .001 - .055			
7361		1344	26709	19 0 0.5		+64 13	6.33 B9	- .004 + .010	5		
7362	47 x ¹ Sgtr	15303	26789	19 11 3.6		-24 42	5.01 A5	+ .052 - .058	31	-42	
7363	49 x ³ Sgtr	15307	26801	19 27 + 3.6		-24 9	5.56 K2	- .016 - .007	9	+40	
7364		-4000	26770	19 26 2.6		+20 4	6.47 A0	- .013 + .005	7	-27	
7365		1993	26739	19 36 1.1		+57 34	6.50 K2	+ .018 + .040			
7366		4964	26798	19 43 3.2		- 5 5	6.46 F0	+ .049 + .013			
7367		5428	26805	19 43 3.4		-14 6	5.81 KO	+ .071 + .052	9	-34	
7368		-3411	26774	19 48 + 2.3		+33 1	6.50 KO	+ .080 + .164			
7369	2 Sgte	3839	26784	19 53 2.7		+16 45	6.03 A0	- .009 - .014	8	var	7.4 days, V ₀ = +12km
7370		9371	26834	19 46 4.8		-54 31	5.56 K2	+ .002 + .006			
7371	58 x Drac	1345	26735	20 9 0.3		+65 31	4.63 A2	+ .013 + .041	19	-29	
7372	2 Cygn	3584	26785	20 11 2.4		+29 26	4.86 B3	+ .012 + .010	4	-21	
7373	31 Aqil	3833	26809	20 12 + 2.9		+11 44	5.23 G5	+ .719 + .636	64	-100	
7374		3379	26797	20 22 2.4		+27 53	6.36 B8	- .025 + .002			
7375	50 Sgtr	-5105	26823	20 21 3.6		-21 58	5.56 KO	+ .032 - .002	11		
7376		3539	26792	20 31 2.2		+36 15	6.45 KO	+ .006 + .074			
7377	30 δ Aqil	3879	26816	20 27 3.0		+ 2 55	3.44 F0	+ .255 + .079*	59	var	0.16 days, V ₀ = -32km
7378		5348	26824	20 30 + 3.4		-15 15	5.68 B8	+ .019 + .009		var?	
7379		5435	26831	20 44 3.4		-14 45	6.64 A0	+ .035 - .008			
7380		16140	26833	20 37 3.8		-29 56	5.68 B9	+ .017 - .053		+ 2	
7381		-2994	26782	20 46 1.6		+50 5	6.31 B9	- .002 + .016	6	-24	
7382		3229	26794	20 47 1.9		+43 12	5.95 G5	+ .011 - .028	8	0	
7383		3251	26891	20 47 + 6.2		-68 38	5.95 K5	+ .013 - .014			
7384		-4009	26819	21 0 2.6		+20 5	6.36 A0	- .013 - .030	9	-32	
7385	4 Vulp	4010	26821	21 5 2.6		+19 36	5.31 KO	+ .089 - .067	8	+ 1	
7386		3737	26825	21 17 2.5		+24 44	6.17 F8	- .184 - .631	31	- 5	
7387	32 v Aqil	4206	26838	21 24 3.1		+ 0 8	4.86 F0	- .004 .000	3	- 1	
7388		9096	26883	21 44 + 4.9		-55 38	6.18 KO	+ .023 - .059			
7389		3907	26840	21 45 2.8		+12 49	5.77 F5	+ .006 + .059	24	-34	
7390	5 Vulp	4015	26839	21 51 2.6		+19 54	5.58 A0	- .003 - .038	12	-29	
7391		4017	26844	22 6 2.6		+19 42	6.04 K5	- .007 - .051	10	-36	
7392		13395	26885	22 17 4.3		-43 39	5.80 A0	+ .091 - .139	9		
7393		9100	26902	22 28 + 4.9		-55 19	6.41 F5	+ .033 - .017			
7394	λ UMin	112	25111	22 29 -77.4		+88 59	6.55 Mb	- .028 + .005	4	var	V ₀ = +2km
7395	4 Cygn	3557	26846	22 33 + 2.2		+36 7	5.15 AOp	.000 + .007	8	var?	V ₀ = -25km
7396		-4020	26875	22 58 2.8		+14 5	6.26 B5	- .017 - .013		+ 4	
7397		3892	26884	23 20 3.0		+ 2 43	5.92 B9	.000 - .007	6		
7398		14004	26911	23 41 + 3.7		-27 11	5.53 KO	+ .031 - .045	14		9m, 8", binary
7399		15233	26918	23 48 3.9		-32 18	6.52 F2	+ .079 - .068			
7400	35 Aqil	4010	26900	23 58 3.0		+ 1 45	5.77 A0	- .007 - .034	12	+17	In Ursa Cluster?
7401		1999	26864	23 58 1.1		+57 50	6.46 B8	- .015 + .006	2		
7402	U Aqil	4968	26905	23 58 3.2		- 7 15	var G4	+ .018 + .002	13	var*	6.3 to 7.0, 7.0 days*

7377: Proper motion is slightly variable.

Precession in declination, +0.12.

7402: V₀ = -7km. 12m, 2", binary.

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No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
7403		3465	26887	24 ^m 6 ^s +2 ^s .1		+37° 44'	6.36 B2	+ .017 - .015		km -16	
7404		-3760	26907	24 11 3.1		+ 0 2	6.52 K2	+ .003 - .009			
7405	6 Vulp	3759	26904	24 33 2.5		+24 28	4.63 Ma	-.128 - .107	.012	-86	
7406	8 Vulp	3761	26914	24 47 2.5		+24 34	5.98 K0	-.004 + .012	8	-27	
7407		3936	26919	24 47 2.8		+14 23	5.73 K0	+ .041 - .029	9	-40	
7408	7 Cygn	2434	26893	24 59 +1.5		+52 7	5.66 A0	-.018 - .027	11	var	V ₀ = 0km
7409	7 Vulp	-4039	26921	24 59 2.6		+20 4	6.39 B3	-.004 - .023		-43	
7410		5410	26933	24 58 3.6		-21 31	6.01 A2	+ .010 - .019			
7411		9585	26959	25 0 4.7		-53 24	5.91 A5	+ .028 - .015			
7412		3904	26925	25 9 3.0		+ 2 41	6.38 K5	-.009 - .001			
7413		1716	26888	25 17 +0.7		+62 21	6.46 K5	+ .016 + .050			
7414	36 Aqil	4612	26936	25 26 3.1		- 3 0	5.22 Ma	+ .016 - .009	14	-11	
7415		4043	26937	25 33 3.0		+ 3 14	6.33 A0	+ .006 + .004	7	var	V ₀ = -42km
7416		13296	26981	26 9 4.3		-45 29	5.87 A0p	-.017 - .032			
7417	6 β Cygn	3410	26953	26 41 2.4		+27 45	3.24 *	-.003 - .008	8	var*	35", fixed
7418		3411	26956	26 43 2.4		+27 45	5.36 B9	-.013 - .001		-18	
7419		-3658	26960	27 10 +2.2		+36 1	6.04 A0	+ .001 - .014	9		
7420	10 α Cygn	2605	26947	27 11 1.5		+51 31	3.94 A2	+ .020 + .127	16	-18	
7421		3573	26968	27 16 2.5		+26 24	5.96 K0	+ .028 + .026		- 5	
7422		13356	27006	27 17 +4.1		-40 15	5.90 A2	-.007 - .002			
7423		628	26857	27 45 -3.6		+79 24	6.00 A2	+ .011 - .030	9		
7424	Tele	13161	27025	27 48 +4.4		-48 19	5.02 K0	-.019 - .044	6	+22	
7425		552	26773	27 57 -7.7		+83 16	6.34 A2	+ .008 + .010	10	-15	
7426	8 Cygn	3590	26988	28 3 +2.2		+34 14	4.85 B3	-.002 - .002	7	-22	
7427		-3034	26990	28 40 1.6		+50 6	5.73 K0	-.034 + .045	8	- 9	
7428		2215	26995	29 7 +1.3		+55 31	6.52 *	-.006 - .014		var	109 days, V ₀ = -6km
7429	38 μ Aqil	4132	27030	29 12 2.9		+ 7 10	4.65 K0	+ .211 - .157	30	-24	
7430	37 Aqil	5122	27046	29 37 3.3		-10 47	5.24 G5	+ .004 - .003	8	-31	
7431	51 Sgtr	15442	27067	29 57 3.6		-24 56	5.68 A3p	+ .008 - .025	14	var	V ₀ = -44km
7432		4998	27060	30 6 3.2		- 7 41	6.40 K0	+ .024 - .039			
7433		5461	27059	29 59 +3.3		-12 28	6.30 K0	+ .009 - .006			
7434		7627	27108	30 1 5.0		-58 12	6.18 G5	+ .028 - .059			
7435		3445	27132	29 59 5.9		-66 55	6.40 A0	+ .039 - .050			
7436		3650	27034	30 7 2.1		+38 34	6.48 A0	.000 + .026	9	-17	
7437	9 Vulp	4063	27047	30 11 2.6		+19 33	4.88 B8	+ .003 - .001	10		
7438		3932	27064	30 24 +3.0		+ 2 42	6.49 F2	+ .015 + .045		+ 3	
7439		5521	27085	30 36 3.5		-19 5	6.14 A5	+ .028 - .004			
7440	52 Sgtr	14184	27089	30 37 3.6		-25 6	4.66 B9	+ .068 - .023	18	var	V ₀ = -19km; 11m, 3", cpm
7441	9 Cygn	3651	27062	30 53 2.4		+29 15	5.42 *	+ .010 + .023	21	var	V ₀ = -13km
7442		-2914	27045	30 56 1.7		+49 2	6.19 Mb	-.001 - .006			
7443		5432	27105	31 15 +3.5		-18 27	5.87 K0	+ .014 - .013	7	- 7	
7444		3386	27070	31 26 2.0		+42 12	5.29 A2	-.009 - .023	11	- 1	
7445		3981	27092	31 25 2.8		+10 55	6.53 A2	-.009 - .011			
7446	39 α Aqil	5006	27107	31 31 3.2		- 7 15	5.04 B0	.000 - .007	4	-22	
7447	41 α Aqil	3782	27103	31 33 3.1		- 1 31	4.28 B5	.000 - .018	7	-23	
7448		2060	27048	31 36 +0.9		+59 57	6.43 K5	+ .009 - .003			6.6:8.3, 76", fixed
7449		3974	27096	31 39 +2.8		+14 10	6.47 K0	+ .029 - .026			
7450		1073	27023	31 48 -0.5		+70 47	6.25 K2	-.010 + .057			
7451		-2815	27068	31 44 +1.6		+51 1	5.65 F5	+ .025 - .192	36	+ 1	In Ursa Cluster
7452		3741	27097	31 52 2.6		+22 22	6.12 B9	.000 - .027	7	-31	

7417: Albireo; composite, K0, A0; V₀ = -24km.
 7428: Composite, K2, A3.

Precession in declination, +0.13.
 7441: Composite, F5, A0.

CATALOGUE OF BRIGHT STARS

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No	Name	DM	GC	RA		Decl 1900	Magn Spec	Prop Motion		Par	Rad Vel	Remarks
				1900	Ann Var			RA	Decl			
7453		2870	27078	31 ^m 49 ^s + 1.7		+47° 57'	6.70 A5	-.021	-.075		km	
7454		5479	27127	31 56 3.4		-14 31	5.60 F8	-.110	-.142	"041	-16	
7455		3447	27187	31 56 5.8		-66 5	6.00 K2	+.027	-.068			
7456		-3984	27120	32 9 2.8		+11 3	6.16 G5	+.013	+.004		0	
7457	11 Cygn	3619	27099	32 13 2.2		+36 43	5.86 B9	+.004	-.004	8		
7458	U Vulp	4200	27119	32 15 + 2.6		+20 7	var G5	-.008	-.014	0	var*	6.6 to 7.3, 8.0 days
7459		9438	27177	32 19 4.8		-54 39	6.28 K0	+.038	-.010			
7460	42 Aqil	4861	27143	32 29 3.2		- 4 52	5.52 F2	+.102	-.051	23	-38	
7461		13354	27167	32 31 + 4.3		-45 30	6.24 A5	-.004	+.019			
7462	61 σ Drac	1053	27050	32 33 - 0.1		+69 29	4.78 K0	+.575	-1.745	181	+26	
7463	4 ε Sgte	3918	27139	32 46 + 2.7		+16 14	5.67 K0	+.014	+.012	7	-33	
7464		13371	27182	33 7 4.1		-39 40	6.60 A2	+.060	-.062			
7465		-3059	27122	33 15 1.6		+50 1	6.63 G5	-.010	+.035			
7466		3670	27144	33 11 2.4		+29 7	6.26 B5	-.021	-.002		-20	
7467		3677	27146	33 26 2.1		+38 10	6.38 B8	-.005	-.002	3		
7468		3185	27140	33 32 + 1.9		+44 28	5.16 G5	-.107	-.104	19	- 5	
7469	13 θ Cygn	3062	27141	33 46 1.6		+49 59	4.64 F5	-.028	+.250	66	-28	13m, 3", cpm
7470	53 Sgtr	15618	27189	33 49 3.6		-23 39	6.24 A0	-.001	-.034			6.8:7.1, close binary
7471		4097	27176	33 49 3.0		+ 3 9	6.37 B3	-.009	+.004		var	V ₀ = -1km
7472		4210	27168	33 57 2.6		+20 34	6.50 K0	-.060	-.050			
7473		15625	27194	34 6 + 3.6		-23 39	6.13 K0	+.023	.000	7	-28	
7474	44 σ Aqil	4225	27185	34 16 3.0		+ 5 10	var B3	-.003	-.002	3	var*	5.0 to 5.2, 2.0 days
7475		3936	27195	34 54 2.7		+16 21	6.58 K5	+.006	.000			6.7:8.7, 28", cpm
7476	54 Sgtr	5399	27214	35 0 3.4		-16 31	5.45 K0	+.065	-.047	16	-58	46", cpm
7476		5400	27217	35 2 3.4		-16 31	8.9 G0	+.075	-.054			
7477		-2922	27183	35 10 + 1.7		+49 3	6.50 K0	+.031	+.141	6	-82	
7478	12 φ Cygn	3684	27203	35 26 2.4		+29 55	4.79 K0	-.003	+.039	10	var	V ₀ = +5km, two spectra
7479	5 α Sgte	4042	27215	35 38 2.7		+17 47	4.37 G0	+.009	-.024	6	+ 2	
7480	45 Aqil	3813	27222	35 34 3.1		- 0 51	5.52 A0	+.013	+.015	14	-46	
7481		3547	27216	35 59 2.3		+33 44	6.12 A2	+.003	+.014	10	-32	11m, 0"8
7482		4218	27226	36 6 + 2.6		+20 15	6.44 B0	-.007	-.025		+ 6	
7483	14 Cygn	3413	27213	36 11 2.0		+42 35	5.39 B8	+.017	+.027	7	var	V ₀ = -28km
7484		2193	27206	36 26 1.3		+54 44	5.86 F5	+.037	+.166	33	var*	7.6 days, V ₀ = -14km
7485		3733	27230	36 25 2.5		+23 29	6.41 B3	+.014	-.022		var	V ₀ = -20km
7486	QS Aqil	4098	27235	36 28 2.8		+13 35	var B3	-.007	-.018	4	var*	6.1 to 6.2, 2.5 days*
7487		2940	27220	36 32 + 1.8		+45 43	6.34 G5	-.010	+.044	9	-11	
7488	6 β Sgte	4048	27236	36 33 2.7		+17 15	4.45 K0	+.004	-.037	13	-22	
7489	55 Sgtr	5413	27255	36 48 3.4		-16 22	5.10 F0	+.063	-.009	34	var?	V ₀ = -27km
7490		3767	27242	36 57 2.6		+22 13	6.44 K2	+.019	-.006			
7491		13322	27276	36 57 4.0		-37 46	6.16 B8	-.017	-.014		var?	V ₀ = -29km
7492		3419	27240	37 27 + 1.9		+42 51	6.39 Ma	+.007	-.007			
7493	46 Aqil	3954	27263	37 31 2.8		+11 58	6.26 B9	-.007	-.006		-32	
7494		868	27434	37 37 11.1		-81 36	6.32 K0	+.027	+.005			
7495		2949	27249	37 45 1.9		+45 17	5.05 F2	+.087	+.111	20	-20	
7496		5444	27289	37 51 3.4		-15 42	5.50 F2	+.149	-.181	41	+13	
7497	47 X Aqil	3955	27272	37 52 + 2.8		+11 35	5.32 *	-.006	-.009	12	var?	V ₀ = -21km*
7498		2445	27351	37 54 6.9		-72 45	5.52 A3	+.010	+.012	28	var	
7499		-3878	27275	38 32 2.1		+40 1	6.20 A3	-.030	+.024	12	-32	6.5:7.8, close binary
7500		1991	27252	38 39 0.9		+60 16	6.21 A2	-.011	-.006	12	- 2	8.5m, 18"
7501		-3447	27291	38 49 2.4		+29 5	6.44 F0	+.056	+.046		-26	

7458: V₀ = -12km.

7474: V₀ = -5km.

7484: Two spectra.

7486: V₀ = -14km; a close double.

Precession in declination, +0.14.

7497: 5.6F5:6.8A3, 0"6, fixed.

19^h

No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
7502		3531	27292	38 ^m 54 ^s +2.3		+32° 11'	5.89 A2	-.011 - .009	013	-8	
7503	16 Cygn	2847	27284	39 9 1.6		+50 18	6.26 G0	-.155 - .155	42	-26	38", binary
7504		2848	27285	39 12 1.6		+50 17	6.37 G0	-.140 - .164		-28	
7505		3706	27297	39 14 2.4		+30 26	6.06 B9	-.017 + .036		-31	
7506	10 Vulp	3933	27305	39 33 2.5		+25 32	5.45 G5	+ .004 + .018	13	-9	
7507		15443	28337	39 38 +3.8		-32 9	5.56 B8	-.003 - .018		-31	
7508		3654	27308	39 50 2.5		+26 54	6.56 *	-.015 + .003	4	-8	10m, 0"5, binary
7509		2245	27294	39 51 1.3		+55 13	6.52 Mb	+ .009 - .042			
7510	v Tele	9290	27358	39 51 4.9		-56 36	5.52 A5	+ .089 - .140		var?	V ₀ = -16km
7511	48 v Aqil	-4059	27321	39 55 2.8		+13 4	6.12 B8	-.012 - .008	7	var	
7512		3572	27310	40 6 +2.3		+33 55	5.95 A0	-.006 .000	7	-11	
7513		3680	27382	40 5 5.9		-67 3	6.46 K2	-.009 + .013			
7514		3469	27315	40 25 2.0		+41 32	6.04 K5	+ .011 + .009	8	-41	
7515	56 Sgtr	5698	27349	40 32 3.5		-20 0	5.06 K0	-.131 - .088	16	+20	
7516		4701	27344	40 38 3.1		-3 7	6.50 B3	.000 - .002		-17	
7517	15 Cygn	3586	27328	40 40 +2.2		+37 7	5.02 K0	+ .068 + .031	14	-24	
7518	SU Cygn	-3460	27336	40 48 2.4		+29 1	var F2p	-.004 - .003	0	var	6.4 to 7.1, 3.8 days
7519	49 v Aqil	4210	27342	40 48 2.9		+7 22	5.72 A2	+ .048 + .001	21	-30	
7520		3691	27335	40 53 2.3		+34 10	6.77 Ma	.000 - .012			
7521		9678	27384	41 8 4.7		-53 8	6.30 K0	+ .012 - .054			
7522		2057	27322	41 17 +1.2		+57 46	6.31 F8	+ .133 - .062			
7523		3866	27341	41 25 2.0		+40 28	6.44 Ma	-.069 - .024			
7524		3827	27416	41 27 5.7		-65 51	6.12 A5	+ .101 - .159			
7525	50 v Aqil	4043	27354	41 30 2.9		+10 22	2.80 K2	+ .013 - .001	18	-2	
7526		2291	27333	41 37 1.2		+56 48	6.39 G5	+ .007 + .019			
7527		6413	27408	41 37 +5.2		-61 19	6.42 B3	-.006 - .002		-16	
		3582	27350	41 46 2.3		+33 22	8.5 K0	+ .015 - .435	45		9.2:9.4, binary*
7528	18 S Cygn	3234	27347	41 51 1.9		+44 53	2.97 A0	+ .045 + .040	22	-19	8m, 300 years
7529		3786	27352	41 59 2.2		+35 51	6.50 A0	.000 + .012	8	-19	15", binary
		3787	27353	41 59 2.2		+35 51	7.10 A0	+ .002 + .002			
7530		3701	27360	42 8 +2.2		+34 46	6.23 K0	+ .016 - .007	7	-20	8.5m, 38", cpm
7531		7534	27424	42 16 5.1		-59 27	5.54 A2	+ .015 + .002	9	+4	5.7:7.5, close binary
7532		-5555	27394	42 26 3.4		-13 57	6.18 A3	+ .022 - .012			
7533		3877	27370	42 27 2.5		+24 53	6.60 F0	+ .068 - .005			
7534	17 Cygn	3587	27369	42 38 2.3		+33 30	5.03 F5	+ .016 - .449	45	+5	26", binary*
		3589	27371	42 40 2.3		+33 30	10.5 K5	+ .025 - .442		+1	
7535		3558	27372	42 44 +2.3		+32 38	6.18 K2	-.038 - .005			13m, 3", binary
7536	7 S Sgtr	4240	27391	42 56 2.7		+18 17	3.78 *	+ .004 + .009	8	var	V ₀ = +3km
7537		13103	27427	42 55 4.4		-47 48	6.00 Ma	-.020 - .009			
7538		16546	27412	42 57 3.7		-29 2	6.10 F0	+ .117 - .109			
7540		3972	27402	43 37 +2.5		+25 8	6.04 K0	+ .076 - .027		-17	
7541		5131	27417	43 31 3.3		-11 7	6.23 K0	+ .029 - .020	8	-37	
7542		4058	27413	43 46 2.8		+10 26	6.38 G0p	-.012 - .002		-5	
7543		3758	27401	43 55 2.1		+38 10	5.67 B9	+ .011 - .005	8		
7544	52 v Aqil	3994	27418	43 59 +2.8		+11 34	5.70	+ .013 - .006	24	+12	6.1F2:6.9A2, 1"5, binary
7545		-1079	27367	44 27 -0.1		+69 6	5.90 A0	+ .013 - .022	11	0	In Ursa Cluster?
7546	8 S Sgtr	4254	27431	44 32 +2.7		+18 53	4.95 A2	+ .016 + .027	13	var	5.3:6.3, 23 years*
7547		2916	27407	44 32 1.8		+47 39	6.24 Ma	-.031 - .034			
7548		9221	27482	44 40 4.8		-55 14	6.14 G5	+ .006 - .003			
7549		9222	27483	44 41 4.8		-55 14	6.76 A2	+ .006 - .005			23", cpm

7508: Composite, KO, A0.
 7534 and GC 27350: 792", cpm.
 7536: Composite, Ma, A0.

Precession in declination, +0.15.
 7546: Also 9m, 9", cpm.

CATALOGUE OF BRIGHT STARS

19^h

No	Name	DM	GC	RA	Ann	Decl	Magn	Prop Motion		Par	Rad	Remarks
				1900	Var	1900	Spec	RA	Decl		Vel	
7550		-3727	27432	45 ^m 0 ^s +2.2		+35° 4'	6.52 F5	+ .081	+ .060	"017	-27	6.9:7.9, 128 years
7551		3602	27433	45 2 2.3		+33 11	6.35 B0	+ .001	- .005		var	V ₀ = -10km; two spectra
7552		13514	27474	45 3 4.1		-40 8	5.39 A0p	+ .028	- .016	17	var	V ₀ = 0km
7553	51 Aqil	5149	27465	45 17 3.3		-11 1	5.55 F0	- .031	+ .036			
7554		4252	27458	45 26 2.9		+ 7 39	6.39 B3	.000	.000		-28	
7555		3772	27453	45 55 +2.1		+38 27	6.21 G5	+ .001	- .012	7	+10	12m, 11", fixed
7556		3493	27460	45 52 2.4		+28 11	6.29 B8	- .026	+ .026		var?	
7557	53 α Aqil	4236	27470	45 54 2.9		+ 8 36	0.89 A5	+ .535	+ .383	205	-27	Altair
7558		6426	27526	45 57 5.2		-61 26	6.32 A3	+ .006	+ .008			
7559		5133	27478	45 58 3.1		- 2 43	6.36 K5	- .012	- .035			
7560	54 α Aqil	4073	27480	46 14 +2.9		+10 10	5.22 G0	+ .236	- .141	49	0	
7561	57 Sgtr	5631	27503	46 23 3.5		-19 18	5.99 G5	- .001	- .058	12		
7562		4288	27491	46 30 2.9		+ 9 23	6.29 A0	- .006	- .012	12	-19	
7563		1082	27430	46 38 0.1		+68 11	6.35 F0	+ .003	+ .013	8		
7564	x Cygn	3593	27481	46 43 2.3		+32 40	var M7	- .033	+ .042		-19*	4.2 to 14.0, 413 days
7565	12 Vulp	3833	27493	46 46 +2.6		+22 21	4.91 B3	+ .017	- .021	7	-31	
7566	19 Cygn	3780	27486	47 1 2.1		+38 28	5.43 Ma	+ .007	+ .105	5	-39	
7567	V380 Cygn	3902	27492	47 11 2.1		+40 21	var B2	- .007	- .009	3	var*	5.6 to 5.7, 12.4 days
7568		3636	27498	47 11 2.2		+37 35	6.31 Ma	+ .019	+ .005	3		
7569		4019	27510	47 23 2.8		+11 23	6.18 G0	- .341	- .320	24	-17	
7570	55 η Aqil	4337	27517	47 23 +3.1		+ 0 45	var G0p	+ .007	- .008	5	var*	3.7 to 4.4, 7.2 days
7571	V505 Sgtr	5578	27525	47 28 3.4		-14 51	var A2	- .009	- .042			6.5 to 7.3, 1.2 days
7572		-4295	27515	47 30 2.9		+10 6	6.48 B5	- .001	- .016		-13	6.5:9.5, 13", cpm
7573		3914	27516	47 49 2.5		+24 44	5.67	- .010	+ .011	8	- 2	Composite, F5, A2
7574	9 Sgte	4276	27523	47 54 2.7		+18 25	6.29 Oe	- .007	- .006		var	V ₀ = +11km
7575		4742	27532	48 5 +3.1		- 3 22	5.64	+ .009	+ .016	8	-19	Composite, F0p, A
7576	20 Cygn	2547	27506	48 7 1.5		+52 44	5.17 K2	- .014	- .069	13	-20	
7577		2937	27513	48 20 1.8		+47 9	6.24 F0	+ .013	+ .017	21	-13	
7578		15668	27542	48 18 3.6		-24 11	6.28 K0	- .136	- .415	73	- 7	
7579		3072	27594	48 22 6.2		-69 26	5.82 A3	+ .076	- .104	27		
7580		4264	27537	48 24 +3.0		+ 4 9	6.30 A0	+ .010	+ .004	10	- 1	
7581	ι Sgtr	14549	27557	48 22 +4.1		-42 8	4.21 K0	+ .017	+ .052	22	+36	
7582	63 ε Drac	-1070	27471	48 31 -0.2		+70 1	3.99 K0	+ .078	+ .036	13	+ 3	7.6m, 3", binary
7583		3744	27528	48 36 +2.2		+36 11	6.33 K0	- .004	- .002			
7584	56 Aqil	5150	27546	48 43 3.3		- 8 50	6.02 K5	- .001	- .018	7	-50	
7585		14560	27559	48 41 +3.8		-33 18	6.40 K0	- .015	- .003			
7586		7683	27585	48 42 5.0		-58 11	6.40 K5	- .010	- .038			
7587		7550	27588	48 42 5.0		-59 10	5.35 A0	+ .015	- .023	18	- 2	
7588		3073	27603	48 40 6.1		-69 2	6.48 A2	+ .036	- .070			
7589		2793	27529	48 58 1.8		+46 46	5.51 B0	- .008	- .004	2	- 5	
7590	ε Pavo	2086	27631	49 2 +6.9		-73 10	4.10 A0	+ .077	- .138	12	var?	V ₀ = 0km
7591		2939	27531	49 10 1.8		+47 40	5.70 B2	- .010	- .010	3	-18	
7592	13 Vulp	3820	27544	49 13 2.6		+23 49	4.50 A0	+ .022	+ .036	12	var	V ₀ = -29km
7593		5154	27562	49 13 3.2		- 8 29	5.78 B3	+ .003	- .024		var	V ₀ = -11km
7594	57 Aqil	5155	27563	49 13 3.2		- 8 30	6.53 B	+ .015	- .026	7	var?	V ₀ = -5km } 36", cpm
7595	59 ξ Aqil	4261	27558	49 24 +2.9		+ 8 12	4.86 K0	+ .095	- .082	18	-41	
7596	58 Aqil	-3871	27565	49 37 3.1		+ 0 1	5.57 A0	+ .037	- .012			
7597	58 ω Sgtr	14637	27583	49 43 3.7		-26 34	4.81 G5	+ .205	+ .079	53	var	V ₀ = -21km
7598		4351	27567	49 47 2.9		+ 6 53	5.97 A0	+ .028	- .004	11	-16	
7599		5102	27580	49 58 3.2		- 7 0	6.45 F2	+ .030	- .045	10		6.8:7.8, 1", binary

7564: Absorption lines give 0 km.

7567: V₀ = -4km.

7570: V₀ = -15km.

Precession in declination, +0.16.

19^h

No	Name	DM	GC	RA	Ann	Decl	Magn	Prop Motion		Par	Rad	Remarks
				1900	Var	1900	Spec	RA	Decl		Vel	
7600		2945	27549	50 ^m 4 ^s +1 ^s .8		+47° 33'	6.15 B2	-.014	-.012	.003	km var	V ₀ = -65km
7601		- 3829	27574	50 16 2.5		+24 3	5.47 A0	+.021	-.002	12	- 6	
7602	60 ^β Aqil	4357	27587	50 24 2.9		+ 6 9	3.90 K0	+.039	-.483	77	-40	11m, 12", binary
7603	μ ¹ Pavo	3695	27651	50 39 5.8		-67 13	5.72 K0	-.020	-.200	18		
7604	59 Sgtr	14399	27605	50 49 3.7		-27 26	4.62 K2	+.007	-.016	10	var	V ₀ = -16km
7605		13776	27619	51 7 +4.0		-38 19	6.54 F5	+.087	-.083			
7606		3766	27589	51 9 2.2		+36 44	5.77 G5	+.010	+.019	12	-25	
7607		3802	27592	51 .7 2.4		+29 56	6.36 B9	+.006	+.016		-13	9m, 10", cpm
7608	23 Cygn	2084	27571	51 14 1.2		+57 16	5.04 B5	+.006	+.012	7	-25	
7609	10S Sgtr	4067	27601	51 29 2.7		+16 22	var G0p	-.001	-.007	2	var*	5.8 to 6.8 (ptg), 8.4 da
7610	61 φAqil	4055	27604	51 30 +2.8		+11 9	5.29 A2	+.028	+.006	17	var	3.3 days, V ₀ = -27km
7611		2137	27581	51 48 1.1		+59 27	6.03 A0	+.041	+.060	9	var	
7612	μ ² Pavo	3698	27687	52 9 5.8		-67 13	5.19 K0	+.032	-.076	12	+42	
7613	22 Cygn	3817	27613	52 17 2.1		+38 13	4.87 B3	-.005	.000	6	var?	V ₀ = -30km
7614	61 Sgtr	5516	27637	52 17 3.4		-15 45	5.05 A0	+.013	-.093	32	- 4	
7615	21 ηCygn	3798	27622	52 33 +2.3		+34 49	4.03 K0	-.036	-.029	17	-26	13m, 7", cpm
7616		4351	27630	52 38 2.6		+20 44	6.47 A0	-.029	-.025	9	+ 8	
7617		17525	27657	52 39 3.8		-30 48	6.24 K0	+.086	-.056			
7618	60 Sgtr	14682	27658	52 52 3.7		-26 28	4.95 G5	+.034	+.029	10	var	V ₀ = -49km
7619	24 ψCygn	2572	27618	53 3 1.6		+52 10	4.90 A3	-.040	-.031	10	-11	7.4m, 3", binary
7620		3878	27632	53 2 +2.2		+35 59	6.04 B3	-.001	+.003	4	-23	
7621		12949	27678	53 3 4.4		-49 37	6.25 K0	-.089	-.016			
7622	11 Sgtr	4081	27648	53 13 2.7		+16 31	5.38 B9	+.006	+.014	8	-26	
7623	θ ¹ Sgtr	13831	27670	53 14 3.9		-35 33	4.39 B3	+.007	-.030	8	var	2.1 days, V ₀ = +1km
7624	θ ² Sgtr	-13832	27676	53 22 3.9		-34 58	5.34 A3	+.096	-.077	28	-18	
7625		7564	27704	53 19 +5.1		-59 39	5.12 Mb	+.010	-.033	1	-10	
7626		2092	27620	53 23 1.2		+57 59	6.19 K0	+.017	-.072			
7627		13735	27685	53 29 4.2		-43 19	6.07 K5	+.022	+.012			
7628		- 3968	27649	53 46 2.1		+40 6	5.43 B3	+.001	-.003	6	var	V ₀ = -26km
7629		-13802	27683	53 38 4.0		-37 58	6.00 K0	+.017	-.020			
7630		13549	27697	53 43 +4.2		-45 23	5.95 A5	-.006	-.004	14		
7631		-14082	27693	53 54 3.9		-33 58	5.67 F5	+.131	-.308	42	- 6	
7632		2930	27644	54 1 1.6		+50 38	6.27 A0	+.001	+.007	9	-20	
7633		2013	27635	54 1 1.1		+58 35	5.13 K2	-.012	-.021	9	+ 5	
7634		2331	27641	54 9 1.3		+56 25	6.10 A2	+.018	+.015	10	-29	
7635	12 rSgtr	4229	27672	54 19 +2.7		+19 13	3.71 K5	+.061	+.024	17	-33	
7636		- 4375	27681	54 18 3.0		+ 1 6	6.35 G5	+.018	+.053			
7637		5238	27689	54 21 3.3		-10 13	5.91 F8	-.278	-.398	37	+23	
7638		3549	27665	54 34 2.0		+41 59	6.48 A2	-.004	-.004	7	-12	6.8:8.6, close binary*
7639		13807	27723	54 38 4.1		-41 5	6.50 A2	-.017	-.038			
7640		3837	27677	54 40 +2.4		+30 43	5.44 B8	+.027	-.002	8	- 7	
7641	14 Vulp	3872	27688	54 53 2.6		+22 50	5.70 F0	-.076	+.005		var	
7642		3703	27679	54 58 2.2		+37 50	6.62 B5	+.005	-.006	5	-15	7.7m, 2", binary
7643		15935	27737	55 27 3.6		-23 1	6.08 G5	+.014	-.010			
7644		3703	27793	55 32 6.0		-67 35	6.02 G5	+.839	-.684	52	-14	
7645	13 Sgtr	4183	27711	55 32 +2.7		+17 15	5.56 Mb	-.001	-.014	9	-18	
7646		3025	27709	56 12 1.9		+45 30	5.80 A2	+.015	-.023	16	+ 6	
7647	25 Cygn	3806	27724	56 15 2.2		+36 46	5.15 B3	-.002	+.003	6	var	V ₀ = -4km
7648		4300	27739	56 9 2.9		+ 8 17	6.08 K2	+.003	-.009			
7649	63 Sgtr	- 5618	27758	56 23 3.4		-13 55	5.76 A2	+.034	+.018			

7609: Velocity may vary in a longer period as well.
7638: Also 8.7m, 3", binary.

Precession in declination, +0.16.

CATALOGUE OF BRIGHT STARS

19^h - 20^h

No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
7650	62 Sgtr	-16355	27763	56 ^m 31 ^s + 3.7		-27° 59'	4.60 Mb	+".034 + ".016	"014	km +10	
7651		2728	27720	56 36 1.6		+51 47	6.02 B5	+ .010 + .004	5	-15	
7652		13828	27779	56 55 4.0		-38 13	4.79 K5	+ .065 - .088	11	-38	
7653	15 Vulp	3587	27753	56 59 2.5		+27 29	4.74 A5	+ .054 + .006	25	-21	
7654		1584	27716	57 14 0.7		+63 16	5.96 A0	- .007 - .025	10	- 9	
7655		3820	27760	57 35 + 2.2		+36 49	6.39 K0	+ .040 + .049			
7656		3975	27764	57 30 2.5		+24 31	5.75 B8	.000 - .004	4	-15	
7657	16 Vulp	3977	27768	57 47 2.5		+24 39	5.32 F0	+ .083 + .068	14	-33	5.9:6.3, close binary.
7658		5318	27801	57 49 3.6		-22 53	6.48 F5	- .044 + .020			
7659		15682	27811	57 59 3.8		-32 20	5.05 K0	+ .039 - .005	12	-12	
7660	26 Cygn	3158	27770	58 32 + 1.7		+49 50	5.28 K0	+ .014 + .002	11	+ 1	
7661		5159	27814	58 38 3.2		- 7 45	6.50 A5	+ .009 - .047			
7662		4365	27808	58 47 2.7		+18 14	6.14 K2	+ .010 - .034		+10	
7663		3473	27882	58 55 5.7		-66 39	6.28 K5	- .008 - .008			
7664		4033	27812	58 55 2.7		+15 45	5.47 A0	- .003 - .007	9	var?	V ₀ = -22km
7665	8 Pavo	3474	27886	58 55 + 5.9		-66 26	3.64 G5	+1.187 -1.145	168	-22	
7666		- 1084	27748	58 56 - 0.1		+70 5	6.46 G5	+ .043 + .062			
7667	62 Aqil	- 3887	27832	59 14 + 3.1		- 0 59	5.84 K0	- .001 - .118	9	0	
7668		14700	27851	59 9 3.8		-33 17	6.55 B8	+ .015 - .019		-18	6.7:8.7, close binary
7669	63 Aqil	- 4416	27824	59 15 + 2.9		+ 7 0	5.65 K0	+ .015 + .014	7	-28	
7670		3872	27820	59 31 + 2.5		+29 38	5.68 K0	+ .676 - .530	49	-46	
7671		- 5641	27850	59 34 3.3		-11 53	6.46 F5	- .007 - .012			
7672	15 Sgte	4121	27835	59 37 2.7		+16 48	5.89 G0	- .402 - .415	60	+ 4	
7673	ξ Tele	9794	27879	59 44 4.6		-53 10	4.86 Ma	- .014 + .002	9	var?	V ₀ = +36km
7674		9317	27884	59 43 4.7		-55 18	6.26 F8	+ .015 + .022			
7675	65 Sgtr	- 5569	27859	59 53 + 3.3		-12 57	6.41 A0	+ .004 - .049			
7676	64 Drac	1405	27806	0 25 0.6		+64 32	5.43 Ma	+ .005 - .012	8	-34	
7677		3913	27864	0 40 2.6		+22 55	6.41 A3	+ .001 - .004	11	-23	
7678		3925	27858	0 41 2.4		+31 56	5.69 B0	- .017 - .014	2	+21	
7679	16 η Sgte	4277	27868	0 43 2.7		+19 42	5.26 K0	+ .024 + .079	21	-40	
7680		4040	27872	0 50 + 2.8		+15 13	6.56 Ma	+ .027 + .018			11m, 2", cpm
7681		5013	27880	0 56 3.2		- 4 22	6.56 K0	+ .040 - .044	3		
7682	65 Drac	1407	27829	1 14 0.7		+64 21	6.65 G5	+ .043 + .010	8	+ 9	
7683		3896	27876	1 31 2.2		+38 12	6.56 G5	+ .255 + .106			
7684		3004	27869	1 29 1.8		+47 57	5.98 A0	+ .006 + .001	11	-14	
7685	67 ρ Drac	1222	27856	2 22 + 0.3		+67 35	4.66 K0	+ .013 + .049	7	- 9	
7686	69 Drac	771	27809	2 25 - 1.7		+76 12	6.43 Ma	- .028 - .057	5	-68	
7687		2763	27885	2 24 + 1.6		+51 33	6.28 Ma	+ .025 + .032			
7688	17 Vulp	3896	27910	2 36 2.6		+23 20	5.08 B3	+ .010 + .001	6	- 6	
7689	27 Cygn	3959	27904	2 39 + 2.2		+35 42	5.52 K0	- .232 - .438	35	-34	
7690	64 Aqil	- 3899	27930	2 52 + 3.1		- 0 58	6.04 G5	+ .111 - .070	9	- 3	
7691		9622	27966	3 0 4.9		-57 49	6.50 A0	- .003 - .027			7.0:7.6, close binary
7692		- 2324	27899	3 5 1.4		+56 3	6.18 F0	- .007 + .078			
7693		- 4344	27929	3 1 2.9		+ 9 6	6.52 F5	+ .041 + .022	22	var?	V ₀ = -31km*
7694		5285	27939	3 3 3.3		-10 21	6.17 A0	+ .001 - .041	8	var	Two spectra
7695		1593	27894	3 29 + 0.8		+63 36	6.18 A2	+ .005 + .044	13	-19	10m, 5", binary
7696		4153	27940	3 33 2.7		+16 22	6.67 Ma	.000 - .004			
7697		2623	27912	3 36 1.6		+52 52	5.72 F5	+ .215 + .257	27	-41	
7698		695	28176	3 34 12.8		-83 37	6.26 A2	+ .023 + .013			
7699		3881	27938	3 52 2.3		+34 8	6.07 B8	- .012 - .017	3		

7693: 8.5m, 4", binary.

Precession in declination, +0.17.

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No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
7700		4189	27951	3 ^m 52 ^s +2.9 ^s		+10° 26'	6.23 B5	-".009 - ".007		km -38	
7701	66 Drac	1970	27911	3 57 1.0		+61 42	5.57 K0	+ .120 + .073	1011	+ 6	
7702		3195	27937	4 20 1.7		+49 56	6.52 A2	+ .013 - .022			
7703		13940	27992	4 38 3.9		-36 21	5.34 K5p	+ .448 -1.570	177	-131	12m, 8", cpm
7704		1226	27909	4 28 0.3		+67 45	6.56 Ma	- .019 - .010			
7705	17 θ Sgte	4453	27986	5 32 +2.6		+20 37	8.6 G5	+ .055 + .099	26	-43	12", binary
7706		13855	27987	5 32 4.1		-43 4	6.32 F2	+ .049 + .099		-40	
7707		4571	28017	5 32 4.1		-43 4	6.32 K0	- .016 - .118			
7708	28 Cygn	3907	28048	5 33 5.3		-63 43	6.20 F0	- .038 + .027	6	var	226 days, V ₀ = -14km
7709		5382	27980	5 43 2.2		+36 33	4.82 B2p	- .002 + .013			
7710	65 θ Aqil	3911	27998	5 45 +3.3		- 9 9	6.45 B3	+ .003 .000	13	var*	17.1 days, V ₀ = -29km
7711	18 Vulp	3815	28010	6 9 3.1		- 1 7	3.37 A0	+ .034 + .005	0	var*	9.3 days, V ₀ = -12km
7712	1 Capr	5664	27999	6 23 2.5		+26 36	5.46 A2	+ .015 + .013	6	+ 1	
7713		4462	28026	6 25 3.3		-12 41	6.44 K0	- .010 - .016			
7714		11643	28013	6 39 2.6		+20 51	6.26 K0	+ .013 + .032			
7715	2 ξ Capr	-5608	28063	6 44 +4.5		-52 45	5.69 K5	+ .020 - .045	15		
7716		4088	28035	6 52 3.3		-12 55	5.88 F5	+ .192 - .193	37	+22	
7717		4444	28024	6 59 2.6		+21 35	6.11 B0	- .006 + .005	1	-18	
7718	19 Vulp	3825	28050	7 29 3.1		+ 0 34	7.1 A0	- .001 - .010	8	+20	3", binary
7719	20 Vulp	3828	28051	7 29 3.1		+ 0 34	6.84	+ .006 - .013	8	-20	
7720	66 Aqil	3920	28037	7 37 +2.5		+26 31	5.77 K2	+ .003 - .010	5	-23	
7721		3045	28042	7 49 2.5		+26 11	5.91 B8	+ .003 - .011	7	var	V ₀ = -25km
7722		14659	28068	8 4 3.1		- 1 19	5.64 K2	+ .018 - .028	11	-28	
7723		3935	28062	9 0 1.8		+47 26	6.60 B8	+ .011 + .002			
7724	67 ρ Aqil	4227	28104	9 3 3.7		-27 20	5.69 K0	+1.241 - .182	110	-56	
7725		17773	28084	9 23 +2.6		+23 56	6.48 A0	+ .045 + .030	10	-37	10m, 2", binary
7726		2796	28097	9 39 2.8		+14 54	4.96 A0	+ .052 + .054	18	var?	V ₀ = -24km
7727	68 Drac	1983	28127	9 38 3.7		-30 19	6.38 K2	+ .043 + .001			
7728		14011	28077	9 45 1.7		+51 10	6.35 K2	- .015 - .015	7	+13	11m, 4", cpm
7729		14020	28071	9 57 1.0		+61 47	5.72 F5	+ .121 + .082	28	-16	
7730	30 Cygn	2881	28139	10 0 3.9		-36 46	6.48 Mb	+ .007 - .042			
7731	21 Vulp	3675	28143	10 0 3.9		-35 30	6.60 F2	+ .007 + .081			
7732		4576	28091	10 9 1.9		+46 31	4.96 A2	+ .007 - .003	13	-21	
7733		-3642	28105	10 8 2.5		+28 23	5.20 A3	+ .009 - .022	12	+ 6	
7734		3949	28184	10 14 5.3		-63 32	6.32 K0	- .014 - .086			
7735	31 Cygn	2882	28098	10 21 +2.0		+43 4	6.25 K2	- .015 + .005			
7736	29 Cygn	3955	28106	10 20 2.2		+36 18	6.41 A2	+ .019 + .001	9	-20	
7737		2883	28099	10 29 1.9		+46 26	3.95 K0	.000 .000	5	var*	107", fixed
7738		2883	28101	10 30 1.9		+46 24	6.94 B9	- .007 - .008			
7739	3 Capr	5680	28124	10 47 2.2		+36 30	4.98 A0	+ .064 + .068	19	-16	
7740		4165	28123	10 55 +2.1		+41 48	6.42 B8	.000 - .022			7.1:7.3, close binary
7741	33 Cygn	2376	28149	10 51 3.3		-12 39	6.41 B9	+ .006 - .012	6	var*	10m, 1", fixed
7742		3944	28140	11 2 2.5		+25 17	4.82 B3	+ .003 - .006	20	var	V ₀ = -27km
7743		2099	28108	11 4 1.4		+56 16	4.32 A3	+ .061 + .082	3	var	249 days, V ₀ = -24km
7744	23 Vulp	3666	28144	11 11 2.6		+23 12	5.38 G5	- .006 - .016			
7745		13509	28120	11 37 +1.1		+60 20	6.16 K2	+ .042 + .057	6	0	
7746	18 Sgte	4130	28145	11 31 2.3		+33 26	5.78 G5	- .046 - .108	13	- 9	14m, 3", cpm
			28152	11 37 2.5		+27 30	4.73 K5	- .041 + .008	9	+ 2	
			28202	11 46 4.3		-48 2	6.28 Ma	+ .008 .000			
			28166	11 56 2.6		+21 17	6.16 K0	- .004 - .026	7	- 4	

7710: Two spectra.

7711: Two spectra.

7735: V₀ = -3km.

Precession in declination, +0.18.

7739: V₀ = -1km.

CATALOGUE OF BRIGHT STARS

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No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
7747	5 α ¹ Capr	5683	28189	12 ^m 6 ^s +3.3		-12° 49'	4.55 GOp	+ ".016 + ".004	".003	km var	V ₀ = -26km
7748	4 Capr	5384	28195	12 9 3.5		-22 7	5.96 KO	+ .033 - .032	12	-18	
7749		13340	28213	12 7 +4.3		-47 53	6.34 F5	+ .196 - .186			
7750	1 κ Ceph	764	28066	12 16 -2.0		+77 25	4.40 B9	+ .009 + .026	10	-23	8m, 7", binary
7751	32 α ² Cygn	3059	28160	12 23 +1.9		+47 24	4.16 *	- .004 + .005	6	var	1170 days, V ₀ = -14km*
7752		3977	28169	12 25 +2.2		+38 35	6.14 A0	- .006 - .038	9	+ 4	
7753	24 Vulp	4075	28183	12 30 2.6		+24 22	5.45 KO	+ .011 - .018	7	+15	
7754	6 α ² Capr	5685	28200	12 30 3.3		-12 51	3.77 G5	+ .060 + .005	28	0	10.6m, 7", binary*
7755		3236	28171	12 49 1.7		+49 55	6.31 A0	+ .020 + .008	11	-28	
7756		3119	28174	12 46 1.9		+45 16	5.87 F5	+ .003 - .054	31	-40	
7757		3978	28180	12 44 +2.2		+36 45	6.32 B5	+ .008 .000	4	- 6	
7758		9365	28241	12 46 4.7		-55 22	6.16 K5	+ .007 - .050			
7759		4114	28197	13 22 2.1		+40 3	5.50 K5	- .001 - .004	6	-19	
7760		3695	28208	13 26 2.5		+28 50	6.38 KO	- .016 + .032	9		11m, 6", binary
7761	7 σ Capr	5776	28233	13 37 3.5		-19 26	5.46 KO	+ .004 - .007	9	-10	
7762		3670	28214	14 4 +2.1		+42 25	6.45 K2	+ .009 - .001			
7763	34 P Cygn	3871	28218	14 6 2.2		+37 43	4.88 B1p	- .009 - .005	6		Nova 1600*
7764		16981	28269	14 18 3.7		-29 30	6.32 A0	+ .026 + .002			
7765		14057	28274	14 25 3.9		-35 59	6.51 K2	+ .030 + .037			
7766		12929	28291	14 25 4.4		-50 18	6.40 F8	- .359 - .254	41		
7767		4103	28228	14 34 +2.1		+40 25	5.82 B2p	- .003 - .004	3	var*	6.0:8.2, 3", binary
7768		3951	28256	14 33 3.1		- 1 23	6.23 KO	+ .037 + .033			
7769	36 Cygn	3998	28239	14 44 2.2		+36 41	5.52 A0	+ .032 + .024	11	var	V ₀ = -9km
7770	35 Cygn	3967	28242	14 49 2.3		+34 40	5.18 F5p	+ .001 - .009	4	var	V ₀ = -17km
7771		4289	28257	14 48 2.8		+12 54	6.50 Ma	- .035 - .013			
7772		5451	28278	15 7 +3.2		- 6 40	6.66 K5	- .082 - .083			
7773	8 ν Capr	5642	28282	15 7 3.3		-13 4	4.84 A0	+ .013 - .018	17	- 2	
7774		4360	28275	15 19 2.8		+13 14	5.96 A5	+ .007 - .006	13	- 8	
7775		5626	28286	15 9 3.4		-15 6	6.16 B9	+ .039 + .001			
7776	9 β Capr	5629	28295	15 24 3.4		-15 6	3.25 *	+ .039 + .003	13	var*	205", cpm*
7777		3139	28261	15 37 +1.9		+46 0	6.28 B1	- .009 + .008	3	var*	3.0 days, V ₀ = -9km
7778		4263	28288	15 42 2.8		+14 15	6.34 G5	- .012 + .007		+ 9	
7779	κ ¹ Sgtr	14836	28309	15 40 4.1		-42 22	5.64 A0	+ .044 - .093	42	var?	V ₀ = -17km
7780		4294	28292	15 49 2.7		+17 29	6.04 K5	+ .014 - .035			
7781		2329	28258	15 57 1.5		+55 5	5.97 A0	- .009 - .025	8	+ 1*	7.4m, 3", binary*
7782		4008	28284	16 4 +2.2		+36 49	6.47 A0	+ .006 - .012	8	-17	
7783		1281	28252	16 32 0.6		+66 32	6.08 F8	+ .466 + .298	70	- 5	
7784		4021	28299	16 38 2.2		+39 5	6.24 A0	- .007 - .023	8	- 1	9m, 3", binary*
7785		901	28453	16 39 10.0		-81 18	5.81 KO	+ .019 - .018			
7786		2910	28297	16 45 1.9		+46 31	6.15 B9	- .004 + .008	7		
7787	κ ² Sgtr	14847	28341	17 5 +4.1		-42 45	5.68 A3	- .001 + .022	12	+ 2	5.9:7.5, 1", binary
7788		5369	28332	17 34 3.3		- 9 58	6.34 G5	+ .038 - .020			
7789	25 Vulp	3986	28325	17 45 2.6		+24 8	5.41 B8	- .005 - .008	6	-13	
7790	α Pavo	9674	28374	17 44 4.7		-57 3	2.12 B3	+ .007 - .087	14	var	11.8 days, V ₀ = +2km
7791		2384	28311	17 51 1.6		+53 16	6.38 K5	- .020 + .013			
7792	71 Drac	2000	28304	17 57 +1.0		+61 56	5.61 B9	+ .008 + .026	9	var	
7793		4275	28343	18 12 2.8		+14 13	6.22 F5	+ .071 - .003	44	+ 2	
7794		4434	28351	18 13 3.0		+ 5 1	5.41 KO	- .031 - .040	7	-12	
7795		4136	28330	18 31 2.1		+40 48	6.43 G5	- .009 - .032	4	- 4	
7796	37 γ Cygn	4159	28338	18 38 2.2		+39 56	2.32 F8p	+ .001 .000	7	- 8	

7751: Composite, KO, A3; vel. may also vary in 390 days.

Precession in declination, +0.19.

7754: The companion is itself binary, 11.2:11.5, 1".

7777: Two spectra.

7763: Several outbursts, constant light since 1677; absorption lines give -83km.

7767: V₀ = -6km.

7781: In Ursa Cluster? Fainter has variable velocity.

7775: 10m, 1", binary.

7784: The bright star is itself double, 6.2:8.2, 0.2".

7776: Triple system: A and BC, 1378 days; B and C, 8.7 days; V₀ = -19km. Spectra star A, G0; star B, A0.

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No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
7797		4005	28347	18 ^m 36 ^s + 2.4		+ 30° 56'	6.16 K2	"000 - ".029	"007	km + 11	V ₀ = -23km
7798		3152	28339	18 50 2.0		+ 45 28	5.87 K0	+ .023 + .042	8	var	
7799		14024	28395	19 7 4.0		- 41 7	6.11 K0	- .104 - .092			
7800		4141	28356	19 12 2.1		+ 40 42	6.08 K5	- .003 - .048	5	0	
7801		- 17049	28394	19 20 3.7		- 28 59	5.97 K0	+ .012 + .006	11		
7802		3721	28364	19 29 + 2.1		+ 42 40	6.33 K0	+ .048 + .035	14		
7803		4495	28382	19 32 3.1		+ 0 45	6.11 A0	- .001 + .008			
7804		1121	28324	19 39 0.3		+ 68 34	5.99 Mb	+ .017 + .038	6	-44	
7805		1618	28340	19 46 0.8		+ 63 40	5.92 K5	- .007 + .024			
7806	39 Cygn	4062	28378	19 52 2.4		+ 31 52	4.60 K2	+ .037 - .002	14	-15	
7807		3916	28379	20 0 + 2.2		+ 37 9	5.68 B3	.000 - .005	3	-43	
7808		13741	28425	20 24 3.9		- 37 44	6.26 K0	- .244 - .114	24		6.4:8.4, 1", 108 years
7809		4888	28408	20 30 3.1		- 3 7	6.10 K0	- .012 - .030			
7810		4526	28414	20 56 2.9		+ 9 44	6.46 K5	- .003 - .030			
7811		- 4559	28418	21 15 2.7		+ 21 5	5.80 K0	+ .004 - .009	10	-22	
7812		906	28578	21 25 +10.1		- 81 38	5.76 K5	+ .010 - .026			
7813		4408	28431	21 32 2.7		+ 19 32	6.44 K0	+ .024 .000			
7814	10 π Capr	5685	28442	21 36 3.4		- 18 32	5.20 B8	+ .011 - .010	7	-15	9m, 3", cpm
7815		2397	28410	21 51 1.6		+ 53 14	6.45 B9	+ .006 + .014			
7816		4259	28435	21 49 2.7		+ 16 59	6.17 K0	+ .009 - .016			
7817		- 14166	28464	22 22 + 3.8		- 35 56	6.22 A0	+ .005 - .022			
7818		2228	28434	23 1 1.2		+ 59 16	6.48 A0	+ .008 - .007	9	var	7.1:7.3, close binary
7819		5609	28477	23 5 3.4		- 16 4	6.45 K0	+ .006 - .007			
7820		- 4477	28466	23 15 2.9		+ 8 6	6.26 K0	+ .036 + .015			
7821	68 Aqil	4906	28472	23 11 3.1		- 3 41	6.03 B9	+ .018 - .014			
7822	11 ρ Capr	5689	28481	23 9 + 3.4		- 18 9	4.96 F0	- .016 - .023	34	+20	5.0:10, 2", binary
7823		- 3910	28454	23 13 2.3		+ 34 0	6.41 F0	- .011 - .005		-14	
7824		4175	28470	23 14 3.0		+ 2 36	6.35 K0	+ .045 - .001			
7825		5442	28496	23 39 3.5		- 22 43	6.22 K5	+ .011 - .026	5	+55	
7826	40 Cygn	- 3941	28467	23 52 2.2		+ 38 7	5.45 A0	- .028 - .071	15	0	
7827		2421	28456	23 59 + 1.4		+ 56 19	6.21 A0	+ .011 + .009	10	var	8m, 26", cpm
7828	43 Cygn	- 3128	28462	23 59 1.8		+ 49 3	5.72	+ .067 + .058	24	-20	Composite, F0, A0
7829		- 5830	28502	24 9 3.4		- 18 55	6.64 A3	+ .017 - .089			
7830	12 ρ Capr	- 5831	28503	24 10 3.4		- 18 55	6.10 A2	+ .023 - .082	7		22", cpm
7831	69 Aqil	4918	28504	24 25 3.1		- 3 13	5.11 K0	+ .066 - .018	12	-24	
7832		17122	28524	24 49 + 3.7		- 29 27	6.14 A5	+ .013 + .001			
7833		4423	28508	24 53 2.7		+ 19 45	6.38 A2	- .030 - .004	11	+ 4	
7834	41 Cygn	- 4057	28513	25 19 2.5		+ 30 2	4.09 F5p	+ .005 - .003	8	-18	
7835	42 Cygn	- 4141	28515	25 32 2.3		+ 36 7	5.94 A0	- .001 - .002	3	-18	
7836	1 D1ph	4303	28525	25 31 2.9		+ 10 34	5.92 A0	+ .016 + .003	6	-16	6.1:8.0, 1", binary
7837		5696	28533	25 28 + 3.4		- 15 23	6.19 G0	- .045 - .055	9	+ 31	
7838		- 2792	28597	25 57 5.9		- 69 57	6.12 K2	+ .032 - .061			
7839		4602	28540	26 30 2.7		+ 20 16	6.00 A2	+ .089 + .043	11	-40	
7840		4307	28545	26 27 2.9		+ 10 55	7.04 A0	- .004 - .003	6	-11	
7841		3196	28535	26 41 2.0		+ 45 35	6.59 K0	+ .067 + .152	6	-31	
7842		14854	28573	26 55 + 3.6		- 25 17	6.20 A0	+ .008 - .043			
7843		2411	28531	26 57 1.5		+ 55 44	5.87 B9	+ .002 + .011	7	-22	6.0:8.5, close binary
7844	45 ω Cygn	3142	28537	26 58 1.9		+ 48 37	4.89 B3	+ .008 + .007	5	-22	
7845		5423	28563	26 55 3.3		- 10 12	5.81 G5	+ .303 + .102	33	+ 8	12m, 5", cpm
7846	v Micr	14020	28588	27 3 4.1		- 44 51	5.30 K0	+ .012 - .040	7	+ 9	

Precession in declination, +0.20.

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No	Name	DM	GC	RA	Ann	Decl	Magn	Prop Motion		Par	Rad	Remarks
				1900	Var	1900	Spec	RA	Decl		Vel	
7847	44 Cygn	4105	28551	27 ^m 11 ^s +2 ^s .3		+36° 36'	6.30 F8p	-".001	-.005	".003	-22	11m, 2"
7848	φ' Pavo	-6492	28609	27 18 5.0		-60 55	4.84 F0	+ .065	-.183		22	-19
7849		4272	28571	27 42 2.6		+25 28	6.29	+ .027	-.033		13	-18
7850	2 θ Ceph	1821	28541	27 54 1.0		+62 39	4.28 A5	+ .042	-.014		32	var
7851	46 ω ² Cygn	3154	28569	28 14 1.9		+48 53	5.57 Ma	+ .007	-.030		7	-64
7852	2 ε Dlph	4321	28593	28 26 +2.9		+10 58	3.98 B5	+ .007	-.022		12	-18
7853		14108	28619	28 25 3.9		-38 26	6.45 A2	+ .015	-.005			
7854		2882	28574	28 30 1.7		+51 58	6.27 K0	+ .032	+ .067			
7855		5781	28608	28 38 3.3		-14 4	6.24 F8	+ .071	+ .072			
7856		18013	28620	28 38 3.7		-30 49	6.52 B9	+ .015	-.021			
7857		4579	28613	29 5 +2.9		+ 9 43	6.44 A0	- .012	+ .008		10	-13
7858	3 η Dlph	4378	28617	29 13 2.8		+12 41	5.23 A2	+ .067	+ .026		14	var?
7859	ρ Pavo	6495	28668	29 12 5.0		-61 52	5.03 F5	+ .053	-.067		0	+ 8
7860		2444	28589	29 20 1.5		+56 26	6.31 K5	- .022	-.007		5	-15
7861		3778	28604	29 23 2.1		+42 51	6.41 B3	+ .004	+ .007			var
7862		4629	28629	29 43 +2.7		+20 38	6.28 B3	+ .010	-.003			+ 3
7863	μ' Octn	1434	28731	29 42 7.4		-76 32	6.14 F0	+ .199	-.012			
7864	μ ² Octn	1644	28727	29 49 7.1		-75 42	7.08 G5	+ .144	-.151			
			28728	29 51 7.1		-75 42	7.60 G5	+ .166	-.165			12", cpm
7865		-6027	28652	29 53 3.4		-16 52	6.20 A5	+ .080	-.020			
7866	47 Cygn	4079	28630	30 1 +2.3		+34 54	4.85	- .002	-.007		2	- 4
7867		3805	28633	30 15 +2.1		+41 26	6.43 K0	- .019	-.081			
7868		957	28583	30 27 -0.3		+72 12	6.42 K2	- .004	-.020		5	-43
7869	α Indi	13477	28682	30 32 +4.2		-47 38	3.21 K0	+ .049	+ .066		32	- 1
7870		2977	28642	30 38 2.0		+46 21	5.59 B9	+ .007	-.002		7	-22
7871	4 ζ Dlph	4353	28659	30 38 +2.8		+14 20	4.69 A2	+ .042	+ .012		17	-25
7872		4602	28718	31 19 5.1		-63 15	6.36 K0	+ .012	-.079			
7873	70 Aqil	-4961	28684	31 31 3.1		- 2 54	5.22 K5	+ .003	-.002		7	-10
7874	26 Vulp	4299	28679	31 51 2.6		+25 32	6.29 A2	+ .014	+ .012			var
7875	φ ² Pavo	7419	28730	31 46 5.0		-60 53	5.30 F8	+ .302	-.571		45	-32
7876		2895	28667	31 56 +1.7		+51 31	6.26 F0	- .004	-.003			
7877		14920	28700	31 55 3.6		-25 27	6.26 F0	+ .062	-.002			
7878		4056	28697	32 11 +3.1		- 0 15	6.16 B8	- .004	-.016			-23
7879	73 Drac	872	28639	32 50 -0.8		+74 37	5.18 A2p	+ .007	-.015		12	+ 9
7880	27 Vulp	-4302	28702	32 49 +2.6		+26 7	5.52 B9	+ .009	-.007		8	var
7881	ν Pavo	3754	28782	32 47 +5.5		-67 7	5.36 B9	+ .011	-.024			+ 8
7882	6 β Dlph	4369	28709	32 52 2.8		+14 15	3.72 F5	+ .106	-.034		34	var*
7883	5 δ Dlph	-4339	28711	33 2 2.9		+11 2	5.43 A2	+ .035	-.007		14	var
7884	71 Aqil	4016	28725	33 10 3.1		- 1 27	4.51 K0	+ .010	-.020		11	var
7885	48 Cygn	4159	28713	33 28 2.4		+31 13	6.24 A0	+ .005	.000		9	-21
7886		4370	28720	33 21 +2.7		+17 55	6.27 Mc	+ .014	+ .098			
7887		4160	28715	33 29 2.4		+31 10	6.38 F0	- .050	-.033		11	+ 1
7888		4002	28714	33 38 2.3		+37 58	6.32 K0	+ .006	-.044			
7889	14 τ Capr	5743	28748	33 41 3.4		-15 18	5.30 B5	+ .003	-.021		6	- 5
7890		5328	28752	34 1 3.1		- 2 46	6.26 B9	+ .001	+ .011		6	var?
7891	29 Vulp	4658	28740	34 3 +2.7		+20 51	4.78 A0	+ .062	+ .006		12	-19
7892	8 θ Dlph	4411	28743	34 1 2.8		+12 58	6.06 K5	- .006	-.004		3	-14
7893		15119	28776	34 4 3.8		-33 47	5.54 K2	+ .027	+ .036		8	var?
7894	28 Vulp	4084	28741	34 10 2.6		+23 46	5.04 B5	+ .005	-.002		8	-22
7895		4085	28745	34 13 2.6		+23 19	6.13	+ .010	-.007		0	

7882: V₀ = -23km, measured throughout a revolution.

Precession in declination, +0.21.

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No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
7896	7 κ Dlph	4600	28756	34 ^m 16 ^s +2.9		+ 9° 44'	5.23 G5	+ ".313 + ".015	".029	-53	
7897	1 Aqar	- 4064	28761	34 17 3.1		+ 0 8	5.39 KO	+ .096 - .014	10	-43	
7898		16193	28778	34 15 3.6		-24 8	6.33 G5	+ .491 + .461	68	-50	
7899		4220	28758	34 27 2.8		+15 29	5.92 B2	- .004 - .018	3	+ 2	
7900	15 υ Capr	5738	28777	34 21 +3.4		-18 29	5.33 Ma	- .021 - .020	8	-12	
7901	75 Drac	- 659	28611	34 32 -3.8		+81 5	5.62 KO	+ .028 + .017	9		
7902		14959	28791	34 36 +3.6		-27 0	6.41 GO	+ .031 - .018			
7903		4305	28766	34 44 2.7		+21 28	5.94 A0	+ .014 + .014	9	var?	V ₀ = -33km
7904		4121	28764	34 52 2.5		+29 59	5.86 KO	- .036 - .058	8	+13	
7905		5663	28797	34 56 3.4		-16 29	5.91 KO	- .071 + .073			
7906	9 α Dlph	4222	28780	35 0 +2.8		+15 34	3.86 B8	+ .062 - .003	12	- 7	
7907		4351	28784	35 4 +2.9		+10 54	6.42 F8	+ .056 + .088			
7908	74 Drac	660	28648	35 15 -3.5		+80 44	6.10 KO	+ .069 + .222	24	var	
7909		-16130	28808	35 12 +3.7		-31 57	5.80 Ma	+ .099 - .054	19		
7910		15192	28812	35 26 3.6		-26 21	6.35 KO	- .004 - .030			
7911		4266	28796	35 54 +2.2		+40 14	5.93 B8	+ .003 - .001	5		6.5:6.8, close binary*
7912		3233	28793	36 1 2.0		+45 19	6.46 B3	+ .001 .000		-15	
7913	β Pavo	3501	28862	35 57 5.4		-66 34	3.60 A5	- .044 + .014	29	+10	
7914		4484	28814	36 14 2.7		+19 34	6.40 G5	+ .119 + .303	52	-38	
7915		-13994	28841	36 20 3.9		-39 55	6.38 KO	+ .021 - .005			
7916		2444	28794	36 25 +1.6		+55 39	6.50 F0	- .009 - .035			
7917		4131	28816	36 27 2.4		+29 27	6.09 A0	+ .004 + .036	11	var*	11m, 1", binary
7918	10 Dlph	4393	28826	36 35 2.8		+14 14	6.19 K2	- .010 + .002	6	-32	
7919		- 3818	28809	36 34 2.1		+43 6	6.15 KO	- .074 - .063		-18	
7920	η Indi	11752	28860	36 42 4.4		-52 17	4.70 F0	+ .155 - .058	32	- 2	
7921	49 Cygn	4181	28827	37 0 +2.4		+31 57	5.90 KO	+ .003 - .015	7	-28	8.0A, 3", binary
7922		4187	28830	37 16 2.2		+38 43	6.44 B9	- .001 + .008			
7923		4382	28843	37 22 2.8		+17 10	6.27 KO	+ .017 + .043			
7924	50 α Cygn	3541	28846	38 1 2.0		+44 55	1.33 A2p	- .002 + .002	5	var	Deneb
7925		- 2272	28832	38 10 1.3		+60 9	5.95 F5	+ .007 + .186	26	-12	
7926		3856	28854	38 20 +2.2		+41 22	5.60 B8	+ .010 + .005	6	var	V ₀ = -27km
7927		- 4127	28861	38 27 2.3		+35 6	6.50 B3	- .023 - .010		- 6	
7928	11 δ Dlph	4403	28873	38 47 2.8		+14 43	4.53 A5	- .025 - .048	13	+ 9	In Ursa Cluster?
7929	51 Cygn	3353	28865	39 8 +1.8		+49 59	5.41 B3	.000 + .003	4	var?	V ₀ = -3km; 13m, 3", fixed
7930		588	28690	39 5 -6.0		+83 17	6.16 A2	+ .024 - .016			
7931		15014	28909	39 13 +3.6		-27 37	6.50 G5	+ .007 + .005			
7932	X Cygn	4234	28886	39 29 2.3		+35 14	var G0p	- .013 - .004	1	var*	6.5 to 8.1 (ptg)*
7933		13960	28927	39 49 3.9		-39 34	5.53 B8	+ .043 - .027		-49	
7934	σ Pavo	3138	28969	39 50 5.7		-69 8	5.47 KO	- .073 - .052	6	+19	
7935		14396	28928	39 57 3.8		-36 29	6.48 F2	+ .040 - .055			
7936	16 ψ Capr	15018	28929	40 11 +3.6		-25 38	4.26 F8	- .056 - .156	86	var	V ₀ = +26km
7937	17 Capr	- 5523	28933	40 22 3.5		-21 53	5.89 A0	+ .020 - .011			
7938		2154	28894	40 32 1.3		+60 14	6.11 A0	- .005 - .013	9	- 5	
7939	30 Vulp	4229	28920	40 33 2.6		+24 55	5.13 K2	- .035 - .178	9	var	V ₀ = +31km
7940		2477	28901	40 42 1.5		+56 45	6.36 B3	- .016 + .003	3	var	V ₀ = -15km
7941	U Dlph	4401	28930	40 54 +2.7		+17 44	var Mb	- .003 + .004			5.6 to 7.5
7942	52 Cygn	4167	28942	41 32 2.5		+30 21	4.34 KO	- .014 + .028	17	- 1	9m, 6", binary
7943	ι Micr	14145	28980	41 42 4.1		-44 21	5.14 F0	+ .180 - .106	46	-18	
7944		- 2462	28926	41 46 1.6		+56 8	6.24 Ma	+ .002 - .015			
7945	4 Ceph	1318	28919	41 56 0.7		+66 18	5.57 A5	+ .023 + .038	24	+35	

7911: Also 7.7m, 69", cpm.

7917: V₀ = -29km.

Precession in declination, +0.21.

7932: 16.4 days, V₀ = +10km.

CATALOGUE OF BRIGHT STARS

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No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
7946	12 γ Dlph	- 5018	28968	41 ^m 52 ^s +3.1	- 2° 51'	6.33 K2	- ".021 - ".014	".029	km	11", binary	
7947		4255	28965	42 0 2.8	+15 46	5.47 F8	- .027 - .196		- 8		
7948			28966	42 1 2.8	+15 46	4.49 G5	- .037 - .198		- 7		
7949		53 ϵ Cygn	4018	28959	42 10 2.4	+33 36	2.64 K0		+ .355 + .325		39 var
7950	2 ϵ Aqr	- 5506	28978	42 16 3.2	- 9 52	3.83 A0	+ .028 - .033	19 var?	$V_0 = -17\text{km}$		
7951	3 Aqr	5378	28979	42 28 +3.2	- 5 24	4.60 Ma	- .006 - .039	9	-22		
7952	ζ Indi	13718	29008	42 36 4.1	-46 36	4.90 K5	+ .043 + .023	8	- 5		
7953	13 Dlph	4613	28986	42 51 3.0	+ 5 38	5.59 A0	+ .004 - .004	7	- 8	9m, 1", binary	
7954		4250	28984	42 46 3.0	+ 2 56	6.35 A0	+ .027 + .022	10	-21		
7955		2240	28956	42 52 1.5	+57 13	4.63 G0	- .066 - .232	42	-31		
7956	3 η Cep	- 4028	28981	43 11 +2.4	+34 0	5.20 K0	+ .043 + .002	9	-22	12m, 10", cpm	
7957		2050	28962	43 15 1.2	+61 27	3.59 K0	+ .090 + .820	70	-87		
7958		- 3270	28977	43 17 2.0	+46 10	6.26 A2	- .028 - .014	9	- 9	6.4:8.3, close binary	
7959			29042	43 18 5.0	-62 48	6.59 A2	+ .076 - .048	8		3", binary	
7960		6180	29043	43 18 5.0	-62 48	6.59 A2	+ .078 - .044				
7961	54 λ Cygn	15282	29018	43 21 +3.6	-26 9	5.78 B8	+ .013 - .023		-12		
7962		2799	28975	43 27 1.7	+52 38	6.43 K0	- .082 - .108				
7963		- 4267	28994	43 31 2.3	+36 7	4.47 B5	+ .006 - .010	8	-25	4.8:6.1, close binary	
7964		5783	29023	43 40 3.4	-18 24	6.37 K0	.000 - .034	6			
7965		α Micr	14660	29026	43 43 3.7	-34 9	5.00 K0	+ .005 - .024	9	-14	9m, 21", cpm
7966	1 Indi	3275	28997	43 55 +2.1	+45 13	6.69 K5	+ .001 - .026	5	- 6		
7967		1127	28961	43 57 0.4	+69 23	6.52 K0	- .030 - .024				
7968		-11782	29055	44 16 4.3	-51 59	5.16 K0	+ .003 - .013	6	+21		
7969		3188	29012	44 32 2.0	+47 28	5.65 K0	+ .007 - .028	6	var	$V_0 = -29\text{km}$	
7970		16236	29051	44 37 3.7	-32 25	6.46 K5	- .019 - .060				
7971		14250	29053	44 36 +3.9	-38 17	5.55 K0	- .014 - .021	8	var	$V_0 = +15\text{km}$	
7972		- 2954	29021	44 54 1.8	+52 3	6.34 G5	+ .064 - .159	56	-41		
7973	15 Dlph	4472	29037	44 52 2.9	+12 10	6.00 F5	+ .053 + .098	33	+ 2		
7974	14 Dlph	4556	29039	44 54 2.9	+ 7 30	6.23 A0	+ .019 + .014		var	10.9 days, $V_0 = -29\text{km}$	
7975	4626	29044	45 1 3.0	+ 5 10	6.30 K0	+ .036 + .008					
7976	55 Cygn	- 5773	29057	45 11 +3.3	-12 55	5.99 K0	+ .121 - .070	10	var?	$V_0 = -44\text{km}$	
7977		3291	29036	45 32 2.0	+45 45	4.89 B2	+ .001 - .001	5	- 7		
7978		2957	29033	45 42 1.8	+51 32	6.28 B9	+ .004 + .006			6.4:8.4, 4", cpm	
7979		β Micr	15245	29080	45 46 3.7	-33 33	6.03 A2	+ .011 + .015		- 7	
7980	18 ω Capr	15082	29079	45 51 3.6	-27 18	4.24 Ma	- .005 - .009	9	+ 9		
7981	4 Aqr	4431	29067	46 1 +2.8	+17 40	6.49 A0	+ .071 + .015	6	+13		
7982		5604	29078	46 8 3.2	- 6 0	5.99 F2	+ .093 + .001	23	-25	6.3:7.6, 152 years	
7983		3067	29065	46 32 2.0	+46 17	6.48 B3	+ .004 - .001	4	-15		
7984	56 Cygn	3739	29066	46 32 2.1	+43 41	5.07 A5	+ .122 + .134	25	-22		
7985	5 Aqr	- 5606	29094	46 51 3.2	- 5 53	5.50 B8	- .004 + .003	12	- 2		
7986	β Indi	7788	29133	47 0 +4.7	-58 50	3.72 K0	+ .023 - .025	12	var?	$V_0 = -5\text{km}$	
7987	T Vulp	14078	29127	47 10 3.9	-40 11	5.42 K2	+ .040 - .101	16	+20		
7988		3890	29089	47 14 2.5	+27 53	var F8p	- .003 - .002	4	var*	5.4 to 6.3, 4.4 days	
7989	6 μ Aqr	16328	29116	47 9 3.5	-24 9	6.37 G5	+ .096 - .054	19		8.4m, 2", cpm	
7990		5598	29109	47 16 3.2	- 9 22	4.80 A3	+ .041 - .029	17	- 9		
7991		17917	29126	47 18 +3.7	-31 6	6.46 K0	+ .033 - .009				
7992	12748	29137	47 27 4.3	-51 6	6.46 B9	- .003 - .035		- 4			
7993	1663	29069	47 32 1.1	+63 40	6.38 B0	- .011 - .006		-27			
7994	- 5854	29125	47 37 3.3	-11 57	6.40 G0	+ .046 + .047	30	- 1			
7995	31 Vulp	4017	29112	47 51 2.6	+26 43	4.76 G5	- .072 - .063	18	var?		

7988: $V_0 = -1\text{km}$.

Precession in declination, +0.22.

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No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
7996		3974	29111	47 ^m 56 ^s +2.4		+32° 28'	6.35 B5	-.014 +.005		km -20	
7997		16975	29139	48 7 3.6		-28 18	6.46 Ma	+.024 -.026			
7998		5433	29142	48 39 3.2		- 7 16	6.50 F0	+.027 -.025			
7999		4221	29136	48 55 2.5		+29 16	6.40 K2	-.005 -.047		- 9	
8000	19 Capr	5805	29164	49 9 3.4		-18.18	5.91 K0	-.054 -.018	.010	-39	
8001	57 Cygn	-3755	29150	49 43 +2.1		+44 1	4.68 B3	+.006 +.001		var*	2.9 days, $V_0 = -18\text{km}$
8002	76 Drac	- 718	29019	49 51 -4.4		+82 10	5.69 A0	+.030 +.025	17		
8003		3617	29153	49 49 +2.1		+44 48	5.59 K0	+.011 +.002	7	-26	
8004		-3922	29155	49 48 2.2		+42 2	6.47 A0	+.008 +.002	7	- 7	
8005		-3980	29159	49 51 2.4		+33 3	5.68 K2	-.018 +.029	7	- 9	
8006		4075	29186	49 58 +3.1		- 1 45	6.58 F0	-.006 +.022		var	0.20 days, $V_0 = -7\text{km}$
8007		-3909	29171	50 8 2.5		+28 8	6.44 B3	+.003 -.010			
8008	32 Vulp	3911	29178	50 18 2.6		+27 41	5.24 K5	-.005 -.002	8	- 9	
8009		4354	29182	50 38 2.2		+40 19	6.48 B8	+.007 +.003	4	-21	11m, 6", fixed
8010		-4461	29200	50 40 3.0		+ 4 9	6.28 G0	+.064 +.012	4	-30	7.8m, 2", binary
8011	17 Dlph	4572	29201	50 53 +2.8		+13 20	5.39 K0	+.010 -.012	11	-10	
8012	16 Dlph	4501	29202	50 52 2.9		+12 11	5.54 A2	+.035 +.018	9	var	
8013		15344	29213	50 51 3.6		-26 41	5.77 F8	+.091 -.067			
8014		-5307	29212	51 4 3.1		- 3 57	6.47 B9	+.022 +.020			
8015	7 Aqar	5553	29220	51 30 +3.2		-10 5	5.68 K2	-.009 -.008	8	-33	12m, 2", fixed
8016		672	29107	52 8 -2.7		+80 11	5.58 K0	-.032 -.034	10	-27	
8017		-4132	29232	52 4 +3.1		+ 0 5	6.26 K2	+.013 -.062			11m, 26", cpm
8018		5741	29245	52 5 3.4		-16 25	5.95 A3	+.048 .000			
8019		3398	29293	52 19 5.5		-68 36	6.47 A0	-.008 -.001			
8020		-3111	29219	52 27 2.0		+47 2	5.76 B8p	-.006 -.003	4	-17	
8021	α Octn	1474	29343	52 36 +7.3		-77 24	5.24 F2	+.006 -.367	22	var	
8022		3232	29233	53 4 1.9		+50 41	6.35 B8	+.014 +.004	5		
8023		3639	29241	53 3 2.1		+44 33	6.01 Oe5	-.009 +.007	3	var	48.6 days, $V_0 = -6\text{km}$
8024		-5848	29265	53 10 3.3		-14 52	6.02 A3	-.046 .000			
8025		3233	29243	53 15 1.9		+50 21	5.80 F0	+.032 -.020			
8026		3249	29239	53 9 +2.0		+48 49	5.98 K0	+.006 +.006	7	-15	
8027		12778	29288	53 15 4.3		-51 39	5.88 F5	-.108 +.130			
8028	58 ν Cygn	4364	29251	53 27 2.2		+40 47	4.04 A0	+.008 -.016	13	var	$V_0 = -30\text{km}$
8029		2515	29246	53 37 1.6		+56 30	6.14 B3	+.002 +.010	3	-19	
8030	18 Dlph	4425	29266	53 37 2.9		+10 27	5.61 K0	-.056 -.035	13	- 1	
8031		14530	29290	53 41 +3.8		-36 31	6.12 F0	+.095 -.042			
8032	33 Vulp	4424	29267	53 48 2.7		+21 56	5.57 K5	-.008 +.004	9	-28	
8033	20 Capr	5982	29287	53 55 3.4		-19 25	6.23 A0p	+.008 -.012			
8034	1 Equi	4473	29276	54 5 3.0		+ 3 55	5.29 F5	-.115 -.146	19	+18 + 9	6.0:6.5, 101 years 11", triple with 8034
8035		-3777	29274	54 45 +2.1		+44 5	5.76 K0	+.103 +.072	12	-21	
8036		3949	29284	54 49 2.2		+41 33	6.03 B9	-.004 +.013	6		
8037		4425	29303	55 12 2.8		+16 26	6.53 F2	+.036 -.014			
8038		-4718	29309	55 9 3.0		+ 7 8	6.03 A5	+.024 +.022	14	-22	6.3:7.7, 0.3
8039	γ Micr	16353	29331	55 10 3.7		-32 39	4.71 G5	+.008 +.005	14	+18	In Ursa Cluster?
8040		-3426	29291	55 18 +1.9		+50 4	5.48 B8	+.011 +.009	5	-25	5.8:7.1, 2", binary
8041	11 Aqar	5433	29318	55 18 3.2		- 5 7	6.26 G0	+.045 -.128	35	-18	
8042		14325	29345	55 35 4.0		-43 23	6.51 G5	+.056 -.104			58", cpm
		14327	29346	55 40 +4.0		-43 23	6.94 G5	+.070 -.122			
8043		764	29254	55 55 -0.7		+75 32	6.21 G5	+.036 +.045			

8001: Two spectra.

Precession in declination, +0.23.

CATALOGUE OF BRIGHT STARS

20^h - 21^h

No	Name	DM	GC	RA	Ann	Decl	Magn	Prop Motion		Par	Rad	Remarks
				1900	Var	1900	Spec	RA	Decl		Vel	
8044		4675	29329	55 ^m 53 ^s + 2 ^s .7		+18° 56'	5.96 Ma	-".023	-.054	".007	km -15	
8045		15197	29344	55 49 3.6		-27 16	5.92 A2	+.013	-.024			
8046		-14079	29351	56 2 3.8		-38 55	5.94 KO	+.159	-.158	14		
8047	59 Cygn	- 3133	29327	56 25 2.0		+47 8	4.86 B0p	.000	+.003	4	var*	9m, 20", fixed
8048	ζ Micr	14089	29363	56 35 3.8		-39 1	5.35 F0	-.023	-.114	20	var?	V ₀ = +5km
8049		- 2201	29330	56 57 +1.5		+59 3	5.75 K2	+.040	+.010	6	-14	
8050		17077	29372	57 12 3.6		-28 7	6.19 KO	+.032	-.045			6.5:7.5, close binary
8051		4357	29350	57 14 2.4		+35 38	6.08 KO	-.017	+.009		- 7	
8052		1473	29458	57 15 6.9		-76 37	6.46 KO	-.022	-.020			
8053	60 Cygn	3364	29354	57 41 2.1		+45 46	5.24 B3	+.003	+.007	5	var	V ₀ = -8km; 10m, 3"
8054		4095	29377	57 50 +3.1		- 1 19	6.31 B8	+.003	.000	5		
8055	μ Indi	9509	29420	57 53 4.4		-55 7	5.20 KO	+.006	-.037	18	+12	
8056		- 4648	29382	57 59 3.0		+ 1 8	6.50 F5	-.120	-.050	28	+ 7	7.0:7.6, 1", binary
8057		4518	29389	58 19 2.8		+14 20	6.38 Ma	+.017	+.005			
8058	12 Aqr	5664	29416	58 47 3.2		- 6 13	7.31 A3	-.003	+.015	8	0	3", cpm
8059			29417	58 47 3.2		- 6 13	5.89 F5	+.012	-.006			
8060	22 ηCapr	6115	29419	58 43 +3.4		-20 15	4.93 A3	-.037	-.036	35	+24	
8061		2192	29489	58 54 6.3		-73 34	5.83 G0	+.431	-.336	43	-14	
8062		3679	29388	58 50 2.1		+44 24	6.38 Mb	-.017	+.002			
8063		4325	29408	59 12 2.3		+38 16	6.22 KO	+.012	-.008	8	- 3	
8064		3374	29403	59 17 +2.1		+45 27	6.23 B8	-.008	-.002	4	var	6.8:7.3, close binary
8065		2524	29393	59 24 1.7		+56 16	5.74 B9	+.012	+.004	6		6.1:7.1, 2", binary
8066	3 Equi	- 4606	29430	59 36 3.0		+ 5 6	5.93 K2	+.013	.000	6	-16	
8067		4297	29434	59 39 3.0		+ 2 33	6.55 KO	+.009	+.003			
8068		4418	29435	59 41 3.0		+ 1 52	6.42 G5	+.088	-.062			
8069	η Micr	14379	29461	59 55 +3.9		-41 47	5.56 KO	+.025	-.015	9		
8070	8 Micr	18382	29453	59 59 3.6		-30 31	5.71 KO	+.030	-.072			
8071		3987	29428	0 7 2.2		+41 14	6.33 F2	-.002	-.054	12	-10	8m, 57", cpm*
8072		3448	29424	0 10 2.0		+49 57	6.45 KO	+.056	+.052	17		
8073		4094	29503	0 14 5.0		-64 20	5.80 KO	+.008	-.011			
8074		3159	29427	0 16 +2.1		+46 28	6.30 A5	-.059	-.110	12	var	Two spectra
8075	23 θCapr	6174	29460	0 20 3.4		-17 38	4.19 A0	+.082	-.058	19	-11	
8076		16398	29465	0 18 3.7		-32 44	5.26 KO	-.004	+.011	8	+ 3	
8077	4 Equi	4697	29451	0 29 3.0		+ 5 34	6.03 F8	-.096	-.127	17	-22	
8078		2859	29438	0 44 1.8		+52 53	6.08 KO	+.053	+.016	9	-28	
8079	62 ξCygn	3800	29459	1 18 +2.2		+43 32	3.92 K5	+.003	+.002	6	var	V ₀ = -20km, period long
8080	24 Capr	15235	29490	1 17 3.5		-25 24	4.60 Ma	-.030	-.043	13	+32	
8081		- 2195	29558	1 17 6.0		-72 57	6.22 KO	+.029	-.022			
8082		4073	29491	2 2 2.6		+26 32	6.23 K2	+.033	-.017	15	- 6	
8083		- 5862	29520	2 8 3.4		-17 51	6.03 A0	+.014	-.025	13		
8084	DT Cygn	4318	29502	2 18 +2.5		+30 47	var F5	-.005	-.003	14	var	5.7 to 6.1 (ptg)*
8085		4343	29509	2 25 2.7		+38 15	5.57 K5	+4.120	+3.179	299	-65	23", binary
8086	61 Cygn	4344	29509	2 26 2.7		+38 15	6.28 K5				-63	
8087	25 xCapr	5933	29543	2 50 3.4		-21 36	5.27 A0	+.017	-.057	41	- 7	
8088		4340	29530	2 51 2.8		+15 16	6.52 KO	+.040	-.058			
8089	63 Cygn	3292	29519	3 9 +2.1		+47 15	4.88 K5	+.005	-.001	6	-26	
8090		4754	29548	3 32 3.0		+ 6 35	6.38 K5	-.016	.000			
8091	27 Capr	- 5940	29567	3 50 3.4		-20 57	6.15 F0	+.118	-.123	26		
8092	o Pavo	2835	29606	3 58 5.6		-70 32	5.08 Ma	+.046	-.024	2	var	V ₀ = -19km
8093	13 vAqr	5538	29571	4 9 3.3		-11 47	4.52 KO	+.091	-.012	17	-12	

8047: V₀ = +1km.
8071: In Ursa Cluster?

Precession in declination, +0.24.
8084: 2.5 days, V₀ = 0 km

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No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
8094	V389 Cygn	4324	29562	4 ^m 24 ^s + 2 ^s .5		+29° 48'	var A0	+".021 - ".017	".004	km* var	5.6 to 5.8, 1.13 days*
8095		4311	29582	4 55	3.0	+ 2 32	6.47 F2	+ .036 + .019		-45	
8096		5674	29593	5 23	3.2	- 9 46	6.51 K0	+ .109 - .054			
8097	5 γ Equil	4732	29591	5 29	2.9	+ 9 44	4.76 F0p	+ .058 - .154	18	var?	$V_0 = -17$ km*
8098	6 Equil	4735	29596	5 40	2.9	+ 9 38	5.99 A2	- .013 + .017	10	+ 7	
8099		- 1164	29550	5 48	+ 0.4	+71 2	5.96 F2	- .055 - .108	32	+ 2	
8100		14216	29614	5 48	3.9	-40 40	5.84 F5	+ .043 - .221	35		
		- 4485	29600	6 1	2.7	+22 3	7.72 A0	+ .007 - .004			
8101		- 4486	29601	6 2	2.7	+22 3	6.94 A0	+ .015 - .007	7	-19	18", fixed
8102		- 5908	29612	6 10	3.3	-14 53	6.44 A5	+ .035 + .006			
8103		- 3718	29598	6 23	+ 2.2	+45 6	6.52 B5	+ .001 - .002		+ 9	
8104		14152	29640	6 39	3.8	-39 50	5.26 F5	+ .183 - .123	27	var	$V_0 = -44$ km, two spectra
8105		4426	29616	7 2	2.4	+35 53	6.40 B1	+ .017 - .015	2	- 6	
8106		- 2880	29608	7 10	1.9	+53 9	5.73 B9	+ .023 + .001	4	var	$V_0 = -21$ km
8107		3322	29610	7 3	2.1	+47 17	6.36 B5	+ .001 - .008		- 9	6.4:9.3, 1", fixed
8108		14676	29648	7 4	+ 3.7	-36 50	6.07 K0	+ .026 - .012	6		
8109		1903	29603	7 21	1.3	+62 53	6.50 B8	+ .011 + .007	4	-21	
8110		17178	29652	7 22	3.6	-28 2	5.55 K5	+ .103 - .123	8	-43	
8111		1697	29726	7 23	+ 6.5	-75 46	6.84 A0	+ .012 - .035			
8112		800	29563	7 30	- 1.2	+77 43	5.90 B9	+ .021 + .033	9		
8113	T Ceph	- 1291	29611	8 13	+ 0.8	+68 5	var M6	- .035 - .064	0	-26*	5.2 to 10.8, 396 days
8114		10015	29704	8 37	4.3	-53 41	5.84 A5	+ .022 - .018			
8115	64 ζ Cygn	4348	29661	8 41	2.6	+29 49	3.40 K0	- .003 - .056	17	var	$V_0 = +17$ km
8116		4375	29673	8 46	2.8	+15 34	6.20 A5	+ .038 - .023	10	-28	7.0:7.0, 44 years
8117		- 14440	29696	8 49	3.9	-40 55	6.30 K0	+ .135 - .009			
8118		5553	29685	8 52	+ 3.2	-11 1	6.49 B9	+ .009 + .006			
8119		2334	29655	9 15	1.5	+59 35	5.65 B2	- .003 - .003	2	-16	6.1:6.8, 1", binary
8120		4470	29682	9 25	2.4	+36 13	6.05 A5	- .022 + .006	14	-13	
8121		4186	29698	9 29	3.1	- 0 19	6.58 K5	+ .024 - .006			
8122		6216	29709	9 31	3.4	-17 46	6.22 G5	- .007 - .018			
8123	7 δ Equil	4746	29697	9 37	+ 2.9	+ 9 36	4.61 F5	+ .043 - .303	63	var*	5.1:5.6, 5.70 years
8124		14699	29717	9 33	3.7	-36 38	6.14 K0	+ .025 - .006			
8125		3900	29751	9 44	5.0	-65 6	6.41 A0	+ .007 - .037			
8126		4354	29695	9 54	2.6	+29 29	6.25 K0	- .003 + .006		- 4	
8127	28 ϕ Capr	5974	29722	9 56	3.4	-21 4	5.35 K0	+ .011 + .002	10	- 5	
8128	29 Capr	5935	29727	10 13	+ 3.3	-15 35	5.50 Ma	+ .023 + .007	7	-38	
8129		519	29964	10 33	12.9	-85 14	6.40 K2	+ .048 - .023			
8130	65 τ Cygn	4240	29723	10 48	2.4	+37 37	3.82 F0	+ .159 + .436	48	var*	8.0m, 50 years*
8131	8 α Equil	4635	29735	10 50	3.0	+ 4 50	4.14	+ .054 - .087	22	var*	Composite, F8, A3
8132		5495	29754	11 29	3.1	- 2 2	6.41 K0	+ .031 - .011			
8133		- 1708	29718	11 39	+ 1.2	+64 0	6.41 G0	+ .024 - .103	9		7.1:7.3, close binary
8134		5897	29765	11 45	3.3	-13 42	6.18 A0	- .026 .000			
8135	ϵ Micr	16498	29774	11 53	3.6	-32 35	4.79 A0	+ .051 - .024	29	- 1	
8136		3348	29750	12 8	2.1	+47 33	6.32 B5	- .045 - .023		var	$V_0 = -26$ km
8137	30 Capr	5903	29781	12 21	3.4	-18 24	5.39 B8	+ .014 .000	7	-11	
8138		4067	29766	12 42	+ 2.3	+41 50	6.53 K2	.000 - .028			
8139	31 Capr	- 5904	29788	12 40	3.4	-17 53	6.31 A5	+ .033 + .006			
			29818				7.2	+ .092 - .071			
8140	θ Indi	10037	29819	12 44	4.3	-53 52	4.60 A5	+ .102 - .072	42	-14	5", binary
8141	15 Aqar	- 5512	29793	12 56	3.1	- 4 56	5.68 B8	+ .010 + .019	5		

8094: 7.7m, 3", binary. $V_0 = -26$ km.

8097: 11m, 2", binary.

8113: Absorption lines give -11 km.

8123: $V_0 = -15$ km, measured throughout a revolution, two spectra.

Precession in declination, +0.25.

8130: 0.14 days, $V_0 = -22$ km. Also 13m, 93", cpm.8131: $V_0 = -16$ km.

CATALOGUE OF BRIGHT STARS

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No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
8142	67 σ Cygn	17692	29805	13 ^m 0 ^s + 3.5		-29° 11'	6.43 G5	-".184 -".057	".004	km	11.0 days, $V_0 = -4$ km
8143		4431	29786	13 29 2.4		+38 59	4.28 A0p	-.005 - .003		var	
8144	T Indi	4046	29791	13 36 2.3		+42 16	6.09 B8	+ .012 - .008	6		7.2 to 8.9 (ptg) 10m, 15", cpm
8145		14302	29831	13 34 4.0		-45 27	var Na	-.004 - .010	11	+ 9	
8146	66 ν Cygn	4371	29802	13 48 2.5		+34 29	4.42 B3p	+ .009 - .004	11	+ 4	
8147		2588	29789	13 54 +1.9		+53 34	5.99 A0	+ .030 + .033	10	- 8	10m, 3", binary
8148		15541	29832	14 0 3.5		-26 46	6.50 G5	-.542 - .355	54	-44	
8149		4516	29821	14 1 2.9		+10 47	6.32 K5	+ .031 + .015	5	-19	
8150		2549	29798	14 15 1.8		+55 23	6.18 K2	+ .014 + .015			
8151	θ^1 Micr	14475	29854	14 22 3.8		-41 14	4.92 A2p	+ .078 - .003	8	+ 2	
8152	68 Cygn	13325	29858	14 25 +4.1		-50 22	6.38 K2	-.026 - .149	3	var*	12m, 4", fixed $V_0 = +4$ km
8153		-2309	29804	14 34 1.6		+58 11	6.41 B3	-.002 + .004		var	
8154	Y Pavo	3877	29823	14 43 2.2		+43 31	5.06 Oe5	-.001 - .009	10	+ 7	5.7 to 8.5 (ptg), irreg. 6.6:6.6, close binary
8155		4485	29836	15 3 2.3		+40 37	6.23 A5	-.009 + .009			
8156		2844	29915	15 13 5.4		-70 10	var NO	+ .007 - .017			
8157	16 Aqar	4271	29847	15 23 +2.4		+37 49	5.83 F2	+ .007 - .006	11	- 6	
8158		4521	29864	15 41 2.7		+21 37	6.15 B9	-.001 + .011		-17	
8159	5 α Ceph	2598	29934	15 46 5.7		-72 14	6.08 KO	+ .021 - .007	11	- 6	
8160		-5524	29877	15 50 3.1		- 4 59	5.97 KO	-.016 + .013		3	
8161	9 Equi	-3345	29856	16 2 2.1		+49 5	5.65 B5	+ .012 + .009			
8162	9 Equi	-2111	29848	16 12 +1.4		+62 10	2.60 A5	+ .147 + .050	77	-12	10m, 5", binary
8163		4802	29880	16 8 3.0		+ 6 56	6.01 K5	+ .036 - .017		5	
8164	6 Ceph	2249	29860	16 30 1.7		+58 12	5.79 *	+ .002 .000	4	-22	6.9:7.6, 2", binary
8165		4294	29884	16 33 2.7		+23 26	5.82 KO	+ .235 - .126		8	
8166		-4425	29881	16 37 2.5		+32 2	6.44 G5	+ .048 - .034	19		
8167	32 ν Capr	6245	29903	16 41 +3.3		-17 16	4.30 KO	+ .032 + .007	23	+12	
8168	6 Ceph	833	29816	16 48 -0.7		+76 35	6.17 K2	+ .014 + .014	6	+15	20.3 days, $V_0 = -3$ km 3.2 days, $V_0 = +1$ km*
8169		4134	29896	17 9 +2.5		+32 11	6.03 A0	+ .014 - .012		8	
8170	17 Aqar	4529	29889	17 7 2.3		+39.55	6.46 F8	-.023 - .207	38	var	$V_0 = -18$ km
8171		1527	29875	17 18 1.2		+64 27	5.18 B3p	+ .004 + .005		3	
8172	I Pegs	16877	29923	17 17 +3.4		-23 6	5.72 K5	+ .036 + .011	6	- 7	9m, 36", cpm
8173		4691	29914	17 28 +2.8		+19 23	4.24 KO	+ .105 + .065		17	
8174	17 Aqar	690	29792	17 31 -2.5		+80 49	6.02 A2	-.003 + .002	10	- 1	
8175		5728	29925	17 35 +3.2		- 9 45	6.24 K5	-.031 - .025		6	
8176		716	30062	17 37 9.8		-83 7	6.52 B3	+ .019 + .006			
8177	10 β Equi	13796	29944	17 42 +4.0		-47 3	6.48 A2	+ .037 - .022	19	var	22.7 days, $V_0 = -10$ km
8178		4811	29931	17 56 3.0		+ 6 23	5.14 A0	+ .051 + .012		-26	
8179	θ^2 Micr	2227	29898	18 0 1.5		+60 20	6.24 KO	-.042 + .001	7	+11	6.3:7.0, 1", binary
8180		14503	29950	18 2 3.8		-41 26	5.86 A0p	+ .028 + .001		113	
8181	γ Pavo	3918	29979	18 11 5.0		-65 49	4.30 F8	+ .088 + .800			
8182	33 Capr	4397	29933	18 24 +2.6		+29 53	6.28 KO	+ .010 + .005	11	+22	$V_0 = -2$ km
8183		6007	29953	18 29 3.4		-21 17	5.47 KO	+ .001 - .131		9	
8184		16889	29951	18 25 3.4		-23 11	6.48 KO	-.029 - .002	7	-15	
8185		3357	29926	18 32 2.1		+48 58	5.87 KO	+ .031 + .066			
8186		4471	29939	18 47 2.4		+38 12	6.45 A0	.000 - .024			
8187	18 Aqar	5923	29957	18 44 +3.3		-13 18	5.54 A5	+ .089 + .011	24		
8188	γ Indi	9586	29994	19 8 4.3		-55 6	6.24 F0	+ .005 + .040		-27	
8189		4537	29955	19 20 2.4		+36 58	6.58 F8	+ .042 + .025	18	-19	
8190		4300	29965	19 28 2.7		+23 51	5.66 F0	+ .131 + .023		4	
8191		4800	29969	19 32 2.9		+ 9 44	6.39 F5	+ .068 + .023			

8153: 5.41 days and 225 days, $V_0 = -17$ km.

8164: Composite, KO, A0.

8169: Two spectra.

Precession in declination, +0.26.

8170: In Ursa Cluster.

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No	Name	DM	GC	RA	Ann	Decl	Magn	Prop Motion		Par	Rad Vel	Remarks
				1900	Var	1900	Spec	RA	Decl			
8192	20 Aqr	- 5444	29976	19 ^m 39 ^s + 3 ^s .1		- 3° 50'	6.44 F0	- ".010	- ".050	".011	km	
8193		4543	29966	19 46 2.4		+36 55	6.59 K5	- .013	- .007			
8194		4394	29968	19 40 2.7		+24 53	6.22 A0	+ .034	+ .001	9	var	12m, 9", cpm
8195	19 Aqr	5668	29988	19 51 3.2		-10 10	5.76 A2	+ .019	- .169			
8196	SX Pavo	- 2850	30026	19 49 5.4		-69 56	var Mb	+ .080	- .050	18	+43	5.3 to 6.3, irreg.
8197		- 4305	29973	19 54 +2.7		+24 6	6.42 K0	+ .029	+ .001	7		
8198		4531	29980	20 8 2.7		+25 45	5.74 F0	+ .043	+ .004	22	- 3	
8199	21 Aqr	- 5446	29993	20 4 3.1		- 3 59	5.69 K0	- .018	- .071	8	-24	
8200		14551	30007	20 8 3.7		-38 16	5.69 K0	+ .175	- .007	8		
8201		1017	30084	20 10 7.9		-80 29	6.72 A0	+ .020	- .008			
8202		-14539	30021	20 37 +3.8		-42 59	5.61 A3p	- .053	+ .017		var?	V ₀ = +18km*
8203		- 4215	30008	20 44 3.1		+ 0 6	6.46 A0	+ .036	+ .016	8	- 9	
8204	34 ζ Capr	15388	30020	20 58 3.4		-22 51	3.86 G5p	- .001	+ .024	6	var	V ₀ = +3km
8205		4726	30022	21 21 3.1		+ 0 40	6.40 F5	+ .099	- .153	34	+11	
8206		3376	30005	21 26 2.1		+48 54	6.44 A0	- .019	- .008	9	0	
8207	35 Capr	6020	30027	21 35 +3.4		-21 38	6.03 K0	- .028	- .028	8	+23	
8208		3305	30013	21 39 2.2		+46 17	5.54 F0	+ .192	+ .047	30	0	
8209	69 Cygn	4557	30016	21 42 2.5		+36 14	5.84 B0	+ .002	- .005	1	+ 3	
8210		4794	30023	21 48 2.8		+18 57	6.06 A3	+ .077	+ .014	18	var	21.7 days, V ₀ = -11km
8211		9872	30049	21 57 4.2		-54 8	6.48 K2	+ .079	- .025			
8212		6005	30051	22 49 +3.2		-12 0	6.50 F5	+ .004	- .046			
8213	36 Capr	5692	30059	23 1 3.4		-22 15	4.59 G5	+ .136	- .006	17	-22	
8214	5 PscA	18291	30067	23 5 3.6		-31 40	6.60 A0	+ .019	- .011			
8215	70 Cygn	4568	30044	23 17 2.4		+36 41	5.20 B3	.000	+ .003	4	-22	
8216		3390	30040	23 19 2.1		+48 24	5.31 A3	+ .057	+ .022	13	-13	
8217	35 Vulp	- 4164	30048	23 16 +2.6		+27 10	5.38 A0	+ .040	+ .021	14	- 8	
8218		2939	30041	23 27 2.0		+52 28	5.95 B8	+ .015	+ .008	17		
8219		4696	30060	23 29 3.0		+ 7 46	6.66 Ma	- .004	- .029			
8220		4462	30063	23 52 2.6		+31 47	5.74 F0	+ .122	+ .076	30	-24	
8221		4592	30076	24 19 2.8		+17 28	6.36 K5	- .020	- .001			
8222		6107	30095	24 23 +3.4		-19 35	6.54 F2	+ .031	- .043			
8223		4555	30078	24 25 2.7		+21 45	6.18 Mb	+ .040	+ .012			
8224		2383	30065	24 40 1.7		+59 19	6.44 Ma	- .012	- .014			
8225	2 Pegs	4325	30109	25 25 2.7		+23 12	4.76 K5	+ .015	+ .003	12	-18	
8226		2544	30099	25 44 1.9		+54 59	6.06 B9	+ .012	+ .011			
8227	7 Ceph	1405	30081	25 50 +1.2		+66 22	5.42 B5	- .017	- .016	8	+ 1	
8228	71 Cygn	- 3558	30108	25 46 2.2		+46 6	5.34 K0	+ .045	+ .102	19	-19	
8229	ξ Grus	14550	30138	25 46 3.8		-41 37	5.35 K0	+ .015	+ .006	10	- 8	
8230	6 PscA	15110	30142	26 12 3.6		-34 23	5.99 A2	- .010	- .007			13m, 7"
8231		4583	30133	26 19 2.9		+11 42	5.94 A0	+ .015	- .013	8	var	Two spectra
8232	22 β Aqr	5770	30137	26 18 +3.2		- 6 1	3.07 G0	+ .016	- .006	6	+ 6	
8233		10092	30158	26 23 4.2		-53 11	6.42 K5	- .008	- .009			
8234		1158	30221	26 27 7.5		-79 53	6.33 F5	+ .086	- .045			
8235		15479	30153	26 48 3.5		-25 2	6.42 A5	+ .067	+ .019			
8236		14367	30163	26 55 3.9		-45 17	5.73 K0	- .020	- .008	10		
8237		2957	30131	27 0 +2.0		+52 31	6.08 A0	+ .023	+ .015	11	var	V ₀ = -17km
8238	8 β Ceph	- 1173	30118	27 22 +0.8		+70 7	var B1	+ .010	+ .010	6	var	3.3 to 3.4, 0.19 days*
8239		- 707	30069	27 47 -1.8		+80 5	6.13 K0	+ .044	- .013	9	+ 3	
8240		4418	30164	27 54 +2.7		+22 57	6.44 B9	+ .032	+ .003	7	-16	
8241		14602	30183	27 54 3.8		-43 22	6.40 K0	- .046	- .024			

8202: 5.7:8.0, 3", binary.

8238: 8m, 14", fixed. Velocity of fainter -18km.

Precession in declination, +0.26.

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No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
8242		- 3079	30157	28 ^m 6 ^s +2 ^s .0		+52° 11'	6.20 *	+ ".006 + ".003	".004	km var?	V ₀ = -24km
8243		- 2395	30150	28 15 1.6	1.6	+60 1	5.52 B0	- .004 + .001	3	-16	
8244		18703	30201	28 59 3.5	3.5	-30 8	6.56 B8	+ .012 - .001			
8245	37 Capr	6237	30204	29 14 3.4	3.4	-20 32	5.79 F5	- .039 + .033	32		
8246		3553	30185	29 25 2.1	2.1	+49 32	5.76 A0	+ .018 + .014			
8247		-16729	30212	29 33 +3.4		-23 54	6.40 K0	+ .074 - .008	7		
8248		3584	30189	29 33 2.2	2.2	+45 25	6.56 K2	- .004 + .003			
8249		3937	30248	30 4 4.8	4.8	-65 16	6.32 A2	+ .033 - .011			
8250		4431	30211	30 0 2.7	2.7	+22 19	6.37 F8	+ .010 - .040		+14	
8251		5489	30218	30 4 3.1	3.1	- 4 26	5.85 K0	- .010 + .004	7	- 1	
8252	73 ρ Cygn	- 3865	30207	30 13 +2.3		+45 9	4.22 K0	- .024 - .091	15	+ 7	In Ursa Cluster?
8253	8 PscA	15702	30235	30 23 3.5	3.5	-26 37	5.77 A3	+ .107 - .023			
8254	ν Octn	1510	30289	30 22 6.7	6.7	-77 50	3.74 K0	+ .053 - .231	39	var	1037 days, V ₀ = +35km*
8255	72 Cygn	- 4359	30219	30 41 2.5	2.5	+38 5	4.98 K0	+ .120 + .098	11	-66	
8256	7 PscA	15664	30243	30 49 3.6	3.6	-33 30	6.09 A5	+ .083 - .002			
8257		4107	30229	30 53 +2.7		+27 45	6.35 F0	+ .125 - .042	16	var*	12.2 days, V ₀ = -42km
8258		- 4346	30231	30 56 2.7	2.7	+24 0	6.13 A3	+ .007 - .010	9	var	6.7:7.2, close binary
8259		3091	30220	31 1 2.1	2.1	+51 15	5.96 B9	+ .005 .000	5		
8260	39 ε Capr	- 6251	30252	31 29 3.4	3.4	-19 55	4.72 B5p	+ .008 + .005	7	-24	
8261		4456	30246	31 53 2.6	2.6	+29 36	6.47 K0	- .066 + .062			11m, 2", cpm
8262	W Cygn	3877	30250	32 14 +2.3		+44 56	var M4	+ .048 + .006		-26	5.1 to 7.6, 131 days*
8263		- 4180	30265	32 26 3.1	3.1	- 0 50	6.27 A2	- .021 - .020	10	+17	9m, 31", cpm*
8264	23 ξ Aqr	5701	30268	32 26 3.2	3.2	- 8 18	4.78 A5	+ .110 - .022	15	-18	
8265	3 Pegs	- 4829	30269	32 44 3.0	3.0	+ 6 11	8.5	+ .045 - .007	9	var	39", cpm
8265		- 4830	30270	32 45 3.0	3.0	+ 6 10	6.34 A0	+ .055 - .004			
8266	74 Cygn	4612	30263	32 56 +2.4		+39 58	5.09 A5	- .005 + .012	18	+ 8	
8267	5 Pegs	4827	30274	33 5 2.8	2.8	+18 52	5.29 F0	+ .102 + .012	13	var?	V ₀ = -25km
8268		15163	30292	33 5 3.6	3.6	-34 8	6.34 K0	+ .060 - .050			
8269		11911	30304	33 10 4.1	4.1	-52 49	6.28 F5	- .023 + .010			
8270	4 Pegs	4834	30291	33 31 3.0	3.0	+ 5 19	5.80 F0	+ .109 + .027	22		
8271		9700	30316	33 31 +4.2		-56 11	6.42 K0	+ .008 + .024			
8272		3889	30278	33 38 2.3	2.3	+44 15	6.11 A3	- .004 - .028	14	+ 4	
8273		5640	30309	34 6 3.2	3.2	-11 2	6.18 K0	+ .022 - .042			
8274		- 4445	30298	34 15 2.7	2.7	+25 4	6.30 G5	- .024 + .004		-14	
8275		2659	30288	34 19 2.0	2.0	+53 36	6.20 G5	- .020 .000			
8276		4754	30307	34 22 +2.8		+19 49	5.76 F0	+ .109 - .003	17	-13	
8277	25 Aqr	4517	30315	34 29 3.0	3.0	+ 1 48	5.33 K0	- .031 - .082	11	-35	
8278	40 γ Capr	6340	30320	34 33 3.3	3.3	-17 7	3.80 F0p	+ .185 - .021	30	var	V ₀ = -31km
8279	9 Cep	2169	30302	35 14 1.6	1.6	+61 38	4.87 B2p	- .004 - .001	3	-14	
8280	λ Octn	722	30472	35 36 9.2	9.2	-83 11	5.51 G0	+ .073 - .034	11	-10	7.6A3, 3", binary
8281		- 2617	30322	35 51 +1.9		+57 2	5.64 Oe5	- .002 - .001	2	var*	14m, 1.5"
8282		15545	30357	36 2 3.4	3.4	-25 33	6.49 K0	- .024 - .003			
8283	42 Capr	6102	30354	36 7 3.3	3.3	-14 30	5.28 G5	- .124 - .304	35	var	13.2 days*
8284	75 Cygn	4177	30338	36 16 2.4	2.4	+42 49	5.35 K5	+ .055 + .018	8	-28	10m, 3", binary
8285	41 Capr	17057	30365	36 19 3.4	3.4	-23 43	5.32 K0	+ .099 - .088	13	-45	13m, 5", cpm
8286		2632	30411	36 37 +5.3		-71 28	6.18 B8	+ .009 - .001			
8287	26 Aqr	4770	30377	37 4 3.1	3.1	+ 0 50	5.80 K5	- .004 - .004	5	+10	In Ursa Cluster?
8288	43 κ Capr	6152	30382	37 5 3.3	3.3	-19 19	4.82 G5	+ .145 - .005	16	- 3	
8289	7 Pegs	4850	30378	37 15 3.0	3.0	+ 5 13	5.63 Ma	+ .010 - .004	7	- 4	
8290		2595	30362	37 25 2.0	2.0	+54 25	6.16 K0	+ .005 - .002			

8242: Composite, K0, A3.

8254: Visual orbit, a = 0".05.

8257: Two spectra.

8262: Absorption lines give -27km.

Precession in declination, +0.27.

8263: In Ursa Cluster?

8281: 3.7 days, V₀ = -8km. Also 8m, 12", fixed, and 8m, 20", fixed.

8283: Velocity varies in a longer period as well.

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No	Name	DM	GC	RA	Ann	Decl	Magn	Prop Motion		Par	Rad	Remarks
				1900	Var	1900		RA	Decl		Vel	
8291	76 Cygn	4611	30376	37 ^m 33 ^s + 2.4	+40° 21'	6.05 A0	- .015	- .045	"011	km	In Ursa Cluster	
8292		4604	30386	37 40 2.9	+10 22	5.95 B8	+ .018	.000	5	var?	V ₀ = +5km	
8293		6270	30396	37 38 3.4	-20 5	6.17 A3	+ .075	- .009	10	var	6.4 days, V ₀ = -26km	
8294		53	31285	37 39 38.1	-89 19	6.54 A5	+ .018	- .040				
8295	44 Capr	- 6046	30393	37 37 3.3	-14 51	5.99 A5	- .006	+ .027				
8297	DS Pegs	- 4500	30384	37 48 + 2.5	+35 3	var Nb	+ .005	- .001		+13	6.0 to 7.0, irregular	
8298		3637	30390	38 19 2.3	+45 19	6.47 Mb	+ .003	- .013				
8299		14405	30424	38 20 3.7	-39 0	6.30 G5	+ .083	- .160				
8300	77 Cygn	4615	30394	38 21 2.4	+40 37	5.48 A0	+ .018	+ .004	6	var*	6.1:6.3, close binary*	
8301	80 π Cygn	3410	30391	38 33 2.1	+50 44	4.78 B3	+ .002	+ .001	6	var	V ₀ = -33km	
8302	45 Capr	6052	30419	38 33 + 3.3	-15 12	5.90 A5	- .028	+ .010				
8303		-13463	30441	38 41 4.0	-49 58	6.52 K0	+ .089	+ .054	6			
8304		- 3480	30407	39 0 2.2	+49 8	6.12 K0	+ .007	- .003				
8305	9 μ PscA	15734	30439	39 0 3.6	-33 29	4.35 A0	+ .033	- .094	35	var	V ₀ = +2km, two spectra	
8306		4623	30412	39 5 2.4	+40 42	5.54 Ma	- .026	- .014	8	-24		
8307	79 Cygn	4408	30421	39 17 + 2.5	+37 50	5.62 A0	+ .033	+ .004	12	-23	5.63:11, 1", binary*	
8308	8 ϵ Pegs	4891	30431	39 16 2.9	+ 9 25	2.54 K0	+ .025	+ .002	13	+ 5	11m, 82", cpm	
8309			30438	39 40 2.7	+28 17	4.73 F5	+ .287	- .241		+18		
8310	78 μ Cygn	4169	30437	39 40 2.7	+28 17	6.08 F5	+ .227	- .218	50	+16	500 years	
8311	46 Capr	5829	30448	39 40 3.2	- 9 32	5.28 K0	+ .014	- .002	6	var	V ₀ = -5km	
8312		2314	30418	39 45 + 1.8	+58 49	6.21 K2	- .005	+ .011		- 1		
8313	9 Pegs	4582	30444	39 47 2.8	+16 53	4.52 G5	+ .007	- .013	7	-23		
8314		4668	30443	39 42 2.9	+14 19	6.10 G0	+ .261	- .092		-18		
8315	10 κ Pegs	- 4463	30450	40 7 2.7	+25 11	4.27 F5	+ .033	+ .010	25	var*	5.0:5.1, 11.5 years	
8316	μ Ceph	2316	30440	40 27 1.8	+58 19	var Ma	.000	- .002	3	var*	4.0 to 4.8*	
8317	11 Ceph	1193	30415	40 27 + 0.9	+70 51	4.85 K0	+ .116	+ .101	11	-37		
8318	47 Capr	5833	30474	40 56 3.2	- 9 44	6.20 Ma	+ .014	+ .012	5	+20		
8319	48 λ Capr	- 6087	30481	41 9 3.2	-11 50	5.43 A0	+ .025	- .006	11	var?	V ₀ = +1km	
8320		4626	30475	41 30 2.5	+35 24	6.60 K0	+ .093	+ .006				
8321	12 Pegs	4472	30479	41 28 2.8	+22 29	5.45 K0	+ .003	- .002	5	-12		
8322	49 δ Capr	5943	30491	41 31 + 3.3	-16 35	2.98 A5	+ .261	- .293	63	var	1.0 days, V ₀ = -5km	
8323		13928	30516	41 46 3.9	-47 46	5.70 G5	+ .160	- .302	71	- 7		
8324		1082	30452	41 51 0.7	+71 52	5.40 K0	- .046	- .034	11	var?	V ₀ = -38km	
8325		- 4473	30487	41 51 2.7	+25 6	6.48 K0	+ .163	+ .044	7	-45		
8326	10 θ PscA	18466	30509	41 52 3.5	-31 22	5.09 A2	- .028	- .002	3	+14	11m, 36", cpm	
8327		- 2193	30473	42 8 + 1.6	+62 0	5.97 B2	- .009	+ .001		-20		
8328	11 Pegs	4414	30501	42 10 3.0	+ 2 13	5.50 A0	+ .009	+ .002	9	+17		
8329		4204	30492	42 18 2.4	+42 36	6.43 A0	+ .011	+ .014	10	var	V ₀ = -25km	
8330		4598	30502	42 19 2.9	+16 44	6.24 F0	+ .089	- .014				
8331		3951	30531	42 15 4.6	-65 11	5.65 K0	+ .003	- .017		- 1		
8332		5827	30513	42 22 + 3.2	- 6 23	6.20 A3	+ .043	+ .001				
8333	\circ Indi	2873	30541	42 20 5.1	-70 6	5.50 K2	- .028	- .005	23	+20		
8334	10 ν Ceph	2288	30483	42 34 1.7	+60 40	4.46 A2p	- .003	.000	4	-21		
8335	81 π Cygn	3504	30512	43 6 2.2	+48 51	4.26 B3	+ .003	- .001	4	var	V ₀ = -19km	
8336		- 4643	30527	43 56 2.5	+36 7	6.60 K5	- .030	+ .002				
8337		6027	30550	44 17 + 3.2	-13 11	6.12 A0	- .007	+ .017	11			
8338		- 4427	30537	44 20 2.5	+38 11	5.80 B9	+ .020	- .002	8	-20		
8339	12 Ceph	2294	30526	44 28 1.8	+60 14	5.64 Ma	- .010	+ .002	11	-20		
8340		6389	30563	44 43 3.3	-17 19	6.47 K0	+ .030	+ .003				
8341		- 4793	30555	44 46 2.8	+20 0	6.16 B3	- .014	.000		-12		

8300: 1.7 days, V₀ = -24km, two spectra.

Precession in declination, +0.28.

8307: Also 7.6m, 153", cpm.

8316: 750 days and 4675 days, V₀ = +22km. Herschel's Garnet Star.

8315: Brighter is a spectroscopic binary, 6.0 days.

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No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
8342		1198	30529	45 ^m 15 ^s +1 ^s 1		+69° 41'	6.42 AO	-".006 -".022	".008	km	
8343	14 Pegs	4525	30565	45 25 2.7		+29 43	5.00 AO	+ .016 - .024	11	var	V ₀ = -24km, two spectra
8344	13 Pegs	4612	30569	45 23 2.9		+16 49	5.32 F2	+ .072 - .061	16	- 4	
8345		4648	30566	45 36 2.4		+40 41	6.49 AO	- .008 - .005	1	0	
8346		6176	30590	46 9 3.3		-19 5	6.14 F2	+ .145 - .078			
8347		2300	30571	46 23 +1.8		+60 48	6.41 Ma	+ .001 - .021	6	-19	
8348		4797	30594	46 52 2.8		+19 21	5.68 B9	+ .010 + .018	4	-20	
8349		- 4621	30593	46 57 2.5		+39 4	6.19 B9	+ .003 + .006	5	0	
8350		5027	30615	47 38 2.8		+20 48	7.05 Mb	+ .011 + .022			
8351	51 μ Capr	6149	30631	47 51 3.3		-14 1	5.18 FO	+ .307 + .012	40	-21	
8352		6277	30654	47 49 +4.4		-62 21	5.89 FO	+ .049 - .083			6.5:6.9, close binary
8353	γ Grus	14536	30640	47 53 3.6		-37 50	3.16 B8	+ .101 - .014	20	- 2	
8354	15 Pegs	4215	30625	48 2 2.7		+28 20	5.62 F5	- .063 - .065	37	+17	
8355		5785	30641	48 15 3.2		-10 47	6.50 B9	+ .006 - .001			
8356	16 Pegs	4635	30635	48 31 2.7		+25 27	5.05 B3	+ .003 .000	4	var	V ₀ = -10km
		2638	30626	48 37 +2.0		+55 20	7.26 A	+ .009 + .021	6	- 6	
8357		2639	30627	48 38 2.0		+55 20	5.54 B3	+ .010 + .004		var*	20", cpm
8358		- 4879	30648	48 55 2.8		+19 12	5.76 AO	+ .008 + .014	11	+ 6	
8359		4919	30653	48 58 3.0		+ 6 23	6.58 GO	+ .076 + .003			
8360		5568	30655	48 57 3.1		- 4 45	5.91 KO	+ .051 - .090	8	-37	
8361		1664	30629	49 8 +1.5		+65 17	6.41	- .008 - .011	9	var?	7.1A2:7.3G, 2", binary
8362		7911	30679	49 13 4.2		-58 22	6.34 A3	+ .013 + .012			
8363		5329	30664	49 24 3.1		- 3 46	6.18 F8	+ .012 - .025		-16	
8364		4814	30663	49 35 2.8		+19 15	6.33 KO	- .038 - .007		+ 4	8m, 23", cpm
8365		18541	30686	50 6 3.5		-31 5	6.53 G5	+ .046 - .026			
8366		14565	30696	50 22 +3.6		-37 44	5.55 A2	- .021 .000		var?	V ₀ = +28km
8367		14801	30708	51 0 3.6		-38 13	6.19 FO	+ .017 - .002			
8368	δ Indi	9733	30720	51 7 4.1		-55 28	4.56 FO	+ .050 - .008	17	+15	5.3:5.3, very close
8369		7744	30724	51 26 4.2		-59 29	6.26 F5	- .001 + .015			
8370		1430	30764	51 26 6.3		-78 8	6.64 A5	- .018 .000			
8371	13 Ceph	- 2644	30691	51 31 +2.0		+56 8	6.01 B9p	- .008 - .002	2	-15	
8372		5046	30710	51 43 2.8		+20 46	6.62 K5	- .003 + .017			
8373	17 Pegs	4696	30719	52 4 2.9		+11 36	5.59 A2	- .034 - .010	13	+19	
8374		- 2318	30702	52 21 1.8		+61 4	6.22 K5	+ .002 + .009			
8375		1607	30712	52 54 1.6		+64 51	5.85 B2	+ .006 + .006	3	var*	6.0:8.2, 1"5, binary
8376		- 5878	30742	52 59 +3.1		- 5 54	6.21 F2	+ .034 - .097		+ 1	
8377		- 3618	30729	53 13 2.3		+48 12	6.35 AO	+ .007 - .022	9	-16	
8378		6131	30746	53 9 3.3		-21 40	6.23 Mb	+ .017 - .003	5	+ 3	
8379		14820	30753	53 15 3.6		-38 52	5.59 KO	+ .036 - .005	7	-10	
8380		1542	30788	53 16 5.9		-76 36	5.91 F2	+ .019 - .069			
8381		9784	30767	53 35 +4.1		-56 22	6.21 B8	+ .008 + .015		+ 3	
8382		- 5674	30755	53 42 3.1		- 4 51	6.42 KO	- .003 - .257	33		
8383	VV Ceph	- 2007	30731	53 50 1.7		+63 9	var M2	- .003 + .004	3	var*	4.9 to 5.7
8384		1691	30745	54 38 1.5		+65 41	6.28 B3	+ .004 + .004	2	var	V ₀ = +2km
8385	18 Pegs	4940	30779	55 8 3.0		+ 6 14	5.99 B3	+ .006 - .002	4	- 7	
8386	12 η PscA	- 18119	30785	55 6 +3.4		-28 56	5.42 B8	+ .012 + .007	11	- 5	5.8:6.6, 2", binary
8387	e Indi	10015	30817	55 43 4.6		-57 12	4.74 K5	+3.933 -2.558	288	-40	
8388		2010	30774	55 57 1.8		+62 13	6.16 Mb	+ .002 + .029			
8389		- 2670	30780	56 2 2.0		+57 11	6.49 AO	+ .001 - .014	7	- 3	
8390	28 Aqr	- 4296	30799	55 58 3.1		+ 0 7	5.75 KO	+ .004 - .009	8	+ 7	

8357: 17.3 days, V₀ = -6km, two spectra.

8375: V₀ = -15km.

Precession in declination, +0.28.

8383: 7400 days, V₀ = -18km.

21^h - 22^h

No	Name	DM	GC	RA	Ann	Decl	Magn	Prop Motion		Par	Rad	Remarks
				1900	Var	1900	Spec	RA	Decl		Vel	
8391		4316	30789	56 ^m 3 ^s +2.6		+32° 31'	6.46 F5	- .009	+ .064		km	
8392	20 Pegs	4737	30803	56 13 2.9		+12 38	5.66 F2	+ .053	- .053	.024	+ 6	
8393	19 Pegs	4779	30804	56 11 3.0		+ 7 47	5.85 K2	- .013	+ .001	7	-23	
8394		6056	30816	56 42 3.3		-18 23	6.38 G5	+ .114	- .055	7		
8395		946	30772	56 54 0.6		+74 31	6.64 K5	- .006	- .006			
8396	29 Aqar	6422	30822	56 58 +3.3		-17 27	7.4 A2	+ .013	+ .002	6		4", binary
8397			4676	30823			7.15	7.15 A2	+ .011	+ .004		
8398		18975	30818	57 7 2.9		+10 29	6.36 B8	+ .016	+ .006	3		
8399		-2233	30838	57 30 3.5		-30 23	6.98 F0	+ .118	- .014			6.64:6.8, close binary
8400	16 Ceph	1009	30800	57 49 +0.9		+72 42	5.15 F5	- .071	- .157	32	-21	
8401	30 Aqar	5688	30842	58 1 3.2		- 7 0	5.60 G5	+ .039	+ .009	5	+30	
8402	31 Aqar	5681	30844	58 9 3.1		- 2 38	4.66 B5p	+ .013	- .011	10	+10	
8403		3083	30828	58 11 2.2		+52 24	5.66 B5	+ .003	+ .004	6	-22	
8404	21 Pegs	4681	30846	58 25 2.9		+10 54	5.75 A0	+ .012	- .009	8	0	
8405	13 PscA	18985	30856	58 38 +3.5		-30 24	6.69 K5	+ .009	+ .002			
8406	14 Ceph	2441	30837	58 43 2.0		+57 31	5.50 B0	- .005	+ .001	3	var	V ₀ = -17km, two spectra
8407		-4119	30848	58 54 2.4		+44 10	5.52 A0	- .019	- .033	8	- 1	5.6:8.0, 0.5, cpm*
8408		15757	30862	58 56 3.4		-27 18	5.84 B5	+ .009	- .005			
8409		7541	30878	58 50 4.2		-60 7	5.60 K5	+ .046	- .055			
8410	32 Aqar	4242	30872	59 39 +3.1		- 1 23	5.23 A3	- .021	- .048	15	var	7.8 days, V ₀ = +20km*
8411	λ Grus	14639	30892	0 5 3.6		-40 2	4.60 K2	- .028	- .120	13	+39	
8412		4329	30879	0 9 2.7		+32 27	6.39 G5	- .011	+ .001		-24	
8413	22 v Pegs	4800	30894	0 38 3.0		+ 4 34	4.90 K5	+ .105	+ .103	11	var?	
8414	34 α Aqar	-4246	30896	0 39 3.1		- 0 48	3.19 G0	+ .015	- .005	7	+ 7	
8415		-4671	30887	0 36 +2.8		+26 11	5.93 K0	+ .031	+ .034	8	-25	
8416	18 Ceph	2028	30880	0 53 1.8		+62 38	5.46 Mb	+ .029	+ .058	6	- 4	
8417	17 ξ Ceph	-1802	30876	0 54 1.7		+64 8	6.5 G	+ .185	+ .088	36	- 8	7", binary
8418	33 λ Aqar	6209	30914	1 2 3.2		-14 21	4.57 A3	+ .208	+ .087	13	var	Two spectra
8419	23 Pegs	4284	30899	1 3 +2.7		+28 29	5.58 A0	+ .021	- .010	11	var	V ₀ = -16km
8420		1547	30970	1 17 5.7		-76 22	6.52 K2	+ .044	- .002			
8421		3574	30898	1 18 2.4		+46 16	6.29 Mb	- .044	- .020	4	-12	
8422		4041	30915	1 48 +2.4		+44 37	6.42 A0	+ .024	- .009	8	var	V ₀ = -4km
8423		673	30830	1 49 -2.2		+82 23	7.12 F5	- .140	- .034	15	-22	14", binary
		674	30833	1 56 -2.2		+82 23	7.37 F5	- .148	- .020		var*	
8424		4043	30919	1 59 +2.4		+44 32	5.32 K5	- .006	- .014	8	-23	
8425	α Grus	14063	30942	1 56 3.8		-47 27	2.16 B5	+ .121	- .151	36	+12	
8426	20 Ceph	2029	30904	1 58 1.8		+62 18	5.39 K5	+ .015	+ .060	7	-21	
8427		3692	30917	1 56 2.4		+47 45	6.16 B3	- .008	+ .004	3	var	2.2 days, V ₀ = -18km
8428	19 Ceph	2246	30907	2 4 +1.8		+61 48	5.17 Oe5	+ .001	+ .003	3	-13	
8429		4044	30924	2 9 2.4		+44 46	6.08 A2	+ .033	- .010	12	- 1	
8430	24 v Pegs	4533	30932	2 21 2.8		+24 51	3.96 F5	+ .295	+ .024	77	var	10.2 days, V ₀ = -4km
8431	14 μ PscA	15922	30954	2 33 3.5		-33 29	4.62 A2	+ .075	- .037	26	+12	
8432		1549	31004	2 29 5.7		-76 36	6.21 K0	+ .073	- .042			
8433	ε PscA	15421	30957	2 35 +3.5		-34 32	5.09 K5	+ .001	- .047	3	+20	
8434		2679	30926	2 42 2.1		+55 51	6.22 B9	+ .011	- .010	10	-20	
8435		4930	30943	2 43 2.9		+18 59	5.78 F0	+ .120	+ .037	21	-15	
8436		4693	30945	2 43 2.9		+17 31	6.43 Ma	+ .020	- .039		- 8	
8437		15926	30965	2 53 3.5		-33 37	6.44 A2	+ .016	+ .031			

8407: In Ursa Cluster?

8410: In Ursa Cluster?

8423: The companion, GC 30833, is a spectroscopic binary with two spectra, 1.2 days, V₀ = -17km.

Precession in declination, +0.29.

CATALOGUE OF BRIGHT STARS

22^h

No	Name	DM	GC	RA	Ann	Decl	Magn	Prop Motion		Par	Rad	Remarks
				1900	Var	1900	Spec	RA	Decl		Vel	
8438	25 Pegs	4695	30956	3 ^m 8 ^s +2.8		+21° 13'	5.66 B8	-".052	-.068	.006	km var	V ₀ = -50km
8439	35 Aqar	6227	30977	3 30 3.3		-19 1	5.74 B3	.000	-.010	3		
8440		14143	30990	3 38 3.8		-48 36	6.38 K2	+.072	-.045			
8441		- 4540	30968	3 40 2.8		+25 3	6.03 F0	-.041	-.036	24	var	V ₀ = +2km
8442		2393	30955	3 47 2.0		+58 21	6.31 G5	-.020	-.021	8	-11	
8443		3114	30958	3 44 +2.2		+52 49	6.50 A3p	-.009	-.008	3	-26	
8444		15430	30996	4 5 3.5		-34 30	5.49 A5	-.024	+.040	23	+ 2	
8445		3746	30979	4 23 2.3		+49 18	6.58 K5	+.027	-.023	2	var?	V ₀ = +17km
8446		17622	31001	4 18 3.4		-28 47	6.46 A3	+.028	+.026			
8447	15 τ PscA	15941	31003	4 17 3.5		-33 2	5.06 F8	+.427	+.013	46	-15	
8448	AR Lacr	3813	30985	4 39 +2.4		+45 15	var G5	-.027	+.031		var*	6.3 to 7.4, 2.0 days
8449	27 Pegs	4349	30995	4 48 2.7		+32 41	5.65 K0	-.059	-.065	10	- 6	
8450	26 θ Pegs	4961	31013	5 9 3.0		+ 5 42	3.70 A2	+.272	+.030	40	var	V ₀ = -6km, two spectra
8451		5623	31015	5 9 3.1		- 4 23	6.10 A0	+.013	-.047			
8452	38 Aqar	6196	31021	5 17 3.2		-12 3	5.40 B5	+.028	+.012	7	var?	V ₀ = +2km
8453		5625	31022	5 21 +3.1		- 4 46	6.13 K0	+.070	.000	8	-18	
8454	29 π Pegs	4352	31016	5 33 2.7		+32 41	4.38 F5	-.015	-.022	12	+ 2	In Ursa Cluster?
8455		- 4946	31019	5 33 2.9		+19 8	6.07 G0	+.082	-.074		+40	
8456		- 4861	31020	5 31 2.9		+14 8	6.41 K0	+.029	-.025		-41	
8457		6173	31029	5 29 3.3		-21 43	6.10 F5	+.120	-.032	23	-13	
8458		- 4701	31026	5 43 +2.9		+11 8	5.92 K5	-.032	-.052			
8459	28 Pegs	5093	31025	5 47 2.8		+20 29	6.40 A2	-.022	-.011	13	+ 8	
8460		- 4604	31034	6 21 2.7		+30 4	6.38 A5	+.004	-.009	10	+ 4	
8461		4592	31052	7 2 2.9		+15 33	6.06 K0	-.013	-.018	9	+11	
8462	39 Aqar	6229	31061	7 2 3.2		-14 41	6.17 F0	+.023	-.039	25		
8463		3602	31046	7 17 +2.3		+50 20	5.44 A2	+.136	+.040	14	- 9	
8464		16033	31075	7 20 3.4		-26 49	6.16 A2	-.023	-.032			
8465	21 ζ Ceph	2475	31044	7 23 2.1		+57 42	3.62 K0	+.014	+.006	15	-18	
8466		4548	31064	7 29 2.8		+24 28	6.14 K0	-.008	-.020	3	- 3	
8467		5732	31074	7 31 3.1		- 5 13	6.41 F5	-.057	-.032	21		
8468	24 Ceph	1111	31037	7 53 +1.2		+71 51	4.99 G5	+.030	+.009	11	-15	
8469	22 λ Ceph	2402	31066	8 7 2.0		+58 55	5.19 O4	+.001	-.009	3	-74	
8470		15815	31088	8 7 3.4		-25 41	5.58 F8	+.070	+.016		-28	
8471	ν Octn	1442	31133	8 7 5.8		-78 1	5.63 A5	-.047	+.011			
8472		2727	31070	8 12 2.2		+56 21	5.42 F8	+.230	+.125	25	-19	
8473		1112	31049	8 18 +1.2		+71 37	6.36 B9	-.010	-.024	7	- 3	
8474		1228	31056	8 22 1.4		+69 38	5.54 F2	-.061	+.033	34	+ 1	8m, 15", cpm
8475		- 4456	31081	8 22 2.7		+34 7	5.42 K0	+.021	-.048	10	var?	V ₀ = -7km
8476		2403	31076	8 29 2.1		+58 35	6.52 K0	+.128	+.084			
8477		14804	31100	8 32 3.7		-41 51	6.40 G0	+.558	-.790	40	-19	
8478	16 λ PscA	17653	31095	8 39 +3.4		-28 16	5.40 B9	+.025	-.002	8	- 6	
8479		2358	31077	8 43 2.0		+60 16	5.52 K0	-.010	+.022	10	- 4	
8480	41 Aqar	6180	31099	8 47 3.3		-21 34	5.45 G5	+.014	+.067	12	-24	5.6:7.4, 5", binary
8481	ε Octn	- 995	31166	8 49 6.7		-80 56	5.11 Mb	+.074	-.039		+12	
8482		- 4280	31094	9 4 2.7		+28 7	6.01 K2	+.067	+.001	8	-19	
8483		2048	31086	9 16 +1.9		+62 48	6.06 Ma	-.007	-.007			
8484		-14644	31123	9 28 3.7		-44 58	6.16 K0	+.005	-.019			
8485		- 4711	31104	9 35 2.6		+39 13	4.64 K2	+.041	+.006	12	var	V ₀ = -11km
8486	μ' Grus	14810	31125	9 36 3.6		-41 51	4.86 G0	+.046	+.028	5	var	V ₀ = -7km
8487		4073	31105	9 42 2.5		+44 57	5.51 A0	+.078	+.009	15	- 9	

8448: V₀ = -36km.

Precession in declination, +0.30.

22^h

No	Name	DM	GC	RA		Decl	Magn	Prop Motion		Par	Rad	Remarks
				1900	Ann Var			RA	Decl			
8488	μ^2 Grus	15846	311138	10 ^m 26 ^s + 3.6	-42° 7'	5.19 G5	- .011	- .011	.008	km var?	$V_0 = +12\text{km}$	
8489		4333	311127	10 32 2.5	+42 27	5.70 A0	+ .051	- .020	12	-38		
8490		2053	311116	10 41 1.9	+62 40	6.21 B9	- .022	.000		var	$V_0 = +1\text{km}$	
8491		-4834	311139	11 1 3.0	+ 8 3	6.03 A0	+ .003	+ .007	11	var		
8492		16057	311144	11 0 3.4	-26 24	6.27 K0	+ .034	- .017				
8493		1022	311110	11 4 + 1.1	+72 49	6.11 G5	+ .022	+ .023	8	+ 1	7.5m, 29", cpm	
8494	23 ϵ Ceph	2741	311135	11 21 2.2	+56 33	4.23 F0	+ .444	+ .048	42	var?		
8495		5726	311147	11 25 3.1	- 2 6	6.09 A2	- .034	- .007				
8496	42 Aqar	6148	311150	11 27 3.2	-13 20	5.55 K0	+ .010	+ .009	9			
8497		17344	311154	11 26 3.3	-23 38	6.36 G5	+ .081	- .054				
8498	1 Lacr	4526	311143	11 37 + 2.6	+37 15	4.22 K0	+ .011	+ .005	10	- 7		
8499	43 θ Aqar	5845	311152	11 33 3.2	- 8 17	4.32 K0	+ .114	- .018	17	-15		
8500		5948	311155	11 36 3.2	- 9 32	6.08 K0	- .053	- .006	8	+12		
8501		10055	311178	11 42 3.9	-54 7	5.44 G0	+ .422	- .668	80	-14	10m, 3", binary	
8502	α Tucn	7561	311183	11 39 4.1	-60 45	2.91 K2	- .069	- .039	23	var	4198 days, $V_0 = +42\text{km}^*$	
8503		4288	311151	11 53 + 2.8	+27 18	6.43 K0	- .012	+ .004		+17		
8504	44 Aqar	-5960	311163	11 53 3.1	- 5 53	5.80 G5	.000	+ .025	10	+ 6		
8505	ν Octn	406	31327	12 35 11.4	-86 29	5.74 K0	- .033	+ .064				
8506		2746	311167	12 50 2.2	+56 43	6.05 K0	+ .041	+ .007	7	- 8		
8507		4333	311193	12 57 3.1	- 0 44	6.36 F5	- .045	- .058				
8508	45 Aqar	-6255	311199	13 39 + 3.2	-13 48	6.09 K0	+ .074	- .009	10	+30		
8509		7942	312119	13 57 4.0	-58 1	6.34 K5	+ .019	- .014				
8510		4537	312110	14 33 2.6	+37 16	6.11 F0	+ .055	+ .045	20	+ 8	8m, 16", binary	
8511	25 Ceph	2059	31205	14 57 2.0	+62 18	5.99 K5	+ .044	+ .018	7	- 2		
8512	46 ρ Aqar	5855	31225	14 56 3.2	- 8 19	5.36 B8	+ .010	+ .002	8	- 9		
8513	30 Pegs	4998	31230	15 26 + 3.0	+ 5 17	5.35 B5	+ .018	+ .003	5	var*	12m, 6", cpm	
8514		4853	31239	15 56 3.0	+ 7 41	6.17 F5	+ .043	+ .026	31	+10		
8515	ν Indi	2690	31284	16 2 5.1	-72 44	5.42 G0	+1.297	- .687	33	+20	6.2:6.2, very close	
8516	47 Aqar	5897	31247	16 5 3.3	-22 6	5.40 K0	- .013	- .087	10	+49		
8517		4410	31242	16 21 2.8	+26 26	6.50 Ma	+ .012	- .004				
8518	48 γ Aqar	-5741	31257	16 29 + 3.1	- 1 53	3.97 A0	+ .126	+ .011	38	var	58.1 days, $V_0 = -13\text{km}$	
8519		3673	31243	16 42 2.4	+50 29	6.55 K2	+ .010	+ .005	3	- 8		
8520	31 Pegs	4784	31255	16 36 3.0	+11 42	4.93 B3p	+ .004	+ .010	6			
8521		14292	31273	16 38 3.7	-46 27	6.65 S	.000	- .010			11m, 3"	
8522	32 Pegs	4299	31253	16 42 2.8	+27 50	4.88 B8	+ .015	+ .004	8	+ 8		
8523	2 Lacr	-3894	31252	16 54 + 2.5	+46 2	4.66 B5	+ .021	+ .005	9	var*	2.6 days, $V_0 = -9\text{km}$	
8524	π Grus	14295	31279	17 0 3.7	-46 26	5.82 F0	+ .230	- .049	19		12m, 5", cpm	
8525		820	31227	17 8 0.7	+75 59	6.56 A0	+ .009	+ .014				
8526		1748	31308	17 10 5.2	-75 31	6.17 G0	+ .058	+ .023			6.3:8.7, 20"	
8527		-2686	31301	17 21 4.7	-70 56	5.95 F0	+ .122	- .061				
8528		4469	31274	17 34 + 2.6	+41 34	6.27 B3	+ .017	.000	3	-18		
8529	49 Aqar	15905	31291	17 57 3.3	-25 16	5.61 K0	+ .099	.000	9	-10		
8530		5765	31293	18 17 3.1	- 7 42	6.11 K0	- .007	+ .011	7	-14		
8531		7954	31311	18 18 4.0	-58 18	5.39 G5	+ .139	- .342	55	+ 8		
8532	33 Pegs	5139	31300	18 51 2.9	+20 21	6.13 F5	+ .333	- .014	33	-24	9m, 1", binary	
8533	51 Aqar	5780	31307	18 54 + 3.1	- 5 21	5.85 A0	+ .027	- .001	14	+ 6	6.6:6.6, close binary	
8534	50 Aqar	6276	31317	19 6 3.2	-14 2	5.92 G5	+ .045	+ .013	9			
8535		2765	31297	19 18 2.2	+56 47	6.19 B8	+ .012	+ .002	6			
8536		-4560	31315	19 28 2.7	+38 4	6.20 F8	+ .253	+ .119	15	+ 5		
8537		2291	31303	19 39 2.0	+61 55	6.01 A0	- .006	+ .043	11	-15		

8502: Visual orbit, $a = 0''.05$.8513: $V_0 = -8\text{km}$.Precession in declination, $+0''.30$.

8523: Two spectra.

CATALOGUE OF BRIGHT STARS

22^h

No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks				
8538	3 β Lacr	3358	31310	19 ^m 38 ^s +2.4		+51° 44'	4.58 KO	-".017 -".188	"019	-10					
8539	52 α Aqr	4872	31328	20 10 3.1		+ 0 52	4.64 B1p	+ .012 + .005	6	var	V ₀ = +4km				
8540	δ Tucn	4044	31345	20 12 4.3		-65 28	9.3	+ .066 - .018	15	+12	7", cpm				
			31346	20 13 4.3		-65 28	4.80 B9	+ .071 + .003							
8541	4 Lacr	3715	31326	20 28 2.4		+48 58	4.64 B8p	- .010 - .003	3	-26					
8542	53 Aqr	17171	31343	20 39 +3.3		-24 11	6.17 A0	+ .005 + .004	59	- 4	6", binary				
8543			31338	20 51 2.9		+17 56	6.40 KO	+ .017 + .033							
8544			6520	31348	21 8 3.3		-17 15	6.57 G0				+ .258 - .010			
8545			6521	31349	21 9 +3.3		-17 15	6.35				+ .219 .000			
8546			383	31223	21 18 -4.9		+85 36	5.38 A0				+ .054 + .051	11	var	Two spectra
8547	34 Pegs	3493	31371	21 16 +4.4		-68 0	5.70 A3	+ .149 - .076	37	-18	12m, 3", binary				
8548			31355	21 32 3.1		+ 3 53	5.85 G0	+ .296 + .051							
8549			4835	31360	22 19 2.7		+36 56	6.39 B3				+ .011 - .002	2	- 6	11m, 4", fixed
8550			860	31339	22 51 0.5		+77 44	6.50 B9				- .006 + .023			
8551	35 Pegs	-4710	31377	22 48 3.0		+ 4 12	4.93 KO	+ .078 - .308	22	+54					
8552	ν Grus	14723	31387	22 48 +3.5		-39 38	5.48 KO	+ .041 - .160	9	+11	12m, 27", cpm				
8553			4841	31375	23 3 2.6		+39 18	6.07 B3	- .001 - .010	3	-17				
8554			2750	31372	23 12 2.3		+55 56	6.42 B8	+ .022 + .007						
8555			4701	31381	23 11 2.7		+31 20	6.26 K2	+ .041 + .034						
8556			δ ¹ Grus	14931	31400	23 18 ³ 3.6		-44 0	4.02 G5	+ .023 - .005	14	+ 5			
8557	55 ζ Aqr	4365	31365	23 26 +1.5		+70 16	5.69 KO	+ .008 + .019	8	var?	V ₀ = -17km				
8558			31398	23 41 3.1		- 0 32	4.59 F2	+ .175 + .013	23	+25	3", binary*				
8559			31399	23 41 3.1		- 0 32	4.42	+ .204 + .046							
8560			δ ² Grus	14935	31412	23 47 3.6		-44 16	4.31 Mb	- .013 + .001	0	var	V ₀ = +2km; 9m, 61"		
8561			26 Ceph	1664	31380	23 52 1.9		+64 37	5.66 B0	+ .001 + .001	1	-15			
8562	36 Pegs	4874	31408	24 9 +3.0		+ 8 37	5.82 K2	+ .052 - .018	5	var?	V ₀ = -31km				
8563			15932	31417	24 10 3.4		-27 37	5.95 F0	+ .128 - .014						
8564			4439	31415	24 29 2.8		+26 15	5.96 K2	+ .021 - .005	6	-45				
8565			6204	31423	24 41 3.2		-13 26	6.21 F0	+ .164 + .004	16	-11				
8566	37 Pegs	4713	31425	24 55 3.0		+ 3 55	5.47 F5	- .030 - .141	22	+ 1	5.7:7.1, 150 years				
8567	56 Aqr	6231	31428	24 56 +3.2		-15 6	6.37 A0	+ .035 - .036							
8568			1852	31410	25 0 2.0		+63 34	6.38 KO	+ .021 - .010						
8569	ζ PscA	-4700	31427	25 14 2.7		+35 13	6.53 A0	- .028 - .037							
8570			16175	31444	25 20 3.3		-26 35	6.53 KO	+ .031 - .069	7					
8571			2547	31419	25 26 2.2		+57 53	7.5 A0	+ .011 + .007	5	-22	41", cpm			
8571	2548	31421	25 27 2.2		+57 54	var*G0	+ .012 + .002								
8572	5 Lacr	-3719	31426	25 22 +2.5		+47 12	4.61	+ .003 - .004	3	var	Composite, KO, A0				
8573	57 σ Aqr	5850	31440	25 21 3.2		-11 11	4.89 A0	- .001 - .028	17	var	V ₀ = +14km*				
8574	38 Pegs	-4708	31430	25 27 2.7		+32 4	5.51 A0	+ .029 - .014	14	-16					
8575			3747	31442	26 0 2.5		+48 51	6.52 KO				- .027 - .043			
8576	17 β PscA	17126	31459	25 49 +3.4		-32 52	4.36 A0	+ .063 - .011		+ 6	30", cpm				
			31460	25 50 3.4		-32 52	7.8	+ .072 - .021							
8577	28 Ceph	1206	31498	25 55 5.7		-79 17	6.08 KO	+ .048 - .004	15	- 6					
8578			796	31401	25 58 0.5		+78 17	5.77 A2				- .015 - .038			
8579			6 Lacr	4420	31449	26 10 2.6		+42 37				4.54 B3	- .008 - .002	5	-10
8580	ν Tucn	5460	31462	26 8 +3.1		- 3 25	6.29 KO	- .022 - .031							
8581			5797	31461	26 4 3.1		- 7 4	6.20 F8	+ .167 - .102						
8582			6348	31478	26 14 4.1		-62 30	4.92 Mb	+ .034 - .026	4	- 3				
8583			58 Aqr	5855	31468	26 23 3.2		-11 25	6.39 F0	+ .069 - .042	10	var	2.3 days, V ₀ = +2km		
8584					-4389	31473	26 56 2.8		+29 2	6.32 A5				- .047 - .027	

8558: V₀ = +29km.

8571: 3.7 to 4.4, 5.4 days, V₀ = -16km.

Precession in declination, +0.31.

8573: In Ursa Cluster?

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No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
8585	7 α Lacr	3875	31471	27 ^m 10 ^s +2.5		+49° 46'	3.85 A0	+ .134 + .017	.036	km	
8586	39 Pegs	4949	31486	27 45 2.9		+19 43	6.31 F0	+ .155 + .030		- 7	
8587		4670	31490	27 54 2.9		+15 21	6.36 K0	+ .009 + .009		-20	
8588		4871	31488	28 1 2.7		+39 16	5.80 A3	+ .003 - .003	13	+ 5	
8589		2910	31489	28 21 2.4		+53 31	6.47 K0	+ .033 + .028			
8590	60 Aqar	5781	31507	28 54 +3.1		- 2 5	5.92 K0	+ .030 - .035	9		
8591	29 ρ Ceph	801	31474	29 0 0.5		+78 19	5.50 A2	+ .004 - .015	11	var?	
8592	59 υ Aqar	6251	31516	29 13 3.3		-21 13	5.29 F5	+ .219 - .143	39	- 2	
8593		7971	31529	29 24 3.9		-58 24	6.26 A3	+ .076 - .010			
8594		-2769	31513	29 48 2.3		+56 6	5.80 K0	+ .071 + .048	10	var	
8595		1262	31510	30 9 +1.7		+69 24	6.02	+ .114 + .072	10	- 5	6.5F2:7.0 A5, close bin.
8596		17232	31535	30 6 3.3		-24 30	6.04 K0	+ .037 - .005	8	- 3	
8597	62 η Aqar	4384	31534	30 13 3.1		- 0 38	4.13 B8	+ .087 - .052	21	- 8	
8598		1263	31515	30 27 1.7		+69 51	6.26 A0	+ .049 + .024	12	-19	9m, 9", cpm
8599		836	31506	30 31 1.1		+75 43	5.74 A0	- .019 - .006	9	var	V ₀ = -8km
8600		14959	31547	30 39 +3.5		-41 6	6.11 A2	+ .040 - .068			
8601		17161	31555	30 58 3.4		-32 11	5.75 K0	- .047 - .043			
8602		14963	31563	31 9 3.5		-41 6	5.75 A2	+ .033 - .073		+15	10m, 3", cpm
8603	8 Lacr	-4808	31550	31 25 2.7		+39 7	6.55 B5	- .012 - .002	3	-15	22", cpm
			31551				5.83 B3p	.000 - .005		var*	
8604		-4728	31558	31 35 +2.7		+35 4	6.20 K0	- .005 - .067		-15	
8605		-4781	31565	31 39 3.0		+11 11	6.40 A0	- .013 + .021		-10	
8606		3903	31556	31 44 2.5		+49 33	6.20 B3	+ .003 + .008	3	var*	10.9 days, V ₀ = -15km
8607		2779	31559	31 57 2.4		+55 33	6.30 A2	- .005 - .018	10	- 2	
8608		-4838	31570	32 8 3.0		+12 4	6.53 K5	- .035 - .014			
8609		-4729	31568	32 15 +2.7		+35 8	6.50 K5	- .002 .000			
8610	63 κ Aqar	5716	31581	32 35 3.1		- 4 45	5.33 K0	- .073 - .114	15	+ 8	
8611		10326	31602	32 58 3.7		-53 13	6.82 F0	+ .001 - .016			
8612		5912	31593	33 7 3.1		- 8 25	6.35 G0	+ .070 .000			6.5:8.3, close binary
8613	9 Lacr	-3770	31586	33 16 2.5		+51 2	4.83 A5	- .058 - .100	22	+11	
8614		18414	31597	33 11 +3.3		-29 16	6.37 K0	- .039 + .001			
8615	31 Ceph	-1049	31567	33 18 1.5		+73 7	5.22 F0	+ .170 + .025	16	0	
8616		16160	31598	33 13 3.4		-33 36	5.60 A0	+ .010 + .019		var	Two spectra
8617		4185	31603	33 58 2.6		+44 40	6.45 F8	.000 .000			
8618	40 Pegs	-5014	31610	34 2 2.9		+19 0	5.80 G5	- .047 - .099	10	-19	5.8:11, 2", binary
8619		17873	31623	34 10 +3.3		-28 51	6.33 G0	+ .071 - .031			
		17874	31625	34 12 3.3		-28 52	6.84 F5	+ .079 - .055	11		87", cpm*
8620		-7984	31641	34 26 3.8		-57 57	5.91 K0	+ .063 - .004			
8621		2821	31615	34 42 2.4		+56 17	5.47 Mb	+ .050 - .028	5	+ 8	
8622	10 Lacr	4826	31626	34 46 2.7		+38 32	4.91 Oe5	.000 - .006	4	-10	
8623		18920	31639	34 48 +3.3		-31 10	5.98 K2	- .108 - .208	10		
8624	41 Pegs	-5021	31634	34 56 2.9		+19 10	6.14 A0	- .008 - .010	10	-11	
8625		978	31604	35 5 1.3		+74 51	6.06 K5	+ .046 + .010			
8626		-4902	31632	35 3 2.7		+37 4	6.14 G5	+ .004 .000			
8627	30 Ceph	-2102	31620	35 6 2.1		+63 4	5.21 A2	- .007 - .021	11	var	V ₀ = +3km, two spectra
8628	18 ε PscA	16010	31646	35 8 +3.3		-27 34	4.22 B8	+ .027 .000	13		
8629		5728	31649	35 37 3.1		- 4 4	6.40 G0	- .003 - .037			6.9:7.4, 0"2
8630	β Octn	- 889	31712	35 51 6.1		-81 54	4.34 F0	- .049 + .003		var	V ₀ = +24km
8631		-4971	31655	35 55 3.0		+14 1	5.81 G5	+ .263 + .145	36	-11	6.3:6.9, 22 years

8603: V₀ = -1km.
8606: Two spectra.

Precession in declination, +0.31.
8619: The companion is itself binary, 7.4:7.93".

CATALOGUE OF BRIGHT STARS

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No	Name	DM	GC	RA	Ann	Decl	Magn	Prop Motion		Par	Rad	Remarks
				1900	Var	1900	Spec	RA	Decl		Vel	
8632	11 Lacr	4266	31652	36 ^m 8 ^s +2.6		+43° 45'	4.64 KO	+ .091	+ .012	"012	km	
8633		2950	31650	36 14 2.4		+53 20	6.10 KO	- .002	- .013		-10	
8634	42 ζ Pegs	4797	31664	36 28 3.0		+10 19	3.61 B8	+ .077	- .008	18	+ 7	
8635		14307	31684	36 39 3.6		-47 43	6.26 G0	+ .003	- .325	38		10m, 7", binary
8636	β Grus	14308	31685	36 42 3.6		-47 24	2.24 Mb	+ .134	- .009	12	+ 2	
8637	19 PscA	-19267	31680	36 48 +3.3		-29 53	6.44 Ma	+ .023	- .014	5	- 9	
8638		4771	31668	36 51 2.8		+30 26	6.48 K5	+ .059	.000			
8639		15017	31686	36 50 3.5		-44 46	6.29 K0	+ .036	+ .037	17		
8640	12 Lacr	4912	31670	37 0 2.7		+39 42	5.18 B2	- .009	- .001	4	var	0.19 days*
8641	43 ο Pegs	4436	31674	37 4 2.8		+28 47	4.85 A0	- .008	- .026	17	+ 8	In Ursa Cluster?
8642		- 4974	31677	37 1 +3.0		+14 0	6.14 K0	+ .087	- .020	6	-26	
8643		- 4885	31672	37 8 2.7		+41 1	6.07 K0	+ .144	+ .065	9		
8644	ρ Grus	-16049	31701	37 42 3.5		-41 56	4.89 K0	+ .019	- .092	16	var?	V ₀ = +29km
8645		- 6038	31697	37 49 3.1		- 8 50	6.85 A2	+ .018	- .002	7	var*	8.2m, 3", binary
8646		6676	31711	37 48 3.9		-61 1	6.44 F5	+ .003	+ .026			
8647	67 Aqar	5838	31703	38 1 +3.1		- 7 29	6.30 B9	+ .021	- .012			
8648		2960	31690	38 15 2.5		+53 23	6.26 K2	- .002	+ .001			
8649	66 Aqar	6324	31708	38 12 3.2		-19 21	4.88 K5	- .030	- .025	9	+22	
8650	44 η Pegs	4741	31706	38 19 2.8		+29 42	3.10 G0	+ .010	- .025	14	var	818 days, V ₀ = +4km
8651		4670	31704	38 23 2.7		+37 17	6.22 B3	+ .007	- .008		-18	
8652		3803	31709	38 45 +2.6		+46 39	6.42 B9	+ .009	- .002	3	var	7.0:7.4, 0"5, binary*
8653		4805	31713	38 44 3.0		+10 25	6.43 F5	+ .009	- .165		- 2	
8654		4855	31731	39 34 2.7		+38 56	6.12 K5	+ .002	- .020	4	-27*	6.3:8.5, 3", binary
8655	η Grus	10123	31744	39 30 3.7		-54 2	4.86 K0	+ .030	+ .019	14	var	V ₀ = +28km
8656	13 Lacr	4594	31732	39 38 2.7		+41 18	5.24 K0	- .010	+ .006	11	+13	11m, 15", fixed
8657		14320	31750	39 47 +3.5		-47 4	5.42 K0	- .037	- .019	0	var?	V ₀ = +42km
8658		13955	31757	40 7 3.6		-49 30	6.80 G0	+ .199	- .048			
8659		13788	31762	40 28 3.6		-50 12	6.52 K0	+ .083	- .275			
8660	45 Pegs	5046	31753	40 36 2.9		+18 50	6.45 K0	- .035	+ .057	6	-22	
8661		3460	31749	40 39 2.5		+51 59	6.66 K2	- .005	+ .013			
8662		14331	31769	40 49 +3.5		-47 28	6.84 A5	+ .053	+ .005			10m, 10", cpm
8663	ξ Octn	1055	31821	41 3 5.6		-80 39	5.52 B5	+ .034	- .019		var?	V ₀ = +16km
8664		1554	31815	41 22 5.0		-77 35	6.68 A2	+ .082	+ .015			
8665	46 ζ Pegs	4875	31778	41 42 3.0		+11 40	4.31 F5	+ .229	- .495	50	- 6	12m, 12", binary
8666		- 4300	31771	41 44 2.7		+44 1	5.84 F0	+ .136	+ .032		-13	
8667	47 λ Pegs	- 4709	31776	41 43 +2.9		+23 2	4.14 K0	+ .052	- .012	22	- 4	
8668		15735	31785	41 43 3.4		-34 41	6.37 K0	- .073	+ .049			
8669		6369	31803	41 52 3.9		-62 13	6.34 K0	+ .069	+ .002			
8670	68 Aqar	6486	31794	42 11 3.2		-20 8	5.43 G5	- .107	- .200	30	+23	
8671		15217	31798	42 6 3.4		-38 45	6.70 G0	- .073	- .075			
8672		- 2726	31820	42 9 +4.3		-70 53	6.38 A2	+ .008	+ .038			
8673	69 Aqar	6346	31802	42 24 3.2		-14 35	5.70 B9	+ .028	- .006	11		
8674		16324	31806	42 27 3.3		-26 26	6.48 G5	+ .110	- .108			
8675	ε Grus	13389	31813	42 31 3.6		-51 51	3.69 A2	+ .103	- .060	41	0	
8676	70 Aqar	5923	31822	43 15 3.2		-11 5	6.15 F0	+ .029	+ .006			
8677		2612	31812	43 25 +2.4		+57 57	6.29 A0	+ .004	+ .003			
8678		4934	31824	43 36 2.7		+36 53	6.00 K0	- .060	- .058			
8679	71 τ Aqar	6354	31836	44 18 3.2		-14 7	4.21 K5	- .017	- .034	14	+ 1	
8680		16244	31840	44 25 3.3		-33 20	6.35 A5	- .055	- .016	20		7.0:7.3, about 30 years
8681		5111	31838	44 32 3.0		+ 9 57	6.46 F0	+ .086	- .028	16	- 8	

8640: Velocity subject to slower variations as well.

8645: Possibly two spectra.

8652: The companion is itself a very close binary, 7.6:9.5.

Precession in declination, +0.31.

8654: Velocity of fainter -23km.

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No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
8682		2993	31831	44 ^m 39 ^s +2.5		+53° 53'	6.08 B8	-.020 + .008	.005	km	
8683		2115	31834	44 58 2.3		+62 25	6.16 KO	+ .006 - .048			
8684	48 μ Pegs	- 4615	31851	45 11 2.9		+24 4	3.67 KO	+ .145 - .041	31	+14	
8685		14848	31863	45 21 3.4		-39 41	5.39 K2	+ .022 - .014	0	+27	
8686		7610	31869	45 27 3.8		-60 25	6.40 KO	- .037 + .009			
8687		- 1468	31841	45 36 +2.0		+68 2	7.09 F5	+ .111 + .072	23	+ 3	4", binary
			31842				7.2	+ .128 + .077		+ 1	
8688		2820	31854	45 39 2.5		+55 22	5.56 KO	+ .081 + .044	10	-36	
8689		4826	31872	45 41 3.9		-63 43	6.08 KO	+ .016 - .041			6.2:9.0, 1", binary
8690	14 Lacr	4623	31861	45 51 2.7		+41 25	5.84 B5	+ .007 .000	4	-15	
8691		5059	31864	45 46 +2.9		+18 37	6.50 KO	+ .045 - .020			
8692		- 3954	31858	45 53 2.6		+50 9	6.43 KO	+ .010 + .004	3	- 9	
8693	21 PscA	19324	31868	45 50 3.3		-30 4	6.03 KO	- .009 - .010			
8694	32 ν Ceph	1814	31857	46 7 2.1		+65 40	3.68 KO	- .067 - .122	35	-12	In Ursa Cluster?
8695	22 ν PscA	16270	31895	46 58 3.3		-33 24	4.52 A0	- .035 - .024	18	var?	$V_0 = +16\text{km}^*$
8696		- 2450	31884	47 28 +2.3		+61 10	6.09 G0	+ .106 + .047	8	+ 2	7.4m, 2", binary
8697	49 σ Pegs	5122	31899	47 20 3.0		+ 9 18	5.30 F5	+ .518 + .047	41	+12	
8698	73 λ Aqr	5968	31903	47 24 3.1		- 8 7	3.84 Ma	+ .004 + .040	14	- 9	
8699	15 Lacr	4521	31896	47 31 2.7		+42 47	5.17 K5	+ .106 + .029	16	-17	
8700	τ Grus	13988	31913	47 43 3.6		-49 8	6.32 G5	+ .211 - .076	29		
8701	ρ Indi	2971	31926	47 42 +4.2		-70 36	6.14 G0	- .042 + .067			
8702		703	31855	47 53 -0.2		+82 37	4.97 KO	+ .023 + .053	10	-31	10m, 3", binary
8703		4831	31908	48 7 +3.0		+16 19	5.72 KO	- .024 - .026	8	var	24.6 days, $V_0 = -12\text{km}$
8704	74 Aqr	6371	31918	48 13 3.2		-12 9	5.89 B9	+ .019 + .005	8		
8705		3962	31915	48 32 2.6		+49 53	6.44 B9	+ .015 - .011	4		
8706		4957	31920	48 37 +2.7		+39 38	6.24 B8	- .003 - .009	5	+ 6	
8707		2595	31922	49 4 2.4		+59 34	6.32 K2	+ .017 + .010	32	var	
8708		- 4331	31930	49 12 2.7		+44 13	5.62 A0	- .019 - .012	20	var*	5.8:7.8, 1", -binary
8709	76 δ Aqr	6173	31943	49 21 3.2		-16 21	3.51 A2	- .042 - .021	42	+18	
8710	78 Aqr	5886	31942	49 22 3.1		- 7 44	6.33 KO	- .018 - .033	7	+ 9	
8711	77 Aqr	- 6619	31944	49 28 +3.2		-16 48	5.66 KO	- .226 - .086	16	-36	
8712		4964	31940	49 32 2.8		+39 51	5.94 K2	+ .099 + .036	9	- 5	
8713		-14981	31957	49 38 3.4		-36 55	6.38 KO	+ .043 .000			
8714		4833	31945	49 40 3.0		+16 24	6.48 Mb	+ .014 - .008	4	+12	
8715	1 Pisc	4939	31956	49 53 3.1		+ 0 32	6.05 A3	+ .018 + .005	16	+13	
8716		5885	31960	50 0 +3.1		- 5 31	5.87 G5	+ .028 - .001	9	- 9	6.0:7.8, close binary
8717	50 ρ Pegs	4961	31963	50 12 3.0		+ 8 17	4.95 A0	+ .073 + .017	9	-10	
8718		4956	31964	50 23 2.8		+36 33	6.00 F2	+ .086 + .009	25		
8719		17312	31972	50 20 3.3		-32 10	6.13 KO	- .038 - .005			
8720	23 δ PscA	16303	31974	50 25 3.3		-33 4	4.33 KO	+ .013 + .032	18	-12	10m, 5", cpm
8721		17321	31978	50 50 +3.3		-32 6	6.46 K5	+ .321 - .161	126		
8722	τ^3 Grus	14364	31980	50 58 3.5		-48 30	5.90 A3	- .037 + .005			
8723		4917	31976	51 5 2.8		+35 49	5.63 B9	+ .018 + .005	7	+ 1	
8724		4904	31991	51 51 3.0		+11 19	6.46 A3	+ .057 - .006	9	+ 8	6.6:9.0, 4", binary
8725	16 Lacr	- 4949	31987	51 50 2.7		+41 4	5.54 B3	- .007 .000	4	var	12.3 days, $V_0 = -8\text{km}$
8726		- 3887	31989	52 3 +2.6		+49 12	5.10 KO	- .001 - .002	3	-10	
8727		5894	31996	52 7 3.1		- 5 21	6.37 G5	- .021 + .007	7	- 9	
8728	24 α PscA	19370	32000	52 8 3.3		-30 9	1.29 A3	+ .328 - .164	145	+ 6	Fomalhaut
8729	51 Pegs	- 5036	32003	52 33 2.9		+20 14	5.59 G0	+ .200 + .059	69	-31	
8730		4799	32002	52 27 3.1		+ 3 16	6.43 K2	+ .063 + .043			

8695: 8.5m, 4", binary. In Ursa Cluster.
 8708: $V_0 = +8\text{km}$.

Precession in declination, +0.32.

CATALOGUE OF BRIGHT STARS

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22^h

No	Name	DM	GC	RA	Ann	Decl	Magn	Prop Motion		Par	Rad	Remarks
				1900	Var	1900	Spec	RA	Decl		Vel	
8731		- 3985	31998	52 ^m 39 ^s +2.7		+48° 9'	5.20 B3	+ .013	- .004	"005	km -11	
8732		15650	32016	53 1 3.3		-36 3	6.28 F8	- .006	- .110			
8733		4904	32010	53 4 2.8		+38 46	6.07 B3	- .008	+ .002	3	-16	
8734		- 5539	32015	53 7 3.1		- 2 56	6.21 G5	- .021	- .001			
8735		- 5858	32018	53 14 +3.1		- 1 57	6.40 F2	+ .084	- .002		-15	
8736		517	31955	53 29 -1.5		+84 50	6.18 K5	+ .007	+ .112		-30	
8737		4973	32021	53 31 +3.0		+ 8 50	6.50 G0	+ .397	- .138	34	-27	7.0:7.5, 27 years
8738		5092	32023	53 40 3.0		+ 6 48	6.28 A0	- .046	- .076	9	0	
8739	52 Pegs	- 4859	32034	54 12 3.0		+11 12	5.79 F0	+ .028	- .038	10	+20	6.0:7.5, 1", binary
8740		19383	32036	54 8 3.3		-30 0	5.54 A5	- .008	+ .010		0	
8741		6318	32038	54 20 +3.2		-13 36	6.27 K2	- .015	+ .004		+13	
8742	2 Pisc	4950	32037	54 20 3.1		+ 0 26	5.59 K0	+ .081	- .067	11	-13	14m, 4", binary
8743		16220	32049	54 41 3.2		-25 42	5.85 K0	+ .031	- .075	8	-35	
8744		- 3514	32039	54 50 2.6		+52 7	6.41 K2	- .034	+ .028			
8745		2615	32042	55 3 2.5		+59 17	6.38 B9	+ .002	+ .007	4		
8746		16419	32055	54 59 +3.3		-26 10	6.44 K0	+ .082	- .034			
8747	ζ Grus	10382	32061	54 59 +3.5		-53 17	4.18 G5	- .067	- .012	22	var	V ₀ = -1km
8748		640	31999	55 13 -0.5		+83 49	4.96 K5	+ .098	+ .030	11	+ 3	
8749		13446	32068	55 15 +3.5		-51 29	5.63 K2	+ .073	- .004		+ 8	
8750	3 Pisc	4443	32065	55 30 3.1		- 0 21	6.40 K0	+ .036	+ .019	6	-17	
8751		4594	32067	55 37 +3.1		+ 2 29	5.96 K0	+ .006	- .082			
8752		2923	32063	55 52 2.5		+56 25	5.48 G0p	- .005	+ .008	2	var?	V ₀ = -58km
8753		4859	32072	55 56 2.9		+30 33	6.52 A0	+ .027	+ .005	6	+ 1	6.6:9.0, 3", cpm
8754		18537	32075	55 52 3.3		-29 23	5.72 K0	+ .062	- .010	8		
8755		4302	32071	56 3 2.7		+44 50	6.44 A2	+ .005	+ .003	9	var?	V ₀ = -4km
8756		17706	32077	56 0 +3.2		-23 20	6.32 A2	+ .033	- .019			
8757	81 Aqar	5910	32079	56 12 3.1		- 7 36	6.40 K2	- .021	- .006	6	- 2	
8758		- 4744	32073	56 16 2.8		+38 10	6.39 B3	- .004	- .004	4	var	V ₀ = -8km
8759		5910	32082	56 21 3.1		- 5 15	6.17 K0	+ .013	+ .014			
8760		- 15047	32098	57 1 3.3		-36 57	6.50 K0	+ .026	- .034	3		10m, 2", binary
8761		2927	32091	57 17 +2.5		+56 34	6.50 K2	- .005	- .005			
8762	1 ♂ Andr	4664	32095	57 19 2.8		+41 47	3.63 *	+ .022	- .002	10	var	V ₀ = -14km
8763	82 Aqar	5913	32102	57 21 3.1		- 7 7	6.46 Ma	- .010	- .032	5	- 8	
8764		6354	32105	57 24 3.2		-21 24	6.19 G5	- .060	- .115			
8765		4829	32107	57 47 2.9		+31 14	6.46 F0	+ .001	- .016	16	-18	
8766	2 Andr	- 4665	32110	58 0 +2.8		+42 13	5.08 A2	+ .052	- .004	26	var*	9m, close binary
8767	♠ PscA	15630	32122	57 58 3.3		-35 17	5.13 F0	+ .076	+ .082	47	var	V ₀ = -14km
8768		4378	32114	58 11 2.7		+43 31	6.32 B3	- .002	- .001	2	- 8	10m, 7", fixed
8769		3301	32141	58 16 4.0		-69 22	5.64 F0	+ .039	+ .069		var	
8770		2900	32116	58 25 2.6		+54 42	6.47 B9	+ .006	+ .013			
8771		16177	32129	58 22 +3.4		-42 1	5.76 K0	+ .001	+ .070	7		
8772		5917	32136	58 45 3.1		- 5 20	6.65 G0	+ .314	+ .032			
8773	4 ♀ Pisc	4818	32134	58 47 3.1		+ 3 17	4.58 B5p	+ .006	- .006	10	0	
8774	♁ Grus	10197	32143	58 45 3.5		-54 30	5.26 K5	+ .051	- .115	8	var?	V ₀ = +18km
8775	53 ♀ Pegs	4480	32135	58 56 2.9		+27 32	2.61 Ma	+ .188	+ .139	18	+10	
8776		- 5123	32139	58 57 +3.0		+ 6 4	6.34 F2	- .003	+ .023		+ 3	
8777		2631	32133	59 15 2.5		+59 54	6.57 B5	+ .006	- .004	4	var	V ₀ = -17km
8778		- 2676	32130	59 8 2.5		+58 2	6.50 G5	+ .065	+ .019			
8779		1575	32142	59 44 2.3		+66 40	5.50 K0	+ .023	+ .016	7	- 7	
8780	3 Andr	4028	32144	59 42 2.7		+49 30	4.91 K0	+ .161	+ .168	12	-35	

8762: Composite, B5, A2p.

8766: V₀ = +2km.

Precession in declination, +0.32.

22^h - 23^h

No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
8781	54 α Pegs	4926	32149	59 ^m 47 ^s + 3.0		+14° 40'	2.57 A0	+ .058 - .041	"033	km var	Markab; V ₀ = -4km
8782	83 Aqar	6018	32153	59 57 3.1		- 8 14	5.56 F0	+ .123 + .016	23	-19	6.3:6.3, 22 years
8783		6661	32154	59 56 3.2		-17 37	6.34 K0	- .029 - .030			
8784		-4760	32158	0 10 3.0		+16 2	6.45 K0	- .190 - .193	19	-28	
8785		4963	32162	0 11 3.1		+ 0.46	6.38 K0	+ .030 - .023	10		
8786		1064	32194	0 15 +4.9		-80 1	6.20 A2	+ .093 - .034			
8787	θ Grus	15149	32184	1 15 3.4		-44 4	4.35 F5	- .044 - .023	20	+10	4.5:7.0, 2", binary
8788		4866	32178	1 19 3.0		+17 59	6.14 F2	+ .228 + .057	22	-13	
8789	86 Aqar	17497	32182	1 19 3.2		-24 17	4.77 G5	+ .063 - .002	20	+15	15m, 3"
8790	υ Grus	14936	32186	1 20 3.3		-39 26	5.59 A0	+ .035 + .014		+16	9m, 1"
8791		13885	32189	1 24 +3.5		-50 9	6.32 K0	+ .012 - .012			
8792		5058	32183	1.34 3.0		+19 22	6.42 F8	+ .291 + .002			
		13470	32190	1 27 3.5		-51 14	6.79 F5	- .033 - .026			8", cpm
8793		13471	32192	1 28 3.5		-51 14	6.12 F5	- .049 - .018			
8794		2054	32213	1 38 4.2		-74 8	6.09 K0	+ .024 - .013			
8795	55 Pegs	4997	32196	1 58 +3.0		+ 8 52	4.69 Ma	+ .007 - .012	14	- 4	
8796	56 Pegs	4716	32201	2 14 2.9		+24 56	4.98 K0	- .008 - .030	4	-27	
8797	1 Cass	2545	32197	2 23 2.5		+58 53	4.93 B1	+ .008 + .003	3	- 8	
8798		4587	32211	2 40 2.9		+32 17	6.20 A2	- .028 + .007	9	0	8", binary
			32212	2 41 2.9		+32 17	7.8	- .028 + .009			
8799		5278	32209	2 33 +3.0		+20 36	5.93 A5	+ .111 - .052	26	-12	
8800		4147	32208	2 43 2.7		+45 32	6.56 B5	+ .001 .000		var	3.3 days, V ₀ = -15km
8801		3371	32205	2 44 2.7		+52 17	6.26 K0	+ .010 + .007			
8802		18588	32226	2 57 3.2		-29 22	5.85 K0	- .052 - .031	14		
8803		-2546	32210	2 57 2.5		+59 11	6.28 B3	+ .003 + .003	2	var*	7.3 days, V ₀ = -5km
8804	4 Andr	4149	32216	3 5 +2.7		+45 51	5.56 K5	- .017 - .030	7	- 6	
8805	5 Andr	3944	32220	3 13 2.7		+48 45	5.83 F0	+ .148 + .132	23	- 2	
8806		-4399	32231	3 35 2.8		+44 1	6.36 A0	+ .020 - .004	10	+ 6	
8807	5 Pisc	4686	32233	3 34 3.1		+ 1 35	5.56 G5	+ .139 + .110	20	-19	
8808		-2171	32228	3 43 2.4		+63 6	6.19 B3	+ .001 .000	3	-36	6.7:7.2, close binary
8809		3949	32254	3 48 +3.8		-67 24	6.48 G5	+ .202 + .037			
8810		1024	32286	3 50 5.0		-81 27	6.48 K2	+ .027 - .007			
8811		1931	32232	3 53 2.4		+63 41	6.41 K0	+ .007 + .003			
8812	88 Aqar	6368	32246	4 7 3.2		-21 43	3.80 K0	+ .053 + .037	14	+21	
8813		18099	32256	4 20 3.2		-28 38	6.06 K0	+ .022 + .009			
8814		15281	32260	4 24 +3.3		-43 24	5.78 F8	- .331 - .006	37		
8815	57 Pegs	-4981	32252	4 29 3.0		+ 8 8	5.41 Mb	- .001 + .006	6	+14	
8816		6360	32261	4 34 3.2		-15 3	6.23 A0	+ .067 - .015			
8817	89 Aqar	17771	32262	4 34 3.2		-23 0	4.94	+ .022 - .007	16	- 5	Composite, G0, A2
8818		15163	32264	4 36 3.3		-41 8	6.04 Mb	+ .029 - .045			
8819	33 π Ceph	1006	32237	4 43 +1.9		+74 51	4.56 G5	+ .010 - .025	11	var*	4.7:7.0, 1", binary
8820	ι Grus	14947	32270	4 42 3.4		-45 47	4.10 K0	+ .131 - .029	23	var	410 days, V ₀ = -4km
8821	58 Pegs	5170	32267	4 59 3.0		+ 9 17	5.34 B8	- .018 - .008	9	+ 9	In Ursa Cluster?
8822	2 Cass	2552	32272	5 27 2.6		+58 47	5.63 A3	- .005 + .011	18	-12	
8823		19460	32285	5 22 3.2		-30 4	6.49 F0	- .039 - .057			
8824		-4882	32291	5 44 +3.0		+17 3	5.94 K5	+ .017 - .028	7	+ 2	
8825	6 Andr	-4592	32288	5 50 2.8		+43 0	5.85 F5	- .197 - .188	29	-44	
8826	59 Pegs	-4991	32302	6 41 3.0		+ 8 11	5.15 A3	- .012 - .006	22	+10	
8827	60 Pegs	4580	32305	6 58 2.9		+26 18	6.40 K0	- .194 - .118	15	-10	
8828		13915	32318	7 34 3.4		-50 10	6.61 G5	- .004 - .016			6.8:8.3, 1"

8803: Two spectra.

8819: 556 days, V₀ = -19km.

Precession in declination, +0.32.

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23^h

No	Name	DM	GC	RA		Decl	Magn	Prop Motion		Par	Rad	Remarks
				1900	Ann Var			RA	Decl			
8829	7 Andr	4862	32333	7 ^m 57 ^s +3.7	-63° 14'	6.24 G0	+ .472	- .426	029	km	V ₀ = +11km	
8830		3964	32316	7 58 2.7	+48 52'	4.62 F0	+ .089	+ .098	47	var		
8831		4548	32320	8 13 2.9	+28 54'	6.34 K0	- .034	- .032		+ 5		
8832		2966	32329	8 28 2.9	+56 37'	5.65 K2	+2.072	+ .299	150	-19		
8833		4902	32331	8 25 3.0	+10 31'	5.94 K0	- .016	+ .006				
8834	90 φ Aqar	6170	32346	9 9 +3.1	- 6 35'	4.40 Ma	+ .033	- .192	14	0	11m, 3", cpm	
8835		15197	32357	9 26 3.3	-41 39'	5.76 K0	+ .109	- .115	9	+26		
8836		6032	32354	9 28 3.1	-11 14'	6.35 K5	- .007	- .030				
8837		-4071	32350	9 40 2.7	+50 4'	6.25 A0	+ .034	- .006	9	-14		
8838		-4555	32348	9 30 2.9	+29 13'	6.42 F5	- .010	- .012		+ 9		
8839	91 ψ ¹ Aqar	4704	32355	9 40 +3.0	+23 34'	6.49 K0	+ .110	+ .008		var	49", cpm*	
8840		5852	32369	10 25 3.1	- 4 2'	5.55 A2	- .018	+ .002	12	var		
		6155	32373	10 37 3.1	- 9 37'	10.3 K	+ .377	- .005	28	-26		
8841		6156	32374	10 39 3.1	- 9 38'	4.46 K0	+ .369	- .011		-26		
8842		4521	32375	10 53 2.9	+27 42'	6.50 G5	+ .012	- .003	5	+ 3		
8843	61 Pegs	6412	32393	10 57 +3.6	-62 33'	5.69 G0	+ .170	- .030		- 9		
8844		1023	32366	11 4 2.1	+73 41'	5.74 A0	+ .048	+ .010	12			
8845		-4712	32380	11 2 3.0	+24 14'	6.52 F2	+ .089	+ .006		+ 5		
8846		14982	32392	11 6 3.3	-45 2'	5.87 K0	- .010	- .007	10			
8847		15205	32397	11 19 3.3	-41 44'	6.47 K0	- .029	+ .015				
8848	γ Tucn	8062	32413	11 36 +3.5	-58 47'	4.10 F2	- .031	+ .084	38	+18		
8849		1067	32433	11 37 4.5	-80 1'	6.29 K0	+ .030	+ .010				
8850	92 χ Aqar	6076	32401	11 40 3.1	- 8 16'	5.14 Mb	- .022	- .010	9	-15		
8851		1311	32388	11 46 2.3	+70 21'	5.62 A3	+ .016	+ .008	20	var		
8852	6 γ Pisc	4648	32415	11 59 3.1	+ 2 44'	3.85 K0	+ .756	+ .022	26	-14		
8853		3410	32409	12 9 +2.7	+52 40'	5.65 F8	+ .111	- .237	43	-25		
8854		2413	32403	12 9 2.6	+61 25'	6.49 B8	- .028	+ .002	3	var		
8855		3567	32426	12 9 3.7	-68 1'	6.04 K0	+ .014	+ .018				
8856		6461	32421	12 27 3.1	-12 16'	6.36 A0	+ .032	+ .001				
8857	4368	32418	12 34 2.8	+44 37'	6.55 K2	+ .094	- .064	11	-38			
8858	93 ψ ² Aqar	6160	32429	12 42 +3.1	- 9 44'	4.56 B5	+ .015	- .007	8	var?	V ₀ = -6km	
8859		φ Grus	15211	32431	12 39 3.3	-41 22'	5.55 F0	+ .130	- .127		+14	
8860	8 Andr	3991	32432	13 6 2.8	+48 28'	4.99 Ma	+ .034	+ .009	12	- 8	13m, 8", cpm	
8861		4373	32437	13 14 2.8	+44 57'	6.32 B9p	+ .030	- .016	7			
8862	τ Octn	204	32558	13 9 8.8	-88 2'	5.56 K0	+ .016	+ .013				
8863	γ Scul	16476	32450	13 26 +3.2	-33 5'	4.51 K0	+ .018	- .066	21	+16	5.9 to 6.1, 3.2 days	
8864		9AN Andr	-5043	32447	13 39 2.8	+41 14'	var A3	- .009	- .011	14		var*
8865	95 ψ ³ Aqar	6094	32459	13 46 3.1	-10 9'	5.16 A0	+ .040	+ .003	12	-10	11m, 1", binary	
8866		94 Aqar	6448	32461	13 51 3.2	-14 0'	7.3	+ .305	- .088	36	+ 8	13", binary
			32462			5.27 G5	+ .293	- .098		var*		
8867	96 Aqar	1016	32436	13 47 +2.1	+74 45'	6.44 A2	+ .022	+ .006	7	- 8	11m, 10", cpm	
8868		5966	32468	14 13 3.1	- 5 40'	5.70 F2	+ .196	- .016	29	var		
8869		6283	32467	14 8 3.2	-18 37'	6.08 K0	- .013	+ .022				
8870		4378	32465	14 19 2.8	+44 35'	6.47 A2	+ .055	+ .007	11	+ 7		
8871		15985	32472	14 19 3.2	-34 15'	6.42 K0	+ .041	- .040				
8872	34 α Ceph	1514	32463	14 31 +2.5	+67 34'	4.90 G5	+ .058	+ .020	18	-17	5.0:7.5, 3", binary	
8873		4899	32473	14 37 2.9	+34 15'	6.14 B9	+ .014	- .004	5	- 1		
8874	11 Andr	-4110	32476	14 50 2.8	+48 5'	5.42 K0	+ .015	+ .056	11	+11		
8875		4114	32482	15 0 2.8	+47 50'	6.35 K0	+ .205	+ .032	5	+23		
8876	10 Andr	4752	32485	15 7 2.9	+41 32'	5.98 K2	+ .037	+ .011	7	+ 3		

8841: The companion is a close binary, 10.8:11.3.

8864: V₀ = -4km.

Precession in declination, +0.33.

8866: V₀ = +10km.

23^h

No	Name	DM	GC	RA	Ann	Decl	Magn	Prop Motion		Par	Rad	Remarks	
				1900	Var	1900	Spec	RA	Decl		Vel		
8877	7 PscA	13947	32496	15 ^m 12 ^s +3.4		-50° 51'	8.87 A3	+ .016	- .093		km	17", cpm	
8878		13948	32498	15 13 3.4		-50 51	6.20 F5	+ .023	- .075				
8879		4997	32491	15 15 3.1	+ 4 50	5.18 K0	+ .076	- .058	.013	+38			
8880		6191	32500	15 32 3.1	- 6 27	6.30 G5	- .107	- .053					
8881	62 τ Pegs	-4810	32503	15 41 3.0		+23 12	4.65 A5	+ .028	- .008	29	+16		
8882		2427	32499	15 52 +2.6	+61 26	6.62 K5	+ .002	- .009					
8883		4908	32507	15 56 2.9	+29 52	5.78 K5	+ .078	- .068	8	var?	V ₀ = -19km		
8884	63 Pegs	16284	32511	15 56 3.2		-27 32	5.81 G5	- .021	- .025	14		10m, 13", cpm	
8885		4440	32506	16 0 2.8	+43 34	6.14 A3	- .019	- .026	11	- 2			
8886	12 Andr	4817	32510	16 4 2.9		+37 38	5.75 F5	+ .116	- .066	31	- 9		
8887		2428	32508	16 12 +2.6	+61 40	6.43 K5	+ .002	- .001					
8888		4897	32522	17 2 2.9	+31 16	5.37 B8	+ .001	- .010	5	+ 1	9m, close binary		
8889	64 Pegs	-4924	32524	17 3 2.9		+26 4	6.64 F2	- .102	- .072				
8890		7654	32534	17 8 3.5	-60 36	6.08 Ma	+ .089	- .008					
8891	97 Aqar	6406	32531	17 25 3.1		-15 35	5.30 A3	+ .107	+ .022	19	-13	5.6:6.9, close binary	
8892	65 Pegs	5317	32535	17 42 +3.0	+20 17	6.22 A0	+ .015	- .016	7	var	V ₀ = -10km		
8893	98 Aqar	6587	32540	17 43 3.1		-20 39	4.20 K0	- .128	- .092	25	- 6		
8894	66 Pegs	4993	32543	18 2 3.0		+11 46	5.28 K0	+ .022	- .014	9	- 4	Prob. close binary	
8895		2710	32538	18 5 2.7		+59 35	5.93 K5	+ .004	- .002	5	-12		
		10280	32549	18 13 3.4		-54 22	7.37 A5	+ .037	- .039				
		10281	32551	18 15 3.4		-54 22	6.48 A5	+ .056	- .027			26", cpm	
8896		15360	32548	18 16 +3.3		-43 40	6.06 K0	+ .010	+ .011				
8897		4509	32547	18 24 3.1		- 0 16	6.53 K2	+ .063	+ .014				
8898		12150	32559	18 37 3.4		-52 26	5.70 K5	.000	- .039				
8899		4901	32557	18 52 2.9		+31 59	6.53 F5	+ .228	+ .039	14	+10		
8900	67 Pegs	6450	32561	18 51 +3.2		-19 14	6.32 G5	+ .146	+ .074				
8901		10268	32579	19 37 3.4		-57 24	5.61 K0	+ .078	- .023	10	-19		
8902		5068	32574	19 46 2.9		+40 34	6.48 A0	- .012	- .008	6	var?		
8903		4904	32577	19 57 2.9		+31 50	5.46 A0	+ .009	- .001	10	+17		
8904	4 Cass	2444	32582	20 24 2.7		+61 44	5.20 K5	+ .008	- .008	7	-38		
8905	68 υ Pegs	4833	32585	20 23 +3.0	+22 51	4.57 G0	+ .188	+ .037	24	-12			
8906	99 Aqar	6420	32594	20 48 3.2		-21 11	4.52 K5	- .055	- .056	11	+16	In Ursa Cluster?	
8907	ο Grus	10461	32603	21 1 3.4		-53 17	5.54 F0	+ .027	+ .122		var		
8908		3964	32615	21 12 3.6		-67 8	6.46 K0	- .041	- .024				
8909		7890	32624	21 33 3.4		-59 2	5.62 K0	+ .039	+ .075	10	-11		
8910		13976	32621	21 36 +3.3		-50 42	6.34 B8	+ .023	+ .007		- 1		
8911	8 κ Pisc	4998	32620	21 48 3.1		+ 0 42	4.94 A2p	+ .084	- .093	28	- 4		
8912	9 Pisc	4999	32628	22 7 3.1		+ 0 34	6.44 K0	+ .039	- .031	6	- 8		
8913	13 Andr	4672	32629	22 18 2.9		+42 22	5.65 B9	+ .088	+ .016	7	var	V ₀ = -9km	
8914	69 Pegs	15895	32643	22 39 3.2		-36 6	6.35 K2	- .001	+ .005				
8915		4778	32640	22 42 +3.0	+24 37	5.87 A0	+ .022	- .039	8	-16			
8916		10 θ Pisc	5173	32647	22 54 3.0		+ 5 50	4.45 G5	- .127	- .043	15	+ 5	
8917		6496	32648	22 53 3.1		-12 0	6.48 G0	+ .097	- .019				
8918	70 Pegs	1332	32639	23 3 2.5		+69 49	5.63 A2	+ .118	- .001	18	var	Two spectra	
8919		4891	32657	23 14 3.5		-63 40	5.74 A0p	+ .038	- .009		+15		
8920		15043	32660	23 34 +3.3		-45 3	6.48 K0	+ .031	- .011				
8921		-6120	32662	23 50 3.1		- 9 49	6.46 K0	- .056	- .021				
8922		4844	32666	24 7 3.0		+22 31	6.45 K0	- .043	- .093				
8923		-5009	32667	24 6 3.0		+12 13	4.67 K0	+ .057	+ .033	10	-14		
8924		5999	32673	24 22 3.1		- 5 5	6.40 K2	+ .176	- .225	15	-25		

Precession in declination, +0.33.

CATALOGUE OF BRIGHT STARS

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No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
8925	AR Cass	4070	32684	25 ^m 21 ^s +2.9		+48° 35'	6.38 K2	+ .031 - .003	0.005	km	4.9 to 5.0, 6.1 days*
8926		-2748	32683	25 25 2.8		+58 0	var B3	+ .018 + .007	6	var*	
8927		-4856	32692	25 47 2.9		+38 7	6.21 KO	+ .038 + .012			
8928		-6036	32695	25 52 3.1		- 6 50	6.39 KO	- .019 - .031			
8929		15055	32702	26 1 3.3		-45 24	5.93 KO	+ .031 - .019	14		
8930	14 Andr	5023	32703	26 22 +3.0		+38 41	5.34 KO	+ .285 - .079	12	-59	
8931		5896	32708	26 22 3.1		- 4 38	6.50 F8	+ .169 - .185	38	-11	
8932	100 Aqar	-6141	32714	26 28 3.1		-21 55	6.24 FO	- .006 + .005	10		
8933		4568	32719	26 46 3.0		+27 51	6.23 AO	- .029 - .007	8	var	
8934	13 Pisc	4450	32724	26 50 3.1		- 1 38	6.46 KO	+ .006 + .021	6	-22	
8935		-1473	32742	26 52 +3.9		-77 56	5.78 KO	+ .015 + .006			
8936	β Scul	4948	32738	27 29 3.0		+34 24	6.55 AO	- .010 - .007			
8937		15527	32744	27 37 +3.2		-38 22	4.46 B9	+ .083 + .017	13	+ 2	
8938		344	32680	27 49 -0.5		+86 45	5.62 FO	+ .079 + .020			
8939	101 Aqar	6437	32750	28 3 +3.1		-21 28	4.76 AO	- .010 + .017	0	+15	4.9:7.2, 0.6
8940	71 Pegs	4952	32759	28 28 +3.0		+21 57	5.51 Mb	+ .007 - .018	5	+ 3	
8941		4441	32766	28 52 2.9		+44 30	6.28 G5	- .033 + .011			
8942	72 Pegs	5352	32771	28 54 3.0		+20 17	6.29 Ma	- .008 - .021			
8943		4978	32772	28 59 3.0		+30 46	5.21 K2	+ .049 - .014	7	-24	6.0:6.0, close binary
8944		14 Pisc	-5986	32774	29 0 3.1		- 1 48	5.98 A2	+ .102 - .007		- 3
8946	15 Andr	-6314	32781	29 37 +3.1		-15 48	6.15 KO	+ .046 - .075			
8947		5114	32780	29 44 2.9		+39 41	5.50 AO	- .021 - .042	12	+14	
8948	73 Pegs	4667	32779	29 41 3.0		+32 57	5.74 KO	- .005 + .022	10	- 3	
8949		1 Phoe	15420	32787	29 42 3.2		-43 10	4.80 A2p	+ .040 - .001	1	var
8950	16 Pisc	4866	32784	29 52 2.9		+37 28	6.34 K5	+ .002 + .010			
8951		6142	32799	30 23 +3.1		- 8 1	6.51 KO	- .004 + .025			
8952		-1327	32793	30 38 2.6		+71 5	6.13 KO	+ .006 + .005			
8953		-4769	32814	30 56 3.0		+24 0	6.60 Ma	+ .018 + .014			
8954		4744	32818	31 17 3.1		+ 1 33	5.65 F5	- .109 + .062	30	+39	
8955	4671	32821	31 33 3.0		+32 21	6.34 F5	- .011 + .001	20	- 1		
8956	74 Pegs	17593	32823	31 48 +3.2		-32 25	6.51 KO	+ .041 + .006	3		10m, 5", binary
8957		1583	32840	32 10 3.7		-77 25	5.99 KO	+ .086 - .029			
8958		6439	32830	32 28 3.1		-13 37	5.74 G5	+ .032 + .029			
8959		14720	32836	32 28 3.2		-46 3	4.86 A2	+ .064 - .013	11	+10	
8960		4954	32833	32 36 3.0		+16 16	6.18 AO	+ .129 .000	11	var	11.2 days, V ₀ = -26km
8961	16 λAndr	4283	32832	32 40 +2.9		+45 55	4.00 KO	+ .158 - .421	39	var	20.5 days, V ₀ = +7km
8962		4508	32831	32 39 2.9		+43 53	5.86 B9	+ .010 - .009	6	-11	6.2:7.2, close binary
8963	75 Pegs	4952	32842	32 54 3.0		+17 51	5.42 AO	+ .044 + .020	13	var	
8964		4288	32845	33 2 3.0		+45 39	6.56 G5	+ .365 - .002			
8965	17 λAndr	4720	32850	33 14 2.9		+42 43	4.28 B8	+ .025 .000	12	var	V ₀ = 0km
8966		14651	32865	34 6 +3.2		-47 12	7.4	+ .005 + .048	8		4", binary
8967	18 Andr		32866				6.74 A3	+ .022 + .034			
8967		4180	32864	34 17 2.9		+49 55	5.32 B9	- .020 - .004	8	var	V ₀ = +8km
8968	102 ωAqar	-6471	32873	34 36 3.1		-14 47	5.16 A5	+ .054 - .033	21	var	V ₀ = -2km
8969		17 λPisc	-5035	32879	34 48 3.1		+ 5 5	4.28 F8	+ .370 - .435	68	+ 5
8970	35 γCeph	-5095	32878	34 49 +3.1		+ 9 7	6.07 A2	+ .093 - .007	13	- 4	
8971		1032	32869	34 53 2.6		+74 44	6.04 A2	+ .013 + .014	10	+ 3	
8972		1047	32872	35 0 2.6		+73 27	6.08 G5	- .007 + .011			+15
8973		-5098	32882	35 6 3.0		+37 6	6.23 FO	- .018 - .083	22	-16	10m, 15", cpm
8974		- 928	32875	35 14 2.5		+77 4	3.42 KO	- .065 + .154	65	-42	

8926: V₀ = -15km. 11m, 1", cpm.

Precession in declination, +0.33.

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No	Name	DM	GC	RA	Ann	Decl	Magn	Prop Motion		Par	Rad	Remarks
				1900	Var	1900	Spec	RA	Decl		Vel	
8975	μ Scul	17621	32888	35 ^m 23 ^s + 3.1		-32° 38'	5.33 KO	- .100	- .055	.014	+14	
8976	19 κ Andr	4522	32886	35 29 3.0	3.0	+43 47	4.33 A0	+ .079	- .019	16	- 7	
8977		-5074	32892	35 41 3.0		+36 10	6.30 F5	+ .230	+ .026		0	
8978		17796	32897	35 54 3.1		-24 43	6.68 K5	+ .003	- .008			
8979		6535	32898	35 58 3.1		-12 14	6.13 KO	+ .065	+ .013	8	-11	
8980	103 Aqar	6357	32908	36 23 +3.1		-18 35	5.60 KO	- .043	- .066	7		
8981		4127	32909	36 34 2.9	2.9	+48 58	6.31 A3	- .003	- .020	12	- 6	
8982	104 Aqar	6358	32911	36 34 3.1		-18 22	4.95 G0	+ .011	+ .009	3	+ 5	
8983		5183	32914	36 51 3.1		+ 6 42	5.85 A0	- .030	- .038	10	+ 1	
8984	18 Λ Pisc	-5037	32917	36 57 3.1		+ 1 14	4.61 A5	- .135	- .146	24	var	$V_0 = +11\text{km}^*$
8985		3067	32916	37 5 +2.9	+2.9	+56 42	6.33 G5	+ .003	+ .001			
8986		4473	32924	37 19 3.0		+44 26	6.70 K5	- .015	- .009	5	-12	
8987		6345	32925	37 17 3.1		-16 0	5.44 K2	+ .020	- .003	11	var?	$V_0 = +7\text{km}$
8988	105 ω^2 Aqar	6476	32931	37 32 3.1		-15 6	4.62 A0	+ .093	- .064	25	var?	$V_0 = +3\text{km}^*$
8989		2038	32927	37 38 2.8	2.8	+63 58	6.85 Ma	+ .001	+ .003			11m, 3", fixed
8990		-2609	32930	37 45 +2.9	+2.9	+61 7	6.54 K2	+ .053	- .006			
8991	77 Pegs	5268	32945	38 17 3.1		+ 9 47	5.39 Ma	+ .001	+ .015	10	-34	
8992	R Aqar	-6352	32948	38 39 3.1		-15 50	var M6p	+ .027	- .020		-33*	5.8 to 10.8, 383 days
8993		15114	32951	38 39 3.2		-45 38	6.26 G5	+ .300	+ .013	17		
8994		2771	32957	38 42 3.4		-71 3	6.04 G5	+ .244	+ .056	11		
8995		1239	32960	38 36 +3.6	+3.6	-79 21	5.68 KO	+ .049	- .005	11		
8996		-4159	32953	38 42 3.3		-64 58	5.66 K5	+ .014	+ .029	7		
8997	78 Pegs	4627	32954	38 58 3.0		+28 48	4.98 KO	+ .067	- .036	15	var*	8m, 1", binary
8998	106 Aqar	-6500	32958	39 1 3.1		-18 50	5.26 B8	+ .024	+ .006	8	+15	
8999		16762	32962	39 17 3.1		-26 48	6.26 F5	- .075	- .013			9m, 9", cpm
9000		3010	32971	39 56 +2.9	+2.9	+55 15	6.62 G5	+ .019	- .003	7	+ 8	
9001		15239	32983	40 45 3.2		-40 44	6.33 A2	+ .091	- .034			
9002	107 Aqar	6506	32985	40 49 3.1		-19 14	5.74 A5	+ .131	+ .034	16	- 2	6", binary
			32986	40 49 3.1		-19 14	7.0	+ .160	+ .048			
9003	20 ν Andr	4321	32988	41 5 3.0		+45 52	5.09 K0p	+ .004	- .004	3	-25	
9004	19 Pisc	4709	32995	41 17 +3.1	+3.1	+ 2 56	5.30 Na	- .039	- .016	0	+13	
9005		-1943	33004	41 50 2.9		+66 13	5.94 B3	+ .004	+ .005	3	-14	
9006	σ Phoe	14047	33012	41 58 3.2		-50 47	5.37 B5	+ .001	- .016		+11	
9007		-3335	33013	41 52 3.3		-68 57	7.18 F2	+ .035	- .038			
9008	5 τ Cass	-2804	33010	42 10 2.9		+58 6	5.09 KO	+ .061	+ .057	13	-21	
9009		6559	33014	42 7 +3.1	+3.1	-12 28	5.90 KO	- .054	- .082	8	+12	
9010		3085	33009	42 8 2.9		+56 54	5.78 KO	+ .001	.000	6	- 6	
9011		4169	33021	42 35 3.0		+46 16	5.84 B3	+ .008	- .002	3	var*	6.0:8.0, 1", binary
9012	20 Pisc	5707	33029	42 48 3.1		- 3 19	5.60 KO	+ .090	+ .010	10	- 6	
9013		1562	33031	43 8 2.9		+67 15	5.02 A0	+ .014	+ .001	15	var	$V_0 = +10\text{km}$
9014		-6086	33039	43 24 +3.1	+3.1	- 6 56	6.27 K2	- .001	- .019	4	-25	
9015		4773	33047	43 42 3.1		+ 1 39	6.42 F2	+ .001	- .036		var	
9016	8 Scul	18352	33046	43 38 3.1		-28 40	9.8 G	+ .051	- .125	36	+14	74", cpm with 9016
9017		18353	33050	43 43 3.1		-28 41	4.64 A0	+ .102	- .103			12m, 4", binary
9018		1861	33045	43 48 2.9		+64 19	6.38 A0	+ .012	- .015	9	- 3	6.8:7.5, close binary
9018	6 Cass	2533	33051	43 58 +2.9	+2.9	+61 40	5.61 A2p	- .006	+ .003	2	var?	$V_0 = -56\text{km}^*$
9019		2777	33052	44 0 2.9		+59 25	6.38 A0	+ .048	+ .011	7	-13	
9020		2653	33054	44 17 3.0		+58 24	6.44 F2	+ .037	- .010	19	+30	
9021		6373	33060	44 22 3.1		-16 25	6.41 KO	+ .045	- .017			
9022	21 Pisc	5054	33059	44 20 3.1		+ 0 31	5.77 A2	- .007	- .024	14	+ 6	

8984: In Ursa Cluster.
8988: 11m, 6", cpm.

8992: Absorption lines give -19km.
8997: $V_0 = -7\text{km}$.

Precession in declination, +0.33.
9011: $V_0 = -24\text{km}$.
9018: 5.7:8.2, 2", binary.

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No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
9023		4931	33061	44 ^m 22 ^s +3.2		-63° 24'	6.40 KO	+ ".031 - ".035		km	
9024		5110	33063	44 39 3.0		+35 52	5.91 G5	- .008 - .050	.015	0	
9025	79 Pegs	4649	33062	44 36 3.0		+28 17	5.91 A3	+ .062 + .027	14	- 4	
9026		-16796	33064	44 39 3.1		-25 53	6.44 A0	- .027 - .022			
9027		6177	33074	45 5 3.1		-10 32	6.08 KO	+ .134 + .078			
9028		- 4165	33076	45 22 +3.0		+51 4	6.53 F2	+ .119 - .014	16	-22	
9029		- 6507	33081	45 24 3.1		-14 57	5.92 KO	+ .033 - .028	8		
9030	80 Pegs	5127	33094	46 15 3.1		+ 8 46	6.11 Ma	- .022 - .059	5	- 8	
9031	108 Aqar	6522	33092	46 11 3.1		-19 28	5.32 AOp	+ .017 + .004	14	+13	
9032	γ Octn	905	33107	46 15 3.5		-82 34	5.10 G5	- .034 - .014	15	+14	
9033	22 Pisc	4725	33112	46 51 +3.1		+ 2 22	5.85 K2	+ .009 - .011	5	0	
9034		- 934	33113	47 9 2.9		+77 3	6.49 F5	+ .266 - .088	27	+ 1	
9035		- 5386	33117	47 19 3.0		+21 7	6.28 Ma	- .053 - .013	7	- 5	
9036	81 φ Pegs	5231	33119	47 24 3.1		+18 34	5.23 Ma	- .009 - .035	11	- 8	
9037		- 6515	33118	47 22 3.1		-14 48	6.00 KO	- .105 + .006	8		
9038		1047	33120	47 32 +2.9		+74 59	6.55 K2	+ .313 + .052	91	var*	12m, 6", binary
9039	82 Pegs	5004	33122	47 31 3.1		+10 23	5.39 A3	- .027 + .005	15	- 8	
9040		6277	33128	47 42 3.1		- 9 33	5.96 KO	+ .059 - .015	8		
9041	24 Pisc	5723	33130	47 47 3.1		- 3 43	6.09 KO	+ .069 - .041	8		
9042	25 Pisc	4792	33136	47 57 3.1		+ 1 32	6.24 A0	+ .016 - .006	7	+ 5	
9043		17897	33140	48 11 +3.1		-24 47	6.24 A3	+ .042 - .009			
9044		16479	33157	49 11 3.1		-27 36	7.4	+ .024 + .026	6		7", binary
9045	7 ρ Cass	3111	33160	49 23 3.0		+56 57	var F8p	- .005 + .003	4	-43	4.4 to 5.1, irreg.
9046		15285	33162	49 24 3.1		-40 51	6.01 F8	+ .365 + .026	27		
9047		4585	33165	49 39 +3.1		- 0 27	5.98 Mb	- .049 - .007	5	- 3	
9048	26 Pisc	5216	33172	50 1 3.1		+ 6 31	6.12 B9	+ .015 - .015	6	+17	
9049		17723	33175	50 6 3.1		-32 29	6.05 B3	+ .008 + .006		var	
9050		17724	33176	50 7 3.1		-32 27	6.73 A	- .004 + .012			
9051		5042	33178	50 18 3.1		+25 24	6.67 K5	- .007 - .005			
9052		3115	33184	50 33 +3.0		+56 51	6.05 B0	- .009 .000	2	var	13.4 days, V ₀ = -24km
9053		4214	33183	50 31 3.0		+46 48	6.13 KO	- .006 - .004	3	-17	
9054		16707	33200	51 21 3.1		-25 18	6.33 G5	- .004 + .023			
9055		- 4999	33208	51 36 3.1		+22 5	6.30 Ma	- .022 - .007			
9056		743	33205	51 45 2.8		+82 38	6.42 A0	+ .048 + .013			V Ceph, but not var.
9057		- 4902	33211	51 59 +3.0		+42 6	6.04 F5	+ .002 - .004	24	- 7	
9058		16494	33212	51 59 3.1		-27 11	6.40 KO	+ .066 + .020			
9059		- 3076	33214	52 6 3.0		+55 9	5.69 F5	- .020 - .009	18	var	12.2 days, V ₀ = +13km
9060		4940	33215	52 5 3.1		-63 31	6.04 A2	+ .066 + .024			
9061	γ ² Octn	907	33219	52 4 3.3		-82 44	5.68 KO	- .023 - .021	7	+27	
9062	η Tucn	4391	33223	52 20 +3.1		-64 51	5.16 A2	+ .087 - .068	32	+32	
9063		2795	33224	52 31 3.0		+59 28	6.42 B8	+ .012 + .002	5		
9064	84 φ Pegs	4865	33230	52 40 3.1		+24 35	4.75 Ma	- .039 - .029	11	- 4	
9065	1 Ceti	6394	33242	53 13 3.1		-16 24	6.40 K2	+ .078 - .004			
9066	R Cass	4202	33244	53 20 3.1		+50 50	var M7	+ .076 + .011		+ 8*	4.8 to 13.6, 426 days
9067	27 Pisc	5996	33248	53 33 +3.1		- 4 7	5.07 KO	- .052 - .068	14	0	11m, 1.5", binary
9068		5012	33253	53 43 3.1		+31 49	6.36 B5	+ .009 + .003	4	- 6	
9069	π Phoe	10561	33256	53 45 3.1		-53 18	5.14 KO	+ .054 + .062	13	-14	
9070		4381	33252	53 41 3.1		+45 51	6.46 B5	+ .017 - .004		0	
9071	8 σ Cass	- 3082	33257	53 56 3.0		+55 12	4.93 B2	+ .008 - .002	4	-10	5.1:7.2, 3", binary

9038: 7.8 days, V₀ = +2km.

9066: Absorption lines give +30km.

Precession in declination, +0.33.

23^h

No	Name	DM	GC	RA 1900	Ann Var	Decl 1900	Magn Spec	Prop Motion RA Decl	Par	Rad Vel	Remarks
9072	28 ω Pisc	5227	33262	54 ^m 11 ^s +3.1	+ 6° 19'	4.03 F5	+ .148 - .111	".023	km var	V ₀ = +2km	
9073		19765	33266	54 20 3.1	-30 3	5.70 K5	- .008 + .002				
9074		- 4747	33268	54 24 3.1	+33 10	6.58 F8	- .064 - .080	32	- 8	2", binary	
9075				54 24 3.1	+33 10	6.58 F8			- 5		
9076	ε Tucn	3819	33280	54 43 3.1	-66 8	4.71 B9	+ .052 - .026	14	+11		
9077		15420	33292	55 10 +3.1	-44 51	6.23 K0	+ .073 - .111			6.9:7.0, 0".6	
9078		4727	33293	55 17 3.1	+26 22	6.38 F8	+ .040 - .049	16	0		
9079		- 2685	33294	55 27 3.0	+59 0	6.37 K0	- .075 - .021				
9080		4538	33298	55 37 3.1	+44 42	6.25 A0p	+ .023 + .006	8	var?	V ₀ = -7km	
9081	τ Phoe	14316	33305	55 56 3.1	-49 22	5.66 K0	- .028 - .008	7			
9082		-13743	33312	56 12 +3.1	-50 54	5.38 Ma	- .003 + .014	4	+ 2		
9083		4309	33311	56 13 3.1	+49 25	6.36 K0	+ .009 - .010				
9084	θ Octn	1596	33321	56 27 3.1	-77 37	4.73 K0	- .055 - .166	13	+24		
9085		2657	33320	56 31 3.1	+60 40	5.70 A5	- .007 + .009	20	-23		
9086		4920	33325	56 37 3.1	+41 49	6.13 B9	.000 - .002	5	-15		
9087	29 Pisc	5749	33327	56 42 +3.1	- 3 35	5.15 B8	+ .010 - .004	8	+23		
9088	85 Pegs	4734	33334	56 57 3.1	+26 33	5.85 G0	+ .837 - .988	90	-35	11m, 26.5 years	
9089	30 Pisc	6345	33330	56 50 3.1	- 6 34	4.66 Mb	+ .048 - .033	14	-12		
9090	W Ceti	6531		57 0 3.1	-15 14	var Sp	.00 - .01			6.5 to 14.5, 350 days	
9091	ξ Scul	19790	33337	57 12 3.1	-30 17	4.99 B5	+ .010 + .004	5	var	V ₀ = 0km; 15m, 3"	
9092	31 Pisc	5164	33340	57 17 +3.1	+ 8 24	6.34 A5	- .001 + .001	11	+12		
9093	32 Pisc	5121	33341	57 23 3.1	+ 7 56	5.78 F0	- .101 - .046	23	+ 8		
9094		1987	1	57 29 3.1	+65 33	6.02 G0	+ .010 + .004	8	-17	15", binary	
		1988	2	57 31 3.1	+65 33	7.47 A2	+ .005 - .010		- 6		
9095		6703	8	57 49 3.1	-20 36	6.27 F8	+ .107 + .075				
9096		17960	12	58 0 +3.1	-24 42	6.54 G5	+ .036 + .002				
9097		- 2356	17	58 17 3.1	+63 4	6.26 B1	- .009 + .061		-48		
9098	2 Ceti	- 6417	23	58 37 3.1	-17 54	4.62 A0	+ .021 - .004	12	- 5		
9099		- 1993	24	58 42 3.1	+66 9	6.62 Ma	+ .021 - .004				
9100	9 Cass	2586	30	59 4 3.1	+61 44	6.00 A0	- .005 + .010	8	-18		
9101		6868	33	59 12 +3.1	-17 5	5.80 K0	+ .034 - .054	8	+26		
9102		18950	34	59 13 3.1	-29 50	6.48 A2	+ .023 + .017				
9103	3 Ceti	6194	36	59 23 3.1	-11 4	5.16 K2	- .010 - .005	3	var	V ₀ = -42km	
9104		1679	39	59 30 3.1	+66 37	5.84 K0	+ .092 + .035	12	-27		
9105		4933	38	59 28 3.1	+41 32	6.03 A2	.000 - .021	9	- 8		
9106		2346	37	59 27 +3.0	-73 27	7.43 F5	+ .013 - .054				
9107		- 4828	44	59 38 3.1	+34 6	6.23 G0	+ .755 + .100	30	+ 4		
9108		2800	42	59 37 3.0	-72 0	5.64 B9	+ .031 - .024		var?	V ₀ = -3km	
9109		- 5068	47	59 47 3.1	+26 6	6.52 K2	+ .105 - .009				
9110		2667	52	59 56 3.1	+60 45	5.87 B9	+ .014 + .009	5			

Precession in declination, +0.33.

α	δ	+90°	+80°	+70°	+60°	+50°	+40°	+30°	+20°	+10°	0°
		l b	l b	l b	l b	l b	l b	l b	l b	l b	l b
0 ^h	0 ^m	90°+28°	88°+18°	87°+8°	85°-2°	83°-12°	82°-21°	80°-31°	78°-41°	74°-51°	69°-60°
	20	90+28	89+18	88+8	88-2	87-12	86-22	85-32	84-42	82-52	79-62
	40	90+28	90+18	90+8	90-2	90-12	90-22	90-32	90-42	90-52	90-62
1	0	90+28	91+18	92+8	92-2	93-12	94-22	95-32	96-42	98-52	101-62
	20	90+28	92+18	93+8	95-2	97-11	98-21	100-31	102-41	106-51	111-60
	40	90+28	93+18	95+9	97-1	100-11	102-21	105-30	108-40	113-49	120-59
2	0	90+28	94+19	97+9	100 0	103-10	106-19	110-29	114-38	120-47	128-56
	20	90+28	94+19	98+10	102 0	106-9	110-18	114-27	120-36	126-45	135-53
	40	90+28	95+19	100+10	104+1	109-8	114-16	119-25	124-34	132-42	141-50
3	0	90+28	96+20	102+11	107+3	112-6	117-15	123-23	129-31	137-39	146-47
	20	90+28	97+20	103+12	109+4	114-4	120-12	126-21	133-28	141-36	151-43
	40	90+28	98+21	104+13	111+5	117-2	123-10	130-18	137-25	145-32	155-39
4	0	90+28	98+21	106+14	113+7	120 0	126-8	133-15	141-22	149-29	158-35
	20	90+28	99+22	107+16	114+9	122+2	129-5	136-12	144-18	152-25	162-30
	40	90+28	99+23	108+17	116+11	124+4	132-2	139-8	147-15	156-21	165-26
5	0	90+28	100+23	109+18	118+13	126+7	134+1	142-5	150-11	159-17	168-22
	20	90+28	100+24	110+20	119+15	128+10	136+4	144-2	153-7	161-12	170-18
	40	90+28	101+25	111+21	120+17	129+12	138+7	147+2	155-3	164-8	173-13
6	0	90+28	101+26	111+23	121+19	131+15	140+11	149+6	158+1	166-4	175-9
	20	90+28	101+27	112+25	122+22	132+18	142+14	151+10	160+5	169 0	177-4
	40	90+28	101+28	112+26	123+24	134+21	143+18	153+14	162+9	171+5	180 0
7	0	90+28	101+28	113+28	124+26	134+24	145+21	155+18	164+13	173+9	182+4
	20	90+28	101+29	113+30	124+29	135+27	146+25	156+22	166+18	176+13	185+9
	40	90+28	101+30	113+31	124+31	136+30	147+29	158+26	168+22	178+18	187+13
8	0	90+28	101+31	113+33	124+34	137+34	148+32	160+30	170+26	180+22	190+18
	20	90+28	101+32	112+35	124+36	137+37	149+36	161+34	172+31	183+27	192+22
	40	90+28	100+33	112+36	124+39	137+40	150+40	162+38	174+35	185+31	195+26
9	0	90+28	100+33	111+38	123+41	137+43	150+44	164+42	176+40	188+35	198+30
	20	90+28	99+34	110+39	122+44	136+46	150+47	165+47	179+44	191+40	202+35
	40	90+28	99+35	109+41	120+46	134+50	150+51	166+51	181+48	194+44	205+39
10	0	90+28	98+35	107+42	119+48	133+53	149+55	167+55	183+53	198+48	209+43
	20	90+28	97+36	106+44	116+50	130+55	148+59	168+59	187+57	202+52	214+46
	40	90+28	96+36	104+45	114+52	128+58	146+63	168+64	190+62	207+57	219+50
11	0	90+28	95+37	102+46	111+54	123+61	142+66	169+68	194+66	213+60	226+53
	20	90+28	94+37	100+46	107+55	119+63	139+70	169+72	199+70	220+64	232+56
	40	90+28	93+38	97+47	103+56	113+65	130+73	167+77	209+74	230+67	241+58
12	0	90+28	92+38	95+48	99+57	106+67	122+75	165+81	219+78	240+70	249+60
	20	90+28	91+38	93+48	95+58	98+67	108+77	153+85	245+80	255+71	260+61
	40	90+28	90+38	90+48	90+58	90+68	90+78	90+88	270+82	270+72	270+62
13	0	90+28	89+38	87+48	85+58	82+67	72+77	27+85	295+80	285+71	280+61
	20	90+28	88+38	85+48	81+57	74+67	58+75	15+81	321+78	300+70	291+60
	40	90+28	87+38	83+47	77+56	67+65	50+73	13+77	331+74	310+67	299+58
14	0	90+28	86+37	80+46	73+55	61+63	41+70	11+72	341+70	320+64	308+56
	20	90+28	85+37	78+46	69+54	57+61	38+66	11+68	346+66	327+60	314+53
	40	90+28	84+36	76+45	66+52	52+58	34+63	12+64	350+62	333+57	321+50
15	0	90+28	83+36	74+44	64+50	50+55	32+59	12+59	353+57	338+52	326+46
	20	90+28	82+35	73+42	61+48	47+53	31+55	13+55	357+53	342+48	331+43
	40	90+28	81+35	71+41	60+46	46+50	30+51	14+51	359+48	346+44	335+39
16	0	90+28	81+34	70+39	58+44	44+46	30+47	15+47	1+44	349+40	338+35
	20	90+28	80+33	69+38	57+41	43+43	30+44	16+42	4+40	352+35	342+30
	40	90+28	80+33	68+36	56+39	43+40	30+40	18+38	6+35	355+31	345+26
17	0	90+28	79+32	68+35	56+36	43+37	31+36	19+34	8+31	357+27	348+22
	20	90+28	79+31	67+33	56+34	43+34	32+32	20+30	10+26	0+22	350+18
	40	90+28	79+30	67+31	56+31	44+30	33+29	22+26	12+22	2+18	353+13
18	0	90+28	79+29	67+30	56+29	45+27	34+25	24+22	14+18	4+13	355+9
	20	90+28	79+28	67+28	56+26	46+24	35+21	25+18	16+13	7+9	358+4
	40	90+28	79+28	68+26	57+24	46+21	37+18	27+14	18+9	9+5	0 0
19	0	90+28	79+27	68+25	58+22	48+18	38+14	29+10	20+5	11 0	3-4
	20	90+28	79+26	69+23	59+19	49+15	40+11	31+6	22+1	14-4	5-9
	40	90+28	79+25	69+21	60+17	51+12	42+7	33+2	25-3	16-8	7-13
20	0	90+28	80+24	70+20	61+15	52+10	44+4	36-2	27-7	19-12	10-18
	20	90+28	80+23	71+18	62+13	54+7	46+1	38-5	30-11	21-17	12-22
	40	90+28	81+23	72+17	64+11	56+4	48-2	41-8	33-15	24-21	15-26
21	0	90+28	81+22	73+16	66+9	58+2	51-5	44-12	36-18	28-25	18-30
	20	90+28	82+21	74+14	67+7	60 0	54-8	47-15	39-22	31-29	22-35
	40	90+28	82+21	76+13	69+5	63-2	57-10	50-18	43-25	35-32	25-39
22	0	90+28	83+20	77+12	71+4	66-4	60-12	54-21	47-28	39-36	29-43
	20	90+28	84+20	78+11	73+3	68-6	63-15	57-23	51-31	43-39	34-47
	40	90+28	85+19	80+10	76+1	71-8	66-16	61-25	56-34	48-42	39-50
23	0	90+28	86+19	82+10	78 0	74-9	70-18	66-27	60-36	54-45	45-53
	20	90+28	86+19	83+9	80 0	77-10	74-19	70-29	66-38	60-47	52-56
	40	90+28	87+18	85+9	83-1	80-11	78-21	75-30	72-40	67-49	60-59

δ α	0°	-10°	-20°	-30°	-40°	-50°	-60°	-70°	-80°	-90°
	l b	l b	l b	l b	l b	l b	l b	l b	l b	l b
$0^h 0^m$	69°-60°	60°-70°	39°-78°	345°-81°	302°-75°	286°-67°	279°-57°	275°-48°	272°-38°	270°-28°
20	80-61	75-71	65-80	333-85	288-77	278-67	275-58	273-48	271-38	270-28
40	90-62	90-72	90-82	270-88	270-78	270-68	270-58	270-48	270-38	270-28
1	100-61	105-71	115-80	207-85	252-77	262-67	265-58	267-48	269-38	270-28
20	111-60	120-70	141-78	195-81	238-75	254-67	261-57	265-48	268-38	270-28
40	119-58	130-67	151-74	193-77	230-73	247-65	257-56	263-47	267-38	270-28
2	128-56	140-64	161-70	191-72	221-70	241-63	253-55	260-46	266-37	270-28
20	134-53	147-60	166-66	191-68	218-66	237-61	249-54	258-46	265-37	270-28
40	141-50	153-57	170-62	192-64	214-63	232-58	246-52	256-45	264-37	270-28
3	146-46	158-52	173-57	192-59	212-59	230-55	244-50	254-44	263-36	270-28
20	151-43	162-48	177-53	193-55	211-55	227-53	241-48	253-42	262-35	270-28
40	155-39	166-44	179-48	194-51	210-51	226-50	240-46	251-41	261-35	270-28
4	158-35	169-40	181-44	195-47	210-47	224-46	238-44	250-39	261-34	270-28
20	162-30	172-35	184-40	196-42	210-44	223-43	237-41	249-38	260-33	270-28
40	165-26	175-31	186-35	198-38	210-40	223-40	236-39	248-36	260-33	270-28
5	168-22	177-27	188-31	199-34	211-36	223-37	236-36	248-35	259-32	270-28
20	170-18	180-22	190-26	200-30	212-32	223-34	236-34	247-33	259-31	270-28
40	173-13	182-18	192-22	202-26	213-29	224-30	236-31	247-31	259-30	270-28
6	175-9	184-13	194-18	204-22	214-25	225-27	236-29	247-30	259-29	270-28
20	178-4	187-9	196-13	205-18	215-21	226-24	236-26	247-28	259-28	270-28
40	180 0	189-5	198-9	207-14	217-18	226-21	237-24	248-26	259-28	270-28
7	183+4	191 0	200-5	209-10	218-14	228-18	238-22	248-25	259-27	270-28
20	185+9	194+4	202-1	211-6	220-11	229-15	239-19	249-23	259-26	270-28
40	187+13	196+8	205+3	213-2	222-7	231-12	240-17	249-21	259-25	270-28
8	190+18	199+12	207+7	216+2	224-4	232-10	241-15	250-20	260-24	270-28
20	192+22	201+17	210+11	218+5	226-1	234-7	242-13	251-18	260-23	270-28
40	195+26	204+21	213+15	221+8	228+2	236-4	244-11	252-17	261-23	270-28
9	198+30	208+25	216+18	224+12	231+5	238-2	246-9	253-16	261-22	270-28
20	202+35	211+29	219+22	227+15	234+8	240 0	247-7	254-14	262-21	270-28
40	205+39	215+32	223+25	230+18	237+10	243+2	249-5	256-13	262-21	270-28
10	209+43	219+36	227+28	234+21	240+12	246+4	251-4	257-12	263-20	270-28
20	214+47	223+39	231+31	237+23	243+15	248+6	253-3	258-11	264-20	270-28
40	219+50	228+42	236+34	241+25	246+16	251+8	256-1	260-10	265-19	270-28
11	225+53	234+45	240+36	246+27	250+18	254+9	258 0	262-10	266-19	270-28
20	232+56	240+47	246+38	250+29	254+19	257+10	260 0	263-9	266-19	270-28
40	240+59	247+49	252+40	255+30	258+21	260+11	263+1	265-9	267-18	270-28
12	249+60	254+51	258+41	260+31	262+21	263+11	265+2	267-8	268-18	270-28
20	259+62	262+52	264+42	265+32	266+22	267+12	268+2	268-8	269-18	270-28
40	270+62	270+52	270+42	270+32	270+22	270+12	270+2	270-8	270-18	270-28
13	281+62	278+51	276+42	275+32	274+22	273+12	272+2	272-8	271-18	270-28
20	291+60	286+51	282+41	280+31	278+21	277+11	275+2	273-8	272-18	270-28
40	300+59	293+49	288+40	285+30	282+21	280+11	277+1	275-9	273-18	270-28
14	308+56	300+47	294+38	290+29	286+19	283+10	280 0	277-9	274-19	270-28
20	315+53	306+45	300+36	294+27	290+18	286+9	282 0	278-10	274-19	270-28
40	321+50	312+42	304+34	299+25	294+16	289+8	284-1	280-10	275-19	270-28
15	326+47	317+39	309+31	303+23	297+15	292+6	287-3	282-11	276-20	270-28
20	331+43	321+36	313+28	306+21	300+12	294+4	289-4	283-12	277-20	270-28
40	335+39	325+32	317+25	310+18	303+10	297+2	291-5	284-13	278-21	270-28
16	338+35	329+29	321+22	313+15	306+8	300 0	293-7	286-14	278-21	270-28
20	342+30	332+25	324+18	316+12	309+5	302-2	294-9	287-16	279-22	270-28
40	345+26	336+21	327+15	319+8	312+2	304-4	296-11	288-17	279-22	270-28
17	348+22	339+17	330+11	322+5	314-1	306-7	298-13	289-18	280-23	270-28
20	350+18	341+12	333+7	324+2	316-4	308-10	299-15	290-20	280-24	270-28
40	353+13	344+8	335+3	327-2	318-7	309-12	300-17	291-21	281-25	270-28
18	355+9	346+4	338-1	329-6	320-11	311-15	301-19	291-23	281-26	270-28
20	357+4	349 0	340-5	331-10	322-14	312-18	302-22	292-25	281-27	270-28
40	0 0	351-5	342-9	333-14	323-18	314-21	303-24	292-26	281-28	270-28
19	2-4	353-9	344-13	335-18	325-21	314-24	304-26	293-28	281-28	270-28
20	5-9	356-13	346-18	336-22	326-25	315-27	304-29	293-30	281-29	270-28
40	7-13	358-18	348-22	338-26	327-29	316-30	304-31	293-31	281-30	270-28
20	10-18	0-22	350-26	340-30	328-32	317-34	304-34	293-33	281-31	270-28
20	12-22	3-27	352-31	341-34	329-36	317-37	304-36	292-35	281-32	270-28
40	15-26	5-31	354-35	342-38	330-40	317-40	304-39	292-36	280-33	270-28
21	18-30	8-35	356-40	344-42	330-44	317-43	303-41	291-38	280-33	270-28
20	22-35	11-40	359-44	345-47	330-47	316-46	302-44	290-39	279-34	270-28
40	25-39	14-44	1-48	346-51	330-51	314-50	300-46	289-41	279-35	270-28
22	29-43	18-48	3-53	347-55	329-55	313-53	299-48	287-42	278-35	270-28
20	34-46	22-52	7-57	348-59	328-59	310-55	296-50	286-44	277-36	270-28
40	39-50	27-57	10-62	348-64	326-63	308-58	294-52	284-45	276-36	270-28
23	46-53	33-60	14-66	349-68	322-66	303-61	291-54	282-46	275-37	270-28
20	52-56	40-64	19-70	349-72	319-70	299-63	287-55	280-46	274-37	270-28
40	61-58	50-67	29-74	347-77	310-73	293-65	283-56	277-47	273-38	270-28

0^h

+90° to +88°	UMin
+88° to +77°	Ceph
+77° to +66°	Ceph to 20m, Cass
+66° to +48°	Cass
+48° to +46°	Andr to 10m, Cass to 52m, Andr
+46° to +33°	Andr
+33° to +28°	Andr to 43m, Pisc
+28° to +23° 45'	Pegs to 4m, Andr to 43m, Pisc
+23° 45' to +22°	Pegs to 4m, Andr to 51m, Pisc
+22° to +21°	Pegs to 8m 30s, Andr to 51m, Pisc
+21° to +12° 30'	Pegs to 8m 30s, Pisc
+12° 30' to +2°	Pisc
+2° to -7°	Pisc to 20m, Ceti
-7° to -25° 30'	Ceti
-25° 30' to -40°	Scul
-40° to -58° 30'	Phoe
-58° 30' to -75°	Tucn
-75° to -76°	Hydi to 45m, Tucn
-76° to -82° 30'	Hydi
-82° 30' to -90°	Octn

1^h

+90° to +88°	UMin
+88° to +77°	Ceph
+77° to +58° 30'	Cass
+58° 30' to +57° 30'	Cass to 54m 30s, Pers
+57° 30' to +54°	Cass to 42m, Pers
+54° to +50°	Cass to 22m, Pers
+50° to +48°	Cass to 7m, Andr to 40m, Pers
+48° to +47°	Andr to 40m, Pers
+47° to +35°	Andr
+35° to +33°	Andr to 24m 30s, Tria
+33° to +28°	Pisc to 24m 30s, Tria
+28° to +27° 15'	Pisc to 40m, Tria
+27° 15' to +25°	Pisc to 40m, Tria to 55m, Arie
+25° to +9° 55'	Pisc to 40m, Arie
+9° 55' to +2°	Pisc
+2° to -24° 23'	Ceti
-24° 23' to -25° 30'	Ceti to 40m, Forn
-25° 30' to -40°	Scul to 40m, Forn
-40° to -48° 10'	Phoe
-48° 10' to -51° 30'	Phoe to 50m, Erid
-51° 30' to -53° 30'	Phoe to 35m, Erid
-53° 30' to -58° 30'	Phoe to 20m, Erid
-58° 30' to -76°	Tucn to 20m, Hydi
-76° to -82° 30'	Hydi
-82° 30' to -90°	Octn

2^h

+90° to +88°	UMin
+88° to +77°	Ceph
+77° to +58° 30'	Cass
+58° 30' to +57°	Pers to 26m, Cass
+57° to +50° 30'	Pers
+50° 30' to +47°	Pers to 2m 30s, Andr to 31m, Pers
+47° to +36° 45'	Andr to 31m, Pers
+36° 45' to +34°	Tria to 34m, Pers
+34° to +30° 40'	Tria to 43m, Pers
+30° 40' to +27° 15'	Tria to 25m, Arie
+27° 15' to +9° 55'	Arie
+9° 55' to -1° 45'	Ceti
-1° 45' to -24° 23'	Ceti to 39m, Erid
-24° 23' to -40°	Forn
-40° to -48° 10'	Phoe to 20m, Erid
-48° 10' to -49°	Erid
-49° to -51°	Erid to 40m, Horo
-51° to -54°	Erid to 25m, Horo
-54° to -58° 30'	Erid to 10m, Horo
-58° 30' to -67° 30'	Hydi to 10m, Horo
-67° 30' to -82° 30'	Hydi
-82° 30' to -90°	Octn

3^h

+90° to +88°	UMin
+88° to +80°	Ceph
+80° to +77°	Ceph to 30m 30s, Caml
+77° to +68°	Cass to 25m, Caml
+68° to +57°	Cass to 6m, Caml
+57° to +55°	Pers to 10m, Caml
+55° to +52° 30'	Pers to 20m, Caml
+52° 30' to +30° 40'	Pers
+30° 40' to +19°	Arie to 22m, Taur
+19° to +9° 55'	Arie to 17m, Taur
+9° 55' to 0°	Ceti to 17m, Taur
0° to -1° 45'	Ceti to 17m, Taur to 35m, Erid
-1° 45' to -24° 23'	Erid
-24° 23' to -36°	Forn to 45m, Erid
-36° to -39° 35'	Forn to 30m, Erid
-39° 35' to -40°	Erid
-40° to -44°	Erid to 52m, Horo
-44° to -46°	Erid to 25m, Horo
-46° to -51°	Horo
-51° to -53° 10'	Horo to 50m, Dora
-53° 10' to -57° 30'	Horo to 30m, Reti
-57° 30' to -67° 30'	Horo to 12m, Reti
-67° 30' to -75°	Hydi
-75° to -82° 30'	Hydi to 30m, Mens
-82° 30' to -85°	Octn to 30m, Mens
-85° to -90°	Octn

4^h

+90° to +88° UMin
 +88° to +80° Ceph
 +80° to +52° 30' Caml
 +52° 30' to +36° Pers to 41m 30s, Auri
 +36° to +30° 40' Pers to 30m, Auri
 +30° 40' to +30° Taur to 30m, Auri
 +30° to +28° 30' Taur to 45m, Auri
 +28° 30' to +16° Taur
 +16° to +15° 30' Taur to 58m, Orio
 +15° 30' to 0° Taur to 37m, Orio
 0° to -4° Erid to 40m, Orio
 -4° to -11° Erid
 -11° to -14° 30' Erid to 55m, Leps
 -14° 30' to -27° 15' Erid to 50m, Leps
 -27° 15' to -30° Erid to 42m, Cael
 -30° to -37° Erid to 35m, Cael
 -37° to -40° Erid to 16m, Cael
 -40° to -43° Horo to 16m, Cael
 -43° to -46° 30' Horo to 16m, Cael to 50m, Pict
 -46° 30' to -49° Horo to 16m, Cael to 30m, Pict
 -49° to -51° Horo to 5m, Dora to 30m, Pict
 -51° to -54° Dora to 30m, Pict
 -54° to -56° 30' Dora
 -56° 30' to -59° Reti to 20m, Dora
 -59° to -67° 30' Reti to 35m, Dora
 -67° 30' to -70° Hydi to 35m, Dora
 -70° to -75° Hydi to 35m, Mens
 -75° to -85° Mens
 -85° to -90° Octn

5^h

+90° to +88° UMin
 +88° to +85° Ceph
 +85° to +56° Caml
 +56° to +28° 30' Auri
 +28° 30' to +28° Taur to 53m, Auri
 +28° to +22° 50' Taur to 53m, Gemi
 +22° 50' to +21° 30' Taur to 42m, Orio to 53m, Gemi
 +21° 30' to +18° Taur to 42m, Orio
 +18° to +16° Taur to 46m, Orio
 +16° to +15° 30' Orio to 20m, Taur to 46m, Orio
 +15° 30' to +12° 30' Orio to 36m, Taur to 46m, Orio
 +12° 30' to -4° Orio
 -4° to -11° Erid to 5m, Orio to 50m, Mono
 -11° to -27° 15' Leps
 -27° 15' to -43° Colm
 -43° to -57° 30' Pict
 -57° 30' to -61° Dora to 30m, Pict
 -61° to -70° Dora
 -70° to -85° Mens
 -85° to -90° Octn

6^h

+90° to +88° UMin
 +88° to +85° Ceph
 +85° to +62° Caml
 +62° to +56° Caml to 6m, Lync
 +56° to +54° Auri to 6m, Lync
 +54° to +50° Auri to 30m, Lync
 +50° to +44° 30' Auri to 48m, Lync
 +44° 30' to +35° 30' Auri
 +35° 30' to +28° Auri to 32m, Gemi
 +28° to +21° 30' Gemi
 +21° 30' to +17° 30' Orio to 13m, Gemi
 +17° 30' to +12° Orio to 18m 30s, Gemi
 +12° to +10° Orio to 18m 30s, Mono to 56m, Gemi
 +10° to -4° Orio to 14m 30s, Mono
 -4° to -11° Mono
 -11° to -27° 15' Leps to 7m, CMaj
 -27° 15' to -33° Colm to 7m, CMaj
 -33° to -43° Colm to 35m, Pupp
 -43° to -50° 45' Pupp
 -50° 45' to -52° 30' Cari
 -52° 30' to -55° Pict to 10m, Cari
 -55° to -58° Pict to 30m, Cari
 -58° to -64° Pict to 50m, Cari
 -64° to -70° Dora to 35m, Voln
 -70° to -75° Mens to 35m, Voln
 -75° to -85° Mens
 -85° to -90° Octn

7^h

+90° to +88° UMin
 +88° to +85° Ceph
 +85° to +73° 30' Caml
 +73° 30' to +60° Caml to 58m, UMaj
 +60° to +44° 30' Lync
 +44° 30' to +35° 30' Auri to 22m, Lync
 +35° 30' to +33° 30' Gemi to 45m, Lync
 +33° 30' to +28° Gemi
 +28° to +20° Gemi to 53m, Canc
 +20° to +13° 30' Gemi to 48m 30s, Canc
 +13° 30' to +12° 30' Gemi to 30m, CMin to 48m 30s, Canc
 +12° 30' to +10° CMin to 48m 30s, Canc
 +10° to +7° CMin to 55m 30s, Canc
 +7° to +5° 30' CMin
 +5° 30' to +1° 30' Mono to 1m, CMin
 +1° 30' to 0° Mono to 12m, CMin
 0° to -11° Mono
 -11° to -33° CMaj to 22m, Pupp
 -33° to -50° 45' Pupp
 -50° 45' to -64° Cari
 -64° to -75° Voln
 -75° to -82° 30' Mens to 40m, Cham
 -82° 30' to -85° Mens to 40m, Octn
 -85° to -90° Octn

8^h

+90° to +86° 30' UMin
 +86° 30' to +73° 30' Caml
 +73° 30' to +60° UMaj
 +60° to +47° Lync to 25m, UMaj
 +47° to +33° 30' Lync
 +33° 30' to +7° Canc
 +7° to 0° CMin to 5m, Hyda
 0° to -11° Mono to 5m, Hyda
 -11° to -17° Pupp to 22m, Hyda
 -17° to -19° Pupp to 22m, Pyxi to 35m, Hyda
 -19° to -36° 45' Pupp to 22m, Pyxi
 -36° 45' to -43° Pupp to 22m, Velr
 -43° to -50° 45' Velr
 -50° 45' to -53° Cari to 10m, Velr
 -53° to -54° 30' Cari to 27m, Velr
 -54° 30' to -56° 30' Cari to 50m, Velr
 -56° 30' to -64° Cari
 -64° to -75° Voln
 -75° to -82° 30' Cham
 -82° 30' to -90° Octn

9^h

+90° to +86° 30' UMin
 +86° 30' to +82° Caml
 +82° to +73° 30' Caml to 10m, Drac
 +73° 30' to +47° UMaj
 +47° to +42° Lync to 10m, UMaj
 +42° to +39° 45' Lync to 35m, LMin
 +39° 45' to +33° 30' Lync to 15m, LMin
 +33° 30' to +28° 30' Canc to 15m, Leon to 53m, LMin
 +28° 30' to +7° Canc to 15m, Leon
 +7° to -11° Hyda to 35m, Sext
 -11° to -19° Hyda
 -19° to -24° Pyxi to 5m, Hyda
 -24° to -26° 30' Pyxi to 22m, Antl to 45m, Hyda
 -26° 30' to -36° 45' Pyxi to 22m, Antl
 -36° 45' to -39° 45' Velr to 22m, Antl
 -39° 45' to -56° 30' Velr
 -56° 30' to -64° Cari
 -64° to -75° Voln to 2m, Cari
 -75° to -82° 30' Cham
 -82° 30' to -90° Octn

10^h

+90° to +86° 30' UMin
 +86° 30' to +82° Caml
 +82° to +80° Drac to 40m, Caml
 +80° to +73° 30' Drac
 +73° 30' to +42° UMaj
 +42° to +40° LMin to 10m, UMaj
 +40° to +34° LMin to 47m, UMaj
 +34° to +28° 30' LMin
 +28° 30' to +25° 30' Leon to 30m, LMin
 +25° 30' to +23° 30' Leon to 30m, LMin to 45m, Leon
 +23° 30' to +7° Leon
 +7° to -6° Sext to 45m, Leon
 -6° to -11° Sext to 45m, Crat
 -11° to -19° Hyda to 45m, Crat
 -19° to -24° 30' Hyda to 50m, Crat
 -24° 30' to -26° 30' Hyda
 -26° 30' to -29° 10' Antl to 15m, Hyda
 -29° 10' to -31° 10' Antl to 35m, Hyda
 -31° 10' to -35° Antl to 50m, Hyda
 -35° to -39° 45' Antl
 -39° 45' to -56° 30' Velr
 -56° 30' to -75° Cari
 -75° to -82° 30' Cham
 -82° 30' to -90° Octn

11^h

+90° to +86° 30' UMin
 +86° 30' to +80° Caml
 +80° to +77° Drac to 30m, Caml
 +77° to +73° 30' Drac
 +73° 30' to +66° 30' UMaj to 20m, Drac
 +66° 30' to +29° UMaj
 +29° to +14° Leon to 52m, Coma
 +14° to +11° Leon to 52m, Virg
 +11° to -6° Leon to 31m, Virg
 -6° to -11° Crat to 50m, Virg
 -11° to -24° 30' Crat to 50m, Corv
 -24° 30' to -35° Hyda
 -35° to -55° Cent
 -55° to -56° 30' Cent to 50m, Cruc
 -56° 30' to -64° Cari to 15m, Cent to 50m, Cruc
 -64° to -75° Cari to 15m, Musc
 -75° to -82° 30' Cham
 -82° 30' to -90° Octn

12^h

+90° to +86° 30' UMin
 +86° 30' to +77° Caml
 +77° to +64° Drac
 +64° to +53° UMaj
 +53° to +45° UMaj to 5m, CVen
 +45° to +34° CVen
 +34° to +32° Coma to 20m, CVen
 +32° to +15° Coma
 +15° to +14° Coma to 50m, Virg
 +14° to -11° Virg
 -11° to -22° Corv to 50m, Virg
 -22° to -24° 30' Corv to 35m, Hyda
 -24° 30' to -29° 30' Hyda
 -29° 30' to -33° Hyda to 35m, Cent
 -33° to -35° Hyda to 15m, Cent
 -35° to -55° Cent
 -55° to -64° Cruc to 50m, Cent
 -64° to -75° Musc
 -75° to -82° 30' Cham
 -82° 30' to -90° Octn

13^h

+90° to +86° 30' UMin
 +86° 30' to +80° Caml
 +80° to +77° Caml to 35m, UMin
 +77° to +70° UMin
 +70° to +64° Drac
 +64° to +63° UMaj to 30m, Drac
 +63° to +53° UMaj
 +53° to +48° 30' CVen to 30m, UMaj
 +48° 30' to +32° CVen
 +32° to +30° 45' Coma to 15m, CVen
 +30° 45' to +28° 30' Coma to 15m, CVen to 57m 30s, Boot
 +28° 30' to +15° Coma to 30m, Boot
 +15° to +8° Virg to 30m, Boot
 +8° to -22° Virg
 -22° to -29° 30' Hyda
 -29° 30' to -64° Cent
 -64° to -65° Musc to 30m, Circ
 -65° to -70° Musc to 40m, Circ
 -70° to -75° Musc to 40m, Apus
 -75° to -82° 30' Cham to 40m, Apus
 -82° 30' to -90° Octn

14^h

+90° to +86° 30' UMin
 +86° 30' to +80° Caml to 30m, UMin
 +80° to +66° UMin
 +66° to +63° Drac
 +63° to +55° 30' UMaj to 25m, Drac
 +55° 30' to +48° 30' UMaj to 2m, Boot
 +48° 30' to +30° 45' CVen to 2m, Boot
 +30° 45' to +8° Boot
 +8° to 0° Virg
 0° to -8° Virg to 40m, Libr
 -8° to -22° Virg to 15m, Libr
 -22° to -24° 30' Hyda to 15m, Libr
 -24° 30' to -29° 30' Hyda to 55m, Libr
 -29° 30' to -42° Cent to 55m, Lupi
 -42° to -55° Cent to 10m, Lupi
 -55° to -63° 35' Cent to 32m, Circ
 -63° 35' to -64° Cent to 32m, Circ to 55m, TrAu
 -64° to -67° 30' Circ to 55m, TrAu
 -67° 30' to -70° Circ to 45m, TrAu
 -70° to -82° 30' Apus
 -82° 30' to -90° Octn

15^h

+90° to +70° UMin
 +70° to +66° UMin to 40m, Drac
 +66° to +55° 30' Drac
 +55° 30' to +53° Boot to 15m, Drac
 +53° to +51° 30' Boot to 45m, Drac
 +51° 30' to +40° Boot to 45m, Herc
 +40° to +33° Boot to 26m, CorB
 +33° to +26° Boot to 11m, CorB
 +26° to +22° Boot to 5m, Serp
 +22° to +16° Boot to 5m, Serp to 55m, Herc
 +16° to +8° Boot to 5m, Serp
 +8° to 0° Virg to 5m, Serp
 0° to -3° 15' Libr to 5m, Serp
 -3° 15' to -8° Libr to 55m, Ophi
 -8° to -20° Libr to 55m, Scor
 -20° to -29° 30' Libr to 40m, Scor
 -29° 30' to -42° Lupi
 -42° to -48° Lupi to 40m, Norm
 -48° to -54° Lupi to 20m, Norm
 -54° to -55° Lupi to 3m, Norm
 -55° to -60° Circ to 20m, Norm
 -60° to -61° Circ to 20m, TrAu
 -61° to -63° 35' Circ to 10m, TrAu
 -63° 35' to -70° TrAu
 -70° to -82° 30' Apus
 -82° 30' to -90° Octn

16^h

+90°	to	+75°	UMin
+75°	to	+70°	UMin to 32m, Drac
+70°	to	+51° 30'	Drac
+51° 30'	to	+40°	Herc
+40°	to	+27°	CorB to 20m, Herc
+27°	to	+26°	CorB to 10m, Herc
+26°	to	+22°	Serp to 2m, Herc
+22°	to	+16°	Herc
+16°	to	+12° 50'	Serp to 5m, Herc
+12° 50'	to	+4°	Serp to 5m, Herc to 45m, Ophi
+4°	to	-3° 15'	Serp to 16m, Ophi
-3° 15'	to	-8°	Ophi
-8°	to	-18° 15'	Scor to 16m, Ophi
-18° 15'	to	-19° 15'	Scor to 22m 30s, Ophi
-19° 15'	to	-24° 35'	Scor to 16m, Ophi
-24° 35'	to	-30°	Scor to 45m, Ophi
-30°	to	-42°	Scor
-42°	to	-45° 30'	Norm to 25m 15s, Scor
-45° 30'	to	-60°	Norm to 25m 15s, Arae
-60°	to	-61°	TrAu to 25m 15s, Arae
-61°	to	-63° 35'	TrAu to 35m, Arae
-63° 35'	to	-65°	TrAu to 45m, Arae
-65°	to	-67° 30'	TrAu to 50m, Arae
-67° 30'	to	-70°	TrAu
-70°	to	-82° 30'	Apus
-82° 30'	to	-90°	Octn

17^h

+90°	to	+80°	UMin
+80°	to	+75°	UMin to 30m, Drac
+75°	to	+50° 30'	Drac
+50° 30'	to	+14° 20'	Herc
+14° 20'	to	+12° 50'	Herc to 15m, Ophi
+12° 50'	to	0°	Ophi
0°	to	-4°	Ophi to 50m, Serp
-4°	to	-10°	Ophi to 58m, Serp
-10°	to	-11° 40'	Ophi to 10m, Serp to 35m, Ophi to 40m, Serp
-11° 40'	to	-16°	Ophi to 10m, Serp
-16°	to	-30°	Ophi to 36m, Sgtr
-30°	to	-37°	Scor to 50m, Sgtr
-37°	to	-45° 30'	Scor to 50m, CorA
-45° 30'	to	-57°	Arae
-57°	to	-67° 30'	Arae to 30m, Pavo
-67° 30'	to	-82° 30'	Apus
-82° 30'	to	-90°	Octn

18^h

+90°	to	+86°	UMin
+86°	to	+50° 30'	Drac
+50° 30'	to	+47° 30'	Herc to 14m, Drac
+47° 30'	to	+30°	Herc to 10m 30s, Lyra
+30°	to	+26°	Herc to 22m, Lyra
+26°	to	+25° 30'	Herc to 52m, Lyra
+25° 30'	to	+21° 5'	Herc to 52m, Vulp
+21° 5'	to	+18° 30'	Herc to 52m, Sgte
+18° 30'	to	+14° 20'	Herc to 52m, Aqil
+14° 20'	to	+12°	Ophi to 15m, Herc to 52m, Aqil
+12°	to	+6° 15'	Ophi to 39m 44s, Aqil
+6° 15'	to	+4° 30'	Ophi to 15m, Serp to 52m, Aqil
+4° 30'	to	+3°	Ophi to 25m 30s, Serp to 52m, Aqil
+3°	to	+2°	Ophi to 15m, Serp to 52m, Aqil
+2°	to	0°	Ophi to 15m, Serp to 35m, Aqil
0°	to	-4°	Serp to 35m, Aqil
-4°	to	-12° 2'	Serp to 15m, Scut to 52m, Aqil
-12° 2'	to	-16°	Serp to 15m, Scut to 52m, Sgtr
-16°	to	-37°	Sgtr
-37°	to	-45° 30'	CorA
-45° 30'	to	-57°	Tele
-57°	to	-75°	Pavo
-75°	to	-90°	Octn

19^h

+90°	to	+86°	UMin
+86°	to	+59° 30'	Drac
+59° 30'	to	+58°	Drac to 46m, Cygn
+58°	to	+55° 30'	Drac to 25m, Cygn
+55° 30'	to	+47° 30'	Drac to 5m, Cygn
+47° 30'	to	+43° 30'	Lyra to 10m, Cygn
+43° 30'	to	+36° 30'	Lyra to 24m, Cygn
+36° 30'	to	+30°	Lyra to 21m 30s, Cygn
+30°	to	+29°	Lyra to 15m 30s, Cygn
+29°	to	+27° 30'	Lyra to 15m 30s, Cygn to 40m, Vulp
+27° 30'	to	+25° 30'	Lyra to 15m 30s, Vulp
+25° 30'	to	+21° 15'	Vulp
+21° 15'	to	+21° 5'	Vulp to 50m, Sgte
+21° 5'	to	+19° 10'	Sgte to 15m, Vulp to 50m, Sgte
+19° 10'	to	+16° 10'	Sgte
+16° 10'	to	+15° 45'	Aqil to 50m, Sgte
+15° 45'	to	-12° 2'	Aqil
-12° 2'	to	-37°	Sgtr
-37°	to	-45° 30'	CorA to 10m, Sgtr
-45° 30'	to	-57°	Tele
-57°	to	-75°	Pavo
-75°	to	-90°	Octn

20^h

+90° to +86° UMin
 +86° to +80° Drac
 +80° to +75° Drac to 10m, Ceph
 +75° to +67° Drac to 40m, Ceph
 +67° to +61° 30' Drac to 25m, Ceph
 +61° 30' to +60° 55' Ceph
 +60° 55' to +59° 30' Ceph to 32m 12s, Cygn to 36m,
 Ceph
 +59° 30' to +54° 50' Cygn to 36m, Ceph
 +54° 50' to +29° Cygn
 +29° to +28° Vulp to 55m, Cygn
 +28° to +21° 15' Vulp
 +21° 15' to +20° 30' Sgte to 15m, Vulp
 +20° 30' to +19° 30' Sgte to 15m, Dlph to 34m,
 Vulp
 +19° 30' to +15° 45' Sgte to 15m, Dlph
 +15° 45' to +11° 50' Aqil to 8m 30s, Dlph
 +11° 50' to +8° 30' Aqil to 8m 30s, Dlph to
 52m 30s, Equ
 +8° 30' to +6° Aqil to 18m, Dlph to 52m 30s,
 Equ
 +6° to +2° Aqil to 18m, Dlph to 50m, Equ
 +2° to -9° Aqil to 32m, Aqar
 -9° to -15° Capr to 32m, Aqar
 -15° to -28° Capr
 -28° to -45° 30' Sgtr to 20m, Micr
 -45° 30' to -57° Tele to 20m, Indi
 -57° to -60° Pavo to 20m, Indi
 -60° to -75° Pavo
 -75° to -90° Octn

21^h

+90° to +86° 10' UMin
 +86° 10' to +54° 50' Ceph
 +54° 50' to +52° 45' Cygn to 58m, Ceph
 +52° 45' to +44° Cygn to 58m, Lacr
 +44° to +43° 45' Cygn to 54m 30s, Lacr
 +43° 45' to +36° Cygn to 52m 30s, Lacr
 +36° to +28° Cygn to 44m, Pegs
 +28° to +23° 30' Vulp to 25m, Pegs
 +23° 30' to +19° 30' Vulp to 15m, Pegs
 +19° 30' to +12° 30' Dlph to 3m, Pegs
 +12° 30' to +11° 50' Dlph to 3m, Pegs to 7m,
 Equ to 20m, Pegs
 +11° 50' to +2° 45' Equ to 20m, Pegs
 +2° 45' to +2° Equ to 20m, Pegs to 28m,
 Aqar to 40m, Pegs
 +2° to +1° 45' Aqar to 40m, Pegs
 +1° 45' to -9° Aqar
 -9° to -15° Aqar to 20m, Capr to 52m, Aqar
 -15° to -25° 30' Capr to 52m, Aqar
 -25° 30' to -28° Capr to 20m, PscA
 -28° to -37° Micr to 20m, PscA
 -37° to -45° 30' Micr to 20m, Grus
 -45° 30' to -50° Indi to 20m, Grus
 -50° to -60° Indi
 -60° to -75° Pavo to 20m, Indi
 -75° to -90° Octn

22^h

+90° to +86° 10' UMin
 +86° 10' to +59° 5' Ceph
 +59° 5' to +56° 15' Ceph to 52m, Cass
 +56° 15' to +55° Ceph to 19m, Lacr to 52m, Cass
 +55° to +52° 45' Ceph to 8m, Lacr to 52m, Cass
 +52° 45' to +52° 30' Lacr to 52m, Cass
 +52° 30' to +35° Lacr to 52m, Andr
 +35° to +34° 30' Pegs to 49m, Lacr to 52m, Andr
 +34° 30' to +7° 30' Pegs
 +7° 30' to +2° Pegs to 45m, Pisc
 +2° to -4° Aqar to 45m, Pisc
 -4° to -25° 30' Aqar
 -25° 30' to -37° PscA
 -37° to -57° Grus
 -57° to -67° 30' Tucn
 -67° 30' to -75° Indi
 -75° to -90° Octn

23^h

+90° to +88° UMin
 +88° to +66° Ceph
 +66° to +63° Ceph to 35m, Cass
 +63° to +59° 5' Ceph to 10m, Cass
 +59° 5' to +52° 30' Cass
 +52° 30' to +50° Andr to 20m, Cass
 +50° to +48° Andr to 35m, Cass
 +48° to +34° 30' Andr
 +34° 30' to +32° 5' Pegs to 30m, Andr
 +32° 5' to +31° 20' Pegs to 45m, Andr
 +31° 20' to +10° Pegs
 +10° to +7° 30' Pegs to 50m, Pisc
 +7° 30' to -4° Pisc
 -4° to -7° Aqar to 50m, Pisc
 -7° to -25° 30' Aqar to 50m, Ceti
 -25° 30' to -37° Scul
 -37° to -40° Grus to 20m, Scul
 -40° to -57° Grus to 20m, Phoe
 -57° to -58° 30' Tucn to 20m, Phoe
 -58° 30' to -67° 30' Tucn
 -67° 30' to -75° Indi to 20m, Tucn
 -75° to -90° Octn

Andromeda	And . . .	Andr	Lacerta	Lac . . .	Lacr
Antlia	Ant . . .	Antl	Leo	Leo . . .	Leon
Apus	Aps . . .	Apus	Leo Minor	LMi . . .	LMin
Aquarius	Aqr . . .	Aqar	Lepus	Lep . . .	Leps
Aquila	Aql . . .	Aqil	Libra	Lib . . .	Libr
Ara	Ara . . .	Arae	Lupus	Lup . . .	Lupi
Aries	Ari . . .	Arie	Lynx	Lyn . . .	Lync
Auriga	Aur . . .	Auri	Lyra	Lyr . . .	Lyra
Bootes	Boo . . .	Boot	Mensa	Men . . .	Mens
Caelum	Cae . . .	Cael	Microscopium	Mic . . .	Micr
Camelopardus	Cam . . .	Caml	Monoceros	Mon . . .	Mono
Cancer	Cnc . . .	Canc	Musca	Mus . . .	Musc
Canes Venatici	CVn . . .	CVen	Norma	Nor . . .	Norm
Canis Major	CMa . . .	CMaj	Octans	Oct . . .	Octn
Canis Minor	CMi . . .	CMin	Ophiuchus	Oph . . .	Ophi
Capricornus	Cap . . .	Capr	Orion	Ori . . .	Orio
Carina	Car . . .	Cari	Pavo	Pav . . .	Pavo
Cassiopeia	Cas . . .	Cass	Pegasus	Peg . . .	Pegs
Centaurus	Cen . . .	Cent	Perseus	Per . . .	Pers
Cepheus	Cep . . .	Ceph	Phoenix	Phe . . .	Phoe
Cetus	Cet . . .	Ceti	Pictor	Pic . . .	Pict
Chamaeleon	Cha . . .	Cham	Pisces	Psc . . .	Pisc
Circinus	Cir . . .	Circ	Piscis Austrinus	PsA . . .	PscA
Columba	Col . . .	Colm	Puppis	Pup . . .	Pupp
Coma Berenices	Com . . .	Coma	Pyxis	Pyx . . .	Pyxi
Corona Austrina	CrA . . .	CorA	Reticulum	Ret . . .	Reti
Corona Borealis	CrB . . .	CorB	Sagitta	Sge . . .	Sgte
Corvus	Crv . . .	Corv	Sagittarius	Sgr . . .	Sgtr
Crater	Crt . . .	Crat	Scorpius	Sco . . .	Scor
Crux	Cru . . .	Cruc	Sculptor	Scl . . .	Scul
Cygnus	Cyg . . .	Cygn	Scutum	Set . . .	Scut
Delphinus	Del . . .	Dlph	Serpens	Ser . . .	Serp
Dorado	Dor . . .	Dora	Sextans	Sex . . .	Sext
Draco	Dra . . .	Drac	Taurus	Tau . . .	Taur
Equuleus	Equ . . .	Equl	Telescopium	Tel . . .	Tele
Eridanus	Eri . . .	Erid	Triangulum	Tri . . .	Tria
Fornax	For . . .	Forn	Triangulum Australe	TrA . . .	TrAu
Gemini	Gem . . .	Gemi	Tucana	Tuc . . .	Tucn
Grus	Gru . . .	Grus	Ursa Major	UMa . . .	UMaj
Hercules	Her . . .	Herc	Ursa Minor	UMi . . .	UMin
Horologium	Hor . . .	Horo	Vela	Vel . . .	Velr
Hydra	Hya . . .	Hyda	Virgo	Vir . . .	Virg
Hydrus	Hyi . . .	Hydi	Volans	Vol . . .	Voln
Indus	Ind . . .	Indi	Vulpecula	Vul . . .	Vulp

Andromeda Andromedae And Andr		Aquarius Aquarii Aqr Aqar	
α . . . 0 ^h 3.2 ^m	37 . . . 0 ^h 51.2 ^m	α . . . 22 ^h 0.6 ^m	18 . . . 21 ^h 18.7 ^m
β . . . 1 4.1	38 . . . 0 51.9	β . . . 21 26.3	19 . . . 21 19.8
γ . . . 1 57.8	39 . . . 0 57.3	γ . . . 22 16.5	20 . . . 21 19.7
δ . . . 0 34.0	41 . . . 1 2.3	δ . . . 22 49.3	21 . . . 21 20.1
ϵ . . . 0 33.3	42 . . . 1 3.7	ϵ . . . 20 42.3	22 . . . 21 26.3
ζ . . . 0 42.1	43 . . . 1 4.1	ζ . . . 22 23.7	23 . . . 21 32.4
η . . . 0 51.9	44 . . . 1 4.6	η . . . 22 30.2	24 . . . 21 34.4
θ . . . 0 11.9	45 . . . 1 5.5	θ . . . 22 11.6	25 . . . 21 34.5
ι . . . 23 33.2	46 . . . 1 16.5	ι . . . 22 1.0	26 . . . 21 37.1
κ . . . 23 35.5	47 . . . 1 17.9	κ . . . 22 32.6	28 . . . 21 56.0
λ . . . 23 32.7	48 . . . 1 21.7	λ . . . 22 47.4	29 . . . 21 57.0
μ . . . 0 51.2	49 . . . 1 24.1	μ . . . 20 47.3	30 . . . 21 58.0
ν . . . 0 44.3	50 . . . 1 30.9	ν . . . 21 4.1	31 . . . 21 58.1
ξ . . . 1 16.5	51 . . . 1 31.9	ξ . . . 21 32.4	32 . . . 21 59.7
\omicron . . . 22 57.3	52 . . . 1 33.4	\omicron . . . 21 58.1	33 . . . 22 1.0
π . . . 0 31.5	53 . . . 1 34.7	π . . . 22 20.2	34 . . . 22 0.6
ρ . . . 0 15.9	55 . . . 1 47.3	ρ . . . 22 14.9	35 . . . 22 3.5
σ . . . 0 13.1	56 . . . 1 50.2	σ . . . 22 25.4	36 . . . 22 4.2
τ . . . 1 34.7	57 . . . 1 57.8	τ . . . 22 44.3	37 . . . 22 5.2
υ . . . 1 30.9	58 . . . 2 2.5	υ . . . 22 29.2	38 . . . 22 5.3
ϕ . . . 1 3.7	59 . . . 2 4.8	ϕ . . . 23 9.2	39 . . . 22 7.0
χ . . . 1 33.4	60 . . . 2 7.0	χ . . . 23 11.7	40 . . . 22 8.1
ψ . . . 23 41.1	62 . . . 2 12.8	ψ^1 . . . 23 10.7	41 . . . 22 8.8
ω . . . 1 21.7	63 . . . 2 14.4	ψ^2 . . . 23 12.7	42 . . . 22 11.5
1 . . . 22 57.3	64 . . . 2 17.8	ψ^3 . . . 23 13.8	43 . . . 22 11.6
2 . . . 22 58.0	65 . . . 2 19.0	ω^1 . . . 23 34.6	44 . . . 22 11.9
3 . . . 22 59.7	66 . . . 2 21.1	ω^2 . . . 23 37.5	45 . . . 22 13.7
4 . . . 23 3.1		1 . . . 20 34.3	46 . . . 22 14.9
5 . . . 23 3.2		2 . . . 20 42.3	47 . . . 22 16.1
6 . . . 23 5.9	Antlia	3 . . . 20 42.5	48 . . . 22 16.5
7 . . . 23 8.0	Antliae	4 . . . 20 46.1	49 . . . 22 17.9
8 . . . 23 13.1	Ant Antl	5 . . . 20 46.9	50 . . . 22 19.1
9 . . . 23 13.7		6 . . . 20 47.3	51 . . . 22 18.9
10 . . . 23 15.1	α . . . 10 ^h 22.6 ^m	7 . . . 20 51.5	52 . . . 22 20.2
11 . . . 23 14.8	δ . . . 10 25.0	8 . . . 20 54.4	53 . . . 22 21.2
12 . . . 23 16.1	ϵ . . . 9 25.1	9 . . . 20 55.6	54 . . . 22 21.4
13 . . . 23 22.3	ζ^1 . . . 9 26.5	10 . . . 20 55.3	55 . . . 22 23.7
14 . . . 23 26.4	ζ^2 . . . 9 27.3	11 . . . 20 55.3	56 . . . 22 24.9
15 . . . 23 29.7	η . . . 9 54.6	12 . . . 20 58.8	57 . . . 22 25.4
16 . . . 23 32.7	θ . . . 9 39.7	13 . . . 21 4.1	58 . . . 22 26.4
17 . . . 23 33.2	ι . . . 10 52.1	14 . . . 21 10.9	59 . . . 22 29.2
18 . . . 23 34.3		15 . . . 21 12.9	60 . . . 22 28.9
19 . . . 23 35.5		16 . . . 21 15.8	61 . . . 22 30.4
20 . . . 23 41.1		17 . . . 21 17.6	62 . . . 22 30.2
21 . . . 0 3.2	Apus		
22 . . . 0 5.1	Apodis		
23 . . . 0 8.3	Aps Apus		
24 . . . 0 11.9			
25 . . . 0 13.1	α . . . 14 ^h 35.4 ^m		
26 . . . 0 13.4	β . . . 16 28.8		
27 . . . 0 15.9	γ . . . 16 18.1		
28 . . . 0 24.7	δ . . . 16 5.4		
29 . . . 0 31.5	ϵ . . . 14 10.3		
30 . . . 0 33.3	ζ . . . 17 11.5		
31 . . . 0 34.0	η . . . 14 5.7		
32 . . . 0 35.7	θ . . . 13 55.6		
33 . . . 0 37.3	ι . . . 17 10.9		
34 . . . 0 42.1	κ^1 . . . 15 20.6		
35 . . . 0 44.3	κ^2 . . . 15 29.3		
36 . . . 0 49.6			

Aquila Aquilae Aql Aqil			Aries Arietis Ari Arie			Auriga								
h	m		h	m		h	m							
α	19	45.9	46	19	37.5	α	2	1.5	47	2	52.4	6	4	53.5
β	19	50.4	47	19	37.9	β	1	49.1	48	2	53.5	7	4	54.8
γ	19	41.5	48	19	39.9	γ	1	48.1	49	2	56.0	8	4	55.5
δ	19	20.5	49	19	40.8	δ	3	5.9	50	2	54.9	9	4	58.8
ε	18	55.1	50	19	41.5	ε	2	53.5	51	2	56.5	10	4	59.5
ζ	19	0.8	51	19	45.3	ζ	3	9.2	52	2	59.6	11	5	6.6
η	19	47.4	52	19	44.0	η	2	7.2	53	3	1.8	12	5	9.1
θ	20	6.1	53	19	45.9	θ	2	12.6	54	3	2.7	13	5	9.3
ι	19	31.5	54	19	46.2	ι	1	51.9	55	3	3.6	14	5	8.9
κ	19	31.5	55	19	47.4	κ	2	1.0	56	3	6.3	15	5	12.1
λ	19	0.9	56	19	48.7	λ	1	52.4	57	3	5.9	16	5	11.6
μ	19	29.2	57	19	49.2	μ	2	36.7	58	3	9.2	17	5	11.7
ν	19	21.4	58	19	49.6	ν	2	33.1	59	3	14.0	18	5	12.8
ξ	19	49.4	59	19	49.4	ξ	2	19.5	60	3	14.5	19	5	13.4
ο	19	46.2	60	19	50.4	ο	2	39.0	61	3	15.5	20	5	14.7
π	19	44.0	61	19	51.5	π	2	43.7	62	3	16.2	21	5	17.9
ρ	20	9.6	62	19	59.2	ρ	2	50.8	63	3	17.0	22	5	17.1
σ	19	34.3	63	19	59.3	σ	2	46.0	64	3	18.4	24	5	21.0
τ	19	59.3	64	20	2.9	τ	3	15.5	65	3	18.7	25	5	26.2
υ	19	40.8	65	20	6.1	ι	1	44.6	66	3	22.6	26	5	32.2
φ	19	51.5	66	20	8.1	4	1	42.8				27	5	38.2
χ	19	37.9	67	20	9.6	5	1	48.1				28	5	41.9
ψ	19	39.9	68	20	23.2	6	1	49.1				29	5	42.3
ω	19	13.1	69	20	24.4	7	1	50.3				30	5	46.5
4	18	39.8	70	20	31.5	8	1	51.9				31	5	44.2
5	18	41.3	71	20	33.2	9	1	52.4				32	5	44.6
7	18	45.8				10	1	58.0				33	5	51.3
8	18	46.1				11	2	1.2				34	5	52.2
10	18	54.2				12	2	1.0				35	5	52.5
11	18	54.5				13	2	1.5				36	5	53.4
12	18	56.4				14	2	3.7				37	5	52.9
13	18	55.1				15	2	5.1				38	5	56.1
14	18	57.6				16	2	5.5				39	5	57.9
15	18	59.7				17	2	7.2				40	5	59.7
16	19	0.9				19	2	7.6				41	6	3.9
17	19	0.8				20	2	10.0				42	6	10.1
18	19	2.3				21	2	10.1				43	6	10.8
19	19	4.1				22	2	12.6				44	6	9.0
20	19	7.3				23	2	13.6				45	6	13.6
21	19	8.7				24	2	19.5				46	6	17.2
22	19	11.6				26	2	25.0				47	6	22.6
23	19	13.5				27	2	25.4				48	6	22.1
24	19	13.7				29	2	27.4				49	6	28.9
25	19	13.1				30	2	31.2				50	6	32.2
26	19	15.2				31	2	31.2				51	6	31.7
27	19	15.4				32	2	33.1				52	6	31.9
28	19	15.0				33	2	34.8				53	6	32.0
29	19	15.2				34	2	36.7				54	6	33.2
30	19	20.5				35	2	37.6				55	6	35.8
31	19	20.2				36	2	38.7				56	6	39.5
32	19	21.4				37	2	39.0				57	6	40.0
35	19	24.0				38	2	39.5				58	6	43.7
36	19	25.4				39	2	42.0				59	6	46.2
37	19	29.6				40	2	42.9				60	6	46.4
38	19	29.2				41	2	44.1				61	6	47.1
39	19	31.5				42	2	43.7				62	6	52.2
41	19	31.5				43	2	46.0				63	7	4.8
42	19	32.5				44	2	49.3				64	7	11.1
44	19	34.3				45	2	50.2				65	7	15.4
45	19	35.6				46	2	50.8				66	7	17.2

Bootes Bootis Boo Boot			Camelopardus Camelopardi Cam Caml		Cancer Cancri Cnc Canc			Canes Venatici Canum Venaticorum CVn CVen	
	^h _m		^h _m	^h _m	^h _m	^h _m	^h _m	^h _m	^h _m
α	14 11.1	34	14 39.0	α	4 44.1	α	8 53.0	34	8 27.2
β	14 58.2	35	14 40.6	β	4 54.5	β	8 11.1	35	8 29.6
γ	14 28.1	36	14 40.6	γ	3 39.7	γ	8 37.5	36	8 31.7
δ	15 11.5	37	14 46.8	ι	4 24.1	δ	8 39.0	37	8 32.7
ε	14 40.6	38	14 45.7	2	4 32.0	ε	8 34.7	38	8 34.0
ζ	14 36.4	39	14 46.3	3	4 32.0	ζ	8 6.5	39	8 34.4
η	13 49.9	40	14 55.8	4	4 39.7	η	8 26.9	40	8 34.4
θ	14 21.8	41	14 57.7	5	4 46.9	θ	8 25.9	41	8 34.7
ι	14 12.6	42	14 58.2	6	4 48.6	ι	8 40.6	42	8 35.0
κ	14 9.9	43	15 0.2	7	4 49.3	κ	9 2.3	43	8 37.5
λ	14 12.6	44	15 0.5	8	4 51.8	λ	8 14.6	44	8 37.5
μ	15 20.7	45	15 2.9	9	4 44.1	μ	8 1.9	45	8 37.7
ν ¹	15 27.3	46	15 4.1	10	4 54.5	ν	8 56.9	46	8 39.2
ν ²	15 28.2	47	15 2.1	11	4 57.4	ξ	9 3.6	47	8 39.0
ξ	14 46.8	48	15 10.3	12	4 57.5	ο	8 51.7	48	8 40.6
ο	14 40.6	49	15 11.5	14	5 4.2	τ	9 9.7	49	8 39.3
π	14 36.0	50	15 17.8	15	5 10.8	ρ ¹	8 46.6	50	8 41.5
ρ	14 27.5	51	15 20.7	16	5 14.9	ρ ²	8 49.7	51	8 46.4
σ	14 30.3	52	15 27.3	17	5 20.7	σ ¹	8 46.4	52	8 45.6
τ	13 42.5	53	15 28.2	18	5 24.0	σ ²	8 50.8	53	8 46.5
υ	13 44.7	54	15 34.2	19	5 27.6	σ ³	8 53.4	54	8 45.5
φ	15 34.2			20	5 29.0	τ	9 2.0	55	8 46.6
χ	15 10.3			21	5 31.2	υ ¹	8 25.6	57	8 48.2
ψ	15 0.2			22	5 30.6	υ ²	8 27.1	58	8 49.7
ω	14 57.7			23	5 34.9	φ ¹	8 20.4	59	8 50.8
ι	14 5.8			24	5 34.5	φ ²	8 20.7	60	8 50.5
1	15 0.5			26	5 38.1	χ	8 14.0	61	8 51.9
1	13 35.9			28	5 38.4	ψ	8 4.4	62	8 51.7
2	13 36.3			29	5 42.0	ω	7 54.9	63	8 52.0
3	13 42.1			30	5 43.5	1	7 51.3	64	8 53.4
4	13 42.5			31	5 46.0	2	7 54.9	65	8 53.0
5	13 44.7	Caelum		36	6 2.8	3	7 55.1	66	8 55.3
6	13 45.0	Caeli		37	6 1.2	4	7 55.7	67	8 55.9
7	13 48.4	Cae Cael		38	6 2.0	5	7 55.8	68	8 56.1
8	13 49.9			39	6 2.2	7	7 57.9	69	8 56.9
9	13 52.0	α	4 37.3	40	6 6.7	8	7 59.5	70	8 58.2
10	13 54.0	β	4 38.5	41	6 31.3	9	8 0.4	71	9 0.1
11	13 56.6	γ	5 0.8	42	6 40.5	10	8 1.9	72	9 2.0
12	14 5.8	δ	4 27.8	43	6 42.9	11	8 2.7	75	9 2.9
13	14 4.6	ξ	4 43.9	47	7 13.5	12	8 3.1	76	9 2.3
14	14 9.3			49	7 37.4	13	8 4.2	77	9 3.6
15	14 10.0			51	7 37.1	14	8 4.4	78	9 3.4
16	14 11.1			53	7 53.2	15	8 6.9	79	9 4.6
17	14 9.9					16	8 6.5	80	9 6.3
18	14 14.4					17	8 11.1	81	9 6.8
19	14 12.6					18	8 14.0	82	9 9.7
20	14 15.0					19	8 14.6	83	9 13.4
21	14 12.6					20	8 17.6		
22	14 21.8					21	8 18.5		
23	14 21.8					22	8 20.4		
24	14 25.2					23	8 20.7		
25	14 27.5					24	8 20.7		
26	14 28.0					25	8 20.2		
27	14 28.1					27	8 21.2		
28	14 30.3					28	8 22.7		
29	14 36.0					29	8 23.0		
30	14 36.4					30	8 25.6		
31	14 36.7					31	8 25.9		
32	14 36.9					32	8 27.1		
33	14 35.1					33	8 26.9		

Canis Major Canis Majoris CMA		Canis Minor Canis Minoris CMI		Capricornus Capricorni Cap		Cassiopeia Cassiopeiae Cass					
	h m		h m		h m		h m				
α	6 40.7	α	7 34.1	α ¹	20 12.1	36	21 23.0	α	0 34.8	37	1 19.3
β	6 18.3	β	7 21.7	α ²	20 12.5	37	21 29.2	β	0 3.8	38	1 23.8
γ	6 59.2	γ	7 22.7	β	20 15.4	38	21 29.3	γ	0 50.7	39	1 27.4
δ	7 4.3	δ ¹	7 26.9	γ	21 34.6	39	21 31.5	δ	1 19.3	40	1 30.5
ε	6 54.7	δ ²	7 28.0	δ	21 41.5	40	21 34.6	ε	1 47.2	42	1 35.2
ζ	6 16.5	ε	7 20.2	ε	21 31.5	41	21 36.3	ζ	0 31.4	43	1 34.9
η	7 20.1	ζ	7 46.5	ζ	21 21.0	42	21 36.1	η	0 43.0	44	1 36.6
θ	6 49.5	η	7 22.7	η	20 58.7	43	21 37.1	θ	1 5.0	45	1 47.2
ι	6 51.7	ι	7 19.4	θ	21 0.3	44	21 37.6	ι	2 20.8	46	1 48.2
κ	6 46.1	2	7 20.2	ι	21 16.7	45	21 38.6	κ	0 27.3	47	1 55.1
λ	6 24.5	3	7 21.7	κ	21 37.1	46	21 39.7	λ	0 26.3	48	1 53.7
μ	6 51.5	4	7 22.7	λ	21 41.2	47	21 40.9	μ	1 1.6	49	1 56.0
ν ¹	6 32.0	5	7 22.7	μ	21 47.8	48	21 41.2	ν	0 43.2	50	1 54.9
ν ²	6 32.3	6	7 24.2	ν	20 15.1	49	21 41.5	ξ	0 36.5	51	1 56.9
ν ³	6 33.5	7	7 26.9	ξ	20 6.9	50	21 41.3	ο	0 39.1	52	1 55.4
ξ ¹	6 27.7	8	7 28.0	ο	20 24.2	51	21 47.8	π	0 37.9	53	1 55.6
ξ ²	6 30.9	9	7 29.0	π	20 21.6			ρ	23 49.4	54	2 0.4
ο ¹	6 50.0	10	7 34.1	ρ	20 23.2			σ	23 53.9	55	2 6.6
ο ²	6 58.8	11	7 40.8	σ	20 13.6			τ	23 42.2		
π	6 51.3	13	7 46.5	τ	20 33.7			υ ¹	0 49.1		
σ	6 57.7	14	7 53.2	υ	20 34.4			υ ²	0 50.7		
τ	7 14.6			φ	21 9.9			φ	1 13.8		
ι	7 10.7			χ	21 2.8			χ	1 27.4		
2	6 16.5			ψ	20 40.2			ψ	1 18.9		
4	6 18.3			ω	20 45.9			ω	1 48.2		
5	6 27.7			ι	20 6.4			ι	23 2.4		
6	6 30.9			2	20 6.9			2	23 5.5		
7	6 32.0			3	20 10.8			4	23 20.4		
8	6 32.3			4	20 12.1			5	23 42.2		
9	6 33.5			5	20 12.1			6	23 44.0		
10	6 40.7			6	20 12.5			7	23 49.4		
11	6 42.3			7	20 13.6			8	23 53.9		
12	6 42.8			8	20 15.1			9	23 59.1		
13	6 46.1			9	20 15.4			10	0 1.2		
14	6 49.5			10	20 21.6			11	0 3.8		
15	6 49.2			11	20 23.2			12	0 19.3		
16	6 50.0			12	20 24.2			13	0 25.7		
17	6 50.7			13	20 31.7			14	0 26.3		
18	6 51.5			14	20 33.7			15	0 27.3		
19	6 51.3			15	20 34.4			16	0 28.6		
20	6 51.7			16	20 40.2			17	0 31.4		
21	6 54.7			17	20 40.4			18	0 34.8		
22	6 57.7			18	20 45.9			19	0 36.5		
23	6 59.2			19	20 49.1			20	0 37.9		
24	6 58.8			20	20 53.9			21	0 39.0		
25	7 4.3			21	20 55.2			22	0 39.1		
26	7 8.1			22	20 58.7			23	0 41.1		
27	7 10.2			23	21 0.3			24	0 43.0		
28	7 10.7			24	21 1.3			25	0 43.2		
29	7 14.5			25	21 2.8			26	0 49.1		
30	7 14.6			26	21 3.6			27	0 50.7		
31	7 20.1			27	21 3.8			28	0 50.7		
				28	21 9.9			30	1 1.6		
				29	21 10.2			31	1 3.9		
				30	21 12.4			32	1 5.2		
				31	21 12.7			33	1 5.0		
				32	21 16.7			34	1 13.8		
				33	21 18.5			35	1 14.4		
				34	21 21.0			36	1 18.9		
				35	21 21.6						

Carina Carinae Car Cari		Cassiopeia Cassiopeiae Cass	
	h m		h m
α	6 21.7	α	0 34.8
β	9 12.1	β	0 3.8
ε	8 20.5	γ	0 50.7
η	10 41.2	δ	1 19.3
θ	10 39.4	ε	1 47.2
ι	9 14.4	ζ	0 31.4
υ	9 44.6	η	0 43.0
χ	7 54.2	θ	1 5.0
ω	10 11.4	ι	2 20.8
a	9 8.3	κ	0 27.3
l	9 42.5	λ	0 26.3

Centaurus Centauri Cen Cent	
	h m
α	14 32.8
β	13 56.8
γ	12 36.0
δ	12 3.2
ε	13 33.5
ζ	13 49.3
η	14 29.2
ι	14 0.8
θ	13 15.0
κ	14 52.7
λ	11 31.2
μ	13 43.6
ν	13 43.5
ξ ¹	12 57.8
ξ ²	13 1.1
ο ¹	11 27.1
ο ²	11 27.2
π	11 16.4
ρ	12 6.4
σ	12 22.6
τ	12 32.2
υ ¹	13 52.5
υ ²	13 55.5
φ	13 52.2
χ	13 59.9
ψ	14 14.5
ω	13 20.8
ι	13 40.0
2	13 43.6
3	13 46.1
4	13 47.5
5	14 0.8

Cepheus Cephei Cep Ceph	Cetus Ceti Cet Ceti		Chamaeleon Chamaeleontis Cha Cham	Coma Berenices Comae Berenices Coma	Corona Austrina Coronae Austrinae CrA CorA
α . . . 21 ^h 16.2 ^m	α . . . 2 ^h 57.1 ^m	38 . . . 1 ^h 9.7 ^m	α . . . 8 ^h 21.1 ^m	α . . . 13 ^h 5.1 ^m	α . . . 19 ^h 2.7 ^m
β . . . 21 27.4	β . . . 0 38.6	39 . . . 1 11.5	β . . . 12 12.5	β . . . 13 7.2	β . . . 19 3.2
γ . . . 23 35.2	γ . . . 2 38.1	40 . . . 1 11.8	γ . . . 10 34.3	γ . . . 12 22.0	γ . . . 18 59.7
δ . . . 22 25.5	δ . . . 2 34.4	41 . . . 1 12.7	δ ¹ . . . 10 44.3	ι . . . 11 56.6	δ . . . 19 1.4
ε . . . 22 11.4	ε . . . 2 34.7	42 . . . 1 14.7	δ ² . . . 10 44.8	κ . . . 12 22.0	ε . . . 18 52.0
ζ . . . 22 7.4	ζ . . . 1 46.5	43 . . . 1 17.5	ε . . . 11 54.7	λ . . . 12 14.3	ζ . . . 18 56.0
η . . . 20 43.3	η . . . 1 3.6	44 . . . 1 19.0	ζ . . . 9 36.8	μ . . . 12 14.3	η ¹ . . . 18 41.6
θ . . . 20 27.9	θ . . . 1 19.0	45 . . . 1 19.0	η . . . 8 44.7	ν . . . 12 14.5	η ² . . . 18 42.4
ι . . . 22 46.1	ι . . . 0 14.3	46 . . . 1 20.7	θ . . . 8 23.6	ξ . . . 12 14.8	θ . . . 18 26.4
κ . . . 20 12.3	κ . . . 3 14.1	47 . . . 1 21.9	ι . . . 9 27.5	ο . . . 12 15.7	κ . . . 18 26.5
λ . . . 22 8.1	λ . . . 2 54.4	48 . . . 1 24.8	κ . . . 11 59.6	π . . . 12 17.5	λ . . . 18 36.9
μ . . . 21 40.4	μ . . . 2 39.5	49 . . . 1 29.8	μ . . . 10 3.4	ι . . . 12 19.3	μ . . . 18 40.8
ν . . . 21 42.6	ν . . . 2 30.6	50 . . . 1 31.1	ν . . . 9 46.3	ι . . . 12 21.4	
ξ . . . 22 0.9	ξ ¹ . . . 2 7.7	52 . . . 1 39.4	π . . . 11 33.1	ι . . . 12 22.0	
ο . . . 23 14.5	ξ ² . . . 2 22.8	53 . . . 1 44.7		ι . . . 12 23.9	
π . . . 23 4.7	ο . . . 2 14.3	55 . . . 1 46.5		ι . . . 12 24.4	
ρ . . . 22 29.0	π . . . 2 39.4	56 . . . 1 52.0		ι . . . 12 26.0	
ι . . . 20 12.3	ρ . . . 2 21.1	57 . . . 1 55.1		ι . . . 12 28.6	
2 . . . 20 27.9	σ . . . 2 27.4	58 . . . 1 52.9		ι . . . 12 29.9	
3 . . . 20 43.3	τ . . . 1 39.4	59 . . . 1 55.3		ι . . . 12 30.1	
4 . . . 20 41.9	υ . . . 1 55.3	60 . . . 1 58.1		ι . . . 12 32.0	
5 . . . 21 16.2	φ ¹ . . . 0 39.2	61 . . . 1 58.7	Circinus Circini Cir Circ	ι . . . 12 34.1	
6 . . . 21 17.3	φ ² . . . 0 45.1	62 . . . 2 4.1		ι . . . 12 41.7	
7 . . . 21 25.8	φ ³ . . . 0 51.0	63 . . . 2 6.5		ι . . . 12 43.2	
8 . . . 21 27.4	φ ⁴ . . . 0 53.7	64 . . . 2 6.1		ι . . . 12 43.9	
9 . . . 21 35.2	χ . . . 1 44.7	65 . . . 2 7.7	α . . . 14 ^h 34.4 ^m	ι . . . 12 44.4	
10 . . . 21 42.6	ι . . . 23 53.2	66 . . . 2 7.7	β . . . 15 9.7	ι . . . 12 46.8	
11 . . . 21 40.5	2 . . . 23 58.6	67 . . . 2 12.0	γ . . . 15 15.4	ι . . . 12 47.2	
12 . . . 21 44.5	3 . . . 23 59.4	68 . . . 2 14.3	δ . . . 15 8.9	ι . . . 12 47.4	
13 . . . 21 51.5	6 . . . 0 6.2	69 . . . 2 16.8	ε . . . 15 9.2	ι . . . 12 48.4	
14 . . . 21 58.7	7 . . . 0 9.6	70 . . . 2 17.1	ζ . . . 14 46.2	ι . . . 12 54.0	
15 . . . 22 0.6	8 . . . 0 14.3	71 . . . 2 19.9	η . . . 14 56.4	ι . . . 12 55.5	
16 . . . 21 57.8	9 . . . 0 17.7	72 . . . 2 21.1	θ . . . 14 48.7	ι . . . 12 56.2	
17 . . . 22 0.9	10 . . . 0 21.5	73 . . . 2 22.8		ι . . . 13 1.5	
18 . . . 22 0.9	11 . . . 0 24.8	75 . . . 2 27.1		ι . . . 13 1.5	
19 . . . 22 2.1	12 . . . 0 24.9	76 . . . 2 27.4		ι . . . 13 2.4	
20 . . . 22 2.0	13 . . . 0 30.1	77 . . . 2 29.8		ι . . . 13 5.1	
21 . . . 22 7.4	14 . . . 0 30.4	78 . . . 2 30.6		ι . . . 13 7.2	
22 . . . 22 8.1	15 . . . 0 33.0	79 . . . 2 30.3			
23 . . . 22 11.4	16 . . . 0 38.6	80 . . . 2 31.1			
24 . . . 22 7.9	17 . . . 0 39.2	81 . . . 2 32.7			
25 . . . 22 14.9	18 . . . 0 40.5	82 . . . 2 34.4			
26 . . . 22 23.9	19 . . . 0 45.1	83 . . . 2 34.7			
27 . . . 22 25.5	20 . . . 0 47.9	84 . . . 2 36.1			
28 . . . 22 26.0	21 . . . 0 49.2	86 . . . 2 38.1			
29 . . . 22 29.0	22 . . . 0 51.0	87 . . . 2 39.5			
30 . . . 22 35.1	23 . . . 0 53.7	89 . . . 2 39.4			
31 . . . 22 33.3	25 . . . 0 58.0	91 . . . 2 54.4			
32 . . . 22 46.1	26 . . . 0 58.7	92 . . . 2 57.1			
33 . . . 23 4.7	27 . . . 1 0.6	93 . . . 2 57.1			
34 . . . 23 14.5	28 . . . 1 1.1	94 . . . 3 7.7			
35 . . . 23 35.2	29 . . . 1 2.8	95 . . . 3 13.3			
	30 . . . 1 2.7	96 . . . 3 14.1			
	31 . . . 1 3.6	97 . . . 3 15.9			
	32 . . . 1 5.2				
	33 . . . 1 5.4				
	34 . . . 1 6.7				
	35 . . . 1 7.4				
	36 . . . 1 7.8				
	37 . . . 1 9.4				

Corvus Corvi Crv Corv	Cygnus Cygni Cyg Cygn		Delphinus Delphini Del Dlph	Draco Draconis Dra Drac	
α . . 12 ^h 3.3 ^m	α . . 20 ^h 38.0 ^m	34 . . 20 ^h 14.1 ^m	α . . 20 ^h 35.0 ^m	α . . 14 ^h 1.7 ^m	36 . . 18 ^h 13.3 ^m
β . . 12 29.1	β . . 19 26.7	35 . . 20 14.8	β . . 20 32.9	β . . 17 28.2	37 . . 18 15.9
γ . . 12 10.7	γ . . 20 18.6	36 . . 20 14.7	γ . . 20 42.0	γ . . 17 54.3	38 . . 18 17.6
δ . . 12 24.7	δ . . 19 41.8	37 . . 20 18.6	δ . . 20 38.8	δ . . 19 12.5	39 . . 18 22.5
ϵ . . 12 5.0	ϵ . . 20 42.2	39 . . 20 19.9	ϵ . . 20 28.4	ϵ . . 19 48.5	40 . . 18 7.5
ζ . . 12 15.4	ζ . . 21 8.7	40 . . 20 23.9	ζ . . 20 30.6	ζ . . 17 8.5	41 . . 18 7.6
η . . 12 26.9	η . . 19 52.6	41 . . 20 25.3	η . . 20 29.2	η . . 16 22.6	42 . . 18 25.7
ι . . 12 3.3	θ . . 19 33.8	42 . . 20 25.5	θ . . 20 34.0	θ . . 16 0.0	43 . . 18 22.2
2 . . 12 5.0	ι . . 19 27.2	43 . . 20 24.0	ι . . 20 33.0	ι . . 15 22.7	44 . . 18 22.9
3 . . 12 5.9	κ . . 19 14.8	44 . . 20 27.2	κ . . 20 34.3	κ . . 12 29.2	45 . . 18 30.9
4 . . 12 10.7	λ . . 20 43.5	45 . . 20 27.0	ι . . 20 25.5	λ . . 11 25.5	46 . . 18 40.7
5 . . 12 15.4	μ . . 21 39.7	46 . . 20 28.2	2 . . 20 28.4	μ . . 17 3.3	47 . . 18 49.7
6 . . 12 18.2	ν . . 20 53.4	47 . . 20 30.0	3 . . 20 29.2	ν . . 17 30.3	48 . . 18 55.1
7 . . 12 24.7	ξ . . 21 1.3	48 . . 20 33.4	4 . . 20 30.6	ξ . . 17 51.8	49 . . 18 58.7
8 . . 12 26.9	θ^1 . . 20 10.4	49 . . 20 37.0	5 . . 20 33.0	θ . . 18 49.7	50 . . 18 49.6
9 . . 12 29.1	θ^2 . . 20 12.4	50 . . 20 38.0	6 . . 20 32.9	π . . 19 20.2	51 . . 19 2.7
	π^1 . . 21 38.5	51 . . 20 39.1	7 . . 20 34.3	ρ . . 20 2.4	52 . . 18 55.6
	π^2 . . 21 43.1	52 . . 20 41.5	8 . . 20 34.0	σ . . 19 32.6	53 . . 19 9.8
Crater Crateris Crt Crat	ρ . . 21 30.2	53 . . 20 42.2	9 . . 20 35.0	τ . . 19 17.5	54 . . 19 12.1
	σ . . 21 13.5	54 . . 20 43.5	10 . . 20 36.6	υ . . 18 55.6	55 . . 19 9.4
	τ . . 21 10.8	55 . . 20 45.5	11 . . 20 38.8	ϕ . . 18 22.2	57 . . 19 12.5
α . . 10 ^h 54.9 ^m	υ . . 21 13.8	56 . . 20 46.5	12 . . 20 42.0	χ . . 18 22.9	58 . . 19 20.2
β . . 11 6.7	ϕ . . 19 35.4	57 . . 20 49.7	13 . . 20 42.9	ψ . . 17 43.7	59 . . 19 12.8
γ . . 11 19.9	χ . . 19 46.7	58 . . 20 53.4	14 . . 20 44.9	ω . . 17 37.5	60 . . 19 17.5
δ . . 11 14.3	ψ . . 19 53.0	59 . . 20 56.4	15 . . 20 44.9	ι . . 11 25.5	61 . . 19 32.6
ϵ . . 11 19.6	ω^1 . . 20 27.0	60 . . 20 57.7	16 . . 20 50.9	2 . . 11 30.2	63 . . 19 48.5
ζ . . 11 39.7	ω^2 . . 20 28.2	61 . . 21 2.4	17 . . 20 50.9	3 . . 11 36.9	64 . . 20 0.4
η . . 11 50.9	ρ . . 20 14.1	62 . . 21 1.3	18 . . 20 53.6	4 . . 12 25.7	65 . . 20 1.2
θ . . 11 31.6	ι . . 19 14.8	63 . . 21 3.2		5 . . 12 29.2	66 . . 20 4.0
ι . . 11 33.6	2 . . 19 20.2	64 . . 21 8.7		6 . . 12 30.5	67 . . 20 2.4
κ . . 11 22.1	4 . . 19 22.6	65 . . 21 10.8		7 . . 12 43.5	68 . . 20 9.9
λ . . 11 18.4	6 . . 19 26.7	66 . . 21 13.8		8 . . 12 51.5	69 . . 20 2.4
7 . . 10 54.9	7 . . 19 25.0	67 . . 21 13.5		9 . . 12 56.1	71 . . 20 17.9
11 . . 11 6.7	8 . . 19 28.1	68 . . 21 14.7		10 . . 13 48.5	72 . . 20 21.8
12 . . 11 14.3	9 . . 19 30.9	69 . . 21 21.7		11 . . 14 1.7	73 . . 20 32.8
13 . . 11 18.4	10 . . 19 27.2	70 . . 21 23.3		12 . . 15 22.7	74 . . 20 35.2
14 . . 11 19.6	11 . . 19 32.2	71 . . 21 25.8		13 . . 16 0.0	75 . . 20 34.5
15 . . 11 19.9	12 . . 19 35.4	72 . . 21 30.7	Dorado Doradus Dor Dora	14 . . 16 22.6	76 . . 20 49.8
16 . . 11 22.1	13 . . 19 33.8	73 . . 21 30.2		15 . . 16 28.2	
21 . . 11 31.6	14 . . 19 36.2	74 . . 21 32.9		16 . . 16 33.8	
24 . . 11 33.6	15 . . 19 40.7	75 . . 21 36.3		17 . . 16 33.9	
27 . . 11 39.7	16 . . 19 39.2	76 . . 21 37.5	α . . 4 ^h 31.8 ^m	18 . . 16 40.2	Equuleus Equulei Equ Equl
30 . . 11 50.9	17 . . 19 42.6	77 . . 21 38.4	β . . 5 32.8	19 . . 16 55.5	
	18 . . 19 41.8	78 . . 21 39.7	γ . . 4 13.4	20 . . 16 55.9	
	19 . . 19 47.0	79 . . 21 39.3	δ . . 5 44.6	21 . . 17 3.3	
	20 . . 19 48.1	80 . . 21 38.5	ϵ . . 5 50.0	22 . . 17 8.5	
	21 . . 19 52.6	81 . . 21 43.1	ζ . . 5 3.8	23 . . 17 28.2	α . . 21 ^h 10.8 ^m
	22 . . 19 52.3		η^1 . . 6 6.0	24 . . 17 30.2	β . . 21 17.9
	23 . . 19 51.2		η^2 . . 6 11.0	25 . . 17 30.3	γ . . 21 5.5
	24 . . 19 53.0		θ . . 5 13.8	26 . . 17 34.0	δ . . 21 9.6
	25 . . 19 56.2		κ . . 4 42.9	27 . . 17 32.4	ι . . 20 54.1
	26 . . 19 58.5		λ . . 5 24.8	28 . . 17 37.5	2 . . 20 57.3
	27 . . 20 2.6		ν . . 6 9.4	29 . . 17 35.5	3 . . 20 59.6
	28 . . 20 5.7		π^1 . . 6 23.6	30 . . 17 46.7	4 . . 21 0.5
	29 . . 20 10.8		π^2 . . 6 26.3	31 . . 17 43.7	5 . . 21 5.5
	30 . . 20 10.2			32 . . 17 51.8	6 . . 21 5.7
	31 . . 20 10.5			33 . . 17 54.3	7 . . 21 9.6
	32 . . 20 12.4			34 . . 17 56.9	8 . . 21 10.8
	33 . . 20 11.1			35 . . 17 53.9	9 . . 21 16.1
					10 . . 21 17.9
α . . 12 ^h 21.0 ^m					
β . . 12 41.9					
γ . . 12 25.6					
δ . . 12 9.8					
ϵ . . 12 16.0					
ζ . . 12 13.0					
η . . 12 1.7					
θ^1 . . 11 57.9					
θ^2 . . 11 59.2					
ι . . 12 39.8					
κ . . 12 47.8					
λ . . 12 48.7					
μ . . 12 48.7					

Eridanus Eridani Eri Erid		Fornax Fornacis For Forn		Gemini Geminorum Gem Gemi		Grus Gruis Gru Grus	
h	m	h	m	h	m	h	m
α	1 34.0	α	3 7.8	α	7 28.2	α	22 1.9
β	5 2.9	β	2 44.9	β	7 39.2	β	22 36.7
γ	3 53.4	γ ¹	2 45.4	γ	6 31.9	γ	21 47.9
δ	3 38.5	γ ²	2 45.6	δ	7 14.2	δ ¹	22 23.3
ε	3 28.2	δ	3 38.3	ε	6 37.8	δ ²	22 23.8
ζ	3 11.0	ε	2 57.3	ζ	6 58.2	ε	22 42.5
η	2 51.5	ζ	2 55.2	η	6 8.8	ζ	22 55.0
θ	2 54.5	η ¹	2 43.5	θ	6 46.2	η	22 39.5
ι	2 36.7	η ²	2 46.2	ι	7 19.5	θ	23 1.2
κ	2 23.3	η ³	2 46.6	κ	7 38.4	ι	23 4.7
λ	5 4.4	ι ¹	2 31.8	λ	7 12.3	κ	22 58.7
μ	4 40.5	ι ²	2 34.0	μ	6 16.9	λ	22 0.1
ν	4 31.3	κ	2 18.0	ν	6 23.0	μ	22 9.6
ξ	4 18.7	λ ¹	2 28.9	ξ	6 39.7	μ ²	22 10.4
ο ¹	4 7.0	λ ²	2 32.8	ο	7 32.6	ν	22 22.8
ο ²	4 10.7	μ	2 8.5	π	7 41.1	ξ	21 25.8
π	3 41.4	ν	2 0.0	ρ	7 22.7	ο	23 21.0
ρ ¹	2 56.2	π	1 56.8	σ	7 37.1	π	22 17.0
ρ ²	2 57.8	ρ	3 43.9	τ	7 4.8	ρ	22 37.7
ρ ³	2 59.4	σ	3 42.4	υ	7 29.8	τ ¹	22 47.7
τ ¹	2 40.4	τ	3 34.6	φ	7 47.4	τ ²	22 49.4
τ ²	2 46.5	φ	2 23.8	χ	7 57.4	τ ³	22 51.0
τ ³	2 58.0	χ ¹	3 22.1	ω	6 56.3	υ	23 1.3
τ ⁴	3 15.1	χ ²	3 23.7	ι	5 58.0	φ	23 12.6
τ ⁵	3 29.4	χ ³	3 24.3	2	6 0.7		
τ ⁶	3 42.5	ψ	2 49.6	3	6 3.7		
τ ⁷	3 43.4	ω	2 29.4	4	6 4.4		
τ ⁸	3 49.4			5	6 5.4		
τ ⁹	3 55.7			6	6 6.3		
υ ¹	4 29.6			7	6 8.8		
υ ²	4 31.7			8	6 10.2		
φ	2 12.9			9	6 10.9		
χ	1 52.1			10	6 12.8		
ψ	4 56.6			11	6 13.2		
ω	4 48.0			12	6 13.3		
1	2 40.4			13	6 16.9		
2	2 46.5			14	6 19.7		
3	2 51.5			15	6 21.8		
4	2 52.9			16	6 22.0		
5	2 54.6			18	6 23.0		
6	2 53.6			19	6 25.9		
7	2 55.8			20	6 26.5		
8	2 56.2			22	6 28.8		
9	2 57.8			23	6 30.2		
10	2 59.4			24	6 31.9		
11	2 58.0			25	6 35.0		
13	3 11.0			26	6 36.6		
14	3 11.7			27	6 37.8		
15	3 13.9			28	6 38.4		
16	3 15.1			30	6 38.3		
17	3 25.6			31	6 39.7		
18	3 28.2			32	6 40.3		
19	3 29.4			33	6 44.1		
20	3 31.7			34	6 46.2		
21	3 34.1			35	6 44.8		
22	3 35.7			36	6 45.6		
23	3 38.5			37	6 49.2		
24	3 39.4			38	6 49.0		
25	3 39.8			39	6 52.6		
26	3 41.4			40	6 53.3		

Hercules Herculis Her Herc			Hydra Hydrae Hya Hyda			Indus Indi Ind Indi		
α . . . 17 10.1	38 . . . 16 36.6	103 . . . 18 3.6	α . . . 9 22.7	35 . . . 9 34.7	α . . . 20 30.5			
β . . . 16 25.9	39 . . . 16 37.6	104 . . . 18 8.1	β . . . 11 47.8	37 . . . 9 34.9	β . . . 20 47.0			
γ . . . 16 17.5	40 . . . 16 37.5	105 . . . 18 15.1	γ . . . 13 13.5	38 . . . 9 35.5	γ . . . 21 19.1			
δ . . . 17 10.9	41 . . . 16 40.1	106 . . . 18 16.1	δ . . . 8 32.4	39 . . . 9 46.7	δ . . . 21 51.1			
ϵ . . . 16 56.5	42 . . . 16 36.0	107 . . . 18 17.1	ϵ . . . 8 41.5	40 . . . 10 0.3	ϵ . . . 21 55.7			
ζ . . . 16 37.5	43 . . . 16 41.0	108 . . . 18 17.1	ζ . . . 8 50.1	41 . . . 10 5.7	ζ . . . 20 42.6			
η . . . 16 39.5	44 . . . 16 39.5	109 . . . 18 19.4	η . . . 8 38.0	42 . . . 10 21.3	η . . . 20 36.7			
θ . . . 17 52.8	45 . . . 16 42.8	110 . . . 18 41.4	θ . . . 9 9.2	43 . . . 10 27.8	θ . . . 21 12.7			
ι . . . 17 36.6	46 . . . 16 41.1	111 . . . 18 42.6	ι . . . 9 34.7	44 . . . 10 29.3	ι . . . 20 44.3			
κ . . . 16 3.6	47 . . . 16 45.5	112 . . . 18 48.0	κ . . . 9 35.5	45 . . . 13 3.7	μ . . . 20 57.9			
λ . . . 17 26.7	48 . . . 16 45.4	113 . . . 18 50.5	λ . . . 10 5.7	46 . . . 13 13.5	ν . . . 22 16.0			
μ . . . 17 42.5	49 . . . 16 47.5		μ . . . 10 21.3	47 . . . 13 52.9	\omicron . . . 21 42.3			
ν . . . 17 54.7	50 . . . 16 46.7		ν . . . 10 44.7	48 . . . 13 54.4	ρ . . . 22 47.7			
ξ . . . 17 53.9	51 . . . 16 47.6		ξ . . . 11 28.1	49 . . . 14 0.7				
\omicron . . . 18 3.6	52 . . . 16 46.3		\omicron . . . 11 35.2	50 . . . 14 7.0				
π . . . 17 11.6	53 . . . 16 49.2		π . . . 14 0.7	51 . . . 14 17.3				
ρ . . . 17 20.2	54 . . . 16 51.0		ρ . . . 8 43.1	52 . . . 14 22.3				
σ . . . 16 30.9	56 . . . 16 50.9		σ . . . 8 33.5	54 . . . 14 40.2				
τ . . . 16 16.7	57 . . . 16 53.4		τ^1 . . . 9 24.1	55 . . . 14 41.5				
υ . . . 15 59.7	58 . . . 16 56.5		τ^2 . . . 9 26.9	56 . . . 14 41.9				
ϕ . . . 16 5.6	59 . . . 16 57.9		υ^1 . . . 9 46.7	57 . . . 14 42.1				
χ . . . 15 49.2	60 . . . 17 0.7	Horologium	υ^2 . . . 10 0.3	58 . . . 14 44.4	Lacerta			
ω . . . 16 20.8	61 . . . 16 59.9	Horologii	ϕ . . . 10 33.7	59 . . . 14 52.7	Lacertae			
g . . . 16 25.4	62 . . . 17 4.4	Hor Horo	χ^1 . . . 11 0.5	60 . . . 14 56.1	Lac Lacr			
u . . . 17 13.6	63 . . . 17 6.9		χ^2 . . . 11 1.1					
1 . . . 15 49.2	64 . . . 17 10.1	α . . . 4 10.7	ψ . . . 13 3.7		α . . . 22 ^h 27 ^m .2			
2 . . . 15 51.3	65 . . . 17 10.9	β . . . 2 56.9	ω . . . 9 0.7		β . . . 22 19.6			
4 . . . 15 52.1	67 . . . 17 11.6	δ . . . 4 7.5	1 . . . 8 19.6		1 . . . 22 11.6			
5 . . . 15 56.7	68 . . . 17 13.6	ζ . . . 2 37.5	2 . . . 8 21.4		2 . . . 22 16.9			
6 . . . 15 59.7	69 . . . 17 14.2	η . . . 2 34.1	3 . . . 8 30.6		3 . . . 22 19.6			
7 . . . 16 3.6	70 . . . 17 16.8	ι . . . 2 39.1	4 . . . 8 32.4		4 . . . 22 20.4			
8 . . . 16 4.3	72 . . . 17 16.9	λ . . . 2 22.1	5 . . . 8 33.5		5 . . . 22 25.4			
9 . . . 16 8.3	73 . . . 17 19.9	μ . . . 3 1.3	6 . . . 8 35.3		6 . . . 22 26.2			
10 . . . 16 7.4	74 . . . 17 17.5	ν . . . 2 46.8	7 . . . 8 38.0		7 . . . 22 27.2			
11 . . . 16 5.6	75 . . . 17 20.2		9 . . . 8 37.1		8 . . . 22 31.4			
12 . . . 16 9.9	76 . . . 17 26.7		10 . . . 8 39.7		9 . . . 22 33.3			
13 . . . 16 10.3	77 . . . 17 24.1		11 . . . 8 41.5		10 . . . 22 34.8			
14 . . . 16 7.2	78 . . . 17 27.9		12 . . . 8 41.6	Hydrus	11 . . . 22 36.1			
15 . . . 16 11.3	79 . . . 17 33.4		13 . . . 8 43.1	Hydri	12 . . . 22 37.0			
16 . . . 16 11.0	82 . . . 17 34.0		14 . . . 8 44.3	Hyi Hydi	13 . . . 22 39.6			
17 . . . 16 12.0	83 . . . 17 38.4		15 . . . 8 46.7		14 . . . 22 45.9			
18 . . . 16 13.6	84 . . . 17 39.3		16 . . . 8 50.1	α . . . 1 55.6	15 . . . 22 47.5			
19 . . . 16 14.2	85 . . . 17 36.6		17 . . . 8 50.6	β . . . 0 20.5	16 . . . 22 51.8			
20 . . . 16 17.5	86 . . . 17 42.5		18 . . . 9 0.7	γ . . . 3 48.8				
21 . . . 16 19.3	87 . . . 17 44.8		19 . . . 9 3.8	δ . . . 2 20.0				
22 . . . 16 16.7	88 . . . 17 47.4		20 . . . 9 4.7	ϵ . . . 2 38.0				
24 . . . 16 20.8	89 . . . 17 51.4		21 . . . 9 7.5	ζ . . . 2 44.0				
25 . . . 16 21.8	90 . . . 17 50.0		22 . . . 9 9.2	η^1 . . . 1 50.0				
26 . . . 16 24.2	91 . . . 17 52.8		23 . . . 9 11.7	η^2 . . . 1 52.4				
27 . . . 16 25.9	92 . . . 17 53.9		24 . . . 9 11.8	θ . . . 3 2.0				
28 . . . 16 27.7	93 . . . 17 55.6		25 . . . 9 12.7	ι . . . 3 18.4				
29 . . . 16 27.9	94 . . . 17 54.7		26 . . . 9 15.0	κ . . . 2 22.3				
30 . . . 16 25.4	95 . . . 17 57.3		27 . . . 9 15.6	λ . . . 0 45.1				
31 . . . 16 27.8	96 . . . 17 58.1		28 . . . 9 20.4	μ . . . 2 33.8				
32 . . . 16 29.6	97 . . . 17 58.3		29 . . . 9 22.3	ν . . . 2 51.1				
33 . . . 16 32.0	98 . . . 18 1.8		30 . . . 9 22.7	π^1 . . . 2 12.1				
34 . . . 16 27.4	99 . . . 18 3.2		31 . . . 9 24.1	π^2 . . . 2 13.4				
35 . . . 16 30.9	100 . . . 18 3.8		32 . . . 9 26.9	σ . . . 1 56.0				
36 . . . 16 35.6	101 . . . 18 4.6		33 . . . 9 29.6	τ^1 . . . 1 41.3				
37 . . . 16 35.7	102 . . . 18 4.5		34 . . . 9 32.9	τ^2 . . . 1 48.7				

Leo Leonis Leo Leon		Leo Minor Leonis Minoris LMi LMin		Lepus Leporis Lep Leps		Libra Librae Lib Libr	
h	m	h	m	h	m	h	m
α	10 3.0	40	10 14.3	β	10 22.1	α	14 45.3
β	11 44.0	41	10 14.5	7	9 24.7	β	15 11.6
γ	10 14.5	42	10 16.5	8	9 25.5	γ	15 29.9
δ	11 8.8	43	10 17.8	9	9 27.4	δ	14 55.6
ε	9 40.2	44	10 20.0	10	9 28.1	ε	15 18.8
ζ	10 11.1	45	10 22.4	11	9 29.7	ζ	15 27.3
η	10 1.9	46	10 26.9	13	9 36.7	η	15 38.4
θ	11 9.0	47	10 27.5	16	9 44.1	θ	15 48.1
ι	11 18.7	48	10 29.6	17	9 46.3	ι	15 6.5
κ	9 18.8	49	10 29.8	19	9 51.6	κ	15 36.2
λ	9 26.0	50	10 33.5	20	9 55.2	λ	15 47.5
μ	9 47.1	51	10 41.0	21	10 1.5	μ	14 43.8
ν	9 52.8	52	10 41.1	22	10 9.4	ν	15 1.0
ξ	9 26.6	53	10 44.0	23	10 10.6	ξ ¹	14 49.0
ο	9 35.8	54	10 50.2	24	10 10.8	ξ ²	14 51.3
π	9 54.9	55	10 50.6	26	10 17.3	ο	15 15.4
ρ	10 27.5	56	10 50.8	27	10 17.4	σ	14 58.2
σ	11 16.0	57	10 51.0	28	10 18.4	τ	15 32.5
τ	11 22.8	58	10 55.4	29	10 20.0	υ	15 31.0
υ	11 31.8	59	10 55.6	30	10 20.2	2	14 18.0
φ	11 11.6	60	10 57.0	31	10 22.1	3	14 33.6
χ	10 59.9	61	10 56.7	32	10 24.3	4	14 37.4
ψ	9 38.3	62	10 58.5	33	10 26.2	5	14 40.4
ω	9 23.1	63	10 59.9	34	10 27.8	7	14 43.8
1	9 18.8	64	11 2.3	35	10 30.6	8	14 45.2
2	9 23.1	65	11 1.8	36	10 32.2	9	14 45.3
3	9 23.2	66	11 4.1	37	10 33.1	10	14 46.2
4	9 26.0	67	11 3.5	38	10 33.4	11	14 45.8
5	9 26.6	68	11 8.8	39	10 34.8	12	14 48.5
6	9 26.6	69	11 8.6	40	10 37.5	13	14 49.0
7	9 30.4	70	11 9.0	41	10 38.0	15	14 51.3
8	9 31.5	71	11 17.3	42	10 40.3	16	14 52.0
9	9 32.1	72	11 9.9	43	10 43.4	17	14 52.8
10	9 31.9	73	11 10.6	44	10 44.4	18	14 53.5
11	9 32.6	74	11 11.6	45	10 47.3	19	14 55.6
12	9 33.5	75	11 12.1	46	10 47.7	20	14 58.2
13	9 35.9	76	11 13.8	48	10 49.3	21	15 1.0
14	9 35.8	77	11 16.0	50	10 51.2	22	15 1.2
15	9 37.7	78	11 18.7	51	10 59.9	23	15 7.7
16	9 38.3	79	11 18.9			24	15 6.5
17	9 40.2	80	11 20.7			25	15 7.6
18	9 41.0	81	11 20.4			26	15 8.9
19	9 42.1	82	11 20.5			27	15 11.6
20	9 44.2	83	11 21.7			28	15 15.2
21	9 45.4	84	11 22.8			29	15 15.4
22	9 46.2	85	11 24.5			30	15 17.4
23	9 45.6	86	11 25.3			31	15 18.8
24	9 47.1	87	11 25.2			32	15 22.6
26	9 52.8	88	11 26.6			33	15 23.9
27	9 52.8	89	11 29.3			34	15 25.0
29	9 54.9	90	11 29.5			35	15 27.3
30	10 1.9	91	11 31.8			36	15 28.6
31	10 2.6	92	11 35.6			37	15 28.7
32	10 3.0	93	11 42.8			38	15 29.9
33	10 5.3	94	11 44.0			39	15 31.0
34	10 6.3	95	11 50.5			40	15 32.5
35	10 11.0					41	15 33.2
36	10 11.1					42	15 34.4
37	10 11.3					43	15 36.2
39	10 11.8					44	15 38.4

Lupus Lupi Lup Lupi	
h	m
α	14 35.3
β	14 52.0
γ	15 28.5
δ	15 14.8
ε	15 15.9
ζ	15 5.1
η	15 53.5
θ	16 0.0
ι	14 13.0
κ	15 5.0
λ	15 2.1
μ	15 11.6
ν ¹	15 15.2
ν ²	15 15.1
ξ	15 50.5
ο	14 45.1
π	14 58.3
ρ	14 31.2
σ	14 25.9
τ ¹	14 19.7
τ ²	14 19.7
υ	15 18.2
φ ¹	15 15.5
φ ²	15 16.8
χ	15 44.6
ψ ¹	15 33.4
ψ ²	15 36.3
ω	15 31.3
1	15 8.5
2	15 11.7
3	15 33.4
4	15 36.3
5	15 44.6

Lynx Lyncis Lyn Lync	Lyra Lyræ Lyr Lyra	Microscopium Microscopii Mic Micr	Musca Muscae Mus Musc	Ophiuchus Ophiuchi Oph Ophi
α . . . 9 ^h 15.0 ^m	α . . . 18 ^h 33.6 ^m	α . . . 20 ^h 43.7 ^m	α . . . 12 ^h 31.2 ^m	α . . . 17 ^h 30.3 ^m 44 . . . 17 ^h 20.3 ^m
1 . . . 6 8.7	β . . . 18 46.4	β . . . 20 45.8	β . . . 12 40.1	β . . . 17 38.5 45 . . . 17 21.0
2 . . . 6 10.8	γ . . . 18 55.2	γ . . . 20 55.2	γ . . . 12 26.5	γ . . . 17 42.9 49 . . . 17 21.6
3 . . . 6 12.9	δ ¹ . . . 18 50.2	δ . . . 21 0.0	δ . . . 12 55.4	δ . . . 16 9.1 50 . . . 17 24.7
4 . . . 6 13.2	δ ² . . . 18 51.0	ε . . . 21 11.9	ε . . . 12 12.2	ε . . . 16 13.0 51 . . . 17 25.3
5 . . . 6 18.1	ε ¹ . . . 18 41.0	ζ . . . 20 56.6	ζ ¹ . . . 12 16.6	ζ . . . 16 31.7 52 . . . 17 29.3
6 . . . 6 22.1	ε ² . . . 18 41.1	η . . . 20 59.9	ζ ² . . . 12 16.6	η . . . 17 4.6 53 . . . 17 29.9
7 . . . 6 26.2	ζ . . . 18 41.3	θ ¹ . . . 21 14.4	η . . . 13 8.5	θ . . . 17 15.9 54 . . . 17 29.8
8 . . . 6 28.6	η . . . 19 10.4	θ ² . . . 21 18.0	θ . . . 13 1.7	ι . . . 16 49.3 55 . . . 17 30.3
9 . . . 6 27.6	θ . . . 19 12.9	ι . . . 20 41.7	ι ¹ . . . 13 17.2	κ . . . 16 52.9 56 . . . 17 30.4
10 . . . 6 29.4	ι . . . 19 3.7	ν . . . 20 27.0	ι ² . . . 13 19.3	λ . . . 16 25.9 57 . . . 17 32.4
11 . . . 6 29.1	κ . . . 18 16.4		λ . . . 11 40.9	μ . . . 17 32.4 58 . . . 17 37.4
12 . . . 6 37.4	λ . . . 18 56.2		μ . . . 11 43.4	ν . . . 17 53.5 60 . . . 17 38.5
13 . . . 6 38.3	μ . . . 18 20.9			ξ . . . 17 15.0 61 . . . 17 39.5
14 . . . 6 44.3	ν . . . 18 46.1			ο . . . 17 11.9 62 . . . 17 42.9
15 . . . 6 48.6	ι . . . 18 16.4			ρ . . . 16 19.6 64 . . . 17 53.5
16 . . . 6 50.3	2 . . . 18 20.9			σ . . . 17 21.6 66 . . . 17 55.3
17 . . . 7 0.7	3 . . . 18 33.6			τ . . . 17 57.6 67 . . . 17 55.6
18 . . . 7 7.2	4 . . . 18 41.0			υ . . . 16 22.4 68 . . . 17 56.7
19 . . . 7 14.7	5 . . . 18 41.1			φ . . . 16 25.4 69 . . . 17 57.6
20 . . . 7 14.6	6 . . . 18 41.3			χ . . . 16 21.2 70 . . . 18 0.4
21 . . . 7 19.2	7 . . . 18 41.4			ψ . . . 16 18.3 71 . . . 18 2.5
22 . . . 7 22.3	8 . . . 18 46.0			ω . . . 16 26.2 72 . . . 18 2.6
23 . . . 7 32.6	9 . . . 18 46.1			1 . . . 16 9.1 73 . . . 18 4.6
24 . . . 7 34.5	10 . . . 18 46.4			2 . . . 16 13.0 74 . . . 18 15.9
25 . . . 7 47.2	11 . . . 18 50.2			
26 . . . 7 47.4	12 . . . 18 51.0			
27 . . . 8 0.9	13 . . . 18 52.3			
28 . . . 8 0.2	14 . . . 18 55.2			
29 . . . 8 9.5	15 . . . 18 56.2			
30 . . . 8 12.4	16 . . . 18 58.6			
31 . . . 8 16.0	17 . . . 19 3.6			
32 . . . 8 27.0	18 . . . 19 3.7			
33 . . . 8 28.3	19 . . . 19 7.9			
34 . . . 8 34.1	20 . . . 19 10.4			
35 . . . 8 45.2	21 . . . 19 12.9			
36 . . . 9 7.3				
38 . . . 9 12.6				
40 . . . 9 15.0				
42 . . . 9 32.1				
43 . . . 9 35.8				
	Mensa Mensae Men Mens			
	α . . . 6 ^h 13.2 ^m			
	β . . . 5 4.0			
	γ . . . 5 35.8			
	δ . . . 4 24.7			
	ε . . . 7 31.2			
	ζ . . . 6 48.4			
	η . . . 4 58.1			
	θ . . . 7 2.9			
	ι . . . 5 41.7			
	κ . . . 5 57.0			
	μ . . . 4 44.1			
	ν . . . 4 29.8			
	ξ . . . 5 10.2			
	π . . . 5 45.1			
		Monoceros Monocerotis Mon Mono		
		α . . . 7 ^h 36.5 ^m		
		β . . . 6 24.0		
		γ . . . 6 10.0		
		δ . . . 7 6.8		
		ε . . . 6 18.5		
		ζ . . . 8 3.6		
		1 . . . 5 54.3		
		2 . . . 5 54.3		
		3 . . . 5 57.1		
		5 . . . 6 10.0		
		6 . . . 6 12.9		
		7 . . . 6 14.9		
		8 . . . 6 18.5		
		9 . . . 6 22.1		
		10 . . . 6 23.0		
		11 . . . 6 24.0		
		12 . . . 6 27.0		
		13 . . . 6 27.5		
		14 . . . 6 29.4		
		15 . . . 6 35.5		
		16 . . . 6 41.1		
		17 . . . 6 41.9		
		18 . . . 6 42.6		
		19 . . . 6 57.9		
		20 . . . 7 5.3		
		21 . . . 7 6.3		
		22 . . . 7 6.8		
		23 . . . 7 8.2		
		24 . . . 7 10.2		
		25 . . . 7 32.3		
		26 . . . 7 36.5		
		27 . . . 7 54.7		
		28 . . . 7 56.1		
		29 . . . 8 3.6		
			Norma Normae Nor Norm	
			γ ¹ . . . 16 ^h 9.5 ^m	
			γ ² . . . 16 12.4	
			δ . . . 15 59.4	
			ε . . . 16 19.8	
			η . . . 15 55.9	
			θ . . . 16 8.0	
			ι ¹ . . . 15 55.4	
			ι ² . . . 16 1.1	
			κ . . . 16 5.6	
			λ . . . 16 12.3	
			μ . . . 16 27.0	
				Octans Octantis Oct Octr
			α . . . 20 ^h 52.6 ^m	
			β . . . 22 35.8	
			γ ¹ . . . 23 46.2	
			γ ² . . . 23 52.1	
			γ ³ . . . 0 5.5	
			δ . . . 14 10.9	
			ε . . . 22 8.8	
			ζ . . . 9 11.2	
			η . . . 11 0.0	
			θ . . . 23 56.5	
			ι . . . 12 44.4	
			κ . . . 13 24.7	
			λ . . . 21 35.6	
			μ ¹ . . . 20 29.7	
			μ ² . . . 20 29.8	
			ν . . . 21 30.4	
			ξ . . . 22 41.1	
			π ¹ . . . 14 44.2	
			π ² . . . 14 47.3	
			ρ . . . 15 20.2	
			σ . . . 18 59.7	
			τ . . . 23 13.2	
			υ . . . 22 12.6	
			φ . . . 18 10.2	
			χ . . . 17 56.1	
			ψ . . . 22 8.1	
			ω . . . 14 49.3	

Orion Orionis Ori Orio		Pavo Pavonis Pav Pavo		Pegasus Pegasi Peg Pegs	
α . . . 5 ^h 49.8 ^m	30 . . . 5 ^h 21.6 ^m	α . . . 20 ^h 17.7 ^m	α . . . 22 ^h 59.8 ^m	40 . . . 22 ^h 34.0 ^m	
β . . . 5 9.7	31 . . . 5 24.6	β . . . 20 36.0	β . . . 22 58.9	41 . . . 22 34.9	
γ . . . 5 19.8	32 . . . 5 25.4	γ . . . 21 18.2	γ . . . 0 8.1	42 . . . 22 36.5	
δ . . . 5 26.9	33 . . . 5 26.0	δ . . . 19 58.9	ε . . . 21 39.3	43 . . . 22 37.1	
ε . . . 5 31.1	34 . . . 5 26.9	ε . . . 19 49.0	ζ . . . 22 36.5	44 . . . 22 38.3	
ζ . . . 5 35.7	35 . . . 5 28.2	ζ . . . 18 31.4	η . . . 22 38.3	45 . . . 22 40.6	
η . . . 5 19.4	36 . . . 5 27.1	η . . . 17 35.9	θ . . . 22 5.2	46 . . . 22 41.7	
η ¹ . . . 5 30.4	37 . . . 5 29.3	θ . . . 18 38.8	ι . . . 22 2.4	47 . . . 22 41.7	
θ ² . . . 5 30.5	38 . . . 5 29.0	ι . . . 18 1.2	κ . . . 21 40.1	48 . . . 22 45.2	
ι . . . 5 30.5	39 . . . 5 29.6	κ . . . 18 46.6	λ . . . 22 41.7	49 . . . 22 47.3	
κ . . . 5 43.0	40 . . . 5 31.4	λ . . . 18 43.0	μ . . . 22 45.2	50 . . . 22 50.2	
λ . . . 5 29.6	41 . . . 5 30.4	μ ¹ . . . 18 50.7	ν . . . 22 0.6	51 . . . 22 52.6	
μ . . . 5 56.9	42 . . . 5 30.5	μ ² . . . 18 52.2	ξ . . . 22 41.7	52 . . . 22 54.2	
ν . . . 6 1.9	43 . . . 5 30.5	ν . . . 18 22.0	ο . . . 22 37.1	53 . . . 22 58.9	
ξ . . . 6 6.3	44 . . . 5 30.5	ξ . . . 18 14.0	π . . . 22 5.5	54 . . . 22 59.8	
ο ¹ . . . 4 46.9	45 . . . 5 30.7	ο . . . 21 4.0	ρ . . . 22 50.2	55 . . . 23 2.0	
ο ² . . . 4 50.7	46 . . . 5 31.1	π . . . 17 59.0	σ . . . 22 47.3	56 . . . 23 2.2	
π ¹ . . . 4 49.4	47 . . . 5 33.9	ρ . . . 20 29.2	τ . . . 23 15.7	57 . . . 23 4.5	
π ² . . . 4 45.2	48 . . . 5 33.7	σ . . . 20 39.8	υ . . . 23 20.4	58 . . . 23 5.0	
π ³ . . . 4 44.4	49 . . . 5 34.0	τ . . . 19 5.8	φ . . . 23 47.4	59 . . . 23 6.7	
π ⁴ . . . 4 45.9	50 . . . 5 35.7	υ . . . 20 32.8	χ . . . 0 9.4	60 . . . 23 7.0	
π ⁵ . . . 4 49.0	51 . . . 5 37.3	φ ¹ . . . 20 27.3	ψ . . . 23 52.7	61 . . . 23 10.9	
π ⁶ . . . 4 53.4	52 . . . 5 42.6	φ ² . . . 20 31.8	ι . . . 21 17.5	62 . . . 23 15.7	
ρ . . . 5 8.1	53 . . . 5 43.0	ω . . . 18 49.7	2 . . . 21 25.4	63 . . . 23 15.9	
σ . . . 5 33.7	54 . . . 5 48.5		3 . . . 21 32.7	64 . . . 23 17.0	
τ . . . 5 12.8	55 . . . 5 46.5		4 . . . 21 33.5	65 . . . 23 17.7	
υ . . . 5 27.1	56 . . . 5 47.2		5 . . . 21 33.1	66 . . . 23 18.0	
φ ¹ . . . 5 29.3	57 . . . 5 49.0		7 . . . 21 37.3	67 . . . 23 20.0	
φ ² . . . 5 31.4	58 . . . 5 49.8		8 . . . 21 39.3	68 . . . 23 20.4	
χ ¹ . . . 5 48.5	59 . . . 5 53.2		9 . . . 21 39.8	69 . . . 23 22.7	
χ ² . . . 5 58.0	60 . . . 5 53.7		10 . . . 21 40.1	70 . . . 23 24.1	
ψ . . . 5 21.6	61 . . . 5 56.9		11 . . . 21 42.2	71 . . . 23 28.5	
ω . . . 5 33.9	62 . . . 5 58.0		12 . . . 21 41.5	72 . . . 23 29.0	
1 . . . 4 44.4	63 . . . 5 59.6		13 . . . 21 45.4	73 . . . 23 29.7	
2 . . . 4 45.2	64 . . . 5 57.5		14 . . . 21 45.4	74 . . . 23 32.6	
3 . . . 4 45.9	66 . . . 5 59.7		15 . . . 21 48.0	75 . . . 23 32.9	
4 . . . 4 46.9	67 . . . 6 1.9		16 . . . 21 48.5	76 . . . 23 37.7	
5 . . . 4 48.2	68 . . . 6 6.1		17 . . . 21 52.1	77 . . . 23 38.3	
6 . . . 4 49.2	69 . . . 6 6.3		18 . . . 21 55.1	78 . . . 23 39.0	
7 . . . 4 49.4	70 . . . 6 6.3		19 . . . 21 56.2	79 . . . 23 44.6	
8 . . . 4 49.0	71 . . . 6 9.0		20 . . . 21 56.2	80 . . . 23 46.2	
9 . . . 4 50.7	72 . . . 6 9.7		21 . . . 21 58.4	81 . . . 23 47.4	
10 . . . 4 53.4	73 . . . 6 10.1		22 . . . 22 0.6	82 . . . 23 47.5	
11 . . . 4 58.9	74 . . . 6 10.8		23 . . . 22 1.0	83 . . . 23 47.6	
13 . . . 5 2.2	75 . . . 6 11.6		24 . . . 22 2.4	84 . . . 23 52.7	
14 . . . 5 2.4			25 . . . 22 3.1	85 . . . 23 56.9	
15 . . . 5 4.0			26 . . . 22 5.2	86 . . . 0 0.6	
16 . . . 5 3.8			27 . . . 22 4.8	87 . . . 0 3.9	
17 . . . 5 8.1			28 . . . 22 5.8	88 . . . 0 8.1	
18 . . . 5 10.5			29 . . . 22 5.5	89 . . . 0 9.4	
19 . . . 5 9.7			30 . . . 22 15.4		
20 . . . 5 12.8			31 . . . 22 16.6		
21 . . . 5 14.0			32 . . . 22 16.7		
22 . . . 5 16.7			33 . . . 22 18.8		
23 . . . 5 17.6			34 . . . 22 21.5		
24 . . . 5 19.8			35 . . . 22 22.8		
25 . . . 5 19.6			36 . . . 22 24.1		
27 . . . 5 19.4			37 . . . 22 24.9		
28 . . . 5 19.4			38 . . . 22 25.5		
29 . . . 5 19.1			39 . . . 22 27.8		

Perseus Persei Per Pers		Phoenix Phoenicis Phe Phoe		Pisces Piscium Psc Pisc	
α . . 3 ^h 17.2 ^m	40 . . 3 ^h 36.0 ^m	α . . 0 ^h 21.3 ^m	α . . 1 ^h 56.9 ^m	36 . . 0 ^h 11.4 ^m	98 . . 1 ^h 24.9 ^m
β . . 3 1.7	41 . . 3 38.4	β . . 1 1.6	β . . 22 58.8	37 . . 0 11.6	99 . . 1 26.1
γ . . 2 57.6	42 . . 3 43.2	γ . . 1 24.0	γ . . 23 12.0	38 . . 0 12.3	100 . . 1 29.5
δ . . 3 35.8	43 . . 3 49.2	δ . . 1 27.1	δ . . 0 43.5	39 . . 0 12.6	101 . . 1 30.4
ϵ . . 3 51.1	44 . . 3 47.8	ϵ . . 0 4.3	ϵ . . 0 57.8	40 . . 0 14.8	102 . . 1 31.8
ζ . . 3 47.8	45 . . 3 51.1	ζ . . 1 4.2	ζ . . 1 8.5	41 . . 0 15.5	103 . . 1 33.9
η . . 2 43.4	46 . . 3 52.5	η . . 0 38.9	η . . 1 26.1	42 . . 0 17.3	104 . . 1 33.9
θ . . 2 37.4	47 . . 3 59.1	θ . . 23 29.7	θ . . 23 22.9	43 . . 0 19.5	105 . . 1 34.3
ι . . 3 1.8	48 . . 4 1.4	κ . . 0 21.3	ι . . 23 34.8	44 . . 0 20.3	106 . . 1 36.2
κ . . 3 2.7	49 . . 4 1.6	λ^1 . . 0 26.6	κ . . 23 21.8	45 . . 0 20.5	107 . . 1 37.1
λ . . 3 59.1	50 . . 4 1.9	λ^2 . . 0 30.9	λ . . 23 36.9	46 . . 0 22.8	109 . . 1 39.5
μ . . 4 7.6	51 . . 4 7.6	μ . . 0 36.6	μ . . 1 24.9	47 . . 0 22.8	110 . . 1 40.1
ν . . 3 38.4	52 . . 4 8.1	ν . . 1 10.7	ν . . 1 36.2	48 . . 0 23.0	111 . . 1 48.4
ξ . . 3 52.5	53 . . 4 14.3	ξ . . 0 37.2	ξ . . 1 48.4	49 . . 0 25.6	112 . . 1 55.0
\omicron . . 3 38.0	54 . . 4 13.9	π . . 23 53.7	\omicron . . 1 40.1	51 . . 0 27.2	113 . . 1 56.9
π . . 2 52.4	55 . . 4 18.0	ρ . . 0 46.1	π . . 1 31.8	52 . . 0 27.3	
ρ . . 2 58.8	56 . . 4 18.1	σ . . 23 42.0	ρ . . 1 20.9	53 . . 0 31.6	
σ . . 3 23.5	57 . . 4 26.4	τ . . 23 55.9	σ . . 0 57.3	54 . . 0 34.2	
τ . . 2 47.2	58 . . 4 29.8	υ . . 1 3.2	τ . . 1 6.2	55 . . 0 34.7	
ϕ . . 1 37.4	59 . . 4 35.8	υ . . 1 50.2	υ . . 1 14.0	57 . . 0 41.3	
χ . . 2 15.1		ϕ . . 1 57.7	ϕ . . 1 8.3	58 . . 0 41.8	
ψ . . 3 29.4	b . . 4 10.7	ψ . . 1 49.6	χ . . 1 6.1	59 . . 0 41.9	
ω . . 3 4.8			ψ^1 . . 1 0.3	60 . . 0 42.2	
1 . . 1 45.4			ψ^2 . . 1 2.6	61 . . 0 42.6	
2 . . 1 45.8			ψ^3 . . 1 4.5	62 . . 0 43.1	
3 . . 1 52.2			ω . . 23 54.2	63 . . 0 43.5	
4 . . 1 55.6			1 . . 22 49.9	64 . . 0 43.7	
5 . . 2 4.5			2 . . 22 54.3	65 . . 0 44.5	
7 . . 2 11.0			3 . . 22 55.5	66 . . 0 49.3	
8 . . 2 10.9			4 . . 22 58.8	67 . . 0 50.6	
9 . . 2 15.4			5 . . 23 3.6	68 . . 0 52.4	
10 . . 2 18.2			6 . . 23 12.0	69 . . 0 57.3	
11 . . 2 35.9			7 . . 23 15.2	70 . . 0 56.9	
12 . . 2 35.9			8 . . 23 21.8	71 . . 0 57.8	
13 . . 2 37.4			9 . . 23 22.1	72 . . 0 59.8	
14 . . 2 37.6			10 . . 23 22.9	73 . . 0 59.7	
15 . . 2 43.4			11 . . 23 24.3	74 . . 1 0.3	
16 . . 2 44.3			12 . . 23 24.4	75 . . 1 1.3	
17 . . 2 45.3			13 . . 23 26.8	76 . . 1 0.7	
18 . . 2 47.2			14 . . 23 29.0	77 . . 1 0.7	
20 . . 2 47.4			15 . . 23 30.4	78 . . 1 2.5	
21 . . 2 51.2			16 . . 23 31.3	79 . . 1 2.6	
22 . . 2 52.4			17 . . 23 34.8	80 . . 1 3.2	
23 . . 2 57.6			18 . . 23 36.9	81 . . 1 4.5	
24 . . 2 52.9			19 . . 23 41.3	82 . . 1 5.6	
25 . . 2 58.8			20 . . 23 42.8	83 . . 1 6.2	
26 . . 3 1.7			21 . . 23 44.3	84 . . 1 6.1	
27 . . 3 2.7			22 . . 23 46.8	85 . . 1 8.3	
28 . . 3 4.8			24 . . 23 47.8	86 . . 1 8.5	
29 . . 3 11.5			25 . . 23 48.0	87 . . 1 8.8	
30 . . 3 11.1			26 . . 23 50.0	88 . . 1 9.5	
31 . . 3 12.0			27 . . 23 53.6	89 . . 1 12.6	
32 . . 3 14.7			28 . . 23 54.2	90 . . 1 14.0	
33 . . 3 17.2			29 . . 23 56.7	91 . . 1 15.6	
34 . . 3 22.2			30 . . 23 56.8	92 . . 1 18.5	
35 . . 3 23.5			31 . . 23 57.3	93 . . 1 20.9	
36 . . 3 25.5			32 . . 23 57.4	94 . . 1 21.3	
37 . . 3 29.4			33 . . 0 0.2	95 . . 1 22.5	
38 . . 3 38.0			34 . . 0 4.9	96 . . 1 23.8	
39 . . 3 35.8			35 . . 0 9.8	97 . . 1 24.5	

Piscis Austrinus Piscis Austrini PscA PscA		Puppis Puppis Pup Pupp	Reticulum Reticuli Ret Reti	Sagittarius Sagittarii Sgr Sgtr		Scorpius Scorpii Sco Scor
		ζ . . . 8 ^h 0.1 ^m	α . . . 4 ^h 13.1 ^m	α . . . 19 ^h 17.0 ^m	31 . . . 18 ^h 46.1 ^m	α . . . 16 ^h 23.3 ^m
		ν . . . 6 34.7	β . . . 3 42.9	β ¹ . . . 19 15.5	32 . . . 18 48.1	β . . . 15 59.6
α . . . 22 52.1		ξ . . . 7 45.1	γ . . . 3 59.5	β ² . . . 19 16.0	33 . . . 18 48.0	δ . . . 15 54.4
β . . . 22 25.8		π . . . 7 13.6	δ . . . 3 57.2	γ . . . 17 59.4	34 . . . 18 49.1	ε . . . 16 43.7
γ . . . 22 47.0		ρ . . . 8 3.3	ε ¹ . . . 4 14.7	δ . . . 18 14.6	35 . . . 18 49.1	ζ . . . 16 47.5
δ . . . 22 50.4		σ . . . 7 26.1	ζ ¹ . . . 3 15.6	ε . . . 18 17.5	36 . . . 18 51.4	η . . . 17 5.0
ε . . . 22 35.1		τ . . . 6 47.5	ζ ² . . . 3 16.0	ζ . . . 18 56.2	37 . . . 18 51.8	θ . . . 17 30.1
ζ . . . 22 25.3		ι . . . 7 39.5	η . . . 4 20.8	η . . . 18 10.9	38 . . . 18 56.2	ι ¹ . . . 17 40.6
η . . . 21 55.1		2 . . . 7 40.9	ι . . . 3 59.7	θ ¹ . . . 19 53.2	39 . . . 18 58.7	ι ² . . . 17 43.2
θ . . . 21 41.9		3 . . . 7 39.8	κ . . . 3 27.6	θ ² . . . 19 53.4	40 . . . 19 0.7	κ . . . 17 35.6
ι . . . 21 39.0		4 . . . 7 41.3		ι . . . 19 48.4	41 . . . 19 3.8	λ . . . 17 26.8
λ . . . 22 8.6		5 . . . 7 43.3		κ ¹ . . . 20 15.7	42 . . . 19 9.4	μ ¹ . . . 16 45.1
μ . . . 22 2.5		6 . . . 7 45.2		κ ² . . . 20 17.1	43 . . . 19 11.8	μ ² . . . 16 45.6
π . . . 22 58.0		7 . . . 7 45.1		λ . . . 18 21.8	44 . . . 19 15.9	ν . . . 16 6.2
τ . . . 22 4.3		8 . . . 7 47.0		μ . . . 18 7.8	45 . . . 19 16.0	ξ . . . 15 58.9
υ . . . 22 2.6		9 . . . 7 47.1		ν ¹ . . . 18 48.1	46 . . . 19 16.0	ο . . . 16 14.6
5 . . . 21 23.1		10 . . . 7 47.7	Sagitta Sagittae Sge Sgte	ν ² . . . 18 49.1	47 . . . 19 19.2	π . . . 15 52.8
6 . . . 21 26.2		11 . . . 7 52.6		ξ ¹ . . . 18 51.4	48 . . . 19 19.3	ρ . . . 15 50.7
7 . . . 21 30.8		12 . . . 7 54.8		ξ ² . . . 18 51.8	49 . . . 19 19.4	σ . . . 16 15.1
8 . . . 21 30.4		14 . . . 8 0.3		ο . . . 18 58.7	50 . . . 19 20.4	τ . . . 16 29.7
9 . . . 21 39.0		15 . . . 8 3.3	α . . . 19 ^h 35.6 ^m	π . . . 19 3.8	51 . . . 19 30.0	υ . . . 17 24.0
10 . . . 21 41.9		16 . . . 8 4.6	β . . . 19 36.6	ρ ¹ . . . 19 15.9	52 . . . 19 30.6	χ . . . 16 8.3
11 . . . 21 53.8		18 . . . 8 6.0	γ . . . 19 54.3	ρ ² . . . 19 16.0	53 . . . 19 33.8	ψ ¹ . . . 16 6.5
12 . . . 21 55.1		19 . . . 8 6.6	δ . . . 19 42.9	σ . . . 18 49.1	54 . . . 19 35.0	ω . . . 16 1.0
13 . . . 21 58.6		20 . . . 8 8.7	ε . . . 19 32.8	τ . . . 19 0.7	55 . . . 19 36.8	ω ² . . . 16 1.5
14 . . . 22 2.5		21 . . . 8 12.8	ζ . . . 19 44.5	υ . . . 19 16.0	56 . . . 19 40.5	ι . . . 15 45.0
15 . . . 22 4.3		22 . . . 8 18.1	η . . . 20 0.7	φ . . . 18 39.4	57 . . . 19 46.4	2 . . . 15 47.6
16 . . . 22 8.6			θ . . . 20 5.5	χ ¹ . . . 19 19.2	58 . . . 19 49.7	3 . . . 15 48.7
17 . . . 22 25.8			ι . . . 19 11.0	χ ² . . . 19 19.3	59 . . . 19 50.8	4 . . . 15 49.5
18 . . . 22 35.1			2 . . . 19 19.9	χ ³ . . . 19 19.4	60 . . . 19 52.9	5 . . . 15 50.7
19 . . . 22 36.8			3 . . . 19 20.3	ψ . . . 19 9.4	61 . . . 19 52.3	6 . . . 15 52.8
20 . . . 22 40.0			4 . . . 19 32.8	ω . . . 19 49.7	62 . . . 19 56.5	7 . . . 15 54.4
21 . . . 22 45.9			5 . . . 19 35.6	ι . . . 18 5.6	63 . . . 19 56.4	8 . . . 15 59.6
22 . . . 22 47.0			6 . . . 19 36.6	3 . . . 17 41.3	65 . . . 19 59.9	9 . . . 16 1.0
23 . . . 22 50.4			7 . . . 19 42.9	4 . . . 17 53.7		10 . . . 16 1.5
24 . . . 22 52.1			8 . . . 19 44.5	5 . . . 17 54.1		11 . . . 16 2.1
	Pyxis Pyxidis Pyx Pyxi		9 . . . 19 47.9	6 . . . 17 55.6		12 . . . 16 6.1
			10 . . . 19 51.5	7 . . . 17 56.7		13 . . . 16 6.1
			11 . . . 19 53.2	9 . . . 17 57.7		14 . . . 16 6.2
			12 . . . 19 54.3	10 . . . 17 59.4		15 . . . 16 6.5
			13 . . . 19 55.5	11 . . . 18 3.2		16 . . . 16 6.7
			15 . . . 19 59.6	12 . . . 18 6.5		17 . . . 16 8.3
			16 . . . 20 0.7	13 . . . 18 7.8		18 . . . 16 10.2
			17 . . . 20 5.5	14 . . . 18 8.3		19 . . . 16 14.6
			18 . . . 20 11.9	15 . . . 18 9.2		20 . . . 16 15.1
				16 . . . 18 9.3		21 . . . 16 23.3
				17 . . . 18 10.6		22 . . . 16 24.1
				18 . . . 18 18.6		23 . . . 16 29.7
				19 . . . 18 14.6		25 . . . 16 40.7
				20 . . . 18 17.5		26 . . . 16 43.7
				21 . . . 18 19.4		27 . . . 16 50.7
				22 . . . 18 21.8		34 . . . 17 24.0
				23 . . . 18 24.4		35 . . . 17 26.8
				24 . . . 18 27.8		
				25 . . . 18 28.4		
				26 . . . 18 35.8		
				27 . . . 18 39.4		
				28 . . . 18 40.3		
				29 . . . 18 43.7		
				30 . . . 18 44.8		

Sculptor Sculptoris Scl Scul		Serpens Serpentis Ser Serp		Sextans Sextantis Sex Sext		Taurus Tauri Tau Taur	
α . . 0 ^h 53.8 ^m	α . . 15 ^h 39.3 ^m	32 . . 15 ^h 44.4 ^m	α . . 10 ^h 2.8 ^m	α . . 4 ^h 30.2 ^m	39 . . 3 ^h 59.4 ^m		
β . . 23 27.6	β . . 15 41.6	34 . . 15 45.2	β . . 10 25.2	β . . 5 20.0	40 . . 3 58.4		
γ . . 23 13.4	γ . . 15 51.8	35 . . 15 44.2	γ . . 9 47.6	γ . . 4 14.1	41 . . 4 0.5		
δ . . 23 43.7	δ . . 15 30.0	36 . . 15 46.1	δ . . 10 24.4	δ . . 4 17.2	42 . . 4 0.8		
ϵ . . 1 41.0	ϵ . . 15 45.8	37 . . 15 45.8	ϵ . . 10 12.7	ϵ . . 4 22.8	43 . . 4 3.3		
ζ . . 23 57.2	ζ . . 17 55.2	38 . . 15 46.9	3 . . 9 43.2	ζ . . 5 31.7	44 . . 4 4.7		
η . . 0 23.0	η . . 18 16.1	39 . . 15 48.5	4 . . 9 45.3	η . . 3 41.5	45 . . 4 6.0		
θ . . 0 6.6	θ . . 18 51.2	40 . . 15 49.8	5 . . 9 45.7	θ^1 . . 4 22.9	46 . . 4 8.2		
ι . . 0 16.5	ι . . 15 37.1	41 . . 15 51.8	6 . . 9 46.2	θ^2 . . 4 23.0	47 . . 4 8.5		
κ^1 . . 0 4.3	κ . . 15 44.2	43 . . 15 58.8	7 . . 9 47.0	ι . . 4 57.1	48 . . 4 10.1		
κ^2 . . 0 6.5	λ . . 15 41.6	44 . . 15 58.0	8 . . 9 47.6	κ . . 4 19.4	49 . . 4 10.1		
λ^1 . . 0 37.9	μ . . 15 44.4	45 . . 16 2.9	9 . . 9 48.9	λ . . 3 55.1	50 . . 4 11.4		
λ^2 . . 0 39.4	ν . . 17 15.2	46 . . 16 3.3	12 . . 9 54.5	μ . . 4 10.1	51 . . 4 12.5		
μ . . 23 35.4	ξ . . 17 31.9	47 . . 16 3.6	13 . . 9 59.0	ν . . 3 57.8	52 . . 4 14.2		
ξ . . 0 56.6	\omicron . . 17 35.8	50 . . 16 17.0	14 . . 10 1.6	ξ . . 3 21.7	53 . . 4 13.5		
π . . 1 37.6	π . . 15 58.0	53 . . 17 15.2	15 . . 10 2.8	\omicron . . 3 19.4	54 . . 4 14.1		
σ . . 0 57.7	ρ . . 15 46.9	55 . . 17 31.9	16 . . 10 4.0	π . . 4 21.0	55 . . 4 14.2		
τ . . 1 31.5	σ . . 16 17.0	56 . . 17 35.8	17 . . 10 5.2	ρ . . 4 28.2	56 . . 4 13.7		
	τ_1 . . 15 21.2	57 . . 17 55.2	18 . . 10 6.0	σ^1 . . 4 33.4	57 . . 4 14.3		
	τ_2 . . 15 27.6	58 . . 18 16.1	19 . . 10 7.6	σ^2 . . 4 33.6	58 . . 4 14.9		
	τ_3 . . 15 31.0	59 . . 18 22.1	20 . . 10 8.8	τ . . 4 36.2	59 . . 4 16.5		
	τ_4 . . 15 32.0	60 . . 18 24.5	21 . . 10 9.2	υ . . 4 20.3	60 . . 4 16.4		
	τ_5 . . 15 31.9	61 . . 18 26.8	22 . . 10 12.7	ϕ . . 4 14.2	61 . . 4 17.2		
	τ_6 . . 15 36.4	63 . . 18 51.2	23 . . 10 15.9	χ . . 4 16.5	62 . . 4 18.0		
	τ_7 . . 15 37.4	64 . . 18 52.2	24 . . 10 18.4	ψ . . 4 0.8	63 . . 4 17.7		
	υ . . 15 40.2		25 . . 10 18.4	ω . . 4 11.4	64 . . 4 18.3		
	ϕ . . 15 42.6		26 . . 10 21.5	1 . . 3 19.4	65 . . 4 19.4		
	χ . . 15 52.6		27 . . 10 21.7	2 . . 3 21.7	66 . . 4 18.4		
	ψ . . 15 37.1		29 . . 10 24.4	4 . . 3 24.9	67 . . 4 19.5		
	ω . . 15 39.0		30 . . 10 25.2	5 . . 3 25.4	68 . . 4 19.7		
	ϵ . . 15 45.2		31 . . 10 25.3	6 . . 3 27.2	69 . . 4 20.3		
α . . 18 ^h 29.8 ^m	d . . 18 22.1		32 . . 10 27.1	7 . . 3 28.5	70 . . 4 19.9		
β . . 18 41.9	3 . . 15 10.2		33 . . 10 36.3	9 . . 3 31.1	71 . . 4 20.6		
γ . . 18 23.5	4 . . 15 10.7		34 . . 10 37.5	10 . . 3 31.8	72 . . 4 21.3		
δ . . 18 36.8	5 . . 15 14.2		35 . . 10 38.2	11 . . 3 34.8	73 . . 4 21.0		
ϵ . . 18 38.1	6 . . 15 15.9		36 . . 10 40.0	12 . . 3 34.6	74 . . 4 22.8		
ζ . . 18 18.2	7 . . 15 17.7		39 . . 10 44.0	13 . . 3 36.5	75 . . 4 22.7		
η . . 18 51.7	8 . . 15 18.6		40 . . 10 44.2	14 . . 3 38.0	76 . . 4 22.7		
	9 . . 15 21.2		41 . . 10 45.3	16 . . 3 38.9	77 . . 4 22.9		
	10 . . 15 23.6			17 . . 3 38.9	78 . . 4 23.0		
	11 . . 15 27.8			18 . . 3 39.2	79 . . 4 23.2		
	12 . . 15 27.6			19 . . 3 39.3	80 . . 4 24.4		
	13 . . 15 30.0			20 . . 3 39.9	81 . . 4 24.9		
	14 . . 15 31.4			21 . . 3 40.0	83 . . 4 25.0		
	15 . . 15 31.0			22 . . 3 40.1	84 . . 4 25.4		
	16 . . 15 31.7			23 . . 3 40.4	85 . . 4 26.1		
	17 . . 15 31.8			24 . . 3 41.4	86 . . 4 28.2		
	18 . . 15 31.9			25 . . 3 41.5	87 . . 4 30.2		
	19 . . 15 36.4			26 . . 3 43.0	88 . . 4 30.2		
	20 . . 15 37.1			27 . . 3 43.2	89 . . 4 32.4		
	21 . . 15 37.1			28 . . 3 43.2	90 . . 4 32.6		
	22 . . 15 37.4			29 . . 3 40.4	91 . . 4 33.4		
	23 . . 15 39.0			30 . . 3 42.8	92 . . 4 33.6		
	24 . . 15 39.3			31 . . 3 46.6	93 . . 4 34.5		
	25 . . 15 40.9			32 . . 3 51.0	94 . . 4 36.2		
	26 . . 15 40.2			33 . . 3 51.1	95 . . 4 37.2		
	27 . . 15 41.6			35 . . 3 55.1	96 . . 4 44.0		
	28 . . 15 41.6			36 . . 3 58.4	97 . . 4 45.5		
	29 . . 15 41.8			37 . . 3 58.8	98 . . 4 52.0		
	31 . . 15 42.6			38 . . 3 57.8	99 . . 4 51.7		

Taurus (Continued) Tau Taur	Telescopium Telescopii Tel Tele	Triangulum Australis Trianguli Australis TrA TrAu	Ursa Major Ursae Majoris UMa UMaj	Ursa Minor Ursae Minoris UMi UMin
101 . . 4 ^h 54.0 ^m	α . . 18 ^h 19.6 ^m		α . . 10 ^h 57.6 ^m	α . . 1 ^h 22.6 ^m
102 . . 4 57.1	α ¹ . . 18 24.4		β . . 10 55.8	β . . 14 51.0
103 . . 5 2.0	α ² . . 18 24.6	α . . 16 ^h 38.1 ^m	γ . . 11 48.6	γ . . 15 20.9
104 . . 5 1.5	ε . . 18 3.8	β . . 15 46.3	δ . . 12 10.5	δ . . 18 4.5
105 . . 5 1.9	ζ . . 18 21.1	γ . . 15 9.6	ε . . 12 49.6	ε . . 16 56.2
106 . . 5 1.9	η . . 19 14.8	δ . . 16 6.3	ζ . . 13 19.9	ζ . . 15 47.6
107 . . 5 2.9	ι . . 19 27.8	ε . . 15 27.6	η . . 13 43.6	η . . 16 20.4
108 . . 5 9.5	κ . . 18 44.7	ζ . . 16 17.7	θ . . 9 26.2	θ . . 15 34.4
109 . . 5 13.3	λ . . 18 50.5	η ¹ . . 16 31.1	ι . . 8 52.4	λ . . 19 22.5
110 . . 5 17.9	ν . . 19 39.9	η ² . . 16 36.6	κ . . 8 56.8	ι . . 1 22.6
111 . . 5 18.6	ξ . . 19 59.7	θ . . 16 26.1	λ . . 10 11.1	3 . . 14 6.2
112 . . 5 20.0	ρ . . 18 58.4	ι . . 16 18.7	μ . . 10 16.4	4 . . 14 9.2
113 . . 5 20.3		κ . . 15 45.6	ν . . 11 13.1	5 . . 14 27.7
114 . . 5 21.6			ξ . . 11 12.9	6 . . 14 45.3
115 . . 5 21.3			ο . . 8 22.0	7 . . 14 51.0
116 . . 5 22.0			π ¹ . . 8 30.3	8 . . 14 57.5
117 . . 5 22.2			π ² . . 8 31.5	9 . . 15 0.3
118 . . 5 23.1	Triangulum Trianguli Tri Tria	Tucana Tucanae Tuc Tucn	ρ . . 8 53.5	10 . . 15 5.7
119 . . 5 26.3			σ ¹ . . 8 59.6	11 . . 15 17.2
120 . . 5 27.7			σ ² . . 9 1.6	12 . . 15 17.2
121 . . 5 29.3			τ . . 9 2.7	13 . . 15 20.9
122 . . 5 31.3	α . . 1 ^h 47.4 ^m	α . . 22 ^h 11.7 ^m	υ . . 9 43.9	14 . . 15 22.3
123 . . 5 31.7	β . . 2 3.6	β . . 0 27.0	φ . . 9 45.3	15 . . 15 34.4
125 . . 5 33.5	γ . . 2 11.4	γ . . 23 11.6	χ . . 11 40.8	16 . . 15 47.6
126 . . 5 35.5	δ . . 2 10.9	δ . . 22 20.2	ψ . . 11 4.0	17 . . 15 57.4
127 . . 5 37.0	ε . . 1 57.1	ε . . 23 54.7	ω . . 10 48.2	18 . . 15 45.1
128 . . 5 39.1	ι . . 1 36.5	ζ . . 0 14.9	1 . . 8 22.0	19 . . 16 13.7
129 . . 5 41.0	2 . . 1 47.4	η . . 23 52.3	2 . . 8 25.7	20 . . 16 15.0
130 . . 5 41.6	3 . . 1 57.1	θ . . 0 29.1	3 . . 8 30.3	21 . . 16 20.4
131 . . 5 41.5	4 . . 2 3.6	ι . . 1 3.3	4 . . 8 31.5	22 . . 16 56.2
132 . . 5 42.9	5 . . 2 5.6	κ . . 1 12.4	5 . . 8 45.1	23 . . 18 4.5
133 . . 5 42.1	6 . . 2 6.6	λ ¹ . . 0 48.6	6 . . 8 48.1	24 . . 18 7.8
134 . . 5 43.9	7 . . 2 10.0	λ ² . . 0 51.3	8 . . 8 53.5	
135 . . 5 44.8	8 . . 2 10.9	ν . . 22 26.2	9 . . 8 52.4	
136 . . 5 47.0	9 . . 2 11.4	ξ . . 0 19.7	11 . . 8 59.6	
137 . . 5 46.7	10 . . 2 13.2	π . . 0 16.0	12 . . 8 56.8	
139 . . 5 51.8	11 . . 2 21.5	ρ . . 0 38.2	13 . . 9 1.6	Vela Velorum Vel Velr
140 . . 5 54.4	12 . . 2 22.3		14 . . 9 2.7	γ . . 8 ^h 6.5 ^m
	13 . . 2 22.9		15 . . 9 1.8	δ . . 8 41.9
	14 . . 2 26.0		16 . . 9 6.4	κ . . 9 19.0
	15 . . 2 29.7		17 . . 9 8.4	λ . . 9 4.3
			18 . . 9 9.0	μ . . 10 42.5
			20 . . 9 12.8	ο . . 8 37.4
			21 . . 9 18.6	φ . . 9 53.4
			22 . . 9 25.5	ψ . . 9 26.8
			23 . . 9 23.7	N . . 9 28.2
			24 . . 9 25.6	
			25 . . 9 26.2	
			26 . . 9 28.0	
			27 . . 9 33.8	
			28 . . 9 38.2	
			29 . . 9 43.9	
			30 . . 9 45.3	
			31 . . 9 49.2	
			32 . . 10 10.8	
			33 . . 10 11.1	
			34 . . 10 16.4	
			35 . . 10 22.8	
			36 . . 10 24.2	
			37 . . 10 28.7	

Virgo Virginis Vir Virg			Volans Volantis Vol Voln			Vulpecula Vulpeculae Vul Vulp					
	h	m		h	m		h	m			
α	13	19.9	17	12	17.5	67	13	19.9	α	19	24.5
β	11	45.5	20	12	28.0	68	13	21.4	β	19	11.9
γ	12	36.6	21	12	28.6	69	13	22.1	γ	19	13.5
δ	12	50.6	25	12	31.6	70	13	23.5	δ	19	18.8
ϵ	12	57.2	26	12	34.1	71	13	24.3	ϵ	19	21.1
ζ	13	29.6	27	12	36.5	72	13	25.2	ζ	19	21.9
η	12	14.8	28	12	36.8	73	13	26.7	η	19	24.5
θ	13	4.8	29	12	36.6	74	13	26.8	θ	19	25.0
ι	14	10.8	30	12	36.8	75	13	27.5	ι	19	24.8
κ	14	7.6	31	12	36.9	76	13	27.7	κ	19	30.2
λ	14	13.7	32	12	40.6	77	13	28.2	10	19	39.6
μ	14	37.8	33	12	41.3	78	13	29.1	12	19	46.8
ν	11	40.7	34	12	42.2	79	13	29.6	13	19	49.2
ξ	11	40.1	35	12	42.8	80	13	30.3	14	19	54.9
\omicron	12	0.1	37	12	46.5	81	13	32.3	15	19	57.0
π	11	55.7	38	12	48.1	82	13	36.4	16	19	57.8
ρ	12	36.8	39	12	48.4	83	13	39.1	17	20	2.6
σ	13	12.6	40	12	49.2	84	13	38.0	18	20	6.4
τ	13	56.6	41	12	48.8	85	13	40.2	19	20	7.6
υ	14	14.4	43	12	50.6	86	13	40.6	20	20	7.8
ϕ	14	23.0	44	12	54.5	87	13	42.0	21	20	10.1
χ	12	34.1	46	12	55.4	88	13	43.1	22	20	11.2
ψ	12	49.2	47	12	57.2	89	13	44.4	23	20	11.6
ω	11	33.3	48	12	58.8	90	13	49.6	24	20	12.5
δ^2	12	40.6	49	13	2.7	92	13	51.4	25	20	17.8
1	11	33.3	50	13	4.5	93	13	56.6	26	20	31.9
2	11	40.1	51	13	4.8	94	14	1.0	27	20	32.8
3	11	40.7	53	13	6.7	95	14	1.4	28	20	34.2
4	11	42.8	54	13	8.1	96	14	3.7	29	20	34.1
5	11	45.5	55	13	8.8	97	14	7.2	30	20	40.5
6	11	49.9	56	13	9.5	98	14	7.6	31	20	47.8
7	11	54.8	57	13	10.6	99	14	10.8	32	20	50.3
8	11	55.7	58	13	12.2	100	14	13.7	33	20	53.8
9	12	0.1	59	13	11.8	102	14	14.4	35	21	23.3
10	12	4.6	60	13	12.6	103	14	16.8			
11	12	5.0	61	13	13.2	104	14	22.2			
12	12	8.3	62	13	15.1	105	14	23.0			
13	12	13.5	63	13	17.7	106	14	23.4			
14	12	14.2	64	13	17.1	107	14	37.8			
15	12	14.8	65	13	18.1	108	14	40.4			
16	12	15.3	66	13	19.3	109	14	41.2			
						110	14	57.8			

Name	BS No	Magn Spec	RA (1900)	Decl (1900)	Other Designation
Achernar	472	0.60 B5	1 ^h 34 ^m	-57° 45'	α Eridani
Alcor	5062	4.02 A5	13 21	+55 31	80 Ursae Majoris
Alcyone	1165	2.96 B5	3 42	+23 48	η Tauri
Aldebaran	1457	1.06 K5	4 30	+16 18	α Tauri
Alderamin	8162	2.60 A5	21 16	+62 10	α Cephei
Alfard	3748	2.16 K2	9 23	- 8 14	α Hydrae
Algenib	39	2.87 B2	0 8	+14 38	γ Pegasi
Algol	936	var B8	3 2	+40 34	β Persei
Alcaid	5191	1.91 B3	13 44	+49 49	η Ursae Majoris
Alioth	4905	1.68 A0	12 50	+56 30	ε Ursae Majoris
Almach	603	2.28 K0	1 58	+41 51	γ Andromedae
Alphecca	5793	2.31 A0	15 30	+27 3	α Coronae Borealis
Alpheratz	15	2.15 A0	0 3	+28 32	α Andromedae
Alruccabah	424	var F8	1 23	+88 46	α Ursae Minoris
Altair	7557	0.89 A5	19 46	+ 8 36	α Aquilae
Antares	6134	1.22 Ma	16 23	-26 13	α Scorpii
Arcturus	5340	0.24 K0	14 11	+19 42	α Bootis
Bellatrix	1790	1.70 B2	5 20	+ 6 16	γ Orionis
Betelgeuse	2061	var Ma	5 50	+ 7 23	α Orionis
Canopus	2326	-0.9. F0	6 22	-52 38	α Carinae
Capella	1708	0.21 G0	5 9	+45 54	α Aurigae
Caph	21	2.42 F5	0 4	+58 36	β Cassiopeiae
Castor	2891	1.99 A0	7 28	+32 6	α Geminorum
Cynosura	424	var F8	1 23	+88 46	α Ursae Minoris
Deneb	7924	1.33 A2	20 38	+44 55	α Cygni
Deneb kaitos	188	2.24 K0	0 39	-18 32	β Ceti
Denebola	4534	2.23 A2	11 44	+15 8	β Leonis
Dubhe	4301	1.95 K0	10 58	+62 17	α Ursae Majoris
Fomalhaut	8728	1.29 A3	22 52	-30 9	α Piscis Austrini
Kochab	5563	2.24 K5	14 51	+74 34	β Ursae Minoris
Markab	8781	2.57 A0	23 0	+14 40	α Pegasi
Megrez	4660	3.44 A2	12 10	+57 35	δ Ursae Majoris
Menkar	911	2.82 Ma	2 57	+ 3 42	α Ceti
Merak	4295	2.44 A0	10 56	+56 55	β Ursae Majoris
Mira	681	var Md	2 14	- 3 26	ο Ceti
Mirach	337	2.37 Ma	1 4	+35 5	β Andromedae
Mirfak	1017	1.90 F5	3 17	+49 30	α Persei
Mizar	5054	2.40 A2	13 20	+55 27	ζ Ursae Majoris
Pheeda	4554	2.54 A0	11 49	+54 15	γ Ursae Majoris
Polaris	424	var F8	1 23	+88 46	α Ursae Minoris
Pollux	2990	1.21 K0	7 39	+28 16	β Geminorum
Procyon	2943	0.48 F5	7 34	+ 5 29	α Canis Minoris
Ras-Alhague	6556	2.14 A5	17 30	+12 38	α Ophiuchi
Ras-Algethi	6406	var Mb	17 10	+14 30	α Herculis
Regulus	3982	1.34 B8	10 3	+12 27	α Leonis
Rigel	1713	0.34 B8	5 10	- 8 19	β Orionis
Scheat	8775	2.61 Mb	22 59	+27 32	β Pegasi
Schedar	168	var K0	0 35	+55 59	α Cassiopeiae
Sirius	2491	-1.6 A0	6 41	-16 35	α Canis Majoris
Spica	5056	1.21 B2	13 20	-10 38	α Virginis
Thuban	5291	3.64 A0	14 2	+64 51	α Draconis
Vega	7001	0.14 A0	18 34	+38 41	α Lyrae

VALE CATALOGUE OF BR. HT STARS

(Edition of 1940)

SCHLESINGER and JENKINS